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CLEVELAND, OHIO

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GOVERNMENT PRINTING OFFICE.
1909.

ERRATA.

339,311, page 289, in heading, assignment, name of second-mentioned assignee, for "Chas. Eisle" read *Chas. Eisele.*

340,144, page 641, in heading, assignment, name of last-mentioned assignee, for "G. Walker Fiske" read *G. Walter Fiske.*

340,913, page 925, in heading, after the residence of the patentee insert *John F. Devine, administrator of the said Gustavus H. Zschech, deceased, assignor to Standard Machinery Company, Chicago, Ill:, a Corporation of Illinois.*

341,696, page 1206, in heading, assignment, residence of assignee, for "Reading, Mass.," read *Brookline, Mass.*

341,743, page 1222, in heading, assignment, for the compound word "one-fourth" read *one-half.*

13,042, (Reissue,) page 815, in heading, title of invention, after the word "Detinning" strike out the character and letter "&c."

75,773, (Trade-Mark,) page 827, in heading, residence of registrant, after the words "London, England," insert the words *and Paris, France.*

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Trade-Marks	56	No. 75,656 to No. 75,711, inclusive.
Reissues	4	No. 13,032 to No. 13,035, inclusive.
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TO CITIZENS OF THE UNITED STATES.

States.	Patents and Designs.	Trade-Marks.	States.	Patents and Designs.	Trade-Marks.
Alabama	4	.....	Ohio	58	6
Arkansas	1	.....	Oklahoma	3	.....
California	27	2	Oregon	5	.....
Colorado	8	.....	Pennsylvania	72	8
Connecticut	34	1	Rhode Island	3	.....
Delaware	.....	.....	South Carolina	1	.....
Florida	1	.....	South Dakota	.....	.....
Georgia	6	.....	Tennessee	7	1
Idaho	3	.....	Texas	4	.....
Illinois	74	5	Utah	1	.....
Indiana	19	2	Vermont	.....	.....
Iowa	10	.....	Virginia	3	.....
Kansas	14	.....	Washington	7	.....
Kentucky	8	.....	West Virginia	7	.....
Louisiana	1	.....	Wisconsin	17	4
Maine	1	1	Wyoming	.....	.....
Maryland	8	.....			
Massachusetts	45	3	Alaska, District of	1	.....
Michigan	16	.....	Arizona Territory	1	.....
Minnesota	7	1	District of Columbia	7	1
Mississippi	5	.....	Hawaii Territory	2	.....
Missouri	25	2	New Mexico Ter'ty	1	.....
Montana	.....	.....	Panama	1	.....
Nebraska	5	.....	Philippine Islands	.....	.....
Nevada	1	.....	U. S. Army	.....	.....
New Hampshire	3	.....	U. S. Navy	.....	.....
New Jersey	36	1			
New York	99	13	Total to citizens of the United States	561	51
North Carolina	3	.....			
North Dakota	8	.....			

TO CITIZENS OF FOREIGN COUNTRIES.

Countries.	Patents and Designs.	Trade-Marks.	Countries.	Patents and Designs.	Trade-Marks.
Argentina	.....	.....	Netherlands	.....	.....
Austria-Hungary	1	.....	Newfoundland	.....	.....
Belgium	.....	.....	New South Wales	.....	.....
Brazil	.....	.....	New Zealand	.....	.....
British West Indies	.....	.....	Norway	.....	.....
Canada	23	.....	Persia	.....	.....
Cape Colony	.....	.....	Queensland	.....	.....
Chile	.....	.....	Russia	1	.....
China	.....	.....	Scotland	.....	.....
Costa Rica	.....	.....	South Australia	.....	.....
Cuba	1	.....	Spain	.....	.....
Denmark	3	.....	Sweden	4	.....
Ecuador	.....	.....	Switzerland	2	.....
England	8	1	Tasmania	.....	.....
France	7	1	Transvaal, South Africa	1	.....
Germany	25	2	Victoria	2	1
Haiti	.....	.....	Western Australia	.....	.....
Ireland	.....	.....			
Italy	2	.....	Total to citizens of foreign countries	81	5
Japan	.....	.....			
Mexico	1	.....			

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The Patent Office will furnish photographic prints of any unbound drawing, foreign or domestic, which may be in its possession. These prints will be made only in two sizes, 8 by 12½ at 15 cents per sheet and 10 by 15 at 25 cents per sheet.

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Access to Pending Applications.

Hereafter no person except the applicant, the assignee whose assignment is of record, or the attorney of record will be permitted to have access to the file of any application, except as provided for under the interference rules, unless written authority from the applicant, assignee, or attorney, identifying the application to be inspected, is filed in the case to become a part of the record thereof, or upon the written order of the Commissioner, which will also become a part of the record of the case.

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business October 26, 1909.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended	No. of applications awaiting action.
313	1. Fences; Harrows and Diggers; Plows; Seeders and Planters; Trees, Plants, and Flowers.	Aug. 30	Sept. 20	395
128	2. Aeronautics; Bee Culture; Dairy; Label-Affixers; Paper Files and Binders; Pneumatic Despatch; Pneumatics; Presses; Store-Service; Tobacco.	June 25	Aug. 5	746
175	3. Annealing and Tempering; Coating with Metal; Electrochemistry; Metal-Founding; Metallurgy; Shaping Fluid Metal.	Sept. 20	Oct. 11	171
232	4. Bridges; Conveyers; Cranes and Derricks; Excavating; Hoisting; Hydraulic Engineering; Loading and Unloading; Metallic Building Structures.	June 28	Sept. 13	745
167	5. Bookbinding; Harvesters; Jewelry; Music.	July 24	Sept. 1	539
318	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Medicines; Preserving; Sugar and Salt.	Aug. 14	Sept. 16	380
312	7. Educational Appliances; Clutches; Games and Toys; Mechanical Motors; Nut and Bolt Locks; Optics; Velocipedes.	Aug. 12	Aug. 31	572
131	8. Beds; Chairs; Furniture; Kitchen and Table Articles; Store Furniture.	July 3	Sept. 13	493
142	9. Air and Gas Pumps; Fire-Extinguishers; Hydraulic Motors; Pumps; Sewerage; Wind-Wheels.	June 14	Sept. 27	455
332	10. Carriages and Wagons.....	Aug. 24	Sept. 7	641
154	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus.	Aug. 18	Sept. 7	329
324	12. Elevators; Journal-Boxes, Pulleys, and Shafting; Lubrication; Machine Elements.	Aug. 21	Aug. 31	604
329	13. Arms, Projectiles, and Explosive Charges, Making; Metal-Working, Etc.	July 12	Sept. 21	534
307	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Metal-Ornamenting; Sheet-Metal Ware, Making; Tools; Wire-Working.	June 14	Sept. 21	515
308	15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Sheets and Fabrics; Liquid Coating Compositions; Paper-Making; Plastic Block and Earthenware Apparatus; Plastic Compositions; Plastics.	Aug. 5	Oct. 5	674
109	16. Telegraphy; Telephony.....	June 24	Sept. 13	300
103	17. Linotyping; Matrix-Making; Paper Manufactures; Printing.	Sept. 18	Oct. 6	150
327	18. Injectors and Ejectors; Steam and Vacuum Pumps; Steam-Boilers; Steam-Engines; Steam-Engine Valves.	June 18	July 15	392
236	19. Dampers, Automatic; Furnaces; Heat-Distributing Systems; Stoves and Furnaces.	Aug. 17	Aug. 20	402
179	20. Artificial Limbs; Builders' Hardware; Dentistry; Locks and Latches; Safes; Undertaking.	Sept. 8	Aug. 18	278
112	21. Brakes and Gins; Carding; Cloth-Finishing; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving.	July 6	Sept. 17	500
249	22. Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Firearms; Marine Propulsion; Ordnance; Railway-Rails and Joints; Railway-Ties and Fasteners; Ships.	Aug. 16	Sept. 1	322
379	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Time-Controlling Mechanism.	Aug. 6	Sept. 20	356

Applications Under Examination—Continued.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended	No. of applications awaiting action.
144	24. Apparel; Apparel Apparatus; Electricity, Medical and Surgical; Sewing-Machines; Surgery.	Aug. 20	Sept. 8	480
312	25. Butchering; Mills; Threshing; Vegetable Cutters and Crushers.	Sept. 27	Oct. 4	262
106	26. Electric Heating and Rheostats; Electric Railways; Electricity, Generation; Motive Power.	May 14	Sept. 11	666
372	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus.	Sept. 10	Sept. 15	379
382	28. Internal-Combustion Engines; Miscellaneous Heat-Engine Plants.	July 19	Sept. 4	433
147	29. Coopering; Fire-Escapes; Ladders; Roofs; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking-Tools.	July 15	Sept. 4	565
152	30. Fluid-Pressure Regulators; Illuminating-Burners; Liquid and Gaseous Fuel Burners; Type-Writing Machines.	Sept. 1	Sept. 27	277
172	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue; Water Purification.	Aug. 26	Sept. 27	232
278	32. Carbonating Beverages; Dispensing Beverages; Dispensing-Cans; Fine Arts; Packaging Liquids; Refrigeration.	Sept. 1	Oct. 1	228
164	33. Cutlery; Domestic Cooking Vessels; Electric Signaling; Masonry and Concrete Structures; Paving; Tents, Canopies, Umbrellas, and Canes.	Aug. 11	Sept. 10	464
304	34. Railways; Railway-Brakes; Railway Rolling-Stock.	Aug. 2	Oct. 15	246
244	35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Garment-Supporters; Toilet.	Aug. 16	Sept. 20	386
264	36. Curtains, Shades, and Screens; Drafting; Driers; Engraving; Measuring Instruments; Photography.	July 1	Aug. 3	821
107	37. Electric Lighting; Electricity, Conductors; Electricity, General Applications.	July 2	Aug. 11	699
378	38. Artesian and Oil Wells; Bottles and Jars; Care of Live Stock; Fishing and Trapping; Stationery; Stone-Working.	June 3	Sept. 2	835
321	39. Baths and Closets; Water Distribution.	May 24	Aug. 19	687
280	40. Baggage; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Lighting-Fixtures; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	June 4	Sept. 3	740
125	41. Railway Draft Appliances; Resilient Tires and Wheels.	June 16	Sept. 18	617
279	42. Railway Signaling; Signals....	June 21	Sept. 3	236

Oldest new case, May 14; oldest amended, July 15.

Total number of applications awaiting action..... 20,236

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Notice.

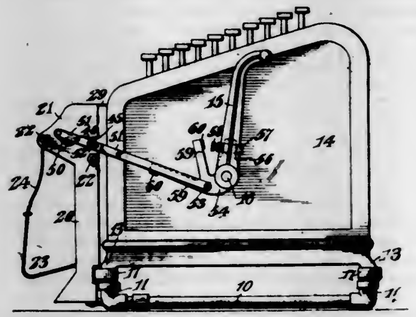
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PATENTS

GRANTED NOVEMBER 2, 1909.

938,455. CHECK-STAMPING MECHANISM FOR COMPUTING-MACHINES. GEORGE A. ARMSTRONG, Youngstown, Ohio. Filed July 20, 1908. Serial No. 444,498.



1. A check canceling attachment for computing machines comprising a base frame, standards rising from the frame at the front thereof, a printing mechanism carried by the standards and including rotary type and platen elements coacting to simultaneously feed and print a check, means for connecting the mechanism with the operating lever of a computing machine to rotate the elements, a basket carried by the standards and disposed under the printing mechanism to receive the check delivered by the elements, and socket devices at the corners of the base frame for receiving the corner feet of the computing machine adapted to rest on the base frame behind the standards and printing mechanism.

2. In a printing attachment to adding machines, a check receiver adapted to be supported in front of said adding machine, comprising lateral standards, U-shaped wire holders supported at their open ends in the standards, transverse rolls mounted in the standards, one of which is a printing roll, mechanism for rotating said printing roll, and means detachably connecting the actuating mechanism of the printing roll with the actuating mechanism of the adding machine.

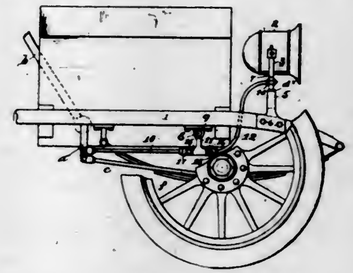
3. In a printing attachment to adding machines, lateral vertical standards, means for supporting the standards in front of said adding machine, front and rear transverse rods connecting the standards at their upper ends U-shaped wire frames each having its ends attached to the front and rear standards, transverse shafts mounted in said standards, opposed rolls mounted on the shafts, one of which is a printing roll, mechanism for rotating said shafts, and means for detachably connecting the actuating mechanism of the printing roll shaft with the actuating mechanism of the adding machine.

4. In a printing attachment to adding machines, a check receiver adapted to be supported in front of said adding machine, comprising lateral standards having enlarged upper ends, transverse rods connecting the upper ends of the standards, U-shaped wire frames supported at their upper ends on said transverse rods, opposed shafts mounted in the upper ends of the standards, an idler roll on one of said shafts, a printing roll on the other of said shafts, check guides arranged above the said rolls, an inking roll supported above and in contact with the printing roll, mechanism for rotating the printing roll, and idler roll, and means detachably connecting the actuating mechanism of the printing roll with the actuating mechanism of the adding machine.

5. In a printing attachment to adding machines, a check receiver adapted to be supported in front of said adding machine, but detachable therefrom and open at its upper end, a shaft mounted transversely in the receiver and having a printing roll thereon and opposed check-engaging rolls, a shaft parallel with the first-named shaft having thereon idler rolls engaging with the rolls on the first-named shaft, mechanism for rotating the printing roll shaft, and means detachably connecting the actuating mechanism of the printing roll with the actuating mechanism of the adding machine.

[Claims 6 to 37 not printed in the Gazette.]

938,456. AUTOMOBILE-HEADLIGHT BRACKET AND MECHANISM FOR TURNING SAME. FRANK H. AUBEUF, Oneida, N. Y. Filed Mar. 5, 1909. Serial No. 481,231.

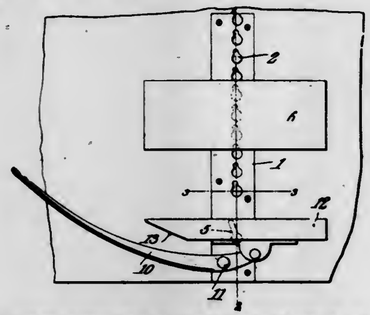


1. In an automobile, the combination with the running-gear frame and steering-apparatus, of pivotally supported head-light brackets, mechanism for turning said brackets comprising a rock-shaft supported on the frame and operated by the steering-apparatus, arms fastened to the brackets, and rods transmitting motion from said shaft to the brackets as set forth.

2. In an automobile, the combination with the running-gear frame and the steering-apparatus comprising an oscillatory shaft, of head-light brackets consisting of vertically disposed sleeves mounted upon the frame and stems sustained rotatably in said sleeves, and provided with lamp-holding means, mechanism for turning said brackets comprising a forward shaft disposed in front of the aforesaid shaft and parallel therewith, and adapted to be oscillated thereby, arms secured to and depending from said forward shaft, horizontal arms fastened to the aforesaid bracket-stems, and rods connecting said horizontal arms and depending arms as and for the purpose set forth.

3. In an automobile, the combination with the steering-apparatus, of pivotally supported upright head-light brackets, and mechanism actuated by the steering-apparatus for turning said brackets, said mechanism comprising longitudinally shifting rods extending forwardly and upwardly from the steering-apparatus, arms extending from corresponding sides of the brackets, and ball-and-socket connections between said rods and arms as and for the purpose set forth.

938,457. BENCH-CLAMP. RICHARD T. BOND, Coalgate, Okla. Filed Jan. 27, 1909. Serial No. 474,550.



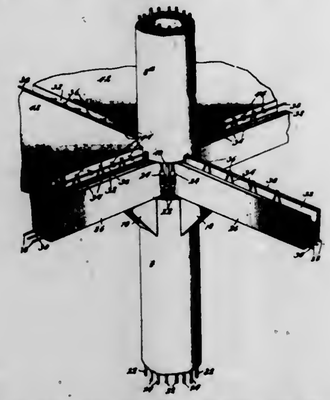
1. A clamp comprising a plate having a series of key-hole slots located therein and arranged in a row with their longer dimensions disposed at an angle to the longer dimension of the plate, a block having projecting members for engagement with the said slots, a lever fulcrumed to the plate, a block pivoted to the lever and having a projecting member also operating in one of the key-hole slots.

2. A clamp comprising a plate having key-hole slots which are provided around their broader portions with depending flanges, a block having projecting headed members adapted to enter the said slots in such manner that the heads thereof may pass under the edges of the narrower portions of the slots, but which will engage the flanges when brought into the wider portions of the slots, a lever fulcrumed to the plate, and a movable block pivotally connected with the working end of the lever.

3. A clamp comprising a slotted plate, a block having projecting members adapted to enter the slots in the plate, said block having between one edge and the adjacent projecting member a wider margin than at its opposite edge and the projecting member adjacent thereto, a lever fulcrumed to the plate, and a movable block pivotally connected with the working end of the lever.

4. A clamp comprising a plate, a block adapted to be adjustably positioned thereon, a second block movably mounted upon the plate, a lever fulcrumed to the plate and pivotally connected at its working end with the last said block, the power end of the said lever being curved toward the work facing plane of the last said block.

938,458. CONCRETE CONSTRUCTION. CARL E. BROCKHAUSEN, Chicago, Ill. Filed Apr. 8, 1909. Serial No. 488,713.

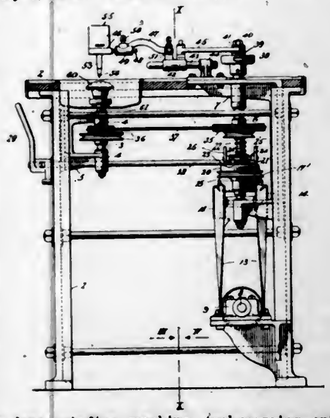


1. In concrete construction, in combination with suitable columns adapted to support girders, radially arranged concrete girders resting thereon, provided with horizontal reinforcing rods in their lower portions, and tension rods in their upper portions, all of said metallic rods in all of the girders upon a given column being provided with loops lying in the same vertical plane at the center of the column, a vertical pin at the center of the column passing through said loops and a cement filling around the pin filling the spaces between the girders and the column as and for the purposes set forth.

2. A concrete construction comprising a column, a pair of oppositely placed girders resting upon said column, a pair of reinforcing rods running horizontally of said girders near their bottoms, loops upon the ends of said horizontal reinforcing rods at the center of the column in substantially the same plane as said rods, another reinforcing rod near the bottom of each girder bent upward near its end to form a diagonal brace, loops upon the ends of said last-mentioned reinforcing rod lying at approximately the center of the column and near the top thereof, a fourth reinforcing rod extending horizontally of said girders and near the top thereof, loops at the ends of said rods in opposite girders at the center of the column, metallic stirrups passing under the first-mentioned bottom rods and over the second-mentioned bottom rod, thence above the last-mentioned top rod, a pin passing through all of said loops at the center of the column and cement filling uniting the column and girders together and surrounding the tie rods, for the purposes specified.

3. In a device of the class described, the combination of a vertical column, a pair of opposing girders resting upon said column, reinforcing rods lying in the same horizontal plane near the bottom of each girder, a reinforcing rod near the top of each girder, stirrups joining the rods at the top and bottom of each girder, means for connecting the ends of all of the reinforcing rods in said two opposing girders together in one single vertical line at the center of the column, another column adapted to be above the first column, floor members resting upon the tops of the girders, metallic connections between the floor members and the upper reinforcing member of each girder, vertical rods in and extending from the ends of the columns, turn buckle connections between the opposite rods in the columns, and cement filling for all the spaces between the girders and the columns and between the girders and the floor members and between successive floor members whereby a unitary structure as shown and described is produced.

938,459. LENS-GRINDING MACHINE. FERDINAND BUCHHOP, New York, N. Y., assignor to The Meyrowitz Manufacturing Company, a Corporation of New Jersey. Filed July 6, 1908. Serial No. 441,976.



1. In a lens grinding machine, tool-carrying spindles, separate vertically arranged shafts belted thereto, a continuously rotating counter-shaft, separate means for clutching said spindle-driving shafts into driven relation from said counter-shaft, work-supporting devices, means for guiding the same to reciprocate in a rectilinear path across the tool-carrying spindles, and means for reciprocating the same from said spindle driving shafts in a direction at right angles to said first named reciprocation.

2. In a lens grinding machine, a tool-carrying spindle, a work-supporting device, means for reciprocating said device across the end of the tool-carrying spindle, means for adjusting the throw of said work-supporting device, and means for laterally adjusting the line of movement thereof.

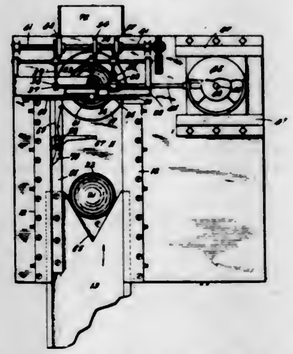
3. In a lens grinding machine, a tool-carrying spindle, a shaft for driving the same, means for changing the speed ratio of such driving connection, a source of power, a work-supporting device, and means connected with said shaft for reciprocating the work-supporting device across the end of the tool-carrying spindle in a rectilinear path.

4. In a lens grinding machine, a spindle, a tool-carrying cross-head adapted to reciprocate across the end of said spindle, connections between said spindle and cross-head for reciprocating the latter, a shaft operatively connected to said spindle for driving the same, a work supporting device adapted to reciprocate in a path across the direction of movement of said cross-head, and connections between said shaft and said device to reciprocate the latter.

5. In a lens grinding machine, a tool-carrying spindle, a driving shaft for said spindle, a work-supporting device guided to reciprocate across the end of said spindle, means connected to said shaft for reciprocating said device, a tool, and means operated by said spindle for reciprocating said tool, across the path of movement of the work-supporting device.

[Claims 6 and 7 not printed in the Gazette.]

938,460. MACHINE FOR APPLYING CEMENT TO CAN-CAPS. WILLIAM F. BUTLER, Indianapolis, Ind., assignor to Sanitary Can Company, New York, N. Y., a Corporation of New York. Filed Mar. 23, 1908. Serial No. 422,647.



1. In a machine of the class described, the combination of a cap-support, cement measuring and positive ejecting means arranged eccentric to the cap-support, and means for causing a relative annular movement between the cap-support and cement ejecting means.

2. In a machine of the class described, the combination of a cap-support, cement measuring and positive ejecting means arranged eccentric to the cap-support, means for causing a relative annular movement between the cap-support and cement ejecting means, and means dependent upon proper positioning of a cap on the cap-support for controlling flow from the cement ejecting means.

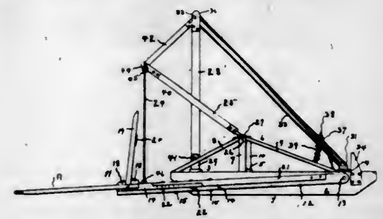
3. In a machine of the class described, the combination of means for rotating a cap, cement measuring and positive ejecting means arranged eccentric to the axis of rotation of such cap.

4. In a machine of the class described, the combination of means for rotating a cap, cement feeding means arranged eccentric to the axis of rotation of such cap, and means for adjusting the eccentricity of the feeding means.

5. In a machine of the class described, the combination of means for rotating a cap, cement measuring and positive ejecting means arranged eccentric to the axis of rotation of such cap, and means dependent upon proper positioning of a cap for controlling flow from the cement ejecting means.

[Claims 6 to 18 not printed in the Gazette.]

938,461. HAY-STACKER. EDWARD G. CARTER, Omaha, Nebr. Filed Feb. 25, 1909. Serial No. 480,041.



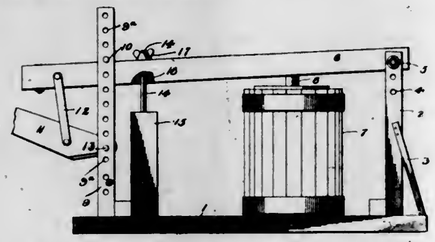
1. In a device of the character described, the combination with a rectangularly formed supporting frame having an upstanding stop lug thereon upon each side thereof, a stacker head having longitudinally adjustable arms connected thereto, said arms being pivotally connected at each side of the frame adjacent said stops, a standard pivotally mounted upon and midway of the sides of the frame, a V shaped member having its arms pivotally mounted upon the sides of the frame, a link connecting the apex of each member with the longitudinally adjustable arms of the stacker head and standard, longitudinally adjustable braces extending from the stacker head to a point adjacent the pivoted portion of the longitudinally adjustable arms and being there rigidly connected to said arms, a rock shaft extending transversely of the frame, upwardly extending arms carried by said rock shaft, and outwardly extending indexes in which said arms terminate, and springs extending from the outer ends of said arms to a portion of the frame, substantially as shown and described.

2. In a device of the character described, the combination with a rectangularly formed supporting frame having an upstanding stop lug thereon upon each side thereof, a stacker head having longitudinally adjustable arms connected thereto, said arms being pivotally connected at each side of the frame adjacent said stops, a standard pivotally mounted upon and midway of the sides of the frame, a V shaped member having its arms pivotally mounted upon the sides of the frame, a link connecting the apex of each member with the longitudinally adjustable arms of the stacker head and standard, longitudinally adjustable braces extending from the stacker head to a point adjacent the pivoted portion of the longitudinally adjustable arms and being there rigidly connected to said arms, a rock shaft extending transversely of the frame, upwardly extending arms carried by said rock shaft and outwardly extending indexes in which said arms terminate, and springs extending from the outer ends of said arms to a portion of the frame, said stacker head comprising a series of tines extending in longitudinal alinement with the longitudinally adjustable arms and a second series of tines lying at an obtuse angle to the first series of tines.

938,462. PRESS. SQUIRE L. CARTER, Tonieville, Ky. Filed May 25, 1909. Serial No. 498,342.

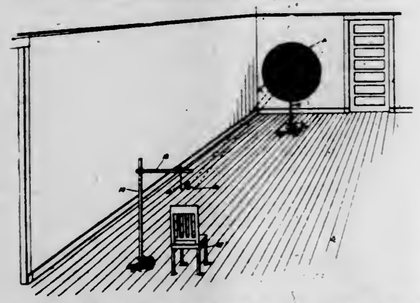
1. In a press, a suitable base, uprights secured to said base, a compression lever adjustably fulcrumed on said uprights, other uprights secured to the base adjacent to the free end of the compression lever, a hand lever adjustably fulcrumed on the last mentioned uprights, a link connecting the compression lever and the hand lever, a

screw rod suitably secured to the base and engaging the compression lever, and a hand nut engaging the threads of said screw rod and the lever.



2. A press comprising a suitable base, uprights secured to said base, a compression lever adjustably fulcrumed on said uprights, a compression plunger engaged by said compression lever, uprights secured to the base adjacent to the free end of the compression lever and having alined holes therein to receive a pin to engage the lever and hold it in a compressing position, a hand lever adjustably fulcrumed between the last mentioned uprights, a link connecting the compression lever and the hand lever, a screw rod suitably secured and engaging the compression lever, and a hand nut engaging the threads of said screw rod and the lever.

938,463. PHOROMETER. JAMES E. COGAN, Cleveland, Ohio. Filed Apr. 18, 1908. Serial No. 427,960.



1. In an eye testing apparatus, a chart, means for adjustably supporting the same, said chart having a small centrally located aperture and concentric circles drawn about the aperture as a center, and a source of light at the rear of said chart opposite said aperture.

2. In an eye testing apparatus, a chart having a small centrally located aperture and having on the front face equally spaced radial lines and concentric circles drawn about the aperture as a center and having on the rear side opposite said aperture a source of light.

3. In an apparatus for testing the external muscles of the eye, in combination, means for permitting the eyes to assume a position of rest, and at a definite distance therefrom a chart having a small aperture and at the rear of said aperture a source of light, said chart having on the front face suitable markings for locating the relative positions of images of the aperture, whereby the latent deviation of the muscles of the eyes can be determined.

4. In an apparatus for testing the external muscles of the eyes, in combination with means for permitting the eyes to assume a position of rest, a chart located a fixed distance therefrom, said chart having a small aperture through which rays of light may pass and having on its front surface concentric circles drawn about the aperture as a center, said circles having radii bearing a fixed relation to the distance of the chart from said means for permitting the eyes to assume a position of rest.

5. In an apparatus for testing the external muscles of the eyes, in combination with means for permitting the eyes to assume a position of rest, a chart located a fixed distance therefrom, said chart having a small aperture, a source of light mounted on the rear of the chart opposite said aperture and said chart having on its front surface equally spaced radial lines and concentric circles drawn about the aperture as a center.

[Claims 6 and 7 not printed in the Gazette.]

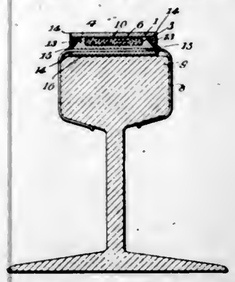
938,464. TYPE-WRITER DESK OR TABLE-TOP. GEORGE M. CRIDER, Marion, Ky. Filed Nov. 24, 1908. Serial No. 464,202.



1. A typewriter desk or table comprising a top section provided with a central opening, the edges of said opening covered with a yielding material such as felt, legs upon which the top is supported, hangers carried on the underside of the table on either side of the opening, said hangers having inwardly projecting portions spaced from the under side of the table, the inner face of said hangers being covered with yielding material such as felt, and a supporting section extending between said hangers and supported thereon, said supporting sections being entirely covered with yielding material such as felt.

2. A typewriter desk or table comprising a top section provided with a central opening, the edges of said opening being covered with yielding material such as felt, legs upon which the top is supported, hangers carried on the under side of the table on either side of the opening, the inner face of said hangers being covered with yielding material such as felt, a base section supported on said hangers and also covered with yielding material such as felt, and a type-writer supporting section having a covering of yielding material on its top and side edges carried within the opening in the table top and resting upon the base section.

938,465. RAILWAY-TORPEDO. FRANK DUTCHER, Versailles, Pa. Filed May 1, 1909. Serial No. 493,328.



1. An improved railway torpedo comprising an open ended tubular inclosing case, an inner member therefor, having an explosive receiving recess, an explosive in the recess, and a water-proof closure for the ends of the inclosing-case.

2. An improved railway torpedo comprising a fibrous open ended fibrous tubular inclosing case, an explosive receiving member within the case consisting of a substance light and porous as plaster of paris, and a water-proof closure for the ends of the inclosing case.

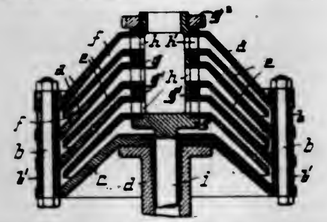
3. An improved railway torpedo comprising a tubular open ended fibrous inclosing case, an explosive receiving member containing an explosive mixture placed within the case and having tapered ends to form pockets at the ends of the inclosing case, and a water-proof compound within the said pockets.

4. An improved railway torpedo comprising a fibrous open ended tubular inclosing case, an approximately rectangular member within the case having an explosive receiving recess with a closed bottom and sides and open top, an explosive therein, and a water-proof inclosure for the ends of the inclosing case.

5. An improved railway torpedo comprising a fibrous open ended tubular inclosing case, an approximately rectangular member within the case having an explosive receiving recess with a closed bottom and sides and an open top, an explosive mixture in the recess, a disk closing the opening of the recess outside of the explosive mixture, and a water-proof filling for the ends of the inclosing case.

[Claims 6 and 7 not printed in the Gazette.]

938,466. MACHINE FOR GRINDING SOLID BODIES. ANDERS J. ERICSSON, Stocksund, Sweden. Filed Jan. 6, 1908. Serial No. 409,545.



1. A device for grinding or crushing solid material consisting of a central perforated tube forming a containing and distributing chamber, a series of superposed plates surrounding the latter, the inner edge of the bottom plate of said series resting on a flange formed on said tube, spacing rings interposed between the inner edges of the remaining plates of said series, a nut adjustable on the upper end of the tube to clamp the rings and plates to said flange, a second series of plates entering the spaces formed between the first series of plates, spacing members interposed between the outer edges of said second series of plates, bolts connecting the latter to the spacing members, a support for the second series, the last named series of plates forming with the first named series on one side a series of grinding or crushing spaces for the material and means for imparting a relative rotation to said plates.

2. A device for grinding or crushing solid material consisting of a central perforated tube forming a containing and distributing chamber, a series of superposed plates surrounding the latter, the inner edge of the bottom plate of said series resting on a flange formed on said tube, spacing rings interposed between the inner edges of the remaining plates of said series, a nut adjustable on the upper end of the tube to clamp the rings and plates to said flange, a second series of plates entering the spaces formed between the first series of plates, spacing members interposed between the outer edges of said second series of plates, bolts connecting the latter to the spacing members, a shaft supporting the second series, the last named series of plates forming with the first named series on one side a series of grinding or crushing spaces for the material, said spaces communicating with the perforated tube, means for imparting a relative rotation to said plates and means to adjust said plates relative to each other.

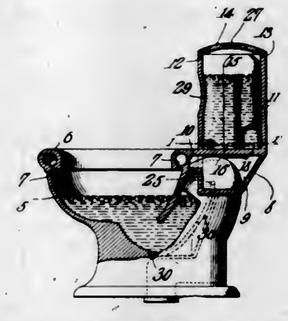
938,467. RAILWAY-RAIL JOINT. ALFRED P. FINLEY, Sherman, Tex. Filed Jan. 15, 1909. Serial No. 473,032.

In combination with the meeting ends of the rail, a rail splice having a central ledge fitting between the ends of the rail and shaped to conform to the tread of the rail, the two pairs of splice bars extending from said ledge and resting against the web of the rail, said bars being provided with elongated bolt openings, the bolts having a circular shaped head at one end and a substantially semi-circular shaped head at the other end, part of the inner



side of said circular head being cut away, said bolts passing through the openings in the bars and web of the rail and adapted to clamp upon said bars.

938,468. FLUSHING-TANK. CHARLES M. FRANZHEIM, Wheeling, W. Va., assignor to Charles W. Franzheim, Wheeling, W. Va. Filed Nov. 23, 1908. Serial No. 464,115.



1. The combination with a bowl or other article to be flushed, of a flushing tank having a curved wall, a siphon disposed within the tank and having its mouth opposite the curved wall of the tank, and means for discharging water under pressure within the tank against said curved wall, thereby to operate the siphon to effect the flushing operation.

2. The combination with a bowl or other article to be flushed, of a flushing tank having a curved wall, a siphon disposed within the tank and having its down leg opening at the curved wall of the tank, and means for discharging water under pressure against the curved wall of said tank, thereby to operate the siphon, the water in the tank serving as a cushion to prevent splashing, detonating or violent action of the water during the flushing operation.

3. The combination with a bowl or other article to be flushed, of a flushing tank having a curved wall, a siphon disposed within the tank and having one leg thereof extended in the direction of and spaced from the curved wall of the tank, and means for forcing a stream of water under pressure against said curved wall and into the up leg of the siphon, thereby operating the siphon.

4. The combination with a bowl or other article to be flushed, of a flushing tank, a siphon disposed within the tank and having one leg thereof extended in the direction of the water supply, a shelf extending from one wall of the tank, and means for discharging a stream of water under pressure into the up leg of the siphon to effect the operation of the siphon.

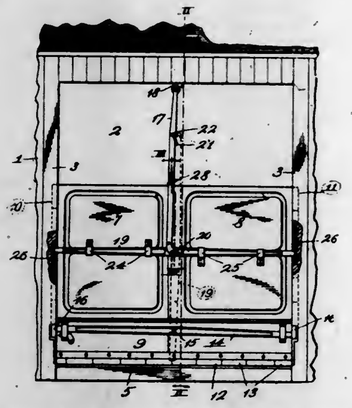
5. The combination with a bowl or other article to be flushed, of a flushing tank, a siphon disposed within the tank and having one leg thereof provided with a drain opening, and means for forcing a stream of water under pressure through the water in said tank to effect the flushing operation.

[Claims 6 to 8 not printed in the Gazette.]

938,469. LOCK FOR GRAIN-DOORS OF BOX-CARS. CYRUS O. FRENCH, Kansas City, Mo. Filed May 25, 1908. Serial No. 434,708.

1. In combination, a box-car, a grain-door including two sections hinged to the door-jambs of the car, keepers on said sections, a member suspended from the upper por-

tion of the car, and a locking-bar pivoted to said suspended member, adapted to engage the keepers on the door sections.



2. In combination, a box-car, a grain-door including two sections hinged to the door-jambs of the car, keepers on said sections, a member suspended from the upper portion of the car, a locking-bar pivoted to said suspended member, adapted to engage the keepers on the door sections, and means at the upper portion of the car for supporting the suspended member in an inoperative position.

3. In combination, a box-car, a grain-door including two sections hinged to the door-jambs of the car, keepers on said sections, a member suspended from the upper portion of the car, a locking-bar pivoted to said suspended member, adapted to engage the keepers on the door sections, and a hook at the upper portion of the car for supporting the suspended member in an inoperative position.

4. In combination, a box-car, a grain-door including two sections hinged to the door-jambs of the car, keepers on said sections, a member suspended from the upper portion of the car, a locking-bar pivoted to said suspended member, adapted to engage the keepers on the door sections or fold against the suspended member, and means on the latter for holding said locking-bar in its folded position.

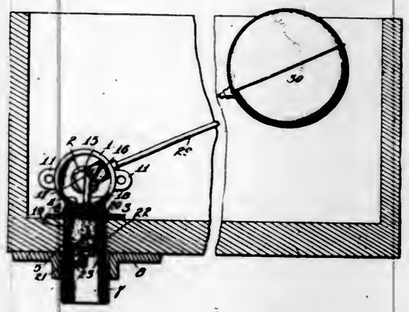
5. In combination, a box-car, a grain-door including two sections hinged to the door-jambs of the car, keepers on said sections, a member suspended from the upper portion of the car, a locking-bar pivoted to said suspended member, adapted to engage the keepers on the door sections or fold against the suspended member, and a clevis on the latter for holding said locking-bar in its folded position.

[Claims 6 to 8 not printed in the Gazette.]

938,470. BALL-COCK. WALTER J. FROST, Kenosha, Wis. Filed May 2, 1908. Serial No. 430,448.

1. In a ball cock, a generally cylindrical casing open at one end and provided with an enlarged base support and having a lateral discharge outlet, a tubular inlet extension connected to said base support, a rock shaft journaled to extend through the end wall of the main casing opposite the discharge outlet, at or approximately at right angles to the longitudinal axis of said tubular extension, a crank upon said rock shaft within the casing, an annular valve seat controlling the passage through said tubular extension, a valve stem connected with the crank of the rock shaft, a valve plug upon said stem coöperating with said annular valve seat, and a stemmed float connected with the rock shaft externally of the casing and extending radially therefrom.

2. In a ball cock, a casing comprising a main chamber having a base support and a lateral discharge opening, a tubular inlet extension connected to said base support, a rock shaft journaled to extend through the opposite end wall of said casing, at or approximately at right angles to the longitudinal axis of said tubular extension, a crank upon said rock shaft within the casing, an annular valve seat controlling the passage through said tubular extension, a valve stem connected with the crank of the rock shaft, a valve plug upon said stem coöperating with said annular valve seat, and a stemmed float operatively connected with the rock shaft externally of the casing and extending radially therefrom.



3. In a ball cock, the combination with a cylindrical casing forming a main chamber and having a lateral discharge outlet, a tubular inlet extension connected to said casing, a rock shaft journaled to extend through the opposite end wall of said casing at or approximately at right angles to the longitudinal axis of said tubular extension, a stemmed float operatively connected with the external end of said rock shaft, a valve stem operatively connected with the internal end of said rock shaft and extending through the valve port and tubular extension, and a valve plug carried by said stem and coöperating with said valve seat.

4. In a ball cock, a generally cylindrical casing open at one end and provided with an enlarged base support internally screw threaded, an end closure member detachably secured to the open end of said main chamber and having a lateral discharge spout, a tubular inlet extension telescoping within said base support, a rock shaft journaled to extend through the end wall of the main casing opposite the discharge spout, at or approximately at right angles to the longitudinal axis of said tubular extension, a crank upon said rock shaft within the casing, an annular valve seat controlling the passage through said tubular extension, a valve stem connected with the crank of the rock shaft, a valve plug upon said stem coöperating with said annular valve seat, and a stemmed float connected with the rock shaft externally of the casing and extending radially therefrom.

938,471. GROUNDING DEVICE OR TERMINAL FOR LINE-WIRES. WILLIAM R. GARTON, Brooklyn, N. Y. Filed Nov. 12, 1908. Serial No. 462,187.

1. The combination in a grounding device or terminal of a mass of hygroscopic and of non-hygroscopic material, and granulated coke or charcoal, constituting a hard and cellular substance, with a metal rod extending into and secured in the mass, provided with means of attachment to a line wire.

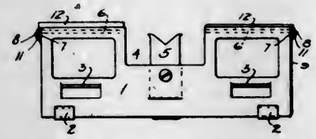
2. The combination in a grounding device or terminal of a body or member built up of a plurality of separate units, each unit composed of hygroscopic and of non-hygroscopic material, the latter holding the former in a structure, with a metal rod extending through the units and uniting them, and provided with means of attachment to a line wire.

3. The combination in a grounding device or terminal of a body or member built up of a plurality of separate units, each unit composed of hygroscopic and of non-hygroscopic material and granulated coke or charcoal, constituting a hard and cellular substance, with lead rod extending through the units and uniting them, and provided with means for connecting with a line wire.



4. The combination in a grounding device or terminal of a body or member built up of a plurality of separate circular units, each composed of hygroscopic material, with a rod extending through the units and holding them together, and provided with means of connection with a line wire.

938,472. RAKER GAGE AND JOINTER. JACOB C. GEHRMAN, Frances, Wash. Filed Mar. 30, 1908. Serial No. 424,164.



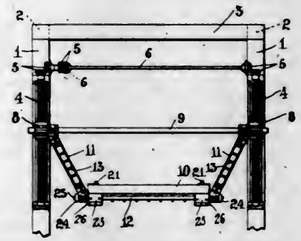
In a raker gage, the combination of a front plate having a working space between its ends; an adjustable filing guide supported on said front plate and extending into said working space; a pair of hard leveling pieces secured to each end of said front plate and extending over the rear thereof; a lug 7 formed on each end of the upper rear edge of said front plate; a rear plate similar in form to said front plate; a lug 11 formed on each end of said rear plate and registering with said lugs 7; pivot pins joining said pairs of lugs 7 and 11 whereby the rear plate is pivoted to the front plate along the upper edge thereof; an upward extension of the rear plate above the line of said pivot pins and adapted to form an opener lever whereby the rear plate is swung on the pivots to separate it from the front plate; and an adjustable filing guide supported on said rear plate and registering with the filing guide on the front plate.

938,473. STONE-SAW. JOHN GILLIES, New York, N. Y. Filed Dec. 21, 1908. Serial No. 468,571.

1. A stone-sawing machine such as described, comprising a main frame, transverse shafts suitably supported, a saw frame, saw frame-supporting links mounted on said shafts, and projecting inwardly from their points of support on said shafts, means pivotally connecting said saw frame to said links, and means for preventing looseness at the joints between said links and said pivotally-connecting means.

2. A stone-sawing machine such as described, comprising a main frame, transverse shafts suitably supported, saw frame-supporting links mounted on said shafts, and projecting inwardly from their points of support on said shafts, shafts connecting the ends of opposite links in pairs and forming, with said links and the transverse shafts, rigid trusses, and a saw frame carried by said trusses.

3. A stone sawing-machine such as described, comprising a main frame, transverse shafts suitably supported, saw frame-supporting links mounted on said shafts, shafts connecting the ends of opposite links in pairs and forming, with said links and the transverse shafts, rigid trusses, and a saw frame carried by said trusses.

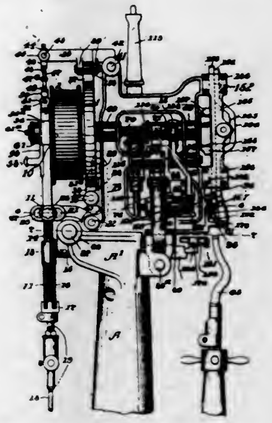


4. A stone-sawing machine such as described, comprising a main frame, transverse shafts suitably supported, saw frame-supporting links mounted on said shafts, shafts connecting the ends of opposite links in pairs and forming, with said links and the transverse shafts, rigid trusses, and a saw frame having bearings on the shafts connecting the ends of said links.

5. A stone-sawing machine such as described, comprising a main frame, transverse shafts suitably supported, saw frame-supporting links mounted on said shafts, and projecting inwardly from their points of support on said shafts, shafts connecting the ends of opposite links in pairs and forming, with said links and the transverse shafts, rigid trusses, and a saw frame having bearings on the shafts connecting the ends of said links.

[Claims 6 to 10 not printed in the Gazette.]

938,474. AUTOMATIC CLENCH-NAILER. PERLEY R. GLASS, Quincy, Mass., assignor, by mesne assignments, to Manufacturers Machine Company, Montclair, N. J., a Corporation of New Jersey. Filed Jan. 16, 1906. Serial No. 296,355.



1. In a nailing machine, awl and cutter bar, means for operating them, and connections between said bars to move one into inoperative position as the other is moved into its operative position, said connections being constructed and arranged to move one of said bars with greater speed than the other.

2. In a wire nailing machine, a driver, a reciprocatory bar, a nail carrier thereon having a channel therein provided with a cutting edge, a stationary cutter having a channel alined with that of the carrier when in its normal

position, feeding mechanisms to supply wire thereto, an awl guide connected to the carrier, an awl, means for reciprocating the awl, and means for reciprocating the bar and its carrier to move the awl into and out of operative position, to cut the wire and to move the carrier out of and into the path of the driver.

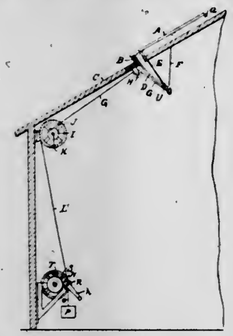
3. In a nailing machine, a shaft, a driver bar and driver reciprocated thereby, an awl bar and its pivoted awl carrier, means intermediate said driver and awl bars for reciprocating the latter from the former, a carrier cutter having means for cutting and carrying a nail, a foot plate having a perforation to receive the awl, nail, and driver, connections between the awl carrier and said carrier cutter, and means for reciprocating the carrier cutter to cut and carry the nail to a position over the perforation of the foot plate in the path of the driver and to move the awl forward out of said path.

4. In a nailing machine, a foot plate having a nail orifice, a driver bar and driver, an awl bar and pivoted awl carrier having an awl, a shaft to reciprocate said driver bar, a gear intermediate the driver and awl bars to reciprocate said awl through said nail orifice into the stock, a movable nail cutter carrier adapted to coöperate with a fixed cutter, connections between the awl and movable cutter, and means for reciprocating said movable cutter to move the awl out of, and said carrier into, the path of said driver, to cause the nail cut and moved by the cutter carrier to be driven into the nail hole just punched by the awl.

5. In a nailing machine, a nose plate having a nail passage, an awl and a driver and means for passing them through said passage alternately, a nail presenter, and means governed by the movement of the nail presenter for removing one of said parts from alinement with the nail passage to permit the other to pass through.

[Claims 6 to 10 not printed in the Gazette.]

938,475. TRANSOM-LIFTER. ALFRED C. GOETHEL, Milwaukee, Wis. Filed Apr. 26, 1909. Serial No. 492,096.

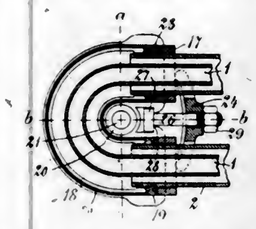


1. The combination with a transom frame and casing of a lifting arm depending from the front margin thereof, braces extending diagonally from the lower portion of the lifting arm to the side margins of the transom frame near the front margin, another brace extending rearwardly and upwardly from the lower portion of said arm to the transom frame and toward its rear margin, an actuating rope connected to the lower end of said arm, and a pulley receiving said rope and supported above the lower end of said arm, and in front of the transom frame.

2. The combination with a transom frame and casing of a lifting arm depending from the front margin thereof, braces extending diagonally from the lower portion of the lifting arm to the side margins of the transom frame near the front margin, another brace extending rearwardly and upwardly from the lower portion of said arm to the transom frame and toward its rear margin, an actuating rope connected to the lower end of said arm, and a pulley receiving said rope and supported above the lower end of said arm, and in front of the transom frame, together with a stop on the arm arranged to engage the casing when the transom is lifted.

3. The combination with a transom frame and casing of a lifting arm depending from the front margin thereof, braces extending diagonally from the lower portion of the lifting arm to the side margins of the transom frame near the front margin, another brace extending rearwardly and upwardly from the lower portion of said arm to the transom frame and toward its rear margin, an actuating rope connected to the lower end of said arm, and a pulley receiving said rope and supported above the lower end of said arm, and in front of the transom frame, together with a winding drum connected with said rope, an actuating rope connected with said drum and a windlass for operating the actuating rope.

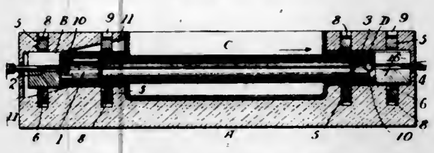
938,476. CONDENSER. CARL J. A. GOTTLIEB, Aarhus, Denmark. Filed May 28, 1908. Serial No. 435,582.



1. In a heat-exchanging apparatus, the combination of an inner and outer tube, a detachable two-part curved connector forming a prolongation of the outer tube, said curved connector being divided on a plane through the axis of the outer tube, the curve being provided with strengthening enlargements where it is attached to the outer tube, and means for detachably uniting the two parts of the divided curved connector.

2. In heat-exchanging apparatus, the combination with an outer and an inner tube, of a divided curved connector forming a prolongation of the outer tube and provided with a shoulder on each of the divided parts, a pair of packing-rings encircling the two outer tube ends, a packing joint between the two-part curved connector and the packing rings, a bolt engaging with the shoulder on the divided curved connector, and means coöperating with said bolt for tightening the joint between the rings and the divided curved connector.

938,477. FUSE-HOLDER. JOHN E. GRAYBILL, York, Pa. Filed July 5, 1904. Serial No. 215,365.



1. In a fuse block, the combination of a suitable body, a terminal supported by said body, a fuse, and means for securing the fuse to the terminal, movable into and out of securing position and adapted to be engaged by a key at a point inaccessible except to said key when in securing position, substantially as described.

2. In a fuse block, the combination of a suitable body, having a recess therein, a terminal supported by said body, a fuse, and means for securing the fuse to the terminal and adapted to be engaged at a point located within and concealed by the walls of said recess when said means is in securing position, substantially as described.

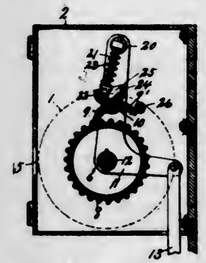
3. In a fuse block, the combination of a suitable body having a recess therein, a terminal supported by said body, a conductor, and means for securing the conductor to the terminal, movable into and out of securing position and adapted to be engaged at a point located within and concealed by the walls of said recess when in securing position, substantially as described.

4. In a fuse block, the combination of a suitable body, a terminal supported by the body, a fuse, a conductor, means for securing said fuse to said terminal, and means for securing said conductor to said terminal, each of said securing means being movable into and out of securing position and adapted to be engaged by a key at a point inaccessible except to said key when in securing position, substantially as described.

5. In a fuse block, the combination of a suitable recessed body, a terminal supported by said body, a fuse, a conductor, means for securing said fuse to said terminal, and means for securing said conductor to said terminal, each of said means being movable into and out of securing position and adapted to be engaged at a point located within and concealed by the walls of one of said recesses when in securing position, substantially as described.

[Claims 6 to 45 not printed in the Gazette.]

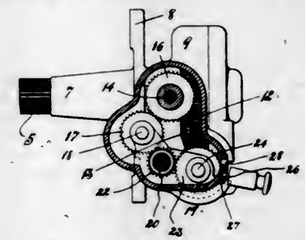
938,478. STREET-INDICATING DEVICE. CLARENCE E. GREENFIELD, Syracuse, N. Y. Filed July 6, 1908. Serial No. 442,178.



In a street indicating device, a rotary drum bearing upon its periphery a series of street names arranged in sequence, a ratchet wheel secured to one end of the drum, a corrugated annulus secured to the opposite end of the drum and having its projections corresponding in number to the number of teeth of the ratchet wheel, a pivoted bell crank lever having its axis coincident with that of the drum, a rocking member pivoted to the lever and provided with two pawls movable alternately into and out of engagement with the teeth of the ratchet wheel, a rock shaft journaled on the lever, a plunger having one end slidable transversely through the rock shaft, and its other end movable across and to opposite sides of a line drawn through the axes of the drum and said rocking member and spring-pressed into engagement with said rocking member to yieldingly hold the latter in its adjusted position, a stud on the drum moving in the path of the inactive pawl to engage the same and rock said rocking member to throw the inactive pawl into action and thereby throw the active pawl out of action, and at the same time moving the roller on the plunger to the opposite side of said line, means for actuating said bell crank lever to rotate the drum, and a roller spring-pressed against the projections of the corrugated annulus to yieldingly hold the drum in its shifted position.

938,479. HEAD-ADJUSTING MECHANISM. CARL L. GROHMANN, Hartford, Conn., assignor to Pratt & Whitney Company, Hartford, Conn., a Corporation of New Jersey. Filed Dec. 16, 1908. Serial No. 467,758.

1. The combination of a slidable head, means for adjusting said head, comprising two gear-trains one of which is of worm-form, and means operable at will, for putting said gear-trains alternately into action to give to the head different degrees of movement.



2. The combination of a slidable head, means for adjusting said head, comprising two gear trains one of which is of worm-form, means operable at will, for putting said gear trains alternately into action to give to the head different degrees of movement, and means for operating either gear train from the same prime operating agent.

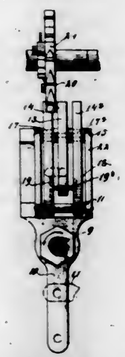
3. The combination of an adjustable head, means for adjusting said head, comprising two gear trains one of which is of worm-form, means operable at will, for putting said gear trains alternately into action to give to the head different degrees of movement, and a manually operable shaft and a gear thereon in mesh with gears of each of said trains.

4. The combination of an adjustable head, means for moving said head comprising a gear having toothed portions of different forms, gears coöperative with the said toothed portions of different forms, and means for operating said last-mentioned gears to give the head different degrees of movement.

5. The combination of an adjustable head, means for moving said head, comprising a gear having bevel tooth and worm-tooth portions, bevel and worm gears coöperative with the respective bevel and worm tooth portions, and means for operating said bevel and worm gears to give to the head different degrees of movement.

[Claims 6 to 15 not printed in the Gazette.]

938,480. TYPE-WRITING MACHINE. JOHN A. HAGERSTROM, Brooklyn, N. Y., assignor to Victor Typewriter Company, New York, N. Y., a Corporation of New York. Filed Sept. 25, 1907. Serial No. 394,436.



1. In an escapement mechanism, the combination with an escapement wheel tending to rotate in one direction, a vibrating member disposed to operate transversely to the plane of rotation of said wheel having two dogs engaging each tooth of said wheel successively, said dogs interconnected to cause one dog when moved by said wheel to posi-

tively move the other dog oppositely to the direction of rotation of said wheel, and means for limiting the throw of said dogs.

2. In an escapement mechanism, the combination with an escapement wheel tending to rotate in one direction, a lever disposed to rock transversely to the plane of rotation of said wheel, having two dogs engaging each tooth of said wheel successively, said dogs interconnected to cause one dog when moved by said wheel to positively move the other dog oppositely to the direction of rotation of said wheel, and means for limiting the throw of said dogs.

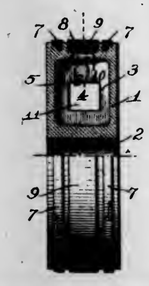
3. In an escapement mechanism the combination with an escapement wheel tending to rotate in one direction, a vibrating member disposed to operate transversely to the plane of rotation of said wheel having two dogs engaging each tooth of said wheel successively, the first dog pivoted as a lever of the second order at one of its ends, the second dog pivoted as a lever of the first order intermediate its ends, said first dog having operative engagement intermediate its ends with the actuating end of said second dog, said first dog when moved by said wheel moving said second dog positively opposite to the direction of rotation of said wheel, and said second dog when moved by said wheel moving said first dog in said opposite direction, and means for limiting the throw of said dogs.

4. In an escapement mechanism the combination with an escapement wheel tending to rotate in one direction, a lever disposed to rock transversely to the plane of rotation of said wheel having two dogs engaging each tooth of said wheel successively, the first dog pivoted as a lever of the second order at one of its ends, the second dog pivoted as a lever of the first order intermediate its ends, said first dog having operative engagement intermediate its ends with the actuating end of said second dog, said first dog when moved by said wheel moving said second dog positively opposite to the direction of rotation of said wheel and said second dog when moved by said wheel moving said first dog in said opposite direction and means for limiting the throw of said dogs.

5. In an escapement mechanism, the combination with an escapement wheel tending to rotate in one direction, a vibrating member disposed to operate transversely to the plane of rotation of said wheel, having two dogs fixed together and a third dog pivoted between said two dogs, said inner dog and said outer dogs interconnected to cause said wheel when moving the inner dog in one direction to throw the outer dogs positively in the opposite direction of its rotation, and when moving either of the outer dogs to throw said inner dog positively in the opposite direction of its rotation, and means for limiting the throw of said dogs.

[Claims 6 to 22 not printed in the Gazette.]

938,481. PISTON. THOMAS HALL, Ridgway, Pa., assignor to Ridgway Dynamo & Engine Company, Ridgway, Pa. Filed Apr. 21, 1909. Serial No. 491,280.



1. A piston having a peripherally grooved hollow body provided with one or more ports through its rim and placing the groove in communication with the interior of the piston, a hoop disposed in the base of the groove over the port or ports therein, and a covering-ring of softer material than the hoop disposed in the groove exterior to said hoop, combined substantially as set forth.

2. A piston having a peripherally grooved hollow body provided with one or more ports through its rim and placing the groove in communication with the interior of the piston, a hoop disposed in the base of the groove over said port or ports, and a ring formed of segments of softer material than the hoop secured in said groove over said hoop, combined substantially as set forth.

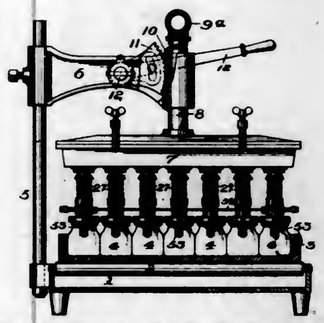
3. A piston having a peripherally grooved hollow body provided with one or more ports through its rim and placing the groove in communication with the interior of the piston, said port or ports being provided with inwardly projecting side margins, a circumferential series of radial partitions dividing the hollow of the piston into segmental chambers communicating with said port or ports, and a covering-ring disposed in the groove of the piston, closing said ports and resting on the side margins thereof, combined substantially as set forth.

4. A piston having a peripherally grooved hollow body provided with one or more ports through its rim and placing the groove in communication with the interior of the piston, said port or ports being provided with side margins projecting inwardly from the walls of said groove, and a covering-ring disposed in said groove and resting on said inwardly projecting side margins, combined substantially as set forth.

5. A piston comprising a peripherally grooved hollow body provided with ports placing the groove in communication with the interior of the piston, a covering ring disposed in said groove and covering said ports, and packing rings carried by the body on opposite sides of the covering ring.

[Claims 6 and 7 not printed in the Gazette.]

938,482. FILLING-MACHINE. JOSEPH F. HALLER, Sheridanville, Pa. Filed June 26, 1908. Serial No. 440,585.



1. In a filling machine, the combination of a depressible filling tube, an overflow tube carried by said filling tube and projecting laterally therefrom, and a support depressible with the filling tube and supporting the overflow tube, said overflow tube being freely vertically movable with relation to said support.

2. In a filling machine, the combination of a depressible filling tube, an overflow tube connected thereto, and a support for said overflow tube, said support being adjustable toward and from the filling tube.

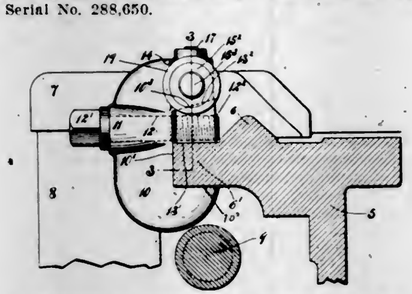
3. In a filling machine, the combination of a depressible filling tube, an overflow tube connection thereto, a support to which the end of the overflow tube is connected, said support being adjustable toward and from the filling tube, and adjustable stops for limiting the movement of said support toward and from the filling tubes.

4. In a filling machine, the combination of a depressible head, a plurality of filling tubes carried thereby, an overflow tube connected to each filling tube, and a bar depressible with the head and provided with openings in which the ends of the overflow tubes freely slide vertically.

5. In a filling machine, the combination of a depressible head, a plurality of filling tubes carried thereby, an overflow tube connected to each filling tube, and a bar carried by said filling tubes and movable toward and from the same and serving to support the ends of the overflow tubes.

[Claims 6 to 14 not printed in the Gazette.]

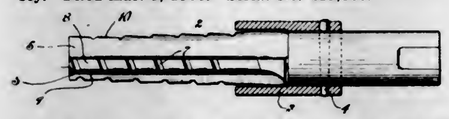
938,483. STOP FOR CARRIAGES OF METAL-WORKING MACHINES. BENGT M. W. HANSON, Hartford, Conn., assignor to Pratt & Whitney Company, Hartford, Conn., a Corporation of New Jersey. Filed Nov. 23, 1905. Serial No. 288,650.



1. An article of manufacture consisting of a stop for carriages of metal-working machines, comprising a yoke like body one branch of which constitutes a fixed jaw and the other branch of which has a beveled surface, a movable jaw located between the said branches and having a beveled surface coöperative with said other beveled surface, means for operating said movable jaw to cause the same to move toward or from said fixed jaw, and a stop member supported by said body.

2. An article of manufacture consisting of a stop for carriages of metal working machines, comprising a yoke-like body one branch of which constitutes a fixed jaw and the other of which has a beveled surface, a movable jaw located between said branches and having a beveled surface coöperative with said other beveled surface, a bolt for operating the movable jaw to thereby through said beveled surfaces cause said movable jaw to move toward and from the fixed jaw, and a screw extending transversely to said bolt, carried by the body and constituting a stop member.

938,484. TAPER-ROUGHING TOOL. BENGT M. W. HANSON, Hartford, Conn., assignor to Pratt & Whitney Company, Hartford, Conn., a Corporation of New Jersey. Filed Mar. 9, 1908. Serial No. 419,860.

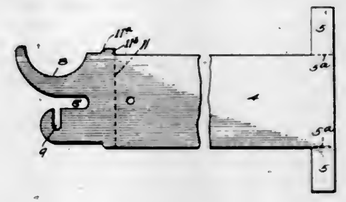


1. A taper roughing tool having longitudinally disposed rows of teeth the teeth of each row being out of circumferential line with the teeth of the adjacent row and each tooth having a front end clearance portion and also having clearance portions on the outer surface thereof longitudinally and laterally of the tool.

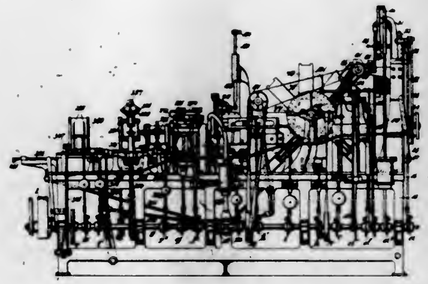
2. A taper roughing tool having lands and also having a spiral groove intersecting said lands to form thereon teeth provided with front end clearance portions and each tooth being upon a back taper and also inclined laterally on the outer surface thereof to present two additional clearance portions.

938,485. COMBINED WINDOW CURTAIN AND SHADE HANGER. JOHN W. HENLEY, Jackson, Miss. Filed Oct. 27, 1908. Serial No. 459,756.

As a new article of manufacture, an adjustable curtain support composed of two similarly-constructed members, each member formed from a single-length of sheet-metal and comprising an elongated-body having an upper and lower laterally-projecting arm at its inner end, said arms projecting from the longitudinal edges thereof and being provided with transverse scoring lines 5^a, constituting a continuation of said longitudinal edges, to facilitate the bending of the same to overlapping positions to provide an elongated guiding-loop 6 for the corresponding member of the support, and a bracket projecting from the outer end of said member and provided with a transverse line of scoring 11 to indicate its bending point and being also provided with a guiding-lug 11^a, said lug provided with a straight-end 11^b, said end being a continuation of the scoring line 11 for facilitating the bending of said bracket relatively to said body.



938,486. PAPER-BAG MACHINE. OTTO HESSER, Cannstatt, Germany. Filed May 9, 1903. Serial No. 156,402.



1. The combination with a slotted folding table, of means for feeding sheets onto the table, a revoluble folding disk, folding plates carried thereby and arranged to successively pass through the slot and carry the sheets therethrough, means for stopping the disk after each partial rotation, mechanisms arranged opposite the various stopping points of the folding plates and co-acting therewith to fold over and paste down the edge of the partly folded sheet to form a tube; to press the seam flat, and to cut or recess the end of said tube, and means for finally withdrawing the successive tubes from the plates for further operations.

2. The combination with a slotted table, of a sheet stop for arresting movement of the sheets, spring fingers for preventing upward displacement of the sheets, a revolubly mounted folding plate for engaging the successive sheets, and a pair of plate guiding devices arranged above said table and having inclined walls for centering said folding plate in advance of its engagement with the sheet.

3. The combination with a slotted folding table, of a revoluble disk, a series of folding plates carried thereby, means for moving said plates to engage the sheet and traverse the same through the table, means for holding the sheet clamped upon the plate with one edge of the sheet projecting beyond the plate, means for applying adhesive to one side of the projecting edge, a folding mem-

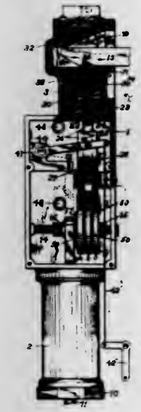
ber, and means for moving the folding member against the opposite side of the projecting edge, over the edge of the folding plate and downward on the opposite side of the folding plate to thereby form a tube.

4. The combination with a slotted folding table, of a revoluble folding disk, a series of folding plates carried thereby and adapted to engage successive sheets of paper and traverse the same through the slotted plate, an adhesive applying device, and a folding member one surface of which serves as a platen to support the paper during the adhesive applying operation, and means for moving said folding member to first fold the adhesive supplied portion of the paper over the edge of the successive folding plates, and then press the same over said plate and into contact with another portion of the sheet, the opposite surface of the folder acting during the pressing and folding operations.

5. The combination with a slotted folding table, of a folding plate movable through the slot to form a preliminary fold in the paper, an adhesive supplying bar, means for reciprocating the same toward and from the plate to supply adhesive to a portion of the paper beyond the edge of the plate, a folding member, a means for moving the folding member over the edge of the folding plate and downward on the opposite side of the folding plate, and thereby force the adhesive surface of the paper into contact with another portion.

[Claims 6 to 17 not printed in the Gazette.]

938,487. FLUID-PRESSURE COMBINATION-LOCK. WILLIAM J. HOFSTATTER, Toledo, Ohio. Filed June 19, 1909. Serial No. 503,097.



1. In a fluid pressure combination lock, the combination with a lock bolt, of an arbor, a series of disk tumblers independently rotatable on the arbor in the path of the movement of the lock bolt, said tumblers each having an incut adapted when brought into alinement with the incuts of the other tumblers to jointly receive and permit the release of the lock bolt, and said tumblers being adapted when the incuts are disalined to prevent movement and release of the bolt, means of inter-engagement between the tumblers, arranged and adapted by predetermined forward and backward partial revolutions of one of the tumblers, to bring the incuts of all of the tumblers into alinement to receive the bolt, and means to actuate the actuating tumbler forward and backward, said means being adapted to be actuated by fluctuating fluid pressure.

2. In a fluid pressure combination lock, the combination with a lock bolt, of an arbor, a series of disk tumblers independently rotatable on the arbor in the path of the movement of the lock bolt, said tumblers each having an incut adapted when brought into alinement with the incuts of the other tumblers to jointly receive and permit the release of the lock bolt, and said tumblers being adapted when the incuts are disalined to prevent movement and release of the bolt, adjustable means of inter-engagement between the tumblers, arranged and adapted by predetermined forward and backward partial revolutions of one of the tumblers, to bring the incuts of all of the tumblers into alinement to receive the bolt, and means to actuate the actuating tumbler forward and backward, said means being adapted to be actuated by fluctuating fluid pressure.

3. In a fluid pressure combination lock, a lock bolt, an arbor, a series of disk tumblers independently rotatable on the arbor in the path of the lock bolt, and each having an incut adapted when brought into alinement with the incuts of the other tumblers to jointly receive and release the lock bolt, said tumblers being adapted when the incuts are out of alinement to prevent the unlocking of the lock bolt, means of inter-engagement between the tumblers arranged and adapted to bring the incuts of all the tumblers into alinement by predetermined forward and backward part revolutions of one of the tumblers, and means comprising a cylinder adapted to be connected to a source of fluid under controllable pressure, a piston in the cylinder, adapted to be actuated in one direction by the pressure of the fluid, a spring in the cylinder adapted to produce graduated resistances to the piston, means connecting the piston and the actuating tumbler, adapted to produce forward and backward revolution of the actuating tumbler, according as the pressure of the fluid is raised and lowered in the cylinder, substantially as set forth.

4. In a combination fluid pressure lock, a lock bolt, an arbor, a series of disk tumblers independently rotatable on the arbor in the path of the lock bolt, and each having an incut adapted when brought into alinement with the incuts of the other tumblers to jointly receive and release the lock bolt, said tumblers being adapted when the incuts are out of alinement to prevent the unlocking of the lock bolt, adjustable means of inter-engagement between the tumblers arranged and adapted to bring the incuts of all the tumblers into alinement by predetermined forward and backward part revolutions of one of the tumblers, and means comprising a cylinder adapted to be connected to a source of fluid under controllable pressure, a piston in the cylinder, adapted to be actuated in one direction by the pressure of the fluid, a spring in the cylinder adapted to produce graduated resistances to the piston, means connecting the piston and the actuating tumbler, adapted to produce forward and backward revolution of the actuating tumbler, according as the pressure of the fluid is raised and lowered in the cylinder, substantially as set forth.

5. In a fluid pressure combination lock, the combination of a lock bolt comprising telescopic members, one of the members movable inward of the other to permit the unlocking of the bolt, a spring adapted to yieldingly hold the bolt in normally locked position, means to withdraw the bolt from locked position by the movement of the other member, independently rotatable tumblers adapted to prevent the unlocking of the bolt, said tumblers having incuts normally disalined, and adapted when in alinement to permit the unlocking of the bolt, and means to operate the tumblers to bring the incuts into alinement, and adapted to be actuated thereto by alternating higher and lower fluid pressures.
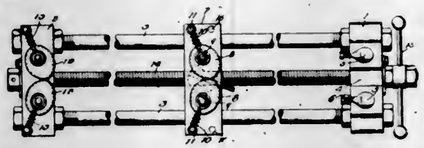
[Claims 6 and 7 not printed in the Gazette.]

938,488. WIRE-STRETCHER. EZRA F. HOPKINS, Chicago, Ill. Original application filed Jan. 13, 1908, Serial No. 410,487. Divided and this application filed Nov. 6, 1908. Serial No. 461,275.

1. A reversible grip for wire stretchers comprising a reversible jaw, a spring to act on said jaw, a shiftable anchor for said spring, and an abutment for said jaw.

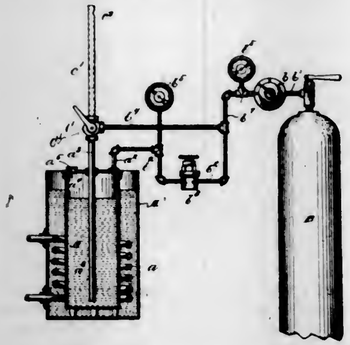
2. In a wire stretcher, the combination of reversible, opposing clamping jaws, having relatively short diameters and relatively long diameters; a support upon which said jaws are pivoted; and springs carried by said jaws to exert tension to close them in either position.

3. A wire stretcher comprising a frame, a cross-head movable on said frame; pivoted jaws carried by said cross-head, said jaws being elongated; shiftable springs arranged to act upon said jaws; and removable anchors, for said springs adapted to engage recesses in the cross-head.



4. A wire stretcher comprising a frame; a cross-head movable on said frame; pivoted jaws carried by said cross-head, said jaws being elongated and being eccentrically mounted; springs attached to the short ends of said jaws; and screws attached to said springs, said screws being arranged to be seated in a plurality of openings in said cross-head.

938,489. METHOD OF AND APPARATUS FOR INTERIORLY COATING TUBES. EDWARD JAMES, Cleveland, Ohio, assignor to The James Manufacturing Company, Cleveland, Ohio, a Corporation of Ohio. Filed June 27, 1908. Serial No. 440,642.



1. The method of interiorly coating tubes, which consists in placing a quantity of the coating material in the tube to be coated in front of a relatively solid member, and then admitting a fluid under pressure behind said member, whereby the latter and such material are forced along such tube.

2. The method of interiorly coating tubes, which consists in placing a quantity of the coating material in the tube to be coated in front of a ball, and then admitting a fluid under pressure behind said ball, whereby the latter and such material are forced along such tube, the diameter of the ball being gaged to leave a coating of the desired thickness.

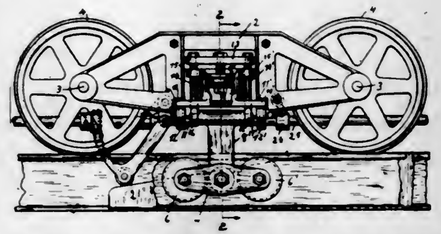
3. The method of interiorly coating tubes, which consists in placing a quantity of the coating material in the tube to be coated in front of a relatively solid member, and then admitting a fluid under pressure behind said member, whereby the latter and said member are forced along such tube, the diameter of the member being gaged to leave a coating of the desired thickness.

4. The method of interiorly coating tubes, which consists in confining a quantity of the coating material in the tube between relatively solid members, and then passing said members and confined material along such tube, said members being freely movable with respect to each other.

5. The method of interiorly coating tubes, which consists in confining a quantity of the coating material in the tube between relatively solid members, and then passing said members and confined material along such tube, said members being freely movable with respect to each other, and the diameter of the rearmost thereof being gaged to leave a coating of the desired thickness.

[Claims 6 to 17 not printed in the Gazette.]

938,490. TRACTION-INCREASING DEVICE. ALCUIN E. KINTNER, Painesville, Ohio. Filed Mar. 16, 1908. Serial No. 421,540.



1. In a traction system, a rail, a traveling support mounted on said rail, said support including a pair of spaced apart wheels taking a common path of travel, a traction-increasing mechanism carried by the support and operating in opposition to the wheels of the support, said mechanism being normally located intermediate the planes of the axes of the wheels, said mechanism including a laterally swinging support having wheels movable toward and from a position on the under side of the rail.

2. In a traction system, a rail, a traveling support mounted on said rail, said support including a pair of spaced apart wheels taking a common path of travel, a traction-increasing mechanism carried by the support and operating in opposition to the wheels of the support, said mechanism being normally located intermediate the planes of the axes of the wheels, said mechanism including a laterally swinging support having wheels movable toward and from a position on the under side of the rail, said support also having an independent vertical movement to control the traction pressure.

3. In a traction system, a rail, a wheeled support movable longitudinally of said rail, and traction-increasing devices carried by said support and normally operating on an opposing surface of said rail, said devices having vertical and lateral movements to and from their normal position.

4. In a traction system, a rail, a wheeled support movable longitudinally of said rail, and traction-increasing devices carried by said support and normally operating on an opposing surface of said rail, said devices having vertical and lateral movements to and from their normal position, said movements being independent of each other.

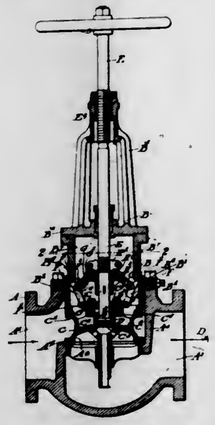
5. In a traction system, a rail, a wheeled support movable longitudinally of said rail, traction-increasing devices carried by said support and normally operating on an opposing surface of said rail, said devices having vertical and lateral movements to and from their normal position, and means for imparting said movements to the devices.

[Claims 6 to 21 not printed in the Gazette.]

938,491. VALVE. PAUL W. KNAUF, Philadelphia, Pa., assignor to Schutte and Koerting Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Sept. 21, 1907. Serial No. 393,901.

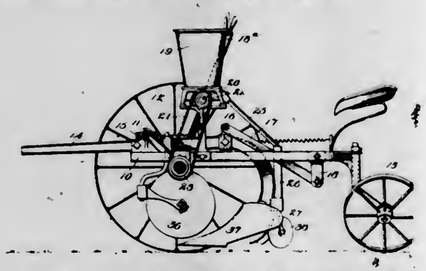
1. In combination, a valve casing having a valve seated port, a main valve for said port having a passage extending through it, a pilot valve controlling the passage through the main valve, a stem to which the pilot valve is directly connected, a collar carried by the stem and free to rotate thereon but held against longitudinal movement with respect thereto, hinged links connecting the said collar and main valve, said valve casing being provided with a cylindrical curved guide surface, arranged to engage said links and hold them against buckling when the

main valve is off its seat, and with a zonoidal guide surface engaging said links to thereby hold the main valve on its seat except when the pilot valve is wide open.



2. In combination, a valve casing having a valve seated port, a main valve for said port having a passage extending through it, a pilot valve controlling the passage through the main valve, a stem connected to the pilot valve, a collar carried by the stem and free to rotate thereon, but held against longitudinal movement with respect thereto, arms pivoted to the main valve, and other arms pivoted to the first mentioned arms and to said collar, said casing having a zonoidal curved guide surface, and the arms connected to the main valve having a surface which engages said zonoidal surface when the main valve is seated and when the arms buckle as the pilot valve in closing or opening its port approaches or recedes from the main valve, whereby the main valve is anchored against movement off its seat except when the pilot valve is wide open, said casing having other cylindrical guide surface engaging said arms to hold them against buckling when the main valve is moved off its seat.

938,492. SEEDER. GEORGE A. KNOBLOCK, South Bend, Ind. Filed June 11, 1908. Serial No. 437,887.

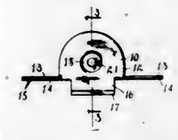


1. A seeder comprising a frame, an inverted U-shaped axle mounted therein, traction wheels mounted on the axle, means carried by the axle for supporting a plow, means for adjusting the cranked portion of the axle to raise and lower the plow, a seed-depositing mechanism operable from the axle, a clutch on the axle controlling said seed-depositing mechanism, an operating lever pivoted to said frame with its lower end engaging the movable member of the clutch, the upper end of the lever having a transversely extended flattened portion with a cam face rigid therewith at a right angle thereto and projected across the path of one of the vertical legs of said axle.

2. A seeder comprising a frame, an inverted U-shaped axle mounted therein, traction wheels mounted on the axle, means carried by the axle for supporting a plow, means for adjusting the cranked portion of the axle to raise and lower the plow, a seed-depositing mechanism operable from the axle, a clutch on the axle controlling said seed-depositing mechanism, an operating lever pivoted to said frame with its lower end engaging the movable member of the clutch, the upper end of the lever having a transversely extended flattened portion with a cam face rigid therewith at a right angle thereto and projected across the path of one of the vertical legs of said axle, and means interposed between the frame and the said clutch below the pivot of the lever for normally holding the clutch in engagement.

3. A seeder comprising a frame, an inverted U-shaped axle mounted therein, traction wheels mounted on the axle, a beam pivotally supported by means secured to the central portion of said axle, rearwardly and downwardly inclined links pivotally connected at their upper ends to the rear end of said beam, ears depending from said frame and in which the rear ends of said links are pivoted, a lever for adjusting said axle, a double mold board plow carried by said beam, a rolling colter in front of said plow, covering disks immediately at the rear of said plow, a clutch mechanism on the axle, a lever pivotally mounted for actuating the same, and a horizontal cam-shaped plate carried by the upper end of said lever in the path of one of the vertical legs of the said axle whereby as the crank axle is raised to draw the forward end of the plow out of the ground said vertical leg will turn backward and strike the edge of said cam plate to swing said lever on its pivot to actuate the clutch mechanism.

938,493. COMBINED ROLLER-SUPPORT AND CASING FOR EDGEWISE-MOVABLE DOORS. MORRIS KURTZON, Chicago, Ill. Filed July 6, 1908. Serial No. 441,998.



1. A roller housing consisting of two connected corresponding complementary sections, each section comprising a vertical portion having an inwardly extending flange along its upper edge, and attaching members extending inwardly from and at right-angles to the vertical portion and from opposite edges thereof, whereby the attaching members of one section will overlie the corresponding members of the complementary section at both edges of the housing.

2. A roller housing consisting of two connected corresponding complementary sections, each section formed from a single piece of metal cut and bent to provide a vertical side portion, a flange extending inwardly from the upper edge of said portion, two attaching members extending horizontally from and at right angles to the plane of the vertical portion, and a retaining flange at the lower edge of the vertical portion, said flanges arranged to meet at the median line of the housing, and said attaching members adapted to overlie each other, whereby the attaching portion of the housing will be of two superimposed layers of metal on each side of the housing.

938,494. MACHINE FOR SHARPENING LAWN-MOWERS, SKATES, &c. JOHN L. KYLE, Seaforth, Ontario, Canada. Filed Apr. 16, 1909. Serial No. 490,389.

1. A grinding and sharpening machine, including in combination a suitable frame, a grinding element, a carriage longitudinally movable on the frame across the grinding element, a transversely movable member on the carriage, a swiveling member mounted on the transversely movable member, and comprising end members, longitudinally extending bars adjustably supported from the end members, clamping means above the bars adapted to hold the blade to be sharpened, and means for actuating the carriage.



2. A grinding and sharpening machine, including in combination a suitable frame, a grinding element, a carriage longitudinally movable on the frame across the grinding element, a transversely movable member on the carriage, a swiveling member, comprising end members, longitudinally extending bars adjustably supported from the end members, a fixed clamping bar above the end member, a movable clamping bar extending along the same, and means for clamping the two bars together.

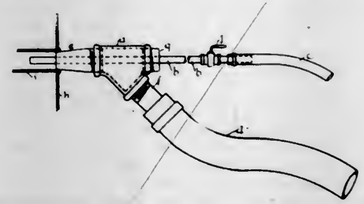
3. In a grinding and sharpening machine, including in combination, a suitable frame, a grinding element, a carriage longitudinally movable thereon, across the grinding element, and means for actuating the carriage, a transversely movable member on the carriage having a counter sunk socket therein, a swiveling member rotatable in the socket, and adapted to support the work, and a clamping bolt extending through the transversely extending member and the swiveling member.

4. A grinding and sharpening machine, including in combination, a suitable frame, a grinding element, a carriage longitudinally movable on the frame across the grinding element, transversely extending guide bars on the carriage, a transversely movable member, horizontally divided to form two sections adapted to extend on opposite sides of the guide bars and being provided with recesses into which the guide bars fit, and means for clamping the sections together, and a swiveling member supported on the transversely extending member and being adapted to support the work.

5. A grinding and sharpening machine, including in combination, suitable frame, a grinding element, a carriage longitudinally movable on the frame across the grinding element, a transversely movable member on the carriage, a swiveling member mounted on the transversely movable member, and adapted to support the work, and means for actuating the carriage, and an adjustable guard for the grinding element, having a laterally turned end, extending across the face of the grinding element.

[Claims 6 and 7 not printed in the Gazette.]

938,495. AIR-FLUE BLOWER. LOUIS LUNSTRUM, Council Bluffs, Iowa. Filed June 5, 1909. Serial No. 500,462.



1. In an air flue blower, the combination of a hollow head, a pipe extending and sliding through the same and a flexible tubing attached to said head adapted to receive and discharge material forced into said head.

2. In an air flue blower, a hollow head tapered to fit a boiler tube, a pipe sliding longitudinally through said head and a flexible tubing connecting with said head adapted to receive and discharge material forced into said head.

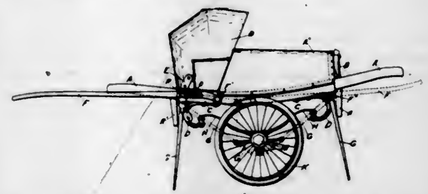
3. In an air flue blower, the combination of a hollow tapered head, a blast pipe arranged to slide through said head, a flexible tubing attached to said head adapted to receive and discharge material forced into said head and a means of supplying compressed air to said tube sliding through said head.

4. In an air flue blower, the combination of a hollow tapered head, a blast pipe arranged to slide through said head, a flexible tubing attached to said head adapted to receive and discharge material forced into said head, a means of supplying compressed air to said tube sliding through said head, and a cut-off to control the same.

5. In an air flue blower, the combination of a tapered nipple, a commercial T or Y, a drilled plug, a nipple, a pipe passing through said drilled plug and a flexible tube attached to said nipple adapted to receive and discharge material forced into said head.

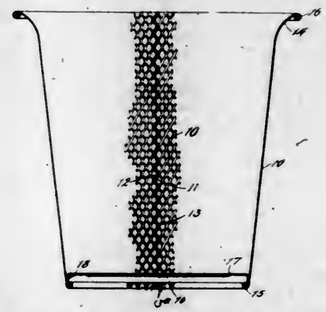
[Claims 6 and 7 not printed in the Gazette.]

938,496. AMBULANCE. CRISTOFORO MESTROVICH, Portland, Oreg., assignor to N. M. Matosin, Portland, Oreg. Filed Nov. 13, 1908. Serial No. 462,533.



In an ambulance, a litter comprising, in part, a frame, a supporting-carriage for said litter, comprising, in part, a frame, a vertically-disposed, perforated plate carried by said carriage-frame, a leaf-spring carried by said litter-frame, and a pin carried by the outer end of said spring and projecting through the perforation in said plate and engaging with said litter-frame, removably to lock the same to said carriage-frame.

938,497. BASKET. CHARLES S. MOONEY, Chicago, Ill., assignor to Northwestern Expanded Metal Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 8, 1908. Serial No. 451,973.



1. A basket having its body constructed of expanded metal, a ring within the body portion adjacent the lower extremity thereof, said extremity being flanged or bent inwardly over the ring to secure the latter in position and to form a circumferential shoulder also within the body, and a removable bottom within the basket, the periphery of said bottom being flanged at an angle to the body portion thereof, the extremity of the flanged portion engaging and resting upon the said shoulder and the flange having fric-

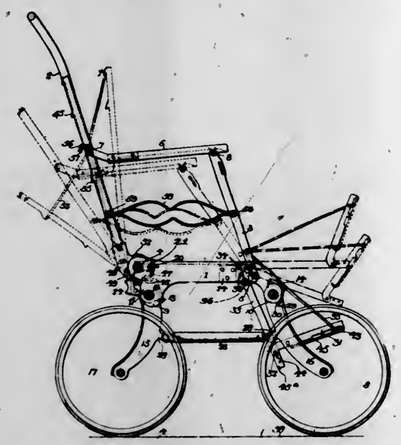
tional engagement with the body of the basket above the shoulder whereby the bottom will be removaly secured in position.

2. In a basket, the combination of a metallic body portion increasing in diameter from the base upwardly, said body being provided with an inwardly projecting circumferential shoulder within the body of the basket adjacent the base and a reversible imperforate bottom, said bottom being provided with a circumferential flange and adapted to rest upon the shoulder and being held in position by frictional engagement with the said body portion in either of its positions, whereby the bottom may be readily removed and replaced through the top of the basket.

3. A basket constructed of a single piece of expanded metal, the extremities thereof being overlapped to form the body portion, an interlaced flexible member for securing the said extremities, said body increasing in diameter from the base upwardly, a ring within the body adjacent the base and over which the body is bent, a ring surrounding the outside of the body adjacent the top and over which the upper edge of the body is bent, and a bottom for the basket resting upon the ring adjacent the base, said bottom having frictional engagement with the body for removably securing the bottom in position.

4. A basket constructed of a single piece of reticulated metal, the extremities thereof being overlapped and secured together to form a body portion, said body increasing in diameter from the base upwardly, a ring within the body adjacent the base and over which the body is bent, a re-inforce for the upper edge of the body and a reversible bottom for the basket entirely within the body and resting upon the ring adjacent the base, said bottom having frictional engagement with the body for removably securing the bottom against displacement in either of its positions.

938,498. GO-CART. EDWARD C. MOORE, Philadelphia, Pa. Filed July 8, 1907. Serial No. 382,625.



1. The combination, in a folding go-cart, of side frames, front and rear members pivoted thereto, arms hinged to said pivoted members and maintained normally in such position as to render said hinges inactive, wheels carried by said arms, connecting means for maintaining said arms in proper relative position with the wheels in alinement with the side frames when the structure is extended, and means for bringing the arms carrying the wheels close to the side frames when the structure is collapsed, said means serving also through said connecting means to bring the wheels closer together so that when in such position the wheels may be turned on their hinges and folded under the structure.

2. The combination, in a folding go-cart, of side frames, front and rear members having double pivots connected to said side frames, arms hung from one pivot of said members, wheels carried by said arms, means for maintaining said arms in fixed position in alinement with said side frames when the go-cart is in position of use including a resilient connection, and means for moving said arms toward the side frames when the structure is collapsed, said resilient connection serving to draw the wheels in closer relationship and bring the hinges of the arms in such position that they and the wheels can be folded under the structure.

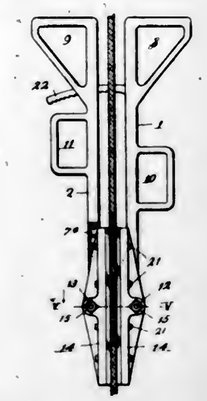
3. The combination, in a go-cart, of side frames, front and rear arms connected to said side frames, wheels carried by said arms, and double hinge connections between said side frames and the arms, and a flexible connection between the arms, such hinge connections and flexible connection providing for movement of the arms close to the frame when collapsing the structure with a corresponding movement of the wheels toward each other, one set of said pivots being then brought in line to permit folding of the wheels under the structure.

4. The combination, in a go-cart, of a seat section having side frames, wheel carrying arms pivoted to said side frames, wheels carried thereby, and a spring connection between said wheel carrying arms.

5. The combination, in a folding go-cart, of side frames, front and rear arms having double hinge connections carried thereby, wheels carried by said arms, a back section pivoted to said side frames, means on the rear wheel carrying arms in operative engagement with said back whereby said arms will be moved toward the side frames when said back is moved forward, means contacting the front and rear arms whereby the wheels will be moved toward each other when the movement of the arms takes place, and means for supporting the back section so as to maintain the go-cart in an upright position.

[Claims 6 to 21 not printed in the Gazette.]

938,499. TONGS. JOHN L. MUNSILL, Leavenworth, Kans., assignor of one-half to James C. Krohn and Albert Krohn, Leavenworth, Kans. Filed Mar. 15, 1909. Serial No. 483,391.

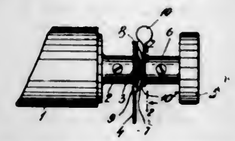


1. A pair of tongs consisting of two crossed-levers operably connected at their crossed portions, means projecting laterally from one side of the lower terminals of said levers, and a pair of jaws pivotally-mounted upon said means and arranged wholly at one side of the levers, substantially as shown and described.

2. A pair of tongs consisting of two crossed levers operably connected at their crossed portions, means projecting laterally from one side of the lower terminals of said levers, a pair of jaws pivotally-mounted upon said means and arranged wholly at one side of the levers, and a plurality of laterally-extending handles on each lever, substantially as shown and described.

3. A pair of tongs consisting of two crossed levers operably connected at their crossed portions, means projecting forwardly from the lower terminals of said levers, a pair of jaws pivotally-mounted upon said means and arranged wholly at one side of the levers, and means at the rear sides of the levers for locking the same, substantially as described.

938,500. TYPE-WRITING MACHINE. LEWIS C. MYERS, New York, N. Y., assignor to Royal Typewriter Company, New York, N. Y., a Corporation of New Jersey. Filed Aug. 18, 1909. Serial No. 513,396.



1. In a typewriting machine, a rotatable platen, a carriage end plate in which the platen shaft rotates, a twirler knob having a hub applied to the end of the platen shaft outside of the side plate, a concavo-convex spring-plate loosely mounted upon the platen shaft outside of the side plate and a lever arm interposed between the convex surface of the spring-plate and the inner end of the twirler hub and formed with means for compressing the spring-plate when swung in one direction, for the purpose set forth.

2. The combination with a rotatable platen, its shaft, a carriage end plate in which the shaft is mounted, a concavo-convex spring-plate loosely mounted upon the platen shaft between the inner end of the twirler hub and the convex face of the spring-plate and having a rib upon that face of the lever arm contiguous to the surface of the spring-plate, whereby when the lever arm is operated compression of the spring is produced for the purpose set forth.

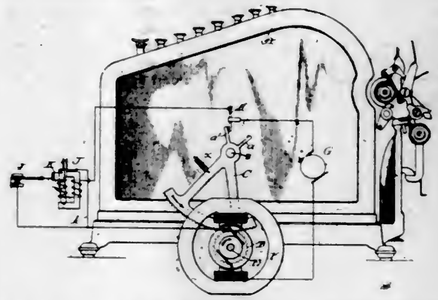
3. The combination of a rotatable platen, its shaft, a carriage end plate in which the shaft is mounted to turn, a twirler knob having a hub applied to the outer end of the shaft and friction devices interposed between the inner end of the hub and the outer face of the side plate for at will imposing a friction, tending to prevent rotation of the platen.

4. The combination of a rotatable platen, its shaft, a carriage end plate in which the shaft is mounted to rotate, a concavo convex spring-plate loosely mounted on the shaft, having lips engaging edges of the side plate to prevent rotation of the spring-plate, a twirler having a hub applied to the outer end of the shaft, a lever arm loosely turning on the shaft between the hub of the twirler and the outer face of the spring-plate and having a rib formed by corrugating the metal of which the lever arm is made, for the purpose set forth.

938,501. ADDING-MACHINE. FRANK R. MCBERTY, Evanston, Ill., assignor to Burroughs Adding Machine Company, Detroit, Mich., a Corporation of Michigan. Filed Feb. 27, 1904. Serial No. 195,513.

1. In electric operating means for adding machines and the like, the combination with the driving member thereof, and means for returning said driving member to initial position in each operation of the machine; of a motor circuit, a motor in said circuit for operating said driving member, manually operated means for closing the circuit at one point, a magnetic switch having its magnet in said circuit, for closing the circuit and maintaining it closed independently of said manually operated means, and means operated by the driving member for automatically opening the circuit; substantially as described.

2. In electric operating means for adding machines and the like, the combination with the driving member thereof, and means for returning said driving member to initial position in each operation of the machine; of a motor circuit, a motor in said circuit for operating said driving member, manually operated means for closing the circuit at one point, a magnetic switch having its magnet in said circuit, for closing a branch of the motor circuit in shunt of the manually operated means, and means operated by the driving member for automatically opening the circuit; substantially as described.



3. In electric operating means for adding machines and the like, the combination with the driving member thereof, and means for returning said driving member to initial position in each operation of the machine; of a motor circuit, a motor in said circuit for operating said driving member, manually operated means for closing the circuit at one point, a magnetic switch having its magnet in said circuit, for closing a branch of the motor circuit in shunt of the manually operated means, and means operated by the driving member for automatically opening the circuit; substantially as described.

4. In electric operating means for adding machines and the like, the combination with the driving member thereof, and means for returning said driving member to initial position in each operation of the machine; of a motor circuit, a motor in said circuit for operating said driving member, manually operated means for closing the circuit at one point, a magnetic switch having its magnet in said circuit, for closing a branch of the motor circuit in shunt of the manually operated means, means operated by the driving member for automatically opening the circuit, and spring-operated means for closing it; substantially as described.

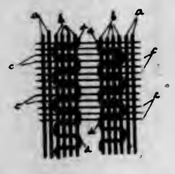
5. In electric operating means for adding machines and the like, the combination with the driving member thereof, and means for returning said driving member to initial position in each operation of the machine; of a motor circuit, a motor in said circuit for operating said driving member, manually operated means for closing the circuit at one point, a magnetic switch having its magnet in said circuit, for closing a branch of the motor circuit in shunt of the manually operated means, means operated by the driving member for automatically opening the circuit, and spring-operated means for restoring the parts to normal position and closing the circuit; substantially as described.

[Claims 6 to 22 not printed in the Gazette.]

938,502. METHOD OF WEAVING. BENJAMIN F. MCGUINESS, Worcester, Mass., assignor to Crompton & Knowles Loom Works, a Corporation of Massachusetts. Filed June 8, 1907. Serial No. 377,941.

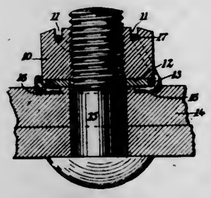
1. The method of weaving a plurality of fabrics to be cut apart, to make inner selvages, which consists in forming sheds of varying heights in the warp, the higher shed being formed at the inner selvage, inserting the main filling through the lower shed in one direction, and simultaneously inserting a selvage filling through the higher shed formed of the selvage warp on the inner edge of one fabric at one pick, the formation of new sheds, and inserting the main filling through the lower shed in the op-

posite direction, and simultaneously inserting a selvage filling through the higher shed formed of the selvage warp in the inner edge of the adjoining fabric at the second pick, the formation of new sheds, and inserting the main filling through the lower shed in the first named direction, and simultaneously inserting a selvage filling through the higher shed formed of the selvage warp on the inner edge of the first named fabric at the third pick, the formation of new sheds, and inserting the main filling through the lower shed in the opposite direction, and simultaneously inserting a selvage filling through the higher shed formed of the selvage warp on the inner edge of the adjoining fabric at the fourth pick, a selvage filling being inserted alternately in the first named fabric, without being carried into the adjoining fabric.



2. The method of weaving a plurality of fabrics to be cut apart, to make inner selvages, which consists in forming sheds of varying heights in the warp, the higher shed being formed at the inner selvage, inserting the main filling through the lower shed in one direction, and simultaneously inserting a selvage filling through the higher shed formed of the selvage warp on the inner edge of one fabric at one pick, the formation of new sheds, and inserting the main filling through the lower shed in the opposite direction, and simultaneously inserting a selvage filling through the higher shed formed of the selvage warp in the inner edge of the adjoining fabric at the second pick, the formation of new sheds, and inserting the main filling through the lower shed in the first named direction, and simultaneously inserting a selvage filling through the higher shed formed of the selvage warp on the inner edge of the first named fabric at the third pick, the formation of new sheds, and inserting the main filling through the lower shed in the opposite direction, and simultaneously inserting a selvage filling through the higher shed formed of the selvage warp on the inner edge of the adjoining fabric at the fourth pick, a selvage filling being inserted alternately in each fabric without being carried into the other fabric, and each pick of main filling being beaten up with a pick of one of the selvage fillings, alternately.

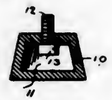
938,503. NUT-LOCK. JAMES MCILWAIN, Okawville, Ill. Filed Feb. 13, 1909. Serial No. 477,536.



1. In a nut lock, the combination of a member having an aperture therethrough and a substantially V-shaped groove in its surface near the aperture and terminating at diametrically opposite points in respect to said aperture, a washer in engagement with the surface of said member and having recesses in its opposite edges and adjacent the ends of said groove, a nut in engagement with said washer and having grooves in its outer surface, and a wire retainer disposed within the V-shaped groove in said member and extending through said recesses in the washer and through the grooves in said nut.

2. In a nut lock, the combination of a member having an aperture therethrough and a substantially V-shaped groove in its surface near the aperture and terminating at diametrically-opposite points in respect to said aperture, a bolt extending through said aperture, a washer in engagement with the surface of said member, a nut in engagement with said washer and having grooves in its outer surface, and a wire retainer disposed within said V-shaped groove in said member and through the grooves in said nut.

938,504. SHOCK-ABSORBING PAD. LEON R. NODINE, Naugatuck, Conn., assignor of one-half to Erasmus Stahl, Naugatuck, Conn. Filed Nov. 4, 1908. Serial No. 461,001.



1. A pad of the character described, comprising a top wall and a continuous circular supporting wall for the margin of said top wall, the whole being integral and of elastic material and having a flat bottom, and means whereby an article resting upon the top wall may be retained centrally thereon.

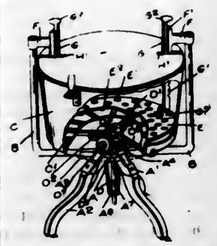
2. A pad of the character described, comprising a top wall and a continuous circular downwardly flaring supporting wall for the margin of said top wall, the lower edge of the continuous supporting wall having a connecting web with a flat under face, and means whereby an article resting upon the top wall may be retained centrally thereon.

938,505. MANUFACTURE OF PAINTS. ROBERT S. PERRY, Cave Spring, Ga. Filed May 27, 1908. Serial No. 435,266.

1. A rust-inhibiting paint or the like, owing its rust-inhibiting qualities to an organic acid radical combined with an inorganic base, such compound being freely linseed-oil-soluble, but not freely water-soluble, and having the characteristics that the metal of its base is precipitable in ammoniacal solution, as a sulfid or hydrate, by means of hydrogen sulfid; further, that the metal of its base is electronegative to iron, when placed in contact with iron and embedded in ferroxyl indicator; further, that in the presence of distilled water it does not electrically excite iron to any substantially greater extent than do similar compounds of chromium; finally, that in the presence of distilled water and iron it has a tendency to disassociation substantially as low as that which is characteristic of chromium resinate.

2. A rust-inhibiting vehicle for paint or the like, consisting of a chromium base combined with an organic acid radical, such compound being freely linseed-oil-soluble, but not freely water-soluble, substantially as set forth.

938,506. ROTARY WASHING-MACHINE. WALTER E. PERRY, Toronto, Ontario, Canada. Filed June 26, 1909. Serial No. 504,619.



1. In a device of the class described, a base or supporting member, a tub movably mounted above the same with

means for operating it, arms supported from the base and extending upward on each side thereof, brackets carried by the upper ends of the arms and extending over the upper edges of the tub and having inwardly opening guide ways, an agitator board located within the top, vertical bars hinged to the follower board and resting in the guides of the brackets, springs acting against the vertical bars for holding them in the guides, and locking means interposed between the vertical bars and guides to prevent relative vertical movement.

2. In a device of the class described, the combination with a central base member having L-shaped arms extending upwardly to each side thereof and an agitator board, of a member extending inwardly from each of the L-shaped arms and provided at its inner end with a U-shaped vertical way having a toothed projection extending across the way intermediate of its height, bars provided with toothed racks designed to engage with the projection of the castings and a spring hinge connection between the bottom of the bars and the agitator board as and for the purpose specified.

3. In a machine of the class described, the combination with a base member and an oscillating tub, of means interposed between the base member and the tub for imparting a vertical movement to the tub, an agitator board supported within the tub, a plurality of bars extending upwardly from the agitator board having vertical racks formed therein, a spring hinge connection between the bottom of each bar and the agitator board, L-shaped bars extending upwardly from the base member, brackets extending inwardly from the L-shaped bars each provided with a toothed projection designed to engage with one of the teeth of the tooth rack as and for the purpose specified.

938,507. TYPE-WRITING MACHINE. EMIL L. PFUNDER, Hartford, Conn., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of New Jersey. Filed Sept. 9, 1908. Serial No. 452,300.



1. In a typewriting machine, the combination with a carriage, carriage feeding devices, and releasing means, of a centrifugally governed braking device permanently connected to the carriage, but effective to retard the carriage appreciably only when the carriage is released from its feeding devices and rapidly advanced in letter space direction.

2. In a typewriting machine, the combination with a carriage having a releasable rack, carriage feeding devices, and a spring barrel connected to the carriage and having a gear, of a pinion permanently in mesh with said gear and provided with a clutch member, a rotary braking device also having a clutch member, and a spring tensioned to normally couple said clutch members to operate the braking device when the carriage rack is released from the carriage feeding devices and the carriage rapidly advanced in letter space direction.

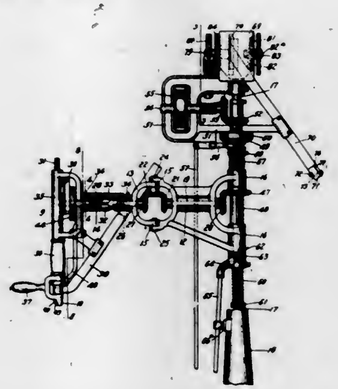
3. In a typewriting and tabulating mechanism, the combination with a carriage, carriage feeding devices, and a tabulator key having means to release the carriage, of a pinion permanently connected to the carriage to rotate during the to and fro movements of the latter, and provided with a clutch member, a rotary braking device also provided with a clutch member, and a spring tensioned to normally couple the clutch members to operate the braking mechanism when the carriage is fed in letter space direction.

4. In a typewriting and tabulating mechanism, the combination with a carriage having a rack, carriage feeding devices, and a key having means to release the carriage rack, of a pinion permanently connected to the carriage to rotate during the to and fro movements of the latter and provided with a clutch member, a rotary braking device also provided with a clutch member, a spring tensioned to normally couple the clutch members to operate the braking device when the carriage is fed in letter space direction, but the braking device remaining idle when the carriage is return to begin a new line.

5. In a typewriting and tabulating mechanism provided with a carriage, carriage feeding devices, and a tabulator key having means to release the carriage, the combination of a pinion permanently connected to the carriage and provided with a toothed clutch member, a centrifugal-governing and frictional-braking device also provided with a toothed clutch member, and a spring tensioned to always couple the clutch members to operate the governing and braking device when the carriage is fed in letter space direction, the teeth of the pinion clutch member riding over the teeth of the other clutch member, and the braking device remaining idle, when the carriage is returned to begin a new line.

[Claims 6 to 13 not printed in the Gazette.]

938,508. PORTABLE POWER-TACKER. MERTON D. PHELAN, Dorchester, Mass., assignor, by mesne assignments, to Manufacturers Machine Company, Montclair, N. J., a Corporation of New Jersey. Filed Oct. 19, 1906. Serial No. 339,633.



1. The combination with a tack driver and a support therefor adapted to permit it to be freely moved in the desired direction, of a tacker support above the nozzle end and adapted to rest upon the wipers of a lasting machine.

2. The combination with a tack driver and a support therefor adapted to permit it to be freely moved in the desired direction, of a tacker support above the nozzle end and a handle connected to the nozzle.

3. The combination with a tacker having a rotatively mounted nozzle and a support therefor adapted to permit it to be moved in the desired direction, of a handle connected to the tacker nozzle.

4. The combination with an automatic tacker having a rotatively mounted nozzle and a support adapted to permit the tacker to be moved in the desired direction, of a plurality of handles, one of which is connected to the nozzle, rotatively mounted on said tacker for moving and guiding the tacker and said nozzle into operative position.

5. The combination with an automatic tacker and a support therefor adapted to permit it to be moved in the desired direction, of a tacker support rotatively mounted on said tacker for positioning the same.

[Claims 6 to 21 not printed in the Gazette.]

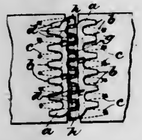
938,509. PUZZLE. LEON W. PULLEN, Philadelphia, Pa. Filed May 14, 1908. Serial No. 432,760.



1. A puzzle consisting of a magnetized encircling body, a receptacle containing said body and having pockets inclosed thereby, a series of movable objects subject to magnetic influence located in said receptacle and encircled by said body.

2. A puzzle, consisting of a magnetized ring, a receptacle containing said ring and having pockets therein, a series of movable objects subject to magnetic influences located in said receptacle and encircled by said ring and adapted to be seated in the respective pockets thereof.

938,510. BELT-COUPLING. GEORGE E. PURPLE and ALBERT B. BEACH, Chicago, Ill., and WILLIAM H. TROUT, Milwaukee, Wis., assignors to Flexible Steel Lacing Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 23, 1907. Serial No. 394,190.



1. As a new article of manufacture, a metallic belt coupling member formed in one piece with two sets of primarily diverging prongs having inwardly and oppositely bent clenchable points and with intermediate hinge loops connected by a cross strip at a distance from the bends of the prongs, the points of one set of prongs alternating with the shanks of the other set and arranged to pass into and to be clenched in the spaces between said shanks, substantially as described.

2. A belt coupling composed of two members, each formed integrally with two sets of oppositely bent clenchable prongs and with intermediate hinge loops, the prongs of one set alternating with and being arranged to pass between those of the other set and the loops of one member alternating with and fitting between those of the other member, and a pin adapted to pass loosely through said loops and pivotally connect the two members each of which has an inward projection on one of its terminal loops for retaining said pin in place, substantially as described.

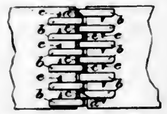
3. A belt coupling comprising two members each formed with two sets of oppositely and inwardly bent clenchable prongs and with intermediate centrally widened hinge loops adapted to interlock with those of the other member, and a pivot pin adapted to pass loosely through and form a bearing for the loops of both members, substantially as described.

4. A belt coupling comprising two members each formed with two sets of oppositely and inwardly bent clenchable prongs and with intermediate centrally widened hinge loops, adapted to interlock with those of the other member, each set of prongs being connected adjacent to the loops by a cross strip, and the necks at the ends of the loops of each member being adapted to pass transversely to the plane of the coupling between the widened portions of the loops of the other member, and a pivot pin adapted to pass loosely through and form a bearing for the loops of both members, substantially as described.

938,511. BELT-COUPLING. GEORGE E. PURPLE, Chicago, Ill., assignor to Flexible Steel Lacing Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 3, 1908. Serial No. 451,482.

1. A sheet metal belt coupling formed with prongs connected by a cross piece and having points bent into planes approximately perpendicular to that of the shanks of the prongs and lengthwise thereof, substantially as described.

2. A sheet metal belt coupling formed integrally with prongs connected by a cross piece and terminating in laterally clenchable points in planes approximately perpendicular to and lengthwise of the shanks of the prongs which are adapted to lie flatwise and lengthwise on a belt end to which the coupling is applied, substantially as described.



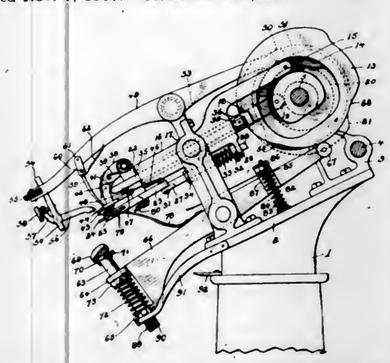
3. A sheet metal belt coupling formed integrally with two sets of prongs connected by a cross piece and terminating with points in planes approximately perpendicular to and lengthwise of the shanks of the prongs, substantially as described.

4. A metal belt coupling having prongs integrally formed with a connecting cross piece and terminating in planes approximately perpendicular to and lengthwise of their shanks with flat points which are clenchable transversely to said shanks, substantially as described.

5. A sheet metal belt coupling having prongs integrally formed with and connected by a cross piece and terminating in planes substantially perpendicular to and lengthwise of their shanks and flush with one edge thereof in laterally clenchable points, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

938,512. LASTING-MACHINE. CHARLES F. PYM, Essex, Ontario, Canada, assignor of one-half to Krentler Bros. Co., Detroit, Mich., a Corporation of Michigan. Filed Nov. 6, 1907. Serial No. 401,015.



1. In a lasting machine, the combination with wiper plates having formed edges to engage the work, of levers to operate said wipers, and means connecting the ends of said levers to said wipers and permitting a limited movement of said wipers relative to said levers and independent thereof.

2. In a lasting machine, the combination with wiper plates, of levers for carrying and actuating said plates, and means for attaching the wipers to the levers and permitting the same to be moved laterally thereon by the contact of the work with said plates.

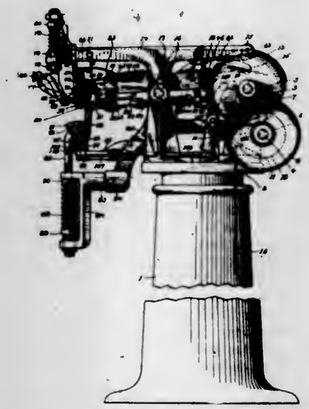
3. In a lasting machine, the combination with crossed levers pivotally connected at their point of intersection and means for turning the same on their pivot, of wiper plates each pivotally attached to one end of one of the levers and having a limited sliding movement thereon.

4. In a lasting machine, the combination with levers and means for operating the same, of pivotally connected wiper plates carried by said levers and having elongated openings, pins passing through said levers and openings and forming the sole means for connecting the wipers to the machine and permitting the wipers to be moved upon the levers by contact with the heel or toe of a last.

5. In a lasting machine, the combination with crossed levers pivotally connected at their point of intersection, of pivotally connected wiper plates having formed edges to engage the work and each provided with an elongated opening extending substantially in a direction longitudinally of said levers, and pins extending through the ends of said levers and through said openings to pivotally attach said plates to the levers.

[Claims 6 to 45 not printed in the Gazette.]

938,513. LASTING-MACHINE. CHARLES F. PYM, Essex, Ontario, Canada, assignor of one-half to Krentler Brothers Co., Detroit, Mich., a Corporation of Michigan. Filed Sept. 23, 1908. Serial No. 454,403.



1. In a machine of the character described, wipers adapted to embrace the heel or toe of a shoe, power means for moving said wipers, and means for automatically closing the wipers in timed relation to their other movement and independent thereof.

2. In a machine of the character described, means for supporting a last, wipers adapted to engage the heel or toe of a boot or shoe upon the last, means for changing the relative positions of the last-support and wipers, means for imparting a reciprocating movement to the wipers to project the same over the sole of the boot or shoe, and means operating independently of and in timed relation to the movement of the reciprocating means to cause the wipers to close upon the heel or toe below the sole and wipe the upper up and over the edge of the sole.

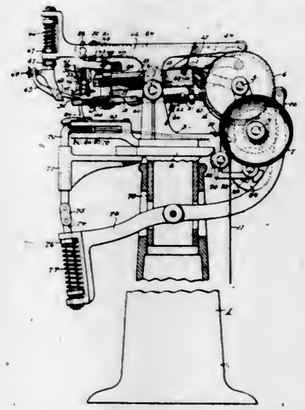
3. In a lasting machine, wipers, means for imparting a reciprocating movement to said wipers, means for opening and closing said wipers independently of the reciprocating means, and power driven means for actuating said reciprocating means and said opening and closing means to cause said wipers to automatically open and close and to reciprocate in timed relation.

4. In a machine of the character described, wipers adapted to embrace the heel or toe of a boot or shoe, yielding means to yieldingly hold the said wipers closed upon the heel or toe during the process of lasting, and means for positively opening said wipers against the action of said yielding means.

5. In a machine of the character described, wipers adapted to embrace the heel or toe of a boot or shoe, means for automatically moving said wipers, a spring to close said wipers upon the heel or toe and yieldingly hold the same in closed position, and means operating in timed relation to the means for moving said wipers to control the operation of said spring.

[Claims 6 to 40 not printed in the Gazette.]

938,514. LASTING-MACHINE. CHARLES F. PYM, Essex, Ontario, Canada, assignor of one-half to Krentler Brothers Company, Detroit, Mich., a Corporation of Michigan. Filed May 3, 1909. Serial No. 493,684.



1. In a machine of the character described, pivoted wipers having formed edges to engage the work, means for actuating said wipers to close the same upon the work, a member having a side conforming substantially to the outline of the heel or toe of a last supported with said side adjacent to said edges of the wipers, and means for holding the edge of a shoe upper upon the last in contact with said side.

2. In a machine of the character described, pivoted wipers having formed edges to engage the work, means for actuating said wipers to close the same upon the work, a member supported independently of the opening and closing movement of said wipers adjacent to the formed edges thereof, and means for clamping the edge of a shoe upper to said member.

3. In a machine of the character described, pivoted wipers, means for actuating said wipers to close the same upon the work, a member supported independently of said wipers and their opening and closing movement adjacent to the upper side of said wipers and having a side conforming substantially to the outline of the heel or toe of a last, and means for clamping the edge of a shoe upper upon the last, to said member.

4. In a machine of the character described, wiper plates, means for carrying and actuating said plates, a clamping plate having an edge conforming substantially to the outline of a heel or toe of a last and carried by said supporting means for the wipers with its formed edge in a position to be engaged by the upstanding edge of a shoe upper upon the last, and means for clamping the said edge of the shoe upper to the formed edge of the clamping plate.

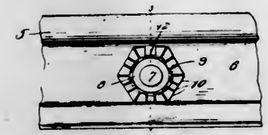
5. In a machine of the character described, the combination of wiper plates, crossed levers to carry and actuate said wiper plates, means for supporting the crossed levers, a clamping plate rigidly attached to said carrying means and supported thereby with one edge adjacent to the end of a last having a shoe upper thereon to be engaged by the wiper plates, movable clamping means for clamping the upstanding edge of the shoe upper to the clamping plate, and means for operating said clamping means in timed relation to the movement of the crossed levers.

[Claims 6 to 30 not printed in the Gazette.]

938,515. NUT-LOCK. JOSEPH E. ROBINSON, Wheeling, W. Va. Filed Mar. 9, 1907. Serial No. 361,568.

1. In a nut lock the combination with a bolt and its nut, of a locking washer adapted for transverse adjustment on said bolt, and slit from its outer edge to form a surrounding series of tongues adapted to be bent down

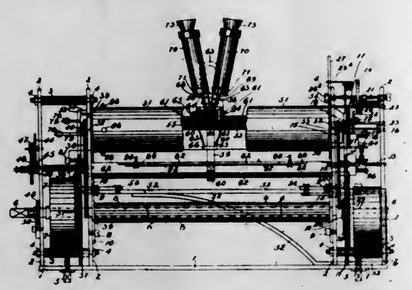
on the nut, said tongues being formed into groups presenting each a straight locking edge, substantially as and for the purpose set forth.



2. In a nut lock, the combination with a bolt and its nut, of a washer transversely adjustable on the bolt and having a plurality of outwardly projecting tongues surrounding the same and forming surrounding groups each presenting a straight locking edge, said tongues being forwardly inclined from a point beyond the nut bearing portion of the washer, substantially as and for the purpose set forth.

3. In a nut lock, the combination with a bolt and its nut of a locking washer transversely adjustable on the bolt and having a plurality of locking tongues formed into surrounding groups, each presenting a straight locking edge, said tongues extending within the nut bearing portion of the washer and being inclined forwardly from a point outside said bearing portion, substantially as and for the purpose set forth.

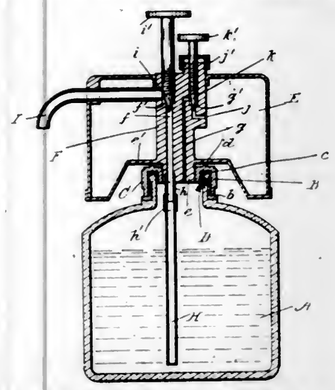
938,516. APPARATUS FOR RECORDING BELL OR LIKE SIGNALS, ESPECIALLY APPLICABLE TO MINES. JOHN RUSSELL, Langlaagte, near Johannesburg, Transvaal, assignor of one-half to John Hugh Milligan, Langlaagte, Transvaal. Filed Jan. 27, 1908. Serial No. 412,875.



1. Apparatus of the character described comprising in combination a cylinder which serves for moving the record strip, mechanism for rotating said cylinder at a suitable rate of speed, an electric circuit for the outward signals and another circuit for the return signals, a record marking device for each circuit, means for traversing the marking devices longitudinally of the cylinder said means comprising a screw-threaded spindle engaging a nut connected with the marking devices, means for disconnecting said nut from said spindle, a pair of coils interposed in each circuit, a slidable rod for each circuit, said rods being adapted when attracted by their magnets to allow the marking device to mark the record strip and means for returning said rods and marking devices to their normal position as set forth.

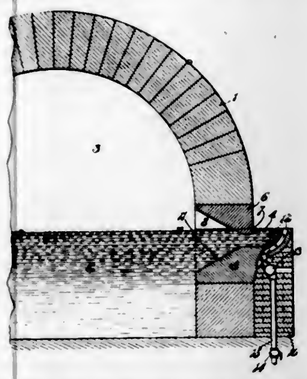
2. Apparatus of the character described comprising in combination a cylinder which serves for moving the record strip, springs for driving said cylinder at both ends at a suitable rate of speed, a timepiece actuated by said springs, a marking device, means for traversing said marking device longitudinally of the cylinder, a coil interposed in the electric circuit, and means actuated by said coil for actuating the marking device to mark the record strip, for each stroke of the signal, as set forth.

938,517. BEVERAGE-SIPHON. HENRY J. SCHMITT, Jersey City, N. J. Filed Sept. 11, 1908. Serial No. 452,592.



In a beverage siphon, the combination, with a receptacle for liquid having a neck at its top, of a reservoir for gas provided with a stem at its bottom, a detachable coupling device for connecting the said stem to the said neck, a valve-casing forming a continuation of the said stem and extending within the central portion of the gas reservoir between its bottom and top, said valve-casing and stem being provided with two parallel passages for gas and for liquid respectively and the said valve-casing having also a short lateral passage between its gas passage and the gas reservoir, two separate valves controlling the outlet of liquid and the inlet of gas through the said passages, an outlet pipe for liquid connected to the lower part of the liquid outlet passage and depending within the said receptacle, and an outlet spout for liquid connected to the upper part of the said outlet passage.

938,518. GATHERING-POOL FOR GLASS-TANKS. ALEXANDER L. SCHRAM, Hillsboro, Ill. Filed Dec. 18, 1908. Serial No. 468,164.



1. A glass-tank having an outlet opening of gradually decreasing size in its wall and a gathering-pool on the outside of said tank and in communication with said outlet opening; substantially as described.

2. A glass-tank having an outlet opening in its wall and a gathering-pool on the outside of said tank in communication with said outlet opening, said opening gradually decreasing in size toward the exterior of said wall and the top of said gathering-pool being on a plane above the top of said outlet opening at the exterior of said wall; substantially as described.

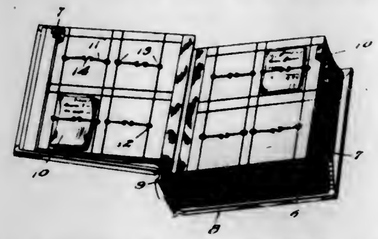
3. A glass-tank having a gathering-pool in communication with the interior thereof, said gathering-pool comprising a hollowed block adapted to be fixedly arranged in the wall of said tank and having a concaved portion projecting outside thereof; substantially as described.

4. A glass-tank having a gathering-pool in communication with the interior thereof, said gathering-pool comprising a block adapted to be arranged in the wall of said tank and having a concaved portion projecting outside thereof, the bottom wall of said block being downwardly inclined from said concaved portion toward the interior of said tank; substantially as described.

5. A glass-tank having a gathering-pool in communication with the interior thereof, said gathering-pool comprising a concaved block adapted to be arranged in the wall of said tank and having a portion projecting outside thereof, the depth of the concavity in said outwardly-projecting portion being less than the depth of said concavity at the inner end of said block; substantially as described.

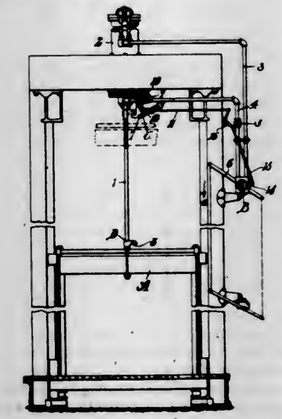
[Claims 6 to 22 not printed in the Gazette.]

938,519. FILE-HOLDER. WILLIAM C. SHANK, Mont Alto, Pa. Filed Feb. 24, 1909. Serial No. 479,690.



A file holder comprising a book with stiff leaves, each of which leaves has a plurality of independent customers' spaces upon both its surfaces, the spaces being opposite each other, and openings therethrough at the sides of the spaces, rubber loops extending through the said openings and having their ends projecting upon both sides thereof, and detachable fastening members connecting the said ends of opposite loops across the spaces between the openings on each side of the leaves.

938,520. LOCKING MECHANISM FOR ELEVATORS. GEORGE F. STEEDMAN, St. Louis, Mo. Filed Mar. 1, 1909. Serial No. 480,659.



1. In an elevator, a device for controlling the medium that actuates the cage or car of the elevator, and means for preventing said device from being manipulated to cause the cage to descend from its upper level when said cage contains an excessive load.

2. In an elevator, a device that locks the cage or car of the elevator when it reaches its upper level, and means for preventing said device from releasing said cage when it contains an excessive load.

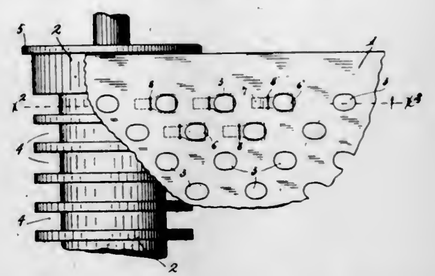
3. In an elevator, mechanism for locking the cage or car of the elevator when it reaches its upper level, a device for controlling a medium that actuates said cage, a connection between said device and mechanism, and means for preventing said device from being operated to cause the cage to descend when said cage carries an excessive load.

4. A locking mechanism for pneumatic elevators, comprising a member that travels with the cage of the elevator, and a device coöperating with said member to prevent the cage from descending from its upper level, one of said parts being so constructed that said parts cannot be disengaged from each other when the cage contains an excessive load, or when the pneumatic pressure that sustains the cage in its elevated position drops below a certain degree; substantially as described.

5. A locking mechanism for elevators, consisting of a pivotally mounted device that is adapted to move into an operative position when the cage of the elevator ascends, and a member traveling with the cage and adapted to coöperate with said locking device to prevent the cage from descending until said locking device is moved into an inoperative position, said device being provided with means which prevents it from being moved into an inoperative position when the cage contains an excessive load; substantially as described.

[Claims 6 to 22 not printed in the Gazette.]

938,521. SORTING-BELT. OLE SUTTER, Isanti, Minn. Filed Mar. 17, 1909. Serial No. 484,038.



1. The combination with a sorting belt or apron having a multiplicity of pockets formed by perforations therein, of pivoted gravity held fingers applied to said belt with their free ends projecting under and constituting yielding bottoms to the said pockets.

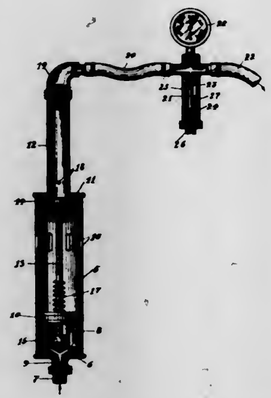
2. The combination with grooved rollers, of a sorting belt mounted to run over said rollers and provided with a multiplicity of gravity held fingers pivotally attached to said belt with their free ends constituting yielding bottoms to said pockets and arranged to pass through the grooves of said rollers.

3. The combination with a sorting belt having a multiplicity of pockets formed by perforations therein, of a multiplicity of gravity held fingers intermediately pivoted to said belt with their free ends constituting yielding bottoms to said pockets.

4. The combination with a sorting belt having a multiplicity of pockets formed by perforations therein, of a multiplicity of bent gravity held fingers having weighted ends, and staples passed through seats in the intermediate portions of said fingers and clenched to said belt adjacent to said pockets, the free ends of said fingers constituting yielding bottoms to the said pockets.

5. The combination with circumferentially grooved rollers, of a sorting belt arranged to run over said rollers and provided with a multiplicity of pockets formed by perforations therein, and a multiplicity of gravity held fingers intermediately pivoted to said belt with their free ends constituting yielding bottoms to said pockets and with their weighted ends arranged to pass through the grooves of said rollers.

938,522. PUMP FOR AUTOMOBILE-TIRES. HADWEN SWAIN, San Francisco, Cal. Filed Aug. 8, 1907. Serial No. 387,643.



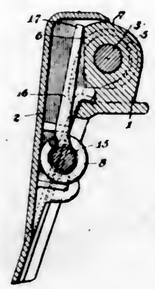
1. A device for inflating automobile tires comprising two connected cylinders, one of which is larger than the other, said smaller cylinder having ports in the wall thereof near its connection with the larger cylinder; pistons in said cylinders connected by a stem; a connection from the upper end of the smaller cylinder to the automobile tire; and means to connect the lower end of the larger cylinder into the spark plug opening of one of the cylinders of a multiple cylinder engine, said connecting means having a channel extending therethrough opening into the larger cylinder.

2. A device for inflating automobile tires comprising two connected cylinders in alinement, one of which is larger than the other, said cylinders having ports in the walls thereof near their connection with each other; pistons in said cylinders connected by a stem; a connection from the upper end of the small cylinder to the automobile tire; and means to connect the lower end of the larger cylinder into the spark plug opening of one of the cylinders of a multiple cylinder engine, said connecting means having a channel extending therethrough opening into the lower end of the larger cylinder.

3. A device for inflating automobile tires comprising two connected cylinders one of which is larger than the other, said cylinders having ports in the walls thereof near their connection with each other; pistons in said cylinders connected by a stem; an outwardly opening check valve in the upper end of the smaller cylinder; a connection from the upper end of the smaller cylinder to the automobile tire; a relief valve on said connection; and means to connect the lower end of the larger cylinder into the spark plug opening of one of the cylinders of a multiple cylinder engine, said connecting means having a channel extending therethrough opening into the lower end of the larger cylinder.

4. A device for inflating automobile tires comprising two connected cylinders in alinement one of which is larger than the other, said cylinders having ports in the walls thereof near their connection with each other; pistons in said cylinders; a stem connecting said pistons; a spiral spring aroond said stem within the larger cylinder; an outwardly opening check valve in the upper end of the smaller cylinder; a connection from the upper end of the smaller cylinder to the automobile tire; a relief valve on said connection; a pressure gage on said connection; a dash pot within the larger cylinder one portion of which is carried by the piston and the other by the cylinder head; and means to connect the lower end of the larger cylinder into the spark plug opening of one of the cylinders of a multiple engine, said connecting means having a channel extending therethrough opening into the lower end of the larger cylinder.

938,523. TORSION-LID FOR JOURNAL-BOXES. THOMAS H. SYMINGTON, Baltimore, Md. Filed Feb. 18, 1909. Serial No. 478,616.



1. In combination, a journal box and a hinged lid, a cam secured to one of said members adjacent the hinge, a helical torsion spring mounted on the other, a rigid lever pivotally mounted at one end within the helix and projecting therefrom to the cam surface, the lid and the lever swinging in substantially parallel planes, the spring engaging the arm to press it against the cam surface.

2. In combination, a journal box and a lid, one having positioning surfaces at an angle corresponding to the open and closed positions of the lid, a helical torsion spring mounted on the other, a rigid lever pivotally mounted at one end within the helix and projecting therefrom toward the positioning surfaces, the spring engaging the arm to press it against one surface in open and the other in closed position of the lid.

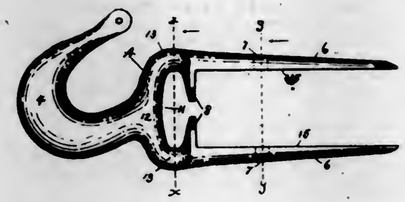
3. In combination, a journal box and a swinging lid, a cam secured to one of said members adjacent the axis about which such swinging takes place, a helical torsion spring mounted on the other member, the helix parallel to the said axis, a rod inclosed by the helix, an arm secured to the rod and projecting radially from the helix, a portion of the spring bearing against the arm to press it against the cam surface.

4. In combination, a journal box and a swinging lid, a cam secured to one member adjacent the axis about which the lid swings provided with a plurality of positioning surfaces, a helical torsion spring mounted on the other member, a rod inclosed by the helix, an arm projecting radially from the helix and secured to the rod, a portion of the spring bearing against the arm to press it against the positioning surfaces.

5. In combination, a journal box and a swinging lid, one member provided with a positioning surface, a spring composed of two helical coils and an intermediate connecting portion mounted on the other member, a rod inclosed by the helices, and an arm projecting radially from the rod and engaged by the intermediate connecting portion of the spring whereby it is pressed against the positioning surfaces.

[Claims 6 to 8 not printed in the Gazette.]

938,524. WHIFFLETREE CLEVIS-HOOK. WILLIAM S. THOMSON, Plantsville, Conn., assignor to H. D. Smith and Company, Plantsville, Conn., a Corporation. Filed Feb. 23, 1909. Serial No. 479,593.



1. A clevis hook, comprising a hook, two substantially parallel fork branches having plates adapted to receive the part of the wagon on which the hook is to be mounted, and an open connecting loop intermediate the said hook and the said plates.

2. In a clevis hook having a hook and two plates provided with stop flanges, a compressible connecting loop intermediate the said hook and the said plates.

3. An adjustable clevis hook, comprising a hook, confronting plates having stop flanges, and a connecting loop intermediate the said hook and said plates having a point of reduced dimensions between the said hook and the said plates.

4. A clevis hook, having a hook at one end mounted on the apex of a connecting loop, the arms of said connecting loop of relatively reduced dimensions, the ends of said loop supporting outwardly projecting substantially parallel plates, the said plates provided at the points of attachment with the said connecting loop with inwardly projecting stop flanges, said stop flanges being located opposite one another and separated at their confronting ends by an appreciable space.

5. A whiffletree clevis hook comprising a pair of substantially parallel securing plates disconnected from each other at one end, a hook in front of the opposite ends of the said plates, and a bendable connecting loop between the shank of the said hook and the adjacent front ends of the said plates, the said loop being short in the longitudinal direction of the said plates and longer in the transverse direction thereto, whereby the hook is close to the said front ends and the distance between the said plates may be varied by bending the said short connecting loop.

[Claim 6 not printed in the Gazette.]

938,525. ELECTRIC MOUTH-MIRROR. BURTON E. TURNEY, Bridgeport, Conn. Filed July 6, 1908. Serial No. 442,006.

1. An instrument of the character described comprising a carrier having electrical connections and an internal shoulder, a lamp having a base threaded to engage the carrier and an external shoulder, a packing ring between said shoulders, for the purpose set forth, a tubular flaring reflector engaging the carrier and a mirror carried by the reflector.

2. In an instrument of the character described, the combination with a lamp, a mirror, a reflector and a shank by which said parts are carried, of a hand piece secured to the shank and having a lining sleeve in the circuit, a spring also in the circuit and adapted to engage the sleeve and an oscillating sleeve having a screw engaging the spring to open and close the circuit.

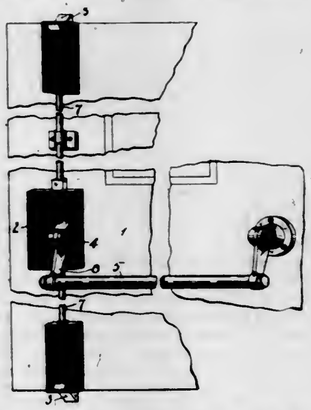
3. In an instrument of the character described, the combination with a lamp, a mirror, a reflector and a shank by which said parts are carried, of a hand piece secured to the shank and having a lining sleeve in the circuit, a spring also in the circuit which is socketed in the shank and comprises arms, one of which is adapted to engage the sleeve and the other is insulated therefrom, and an oscillating sleeve engaging said spring to open and close the circuit.

4. In an instrument of the character described, the combination with a lamp, a mirror, a reflector and a shank by which said parts are carried, of a hand piece secured to the shank and having a lining sleeve in the circuit, a



U-shaped spring which is also in the circuit and is socketed in the shank, one arm of said spring being adapted to engage the spring and the other arm insulated therefrom, and means acting on the spring to open and close the circuit.

938,526. PANIC-BOLT. HENRY G. VOIGHT, New Britain, Conn. Filed Apr. 7, 1909. Serial No. 488,423.



1. In a panic door bolt, a pivotally mounted latch-bolt, a support therefor, means for locking the latch-bolt against rotation upon its pivotal support, means for releasing said latch bolt from said locking means and means for retracting the latch bolt.

2. In a panic door bolt, a pivotally mounted latch bolt, a support therefor, means for locking the latch bolt against rotation on its pivotal support, means for releasing said latch bolt from said locking means, and means for retracting said latch bolt, all of said means being dependently connected.

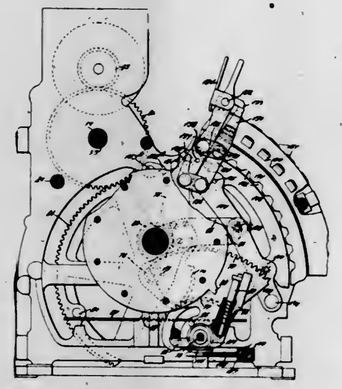
3. In a panic door bolt, a pivotally mounted latch-bolt, a support therefor, means for locking the latch-bolt against rotation upon its pivotal support, means adapted to retract said latch-bolt support and latch-bolt, both of said means being dependently connected, and a single operating rod for unlocking said latch bolt and actuating in one direction said latch-bolt support and latch-bolt.

4. In a panic door bolt, a pivotally mounted latch-bolt, a support therefor, means for locking the latch-bolt against rotation upon its pivotal support, means adapted to retract the support for the latch-bolt, both of said means being dependently connected, a single operating rod for unlocking said latch bolt and actuating in one direction said latch-bolt support and latch-bolt, and a spring for actuating in one direction said latch bolt and support.

5. In a panic door bolt, a pivotally mounted latch-bolt, a slide support therefor, a support for the slide, means for locking the latch-bolt against rotation upon its pivotal support, and means located on the face of the door and operatively connected with said support for retracting the support for the latch bolt by a movement of the same toward or from the door.

[Claims 6 to 10 not printed in the Gazette.]

938,527. CASH-REGISTER. EDWARD J. VON PEIN, Dayton, Ohio, assignor to The National Cash Register Company, Dayton, Ohio, a Corporation of Ohio (incorporated in 1906). Filed Nov. 10, 1906. Serial No. 342,887.



1. In a cash register, the combination with means in the register for retaining a segregated analysis of transactions, means for determining under what classification transactions shall be entered, a totalizing device, means for preventing the operation of said totalizing device when transactions of desired classes are entered, and devices for manually adjusting said preventing means to cooperate with the entry of transactions of other classes.

2. In a cash register, the combination with a plurality of totalizers, an operating mechanism therefor, and a lever for bringing any desired totalizer into operative relation with the operating mechanism, of a main totalizer constructed to be also actuated by said operating mechanism, means controlled by said lever for preventing operation of said main totalizer when some of the other totalizers are operated and devices for manually adjusting said preventing means to coöperate with the main totalizer in any desired position of said lever.

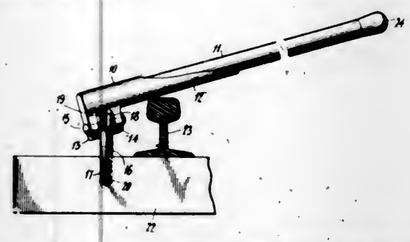
3. In a cash register, the combination with a plurality of accounting devices, of an operating mechanism therefor, means for establishing an operative relation between any desired accounting device and the operating mechanism, an additional accounting device normally operable in correspondence with each of the other accounting devices, and means manually adjustable to prevent the operation of the additional accounting device in connection with any one or more of the other accounting devices.

4. In a cash register, the combination with a plurality of accounting devices and an operating mechanism common thereto, of a lever for determining which device shall be operated, a main registering device, and adjustable pins and a device controlled by said lever coöperating with said pins to prevent operation of said main registering device when any one or more desired accounting devices are to be operated.

5. In a cash register, the combination with a plurality of accounting devices and an operating mechanism common thereto, of a movable means for determining which device shall be operated, a registering device, means for operating same, and a device positioned in accordance with the position of said movable means and operated at each operation of the cash register for controlling said operating means for said registering device.

[Claims 6 to 28 not printed in the Gazette.]

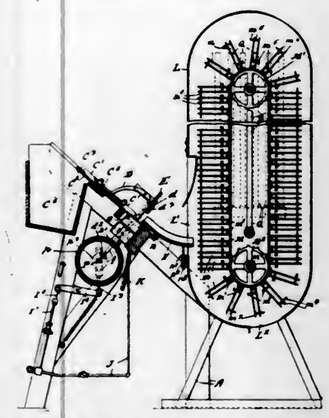
938,528. COMBINED TIE LIFTER AND HOLDER. THOMAS WARREN, Balboa, Panama. Filed Aug. 2, 1909. Serial No. 510,746.



1. In an implement of the class described a socket having a guard portion extending from one end and with ears depending from the other end, the ears being perforated to receive a transverse pin, a stock secured in said socket and engaging in said guard portion, and reversely curved hooks swinging from said pin and having terminal points, said socket being adapted to bear over a railway rail and said hooks being adapted to engage a railway tie.

2. An implement of the class described comprising a socket having depending spaced ears transversely of the socket, a stock supported in said socket, a pin extending through said spaced ears, and reversely arranged hooks having terminal points and mounted to swing upon said pin and operating transversely of the socket and the stock.

938,529. CAN-COVER-COATING MACHINE. GEORGE W WEBER and FELIX EBERHART, New York, N. Y., and EDWIN V. SWANGREN, Maywood, Ill., assignors to American Can Company, New York, N. Y., a Corporation of New Jersey. Filed Oct. 31, 1906. Serial No. 341,387.



1. In a machine for coating or lining the seaming flanges of can heads or covers with packing composition,

the combination with a drying chamber, of a plurality of movable can cover carriers therein furnished each with a series of pockets or shelves for receiving the coated covers, a plurality of rotary holders, a plurality of can cover feed chutes, a plurality of ejectors, a plurality of upper chucks for clamping the covers against the rotary holders, a plurality of packing composition discharge nozzles, a plurality of pumps, a tank or receptacle for the packing composition, a plurality of return pipes below the discharge nozzles, and a plurality of connecting chutes extending from the rotary holders to the carriers of the drier, substantially as specified.

2. In a machine for coating the seaming flanges of can covers with packing composition, the combination with a feed chute for the covers, of a movable feeder, a rotary holder, a discharge nozzle for the packing composition, a tank or receptacle therefor and a pump for forcing the packing composition in measured quantity through the discharge nozzle upon the seaming flange of the cover as the cover is rotated by said holder with its seaming flange under said nozzle, substantially as specified.

3. In a machine for coating the seaming flanges of can covers with packing composition, the combination with a feed chute for the covers, of a movable feeder, a rotary holder, a discharge nozzle for the packing composition, a tank or receptacle therefor and a pump for forcing the packing composition in measured quantity through the discharge nozzle upon the seaming flange of the cover as the cover is rotated, and an upper movable chuck for clamping the cover against the rotary holder, said nozzle being above the seaming flange of the cover as the cover is rotated by said holder, substantially as specified.

4. In a machine for coating the seaming flanges of can covers with packing composition, the combination with a feed chute for the covers, of a movable feeder, a rotary holder, a discharge nozzle for the packing composition, a tank or receptacle therefor, a pump for forcing the packing composition in measured quantity through the discharge nozzle upon the seaming flange of the cover as the cover is rotated, and a movable ejector fitting within the rotary holder for discharging the coated cover from the holder, said nozzle being above the seaming flange of the cover as the cover is rotated by said holder, substantially as specified.

5. In a machine for coating the seaming flanges of can covers with packing composition, the combination with a feed chute for the covers, of a movable feeder, a rotary holder, a discharge nozzle for the packing composition, a tank or receptacle therefor, a pump for forcing the packing composition in measured quantity through the discharge nozzle upon the seaming flange of the cover, and a movable ejector fitting within the rotary holder for discharging the coated cover from the holder, said ejector having an upwardly projecting stop or lip for the cover to strike against as it slips down the feed chute, substantially as specified.

[Claims 6 to 47 not printed in the Gazette.]

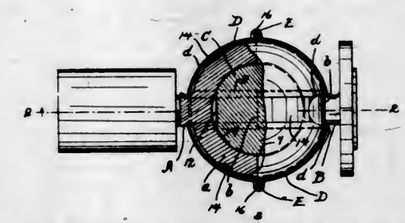
938,530. LOOSE-LEAF BINDER. EDGAR P. WEBSTER, Bridgeport, Conn., assignor to The National Blank Book Co., Holyoke, Mass., a Corporation of Massachusetts. Filed June 15, 1909. Serial No. 502,241.



1. A loose leaf binder, comprising a bottom casing having upstanding sides that terminate in inwardly extending edges, arms having grooves in their outer surfaces which engage with said edges and provided with inwardly extending grooved lugs and terminating in complementary arched hooks, a pintle lever extending lengthwise of said casing through the grooves in the lugs and provided with offset portions, and the cap plate which covers said casing.

2. In a loose leaf binder, the combination of the casing having upstanding sides that terminate in inwardly extending edges, a pair of arms having grooves lengthwise of their outer surfaces which grooves are engaged with said edges, said arms terminating in complementary arched hooks and provided with inwardly extending grooved lugs that have interlocking tongues and notches, a pintle lever extending lengthwise of the casing through the grooves in said lugs and provided with offset portions adjacent to said lugs, and the cap plate which covers said casing, said lever being provided with a suitable handle whereby the turning of the lever in reverse directions will cause said offset portions to impinge against the casing and cap plate thereby opening and closing the hooks.

938,531. SHAFT-COUPLING. LEROY A. WESTMAN, Cleveland, Ohio. Filed Dec. 23, 1908. Serial No. 468,894.



1. In a shaft-coupling, the combination, with a ball provided with a recess formed in and extending circumferentially of the ball in one plane and another recess formed in and extending circumferentially of the ball in a plane which is at a right angle to the first-mentioned plane, and two segments engaging and extending circumferentially of the different recesses respectively and forming a member of the different shaft-sections respectively which are to be coupled together, of a spherical casing which incases the aforesaid ball and has two slots formed in diametrically opposite sides respectively of the casing and extending circumferentially of the casing in different planes respectively which are at a right angle to each other and arranged to accommodate the location of the different shaft-sections respectively and the adjustment of the latter relative to each other, said casing being enough larger in internal diameter than the external diameter of the ball at the sides of the aforesaid recesses to form lubricant-receiving chambers between the ball and the casing at the sides of the recesses and in communication with the two recesses.

2. In a shaft-coupling, the combination, with a ball provided with a recess formed in and extending circumferentially of the ball in one plane and another recess formed in and extending circumferentially of the ball in a plane which is at a right angle to the first-mentioned plane, and two segments engaging and extending circumferentially of the different recesses respectively and forming a member of the different shaft-sections respectively which are to be coupled together, of a spherical casing which incases the aforesaid ball and has two slots formed in diametrically opposite sides respectively of the casing and extending circumferentially of the casing in different planes respectively which are at a right angle to each other and arranged to accommodate the location of the different shaft-sections respectively and the adjustment of the latter relative to each other, said casing having inwardly projecting portions overlapping and extending circumferentially of the outer circumferentially extending surfaces of the aforesaid segments.

3. In a shaft-coupling, the combination, with a ball provided with a recess formed in and extending circumferentially of the ball in one plane and another recess formed in and extending circumferentially of the ball in a plane which is at a right angle to the first-mentioned plane, and two segments engaging and extending circumferentially of the different recesses respectively and forming a member

of the different shaft-sections respectively which are to be coupled together, of a spherical casing which incases the aforesaid ball and has two slots formed in diametrically opposite sides respectively of the casing and extending circumferentially of the casing in different planes respectively which are at a right angle to each other and arranged to accommodate the location of the different shaft-sections respectively and the adjustment of the latter relative to each other, said casing having inwardly projecting portions at opposite ends respectively of each slot, which portions of the casing extend from opposite ends respectively of the said slot in opposite directions respectively and in the direction of the other slot, and the inwardly projecting portions of the casing afford bearing to the outer circumferentially extending surfaces of the aforesaid segments.

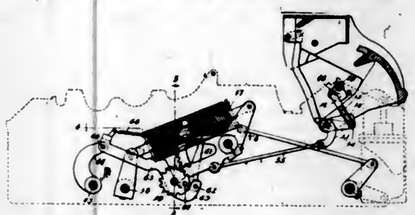
4. In a shaft-coupling, the combination, with a ball provided with a recess formed in and extending circumferentially of the ball in one plane and another recess formed in and extending circumferentially of the ball in a plane which is at a right angle to the first-mentioned plane, and two segments engaging and extending circumferentially of the different recesses respectively and forming a member of the different shaft-sections respectively which are to be coupled together, of a spherical casing which incases the aforesaid ball and has two slots formed in diametrically opposite sides respectively of the casing and extending circumferentially of the casing in different planes respectively which are at a right angle to each other and arranged to accommodate the location of the different shaft-sections respectively and the adjustment of the latter relative to each other, said casing being enough larger in internal diameter than the external diameter of the ball at the sides of the aforesaid recesses to form lubricant-receiving chambers between the ball and the casing at the sides of the recesses and having inwardly projecting portions which overlap and extend circumferentially of the outer circumferentially extending surfaces of the aforesaid segments.

5. In a shaft-coupling, the combination, with a ball provided with a recess formed in and extending circumferentially of the ball in one plane and another recess formed in and extending circumferentially of the ball in a plane which is at a right angle to the first-mentioned plane, and two segments engaging and extending circumferentially of the different recesses respectively and forming a member of the different shaft-sections respectively which are to be coupled together, and each segment having bearing on the outwardly facing central wall of the recess circumferentially of which the said segment extends, of a spherical casing which incases the aforesaid ball and has two slots formed in diametrically opposite sides respectively of the casing and extending circumferentially of the casing in different planes respectively which are at a right angle to each other and arranged to accommodate the location of the different shaft-sections respectively and the adjustment of the latter relative to each other, said casing being enough larger in internal diameter than the external diameter of the ball at the sides of the aforesaid recesses to form lubricant-receiving chambers between the ball and the casing at the sides of the recesses, said casing having inwardly projecting portions affording bearing to the outer circumferentially extending surfaces of the aforesaid segments.

938,532. ACTUATING MECHANISM FOR ADDING-MACHINES. CHARLES P. WETMORE, Chicago, Ill., assignor to Comptograph Company, a Corporation of Illinois. Filed Apr. 24, 1907. Serial No. 369,973.

1. In an adding-machine, in combination, a prime-actuator, hammer-release mechanism connected thereto, adding-mechanism, type-positioning mechanism having a secondary actuator member actuating all of the orders thereof, and a multiple-part connection between said prime-actuator and the secondary-actuator of said type-positioning mechanism, said connection being adapted to bring the type-positioning mechanism to a positive dwell before the action of the hammer-release, substantially as specified.

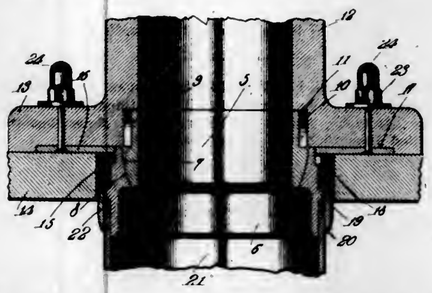
2. In an adding machine, in combination, a prime-actuator, hammer-release mechanism, adding and type-positioning mechanism having a secondary actuator member actuating all of the orders thereof, a direct connection between said prime-actuator and said hammer-release mechanism, and an interrupted connection between said prime-actuator and the secondary-actuator of said type-positioning mechanism, the operative member of said interrupted connection being adapted to come to a dead-center stop before the continued movement of the prime-actuator causes the hammer-release, substantially as specified.



3. In an adding-machine, in combination, a direct actuator, hammer-release mechanism connected thereto, adding-mechanism, type-positioning mechanism having a secondary actuator member actuating all of the orders thereof, and a multiple-part connection between said prime-actuator and the secondary-actuator of said type-positioning mechanism, the operative member of said connection being adapted to come to a dead-center stop while the other members continue their movement in unison with the further hammer-releasing movement of the prime-actuator, substantially as specified.

4. In an adding-machine, in combination, a prime-actuator including an oscillating segment, hammer-release mechanism connected to said prime-actuator, adding and type-positioning mechanism including a main rock-shaft, and a multiple-part connection between said rock-shaft and the aforesaid segment, said connection consisting in a pinion meshing with said segment and carrying an auxiliary connection-piece to which is pivoted the main connection-piece for actuating the aforesaid rock-shaft, said main connection-piece being so pivoted to said auxiliary connection-piece that the pivot-point is brought to a dead-center stop over the axis of the pinion before the said pinion has completed its movement in mesh with the segment of the prime-actuator, substantially as specified.

938,533. WATER-CLOSET FLOOR-COUPLING. OLIVER D. WHEELER, Charlotte, N. C. Filed Feb. 1, 1909. Serial No. 475,412.

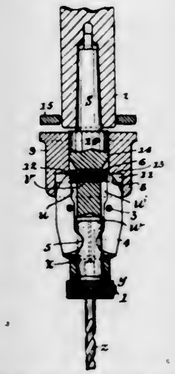


1. The combination with a bowl having its interior wall provided with an annular seating groove intersected by spaced sockets, of a coupling including mating sections, one of which is provided with a spherical head and a reduced upper portion fitted within the seating groove and having a series of lugs entering said sockets, the other section being provided with exterior threads and having an interior socket for the reception of the head of the mating section, a clamping plate seated in a recess in the bowl and provided with interior threads for engagement with the exterior threads on the adjacent section, a shoulder formed on the socket carrying section for engagement with a soil pipe, and means connecting the soil pipe to the adjacent section of the coupling.

2. The combination with a bowl having a laterally extending flange, the lower face of which is provided with a recess, there being an annular seating groove formed in the interior wall of said bowl and intersected by spaced sockets, of a coupling including mating sections, one of which is provided at its lower end with a curved exterior bearing surface and having its upper end seated in the groove in the bowl and provided with a series of lugs entering said sockets, the other section being formed with an interior curved bearing surface engaging the exterior bearing surface of the mating section and having its upper portion provided with exterior threads and its lower portion formed with an annular reinforcing rib defining a stop shoulder, a plate seated in the recess in the flange of the bowl and provided with a central opening, the walls of which are threaded for engagement with the exterior threads on the lower section, there being perforations formed in the plate, clamping bolts seated in said perforations and extended through openings in the flange of the bowl engaging with clamping nuts, a soil pipe bearing against the shoulder on the lower section, and means for securing the soil pipe in engagement with said lower section.

3. The combination with a bowl having a laterally extending flange, the lower face of which is provided with a recess, there being an annular seating groove formed in the interior wall of said bowl and intersected by spaced sockets, of a coupling including mating sections, one of which is formed with a spherical head and a reduced upper portion defining a shoulder, there being spaced lugs formed on the reduced portion of the upper coupling section and fitting within the socket in the bowl, the lower coupling being provided with a socket for the reception of said spherical head and having means for attachment to a soil pipe, a ring seated in the recess in the flange in the bowl and provided with interior threads engaging threads formed on the exterior wall of the lower coupling section, fastening devices piercing the plate and flange respectively, the shoulder on the upper coupling, and the top of the lower coupling section being disposed in horizontal alinement with the upper surface of the said plate.

938,534. DRILL. WILLIAM C. WHITNEY, Highland Falls, N. Y., assignor to Highland Falls Manufacturing Company, Highland Falls, N. Y., a Corporation. Filed Jan. 2, 1909. Serial No. 470,403.



The combination of the chuck-body having a reduced upper part forming a shoulder with its lower or larger part, said chuck-body having a vertical groove extending from below the shoulder to a point above the same, a sleeve slidably arranged on the chuck body and snugly fitting the upper part thereof and having a downwardly open chamber receiving the upper portion of the lower part of the chuck-body, and a jaw pivoted between its ends in said groove and having its upper end protruding above said shoulder and formed in its protruding portion with a cam-face upwardly inclined to the surface of the reduced part of the chuck-body, said sleeve resting on the cam-face of said jaw, substantially as described.

938,535. BRAKE-BEAM. CHARLES H. WILLIAMS, Jr., Chicago, Ill., assignor to Chicago Railway Equipment Company, Chicago, Ill., a Corporation. Filed June 28, 1909. Serial No. 504,825.



1. A brake beam comprising a compression member, a short tension member, and a thrust block having an extension in alinement with the adjacent end of the tension member.

2. A brake beam comprising a compression member, a tension member, and a thrust block in which the compression member is seated, said thrust block having an inwardly extending projection to which the tension member is connected.

3. A brake beam comprising thrust-blocks or sleeves of standard size, and compression and tension members, said tension member being made up in part by integral projections extending from said thrust blocks.

4. A sectional tension member for brake beams comprising a middle and two end sections, the end sections of which are provided with seats for the compression member.

5. A sectional tension member for brake beams, the end sections of which constitute thrust blocks or sleeves to cooperate with the compression member.

[Claims 6 to 13 not printed in the Gazette.]

938,536. CROSS-LINE BUCKLE. WILLIAM D. WISE, Detroit, Minn. Filed Jan. 15, 1909. Serial No. 472,489.



1. In a buckle, the combination of a plate around which one of the straps to be connected is designed to be looped, studs projecting from the plate for engagement with the said strap, and a clip to which the opposite strap is secured, the said clip being formed with arms adapted to embrace the plate and detachably engage the studs projecting therefrom.

2. In a buckle, the combination of a plate adapted to have one of the straps to be connected looped around one of the ends thereof, keepers projecting upon opposite sides of the opposite end of the plate and receiving the ends of the said strap, studs projecting from the plate and engaging the strap, and a clip to which the opposite strap is secured, the said clip being formed with arms which are designed to embrace the plate and detachably engage the studs projecting therefrom.

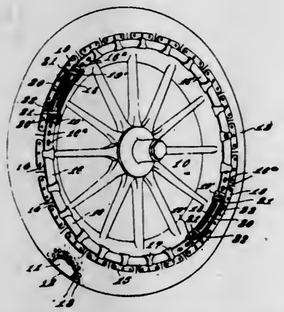
3. In a buckle, the combination of a plate around which one of the straps to be connected is designed to be looped, a stud projecting from the plate and designed to engage the strap, a flange projecting from the plate and formed with an inclined edge, and a spring clip to which the opposite strap is secured, the said spring clip serving to embrace the plate and engage the stud, and being disengaged from the stud when swung laterally to one side about the stud as a pivot and caused to ride upon the inclined edge of the flange.

4. In a buckle, the combination of a plate around which one of the straps to be connected is designed to be looped, a stud projecting from the plate and serving to engage the strap, a flange projecting from the plate and formed with an inclined edge, a spring clip to which the opposite strap is secured, the said spring clip being designed to embrace the plate and to engage the stud, and being disengaged from the stud when swung laterally to one side about the stud as a pivot and caused to ride upon the flange, and means for preventing such swinging movement of the clip when the buckle is in use.

5. In a buckle, the combination of a plate around which one of the straps to be connected is designed to be looped, a stud projecting from the plate and serving to engage the said strap, a flange projecting from the plate and formed with an inclined edge, a spring clip to which the opposite strap is secured, the said clip being adapted to embrace the plate and to engage the stud, and being sprung out of engagement with the stud when swung laterally to one side about the stud as a pivot and caused to ride upon the inclined flange, and arms upon the clip which normally embrace the plate and lock the clip against such swinging movement.

[Claims 6 and 7 not printed in the Gazette.]

938,537. TIRE-PROTECTOR ANCHOR. SAMUEL C. WOLFE, Angola, Ind. Filed June 2, 1909. Serial No. 499,775.

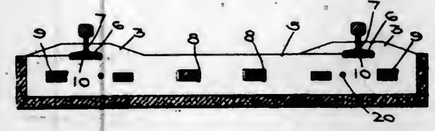


1. A pneumatic tire protector comprising an armored body portion, a series of flaps along its margin, a tension ring connected to said flaps, the ends of said ring being provided with transverse holes, a tension mechanism for said ring adapted to receive said ends and comprising a tubular member carried by some of said flaps, and a double ended pawl carried by said tubular member and extending into the interior thereof for coöperation with the ends of the tension ring introduced therein.

2. The herein described tension device for a pneumatic tire protector comprising a flat metallic ring the adjacent ends of which are perforated, a flattened tubular member to receive said ends, said tubular member having a hole in its side near each end, a double ended pawl carried by said tubular member, the ends of which project into said holes for coöperation with said ring ends, and means surrounding said pawl and tubular member and slidable therealong for maintaining the pawl in normal position.

3. In combination, a protector having a series of marginal flaps, a plurality of plates having integral closed hooks connected to said flaps, tension ring segments slipped endwise into said hooks, and ratchet mechanism including a double hooked pawl coöperating with the adjacent ends of the said ring segments.

938,538. RAILROAD-TIE. LEWIS WYLDER, Cathay, N. D. Filed May 11, 1909. Serial No. 495,220.



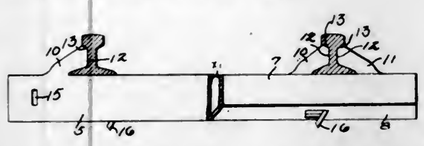
1. A composite tie section, comprising a concrete body, a sheet metal plate embedded within said body, said plate having two similar upstanding top flanges arranged to overlie the base of the rail, the ends stopping against the web of the rails secured to the tie, said flanges extending in like direction, said tie having an angled underface and a socket at one end and a lug at the other upon its longest vertical face, as and for the purpose set forth.

2. A composite tie section comprising a concrete body, a sheet metal plate embedded within said body, said plate having two similar upstanding stop flanges, each with an angled under face and a vertical stop edge, said flanges extending in like direction, said tie having an angled under face, a portion of the plate adjacent to and below said stop flanges being bent at right angles and embedded within the top of said tie to form rub plates and a socket at one end and a lug at the other upon the lower vertical face of said tie, all arranged as set forth.

3. A composite tie section comprising a concrete body, a sheet metal plate embedded within said body, said plate having two similar upstanding stop flanges each with an angled under face and a vertical stop edge, said flanges extending in like direction, said tie having an angled under face, rectangular webs bent laterally outward from said plate and held alternately in horizontal and vertical positions, said tie section at one end having a lug and at the opposite end a corresponding socket.

4. A tie comprising two similar sections, each section having a sheet metal plate embedded midlength within said body, each plate having two similar upstanding stop flanges, said flanges extending in like direction, each tie section having a lug at one end and a socket at the opposite end, said lugs and sockets registering, each tie section having a transverse opening, and a cramping bolt extending through each of said transverse openings to securely cramp the tie sections together.

938,539. RAILROAD-TIE. LEWIS WYLDER, Cathay, N. D. Filed July 7, 1909. Serial No. 506,311.



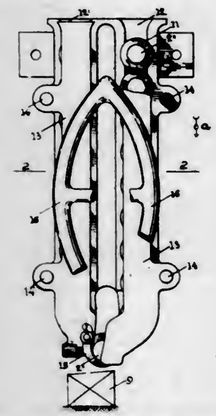
1. A complete tie section consisting of a single piece of sheet metal which is bent in the form of an open seam housing, the top of which comprises two similar sections, the bottom of the tie section being obliquely held to said top, one of said top sections being incised to provide a stop flange at each end bent upward and forming a rail-securing member, as and for the purpose set forth.

2. A complete tie section consisting of a single piece of sheet metal which is bent in the form of an open seam housing, the top of which comprises two similar sections, the bottom of the tie section being obliquely held to said top, one of said top sections being incised to provide a stop flange near each end extending at right angles to said top, the longest vertical face of said tie section having a slot at one end and an ear complementary to said slot at the other.

3. A complete tie section consisting of a single piece of sheet metal, bent to form an open seam housing the top of which comprises two similar sections, the bottom of the tie section being obliquely held to said top, said bottom section being provided with a plurality of outwardly directed flanges, one of said top sections being incised to provide a stop flange at each end, the longest vertical face of said tie section having a slot at one end and an ear at the other.

4. A tie comprising two similar members, each member consisting of a single piece of sheet metal bent to form an open seam housing, the top of which comprises two similar sections, the bottom of each tie member being obliquely held to its top, one of said top sections being incised to provide a stop flange at each end bent upwardly, said tie members being secured along their longest vertical faces, each tie member having a slot at one end and a stop ear at the other, the stop ear of one tie member being held within the slot of the member opposite, and means to connect said two similar tie members.

938,540. WEFT-REPLENISHING-LOOM MAGAZINE. HORACE WYMAN, Worcester, Mass., assignor to Crompton & Knowles Loom Works, a Corporation of Massachusetts. Filed Apr. 13, 1906. Serial No. 311,496.



1. A stationary magazine for a weft replenishing loom, having a plurality of guide-ways for the heads and the tips of bobbins or filling carriers, and an opening between two adjacent guide-ways for the tips of the bobbins, for the passage of the filling from the bobbins.

2. A stationary magazine for a weft replenishing loom, having a plurality of guide-ways for the heads and tips of bobbins or filling carriers, and an opening between two adjacent guide-ways for the tips of the bobbins, for the passage of the filling from the bobbins, and means to separate the fillings to cause them to contact against their respective guiding surfaces.

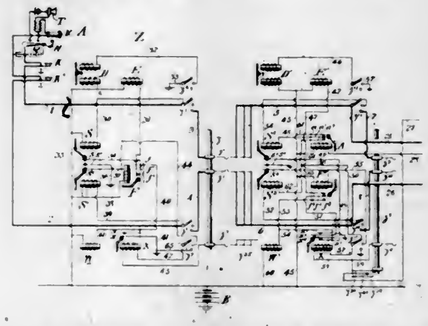
3. A stationary magazine for a weft replenishing loom, having a plurality of compartments for bobbins or filling carriers, and comprising a rear plate having guide-ways for the heads of the bobbins or filling carriers, and a plurality of front plates, each having a guide-way for the tips of the bobbins or filling carriers, and an open space between said front plates, from the top to the bottom thereof, for the filling threads to pass through.

4. A magazine for weft replenishing looms, having a plurality of compartments for bobbins or filling carriers, and comprising a rear plate having guide-ways thereon for the heads of the bobbins or filling carriers, and two separate front plates, each having a guide-way for the tips of the bobbins or filling carriers, and each front plate having rods or bars connecting them with the rear plate, and means connected with the rear plate to secure the magazine in position.

5. The combination with a magazine, having a guide-way for the heads of the spindles, and a guide-way for the headed tip ends of the spindles, of spindles contained in said guide-ways, and loose bobbins mounted on said spindles, and having the filling thereon drawn off from one side of the bobbins, to allow said bobbins to rotate.

[Claims 6 and 7 not printed in the Gazette.]

938,541. TELEPHONE-EXCHANGE SYSTEM. CHARLES L. ZAHM, Los Angeles, Cal., assignor of one-fourth to Edward E. Clement, Washington, D. C. Filed Sept. 19 1905. Serial No. 279,123.



1. In a telephone exchange system, a subscriber's line, a selector switch controlled thereby having means to connect the line by successive motions with other lines, a manually operated switchboard having trunk line connective terminals and signals associated therewith, connections from said selector switch to said switchboard, and means actuated in the first motion of the selector switch to display a signal and indicate that a connection is desired on the manual switchboard, substantially as described.

2. In a telephone exchange system, a subscriber's line, a substation having sending apparatus and a central station having selector switches for interconnecting the line with other lines as determined by the subscriber, one of said switches permanently associated with and controlled by said subscriber's line, a manually operated switchboard having trunk terminals and signals therefor, a trunk line permanently connected to one of said selector switches accessible by a single selective operation from the subscriber's switch, and to one of said trunk terminals on the manual board, with means whereby the said signal may be set and connection obtained through the manual switchboard by a single operation of the subscriber's switching apparatus, and further means whereby continued or repeated operations may connect the line directly to other lines without operating the trunk signal, substantially as described.

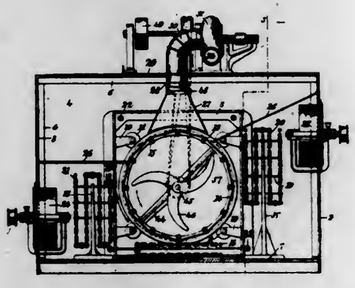
3. In a telephone exchange system, a plurality of subscribers' lines and a plurality of automatic switches for interconnecting them as determined by repeated current changes caused by the calling subscribers, one of said switches associated with each line and used as a first digit selector, a plurality of said switches accessible from the first selectors and used as second digit selectors, with other switches accessible from said second selectors and used to connect through to the subscribers' lines; a manually operated switchboard having connective terminals and signals, a trunk line permanently connected to a second selector switch circuit and to one of said connective terminals, with means actuated in the first step in operation of the said second selector to display the trunk signal on the switchboard, said means requiring an appreciable time to set the signal, substantially as described.

4. In a telephone exchange system, a subscriber's line, a first selector switch controlled thereby and having means to pick out and connect with a trunk to a second selector switch, thence to further switching means and to subscribers' lines automatically, a permanent extension of the trunk from the second selector to a manually operated switchboard, a connective terminal and a signal on said board for said trunk extension, and means whereby the second selector switch may be advanced one step to display the switchboard signal without changing the connection of the trunk, substantially as described.

5. In a telephone exchange system, a subscriber's line, a first selector switch controlled thereby, and having means to pick out and connect with a trunk to a second selector switch, thence to further switching means and to subscribers' lines automatically, a permanent extension of the second selector trunk to a manually operated switchboard, a connective terminal and a signal on said board for said trunk extension, means operated in one step of the second selector switch to set said signal to attract the attention of the operator, and means controlled by the operator to release and restore the switch and thereby restore the signal, substantially as described.

[Claims 6 to 16 not printed in the Gazette.]

938,542. BRISTLE-DRYING MACHINE. ERNEST R. ZEHNER, Toledo, Ohio. Filed Jan. 2, 1909. Serial No. 470,363.



1. In a drying machine, in combination, a case, a tumbling barrel rotatably mounted therein and having a pervious wall, heaters disposed on opposite sides of said barrel, blowers driving air currents through said heaters and through the wall of said barrel, a hood mounted within said case disposed adjacent said barrel having its edge adjacent to the wall of said barrel, and means for exhausting air through said hood.

2. In a drying machine, in combination, a case, a barrel rotatably mounted therein and having a pervious wall, a heating coil disposed under said barrel, a hood disposed over said barrel and having its edge disposed adjacent to the wall of said barrel, and means for exhausting air through said hood.

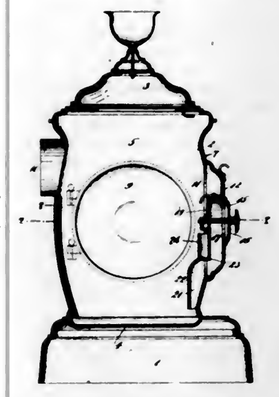
3. In a drying machine, in combination, a case, a barrel rotatably mounted therein and having a pervious wall, a heating coil disposed under said barrel, a hood disposed over said barrel adapted to draw air directly through the wall of said barrel, means for exhausting air through said hood, and means for blowing air through said barrel.

4. In a drying machine, in combination, a case, a barrel rotatably mounted therein and having a pervious wall, a picker shaft extending through said barrel, pickers carried by said shaft projecting oppositely from said shaft, means for rotating said barrel, means for rotating said picker shaft, means for driving an air current through the wall of said barrel, and means for exhausting the air from said barrel.

5. In a drying machine, in combination, a case, a tumbling barrel rotatably mounted therein, heating coils mounted at opposite sides of said barrel, blowers for forcing air currents across said coils and through the wall of said barrel, aprons adjacent to said coils and directing air toward said barrel, a heating coil under said barrel, a hood disposed over said barrel, and means for exhausting the air through said hood.

[Claim 6 not printed in the Gazette.]

938,543. STOVE. EDGAR W. ANTHONY, Brookline, Mass. Filed Jan. 25, 1909. Serial No. 473,986.

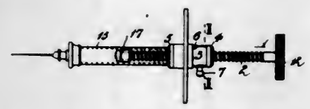


1. A stove having an opening in the side thereof, a face plate attachable to the stove for closing said opening, said face plate having an opening therein, a flue plate on the back of said face plate forming therewith a flue reaching from the point of opening in the face plate to the point of opening in the stove when the face plate is applied thereto, a flue plate within the body of the stove having connection with the side thereof below the opening therein and forming therewith a flue reaching from said point of opening in the stove to a point near the bottom thereof and which flue plates are adapted and arranged also to the end that they may coöperate with one another at the point of said opening in the stove and the flues formed thereby have a closed communication with one another whereby an unbroken flue passage may extend from the opening in said face plate to a point near the bottom of the stove.

2. A convertible stove, the same having an inlet into the chamber thereof and a door controlling said inlet, said stove having a further opening in the front thereof for forming an open stove, a face plate attachable to said stove for covering said opening and converting said stove into an air-tight stove, said face plate having an opening in it, a damper controlling said opening, a flue plate on the back of said face plate forming therewith a flue reaching from the point of opening in the face plate to the point of opening in the stove when the face plate is applied thereto, a flue plate within the body of the stove having connection with the side thereof below the opening therein and forming therewith a flue reaching from said point of opening in the stove to a point near the bottom thereof and which flue plates are adapted and arranged also to the end that they may coöperate with one another at the point of said opening in the stove and the flues formed thereby have a closed communication with one another whereby an unbroken flue passage may extend from the opening in said face plate to a point near the bottom of the stove.

938,544. HYPODERMIC SYRINGE. WILLIAM BALL, Echuca, Victoria, Australia. Filed Nov. 28, 1908. Serial No. 464,964.

1. In a hypodermic syringe, a casing provided at the rear end with internal interrupted threads, a piston provided with a threaded stem adapted to engage with said threads and means to put the threads of said piston stem and said casing in or out of engagement for the purpose specified.



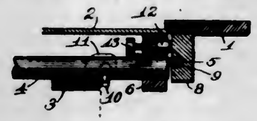
2. In a hypodermic syringe, a casing, a piston provided with a threaded stem, a partially rotatable collar within said casing mounted eccentrically to said stem which passes therethrough, internal interrupted threads in said collar and means to partially rotate said collar as and for the purpose specified.

3. In a hypodermic syringe, a casing, a piston provided with a threaded stem, a partially rotatable collar within said casing mounted eccentrically to said stem, which passes therethrough, a central bore in said collar formed in one side with internal threads tapering at each end, a peripheral slot in said casing and a stud on said collar projecting through said slot as and for the purpose specified.

4. In a hypodermic syringe, a cylinder, a piston and a piston rod, the cylinder provided with a threaded nut, the rod threaded to coöperate with the nut, one of said threads being interrupted.

5. In a hypodermic syringe, a cylinder, a piston and a piston rod, the cylinder provided with a threaded nut, the rod threaded to coöperate with the nut, one of said threads being interrupted, and means for throwing the threads of the rod and nut into and out of engagement.

938,545. SAFE-DOOR CAM. CARL BARTELS, Hamilton, Ohio, assignor to The Mosler Safe Company, Hamilton, Ohio. Filed May 17, 1909. Serial No. 496,382.



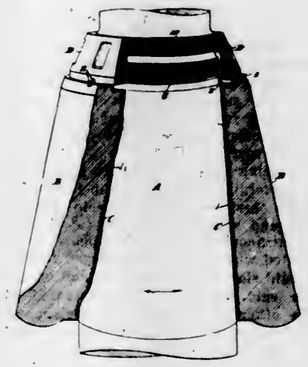
1. Safe door cam mechanism comprising, a cam-shaft mounted on the door, eccentric wrists on the ends of the cam-shaft, means for turning the cam-shaft, slotted cam-lugs on the door-jamb at the ends of the cam-shaft, a stop to limit the turning of the cam-shaft to a position corresponding with capacity of the eccentric wrists to enter and leave the slots of the cam-lugs, a projection from the cam-shaft, a stop mounted on the door and adapted for movement into and out of the path of said projection, a spring connected with said stop and tending to urge it into the path of said projection, and a projection from said stop in position to engage a fixed part carried by the door-jamb and serve in moving said stop out of active position when the door is brought to closed position, whereby, when the door is open the cam-shaft is locked against rotation, combined substantially as set forth.

2. Safe door cam mechanism comprising, a cam-shaft mounted on the door, eccentric wrists on the ends of the cam-shaft, means for turning the cam-shaft, slotted cam-lugs on the door-jamb at the ends of the cam-shaft, a stop to limit the turning of the cam-shaft to a position corresponding with capacity of the eccentric-wrists to enter and leave the slots of the cam-lugs, a spring-plunger mounted on the door and arranged to slide parallel with the cam-shaft, a projection from the cam-shaft, a head on the plunger to come into the path of said projection, a spring connected with the plunger and tending to urge said head to position in the path of the projection, and a projection from the plunger in position to engage a fixed part carried by the door-jamb when the door is closed and move said head out of the path of said projection, combined substantially as set forth.

3. Safe door cam-mechanism comprising, a cam-shaft mounted on the door, eccentric wrists on the ends of the cam-shaft, means for turning the cam-shaft, slotted cam-lugs on the door-jamb at the ends of the cam-shaft, a stop to limit the turning of the cam-shaft to a position corresponding with capacity of the eccentric-wrists to enter and leave the slots of the cam-lugs, a projection from the cam-shaft near the inner face of that one of the cam-shaft-bearings nearest the hinge-stile of the jamb, a plunger mounted to slide in said bearing parallel with the cam-shaft and having its outer end engaging the contiguous cam-lug, a spring tending to press said plunger toward said contiguous cam-lug, a pin projecting from the cam-shaft near said bearing, and a head on the inner end of said plunger in position to clear said head when the plunger is in inner position and to be arrested by said head when the plunger is permiteed to go to its outer position by the opening of the door, combined substantially as set forth.

4. Safe door cam-mechanism comprising, a cam-shaft mounted on the door, eccentric wrists on the ends of the cam-shaft, means for turning the cam-shaft, slotted cam-lugs on the door-jamb at the ends of the cam-shaft, a stop to limit the turning of the cam-shaft to a position corresponding with capacity of the eccentric-wrists to enter and leave the slots of the cam-lugs, a locking device associated with the cam-shaft to lock it against being rotated out of slot-entering position, and a part connected with said door-jamb and adapted to coöperate with the locking device when the door is closed to unlock said device and leave the cam-shaft free to be turned, combined substantially as set forth.

938,546. CRUSHER-HEAD. RICHARD BERNHARD, Milwaukee, Wis., assignor to Power and Mining Machinery Company, Jersey City, N. J., a Corporation of New Jersey. Filed Apr. 28, 1908. Serial No. 429,606.

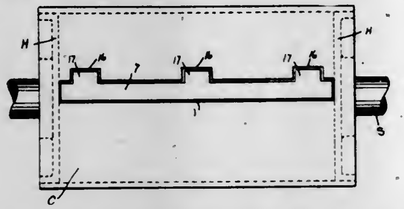


1. In a gyratory crusher or the like, the combination with a crushing shaft having a taper and a screw thread, of a head, and a nut secured to the head to rotate therewith on the shaft and co-acting with the shaft thread to force the head onto the taper and tighten the head.

2. In a gyratory crusher or the like, the combination with a crushing shaft having a taper and right and left screw threads, and a head, of a nut secured to the head to rotate therewith and co-acting with one of the shaft threads to force the head onto the taper and tighten the head.

3. In a gyratory crusher or the like, the combination of a crushing shaft having a taper, a head on the shaft, and devices acting by pressure against the end of the head and actuated by the rotation of the head on the shaft to force the head onto the taper and tighten the head.

938,547. GRINDING AND POLISHING ROLL. ALEXANDER BEVAN, Providence, R. I. Filed Nov. 25, 1907. Serial No. 403,653.



1. In a surfacing roll the combination of a cylinder having in its periphery a longitudinal slot laterally indented, a movable jaw corresponding in superficial outline with said slot and having its external surface flush with the surface of the cylinder, whereby a continuous bearing surface is provided when the jaw is moved forward, and means for causing said jaw to automatically take up any slack in the roll covering.

2. In a polishing roll, the combination of a cylinder having in its periphery a longitudinal slot laterally indented, a tension jaw corresponding in its external outline with, and movable within, said slot, said jaw having its outer surface flush with the surface of said cylinder, a spring clamp normally coöperating with said jaw to bite one end of the roll covering, and means for causing said jaw to automatically stretch said covering.

3. In a surfacing roll, the combination of an axially mounted tension jaw, a spring clamp normally coöperating with said jaw to take up slack in the roll covering, conjoined means whereby the said jaw may be forced back to its inoperative position and the said spring clamp may be forced away from the said tension jaw to release the covering.

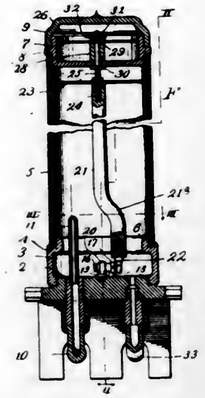
4. A surfacing roll provided with a covering, a pivotally mounted tension jaw, a spring clamp adapted to normally coöperate with said jaw to bite one end of said covering and automatically take up the slack of the same, conjoined means for separating said jaw and clamp, said conjoined means being adapted to release the said spring clamp to allow the same to bite one end of the said covering, and then by a further movement of said means to release the said tension jaw and allow the same to take up the slack in the covering.

5. In a surfacing roll provided with a covering, a cylinder having a laterally indented slot in its shell, a tension jaw having its outer surface movable in the periphery of said cylinder and shaped externally to match said slot, whereby a continuous break in the support for said covering is prevented when said jaw is moved forward, means adjacent to said slot for clamping one end of the roll covering within said cylinder, spring actuated means for clamping the other end of said covering securely to the under face of said tension jaw, and axially disposed spiral springs for causing said jaw to automatically take up the slack and close the break in said covering.

[Claims 6 to 9 not printed in the Gazette.]

938,548. THERMOSTAT. JOSEPH H. BRADY, Kansas City, Mo. Filed Oct. 21, 1907. Serial No. 398,315.

1. A thermostat consisting of a hollow medium which expands under a rising temperature, a chamber communicating with the lower end of said medium, an inlet pipe for conducting motive fluid to said chamber, terminating in a goose-neck having a valve-seat in its downturned end, a member entering the chamber having an exhaust-port and a valve-seat in axial line with the first-mentioned valve-seat, a valve for alternately engaging the valve-seats, a second medium which contracts under a rising temperature and is connected at its ends to the free end of the first medium and the valve, so that the added movements of the media will be transmitted to said valve, and an outlet pipe for conducting the motive fluid from the chamber to the point of use.



2. A thermostat consisting of a hollow medium which expands under a rising temperature, a chamber communicating with the lower end of said medium, an inlet pipe for conducting motive fluid to said chamber, terminating in a goose-neck, a member adjustably engaging one end of said goose-neck and terminating in a valve-seat, a screw entering the chamber having an exhaust-port and a valve-seat in axial line with the first-mentioned valve-seat, a two-faced valve for alternately engaging the valve-seats, a lever to one end of which said valve is pivoted, a second medium which contracts under a rising temperature and is connected at its ends to the free end of the first medium and the lever so that the added movements of the media will be transmitted to said valve, and an outlet pipe for conducting the motive fluid from the chamber to the point of use.

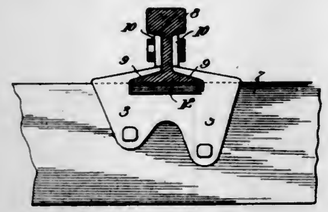
3. A thermostat comprising in combination, a medium which expands under a rising temperature, a chamber forming a continuation of the interior of said medium, inlet and outlet pipes for conducting motive fluid to and from the chamber, and having an exhaust port leading from the chamber, said inlet pipe entering said chamber adjacent said exhaust port and being provided with a mouth suspended concentrically opposite said exhaust port, a valve having opposite faces adapted to alternately close the inlet pipe and the exhaust port, means for holding the inlet and outlet pipes and the valve mechanism from which the expansible medium may be removed and means connecting the valve to the free end of the medium.

4. A thermostat consisting of a hollow medium which expands under a rising temperature and is provided at its upper end with an annular scale, a removable base having a cylindrical extension supporting said hollow medium and forming a closed chamber therewith, valve mechanism carried within said extension, and means connecting said valve mechanism with said expansible medium, said valve mechanism comprising a goose necked inlet pipe provided at its downturned end with a valve seat, an adjustable exhaust port pipe also provided with a valve seat in axial alinement with said inlet valve seat, an outlet pipe and a two way valve plug operable by said connecting means to alternately open and close said inlet and exhaust port pipes.

5. A thermostat consisting of a hollow medium which expands under a rising temperature, bodily removable valve mechanism supported at one end of said medium within a chambered base, and means connecting said medium with said valve mechanism whereby to utilize the expansion and contraction of said medium to operate said valve mechanism, said valve mechanism comprising an inlet pipe having a downturned adjustable valve seat, an exhaust port pipe also provided with a valve seat disposed oppositely to said inlet valve seat, an outlet pipe and a valve operating between said exhaust port and inlet valve seats to alternately open and close said outlet and inlet, with the expansion and contraction of said medium.

[Claims 6 to 8 not printed in the Gazette.]

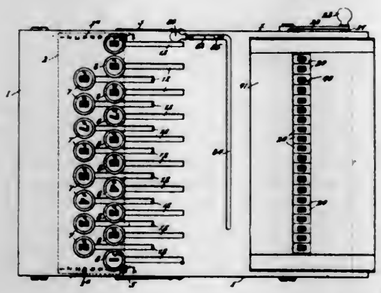
938,549. ANCHOR RAIL-CLAMP. ACHILL W. BRAND, Boise, Idaho. Filed Nov. 4, 1908. Serial No. 461,023.



1. The combination of a rail, a tie, fish plates and an anchor plate independent of said fish plates and comprising clamping members, adapted to rest on the upper face of the tie and the flanges of the rail, a depending shank portion connected to one end of said clamping members and adapted to engage the side of the tie, said shank portion being cut away directly underneath the flange engaging portion of said clamping members to receive the rail, said cut away portion being of greater depth than the depth or thickness of the flanges of the rail, said shank portion having apertures formed therein at different distances from said clamping members to receive the securing means and means for securing each clamping member to the top of the tie.

2. The combination of a rail, a tie, fish plates and an anchor plate comprising clamping members adapted to fit snugly the flanges of the rail, and extend underneath the fish plates, and engage the under edge thereof, a depending shank portion formed integral with said clamping members, and extending down the side face of the tie, said depending shank portion being cut away to receive the flanges of the rail and means whereby the depending portion may be secured to the side of the tie, and means for securing the clamping members to the top of the tie.

938,550. CALCULATING-MACHINE. JOHN BRICKEN, Chicago, Ill., assignor, by direct and mesne assignments, of one-third to Harry Marks, Chicago, Ill., and one-third to Reuben Marks, Des Moines, Iowa. Filed Feb. 25, 1909. Serial No. 480,062.



1. In a multiplying machine, a totalizer, differential bars for operating the same, said bars having different points of actuation, and figure keys, one for each of said bars, said figure keys being shiftable to nine different positions relatively to said bars to actuate them at different points depending upon the multiplier to be used.

2. In a multiplying machine, a totalizer, differential bars for operating the same, said bars having a plurality of points of actuation for producing different effects upon the totalizer, according to the multiplier to be used, and figure keys, one for each of said bars, said figure keys being shiftable to act upon said bars at the different points of actuation thereof.

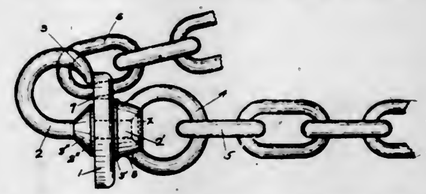
3. A multiplying machine comprising a totalizer, and differential mechanism for operating the same, said differential mechanism including a stationary axle, differential members pivoted thereon and each having a plurality of points of actuation for producing different amounts of movement in the totalizer, keys for operating said differential members and a key board wherein said keys are mounted, said key board being shiftable relatively to said differential members for causing said keys to contact them at the different points of actuation thereof.

4. A calculating machine adapted to multiply and comprising totalizing mechanism and differential mechanism for actuating the same, said differential mechanism including a single set of units keys running from 0 to 9 and a single set of tens keys running from 2 to 9, and differential members operated by said keys, there being a differential member for each and every one of said keys except the "0" key, said keys and differential members being relatively shiftable to cause the keys to act upon different portions of the differential members depending upon the multiplying factor to be employed.

5. A calculating machine adapted to multiply and comprising totalizing mechanism, differential mechanism for actuating the same, said differential mechanism having two sets of keys, one set for obtaining the units figure in a partial product and the other set for obtaining the tens figure in said partial product, and means whereby the relation of parts of the differential mechanism may be altered with respect to each other in accordance with the multiplying factor desired.

[Claims 6 to 36 not printed in the Gazette.]

938,551. GRAB OR DRAFT HOOK. DAVID A. BUSCH, Rainier, Oreg. Filed Mar. 27, 1909. Serial No. 486,221.

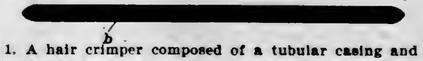


1. A swiveled grab-hook, provided with a locking disk 1 formed with a diagonal slot in its rim and pivotally mounted on the hook-shank between a boss thereon and an oppositely disposed face of the swivel body.

2. In a swiveled grab-hook, the combination with a hook, of a locking disk formed with a diagonal slot in its rim and pivotally mounted upon the hook-shank between the bill of the hook and the swivel body.

3. In a swiveled grab-hook, a locking disk 1 having a diagonal slot in its rim and pivotally mounted upon the shank of the hook between its bill and the swivel body.

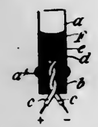
938,552. HAIR WAVER OR CURLER. JULIUS R. BUX, Philadelphia, Pa. Filed Oct. 14, 1908. Serial No. 457,661.



1. A hair crimper composed of a tubular casing and a pliable metal core, said casing being a little longer than and, having its walls non adherent to said core and securely closed ends to keep the core in place.

2. A hair crimper composed of a tubular casing and a pliable metal core, said casing being a little longer than and, having its walls non adherent to said core, and an adhesive coated twisted end extension beyond an end of the core.

938,553. PRIMING CHARGE FOR MINES. LOUIS CAHEN, Neumarkt, Germany. Filed June 15, 1908. Serial No. 438,578.



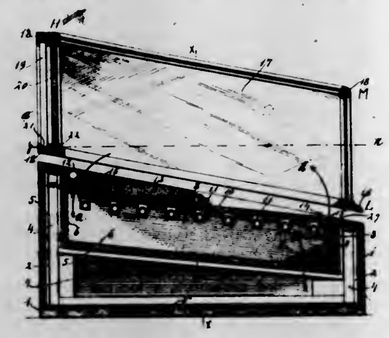
1. In an electric fuse the combination of insulated conducting wires having relatively adjacent portions bared of insulation, an incandescing conductor comprising a mixture of finely divided aluminum, another metal in a state of fine division, an oxygen carrier and a carbon carrier, said mixture lying between the bared portions of the wires.

2. In an electric fuse the combination of insulated conducting wires having relatively adjacent portions bared of insulation, an incandescing conductor comprising a mixture of finely divided aluminum, another metal in a state of fine division, and an oxygen carrier, said mixture lying between the bared portions of the wires.

3. In an electric fuse the combination of insulated conducting wires having relatively adjacent portions bared of insulation, an incandescing conductor comprising a mixture of finely divided aluminum and another metal in a state of fine division, said mixture lying between the bared portions of the wires.

4. In an electric fuse the combination of insulated conducting wires having relatively adjacent portions bared of insulation, an incandescing conductor comprising aluminum in a state of fine division lying between the bared portions of the wires.

938,554. REFRIGERATING-COUNTER. EUGENE CARPENTER, Newton, Mass., assignor to The Automatic Refrigerating Company, Hartford, Conn., a Corporation of New Jersey. Filed Oct. 5, 1907. Serial No. 395,987.



1. A refrigerating counter having a stationary lower section and a removable upper section opening toward said lower section, an insulated compartment within said lower section slantingly disposed and adapted to hold the refrigerating means, and an inclined floor disposed within said compartment at a suitable distance from the bottom to cover the refrigerating means and adapted to carry the objects to be refrigerated and having air passageways between its opposite edges and the respective vertical walls of said compartment, said removable upper section being inclined substantially in the direction of said floor.

2. A refrigerating counter, having a stationary lower section and a removable upper section, an insulated compartment within said lower section slantingly disposed and a supporting floor within said compartment for the objects to be refrigerated, and blocks supporting said floor, refrigerating pipes also supported by said blocks underneath said floor, said floor having air passageways between its two opposite edges and the respective vertical walls of said compartment.

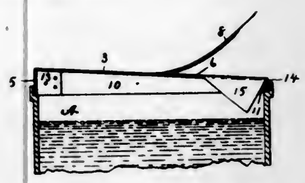
3. A refrigerating counter, having a stationary lower section and a removable upper section, an insulated compartment within said lower section slantingly disposed and adapted to hold the refrigerating means and a floor, disposed within said compartment at a suitable distance from the bottom to cover the refrigerating means and adapted to carry the objects to be refrigerated, and having air passageways between its two opposite edges and the respective vertical walls of said compartment, and a refrigerating pipe disposed at a suitable height above one of the air passage ways and the floor and adapted to cause the air to circulate above said floor toward said refrigerating pipe and underneath said floor in the opposite direction.

4. A refrigerating counter, having a stationary lower section and a removable upper section, an insulated compartment within said lower section slantingly disposed and a supporting floor within said compartment for the objects to be refrigerated and blocks supporting said floor, recesses at the lower ends of said blocks, refrigerating pipes also supported by said blocks underneath said floor, said floor having air passageways between its two opposite edges and the respective vertical walls of said compartment.

5. A refrigerating counter having an insulated lower compartment, and a removable floor at a suitable distance above the bottom of said lower compartment adapted to carry the objects to be refrigerated and displayed, said floor having air passageways at its edges, refrigerating pipes suitably supported underneath said floor and upper refrigerating pipes disposed at a suitable height above one of said passageways, causing the air to circulate down from said upper pipes through said passageway underneath said floor and up through the remainder of said passageways.

[Claims 6 to 10 not printed in the Gazette.]

938,555. COVER FOR TANKS USED IN SKIMMING SULLAGE FROM CRUCIBLES INTO WATER. WILLIAM H. CARPENTER, Bristol, Conn., assignor of one-half to A. L. Haasis, Brooklyn, N. Y. Filed Mar. 2, 1909. Serial No. 481,195.



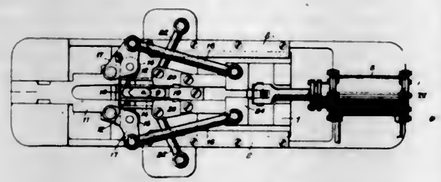
1. A tank cover, the top of which is provided with a skimming opening and an upwardly bent tongue over the said opening.

2. A tank cover, the top of which is provided with a skimming opening, an upwardly bent tongue over the same, and downwardly bent flaps on the opposite sides of the said opening.

3. A tank cover formed of sheet metal with bent down side and end flanges and a connected top having a skimming opening and an upwardly bent tongue over the said opening.

4. A tank cover formed of sheet metal with bent down and connected side and end flanges, and a connected top having a skimming opening, an upwardly bent tongue over the same, and obliquely bent flaps on opposite sides of the said opening.

938,556. BENDING-MACHINE. ROBERT A. CARTER, Pittsburg, Pa. Filed Aug. 7, 1908. Serial No. 447,421.



1. In a bending machine the combination of a bending block, bending rollers movable around the corners of the bending block and movable fingers for holding the intermediate portion of the blank against the block during the bending of the ends of the blank.

2. In a bending machine the combination of a bending block having a recess therein, means for supporting a blank on the block across the recess, a reciprocating slide provided with an abutment, a former mounted on the slide, means for depressing the former below the position of the blank during the forward movement of the slide and for raising the former during the rearward movement of the slide.

3. In a bending machine, the combination of means for bending the ends of a blank, a former provided with means for so supporting a completed link that a portion thereof will be within the periphery of the former and means for bending the blank around the former and forcing the bent ends through the completed link.

4. In a bending machine, the combination of a slide provided with an abutment, a lever pivotally connected to the slide, a former carried by the lever means for depressing the front end of the lever on the forward movement and raising it during the backward movement of the slide, a recessed bending block extending rearward into the range of movement of the former and means for supporting a blank against the rear face of the bending block.

938,557. REPLENISHING DEVICE. JERMAIN CHANDLER, Toledo, Ohio. Filed July 16, 1908. Serial No. 443,785.



1. An inking device comprising a pen guiding member with which a pen may slidingly coact, an ink carrying member movable toward the pen guiding member, and connecting means extending from the guiding member to the carrying member to move the carrying member.

2. An inking device comprising a pen guiding member with which a pen may slidingly coact, an ink withdrawing member with which the sliding pen may engage to receive ink, said withdrawing member movable relatively to the guiding member, and connecting means between the members.

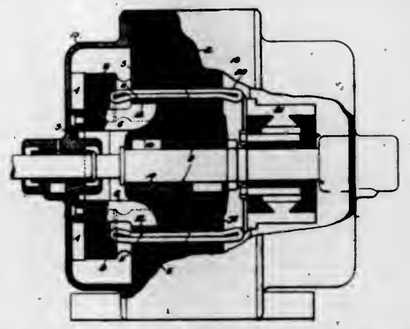
3. A feed device comprising a guide member for the article to be fed, said member actuable by the article, a pivoted supply withdrawing member for the article relatively to which withdrawing member the article may slide through the guide member to engage and remove from the withdrawing member a supply for the article, and connecting means extending between the members said actuation of the guide member effective through the connecting means to operate the withdrawing member.

4. A replenisher comprising a pivoted guide for the article to be fed with which guide the article may slidingly coact, a pivoted supply withdrawer movable to feed the article as the article is slid relatively to the travel of the withdrawer, and connecting means engaging the guide and extending to the withdrawer.

5. A replenisher comprising a movable supply withdrawer, a pivoted opposing actuator therefor, and connecting means extending from the actuator to the withdrawer, said actuator having a guide, whereby an article to be supplied may slidably coact with the guide of the actuator to take a supply from the withdrawer.

[Claims 6 to 9 not printed in the Gazette.]

938,558. DYNAMO-ELECTRIC MACHINE. ABE L. CUSHMAN, Concord, N. H. Filed May 27, 1907. Serial No. 375,916.



1. In a dynamo electric machine, an armature and commutator, a field magnet having a series of poles carrying field windings in shunt, a commutating magnet having a plurality of poles carrying windings in magnetic circuit independent of the field circuit and arranged about the periphery of the armature, and also a plurality of poles upon the same magnetic yoke with such peripheral poles and arranged interiorly of the armature windings, whereby the lines of force between them and the peripheral poles will pass through the armature windings between the interior and exterior thereof.

2. In a dynamo electric machine, an armature and commutator, a field magnet having a series of poles carrying field windings in shunt, a plurality of commutating pole pieces carrying windings in magnetic circuit independent of the field circuit, said pole pieces arranged in pairs connected by a magnetic yoke, one member of each pair being within and one member being without the plane of the periphery of the armature.

3. In a dynamo electric machine, an armature and commutator, a field magnet having a series of poles carrying field windings in shunt, a plurality of commutating pole pieces carrying windings in magnetic circuit independent of the field circuit, said pole pieces arranged in pairs and connected by a magnetic yoke, one pole of each pair facing the periphery of the armature, and the other pole projecting toward the end of the armature.

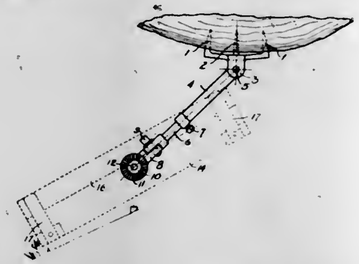
4. In a dynamo electric machine, an armature and commutator, a field magnet having a series of poles carrying field windings in shunt, a plurality of commutating poles carrying windings in magnetic circuit independent of the field circuit and arranged in pairs, the poles of each pair connected by a magnetic yoke, one pole of each pair projecting between the field poles and facing the periphery of the armature, and the other pole extending toward the end of the armature.

5. In a dynamo electric machine, an armature and commutator, a field magnet having a series of poles carrying

field windings in shunt, a plurality of communicating poles carrying windings in magnetic circuit independent of the field circuit and arranged in pairs, the poles of each pair connected by a magnetic yoke, the armature being provided in its end with an annular recess surrounding the armature shaft as a center, one pole of each pair of commutating poles facing the periphery of the armature, and the other pole extending into said annular recess in the end of the armature.

[Claims 6 to 8 not printed in the Gazette.]

938,559. TIMBER-FELLING MACHINE. EDSON S. CUYLER, near Tacoma, Wash. Filed May 6, 1908. Serial No. 431,219.



1. A guide or support for the free end of a saw adapted to be secured to the tree to be sawed and comprising a table; means for supporting the table from the tree trunk being sawed; means for adjusting the position of the table about two horizontal axes at right angles to each other; ratchet means for controlling the position of the table about a vertical axis; and a spring carried by said table and adapted to engage the back of said saw to press it forward.

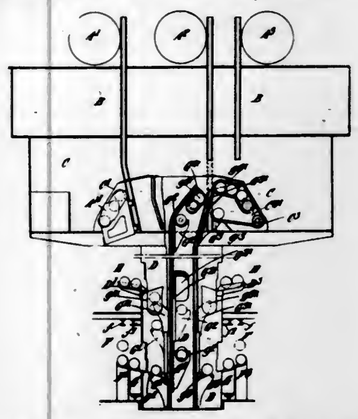
2. A guide or support for the free end of a saw adapted to be secured to the tree to be sawed and comprising a table; a supporting body provided with dogs adapted to be driven into the trunk of the tree being sawed; a radius arm adjustably supported by said body; an extension mounted in said arm and adjustable therein in length as well as in rotative position; a ratchet body adjustably supported by said arm extension and bearing a pivot on which said saw-supporting table is pivotally mounted; a ratchet dog secured to the table and engaging the ratchet to control the portion of the table on the pivot; and a spring carried by said table and adapted to engage the back of said saw to press it forward.

938,560. AMMUNITION-HOISTING APPARATUS FOR HEAVY ORDNANCE. ARTHUR T. DAWSON, Westminster, London, and JAMES HORNE, Barrow-in-Furness, England, assignors to Vickers Sons & Maxim Limited, London, England. Filed Apr. 15, 1908. Serial No. 427,167.

1. In ammunition hoisting apparatus for a three-gun turret mounting; the combination with the working chamber, the rotating hoist trunk, and the ammunition receptacles, of a central hoisting projectile cage and a central hoisting powder cage, two side hoisting projectile cages and two side hoisting powder cages, all working in said trunk, and means whereby the side cages are adapted to automatically deliver their projectiles and powder charges into the said receptacles in the working chamber.

2. In ammunition hoisting apparatus for a three-gun turret mounting; the combination with the working chamber the rotating hoist trunk and the ammunition receptacles, of a central hoisting cage and two side hoisting cages working in said trunk, projectile trays and powder charge containers pivotally connected with the side hoisting cages and means for automatically tilting said trays and containers.

3. In ammunition hoisting apparatus for a three-gun turret mounting; the combination with the working chamber, the rotating hoist trunk and the ammunition receptacles, of a central hoisting projectile cage and a central hoisting powder cage, two side hoisting projectile cages and two side hoisting powder cages all working in said trunk, and means whereby the projectile and powder charges can be supplied longitudinally to the central hoisting cages from the shell and powder rooms.



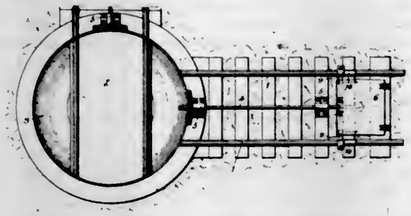
4. In ammunition hoisting apparatus for a three-gun turret mounting; the combination with the working chamber, the rotating hoist trunk and the ammunition receptacles, of a central hoisting projectile cage provided with a pivoted projectile tray and a central hoisting powder cage provided with a pivoted powder container, two side hoisting projectile cages and two side hoisting powder cages all working in said trunk, a rotating bogie situated in the shell room at a considerable distance from the said trunk and a tray or platform situated between the said bogie and the trunk, for enabling the projectiles to roll from the bogie into the projectile cage within the trunk.

5. In ammunition hoisting apparatus for a three-gun turret mounting; the combination with the working chamber and the rotating hoist trunk connected therewith, of a central hoisting cage and two side hoisting cages working in said trunk, a central gun loading cage and two side gun loading cages situated above said trunk, two side ammunition receptacles fixed to the floor of the working chamber, in positions for the two side cages to come in alinement therewith, means for supplying the ammunition to the central and side hoisting cages, means for enabling the side ammunition receptacles to receive the ammunition automatically from the corresponding side hoisting cages, two duplex side rammers for transferring the projectile and powder charge from each of the said receptacles to the respective gun loading cages, and a central duplex rammer for transferring the projectile and powder charge from the central hoisting cage direct to the central gun loading cage.

938,561. SAFETY DEVICE FOR ROUND TABLES. ARTHUR F. ELKINS, Ironton, Ohio, assignor of two-thirds to Frank L. McCauley, Ironton, Ohio. Filed Feb. 6, 1909. Serial No. 476,465.

1. The combination with a turn-table, a cam block carried thereby, a rotatable rod having an angled portion in position to be engaged by said block, said rod being arranged longitudinally upon a track section, an obstruction normally resting upon the track rails, and means actuated by rotation of the rod for removing said obstruction from the rails.

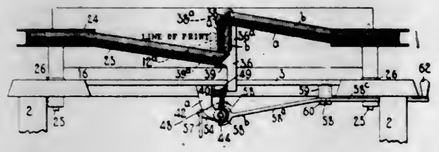
2. In a device of the kind described pivoted levers, shoes carried by said levers and normally resting upon track rails, a hinged plate, means carried by the free end portion of the plate for engaging the levers and throwing the shoes from the track rails, a rotatable rod, a segment carried by the rod and engaging the under face of said hinged plate, a turntable, and means carried by said turntable for rotating said rod upon movement of the turntable into alinement with the track rails.



3. A device of the kind described comprising a turntable, a track section leading thereto, a rod longitudinally journaled between the track rails, the inner end of the rod being angled and projecting under the turntable when the latter is in alinement with the track section, a cam block carried by the turntable, and engaging the angled portion of the rod, a segment fixed to the outer end portion of the rod, a hinged plate covering said segment and in engagement with it, pivoted levers, said levers having upwardly turned end portions, the pivoted levers running under the track rails, shoes carried by the upwardly turned end portions of said levers and normally resting upon the track rails, and means carried by the hinged plate for engaging the inner ends of said levers and throwing the shoes away from the track, as and for the purpose set forth.

4. In a device of the kind described levers pivoted intermediate their ends, the levers passing transversely beneath track rails and having their outer end portions bent upwardly, shoes carried by said end portions and resting normally upon the track rails, a hinged plate, said plate having a curved free marginal portion covering and inclosing the inner and pivoted portions of the levers, depending fingers carried by said plate and engaging the inner ends of the levers, and means operable by rotation of a turntable for lifting said hinged plate, as and for the purpose set forth.

938,562. TYPE-WRITING MACHINE. JACOB FELBEL, New York, N. Y., assignor to Union Typewriter Company, Jersey City, N. J., a Corporation of New Jersey. Filed Sept. 24, 1907. Serial No. 394,348.



1. In a typewriting machine, the combination of a platen, printing instrumentalities, ribbon spools having fixed axes and paths of rotation and carrying a ribbon, means coöperating with the ribbon to turn the printing portion thereof to stand normally at one side of the printing point, and means for automatically moving the ribbon sidewise to cover the printing point when the printing instrumentalities are actuated.

2. In a typewriting machine, the combination of a platen, printing instrumentalities, ribbon spools having fixed axes and paths of rotation and carrying a ribbon, means coöperating with the ribbon to maintain the printing portion thereof normally at the right of the printing point, and means for automatically moving the ribbon leftward to cover the printing point when the printing instrumentalities are actuated.

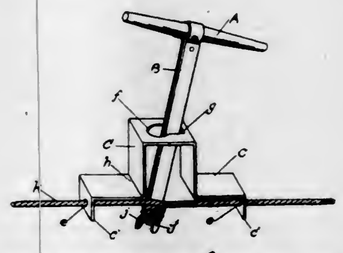
3. In a typewriting machine, the combination of a horizontally arranged platen, printing instrumentalities, ribbon spools having fixed axes and paths of rotation and carrying a ribbon, means for maintaining the printing portion of said ribbon at one side of the printing point, and means for automatically moving the ribbon lengthwise of the platen to cover the printing point when the printing instrumentalities are actuated.

4. In a typewriting machine, the combination of a platen, printing instrumentalities, ribbon spools mounted to rotate in fixed bearings on the frame-work, a vibratory ribbon carrier disposed normally at one side of the printing point, and means for automatically moving said carrier sidewise to cause the ribbon to cover the printing point when the printing instrumentalities are actuated.

5. In a typewriting machine, the combination of a platen, printing instrumentalities, ribbon spools mounted to rotate in fixed bearings on the frame-work, a vibratory ribbon carrier disposed normally at the right of the printing point, and means for automatically moving the ribbon carrier sidewise to cause the ribbon to cover the printing point when the printing instrumentalities are actuated.

[Claims 6 to 47 not printed in the Gazette.]

938,563. COMBINATION WIRE-STRETCHER. JESSE T. FERGUSON, Hickory, Miss. Filed Dec. 5, 1908. Serial No. 466,182.



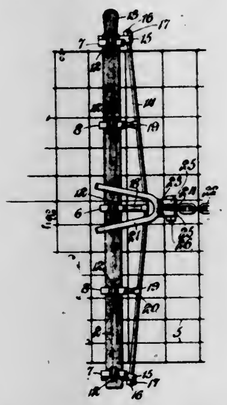
A device of the character described, comprising a support of U-like outline, the upper cross member of which is provided with an opening having a lateral slot extension, the lower ends of the vertical arms of said support having lateral extensions, said extensions having vertical pendent members, said pendent members being provided with apertures for the reception of the object to be operated upon, a shaft received by the opening in said upper cross bar of said support, and adapted to be also received by the lateral slot extension, as in the retention of said shaft in effective position when under stress, the lower end of said shaft being adapted for engagement with the object to be acted upon, and means for actuating said shaft.

938,564. WOVEN-WIRE-FENCE CLAMP. JACOB FISHER, Sac City, Iowa. Filed Sept. 9, 1908. Serial No. 452,213.

1. A clamp of the class described comprising wire-clamping members, a truss rod extending longitudinally of the clamp throughout the length of the same, central, intermediate and end guide boxes receiving the clamping members and each provided with an integral projecting portion receiving the truss rod and arranged to support the same in a position contiguous to the line of draft, and means carried by the boxes for operating the clamping members.

2. A clamp of the class described comprising wire-clamping members, a truss rod extending longitudinally of the clamp throughout the length of the same, central, intermediate and end guide boxes receiving the clamping members, the end boxes being provided with lugs and the central and intermediate boxes having horizontal arms, said lugs and arms being arranged to support the truss rod, means for securing the ends of the truss rod to the

said lugs, and adjusting devices carried by the boxes for operating the clamping members.



3. A clamp of the class described including wire-clamping members, a central box receiving the members and having means to cause the members to clamp and release the wires, a double hook made of a single piece and composed of two substantially hook-shaped sides arranged in the same vertical plane and spaced apart to permit the box to extend between them and engage the members, and a solid connecting portion adapted to prevent the hook-shaped sides from spreading or drawing together and provided with an opening and bent laterally at its inner portion and having its outer portion arranged centrally of the device in line with the draft to prevent lateral twisting of the clamp, and means for connecting stretching mechanism with the double hook.

938,565. VAT DYE. PAUL FISCHER, Elberfeld, Germany, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed Apr. 22, 1909. Serial No. 491,500.

1. The herein-described new vat dyestuffs of the anthracene series which can be obtained by condensing one molecule of one of the hereinbefore defined dicarboxylic acids with two molecules of an aminoanthraquinone, which dyestuffs are, after being dried and pulverized, colored powders practically insoluble in water and in the usual organic solvents, soluble in concentrated sulfuric acid with a yellow to red color; giving from yellow-red to violet vats with hydrosulfite and caustic soda lye, which vats dye unmordanted cotton from yellow to violet to brown shades, substantially as described.

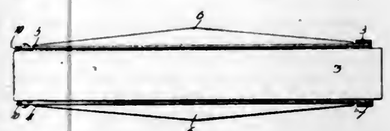
2. The herein-described new vat dyestuff of the anthracene series which can be obtained by condensing adipic acid with 1-aminoanthraquinone, which dyestuff is, after being dried and pulverized, a yellow powder which is practically insoluble in water and in the usual organic solvents; soluble in concentrated sulfuric acid with a yellow color; giving a red vat with hydrosulfite and caustic soda lye, which vat dyes cotton beautiful yellow shades, substantially as described.

938,566. YELLOW DYE. PAUL FISCHER, Elberfeld, Germany, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed Apr. 14, 1909. Serial No. 489,786.

1. The herein described new vat dyestuffs of the anthracene series which can be obtained by condensing one molecule of succinic acid with two molecules of an aminoanthraquinone, which dyestuffs are, after being dried and pulverized, colored powders practically insoluble in water and in the usual organic solvents, soluble in concentrated sulfuric acid with a yellow to red color; giving from yellow to red vats with hydrosulfite and caustic soda lye, which vats dye unmordanted cotton from yellow to violet to brown shades, substantially as described.

2. The herein described new vat dyestuff of the anthracene series which can be obtained by condensing succinic acid with 1-aminoanthraquinone, which dyestuff is, after being dried and pulverized, a yellow powder which is practically insoluble in water and in the usual organic solvents; soluble in concentrated sulfuric acid with a yellow color; giving a yellowish-red vat with hydrosulfite and caustic soda lye, which vat dyes cotton beautiful yellow shades, substantially as described.

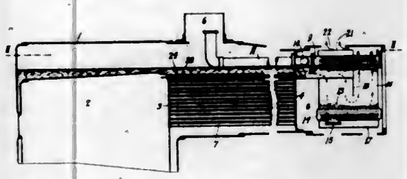
938,567. CORSET-CLAMP. SIDNEY E. FLORSHEIM, Chicago, Ill., assignor of one-fourth to Simon Florsheim, one-fourth to Leonard S. Florsheim, and one-fourth to Norman S. Florsheim, Chicago, Ill. Filed Feb. 26, 1909. Serial No. 480,171.



1. In a corset clamp, the combination of a relatively long and narrow block comprising a fixed section, arms pivoted to the side walls of said block comprising movable sections, a ledge formed on each of said arms providing a reinforcement and a finger piece for moving said arms, and stops secured to the side walls of said block formed to provide rests for said arms when lowered into locking position, substantially as described.

2. In a corset clamp, the combination of a relatively long and narrow block comprising a fixed section, arms attached to the side walls of the said block, comprising movable sections, a ledge formed on each of said arms, providing a reinforcement and finger piece for moving said arms, stops secured to the side walls of said block, formed to provide rests for said arms when lowered into locking position, and washers interposed between the block and the arms to provide sufficient clearance between said block and arms to allow the interposition of corset sections, substantially as described.

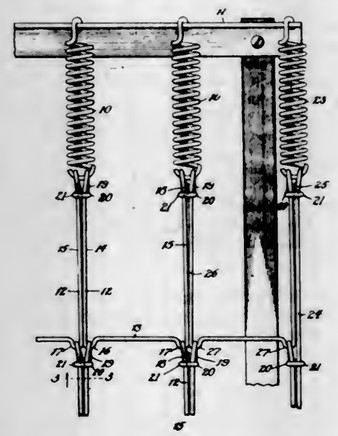
938,568. STEAM-SUPERHEATER. ERNEST H. FOSTER and JOHN PAIMROSE, New York, N. Y. Filed Jan. 8, 1906. Serial No. 295,095.



1. The combination with a steam boiler having a fire-box, or furnace, and a smoke-box, of two pairs of companion headers extending lengthwise of the smoke-box, one member of each pair being located in the upper part of the box near the center thereof and the other member of each pair being located near the bottom of the box, superheating tubes connecting the upper and lower headers respectively, inclosing chambers for the superheaters each chamber being provided with a partition depending from its top wall of less length than the height of the chamber, and means for discharging hot gases from the upper row of fire-tubes into the upper portion of the chamber in rear of said partition, the upper part of the front portion of said chambers being in communication with the smoke outlet.

2. The combination with a steam boiler, having a fire box or furnace, and a smoke box, of two pairs of companion headers extending lengthwise of the smoke box, one member of each pair being located in an upper part of the box near the center thereof and the other member of each pair being located near the bottom of the box, superheating tubes connecting the upper and lower headers respectively, inclosing chambers for the superheaters, means within the chambers for causing the circuitous passage of hot gases therethrough, and means for discharging gases from the upper row of fire tubes into the rear portion of the chambers, the front portion of said chambers being in communication with the smoke outlet.

938,569. COUCH FABRIC. CHARLES H. GAIL, Kenosha, Wis. Filed Mar. 23, 1909. Serial No. 485,214.



1. In a wire fabric for couches, beds, and the like, the combination of parallel chains each composed of a series of substantially U-shaped wire links, each of said links having means integral therewith at the ends of their legs or sides engaging the opposite end of an adjacent link of the same chain, one of said engaging means of each link having a portion bent laterally about the leg or side strand of an adjacent link of another chain, whereby said parallel chains are transversely connected together, substantially as described.

2. In a wire fabric for couches, beds, and the like, the combination of parallel chains each composed of a series of substantially U-shaped wire links, each of said links having means integral therewith at the ends of their legs or sides engaging the opposite end of an adjacent link of the same chain, one of said engaging means of each link having a portion extending over its leg of its own link and bent laterally about a leg or side strand of an adjacent link of another chain, whereby said parallel chains are transversely connected together, substantially as described.

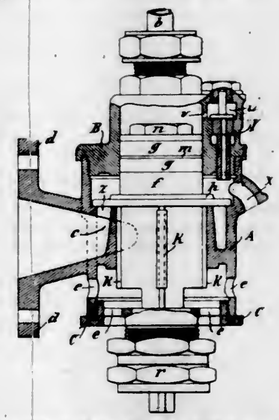
3. In a wire fabric for couches, beds, and the like, the combination of parallel chains each composed of a series of substantially U-shaped wire links the wires of which at the junctions of their cross-bars or strands with their legs or side strands are bent or crimped to form bights or seats, each of said links having a hook at the end of one of its legs engaging one of the bights or seats of an adjacent link of the same chain, the end of the other leg of each link having a loop engaging the remaining bight or seat of said adjacent link, said loop having a lateral hook passing over the corresponding leg of its own link and about a leg of an adjacent link of another chain, whereby said parallel chains are transversely connected together, substantially as described.

4. In a wire fabric for couches, beds, and the like, the combination of parallel chains each composed of a series of substantially U-shaped wire links, each of said links having means integral therewith at the ends of their legs or sides engaging the opposite end of an adjacent link of the same chain, one of said engaging means of each link having a portion bent laterally about the leg or side strand of an adjacent link of another chain, whereby said parallel chains are transversely connected together, and means to prevent the other engaging means of each link from opening up or straightening out, substantially as described.

5. In a wire fabric for couches, beds, and the like, the combination of parallel chains each composed of a series of substantially U-shaped wire links, each of said links having a hook at the end of one of its legs engaging the opposite end of an adjacent link of the same chain, the end of the other leg of each link having a loop also engaging said adjacent link, said loop having a lateral hook passing over the corresponding leg of its own link and about the hook of an adjacent link of another chain, whereby said parallel chains are transversely connected together and the hooks are prevented from opening up or straightening out, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

938,570. AUTOMATIC RELIEF-VALVE. NUNZIO GAMBINO, Palermo, Italy. Filed July 26, 1907. Serial No. 385,670.



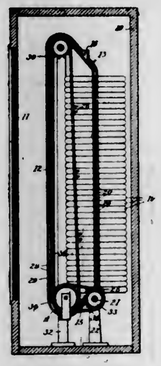
In an automatic relief valve for steam cylinders, a valve casing divided into three chambers, an upper chamber adapted for being put into communication with the steam-chest, the middle chamber adapted to be put into communication with the cylinder, and the lower chamber adapted to be put into communication with the atmosphere, a piston working in the upper chamber and provided with adjustable bronze packing, a spring in the lower chamber adapted to relieve the shocks in the valve seats, a double seated valve coöperating with the piston, in combination with an exhaust valve communicating with the upper casing portion, and adapted to be operated by the piston and the double seated valve, substantially as set forth.

938,571. DISPLAY APPARATUS. JOSEPH GAYNOR, New York, N. Y. Filed June 5, 1909. Serial No. 500,274.

1. A display apparatus comprising an endless track having connected front and rear sections, reversible frames having gudgeons engaging the track and adapted to be stacked along the rear track-section, an endless feed chain having lifters adapted to engage the gudgeons, and a shield back of the front run of said chain and adapted to be engaged by the frames.

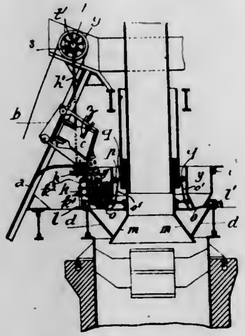
2. A display apparatus comprising an endless track composed of a front upright section, an upper inclined section, a rear upright section, a step at the bottom thereof, and a lower inclined section, frames having gudgeons engaging the track and adapted to be supported by the step, means for forcing the gudgeons from the step into the lower inclined track-section, a feed chain having lifters adapted to

engage the gudgeons, and a shield back of the front run of said chain and adapted to be engaged by the frames.



3. A display apparatus comprising an endless track having front and rear sections connected by an upper gravity run and a lower gravity run, reversible frames having gudgeons engaging the track and adapted to be stacked along the rear track-section, means for conveying the frames from the rear track-section to the lower gravity run, means for righting the frames, and means for propelling the righted frames along the front track-section and conveying them to the upper gravity run.

938,572. MECHANICAL CHARGING APPARATUS FOR BLAST-FURNACES. LÉON GEUZE, Trith St. Léger, France. Filed July 10, 1905. Serial No. 269,078.



1. In an apparatus of the character described, the combination with a fixed hopper, and a cone movable relatively to said hopper and adapted to close the discharge opening thereof, of a rotatable hopper provided with a plurality of compartments, movable bottoms for said compartments, and means for operating said bottoms to permit the contents of said compartments to be discharged into the fixed hopper.

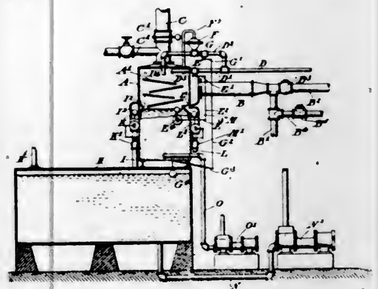
2. In an apparatus of the character described, the combination with a fixed hopper, and a cone movable relatively thereto and adapted to close the discharge opening of said hopper, of a rotatable hopper provided with a plurality of compartments, movable bottoms for said compartments, means for operating said bottoms to permit the contents of said compartments to be discharged into the fixed hopper, and means for imparting intermittent rotation to the rotatable hopper.

3. In an apparatus of the character described, the combination with a fixed hopper, and a cone movable relatively thereto and adapted to close the discharge opening of said hopper, of a rotatable hopper provided with a plurality of compartments, movable bottoms for said compartments, means for operating said bottoms to permit the contents of said compartments to be discharged into the fixed hopper, means for imparting intermittent rotation to the rotatable hopper, a traveling carriage and a truck carried thereby adapted to be tilted to discharge its contents into the rotatable hopper.

4. In an apparatus of the character described, the combination with a fixed hopper, and a cone movable relatively thereto and adapted to close the discharge opening of said hopper, of a rotatable hopper provided with a plurality of compartments, movable bottoms for said compartments, means for operating said bottoms to permit the contents of said compartments to be discharged into the fixed hopper, a traveling carriage, a truck carried thereby and means for automatically tilting the truck at a predetermined point in the movement of the carriage.

5. In an apparatus of the character described, the combination with a fixed hopper, and a cone movable relatively thereto and adapted to close the discharge opening of said hopper, of a rotatable hopper provided with a plurality of compartments, movable bottoms for said compartments, and means for operating said bottoms comprising chains o', shafts q having universal joint connections, pulleys mounted upon said shafts to which said chains are secured, a vertically movable rod carried by the rotatable hopper, a cam-faced track upon which the said rod bears, and a connection between said rod and said shafts.

938,573. FEED-WATER HEATER. GEORGE H. GIBSON, Montclair, N. J., assignor to Joseph S. Lovering Wharton, William S. Hallowell, and John C. Jones, Philadelphia, Pa., a Firm. Filed June 10, 1909. Serial No. 501,344.



1. In a feed water heater, the combination with a heater tank and a steam supply connection thereto, of means directly responsive to the steam pressure in the tank for admitting water to the heater when said pressure exceeds a predetermined amount.

2. In a feed water heater, the combination with a heater tank and the usual steam supply and hot water discharge connections thereto, of means directly responsive to the steam pressure in the tank for admitting water to the heater when said pressure exceeds a predetermined amount, a storage reservoir, and connections between the heater tank and reservoir to permit water to overflow from said heater into the reservoir.

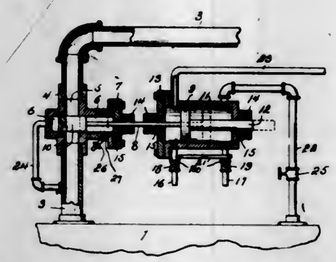
3. In a feed water heater, the combination with a heater tank and steam supply connections thereto, of a cold water supply pipe, a fluid pressure valve therein, and a conduit connecting said valve and tank whereby the valve is opened and closed in direct response to the pressure in said tank.

4. In a feed water heater, the combination with a heater tank and steam supply connection thereto, of two cold water supply passages to the tank, means for opening and closing one of said passages automatically as the water level falls and rises in said tank, and means directly responsive to the pressure in the tank for opening and closing the other water supply passage as the pressure in the tank rises and falls.

5. In a feed water heater, the combination with a heater tank and the usual steam supply and hot water discharge connections thereto, of a cold water supply connection to said tank, a storage reservoir, connections between it and the tank, through which water may overflow from the tank into the storage reservoir, two valves in said cold water supply connection, means responsive to the water level in the storage reservoir for controlling one of said valves arranged to hold said valve open except when the storage reservoir is filled, and means responsive to the pressure in the tank for opening the other of said valves when the pressure in the tank rises beyond a predetermined amount.

[Claims 6 to 8 not printed in the Gazette.]

938,574. AUTOMATICALLY-CLOSING VALVE. FREDERICK H. GOLDSMITH, Kansas City, Mo. Filed Mar. 6, 1908. Serial No. 419,515.



1. The combination with a vessel adapted to contain fluid under pressure, of a discharge conductor connected therewith, a valve reciprocative to and from a position closing said conductor, means by which fluid from said vessel is applied at one end of said valve to force it to the open position, a cylinder, a piston reciprocative in said cylinder, a piston rod to which said valve and piston are secured, and means by which fluid is conveyed to said cylinder from said discharge conductor and from said vessel and simultaneously applied at both ends of said piston.

2. The combination with a vessel adapted to contain fluid under pressure, of a discharge conductor connected therewith, a reciprocative valve for closing said conductor, means by which fluid from said vessel is applied to said valve in a direction tending to force said valve to the open position, a cylinder, a piston reciprocative in said cylinder and movable with said valve, opposite ends of said piston having different areas subjected to fluid pressure, a piston rod to which said valve and piston are secured, and means by which fluid is conveyed from said discharge conductor and from said vessel and discharged in said cylinder at opposite ends of said piston.

3. The combination with a vessel adapted to contain fluid under pressure, of a discharge conductor connected therewith, a valve for closing said conductor, means by which, when said valve is closed, fluid at a pressure of that contained in the vessel, is applied to the valve in a manner tending to force the same to the open position, a cylinder, a piston reciprocative in the cylinder, a piston rod to which said valve and piston are secured, conductors connected respectively to the discharge conductor and to said vessel and connected respectively to said cylinder at opposite ends of said piston, and a shut-off valve in the conductor connecting the cylinder and vessel.

4. The combination with a vessel for containing fluid under pressure, of a discharge conductor connected therewith, a valve for closing said conductor, a cylinder having two discharge openings and two inlet openings, a piston reciprocative in said cylinder intermediate said discharge openings and intermediate said inlet openings, a piston rod to which said valve and piston are secured, means for applying to said valve a constant pressure from said vessel tending to force said valve to the open position, a conductor connected at one end with said cylinder at one of said inlet openings and at the other end connected to said discharge conductor, a conductor connected to said cylinder at the other inlet opening and connected to said vessel, a shut-off valve in the last named conductor, two valves controlling respectively the two discharge openings of said cylinder, and means for simultaneously operating said two valves.

938,575. TUBING. EDWIN T. GREENFIELD, Kiamesha, N. Y. Filed Oct. 3, 1908. Serial No. 456,076.



1. A tubing consisting of a single strip of sheet-metal spirally formed with a portion of each spiral underlapping the next adjacent spiral, said strip having the underlapping edge thereof weakened at intervals throughout the length of the strip, substantially as set forth.

2. A tubing consisting of a single strip of sheet-metal spirally formed with a portion of each spiral underlapping the next adjacent spiral, said strip having the underlapping edge thereof weakened at intervals throughout the length of the strip on lines extending from the underlapping edge toward the other edge, substantially as set forth.

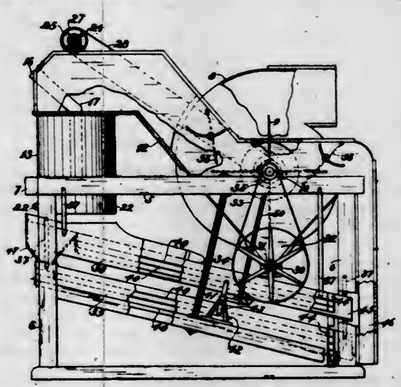
3. A tubing consisting of a strip of sheet-metal formed spirally with each convolution overlapping and interlocking with the convolution adjacent thereto, the strip for said tubing being weakened at intervals, substantially as set forth.

4. A tubing consisting of strip-metal formed spirally with each convolution lapping and interlocking with the convolution adjacent thereto, the underlapping portions of certain of the convolutions being cut or weakened so that they may be readily ruptured, substantially as set forth.

5. A tubing consisting of strip-metal formed spirally with each convolution lapping and interlocking with the convolution adjacent thereto, the underlapping portions of certain of the convolutions being cut or weakened so that they may be readily ruptured and the positions of said cuts or weakened portions being indicated upon the exterior of the tubing, substantially as set forth.

[Claims 6 to 9 not printed in the Gazette.]

938,576. GRAIN CLEANER AND SEPARATOR. FRED GROTENRATH, Milwaukee, Wis. Filed May 22, 1907. Serial No. 375,108.



1. A grain cleaner and separator, comprising a disk, vertical rods surrounding said disk and extending above

and below the horizontal plane thereof and connected only at the top, means for feeding grain to the disk, means for revolving said disk to discharge the grain therefrom centrifugally and throw the grain against the vertical rods, and pneumatic means for separating the chaff and light particles from the grain being discharged from said disk.

2. A grain cleaner and separator, comprising a cylinder, a disk within said cylinder, vertical rods surrounding said disk and extending above and below the horizontal plane thereof and connected only at the top, a tube above said disk, means for feeding grain to the disk through said tube, means for revolving said disk to discharge the grain therefrom centrifugally and throw said grain against the vertical rods, and pneumatic means for separating the chaff and light particles from the grain being discharged from the said disk.

3. A grain cleaner and separator, comprising a cylinder, vertical rods having free lower ends within said cylinder, a disk within said cylinder, means for feeding grain to the disk, means for revolving said disk to discharge the grain therefrom centrifugally, means for pneumatically separating the chaff and light particles from the grain being discharged from said disk, frames provided with screens suspended below said cylinder, said frames provided with discharge openings, and means for vibrating said frames.

4. A grain cleaner and separator, comprising a cylinder, a disk within said cylinder, vertical rods surrounding said disk and extending above and below the horizontal plane thereof and having free lower ends, means for feeding grain to the disk, means for revolving said disk to discharge the grain therefrom centrifugally, means for pneumatically separating the chaff and light particles from the grain being discharged from said disk, frames provided with screens suspended below said cylinder and each frame positioned to receive a portion of the grain discharged from said cylinder, said frames provided with discharge openings, and means for vibrating said frames in opposite directions with relation to each other.

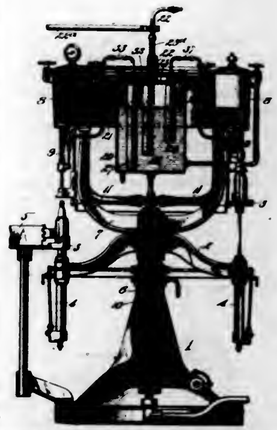
5. A grain cleaner and separator, comprising a main frame, cylinders mounted in said frame, a disk within each cylinder, a shaft connected to each disk, a tube surrounding each shaft, means for feeding grain to each disk through each tube, a gear on each shaft, another shaft provided with gears in mesh with the gears first mentioned, means for rotating the last mentioned shaft to revolve the disks to discharge the grain therefrom centrifugally, a suction fan connected to said main frame, passageways connecting the fan to the cylinders whereby the chaff and light particles are separated from the grain being discharged from the disks, inclined frames provided with screens suspended below said cylinders, links to which said frames are suspended, said frames provided with discharge openings, a passageway adjacent to said discharge openings and in communication with the exhaust fan, crank connections between the frames and a shaft, eccentrics on a shaft connected to the exhaust fan, and connections between the eccentrics and the crank connections adapted to rock the shaft provided with the crank connections and vibrate the frames in opposite directions with relation to each other.

[Claims 6 to 9 not printed in the Gazette.]

938,577. PROCESS OF BOTTLING BEER. RUDOLF GULL, St. Louis, Mo. Filed Apr. 15, 1907. Serial No. 368,379.

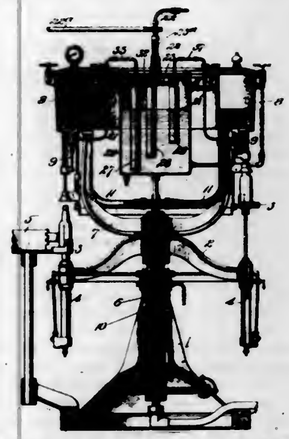
1. The improvement in the method of bottling beer consisting in maintaining in the bottles while they are being filled with beer, and independent of the flow of the beer, a higher gaseous pressure than on the surface of the supply or column of beer with which the bottles are filled, and changing such higher pressure at predetermined intervals during the time the beer is entering the bottles, substantially as set forth.

2. The improvement in the method of bottling beer consisting in maintaining successively in the bottles while they are being filled with beer two or more distinctly different gaseous pressures each one of which is successively maintained in a substantially constant proportion to the gaseous pressure on the column of beer, substantially as set forth.



3. The improvement in the method of bottling beer, consisting in maintaining in the bottles while they are being filled a higher gaseous pressure than that on the column of beer from which the bottles are filled, and in maintaining such higher gaseous pressure within the bottles at such a proportion to the gaseous pressure on the column of beer that the surplus of pressure in the bottle over the gaseous pressure on the column of beer balances the weight of the column of beer above the level of beer in the bottle as soon as the beer in the bottle reaches a predetermined level.

938,578. MACHINE FOR BOTTLING BEER. RUDOLF GULL, St. Louis, Mo. Filed Apr. 15, 1907. Serial No. 368,380.



1. In a machine of the class described, a tank containing a body of liquid, pipes communicating with the filling spouts of the machine, tubes communicating with said pipes and which are arranged within said tank and communicate, internally, at points of different elevations with said liquid, and a supply pipe for furnishing air to said tubes and pipes, substantially as set forth.

2. In a machine of the class described, a tank containing a body of liquid, pipes communicating with the filling spouts of the machine, tubes of different lengths communicating with said pipes and arranged within said tank, and a supply pipe for furnishing air to said tubes and pipes; said tubes having perforations at their lower ends beneath the surface line of the liquid, substantially as set forth.

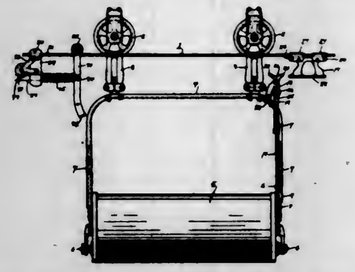
3. In a machine of the class described, a tank containing a body of liquid, a head located within the tank and provided with air ducts, pipes forming a communication between said air ducts and the filling spouts of the machine, tubes located in said liquid tank and which communicate with said air ducts and with the liquid in the tank, and a pipe for supplying air to said tubes and pipes, substantially as and for the purpose set forth.

4. In a machine of the class described, a tank containing a body of liquid, a head located within the tank and provided with air ducts, pipes forming a communication between said air ducts and the filling spouts of the machine, tubes located in said liquid tank and which communicate with said air ducts and the liquid in the tank at points of different elevations, and a pipe for supplying air to said tubes and feed pipes, substantially as and for the purpose set forth.

5. In a machine of the class described, a tank containing a body of liquid, a head located within the tank and provided with air ducts, pipes forming a communication between said air ducts and the filling spouts of the machine, tubes of different lengths communicating with said pipes and arranged within said tank, and a supply pipe for furnishing air to said tubes and pipes; said tubes having perforations at their lower ends beneath the surface of the liquid, substantially as and for the purpose set forth.

[Claims 6 to 30 not printed in the Gazette.]

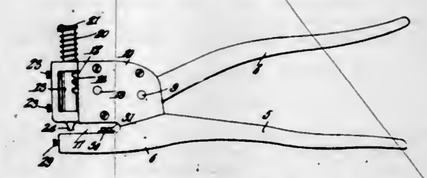
938,579. TRIP MECHANISM AND REACTION-STOP FOR LITTER-CARRIERS. WILLIAM GUTENKUNST, Milwaukee, Wis. Filed Mar. 1, 1909. Serial No. 480,532.



1. In a track supported carrier of the described class, the combination of a receptacle supporting bail, the side arms of which comprise two overlapping members adjustably secured together, a rigid V-shaped releasing bracket pivotally supported from said bail, a locking bar slidably connected to one of the vertical arms of said bail adapted to engage a locking cam on one end of said receptacle, a link adjustably secured at its lower end to the upper end of the locking bar, and slidably secured at its upper end to said link substantially as set forth.

2. In a carrier of the described class, comprising a track, a receptacle, a stationary bail, rollers, and yokes for suspending said bail and receptacle from said track, trip mechanism for locking and releasing said receptacle as it is alternately fired at one end of the track and inverted and emptied at the other, in combination with a re-action stop supported on said track, comprising a contact arm, a roller revolubly supported from the upper end of said arm on said track, a guide bar affixed at one end to said contact arm and having sliding bearings at its opposite end in a stationary supporting member, a stationary supporting member, a spiral spring carried by said guide bar and interposed between said contact arm and said stationary member, a roller bearing revolubly supported from said stationary member and adapted to bear upon and diminish the friction of said guide bar, said contact arm being adapted to be forced rearwardly and said spring compressed by contact of the moving carrier bail, until the momentum of said carrier is stopped, when it is thrown by the re-coil of said spring in the opposite direction against the supporting bail of said carrier, whereby said carrier is thrown back to its starting point, substantially as and for the purpose specified.

938,580. PUNCH. FERDINAND HARLING, Shenandoah, Iowa. Filed Mar. 3, 1909. Serial No. 481,209.



1. In a tool of the class described, a handle member, a barrel carried thereby, a plunger fitted in the barrel, the plunger being of a diameter considerably less than that of the barrel, means in that portion of the barrel not occupied by the plunger for normally confining the plunger in the barrel, and means for actuating the plunger.

2. In a tool of the class described, a handle member, a barrel carried thereby, a plunger in the barrel, the said plunger being of rack formation, a gear meshing with the rack of the plunger, whereby to actuate the latter, the plunger being of a diameter considerably less than that of the barrel, means in that portion of the barrel not occupied by the plunger normally holding the plunger with its rack in mesh with the gear, said means being releasable to permit movement of the plunger to position with its rack portion out of mesh with the gear, and means for actuating the gear.

3. In a tool of the class described, a handle member, a barrel carried thereby, a plunger in the barrel, said plunger being of a diameter considerably less than that of the barrel, means engaging the plunger whereby to actuate the same, means in that portion of the barrel not occupied by the plunger normally holding the plunger in engagement with the first mentioned means, the last mentioned means being releasable to permit movement of the plunger away from the first mentioned means.

4. In a tool of the class described, a handle member, a barrel carried thereby, a plunger fitted in the barrel, the plunger being of a diameter considerably less than that of the barrel, means engaging the plunger operable to actuate the same, and adjustable means in that portion of the barrel not occupied by the plunger engaging with the plunger and holding it normally in engagement with the first mentioned means.

5. In a tool of the class described, a handle member, a barrel carried thereby, a plunger fitted in the barrel, the plunger being of a diameter considerably less than that of the barrel, means engaging with the plunger operable to actuate the same, a plate removably disposed within the barrel and against the plunger, and means in that portion of the barrel not occupied by the plunger and the plate bearing against the plate to hold the plunger normally in engagement with the first mentioned means.

[Claims 6 to 8 not printed in the Gazette.]

938,581. CARBID AND METHOD OF MANUFACTURING SAME. HERMAN L. HARTENSTEIN, Constantine, Mich., assignor, by mesne assignments, to Continental Investment Company, Duluth, Minn., a Corporation of Minnesota. Filed Feb. 23, 1907. Serial No. 358,922. Renewed Aug. 20, 1909. Serial No. 513,890.

1. In the manufacture of carbid, the process which comprises producing a fused liquid mass of such carbid and agitating the same while solidifying.

2. In the manufacture of calcium carbid, the process which comprises producing a fused liquid mass of such calcium carbid, and agitating the same while solidifying.

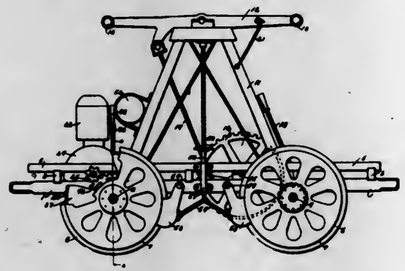
3. In the manufacture of carbid, the process which comprises producing a molten mass of carbid, partially cooling a separate portion of the mass and building up a block or ingot by successive additions to the portion first cooled.

4. In the manufacture of calcium carbid, the process which comprises producing a molten mass of calcium carbid, partially cooling a separate portion of the mass and building up a block or ingot by successive additions to the portion first cooled.

5. In the manufacture of carbid, the process which comprises producing molten carbid and gradually drawing off such molten carbid and accumulating it in the form of a block or ingot, the carbid being agitated while accumulating.

[Claims 6 to 15 not printed in the Gazette.]

938,582. RAILWAY MOTOR-CAR. WILLIAM S. HOVEY and MILTON H. RIX, Three Rivers, Mich., assignors to Sheffield Car Company, Three Rivers, Mich. Filed Mar. 11, 1909. Serial No. 482,787.



1. In a structure of the class described, the combination with a hand car provided with the usual gallows frame and hand lever, of means for throwing the said hand lever into and out of gear; an explosion engine arranged in front of said gallows frame, centrally of the hand car and between the front wheels thereof; a shaft driven by said engine, said shaft extending the width of the hand car and into proximity with the traction wheels at each side; a gear on each end of said shaft; a clutch member arranged within each of the opposite traction wheels of said car, positioned to contact and engage a suitable friction surface between the tread and web of said wheel, each clutch member having a hub surrounding the hub of each said wheel; an external gear on the hub of one of said clutch members and an internal gear on the clutch member of the opposite traction wheel arranged in mesh with the pinions on said shaft; a spring on the axle for each of said clutch members to urge the same into contact with said wheel; a grooved collar with a forked lever for controlling each of said clutch members; a centrally-located lever with link connections to the levers for controlling said clutches, said links being provided with slotted connections to permit of lost motion; means for adjusting the said central lever whereby either clutch can be thrown into engagement whereby the car may be driven forward or reversed, all coacting substantially as described and for the purpose specified.

2. In a structure of the class described, the combination with a hand car; an explosion engine arranged between the front wheels thereof; a shaft driven by said engine, said shaft extending the width of the hand car and into proximity with the traction wheels at each side; a gear on each end of said shaft; a clutch member arranged within each of the opposite traction wheels of said car, positioned to contact and engage a suitable friction surface between the tread and web of said wheel, each clutch member having a hub surrounding the hub of each said wheel; an external gear on the hub of one of said clutch members and an internal gear on the clutch member of the opposite traction wheel arranged in mesh with the pinions on said shaft; a spring on the axle for each of said clutch members to urge the same into contact with said wheel; a grooved collar with a forked lever for controlling each of said clutch members; a centrally-located lever with link connections to the levers for controlling said clutches, said links being provided with slotted connections to permit of lost motion; means for adjusting the said central lever whereby either clutch can be thrown into engagement whereby the car may be driven forward or reversed, all coacting substantially as described and for the purpose specified.

3. In a structure of the class described, the combination with a hand car provided with the usual gallows frame and hand lever, of means for throwing the said hand lever into and out of gear; an explosion engine arranged in front of said gallows frame, centrally of the hand car and between the front wheels thereof; a shaft driven by said engine, said shaft extending the width of the hand car and into proximity with the traction wheels at each side; a gear on each end of said shaft; a clutch member arranged to co-act with the friction surface on the corresponding traction wheel of said car; an external gear secured to one of said clutch members and an internal gear secured to the opposite clutch member arranged to mesh with the gears on the opposite ends of said shaft; a centrally-located lever connected by suitable links, there being a lost motion connection in the said links whereby they can be thrown into engagement as desired, all coacting substantially as described and for the purpose specified.

4. In a structure of the class described, the combination with a hand car provided with the usual gallows frame and hand lever, of means for throwing the said hand lever into and out of gear; an explosion engine arranged in front of said gallows frame, centrally of the hand car and between the front wheels thereof; a shaft driven by said engine, said shaft extending the width of the hand car and into proximity with the traction wheels at each side; a gear on each end of said shaft; a clutch member arranged to coact with the friction surface on the corresponding traction wheel of said car; an external gear secured to one of said clutch members and an internal gear secured to the opposite clutch member arranged to mesh with the gears on the opposite ends of said shaft; means for controlling said clutch members independently, all coacting substantially as described and for the purpose specified.

5. In a structure of the class described, the combination with a hand car provided with the usual gallows frame and hand lever; means for throwing the said hand lever into and out of gear and locking the lever when disengaged; an engine; a shaft driven by said engine; a gear on said shaft; a clutch member arranged within the traction wheel of said car positioned to contact and engage a suitable friction surface between the tread and web of said wheel; a hub on said clutch member surrounding the hub of said wheel; a gear on the hub of said clutch member meshing with the said pinion; a spring on the axle for urging the said clutch member into contact with the said wheel; a grooved collar with a forked lever for controlling said clutch member; a ball thrust bearing at the outer end of said clutch spring, coacting substantially as described and for the purpose specified.

[Claims 6 to 22 not printed in the Gazette.]

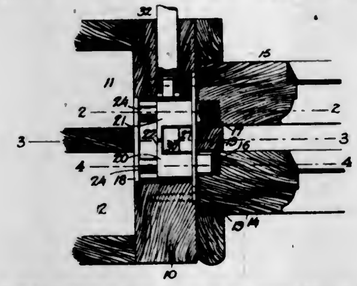
938,583. COMBINATION-TOOL. THOMAS B. HUESTIS, Bristol, R. I. Filed Apr. 30, 1908. Serial No. 430,094.

A tool for cutting the threads in valve stems and truing the outer end thereof composed of a shank of uniform diameter having a plain surface, cutting parts on one end of said shank forming a shoulder at the inner end thereof, a cutter slidably mounted on said shank above said cutting parts and being non-rotatable with the shank, and a handle for rotating said shank secured to the opposite end of the shank, said handle at its inner end forming a shoulder, said cutter being confined on said shank by virtue of said shoulders and having its sliding movement on said shank



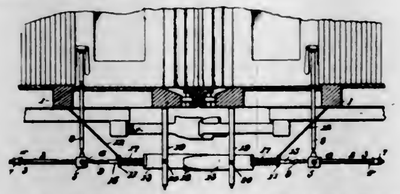
limited thereby; and being capable of rotatable movement independently of said shank.

938,584. SASH-FASTENER. CHARLES A. HUNT, Newburgh, N. Y. Filed Oct. 30, 1908. Serial No. 460,292.



In a sash fastener, the combination with a box adapted to fit in the wall of the window frame, of a perforated plate carried by said box, of bolts within the box and having beveled ends fitting through the perforations formed in the box, sashes with rack bars for the bolts, cups fitting in the rear end of the bolts and inclosing springs, abutting flanges on the rear ends of the bolts, a key held against lateral movement and operating upon the flanges, and a filling piece preventing the forward movement of the key.

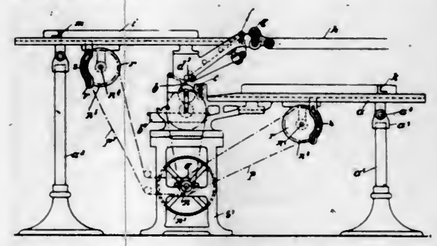
938,585. AUTOMATIC TRAIN-LINE COUPLING. JOHN W. JACKSON, Uhrichsville, Ohio. Filed Sept. 24, 1908. Serial No. 454,493.



1. The combination of a car provided with a train line pipe, of a coupler head therefor, a spring plate, rods secured to said coupler head and working through said plate, a support on the car for said spring plate, springs encircling said rods and bearing against the coupler heads and spring plate, a pipe mounted to slide longitudinally in said coupler head and extending through the spring plate, a valve casing secured to the train line pipe, and a flexible connection between said train line pipe and the pipe that is mounted in the coupler head.

2. The combination with a car embodying a cross sill and a train line pipe extending under said sill, of a valve casing secured to said train line pipe, a spring plate, brace rods connecting said spring rods to the sill, a pipe extending through said spring plate and having a flexible connection with said train line pipe, a coupler head formed with an opening in which said pipe is designed to slide, and a yielding connection between said coupler head and said train pipe.

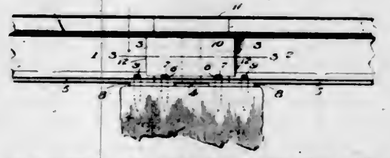
938,586. MACHINE FOR COATING PASTEBOARD WITH PAPER AND THE LIKE. WALTER KELLNER, Langerfeld, near Barmen, Germany. Filed May 6, 1909. Serial No. 494,490.



1. In a machine for lining paste board with paper, textile and the like the combination of a table carrying the paste board, and a table carrying the paper, said tables being reciprocated, means to travel them, of a gluing apparatus arranged before the paper table and pressing rolls mounted before the paste board table and means to feed the paper to the gluing device and the pressure rollers as described and for the purpose set forth.

2. In a machine for lining paste board with paper, textile and the like the combination of a table carrying the paste board, and a table carrying the paper, said tables being reciprocated, a revolving disk fitted to each table and having a pin, a curved slotted bar engaging said pin and projecting from each table support of a gluing apparatus arranged before the paper table, and pressing rolls mounted before the paste board table and means to feed the paper to the gluing device and the pressure rollers as described and for the purpose set forth.

938,587. BOLTLESS RAIL-JOINT. FRANK KELLY, Evansville, Ind. Filed Sept. 21, 1908. Serial No. 453,922.



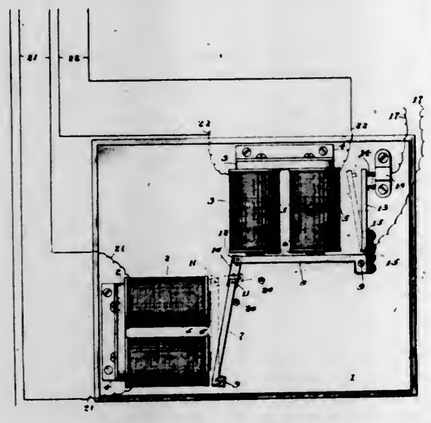
1. In a boltless rail joint, the combination with rail ends having their webs extended beyond their heads and bases, of a joint having a bifurcated web receiving and overlapping said web extensions, said joint having a head resting on said web extensions and a base fitting in between and abutting the bases of the rail ends.

2. In a boltless rail joint, the combination with rail ends having their webs extended beyond their heads and bases, of a joint having a bifurcated web receiving said web extensions and overlapping the heads and bases of said webs, said joint having a head resting on said we extensions and a base fitting in between and abutting th bases of the rail ends.

938,588. SELF-LOCKING RELAY. JEROME F. KEELY, Chicago, Ill. Filed Jan. 16, 1909. Serial No. 472,748.

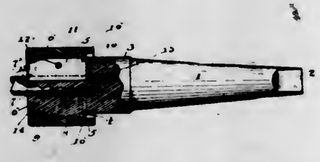
In a device of the character described, a magnet in electrical connection with a clock control switch provided with a pivoted armature having an insulated arm secured thereto adapted to open and close a time recorder circuit

switch, a second magnet also in electrical connection with a clock control switch and provided with a pivoted armature, and a connecting link pivoted to said armatures,



whereby each armature is self-locking and adapted to be unlocked by the other armature, substantially as and for the purposes set forth.

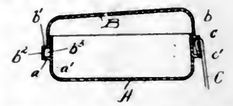
938,589. DRILL-CHUCK. HERMAN N. KENNEDY, Chicago, Ill. Filed Mar. 27, 1909. Serial No. 486,242.



1. The combination with a drill having a longitudinal groove in its shank extending to the edge of said shank, of a chuck comprising a threaded head provided with a tapered end and a central bore and radial slot extending to the end of said head; a threaded cap taking over said head and provided with an internal taper corresponding to the taper of the end of said head; and a clamping jaw pivoted in said slot and having its inner edge projecting into said central bore and adapted to contact with the bottom of said groove for its entire length, the said jaw having a tapered end projecting slightly from its slot and adapted to contact with the internal taper on said cap; and a spring for tilting the outer end of said jaw outwardly, substantially as described.

2. The combination with a drill having a drill 7' provided with a groove 13 extending to the edge of said drill shank and having its bottom substantially parallel with the axis of said drill, of a chuck comprising a threaded head portion 3 and a tapered end portion 6 and provided with a central bore 7 and radial slot 10 extending to the end of said chuck head; and a threaded cap 8 taking over head portion 3 and provided with the internal taper 9 corresponding to the tapered end portion 6; a clamping jaw 11 pivoted in slot 10 and having its inner edge projecting into bore 7 and adapted to contact with the bottom of groove 13 for its entire length, the said jaw having a tapered end projecting slightly from its slot and adapted to contact with the internal taper on said cap; and a circumferential wire spring 16 seated in a groove in the head 3 and pressing inwardly on the inner end of jaw 11, substantially as described.

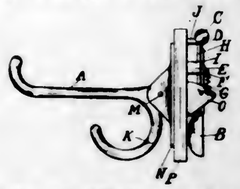
938,590. BOX. MADISON M. KING, Albany, N. Y., assignor of one-half to Morgan Speer, Albany, N. Y. Filed June 17, 1909. Serial No. 502,755.



1. A box provided with a box-body, having a flange, and with a removable lid or cover, having a horizontal flange terminating in a down-turned, perforated extension resting on said box-body flange, and an opening-device, comprising a lever passing through said perforation and having a bent end bearing against said box-body flange.

2. A box provided with a box-body, having a circumferential flange, and with a removable lid or cover, having a circumferential, horizontal flange terminating in a circumferential, down-turned, perforated extension resting on said box-body flange, and an opening-device, comprising a lever passing through said perforation and having a bent end bearing against said box-body flange.

938,591. ADVERTISING HAT-RACK. BLAINE KLUM, Medford, Oreg. Filed Mar. 9, 1908. Serial No. 420,048.



1. In a hat rack, the combination, with the frame and a hook pivoted thereon and having its rear end projecting through said frame, of a lever pivoted on said frame resilient connection between said lever and the rear end of said hook which has a cushioning effect upon the working parts in operation, and a card on one arm of said lever, said resilient connection being attached to the card-carrying arm of said lever, said card being normally concealed behind said frame but adapted to be projected above the same when the front end of the hook is depressed.

2. In a hat rack, the combination, with the frame and a hook pivoted thereon and having its rear end projecting through said frame, of a lever pivoted on said frame, resilient connection between said lever and the rear end of said hook which has a cushioning effect upon the working parts in operation, a clapper on one arm of said lever, and a card on the other arm thereof, said resilient connection being attached to the card-carrying arm of said lever, said card being normally concealed behind said frame but adapted to be projected above the same when the front end of the hook is depressed, and a bell adapted to be struck by said clapper when the lever is turned to project said card.

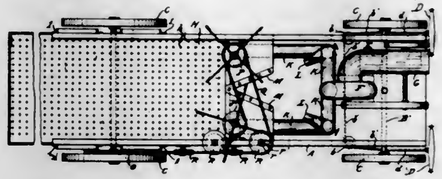
3. In a hat rack, the combination, with the frame and a hook pivoted thereon and having its rear end projecting through said frame, of a lever pivoted on said frame, and a card on one arm of said lever, a coiled spring connecting the rear end of said hook with the card-carrying arm of said lever, said card being normally concealed behind said frame but adapted to be projected above the same when said hook is depressed.

4. In a hat rack, the combination, with the frame and a hook pivoted thereon and having its rear end projecting through said frame, of a lever pivoted on said frame, a card on one arm of said lever, the card-carrying arm of the lever being heavier than the other arm thereof, and resilient connection between the rear end of said hook and the card-carrying arm of said lever whereby the card is normally concealed behind the frame but the depression of the front end of the hook causes the card to be projected above said frame.

5. In a hat rack, the combination, with the frame and a hook pivoted thereon and having its rear end projecting through said frame, of a lever pivoted on said frame, a card on one arm of said lever, the card-carrying end of the lever being heavier than the other arm thereof, and resilient connection between the rear end of said hook and the card-carrying arm of said lever whereby the card is normally concealed behind the frame but the depression of the front end of the hook causes the card to be projected above said frame, and a stop to arrest said lever at a point where said card is upright, said card being arranged obliquely on said lever whereby the latter is inclined when the card is upright.

[Claim 6 not printed in the Gazette.]

938,592. MACHINE TO DESTROY COTTON-BOLL WEEVILS. FREDRICK H. LATHROP, Chicago, Ill., assignor of three-fourths to James Damey, Chicago, Ill. Filed Apr. 2, 1909. Serial No. 487,529.



1. The combination of a frame, axles to the frame, wheels on the axles, a driving wheel attached to one of said first named wheels, reels, wheels on the respective reels arranged to turn therewith, a connection arranged to be actuated by the driving wheel and to communicate its motion to the wheels on the reels, cutting blades arranged so that the reels force stalks thereonto as the device is moved over a row of said stalks, a grate provided with apertures and means to force air through said apertures, said grate arranged to receive stalks which are cut by the blades.

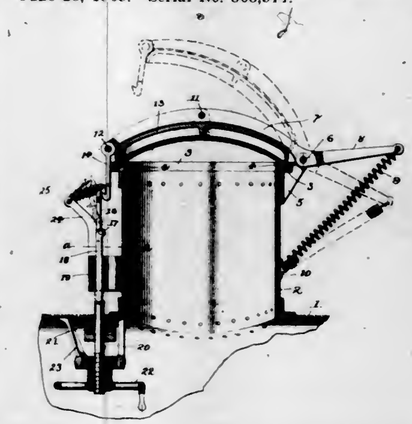
2. The combination of a frame, axles to the frame, wheels on the axles, a driving wheel attached to one of said first named wheels, reels, wheels on the respective reels arranged to turn therewith, a connection arranged to be actuated by the driving wheel and to communicate its motion to the wheels on the reels, cutting blades arranged so that the reels force stalks thereonto as the device is moved over a row of said stalks, a grate provided with apertures, an additional frame and a horizontal plate, said additional frame, plate and grate arranged to obtain a chamber under the grate, and means to force air into said chamber, said grate arranged to receive stalks which are cut by the blades.

3. The combination of a frame, an engine and an air compressor on the frame and axles to the frame, wheels on the axles, a driving wheel attached to one of said wheels to turn therewith, reels, wheels on the respective reels arranged to turn therewith, a connection arranged to be actuated by the driving wheel and to communicate said motion to the wheels on the reels, cutting blades arranged so that said reels force stalks thereonto as the device moves forward over a row of said stalks, a grate provided with apertures, an additional frame and a horizontal plate, said additional frame, plate and grate arranged to obtain a chamber under the grate and a discharge pipe from the air compressor arranged to communicate with said chamber.

4. The combination of a frame, an engine and an air compressor on the frame and axles to the frame, the rear axle arranged to form a U and the forward axle arranged to form an inverted U, means to draw the device attached to the forward axle and means to maintain said forward axle in the inverted U-shaped position, wheels on the axles, a driving wheel attached to one of said wheels to turn therewith, reels, wheels on the respective reels arranged to turn therewith, a connection arranged to be actuated by the driving wheel and to communicate said motion to the wheels on the reels, cutting blades arranged so that said reels force stalks thereonto as the device moves forward over a row of said stalks, a grate provided with apertures, an additional frame and a horizontal plate, said additional frame, plate and grate arranged to obtain a chamber under the grate and a discharge pipe from the air compressor arranged to communicate with said chamber.

5. The combination of a frame, an engine and an air compressor on the frame and axles to the frame, wheels on the axles, a driving wheel attached to one of said wheels to turn therewith, reels, wheels on the respective reels arranged to turn therewith, a connection arranged to be actuated by the driving wheel and to communicate said motion to the wheels on the reels, cutting blades arranged so that said reels force stalks thereonto as the device moves forward over a row of said stalks, a grate provided with apertures, a frame and a horizontal plate, said frame, plate and grate arranged to obtain a chamber under the grate, discharge pipes from the air compressor arranged to communicate with said chamber, and nozzles, said nozzles arranged to direct streams of air flowing therethrough onto material on the grate.

938,593. WATER-TIGHT HATCH OR MANHOLE COVER. MAXIME A. LAUBEUF, Paris, France. Filed June 23, 1909. Serial No. 503,914.



1. A hatch closure comprising in combination with the walls of the hatchway, an arm pivoted to said walls; a hatch cover loosely pivoted to said arm; a latching member carried on said arm; a second latching member; means for bringing stress upon said second latching member; and automatic means controlled by said stressing means for securing engagement and release of said latching members.

2. A hatch closure comprising in combination with the walls of the hatchway, an arm pivoted to said walls; a hatch cover pivoted to said arm and adapted to close said hatchway; a hook carried on said arm; a sliding member; a second hook pivoted to said sliding member; mechanism for moving said sliding member; and means adapted to move said second hook into and out of engagement with said first hook as the sliding member is moved.

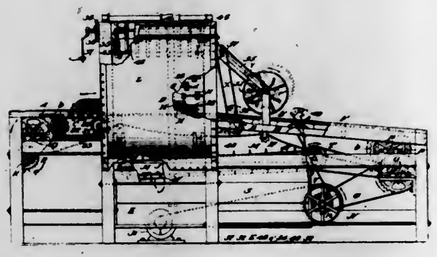
3. A hatch closure comprising in combination with the walls of the hatchway, an arm pivoted to said walls; counterbalance springs attached to said arm; a hatch cover pivoted to said arm and adapted to close said hatchway; a hook carried on said arm; a sliding member; a second hook pivoted to said sliding member; mechanism for moving said sliding member; and means for throwing said second hook into and out of engagement with said first hook, as the sliding member is moved.

4. In combination with the walls of a hatchway, an arm pivoted to said walls; a hatch cover pivoted to said arm; a hook on said arm; a sliding member; means for guiding the same; means for moving said sliding member; a second hook pivoted to said sliding member and adapted to engage the first hook; a spring normally holding said second hook out of engagement; and a guide arm adapted to force the second hook into engagement or release it therefrom as the sliding member is moved in opposite directions.

5. In combination with the walls of a hatchway, an arm pivoted to said walls; a hatch cover pivoted to said arm; counterbalance springs attached to said arm; a hook on said arm; guides carried on the hatch walls; a sliding member mounted on said guides; means for moving said sliding member; a second hook pivoted to said sliding member and adapted to engage the first hook; a spring normally holding said second hook out of engagement; and a guide arm adapted to force the second hook into engagement or release it therefrom as the sliding member is moved in opposite directions.

[Claims 6 to 10 not printed in the Gazette.]

938,594. HOG-SCRAPER. JAMES F. LAWSON, Cincinnati, Ohio, assignor to Cincinnati Butchers Supply Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Sept. 7, 1907. Serial No. 391,783.



1. In a hog-scraping apparatus, the combination of a horizontally supported shell open at both ends, platforms, one opposite each of these ends, a general frame-structure whereby all these parts are combined and supported, a carrier-chain adapted to continuously move over these platforms and through the shell, yieldingly supported scraper-blades in this latter and a set of scraper-blades arranged to travel in a plane in alinement with one of the platforms and moving in a direction opposite to the carrier-chain.

2. In a hog-scraping apparatus, the combination of a horizontally supported shell open at both ends, platforms, one opposite each of these ends, a general frame-structure whereby all these parts are combined and supported, a carrier-chain adapted to continuously move over these platforms and through the shell, yieldingly supported scraper-blades in this latter and revolving scraper-heads at one end of the shell supported respectively below and above the platform.

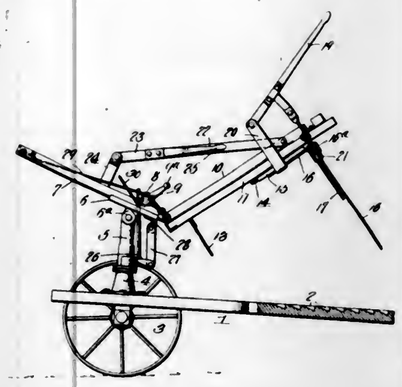
3. In a hog-scraping apparatus, the combination of a horizontally supported shell open at both ends, platforms, one opposite each of these ends, a general frame-structure whereby all these parts are combined and supported, a carrier-chain adapted to continuously move over these platforms and through the shell, yieldingly supported scraper-devices at one end of the shell supported respectively below and above the platform, the upper devices being yieldingly supported.

4. In a hog-scraping apparatus, the combination of a horizontally supported shell open at both ends, platforms, one opposite each of these ends, a general frame-structure whereby all these parts are combined and supported, a carrier-chain adapted to move over these platforms and through the shell, yieldingly supported scraper-blades in this latter, a set of scraper-blades at one end of the shell arranged to travel in a plane in alinement with the platform thereat and moving in a direction opposite to the carrier-chain, and revolving scraper-heads at the other end of the shell supported respectively below and above the platform, all these devices being adapted to act upon a carcass while the same is continuously moving from one to the other.

5. In a hog-scraping apparatus, the combination of a horizontally supported shell provided with scraping means and arranged in two vertically divided sections which have their lower, opposite edges spaced apart and each hingedly connected, means to manipulate them for opening and closing and means to hold them in closed position.

[Claims 6 to 16 not printed in the Gazette.]

938,595. CORN-SHOCKER. IRA T. LEAGER, Chestertown, Md. Filed June 1, 1908. Serial No. 436,029.



1. In a corn shocker, a rotatable standard, curved arms supported by the upper portion of said standard, said arms having adjacent end portions slidably and pivotally mounted, means for rotating the standard and means for moving the end portions of the arms along a straight line.

2. In a corn shocker a rotatable standard, a frame slidably mounted upon said standard, an upright pivotally connected to said slidable frame, a frame carried by said upright, and pivotally connected to the upper end of said upright, an adjustable bracket carried by the last mentioned frame, curved arms supported by said bracket, adjacent ends of said arms being pivoted to a movable support at a distance from each other, the free end portions of said arms coming together upon rearward movement of said support, the said free end portions of the arms crossing each other upon continued rearward movement of the said support.

3. A corn shocker comprising a vertically swinging frame, a T bracket carried by said frame, a lever supported by said frame, and curved arms working through said T bracket and pivotally connected to said lever.

4. A corn shocker comprising a forwardly and rearwardly movable upright, an A-shaped frame pivotally connected at its apex portion to the upper portion of said upright, curved gripping arms supported from said frame, means for closing said arms, and for guiding them at their ends in a straight direction during said closing movement.

5. A corn shocker comprising a slidable frame, rotatable supporting means for said frame, an upright hinged to said frame, a second frame having its upper portion pivotally connected to the upper portion of the upright, and movable gripping arms supported by and swinging with the second mentioned frame.

[Claims 6 and 7 not printed in the Gazette.]

938,596. HANGING SHELF. JOHN E. LEE, Milwaukee, Wis. Filed Sept. 18, 1908. Serial No. 453,706.

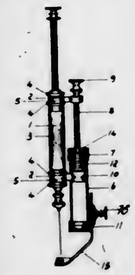


1. In a hanging shelf, a hooked rod adapted to be suspended from a picture molding, a shelf supporting bracket slidably mounted on the rod to be adjustable vertically thereon, a clutch member pivotally mounted on the bracket and engaging the rod, and a set screw on the bracket engaging the clutch member for causing it to clamp the rod.

2. A corner bracket, comprising a rod having means for suspending it from a picture molding, a pair of brackets loosely mounted on the rod to be capable of vertical adjustment thereon and angular adjustment with relation to each other, a clutch member on one bracket for engaging the rod, and a shelf supported by the brackets.

3. An adjustable shelf support, comprising a rod, a bracket slidably mounted on the rod, and a clutch member pivotally mounted on the bracket and having an opening to loosely receive the rod and a rib in the opening for engaging the rod.

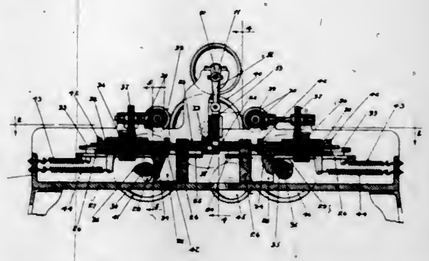
938,597. SYRINGE FOR HYPODERMIC AND INTRAMUSCULAR INJECTIONS. RODOLFO LOMBARDO, Genoa, Italy. Filed Nov. 16, 1908. Serial No. 462,881.



In a hypodermic and intramuscular syringe, the combination with a tubular glass body, of a tubular member surrounding said body, closing means for said body, said means being attached to said member, a body parallel with said first named body and detachably secured thereto, and means in coaction with said last named body for propelling automatically said first named body substantially as described.

938,598. NUT-MAKING MACHINE. FREDERICK R. LONG, Milton, and CLINTON E. LONG, Williamsport, Pa., assignors to American Forged Nut Company, Bloomsburg, Pa., a Corporation of Pennsylvania. Filed June 2, 1906. Serial No. 319,925.

1. A machine of the nature disclosed comprising in combination, a die having a die recess, an apertured member adapted to compress a blank in said die recess, a piercer having a tapered end arranged in the aperture of said member, and means for rotatably advancing the tapered end of said piercer into the compressed blank in said die recess.



2. A machine of the nature disclosed comprising in combination, a die having an elongated polygonal-shaped die recess, two oppositely acting formers adapted to compress an interposed blank in said recess, one of said formers being apertured, a piercer arranged in the aperture of said apertured former, and means for rotatably advancing the end of said piercer into the compressed blank in said die recess.

3. A machine of the nature disclosed comprising in combination, a die, two oppositely acting tubular formers adapted to compress an interposed blank in said recess, a piercer arranged in the bore of each former, means for rotatably advancing one of said piercers into said blank and then withdrawing the same, and means for following the withdrawal of said piercer with an advance of the opposite piercer through said blank.

4. A machine of the nature disclosed comprising in combination, a die, two oppositely acting tubular formers adapted to compress an interposed blank in said recess, a piercer having a spirally fluted end arranged in the bore of each former, means for advancing one of said piercers into said blank while rotating the same reversely to the direction of said spirally fluted end and for withdrawing said piercer, means for following the withdrawal of said reversely rotating piercer with an advance through said blank of said other piercer, and means for rotating said other piercer reversely to the direction of the spiral flutes on its end.

5. A machine of the nature disclosed comprising in combination, a die, two oppositely acting tubular formers adapted to compress an interposed blank in said recess, a piercer arranged in the bore of each former, means for advancing one of said piercers into said blank and then withdrawing the same, means for following the withdrawal of said piercer with an advance through said blank of said other piercer, one of said piercers having a spirally fluted end, and means for rotating said piercer during its advance in a direction reverse to that of the spiral flutes on its end.

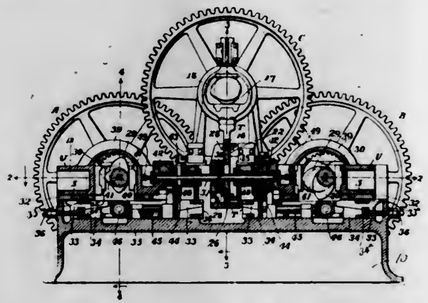
[Claims 6 to 26 not printed in the Gazette.]

938,599. NUT-MAKING MACHINE. FREDERICK R. LONG and CLINTON E. LONG, Williamsport, Pa., assignors to American Forged Nut Company, Bloomsburg, Pa., a Corporation of Pennsylvania. Filed Nov. 27, 1907. Serial No. 404,136.

1. In a machine of the class described, the combination with a die, of means for forming a nut blank therein comprising a pair of formers in axial alinement with the die,

a pair of piercers axially arranged in the formers, former-slides carrying the formers, means for adjusting the former slides with respect to the die for maintenance of the alinement, and piercer slides carrying the piercers, the said piercer slides being mounted on the former slides.

2. In a machine of the class described, the combination with a die, of means for forming a nut blank therein comprising a pair of formers in axial alinement with the die, a pair of piercers axially arranged in the formers, former-slides carrying the formers, means for adjusting the former slides with respect to the die for maintenance of the alinement, piercer slides carrying the piercers, the said piercer slides being mounted on the former slides, and shafts having bearings in the piercer slides, the piercers being mounted in and arranged to turn with said shafts.



3. In a machine of the class described, the combination with a die, of a former in axial alinement with said die, a slide carrying said former, oppositely inclined wedges under said slide, means for adjusting said wedges to adjust the elevation of the former slide, a piercer slide supported on the former slide and a piercer carried by said piercer slide, said piercer being axially arranged in the former.

4. In a machine of the class described, the combination with a die, of means for forming a nut blank therein, comprising a pair of formers in axial alinement with the die, a pair of piercers axially arranged in the formers, former slides carrying the formers, piercer slides mounted on the former slides and carrying the piercers, and means for rotating the piercers.

5. In a machine of the class described, the combination with a die, a former in axial alinement with the die and a slide carrying the former, of a piercer axially arranged in the former, a rotating holder for the piercer, and means for adjustably supporting said piercer in said holder.

[Claims 6 to 25 not printed in the Gazette.]

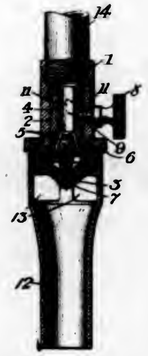
938,600. TOOL-HOLDER. SOLOMON LOWE, Bridgeport, Conn. Filed Jan. 9, 1909. Serial No. 471,484.



The combination with a lathe tool and its holder of a boring tool holder adapted to be adjustably mounted on the lathe tool, for the purpose set forth.

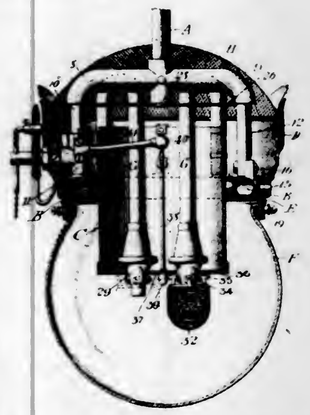
938,601. NEEDLE-VALVE. JOSEPH MAAS, Kalamazoo, Mich., assignor to American Gas Light Company, Kalamazoo, Mich., a Corporation. Filed Jan. 29, 1908. Serial No. 413,197.

In a needle valve, the combination of a tubular casing having an inclined slot, and a valve seat at one end of the casing, a valve-carrying member mounted to slide in said casing and also to turn therein, and a set screw passing through the slot in the casing and threaded into said member, said set screw having an outer shoulder to abut against the casing in order to clamp the valve in position,



and a head by which the set screw may be adjusted in its slot and clamped in adjusted position without removing the hand from said head when such position is reached.

938,602. INCANDESCENT GAS-LAMP. JOSEPH MAAS, Kalamazoo, Mich., assignor to American Gas Light Company, Kalamazoo, Mich., a Corporation. Filed Apr. 29, 1909. Serial No. 492,981.



1. In a gas lamp, the combination of a gas ring having a plurality of burners associated therewith, a crown carried directly at its lower portion by the gas ring and extending upward from the latter, and a globe ring also carried directly by the gas ring.

2. In a gas lamp, the combination of a gas ring, supporting devices extending laterally from said ring at its outer portion, a crown supported on said devices and extending in upward direction from the gas ring, and a globe ring suspended from said supporting devices and independent of the crown.

3. In a gas lamp, the combination of a gas ring, supporting pins extending laterally therefrom at its outer portion, a crown supported at its lower edge on said pins, and a globe ring directly engaging and supported on said pins within the crown.

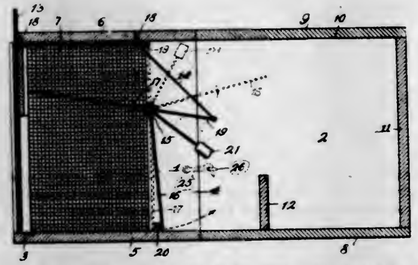
4. In a gas lamp, the combination of a gas ring, supporting pins extending outward from said ring in radial direction, a crown fitting and supported on the outer ends of said pins, and a globe ring having angular slots to co-

act with the intermediate portions of said pins, the globe ring being locked when turned in one direction and freely detachable from said pins when turned in the opposite direction.

5. In a gas lamp, the combination of a gas ring, a plurality of goose neck burner tubes coacting therewith, an inlet pipe, and a yoke at the lower end of said inlet pipe which supplies gas to said gas ring and has its upper portion located at substantially the same height as the upper curved portions of said goose neck tubes.

[Claims 6 to 14 not printed in the Gazette.]

938,603. COMBINED TRAP-NEST AND BROODER. HARRY MILLER, Kansas City, Kans., and GEORGE B. HALLENBECK, Kansas City, Mo. Filed Apr. 19, 1909. Serial No. 490,895.



1. A structure of the character described consisting of front and rear compartments, a sliding trap-door controlling the entrance to the front compartment, an oscillatory wicket controlling the entrance to the rear compartment, means connecting the trap-door and the oscillatory wicket whereby the latter controls the former, and means carried by the oscillatory wicket to counterbalance the trap-door.

2. A structure of the character described consisting of front and rear compartments, a sliding door controlling the entrance to the front compartment, and an oscillatory member controlling the entrance to the rear compartment; a cable connecting the door and the oscillatory member whereby the latter controls the former, a counterweight on the oscillatory member to counterbalance the weight of the door, and a bolt for locking the door in a closed position.

938,604. BRUSH FOR DYNAMO-ELECTRIC MACHINES. HERBERT S. MILLER, Elizabeth, N. J., assignor to Diehl Manufacturing Company, a Corporation of New Jersey. Filed Apr. 22, 1907. Serial No. 369,452.

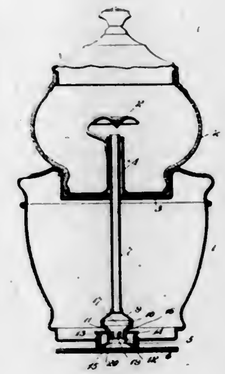


1. In combination, a carbon brush formed with a recess or cavity having one or more lateral indentations and closed upon all sides excepting one in which is provided an opening for the conducting lead, a filling of conducting material within said recess and entering said lateral indentation or indentations, and a flexible conducting lead having one end embedded in said filling and thereby mechanically locked within said recess.

2. In combination, a carbon brush formed with an undercut recess or cavity closed at the bottom and sides and open at the top to receive a conducting lead, a filling contained in said recess composed of a metal which expands upon cooling, and a flexible conducting lead having one end embedded in said filling and thereby mechanically locked within said recess.

3. In combination, a carbon brush formed with an undercut recess or cavity closed at the bottom and sides and open at the top to receive a conducting lead, a filling of conducting material within said recess, and a flexible conducting lead having one end expanded to an area less than that of the recess or cavity and embedded in said filling and thereby mechanically locked both within said recess or cavity and its contained filling.

938,605. COFFEE-MACHINE. CHARLES NELSON, Brooklyn, N. Y., assignor to S. Sternau & Co., New York, N. Y., a Copartnership. Filed May 3, 1907. Serial No. 371,582.



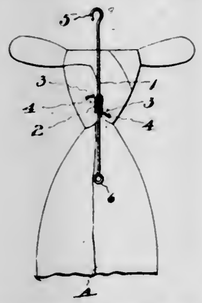
1. A coffee machine, having a receptacle, a small heating chamber in communication therewith, and a percolator, said percolator having a tube and a valve chamber, said valve chamber communicating directly with the heating chamber and having inclined sides with openings and a reduced portion, the said inclined sides being perforated, in combination with a valve having a dished body and a hollow slotted stem, the body engaging with the inclined sides and the stem lying within the reduced portion.

2. A coffee machine, having a receptacle, a heating chamber communicating therewith, and a percolator, the said percolator having a tube and a valve chamber, said valve chamber having a cover permanently connected to the tube, and a body with inclined sides with openings and a reduced portion, said body being removably connected to the cover, and a valve, said valve having a dished body and a hollow slotted stem, said body engaging with the inclined sides and the stem lying within the reduced portion.

3. A fountain for a coffee machine having an outlet tube communicating with a casing, a cover for the casing, the said casing carrying an insulating chamber at its lower end and having a flaring portion at its upper end, the casing above the flaring portion being removably secured to the cover, the said flaring portion having ports and a valve adapted to close the ports, the said valve having a slotted hollow stem in engagement with the casing.

4. A fountain for a coffee machine having an outlet tube communicating with a casing, a cover for the casing, the said casing carrying an air chamber at its lower end and having a flaring portion at its upper end, the casing above the flaring portion being removably secured to the cover, the said flaring portion having ports and a valve adapted to close the ports, the said valve having a slotted hollow stem in engagement with the casing.

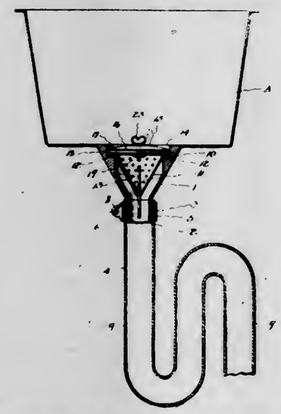
938,606. NECKTIE-FASTENER. WILLIAM J. REED, Janesville, Wis. Filed Dec. 9, 1908. Serial No. 466,699.



1. In combination with a necktie, a bar formed to engage a collar button, a coil of wire inclosing said bar and having its ends extended therefrom at an angle to one another and secured to the tie.

2. In combination with a necktie, a bar having a hook at one end and a loop at the other, and a coil of wire engaging said bar and having its ends extended therefrom at an angle to one another and secured to the tie, whereby when the coil of wire and its ends are pressed together so that the angle between the ends secured to the tie is increased the coil is released from engaging the bar, and when the pressure is released the coil engages the bar and holds it in a fixed position on the tie.

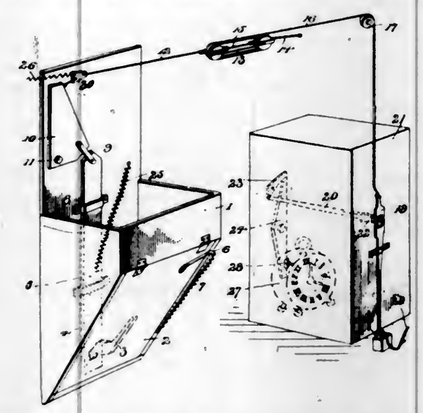
938,607. KITCHEN-SINK. WILLIAM J. REED, Janesville, Wis. Filed Jan. 13, 1909. Serial No. 472,112.



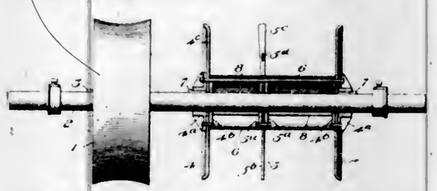
In combination with a drain outlet for kitchen sinks having an inwardly extending shoulder, an inverted, cone-shaped strainer having a flange around its upper end to seat on the shoulder aforesaid, and a rod secured in the lower end of the strainer and rigidly fastened intermediate of its ends, the ends of the rod inside and outside of the strainer forming hand holds for convenience in handling and dumping it.

938,608. AUTOMATIC STOCK-FEEDING DEVICE. LUTIE A. ROGGENSACK, Balfour, N. D. Filed Jan. 27, 1908. Serial No. 412,945.

In a stock feeding device, the combination of a hopper, a swinging closure for the hopper, a catch for holding the swinging closure in a closed position, a cable having an operative connection with the catch, a weight applied to the cable, a plate also applied to the cable, a casing, a rod extending transversely across the casing and projecting through one side thereof into engagement with the plate, a releasing lever engaging the rod to hold it in operative position, a trigger for the releasing lever, and a clock mechanism for automatically moving the trigger into an inoperative position at a predetermined time.



938,609. SAND-REEL. LOUIS C. SANDS, Pittsburg, Pa., assignor to Oil Well Supply Company, Pittsburg, Pa., a Corporation of Pennsylvania. Filed Jan. 16, 1909. Serial No. 472,648.



1. A reel having end flanges and an intermediate partition, said intermediate partition having an opening therein adapted to permit the passage of a rope and being of increased thickness at the margins of said opening.

2. A reel having end flanges and an intermediate partition, said intermediate partition having a radial slot the marginal walls of which project beyond the face of said partition.

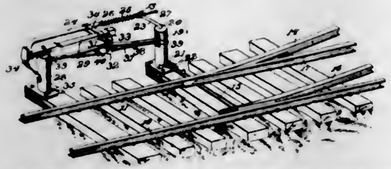
3. A reel having end flanges and an intermediate partition, said intermediate partition having an opening therein adapted to permit the passage of a rope, and a guide member extending into said opening.

4. A reel having end flanges and an intermediate partition, said intermediate partition having a radial slot, and a plurality of guide members carried by said partition and extending into said slot.

5. A reel having end flanges and an intermediate partition, said intermediate partition having a radial slot the radial margins whereof are provided with columns having guide members that extend into said slot, said columns projecting beyond the face of said partition.

938,610. RAILWAY-SWITCH. ALBERT A. SCHUMACHER, Lisbon, N. D. Filed June 15, 1909. Serial No. 502,236.

1. In a switch the combination with a pair of points pivotally disposed on a track, of a draw bar engaged across said points, a switch stand positioned outwardly of said track, a shaft vertically disposed through said stand and connected to said draw bar, an arm outwardly projected from said shaft, a reach rod positioned through the outer end of said arm, a rounded portion disposed on the inner end of said reach rod for engagement through said arm, a spring disposed about said rounded portion for engagement against said arm, a pin engaged through the outer extremity of said rounded portion to retain said arm in position, a post positioned outwardly of the track at a distance from said stand, an operating lever pivotally mounted on said post and connected at its inner end to said reach rod, a pair of spring arms carried by said reach rod intermediately thereof for engagement with said lever and a leaf spring upwardly and outwardly extended from said post for limiting the movement of said operating lever.



2. In a device as specified the combination with a track, and a pair of switch points disposed on said track, of a post positioned outwardly of said track adjacent said points, a lever mounted on said post and connected to said points for throwing the same, and means connected to said mechanism for normally retaining said lever in an inward position over said track for engagement with trains passing thereover.

3. In a device as specified the combination with a track and switch points disposed on said track, of a draw bar connected to said switch points, a switch stand positioned outwardly of the track, a shaft vertically disposed through said stand and connected to said draw bar, an arm outwardly extended from the upper extremity of said shaft, a looped portion formed on the outer end of said arm, a reach rod engaged with said arm, a rounded portion formed on said reach rod for engagement through said looped portion, shoulders formed intermediately of said rod, a coiled spring engaged about said rounded portion between said shoulder portion and said arm, a pin carried by said rounded portion to prevent the displacement of said arm, a post mounted outwardly from said track adjacent to said standard, a lever mounted upon the upper extremity of said post for horizontal movement about said post and connected to said reach rod, a weight positioned upon the upper extremity of said lever, a pair of spring arms carried intermediately upon said reach rod for engagement about said lever at times, shoulders formed on said spring arms to engage said lever and a leaf spring upwardly diverged from said post to limit the movement of said lever.

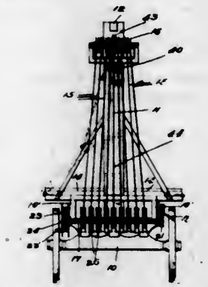
4. A switch mechanism including a main track, a siding, points between said track and said siding, a draw bar engaged with said points and extended outwardly of said track, a stand mounted at one side of said track, a shaft carried by said stand, a lower arm on said shaft and connected to said draw bar, an upper arm carried on said shaft and extended outwardly from the same, a reach rod loosely engaged through said upper arm, a spring carried by said rod and engaged with said upper arm to retain the same at the end of said rod, and an operating lever connected to the opposite end of said reach rod for actuating the same.

5. In combination, a track, a siding, switch points disposed between said track and said siding, a stand mounted outwardly of said track, a shaft disposed through said stand and connected to said points, an operating lever connected to said shaft and means carried by said operating lever to hold the same across said track when said points are left open.

[Claims 6 and 7 not printed in the Gazette.]

938,611. SHOCK-LOADER. JAMES B. SCHUMAN, Indianapolis, Ind., assignor to The Schuman Company, Indianapolis, Ind., a Corporation of Maine. Filed May 22, 1906. Serial No. 318,166.

1. The combination of a transporting vehicle having a platform, a plurality of lifting cables, a plurality of means for supporting said lifting cables above the platform of the vehicle at different points in its length, and a plurality of means carried by the vehicle for independently operating said lifting cables.



2. The combination of a transporting vehicle having a platform, a plurality of lifting cables above the platform of the vehicle at different points in its length, and means carried by the vehicle for independently operating said lifting cables.

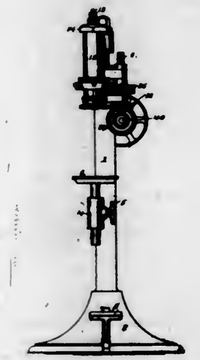
3. The combination of a transporting vehicle having a platform, a plurality of lifting cables, a plurality of means for supporting said lifting cables at various points in the length of the platform of the vehicle above the same, a windlass shaft, a plurality of winding drums journaled on said shaft, one for each of the lifting cables, means for rotatably connecting any one of said lifting drums with the shaft, and means for holding each of said lifting drums against reverse rotation, all carried by the vehicle.

4. The combination, with a vehicle having a swinging platform and means for swinging the same on a substantially horizontal axis, of a plurality of lifting cables, a plurality of means for supporting said lifting cables above the platform at different points in its length, and a plurality of means for independently operating said lifting cables.

5. The combination, with a vehicle having a swinging platform and means for swinging the same on a substantially horizontal axis, of a plurality of lifting cables, a plurality of means for supporting said lifting cables above the platform at different points in its length, and means for independently operating said lifting cables.

[Claims 6 to 19 not printed in the Gazette.]

938,612. BOTTLE-CAPPING MACHINE. ROBERT L. SHEINER, New York, N. Y., assignor to Standard Stopper Company, Jersey City, N. J., a Corporation of New Jersey. Filed June 5, 1902. Serial No. 110,265.



1. In a bottle capping machine, the combination with a pressing head adapted to engage a bottle, of a plurality

of cap-bending devices movable toward and rotatable about the bottle neck, and a member adapted, when the pressing head is in engagement with the bottle, to move the bending devices toward the bottle neck, said member being so mounted as to have lateral play while so moving said bending devices, substantially as described.

2. In a bottle capping machine, the combination with a pressing head adapted to engage a bottle, of a plurality of cap-bending devices movable toward and rotatable about the bottle neck, and a member adapted, when the pressing head is in engagement with the bottle, to move the bending devices toward the bottle neck, said member being of spring metal and so mounted as to yield and have lateral play while so moving said bending devices, substantially as described.

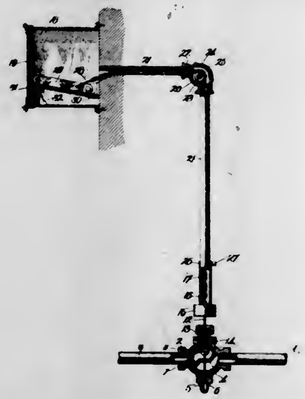
3. In a bottle capping machine, the combination with a pressing head adapted to engage a bottle, of a plurality of cap-bending devices movable toward and rotatable about the bottle neck, and a cone-shaped member adapted, when the pressing head is in engagement with the bottle, to move the bending devices toward the bottle neck, said member being so mounted as to have lateral play while so moving said bending devices, substantially as described.

4. In a bottle capping machine, the combination with a pressing head adapted to engage a bottle, of a plurality of cap-bending devices movable toward and rotatable about the bottle neck, and a cone-shaped member adapted, when the pressing head is in engagement with the bottle, to move the bending devices toward the bottle neck, said member being of spring metal and so mounted as to yield and have lateral play while so moving said bending devices, substantially as described.

5. In a bottle capping machine, the combination with a pressing head adapted to engage a bottle, of a plurality of pivotally mounted cap-bending levers movable toward and rotatable about the bottle neck, and a member adapted, when the pressing head is in engagement with the bottle, to swing said levers on their pivots toward the bottle neck, said member being so mounted as to have lateral play while so moving said levers, substantially as described.

[Claims 6 to 30 not printed in the Gazette.]

938,613. FLUID-CONTROLLING APPARATUS. HENRY SIEBEN, Kansas City, Mo., assignor of one-fourth to L. E. Wyne and one-fourth to A. H. Glasner, Kansas City, Mo. Filed Feb. 3, 1909. Serial No. 475,915.



1. In an apparatus of the character described, a pair of pipes, a valve, yielding means tending to cause the valve to close communication between the pipes, a fusible part connected to and movable with the valve, a box, a lever in said box, a flexible connection suitably guided and linked at one end to the lever and at the other end to the said fusible part, and means to secure the lever at one extremity of its movement with the valve unseated, against the resistance of said yielding means.

2. In an apparatus of the character described, a pair of pipes, a valve, yielding means tending to cause the valve to close communication between the pipes, a fusible part connected to and movable with the valve, a box, a lever in said box, a pipeway extending from said box to a point adjacent to the valve, a flexible connection suitably guided extending through the pipeway and linked at one end to the lever and at the other to the said fusible part, a sleeve adjustable on the pipeway and adapted to inclose the fusible part, and means to secure the lever at one extremity of its movement with the valve unseated, against the resistance of said yielding means.

3. In an apparatus of the character described, a pair of pipes, a valve, yielding means tending to cause the valve to close communication between the pipes, a fusible part movable with the valve, a suitably-guided flexible connection attached at its lower end to the fusible part, a box, a conduit inclosing the flexible connection embodying an elbow at a suitable point having an opening between its ends, a plate covering said opening normally, a guide sheave journaled in the elbow, adapted to be introduced therein through the said opening and forming a guide for the flexible connection, a sleeve fitting telescopically on and forming a part of the conduit and normally inclosing said fusible part, means to secure said sleeve rigidly to the conduit, and means connected to the opposite end of the connection to impart movement to the latter to open the valve.

4. In an apparatus of the character described, a valve casing, having a perforated seat, a cup below said seat, a stuffing-box above the seat, a valve above the seat provided with a stem extending downward through the valve-seat opening and into the cup, capable of reciprocatory and lateral movement, a reciprocatory rod extending through the stuffing box and having an universal-joint connection with the valve, and means for holding said valve seated with a yielding pressure.

938,614. NON-ODOROUS PHENOL SALVE AND OINTMENT. NATHAN SULZBERGER, New York, N. Y. Filed Apr. 7, 1909. Serial No. 488,425. (Specimens.)

1. An antiseptic salve of the nature disclosed, composed of phenyl-stearate melting at about 52° C. and having mixed therewith some suitable unguent adapted to lower the melting-point of the phenyl-stearate and to impart to the resultant compound a grease-like consistency.

2. A non-odorous non-irritant antiseptic salve of the nature disclosed for medical and pharmaceutical use, composed of a comparatively hard ester of a phenol and a fatty-acid in mixture with a sufficient quantity of a suitable unguent to impart to the resultant mixture a melting point of approximately body-temperature; said phenol having the capacity of forming with stearic acid an ester melting at not less than about 40° C. and said fatty-acid containing more than 12 atoms of carbon.

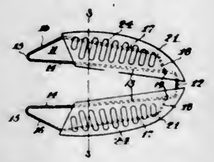
3. A non-odorous antiseptic composite salve of the nature disclosed for medical and pharmaceutical use, composed of an ester of a phenol and a fatty-acid having more than twelve atoms of carbon, said ester having a melting point of not less than about 40° C., in mixture with a quantity of a lower-melting suitable unguent sufficient to impart to the resultant mixture a salve-like consistency enabling it to melt and liquefy when rubbed on the skin.

4. A non-odorous non-irritant composite antiseptic salve of the nature disclosed for pharmaceutical and medical use, composed of an ester of a phenol and a fatty-acid having more than twelve atoms of carbon, in mixture with a sufficient quantity of a suitable unguent to impart to the resultant mixture a melting point of approximately body-temperature whereby said mixture may have a salve-like consistency enabling it to be readily smeared on the skin; said phenol being mono-hydric and having the capacity of forming with stearic acid an ester melting at not less than about 40° C.

5. A non-odorous non-irritant composite antiseptic salve of the nature disclosed for pharmaceutical and medical use, composed of an ester of a mono-hydric phenol and a fatty-acid having more than twelve atoms of carbon, said ester having a melting point of not less than about 40° C., in mixture with a lower-melting suitable unguent in such proportions as will impart to the resultant mixture a salve-like consistency enabling it to be readily smeared on the skin and be absorbed thereby.

[Claims 6 to 8 not printed in the Gazette.]

938,615. SHOE-TREE. AUGUSTUS H. TAFT, Troy, N. Y. Filed Nov. 14, 1908. Serial No. 462,690.



1. A shoe tree comprising side portions resiliently connected together and normally springing apart, each of said side portions including a wire frame portion and a plurality of resilient curved plates secured to and substantially covering said frame portion, said plates being adapted by their resiliency to conform to and press outwardly against the vamp of a shoe in which the tree is inserted.

2. A shoe tree comprising side portions resiliently connected together and normally springing apart, each of said sides including a wire frame portion and a resilient transversely slotted plate secured to and substantially covering said frame portion, said plates being adapted to conform to and press outwardly against the vamp of a shoe in which the tree is inserted.

938,616. ANTHRACENE COMPOUND. PAUL THOMASCHEWSKI, Vohwinkel, near Elberfeld, Germany, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed June 29, 1909. Serial No. 505,034.

The herein described new anthracene derivative which is the leuco compound of 1.8-dibenzoyldiaminoanthraquinone obtainable by treating 1.8-dibenzoyldiaminoanthraquinone with hydrosulfite and caustic alkali, which product is in the shape of its sodium salt a brown crystalline powder turning yellow by the action of air, soluble in water with a red-brown color; soluble in concentrated sulfuric acid with a green color quickly turning orange-yellow; furnishing 1.8-dibenzoyldiaminoanthraquinone by treatment with oxidizing agents; and dyeing the textile fiber orange-yellow shades, substantially as described.

938,617. ANTHRACENE COMPOUND. PAUL THOMASCHEWSKI, Vohwinkel, near Elberfeld, Germany, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed June 29, 1909. Serial No. 505,035.

The herein described new anthracene derivative which is the leuco compound of 1.5-dibenzoyldiaminoanthraquinone obtainable by treating 1.5-dibenzoyldiaminoanthraquinone with hydrosulfite and caustic alkali, which product is in the shape of its sodium salt a slightly colored crystalline powder quickly turning brown by the action of air and then yellow, soluble in water with a violet-brown color; soluble in concentrated sulfuric acid with a green color quickly turning orange-red; furnishing 1.5-dibenzoyldiaminoanthraquinone by treatment with oxidizing agents; and dyeing the textile fiber orange-yellow shades, substantially as described.

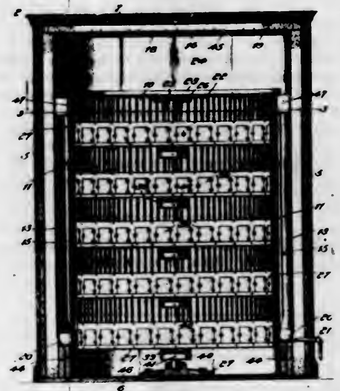
938,618. VAT COLORING-MATTER. JOSEPH DEINET Elberfeld, Germany, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed May 15, 1909. Serial No. 496,114.

The herein described new vat dyestuff of the anthracene series which is the 1.5-dibenzoyldiaminoanthraquinone, which dyestuff is, after being dried and pulverized, an orange powder which is soluble in pyridin with a yellow color; soluble in concentrated sulfuric acid with a red color; giving a violet-red vat with hydrosulfite and caustic soda lye, which vat dyes the textile fiber orange-yellow shades, substantially as described.

938,619. VAT COLORING-MATTER. JOSEPH DEINET, Elberfeld, Germany, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed May 15, 1909. Serial No. 496,115.

The herein described new vat dyestuff of the anthracene series which is the 1.8-dibenzoyldiaminoanthraquinone, which dyestuff is, after being dried and pulverized, an orange powder which is soluble in pyridin with an orange color; soluble in concentrated sulfuric acid with an orange-yellow color; giving a brown-red vat with hydrosulfite and caustic soda lye, which vat dyes the textile fiber orange-yellow shades, substantially as described.

938,620. LOCKER-REFRIGERATOR. ROSWELL L. TILGHMAN, Birmingham, Ala. Filed Feb. 21, 1908. Serial No. 416,966.



1. A refrigerator comprising a casing, a carrier movably mounted in the casing and containing a plurality of individual compartments, separate doors for each compartment, spaced annular inner and outer walls between the carrier and said casing, and concentrically arranged with respect to the axis of said carrier to form air circulating spaces, a disk mounted at the upper edge of the inner wall to provide an ice chamber at the upper portion of the casing, a channeled bottom secured to the lower edges of said walls to form a water receiver for the ice chamber, and a door for said casing.

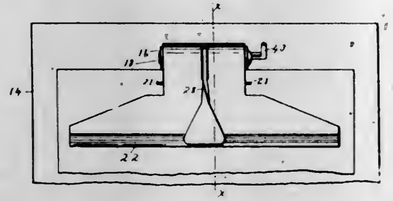
2. A refrigerator comprising a casing, a plurality of spaced movable carriers within said casing, and containing a plurality of individual compartments, separate doors for each compartment, spaced annular inner and outer walls between the carriers and the casing, and concentrically arranged with respect to the axis of said carriers to form air circulating spaces, a supporting plate secured to the upper edge of the inner wall to provide an ice chamber at the upper portion of the casing, a channeled bottom secured to the lower edges of said walls to form a water receiver from the ice chamber, the walls of each compartment being exposed to the refrigerating medium circulating within the casing.

3. A refrigerator comprising a casing, a plurality of spaced carriers movably mounted within the casing, and containing a plurality of individual compartments, separate doors for each compartment, spaced annular inner and outer walls between the carriers and said casing and concentrically arranged with respect to the axis of said carriers to form air circulating spaces, a supporting plate secured to the upper edge of the inner wall to provide an ice chamber at the upper portion of the casing, a channeled section secured to the lower edge of said walls to form a drainage receiver for the ice chamber, each of said compartments being surrounded on all sides by perforated walls.

4. A refrigerator comprising a casing, a plurality of spaced carriers movably mounted within the casing and containing a plurality of individual compartments, spaced annular inner and outer walls between the carriers and said casing and concentrically arranged with respect to the axis of said carriers to form air circulating spaces within the casing, a supporting plate secured to the upper edge of the inner wall to provide an ice chamber, a channeled section secured to the lower edges of said walls to form a drainage receiver for the ice chamber, each of said compartments being surrounded on all sides by perforated walls, and lock carrying doors for the compartments.

5. A refrigerator comprising a casing, a shaft journaled centrally therein, a plurality of collars fixed to the shaft and spaced from each other, each collar containing an annular raceway concentrically arranged with respect to the said shaft, hubs loosely journaled on the shafts and having spaced parallel flanges, drums secured to the flanges of said hubs, radially disposed partitions within each drum forming individual compartments therein, ball bearings between the hubs and said collars and movable in the raceways in the latter, the walls of said compartments containing a series of openings, spaced annular inner and outer walls arranged between the drums and said casing to form air circulating spaces therebetween, a supporting plate secured to the upper edge of the inner wall to form an ice chamber at the top of the casing, and a channeled bottom secured to the lower edges of the inner and outer walls to form a water receiver for the ice chamber.

938,621. BINDER. HENRY V. WAGONER, Brooklyn, N. Y. Filed Jan. 4, 1908. Serial No. 409,301.



1. In a binder for sheets having a rod mounted on a base, a clamp, normally open, resilient means on said rod to control said clamp, a lever to actuate said resilient means and a bar to automatically engage the base of said lever, as described.

2. In a binder for sheets having a rod mounted on a base, a clamp, normally open, resilient means on said rod to control said clamp, a centrally disposed lever to actuate said resilient means and a bar to automatically lock the binder in operative position.

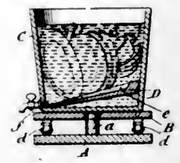
3. A clamping device including a base and a clamp, a support on said base, coiled springs on said support whose outer ends control said clamp and whose inner ends are controlled by a lever for applying pressure, and means to retain and release said pressure.

4. A binder having a rod supported on a base, a lever and resilient means on said rod, one of which said parts, the rod, the lever and the resilient means, is rotatory, and a lock adapted to be engaged by one of said rotatory parts to lock the binder in operative position.

5. In a binder for sheets having a rod mounted on a base, a clamp, resilient means on said rod to control said clamp, a lever to actuate said resilient means and a bar to automatically lock the binder in operative position.

[Claims 6 to 12 not printed in the Gazette.]

938,622. DISH-WASHING APPARATUS. EVA ALDRICH, Emporia, Kans. Filed Apr. 29, 1909. Serial No. 493,044.

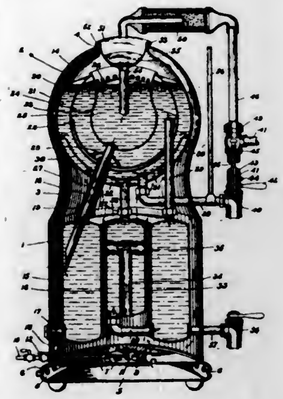


1. A dish-washing apparatus comprising a base having a cylindrical center-post, a rotatory table supported thereon having a bore in its center adapted to turn on the cylindrical center-post of said base, and a receptacle adapted to contain a supply of water and the articles to be washed supported and carried by said rotatory table, substantially as set forth.

2. A dish-washing apparatus comprising a base having a cylindrical center-post, a rotatory table supported thereon and held to a center of motion thereby, said table carrying a receptacle having at the bottom an outlet through its side walls and being provided within with an extra bottom removable and inclined slantingly toward the outlet.

3. A dish-washing apparatus comprising a base having a cylindrical center-post a rotatory table provided with casters and having a bore in its center; said table being adapted to operate on said base by rolling on its casters and turning on the center post of said base, a receptacle supported thereon and carried thereby provided with an extra bottom removable and inclined slantingly toward the bottom of the receptacle, an outlet pipe in said receptacle at the lower end of said removable bottom and having a series of grooves in its upper surface adapted to conduct settlings toward the outlet.

938,623. WATER-HEATER. DAVID W. ALLMAN, Toronto, Ontario, Canada. Filed Mar. 23, 1908. Serial No. 422,791.



1. In a water heater, the combination with an outer shell and a suitable heat generator, of an annular water chamber supported above said heat generator and forming a central flue for the heating gases and with said outer shell a side return heat passage, said passage communicating with said central flue at the top and bottom, a plurality of water chambers arranged one within the other and supported above said annular chamber, the outer of said chambers with said outer shell forming an annular passage for the heating gases, said annular passage communicating with said central flue and side return passage, means for conveying a supply of water to said annular chamber through said upper chambers, and means supported in said central flue for conducting the water from said annular chamber to the outer of said upper chambers.

2. In a water heater, the combination with an outer shell and a suitable heat generator, of an annular water chamber supported above said heat generator and forming a central flue for the heating gases and a side return heat passage, said passage communicating with said central flue at the top and bottom, a plurality of water chambers arranged one within the other and supported above said annular chamber, the outer of said chambers with said outer shell forming an annular passage for the heating gases, said annular passage communicating with said central flue and side return passage, means for conveying a supply of water to said annular chamber through said upper chambers, and a water chamber supported in said central flue and connected at its lower end to the lower end of said annular chamber and at its upper end to the bottom of said upper casing.

3. In a water heater, the combination with an outer shell and a suitable heat generator, of an annular water chamber supported within said shell above said heat generator and forming a central flue for the heating gases, a water chamber supported in said central flue and communicating with said annular chamber, a water chamber supported above said annular chamber and communicating with the chamber supported in said central flue, a water chamber supported within said upper chamber and communicating with said annular chamber, and means for conveying a supply of water to said annular chamber through said upper chambers.

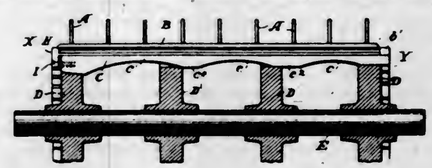
4. In a water heater, the combination with an outer shell and a suitable heat generator, of an annular water chamber supported within said shell above said heat generator and forming a central flue for the heating gases, a water chamber supported in said central flue and communicating with said annular chamber, a water chamber supported above said central passage and communicating with the chamber supported in said central flue and having a pipe leading from the bottom thereof through said outer shell, a water chamber supported within said upper chamber and communicating with the said annular chamber and providing for the circulation of the water in said annular chamber, and a water receiving chamber supported within the inner of said upper chambers and communicating with said annular chamber and a water supply.

5. In a water heater, the combination with an outer shell and a suitable heat generator, of an annular water chamber supported within said shell above said heat generator and having a central heat flue therethrough, a water chamber supported in said central flue and communicating with said annular chamber, a water chamber supported above said central flue and communicating with the chamber supported in said central flue and having a pipe leading from the bottom thereof through said outer shell, a casing inclosed within said upper water chamber and having a double wall inclosing a heat insulating space and supported within said upper chamber and forming an inner water chamber and communicating with said annular chamber, and a water receiving chamber supported within said insulated water chamber and communicating with said annular chamber and a water supply.

[Claims 6 to 14 not printed in the Gazette.]

938,624. THRESHING-MACHINE. OLE A. AMBLE, Grand Forks, N. D. Filed July 31, 1909. Serial No. 510,543.

1. The combination of a support provided with undercut recesses, a tooth-supporting bar arranged to slide endwise in said recesses, and a locking bar operating in the inner portions of said recesses beneath the tooth-supporting bar and having wedges operating on the inner walls of the recesses to force said tooth-supporting bar outward.



2. The combination of a support provided with undercut recesses, a tooth-supporting bar arranged to slide endwise in said recesses and having tapered openings to receive the teeth, teeth having tapered bases arranged in the recesses of the tooth-supporting bar, and an endwise moving locking bar operating beneath the tooth-supporting bar and having wedges operating on the inner walls of the recesses to cause the locking bar to press the teeth outward in the tooth-supporting bar.

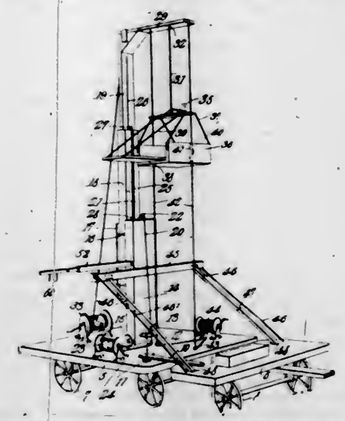
3. In a threshing machine cylinder the combination of the supporting disks having undercut recesses in their peripheries, tooth-supporting bars arranged to slide endwise in said recesses, and endwise moving locking bars arranged in the recesses between the axis of the disks and the peripheries thereof and each having wedges operating on the inner walls of said recesses to force the tooth-supporting bar and the teeth carried thereby outward.

4. In a threshing machine cylinder, the combination of the supporting disks having undercut recesses in their peripheries, endwise moving tooth-supporting bars arranged in said recesses and having tapered openings for the teeth, teeth having tapered inner ends arranged in said recesses of the tooth-supporting bars, and endwise moving locking bars arranged in the recesses between the axis of the disks and the peripheries thereof and each having wedges operating on the inner walls of said recesses to force the teeth radially outward.

5. In a threshing machine cylinder, the combination of the supporting disks, the tapered tooth-supporting bars having dove-tailed sliding connection with the disks, endwise moving locking bars engaging the under sides of the tooth-supporting bars and having wedges engaging the disks, and means for connecting the end of each tooth-supporting bar with its locking bar.

[Claim 6 not printed in the Gazette.]

938,625. FIRE-ESCAPE. ANDERS ANDERSON, Benkelman, Nebr. Filed Jan. 30, 1909. Serial No. 475,137.

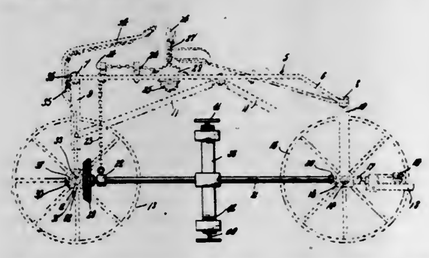


1. In a fire escape a base, an extensible upright upon the base, a carrier suspended from the upright for up and

down travel, guides extensible with the upright for holding the carrier in proper relation with respect to the upright, and hinged guides upon opposite sides of the carrier, through which the extensible guides pass, the hinged guides being movable upon their hinges away from the sides of the carrier to permit of disengagement of the extensible guides therefrom.

2. In a fire escape a base, an extensible upright upon the base, a carrier suspended from the upright for up and down travel, guides extensible with the upright for holding the carrier in proper relation with respect to the upright, semi-cylindrical guides hinged upon opposite sides of the carrier, springs normally holding the guides with their longitudinal edges against the sides of the carrier, the extensible guides being confined between the said semi-cylindrical guides and the respective sides of the carrier, the said semi-cylindrical guides being movable to position to permit of disengagement of the extensible guides.

938,626. COTTON-CHOPPER. JOHN D. ARMSTEAD and SILAS KELLEY, Jonestown, Miss. Filed Apr. 23, 1907. Serial No. 369,794.



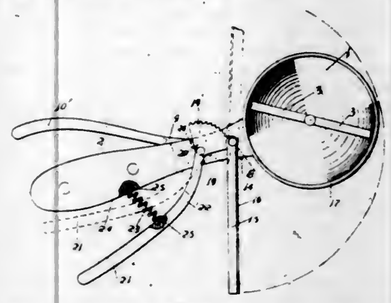
In a cotton chopper, a rotating chopper element comprising a hub, radially projecting spokes on said hub and having internally threaded bores for a portion of their length, an annulus supported by said spokes and having openings registering with the bores, hoes having stems adjustably mounted in the threaded bores of the spokes, jam nuts threaded on said stems and bearing against the exterior face of the annulus to maintain the latter in position and to brace the spokes and also hold the hoes in adjusted position.

938,627. PRUNING-SHEARS. ERIK ARNESON, Myrtle Point, Oreg. Filed Feb. 2, 1909. Serial No. 475,620.



A device of the character described comprising a stationary cutting jaw, a handle having a direct connection therewith, a second handle, an angle lever carried thereby and having its outer end in pivotal engagement with the stationary jaw, a movable cutting jaw arranged in operative relation with the stationary jaw and provided with an extension, pivoted parallel links disposed on opposite sides of and connecting said extension and angle lever, and a link connection between the pivotal point of the two jaws and the pivotal point of the angle lever and the stationary jaw.

938,628. GAGING ATTACHMENT FOR ICE-CREAM MOLDS. JOSEPH A. AUBRY, Hammond, Ind. Filed July 17, 1908. Serial No. 443,976.

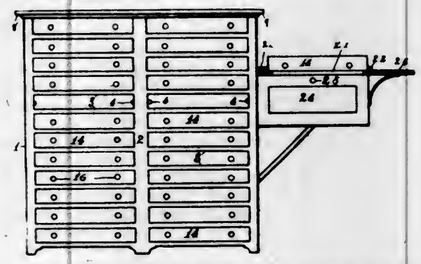


1. The combination with a mold consisting of a mold proper and of a handle portion secured thereto, of a blade pivotally mounted upon a stud-shaft secured to said handle portion, said blade being adapted to rest and to be rotated upon the mouth-edge of said mold proper, a gear wheel secured to or formed integrally with the pivotal end portion of said blade, and means in mesh with said gear wheel adapted to be manually operated for actuating said blade, substantially as described.

2. The combination with a mold consisting of a mold proper and of a handle portion secured thereto, of a blade pivotally mounted upon said handle portion, said blade being adapted to rest and to be rotated upon the mouth-edge of said mold, a lever pivotally mounted upon said handle portion, said lever being adapted when manually operated to actuate said blade, and means for automatically returning said lever and said blade to initial position after each operation of the same, substantially as described.

3. In a device of the class described, a mold and a handle secured thereto in combination with a blade pivotally mounted and adapted to be rotated across the mouth edge of said mold, a lever for operating said blade, and a spring interposed between said handle and said lever for returning the blade to normal position, substantially as described.

938,629. EGG CABINET AND TESTING ATTACHMENT. FRANK J. BALGIE, Kaukauna, Wis. Filed May 29, 1909. Serial No. 499,256.



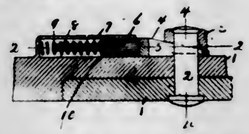
1. A cabinet for eggs, consisting of a suitable inclosure, a plurality of vertically arranged posts entering into the framing of said inclosure, a plurality of drawers arranged one above the other for being slid in and out of the inclosure between two of the posts of said framing, a plurality of front division girts connecting said posts and forming a series of openings between the posts and between the girts for receiving the drawers, a girt arranged at right angles with the front division girts on two sides of each drawer opening intermediate each two front division girts, extending into each drawer opening and forming a guide for one side of a drawer, each drawer having its two side pieces grooved for receiving each an edge of one of said drawer guides, a suitable front for each drawer having means by which the drawer may be pulled out of the cabinet, a rear end to the drawers and a bottom having perforations adapted to hold therein such a number of dozens of eggs as is divisible by ten, without a remainder.

2. In a cabinet for eggs, a drawer for the same having two side pieces upon which the drawer is arranged to slide in and out of the cabinet, a front to the drawer having suitable attachments for pulling it out of the cabinet, a girt between the drawer side pieces spaced from the front piece, a girt between the side pieces spaced from the rear ends of the two side pieces, a bottom in the drawer covering the space between the two girts that is between the two side pieces, and perforations through said bottom of such a number of dozens as is divisible by ten without a remainder, adapted to support each an egg.

3. A cabinet for eggs, consisting of a suitable inclosure, a plurality of vertically arranged posts in the framing of said inclosure, a plurality of drawers arranged to slide in and out, one over the other between two of the front posts of said framing, a plurality of girts connecting said front posts and forming a series of openings for receiving drawers between the posts and between said girts, a girt arranged at right angles with the front division girts on two opposite sides of each drawer opening intermediate each two front division girts, extending into the drawer opening and forming a guide for one side of a drawer, a series of perforations bored through each of said last named girts, and a series of perforations bored through the inclosing covering of the cabinet near its upper end for ventilating purposes, and a drawer having its two side pieces grooved for receiving an edge of one of said drawer guides, a suitable front for each drawer having means by which it may be pulled out of the cabinet a rear end to the drawer, and a bottom having perforations therein adapted to hold therein such a number of dozens of eggs as is divisible by ten, without any remainder.

4. In a cabinet for eggs, a drawer for the same having two side pieces upon which the drawer is arranged to slide in and out of the cabinet, a front to the drawer having suitable attachments for pulling the drawer out of the cabinet, a girt between the drawer side pieces of a less height than that of the drawer front and its side pieces, spaced from the front piece, a girt between the side pieces, spaced from the rear ends of the side pieces, a bottom covering the space in the drawer between the two side pieces that is between the two girts, and perforations through said bottom of such a number of dozens as is divisible by ten, without a remainder adapted to support each an egg, and a glass covered opening in the front of the drawer adapted in position for giving a view of the front row of eggs, above the upper edge of the girt nearest to said glass covered opening.

938,630. SHEARS. ARMIN J. BAUR, Erie, Pa. Filed Feb. 13, 1909. Serial No. 477,688.



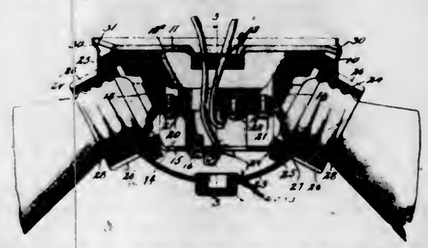
1. In a shear, the combination with the blades and pivot pin, one of the blades having a socket radial to the pin, and the pin being provided with a head at one end; a wedge between the head and blade, said wedge extending into the socket; and a spring arranged in the socket and exerting pressure on the wedge in a direction radial to the pin to actuate the wedge to tighten the joint.

2. In a shear, the combination with the blades and pivot pin, one of the blades having a socket radial to the pin, and the pin being provided with a head at one end; a wedge arranged between the head and the blade, and having a slot through which the pin extends, said wedge extending into the socket; and a spring arranged in the socket and exerting pressure on the wedge in a direction radial to the pin to actuate the wedge to tighten the joint.

3. In a shear, the combination with blades and pivot pin, one of the blades having a socket radial to the pin, and the pin being provided with the beveled head; a wedge having a bevel or taper corresponding to the head and arranged between the head and blade, said wedge extending into the socket; and a spring arranged in the socket and exerting pressure on the wedge in a direction radial to the pin to actuate the wedge to tighten the joint.

4. In a shear, the combination with the blades and pivot pin, one of the blades having a socket extending radially from the pin and inclosed except at the end toward the pin, and the pin being provided with a head at one end; a wedge between the head and blade, said wedge extending into the socket; and a spring arranged in the socket and exerting pressure against the wedge to actuate the wedge to tighten the joint.

938,631. WIRELESS CLUSTER. REUBEN B. BENJAMIN, Chicago, Ill., assignor to Benjamin Electric Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed June 10, 1907. Serial No. 378,265.



1. In a plural lamp-holding device, a casing having a plurality of openings, an insulating block within said casing, a contact carried by said block and adapted to engage a variable number of lamps, an insulating ring disposed in each of said openings and having two diameters, said ring having its larger portion confined between said casing and said insulating block and having its smaller portion extending outwardly through the casing, a threaded contact within said ring, and a plate carried by said block and adapted to engage a variable number of said threaded contacts.

2. In a plural lamp-holding device, a back-plate, a casing, an insulating base to said back-plate within said casing, said casing having a plurality of openings, an insulating bushing in each of said openings, a threaded shell in each of said bushings, flanged outwardly to prevent its passing out of said bushing, a conducting plate secured to said base and adapted to engage a variable number of said threaded shells, means for securing said casing to said back-plate, a conducting member carried by said base adapted for engagement with the center terminals of a variable number of lamps, and a binding terminal for said member.

3. In a plural lamp-holding device, a back-plate, an insulating member secured to said back-plate, a casing independently secured to said back-plate and inclosing said insulating member and having a plurality of openings arranged in a circle, an insulating ring within each of said openings, a threaded ring within each of said insulating rings, a circular plate secured to said insulating member and adapted to engage said rings when said casing is secured to said base, and a contact member adapted to engage the center terminals of a variable number of lamps.

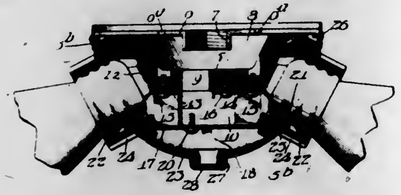
4. In a plural lamp-holding device, a back plate, an insulating base secured to said back plate, a contact plate carried by said base, a casing inclosing said base and having lamp-receiving openings, a threaded shell inserted into each of said openings from the inside of said casing and disposed to engage said contact plate when said casing

is in position, means upon said threaded shells for preventing the passage of said shells outward, means for securing said casing in position, and a contact member carried by said base and adapted for engagement with the center terminals of a variable number of lamps.

5. In a plural lamp-holding device, an insulating base, a contact member carried thereby and adapted for engagement with the center terminals of a variable number of lamps, a casing provided with openings, a bushing inserted into each of said openings from the inside of the casing, said bushings being formed to prevent their being drawn out of said openings, means for preventing rotation of said bushings, a threaded shell in each of said bushings, and a member carried by said base and adapted to conduct current to a variable number of said shells.

[Claim 6 not printed in the Gazette.]

938,632. CLUSTER-LAMP SOCKET. REUBEN B. BENJAMIN, Chicago, Ill., assignor to Benjamin Electric Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Oct. 28, 1907. Serial No. 399,552.



1. In a plural lamp-holding device, a casing having a plurality of openings, an insulating block within said casing, and an insulating threaded lamp-holder in each of said openings, each of said lamp-holders comprising a ring having two diameters and having its smaller part passed outward through one of the openings of the casing, the larger portion of the ring being confined between said casing and said insulating block and thereby held against inward movement.

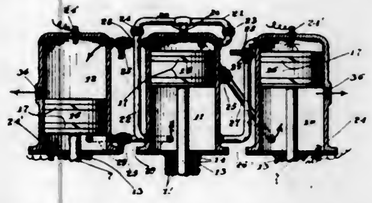
2. In a plural lamp-holding device, a casing having a plurality of openings, an insulating block within said casing, a contact carried by said block and adapted to engage a variable number of lamps, a lamp receiver disposed in each of said openings and comprising a ring having two diameters, said ring having its larger portion confined between said casing and said insulating block and thereby held in position, and having its smaller portion extending outwardly through the casing, other contacts for engagement with the lamps, and means for preventing rotation of said ring.

3. In a plural lamp-holding device, a casing having a plurality of openings, an insulating block within said casing, a contact carried by said block and adapted to engage a variable number of lamps, a lamp receiver disposed in each of said openings and comprising a ring having two diameters, said ring having its larger portion confined between said casing and said insulating block and thereby held in position, and having its smaller portion extending outwardly through the casing, other contacts for engagement with the lamps, and interengaging means on said casing and said receiver for preventing rotation of said receiver.

4. In a plural lamp-holding device, a casing, an insulating block, a contact carried thereby and adapted to engage a variable number of lamps, a lamp-holder carried by said casing and having a portion of enlarged diameter within said casing, a tongue and groove connection between said lamp-holder and said casing for preventing rotation of said lamp-holder, the inner edge of said holder bearing upon said insulating block to prevent inward movement of said lamp-holder and a second contact for each of said holders, said second contacts comprising resilient strips extending into said holders.

5. In a plural lamp-holding device, the combination of a back plate, an insulating member secured to said back-plate, a casing independently secured to said back-plate and inclosing said insulating member and having a plurality of non-circular openings arranged in a circle, an insulating non-circular ring within each of said openings, and a plate secured to said insulating member and having radially extending tongues for engagement with the outer contacts of the lamps.

938,633. INTERNAL-COMBUSTION ENGINE. GUSTAV V. BENSON, Chicago, Ill. Filed July 14, 1909. Serial No. 507,571.



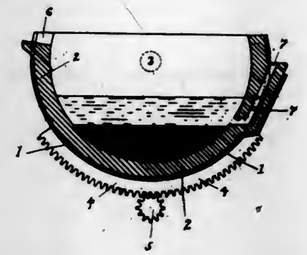
1. In an internal combustion engine, a frame and bearings secured thereto, a crank shaft journaled in said bearings, a charge pumping cylinder secured to said frame, a power explosion cylinder arranged on either side of said pumping cylinder, pistons operating in said cylinders and connected with said crank shaft, heads on each end of said cylinders, a carbureter and pipes provided with check valves leading therefrom to each end of said pumping cylinder, and pipes and admission check valves therein connecting the ends of each power cylinder with the ends of said pumping cylinder, substantially as described.

2. In an internal combustion engine, a crank shaft, a charge pumping cylinder and a power cylinder arranged on either side thereof, pistons operating in said cylinders and connected with said crank shaft by means of pistons and connecting rods, stuffing-boxes on one of the heads of each cylinder having metallic packing rings surrounded with and separated by asbestos packing, a centrally disposed exhaust port in each power cylinder, means for drawing in and compressing a charge in each end of said pumping cylinder alternately, and admission check valves operating toward said power cylinders arranged in pipes connecting the ends of each power cylinder with the pumping cylinder, substantially as described.

3. In an internal combustion engine, a crank shaft, three crank pins lying in a plane passing through the crank shaft axis, one of said crank pins adjacent the end of the crank shaft being disposed opposite the other two, two power cylinders and a pumping cylinder arranged therebetween, pistons operating in said cylinders and connected with said crank pins, the pistons of said pumping cylinder and a power cylinder being connected to the two crank pins arranged on one side of the crank shaft axis, means of alternate charge admission into each end of said pumping cylinder, and power cylinder admission check valves arranged in pipes connecting the ends of each power cylinder with the pumping cylinder, the exhaust ports of said power cylinders being centrally arranged therein, substantially as described.

4. In an internal combustion engine, a crank shaft, a charge pumping cylinder and power cylinders arranged on opposite sides thereof and provided with centrally arranged exhaust ports, pistons operating in said cylinders connected with said crank shaft, means for charge admission into each end of said pumping cylinder, pipes connecting the ends of each power cylinder with the pumping cylinder, and check valves arranged in said pipes and opening toward said power cylinders, each check valve comprising a valve head and stem, the latter projecting through the valve casing and being surrounded by a helical spring adapted to maintain the valve in a normally closed position, substantially as described.

938,634. METALLURGICAL PROCESS. ANSON G. BETTS, Troy, N. Y. Filed Nov. 30, 1906. Serial No. 345,774.



1. The process of making aluminum which consists in reducing aluminum oxid in presence of other suitable less-reactive metal, producing thereby an alloy of aluminum with a less-reactive metal, reacting on the alloy with a suitable material capable of producing therewith an aluminum compound practically free from compounds of more readily-reducible metals than aluminum, and reducing aluminum from said aluminum compound.

2. The process of making aluminum which consists in reducing aluminum oxid in presence of other suitable less reactive metal, producing thereby an alloy of aluminum with a less-reactive metal, reacting on the alloy with a suitable metallic compound capable of reacting therewith to produce an aluminum compound practically free from compounds of less reactive metals, and reducing aluminum from said aluminum compound.

3. The process of making aluminum which consists in reducing aluminum ore in presence of a suitable heavy metal, producing a heavy metal-aluminum alloy, reacting on the alloy with a metallic sulfid capable of reacting with aluminum, thereby producing aluminum sulfid, and reducing aluminum from the said aluminum sulfid.

4. The process of making aluminum which consists in reducing aluminum oxid in presence of a suitable heavy metal, producing a heavy metal-aluminum alloy, reacting on the alloy with iron sulfid, thereby producing aluminum sulfid, and reducing aluminum from the said aluminum sulfid.

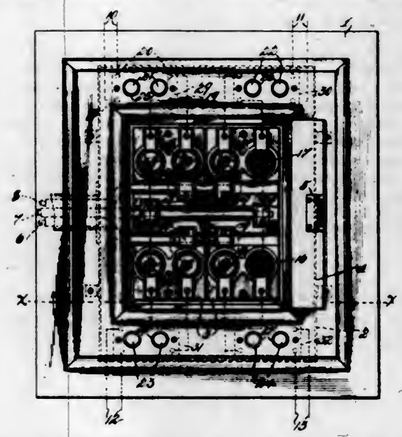
5. The process of producing aluminum which consists in smelting ore or earthy material containing iron and aluminum, producing thereby an alloy containing iron and aluminum, treating the fused alloy with fused iron sulfid, thereby producing aluminum sulfid, and reducing aluminum from said sulfid.

[Claims 6 and 7 not printed in the Gazette.]

938,635. PANEL-BOARD. ALBERT E. BLACKMAN, Mount Vernon, N. Y. Filed Oct. 15, 1908. Serial No. 457,790.

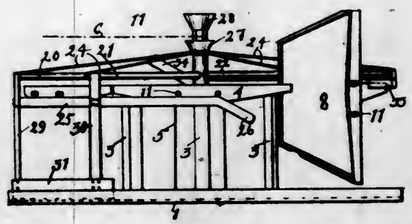
1. A metallic cabinet for electrical distribution having a body portion forming a compartment and a metallic trim securely fastened thereto and serving as a cover for said compartment, a back plate of insulating material secured to the inside of said compartment and having supported thereon main circuit conductors and branch circuit conductors connected therewith and fuses included in said branch circuits, a single set of switches for controlling said branch circuits, said switches being mounted on the underside of said metallic trim and wholly within said compartment and having operating members extending therethrough closely surrounded by the metal thereof, said trim serving as a metallic face plate for the operating members of said switches.

2. A metallic cabinet for electrical distribution having a body portion forming a compartment and a metallic trim securely fastened thereto and serving as a cover for said compartment, a back plate of insulating material secured to the inside of said compartment and having supported thereon main circuit conductors and branch circuit conductors connected therewith and fuses included in said branch circuits, said metallic trim having an opening opposite said back plate and a locking door to close the same, apertures in said trim disposed around said door opening, a single set of switches for controlling said



branch circuits, said switches being mounted on the underside of said metallic trim and wholly within said compartment and having operating members extending through said apertures, each of said switches being separately incased in insulating material.

938,636. FILTER. RALPH S. BROWNE, Alameda, Cal. Filed Sept. 16, 1908. Serial No. 453,266.



1. In a filter, the combination of a filter bed, a pipe leading from said filter bed and with which said bed is revoluble, means whereby a reduced air pressure may be produced in said pipe when in one position, means whereby an increased air pressure may be produced in said pipe when in the opposite position, and means to turn said pipe and filter bed from one position to the other and vice versa.

2. In a filter, a series of circularly placed revoluble filters, means to invert each filter bed successively, means to supply a solution to be filtered to the beds, means to supply a wash solution to the beds, and a scraper adapted to deliver all the sludge dumped from the beds at one place.

3. In a filter, a series of circularly placed filters, a revoluble standard carrying supply pipes for solution to be filtered and wash water, said pipes adapted to pass successively over each of the filter beds, means carried by the supply pipes to successively right each filter prior to its charging, means carried by the revoluble standard to invert each filter bed successively, and a scraper adapted to deliver all the sludge at one place.

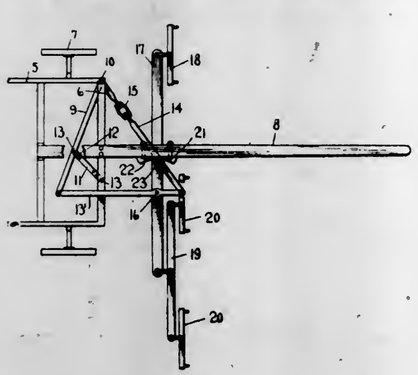
4. In a filter, a series of circularly placed filters, a hollow shaft supporting each filter, a valve at the end of said shaft and adapted to produce a partial vacuum under the

filter cloth when in one position and to deliver a pressure of air under the filter cloth when in the opposite position, a traveling pulp and wash water feed, a revoluble track adapted to contact with projections on the filter and hold the same right side up, a second track adapted to contact with projections on the filter to invert the same, and means to cause the travel of the feeding devices and the tracks.

5. In a filter, a series of circularly placed filters, a hollow shaft supporting each filter, a valve at the end of the shaft and adapted to produce a partial vacuum under the filter cloth during one stage and to deliver a pressure of air under the cloth at another stage, a pulp and wash water feed, a revoluble track adapted to contact with projections on each filter in succession to hold them upright, a second revoluble track adapted to contact with projections on each filter to invert them in succession, and means to drive the two tracks.

[Claims 6 and 7 not printed in the Gazette.]

938,637. DRAFT-EQUALIZER. AUGUST V. BURKE, Greeley Center, Nebr. Filed May 25, 1908, Serial No. 434,789. Renewed Apr. 22, 1909. Serial No. 491,604.



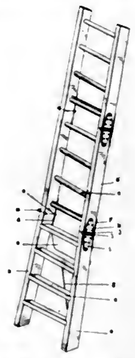
1. In a draft equalizer, the combination with a tongue and a support from which the tongue projects, of a frame fixed upon the support and tongue, a concave block fixed upon the tongue, a draft bar pivoted upon the frame, and a roller carried by the draft bar and working against the block.

2. In a draft equalizer, the combination with a tongue and a support from which the tongue projects, of a frame fixed upon the support and tongue, a draft bar pivoted upon the frame, a roller carried by the draft bar, and an element upon the tongue against which the roller works.

3. In a draft equalizer, the combination with a tongue and a support from which the tongue projects, of a frame fixed upon the support and tongue, a concave block fixed upon the tongue at one side thereof and having its concaved side presented laterally, a draft bar pivoted upon the frame, and a roller carried by the draft bar to one side of its pivot and working against the concave side face of the block.

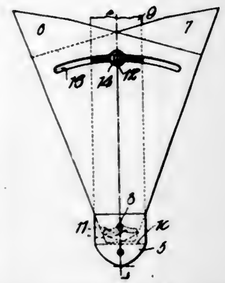
4. In a draft equalizer, the combination with a tongue and a support from which the tongue projects, of a frame fixed upon the support and tongue, said frame comprising a bar pivoted at one end to one corner of the support and extending diagonally thereacross, a brace adjustably connecting the bar and the support, a bar pivoted to the other end of the first mentioned bar and extending forwardly beyond the support, adjustable connection between the said corner of the support and the extreme forward end of the last mentioned bar, a draft bar pivoted to the last mentioned bar, a block upon the tongue, and a roller journaled upon the draft bar and working against the block.

938,638. LADDER. JOHN W. CALDWELL, Toronto, Ontario, Canada. Filed Apr. 29, 1908. Serial No. 429,946.



A ladder comprising several ladder sections, two hinge members secured to the side bars of each ladder section, on the same side thereof, hinge pins connecting the hinge members together so that the ladder sections can be moved into an extended, or into a folded, position, two hinge like coupling members, for each ladder section angularly disposed to the hinge members and connected to the side bars on the sides adjoining those to which the hinge members are secured, and a removable means fastening together the coupling members of the adjacent ladder sections when the latter are in an extended position.

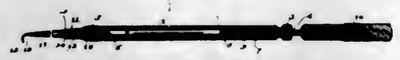
938,639. PLOW-SWEEP. SAMUEL H. CARPENTER, Morrilton, Ark., assignor to Frank M. Bell, Morrilton, Ark. Filed Sept. 17, 1908. Serial No. 453,446.



A plow sweep comprising a shank provided with a forwardly extending offset at its lower end, a point on said offset in parallel relation to the shank and extending above the offset portion, a pivot pin extending through the upper end of the point and shank, a pair of wings each provided with an arcuate slot at its lower end having its center of curvature above the slot and adapted to receive said pivot pin and a second arcuate slot at its upper end having its center of curvature below the slot, and a bolt passing through the arcuate slots in the upper end of the wings and adapted to hold said upper ends in adjustment.

938,640. DENTAL INSTRUMENT. EDWARD L. CHOTT, Chicago, Ill., assignor of one-half to Hugo J. Chott, Chicago, Ill. Filed Apr. 9, 1909. Serial No. 488,798.

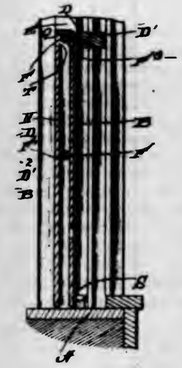
1. In a dental instrument, a cylinder having internally threaded ends, a head screwed into one of said ends having an axial perforation and a knurled periphery, a cylindrical hammer adapted to reciprocate in said cylinder having a rod integral therewith adapted to reciprocate in said axial perforation, a knurled tool-holding head screwed into the other end of said cylinder, and a knurled operating handle secured to said rod, said hammer being adapted to contact with cushions provided at the inner ends of said heads, substantially as described.



2. In a dental instrument, a cylinder having heads secured therein at each end thereof, a cylindrical hammer adapted to reciprocate in said cylinder having a reduced portion or rod adapted to reciprocate in an axial perforation provided in one of said heads, a handle attached to said rod, a disk cushion seated at the inner end of one of said heads and a perforated disk cushion seated at the inner end of the other, said hammer being adapted to contact with said cushions, a threaded axial recess provided in one of said heads, and a tool adapted to screw into said recess, substantially as described.

3. In a dental instrument, a cylinder having a tool-holding head screwed into one end thereof and a perforated head screwed into the other, a hammer adapted to reciprocate in said cylinder having a rod integral therewith adapted to reciprocate in said perforated head, an operating handle secured to said rod, means for cushioning the shocks caused by the impact of said hammer on said heads, a flaring portion, bore, and a threaded recess provided in said tool-holding head, and a removable tool screwed into said recess having a toothed hook at the outer extremity thereof for removing bridge-work, said tool being provided with a conical portion formed thereon for engaging said flaring portion of said last named head, substantially as described.

938,641. WINDOW-SCREEN. JOHN H. CORNELISON, St. Louis, Mo. Filed June 9, 1909. Serial No. 501,165.



1. In combination with a window frame, a screen frame having grooves in its outer vertical edges, said grooves being closed at their upper ends, projections from the jamb of the window frame extending into said grooves and serving as guides to the frame, one wall of each of said grooves being recessed for allowing the screen to swing laterally.

2. In combination with a window frame, a screen frame having grooves in the outer vertical edges, said grooves having closures at their upper ends, guide studs projecting from the jamb of the window frame into said grooves and adapted to contact with said closures to form bearings upon which the screen is allowed to swing.

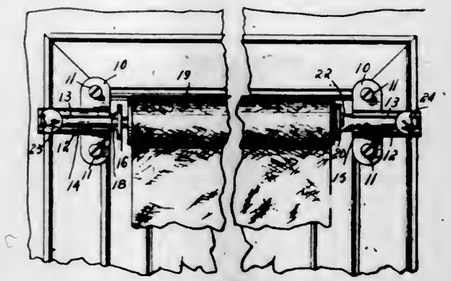
3. In combination with a window frame, a screen frame having grooves in its outer vertical edges, plates secured to the top of the screen and forming closures to said grooves, guide studs projecting from the jamb of the window frame and extending into said grooves, the upper of said studs adapted to form bearings upon which said plates rest to allow the screen, when at its lowest position, to swing outward.

4. In combination with a window frame, a screen frame having grooves in its outer vertical edges, plates secured to the top of the screen and forming closures to said grooves, guide studs projecting from the jamb of the window frame and extending into said grooves, anti-friction rollers upon said guide studs, the upper of said rollers adapted to form a bearing upon which the screen swings.

5. In combination with a window frame, a screen frame having grooves in its outer vertical edges, guide strips in rabbeted portions of the screen frame, plates forming closures to the upper ends of said grooves, studs projecting from the jamb of the frame and extending into said grooves and forming bearings upon which the plates rest as the screen swings.

[Claims 6 to 11 not printed in the Gazette.]

938,642. WINDOW-SHADE-ROLLER BRACKET. VAN T. CRAWFORD, Olio, Miss. Filed Aug. 14, 1908. Serial No. 448,555.



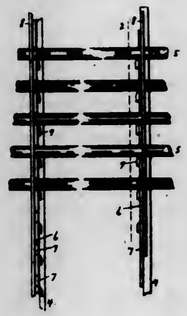
1. A device of the class described comprising a bracket having means for attachment to a window casing and provided with a transverse cylindrical socket having an open longitudinal slot, a cylindrical rod slidable through and rotatable in said socket and with a lateral offset at one end provided with means for supporting a shade roller, and a set screw operating through said rod and extending through said slot and engaging against the inner side of said socket, said set screw having a diameter less than the width of said slot.

2. The combination with a window casing, of a bracket connected to the casing at each side thereof and each provided with a cylindrical socket having an open longitudinal slot, a cylindrical rod slidably and rotatably held in each socket and each rod having a lateral offset, one offset having a transverse aperture to receive the round pin of a curtain roller and the other offset having an open slot to receive the flat pin of the roller, and a set screw operating through each rod and extending respectively through the slots of the sockets and engaging against the inner sides of the same, said set screws having diameters less than the width of the slots.

938,643. VOTING-MACHINE CONSTRUCTION. CHARLES F. CURREY, Topeka, Kans., assignor to The Kansas Voting Machine Company, Topeka, Kans., a Corporation of Kansas. Filed Oct. 24, 1908. Serial No. 459,325.

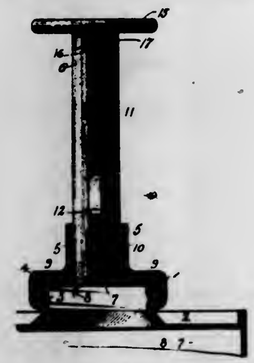
In voting machines, the combination with a frame having a series of partitions and a series of parallel shafts extending crosswise of the partitions, of a series of plates secured to the partitions respectively, each plate having a

series of horizontal slots open at one end and forming a bearing for a shaft at the other end with a notch at one side of each slot, and a locking rod for each plate to lock



the shafts in the bearings and comprising a rod with a series of bent-over integral lugs engaging the respective notches.

938,644. OIL-CAN CUTTER AND TAPPING VALVE. WINFRED M. CURTIS, Vancouver, British Columbia, Canada. Filed Apr. 13, 1909. Serial No. 489,659.

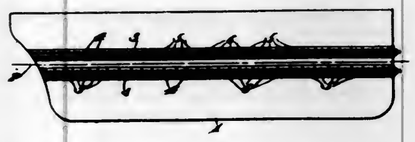


1. As a device for cutting an aperture in an oil can and for tapping the contents, said device comprising an attaching member threaded to fit the cap screw of an oil can, a tubular member rotatable and endwise slidable in said attaching means said tubular member having a closed inner end and a can cutter endwise projecting therefrom and apertures adjacent to the closed end, means for rotating the tubular member and means for endwise moving it to expose the aperture of the tube member within the can.

2. As a device for cutting an aperture in an oil can and for tapping its contents, said device comprising an attaching member internally threaded to fit the cap screw of the can and having concentric therewith a sleeve bearing, a tubular member rotatable and endwise slidable in the sleeve bearing said tubular member having a closed end and a can cutter projecting endwise from it and apertures adjacent to that end, horns projecting diametrically from the tubular member, and removable means for rotating the tubular member.

3. As a device for cutting an aperture in a can and for tapping its contents, said device comprising an attaching member internally threaded to fit the cap screw of the can, a tubular member slidably fitting the attaching screw said tubular member having a closed end and a cutter projecting endwise from it and apertures through it adjacent to the closed end, projections on the tube by which the tube may be endwise moved within the bearing to project the apertures in the tube within the can when cut, a removable hand wheel by which the tubular member may be rotated and a piercing member secured to the hand wheel.

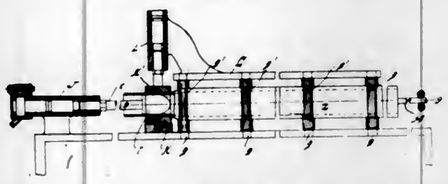
938,645. SHIP. HENRY C. DAVIS, Philadelphia, Pa. Filed July 15, 1909. Serial No. 507,672.



1. In combination with a ship's hull, protecting bands secured around the hull above and below the water line, said bands each comprising heavy bars of metal disposed edgewise against the hull, and flanges fixed to said bars and projecting above and below the bars, and rivets securing said flanges to said hull.

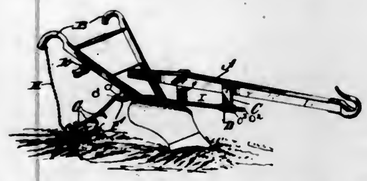
2. In combination with a ship's hull, bands secured around the hull above and below the water line, said bands each comprising a heavy bar of metal disposed edgewise against the hull, angle bars at opposite sides of said first mentioned bars, rivets securing said angle bars to the first mentioned bars, and rivets securing the angle bars to the hull.

938,646. METHOD OR PROCESS OF FORMING METALLIC TUBES. LEONARD D. DAVIS, Erie, Pa. Filed Sept. 24, 1904. Serial No. 225,848.



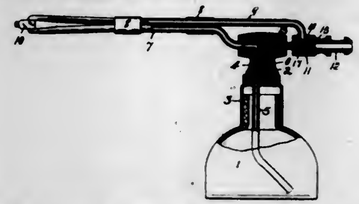
The method or process of forming metallic tubes, which consists in expanding a heated hollow flattened blank by a series of blows applied to the interior of the blank in an axial direction, the blows being of sufficient rapidity to expand the blank while the metal is in a heated condition, the blows being so proportioned to the body of the metal forming the walls of the tube, that the greater portion of the force of the blow is absorbed by the inertia of the walls of said tube immediately adjacent to the surfaces upon which the blows are delivered.

938,647. PLOW ATTACHMENT. CHARLES W. DE KAY, Byron, N. Y. Filed June 5, 1909. Serial No. 500,416.



In combination with the beam and handles of a plow, bars fastened one to the beam and the other to the shank portion of the handle of the plow, a rocking rod journaled in bearings at the lower ends of said bars and positioned intermediate the plow beam and share, said rocking rod having a curved portion with teeth thereon at its rear end, a collar upon the rocking rod adjacent to the bearing upon the handle, and a nut mounted upon the forward threaded end of the shaft and coöperating with the collar for moving the shaft longitudinally.

938,648. ATOMIZER. THOMAS A. DE VILBISS, Toledo, Ohio, assignor to The De Vilbiss Manufacturing Company, Toledo, Ohio, a Corporation of Ohio. Filed May 21, 1909. Serial No. 497,495.



1. In an atomizer, two tubes having a nozzle at their outer ends capable of directing fluid at an angle thereto, a head carrying said tubes for pivotal movements to shift the direction of discharge of the nozzle, one of said tubes having a pivotal bearing against one side of the head and the other tube having a part in pivotal engagement with the other side of such head, means for supplying a liquid to one tube, and means for connecting the other tube with an air-supply.

2. In an atomizer, a receptacle, a head carried thereby, and means having trunnions pivotally bearing against opposite sides of said head, said means having a channel in communication with the interior of the receptacle and a channel in communication with an air-supply, and a common discharge nozzle for said channels.

3. In an atomizer, a receptacle, a head carried thereby, two tubes connected together and having a common discharge nozzle, said tubes having their inner ends in pivotal connection with opposite sides of the head to permit a shifting of said tubes,—one tube communicating with the interior of the receptacle and the other with an air-supply.

4. In an atomizer, a receptacle, a head carried thereby, two tubes revolubly carried by said head and having a common nozzle adapted to direct its discharge laterally of the tubes, said tubes both being in communication with the receptacle through the head, and means for connecting one tube with an air-supply.

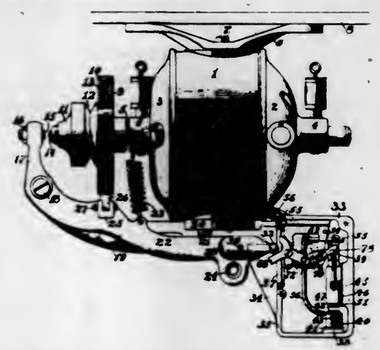
5. In an atomizer, a receptacle, a head carried thereby, a liquid tube having its inner end pivotally seated against said head with its channel in communication with the interior of said receptacle, an air-tube having a part in pivotal contact with the opposite side of the head to the point of bearing of the liquid-tube thereon, said tube being adapted for connection with an air supply and having a restricted channel in communication with the interior of the receptacle, and a common spray-head for said tubes.

[Claims 6 to 16 not printed in the Gazette.]

938,649. CONTROLLER FOR ELECTRIC MOTORS. FREDERICK DIEHL, Elizabeth, N. J., assignor to Diehl Manufacturing Company, a Corporation of New Jersey. Filed May 11, 1908. Serial No. 432,027.

1. A driving device comprising an electric motor including a rotary armature-shaft, a driving clutch-member connected to rotate with said armature-shaft, an independently mounted driven clutch-member having means of connection with the machine to be driven, a reciprocatory operating member for effecting the establishment and interruption of driving relation between said clutch-members, an electric switch connected with said motor and provided with an actuating lever extended into the path of movement of the clutch-operating member, and a spring to complete the throw of the switch lever initiated by its engagement with the clutch-operating member.

2. A driving device comprising an electric motor including a rotary armature-shaft, a driving clutch-member connected to rotate with said armature-shaft, an independently mounted driven clutch-member having means of connection with the machine to be driven, a reciprocatory operating member for effecting the establishment and interruption of driving relation between such clutch-members, an electric switch connected with the motor-circuit and provided with a lever normally extended into the path of movement of the clutch-operating member, and means connected with the switch-actuating lever for throwing it beyond the range of movement of the clutch-operating member and closing the circuit.



3. A driving device comprising an electric motor including a rotary armature-shaft, a driving clutch-member connected to rotate with said armature-shaft, an independently mounted driven clutch-member having means of connection with the machine to be driven, a reciprocatory operating member for effecting the establishment and interruption of driving relation between such clutch-members, an electric switch connected with the motor-circuit and provided with relatively fixed and movable contact-plugs, a carrier for the movable contact-plug, an actuating toggle device composed of pivotally connected levers one of which has an arm adapted for operative engagement with said carrier, a swinging lever upon which said toggle-lever is fulcrumed, a second toggle-lever mounted upon a fixed fulcrum and having angularly disposed arms each of which is adapted to project into the path of movement of the clutch-operating member while the other remains out of said path, whereby the movement of the clutch-operating member causes the pivotal connection of the toggle-members to move to and beyond intermediate or neutral position, and a spring connected with the swinging fulcrum-carrying lever for drawing the movable fulcrum-point of one toggle-lever toward the fixed fulcrum-point of the other toggle-lever to bend the toggle to extreme position independently of the clutch-operating member.

4. A driving device comprising an electric motor including a rotary armature-shaft, driving and driven clutch-members independently mounted upon said armature-shaft, for relative axial movement, the one being connected to rotate with the shaft and the other free to rotate thereon and provided with means of connection with the machine to be driven, an operating lever mounted upon a fixed fulcrum and having a shorter arm normally spaced from but adapted to engage the axially movable clutch-member to force it into driving relation with the other clutch-member, and having a longer arm in angular relation to said shorter arm, an electric switch connected with the motor-circuit and provided with a movable contact-member, and an actuating toggle device operatively connected therewith and comprising a lever normally extended into the path of movement of and closely adjacent to the longer arm of said operating lever, and a spring connected with said toggle device and acting after the initial engagement by the clutch-operating lever of the toggle lever to throw the latter beyond the range of movement of the clutch-operating lever and to shift the movable contact-member to close or open the circuit.

5. An electric switch comprising relatively fixed and movable contact members, and means for shifting the movable member toward and from the fixed member including a pair of pivotally connected toggle-levers one of which is mounted upon a fixed fulcrum, a swinging fulcrum-carrying lever upon which the other of said toggle-levers is fulcrumed intermediate its ends, a spring for forcing said fulcrum-carrying lever toward the fixed fulcrum of the first-mentioned toggle-lever, a connection intermediate the free end of the second-named toggle-lever and the movable contact member, and manually actuated means for bending the toggle-device beyond intermediate or neutral position.

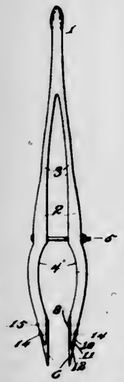
[Claims 6 to 13 not printed in the Gazette.]

938,650. BARREL HEAD AND HOOP FASTENER. ZOHRAB DIXON, Chicago, Ill. Filed Dec. 11, 1908. Serial No. 467,064.



As a new article of manufacture, a barrel fastener comprising two U-shaped parallel disposed body portions, an eye forming the union of said body portions, and a cut-away portion on the inner face of said eye forming a point to impinge the barrel chime-hoop, substantially as described.

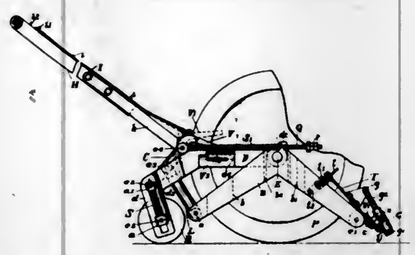
938,651. TRANSPLANTING IMPLEMENT. LLOYD C. DOUGHTY, Onley, Va. Filed May 26, 1909. Serial No. 498,440.



In a transplanting implement for sweet potato sprouts, the combination, with a handle projecting from the implement, arms having a spring portion near their upper ends and increasing in size from the handle to an outwardly bowed portion adjacent the lower ends, and means to limit the outward movement of the arms, of a piercing point for the end of each arm and comprising a solid portion extending half the length of the points and terminating in thin flat ends, an arm seat at the top of said portion, a short outer flange projecting from the seat, a long inner flange projecting from the seat, and means for securing the flanges to the arm ends.

938,652. FLOOR-SCRAPING MACHINE. SAMUEL DREW, Rochester, N. Y. Filed Dec. 23, 1907. Serial No. 407,651.

1. In a floor scraper, a roller weight revolubly connected with a frame pivotally supported therefrom; a scraper knife mounted upon one end of such frame; an operating handle connected to the machine and means, independent of any upward or downward pressure exerted on the handle by the operator, whereby, when the scraper is moved in one direction by such handle, the frame is tilted on its support to raise the knife end thereof from the floor and whereby also, when the scraper is moved in the opposite direction by the handle, the frame is tilted to force the knife into engagement with the floor with a pressure representing a part of the weight of such roller weight.



2. In a floor scraper, a roller weight revolubly connected with a frame pivotally supported therefrom; a scraper knife mounted upon one end of such frame; an operating handle connected to the machine; means, independent of any upward or downward pressure exerted on the handle by the operator, whereby, when the scraper is moved in one direction by such handle, the frame is tilted on its support to raise the knife end thereof from the floor and whereby also, when the scraper is moved in the opposite direction by the handle, the frame is tilted to force the knife into engagement with the floor with a pressure representing a part of the weight of such roller weight and yieldable and elastic means sustaining such pressure.

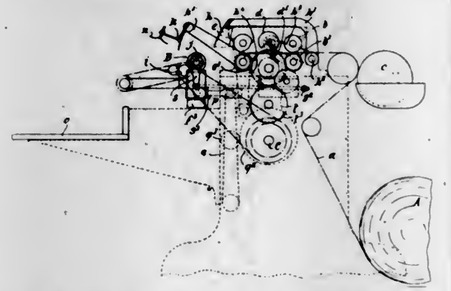
3. In a floor scraper, a roller weight revolubly connected with a frame pivotally supported therefrom; a scraper knife mounted upon one end of such frame; an operating handle connected to the machine; means, independent of any upward or downward pressure exerted on the handle by the operator, whereby, when the scraper is moved in one direction by such handle, the frame is tilted on its support to raise the knife end thereof from the floor and whereby also, when the scraper is moved in the opposite direction by the handle, the frame is tilted to force the knife into engagement with the floor with a pressure representing a part of the weight of such roller weight and means for adjusting the proportionate part of the weight of such roller weight impressed upon the knife when in engagement with the floor.

4. In a floor scraper, a roller weight revolubly connected with a frame pivotally supported therefrom; a scraper knife mounted upon one end of such frame; an operating handle connected to the machine; means, independent of any upward or downward pressure exerted on the handle by the operator, whereby, when the scraper is moved in one direction by such handle, the frame is tilted on its support to raise the knife end thereof from the floor and whereby also, when the scraper is moved in the opposite direction by the handle, the frame is tilted to force the knife into engagement with the floor with a pressure representing a part of the weight of such roller weight; means for adjusting the proportionate part of the weight of such roller weight impressed upon the knife when in engagement with the floor and yieldable and elastic means sustaining such pressure.

5. In a floor scraper, a roller weight revolubly connected with a frame pivotally supported therefrom; a scraper knife mounted upon one end of such frame; an operating handle and an auxiliary frame connected to the main frame and connections between such auxiliary frame, such handle and such main frame whereby, independent of any upward or downward pressure exerted on the handle by the operator, as such scraper is moved in one direction by such handle the knife end of such main frame is raised and whereby also, independent of any upward or downward pressure exerted on the handle by the operator, when such machine is moved in the other direction by such handle, the knife on the main frame is forced into engagement with the floor with a pressure representing a part of the weight of such roller weight.

[Claims 6 to 13 not printed in the Gazette.]

938,653. PAPER-BAG-MAKING MACHINERY. SAMUEL DURRDEN, Bristol, England, assignor of one-half to Strachan & Henshaw, Limited, Bristol, England. Filed Sept. 4, 1908. Serial No. 451,733.



1. In machines for making kite shaped paper bags, means for giving to a blank a first fold, an oscillating carrier adapted to receive the once folded blank and to transfer it to a position at an angle to the receiving position, means for partially forming a second fold of the blank while it is held by said carrier, for receiving the bag from the carrier, finishing the folding and delivering the bag, substantially as set forth.

2. In machines for making kite shaped paper bags the combination of a carrier provided with a gripper disposed at an angle with regard to the bag blank when receiving the latter, a dipper for pressing the bag blank into the gripper to form the first fold of the bag, a pair of folding rollers, means for traveling the carrier with the blank in the gripper to another angular position over the said folding rollers, a dipper adapted to press the blank from the carrier into the folding rollers to form the final fold, means for releasing the blank as it passes into the folding rollers substantially as set forth.

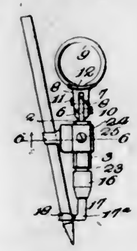
3. In machines for making kite shaped paper bags the combination of a carrier consisting of an arm adapted to move upon a pivot from one radial position where the blank is received and first folded to another radial position where the final fold is made, a gripper on said carrier, a dipper for pressing the bag blank into the gripper to form the first fold of the bag, a pair of folding rollers, means for traveling the carrier with the blank in the gripper to another angular position over the said folding rollers, a dipper adapted to press the blank from the carrier into the folding rollers to form the final fold, means for releasing the blank as it passes into the folding rollers substantially as set forth.

4. In machines for making kite shaped paper bags the combination of a carrier consisting of an arm adapted to oscillate upon a pivot from one radial position where the blank is received and first folded to another radial position where the final fold is made, a gripper on said carrier, means for turning said arm upon its longitudinal axis during its movement from one radial position to the other, a dipper for pressing the bag blank into the gripper to form the first fold of the bag, a pair of folding rollers, means for traveling the carrier with the blank in the gripper to another angular position over the said folding rollers, a dipper adapted to press the blank from the carrier into the folding rollers to form the final fold, means for releasing the blank as it passes into the folding rollers substantially as set forth.

5. In machines for making kite shaped paper bags the combination of a carrier consisting of an arm adapted to oscillate upon a pivot from one radial position where the blank is received and first folded to another radial position where the final fold is made, a gripper on said carrier, means for partly rotating said arm in a downward and rearward direction upon its longitudinal axis during its movement from one radial position to the other and whereby the carrier always precedes the blank during the forward movement, a dipper for pressing the bag blank into the gripper to form the first fold of the bag, a pair of folding rollers, means for traveling the carrier with the blank in the gripper to another angular position over the said folding rollers, a dipper adapted to press the blank from the carrier into the folding rollers to form the final fold, means for releasing the blank as it passes into the folding rollers substantially as set forth.

[Claims 6 to 8 not printed in the Gazette.]

938,654. WRITING INSTRUMENT. JOHN W. DYCHES, Forney, Tex. Filed Oct. 17, 1908. Serial No. 458,279.



1. In a writing instrument, the combination of a holder, means carried by the holder for supporting a marking element in angular relation thereto, and a finger ring pivoted terminally to the holder to rotate in a direction perpendicular to the plane substantially defined by the holder and the marking element.

2. A holder of the character described, comprising a body portion formed at one end with a slot, a finger ring pivotally connected to the body portion and provided with means coöperating with the slot to limit the play of the ring, and means disposed at the opposite end of the body portion for engaging a marking element.

3. A holder of the character described, comprising a body portion formed at one end with a head having a transverse slot, a finger ring formed with outstanding spaced ears arranged on opposite sides of the head and pivotally connected thereto, a stop extending transversely of the ears and working in the slot, and means disposed at the opposite end of the body portion for engaging a marking element.

4. In a writing instrument, the combination of a holder, a finger ring pivotally connected thereto, one of the parts being formed with a slot, and means carried by the other part and coöperating with the slot to afford the ring limited play relative to the holder.

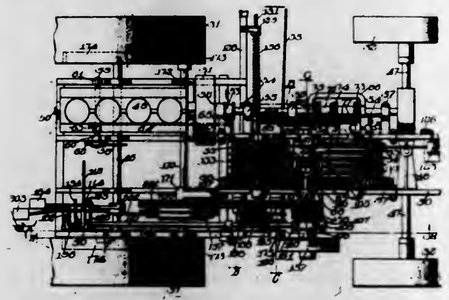
5. A holder of the character described, comprising a body portion formed at one end with a socket, a clip embodying spring arms arranged at one end for engagement with a marking element, the other ends of the arms being seated in the socket, a spacer interposed between said last named ends of the arms engaging the body portion, and means for retaining the arms in position in the socket.

[Claims 6 to 9 not printed in the Gazette.]

938,655. CABLE TRACTION APPARATUS. CLYDE J. EASTMAN, Los Angeles, Cal. Filed July 31, 1909. Serial No. 510,647.

1. In a device of the class described, the combination with running gears, and a traction wheel carried thereby, of a driving member journaled therein, and means for ro-

tating said member, cable-gripping drums, and driving connections between said member and traction wheel and drums, whereby the wheel and the drums can each be driven separately or both simultaneously.



2. In a device of the class described, the combination with running gears, and a traction wheel carried thereby, of a driving member journaled therein, and means for rotating said member, cable-gripping drums, a cable running over said drums, means for securing the ends of the cable from longitudinal movement, and driving connections between said member and traction wheel and drums, whereby the wheel and the drums can each be driven separately or both simultaneously.

3. In a device of the class described, the combination with running gears, and a traction wheel carried thereby, of a driving member journaled therein, means for rotating said member, cable-gripping drums, driving connections between said member and traction wheel, including a shiftable clutch, and driving connections between said member and drums, likewise including a shiftable clutch.

4. In a device of the class described, the combination with running gears, and a traction wheel carried thereby, of a driving member journaled therein, means for rotating said member, cable-gripping drums, driving connections between said member and traction wheel, including a shiftable clutch, driving connections between said member and drums, likewise including a shiftable clutch, a cable running over said drums, and means for securing the ends of the cable from longitudinal movement.

5. In a device of the class described, the combination with running gears, and a traction wheel carried thereby, of an engine on said running gears, a driving member journaled thereon, clutch connections between said engine and member, cable-gripping drums, and driving connections between said member and traction wheel and drums, whereby the wheel and the drums can each be driven separately or both simultaneously.

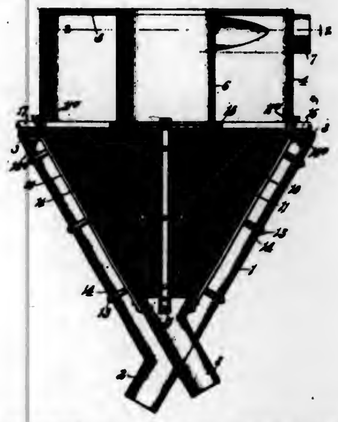
[Claims 6 to 38 not printed in the Gazette.]

938,656. DUST COLLECTOR AND SEPARATOR. EDWARD H. FRICKEY, St. Louis, Mo., assignor to Williams Patent Crusher & Pulverizer Company, St. Louis, Mo., a Corporation of Missouri. Filed May 18, 1908. Serial No. 433,547.

1. A dust collector and separator, comprising a funnel-shaped casing, stationary guideways secured to the lower portion of the casing on the interior thereof, which guideways are spaced away from the wall of the casing, and a screening member composed of a series of removable sections, the side edges of which sections are slidingly mounted in the guideways.

2. An apparatus of the character described, provided with an inverted conical-shaped casing, a screen supporting frame arranged inside of said casing and consisting of a number of grooved guideways, a plurality of sections of perforated material slidingly mounted in said guideways, a supporting device to which said guideways are connected, and means connected to said guideways for supporting the casing; substantially as described.

3. An apparatus of the character described, provided with a plurality of inclined guideways, each of which consists of a pair of bars spaced away from each other to form slots, sections of perforated material slidingly mounted in said slots, and a discharge chute having its upper edge portion arranged between said pairs of bars and connected thereto; substantially as described.

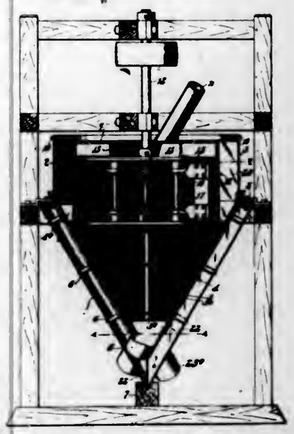


4. An apparatus of the character described having a casing which consists of a cylindrical-shaped upper portion, a lower portion of greater diameter than said upper portion, and a screening member arranged inside of the lower portion of the casing and consisting of a number of slidingly mounted sections, the upper ends of which terminate above the lower edge of the upper portion of the casing; substantially as described.

5. An apparatus of the character described, provided with a casing which consists of an upper portion and a lower portion, guideways arranged inside of the lower portion of the casing, and screen sections slidingly mounted in said guideways and having their upper ends terminating outside of said casing; substantially as described.

[Claims 6 to 15 not printed in the Gazette.]

938,657. SEPARATOR. EDWARD H. FRICKEY, St. Louis, Mo., assignor to Williams Patent Crusher & Pulverizer Company, St. Louis, Mo., a Corporation of Missouri. Filed May 18, 1908. Serial No. 433,548.



1. An apparatus of the character described, comprising a casing, an inverted conical-shaped screen arranged inside of said casing and composed of a number of substantially wedge-shaped sections of different mesh, a cylindrical-shaped screen arranged at the upper end of said inverted conical-shaped screen and composed of sections of different mesh that are arranged in vertical alinement with the sections of the same mesh in the inverted conical-shaped screen, a fan arranged inside of said cylindrical-shaped screen, a feed pipe entering the upper end of said casing, and vertically disposed partitions arranged between the casing and the outer surfaces of both of said screens to form separate compartments, substantially as described.

2. An apparatus of the character described, provided with a screening member consisting of a cylindrical-shaped portion and an inverted conical-shaped portion composed of sections of different mesh, a rotating member arranged inside of said screening member and provided with pivotally mounted fan blades and rigid fan blades, a casing surrounding said screening member, a feed pipe extending into the upper end of said casing, and vertically disposed partitions arranged between said casing and screening member to form separate compartments; substantially as described.

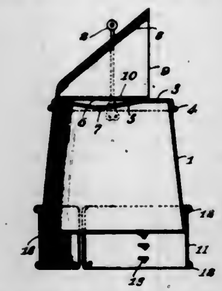
3. A separator provided with a vertically disposed cylindrical screen, a pair of horizontally disposed disks arranged for rotation within said screen, a series of fan blades positioned between the disks and adapted to be adjusted toward and away from the screen, and means whereby the material to be separated is delivered onto the uppermost disk.

4. A separator provided with a vertically disposed cylindrical screen, a vertically disposed shaft arranged for rotation in the center of the screen, a pair of horizontally disposed disks fixed on the shaft within the screen, a series of pins having their ends detachably situated in the disks, fan blades carried by the pins, and means whereby the material to be separated is delivered onto the uppermost disk.

5. A separator provided with a vertically disposed cylindrical screen, a vertically disposed shaft arranged for rotation in the center of the screen, a pair of disks fixed on a shaft within the screen, vertically disposed adjustable pins mounted in said disks, fan blades pivotally mounted on said pins between the disks, radially disposed vanes on the upper one of the disks, and means for delivering the material to be separated onto the uppermost disk.

[Claims 6 to 12 not printed in the Gazette.]

938,658. MILKING VESSEL. SAMUEL W. GERSTER, Gerster, Mo. Filed May 4, 1909. Serial No. 493,920.

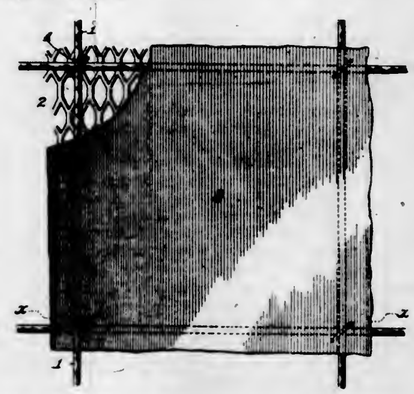


1. A milking vessel, comprising a receptacle, a top fitted on said receptacle and provided with a depression, a strainer in said depression, the said depression being formed with radially extending corrugations leading to said strainer, and a hood fitted around said depression and formed with a laterally facing entrance opening.

2. A milking vessel, comprising a receptacle, a top fitted on said receptacle, a strainer secured to said top, a hood having a laterally facing entrance opening and surrounding said strainer, and a deflector plate mounted in the hood over the strainer.

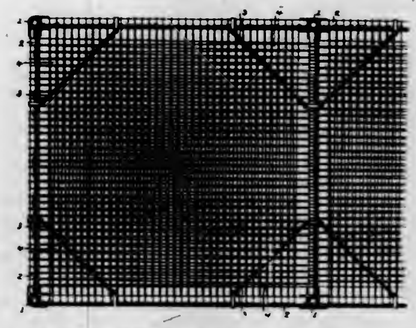
3. A milking vessel, comprising a receptacle, a detachable top adapted to be fitted on said receptacle, a strainer in said top, and a hood rigidly connected to said top and constructed to be supported upright thereon or in an inverted position within the receptacle.

938,659. REINFORCED-CONCRETE PARTITION. GEORGE M. GRAHAM, Chicago, Ill., assignor to G. A. Edward Kohler, Chicago, Ill. Filed Oct. 17, 1907. Serial No. 397,852.



The combination in a reinforced concrete partition, of a series of reinforcing wires in crossed relation, perforated sheet lathing arranged at one side of said wires, and clips applied to said wires at their intersecting points and embracing adjacent portions of the perforated lathing to secure the parts together, said clips having an open quadrilateral form initially, substantially as set forth.

938,660. METHOD OF ERECTING REINFORCED CONCRETE STRUCTURES. GEORGE M. GRAHAM, Chicago, Ill., assignor to G. A. Edward Kohler, Chicago, Ill. Filed Dec. 10, 1907. Serial No. 405,887.



1. The herein described method of erecting reinforcing frames for concrete structures which consists, in initially assembling as a compact bundle having an elongated flat form the wire strands constituting the skeleton center of a building unit, successively inserting cylindrical frame members through said coil, coupling said members together as a border frame, and finally separating the coil windings to a uniform spaced relation to impose uniform tension thereon.

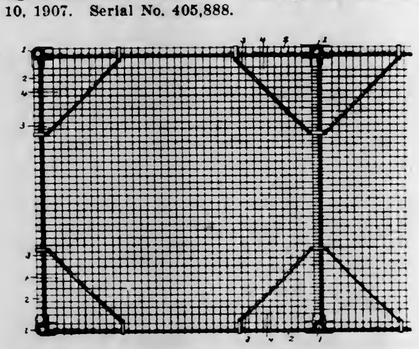
2. The herein described method of erecting reinforcing frames for concrete structures which consists, in initially assembling as compact bundles having an elongated flat

form the wire strands constituting the skeleton center of a building unit, arranging pairs of said bundles in crossed relation, successively inserting cylindrical frame members through said coils, coupling said members together as a border frame, and finally separating the coil windings to a uniform spaced relation to impose uniform tension thereon.

3. The herein described method of erecting reinforcing frames for concrete structures which consists, in initially assembling as a compact bundle having an elongated flat form the wire strands constituting the skeleton center of a building unit, successively inserting cylindrical frame members through said coil, coupling said members together and to a series of vertical columns to constitute a border frame, and finally separating the coil windings to a uniform spaced relation to impose uniform tension thereon.

4. The herein described method of erecting reinforcing frames for concrete structures which consists, in initially assembling as compact bundles having an elongated flat form the wire strands constituting the skeleton center of a building unit, arranging pairs of said bundles in crossed relation, successively inserting cylindrical frame members through said coils, coupling said members together and to a series of vertical columns to constitute a border frame, and finally separating the coil windings to a uniform spaced relation to impose uniform tension thereon.

938,661. REINFORCING-FRAME FOR CONCRETE STRUCTURES. GEORGE M. GRAHAM, Chicago, Ill., assignor to G. A. Edward Kohler, Chicago, Ill. Filed Dec. 10, 1907. Serial No. 405,888.



1. The herein described method of erecting reinforcing frames for concrete structures which consists, in initially assembling as a compact bundle having an elongated form the series of wire links constituting the skeleton center of a building unit, successively inserting cylindrical frame members through said bundle, coupling said members together as a border frame, and finally separating the individual links to form a skeleton center for said border frame and to impose at the same time the required tension on the links.

2. The herein described method of erecting reinforcing frames for concrete structures which consists, in initially assembling as compact bundles having an elongated form the series of wire links constituting the skeleton center of a building unit, arranging pairs of said bundles in crossed relation, successively inserting cylindrical frame members through said bundles, coupling said members together and to a series of vertical columns to constitute a border frame, and finally separating the individual links to form a skeleton center for said border frame and to impose at the same time the required tension on the links.

3. The herein described method of erecting reinforcing frames for concrete structures which consists, in initially assembling as a compact bundle having an elongated form the series of wire links constituting the skeleton center of a building unit, arranging pairs of said bundles in crossed relation, successively inserting cylindrical frame members through said bundles, coupling said members together and to a series of vertical columns to constitute a border frame, and finally separating the individual links to form a skeleton center for said border frame and to impose at the same time the required tension on the links.

4. The herein described method of erecting reinforcing frames for concrete structures which consists, in initially assembling as compact bundles having an elongated form the series of wire links constituting the skeleton center of a building unit, arranging pairs of said bundles in crossed relation, successively inserting cylindrical frame members through said bundles, coupling said members together and to a series of vertical columns to constitute a border-frame, and finally separating the individual links to form a skeleton center for said border frame and to impose at the same time the required tension on the links.

938,662. REINFORCED CONCRETE STRUCTURE. GEORGE M. GRAHAM, Chicago, Ill., assignor to G. A. Edward Kohler, Chicago, Ill. Filed Dec. 10, 1907. Serial No. 405,890.



1. The combination with the skeleton center of a reinforced concrete structure, of an attaching stud secured to said center and projecting laterally therefrom, said stud comprising a longitudinally split bolt the sections of which are connected together at one end and separated at the other end to form holding jaws, and a nut moving on said bolt to force said jaws together.

2. The combination with the skeleton center of a reinforced concrete structure, of an attaching stud secured to said center and projecting laterally therefrom, said stud comprising a longitudinally split bolt the sections of which are connected together at one end and separated at the other end to form holding jaws having a curved form, and a nut moving on said bolt to force said jaws together.

3. The combination with the skeleton center of a reinforced concrete structure, of an attaching stud secured to said center and projecting laterally therefrom, said stud comprising a longitudinally split bolt the sections of which are connected together at one end and separated at the other end to form holding jaws, a nut moving on said bolt to force said jaws together, and a nut arranged on the outer end of said bolt and securing a molding or the like to the surface of the concrete structure.

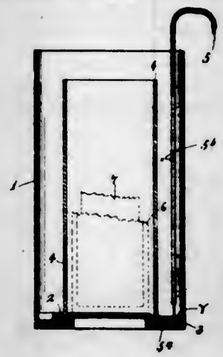
4. The combination with the skeleton center of a reinforced concrete structure, of an attaching stud secured to said center and projecting laterally therefrom, said stud comprising a longitudinally split bolt the sections of which are connected together at one end and separated at the other end to form holding jaws having a curved form, a nut moving on said bolt to force said jaws together, and a nut arranged on the outer end of said bolt and securing a molding or the like to the surface of the concrete structure.

5. The combination with the skeleton center of a reinforced concrete structure, of an attaching stud secured to said center and projecting laterally therefrom, said stud comprising a longitudinally split bolt the sections of which are connected together at one end and separated at the other end to form holding jaws, a nut moving on said bolt to force said jaws together, and a flanged sleeve nut arranged on the outer end of said bolt and securing a molding or the like to the surface of the concrete structure.

[Claim 6 not printed in the Gazette.]

938,663. BATTERY-CONTACT. JULIUS H. GUGLER, Minneapolis, Minn., assignor to Battery Company, a Corporation. Filed Feb. 21, 1908. Serial No. 417,020.

In a battery, a jar having in its bottom an annular well formed with an outwardly extended pocket containing a body of mercury, in combination with a lead wire extended over the top of the jar, down through the battery fluid and loosely seated at its lower end in the mercury



contained in said pocket, the main submerged body portion of said lead wire being covered with insulating material.

938,664. ELECTRIC SWITCH. GERALD W. HART, West Hartford, Conn., assignor to The Hart Manufacturing Company, Hartford, Conn., a Corporation of New Jersey. Filed May 5, 1909. Serial No. 494,174.

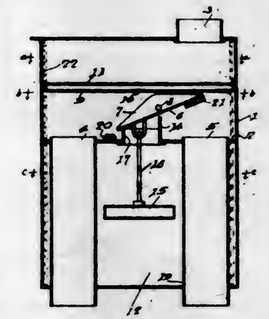
1. In a switch, the combination of a support, an actuating member, a switch arm, said actuating member and switch arm being mounted upon the same axis on said support, a spring connecting said actuating member and switch arm, a sliding detent member normally restraining said switch arm, one of said members having an opening and the other a pin traveling in said opening, said opening having an idle portion concentric with, and an active portion not concentric with the axis of said actuating member, the concentric portion being an end portion of the opening, said pin traveling in both portions.

2. In a switch, the combination of a support, an actuating member, a switch arm, said actuating member and switch arm being mounted upon the same axis on said support, a spring connecting said actuating member and switch arm, a sliding detent member normally restraining said switch arm, said detent member having an opening, said opening having an idle portion concentric with and an active portion not concentric with the axis of said actuating member, said actuating member having a pin traveling in said opening.

3. In a switch, the combination of a support, an actuating member, a switch arm, said actuating member and switch arm being mounted upon the same axis on said support, a spring connecting said actuating member and switch arm, a sliding detent member normally restraining said switch arm, one of said members having an opening and the other a pin traveling in said opening, said opening having an idle portion concentric with and an active portion not concentric with the axis of said actuating member, a push button for moving said actuating member in one direction, and a retracting spring for said actuating member.

4. In a switch, the combination of a support, an actuating member, a switch arm, said actuating member and switch arm being mounted upon the same axis on said support, a spring connecting said actuating member and switch arm, a sliding detent member normally restraining said switch arm, one of said members having an opening and the other a pin traveling in said opening, said opening having an idle portion concentric with and an active portion presenting a convex outline to the axis of the actuating member, a push button for moving said actuating member in one direction, and a retracting spring for said actuating member.

938,665. CUT-OFF FOR WATER-SPOUTS. GEORGE HENKEL, Canal Dover, Ohio. Filed Apr. 23, 1909. Serial No. 491,734.



1. In a device of the character described, a casing, a partition dividing the space within said casing into upper and lower compartments, said upper compartment having an inlet, two outlet pipes extending through said partition, a deflector pivotally mounted in said upper compartment and arranged to deflect the water entering through said inlet toward one or the other of said outlet pipes, a water receptacle within said lower compartment having an inlet near one of said outlet pipes, and a float within said water receptacle operatively connected to said deflector.

2. In a device of the character described, a casing, a partition dividing the space within said casing into upper and lower compartments, the lower compartment having a water receptacle and the upper compartment having an inlet and a plurality of outlets, a deflector pivotally mounted between said inlet and said outlets and adapted to deflect the water toward one or the other of said outlets, a float within said lower compartment and operatively connected to said deflector, and a passage connecting said lower compartment with said upper compartment and adapted to divert a portion of the water into said lower compartment.

3. In a device of the character described, a casing, a partition dividing the space within said casing into an upper and a lower compartment, the lower compartment having a water receptacle and the upper compartment having an inlet, a plurality of outlet pipes communicating with said upper compartment at points above said partition, a deflector pivotally mounted between said inlet and said outlets and adapted to deflect the water toward one or the other of said outlets, a float within said lower compartment and operatively connected to said deflector, and a passage connecting said lower compartment to said upper compartment at a point below the point of connection of said outlets with said upper compartment and adapted to divert a portion of the water into said lower compartment.

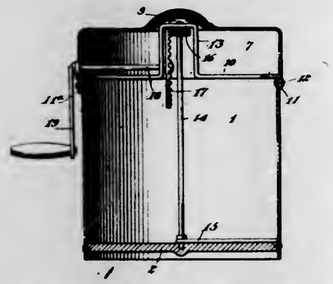
4. In a device of the character described, a casing, a horisontal partition arranged in said casing and forming a water receptacle in the lower part thereof, an inlet pipe connected with the upper part of said casing, two outlet

pipes connected to said horizontal partition and extending through said water receptacle, a deflector pivotally supported between said inlet and said outlets and arranged normally to deflect the water from said inlet toward one of said outlets, means for introducing a portion of the water so deflected into said water receptacle, and a float mounted in said water-receptacle and operatively connected to said deflector.

5. In a device of the character described, a casing, a horizontal partition dividing said casing into two chambers, one of said chambers forming a water receptacle and the other of said chambers having a water inlet, a waste-pipe extending through said partition and said water receptacle, said partition having an aperture therein near the upper end of said waste-pipe, a deflector pivotally supported in the upper chamber of said casing and normally arranged to receive the water from said inlet and divert the same to said waste-pipe, a cistern-pipe extending through said partition and through said water receptacle, a float mounted in said water receptacle and operatively connected to said deflector, whereby the rise of the water in said water receptacle will cause the float to move said deflector into a position to divert the water received from said inlet toward said cistern-pipe.

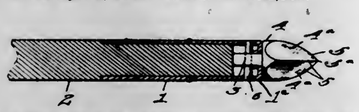
[Claims 6 to 12 not printed in the Gazette.]

938,666. POPCORN-POPPER. MATTHEW H. HOFFMAN, Chicago, Ill., assignor of one-half to Anton Simon, Chicago, Ill. Filed Nov. 30, 1908. Serial No. 465,405.



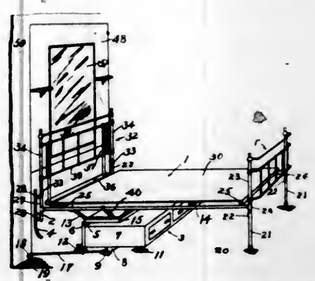
In a device of the character described, the combination with a casing, of a frame secured to the upper end of said casing, said frame being formed of a single strip of metal bent to form a central arch, one end of said strip being bent downwardly and secured to the casing, and the other end bent upwardly, a bracket connecting the last said end to said casing, a vertical shaft located centrally in the casing having a bearing in said arch, and a thrust bearing in the casing bottom, an agitating arm secured on the shaft near the casing bottom, a pinion secured on the shaft within the arch, a horizontal shaft supported in bearings formed in said upturned end and said arch of the frame, a gear wheel on said horizontal shaft meshing with the pinion, and a crank on said horizontal shaft outside of the casing.

938,667. INK-ERASER. FRANKLIN M. HOLDER, Oxford, La. Filed Apr. 2, 1908. Serial No. 424,803.



The herein described eraser, comprising a stem, a sleeve applied to one end of the stem projecting beyond the extremity thereof, the sleeve being formed at its projecting end with a transverse wall formed with an opening extending therethrough, the edges of said opening extending inwardly toward the stem, an eraser fitting against said end of the sleeve and provided with a tongue which extends inwardly through said opening and abuts against the adjoining end of the stem, and a transversely extending pin secured in the sleeve at the projecting end portion thereof and passing through the shank, said pin passing against the extremities of the inturned edge of said opening.

938,668. FOLDING WALL-BED. WILLARD C. JAMES, Los Angeles, Cal. Filed Dec. 18, 1905. Serial No. 292,135.



1. A bed, a base fixed thereon to support the bed in upright position, said base being formed at its forward end in a rocker, a support pivoted to the bed in front of and above the rocker, and a leg hinged to the support.

2. A bed provided with a base frame formed in a rocker at its forward end, an adjustable shifting frame hinged to the bed in front and above the rocker, means for automatically lowering and raising said frame as the bed is lowered and raised, and casters supporting said frame in both raised and lowered positions.

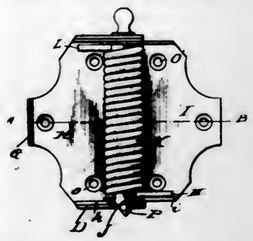
3. A bed, a base fixed thereto to support the same on end and formed in a rocker at one end, said rocker projecting in front of the bed when the bed is up and fulcrum means in front of the rocker for supporting the bed when moved from upright position.

4. A bed, a base fixed thereon to support the bed in upright position, said base being formed at its forward end in a rocker, a support pivoted to the bed in front of and above the rocker, a leg hinged to the support, and means for holding the foot of the leg stationary.

5. A bed provided with a base frame formed in a rocker at its forward end, an adjustable shifting frame hinged to the bed in front and above the rocker, and means for automatically lowering and raising said frame as the bed is lowered and raised.

[Claims 6 to 25 not printed in the Gazette.]

938,669. HINGE. JOHN L. LARKIN and JOHN C. WOODY, Mount Vernon, Ind., assignors to The Champion Safety Lock Company, Geneva, Ohio, a Corporation of Ohio. Filed Nov. 7, 1908. Serial No. 461,559.

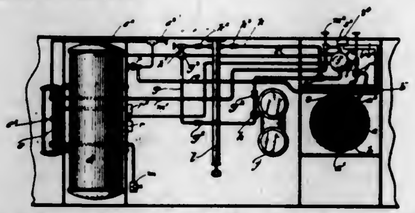


1. A hinge comprising in its construction wings having coinciding apertured ears, in combination with a hollow pintle passed through said aperture and a pin extending through said pintle, of an anchoring plate adapted to be secured to a fixed object and having ears adapted to be engaged by said pin, and also having means for securing the outer edge of the wings thereto, and a spring mounted on said pintle.

2. In a hinge, the combination with two pivotally connected wings, of an anchoring device having a lug adapted to engage one of the wings, and means for connecting the anchoring device to the pivotal connection of the wings.

3. In a hinge, the combination with two wings and a pivot therefor, of an anchoring device, means for holding one of the wings in operative relation to the anchoring device, and means for connecting the anchoring device in operative relation to the pivot of the wings.

938,670. FEED SYSTEM FOR HYDROCARBON-BURNERS. JOHN N. LEACH, Melrose, Mass., assignor to Judson L. Thomson Manufacturing Company, Waltham, Mass., a Corporation of Maine. Filed Feb. 25, 1905. Serial No. 247,270.



1. The combination with an apparatus for generating and burning gas from hydrocarbons embodying a pilot vaporizer and a main vaporizer; of a fuel feed system comprising an oil reservoir, a high pressure tank, a low pressure tank connected to said reservoir to receive its supply therefrom, oil conduits connecting said reservoir and said high pressure tank, said high pressure tank and said main vaporizer and said low pressure tank and said pilot vaporizer, respectively, and means whereby the feed of oil from said tanks to said vaporizers is separately controlled.

2. The combination with an apparatus for generating and burning gas from hydrocarbons embodying a pilot vaporizer and a main vaporizer; of a fuel feed system comprising an oil reservoir, a high pressure tank, a low pressure tank connected to said reservoir to receive its supply therefrom, oil conduits connecting said reservoir and said high pressure tank, said high pressure tank and said main vaporizer, and said low pressure tank and said pilot vaporizer, respectively, means whereby the feed of oil from said tanks to said vaporizers is separately controlled, and means whereby oil is automatically fed to said high pressure tank to maintain the pressure therein.

3. The combination with an apparatus for generating and burning gas from hydrocarbons embodying a pilot vaporizer and a main vaporizer; of a fuel feed system comprising an oil reservoir, a high pressure tank, a low pressure tank connected to said reservoir to receive its supply therefrom, oil conduits connecting said reservoir and said high pressure tank, said high pressure tank and said main vaporizer, and said low pressure tank and said pilot vaporizer, respectively, means whereby the feed of oil from said tanks to said vaporizers is separately controlled, and a pressure regulator and by-pass system in conjunction with said means, whereby the maximum pressure in said high pressure tank may be regulated.

4. The combination with an apparatus for generating and burning gas from hydrocarbons embodying a pilot vaporizer and a main vaporizer; of a fuel feed system comprising an oil reservoir, a high pressure tank, a low pressure tank connected to said reservoir to receive its supply therefrom, oil conduits connecting said reservoir and said high pressure tank, said high pressure tank and said main vaporizer, and said low pressure tank and said pilot vaporizer, respectively, means whereby the feed of the oil from said tanks to said vaporizers is separately controlled, and an oil pump having suitable check valves in connection therewith arranged in the conduit connecting said high pressure tank and said reservoir.

5. The combination with an apparatus for generating and burning gas from hydrocarbons embodying a pilot vaporizer and a main vaporizer; of a fuel feed system comprising an oil reservoir, a high pressure tank, a low pressure tank connected to said reservoir to receive its supply therefrom, oil conduits connecting said reservoir and said high pressure tank, said high pressure tank and said main vaporizer, and said low pressure tank and said pilot vaporizer, respectively, means whereby the feed of the oil from said tanks to said vaporizers is separately controlled, an oil pump having suitable check valves in connection therewith arranged in the conduit connecting said high pressure tank and said reservoir, a pressure regulator, and a by-pass system arranged in and in conjunction with said conduit connecting said high pressure tank and said reservoir.

[Claims 6 to 23 not printed in the Gazette.]

938,671. RESISTANCE UNIT. HARRY W. LEONARD, Bronxville, N. Y. Filed Nov. 13, 1905. Serial No. 287,203.



1. The combination of a reflexed ribbon conductor, and two protective sheet metal supports, the said ribbon being supported edgewise between said supports and the opposite terminals of said conductor being electrically connected to said supports respectively.

2. The combination of a resistive conductor, two supporting members therefor supporting said conductor between them, and means for insulating said members from each other and from said conductor and for adhesively attaching the parts together, the opposite ends of said resistance being electrically connected to said two members respectively.

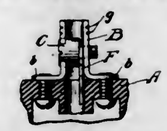
3. In a resistance unit, the combination of a resistance, and supporting means therefor comprising sheet metal elements supporting said resistance between them and an adhesive coating of mineral insulating material for insulating the parts, the said elements being electrically connected together by said resistance.

4. In a resistance unit, the combination of a flexible metallic ribbon, two rigid supports therefor, means for adhesively attaching said supports to opposite edges of said ribbon respectively to form a rigid structure, and circuit terminals for said ribbon carried by said supports respectively.

5. In a resistance unit, the combination of a resistance, two protecting and supporting members between which said resistance is held so as to be openly exposed to the free emission of heat by radiation and convection, and circuit terminals carried by said members and to which the opposite ends of said resistance are connected respectively.

[Claims 6 and 7 not printed in the Gazette.]

938,672. BINDING-POST. HENRY E. LEPPERT, New Britain, Conn., assignor to The Hart Manufacturing Company, Hartford, Conn., a Corporation of New Jersey. Filed Apr. 2, 1908. Serial No. 424,698.



1. In a binding post, a stationary member having connected opposing walls, a screw engaging said stationary member and passing through both walls thereof, said screw having an enlarged shoulder passing through one wall and adapted to clamp a conductor between it and the inside of the other wall.

2. In a binding post, a stationary member having opposing walls, a screw engaging said stationary member and passing through both walls thereof, said screw having an enlarged shoulder passing through one wall and adapted to clamp a conductor between it and the inside of the other wall, the ends of said walls on one side being connected together and on the other side disconnected.

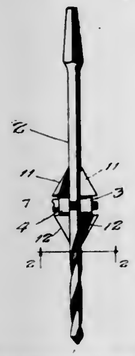
3. In a binding post, the combination of a stationary member having horizontal connecting lugs and vertical opposing walls, a screw engaging said stationary member and passing through both of said walls, said screw having an enlarged shoulder passing through one wall and adapted to clamp a conductor between it and the inside of the other wall, said lugs having an opening between them in line with the space between said walls for the passage of the conductor to be clamped.

4. In a binding post, the combination of a stationary member having horizontal connecting lugs and vertical opposing walls connected thereto, a screw engaging said stationary member and passing through both of said walls, said screw having an enlarged shoulder passing through one wall and adapted to clamp a conductor between it and the inside of the other wall, the ends of said walls being connected on one side and disconnected on the other side, said lugs having an opening between them in line with the space between said walls for the passage of the conductor to be clamped.

5. In a binding post, the combination of a stationary member consisting of horizontal connecting lugs having an opening between them for the conductor to be clamped and two vertical opposing walls connected thereto and located on opposite sides of said opening, said walls being disconnected at the top and at one side, and means for clamping the conductor against the inner side of one of said walls, said means passing through both of said walls.

[Claims 6 to 9 not printed in the Gazette.]

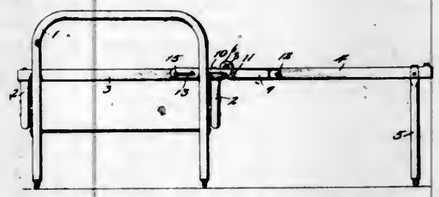
938,673. COUNTERSINK ATTACHMENT. SWAN LINDSTRAND, Chicago, Ill. Filed Feb. 24, 1908. Serial No. 417,223.



A countersink attachment comprising two comparatively thick bars adapted to fit opposite sides of an auger and having means for clamping them thereon, either bar formed with a hollow conical sector extension tapering gradually circumferentially from the point of juncture with the bar to the cutting edge along one side and forming a conical sector-opening extending through such extension, said opening extending through the adjacent edge of such bar and being in line with and forming an extension of the delivery channel of the auger.

938,674. FOLDING STRAP OR BRACE. GEORGE C. LOCKLIN, Hammond, Ind. Filed Mar. 2, 1908. Serial No. 418,886.

1. The combination with folding members, of a strap to connect the same, comprising links pivoted together and to said members, such strap being provided with engaging means whereby one of said folding members may be held at an angle to the other of less than 180°, one of said links having a sliding connection with the member to which it is attached by means of which the folding members may be extended to an angle greater than the angle first mentioned.



2. The combination with folding members, of a strap to connect the same, comprising links pivoted together and to said members, such strap being provided with engaging means whereby one of said folding members may be held at an angle to the other of less than 180°, one of said links having a sliding connection with the member to which it is attached by means of which the folding members may be extended to an angle greater than the angle specified, the pivot of said links being out of line of the points of engagement of the links with said folding members when the latter stand at the angle first mentioned.

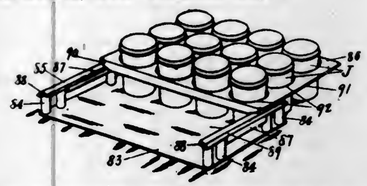
3. The combination with folding members, of a strap to connect the same, comprising links pivoted together and to said members, such strap being provided with engaging means whereby one of said folding members may be held at an angle to the other of less than 180°, one of said links having a sliding connection with the member to which it is attached by means of which the folding members may be extended to an angle greater than the angle first mentioned, the ends of the links which are pivoted together being provided with abutments which come together when the folding members are folded to their first-mentioned position and prevent the pivot point of said members from coming into line with the points of attachment of such links with the folding members.

4. The combination with folding members, of a strap connecting the same, comprising a pair of links pivoted together, one of said links pivoted to one of the folding members, a pin on the other folding member, and an angular slot in the other link into which said pin extends.

5. The combination with folding members, of a strap connecting the same, comprising a pair of links pivoted together, one of said links pivoted to one of the folding members, a pin on the other folding member, and an angular slot in the other link into which said pin extends, and abutments on said links which come together and prevent said links from alining with each other.

[Claims 6 to 13 not printed in the Gazette.]

938,675. JAR-TRAY. WILLIAM A. LORENZ, Hartford, Conn., assignor of one-half to Beech-Nut Packing Company, Canajoharie, N. Y., a Corporation of New York, and one-fourth to William H. Honiss, Hartford, Conn. Filed Dec. 12, 1904. Serial No. 236,485.



1. In jar handling devices, the combination of a jar tray, and a detachable unitary jar locator provided with a plurality of openings for locating a plurality of jars upon the tray in symmetrical relation to the ends of the tray, the locator being also provided with means for reversibly registering itself upon the tray and maintaining the symmetrical relation of the jars to the ends of the tray in either position of the locator.

2. In jar handling devices, the combination of a jar tray, open at its lateral sides, and a detachable locator consisting of a sheet metal plate, provided with apertures for locating and maintaining a plurality of jars in predetermined positions on the tray, the plate being also provided with means for reversibly registering it upon the tray and maintaining the jars in their same predetermined positions upon the tray in both of the positions of the locator.

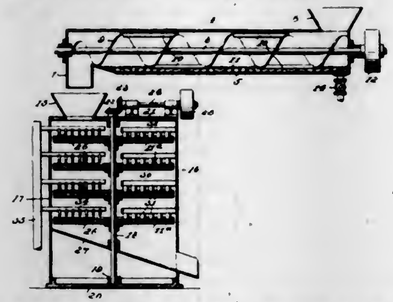
3. In jar handling devices, the combination of a jar tray open at its lateral side, a detachable locator made in a unitary structure and provided with means for reversibly registering itself upon the tray, and with means for locating jars in a relation to the ends of the tray, unchanged by the reversal of the locator.

4. In jar handling devices, the combination of a jar tray open at its lateral side, a detachable locator made in a unitary structure, and provided with means for locating jars symmetrically relative to the ends of the tray, and means at the ends of the tray and locator for detachably registering them together, whereby the locator may be bodily disengaged from the ends of the tray, to slide the jars out of one of the open lateral sides of the tray.

5. In jar handling devices, the combination of a jar tray, comprising a flat bottom portion provided with standards rising from opposite sides of the bottom, a handle appurtenant to each of said standards, a detachable locator provided with openings for locating a series of jars in a predetermined position in the tray, the ends of the locator being provided with means for registering with the said standards, with portions of said locator adjacent to the said handles, whereby the tray and its locator are arranged in manipulative relation to the hand of the operator.

[Claims 6 and 7 not printed in the Gazette.]

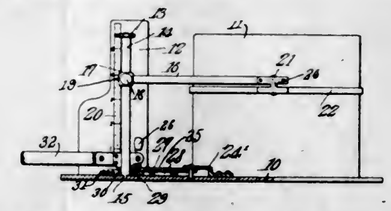
938,676. MEANS FOR THE CONCENTRATION BY AMALGAMATION OF VALUES OF METALLIC ORE MATTER. ROYER LUCKENBACH, Colwyn, Pa., assignor to Borindum Extraction Company, a Corporation of Arizona. Filed Sept. 23, 1907, Serial No. 394,041. Renewed Sept. 27, 1909. Serial No. 519,875.



In an apparatus of the character described, a vertical shaft, a pan carried by said shaft and adapted to contain an amalgamating substance, said pan having a radial slot with upturned edges, an agitator frame extending radially over the pan and consisting of a plurality of bars, each supporting a row of diagonally disposed scrapers, the scrapers of successive bars being in staggered relation, a row of jet tubes radially supported over the pan opposite the scraper frame, the jet tubes being adapted to deliver fluid to the material upon the pan, and means for rotating the pan, substantially as and for the purposes described.

938,677. SKIRT-MARKER. FREDRICK C. LUETHY, Chicago, Ill., assignor of one-half to Walter L. Ultsch, Chicago, Ill. Filed June 5, 1909. Serial No. 500,346.

1. In a skirt-marker, a back plate, a member normally supported away from said back plate and arranged for co-operation with the plate to clamp a skirt thereagainst, means for moving the member into coöperative relation with respect to the said plate, and a chalk-holder slidably mounted upon the said member.



2. In a skirt-marker, a back plate, a member normally supported away from said back plate and arranged for co-operation with the plate to clamp a skirt thereagainst, means for moving the member into coöperative relation with respect to the said plate, a chalk-holder slidably mounted upon the said member, and means for holding the member in such coöperative relation with respect to the back plate.

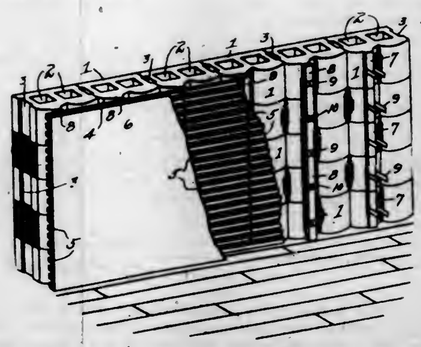
3. In a skirt-marker, a back plate, a shaft, an arm upon the shaft, a member carried by the arm for coöperation with the back plate to clamp a skirt thereagainst, means for rocking the shaft to bring the member into coöperative relation with respect to the plate, and means for holding the shaft in rocked position.

4. In a skirt-marker, a back plate, a shaft, an arm carried by the shaft, a member carried by the arm and arranged to coöperate with the plate, whereby to clamp a skirt thereagainst, means normally holding the shaft in position to hold the arm with the member away from the plate, and means whereby the shaft may be rocked to bring the said member into coöperative relation with respect to the plate.

5. In a skirt-marker, a back plate, a shaft, an arm carried by the shaft, a member carried by the arm and arranged to coöperate with the plate, whereby to clamp a skirt thereagainst, means normally holding the shaft in position to hold the arm with the member away from the plate, means whereby the shaft may be rocked to bring the said member into coöperative relation with respect to the plate, and means for holding the shaft in position with the member in coöperative relation with respect to the plate.

[Claims 6 to 9 not printed in the Gazette.]

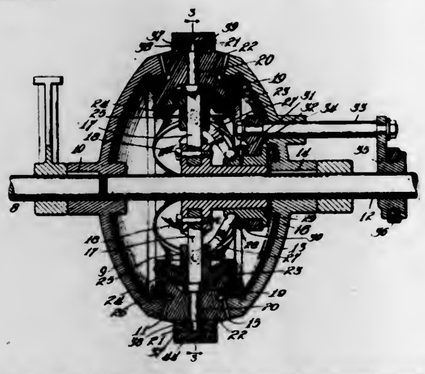
938,678. CONCRETE-WALL CONSTRUCTION. JERMONT MACBETH, Dayton, Ohio, Filed Mar. 5, 1909. Serial No. 481,340.



A wall structure consisting of cement blocks, a series of upright lath-supporting studding arranged on the interior of said wall and secured to the interior of said wall by sheet metal clamps which are united to the cement blocks

and overlap on the inner sides of the studding, said overlapped ends being secured to the studding, substantially as shown and described.

938,679. VARIABLE-SPEED APPARATUS. EUGENE C. MARBLE, Chicago, Ill. Filed Dec. 12, 1908. Serial No. 467,276.



1. In a variable speed apparatus, an internal brake comprising a pinion having a friction member and rotatable upon its own axis, and a non-rotatable member movable radially into frictional adherence with the pinion to retard and prevent rotation of the pinion on its own axis.

2. In a variable speed apparatus, the combination of a driving shaft, a gear wheel fixed thereto, a driven shaft, a gear wheel fixed thereto, a pinion in mesh with the gear wheels, and a manually operable internal brake to retard and prevent rotation of the pinion.

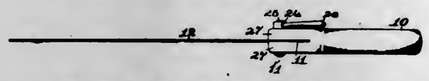
3. In a variable speed apparatus, the combination of a driving shaft, a gear wheel fixed thereto, a driven shaft, a gear wheel fixed thereto, a rotatable pinion meshing with both of the gear wheels, an internal brake to retard and prevent rotation of the pinion, and means to manually operate the internal brake.

4. In a variable speed apparatus, the combination of a driving shaft, a gear wheel fixed thereto, a driven shaft, a gear wheel fixed thereto, a rotatable pinion meshing with both of the gear wheels, an internal brake to retard and prevent rotation of the pinion, means to manually operate the brake, and an external brake.

5. In a variable speed apparatus, in combination, a driving shaft, a gear wheel fixed thereto, a driven shaft, a gear wheel fixed thereto, a variable speed wheel, an independently rotatable pinion carried thereby in mesh with both of the gear wheels, the pinion having a friction member, a non-rotatable radially-movable friction member, and manually operable means to move the same into frictional engagement with the member carried by the pinion, and an external brake to retard and prevent rotation of the variable speed wheel on its axis.

[Claim 6 not printed in the Gazette.]

938,680. ADJUSTABLE AND DETACHABLE HANDLE FOR SAWS. ROBERT E. MARTIN, Newark, N. J. Filed Nov. 24, 1908. Serial No. 464,289.



1. A saw comprising a handle having a slot in one end, a blade having a slot on its inner end to form a forked end and permit the longitudinal insertion of the blade, a bolt passing through the slotted portion of the handle and adapted to draw the sides of the slot toward each other and being adapted to receive the slot of the blade when the blade is inserted in the handle, and a plate having a tooth thereon for entering the slot in the end of the blade to hold the blade and handle in fixed relation.

2. A saw comprising a handle having a slotted end, a blade pivotally arranged in the slotted end of the handle and removable therefrom the blade having an open-ended slot to form a forked end, and a toothed rack in the end of the slot in the handle, the end of the blade flanking the slot forming teeth for engaging the rack to maintain the handle and blade at different angles.

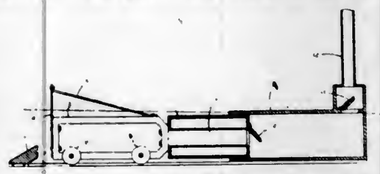
3. A saw comprising a handle having a slotted end, a blade having an open slot in its end, a bolt passing through the sides of the slotted portion of the handle, the bolt being adapted to receive the slotted end of the blade, means on the bolt for drawing the side pieces of the slotted portion of the handle together, and a rack in the end of the slot in the handle, the teeth of the rack being adapted to receive the fork on the end of the blade.

4. A saw comprising a handle having a slot in one end, a blade having a slot to form a forked end and permit the longitudinal insertion of the blade, a bolt passing through the slot of the blade and the side pieces of the slotted portion of the handle, a nut on the end of the bolt drawing the side pieces together, and a toothed rack in the end of the slot of the handle, the rack having teeth adapted to engage the blade flanking its slot to hold the handle and blade at different angles.

5. A saw comprising a handle having a slot in one end, a blade having a slot to form a forked end, a bolt passing through the slot of the blade and the side pieces of the slotted portion of the handle, a nut on the end of the bolt drawing the side pieces together, and a plate having integral prongs thereon to secure it to the handle and having teeth to form a rack, the teeth being adapted to engage the forked end of the blade to hold the blade and handle at different angles.

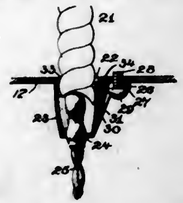
[Claims 6 to 8 not printed in the Gazette.]

938,681. WAVE-MOTOR. JOHN L. MATTHEWS, San Diego, Cal. Filed May 7, 1909. Serial No. 494,716.



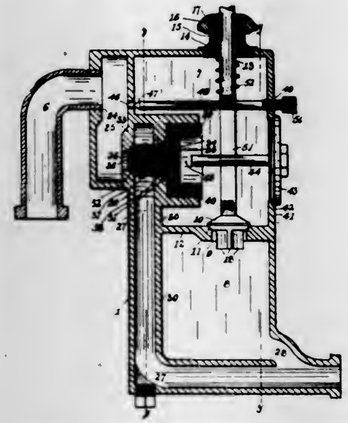
In a device of the character described the combination with a cylinder provided with a lifting valve and discharge pipe, of a piston adapted to work inside of said cylinder having a valve arranged to open and close freely with the motion of the surf, said piston being connected to a movable frame which is provided with wheels and a large plate in wing shape, which is adapted to resist the power of the surf and force the piston back and forth in the cylinder and stop to limit the movement of said frame, substantially as shown and for the purpose specified.

938,682. OUTLET-BOX. JAMES T. MELEADY, Newark, N. J. Filed May 20, 1908. Serial No. 433,807.



The combination of a conduit with an outlet box, the outlet box having a perforation for receiving the conduit, a sleeve on the outlet box and embracing the conduit, said sleeve being provided with a radial lug having a radial slot and an inclined face, a screw passing through the slot and into the box, and inclined ribs flanking the inclined face to form a channel for the head of the screw for forcing the sleeve and conduit eccentric to the perforation in the outlet box to bind the conduit therein.

938,683. FLUSHING APPARATUS. PAUL S. MILLICE, Hamilton, Ohio. Filed Aug. 3, 1906. Serial No. 329,056.



1. A flushing apparatus comprising a casing having a pressure-compartment, a discharge-passage and a receiving-chamber, the walls of said receiving-chamber being provided with an inlet-opening and with a discharge-opening to said discharge-passage, said discharge-opening being of less cross-section than said inlet-opening, in combination with a compound valve for the walls of said discharge-passage between said receiving-chamber and pressure-compartment and forming a valve for said discharge-opening, said compound valve having a backing-face of greater area in said pressure-compartment than the area of said discharge-opening, the wall of said receiving-chamber being further provided with a by-pass of smaller diameter than said discharge-opening, said by-pass being outside the longitudinal plane of the said valve for said discharge-opening for leading the fluid around said compound valve from in advance to the rear thereof, said by-pass being further disconnected from said discharge-opening so as to receive its fluid from a different part of said receiving-chamber than said discharge-opening, substantially as described.

2. A flushing apparatus comprising a casing having a pressure-compartment, a discharge-passage and a receiving-chamber, the walls of said receiving-chamber being provided with an inlet-opening and with a discharge-opening to said discharge-passage, said discharge-opening being of less cross-section than said inlet-opening, in combination with a compound valve for the walls of said discharge passage between said receiving-chamber and pressure-compartment and forming a valve for said discharge-opening, said compound valve having a backing-face of greater area in said pressure-compartment than the area of said discharge-opening, the wall of said receiving-chamber being further provided with a by-pass of smaller diameter than said discharge-opening, said by-pass being outside the longitudinal plane of the said valve for said discharge-opening for leading the fluid around said compound valve from in advance to the rear thereof, said by-pass being further disconnected from said discharge-opening so as to receive its fluid from a different part of said receiving chamber than said discharge-opening, and a regulating valve for said by-pass, substantially as described.

3. A flushing apparatus comprising a casing having a pressure-compartment, a relief-compartment, a discharge-passage and a receiving-chamber, the walls of said receiving-chamber being provided with an inlet-opening and with a discharge-opening to said discharge-passage, said discharge-opening being of less cross-section than said inlet-opening, said pressure-compartment and relief-compartment having an opening therebetween, in combination with a compound valve for the walls of said discharge-passage between said receiving-chamber and pressure-compartment and forming a valve for said discharge-opening, said compound valve having a backing-face of greater area in said pressure-compartment than the area of said discharge-opening, the wall of said receiving-chamber being further provided with a by-pass of smaller diameter than said discharge-opening, said by-pass being outside the longitudinal plane of the said valve for said discharge-opening for leading the fluid around said compound valve from in advance to the rear thereof, said by-pass being further disconnected from said discharge-opening so as to receive its fluid from a different part of said receiving-chamber than said discharge-opening, and a valve between said pressure-compartment and relief-compartment, substantially as described.

4. In a flushing apparatus, the combination of a casing having a pressure compartment, a relief compartment and a fluid passage, said relief compartment having a sub-passage communicating with said fluid passage, a valve between said compartments, a compound valve, the walls of said fluid passage having openings and valve-seats for said compound valve, said compound valve having an inner hub, a bearing in said pressure compartment for said hub, said hub being of larger diameter than the initial opening in said fluid passage, said fluid passage having a sub-passage to said pressure compartment of smaller diameter than said last-named openings, forming a by-pass around said compound valve, a regulating valve for said last-named sub-passage, and a limiting member in said pressure compartment for said compound valve, substantially as described.

5. In a flushing apparatus, the combination of a casing having a pressure compartment, a relief compartment and a fluid passage, said relief compartment having a sub-passage communicating with said fluid passage, a valve between said compartments, a compound valve, the walls of said fluid passage having openings and valve-seats for said compound valve, said compound valve having an inner hub, a bearing in said pressure compartment for said hub, said hub being of larger diameter than the initial opening in said fluid passage, said fluid passage having a sub-passage to said pressure compartment of smaller diameter than said last-named openings, forming a by-pass around said compound valve, a regulating valve for said last-named sub-passage, and a limiting member in said pressure compartment for said compound valve, said first-named valve having a valve-stem provided with a slot for receiving said regulating valve and limiting member, substantially as described.

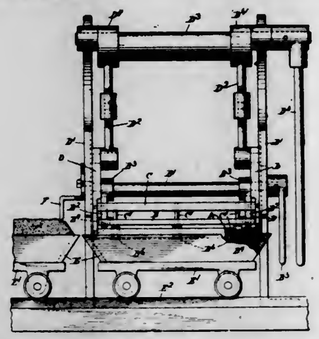
938,684. MOLDING-MACHINE. CHARLES MILLS, Newton Upper Falls, Mass., assignor to Willis C. Swift, Chicago, Ill. Filed May 29, 1903. Serial No. 159,235.

1. A molding machine comprising a stool plate, a pattern plate and a stripping plate one above the other and normally separated, the pattern plate being located between the stool plate and the stripping plate, said plates connected so as to be moved together, a moving mechanism for moving said plates simultaneously in one direction, and means for moving said pattern plate with relation to said stripping and stool plates.

2. A molding machine comprising a frame, a stool plate and a stripping plate rigidly connected together and movably mounted upon said frame, a pattern plate movably mounted between said stool and stripping plates, and adapted to be connected so as to move simultaneously therewith under predetermined conditions.

3. A molding machine comprising a stripping plate and a pattern plate adapted to be connected together rigidly in

fixed relation to each other under predetermined conditions, means for moving said stripping plate and pattern plate simultaneously toward the flask, when thus rigidly fastened together the two plates normally separated by a space, the stripping plate acting as a compression plate for the sand, and separate means for moving the pattern plate independent of the stripping plate so as to withdraw the pattern from the compressed sand while the stripping plate is in position.



4. A molding machine comprising a stripping plate, a pattern plate and a stool plate in different planes connected rigidly in fixed relation to each other so as to be simultaneously moved with relation to the frame of the machine, a moving mechanism for moving the pattern plate independent of the stool and stripping plates, one or more stools connected with the stool plate and passing through the pattern plate, said stools acting as guides for the pattern plate during its independent movement.

5. A molding machine comprising a frame, a movable pattern plate, two actuating mechanisms associated with the pattern plate, either of which when actuated causes the pattern plate to move, and separate controlling parts for said actuating mechanisms whereby either one may be operated.

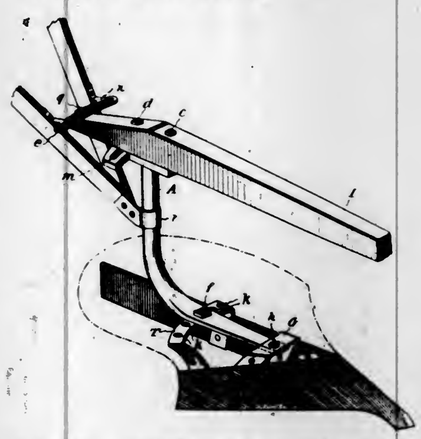
[Claims 6 to 14 not printed in the Gazette.]

938,685. COMBINED MOP HEAD AND WRINGER. LOUIS J. MOODY, Ridgway, Colo. Filed Oct. 31, 1908. Serial No. 460,462.



In a device of the kind described, a hollow handle provided with a slotted upper end, a mop holding element mounted on the handle, a rod formed in sections pivoted to each other slidably and rotatably held in the handle, a mop engaging element mounted on said rod, and a crank handle on the upper section of said rod, said crank handle being adapted to pass along said slot when the sections of the rod are in alinement.

938,686. PLOW. FRANK R. MOSHER, Parlier, Cal. Filed June 11, 1908. Serial No. 437,973.



In a plow, in combination with the plow frame, plow beam I, frog G, and brace T, of standard A, consisting substantially of an upright bar of metal terminating at the top with a platform forming a rest for the plow beam I, having hole *s* and slot *m*, and terminating at the bottom with a foot containing holes at the toe and the heel where bolts *h* and *f* pass through, the toe of said foot being fastened to the frog G with a round bolt, and the heel thereof to brace T in one of a series of holes *k*, in the line of an arc, all substantially as described.

938,687. SUPPORT FOR NECKTIES. NILS D. NELSON, New York, N. Y. Filed May 16, 1908. Serial No. 433,188.



1. A necktie support comprising a horizontally elongated frame having a transverse bar member, vertical end members and a central member to engage a collar-button, said support being in sections pivotally secured at their inner ends by a rivet passing through them and each having at its outer end one of said end members and at its inner end a recessed jaw constituting one section of said central member, said recessed jaws when together constituting said central member and being capable of separation to pass on a collar-button shank by the turning of the outer ends of said sections in the same direction on said rivet, and said sections at their adjoining ends having interlocking indentations for yieldingly locking them in their initial relation; substantially as set forth.

2. A necktie support comprising a horizontally elongated frame having a transverse bar member, vertical end members and a depending central member to engage a collar-button, said support being in two sections pivotally connected at their inner ends by a rivet passing through them and each having at its outer end one of said end members and at its inner end a recessed depending jaw constituting one section of said central member, said recessed jaws crossing each other and constituting said depending central member and being in abutting relation to each other at their inner lower edges and capable of separation from each other by the turning of the outer ends of said two sections downwardly on said rivet; substantially as set forth.

3. A necktie support comprising a horizontally elongated frame having a transverse bar member, vertical end members and a depending central member to engage a collar-button, said support being in two sections pivotally connected at their inner ends by a rivet passing through them and each having at its outer end one of said end members and at its inner end a recessed depending jaw constituting one section of said central member, said recessed jaws crossing each other and constituting said depending central member and being in abutting relation to each other at their inner lower edges and capable of separation from each other by the turning downwardly of the outer ends of said two sections on said rivet, and said sections at their adjoining ends having interlocking indentations for yieldingly locking them in their initial relation; substantially as set forth.

4. A necktie support comprising a horizontally elongated frame having a transverse bar member, vertical end members and a depending central member to engage a collar-button, said support being in two sections pivotally connected at their inner ends and each having at its outer end one of said end members and at its inner end a recessed depending jaw constituting one section of said central member, said recessed jaws constituting said depending central member and being in abutting relation to each other at their inner lower edges and capable of separation from each other by the turning of the outer ends of said two sections in the same direction on said pivotal connection, and said jaws being offset inwardly below said transverse bar member, with the lower portion of the inner jaw bent outwardly to aline with the other jaw; substantially as set forth.

938,688. METHOD OF CASTING METALS. WESLEY G. NICHOLS, Chicago Heights, Ill. Filed Aug. 21, 1909. Serial No. 514,013.

1. The hereinbefore described method of preserving the integrity of a metal to which cast metal is to be attached, consisting in first applying a heat insulating material to the first mentioned metal, and finally pouring the molten metal around the same.

2. The hereinbefore described method of permanently casting one metal into another, consisting in first applying to the member to be cast in, a heat insulating material to preserve its integrity, and finally pouring the molten metal around said member.

3. The hereinbefore described method of casting one metal into another, consisting in first applying to the member to be inserted an adhesive heat insulating material, caused to adhere thereto to preserve its integrity, and finally pouring the molten metal around said member.

4. The hereinbefore described method of casting one metal into another, consisting in first applying to the member to be inserted an adhesive substance, then applying thereto a heat insulating material, and finally pouring the molten metal around said member.

5. The process hereinbefore described, which consists in first applying to the cast-in member an adhesive, secondly, applying a powdered heat insulating material thereto, and finally surrounding said member with molten metal.

[Claims 6 to 8 not printed in the Gazette.]

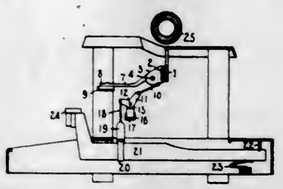
938,689. METHOD OF CASTING METALS. WESLEY G. NICHOLS, Chicago Heights, Ill. Filed Aug. 21, 1909. Serial No. 514,014.

1. The hereinbefore described method of permanently casting one metal into another, consisting in first applying to the member to be cast in, a heat insulating material consisting of a mixture of quick-drying liquid adhesive and a heat insulating material, drying the same, and finally pouring the molten metal around said member.

2. The hereinbefore described method of permanently casting one metal into another, consisting in first applying to the member to be cast in, a protective coating comprising a mixture of fish glue and a heat insulating substance, drying the same, and finally pouring the molten metal around said coated member.

3. The hereinbefore described method of permanently casting one metal into another, consisting in first applying to the metal to be cast in, a heat insulating mixture of fish glue and silica, and finally pouring the molten metal around said coated member.

938,690. TYPE-WRITING MACHINE. JAMES H O'BRIEN, Ilion, N. Y., assignor, by mesne assignments, to Union Typewriter Company, Jersey City, N. J., a Corporation of New Jersey. Filed June 9, 1906. Serial No. 320,965.



1. In a typewriting machine, the combination of a series of type bars, ball bearings for said type bars, and hangers in which the stationary members of said ball bearings are detachably mounted, and means for affording a relative motion of the hanger arms so that any type bar and its bearing may be removed as an entirety from the hangers.

2. In a typewriting machine, the combination of a series of type bars, hangers for said type bars and bearings for said type bars comprising stationary bearing members detachably secured to said hangers, and means for affording a relative motion of the hanger arms so that any type bar and its bearing may be removed as an entirety from the hangers.

3. In a typewriting machine, the combination of a series of type bars, ball bearings for said type bars, and hangers in which the stationary members of said ball bearings are detachably mounted, each of said ball bearings comprising an internally grooved eye in the type bar, a stationary hub having an external groove and anti-friction balls running in the grooves; means for detachably securing said hubs to the hangers, and means for affording a relative motion of the hanger arms so that said hubs may be removed from said hangers.

4. In a typewriting machine, the combination of a series of type bars, ball bearings for said type bars, and hangers in which the stationary members of said ball bearings are detachably mounted, each of said ball bearings comprising an internally grooved eye in the type bar, a stationary hub having two beveled sections forming an external groove, anti-friction balls running in the grooves, means for detachably securing said hubs to the hangers, means for affording a relative motion of the hanger arms to permit said hubs to be removed, and means for holding said hub sections together when detached.

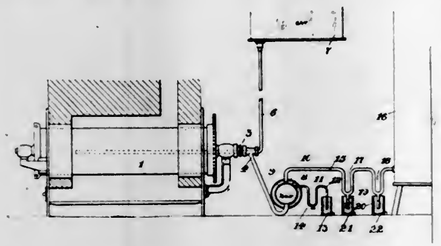
5. In a typewriting machine, the combination of type bars; hangers for said type bars; ball bearings for said type bars, the stationary member of each of said ball bearings comprising two coned bearing pieces and means for connecting them together; means for detachably securing said stationary bearing members in said hangers, and means for affording a relative motion of the hanger arms to permit the coned bearing pieces to be removed.

[Claims 6 to 16 not printed in the Gazette.]

938,691. PEAT-GAS PLANT. JEAN D. OLIGNY, Montreal, Quebec, Canada, assignor to Peat Gas and Coal Company, Montreal, Canada, a Corporation of Maine. Filed Feb. 4, 1909. Serial No. 476,114.

1. In peat gas plants, the combination with a retort having a suitable outlet, of a casing containing a suitable carbureting chamber having an inlet and outlets, an air pipe leading from a suitable air supply into said retort, a pipe leading from said retort outlet to the inlet of said

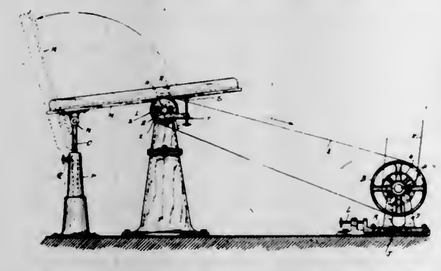
casing, a main gas pipe leading from an outlet of said casing, an overflow pipe leading from the other outlet of said casing, by-product pipes tapping said main gas pipe, and a gasometer.



2. In peat gas plants, the combination with a retort having a suitable outlet, of a casing containing a suitable carbureting chamber having an inlet and outlets, a water jacket surrounding said casing, a pipe leading from the retort outlet to said casing inlet, a main gas pipe having condensing curved lengths and leading from a casing outlet, an overflow pipe from the other casing outlet, by-product pipes tapping said main gas pipe, and a gasometer.

3. In a device of the class described, in combination, a retort having an outlet and a pipe leading from said outlet, a stationary pipe leading from the aforesaid pipe and suitably packed, an air pipe leading through the latter pipe into the casing, an air reservoir, a tar chamber, a water jacket around said tar chamber, said stationary pipe leading into said tar chamber, a main gas pipe leading from said tar chamber and having condensing lengths, by-product tanks, pipes leading from said main gas pipe into said by-product tanks, a gasometer, an overflow pipe leading from said tar chamber having a trap portion intermediate of its length and a receptacle into which said overflow pipe extends.

938,692. BELT-SANDER. OSCAR OLSSON, Milwaukee, Wis. Filed Apr. 26, 1909. Serial No. 492,324.



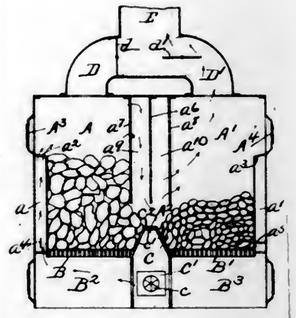
1. The combination with a revolving driving cylinder and a stationary supporting member surfaced with flexible material, of an inclined endless tension belt extending about said driving and supporting members and provided with an abrasive surface, said driving and supporting members having horizontal axes.

2. The combination with a revolving driving cylinder and a stationary supporting member surfaced with flexible material, of an endless belt extending about said driving and supporting members and provided with an abrasive surface, and an adjustable table partially covering the supporting member and having a slot through which said belt may be exposed.

3. The combination with a revolving driving cylinder and a stationary supporting member surfaced with flexible material, of an endless belt extending about said driving and supporting members and provided with an abrasive surface, and adjustable means for supporting material to be polished against the surface of the belt where it passes over said supporting member, said supporting member having its outer surface eccentrically formed and said member being rotatably adjustable to bring different portions of its surface in registry with the work.

4. The combination with a revolving driving cylinder and a stationary supporting member surfaced with flexible material, of an endless belt extending about said driving and supporting members and provided with an abrasive surface, and adjustable means for supporting material to be polished against the surface of the belt where it passes over said supporting member, the contacting surfaces of the supporting member and belt being surfaced with anti-friction material.

938,693. FURNACE. JAMES C. OSBORNE, Erie, Pa. Filed June 25, 1906. Serial No. 323,292.



1. The combination of two combustion chambers, each provided with means for the introduction of fuel and air near the top thereof, said chambers being formed with an intercommunicating opening near the bottom thereof; and means for alternating the direction of the draft through said chambers.

2. The combination of two combustion chambers, each having an opening for the introduction of fuel near the top of the chamber, said chambers being separated by division plate a^6 between the chambers and having an intercommunicating opening between the chambers beneath the division plate; the perforated plates a^7, a^8, one at each side of and adjacent to the division plate a^6 forming the flues a^9 and a^{10} respectively for the passage of gases moving from one chamber to the other and means for alternating the direction of draft through the chambers.

3. The combination of two combustion chambers each provided with means for the introduction of fuel and air near the top thereof, said chambers being formed with an intercommunicating opening near the bottom thereof, means for alternating the direction of the draft through the chambers, an air supply chamber arranged beneath the intercommunicating opening between the chambers and having a means of communication with the chambers adjacent to said opening.

4. The combination of two combustion chambers each provided with means for introducing fuel near the top thereof, and each provided with an air supply passage leading from below the chamber to the top of the chamber, said chambers being provided with an intercommunicating opening near the bottom thereof; means for alternating the direction of the draft through the chambers; an air supply chamber below the intercommunicating opening, and having a means of communication with said chambers adjacent to intercommunicating openings; and a means of communication between the air supply chamber and air supply passages leading to the tops of the fuel chambers.

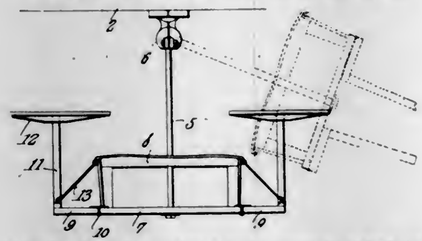
938,694. ATTACHMENT FOR PICKER-STICKS. WILLIAM D. PARK, Philadelphia, Pa. Filed Mar. 9, 1909. Serial No. 482,280.



1. An attachment of the character described, comprising two members, one member having longitudinal grooves and an opening between said grooves, the other member comprising a wire coiled between its ends and having its ends extending parallel to each other and adapted to enter said grooves in the other member, a clamping bar extending across the first mentioned member and across said wires, a bolt located in the said opening, and nuts on said bolt clamping said clamping bar against said wires, whereby the members may be secured at various adjustments relative to each other.

2. In combination with a picker stick journal pin, a picker stick journaled thereon, an attachment comprising a bar and a wire bent between its ends forming a coil to receive said journal pin, and having its ends extended parallel to each other, means for clamping the ends of said wires at various adjustments relative to said bar, and a lug strap guide on said bar, and a lug strap straddling said bar and the picker stick, and located in said guide.

938,695. MARINE TABLE. ALONZO H. PENCE, Somerville, Ala. Filed June 14, 1909. Serial No. 502,085.

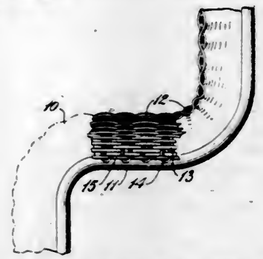


A marine table comprising a socket member, a shaft having a ball end confined in the socket member and free to rotate upon its axis and to swing laterally with relation to the socket member, a platform attached to the shaft and having hinged sections, and table supports carried by the hinged sections.

938,696. ARTICLE MADE FROM REEDS, RATAN, OR THE LIKE. GOTHARD E. PFENNIGHAUSEN, Wethersfield, and GUST OKERFELT, Hartford, Conn. Filed Feb. 13, 1909. Serial No. 477,780.

1. A support, stakes secured to said support and projecting therefrom, loops formed at the ends of stakes by backturned portions thereof, and lengthwise strands interwoven with the stakes, the strands located at the ends of the stakes interlocking with said loops.

2. A support, a plural number of stakes of similar shape and arrangement secured to said support and projecting therefrom with loops formed and located in line at the ends of the stakes, and lengthwise strands interwoven with the stakes, the strand at the end thereof passing through said loops.



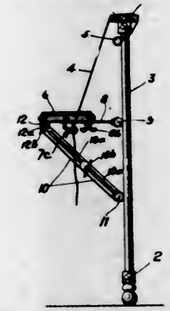
3. A support, U-shaped stakes extending from the support with each branch secured thereto, and lengthwise strands interwoven with said stakes, the strand located at the ends of the stakes passing through the loops formed by said U-shaped stakes.

4. A support having recesses, stakes having their ends secured in said recesses and with loops formed at the outer ends of the stakes, and lengthwise strands interwoven with the stakes, the strand located at the outer ends of the stakes interlocking with said loops.

5. A support, stakes projecting from the support and formed to U-shape providing a loop at the end and with each branch secured to the support, and a plural number of lengthwise strands interwoven with the stakes, a plural number of said strands located at the ends of the stakes being woven through said loops.

[Claim 6 not printed in the Gazette.]

938,697. FOOT-REST. HARRY S. PHILLIPS, Burlington, N. J. Filed Jan. 20, 1909. Serial No. 473,232.



1. A rest comprising a body, means comprising a strap having an engaging member for suspending said body, and angularly arranged struts having bearing members disposed at different elevations for coacting with said strap to support said body, said members being adapted for supporting said body by engagement with a vertical object.

2. A rest comprising a body, straps connected respectively to median sections of the ends of said body for suspending it, and a pair of struts angularly disposed with relation to each other and connected with said body for supporting it.

3. A rest comprising a body, clamp on said body, flexible straps engaged by said clamps to suspend said body, and a pair of struts angularly disposed with relation to each other for supporting said body.

4. A rest comprising a body, clamps on said body, a pair of straps engaged by said clamps, a cross bar on each of said straps for engaging a supporting device, a strut connected with said body, a cross bar on said strut for engaging a supporting device, a second strut connected with said body, and a cross bar on said second strut for engaging a supporting device.

5. A rest comprising a body, brackets fixed to and projecting beyond the ends of said body, flexible straps engaged to said brackets, a longitudinally movable strut engaged to and extending laterally from said body, and a strut of adjustable length hinged to said body and extending angularly to said strut first named.

[Claim 6 not printed in the Gazette.]

938,698. METHOD OF REJUVENATING ASPHALT. JAMES A. W. PINE, New York, N. Y. Filed Aug. 31, 1908. Serial No. 450,967.

1. The method of rejuvenating asphalt, wherein the cementitious properties of the bitumen have become exhausted or devitalized in whole or in part through chemical action or by causes other than injury due to wear or abrasion, consisting in heating a mass of said asphalt to a temperature of between 300° and 400° F. under conditions which allow the heat to penetrate uniformly throughout the mass, whereby the asphalt is restored to an elastic and tenacious consistency equal or superior to that of fresh asphalt.

2. The method of rejuvenating asphalt pavement, wherein the cementitious properties of the bitumen have become exhausted or devitalized in whole or in part through chemical action or by causes other than injury due to wear or abrasion, consisting in heating the mass containing the deteriorated cementitious material to a temperature of between 300° and 400° F. under conditions which allow the heat to penetrate uniformly throughout the mass, whereby said material is restored to an elastic and tenacious consistency equal or superior to that of fresh asphalt pavement.

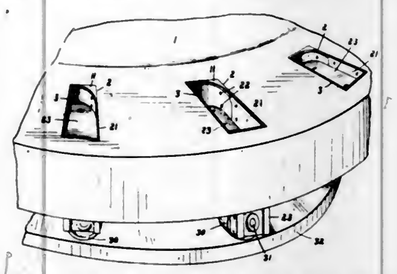
3. The method of rejuvenating asphalt pavement, wherein the cementitious properties of the bitumen have become exhausted or devitalized in whole or in part through chemical action or by causes other than injury due to wear or abrasion, consisting in heating the mass containing the deteriorated cementitious material to a temperature of between 300° and 400° F. under conditions which allow the heat to penetrate uniformly throughout the mass, and mechanically agitating the mass while hot, whereby said material is restored to an elastic and tenacious consistency equal or superior to that of fresh asphalt pavement.

4. The method of rejuvenating asphalt pavement, wherein the cementitious properties of the bitumen have become exhausted or devitalized in whole or in part through chemical action or by causes other than injury due to wear or abrasion, consisting in heating the mass containing the deteriorated cementitious material to a temperature of between 300° and 400° F. under conditions which allow the heat to penetrate uniformly throughout the mass, and mechanically agitating the mass during said heating process, whereby said material is restored to an elastic and tenacious consistency equal or superior to that of fresh asphalt pavement.

5. The method of rejuvenating artificial asphalt pavement compounded from "lake" asphalt wherein the cementitious properties of the bitumen have become exhausted or devitalized in whole or in part through chemical action or by causes other than injury due to wear or abrasion, consisting in heating the mass containing said deteriorated asphalt to a temperature of between 300° and 400° F. under conditions which allow the heat to penetrate uniformly throughout the mass, whereby said "lake" asphalt contained within the mass is restored to an elastic and tenacious consistency equal or superior to that of fresh asphalt.

938,699. BRICK-PRESS. SAMUEL J. PINK, Ottawa, Ontario, Canada, assignor of one-half to Modern Machine Company, Ottawa, Canada, and one-half to Joseph A. Bullman, Ottawa East, Canada. Filed Dec. 23, 1907. Serial No. 407,819.

1. In a brick press, a table containing a mold chamber, liners for the side walls of said chamber having interlocking meeting edges one with the other, a plurality of renewable hardened face plates secured in a flush position on said liners, and a single screw fastening one of said liners rigid in said chamber.



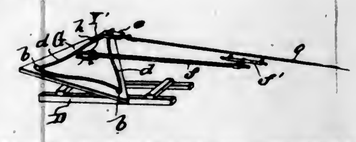
2. In a brick press, a table containing a mold chamber, mold liners having their rear sides conforming to the shape of the walls of said chamber and their front faces shaped to a particular style of brick said liners having the meeting edges thereof tongued and notched, a plurality of renewable hardened face plates secured in a flush position on said liners, and a screw inserted through one of said liners into a wall of said chamber and holding said liners securely in position.

3. In a brick press, a table containing a mold chamber, a plurality of metal liners having ears on one side edge thereof interlocking with corresponding notches on the adjoining side edge of the next liner and having rear surfaces corresponding to and abutting the mold chamber walls and forming a mold surface of different shape and outline to the aforesaid chamber, a plurality of renewable hardened face plates conforming in outline to the front faces of said liners and secured to said liners in a flush position, and a screw inserted through one of said liners into the side wall of the chamber in said table and securely holding said liners in position.

4. In a brick press, a table containing a mold chamber, a side liner having recessed upper corners, a plurality of end liners having ears extending from the upper corners on one side thereof and interlocking with the recesses in said side liner and a recess on the remaining upper corners thereof, and a second side liner having ears extending from the upper corners thereof interlocking with the recesses in said end liners and a plurality of renewable hardened face plates secured in a flush position on said liners.

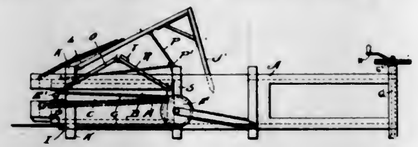
5. In a device of the class described, a mold chamber, a liner piece having a rear face corresponding to the conformation of the walls of the chamber in which it is contained and a front face of irregular shape in relation to the walls of the chamber and vertical surfaces having an ear and a notch at the upper corner thereof respectively and a recess extending across the surface within the vertical length thereof, plates extending around the walls of the chamber from the aforesaid piece and having corresponding ears and notches and flush joint surfaces and recesses thereacross at the upper ends thereof, a screw joining one of said plates securely to the wall of said chamber and holding by means of said plate the aforesaid piece and plates to the walls and plates filling in said recesses and securely riveted to said lining pieces, substantially as described.

938,700. SWEEP FOR HAY-PRESSES. NAPOLEON PIQUETTE, Chassell, Mich. Filed Mar. 24, 1909. Serial No. 485,434.



A sweep for operating presses, etc., comprising a triangular outlined rotatable platform, a central post rising therefrom, a sweep fixed to said post, said platform having a substantially triangular outlined undercut groove, the legs of the groove each being shaped in a compound curve, an end of each leg of the groove formed into a pocket extending laterally at the end of an adjacent leg of the groove, a bolt having a head mounted in the undercut portion of said groove and held in place by the overhanging walls of the groove, an anti-friction roller mounted upon the shank of said bolt, a shoe upon the outer end of said bolt and resting upon the upper face of the platform, as shown and described.

938,701. HAY-PRESS. NAPOLEON PIQUETTE, Chassell, Mich. Filed June 15, 1909. Serial No. 502,369.



1. A hay press comprising a press box, a spring-actuated plunger mounted therein, grooved pulleys journaled upon the opposite sides of the box, a rope connected at its ends to the plunger passing about said pulleys, affording means for moving the plunger forward, toggle links pivotally hinged to the plunger, a second set of toggle links hinged to the press box and pivotally connected to the toggle links upon the plunger, and weighted means acting upon said toggle links.

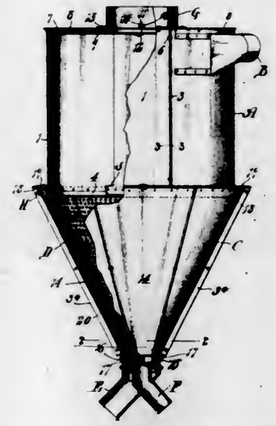
2. A hay press comprising a press box, a spring-actuated plunger mounted therein, grooved pulleys journaled upon the opposite sides of the box, a rope connected at its ends to the plunger passing about said pulleys, affording means for moving the plunger forward, toggle links pivotally hinged to the plunger, a second set of toggle links hinged to the press box and pivotally connected to the toggle links upon the plunger, weighted means acting upon said toggle links, and a feeder actuated by the plunger.

3. A hay press comprising a press box, a spring-actuated plunger mounted therein, grooved pulleys journaled upon the opposite sides of the box, a rope connected at its ends to the plunger passing about said pulleys, affording means for moving the plunger forward, toggle links pivotally hinged to the plunger, a second set of toggle links hinged to the press box and pivotally connected to the toggle links upon the plunger, weighted means acting upon said toggle links, a bar hinged to the box and having a feeder fastened at one end thereof, a spring normally holding said bar in a raised position, and means connecting said bar with the plunger for drawing the feeder down as the plunger is withdrawn.

4. A hay press comprising a press box, a spring-actuated plunger mounted therein, grooved pulleys journaled upon the opposite sides of the box, a rope connected at its ends to the plunger passing about said pulleys, affording means for moving the plunger forward, toggle links pivotally hinged to the plunger, a second set of toggle links hinged to the press box and pivotally connected to the toggle links upon the plunger, weighted means acting upon said toggle links, a bar hinged to the box and having a feeder fastened at one end thereof, a spring normally holding said bar in a raised position, a rope fastened to said bar, a pulley upon the press box under which said rope passes, the other end of the latter fastened to the outer end of the plunger.

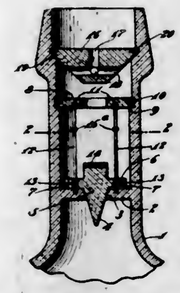
938,702. DUST COLLECTOR AND SEPARATOR. OTTO POEBECK, St. Louis, Mo. Filed Oct. 10, 1908. Serial No. 457,047.

A dust-collector and separator provided with a cylindrical-shaped dust-collecting chamber, a top for said chamber composed of sections provided with coöperating flanges that are detachably connected together, an inverted conical-shaped casing arranged underneath said chamber and composed of a number of gusset-shaped pieces of metal, each of which is provided on one of its longitudinal edges with an integral flange and on its other longitudinal edge with an integral channel-shaped portion that receives the flange on an adjacent piece, overlapping wings on the lower ends of said gusset-shaped pieces, removable fastening devices passing through said wings and through said flanges and channel-shaped portions to secure said pieces



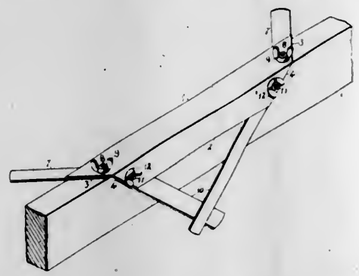
together, a screen arranged inside of said casing and composed of a number of perforated pieces of material provided on their longitudinal edges with integral flanges and channel-shaped portions that are detachably connected together by removable fastening devices, and a member arranged between said dust-collecting chamber and said casing and provided with plates that project laterally over the upper edge of said casing.

938,703. NON-REFILLABLE BOTTLE. MAGGIE RAYMOND, Philadelphia, Pa. Filed Apr. 26, 1909. Serial No. 492,407.



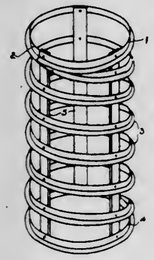
In a device of the character described, the combination with a bottle neck, having an internal flange, a ring in said neck above the flange, means locking said ring in the neck, and an opening in said ring located in alinement with the opening formed by the internal flange, two parallel rods connecting the ring and the flange at the opposite sides of the openings of the ring and flange, a valve adapted to seat in the opening formed by the flange, an annular flange around said valve, having openings to receive said rods, and permit the valve to move on the rods, and shoulders on said rods spaced from the ring, and of a diameter larger than the diameter of the openings in the flange of the valve to limit the movement of the valve in one direction.

938,704. JACK-RAFTER BEVEL. CASPER F. REUM, Rockford, Ill. Filed Dec. 21, 1908. Serial No. 468,668.



A jack rafter bevel comprising a support having sections at right angles to one another and having their ends beveled, and an arm pivoted to each end of each section and located on the inner faces of the sections.

938,705. CRATE. GEORGE E. RICHMOND, Houston, Tex. Filed Oct. 10, 1908. Serial No. 457,062.

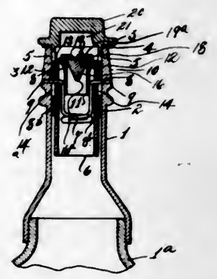


1. A crate composed of top and bottom bands connected by a plurality of braces rigidly secured thereto, flanges integral with the bottom end of said braces and extending inwardly; a bottom adapted to rest on said flanges, said bottom being provided with a centrally located recess for receiving one end of the support of the contents of said crate, openings in said flanges for receiving bolts designed to secure said bottom to said flanges, a lining for said crate adapted to be fastened to said bottom, a metallic strip coiled, at regular intervals, around said braces and made integral with said top and bottom bands, substantially as described.

2. In a crate as described, the combination with top and bottom bands, of an intermediate helical strip connecting said bands and integral therewith, a plurality of braces extending the full length of said crate and being rigidly fastened to said bands and said intermediate helical strip for strengthening said crate, said braces having inwardly extending flanges at the lower ends thereof, said flanges being provided with holes for receiving bolts, a bottom adapted to rest on said flanges, a lining for said crate adapted to be fastened to said bottom, bolts extending from the said bottom through the holes in said flanges for securing the bottom to said flanges, a centrally located recess in said bottom for holding the contents of said crate against lateral movement, all substantially as set forth.

938,706. NON-REFILLABLE BOTTLE. RUDOLPH RIEGEL, Hawthorne, N. Y. Filed June 10, 1909. Serial No. 501,234.

1. In combination with a bottle having a neck provided with a bore, a longitudinally movable rotatable bushing provided with openings within said bore, said bushing being closed at one end, a valve seat within said bushing, a valve normally seated on said valve seat, said bushing being provided in the walls thereof with vertical slots, and cam slots in communication therewith, a spring within said bushing, the ends of which are adapted to pass through the said slots, said bottle neck being provided with openings adapted to receive the ends of said spring, said cam slot being adapted to force the top of said bushing against the upper end of said neck.



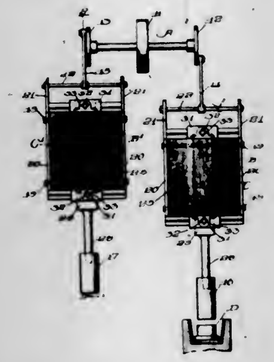
2. In combination with a bottle having a neck, provided with a central bore, a longitudinally movable rotatable bushing within said bore, provided with openings, an auxiliary bushing within the bushing first named, a spring carried by said auxiliary bushings, the ends of which are adapted to pass through openings in said bushings, said neck being provided with openings adapted to receive the ends of said spring, a flange carried by said auxiliary bushing, a keeper adapted for insertion in said auxiliary bushing, said keeper being adapted to prevent said spring from being compressed, projections on said keeper adapted to engage the flange on said auxiliary bushing and a weighted valve carried by said keeper.

938,707. NUT-LOCK. CHARLES H. ROFF, Mudalin, N. Y. Filed Dec. 26, 1908. Serial No. 469,415.



In a nut lock, a bolt having a portion of its threaded end cut-away or recessed to form a flat locking surface, a key corresponding in shape with the cut-away portion of the bolt and having threads forming a continuation of the threads on the bolt, a laterally projecting stop lug on the inner end of said key adapted to engage the outer sides of the fastening nut on the bolt and having an inclined upper surface merging into the threads on the key, and a locking nut adapted to surround the recessed end of the bolt and said key, whereby the latter is held in operative position, said nut adapted to ride upon the inclined lug upon the key to tilt the nut on the bolt.

938,708. ELECTROMECHANICAL DEVICE. GEORGE H. ROWE, Riverside, Ill., assignor to Electro-Magnetic Tool Company, Chicago, Ill., a Corporation of Illinois. Filed June 9, 1908. Serial No. 437,577.



1. The combination with a drive shaft, of a plurality of electro-magnetically cushioned percussion devices connected with the drive shaft so as to be driven thereby, said devices being in balanced relation with respect to each other.

2. The combination with a drive shaft, of symmetrically arranged cranks on said shaft, and electro-magnetically cushioned percussion devices connected with the cranks whereby said devices are reciprocated by said shaft and are in balanced relation.

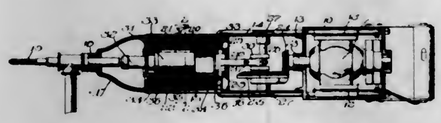
3. The combination with driving means, of an electro-magnet and armature reciprocated thereby, said magnet and armature having adjustable non-magnetic bearing blocks for positioning and guiding the armature.

4. The combination with driving means, of an electro-magnet and armature reciprocated thereby, non-magnetic bearing blocks on the magnet, and means for adjusting the same.

5. The combination with driving means, of an electro-magnet and armature reciprocated thereby, a tool adapted to be carried by the armature, and a manganese steel shank connecting the armature and the tool.

[Claims 6 to 15 not printed in the Gazette.]

938,709. ELECTROMECHANICAL DEVICE. GEORGE H. ROWE, Berwyn, Ill., assignor to Electro-Magnetic Tool Company, Chicago, Ill., a Corporation of Illinois. Filed June 11, 1909. Serial No. 501,549.



1. In apparatus of the character described, the combination with a magnet comprising a hollow core, of an armature arranged to slide within said core, and means for reciprocating one of said members, said core being formed with openings for the purpose described.

2. In apparatus of the character described, the combination with a magnet comprising a hollow core, of an armature arranged to slide within said core, means for reciprocating one of said members, and a striking device on the other member, said core being formed with openings for the purpose described.

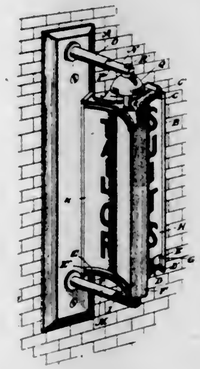
3. In apparatus of the character described, the combination with a magnet comprising a hollow core, of an armature arranged to slide within said core, and means for reciprocating said core, the latter being formed with openings for the purpose described.

4. In apparatus of the character described, the combination with a magnet comprising a hollow core, of an armature arranged to slide within said core, means for reciprocating said core, the latter being formed with openings for the purpose described, and a striking device on the armature.

5. In apparatus of the character described, the combination with two paramagnetic bodies, one being arranged to slide within the other, means for mechanically reciprocating one of said bodies, and means for producing magnetic attraction between said bodies, the outer of said bodies being formed with openings for the purpose described.

[Claims 6 to 23 not printed in the Gazette.]

938,710. ADVERTISING-SIGN. ARTHUR RUSSELL, Merchantville, N. J. Filed Mar. 10, 1908. Serial No. 420,129.



1. A sign comprising substantially triangular top and bottom plates, concave plates forming sides secured to said top and bottom plates and having outwardly projecting flanges at their lateral margins, longitudinal corner strips secured to said top and bottom plates and having inwardly turned flanges on their side edges adapted to engage with the outwardly turned flanges of the side plates and a shaft passing through said top and bottom plates.

2. A sign comprising triangular top and bottom plates, the corners of said triangular plates being cut off and vertically bent to form corner flanges, concave plates forming sides, each having an inwardly bent flange at the upper end, an outwardly bent flange at the lower edge, and outwardly projecting flanges, longitudinal corner strips having inwardly and downwardly bent flanges interlocking with the corner flanges of the top and bottom plates, said strips having lateral inwardly folded margins adapted to engage with the side flanges of the side plates, and a shaft passing through the top and bottom plates.

3. A sign comprising substantially triangular top and bottom plates, the corners of said plates being cut off and turned vertically to form corner flanges, the lower plate being larger than the upper plate, concave side plates each having an inwardly turned upper flange adapted to engage with the top plate, an outwardly turned lower flange adapted to engage with the bottom plate, and lateral outwardly turned flanges, longitudinal corner strips having flanges at their upper and lower ends engaging with the corner flanges of the top and bottom plates, said corner strips being provided on their edges with inwardly

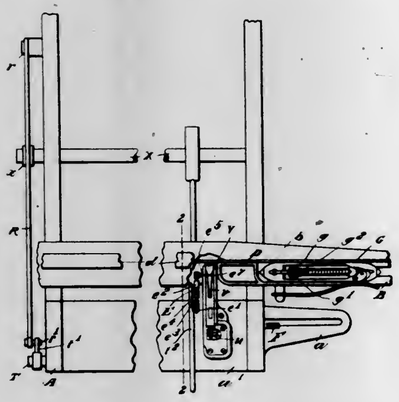
folded margins of less width than the lateral flanges of the side plates and adapted to be bent over and interlocked with said side flanges thereby to form lateral guide recesses on each side plate for the insertion of display cards, and a shaft passing through said top and bottom plates.

4. An advertising sign comprising a base, arms projecting from said base, a sign revolubly mounted between said arms, said sign comprising substantially triangular top and bottom plates having the corners thereof cut off, concave side plates connecting said top and bottom plates, corner plates connecting said top, bottom and side plates and forming guide-ways therewith, advertising cards adapted to be arranged in said guide-ways, bearings carried by the top and bottom plates and a fixed shaft extending through said bearings and secured at its ends in said supporting arms.

5. In a rotatable sign, a central fixed shaft on which the sign is mounted, supports in which the upper and lower ends of said shaft are carried, bearing cones on said shaft, casings mounted on the upper and lower ends of said sign and surrounding the shaft and its cones, anti-friction balls located between the casing and said cones, a removable cover closing the upper open end of the upper casing having its upper portion extended inward toward the shaft, and a circular outwardly flared shield carried by the uppermost support and extending down around said uppermost bearing casing.

[Claim 6 not printed in the Gazette.]

938,711. WEFT-REPLENISHING MECHANISM FOR LOOMS. ORREN A. SAWYER, Lowell, Mass., assignor to Earl A. Thissell, Lowell, Mass. Filed Feb. 13, 1909. Serial No. 477,502.



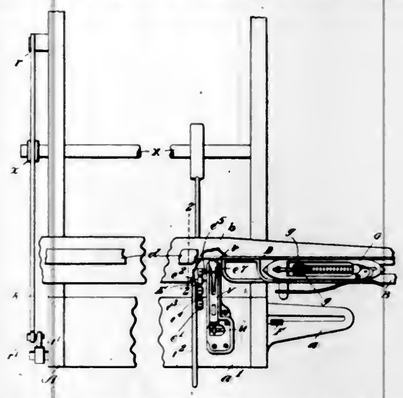
1. The combination in a loom, of filling-changing devices and a controlling device therefor operated by an excessive tension of the filling.

2. The combination in a loom, of filling-changing devices a weft-fork, a weft-hammer, means adapted to be moved into engagement with said weft-hammer by said weft-fork upon an excessive tension of the filling to operate said filling-changing devices.

938,712. STOP-MOTION FOR LOOMS. ORREN A. SAWYER, Lowell, Mass., assignor to Earl A. Thissell, Lowell, Mass. Filed Feb. 13, 1909. Serial No. 477,503.

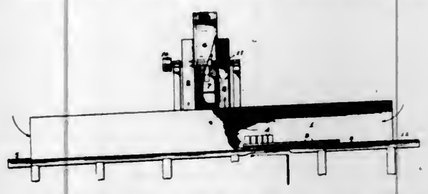
1. The combination in a loom, of stop-motion devices and a controlling device therefor operated by an excessive tension of the filling to stop said loom.

2. The combination in a loom, of stop-motion devices, a weft-fork, a weft-hammer, means adapted to be moved into engagement with said weft-hammer by said weft-fork upon



an excessive tension of the filling to operate said stop-motion devices, to stop said loom.

938,713. LABELED-CAN DRIER. RUDOLPH SCHILLING, Oakland, Cal. Filed May 6, 1908. Serial No. 431,205.

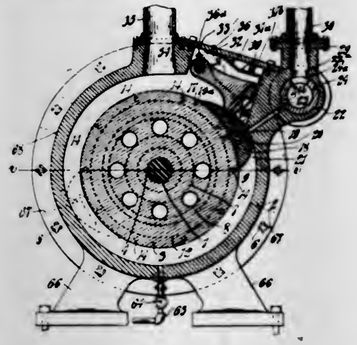


In an apparatus of the character described, the combination of a substantially rectangular frame having unobstructed openings at its ends, and a pair of oppositely disposed openings extending transversely across the top, the frame being otherwise free from openings and the top openings being arranged substantially midway of the length of the frame, a casing supported on the top of the frame between the openings, the opposite walls of the casing constituting one wall of a housing extending transversely across the top, the opposite wall of the housing being arranged outside of the top openings, and connecting with the casing which latter has openings in its opposite walls, a rotary shaft extending through the housing and the opening in the casing, a fan within the casing carried by the shaft, vertical partitions in the frame separating the latter into a series of truck compartments and tracks in each compartment, the flooring for the tracks projecting outwardly through the unobstructed openings at the ends of the frame to a substantial distance therebeyond.

938,714. ROTARY ENGINE. RUDOLPH F. SCHMIDT, Cincinnati, Ohio. Filed Dec. 23, 1907. Serial No. 407,653.

1. A rotary engine composed of a cylinder casing with solid end on one side and removable head at the other side, a horizontal shaft extending longitudinally through the center of said cylinder casing, a piston wheel mounted centrally upon said shaft and being somewhat smaller than the cylinder, leaving a circular space between its periphery and the inside surface of the cylinder, a curved piston head rigidly mounted upon the periphery of the piston wheel in said circular apace and adapted to engage the inside surface of the cylinder, its ends tapering to meet the surface of the periphery of the wheel, a pivoted abutment rigidly mounted upon a pin in a recess of the casing, pivoted

abutment balancing levers rigidly connected to said pin to hold the pivoted abutment in position to overcome friction, a spring plate mounted upon the wall of the recess and engaging the head of the pivoted abutment to prevent steam from passing the pivoted abutment to the exhaust, a hinged plate mounted within the recess upon the recess cover, a rebounding spring interposed between said hinged plate and recess cover whereby a cushion is formed for engagement of the pivoted abutment and the pivoted abutment is caused to rebound, counteracting violent collision of the piston head and pivoted abutment, an exhaust always open providing a clear channel for the piston head, on the inside of solid end and head of cylinder a circular channel of uniform dimension formed by a groove in the wall of the cylinder end and head respectively and by a corresponding recess upon the side of the periphery of the wheel and a split packing ring adapted to fill said recess whereby a steam tight joint is formed preventing steam from passing from the circular space to the center of the engine, and whereby the piston wheel is maintained in the center of the cylinder thus causing uniform wear of the parts and reducing friction, substantially as set forth and for the purposes specified.

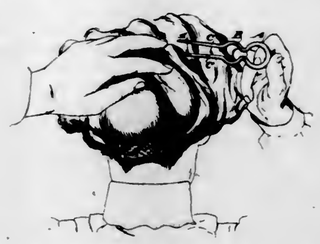


2. In a rotary engine, a cylinder casing having a removable and adjustable head and having on its interior two circular packing grooves adjacent to the periphery of the piston wheel, a piston wheel mounted in said cylinder having upon each side thereof, adjacent its periphery, a circular packing recess each adapted to correspond with the adjacent packing groove of the casing, a circular steam space between the casing and piston wheel, a packing ring of uniform dimension throughout its circumference, adjustably secured in each of said packing grooves and projecting and fitting into said packing recesses, whereby the piston wheel is maintained centrally of the casing, and a uniform engagement of the piston wheel with the casing, to form a steam tight joint excluding the passage of steam from said circular steam space to the center of the engine, is obtained, a piston head on the piston wheel, a pivoted abutment adapted to co-act with the piston head, steam admission controlling apparatus, an exhaust outlet, and a series of simultaneously operable set screws directly engaging said packing rings and adapted to effect a uniform adjustment of each packing ring and maintain said adjustment against retreat at high pressure, substantially as set forth and for the purposes specified.

3. In a rotary engine, a cylinder casing in which a piston wheel is rotatably mounted on a shaft and provided with a piston head tapered at each end to meet the periphery of the piston wheel to permit of its passage in either direction under the pivoted abutment engaging it under pressure regardless of the action of the mechanism for operating the pivoted abutment, said pivoted abutment, under which the piston head is adapted to advance during the rotation of the piston wheel, a cam wheel mounted on the shaft to rotate therewith, a lever mounted to move in unison with the pivoted abutment, a bell crank adapted to make contact with the cam wheel, a link connecting said bell crank and lever, and a compression device connected to said link, said bell crank being adapted to be actuated by the cam wheel to raise the pivoted abutment out of contact with the piston head during the immediate advance of the piston head thereunder, and to allow the pivoted abutment to abruptly make contact with the piston wheel, substantially as set forth and for the purposes specified.

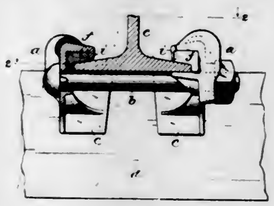
4. In a rotary engine, a cylinder casing, a piston wheel rotatably mounted therein, a piston head on the piston wheel, a pivoted abutment adapted to coact with the piston head, steam admission controlling apparatus, an exhaust outlet, the sides of the pivoted abutment and piston head respectively being provided with inclined slots, packing plates in said slots having beveled outer edges adapted to form by the pressure of the steam against them, steam-tight engagement with the sides of the cylinder, screws for retaining the packing plates in the inclined slots and springs confined in recesses in said piston head and pivoted abutment respectively between the screw fastening and beveled end whereby the packing plates are pressed outward against the walls of said cylinder casing, substantially as set forth and for the purposes specified.

938,715. HAIR-PIN. BESSIE L. SCOTT, Scranton, Pa. Filed Feb. 26, 1909. Serial No. 480,133.



As an article of manufacture, a hair pin containing two loops opening into each other with an unobstructed passage from one to the other and terminating in two legs having parallel flattened inner edges, which lie in contact with each other throughout their length when the pin is in its normal position of repose whereby the pin is self-closing and prevented from accidental displacement when inserted in the hair.

938,716. RAILWAY-RAIL ANCHOR. JOHN M. SCOTT, Racine, Wis., assignor, by mesne assignments, to Otto R. Barnett, Chicago, Ill. Filed Mar. 16, 1907. Serial No. 362,717.



1. A railway rail anchor comprising a recessed jaw and a key of angular section fitting in the recess of the jaw and over a rail base flange and having teeth on its inner faces in planes at an angle to each other to engage with the edge and an adjoining face of the rail flange, substantially as described.

2. A railway rail anchor comprising an abutment for the side of the tie a recessed jaw and a flanged key fitting lengthwise of the rail in the recess of the jaw and tapering and movable lengthwise thereof, the body of the

key tapering vertically and fitting between the top of the rail flange and the overhanging part of the jaw, while the flange of the key overhangs and engages the edge of the rail flange, substantially as described.

3. A railway rail anchor comprising a jaw recessed to receive and extend over a rail base flange, and a tapering angular key fitting and movable endwise in the recess of the jaw and having teeth on its inner faces to engage with the edge and an adjoining face of the rail flange, substantially as described.

4. A railway rail anchor comprising a recessed jaw and a tapering flanged key fitting and movable endwise in the recess of the jaw and having teeth on the inner face of its flange for engagement with the edge of a rail base flange and oblique teeth on its other inner face for engagement with an adjoining face of the rail flange, substantially as described.

5. A railway rail anchor comprising a recessed jaw, having a keeper overhanging the open side of the recess therein, a wedge shaped key fitting and movable endwise in said recess parallel with the rail and confined in the jaw by said keeper, substantially as described.

[Claims 6 to 12 not printed in the Gazette.]

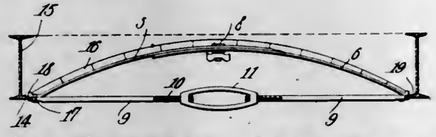
938,717. BED-SPRING. JUSTIN SIAR and JOHN W. KLEINE, Chicago, Ill. Filed Apr. 26, 1909. Serial No. 492,295.



1. In a device of the class described, the combination of two pairs of coacting clamping plates, one member of each pair being provided with a bead coacting with a groove in the other; a pair of connecting rods extending between said pairs of plates, said rods having threaded ends extending through said plates, and provided with clamping means adapted to clamp said plates together; a wire fabric secured between said plates with the ends of said rods penetrating said fabric; and turn buckles interposed in said rods in threaded connection therewith, substantially as described.

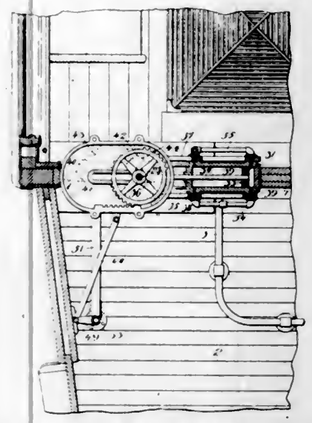
2. In a device of the class described, the combination of two pairs of coacting clamping plates, one member of each pair being provided with a bead coacting with a groove in the other; a pair of connecting rods extending between said pairs of plates, said rods having threaded ends extending through said plates, with clamping nuts on each side of said plates; a wire fabric secured between said plates with the ends of said rods penetrating said fabric; and turn buckles interposed in said rods in threaded connection therewith, substantially as described.

938,718. COLLAPSIBLE ARCH-CENTERING FORM. ANSEL R. SMITH, Marion, Ind. Filed July 14, 1908. Serial No. 443,576.



In an arch centering device, a form supporting member comprising a pair of arched and elastic plates, flat at their outer ends, and terminating in upstanding flanges, an adjustable connection between said plates for setting the same to the desired radius of the arch, the upstanding flanges being engageable with the longitudinal edges of the form for holding the same in place on the supporting member, an adjustable sliding member engageable at its ends with the flattened ends of the supporting member, fastening means passing through said flattened ends and through the ends of the sliding member, said sliding member having its outer ends notched to receive the edges of the floor beams, whereby the device is supported by said beams, and means for lengthening and shortening the sliding member, whereby the device is set simultaneously for arches of different spans and radii.

938,719. CAR-DOOR AND MEANS FOR OPERATING IT. WARREN M. SMITH, Prospect Park borough, Pa., assignor to William H. Heulings, Jr., Philadelphia, Pa. Filed Dec. 9, 1908. Serial No. 466,628.



1. In a car of the class described, a door and means for mounting the same so that when the door is opened it revolves about a central axis and automatically shifts toward one side and when closed it revolves in the same direction and its axis shifts in the opposite direction.

2. In a device of the class described, a door and means for mounting the same so that when said door is opened it revolves on its axis and shifts to one side and when closed it continues revolving in the same direction and shifts toward the other side, a gate and means for causing this gate to move in unison with said door so that the gate will be open when the door is closed and the door will be closed when the gate is open.

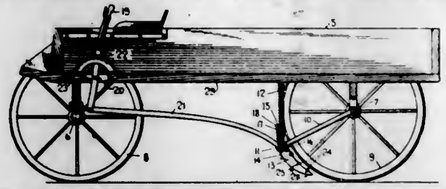
3. In a device of the class described, a door having upwardly and downwardly extending pins, interrupted gears mounted on said pins, racks and means for supporting the same adjacent to said gears so that when said door is used it is rotated in one direction only, and means for giving said door a positive movement transversely of its axis and while it is rotating.

4. In a car of the class described, a door and pins extending therefrom, interrupted gears mounted on said pins, racks adjacent to said gears and adapted to mesh therewith, and means for positively moving said door laterally of its axis while it is being opened and closed.

5. In a car of the class described, a door, pins extending upwardly and downwardly from the upper and lower edges of said door, a slideway and bearing for the lower end of one of the said pins, interrupted gears on said pins, a rack, an air cylinder and means for supplying air to said cylinder under pressure, a piston in said cylinder and a rod extending therefrom and connected with one of said pins, valves connected with said cylinder, rods extending from said valves and means on said rods connecting therewith and coöperating with said piston rod for controlling the air pressure and exhaust and a second valve mechanism connected with one of said pins for admitting and shutting off the supply of air to said cylinder.

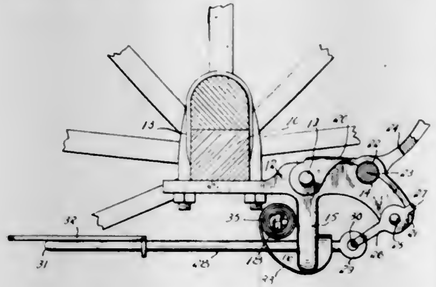
938,720. VEHICLE-BRAKE. GORDON STABLES, Philadelphia, Pa. Filed Oct. 31, 1908. Serial No. 460,463.

The combination, with a vehicle including a body, front and rear axles connected therewith, and wheels carried by said axles; of a brake mechanism comprising a pair of downwardly and forwardly inclined brackets pivoted to the rear axle, a transversely disposed rod carried by said brackets, a brake shoe slidably mounted at each end of said rod and disposed in alinement with and slightly in advance of the adjacent rear wheel, a link pivoted at its rear end to said rod, a lever pivoted intermediate its ends to the vehicle body and at its lower end to the forward



end of said link, for swinging said rod bodily upward, to render said shoes inoperative, means for retaining said lever in adjusted position, and a pair of coil springs connected with the vehicle body and with the opposite ends of said rod, for automatically lowering the latter when said retaining means are released from engagement with said lever, to force said shoes under the rear wheels into engagement with the ground.

938,721. HORSE-RELEASER. HOWARD O. STIRES and LESTER W. SMITH, Trenton, N. J. Filed May 8, 1909. Serial No. 494,856.

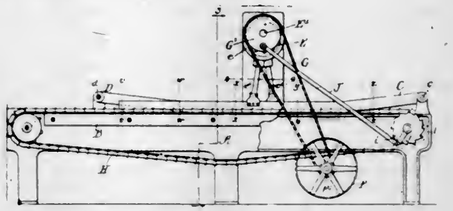


1. A device of the class described comprising a body adapted to be connected to an axle and having a socket spaced from its outer end and with a depending member, a latch device mounted to swing upon said body and extending over said socket, a lock device mounted to swing from said body in advance of said socket and movably engaging said latch device, a trip lever movably connected to said depending member and coupled to said lock device, and a spring operating to maintain said lever yieldably in one position.

2. A device of the class described comprising a body adapted to be connected to an axle and having a socket spaced from its outer end and with a depending member, said depending member having oppositely extending lateral lugs, a latch device mounted to swing upon said body and extending over said socket, a lock device mounted to swing from said body in advance of said socket and movably engaging said latch device, a trip lever movably connected to said depending member and coupled to said lock device, and a resilient member engaging over said rod and with terminal coils connected to said lateral lugs.

938,722. FIBER-CLEANING MACHINE. LELAND L. SUMMERS, Chicago, Ill., assignor to The Summers Fiber Company, Port Huron, Mich., a Corporation of West Virginia. Filed Dec. 9, 1907. Serial No. 405,821.

1. In a fiber cleaning machine having a fixed grid, two sets of movable blades pivoted at opposite ends and alternately placed side by side along the grid producing a transverse movement of the fiber, and means for actuating the blades; substantially as described.



2. In a fiber cleaning machine, the combination of a fixed grid, a series of breaking blades arranged to coöperate therewith and alternately pivoted at opposite ends, and means for actuating said blades successively from the center of the grid outwardly in opposite directions; substantially as described.

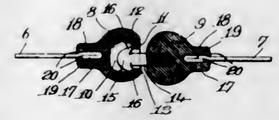
3. In a fiber cleaning machine, the combination, with a fixed grid, of sets of blades arranged to coöperate therewith and to thereby indent or convolute the fiber on the grid, said blades being alternately pivoted at opposite ends and arranged parallel to each other, and means for actuating the sets of blades separately and causing a set of blades to engage the fiber before the blades of the preceding acting set have become disengaged from the fiber; substantially as described.

4. In a fiber cleaning machine, the combination of a fixed grid, a series of breaking blades arranged to coöperate therewith and alternately pivoted at opposite ends, and a series of differently timed eccentrics operatively connected with the blades and arranged to actuate the middle blades first and the others successively thereafter from the middle outward; substantially as described.

5. In a fiber cleaning machine, the combination of a fixed grid, a series of breaking blades arranged to coöperate therewith and alternately pivoted at opposite ends, said blades being angular and parallel to each other, and means for depressing the blades toward the grid in succession beginning at the middle and progressing outwardly, thereby causing a horizontal and transverse movement of the fiber; substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

938,723. COUPLING FOR FISH-TAPES. FREDERICK A. SWAN, Cliftondale, Mass. Filed Feb. 19, 1909. Serial No. 478,800.



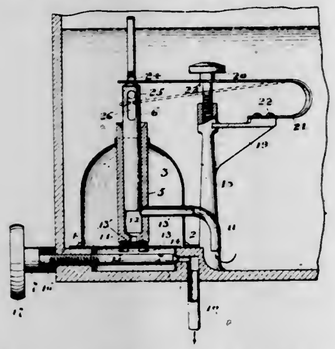
1. In a coupling for fish tapes, the combination with a coupling member provided with a head having backwardly inclined arms, of a female coupling member having a cavity larger than the head and provided with an opening leading to the cavity which is just large enough to permit the head to be inserted therein, the inner end of said opening terminating in an inwardly-directed annular lip or flange.

2. A coupling for fish tapes, comprising a male coupling of spheroidal shape provided with a bead extending from its end which presents two backwardly-inclined arms, of a female coupling member also of spheroidal shape, said female member having a cavity larger than the head, and an opening in its end leading to the cavity which is of a diameter substantially equal to the distance between the tips of said arms, said coupling member also having an inwardly-directed annular flange at the inner terminal of said opening.

3. A coupling for fish tapes, comprising a male coupling of spheroidal shape provided with a head extending from its end which presents two backwardly-inclined arms, of a female coupling member also of spheroidal shape, said female member having a cavity larger than the head and an opening in its end leading to the cavity which is of a diameter substantially equal to the distance between the tips of said arms, said coupling member also having an inwardly-directed annular flange at the inner terminal of said opening, and a fish tape secured to said member and occupying a plane at right angles to that of the arms of the head.

4. A coupling for fish tapes, comprising a male coupling of spheroidal shape provided with a head extending from its end which presents two backwardly-inclined arms, of a female coupling member also of spheroidal shape, said female member having a cavity larger than the head, and an opening in its end leading to the cavity which is of a diameter substantially equal to the distance between the tips of said arms, said coupling member also having an inwardly-directed annular flange at the inner terminal of said opening, each coupling member also having a neck provided with an axial recess in which the folded end of a fish tape section is received, the end of said neck being swaged to partially close said recess.

938,724. STEAM-PUMP. HERBERT L. THOMPSON, Elgin, Ill. Filed Nov. 25, 1908. Serial No. 464,401.

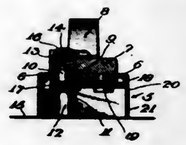


1. In a feed pump for flash boilers, a water supply tank and a pump base integral therewith, a dome secured to said base, a centrally and vertically disposed cylinder secured in said dome, a plunger adapted to reciprocate in said cylinder, means for actuating said plunger, an intake pipe in said cylinder connecting with the water contained in said tank, a delivery pipe in communication with said cylinder, a yieldable check valve adapted to seat on a valve seat provided at the base of said cylinder, a resilient holder for said valve adapted to seat on said base, a slot in said plunger, and a pin provided in said plunger actuating means adapted to reciprocate in said slot when the pressure in said dome rises to a predetermined point, substantially as described.

2. In a feed pump for flash boilers in combination with a base and a dome secured thereto, a cylinder and plunger mounted on said dome, a positive means for normally actuating said plunger in its suction stroke, an adjustable spring adapted to normally actuate said plunger in its delivery stroke connected with said base, a rubber delivery valve adapted to seat at the base of said cylinder, a resilient valve-holder provided with radial arms adapted to seat on the circular edge of a circular depression provided in said base, and downwardly extending projections in said cylinder extending through said holder and adapted to hold said valve in proper position.

3. In a feed pump for flash boilers, a base and a dome secured thereto, a cylinder and plunger secured in said dome, a spring and positive means for normally actuating said plunger, means for adjusting the tension of said spring, an intake port in said cylinder in communication with a water supply provided in connection with the pump, a circular depression in said base below said cylinder, a needle valve and seat arranged in said depression forming a portion of the delivery passage, a rubber washer on the stem of said needle valve for packing the same, and a rubber check valve provided with suitable holding means at the base of said cylinder.

938,725. ERASER. JOHN S. THURMAN, Los Angeles, Cal. Filed Feb. 4, 1908. Serial No. 414,187.

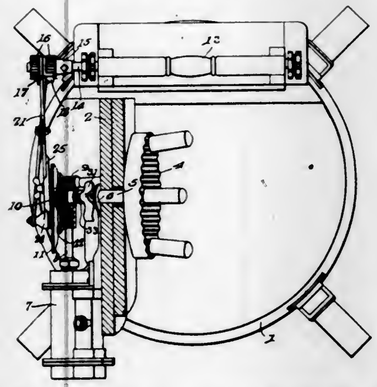


1. A device of the class described, comprising a frame provided with a guideway, a slide adapted to reciprocate in said guide-way, a spring pressed eraser holder rotatively mounted on said slide, and gear connections between said frame and holder to rotate said eraser holder.

2. A device of the class described, comprising a frame, a slide mounted on said frame, a rotatable spring pressed eraser holder mounted on said slide, and gear connections between said eraser holder and said frame to rotate said eraser holder.

3. A device of the class described, comprising a frame provided with a guide-way, a slide adapted to reciprocate in said guide-way, an eraser holder rotatively mounted on said slide, gear connections between said frame, slide, and holder to rotate said eraser holder, and means to automatically feed said holder downwardly as the abrasive substance is worn away.

938,726. OPERATING DEVICE FOR DRIVEN MECHANISMS. REUBEN D. TITTLE, Springfield, Ohio. Filed Dec. 21, 1907. Serial No. 407,575.



1. The combination, with two active mechanisms, one of said mechanisms being movable into and out of operative position, and a motor operatively connected to said movable mechanism, of means for operatively connecting said motor to the other of said mechanisms when said movable mechanism is in its inoperative position.

2. The combination, with two active mechanisms, a supporting part for one of said mechanisms movable from one position to another, of a motor also mounted on said supporting part and having a piston rod, and means to operatively connect said motor with the active mechanism mounted on said supporting part, and other means to operatively connect said rod and said other active mechanism when the supporting part is in one of its positions.

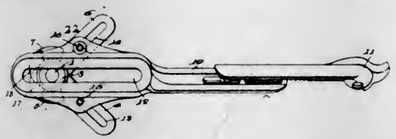
3. The combination, with two active mechanisms to be alternately operated, one of said mechanisms having a driving shaft, of a motor having a piston rod, means for operatively connecting said piston rod to one of said active mechanisms, a bearing stud carried by said piston rod, an actuating rod operatively connected at one end to the shaft of the other of said mechanisms and having a bearing at its opposite end adapted to engage said bearing stud, and means for detachably securing said bearing on said stud.

4. The combination, with two active mechanisms, both of said mechanisms having shafts, and a pinion secured to the end of the shaft of one of said mechanisms, of a motor having a piston rod, a rack carried by said piston rod and adapted to engage said pinion, said pinion being movable into and out of engagement with said rack, an actuating rod having one end operatively connected to the shaft of the other of said mechanisms, and means for connecting the other end of said actuating rod to the piston rod of said motor.

5. The combination, with two active mechanisms, each of said mechanisms having a shaft, a supporting part for one of said mechanisms having a bearing adapted to receive the shaft of that mechanism, and a pinion carried by the shaft of the mechanism mounted on said part, of a motor having a piston rod provided with a rack adapted to mesh with said pinion, a recessed member pivotally mounted on said part and adapted to engage said shaft between said bearing and the hub of said pinion to retain the pinion in engagement with said rack, and detachable means for operatively connecting said motor to the shaft of the other of said active mechanisms.

[Claims 6 to 11 not printed in the Gazette.]

958,727. INTERMITTENT GRIP DEVICE. REUBEN D. TITTLE, Springfield, Ohio. Filed Mar. 9, 1908. Serial No. 419,847.



1. In a device of the character described, the combination, with a rotary shaft, a ratchet mounted on said shaft, levers mounted on said shaft near said ratchet, each of said levers having a longitudinal slot near one end thereof, a projection carried by each of said levers and extending over said ratchet, and pawls carried by said projections and arranged to engage the ratchet on opposite sides of the shaft, of an actuating rod having a guideway adapted to engage said shaft to form a support therefor, and pins carried by said actuating rod on opposite sides of said guideway and adapted to engage the slotted ends of said levers.

2. In a device of the character described, the combination, with a rotary shaft, ratchets mounted on said shaft, levers pivotally mounted on said shaft near said ratchets, each of said levers having a longitudinal slot near one end thereof, a projection carried by each of said levers extending over the adjacent ratchet, and pawls carried by said projections and arranged to engage the respective ratchets on opposite sides of said shaft, of an actuating rod having a guideway adapted to engage said shaft and form a support therefor, and pins carried by said actuating rod on opposite sides of said guideway and adapted to engage the slotted ends of said levers.

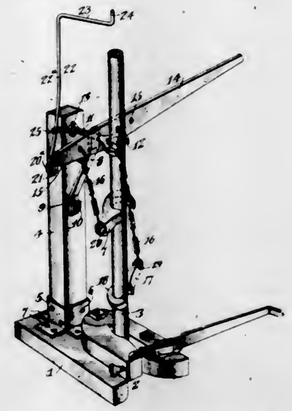
3. In a device of the character described, the combination, with a rotary shaft, a pair of ratchets mounted on said shaft and spaced a short distance apart, a pair of levers pivotally mounted on said shaft between said ratchets, each of said levers having a longitudinal slot near one end thereof, a projection carried by each of said levers and extending over the adjacent ratchet, pawls carried by said projections and arranged to engage the respective ratchets on the opposite sides of said shaft, of an actuating rod having a guideway adapted to engage said shaft and form a support therefor, and pins carried by said actuating rod on opposite sides of said guideway and adapted to engage the slotted ends of said levers.

4. In a device of the character described, a rotary shaft, ratchet wheels mounted on said shaft, a pair of levers pivotally mounted on said shaft and extending on opposite sides thereof, pawls mounted on said levers and adapted to engage said ratchet wheels, means for moving said levers about their pivotal centers, and guards carried by said levers for closing the space between the same.

5. In a device of the character described, a rotary shaft, a ratchet wheel mounted on said shaft, a pair of levers pivotally mounted on said shaft and extending on opposite sides thereof, pawls carried by said levers, an actuating rod, means for slidably connecting the outer ends of said levers to said actuating rod, and guards carried by said levers for closing the space between the same.

[Claim 6 not printed in the Gazette.]

938,728. LIFTING AND LOWERING APPARATUS. JOHN V. VICKSELL, Mediapolis, Iowa. Filed Nov. 18, 1908. Serial No. 463,240.



1. In an apparatus of the class described, the combination with a platform, a vertical standard carried by said platform, of a pivotally-mounted bracket secured to one side of said standard, a stop secured to the same side of said standard in the path of the movement of said bracket, said stop positioned off-center of said side and contiguous to one edge thereof, and a grappling-device supported upon said standard.

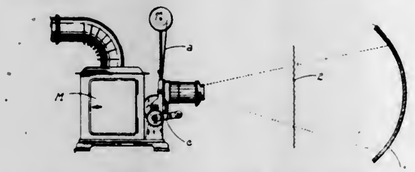
2. In an apparatus of the class described, the combination with a standard, a pivotally-mounted bracket carried by said standard, said bracket provided with a body, terminating at its lower end in an eye, and at its upper end in a portion extending at substantially right-angles to the body, said last-mentioned portion provided at its outer end with a hook or extension, said standard provided with a stop engaged by the bracket when said bracket is in an operative position, and pipe or rod-gripping means carried by said standard.

3. In an apparatus of the class described the combination with a standard, of a guide-member, said guide-member provided with an enlarged-bifurcated end and with a threaded shank portion, said shank portion engaging said standard and adapted to be adjusted thereon for bringing the bifurcated end of said guide-member in alinement with the bore of a well, a pivoted lever mounted upon said guide-member, pipe or rod gripping means carried thereby,

and said pipe or rod adapted to be held in a vertical position by means of said bifurcated end of said guide-member.

4. In an apparatus of the class described the combination with a standard, of a guide-member provided with an outer bifurcated end and a threaded shank portion, said shank portion threaded through said standard, a nut threaded upon said shank portion upon each side of the standard, said guide-member adapted to be moved forward or backward by means of turning said nuts upon said threaded shank for causing the outer bifurcated end to come in alinement with the bore of a well, a lever pivotally mounted upon said guide-member, pipe or rod gripping means carried thereby, and said bifurcated end adapted to support a pipe or rod in a vertical position or in alinement with the bore of a well.

938,729. MOVING-PICTURE APPARATUS. HENRY VOEGE, St. Louis, Mo. Filed Feb. 8, 1909. Serial No. 476,839.



1. In combination with a moving picture machine, a reflecting receiving surface, and a screen for intercepting a portion of the light and softening its effect, interposed between the surface and the machine.

2. In combination with a moving picture machine, a curved reflecting surface to receive the pictures, and a screen or filter of woven fabric for partially intercepting the light rays.

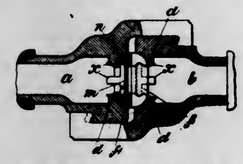
3. In combination with a moving picture machine, a curved glass or mirror for receiving the pictures, and a screen for intercepting a portion of the light and softening its effect, interposed between the glass and the machine.

938,730. CHAIR-SEAT. ALBERT WANNER, Jr., Hoboken, N. J. Filed May 28, 1909. Serial No. 498,843.



The combination, in a seat for seating appliances, of a frame, a cushioning means, and a support for the cushioning means consisting of interwoven strips of elastic stiff material fixed at their ends to the frame, each strip being composed of a plurality of wooden layers having their grains crossing each other, substantially as described.

938,731. HOSE-COUPLING AND GASKET THEREFOR. JOHN E. WARD, New York, N. Y., assignor to Ward Equipment Company, New York, N. Y., a Corporation of New York. Filed Dec. 26, 1907. Serial No. 408,157.



1. A gasket for hose-couplings and the like, comprising a body portion having one end rounded, a plurality of fastening projections and means to which said projections are secured, said means engaging the body portion so that it may have a free play with respect thereto.

2. A gasket for hose-couplings and the like, comprising a body portion having one end rounded, a split ring engaging the same with a free play, and fastening projections secured to the ring.

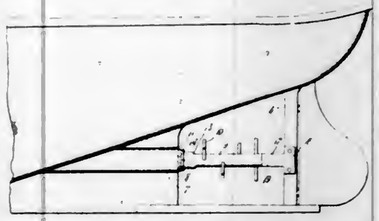
3. A gasket for hose-couplings and the like, comprising a body portion having an annular seat, a split ring adapted to fit loosely in said seat, and fastening projections secured to said ring.

938,732. ROASTING SEPARATION PROCESS. HENRY A. WENTWORTH, Newton, Mass., assignor to Huff Electrostatic Separator Company, Boston, Mass., a Corporation of Maine. Filed Jan. 2, 1909. Serial No. 470,404.

1. The process of separating zinc sulfid from other sulfids associated therewith which consists in superficially changing sulfids other than zinc sulfids by subjecting the mass to heat, and thereafter separating by flotation, the heat-affected particles from those unaffected.

2. The process of separating zinc sulfid from iron sulfid, copper sulfid, and lead sulfid, which consists in subjecting the mixture to a roasting to an intensity sufficient to at least superficially oxidize the sulfids other than zinc sulfid, while insufficient materially to affect the zinc sulfid, and thereafter separating the zinc sulfid from the other ingredients by flotation.

938,733. PROPELLER. MONNIE R. WHITE, Deal Island, Md. Filed Feb. 23, 1909. Serial No. 479,583.



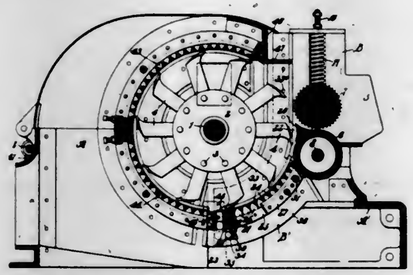
1. In a propeller the combination with a shaft terminating at its outer end in a threaded shank; of a plate having on one face an interiorly threaded socket to engage said shank, the outer surface of said socket being noncylindrical, a hub provided with an opening at one end to receive the said socket, and a plurality of blades carried by said hub.

2. In a propeller for vessels the combination with a propeller shaft; of a bearing sleeve having two sections disposed on opposite sides of the stern post and in alinement with the said propeller shaft, an elongated hub having a flared end provided with a bore to receive said propeller shaft and having its opposite end reduced and bearing in said sleeve and a series of spirally arranged blades secured to said hub.

938,734. SHREDDING-MACHINE. MILTON F. WILLIAMS and EDWARD H. FRICKEY, St. Louis, Mo., assignors to Williams Patent Crusher & Pulverizer Company, St. Louis, Mo., a Corporation of Missouri. Filed May 18, 1908. Serial No. 433,514.

1. A shredding machine comprising hammers, a breaker element cooperating with said hammers, feed rolls for delivering material to said hammers, a support which carries said breaker element and feed rolls, and adjustable means for retaining the support in position, said means being so constructed that the support can be moved to simultaneously adjust the breaker element and feed rolls relatively to the hammers; substantially as described.

2. A shredding machine provided with hammers, an adjustable casing provided with a breaker element with which said hammers coöperate, rolls carried by said casing for feeding material to the hammers, a grinding surface carried by said casing and coöperating with said hammers, and means for moving said casing to simultaneously adjust the breaker element, feed rolls, and grinding surface relatively to the hammers; substantially as described.



3. A shredding machine provided with a stationary casing and rotatable hammers arranged inside of same, an adjustable casing or member located at the front end of the stationary casing and having portions that are in telescopic engagement therewith, a hopper on said member, feed rolls journaled in said member for delivering material to the hammers, and a breaker element carried by said member and coöperating with said hammers; substantially as described.

4. A shredding machine provided with a stationary casing and rotatable hammers arranged inside of same, an adjustable casing or member located at the front end of the stationary casing and having portions that are in telescopic engagement therewith, a hopper on said adjustable member, feed rolls journaled in said member, a breaker element carried by said member, a grinding surface section carried by said member, and means for moving said member relatively to the stationary casing to simultaneously adjust all of the devices thereon relatively to the hammers; substantially as described.

5. A shredding machine provided with a stationary casing open at its front end, rotatable hammers arranged inside of said casing, an adjustable casing or member having side portions which telescope inside of the side walls of the stationary casing, and a breaker element and feed rolls carried by said adjustable casing; substantially as described.

[Claims 6 to 16 not printed in the Gazette.]

938,735. BRUSH. FRANK D. WOLFGRAM and EDWARD KLAUSMAN, Milwaukee, Wis., assignors to Sanitary Brush and Compound Company, Milwaukee, Wis., a Corporation of Wisconsin. Filed Dec. 30, 1908. Serial No. 470,069.



1. A brush, comprising a brush back provided with lines of bristles or tufts positioned apart to form an elongated recess, a guard attached to said back and located within said recess, a receptacle adjacent to said brush and constructed to discharge a dust-absorbing medium within and through said recess, a slide for controlling the discharge of said medium.

2. A brush, comprising a brush back provided with lines of bristles or tufts positioned apart to form an elongated recess, a guard attached to said back and located within said recess, a receptacle adjacent to said brush and constructed to discharge a dust-absorbing medium within and through said recess, a slide for controlling the discharge of said medium, and means for locking the slide in adjusted positions.

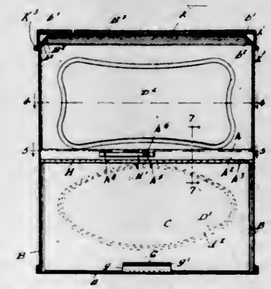
3. A brush, comprising a brush back provided with lines of bristles or tufts positioned apart to form an elongated recess, a guard attached to said back and located within said recess, a receptacle adjacent to said brush and constructed to discharge a dust-absorbing medium within and through said recess, a slide for controlling the discharge of said medium, and a cranked member for locking the slide in adjusted positions.

4. A brush, comprising a brush back provided with lines of bristles or tufts positioned apart to form an elongated recess, a guard attached to said back and located within said recess, a receptacle adjacent to said brush and constructed to discharge a dust-absorbing medium within and through said recess, a slide for controlling the discharge of said medium, a cranked member for adjusting the position of the slide, and means projecting in the path of movement of the cranked member for locking said member in adjusted positions.

5. A brush, comprising a brush back provided with lines of bristles or tufts positioned apart to form an elongated recess, a guard attached to said back and located within said recess, a receptacle adjacent to said brush and constructed to discharge a dust-absorbing medium within and through said recess, a slide for controlling the discharge of said medium, a cranked member provided with a handle for adjusting the position of the slide, and projections extending in the path of movement of the handle of the cranked member for locking said member in adjusted positions.

[Claims 6 to 10 not printed in the Gazette.]

938,736. SHEET-METAL DISPLAY-CAN. JOHN XAVIER, Cleveland, Ohio, assignor to American Can Company, New York, N. Y., a Corporation of New Jersey. Filed June 1, 1907. Serial No. 376,862.



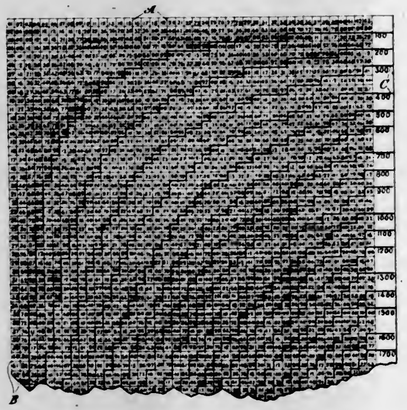
1. In a display can, the combination with the bottom plate, upright side plates and front plate of the can, the latter being furnished with a display opening therein, of a removable glass plate, a fixed holder for the lower edge of the glass plate, and an angle bar extending across the front plate of the can at its middle portion above the display opening therein and secured at its ends to the adjacent upright sides of the can, said angle bar supporting the front plate, and the depending member of said angle bar overhanging the upper edge of the glass plate to hold it in place and a laterally withdrawable catch on the outer side of and projecting through said angle bar to hold said glass plate from slipping upward, said angle bar positively holding said catch from movement in the direction of the plane of the glass plate substantially as specified.

2. In a display can, the combination with a front plate having a display opening, of a removable glass plate closing said opening, a fixed holder for engaging the lower

edge of the glass plate and an upper fixed holder extending across the middle portion of the front plate and having an integral depending member engaging the upper edge of the glass plate, the glass plate being removable by first slipping it in the direction of its plane within and between said upper and lower holders until one edge thereof frees one of said holders, and then tilting it inward at its freed edge, one of said holders having an opening therethrough, and a laterally withdrawable spring catch entering said opening and mounted upon the outside of and interengaging with the one of said holders having said opening and positively held thereby against movement in the direction of the plane of the glass plate for locking the glass plate in place between said holders, substantially as specified.

3. In a display can, the combination with a front plate having a display opening, a fixed holder for engaging the lower edge of the glass plate and a fixed holder for engaging the upper edge of the glass plate, said fixed holder extending across the middle portion of said front plate and being secured at its ends to the adjacent side plates and serving also as a brace and support for the middle portion of the front plate, the glass plate being removable by slipping it upward within and between its upper and lower holders until its lower edge will clear the lower holder and then tilting it inward at its lower part, and a movable catch on the outer side of said upper holder and having a lip projecting through said holder to prevent the glass plate from slipping upward except when the catch is withdrawn from over the upper edge of the glass plate, substantially as specified.

938,737. COMPUTING-TABLE. EDWARD AEERLE, West Nutley, N. J. Filed Jan. 8, 1909. Serial No. 471,236.



1. A table comprising figures arranged in rows and columns, with the end figures of the products standing at the intersection of the row and column beginning with the factors of the respective product, and step-shaped lines separating figures of the table.

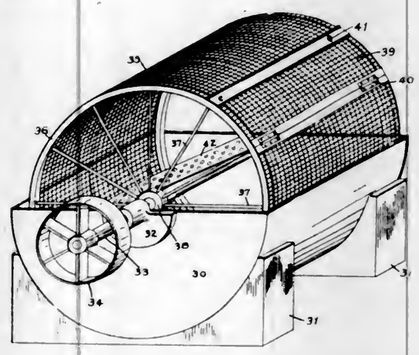
2. A table comprising figures arranged in rows and columns, with the end figures of the products standing at the intersection of the row and column beginning with the factors of the respective product, step-shaped lines separating figures of the table which are to be read in connection with different numbers of higher denominations, and designations of such numbers, adjacent to said lines.

3. A table comprising figures arranged in rows and columns, with the last two figures of a product standing at the intersection of the row and column beginning with the factors of said product, and step-shaped lines separating figures of the table.

4. A table adapted to serve as a computer of ems, said table comprising figures arranged in columns and rows running at right angles to each other, the width of each column as well as the height of each row being equal to the size of an em of the particular size of type for which the computation is made, the end figures of the results or products standing at the intersection of the row and column beginning with the factors of the respective product, and step-shaped lines separating figures of the table.

5. A table adapted to serve as a computer of ems, said table comprising figures arranged in columns and rows running at right angles to each other, the width of each column as well as the height of each row being equal to the size of an em of the particular size of type for which the computation is to be made, the last two figures of a result or product standing at the intersections of the row and column beginning with the factors of said product, and step-shaped lines separating the figures of the table.

938,738. HAT-DYEING APPARATUS. FRIEDRICH BAUER, West Orange, N. J. Filed Jan. 3, 1908. Serial No. 409,126.

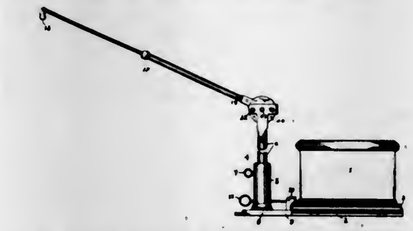


1. A hat dyeing apparatus comprising in combination a semi-cylindric tank having walls impervious to liquid, bearings upon the edges of the end walls of said tank, a shaft held by said bearings in the central axial line of the tank, means for driving said shaft, hubs fixed on said shaft, spokes radiating from said hubs, rings at the ends of said spokes, a cylinder of wire screening fixed at its ends to said rings with its surface contiguous to the bottom of said tank, the inner chamber of said cylinder being open and unobstructed, a longitudinal door at one side of said cylinder, and a perforated drip board adapted to be inserted through said door lying upon said shaft between said spokes and extending from side to side of the cylinder.

2. In a hat dyeing apparatus, the combination of a semi-cylindric tank having walls impervious to liquid, bearings upon the edges of the end walls of said tank, a shaft held by said bearings in the central axial line of tank, means for driving said shaft, a cylinder of wire screening around said shaft with its surface contiguous to the bottom of the tank, spokes fixing the ends of said cylinder to said shaft and leaving the inner chamber of the cylinder open and unobstructed, a longitudinal door at one side of said cylinder, and a removable drip board adapted to be slid into and out of said cylinder through said door and divide its interior into two separate compartments.

3. In a hat dyeing apparatus, the combination of a semi-cylindrical tank having walls impervious to liquid, bearings upon the edges of the end walls of said tank, a shaft held by said bearings in central axial line of the tank, means for driving said shaft, a cylinder fixed to said shaft and having curved walls of wire screening adapted to pass contiguous to the bottom of the tank when the shaft is rotated, and a perforated drip board removably mounted within said cylinder in an approximately central longitudinal plane of the cylinder.

938,739. HORN-CRANE. THOMAS J. BEETHAM, Newark, N. J., assignor to The Tea Tray Company of Newark, N. J. Filed Jan. 17, 1907. Serial No. 352,780.



1. In a horn crane, the combination with a standard having a portion provided with a slot, of a horn-supporting arm having an end pivoted flatwise against said standard eccentric to the slot therein, said end of the arm having an eccentric slot crossing the slot in the standard top, and a clamping bolt through said slots.

2. In a horn crane, the combination with a standard having a flattened top portion, of a horn-supporting arm having a flattened end pivoted flatwise against said flattened portion of the standard, said two flattened parts having slots, the slot in one part being at an angle to the slot in the other and crossing the same, and a clamping bolt through said slots.

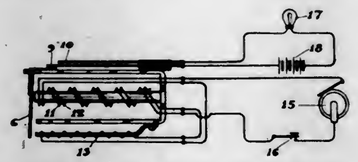
3. In a horn crane, the combination with a standard, of a horn-supporting arm having an end pivoted flatwise against the side of said standard, said pivoted parts having slots the slot in one part being at an angle to the slot in the other and crossing the same, friction-increasing means upon a wall of one slot, and a clamping bolt through said slots.

4. In a horn crane for talking machines, the combination with a standard, a U-shaped clamp carried thereby, and means for forcing the clamp-arms toward each other, of a horn-supporting arm having a disk centrally pivoted between the arms of said clamp, a friction disk mounted between the arms of the clamp adjacent the disk of the horn-supporting arm, and means for limiting the rotation of said friction disk.

5. The combination of two rods or bars, a U-shaped clamp having one arm fixed to the extremity of one of said rods and holding the clamp at one side of the rod with a plane through its arms transverse to said rod, the other rod having its extremity between the arms of the said U-shaped clamp, and a pivot through said clamp-arms and last mentioned rod at substantially the point of attachment of the clamp to the rod which supports it, whereby said rods are hinged together, and yet free to fold into parallel relation to each other.

[Claims 6 to 9 not printed in the Gazette.]

938,740. ELECTROMAGNETIC DEVICE. EINAR A. BROFOS, Chicago, Ill., assignor to The American Electric Telephone Co., Chicago, Ill. Filed May 23, 1908. Serial No. 434,476.



1. An electromagnetic device comprising an operating coil adapted to receive currents from a fluctuating current source, a core for said coil, a second coil also having a core, an armature under the combined magnetic influence of both cores, said two cores forming portions of independent magnetic circuits and means whereby the second coil receives its energizing current inductively from the first aforesaid coil.

2. A fluctuating current electro-magnetic device having two electro-magnets having separate cores forming portions of two distinct magnetic circuits, and one adapted to receive its current from a fluctuating current source, and the other adapted to receive its current inductively from the former.

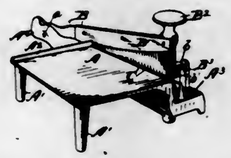
3. A fluctuating current electro-magnetic device having two electro-magnets having separate cores forming portions of two distinct magnetic circuits, one adapted to receive its current from a fluctuating current source, and the other adapted to receive its current inductively from the former, and an armature common to both electro-magnets.

4. A fluctuating current electro-magnetic device having two electro-magnets having separate cores forming portions of two distinct magnetic circuits, one adapted to receive its current from a fluctuating current source, a secondary coil in inductive relation to said first electro-magnet and the other receiving its current from said secondary coil in inductive relation to the first aforesaid electro-magnet.

5. A fluctuating current electro-magnetic device having two electro-magnets having separate cores forming portions of two distinct magnetic circuits, one adapted to receive its current from a fluctuating current source, a secondary coil in inductive relation to said first electro-magnet and the other receiving its current from said secondary coil in inductive relation to the first aforesaid electro-magnet, and an armature common to both electro-magnets.

[Claims 6 and 7 not printed in the Gazette.]

938,741. MACHINE FOR CLIPPING ENVELOPS. CHARLES E. CAMPBELL, Detroit, Mich. Filed Dec. 4, 1908. Serial No. 465,934.



1. In a machine for clipping envelops, a platform to support the envelops and provided on one side with a guide, a pocket formed with the platform and depending therefrom at one end thereof, said pocket receiving the clippings, a swinging cutter blade adapted to pass the edge of the platform in shearing relation therewith and immediately above said pocket, whereby the end of an envelop may be clipped and the clipping deposited in the pocket.

2. In a machine for clipping envelops, a platform to receive the envelops and provided on one side with a guide and on one end with a depending portion, a pocket disposed beneath the plane of the platform and of which pocket said depending portion of the platform forms a wall, said pocket receiving the clipping, a swinging cutter blade adapted to pass the edge of the platform in shearing relation with said depending portion of the platform, whereby the end of an envelop may be clipped and the clipping deposited in said pocket.

3. In a machine for clipping envelops, a platform to support an envelop and provided at one side with a guide and at one end with a depending portion, a pocket to receive the clippings and of which pocket said depending portion of the platform forms a wall, a blade fixed against said depending portion, and a swinging cutter blade adapted to pass the platform in shearing relation with said fixed blade whereby the envelop may be clipped and the clipping deposited in the pocket.

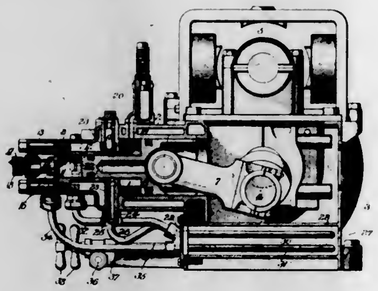
4. In a machine for clipping envelops, a platform to support an envelop and provided at one side with a guide and at one end with a depending portion, a pocket to re-

ceive the clippings and of which pocket said depending portion of the platform forms a wall, a blade fixed against said depending portion, a swinging cutter blade adapted to pass the platform in shearing relation with said fixed blade whereby the envelop may be clipped and the clipping deposited in the pocket, and means for cushioning the swinging blade at the limit of its downward movement.

5. In a machine for clipping envelops, a platform to support an envelop and provided at one side with a guide and at one end with a depending portion, a pocket to receive the clippings and of which pocket said depending portion of the platform forms a wall, a blade fixed against said depending portion, a swinging cutter blade adapted to pass the platform in shearing relation with said fixed blade whereby the envelop may be clipped and the clipping deposited in the pocket, means for cushioning the swinging blade at the limit of its downward movement, and means having engagement with the swinging blade to force it normally against the depending portion of the platform.

[Claims 6 to 12 not printed in the Gazette.]

938,742. COMPOUND AIR-COMPRESSOR. NIELS A. CHRISTENSEN, Milwaukee, Wis. Filed Nov. 11, 1902. Serial No. 130,894.



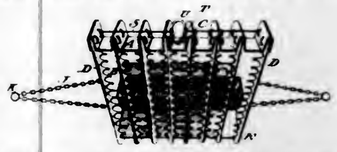
1. A compound compressor comprising a low pressure cylinder, a combined high pressure cylinder and valve head secured to the low pressure cylinder, said cylinders being arranged in axial alinement with each other and of different diameter, a single piston structure having differential piston heads each of uniform diameter to fit the two cylinders, suction and discharge valves, of which the discharge valve of the low pressure cylinder is located in said valve head and of which the suction valve of the high pressure cylinder is located in such cylinder, a valve head forming the outer end of the high pressure cylinder and containing the discharge valve thereof, and connections between said cylinders and valves.

2. A compound compressor comprising a low pressure cylinder, a combined high pressure cylinder and valve head secured to the low pressure cylinder, said cylinders being arranged in axial alinement and having piston heads traveling therein, and suction and discharge valves for said cylinders, the discharge valve and delivery passage of the low pressure cylinder being arranged in said valve head said piston heads being valveless and imperforate.

3. A compound compressor comprising a low pressure cylinder, a combined high pressure cylinder and valve head secured to the low pressure cylinder with said cylinders in axial alinement, piston heads for said cylinders, which heads are integral but of differential diameters, said valve head containing the discharge port of the low pressure cylinder, a discharge valve therefor and a suction port for the high pressure cylinder and a suction valve therefor said piston heads being valveless and imperforate.

4. A compound compressor comprising a low pressure cylinder, a combined high pressure cylinder and valve head secured to the low pressure cylinder with said cylinders in axial alinement, piston heads for said cylinders, which heads are integral but of differential diameters said valve head containing a valve governed discharge port for the low pressure cylinder and a valve governed suction port for the high pressure cylinder, and a valve head secured to the high pressure cylinder and containing a valve governed discharge port said piston heads being valveless and imperforate.

938,743. TRAP. CHARLES CLARK, Boissevain, Manitoba, Canada. Filed Feb. 13, 1909. Serial No. 477,709.



In a trap of the character described the combination with a frame comprising a horizontally disposed rectangular base and vertically inclined triangular ends, each of the said ends having an aperture, a sliding door to close one of the said apertures, said base having an aperture in the central portion thereof and a sliding door to close the same, and provided on two opposite sides with parallel slots, of a series of downwardly and outwardly inclined ribs forming the sides of the trap, each of said ribs provided with a plurality of barbed teeth and the lower ends adapted to be received in slots in the said base, bolts to pivotally connect the ribs to the base, a horizontally disposed grooved backbone connected to the upper portion of said triangular ends, rings for locking the upper ends of said ribs when the ribs are inserted into grooves of the backbone, a tongued end bait dish operated through the medium of the apertures in the triangular ends and anchor chains attached to each of the triangular ends, substantially as set forth.

938,744. EYEGLASS-MOUNTING. STEPHEN J. CLULEE, Attleboro, Mass., assignor to Bay State Optical Company, Saco, Me., a Corporation of Maine. Filed Apr. 24, 1909. Serial No. 491,959.



1. In an eye-glass mounting, the combination of a lens-strap having a fixed box thereon, one of whose edges constitutes a cam surface; a tempered finger-piece doubled on itself intermediate its ends and having a pivot hole near one end; a nose pad mounted loosely on the opposite end of the finger-piece; and a pivot passing through the pivot hole into the box in the front of the cam surface, the said cam surface lying between the arms of the loop formed by the doubling of the finger-piece upon itself.

2. In an eye-glass mounting, the combination of a lens-strap having a box projecting centrally therefrom and provided with a cam surface; a tempered finger-piece, doubled upon itself into a U-bend and having at one end two parallel, bent flanges, extending, respectively, in contact with the upper and lower sides of the box; a nose pad loosely mounted on the free end of the finger-piece; and a pivot passing through both said flanges and box, one portion of the finger-piece normally extending in contact with one side of the box, but engageable with the cam surface of the box when the U-bend of the finger-piece is moved on the pivot in a direction away from the lens-strap.

3. In an eye-glass mounting, the combination of a lens strap, comprising two clamping arms and two rim pieces with a protruding cubical-shaped box at the convergence of said arms and rim pieces, which box has a cam surface at one corner thereof; a resilient finger-piece having a U-bend with one arm thereof longer than the other, the longer arm being S-shaped and normally in contact at its center with the central outer side of the box, and the shorter arm being bent conformably with the longer arm and terminating in two parallel bent flanges, which overlie the top and bottom sides of said box; a nose pad supported on the tip of the longer arm of the finger-piece; and a pivot mounting said flanges upon the box in the front of the cam surface of the box, whereby the longer arm of the bent finger-piece is operatively engageable with said cam surface when said finger-piece is oscillated to its mounting position.

4. In an eye-glass mounting, the combination of a nose-bridge; a box having a cam surface supported adjacent to the end of said bridge; and a resilient finger-piece pivotally mounted on the box eccentrically to the cam surface.

5. In an eye-glass, the combination of a lens; a lens-clamp in which the lens is mounted; a nose bridge; a box upon the lens-clamp contiguous to the bridge and provided with a cam surface; a resilient finger-piece mounted upon the box and in operative contact with said cam surface when oscillated to and from its mounting position; and a nose pad mounted on the finger piece.

[Claim 6 not printed in the Gazette.]

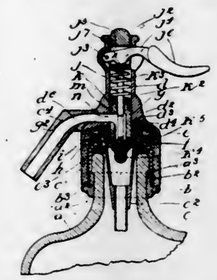
938,745. GAS-BURNER. WARD F. COBEDESH, Salem, Ohio. Filed Oct. 31, 1908. Serial No. 460,447.

1. The combination of a burner-pipe formed with a series of holes near its top; a slide which fits over said burner-pipe and is adapted to be adjusted therealong to cover and uncover said holes; an air-inlet pipe the inlet end of which lies between the uppermost and lowermost of ssid holes; and a gas inlet-pipe which communicates with said burner-pipe below all of said holes.

2. The combination of a burner-pipe formed with a series of large holes and with a plurality of smaller holes above said large holes; an air inlet-pipe which extends above said large holes and below said smaller holes; and a gas inlet-pipe which communicates with said burner-pipe below said large holes.

3. The combination of a gas-burner consisting of a burner-pipe formed with a series of large holes and with a plurality of series of smaller holes arranged above said large holes; a slide which is mounted upon said burner-pipe and is adapted to be moved therealong to cover said holes; an air inlet-pipe, the inlet end of which extends into said burner-pipe above said large holes and below said smaller holes; and a gas inlet-pipe which communicates with said burner-pipe below said large holes; and annular disks mounted one in each of said inlet-pipes.

938,746. SIPHON-BOTTLE. PAUL DEVARCO, Newark, N. J. Filed Nov. 25, 1908. Serial No. 464,357.



1. A device of the class described comprising a cap adapted to be secured to the neck of a bottle and provided at the top with a contracted portion forming an internal annular shoulder and in which is an angular opening at one side of which is a radial recess, a valve tube provided at its lower end with a head having a threaded neck adapted to enter the opening in said cap, and the top part of which is angular in form to fit said opening, the bottom end of the threaded neck being also provided with a radial recess, a tubular cylinder within said head and extending downwardly through said neck and provided at its lower end with a lug or projection which fits in said recess, an annular plate provided on the top surface thereof with an interiorly threaded collar or flange, a ring or band adapted to be placed on said collar or flange and to be turned thereby and interiorly threaded, said ring or band and said collar or flange being adapted to be screwed onto said neck, said plate being also provided inwardly of said collar or flange with an annular flange between which and said cylinder is placed a packing gasket and outwardly of said collar or flange with an annular flange between which and the shoulder and the top of the cap is placed a packing gasket, and a spring supported valve rod passed downwardly through said valve tube and said cylinder and provided at its lower end with a valve.

2. A device of the class described comprising a cap adapted to be secured on the neck of a bottle or similar vessel and the top part of which is contracted to form an internal annular shoulder and provided with an opening, a valve tube provided at its lower end with a head having a screw threaded neck adapted to be passed downwardly through said opening, a tubular cylinder having a three way or T-shaped bore placed in said head and extending downwardly through the neck thereof, means for locking said cylinder in said head against rotation, an annular plate provided on the top surface with an interiorly threaded collar adapted to be screwed onto said neck and inwardly and outwardly of said collar with annular flanges, a packing gasket placed on the upper side of said inner flange and between said inner flange and the lower end of said cylinder, and a packing gasket placed on the upper side of said outer flange and between said outer flange and said annular shoulder in the top of the cap.

3. A device of the class described comprising a cap adapted to be secured on the neck of the bottle or similar vessel and the top part of which is contracted to form an internal annular shoulder and provided with an opening, a valve tube provided at its lower end with a head having a screw threaded neck adapted to be passed downwardly through said opening, a tubular cylinder having a three way or T-shaped bore placed in said head and extending downwardly through the neck thereof, means for locking said cylinder in said head against rotation, an annular plate provided on the top surface with an interiorly threaded collar adapted to be screwed onto said neck and inwardly and outwardly of said collar with annular flanges, a packing gasket placed on the upper side of said inner flange and between said inner flange and the lower end of said cylinder, and a packing gasket placed on the

upper side of said outer flange and between said outer flange and said annular shoulder in the top of the cap, and a spring supported valve rod passed downwardly through said cylinder and provided at its lower end with a valve, said cylinder, valve rod, valve and annular plate being composed of non-corrosive material.

4. A device of the class described comprising a cap adapted to be detachably secured on the neck of a bottle, and the top of which is contracted to form an internal annular shoulder and provided with an opening, a valve tube provided with a head having a threaded neck adapted to be passed downwardly through said opening, a tubular cylinder having a three way or T-shaped bore placed in said head and extending downwardly through said neck, an annular plate provided on the top surface thereof with an annular collar interiorly threaded and adapted to be screwed onto said neck, said plate being provided inwardly of said collar with a flange, a packing gasket placed on the upper side of said flange between said flange and said cylinder, and a spring supported valve rod passed downwardly through said cylinder and through said neck and packing and provided on its lower end with a valve.

5. A device of the class described comprising a cap adapted to be secured on the neck of a bottle or similar vessel and the top part of which is contracted to form an internal annular shoulder and provided with an opening, a valve tube provided at its lower end with a head having a screw threaded neck adapted to be passed downwardly through said opening, an annular screw ring and an annular screw plate adapted to be screwed onto said neck, said ring and said plate being provided with a means whereby said plate may act as a tool to screw said ring onto said neck, and whereby on the removing of said screw plate, said ring will remain in place upon said neck.

938,747. OIL-GAS COOKING-STOVE. OLOF E. V. ERICSON, Gottenborg, Sweden. Filed Apr. 15, 1909. Serial No. 489,997.



1. In an oil-gas cooking stove, the combination of an oil reservoir, a burner comprising a tubular, ring-shaped burner head having eduction openings in its upper portion, and arranged in about the same horizontal plane as the reservoir, a ring-shaped vaporizer disposed above and adjacent said head, a conduit intermediate the reservoir and the vaporizer, and a ring-shaped mixing chamber disposed below and adjacent the burner head and connected therewith and also connected with the vaporizer, and a plate for supporting cooking utensils, connected with the burner.

2. In an oil-gas cooking stove, a burner comprising an annular burner head having eduction opening in its upper portion, an annular vaporizer arranged above and adjacent said head and adapted to be connected with a source of hydrocarbon supply, and an annular mixing chamber arranged under and adjacent the head and connected with the vaporizer and also connected with the head.

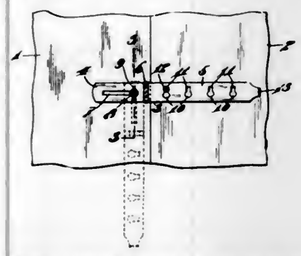
3. An oil-gas cooking stove comprising oil reservoirs spaced apart, a grid arranged adjacent the reservoirs and in the same horizontal plane as the uppermost portions thereof and adapted to support cooking utensils, and burners carried by the grid and respectively comprising an annular vaporizer connected with the adjacent reservoir, an annular burner head arranged under and adjacent the vaporizer and having eduction openings, and an annular mixing chamber arranged under the head and connected with the vaporizer and also with the head.

4. In an oil-gas cooking stove, the combination of one or more oil-reservoirs, and one burner for each reservoir arranged at the side of the reservoir, and comprising a tubular ring-shaped burner-head having eduction openings in its top, a tubular vaporizer for each burner disposed above the head thereof, and a tubular mixing-chamber under the burner head and connected therewith.

5. In an oil-gas coking stove, the combination of one or more oil-reservoirs, and one burner for each reservoir, arranged at the side of the corresponding reservoir, a tubular ring-shaped burner-head divided horizontally into two detachable parts and having radial slits at its top, a tubular vaporizer above and adjacent the burner-head, and a tubular bent mixing chamber under and adjacent the burner head and connected therewith.

[Claims 6 to 8 not printed in the Gazette.]

938,748. SHUTTER FASTENER OR BOWER. GRACE ERWIN, Philadelphia, Pa. Filed July 26, 1909. Serial No. 509,635.



In combination with a pair of shutters, a bolt projected through one of said shutters, a thumb nut on the inner end of said bolt, a headed screw secured in the other shutter with its head disposed some distance from the face of the shutter, a shutter bower or fastener comprising two members hinged together, an elongated slot in one member positioned on the bolt and between the thumb nut and the face of the shutter, the other member of said fastener or bower having a series of openings, each opening of a diameter sufficiently large to be passed over the head of the screw, and each opening having an upwardly projecting restricted recess or extension of a diameter too small to be passed over the head of the screw, but sufficiently large to receive the shank of the screw, whereby when said member is positioned over the screw, it will by its weight fall to a position with the restricted portion of the opening over the shank of the screw, substantially as and for the purpose set forth.

938,749. NECKTIE-HOLDER. GEORGE A. FERGUSON and ARCHIBALD B. HAY, Owen Sound, Ontario, Canada. Filed Feb. 19, 1909. Serial No. 478,785.



1. A tie holder, comprising, a central portion adapted to be secured to the collar button, arms extending upwardly and laterally from said central portion, and transverse loops formed at the outer ends of said arms and having slit openings in the outer sides thereof, said loops being adapted to receive the band of the tie.

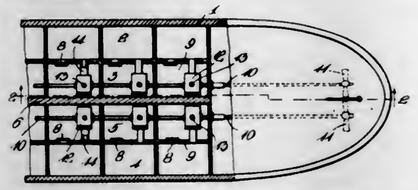
2. A tie holder, comprising, a central fastener portion adapted to be secured to the collar button, curved arms extending upwardly and laterally from said central portion, flat loops arranged transversely at the outer ends of said arms, said loops having slit openings in the outer side arranged intermediate of their length.

3. A tie holder, comprising, a central portion having an orifice therein adapted to receive the head of a collar button and a smaller orifice connected therewith by a narrow neck opening, a pair of arms extending outwardly and curved laterally from said central portion, and transverse loops formed at the outer ends of said arms and having slit openings in the outer sides thereof adapted to receive the band of the tie.

4. A tie holder, comprising, a central fastener portion adapted to receive the head of a collar button, a pair of arms curving upwardly and backwardly from said central portion and adapted to fit snugly against the collar, elongated loops at the outer ends of said arms arranged transversely of said arms and having their outer sides split intermediate of their length.

5. A tie holder, comprising, a curved member adapted to fit snugly against the collar and having a laterally bent portion centrally arranged and an opening arranged partly in said laterally bent portion and partly in said main portion, a smaller opening arranged above the aforesaid opening in said main portion and connected with the aforesaid opening by a narrow neck passage, and transversely arranged loops formed at the outer ends of said curved member and adapted to receive the band of the tie.

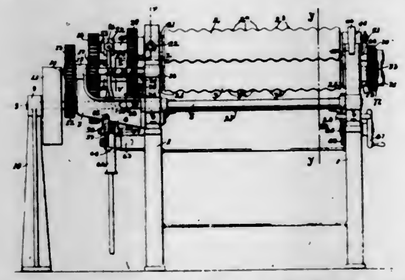
938,750. SHIP-PROPELLING DEVICE. MOSES FRANKLIN, Grand Junction, Colo. Filed July 22, 1909. Serial No. 509,028.



1. A vessel comprising a hull, a plurality of open compartments therein, a shaft arranged longitudinally of said hull, engines connected to said shaft, means for connecting the engines directly with the compartments whereby the air compressed therein, may be utilized in the engines, and means for exhausting the air by said engines into said compartments.

2. A vessel comprising a hull, a plurality of compartments therein open to the water, a plurality of closed compartments arranged adjacent the open compartments, one-way valves connecting said open and closed compartments, longitudinal shafts arranged to pass through said closed compartments, propellers upon said shafts, engines on said shafts having free communication with the air in said compartments, and exhaust pipes connected to said engines and to said open compartments, whereby the air utilized in said engines will be returned to the initial point of compression within the open compartments when the water recedes therein.

938,751. CURVING-MACHINE FOR SHEET MATERIAL. CLARENCE N. FREY, Cincinnati, Ohio, assignor to The J. M. Robinson Manufacturing Company, Cincinnati, Ohio, a Corporation of Ohio. Filed July 6, 1908. Serial No. 442,163.



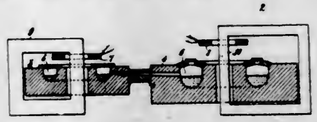
1. In a curving machine for sheet material, the combination of feeding rollers having mating annular grooves and beads normally located at the points of closest approach between said rollers in common planes parallel with the rotary axes of said rollers, meshing gearing between said rollers for driving one of said rollers from the other of said rollers, means for slipping one of the gears of said gearing between said rollers endwise with relation to said collective rollers out of mesh with its mate, and means for tilting one of said rollers from its geared end, and constructed and arranged for moving said movable gear endwise out of range of its mate for permitting the tilting of said tilting roller directly from its operative position, for the purpose specified.

2. In a curving machine for sheet material the combination of mating feeding rollers, shafts therefor, gearing for driving one of said shafts, mating gears on said shafts for driving the other of said shafts, said first-named gearing and mating gears being spaced apart endwise at one end of said rollers, link-mechanism extending between said first-named gearing and mating gears and having connection with one of said shafts for tilting the roller thereon; and one of said mating gears being slidable endwise on its shaft during maintenance of longitudinal position of the roller on said shaft for positioning the said gear out of lateral range of its mating gear during tilting of said roller, substantially as described.

3. In a curving machine for sheet material, the combination of a pair of feeding rollers, shafts therefor having axial extensions at one end of said rollers, gears mounted on said extensions, one of said gears having spline-connection with its extension for permitting the same to be moved endwise out of tilting range of its mating gear during maintenance of longitudinal position of said extension, a pivoted bearing in which the other of said shafts is journaled, and link-mechanism having connection with said extension of said last-named shaft for permitting tilting of said shaft and the roller thereon upon endwise movement of said endwise movable gear out of tilting range of its mating gear, substantially as described.

4. In a curving machine for sheet material, the combination of upper and lower mating feeding rollers, shafts therefor, a pivoted bearing and a multi-part bearing for the shaft of said upper roller, said multi-part bearing comprising a swinging block and securing means therefor, mating gears for said shafts, the pivotal axis of said pivoted bearing being between said mating gears and said rollers, the gear for said shaft of said lower roller being slidable endwise away from said roller out of range of the said gear for said shaft of said upper roller, and link-mechanism having connection with said shaft of said upper roller for tilting said upper roller upon said pivoted bearing and thereby swinging the gear thereon past said endwise movable gear when in shifted position, said link-mechanism comprising a segment-gear, a link articulated therewith and with said tilting shaft, a second segment-gear meshing with said first-named segment-gear, and a lever-arm for said second segment-gear, substantially as described.

938,752. METHOD OF WORKING METALS, ORES, AND THE LIKE. OTTO FAICK, Saltsjöbaden, Sweden. Filed Aug. 31, 1905. Serial No. 276,519.

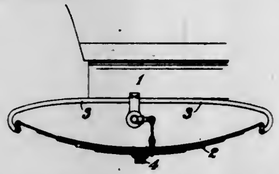


1. The method of increasing the power factor in treating ores and metals by means of electric transformer furnaces, which consists in melting the principal part of the charge in one transformer furnace, conveying the melted material from the said furnace into another transformer furnace adapted to hold an essentially larger charge than the former one, and refining and storing the said material in the said larger transformer furnace, substantially as and for the purpose set forth.

2. The method of increasing the power factor in treating ores and metals by means of electric transformer fur-

naces, which consists in melting the principal part of the charge in one transformer furnace, conveying the melted material from the said furnace into another transformer furnace adapted to hold an essentially larger charge than the former one, and storing the said material in the said larger transformer furnace, substantially as and for the purpose set forth.

938,753. MEANS FOR PREVENTING REBOUND IN VEHICLES. SAMUEL FURMIDGE, St. Louis, Mo., assignor to Supplementary Spiral Spring Company, St. Louis, Mo., a Corporation of Missouri. Filed Dec. 22, 1905. Serial No. 292,980.



1. In a device of the character described, the combination of a fixed friction plate, a movable friction plate, each being concave on the side adjacent its fellow, and a convex washer interposed between same.

2. In a device of the character described, the combination of a pair of concaved friction disks having a convex leather washer therebetween, the circumference of which is greater than that of said disks, means for holding said disks tightly against said washer, and means for moving one of said disks relative to the other.

3. In a device of the character described, the combination of a fixed friction member, a movable one, a cylinder, a bolt passing through said three members and causing said movable member to rotate, and means for actuating said bolt by said cylinder.

4. In a device of the character described, the combination of a fixed friction member, a movable one, a cylinder having a circumferential row of notches, a bolt passing through said three members and causing said movable member to rotate and means for actuating said bolt by said cylinder, said means riding freely over said notches while the vehicle body is descending but engaging same while it is rising.

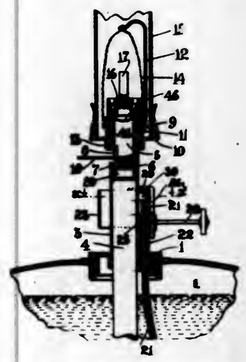
5. In a device of the character described, the combination of a fixed friction plate and a movable one, ratchet means for actuating said movable member, a depressible arm terminating in a collar encircling said ratchet, an offset from said collar, and a dog in said offset, by which said collar is locked to said ratchet, said members being thereby caused to rotate in unison.

[Claims 6 to 11 not printed in the Gazette.]

938,754. LAMP-BURNER. WILLIAM E. GARD, South Orange, N. J. Filed Apr. 9, 1908. Serial No. 426,107.

1. A burner for liquid fuel comprising in combination a burner base, a wick tube adapted to hold a main wick, a mixing chamber adapted to receive fuel vapor therefrom and provided with means for the introduction of air and with an opening at a point beyond where the air is introduced, auxiliary wick-holding means in effective heating proximity to such tube and mixing chamber arranged to hold an auxiliary wick adapted to project downward below the burner base, and means for raising and lowering said auxiliary wick comprising sealing means adapted to prevent escape of vapor from said auxiliary wick when lowered.

2. A burner for liquid fuel comprising in combination a burner base, a wick tube adapted to hold a main wick, a mixing chamber adapted to receive fuel vapor therefrom and provided with means for the introduction of air and with an opening at a point beyond where the air is introduced, an auxiliary wick in effective heating proximity to said tube and chamber, adapted to depend downward below the burner base, and means for raising and lowering said auxiliary wick, comprising sealing means adapted to prevent escape of vapor from said auxiliary wick when lowered.



3. A burner for liquid fuel comprising in combination a burner base, a wick tube adapted to hold a main wick, a mixing chamber adapted to receive fuel vapor therefrom and provided with means for the introduction of air and with an opening at a point beyond where the air is introduced, auxiliary wick-holding means in effective heating proximity to such tube and mixing chamber arranged to hold an auxiliary wick adapted to project downward below the burner base and means for raising and lowering said auxiliary wick comprising extinguishing means for said auxiliary wick.

4. A burner for liquid fuel comprising in combination a main wick tube, a mixing chamber adapted to receive fuel vapor therefrom and provided with means for the introduction of air and with an opening at a point beyond where the air is introduced, an auxiliary wick tube in effective heating proximity to said main wick tube and mixing chamber, adapted to contain a wick to support an auxiliary flame for heating the burner initially, and means for raising and lowering such auxiliary wick comprising an extinguishing cap adapted to close the top of such auxiliary wick tube.

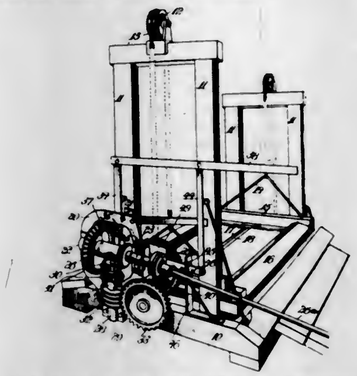
5. A burner for liquid fuel comprising in combination a main wick tube, a mixing chamber adapted to receive fuel vapor therefrom and provided with means for the introduction of air and with an opening at a point beyond where the air is introduced, an auxiliary wick tube in effective heating proximity to said main wick tube and mixing chamber, adapted to contain a wick to support an auxiliary flame and heating the burner initially, and means for raising and lowering such auxiliary wick comprising an extinguishing cap adapted to close the top of such auxiliary wick tube and provided with packing material.

[Claims 6 to 11 not printed in the Gazette.]

938,755. LIFTING APPARATUS. JOHN H. GILMAN, Ottawa, Ill., assignor to King & Hamilton Company, Ottawa, Ill., a Corporation of Illinois. Filed Sept. 6, 1904. Serial No. 223,489.

1. In a wagon dump, the combination with a frame, of a support vertically movable therein to raise the front end of a wagon box, a driving shaft, lifting means for the support, gearing between said shaft and lifting means, said gearing comprising a sleeve splined on said shaft and having two opposed bevel gear wheels of different sizes secured thereon, a second shaft provided with two bevel gears adapted to coöperate alternately with the opposed gears, and means for engaging one or the other of said bevel gears on the driving shaft with the coöperating bevel gear on the said second shaft.

2. In a wagon dump, the combination with a frame, of a support vertically movable therein to raise the front end of a wagon box, a driving shaft, lifting means for the support, gearing between the shaft and lifting means for moving the support in either direction or holding it from movement, and locking mechanism for holding the gearing positively in engagement until the limit of movement in one direction is reached, and then unlocking the gears and disengaging them to stop the movement.



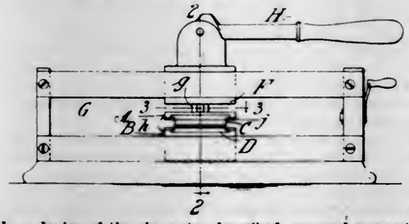
3. In a device of the class described, the combination with the supports, of a platform vertically movable between said supports, a driving shaft, lifting means for the platform, gearing between said shaft and lifting means, said gearing including a sleeve splined on said shaft and having opposed bevel gears thereon, a second shaft provided with gearing to coöperate with the opposed gears, and means for engaging one or the other of said bevel gears with the gearing on said second shaft.

4. In a device of the class described, the combination with the supports, of a platform vertically movable between said supports, a driving shaft, lifting means for the platform, gearing between said shaft and lifting means, said gearing including a sleeve splined on said shaft and having opposed bevel gears thereon, a second shaft provided with gearing to coöperate with the opposed gears, and means for shifting said sleeve to engage one or the other of said bevel gears with the gearing on said second shaft.

5. In a device of the class described, the combination with the supports, of a platform vertically movable between said supports, a driving shaft, lifting means for the platform, gearing between said shaft and lifting means, said gearing including a sleeve splined on said shaft and having opposed bevel gears thereon, a second shaft provided with gearing to coöperate with the opposed gears, and means for automatically shifting said sleeve at the end of the movement of the platform in one direction to automatically disengage the bevel gear wheels from the gearing on said second shaft.

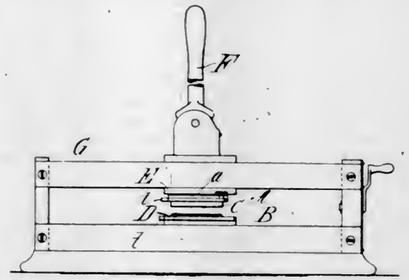
[Claims 6 to 26 not printed in the Gazette.]

938,756. DEVICE FOR IMPRESSING SEALS ON PAPERS. FELIX GOTTSCHALK, New York, N. Y. Filed Nov. 18, 1908. Serial No. 463,244.



In a device of the character described, opposed supports, one of which is movable toward the other and having means for operating it, said supports having opposite parallel portions provided with inwardly opening grooves having limiting stops at their rear parts and having spring pressed plungers located between their oppositely grooved portions and protruding in approached relations beyond the faces of the supports, the plates comprising companion dies edgewise slidably engaged in said groove portions of the supports and positioned in registry by said stops and having depressions, within their faces, which adjoin the supports, within which the protruding extremities of the plungers have snap catch engagements.

938,757. DEVICE FOR IMPRESSING SEALS ON PAPERS. FELIX GOTTSCHALK, New York, N. Y. Filed Dec. 19, 1908. Serial No. 468,281.



1. In a device of the character described, a die plate support having a stud extended perpendicularly from its face and the die plate provided with an edgewise opening slot and having at such slotted part a fulcrum engagement with said stud, said die plate having at a portion thereof opposite said slot an edgewise opening recess, the margins of which are rabbeted, and the support having another stud, provided with a head enlargement, to engagement with which the second named recessed portion of the plate may be swung.

2. In a device of the character described, a die plate support having a stud extending perpendicularly from its face, provided at a diagonally opposite portion with another stud having a head enlargement, and having, socketed within an intermediate portion thereof, a spring pressed detent stud protruding beyond and yielding relatively to its face, and a die plate provided at one corner thereof with an edgewise opening slot and having at such slotted part a fulcrum engagement with the first named stud, having at a portion diagonally opposite such slot an edgewise opening recess the margins of which are rabbeted and adapted to have, on a swinging movement of the plate, an engagement with the headed stud, and having in an intermediate portion of its face a depression in which said detent stud has a snap catch engagement.

3. In a device of the character described, opposed die-carrying supports, one of which is movable toward and away from the other, and operating means therefor,—and said supports having studs extending from their approached faces, die plates having edgewise opening slots which by their inner ends have fulcrum engagements with said studs, and also further having edgewise opening recesses with rabbeted margins, and each die plate being provided with a handle projection extending from its edge portion opposite the location of its slot, and further studs carried by and extended from the approached faces of said die carrying supports having head enlargements,—with the shanks of which said recesses of the said die plates are brought to engagements, and with the head enlargements of which the rabbeted marginal portions of the slots have engagements.

4. In a device of the character described, opposed die-carrying supports, one of which is movable toward and away from the other, and operating means therefor,—and said supports having studs extending from their ap-

proached faces, die plates having edgewise opening slots which by their inner ends have fulcrum engagements with said studs, and also further having edgewise opening recesses with rabbeted margins, and further studs carried by and extended from the approached faces of said die carrying supports having head enlargements,—with the shanks of which said recesses of the said die plates are brought to engagements, and with the head enlargements of which the rabbeted marginal portions of the slots have engagements.

5. In a device of the character described, opposed die-carrying supports, one of which is movable toward and away from the other, and operating means therefor,—and one of said supports having a stud extending from its face, a die plate having an edgewise opening slot which by its inner end has a fulcrum engagement with said stud and also having a remotely located edgewise opening recess with rabbeted margins, a further stud carried by and extended from the face of said die carrying support having a head enlargement,—with the shank of which said recess of the said die plate is brought to engagement, and with the head enlargement of which the rabbeted marginal portion of the slot has an engagement, and a spring-pressed detent-stud socketed in the die carrying support and yieldingly protruding beyond its die-plate receiving face, and a depression within the face of the die plate adjoining said support in which said detent stud has a snap-catch engagement.

938,758. METHOD OF MANUFACTURING CALCIUM-SILICON ALLOYS, &c. HANS GOLDSCHMIDT and OTTO WEIL, Essen-on-the-Ruhr, Germany, assignors to Th. Goldschmidt, Essen-on-the-Ruhr, Germany, a Firm. Filed June 29, 1908. Serial No. 440,803.

1. A process of increasing the amount of alkaline earth metal in alloys of silicon with alkaline earth metals by melting same with iron.

2. A process of increasing the amount of calcium in alloys of silicon with calcium by melting same with iron.

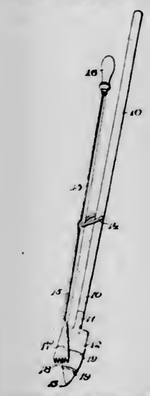
3. A process of increasing the amount of alkaline earth metal in alloys of a metal which reacts chemically with alkaline earth metals, consisting in melting said alloy with iron.

4. A process of increasing the amount of calcium in alloys of a metal which reacts chemically with calcium, consisting in melting said alloy with iron.

5. A process of increasing the amount of calcium in alloys of calcium-silicon with other metals by melting same with iron.

[Claims 6 to 8 not printed in the Gazette.]

938,759. WEEDER. GEORGE GREENE, Arlington, N. J. Filed Sept. 25, 1908. Serial No. 454,714.

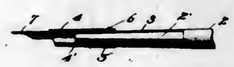


1. A weeder comprising a handle having a spade portion with transverse ribs thereon, a rod, a jaw on one end of the rod to engage the spade portion, and an open link passing through the handle and the rod and in swinging relation with both.

2. A weeder comprising a handle having a spade portion on one end, a rod, a jaw on the end of the rod adapted to engage the spade portion, a handle on the projecting end of the rod for its manual manipulation, a swinging connection between the handle and the rod, and transverse ribs on the spade portion any of the ribs being adapted to be engaged by the jaw.

3. A weeder comprising a handle having a spade portion on one end, the spade portion having transverse ribs and a handle, a rod having a jaw on one end, and a link connecting the handle and the rod at a distance from the spade and the jaw so that the handle and the rod are in swinging and pivotal connection and whereby the jaw is adapted to engage any of the ribs of the spade portion, whereby the jaw can engage the spade for its full length.

938,760. PENHOLDER. WILLIAM B. GROVER, Philadelphia, Pa. Filed May 28, 1908. Serial No. 435,532.



A pen holder having a tube at its extremity gradually contracted toward the pen holding end provided with a stud projecting therefrom, in combination with a split sleeve surrounding said tube and movable therealong, said sleeve being tapered gradually in conformity with said tube and holding by its spring action, a pen point between it and the tube, and having a recess on one edge thereof which when the sleeve is closed forms a slot to receive the stud on the interior tube, said sleeve fitting over the upper face of the pen point and adapted when shifted rearward to be disengaged from said pen point.

938,761. BEATER FOR HOG-SCRAPING MACHINES. WALTER GUSSENHOVEN, Chicago, Ill. Filed Mar. 15, 1909. Serial No. 483,495.



1. In a hog scraping machine the combination with a shaft, of means suitably secured to said shaft and having a portion bent in a direction opposite to the rotation of said shaft, and a beater one end of which is attached to said bent portion of said means and is provided with scrapers at its opposite free end.

2. In a hog scraping machine the combination with a shaft, of a bracket suitably secured to said shaft and having a portion bent in a direction opposite to the rotation of said shaft, and a beater one end of which is attached to the outer portion of said bracket and is provided with scrapers at its opposite free end.

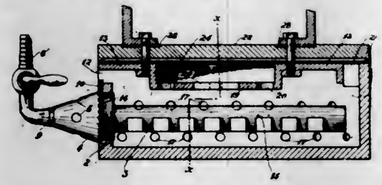
3. In a hog scraping machine the combination with a shaft, of an L-shaped arm or bracket, one member of which is secured to and projects from said shaft, and a flexible beater one end of which is secured to the outer surface of the outer laterally bent portion of the bracket which extends at an angle to the portion thereof secured to the shaft.

4. In a hog scraping machine the combination with a shaft, of an L-shaped bracket, one end of one portion of which is provided with a saddle having a concaved surface from which said bracket projects tangentially to said shaft, and the outer portion of which extends at an angle thereto and is substantially concentric with the shaft, and a flexible beater one end of which is secured to the outer surface of the last-mentioned portion of the bracket.

5. In a hog scraping machine the combination with a shaft, of a bracket one end portion of which is secured to and projects from said shaft and the opposite portion extends at an angle to said first-mentioned portion at a suitable distance from said shaft, and a flexible beater one end of which is secured to said latter portion.

[Claims 6 to 11 not printed in the Gazette.]

938,762. SAD-IRON. MICHAEL J. HABER, Chicago, Ill. Filed Dec. 11, 1908. Serial No. 467,103.



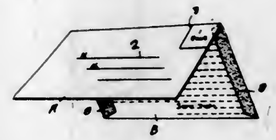
1. A sad iron of the class described, consisting of a shell provided with openings in the side and rear walls thereof, the central portion of the top wall thereof being provided with a laterally opening apertured depression, a burner longitudinally extending within said shell, the same being threaded into the rear end wall thereof, a lock-pin mounted in said rear end wall of said shell adapted to enter a groove provided in said burner when the latter is in correct position in said shell, and a superimposed plate, the same being provided with a depending peripheral flange adapted to rest upon the upper surface of said shell, substantially as described.

2. A sad iron of the class described, consisting of a shell provided with openings in the side and rear walls thereof, the central portion of the top wall thereof being provided with a laterally opening apertured depression, a burner longitudinally extending within said shell, the same being threaded in the rear end wall thereof, said burner consisting of an expansion chamber forming a forward end portion, laterally projecting downwardly opening nipples communicating with said chamber, and an enlarged apertured mixing chamber forming a rearward end portion, and a superimposed plate, the same being provided with a depending flange adapted to rest upon the upper surface of said shell, substantially as described.

3. A sad iron of the class described, consisting of a shell provided with openings in the side and rear walls thereof, the central portion of the top wall thereof being provided with a rectangular laterally opening apertured depression, a gas burner longitudinally extending within said shell, the same being threaded into the rear end wall thereof, a vertically disposed lock-pin slidably mounted in the said rear end wall of said shell, the lower end portion of said pin being adapted to engage a circumferential groove formed in the rearward end portion of said burner, a superimposed plate, a peripheral flange depending therefrom adapted to rest upon the upper surface of said shell, substantially as described.

4. A sad iron of the class described, consisting of a shell provided with openings in the side and rear wall thereof, the top wall thereof being provided with a laterally opening apertured depression, a gas burner longitudinally extending within said shell, the same being threaded into the rear end wall thereof, means slidably mounted in said wall for locking said burner against relative movement, said burner consisting of a substantially semi-cylindrical expansion chamber forming a forward end portion, laterally projecting downwardly opening nipples communicating with said chamber, and an enlarged conically formed mixing chamber forming a rearward end portion, and a dependingly flanged superimposed plate, the end of said flange being adapted to rest upon the upper surface of said shell, substantially as described.

938,763. SOUVENIR POST-CARD. ROSS HASBROUCK, Flushing, N. Y. Filed Nov. 27, 1908. Serial No. 464,683.



1. A souvenir post-card composed of a sheet of somewhat stiff paper having a median score-line dividing said sheet into two leaves adapted to be folded together, the one leaf having its exposed face provided with printed matter indicative of a space for a written address, one of the inner faces of the two leaves being substantially free of ornamentation to adapt the same for written communications, one of the remaining faces being imprinted with a souvenir design, and narrow flaps attached to the end-margins of one of said leaves by means of a score line extending at right angles to said first-mentioned score line, said flaps being gummed on one face only, neither of the longitudinal edges of said leaves being provided with adhesive or flaps, whereby the longitudinal edges of said leaves parallel with said median score-line will be disconnected and adapted to be sprung apart to permit an examination of the inner faces of said leaves.

2. A souvenir post-card composed of two folding leaves connected by a score-line, narrow flaps attached only to the end-margins of one of said leaves and connected thereto by a score line extending at right angles to said first-mentioned score line, said flaps being gummed on their exterior faces only, the exposed face of one leaf being adapted to receive the address, and one of the remaining faces of said leaves bearing a souvenir design.

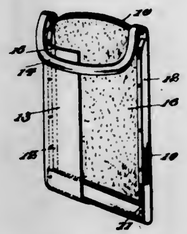
3. A souvenir post-card composed of a sheet of somewhat stiff paper having a median score-line dividing said sheet into two leaves adapted to be folded together, a narrow flap connected to the end-edge of one of said leaves by means of a score line extending at right angles to said first-mentioned score line whereby said flap may be folded over to bring one of its faces into contact with an opposite marginal portion of the other leaf, one of said contacting surfaces being provided with gum to enable them to be adhered, a second narrow flap connected and arranged in a counterpart manner to another end-edge of one of said leaves, whereby upon causing said two flaps to adhere to the adjacent leaves the third edges of said leaves free from flaps may be sprung apart to afford a ready inspection of the adjacent faces of the leaves, the exposed face of one leaf being adapted to receive an address, and one of the remaining faces bearing a souvenir design.

938,764. POCKET PENCIL-HOLDER. JACOB O. HEINLEY, Hutchinson, Kans. Filed Apr. 26, 1909. Serial No. 492,284.

1. A device of the character specified, comprising a metallic plate, an upwardly and forwardly curved end carried by said plate, a cover disposed about said plate, strips engaged adjacent the opposite edges of said plate within said cover to space the same from said plate, said cover having a cut away portion at its upper edge, and a strip of flexible material positioned against the inner face of said plate.

2. A pencil holder as specified, comprising a plate, an upwardly and outwardly turned portion disposed upon the lower end of said plate, a spring clip carried upon the

upper end of said plate and extended forwardly and downwardly therefrom, strips positioned upon the face of said plate adjacent the opposite edges thereof, and a cover disposed about said plate.



3. A holder as specified, comprising a plate, having an upturned lower edge, a cover disposed about said plate, strips positioned upon said plate adjacent the opposite edges of the same, and a spring clip mounted upon the upper end of said plate and curved forwardly and downwardly for engagement against the outer flap of a pocket.

4. A pencil holder including a rectangular metallic plate having its lower end curved upwardly and forwardly, a cover disposed about said plate and opened at its upper end, flexible strips positioned against the longitudinal edges of said plate to space the forward flap of said cover from said plate and a clip carried by said plate and curved forwardly and downwardly for engagement against the outer flap of a pocket.

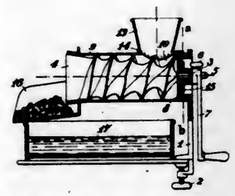
5. A pencil holder including a metallic plate having an upwardly curved lower end, a cover disposed about said plate and being cut-away at its upper forward side, strips engaged against the longitudinal edges of said plate upon the face thereof to space the forward wall of said cover from said plate and a clip carried by said plate for retaining the holder in position.

938,765. POULTRY-HANGER. LOUIS F. HENIG, Philadelphia, Pa. Filed Jan. 12, 1909. Serial No. 471,857.



A hanger designed for clamping both legs of a fowl, comprising a single piece of spring wire, having its ends in alinement, forming in effect a continuous wire bent at one end as shown, forming a hanger, at its other end bent forming two spring clamps, adapted to clamp the legs of a fowl, and between the ends bowed outward and apart forming an entrance for the legs of a fowl, to guide the legs into the clamps, said clamps separated by an upwardly projecting tongue formed by the wire, substantially as and for the purpose set forth.

938,766. MACHINE FOR STRAINING, MASHING, GRATING, AND CHOPPING. EMIL HUBERT, Budapest, Austria-Hungary. Filed May 12, 1909. Serial No. 495,381.



1. In a machine for straining, mashing, grating and chopping food, having a worm the thread of which is externally cylindrical and becomes gradually shallower and of shorter pitch toward the outlet end of the machine, the combination of a perforated cylinder to surround said worm, a detachable hopper to said cylinder and means for rotating the said worm within the said cylinder, a flared conical end to the said worm and a similarly shaped non-perforated end to the cylinder.

2. In a machine for straining, mashing, grating and chopping food, having a worm the thread of which is externally cylindrical and becomes gradually shallower and of shorter pitch toward the outlet end of the machine, the combination of a perforated cylinder having a non-perforated flared end to surround said worm, a detachable hopper to said cylinder and means for rotating the said worm within the cylinder, a tray at the rear of the cylinder to receive the residue coming from the cylinder and a receptacle underneath the said cylinder to receive the treated substance.

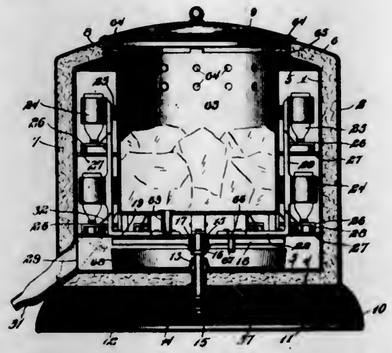
3. In a machine for straining, mashing, grating and chopping food, having a worm the thread of which is externally cylindrical and gradually shallower and of shorter pitch toward the outlet end of the machine, the combination of a perforated cylinder having a non-perforated flared end to surround said worm, a detachable hopper to said cylinder and means for rotating the said worm within the said cylinder, a second perforated cylinder to move on said first mentioned one and means for coupling the same to the worm substantially as described.

4. In a machine for straining, mashing, grating and chopping food, having a worm the thread of which is externally cylindrical and becomes gradually shallower and of shorter pitch toward the outlet end of the machine, the combination of a perforated cylinder having a non-perforated flared end to surround said worm, a detachable hopper to said cylinder a wire attached to the lower end of said hopper and having its forward ends bent downwardly, a front frame plate having holes to receive said wire ends, said wire ends being adapted to pass through corresponding holes in the said perforated cylinder substantially as described.

938,767. VENDING-MACHINE. GRAY F. JOHNSON, Thomson, Ga., assignor to M. W. Turner and J. A. Harris, Thomson, Ga. Filed Feb. 11, 1909. Serial No. 477,309.

1. A vending machine comprising a casing provided with a discharge opening, a package carrier rotatably mounted within the casing, a gear wheel fixed to the package carrier, an electric motor geared to the gear wheel, an electric circuit in which the motor is included, said circuit being normally open, a pivotally mounted lever adapted to close the circuit when depressed, a spring supporting the lever, a detent wheel provided with a pinion meshing with the gear wheel, said detent wheel being provided with a recess, and a detent carried by the lever for engagement with the recess of the detent wheel.

2. A vending machine comprising a casing provided with a discharge opening, a plurality of supports rotatably mounted in the casing, package receivers secured to the supports, pivotally mounted arms supporting the packages in the receivers, a track supporting the arms, said track being provided with a cut out portion alined with the discharge opening, means for rotating the supports, and means for controlling the rotating means.



3. A vending machine comprising a casing provided with a discharge opening, a plurality of supports rotatably mounted within the casing, a pair of package receivers secured to each support, arms pivotally secured to the supports and supporting the packages in the receivers, tracks supporting the arms, the lower track being provided with a cut away portion alined with the discharge opening, the upper track being provided with a cut away portion out of alinement with the cut away portion of the lower track, means for rotating the supports, and means for controlling the rotating means.

4. A vending machine comprising a casing provided with a discharge opening, a shaft journaled in the casing, a platform secured to the shaft, a plurality of standards secured to the platform, a pair of package receivers secured to each standard, a pair of arms pivotally secured to each standard and supporting the packages in the receivers, springs secured to the standards and to the arms, tracks supporting the arms, one of the tracks being provided with a cut away portion alined with the discharge opening, the other track being provided with a cut away portion out of alinement with the cut away portion of the first-named track, means for rotating the platform, and means for controlling the rotating means.

5. A vending machine comprising a casing provided with a discharge opening, a shaft journaled in the casing, a platform secured to the shaft, standards secured to the platform, package receivers secured to the standards, arms pivotally secured to the standards and supporting the packages in the receivers, springs secured to the standards and to the arms, tracks arranged within the casing and provided with cut away portions, rollers journaled on the arms and traveling on the tracks, an ice receptacle arranged within the casing, a gear wheel fixed on the shaft, an electric motor, a gear wheel fixed on the armature shaft of the motor and meshing with the first-named gear wheel, an electric circuit in which the motor is included, said circuit being normally open, a lever adapted to be depressed to close the circuit, means for supporting the lever, a detent wheel provided with a pinion meshing with the first-named gear wheel and with a recess, and a detent carried by the lever for engagement with the recess of the detent wheel.

[Claims 6 to 11 not printed in the Gazette.]

938,768. METAL MOLDING. PAUL T. KENNY, New York, N. Y. Filed Nov. 24, 1908. Serial No. 464,294.

1. A metal molding adapted to carry electric wires or to serve as a picture molding, consisting of a trough-shaped body and a cover therefor, said body being bent from sheet metal to present interiorly a plurality of grooves for the reception of electric wires, and a ridge separating said grooves, said ridge forming a groove on the underside of the body which is constricted to receive and hold the heads of fastening devices projecting from a suitable base.

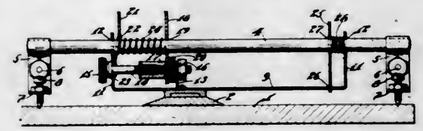


2. A metal molding adapted to carry electric wires or to serve as a picture molding, consisting of a trough-shaped body and a cover therefor, said body being bent from sheet metal to present interiorly a plurality of grooves for the reception of electric wires, and a ridge separating said grooves and forming a groove on the underside of the body, said ridge being wider above than below, whereby said grooves are constricted for the secure retention of the wires and the groove formed by said ridge on the underside of the body is constricted to receive and hold the heads of fastening devices projecting from a suitable base.

3. A metal molding adapted to carry electric wires or to serve as a picture molding, consisting of a trough-shaped body and a cover therefor, said body being bent from sheet metal to present interiorly a plurality of grooves for the reception of electric wires, and a ridge separating said grooves, said ridge forming a groove on the underside of the body which is constricted to receive and hold the heads of fastening devices projecting from a suitable base and is provided at intervals with enlarged entrances for such heads.

4. A metal molding adapted to carry electric wires or to serve as a picture molding, consisting of a trough-shaped body and a cover therefor, said body being bent from sheet metal to present interiorly a plurality of grooves for the reception of electric wires, and a ridge separating said grooves, said ridge forming a groove on the underside of the body which is constricted inside the mouth to receive and hold the heads of securing devices projecting from a suitable base.

938,769. SECTION-LINER. EDGAR B. KERST, Philadelphia, Pa. Filed Mar. 8, 1909. Serial No. 481,975.



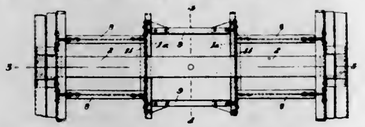
1. In a device of the character described, the combination with a supporting rod, a frame mounted to move upon said rod, clamping levers connected with said frame and mounted on the rod, a spring between said clamping levers, a screw threaded rod supported in the frame, a sleeve on one of said clamping levers adapted to engage the other and limit the movement of said levers toward each other, and means for adjusting said sleeve on said rod.

2. In a device of the character described, the combination with a supporting rod, a frame mounted to move upon said rod, clamping levers connected with said frame and mounted on the rod, a spring between said clamping levers, a screw threaded rod supported in the frame, a sleeve on one of said clamping levers adapted to engage the other and limit the movement of said levers toward each other, said sleeves having internal screw threads to mesh with the screw threads on said threaded rod, a milled head on said screw threaded rod, and a milled adjusting nut on said rod back of the sleeve, whereby said sleeve may be adjusted and its length of movement limited.

3. In a device of the character described, the combination with a supporting rod, of a frame mounted to move

upon said rod, clamping levers connected with said frame and mounted on the rod, a spring between said clamping levers, an adjusting rod supported in the frame, a sleeve fixed on one of said clamping levers adjustable on the rod, and adapted to limit the movement of said clamping levers toward each other, a milled head on said adjusting rod, and a milled adjusting nut on said rod back of the sleeve, whereby said sleeve may be adjusted on the rod to adjust the length of the movement of the frame.

938,770. BOLSTER CONSTRUCTION FOR CAR-UNDERFRAMES. FELIX KOCH, Bellevue, Pa., assignor to Pressed Steel Car Company, Pittsburg, Pa., a Corporation of New Jersey. Original application filed May 19, 1908, Serial No. 433,664. Divided and this application filed Apr. 19, 1909. Serial No. 490,699.



1. In a car bolster, tension and compression members and center sill section connecting members forming struts between said tension and compression members.

2. In a bolster for cars having center sills, tension and compression members, and beams extending beyond said tension and compression members in a line transverse said members and secured to the car center sills, said beams forming struts for said bolster.

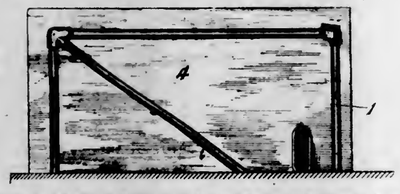
3. A railway car bolster, in combination with a center sill comprising a main section on each side of said bolster and a separate and independent section connecting said main sections extending through said bolster.

4. A railway car bolster, in combination with a center sill construction comprising two pairs of main sections, each pair of sections being separated by said bolster and a pair of separate and independent sections connecting the sections of each main pair and extending through said bolster.

5. In a car bolster, a center sill comprising a plurality of main sections and a uniting section of less depth than said main sections, a truss member extending between said main sections above said uniting sections, and a second truss member extending beneath said center sill.

[Claims 6 to 9 not printed in the Gazette.]

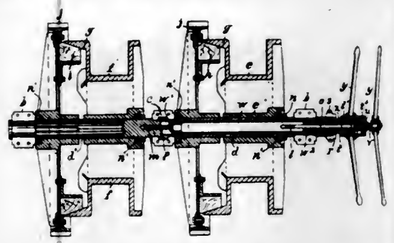
938,771. STAIR-GUARD. JOSEPH LALONDE, Montreal, Quebec, Canada. Filed Aug. 10, 1908. Serial No. 447,852.



1. In a stair guard of the character described, a movable frame, a trapdoor, means for raising said movable frame comprising multiplying sheaves connected to the frame of the stairway and to the trap door respectively, and a rope connected to the frame and passing over the sheaves, and means for holding the frame in raised position.

2. In a stair guard of the character described, a movable frame, a trapdoor, means for raising said movable frame comprising multiplying sheaves connected to the frame of the stairway and to the trap door respectively, a rope connected to the frame and passing over the sheaves, an arm pivotally connected to the frame, and means for connecting the arm to the trapdoor.

938,772. DUPLEX THRUST DEVICE FOR FRICTION-CLUTCHES. ASHER LAMBERT, Newark, N. J. Filed Feb. 27, 1909. Serial No. 480,321.



1. The combination, with two drums mounted adjacent upon the same axial line, of gearing to rotate the drums, two clutches for engaging the gearing with the drums independently, two separate clutch-shifters mounted at the outer end of one of the drums for actuating the two clutches, and one of the shiffers having means operating through the center of the said drum to actuate the clutch of the other drum.

2. The combination, with two drums and a divided shaft supporting them in the same axial line, of gearing to rotate the drums, two clutches upon the shaft for engaging the gearing with the drums independently, two screw clutch-shifters at the outer end of one of the drums, provided with connections inside the shaft to operate upon the two clutches, and means for turning the two screws separately to clutch either of the drums with the gearing independently of the other drum.

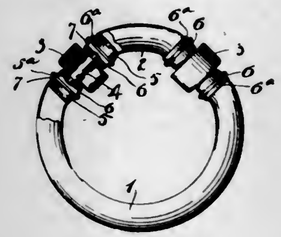
3. The combination, with two drums and a divided shaft supporting them in the same axial line, of gearing to rotate the drums, two clutches upon the shaft for engaging the gearing with the drums independently, two screw clutch-shifters at the outer end of one of the drums to operate the clutches, the shaft within said drum being tubular and being supported by a bearing near the end of the drum, a stationary "claw" at the end of said tubular-shaft, one of such clutch-shifters consisting of a central screw carried by the "claw" with connection to one of the clutches, and the other clutch-shifter consisting of a male screw held stationary upon the said bearing with a nut movable thereon, and connection from said nut to the other clutch, whereby either drum may be clutched to the gearing independently.

4. The combination, with two drums and a divided shaft supporting them in an axial line, of gearing to rotate the drums, two clutches upon the shaft for engaging the gearing with the drums independently, two screw clutch-shifters at the outer end of one of the drums to operate the clutches, the shaft within said drum being tubular, a stationary "claw" at the end of said tubular-shaft provided with external and internal screw-threads with internal and external screws fitted to the said threads, and means operating through the tubular-shaft for connecting the two clutches with the external and internal screws, whereby either drum may be clutched to the gearing independently of the other.

5. The combination, with two drums and a divided shaft supporting them in an axial line, of gearing to rotate the drums, two clutches upon the shaft for engaging the gearing with the drums independently, two screw clutch-shifters at the outer end of one of the drums to operate the clutches, the shaft within said drum being tubular, a stationary "claw" at the end of said tubular shaft provided with external and internal screw-threads, sliding-studs inserted longitudinally through the "claw" between such internal and external screw-threads, and means connecting such studs with the clutch of one of the drums, an inner push-pin in the center of the shaft with connections to the other clutch, an internal screw in the center of the "claw" to press upon the inner push-pin, and an annular screw or nut fitted to the external thread upon the "claw" and having a collar to press upon the sliding-studs, whereby the clutches are independently actuated by two screws at one end of the shaft.

[Claims 6 to 10 not printed in the Gazette.]

938,773. TRAVERSE-RING. FRANK L. LATHROP and HENRY E. CHASE, Wallingford, Conn., assignors to H. L. Judd Company, Wallingford, Conn., a Corporation of New York. Filed May 24, 1909. Serial No. 498,015.



1. In a curtain ring, two tubular ring sections, means for connecting the ends of said sections, said means including a bearing shaft projecting from one section, means for connecting said shaft to the other section, said means including a shouldered abutment on said shaft, a cupped coupling mounted on said shaft and held against said shouldered portion, a reinforcing washer within said cupped coupling and mounted on said shaft, the extremity of said shaft being upset to hold said washer in place, an outward flange on the end of the ring section adjacent said cupped coupling, a reinforcement within said flanged end of said ring section, the outer edge of said cupped coupling being drawn in to rigidly embrace said flanged end, and an anti-friction device mounted on said shaft.

2. In a curtain ring, two tubular ring sections, means for connecting the ends of said sections to form a ring, including a bearing shaft, an anti-friction device mounted thereon for rotation, each end of each ring section being flanged outwardly, a reinforcement within each of said flanged ends to resist crushing strain, a shoulder on each end of each shaft, a coupling cup secured upon each end of each shaft, means for holding said coupling cup in place, a portion of said coupling cup extending around and rigidly embracing the adjacent flanged end of one of the ring sections.

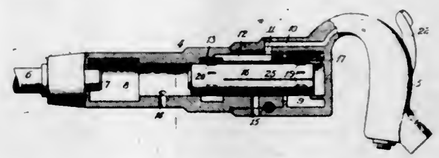
3. In a curtain ring, two tubular ring sections, means for connecting the ends of said sections to form a ring, including a bearing shaft, an anti-friction device mounted thereon for rotation, each end of each bearing shaft being reduced in diameter to form a shoulder, a cupped coupling mounted upon the reduced end of each shaft, a washer mounted upon each reduced shaft end inside of the coupling cup thereon, said washer being secured to said shaft to rigidly hold said cupped coupling thereon, a shoulder intermediate the length of said cupped coupling, said shoulder being formed by flanging said cupped coupling outwardly, each end of each ring section being flanged outwardly to fit within the outer end of an adjacent coupling cup and bearing against the shoulder therein, the extreme edge of each coupling cup being clenched down around the flange of the adjacent ring section to rigidly connect the parts.

4. In a curtain ring, two tubular ring sections, means for connecting one section to the other, including a bearing shaft for an anti-friction device, a cupped coupling mounted upon one end of said shaft, and means for rigidly connecting the same thereon, a shoulder within said cupped coupling formed by flanging said coupling outwardly, an outwardly directed flange on the end of the adjacent tubular section, said flange resting against said shoulder, the extreme edge of said cupped coupling being forced into intimate contact with the external wall of said section to rigidly connect said shaft end and tubular section end.

5. In a curtain ring, two tubular ring sections, means for connecting one section to the other, including a bearing shaft for an anti-friction device, a cupped coupling mounted upon one end of said shaft, and means for rigidly connecting the same thereon, a shoulder within said cupped coupling formed by flanging said coupling outwardly, an outwardly directed flange on the end of the adjacent tubular section, said flange resting against said shoulder, the extreme edge of said cupped coupling being forced into intimate contact with the external wall of said section to rigidly connect said shaft end and tubular section end, and a reinforcement within the end of the tubular section to resist crushing strain.

[Claims 6 to 8 not printed in the Gazette.]

938,774. PNEUMATIC TOOL. HERMAN LEINEWEBER, Chicago, Ill. Filed Jan. 17, 1907, Serial No. 352,670. Renewed Feb. 23, 1909. Serial No. 479,540.



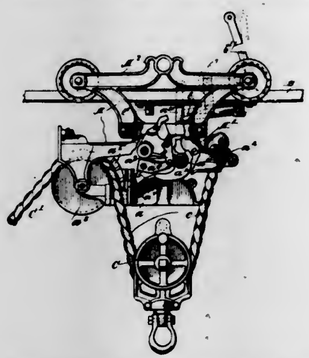
1. In a pneumatic tool, the combination of a handle-equipped casing carrying the tool and provided with an air-pressure inlet, end-chambers and an intermediate feeding-chamber for the air-pressure in the casing, said feeding-chamber communicating with said inlet, a piston reciprocably confined in the casing, having a duct terminating at its ends in lateral openings in the piston to register with said feeding-chamber, and a needle-like passage extending lengthwise of the piston, with one end communicating with an end-chamber, and connecting said last-named chamber with said intermediate chamber, for the purpose set forth.

2. In a pneumatic tool, the combination of a handle-equipped casing carrying the tool and provided with an air-pressure inlet, end-chambers and an intermediate feeding-chamber for the air-pressure in the casing, said feeding-chamber communicating with said inlet, a piston reciprocably confined in the casing, having a duct terminating at its ends in lateral openings in the piston to register with said feeding-chamber, and a needle-like passage extending lengthwise of the piston, with one end leading to the rear end-chamber, and connecting said last-named chamber with said intermediate chamber, for the purpose set forth.

3. In a pneumatic tool, the combination of a handle-equipped casing carrying the tool and provided with an air-pressure inlet, end-chambers and an intermediate feeding-chamber for the air-pressure in the casing, said feeding-chamber communicating with said inlet, a piston reciprocably confined in the casing, having a duct terminating at its ends in lateral openings in the piston to register with said feeding-chamber, and a needle-like passage formed in the piston lengthwise thereof and extending from a point between its ends to its rear end, for the purpose set forth.

4. In a pneumatic tool, the combination of a handle-equipped casing carrying the tool and provided with an air-pressure inlet, end-chambers and an intermediate feeding-chamber for the air-pressure in the casing, said feeding-chamber communicating with said inlet, a piston reciprocably confined in the casing, having a duct terminating at its ends in lateral openings in the piston to register with said feeding-chamber, and a needle-like passage consisting of a groove in the piston-surface extending from near its forward end, a transverse bore in the piston with which the rear end of said groove connects, and a bore extending in the piston from its rear end to the inner end of said transverse bore, for the purpose set forth.

938,775. HAY-CARRIER. SAMUEL P. LERCH, Canton, Ohio. Filed Dec. 21, 1908. Serial No. 468,438.



1. In a device of the character described, the combination of a carriage, a pulley borne thereby, a hoisting cable secured at one end to said carriage and passing over said pulley, and two members pivotally mounted in said carriage, their free ends extending upwardly adjacent to the curved edge of said pulley and on opposite sides of said cable so as to grip the latter upon being moved inwardly.

2. In a device of the character described, the combination of a carriage, a pulley borne thereby, a hoisting cable secured at one end to said carriage and passing over said pulley, means adapted to grip said cable to sustain the looped portion thereof at any desired elevation, manually operable means adapted directly thus to actuate said gripping means, and other means adapted automatically to release the latter.

3. In a device of the character described, the combination of a carriage, a pulley borne thereby, a hoisting cable secured at one end to said carriage and passing over said pulley, two members mounted in said carriage on opposite sides of said cable and adapted to grip the latter to sustain the looped portion thereof at any desired elevation, manually operable means adapted directly thus to actuate said gripping means, and other means adapted automatically to release the latter.

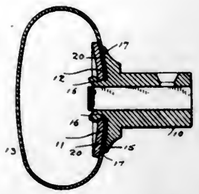
4. In a device of the character described, the combination of a carriage, a pulley borne thereby, a hoisting cable secured at one end to said carriage and passing over said pulley, two members mounted in said carriage on opposite sides of said cable and adapted to grip the latter to sustain the looped portion thereof at any desired elevation, manually operable means adapted directly thus to actuate said gripping means, and other means adapted automatically to release the latter, said last-named means being movable out of operative position when desired.

5. In a device of the character described, the combination of a carriage, a pulley borne thereby, a hoisting cable secured at one end to said carriage and passing over said pulley, a block carried by the looped portion of said cable, a hook pivoted in said carriage and adapted to engage said block, a dog adapted to lock said hook in its operative position, and means adapted to grip said cable to sustain the looped portion thereof at any desired elevation, said means being connected with said hook so as to be thus actuated upon movement of the latter into its operative position.

[Claims 6 to 10 not printed in the Gazette.]

938,776. DOOR-KNOB. HENRY S. LOCKWOOD, South Norwalk, Conn. Filed June 15, 1908. Serial No. 438,495.

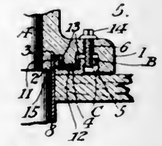
1. A knob comprising a shank having a collar and a neck, a washer of less diameter than the collar and having an irregular shaped edge, and an inner washer of greater diameter than the said irregular washer, both rigidly secured to the neck with the irregular washer between the inner washer and said collar leaving a circular recess between the collar and the inner washer around the irregular washer, and a shell having an opening, the edge around said opening occupying said recess and engaging the said irregular washer.



2. A knob comprising a shank having a collar and a neck, a washer of less diameter than the collar and having a serrated edge and an angular opening with rounded corners, and an inner washer of greater diameter than the serrated washer and having a similar opening, said washers being mounted on the neck, portions of the metal of the neck being spread out and securing said washers in position, and a shell having an opening, the edge around said opening being located between the margins of the collar and inner washer and engaging the edge of the serrated washer.

3. The combination with a seamless wrought-metal knob-grip having a concentric opening in its inner face, of a washer-like locking plate inserted in the said opening and having its edge formed with points which are embedded in the edge of the grip, and a shank rigidly mounted in the said locking-plate against rotary and longitudinal movement.

938,777. WATER-CLOSET-OUTLET CONNECTION. CHARLES H. MOORE, New York, N. Y. Filed June 17, 1908. Serial No. 438,980.



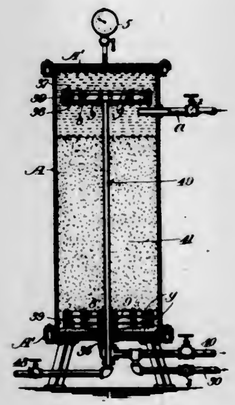
1. In a connection between water-closet bowls and soil-pipes, the combination with the bowl having two downwardly opening grooves in its base formed by an annular flange on its outer edge, an annular flange or spud on the edge of its discharge orifice extending into the soil-pipe and a ring intermediate said flanges, an imperforate annular floor-plate adapted to be secured on the upper end of the soil-pipe and having an upwardly opening groove into which the ring of the base extends, said groove being formed by imperforate annular flanges on its inner and outer edges, means securing said base and floor plate together and a liquid filled compressible washer located in the groove in the floor-plate and compressed between the bottom of its groove and the end of the ring, thereby forming within the groove in the floor-plate, on each side of said ring, a combined solid and liquid seal and a tight connection between said base and the floor-plate, substantially as described.

2. In a connection between water-closet bowls and soil-pipes, the combination with the bowl having two downwardly opening grooves in its base formed by an annular flange on its outer edge, an annular flange or spud on the edge of its discharge orifice extending into the soil-pipe and a ring intermediate said flanges, an annular flanged floor-plate adapted to be secured on the upper end of the soil-pipe and having an upwardly facing recess the wall of which is imperforate, and into which the ring of the base extends, means securing said base and floor-plate together, and a liquid-filled compressible washer located in the recess in the floor-plate and compressed between the bottom of its recess and the end of the ring, thereby forming within the recess in the floor-plate, on each side of said ring, a combined solid and liquid seal and a tight connection between said base and the floor-plate, substantially as described.

3. In a connection between water-closet bowls and soil-pipes, the combination with the bowl having an annular spud projecting downwardly from its base on the edge of its discharge orifice and extending into the soil pipe and a ring also projecting downwardly from said base, an imperforate annular floor plate adapted to be secured on the upper end of the soil pipe and having an upwardly opening groove into which the downwardly projecting ring of the base extends, said groove being formed by imperforate annular flanges on its inner and outer edges, means securing said base and floor plate together and a liquid filled compressible washer located in the groove in the floor-plate and compressed between the bottom of its groove and the end of the downwardly projecting ring, thereby forming within the groove in the floor-plate, on each side of said ring, a combined solid and liquid seal and a tight connection between said base and the floor-plate, substantially as described.

4. In a connection between water-closet bowls and soil pipes, the combination with the bowl having an annular spud projecting downwardly from its base on the edge of its discharge orifice and extending into the soil pipe and a ring also projecting downwardly from said base, an annular flanged floor-plate adapted to be secured on the upper end of the soil-pipe and forming an upwardly opening groove, the walls of which are imperforate, and into which the downwardly projecting ring of the base extends, means securing said base and floor-plate together, and a liquid filled compressible washer located in the groove in the floor-plate and compressed between the bottom of its groove and the end of the downwardly projecting ring, thereby forming within the groove in the floor-plate, on each side of said ring, a combined solid and liquid seal and a tight connection between said base and the floor-plate, substantially as described.

938,778. WATER-PURIFIER. JAMES W. MORRISON, Batavia, N. Y., assignor to Steam Appliance Manufacturing Company, Batavia, N. Y., a Corporation of New York. Filed Nov. 14, 1908. Serial No. 462,582.



1. In a water purifier, the combination of a vessel adapted to receive the water to be purified, a granular filter-bed therein and partially filling the same, strainers in the upper and lower portions of the vessel one of said strainers underlying the filter-bed and the other strainer being supported above the normal level of said bed, and a pipe extending between the upper and lower strainers and forming a support for the upper strainer, an inlet pipe leading into the vessel above the level of the filter-bed and a discharge pipe receiving the water which passes through the lower strainer.

2. In a water purifier, the combination of a vessel adapted to receive the water to be purified, said vessel containing a granular filter bed which only partially fills it, concentric discharge pipes entering the bottom of the vessel, one of said pipes terminating near the bottom of the vessel and the other pipe extending through the filter bed to a point above the same, and hollow strainers fixed to the upper ends of said pipes, said pipes having their upper ends in open communication with the interior of the strainers.

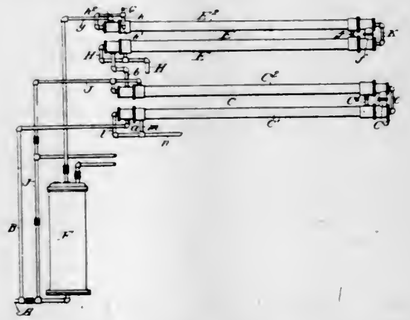
3. In a water purifier, the combination of a vessel adapted to receive the water to be purified, said vessel containing a granular filter bed which only partially fills it, concentric discharge pipes entering the bottom of the vessel, one of said pipes terminating near the bottom of the vessel and the other pipe extending through the filter bed to a point above the same, and hollow strainers fixed to the upper ends of said pipes, said pipes having their upper ends in open communication with the interior of the strainers, one of said pipes serving as a discharge for filtered water and also as an inlet for flushing water, and the other pipe serving as a blow-off for accumulated foreign matter carried by the flushing water.

4. In a water-purifier, the combination with a vessel adapted to receive the water to be purified, said vessel containing a granular filter-bed which only partially fills it, and upper and lower double-strainers, said upper strainer being disposed in the space above the filter-bed, and said lower strainer underlying the filter-bed, each of said strainers having an interior chamber, a discharge pipe for supporting the lower strainer, and a discharge pipe extending to the upper portion of the filter and supporting the upper strainer.

5. In a water purifier, the combination of a vessel adapted to receive water to be purified, a filter medium therein, a discharge pipe entering the bottom of the vessel and terminating at a point above the same, and a hollow strainer fixed to the upper end of said pipe, said strainer including open frames and reticulated material and an open frame introduced between the strainer frames and separating the latter to form an intermediate chamber, said discharge pipe communicating with said intermediate chamber.

[Claims 6 and 7 not printed in the Gazette.]

938,779. PROCESS OF PURIFYING WATER. JAMES W. MORRISON, Batavia, N. Y., assignor to Steam Appliance Manufacturing Company, Batavia, N. Y., a Corporation of New York. Filed Mar. 30, 1909. Serial No. 486,699.



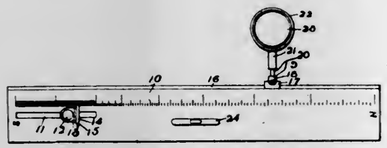
1. The process herein described of purifying water, said process consisting in heating the water under pressure to a temperature in excess of 300° F. so that its contained normally soluble matters become insoluble and precipita-

table, and then while they are in their highly heated insoluble condition under pressure, removing said insoluble matter by filtration.

2. The process herein described of purifying water, said process consisting in heating the water under pressure to a temperature in excess of 300° F. so that its contained normally soluble matters become insoluble and precipitatable, and then while they are in their highly heated insoluble condition under pressure, removing said insoluble matter by filtration, and then pre-heating unfiltered water by the contained heat of the filtered water.

3. The process herein described of purifying water, said process consisting in heating the water under pressure to a temperature in excess of 300° F. so that its contained normally soluble matters become insoluble and precipitatable, and then while they are in their highly insoluble condition under pressure, removing said insoluble matter by filtration, and then flowing the heated filtered water and unfiltered cold water in opposite directions in passages cut off by a dividing wall, whereby the filtered water is cooled and the heat given up to the unfiltered water serves to pre-heat the same for subsequent super-heating.

938,780. NAUTICAL INSTRUMENT. CLARENCE A. MCCALLISTER, Marietta, Wash. Filed Oct. 10, 1908. Serial No. 457,134.



1. A device of the character described comprising a base having a scale of degrees of latitude marked thereon and a scale of the days of the year included between the longest and the shortest day, a vertically disposed arm adjustably secured at one end of said base adapted to be adjusted to the scale of days, an indicator disposed across the upper extremity of said arm and a set screw for adjustably securing said arm upon said base.

2. An instrument of the class described comprising a base, having a scale of degrees of latitude marked thereon and a scale of days disposed at one end thereof, a vertically disposed arm adjustably secured at one end of said base adjacent said scale of days and an indicator disposed across the upper extremity of said arm for projecting a shadow across the scale of degrees of latitude on said base.

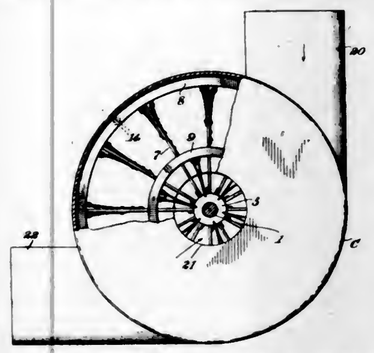
3. In a device of the class described the combination with a base and a spirit level mounted in said base of a scale of latitude, a scale of days, said scales marked off on said base and an adjustable arm disposed in adjustable relation to said scale of days toward one end of said base.

4. A device of the character described comprising a base, a spirit level on said base, a scale of latitude on said base, a scale of days on said base, an arm upwardly extended and adjustably supported on said base in relation to said scale of days, forked arms formed upon the upper end of said arm and an indicator disposed across said forked arms.

938,781. MINE-VENTILATOR. MARTIN T. MCDONOUGH, Beckley, W. Va. Filed May 5, 1909. Serial No. 494,121.

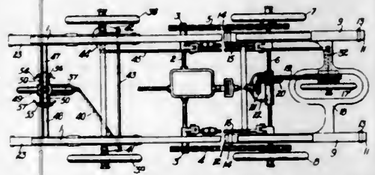
1. A centrifugal fan wheel embodying an outer series of blades, an inner series of blades, and a housing for said wheel provided with a side eye leading to the inner series of blades, and with an independent admission opening leading to the outer series of blades.

2. A centrifugal fan wheel, embodying an outer series of blades, and an inner series of blades, the said blades of



both series being formed with oppositely curved faces, the blades of the inner series alternating with the blades of the outer series.

938,782. RUNNING-GEAR FOR VEHICLES. ISAAC E. PALMER, Middletown, Conn. Filed Feb. 17, 1908. Serial No. 416,170.



1. Running gear for trackless power driven vehicles comprising a truck movable with respect to the body frame and connected to the rear thereof, three wheels mounted upon said truck, two of said wheels being at opposite sides of said vehicle one of said wheels being arranged between the sides of the vehicle so as not to track with the said other wheels of said truck, and means to drive a plurality of wheels of said truck including said non-tracking wheel.

2. Running gear for trackless, power driven vehicles comprising a truck movable with respect to the body frame and connected thereto, three driven wheels mounted upon said truck, two of said wheels being in transverse alinement, and the third wheel not tracking with said transversely alined wheels, and a plurality of wheels coöperating with said first mentioned wheels to support the vehicle.

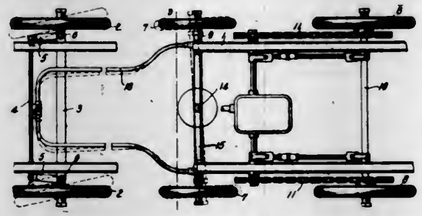
3. Running gear for trackless, power driven vehicles comprising a truck movable with respect to the body frame and connected to the rear thereof, an odd number of wheels mounted upon said truck, one at least of said wheels being intermediate the paths of the other wheels and laterally deflected with respect to the longitudinal axis of the vehicle, two or more forward wheels, and connecting means for positively deflecting said forward wheels and said intermediate rear wheel.

4. Running gear for trackless, power driven vehicles comprising a truck movable with respect to the body frame and connected to the rear thereof, an odd number of wheels mounted upon said truck, one at least of said wheels being intermediate the paths of the other wheels and to the rear thereof, said intermediate wheel being positively driven, two or more forward wheels, and connecting means for positively deflecting said forward wheels and said intermediate rear wheel.

5. Running gear for trackless, power driven vehicles comprising a truck movable with respect to the body frame and connected to the rear thereof, an odd number of wheels mounted upon said truck, one at least of said wheels being intermediate the paths of the other wheels, two at least of said odd number of wheels, including said intermediate wheel being driven, three front wheels, and means for positively deflecting said intermediate rear wheel.

[Claims 6 to 20 not printed in the Gazette.]

938,783. TRACKLESS POWER-DRIVEN VEHICLE. ISAAC E. PALMER, Middletown, Conn. Filed May 6, 1908. Serial No. 431,156.

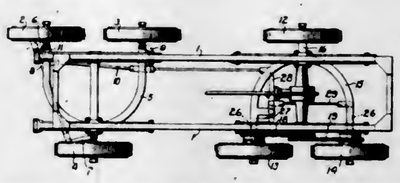


1. An automobile comprising in combination a body frame composed of opposite, unitary side members of substantially the length of the automobile and transverse connections therefor, a fixed front axle mounted in said frame, a pair of non-driven but dirigible wheels mounted upon said axle, two axles to the rear of said front axle one of said two rear axles being mounted in both side members of said frame, a pair of driven wheels mounted upon said axle and a pair of non-driven wheels mounted upon the other of said two rear axles, said other rear axle being mounted in said body frame for movement in a substantially horizontal plane, a motor supported by the frame, connections therefrom to the first mentioned of said two rear axles, steering means connecting said front wheels and connections between said steering means and said movable rear axle whereby when steering movement is imparted to the dirigible wheels of the front fixed axle steering movement is imparted to said rear movable axle.

2. An automobile comprising in combination a body frame composed of opposite, unitary side members of substantially the length of the automobile and transverse connections therefor, a fixed front axle mounted in said frame, a pair of non-driven wheels pivoted upon said fixed axle, levers connected to said wheels, steering means connected to said levers, two axles to the rear of said front axle, one of said two rear axles being mounted in both side members of said frame, a pair of driven wheels mounted upon said axle and a pair of non-driven wheels mounted upon the other of said two rear axles, said other rear axle being pivoted intermediate its ends in said body frame for swinging movement in a horizontal plane, a motor supported by the frame, connections therefrom to the first mentioned of said two rear axles and connections between said steering means and said pivoted axle, whereby when steering movement is imparted to the front wheels, steering movement is also imparted to said pivoted axle.

3. An automobile comprising in combination a body frame composed of opposite unitary side members of substantially the length of the automobile, and transverse connections therefrom, a fixed front axle mounted in said frame, a pair of non-driven but dirigible wheels mounted upon said axle, two axles to the rear of said front axle, the rearmost of said two rear axles being mounted in both side members of said frame, a pair of wheels mounted upon said rearmost axle, a motor and motor shaft, chain connections from said motor shaft to said rearmost axle, said other rear axle being mounted in said body frame for movement in a substantially horizontal plane, a pair of non-driven wheels mounted upon said last mentioned axle, steering means connecting said front wheels, and connections between said steering means and said movable rear axle, whereby when steering movement is imparted to the dirigible wheels of the front fixed axle steering movement is imparted to said rear movable axle.

938,784. RUNNING-GEAR FOR VEHICLES. ISAAC E. PALMER, Middletown, Conn. Filed Aug. 12, 1908. Serial No. 448,129.



1. Running gear for trackless, power driven vehicles comprising in combination, a front truck provided with a yoke-like axle having mounted thereon two laterally deflectable wheels at one side of the vehicle, said truck having one laterally deflectable wheel at the other side thereof.

2. Running gear for trackless, power driven vehicles comprising in combination, a front truck having three wheels only, arranged in staggered relation, two on one side and one on the opposite side, a three wheel rear truck having two wheels on one side and one on the other, said two wheels being laterally deflectable in opposite directions, steering mechanism connected to all of said deflectable wheels, whereby they may be simultaneously deflected and means for driving one or more of said laterally deflectable wheels.

3. Running gear for trackless, power driven vehicles comprising in combination, front and rear three wheel trucks, a yoke-like axle on each truck and each supporting two wheels, said yokes being oppositely arranged, one or more wheels of each truck being laterally deflectable, and common steering means for deflecting said wheels relative to the respective trucks.

4. Running gear for trackless, power driven vehicles comprising in combination, front and rear three wheel trucks, a yoke-like axle on each truck and each supporting two wheels, said yokes being oppositely arranged, the third wheel on each truck being mounted adjacent the crown of each yoke, and means for simultaneously deflecting all the wheels of the forward truck and a plurality of wheels of the rear truck.

5. Running gear for trackless, power driven vehicles comprising in combination, a three wheel truck having two wheels on one side and one on the other, and a driving shaft supported by said truck and whereon said odd wheel is mounted, said two wheels being laterally deflectable.

[Claims 6 to 13 not printed in the Gazette.]

938,785. SHUTTLE-PICKING MECHANISM FOR LOOMS. ISAAC E. PALMER, Middletown, Conn. Filed Sept. 21, 1908. Serial No. 454,040.



1. Shuttle picking mechanism comprising a picker stick, a picker cam, a lug strap connection between the cam and stick, and a spring operatively connected with the lug

strap and picker stick and positioned normally to yield to the initial movement of the lug strap prior to the full effect of the lug strap upon the picker stick, whereby an initially elastic shuttle actuating movement is imparted to the picker stick.

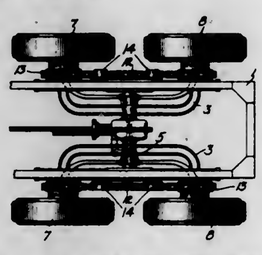
2. Shuttle picking mechanism comprising a picker stick, a picker actuator, a strap or band connection between said stick and actuator, and a spring operatively connected with the strap or band and stick, and relatively positioned to yield at the initial picking movement of the strap or band, and thereby to impart an initially elastic movement to the picker stick, followed and supplemented by the full effect of the strap or band upon the stick.

3. Shuttle picking mechanism comprising a picker stick, a picker actuator, a strap or band connection between said stick and actuator, and a spring directly connected to the picker stick and operatively connected to said strap or band, and acting to yield to the initial picking movement of the strap or band, thereby to impart an initially elastic movement to the picker stick.

4. Shuttle picking mechanism comprising a picker stick, a spring arranged in substantial parallelism with the picker stick and having its end parts connected thereto, a picker strap engaging said spring and a cam operatively connected to said strap to operate the picker stick, the said spring thus providing means for normally imparting to the picker stick an initial elastic movement and for normally supplementing the action of the said cam.

5. Shuttle picking mechanism comprising a picker stick, a picker actuator, a connection between said stick and actuator, said picker actuator and connection constituting the main shuttle actuating means, and a spring operatively connected with the stick and with the said main shuttle operating means, said spring being relatively positioned to yield at the initial picking movement of the said connection prior to the full effect of the said connection upon the picker stick, whereby an initially elastic shuttle actuating movement is imparted to the picker stick.

938,786. TRACKLESS POWER-DRIVEN VEHICLE. ISAAC E. PALMER, Middletown, Conn. Filed Nov. 13, 1908. Serial No. 462,361.



1. Running gear for trackless power driven vehicles comprising, in combination, a vehicle body, an axle or support, a pair of independent yokes or frames, mounted for independent rocking movement at opposite sides of the vehicle upon the axle or support in conformity to the road bed, a yielding connection between each yoke or frame and the vehicle body, and means mounted concentrically with one or both of said yokes or frames for driving one or more of the wheels upon each yoke or frame.

2. Running gear for trackless, power driven vehicles, comprising in combination a vehicle body, an axle, a yoke pivoted upon the axle, a pair of wheels mounted upon the yoke, a driving gear supported by the axle and in driving relation to said wheels, and supporting connections between said yoke and vehicle body.

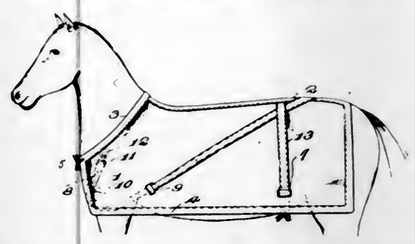
3. Running gear for trackless, power driven vehicles comprising in combination, a vehicle body, an axle, a yoke pivoted upon the axle, a pair of wheels mounted upon the yoke, a driving gear supported by the axle, a sprocket chain connecting said gear and wheels, and a supporting spring between said yoke and vehicle body.

4. Running gear for trackless power driven vehicles comprising, in combination, a vehicle body, an axle or support, a pair of independent yokes or frames mounted for independent rocking movement at opposite sides of the vehicle upon the axle or support in conformity to the road bed, and driven wheels supported at opposite parts of each of said yokes or frames.

5. Running gear for trackless power driven vehicles comprising, in combination, a vehicle body, an axle or support, a pair of independent yokes or frames mounted for independent rocking movement at opposite sides of the vehicle upon the axle or support in conformity to the road bed, all of the wheels upon said yoke or frame being dirigible, and yielding connections between said yokes or frames and the vehicle body.

[Claims 6 to 15 not printed in the Gazette.]

938,787. HORSE-BLANKET. JOSEPH W. PEIRCE, Cornish, N. H. Filed Aug. 24, 1908. Serial No. 450,013.



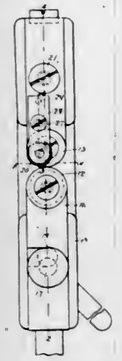
1. A horse blanket of the character described, comprising a body portion provided with a neck opening, a girth strap extending around the body portion at the rear thereof and passing through slits in the side of the body portion, and opposed flank straps attached at their upper ends to the body portion in rear of the girth strap and extending downwardly and forwardly toward the front end of the blanket and on the exterior thereof, and then means at their ends whereby they may be passed between through the slits in the same, said flank straps having the fore-legs of an animal and attached to the margin of the neck opening.

2. A horse blanket provided with a neck opening and having a strap attached to and extending longitudinally along the center of the blanket, a girth strap secured at its middle to the longitudinal strap and having its ends passing through openings in the body of the blanket adjacent to the lower edges thereof, and opposed flank straps secured at their upper ends to the rear end of the longitudinal strap, said flank straps passing downwardly and forwardly to the front of the blanket and then passing through slits, the ends of the flank straps being provided with means whereby they may be detachably connected to the margin of the neck opening.

3. A horse blanket having a neck opening at one end provided with means whereby it may be contracted, the margin of the neck opening being provided with rings, a longitudinal strap extending along the middle of the blanket from front to rear, a girth strap attached to said middle strap and extending over the face of the blanket nearly to the margins thereof and then passing through slits in the same, and flank straps attached to the longitudinal strap near the rear end of the blanket and extending divergently toward the forward corners of the same, and at their forward ends passing through slits formed in the blanket, said flank straps at their termination being provided with engaging devices, whereby the flank straps may be passed between the fore-legs of the animal and the engaging devices thereon connected to said rings.

4. A horse blanket having a neck opening at one end and a marginal strap secured to the margin of the blanket and the neck opening, a draw string inclosed in the marginal strap at the neck opening and having free ends whereby it may be drawn up, a longitudinal median strap attached to the blanket and extending from front to rear, a girth strap secured at its middle to the median strap and extending transversely across the exterior face of the blanket, nearly to the margins thereof, and there passed through slits in the blanket, flank straps secured to the median strap rearward of the girth strap, extending forwardly beneath the girth strap and divergently to each other toward the forward corners of the blanket, said flank straps passing through openings in the blanket and being formed at their ends with hooks, the neck opening being provided with rings adapted to engage with said hooks on the flank straps.

938,788. MACHINE FOR CUTTING SHEET MATERIAL. ALBERT F. PRESTON, Boston, Mass. Filed Dec. 18, 1908. Serial No. 468,193.



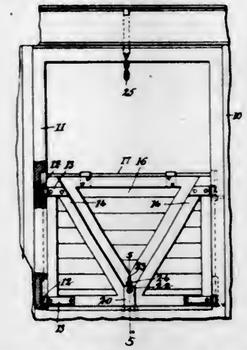
1. In combination, a pair of rotary disk cutters mounted in shearing relation to each other with an open space around their nip to permit the material being cut to be turned laterally as it is fed to produce a curved cut, the periphery of one disk being adapted to support the material at one side of the line of cut, while the periphery of the other disk depresses the material at the opposite side of said line, and a pressing member located beside the depressing cutter, and opposed to the periphery of the supporting cutter, said member being located at the rear of the nip of the cutters, and in position to prevent distortion of an inwardly curved edge on the work by pressure of the same against the margin of the depressing cutter.

2. In combination, a pair of rotary shearing disk cutters mounted in shearing relation to each other with an open space around their nip to permit the material being cut to be turned laterally as it is fed to produce a curved cut, and a rotary disk pressing member located beside one of the cutters, with its periphery opposed to the periphery of the other cutter, said pressing member being arranged to bear on the work behind the nip of the cutters, and in position to prevent distortion of an inwardly curved edge by lateral pressure of the same against the margin of the cutter beside which the pressing member is located.

3. In combination, a pair of shearing disk cutters mounted in shearing relation to each other with an open space around their nip to permit the material being cut to be turned laterally as it is fed to produce a curved cut, bearings for the cutters, a holder detachably secured to the bearing of one of the cutters, and a rotary disk pressing member rotatively connected with said holder, and arranged to bear on the work behind the nip of the cutters, and in position to prevent distortion of an inwardly curved edge by lateral pressure of the same against the margin of one of the cutters.

4. In combination, a pair of shearing cutters comprising two opposed rotary disks mounted in shearing relation to each other with an open space around their nip to permit the material being cut to be turned laterally as it is fed to produce a curved cut, one disk having its inner face in substantially the same plane as the outer face of the other, and a roll located beside one of the cutters and having a periphery which is of smaller diameter than said cutter, and is opposed to the periphery of the other cutter, said opposed peripheries being adapted to engage and feed the sheet being cut.

938,789. CAR-DOOR FOR GRAIN, COAL, &c. RICHARD R. REAVELEY, Fort William, Ontario, Canada. Filed Nov. 24, 1908. Serial No. 464,215.



1. The combination of two doors hinged at the side edges to swing outwardly and removable from the hinges, and forming, when closed, an approximately triangular opening between them, the said opening pointing downwardly, a third door for closing said opening, hinged at the top and removable to an elevated position, and flexible members for supporting the first mentioned doors when removed from their hinges.

2. The combination of a car having a door frame, doors hinged at the side edges to the jambs of the frame to swing outwardly from the car, a cross-bar removably supported on said jambs at the top of said doors, a third door hinged to the cross-bar to swing upwardly to the outside of the car independently of the other two doors and closing an opening between the first mentioned doors, and means for supporting the cross-bar and the free end of said door at the top of the car.

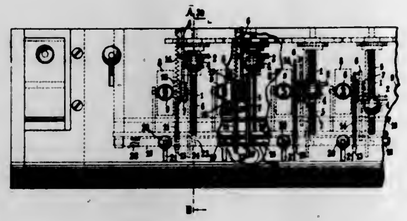
3. The combination of a car having a door frame, doors hinged at the side edges to the jambs of said frame and forming, when closed, a substantially triangular opening between them, the said opening pointing downwardly, a third door for closing said opening, hinged at the top, a substantially vertical keeper carried on the lower end of the third door, a hook and an engaging ring for the hook slidable on the keeper, a flap hinged in the floor of the keeper and adapted to engage said hook and lock the doors in closed position, and means at the top of the car for engaging said hook and locking the third door in a removed position.

4. The combination of a car having a door frame, removable doors hinged at the side edges to the jambs of said frame to swing outwardly from the car and forming, when closed, a substantially triangular opening, the said opening pointing downwardly, a third door for closing said opening, hinged at the top and removable to the top of the car, and flexible members attached to the car and to the first mentioned doors for suspending said doors at the outside of the door opening.

5. The combination of a door frame, doors hinged to the jambs of the frame to swing approximately parallel thereto to the outside of the car and forming, when closed, an opening between them increasing in width at the top, a third door for closing said opening, hinged at the top, each of said doors being constructed with a marginal frame and a sheathing, the sheathing of the third door being extended beyond its frame to overlap the first mentioned doors at the inside of the car.

[Claims 6 to 8 not printed in the Gazette.]

938,790. CALCULATING-MACHINE. ROBERT REIN, Berlin, Germany. Filed Mar. 29, 1909. Serial No. 486,412.

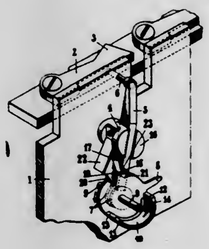


1. In a calculating machine, the combination with the feed wheels of means for resetting said feed wheels to zero, devices for locking said wheels, and means operable to release at one actuation certain predetermined locking devices only.

2. In a calculating machine, the combination with the feed wheels of means for resetting said feed wheels to zero, devices for locking said wheels, movable members operable to release said locking devices, said movable members adapted to be operatively connected so that succeeding members are movable together but independently of preceding members, and manually operable means for moving any of said members to release corresponding locking devices.

3. In a calculating machine, the combination with the feed wheels of means for resetting said feed wheels to zero, devices for locking said wheels, two sets of movable members, the movable members of each set adapted to be operatively connected so that succeeding members of the set are movable together but independently of preceding members of the set, and manually operable means for moving any two of said members to release selected locking devices.

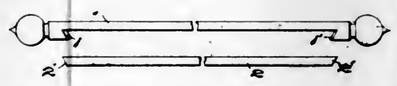
938,791. CALCULATING-MACHINE. ROBERT REIN, Berlin, Germany. Filed July 19, 1909. Serial No. 508,495.



1. Tens transferring or carrying mechanism for calculating machines comprising, in combination with the frame, carrying levers arranged in the front of said frame, a shaft, a collar on said shaft, a tens transferring tooth axially movable on said shaft, a feed drum, a locking cylinder, said locking cylinder being provided with faces, lugs on said tens transferring tooth adapted to engage said faces and thereby connect said feed drum with said locking cylinder, and recoil springs for locking the said carrying levers in transferring position, as and for the purpose set forth.

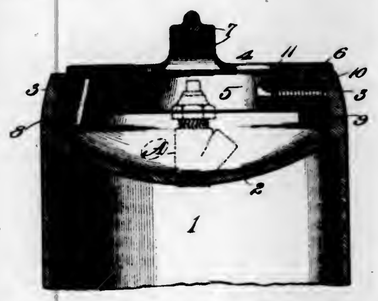
2. Tens transferring or carrying mechanism for calculating machines comprising, in combination with the frame, carrying levers arranged in the front of said frame, a shaft, a collar on said shaft, a tens transferring tooth axially movable on said shaft, a feed drum, a locking cylinder, said locking cylinder being provided with faces, lugs on said tens transferring tooth adapted to engage said faces and thereby connect said feed drum with said locking cylinder, recoil springs for locking the said carrying levers in locking position, lugs on said locking springs and projections on said tens transferring tooth, said projections being adapted to press to the side said locking springs and to slide over said lugs, as and for the purpose set forth.

938,792. CURTAIN-POLE. CONSTANTINE C. SCHELL, Mount Oliver, Pa. Filed May 26, 1909. Serial No. 498,502.



A pole for suspending box curtains, comprising a member divided longitudinally between its points of support into a pole proper and a dove-tailed clamping section fitted thereto, said clamping section having its ends tapered downwardly toward one another, as well as rearwardly toward one another, the shouldered portion of the pole proper being correspondingly tapered to receive said clamping section, said pole adapted to secure the front portion of the curtain between the longitudinal surfaces of the pole proper and attending section and its sides between the tapered surfaces thereof so as to cause the curtain sides to be projected rearwardly at approximately right angles to the front portion, substantially as shown and set forth.

938,793. CAP FOR SHIPPING-CYLINDERS. CHARLES SCHRAUDENBACH, St. Louis, Mo., assignor to The National Ammonia Company, St. Louis, Mo., a Corporation. Filed May 13, 1909. Serial No. 495,806.

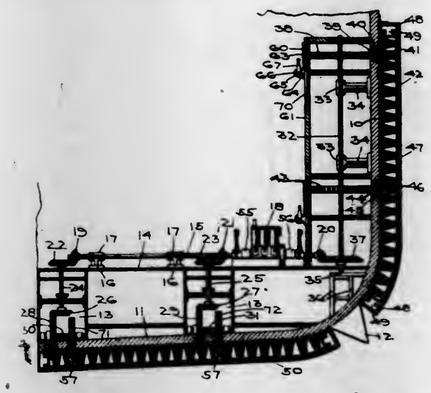


1. The combination, with a cylinder shell having an inwardly curved end rim; of a skeleton cap having an annular rim member and fitting within said end rim, and a radially arranged binding screw passing transversely through said annular rim member and impinging against the end rim of said shell, whereby said skeleton cap is retained within said end rim; access to the binding screw being gained through the skeleton cap.

2. The combination, with the shell of a shipping cylinder having an inwardly curved end rim; of a skeleton cap having an annular rim member located within said end rim and provided with an inwardly projecting lug, and a radially arranged binding screw extending transversely through said lug and impinging against the end rim of said shell whereby said skeleton cap is retained within said end rim to prevent dislodgment of said skeleton cap; access to the binding screw being gained through the skeleton cap.

3. The combination, with a shipping cylinder shell having an inwardly curved end rim, of a skeleton cap having an annular rim member at its back provided with a lug or hook-piece, and a radially arranged binding screw extending transversely through the annular rim member of said skeleton cap and impinging against the end rim of said cylinder shell at the inner face thereof; access to the binding screw being gained through the skeleton cap.

938,794. SHIP-CLEANER. HERBERT SCHWARTZ, Nashville, Tenn. Filed May 12, 1908. Serial No. 432,480.



1. A device of the character described comprising a ship, a plurality of runways longitudinally disposed thereupon, a casing mounted on said runways, racks carried by the casing, gears carried by the ship in engagement with said racks, means for reciprocally actuating said gears, and means for rotating a brush disposed in said casing.

2. A device of the class described comprising a ship, runways mounted on the sides thereof, a casing slidably disposed on said runways, said casing being opened at one side against the ship, a brush disposed in said casing for engagement against the side of the ship, a rack carried by said casing, gears carried by the ship for engagement with said rack and means for actuating said gears, said mechanism being adapted for reverse operation.

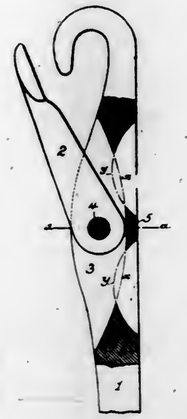
3. A device of the character described comprising a ship, gears carried thereby, a cleaner on the side of said ship, said cleaner comprising a casing which is opened against the ship, bristle members in said casing extending through said opening, laterally disposed racks on said casing, engaged with the gears, runways on the outside of said ship, guides carried by said casing adapted to engage in said runways and operative connections for the gears.

4. A device of the character described including a motor, shafts connected to said motor, gears on said shafts, gears meshing with gears on said shaft, racks adapted to be operated by said gears and brush members constructed and adapted to be carried by said racks.

5. A device of the character described comprising a ship, brush members on the outside of said ship, racks on said members, trains of gears extending through the wall of said ship and engaging said racks, chambers surrounding said trains of gears and operative connections for said trains of gears.

938,795. LATCH-NEEDLE FOR KNITTING-MACHINES. ROBERT W. SCOTT, Leeds Point, N. J., assignor of one-half to Louis N. D. Williams, Ogontz, Pa. Filed Mar. 8, 1909. Serial No. 482,106.

1. A knitting machine latch needle having a latch-receiving slot extending through the same, a latch, a rivet connecting the side walls of the slot and constituting a pivot for the latch, and a bridge located rearwardly of the latch also connecting the opposite side walls of the slot.



2. A knitting machine latch needle having a latch-receiving slot extending through the same, a latch, a rivet connecting the side walls of the slot and constituting a pivot for the latch, and a bridge connecting the opposite side walls of the slot and located directly in the rear of the pivot end of the latch.

3. A knitting machine latch needle having a latch-receiving slot extending through the same, a latch, a rivet connecting the side walls of the slot and constituting a pivot for the latch, and a bridge located rearwardly of the latch also connecting the opposite side walls of the slot and integral therewith.

4. A knitting machine latch needle having a latch-receiving slot extending through the same, a latch, a rivet connecting the side walls of the slot and constituting a pivot for the latch, and a bridge also connecting the opposite side walls of the slot and integral therewith, said bridge being located directly in the rear of the pivot end of the latch.

5. A knitting machine latch needle having a latch-receiving slot extending through the same, a latch, a rivet connecting the side walls of the slot and constituting a pivot for the latch, and a plurality of bridges also connecting the opposite side walls of the slot and disposed at intervals throughout the length of the same.

[Claims 6 to 8 not printed in the Gazette.]

938,796. VEHICLE-WHEEL. THOMAS F. SCOTT, Everett, Mass. Filed Dec. 19, 1908. Serial No. 468,674.

1. A vehicle-wheel, composed of a hub, in sections or parts arranged alongside of each other about and free to turn on a common axle, and the middle section free to slide between the outer or side hub-sections in a direction across the axle, and of twin resilient cushions at each outer section and confined therebetween and lateral extensions at the sides of the middle hub-section, in combination with keys about the axle and between the middle hub-section and each side hub-section and seated in recesses thereof which are adapted to allow of movements of the hub-sections in directions at right angles to each other and relative to the axle, substantially as described.

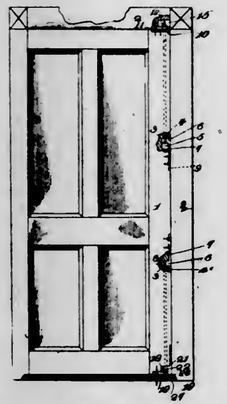
2. A vehicle-wheel, composed of a hub in sections or parts arranged alongside of each other about and free to turn on a common axle, and the middle section free to slide between the outer or side hub-sections in a direction across the axle and of twin resilient cushions at each outer or side hub-section and confined therebetween and lateral extensions at the sides of the middle hub-section, in com-

bination with a bushing to the axle, and screw-nuts screwed onto the outer ends of said bushing, and screw-



pins fastening said screw-nuts to said side hub-sections, substantially as described, for the purpose specified.

938,797. SPRING-HINGE FOR DOORS. EDWARD C. SCRUGGS, Nashville, Tenn. Filed Oct. 1, 1908. Serial No. 455,675.



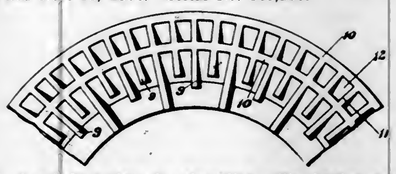
1. The combination with a door and its frame, of hinges connecting said door to the frame, one of said hinges comprising a hinge plate secured to said door at one end and formed with a pintle having an aperture extending through its center, a hinge plate secured to the door frame and provided with a circular opening through which said pintle extends, a torsional spring rod secured within the door and extending at one end through said apertured pintle, and through the hinge plate, means in the door frame for rigidly engaging the end of the torsional spring, and a bracket secured to the rear edge of the door, having a projecting portion extending inwardly into the door opening, said projecting portion being formed with a many sided recess with which the inner end of said torsional rod engages.

2. The combination with a door and its frame, of hinges connecting said door and frame one of said hinges comprising a hinge plate secured to the door at one end and formed with a pintle having an aperture extending therethrough, a hinge plate secured to the door frame and provided with an opening through which said apertured lug extends, a block located in said frame and adapted to rest upon said last named hinge plate and provided with a socket in which the extremity of said apertured lug extends and also provided with an angular transverse opening extending through the block from the center of said socket, a torsional spring rod provided with an angular end portion secured within the angular opening in said block to prevent independent movement of the rod in the frame, said rod extending through the aperture in said lug into the body of the door, and means for fixedly connecting the other end of said rod to the door.

3. The combination with a door and its frame, of hinges connecting said door and frame one of said hinges comprising a hinge plate secured to the frame and provided with a pintle and also provided with transverse thickened portions said pintle having an aperture extending therethrough and of angular formation in said plate, a hinge plate secured to the door at one end and formed with an arm designed to extend over the corner of said door, and an integral elongated thickened portion parallel with said plate and provided with an opening through which said pintle is adapted to extend, a torsional spring rod provided with an angular end portion secured within the angular aperture in the first named hinge plate to prevent independent movement of the rod, said rod extending through the aperture in said pintle into the body of the door, and means for fixedly connecting the upper end of said rod to the door.

4. The combination with a door having a longitudinal recess formed on its inner edge, opposed brackets extending into said recess and having a many sided aperture therethrough, and torsional rods the ends of which are received within the bracket opening, of a plate secured to each end of the door and having a projecting circular pintle formed thereon, said pintle being tubular, plates secured to the opposite ends of the door casing having each a circular opening through which the adjacent pintle passes, and a block secured within the upper end of the door frame having a recess which fits the upper end of the adjacent pintle and an angular extension into which the upper end of the torsional spring is received.

938,798. ATTRITION-PLATE FOR LEATHER-SHREDDING MILLS. GEORGE E. SOVEREIGN, Pottersville, N. J. Filed Nov. 13, 1906. Serial No. 343,257.

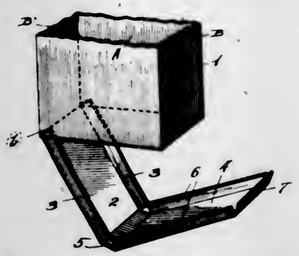


1. A grinding plate for shredding mills, having a plurality of radial cutting ribs, an inner annular arresting rib intersecting said radial cutting ribs intermediate of their ends, and an outer annular arresting rib also intersecting said radial cutting ribs, said arresting ribs forming radial series of pockets between the cutting ribs, the bottoms of said pockets shelving or sloping at the inner side of each annular arresting rib radially outward toward the top of said arresting rib, said arresting ribs being abrupt at their outer sides and the radial ribs being at their intersection with such abrupt outer side of the inner annular rib as high as said annular rib.

2. An attrition plate for leather shredding mills, having continuous radial cutting ribs of height increasing progressively toward the periphery of the plate, and a series of annular arresting ribs intersecting said radial cutting ribs and forming pockets therewith, the bottoms of the pockets between two adjacent annular arresting ribs shelving or sloping from the bottom of the inner arresting rib outwardly to the top of the outer one.

3. An attrition plate for leather shredding mills, having radial cutting ribs of height increasing progressively toward the periphery of the plate and a series of annular arresting ribs intersecting said radial cutting ribs and forming pockets therewith, said arresting ribs being where they intersect the cutting ribs of the same height as the latter and the bottoms of the pockets between two adjacent annular arresting ribs shelving or sloping outwardly toward the top of the outer rib.

938,799. CARTON. GEORGE W. TEASDALE, St. Louis, Mo. Filed Mar. 22, 1909. Serial No. 484,909.



1. In a carton, a body, a main reinforcing member hinged to said body at an end thereof, and a supplementary reinforcing member hinged to said main reinforcing member, both of said members being adapted to be folded into said body and being contiguous to each other at one end of said body when folded thereinto.

2. A carton comprising a body, a flanged main reinforcing member hinged to said body at an end thereof, and a supplementary reinforcing member hinged to said main reinforcing member, both of said reinforcing members being adapted to be folded into said body and being contiguous to each other at one end of said body when folded thereinto.

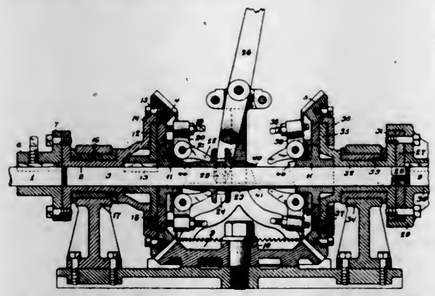
3. A carton comprising a body, a main reinforcing member hinged to said body at an end thereof, and a flanged supplementary reinforcing member hinged to said main reinforcing member, both of said members being adapted to be folded into said body and being contiguous to each other at one end of said body when folded thereinto.

4. A carton comprising a body, a flanged main reinforcing member hinged to said body at an end thereof, and a flanged supplementary reinforcing member hinged to said main reinforcing member, both of said reinforcing members being adapted to be folded into said body and being contiguous to each other at one end of said body when folded thereinto.

5. A carton comprising a body, a main reinforcing member hinged to said body at an end thereof, a hinge piece carried by said main reinforcing member, and a supplementary reinforcing member carried by said hinge piece, both of said members being adapted to be folded into said body and being contiguous to each other at one end of said body when folded thereinto.

[Claims 6 and 7 not printed in the Gazette.]

938,800. DRIVING AND REVERSING MECHANISM. FREDRICK A. THURSTON, Lynn, Mass., assignor of one-half to Alexander Stewart, Jr., Lynn, Mass. Filed Apr. 10, 1908. Serial No. 426,229.



1. A reversible driving mechanism, comprising a driving shaft section, two independently connectible driven shaft sections, one of which is movable endwise with respect to the other and connected so as to transmit rotation thereto, oppositely moving drivers actuated by said driving shaft section, an intermediate motion-transmitting connection between said drivers, clutch elements fixed to the respective driven sections, and clutches operable to secure said drivers one at a time to the said clutch elements.

2. A reversible driving mechanism, comprising a driven shaft section, two oppositely moving drivers rotatable loosely around said shaft section, a connection for transmitting reversed motion from one driver to the other, a second driven shaft section with which said first-named section is so engaged as to transmit rotation thereto, a clutch element secured to each of the said sections, and clutches carried by said drivers independently securable to said clutch elements, the first section having provision for some endwise movement, whereby either clutch element may be freed before the other is engaged.

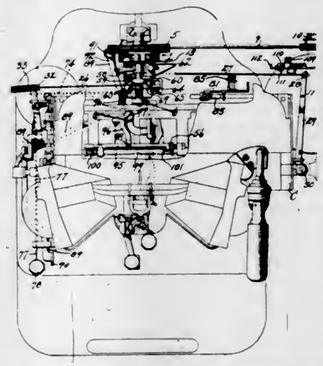
3. A reversible driving mechanism, comprising two drivers, means for causing one of said drivers to rotate oppositely to the other, a single shaft section passing through both drivers, and coöperating clutching devices on the drivers and shaft respectively, one of said devices being fixed to said shaft, a second shaft section to which another of said devices is rigidly connected, said first shaft section being movable endwise to enable one of the clutches to be disconnected before the other is connected.

4. A reversible driving mechanism, consisting of a plurality of shaft sections, rotary drivers loose on one of said sections, a clutch element fixed to each section, complemental clutch elements carried by said drivers on opposite sides of each of the shaft clutch elements, means for rotating one of said drivers, means for causing the other driver to rotate oppositely thereto, and means for causing the driver clutch elements to grip the shaft clutch element between them.

5. A reversible driving mechanism, consisting of a plurality of shaft sections, rotary drivers loose on one of said sections, means for causing one of said drivers to rotate oppositely to the other, a disk secured to each said shaft section, a web detachably fastened to each said driver on one side of one disk, a movable plate or pad carried by each driver on the opposite side of the disk, and a lever carried by the driver so as to bear against said pad and, when operated, to press the pad and web against the opposite side of the disk with a gripping action.

[Claims 6 to 13 not printed in the Gazette.]

938,801. CARRIAGE-RETURN AND LINE-SPACING MECHANISM FOR TYPE-WRITERS. GUILLERMO TREJO, Mexico, Mexico. Filed Nov. 30, 1908. Serial No. 465,164.



1. In a typewriting machine, the carriage, a driving clutch having a carriage return connection, an operating motor, a circuit closer for said motor, key-controlled means for manually connecting and disconnecting the circuit

closer, and adjustable means for automatically both connecting and disconnecting the circuit closer through the carriage movement, from variable positions of the latter.

2. In a typewriting machine, the carriage, a rotary driving clutch comprising a drive pulley provided with a central clutch device and a normally idle winding spindle adapted to be engaged by the clutch device and rotatable therewith, a carriage return connection between said spindle and the carriage, and operating means for the clutch.

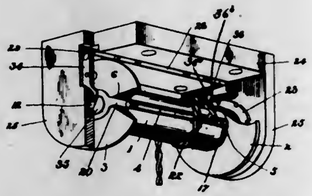
3. In a typewriting machine, the carriage, a driving clutch having a carriage return connection, an operating motor, a circuit closer for said motor, means for closing said circuit closer, a device for holding the circuit closer open, and means for manually and automatically releasing said device to permit the closing of the circuit closer.

4. In a typewriting machine, the carriage, a driving clutch having a carriage return connection, an operating motor, a circuit closer, means for closing the circuit closer, means for holding the circuit closer open, a key controlled operator's connection device operatively connected to the circuit closer, and a right hand marginal connector adjustably fitted to the carriage and operatively related to the circuit closer.

5. In a typewriting machine, the carriage, a driving clutch having a carriage return connection, an operating motor, a circuit closer for the motor, means for closing the circuit closer, means for holding the circuit closer open, means for manually and automatically releasing the circuit closer to permit the closing thereof, an operator's disconnection device operatively related to the circuit closer, and a carriage controlled automatic disconnector operatively related to the circuit closer.

[Claims 6 to 20 not printed in the Gazette.]

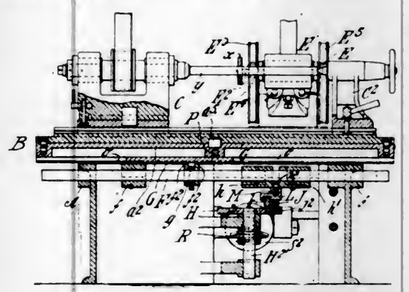
938,802. ADJUSTABLE SUSPENSION-CORD FOR ELECTRIC LAMPS. THOMAS W. TROTTER, Sault Ste. Marie, Ontario, Canada. Filed Apr. 13, 1908. Serial No. 426,848.



1. In an adjustable suspension cord for electric lamps, a rigid bracket having downwardly extending arms, spring arms rigidly secured to the arms of said brackets and electrically connected to the electric current supply, a flanged spool having a pin rigidly secured centrally in one end thereof, said pin being journaled in an orifice in one of said spring arms, a pin rotatably mounted centrally in the other end of said spool rigidly held in an orifice in the other of said spring arms, a coiled spring secured at one end to said spool and at the other end to the latter pin, electrical contacts engaging said spring arms, an electric suspension cord electrically connected to said electrical contacts and winding on said spool, and slip catch means for holding said spool stationary.

2. In an adjustable suspension cord for electric lamps, a flanged spool having a central recess and a longitudinal groove in its periphery and orifices through said flanges communicating with said groove and a pin rigidly secured centrally in one end thereof, a pin rotatably mounted centrally of said spool and extending from its opposite end and having a flattened end, a coiled spring secured at one end to said spool and at the other end to said pin, electrical contacts secured to the ends of said spool and surrounding said pins and having tongues extending through the orifices in said flanges and secured at their ends in said longitudinal groove, an electric cord electrically connected to said tongues and winding on said spool, a rigid bracket having downwardly depending ends, a spring rigidly secured to one of said ends and having its lower end extending inwardly from said bracket and having a central hole forming a journal for the rigid pin extending from said spool, said spring arm contacting with the electrical contact on one end of said spool, a spring arm secured to the other end of said bracket and extending inwardly therefrom having a slot in its lower end to receive the flattened end of the rotatable pin in said spool and contacting with the electrical contact at the corresponding end of said spool, electrical connections joining said spring arms to the electric current supply, and a slip catch means for controlling the rotation of said spool.

938,803. METAL-WORKING MACHINERY. CHARLES E. VAN NORMAN, Springfield, Mass. Filed Mar. 20, 1909. Serial No. 484,829.



1. In a machine of the character described, a longitudinally slidable member, appurtenant to the movable work supporting bed, provided with a transversely extending engagement piece, a rotary cam, a pivoted lever, engaged by and deriving a swinging movement from, said cam, a block slidably guided for movement lengthwise of the lever and having an engagement with said engagement piece, for endwise moving the longitudinal slidable member, and means for variably positioning said block along the length of the lever.

2. In a machine of the character described, a longitudinally slidable member, appurtenant to the movable work supporting bed, provided with separated parallel transverse engagement pieces, a rotary cam, a pivoted lever, engaged by and deriving a swinging movement from, said cam, a block slidably guided for movement on, and lengthwise of, the lever, and having an engagement between said engagement pieces, and means for variably positioning said block along the length of the lever.

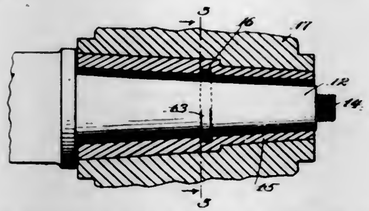
3. In a machine of the character described, a longitudinally slidable member, provided with a transversely extending engagement piece, a rotary cam, a pivoted lever, engaged by and deriving a swinging movement from, said cam, and having a slide rib extending along the length of the lever, a block slidably guided for movement lengthwise along said rib and having a projection in engagement with said engagement piece, and means for variably positioning said block along the length of the lever.

4. In a machine of the character described, a longitudinally slidable member, appurtenant to the movable work supporting bed, provided with a transversely extending engagement piece, a rotary cam, a pivoted lever, engaged by and deriving a swinging movement from, said cam, a block slidably guided for movement lengthwise on the lever and having an engagement with said engagement piece, for endwise moving the longitudinally slidable member, and a screw having an engagement with said block for positioning the latter variably along the length of the lever.

5. In a metal working machine, a bed and a support having longitudinal ways on which said bed is slidably supported, a member and means for detachably connecting it as one to the bed, a bar, slidably supported, and engaging said detachably connected member, adjustable means for imparting endwise movement, in variable predetermined extents to the bar, and independent means by which the bed may be freely endwise moved on the disconnection from the latter of said detachable member.

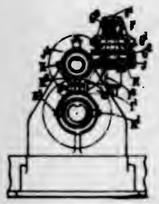
[Claims 6 to 20 not printed in the Gazette.]

938,804. HUB-ATTACHING DEVICE. IRA S. WEST, Difficult, Tenn. Filed Mar. 31, 1909. Serial No. 486,955.



The combination with a vehicle axle provided on its lower side with one or more transverse curved ribs, of a thimble or bushing loosely fitting the said axle and provided with one or more interior annular grooves receiving the said rib or ribs, the looseness or play between the said axle and the said thimble or bushing being approximately equal to the height of the said rib or ribs.

938,805. GEARING. ALFRED D. WILLIAMSON, Sheffield, England, assignor to Vickers Sons & Maxim, Limited, Sheffield, England. Filed May 18, 1908. Serial No. 433,615.



1. In a planing or other reciprocating machine, the combination with the shaft of a reversible electric motor, of a shaft connected to the machine and adapted to be driven by the motor shaft, change speed gearing interposed between the motor shaft and the driven shaft, and means actuated in accordance with the direction of rotation of the said motor shaft for automatically controlling the change speed gearing.

2. In a planing or other reciprocating machine, the combination with the shaft of a reversible electric motor, of a shaft connected to the machine and adapted to be driven by the motor shaft, change speed gearing interposed between the motor shaft and the driven shaft, and mechanical means actuated in accordance with the direction of rotation of the said motor shaft for automatically controlling the change speed gearing.

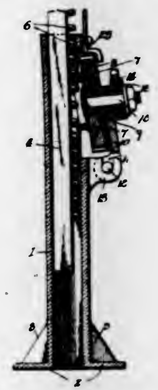
3. In a planing or other reciprocating machine, the combination with the shaft of a reversible electric motor, of a shaft connected to the machine and adapted to be driven by the motor shaft, change speed gearing interposed between the motor shaft and the driven shaft, and centrifugally-controlled means actuated in accordance with the direction of rotation of the said motor shaft for automatically controlling the change speed gearing.

4. In a planing or other reciprocating machine, the combination with the shaft of a reversible electric motor, of a shaft connected to the machine and adapted to be driven by the motor shaft, two pairs of intermeshing gear wheels of different speed ratios interposed between the motor shaft and the driven shaft, clutches for causing one or other of said pair of gear wheels to become operative, and means actuated in accordance with the direction of rotation of the said motor shaft for automatically controlling the aforesaid clutches.

5. In a planing or other reciprocating machine, the combination with the shaft of a reversible electric motor, of a shaft connected to the machine and adapted to be driven by the motor shaft, two pairs of intermeshing gear wheels of different speed ratios interposed between the motor shaft and the driven shaft, clutches slidably carried by the aforesaid shafts so as to rotate therewith, means for throwing the aforesaid clutches into operative connection with one or other of the said pairs of intermeshing gear wheels, a device for transmitting motion to the aforesaid clutch actuating means, and a centrifugal governor driven from the motor shaft for operating the aforesaid device.

[Claims 6 to 10 not printed in the Gazette.]

938,806. LIFTING-JACK. LE ROY WILLOUR, Ashland, Ohio, assignor of one-half to C. G. Phillips, Ashland, Ohio. Filed Jan. 25, 1909. Serial No. 474,067.



1. In a lifting jack, the combination of a vertically movable lift bar, a support for said lift bar, an operating wheel having operative engagement with said lift bar to raise and lower the same, relatively engageable means for mounting said operating wheel upon said lift bar support for pivotal swinging movement with relation thereto, and for detachment therefrom, and means for rotating said wheel, detachable therefrom, substantially as described.

2. In a lifting jack, the combination of a vertically movable lift bar, a support for said lift bar, an operating wheel having operative engagement with said lift bar, to raise and lower the same, relatively engageable means for mounting said operating wheel upon said lift bar support for pivotal swinging movement with relation thereto, and for detachment therefrom, means for rotating said wheel, detachable therefrom, and means for holding said wheel and its rotative means in the operative position, substantially as described.

3. In a lifting jack, the combination of a vertically movable lift bar, a support for said lift bar having outstanding slotted ears, an operating wheel for engagement with, to raise and lower, said lift bar, a frame carrying said wheel having outstanding members for engagement in said slotted ears to maintain said wheel upon said support for swinging movement with relation thereto and detachment therefrom, and an operative handle for rotating said wheel.

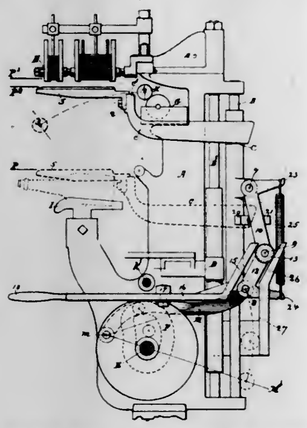
4. In a lifting jack, the combination of a vertically movable lift bar, a support for said lift bar having outstanding slotted ears, an operating wheel for engagement with, to raise and lower, said lift bar, a frame carrying said wheel having outstanding members for engagement in

said slotted ears to maintain said wheel upon said support for swinging movement with relation thereto, and detachment therefrom, a member mounted upon said support to hold said wheel in engagement with said lift bar, an operating handle journaled upon said operating wheel frame, and connections between said handle and said wheel for rotating the latter.

5. In a lifting jack, the combination of a vertically movable lift bar, having a rack formed thereon, a support for said lift bar, a toothed wheel having operative engagement with said lift bar rack, to raise the said bar, a frame carrying said wheel having detachable engagement upon a portion of said support, an operating handle journaled upon said frame, and a spring controlled pawl carried by said handle, and in engagement with said wheel, to rotate the latter, substantially as described.

[Claim 6 not printed in the Gazette.]

938,807. LABELING-MACHINE. FRANK O. WOODLAND, Worcester, Mass. Filed Mar. 7, 1908. Serial No. 419,660.



1. In a labeling machine, a reciprocating picker-carrier with glue-applying pickers thereon, a label holder for supplying labels to said pickers, means for imparting the normal movement for operating the picker-carrier, and means for changing the extent of the picker-carrier movement to prevent contact of the pickers with the labels upon said label-holder.

2. In a labeling machine, the combination, of a bottom delivery label-holder, a reciprocating picker-carrier with glue-applying pickers thereon that normally move into conjunction with said label holder for receiving the label therefrom, and means for temporarily controlling the picker action to terminate its upward movement at a lower position than the label-holder.

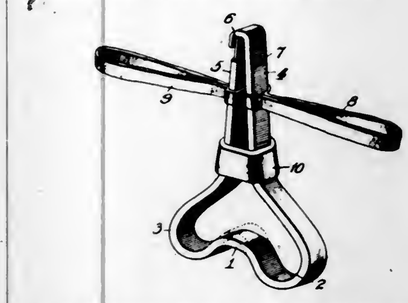
3. In a labeling machine, in combination, a label-holder having means for supporting a pack of labels for bottom delivery, a rest for supporting the article to be labeled, devices for taking a label from the pack and transferring it to a predetermined position above said rest, means for operating the label-transferring devices, and a manually controlled means for varying or reducing the normal movement of said label-transferring devices toward the label-holder, without interfering with or changing the limit of its movement toward said predetermined position.

4. In a labeling machine, the combination of a label holder adapted for holding a pack, or packs, of labels and supported for delivering labels at a predetermined stationary position, a reciprocating picker-carrier having pickers mounted thereon, movable to and from said delivering position in a direction approximately perpendicular to the plane of the label-holder, means for operating the picker-carrier, a variable connecting device between said operating means and picker-carrier, and a manually actuated means for temporarily controlling said connection to decrease the extent of movement transmitted thereby to the picker-carrier, for the purpose set forth.

5. In a labeling machine, the combination, with a stationary label-holding means, a picker mechanism adapted for taking labels therefrom, an operating shaft and means actuated from said shaft for reciprocating the picker mechanism, said means comprising a displaceable jointed connection, the effective length of which is variable by the offsetting and straightening of its joint, and means for temporarily effecting flexure of said connection while the picker mechanism is in operation.

[Claims 6 to 8 not printed in the Gazette.]

938,808. THERAPEUTIC DEVICE. SILAS T. YOUNT, Chicago, Ill. Filed Aug. 12, 1907, Serial No. 388,127. Renewed May 3, 1909. Serial No. 493,748.

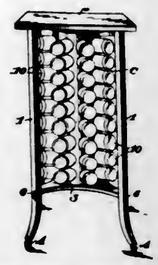


1. A therapeutic device for the purpose set forth, comprising a spring frame of approximately triangular form and provided at its base with an inwardly indented portion constituting a ridge, recesses formed by and flanking said ridge portion, and stop forming means at the apex of the frame.

2. A therapeutic device for the purpose set forth, comprising a frame formed with lateral recesses, and a ridge on its under side between said recesses and terminating in handle-forming arms provided with means for releasably fastening them together, and a stop on the frame at the base of said arms.

3. A therapeutic device for the purpose set forth, comprising a spring-frame formed with lateral recesses and a ridge on its under side between said recesses and arms, one of said arms terminating in a hook adapted to releasably engage with the adjacent end of the companion-arm, and a rubber band surrounding said arms at their base-portion.

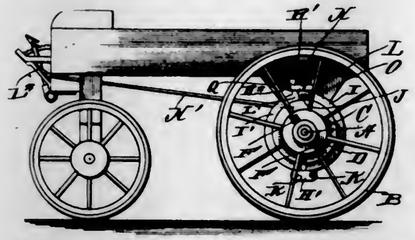
938,809. HOLDER AND INDEX FOR PHONOGRAPH-RECORDS. ROBERT E. ALEXANDER and MILTON J. KNICKERBOCKER, Endicott, N. Y. Filed July 28, 1908. Serial No. 445,763.



1. A holder for phonograph records comprising a stand and a cylinder mounted to revolve upon the stand, said cylinder provided with orifices for receiving the records and an opening for gaining access to the interior of the cylinder.

2. A holder and index for phonograph records comprising a stand composed of top, bottom and legs, a cylinder mounted so that it turns between the top and bottom of the stand with its surfaces exposed, bearings on the bottom supporting the cylinder, said cylinder constructed and adapted to removably support and expose to view the records so that the titles of the records may be read through the open sides of the holder.

938,810. WAGON-BRAKE. JOSEPH AUTH and HENRY KETTLER, Covington, Ky. Filed June 29, 1909. Serial No. 505,054.



1. A brake for vehicle wheels comprising, in combination with a running gear and vehicle wheel, a friction disk rotating therewith, friction shoes mounted upon the running gear of a vehicle, said shoes having inclined edges which are parallel with each other, a rock shaft, bars secured thereto, rollers journaled between said bars and adapted to bear one against each inclined edge of the shoe and adapted to move the shoes toward each other, and a spring for returning the shoes to their normal positions.

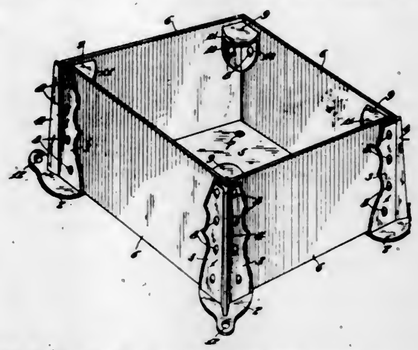
2. A brake for vehicle wheels comprising, in combination with a running gear and vehicle wheel, a friction disk rotating with the latter, friction shoes pivoted together and having their ends which extend upwardly provided each with an inclined edge which are parallel to each other, a rock shaft journaled in suitable bearings in the running gear, bars secured to said rock shaft, rollers journaled intermediate said bars and adapted to be thrown in contact with one of said inclined edges as the shaft is rocked in one direction, and a spring for returning the shoes to their normal positions.

3. A brake for vehicle wheels comprising, in combination with a running gear and vehicle wheel, a friction disk rotating therewith, friction brake shoes, links pivotally connecting said brake shoes, the upper ends of said brake shoes having their outer edges inclined, a rock shaft journaled in the running gear, plates fixed to rock with said shaft, rollers journaled between the plates and adapted to engage each of said inclined edges, and means for rocking the shaft.

4. A brake for vehicle wheels comprising, in combination with a running gear and vehicle wheel, a friction disk rotating therewith, angled bars fastened to the axle of the running gear, links fastened to said bars, brake shoes pivotally connected to said links, the free ends of said brake shoes having their outer edges inclined, a rock shaft journaled in the running gear, plates secured to said rock shaft, rollers journaled intermediate said plates and adapted to bear against said inclined edges, and means for rocking said shaft.

938,811. BOX. JOHN H. BAKER, Philadelphia, Pa. Filed Apr. 8, 1909. Serial No. 488,556.

In a device of the character described, the combination with the bottom and sides, of a corner bracket comprising an integral casting, consisting of a base, and webs on said base at right angles to each other, and at right angles to the base, inside right angle brackets at the juncture of the sides, and securing devices securing said bottom to the



base, said sides to the webs, and said inside brackets, sides, and webs together.

938,812. RIVET. WILLIAM P. BARTEL, Waltham, Mass., assignor to Judson L. Thomson M'fg. Co., a Corporation of Maine. Filed Oct. 14, 1908. Serial No. 457,646.

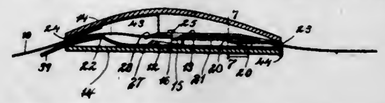


1. A two-part rivet consisting of a head and a shank, said shank having at one end a conical top terminating at its lower end in a shoulder and an annular flange thereon located beneath said shoulder, whereby an annular groove is formed between said shoulder and flange, said head having a conical hole therein with an annular flange at the bottom thereof, the conical top of said shank fitting in said conical hole and the annular flange on said head fitting in said annular groove.

2. A two-part rivet comprising a head and a shank, said shank consisting of a stem with a conical head at one end thereof terminating at its lower end in a shoulder and an annular flange on said stem beneath said shoulder, whereby an annular groove is formed between said shoulder and flange, said head having a conical hole therein, with an annular flange at the bottom thereof, the conical head of said shank fitting in said conical hole and the annular flange on said head fitting in said groove, the diameter of said shank at the bottom of said groove being substantially less than the diameter of said stem.

3. A two-part rivet consisting of a head and a shank, said shank having at one end a top terminating at its lower end in a shoulder and an annular flange thereon located beneath said shoulder, whereby an annular groove is formed between said shoulder and flange, said head having a hole therein with an annular flange at the bottom thereof, said top of said shank fitting in said hole and said annular flange on said head fitting in said annular groove.

938,813. SEAL-LOCK. WARREN K. BLODGETT, Cambridge, Mass. Filed Aug. 18, 1905. Serial No. 274,695.



1. A seal lock having a longitudinal passage formed to permit sidewise flexure of a seal-strip between the ends of the passage and to normally hold the seal-strip at one side

of the passage; a locking device adapted to be engaged with the seal-strip by a sidewise movement of the seal-strip to its normal position, to prevent endwise displacement of the seal-strip; and a clutching device adapted to clutch the seal-strip from its reverse side when it is normally locked against one side of the passageway, and to prevent its sidewise displacement from the normal locked position.

2. A seal lock having a longitudinal passage contracted at its end portions to confine a seal-strip against sidewise movement, and intermediately enlarged to permit sidewise flexure of the seal-strip between the ends of the passage, the relative arrangement of the contracted and enlarged portions being such as to cause the strip to normally occupy one side of the enlarged portion; a locking device adapted to be engaged by a sidewise movement of the seal-strip in one direction, to prevent endwise displacement of the strip; and a clutching device adapted to clutch the seal-strip from its reverse side when it is normally locked against one side of the passageway, and to prevent its sidewise displacement from the normal locked position.

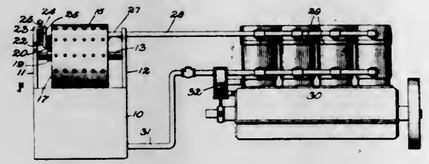
3. A seal lock having a longitudinal passage; a locking member adapted to engage a shoulder on a seal-strip inserted in said passage to prevent endwise displacement of the seal-strip; and a clutching device adapted to clutch the seal-strip from its reverse side when it is normally locked against one side of the passageway, and to prevent its sidewise displacement from the normal locked position.

4. A seal lock having a longitudinal passage; a locking member adapted to engage a shoulder on a seal-strip inserted in said passage, to prevent endwise displacement of the seal-strip; and a clutching device adapted to pass through a slot in the seal-strip and engage the other side of said strip.

5. A seal lock having a longitudinal passage and provided with means for engaging a seal-strip, and having means for preventing flexing of said strip out of its plane of lock engagement, the latter comprising a clutching device adapted to pass through a slot in the seal-strip and engage the other side of said strip.

[Claims 6 to 16 not printed in the Gazette.]

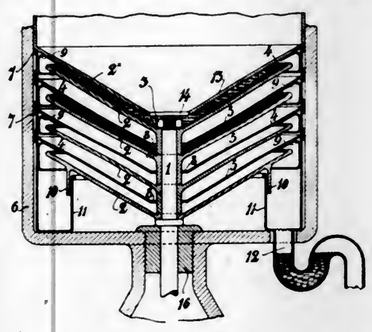
938,814. COOLING SYSTEM. LAWRENCE L. BOGUE, East Orwell, Ohio. Filed Mar. 6, 1909. Serial No. 481,625.



1. A device of the class described comprising a tank, a shaft mounted across the upper end of said tank, arms radially extended from said shaft intermediately thereof, a perforated drum mounted upon the extremities of said arms, wings carried by said arms at the sides thereof, a screen intermediately disposed in said drum, a perforated end in said drum, a jacketed motor, a pump connected with the motor, a pipe extended from the bottom of said tank to the pump of an engine and a pipe led from the motor jackets to a point within said drum to direct water against said wings.

2. A water cooling device comprising a tank, a drum rotatably disposed above said tank adapted to receive water from an engine jacket, wings disposed in said drum to rotate the same by the action of the water therein, a sleeve carried by said drum at one end thereof, an arm pivotally carried by said tank, a friction roller mounted upon the extremity of said arm for engagement with said sleeve, a bracket extended over said arm, an adjustable sliding block mounted in said bracket and a spring disposed in said bracket beneath said block for engagement with said arm to depress said roller against said sleeve.

938,815. APPARATUS FOR THE CONTINUOUS MANUFACTURE OF BUTTER. ARTHUR H. BORGSTRÖM, Hangö, Russia. Filed Mar. 2, 1908. Serial No. 418,662.



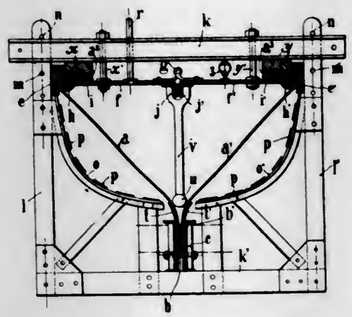
1. In the art of butter making, a rotary cone-shaped disk provided with a rasp-like roughened surface mounted with its concave side uppermost, in combination with means for rotating the disk, a stationary retaining wall located above and near the surface of the disk leaving a narrow space between the roughened surface of the rotary disk and stationary wall, the said upper wall being provided with an opening through which milk or cream may be admitted to the space between the two, and means for maintaining a body of cream or milk in position to flow continuously through said opening, whereby the body of cream or milk passing continuously between the two walls may be comminuted by a tearing, abrading or grinding action of the rotary disk.

2. In the art of butter making, a plurality of cone-shaped disks mounted one above another to rotate, the said disks having a rasp-like roughened surface, stationary disks located one above and near the face of each rotary disk, the said stationary disks having openings at their lower extremities for permitting the flow of milk or cream to the rotary disk next below, an outer wall or casing surrounding and spaced from the outer extremities of the said rotary disks for permitting the flow of milk or cream over the outer edges of the rotary disk on to stationary disks below them and a vessel provided with an outlet for receiving the milk or cream from the lowermost rotary disk, whereby a plurality of disk-like bodies of milk or cream may be maintained one above another, and submitted to the tearing or abrading action of the roughened surfaces of the rotary disks.

938,816. APPARATUS FOR PRESSING PARTS OF LARGE DIMENSIONS FROM METAL PLATES. MAURICE A. BOURGEOIS, Lizy-sur-Ourcq, France. Filed Feb. 17, 1908. Serial No. 416,217.

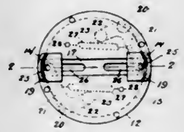
1. In apparatus of the class described, the combination with a suitable mold conforming in shape to the article to be produced, of a communicating narrowly-recessed member extending exteriorly and longitudinally of said mold, and adapted to receive and support a folded portion of surplus metal, means for effecting a tight closure at the upper periphery of the mold, and additional means for supplying a fluid under pressure to the interior thereof, substantially as set forth.

2. In apparatus for shaping the hulls of vessels, the combination with a mold conforming in shape to the hull desired, of a bottom member affording a narrow longitudinal recess for receiving a fold of surplus metal adapted to form the keel, a closure member for maintaining a tight joint with the upper edges of said mold, an inner support or mandrel adjacent to the longitudinally recessed member, adapted to maintain the shape of the hull adjacent to the keel, and means for supplying a fluid under pressure to the interior of the mold, substantially as set forth.



3. In apparatus for shaping hulls of boats or vessels, the combination with a mold conforming in outline to the shape of the desired hull, of an adjacent bottom member affording a narrowly recessed longitudinal opening adapted to receive a fold of surplus metal from which it may be partially withdrawn to form the keel, a closure member for maintaining a tight joint with the upper edges of said mold, and means for supplying a fluid under pressure to the interior of said mold, substantially as set forth.

938,817. WATCH-MOVEMENT HOLDER. GEORGE W. BOWERS, Somerville, Mass., assignor, by mesne assignments, to Hammel, Riglander & Co., New York, N. Y., a Corporation of New York. Filed Jan. 22, 1909. Serial No. 473,724.

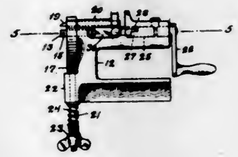


1. A watch movement holder comprising a base, a pair of opposed jaws guided by the base and movable radially in opposite directions thereon, the jaws being formed to engage a watch movement plate, bell crank levers pivoted to the base and located below the same, connections between said levers and the jaws, and springs acting through the said levers and connections to automatically project the jaws into engagement with a movement plate, the levers being manually operable to retract the jaws.

2. A watch movement holder comprising a base having radially extending slots, a pair of opposed movement plate-engaging jaws guided by the base and provided with studs projecting downwardly through said slots, bell crank levers pivoted to base and located below the same, the outer arms of said levers being adjacent to the margin of the base to permit the manual operation of the levers, while their inner arms are engaged with the said studs, and springs connected with the levers and the base and adapted to automatically project the jaws into engagement with a movement plate, the jaws being retractable by the manual operation of the levers.

3. A watch movement holder comprising a base, a pair of opposed movement plate-engaging jaws guided by the base and movable radially in opposite directions thereon, the jaws being located above the base, means below the base for projecting and retracting the jaws, the space between the jaws at the upper side of the base being unobstructed, and a center-pivot support adapted to occupy said space, said support being wedge shaped and movable on the base to adjust its upper side to the lower end of the center pivot of a watch movement held by the jaws.

938,818. MAINSPRING-WINDER. GEORGE W. BOWERS, Somerville, Mass., assignor, by mesne assignments, to Hammel, Riglander & Co., New York, N. Y., a Corporation of New York. Filed Jan. 22, 1909. Serial No. 473,725.



1. A mainspring winder comprising a supporting frame, a rotatable spring-engaging and winding mandrel removably mounted in the frame, and projecting therefrom, a movable side support and a wiper engaged therewith, the support and wiper being adapted to bear respectively on the side and perimeter of a coiled spring accumulating on the mandrel, the said support and wiper being movable crosswise of the mandrel, and means for exerting a yielding pressure on the side support and wiper to press the wiper yieldingly toward the mandrel, the said side support and wiper being movable against such pressure by the enlargement of the coil.

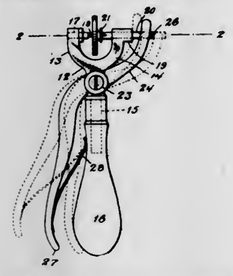
2. A mainspring winder comprising a supporting frame, a slotted face plate forming a bearing for one side of a coiled spring, and provided with a wiper adjacent to the slot, a rotatable spring-engaging and winding mandrel removably mounted in the frame and projecting therefrom through the face plate slot, said face plate and wiper being movable crosswise of the mandrel, and means for exerting pressure on the face plate to yieldingly press the wiper against the perimeter of the coil formed by winding a spring on the mandrel.

3. A mainspring winder comprising a supporting frame, a slotted face plate forming a bearing for one side of a coiled spring, and provided with a wiper adjacent to the slot, a rotatable spring-engaging and winding mandrel removably mounted in the frame and projecting therefrom through the face plate, the frame being provided with a guide and the face plate with a stem extending through said guide, and a spring interposed between the guide and an abutment on the stem and adapted to yieldingly press the wiper toward the mandrel.

4. A mainspring winder comprising a supporting frame, a rotatable spring-engaging and winding mandrel removably mounted in the frame and projecting therefrom, a movable side support and a wiper connected therewith adapted to bear respectively on the side and perimeter of a coiled spring accumulating on the mandrel, said side support and wiper being movable crosswise of the mandrel, means for pressing the wiper yieldingly toward the mandrel, and an operating shaft journaled in the frame in alinement with the mandrel, said shaft and mandrel being provided with complemental separable coupling members adapted to impart rotation from the shaft to the mandrel.

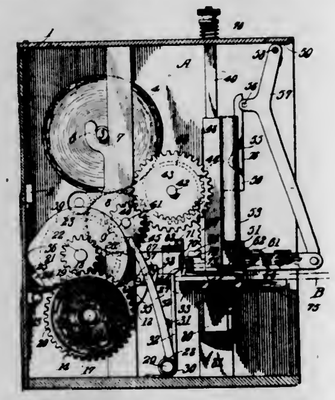
5. A mainspring winder comprising a supporting frame, a rotatable spring-engaging and winding mandrel removably mounted in the frame and projecting therefrom, a movable side support and a wiper connected therewith adapted to bear respectively on the side and perimeter of a coiled spring accumulating on the mandrel, said side support and wiper being movable crosswise of the mandrel, means for pressing the wiper yieldingly toward the mandrel, an operating shaft journaled in the frame in alinement with the mandrel, said shaft and mandrel being provided with complemental separable coupling members adapted to impart rotation from the shaft to the mandrel, and means for preventing the removal of the mandrel from the frame during the winding operation.

938,819. ROLLER-REPLACING TOOL FOR WATCHMAKERS. GEORGE W. BOWERS, Somerville, Mass., assignor, by mesne assignments, to Hammel, Riglander & Co., New York, N. Y., a Corporation of New York. Filed Jan. 22, 1909. Serial No. 473,727.



A tool of the character stated, comprising a two-armed holder, an inwardly projecting stud affixed to one arm of the holder, and formed at its inner end to engage one end of a balance staff, the other arm being provided with a guide socket in alinement with said stud, a plunger movable endwise in said socket and having in one end an elongated cavity to receive the other end portion of a balance staff, and lever-engaging shoulders at its other end, the end of the plunger surrounding said cavity being formed to press a roller upon the staff, a handle affixed to the holder and extending subsfantially at a right angle with the plunger, a lever pivoted to the holder between the handle and plunger, and having a curved shorter arm slidingly engaged with the shoulders on the plunger, and a longer operating arm located beside the handle, and a spring attached at one end to the longer arm of the lever, its other end being in sliding contact with the handle, the lever being normally held by the spring in engagement with the shoulders of the plunger to prevent the withdrawal of the plunger from the socket, and adapted to be retracted beyond the point to which it is normally retracted by the spring, to disengage the shorter arm of the lever from the plunger, and permit the removal of the latter.

938,820. AUTOMATIC MACHINE FOR ATTACHING POSTAGE-STAMPS. HENRY S. BREWINGTON, Baltimore, Md., assignor of one-half to Dwight F. Mallory, Baltimore, Md. Filed Aug. 27, 1908. Serial No. 450,457.



1. In a machine for affixing stamps to envelops, a prime mover, means for holding the prime mover against action, means for feeding stamps into position to be applied to an envelop, means for moistening each stamp, while in said position, a plunger for forcing a moistened stamp onto an envelop, connections between the prime mover and the several operative parts for causing the actuation thereof in proper sequence, and means actuated by an inserted envelop for releasing the prime mover to action.

2. In a machine for affixing stamps to envelops, a prime mover, means for holding the prime mover against action, means for feeding stamps into position to be applied to an envelop, means for moistening each stamp, means for forcing a moistened stamp onto an envelop, connections between the prime mover and the several operative parts for causing the actuation thereof in proper sequence, and means actuated by the prime mover for stopping the latter after a limited active movement.

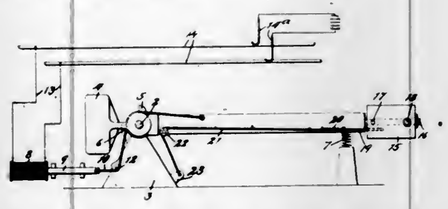
3. In a machine for affixing stamps to envelops, a prime mover, a stamp affixing mechanism driven by the prime mover, a detent for holding the prime mover against action, means under the control of an inserted envelop for actuating the detent to release the prime mover and for holding the detent temporarily in the release position, and means actuated by the prime mover for releasing the detent to action to stop the prime mover after a period of action.

4. In a machine for affixing stamps to envelops, a plunger for forcing the stamps onto the envelops, a knife in the path of the plunger and engaged thereby before the plunger becomes active to the stamp, means for feeding a strip of connected stamps intermittently into position to be affixed to the envelops, means for moistening the bottom of the first stamp of the strip, while in said position, and means for actuating the plunger first to actuate the moistener, next into engagement with the knife to sever a stamp from the strip, and finally to force the severed moistened stamp onto the envelop.

5. In a machine for affixing stamps to envelops, a plunger for forcing the stamps onto the envelops, a knife in the path of the plunger and engaged thereby before the plunger becomes active to the stamp, means for feeding a strip of connected stamps intermittently into position to be affixed to the envelops, and means for moistening the stamp to be severed, actuated by the plunger in advance of the engagement of the latter with the knife.

[Claims 6 to 13 not printed in the Gazette.]

938,821. MAIL-POUCH-DELIVERY APPARATUS. CHAUNCEY W. BROUGHTON, Carlton, Ill. Filed Jan. 6, 1909. Serial No. 470,899.



1. In a device for the purpose described, the combination of a mail pouch support adapted to hold the mail pouch at an elevated position and to also approach a position close to the ground when not in use, means for automatically raising the said support to its elevated position, and means on the car for actuating said elevating means.

2. In a device for the purpose described, the combination of a mail pouch support adapted to hold a mail pouch in an elevated position and also to descend to a position close to the ground when not in use, electromagnetic devices for raising said support to its elevated position, and means on the car for actuating said electromagnetic devices.

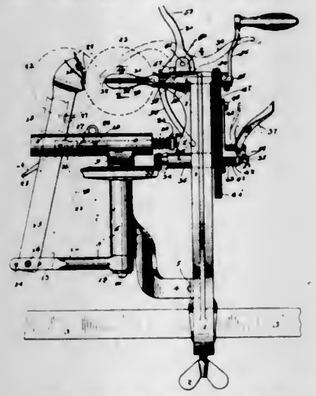
3. In a device for the purpose described, the combination of a pivoted standard for supporting a mail pouch, adapted to turn downwardly when not in use, means for elevating the standard to its erected position, and means on the passing car for actuating said elevating means automatically.

4. In a device for the purpose described, the combination of a pivoted standard for supporting a mail pouch adjacent to a railway track adapted to turn downwardly lengthwise of the track, means for elevating said standard to its erected position, and means on the car for actuating said elevating means as the car passes.

5. In a device for the purpose described, the combination of a pivoted standard for supporting a mail pouch adjacent to a railway track, said standard being adapted to turn downwardly when not in use and provided with a yielding member adapted to move in the direction of movement of the mail car, means for locking said yielding member against yielding motion when the standard is out of its erected position, and means for unlocking said yielding member as the standard is erected.

[Claims 6 to 15 not printed in the Gazette.]

938,822. APPLE-PEELING MACHINE. ROBERT BUCHI, Chicago, Ill. Filed Mar. 27, 1909. Serial No. 486,240.

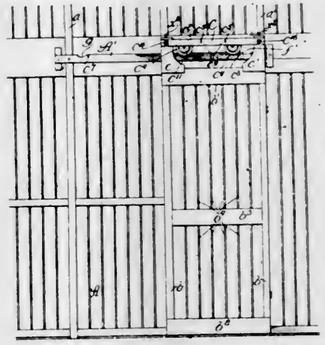


1. In an apple peeling machine, a main frame and a frame attached thereto, a knife carrying frame pivoted to said last named frame and means for rotating the same, a crank shaft journaled in a bearing integral with said main frame, a spur gear secured to said crank shaft, a horizontally disposed bevel gear provided in said knife carrying frame, a bevel pinion normally in mesh with said bevel gear secured to a slidably mounted shaft journaled in said main frame, a spur gear fixed against rotation on said last named shaft, an intermediate gear rotatably mounted on a shaft secured in said main frame, a plate having perforations to engage said last named shaft and the hub of said last named spur gear, a fork integral with said plate, and a shift lever pivoted in said fork adapted to engage the bevel pinion shaft and to throw the pinion thereon out of engagement with said horizontally disposed bevel gear.

2. In an apple peeling machine, a main frame having means therein for clamping the same to a table, a second frame attached to said first named frame having an integral vertically disposed bearing, a knife carrying frame comprising a shaft journaled in said bearing, said shaft being screwed onto a lug integral with a horizontally disposed sleeve arranged above said bearing and rigidly connected to an arm parallel with said sleeve arranged below said bearing, said sleeve and said arm being provided with vertically disposed slots at the outer extremities thereof, a knife arm pivoted in said arm by means of a pin adapted to pass through a perforation provided in the lower extremity of said knife arm and through any pair of a series of oppositely disposed perforations provided in said first named arm, said knife arm being adapted to slide in the slot in said sleeve, a threaded rod pivoted to said knife arm and adapted to reciprocate in said sleeve, a helical spring surrounding said rod for drawing said knife arm inwardly, a transversely disposed pin secured in said sleeve passing through a slot provided in said rod, said pin serving as a stop for said spring, a nut screwed to said rod for varying the tension on said spring, means for rotating said shaft, and means for rotating an apple holder integral with a shaft mounted in a bearing provided in said main frame.

3. In an apple peeling machine, in combination with a main frame and a second frame secured thereto, a knife arm carrying frame pivoted in said second frame, a lever pivoted to said knife arm carrying frame adapted to press the knife arm outwardly, a driven bevel gear provided in said knife arm carrying frame having teeth on one-half of the periphery thereof, a pinion adapted to mesh with and drive said gear secured to a horizontally disposed shaft reciprocally and rotatably mounted in a bearing integral with said frame, a helical spring surrounding said last named shaft and adapted to maintain said pinion in normal engagement with said gear, means for shifting said pinion out of engagement with said gear, means for rotating said pinion, and means for rotating an apple holder integral with a shaft mounted in a horizontally disposed bearing integral with said main frame.

938,823. DOOR-HANGER. GEORGE T. BUDDLE, Chicago, Ill. Filed Mar. 18, 1908. Serial No. 421,951.



1. The combination of a frame provided with a track, wheels mounted on said track and provided with projecting trunnions, removable bushings on said trunnions, a door equipped with hangers, and rider-bars carried by said hangers bearing on said bushings.

2. The combination with the framework of an elevator shaft equipped with a rail, of a door, a pair of hanger-brackets connected with said door and equipped with rider-bars provided at their lower edges with recesses, and wheels mounted on said rail and having trunnions supporting said rider-bars between said recesses and the ends of said bars.

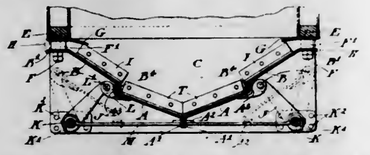
3. The combination with the framework of an elevator shaft, of a rail carried thereby, wheels mounted on said rail, a door provided with hangers and having rider-bars adjustably secured at their ends to said hangers, said bars lying on opposite sides of the rail, and a recess in said rail to permit removal of a wheel.

4. The combination with a frame-work of an elevator shaft, of a rail carried thereby and provided on its upper edge with recesses, removable screws carried by said rail adjacent the recesses and projecting from the rail, a door, a pair of hanger-brackets, wheels mounted on said rail and equipped with trunnions, and rider-bars connecting the upper end-portions of said brackets and supported on said trunnions.

5. The combination with the frame-work of an elevator-shaft, of a rail carried thereby, a door, a pair of hanger-brackets slotted transversely of their upper extensions, wheels mounted on said track and equipped with trunnions, blocks adjustably confined within said slots, rider-bars attached to said blocks and supported on the trunnions of said wheels, and screws for adjusting said blocks, for the purpose set forth.

[Claim 6 not printed in the Gazette.]

938,824. LOCOMOTIVE ASH-PAN. ROBERT W. CLARK, Nashville, Tenn., assignor of one-half to himself and one-half to Adolph G. Kantmann, Nashville, Tenn. Filed Apr. 12, 1909. Serial No. 489,381.



1. In a locomotive ash pan, the combination of an inclined bottom member movable transversely to its upper and lower edges from a closed position to an open position and means for causing the upper edge of said member to first rise and then fall without substantial change in level of the lower edge of the member as the member moves from either position into the other, whereby said member is normally prevented by gravity from moving into either of said positions from the other position.

2. In a locomotive ash pan, the combination of an inclined bottom member movable transversely to its upper and lower edges from a closed position to an open position, horizontal guides on which the lower edge of said member works during said movement, and means for causing the upper edge of said member to first rise and then fall as it moves from either position into the other, whereby said member is normally prevented by gravity from moving into either of said positions from the other position.

3. In a locomotive ash pan, the combination of a movable inclined bottom member, an arm or arms pivotally supported to turn about an axis parallel to the upper and lower edges of said member and pivotally connected to said member at a distance from said axis, said arm of arms, axis, and bottom member being so relatively arranged that as said member is moved from either its closed or open position into the other of those positions the pivotal connections between said arm or arms and said member swings over said axis.

4. In a locomotive ash pan, the combination of a movable inclined bottom member, an arm or arms pivotally supported to turn about an axis parallel to the upper and lower edges of said member and pivotally connected at a distance from said axis to said member adjacent its upper edge, said arm or arms axis and bottom member being so relatively arranged that as said member is moved from either its closed or open position into the other of those positions the pivotal connections between said arm or arms and said member swings over said axis, and guides on which the lower edge of said member slides during the opening and closing movements.

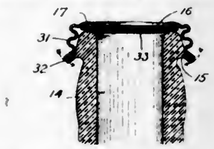
5. In a locomotive ash pan, the combination of a movable bottom formed of two inclined members which in the closed position meet at their lower edges to form a trough-like ash support extending lengthwise of the pan, and which are movable transversely of their meeting edges each away from the other to open the bottom of the pan, and means for causing the upper edge of each member to rise and fall without substantial change in the level of the lower edge of the member as the member moves from either the open or closed position into the other, whereby said member is normally prevented by gravity from moving into either of said positions from the other position

[Claims 6 to 14 not printed in the Gazette.]

938,825. BOTTLE-CLOSURE. FRANCIS W. H. CLAY, Pittsburg, Pa. Filed Jan. 13, 1906. Serial No. 295,844.

1. A bottle closure comprising a cover, attached arms embracing the bottle head, members integral with the arms and angularly disposed in position to engage under the ledge of the bottle head, parts of said engaging members being arches of metal adapted to retain the engagement by bending the arches, substantially as described.

2. The combination with a bottle having an outside annular ledge, of a closure comprising a cover, members embracing the head, and an integral part of said embracing members standing at an inclination and adapted to engage the ledge on the edge of the metal, said engaging parts being composed of arches of metal, whereby bending said arches may retain the engaging members permanently in engaging position, substantially as described.



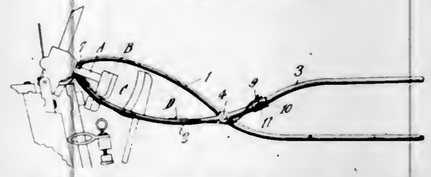
3. In a bottle closure the combination of a cover for the bottle mouth, means to engage the bottle head, and an elastic connecting part between the cover and engaging means, adapted to be stretched by the latter as it is moved to its final position.

4. In a bottle closure the combination of a cover having elastic legs and means on the legs to simultaneously engage the head of the bottle and to place the said legs under tension to draw the cover down on the bottle.

5. In a bottle closure the combination of a cover having elastic legs and a connected lever ring on the legs adapted to engage the bottle head and place the legs under tension.

[Claims 6 to 11 not printed in the Gazette.]

938,826. TOOL FOR APPLYING BRIDLES TO PIANO-ACTIONS. ARTHUR G. CRAWFORD, New Castle, Pa. Filed Dec. 28, 1908. Serial No. 469,550.



1. A tool of the class described comprising pivotally connected members having oppositely disposed jaws, means upon one of the jaws for engaging a bridle strap fastener and bridle strap engaging means adjustably mounted upon one of the members at a point remote from the jaws.

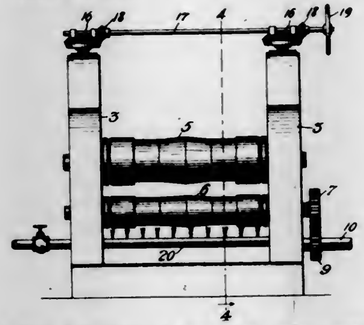
2. A tool of the class described comprising pivotally connected members having oppositely disposed jaws, means upon one of the jaws for detachably holding a bridle strap fastener thereon, the other jaw having a recessed working face, a sleeve adjustably mounted upon one of the members, means for holding the sleeve in adjusted position, and means outstanding from the sleeve for engaging one end of a bridle strap.

938,827. STEEL CAR-AXLE AND METHOD OF MAKING THE SAME. ANDREW C. CUNNINGHAM, Norfolk, Va. Filed Dec. 17, 1908. Serial No. 468,091.

1. The method of producing car axles of great hardness, toughness, ductility and strength, which consists in forming from a bloom a billet of steel of elliptical or flattened cross section, and second, working and shaping the said billet by cross or transverse rolling throughout its length under gradually increasing pressure, whereby the billet is reduced to a circular cross section and the steel is reduced to a substantially homogeneous, uniform fineness of structure or grain.

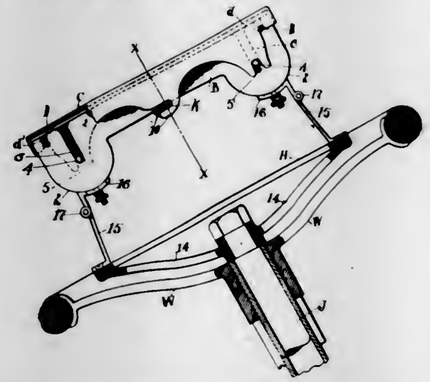
2. The method of producing car axles of great hardness, toughness, ductility and strength, which consists in first heating a billet or bloom of steel of the necessary size, second, forming said bloom into a billet of elliptical or flattened cross section by rolling the same longitudinally, and third, working and shaping said billet by cross or transverse rolling throughout its length under gradually increasing pressure.

3. The method of producing car axles of great hardness, toughness, ductility, and strength, which consists in first heating a billet or bloom of steel of the necessary size, second, forming said bloom into a billet of elliptical or flattened cross section by rolling the same longitudinally, third, working and shaping said billet by cross or transverse rolling throughout its length under gradually increasing pressure, and, fourth, subjecting the billet during such cross rolling to a blast of fluid medium to temper or harden the same.



4. A steel axle having a dense, fine, tough, crystalline grain or structure beyond that normally due to its carbon content, hardened uniformly on longitudinal elements, and of uniformly varying hardness on radial elements.

938,828. TOURING-MAP CARRIER FOR AUTOMOBILES. HARRY DALITZ, Cleveland, Ohio. Filed Nov. 17, 1908. Serial No. 463,120.



1. A tourist's map carrier for automobiles and like vehicles, comprising a body having trough shaped ends transversely with slots centrally therein open to the top of said body, and spools with spindles in said slots, in combination with a cover over said body provided with projections at its sides extending down over the upper portions of said slots and slotted at their extremities to engage over the ends of said spindles, said cover having downward projections centrally at its sides having horizontal open slots on a plane beneath said body and a locking device on the said body adapted to engage in said slots.

2. A casing for touring maps, in combination with standards therefor at its ends adjustable at their top, on the bottom of said casing, a steering wheel supporting rod and an annulus fixed thereon against rotation and said standards fixed on said annulus.

3. A tourist's map carrier comprising a casing to carry a map having ends rounded at their bottom, a fixed support and standards for said casing fixed at their lower ends on said support and consisting in curved slotted top portions adjustably secured to the rounded portions of the bottom of said body and rigid lower portions hinged to said upper portions of the standards, whereby the casing is adapted to be fixed to supports of different sizes.

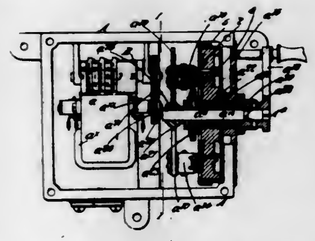
4. A casing adapted to carry a tourist's map on automobiles and the like and means to support the same comprising a fixed rod, a steering wheel rotatably mounted on said rod, an annulus rigidly fixed to the end of said rod above said wheel and relatively of smaller size than the wheel to leave room for the hands on the wheel, and standards supporting said casing from said annulus in a rearwardly inclined position, said standards having said casing adjustably fixed thereon.

938,829. METHOD OF MAKING SOLES FOR BOOTS AND SHOES. OSCAR C. DAVIS, Brockton, Mass. Filed Jan. 17, 1908. Serial No. 411,276.



That improvement in the method of making inner soles, which consists in applying to a fibrous sheet, a soluble bonding and stiffening material, allowing the latter to harden, channeling the sole while the said material is hard, to form a lip, softening the material in the said lip, bending the lip from the side of the sole while the lip is soft, and then allowing the material in said lip to harden.

938,830. ELECTRICAL APPARATUS FOR TRANSMITTING AND RECEIVING SIGNALS. ARTHUR T. DAWSON and GEORGE T. BUCKHAM, London, England, assignors to Vickers Sons & Maxim Limited, Westminster, England. Filed Nov. 27, 1905. Serial No. 289,242.



1. In electric signaling apparatus, the combination with a source of electric supply, of a dynamo electric device at the sending station having an armature formed with a plurality of pairs of poles, each pair of which is provided with an independent winding, a counting device mechanically connected to said armature, a similar dynamo electric device and counting device at each of the receiving stations, a transmitter at the sending station, electric circuits connecting said transmitter with the various dynamo electric devices and the latter with each other, and means whereby the movement of the transmitter causes the armature poles of the various dynamo electric devices at the receiving stations, together with the similar device at the sending station, to be excited in pairs successively and reversed in polarity at each excitation whereby said dynamo electric devices perform a step-by-step rotation in unison.

2. In electric signaling apparatus, the combination with a source of electric supply, of a dynamo electric device at the sending station having an armature formed with a plurality of pairs of poles, each pair of which is provided with an independent winding, a counting device mechanically connected to said armature, a similar dynamo electric device and counting device at each of the receiving stations, a transmitter at the sending station com-

prising a rotary hand switch and rotary contacts cooperating with stationary contacts, electric circuits connecting said stationary contacts with the independent windings on the pairs of armature poles of the dynamo electric devices and the latter with each other, and means whereby the movement of the said rotary hand switch and contacts from one stationary contact to another causes the armature poles of the various dynamo electric devices at the receiving stations, together with the similar device at the sending station, to be excited in pairs successively and reversed in polarity at each excitation whereby said dynamo electric devices perform a step-by-step rotation in unison.

3. In electric signaling apparatus, the combination with a source of electric supply, of a dynamo electric device at the sending station having an armature formed with two pairs of poles, each pair being provided with an independent winding, a counting device mechanically connected to said armature, a similar four pole dynamo electric device, and a counting device, at each of the receiving stations, a transmitter at the sending station, electric circuits connecting said transmitter with the various dynamo electric devices and the latter with each other, and means whereby the movement of the transmitter causes the armature poles of the various dynamo electric devices at the receiving stations, together with the poles of the similar device at the sending station, to be excited in pairs successively and reversed in polarity at each excitation whereby said dynamo electric devices perform a step-by-step rotation in unison.

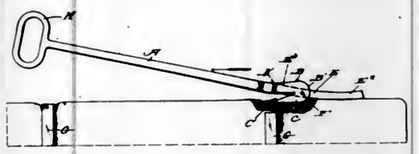
4. In electric signaling apparatus the combination with a source of electric supply, of a dynamo electric device at the sending station having an armature formed with a plurality of pairs of poles, each pair of which is provided with an independent winding, a counting device mechanically connected to said armature, a similar dynamo electric device and counting device at each of the receiving stations, a transmitter at the sending station comprising a rotary hand switch and rotary contacts cooperating with stationary contacts, electric circuits connecting said stationary contacts with the various independent windings on the pairs of armature poles of the dynamo electric devices and the latter with each other, means for normally keeping said rotary and stationary contacts separated, and means for causing said contacts to come together simultaneously with the initial angular movement of the hand switch to operate the rotary contacts.

5. In electric signaling apparatus, the combination with a source of electric supply, of a dynamo electric device at the sending station having an armature formed with a plurality of pairs of poles, each pair of which is provided with an independent winding, a counting device mechanically connected to said armature, a similar dynamo electric device and counting device at each of the receiving stations, a series of stationary contacts at the sending station, rotary contacts adapted to coöperate with said stationary contacts, electric circuits connecting said stationary contacts with the various independent windings on the pairs of armature poles of the dynamo electric devices and the latter with each other, a longitudinally sliding spindle carrying the rotary contacts, a handle on said spindle, a sleeve surrounding said spindle, a spring arranged between said spindle and sleeve, inclines on said spindle and sleeve coöperating with each other whereby the initial angular movement of the handle causes said spindle to slide in a direction to bring the rotary contacts in opposition to the aforesaid spring and means whereby said spring reacts to shift the spindle in the reverse direction when said handle is released.

[Claims 6 to 11 not printed in the Gazette.]

938,831. BAND-CUTTER. JOHN B. DEANE, New York, N. Y. Filed Jan. 28, 1909. Serial No. 474,845.

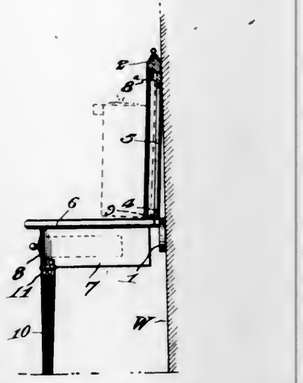
1. A band cutter comprising a bar terminating in a head, said head being provided with a downwardly extending and rearwardly tapering beak, said head and beak being longitudinally bifurcated, and a lever cutting bar pivoted in said head, one member working in the bifurcation of the head and beak, for the purpose of severing the band held between the head and beak, the other member of said cutting bar projecting forwardly beyond the head for the purpose set forth.



2. A band cutter comprising a bar terminating in a head, the end of said head being rounded, a beak projecting rearwardly and downwardly from said head, and tapering to an edge, thereby providing a V-shaped mouth or slot between the head and beak adapted to receive the band to be cut, said head and beak being longitudinally bifurcated, a cutting bar pivoted in said head, the shorter member working in the bifurcation and the longer member projecting forwardly from the head, and being slightly curved for the purpose specified.

3. A band cutter comprising a bifurcated head provided with means upon its under side for engagement with a band, a cutting bar fulcrumed in the bifurcated head and having its forward end projecting beyond said end, and a handle extending rearwardly from the head, as shown and described.

938,832. FOLDING CHAIR. WILLIAM W. DOZIER, West Nashville, Tenn. Filed Aug. 11, 1909. Serial No. 512,369.



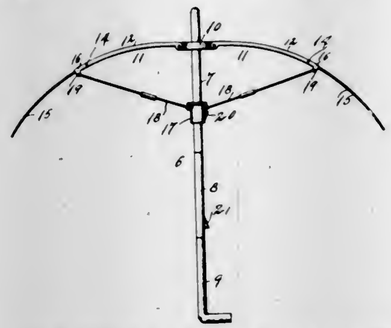
1. The combination with an upright support, of a chair seat hingedly mounted to swing from a horizontal to a vertical position and supporting legs connected to the seat to support the same when in horizontal position, said legs being adapted to assume a horizontal position when the seat is elevated and to serve as towel supporting arms.

2. The combination with an upright support, of a chair seat hinged thereto for swinging movement from a horizontal to a vertical position, a fastening for retaining the seat in vertical position and supporting legs hinged to said seat and adapted to support the same when in horizontal position, said legs being movable in a horizontal plane when the seat is elevated, whereby they may be used as towel supporting arms.

3. A folding chair for attachment to a wall or other upright support comprising a back portion for attachment to a support, a seat portion hinged to said back portion for vertical swinging movement, a fastening for retaining the seat portion in folded position against said back portion and legs hinged to said seat portion and adapted to support the same in horizontal position, said legs being adapted to swing in a horizontal plane when the seat portion is folded and to serve as towel supporting arms.

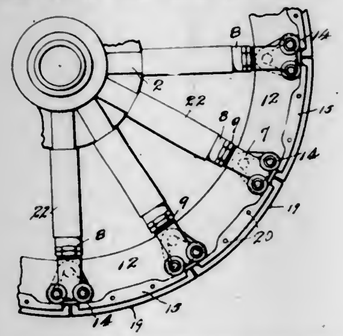
4. A folding chair for attachment to an upright support comprising a back portion having a substantially U-shaped member and a connecting cross bar forming an attaching plate, a seat portion consisting of a seat member and a frame carried thereby, a sliding drawer in said frame, hinges uniting said seat member to said back portion, a catch upon the back portion, a keeper upon the seat member to be engaged by said catch, and supporting legs hinged to said frame to swing outwardly and adapted to support the seat portion when in lowered position and to be disposed for swinging movement in a horizontal plane when the seat portion is elevated or folded, whereby said legs may be used as towel supporting arms.

938,833. FOLDING UMBRELLA. JOHN EDMONDSON, Blossburg, Ala. Filed Jan. 12, 1909. Serial No. 471,957.



A folding umbrella of the class described comprising a staff, inner rib sections pivotally connected therewith, each of said inner rib sections being of substantially U-shape in cross section to form spaced parallel walls throughout their length, outer rib sections, and pivots connecting the inner ends of the outer rib sections between the parallel walls of the inner rib sections at a considerable distance removed from the free ends of the latter to permit the entrance of the outer rib sections into the inner rib sections when the same are swung in alinement with each other.

938,834. CUSHION-WHEEL. ABRAM ELLIS, Augusta, Ga. Filed Feb. 24, 1908. Serial No. 417,350.



1. The combination of a hub, rigid spokes thereon, tread segments provided with registering flared slots engaging members of said spokes, sleeves movably mounted on the spokes and engaging the tread segments near their outer faces and springs intermediate the hub and the sleeves.

2. The combination of a hub, rigid spokes thereon, said spokes being forked at their outer ends, a transverse member in the end of each fork, independent tread segments having registering flared slots inclosing said transverse members, sleeves movably mounted on the spokes and forked at their outer ends, rollers carried by the sleeves and engaging the tread segments at a considerable distance outwardly from said transverse members and springs intermediate the sleeves and the hub.

3. The combination of a hub, rigid forked spokes therein, independently movable tread segments each comprising a web and a tread, the adjacent ends of the webs of each pair of segments being overlapped and provided with registering outwardly flaring slots, said overlying ends being arranged in the forks of the spokes, guide-rollers carried by the forks within the slots and normally engaging the tops thereof, sleeves movably mounted on the forks and provided with rollers engaging the said treads of the segments and springs intermediate the hub and the sleeves.

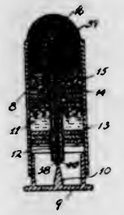
4. The combination of a hub, forked spokes rigidly mounted therein, tread segments comprising webs having their ends overlapped within the forks and provided with registering flared slots and tread segments, rollers carried by the forks and normally engaging the tops of said slots, sleeves mounted for reciprocation on the spokes, and forked to accommodate the webs of the tread segments, each side of the fork of each sleeve carrying two rollers, said rollers engaging suitably shaped tracks provided upon the inner faces of the treads.

938,835. PENCIL-POINT SHARPENER. ADOLPH W. ELSNER, St. Louis, Mo. Filed Jan. 29, 1909. Serial No. 474,958.



A pencil point sharpener comprising a knife handle and a combined whittling and erasing knife blade in alinement with the handle, and a knife blade casing and holder having depressed surfaces forming heads and leaf abrading strips located on the depressed surfaces; the handle of the knife also providing a handle for the casing and holder.

938,836. MEANS FOR CLEANING GUNS. REGINALD A. FESSENDEN, Washington, D. C. Filed Oct. 6, 1906. Serial No. 337,736.



1. Means for cleaning gun-barrels, comprising a cartridge having a projectile or cleaning plug formed by a cleaning wad impregnated with a detergent, and a body of non-corrosive lubricant behind said wad, the cartridge also containing means for forcing the projectile through a gun barrel; substantially as described.

2. Means for cleaning gun barrels, comprising a cartridge having a cleaning plug or projectile formed by a bullet-shaped wad of fibrous material carrying a detergent, and a body of non-corrosive lubricant behind the said wad, and means also contained within the cartridge for forcing it through a gun barrel, substantially as described.

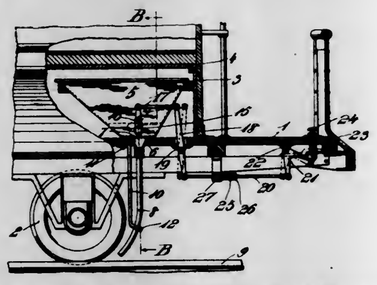
3. Means for cleaning gun barrels, comprising a cartridge having a cleaning plug or projectile formed by a

bullet-shaped wad of fibrous material carrying a detergent, a body of non-corrosive lubricant behind the said wad, a second wad behind said body of lubricant, and means also contained within the cartridge for forcing it through a gun barrel, substantially as described.

4. Means for cleaning guns, comprising a cartridge containing a cleaning plug, having an alkaline substance and a rust preventive substance, and means also contained within the cartridge for forcing it through a gun barrel, such means being of a non-corrosive character, substantially as described.

5. Means for cleaning gun barrels comprising a cartridge containing a cleaning plug, expansive means for forcing the plug through the barrel, and devices automatically operated by the closing of the gun breech for freeing the plug-forcing means.

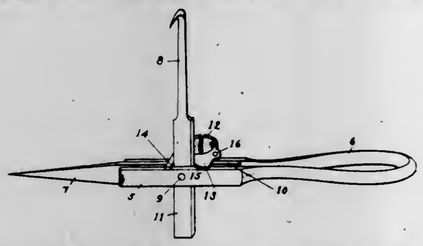
938,837. CAR-TRACK-SANDING DEVICE. WILFRED E. FIELDING, Paterson, N. J. Filed July 20, 1909. Serial No. 508,602.



1. A car track sanding device comprising a sand box located beneath the car seat, a sand delivering pipe provided with a funnel upper section supported from the car floor in proximity to the lower end of the sand box and a swinging valve on the outer face of the side of the sand box for controlling the supply of sand to the sand delivering pipe.

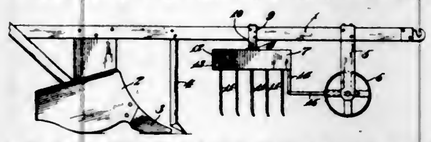
2. A car track sanding device comprising a sand box located beneath the car seat, a sand delivering pipe provided with a funnel section at its upper end supported from the floor of the car beneath the car seat and off at one side of the sand box, a swinging valve located on the outer side of one side of the sand box for controlling the supply of sand to the sand delivering pipe and a system of spring-actuated levers for placing the valve under the control of the foot of the operator.

938,838. MINER'S CANDLESTICK. CARL FISK, Spokane, Wash. Filed Mar. 22, 1909. Serial No. 484,975.



A miner's candle stick comprising spaced shanks, a spike and a hook pivoted therebetween, a candle socket pivoted to one of the shanks, and ears projecting from the socket, said ears being adapted to straddle the shanks and the parts pivoted therebetween, and having alined notches in one of their edges through which the shank of the hook extends when in open position, whereby said hook-shank is engaged on opposite sides and on one side of its pivot by one of said ears, and on opposite sides and on the other side of its pivot by the other ear.

938,839. ATTACHMENT FOR PLOWS. PATRICK FLYNN, Philadelphia, Pa. Filed June 8, 1909. Serial No. 500,840.



1. In combination with a plow having a beam, a bar pivotally supported between its ends on the beam of the plow, teeth connected to said vertical bar, and means for continuously oscillating said bar and teeth.

2. In combination with a plow having a beam, a bracket secured to the beam, a horizontal bar pivotally secured between its ends to the bracket, teeth connected to said bar, springs holding said teeth in normal position, and means for oscillating said bar and teeth.

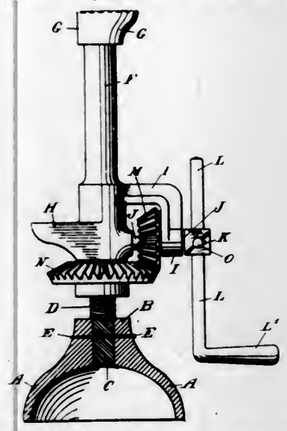
3. In combination with a plow having a beam, a bracket secured to the beam, a horizontal channel bar pivotally secured between its ends to said bracket, teeth pivotally secured at their upper ends in said channel bar, springs between said teeth and rear wall of said channel bar, and means for oscillating said bar and teeth.

4. In combination with a plow having a beam, a wheel supporting the forward end of said beam, a bracket on the beam, a horizontal bar pivotally supported between its ends on said bracket, teeth depending from said bar, an arm depending from said bar, and a pitman connecting said arm eccentrically with said wheel.

5. In combination with a plow having a beam, a depending bracket on the beam, a wheel having rotary mounting in said bracket, and supporting the forward end of said beam, a bifurcated bracket secured to the beam in rear of the first mentioned bracket, a horizontal channel bar disposed at an angle to the beam, and pivotally secured between its ends to said bifurcated bracket, teeth pivotally mounted at their upper ends in said channel bar, springs normally holding said teeth in their forward position, a depending arm on one end of said channel bar, and a pitman connecting said arm eccentrically with said wheel.

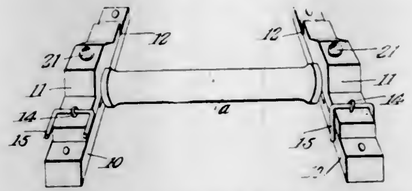
[Claims 6 and 7 not printed in the Gazette.]

938,840. SCREW-JACK. CHARLES V. FOWLER, Los Angeles, Cal. Filed Apr. 9, 1908. Serial No. 426,600.



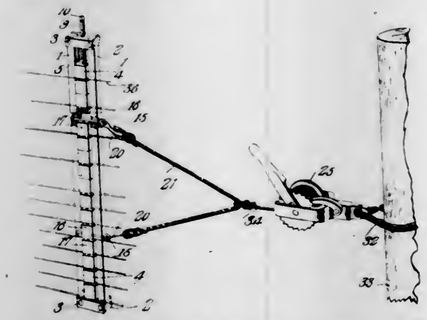
A screw jack wherein the screw is rigidly fastened to, and as one member with the base of a screw jack, and immovable in relation to said base rotatively as well as upward and downward, a tubular member fitting over said fixed screw, said tubular member having a lifting head or top, and a second lifting member at a lower level than the head, a bracket on said tubular member carrying a rotatable axle, said axle having at its inner end a bevel pinion, a bevel wheel having a screw thread and rotatable upon the screw of the jack, said bevel pinion and bevel wheel gearing with each other and operable rotatively so as to raise or lower the tubular member of the jack, the lifting head and second lifting member thereof.

938,841. JOURNAL-BOX. GEORGE FROWEN, Pleasant Unity, Pa. Filed Aug. 25, 1908. Serial No. 450,178.



In a journal box, a pillow block, a cap block having one end pivotally connected with the pillow block, an eye-bolt threaded through the cap block and the end of the pillow block whereby to secure the cap block upon the pillow block, and a U-shaped bail having a connecting portion engaged through the eye of the bolt and having its spaced portions spaced apart a distance equal to the width of the block whereby the bail may be swung downwardly with its spaced portions lying one to each side of the pillow and cap block to hold the same against displacement, and to hold the bolt against rotation, said spaced portions, when moved to position to extend upwardly, serving as handles whereby the bolt may be rotated.

938,842. WIRE-CLAMP. SUMMERS GIBSON, Edray, W. Va., assignor to Winters Gibson, Edray, W. Va. Filed May 11, 1909. Serial No. 495,307.



1. In a device of the class described, a frame comprising side strips; a series of blocks terminally disposed between the side strips and slidable therebetween, longitudinally of the strips, the blocks being laterally extended upon either side of the frame to form coöperating jaws; and means for moving the blocks into mutual gripping relation.

2. In a device of the class described, a frame comprising side strips; a series of blocks terminally disposed between the strips, and slidable therebetween, longitudinally of the strips, the blocks being laterally extended to form cooperating jaws upon either side of the frame, the blocks and the strips being provided with interlocking elements; and means for moving the blocks into mutual gripping relation.

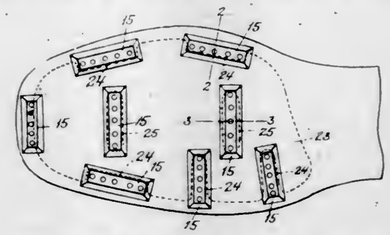
3. In a device of the class described, a frame comprising side strips; a series of blocks terminally disposed between the strips and slidable therebetween, longitudinally of the strips, the blocks and the strips being provided with interlocking elements; and means for moving the blocks into mutual gripping relation.

4. In a device of the class described, a frame comprising side strips; a transverse tie member uniting the strips and terminally provided with means for receiving a tension member; a series of blocks constituting coöperating jaws, terminally mounted between the strips, and slidable therebetween, certain of the blocks being cut away to straddle the tie member; and means for moving the blocks into mutual gripping relation.

5. In a device of the class described, a frame comprising side strips; a transverse tie member uniting the strips, and terminally provided with means for receiving a tension member; a series of blocks, constituting coöperating jaws, terminally mounted between the strips and slidable therebetween, certain of the blocks being cut away to straddle the tie member; the blocks and the strips being provided with interlocking elements; and means for moving the blocks into mutual gripping relation.

[Claims 6 and 7 not printed in the Gazette.]

938,843. SPORTING-SHOE. DANIEL J. GOLDEN, Randolph, Mass. Filed Aug. 5, 1909. Serial No. 511,389.



A shoe of the character stated having an outer sole, an inner sole, protuberances bearing on the tread face of the outer sole, fastening members extending through both soles and attaching the said protuberances thereto, and an intermediate flexible pressure-supporting plate interposed between the two soles, and having openings arranged to receive the fastening members, the area of the openings being greater than the space occupied by the fastening members, to permit the insertion of the latter without contact with the plate, and the portions of the plate forming the margins of said openings being adapted to resist inward pressure exerted through said protuberances and fastening members.

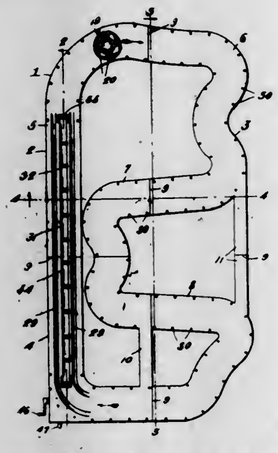
938,844. TOY. HENRY R. GRAHAM, Jr., Paico, Kans. Filed Mar. 25, 1909. Serial No. 485,726.

1. A toy comprising a continuous track having two inclined portions, one being straight and the other tortuous, means on the straight inclined portion of the track for moving an object up to the top of the same, whereby it will travel by gravity down the tortuous inclined portion of the track, a car-like object mounted to travel around the track, figures upon the car-like object and provided with resiliently supported parts and means for spinning or turning the car-like object in different directions as it travels down the tortuous portion of the track, whereby the resiliently supported parts of the figures in said object will be oscillated.

2. A toy comprising an inclined track, a car-like object to travel by gravity down said track, figures in said body and having resiliently supported parts and means upon the track for spinning or turning said object in different directions as it travels down the track, whereby the resiliently supported parts on said figures will be oscillated.

3. A toy comprising a continuous track having two inclined portions, one being straight and the other tortuous.

said track being composed of detachable sections having a pin and socket connection, detachable upright supports for the track and having pin and socket connections with the track sections, means on the straight inclined portion of the track for moving an object to the top of the same, whereby it will travel by gravity down the tortuous inclined portion of the track, and a car-like object to travel around the track and adapted to be engaged and actuated by said elevating means.



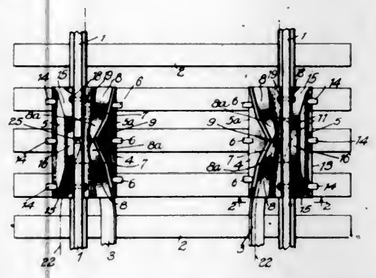
4. A toy comprising a continuous track having two inclined portions, one being straight and the other tortuous, means on the straight inclined portion of the track for moving an object to the top of the same, whereby it will travel by gravity down the tortuous inclined portion of the track, a car-like object mounted on spherical supporting rollers to travel around the track and containing figures provided with resiliently supported parts, said car-like object being adapted to be engaged and actuated by said elevating mechanism on the straight inclined portion of the track and spaced pins arranged on the sides of the tortuous portion of the traek and adapted to be struck by said car-like object, whereby the latter will be spun or turned in different directions as it travels down the tortuous portion of the track.

5. A toy comprising a continuous track having straight and tortuous inclined portions, said straight inclined portion being formed with a central longitudinally extending channel and with longitudinal grooves on opposite sides of said channel, an endless elevator consisting of a belt provided with transverse ribs, the upper stretch of said belt being adapted to travel through the central channel of the straight inclined portion of the track, means for actuating said belt, a car-like object to travel around the track, spherical supporting rollers arranged in the bottom of said object and adapted to work in grooves on said straight inclined portion of the track, and ribs upon the bottom of said object to be engaged by the ribs on the upper stretch of the belt, whereby said object will be carried up the straight inclined portion of the track by said belt.

938,845. RERAILER. OSCAR B. GRANT, Davenport, Iowa. Filed May 17, 1909. Serial No. 496,607.

1. In combination with a car rail and its supporting ties, a guard rail parallel with said car rail, and a rerailer adapted to coöperate with said guard rail, said rerailer consisting of a vertical retaining wall and an incline sloping upwardly and toward said rail, said incline being thereby adapted to return a derailed car wheel to said rail.

2. In combination with a car rail and its supporting ties, a guard rail parallel to said car rail, and a rerailer adapted to coöperate with said guard rail, said rerailer consisting of a vertical retaining wall substantially continuous with said guard rail and directed inwardly toward said car rail, and an incline sloping upwardly and between said retaining wall and said rail, said device being thereby adapted to return a derailed car wheel to said car rail.



3. In combination with a car rail, a rerailer consisting of a supporting base, a vertical retaining wall in the form of an angle with its apex toward said rail, inclines sloping upwardly from the ends of said wall toward said apex, a projecting portion for said rerailer, said portion extending under the head and over the flange of the rail, an extension passing under the flange of said rail, said extension being integral with said rerailer, and a detent on said extension, said detent serving to retain said rerailer against lateral displacement from said rail.

4. In combination with a car rail, a rerailer consisting of two members on opposite sides of the rail, the first member having a vertical retaining wall and an incline adapted to guide and return a derailed wheel to the rail and the second member having an incline the highest portion of which is substantially on a level with the upper surface of the head of the rail, said second member thereby being adapted to elevate the derailed wheel to the rail, and projections from each member extending beneath said rail.

5. In combination with a car rail, a rerailer consisting of two members on opposite sides of the rail, the first member having a vertical retaining wall and an incline adapted to guide and return a derailed wheel to the rail, the second member having an incline the highest portion of which is substantially on a level with the upper surface of the head of the rail, said second member being thereby adapted to elevate the derailed wheel to the rail, projections from each member extending beneath said rail, and detents on said projections, said detents being adapted to retain said members against lateral displacement.

[Claims 6 to 14 not printed in the Gazette.]

938,846. SELF-FEEDING MARKER. ADELBERT G. GUNN, Coffeyville, Kans. Filed Oct. 31, 1908. Serial No. 460,537.

1. In a device of the character described, the combination with a casing, having a nozzle, of a screw-threaded plunger rod having a yieldable clamp mounted in said nozzle, said nozzle constructed for holding said clamp against rotary movement, and means for adjusting said plunger.

2. In a device of the character described, the combination with a casing having a nozzle, of a plunger rod having a yieldable clamp, a wick carried by said clamp, and means for adjusting said plunger.

3. In a device of the character described, the combination with a casing having a nozzle, of a plunger rod having a yieldable clamp, said clamp being adjustable longitudinally of said rod, a wick carried by said clamp, and means for adjusting said plunger.

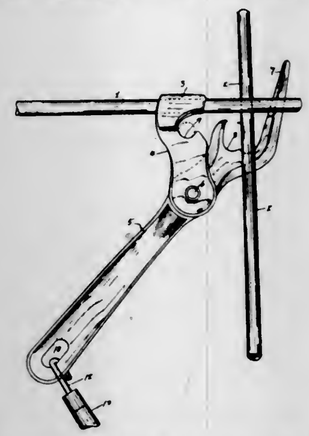
4. In a device of the character described, the combination with a casing having a detachable nozzle provided with a flattened and contracted terminal, of a plunger rod having a yieldable clamp, the sides of said clamp lying contiguous the inner surfaces of said nozzle terminal, means for adjusting said plunger, and a wick carried by said clamp.



5. In a device of the character described, the combination with a casing having a nozzle provided with a flattened and contracted terminal, of a plunger rod having a yieldable clamp equipped with curvilinear convergent extremities which are designed to lie contiguous said nozzle terminal, means for adjusting said plunger, and a wick carried by said clamp, the latter being adjustable relative to said rod.

[Claims 6 and 7 not printed in the Gazette.]

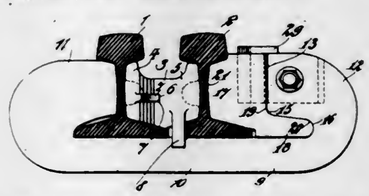
938,847. CLAMPING MECHANISM FOR LITTER-SUPPORTING CABLES. WILLIAM GUTENKUNST, Milwaukee, Wis. Filed Aug. 16, 1909. Serial No. 512,968.



1. In a device for clamping over-head crossed cables together, the combination of a suspension member, provided with a hook adapted to engage and be suspended from the upper cable, and a recess for the reception of the lower cable of an operating lever pivotally connected to said suspension member and provided with a lifting member, adapted as said lever is lowered to engage and raise said cable and throw the same into the retaining recess of said suspension member.

2. The combination of two cables arranged at an angle to each other, a suspension member provided with a hook adapted to engage the upper most of said cables and with a recess for the reception of the lower cable, a lifting lever provided with a recess for the reception of the lower cable, and a lifting member adapted as said lever is moved to engage the lower cable and throw the same into the recess of said suspension member, all substantially as and for the purpose specified.

938,848. GUARD-RAIL CLAMP. GEORGE L. HALL, New York, N. Y., assignor to The National Railway Materials Company, New York, N. Y., a Corporation of New York. Filed Mar. 24, 1909. Serial No. 485,369.



1. A rail clamp comprising a clamp bar formed at one end with means for engaging a rail and at its other end with an upwardly extending part or yoke, a wedge formed with a track-engaging side and with an oblique side adapted to engage the clamp bar, and a locking part adapted to be inserted between the clamp bar and the wedge to lock the wedge.

2. A rail clamp comprising a clamp bar provided at one end with means for engaging a rail and at its other end with an upwardly extending part or yoke, a wedge formed with a track-engaging side and with an oblique side adapted to engage the clamp bar, a locking part adapted to be inserted between the clamp bar and the wedge to lock the wedge, and means for connecting the locking part to the clamp bar.

3. A rail clamp comprising a clamp bar provided at one end with means for engaging a rail and at its other end with an upwardly extending part or yoke, a wedge formed with a track-engaging side and with an oblique side adapted to engage the clamp bar, one face of said wedge being corrugated, and a similarly corrugated locking block adapted to be inserted between the clamp yoke and the corrugated face of the wedge to lock the wedge in position.

4. A rail clamp comprising a clamp bar provided at one end with means for engaging a rail and at its other end with an upwardly extending part or yoke, a wedge formed with a track-engaging side and with an oblique side adapted to engage the clamp bar, the outer vertical face of said wedge being vertically corrugated, and a similarly corrugated locking block adapted to be inserted between the vertical face of the clamp yoke and the corrugated outer face of the wedge to lock said wedge in position.

5. A rail clamp comprising a clamp bar provided at one end with means for engaging a rail and at its other end with an upwardly extending part or yoke, a wedge formed with a track-engaging side and with an oblique side adapted to engage the clamp bar, one face of said wedge being corrugated, a similarly corrugated locking block adapted to be inserted between the clamp yoke and the corrugated face of the wedge to lock the wedge in position, and means for securing the locking block to the clamp yoke.

[Claims 6 to 11 not printed in the Gazette.]

938,849. ASSAYING COMPOSITION. JOSEPH C. HAMES, Goldfield, Nev. Filed Apr. 21, 1909. Serial No. 491,315.

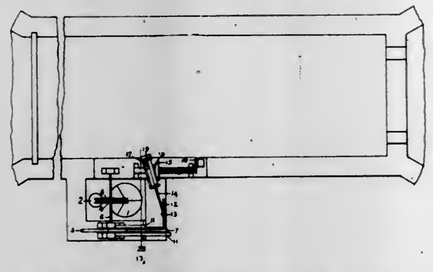
1. A composition of matter for the purpose described, comprising camphor, iodin and potassium iodid.

2. A composition of matter for the purpose described, comprising gum camphor 1 part, iodin crystals 20.736 parts, potassium iodid 41.471 parts, and water 310. parts.

938,850. SELF-REGISTERING WATER-METER. FRANK W. HANNA, Defiance, Iowa, assignor of one-half to Joseph H. Root, Port Byron, N. Y. Filed Dec. 19, 1908. Serial No. 468,285.

1. The combination of a measuring box with an outlet in an outlet canal receiving water from a supply canal or

reservoir; a counterweighted float actuated by the fluctuating height of water in the said measuring box; a spherical mechanical integrator provided with an arm, a propeller, a clock mechanism and a registering device; a cam-wheel, the successive radius vectors of the perimeter of which measured from the center of rotation are proportional to the successive discharges of the outlet in the measuring box for corresponding hydrostatic heads thereon between zero and a suitable upper limit; a means for mechanically connecting the said cam-wheel with the said float; and a means for mechanically connecting the said cam-wheel with the said arm of the said mechanical integrator; the whole effecting a register of the quantity of water discharged from the supply canal or reservoir.



2. The combination of a measuring box with a weir outlet in an outlet canal receiving water from a supply canal or reservoir; a counterweighted float actuated by the fluctuating height of water in the said measuring box; a sheave actuated by and supporting the said counterweighted float; a spherical mechanical integrator provided with an arm, a propeller, a clock mechanism and a registering device; a sliding bar for effecting movement of the said arm of the mechanical integrator, proportional to the discharges of the said weir outlet of the said measuring box; a cam-wheel the polar equation of the perimeter of which with the origin of coördinates in the plane of and at the center of rotation of the cam-wheel is

$$r \text{ equals } C R^{\frac{1}{2}} \theta^{\frac{3}{4}},$$

in which r is the radius vector of the perimeter of the cam-wheel, R the radius of the said sheave, θ the angle of rotation through which the said cam-wheel turns as the water rises from the elevation of the weir crest to the elevation at which the point, r, θ, of the perimeter of the cam-wheel comes in contact with the said sliding bar, C a constant for fixing a desirable value for the ratio of r to $R^{\frac{1}{2}} \theta^{\frac{3}{4}}$, in which r is the radius vector of the perimeter of the cam-wheel, R the radius of the said sheave, θ the angle of rotation through which the said cam-wheel turns as the water rises from the elevation of the weir crest to the elevation at which the point, r, θ, of the perimeter of the cam-wheel comes in contact with the said sliding bar, C a constant for fixing a desirable value for the ratio of r to $R^{\frac{1}{2}} \theta^{\frac{3}{4}}$; a means for mechanically connecting the said cam-wheel with the said sheave; a means for securing continuous contact between the said sliding bar and the said cam-wheel; a means for mechanically connecting the said sliding bar with the said arm of the said mechanical integrator; the whole effecting a register of the quantity of water discharged from the supply canal or reservoir.

938,851. DEVICE FOR EMPTYING THE MAGAZINES OF REPEATING SHOTGUNS. FREDERICK HARDY, Columbia, Tenn., assignor to Richard Edgar Haynes, trustee, Columbia, Tenn. Filed Mar. 25, 1909. Serial No. 485,648.

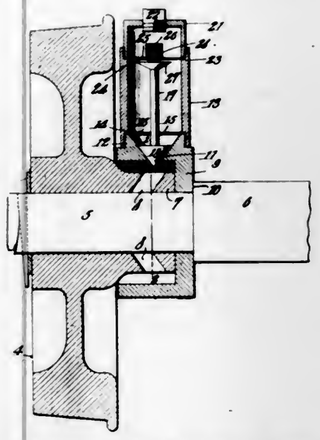
1. The combination, with a magazine, a portion of a gun having a cartridge chamber, and a cartridge carrying wing carrying a spring for retaining the cartridges in the magazine; of means mounted in the wall of the cartridge chamber for depressing the spring and releasing the cartridges.

2. The combination of a magazine, a portion of a gun having a cartridge chamber and a cartridge carrying wing carrying a spring, for retaining the cartridges in the mag-



azine, provided with a shelf, and a lever mounted in the wall of the cartridge chamber and having a head adapted to engage the shelf for depressing the spring and releasing the cartridges.

938,852. CAR-AXLE LUBRICATOR. THOMAS HARDY, Jr., and AUGUST DROLL, Troy, Ill. Filed Mar. 16, 1909. Serial No. 483,730.



1. The combination with a rotatable element having lubricant openings, and its journal, of a box inclosing said openings, a lubricant container having an outlet communicating with the box, a valve controlling said outlet, and means on the rotatable element operating automatically to periodically open said valve.

2. The combination with a rotatable element having lubricant openings, and its journal, of a box inclosing said openings, a lubricant container having an inlet and an outlet, the latter communicating with the box, valves controlling said inlet and outlet, one of said valves closing when the other opens, and vice versa, and means on the rotatable element for periodically operating said valves.

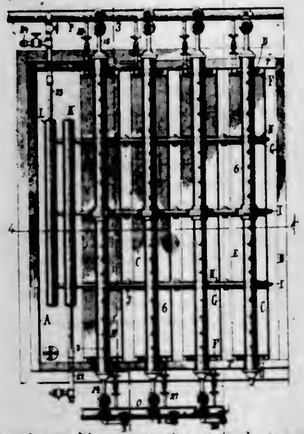
3. The combination with a rotatable element having lubricant openings, and its journal, of a box inclosing said openings, and having a valve seat, a valve for said seat, a lubricant container in communication with the valve-seat, and means on the rotatable element operating automatically to periodically open said valve.

4. The combination with a rotatable element having lubricant openings, and its journal, of a box inclosing said openings and having a valve seat, a valve for said seat, a lubricant container in communication with the valve-seat, and a cam on the rotatable element engageable with the valve for opening the same.

5. The combination with a rotatable element having lubricant openings, and its journal, of a box inclosing said openings and having a valve seat, a valve for said seat, a lubricant container in communication with the valve-seat, means for normally holding the valve seated, and means on the rotatable element operating automatically to periodically open said valve.

[Claims 6 and 7 not printed in the Gazette.]

938,853. APPARATUS FOR MAKING ICE. DAVID J. HAVENSTRITE, Newark, N. J. Filed July 1, 1908. Serial No. 441,379.



1. In an ice making apparatus, a tank, a series of individual molding cells therein each cell having all of its walls independent of the tank walls, a header extending over said cells, and groups of refrigerating tubes depending from said header the said groups of tubes being respectively disposed within said cells.

2. In an ice making apparatus, a tank, a plurality of molding cells therein having walls independent of the tank walls, a support, refrigerating tubes depending from said support disposed within said cells, and means for thawing off the ice cake formed in contact with the inner surface of each cell.

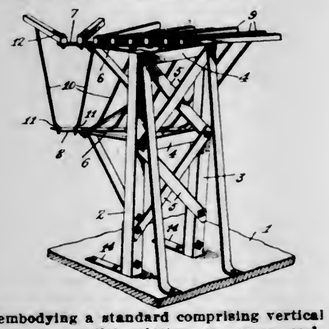
3. In an ice making apparatus, a tank, a plurality of molding cells therein having walls independent of the tank walls, a support, refrigerating tubes depending from said support disposed within said cells, and means for thawing off the ice cake formed in contact with the inner surface of each cell, and coils for conveying liquid disposed in proximity to the outer surface of each cell.

4. In an ice making apparatus, a tank, a three-sided mold cell therein receiving the water to be frozen and formed of a horizontal member and two members rising therefrom, a support, and refrigerating tubes depending from said support and disposed within said cell.

5. In an ice making apparatus, a tank, a series of mold cells therein, each cell being formed of a transverse bottom plate common to all of said cells and a pair of plates rising therefrom, a header above said cells, and groups of refrigerating tubes depending from said header and respectively disposed within said cells.

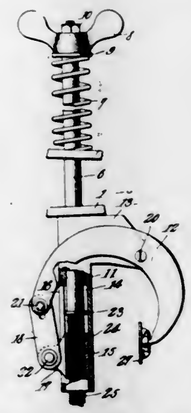
[Claims 6 to 11 not printed in the Gazette.]

938,854. RACK. CLARENCE J. HAWKINS, Larned, Kans. Filed Feb. 19, 1909. Serial No. 478,897.



A rack embodying a standard comprising vertical posts braced apart in parallel relation, an upper and lower bracket mounted to one of the posts in vertical alinement, supporting bars secured to the opposite posts and to the outer ends of said brackets, thereby forming a triangular supporting frame, hanger arms pivotedly secured to the upper support, brace rods pivotedly attached to the lower support and engaging the free ends of the hanger arms, foot brackets one side of the standard beneath the hanger arms and legs on the other side of the standard connected to the top of the posts and extending downwardly at an angle and in alinement therewith to rest upon the floor.

938,855. WRINGER-CLAMP. PETER HELFRICH, Orleans, Nebr. Filed Jan. 5, 1909. Serial No. 470,832.



1. A wringer clamp comprising a fixed jaw having a projecting bridge piece; a movable jaw pivoted to the bridge piece and having forked arms to inclose the fixed jaw; a rod slidably mounted in the fixed jaw; and means for operatively connecting the terminal of the rod with the movable jaw.

2. A wringer clamp comprising a fixed jaw; a movable jaw pivoted to the fixed jaw; an internally threaded rider slidably mounted in the fixed jaw; a rod slidably and rotatably mounted in the fixed jaw and terminally threaded to engage the rider; and means for operatively connecting the rider with the movable jaw.

3. A wringer clamp comprising a fixed jaw having a projecting bridge piece; a movable jaw pivoted to the bridge piece and having forked arms to inclose the fixed jaw; an internally threaded rider slidably mounted in the fixed jaw; a rod slidably and rotatably mounted in the fixed jaw and externally threaded to engage the rider; and a link pivotally connecting the rider with the terminals of the arms of the movable jaw.

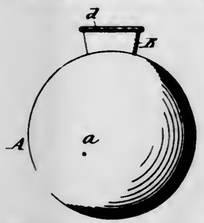
4. A wringer clamp comprising a fixed jaw; a movable jaw pivoted to the fixed jaw; a rider slidably mounted in the fixed jaw; a link pivotally uniting the rider with the movable jaw; and means for reciprocating the rider in the fixed jaw.

5. A wringer clamp comprising a fixed jaw; a movable jaw pivoted to the fixed jaw; a rider slidably mounted in the fixed jaw; a link pivotally uniting the rider with the movable jaw; and a rod slidably mounted in the fixed jaw and operatively connected with the rider, the rod being provided with a shoulder to engage the fixed jaw to limit the sliding movement of the rod.

938,856. BUST-PAD. ALBERT C. HENDERSON, Buffalo, N. Y. Filed Feb. 11, 1909. Serial No. 477,268.

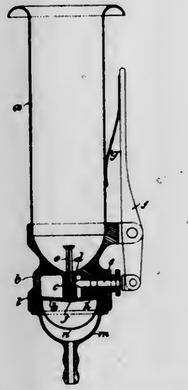
A bust pad comprising an elastic casing having a hollow body and a contracted tubular neck which communicates at its inner end with the interior of said body while its outer end is open to the atmosphere, and a filling of fibrous resilient material arranged in the body of the

casing, said neck being expansible for increasing the size of the opening in the same and provided with an annular



enlargement or strengthening rim for preventing tearing of said neck when the same is expanded.

938,857. MILKING APPLIANCE. JACOB HENRICHSEN and CARL J. HEMMINGSEN, Copenhagen, Denmark. Filed Dec. 11, 1908. Serial No. 466,932.



1. In a milking appliance, the combination of a suction-cup having a passage leading to the suction-pipe, and a flexible diaphragm to close said passage automatically when the flow of milk ceases.

2. In a milking appliance, the combination of a suction-cup to be applied to the teat and having a milk-passage leading to the suction-pipe, and a flexible diaphragm which normally closes said passage, but which permits the passage of the milk.

3. In a milking appliance, the combination of a suction-cup having a milk-passage, a perforated diaphragm normally closing said passage, and means to move said diaphragm away from the passage to start the flow of milk through the same.

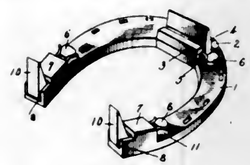
4. In a milking appliance, the combination of a suction-cup having a milk-passage, a perforated diaphragm normally closing said passage, and a valve by which the pressure on the diaphragm toward the side of the suction-cup may be increased in order to move the diaphragm away from the milk-passage.

5. In a milking appliance, the combination of a suction-cup having a milk-passage, a perforated diaphragm normally closing said passage, and manually operated means by which said diaphragm may be moved away from the milk-passage to start the flow of milk, the diaphragm being so adjusted that when the milk ceases to flow through the milk-passage the diaphragm will return to its seat and close the latter.

[Claims 6 and 7 not printed in the Gazette.]

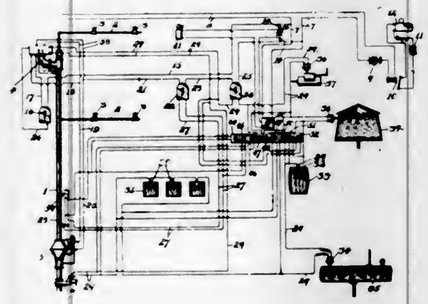
938,858. HORSESHOE. JOHN H. HERSHBERGER, Wilkes-Barre, Pa. Filed May 13, 1909. Serial No. 495,602.

In combination, a horseshoe provided with an elongated recess having parallel side walls and retaining flanges, said recess being open at both ends and a fixed projection with divergent side walls, outside, adjacent one end and in line with said recess, a calk provided with a horizontal shank of uniform width and thickness to fit said recess



and having flexible prongs adapted to be opened by the projection when the calk body is forced against said projection, thereby locking the calk against movement in either direction.

938,859. AUTOMATIC FIRE-EXTINGUISHER AND SIGNALING SYSTEM. RICHARD B. HEWITT and JAMES G. NOLEN, Chicago, Ill.; said Nolen assignor of one-half of his right to Frank B. Cook, Chicago, Ill. Filed May 29, 1903. Serial No. 159,232.



1. The combination with an automatic fire extinguisher system comprising a riser, having therein a dry-pipe valve and a relief valve, distribution pipes connected to the riser between the said valves, and sprinkler heads on the distribution pipes, of a source of current supply, circuit connections, valve-opening current responsive devices in said circuit, associated one with each of said valves, and circuit controlling devices, to the operation whereof both valve-opening devices respond, associated with the piping for actuation by air pressure variations therein.

2. The combination with an automatic fire extinguisher system comprising a riser, having therein a dry-pipe valve and a relief valve, distribution pipes connected to the riser between said valves and sprinkler heads on said distribution pipes, of a source of current supply, means operated thereby for effecting the opening of the dry pipe and relief valves when one or more sprinkler heads open, and means operated thereby for effecting a closure of the relief valve when the water reaches a predetermined level in the piping system.

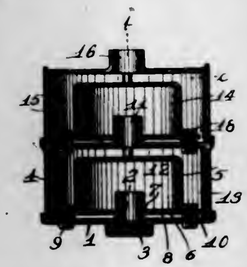
3. An automatic fire extinguisher system, comprising dry distributing pipes, sprinkler heads on said distributing pipes, a dry pipe valve separating the distributing pipes from the source of water supply, a relief valve connected with the dry portion of the piping, a suitable source of current and electrical devices operated thereby for effecting an opening of said relief valve, and a circuit-breaking device also connected with the dry portion of the piping and adapted to control the flow of current through said electrical devices, said circuit-breaking device comprising a pair of separable contacts and a flexible diaphragm, the latter being normally subject to air pressure.

4. An automatic fire extinguisher system, comprising dry distributing pipes normally filled with compressed air, sprinkler heads on said distributing pipes, suitable piping for connecting the distributing pipes with the source of water pressure, a dry pipe valve for separating the distributing pipes from the source of water pressure, a relief valve connected with the dry portion of the piping, and a suitable source of current and means operated thereby for opening said relief valve upon the opening of one or more of said sprinkler heads, the air pressure in the dry piping constituting the medium of operative connection between the said means and said sprinkler heads.

5. An automatic fire extinguisher system comprising suitable piping, a plurality of sprinkler heads, a dry pipe valve, a relief valve, a suitable source of current and means operated thereby for opening the said relief valve and thereby releasing the air from the piping upon the opening of one or more of said sprinkler heads and subsequently effecting a closure of said relief valve, a signal transmitting mechanism and means whereby said mechanism is set in operation by the opening of the relief valve, and a signal receiving device suitably connected with said signal transmitting mechanism.

[Claims 6 to 22 not printed in the Gazette.]

938,860. MUFFLER. GEORGE C. HICKS, Jr., Connersville, Ind., assignor to The P. H. & F. M. Roots Company, Connersville, Ind. Filed June 19, 1909. Serial No. 503,119.



1. A muffler comprising, a first drum having an inlet nozzle from one of its flat walls and an outlet through its opposite flat wall, and a second drum entirely inclosed within the first drum and having one of its flat walls provided with a restricted annular opening surrounding said nozzle and having said flat wall disposed a restricted distance from the nozzle-provided wall of the first drum, combined substantially as set forth.

2. A muffler comprising, a first drum having an inlet nozzle from one of its flat walls and an outlet through its opposite flat wall, a second drum entirely inclosed within the first drum and having one of its flat walls provided with a restricted annular opening surrounding said nozzle and having said flat wall disposed a restricted distance from the nozzle-provided wall of the first drum, a nozzle projecting from the outlet of the first drum, a third drum having one of its flat walls provided with a restricted annular opening surrounding the last-mentioned nozzle and having said flat wall disposed a restricted distance from the outlet-nozzle-carrying wall of the first drum, and a fourth drum secured to the first drum and completely inclosing the third drum and provided with an outlet, combined substantially as set forth.

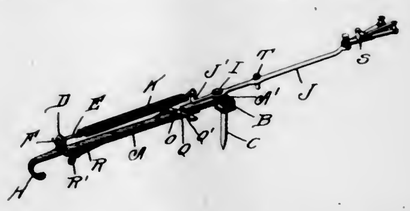
3. A muffler comprising, a first drum having an outlet through one of its flat walls, a separable flat opposite wall for said drum provided with an inlet nozzle, bolts securing said separable wall to the remainder of the drum, a second drum inclosed within the first drum and having one of its flat walls provided with a restricted annular opening surrounding said nozzle and having said flat wall disposed a restricted distance from the nozzle-provided wall of the first drum, and bolts securing the second drum fixedly in the first drum, combined substantially as set forth.

4. A muffler comprising, a disk having an inlet nozzle, a first drum having one end closed by said disk and having its opposite flat wall provided with a nozzle, a fourth drum having one end closed by a flat wall provided with an outlet and having its opposite end closed by one of the flat walls of the first drum, a pair of bolts passing through said drums parallel with their common axis and serving to secure the two drums firmly together, a second drum disposed within the first drum and having one of its flat walls provided with a restricted annular opening surrounding the inlet-nozzle and having said flat wall disposed a restricted distance from said disk, bolts securing the second drum to said disk, a third drum disposed within the fourth drum and having in one of its flat walls a restricted opening around the outlet nozzle from the first drum and having said wall disposed a restricted distance from the outlet-provided wall of the first drum, and bolts securing the third drum to the outlet-provided wall of the first drum, combined substantially as set forth.

5. A muffler comprising a first drum having flat side walls with an inlet nozzle in one of said walls and an outlet nozzle in the other of said walls, and a second drum entirely inclosed within the first drum, said second drum being entirely closed except for an opening in one of its side walls and disposed within the first drum with the opening surrounding the inlet nozzle and the wall provided with the opening arranged in close relation to the wall carrying the inlet nozzle.

[Claims 6 and 7 not printed in the Gazette.]

938,861. TARGET-TRAP. WILLIAM H. HIESTAND, Chicago, Ill. Filed June 19, 1909. Serial No. 503,245.



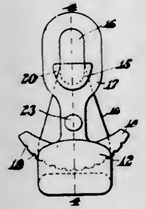
A target trap comprising a bar bent at one end to form a bearing, a pivot mounted in said bearing, a support for said pivot, said bar being bent upon itself forming a right angled projection therefor and apertured, the adjacent end of said bar being bent to form a handle, a pin rising from said bar adjacent to its pivotal end, a throw arm pivotally mounted upon said pin, one end of said throw arm being angled, a spring fastened at one end to the angled end of the throw arm, a hook connected to the other end of the spring and having a threaded shank portion extending through the registering apertures in the portion of the bar which is bent upon itself, a thumb nut for adjusting said screw to regulate the tension of the spring, a latch pivotally mounted upon said bar, a rod pivoted to one end of said latch and its other end turned to form an eye, and a pin projecting from said throw arm and adapted to engage said latch.

938,862. CLAMPING DEVICE. JOHN W. HIGGINS, Somerville, Mass. Filed Sept. 1, 1908. Serial No. 451,618.

1. The combination of a member provided at one end with a lateral stud and at the other with a rope receiving flange; and a clamping member coöperating with said flange provided with an elongated slot adapted to fit over said stud and receive a supporting hook, the distance between the slot and clamping edge of the clamping member being substantially equal to the distance between the rope receiving flange and the stud on the other member.

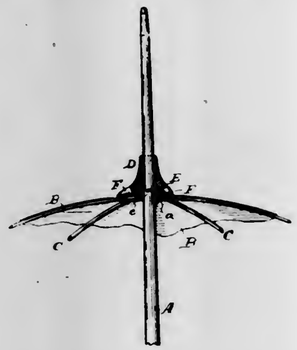
2. The combination of a member provided at one end with a lateral stud and at the other with a rope receiving flange; and a clamping member coöperating with said

flange provided with a lateral projection and an elongated slot adapted to fit over said stud and receive a supporting hook.



3. The combination of a member provided at one end with a rope receiving flange and at the other end with a stud having lateral flanges extending beyond the main shank of said stud; and a clamping member provided at one end with an elongated slot for the reception of said shank, the lesser diameter of which is substantially the diameter of said shank and at the other with lateral curved arms the outer faces of which are slightly less distant from the nearest end of said slot than said rope receiving flange is distant from said shank.

938,863. UMBRELLA-RIB SOCKET. CHARLES HOFF, Cincinnati, Ohio, assignor of one-half to Bernard Sicking, Cincinnati, Ohio. Filed July 13, 1908. Serial No. 443,190.

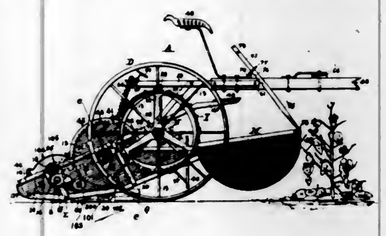


A detachable umbrella-rib socket to retain in position the inner ends of umbrella ribs which have become detached, the same consisting of a sleeve closely fitted to the stick of the umbrella adjacent to these rib-ends and annularly enlarged at its end nearest the umbrella-cover to form a cap and fingers which extend from the edge of this cap into the space between adjoining ribs to confine a detached rib-end laterally in position.

938,864. COTTON GATHERING AND GLEANING MACHINE. ORLEY C. HOUGHTON, Chicago, Ill., assignor to Henry E. Bullock and James E. Bullock, Chicago, Ill. Filed Mar. 25, 1909. Serial No. 485,754.

1. A cotton picking machine including a running gear, there being a main axle in said running gear, two machine bodies, said machine bodies being placed a sufficient distance apart to permit cotton plants to pass bodily between them the passage thus formed being unobstructed, each of said machine bodies being pivoted to said main axle independently of the other and free to follow the undulations of the ground over which the machine is being moved, and cotton picking mechanism in each of the two machine bodies and adapted to pick cotton from the ground adjacent to the cotton plants.

2. A cotton picking machine including a running gear, there being a main axle in said running gear, two machine bodies, said machine bodies being placed a sufficient distance apart to permit cotton plants to pass bodily between them the passage thus formed being unobstructed, each of said machine bodies being pivoted to said main axle independently of the other and free to follow the undulations of the ground over which the machine is being moved; means for preventing the free ends of said machine bodies from entering the ground; and cotton picking mechanism within each of said machine bodies and adapted to pick cotton from the ground adjacent to the cotton plants.



3. A cotton picking machine including a running gear, there being a main axle in said running gear, two machine bodies, said machine bodies being placed a sufficient distance apart to permit cotton plants to pass bodily between them the passage thus formed being unobstructed, each of said machine bodies being pivoted to said main axle independently of the other and free to follow the undulations of the ground over which the machine is being moved; means for preventing the free ends of said machine bodies from entering the ground, said means being located at the rear ends of said machine bodies, and cotton picking mechanism within each of said machine bodies and adapted to pick cotton from the ground adjacent to the cotton plants.

4. A cotton picking machine including a running gear, there being a main axle in said running gear, two machine bodies, said machine bodies being placed a sufficient distance apart to permit cotton plants to pass between them the passage thus formed being unobstructed, each of said machine bodies being pivoted to said main axle independently of the other and free at its rear end to follow the undulations of the ground over which the machine is being moved, and cotton picking mechanism in each of the two machine bodies and adapted to pick cotton from the ground adjacent to the cotton plants.

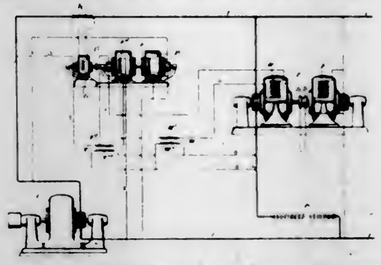
5. A cotton picking machine including a running gear, there being a main axle in said running gear, two machine bodies, said machine bodies being placed a sufficient distance apart to permit cotton plants to pass bodily between them the passage thus formed being unobstructed, each of said machine bodies being pivoted to said main axle independently of the other and free at its rear end to follow the undulations of the ground over which the machine is being moved, means for preventing the free ends of said machine bodies from entering the ground, and cotton picking mechanism in each of said machine bodies and adapted to pick cotton from the ground adjacent to the cotton plants.

[Claims 6 to 111 not printed in the Gazette.]

938,865. ELECTRICAL SYSTEM OF DISTRIBUTION. ALBERT S. HUBBARD, Belleville, N. J., assignor to Gould Storage Battery Company, a Corporation of New York. Filed Mar. 18, 1908. Serial No. 421,933.

1. In an electrical system of distribution, the combination of a main distribution circuit, a storage apparatus in operative relation thereto, a dynamo-electric machine for regulating the action of said apparatus, means for producing a varying flux therein, and means for applying thereto a rapidly reversing magneto-motive force.

2. In an electrical system of distribution, the combination of a main distribution circuit, a battery in operative relation thereto, a regulating machine for regulating the action of said battery, means for varying the flux therein responsive to variations in the electrical condition of the system, and means for applying thereto a rapidly reversing magneto-motive force of a relatively small value.



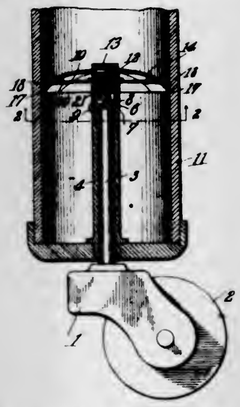
3. In an electrical system of distribution, the combination of a main distribution circuit, a storage apparatus and booster in operative relation thereto, means for producing a variable flux in the booster and means for applying to the booster a rapidly reversing magneto-motive force.

4. In an electrical system of distribution, the combination of a main distribution circuit, a battery and booster in operative relation thereto, a regulating dynamo for said booster means for varying the field flux of said booster and regulating dynamo responsive to variations in the electrical condition of the system and means for applying thereto a rapidly reversing magneto-motive force of relatively small value.

5. In an electrical system of distribution, the combination of a main distribution circuit, a battery in operative relation thereto, a regulating dynamo-electric machine therefor, provided with a field structure and two sources of electro-motive force in operative relation with said field structure one being a direct current source and the other being an alternating current source of electromotive force.

[Claims 6 to 37 not printed in the Gazette.]

938,866. FURNITURE-CASTER. EDWIN H. HUMPHREY, Corry, Pa., assignor, by direct and mesne assignments, to Corry Castor Co., Corry, Pa. Filed Mar. 19, 1909. Serial No. 484,536.



1. A caster comprising a socket provided with a concavo-convex apertured leg-engaging disk, supplemental resilient leg-engaging devices extending through the apertures, a shank engaging the socket, and means for holding the shank and socket detachably assembled.

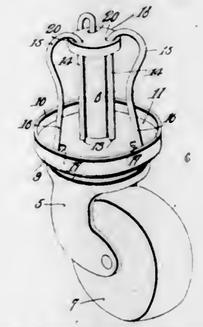
2. A caster comprising a shank, a socket, and an adjustable teat in the socket and interposed between the inner end of the shank and one end of the socket to receive the thrust of the former.

3. A caster comprising a shank having its inner end reduced and provided with a collar defining a circumferential channel and formed with a wedge-shaped notch, and a socket provided with a pin to engage the channel and being of slightly greater diameter than the narrow end of the notch, whereby the accidental separation of the parts is prevented.

4. A caster comprising a shank furnished adjacent to one end with a circumferential channel, a socket provided with a pin to engage the channel, and an adjustable reduced teat in the socket and interposed between the inner end of the shank and one end of the socket to receive the thrust of the former.

5. A caster comprising a socket, a radially slotted concavo-convex disk carried thereby, the edge of said disk constituting leg-engaging means, said disk having apertures therein, crossed supplemental leg-engaging devices extending under the disk and through and beyond the apertures, and a shank engaging and disposed to rotate within the socket.

938,867. CASTER. EDWIN H. HUMPHREY, Corry, Pa., assignor, by direct and mesne assignments, to Corry Castor Co., Corry, Pa. Filed Apr. 8, 1909. Serial No. 488,631.



1. In a caster, a socket member comprising a base, a plurality of resilient anchoring members carried by the base, the said base being provided with a shank receiving opening, the said anchoring member being disposed radially about said opening, and a bearing head supported by the said members and located axially in alinement with the shank receiving opening.

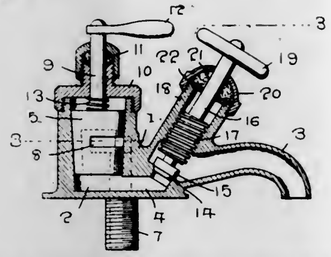
2. In a caster, a socket member comprising a base, a plurality of anchoring members carried by the base, each of said members comprising a relatively fixed portion and a yieldable portion, the latter portion of each of the members working in a slot in the base, and a bearing head supported by the relatively fixed portion of the anchoring members.

3. In a caster, a socket member comprising a base, anchoring members secured each at one end to the base and projecting upwardly therefrom and thence bent back upon itself with its other end seating in a slot in the base, and a bearing head supported by the upstanding portion of the said anchoring members.

4. In a caster, a socket member comprising a base, resilient anchoring members carried by the base, a bearing head supported by the said members, and a caster shank fitted through the base and bearing at its upper end against the under side of said head.

5. In a caster, a socket member comprising a base, a plurality of anchoring members carried by the base, a head supported by the members and holding the members in proper relative position, and a caster-shank fitted through the base and bearing at its upper end against the under side of said head.

938,868. COMPOUND FAUCET. FRANK B. HUNTER, Memphis, Tenn. Filed Aug. 11, 1908. Serial No. 447,999.



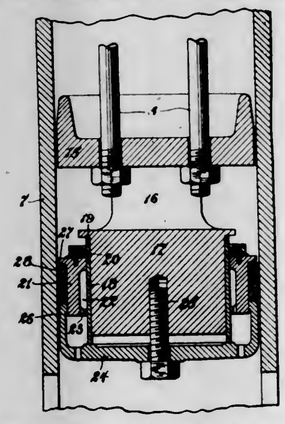
A device of the character described, comprising a casing having a mixing chamber therein, also additional flared chambers forming a continuation of said mixing chamber, and lateral inlet ports communicating with said flared additional chambers, said casing being formed with a bottom outlet passage extending laterally therefrom and communicating with said mixing chamber, a hollow plug arranged in said mixing chambers, means for actuating said plug, means for resiliently holding said plug in place, said plug having a lateral port communicating with said flared chambers, said plug having its bottom edge arranged about flush with the upper surface of said laterally extending outlet passage, said lateral port being adapted to separately register with either of said flared chambers or conjointly therewith.

938,869. JOINT FOR METAL ROOFING. LUCIAN B. HUNTER, Greensburg, Ind. Filed Aug. 19, 1908. Serial No. 449,316.



The herein described method of forming joints or seams in metal roofing which consists in bending the edge of a piece of sheet metal into V-shape, bending the adjoining piece at its edge into substantially U-shape, placing a felt packing upon the V-shaped portion, inclosing the packing with the U-shaped portion, pressing said V-shaped and U-shaped portions together and bending them downward on to the sheet from which the V-shaped portion was bent.

938,870. HYDRAULIC PACKING. FREDERICK HYMANS, Pittsburg, Pa. Filed Jan. 13, 1909. Serial No. 472,061.



1. An improvement in hydraulic packing, comprising in combination a cylinder, a piston operating therein, a packing chamber, packing in said chamber, and means constructed to exert pressure upon said packing, proportioned to the difference of pressure on opposite sides of said piston, substantially as described.

2. In combination, a cylinder, a piston therein, a packing bearing against the cylinder wall, and a gland intermediate the packing and the piston and slidable longitudinally thereof, the said gland being exposed to pressure from both sides of the piston.

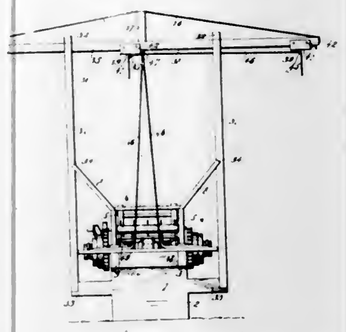
3. In combination, a cylinder, a piston therein, a packing bearing against the cylinder wall, a gland slidable axially of the piston and bearing against the end of the packing, the said gland being exposed to pressure from both sides of the piston.

4. In combination, a cylinder, a piston therein, a packing bearing against the cylinder wall, a gland slidable axially of the piston and bearing against the end of the packing, and packing means between the gland and the piston, the said gland being exposed to pressure from both sides of the piston.

5. In combination, a cylinder, a piston therein, a packing bearing against the cylinder wall, a gland slidable axially of the piston and bearing against the end of the packing, and packing means between the gland and the piston, the said gland being exposed to pressure from the cylinder whereby it is forced down against the end of the packing and such packing spread laterally.

[Claims 6 and 7 not printed in the Gazette.]

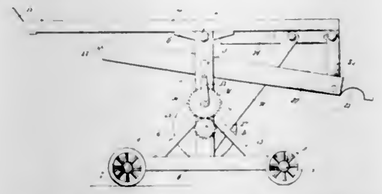
938,871. CARRIER FOR THRESHER-FEEDERS. JOHN W. KENNEDY, Lewis, Kans. Filed June 29, 1908. Serial No. 440,942.



1. The combination of a main frame having transverse sills united by longitudinal side beams, arms projecting outwardly from said sills, a bottom upon the main frame, upwardly and outwardly inclined hopper boards projecting from the upper side edges of the body, uprights rising from the arms on said sills and united to said hopper boards, connecting beams between the uprights on each side of the machine, a transverse track beam uniting said connecting beams, and a carriage to travel back and forth upon said track beam.

2. The combination of a main frame having transverse sills united by longitudinal side beams, arms projecting outwardly from said sills, a bottom upon the main frame, upwardly and outwardly inclined hopper boards projecting from the upper side edges of the body, uprights rising from the arms on said sills and united to said hopper boards, connecting beams between the uprights on each side of the machine, a transverse track beam uniting said connecting beams, carriages to travel back and forth upon said track beam, guides upon said carriages, stationary guides upon the center of said track beam, cables engaged with said guides, load engaging means upon the outer ends of the cables, and winding drums mounted upon the main frame for controlling the inner ends of said cables.

938,872. HAND-TRUCK. BYRON KEYSER and CLEMENT F. INGOLD, Hartville, Ohio. Filed Apr. 27, 1909. Serial No. 492,449.



1. In a hand truck, a wheeled frame, a platform pivotally mounted thereon, and a handle pivotally combined with the frame and having one end connected with one end of the platform and its opposite end serving to impart the initial lifting movement to the latter.

2. In a hand truck, a wheeled frame, a platform pivotally mounted thereon, and a pivoted handle combined with the frame and having one end connected with one end portion of the platform and its opposite end bearing on the opposite end of the platform and serving to impart the initial lifting movement to the latter.

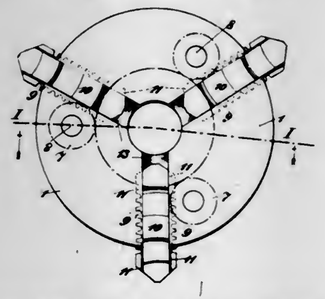
3. In a hand truck, a wheeled frame, a platform pivotally mounted thereon, and a pivoted handle combined with the frame having one end bearing on one end portion of the platform when the said end is depressed serving to impart the initial lifting movement to the platform and a connection between the opposite end of the handle and opposite end of the platform, whereby the said opposite end of the handle is enabled to continue the lifting movement of the platform.

4. In a hand truck, a wheeled frame, a platform pivotally mounted thereon, a handle pivoted to the frame below the platform having one end disposed beneath the weight engaging end of the latter and a link connection between the opposite end of the handle and the opposite end of the platform.

5. In a hand truck, a wheeled frame, a platform pivotally mounted thereon, and a pivoted lifting handle pivotally secured at one end to one end of the platform and its opposite end adapted to bear on the opposite end of the platform.

[Claims 6 to 10 not printed in the Gazette.]

938,873. LATHE AND DRILLING CHUCK. WALTER KLEBER, Halle-on-the-Saale, Germany, assignor of one-half to Berthold Pätschke, Treptow, near Berlin, Germany. Filed Feb. 4, 1909. Serial No. 476,070.



1. In a lathe and drilling chuck in combination reversible gripping dogs, guide grooves for the latter, teeth provided at both lengthsides of the said dogs, a pinion for each of the said dogs and engaging with the said teeth, keys at the ends of the said dogs and adapted to snugly fit the said guide grooves and to close the latter, and means for simultaneously turning the said pinions, substantially as and for the purpose set forth.

2. In a lathe and drilling chuck in combination reversible gripping dogs, guide grooves for the latter, teeth provided at both lengthsides of the said dogs, a pinion for each of the said dogs and engaging with the said teeth, keys at the ends of the said dogs and adapted to snugly fit the said guide grooves and to close the latter, a toothed wheel engaging with all said pinions, a worm wheel connected to the said toothed wheel, and a worm for turning the said worm wheel, substantially as and for the purpose set forth.

3. In a lathe and drilling chuck in combination reversible gripping dogs, guide grooves for the latter, a row of teeth at each lengthside of the said dogs, keys at each side and at each end of the said dogs and adapted to snugly fit the said guide grooves and to close the latter, a pinion for each of the said dogs and engaging with one of the said rows of teeth, a cut away surface formed on each of the said pinions and arranged to disengage the said pinions from the said dogs, a toothed wheel engaging with all said pinions, a worm wheel connected to the said toothed wheel, and a worm for turning the said worm wheel, substantially as and for the purpose set forth.

938,874. TOY. ALBERT KLINK, Buffalo, N. Y. Filed May 21, 1909. Serial No. 497,468.



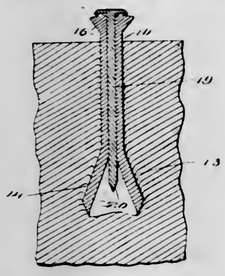
1. In a toy of the class described, the combination with twisted cords and images suspended from said twisted cords, of a spring metal frame having side members composed of upper portions provided with eyes between which the twisted cords extend and to which the ends of said cords are fastened, lower portions constituting supporting and operating handles and an intermediate transverse member extending between and connecting the side members at the juncture of the upper and lower portions thereof; said frame being bent from wire and having the end portions of the wire bent upward at right angles from the middle portion, which forms the intermediate member of the frame, to constitute parts of the upper portions of the side member, then bent abruptly downward at the upper terminals of the side members to form top eyes and continued downward to the intermediate member to form the remaining parts of the upper portions of the side members and then downward to form the lower portions of the side members.

2. In a toy of the class described, the combination with twisted cords and images suspended from said twisted cords, of a bent spring metal frame consisting of side members and an intermediate connecting member; said side members having top eyes between which the twisted cords extend and grooved blocks secured to the ends of the cords and adapted to be detachably fastened in the top eyes of the frame.

3. In a toy of the class described, the combination with twisted cords and images suspended from said twisted

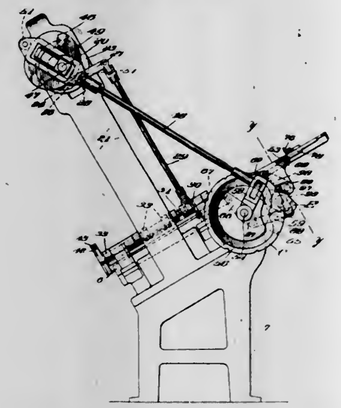
cords, of a bent spring metal frame consisting of side members and an intermediate connecting member; said connecting member having its ends bent to constitute shoulders or stops to limit the inward movement of the lower portions of the side members.

938,875. RAILWAY-SPIKE. FRANK P. KOBERT, New York, N. Y. Filed Sept. 21, 1906. Serial No. 335,615.



A railway spike comprising a body portion with a head thereon and having a longitudinal bore extending through the head and into the body portion, the head being provided on its upper surface with an annular rib which surrounds the opening in the head, a pin having a flanged head and adapted to be inserted in said longitudinal bore, and having means cooperating with the body portion to lock the spike in the wood, said flanged head of the pin contacting with said annular rib on said head, substantially as specified.

938,876. AUTOMATIC FEEDING MECHANISM FOR PRESSES. LOUIS C. KRUMMEL, Clinton, Conn. Filed Aug. 24, 1907. Serial No. 390,028.



1. In a mechanism for feeding sheets to power presses, the combination with a main frame, of parallel slides oppositely arranged on the main frame, feed-jaws inwardly extending from the slides, to grip the opposite side edges of the sheet, retaining jaws fixed on the frame, said retaining-jaws being arranged in alinement with the feed-jaws, means to retract and advance the slides a predetermined number of equal strokes to present the sheets to be cut and a longer stroke to eject the sheets from the press and to feed a new sheet, means to open the feed-jaws when about to be retracted and to close them when about to be advanced, and means to close the retaining-jaws when the feed-jaws are being retracted and to open the retaining jaws when the feed-jaws are being advanced.

2. In a feeding mechanism for power presses, a suitable frame, parallel slides arranged in slide-ways on the frame, lower feed jaws on the slides, lower retaining-jaws fixed on the frame, said retaining-jaws being arranged parallel and in alinement with the feed jaws, upper jaw supports pivoted to the lower-jaws, pins arranged in bearings on said supports, upper jaws on the pins, springs in the bearings, said springs engaging with the upper-jaws and forcing the upper jaws against the lower jaws, toggle-links pivoted to the lower jaws, links connecting the toggle links to the upper jaw supports, means to rock the toggle-links to open and close the jaws, the toggle-links of the feed-jaws and of the retaining-jaws being reversely arranged and adapted slightly to cross the center line, permitting all the jaws to be closed during short intervals at the beginning and end of each stroke, and means to reciprocate the slides.

3. In a feeding mechanism for power presses, the combination with a suitable frame, of parallel slides arranged thereon, inwardly extending lower feed-jaws secured on the slides in oppositely arranged pairs, similar lower retaining-jaws fixed on the frame, between the feed-jaws on both sides of the machine, all the jaws on each side being parallel and in alinement, upper jaws pivotally supported on all the lower jaws, toggle-links pivotally supported on the lower jaws and having forked outer ends, connections between the toggle-link inner ends and the upper jaws, rock-shafts outside of the slides and parallel thereto, inwardly extending levers on the rock-shafts, cross-pins on the inner ends of said levers, blocks fitted to slide on the cross-pins and fitted to grooves in the inner faces of the toggle-link forked ends, a connection between the rock-shafts to rock them reversely, a crank-arm on one of the rock-shafts, a driving shaft arranged in bearings in the upper portion of the frame, a connecting rod connected at its lower end to the crank-arm and a crank connection between the upper end of the connecting-rod and the driving shaft.

4. In a feeding mechanism for power presses, a suitable frame and a bed-plate, of dies for the press on the bed-plate, parallel slides arranged in slide-ways on the bed-plate on each side of the dies, feed-jaws arranged on the slides and inwardly extending toward the dies, means to open the jaws when about to retract and to close the jaws to grip the sheet when being advanced, and means to retract and advance the jaws, having in combination a main-shaft, a main-cam journaled on the main-shaft, said cam having peripheral ratchet-teeth and a cam-groove on one face, said cam-groove being depressed at one point toward the center but being otherwise concentric, said ratchet-teeth being uniformly spaced except that there is a larger space opposite the depressed portion of the cam groove, a longitudinally slotted lever fixed on the main-shaft adjacent the grooved face of the cam, a rotating driving shaft journaled in the upper portion of the frame, a connecting-rod, a crank connection between the upper end of the rod and the driving-shaft, a block on the lower end of the connecting-rod fitting said slot, a stud on the rod fitting the cam-groove, a pawl on the slotted lever to engage with the ratchet-teeth, arms on the main shaft and links connecting the arms respectively to the respective slides.

5. In a mechanism for transforming rotating movement into reciprocating movement, the combination with a rotating shaft, of a rocking-shaft, a ratchet-wheel journaled on the rocking-shaft and having a series of ratchet teeth on its periphery, an arm fixed on the rocking-shaft, a rod connected to said arm, a crank connection between the rod and the rotating shaft, a pawl on the arm to engage with the teeth, a part to be reciprocated, a second arm on the rocking-shaft and a connection between said second arm and the part to be reciprocated.

[Claims 6 to 12 not printed in the Gazette.]

938,877. PROCESS FOR PRODUCING TRANSLUCENT PAPER. HENRY KUHN, Rochester, N. Y. Filed Mar. 30, 1909. Serial No. 486,687.

1. The process for producing a structureless translucent paper consisting in making a parchment paper from a paper made with cotton fiber, washing and drying said parchment paper, treating said paper with a fatty substance to render it translucent, subjecting such parchment paper to a high pressure at a high temperature and subsequently dimming said paper.

2. The process for producing a translucent structureless paper, consisting in treating a paper made with cotton fiber with concentrated sulfuric acid so as to make it into a parchment paper, washing and drying said paper, treating it with a wax and simultaneously rolling said parchmented and wax paper at a high temperature and then producing a dim mat surface on said paper by abrading the same.

938,878. PUMP FOR WELLS. WILLIAM H. LARKIN, Butler, Pa. Filed June 4, 1908. Serial No. 436,615.



1. In a sand pump, the combination of a cylindrical shell, a ring member forming a valve seat connected to said shell by a bayonet joint and having a recessed portion, a valve carried by said ring, and a locking member on said ring in said recessed portion adapted to engage the bayonet slot on said shell.

2. In a sand pump, the combination of a cylindrical shell, a ring member forming a valve seat connected to said shell by a bayonet joint and having a recessed portion, a valve carried by said ring, and a spring actuated latch on said ring in said recessed portion adapted to engage the bayonet slot on said shell.

3. In a sand pump, the combination of a cylindrical shell, a ring member forming a valve seat connected to said shell by a bayonet joint, a valve carried by said ring, and a non projecting latch on said ring adapted to engage the vertical bayonet slot on said shell.

4. In a sand pump, the combination of a cylindrical shell, a ring member forming a valve seat adapted to enter said shell, a stud on said ring engaging a bayonet slot in said shell, legs on said ring, and a latch carried by one of said legs and adapted to engage said bayonet slot.

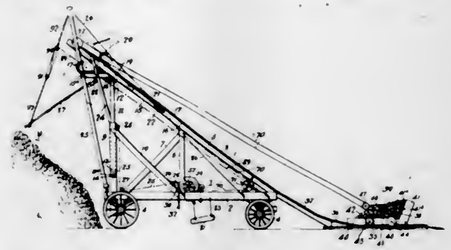
5. In a sand pump, the combination of a cylindrical shell, a ring member forming a valve seat adapted to enter said shell, a stud on said ring engaging a bayonet slot in said shell, legs on said ring, and a latch pivoted to one of said legs and adapted to engage said bayonet joint.

[Claim 6 not printed in the Gazette.]

938,879. APPARATUS FOR LOADING COAL. WILLIAM LARSEN, Honolulu, Hawaii. Filed Apr. 9, 1907. Serial No. 367,293.

1. In coal loading apparatus, the combination of a portable body, an inclined runway carried by said body and comprising a fixed lower section and a hinged upper section, and upright bars slidable in upward direction beneath the hinged section to elevate the same.

2. In coal loading apparatus, the combination of a portable body, a fixed runway section carried at the front of said body, a hinged runway section carried at the rear thereof, and upright bars located adjacent the rear corners of said body and slidable vertically to raise and lower the hinged runway section.



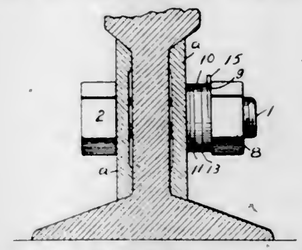
3. In coal loading apparatus, the combination of a portable body, a fixed runway section carried at the front of said body, a hinged runway section carried at the rear thereof, upright bars located adjacent to the rear corners of said body and slidable vertically to raise and lower the hinged runway section, and upright sleeves in which said bars are housed.

4. In an apparatus for elevating and dumping coal and the like, an inclined runway having tracks which are deflected horizontally at the upper end of the runway, and a carriage having wheels adapted to run on said tracks, in combination with a supplemental upwardly extended track section of a wider gage at the upper end of the runway, and guides on the rear of the carriage adapted to engage the supplemental track section to dump the carriage as it is drawn up the runway, the rails of said supplemental track-section terminating in abutments and being mounted to yield in the direction of travel of the carriage to form a buffer.

5. In a portable elevating and dumping apparatus, an inclined runway comprising a lower main section and an upper extension section cooperating therewith, a carriage on which the runway is mounted, mechanism for raising and lowering the extension section and for securing it in its raised position, whereby the height of the apparatus may be conveniently decreased during transportation, a carriage cooperating with said runway, and mechanism at the upper end of the extension section for dumping the carriage.

[Claims 6 to 17 not printed in the Gazette.]

938,880. NUT-LOCK. GEORGE D. LAWSON and ANDREW WHEELER, Rose Hill, Va. Filed Mar. 14, 1908. Serial No. 421,164. Renewed Apr. 5, 1909. Serial No. 488,070.

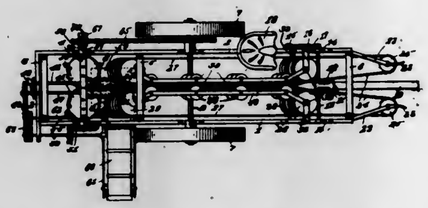


1. In a locking mechanism of the character described, the combination with a bolt provided with a longitudinal groove, of a nut having a ratchet underface, and a spline provided coil washer, one end of which is bent to provide an engaging lip to be held in spring pressed contact with the ratchet underface of said nut, said washer having a seat adapted to receive said lip, the lip end of said washer having a projecting tab, all arranged as set forth.

2. A locking washer of convolute form, the ends of the washer being reduced, and the body of the washer directly beneath each free end portion being reduced in thickness to a degree to permit the free end portion to lie below the outer face of the adjacent thickened portion, each extremity of the washer being turned outwardly.

3. A locking washer of convolute form, the ends of the washer being reduced, and the body of the washer directly beneath each free end portion being reduced in thickness to a degree to permit the free end portion to lie below the outer face of the adjacent thickened portion, each extremity of the washer being turned outwardly, the washer at one extremity having a radiating lug.

938,881. BEET-HARVESTER. HEASCHEL V. LEE, ORLAN S. LEE, and CRAWFORD F. LEE, Youngstown, Ind., assignors of one-half to Albert E. Hazelrigg and Clay Ladd, Terre Haute, Ind. Filed May 15, 1909. Serial No. 496,197.



1. In a machine of the character described, a pulling mechanism consisting of two downwardly inclined series of superposed endless chains, the chains of one series being opposed to those of the other, suitably mounted shafts, sprocket wheels upon said shafts for said chains, longitudinally extending bars having offset ends supported from said shafts, other shafts journaled upon said bars, large and small flanged supporting rollers upon the last mentioned shafts and adapted to engage the opposing stretches of the chains to support the same against lateral movement, the large rollers on said second mentioned shafts alternating with the small rollers thereon and being disposed opposite the small rollers on the opposing shafts, whereby the inner stretches of the opposing chains of the two series will be laterally offset with respect to each other to cause the foliage of the vegetable to be bent into zigzag shape and effectively gripped by the chains and means for driving said chains.

2. In a machine of the character described, a pulling mechanism consisting of two downwardly inclined series of superposed endless chains, the chains of one series being opposed to those of the other, suitably mounted shafts, sprocket wheels upon said shafts for said chains, longitudinally extending bars having offset ends supported from said shafts, other shafts journaled upon said bars, large and small flanged supporting rollers upon the last mentioned shafts and adapted to engage the opposing stretches of the chains to support the same against lateral movement, the large rollers of said second mentioned shafts alternating with the small rollers thereon and being disposed opposite the small rollers on the opposing shafts, whereby the inner stretches of the opposing chains of the two series will be laterally offset with respect to each other to cause the foliage of the vegetable to be bent into zigzag shape and effectively gripped by the chains, longitudinally extending supporting strips secured to said bars between the flanged rollers and projecting inwardly to support the inner opposing stretches of the chains, and means for driving said chains.

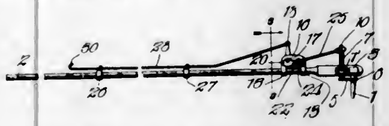
3. In a machine of the character described, the combination of a pulling mechanism consisting of two downwardly inclined series of superposed endless chains, the chains of one series being opposed to those of the other, suitably mounted shafts, sprocket wheels upon said shafts for said chains, longitudinally extending bars having offset ends supported from said shafts, other shafts journaled upon said bars, large and small flanged supporting rollers upon the last mentioned shafts and adapted to engage the opposing stretches of the chains to support the same against lateral movement, the large rollers on said second mentioned shafts alternating with the small rollers thereon and being disposed opposite the small rollers on the opposing shafts, whereby the inner stretches of the opposing chains of the two series will be laterally offset with respect to each other to cause the foliage of the vegetable to be bent into zigzag shape and effectively gripped by the chains, means for driving said chains, digging mechanism arranged in advance of said pulling mechanism, foliage deflecting fingers arranged in advance of the digging mechanism, sprocket wheels upon said fingers and upon the first mentioned shafts, and endless foliage deflecting chains passed around the last mentioned sprocket wheels.

4. In a machine of the character described, the combination of a pulling mechanism consisting of two downwardly inclined series of superposed endless chains, the chains of one series being opposed to those of the other, suitably mounted shafts, sprocket wheels upon said shafts for said chains, longitudinally extending bars having offset ends supported from said shafts, other shafts journaled upon said bars, large and small flanged supporting rollers upon the last mentioned shafts and adapted to engage the opposing stretches of the chains to support the same against lateral movement, the large rollers on said second mentioned shafts and alternating with the small rollers thereon and being disposed opposite the small rollers on the opposing shafts, whereby the inner stretches of the opposing chains of the two series will be laterally offset with respect to each other to cause the foliage of the vegetable to be bent into zigzag shape and effectively gripped by the chains, means for driving said chains, a digging mechanism arranged in advance of said pulling mechanism, a pair of horizontally disposed rotary cutting disks, horizontally disposed, longitudinally extending rotary feeding worms arranged to receive the vegetables from the pulling chains and to move them against the cutting disks and means for actuating said feeding worms and cutting disks.

5. In a machine of the character described, the combination of a main frame having side bars and connecting arches, supporting and driving wheels for the rear portion of the frame, means for vertically adjusting the front portion of the frame, digging shovels secured to the forward portions of the side bars of the frame and depending therefrom, brackets upon the forward portions of the side bars, a transverse shaft upon the rear portion of the frame and driven from one of said supporting and drive wheels, bearings upon said shaft and one of the arches of said frame, forwardly inclined rear shafts journaled in said bearings, forwardly inclined front shafts journaled in said brackets, opposing series of superposed pulling chains mounted upon and driven from said front and rear inclined shafts and means for imparting the motion of said transverse shaft to said rear inclined shafts.

[Claims 6 and 7 not printed in the Gazette.]

938,882. RAKE. CLAUDE M. LEHIGH, Chicago, Ill. Filed Sept. 10, 1908. Serial No. 452,447.



1. In combination with a toothed rake head having a handle, a perforated clearer bar, means to guide said clearer bar longitudinally of the teeth of said rake head comprising brackets projecting from said bar, guide arms secured to said brackets, ears slidably securing said guide arms to said rake handle, a bracket on said handle, an element connected to said guide arms supported in said bracket, and means on said handle to rotate said element and depress said clearer bar.

2. In combination with a toothed rake head having a handle, a clearer bar, means to guide said clearer bar longitudinally of the teeth of said rake head comprising brackets projecting from said bar, slotted guide arms secured to said brackets, and ears slidably securing said slotted arms to said rake handle; a bracket on said handle, an element connected to said guide arm supported in said bracket, a gear sector carried by said element, a second gear sector meshing therewith, and means to rotate said second gear sector and depress said clearer bar.

3. The combination with a rake head having a handle, of a clearer bar, a pair of brackets projecting from said bar, guide arms secured to said brackets, ears slidably securing said arms to said rake handle, a holding plate provided with securing collars, a shaft mounted in said holding plate, arms attached to said shaft and connected with the guide arm, a second shaft mounted in said holding plate, a rock arm on said second shaft, a pair of gears connecting said shafts, and an operating bar secured to said rock arm.

4. The combination with a rake head having a handle of a perforated clearer bar, the teeth of said rake passing through said bar perforations, two brackets projecting from said bar, slotted guide-arms secured to said brackets, ears slidably securing said slotted arms to said rake handle, a U-shaped holding plate, provided with securing collars, two arm-provided gear sectors pivotally secured to the sides of said holding plate, a shaft held by said plate, a rock-shaft meshing with said arm provided gear sectors, and an operating bar secured to said rock arm, as set forth.

938,883. CUSHION FOR THE BOTTOMS OF CHAIR-LEGS, &c. WILLIAM MAIER, Buffalo, N. Y., assignor of one-third to himself, one-third to Seth H. Koopmans, and one-third to Henry R. Hoffeld, Buffalo, N. Y. Filed Feb. 21, 1907. Serial No. 358,735.



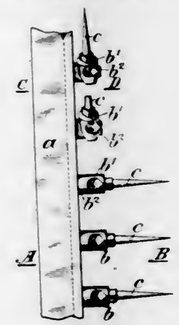
An article of the class described composed of felt compressed into the form of an annulus and provided with a central tapering opening which diminishes in size from the bottom toward the top, an annular bead on its bottom surface which surrounds the enlarged lower end of the central opening and is of curving contour in cross section and constitutes the tread portion, an annular bead on its top surface which surrounds the upper reduced end of the central opening and an annular groove in its top surface surrounding the annular top bead; the annular top bead projecting above the top surface of the remainder of the article and the annular groove being located directly over the annular bead on the bottom surface, substantially as set forth.

938,884. PERFORATING OR PRICKING APPARATUS FOR EMBROIDERY-MACHINES. CARL MORIGGL, Arbon, Switzerland, assignor to Adolph Saurer, Arbon, Switzerland. Filed Dec. 22, 1908. Serial No. 468,739.

1. A pricker or perforator for embroidery machines comprising a head formed of two parts having abutting faces formed obliquely to the longitudinal axis of the head, one of said parts having a spike end, a pivot connecting said parts positioned at right angles to the division line of the head, said abutting faces interlocking at certain relative positions of the parts.

2. A pricker or perforator for embroidery machines comprising a head formed of two parts having abutting faces formed obliquely to the longitudinal axis of the head, one of said parts having a spike end, a pivot connecting said parts positioned at right angles to the division line of the head, one of said faces having a grooved surface and the other a ribbed surface adapted to interlock.

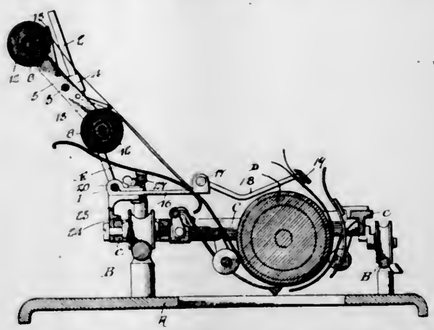
3. A pricker or perforator for embroidery machines comprising a head formed of two parts having abutting faces formed obliquely to the longitudinal axis of the head, one of said parts having a spike end, a screw connecting said parts mounted therein at right angles to the abutting faces, said faces being provided respectively with grooves and a rib adapted to interlock when the spike is moved into its operative and inoperative positions.



4. In an embroidery machine, the combination with a pricker-bar, of a pricker head having a base portion fixed on the bar and a top portion having a spike end, said portions having abutting faces formed obliquely to the longitudinal axis of the head, a screw connecting said portions extending through the top portion at right angles to the oblique face thereof and working in screw-threads formed in the base portion, said faces having locking elements adapted to interlock when the top portion is moved into its operative and inoperative positions.

5. In an embroidery machine, the combination with a pricker-bar, of a pricker head having a base portion fixed on the bar and a top portion having a spiked end, said portions having abutting faces formed obliquely to the longitudinal axis of the head, a screw connecting said portions extending through the top portion at right angles to the oblique face thereof and working in screw-threads formed in the base portion, the face of said base portion being V-shaped in cross section and provided with transverse grooves and the face of the top portion having a longitudinal rib, substantially as and for the purpose specified.

938,885. PAPER-ROLL ATTACHMENT FOR TYPE-WRITERS. ARTHUR F. MCCULLEY, Frisco, Utah. Filed Aug. 13, 1907. Serial No. 388,381.



1. In a device of the character described, a supporting frame consisting of a single U-shaped rod adapted to be detachably secured to the carriage of a typewriter and entirely supported by said carriage, of a shaft detachably secured to said supporting frame and carrying brackets swingingly mounted thereon, said brackets carrying paper rolls, substantially as and for the purpose described.

2. In a device of the character described, a supporting frame consisting of a rod having upstanding portions,

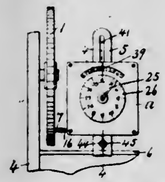
said rod being adapted to be secured to the carriage of a typewriter and entirely supported by said carriage, and means arranged on said supporting frame for carrying paper rolls, substantially as and for the purpose described.

3. In a device of the character described, a supporting frame consisting of a single U-shaped rod adapted to be detachably and adjustably secured to the carriage of a typewriter and entirely supported by said carriage, of a shaft detachably and adjustably secured to said supporting frame and carrying brackets swingingly mounted thereon, said brackets carrying paper rolls detachably secured thereto, substantially as and for the purpose described.

4. In a device of the character described, a supporting frame consisting of a single U-shaped rod adapted to be detachably secured to the carriage of a typewriter and solely supported by said carriage, of a shaft detachably secured to said supporting frame and carrying brackets swingingly mounted thereon, said brackets carrying paper rolls, and substantially U-shaped rods arranged to engage said paper rolls, and means carried by said shaft for pressing said U-shaped rods against said paper rolls, substantially as and for the purpose described.

5. In a device of the character described, a supporting frame consisting of a single U-shaped rod adapted to be detachably secured to the carriage of a typewriter and entirely supported by said carriage, of a shaft detachably secured to said supporting frame and carrying brackets swingingly mounted thereon, said brackets carrying paper rolls, means for connecting said supporting frame to said carriage, said means consisting of L-shaped members, each of said L-shaped members having the lower portion of the vertical portion thereof provided with a shoulder and an aperture, the horizontal portion of each of said L-shaped members being provided with an adjustable clamp at one extremity thereof, said clamp being adapted to engage said supporting frame, pivotally connected at the other extremity thereof to a supporting means carrying a knife, substantially as and for the purpose described.

938,886. LOOM. JOHN NAZARIAN, Syracuse, N. Y. Filed Apr. 21, 1908. Serial No. 428,349.



1. A counter mechanism for looms comprising a casing provided with a dial having indications designating linear measurement of a woven fabric by inches and further provided with a sight opening at a point removed from the dial, a spindle journaled in said casing, a ratchet wheel carried by the spindle and adapted to intermittently operate the same, and connected to the spindle and associating with said dial and shifted in unison with the spindle, a gear rotatably mounted upon said spindle and having a series of indications for designating linear measurement of the woven fabric by yards, said last mentioned designations exposed through said sight opening, an operative connection between said ratchet wheel and said gear for operating the latter when the ratchet wheel is shifted, bearings arranged in said casing, a spring-controlled push rod extending in said casing and mounted in said bearings, a weighted dog pivotally connected to said rod and engaging said ratchet wheel for shifting the latter when the push rod is actuated in one direction, and a rotatable pick wheel arranged exteriorly of said casing and provided with means for intermittently engaging said push rod for shifting it to actuate the ratchet wheel.

2. A counter mechanism for looms comprising a casing provided with a dial having indications designating linear measurement of a woven fabric by inches and further provided with a sight opening at a point removed from the dial, a spindle journaled in said casing, a ratchet wheel carried by the spindle and adapted to intermittently operate the same, and connected to the spindle and associating with said dial and shifted in unison with the spindle, a gear rotatably mounted upon said spindle and having a series of indications for designating linear measurement of the woven fabric by yards, said last mentioned designations exposed through said sight opening, an operative connection between said ratchet wheel and said gear for operating the latter when the ratchet wheel is shifted, bearings arranged in said casing, a spring-controlled push rod extending in said casing and mounted in said bearings, a weighted dog pivotally connected to said rod and engaging said ratchet wheel for shifting the latter when the push rod is actuated in one direction, a rotatable pick wheel arranged exteriorly of said casing and provided with a plurality of spokes, and a radially adjustable means mounted upon one of the spokes of said wheel and adapted to intermittently engage said push rod for actuating it to shift the ratchet wheel, and a lifting plunger extending in said casing and engaging said dog and adapted to lift the dog out of engagement with the ratchet wheel when the plunger is shifted in one direction, the weighted end of said dog resting and adapted to slide upon the upper face of the plunger when the push rod is actuated.

3. A counter mechanism for looms comprising a casing provided with a dial having indications designating linear measurement of a woven fabric by inches and further provided with a sight opening at a point removed from the dial, a spindle journaled in said casing, a ratchet wheel carried by the spindle and adapted to intermittently operate the same, and connected to the spindle and associating with said dial and shifted in unison with the spindle, a gear rotatably mounted upon said spindle and having a series of indications for designating linear measurement of the woven fabric by yards, said last mentioned designations exposed through said sight opening, an operative connection between said ratchet wheel and said gear for operating the latter when the ratchet wheel is shifted, bearings arranged in said casing, a spring-controlled push rod extending in said casing and mounted in said bearings, a weighted dog pivotally connected to said rod and engaging said ratchet wheel for shifting the latter when the push rod is actuated in one direction, a rotatable pick wheel arranged exteriorly of said casing and provided with means for intermittently engaging said push rod for shifting it to actuate the ratchet wheel, and a lifting plunger extending in said casing and engaging said dog and adapted to lift the dog out of engagement with the ratchet wheel when the plunger is shifted in one direction, the weighted end of said dog resting and adapted to slide upon the upper face of the plunger when the push rod is actuated.

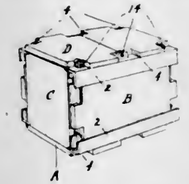
4. A counter mechanism for looms comprising a casing provided with a dial having indications designating linear measurement of a woven fabric by inches and further provided with a sight opening at a point removed from the dial, a spindle journaled in said casing, a ratchet wheel carried by the spindle and adapted to intermittently operate the same, and connected to the spindle and associating with said dial and shifted in unison with the spindle, a gear rotatably mounted upon said spindle and having a series of indications for designating linear measurement of the woven fabric by yards, said last mentioned designations exposed through said sight opening, an operative connection between said ratchet wheel and said gear for operating the latter when the ratchet wheel is shifted, bearings arranged in said casing, a spring-controlled push rod extending in said casing and mounted in said bearings, a weighted dog pivotally connected to said rod and engaging said ratchet wheel for shifting the latter when the push rod is actuated in one direction, a rotatable pick wheel arranged exteriorly of said casing and provided with a plurality of spokes, radially adjustable means mounted upon one of the spokes of said wheel and adapted to intermittently engage said push rod for actuating it to shift the ratchet wheel, and a lifting plunger extending in said casing and engaging said dog and adapted to lift the dog ont of engagement with the ratchet wheel when the plunger is shifted in one direction, the weighted end of said dog resting and adapted to slide upon the upper face of the plunger when the push rod is actuated.

5. A counter mechanism for looms comprising a casing provided with a dial having indications designating linear measurement of a woven fabric by inches and further provided with a sight opening at a point removed from the dial, a spindle journaled in said casing, a ratchet wheel carried by the spindle and adapted to intermittently operate the same, and connected to the spindle and associating with said dial and shifted in unison with the spindle, a gear rotatably mounted upon said spindle and having a series of indications for designating linear measurement of the woven fabric by yards, said last mentioned designations exposed through said sight opening, an operative connection between said ratchet wheel and said gear for operating the latter when the ratchet wheel is shifted, bearings arranged in said casing, a spring-controlled push rod extending in said casing and mounted in said bearings, a weighted dog pivotally connected to said rod and engaging said ratchet wheel for shifting the latter when the push rod is actuated in one direction, a rotatable pick wheel arranged exteriorly of said casing and provided with a plurality of spokes, and a radially adjustable means mounted upon one of the spokes of said wheel and adapted to intermittently engage said push rod for actuating it to shift the ratchet wheel, and a top section constructed to overlap the end members and prevent the upward movement thereof, and detachably secured to the side members.

measurement of a woven fabric by inches and further provided with a sight opening at a point removed from the dial, a spindle journaled in said casing, a ratchet wheel carried by the spindle and adapted to intermittently operate the same, and connected to the spindle and associating with said dial and shifted in unison with the spindle, a gear rotatably mounted upon said spindle and having a series of indications for designating linear measurement of the woven fabric by yards, said last mentioned designations exposed through said sight opening, an operative connection between said ratchet wheel and said gear for operating the latter when the ratchet wheel is shifted, bearings arranged in said casing, a spring-controlled push rod extending in said casing and mounted in said bearings, a weighted dog pivotally connected to said rod and engaging said ratchet wheel for shifting the latter when the push rod is actuated in one direction, a rotatable pick wheel arranged exteriorly of said casing and provided with means for intermittently engaging said push rod for shifting it to actuate the ratchet wheel, a revoluble detent engaging said ratchet wheel to prevent vibration thereof and to further prevent back rotation, and a yieldable supporting means for said detent:

[Claim 6 not printed in the Gazette.]

938,887. KNOCKDOWN BOX. WILLIAM J. NEEBES, Jr., Chicago, Ill. Filed Dec. 5, 1907. Serial No. 405,222.



1. In combination in a knock-down-box, a bottom section provided with the slots 3, side sections having the hooks 8 for engaging the slots 3, and the end securing members 5 and 7, provided with the portions 12 projecting down past the ends of the bottom section overlapping the same, end sections provided with the hooks 10 for engaging said securing members in the side sections, and a top section overlapping the end sections and detachably secured to the side sections.

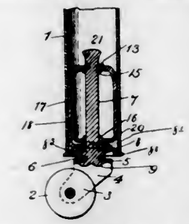
2. In combination in a knockdown box, a bottom section provided along the edges with reinforcing strips having locking slots, side sections provided with reinforcing strips projecting past the edges of the side sections and provided with hooks for engaging the slots in the bottom section and locking the bottom and side sections together on a relative longitudinal movement of the bottom section and side sections, and end sections provided with reinforcing strips projecting past the edges thereof and provided with means for interlocking with the strips on the side sections on a vertical movement of the end sections.

3. In combination in a knock-down box, a bottom section provided along the edges with reinforcing portions having locking slots, side sections provided with reinforcing strips projecting past the lower and upper edges of the side sections and provided at their lower ends with hooks for engaging the slots in the bottom section and locking the bottom and side sections together on a relative longitudinal movement of the bottom and side sections, end sections provided with reinforcing strips projecting past the edges thereof, and provided with means for interlocking with the strips on the side sections on a vertical movement of the end sections, and a top section overlapping the end sections and provided with openings for receiving the upper ends of the strips on the side sections.

4. In combination in a knock-down box, bottom, side and end sections provided with interlocking hooks and slots, the side sections being constructed to interlock with the bottom section by a movement longitudinal thereof, and the end sections being constructed to project down past the ends of the bottom section overlapping the same and being locked to the side sections by a vertical movement, and a top section constructed to overlap the end members and prevent the upward movement thereof, and detachably secured to the side members.

5. In combination in a knock-down box, bottom, side and end sections provided with interlocking hooks and slots, the side sections being constructed to interlock with the bottom section by a movement longitudinal thereof in opposite directions, and the end sections being constructed to project down past the ends of the bottom section overlapping the same and being locked to the side sections by a vertical movement, and a top section constructed to overlap the end members and prevent the upward movement thereof, and detachably secured to the side members.

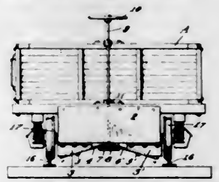
938,888. CASTER. BERNHARD H. NOELTING, Nebraska City, Nebr. Filed Oct. 30, 1908. Serial No. 460,294.



1. In a caster, the combination with a pintle of a spring retainer formed of one piece of resilient metal bent into substantially rectangular form, having side walls and upper and lower end portions, one of said end portions provided with an arm adapted to press against the inner face of one of said side walls, said side walls having a horizontally extending portion adapted to over-lap said end portion, all of said end portions being perforated for the passage of said pintle, one of said perforations being in the form of a slot.

2. A retainer for casters made of one piece of resilient sheet metal having two diametrically opposed side pieces joined by an end piece, the free end of one side piece being bent inward to form a spring tongue bearing against the inner face of the diametrically opposed side piece.

938,889. DEVICE TO TURN RAILWAY-SWITCHES. SALVADOR ORDÓÑEZ and LOUIS KATZ, San Francisco, Cal. Filed July 3, 1909. Serial No. 505,907.



1. The combination in a railway switch changing device, of guided transversely slidable plates, the outer ends of which are adapted to contact with the rails to be moved, springs by which said plates are normally retained in a central position, a turnable cam located between the inner ends of the plates, and means to turn said cam.

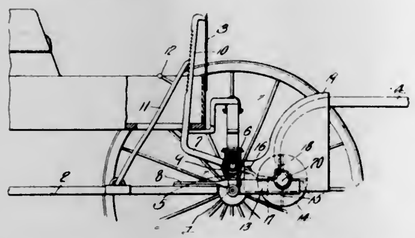
2. The combination in a railway switch changing device, of guided transversely slidable plates, the outer ends of which are adapted to contact with the rail points to be moved, means to retain the plates normally in a central position, a cam, and means to turn it so as to move either of the plates, and locking means to limit the movement of the cam.

3. The combination in a railway switch changing device, of a frame or support carried upon a car, inclined guides fixed thereto, slides movable transversely in the

guides, and capable of being simultaneously retracted and raised, a cam contacting with the inner ends of the slides, means to turn the cam to advance either of the slides to contact with and move the switch rail points, a slotted disk and a latch to engage therewith and lock the parts in either position.

4. The combination in a railway switch changing device, of inclined guides carried upon a car, slides movable transversely in the guides, means by which said slides are normally retracted and raised, a turnable cam engaging the slides to advance either into contact with the switch rail point, a slotted disk and a latch to engage and hold the disk and slides at either point of adjustment, and a shoulder or stop to limit the movement of the cam in either direction.

938,890. SHAFT-DETACHING DEVICE. MILTON P. POWELL, Jr., Highlandale, Miss. Filed Jan. 18, 1909. Serial No. 472,853.



1. A device of the kind described comprising in combination with an axle, a revoluble, flanged and webbed drum supported from said axle, shafts, means carried by the rear ends of the shafts for engaging an upright web of the drum, clamps adapted to engage webs lying in a horizontal plane, means for locking said clamps, and means for automatically lifting said clamps out of alinement with said webs when unlocked.

2. A device of the kind described comprising in combination with an axle and shafts detachable from said axle, of rotatable webbed drums supported from the axle, means for locking said drums against rotation with a web of each drum in an upright position, means carried by the shafts for engaging said webs while in an upright position, and means for releasing the locking mechanism and permitting free rotation of the drums.

3. A device of the kind described comprising rotatable drums said drums being webbed, shafts adapted to engage webs of the drums, a rod rotatably mounted upon the front axle of a vehicle, said rod having an off-set portion, a lever extending from said off-set portion into the vehicle, means for normally holding said rod and lever in a predetermined position, means for locking the said lever in an adjusted position, and clamping plates carried by said rod said clamping plates engaging webs of the drums and holding said drums against rotation upon adjustment of the lever.

4. The combination with a vehicle, having shafts detachable therefrom, of flanged, webbed drums supported from said vehicle, means carried by the shafts for engaging the webs of said drums a rotatable rod mounted upon the front axle having an off-set portion, springs adapted to rotate said rod in one direction, a lever carried by said off-set portion, said lever being notched, a loosely pivoted pawl for locking said lever in an adjusted position, the said springs being put under tension when the lever is in locked position, clamping plates rigidly connected to said rod and in position to be brought into engagement with the drum webs when the lever is pushed forward and to be lifted clear of said webs when the rotation of the rod by the said springs throws the lever rearward, and shields carried by said rod, said shields extending over said drums, and covering and protecting the rear end portions of said shafts, as and for the purpose set forth.

938,891. METHOD OF PRODUCING FINISHED SHAPES OF MANGANESE STEEL. WINFIELD S. POTTER, Mahwah, N. J., assignor to Manganese Steel Rail Company, Mahwah, N. J., a Corporation of New Jersey. Filed May 8, 1906, Serial No. 315,831. Renewed Jan. 31, 1907. Serial No. 355,136.

1. The method of producing finished shapes from manganese steel which consists in slowly heating the ingot from a temperature between 995° C. and 1065° C., to the maximum temperature and until the temperatures thereof are equalized, then slightly reducing said ingot, and then shaping.

2. The method of producing finished shapes from manganese steel which consists in slowly heating the ingot in a reducing atmosphere from a temperature between 995° C. and 1065° C. to the maximum temperature and until the temperatures of the mass are equalized, then slightly reducing the ingot, and then shaping it.

3. The process of producing finished shapes from manganese steel which consists in evenly heating the ingot in a reducing atmosphere from approximately 1040° C. to approximately 1205° C., cooling the ingot until recrystallization is complete, reheating the ingot to the maximum temperature, then subjecting the ingot to slight reductions and then shaping it.

4. The method of producing finished shapes from ingots of manganese steel, which consists in evenly heating the ingot from temperatures above 1040° C. to the maximum temperature, cooling, reheating and shaping.

5. The method of producing finished shapes from ingots of manganese steel, which consists in evenly heating the ingot from temperatures above 1040° C. to the maximum temperature, cooling, reheating, compressing and shaping.

[Claims 6 to 27 not printed in the Gazette.]

938,892. PROCESS OF TREATING MANGANESE-STEEL INGOTS. WINFIELD S. POTTER, Mahwah, N. J., assignor to Manganese Steel Rail Company, Mahwah, N. J., a Corporation of New Jersey. Filed Jan. 31, 1907. Serial No. 355,082.

1. In the treatment of manganese steel the process herein described of rapidly cooling the exterior of the metal from a temperature above the upper critical point.

2. In the treatment of manganese steel the process herein described of rapidly cooling the exterior of the metal while the interior is at a temperature above the upper critical point.

3. In the treatment of manganese steel the process herein described of rapidly cooling the exterior of the metal in a non-oxidizing fluid while the interior is at a temperature above the upper critical point.

4. In the treatment of manganese steel, the process herein described consisting in rapidly cooling the exterior of the metal from a temperature between the upper-critical point and the melting temperature to a dull red heat and above 425° C., and then uniformly cooling the metal to atmospheric temperature.

5. The treatment of manganese steel which consists in arresting the rapid cooling of the metal at the temperature described maintaining said temperature until the metal is of substantially uniform temperature throughout, and finally cooling the metal to atmospheric temperature.

[Claims 6 to 27 not printed in the Gazette.]

938,893. PROCESS OF ROLLING MANGANESE STEEL. WINFIELD S. POTTER, Mahwah, N. J., assignor to Manganese Steel Rail Company, Mahwah, N. J., a Corporation of New Jersey. Filed May 15, 1907. Serial No. 373,887.

1. The process of forming shapes from manganese steel ingots or blooms which consists in working the same while the interior thereof is in a soft and plastic condition and at temperatures above the upper critical point and the outer portion in a strong and tough condition.

2. The process of forming shapes from manganese steel ingots or blooms, which consists in working the same

while the interior thereof is in a soft and plastic condition and at temperatures above the upper critical point, and the outer portion in a strong and tough condition at temperatures not above those of the interior.

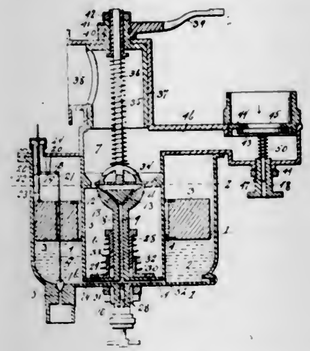
3. The process of forming shapes from manganese steel ingots or blooms which consists in giving the interior of the ingot or bloom a temperature above the upper critical point and the skin a temperature below the temperature of the interior, and then reducing the ingot.

4. The process of forming shapes from manganese steel which consists in providing a strong and tough skin on a body of manganese steel having a soft and plastic interior, and reducing said body of metal.

5. The process of forming shapes from manganese steel which consists in providing a strong and tough skin on a body of manganese steel having a soft and plastic interior, and then reducing said body of metal while the interior thereof is at a temperature above the upper critical point.

[Claims 6 to 33 not printed in the Gazette.]

938,894. CARBURETER. SAMUEL W. RAPP, Detroit, Mich. Filed Jan. 9, 1908. Serial No. 409,952.



1. A carbureter comprising a float chamber, a float therewithin, an air chamber within the float chamber, communicable with the exterior of the carbureter, a mixing chamber communicable with the air chamber, a channeled standard within the air chamber through which the mixing chamber communicates with the float chamber, valve mechanism actuated by said float to control the admission of fuel to the float chamber, a valve at the base of the air chamber to control the admission of fuel from the float chamber to the mixing chamber, a suction actuated air valve encircling said standard and movable lengthwise of said standard to control the admission of air into the air chamber, a suction actuated hydrocarbon valve at the base of the mixing chamber to further control the admission of hydrocarbon into the mixing chamber, throttle mechanism to control the exit from the mixing chamber, a spring to exert the tension upon said air valve, and means to govern the tension of said springs.

2. A carbureter comprising a float chamber, an air chamber communicable with the exterior of the carbureter, a mixing chamber communicable with the float chamber and with the air chamber, a float actuated valve to control the admission of fuel to the float chamber, a suction actuated valve to control the admission of air into the air chamber, a suction actuated hydrocarbon valve to control the admission of hydrocarbon into the mixing chamber, throttle mechanism to control the exit from the mixing chamber, a spring exerting its tension upon the hydrocarbon valve, and means to govern the tension of said spring.

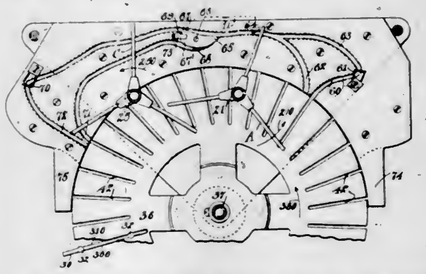
3. A carbureter comprising a float chamber, an air chamber communicable with the exterior of the carbureter, a mixing chamber communicable with the float chamber and with the air chamber, a float actuated valve to control the admission of fuel to the float chamber, a suction actuated valve to control the admission of air into the air chamber, a suction actuated hydrocarbon valve to control the admission of hydrocarbon into the mixing chamber, throttle mechanism to control the exit from the mixing chamber, and a spring exerting its tension upon the hydrocarbon valve, said throttle mechanism comprising means to govern the tension of said spring.

4. A carbureter comprising a float chamber, an air chamber communicable with the exterior of the carbureter, a mixing chamber, a channeled arm extending through the air chamber communicable with the mixing chamber and with the float chamber, a suction actuated hydrocarbon valve to control the communication of the channeled arm into the mixing chamber, a float actuated valve to control the admission of fuel to the float chamber, a suction actuated air valve provided with a tubular stem to control the admission of air into the air chamber, a sleeve upon said arm having a reciprocatory engagement with the tubular stem of the air valve, and a spring exerting its tension upon said sleeve and upon the air valve, said sleeve provided with means to govern the tension of the spring.

5. A carbureter comprising a float chamber, an air chamber within the float chamber communicable with the exterior of the carbureter, a mixing chamber communicable with the air chamber, a channeled standard located in the air chamber communicable with the mixing chamber and with the float chamber, a valve to control the communication of the float chamber with the mixing chamber, float actuated valve mechanism to control the admission of fuel to the float chamber, a vertically movable suction actuated hydrocarbon valve to control the communication of the channeled standard into the mixing chamber, and a suction actuated air valve at the base of the air chamber encircling said standard to control the admission of air into the air chamber, said standard constructed with a head provided with a cup-shaped recess upon the upper end thereof into which the hydrocarbon is admitted by the action of the said hydrocarbon valve, said hydrocarbon valve seating upon the upper end of said head above the base of said recess.

[Claims 6 to 10 not printed in the Gazette.]

938,895. PICTURE-EXHIBITING MACHINE. FRANCIS H. RICHARDS, Hartford, Conn., assignor to Frank B. Manville, Waterville, Conn. Filed Aug. 26, 1908. Serial No. 450,288.



1. In a picture exhibiting machine having an exhibition point, the combination with a rotary carrier provided with a plurality of engaging means for supporting a series of cards, of a track for receiving the cards, guiding the cards from the carrier past the exhibition point and back to and delivering the same on to the carrier, said track being provided with a shunt at the receiving and at the delivering portions, and means for moving the cards from the carrier onto and about the track and shunts and back to and onto the carrier.

2. In a picture exhibiting machine, the combination with a series of picture carrying cards each having a pair of

pins, of a rotary carrier having slots for said pins, a track to guide the pins from a carrier slot past an exhibition point and back to another slot and to reverse the position of the card in the carrier.

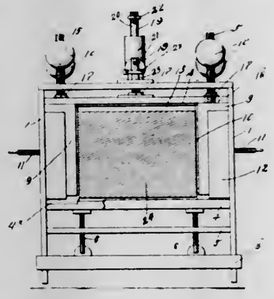
3. In a picture exhibiting machine, the combination with a series of picture carrying cards each having a pair of pins, of a rotary carrier having slots for said pins, a track to guide the cards from the carrier slot past an exhibition point and back to another slot for giving the card a half turn in relation to the carrier, and a shunt at each end of the track for receiving one of the pins while the other pin traverses the main track for moving the pin and the card away from the other cards in the carrier and for detaining one pin while the other turns about it, each shunt giving the card a half turn relative to the carrier.

4. The combination with a series of cards each having a pair of pins, of a carrier having slots for said pins, a track to guide the cards from a carrier slot past an exhibition point and back to another slot, and a shunt at each end of the track for receiving one of the pins while the other pin traverses the main track for moving the pin and the card away from the other cards in the carrier, and a switch at the approach of one of said shunts.

5. The combination with a carrier, of a plurality of cards each provided with a pair of pins for engaging the carrier, a track extending from one portion of the carrier to another portion thereof for the passage of the pins, a shunt at the receiving end of the track for receiving and detaining the pin first to leave the carrier until the second pin has turned upon it and taken the lead, and a shunt at the delivery end of the track for receiving the said second pin and detaining the same until the said first pin has turned upon it and taken the lead.

[Claims 6 to 17 not printed in the Gazette.]

938,896. VENEERING MACHINE. THOMAS RICHARDSON, Ridgway, Pa. Filed Mar. 16, 1909. Serial No. 483,842.

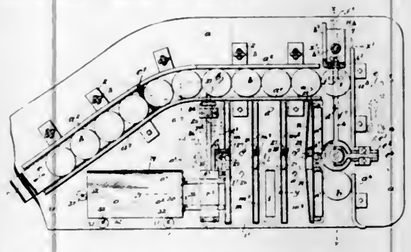


1. A machine of the type described, comprising housings, a frame connecting the lower ends of said housings, transverse braces carried by said housings, a table supported by said housings above said braces, said table having openings formed therein above said braces, screws adjustably mounted in said braces, beveled guides carried by the upper ends of said screws and extending into the openings of said table, vertical beveled guides adjustably supported by the sides of said housings, shields carried by said housings for the outer sides of said vertical guides, transverse beveled guides arranged at the upper ends of said vertical guides, stems carried by the upper ends of said vertical guides and extending through said transverse guides and the tops of said housings, weights mounted upon the upper ends of said stems, vertical rods carried centrally of said transverse guides and extending through the top of said housings, sections pivotally connected to the upper ends of said rods, weighted sleeves for maintaining a rigid connection between said sections and said rods, brackets carried by said housings adjacent to said rods for supporting said sections and the weighted sleeves thereof when in a tilted position, and collars adjustably mounted upon said rods for supporting said transverse guides in an elevated position.

2. A machine of the type described, comprising housings, a frame connecting the lower ends of said housings, transverse braces carried by said housings, a table supported by said housings above said braces, said table having openings formed therein above said braces, screws adjustably mounted in said braces, beveled guides carried by the upper ends of said screws and extending into the openings of said table, vertical beveled guides adjustably supported by the sides of said housings, shields carried by said housings for the outer sides of said vertical guides, transverse beveled guides arranged at the upper ends of said vertical guides and extending through said transverse guides and the tops of said housings, weights mounted upon the upper ends of said stems, vertical rods carried centrally of said transverse guides and extending through the top of said housings, sections pivotally connected to the upper ends of said rods, weighted sleeves for maintaining a rigid connection between said sections and said rods, and brackets carried by said housings adjacent to said rods for supporting said sections and the weighted sleeves thereof when in a tilted position.

3. In a veneering machine, a pair of housings, a table or support carried by said housings, guides adjustably arranged in said table, vertical guides adjustably supported upon said table and guided by flanges carried by said housings, transverse guides bridging said vertical guides within said housings, rods connected to said transverse guides and extending upwardly through said housings, rod sections pivotally connected to the upper ends of said rods, weighted sleeves arranged upon said sections for maintaining a stiff connection between said rod sections and said rods, and brackets arranged upon said housings adjacent to each rod for supporting said rod sections and said weighted sleeves when in a tilted position.

938,897. CAN-LABELING MACHINE. GEORGE F. RUSS, Hoboken, N. J., assignor to Russ Automatic Labeling Co., New York, N. Y., a Corporation of Delaware. Filed Dec. 2, 1908. Serial No. 465,733.



1. In a can labeling machine and in combination, a conveyer for cans resting upon one end, guides and a platform upon which the cans are delivered and advanced, a stop for limiting the movement of the cans, a pusher device for taking a can at a time and revoluble devices receiving the can as delivered from the pusher on one end, devices receiving labels in a superimposed pile, means for removing a label at a time from the bottom of the pile, means for pasting one side of the label and delivering the same upon the surface of said platform, a shaft and series of revoluble arm devices in alinement mounted thereon, means for rotating said arm devices to lift the pasted label from the platform and up-end the same into a vertical position, and means for pressing the advancing edge of the pasted label upon the vertical cylindrical surface of the can during the rotation of the same to affix the label to the cans.

2. In a can labeling machine and in combination, a conveyer for cans resting upon one end, guides and a platform upon which the cans are delivered and advanced, a stop for limiting the movement of the cans, a pusher device for taking a can at a time and revoluble devices receiving the can as delivered from the pusher on one end, and an edge-guard carried by a sliding pusher device for holding back the advancing cans until the return of the pusher, devices receiving labels in a superimposed pile, means for removing a label at a time from the bottom of the pile, means for pasting one side of the label and delivering the same upon the surface of said platform, a shaft and series of revoluble arm devices in alinement mounted thereon, means for rotating said arm devices to lift the pasted label from the platform and up-end the same into a vertical position, and means for pressing the advancing edge of the pasted label upon the vertical cylindrical surface of the can during the rotation of the same to affix the label to the cans.

3. In a can labeling machine and in combination, a conveyer for cans resting upon one end, guides and a platform upon which the cans are delivered and advanced, a stop for limiting the movement of the cans, a pusher device for taking a can at a time and revoluble devices receiving the can as delivered from the pusher on one end, devices receiving labels in a superimposed pile, means for removing a label at a time from the bottom of the pile, means for pasting one side of the label and delivering the same upon the surface of said platform, a shaft and series of revoluble arm devices in alinement mounted thereon, means for rotating said arm devices to lift the pasted label from the platform and up-end the same into a vertical position, and a series of rollers one upon each of the series of arms nearest the can-revolving devices over which the label is drawn and between which and the surface of the can the label is pressed to adhesive contact with the body of the can and means for pressing the advancing edge of the pasted label upon the vertical cylinder surface of the can during the rotation of the same to affix the label to the cans.

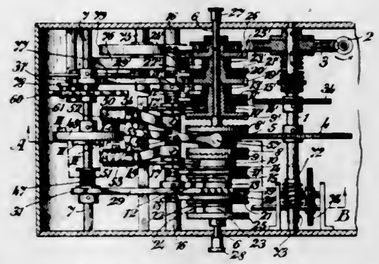
4. In a can labeling machine and in combination, a conveyer for cans resting upon one end, guides and a platform upon which the cans are delivered and advanced, a stop for limiting the movement of the cans, a pusher device for taking a can at a time and revoluble devices receiving the cans as delivered from the pusher on one end and an edge-guard carried by the sliding pusher device for holding back the advancing cans until the return of the pusher, devices receiving labels in a superimposed pile, means for removing a label at a time from the bottom of the pile, means for pasting one side of the label and delivering the same upon the surface of said platform, a shaft and series of revoluble arm devices in alinement mounted thereon, means for rotating said arm devices to lift the pasted label from the platform and up-end the same into a vertical position, and a series of rollers, one upon each of the series of arms nearest the can revolving devices over which the label is drawn and between which and the surface of the can the label is pressed to adhesive contact with the body of the can and means for pressing the advancing edge of the pasted label upon the vertical cylindrical surface of the can during the rotation of the same to affix the label to the cans.

5. In a can labeling machine, the combination with devices for conveying and guiding cans on one end into position and a platform supporting said cans and guides, a power shaft, a cam on said power shaft, a pusher device adapted to move over the surface of the platform, a spring actuated arm and a link connecting one end of the arm to said pusher device, whereby the cans one at a time are forwarded for labeling.

[Claims 6 to 19 not printed in the Gazette.]

938,898. SPEED-INDICATOR. WILHELM SCHAUFELBERGER, Zurich, Switzerland. Filed Mar. 27, 1907. Serial No. 364,802.

1. In combination in a speed indicator, a driving shaft, a pointer shaft and a pointer carried thereby, a pointer setting device and a pair of clutch disks mounted loosely on the pointer shaft, mechanical means for coupling and uncoupling the pointer shaft with the driving shaft, and two spring actuated pointer arresting devices, comprising each a ratchet wheel, a pawl, mechanical means for periodically bringing the pawl into engagement with the ratchet wheel and thereby preventing backward rotation of the pointer arresting device on return of the setting device to the zero position, and clockwork for operating the said mechanical means, substantially as described.



2. In combination in a speed indicator, a driving shaft, a pointer shaft and a pointer thereon, a pointer setting device and a pair of clutch disks mounted loosely on the pointer shaft, mechanical means for coupling and uncoupling the pointer and driving shafts, and spring-actuated pointer arresting devices, comprising ratchet wheels, pawls, mechanical means for periodically bringing the pawls into engagement with said ratchet wheels to prevent backward rotation of the pointer arresting devices on return of the setting device to the zero position, and clockwork for operating the said mechanical means, substantially as described.

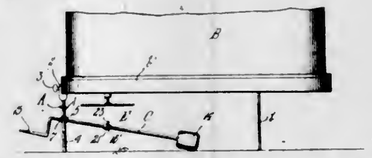
3. In combination in a speed indicator, a driving shaft, a pointer, a pair of loosely rotatable pointer setting devices and a pair of pointer arresting devices, mechanical means for alternately coupling and uncoupling the setting devices to and from the driving shaft, means for periodically locking the pointer-arresting devices at different times, and clockwork for actuating such means.

4. In a speed indicator, the combination with a continuously rotating element; of a pointer and its shaft, two mechanisms periodically and alternately driven in unison with the element, pointer arresting mechanisms driven by the periodically driven mechanisms, pawls to control the arresting mechanisms, means on the pointer shaft coöperating with the arresting mechanisms to control the relative angular position of the shaft and pointer, and clock mechanism controlling the periodic movement of the aforementioned elements.

5. In a speed indicator the combination with a pointer, a main driving shaft and a plurality of pointer setting devices to move the pointer in accordance with the speed during a small period of time; of means to drive the pointer setting devices, time controlled mechanism to periodically and successively cause said means to drive the pointer setting devices, and pointer arresting devices to temporarily and periodically arrest the pointer.

[Claims 6 to 11 not printed in the Gazette.]

938,899. BASS-DRUM AND CYMBAL BEATER. ALEXANDER C. SCHIPPER, Aurora, Ind. Filed Oct. 20, 1908. Serial No. 458,661.



1. A device of the class described comprising a vertical yoke having the free ends of its legs provided with clamps arranged to engage one hoop of a drum, to assist in supporting the latter; a rocking member disposed between and connected with said legs; a drumstick carried by said member; and a cymbal beater carried by the drumstick.

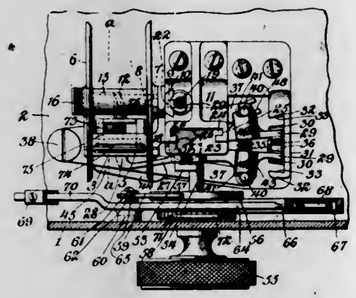
2. A device of the class described comprising a vertical yoke disposed beneath a drum and having the free ends of

its legs provided with clamps arranged for engagement with the lower hoop of the drum to assist in supporting the latter; a rocking member disposed between and connected with said legs; and a drumstick carried by said member and having one end thereof bent to form a pedal.

3. A device of the class described comprising a vertical yoke having the free ends of its legs provided with clamps arranged to engage one hoop of a drum, to assist in supporting the latter; a rocking collar disposed between and connected with said legs; a drumstick adjustably engaged by said collar and having one end thereof bent to form a pedal; and a cymbal beater adjustably carried by the drumstick.

4. A device of the class described, comprising a U-shaped standard having the free ends of its legs provided with bifurcated clamps arranged to engage one hoop of a drum; a rocking member disposed between and connected with said legs; and a drum stick carried by said member.

938,900. STAMP OR TICKET VENDING MACHINE. EDWARD D. SCHMITT, Baltimore, Md., assignor, by direct and mesne assignments, to International Vending Machine Company, Baltimore, Md., a Corporation of Delaware. Filed Jan. 23, 1908. Serial No. 412,286. Renewed Apr. 1, 1909. Serial No. 487,340.



1. In a machine for vending stamps, tickets, and similar articles, a feed mechanism comprising a vertically reciprocatory block or carriage carrying a feed gripper, and a fixed check gripper arranged below the feed gripper and adapted to be opened by the closing of said gripper, in combination with means alternately opening and closing both grippers, and means actuated by the check gripper to sever the article being fed and simultaneously close the exit to the feed opening.

2. In a machine for vending stamps, etc., a feed mechanism consisting of a vertically reciprocatory block or carriage carrying a feed gripper, and a fixed check gripper arranged below said feed gripper and adapted to be opened by the closing of the feed gripper, and means alternately opening and closing both grippers, in combination with means adapted to be actuated by the closing of the check gripper to sever the article being fed, and simultaneously close the exit opening and to be withdrawn by the opening of said check grippers.

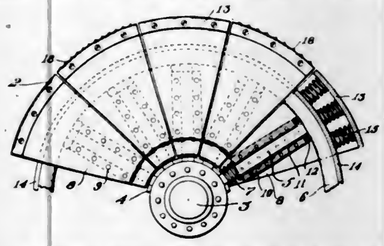
3. In a machine for vending stamps, etc., a feed mechanism consisting of a feed gripper pivotally mounted on a vertically reciprocatory block or carriage, and a fixed check gripper pivoted below said feed gripper and adapted to be opened by the closing of the feed gripper to release its grip on the article being fed, in combination with means actuated by the check gripper to sever said article and simultaneously close the exit to the feed opening.

4. In a machine for vending stamps, etc., a feed mechanism comprising a feed gripper pivotally mounted on a vertically reciprocatory block or carriage, a fixed check gripper pivoted below said feed gripper and adapted to be opened by the closing of the feed gripper, and means closing said feed gripper to cause the check gripper to release its grip on the article being fed, in combination with means actuated by the closing of the check gripper to sever the article being fed and simultaneously close the exit opening, and to be withdrawn by the opening of said check grippers.

5. In a machine for vending articles from a continuous strip, a feed mechanism, for feeding a portion of the strip at a time, consisting of a reciprocatory feed gripper, a relatively fixed check gripper, and means operating the feed and check grippers alternately, in combination with a cutting mechanism arranged below the check gripper and operated thereby.

[Claims 6 to 15 not printed in the Gazette.]

938,901. ELASTIC WHEEL. MARTIN SCHNABEL, Newcastle, Cal. Filed Dec. 24, 1908. Serial No. 469,111.



1. In a vehicle wheel, the combination of a hub-portion, a series of spokes radiating therefrom, a plurality of independent segments having boxes upon their inner sides adapted to slidably embrace the spokes, means for fixing the segments to each other, a felly upon the outer ends of the spokes, said segments being extended outwardly past the felly and having tread plates upon their outer ends, and springs between the tread plates and the felly.

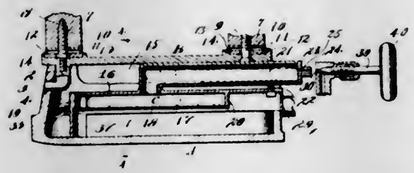
2. In a vehicle wheel, the combination of a hub portion, spokes radiating therefrom, a felly in which the outer ends of said spokes are secured, segments reciprocable on said spokes, said segments being made in two similar parts secured together, the inner sides of the segments being formed with inwardly projecting boxes adapted to receive the spokes, said segments being extended outwardly beyond the felly, a removable tread-plate secured to the outer ends of the segments, and a spring between the tread-plate and the felly.

3. In a vehicle wheel, the combination of a hub-portion, spokes radiating therefrom, a felly in which the outer ends of said spokes are secured, the segments reciprocable on said spokes, said segments being made in two similar parts secured together, the inner sides of the segments being formed with inwardly projecting boxes adapted to receive the spokes, said segments being extended outwardly beyond the felly, a removable tread-plate secured to the outer ends of the segments, a spring between the tread-plate and the felly, and resilient members disposed around the spokes and adapted to support said segments between the felly and said hub portion.

4. In a vehicle wheel, the combination of a hub portion, a felly, spokes extending between the hub portion and the felly and a pair of segments for each spoke, said segments being formed of two similar parts, adapted to be secured together, each of said parts having inwardly projecting boxes upon the inner sides, said boxes adapted to receive the spokes and said boxes being of less length than the length of said spokes, resilient supports at the opposite ends of the boxes and disposed around said spokes, said segments being extended beyond said felly, a removable tread-plate connecting the outer ends of each pair of segments, and a resilient support between the felly and the inner surface of the tread-plate.

5. In a vehicle wheel, the combination of a hub portion, a felly, spokes extending between the hub portion and the felly a pair of segments for each spoke, said segments being formed of two similar parts, adapted to be secured together, each of said parts having inwardly projecting boxes upon the inner sides, said boxes adapted to receive the spokes and said boxes being of less length than the length of said spokes, resilient supports at the opposite ends of the boxes and disposed around said spokes, said segments being extended beyond said felly, a removable tread-plate connecting the outer ends of each pair of segments, and a resilient support between the felly and the inner surface of the tread-plate, said boxes having anti-friction rollers to contact with the spokes.

938,902. BURNER. HENRY W. SCHOFF, River Forest, Ill., assignor to The Imperial Brass Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 13, 1908. Serial No. 410,480.



1. A burner comprising an induction tube, a passageway adapted to communicate with a source of fuel supply and which terminates in a jet orifice adapted to discharge into the bore of said induction tube, and means for varying the size of the open end of the induction tube into which said jet orifice discharges and its proximity to said jet orifice, said means comprising a plate adapted to be removably adjusted to the open end of the induction tube, and a boss on said plate, said plate and boss being provided with a longitudinal opening extending longitudinally through the same, the relation being such that when said plate is adjusted to the open end of the induction tube, said opening through said plate and boss will be in substantial alinement with the jet orifice of the burner.

2. A burner comprising an induction tube, a passageway adapted to communicate with a source of fuel supply and which terminates in a jet orifice adapted to discharge into the bore of said induction tube, means for varying the size of the open end of said induction tube into which the jet orifice discharges, and its proximity to said jet orifice, said means comprising a plate pivoted to the rear end of said induction tube at one side of the bore thereof, a rearwardly extending boss on said plate, said boss and plate being provided with a longitudinal opening, a stop on said induction tube and a catch on said plate adapted to engage said stop, said catch and stop being adapted to define a position of said plate over the open end of said induction tube to bring the hole through said plate and the boss thereon in alinement with the jet orifice of the burner.

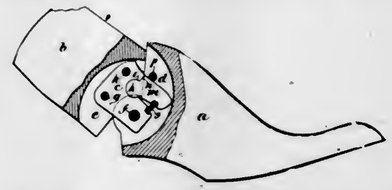
3. A burner comprising a body portion provided with an open sided recess, a perforated plate secured in the open side of said recess, said burner being provided with a passageway adapted to communicate with a source of fuel supply and which terminates in a jet orifice, said passageway comprising sections at the rear end of said burner formed directly in the walls thereof and an intermediate section formed by a tube the ends of which are secured in and which communicate with said rearward sections of said passageway and which passes around the body of said burner.

4. A burner comprising a body portion provided with an open sided recess, a perforated plate secured in the open side of said recess, said burner being provided with a passageway adapted to communicate with a source of fuel supply and which terminates in a jet orifice, said passageway comprising sections at the rear end of said burner formed directly in the walls thereof, and an intermediate section formed by a tube the ends of which are secured in and which communicate with the sections of said passageway formed directly in the burner and which extends around the body of the burner, and flanges on said burner which define the position of said tube.

5. A burner comprising a body portion provided with an open sided recess, a perforated plate secured in the open side of said recess, said burner being provided with a passageway adapted to engage with a source of fuel supply and which terminates in a jet orifice, said passageway comprising sections at the rear end of said burner formed directly in the walls thereof, and an intermediate section formed by a tube the ends of which are secured in and which communicate with the sections of said passageway formed directly in the burner and which extends around the body of the burner, and flanges which define the position of said tube the width of which is substantially equal to the diameter of said tube.

[Claims 6 and 7 not printed in the Gazette.]

938,903. LAST-LOCK. FREDERICK J. SHAINSEY, Sr., Dayton, Ohio, assignor, by mesne assignments, to Krentler-Arnold Hinge Last Company, Detroit, Mich., a Corporation of Michigan. Filed Feb. 24, 1906. Serial No. 302,678.



1. In a transversely divided last, having its heel-part movable relatively to the forepart, said two parts having vertical kerfs in their adjacent ends, connecting means including a rigid plate secured in said kerfs to said forepart and heel-part respectively, and a rigid compression member pivoted in the plane of said kerfs, carried by and movable with and also relatively to said plate and adapted to lock the parts of the last rigidly extended when in one position, and to permit the free collapsing movement of said last-parts when in another position.

2. In a transversely divided last, having its heel-part movable relatively to the forepart, said two parts having vertical kerfs in their adjacent ends, connecting means including a rigid plate secured in said kerfs to said forepart and heel-part respectively, and a movable locking mechanism pivotally mounted in the plane of said kerfs, carried by and movable with and also relatively to said plate and adapted to lock the parts of the last rigidly extended when in one position, and to permit the free collapsing movement of said last-parts when in another position, said locking mechanism having its pivot and its opposite locking end both substantially in the arc of swinging movement of the last-parts, being externally operable and including a spring normally tending to move the same into locking position.

3. In a transversely divided last, having its heel-part movable relatively to the forepart, said two parts having vertical kerfs in their adjacent ends, connecting means including a rigid plate secured in said kerfs to said forepart and heel-part respectively, and a rigid compression member pivoted in the plane of said kerfs carried by and movable with and also relatively to said plate and adapted to extend from one last part to the other and to brace against said last part and thereby to lock the last rigidly extended when in one position, and to permit the free collapsing movement of said last-parts when in another position, said locking mechanism being externally operable.

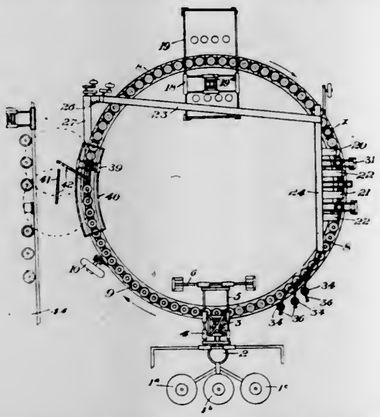
4. In a transversely divided last, having an open space at the top in the line of division and vertical kerfs in the adjacent ends, connecting means secured in said kerfs to the fore part and heel-part respectively, a locking device mounted in said kerfs and extending across said open space into both last parts, and a transverse pin in one of said kerfs above said connecting means, said locking device, when the last-parts are in extended position, bracing rigidly between said pin at one end in one last-part and

the connecting means at the other end in the other last-part, said locking device being adapted to be deflected downwardly within the last to permit the parts of the last to have movement one relatively to the other.

5. In a transversely divided last, having an open space at the top in the line of division and vertical kerfs in the adjacent ends, connecting means secured in said kerfs to the forepart and heel-part respectively, a locking device mounted in said kerfs and extending into said open space, a transverse pin in one of said kerfs above said connecting means, and a spring normally tending to move said locking device outwardly, said locking device, when the last-parts are in extended position, bracing rigidly between said pin at one end in one last-part and the connecting means at the other end in the other last-part, said locking device being adapted to be deflected downwardly within the last in opposition to said spring to permit the parts of the last to have movement one relatively to the other.

[Claims 6 to 9 not printed in the Gazette.]

938,904. CASTING PLANT. CLIFTON W. SHERMAN, Bellevue, Pa. Filed Jan. 14, 1905. Serial No. 241,092.



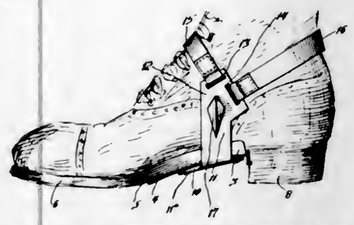
1. In a casting plant, the combination of an endless way, a carrier traveling thereon, a series of flasks on said carrier, successive mechanisms as follows arranged adjacent to the way and acting in the order named for effecting a complete molding and casting operation and returning the flasks and sand to the starting point in a cycle of mechanical operations, consisting of a mold-forming-station, mechanism for raising a flask from the carrier, inverting the flask and replacing it on the carrier, lifting mechanism for the flask for permitting the withdrawal of the pattern, pouring mechanism, mechanism for separating the flask and casting, replacing the flask on the carrier, and removing the casting, mechanism for returning the sand to the fold-forming-station, said sand-returning-mechanism including a screen and mixer, mechanism for removing flasks from the carrier and replacing others thereon, and mechanism, separate and independent of the carrier comprising reciprocating means for moving the carrier intermittently, thereby bringing the flasks in succession opposite the several mechanisms named.

2. In a casting plant, the combination of an endless way, a carrier traveling thereon, a series of flasks on said carrier, successive mechanisms as follows arranged adjacent to the way and acting in the order named for effecting a complete molding and casting operation and returning the flasks to the starting point in a cycle of mechanical operations, consisting of a mold-forming-station, mechanism for raising a flask from the carrier, inverting the flask and replacing it on the carrier, lifting mechanism for the flask for permitting the withdrawal of the pattern, pouring mechanism, mechanism for separating the flask and casting, replacing the flask on the carrier and removing the casting, mechanism for removing flasks from the carrier and placing others thereon, and mechanism comprising reciprocating means arranged to engage the carrier for moving the carrier intermittently, thereby bringing the flasks in succession opposite the several mechanisms named.

3. In a casting plant, the combination of an endless way, a carrier traveling thereon, a series of flasks on said carrier, interrupted at one point by a vacant space on the carrier, said flasks each comprising a cope and a drag, successive mechanisms as follows arranged adjacent to the way and acting in the order named for effecting a complete molding and casting operation and returning the flasks and sand to the starting point in a cycle of mechanical operations, consisting of a mold-forming-station, mechanism for raising a flask from the carrier, inverting the flask and replacing it on the carrier, lifting mechanism for the flask for permitting the withdrawal of the pattern, pouring mechanism, mechanism for separating the flask and casting, replacing the flask on the vacant space on the carrier, and removing the casting, mechanism for returning the sand to the mold-forming-station, said sand-returning-mechanism including a screen and mixer, and mechanism comprising reciprocating means arranged to engage the carrier for moving the carrier intermittently, thereby bringing the flasks in succession opposite the several mechanisms named.

4. In a casting plant, the combination with an endless track, of a carrier adapted to travel on the track, a series of flasks mounted on the carrier, sand-supply spouts arranged to feed sand to the flasks, a machine for ramming the sand in the drag-part of the flask, a machine for ramming the sand in the cope part of the flask, a flask-hoisting apparatus located between the ramming machines, and means for intermittently moving the carrier and the flask to cause some of the flasks to be simultaneously and respectively stopped under the said sand-supply spouts, ramming machines and flask hoisting apparatus, substantially as set forth.

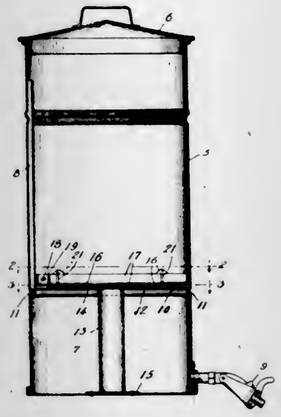
938,905. CLIMBING-STIRRUP. PETER H. SPEERSTRA, Steubenville, Ohio. Filed July 27, 1909. Serial No. 509,909.



1. In a device of the character described, a sole plate having the sides thereof provided with vertical flanges adapted to embrace the edges of the shoe, a depending lug carried at the rear of the plate and adapted to engage the front of a heel to prevent rearward movement of the plate when in position, a stirrup secured to the under side of said sole plate and having the arms thereof provided with slots and adapted to extend at the sides of the flanges of the sole plate, straps connected to said arms through the medium of said slots, and a tapering angularly disposed prong carried by one of the arms of said stirrup.

2. In a device of the character described, a sole plate having the sides thereof provided with vertical flanges adapted to embrace the edges of the shoe, a depending lug carried at the rear of the plate and adapted to engage the front of a heel to prevent rearward movement of the plate when in position, a stirrup secured to the under side of said sole plate and having the arms thereof extending at the sides of the flanges of the sole plate, said arms having enlarged free ends provided with slots, the free end of one arm opposing the free end of the other arm, straps adapted to connect with said arms through the medium of said slots, and a downwardly tapering angularly disposed prong carried by one of the enlarged ends of one of said arms.

938,906. PERCOLATOR. CHARLES A. STELLE, Chicago, Ill. Filed Aug. 3, 1908. Serial No. 446,728.



1. A percolator having a permanent screen and a filtering cloth above the screen and resting thereon, the cloth being secured to and held extended by an expansible loop located within the cloth and secured to its edges.

2. A percolator having its filtering cloth attached to an expansible hoop located within the cloth and acting to force it outward closely against the inner walls of the percolator, and a screen located immediately below and supporting the cloth.

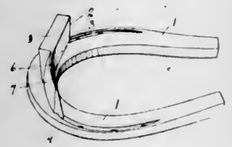
3. The combination in a percolator and with the filtering cloth and a screen located immediately below the cloth and supporting the same, of an expansible hoop located within and secured to the edges of the cloth and thus adapted to hold the cloth tight against the inner walls of the percolator.

4. A percolator, the filtering devices whereof consist of a filtering cloth, an expansible device secured to the cloth and whereby the edge is distended and caused to make a tight joint with the inner wall of the percolator, and an openwork screen located immediately below the cloth and supporting the same.

5. A percolator, consisting of a vessel 5, having a syrup chamber at the bottom, filtering devices consisting of a filtering cloth, an expanding ring secured to the cloth and serving to hold the cloth extended and cutting off the water and sugar from the syrup chamber, a screen located below the cloth and supporting the same and said holding means above the syrup chamber, and a tube venting said syrup chamber.

[Claim 6 not printed in the Gazette.]

938,907. HORSESHOE. PAUL VON STETTINA, Schenectady, N. Y. Filed Mar. 8, 1909. Serial No. 481,926.



A horseshoe having on the underside of its toe-portion a toe-calk extending transversely of the longitudinal axis of the shoe, substantially from side to side of the shoe, said calk having a broad, blunt face extending from its outer end approximately to said axial line, and being beveled on its front side to form a cutting edge from its inner end approximately to said axial line.

938,908. CHECK-BOOK. CLIFTON S. SULTZER, Red Wing, Minn., assignor to Red Wing Advertising Company, Red Wing, Minn., a Corporation of Minnesota. Filed Sept. 26, 1907. Serial No. 394,664.

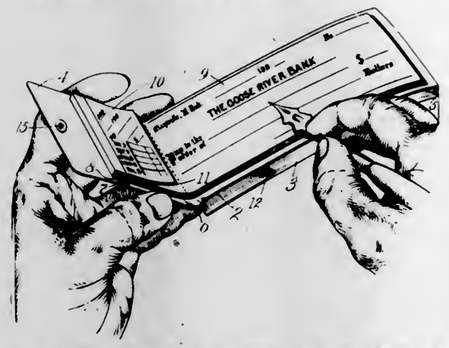


1. A folding check book comprising a cover having a line of fold between its ends, whereby to provide front and back leaves, the front leaf having a pair of pockets extending in the direction of the length of the cover, one pocket having its opening near the line of fold, and the other pocket having its opening farther toward the free end of said cover leaf and adapted to receive a deposit book, and a pad of bound check leaves having stub and check portions, said pad being formed with a backing strip fitting within the pocket adjacent to the line of fold, whereby the pad is detachably held upon the cover, and the mouth of said pad holding pocket being positioned at such distance from the line of fold that the line between the check and stub portions of the check leaves is coincident with the line of fold of the cover, said deposit book serving as a filler and support for the front cover leaf.

2. In a book of the class described, the combination with a cover having a line of fold between its ends, whereby to provide front and back portions, the front portion of the cover having a pair of pockets at its inner side arranged in alinement, one of said pockets being adjacent to the line of fold, and the other extending substantially from the termination of the last-mentioned pocket toward the free end of the front portion of the cover and adapted to receive a pass book, of a pad of bound leaves including separable check and stub portions arranged side by side and positioned within the cover so that the line of separation between the check and stub portions is coincident with the line of fold of the cover, and a backing flap carried by the pad and received by the pocket adjacent to the line of fold, whereby the pad is detachably held upon the cover, said backing flap and pass book serving to reinforce the front portion of the cover.

3. In a device of the character described, the combination of a top and a lower cover, integrally connected at their contiguous ends, said lower cover provided with a smooth inner face, said top cover provided with an inner pocket extending entirely across the top cover, and said top cover provided with an outer pocket extending entirely across the cover, said outer pocket terminating short of the inner pocket, a check-book resting upon said top and lower covers, said check-book comprising sheets, each sheet provided with a transverse line of perforations, all of the transverse lines of perforations registering with the inner ends of the covers, said check-book provided with a flap positioned in the inner pocket, said perforations dividing the sheets into checks and stub-portions, the check-portions lying flat upon and parallel with the inner smooth face of the lower cover and the stub-portion lying flat upon and parallel with the inner pocket of the top cover, said check-book of substantially the same width as said top-cover and lower cover, and the outer end of the stub-portion terminating short of the inner end of the outer pocket.

938,909. FOLDING CHECK-BOOK. CLIFTON S. SULTZER, Red Wing, Minn., assignor to Red Wing Advertising Company, Red Wing, Minn., a Corporation of Minnesota. Filed Sept. 8, 1908. Serial No. 451,987.



1. A folding check book comprising a holder having a back, a top portion foldably secured to the back at one end thereof, and a flap foldably secured to the back at the other end thereof, and a pad of check leaves having stub portions at one end and check portions at the other end, said pad being removably secured to the flap in such position that the stub portions will lie upon the flap and the check portions upon the back with the line between them coincident with the line of fold between the back and flap, the top portion of the holder folding over upon the check leaves between the check portions and the stub portions thereof, and extending to the line of fold between them so as to form a stop to prevent the check leaves from sagging.

2. In a folding check book, the combination, with a holder having a back, a top portion foldably secured to the back at one end thereof, and a flap foldably secured to the back at the other end thereof, of a pad of check-leaves having stub portions at one end and check portions at the other end, the stub end of said pad being removably secured to the flap in such position that the stub portions shall lie entirely upon the flap and the check portions entirely upon the back, the top portion of the holder being formed on its outside with a pocket adapted to hold a deposit book, and the flap being adapted to be folded over upon the outer side of the pocket with the stub end of the pad opposite the mouth of the pocket.

3. A folding check book comprising a flexible holder having a stiffened top portion at one end, a stiffened flap at the other end and an intermediate back, and a pad of check-leaves having stub portions at one end and check portions at the other end, said pad being removably secured to the flap in such position that the stub portions will lie upon the flap and the check portions upon the back, with the line between them coincident with the flexible portion of the holder between the back and flap, the top portion of the holder being of such length that, when folded over upon the check leaves, it will extend to said flexible portion and form a stop to prevent the check leaves from sagging.

938,910. POCKET CHECK-BOOK. CLIFTON S. SULTZER, Red Wing, Minn., assignor to Red Wing Advertising Company, Red Wing, Minn., a Corporation of Minnesota. Filed July 14, 1909. Serial No. 507,548.

1. A folding check book comprising a cover having at each end a flap foldably secured thereto, and a pad of check leaves having stub portions at the left, and separable check portions at the right, said pad being removably secured to the left hand flap in such position that the stub portions will lie upon the left hand flap and the check portions upon the back, with the line of separation between them coincident with the line of fold between said flap and back, and the right hand flap having on its inner side a pocket adapted to receive a deposit book, the left hand flap with the stub portions secured thereon folding down upon the check portions, and the right hand flap folding over upon the check portions with its outer end overlapping the outer end of the left hand flap, whereby the pocket will lie opposite said stub portions.



2. A folding check book comprising a cover having at each end a flap foldably secured thereto, and a pad of check leaves having stub portions at the left and separable check portions at the right, said pad being removably secured upon the left hand flap in such position that the stub portions will lie upon the left hand flap and the check portions upon the back, with the line of separation between them coincident with the line of fold between said flap and back, and the right hand flap having on its inner side a pocket adapted to receive a deposit book, the mouth of the pocket opening toward the free end of the flap and extending approximately to the line of fold between said flap and back, the left hand flap with the stub portions carried thereby folding over upon the check portions, and the right hand flap also folding over upon the check portions with its outer end overlapping the free end of the left hand flap so as to bring the mouth of the pocket opposite the stub portions upon the left hand flap, and means for detachably securing the flaps in folded position.

3. A folding check book comprising a cover having at each end a flap foldably secured thereto, and a pad of check leaves having stub portions at the left and separable check portions at the right, said pad being removably secured to the left hand flap so that the stub portions will lie upon said left hand flap and the check portions upon the back, with the line of separation between them coincident with the line of fold between said flap and back, the left hand flap being of approximately the same length as the stub portions, and the right hand flap having on its inner side a pocket opening toward the free end of said flap and extending approximately to the line of fold between said flap and the back, and an entry book fitting in said pocket, said flaps folding over toward each other with the right hand flap overlapping the outer end of the left hand flap so as to bring the entry book opposite the stub portions of the check leaves, thereby supporting the right hand flap at the place where it overlaps the left hand flap.

4. A pocket check book comprising a cover having at each end a flap foldably secured thereto, and a pad of check leaves having separable stub and check portions arranged side by side, said pad being removably secured upon one of the flaps in such position that the stub portions will lie upon said flap and the check portions upon the back, with the line of separation between them coincident with the line of fold between said flap and back, and the other flap having on its inner side a pocket adapted to receive a deposit book, the flap carrying the stub portions folding down upon the check portions, and the flap carrying the deposit book pocket also folding down upon the check portions with the outer end of one flap overlapping and detachably secured to the outer end of the other flap, whereby said pocket will lie opposite said stub portions.

938,911. PROPELLING MEANS FOR VESSELS. THOMAS B. TAYLOR, New York, N. Y. Filed Aug. 17, 1906. Serial No. 330,940.



1. In a boat or vessel the combination of two separate, independently acting engines, two concentric shafts, a direct connection between one engine and one shaft, a direct connection between the second engine and the second shaft, two independent propellers of respectively opposite pitch, one on each shaft, and means for dividing one shaft, stopping one engine and connecting said shafts together.

2. The combination in a boat or vessel of two separate, independent engines, two concentric shafts, a direct connection between one engine and one shaft, a direct connection between the second engine and the second shaft, two independent, separate propellers, one on each shaft, and means for disconnecting one propeller from its engine and connecting said engine to the other propeller.

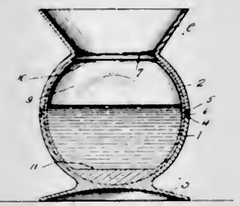
3. The combination in a boat or vessel of two separate, independent engines, two concentric shafts, a direct connection between one engine and one shaft, a direct connection between the second engine and the second shaft, two independent, separate propellers, one on each shaft, and means for disconnecting one propeller from its shaft and connecting the other propeller to said shaft.

4. The combination in a boat or vessel of two independent driving engines, a hollow shaft driven by one engine, a shaft in concentric relation to the first shaft driven by the other engine, a propeller wheel for each shaft, flexible couplings in each shaft, at coincident points, and means for disconnecting one of said shafts from its engine.

5. The combination in a boat or vessel of two independent driving engines, a hollow shaft driven by one engine, a shaft in concentric relation to the first shaft driven by the other engine, a propeller wheel for each shaft, flexible couplings in each shaft at coincident points, and bearings for the inner shaft in close proximity to said couplings, said bearings being supported upon the interior of said hollow shaft.

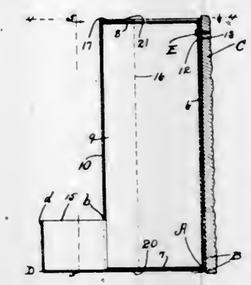
[Claims 6 to 15 not printed in the Gazette.]

938,912. CUSPIDOR. GEORG R. TESCHEL, Parkersburg, W. Va. Filed Apr. 22, 1909. Serial No. 491,436.



A cuspidor comprising a receptacle formed of two hollow semi-spherical sections detachably-connected together, a base connected with the lower of said sections, said upper section at its top open to provide a mouth, a flaring flange connected with the periphery of the upper section and forming a continuation of the mouth, and a spherical vessel mounted in said receptacle and having an opening at its top adapted to register with said mouth, said spherical vessel provided at a point opposite said opening with a segment-shaped enlargement constituting a weight for automatically maintaining said vessel in an upright position when the receptacle is tilted or upset, said vessel having its periphery throughout engaging the inner face of said receptacle, the inner face of said receptacle constituting a bearing surface to the periphery of said vessel.

938,913. COMBINED ORIGINAL PACKAGE AND SAFE FOR MATCHES. FERDINAND F. THEOBALD, Cleveland, Ohio. Filed Apr. 28, 1909. Serial No. 492,633.



1. In a package of the character indicated, a rectangular receptacle having a bottom, two opposite end walls and two opposite side walls; a telescoping cover which receives the receptacle endwise and is provided at one end and in one of its sides with an opening which extends across the free edges of and between the side walls of the receptacle and across the free edge of the adjacent end wall of the receptacle to the free extremity of the said end of the cover; a slidable tray having its bottom arranged externally of the said end wall and provided with a front which closes the aforesaid opening or is removed outwardly from the opening according as the tray is in its inner or outer position, said tray having two sides which extend inward from the front of the tray between the external surface of opposite side walls respectively of the said receptacle and the cover, and means whereby displacement of the tray endwise of the cover is prevented.

2. In a package of the character indicated, a quadrangular receptacle having a bottom, two opposite end walls and two opposite side walls; a telescoping cover which receives the receptacle endwise and is provided at one end and in one of its sides with an opening which extends transversely of the receptacle at the free edges and between the side walls of the receptacle, and a slidable tray provided with a front which closes the said opening or is removed outwardly from the opening according as the tray is in its inner or outer position and having its bottom arranged parallel with the adjacent end wall of the receptacle, which tray has a bail-shaped member which extends along the side walls and other end wall of the said receptacle and is arranged to hold the tray to the said receptacle in either position of the tray.

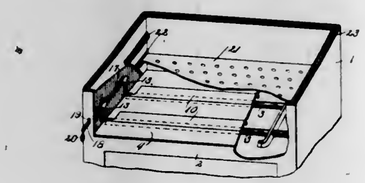
3. In a package of the character indicated, a rectangular receptacle having a bottom, two opposite end walls and two opposite side walls; a telescoping cover which receives the receptacle endwise and is provided at one end and in one of its sides with an opening which extends across the free edges of and between the side walls of the receptacle and across the free edge of the adjacent end wall of the receptacle to the free extremity of the said end of the cover, and a movable tray having its bottom arranged externally of the said end wall and provided with a front which closes the aforesaid opening or is removed outwardly from the opening according as the tray is in its inner or outer position, which tray has a bail-shaped member which has its opposite end-portions arranged between the external surface of opposite side walls respectively of the aforesaid receptacle and the cover and extending longitudinally of the said walls, said bail-shaped member having its central portion arranged and extending across the external surface of the other end wall of the said receptacle.

4. In a package of the character indicated, a rectangular receptacle having a bottom, two opposite end walls and two opposite side walls; a telescoping cover which receives the receptacle endwise and is provided, at one end and in one of its sides, with an opening which extends across the free edges of and between the side walls of the

receptacle and across the free edge of the adjacent end wall of the receptacle to the free extremity of the said end of the cover, and a movable tray having its bottom arranged externally of the last-mentioned end wall of the aforesaid receptacle and provided with a front which closes the aforesaid opening or is removed outwardly from the opening according as the tray is in its inner or outer position, which tray has two side members interposed between the external surface of opposite side walls respectively of the aforesaid receptacle and the cover, said tray having a bail-shaped member which has its opposite end-portions connected with opposite side members respectively of the tray and arranged between the external surface of opposite side walls respectively of the aforesaid receptacle and the cover and extending longitudinally of the said walls, said bail-shaped member having its central portion arranged and extending across the external surface of the other end wall of the said receptacle.

5. In a package of the character indicated, a rectangular receptacle having a bottom, two opposite end walls and two opposite side walls, and a telescoping cover which receives the receptacle endwise and is provided, at one end and in one of its sides, with an opening which extends across the free edges of and between the side walls of the receptacle and across the free edge of the adjacent end wall of the receptacle to the free extremity of the said end of the cover, of a movable tray having its bottom arranged next externally of the last-mentioned end wall and provided with a front which closes the aforesaid opening or is removed outwardly from the opening according as the tray is in its inner or outer position, which tray has two side members interposed between the external surface of opposite side walls respectively of the aforesaid receptacle and the cover, said tray being provided with a recess in and centrally of the inner edge of the bottom of the tray, said tray having a bail-shaped member which has its opposite end-portions connected with opposite side members respectively of the tray and arranged between the external surface of opposite side walls respectively of the aforesaid receptacle and the cover and extending longitudinally of the said walls, which bail-shaped member has its central portion arranged and extending across the external surface of the other end wall of the said receptacle and provided centrally of its inner edge with a recess.

938,914. OVEN FOR GAS OR VAPOR BURNING STOVES. WILLIAM THOMPSON, Kalamazoo, Mich. Filed Sept. 8, 1908. Serial No. 451,996.



1. In a stove, the combination with the burners, of an oven arranged above said burners comprising a bottom having openings located above said burners, said openings having downwardly and inwardly projecting flanges at their edges, damper-like doors for said openings having downwardly projecting flanges at their edges adapted to fit into the flanges of said openings so that when the doors are closed their upper faces are substantially flush with the bottom of the oven said doors being adapted to serve as rests when opened, means for adjusting said doors, and a foraminated false bottom or shelf arranged in a spaced relation to said bottom to permit the opening of said doors.

2. In a stove, the combination with the burners, of an oven arranged above said burners comprising a bottom having openings located above said burners, said openings having downwardly and inwardly projecting flanges at their edges, damper-like doors for said openings having downwardly projecting flanges at their edges adapted to fit into the flanges of said openings so that when the doors are closed their upper faces are substantially flush with the bottom of the oven said doors being adapted to serve as rests when opened, and means for adjusting said doors.

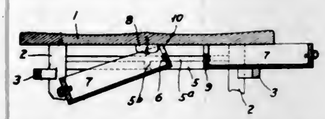
3. In a stove, the combination with the burners, of an oven arranged above said burners comprising a bottom having openings located above said burners, said openings having downwardly and inwardly projecting flanges at their edges, one of the flanges of each opening being curved, damper-like doors for said openings having downwardly projecting flanges at their edges adapted to fit into the flanges of said openings so that when the doors are closed their upper faces are substantially flush with the bottom of the oven said doors being adapted to serve as rests when opened, the flanges on one edge of said doors being curved to correspond to the said curved flanges of said openings and adapted to swing therein, and means for adjusting said doors.

4. In a stove, the combination with the burners, of an oven arranged above said burners comprising a bottom having openings located above said burners, damper-like doors for said openings said doors being adapted to serve as rests when open; pivots for said doors; and means for adjusting and supporting said doors in open position.

5. In a stove, the combination with the burners, of an oven arranged above said burners comprising a bottom having openings located above said burners, damper-like doors for said openings said doors being adapted to serve as rests when open; means for adjusting and supporting said doors in open position; and a removable foraminated false bottom or shelf arranged in a spaced relation to said bottom to permit the opening of said doors.

[Claim 6 not printed in the Gazette.]

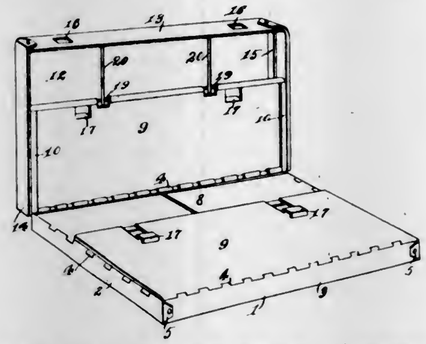
938,915. CHAIR. MARTIN THUM, Rochester, N. Y. Filed June 23, 1909. Serial No. 503,848.



In an article of furniture, the combination with a fixed horizontal part, of a drawer immediately beneath the same, having on each side at its rear end an outwardly projecting bearing; a transverse supporting rail for the outer end of the drawer; longitudinal guides for said rollers, having transverse ways leading down through and out from them, respectively, for the passage of said bearings, that are located between the locations of the bearings when the drawer is in its normally closed position and when it is pushed in beyond the said transverse support for its forward end; and a stop adapted in one position to prevent the drawer from passing inwardly beyond its said transverse support; substantially as shown and described.

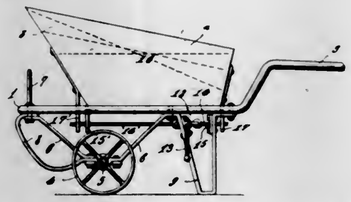
938,916. FOLDING METAL BOX OR CASE. FREDERICK TREISCHMAN, Wadena, Minn. Filed Jan. 8, 1909. Serial No. 471,344.

1. In a device of the character described, a base, side and end members hingedly connected with the base, interlocking lips upon the meeting edges of the sides and ends, spaced eyes upon the sides, a cover slidably and resiliently connected with one of the sides, said cover being provided with a continuous flange provided with openings adapted to aline with the eyes of the side members when the latter are in their set up position, and said cover having its inner face provided with a continuous wall adjacent the offset flange, and the space between the wall and flange adapted to engage the upper edges of the sides and ends when the latter are in their raised position.



2. In a box for the purpose set forth, the combination with a base member having upturned edges provided with hinge knuckles, side and end members having their lower edges provided with knuckles adapted to coöperate with the knuckles of the base, pintles for the knuckles, the side and end members being each provided with interlocking edges, a cover provided with depending edges and having its under face adjacent its edges provided with a continuous groove adapted to engage the upper edges of the sides and ends when the latter are in their raised position, means for locking the cover upon the sides and ends, one of said sides having its upper end provided with openings, and wire members connecting the flanges of the cover adapted to be received within the openings, substantially as and for the purpose set forth.

938,917. HAND-TRUCK. LOUIS X. TRUXLER, Vernon, British Columbia, Canada. Filed May 19, 1909. Serial No. 497,035.



1. In a hand truck, the combination of a wheeled frame, a load supporting body mounted thereon, a plurality of locking bolts for connecting the supporting frame, and means for connecting and releasing the bolts with respect to the support.

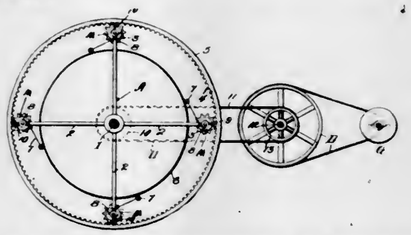
2. In a hand truck, the combination of a wheeled frame, a load support mounted thereon, plates projecting from said load support, a plurality of locking bolts mounted on the frame, and means for engaging and disengaging said bolts with respect to the plates of the support.

3. In a hand truck, the combination of a wheeled frame, a load support mounted thereon, plates projecting downwardly from the load support, locking bolts mounted on the frame and arranged to engage the plates to secure the load support to said frame, and a crank shaft operatively connected with said bolts to release the same from the plates aforesaid.

4. In a hand truck, the combination of a wheeled frame, a load support mounted thereon, plates projecting downwardly from the load support, locking bolts mounted on the frame and arranged to engage the plates to secure the load support to said frame, a crank shaft operatively connected with said bolts to release the same from the plates aforesaid, and means for limiting the movement of the crank shaft to thereby limit the movement of the locking bolts.

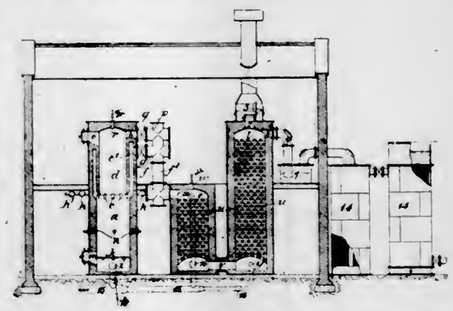
5. In a hand truck, the combination of a wheeled frame, a load support mounted thereon, plates projected downwardly from opposite ends of the support, a crank shaft mounted on the frame, opposite sets of cranks in the length of said shaft, a pair of bolts connected with each of said cranks and extending in opposite directions to engage the plates at opposite ends of the load supporting body, and a handle for turning the crank shaft to release the pairs of locking bolts simultaneously from the plates of the load support.

938,918. POWER-GENERATOR. CHRISTIAN C. TUCH, Honolulu, Hawaii. Filed July 29, 1907. Serial No. 386,145.



In a power generator, the combination of a rotary shaft, an annular stationary element provided with internal gear teeth arranged concentrically around the shaft, a member mounted on the shaft to rotate therewith, said member being provided with a series of radial arms, motors upon the outer ends of the arms, each having an armature-driven shaft, pinions on the armature-driven shafts meshing with the internal gear teeth of the stationary member for rotating the said rotary member, a fixed annular conductor of less diameter than said stationary element and arranged concentrically with said internal gear teeth and around said shaft and disposed between the shaft and motors, an inwardly extending spring pressed trolley pole yieldingly mounted on each motor and rotating therewith and arranged tangentially with relation to the conductor, and contact devices carried by the poles and running in engagement with the outer surface of said conductor.

938,919. METHOD OF MANUFACTURING GAS. CORNELIUS B. TULLY, Wood Green, London, England. Filed July 6, 1906. Serial No. 324,965.



1. A method of manufacturing gas which consists, in the blowing up or preliminary stage, in raising the lower ignited portion of a mass of fuel to a state of incandescence by blowing air through it, burning some of the resulting combustible gases to heat an upper portion of the

mass of fuel to a high temperature without allowing the burning gases to come into contact with such fuel and simultaneously supplying liquid hydro-carbon to the top part of the upper highly heated portion of the mass of fuel.

2. A method of manufacturing gas which consists, in the blowing up or preliminary stage, in raising a lower ignited portion of a mass of fuel to a state of incandescence by blowing air through it, burning some of the resulting combustible gases to heat an upper portion of the mass of fuel to a high temperature without allowing the burning gases to come into contact with such fuel, simultaneously supplying liquid hydrocarbon to the top part of the upper highly heated portion of the mass of fuel and causing resulting gaseous products of decomposition to pass downward through such fuel portion and escape with the combustible gases escaping from the lower fuel portion.

3. A method of manufacturing gas which consists in the blowing up or preliminary stage, in raising a lower ignited portion of a mass of fuel to a state of incandescence by blowing air through it, and burning some of the resulting combustible gases to heat an upper portion of the mass of fuel to a high temperature without allowing the burning gases to come into contact with such fuel, and, in the subsequent gas making stage, cutting off the supply of air to the lower incandescent portion of the fuel mass, injecting gas producing fluid into the mass of such lower portion of incandescent fuel intermediately of the upper and lower ends thereof and causing the resulting gases of decomposition to pass upwardly and be heated by the upper highly heated portion of the fuel mass.

4. A method of manufacturing gas which consists, in the blowing up or preliminary stage, in raising a lower ignited portion of a mass of fuel to a state of incandescence by blowing air through it, burning by the aid of a supplementary air supply some of the resulting combustible gases to heat an upper portion of the mass of fuel to a high temperature without allowing the burning gases to come into contact with such fuel, and, in the subsequent gas making stage, cutting off the supply of air to the lower incandescent portion of the fuel mass, injecting hydrocarbon with steam into the mass of such lower portion of incandescent fuel intermediately of its upper and lower ends and causing the combustible gases thereby produced to pass upwardly and be heated by the upper highly heated portion of the fuel mass.

5. A method of manufacturing gas which consists, in the blowing up or preliminary stage, in raising a lower ignited portion of a mass of fuel to a state of incandescence by blowing air through it, burning some of the resulting combustible gases to heat an upper portion of the mass of fuel to a high temperature without allowing the burning gases to come into contact with such fuel and simultaneously supplying liquid hydrocarbon to the top part of the upper highly heated portion of the fuel mass, and, in the subsequent gas making stage, cutting off the supply of air to the lower incandescent portion of the fuel mass, injecting gas producing fluid into such incandescent fuel, and causing the resulting gases of decomposition to pass upwardly and be heated by the upper highly heated portion of the fuel mass.

[Claims 6 to 12 not printed in the Gazette.]

938,920. TURN-TABLE. HOLLY M. VERPLANCK, Lansing, Mich., assignor to Lansing Wheelbarrow Company, Lansing, Mich. Filed July 26, 1909. Serial No. 509,487.



1. In a turntable, the combination of a pair of channel ways; a pair of central wheels, the axes of said wheels being arranged at right angles to said ways; means for shifting said central wheels to an inoperative position; a brake for said wheels; a central pivot; and a plurality of caster wheels located toward the ends of said ways.

2. In a turntable, the combination of a pair of channel ways; a pair of central wheels, the axes of said wheels being arranged at right angles of said ways; a brake for said wheels; a central pivot; and a plurality of caster wheels located toward the ends of said ways.

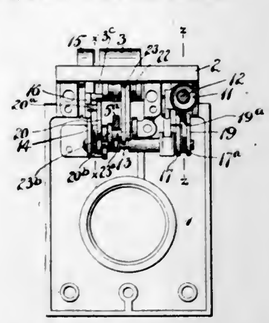
3. In a turntable, the combination of a pair of channel ways; a pair of central wheels, the axes of said wheels being arranged at right angles to said ways; means for shifting said central wheels to an inoperative position; a central pivot; and a plurality of caster wheels located toward the ends of said ways.

4. In a turntable, the combination of a pair of channel ways; a pair of central wheels, the axes of said wheels being arranged at right angles to said ways; a central pivot; and a plurality of caster wheels located toward the ends of said ways.

5. In a turntable, the combination of a pair of channel ways; a pair of central wheels, the axes of said wheels being arranged at right angles to said ways; means for shifting said central wheels to an inoperative position; a brake for said wheels; and a plurality of caster wheels located toward the ends of said ways.

[Claims 6 to 25 not printed in the Gazette.]

938,921. LOCK. HENRY G. VOIGHT, New Britain, Conn., assignor to Russell & Erwin Manufacturing Company, New Britain, Conn., a Corporation of Connecticut. Filed July 1, 1908. Serial No. 441,361.



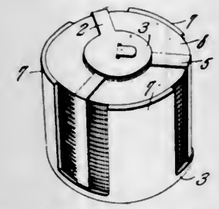
1. In a lock, a spring latch, means for retracting the same, a manually operable stop for dogging the latch retracting means, a swinging dog for said stop, a swinging dog for said latch, an exposed actuating device for controlling the last two mentioned dogs, said actuating device being arranged to be repressed by engaging with a portion of a door casing when a door to which the lock is fitted is closed, and means between the latch retracting device and the last mentioned dog to actuate the latter when said latch is to be retracted by said retracting means.

2. In a lock, a spring latch, means for retracting the same, a manually operable stop for dogging the latch actuating means, a shaft, an exposed spring-projected actuator therefor arranged to be repressed by engaging with a portion of a door casing when a door to which the lock is applied is closed, a dog controlled by said shaft for blocking said stop, another dog for blocking said latch.

3. In a lock, a spring latch, means for retracting the same, a manually operable stop for dogging the latch actuating means, a shaft, an exposed spring-projected actuator therefor arranged to be repressed by engaging with a portion of a door casing when a door to which the lock is applied is closed, a dog controlled by said shaft for blocking said stop, another dog for blocking said latch, said last mentioned dog being retracted by the same means for retracting said latch bolt, but in advance of the retraction of the latter.

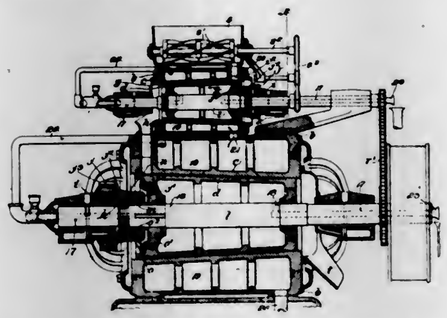
4. In a lock, a spring latch, means for retracting the same, a manually operable stop for dogging the latch actuating means, a shaft, an exposed spring-projected actuator therefor arranged to be repressed by engaging with a portion of a door casing when a door to which the lock is applied is closed, a dog controlled by said shaft for blocking said stop, another dog for blocking said latch, each of said dogs being spring-actuated in both directions.

938,922. COIN-HOLDER. ARCHIBALD R. VOLIVA, North Yakima, Wash. Filed Mar. 11, 1909. Serial No. 482,721.



A coin clip formed from a single piece of flexible material, comprising a base provided with a plurality of radial binding arms having terminal apertures arranged to be brought into alinement about the top of a stack of coins, and with a locking arm to engage the apertures, adjacent arms of the series defining an obtuse angle, the extremity of the locking arm being arranged to be drawn upon to tighten simultaneously the several arms of the series about the coin stack.

938,923. GRINDING-MILL. JOHN WALKER, Boston, Mass. Filed Oct. 29, 1908. Serial No. 460,011.



1. A mill for grinding and intimately combining cocoa, sugar and vanilla to produce sweet chocolate at a single operation, said mill comprising a fixed outer member and a rotatable inner member, said members having coacting, smooth, tapering attrition surfaces in close proximity substantially throughout their operative length, and means for keeping said members cool and the materials being treated in a physical condition amenable to grinding and mixing.

2. A mill for grinding and intimately combining cocoa, sugar and vanilla to produce sweet chocolate at a single operation, said mill comprising a fixed outer member and a rotatable inner member, said members having coacting, smooth, tapering attrition surfaces in close proximity substantially throughout their operative length, one of said members being adjustable longitudinally relatively to the other, and means for keeping said members cool and the materials being treated in a physical condition amenable to grinding and mixing.

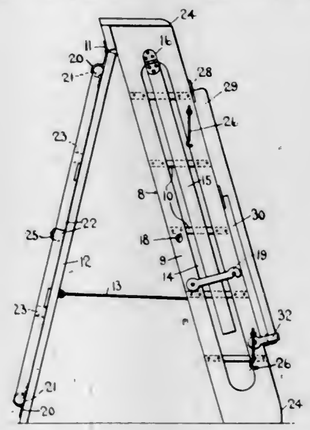
3. A mill for grinding and intimately combining cocoa, sugar and vanilla to produce sweet chocolate at a single operation, said mill comprising a fixed outer member provided with an inlet at the receiving end portion for the supply of material, the inner surface of said member being smooth at the exit end portion, and an inner member having a portion of its periphery provided with triturating ridges and having a smooth surface at the exit end for the material, and means for keeping said members cool and the materials being treated in a physical condition amenable to grinding and mixing.

4. A mill for grinding and intimately combining cocoa, sugar and vanilla to produce sweet chocolate at a single operation, said mill comprising a fixed outer member provided with an inlet at the receiving end portion, and longitudinal grooves located between the receiving and delivering end portions, and terminating at a distance from the latter, the inner surface of said member being smooth between said grooves and the exit end, and an inner member having a portion of its periphery provided with triturating ridges and having a smooth surface at the exit end, and means for keeping said members cool, and the materials being treated in a physical condition amenable to grinding and mixing.

5. A mill for grinding and intimately combining cocoa, sugar and vanilla to produce sweet chocolate at a single operation, said mill comprising a fixed outer member provided with an inlet at the receiving end portion for the supply of material, the inner surface of said member being smooth at the exit end portion, and an inner member having a portion of its periphery provided with triturating ridges and having a smooth surface at the exit end for the material, the end portions of said ridges at the receiving end of the mill being substantially rectangular in cross section, while the remaining portions have inclined back faces, and means for keeping said members cool and the materials being treated in a physical condition amenable to grinding and mixing.

[Claims 6 to 13 not printed in the Gazette.]

938,924. COMBINED STEP-LADDER, IRONING-BOARD, AND CLOTHES-RACK. JOHN WATT, Baltimore, Md. Filed Jan. 2, 1909. Serial No. 470,315.

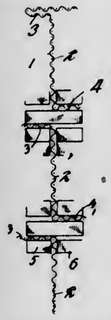


1. A combined device of the class described comprising a ladder section having spaced side rails containing elongated slots, arms hinged to said side rails and normally resting within the slots and adapted to be swung to a substantially horizontal position, an ironing board hinged to one end of the ladder section, legs carried by the ironing board and adapted to be swung around the ends of the ladder section to support the same in a horizontal position, and arms hinged to the front edges of the rail sections and adapted to be swung into a horizontal position.

2. A device of the class described comprising an ironing board, a ladder section completely provided with steps hinged at one end to the ironing board, arms hinged to

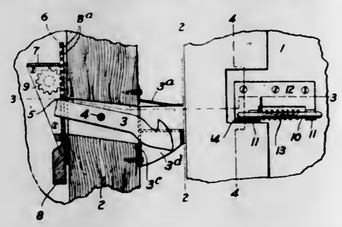
the sides and front of the ladder section and adapted to be swung to a horizontal position, hinged brace bars connected to the arm and to the ladder section to support the said arms in a horizontal position, legs connected to the ironing board at opposite ends thereof and adapted to be swung around the ends of the ladder section to hold the same and said board in a horizontal position, and a prop for one of said legs.

938,925. REINFORCEMENT FOR BRICK WALLS, &c. THOMAS A. WEAVER, Santa Rosa, Cal. Filed Jan. 16, 1907. Serial No. 352,600.



In a wall structure, comprising stretcher courses, and header courses of building blocks laid in mortar joints, metallic fabric sections arranged above and below the header courses between the stretcher courses and having the ends adjacent a header course bent laterally in opposite directions to come between end portions of the header course and opposite stretcher courses, and having the end portions remote from said header course bent laterally in opposite directions to the bent end portions adjacent said header course.

938,926. LOCK. HERMAN F. WEIDEL, Rochester, N. Y., assignor of one-half to John H. Attridge, Rochester, N. Y. Filed Aug. 9, 1909. Serial No. 512,096.

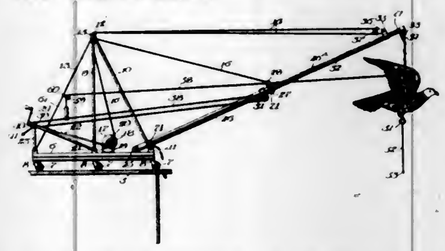


1. A lock comprising a shaft, a latch operatively connected therewith; and a box inclosing the head of said shaft, within which the jaws of a wrench for said shaft can turn for adjustment with reference to the head of said shaft, and which is slotted to conform to a wrench having jaws of irregular outline; substantially as shown and described.

2. A lock comprising a latch, operatively connected to a sliding bar having a ratchet; a pinion revolubly supported adjacent said ratchet and having an angular extension adapted to be engaged by a wrench: and a box inclosing said extension, within which the jaws of the wrench can turn for adjustment with reference to said extension, and which is slotted to receive a wrench of irregular outline; substantially as shown and described.

3. A lock comprising a latch having a recess in its end, means for holding said latch normally in horizontal position when in place upon one of the parts to be locked together, a spring controlled keeper, yieldingly held in the path of the latch, and adapted to fold in against the part to which it is attached, and means for operating said latch, substantially as shown and described.

938,927. THEATRICAL APPARATUS. ISRAEL M. WEINGARDEN and ASA CUMMINGS, Chicago, Ill. Filed June 3, 1909. Serial No. 499,944.



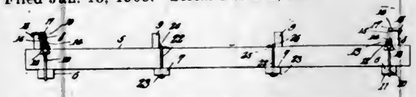
1. In a theatrical apparatus, the combination with a wheeled truck, of a jib pivotally mounted thereon, means mounted on the truck and connected to the upper portion of the jib to raise and lower the same, a figure suspended from the outer end of the jib and consisting of a body, a member movably connected to each of its sides, and another member movably connected to one of its ends, and means on the truck and connected to said members to operate the same.

2. In a theatrical apparatus, the combination with a wheeled truck, of an extendible jib pivotally mounted thereon, means mounted on the truck and connected to the upper portion of the jib to raise and lower the same, means mounted on the truck and connected to the jib between its ends for extending one section thereof, a figure suspended from the outer end of the jib and consisting of a body, a member movably connected to each of its sides and another member movably connected to one of its ends, and means on the truck and connected to said members to operate the same.

3. In a theatrical apparatus, the combination with a wheeled truck, of a jib pivotally mounted thereon, means mounted on the truck and connected to the upper portion of the jib to raise and lower the same, a figure of an eagle suspended from the outer end of the jib and consisting of a body, a wing member movably connected to each of its sides, and a head movably connected to its front portion, flexible connections united at one of their ends to the wing members and head and extended rearwardly to the truck, a pulley mounted above the truck in engagement with said connection, and a weight on the rear end of said connection.

4. In a theatrical apparatus, the combination with a wheeled truck, of a jib pivotally mounted thereon, means mounted on the truck and connected to the upper portion of the jib to raise and lower the same, a figure of an eagle suspended from the outer end of the jib and consisting of a hollow body, a wing movably connected to its front end, an electric bulb located in each side of the head, means on the truck and connected to the wings and head to operate the same, and electric conductors connected at one of their ends to the bulbs in the head of the figure and at their other ends to an electric supply.

938,928. HAY-RACK. ELMER J. WELLS, Grinnell, Iowa. Filed Jan. 15, 1909. Serial No. 472,526.



1. In a hay-rack, the combination with one of the longitudinal sills and a stringer; of a stirrup extending across the sill, said stirrup comprising channeled plates, one of said plates fitting in the channel of the other plate, and said plates being provided with bolt holes, a U bolt connected to the stringer and embracing the sill, and passing through the bolt holes of said plates, and nuts screwed on said bolt and engaging the top plate.

2. In a hay-rack, the combination with one of the longitudinal sills and a stringer; of a stirrup extending across the sill, said stirrup comprising channeled plates, and one of said plates fitting in the channel of the other plate, and a clamping member for connecting the sill and the stringer secured to said stirrup.

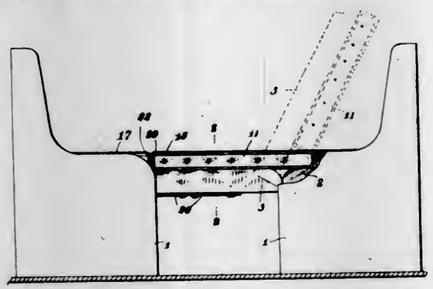
3. In a hay-rack, the combination with one of the longitudinal sills, a stringer and a top cross-bar; of a stirrup extending across the sill, said stirrup comprising channeled plates, one of the said plates fitting in the channel of the other plate, and the last mentioned plate extending beyond the other plate and having a bolt hole, a hook bolt engageable over the top of the cross-bar and having its shank passing through said bolt hole, fastening means for said bolt, and a clamping member for connecting the sill to the stringer, secured to the stirrup.

4. In a hay-rack, the combination with one of the longitudinal sills, and a top cross-bar; of a stirrup mounted on the sill, a hook-shaped bolt secured to the stirrup, the hook of the said bolt extending over the top of the cross-bar and terminating in a downward bend, and a plate secured to the top of said cross-bar, between the same and the hook, said plate having at one end a notch to receive the shank of the bolt, and at the other end a hole to receive the downturned end of the hook.

5. In a hay-rack, the combination with one of the longitudinal sills, a stringer supporting the same, and a top cross-bar; of a plate secured on top of said sill, and having an upturned flange engaging one side of said cross-bar, the edge of the plate being notched on opposite sides, a U bolt fitting over the plate, and having its branches extending through the notches thereof, the branches of said bolt extending on opposite sides of the sill, and through the stringer, and fastening means for said bolt.

[Claim 6 not printed in the Gazette.]

938,929. SLEEPING-CAR BERTH. ARTHUR WEST, Chicago, Ill. Filed Oct. 28, 1908. Serial No. 459,836.



1. In a berth for sleeping cars and the like, the combination with a pair of oppositely disposed seats, one of said seats being provided with two pairs of cushions, the cushions of each pair being hinged together, said cushions being adapted to be placed in horizontal relations to form a berth, said parts being so constructed and arranged that one of said cushions may be turned on its hinge to form a space less than the width of the seats within which the occupant of the berth may stand.

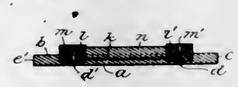
2. In a berth for sleeping cars and the like, the combination with a pair of oppositely disposed seats, one of said seats being provided with two pairs of cushions, the cushions of each pair being hinged together, said cushions being adapted to be placed in horizontal relations to form a berth, said parts being so constructed and arranged that one of said cushions may be turned on its hinge to form a space less than the width of the seats within which the occupant of the berth may stand, a mattress adapted to be placed over the cushions, said mattress being provided with a hinged section corresponding with said last mentioned cushion.

3. In a berth for sleeping cars and the like, the combination with a plurality of cushions adapted to be placed in horizontal relation, of a mattress adapted to be placed over the cushion, one of said cushions being adapted to be raised and said mattress being provided with a hinge section corresponding to the last mentioned cushion, and a sheet formed of two sections, one of which is secured to the body of the mattress and the other to the hinge section.

4. In a berth for sleeping cars and the like, the combination with a pair of oppositely disposed seats, one of said seats being provided with two pairs of cushions, the cushions of each pair being hinged together at their adjacent edges, supports for one of the cushions of each pair, means permitting the cushions to be slid on said supports whereby the angle between the cushions may be varied, and means for supporting the cushions at the various angles.

5. An upper berth for sleeping cars comprising a bottom portion hinged to the side of the car and vertical end portions hinged to the side of the car, the vertical end portion being adapted to be folded over the bottom portion when the berth is closed.

938,930. CONCRETE SHINGLE. JONAS H. WIEST, Indianapolis, Ind., assignor to Indiana Concrete Form Co., Indianapolis, Ind., a Corporation of Indiana. Filed June 8, 1908. Serial No. 437,320.



1. A shingle comprising a body part composed of granular composition and having one plane-faced side, the opposite side of one end portion of the body part having a bearing piece therein formed of substance having fibrous characteristics, the granular composition entering and adhering to the substance of the bearing piece.

2. A shingle comprising a body part formed of frangible material and having one plane-faced side, one end portion of the body part being relatively thick and extending outward beyond the opposite or rear side of the body part, and a bearing piece formed of fibrous yielding substance and attached to the said rear side of the opposite end portion of the body part.

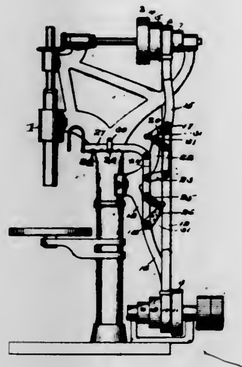
3. A shingle comprising an oblong body part having one plane-faced side, the opposite side of one end portion of the body part having a projecting bearing part thereon, the opposite end portion of the body part having a relatively thick portion projecting beyond said opposite side and forming angular water sheds that terminate in proximity to the end of the body part adjacent to the two opposite longer edges of the body part.

4. A shingle comprising an oblong body part having one plane-faced side, the opposite side of one end portion of the body part having a bearing-piece bedded therein and extending outward therefrom, the opposite end portion of the body part being relatively thick and projecting beyond said opposite side to form angular water sheds that terminate at the end of the body part adjacent to the two opposite longer edges of the body part.

5. A shingle comprising a plastic body part having a relatively thick end portion that has edges that extend angularly to the side edges of the body part, the opposite end portion having perforations therein, the back of the body part having a water-shed thereon that terminates at said angular edges, said back having also a plurality of projections and a rib thereon spaced apart, two yielding bearing-pieces bedded in the back of said body part, and metallic reinforcing material embedded in said body part and extending between said bearing pieces and into said thick end portion.

[Claims 6 to 10 not printed in the Gazette.]

938,931. BELT-SHIFTING MECHANISM. ALBERT A. WOOD, Atlanta, Ga. Filed Nov. 27, 1908. Serial No. 464,680.



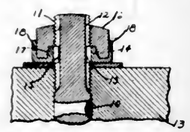
1. In a device of the character described, the combination with a belt, of a base, a bifurcated support secured to said base, pivotally mounted levers connected with said bifurcated support and loosely engaging said belt, and means for moving said levers so as to cause said belt to be shifted at one point and then at the opposite point in succession.

2. In a device of the character described, the combination with a belt, of a base, a bifurcated support secured to said base, a plurality of levers pivotally mounted on said bifurcated support, and loosely engaging the belt, a second set of levers pivotally secured to said bifurcated support, means for causing said second mentioned levers to act at the same time, lugs for conveying motion from said first mentioned levers to said second mentioned levers, and a spring connecting each of said second mentioned levers with the respective levers first mentioned whereby upon the movement of said second mentioned levers movement will be conveyed to said first mentioned levers for causing said first mentioned levers to shift said belt.

3. In a device of the character described, a base, a pair of levers connected therewith, a second pair of pivotally mounted levers, a link connecting said second pair of levers for causing said levers to move at the same time, a reciprocating bar connected with one of said second mentioned levers for moving the same, a lug connected with each of said first mentioned levers adapted to contact with said second mentioned levers, whereby motion is conveyed to said first mentioned levers, and springs connecting each of said first mentioned levers with one of said second mentioned levers, whereby one end of said first mentioned levers will be yieldingly moved in one direction, and one end of the other of said first mentioned levers will be unyieldingly moved in the same direction.

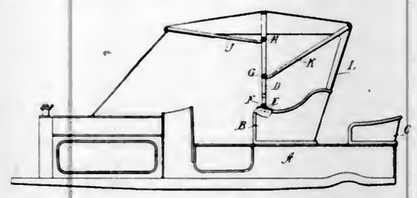
4. In a device of the character described, a base, a pair of levers pivotally connected therewith and formed with auxiliary levers projecting from one end of each of said levers, a second pair of levers, a link connecting said second pair of levers for causing both of said second pair of levers to move at the same time, a spring connected to each of said second mentioned pair of levers and to said auxiliary levers, a lug connected to each of said auxiliary levers and adapted to engage said second mentioned pair of levers, and an arm connected to said second pair of levers for moving the same, whereby movement will be conveyed to said first mentioned pair of levers, said lugs causing one end of each of said first mentioned levers to move unyieldingly in one direction, and said springs causing one end of each of said first mentioned levers to move yieldingly in the opposite direction.

938,932. NUT-LOCK. ALVIE C. WOODRUFF, Juntura, Oreg. Filed Apr. 19, 1909. Serial No. 490,871.



In a nut lock, a bolt having longitudinal channels in the threaded portion, a nut engaging said bolt and provided with a recess in one face, a washer upon which said nut bears having a plurality of radially extending wings bendable over the sides of the nut, and also having a sleeve projecting above the face of the washer and engaging in the recess of the nut, said sleeve having inwardly directed ribs engaging in the channels of the bolt.

938,933. CARRIAGE-TOP. WILLIAM WOOP, Ossining, N. Y. Filed Jan. 30, 1909. Serial No. 475,165.



1. A carriage top, having a vertical main stay pivotally supported upon the vehicle, a forwardly-projecting stay, a rearwardly-projecting stay, the said stays being removably secured to the said main stay, the end of the forwardly-projecting stay being secured to the upper portion of the main stay and the rearwardly-projecting stay being secured to the main stay at a lower point, the said main stay extending below its own pivotal point, and devices whereby the detached ends of said forwardly-projecting and rearwardly-projecting stays may be secured together to the end of the main stay below its pivotal point.

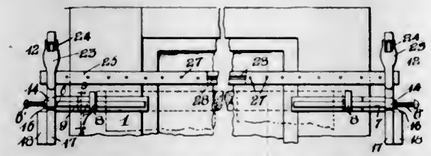
2. A carriage top, having a main stay pivotally supported upon the vehicle and provided with pintles located one above another, the lowest pintle being the longest, the pivotal point of the said main stay being above the said lowest pintle, a forwardly-projecting stay removably secured to one of the pintles on the main stay above said lowest pintle, a rearwardly-projecting stay removably secured to another pintle on the main stay above said lowest pintle, and the ends of said projecting stays being constructed to engage said lowest pintle together.

3. In a carriage provided with a front and a rear seat, a top adapted to be raised over the front seat and comprising a vertical main stay pivotally secured to the front seat, a forwardly-projecting stay and a rearwardly-projecting stay, the said rearwardly-projecting stay being removably connected with the said main stay above the pivotal point of the main stay, and means for connecting the end of said rearwardly-projecting stay with the lower end of the main stay when the top is lowered thereby decreasing the projection of the folded top toward the rear seat.

938,934. COMBINED SHADE-ROLLER AND CURTAIN-BRACKET. CHARLES WRIGHT, South Greensburg, Pa., assignor of one-half to G. E. Wright, South Greensburg, Pa. Filed Mar. 11, 1909. Serial No. 482,709.

1. In a combined shade roller and curtain support a clamping bar, means whereby said bar is adjustably secured to the side of a window frame, a T-shaped rib on the outer side of said bar, a shade roller bracket slidably mounted on said rib, said bracket having formed on its inner end rib engaging lugs and in said inner end a T-

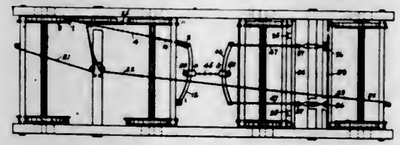
shaped aperture whereby said bracket is slidably engaged with said rib and whereby the weight of the shade roller when applied thereto will cause said rib engaging lugs to bind against the rib and thereby hold said bracket in adjusted position, and a curtain supporting bracket adjustably secured to said roller supporting bar.



2. In a device of the class described a clamping bar, a lug to adjustably secure said clamping bar to the side of the window frame, a shade roller bracket slidably mounted on said bar, a curtain supporting bracket adjustably connected to one end of said bar, a curtain supporting bar arranged in the outer end of said bracket, a second supporting bar to coact with the first mentioned bar, pins on said bars to engage and secure the curtain thereto and independent means to hold said second bar on the bracket.

3. In a device of the class described, a clamping bar, means to adjustably secure said bar to the side of a window frame, a shade roller bracket adjustably mounted on said bar, a curtain supporting bracket adjustably secured to one end of the bar, said bracket having formed in its outer end bar supporting devices, a curtain bar adapted to be engaged in the outer end of the bracket, a second bar to coact with the first mentioned bar, means on said curtain bars to attach and clamp the curtain thereto and a spring-pressed clamp to hold the second bar on the bracket.

938,935. CAR-BRAKE. NICHOLAS P. ZECH, Milwaukee, Wis. Filed Mar. 26, 1909. Serial No. 485,897.



1. The combination with the wheels of a car, of a set of brake shoes therefor, a controlling brake having flexible supports connected to actuate the first mentioned brake shoes, a rotary member in operative relation to the controlling brake, an actuating lever, a sliding bar connected therewith, and a link connecting said sliding bar with the controlling brake and adapted to transmit the motion of said lever to set such brake in gripping position on said rotary member.

2. The combination with the wheels of a car, of a set of brake shoes therefor, a rotary member, a controlling brake in operative relation thereto and having flexible supports connected to actuate the first mentioned brake shoes, an actuating lever, a sliding bar connected therewith, and a link connecting said sliding bar with the controlling brake and adapted to transmit the motion of said lever to set such brake in gripping position, together with flexible connections extending from opposite ends of the car around guide pulleys and arranged to actuate said lever in the same direction.

3. The combination with a car, provided with a plurality of wheeled trucks, of a set of brakes for the wheels of one of the trucks, actuating levers connected with each other and arranged to operate said brakes in opposite directions, an equalizing bar having link connections with some of said levers, a lever connected with the other of said trucks, and a traveling flexible connection between said lever and equalizing bar, and a controlling brake shoe connected with said last mentioned lever and adapted to be actuated by the car wheel, together with means for moving the controlling brake shoe into contact with a car wheel.

4. The combination with a wheeled truck, of a set of brake beams suspended from the truck between the front and rear wheels and provided with shoes adapted for contact with the respective wheels, levers connected with said beams for actuating the shoes into and out of gripping position, a controlling brake shoe suspended in operative relation to another car wheel and capable of a limited movement with the periphery of said wheel, an actuating lever flexibly connected with the controlling brake shoe, and means for transmitting the motion of said brake shoe to the brake beam actuating levers.

938,936. ELECTRIC CONTROL FOR PANTOGRAPHS. ALFRED T. ZIEGLER, Pittsburg, Pa. Filed Jan. 22, 1909. Serial No. 473,754.



1. In an electric control for pantographs, the combination with a pantograph frame, and a suitable source of electrical energy, of an electrically actuated tracing point located upon said frame, said tracing point comprising a detachable electro-magnet having a movable normally elevated core, a point detachably held by said core, a following point located upon said frame and in circuit with said electro-magnet and said source of electrical energy, said following point comprising a circuit closer for controlling the energizing of said electro-magnet, said circuit closer including a rod, an adjustable stem adapted to contact with said rod, and means for normally maintaining said stem out of engagement with said rod.

2. In an electric control for pantographs, the combination with a pantograph frame, and a suitable source of electrical energy, of an electrically actuated tracing point located upon said frame, said tracing point comprising an electro-magnet having a movable core, and a point detachably held by said core, a circuit closer located upon said frame and in circuit with said source of electrical energy and said electro-magnet for controlling the energizing of said electro-magnet, said circuit closer comprising a casing, a sleeve mounted in said casing, a rod adjustably mounted in said sleeve, a stem adjustably mounted in said sleeve and adapted to contact with said rod for completing a circuit through said electro-magnet.

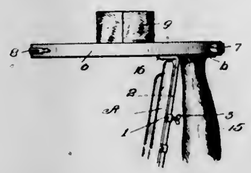
3. In an electric control for pantographs, the combination with a pantograph frame, and a suitable source of electrical energy, of an electrically actuated tracing point located upon said frame, said tracing point comprising an electro-magnet having a movable core, and a point detachably held by said core, a circuit closer located upon said frame and in circuit with said source of electrical energy and said electro-magnet for controlling the energizing of said electro-magnet, said circuit closer comprising a movable sleeve, a rod adjustably mounted in said sleeve, and a stem adjustably mounted in said sleeve and adapted to contact with said rod for completing a circuit through said electro-magnet.

4. In an electric control for pantographs, the combination with a pantograph frame, and a suitable source of electrical energy, of an electrically actuated tracing point located upon said frame, said tracing point comprising an electro-magnet having a movable core, and a point detachably held by said core, a circuit closer located upon said frame and in circuit with said source of electrical energy and said electro-magnet for controlling the energizing of said electro-magnet, said circuit closer comprising movable contacts adapted to establish a circuit through said electro-magnet.

5. In an electric control for pantographs, the combination with a pantograph frame, and a suitable source of electrical energy, of an electrically actuated tracing point located upon said frame, said tracing point comprising an electro-magnet having a movable core, and a circuit closer located upon said frame and in circuit with said electro-

magnet and said source of electrical energy, said circuit closer comprising movable contacts adapted to establish a circuit through said electro-magnet for moving a core.

938,937. BARBER-CHAIR ATTACHMENT. THOMAS G. AITKEN, Deming, N. Mex. Filed May 19, 1909. Serial No. 497,024.



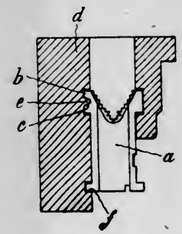
1. The combination with a chair of the class described, of a tray comprising hingedly connected neck encircling sections, said sections having dished upper surfaces, and a neck band removably engaged with the tray.

2. The combination with a chair of the class described, of a neck encircling tray connected with the chair for vertical adjustment.

3. A tray of the class described comprising pivotally connected neck encircling sections, and a receptacle supported by said sections.

4. A device of the class described comprising a tray having a centrally located neck receiving passage, and a receptacle removably connected with the tray, said tray having a passage formed therein communicating with the said receptacle.

938,938. MATRIX FOR LINOTYPE AND OTHER TYPE-CASTING MACHINES. CHRISTIAN A. ALBRECHT, Baltimore, Md. Filed Nov. 27, 1907. Serial No. 404,124.



1. A matrix for linotype and other type casting machines having guide shoulders on both sides above and below and having an additional guide or adjusting shoulder only on the side of the matrix opposite the type, said additional shoulder being located within the ordinary outline of the matrix.

2. A matrix for linotype and other type casting machines having guide shoulders on both sides above and below and having a recess in the matrix body on the side opposite the type forming an additional guide or adjusting shoulder only.

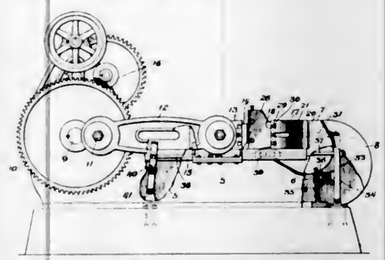
3. A matrix for linotype and other type casting machines having guide lugs on both sides thereof at each end, the upper lug on the side opposite the type having a recess therein for forming an additional guiding shoulder and the remaining lugs having plain surfaces.

4. A matrix having guiding lugs on both sides at the ends thereof, the upper lug on the side opposite the type having a recess therein of tapered form for forming an additional guiding shoulder and the remaining lugs having plain surfaces.

938,939. NEW MERCURY SALT OF PARA-AMINOPHENYLARSINIC ACID. JULIUS ALTSCHUL, Berlin, Germany, assignor to Actien Gesellschaft für Anilin Fabrikation, Berlin, Germany. Filed Apr. 19, 1909. Serial No. 490,798. (Specimens.)

As a new article of manufacture the new mercury salt of para-aminophenylarsinic acid, the composition of which corresponds to the formula $NH_2.C_6H_4.AsO_4H_2Hg$ and which may be obtained by the action of an alkali salt of para-aminophenylarsinic acid on a mercury salt in the presence of an excess of alkali, which salt in the dry state when pulverized forms a white powder difficultly soluble in water and insoluble in alcohol and ether, this new salt being decomposed by the action of caustic soda-lye with the formation of yellow mercuric oxid, which new salt contains about 46 per cent. of mercury and 17 per cent. of arsenic.

938,940. DIE-STRIPPER. JOSEPH H. AMES, Oak Park, Ill., assignor to American Car & Foundry Company, Chicago, Ill., a Corporation of New Jersey. Filed May 11, 1909. Serial No. 495,348.



1. In combination with a bulldozer or the like, having a reciprocating male die block, a female backing frame and a female die secured thereto, a main stripper bar extending transversely of the machine and mounted within the backing frame, a plunger bar connected with the main stripper bar and acting upon the bottom of the female die, arms connected with the main stripper bar near its center, a hinged plate to which the arms are pivoted, and an operating rod connected at one end to the plate and adapted to be drawn forward by the return movement of the male die block for actuating the stripper bar, substantially as described.

2. In combination with a bulldozer or the like, having a reciprocating male die block, a female backing frame and a female die secured thereto, a main stripper bar extending transversely of the machine and mounted within the backing frame, a plunger bar connected with the main stripper bar and acting upon the bottom of the female die, arms connected with the center of the main stripper bar, a hinged plate to which the arms are pivoted, an operating rod connected at one end to the plate and adapted to be drawn forward by the return movement of the male die block for actuating the stripper bar, and a spring acting on the plate to hold the same normally in retracted position, said spring being adapted to be compressed by the stripping movement of the plate, substantially as described.

3. In combination with a bulldozer or the like having a reciprocating male die block, a female backing frame extending transversely of the bulldozer and of a length to have its ends outwardly project laterally beyond the frame of the bulldozer, a female die secured thereto, a main stripper bar extending transversely of the machine and mounted within the backing frame, a plunger bar connected with the main stripper bar and acting upon the bottom of the female die, an arm connected with the main stripper bar near its center, and connections between said arm and the mounting for the male die block, for actuating the stripper bar with the return movement of the male die block, substantially as described.

4. In combination with a bulldozer or the like having a reciprocating male die block, a female backing frame extending transversely of the bulldozer and of a length to have its ends outwardly project laterally beyond the frame of the bulldozer, a female die secured thereto, a main stripper bar extending transversely of the machine and mounted within the backing frame, a plunger bar connected with the main stripper bar and acting upon the bottom of the female die, an arm connected with the main stripper bar near its center, a hinged plate to which the arm is pivoted, and an operating rod connected at one end to the plate and adapted to be drawn forward by the return movement of the male die block, for actuating the stripper bar, substantially as described.

938,941. COAL-AUGER. CECIL R. ANDERSON, Bellevue, Pa. Filed Mar. 29, 1909. Serial No. 486,307.



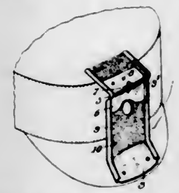
1. A coal auger having thin edges merging into the thicker portions forming the wings or convolutions of the twist, and such thicker metal being in turn thinned to form the longitudinal center of the auger.

2. A twisted coal auger in cross-section having a relatively thin central portion and thicker side portions forming the convolutions of the twist, the thicker side portions being of outwardly decreasing thickness and providing relatively thin outer edges, one face of the spiral extending from the center of the auger to the thin outer edge being concave and the opposite face thereof extending to said edge being convex.

3. A twisted coal auger having the metal of its longitudinal center thinner than the metal of the twist at either side of the center and with the outer portions of such thicker parts thinned for the purpose described, the metal at one side of the center—viewing the auger in cross-section—having one face concave and the other face convex, and the metal at the other side of the center having like concave and convex faces disposed reversely to the faces first mentioned.

4. A twisted coal auger having the metal of its longitudinal center thinner than the metal of the twist at either side of the center and with the outer portions of such thicker parts thinned for the purpose described, the metal at each side of the center—viewing the auger in cross section—having a concave and a convex face, the extremity of the auger bifurcated to form an integral bit with said thicker portions of the metal extending into and forming part of the bit wings.

938,942. LAMP-HOLDING ATTACHMENT FOR MINERS' CAPS. CECIL R. ANDERSON, Bellevue, Pa. Filed Mar. 29, 1909. Serial No. 486,308.

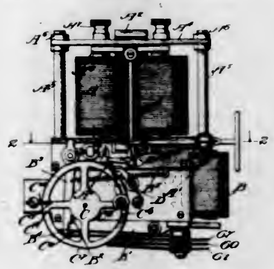


1. A lamp holder for miners' caps consisting of a sheet metal bracket having inwardly folded longitudinal edges, a reinforcing plate for the bracket having its edges extending into the folds, the said folded edges and the confined edges of the reinforcing plate being beaded or grooved for holding the parts together and stiffening the bracket.

2. A lamp holder for miners' caps consisting of a bracket bent backwardly at its upper end to connect with the cap, the bracket having inwardly folded longitudinal edges, and an angular plate fitting around the bend of the bracket with the edges of the plate extending within the said folded edges, said folded edges and the edges of the angular plate confined thereunder being beaded or grooved.

3. A lamp holder for miners' caps consisting of a bracket having its lower end bent forwardly and downwardly to connect with the vizor of the cap and its upper end bent backwardly to connect with the top of the cap, the longitudinal edges of the bracket being folded, fiber confined at its edges within the folds, and a plate fitted to the bracket at the upper bend with the edges of the plate extending within the bracket folds, said folds with the fiber therebeneath and the confined edges of the plate being grooved or beaded.

938,943. TELEPHONE-EXCHANGE. CLARENCE A. ANDERSON, Salina, and WILLIAM HAGSTROM, Lindsborg, Kans., assignors, by direct and mesne assignments, of two-thirds to The Anderson Electric and Manufacturing Company, McPherson, Kans., a Corporation of Kansas, and one-third to Hagstrom Brothers Manufacturing Company, Lindsborg, Kans., a Corporation of Kansas. Filed Aug. 29, 1904. Serial No. 222,534.



1. The combination with the conductors, the stations, and the switching mechanisms of a party line exchange, of connecting and releasing devices for each switching mechanism but normally disconnected therefrom, a magnet for advancing the switching mechanisms simultaneously step by step, means by which upon the switching mechanisms being advanced they will make temporary connections in succession to their connecting devices, and means by which upon further advance they will make simultaneous operative relationships between their releasing devices and said magnets so that said magnets may directly operate said releasing devices.

2. The combination with a switching mechanism, and a magnet for advancing and for releasing it, of a holding pawl normally not operated by said magnet and its armature, and means by which the advance movement of said switching mechanism serves to cause said holding pawl to be operated by the armature of said magnet.

3. The combination with a switching mechanism arranged to be advanced by impulses sent therethrough in one direction and to be released by impulses in the opposite direction, and a source of electricity from which impulses in either direction may be sent through said switching mechanism, of a signaling device, means by which an impulse in the operating direction may be used to operate said signaling device, and means by which such an impulse used to operate the signaling device is inoperative upon the switching mechanism.

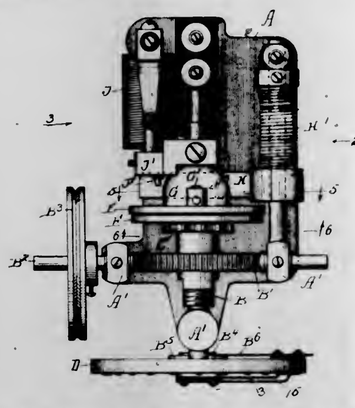
4. The combination with a switching mechanism, a magnet having an armature arranged to be moved in either of two directions according to the direction of the impulses flowing through said magnet, and means whereby a movement of the armature in one direction serves to advance said switching mechanism, of a holding pawl arranged to be released by a movement of the armature in the opposite

direction but normally not in operative relationship to said armature, and means by which the advance movement of said switching mechanism serves to bring about such operative relationship between said holding pawl and the armature.

5. The combination with a switching mechanism, a magnet having an armature arranged to be moved in either of two directions, and means by which a movement in one direction serves to advance said switching mechanism, of a holding pawl arranged to be released by a movement of the armature in the opposite direction but normally not operated by the armature, a device arranged to cause said holding pawl to be operated by the armature, and means for operating said device by the forward movement of the switching mechanism.

[Claims 6 to 20 not printed in the Gazette.]

938,944. CALLING DEVICE FOR TELEPHONE-EXCHANGES. CLARENCE A. ANDERSON, Salina, and WILLIAM HAGSTROM, Lindsborg, Kans., assignors to The Anderson Electric and Manufacturing Company, McPherson, Kans., a Corporation of Kansas, and Hagstrom Brothers Manufacturing Company, Lindsborg, Kans., a Corporation of Kansas. Filed Apr. 19, 1906. Serial No. 312,579.



1. The combination with a series of contact points, a pair of contact makers, and a drive shaft normally disconnected from said contact makers, of a clutch mechanism arranged to connect the contact makers to the shaft, and means by which upon operating the clutch mechanism said contact makers will make one complete cycle of operations and come to rest in their normal position.

2. The combination with a series of contact points, a pair of contact makers, and a drive shaft normally disconnected from said contact makers, of a clutch mechanism arranged to connect said contact makers to the drive shaft, a magnet for operating said clutch, means by which upon operating said clutch said contact makers will be moved over said contact points, and means by which upon the contact makers having completed connection to all of said contact points the contact makers will be automatically released from the source of power.

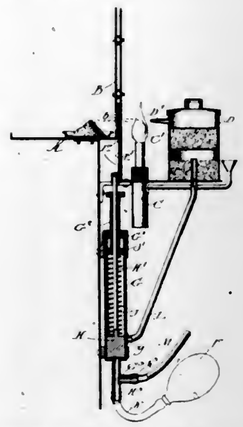
3. The combination with a pair of contact makers, a drive shaft for moving them, and a double series of contact points over which they are moved, of a battery, connections from the opposite poles of said battery to alternate contact points in each series so that upon a movement of said contact makers over said contact points an impulse will be sent in a given direction upon engagement with every other contact point, open connections from the intermediate contact points of each series to the opposite poles of said battery, and a separate key for each open connection and so arranged that by closing selected keys said contact makers will send impulses in an opposite direction through the contact points corresponding to the keys closed.

4. The combination with a party line, and a device for sending impulses in an operating and in a releasing direction over said line, of means by which upon operating said device it will begin by sending one long impulse in the release direction over the line and will follow it by a series of ordinary impulses in an operating direction, and additional means by which one ordinary impulse in the release direction may be caused to flow over the line between any desired two of the impulses in the operating direction.

5. The combination with a party line, and a calling device provided with contact points and contact makers by which impulses are sent over the line, of two strips in the path of said contact makers by means of which a long impulse would be normally sent over the line, and a vibrating circuit breaker located in the connection to said strips and so arranged as to break the otherwise long impulse into a series of short impulses suitable for signaling local stations on the party line.

[Claims 6 to 19 not printed in the Gazette.]

938,945. FLASH-LIGHT. JOHANNES ANDERSON, Chicago, Ill., assignor of one-third to Eaton S. Patterson and one-third to Charles A. Sweet, Chicago, Ill. Filed Feb. 8, 1909. Serial No. 476,780.



1. A flash-light device comprising a fulminate support; a shield having an ignition aperture; a shutter for controlling said aperture; a shutter-operating device consisting of a cylinder and a piston therein, and means by which the piston is held normally at shutter-closing position; an air-pressure device for operating the piston; an igniter-operating device, and a branch duct leading thereto from said cylinder at a point in the latter where it is cut off from the air-pressure device by the piston at normal position, and is passed by the piston and uncovered in its shutter-operating stroke.

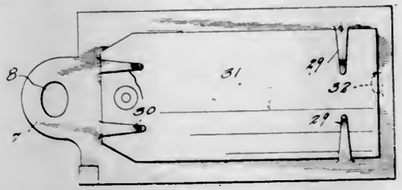
2. A flash-light device comprising a fulminate support; a shield having an igniting aperture; a shutter for controlling such aperture; a shutter-operating device comprising a cylinder and a piston therein, and an air-pressure device connected with the cylinder for operating the piston, the connection from the air pressure device to the cylinder having a branch leading off intermediate the piston and the air-pressure device for connection with a camera shutter; an igniter; an igniter-operating device, and a duct leading thereto from the cylinder at a point in the latter where it is cut off in the shutter-operating device by the piston at normal position, and is passed and uncovered by the piston in its operating stroke.

3. A flash-light device comprising a support for the fulminate; an igniter for the fulminate; an igniter-operating device comprising a cylinder and a piston therein; an air pressure device for operating the piston; a branch leading from the air conduit between the pressure device and the piston for connection with a camera shutter; a spring resisting the movement of the piston, and means for adjusting at will the tension of the spring.

4. A flash-light device comprising a support for the fulminate; a shield having an ignition aperture; a shutter for controlling such aperture; a flame jet device for igniting the fulminate through said aperture; a device for controlling said shutter consisting of a cylinder and a piston therein and a spring for holding the piston normally at shutter-closing position; an air pressure device for operating the piston; a branch duct leading to the flame jet device from the cylinder at a point in the latter where it is cut off from the air pressure device by the piston at normal position and is passed by the piston and uncovered in its shutter-operating stroke, and means for tensioning the piston-controlling spring.

5. A flash-light device comprising a support for the fulminate; a shield having an ignition aperture; a shutter for controlling such aperture; a flame jet device for igniting the fulminate through said aperture; a device for controlling said shutter consisting of a cylinder and a piston therein, and a spring for holding the piston normally at shutter-closing position; an air-pressure device for operating the piston; a branch duct leading to the flame jet device from the cylinder at a point in the latter where it is cut off from the air pressure device by the piston at normal position and is passed by the piston and uncovered in its shutter-operating stroke, the connection from the air-pressure device to the cylinder having a branch leading off between the piston and the air-pressure device for connection with a camera shutter, and means for tensioning the piston-controlling spring.

938,946. TAG-HOLDER. OSCAR ANDERSON, Velva, N. D. Filed Nov. 6, 1908. Serial No. 461,350.



1. A tag holder, comprising a continuous rectangular body portion, an extension formed on one end thereof having an opening therein through which the attaching means may be passed, marginal extensions on the body portion formed on two sides and part of the third side thereof and means integral with one of said extensions extending along and parallel to the edge of the fourth side but spaced therefrom, said means and the marginal extensions providing a pocket for the reception of a tag.

2. As an article of manufacture, a tag holder comprising a body portion having marginal extensions, transversely disposed clips integral with one of said extensions, and transversely and longitudinally disposed clips integral with the body portion.

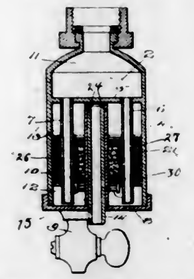
3. In a tag holder, a body portion having marginal extensions and transversely disposed clips integral with the body portion and transversely disposed clips integral with one of said extensions.

4. As an improved article of manufacture, a tag holder consisting of a continuous rectangular body portion having marginal extensions constituting a pocket for the reception of a message, and one of said extensions formed with clips, and additional clips integral with said continuous rectangular body portions said clips being arranged near the outer edge of the body portion and extending across the face thereof in close contact therewith.

5. As an improved article of manufacture, a tag holder consisting of a continuous rectangular body portion having upon one side marginal extensions forming a message holder and upon the opposite side integral clips for holding a tag said clips being arranged near the outer edge of the body portion and extending across the face thereof in close contact therewith.

[Claim 6 not printed in the Gazette.]

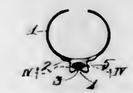
938,947. FILTER. LOUIES W. ANDRES and MARTIN ANDRES, Scranton, Pa. Filed Apr. 9, 1909. Serial No. 488,951.



1. In a filter the combination with a chamber provided near its upper end with a partition, of a filtering member arranged therein and embodying a casing, plates for closing the ends of the casing, each plate being provided with a plurality of openings, a filtering medium confined between the plates, tubes rigid with the plates, a plurality of pipes opening through the partition and passing through the tubes and terminating short of the bottom of the chamber, and a third tube passing through the center of the plates and projecting at each end beyond the same and extending through the bottom of the chamber.

2. In a filter, the combination with a chamber provided near its upper end with a partition, of a filtering member arranged therein and embodying a casing, plates for closing the ends of the casing, each plate being provided with a plurality of openings, screens for covering the openings, a filtering medium confined between the plates, tubes rigid with the plates, a plurality of pipes opening through the partition and passing through the tubes and terminating short of the bottom of the chamber, and a third tube passing through the center of the plates and projecting at each end beyond the same and extending through the bottom of the chamber.

938,948. LINE-GUIDE FOR FISHING-REELS. WILL A. AUSTIN, Kansas City, Mo. Filed Dec. 7, 1908. Serial No. 466,696.



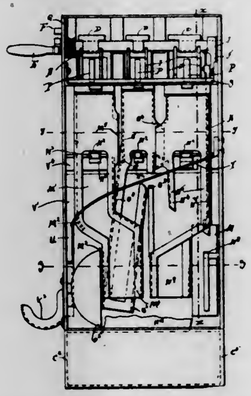
1. A line-guide for fishing-reels, comprising a thimble equipped externally with a lug provided with a smooth passage having a mouth at one side which extends for the full length of the passage and which is of outwardly flaring form to facilitate the entrance of the line laterally into the passage.

2. A line-guide for fishing reels, comprising a split thimble and a lug projecting from the outer side thereof and provided with a smooth passage having at one side and for its full length an outwardly-flaring mouth and also having its side walls bowed toward each other between their ends.

938,949. AUTOMATIC TELEPHONE PAY-STATION. FRANCIS X. BEE, Philadelphia, Pa. Filed Apr. 10, 1908. Serial No. 426,231.

1. In an automatic telephone pay station, the combination of a suitable casing having slots formed therein for

the passage of coins of different denominations, a series of chutes leading from said slots, a shaft plates mounted upon said shaft, a spring for actuating the shaft in one direction, a handle for actuating the shaft in the opposite direction, prongs carried by the shaft for lifting the plates, a crank secured to the shaft, an air cylinder, a hollow piston fitted to slide therein, a rod connecting said piston with said crank, a magnet located in proximity to each chute, a chute T for receiving the spurious coins when ejected from the first named chute, a chute V with which the chute T communicates, a receptacle V^3 for receiving the spurious coin outside of the frame, a plate V^4 for receiving coins of under size, a plate V' also communicating with the receptacle V^3, a series of chutes N' each of which communicates with one of the first named chutes, a series of weighing levers so arranged relative to the chutes N' as to intercept the coins passing down said chutes, a series of signals of different tones, and means for reflecting the coins of different denominations into contact with different signals.

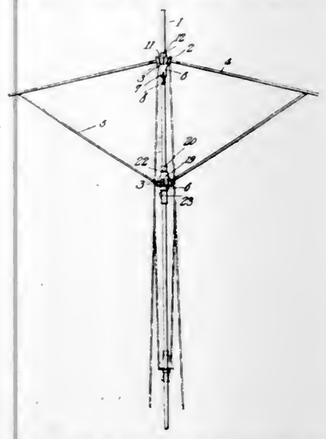


2. In an apparatus of the character described, a suitable casing, having a series of slots formed therein, chutes leading from said slots, means for intercepting the coins in the upper portion of the chutes, roughener for retarding the movement of non magnetic spurious coins, plates for arresting the movement of magnetic spurious coins, prongs for lifting the plates and ejecting magnetic spurious coins, and a receptacle outside of the casing to which the spurious light weight coins are conveyed, as specified.

3. In an apparatus of the character described, a suitable casing having slots formed therein, chutes leading from said slots, a shaft, plates pivoted to said shaft, the ends of which normally lie in the upper portion of said chutes, a spring for actuating the shaft in one direction, a handle for operating said shaft against the action of the spring, prongs carried by the shaft, for lifting the plates at predetermined times and for ejecting spurious coins, and means for retarding the reverse movements of the shaft through a portion of its rotation and accelerating its movement through the remainder of its rotation, as and for the purpose set forth.

4. In an automatic telephone pay station, a casing having a series of slots formed therein, chutes C leading from said slots, permanent magnets located beneath the cut away portion of said slots, a spring actuated shaft, plates pivoted to said shaft, the ends of which normally lie in the upper portion of the chutes, a handle for rotating the shaft against the action of the spring, prongs for lifting the plates, means for retarding the movement of the shaft through a portion of its rotation, and accelerating its movement through the remainder of its rotation, chutes N' leading from the first named chutes, weighing levers projecting into the chutes for ejecting coins of light weight, a signal such as a gong or bell provided for each of the chutes N', an inclined surface located at the bottom of one of the chutes N' for deflecting the coins passing through against one of the signals, and means carried by one of the chutes for deflecting the coins passing therefrom, first against one of the signals and then the other, as specified.

938,950. UMBRELLA-FRAME. ELMER C. BEECHER, Norwalk, Ohio. Filed Apr. 12, 1909. Serial No. 489,410.



1. In an umbrella, a staff-inclosing member having coaxial, communicating chambers of different diameters defining between them a circumscribing fulcrum within the member; and a supporting member having a head to engage the fulcrum.

2. In an umbrella, a staff-inclosing member having coaxial communicating chambers of different diameters defining between them a circumscribing fulcrum, the member being provided with upright notches intersecting the walls of the chamber and the fulcrum; and supporting members having laterally inclined heads to engage the fulcrum and being mounted in the notches.

938,951. HYPODERMIC SYRINGE. FREDERIC D. BELL, Glen Ridge, N. J. Filed Apr. 30, 1909. Serial No. 493,203.



1. In a hypodermic syringe, the combination of a perforated stopper adapted as a whole to be applied to or removed from the neck of a serum-containing receptacle, a hypodermic needle having a stem adapted to fit the perforation in the stopper, and a seal for closing the said perforation exteriorly applied to the inner end of the stopper and adhering thereto and constituting a part thereof.

2. In a hypodermic syringe, the combination of a stopper perforated lengthwise and adapted as a whole to be applied to or removed from the neck of a serum-containing receptacle, and a thin easily perforatable film for closing the perforation in the stopper at one end, exteriorly applied to the inner end of the stopper to which it adheres and becomes a part thereof.

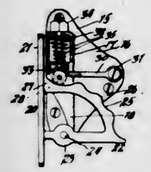
3. In a hypodermic syringe, the combination of a stopper having a perforation through it lengthwise and adapted as a whole to be applied to the neck of a serum-containing receptacle, a needle having a stem seated in the said perforation, and a seal adapted to be easily punctured for closing the inner end of the said perforation, the seal being applied to the exterior of the stopper and of a material that will when so applied intimately unite with the material of the stopper so as to become a part thereof.

4. A perforated stopper for a hypodermic syringe of unitary structure and adapted to be inserted into or removed from the neck of a serum-containing receptacle, having a seal exteriorly applied to its inner end and adhering thereto and closing the inner end of the perforation therein.

5. In a hypodermic syringe, the combination of a stopper longitudinally perforated, a needle having a hub intermediate between its ends and a stem portion extending beyond the hub of less length than the stopper and adapted to be seated in the perforation therein, and a seal for hermetically closing the inner end of the said perforation applied exteriorly to the stopper.

[Claims 6 and 7 not printed in the Gazette.]

938,952. TRANSOM-RATCHET. LARS J. BERG, Chicago, Ill., assignor to Metallic Sheathing Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 25, 1909. Serial No. 474,053.



1. In a transom ratchet, the combination of a fixed section and a movable section, the movable section adapted to travel with the transom and having a pivotal bearing in the fixed section, and means attached to the fixed section and kept in constant engagement with the movable section for retaining it in various positions, substantially as described.

2. In a transom ratchet, the combination of a fixed section and a movable section, the movable section adapted to travel with the transom and having a pivotal bearing in the fixed section, and a toothed surface on the movable section adapted to be constantly engaged by locking means attached to the fixed section said locking means lying in tangential relation to the toothed surface and adapted to hold the movable section in any desired position, substantially as described.

3. In a transom ratchet, the combination of a fixed section and a movable section, the movable section adapted to travel with the transom and having a pivotal bearing in the fixed section, a toothed surface on the movable section adapted to be constantly engaged by locking means attached to the fixed section said locking means lying in tangential relation to the toothed surface and adapted to hold the movable section in any desired position, and trunnions on the movable section adapted to be engaged by the side walls of a housing attached to the fixed section, substantially as described.

4. In a transom ratchet, the combination of a fixed section and a movable section, the movable section comprising a plate attached to the frame of the transom, a segmental rack formed with said plate, trunnions protruding from the base of the segmental rack portion, the fixed portion comprising a plate and a housing attached to the plate, the side walls of which are adapted to engage the trunnions on the base of the segmental rack portion, a roller incased by said housing and adapted to be held under spring tension against the face of the segmental rack portion of the movable section for holding the movable section in any desired position, substantially as described.

5. In a transom ratchet, the combination of a fixed section and a movable section, the movable section comprising a plate attached to the frame of the transom, a segmental rack formed with said plate, trunnions protruding from the base of the segmental rack portion, the fixed portion comprising a plate and a housing having its front and rear walls cut away at their lower portions, side walls extending downwardly in a tapered formation, and bent to form hooks at their lower ends to engage the trunnions of the segmental rack portion, a roller incased in said housing and adapted to be held under spring tension against the face of the segmental rack portion of the movable section for holding the movable section in any desired position, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

938,953. CRUSHER-HEAD. RICHARD BERNHARD, Milwaukee, Wis., assignor to Power and Mining Machinery Company, Jersey City, N. J., a Corporation of New Jersey. Filed Apr. 28, 1908. Serial No. 429,607.



1. The combination with a shaft having a taper, of a head on the shaft, and devices acting by pressure against the end of the head and actuated by the rotation of the head on the shaft to force the head onto the taper and tighten the head on rotation of the head in either direction.

2. The combination with a shaft having a taper, of a head on the shaft, reverse screw threads and reversely threaded nuts between said head and shaft, and means for operating one or the other of said reversely threaded nuts by the rotation of the head on the shaft to force the head down on the taper and tighten the head on movement of the head in either direction.

3. The combination with a shaft having a taper and a screw thread, of a head on the shaft, a nut rotating with the head, and devices co-acting with said nut and shaft thread to force the head onto the taper and tighten the head on rotation of the nut in either direction.

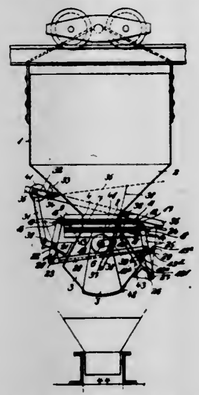
4. The combination with a shaft having a taper and a screw thread, of a shaft not co-acting with the shaft thread and reversely threaded on the outside, a head on the shaft, a nut rotating with the head and co-acting with said outer screw thread on the shaft nut, and means for automatically locking the shaft nut to the head nut on rotation of the head in one direction and means for holding

the shaft nut against movement on rotation of the head in the opposite direction.

5. The combination with a shaft having a taper and a screw thread, of a shaft nut co-acting with the shaft thread and reversely threaded on the outside, a head on the shaft, a nut rotating with the head, a flange on the shaft nut engaged by the head nut to carry the shaft nut with the head nut on movement in one direction, and means for locking the shaft nut against movement on the movement of the head nut in the opposite direction.

[Claim 6 not printed in the Gazette.]

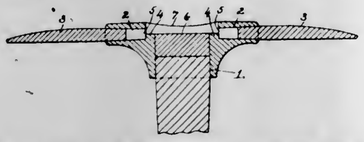
938,954. MEASURING FEED DEVICE FOR RETORTS AND THE LIKE. MAX BITTRICH, Stettin, Germany. Filed Jan. 14, 1907. Serial No. 352,143.



1. The combination with the storage receptacle and the measuring receptacle adapted to communicate therewith, of a swinging gate controlling the outlet of the measuring receptacle, a cut-off device controlling the communication of the storage receptacle with the measuring receptacle, a crank pin connected with the swinging gate, an actuating lever operatively connected with the cut-off device, and a bar pivotally connected with said lever and provided with a longitudinal slot into which said crank pin projects.

2. The combination of the measuring receptacle, the swinging gate controlling the outlet of said receptacle, the storage receptacle located above the measuring receptacle and adapted to communicate therewith, slides movable in opposite directions between the two receptacles, and controlling their communication, connected levers for moving said slides, an actuating lever operatively linked to said connected levers, and a loose connection from said actuating lever to the swinging gate.

938,955. PICK. CHARLES H. BLOW, Grandville, Cal., assignor to United States Pick Company, a Corporation of California. Filed Apr. 13, 1908, Serial No. 426,681. Renewed Mar. 10, 1909. Serial No. 482,567.

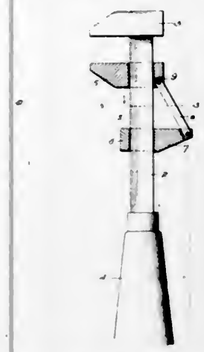


1. A head for picks and the like, comprising in an integral body, a handle-socket, two outwardly-facing inwardly-tapered tool-sockets having their axes substantially in line with each other, and side-walls directly connecting together said tool-sockets and extended outwardly to the plane of their axes, said tool-sockets being respectively provided with openings at their inner ends.

2. A head for picks and the like, comprising in an integral body, a handle-socket, two outwardly-facing inwardly-tapered tool-sockets having their axes substantially in line with each other, and side-walls directly connecting together said tool-sockets and extended outwardly to the plane of their axes, the wall of said handle-socket lapping and partly closing the inner ends of the tool-sockets, leaving beyond said handle-socket wall apertures communicating with the inner ends of the respective tool-sockets.

3. A tool-holder, having a handle-socket, and two oppositely and transversely disposed outwardly-facing, inwardly-tapering tool-sockets, all of said sockets communicating at their neighboring ends with an open space; and side-wall extensions of all the sockets which together form on opposite sides of the holder a solid connection between the tool-socket walls in the transverse plane of the tool-sockets.

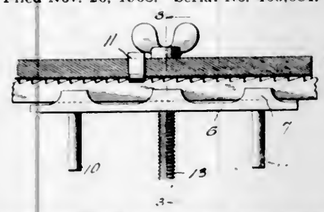
938,956. WRENCH. ICHAM D. BOARD, Cecilian, Ky., assignor of one-half to D. E. Shipley, Cecilian, Ky. Filed Jan. 11, 1909. Serial No. 471,718.



1. In a wrench the combination of a shank having on its outer end a fixed jaw, a movable jaw slidable on said shank to coact with said fixed jaw, a clutch jaw also slidably mounted on said shank and an operating bar pivotally connected at its opposite ends to said inner jaw, and said clutch jaw respectively.

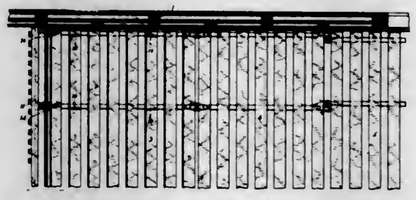
2. In a wrench, a shank having on its outer end a fixed jaw, a movable inner jaw slidable on said shank, a clutch jaw having a passage slightly larger in size than said shank, a lateral extension on said clutch jaw, and an operating bar pivotally connected at its opposite ends to the outer end of said clutch jaw extension and to said inner jaw respectively.

938,957. SAW-JOINTER. JACOB BOHYER, Bloomington, Ill. Filed Nov. 20, 1908. Serial No. 463,684.



In a saw jointer, the combination with a base having a plurality of outstanding projections, said projections being provided with alined longitudinally disposed saw-receiving channels, of a block adjustable toward and from the base and having guide stems slidably passing therethrough, an adjusting and holding screw journaled in the block and threaded through the base, and a file-embracing hook having a shank passing transversely through the block in angular relation to the holding and adjusting screw.

938,958. REFRIGERATOR-CAR. JOHN M. BORROWDALE and JOHN STRAIN, Chicago, Ill. Filed Mar. 8, 1909. Serial No. 481,992.

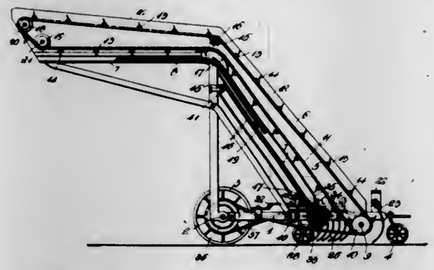


1. In a refrigerator car, the combination with a fixed support, of a series of slatted floor sections, each comprising longitudinal stringers and transverse slats, hinges connecting the floor sections, an ice compartment, a wall separating the ice compartment from the refrigerating compartment, and having an opening near its lower end to permit the circulation of cold air from the ice compartment to the refrigerating compartment, and one section of said slatted floor hinged to said wall above said opening, and triangular aprons on said end section supporting said section at an incline.

2. In a refrigerator car, the combination with a partition wall separating a refrigerating compartment from an ice compartment, and having an opening in its lower portion for the circulation of cold air, a series of slatted floor sections hinged together, and comprising longitudinal stringers and transverse slats thereon, triangular aprons below the stringers of the end floor section, hinges connecting said stringers and aprons, and hinges connecting the stringers of said end sections with said wall above the opening in the latter.

3. In a refrigerator car, the combination with a partition wall separating a refrigerating compartment from an ice compartment, and having an opening in its lower portion for the circulation of cold air, a series of slatted floor sections hinged together, and comprising longitudinal stringers and transverse slats thereon, triangular aprons below the stringers of the end floor section, hinges connecting said stringers and aprons, and hinges connecting the stringers of said end sections with said wall above the opening in the latter, said latter hinges having short and long leaves, the short leaves secured to said wall above the opening therein, and the long leaves bent at an angle and secured to the end faces of the stringers of the end section.

938,959. COMBINED HAY RAKE AND LOADER. OLIVER BOYER, Spencerville, Ohio. Filed Apr. 19, 1909. Serial No. 490,809.



1. A self raking hay loader comprising a wheeled supporting frame, a forwardly and upwardly inclined chute arranged in said frame, said chute having a forwardly extended portion at its upper end to provide a guiding and supporting frame, a slatted apron slidably mounted in said frame, an endless conveyer arranged in said chute to pick up and elevate the hay onto said distributing apron, means operated by the conveyer for reciprocating said apron means to prevent the bunching of the hay at the lower end of the elevating mechanism, and a rake arranged at the rear end of the machine.

2. A self raking hay loader comprising a wheeled supporting frame, a forwardly and upwardly inclined chute arranged in said frame and having at its upper end a forwardly projecting extension, a slatted apron slidably mounted beneath said chute and in said extension, an endless conveyer operatively mounted in said chute to elevate and discharge the hay onto said apron, means whereby the apron is operated by the movement of the conveyer, a clearing roll operatively mounted at the lower end of the chute to prevent the bunching of the hay gathered by the conveyer, and means whereby said conveyer and clearing roll are operated.

3. In a self raking hay loader, a wheeled supporting frame, a forwardly and upwardly inclined conveyer chute arranged in said frame, a distributing mechanism at the upper end of said chute, an endless conveyer operatively mounted therein to pick up and convey the hay to said distributing mechanism, means operated by the conveyer for reciprocating said distributing mechanism, said conveyer mechanism comprising sprocket chains and a series of cross slats connecting said chains and adapted to cooperate with said chute, an operating mechanism to connect said elevating mechanism with the supporting wheels of the machine, whereby the conveyer is operated, a rake adjustably mounted on the rear end of said frame, means to raise and lower said rake and to hold the same in its adjusted positions, side rakes pivotally mounted on the opposite sides of the frame adjacent to the lower end of said chute, means to hold said side rakes at different angles on the sides of the machine, and means whereby said rakes are raised and lowered and held in operative or inoperative position.

938,960. MILK-CAN NECK AND METHOD OF MAKING THE SAME. RICHARD BRAY, Arlington Heights, Ill., assignor to Bray & Kates, Arlington Heights, Ill., a Firm. Filed May 5, 1909. Serial No. 494,055.



1. A milk-can neck, comprising an inner and an outer member formed of two walls secured together in contact with each other, said outer member having formed integrally with it at its lower edge a flange having a plurality of thicknesses of material between which and the said inner member the edge of a can-breast is adapted to be inserted.

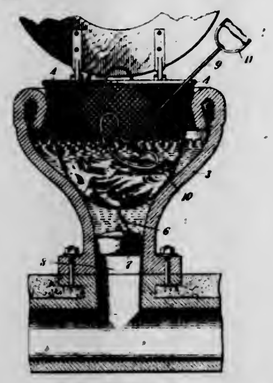
2. A milk-can neck, comprising an inner and an outer member formed of two walls secured together in contact with each other, said outer member having formed integrally with it in its lower portion an outwardly-extending double-walled flange and below said flange a flange of single thickness, said two flanges lying in contact with each other, between which last-named flange and the said inner member the edge of a can-breast is adapted to be inserted.

3. The method of making a double-walled milk-can neck, which consists in forming in the outer wall an outwardly-extending annular bead in the cylindrical portion near the lower end thereof, then pressing the sides of such bead together to form a flange of double thickness and pressing such flange against the material that was left below said bead, and then securing within such outer wall a close-fitting inner wall.

4. The method of making a double-walled milk-can neck, which consists in forming in the outer wall an outwardly-extending annular bead in the cylindrical portion near the lower end thereof, then pressing the sides of such bead together to form a flange of double thickness and inclining

such flange downward and also forcing out the material of the cylinder below the said bead into the shape of a flaring flange, pressing said two flanges together, and then securing within said outer wall a close-fitting inner wall.

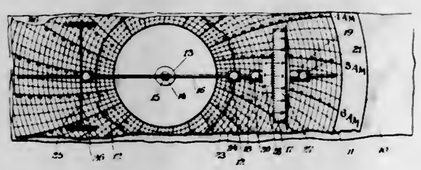
938,961. RECEPTACLE FOR BABY-CLOTHS. CHARLES BREWER, New York, N. Y. Filed July 17, 1909. Serial No. 508,214.



1. A receptacle of the character described, comprising a receptacle the sides whereof are perforated to freely discharge water, and a plug adapted to be extended into the throat of a water closet bowl to dam the same, said plug being connected to said receptacle by a flexible connector.

2. A receptacle of the character described, comprising a basket-like receptacle composed of woven wire adapted to be inserted in the bowl of a water closet, a plug adapted to extend into the throat of the said bowl to dam the same, and a flexible connector between said plug and said receptacle.

938,962. RADIUS-AVERAGING INSTRUMENT. WILLIAM H. BRISTOL, Waterbury, Conn., assignor to The Bristol Company, Waterbury, Conn., a Corporation of Connecticut. Filed July 10, 1909. Serial No. 506,890.



1. In a radii averaging instrument: the combination with a suitable base; of a guiding device free to rotate thereon and providing a vertical guideway; a tracer-bar passing through said guideway and free to slide lengthwise therein; a support for said tracer-bar; an integrating wheel rotatable on said tracer-bar; and a tracing point carried by said tracer-bar and projecting downwardly therefrom.

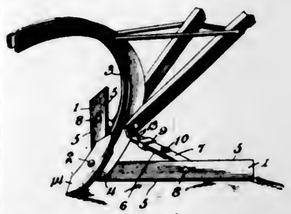
2. In a radii averaging instrument: the combination with a suitable base provided with a socket; of a pin fitting said socket, rotatable therein and providing a vertical guideway; a tracer-bar passing through said guideway and free to slide lengthwise therein; a support for said tracer-bar; an integrating wheel rotatable on said tracer-bar; and a tracing point carried by said tracer-bar and projecting downwardly therefrom.

3. In a radii averaging instrument: the combination with a suitable base provided with a socket; of a vertically grooved pin fitting said socket and rotatable therein; a tracer-bar passing through the groove of said pin; a support for said tracer-bar; an integrating wheel rotatable on said tracer-bar; a tracing point carried by said tracer-bar and projecting downwardly therefrom.

4. In a radii averaging instrument: the combination with a suitable base; of a guiding device free to rotate thereon and providing a vertical guideway; a tracer-bar passing through said guideway and free to slide lengthwise therein; a support for said tracer-bar; an integrating wheel rotatable on said tracer-bar, and a tracing point intermediate of said pin and said integrating wheel, carried by said tracer-bar and projecting downwardly therefrom.

5. In a radii averaging instrument: the combination with a suitable base; of a guiding device free to rotate thereon and providing a vertical guideway; a tracer-bar passing through said guideway and free to slide lengthwise therein; a forked support for said tracer-bar, terminating in finger pieces; an integrating wheel rotatable on said tracer-bar; and a tracing point carried by said tracer-bar and projecting downwardly therefrom.

938,963. REVERSIBLE AND ADJUSTABLE HEEL-SWEEP. JOHN H. BROCKMAN, Mason, Tex., assignor of one-half to Charles T. Brockman, Mason, Tex. Filed May 26, 1909. Serial No. 498,409.



1. A heel sweep including a pair of angularly related plates provided with upper and lower longitudinal cutting edges and pivotally adjustable to vary their angle and to arrange them for cutting either wide or narrow, said blades being also reversible through such pivotal movement to present either cutting edge at the bottom.

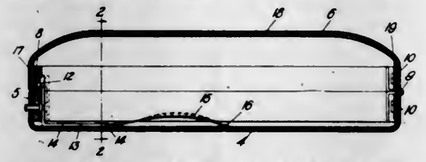
2. A heel sweep including a pair of angularly related blades provided with upper and lower longitudinal cutting edges and pivotally adjustable to arrange them at different angles and reversible through such pivotal adjustment to arrange either cutting edge at the bottom, and bracing bars extending across the space between and connecting the blades and having overlapped inner portions adjustably and detachably secured together.

3. A heel sweep including angularly related blades having their front terminals bent at an angle and fitted together, said blades being pivotally adjustable to arrange them at different angles and reversible through such pivotal movement to arrange either cutting edge at the bottom, transversely disposed bracing bars provided with angularly bent outer ends pivoted to the blades, the inner ends of the bars being overlapped, and means for adjustably and detachably securing the overlapped ends of the bars together.

4. A heel sweep including angularly related blades having their front terminals bent at an angle and fitted together, said blades being pivotally adjustable to arrange them at different angles and reversible through such pivotal movement to arrange either cutting edge at the bottom, transversely disposed bracing bars provided with angularly bent outer ends pivoted to the blades, said bracing bars having inner overlapped portions, a sleeve embracing the overlapped portions of the bars and secured to one of the same and detachably receiving the other bar, and means for securing the bracing bars in their adjustment.

5. A heel sweep including angularly related blades having their front terminals bent at an angle and fitted together, said blades being pivotally adjustable to arrange them at different angles and reversible through such pivotal movement to arrange either cutting edge at the bottom, bracing bars pivotally connected at their outer ends to the blades and having inner overlapped portions, one of the bracing bars being provided with a plurality of perforations, a bolt piercing the other bar and adjustable to be arranged in the said perforations, and a sleeve embracing the bars.

938,964. JEWELRY-BOX. LOUIS E. BROWN, Boston, Mass., assignor to Farrington Manufacturing Company, Boston, Mass., a Corporation of Maine. Filed Aug. 6, 1908. Serial No. 447,295.



1. In a jewelry box, a main receptacle having a bottom and wall formed from a thin metallic sheet, a reinforcing strip of fiber substantially covering the inner surface of the wall thereof and cemented thereto, the said wall having portions of the same pressed inwardly and engaging with said strip.

2. In a jewelry box, a receptacle having a bottom and wall formed of thin metallic material, a continuous reinforcing strip immovably secured to the inner surface of the wall thereof and extending around all four of its corners, the upper edge of said strip being flush with the edge of said wall.

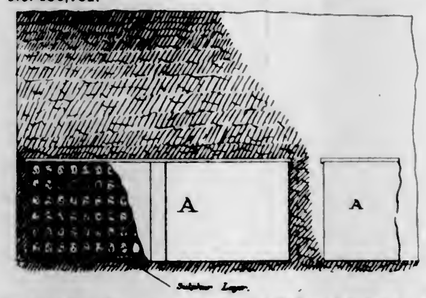
3. In a jewelry box, a receptacle having a bottom and wall formed from a thin metallic sheet, a hinge, one strap of which is secured to the inner surface of the wall thereof at one end of said receptacle, the remainder of said inner surface including its corners being covered by a continuous fibrous strip firmly secured thereto.

4. In a jewelry box, a receptacle having a bottom and wall formed from a thin metallic sheet, a continuous reinforcing strip immovably secured to the inner surface of the wall thereof and extending around all four of its corners, the upper edge of said strip being flush with the edge of said wall, combined with an outer jacket covering the outside, edges and inner surface of the wall of said receptacle and cemented thereto.

5. In a jewelry box, a receptacle having a bottom and wall formed from a thin metallic sheet, lugs punched out of one end of the same and extending inwardly, a hinge having a knuckle extending beyond said end, and being adapted to be secured to said lugs, whereby said hinge may be secured to said receptacle after the outer jacket has been applied.

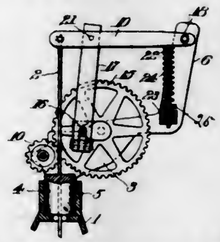
[Claim 6 not printed in the Gazette.]

938,965. METHOD OF PRESERVING EGGS. WILLIAM H. BURNS, Naperville, Ill. Filed Mar. 30, 1909. Serial No. 486,781.



The herein described method of preserving eggs and the like, consisting in first immersing the eggs in alcohol, wrapping them in a loose water proof cover, placing the eggs in a case upon a layer of sulfur and then placing the case under ground in a confined space, substantially as described.

938,966. WINDMILL-POWER SAVER. JOHN R. BYRNES, Hutchinson, Kans. Filed Feb. 6, 1909. Serial No. 476,373.



In a device of the character described, a windmill tower, a turntable secured on the tower, a frame provided with L-shaped arms rotatably mounted on the turntable, a wind wheel shaft journaled on said frame and provided with pinion wheels, gear wheels carried by the frame and adapted to mesh with the pinion wheels on the wind wheel shaft, a lifting rod pivotally secured to the upper ends of the L-shaped arms of the frame at one end and having its opposite end connected to the pump rod, a pitman rod secured at one end to the gear wheel and having its opposite end connected to the lifting rod, a lug formed integral with the lifting rod, a spiral spring having one end seated on the frame between the base of the arms and its opposite end secured over the lug on the lifting rod and means for increasing the tension of the spring as and for the purpose set forth.

938,967. CATAMENIAL BANDAGE. CLARA B. CAHOON, New York, N. Y. Filed Mar. 8, 1909. Serial No. 481,893.



As a new article of manufacture, a catamenial bandage comprising a plurality of superimposed sheets of absorbent paper so folded as to form an elongated pad, and a strip of coarse gauze material passing longitudinally through the pad and extending beyond the ends thereof, and a line of sewing connecting the said pad and strip to maintain the one in a fixed relationship to the other.

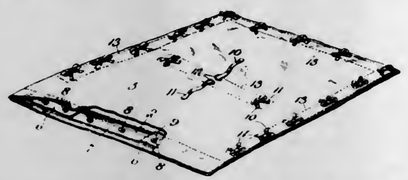
938,968. SANITARY WASHABLE CASE FOR COMFORTABLES. ANNIE C. CALDWELL, Sacramento, Cal. Filed Jan. 19, 1909. Serial No. 473,146.

1. A comfortable provided with an interior body inclosed in a permanent case, in combination with an exterior inclosing slip open at one end but provided with means for detachably closing this end, and with a plurality of independent devices on the upper and lower sides of the comfortable whereby the upper and lower sides of the body of the slip may be detachably connected to the body of the comfortable.

2. A comfortable having a body portion inclosed in a permanent casing, in combination with a slip adapted to entirely inclose the body portion and casing but remov-

able therefrom, one end of the slip being open but provided with buttons and button holes whereby it may be closed, the upper and lower parts of the said casing and the slip being provided at various points over their surfaces with means whereby they may be detachably attached to each other, the attaching means connecting the upper parts of the casing and slip being separate from the attaching means connecting the lower parts thereof.

3. A comfortable having a body portion entirely inclosed in a permanent casing, in combination with a slip open at one end and adapted to entirely inclose the body portion, the open end of the slip being provided with means whereby it may be closed, and sets of tapes on the top and bottom sides of the comfortable for fastening the slip thereto.

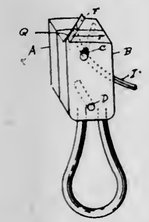


4. A comfortable comprising a body portion inclosed in a permanent casing, and a slip adapted to entirely inclose the body of the comfortable, said slip being open at one end but provided with means whereby the open end may be closed, the body portion of the comfortable being provided at various points with opposed tapes, and the slip being provided at corresponding points with opposed slits through which said tapes may pass and be tied over the slip to hold the slip to the body portion.

5. A comfortable having a body portion provided with an inclosing permanent case and a removable slip entirely inclosing the body and case, said slip being open at one end but further provided with buttons and button holes whereby it may be closed, the body of the comfortable having opposed tapes projecting therefrom and the slip being provided at corresponding points with opposed slits through which the tapes may pass and be tied to each other, the inner surface of the slip being reinforced along the line of said slits by a reinforcing piece attached thereto.

[Claim 6 not printed in the Gazette.]

938,969. COMBINATION TOOL-VISE AND SHARPENING-GAGE. GEORGE T. CANTARA, Biddeford, Me. Filed Feb. 23, 1909. Serial No. 479,569.



1. A combination tool vise and sharpening gage comprising two vise members removably joined having tool receiving registering recesses in their adjacent faces and a tapering gage extending across the ends of said members, a portion of the gage being removed to receive the end of the tool.

2. A combination tool vise and sharpening gage comprising two vise members removably joined having tool receiving registering recesses in their adjacent faces, means for clamping the two members together, a tapering gage extending across the ends of said members, a portion of the gage being removed to receive the end of the tool, one portion of the gage terminating in a thin edge and the other being slightly truncated.

3. A combination tool vise and sharpening gage comprising two vise members removably joined having tool receiving registering recesses extending across the ends of said members, a portion of the gage being removed to receive the end of the tool, one portion of the gage tapering vertically to a thin edge, the other tapering vertically and longitudinally toward the other portion and slightly truncated.

938,970. BUTTER AND LARD CUTTER. CARL H. CARLSON, Iron Mountain, Mich. Filed June 24, 1909. Serial No. 504,127.



1. A device of the class described, comprising a yoke-shaped frame having arms converging toward their outer ends, and a tubular extension projecting from the body portion in the opposite direction from the arms and provided with a handle, a plunger between the arms, a hollow stem connected therewith and movable in the extension, a finger piece detachably connected with the outer end of the stem, said extension being slotted to permit the passage of the finger-piece, a sleeve on the extension having slots registering with the slots thereof, each of the slots of the sleeve having lateral extensions at their lower ends for receiving the finger piece to prevent movement thereof, a rod slidable in the stem, an arched plate on the lower end of the rod, a spring normally retaining the plate in contact with the lower face of the plunger, a rod connecting the outer ends of the arms of the yoke, and a cutter loosely journaled on the rod near each end thereof, each of said cutters comprising a substantially triangular plate having bearings in which the rod is received.

2. A device of the class described, comprising a frame having a tubular extension on one side, and a pair of arms on the other, said arms converging toward their free ends, a rod connecting said free ends, a substantially triangular cutting plate loosely journaled on the rod near each end thereof, a plunger between the arms and having a hollow stem in the extension, means in connection with the stem for locking the plunger, a rod slidable in the stem, a downwardly arched plate on the end of the rod, and a spring normally retaining the plate flat against the lower face of the plunger.

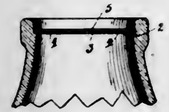
3. A device of the class described, comprising a frame having substantially parallel arms, and a tubular extension provided with a handle, a plunger between the arms, a hollow stem in the extension movable for operating the plunger, means for restraining the movement of the stem, a rod in the stem, a downwardly arched cutting plate on the rod, a spring normally retaining the plate flat against the lower face of the plunger, a rod connecting the arms, and a cutting plate loosely journaled on the rod near each end thereof.

4. In a device of the class described, a frame provided with a tubular extension, and with substantially parallel arms, a rod connecting the free ends of the arms, a cutting plate journaled near each end of the rod, a plunger between the arms, a hollow stem in the extension for operating the same, means for restraining the movement of the plunger, an arched cutting plate, a rod in the stem for operating the same, and a spring normally retaining the plate flat against the under face of the plunger.

5. In a device of the class described, a frame provided with a tubular extension and with substantially parallel arms, a rod connecting the arms, cutting plates loosely journaled thereon, a plunger between the arms, and provided with a stem in the extension, means for restraining the movement of the plunger, an arched cutting plate below the plunger, means for rotating the same, and means for normally retaining said plate flat against the adjacent face of the plunger.

[Claims 6 to 14 not printed in the Gazette.]

938,971. BOTTLE-CLOSURE. ROBERT M. CAUFFMAN and WELLINGTON BEST, Centerville, Mich.; said Best assignor to said Cauffman. Filed Feb. 24, 1908. Serial No. 417,487.



1. A milk jar closure consisting of a perforated disk, and a disk shaped sheet of antiseptic filtering fabric adhered to the disk and covering said perforations to prevent discharge of the contents of the jar through the perforations but permitting of the passage of air into the jar through said perforations.

2. A milk jar closure consisting of a perforated disk and a sheet of antiseptic filtering material adhered to the disk and covering said perforations to prevent discharge of the contents of the jar through the perforations but permitting of the passage of air into the jar through said perforations.

3. A milk jar closure consisting of a perforated disk and a thin sheet of filtering material adhered to the disk and covering the perforations to prevent discharge of the contents of the jar through the perforations but permitting of the ingress of air into the jar through said perforations.

4. A milk jar closure consisting of a perforated disk, and a disk shaped sheet of filtering material adhered to the disk and covering said perforations, the disks being of the same size.

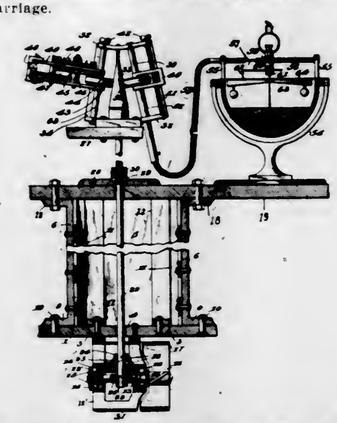
5. A milk jar closure consisting of a perforated disk, and a disk shaped sheet of filtering material adhered to the disk and covering said perforations.

938,972. NAVIGATION APPARATUS. WILLIAM J. CHANCE, Dawson, Yukon Territory, Canada. Filed July 15, 1907. Serial No. 383,791.

1. The combination with the vessel, of a motor operated by the movement of the vessel, a shaft driven from the motor, a compass, a carriage mounted for travel above the face of the compass and carrying a recording member, a screw shaft for imparting motion to the carriage, and connections between said screw shaft and the driven shaft.

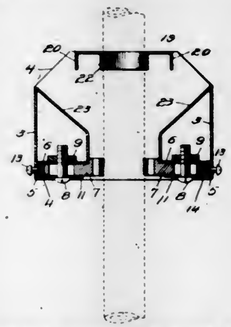
2. Navigation apparatus, comprising a water motor operated by the movement of the vessel, a driving shaft rotated from said motor, a driving element on said shaft, driven elements adjustably connected with said driving element, a compass, a screw shaft mounted above the face of the compass, flexible driving connections between the screw shaft and one of the driven elements, a carriage mounted above the face of the compass and propelled by the screw shaft, recording means carried by the carriage and distance registering mechanism having connection with one of the other driven elements.

3. Navigation apparatus, comprising a water motor and a driving shaft operated thereby, a friction cone on the driving shaft, driven elements mounted for contact with the friction cone, registering mechanism operated by one of the driven elements, a compass and supports mounted above the face thereof, a carriage mounted upon the supports and propelled by rotation of one of said supports, driving connections between the rotatory support and one of the driven elements, and recording means carried by the carriage.



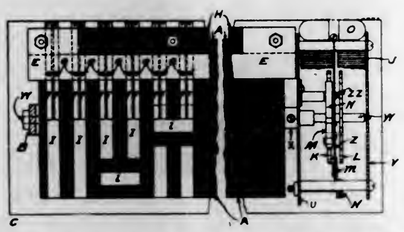
4. A vessel having a well extending up through the bottom thereof, a water motor, a shaft driven by said motor extending up through the well, a friction cone on the upper end of the shaft, a frame adjacent said cone, rollers journaled in said frame to engage the cone, means for adjusting the rollers with respect to the cone, registering mechanism operated by one of the rollers, a compass, supports upstanding from the bowl of the compass, a screw shaft journaled in said supports, a carriage supported on said shaft, a pointer carried by said carriage, and connections between the screw shaft and one of the rollers.

938,973. SCREW-THREADING IMPLEMENT. GEORGE F. CHAPMAN, Linton, Ind. Filed Nov. 10, 1908. Serial No. 461,936.



A screw threading implement including a sheet metal stock which consists of side walls, end walls extending above the side walls, die plates projecting inwardly from and spaced above the lower edges of the side walls, supports secured to the sides, a plurality of relatively spaced members secured to the supports, dies mounted upon the plates between the members, a guide secured to the upper edges of the end walls and provided with a plurality of openings, said guide being provided at its longitudinal edges with depending reinforcing flanges, collars secured to the under side of the guide and surrounding the openings, and handles secured to the end walls.

938,974. TELEPHONE-LINE-TESTING SYSTEM. ARTHUR N. CHENOWETH, Waterbury, Conn. Filed Aug. 6, 1908. Serial No. 447,191.



1. In an electrical system, comprising: terminal stations, and a plurality of connecting lines; an intermediate station or stations; means located at said intermediate station or stations, controlling the continuity of said plurality of connecting lines; and means, located at said terminal station or stations, operating said line controlling means to automatically open or bridge, at said intermediate station or stations, the desired lines.

2. In an electrical system, comprising: terminal stations, and a plurality of connecting lines; an intermediate station or stations; means, located at said intermediate station or stations, responsive to electrical impulses and adapted to control the continuity of said plurality of connecting lines; and means, located at said terminal station or stations, to impress a predetermined number of electrical impulses upon any selected line to operate said means at the intermediate station or stations to automatically open or bridge, at said intermediate station or stations, the desired lines.

3. A telephone line testing system, comprising, terminal stations and a plurality of connecting telephone lines, an intermediate testing station or stations, means located at said testing station or stations controlling the continuity of said plurality of telephone lines, and means located at said terminal station or stations operating said line controlling means to automatically open or bridge, at the said testing station or stations, the desired telephone lines.

4. A telephone line testing system, comprising terminal stations and a plurality of connecting telephone lines, an intermediate testing station or stations, means located at said testing station or stations and in one of said plurality of telephone lines and controlling the continuity of said lines, and means located at said terminal station or stations and in series with said line controlling means and operating same to automatically open or bridge, at said testing station or stations, the desired telephone lines.

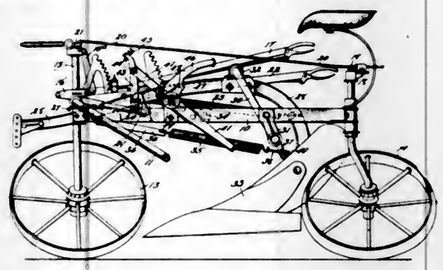
5. A telephone line testing system, comprising terminal stations and a plurality of telephone lines connecting the same, an intermediate testing station or stations, electric circuit opening and bridging mechanism at said testing station or stations controlling the continuity of said telephone lines, and means at said terminal station or stations adapted to operate said circuit opening and bridging mechanism to automatically open or bridge, at said testing station or stations, the desired telephone lines.

[Claims 6 to 11 not printed in the Gazette.]

938,975. PLOW. CARL CHRISTENSEN, Bradley, Ill., assignor to David Bradley Manufacturing Company, Bradley, Ill., a Corporation of Illinois. Filed Oct. 7, 1907. Serial No. 396,250.

1. In a plow, the combination of a wheeled frame, front and rear bails extending transversely thereof, said front bail extending rearwardly from its support, the rear bail extending forward and upward, a beam pivotally connected with said bails, and a lifting lever connected with one of said bails for rocking them to raise and lower the beam.

2. In a plow, the combination of a wheeled frame, front and rear bails extending transversely thereof, said front bail extending rearwardly from its support, the rear bail extending forward and upward, a beam pivotally connected with said bails, a lifting lever connected with one of said bails for rocking them to raise and lower the beam, and a lifting spring connected with said bails for aiding in raising the beam.



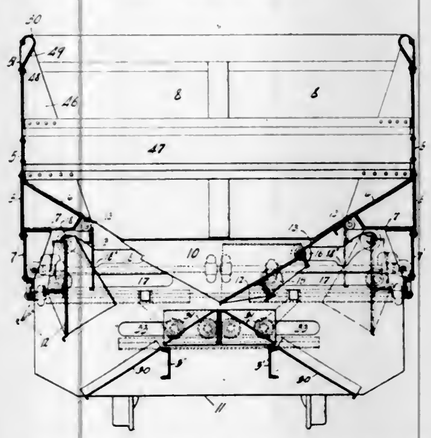
3. In a plow, the combination of a wheeled frame, front and rear bails extending transversely thereof, said front bail extending rearwardly from its support, the rear bail extending forward and upward from its support, a beam pivotally connected with said bails, a lifting lever fulcrumed on the frame and connected with the front bail for rocking the bails to raise and lower the beam, and a latch-lever carried by the lifting lever and adapted to engage a stop to lock the beam in its uppermost position.

4. In a plow, the combination of a wheeled frame, a front bail extending backward and downward from its pivot, a rear bail extending upward and forward from its pivot, a beam pivotally connected with said bails, a lever mounted on the frame, and a link connecting said lever with the rear portion of the front bail.

5. In a plow, the combination of a wheeled frame, a front bail extending backward and downward from its pivot, a rear bail extending upward and forward from its pivot, a beam pivotally connected with said bails, a lever mounted on the frame, and a link connecting said lever with the rear portion of the front bail, said link being adapted to move into alinement with said lever when the front bail is in its lowermost position.

[Claims 6 to 20 not printed in the Gazette.]

938,976. DUMP-CAR. CHARLES H. CLARK, Crafton, Pa. Filed Feb. 10, 1909. Serial No. 477,050.



1. In a dump car, a pair of laterally parting doors narrower than the bottom opening of the car, and a pair of supplemental doors hinged above and bearing downwardly on the first mentioned doors.

2. In a dump car, a door movable bodily laterally, and a supplemental door hinged above and bearing downwardly upon the first mentioned door.

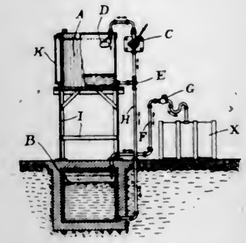
3. In a dump car, outwardly parting doors closing together between the sides of the car and when closed having less transverse area than the width of the bottom opening, and inwardly extending supplemental doors supported at opposite sides of the opening and coacting with the first mentioned doors.

4. The combination of a car hopper, straight side sills and downwardly offset center sills, and door mechanism operative between the side sills and above the center sills.

5. In a dump car, doors narrower than the car bottom opening and movable laterally bodily toward and from the center of the car, and supplemental doors.

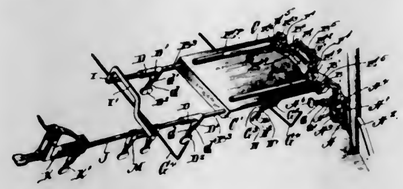
[Claims 6 to 51 not printed in the Gazette.]

938,977. PROCESS FOR FILLING, STORING, AND DISCHARGING INFLAMMABLE LIQUIDS. FELIX CLAUSS and LEOPOLD LEWISSON, Berlin, Germany. Filed Jan. 18, 1907. Serial No. 352,997.



The process of filling, storing and discharging inflammable liquid consisting in drawing off a neutral liquid from a storage receptacle and thereby causing the inflammable liquid to be supplied to the storage receptacle, and in causing the neutral liquid to again return to the storage chamber and thus displace the inflammable liquid.

938,978. COPY-HOLDER. IVAR H. P. COLLEEN, Brooklyn, N. Y. Filed Jan. 6, 1908, Serial No. 409,551. Renewed Mar. 1, 1909. Serial No. 480,755.



1. A copy-holder for typewriters, comprising a copy holding plate and support therefor, a clip catch pivotally mounted upon said copy holder, and spring press buttons and boxings therefor mounted upon said clip catch and adapted to bear against the face of said copy holding plate, as set forth.

2. A copy-holder for typewriters, comprising a copy holding plate and support therefor, a clip catch pivotally mounted upon said copy-holder, spring press buttons and boxings therefor mounted upon said clip catch and adapted to bear against the face of said copy holding plate, and an angled rod mounted upon the clip catch and adapted to engage under shoulders formed in the boxings of said spring press buttons, as set forth.

3. A copy-holder for typewriters, comprising a copy holding plate and support therefor, a clip-catch pivotally mounted upon said copy-holder, spring press buttons and boxings therefor mounted upon said clip catch and adapted to bear against the face of said copy holding plate, an angled rod mounted upon the clip catch and adapted to engage under shoulders formed in the boxings of said spring press buttons, and extension tubes telescoping over the parallel portions of said angled rod, as set forth.

4. A copy-holder for typewriters, comprising a plate having its opposite ends bent at angles, one of said angled ends being recessed, a frame which is fastened to the recessed angled end of said plate and having projections extending through the recesses in said angled end of the plate, and a spring clip catch secured to said copy-holder, as set forth.

5. A copy-holder for typewriters, comprising a plate having its opposite ends bent at angles, said ends being provided with registering apertures, one of said angled ends being recessed, a frame to which the recessed angled end of said plate is fastened, projections from said frame, lugs upon said frame, a spring clip catch secured to said lugs, and rods fastened at their inner ends to said frame and extending through said registering apertures in the angled ends of said plate, as set forth.

[Claims 6 to 11 not printed in the Gazette.]

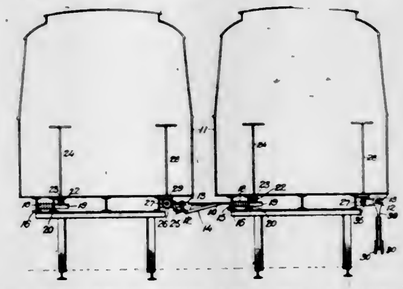
938,979. SEAL. WALLACE COLLINS, Hanford, Cal. Filed Dec. 28, 1908. Serial No. 469,683.



1. A seal comprising a strap having at its locking end a reëntrant slit to form a tongue, which latter is slightly deflected at one end, a housing inclosing such tongue, the free end of the strap having two tongues, each of which carries a hook for overlapping the locking end of the strap on opposite sides thereof.

2. A seal comprising a strap having a widened portion and an adjacent depressed portion, the edges of the widened portion being secured to the edges of the depressed portion to form a housing open at one end, a locking portion consisting of a slitted end of the strap having a tongue located within said housing, said step having at its free end two tongues for entering said housing, each tongue being bent back upon itself to form a spring hook, one of said tongues being guided by the tongue of the locking end to that side of the strap opposite the other tongue, and said hooks being designed to prevent the free end of the strap from being withdrawn.

938,980. TRAIN INTERLOCKER AND CROSS-BRIDGE. JOHN COOPERSTOCK, New York, N. Y. Filed May 11, 1909. Serial No. 495,249.



1. In a train interlocker and bridge, the combination with cars of means hanging below the floors of the cars for bridging same while moving on parallel tracks and means for retaining the bridge to lock the two cars together.

2. In a train interlocker and bridges, the combination with cars of means hung below the floor on one side of

same for bridging the space between adjacent cars running on adjacent tracks and locking means on the adjacent side of the running cars.

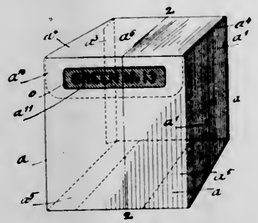
3. In a train interlocker and bridges, the combination with cars of hanging bridges beneath the floors on one side of same, means for elevating the bridges and means on the opposite side for locking the bridges while the cars are running on adjacent parallel tracks.

4. In a train interlocker and bridges, the combination with cars, of pivotally hanging bridges on one side of same, locking means on the other side, means for swinging the bridges to the elevated position and means for releasing the bridges.

5. In a train interlocker and bridges, the combination with cars of a pivotally hanging bridge at one side, a shifting beam to support a bridge at the other side, means for elevating the bridge and means for shifting the beam to release the bridge.

[Claims 6 to 12 not printed in the Gazette.]

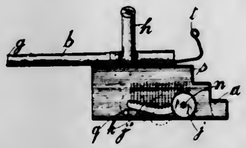
938,981. PAPER BOX FOR PACKING PAINTS, &c. FRANK E. CORNELL, New York, N. Y. Filed Oct. 9, 1908. Serial No. 456,974.



1. A paper box having a hinged cover, a flap at the front-edge of said cover, a label applied to said flap, the front-wall of said box being provided with a window which registers with and forms a frame and protection for said label when said box is closed.

2. A paper box having a hinged cover, a flap at the front-edge of said cover, a label attached to said flap and having its lower and side edges registering with the corresponding edges of said flap, the front-wall of the box being provided with a window arranged to register with and form a frame and protection for said label through which the label is visible when the box is closed.

938,982. TOY CANNON. WILLIAM H. CORNFORD, Mornington, Victoria, Australia. Filed Feb. 20, 1909. Serial No. 479,077.



1. A new toy cannon comprising a block, a barrel provided with a retaining slot whose greatest width is at the center thereof, and which tapers toward each end for the purpose specified, and a magazine delivering to the slot, said magazine consisting of a cap having a closed outer end, the barrel having a lateral tube over which the cap fits.

2. A new toy cannon adapted for playing battle games, comprising essentially a block, a barrel, a magazine, and an adjusting, retaining slot in such barrel adapted to retain the firing pellets in their proper position until fired, said slot having its greatest width at the rear end thereof and tapering toward the front end.

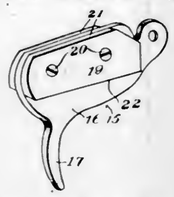
3. A new toy cannon adapted for playing battle games, comprising essentially a block, a barrel, a magazine, a cap, a retaining slot for retaining pellets in their proper position until fired, and a spring having one end secured to the base, the other end being extended at right angles to the body portion thereof to act as a handle and as a back sight when set, said spring having an off-set portion for engaging the rear end of the base for retaining it in set position.

4. In a toy cannon, a barrel, a charging magazine connected with the barrel, said barrel having in the bottom thereof a slot whose greatest width is at its rear end and whose sides converge toward the front end of the barrel.

5. A toy cannon comprising a barrel, a base upon which the barrel is mounted, and a spring, said spring having one end fixed to the base and the other end extending upward into the barrel, said barrel being slotted for the reception of the spring, said spring extending thence rearwardly and provided with an off-set portion for engaging the base to retain the spring in set position, and thence extending upwardly to form a handle for manipulating the spring and a back sight when the spring is in set position.

[Claims 6 to 8 not printed in the Gazette.]

938,983. GUN. JAMES R. CRABTREE, Garrett, Okla. Filed Sept. 17, 1908. Serial No. 453,474.



1. The combination with a gun trigger of removable means connected to said trigger to accommodate sears of varying height and to regulate the movement of said trigger.

2. The combination with a gun having hammers, sears provided with inwardly projecting lugs, of a guard plate, enlargement rising therefrom and having spaced ears, a trigger pivotally connected to said ears, and wearing plates removably connected to opposite sides of said trigger to accommodate varying height of sears and serving to regulate the movement of the trigger and also forming cam surfaces to operate the said sears.

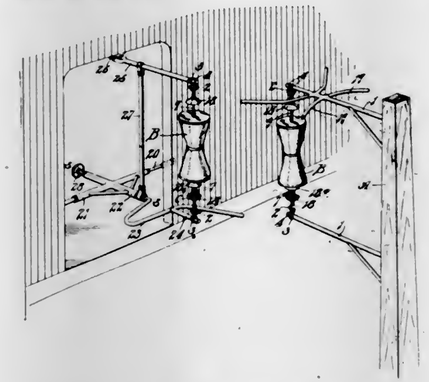
3. The combination with a gun having sear controlled hammers, of a guard plate, a trigger pivoted thereto, and removable wearing plate mounted at opposite sides of the trigger and serving as stops to limit the outward movement of said trigger when the hammers are in cocked position.

938,984. PIPE-COUPLING. GEORGE W. CURRY, Brooklyn, N. Y., assignor to Good Manufacturing Company, New York, N. Y., a Corporation of Indiana. Filed July 17, 1908. Serial No. 443,965.



A coupling having a nipple that is threaded at both ends, nuts having flanges, with openings that are larger in diameter than the exterior diameter of the nipple, loose thereon, said nuts being interiorly threaded for the reception of the threaded ends of pipes, compressible packings on the nipple inside of the nuts, and washers with interior threads screwed upon the nipples in the nuts, nearer the ends of the nipples than the packings, whereby the distance between the nuts may be varied by adjusting the washers on the nipple and the packing be compressed between the flanges of the nuts and the washers when the nuts are screwed upon the ends of said pipes.

938,985. MAIL-BAG CATCHING AND DELIVERING APPARATUS. THOMAS F. CURTIS, Pineville, Ky., assignor of one-third to John D. Askins and one-third to Nathaniel M. Bowie, Louisville, Ky. Filed July 3, 1909. Serial No. 505,783.



1. In an apparatus of the character described, mailbag sustaining means comprising a plurality of yielding grippers, and a device connected to one end of the bag and provided with an approximately ball-shaped head that is adapted to be engaged by said grippers.

2. In an apparatus of the character described, mailbag sustaining means comprising a plurality of yielding grippers, a device connected to one end of the bag and provided with an approximately ball-shaped head that is adapted to be engaged by said grippers, and a member carrying said grippers and connected to a support by means of a universal joint.

3. A mailbag sustaining device, comprising a shank provided with an approximately ball-shaped head, a socket member for receiving said head, a carrier mounted on said shank, and yielding grippers connected to said carrier.

4. A mailbag sustaining device, comprising a shank provided with an approximately ball-shaped head, a socket member for receiving said head, a carrier mounted on said shank, a plurality of grippers pivotally connected to said carrier, and yielding means for drawing said grippers toward each other.

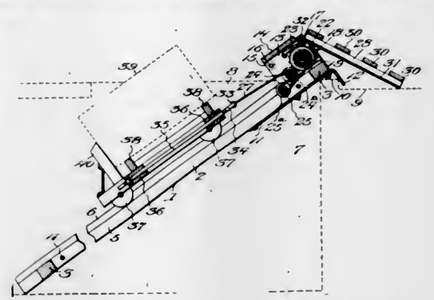
5. A mailbag sustaining device, comprising a shank provided with an approximately ball-shaped head, a socket member for receiving said head, a carrier mounted on said shank, a plurality of grippers pivotally connected to said carrier, yielding means for drawing said grippers toward each other, and means for limiting the inward movement of said grippers.

[Claims 6 to 14 not printed in the Gazette.]

938,986. ELEVATING AND LOWERING APPARATUS. EDWARD P. DANDRIDGE, Philadelphia, Pa. Filed Jan. 16, 1909. Serial No. 472,682.

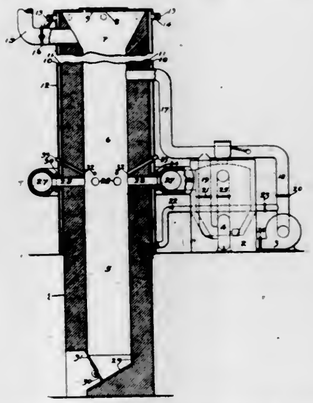
1. A hoisting and lowering apparatus comprising a portable track, supporting means at the upper end of the track, a windlass at the upper end of the track, a partial inclosure for said windlass, a pivoted cover for the inclosure, a truck adapted to run upon the track, and a winding cable connecting the truck with the windlass.

2. A hoisting and lowering apparatus comprising a portable track, supporting means at the upper end of the track, side walls at the upper end of the track forming a partial casing, a windlass disposed in said casing and having its shaft journaled in said walls, a rod or bar extending across the upper end of the casing, a pivoted cover for the casing, a platform provided with hooks to detachably engage the rod or bar, a truck adapted to run upon the track, a cable connecting said truck with the drum of the windlass, and friction guiding rolls supported upon the track



and casing and arranged to form a bight in the run of the cable.

938,987. PROCESS OF BURNING LIME AND APPARATUS THEREFOR. HENRY L. DOHERTY, New York, N. Y. Filed Sept. 14, 1908. Serial No. 452,899.



1. The process of calcining limestone which consists in contacting with ignited carbon, a portion of the gases produced in the calcination of the limestone, mixing with the combustible gas so produced, another portion of the gases from the calcination of the stone, heating air by contacting the same with the hot lime, and burning said gas mixture with said heated air in contact with said limestone, the portion of calcination gases added to said combustible gas, being such that the temperature developed in the burning of said gas is below that at which the impurities in the stone will combine chemically with the lime.

2. In the calcination of limestone the process which consists in mixing a portion of the gaseous products of the calcination with air, in contacting such gaseous mixture with incandescent carbon forming producer gas, in mixing such producer gas with another portion of the gaseous products of the calcination of said limestone, whereby a modified producer gas is formed, in contacting the calcined limestone with a current of air whereby said air is heated, in mixing such heated air and said modified producer gas in contact with the incandescent lime, whereby a calcining flame of regulated intensity is secured, and in subjecting the limestone to calcination by said flame, all substantially as described.

3. In the calcination of limestone the process which consists in mixing a portion of the gaseous products of

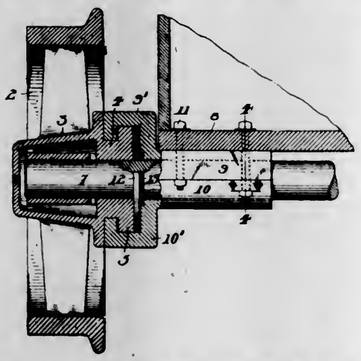
such calcination with air preheated by a portion of the sensible heat of said gaseous products, in contacting such gaseous mixture with ignited carbonaceous fuel, thereby forming producer gas, in mixing such producer gas with another portion of the gaseous products of the calcination of said limestone, whereby a modified producer gas is formed, in contacting the calcined limestone with a current of air whereby said air is heated, and in mixing such heated air and said modified producer gas in contact with the highly-heated lime, whereby a calcining flame of regulated intensity is secured, all substantially, as described.

4. In the calcination of limestone, the process which consists in mixing a portion of the gaseous products resulting from such calcination with air preheated by a portion of the sensible heat of said gaseous products, in contacting such gaseous mixture with incandescent carbonaceous fuel, thereby, forming producer gas, in contacting the hot calcined limestone with a current of air whereby the said air-current is heated and the said lime cooled, in modifying the said producer gas by mixing therewith sufficient of the gaseous products of the calcination to reduce the temperature of the flame formed on the subsequent combustion of said producer gas, below the temperature at which the impurities in the stone will combine chemically with the lime, in mixing the said modified producer gas and said heated air-current in contact with incandescent material, whereby said gas is burned, and in subjecting the limestone to the flame of such burning gas, substantially as described.

5. In the calcination of limestone the process which consists, in withdrawing at a high temperature a portion of the gaseous products resulting from such calcination, in contacting such portion of the gaseous products of the calcination with incandescent carbonaceous fuel, sufficient air preheated by a part of the sensible heat of the gaseous products being admixed with said portion of the said products to maintain said fuel in an ignited condition, whereby a producer gas of regulated calorific value is formed, in contacting the lime from the calcination of the limestone with a current of air, whereby said lime is cooled and said air current heated, in mixing said heated air-current and said producer gas in contact with incandescent material, thereby burning said gas, and in subjecting the said limestone to calcination by the flame of said burning gas, all, substantially, as described.

[Claims 6 to 10 not printed in the Gazette.]

938,988. CAR-WHEEL AND MOUNTING. THOMAS DONOHOE, Avella, Pa. Filed Aug. 23, 1907. Serial No. 389,867.



1. The combination of a car body, wheels at opposite sides thereof each having an annular flange on its inner side, two separated bearings secured to opposite portions of the car, an axle extending through the bearings and into the wheels, each of said bearings formed in parts fitting together and recessed at their outer ends which embrace the annular flange of one of the wheels.

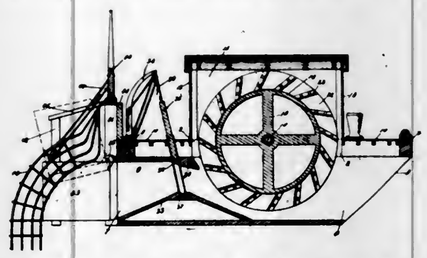
2. The combination of a wheel having an annular hub-like extension on its rear face formed with a peripheral enlargement, an axle, and a two-part bearing for the axle fastened to the car with the axle extending therethrough, each of the bearing parts having an enlargement at its outer end formed with a semi-circular recess to embrace the flanged extension of the wheel, whereby when the bearing parts are united the wheel extension is inclosed and the wheel held in place.

3. The combination of a wheel having an extension on its rear face, an axle, a bearing member fixed to the car and through which the axle extends, said member interlocking with the wheel extension for holding the wheel in place, and a washer shrunk on the axle within the bearing cavity, for the purpose described.

4. The combination of a wheel having an extension on its rear face, an axle, a bearing member fixed to the car and through which the axle extends, the bearing member interlocking with the wheel extension for holding the wheel in place, a washer shrunk on the axle within the bearing cavity, and a felt-like ring encircling the axle adjacent the washer.

5. The combination of a car body, two separate and distinct bearings—one at each side of the car bottom, each bearing extending inwardly from the side of the car a relatively short distance and each formed of an upper and lower section with securing bolts extending therethrough and into the car bottom, each of the sections enlarged at its outer end and formed with an internal countersunk depression, an axle extending through the bearings, wheels mounted on the ends of the axle, and peripherally flanged annular extensions on the inner sides of the wheels embraced by and confined in the enlarged ends of the bearing sections.

938,989. WATER-MOTOR. CLARK J. DUNCAN, Windber, Pa. Filed Nov. 3, 1908. Serial No. 460,949.



1. A water motor comprising a vessel formed with a longitudinally extending water-way, a hollow shaft journaled transversely of said vessel, an air-tight shell mounted upon said shaft and positioned within said water-way and communicating with said shaft, tangentially disposed blades arranged upon the periphery of said shell and adapted to be impacted upon by the water passing through said water-way whereby said shell and shaft are revolved, and means driven from said shaft and communicating therewith for supplying water to said shell.

2. A water motor comprising a vessel formed with a longitudinally extending water-way, a hollow shaft journaled transversely of said vessel, an air-tight shell mounted upon said shaft and positioned within said water-way and communicating with said shaft, tangentially disposed blades arranged upon the periphery of said shell and adapted to be impacted upon by the water passing through said water-way whereby said shell and shaft are revolved, means driven from said shaft and communicating therewith for supplying water to said shell, and means supported by the vessel for regulating the passage of water through said water-way.

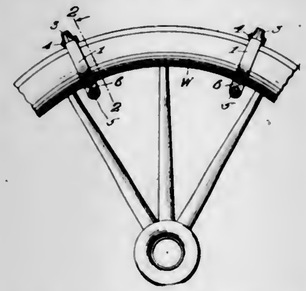
3. A water motor comprising a vessel formed with a longitudinally extending water-way, a hollow shaft journaled transversely of said vessel, an air-tight shell mounted upon said shaft and positioned within said water-way and communicating with said shaft, tangentially disposed blades arranged upon the periphery of said shell and adapted to be impacted upon by the water passing through said water-way whereby said shell and shaft are revolved, means driven from said shaft and communicating therewith for supplying water to said shell, means supported by the vessel for regulating the passage of water through said water-way, deflectors pivoted to said vessel and adapted to deflect the water into said water-way, and means carried by the vessel for raising and lowering said deflectors.

4. A water motor comprising a vessel formed with a longitudinally extending water-way, a hollow shaft journaled transversely of said vessel, an air-tight shell mounted upon said shaft and positioned within said water-way and communicating with said shaft, tangentially disposed blades arranged upon the periphery of said shell and adapted to be impacted upon by the water passing through said water-way whereby said shell and shaft are revolved, means driven from said shaft and communicating therewith for supplying water to said shell, means supported by the vessel for regulating the passage of water through said water-way, deflectors pivoted to said vessel and adapted to deflect the water into said water-way, means carried by the vessel for raising and lowering said deflectors, and means projecting from the forward end of the vessel to prevent entrance of obstructions to the water-way.

5. A water motor comprising a vessel having a longitudinally extending water-way, a shaft journaled in the vessel and extending transversely of the water-way, a self-contained shell connected to the shaft and positioned within the water-way, means whereby said shell is supplied with water, and a plurality of tangentially disposed blades arranged upon the periphery of said shell and adapted to be impacted upon by the passage of water through said water-way whereby said shaft is revolved.

[Claim 6 not printed in the Gazette.]

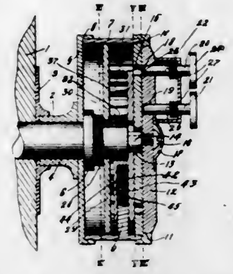
938,990. DETACHABLE SPUR FOR VEHICLE-WHEELS. ERNEST E. EASTWOOD, Piper City, Ill. Filed Feb. 15, 1909. Serial No. 477,860.



A device of the character described comprising a spur divided longitudinally and formed with registering pivot openings, a transverse pivot arranged in said openings, opposing clamp sections formed integral with and projecting from the two portions of the spur, said clamp sections being shaped to receive a wheel rim between them and the free ends of said clamp sections being formed with openings, and a bolt arranged in the openings of the free ends of the clamp sections to detachably secure the device to a wheel rim.

938,991. LOCK. HERMAN ECKHARDT, Pittsburg, Pa. Filed May 24, 1909. Serial No. 497,942.

1. In a lock for doors, the combination with a spindle, of a shell rotatably supported by said spindle, a dial plate revolubly supported by said shell, a tumbler within said shell and adapted to be moved into engagement with said spindle to rotate with said spindle, and pins carried by said dial plate and adapted to extend into said shell for moving said tumbler.



2. In a permutation lock for doors, the combination with a spindle, of a shell rotatably mounted upon said spindle and adapted to rotate therewith, a disk mounted on said spindle, a plurality of circumferentially arranged posts detachably connected to said disk, a dial head carried by said shell and having a plurality of openings formed therein, a dial plate provided with a plurality of openings adapted to register with some of the openings of said dial head, a tumbler movably supported by said dial head and adapted to be moved into engagement with said spindle to move therewith, and pins carried by said dial plate and adapted to move into said shell for moving said tumbler into engagement with said spindle.

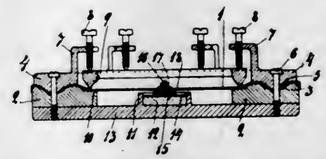
3. A lock for doors, comprising a spindle, a shell rotatably mounted upon said spindle, a dial plate movably carried by said shell, a tumbler movably mounted in said shell and adapted to be moved into engagement with said spindle to rotate therewith, and pins carried by said dial plate and adapted to extend into said shell for moving said tumbler into engagement with said spindle.

4. In a lock for doors, the combination with a spindle, of a shell movably mounted upon said spindle, a dial plate movably carried by said shell, a tumbler arranged within said shell and adapted to be moved into engagement with said spindle to rotate therewith, pins carried by said dial plate and adapted to extend into said shell for moving said tumbler, and means arranged within said shell for holding said tumbler as the same is adjusted to engage said spindle.

5. A lock for doors, comprising a spindle, a shell carried by said spindle and adapted to be fixed relative thereto for rotation, a dial plate carried by said shell, a tumbler arranged within said shell for engaging said spindle, pins carried by said dial plate and adapted to be moved into said shell to move said tumbler into engagement with said spindle, and a disk within said shell for controlling the entrance of the pins of said dial plate into said shell.

[Claims 6 and 7 not printed in the Gazette.]

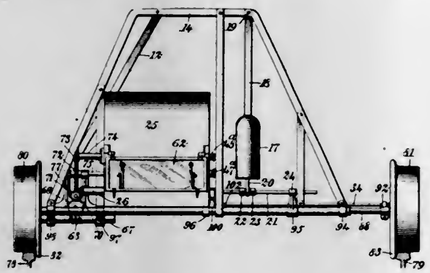
938,992. TELEPHONE-TRANSMITTER. CARL E. EGNÉR, Stockholm, and JOHAN G. HOLMSTRÖM, Saltsjö Storängen, Sweden. Filed Feb. 18, 1909. Serial No. 478,684.



In telephone transmitters especially transmitters for strong current the combination of a diaphragm, strained with substantial uniformity from its center toward its periphery, and a disk or the like, which is fixed to the

center of the diaphragm and vibrates throughout substantially its entire area in unison with the vibrations of that part of the diaphragm to which it is secured, the said disk forming one of the electrodes of the transmitter, substantially as described and for the purpose set forth.

938,993. AUTOMATIC TRACK-INSPECTOR. THADDEUS ELLIS, Tacoma, GEORGE H. PURVIS, Seattle, and JOHN S. CREECH, Raymond, Wash. Filed Jan. 5, 1909. Serial No. 470,800.



1. A device of the character described, comprising a frame work mounted upon wheels to be dragged along a railway track, mechanism controllable by the condition of said railway track for recording said condition thereof, said mechanism including slide rods, and a clamp disposed adjacent to said slide rods, said clamp being controllable at will for gripping said slide rods and for releasing the same in order to prevent undue motion of said slide rods.

2. A device of the character described, comprising a frame work, a casing supported thereby, recording mechanism mounted within said casing, means controllable by the condition of a railway track for actuating said recording mechanism, said means including a plurality of slide rods, and a clamp mounted upon said casing and provided with portions for engaging said slide rods in order to temporarily grip the same.

3. The combination of a frame mounted upon wheels, a pendulum supported by said frame and adapted to swing, a rod disposed below said pendulum, a member mounted upon said pendulum and engaging said rod for the purpose of actuating the latter, limiting stops mounted upon said rod and adjustable at will for the purpose of adjusting the position of said rod relatively to said pendulum, and means controllable by motions of said rod for recording movements of said pendulum relatively to said frame.

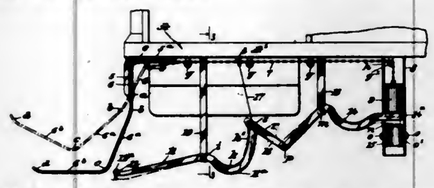
4. A device of the character described, comprising a frame mounted upon wheels and adapted to be drawn along a track, a pendulum mounted upon said frame, a rod slidably mounted upon said frame and connected with said pendulum, a dash pot for preventing excessive movements of said rod, mechanism controllable by the condition of said track for actuating said pendulum relatively to said frame, and recording mechanism controllable by said pendulum for recording the condition of said track.

5. The combination of a frame mounted upon wheels and adapted to be moved along a track, said frame being provided with a telescopic axle made in concentric parts, means controllable by differences in the width of the track for lengthening and shortening said telescopic axle, and recording mechanism for indicating the varying width of said track.

[Claim 6 not printed in the Gazette.]

938,994. CAR-FENDER. GEORGE A. ETSLER, Standish, Mich. Filed Oct. 8, 1908. Serial No. 456,707.

1. In a car fender, the combination with a tripping frame, bracket arms on a car frame upon which the upper portions of the tripping frame are pivoted, and flexible connections extended rearward on the car frame, of counterbalancing weights on the rear ends of the flexible connections, said weights being depressed when the tripping frame is rocked upward.



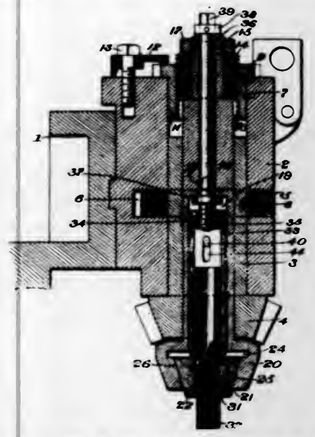
2. In a car fender, the combination with a car frame, depending bracket arms thereon, and a tripping frame pivoted near the upper ends of its side bars on said arms, of a catcher apron pivoted on hanger arms projected downward from the car frame, said frame having a concaved receptacle on its rear end, two flexible connections supported on the car frame, two casings depending from said car frame at the rear ends of the flexible connections, weights secured on the rear ends of the flexible connections and slidably housed in the casings, link bars and levers rockably supported from the car frame, the ends of the link bars being pivoted on the ends of the levers, the forward ends of the link bars being adjustably pivoted on the rear portion of the catcher apron, the rear ends of the levers engaging the lower ends of the weights, and abutment blocks in the casings below the inserted ends of the levers.

3. The combination with the car, of a tripping frame supported thereby, a counterbalance in connection with the upper end of the tripping frame, an apron supported by the car, and means whereby the movement of the counterbalance to trip the frame will lower the forward edge of the apron.

4. The combination with the car, of a tripping frame supported thereby, a counterbalance in connection with the upper end of the tripping frame, an apron, and means whereby the tripping of the frame will lower the apron.

5. The combination with the car, a tripping frame supported thereby, a weight behind the tripping frame, a flexible connection between said frame and the weight, means on the car for supporting the connection to permit it to move longitudinally, an apron, and means whereby the tripping of the frame will lower the apron.

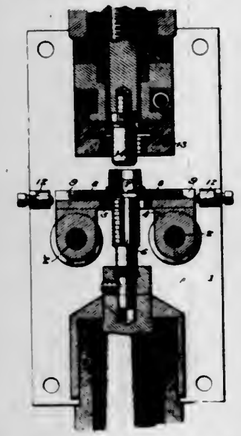
938,995. HOLDER FOR MACHINE-TOOLS. HENRY O. EVANS, Philadelphia, Pa. Filed Feb. 10, 1908. Serial No. 415,015.



1. In a tool holder, a head having a slot and an enlarged space communicating therewith, the end walls of the slot being beveled, jaws therein having correspondingly beveled surfaces and coinciding tapered recesses, the sides of said slot having wedge-shaped projections engaging said recesses, one of said jaws having a recess communicating with the bore thereof, and a key fitted therein, combined with a sleeve bearing against the inner face of the jaws to exert outward pressure thereon.

2. In a tool holder, a head having a slot and an enlarged space communicating therewith, the end walls of the slot being beveled, jaws therein having correspondingly beveled surfaces and coinciding tapered recesses, the sides of said slot having wedge-shaped projections engaging said recesses, one of said jaws having a recess communicating with the bore thereof, and a key fitted therein, combined with a sleeve bearing against the inner face of the jaws to exert outward pressure thereon, a tubular spindle surrounding said sleeve and secured to said head, and means passed through the spindle and engaging the sleeve for moving it endwise to relieve its pressure against the jaws.

938,996. AUTOMATIC CHUCK. HENRY O. EVANS, Philadelphia, Pa. Filed Feb. 10, 1908. Serial No. 415,016.



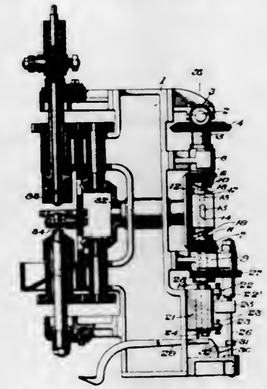
1. In a device of the class described, a plurality of gripping jaws pivotally mounted to seat a member to be machined and recessed to allow movement of a tool therethrough, means normally holding said jaws apart, a holding plunger, means for advancing the same to press the article operated upon securely against said jaws, a follower, and a spring arranged to act on said follower to hold the plunger securely against the article being operated upon.

2. In a device of the character described, a plurality of pivoted jaws to seat a member to be machined, means for normally holding said jaws apart, a plunger for engagement with said member, a spring pressed follower cooperating with said plunger to hold the same in operative position, and a sleeve on said plunger adapted to return said plunger to inoperative position.

3. In a device of the character described, a plurality of pivoted jaws adapted to seat a member to be machined, means for normally holding said jaws apart, a plunger for engagement with said member, a spring pressed follower coöperating with said plunger to hold the same securely against said member, and means for adjustment of the plunger with relation to said follower.

938,997. AUTOMATIC REVERSING MECHANISM. HENRY O. EVANS, Philadelphia, Pa. Filed Feb. 15, 1908. Serial No. 416,028.

1. In a device of the character described, a shaft, gears mounted thereon, each of said gears having clutch faces, a sleeve slidingly mounted on said shaft for rotation therewith and having clutch faces thereon, means operated by said shaft for positively releasing said sleeve clutch faces from either gear clutch face, and manually operated means for shifting said sleeve to engage one clutch face.

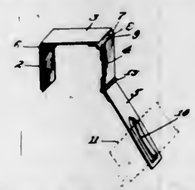


2. In a device of the character described, a shaft, gears mounted thereon, each of said gears having clutch faces, a sleeve slidingly mounted on said shaft for rotation therewith and having clutch faces thereon, means operated by said shaft for positively releasing said sleeve clutch faces from either gear clutch face, manually operated means for shifting said sleeve to engage one clutch face, and a stop to hold said sleeve in inoperative position.

3. In a device of the character described, a shaft, gears thereon, each of said gears having a clutch face, driving means for said shaft, a sleeve slidingly mounted on said shaft for rotation therewith, a rod secured to said sleeve, a block fixedly mounted on said rod having lugs thereon, a guide bracket for said block, a spindle, means actuated by said gears for moving the spindle longitudinally, and means carried by said spindle adapted to engage said lugs whereby the rod is shifted in either direction.

4. In a device of the character described, a shaft, gears thereon, each of said gears having a clutch face, a gear connecting said clutch gears whereby one is driven in the opposite direction from the other, a sleeve slidingly mounted for rotation on said shaft, a rod secured to said sleeve, a plurality of lugs on said rod, a manually operated lever adapted to engage one lug to shift said rod in one direction, a spindle suitably mounted for sliding movement, means operated by one of said gears for moving said spindle, and a trip carried by said spindle and located intermediate the remaining lugs whereby said rod is automatically shifted in either direction.

938,998. HAT-HOLDER. WILLIAM R. EVANS, San Francisco, Cal. Filed Mar. 27, 1909. Serial No. 486,217.

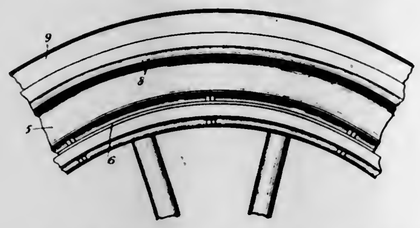


1. A hat-holder comprising three plates hinged together and foldable to lie flat or adapted to be opened out to form a hook, and a member hingedly connected to the end of one of said plates and having an offset portion parallel with itself and serving to engage the sweat band of the hat.

2. A hat-holder comprising four plates hingedly connected in a chain, means for limiting the relative hinge

movement of three of said plates so that when they are opened out these three plates form a hook, said fourth plate provided with an upturned hook, and said last-named hook designed to engage with the sweat-band of a hat.

938,999. VEHICLE-TIRE. CLARK F. FISK, Allentown, N. J. Filed Sept. 26, 1908. Serial No. 454,844.

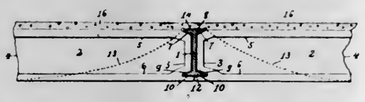


1. The combination of a rim composed of two half sections detachably connected together, each having a shoe rim at the outside thereof, a tire carried by the rim, a shoe having its edges located in the shoe rims and extending over the tread of the tire, and clamping rings to secure the shoe to the rims, applicable to and removable from the rims while the shoe is in place.

2. The combination of a vehicle wheel, a rim composed of sections detachably secured to the felly of the wheel, each section having a shoe rim and a relatively deep flange, a relatively thick tire of elastic material having ribs at opposite sides, each flange having beads on its inner face in engagement with the extremities of the ribs at both the inner and outer sides thereof, the tire and ribs being otherwise separated from the rim, and a shoe extending over the tire, with the edges thereof detachably secured within the shoe rim.

3. The combination of a rim having relatively deep outwardly-extending flanges, and a tire having resilient ribs at each side spaced apart, with the extremities of the ribs supported at both sides from the inner faces of the flanges, and with the tire and ribs otherwise spaced from and out of contact with the flanges.

939,000. BUILDING STRUCTURE. VICENTE FONT, Habana, Cuba. Filed Sept. 30, 1908. Serial No. 455,497.



1. A building structure comprising I shaped supporting beams, I shaped filling blocks placed at each side of said beams and having their opposite ends supported upon the base of said beams, suspension cables embedded in the web of the I blocks and projecting from each end of the blocks, plates extending transversely over the beams and provided with holes through which the ends of the suspension cables are passed and secured, said blocks having the ends of their upper flanges beveled and being provided with vertical walls of plane surface connecting the top and bottom flanges together at their ends and having the ends of their lower flanges recessed to receive the lower flange of the supporting beams and a layer of plastic material extending over the beams and blocks and embedding and securing the plates and projecting ends of the cables.

2. A building structure comprising supporting beams provided with a bottom base, filling blocks of I shape placed at each side of said beams and having their ends provided with vertical walls of plane surface connecting the top and bottom flanges together at their ends and having each lower corner cut away to form a hanging ledge 9 and a projecting ledge 10 forming a recess between them, the hanging ledge 9 of said blocks extending over the lower flange of the beams and said lower flange adjusting in the recess formed by the hanging and projecting ledges and the latter ledges 10 completely covering the lower flange of the beam, suspension cables embedded in the web of the blocks and projecting from the ends thereof, plates extending over the beams and provided with holes through which pass the ends of the suspension cables, being conveniently secured thereto and a layer of plastic material extending over the beams and blocks and embedding the securing plates and the ends of the suspension cables.

3. A building structure comprising supporting beams of I shape, filling blocks of I shape placed at each side of said beams and having their ends provided with vertical walls of plane surface connecting the top and bottom flanges together at their ends said vertical walls engaging with the web of the supporting beams, each block having an upper corner beveled to engage with the upper flange of the beams and each block having its lower corner cut away to form a hanging ledge 9 and a projecting ledge 10 which forms a recess between them, the top of the recess being beveled and said hanging ledges engaging with the lower flange of the beams, said flange adjusting itself in the recess formed by the hanging and the projecting ledges and said projecting ledges 10 covering the lower flange of the beams to the middle of the bottom base thereof, suspension cables embedded in the web of the blocks and projecting from the ends thereof, plates extending over the beams and provided with holes through which pass the ends of the suspension cables being conveniently secured, and a layer of plastic material extending over the beams and blocks and embedding the securing plates and the ends of the suspension cables.

939,001. PLUMBING JOINT-FITTING AND ATTACHMENT. WILLIAM J. FORSTER and PERCY M. FORSTER, Berkeley, Cal. Filed Nov. 29, 1907. Serial No. 404,276.



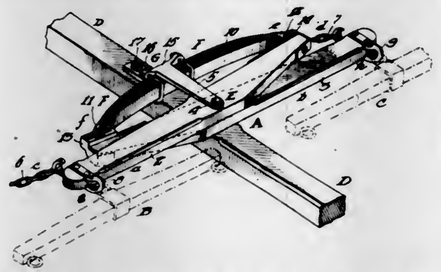
1. The combination with a bowl and a soil-pipe, of a ferrule for coupling the bowl to the soil-pipe, the ferrule being of smaller diameter than the soil-pipe, and provided with a flange extending over the top of the soil-pipe, the flange having arc-shaped open portions to permit the introduction of packing between the ferrule and the soil-pipe and means for securing the bowl to the flange of the ferrule.

2. The combination with a bowl and a soil pipe having an enlarged head substantially in line with and at a distance below the bowl, of an extension piece adapted to fit the head of the soil pipe, a screw-threaded sleeve fitting the upper end of the extension piece, and having a flange with arc-shaped open portions to permit the introduction of packing between the extension piece and the soil pipe, and means for securing the bowl to the flange of the connecting sleeve.

3. The combination with a bowl and a soil pipe, of an extension piece for coupling the bowl to the soil pipe, a flange screwed to the extension piece and registering with the base of the bowl, said flange having arc-shaped open portions to permit the introduction of packing between the extension piece and the soil pipe.

4. The combination with a bowl and a soil pipe having an enlarged upper end, of a ferrule for coupling the bowl to the soil pipe, the ferrule being of smaller diameter than the enlarged end of the soil pipe, and provided with a flange extending over the top of the soil-pipe, said flange having arc-shaped open portions to permit the introduction of packing between the ferrule and the soil pipe, and means for securing the bowl to the flange of the ferrule.

939,002. DOUBLETREE. GEORGE M. FRINK, Arcadia, Cal. Filed Dec. 10, 1908. Serial No. 466,886.

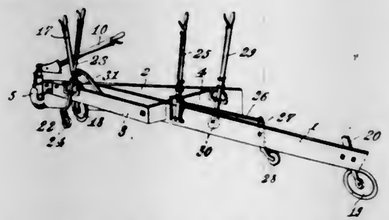


1. An improved draft appliance for vehicles, comprising a two-membered double-tree, both members being jointly pivotally connected with the vehicle structure intermediately of their ends, a leaf spring connected with the vehicle structure, and operative connections between one end of each of said members and one end of said leaf spring.

2. An improved draft appliance for vehicles, comprising a two-membered double-tree, both members being jointly pivotally connected with the vehicle structure intermediately of their ends, a leaf spring connected with the vehicle structure, and operative connections between one end of each of said members and one end of said leaf spring; said operative connections permitting play between said members and said leaf spring.

3. An improved draft appliance, comprising a two-membered double-tree, both members being pivotally connected with the vehicle structure intermediately of their ends, a leaf spring connected with the vehicle structure, and operative connections between each end of said leaf spring and one end of each of said members; said operative connections permitting play between said members and said leaf spring and comprising pins or bolts with which the end portions of the spring are respectively provided, and boxes secured to the respective members and which said pins respectively traverse.

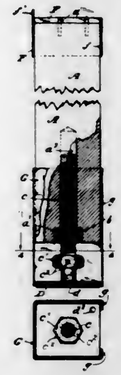
939,003. ROAD GRADER AND DRAG. ELMER B. FRITCHMAN, Humansville, Mo. Filed Mar. 26, 1909. Serial No. 485,951.



1. A machine of the class described comprising a frame embodying a scraper bar, a scraping blade applied thereto, supporting members for facilitating movement of the frame over the ground, a cutting disk arranged at the front end of the scraping bar, a standard mounted for vertical movement on the front end of the scraper bar and carrying said cutting disk, a toothed segment plate attached to the upper end of the standard, an arm projecting forwardly from the scraper bar, an operating lever pivoted to the segment plate, a link connecting an end of said lever with the arm above mentioned, whereby the standard may be raised and lowered with the cutting disk, and latch means on the last mentioned lever coacting with the segment plate to hold the standard at a desired adjustment.

2. In a machine of the class described, the combination of a longitudinal draft beam, a scraper bar connected between its ends with said beam and extending diagonal relative thereto, a scraping blade applied to the lower edge of said bar, the frame of the device including a side extending rearwardly from the front end of the scraper bar and parallel to the draft beam, a transverse rear bar connecting the rear end of the side with the rear end portion of the draft beam, rollers supported upon the side draft beam and rear portion of the scraper bar, levers for raising and lowering said rollers, a cutting wheel movably mounted on the side of the frame, a similar cutting wheel mounted on the rear end of the draft beam, and a cutting disk arranged at the front end of the scraper bar.

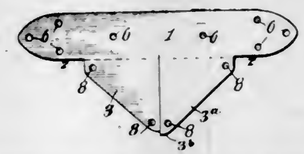
939,004. MEANS FOR HANGING DOORS, SCREENS, &c. THOMAS GILL, Follansbee, W. Va. Filed July 23, 1908. Serial No. 444,954.



1. In a door support, the combination of a post adapted to fit into a door opening, a door hinged thereto, a nut disposed in the lower end of said post, a bolt having a threaded portion arranged to engage the nut, said bolt being provided with a rounded lower end, a bearing plate provided with a socket arranged to receive the rounded end of the bolt and a vertically slidable shield adapted to inclose the lower end of the post and the bearing plate.

2. In a door support the combination of a post adapted to fit into a door opening, a bolt set into the end of the post and adapted to elongate the post, said bolt being provided with an enlarged portion having openings arranged to receive a tool for turning the bolt, and a bearing plate provided with a recess arranged to receive the end of the bolt and to turn about said end.

939,005. CORNER-IRON FOR BASKETS, BOXES, &c. FREDERICK W. GOEDEKE, Evansville, Ind. Filed Jan. 19, 1909. Serial No. 473,037.

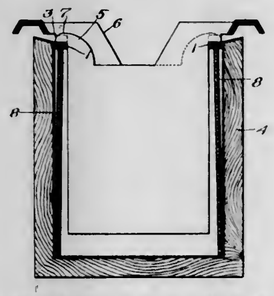


1. A corner iron for baskets, boxes, etc., stamped from a single piece of sheet metal and consisting of a substantially oblong body portion, and approximately triangular extensions projecting at right angles from one side of the body portion between the ends thereof, said body portion being extended beyond the triangular extensions and having perforations for the attachment of the corner iron, and

folded longitudinally along the inner margins of the triangular extensions to arrange the latter horizontally and the body portion vertically, and also folded centrally at right angles to the longitudinal fold to form two sides or wings and to overlap the triangular extensions forming a reinforced bottom of two plies or thicknesses, the said triangular extensions being provided with depressed interfitting bosses and having registering perforations, and fastening devices arranged in the said perforations and securing the plies or thicknesses of the bottom together.

2. A corner iron for baskets, boxes, etc., stamped from a single piece of sheet metal and consisting of a substantially oblong body portion, and approximately triangular extensions of unequal length projecting centrally from one side of the body portion, said body portion being extended beyond the triangular extensions to provide attaching portions, and folded longitudinally along the inner margins of the triangular extensions to arrange the latter horizontally and the body portion vertically, and also folded centrally at right angles to the longitudinal fold to form two sides or wings and to overlap the triangular extensions forming therewith a reinforced bottom of two plies or thicknesses, the longer triangular extension being depressed and arranged beneath the shorter extension, and the said extensions being provided with registering perforations, and fastening devices passing through the said perforations and securing the plies or thickness of the bottom together.

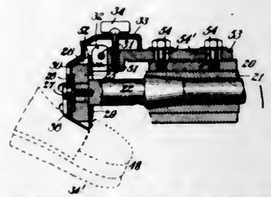
939,006. STORAGE BATTERY. GERHARD M. W. GOETTLING, Brookline, Mass. Filed Jan. 4, 1909. Serial No. 470,681.



1. In a storage battery, the combination with a series of successive battery plates, opposite supporting plates extending transversely of the adjacent ends of said series of plates, and a removable insulator bar at each side of the battery, separate from said supporting plates and from said series of battery plates, provided on its under side with a longitudinal alining recess removably fitting lengthwise along the top edge of the adjacent supporting plate and on its upper side with a series of transverse grooves spaced apart in accordance with said battery plates, one groove for each of the successive battery plates, and each battery plate having at each of its upper corners a laterally projecting ear for suspending the plate in the adjacent transverse groove of the adjacent bar, whereby each battery plate of the battery is suspended at its opposite upper corners in the transverse grooves of the opposite removable insulator bars and is supported at both sides by the two bars and the two supporting plates, and whereby the weight of all the battery plates of the battery is distributed throughout the length of the supporting plates by means of said two removable insulator bars.

2. In a storage battery, the combination with a series of successive battery plates, opposite supporting plates extending transversely of the adjacent ends of said series of plates, and a removable insulator bar at each side of the battery, separate from said supporting plates and from said series of battery plates, provided on its under side with a longitudinal alining recess removably fitting lengthwise along the top edge of the adjacent supporting plate and on its upper side with a series of transverse grooves spaced apart in accordance with said battery plates, one groove for each of the successive battery plates, said longitudinal grooves on the under side of said bars being relatively shallow and said transverse grooves on the upper side of said bars being relatively deep, and each battery plate having at each of its upper corners a laterally projecting ear for suspending the plate in the adjacent transverse groove of the adjacent bar, whereby each battery plate of the battery is suspended at its opposite upper corners in the transverse grooves of the opposite removable insulator bars and is supported at both sides by the two bars and the two supporting plates, and whereby the weight of all the battery plates of the battery is distributed throughout the length of the supporting plates by means of said two removable insulator bars.

939,007. MACHINE FOR RANDING AND CUTTING IN THE SHANKS OF SHOES. CHARLES S. GOODING, Brookline, and SYDNEY E. TAFT, South Framingham, Mass.; said Taft assignor to said Gooding. Filed Feb. 15, 1909. Serial No. 478,038.



1. A machine for trimming the edge of the sole of a shoe adjacent to the breast of the heel having, in combination, a rotary cutter adapted to extend inwardly in front of the breast of said heel and means to position said shoe, so that said cutter will cut transversely of and trim and remove the trimmed material from the edge of said sole in line with and in front of the breast of said heel.

2. A machine for trimming the edge of the sole of a shoe adjacent to the breast of the heel having, in combination, a rotary cutter adapted to extend inwardly in front of the breast of said heel and a gage adapted to bear against the breast of said heel, said cutter adapted to cut transversely of and trim the edge of said sole up to and in front of the breast of said heel.

3. A machine for trimming the edge of the sole of a shoe adjacent to the breast of the heel having, in combination, a rotary cutter adapted to extend inwardly in front of the breast of said heel and a gage fast thereto adapted to bear against the breast of said heel, said cutter adapted to cut transversely of and trim the edge of said sole up to and in front of the breast of said heel.

4. A machine for trimming the edge of the sole of a shoe adjacent to the breast of the heel, having, in combination, a rotary cutter in two parts adapted to extend inwardly in front of the breast of said heel, one part having teeth in its periphery, the other part being a disk having a smooth periphery and constituting a gage adapted to bear against the breast of said heel, said cutter adapted to cut transversely of and trim the edge of said sole in line with and in front of the breast of said heel.

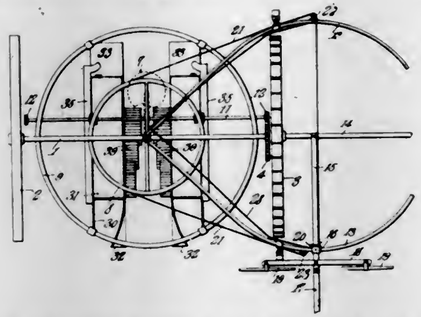
5. A machine for trimming the edge of the sole of a shoe adjacent to the breast of the heel, having, in combination, a rotary cutter in two parts, one part having teeth in its periphery, the other part being a disk having a cutting edge and constituting a gage adapted to bear against the breast of said heel, said cutter adapted to cut transversely of and trim the edge of said sole in line with and in front of the breast of said heel.

[Claims 6 to 25 not printed in the Gazette.]

939,008. COTTON-HARVESTER. CLARENCE N. GOODWIN, Washington, D. C. Filed Feb. 13, 1909. Serial No. 477,731.

1. In a cotton harvester, a shaft journaled for rotation and having a continuous groove, a sleeve journaled for rotation, a picker slidably mounted in the sleeve, and means carried by the picker for engaging the groove in said shaft.

2. In a cotton harvester, a shaft journaled for rotation and having a continuous groove, a sleeve journaled for rotation, a picker slidably mounted in the sleeve and rotating with the same, and means carried by the picker for engaging the groove in the said shaft.



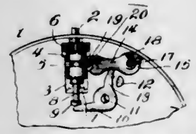
3. In a cotton harvester, a shaft journaled for rotation and having a continuous groove, a sleeve journaled for rotation and operatively connected with the said shaft, a picker slidably mounted in said sleeve and rotating with the same and means mounted upon the picker and engaging the groove in the said shaft.

4. In a cotton harvester, a shaft journaled for rotation, a gear wheel fixed to the shaft, said shaft having a continuous groove, a sleeve journaled for rotation, a gear wheel carried by the sleeve and meshing with the gear wheel upon the shaft, a picker slidably mounted in the sleeve and rotating with the same and means carried by the picker and engaging the groove in the said shaft.

5. In a cotton harvester, a shaft journaled for rotation and having a continuous groove, a gear wheel mounted upon the said shaft, a sleeve journaled for rotation, a gear wheel carried by the sleeve and meshing with the first said gear wheel, a picker slidably mounted in the sleeve and rotating with the same, and means resiliently supported upon the picker and engaging the groove in said shaft.

[Claims 6 to 15 not printed in the Gazette.]

939,009. SETTING DEVICE FOR WATCHES. JOHN H. GORMAN, Salisbury, N. C. Filed Nov. 17, 1908. Serial No. 463,047.



1. In a setting device for watches, a sliding collar having its ends provided with teeth adapted to engage with the winding or setting wheels of the watch, of a collar operating member provided with integrally formed oppositely disposed spring ends pivotally connected to the plates of the watch and one of said spring ends engaging the sliding collar.

2. A sliding collar for watches having two faces adapted to be engaged by a winding or a setting mechanism, of a collar operating device comprising a pivoted member having integrally formed oppositely disposed arcuate spring ends, one of said ends contacting with the sliding collar, and an L-shaped lever adapted to be contacted by the stem of the watch and to have one of its arms engage the operating device to wind the same upon its pivot and to force the toothed collar into engagement with the winding mechanism of the watch.

3. A toothed collar sliding mechanism for watches comprising a member having curved sides, said member being constructed of resilient material, and having its end slit to provide a spring member and its opposite end adapted to engage with the sliding collar.

4. A clutch operating device for the purpose set forth comprising a flat rectangular member having curved sides, said member having both of its ends incut to provide shoulders and being also provided with curved slits whereby the ends of the device are provided with spring extensions adapted to exert pressure in opposite directions.

5. An operating member of the character set forth constructed of resilient material and having its ends provided with arcuate integrally formed spring sections, one of said sections having a perforation adapted for the reception of a securing element, the opposite section having an extending finger and the said spring sections adapted when under pressure to contact with the body of the member.

939,010. FEED-WATER PURIFIER. THOMAS GRIEVE, Perth Amboy, N. J. Filed Mar. 22, 1909. Serial No. 484,974.



1. A feed water purifier or cleaner comprising a horizontal receptacle having an imperforate bottom and sides and a feed water inlet at one end and an outlet at its other end, a series of separated deflecting plates shorter than the width of the receptacle and secured within the same and inclined toward the outlet, and a second series of deflecting plates interposed between the first series of plates and inclined toward the inlet, said two series of plates forming a continuous and sinuous passage in said receptacle, a blow-off pipe having a series of openings and parallel and adjacent each side, whereby the feed water is compelled to flow alternately forward and backward across the bottom and toward the blow-pipe openings.

2. A feed water purifier or cleaner comprising a horizontal receptacle having an imperforate bottom and sides and a feed water inlet at one end and an outlet at its other end, a series of separated and curved deflecting plates shorter than the width of the receptacle and secured within the same and inclined toward the outlet, and a series of similar deflecting plates interposed between the first series of plates and inclined toward the inlet, said two series of plates forming a continuous and sinuous passage in said receptacle, a blow-off pipe having a series of openings and parallel and adjacent each side, whereby the feed water is compelled to flow alternately forward and backward across the bottom and toward the blow-off pipe openings.

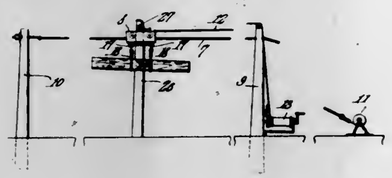
3. A feed water purifier or cleaner comprising a horizontal receptacle having an imperforate bottom and sides and a feed water inlet at one end and an outlet at its other end, a series of separated and curved deflecting plates shorter than the width of the receptacle and secured within the same and inclined toward the outlet, and a series of similar deflecting plates interposed between the first series of plates and inclined toward the inlet, the distance between said two series of plates gradually increasing from the inlet toward the outlet end and forming a continuous and sinuous passage in said receptacle, whereby the feed water is compelled to flow alternately forward and backward across the bottom.

4. A feed water purifier or cleaner comprising a horizontal receptacle having an imperforate bottom and sides and a feed water inlet at one end and an outlet at its other end, a series of separated deflecting plates shorter than the width of the receptacle and secured to a side wall and within the receptacle and inclined toward the outlet, a second series of similar deflecting plates secured to the opposite side wall and interposed between the first series of plates and inclined toward the inlet, said distance between the two series of plates gradually increasing from the inlet toward the outlet end, said two series of plates forming

a continuous and sinuous passage in said receptacle and compelling the feed water to flow alternately forward and backward across the bottom, and a blow-off pipe communicating with the bottom of the receptacle and adjacent to the side wall.

5. A feed water purifier or cleaner comprising a horizontal receptacle having an imperforate bottom and sides and a feed water inlet at one end an outlet at its other end, a series of separated and curved deflecting plates shorter than the width of the receptacle and secured to side wall and within the receptacle and inclined toward the outlet, a series of similar deflecting plates secured to the opposite side wall and interposed between the first series of plates and inclined toward the inlet, said two series of plates forming a continuous and sinuous passage in said receptacle, and compelling the feed water to flow alternately forward and backward across the bottom, and a blow-off pipe having a series of openings connected with the receptacle and adjacent to the side wall.

939,011. LOG-CONVEYER. RUFFUS GROGAN and CASTY HENSON, Canton, N. C. Filed July 3, 1909. Serial No. 505,898.



1. In a conveyer, an elevated trackway, a carriage mounted thereon, a slide mounted on the carriage, log holding means on the slide, a latch for locking the slide to the carriage, a trip device on the carriage for releasing the latch, and means for operating the trip device.

2. In a conveyer, an elevated trackway, a carriage mounted thereon, a slide mounted on the carriage, log holding means on the slide, a latch for locking the slide to the carriage, a trip on the carriage for releasing the latch, and means for actuating the trip device, said means being mounted adjacent to the trackway in the path of said device.

3. In a conveyer, an elevated trackway, a carriage mounted thereon, said carriage having laterally directed flanges on its bottom, a slide having flanges engageable with the flanges of the carriage, and said flanges having alined openings, a latch stem engageable with said openings, a lever operatively connected to the latch stem for withdrawing the same, means for actuating the lever, and log holding means on the slide.

4. In a conveyer, an elevated trackway, a carriage mounted thereon, said carriage having laterally directed flanges on its bottom a slide having flanges engageable with the flanges of the carriage, said flanges having alined openings, a latch stem engageable with said openings, a lever operatively connected to the latch stem for withdrawing the same, a trip device located adjacent to the trackway in the path of the lever, and log holding means on the slide.

5. In a conveyer, an elevated trackway, a carriage mounted thereon, said carriage having laterally directed flanges on its bottom, a slide having flanges engageable with the flanges of the carriage, and said flanges having alined openings, a latch stem engageable with said openings, a lever operatively connected to the latch stem for withdrawing the same, said lever being hook-shaped at one of its ends, a trip device extending transversely of the trackway in the path of the hook-shaped end of the lever, and log holding means on the slide.

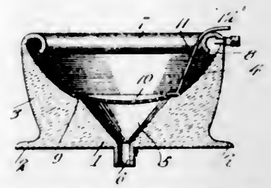
[Claims 6 to 9 not printed in the Gazette.]

939,012. INFANT'S BAND. JANE GUNDEL, Boston, Mass. Filed Apr. 28, 1909. Serial No. 492,699.



An infant's band, comprising a body portion adapted to fit the abdomen and encircle the back of the wearer, arms formed integral with said body portion and projecting from the upper and lower edges at each side thereof, said arms being disposed so as to form a substantial space between the same, said body portion having spaced transversely extending openings near the center of the band, and in line with and substantially equal in length to the width of said arms, through which said arms on one side of the body portion, are adapted to be passed in a flat condition, substantially as described.

939,013. CUSPIDOR. DUDLEY V. HADDOCK, St. Petersburg, Fla. Filed Jan. 8, 1909. Serial No. 471,301.



1. A cuspidor comprising a receiving bowl having an inwardly turned hollow rim, and provided in its bottom with an outlet and a seat above the outlet, a water supply pipe communicating with the rim, a strainer plate adapted to rest upon said seat, and a handle carried by the plate and having its upper end bent to form a grip to rest upon the rim and project slightly beyond the same.

2. A cuspidor comprising a bowl having an outlet and a hollow rim, a removable strainer guarding the outlet, a nozzle extending through the outer side of the rim into the channel of the rim and provided with a right angularly bent tapered extremity bearing against said outer side of the rim, a threaded coupling engaging the outer end of the nozzle, and a washer surrounding the nozzle and clamped by the coupling against the wall of the rim.

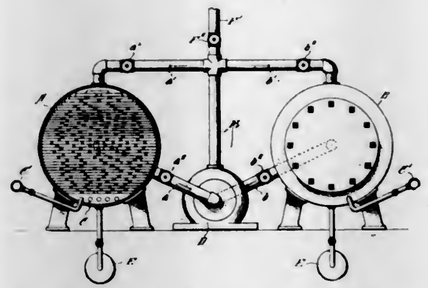
3. A cuspidor comprising a base carrying a body provided with a conical discharge outlet in its lower portion, a horizontal seat surrounding the upper end of the outlet, and a bowl shaped chamber above the outlet, said chamber having its side wall converging outwardly with relation to the outer wall of the body to form a reduced portion at the upper end of the chamber, said reduced portion being inwardly turned to form a hollow channel, a water supply nozzle entering said channel, a strainer plate resting upon said seat, and a handle carried by the strainer and having a curved free end resting upon the wall of the channel.

939,014. ART OF COLORING WOOD. WILLIAM A. HALL, New York, N. Y., assignor to American Mahogany Company, a Corporation of Maine. Filed Nov. 6, 1907. Serial No. 400,989.

1. The herein described process of producing variegated wood, consisting in treating the wood with a solution comprising ingredients of different capillary activity or different penetrating qualities.

2. The herein-described process of producing variegated colored wood, consisting in treating the wood, in a closed receptacle, and with the aid of vacuum and high preasure, with a solution comprising ingredients of different capillary activity or different penetrating qualities.

939,015. ART OF COLORING WOOD. WILLIAM A. HALL, New York, N. Y., assignor to American Mahogany Company, a Corporation of Maine. Filed May 7, 1908. Serial No. 431,531.



1. The herein described process for coloring lumber containing tannin, consisting in forcing heated ammoniacal gas into and throughout the wood by pressure, so that the action of the said gas on the tannin in the wood will color the same chemically throughout.

2. The herein described process for coloring lumber containing tannin, consisting in subjecting the wood to a vacuum process, in a closed receptacle, to exhaust the air therefrom, and then forcing an ammoniacal gas into and throughout the wood, by pressure, thus causing such gas to permeate the wood throughout, so that the action of the said gas on the tannin in the wood will color the same chemically.

3. The herein-described process for coloring wood containing tannin, consisting in heating the wood in a closed receptacle to expand the air contained therein, then subjecting the wood to vacuum treatment to exhaust the air therefrom, and then forcing ammoniacal gas into the wood, by pressure, thus causing such gas to permeate the wood throughout to color the same chemically by acting on the tannin.

4. The herein described process for coloring wood containing tannin, consisting in subjecting the wood to vacuum treatment to exhaust the air therefrom, then forcing ammoniacal gas into the wood, thereby causing such gas to permeate the wood throughout to color the same chemically by acting on the tannin, and then exhausting the ammoniacal gas from the wood by a second vacuum treatment.

5. The herein described process for coloring wood containing tannin, consisting in heating the wood in a closed receptacle to expand the air contained therein, then subjecting the wood to vacuum treatment to exhaust the air therefrom, then forcing ammoniacal gas into the wood by pressure, thus causing such gas to permeate the wood throughout to color the same chemically by acting on the tannin, and then exhausting the ammoniacal gas from the wood by a second vacuum treatment.

[Claims 6 to 10 not printed in the Gazette.]

939,016. ART OF COLORING AND GRAINING WOOD. WILLIAM A. HALL, New York, N. Y., assignor to American Mahogany Company, a Corporation of Maine. Filed June 5, 1908. Serial No. 436,795.

1. Artificially grained and colored wood produced from a relatively common or inexpensive wood and having its surface indented to imitate grain figures and also having its body colored throughout to simulate in shade or appearance a relatively rare or costly wood, the coloring matter being largely lodged, as pigment deposits, in the softer or more porous and indented portions of the wood, but being also diffused throughout the denser parts of the wood.

2. The herein described process for producing artificially grained and colored wood, consisting in indenting the surfaces of the wood to simulate grain figures and infusing a coloring solution into the body of the wood and then diffusing the same throughout the wood by boiling or steaming the same.

3. The herein described process for producing artificially grained and colored wood, consisting in indenting the surface of the wood to simulate grain figures, then subjecting the wood to vacuum action, to withdraw the air therefrom, then forcing a coloring solution into and throughout the wood by pressure, and then diffusing the coloring material in the wood by boiling or steaming the same.

939,017. HAND MIXING-RECEPTACLE. ALBERT HALLENBERG, Fargo, N. D. Filed June 15, 1909. Serial No. 502,225.



1. A hand mixing receptacle, comprising an open-mouthed well constructed from flexible water retaining material to permit the walls thereof to be compressed the one against the other by the fingers of the operator to manipulate materials contained within said well, said walls having a corrugated inner surface adapted to assist in said manipulation.

2. A hand mixing receptacle, comprising an open-mouthed well constructed from a flexible rubber containing material to permit the walls thereof to be compressed the one against the other by the fingers of the operator to manipulate materials contained within said well, said walls having a corrugated inner surface adapted to assist in said manipulation.

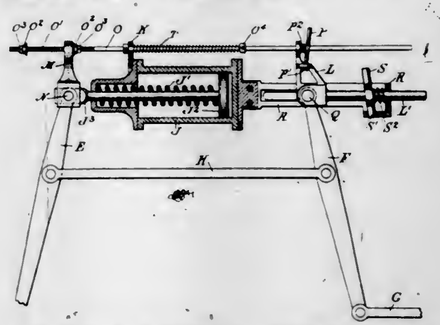
3. A hand mixing-receptacle, comprising a well formed from yielding material, adapted to hold the materials being mixed and having a funnel-shaped top leading into said well, said top being integrally formed with said well.

4. A hand mixing-receptacle, comprising a well formed from yielding material, and having an uneven surface on the inner wall thereof, adapted to hold the materials being mixed and having a funnel-shaped top leading into said well, said top being integrally formed with said well.

5. A hand mixing-receptacle, comprising a well formed from yielding material, and having a corrugated surface on the inner wall thereof, adapted to hold the materials being mixed, and provided with finger-holds extended from the sides thereof to receive the fingers of the operator.

[Claims 6 to 9 not printed in the Gazette.]

939,018. AUTOMATIC SLACK-ADJUSTER FOR BRAKES. RICHARD F. HAMILTON, New York, N. Y. Filed May 9, 1908. Serial No. 431,766.



1. In air brake mechanism, the combination with the brake cylinder, its piston and piston rod, and brake mech-

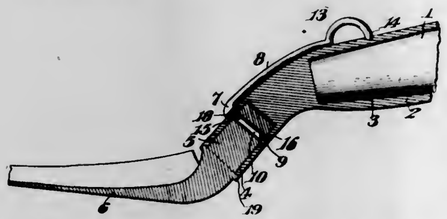
anism operated thereby, of a take-up rod connected with the brake mechanism and movable in line with the piston rod, a reach rod located to one side of the piston rod which latter has a limited independent movement after which the piston and reach rod move in unison to the same extent, retaining means for holding the take-up rod against movement in one direction, and retaining means engaging the reach rod adjacent to its axial line and carried by said take-up rod to move therewith yet allow the reach rod to move relatively to said second-named retaining means in the direction opposite to that in which the first-named retaining means allows the take-up rod to move.

2. In air brake mechanism, the combination with the brake cylinder, its piston and piston rod and brake mechanism operated thereby, of a take-up device connected with the brake mechanism, a retaining means carried by a relatively stationary part of the structure for holding the take-up device against movement in one direction, a reach rod relatively to which the piston has a limited independent movement after which the piston and the reach rod move in unison to the same extent, and retaining means carried by said take-up device to move in unison therewith in both directions and engaging the reach-rod to allow it to move relatively to the take-up device only in the direction opposite to that in which the first named retaining means allows the take-up device to move.

3. In air brake mechanism, the combination with the brake cylinder, its piston and piston rod, and brake mechanism operated thereby, of an arm connected with the piston rod rigidly, a reach-rod having two stops adapted to be engaged by said arm, a take-up rod movable parallel with the piston's path, and connected with the brake mechanism, retaining means for holding the take-up rod against movement in one direction and retaining means for compelling the reach-rod and take-up rod to move in unison in the opposite direction, while leaving the reach-rod free to move independently in the same direction in which the take-up rod is prevented from moving.

4. In air brake mechanism, the combination with the brake cylinder, its piston and piston rod, and brake mechanism operated thereby, of a take-up device connected with the brake mechanism and movable in line with the piston rod, an arm rigidly secured to the piston rod and projected therefrom laterally, a reach-rod arranged laterally of the piston rod and relatively to which the said arm has a limited movement after which the arm and reach-rod move in unison to the same extent, retaining means for holding the take-up device against movement in one direction, and retaining means for holding the reach-rod against movement relatively to the take-up device in the opposite direction.

939,019. COMBINED SHOVEL AND HOE. DERRICK B. HARTWELL, Roseworth, Idaho. Filed Apr. 13, 1909. Serial No. 489,553.



1. A combined shovel and hoe including a socket piece provided at its outer portion with a socket arranged at an obtuse angle to the inner portion, a blade having a shank arranged at an obtuse angle to it and fitted in the socket and adapted to be reversed, whereby the blade is adapted to extend from the handle in a longitudinal direction or at substantially right angles to the said handle, and a locking device journaled in the socket and passing through the shank to lock the latter in the socket.

2. A combined shovel and hoe including a handle, a socket piece having an enlarged inner socket portion receiving the handle, said socket piece being also provided with a reduced outer portion forming a socket and arranged at an obtuse angle to the socket, a blade having a shank arranged at an obtuse angle to it and fitted in the outer socket and reversible to arrange the blade either longitudinally of the handle or substantially at right angles thereto, and a locking device journaled in the socket and passing through the shank to lock the latter in the socket.

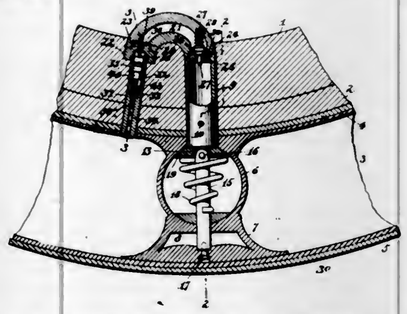
3. A device of the class described including a socket piece having a key hole opening, a reversible shank fitted in the socket and provided with a substantially T-shaped opening, and a locking lever having a pivot provided with a flange and adapted to be passed through the key hole opening of the socket and operable in the opening of the shank.

4. A device of the class described including a socket piece having a key hole opening, a reversible shank fitted in the socket and provided with a substantially T-shaped opening, and a locking lever consisting of a pivot provided with a flange and adapted to extend through the key hole opening of the socket piece and operable in the slot of the shank, and an operating arm engaging the socket piece and locking the pivot against rotation.

5. A device of the class described including a socket piece having a key hole opening, a reversible shank fitted in the socket and provided with a substantially T-shaped opening, and a locking lever consisting of an operating arm, and a pivot provided with a flange and adapted to extend through the key hole opening of the socket piece and operable in the slot of the shank, said operating arm being resilient and detachably engaging the socket piece for holding the flange in engagement with the shank.

[Claims 6 to 9 not printed in the Gazette.]

939,020. INFLATING DEVICE FOR TIRES. EMILE HAYNE, Bisbee, Ariz. Filed Aug. 19, 1907. Serial No. 389,259.

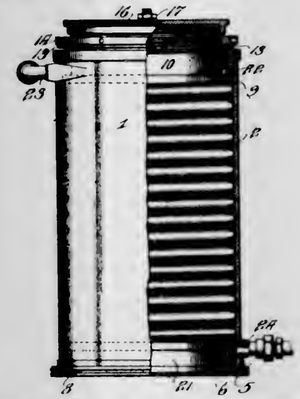


1. The combination with a tire having a chamber therein inclosed with respect to the interior of the tire, of a casing, a plunger within said casing and movable longitudinally thereof, a movable member controlling said plunger and operable by the compression of said tire, said member extending through said chamber, a spring within said chamber and holding said member in a normal position, and a valved passage effecting communication between said casing and said tire and adapted to permit the flow of a fluid therethrough in one direction.

2. The combination with a tire having therein a separate inclosed chamber and a foot rigid with said chamber and engaging at the inside of the tread portion of the tire, of a casing communicating with the outer air, a plunger within said casing and movable longitudinally thereof, a movable member controlling said plunger and extending through said chamber to said foot, said member having a part permanently secured within said foot, said member being operable by the radial compression of said tire, a spring within said chamber for holding said movable member in a normal position, a reservoir communicating with said casing, a one-way valve between said reservoir and said casing, a conduit effecting communication between said reservoir and said tire, and a second one-way valve controlling the flow of fluid from said reservoir through said conduit.

3. In a device of the class described, in combination, a tire having a chamber therewithin, a casing adapted to be carried by a vehicle wheel and communicating with said chamber, a plunger within said casing and movable longitudinally thereof, a movable member pivoted to said plunger and extending through said chamber, said movable member extending toward the outer side of said tire and being operable by the radial compression thereof, a spring within said chamber and holding said movable member in a normal position, said casing communicating with the outer air, a reservoir communicating with said casing, a spring-held valve permitting the flow of fluid from said casing to said reservoir, a conduit adapted to be carried by a vehicle wheel and effecting communication between said reservoir and said tire, and a second spring-held valve permitting the flow of fluid from said reservoir through said conduit in one direction.

939,021. LIQUID-COOLER. JOHN D. HENDRIX, Atlanta, Ga. Filed Apr. 1, 1909. Serial No. 487,167.

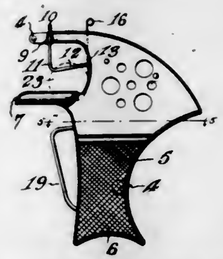


1. A cooler for the purpose specified comprising an outer cylindrical shell, an inner shell having a spirally corrugated body of such diameter that the outwardly extending ridges of the corrugations bear against the inner wall of the outer shell to form a spiral passage way between the outer and inner shell, a cup-shaped base at the lower end of the inner shell flanged to overlap the bottom edge of the outer shell, a neck at the upper end of said inner shell, and means for producing a tight joint between the upper portion of the outer shell and said neck consisting of a gasket holding ring, a gland, and a threaded ring or nut screwing around said neck, substantially as described.

2. A cooler for the purpose specified comprising an outer cylindrical shell, an inner spirally corrugated shell the outwardly extending ridges of which lie in contact with the inner surface of the outer shell, a cup-shaped base secured to the lower end of the inner shell and having the outer body portion or rim thereof inwardly offset to form an annular outlet channel, and a flange which overlaps the bottom edge of the outer shell, an outlet connection communicating with said outlet channel, a neck at the opposite end of the inner shell reduced in diameter to form an annular inlet channel, an inlet connection leading to said channel, and means for producing a tight joint between the outer shell and said neck consisting of a gasket-holding ring on the outer shell, a gland embracing the neck, and a nut screwing upon said neck and coöperating with the gland, substantially as described.

3. A cooler for the purpose specified comprising an outer cylindrical shell, an inner spirally corrugated shell the outwardly extending ridges of which lie in contact with the inner surface of the outer shell, annular inlet and outlet channels arranged at opposite ends of the spiral passage-way thus formed between the two shells, inlet and outlet connections leading to said annular channels, joint-forming means for effecting a liquid tight connection between said shells at or near the opposite ends thereof, a permanent closure for one end of the inner shell, and a detachable closure for the other end of said shell, the joint forming means at one end of the cooler being removable to permit the shells to be separated one from the other.

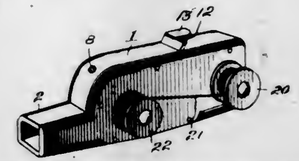
939,022. TOY. GRANT HENERY, Zanesville, Ohio. Filed Sept. 30, 1908. Serial No. 455,581.



1. A toy of the class described comprising a hollow sectional frame, a half barrel or gutter projecting therefrom, a projectile retainer embodying inwardly converging spring arms which act to clasp the projectile at opposite sides of its vertical axis and hold the same against the half barrel, a spring for throwing the projectile, means for holding the spring set, and a trigger for releasing the spring.

2. A toy of the class described comprising a hollow sectional frame, means for holding a projectile, a projectile throwing spring, a spring holdback shoulder with which the spring is adapted to be engaged when set, a pivoted trigger embodying a spring arm, and means with which the trigger coöperates to impart a lateral movement to the spring arm, the latter acting on the throw spring to dislodge the same in a lateral position from behind said shoulder.

939,023. TRICK LUNG-TESTER. CHARLES E. HERD, Middlesboro, Ky. Filed July 28, 1908. Serial No. 445,789.



1. A trick device comprising a body portion formed with an air passage and a chamber having an inlet and an outlet, a mouth piece, and means whereby the continuity of the passage is interrupted and the inlet and the outlet are opened.

2. A trick device comprising a body portion formed with an air passage and a chamber having an inlet and an outlet, a mouth piece, and means for simultaneously opening the inlet and the outlet.

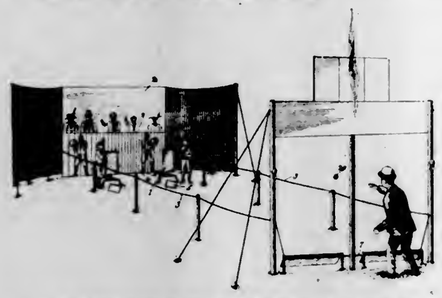
3. A trick device comprising a body portion formed with an air passage and a chamber having an inlet and an outlet, a movable pan in said chamber, means limiting the movement of the pan, a mouth piece, and means whereby the continuity of the passage is interrupted and the inlet and the outlet opened.

4. A trick device comprising a body portion formed with an air passage and a chamber having an inlet and an outlet, a movable pan in said chamber, a movable member, an

inlet closure on said member, an outlet closure carried by the member, an operating device carried by the member whereby the continuity of the passage is interrupted and the inlet and the outlet opened.

5. A trick device comprising a body portion formed with an air passage, a recess and a chamber having an inlet and an outlet, a mouth piece, a shaft extending through the recess and beyond one of the walls of the body portions, a rotatable element mounted upon the portion of the shaft within the recess, a rotatable element mounted upon the shaft without the body portion, a rotatable element secured on the outside of the said body portion, a flexible element passing from one element to the other, a movable member carried by the body portion, an inlet closure and an outlet closure carried by said member, an operating device carried by said member whereby the continuity of the passage will be closed and the inlet and outlet opened, and a spring for automatically opening the passage and closing the inlet and the outlet.

939,024. GAME. HARRY E. HIRE, Mark Center, Ohio. Filed Dec. 3, 1908. Serial No. 465,772.



1. In a game apparatus, a plate such as is used at the home base in a game of base ball, adapted to be disposed on the ground to serve as a guide for the player in throwing a ball, and a strike-indicating device having a member disposed substantially at right angles to the plate, the said member being substantially as wide as the distance between the lateral extremities of the plate; and extending vertically from a point above the plane of the plate and in the rear thereof, equal to the average height of the knee of a man from the ground, to a point equal to the average height of a man's shoulder from the ground so that it will be struck when the player succeeds in throwing a ball over the plate at such a distance from the ground that in the game of baseball it would be called a strike.

2. In a game apparatus, a plate such as is used at the home base in a game of baseball to serve as a guide for the player in throwing a ball, a strike-indicating device having a member disposed substantially at right angles to the plate, the said member being substantially as wide as the distance between the lateral extremities of the plate and extending vertically from a point above the plane of the plate and in the rear thereof, equal to the average height of the knee of a man from the ground to a point equal to the average height of a man's shoulder from the ground so that the member will be struck by a ball when the player succeeds in throwing it over the plate at such a distance from the ground that in the game of baseball it would be called a strike, an indicator, and means connected with the strike-indicating device, which are adapted for operating the indicator.

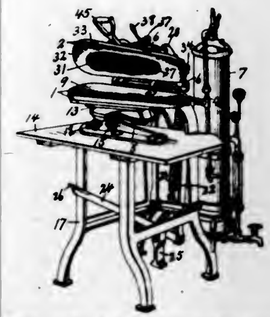
3. In a game apparatus, a plate such as is used at the home base in a game of baseball to serve as a guide for the player in throwing a ball, a strike-indicating device, consisting of a member disposed substantially at right angles to the plate, the face of the said member being substantially as wide as the distance between the lateral extremities of the plate and extending vertically from a point above the plane of the plate and in the rear thereof equal to the average height of the knee of a man from the ground to a point equal to the average height of a man's shoulder from the ground, which will be struck by a ball when the player succeeds in throwing it over the plate at such a distance from the ground that in the game of baseball it would be called a strike, a frame, arms pivoted to the frame, a second frame pivoted to the said arms, the said member being secured to the second frame, and means for holding the second frame yieldingly in one position.

4. In a game apparatus, a plate such as is used at the home base in the game of baseball to serve as a guide for the player in throwing a ball, a figure representing a ball player at the bat, the figure being disposed at one side of the plate, and a strike-indicating device having a member substantially at right angles to the plate, the width of the strike indicating device being substantially the same as the distance between the lateral extremities of the plate, the member extending in the rear of the plate from a point substantially at the level of the knee of the figure to a point substantially at the level of the shoulder of the figure to indicate when the player succeeds in throwing a ball over the plate at such a distance from the ground that in the game of baseball it would be called a strike.

5. In a game apparatus, a plate such as is used at the home base in a game of baseball to serve as a guide for the player in throwing a ball, a strike-indicating device having a member disposed substantially at right angles to the plane of the plate and in the rear thereof, the member being substantially as wide as the distance between the lateral extremities of the plate and extending vertically from a point above the plane of the plate and in the rear thereof equal to the average height of the knee of a man from the ground to a point equal to the average height of a man's shoulder from the ground so that the member will be struck by a ball when the player succeeds in throwing it over the plate at such a distance from the ground that in the game of baseball it would be called a strike, said strike-indicating device also including a frame, arms pivoted to the frame, a second frame pivoted to the arms, the said member being secured to the second frame, an electrical circuit, a circuit breaker, a bell in the electrical circuit, means for keeping the circuit breaker yieldingly open, a member on the strike-indicating device being adapted for closing the circuit breaker when the strike-indicating device is operated, and means for holding the last named member yieldingly away from the circuit breaker.

[Claims 6 to 9 not printed in the Gazette.]

939,025. STEAM CLOTHES-PRESS. ADON J. HOFFMAN, Syracuse, N. Y. Filed Mar. 28, 1908. Serial No. 423,931.



1. In a clothes press, a main supporting frame, a hollow buck mounted on said frame and having an imperforate top, a cloth secured to the buck and extending across its top face, means for introducing steam into the interior of the buck for heating the same, a press head hinged to the frame and provided with a steam chamber having a perforated bottom, a press cloth secured to the head and extending across the perforated bottom, and means for introducing steam into the press head and through said perforated bottom and press cloth against the upper surface of the garment, the imperforate top of the buck serving to prevent the passage of the steam through the garment.

2. In a clothes press, a main supporting frame, a buck journaled near one end upon the supporting frame to swing horizontally and provided with an imperforate top, a cloth covering the top of the buck and secured thereto, a superposed press head hinged to the frame and provided with a steam chamber having a perforated bottom, a press cloth covering the perforated bottom of the press head, means for introducing steam into the press head and through its foraminous bottom and press cloth against the upper surface of the garment, and means other than the weight of the press head for forcing the latter toward the buck.

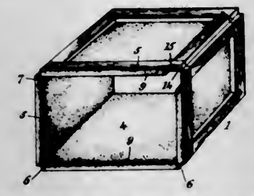
3. In a clothes press, a main supporting frame, a horizontally movable buck mounted on the frame and provided with a steam chamber having an imperforate top, means for introducing steam into the steam chamber of the buck, a cloth covering the imperforate top of the buck and secured thereto, a superposed press head hinged to the frame and provided with a steam chamber having a perforated bottom, a press cloth secured to the press head and extending across and under the perforated bottom, means for introducing steam into the press head and through said perforated bottom and press cloth against the upper surface of the garment, and mechanism for forcing the press head toward the buck, the imperforate top of said buck serving to prevent the passage of steam through the garment while under pressure.

4. In a clothes press, a main supporting frame, a hollow buck mounted on the frame having an imperforate top and provided with a lengthwise channel in its upper face, a cloth covering the top and channel of the buck and secured thereto, means for introducing steam into the buck, a superposed press head hinged to the frame and provided with a perforated bottom, a press cloth secured to the head and extending across the under side of the perforated bottom, means for projecting steam through the perforated bottom and press cloth against the upper surface of the garment, and additional means other than the weight of the head for pressing said head toward the buck.

5. In a clothes press, a main supporting frame, a buck mounted on the frame, a pad detachably mounted upon one end of the buck and resting upon a portion of the top face thereof, a superposed press head hinged to the frame and provided with a perforated bottom, a press cloth extending across the perforated bottom of the head and secured thereto, and means for forcibly pressing the head toward the buck, said buck with the pad thereon being movable horizontally relatively to the head.

[Claims 6 to 10 not printed in the Gazette.]

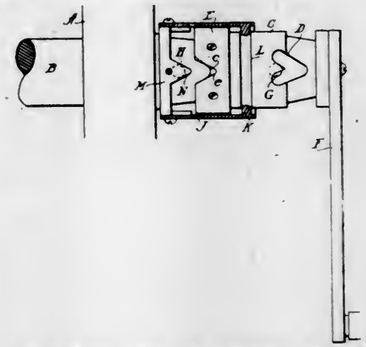
939,026. KNOCKDOWN BOX. WILLIAM L. HOWLAND, Cedar Rapids, Iowa. Filed Dec. 16, 1908. Serial No. 467,744.



1. In a knock down box, a box frame consisting of side frame members secured together at angles to each other open at the top and bottom, a continuous piece of material disposed close against the inner sides of the box frame, the sides of the piece of material projecting beyond the top and bottom of the box respectively, the projecting portions of the material being cut at the corners of the box and being bent over the top and bottom of the side frame members with the terminals of the continuous piece of material lapped over each other at one of the corners of the box, and top and bottom frame members which are secured to the top and bottom of the side frame members respectively and which hold the continuous piece of material in place against the side members with its lapped terminals bent at an angle.

2. In a knock down box, a box frame consisting of side members, wires in the side members, the wires passing obliquely from the abutting end of one side member to the abutting end of a neighboring side member, the terminals of the wires being turned at an angle to the body of the wires respectively, a continuous piece of material disposed against the inner sides of the box frame, the sides of the piece of material projecting beyond the top and bottom of the box, the projecting portions of the material being bent over the top and bottom of the side members, and top and bottom members which are secured to the top and bottom of the side members which hold the continuous piece of material in position.

939,027. SAFETY-CRANK. CARL C. ILG, New York, N. Y., assignor of one-half to Francis Nagy, New York, N. Y. Filed July 6, 1908, Serial No. 442,092. Renewed Sept. 20, 1909. Serial No. 518,617.



1. In a safety crank, the combination with the shaft having the diametrically projecting pins, of the sleeve having the V-slots and V-shaped recesses adapted for engagement with the pins, a crank secured to the said sleeve, and means adapted to hold the sleeve movably upon the shaft and for limiting its out and in movement, substantially as described.

2. In a safety crank, the combination with a shaft having the diametrically projecting pins and wedge-shaped teeth, of the sleeve having the V-slots and V-shaped recesses, a crank secured to the said sleeve, and means for guiding and retaining the said sleeve upon the shaft, substantially as described.

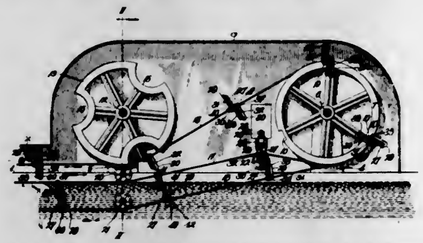
3. In a safety crank, the combination with a shaft having diametrical projecting pins, of a sleeve having V-slots and V-shaped recesses arranged to engage the pins, the said sleeve having a portion of reduced diameter near one end and the said V-slots being formed in part through the said portion of the sleeve, one of the said pins being shorter than the greater internal diameter of the said sleeve and adapted to engage the V-slots, substantially as described.

4. In a safety crank, the combination with a shaft having diametrical projecting pins and wedge-shaped teeth, of a sleeve having V-slots and V-shaped recesses arranged to engage the said pins and teeth of the shaft, the said sleeve having a portion of reduced diameter near one end and the said V-slots being formed in part through said reduced portion of the sleeve, one of the said pins being shorter than the greater internal diameter of the said sleeve, and adapted to engage the V-slots, substantially as described.

939,028. BOAT-PROPELLING MECHANISM. BENJAMIN F. JACOBS, Independence, Mo., assignor of one-fourth to Herbert G. Wilson, Kansas City, Mo. Filed Mar. 19, 1909. Serial No. 484,558.

1. A boat, pairs of peripherally-grooved wheels carried thereby, sets of endless connections connecting said wheels and engaging their grooves, grooved wheels between the

first-named wheels for bending or deflecting downward the upper strands of said connections and provided with peripheral recesses, guide sheaves below said recessed wheels for bending or deflecting downward the lower strands of one set of said connections, guide sheaves occupying a lower plane than the first-named sheaves, for deflecting to a lower plane the lower strands of the other connections, means for deflecting upward the lower strands of the first-named connections between the first-named sheaves and the first-named wheels, and equi-spaced paddles adapted to pass between the members of each pair of wheels and carried by and bearing a slidable relation to the said flexible connections so as to be capable of projecting beyond opposite sides of the same when the connections are side by side and bridging the space between the connections when the latter occupy different horizontal planes; said paddles being adapted to occupy recesses of said recessed wheels in passing the same.



2. A boat, pairs of peripherally-grooved and notched wheels carried thereby, sets of endless connections connecting said wheels and engaging their grooves, grooved wheels between the first-named wheels for bending or deflecting downward the upper strands of said connections and provided with peripheral recesses, guide sheaves below said recessed wheels for bending or deflecting downward the lower strands of one set of said connections, guide sheaves occupying a lower plane than the first-named sheaves for deflecting to a lower plane the lower strands of the other connections, means for deflecting the lower strands of the first-named connections upwardly between the first-named sheaves and the first-named wheels, equi-spaced paddles provided at opposite sides with oppositely-extending slotted flanges, and sleeves secured to said connections and provided with bolt-extensions slidingly engaging the slots of said flanges and adapted to engage notches of the first-named wheels in passing around the same; each paddle being also adapted to project into recesses of the said recessed deflecting wheels in passing the same.

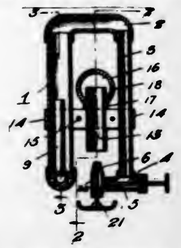
3. A boat, pairs of peripherally-grooved and notched wheels carried thereby, sets of endless connections connecting said wheels and engaging their grooves, grooved wheels between the first-named wheels for bending or deflecting downward the upper strands of said connections and provided with peripheral recesses, guide sheaves below said recessed wheels for bending or deflecting downward the lower strands of one set of said connections, guide sheaves occupying a lower plane than the first-named sheaves for deflecting to a lower plane the lower strands of the other connections, means for deflecting the lower strands of the first-named connections upward between the first-named sheaves and the first-named wheels, equi-spaced paddles extending from one set of the connections to the other and capable of passing between the first-named wheels and provided with arms to pass around said wheels and through the recesses of the recessed wheels and with oppositely-projecting flanges certain of which are adapted to pass between said wheels and the others around the first-named wheels and through the recesses of the other wheels, a pair of sleeves secured rigidly to each connection at opposite ends of each paddle, provided with inwardly-projecting bolt extensions slidably engaging the alined flanges, and means to prevent the connections from swinging or bending outward from the ends of the paddle.

4. A boat, pairs of peripherally-grooved and notched wheels carried thereby, sets of endless connections connecting said wheels and engaging their grooves, grooved wheels between the first-named wheels for bending or deflecting downward the upper strands of said connections, and provided with peripheral recesses, guide sheaves below said recessed wheels for bending or deflecting downward the lower strands of one set of said connections, guide sheaves occupying a lower plane than the first-named sheaves, for deflecting to a lower plane the lower strands of the other connections, means for deflecting the lower strands of the first-named connections upward between the first-named sheaves and the first-named wheels, equi-spaced paddles extending from one set of the connections to the other and capable of passing between the first-named wheels and provided with arms to pass around said wheels and through the recesses of the recessed wheels and with oppositely-projecting flanges, certain of which are adapted to pass between said wheels and the others around the first-named wheels and through the recesses of the other wheels, a pair of sleeves secured rigidly to each connection at opposite ends of each paddle, provided with inwardly-projecting bolt extensions slidably engaging the alined flanges, and nuts engaging the bolt extensions at the inner sides of the said flanges.

5. A boat, pairs of peripherally-grooved wheels carried thereby, and overhanging the water on which the boat floats, pairs of endless connections engaging said wheels, peripherally-notched sheaves engaging and depressing the lower strands of one pair of said connections, peripherally-notched sheaves engaging and depressing the lower strands of the other connections to a plane substantially below that of the lower strands of the first-named connections, paddles bridging the space between the pairs of connections and corresponding in width approximately to the space between the depressed lower strands of said connections, and means for slidably connecting the ends of said paddles to the adjacent pairs of connections so as to project beyond opposite sides of said connections when transversely alined and bridging the space between said connections when spaced apart.

[Claim 6 not printed in the Gazette.]

939,029. OIL-BURNER. WILLIAM S. JENKS, Los Angeles, Cal. Filed Apr. 19, 1909. Serial No. 490,765.



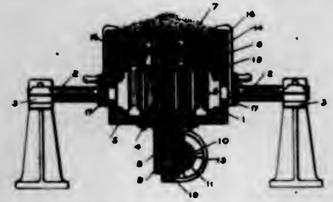
1. In a device of the class described, a generating tube, an oil supply pipe opening into said tube, above its lower end and at a point adjacent to the hottest part of the tube, a drain pipe connected to the lower end of said generating tube, a safety valve arranged in said drain pipe, a burner, and a gas conducting pipe to connect said generating tube with said burner.

2. In a device of the class described, a generating tube, an oil supply pipe opening into said tube, above its lower end and at a point adjacent to the hottest part of the tube, a drain pipe connected to the lower end of said generating tube, a safety valve arranged in said drain pipe, a burner, a valved gas conducting pipe to connect said generating tube with the burner, an injector on said gas pipe, a cleaning needle in said injector and a combined oil pan and handle on the outer end of said needle.

3. In a device of the class described, a generating tube, an oil supply pipe arranged in said generating tube to form a trap, a drain pipe connected to said tube, a burner tube, a burner arranged on said burner tube, and a gas pipe to conduct the gas from said generator tube to said burner tube.

4. In a device of the class described, a generating tube, a valved drain pipe connected to the lower end of said generating tube, a valved oil supply pipe connected with and projecting up into said generating tube to form a trap, a gas tube connected to the upper end of said generating tube, a burner supporting tube, means to hold said burner tube in operative position between the generating tube and the gas tube, a burner head, means to support said burner head on said burner tube whereby the upper end of the tube projects into said head above the bottom thereof, a valved injector arranged on the lower end of said gas tube below the burner tube and an oil pan arranged below said injector.

939,030. MOLDING-MACHINE. CHARLES W. KING, Birmingham, Ala. Filed July 25, 1908. Serial No. 445,411.



1. A molding apparatus comprising a support for a mold box, a receding stripping plate having openings, hollow patterns mounted over said openings, and fixed plungers mounted below said plate and adapted to make a close sliding fit in the openings in said patterns and project into and through the latter as they recede, said plungers standing level with the top of said stripping plate when in initial position, and means to reverse the mold box before causing the patterns to recede.

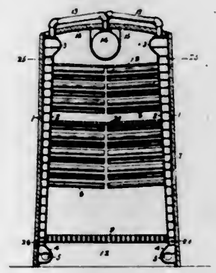
2. The combination with a reversible molding apparatus, of a mold box, means to clamp said mold box to said apparatus, a receding stripping plate forming a bottom closure for the box in initial position, hollow patterns mounted on said plate, means to lift said stripping plate, after the apparatus has been reversed, and withdraw the patterns from the sand, which has been tamped into and around them in said mold box, and means which abut against the sand cores, formed within the patterns, engaging them in a plane with the stripping plate and holding them against displacement as the patterns are withdrawn, substantially as described.

3. In a molding apparatus of the character described, a frame, means to pivotally support said frame, a receding stripping plate forming a part of the upper portion of said frame, a stem connected to said plate and means to move said stem to position said plate, hollow patterns connected to said plate which has openings opposite the openings in said patterns, and a plurality of fixed plungers which close the lower ends of said patterns in their initial position standing level with the surface of the stripping plate and which extend beyond the other ends of said patterns after the latter are moved to their other extreme position, substantially as described.

4. A molding apparatus comprising a receding stripping plate having one or more openings therein, a hollow pattern mounted over each opening, a plunger disposed below the plate, the upper end of which stands on a level with said upper surface of said plate and forms a bottom closure for each pattern which projects above said plate, means to reverse the apparatus, and means to move the stripping plate causing each pattern to slide up around its respective plunger, the position of said plunger with relation to the sand tamped within the patterns remaining unchanged.

5. In an apparatus of the character described, a frame mounted on trunnions, a mold box, means to clamp said box to said frame; the box being uppermost in its initial position and closed below by said frame, a movable plate forming part of said bottom closure for said box and having mounted thereon one or more hollow patterns disposed over openings in said plate, said frame carrying a plunger which serves as a bottom closure for said patterns in their initial position standing on a level with the upper surface of said stripping plate and also serves as a guide as the patterns are lowered with said plate, a follow board, and means to clamp same and said box to the frame, and means to withdraw said patterns from the mold box after sand has been tamped in the latter and the frame inverted, substantially as described.

939,031. WATER-TUBE BOILER. GEORGE KINGSLEY, New York, N. Y. Filed Oct. 1, 1908. Serial No. 455,631.



1. In a water-tube boiler, a water-wall comprising an inner and an outer plate spaced apart and marginally secured together and provided with stay-bolts, one of said plates being shaped with projecting swells to form an upper steam-drum and a lower mud-drum, and a series of inwardly-extending tubes secured to said inner plate and communicating with the water-wall and having their inner ends closed.

2. In a water-tube boiler, a water-wall comprising an inner and an outer plate spaced apart and marginally secured together and provided with stay-bolts, one of said plates being shaped with projecting swells to form an upper steam-drum and a lower mud-drum, and a series of inwardly-extending and downwardly-inclining tubes secured to said inner plate and communicating with the water-wall and having their inner ends closed.

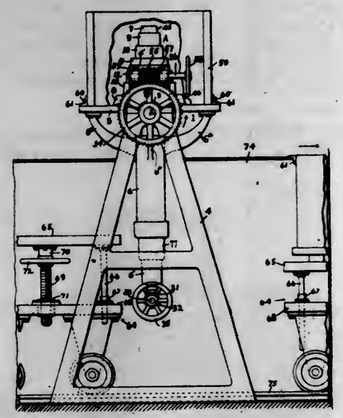
3. In a water-tube boiler, a water-wall comprising an inner and an outer plate spaced apart and marginally secured together and provided with stay-bolts, one of said plates being shaped with projecting swells to form an upper steam-drum and a lower mud-drum, and a series of inwardly-extending tubes secured to said inner plate and communicating with the water-wall, said inner and outer plates being spaced apart substantially parallel with each other between the mud-drum and the lowermost tubes, and said space having a gradually-increasing distance between said lowermost tubes and the steam-drum.

4. In a water-tube boiler, the combination with fuel-burning means, of a water-wall comprising an inner end and an outer plate spaced apart and provided with stay-bolts, one of said plates being shaped with projecting swells to form an upper steam-drum and a lower mud-drum, and a series of inwardly-extending tubes secured to the inner plate and communicating with the water-wall and having their inner ends closed.

5. In a water-tube boiler, the combination with fuel-burning means, of a pair of oppositely-disposed side water-walls comprising inner and outer plates, said inner plates being shaped at their top and bottom with inward swells to form upper steam-drums and lower mud-drums, said inner and outer plates being spaced apart, between the lowermost tubes and upper steam-drums, with gradually increasing distance, and a series of inwardly-extending tubes secured to the inner sheets and communicating with the water-walls and having their inner ends closed, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

939,032. MOLDING-MACHINE. VICTOR E. KNECHT, Cincinnati, Ohio. Filed Aug. 21, 1907. Serial No. 389,559.



1. In a molding machine, the combination of a plurality of relatively telescoping pattern-sections and a movable pattern-frame on which the same are mounted, and means for telescoping said pattern-sections movable with said pattern-frame.

2. In a molding machine, the combination of a swinging frame comprising a bed-plate, a pattern-head comprising a plurality of telescoping pattern-sections to one side of said bed-plate and means for telescoping said pattern-sections arranged to the other side of said bed-plate, said last-named means being mounted for movement with said bed-plate.

3. In a molding machine, the combination of a swinging frame comprising a housing, telescoping pattern-sections having telescoping extensions in said housing, and means for causing telescoping movement of said sections and extensions, said last-named means being mounted on and movable with said swinging frame.

4. In a molding machine, the combination of a swinging frame comprising a housing, telescoping pattern-sections having telescoping extensions in said housing, means for causing telescoping movement of said sections and extensions, said last-named means being mounted on and movable with said swinging frame, and, said housing having a bore for accommodating the movement of the ends of said extensions.

5. In a molding machine, the combination of a swinging frame comprising a housing, telescoping pattern-sections of relatively increasing diameter having telescoping extensions in said housing, means for causing telescoping movement of said sections and extensions, said last-named means being mounted on and movable with said swinging frame, the major one of said sections having a cavity for receiving a plurality of said sections upon the telescoping movement thereof, substantially as described.

[Claims 6 to 21 not printed in the Gazette.]

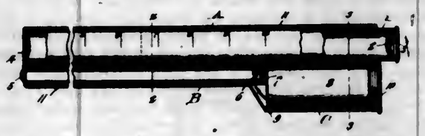
939,033. CLOTHES-LINE REEL AND TIGHTENER. RUSSELL M. KNEISLEY, Carrollton, Mo. Filed Apr. 7, 1908, Serial No. 425,772. Renewed Apr. 3, 1909. Serial No. 487,771.

1. In combination with a device comprising a base frame, a clothes line drum mounted in said base frame, means to prevent said drum from rotating in one direction, a hoisting rope drum also mounted in said frame, means to prevent such last mentioned drum from rotating in one direction, and a crank handle whereby to turn either of said drums at will, a clothes line attached to the clothes line drum, a guide element mounted above said device, and a hoisting rope guided by said element, having one end attached to the hoisting rope drum and provided at the opposite end with a block, said block being engaged by said clothes line for the purpose set forth.



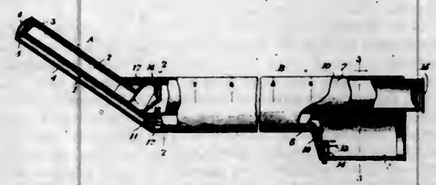
2. In combination with a pair of independently operable drums and means for rotating the same, a guide element, a hoisting rope guided by said guide element having an engaging device at one end and having its opposite end attached to one of said drums, a line having slidable engagement with said engaging device and having one end engaged with the other drum.

939,034. SURGICAL INSTRUMENT. JOHN W. KOLB, Fairfax, Okla. Filed Jan. 20, 1909. Serial No. 473,289.



In an instrument of the class described, the combination of a pair of tubular members disposed side by side, a battery casing connected with the members, an electric lamp in one of the members, a switch for connecting the lamp in circuit with the battery, an objective in the inner end of the other member and an adjustable eye piece in the outer end thereof, and a casing surrounding the two members.

939,035. SURGICAL INSTRUMENT. JOHN W. KOLB, Medicine Lodge, Kans. Filed June 5, 1909. Serial No. 500,254.



1. A surgical instrument of the character described comprising a body portion, and a dilator at one end of the body arranged at an obtuse angle thereto, said dilator consisting of a light tube and a reflecting tube and said body comprising a telescope and a conductor tube, an illuminator located at the juncture of the light and conductor tubes, and complemental reflectors located at the juncture of the reflecting tube and telescope so as to reflect the object rays from the reflecting tube through the telescope.

2. In an instrument of the character described, comprising a body portion and a dilator arranged at an obtuse angle thereto, said dilator consisting of a juxtaposed light and reflecting tubes having lenses at their outer ends, a sheath inclosing the two tubes, and a lens at the outer end of the sheath and protecting the outer ends of the said tubes and the lenses thereof.

3. In an instrument of the character described, the combination of a dilator comprising juxtaposed light and reflecting tubes, an illuminator for shedding rays of light through said light tube, complemental reflectors at the inner end of said reflecting tube, and a telescope having an oblong arrangement with reference to the dilator and adapted to receive the object rays from the reflectors at the inner end of said reflecting tube.

4. The herein described surgical instrument comprising a dilator and a body having a relatively obtuse angle arrangement, the dilator consisting of light and reflecting tubes provided at their outer ends with lenses, a sheath inclosing said tubes and provided at its outer end with a lens, said body comprising a telescope, a conductor tube and a battery case, the parts being inclosed by means of a sheath, an electric illuminator located at the inner end of said light tube, complemental reflectors at the inner end of said reflecting tube, the telescope having its inner end arranged to receive the object-rays from said reflectors, and means for closing the circuit through the electric illuminator.

939,036. HOSE-COUPLING. WILLIAM F. KOPER, Chillicothe, Ohio, assignor of one-half to Frank Marzluff, Chillicothe, Ohio. Filed July 10, 1908. Serial No. 442,850.



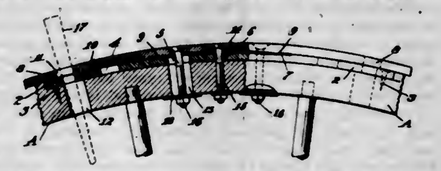
1. A hose coupling, comprising a union member having one end internally screw threaded and provided on the inner face of the other end with pairs of oppositely arranged lugs, the said member having an internal flange intermediate of its ends, a resilient apertured gasket resting against the flange of the union member, a tail piece screwing into one end of the union member into engagement with the flange of the gasket, and a head piece having a plain cylindrical inner end projecting into the aperture of the gasket and provided adjacent to said end with oppositely arranged T-shaped lugs engaging the lugs of the union member with their stems extending between the pairs of lugs.

2. In a hose coupling a union member having on its inner face at one end pairs of oppositely arranged lugs, a resilient apertured gasket held in the union member, a tail piece secured in one end of the union member in engagement with the packing, and a head piece having a plain cylindrical inner end and projecting into the aperture of the packing and provided adjacent to said end with oppositely arranged T-shaped lugs engaging the lugs of the union member with their stems extending between the pair of lugs.

3. In a hose coupling, a union member having an annular interior flange intermediate of its ends and provided at one end on its inner face with pairs of oppositely arranged lugs and a longitudinal lug connecting one lug of each pair of lugs with the said flange, and a pipe provided adjacent to its inner end with oppositely arranged T-shaped lugs engaging the pairs of lugs of the union member with their stems extending between the said lugs.

939,037. VEHICLE-TIRE AND TIGHTENING MEANS THEREFOR. GUSTAVE A. KROHN, Coarsegold, Cal. Filed Mar. 27, 1909. Serial No. 486,146.

1. In a vehicle wheel, the combination with a felly, of a plate countersunk into the periphery thereof, said plate having slots adjacent to its ends, a tire fitting said felly and with the ends resting on said plate, said tire having slots registrable with said slots in said plate, means for engaging said slots to draw the ends of the tire together, and means for securing the tire to the wheel.



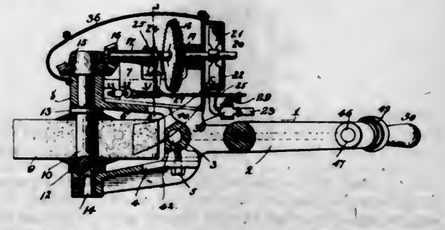
2. In a vehicle wheel, the combination of a felly having a plate countersunk in the periphery thereof, a fixed block on the plate and between the ends thereof, a tire having loose ends fitting the wheel with the ends on opposite sides of said block, means passing through the tire plate and felly to draw the ends of the tire toward each other to tighten the tire, and means for securing the tire to the wheel.

3. The combination in a vehicle wheel, of a felly having a countersunk plate, a tire unconnected at the ends and of less length than the circumference of the wheel, fitting the felly and with the ends resting on said plate, means passing through said tire, plate and felly to draw the ends of the tire together, the opposed surfaces of the plate and tire having inter-engaging corrugations, and means independent of said tightening means, and coöperating with said teeth to hold the ends of the tire.

4. The combination in a vehicle wheel, of a felly having a countersunk plate, a tire unconnected at the ends and of less length than the circumference of the wheel, fitting the felly and with the ends resting on said plate, means passing through the tire, plate and felly to draw the ends of the tire together, the opposed surfaces of the plate and tire having inter-engaging corrugations, means independent of said tightening means, coöperating with said teeth to hold the ends of the tire, and a block secured to the plate filling the space between the separated ends of the tire.

5. The combination in a vehicle wheel, of a felly having a plate countersunk in the periphery thereof, a tire fitting the felly, and of a less length than the circumference of the wheel, said plate having slots adjacent to its ends, and said tire having slots registering with said slots, and said tire also provided with lugs on its under side, and one of these lugs being arranged between one of said slots in the tire and the adjacent end of the tire, and said lugs fitting the slots in said plate, a tightening key to fit the slots in the tire and plate, and act behind a lug to tighten the tire, and means independent of said key for locking the tire to the plate and felly.

939,038. GRINDING-MACHINE. GOTTFRID LARSON, Jamestown, N. Y. Filed Feb. 19, 1909. Serial No. 478,784.



1. In a device of the character described a handle, a grinding wheel revolubly mounted in the outer end of said handle, a turbine wheel carried by said handle, an operating mechanism to connect said turbine wheel with said grinding wheel, means to regulate the speed of said operating mechanism and the wheel, a handle supporting

mechanism and means to adjustably connect the handle with said supporting mechanism whereby the grinder may be tilted to engage the grinding wheel with uneven surfaces.

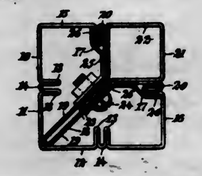
2. In a grinding machine of the character described, a supporting handle, a grinding wheel revolubly mounted in said handle, an operating shaft geared to said grinding wheel, a turbine wheel carried by said handle and geared to said operating shaft whereby the latter and said grinding wheel are driven, a casing arranged around said turbine wheel, a fluid supply pipe connected to said casing, a controlling valve in said supply pipe, a valve controlling mechanism, a governor mechanism arranged on said operating shaft and connected to said valve controlling mechanism and means to regulate said governor mechanism whereby the speed of the grinding wheel is determined.

3. In a grinding machine of the character described, a supporting handle, a grinding wheel revolubly mounted in said handle, an operating shaft geared to said grinding wheel, a turbine wheel carried by said handle and geared to said operating shaft, a fluid supply pipe connected with said turbine, a controlling valve arranged in said pipe, a valve regulating mechanism, a centrifugal governor mechanism arranged on said operating shaft and connected with said valve regulating mechanism, a spring engaged with said governor to regulate the movement of the same, and an adjusting lever connected with said spring whereby the tension of the same is regulated and the speed of the grinder thereby controlled.

4. In a grinding machine of the character described, a supporting handle, a grinding wheel revolubly mounted in said handle, means to detachably secure the wheel in operative position in the handle, means whereby a drill may be operated by the shaft of said grinding wheel, an operating mechanism geared to said grinding wheel, a compressed air turbine geared to said operating mechanism, a speed controlling and regulating mechanism and means whereby the exhaust air from the turbine is employed to blow the dust from the work.

5. In a grinding machine of the character described, a supporting handle, a grinding wheel revolubly mounted in said handle, means whereby said grinding wheel is driven, a handle supporting mechanism, said mechanism comprising a base plate, a supporting rod hingedly connected to the forward end of said plate and having a threaded engagement with said handle, a foot piece slidably engaged with the rear end of said base plate, a rear supporting bar hingedly connected to said foot piece and slidably engaged with the rear end of the handle, worm gear teeth arranged on said bar, a revolubly mounted adjusting sleeve, and a worm gear on said sleeve to engage the teeth on said adjusting bar whereby the rear end of the handle may be raised or lowered thereby tilting the forward end of the same and the grinding wheel mounted therein.

939,039. SHEET-METAL TUBING. WILLIAM P. LAWRENCE, Colorado Springs, Colo. Filed Nov. 19, 1908. Serial No. 463,365.



1. A sheet metal tubular structure formed of separate longitudinally-disposed sections, one of said sections having the opposite edges thereof spaced apart, a second section disposed within said first-mentioned section and formed of sheet metal folded intermediate its edges and having the fold thereof in engagement with the inner surface of the first-mentioned section opposite to said spaced edges and having its edges extending outward radially and interlocked with the edges of the first-mentioned section, and a third section disposed between the edges of the second-mentioned section and forming a portion of the outer surface of the structure and having its edges extending inwardly into the fold of the second-mentioned section and rigidly secured therein.

2. A sheet metal tubular structure formed of separate longitudinally-disposed sections, one of said sections having the opposite edges thereof spaced apart, a second section disposed within said first-mentioned section and formed of sheet metal folded intermediate its edges and having the fold thereof in engagement with the inner surface of the first-mentioned section opposite to said spaced edges and having its edges extending outward radially and interlocked with the edges of the first-mentioned section, a third section disposed between the edges of the second-mentioned section and forming a portion of the outer surface of the structure and having its edges extending inwardly into the fold of the second-mentioned section and rigidly secured therein, and separate bracing means entirely concealed within said structure and including two plates rigidly secured to said second section and each having an edge thereof adjacent the corresponding interlocking edge of the first section.

3. A sheet metal tubular structure formed of separate longitudinally-disposed sections, one of said sections having the opposite edges thereof spaced apart, a second section disposed within said first-mentioned section and formed of sheet metal folded intermediate its edges and having the fold thereof in engagement with the inner surface of the first-mentioned section opposite to said spaced edges and having its edges extending outward radially and interlocked with the edges of the first-mentioned section, a third section disposed between the opposite edges of said second section and rigidly secured thereto, and separate bracing means entirely concealed within said structure and including two plates rigidly secured to said second section and each having an edge thereof adjacent the corresponding interlocking edge of the first section.

939,040. PACKAGE-TIE. HENRY J. LEE and EZRA F. GRAY, Scranton, Pa., assignors of two-thirds to said Lee and one-third to said Gray. Filed Sept. 12, 1908. Serial No. 452,687.



1. In combination, a cord receiver of plate material having a tubulation along each side edge thereof, and a spring coil secured transversely thereon near one end of the tubulations and between them.

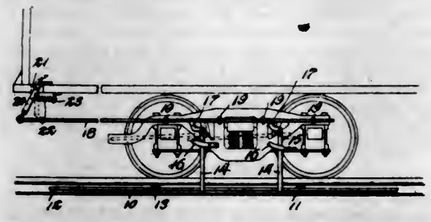
2. In combination, a cord receiver of plate material, narrowed from one end to the other, a tubulation along each side edge thereof and curved outward near the wider end of the cord receiver, and a coiled spring secured by its ends transversely on the cord receiver near its wider end.

3. A cord receiver of plate material, narrowed from one end to the other, a tubulation along each side edge thereof, said tubulations being outwardly curved near the wide end of the cord receiver, and a transverse tubulation at said end of the cord receiver.

4. In combination, a cord receiver of plate material narrowed from one end to the other, and having a tubulation along each side edge, said tubulations being curved outwardly near the wide end of the cord receiver, said cord receiver having a transverse tubulation at its wide end, and a coiled spring secured by its ends between the lateral tubulations near the curved ends thereof.

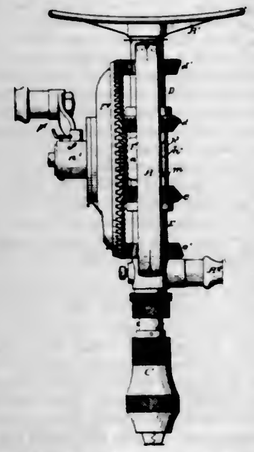
5. In combination, a cord receiver of plate material, narrowed from one end to the other and having a tubulation formed along each side edge, said tubulations curving outward at the wide end of the cord receiver, a coiled spring secured by its ends transversely on the cord receiver between the lateral tubulations near its wide end, and a cord secured by one end in one lateral tubulation and loosely inserted through the other mating tubulation.

939,041. STREET-RAILWAY SWITCH. JAMES LEITH, Sherbrooke, Quebec, Canada, assignor of one-half to Henry Caya, Sherbrooke, Canada. Filed Apr. 16, 1909. Serial No. 490,429.



A street railway switch comprising in connection with pivotally mounted and horizontally swinging switch point rails, an operating bar connecting said rails and intersecting one of the main rails and projecting outside of said main rail, a trip rail pivotally mounted on the outer side of said main rail and provided with an inwardly projecting guiding extension working through a guide opening in the main rail, a switch setting expansion spring interposed between the main rail and said trip rail and acting to force the latter outward, and switch-operating means on the car adapted to coöperate with said trip rail.

939,042. GEARING. GEORGE O. LEOPOLD, Philadelphia, Pa., assignor to North Bros. Mfg. Co., Philadelphia, Pa. a Corporation of Pennsylvania. Filed June 29, 1908. Serial No. 440,849.



1. The combination in gearing, of a spindle, a carrier secured to the spindle, pawls mounted on the carrier, two sets of ratchet wheels loose on the spindle, means for driving both sets of wheels, and means for holding certain pawls out of engagement, the said last mentioned means being adapted to be shifted to a position to free all the pawls so as to lock both ratchet wheels to the spindle, thus preventing movement of the spindle and the driving mechanism.

2. The combination in gearing, of a frame, a spindle mounted in the frame, a carrier secured to the spindle, two hubs loose on the spindle, each hub having a ratchet wheel and two beveled gear wheels, four pawls pivotally mounted on the carrier, two of said pawls arranged to engage the ratchet wheel on one hub, the other two pawls arranged to engage the ratchet wheel on the other hub, adjustable means for controlling the pawls, said means being so arranged that when in one position the four pawls will be free to engage their ratchet wheels and lock the spindle and the gears from turning, with two beveled gears meshing with the gears on the hubs, and a handled crank for actuating one or the other of the said beveled gears.

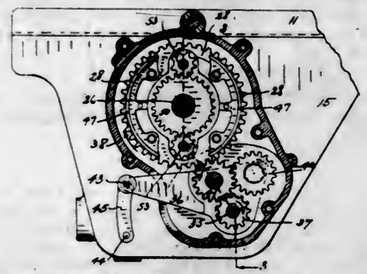
3. The combination in gearing of a spindle, a carrier secured to the spindle, four pawls, two ratchet wheels at each end of the carrier, two pawls engaging one ratchet wheel and the other two pawls engaging the other ratchet wheel, a sliding notched plate, the notches in the plate being so arranged that when the plate is moved in one position all the pawls are free to engage the ratchet wheels so as to lock the spindle and the driving mechanism.

4. The combination in gearing, of a spindle, a carrier secured to the spindle, two ratchet wheels loose on the spindle, four pawls pivoted to the carrier, each pawl having a heel, a sliding plate notched at each side, said plate being adapted to be shifted longitudinally so as to raise certain pawls and allow others to be free, the notches in the plate being so formed that when the plate is in one position the heels of the pawls will be locked in line with the notches, and springs for forcing the pawls into engagement with the ratchet wheels so that the spindle and the driving mechanism are locked against movement in either direction.

5. The combination of a spindle, a carrier secured to the spindle, pawls pivoted to the carrier, a ratchet wheel mounted on the spindle adapted to be engaged by the pawls, a sliding plate controlling the movement of the ratchet wheels, said plate having a pin, a shell having a slot therein through which the pin extends, a flat spring mounted between the shell and the plate and perforated for the passage of the pin and having projections on each side of the perforations, the walls of the slot in the shell being notched to receive the projections on the spring so as to retain the plate in the position to which it is adjusted.

[Claim 6 not printed in the Gazette.]

939,043. FEED FOR LATHES. CHARLES L. LIBBY, Indianapolis, Ind. Filed Feb. 6, 1908. Serial No. 414,508.

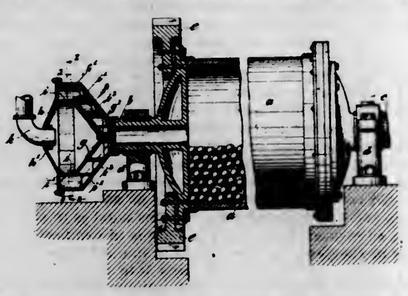


1. A carriage feed for lathes including a continuously revolving large driving gear, means for reversing it, a driven pinion centrally mounted in said driving gear, means actuated by said pinion for moving the carriage, a driving pinion also centrally mounted in said driving gear in juxtaposition with said driven pinion and differing in diameter therefrom, means for controlling the rotation of one of these pinions, and a pair of planetary gears carried by said driving gear and secured together and meshing respectively with said pinions, substantially as and for the purpose set forth.

2. A carriage feed for lathes including a continuously revolving large driving gear, means for reversing it, a

driven pinion centrally mounted in said driving gear, means actuated by said pinion for moving the carriage, a driving pinion also centrally mounted in said driving gear in juxtaposition with said driven pinion and differing in diameter therefrom, means for controlling the rotation of one of these pinions, a pair of planetary gears carried by said driving gear and secured together and meshing respectively with said pinion, a pilot wheel mounted in connection with the driving pinion so as to rotate therewith, and means for frictionally stopping said pilot wheel.

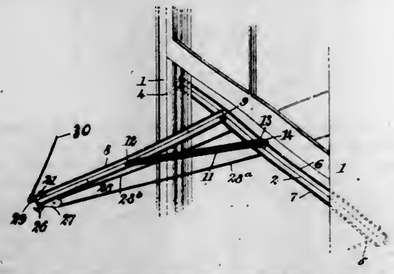
939,044. TUBE-MILL, &c. POUL T. LINDHARD, New York, N. Y. Filed Sept. 25, 1908. Serial No. 454,696.



1. A feed head for tubemills comprising an outer shell adapted to be secured to the rotating drum of the mill and having a conical part tapering toward the drum and a cylindrical part at the base of the conical part and forming a receiving chamber, an inner shell comprising a cylindrical hub having openings and a conical portion tapering toward the drum, substantially spiral webs or partitions extending from one conical portion to the other and forming between them substantially spiral passages from the outer portion of the head to the center, and a cap secured to the outer shell and adapted to permit the material to be introduced into the receiving chamber within the head.

2. A feed head for tubemills comprising an outer, conical shell adapted to be secured to the rotating drum of the mill and tapering toward the drum, an inner, conical shell tapering toward the drum, a plurality of webs or partitions extending from one shell to the other and consisting each of a succession of inclined and circular portions, the webs or partitions forming between them substantially spiral passages from the outer portion of the head to the center and a cap secured to the outer shell and adapted to permit the material to be introduced within the head.

939,045. CLOTHES-LINE HANGER. CLINTON C. LOVEJOY, New York, N. Y. Filed Mar. 23, 1908. Serial No. 422,690.

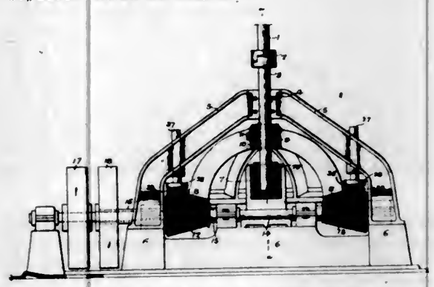


1. In a clothes line hanger, in combination, a bar adapted to be supported at a window, an arm pivotally attached to said bar and adapted to fold upon the same, a brace pivotally attached to one of the aforesaid members, and a sliding saddle on the other of said members, pivotally connected with said brace, said sliding saddle having a yoke running on said bar and fitting loosely on the member to which it is attached, whereby it locks itself under the action of the force in said brace, and means for holding a clothes line on said arm.

2. In a clothes line hanger, in combination, a bar adapted to be mounted at a window, an arm pivotally attached thereto, a sliding saddle mounted on said bar and having a yoke loosely engaging said bar and adapted to lock itself thereto when an inclined force is applied to said saddle, an inclined brace connecting said saddle with said arm, and means for holding a clothes line on said arm.

3. In a clothes line hanger, in combination, a horizontal bar adapted to be attached outside of a window, an arm pivotally attached to said bar and adapted to project inwardly through the window, a brace pivotally attached to said arm, a saddle pivotally connected with said brace sliding on said bar and having a loose fit therewith whereby it locks itself to said bar under the force acting on said brace, means for attaching a clothes line to said arm, and a hook on said bar about which said clothes line may be passed when said arm is folded upon said bar.

939,046. FRICTION DRIVING MECHANISM. ROBERT LUSSE and JOSEPH LUSSE, Philadelphia, Pa. Filed Aug. 17, 1908. Serial No. 448,843.



1. The combination, in friction driving mechanism, of a vertical shaft, a bevel disk carried thereby, friction cones in engagement with said bevel disk whereby the latter may be driven, means for driving said cones, a step bearing for said vertical shaft, a lever in engagement with said step bearing, a hand lever, and a connection between said levers whereby the operation of the hand lever will serve to raise or lower the disk, said connection comprising cushion springs to prevent excessive movement of said disk.

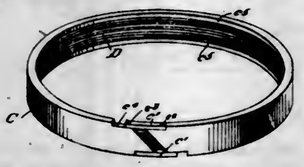
2. In friction driving mechanism, the combination of a vertically mounted shaft, a bevel disk carried thereby, a pair of cones in engagement with the disk for driving the same, means for driving said cones, and means for raising and lowering said disk with respect to said cones including means for cushioning the engagement of the disk with the cones.

3. In friction driving mechanism, the combination of a vertically mounted shaft, a bevel disk carried thereby, a pair of cones in engagement with the disk for driving the same, means for driving said cones, said disk having a braking surface opposite the surface engaged by the cones, braking means for engagement with said braking surface, and means for raising and lowering said disk with respect to said cones and braking means including means for cushioning the engagement of the disk with the cones and braking surface.

939,047. PACKING-RING. CHARLES R. MAPLES, Cleveland, Ohio. Filed Aug. 8, 1908. Serial No. 447,522.

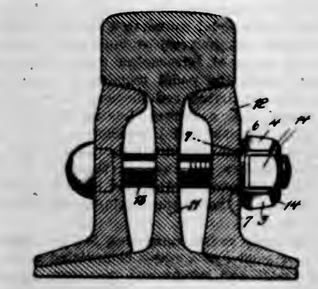
1. The combination of a split ring, means for temporarily holding it compressed, a spring wire adapted to be coiled within the ring when compressed and to expand the ring when the temporary holding means is released, and lateral retaining means for the wire.

2. In a packing device, a ring having a split end provided with a tongue on one portion extending across the split to the other portion, said tongue and other portion having openings adapted to aline when the ring is compressed, whereby it may be held compressed by a pin combined with a wire coiled around the inner periphery of the ring, and means for preventing the lateral escape of the wire.



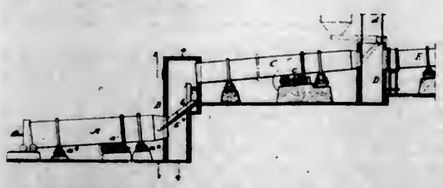
3. As a new article of manufacture, a self-contained expansible packing ring comprising a split ring having a cylindrical exterior, and interior, a wire coiled into a helix within the ring, said wire being comparatively long and of small cross-section and tending to substantially uncoil, and means for preventing the lateral escape of the wire from the interior of the ring.

939,048. NUT-LOCK. GEORGE B. MARTIN, Marietta, Ohio. Filed Mar. 12, 1909. Serial No. 482,893.



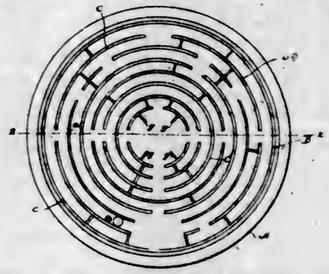
A nut lock comprising a malleable washer substantially rectangular in contour and having each end provided with a cut-away portion to form a washer with pairs of wings, said cut-away portions constituting clearances for the corners of a nut when the wings are bent to engage the sides thereof, said washer provided with protuberances, and an annulus having one side formed with recesses and its other side provided with case-hardened lugs, said protuberances adapted to extend in said recesses and electrically welded to the walls of the recesses whereby the annulus and washer are connected together.

939,049. KILN. CHARLES A. MATCHAM, Allentown, Pa., assignor to Fuller Engineering Company, Catasauqua, Pa., a Corporation of Pennsylvania. Filed Aug. 22, 1906. Serial No. 331,595.



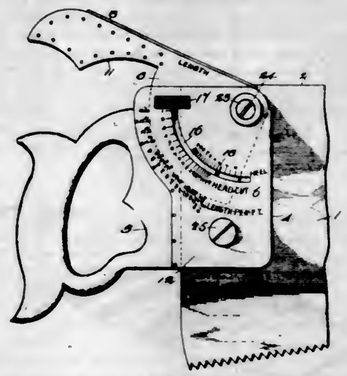
In the combination of a main rotary kiln, in which the clinkering is accomplished, a plurality of auxiliary kilns in which carbon dioxid is driven off, said auxiliary kilns being placed back of the main kiln, means for supplying fuel to said main kiln, a casing built between the main and the auxiliary kilns, the rear end of the main kiln entering the lower portion of one side of the casing, and the forward ends of the auxiliary kilns entering the upper part of the opposite side of the casing, a stack communicating with the rear ends of the auxiliary kilns, and a trough in the casing for transferring material from the auxiliary kilns directly to the main kiln.

939,050. PUZZLE. GEORGE B. MATTHEWS, Washington, D. C., assignor of one-half to William B. Matthews, Washington, D. C. Filed Mar. 27, 1909. Serial No. 486,206.



A puzzle consisting of a board having a series of curved segment partitions arranged in concentric circles around a central open space and spaced apart so as to leave passageways between them, radial partitions obstructing certain of the passageways between the concentric partitions, and radial projections extending from the innermost of the curved segments.

939,051. SAW ATTACHMENT. JAY I. MATTHEWS, Boise, Idaho. Filed Mar. 8, 1909. Serial No. 482,129.



1. A saw blade having a straight back edge, a handle therefor, and a bevel gage member pivoted to said handle and comprising an elongated member provided with a squaring face and having segmental tail plates operating in recesses of quadrant form cut in said saw handle, and the under face of said elongated member being of a contour to snugly fit said saw handle, substantially as described.

2. The combination of a saw blade, having a straight back edge, a handle therefor having a shoulder disposed at right angles to said edge, and a bevel gage member pivotally mounted at one end to the forward portion of said saw handle adjacent said shoulder and adapted to swing rearwardly therefrom, said bevel gage member having an upper squaring face adapted to aline with the straight back edge of the saw when in its closed position and disposed in the same straight line as said squaring shoulder when in its open position, the bevel gage member being

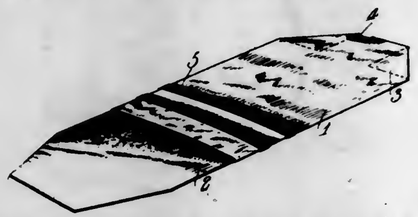
provided with an under face of a contour to snugly fit the top face of the saw handle and forming a part thereof when in its closed position, and said bevel gage member being longitudinally disposed in the plane of the saw blade and being of a thickness substantially the same as the saw handle whereby its sides will project beyond the side faces of the saw blade, substantially as described.

3. The combination with a saw blade having a straight back edge and a handle therefor, of a bevel gage member pivotally connected with said saw handle and provided with tail plates at its pivoted end disposed on opposite sides of said handle, a casing consisting of side plates provided with curving slots, indicator means on said tail plates, and scales indicated on said casing side plates adjacent said curving slots, substantially as described.

4. The combination with a saw blade having a straight back edge and a handle therefor, of a bevel gage member provided with a squaring surface adjacent said straight back edge, said bevel gage member being pivoted at one end to said saw blade handle and extending toward the end of the handle and being provided with segmental tail plates disposed on opposite sides of said saw handle and operating in recesses cut therein, a casing comprising side plates disposed outside of said tail plates and extending vertically above same, said casing side plates being provided with curved slots terminating in elongated slots extending parallel to the straight back edge of the saw blade, and indicator pins carried by said tail plates, said bevel gage member and casing side plates being provided with suitable computing scales conveniently arranged, substantially as described.

5. The combination with a saw blade having a straight back edge and a handle therefor, of a bevel gage member pivotally connected to the saw, and scribing means associated therewith for marking curved lines comprising a pair of pointed members, one of said members consisting of a pointed screw threading in a headed spindle and having a nut thereon, coöperating to be clamped on the saw blade, and the other of said members consisting of a spindle threading with a headed screw and having an enlargement or head recessed to form a cylindrical and a conical housing, a pointed screw adapted to be reversibly disposed in said housing, and one of said scribing means forming the pivotal axis for said bevel gage member, substantially as described.

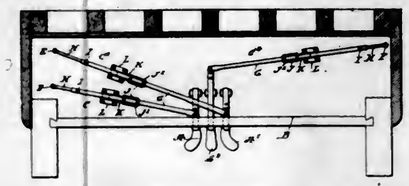
939,052. BROOM-HEAD COVER. OSCAR T. MERKLE, Paris, Ill. Filed June 9, 1909. Serial No. 501,079.



As an article of manufacture a cover for broom heads consisting of a flat tube having parallel longitudinal side portions, the corners of the tube at one end being folded and secured to form a reduced handle receiving opening, there being a tongue extending from the other end of the tube and of substantially the same width as said tube, said tongue having parallel side edges and being insertible into the tube to constitute a closure, and a plurality of reinforcing endless tapes integral with and extending around the tube adjacent that end thereof from which the tongue extends.

939,053. ADJUSTABLE PIANO-PEDAL CONNECTION. HERMANN MEYER, New York, N. Y. Filed Mar. 25, 1909. Serial No. 485,632.

1. A pedal connection, comprising a connecting bar, and a spring fulcrum consisting of a flat spring bent into an approximate U-shape, and having one end secured to the said connecting bar, a base on which the other end of the said spring is fastened and bracing means between the said base and spring.



2. A pedal connection, comprising a connecting bar and a spring fulcrum, consisting of a flat spring bent into U-shape and having one end secured to the connecting bar and the other end formed into a brace, and a base having an upright flange on which the said brace is fastened.

3. An adjustable pedal connection for the hammer rest rail, damper rail or muffler of a piano, comprising a support, a connecting bar arranged for connection at one end with the pedal and at the other end with the lifting bar, a stirrup through which passes the said connecting bar, a spring arranged for attachment to the said support and having its free end engaging the said stirrup, and means for holding the free end of the spring and the said stirrup in position on the said rod.

4. An adjustable pedal connection for the lifting rod of the hammer rail, damper rail or muffler of a piano, comprising a bar made of telescoping pedal and lifting rod members, of which the pedal member is connected with the pedal and the lifting rod member is connected with the said lifting rod, a stirrup having spaced eyes slidingly engaging the said pedal member, a spring arranged for attachment to the bottom of the piano frame and extending with its free end through the said stirrup eyes, and set screws screwing in the said stirrup and engaging the said free end of the spring to clamp the stirrup to the pedal member.

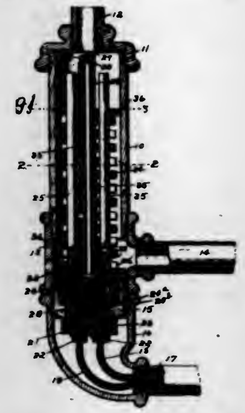
5. An adjustable pedal connection for the hammer rail, damper rail or muffler of a piano, comprising a bar made of telescoping pedal and lifting rod members, of which the pedal member is connected with the pedal and the lifting rod member is connected with the lifting bar, a stirrup having spaced eyes slidingly engaging the said pedal member, a spring having a base for attachment to the bottom of the piano frame, the free end of the spring extending through the stirrup eyes, and set screws screwing in the said stirrup against the free end of the spring.

939,054. ELECTRIC WATER-HEATER. PAUL P. MEYERS, Grinnell, Iowa, assignor of one-half to Okey K. Cole, Grinnell, Iowa. Filed Jan. 2, 1909. Serial No. 470,349.

1. In a device of the class described, the combination of a body portion having an inlet and a discharge opening therein, two electrodes contained within said body portion, and a number of electrode members detachably connected with each electrode, the electrode members on one electrode being interposed between those on the other electrode and spaced apart therefrom.

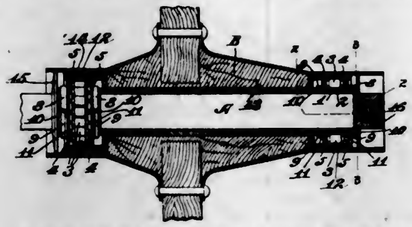
2. In a device of the class described, the combination of a body portion having inlet and discharge openings therein, two electrodes arranged within the body portion, a rod arranged between the electrodes and a series of electrode members detachably connected with each electrode and with said rod, the electrode members on one electrode being arranged between those on the other, and spaced apart therefrom, and insulators on the rod for holding the electrode members properly spaced apart, said electrode members and said insulators being detachably connected with said rod.

3. In a device of the class described, the combination of a body portion having inlet and discharge openings therein, a series of electrode plates arranged within the body portion and spaced apart from each other, two electric wires, means for detachably connecting the alternate ones of said electrode plates with one wire, and means for detachably connecting the remaining plates with the other wire, for the purposes stated.



4. In a device of the class described, the combination of a body portion having inlet and discharge openings, a plug inserted in the lower portion of said body, two electrode rods fixed in and insulated from the plug, and spaced apart from each other, a conductor wire connected with each electrode rod, a supporting rod secured to the plug between the electrode rods, an insulator tube thereon, a number of electrode plates, each having a central opening to receive the rod, and an opening on one side to receive and fit against one of the electrode rods, and a larger opening on the other side to surround the other electrode rod and to stand in position out of contact with it, each of the alternate ones of said electrode plates being connected to one of the electrode rods, and the remaining electrode plates to the other, insulating washers on the supporting rod between the electrode plates to space the plates apart, and a nut on said supporting rod to connect all of the electrode plates and insulating washers together.

939,055. ROLLER-BEARING. ONESIME E. MICHAUD, St. Louis, Mo. Filed June 13, 1908. Serial No. 438,270.



1. A roller bearing comprising a bearing ring having an annular groove therein, annular shouldered portions at each side of said groove, and annular recessed portions next to said shouldered portions at the outer sides thereof, a series of rollers arranged to travel in the annular groove in said bearing ring, said rollers having axial end spindles, separable rigid spacing rings for said rollers, said spacing rings being adapted to loosely fit said annular shouldered portions and having a series of perforations arranged to receive the end spindles of said rollers, and annular retaining devices for said spacing rings detachably secured in said annular recessed portions of said bearing ring.

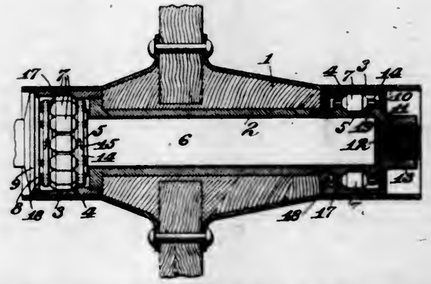
2. A roller bearing comprising a bearing ring, rollers arranged to coöperate therewith, separable spacing rings for said rollers, and locking devices arranged to hold said spacing rings in place, said locking devices comprising two semicircular members and a bail hinged to one of said members and adapted to engage the other member.

3. A roller bearing comprising an annular grooved bearing ring, rollers arranged to travel in said groove, separable spacing rings for said rollers, and separable locking devices adapted to hold said spacing rings in place, said locking devices comprising two counterpart semicircular members and a bail hinged to one of said members and adapted to secure the other member thereto.

4. A roller bearing comprising a bearing ring having an annular bearing groove, rollers arranged to travel in said groove, separable spacing rings for said rollers, devices for locking said spacing rings in place, said bearing ring having annular grooves adjacent to the respective spacing rings, and each of said locking devices comprising two counterpart semicircular members adapted to fit in one of said grooves and one of said members having a bail arranged to secure the other member thereto.

5. A roller bearing comprising an annularly grooved bearing ring, rollers arranged to travel in said groove, separable spacing rings for said rollers, and separable securing rings for said spacing rings, each comprising a semi-circular portion adapted to fit an annular groove in said bearing ring adjacent to its respective spacing ring, a semi-circular portion of larger interior diameter hingedly connected to said first-mentioned portion, and a separable segmental filler piece adapted to fit said groove in said bearing ring beneath said last mentioned semi-circular portion.

939,056. ROLLER-BEARING. ONESIME E. MICHAUD, St. Louis, Mo. Filed Oct. 5, 1908. Serial No. 456,171.



1. The combination with an axle, of a wheel hub rotatably mounted thereon, said hub having bearing rings in each end, and each of said bearing rings having an internal annular beveled end thrust shoulder near its inner end, an inner bearing ring sleeved on said axle and in coöperative relation to the bearing ring in the inner end of said hub and having a beveled end thrust shoulder diagonally opposite to the shoulder on said hub bearing ring, a stop on said axle adapted to bear against the outer end of said axle bearing ring, a bearing ring adjustably mounted on said axle endwise thereof in coöperative relation to the bearing ring in the outer end of said hub and having a beveled end thrust shoulder diagonally opposite to the shoulder on said last mentioned hub bearing ring, and a series of cylindrical rollers interposed between the bearing rings at each end of said hub in rolling contact therewith, said rollers having beveled end portions corresponding to the bevel of said end thrust shoulders.

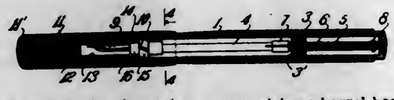
2. A roller bearing comprising a bearing sleeve having an annular peripheral groove, a series of rollers arranged to travel in said groove and having axial spindles at each end, and companion spacing rings for said series of rollers, each of said rings having a series of spaced notches in the circular faces thereof adapted to receive the ends of said roller spindles, and semicircular retaining members movably mounted on said spacing rings and arranged to close the open ends of said notches.

3. A roller bearing comprising a peripherally grooved bearing sleeve, a series of rollers arranged to travel in said groove, and having axial end spindles some of which are provided with enlargements at their outer ends, companion divided spacing rings for said rollers, each of said spacing rings comprising two half sections hingedly connected together at one end and having means for releasably connecting their opposite ends, and each of said half sections having spaced notches in their circular faces for the end spindles of said rollers.

4. A spacing ring for roller bearings comprising a ring having notches in its circular face arranged to receive end spindles of the bearing rollers, and movable retaining members secured on said spacing ring, said members being arranged to conform to the curvature of said ring and adapted to close the open ends of said notches, substantially as and for the purpose specified.

5. A spacing ring for roller bearings having notches in its circular face arranged to receive end spindles of the bearing rollers, and retaining members arranged to conform to the curvature of said ring and adapted to close the open ends of said notches, said retaining members being hingedly and detachably mounted on said ring, substantially as and for the purpose specified.

939,057. FOUNTAIN-PEN. MORRIS W. MOORE, Everett, Mass., assignor to Samuel Ward Company, Boston, Mass., a Corporation of Massachusetts. Filed Dec. 14, 1908. Serial No. 467,327.



1. A submerging fountain pen comprising a barrel having a tubular bore uniform throughout, a cylindrical piston fitting said bore and movable therein, said piston having a longitudinal passage for the transfer of ink, a rearwardly extending threaded bar on said piston, a threaded bearing for said bar in said barrel, a cap and means in said cap for producing a submerging or emerging rotation of said bar.

2. A submerging fountain pen comprising a barrel having a tubular bore uniform throughout, a cylindrical piston fitting said bore and movable therein, said piston having a passage therethrough for the transfer of ink, an annular engaging surface about the pen end of said piston, a rearwardly extending threaded bar on said piston, a threaded bearing for said bar in said barrel, a cap and an annular ring in said cap for contacting with said engaging surface to rotate said pen bar.

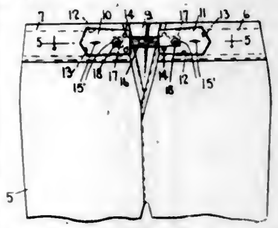
3. A submerging fountain pen comprising a barrel having a tubular bore uniform throughout, a cylindrical piston fitting said bore and movable therein, said piston having a longitudinal passage for the transfer of ink, a rearwardly extending threaded bar on said piston, a threaded bearing for said bar in said barrel, a cap and means in said cap for engaging said piston to cause the pen to submerge or emerge.

4. A submerging fountain pen comprising a barrel having a tubular bore uniform throughout, a cylindrical piston fitting said bore and movable therein, said piston having a spiral duct longitudinally of the same for the transfer of ink, a rearwardly extending bar on said piston having a thread corresponding to said spiral duct, a threaded bearing for said bar in said barrel, and means for operating said parts to cause said piston to be submerged or emerged.

5. A submerging fountain pen comprising a barrel open at one end only, a cap, a pen support having a longitudinal ink duct and a screw thread, a thread bearing for engaging said thread for the longitudinal adjustment of said support in said barrel, an external annular friction surface on said pen support, and a ring in said cap for frictionally engaging said annular surface to operate said screw adjustment.

[Claim 6 not printed in the Gazette.]

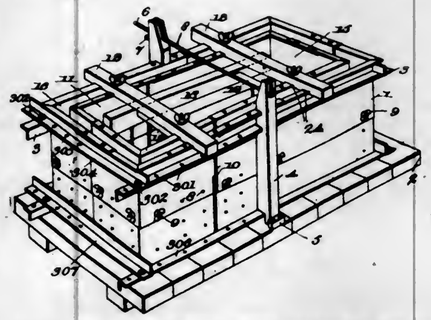
939,058. GARMENT-SUPPORTING STRAP. EDWARD MORRIS, Jr., Baltimore, Md. Filed May 25, 1909. Serial No. 498,142.



1. An adjustable supporting attachment for nether garments comprising a pair of supporting straps located at the rear ends of the waist band, said straps being provided in the direction of their lengths with a plurality of button holes, in combination with a resilient back strap having buttons at its opposite ends to be removably secured in the button holes of the supporting straps.

2. An adjustable supporting attachment for nether garments comprising a pair of supporting straps located at the rear ends of the waist band and having their opposite sides and forward ends secured thereto by rows of stitching, whereby pockets are formed, said straps being provided in the direction of their lengths with a plurality of button holes, in combination with a resilient back strap insertible into the said pockets and having buttons at its opposite ends to be removably secured in the said button holes.

939,059. FORM OR MOLD FOR CONCRETE RECEPTACLES. ROBERT C. MORRIS, Louisville, Ky., assignor of one-fourth to George C. Terry and one-fourth to Chancey O. Tice, Louisville, Ky. Filed Aug. 20, 1908. Serial No. 449,522.



1. In a form or mold for concrete receptacles, the combination of telescoping inner and outer side and end walls flanged at their top edges and provided with registering holes; telescoping upper and lower outer side and end supporting bars, also, provided with registering holes; two pairs of horizontal supporting strips 18 adapted to rest on the inside of said inner walls; and adjustable spreader bars 19 adapted to extend between said strips, substantially as described.

2. In a form or mold for concrete receptacles, the combination of telescoping inner and outer side and end walls flanged at their top edges and provided with registering holes, and bolts adapted to secure said sides together; telescoping upper and lower outer side and end supporting bars, also provided with registering holes; two pairs of horizontal supporting strips 18 and one pair of vertical strips 21 adapted to rest on the inside of said inner walls; and adjustable spreader bars 19 and 20 adapted to extend between said strips, substantially as described.

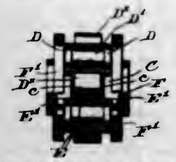
3. In a form or mold for concrete receptacles, the combination of perforated inner and outer adjustable telescoping plates provided with stiffening flanges at the upper edges; means comprising bolts for holding said plates in their adjusted positions; cross bars 13 extending across and resting on the upper flanges of said outer plates; and bolts passing through said bars and the flanges of said inner plates and serving to support the same above the bottoms of said outer plates, substantially as described.

4. In a form or mold for concrete receptacles, the combination of inner adjustable telescoping plates provided with registering holes and flanges on their top and bottom edges; outer plates also provided with registering holes and flanges on their top edges; cross beams adapted to rest on said latter flanges; means passing through said beams adapted to hold the bottom flanges of said inner plates a predetermined distance above the bottom edges of the outer plates; and adjustable spreaders inside said inner plates, substantially as described.

5. In a form or mold for concrete receptacles, the combination of inner adjustable telescoping plates provided with registering holes and flanges on their top and bottom edges; outer plates also provided with registering holes and flanges on their top edges; cross beams adapted to rest on said latter flanges; means passing through said beams adapted to hold the bottom flanges of said inner plates a predetermined distance above the bottom edges of the outer plates; horizontal strips 18, and vertical strips 21 adapted to contact with said inner plates; and adjustable spreaders inside said inner plates adapted to contact with said strips, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

939,060. ANTIFRICTION-BEARING. ISIDOR MOSS, Boston, Mass. Filed Apr. 24, 1909. Serial No. 491,919.



1. An anti-friction bearing comprising concentric and relatively rotatable members, a series of load-transmitting rolling members interposed between and bearing against said first-named members, the bearing surfaces of adjacent rolling members traveling on the concentric members in separate parallel paths, said bearing surfaces of all of the rolling members being of the same diameter, separators between and having their axes exterior to a circle intersecting the axes of the rolling members, each separator coöperating with the adjacent rolling members and being held by them from inward movement, and independent means to hold the separators from outward movement.

2. An anti-friction bearing comprising concentric inner and outer members, a series of load-transmitting rolling members interposed between and bearing against said first-named members, the bearing surfaces of adjacent rolling members lying in intersecting cylinders, rotatable separators between said rolling members and held by their bearing surfaces from movement in one direction, and independent means to coöperate with the separators and hold them from movement in the opposite direction.

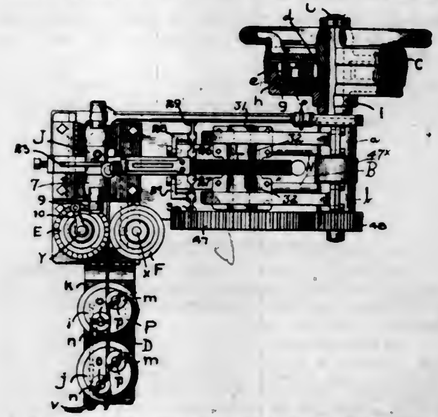
3. An anti-friction bearing comprising inner and outer members, a series of load-transmitting rolls closely approaching each other and bearing against the said members, the bearing surfaces of adjacent rolls traveling on said members in separate parallel paths, cylindrical separators between and contacting with the bearing surfaces of the rolls and located exterior to a circle intersecting the axes of said rolls, the latter holding the separators from movement toward the inner member, and independent means carried by the inner member to hold the separators from outward movement.

4. An anti-friction bearing comprising a shaft, a casing, a series of load-transmitting rolls bearing against the shaft and casing, alternate rolls being reduced in diameter between their bearing ends to clear the bearing surfaces of the intervening rolls, separators between and in tangential engagement with the bearing surfaces of adjacent rolls, the latter holding the separators from radial movement in one direction, and independent means to hold the roll-separators from radial movement in the opposite direction.

5. An anti-friction bearing comprising a shaft, a casing, a series of load-transmitting rolls interposed between and bearing against the shaft and casing, alternate rolls tangentially engaging said parts from end to end and the intervening rolls having such engagement with said parts beyond the ends of the first-named rolls, whereby the rolls overlap each other, means on the shaft to prevent axial movement of the rolls relatively thereto, separators interposed between and in engagement with the bearing surfaces of adjacent rolls and held by the latter from inward movement, and independent means carried by the shaft to coöperate with the ends of and hold the roll-separators from outward movement.

[Claims 6 and 7 not printed in the Gazette.]

939,061. MACHINE FOR MANUFACTURING GROOVED PINS, &c. ALBERT L. MOWAT, St. John, New Brunswick, Canada, assignor to Harry Richards McLellan, St. John, Canada. Filed Oct. 12, 1907. Serial No. 397,159.



1. A machine for manufacturing grooved pins having a fixed die and a cylindrical rotating die provided with a transverse depression in combination with the magazine discharging between the dies, having means in the magazine adapted to discharge a blank whenever the transverse depression comes opposite the end of the magazine, tiltable depressible fingers immediately adjacent to the rotating die, adapted to receive the pin discharged from the magazine, and prevent it dropping between the dies until it is engaged by the edge of the transverse depression, the said fingers being adapted, when the pin is engaged by the edge of the recess, to yield and permit the pin to be rolled between the dies.

2. In a machine for shaping articles by rolling action, the combination of a fixed die and a die in coöperative relation therewith movable relatively thereto, cutters located at opposite sides of the path of the work piece mounted so as to permit of movement toward and from the dies and adapted to trim the ends of a piece as it passes between the dies, said cutters having cutting edges which lie substantially parallel with the said path, and means between the cutters and under the control of the movable die adapted to move the cutters simultaneously in relation to the dies at predetermined intervals.

3. A machine for the purpose specified, the combination with a fixed and rotating die, and a magazine, of means for feeding blanks through the magazine, and between tiltable fingers located between the delivery end of the magazine and the dies, the tiltable fingers arranged in

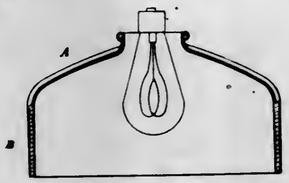
such relationship to the dies, that the blanks are adapted to rest thereon by gravity, prior to and until they are drawn between the two dies.

4. In a machine for the purpose specified, the combination with a fixed and a rotating die, a feeding magazine, and means for feeding the blanks therethrough, of centrally pivoted fingers having their inner ends adapted to receive the blanks from the magazine as they are forced out by the feeding means, said blanks being adapted to rest by gravity thereon until they are drawn between the dies, and weights connected to said fingers adapted to maintain them in normal position.

5. In a machine for the purpose specified, the combination with a magazine comprising a reciprocating pusher member, said magazine having a movable top adapted to be raised by clogging of the blanks therein, means for feeding the blanks through the magazine, a rock shaft, means between the rock shaft and reciprocating member adapted to operate the latter when the rock shaft is oscillated, means for oscillating the same, an audible signaling device having an operating lever adapted to be engaged by the top of the magazine when raised from its normal position, the movement of the operating lever being adapted to actuate the signaling device.

[Claim 6 not printed in the Gazette.]

939,062. SKIRTING FOR REFLECTORS. OTIS A. MYGATT, New York, N. Y. Filed May 28, 1907. Serial No. 376,155.



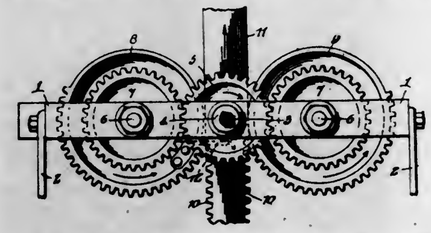
1. An integral reflector or shade having an open mouth, and provided with reflecting means, and having a wide-mouthed skirt portion composed of a translucent light diffusing or shading medium.

2. An integral shade reflector of glass, the upper portion of which is provided with a specular reflecting medium, the lower portion being formed into a skirt with substantially vertical walls, the skirt being composed of a translucent medium.

3. An open-mouth reflector-shade having a portion reflective of light and, integrally therewith, a substantially vertical portion interceptive of some of the reflected light rays.

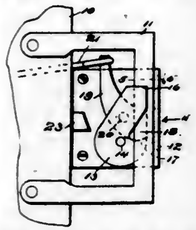
4. A glass open-mouth reflector-shade having prisms thereon reflective of light and a substantially vertical portion integral therewith interceptive of some of the light rays.

939,063. MECHANISM FOR CONVERTING ROTATORY INTO RECIPROCATORY MOTION. JOSEPH MYRHOLM, Odell, Ill. Filed May 1, 1908. Serial No. 430,348.



In an apparatus of the character described, the combination of an integral rectangular frame, of spaced shafts journaled through both sides of said frame and near the ends thereof, each of said spaced shafts being provided with a pinion and a mutilated gear-wheel rigidly secured together, a driving shaft journaled through one side of said frame and at a point equidistant from said spaced shafts, said driving shaft being provided upon the extremity projecting within said frame with a pinion rigidly secured thereto, and meshing with said first named pinions, a reciprocating rod provided with opposite rack faces arranged between said mutilated gear-wheels and adapted to be engaged alternately thereby, said reciprocating rod being provided with a roller upon one side thereof, of an arm secured to the mutilated gear-wheel which is adapted to raise said reciprocating rod, said arm being adapted to periodically engage said roller to advance said reciprocating rod, substantially as and for the purpose described.

939,064. CURTAIN-HOOK. OSCAR F. MCCALL and CHARLES L. TAFT, Tacoma, Wash. Filed Jan. 22, 1909. Serial No. 473,773.



1. The combination with a car having a roll curtain, of another car having a hook member pivotally secured thereto, a lever pivoted adjacent said hook member, said lever provided with a pawl adapted to engage said hook member, and independent flexible means carried by the car having the curtain engaging said lever for releasing the same from engagement with said hook member.

2. The combination with a car having a curtain, of another car having a hook member pivotally secured thereto, a lever pivoted adjacent said hook member and adapted to engage the said hook member, and flexible means connecting said lever with the adjacent car whereby when one car is separated from the other the said lever will automatically disengage with said hook member to release the said curtain.

3. The combination with a car having a curtain, of another car having a hook member pivotally secured thereto, said hook member provided with a shoulder, a lever pivotally mounted adjacent said hook member, said lever having one end thereof designed to engage said shoulder of said hook member, and means connected with the other end of said lever whereby when one car is separated from the other the said lever is made to release said hook member.

4. The combination with two cars, one of which carries a curtain, a pivoted hook member carried by the other car and adapted to engage with the curtain, the said hook member being provided with a shoulder, a lever pivotally mounted adjacent said hook member and engaging said shoulder, and means connected with said lever for operating the same to release the said hook member, and a stop member for limiting the movement of said hook member and said lever.

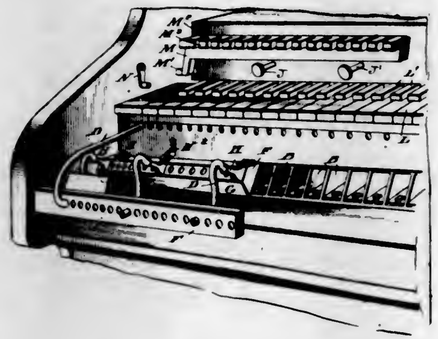
5. As an article of manufacture, a hook, a pawl adapted to hold the hook in hooking position, a lever carrying the pawl, and means carried by the hook adapted to discharge an engaged member when the lever is operated.

[Claim 6 not printed in the Gazette.]

939,065. REED-ORGAN. LUTHER A. MCCORD, Laurens, S. C. Filed June 5, 1909. Serial No. 500,338.

1. An organ having reed cells, front and rear hinged mutes provided with openings, means for operating the mutes, nipples fitting in the openings of the mutes, a tracker bar for coöperation with automatic playing devices, and tubes leading from said tracker bar and having branches extending thence to the nipples of the front and rear mutes, and bars having openings for the said tubes and operating as guides therefor, substantially as set forth.

2. An organ substantially as described having front and rear reed cells, a tracker bar for coöperation with automatic playing devices, and tube connections between said tracker bar and the front and rear reed cells, substantially as set forth.



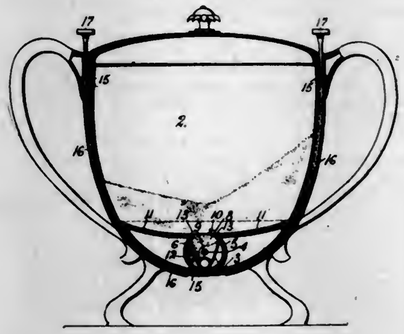
3. An organ having reed cells, a tracker bar for coöperation with automatic playing devices, and tube connections leading from said tracker bar to their respective reed cells, substantially as set forth.

4. The combination in an organ with reed cells, of a tube guide adjacent thereto, tubes corresponding to their respective reed cells and extending thence through the tube guide, and a tracker bar in connection with said tubes and adapted for coöperation with automatic playing devices, substantially as set forth.

5. An organ having a tracker bar for coöperation with automatic devices, and also having reed cells, a mute corresponding to said cells, and adjustable to open and closed positions, and tubes in connection with said mutes and communicating with their respective reed cells, and also in connection with the tracker bar, substantially as set forth.

[Claims 6 to 9 not printed in the Gazette.]

939,066. SUGAR-BOWL. COLIN T. MCCREERY, Vancouver, British Columbia, Canada. Filed Feb. 2, 1909. Serial No. 475,618.

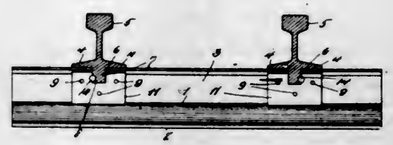


1. As a means for delivering sugar and the like, a sugar bowl having a handle, a rotatable valve situated in the lower part of the bowl, means for operating said valve from a position adjacent to the handle, said means comprising a flexible wire, and a guide for constraining the wire to follow the bend of the bowl, said wire being connected to the valve at the lower end, and a finger engaging button secured to the wire at the upper end.

2. In a device of the class described, the combination with a bowl having an aperture in its base and having a handle, a rotatable valve controlling said aperture, and means for operating said valve from a position adjacent to the handle of the bowl, said means comprising a flexible wire connected to the valve and carried up the side of the bowl and a guide for said wire.

3. In a device of the class described, the combination with a bowl having a handle and having an aperture in its base and a false bottom having a corresponding aperture, a rotatable segment of a hollow cylinder between the base and the false bottom, means for holding the upper end of said segment normally in a position to leave open the aperture in the false bottom and for closing the aperture in the base, and means for operating the segment to close the aperture in the false bottom and open that in the base, said means comprising a flexible wire, an inclosing tube therefor following the contour of the bowl from a position at the upper edge adjacent to the handle of the bowl to a position proximate to the segment, said wire being connected to the segment at the lower end, and a finger engaging button carried by the upper end of said wire.

939,067. METALLIC TIE AND RAIL-FASTENER. LEWIS MCFARLAND, Pittsburg, Pa., assignor of one-half to John J. Fitzgerald, Pittsburg, Pa. Filed Jan. 9, 1909. Serial No. 471,464.



1. In a metallic tie and rail fastener, the combination with rails having longitudinal depending ribs provided upon one side with a longitudinal groove, of ties for supporting said rails, each tie comprising an arch-shaped base having lateral flanges, a T-shaped longitudinal upright carried by each base for supporting the base flanges of said rails, said longitudinal uprights being cut away to provide clearance for the depending grooved ribs of said rails, plates secured to said uprights and cut away to register with the cut-away portion of each upright, said plates and said upright being grooved to register with the groove of the depending flange of each rail, and a tapering cotter pin inserted in the grooves of said upright and said depending rib and adapted to be bent to prevent accidental displacement of said cotter pins, substantially as described.

2. In a metallic tie and rail fastener, the combination with rails having longitudinal depending grooved ribs, of ties adapted to support said rails, each tie comprising an arch-shaped base, a T-shaped upright supported by said base, said upright being cut-away to accommodate the depending rib of a rail, plates secured to the sides of said upright and cut away to register with the cut-away portion of said upright, said plates and said upright having registering grooves formed therein adapted to register with the grooves of the depending ribs of said rails, and cotter pins adapted to be inserted in said grooves for securing the ribs of said rails in said uprights.

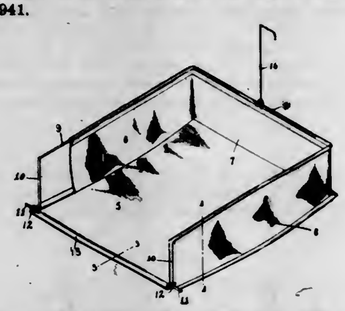
3. In a metallic tie and rail fastener, the combination of rails, depending grooved ribs carried thereby, uprights adapted to support said rails, said uprights being cut away to accommodate the rib of each rail, plates secured

to the sides of said uprights, said plates being cut away and grooved to register with the cut-away portion of each upright and the groove of each rail rib, and cotter pins inserted in said grooves for holding said ribs in engagement with said uprights.

4. In a metallic tie and rail fastener, the combination of rails having longitudinal depending grooved ribs, uprights for supporting said rails, said uprights being cut away to accommodate the ribs of said rails, and cotter pins inserted in the cut-away portion of said uprights for engaging in the grooves of said ribs and retaining said ribs in engagement with said uprights.

5. In a metallic tie and rail fastener, the combination with rails having depending longitudinal ribs extending from one end of a rail to the opposite end, of an upright for supporting said rails, and a cotter pin engaging the rib of a rail and said upright for retaining said rib in engagement with said upright.

939,068. GRASS-CATCHER. HARRY B. MCGRATH, East Cleveland, Ohio. Filed Feb. 15, 1909. Serial No. 477,941.



1. In a grass-catcher, the combination with a sheet metal bottom, of fabric forming the side and rear end of the catcher, said fabric being secured to the bottom by bending the latter over the edges of the fabric, a wire stitched in the upper edge of the fabric, said wire extending downwardly at the front edges of the catcher and thence extending outwardly, and ears secured to the bottom of the catcher, said ears being apertured for the reception of the outturned ends of the said wire, thus forming means for attachment to the lawn mower.

2. In a grass-catcher, the combination with a sheet metal bottom, of fabric forming the side and rear end of the catcher, said fabric being secured to the bottom by stitching a wire in the lower edges of the fabric and by the bending the edges of the bottom over the edges of the fabric, a second wire stitched in the upper edge of the fabric, said second wire extending downwardly at the front edges of the catcher and thence extending outwardly, and ears secured to the bottom of the catcher, said ears being apertured for the reception of the outturned ends of the said second wire, thus forming means for attachment to the lawn mower.

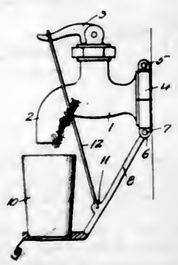
3. In a grass-catcher, the combination with a sheet metal bottom having its front ends extending upwardly and forwardly, of ears integral with said upturned portion of the bottom, said ears being apertured, fabric forming the sides and rear end of the catcher, said fabric being folded at its lower edges and the bottom being turned about the folded edge of the fabric for securing the latter in position, a bent wire stitched in the upper edges of the fabric, said wire being turned downwardly at the front of the catcher opposite the said ears on the bottom and thence turned outwardly and projecting through said ears beyond the sides of the catcher, thus providing means for attachment to the lawn mower.

4. In a grass-catcher, the combination with a sheet metal bottom having its front ends extending upwardly and forwardly, of ears integral with said upturned portion of the bottom, said ears being apertured, fabric forming the sides and rear end of the catcher, a wire stitched in the lower edges of the fabric, the bottom being turned about the said wire and the lower edges of the fabric for securing the latter in position, a second wire stitched in the upper edges of the fabric, said latter wire being turned downwardly at the front of the catcher opposite the said ears on the bottom and thence turned outwardly and projecting through said ears beyond the sides of the catcher, thus providing means for attachment to the lawn mower.

5. The combination with a lawn mower, of slotted brackets adjustably secured thereto, the slots extending downwardly and forwardly and being bent toward their forward ends, a grass-catcher having bottom, side and rear end members, a bent wire surrounding the upper edges of the side and rear end member and extending downwardly at the front of the catcher and thence outwardly beyond the catcher, the projecting ends of said wire fitting in the slots in the said brackets, for the purpose specified.

[Claims 6 and 7 not printed in the Gazette.]

939,069. ATTACHMENT FOR FAUCETS AND SPIGOTS. JOHN E. MCLEAN, Plum township, Allegheny county, Pa. Filed May 3, 1909. Serial No. 493,570.

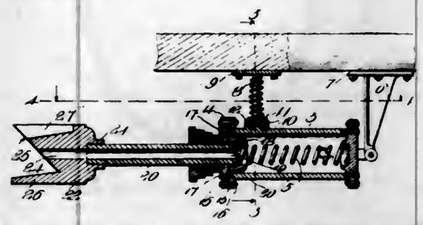


1. The combination with a faucet having an opening element, of a clamp carried by said faucet, an arm pivotally connected to said clamp, a cup holder carried by said arm, and an actuating member for the opening element connected to said arm and adapted to engage the opening element of said faucet for moving the same.

2. The combination with a faucet having an opening element, of a clamp carried by said faucet, an arm pivotally connected to said clamp, a cup holder carried by said arm, a link pivotally connected to said arm and adapted to engage over the opening element of said faucet, substantially as described.

3. The combination with a faucet having an opening element, of an arm pivotally supported adjacent to said element, a cup holder carried by said arm, a link pivotally connected to said arm, and a cone-shaped cap carried by said link and adapted to engage and actuate the opening element of said faucet by a movement of said arm.

939,070. TRAIN HOSE-COUPLING. ALVIN H. MCMASTERS, Bellaire, Ohio, assignor of one-half to Meyer Herzberg, Bellaire, Ohio. Filed May 6, 1909. Serial No. 494,268.

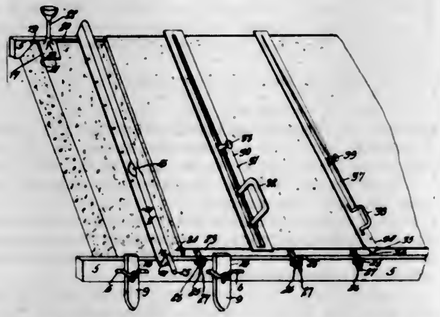


1. A device of the class described comprising an air casing, a tubular piston rod having its inner end extending therein, a coupling nut screwing on the inner end of the piston rod to limit the outward movement thereof, a coupling head at the outer end of the piston rod, a spring in the casing tending to hold the piston rod in extended position, a valve between the hose and the inner end of the casing, and connections for moving the valve into cut-off position when the piston rod is extended and to move the valve into its other position when the piston rod is forced inwardly.

2. A hose coupling comprising a pivotally mounted air casing, a piston rod having one end movable in the casing, a spring to hold the piston rod in extended position, a coupling head at the outer end of the piston rod, and means to yieldably support the free end of the air casing, said means comprising an attaching plate secured to the top of the casing, a pair of laterally spaced supporting bolts supported beneath the car and extending through the ends of the attaching plate, nuts on the ends of the supporting bolts, and coil springs around the supporting bolts between the attaching plate and car.

3. A hose coupling comprising air casings, adapted to be supported beneath adjacent cars, piston rods extending through one end of said casings, resilient means in the casings to hold the piston rods extended, and coupling heads at the outer ends of the piston rods, each of said coupling heads having a longitudinal recess and a longitudinal tongue at opposite sides, the recess of one coupling head being adapted to receive the tongue of the other coupling head when brought together.

939,071. APPARATUS AND PROCESS OF LAYING CEMENT SIDEWALKS OR SIMILAR STRUCTURES. ALEXANDER D. NEY, Aurora, Ill. Filed Feb. 23, 1909. Serial No. 479,545.



1. The process of laying a cement structure, which consists in securing lower rails in the desired position, pouring in a foundation layer of material between the rails and up to the level of the upper edges of the rails, leveling the surface of such material by means of a straight edge resting upon the lower rails, then securing to the lower rails upper strips having a projection above the lower rails equal to the intended thickness of the surface layer, and then pouring in a surface layer of cement and leveling such layer by means of an implement resting upon the upper strips, substantially as described.

2. The process of laying a cement structure, which consists in securing lower rails in the desired position, pouring in a foundation layer of fluid material between the rails and up to the level of the upper edges of the rails, leveling the surface of such material by means of a straight edge resting upon the lower rails, then securing to the lower rails upper strips having a projection above the lower rails equal to the intended thickness of the surface layer, then pouring in a surface layer of cement and leveling such layer by means of an implement resting upon the upper strips, and then surfacing the top surface of the upper layer by means of surface finishing tool of a length to rest upon both of the upper strips, substantially as described.

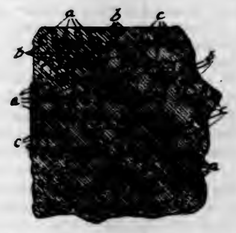
3. The process of laying a cement structure which consists in securing a lower form in the desired position, pouring in a foundation layer of material within the form and up to the level of the upper edges of the form, leveling the surface of such material by means of a straight edge resting upon the lower form, then securing to the lower form an upper form having a projection above the lower form equal to the intended thickness of the surface layer, then pouring in a surface layer of cement and leveling such layer by means of an implement resting upon the upper form, then leveling the top surface of the upper layer by means of a surface finishing tool of a length to rest upon the upper form, and then dividing the structure into sections by means of a cutter of a length to operate back and forth within the spaces between the ends of adjacent upper forms, substantially as described.

4. The process of laying a cement structure, which consists in first securing a pair of lower rails in position, then pouring in the space up to the level of the lower rails a relatively thin foundation material, then leveling the surface of such material with a straight edge laid upon the rails, then forming channels along the upper side edges of the foundation layer and inside of the rails, then clamping upper strips to the lower rails in position to hold the lower edges of the upper strips within the channels, then pouring in the space intermediate the upper strips with a surface layer of cement, and then leveling down the surface of such upper layer by means of an implement resting upon the upper strips, substantially as described.

5. The process of laying a cement structure, which consists in first securing a pair of lower rails in position, then pouring in the space up to the level of the lower rails a relatively thin foundation material, then leveling the surface of such material with a straight edge laid upon the rails, then forming channels along the upper side edges of the foundation layer and inside of the rails, then clamping upper strips to the lower rails in position to hold the lower edges of the upper strips within the channels, then pouring in the space intermediate the upper strips a surface layer of cement, then leveling down the surface of such upper layer by means of an implement resting upon the upper strips, and then leveling the top surface of the upper layer by means of a surface finishing tool of a length to rest upon both of the upper strips, substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

939,072. ROCK-LIKE SUBSTANCE. ALEXANDER D. NEY, Aurora, Ill. Filed July 10, 1909. Serial No. 506,980.



1. A rock-like substance, composed, in part, of particles of earthy material, and having the seams intermediate such particles filled with crystallized cement, the mass having therein cells or cavities formed by the withdrawal of water by crystallization, substantially as described.

2. A rock-like substance, composed, in part, of particles of earthy material of graduated sizes, and having the seams intermediate such particles filled with crystallized cement, the mass having therein cells or cavities formed by the withdrawal of water by crystallisation, substantially as described.

3. A rock-like substance, composed, in part, of particles of earthy material of graduated sizes, proportionate from the largest particle the work will permit down to the size

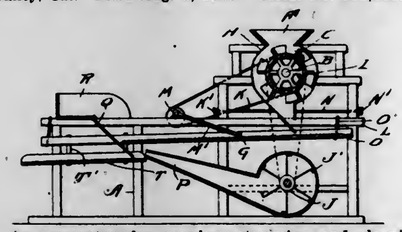
of the particles of cement used, and having the seams intermediate such particles filled with crystallized cement, the mass having therein cells or cavities formed by the withdrawal of water by crystallization, substantially as described.

4. A rock-like substance, composed, in part, of particles of earthy material, completely coated with crystallized cement to unite the seamage between the particles, and the mass having therein cells or cavities formed by the withdrawal of water by crystallization, substantially as described.

5. A rock-like substance, composed, in part, of particles of earthy material of graduated sizes, completely coated with crystallized cement to unite the seamage between the particles, and the mass having therein cells or cavities formed by the withdrawal of water by crystallization, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

939,073. CAP-STEMMER AND RAISIN-CLEANER. WILLIAM H. NOLAND, Fresno, Cal., assignor of one-third to E. A. Stallings and one-third to T. B. Hardy, Fresno county, Cal. Filed Aug. 5, 1909. Serial No. 511,369.



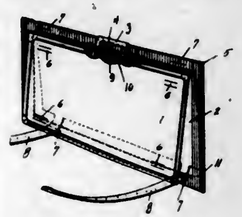
1. An apparatus for capping, stemming and cleaning raisins, comprising a frame, a rotatable cylinder with spirally arranged blades thereon, a hopper over said cylinder, adjustable concaved screens mounted about the cylinder, means for adjusting said screens, a shaker positioned underneath said screens and cylinder, means for vibrating the shaker, a second shaker supported by the first shaker, a fan, a passageway leading therefrom intermediate the two shakers, an inclined wind board positioned intermediate the shakers and extending underneath the exit end of the upper of the shakers and in alinement with the passageway leading from the fan.

2. An apparatus for capping, stemming and cleaning raisins, comprising a frame, a rotatable cylinder with spirally arranged blades thereon, a hopper over said cylinder, adjustable concaved screens mounted about the cylinder, means for adjusting said screens, a shaker positioned underneath said screens and cylinder, means for vibrating the shaker, a second shaker supported by the first shaker, a fan, a passageway leading therefrom intermediate the two shakers, an inclined wind board positioned intermediate the shakers and extending underneath the exit end of the upper of the shakers and in alinement with the passageway leading from the fan, and a box positioned upon the frame and connected to said wind board.

939,074. PUZZLE POSTAL CARD. NELLIE OLINGER, Mount Pleasant, Pa. Filed Dec. 17, 1908. Serial No. 468,009.

1. A puzzle postal card comprising two cards, a strap connecting the upper edges of said cards, one of said cards having slits formed therein to provide keepers, a frame adapted to be embraced by the aforesaid strap and adapted to surround the edges of said cards, said frame having slits formed in the upper and lower edges thereof vertically alining with the slits of said slitted card, straps carried by the other of said cards and adapted to pass through the slits of said frame and under the keepers of the slitted card, and a slitted locking tab adapted to fold downwardly over the first mentioned strap and engaging the upper edges of said cards and the under side of the upper edge of the frame.

2. A puzzle postal card comprising cards, a strap connecting the upper edges of said cards, a frame adapted to surround the edges of said cards and be embraced by said strap, straps carried by one of said cards and adapted to pass through said frame and the other of said cards, and a locking tab adapted to fold downwardly over the first mentioned strap and the upper edges of said cards and engage the under side of the upper edge of the frame.



3. A puzzle postal card comprising cards, a strap connecting said cards, a frame adapted to surround the edges of said cards and be embraced by said strap, a locking tab adapted to fold downwardly over said strap and the upper edges of said cards, and straps for retaining the ends of said cards in the plane of the surface of the frame.

4. A puzzle postal card comprising cards, a strap connecting said cards, a frame adapted to surround the edges of said cards and be embraced by said strap, a locking tab adapted to fold downwardly over said strap and the upper edges of said cards, and means carried by one of said cards for holding both of the cards parallel with said frame.

5. A puzzle postal card comprising cards, a frame adapted to surround said cards, means for detachably connecting the upper edges of said cards to said frame, means for holding the ends of said cards in the plane of the surface of the frame, and means engaging the upper edges of the cards and the frame for locking the cards to the frame.

[Claim 6 not printed in the Gazette.]

939,075. PHENOL HALOGEN PHTHALEIN COMPOUND. WILLIAM R. ORNDORFF, Ithaca, N. Y., assignor to Parke, Davis & Company, Detroit, Mich., a Corporation of Michigan. Filed Apr. 22, 1909. Serial No. 491,542. (Specimens.)

1. The herein-described process of forming phenol halogen phthaleins, consisting in subjecting a phenol and a halogen phthalic acid to the action of heat while in the presence of a dehydrating agent.

2. The herein-described process of forming phenol halogen phthaleins, which consists in heating a phenol and a halogen phthalic acid in the presence of a dehydrating agent until solidification of the mixture takes place.

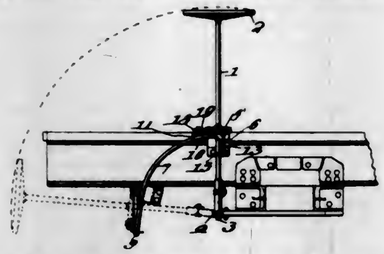
3. The herein-described process of forming phenol halogen phthaleins, which consists in heating carbolic acid and tetra-chlor-phthalic acid in the presence of a dehydrating agent and maintaining the heat at a high temperature until solidification of the mixture takes place.

4. A laxative compound, derived from a phenol and a halogen phthalic acid, characterized by its laxative action and the following physical properties: It is a colorless, tasteless and odorless crystalline body, soluble in methyl alcohol, acetone and ether, and insoluble in water; it dissolves in solutions of the alkalies, and is precipitated from these solutions by acids, and melts at approximately 316° C. when heated in a closed capillary tube.

5. The herein-described substance, derived from a phenol and a chlorphthalic acid, characterized by its laxative action and the following physical properties: It is a colorless, tasteless and odorless crystalline body, soluble in methyl and ethyl alcohols, acetone, ether, glacial acetic acid, and insoluble in water and ligroin, it dissolves in solutions of the alkalies or alkaline carbonates, and is precipitated from these solutions by acids, and melts at approximately 316° C. when heated in a sealed capillary tube.

[Claim 6 not printed in the Gazette.]

939,076. BRAKE-MAST. HENRY C. OSTERMANN, Chicago, Ill. Filed June 7, 1909. Serial No. 500,623.



1. In a device of the class described a mast pivotally mounted at its lower end, a guide rod having a loop shaped end to support the mast in its lowered position, a plate connected to said mast and slidably engaged with said rod and coöperating elements carried by said plate and mast respectively and adapted to be engaged when the mast is in upright or lowered position.

2. In a device of the character described, a mast, a supporting bracket to pivotally support the lower end of said mast, a guide rod having a loop shaped lower end and having in its upper end a retaining notch, a pawl plate slidably engaged with said rod and connected to said brake mast, a ratchet wheel arranged on said mast, and a pawl pivotally mounted on said pawl plate and adapted to be engaged with said ratchet wheel when the mast is in an upright or turned down position.

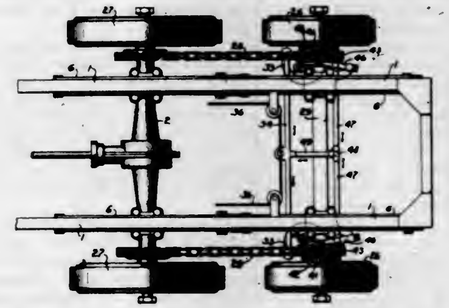
3. A device of the character described, comprising a mast pivotally mounted at its lower end to be swung to an upright or turned down position, a curved guide rod having a loop shaped lower end adapted to form a support and having at its upper end a notch, a pawl plate on said mast, said plate having a mast engaging aperture, right-angularly bent ends formed on said plate, said ends having guide rods engaging notches formed therein, an extension formed on one of said ends, said extension having a right-angular inwardly projecting apertured mast receiving plate, a ratchet wheel on said mast, a pawl pivotally secured on said pawl plate and adapted to be engaged with said ratchet wheel when the mast is in an upright or turned down position.

4. In a device of the class described a mast pivotally mounted at its lower end, a guide member having means for supporting said mast in lowered position, a plate loosely mounted on said mast, coöperating elements carried by said plate and guide member respectively for locking the mast in upright position and a pawl and ratchet wheel mounted respectively on said plate and mast and adapted for engagement when said mast is in either lowered or upright position.

939,077. TRACKLESS POWER-DRIVEN VEHICLE. ISAAC E. PALMER, Middletown, Conn. Filed Nov. 13, 1908. Serial No. 462,362.

1. Running gear for trackless, power driven vehicles comprising in combination a body frame, a driving shaft journaled in said frame, four vehicle wheels mounted upon the rear part of said body frame, connections from the driving shaft for driving all of said four rear wheels, said four wheels being arranged in pairs and one of said pairs of wheels being dirigible, and means simultaneously and automatically to disconnect said pair of dirigible wheels from driving relation to said driving shaft upon lateral deflection thereof by the steering mechanism while leaving the other pair of rear wheels in driving relation to said driving shaft, so that said dirigible wheels may travel when disconnected at a differential speed with respect to said other pair of rear wheels and the vehicle be driven by said other pair of rear wheels.

2. Running gear for trackless, power driven vehicles comprising in combination a body frame, a driving shaft journaled in said frame, four vehicle wheels mounted upon the rear part of said body frame, connections from the driving shaft for driving all of said four rear wheels, said four wheels being arranged in pairs and at least one of said pairs of wheels being dirigible, and means operated by the steering mechanism to disconnect at the same time, both wheels of said pair of said dirigible wheels from driving relation to the driving shaft upon lateral deflection of the vehicle, while leaving the other pair of rear wheels in driving relation to said driving shaft whereby said dirigible wheels may travel when disconnected at a differential speed with respect to the other rear wheels and the vehicle be driven by said other pair of rear wheels.



3. Running gear for trackless, power driven vehicles comprising in combination a body frame, a driving shaft journaled in said frame, four vehicle wheels mounted upon the rear part of said body frame, connections from the driving shaft for driving both pairs of said rear wheels, a driven pair of said rear wheels being dirigible, and means operatively connected to the steering mechanism to disconnect both of said dirigible wheels from driving relation to the driving shaft upon lateral deflection of the vehicle in either direction, while leaving the other pair of rear wheels in driving relation to said driving shaft, whereby the vehicle may be driven by said other pair of rear wheels.

4. Running gear for trackless, power driven vehicles, comprising in combination a body frame, a driven shaft journaled in said frame, four vehicle wheels mounted upon the rear part of said body frame, connections from the driving shaft for driving all of said four rear wheels, said wheels being arranged in pairs and at least one of said pairs of wheels being dirigible, clutches connected to said dirigible wheels and means operatively connected to the steering mechanism simultaneously to disconnect said clutches upon lateral deflection of the vehicle while leaving the other pair of rear wheels in driving relation to said driving shaft, whereby the vehicle is driven by said other pair of rear wheels.

5. Running gear for trackless, power driven vehicles comprising in combination a body frame, a driving shaft journaled in said frame, a pair of driven dirigible and another pair of driven rear vehicle wheels connected to said shaft, and means operatively connected to the steering mechanism and to said dirigible wheels, and adapted simultaneously to disconnect both of said dirigible wheels from driving relation to said driving shaft upon lateral deflection of the vehicle while leaving the other pair of rear wheels in driving relation to said driving shaft, whereby the vehicle is driven by said other pair of rear wheels.

[Claim 6 not printed in the Gazette.]

939,078. PROCESS OF MAKING CEMENT AND OTHER PRODUCTS. SAMUEL PEACOCK, Chicago, Ill., assignor to American Cyanamid Company, New York, N. Y., a Corporation of Maine. Filed June 17, 1909. Serial No. 502,792.

1. The process of making free pentoxid of phosphorus, P_2O_5, and Portland cement in a single operation from

phosphate rock, which consists in providing a rock mixture in which the ratio of the total silica SiO_2, to the total alumina and ferric oxid is greater than 2 and less than 4; and in suitably treating said mixture to form Portland cement and to separate and recover the P_2O_5; substantially as described.

2. The process of making free pentoxid of phosphorus, P_2O_5, and Portland cement in a single operation from a phosphate rock mixture which consists in causing sufficient silica, SiO_2, to be present in said rock to make the ratio of the total silica to the alumina and ferric oxid contained in said mixture greater than 2 and less than 4, and then suitably treating the mixture to form Portland cement and to separate and recover the free P_2O_5; substantially as described.

3. The process of making free pentoxid of phosphorus, P_2O_5, and Portland cement in a single operation from phosphate rock which consists in adding sufficient silica SiO_2, to said rock to make the ratio of the total silica to the alumina and ferric oxid in the mixture greater than 2 and less than 4; in adding sufficient calcium oxid, CaO, to combine with the acid oxids present; and in suitably treating the mixture thus obtained to form Portland cement and to separate and recover the free P_2O_5; substantially as described.

4. The process of making free pentoxid of phosphorus, P_2O_5, and Portland cement in a single operation from phosphate rock, which consists in adding to each one hundred pounds of phosphate rock substantially 8.3 pounds of silica SiO_2, and substantially 51.60 lbs. of carbonate of lime, suitably preparing and treating this mixture to form Portland cement and to drive off the P_2O_5; and in suitably recovering said P_2O_5; substantially as described.

5. The process of making Portland cement from a phosphate rock mixture, which consists in causing sufficient silica to be present in said mixture to make the ratio of the total silica to the total alumina plus the ferric oxid in the mixture, greater than 2 and less than 4; causing sufficient calcium oxid, CaO, to be present to chemically combine with the total acid oxids present in the mixture; and in suitably treating the mixture to cause the said ingredients to chemically react; substantially as described.

939,079. TOOL-HOLDER. WILLIAM A. PECK, Jersey City, N. J. Filed Aug. 6, 1909. Serial No. 511,589.



1. In a magazine tool-holder, a tube, a plurality of bits matching thereto and lying end-to-end therein in series, the bit at one end projecting beyond said tube, and means for holding said bits in said tube and resisting end thrust and torsional strain thereon.

2. In a magazine tool-holder, a tube forming a continuous channel of angular cross-section, a plurality of bits of corresponding section matching said channel and lying end-to-end therein in series, and a yielding closure at one end of said tube, arranged to permit the introduction of said bits successively.

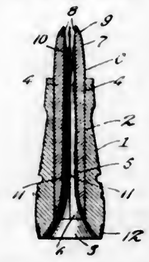
3. In a magazine tool-holder, a tube forming a continuous channel of angular cross-section, a plurality of bits of corresponding cross-section matching said channel and lying end-to-end therein in series, with the bit at one end projecting beyond said tube, means at said end for holding such projecting bit against endwise movement, and a yielding closure at the opposite end of said tube, arranged to permit the introduction of said bits successively and to resist thrusting strains thereon.

4. The magazine tool-holder described, comprising a tube of rectangular cross-section forming a continuous channel, a series of bits matching such channel and lying in end-to-end contact therein with the bit at one end projecting beyond said tube, means at said end for holding such projecting bit against forward movement, a spring secured to said tube at the opposite end and having a lip serving as a yielding closure for such opposite end and receiving rearwardly directed thrusting strains delivered thereto through said series.

5. The magazine tool-holder described, comprising a tube of rectangular cross-section forming a continuous channel, a series of bits matching such channel and lying end-to-end therein with the bit at one end projecting beyond said tube, and each having a recess, yielding means at such end arranged to engage the said recess in said projecting bit, and means at the opposite end of said tube constructed to permit the introduction of said bits successively and to resist strains delivered thereto through said series.

[Claims 6 and 7 not printed in the Gazette.]

939,080. CROW-CALL. CHARLES H. PERDEW, Sr., Henry, Ill. Filed Sept. 24, 1907. Serial No. 394,375.



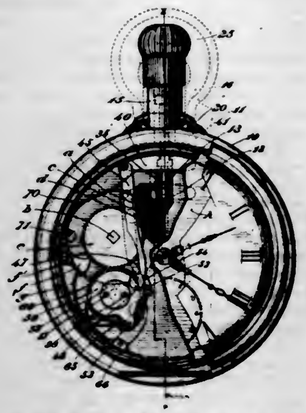
A crow call consisting of a hollow body having the opening therethrough of uniform diameter throughout its length except at one end which is outwardly flared, a reed, a reed holder of uniform diameter throughout its length and insertible within the opening of the body from either end thereof, and formed of similar sections between which the reed is held, each section having a half-round groove in its meeting face extending the entire length thereof, said groove being flared at one end and intersecting the outer side of the section, the grooves forming an opening through the holder when the sections are assembled, the flared end of the holder terminating within the body and merging into the flared opening thereof, and the opposite end of the holder projecting beyond the body to provide a mouth piece, and the adjacent faces of the projecting ends of the sections being cut away to form a flared opening into which the outer end of the reed extends.

939,081. STEM-WINDING MECHANISM FOR WATCHES. ABRAHAM PLEAN, New York, N. Y. Filed Nov. 18, 1908. Serial No. 462,404.

1. The combination of a time mechanism, a watch case inclosing said time mechanism, a push pin adapted to slide radially in said watch case and project beyond the periphery thereof, an intermediate toothed wheel in operative connection with the winding arbor of said time mechanism, an oscillating pawl support, a spring pawl pivoted to said support and engaging said toothed wheel, and a link having pivotal connection with said pawl support and with said push pin.

2. The combination of a watch case, a tubular pendant thereon, a time mechanism, a winding mechanism, a push pin normally in connection with said winding mechanism, a hollow crown freely slidable in and out on said pendant and operative by inward thrusts in connection with said push pin to actuate said winding mechanism, and automatic means for thrusting said crown into normal winding position.

3. The combination of a watch case, a hollow pendant thereon, a spring actuated time mechanism, a freely slidable spring tensioned push rod terminating at its outer end in said pendant, means for transmitting the inward thrust motion of said push rod to the winding arbor of the time mechanism, and a hollow crown freely slidable longitudinally on said pendant, said crown being provided with a push pin and operative on its inward thrusts to wind the watch.



4. The combination of a spring-actuated time mechanism, a sliding spring-actuated push pin, a slide engaged by said push pin, a pawl and ratchet mechanism engaging the winding arbor of said time mechanism, and a link connecting said pawl and ratchet mechanism with said slide.

5. The combination of a watch case provided with a hollow pendant, a watch works within said case, whereof the front plate is provided with a radial recess in line with said pendant, a slide adapted to move over said front plate and provided with a lug extending into said recess, a push pin extending into said hollow pendant and engaging said lug, and a connecting mechanism between said slide and the winding arbor of said watch works.

[Claims 6 to 11 not printed in the Gazette.]

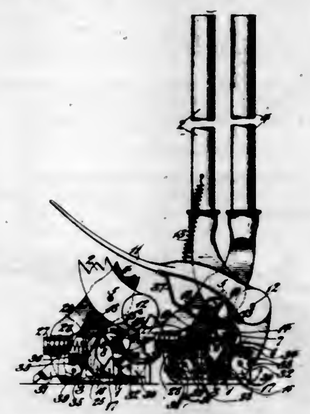
939,082. SETTING MECHANISM FOR WATCHES. ABRAHAM PLEAN, New York, N. Y. Filed Nov. 18, 1908. Serial No. 462,405.



The combination of a watch case provided with a peripheral slot, a watch works disposed in said case and provided with a dial train and with a guide slot adjacent to said train, a sliding stud journal adapted to play in said guide slot, a pinion fixed on said stud journal and movable therewith into and out of gear with said dial train, and a yielding thumb wheel also fixed on said stud journal and having a portion of its periphery projecting through said case slot.

939,083. TINNER'S DOUBLE-SEAMING MACHINE. HERMANN POELL, Philadelphia, Pa. Filed June 30, 1909. Serial No. 505,121.

1. In a machine of the character stated, the combination of a bed, a bar movably carried thereby, a crimping jaw on said bar, a jaw pivotally carried by said bed, a shaper movably mounted on said jaw, means for interlocking said shaper and said pivoted jaw, devices for moving said bar, a cam carried by said bar for unlocking said means, and cams carried by said bar and co-acting with said pivoted jaw to move the latter out of the path of the crimping jaw.



2. In a machine of the character stated, the combination of a bed, a bar movably carried thereby, a crimping jaw on said bar, a jaw pivotally carried by said bed, a shaper movably mounted on said jaw, means for interlocking said shaper and said pivoted jaw, devices for moving said bar, a cam carried by said bar for unlocking said means, cams carried by said bar and co-acting with said pivoted jaw to move the latter out of the path of the crimping jaw, and spacers movably carried by said bed and the pivoted jaw.

3. In a machine of the character stated, the combination of a bed, a bar movably carried thereby, a crimping jaw on said bar, a jaw pivotally carried by said bed, a shaper movably mounted on said jaw, means for interlocking said shaper and said pivoted jaw, devices for moving said bar, a cam carried by said bar for unlocking said means, cams carried by said bar and co-acting with said pivoted jaw to move the latter out of the path of the crimping jaw, spacers movably carried by said bed and the pivoted jaw, and means for locking the spacers in operative or inoperative position.

4. In a machine of the character stated, the combination of a bed, a bar movably carried thereby, a crimping jaw on said bar, a jaw pivotally carried by said bed, a shaper movably mounted on said jaw, means for interlocking said shaper and said pivoted jaw, devices for moving said bar, a cam carried by said bar for unlocking said means, cams carried by said bar and co-acting with said pivoted jaw to move the latter out of the path of the crimping jaw, spacers movably carried by said bed and the pivoted jaw, said spacers having a plurality of notches therein, and fastening devices carried by said bed and said pivoted jaw for engagement with said notches.

5. In a machine of the character stated, the combination of a bed, a bar rotatable thereon, a cam on said bar, a treadle on said bed for actuating said cam, a crimping jaw on said bed, a jaw pivoted with respect to said bed, handles for said pivoted jaw and bed, a shaper movably mounted on the pivoted jaw, means for interlocking the shaper and pivoted jaw, a cam on said bar for controlling such interlocking, and cams on said bar co-acting with said shaper to move the latter out of the path of the crimping jaw on the rotation of said bar.

[Claims 6 to 9 not printed in the Gazette.]

939,084. MANGANESE STEEL. WINFIELD S. POTTER, Mahwah, N. J., assignor to Manganese Steel Rail Company, Mahwah, N. J., a Corporation of New Jersey. Filed Apr. 25, 1907. Serial No. 370,303.

1. An annealed manganese steel ingot having a strong tough skin.

2. An annealed manganese steel ingot having a strong tough skin and a dense and fine crystalline structure throughout.

3. A manganese steel ingot having a substantially uniform fine crystalline structure in its outer portion.

4. A manganese steel ingot having in its outer portion a strongly cemented structure comprising crystals of well defined form.

5. A manganese steel ingot having a substantially uniform fine crystalline structure throughout.

[Claims 6 and 7 not printed in the Gazette.]

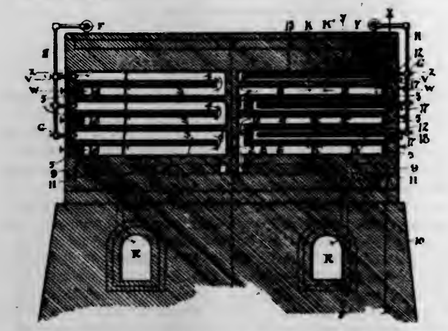
939,085. COMBINED HAMMER AND SIGHT. ADDISON M. POWELL, Valdez, Alaska. Filed June 18, 1909. Serial No. 502,920.



1. As an article of manufacture, a hammer for firearms, said hammer comprising a body portion provided with a slot, and a substantially L-shaped piece of thin metal extending into said slot and secured relatively to the same, said thin piece of metal being provided with a hole extending through it and serving as a rear sight, and further provided with a notch also serving as a rear sight, said notch being disposed in vertical alinement over said hole when said hammer occupies its normal position.

2. The combination of a barrel, a front sight mounted thereupon, a hammer movable relatively to said barrel, said hammer being provided with an extending portion having a hole through it and also having a notch disposed adjacent to said hole, said notch and said hole being in vertical alinement relatively to each other and to said front sight when said barrel and said hammer occupy their normal positions.

939,086. BY-PRODUCT RETORT COKE-OVEN. HUGH PRENTICE, Bellevue, Pa. Filed Dec. 17, 1908. Serial No. 467,933.



1. A by-product coke oven having a walled coking chamber and a series of parallelly arranged combustion chambers in the side walls thereof one above the other and independent of each other, and a gas burner for each of said combustion chambers, and said side walls also having a series of separate air passages adjoining each combustion chamber and opening thereinto at said burners and comprising two-part forward and return portions extending the full length of said combustion chambers, and separate air intakes for each of said air passages and their respective combustion chambers and burners.

2. A by-product coke oven having a walled coking chamber provided with a series of separate combustion chambers longitudinally arranged at each side thereof at different elevations and each of said combustion chambers having a separate discharge passage for the burned gases therefrom arranged parallel therewith and at one side thereof, and said discharge passages having communication with a discharge flue beneath said oven chamber.

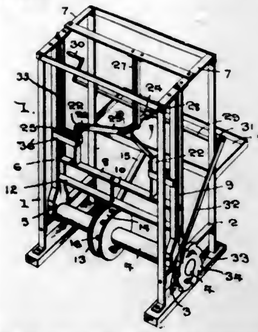
3. A by-product coke oven having a walled coking chamber provided with a series of separated and independent combustion chambers arranged longitudinally thereof and each of said combustion chambers having air intake passages arranged immediately adjacent thereto substantially the full length thereof and with a return extension and each of said combustion chambers also provided with horizontal discharge passages for the burned gases arranged adjacent to said air intake passages, and whereby the air for combustion purposes is preheated.

4. A by-product coke oven having a series of coking chambers and intervening walls provided with combustion chambers at each side thereof and air intake passages therefor arranged substantially the full length of and centrally of said walls between said combustion chambers, said walls having horizontal discharge passages for the burned gases from said combustion chambers located between said air intake passages the full length thereof, whereby said air passages are exposed at all sides to the heat flues within said walls.

5. In by-product coke ovens, a battery of ovens having intervening walls provided with a series of separate combustion chambers arranged in pairs at different elevations therein and separate gas burners therefor, and each pair of said combustion chambers having a discharge passage for the burned gases and also a horizontal air passage centrally located between them substantially the full length thereof, and each of said air passages having an independent fresh air intake and outlet openings for its respective combustion chambers, and a discharge flue open to the burned gas passages.

[Claim 6 not printed in the Gazette.]

939,087. SEEDING DEVICE. JOHN PRICER and THOMAS J. BARTOW, Manzanola, Colo. Filed Apr. 13, 1909. Serial No. 489,631.



A device of the character described, comprising a tubular shaft having arranged therein a conveyer for delivery laterally of said shaft, a drum arranged centrally upon said shaft and provided with an annular groove in its periphery, said drum also having a series of depressions communicating with said groove and a series of ducts communicating with said depressions and with the interior of said shaft, a feed tube having its lower end adapted to deliver into said groove, means for feeding the objects to be treated into said tube, a plunger having its lower end entering said drum, in central alinement transversely thereof, a bar arranged for vertical movement and connected to said plunger, means for guiding the movement of said bar, resilient members connected to said bar, for delivering their pressure thereon, a bifurcated member having its arms connected to upstanding members of said bar, means for actuating said bifurcated member, said shaft being provided with a ratchet at one end and a pawl-member connected to the means for actuating said bifurcated member and engaging said ratchet.

939,088. BENCH-STOP. MERTON R. RAYNESFORD, Ellis, Kans. Filed July 22, 1908. Serial No. 444,760.

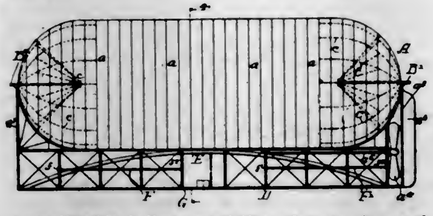


1. A bench stop having a plurality of segmental arms pivoted together, an outwardly disposed end plate secured to one of said arms and constituting a clamping jaw, said end plate having a gap, the other of said arms extending outwardly through said gap, and means for spreading the ends of said arms, said means having a limited movement.

2. A bench stop comprising segmental arms pivoted intermediate their ends and adapted to be arranged in an opening in a bench, an end plate secured to one of said arms and constituting a clamping jaw, and means for separating the ends of said arms whereby said arms will bind in the opening of the bench to secure the stop in position, said end plate having an opening for movably receiving the other of said arms.

3. A bench stop comprising segmental arms adapted to be positioned in an opening in a bench, said arms being pivoted intermediate their ends, an end plate arranged on one of said arms and having an opening which serves to limit the movement of the other of said arms, said last mentioned arm having a lug extending through said opening, and a cam pivotally secured on said end plate and adapted to engage the lug of said arm whereby the ends of said arms can be separated one from another to lock the device securely in the opening of said bench, said cam having a stop adapted to engage said end plate whereby the movement of said cam is limited.

939,089. DIRIGIBLE BALLOON. BEYNON D. REESE, Philadelphia, Pa. Filed June 8, 1909. Serial No. 500,940.



1. A dirigible balloon consisting of a gas bag and a structure carried thereby, said bag consisting of a series of circumferentially extending strips joined edge to edge and all terminating so as to form a single longitudinal opening in the bag, with means for clamping together the edges of said opening formed by the ends of the strips so as to close the opening.

2. The combination in a dirigible balloon of a gas bag, a truss structure hung therefrom, and means attached to said structure for holding the ends of the gas bag in an expanded position, said means being capable of being collapsed or expanded at will.

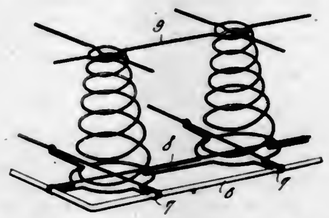
3. The combination in a dirigible balloon of a gas bag, propelling mechanism, and a structure hung from said bag for supporting said propelling mechanism, said structure consisting of a vertically placed panel truss, in combination with a curved member extending from the central upper portion of said truss structure downwardly to the end thereof.

4. The combination in a dirigible balloon of a gas bag consisting of a substantially cylindrical body and hemispherical ends, ribs for said ends, and means for expanding or collapsing said ribs at will, with a truss structure hung from the gas bag, and propelling means carried by said structure.

5. The combination in a dirigible balloon of a gas bag, means for maintaining the ends of said bag in an expanded position, the same including spindles passing through each end of the bag and respectively provided with trunnions, and a truss structure attached to the bag and movably connected to said trunnions.

[Claims 6 to 13 not printed in the Gazette.]

939,090. SPRING STRUCTURE. HERMAN REIDENBACH, Marion, Ind. Filed Apr. 29, 1909. Serial No. 493,059.



1. A spring structure comprising a plurality of helices having base rings constituting continuations of the whirls thereof, each ring having radial elongated loops having off-set terminal portions, and tie devices extending through the off-set portions and longitudinally of the loops, each ring being disposed between a tie device and a loop of an adjoining helix.

2. A spring structure including helices, each having a base ring constituting a continuation of the whirls of the helix, there being a radially extending loop integral with said ring and having a terminal offset portion, each loop being extended under the base ring of an adjoining helix and with said offset portion projecting through the ring and a tie device extending longitudinally of the loop and over the base rings and through the offset portions.

3. A spring structure including a plurality of helices each including a base ring constituting a continuation of the whirls of the helix, radially extending arms integral with said base ring and each having an upstanding lip at the free end thereof, each loop extending under the base ring of an adjoining helix and the lip on said loop projecting through said ring, and tie devices extending longitudinally of the loops and over the base rings and through the lips.

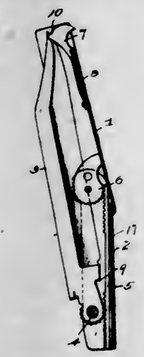
4. A spring structure comprising a plurality of helices having base rings constituting continuations of the whirls thereof, each ring having radial elongated loops provided with off-set terminal portions, tie devices disposed at angles to each other and crossed at points within the base rings, said devices extending longitudinally within the loops and through the off-set terminal portions, each base ring being extended between one of the tie devices and a loop of an adjoining helix.

939,091. HUNTING-KNIFE. GEORGE P. RIGGS, St. Marys, W. Va. Filed Sept. 26, 1908. Serial No. 454,915.

1. In a folding knife, the combination, with a handle in two parts, one adapted to be folded into the other or extended in line therewith, of a blade mounted on the inner part of said handle and means of connection between said blade and handle whereby the inner part of the handle is closed as the blade is opened and opened as the blade is closed.

2. In a folding knife, the combination, with a handle in two parts, one adapted to be folded into the other or extended in line therewith, of a blade mounted on the inner part of said handle, and means of connection between said

blade and handle whereby the inner part of the handle is closed as the blade is opened and opened as the blade is closed, the cutting edge of said knife when closed being housed partially in each part of said handle.



3. In a folding knife, the combination, with a handle in two parts, one adapted to be folded into the other or extended in line therewith, of a blade mounted on the inner part of said handle, and means of connection between said blade and handle whereby the inner part of the handle is closed as the blade is opened and opened as the blade is closed, and means to lock said blade in an open position, comprising a spring-pressed catch mounted on the outer part of the handle and adapted to engage a notch in the inner part of said handle.

4. In a folding knife, the combination, with a handle in two parts, one adapted to be folded into the other or extended in line therewith, of a blade mounted on the inner part of said handle and means of connection between said blade and handle whereby the inner part of the handle is closed as the blade is opened and opened as the blade is closed, and means to lock said blade in an open position comprising a spring-pressed catch mounted on the outer part of the handle and adapted to engage a notch in the inner part of said handle, and a push button extending through the outer part of the handle for releasing said catch.

5. In a folding knife, the combination, with a handle in two parts, one adapted to be folded into the other or extended in line therewith, of a blade mounted on the inner part of said handle and means of connection between said blade and handle whereby the inner part of the handle is closed as the blade is opened and opened as the blade is closed, and means to lock said blade in a closed position comprising a catch on the outer part of the handle adapted to engage a notch in the inner part of said handle.

[Claims 6 to 12 not printed in the Gazette.]

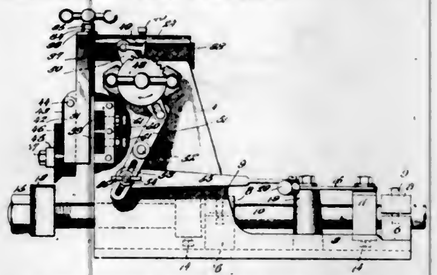
939,092. SUBSTITUTE BUTTONHOLE ATTACHMENT. FRANK ROBERTSON, Denver, Colo. Filed Dec. 29, 1908. Serial No. 469,826.



1. A substitute buttonhole attachment, consisting of a blank folded at opposite edges to form a tape, with the tape slit and worked with a buttonhole connecting the layers thereof together, and a metal fastener for securing the tape to a garment, arranged at each side of the buttonhole and passing through and binding the layers of the tape together.

2. A substitute buttonhole attachment consisting of a piece of flexible tape having a substitute buttonhole therein and designed to be located in any position on a garment and to lie at one side thereof only, and fasteners to connect the tape to the garment, attached to the tape at the opposite sides of the buttonhole.

939,093. PLANING-MACHINE. WILLIAM A. ROBERTSON, Charlottetown, Prince Edward Island, Canada. Filed Sept. 4, 1908. Serial No. 451,714.



1. A hand planing machine embodying a frame, a work carriage mounted to reciprocate on the frame, and including sliding rods having threaded end portions, relatively stationary and adjustable cross-bars carried by the rods, and nuts on the threaded ends of the rods for adjusting the adjustable cross-bar, said cross-bars forming the jaws of a work clamp, a tool carriage movable at right angles to the work carriage, means for reciprocating the work carriage, and means for intermittently feeding up the tool carriage on the return strokes of the work carriage.

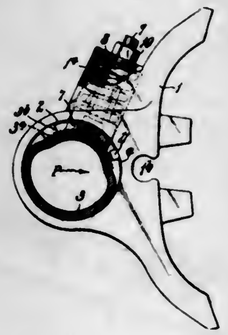
2. A hand planing machine embodying a frame, a tool support carried thereby, a work carriage embodying rods slidable on the frame and having relatively fixed and movable cross-bars forming the jaws of a work clamp, adjusting nuts on the rods for adjusting said movable cross-bar, and a table adapted to be clamped between said cross-bars and provided with eyes to engage the rods.

3. A hand planing machine embodying a frame, a reciprocating work carriage thereon, a tool carriage mounted for movement at right angles to the work carriage, a dovetailed head removably mounted upon the tool carriage, a tool holder having a dovetailed slot receiving the head, a feed screw carried by the holder and having a threaded engagement with the head, whereby the holder may be adjusted relatively to the work, a reinforcing bar adapted to be applied to the frame below the tool carriage, and a supplementary head adapted to bear against said bar and to engage the screw and the lower portion of the dovetailed slot in the holder below the first mentioned head.

4. In a planing machine, and in combination with a feed carriage, and a tool carriage movable at right angles thereto, said tool carriage being provided with a dovetailed supporting head, a tool holder having a dovetailed slot receiving the head, a feed screw carried by the holder and having a threaded engagement with the head, receiving brackets on the frame of the machine, a reinforcing bar adapted to fit within said brackets below the tool carriage, and a supplemental dovetailed head having a threaded passage and adapted to fit within the dovetailed slot of the holder and engage the screw below the supporting head and to bear against said bar, and adjusting screws upon the brackets engaging the bars.

5. In a planing machine, and in combination with a work carriage, and a tool carriage movable at right angles thereto, said tool carriage having a receiving opening at right angles to its plane of movement, a vertically arranged dovetailed head having a stem extending horizontally from its rear face and removably secured within said receiving opening, said head also having a vertical threaded passage, a vertically movable tool holder formed in its rear face with a vertical dovetailed slot receiving said head, an adjusting screw mounted upon the top of the tool holder and depending therefrom and working in said threaded opening in the head, and means for operating said carriages.

939,094. ADJUSTABLE BRAKE-HEAD. HENRY B. ROBISCHUNG, Cloverdale, Mich., assignor to Chicago Railway Equipment Company, Chicago, Ill., a Corporation of Illinois. Filed May 11, 1908. Serial No. 432,188.



1. The combination of a brake beam, a brake head provided with a socket within which a portion of the brake beam is mounted, a spring-pressed locking block carried by the brake head and so disposed with relation thereto that the forward wall of said socket is yieldingly forced against the part of the brake beam on which the brake head is mounted; substantially as described.

2. The combination of a brake beam, a brake head provided with a socket within which a portion of the brake beam is mounted, a spring-pressed locking block carried by the brake head and adapted to yieldingly force the bottom of said socket toward the brake beam; substantially as described.

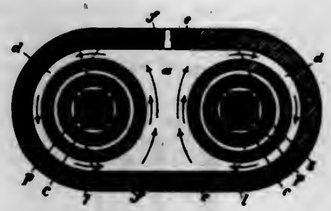
3. A brake head having a socket and a locking block pocket opening into said socket, said pocket being above the lowest point of said socket; substantially as described.

4. The combination of a brake beam, a brake head mounted thereon, and means for taking up the clearance below the center of the beam and between the brake head and beam so as to prevent the head from rattling on the beam; substantially as described.

5. The combination of a brake beam, an adjustable head mounted on said beam, said head having means for the attachment of a brake hanger, and means on the head for taking up the clearance space between the head and the beam, said means assisting gravity in preventing the parts from rattling; substantially as described.

[Claims 6 to 22 not printed in the Gazette.]

939,095. ELECTRIC FURNACE. HERMANN RÖCHLING and WILHELM RODENHAUSER, Völklingen, Germany, assignors to The Gröndal Kjellin Company Limited, London, England, a Corporation of Great Britain. Filed Sept. 7, 1906. Serial No. 333,686.



1. In an electric transformer furnace, in combination a magnet core (*c*) piercing the furnace and having a primary and a secondary winding (*p* and *s*), the smelting room in the furnace being formed by annular channel (*d*) surrounding the magnet core.

2. In an electric transformer furnace, in combination a magnet core (*c*) piercing the furnace and having a primary and a secondary winding (*p* and *s*), the latter being formed by a water pipe, serving as a cooling means for the furnace material, the smelting room in the furnace being formed by an annular channel (*d*) surrounding the magnet core.

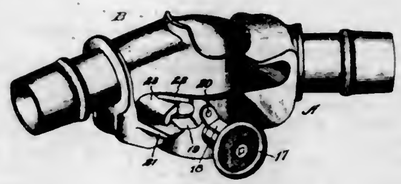
3. In an electric transformer furnace, in combination a magnet core (*c*) piercing the furnace and having a primary and a secondary winding (*p* and *s*), the smelting room in the furnace being formed by an annular channel (*d*) surrounding the magnet core, a portion of the channel (*a*) being widened to form a smelting hearth and terminal plates (*e*, *f*) arranged within the sides of said smelting hearth, adapted to electrically connect the secondary winding with the material within said smelting hearth.

4. In an induction furnace, a magnet core, a primary winding therefor and a melting channel surrounding said core, in combination with a secondary winding on said core and means for conveying the current induced in said secondary winding to the melting channel to heat the material therein.

5. In an induction furnace, a magnet core, a primary winding therefor and a melting channel surrounding said core, in combination with a secondary winding on said core and means for completing the circuit of the current induced in said secondary winding through the material in the melting channel.

[Claims 6 to 10 not printed in the Gazette.]

939,096. HOSE-COUPLING. IRA I. ROSE, Thebes, Ill. Filed Sept. 4, 1908. Serial No. 451,686.



1. A coupling of the character described comprising coöperating complemental members, a valve arranged within one of the members, a spring normally exerting a force to hold the valve seated, a pivoted support carrying said valve, a rock shaft mounted upon the member, connecting means between said rock shaft and pivoted support to effect unseating of the valve, and actuating means applied to the projecting end of the rock shaft to admit of the same being operated by hand or automatically by cooperation with a projecting part of the companion member when both members of the coupling are assembled.

2. A coupling of the character described, comprising coöperating companion members, one of said members having a cam projection and the other member having an automatic closing valve, a rock shaft mounted upon the last mentioned member, connecting means between said rock shaft and valve to effect unseating of the latter, a hand piece fitted to the projecting end of the rock shaft, an arm secured to the rock shaft to turn therewith, an actuator pivotally connected with said arm and adapted to engage the cam projection of the first-mentioned member to effect automatic opening of the valve when the members of the coupling are assembled, a retaining device connected with said actuator, and a projecting part applied to said second member to coöperate with the retainer for holding the actuator in proper working position.

3. In a coupling of the character described comprising coöperating complemental members, the combination of a valve located within one of said members and adapted to close the opening thereof, a pivoted support carrying said valve, a spring normally holding the valve closed, a rock

shaft mounted in the member, connecting means between the inner end of the rock shaft and pivoted support to effect unseating of the valve, a hand piece applied to the projecting end of the rock shaft, an arm secured to the projecting end of the rock shaft to turn therewith, an actuator pivoted to said arm and adapted to coöperate with a cam portion of the mating member to effect automatic unseating of the valve when the members of the coupling are assembled, a retainer connected with said actuator, and a projecting part extended from said member and coöperating with the retainer to hold the actuator in position to insure its coöperation with the cam portion of the mating member when the parts of the coupling are placed together.

939,097. PROCESS OF PREPARING A PREVENTIVE OF TUBERCULOSIS. JULIUS F. ROSENBACH, Göttingen, Germany. Filed June 14, 1909. Serial No. 502,031.

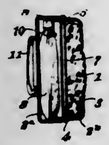
1. A process of producing a preventive of tuberculosis, which comprises the addition of small particles of trycophyton fungus culture to tubercular bacillus cultures growing on a suitable nutrient, removing the culture mass from the nutrient after the fungus is developed, and then treating the culture mass and nutrient separately to produce the desired product.

2. A process of producing a preventive of tuberculosis, which comprises growing trycophyton fungus on living virulent tubercular bacillus and its nutrient while the bacillus is still on the nutrient, separating the fungus culture from the nutrient, and forming extracts from the nutrient and the fungus culture separately.

3. A process of producing a preventive of tuberculosis, which comprises the addition of small particles of a culture of tricophyton holosericum album to tubercular bacillus cultures growing on a suitable nutrient, removing the resulting culture mass from the nutrient after the fungus is developed, and separating the desired product from both the culture mass and the nutrient.

4. A process for producing a preventive of tuberculosis which process consists in growing trichophyton fungus on living virulent tubercular bacillus and its nutrient while the bacillus is still on the nutrient, then separating the fungus culture from the nutrient, then grinding the fungus culture, then extracting separately the nutrient and the ground fungus culture by a solution of glycerin and carbolic acid, then filtering each solution free of bacteria and if necessary concentrating it in a vacuum.

939,098. ANTISEPTIC FINGER-MOISTENER. JOHN A. SAUER, Brooklyn, N. Y., and GEORGE E. POTTER, Newark, N. J.; said Potter assignor to said Sauer. Filed Sept. 30, 1908. Serial No. 455,453.

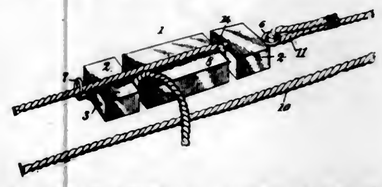


1. In a finger moistener the combination of a casing comprising a base and a cover therefor, said cover being formed with an opening, an absorbent member arranged within the casing so as to be exposed through the opening, and a flexible bag having an opening in the side thereof arranged within the casing beneath said absorbent member, said bag being adapted to contain a quantity of water, said absorbent member adapted to be placed against said bag to force a small quantity of water through the opening to said absorbent member.

2. In a finger moistener, the combination of a casing having an opening in one side thereof, an absorbent member arranged within the casing so as to be exposed through the opening, a ring within the casing, and an elastic strip carried by the ring and extending across the back of the absorbent member for holding the absorbent member yieldingly against that side of the casing provided with the opening.

3. In a finger moistener, the combination of a casing, an absorbent member within the casing, a flexible bag arranged within the casing and adapted to discharge into the absorbent member when pressure is applied thereto, and yielding means for normally preventing the absorbent member from pressing against the bag.

939,099. CLOTHES-LINE TIGHTENER. ROBERT C. SCHEURER and LOUIS MAREK, Union Hill, N. J. Filed Nov. 2, 1908. Serial No. 460,788.

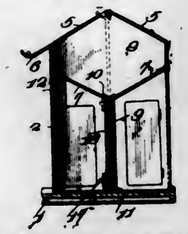


1. A clothes line tightener comprising a pair of substantially rectangular heads, a substantially rectangular block disposed between said heads, said block being shorter than the span between said heads whereby gaps are formed between the ends thereof and said heads, means for supporting and guiding said block to slide between said heads, said block and said heads presenting end faces substantially at right angles to the longitudinal axis of said tightener and adapted to pinch the line therebetween, an eye adjacent to one of said heads adapted to have the clothes line attached permanently thereto, and a guide member at the opposite head through which the line may pass.

2. A clothes line tightener, having a frame presenting two parallel bars, substantially rectangular blocks fixed at the ends of said frame, and a substantially rectangular slide block mounted to slide on said bars and forming gaps adjacent to said heads through which the clothes line may pass, said frame having an eye formed at one extremity thereof and having a second eye at the opposite extremity thereof, said second eye projecting laterally so as to receive the line passing along the flat side of said slide block.

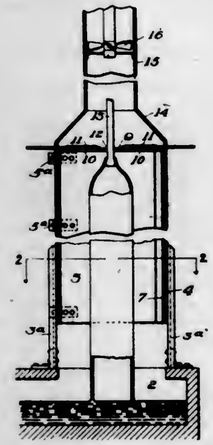
3. A clothes line tightener having a frame formed of wire presenting a pair of parallel bars and having an integral eye formed at one end thereof in substantially the same plane with said bars, blocks forming heads attached on said bars, and a slide block mounted on said bars between said heads and forming gaps adjacent said heads through which the line may pass, said frame having a laterally projecting integral eye at the end thereof opposite said first eye, said laterally projecting eye being adapted to receive a line passing along the side face of said block.

939,100. MATCH-SAFE. FRANK SCHILLE, Brooklyn, N. Y. Filed Sept. 16, 1908. Serial No. 453,334.



A device as specified comprising a tray, a box mounted on said tray, a sloped top disposed on said box having an aperture formed through the upper end of the same, a trough formed upon the lower edge of said top, partitions disposed in said box and inclined centrally thereof, an ejector mounted centrally in said box and adapted to rest normally upon the lower ends of said partitions, plates vertically positioned in parallel planes in said box upon the opposite sides of said ejector to guide the same, a pin carried by said ejector and extended laterally through a longitudinal slot formed through one of said plates, a lever carried by one of said plates and loosely engaged with said pin, said lever adapted to actuate said ejector and a clearer positioned in the upper end of said box for removing matches from said ejector at times.

939,101. METHOD OF DRAWING GLASS CYLINDERS. HARRY A. SCHNELBACH, Crafton, Pa. Filed July 9, 1908. Serial No. 442,723.



1. The method of drawing cylindrical glass articles, consisting in drawing the article from a molten body of glass up through an inclosed space, creating a draft up through said inclosure, directing the heat from the molten glass up and around the cylinder during the drawing operation, and maintaining an even heat or a substantially even heat around that portion of said cylinder within said inclosed space.

2. The method of drawing cylindrical glass articles consisting in drawing the article from a molten body of glass up through an inclosed space, exposing the lower portion of said cylinder above said molten body of glass to atmospheric temperature conditions, directing the heat from the molten glass up and around said cylinder during the drawing operation, and maintaining an even or a substantially even heat around that portion of said cylinder within said inclosed space by controlling the draft.

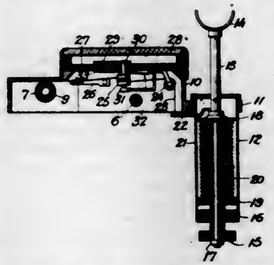
3. The method of drawing cylindrical glass articles, consisting in drawing the article from a molten body of glass up through an inclosed space, permitting a certain portion of heat arising from said molten body of glass to escape at a point below the inclosed space, and maintaining an even or a substantially even heat around that portion of the cylinder contained within said inclosed space.

939,102. DRILL-CHUCK. CHARLES F. SCHULTIS, Lakewood, Ohio, assignor to The Cleveland Collet and Machine Company, Cleveland, Ohio, a Corporation of Ohio. Filed Jan. 7, 1909. Serial No. 471,067.

A drill chuck comprising a threaded body having a slotted hand sleeve engaged therewith, a slotted collet rotatably mounted upon said body, jaws slidably engaged and carried by said sleeve and collet and confined their full length within the collet to sustain torsional strains thereon, and a tapering ring removably mounted upon said sleeve to engage said jaws.



939,103. LIQUID-WEIGHER. EDWARD F. SHUE, New York, N. Y. Filed July 7, 1908. Serial No. 442,292.



1. In a device for weighing liquids, the combination with a frame and horizontal dial, of a tube depending from the frame, a spring within the tube, a plunger supported in its elevated position by the spring, a hand for the dial, and means connecting the plunger and hand to indicate the depression of the former.

2. In a device for weighing liquids, the combination with a frame and horizontal dial, of a hand pivoted in the dial, a depending tube carried by the frame, a plunger playing through the tube and having a disk near its upper end, a spring between the disk and the bottom of the tube, means for adjusting the tension of the spring, a support on the plunger for a receptacle, a cord connecting the plunger and the hand, and a spring at the end of the cord.

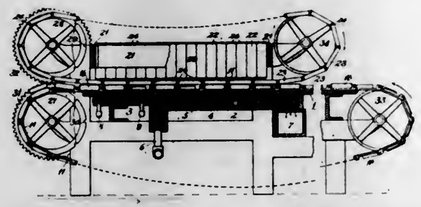
3. In a device for weighing liquids, the combination with a dial having cross arms to be supported by faucets, of a pivoted hand in the dial, a vertical plunger with supporting means for a liquid receptacle, a spring normally elevating the plunger, a lateral arm on the plunger, adjusting means for the spring, and means connecting the arm with the hand to cause the rotation of the latter on its pivot when the plunger is depressed.

4. In a device for weighing liquids, the combination with a casing, of a dial and indicator hand, cross arms for supporting the casing, a tube depending from the casing, a plunger with lateral arm, a spring surrounding the plunger to elevate it, adjusting means for the spring in the bottom of the tube, a cord connecting the hand with the lateral arm of the plunger, and means for putting the cord under tension.

5. In a device for weighing liquids, the combination with a casing of a rigid cross arm, extensible arms with forks at their ends to coöperate with the rigid arm in supporting the casing, a plunger with a hook at its upper end, an adjusting screw at its lower end, a spring under compression, a dial on the casing, an indicator hand, a drum on the shaft of same, a cord connecting the plunger with the drum and a spring at the outer end of the cord.

[Claim 6 not printed in the Gazette.]

939,104. CAN-SOLDERING MACHINE. CHARLES W. SLEEPER, Lancaster, N. H. Filed Nov. 10, 1906. Serial No. 342,858.



1. In a can soldering machine, a heated plate; a weight located above said plate; and means for moving cans to be soldered across said plate beneath said weight, the relative arrangement of the parts being such that the weight will exert pressure upon the cans being soldered throughout their movement across said plate to force them into contact therewith.

2. In a can soldering machine, a heated plate; a series of weights located above said plate; and means for moving cans to be soldered across said plate beneath said weights, the relative arrangement of the parts being such that the weights will maintain a yielding pressure upon the cans throughout their movement across the plate.

3. In a can soldering machine, a heated plate; a series of weights located above said plate and free to move vertically; a guiding member for maintaining said weights in position; means for moving cans to be soldered across said plate beneath said weights; and means whereby said weights exert pressure upon said cans throughout their movement across said plate.

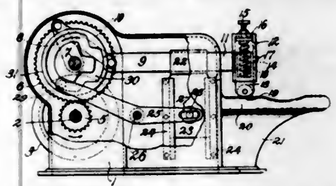
4. In a can soldering machine, a heated plate; a series of weights located above said plate and capable of limited vertical movement; a guiding member for maintaining said weights in position; a flexible member beneath said weights and upon which they rest said member being adapted to contact with the cans throughout their movement across said heated plate; and means for moving cans to be soldered across said plate beneath and in contact with said flexible member.

5. In a can soldering machine, a heated plate; a series of weights located above said plate and capable of limited vertical movement; a roller upon the lower end of each of said weights; a guiding member for maintaining said weights in position; a movable flexible member beneath said weights and upon which they rest, said member being adapted to contact with the cans throughout their movement across said heated plate; means for moving cans to be soldered across said plate beneath and in contact with said flexible member; and means for moving said flexible member.

[Claims 6 to 15 not printed in the Gazette.]

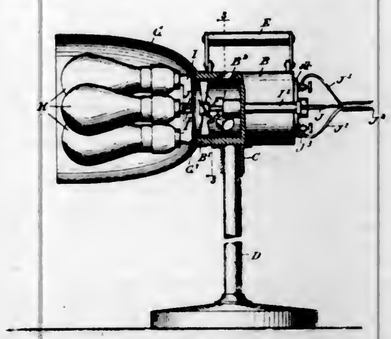
939,105. MACHINE FOR PRESSING AND SHAPING THE BACKS OF SHOES. CHARLES S. SMITH and DORR H. HADSELL, Brockton, Mass., assignors of one-third to Thomas D. Barry, Brockton, Mass. Filed Nov. 11, 1907. Serial No. 401,592.

1. A machine for shaping and pressing a shoe-back, comprising a frame having at its forward end a stationary rounded shaping block, vertical guideways in said frame at the rear end of said block, a hanger arranged to slide vertically in said ways and provided at its upper end above said ways with a long horizontal bearing, a horizontally extending arm mounted to reciprocate in said bearing, a slide block carried by said arm and mounted to reciprocate vertically transversely thereof, a rubbing roll pivoted in the lower end of said slide block to bear on said rounded shaping block, means to maintain said slide block normally under downward engaging pressure, power mechanism to reciprocate said arm, and means operating simultaneously therewith to reciprocate said hanger.



2. A machine for shaping and pressing a shoe-back, comprising a frame having at its forward end a stationary rounded shaping block, vertical guideways in said frame at the rear end of said block, a hanger arranged to slide vertically in said ways and provided at its upper end above said ways with a long horizontal bearing, a horizontally extending arm mounted to reciprocate in said bearing, a slide block carried by said arm and mounted to reciprocate vertically transversely thereof, a rubbing roll carried yieldingly in the lower end of said slide block to bear on said rounded shaping block, power mechanism to reciprocate said arm, and means operating in connection with said power mechanism to reciprocate said hanger for maintaining the pressure of the roll uniform as it reciprocates along said shaping block.

939,106. HAIR-DRYING APPARATUS. WILLIAM A. SOLES, New York, N. Y. Filed Dec. 14, 1908. Serial No. 467,378.



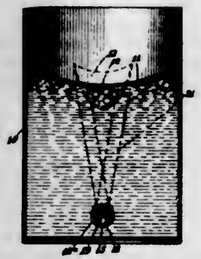
1. A hair-drying apparatus, comprising a hood having a reflecting inner surface and open at the front, an electric lamp in the said hood, the rays of light emanating from the said lamp being reflected through the open end of the hood, and a fan at the rear of the hood for forcing a current of air over the said lamp to heat the air and to force the heated air out of the open end of the said hood.

2. A hair-drying apparatus, comprising an electric fan mounted in a casing, a reflecting hood held on the said fan casing, the said hood being open at the front end and having its rear end provided with an opening in register with the discharge opening of the fan casing, and a cluster of electric lamps arranged in the said hood for heating the air forced through the hood by the said fan, the rays of light emanating from the said electric lamps being reflected by the hood in the direction of the travel of the current of heated air.

3. A hair-drying apparatus, comprising an electric fan mounted in a casing, a reflecting hood held on the said fan casing, the said hood being open at the front end and having its rear end provided with an opening in register with the discharge opening of the fan casing, a cluster of electric lamps arranged in the said hood for heating the air forced through the hood by the said fan, the rays of light emanating from the said electric lamps being reflected by the hood in the direction of the travel of the current of heated air, and electric supply wires for the said motor and the said electric lamps and arranged for connection with the same source of electricity supply.

4. A hair drying apparatus, comprising a lamp, a fan behind the lamp for forcing the current of air over the said lamp to heat the air, and a hood inclosing the lamp and having a reflecting surface for the purpose set forth, said hood having an opening to permit the passage of air from the fan to the lamp.

939,107. MILK PASTEURIZER AND FILTER. CHARLES C. STAMBAUGH, New York, N. Y. Filed May 14, 1909. Serial No. 496,008.



1. In a combined pasteurizer and filter, a pail having a depressed head dividing it into an upper milk compartment and a lower hot water compartment, a tubular filtering chamber arranged in the hot water compartment near the bottom of the pail, a filtering trough seated in the chamber, having inwardly and downwardly-inclined flanges at opposite sides, with the edges of the flanges separated to provide a slot for the passage of foreign particles in the milk into the trough, and pasteurizing flues leading from the head to the filtering chamber over the slot in the trough.

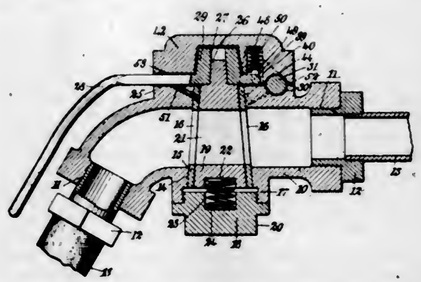
2. In a combined pasteurizer and filter, a pail having a depressed head dividing it into an upper milk compartment and a lower hot water compartment, a filtering chamber arranged in the hot water compartment near the bottom of the pail, and pasteurizing flues leading from the head to the filtering chamber.

3. In a combined pasteurizer and filter, a pail having a depressed head dividing it into an upper milk compartment and a lower hot water compartment, the hot water compartment having an inlet opening at the top provided with a surrounding spout at one side of the pail, the said water compartment also having a valve-controlled outlet leading from a point near the bottom of the pail, a tubular filtering chamber arranged in the hot water compartment near the bottom of the pail, having a controlling valve at the outside of the pail, a filtering trough seated in the filtering compartment having a slot in the top, and pasteurizing flues leading from the head to the filtering chamber and discharging over the slot in the trough.

4. The combination of a milk compartment, a hot water compartment, a filtering chamber, a filtering trough seated in the chamber, and pasteurizing flues leading from the milk compartment through the hot water compartment and discharging into the filtering compartment over the filtering trough.

5. The combination of a milk compartment, a hot water compartment, a tubular filtering chamber arranged in the water compartment near the bottom thereof, a spigot arranged at the outside of the hot water compartment and removably applied to the filtering chamber, a strainer arranged between the spigot and chamber, a filtering trough seated in the chamber and removable through the end thereof when the spigot is removed, and pasteurizing flues leading from the milk compartment to the chamber and discharging over the filtering trough.

939,108. LOCK-VALVE. THOMAS M. SWANK, Louisville, Ky. Filed Feb. 11, 1909. Serial No. 477,431.



1. A valve, comprising a valve body, an operating member for the body, a keeper for engaging the said member to lock the body in an open position, and a key controlled means for operating the keeper to permit the valve body to be moved into a closed position, the keeper being moved into an inoperative position by the operating member when moving the body from a closed to an open position.

2. A valve, comprising a valve body, an operating handle for the body, having a projection, a keeper for engaging the projection of the handle to lock the body in an open position, and key operated means for operating the keeper to permit the valve body to be moved into a closed position, the keeper being moved into an inoperative position by the projection of the handle when moving the valve body from a closed to an open position.

3. A valve comprising a valve body, a handle for operating the body, having a projection, a keeper for engaging the projection of the handle to lock the valve body in an open position, and a key operated rocking tumbler for disengaging the keeper from the said projection.

4. In a valve, a valve plug having an open and a closed position, a pivoted keeper controlling said plug, and a key-controllable rocking tumbler for operating said keeper, said keeper being inoperative with respect to said plug when the latter is in a closed position.

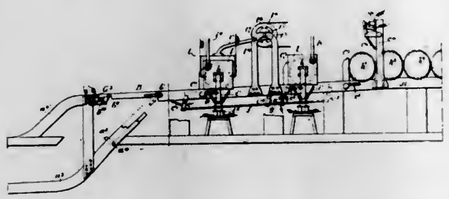
5. In a valve, a valve plug, a keeper, a stop controlling said plug and adapted to engage said keeper to hold said plug in an open position, and a tumbler controlling said keeper and operable by means of a key, said stop displacing said keeper to an inoperative position when moving from one position to another corresponding respectively, to a closed and an open position of said plug.

[Claims 6 to 8 not printed in the Gazette.]

939,109. METHOD OF AND APPARATUS FOR TESTING AND SORTING METALLIC BODIES. JOHN A. SWITZER, Philadelphia, Pa. Filed Feb. 21, 1907. Serial No. 358,615.

1. In an apparatus for sorting steel axles and similar bodies, the combination of a source of current having terminals in electrical contact with the body to be tested, a testing device sensitive to abnormal resistance at any part of the body being tested, a sorting device for causing the separation of defective and perfect specimens of the bodies to be tested, and connections between the testing device and the sorting device, so arranged that said sorting device is actuated by reason of the influence upon the testing device of abnormal resistance at any part of the body being tested.

2. In an apparatus for sorting steel axles and similar bodies, the combination of a source of current having terminals in electrical contact with the body to be tested, a testing device sensitive to abnormal resistance at any part of the body being tested, means for bringing said testing device into operative engagement with said body, a sorting device for causing the separation of defective and perfect specimens of the bodies to be tested, and connections between the testing device and the sorting device so arranged that said sorting device is actuated by reason of the influence upon the testing device of abnormal resistance at any part of the body being tested.



3. In an apparatus for sorting steel axles and similar bodies, the combination of a source of current having terminals in electrical contact with the body to be tested, a testing device sensitive to abnormal resistance at any part of the body being tested, means for conveying the body to be tested to and from its position when in contact with said terminals, a sorting device for causing the separation of defective and perfect specimens of the bodies to be tested, and connections between the testing device and the sorting device so arranged that said sorting device is actuated by reason of the influence upon the testing device of abnormal resistance of any part of the body being tested.

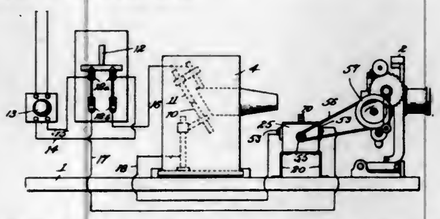
4. In an apparatus for sorting steel axles and similar bodies, the combination of a source of current having terminals in electrical contact with the body to be tested, a testing device sensitive to abnormal resistance at any part of the body to be tested, means for bringing said testing device into operative engagement with said body, means for conveying the body to be tested to and from its position when in contact with said terminals, a sorting device for causing the separation of defective and perfect specimens of the bodies to be tested, and connections between the testing device and the sorting device so arranged that said sorting device is actuated by reason of the influence upon the testing device of abnormal resistance of any part of the body being tested.

5. In an apparatus for sorting steel axles and similar bodies, the combination of a source of current having terminals in electrical contact with the body to be tested, a testing device sensitive to abnormal resistance at any part of the body being tested, means for regulating the passage of the body to be tested to and from its position in contact with said terminals, a sorting device for causing the separation of defective and perfect specimens of the bodies tested, and connections between the testing device and the sorting device so arranged that said sorting device is actuated by reason of the influence upon the testing device by abnormal resistance of any part of the body being tested.

[Claims 6 to 21 not printed in the Gazette.]

939,110. CONTROLLING-SWITCH FOR MOVING-PICTURE MACHINES AND STEREOPTICONS. TOMOTAKA TAIRA, Fresno, Cal. Filed Apr. 6, 1909. Serial No. 488,231.

1. The combination of a moving picture machine and an electric lamp, with an automatic speed controlled switch directly included in the circuit of said lamp, and suitably connected with the moving picture machine to break the circuit for said lamp when the moving picture machine slows down or stops, and to complete the circuit for said lamp when the moving picture machine is operated at the proper speed.



2. The combination with a moving picture machine, an electric lamp and a circuit for said lamp, of switch terminals directly included in said lamp circuit, a bridging contact plate adapted to close the circuit through said switch terminals, and a speed governor operated by the moving picture machine and adapted to move said contact plate into and out of electrical contact with said switch terminals for making and breaking the lamp circuit.

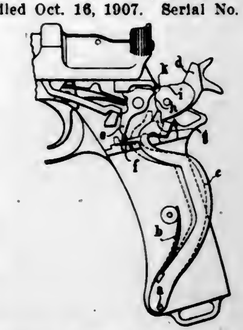
3. The combination of a moving picture machine, an electric lamp therefor, and a circuit for said lamp, with an automatic controlling switch directly included in said lamp circuit and comprising spaced switch terminals, a contact plate adapted to move into contact with said switch terminals, a spring retaining said contact plate out of contact with said terminals, a speed governor adapted to move said contact plate into contact with said terminals, and means for driving said governor from said moving picture machine.

4. In an apparatus of the character described, the combination of a moving picture machine, a stereopticon, an electric lamp adapted to be shifted into operative relation with either said moving picture machine or stereopticon, a circuit for said electric lamp, separated switch terminals directly included in said lamp circuit, and two independently operated bridging contact plates adapted to independently close the circuit through said switch terminals.

5. In an apparatus of the character described, the combination of a moving picture machine, a stereopticon, an electric lamp adapted to be shifted into operative relation with either said moving picture machine or stereopticon, a circuit for said electric lamp, separated switch terminals directly included in said lamp circuit, and two independently operated bridging contact plates arranged upon opposite sides of said switch terminals and adapted to independently close the circuit through said switch terminals.

[Claims 6 and 7 not printed in the Gazette.]

939,111. AUTOMATIC SAFETY APPLIANCE FOR PISTOLS, &c. JOSEPH TAMBOUR, Nanterre, near Paris, France. Filed Oct. 16, 1907. Serial No. 397,717.



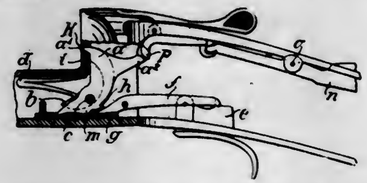
1. In an automatic safety appliance for pistols and the like, the combination with a sear, of a hammer having a shoulder, a spring-actuated safety lever having projections to engage the sear and hammer shoulder, the sear and hammer being free from said projections either by the act of gripping the weapon for intentional firing or by overcocking the hammer, a direct pull on the hammer causing the shoulder of the latter to engage and actuate the safety lever to release the sear, leaving the lever free to return to normal position during the fall of the hammer to arrest the latter before it reaches the firing pin.

2. In an automatic safety appliance for pistols or the like, the combination of a sear, a trigger, a hammer having a hammer plate provided with notches, and a spring-actuated safety lever having projections to engage the sear and the notches of the hammer plate, the notches being so positioned that when the trigger is released and the cocked hammer has been let down, the hammer is supported simultaneously by the sear and the safety lever when the latter is in its normal position.

3. In an automatic safety appliance for pistols and the like, the combination of a sear, a hammer having a hammer plate with notches therein, one of said notches being a cocking notch, and a safety lever having projections to engage the sear and hammer plate, one of the projections engaging the sear when the hammer is cocked until the remaining projection is disengaged from the hammer plate, a direct pull on the hammer causing a part of the latter to engage and actuate the safety lever to release the sear and freeing said lever for return to normal position during the fall of the hammer to arrest the latter before it reaches the firing pin.

4. In an automatic safety appliance for pistols or the like, the combination with a sear and hammer, of a spring-actuated safety lever having projections to engage the sear and hammer, a hammer plate having catch means, and a main spring having an inclined surface and a claw-shaped part whereby as the hammer moves forward the spring is raised and slides backwardly on the surface of the catch to bring back the hammer to half-cocked position, in order to permit engagement therewith of the sear and the safety lever.

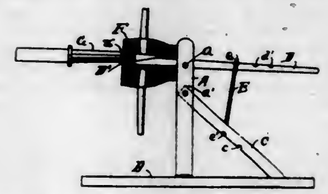
939,112. SMALL-ARM. JOSEPH TAMBOUR, Nanterre, near Paris, France. Filed June 23, 1909. Serial No. 503,884.



1. A firearm of the class specified having a basquill wall with an opening therethrough, a hammer pivotally mounted adjacent to the said wall and provided with a cavity, a safety piece mounted in the cavity and on the pivot of the hammer to engage the said wall, a main spring disposed to operatively engage both the hammer and the safety piece, a spring-actuated sear arranged to coöperate with the hammer, and a trigger, the angular profile of the safety piece being like that of the hammer but of smaller angle so that under pressure of the main spring the said piece projects beyond the hammer and relieves the latter during the last part of its stroke from the action of the main spring, the trigger when released after firing resulting in the sear spring bringing the hammer back until it is stopped by the main spring.

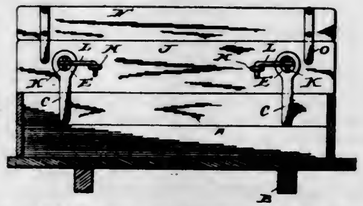
2. A firearm of the class specified having a basquill wall, a hammer pivotally mounted adjacent to said wall and provided with a cavity and a projection, a safety piece disposed in the cavity and mounted on the pivot of the hammer, the safety piece being adapted to engage the said wall, a main spring disposed to engage both the hammer and safety piece, a sear and sear spring coöperating with the hammer, a trigger, and a safety lever having a projection to engage the projection of the hammer.

939,113. WAGON-JACK. ROBERT C. TUCKER, Lamont, Mich. Filed Aug. 13, 1908. Serial No. 448,983.



In a wagon jack, a supporting base, two parallel standards secured at one end to the base, a brace secured at one end to the base and thence extending diagonally upward and secured to the standards, and having notches in its lower edge, and the upper end firmly secured between the standards forming a vertical slot and a pivot point between the standards, a rivet passed through the standards to form a pivot point between the standards above the end of the brace, a lever having a notch in its lower edge arranged to work upon the latter pivot points and having one end tapered to a broad, thin horizontal plate with a concaved vertical flange at the extreme end, and arranged to pass through a buggy wheel hub and form a concave bearing for the skein on the axle-tree, and a link made to pass over the other end of the lever and extend down and engage the notches in the brace to sustain the weight of the buggy when removing a wheel.

939,114. WAGON-BODY. HENRY WACHTER, Clinton, Mo. Filed Mar. 8, 1909. Serial No. 482,086.



1. In a wagon body, the combination with the sides thereof, of irons having bifurcated portions engaging the sides, an auxiliary board pivotally joined to said irons, and means pivoted to the said board and having their free ends engaging eyes thereon for securing the board in a vertical position.

2. In a wagon body, the combination of a supplemental board, irons pivoted thereto and having a forked portion to engage the side of the body, an upwardly projecting arm on the irons, hooks and eyes secured to the board and serving in connection with the said projecting arm to secure the supplemental board in upright or inclined position.

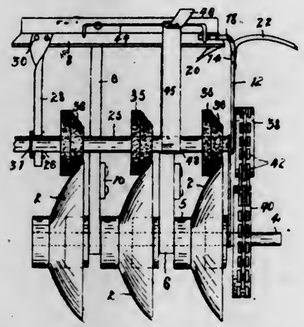
3. The combination of a wagon body, irons having a forked portion engaging the same, a lateral pintle and an upwardly projecting arm having an eye formed therein on the upper part of said irons, a board pivotally secured to said pintles, a hook secured to the board passing through the eye in the iron for securing the board in upright or inclined position.

4. The combination with a wagon body, of irons having a forked portion engaging the same, a vertical arm having an eye in its upper end on one side of the iron and a lateral pintle on the other side, a supplemental board, means on said board engaging the pintle to form a hinged connection between the board and the wagon body, and means pivoted on the supplemental board passing through the eye in the arm and engaging an eye on the board for holding the board in upright position.

5. The combination with a wagon body, of irons having a forked portion engaging the same, a vertical arm having an eye in its upper end on one side of the iron and a

lateral pintle on the other side, a supplemental board, means on said board engaging the pintle to form a hinged connection between the board and the wagon body, and means pivoted on the supplemental board and passing through the eye in the arm and engaging an eye on the board for holding the board in upright position, the free ends of said pivoted means being adapted to engage the eye in the arm to hold the board when in depressed position.

939,115. PORTABLE AND DETACHABLE DISK-GRINDER. JOHN C. WARD, Epworth, Iowa. Filed Aug. 3, 1908. Serial No. 446,652.



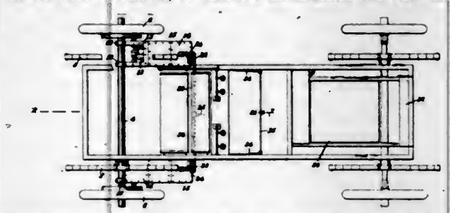
1. In a device of the character described, a flexible hanger and a rigid hanger secured to the frame of a disk machine, a grinder shaft journaled in said hangers, a grinding means thereon, and means for swinging one end only of the grinder shaft to bring the grinding means into grinding contact with the disks, and means for operating the grinder shaft.

2. In a device of the character described, hangers secured to the frame of a disk machine, a grinder shaft, grinding means thereon, one end of the grinder shaft being journaled in one end of the hangers and swingable therewith, a plate pivoted to the other hanger, the other end of the grinder shaft being journaled to one end of the plate, and a disk shaft being journaled in the other end of the plate means for swinging one end only of the grinder shaft to bring the grinding means into grinding contact with the disks, and operating connection between the two shafts.

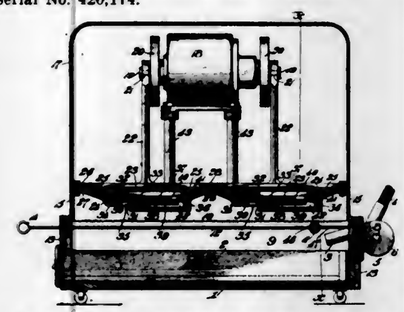
3. In a device of the character described, a flexible and a rigid hanger secured to the frame of a disk machine, a grinder shaft, grinding means thereon, one end of the grinder shaft being journaled in the flexible hanger, a plate pivoted to the rigid hanger, the other end of the grinder shaft being journaled in one end of the plate, and the other end of the plate having an opening to receive the disk shaft of the disk machine, gearing for connecting the grinder shaft and the disk shaft, a rod on the disk machine frame extending longitudinally of the grinder shaft, and flexible means slidable thereon for swinging one end of the grinder shaft and the flexible hanger to bring the grinding means into grinding contact with the disks.

939,116. DRIVING-GEAR FOR AUTOMOBILES. EDWARD G. WHITACRE, Wellsville, Ohio. Filed May 8, 1909. Serial No. 494,829.

A driving gear for automobiles, comprising traction wheels rotatably mounted on the carrying axle, two reciprocating motors embodying crank shafts, two casings pivotally mounted on the axle of said traction wheels, said casings supporting said motors and forming bearings for said crank shafts, two gear wheels one of which is fixedly mounted on each of the said traction wheels, two gear pinions one of which is fixedly mounted on each of said crank shafts and engaged with one of said gear wheels mounted on said traction wheels, suspending devices for supporting said casings on the body of the vehicle, said devices being pivotally mounted upon the said vehicle and upon the said casing, a steam generator mounted upon the said body and adapted to deliver power to the said motors through a common duct whereby the unequal demands for power medium on the part of the two motors are at all times accommodated, a throttle mechanism for said motors having suitable connecting devices with the foot pedal situated conveniently to the foot of the chauffeur for controlling said motors, and a water circulating system embodying a pump operated by the said motors, an extension being passed through the said casings from the reciprocating parts of the said motors to engage an elongated vertically disposed loop in the end of a rocking lever to reciprocate the plunger of said pump.



939,117. VACUUM-CLEANER. THEODORE WIEDEMANN and JOSEPH H. TEMPLIN, Philadelphia, Pa., assignors, by mesne assignments, to Keller Manufacturing Company, a Corporation of Delaware. Filed Mar. 10, 1908. Serial No. 420,174.



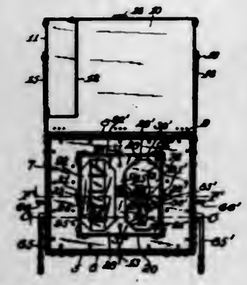
1. In a device of the character stated, the combination with a portable support, of a removable tray therein, a separating device for the dust and air above said tray, a rotatable brush located in proximity to and beneath said separating device, substantially parallel ways below said separating device serving as a guiding means for said rotary brush, an inlet pipe for conveying the dust, dirt etc. from a suction pipe above the said tray, and a vacuum pumping device disposed above said separating device, and a motor for actuating said vacuum-pumping device.

2. In a device of the character described, a casing, a screen located therein, a vacuum pump located at one side of said screen, a rotatable cleaner located at the opposite side of said screen, and longitudinally extending, guiding means below said screen in which the ends of said rotatable cleaner are mounted, whereby said cleaner is adapted to have both a rotary and reciprocatory movement imparted thereto.

3. In a device of the character described, a casing a separating device within the receptacle, a rotatable cleaner, means for moving said cleaner bodily backward and forward below said separating device and guiding devices extending substantially parallel to said separating device for maintaining the cleaner in contact with the underside of the separating device whereby said cleaner may be rotated and moved bodily in a line parallel with said separating device.

4. In a device of the character described, a portable support, a removable tray therein, a screen for the dust above said tray, a rotatable cleaner for said screen engaging the underside thereof, a guide for enabling said cleaner to be reciprocated in a line substantially parallel with said screen, inlet and exhaust passages below and above said screen, and a vacuum pump above the separating device.

939,118. COMBINATION CONCRETE-MOLDING MACHINE. JONAS H. WIEST, Indianapolis, Ind., assignor to Indiana Concrete Form Co., Indianapolis, Ind., a Corporation of Indiana. Filed June 29, 1908. Serial No. 440,913.



1. A molding machine including a table having guideways and also bolt-holes therein, a main mold form on the table having a plurality of lugs secured rigidly thereto that have bolts thereon extending through bolt holes and securing the mold form rigidly to the table, a partitional mold form in the main mold form in engagement with two opposite sides thereof, bolts entering bolt-holes and securing the partitional mold form rigidly to the table, two elevators movable vertically in the main mold form at opposite sides of the partitional mold form, guide-bars on the elevators extending into the guideways, means for moving the elevators, and angular mold forms secured rigidly in the main mold form at opposite sides of the partitional mold form and extending across opposite ends of the elevators.

2. A molding machine including a table, a main mold form secured rigidly on the table, a partitional mold form secured on the table and engaging opposite sides of the main mold form, the partitional mold form having two cross-arms on opposite ends thereof engaging the opposite sides of the main mold form and extending to the other sides thereof, two elevators mounted to move vertically in the main mold form at opposite sides of the partitional mold form and between the cross-arms thereof, means for moving the elevators, pallets seated removably on the elevators, two filling blocks on one of the pallets and extending substantially to the cross-arms, one block being against the main mold form and the other block against the partitional mold form, the blocks having slots therein, and partitions on said pallet and extending into the slots in the blocks.

3. A molding machine including a table, a main mold form secured on the table, a partitional mold form secured on the table and engaging opposite sides of the main mold form, two elevators mounted movably within the main mold form at opposite sides of the partitional mold form and having each a pallet thereon, each pallet having notches in opposite sides thereof, a sectional partitional mold form on one of the pallets and engaging the secured partitional mold form and also the main mold form and provided with dowels that extend into the notches, an operating shaft mounted rotatively under the table, and means connected with the shaft and also with the two elevators for raising the elevators and the pallets and also the sectional partitional mold form above the plane of the top of the main mold form.

4. A molding machine including a table, a main mold form secured on the table, a partitional mold form secured on the table and engaging opposite sides of the main mold form and having a cross-arm engaging another side of the main mold form, two elevators mounted movably within the main mold form at opposite sides of the partitional mold form and having each a pallet thereon, a sectional partitional mold form on one of the pallets and engaging the secured partitional mold form and also the main mold form, a horizontal rib form on one side of the sectional partitional mold form, a horizontal rib form extending against one side of the secured partitional mold form and the cross-arm, a horizontal rib form extending against the cross-arm and also against the main mold form, the rib forms being joined together, and means for raising and supporting the two elevators above the plane of the top of the main mold form.

5. A molding machine including a plurality of legs having each a brace attached to the top thereof, a main frame attached to the braces, a table-frame secured on the top of the main frame, a table secured in the table-frame and having a plurality of guideways therein, a main mold form secured on the table, a partitional mold form comprising two parts having each a stem and a cross-arm, the stems being joined together and the cross-arms engaging opposite sides of the main mold form, bolts securing the two parts of the partitional mold form removably to the top of the table, two elevators mounted within the main mold form at opposite sides of the partitional mold form between the cross-arms and having each a plurality of guide-bars thereon extending movably through a plurality of the guideways, means for normally supporting the elevators adjustably in a plane below the tops of the mold forms, and means for raising and supporting the elevators above the plane of the tops of the mold forms.

[Claims 6 to 12 not printed in the Gazette.]

939,119. PROCESS OF MAKING PHONOGRAMS. FRANK C. APPLEGATE, Philadelphia, Pa., assignor, by mesne assignments, to Royal Phone & Phonogram Co., Boston, Mass., a Corporation of Maine. Filed Mar. 29, 1909. Serial No. 486,431.



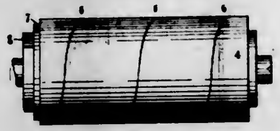
1. The process of making cylindrical phonograms consisting of forming a backing sheet into a cylinder, helically winding a ribbon of celluloid or like material thereon with its edges abutting, uniting the facing and backing and the edges of the facing, placing the blank thus formed within a die and expanding the same therein under heat and pressure whereby the blank is given a smooth outer surface.

2. The process of making cylindrical phonograms which consists in helically winding a ribbon of celluloid or like material, uniting its edges, placing the blank thus formed within a die and expanding the same therein under heat and pressure.

3. The process of making cylindrical phonograms which consists in softening a ribbon of celluloid or like material with acetone or similar substance, winding the same into a helix, uniting the edges, placing the blank thus formed within a die and expanding the same therein under heat and pressure.

4. The process of making cylindrical phonograms which consists in forming a backing sheet of coarse celluloid into a cylinder, helically winding a ribbon of celluloid or like material of a finer grade than the backing thereon, uniting the facing, backing and edges of the facing of the blank thus formed, placing the blank within a die and expanding the same therein under heat and pressure.

939,120. PHONOGRAM. FRANK C. APPLEGATE, Philadelphia, Pa., assignor, by mesne assignments, to Royal Phone & Phonogram Co., Boston, Mass., a Corporation of Maine. Filed Feb. 20, 1907, Serial No. 358,404. Renewed Mar. 29, 1909. Serial No. 486,531.



1. A cylindrical phonogram comprising a strip or ribbon of impressible material wound into a helix and having its edges united.

2. A cylindrical phonogram of impressible material comprising a backing sheet and a facing ribbon helically secured thereon with its edges united.

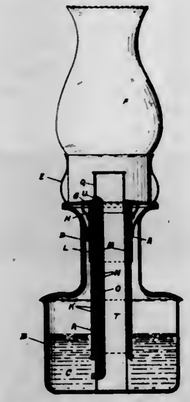
3. A cylindrical phonogram of impressible material comprising a backing sheet of coarse material and a facing ribbon of fine material helically secured thereon with its edges united.

4. A cylindrical phonogram of impressible material comprising a backing strip wound helically into a tube and a facing strip wound helically in the opposite direction and secured on the backing with the edges united.

5. A cylindrical phonogram comprising a strip or ribbon of impressible material wound into a helix with its edges united and a sound record on the outer face thereof.

[Claims 6 to 8 not printed in the Gazette.]

939,121. LIQUID-FUEL BURNER. CHRISTIAN A. BRAATEN, Brooklyn, N. Y. Filed Feb. 27, 1909. Serial No. 480,491.



In a liquid fuel burner the combination of a main wick tube, an auxiliary wick, an axially movable cylindrical ring with a plurality of flaps and springs attached to said ring, and so constructed as to permit the closing of said flaps on top of main wick in such manner that they do not interfere with nor fall on top of one another; also permitting return to initial open state essentially as described.

939,122. COMBINED BUCKLE AND CLASP. MATTHEW F. BURNS, Shelton, Conn., assignor to The Robert N. Bassett Company, Shelton, Conn., a Corporation of Connecticut. Filed Aug. 11, 1908. Serial No. 448,006.

1. As an article of manufacture a buckle comprising a sheet metal back plate having a button loop and a button tab carried thereby and having its lower extremity provided with a transversely disposed lip which is pressed down on the face of said back plate to grip the end of said button tab, and a web locking lever journaled across the face of said back plate provided with a front portion arranged to shut down over said lip when the buckle is closed.

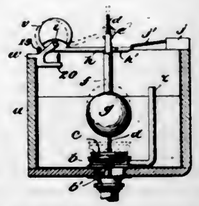


2. As an article of manufacture a buckle comprising a sheet metal back plate having its lower edge slit and curled to form alined pintle sockets, a loop member of a button clasp provided with pintles journaled in said sockets, the said lower edge being bent upwardly between said sockets to form a tab gripping lip having a transversely disposed edge around which a button tab is adapted to be drawn when coöperating with said loop and a lever journaled across the front of said back plate provided with a front member or shield arranged to shut down over said lip when the buckle is closed.

3. In a garment supporter a sheet metal buckle back provided with forwardly turned side ears and a depending button loop, combined with a button tab having its upper extremity secured to the front face portion of said back and its button end passed under said back to the rear side of said loop, and a lever carried between said ears, the said lever having a front portion which shuts down over the secured extremity of the tab when the buckle is closed.

4. In a garment supporter the combination with a garment fastening loop, of a sheet metal buckle plate hinged to said loop and a pivoted lever for adjustably locking a garment supporting strap against the face of said plate, the said lever having a front portion which shuts down over the top side of said loop the lower extremity of which is arranged to pass between the upper extremity of the sides of said loop when the latter member swings forwardly.

939,123. FLUSHING APPARATUS. THOMAS W. CHRISTY, New York, N. Y. Filed Oct. 28, 1908. Serial No. 459,389.



1. An electric flushing apparatus having, in combination, an electro-magnetic catch including an armature, a pivoted latch normally interlocked with said armature, a pivoted catch arm rendered rigid by the interaction of said armature and latch, a lever terminating in a trip which normally interlocks with said arm, a normally submerged float interacting with said lever, a flush valve controlled by said float, means for electrically operating said catch to release said float, and means for transmitting motion from the released float to said valve to open the latter.

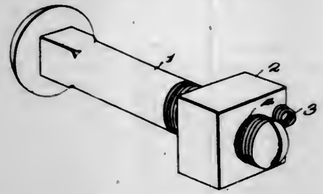
2. The combination, in a flushing apparatus, of a vertically movable flush valve, a superjacent float, means for transmitting motion from said float to open said valve, means for keeping said float normally submerged and for releasing the same including an electro-magnetic catch having its normally retracted armature and an adjacent pivoted latch provided with normally interlocked projections, a catch arm movable on a horisontal axis and normally interlocked with said latch, a lever having a horisontal pivot and a trip normally interlocked with said catch arm, a normally open electric circuit, and means for closing the same through the magnet of said catch to operate said armature and release said float.

3. The combination, in a flushing apparatus, of a vertically movable flush valve, a superjacent float, means for transmitting motion from said float to open said valve, means for keeping said float normally submerged and for releasing the same including an electro-magnetic catch including an armature, a pivoted latch normally interlocked with said armature, a catch arm movable on a horisontal axis and rendered rigid by the interaction of said armature and latch, a lever having a horizontal pivot and a trip normally interlocked with said catch arm, a normally open electric circuit, and means for periodically closing said circuit through the magnet of said catch to operate said armature and release said float; such circuit-closing means including a vertically movable float having a stem movable therewith and provided with a contact disk, and broken-connection contacts arranged to interact with said disk.

4. The combination, in a flushing apparatus, of a vertically movable flush valve having a vertical stem provided with a regulating nut, a lever movable on a fixed horizontal pivot to interact with said nut for opening the valve and provided with an eccentric weight, a normally submerged float having a stem arranged to interact with said lever, and means for rendering said lever normally locked to hold the float down and for releasing the same; said weight operating through said lever, said nut and the valve stem to hold the valve open during each flushing operation.

5. The combination, in a flushing apparatus, of a vertically movable flush valve having a vertical stem provided with a regulating nut, a lever movable on a fixed horizontal pivot to interact with said nut for opening the valve and provided with an eccentric weight, a normally submerged float having a stem arranged to interact with said lever, and means for rendering said lever normally locked to hold the float down and for releasing the same; said weight being constructed and arranged to operate through said lever and said stem of the float to assist in restoring the parts to normal condition after each flushing operation, substantially as hereinbefore specified.

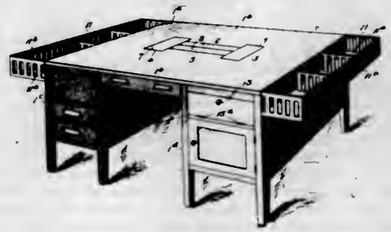
939,124. NUT-LOCK. HOWARD P. DAVIES, Scranton, Pa. Filed Aug. 20, 1908. Serial No. 449,525.



1. A nut locking device consisting of a single piece of resilient wire bent in a circle intermediate of its ends to form a closed coil, the ends of the wire beyond said coil crossing each other and being bent to form opposed outwardly bowed clamping legs adapted to embrace a bolt and engage the threads thereof, said coil forming means whereby the legs may be opened relatively to each other to permit the device to be easily removed from a bolt.

2. A nut locking device consisting of a single piece of wire bent intermediate of its ends in a circle to form a closed coil, the projecting ends of said wire, beyond the coil, crossing each other and forming opposed outwardly bowed clamping legs adapted to embrace a bolt and engage the threads thereof, said legs being of such extent as to overlap and cross each other at their ends when the legs are in their unexpanded position and being thereby adapted to be expanded until the ends abut against each other, and in this condition to be slipped over the bolt and then released from their abutting engagement to resiliently clasp the bolt.

939,125. DESK. NELLIE E. FEALY, Washington, D. C. Filed July 2, 1909. Serial No. 505,594.



1. A flat top desk formed with an opening in its top surface, the said opening having a main portion and a branch portion at either end thereof, plates, one for each branch portion, extending longitudinally thereof and across the opposite ends of the main portion and arranged to divide the said opening into a main compartment and two side compartments, a cover for each compartment, and means for slidably and pivotally supporting each cover in the desk.

2. A flat top desk formed with an opening in its top surface, having a main portion and a branch portion at either end of the said main portion, plates, one for each branch portion, extending longitudinally thereof and across the opposite ends of the said main portion, and arranged to divide the said opening into a main compartment and two side compartments, a wall arranged in each compartment and spaced from one of the sides thereof to form a recess, covers, one for each of said compartments, slidably mounted in said recesses, and means for pivoting the said covers near the upper or open ends of the recesses to permit the covers to swing downwardly to close the compartments, the covers when closed serving to form a part of the desk top.

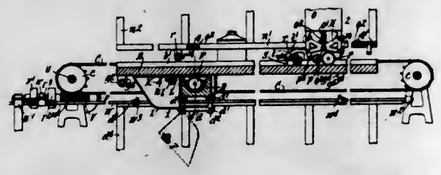
3. A flat top desk having a sunken compartment formed therein, a wall arranged longitudinally within and spaced from one side of the said compartment to form a recess, a cover pivoted to the said desk at the upper end of said recess and arranged to slide vertically therein, and a correspondence-receiving and filing device mounted in said compartment, comprising a series of partition plates, means for pivotally supporting the upper ends of said plates, and means for movably supporting the lower ends of said plates relatively to each other.

4. A flap top desk having a sunken compartment formed therein, a wall arranged longitudinally within and spaced from one side of the said compartment to form a recess, a cover pivoted to the said desk at the upper end of said recess and arranged to slide vertically therein, and a correspondence-receiving and filing device mounted in said compartment, comprising a series of partition plates, means for pivotally supporting the upper ends of said plates, and means for yieldingly supporting the lower ends of said plates relatively to each other.

5. A flap top desk having a sunken compartment formed therein, a wall arranged longitudinally within and spaced from one side of the said compartment to form a recess, a cover pivoted to the said desk at the upper end of said recess and arranged to slide vertically therein, and a correspondence-receiving and filing device mounted in said compartment, comprising a series of converging partition plates, means for pivotally supporting the upper ends of said plates, and means for movably supporting the lower ends of said plates relatively to each other.

[Claims 6 to 8 not printed in the Gazette.]

939,126. DESICCATING-MACHINE. ELDON B. FILLMORE, Medford, Mass., assignor to Daniel E. Knowlton, Buffalo, N. Y. Filed Dec. 17, 1908. Serial No. 467,945.



1. In a desiccating machine, the combination of a stationary drying surface, mechanism comprising spreading and scraping devices which travel along said surface for spreading the material thereon and removing it therefrom, and means for rendering one of said devices inactive while the other is in operation, substantially as set forth.

2. In a desiccating machine, the combination of a drying surface and a spreading mechanism, one of which parts is reciprocated relative to the other, and operating means for causing said spreading mechanism to spread the material on said drying surface during the movement of the reciprocating part in one direction and for holding the spreading mechanism and drying surface out of contact with each other to allow the material to dry on said drying surface during the movement of the reciprocating part in the opposite direction, substantially as set forth.

3. In a desiccating machine, the combination of a stationary drying surface and a mechanism comprising a spreading device which is reciprocated along said drying surface, and means for holding the spreading device in position to spread the material on the drying surface during the movement of said mechanism in one direction and for holding the spreading device out of contact with said surface to allow the material to dry thereon during the movement of said mechanism in the opposite direction, substantially as set forth.

4. In a desiccating machine, the combination of a stationary drying surface and a mechanism comprising spreading and scraping devices which are reciprocated along said drying surface, and means for holding the spreading device in position to spread the material on the drying surface during the movement of said mechanism in one direction and for holding the spreading device out of contact with said surface to allow the material to dry thereon during the movement of said mechanism in the opposite direction, said scraping device being inoperative during the operation of said spreading device, substantially as set forth.
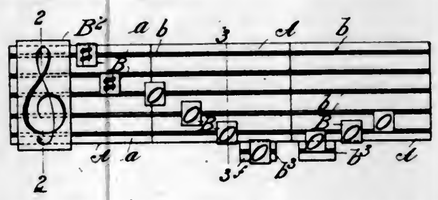
5. In a desiccating machine, the combination of a stationary drying surface and a mechanism comprising spreading and scraping devices which are reciprocated along said drying surface, and means for holding the spreading device in position to spread the material on the drying surface during the movement of said mechanism in one direction and for holding the spreading device out of contact with said surface to allow the material to dry thereon during the movement of said mechanism in the opposite direction, one of said devices being movable out of operative position when the other device is moved into operative position, substantially as set forth.

[Claims 6 to 21 not printed in the Gazette.]

939,127. MUSICAL BUILDING-BLOCKS. ARTHUR A. GIFFIN, Springfield, Mass. Filed May 4, 1909. Serial No. 493,954.

1. An amusement device consisting of pluralities of base sections and means for constituting parallel outwardly protruding ribs corresponding to staff lines, and pieces provided on their faces with musical characters, having tongues at their backs of widths corresponding to the distance between the staff line ribs, and having grooves corresponding to the thickness of said ribs.

2. A device of the character described comprising base sections having parallel longitudinal grooves and adapted to be endwise abutted with their grooves in alinement, strips wider than the depths of the grooves adapted to be engaged therein, and separate pieces having musical characters on their faces and constructed for engagements with the said rib forming strips.



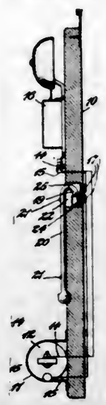
3. In a device of the character described, a plurality of base members having parallel longitudinal grooves, strips having a thickness corresponding to the width of the grooves, having widths greater than the depth of the grooves, and having lengths different from the lengths of the base-sections and adapted, by engagement with the alined grooved base sections, to constitute outstanding ribs corresponding to the staff lines, and serving to bond the base sections one to another, and separate pieces having musical characters on their faces and adapted by their back portions to engage with the staff line ribs.

4. A device of the character described comprising base sections having parallel longitudinal grooves and adapted to be endwise abutted with their grooves in alinement, strips wider than the depths of the grooves, and adapted to be engaged in such grooves, and separate pieces having musical characters on their faces and constructed at their backs with tongues of widths corresponding to the distance between the strips engaged in said grooves, and having grooves corresponding to the thickness of said strips.

5. An amusement device consisting of pluralities of base sections and means for constituting parallel outwardly protruding ribs corresponding to staff lines, thereon, blocks having protruding straight ribs, to be placed below the base sections, and pieces provided on their faces with musical characters, having tongues at their backs of widths corresponding to the distance between the staff line ribs, and having grooves corresponding to the thickness of said ribs, and adapted for engagements with the staff line ribs, and with the ribs of the pieces set below the staff.

[Claim 6 not printed in the Gazette.]

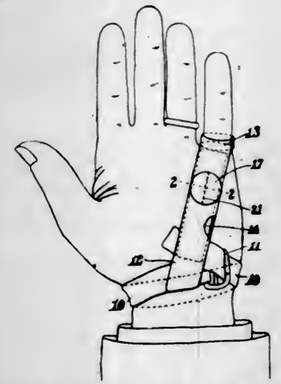
939,128. FIRE-ALARM. WALTER GOODCHILD, New York, N. Y., assignor to John Goodchild, New York, N. Y. Filed Mar. 18, 1909. Serial No. 484,302.



1. A device of the character described having a supporting panel having a chamber provided with an opening at the outer surface of the panel, a battery and a bell carried by the panel, a mercurial thermometer tube extended upon the outer surface of the panel below said chamber and provided with an upper part rearwardly directed in said chamber, and an extremity pendent from said rearwardly directed upper part within said chamber, and circuit connections extended from the battery to the bell and including spaced terminals embedded in the pendent extremity of the thermometer tube within said chamber of the panel, and adapted for electrical communication through the mercurial column thereof upon the rise of temperature.

2. A circuit closing means for fire alarm devices and the like, having a mercurial theremometer tube provided with a pendent laterally bent upper portion sealed at its lower extremity and adapted to receive the mercurial column upon elevation of temperature, spaced terminals embedded in said pendent laterally bent portion of the tube and adapted for communication through the mercurial column upon the rise of temperature, and a metallic casing arranged to inclose the sealed extremity of the pendent portion of the tube to prevent fracture thereof.

939,129. SAFETY TWINE-CUTTER. FRANK H. HASKELL, Boston, Mass. Filed June 26, 1909. Serial No. 504,608.



1. In a device of the class described, the combination of two separated disks each provided with a diametrical groove therein; means retaining said disks in position; and a cutting blade interposed between said disks and positioned within said grooves.

2. In a device of the class described, the combination of a grooved disk having a shank provided with a slot registering with said groove; another disk surrounding said shank and provided with a groove in one face; a cutting blade positioned within said grooves and slot; and a nut on said shank for retaining all of said members in position.

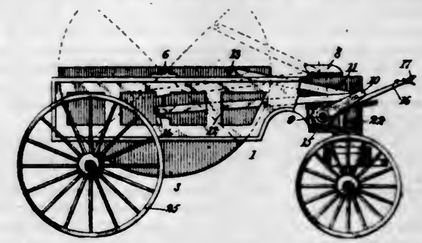
3. In a device of the class described, the combination of a grooved disk having a shank provided with a slot registering with said groove; another disk surrounding said shank and provided with a groove in one face; a cutting blade provided with a notched cutting edge within the edges of said disks; and a nut on said shank for retaining all of said members in position.

4. In a device of the class described, the combination of a grooved disk having a shank provided with a slot registering with said groove; another disk surrounding said shank and provided with a groove in one face; a cutting blade provided with a notched cutting edge at each end within the edges of said disks; and a nut on said shank for retaining all of said members in position.

5. In a device of the class described, the combination with a finger ring, a wrist band, and connecting members; of a nut secured to said member; a disk provided with a shank threaded to said nut; a disk surrounding said shank; and a cutting knife interposed between said disks.

[Claims 6 to 8 not printed in the Gazette.]

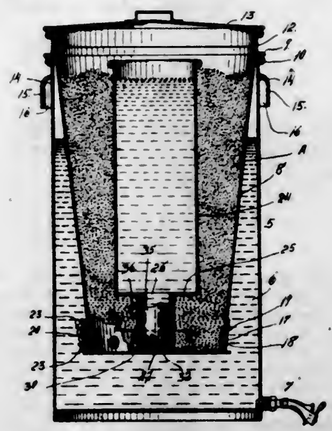
939,130. DUMPING-WAGON. HENRY L. HAZEN, Edgewater, N. J. Filed July 29, 1908. Serial No. 445,918.



1. In a dumping wagon, in combination, a frame, a body of substantially semi-cylindrical form comprising sections, a supporting pivot for said sections near the middle point of said frame and near the upper edges of said sections, the axis of said supporting pivot being disposed transversely to the longitudinal axis of said frame, a movable arm mounted on said frame, means for moving said arm, and links attached to said arm forming an angle with each other and attached respectively to said sections, said supporting pivot being disposed within said angle whereby the movement of said arm produces opposite rotations of said sections.

2. In a dumping wagon, in combination, a frame, a body of substantially semi-cylindrical form comprising sections, a supporting pivot for said sections disposed transversely to the axis of said frame, a rotatable arm, means for rotating said arm, and links having a common pivotal point on said arm forming an angle with each other and attached respectively to said body sections, said links affording means for rotating said body sections in opposite directions.

939,131. SIMPLE-SYRUP PERCOLATOR. SAMUEL T. HENSEL, Denver, Colo. Filed Mar. 5, 1909. Serial No. 481,447.



1. A simple syrup percolator, comprising a sugar container having an imperforate bottom, its wall above the bottom having a perforated portion, a water receptacle located within the sugar container and having a reduced lower portion projecting downwardly from the bottom proper of the said receptacle, the said lower portion being perforated and provided with a suitable strainer, and the receptacle being otherwise imperforate the lower extremity of the said perforated portion being closed and resting upon the imperforate bottom of the sugar container, substantially as described.

2. A simple syrup percolator, comprising a sugar container having a perforated lower portion covered with a strainer located a short distance above the bottom of the container, the bottom being imperforate, and a water receptacle located within the sugar container and having a reduced, perforated, strainer-covered lower portion resting upon the imperforate bottom of the sugar container, the lower extremity of the perforated portion of the water receptacle being interlocked with the bottom of the sugar container for the purpose set forth.

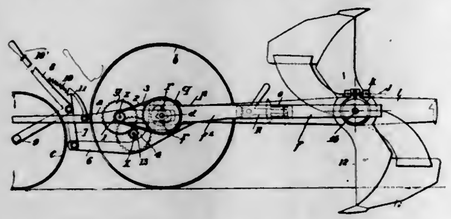
3. A simple syrup percolator, comprising a sugar container having an imperforate bottom and a perforated portion covered with a strainer just above the bottom, a water receptacle centrally located within the sugar container and whose body portion is cylindrical in shape, the bottom of the body portion having an opening from which extends downwardly a perforated portion of reduced diameter covered with a strainer, whereby the water from the receptacle is caused to travel laterally through the sugar, substantially as described.

4. A simple syrup percolator, comprising a sugar container having an imperforate bottom and a perforated portion covered with a strainer located just above the bottom, and a water receptacle centrally located within the sugar container and having a smooth outer surface, the said receptacle having a depending, perforated portion of reduced diameter covered with a strainer and whose lower extremity is closed by a plate which projects beyond the said perforated portion, the bottom of the sugar container being provided with strips with which the plate of the said perforated portion is adapted to interlock, substantially as described.

5. A simple syrup percolator, comprising a sugar container having the lower portion of its wall above the bottom perforated, and a water receptacle having a depending perforated lower portion of reduced diameter resting upon the bottom of the sugar container and removably interlocked therewith, said container and receptacle being otherwise imperforate.

[Claims 6 and 7 not printed in the Gazette.]

939,132. GANG-PLOW. LINARD A. HUBERT, Troyes, France. Filed Aug. 19, 1908. Serial No. 449,315.

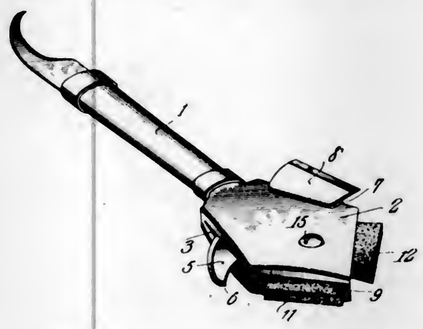


1. A gang plow comprising in combination, driving wheels and an axle therefor, a driving shaft, means operatively interposed between said axle and driving shaft for driving the former in reverse directions, a main frame mounted on said axle, a plow frame mounted on said axle, a plurality of sets of plows mounted on said plow frame, the plows of each set being arranged in transverse alinement with respect to the longitudinal axis of the gang plow, means connecting the plow frame with the main frame to tilt the former, means for throwing either sets of plows into or out of an operative position, and means for imparting continuous vibratory movement to said plows.

2. A gang plow comprising in combination, driving wheels and an axle therefor, means for driving said axle, a main frame mounted on said axle, a plow frame mounted on said axle, a plurality of sets of plows mounted on said plow frame, the plows of each set being arranged in transverse alinement with the longitudinal axis of the gang plow, means for throwing either sets of plows into or out of an operative position, and means for imparting continuous vibratory movement to said plows.

3. A gang plow comprising in combination, driving wheels and an axle therefor, means for operating said axle, a main frame mounted on said axle, a plow frame mounted on said axle, plows mounted on said plow frame in transverse alinement with respect to the longitudinal axis of the gang plow, and means imparting continuous vibratory movement to said plows.

939,133. PENCIL-SHARPENER. EDWIN H. HUMPHREY, North Clymer, N. Y., assignor of one-half to N. S. Covey, Corry, Pa. Filed Nov. 14, 1908. Serial No. 462,735.



1. A pencil sharpener comprising a head having a slot therein, a blade extending through the slot and having its end portions projecting beyond opposite portions of the head, one of said end portions being folded on to the head and constituting a sharpener, and means for binding the walls of the slot upon the blade to hold said blade against displacement.

2. A pencil sharpener comprising a handle, a head thereon having a slot extending transversely therein, a blade arranged within the slot and having its ends projecting beyond opposite portions of the head, one end of said blade being folded on to the head and extending laterally therebeyond to constitute a pencil-sharpener, and means extending through the head for binding the walls of the slot upon the blade to hold the blade against movement relative to the head.

3. A pencil sharpener comprising a handle, a head thereon having a slot extending transversely therein, a strip extending within and beyond the slot, one projecting end portion of the strip being folded back on to the head so as to fit snugly thereon and thence folded upon itself and extended beyond the head, the end of said projecting portion being sharpened and constituting a cutter, and means extending through the head and transversely of the slot at a point removed from the strip for binding the walls of the slot upon the strip.

939,134. TOBACCO-PIPE. JOHN E. IRVING, Sault Ste. Marie, Ontario, Canada. Filed Jan. 28, 1909. Serial No. 474,724.



1. In a pipe, a bowl having a tubular extension, a mouth-piece also having a tubular extension, said extensions being provided with a bore of uniform diameter, the said bore extending through the wall of the bowl, and a plug fitting said bore and terminating at one end flush with the inner surface of said bowl, such plug being provided with a smoke passage having its entrance in the said end of the plug.

2. In a pipe, a bowl having a tubular extension constituting the stem, a mouth-piece coöperating therewith, and a plug fitting within said extension and having one end projecting through the inner wall of said bowl, said plug having a smoke passage extending therethrough, and opening through the end of the plug into said bowl.

3. In a pipe, a bowl, a stem coöperating therewith, and having a tubular bore of uniform diameter tapping said bowl, a plug in said bore, and a smoke passage extending through said plug, the entrance to such passage being formed in the end of said plug, whereby when said plug is removed, ready access may be had to such passage for cleaning.

4. In a pipe, a bowl, a stem coöperating therewith, and having a bore of uniform diameter tapping said bowl, and a plug in said bore having one end forming part of the inner wall of said bowl, said plug being split longitudinally into sections, and having a tortuous smoke passage extending therethrough, the entrance to such passage being formed in such end of said plug, whereby, when said plug is removed and the sections separated, said passage and entrance may be readily cleaned.

939,135. KINEMATOGRAPH AND LIKE INSTRUMENT. ERNEST A. IVATTS, Paris, France, assignor to Compagnie Generale de Phonographes Cinematographes et Appareils de Precision, Paris, France. Filed Nov. 8, 1907. Serial No. 401,228.

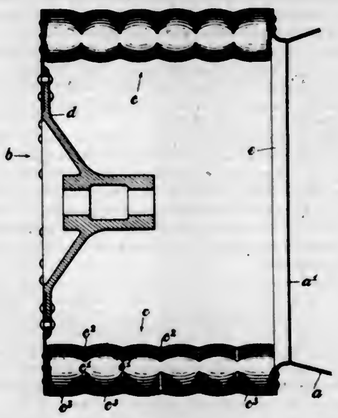


A frame for guiding the movable film or band of a kinematograph in properly centered relation, comprising a jointed structure of parallelogram formation having two of its opposite sides pivoted at their center to a fixed support, and a tensile spring attached at one corner of the parallelogram deflecting said pivoted sides of the structure toward a more acute angle with the length of said film or band, whereby the other two sides of the parallelogram are caused to contact with both edges of the film or band and maintain the same constantly centered, regardless of a varying width.

939,136. BLADE OF CENTRIFUGAL FANS. OLAF B. JACOBSEN, Aston, near Birmingham, England, assignor of one-half to The Electric and Ordnance Accessories Company Limited, Birmingham, England. Filed May 28, 1909. Serial No. 498,844.

1. A compound-corrugated centrifugal fan blade embodying an integral stay or rib formation or stiffening area, substantially as described.

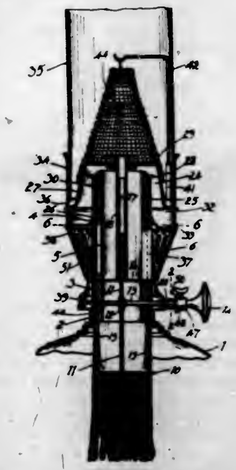
2. A compound-corrugated blade for centrifugal fans, embodying an integral stay or stiffener consisting of a part or area which is plain or intact or which is straight in longitudinal section and intersects or interrupts the transverse ridges or cross corrugations and extends from end to end of the blade, substantially as described.



3. An improved compound corrugated fan blade having a plain or intact longitudinal stiffening area for the purpose set forth.

4. The improved compound corrugated fan blade having a double curved or reflected transverse section and a plain or intact longitudinal stiffening area, for the purposes herein referred to.

939,137. INCANDESCENT-LAMP BURNER. ALBERT A. JAHNKE, San Francisco, Cal., assignor, by mesne assignments, to Incandescent Oil Lamp Company, San Francisco, Cal., a Corporation of Arizona. Filed May 28, 1907. Serial No. 376,071.



In a lamp, the combination, with the outer wall of a wick chamber, of an inner wall of an air chamber, arranged adjacent to said outer wall to form an air conduit, said inner wall extending into close proximity with the top of the outer wall of the wick chamber, and being formed close to said top with small perforations to admit air into the space between said walls, and an outer wall of the air chamber having an inwardly extending flange to direct the air inward, substantially as described.

939,138. PROCESS OF UTILIZING DRIED MILK. JOHN A. JUST, Syracuse, N. Y.; Annie L. Just and Benjamin Stolz executors of said John A. Just, deceased. Filed Aug. 20, 1907. Serial No. 389,327.

1. In the manufacture of milk products, the process of forming a reconstituted milk which consists in dissolving dried milk in water, inoculating the solution with suitable fermentative organisms, allowing the inoculated solution to stand at a suitable growing temperature until a creamy flavor and aroma like that of table milk develop, and arresting the fermentation at this point before any substantial amount of acid is formed.

2. In the manufacture of milk products, the process of forming a reconstituted milk which consists in dissolving dried milk in water, inoculating the solution with aroma-producing organisms, allowing the inoculated solution to stand at a suitable growing temperature until a creamy aroma like that of table milk develops, and arresting the fermentation at this point before any substantial amount of acid is formed.

3. In the manufacture of milk products, the process of forming a reconstituted milk which consists in dissolving dried milk in water, inoculating the solution with aroma-producing organisms and lactic organisms, and allowing the inoculated solution to stand at a suitable growing temperature until a creamy aroma and flavor like that of table milk develop and arresting the fermentation at this point before any substantial amount of acid is formed.

4. In the manufacture of milk products, the process of forming a reconstituted milk which consists in dissolving dried milk in water, inoculating the solution with suitable fermentative organisms, allowing the inoculated solution to stand at a suitable growing temperature until a creamy aroma like that of table milk develops, and arresting the fermentation at this point before any substantial amount of acid is formed and adding a soluble calcium salt.

5. In the manufacture of milk products, the process which comprises the steps of forming a solution of dried milk in water and adding a soluble calcium salt thereto.

[Claims 6 to 8 not printed in the Gazette.]

939,139. FIBROUS DESICCATED MILK. JOHN A. JUST, Syracuse, N. Y.; Annie L. Just and Benjamin Stolz executors of said John A. Just, deceased. Filed Sept. 4, 1907. Serial No. 391,375.



1. A fibrous desiccated milk composed of thin, soluble elongated and fibrous particles of dried and coherent milk solids, such particles being of greater length than thickness and including tubular fragments, and such desiccated milk in mass being light, porous and fluffy.

2. A fibrous desiccated milk composed of a plurality of thin, soluble elongated fibrous particles of dried and coherent milk solids, said particles being of greater length than thickness and comprising flattened fibrous particles, tubular fragments and filaments.

3. A filamentous desiccated milk composed of a plurality of thin, soluble elongated particles of dried and coherent milk solids, said particles being of greater length than thickness and comprising flattened fibrous particles in honeycomb-like arrangement and filaments.

4. As a new article of manufacture, a body of dried milk comprising thin walled tubular bodies having attached filaments.

939,140. CENTRIFUGAL FAN, PUMP, AND THE LIKE. JOHN KIRBY, Leeds, England, assignor to William Ross, Troy, N. Y. Filed Apr. 11, 1908. Serial No. 426,498.



1. A centrifugal fan comprising an impeller, a casing formed in two sections, such sections together surrounding the impeller and inclosing a peripheral fluid-receiving chamber in free communication with the space through which the impeller revolves, radial ribs formed in one of said sections and extending for the whole width in an axial direction of said fluid receiving chamber over and close to the peripheral edges of the impeller vanes, said ribs dividing said chamber into radial compartments, and a discharge passage formed in the other of said sections.

2. A centrifugal fan comprising an impeller, a casing formed in two sections, such sections together surrounding the impeller and inclosing a peripheral fluid-receiving chamber in free communication with the space through which the impeller revolves, and radial ribs in both of said casing sections adapted to register to form guides together extending for the whole width in an axial direction of said fluid receiving chamber over and close to the peripheral edges of the impeller vanes, said ribs dividing said chamber into radial compartments.

3. A centrifugal fan comprising an impeller, a casing having an inlet orifice at one side and communicating with a discharge chamber at the other side, said casing surrounding said impeller and inclosing a peripheral fluid-receiving chamber in free communication with the space through which the impeller revolves, radially arranged ribs extending for the whole width in an axial direction of said fluid receiving chamber over and close to the peripheral edges of the impeller vanes, said ribs dividing said chamber into radial compartments, and ribs formed in said discharge chamber.

4. A centrifugal fan comprising an impeller, a casing having an inlet orifice at one side and communicating with a discharge chamber at the other side, said casing surrounding said impeller and inclosing a peripheral fluid-receiving chamber in free communication with the space through which the impeller revolves, radially arranged ribs extending for the whole width in an axial direction of said fluid receiving chamber over and close to the peripheral edges of the impeller vanes, said ribs dividing said chamber into radial compartments, and substantially parallel ribs formed in said discharge chamber.

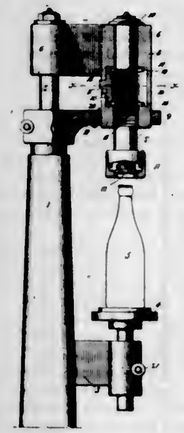
5. A centrifugal fan comprising an impeller, a casing formed in two sections, such sections together surrounding the impeller and inclosing a peripheral fluid-receiving chamber in free communication with the space through which the impeller revolves, radial ribs formed in one of said sections and extending for the whole width in an axial direction of said fluid receiving chamber over and close to the peripheral edges of the impeller vanes, said ribs dividing said chamber into radial compartments, and a discharge chamber formed in the other of said sections.

[Claims 6 to 16 not printed in the Gazette.]

939,141. BOTTLE-CAPPING MACHINE. GEORG KIRKEGAARD, New York, N. Y., assignor to Imperial Stopper Company, a Corporation of Maine. Filed Dec. 16, 1908. Serial No. 467,818.

1. A bottle capping machine comprising a carrier, a capping head loosely slidable vertically therein and normally descending by gravity to its lower limit of movement therein, and means for gripping said head in said carrier when the latter has moved to within a predetermined distance of its lower limit of movement.

2. A bottle capping machine comprising a carrier, a capping head loosely slidable vertically therein and normally descending by gravity to its lower limit of movement therein, and means positively impelled inward to grip said head in said carrier when the latter has moved to within a predetermined distance of its lower limit of movement.



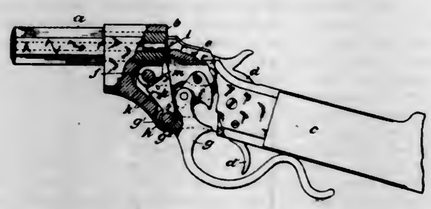
3. A bottle capping machine comprising a carrier, a capping head loosely slidable vertically therein and normally descending by gravity to its lower limit of movement therein, and jaws positively impelled inward to grip said head in said carrier when the latter has moved to within a predetermined distance of its lower limit of movement.

4. A bottle capping machine comprising a carrier, a capping head loosely slidable vertically therein and normally descending by gravity to its lower limit of movement therein, a fixed bracket or frame part having an opening through which said carrier is closely guided, and means in the carrier and engaged by said frame part for gripping said head in said carrier.

5. A bottle capping machine comprising a carrier, a capping head loosely slidable vertically therein and normally descending by gravity to its lower limit of movement therein, a fixed bracket or frame part having an opening through which said carrier is closely guided, and jaws in the carrier and engaged by said frame part for gripping said head in said carrier.

[Claims 6 and 7 not printed in the Gazette.]

939,142. FIREARM. GEORGE S. LEWIS, Chicopee Falls, Mass., assignor to J. Stevens Arms & Tool Company, Chicopee Falls, Mass., a Corporation of Massachusetts. Filed Aug. 17, 1909. Serial No. 513,327.



1. The combination with a barrel and a frame, of an ejector, means to actuate the ejector by hand and a spring-pressed plunger and abutment carried the one by the ejector and the other by the frame and co-acting to effect a quick movement of the ejector after it has been moved by hand to a determined extent.

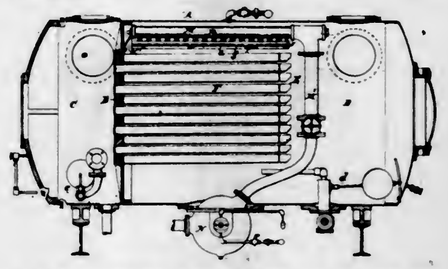
2. The combination with a barrel and a frame, a pivoted ejector and guard lever coöperating with the ejector to move the same, a spring-pressed plunger and abutment, the one being carried by the ejector and the other by the frame and co-acting to effect a quick movement of the ejector after it has been moved by the guard lever to a determined extent.

3. The combination with a barrel and a frame of a pivoted ejector, a spring-pressed plunger carried by the ejector and having a cam-face, an abutment with which said plunger co-acts to effect a quick movement of the ejector after it has been moved to a determined extent, and means to effect an initial movement of the ejector.

4. The combination with a barrel and a frame, of a pivoted ejector, a spring-pressed plunger carried by the ejector and having a cam-face, an abutment with which said plunger co-acts to effect a quick movement of the ejector after it has been moved to a determined extent, and a guard lever coöperating with the ejector to effect the initial movement thereof.

5. The combination of a barrel, a frame, a pivoted breech-block, a pivoted guard lever connected with the breech block, an ejector pivoted on the same pivot with the guard lever and receiving its initial movement from the guard lever, and a spring pressed plunger carried by the ejector and having a cam-face to coöperate with the pivot pin of the breech-block.

939,143. EVAPORATING APPARATUS. SAMUEL M. LILLIE, Philadelphia, Pa. Filed Jan. 22, 1908. Serial No. 412,070.



1. In an evaporator, a series of evaporating tubes, combined with a horizontal perforated plate arranged above said tubes having a very large number of perforations, and a pipe extending across and above the perforated plate and having a series of openings or nozzles downwardly directed toward and close to the perforated plate whereby liquid delivered to said pipe is caused to be projected upon the plate and spread into oppositely directed thin sheets of liquid traveling over its surface away from the pipe.

2. In an evaporator, a series of evaporating tubes, combined with a horizontal perforated plate arranged above said tubes, and a pipe located practically above the middle longitudinal line of the perforated plate from one end to the other and having a series of openings or nozzles downwardly directed toward and close to the plate whereby liquid delivered to the said pipe is caused to be projected onto the plate and to spread into oppositely flowing thin sheets of liquid traveling over its surface toward its longitudinal lateral edges.

3. In an evaporator, a series of parallel evaporating tubes, combined with a horizontal perforated plate arranged above said tubes and having side passages along the edges of the plate parallel to the tubes, and a pipe supported above the perforated plate and parallel to the evaporating tubes having downwardly directed openings or nozzles opening toward and close to the plate whereby liquor is caused to be projected onto the plate and to spread into oppositely flowing thin sheets traveling over its surface toward the said side passages, a portion of the

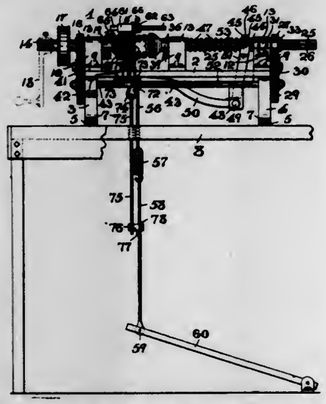
liquid passing through the perforations and the excess passing downwardly through the side passages and serving to carry away suspended matters from the plate and to wet the tubes located beyond the edges of the plate.

4. In an evaporator, the combination of a shell divided by an upright tube plate into a steam chamber and an evaporating chamber, a series of horizontal evaporating tubes extending through the upright tube plate into the evaporating chamber, a horizontal perforated plate arranged above the tubes with an unobstructed space or passages between the said upright tube plate and the adjacent edge of the perforated plate, and means for forcing the liquid upon the perforated plate whereby it is distributed over the plate in thin sheets, a portion of the liquid passing through the perforations upon the tubes and the excess of liquid passing downward through the said space or passages onto the said upright tube plate and serving to keep it thoroughly wetted and by its flushing action to prevent deposits forming on the said plate.

5. In an evaporating apparatus a series of evaporating tubes combined with a horizontal tray consisting of a perforated floor G supported upon a frame comprising the parts H, H and J at its edges and transverse bars I beneath the same, the width of the floor being less than the distance between the said parts H, H of the frame, whereby longitudinal passages K, K are provided, combined with means for projecting upon the tray the liquid to be perforated.

[Claim 6 not printed in the Gazette.]

939,144. MACHINE FOR CUTTING AND TRIMMING THE EDGES OF CORNER-PIECES. CORNELIUS J. LYSAGHT, Newark, N. J., assignor to The R. Neumann Hardware Co., a Corporation of New Jersey. Filed Oct. 9, 1908. Serial No. 456,877.



1. In an apparatus for cutting and trimming the edge-portions of triangular corner-pieces, the combination with a bed-plate provided with bearings, of a pair of revolving spindles mounted in said bearings, said spindles being in alinement with each other, and one of said spindles having a sliding motion toward the other spindle, a male supporting member upon one of said spindles, the said male supporting member being of a pyramidal form, a female clamping member upon the other spindle, said female member being provided with a hollow three-sided receiving portion, means for sliding said last-mentioned spindle forwardly so that said female member can be made to register with said male member, and means for revolving said spindles and a resiliently mounted knife-holder provided with a knife adapted to be moved against the edge of the clamped corner-pieces and operating in conjunction with the said male supporting member and said female clamping member, substantially as and for the purposes set forth.

2. In an apparatus for cutting and trimming the edge-portions of triangular corner-pieces, the combination with a bed-plate provided with bearings, of a pair of revolving spindles mounted in said bearings, said spindles being in alinement with each other, and one of said spindles having a sliding motion toward the other spindle, a male supporting member upon one of said spindles, the said male supporting member being of a pyramidal form, a female clamping member upon the other spindle, said female member being provided with a hollow three-sided receiving portion, means for sliding said last-mentioned spindle forwardly so that said female member can be made to register with said male member, means for revolving said spindles, and a cutter for trimming the exposed edge-portions of the corner-piece which is clamped between said registering male and female members, and a resiliently mounted knife-holder provided with a knife adapted to be moved against the edge of the clamped corner-pieces and operating in conjunction with the said male supporting member and said female clamping member, substantially as and for the purposes set forth.

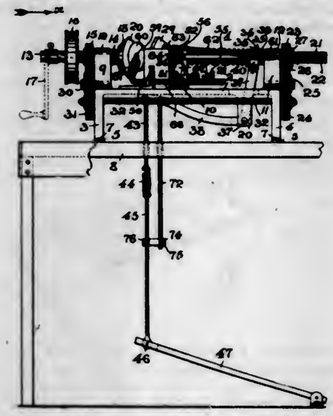
3. In an apparatus for cutting and trimming the edge-portions of triangular corner-pieces, the combination with a bed-plate provided with bearings, of a pair of revolving spindles mounted in said bearings, said spindles being in alinement with each other, and one of said spindles having a sliding motion toward the other spindle, a male supporting member upon one of said spindles, the said male supporting member being of a pyramidal form, a female clamping member upon the other spindle, said female member being provided with a hollow three-sided receiving portion, means for sliding said last-mentioned spindle forwardly so that said female member can be made to register with said male member, and means for causing said two spindles to revolve in the same direction and with uniform speed, and a resiliently mounted knife-holder provided with a knife adapted to be moved against the edge of the clamped corner-pieces and operating in conjunction with the said male supporting member and said female clamping member, substantially as and for the purposes set forth.

4. In an apparatus for cutting and trimming the edge-portions of triangular corner-pieces, the combination with a bed-plate provided with bearings, of a pair of revolving spindles mounted in said bearings, said spindles being in alinement with each other, and one of said spindles having a sliding motion toward the other spindle, a male supporting member upon one of said spindles, the said male supporting member being of a pyramidal form, a female clamping member upon the other spindle, said female member being provided with a hollow three-sided receiving portion, means for sliding said last-mentioned spindle forwardly so that said female member can be made to register with said male member, means for causing said two spindles to revolve in the same direction and with uniform speed, and a cutter for trimming the exposed edge-portions of the corner-piece which is clamped between said registering male and female members, and a resiliently mounted knife-holder provided with a knife adapted to be moved against the edge of the clamped corner-pieces and operating in conjunction with the said male supporting member and said female clamping member, substantially as and for the purposes set forth.

5. In an apparatus for cutting and trimming the edges of corner-pieces, the combination with a bed-plate provided with bearings, of a pair of spindles mounted in said bearings, a male supporting member upon one of said spindles, a female clamping member upon the other spindle, a coiled spring and a grooved collar mounted upon said last-mentioned spindle, a bell-crank having one end-portion in operative engagement with said grooved collar, a link connected with the other end of said bell-crank, a foot-treadle for actuating said link and the bell-crank for sliding said spindle which is provided with said female member forwardly so that said female member can be made to register with said male member, and means for causing the two spindles to revolve in the same direction and with uniform speed.

[Claims 6 to 25 not printed in the Gazette.]

939,145. MACHINE OR APPARATUS FOR CREASING THE EDGES OF CORNER-PIECES. CORNELIUS J. LYSAGHT, Newark, N. J., assignor to The R. Neumann Hardware Co., a Corporation of New Jersey. Filed Dec. 21, 1908. Serial No. 468,631.



1. In an apparatus for creasing the edges of corner-pieces, the combination with a bed-plate provided with bearings, of a pair of spindles mounted in said bearings, a male supporting member upon one of said spindles, a female clamping member upon the other spindle, all arranged so that the female member can be made to register with the male member, means for revolving said spindles, and a resiliently mounted and horizontally movable creasing means adapted to be brought in engagement with the edge-portions of the corner-piece exposed between the said clamping members.

2. In an apparatus for creasing the edges of corner-pieces, the combination with a bed-plate provided with bearings, of a pair of spindles mounted in said bearings, a male supporting member upon one of said spindles, a female clamping member upon the other spindle, means for sliding said last-mentioned spindle forwardly so that said female member can be made to register with said male member, and means for revolving said spindles, and a resiliently mounted and horizontally movable creasing means adapted to be brought in engagement with the edge-portions of the corner-piece exposed between the said clamping members.

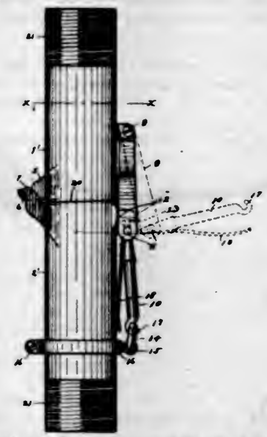
3. In an apparatus for creasing the edges of corner-pieces, the combination with a bed-plate provided with bearings, of a pair of spindles mounted in said bearings, a male supporting member upon one of said spindles, a female clamping member upon the other spindle, means for sliding said last-mentioned spindle forwardly so that said female member can be made to register with said male member, and means for causing said two spindles to revolve in the same directions and with uniform speeds, and a resiliently mounted and horizontally movable creasing means adapted to be brought in engagement with the edge-portions of the corner-piece exposed between the said clamping members.

4. In an apparatus for creasing the edges of corner-pieces, the combination with a bed-plate provided with bearings, of a pair of spindles mounted in said bearings, a male supporting member upon one of said spindles, a female clamping member upon the other spindle, a coiled spring and a grooved collar mounted upon said last-mentioned spindle, a bell-crank having one end-portion in operative engagement with said grooved collar, a link connected with the other end of said bell-crank, a foot-treadle for actuating said link and the bell-crank for sliding said spindle which is provided with said female member forwardly so that said female member can be made to register with said male member, and means for causing the two spindles to revolve in the same directions and with uniform speeds, and a resiliently mounted and horizontally movable creasing means adapted to be brought in engagement with the edge-portions of the corner-piece exposed between the said clamping members.

5. In an apparatus for creasing the edges of corner-pieces, the combination with a bed-plate provided with bearings, of a pair of spindles mounted in said bearings, a male supporting member upon one of said spindles, a female clamping member upon the other spindle, means for sliding said last-mentioned spindle forwardly so that said female member can be made to register with said male member, and means for causing said two spindles to revolve in the same directions and with uniform speeds, consisting of a shaft mounted in bearings beneath the bed-plate, a gear-wheel upon each end-portion of said shaft, said gear-wheels being of the same size, a gear-wheel upon said male-member carrying spindle, and a gear-wheel upon said female member-carrying spindle, said gears being of the same sizes, and a toothed idler meshing with each pair of said gears, and a resiliently mounted and horizontally movable creasing means adapted to be brought in engagement with the edge-portions of the corner-piece exposed between the said clamping members.

[Claims 6 to 30 not printed in the Gazette.]

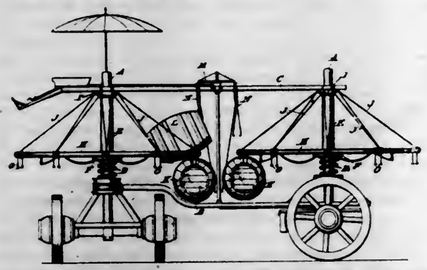
939,146. PIPE-COUPLING. ERNEST MAREK, Chicago, Ill. Original application filed Feb. 8, 1909, Serial No. 476,668. Divided and this application filed July 14, 1909. Serial No. 507,610.



1. In a pipe coupling, the combination of two tubular members having conical ground connections, a hook and loop connection between said tubular members at one side, a link connection consisting of a fork having divergent elastic prongs, the body of said fork being pivoted to one of said tubular members on the side opposite to said hook and loop connection, a clamping lever pivoted between the prongs of said fork, a hook on the other tubular member adapted to serve as a fulcrum for said clamping lever, a spring carried by said clamping lever, and adapted to throw the same toward unclamping position, a hook on the end of said clamping lever, and a ring secured to the corresponding tubular member and adapted to engage the clamping lever hook, substantially as described.

2. In a pipe coupling, the combination of two tubular members having conical ground connections, a hook and loop connection between said tubular members at one side, a link connection consisting of a fork having divergent curved elastic prongs, said prongs having parallel ends, the body of said fork being pivoted to one of said tubular members on the side opposite to said hook and loop connection, a clamping lever pivoted between the parallel ends of the prongs of said fork, a hook on the other tubular member adapted to serve as a fulcrum for said clamping lever, a spring carried by said clamping lever and adapted to throw the same toward unclamping position, a hook on the end of said clamping lever, and a ring secured to the corresponding tubular member and adapted to engage the clamping lever hook, substantially as described.

939,147. REVOLVING SUSPENSION WAGON-RACK. WILLIAM H. MARTIN, Geyserville, Cal., assignor of one-fourth to Edward Cook, Geyserville, Cal. Filed Feb. 2, 1909. Serial No. 475,728.



1. In a wagon rack for carting beer kegs, barrels, etc., the combination with the standards of the spiral springs connected therewith, the cylinders arranged thereon, having hubs with arms, and collars with guys, carrying a revolving suspension rack, as shown and described.

2. In a wagon rack for carting beer kegs, barrels, etc., the standards, with lower and upper reaches connected therewith; the crane arranged thereon, having tackle and tongs, as shown and described for the purpose specified.

939,148. MANIFOLDING-PAD. BERT C. MAXWELL, Canton, Ohio, assignor to Julius Whiting, Jr., trustee, Canton, Ohio. Filed Feb. 12, 1907. Serial No. 356,985.



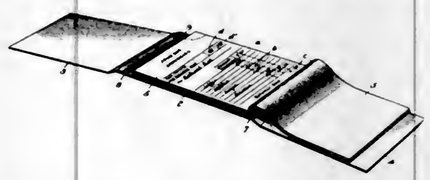
1. A manifolding book comprising a plurality of superposed sets of slips, each set consisting of three slips arranged to lie one upon another and detachably joined end to end, the under surface of the uppermost slip of a set of slips being coated with a transfer substance for substantially the length of its contact with the next slip of said set, a transfer sheet carried by the book and arranged to be inserted between the lowermost slip of each set of slips and the slips which are folded over upon said lowermost slip, and means for binding the sets of slips together.

2. A manifolding book comprising a plurality of superposed sets of slips, each set formed from a single sheet of paper twice perforated or weakened on transverse lines intermediate its ends to form three slips all differing in length, of which a slip formed from one end of said sheet is shorter than the other two slips, and is folded between them, the slip formed from the other end of said sheet being the longest one of the set, transfer mediums being provided between the adjacent surfaces of the slips of each set, and means for binding the sets of slips together, engaging the free ends of the said longest slips.

3. A manifolding book comprising a plurality of superposed sets of slips, each formed from a single sheet of paper twice perforated or weakened on transverse lines intermediate its ends to form three slips, of which a slip formed from one end of said sheet of paper is shorter than the other two slips and is folded between them, the slip formed from the other end of said sheet being the longest one of the set, and the under surface of the uppermost slip of the set being coated with a transfer substance for the length of its contact with said short slip, a transfer sheet arranged to be inserted between the lowermost slip of each set of slips and those folded over upon it, and means for binding the sets of slips together engaging the free ends of said lowermost slips of the sets of slips.

4. A manifolding book comprising a plurality of superposed sets of slips, the slips of each set being bound at one end and arranged to be once folded before use, and a cover consisting of two parts hinged together, one of which parts is provided with means for attaching it to the bound end of said series of slips, and the other of which parts has a pocket with bottom, side, end and top walls, said pocket being adapted to receive the loose ends of the sets of slips.

939,149. MANIFOLDING-BOOK. BERT C. MAXWELL, Canton, Ohio, assignor to Julius Whiting, Jr., trustee, Canton, Ohio. Filed Dec. 21, 1907. Serial No. 407,589.



1. A manifold account book comprising a plurality of superposed sets of original and duplicate slips suitably secured together in book form, the free ends of the original slips extending beyond the free ends of the duplicate slips and being provided with designated spaces to receive numbers to indicate the amounts carried forward from one original slip to the next one in series, and a transfer sheet adapted to be inserted between an original and the next duplicate slip, and between the extended free ends of the said original slip and the next succeeding original slip.

2. A manifolding account book comprising a plurality of superposed sets of original and duplicate slips, the original slips being longer than the duplicate slips and extending beyond the latter at one end of the book, the main body portions of the original slips having spaces to receive an order given and the amounts of such order, and the extended portions of the original slips having designated spaces to receive the amount of the account to be carried forward, and a transfer sheet adapted to be placed between an original slip above it and the next duplicate slip and the extended portion of the following original slip below it, whereby the entries of the order given are transferred to the duplicate slip, and the entry of the amount is made on the extended portion of the original slip is transferred to the extended portion of the next original slip.

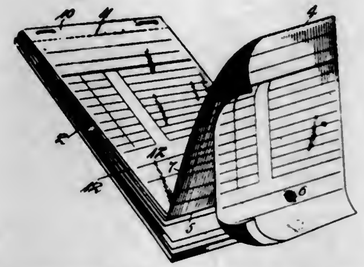
3. In a manifolding account book, the combination of a suitable back, a plurality of superposed sets of original and duplicate slips attached at one end to said back, the free ends of the original slips extending beyond the free ends of the duplicate slips, a separator leaf attached to the said back adjacent to the free ends of said original slips, a cover leaf attached to the other end of said back, and a transfer sheet attached to said back and interposed when in use between the original and duplicate slips of a set of slips, and between the extended free portion of said original slip and the extended free portion of the original slip next beneath it, and exposing a portion of the free end of said last described original slip.

4. In a manifolding book, the combination of a plurality of superposed sets of original and duplicate slips, the free ends of the original slips extending beyond the free ends of the duplicate slips, a suitable back to which said sets of slips are attached, a separator leaf attached to said back and adapted to be thrown between said slips, and a transfer sheet attached to said back and interposed when in use between the original and duplicate slips of each set of slips and between the extended portion of said original slip and the extended portion of the original slip next beneath it, and exposing a portion of the free end of said last described original slip.

5. In a manifolding book, the combination of a plurality of superposed sets of original and duplicate slips, the free ends of the original slips extending beyond the free ends of the duplicate slips and each original slip having on its extended portion a marked space arranged to register with a similarly marked space on the original slip next beneath it, a suitable back to which said sets of slips are attached, and a transfer sheet attached to said back and interposed when in use between an original slip in use, its duplicate, and the extended free portion of the original slip next beneath said duplicate slip, and exposing a portion of the free end of said last mentioned original slip.

[Claims 6 and 7 not printed in the Gazette.]

939,150. MANIFOLDING BOOK OR PAD. BERT C. MAXWELL, Canton, Ohio, assignor to Julius Whiting, Jr., trustee, Canton, Ohio. Filed Mar. 12, 1908. Serial No. 420,653.



1. A manifolding book comprising a series of sets of slips each formed from a sheet of paper transversely folded, one of the slips being coated with a suitable transfer substance, and a single slip bound on top of the sets of slips, the uppermost slip of each set being arranged to be folded on top of the said single slip.

2. A manifolding book comprising a series of sets of slips each formed from a sheet of paper folded transversely, the slips to receive transfer impressions being bound together, and a single slip arranged to receive transfer impressions and bound together with the impression receiving slips, the single slip being arranged on top of the book above the sets of bound slips, and the free slips of the uppermost sheet being foldable over or above the said single sheet, the single slip and the bound slips of the sets being separable from the book.

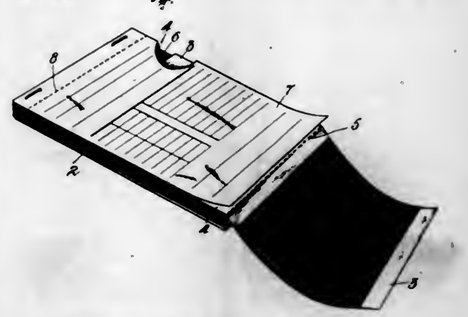
3. In a manifolding book, a series of sets of slips each formed from a sheet of paper twice folded transversely to form three slips, the undermost slips of the sets of slips being bound together, and certain of the slips being coated with a transfer substance, a single slip overlying the said series of sets of slips and bound together with the said undermost slips of the sets, the uppermost and intermediate slips of each set being arranged to fold on top of the said single slip and the latter being adapted to receive a transfer impression of the entry made.

4. In a manifolding book a series of sets of slips each formed of a sheet of paper twice folded transversely to form an original, a duplicate and a triplicate slip, the end of the triplicate slip extending beyond the intermediate, duplicate slip to form an attaching stub and the free end of the original slip extending beyond the other end of the duplicate slip being in position to be grasped by the fingers, certain of the slips being coated with a suitable transfer substance, and a single slip bound together with the triplicate slips and arranged so as to overlie the series of sets of slips.

5. In a manifolding book, a series of sets of slips each formed from a sheet of paper folded transversely, the slips at one end of each sheet being bound together and the slips at their opposite ends being free and certain of the slips being coated with a suitable transfer substance, a single slip lying above the sets of slips and bound together with them, and a transfer sheet adapted to be thrown over the said single slip, the free slip of the uppermost set being arranged to fold over or outside of the said transfer sheet and single slip.

[Claim 6 not printed in the Gazette.]

939,151. MANIFOLDING BOOK OR PAD. BERT C. MAXWELL, Canton, [illegible], assignor to Julius Whiting, Jr., trustee, Canton, [illegible]. Filed Mar. 12, 1908. Serial No. 420,654.



1. A manifolding book comprising a series of sets of superposed impression-receiving slips, each set being formed from a sheet of paper folded transversely to form an original slip and a duplicate slip, the duplicate slips being bound together at their outer ends, and a separate impression-receiving slip bound on top of the said duplicate slips, the said duplicate slips and the separate impression receiving slip being each cut away to expose the original slip next below it.

2. A manifolding book comprising a set of superposed duplicate slips each formed from a sheet of paper transversely folded to constitute an original and a duplicate slip, the under surface of each original slip being coated with a suitable substance, and the duplicate slip being cut away on one side to expose an original slip situated below it.

3. A manifolding book comprising a series of sets of duplicate slips each formed from a sheet of paper transversely folded to produce an original and a duplicate slip, one surface of each original slip being coated with a suitable transfer substance, and a single slip arranged on top of the series of sets of slips and with them bound together, the original slip of the uppermost set being foldable over or on top of the said single slip.

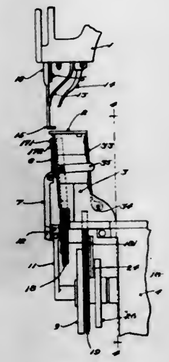
4. A manifolding book comprising a set of superposed duplicate slips each formed from a sheet of paper transversely folded to constitute an original and a duplicate slip, the under surface of each original slip being coated with a suitable transfer substance, and the duplicate slip being cut away on one side to expose an original slip situated below it, and a single slip arranged on top of the series of sets and bound together with them, the said single slip corresponding with or being similar to the duplicate slips of the series, and the original slip of the uppermost set being foldable over or on top of the said single slip.

939,152. LOCK-STITCH SEWING-MACHINE. FRANK W. MERRICK, Boston, Mass., assignor to Union Lock Stitch Company, Boston, Mass., a Corporation of Maine. Filed Feb. 27, 1905. Serial No. 247,420.

1. In a sewing-machine, the combination with a straight hooked needle, and a rotating crank in positive connection therewith and operating the same, of a uniformly rotating loop-taker working alongside the said needle at the same side of the material as the latter, in a plane inclined at a slight angle to the line of reciprocation of the needle, and driving devices operating to cause a plurality of continuous rotations of the loop-taker in one direction to each reciprocation of the needle.

2. In a sewing-machine, the combination with a needle, of a loop-taker having an unbroken circular series of gear-teeth all disposed in the same plane extending at right angles to the axis of the loop-taker, the said loop-taker being formed with a transversely-extending slot for the loop of needle-thread the entrance to which is wholly con-

tained in the transverse interval between two of such teeth, and driving gearing engaging with the said series of teeth and thereby rotating the loop-taker.



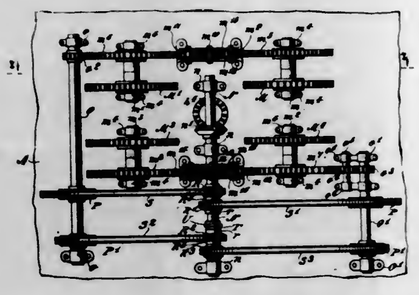
3. In a sewing-machine, the combination with a needle, of a loop-taker having an unbroken circular series of gear teeth, and having a transversely-extending slot for the loop of needle-thread, the entrance to which is wholly contained within the transverse interval of normal width between two of such gear-teeth, and a single rotating gear-wheel engaging with the said series of teeth to rotate the loop-taker.

4. In a sewing-machine, the combination with a needle, of a loop-taker having a circular series of inclined gear-teeth, and receiving in a space between two of the said teeth the transversely-extending portion of a loop formed by the needle, and driving means engaging with said inclined gear-teeth to rotate the loop-taker.

5. In a sewing-machine, the combination with a needle, of a loop-taker having a circular series of inclined gear-teeth, and receiving in an inclined space between two of the said teeth the transversely-extending portion of a loop formed by the needle, of a driving gear-wheel also having inclined gear-teeth.

[Claims 6 to 18 not printed in the Gazette.]

939,153. GEARING. JOHN G. MORRISON, New York, N. Y. Original application filed Jan. 4, 1908, Serial No. 409,341. Divided and this application filed Oct. 31, 1908. Serial No. 460,380.

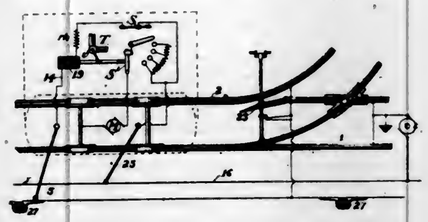


1. The combination, with two pairs of actuating wheels, devices that are to be operated from them, and intermediate mechanism by which the wheels of each pair are connected and caused to move in unison, of a shaft for each of such pairs of gear wheels connected with its respective pair, a large and a small wheel carried by each of these shafts, a connecting shaft common to both of said pairs of actuating wheels, mechanism for rotating this connecting shaft, wheels carried by this last mentioned shaft, means for connecting these last mentioned wheels with the large and small wheels carried by each of the first mentioned shafts, and mechanism whereby either the large or the small wheels with their carrying shafts may be brought into operative connection with the common connecting shaft as the other wheels are released therefrom, substantially as described.

2. The combination, with two pairs of actuating wheels, devices that are to be operated from them, and an intermediate train of gear wheels by which the wheels of each pair are connected and caused to move in unison, of a shaft O or O^1 for each of such pairs of gear wheels connected with its respective pair, a large and a small wheel carried by each of these shafts, a connecting shaft N common to both of said pairs of actuating wheels, mechanism for rotating this connecting shaft, wheels carried by this last mentioned shaft, means for connecting these last mentioned wheels with the larger and smaller wheels carried by each of the shafts O and O^1, and a clutch mechanism carried by the shaft N for engaging with the wheels carried by the shaft, whereby either the larger or the smaller wheels carried by the shafts O and O^1 may be operatively connected with the shaft N as the other wheels carried by such shafts O and O^1 are released therefrom, substantially as described.

3. The combination, with two pairs of gear wheels M M^1 and M^2 M^3, devices that are to be operated from them, and intermediate gears by which the gear wheels of each pair are connected and caused to move in unison, of shafts O and O^1 respectively connected with such pairs of gear wheels, a larger and a smaller sprocket wheel P and P^1 on each of said shafts, a connecting shaft N, mechanism for rotating this connecting shaft, connected pairs of sprocket wheels R R^1 and R^2 R^3 for respectively coöperating with the larger and smaller sprocket wheels P and P^1 on the said shafts O and O^1 loosely mounted upon the shaft N and provided on their inner sides with clutch members, a second clutch member splined upon the said shaft N, and mechanism for bringing this second clutch member into engagement with the clutch member of either of the pairs of sprocket wheels R R^1 or R^2 R^3 as may be desired, substantially as described.

939,154. ELECTRIC CONTROLLING AND SIGNALING SYSTEM FOR RAILWAYS. HERBERT E. MCDONNELL, Leominster, Mass. Original application filed Aug. 7, 1906, Serial No. 329,606. Divided and this application filed Jan. 26, 1907. Serial No. 354,258.



1. In a railway signaling system, a pair of track rails, an insulated conductor divided into sections, a vehicle traveling upon the track rails, a motor and braking appliances on said vehicle, an electromagnet controlling said motor and braking appliances, a movable switch point in the track rail, a circuit closing device adapted to be directly actuated by said switch point, a source of current supply connected to one side, as by grounding, to the track rails, and on the other side through a feeder or supply conductor paralleling the rails to the controlling electromagnet, connections from the sectional insulated conductor to the circuit closing device, and thence to the track rails, and means whereby the controlling electromagnet on the vehicle when approaching the switch, will be brought into connection with the section of the conductor adjacent to the switch, and if the latter is open, will have its circuit completed to the track rail, and will act to stop the vehicle, substantially as described.

2. In a railway signaling and safety system, a pair of track rails, a switch point therein, a circuit closer directly operated by said switch point, an actuating device for the switch, a signal operated by said actuating device, a supplementary circuit closer controlled in the actuation of said signal, and a vehicle traveling on said track rails, with means carried upon said vehicle adapted to be controlled by both of said circuit closers, and to act directly upon the motor and braking appliances on the vehicle, to stop the same if the switch is open, or the signal misplaced or both, substantially as described.

3. In a railway signaling and safety system, a pair of track rails, a vehicle traveling thereon, a motor and braking appliances on said vehicle, a controlling electromagnet therefor also on the vehicle, a source of supply, a continuous supply conductor extending along the track rail and a supplementary conductor extending parallel therewith but divided into insulated sections, a switch point in the track rail and a circuit closer controlled thereby, with connections from said circuit closer to the adjacent track rail and the contiguous insulated section of the supplementary conductor, the connections being such that when the switch point is displaced and the switch opened, current will be supplied from said continuous conductor to the controlling electromagnet on the approaching vehicle, thence to the insulated section on the supplementary conductor and thence through the switch-controlled circuit closer to the track rail and through the same or the return conductor to the source of supply, substantially as described.

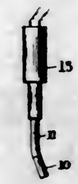
4. In an electric railway signaling and safety system, a pair of track rails, a continuous supply conductor, a sectional insulated supplementary line conductor, a vehicle running on the track rails, an electric motor and braking device on said vehicle, a traveling conductor thereon adapted to convey current from the supply conductor to the said motor and thence through the wheels to the track rails, an electromagnet controlling the motor circuit and the braking means, a branch circuit for said electromagnet extending from the said traveling conductor to another traveling conductor adapted to make contact with the sectional supplementary line conductor, and a switch point in said track rails controlling in its movement a connection therefrom to the contiguous section of the supplementary conductor, substantially as described.

5. In an electric railway signaling and safety system, a pair of track rails, a continuous supply conductor, a sectional insulated supplementary line conductor, a vehicle running on the track rails, an electric motor and braking device on said vehicle, a traveling conductor thereon adapted to convey current from the supply conductor to the said motor and thence through the wheels to the track rails, an electromagnet controlling the motor circuit and the braking means, a branch circuit for said electromagnet extending from the said traveling conductor to another traveling conductor adapted to make contact with the sectional supplementary line conductor, and means controlled in switching from the main track rails to a branch to establish a connection therefrom to the contiguous section of the supplementary line conductor and stop the approaching vehicle or vehicles, substantially as described.

939,155. ELECTRIC TIME-FUSE. CLAUD D. MCPHEE, Arnprior, and JOHN GILLIES, Braeside, Ontario, Canada. Filed Jan. 14, 1909. Serial No. 472,249.

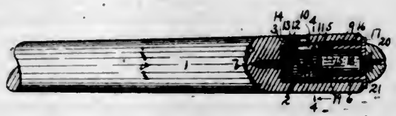
1. A time fuse including a detonating cap, a powder cartridge in communication therewith, a casing surrounding the end of the powder cartridge and having a packing of inflammable material therein, a destructible cap closing the end of the casing and an electric igniting wire in contact with the powder, and terminals connected to said wire extending externally to the cartridge.

2. An electric time fuse including a detonating cap, a powder cartridge in contact therewith, a casing inclosing the end of the powder cartridge, and inflammable means



within the casing adapted when ignited to open the casing to permit the escape of gases from the burning powder, and electric means for igniting the powder in the cartridge.

939,156. CHALK-HOLDER. CARL V. NORMAN and GUSTAVUS PETERSON, Springfield, Mass. Filed Apr. 16, 1909. Serial No. 490,333.



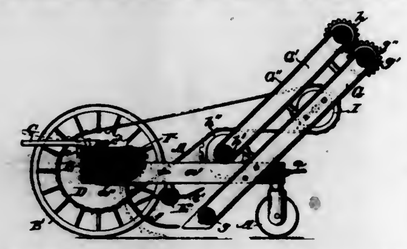
1. In combination with a cue, a chalk-holder comprising a latch-provided cylindrical receptacle permanently attached to said cue, a resilient member in such receptacle affixed at one end thereto, and a cylindrical cap for chalk, such cap having a shoulder extending clear around it and being adapted to be inserted in the receptacle and to engage with its shoulder the receptacle latch, regardless of what portion of said shoulder may be opposed to said latch, whereby the cap is held in the receptacle against the force of said resilient member.

2. In combination with a cue, a chalk-holder comprising a cylindrical receptacle permanently attached to said cue and provided with a spring-pressed latch pivotally mounted therein and having an operating member extending from said latch out through the side of the receptacle, an ejector spring in such receptacle affixed at one end thereto, and a cylindrical cap for chalk, such cap having an annular shoulder adapted to be engaged by said latch when said cap is forced into said receptacle, regardless of what portion of said shoulder may be opposed to said latch, whereby the cap will be held in said receptacle against the force of said ejector spring.

3. In combination with a cue having a chamber in its butt end and an opening leading from such chamber outward through one side, a chalk-holder comprising a receptacle fastened in said chamber, a spring-pressed latch pivotally mounted in such receptacle and provided at one terminal with a stud having a push-button on the outer end thereof, in such lateral opening in said cue, and at the other terminal with a hook, an ejector spring in such receptacle, and a cap for chalk, such cap having a shoulder adapted to be engaged by said latch hook when the cap is thrust into said receptacle against the resiliency of said ejector spring.

4. A chalk holder comprising a receptacle adapted for permanent attachment to a cue, a spring-pressed latch pivotally mounted in one side of said receptacle and provided at one terminal with a stud having a push-button on the outer end thereof, outside of the receptacle, and at the other terminal with a hook, a cap for chalk adapted to fit into the receptacle and having a shoulder for engagement with said latch hook, and an ejector spring in the receptacle between the inner end thereof and said cap when the latter is in place.

939,157. HAY RAKE AND LOADER. OLE J. OLSON, Fero, N. D., assignor of one-half to Hans C. Romfo, Fero, N. D. Filed June 19, 1907. Serial No. 379,802.

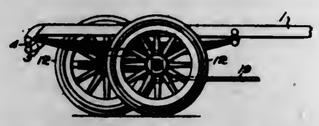


1. A hay rake and loader, comprising a frame having side bars and a cross bar provided with spindles, supporting and actuating wheels revoluble upon said spindles, means for maintaining the cross bar in swinging engagement with the side bars of the frame, rake teeth carried by said cross bar, an endless elevator mounted on the frame and provided with side portions that depend below the frame to maintain the elevator in front of the rake teeth, a reel between the rake teeth and the depending end of the elevator, means for driving the reel from one of the supporting wheels and means for driving the elevator from the other supporting wheel.

2. A hay rake and loader comprising a frame, a movable cross bar mounted in the rear portion of the frame, spindles that project from the ends of the cross bar, rake teeth which depend from the forward portion of the cross bar to be movable therewith, depending hangers attached to the side bars of the frame, a reel maintained forward of the rake teeth by said depending hangers, an elevator supported by the frame and provided with a portion that depends in front of the reel, wheels mounted to revolve on the spindles and means for driving the reel from one of the wheels and the elevator from the other wheel.

3. A hay rake and loader comprising a frame made up of longitudinal bars, loops at the rear ends of said bars, a cross bar maintained in swinging engagement with the loops, rake teeth carried by the forward portion of the cross bar, means for limiting the swinging movement of the cross bar to maintain the rake teeth out of operative position, hangers on the side bars of the frame, a reel journaled in said hangers, an elevator attached to the side bars of the frame the rear lower end of the elevator being maintained in front of the reel and independently driven means for actuating the reel and the elevator, substantially as shown.

939,158. TRACKLESS POWER-DRIVEN VEHICLE. ISAAC E. PALMER, Middletown, Conn. Original application filed Nov. 13, 1908, Serial No. 462,361. Divided and this application filed May 6, 1909. Serial No. 494,348.



1. Running gear for trackless, power driven vehicles comprising in combination a body frame, two main springs at opposite sides of the body frame and respectively connected to each side of and extending below the said body frame, each of said two main springs being connected at both of its ends to the body-frame, two supplemental springs each located below and having a bearing engagement intermediate its ends with its respective main spring and also connected at one end to said main spring, a pair of substantially opposite wheels upon opposite sides of the vehicle, and an axle to which both wheels of said pair of wheels pertain, said axle being connected to and supported by said supplemental springs respectively.

2. Running gear for trackless, power driven vehicles comprising in combination, a body frame, a main spring connected to each side of the body frame, a supplemental spring connected to each of said main springs but having a free end, a pair of wheels upon opposite sides of said vehicle and an axle to which both wheels of said pair of wheels pertain, said wheels being out of transverse alinement, and said axle being connected to the free ends of said supplemental springs and supported thereby.

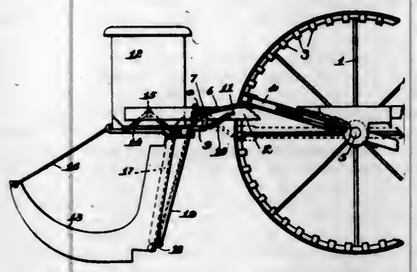
3. Running gear for trackless, power driven vehicles comprising in combination, a body frame, a main spring connected to each side of the body frame, a supplemental spring connected to each of said main springs but having a free end, the free ends of said springs extending forwardly, and rearwardly respectively, a pair of wheels upon opposite sides of said vehicle and an axle to which both wheels of said pair of wheels pertain, said axle being connected to the free ends of said supplemental springs and supported thereby.

4. Running gear for trackless, power driven vehicles comprising in combination, a body frame, a main spring connected to each side of the body frame, a supplemental spring connected to each of said main springs but having a free end, the free ends of said springs extending forwardly and rearwardly respectively, a pair of wheels upon opposite sides of said vehicle and an axle to which both wheels of said pair of wheels pertain, said wheels being out of transverse alinement and said axle being connected to the free ends of said supplemental springs and supported thereby.

5. Running gear for trackless, power driven vehicles comprising in combination a body frame, a main spring connected thereto and extending below the same into wheel supporting position, said main spring being connected at both of its ends to said body-frame, a supplemental spring upon the same side of the vehicle as and connected to said main spring at one end and having bearing relation therewith, and having an opposite free end, said supplemental spring being located below said main spring, and a wheel connected to and supported by the free end of said supplemental spring, upon that side of the vehicle whereon said main and supplemental springs are both situated.

[Claims 6 to 9 not printed in the Gazette.]

939,159. CORN-PLANTER. VERNON F. PAYBY, Leesburg, Ohio. Original application filed Jan. 18, 1908, Serial No. 411,516. Divided and this application filed Jan. 16, 1909. Serial No. 472,708.



1. In a seed planter a seed receptacle, a disk rotatably mounted adjacent the lower end of said receptacle having a series of perforations therethrough arranged radially therein and adapted to receive the grain edgewise from said receptacle in said perforations, projections arranged upon the circumference of said disk, a bifurcated member mounted adjacent said seed receptacle, means for actuating said member to move one arm thereon in engagement with said disk to rotate the same and to move the other arm of said member into position to prevent the passage of grain through said perforations during said rotation of said disk.

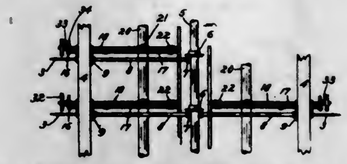
2. In a seed planter a seed receptacle, a disk rotatably mounted in the lower portion of said receptacle and having a series of radial perforations therethrough adapted to receive the grain from said receptacle edgewise, projections upon the circumference of said disk, a bifurcated member mounted adjacent said disk and having one arm adapted to engage said projection at predetermined intervals to rotate said disk, and having a second arm provided with an opening therethrough for receiving the grain passing through said radial perforations.

3. In a seed planter a wheeled carriage having a frame thereon, a seed receptacle on said frame, a disk rotatably mounted in the lower portion of said receptacle having perforations therein arranged, in radial rows for the passage of seed therethrough, a seed dropping tube arranged adjacent said disk, a bifurcated plate mounted on said frame having one arm thereof arranged to control the passage of grain into said tube, and the other arm thereof adapted to engage said disk, a bell crank lever mounted on said frame and connected with said bifurcated plate, an adjustable tripping device mounted on a wheel of said carriage adapted to be brought into engagement with said lever, whereby said bifurcated plate is moved to actuate said disk with one of its arms while the other arm is positioned to control the passage of grain into said tube.

4. In a seed planter, a disk rotatably mounted having perforations arranged radially, teeth formed on the circumference of said disk, a bifurcated plate having one of its arms underlying said disk and provided with an opening to register with perforations therein, a pivoted pawl mounted on the other arm, and means for intermittently actuating said plate to cause said pawl to advance said disk and at the same time to destroy the registration between said opening and said perforations.

5. In a seed planter, a seed receptacle, a disk rotatably mounted therein having perforations therethrough adapted to receive the seed from said receptacle, projections upon the circumference of said disk, a bifurcated member mounted adjacent to said disk and having one arm adapted to engage a projection at predetermined intervals to rotate said disk, and having a second arm provided with an opening therethrough for receiving the grain from said perforations.

939,160. WINDING-MACHINE. MARINUS PEPLING, Newark, N. J., assignor to Fred Moss, New York, N. Y. Filed Apr. 1, 1908. Serial No. 424,577.



1. In a winding machine, the combination of a spindle adapted to wind a cop, means for rotating said spindle, a thread guide, means for producing a relative reciprocation between said spindle and said guide, means actuated by the cop for producing a relative advance between said thread guide and said spindle to build the heel of the cop, a friction disk, and means whereby said disk when brought into frictional contact with the thread of the cop, produces a relative advance between the thread guide and said spindle to build the body of the cop, said heel building means being out of contact with the thread of the cop after said friction disk has started building the body.

2. In a winding machine, the combination of a spindle adapted to wind a cop, means for rotating said spindle, a thread guide, means for producing a relative reciprocation between said spindle and said guide, means actuated by the cop for advancing the thread guide with relation to said reciprocating means to build the heel of the cop, a friction disk, and means whereby said disk when brought into frictional contact with the thread of the cop, advances the thread guide with relation to said reciprocating means to build the body of the cop, said heel building means being out of contact with the thread of the cop after said friction disk has started building the body.

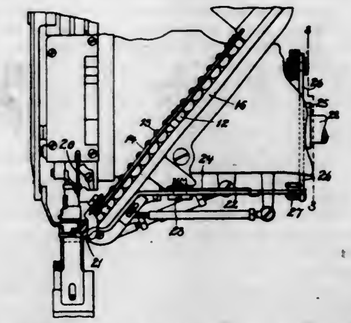
3. In a winding machine, the combination of a spindle adapted to wind a cop, means for rotating said spindle, a thread guide, means for producing a relative reciprocation between said spindle and said guide, means actuated by the cop for advancing the thread guide so as to build the heel of the cop, a friction disk, and means whereby said disk when brought into contact with the thread of the cop causes the advance of the thread guide to build the body of the cop, said heel building means being out of contact with the thread of the cop after said friction disk has started building the body.

4. In a winding machine, the combination of a spindle adapted to wind a cop, means for rotating said spindle, a thread guide, means for producing a relative reciprocation between said spindle and said guide, a pair of disks, and means whereby each of the disks when brought into frictional contact with the thread of the cop produces a relative advance between the thread guide and said spindle to build the heel and body of the cop respectively.

5. In a winding machine, the combination of a spindle, means for rotating said spindle, a thread guide, a carrier for said guide, means for reciprocating said carrier, a shaft, a pair of suitably spaced friction disks mounted on said shaft, said disks being of different diameters, and means whereby each of the disks when brought into frictional contact with the thread of the cop produces a relative advance between the thread guide and said spindle.

[Claims 6 to 30 not printed in the Gazette.]

939,161. MACHINE FOR SEWING SHANK-EYED BUTTONS. JOHN PEALEY, Lynn, Mass., assignor, by mesne assignments, to The Reece Buttonhole Machine Company, a Corporation of Maine. Filed Dec. 14, 1907. Serial No. 406,532.



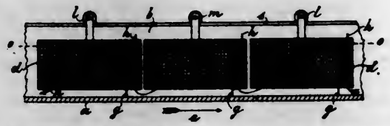
1. In a machine for sewing shank-eyed buttons, the combination with stitch-forming mechanism, of a button chute, a pusher movable across the chute toward and from the path of the needle of the stitch-forming mechanism and coacting with the lower end of the chute to deliver a button with its eye in needle-receiving position and to arrest the buttons above the delivered one, a movable button stop near the lower end of the chute, and means whereby said stop is moved into position to arrest the buttons when the pusher is retracted and then moved out of arresting position when the pusher is projected.

2. In a machine for sewing shank-eyed buttons, the combination with stitch-forming mechanism, of a button chute, a pusher movable across the chute toward and from the path of the needle of the stitch-forming mechanism and coacting with the lower end of the chute to deliver a button with its eye in needle-receiving position and to arrest the buttons above the delivered one, a movable button stop near the lower end of the chute, and means whereby said stop is moved into position to arrest the buttons when the pusher is retracted and then moved out of arresting position when the pusher is projected, said means com-

prising devices whereby the stop is actuated in one direction by the pusher.

3. In a machine for sewing shank-eyed buttons, the combination with stitch-forming mechanism, of a button chute having a flat slotted cover, a pusher movable across the chute toward and from the path of the needle of the stitch-forming mechanism and coacting with the lower end of the chute to deliver a button with its eye in needle-receiving position and to arrest the buttons above the delivered one, a button stop movable across the outer face of the chute in the path of the shank-eyes projecting through the slot of the cover, and means whereby said stop is moved into position to arrest the buttons when the pusher is retracted and then moved out of arresting position when the pusher is projected.

939,162. PASTEURIZING APPARATUS. ANDERS A. PINDSTOFTE, Frederiksberg, near Copenhagen, Denmark. Original application filed Oct. 1, 1907, Serial No. 395,390. Divided and this application filed June 22, 1909. Serial No. 503,682.



In a pasteurizing apparatus, the combination with a water reservoir, of a number of open bottle-baskets having their bottom some distance above the bottom of the reservoir, means which permit of the moving of said bottle-baskets through said reservoir, and a number of channels placed one in the interior of each of the bottle baskets and separating the bottle-supporting parts, each of said channels consisting of two spaced parallel plates placed transversely to the side-walls of the water reservoir and having a length corresponding to the distance between said side-walls, one of said plates *g* extending from the bottom of the water reservoir to some distance below the upper edge of the bottle-baskets, while the other of said plates *h* extends from the bottom of the bottle-baskets to some distance above the water level in the water reservoir; substantially as and for the purpose set forth.

939,163. TREATING MANGANESE STEEL. WINFIELD S. POTTER, New York, N. Y., assignor to Manganese Steel Rail Company, Mahwah, N. J., a Corporation of New Jersey. Filed Aug. 2, 1909. Serial No. 510,858.

1. The process of treating a body of manganese steel which has been rapidly heated and the outer portions thereby injured, which consists in working said outer portions of the heated ingot without elongation until the same are welded and firmly cohere throughout.

2. The process of treating an ingot of manganese steel hot from the heat of casting, which consists in rapidly heating the outer portions of said ingot, then working said outer portions to weld the same and provide a strong and tough skin.

3. The process of treating a body of manganese steel, which consists in rapidly heating said body of metal to a temperature approximating but below the melting point, then working said body of metal to weld its outer portions, and to form a strong, tough skin.

4. The process of treating a body of manganese steel having defects in its outer portions, consisting in heating said body of metal to a high temperature, then cooling the outer portions of said metal to a depth below that of the defects, and subsequently working said metal.

5. The process of treating a body of manganese steel having defects in the outer portions thereof, which consists in heating the metal to a temperature above 1200° C., cooling the outer portions thereof to temperatures below 1150° C., until the ingot is cooled symmetrically to a depth below said defects and subsequently working the same.

[Claims 6 to 9 not printed in the Gazette.]

939,164. METHOD OF PRODUCING FINISHED SHAPES FROM MANGANESE STEEL. WINFIELD S. POTTER, New York, N. Y., assignor to Manganese Steel Rail Company, Mahwah, N. J., a Corporation of New Jersey. Original application filed May 8, 1906, Serial No. 315,831. Renewed Jan. 31, 1907, Serial No. 355,136. Divided and this application filed Sept. 22, 1909. Serial No. 518,929.

1. The method of producing finished shapes from manganese steel, which consists in slowly heating the ingot hot from the heat of casting, from a temperature between 995° C. and 1065° C. to the maximum temperature, and until the temperatures of the ingot are equalized, then slightly reducing said ingot and then shaping it.

2. The method of producing finished shapes from manganese steel, which consists in slowly heating an ingot while still hot from the heat of casting, from a temperature approximating 1040° C. to approximately 1205° C., maintaining the heat until the temperatures of said ingot are equalized, and then shaping.

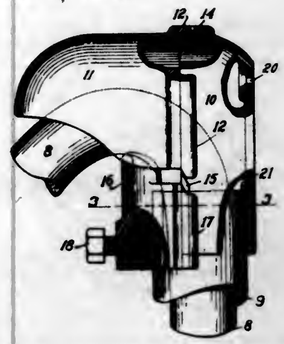
3. The method of producing finished shapes from manganese steel, which consists in slowly heating an ingot while still hot from the heat of casting, from a temperature approximating 1040° C. to approximately 1205° C., maintaining the heat until the temperatures of said ingot are equalized, then subjecting the ingot to slight reductions, and then shaping it.

4. The method of producing finished shapes from manganese steel, which consists in arresting the cooling of the ingot while still hot from the heat of casting, at a temperature above 735° C., then immediately re-heating, and subsequently shaping it.

5. The method of producing finished shapes from manganese steel, which consists in arresting the cooling of an ingot or body of metal, from the heat of casting by heating the same to a temperature not above 1260° C., and subsequently shaping the same, the metal being slowly heated at temperatures above 1040° C.

[Claims 6 and 7 not printed in the Gazette.]

939,165. HOOD FOR ELECTRICAL WIRING ON STAND-PIPES. JOHN POTTERTON, Lynn, Mass. Filed Jan. 21, 1908. Serial No. 411,906.



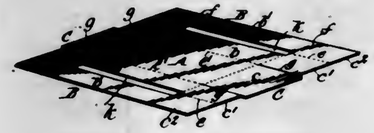
1. A pipe cap, including a hood adapted to cover the top and embrace the rear of a stand pipe, in combination with a piece separable therefrom, embracing the front of the pipe under said top portion and having a vertical tongue and groove engagement with said part embracing the rear, in which the front piece engages behind a part of the rear piece.

2. A pipe cap, comprising a hood adapted to cover the top and embrace the rear of a stand pipe, in combination with a piece separable therefrom, embracing the front of the pipe under said top portion and having a vertical tongue and groove engagement with said part embracing the rear, and means for forcing one of these last mentioned parts away from the stand pipe, thereby locking all together.

3. A pipe cap, including a hood adapted to cover the top and to embrace the rear of a stand pipe; the hood being cleft from front to rear, the two portions thus constituted having a tongue and groove joint between them, in combination with a piece separable from both and embracing the front of the pipe under said hood, fastening the two said portions together.

4. A pipe cap, comprising a hood adapted to cover the top and to embrace the rear of a stand pipe; the hood being cleft from front to rear, the two portions thus constituted having a tongue and groove joint between them, in combination with a piece separable from both and embracing the front of the pipe under said hood, having a vertical tongue and groove engagement with the parts embracing the rear, thus fastening the two said parts together, and a screw set in the front portion and adapted to operate against the stand pipe.

939,166. BOX. GEORGE B. REMD, Buffalo, N. Y., assignor of one-half to Alfred T. Kirkland, Buffalo, N. Y. Filed Feb. 13, 1909. Serial No. 477,589.



A box having a bottom, two side walls and two end walls, said bottom consisting of a single ply, each of said side walls consisting of an outer ply connected with its lower end to the adjacent side of the bottom and an inner ply disconnected at its upper end from the upper end of the companion outer ply, and each of said end walls consisting of an outer ply connected at its lower end with the adjacent end of the bottom, an intermediate ply composed of two sections which meet at their opposing inner ends while their outer ends are connected respectively with the adjacent ends of the outer plies of both side walls, and an inner ply also composed of two sections which meet at their inner ends while their outer ends are connected with the adjacent ends of both inner plies of the side walls, and their upper edges are connected with the upper edges of the intermediate ply sections, the upper edge of the side walls terminating below the upper edges of the end walls and constructed by forming slots in the blank from which said body is made, each of said slots extending transversely across the line on which the inner and outer plies of the respective side wall are folded relatively to each other and also extending from one to the other of the lines on which the inner plies of the end walls are bent relatively to the respective side wall plies.

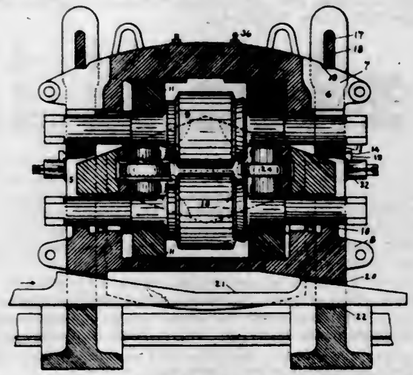
939,167. UNIVERSAL ROLLING-MILL. HUGO SACK, Dusseldorf, Germany; Adelheid Sack administratrix of said Hugo Sack, deceased. Filed Oct. 29, 1906. Serial No. 341,142.

1. In a rolling mill, a horizontal roll, and a vertically-adjusted member carrying longitudinally-adjustable bearings for each end of said roll, said member and bearings arranged to prevent movement of the roll away from the pass.

2. In a rolling mill, a pair of mill stands having vertical guide-ways, horizontal rolls, and a vertically-adjustable member having ends entering said guide-ways and carrying longitudinally-adjustable bearings for each end of one horizontal roll.

3. In a rolling mill, a horizontal roll, a vertical roll, a vertically-adjustable member carrying bearings for each end of said horizontal roll, and means, directly actuated by said vertically-adjustable member, so constructed and arranged that vertical movement of said member laterally shifts said vertical roll.

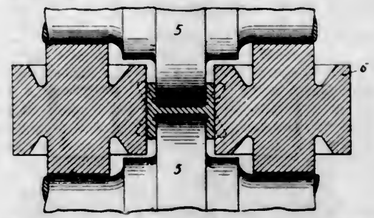
4. In a rolling mill, a horizontal roll, a vertical roll, a vertically-adjustable member carrying longitudinally-adjustable bearings for each end of said horizontal roll, and means, directly actuated by said vertically-adjustable member, so constructed and arranged that vertical movement of said member laterally shifts said vertical roll.



5. In a rolling mill, a stand having a vertical guide-way, a horizontal roll, a vertical roll, and separate bearing members for said rolls having portions engaging said guide-way and independently movable therein.

[Claims 6 to 9 not printed in the Gazette.]

939,168. METHOD OF ROLLING FLANGED BARS. HUGO SACK, Dusseldorf, Germany; Adelheid Sack administratrix of said Hugo Sack, deceased. Filed Jan. 21, 1907. Serial No. 353,380.



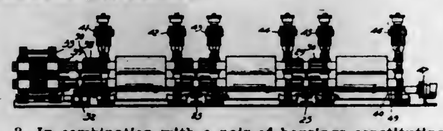
1. The method of making I-beams, which consists in first rolling a blank into a bar having a web with pairs of marginal, oppositely-disposed, non-tapering flanges lying in different planes, and then rolling said bar into an I-beam having pairs of non-tapering flanges lying in the same plane, by simultaneously forcing supports against said web and applying pressure to the outer sides of the flanges in lines substantially parallel to said web.

2. The method of making I-beams, which consists in first rolling a blank into a bar having a web with pairs of marginal, oppositely-disposed flanges of substantially uniform thickness lying in different planes, and then rolling said bar into an I-beam having pairs of flanges of substantially uniform thickness lying in the same plane by simultaneously forcing supports against said web and applying pressure to the outer sides of the flanges in lines substantially parallel to said web.

939,169. ROLLING-MILL. HUGO SACK, Dusseldorf, Germany; Adelheid Sack administratrix of said Hugo Sack, deceased. Filed June 26, 1907. Serial No. 380,854.

1. In combination with a pair of housings constituting a mill stand, a roll-supporting member having sliding connections with the housings and adapted to support a roll therebetween, said housings and member being constructed and arranged to permit the housings to be moved apart and the roll to be lifted from its support.

2. In combination with a pair of housings constituting a mill stand, a roll supporting member having sliding connections with the housings and adapted to support a roll therebetween, said housings and member being constructed and arranged to permit the housings to be moved apart and the roll to be lifted from its support while the support is held in place by its connections with the housings, substantially as described.



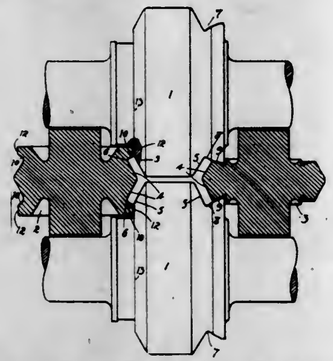
3. In combination with a pair of housings constituting a mill stand, a roll supporting member having sliding connections with the housings and adapted to support a roll therebetween, said housings and member being constructed and arranged to permit the housings to be moved apart and the support to be lifted from between the housings, substantially as described.

4. In a rolling mill, the combination of a plurality of stands of housings in line, one stand of each housing being movable to and from the other, longitudinally-movable spindles between the stands, and means for simultaneously shifting the movable housings and spindles in the same direction, substantially as described.

5. In a rolling mill, the combination of a plurality of stands of housings in line, the inner stand of one housing being movable to and from the other housing, longitudinally-movable spindles between the stands, and a movable stool supporting said spindles.

[Claims 6 and 7 not printed in the Gazette.]

939,170. UNIVERSAL ROLLS FOR ROLLING FLANGED BARS. HUGO SACK, Dusseldorf, Germany; Adelheid Sack administratrix of said Hugo Sack, deceased. Filed Mar. 30, 1908. Serial No. 424,133.

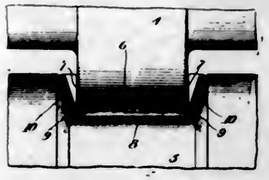


1. A universal mill, consisting of a pair of horizontal rolls having working faces comprising an intermediate cylindrical surface and outwardly-extending frustoconical surfaces, and a pair of vertical rolls having convex faces opposed to said frustoconical surfaces, said rolls providing a pass comprising a web-portion and outwardly-diverging flange portions, each horizontal roll having at one end a surface to shape the edge of a flange and at its other end a substantially vertical shoulder, and substantially cylindrical vertical-roll surfaces opposed to said vertical, horizontal-roll shoulders.

2. A universal mill, consisting of a pair of identical asymmetrical horizontal rolls having working faces comprising an intermediate cylindrical surface and outwardly-extending frustoconical surfaces, and a pair of non-identical symmetrical vertical rolls having convex faces opposed to said frustoconical surfaces, said rolls providing a pass comprising a web-portion and outwardly-diverging flange-portions, said horizontal rolls having at one end surfaces to shape the edges of one set of flanges and at their other ends substantially vertical shoulders, and one vertical roll having surfaces to shape the edges of the other set of flanges and substantially cylindrical surfaces opposed to said vertical horizontal-roll shoulders.

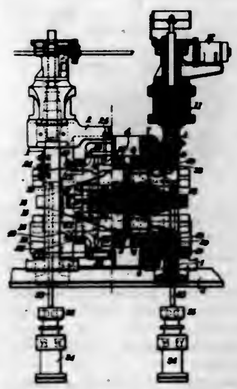
3. A universal mill, consisting of a pair of horizontal rolls, and a pair of vertical rolls having duplicate convex working faces, said rolls providing a symmetrical pass consisting of a web-portion and outwardly-diverging flange-portions, the horizontal and vertical rolls having adjacent surfaces arranged to press upon and form the faces of the flanges, and one vertical roll having annular surfaces arranged to press upon and form the edges of the flanges, said vertical roll having surfaces 12 extending outward from said annular surfaces in a vertical plane, and the horizontal rolls having corresponding surfaces 13 which in the plane of rolling are substantially parallel with and are adjacent to the surfaces 12, substantially as described.

939,171. METHOD OF MAKING CHANNEL-BARS WITH TAPERLESS FLANGES. HUGO SACK, Dusseldorf, Germany; Adelheid Sack administratrix of said Hugo Sack, deceased. Filed Nov. 30, 1908. Serial No. 465,413.



The method of making channel-bars with taperless flanges, which consists in first producing a preliminary bar with a transversely-curved web and taperless marginal flanges extending from and substantially at right angles to said web, and then flattening the web and bringing the flanges into mutual parallelism by simultaneously applying pressure to the convex side of the web and to the outer faces of the flanges at points adjacent to the web.

939,172. UNIVERSAL ROLLING-MILL. HUGO SACK, Dusseldorf, Germany; Adelheid Sack administratrix of said Hugo Sack, deceased. Filed Nov. 30, 1908. Serial No. 465,414.



1. A rolling mill, comprising stands, a pair of horizontal rolls, a vertical roll, a movable chock carrying said vertical roll, means whereby vertical movement of one horizontal roll laterally shifts said chock, and supplemental means for resisting the lateral rolling pressure on the vertical roll.

2. A rolling mill, comprising stands having guideways, a pair of horizontal rolls, horizontal-roll carriers having ends in said guideways, one of said carriers vertically adjustable, a pair of vertical rolls, movable chocks carrying said vertical rolls, means whereby vertical movement of one of said carriers laterally shifts said chocks, and supplemental means for resisting the lateral rolling pressure on the vertical rolls.

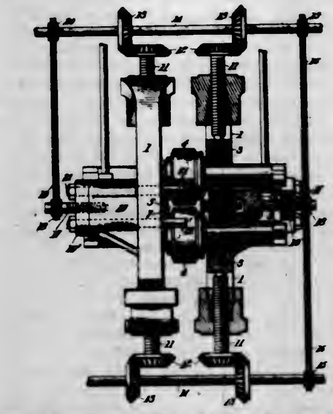
3. A rolling mill, comprising stands having guideways, a pair of horizontal rolls, horizontal-roll carriers having ends in said guideways, one of said carriers vertically adjustable, a pair of vertical rolls, movable chocks carrying said vertical rolls, means whereby vertical movement of one of said carriers laterally shifts said chocks, comprising complementary members respectively on said carriers and said chocks, said members having inclined abutting faces, and adjustable supports bearing against the outer ends of said chocks.

4. A rolling mill, comprising stands having guideways, a pair of horizontal rolls, horizontal-roll carriers having ends in said guideways, one of said carriers vertically adjustable, a pair of vertical rolls, movable chocks carrying said vertical rolls, means whereby vertical movement of one of said carriers laterally shifts said chocks, comprising complementary members respectively on said carriers and said chocks, said members having inclined abutting faces, adjustable supports bearing against the outer ends of said chocks, and tie-rods connecting said chocks.

5. A rolling mill, comprising stands having guideways, a pair of horizontal rolls, horizontal-roll carriers having ends in said guideways, one of said carriers vertically adjustable, a pair of vertical rolls, movable chocks carrying said vertical rolls, and means whereby vertical movement of one of said horizontal-roll carriers laterally shifts said chocks, comprising setting-rails on said carriers and wedge-plates on said chocks, said wedge-plates and setting-rails having inclined abutting faces and said wedge-plates having portions which extend outward over said carriers to prevent the chocks from shifting in the line of rolling.

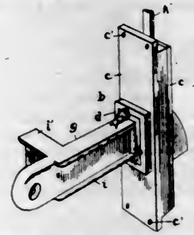
[Claims 6 to 9 not printed in the Gazette.]

939,173. UNIVERSAL ROLLING-MILL. HUGO SACK, Dusseldorf, Germany; Adelheid Sack administratrix of said Hugo Sack, deceased. Filed Nov. 30, 1908. Serial No. 465,417.



A universal mill for rolling I-bars with outwardly-diverging flanges, comprising a pair of housings having guideways, a pair of horizontal rolls journaled in bearings in said guideways, a pair of vertical rolls each having a convex face, a pair of chocks carrying said vertical rolls, horizontal guideways for said chocks, and interconnected means for simultaneously forcing both the horizontal and the vertical rolls toward the roll-pass, and thereby accurately maintaining the desired form of pass.

939,174. SLIDING DOOR AND WINDOW FASTENER. FREDERICK H. SCHLAPBACH, Rome, Ga., assignor of one-half to Edward Fuller, Cedartown, Ga. Filed July 12 1909. Serial No. 507,225.



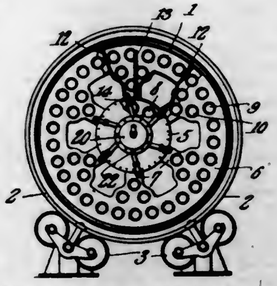
1. The combination with a hollow structure having an opening provided with a cover, of a locking device for keeping said cover in closed position, comprising a reciprocatory keeper-plate located within the structure, a casing for the keeper-plate having an opening without the structure, a locking bolt having a notched head for engagement with said keeper-plate and an external right-angle end-extension engaging the face of an edge portion of the cover.

2. The combination with a railroad car having a sliding door, of a locking device for keeping said door in closed position, having an external right-angle end-extension engaging the face of an edge portion of the door, and means for releasing said locking device having a concealed operating rod located within the car and having extension through the roof thereof.

3. The combination with a railroad car having a sliding door, of a locking device for keeping said door in closed position, comprising a sliding keeper-plate located within the car, a casing for the keeper-plate having an external opening, a locking bolt having a notched head for engagement with said keeper-plate and an external right-angle end-extension engaging the face of an edge portion of the door, and a concealed operating rod located within the car and having extension through the roof thereof.

4. The combination with a railroad car having a sliding door, of a locking device located at and having abutment against the rear edge of the door to prevent opening of the same, said locking device having an angular extension engaging the face of the lower rear corner of the door, and means for releasing said locking device accessible only from the top of the car.

939,175. DRIER. HERBERT W. SHEPARD, New York, N. Y., assignor to Atlantic Drier Company, New York, N. Y., a Corporation of New York. Filed July 2, 1909. Serial No. 505,685.



1. In a rotary steam drier, a manifold having an inner compartment for receiving live steam and outer pockets or compartments for receiving steam after passing through the drier, a steam supply pipe entering the inner compartment of the manifold, a closed cylinder surrounding the steam pipe outside the inner compartment of the manifold, conduits encircling the cylinder exterior thereto

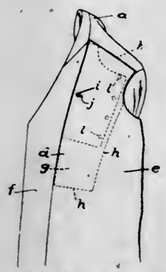
and opening at one end into the cylinder, and pipes connecting the other ends of these conduits to respective compartments in the outer portion of the manifold.

2. In a rotary steam drier, a manifold having an inner compartment for receiving live steam and outer pockets or compartments for receiving steam after passing through the drier, a steam supply pipe entering the inner compartment of the manifold, a cylinder encircling the steam pipe, circumferential channels or conduits about the cylinder opening at diametrically opposite points into the cylinder and provided with division members adjacent to the opening, and pipes leading from the outer compartments of the manifold to respective conduits about the cylinder at points adjacent to the division members but remote from the point of connection of the conduits with the cylinder.

3. In a rotary steam drier, a manifold having an inner drum or compartment for receiving live steam, and outer compartment for receiving steam after passing through the drier, the outer compartments being mechanically connected to the inner compartments by hollow spokes, which latter, do not communicate with the inner compartments, pipes connecting the inner compartment with the outer compartments and leading to near the outer portion of the outer compartments, a steam pipe entering the inner compartment, a cylinder surrounding the steam pipe and provided with circumferential channels or conduits each opening at one end into the cylinder, and pipes connecting the inner ends of the hollow spokes with the other ends of the said circumferential conduits.

4. In a rotary steam drier, a manifold having an inner compartment for receiving live steam, and outer pockets or compartments for receiving steam after passing through the drier, a steam pipe entering the inner compartment of the manifold, a cylinder surrounding the steam pipe and provided with an escape pipe, circumferential conduits about the cylinder each opening at one point thereinto, and pipes connecting the outer compartments with respective ones of the conduits at the ends remote from those opening into the cylinder, said pipes being arranged at an angle to a corresponding radius of the manifold.

939,176. GARMENT. CHARLES T. SMALL, Malden, and WILBUR N. SHELTON, Newtonville, Mass., assignors to Franklin Rubber Company, Boston, Mass., a Corporation of Massachusetts. Filed Dec. 19, 1908. Serial No. 468,262.



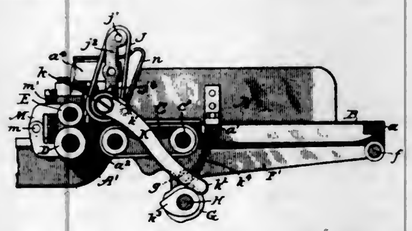
1. In combination with a coat, said coat having a pocket arranged upon each of its inner faces, said pockets opening forwardly; a flap secured to each side of the coat, the line of attachment of each flap being adjacent to the mouth of its pocket, whereby the flap may be swung rearwardly into the pocket, or outwardly therefrom toward the outturned flap upon the other side and form a shield therewith.

2. In combination with a coat, said coat having a pocket arranged upon each of its inner faces, said pockets opening forwardly; a flap secured to each side of the coat, the line of attachment of each flap being adjacent to the mouth of the pocket, whereby the flap may be swung rearwardly into the pocket, or outwardly therefrom toward the outturned flap upon the other side and form a shield therewith; means for securing the proximate free edges of the flaps to each other when they are turned outwardly; and means for closing each of said pockets when the flaps are housed therein.

3. In combination with a coat having the usual front facings and lining, said coat having a pocket arranged upon each of its inner faces, each pocket opening forwardly and having its mouth coincident with the seam between the adjacent facing and lining; and a flap secured to each side of the coat, the line of attachment of each flap being along the seam aforesaid, whereby the flap may be swung rearwardly into the pocket leaving the facing clear, or outwardly from the pocket toward the outturned flap upon the other side to form a shield.

4. In combination with a coat having the usual front facings and lining; a protecting shield adapted to close the space between the lapels of the coat, said shield comprising a pair of flaps one secured upon each side of the coat, the point or line of attachment being along one edge substantially coincident with the seam between the facing and lining and about which lines the flaps are adapted to be swung at will either outwardly therefrom to form a shield or inwardly within the coat, whereby when the flaps are turned inwardly the facings will have the usual appearance when the coat is unbuttoned.

939,177. SHEET-FEEDING MACHINE. BENJAMIN R. STICKNEY, Ticonderoga, N. Y., assignor of one-half to Joseph E. Ralph, Joliet, Ill. Filed June 30, 1909. Serial No. 505,229.



1. In a machine for feeding sheets from a stack or pile, the combination of a pair of withdrawing rolls, a sheet advancing device adapted to engage a sheet and advance it from the stack or pile to said withdrawing rolls and then move away from said sheet, and an intermittently movable sheet separating device movable in a direction opposite to the travel of the sheet and adapted to cooperate with the sheet advancing device for separating the advancing sheet from the next adjacent sheet or sheets.

2. In a machine for feeding sheets from a stack or pile, the combination of a pair of withdrawing rolls, a sheet advancing device adapted to engage a sheet and advance it to said rolls and then move away from said sheet, an intermittently movable sheet separating device movable in a direction opposite to the travel of the sheet and adapted to coöperate with the sheet advancing device for separating the advancing sheet from the next adjacent sheet or sheets, and means for relatively changing the speed of operation of the withdrawing rolls and sheet advancing device.

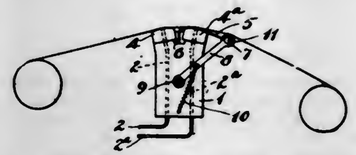
3. In a machine for feeding sheets from a stack or pile, the combination of a pair of withdrawing rolls, a constantly rotating sheet advancing device movable toward and from the stack or pile and adapted to engage a sheet and advance it to the withdrawing rolls, and an intermittently rotating sheet separating device having an intermittent rotating movement in a direction opposite to the travel of the sheet and adapted to engage therewith for separating it from the next adjacent sheet or sheets.

4. In a machine for feeding sheets from a stack or pile, the combination of a pair of withdrawing rolls, a series of continuously moving endless bands adapted to frictionally engage a sheet and advance it from the stack or pile to the withdrawing rolls and then move away from the sheet, and a second series of endless bands intermittently movable in a direction opposite to the travel of the sheet, said second set of bands being adapted to operate against the sheet advancing bands for separating the advancing sheet from the next adjacent sheet or sheets.

5. In a machine for feeding sheets from a stack or pile, the combination of a pair of withdrawing rolls, a support for a stack or pile of paper, a series of endless traveling bands adapted to be moved into contact with the bottom sheet of the stack of paper arranged on said support for advancing the sheet to the withdrawing rolls and to thereafter move away therefrom, a second series of endless bands mounted above said support and adapted to frictionally engage the advancing sheet, and means for intermittently moving said second set of bands in a direction opposite to the travel of the sheet.

[Claims 6 to 8 not printed in the Gazette.]

939,178. TRACKER-BOARD. FRANK C. WHITE, Meriden, Conn., assignor to The Wilcox & White Company, Meriden, Conn., a Corporation of Connecticut. Filed Dec. 24, 1908. Serial No. 469,092.



1. In a tracker-board, a body 1 having therein two independent rows of ducts, a shiftable flexible apron and means to shift the same to cut off either one of said rows.

2. In a tracker-board, a body 1 having therein two independent rows of ducts, a shiftable flexible apron arranged to cut off either one of said rows, one part of said apron being anchored to said body at a point between said rows.

3. In a tracker-board, a body 1 having therein two independent rows of ducts, a flexible apron arranged to cut off either one of said rows, one part of said apron being anchored to said body at a point between said rows, and a movable bracket support connected to another part of said apron, whereby said apron may be shifted to either of its two operative positions.

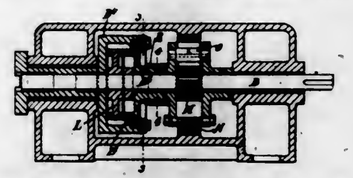
4. In a tracker-board, a body 1 having therein two independent rows of ducts, a flexible apron arranged to cut off either one of said rows, one part of said apron being anchored to said body at a point between said rows, and a shiftable bracket connected to another part thereof, whereby said apron may be moved to either of its two operative positions, with means for holding said bracket in each of its operative positions.

5. In a tracker-board, a body 1 having therein two independent rows of ducts, a flexible apron arranged to cut off one or the other of said sets, said apron being anchored to said body at a point between said rows, and means to move said apron to either of its two operative positions, with means for holding the latter in either one of its operative positions, said means operating also to apply tension to said apron.

[Claims 6 to 8 not printed in the Gazette.]

939,179. GEARING. ALFRED D. WILLIAMSON, Sheffield, England, assignor to Vickers Sons & Maxim Limited, Sheffield, England. Original application filed May 18, 1908, Serial No. 433,615. Divided and this application filed Apr. 6, 1909. Serial No. 488,298.

1. In a planing or other reciprocating machine, the combination with the shaft of a reversible electric motor, of a shaft adapted to be driven by the motor shaft, epicyclic gearing interposed between the motor shaft and the driven shaft, a device for rendering said epicyclic gearing operative and means governed by the rotation of the said motor shaft for automatically controlling the aforesaid device.



2. In a planing or other reciprocating machine, the combination with the shaft of a reversible electric motor, of a shaft adapted to be driven by the motor shaft, epicyclic gearing interposed between the motor shaft and the driven shaft, pawl and ratchet mechanism coöperating with said epicyclic gearing, and means governed by the rotation of the said motor shaft for automatically controlling the cooperation of the epicyclic gearing with the aforesaid pawl and ratchet mechanism.

3. In a planing or other reciprocating machine, the combination with the shaft of a reversible electric motor, of a shaft adapted to be driven by the motor shaft, a ratchet wheel secured to the motor shaft, an oppositely toothed ratchet wheel driven indirecly by and at a different speed from the motor shaft, a double pawl carried by the driven shaft for engagement with one or other of said ratchet wheels, and means governed by the rotation of the said motor shaft for automatically controlling the aforesaid pawl.

4. In a planing or other reciprocating machine, the combination with the shaft of a reversible electric motor, of a shaft adapted to be driven by the motor shaft, a ratchet wheel secured to the motor shaft, an oppositely toothed ratchet wheel mounted loosely on said motor shaft, epicyclic gearing for driving the last mentioned ratchet wheel from the motor shaft, a double pawl carried by the driven shaft for engagement with one or other of said ratchet wheels, and means governed by the rotation of the said motor shaft for automatically controlling the aforesaid pawl.

5. In a planing or other reciprocating machine, the combination with the shaft of a reversible electric motor, of a shaft adapted to be driven by the motor shaft, a ratchet wheel secured to the motor shaft, an oppositely toothed ratchet wheel driven indirectly by and at a different speed from the motor shaft, a double pawl carried by the driven shaft for engagement with one or other of said ratchet wheels, a tail piece on the aforesaid pawl, and a rotary toothed ring engaging with said tail piece.

[Claims 6 to 10 not printed in the Gazette.]

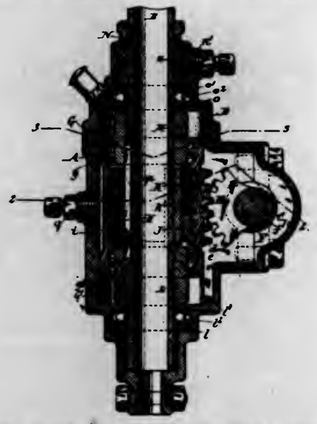
939,180. STEERING-GEAR FOR VEHICLES. JOHN A. WILSON, Jr., Buffalo, N. Y., assignor to Noye Manufacturing Company, Buffalo, N. Y., a Corporation of New York. Filed May 10, 1909. Serial No. 495,101.

1. A steering gear for vehicles comprising a mast, a worm divided lengthwise into a plurality of sections which are mounted on the mast and are adjustable lengthwise relatively to each other, and a screw nut engaging its internal threads with the external threads of said worm sections.

2. A steering gear for vehicles comprising a mast, a worm divided lengthwise into a plurality of sections which are mounted on the mast and are adjustable lengthwise relatively to each other, a screw nut engaging its internal threads with the external threads of said worm sections, and means for transmitting the movement of said nut to the steering wheels of the vehicle.

3. A steering gear for vehicles comprising a mast, a worm divided lengthwise into a plurality of sections which are mounted on the mast and are adjustable lengthwise relatively to each other, a screw nut engaging its internal threads with the external threads of said worm sections, a casing in which said mast is journaled, a rock shaft jour-

nailed in said casing and adapted to be operatively connected with the steering wheels of the vehicle, and means for causing the movement of said nut to rock said shaft.



4. A steering gear for vehicles comprising a mast, an internally threaded screw nut or sleeve, and a worm mounted on said mast and having external threads engaging with the threads of said nut or sleeve and comprising a cylindrical hub provided on its periphery with alternating longitudinal ribs and grooves, said ribs having external screw thread sections, and longitudinal bars arranged in said grooves and having external screw thread sections, and means for adjusting said hub and bars lengthwise relatively to each other.

5. A steering gear for vehicles comprising a mast, an internally threaded screw nut or sleeve, and a worm mounted on said mast and having external threads engaging with the threads of said nut or sleeve and comprising a cylindrical hub provided on its periphery with alternating longitudinal ribs and grooves, said ribs having external screw thread sections, and longitudinal bars arranged in said grooves and having external screw thread sections, a casing inclosing said worm and screw sleeve and supporting said hub, and adjusting means mounted on the casing and operating on said bars.

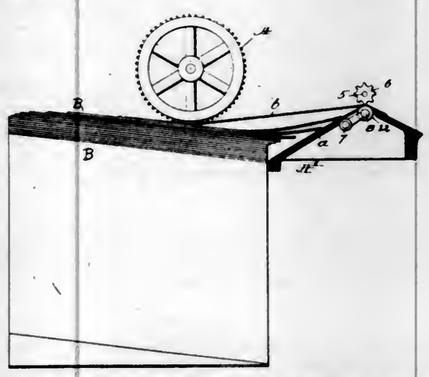
[Claims 6 to 11 not printed in the Gazette.]

939,181. BRUSH. ELIAS E. AHLSTEDT and AXEL L. BOWMAN, New York, N. Y. Filed Dec. 9, 1907. Serial No. 405,725.



A casing, a brush rotatable thereon, means for connecting said casing with a source of liquid supply, means for actuating said brush by means of said liquid, the back of said brush being hollow and provided with perforations leading to the bristles.

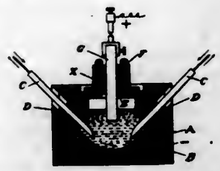
939,182. SHEET-FEEDING APPARATUS. ARTHUR S. ALLEN, Brookline, Mass. Filed Jan. 3, 1905. Serial No. 239,384.



1. In an apparatus of the class described, a ridge having an inclined surface, a support for a pile of sheets of paper having its top surface inclined downwardly toward the ridge, and a combing wheel to act on the uppermost sheet of the pile and start it toward the ridge, the inclination of the support for the pile of sheets being such that the top sheet of the pile occupies a plane which meets the inclined surface of the ridge near the base thereof.

2. In apparatus of the class described, a support for a pile of sheets of paper, said support having its top occupying a plane inclined forwardly and downwardly from a horizontal plane, and a combing wheel acting upon the uppermost sheet of the pile, combined with an inclined ridge and two rollers to which the end of the topmost sheet leaving the pile and passing up the incline is delivered, the rotation of the wheels at the apex of the incline aiding in taking the topmost sheet from the top of the pile.

939,183. PROCESS OF GENERATING ELECTRICITY. HENRY S. BLACKMORE, Mount Vernon, N. Y. Original application filed Apr. 18, 1903, Serial No. 153,329. Divided and this application filed Apr. 29, 1907. Serial No. 370,799.



1. The process of generating electricity, which consists in employing a molten electrolyte having in communication therewith electrodes one of which is more electropositive than the other and contains metal carbid decomposable by the electrolyte, the said electrodes being separated from each other by a body of the electrolyte.

2. The process of generating electricity, which consists in employing a body of electrolyte having in communication therewith electrodes one of which is more electropositive than the other and consists of a metal carbid decomposable by the electrolyte, the said electrodes being separated from each other by a body of the electrolyte.

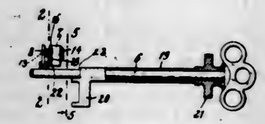
3. The process of generating electricity, which consists in employing a body of electrolyte having in communication therewith electrodes one of which consists of a carbid decomposable by the electrolyte, and the other a substance more electro-negative than the base of the carbid, the said electrodes being separated from each other by a body of electrolyte.

4. The process of generating electricity, which consists in employing a body of molten electrolyte having in communication therewith electrodes one of which contains a metal carbid decomposable by the electrolyte and one of which is more electro-positive than the other, and maintaining the electrolyte which is in contact with the electrodes in a molten condition by a source of heat applied external to the carbid electrode.

5. The process of generating electricity, which consists in employing a body of electrolyte having in communication therewith electrodes one of which contains a metal carbid decomposable by the electrolyte and one of which is more electro-positive than the other, and maintaining the electrolyte which is in contact with the electrodes in an active condition by a source of heat applied external to the carbid electrode.

[Claims 6 to 48 not printed in the Gazette.]

939,184. KEY. JOHN BLASZCZYK, New York, N. Y. Original application filed Mar. 19, 1909, Serial No. 484,353. Divided and this application filed May 26, 1909. Serial No. 498,394.



1. In a key, the combination with a stem, of a key bit thereon, a plurality of cams arranged on said bit in a plane at right angles to the plane thereof, means for shifting said cams through certain angles, and a secondary key slidably arranged on said stem.

2. In a key, the combination with a stem, of a key bit thereon, a plurality of cams arranged on said bit in a plane at right angles to the plane thereof, means for shifting said cams upon said bit in their operating plane, means for determining the positions of said cams, and a secondary key shiftably arranged on said stem.

3. In a key, the combination with a stem, of a key bit thereon, a plurality of cams arranged on said bit in a plane at right angles to the plane thereof, and means for shifting said cams through certain angles.

4. In a key, the combination with a stem, of a key bit thereon, a plurality of cams arranged on said bit in a plane at right angles to the plane thereof, means for shifting said cams upon said key bit in their operating plane, and means for predetermining the positions of said cams.

939,185. MACHINE FOR PUNCHING HOLES IN METAL PLATES. CHARLES H. CLARK, Columbus, Ohio. Filed Mar. 1, 1907. Serial No. 360,061.

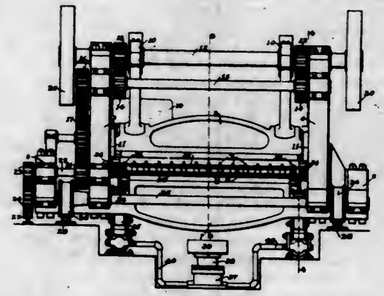
1. In a metal punching machine, dies, punches, a punch locating templet removably positioned with relation to the dies, means apart from the templet for supporting the punches, and press mechanism.

2. In a metal punching machine, dies, loose punches and means for forcing them through the dies, and a templet removably positioned with relation to the dies for locating the punches on the work in register with the dies.

3. In a metal punching machine, dies, punches, a punch-locating templet, means for positioning the templet at varying elevations above the dies, and press mechanism.

4. In a metal punching machine, dies, a punch-locating templet, means for variably spacing the templet from the dies with the latter and the punch-locating positions of the templet in line in the various positions of the templet, and press mechanism.

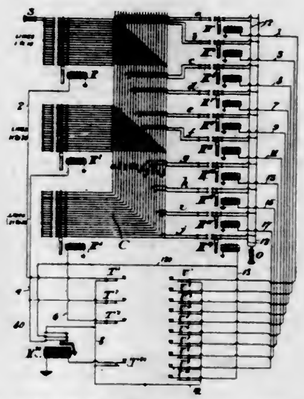
5. In a metal punching machine, a plurality of dies greater in number than are active at one punching operation, punches, interchangeable punch-locating templets with means for removably positioning them with



relation to the dies, each templet having punch holes registering with certain of the dies, means apart from the templets for supporting the punches, and press mechanism.

[Claims 6 to 48 not printed in the Gazette.]

939,186. SELECTIVE APPARATUS FOR SYSTEMS OF COMMUNICATION. EDWARD E. CLEMENT, Washington, D. C., assignor to The North Electric Company, Cleveland, Ohio, a Corporation of Ohio. Filed Oct. 11, 1906. Serial No. 338,463.



1. In an electrical system a series of circuits, a set of relays each containing terminals of a plurality of said circuits, a cable or set of trunk wires connected in multiple to corresponding terminals in all of said relays, and a supplementary set of relays, each supplementary relay controlling a branch from one only of the cable wires.

2. In an electrical system, a series of circuits, a set of relays each containing terminals of a plurality of said circuits, a cable or set of trunk wires connected in multiple to corresponding terminals in all of said relays, a supplementary set of relays each controlling one only of the cable wires, and a circuit closer for each main and supplementary relay, whereby the operation of said circuit closers in pairs will effect complete selection and connection of any one of the circuits.

3. In an electrical system, a series of circuits, a set of relays each containing terminals of a plurality of said circuits, a cable or set of trunk wires connected in multiple to corresponding terminals in all of said relays, a supplementary set of relays each controlling one only of the cable wires, and a circuit closer for each main and supplementary relay, with self-locking means on each relay,

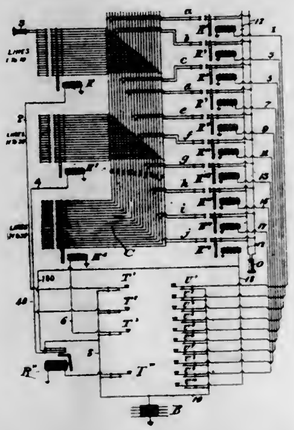
and means for controlling the same, associated with the actuating circuit closer.

4. In an electrical system, a series of circuits, a set of relays each containing terminals of a plurality of said circuits, a cable or set of trunk wires connected in multiple to corresponding terminals in all of said relays, a supplementary set of relays each controlling one only of the cable wires, and a circuit closer for each main and supplementary relay, together with a supplementary locking winding on each relay, a locking circuit for said windings closed when a relay is energized, and means for opening the same associated with the circuit closers.

5. Means for effecting connection between any one of a plurality of circuits, and a common circuit, comprising a set of relays each containing contacts of a group of said circuits, a second set of relays corresponding in number to the number of circuits in a group, a stub cable or trunk wires also equal in number to the number of circuits in a group, and respectively connected in multiple to corresponding contacts of the several groups, also having each wire connected by itself to the contacts of a particular relay to the second set, whereby a circuit may be identified and connected by first selecting the group in which it is to be found, and also selecting the unit wire in that group with which the desired circuit is connected.

[Claims 6 and 7 not printed in the Gazette.]

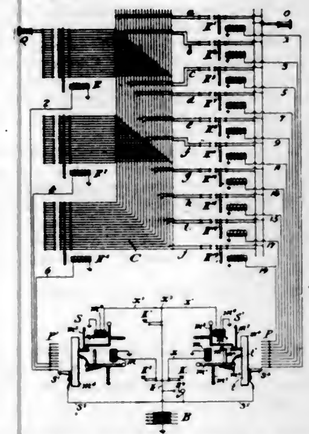
939,187. METHOD OF SELECTION IN SYSTEMS OF COMMUNICATION. EDWARD E. CLEMENT, Washington, D. C., assignor to The North Electric Company, Cleveland, Ohio, a Corporation of Ohio. Filed Oct. 11, 1906. Serial No. 338,464.



1. The method of interconnection of electrical circuits and apparatus which consists in selecting one of a plurality of units by first segregating a group containing said unit, and predetermining the association of said group with an intermediate fractional agency common to all the groups, then segregating a unit in said intermediate agency corresponding to the particular unit in the selected group, and finally determining the association of said selected unit with a connective agency common to all the units of the intermediate agency.

2. The method of selection and interconnection of electrical agencies which consists in selectively converging a plurality of multiple groups of units upon a common intermediate fractional agency, diverging the units of said intermediate agency, selectively determining their individual segregation, as well as the segregation of a predetermined group, and thereby the connection of a unit in said group through the intermediate agency and the segregated unit thereof to a final agency common to all the groups and all the units.

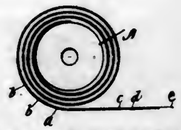
939,188. METHOD OF SELECTION IN SYSTEMS OF COMMUNICATION. EDWARD E. CLEMENT, Washington, D. C., assignor to The North Electric Company, Cleveland, Ohio, a Corporation of Ohio. Filed Oct. 11, 1906. Serial No. 338,466.



1. In an electrical system the method of selection and connection of a predetermined circuit which consists in successively segregating groups of circuits until a group is found which contains the desired unit, associating this group with an intermediate agency common to all the groups and successively segregating the units in said intermediate agency until the unit is found which corresponds to the desired unit circuit in the segregated group, and finally associating this unit with a single agency common to all the groups and units.

2. In an electrical system the method of selection and connection of a predetermined circuit which consists in successively segregating groups of circuits until a group is found which contains the desired unit, associating this group with an intermediate agency common to all the groups and successively segregating the units in said intermediate agency until the unit is found which corresponds to the desired unit circuit in the segregated group, maintaining all other groups and all other units in the intermediate agency disabled, and finally associating the selected unit with a single agency common to all the groups and all the units.

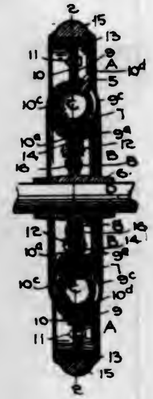
939,189. PACKAGE-ROLL OF METALLIC LEAF. WALTER H. COE, Providence, R. I.; Elise D. Coe executrix of said Walter H. Coe, deceased. Filed Mar. 28, 1907. Serial No. 365,197. Renewed July 15, 1909. Serial No. 507,864.



A package roll of metallic leaf having a perforated supporting strip, said perforations being formed by punctures from one of its sides whereby said strip will have one side smooth and its opposite side rough, and the sides of the strip caused to act upon the leaf unequally.

939,190. VEHICLE-WHEEL. EDWARD DETTELBACH and EDWARD W. B. POWELL, Denver, Colo., assignors, by direct and mesne assignments, of one-third to Alexander Nisbet and one-third to Thomas W. Baird, Denver, Colo. Filed Apr. 2, 1908. Serial No. 424,742.

1. In a vehicle wheel, a central member having a hub adapted to engage upon an axle and provided with a centrally disposed web 8 having apertures 14 and a concave rim 7 and an inflatable elastic tube C engaged about said rim, in combination with a two-part annular element A one part having a rim 13, a web 10, a concave inner rim portion 10^e adapted to engage over tube C and an inner web 10^a, the other part having a concavo-convex central portion 9^c and inner and outer portions 9^a and 9 respectively, transverse bolts connecting the parts of element A, and the said webs 9^a and 10^a connected by bolts 12 through said apertures 14.



2. In a vehicle wheel, a central member having a hub and a centrally disposed web with a series of radial apertures and a rim about said web, and an inflatable tube seated upon the said rim, in combination with a two-part annular element having concavo-convex side portions which inclose the said tube and flat inner and outer webs respectively as to said concavo-convex portions, transverse bolts connecting the said inner webs through the said radial apertures and rings engaging the innermost portions of the sides of said annular element and the said centrally disposed web and providing a dust proof covering about the hub of the wheel.

3. In a vehicle wheel, a hub provided with a radially disposed web having transverse apertures therein and a concave rim located at its periphery, an inflatable elastic tube mounted upon said rim, in combination with a two part annular element, each part having a concave central portion adapted to engage over the said inflatable tube, and inner and outer web portions, bolts connecting the said outer web portions and transverse bolts connecting the said inner web portions and passing through the said apertures in the web upon the hub, said apertures being of greater diameter than the bolts passing through them.

939,191. SWIVEL KNOB-SPINDLE. JAMES R. FLETCHER, New Britain, Conn., assignor to P. & F. Corbin, New Britain, Conn., a Corporation of Connecticut. Filed June 24, 1909. Serial No. 503,976.



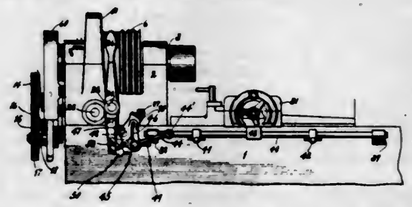
1. A spindle comprising two spindle ends, a screw arranged to connect said spindle ends in line, a separately formed cap on one spindle end, said cap when in place forming part of said spindle end and serving to increase the diameter thereof at the point where said cap is applied, a portion of said cap extending into the space between the two adjacent ends of the spindle to prevent endwise displacement of said cap.

2. In a spindle, two spindle ends of uniform diameter, a cap secured on the end of each of said parts, and means serving to connect said capped ends in line.

3. In a spindle, two spindle ends of uniform diameter, a cap on one end of each of said parts, and a screw serving to connect said capped ends in line, said screw passing through both caps and loosely fitting one of said spindle ends to permit the same to swivel.

4. In a spindle, two spindle ends of uniform diameter, a cap of corresponding cross sectional outline secured on the end of each of said parts, and swivel means serving to connect said capped ends in line.

939,192. CLUTCH-ACTUATING MECHANISM. BENGT M. W. HANSON, Hartford, Conn., assignor to Pratt & Whitney Company, Hartford, Conn., a Corporation of New Jersey. Original application filed Feb. 6, 1903, Serial No. 142,112. Divided and this application filed Dec. 19, 1904. Serial No. 237,544.



1. The combination with a driven element, of gearing for actuating said element; a clutch for connecting a member of said gearing to the driven element; a movable rack; means for actuating said rack; a pinion in engagement with the rack; a cam actuated by the pinion; and means for connecting said cam with the clutch.

2. The combination with a driven element, of gearing for actuating said element; a clutch for connecting a member of said gearing to said element; a pivoted rack; means for actuating said rack; cam-mechanism actuated by the rack; and means controlled by said cam-mechanism for shifting the clutch.

3. The combination with a shaft, of a worm-wheel loose on the shaft; means for connecting the worm-wheel to the shaft; a pinion on the worm-shaft; a slotted shaft having a bore; a pinion on said slotted shaft; a pin passing through the hub of the pinion and the slot of the shaft; a rod located in the bore of the shaft, said rod having a knob; and means for rotating the slotted shaft.

4. The combination with a clutch of a lever having a rack; means for actuating the lever; a pinion having a cam actuated by the rack; a stationary cam in engagement with the pinion-cam; a rod actuated by the pinion-cam; and means for connecting said rod with the clutch.

5. The combination with a spindle, of reversely-driven elements loose on the spindle; a clutch in sliding connection with the spindle and adapted to connect either of said reversely-driven elements thereto or to be thrown to a neutral position; a lever for actuating the clutch; a notched plate; a detent carried by the lever and adapted to engage the notches of the plate; and a device carried by the lever and movable over the detent to lock the same in position.

[Claims 6 to 12 not printed in the Gazette.]

939,193. MECHANICAL MOVEMENT. GERALD W. HART, West Hartford, Conn., assignor to The Hart Manufacturing Company, Hartford, Conn., a Corporation of New Jersey. Filed Oct. 15, 1908. Serial No. 457,825.



1. In combination, two members, one mounted in the other so that the two members have a relative movement in a single plane, a third member mounted on and sur-

rounding one of said members and revoluble about the same, and having a substantially oblique slot through which the other of said two members projects the axis of rotation of the revoluble member coinciding with the axis of one of said two members and intersecting the axis of the other of said two members at the point where it is mounted.

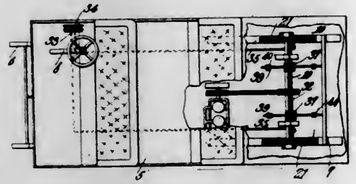
2. In combination, two members, one mounted in the other so that the two members have a relative movement in a single plane, a third member mounted on and surrounding one of said members and revoluble about the same, and having substantially oblique slots through which the other of said two members projects, said two members being pivoted one to another.

3. In combination, two members, one mounted in the other so that the two members have a relative movement in a single plane, a third member mounted on and surrounding one of said members and revoluble about the same, and having substantially oblique slots through which the other of said members projects, said two members being pivoted one to another, the pivot axis being in a plane at right angles to the axis of the third member.

4. In combination, two members, one mounted in the other so that the two members have a relative movement in a single plane, a third member mounted on and surrounding one of said members and revoluble about the same, and having substantially spiral slots through which the other of said two members projects, said two members being pivoted one to another.

5. In combination, two members, one mounted in the other so that the two members have a relative movement in a single plane, a third member mounted on and surrounding one of said members and revoluble about the same, and having substantially oblique slots through which the other of said two members projects, said two members being pivoted one to another, the portion containing said slots having a substantially spherical exterior surface.

939,194. SELF-PROPELLED SLEIGH. JOHN H. HAYES, Onaway, Mich. Filed May 1, 1909. Serial No. 493,350.

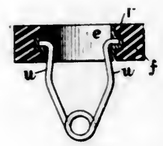


1. In a sleigh propeller, the combination with a runner, of an endless chain, spurs carried by the chain, a pair of sprockets for guiding the lower stretch of the chain along the runner, said sprockets being movable toward and from each other, and yielding means for normally holding the sprockets spread apart, and means for pressing the lower stretch of the chain outwardly to advance the spurs, said outward movement of the chain being accompanied by a movement of the sprockets toward each other.

2. In a sleigh propeller, the combination with the runner, of an endless chain, spurs carried by the chain, a pair of sprockets for guiding the lower stretch of the chain along the runner, said sprockets being movable toward and from each other, yielding means for normally holding the sprockets spread apart, a spring supported frame supported by the runner, and a pair of rollers carried by the frame, and engageable with the lower stretch for pressing the same outwardly to advance the spurs, and means for elevating the spring supported frame.

3. In a sleigh propeller, a drive shaft, a crank on said shaft, levers pivotally connected at one of their ends to the crank, and extending in opposite directions, and at an inclination to the ground, the free ends of the levers being in contact therewith, and means for holding the levers in elevated position to clear the ground.

939,195. HOSE-COUPLING. JOHN E. WARD, New York, N. Y., assignor to Ward Equipment Company, New York, N. Y., a Corporation of New York. Filed Jan. 20, 1908. Serial No. 411,611.

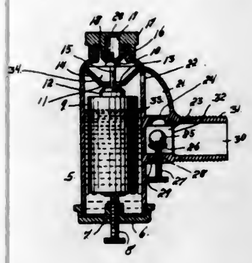


1. In a gasket for hose couplings and the like, the combination of an outer body portion, an inner frame portion, and a fastening spring to secure the gasket in a coupling, the frame being formed with a thickened portion having closed recesses to receive the end of the spring and said thickened portion serving to hold the frame and body of the gasket the more securely together.

2. In a gasket for hose couplings and the like, the combination of an outer body portion, an inner frame portion, and a V-shaped fastening spring to secure the gasket in a coupling, the frame being formed with a thickened portion having closed recesses to receive the end of the spring and said thickened portion serving to hold the frame and body of the gasket the more securely together.

3. In a gasket for hose couplings and the like, the combination of an outer body portion, an inner frame portion, and a V-shaped fastening spring having a loop therein to secure the gasket in a coupling, the frame being formed with a thickened portion having closed recesses to receive the end of the spring and said thickened portion serving to hold the frame and body of the gasket the more securely together.

939,196. AIR-VALVE. FRANK C. GOFF, Denver, Colo. Filed Aug. 25, 1908. Serial No. 450,155.



1. An automatic air valve, comprising a casing, forming a water-containing well, said casing having an inlet passage communicating with the upper portion thereof, and an air vent, a float within the well, the said float carrying a valve for controlling the said vent, the casing also having a restricted port, located above the bottom of the well, but below the line of flotation, and adapted to provide a continuous drain to said inlet passage, until the water level within the well falls to the level of the said port.

2. In a device of the class described, the combination of a casing forming a water-containing well, the said casing having an inlet passage communicating with the upper portion thereof, and a vent port, a non-expanding float within the well, the said float carrying a valve for controlling the said vent, the casing also having a restricted port above the bottom of the well, but below the line of flotation and adapted to provide a continuous drain to the said inlet passage until the water level within the well falls to the level of the said port.

3. The combination of a casing, forming a water-containing well, said casing having an inlet passage communicating with the upper portion thereof, and an air vent, a float within the well, said float carrying a valve for controlling said vent, the casing also having a restricted port, located above the bottom of the well but below the line of flotation, and adapted to provide a continuous drain to said inlet passage, until the water level within the well falls to the level of the said port, and a screw placed at the bottom of the casing and arranged to act on the float to close the valve.

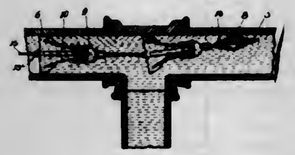
4. An automatic air valve, comprising a casing forming a water-containing well, the said casing having an inlet passage communicating with the upper portion thereof, and an air vent, a removable cap in which the vent is formed, a float within the well, the said float carrying a valve for controlling said vent, the casing also having a restricted port, located above the bottom of the well but below the line of flotation, and adapted to provide a continuous drain to the said inlet passage, until the water level within the well falls to the level of said port, a partition formed in the upper part of the casing, a chamber between the well and the air vent, the partition having an opening forming communication with the said chamber and the water-containing well, a second valve for controlling the said opening in the partition, the said second valve being also carried by the float and engaging its seat when the said cap is removed, both valves being located at one end of the float and suitably separated for the purpose set forth.

5. An automatic air valve, comprising a casing forming a water-containing well, said casing having an inlet passage communicating with the upper portion thereof, and an air vent, a float within the well, the said float carrying a valve for controlling the said vent, the casing also having a restricted port located above the bottom of the well but below the line of flotation, and adapted to provide a continuous drain to the said inlet passage until the water level within the well falls to the level of the said port, the last named port being so arranged that a considerable quantity of water is contained in the well after the water ceases to escape through the restricted port.

[Claims 6 and 7 not printed in the Gazette.]

REISSUES.

13,032. DEVICE FOR PASSING CABLES THROUGH PIPE-LINES. HUGH A. GREENAN, Richmond, N. Y., assignor to National Water Main Cleaning Company, New York, N. Y., a Corporation of Maine. Filed Aug. 3, 1909. Serial No. 511,069. Original No. 920,455, dated May 4, 1909, Serial No. 347,906.



1. In a device for passing cables through water pipes, the combination of a plurality of elastic propelling elements of equal size flexibly connected together adapted to be moved through a pipe line by a flow of liquid and a floating guide rigidly connected to and adapted to move ahead of the propelling element.

2. In a device for passing cables through water pipes, the combination of two elastic propelling cups of equal size flexibly attached at a distance from each other not less than the greatest diameter of the cups and a pointed floating guide rigidly connected to and adapted to move ahead of the propelling cups.

3. In a device for passing cables through water pipes, the combination of two elastic propelling cups of equal size attached at a distance from each other not less than the greatest diameter of the cups, a pointed cage adapted to move ahead of the propelling cups and a float inclosed in the cage.

4. In a device for passing cables through water pipes, a plurality of propelling elements flexibly connected together adapted to be moved through a pipe line by a flow of liquid and a floating guide rigidly secured to the first propelling element and adapted to move ahead of same.

5. A cable carrier comprising the combination of a series of propelling cups flexibly connected together but separated from each other by a substantially unobstructed space.

6. A cable carrier comprising the combination of a series of elastic propelling elements flexibly connected together but separated from each other by a substantially unobstructed space.

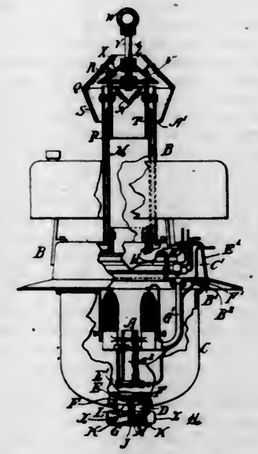
7. A cable carrier comprising the combination of a series of elastic propelling elements flexibly connected together but separated from each other by a substantially unobstructed space and a guide rigidly attached to the forward end of the forward element.

8. In a device for passing cables through water pipes, the combination of a plurality of propelling cups attached at a distance from each other, not less than the greatest diameter of the inside of the pipes through which the device is to pass, a guide rigidly connected to the first propelling cup and adapted to move ahead thereof.

9. A cable carrier comprising the combination of a series of propelling cups connected together but separated from each other by a substantially unobstructed space.

10. A cable carrier comprising the combination of a series of elastic propelling elements connected together but separated from each other by a substantially unobstructed space.

13,033. LAMP. HARPER F. SMITH, Philadelphia, Pa., assignor to Smith Incandescent Light Company, a Corporation of New Jersey. Filed June 24, 1909. Serial No. 504,200. Original No. 759,037, dated May 3, 1904, Serial No. 172,704.



1. In a lamp, the combination of an apertured globe, and a deflecting device consisting of a cup, means for supporting said cup within said globe, a disk, means depending from said cup for suspending the disk below the globe and a series of vertical blades intermediate said disk and globe.

2. In a lamp, the combination of an apertured globe, and a deflecting device consisting of a cup, means for supporting said cup, a disk, a series of vertical blades intermediate said disk and globe and means common to said blades and disk, depending from said cup, for suspending said disk and the blades below said globe.

3. In a lamp, the combination of an apertured globe, and a deflecting device consisting of a cup, means for supporting said cup, a disk, means depending from said cup for suspending said disk below the globe, a series of vertical blades intermediate said disk and globe, and a hot-air cylinder above said disk, said blades directing the air from below the globe upwardly against said cup, which latter uniformly distributes the same within said cup and directs it upwardly through the hot-air cylinder.

4. In a lamp, the combination of a globe having a bottom aperture, and a deflecting device within said globe and of a diameter greater than that of said aperture, means for supporting said deflecting device within said globe, a disk, means depending from said deflecting device for suspending said disk below the globe and a series of vertical blades intermediate said disk and globe.

5. In a lamp, the combination of a globe provided with a bottom aperture, and a deflecting device, means for supporting said deflecting device within said globe, a disk, means depending from said deflecting device for suspending said disk below the globe, said deflecting device and said disk each being of a diameter greater than that of said bottom aperture, and a series of vertical blades intermediate said disk and globe.

6. In a lamp, the combination of a globe provided with a bottom aperture and a deflecting device consisting of a cup, means for supporting said cup within said globe and adjacent said aperture, and means for affording the access of a flame to the interior of said cup for igniting fluid contained therein.

7. In a lamp, the combination of a globe provided with a bottom aperture, and a deflecting device consisting of a cup of a diameter greater than that of said aperture and having an ignition-tube extending therethrough, means for supporting said cup, a disk, means depending from said cup for suspending said disk below the globe, and a series of vertical blades intermediate said disk and globe.

8. In a lamp, the combination of an apertured globe, a burner, a starting device comprising a cup provided with an ignition-tube extending therethrough, means for supporting said cup within said globe and beneath said burner, a disk, means depending from said cup for suspending said disk below the globe, and a series of vertical blades intermediate said disk and globe.

9. In a lamp, the combination comprising a hot-air cylinder for carrying off the products of combustion, an inverted conical deflector adjacent to the top of said cylinder, a cap above said cylinder, a weather-hood open at its upper and lower ends and surrounding the top of said cylinder and said cap, means for connecting said deflector, cap and hood with said hot-air cylinder.

10. In a lamp, a hot-air cylinder, a weather-casing annularly spaced away from said cylinder, a brace secured to the upper end of said cylinder, an inverted conical deflector adjacent to the top of said cylinder, a cap covering said cylinder and a weather-hood having top and bottom openings surrounding said cap and the upper end of said cylinder.

11. In a lamp, a hot-air cylinder for carrying off the products of combustion, an inverted conical deflector adjacent the upper end of said cylinder, a hood including the upper end of said cylinder and consisting of two cone frusta united at their bases, and a conical cap within and separated from said hood of a diameter greater than that of the top of said cylinder, and means for connecting said deflector, hood and cap with said hot-air cylinder.

12. In a lamp, a hot-air cylinder for carrying off the products of combustion, an inverted conical deflector adjacent the top of said cylinder, an inverted cap above, and of substantially greater diameter than, said cylinder, a weather-hood open at its upper and lower ends surrounding the upper end of said cylinder and said cap, the greatest diameter of said hood being substantially in the plane of the exit-opening beneath said cap, and means for connecting said deflector, hood and cap with said hot-air cylinder.

13. In a lamp, a hot-air cylinder, a weather-casing surrounding said hot-air cylinder, an inverted conical deflector adjacent the top of said hot-air cylinder, a cap covering said deflector, said cylinder and said casing, a weather-hood open at its upper and lower ends surrounding the upper ends of said cylinder, said casing and said cap, and means for connecting said deflector, hood and cap with said hot-air cylinder.

14. In a lamp, a hot-air cylinder, a weather-casing surrounding said hot-air cylinder, an inverted conical deflector adjacent the top of said hot-air cylinder, a cap covering said deflector, said cylinder and said casing, a weather-hood consisting of two cone frusta, united at their bases, surrounding the upper ends of said cylinder said casing and said cap, and means for connecting said deflector, hood and cap with said hot-air cylinder.

15. In a lamp, the combination comprising a casing forming a hot-air chamber, a burner, means depending from said casing for suspending said burner from said casing, a hot-air cylinder connected with said hot-air chamber and in communication therewith, a second casing surrounding said aforesaid casing and forming a fresh-air chamber, a second cylinder integral with the casing of said fresh-air chamber and in communication with said fresh-air chamber, said cylinder being concentrically disposed around the hot-air cylinder and means for the admission of air to both of said chambers.

16. In a lamp, the combination comprising a casing forming a hot-air chamber, a burner, means depending from said casing for suspending the burner from said casing, a hot-air cylinder connected with said hot-air chamber and in communication therewith, a second casing surrounding the aforesaid casing and forming a fresh-air chamber, a second cylinder integral with the casing of said fresh-air chamber and in communication with said fresh-air chamber, and an annular plate of less diameter than the outer wall of said fresh air chamber and forming the base thereof, whereby an annular opening is provided for the admission of air to said fresh-air chamber.

17. In a lamp, the combination comprising a casing forming a hot-air chamber, a burner, means depending from said casing for suspending said burner from said casing, a hot-air cylinder connected with said hot-air chamber and in communication therewith, a second casing surrounding the aforesaid casing and forming a fresh-air chamber, a second cylinder integral with the casing of said fresh-air chamber and in communication with said fresh-air chamber, said cylinder being concentrically disposed around the hot-air cylinder, means for the admission of air to both of said chambers, and a mixing-tube connected with said burner for conveying air from said fresh-air chamber to said burner.

18. In a lamp, the combination comprising a casing forming a hot-air chamber, a burner, means depending from said casing for suspending said burner from said casing, a hot-air cylinder connected with said hot-air chamber and in communication therewith, a second casing surrounding the aforesaid casing and forming a fresh-air chamber, a second cylinder integral with the casing of said fresh-air chamber and in communication with said fresh-air chamber, and a mixing-tube connected with said burner for conveying air from said fresh-air chamber to said burner.

19. In a lamp, the combination comprising a casing forming a hot-air chamber, a burner, means depending from said casing for suspending said burner from said casing, a hot-air cylinder connected with said hot-air chamber and in communication therewith, a second casing surrounding the aforesaid casing and forming a fresh-air chamber, a second cylinder integral with the casing of said fresh air chamber and in communication with said fresh-air chamber, and a hood surrounding and extending above the upper end of both of said cylinders and secured thereto.

20. In a lamp, the combination comprising a casing forming a hot-air chamber, a burner, means depending from said casing for suspending said burner from said casing, a hot-air cylinder connected with said hot-air chamber and in communication therewith, a second casing surrounding the aforesaid casing and forming a fresh-air chamber, a second cylinder integral with the casing of said fresh-air chamber and in communication with said fresh-air chamber, and a lamp supporting device secured to the upper end of said cylinders.

21. In a lamp, the combination comprising a casing forming a hot-air chamber, a burner, means depending from said casing for suspending said burner from said casing, a hot-air cylinder connected with said hot-air chamber and in communication therewith, a second casing surrounding the aforesaid casing and forming a fresh-air chamber, a second cylinder integral with the casing of said fresh-air chamber and in communication with said fresh-air chamber, and an annular plate forming the base of said fresh-air chamber and of less diameter than the outer casing thereof, and means for the admission of air to both of said chambers.

22. In a lamp, in combination with a globe provided with a bottom aperture, and a plurality of burner elements provided with mantles disposed therein, means exterior of said opening for directing lateral air-currents upwardly therethrough, and means for laterally deflecting such entering currents so as to substantially prevent the uninterrupted ascent of the same into the zone intermediate the respective mantles of the burner elements, whereby the sides of said globe are maintained relatively cool, the mantles are protected from air-currents, and fresh air for burner consumption is supplied.

23. In a lamp, in combination with a globe provided with a bottom aperture, and a plurality of burner elements provided with mantles disposed therein, means exterior of said opening for directing lateral air-currents upwardly therethrough and means within said globe for laterally deflecting such entering currents, said deflecting means being of sufficient extent to initially project substantially all of said entering currents as a unitary cooling envelop into the zone intermediate the sides of the globe and the central zone intermediate the said mantles, said envelop being sufficiently large to envelop the zone intermediate the said mantles, whereby the sides of said globe are maintained relatively cool, the mantles are protected from air-currents, and fresh air for burner consumption is supplied.

24. In a lamp, in combination with a globe provided with a bottom aperture, a plurality of burner elements provided with mantles disposed therein, means exterior of said opening for directing lateral air-currents upwardly therethrough and for laterally deflecting substantially all of said upwardly directed air-currents toward the sides of said globe, said deflecting means being of sufficient extent to prevent the uninterrupted rectilineal ascent of substantially all of said air-currents into the zone intermediate the aforesaid mantles, whereby the sides of said globe are maintained relatively cool, the mantles are protected from air-currents, and fresh air for burner consumption is supplied.

25. In a lamp the combination of a globe provided with a bottom aperture, a burner provided with a mantle disposed therein, a deflecting device including a plurality of radially extending blades, means for suspending said deflecting device below said globe, and means for laterally deflecting air currents entering through said aperture so as to substantially prevent the uninterrupted ascent of the same into the central zone of the globe in which said mantle is positioned, whereby the sides of said globe are maintained relatively cool, the mantle is protected from air-currents, and fresh air for burner consumption is supplied.

26. In a lamp, the combination with a globe provided with a bottom aperture, a burner element, provided with a mantle, positioned therein, means exterior of said opening for directing lateral air-currents upwardly therethrough, and means for laterally deflecting such entering air-currents so as to substantially prevent the uninterrupted ascent of the same into the central zone of said globe containing said burner element, whereby the sides of said globe are maintained relatively cool, the mantle of said burner element is protected from air-currents, and fresh air for burner consumption is supplied.

27. In a lamp, the combination with a globe provided with a bottom aperture, a burner element, provided with a mantle, disposed therein, means exterior of said opening for directing lateral air-currents upwardly therethrough, and means within said globe for laterally deflecting such entering currents, said deflecting means being of sufficient extent to initially project substantially all of said entering currents as a unitary cooling envelop into the zone intermediate the sides of the globe and the central zone of the globe containing said mantle, and said envelop being sufficiently large to envelop the central zone of the globe, whereby the sides of the globe are maintained relatively cool, the mantle is protected from air currents, and fresh air for burner consumption is supplied.

28. In a lamp, the combination with a globe provided with a bottom aperture, a burner element, provided with a mantle, disposed therein, means exterior of said aperture for directing lateral air-currents upwardly therethrough and for laterally deflecting substantially all of said upwardly directed air currents toward the sides of said globe, said deflecting means being of sufficient extent to prevent the uninterrupted rectilineal ascent of substantially all of said air-currents into the zone containing the aforesaid mantle, whereby the sides of said globe are maintained relatively cool, the mantles are protected from air-currents, and fresh air for burner consumption is supplied.

29. In a lamp, the combination with a globe provided with a bottom aperture, a plurality of burner elements, provided with mantles, disposed therein, a deflecting device, means for suspending said deflecting device below said globe, a series of radially extending blades intermediate said deflecting device and globe, and means for laterally deflecting air-currents entering through said aperture so as to substantially prevent the uninterrupted ascent of the same into the zone intermediate the respective mantles of the burner elements whereby the sides of said globe are maintained relatively cool, the mantles are protected from air-currents and fresh air for burner consumption is supplied.

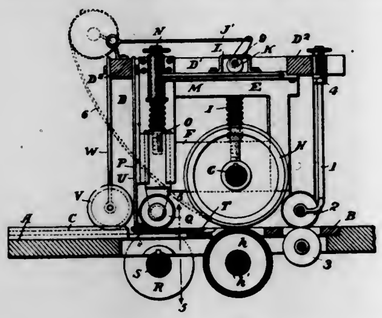
30. In a lamp, the combination with a globe having a bottom aperture and a plurality of burner elements, provided with mantles, disposed therein, a plurality of radially extending blades arranged beneath said aperture and suspended from said globe, means for laterally deflecting substantially all of the air-currents entering into the globe through said opening so as to prevent the uninterrupted rectilineal passage of the same into the zone intermediate the said mantles, and means beneath said blades for preventing the direct ascent of air-currents into said globe, whereby the sides of said globe are maintained relatively cool, the mantles are protected from air-currents, and fresh air for burner consumption is supplied.

31. In a lamp, the combination comprising a burner element, a casing forming a hot-air chamber supported above said burner, a hot-air cylinder in communication with said hot-air chamber and connected with the casing thereof, a second casing surrounding the casing of said hot-air chamber and forming a fresh-air chamber external of said hot-air chamber, means for supporting the latter casing and a base for said fresh-air chamber integral with the casing forming the hot-air chamber.

13,034. PROCESS FOR GLUING VENEERS. ALFRED A. DENNIS, Grand Rapids, Mich., assignor to Veneer Machinery Company, Grand Rapids, Mich., a Corporation. Filed Mar. 18, 1909. Serial No. 484,334. Original No. 884,905, dated Apr. 14, 1908, Serial No. 347,182.

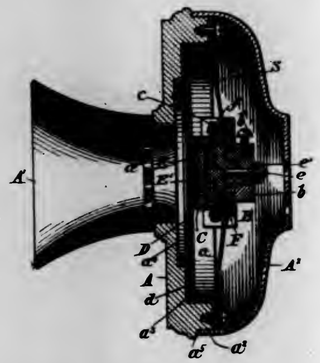
The herein described process of attaching pieces of veneer consisting in feeding pieces of veneer in oblique relation to each other to a pressure device and exerting lateral pressure to hold the adjacent edges in close union, applying to the adjacent edges strips of adhesive material

and subjecting the strips to pressure to cause the adhesive material to become firmly attached and applying heat at



the point of attachment of the adhesive material to secure the adhesive material to the strips.

13,035. TELEPHONE-TRANSMITTER. WILLIAM W. DEAN, Elyria, Ohio, assignor to The Dean Electric Company, a Corporation of Ohio. Filed May 17, 1909. Serial No. 496,680. Original No. 823,768, dated June 19, 1906, Serial No. 224,299.



1. In a telephone transmitter, a vibrating diaphragm, an independently supported cup resting with its bottom against the diaphragm, the other parts of the cup being free from the diaphragm, an electrode supported by said cup, springs pressing said cup against said diaphragm, a second electrode independently and rigidly fixed with respect to the first and granular conducting material between the electrodes in the cup.

2. In a telephone transmitter, a vibrating diaphragm, an independently supported cup having its edges turned over and resting with its bottom against the diaphragm, the other parts of the cup being free from the diaphragm, springs pressing the cup against the diaphragm, a supplemental diaphragm engaging the edges of the cup, an electrode in the bottom of said cup, a second electrode independently and rigidly fixed with respect to tne first and granular conducting material between the electrodes in the cup.

3. In a telephone transmitter, a vibrating diaphragm an independently supported cup having its edges turned over at an angle to its sides and resting with its bottom against said diaphragm, the cup being otherwise free from engagement with said diaphragm, springs pressing the cup against the diaphragm, a supplemental diaphragm having its edges secured to the turned over edges of the cup and forming a closure for the mouth of said cup, an electrode in the bottom of said cup, a second electrode rigidly and independently fixed with respect to the first and granular conducting material between the electrodes.

4. In a telephone transmitter, an integral diaphragm, a cup resting with its bottom against and behind the rear surface of said diaphragm and otherwise free of the diaphragm an electrode in the bottom of said cup, springs pressing the cup against said diaphragm, a second electrode in said cup supported independently of said first electrode and granular conducting material between the electrodes in the cup.

5. In a telephone transmitter, an integral vibrating diaphragm, a cup having its bottom engaging the rear surface of said diaphragm and having its edges turned over but not engaging said diaphragm, a supplemental diaphragm engaging the turned over edge of the diaphragm, springs pressing the cup against the diaphragm, an electrode in said cup, a second electrode rigidly fixed independently of said first electrode and granular conducting material between said electrodes in said cup.

DESIGNS.

40,324. GLASS PITCHER. SAMUEL HAWKES, Corning, N. Y. Filed June 26, 1909. Serial No. 504,624. Term of patent 7 years.



The ornamental design for a glass pitcher, as shown.



40,325. GLASS PITCHER. SAMUEL HAWKES, Corning, N. Y. Filed June 26, 1909. Serial No. 504,625. Term of patent 7 years.





The ornamental design for a glass pitcher, as shown.

40,326. LIGHT-SHADE. ANDREW J. SANFORD, Newark, Ohio. Filed June 14, 1909. Serial No. 502,177. Term of patent 14 years.



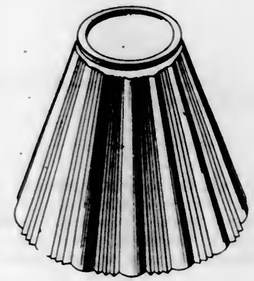
The ornamental design for a light shade, as shown and described.

40,327. LIGHT-SHADE. ANDREW J. SANFORD, Newark, Ohio. Filed June 21, 1909. Serial No. 503,563. Term of patent 14 years.



The ornamental design for a light shade, as shown and described.

40,328. LIGHT-SHADE. ANDREW J. SANFORD, Newark, Ohio. Filed June 21, 1909. Serial No. 503,564. Term of patent 14 years.



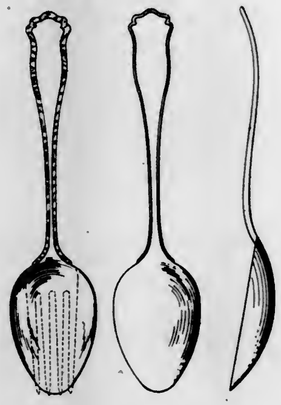
The ornamental design for a light shade, as shown and described.

40,329. LIGHT-SHADE. ANDREW J. SANFORD, Newark, Ohio. Filed June 21, 1909. Serial No. 503,577. Term of patent 14 years.



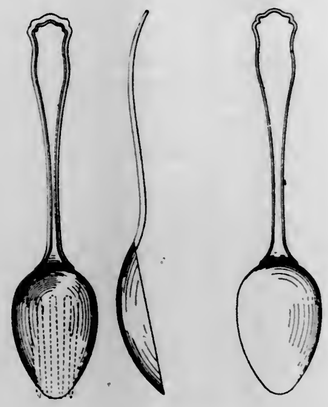
The ornamental design for a light shade, as shown and described.

40,330. HANDLE OF SPOONS, FORKS, OR SIMILAR ARTICLES. JOSEPH E. BIRMINGHAM, San Francisco, Cal., assignor to Shreve & Company, San Francisco, Cal., a Corporation of California. Filed July 21, 1909. Serial No. 508,868. Term of patent 7 years.



The ornamental design for the handle of a spoon, fork or similar article, as shown.

40,331. HANDLE OF SPOONS, FORKS, OR SIMILAR ARTICLES. JOSEPH E. BIRMINGHAM, San Francisco, Cal., assignor to Shreve & Company, San Francisco, Cal., a Corporation of California. Filed July 21, 1909. Serial No. 508,869. Term of patent 7 years.



The ornamental design for the handle of a spoon, fork or similar article, as shown.

40,332. LIGHT-SHADE. ANDREW J. SANFORD, Newark, Ohio. Filed June 21, 1909. Serial No. 503,567. Term of patent 14 years.



The ornamental design for a light shade, as shown and described.

40,333. LIGHT-SHADE. ANDREW J. SANFORD, Newark, Ohio. Filed June 21, 1909. Serial No. 503,568. Term of patent 14 years.



The ornamental design for a light shade, as shown and described.

40,334. LIGHT-SHADE. ANDREW J. SANFORD, Newark, Ohio. Filed June 21, 1909. Serial No. 503,571. Term of patent 14 years.



The ornamental design for a light shade, as shown and described.

40,335. LIGHT-SHADE. ANDREW J. SANFORD, Newark, Ohio. Filed June 25, 1909. Serial No. 504,381. Term of patent 14 years.



The ornamental design for a light shade, as shown and described.

TRADE-MARKS

PUBLISHED NOVEMBER 2, 1909.

The following trade-marks have been adjudged entitled to registration under the act of February 20, 1905, and are published in compliance with section 6 of said act. Said section provides:

"Any person who believes he would be damaged by the registration of a mark may oppose the same by filing notice of opposition, stating the grounds therefor, in the Patent Office within thirty days after the publication of the mark sought to be registered, which said notice of opposition shall be verified by the person filing the same before one of the officers mentioned in section two of this act. If no notice of opposition is filed within said time the Commissioner shall issue a certificate of registration therefor, as hereinafter provided for."

Marks which are stated to have been "Used ten years" are registrable under the last proviso of section 5 of said act, which is as follows:

"And provided further, That nothing herein shall prevent the registration of any mark used by the applicant or his predecessors, or by those from whom title to the mark is derived, in commerce with foreign nations or among the several States, or with Indian tribes, which was in actual and exclusive use as a trade-mark of the applicant or his predecessors from whom he derived title for ten years next preceding the passage of this act."

Section 14 of said act provides for the following fee:

"On filing notice of opposition to the registration of a trade-mark, ten dollars."

Ser. No. 30,980. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) FLOOD & CONKLIN CO., Newark, N. J. Filed Nov. 4, 1907. Used ten years.

1

Particular description of goods.—Fillers and Surfacers.

Ser. No. 30,981. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) FLOOD & CONKLIN CO., Newark, N. J. Filed Nov. 4, 1907. Used ten years.

2

Particular description of goods.—Fillers and Surfacers.

Ser. No. 30,982. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) FLOOD & CONKLIN CO., Newark, N. J. Filed Nov. 4, 1907. Used ten years.

3

Particular description of goods.—Fillers and Surfacers.

Ser. No. 36,083. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) GEORGE BECHTOLD, Brooklyn, N. Y. Filed July 18, 1908.

AMPELLA

Particular description of goods.—Medicinal Tablets Used as a Remedy for Kidney, Liver, or Bladder Troubles, Acute or Chronic Inflammatory or Muscular Rheumatism, Lumbago, Gout, Sciatica, Neuralgia, La Grippe, Constipation, Biliousness, Jaundice, Catarrh of the Bladder, Inability to Retain or Pass Urine, Gravel, Cold or Perspiring Feet or Hands, Stiff or Swollen Joints, Pains in Back or Limbs, and Malaria.

Ser. No. 36,957. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) RALPH MARTINDALE & COMPANY, LIMITED, Birmingham, England. Filed Aug. 26, 1908.



Particular description of goods.—Matchets.

Ser. No. 37,196. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE CINCINNATI ABATTOIR COMPANY, Cincinnati, Ohio. Filed Sept. 3, 1908.

PHEASANT



Particular description of goods.—Cured Meats, Sausage-Meat, Canned Tripe with Milk, Pork Sausage-Meat, Corned Beef, Potted Meat, Ham Flavor; Deviled Meat, Tongue Flavor; Deviled Meat, Ham Flavor; Potted Meat, Tongue Flavor; Canned Lunch-Tongue, Canned Roast-Beef, Canned Corned-Beef Hash, Canned Hamburger-Style Steak and Onions, Vienna-Style Sausage, Sugar-Cured Chipped Beef, Deviled Vienna-Style Sausage, Canned Meat-Loaf, Veal Flavor; Pure Lard, Ham, Bacon-Bellies, Bacon.

Ser. No. 37,885. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) HOWARD I. MANLEY, Webb City, Mo. Filed Oct. 8, 1908.

ELECTRITE

Particular description of goods.—A Chemical Preparation for Making a Solution for Cleaning Metal Articles by Electrolytic Action.

Ser. No. 37,945. (CLASS 32. FURNITURE AND UPHOLSTERY.) THE SMO COMPANY, Chicago, Ill. Filed Oct. 10, 1908.

LOCKSTYLE

Particular description of goods.—Pedestal-Locking Devices for Pedestal Extension-Tables.

Ser. No. 38,574. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) THE STAR RUBBER CO., Akron, Ohio. Filed Nov. 11, 1908.

BABY'S FAVORITE

Particular description of goods.—Rubber Nipples.

Ser. No. 39,021. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) INTERNATIONAL BANANA FOOD CO., Chicago, Ill. Filed Dec. 1, 1908.

Bonano

Particular description of goods.—A Granulated, Ground, or Pulverized Food Substance Made from Bananas and a Drink Produced Therefrom.

Ser. No. 39,279. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) SOUTHERN QUEEN RANGE MFG. CO., Chattanooga, Tenn. Filed Dec. 14, 1908. Used ten years.

Southern

Particular description of goods.—Cooking Stoves and Ranges, Steam-Tables, and Charcoal and Coke Broilers and Tailors' Stoves.

Ser. No. 39,395. (CLASS 48. MALT EXTRACTS AND LIQUORS.) PORTERBRYGGERI-AKTIEBOLAGET D. CARNEGIE & Co., Götsborg, Sweden. Filed Dec. 18, 1908. Used ten years.



Particular description of goods.—Porter.

Ser. No. 39,560. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) STONE-ORDEAN-WELLS COMPANY, Duluth, Minn. Filed Dec. 28, 1908.

Wanhum

Particular description of goods.—Canned Fish; Dried Fish; Smoked Fish; Pickled Fish; Salted Fish; Canned Roast Beef; Ham; Tripe; Picnic-Shoulders; Pickled Pigs' Feet; Canned Potted Meats; Canned Corned Beef; Sliced Dried Beef; Canned Deviled Ham; Dried Fruits; Evaporated Fruits; Dried Vegetables; Canned Soups; Soup-Stocks; Wheat-Flakes; Corn-Flakes; Prepared Cereal Breakfast Foods; Cornmeal; Cracked Wheat; Farina; Flaked Rice; Wheat-Flour; Rye-Flour; Graham Flour; Buckwheat-Flour; Potato-Flour; Hominy-Grits; Buckwheat-Grits; Groats; Hominy; Lentils; Oatmeal; Rolled Oats; Popcorn; Rice; Bird-Seeds; Shelled Corn; Barley; Canned Baked Beans; Extract of Beef; Canned Clam-Juice; Canned Clam-Chowder; Canned Oysters; Jams; Jellies; Apple-Butter; Peanut-Butter; Marmalade; Canned Prepared Puddings; Prepared Sauces; Macaroni; Vermicelli; Spaghetti; Celery-Salt; Garlic; Vinegar; Cream-Cheese; Sage-Cheese; Hand-Cheese; Limburger Cheese; Brick-Cheese; Camembert Cheese; Swiss-Style Cheese; Sapsago Cheese; Roquefort-Style Cheese; Pine-apple-Cheese; Chicory; Chilli Sauce; Catsup; Chocolate; Cocoa; Cocoanut; Tea; Coffee; Coffee-Essence; Cereal and Malt Substitutes for Coffee; Canned Condensed Milk; Canned Evaporated Cream; Candy; Chewing-Gum; Crackers; Biscuits; Cookies; Cakes; Flavoring Extracts; Gelatin; Horse-Radish; Spices; Molasses; Maple-Syrup; Corn-Syrup; Cane-Syrup; Prepared Mustard; Prepared Yeast; Lard; Mince-Meat; Noodles; Nuts; Olive-Oil; Cotton-Seed Oil; Olives; Pickles; Pepper Sauce; Sago; Salad-Dressing; Laurel-Leaves; Limes; Linseed-Meal; Maple-Cream; Bay-Leaves; Curry-Powder; Fruit-Preserves; Sauer-Kraut in Bulk; Corn-Starch; Tapioca, and Oil-Meal.

Ser. No. 39,698. (CLASS 39. CLOTHING.) DORA T. COOK, Springfield, Mass. Filed Jan. 4, 1909.

BABYCRAFT

Particular description of goods.—Infants' Clothing.

Ser. No. 40,221. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) GOLDEN STATE ASPARAGUS CO., San Francisco, Cal. Filed Jan. 29, 1909.

EL PRIMERO BRAND

Particular description of goods.—Canned Asparagus.

Ser. No. 40,282. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MICHAEL O'HEGAN, Butte, Mont. Filed Feb. 1, 1909.

XXX

Particular description of goods.—A Hair-Restorer.

Ser. No. 40,524. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) PARLIN & ORENDORFF CO., Canton, Ill. Filed Feb. 13, 1909.

P&O

Particular description of goods.—Riding and Walking Plows, Harrows, Cultivators, Soil and Clod Pulverizers, Soil-Packers, Grain-Drills, Planters, Potato-Diggers, Beet-Drills, and Beet-Pullers.

Ser. No. 41,340. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) RUB-A-LAC MANUFACTURING COMPANY, Glouster and Marietta, Ohio. Filed Mar. 22, 1909.

RUB-A-LAC

Particular description of goods.—Washing Compound.

Ser. No. 41,427. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) VERTRIEBS-GESELLSCHAFT PROF. DR. SCHLEICH'SCHER PRÄPARATE G. M. B. H., Berlin, Germany. Filed Mar. 26, 1909.

„Desalgin"

Particular description of goods.—A Preparation of Chloroform for Medicinal Use.

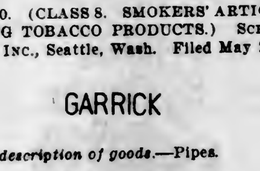
Ser. No. 42,262. (CLASS 39. CLOTHING.) RIDLEY-WILLIAMSON-SPAIN CO., Atlanta, Ga. Filed May 6, 1909.

Marathon

Particular description of goods.—Dress, Negligée, and Work Shirts.

Ser. No. 42,439. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) PERU CANNING COMPANY, Peru, Ind. Filed May 15, 1909.

YANKEE BABY



The picture of the baby being fanciful.

Particular description of goods.—Canned Vegetables.

Ser. No. 42,539. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) DELTA-STAR ELECTRIC CO., Chicago, Ill. Filed May 20, 1909.



Particular description of goods.—Electrical Switchboards, Panel-Boards, Switches, Plugs, Fuse-Blocks, Magnets, Coils, Terminal Lugs.

Ser. No. 42,620. (CLASS 8. SMOKERS' ARTICLES, NOT INCLUDING TOBACCO PRODUCTS.) SCHWABACHER BROS & CO INC., Seattle, Wash. Filed May 22, 1909.

GARRICK

Particular description of goods.—Pipes.

Ser. No. 42,734. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) REVERE RUBBER COMPANY, Boston, Mass. Filed May 28, 1909.



Particular description of goods.—Belting and Hose and Machinery Packing Composed of Metal, Rubber, Rubber Compositions or Textile Fabrics or Combinations Thereof, Pneumatic Tires, and Solid Rubber Tires.

Ser. No. 36,957. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) RALPH MARTINDALE & COMPANY, LIMITED, Birmingham, England. Filed Aug. 26, 1908.



Particular description of goods.—Matchets.

Ser. No. 37,196. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE CINCINNATI ABATTOIR COMPANY, Cincinnati, Ohio. Filed Sept. 3, 1908.

PHEASANT



Particular description of goods.—Cured Meats, Sausage-Meat, Canned Tripe with Milk, Pork Sausage-Meat, Corned Beef, Potted Meat, Ham Flavor; Deviled Meat, Tongue Flavor; Deviled Meat, Ham Flavor; Potted Meat, Tongue Flavor; Canned Lunch-Tongue, Canned Roast-Beef, Canned Corned-Beef Hash, Canned Hamburger-Style Steak and Onions, Vienna-Style Sausage, Sugar-Cured Chipped Beef, Deviled Vienna-Style Sausage, Canned Meat-Loaf, Veal Flavor; Pure Lard, Ham, Bacon-Bellies, Bacon.

Ser. No. 37,885. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) HOWARD I. MANLEY, Webb City, Mo. Filed Oct. 8, 1908.

ELECTRITE

Particular description of goods.—A Chemical Preparation for Making a Solution for Cleaning Metal Articles by Electrolytic Action.

Ser. No. 37,945. (CLASS 32. FURNITURE AND UPHOLSTERY.) THE SENG COMPANY, Chicago, Ill. Filed Oct. 10, 1908.

DUOSTYLE

Particular description of goods.—Pedestal-Locking Devices for Pedestal Extension-Tables.

Ser. No. 38,574. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) THE STAR RUBBER CO., Akron, Ohio. Filed Nov. 11, 1908.

BABY'S FAVORITE

Particular description of goods.—Rubber Nipples.

Ser. No. 39,021. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) INTERNATIONAL BANANA FOOD CO., Chicago, Ill. Filed Dec. 1, 1908.

Bonano

Particular description of goods.—A Granulated, Ground, or Pulverized Food Substance Made from Bananas and a Drink Produced Therefrom.

Ser. No. 39,279. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) SOUTHERN QUEEN RANGE MFG. CO., Chattanooga, Tenn. Filed Dec. 14, 1908. Used ten years.

Southern

Particular description of goods.—Cooking Stoves and Ranges, Steam-Tables, and Charcoal and Coke Broilers and Tailors' Stoves.

Ser. No. 39,395. (CLASS 48. MALT EXTRACTS AND LIQUORS.) PORTERBRYGGERI-AKTIEBOLAGET D. CARNEGIE & Co., Götsborg, Sweden. Filed Dec. 18, 1908. Used ten years.



Particular description of goods.—Porter.

Ser. No. 39,560. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) STONE-ORDRAN-WELLS COMPANY, Duluth, Minn. Filed Dec. 28, 1908.

Wantum

Particular description of goods.—Canned Fish; Dried Fish; Smoked Fish; Pickled Fish; Salted Fish; Canned Roast Beef; Ham; Tripe; Picnic-Shoulders; Pickled Pigs' Feet; Canned Potted Meats; Canned Corned Beef; Sliced Dried Beef; Canned Deviled Ham; Dried Fruits; Evaporated Fruits; Dried Vegetables; Canned Soups; Soup-Stocks; Wheat-Flakes; Corn-Flakes; Prepared Cereal Breakfast Foods; Cornmeal; Cracked Wheat; Farina; Flaked Rice; Wheat-Flour; Rye-Flour; Graham Flour; Buckwheat-Flour; Potato-Flour; Hominy-Grits; Buckwheat-Grits; Groats; Hominy; Lentils; Oatmeal; Rolled Oats; Popcorn; Rice; Bird-Seeds; Shelled Corn; Barley; Canned Baked Beans; Extract of Beef; Canned Clam-Juice; Canned Clam-Chowder; Canned Oysters; Jams; Jellies; Apple-Butter; Peanut-Butter; Marmalade; Canned Prepared Puddings; Prepared Sauces; Macaroni; Vermicelli; Spaghetti; Celery-Salt; Garlic; Vinegar; Cream-Cheese; Sage-Cheese; Hand-Cheese; Limburger Cheese; Brick-Cheese; Camembert Cheese; Swiss-Style Cheese; Sapsago Cheese; Roquefort-Style Cheese; Pineapple-Cheese; Chicory; Chili Sauce; Catsup; Chocolate; Cocoa; Cocoanut; Tea; Coffee; Coffee-Essence; Cereal and Malt Substitutes for Coffee; Canned Condensed Milk; Canned Evaporated Cream; Candy; Chewing-Gum; Crackers; Biscuits; Cookies; Cakes; Flavoring Extracts; Gelatin; Horse-Radish; Spices; Molasses; Maple-Syrup; Corn-Syrup; Cane-Syrup; Prepared Mustard; Prepared Yeast; Lard; Mince-Meat; Noodles; Nuts; Olive-Oil; Cotton-Seed Oil; Olives; Pickles; Pepper Sauce; Sago; Salad-Dressing; Laurel-Leaves; Limes; Linseed-Meal; Maple-Cream; Bay-Leaves; Curry-Powder; Fruit-Preserves; Saner-Kraut in Bulk; Corn-Starch; Tapioca, and Oil-Meal.

Ser. No. 39,698. (CLASS 39. CLOTHING.) DORA T. COOK, Springfield, Mass. Filed Jan. 4, 1909.

BABYCRAFT

Particular description of goods.—Infants' Clothing.

Ser. No. 40,221. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) GOLDEN STATE ASPARAGUS CO., San Francisco, Cal. Filed Jan. 29, 1909.

EL PRIMERO BRAND

Particular description of goods.—Canned Asparagus.

Ser. No. 40,282. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MICHAEL O'HEGAN, Butte, Mont. Filed Feb. 1, 1909.

XXX

Particular description of goods.—A Hair-Restorer.

Ser. No. 40,524. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) PARLIN & ORENDORFF CO., Canton, Ill. Filed Feb. 13, 1909.

P & O

Particular description of goods.—Riding and Walking Plows, Harrows, Cultivators, Soil and Clod Pulverizers, Soil-Packers, Grain-Drills, Planters, Potato-Diggers, Beet-Drills, and Beet-Pullers.

Ser. No. 41,340. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) RUB-A-LAC MANUFACTURING COMPANY, Glouster and Marietta, Ohio. Filed Mar. 22, 1909.

RUB-A-LAC

Particular description of goods.—Washing Compound.

Ser. No. 41,427. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) VERTRIEBS-GESELLSCHAFT PROF. DR. SCHLEICH'SCHER PRÄPARATE G. M. B. H., Berlin, Germany. Filed Mar. 26, 1909.

„Desalgin"

Particular description of goods.—A Preparation of Chloroform for Medicinal Use.

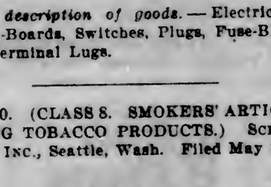
Ser. No. 42,262. (CLASS 39. CLOTHING.) RIDLEY-WILLIAMSON-SPAIN CO., Atlanta, Ga. Filed May 6, 1909.

Marathon

Particular description of goods.—Dress, Negligée, and Work Shirts.

Ser. No. 42,439. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) PERU CANNING COMPANY, Peru, Ind. Filed May 15, 1909.

YANKEE BABY



The picture of the baby being fanciful.

Particular description of goods.—Canned Vegetables.

Ser. No. 42,539. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) DELTA-STAR ELECTRIC CO., Chicago, Ill. Filed May 20, 1909.



Particular description of goods.—Electrical Switchboards, Panel-Boards, Switches, Plugs, Fuse-Blocks, Magnets, Coils, Terminal Lugs.

Ser. No. 42,620. (CLASS 8. SMOKERS' ARTICLES, NOT INCLUDING TOBACCO PRODUCTS.) SCHWABACHER BROS & CO INC., Seattle, Wash. Filed May 22, 1909.

GARRICK

Particular description of goods.—Pipes.

Ser. No. 42,734. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) REVERE RUBBER COMPANY, Boston, Mass. Filed May 28, 1909.



Particular description of goods.—Belting and Hose and Machinery Packing Composed of Metal, Rubber, Rubber Compositions or Textile Fabrics or Combinations Thereof, Pneumatic Tires, and Solid Rubber Tires.

Ser. No. 42,749. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) PUHL-WEBB CO., Chicago, Ill. Filed May 29, 1909.



Particular description of goods.—Blended Coffee.

Ser. No. 42,752. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CASPER J. DOBROCINSKI, Schenectady, N. Y. Filed May 29, 1909.



The portrait shown being that of Harry D. Johnson.
Particular description of goods.—A Medicament for Use in the Treatment of Throat, Lung, and Stomach Troubles and for Use in the Treatment of Catarrh and Hay-Fever.

Ser. No. 42,765. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JAMES FULLERTON, Seattle, Wash. Filed June 1, 1909.

ZUNDRA

Particular description of goods.—A Liquid Medicinal Preparation for the Relief of Headache, Neuralgia, Catarrh, and Hay-Fever.

Ser. No. 42,845. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SCUDDER SYRUP CO., Chicago, Ill. Filed June 5, 1909. Used ten years.



Particular description of goods.—Maple-Syrup.

Ser. No. 42,871. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HERVEY H. MCINTIRE, South Bend, Ind. Filed June 7, 1909.



Particular description of goods.—A Preparation for Toning Photographic Prints.

Ser. No. 42,966. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) MURPHY VARNISH COMPANY, Newark, N. J. Filed June 11, 1909.

Konkreto

Particular description of goods.—Wall and Floor Paints and Materials in the Nature of Paints for Coating Cement and for Waterproofing.

Ser. No. 43,126. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) DELNO S. DUNNING, New York, N. Y., assignor to Selery-Soda Company, a Corporation of New York. Filed June 19, 1909.



Particular description of goods.—A Headache Remedy.

Ser. No. 43,211. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) MERRIMACK MANUFACTURING COMPANY, Lowell, Mass. Filed June 23, 1909.

DUCKLING

Particular description of goods.—Cotton Flannel.

Ser. No. 43,286. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) C. D. PEACOCK, Incorporated, Chicago, Ill. Filed June 26, 1909.



Particular description of goods.—Metal and Glass Polishing Materials.

Ser. No. 43,287. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) GLADSTONE SPRINGS CO., Chattanooga, Tenn. Filed June 26, 1909.

GLADSTONE



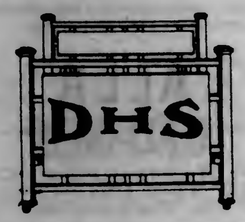
Consists of the portrait of W. E. Gladstone, deceased, the name "Gladstone," and the facsimile-signature of J. A. Patten, president of the corporation.
Particular description of goods.—Natural Spring-Water.

Ser. No. 43,387. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) YOUNG BROS INC., Seattle, Wash. Filed July 3, 1909.



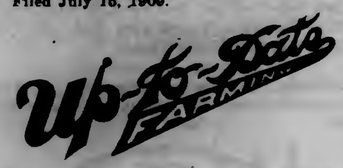
The essential features of which are the word "Sunset" and the representation of a sunset.
Particular description of goods.—Blended Coffee.

Ser. No. 43,528. (CLASS 32. FURNITURE AND UPHOLSTERY.) DAVIS, HORWICH & STEINMAN, INC., Chicago, Ill. Filed July 14, 1909.



Particular description of goods.—Bedsteads.

Ser. No. 43,536. (CLASS 38. PRINTS AND PUBLICATIONS.) EQUITY PUBLISHING COMPANY, Indianapolis, Ind. Filed July 15, 1909.



Particular description of goods.—Semimonthly Magazines.

Ser. No. 43,570. (CLASS 37. PAPER AND STATIONERY.) E. E. LLOYD PAPER CO., Chicago, Ill. Filed July 16, 1909.

EMBASSY

Particular description of goods.—Writing-Paper.

Ser. No. 43,578. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) EVERITT-METZGER-FLANDERS CO., Detroit, Mich. Filed July 17, 1909.

E-M-F

Particular description of goods.—Automobiles.

Ser. No. 43,612. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) BUFFALO OIL PAINT & VARNISH COMPANY, Buffalo, N. Y. Filed July 17, 1909.

MATTONA

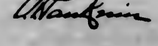
Particular description of goods.—Paint.

Ser. No. 43,616. (CLASS 38. PRINTS AND PUBLICATIONS.) THE BUSINESS MAN'S PUBLISHING CO. LTD., Detroit, Mich. Filed July 17, 1909.

THE
BOOK-KEEPER

Particular description of goods.—A Monthly Magazine.

Ser. No. 43,703. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) PANKNIN'S IMPERIAL BAKING POWDER COMPANY, Charleston, S. C. Filed July 23, 1909.



Consisting of a facsimile-signature of C. F. Panknin.
Particular description of goods.—Baking-Powder.

Ser. No. 43,704. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) PHILADELPHIA BELTING COMPANY, Philadelphia, Pa. Filed July 23, 1909.



Particular description of goods.—Leather Belting.

Ser. No. 43,752. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) SNELL & ATHERTON, INCORPORATED, Brockton, Mass. Filed July 24, 1909. Used ten years.

SNELL & ATHERTON

Particular description of goods.—Shoe-Knives and Blades Therefor, Edge-Setting Irons or Collices, Adjustable Edge-Irons, Shank-Burnishing Irons, Welt-Groovers, Stitch-Rubbers, Stitch-Wheels, Rand-Knives, Rand-Files, Tack-Pullers, Sole-Groovers, Extension Knife-Blades, Edge-Planes, Welt-Trimmers, Edge-Shaves, Sole-Rounding Knives, Heel-Shaves.

Ser. No. 43,768. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE CROTHERSVILLE CANNING COMPANY, Crothersville, Ind. Filed July 24, 1909.

AUNT LIZA'S

Particular description of goods.—Canned Lye-Hominy.

Ser. No. 43,780. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) LOUIS LIEBEL, Erie, Pa. Filed July 26, 1909.

ST. FRANCIS

Particular description of goods.—Salves.

Ser. No. 43,789. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) THE NEW ENGLAND ENAMELING COMPANY, Middletown, Conn. Filed July 26, 1909.

Ideal

Particular description of goods.—Percolating Coffee-Pots.

Ser. No. 43,807. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BADISCHE ANILIN & SODA FABRIK, Ludwigshafen-on-the-Rhine, Germany. Filed July 27, 1909.

Fuscamine

Particular description of goods.—Coloring-Matters.

Ser. No. 43,885. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) FELIX Q. RAST, Boston, Mass. Filed July 30, 1909.



Particular description of goods.—Dried Raisins.

Ser. No. 43,912. (CLASS 28. JEWELRY AND PRECIOUS-METAL WARE.) THE THOMA BROS CO., Cincinnati, Ohio. Filed July 31, 1909.



Particular description of goods.—Chains, Fobs, Lockets, and Bracelets.

Ser. No. 43,934. (CLASS 17. TOBACCO PRODUCTS.) THE J. H. LUCKE CO., Cincinnati, Ohio. Filed Aug. 2, 1909. Used ten years.

LUCKE'S

Particular description of goods.—Cigars, Cheroots, and Stogies.

Ser. No. 43,987. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) GESELLSCHAFT FÜR SPORTARTIKEL M. B. H., Berlin, Germany. Filed Aug. 5, 1909.

ALLA

Particular description of goods.—A Game.

Ser. No. 43,991. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) WRIGHT & DITSON, Jersey City, N. J., and Boston, Mass. Filed Aug. 6, 1909.

W. & D.

Particular description of goods.—Base-Balls, Base-Ball Bats, Base-Ball Masks, Base-Ball Mitts, Base-Ball Gloves, Base-Ball Body-Protectors, Base-Ball Bat-Bags, Base-Ball Bases, Base-Ball Umpires' Indicators, Base-Ball Shoe and Toe Plates, Base-Ball Home-Plates, Base-Ball Pitchers'-Box Plates, Base-Ball Uniform-Bags.

Ser. No. 43,999. (CLASS 17. TOBACCO PRODUCTS.) GONZALEZ & SANCHEZ CO., Jacksonville, Fla. Filed Aug. 6, 1909.



Particular description of goods.—Cigars.

Ser. No. 44,021. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) THE BIRMINGHAM METAL & MUNITIONS CO LD., Adderley Park, near Birmingham, England. Filed Aug. 7, 1909.

BETA

Particular description of goods.—Copper, Zinc, Lead, Aluminium, and Their Alloys.

Ser. No. 44,025. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) ONEIDA COMMUNITY, LIMITED, Oneida, N. Y. Filed Aug. 7, 1909.

V

Particular description of goods.—Animal-Traps.

Ser. No. 44,090. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) THE CLEVELAND STAMPING AND TOOL CO., Cleveland, Ohio. Filed Aug. 11, 1909.

VOLCANIC

Particular description of goods.—Enameled Metal Ware.

Ser. No. 44,091. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) THE CLEVELAND STAMPING AND TOOL CO., Cleveland, Ohio. Filed Aug. 11, 1909.

LAVA

Particular description of goods.—Enameled Metal Ware.

Ser. No. 44,096. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) OLGA A. FERGUSON, Elk City, Okla. Filed Aug. 12, 1909.

REDO-COLO

Particular description of goods.—Non-Intoxicating Tonic-Beverage Syrup and Drink Made Therefrom.

Ser. No. 44,098. (CLASS 17. TOBACCO PRODUCTS.) S. LEVY & COMPANY, New York, N. Y. Filed Aug. 12, 1909.

PARAGON

Particular description of goods.—Cigars.

Ser. No. 44,103. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) PORTLAND PACKING COMPANY, Portland, Me. Filed Aug. 12, 1909.

Emerald

Particular description of goods.—Canned Corn, Succotash, and Stringless Beans.

Ser. No. 44,130. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ARMSTRONG PACKING COMPANY, Dallas, Tex. Filed Aug. 13, 1909.



Particular description of goods.—A Compound of Oleostearin and Cotton-Seed Oil.

Ser. No. 44,201. (CLASS 39. CLOTHING.) NEUSTADTER BROTHERS, San Francisco, Cal. Filed Aug. 18, 1909.



Particular description of goods.—Sweater-Coats and Knitted Shirts.

Ser. No. 44,219. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) H. H. MAYHEW CO., Shelburne Falls, Mass. Filed Aug. 18, 1909. Used ten years.

MAYHEW

Particular description of goods.—Awls, Bits, Braces, Countersinks, Drills, Gimlets, Glass-Cutters, Nail-Sets, Punches, Reamers, Rifflers, Screw-Drivers, and Tack-Claws.

Ser. No. 44,221. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE MACDIARMID COMPANY, Detroit, Mich. Filed Aug. 19, 1909.
The background being printed in purple.



Particular description of goods.—Candy.

Ser. No. 44,222. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE MACDIARMID COMPANY, Detroit, Mich. Filed Aug. 19, 1909.
The background being printed in purple.



Particular description of goods.—Candy.

Ser. No. 44,241. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE PURDUE FREDERICK CO., New York, N. Y. Filed Aug. 19, 1909.

HYPEROL

Particular description of goods.—A Utero-Ovarian Corrective and Tonic.

Ser. No. 44,242. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) LANDERS, FRARY & CLARK, New Britain, Conn. Filed Aug. 19, 1909.

"UNIVERSAL"
Samovar

Consists of the word "Universal," no claim being made to the word "Samovar."

Particular description of goods.—Alcohol-Heated Samovars.

Ser. No. 44,295. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) TENNESSEE PACKING & STOCK YARDS CO., Nashville, Tenn. Filed Aug. 23, 1909.

PEARL

Particular description of goods.—A Compound Composed of Cotton-Seed Oil, Oleostearin, and Beef-Fat.

Ser. No. 44,302. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HAYNES-PIPER COMPANY, Boston, Mass. Filed Aug. 23, 1909.



The disk being printed in yellow and the surrounding circle in red.

Particular description of goods.—Vinegar.

Ser. No. 44,364. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HUBERT RIECK, Newark, N. J. Filed Aug. 26, 1909.

KEYDIABET

Particular description of goods.—Remedy Against Diabetes, Being a Substance to Reduce or Destroy Sugar in the Human Body.

Ser. No. 44,394. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) H. E. & J. E. BULLOCK, Chicago, Ill. Filed Aug. 28, 1909.

DIXIE

Particular description of goods.—Cotton-Harvesters.

Ser. No. 44,404. (CLASS 32. FURNITURE AND UPHOLSTERY.) ROBERT S. CALEY, Keene, N. H. Filed Aug. 28, 1909.

Cadet

Particular description of goods.—Chairs.

Ser. No. 44,433. (CLASS 39. CLOTHING.) GEM PETTICOAT CO., Louisville, Ky. Filed Aug. 30, 1909.

The Mildred

Particular description of goods.—Dress-Skirts.

Ser. No. 44,446. (CLASS 38. PRINTS AND PUBLICATIONS.) THE VICKERY & HILL PUBLISHING CO., Augusta, Me. Filed Aug. 31, 1909.

NEEDLECRAFT

Particular description of goods.—A Monthly Periodical.

Ser. No. 44,689. (CLASS 12. CONSTRUCTION MATERIALS.) WM. B. WILSON, Milwaukee, Wis. Filed Sept. 15, 1909.

Texo

Particular description of goods.—Artificial Marble and Artificial Stone.

Ser. No. 44,698. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) HELLER & LONG, New York, N. Y. Filed Sept. 15, 1909.

STAR

Particular description of goods.—Handkerchiefs.

Ser. No. 44,705. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) DETROIT OAK BELTING CO., Detroit, Mich. Filed Sept. 15, 1909.

WOLVERINE

Particular description of goods.—Leather Belting.

Ser. No. 44,742. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) GRATON & KNIGHT MFG. CO., Worcester, Mass. Filed Sept. 17, 1909.

SPARTAN

Particular description of goods.—Leather Belting.

Ser. No. 44,795. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) GRATON & KNIGHT MFG. CO., Worcester, Mass. Filed Sept. 20, 1909.



Particular description of goods.—Leather Belting.

TRADE-MARKS

REGISTERED NOVEMBER 2, 1909.

75,656. REMEDY FOR CERTAIN DISEASES. THE A. SCHOENHEIT MEDICINE CO., San Jose, Cal.
Filed June 1, 1909. Serial No. 42,768. PUBLISHED AUGUST 31, 1909.

75,657. PENCILS, PENCIL-CASES, PENHOLDERS, AND PEN-CASES. AIKIN-LAMBERT COMPANY, New York, N. Y.
Filed November 24, 1908. Serial No. 38,873. PUBLISHED AUGUST 31, 1909.

75,658. PAVING COMPOSITION. THE AMIES ASPHALT COMPANY, Philadelphia, Pa.
Filed January 23, 1909. Serial No. 40,094. PUBLISHED AUGUST 31, 1909.

75,659. BOOTS AND SHOES MADE OF LEATHER, RUBBER, AND CANVAS. EDWIN CLAPP & SON, INC., East Weymouth, Mass.
Filed March 26, 1909. Serial No. 41,415. PUBLISHED AUGUST 31, 1909.

75,660. CERTAIN HEATING AND LIGHTING APPARATUS. EHRICH & GRANTZ, Berlin, Germany.
Filed December 13, 1907. Serial No. 31,707. PUBLISHED AUGUST 31, 1909.

75,661. IMITATION DIAMONDS. ALBERT W. ENGEL, Chicago, Ill.
Filed May 5, 1909. Serial No. 42,254. PUBLISHED AUGUST 31, 1909.

75,662. HORSESHOES. FIBRE HORSESHOE COMPANY, Pittsburg, Pa.
Filed April 5, 1909. Serial No. 41,599. PUBLISHED AUGUST 31, 1909.

75,663. CORN REMEDIES. G. & L. CHEMICAL COMPANY, St. Louis, Mo.
Filed July 6, 1909. Serial No. 43,406. PUBLISHED AUGUST 31, 1909.

75,664. MATTRESSES. GANGELHOFF BROS., Minneapolis, Minn.
Filed June 8, 1909. Serial No. 42,898. PUBLISHED AUGUST 31, 1909.

75,665. COTTON PIECE GOODS. ISIDORO GELETRUNK, New York, N. Y.
Filed March 16, 1909. Serial No. 41,228. PUBLISHED AUGUST 31, 1909.

75,666. PERFUMERY. GEO. BORGFELDT & CO., New York, N. Y.
Filed June 8, 1909. Serial No. 42,905. PUBLISHED AUGUST 31, 1909.

75,667. PAPER, ENVELOPS, TABLETS, AND BLANK BOOKS. J. C. BLAIR COMPANY, Huntingdon, Pa.
Filed June 17, 1908. Serial No. 35,487. PUBLISHED AUGUST 31, 1909.

75,668. SUBSTANCES FOR PURIFYING SUCH CHEMICALS AS ACETYLENE. GEORGES FRANÇOIS JAUBERT, Paris, France.
Filed January 30, 1908. Serial No. 32,498. PUBLISHED AUGUST 31, 1909.

75,669. PEROXID CREAM. OXYGEN PRODUCTS COMPANY, New York, N. Y.
Filed January 30, 1909. Serial No. 40,264. PUBLISHED AUGUST 31, 1909.

75,670. CARBON-PAPER. PEN-CARBON MANIFOLD CO., New Brunswick, N. J.
Filed June 12, 1909. Serial No. 42,993. PUBLISHED AUGUST 31, 1909.

75,671. BOOTS, SHOES, SANDALS, AND SLIPPERS. R. H. WHITE COMPANY, Boston, Mass.
Filed December 3, 1906. Serial No. 23,738. PUBLISHED AUGUST 31, 1909.

75,672. HAIR-DRESSING AND HAIR-TONIC. JEAN SENEGAS, New York, N. Y.
Filed May 26, 1909. Serial No. 42,688. PUBLISHED AUGUST 31, 1909.

75,673. KNITTED JACKETS, COATS, VESTS, TOQUES, SWEATERS, AND SKIRTS. THE STANDARD KNITTING COMPANY, Cleveland, Ohio.
Filed November 16, 1908. Serial No. 38,688. PUBLISHED AUGUST 31, 1909.

75,674. SALVE. JAMES ALEXANDER WEEGAR, Boston, Mass.
Filed March 27, 1909. Serial No. 41,446. PUBLISHED AUGUST 31, 1909.

75,675. TOYS. THE A. SCHOENHUT COMPANY, Philadelphia, Pa.
Filed June 29, 1909. Serial No. 43,319. PUBLISHED AUGUST 31, 1909.

75,676. HOSIERY. WILLIAM ALSBERG, Philadelphia, Pa.
Filed May 21, 1909. Serial No. 42,562. PUBLISHED AUGUST 3, 1909.

75,677. SEWING-MACHINE OIL, CYCLE-OIL, AND AXLE-GREASE. BAIRD BROS & CO, Cleveland, Ohio.
Filed March 7, 1908. Serial No. 33,244. PUBLISHED MAY 19, 1908.

75,678. COTTON PIECE GOODS. FRED BUTTERFIELD & Co., New York, N. Y.
Filed May 12, 1909. Serial No. 42,883. PUBLISHED AUGUST 3, 1909.

75,679. CERTAIN FOODS. CAMPBELL HOLTON & Co., Bloomington, Ill.
Filed December 16, 1908. Serial No. 39,350. PUBLISHED AUGUST 24, 1909.

75,680. LUBRICATING-GREASES. COLUMBIA REFINING COMPANY, New York, N. Y.
Filed March 6, 1909. Serial No. 40,961. PUBLISHED AUGUST 31, 1909.

75,681. CHAINS, VALVES, COCKS, CHAIN-COUPLINGS, AND TUBE-COUPLINGS. DAIMLER-MOTOREN-GESELLSCHAFT, Untertürkheim, near Stuttgart, Germany.
Filed July 11, 1907. Serial No. 28,711. PUBLISHED AUGUST 31, 1909.

75,682. WRITING, PRINTING, LEDGER, PARCHMENT, BOND, AND BOOK PAPER. THE EAST HARTFORD MANUFACTURING COMPANY, Burnside, Conn.
Filed May 21, 1909. Serial No. 42,572. PUBLISHED AUGUST 17, 1909.

75,683. INSTRUMENTS FOR THE MEASUREMENT OF ELECTRICAL RESISTANCES. EVERSHED & VIGNOLES LTD., London, England.
Filed August 3, 1908. Serial No. 36,440. PUBLISHED AUGUST 31, 1909.

75,684. STEAM-SEPARATORS, OIL-SEPARATORS, OIL-AMMONIA SEPARATORS, AND RECEIVER-SEPARATORS. HARRISON SAFETY BOILER WORKS, Philadelphia, Pa.
Filed July 10, 1908. Serial No. 36,055. PUBLISHED DECEMBER 22, 1908.

75,685. MACHINERY FOR PLOWING, HULLING, AND THRESHING. M. RUMELY COMPANY, Laporte, Ind.
Filed April 9, 1909. Serial No. 41,701. PUBLISHED AUGUST 31, 1909.

75,686. LUBRICATING-GREASES. PENNA. LUBRICATING CO., Pittsburg, Pa.
Filed April 30, 1909. Serial No. 42,149. PUBLISHED AUGUST 31, 1909.

75,687. PAPER PULLEYS. THE ROCKWOOD MANUFACTURING COMPANY, Indianapolis, Ind.
Filed December 4, 1906. Serial No. 39,099. PUBLISHED AUGUST 31, 1909.

75,688. PACIFIERS. LOUIS A. BONTTIGER, New York, N. Y.
Filed March 25, 1909. Serial No. 41,394. PUBLISHED AUGUST 31, 1909.

75,689. CIGARS. ALBERT BERITUNG, Chicago, Ill.
Filed July 15, 1909. Serial No. 43,532. PUBLISHED AUGUST 31, 1909.

75,690. COTTON-SEED MEAL. FREDERICK W. BRODS, Memphis, Tenn.
Filed September 26, 1906. Serial No. 37,621. PUBLISHED MARCH 9, 1909.

75,691. BACON. LOUIS BURK, Philadelphia, Pa.
Filed April 15, 1909. Serial No. 41,808. PUBLISHED AUGUST 31, 1909.

75,692. PENKNIVES, SCISSORS, AND MANICURE FILES AND BLADES. HENRIS CLAUSS, Fremont, Ohio.
Filed May 18, 1906. Serial No. 19,643. PUBLISHED AUGUST 31, 1909.

75,693. GELATIN. THE COX GELATINE COMPANY, New York, N. Y.
Filed June 7, 1909. Serial No. 42,889. PUBLISHED AUGUST 10, 1909.

75,694. NON-ALCOHOLIC EXTRACT USED IN MAKING BEVERAGES. JOHN DIXON & Co., Prahran, near Melbourne, Victoria, Australia.
Filed April 25, 1907. Serial No. 26,914. PUBLISHED AUGUST 31, 1909.

75,695. ROOF AND METAL PAINT. DOW & WEBB, Wooster, Ohio.
Filed May 22, 1909. Serial No. 42,656. PUBLISHED AUGUST 31, 1909.

75,696. EVAPORATED MILK. ELGIN MILK & CREAM COMPANY, Elgin, Ill.
Filed July 11, 1908. Serial No. 36,068. PUBLISHED JANUARY 12, 1909.

75,697. WHEAT-FLOUR. W. M. GALT & Co., Washington, D. C.
Filed June 2, 1909. Serial No. 42,798. PUBLISHED AUGUST 31, 1909.

75,698. SUGAR WAFERS. THE GEO. H. STREITMANN'S SONS COMPANY, Cincinnati, Ohio.
Filed March 18, 1909. Serial No. 41,273. PUBLISHED AUGUST 31, 1909.

75,699. BEER. KEELEY BREWING Co., Chicago, Ill.
Filed June 25, 1909. Serial No. 43,247. PUBLISHED AUGUST 31, 1909.

75,700. CIGARS. M. A. GUNST & Co., San Francisco, Cal.
Filed July 2, 1909. Serial No. 43,374. PUBLISHED AUGUST 31, 1909.

75,701. DRESSING TO BE USED ON SPAGHETTI, MACARONI, AND NOODLES. MERCURIO BROS. GROCER CO., St. Louis, Mo.
Filed June 26, 1909. Serial No. 43,254. PUBLISHED AUGUST 31, 1909.

75,702. CANNED VEGETABLES. MANITOWOC PEA PACKING COMPANY, Manitowoc, Wis.
Filed June 25, 1909. Serial No. 43,259. PUBLISHED AUGUST 31, 1909.

75,703. CANNED VEGETABLES. MANITOWOC PEA PACKING COMPANY, Manitowoc, Wis.
Filed June 25, 1909. Serial No. 43,260. PUBLISHED AUGUST 31, 1909.

75,704. CANNED VEGETABLES. MANITOWOC PEA PACKING COMPANY, Manitowoc, Wis.
Filed June 25, 1909. Serial No. 43,261. PUBLISHED AUGUST 31, 1909.

75,705. CANNED VEGETABLES. MANITOWOC PEA PACKING COMPANY, Manitowoc, Wis.
Filed June 25, 1909. Serial No. 43,263. PUBLISHED AUGUST 31, 1909.

75,706. CANDY LOZENGES. NEW ENGLAND CONFECTIONERY CO., Portland, Me., and Boston, Mass.
Filed June 28, 1909. Serial No. 43,306. PUBLISHED AUGUST 31, 1909.

75,707. HOSE COMPOSED OF RUBBER OR RUBBER AND FABRIC. NEW YORK BELTING AND PACKING COMPANY, LIMITED, New York, N. Y.
Filed June 17, 1907. Serial No. 28,184. PUBLISHED AUGUST 31, 1909.

75,708. HOSE COMPOSED OF RUBBER OR RUBBER AND FABRIC. NEW YORK BELTING AND PACKING COMPANY, LIMITED, New York, N. Y.
Filed June 17, 1907. Serial No. 28,192. PUBLISHED AUGUST 31, 1909.

75,709. ITALIAN OLIVE-OIL. ALFRED SERVIDA, New York, N. Y.
Filed March 15, 1909. Serial No. 41,211. PUBLISHED JUNE 22, 1909.

75,710. CHOCOLATES. THE SNYDER-CHAFFEE COMPANY, Columbus, Ohio.
Filed May 28, 1909. Serial No. 42,732. PUBLISHED AUGUST 31, 1909.

75,711. PIPES. JOHN W. SUBBUG, New York, N. Y.
Filed June 12, 1909. Serial No. 42,961. PUBLISHED AUGUST 31, 1909.

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

COMMISSIONER'S DECISIONS.

VON RECKLINGHAUSEN *v.* DEMPSTER.

Decided June 8, 1909.

1. INTERFERENCE—PRIORITY—DIVISIONAL APPLICATION—ENTITLED TO DATE OF ORIGINAL AS CONSTRUCTIVE REDUCTION TO PRACTICE.

Where an application involved in interference is a division of an earlier application which had not been abandoned or forfeited at the time such divisional application was filed, *Held* that the applicant is entitled to a constructive reduction to practice as of the date of the earlier application, even though this earlier application contained no claim to the invention in issue, (citing *McBerty* v. *Cook*, (90 O. G., 2295;) *Phillips* v. *Semsenich*, (134 O. G., 1906,) and *Lotz* v. *Kenny*, (135 O. G., 1901.))

2. SAME—SAME—ABANDONMENT OF INVENTION.

In an interference between D. and B. & S. involving a species different from that involved in the present interference it was held that D. had forfeited his rights in favor of B. & S. *Held* that the testimony in the earlier interference has no bearing on the question of abandonment of the invention in issue in the present interference.

APPEAL from Examiners-in-Chief.

VAPOR ELECTRIC APPARATUS.

Mr. Charles A. Terry for von Recklinghausen.

Mr. A. G. Davis for Dempster. (*Mr. A. D. Lent* of counsel.)

MOORE, *Commissioner:*

This is an appeal by von Recklinghausen from the decision of the Examiners-in-Chief awarding priority of invention to Dempster.

The invention in issue relates to mercury-vapor lamps, and comprises means whereby the mercury which is normally contained in pockets forming electrodes at the ends of the lamp is caused to flow temporarily from one pocket to the other when, by reason of the breaking of the current of mercury, an arc is struck which initiates the action of the lamp.

The invention is stated in the issue in nine counts, of which the following is a sufficient illustration of the matter in controversy:

1. A vapor device comprising a movable container, normally separated electrodes or contacts in said container and included in the main operating-circuit of the device, one of such electrodes being a conducting liquid, and automatic means for moving the container so as to make and break conductive connection between the said electrodes.

Von Recklinghausen is a patentee, his patent having been granted July 18, 1905, No. 794,745, upon an application filed December 13, 1904. Dempster's appliction involved in this interference, No. 274,212, was filed August 14, 1905, and is a division of an earlier application, No. 205,107, filed April 27, 1904. There appears to be no serious dispute concerning the facts of the case, the question at issue being whether as a matter of law Dempster is entitled to the date of his original application as the date of his constructive reduction to practice of the invention.

It was held by the Examiner of Interferences, and it is not disputed, that Dempster has established conception of the invention as early as the summer of 1901. Von Recklinghausen does not claim to have conceived the invention until October, 1903, or to have reduced the invention to practice until October, 1904, which is subsequent to the date of filing of Dempster's original application. If, therefore, Dempster is given the benefit of the date of filing of his original application for constructive reduction to practice, he must prevail, since he would then be first to conceive and first to reduce the invention to practice.

It is contended in behalf of von Recklinghausen that Dempster's original application did not contain any claim to the invention in issue, that the decision in a prior interference between Dempster and Bastian and Salisbury shows that Dempster had abandoned this invention, and that in view of these circumstances an estoppel exists against Dempster, since he did not present the claims forming the issue of this interference until after the patent to von Recklinghausen had been granted. It is also urged that in any event Dempster is not entitled to any earlier date of the invention in issue in this interference than the date upon which he first made claim to said invention.

This contention is believed to be untenable. The drawings of Dempster's parent application, No. 205,107, and those of his later divisional application, No. 274,212, are identical in all respects, and the specification of his divisional application is a *verbatim* copy of his original application, the claims alone differing from those originally presented. In both applications a single apparatus is disclosed in Figure 1, two methods in which this apparatus may be used being diagrammatically shown in Figs. 2, 3, and 4, 5 of the drawings. In the form disclosed

in Figs. 2 and 3, to which the original claims were directed, the lamp is maintained normally in a horizontal position, so that the pockets forming electrodes are normally connected by the mercury and means are provided whereby the lamp is tilted to separate the mercury between the electrodes, thus causing an arc to be struck, the lamp being maintained while active in an inclined position. In the form shown in Figs. 4 and 5 the lamp is normally maintained in an inclined position and is caused by means of the solenoid to assume a horizontal position upon the initial passage of the current, thus causing the mercury to flow from one electrode to the other, whereupon the solenoid is short-circuited and the lamp returned to its normally inclined position, thus striking the arc. In this case, also, the lamp when operating is maintained in an inclined position.

In the preamble to Dempster's original specification it is stated that—

> my present invention relates to certain improvements in means for starting and operating mercury-vapor apparatus such for example as mercury-vapor lamps, rectifiers, or the like. In carrying my invention into practice I mount the lamp or other device so as to be carried on a pivot and provide electromagnetic means for tilting the device on this pivot in order to start the same. The features of novelty characteristic of my invention are pointed out in the appended claims.

It is contended in behalf of von Recklinghausen that, inasmuch as Dempster refers to his invention as that "pointed out in the appended claims," which were limited to the form first described, and in view of the holding in the prior interference that Dempster had so concealed the invention as to subordinate his right to a patent to that of Bastian and Salisbury, Dempster had, in fact, disclaimed and abandoned the present invention.

It is true that in the interference between Dempster and Bastian and Salisbury it was held that Dempster, who was first to conceive, but last to file his application, had, by reason of concealment of the invention, forfeited his claim thereto in favor of his more active rival. In the present case, however, Dempster was not only first to conceive the invention, but he had also filed his application in the Patent Office prior to the earliest date which von Recklinghausen claims for actual reduction to practice of the invention and also prior to the date upon which the latter filed his application. The issue of the present interference does not cover the same species as that constituting the issue of the interference between Dempster and Bastian and Salisbury, and the testimony of the latter case can therefore have no effect on the present interference.

The specification and the drawings of Dempster's original application clearly disclosed the invention in issue in this interference. The original application had neither been forfeited or abandoned at the time the divisional application, No. 274,212, was filed. During the pendency of the original application Dempster was entitled to amend the same, and inasmuch as he could not be permitted under the rules of the Patent Office to embody claims to the second species shown on Figs. 4 and 5 in the original application he was entitled to file a divisional application containing such claims, and this he did. The original specification, in my opinion, clearly contains a sufficient assertion of inventorship to both species disclosed therein to entitle Dempster to the date of filing of the original application for any claim which he subsequently presented either in the original case or in the divisional application. The case in my opinion does not fall within the ruling of *Christensen* v. *Noyes*, (90 O. G., 227; 15 App. D. C., 94) or *Bechman* v. *Wood*, (89 O. G., 2462; 15 App. D. C., 484,) as contended by the appellant, but rather within the ruling in the decisions *McBerty* v. *Cook*, (90 O. G., 2295; 16 App. D. C., 133;) *Phillips* v. *Sensenich*, (134 O. G., 1806; 31 App. D. C., 159,) and *Lotz* v. *Kenny*, (135 O. G., 1801; 31 App. D. C., 205.)

In *McBerty* v. *Cook*, *supra*, the court stated in part, in distinguishing that case from *Bechman* v. *Wood*, *supra*:

> The contention is that Cook's original application of July 29, 1896, contained no claim whatever to the invention of the issue; that not until five months thereafter, and after the rejection of his claims in part, did he amend by setting up the claims of the McBerty patent now in the issue; and that consequently he is now estopped or barred to claim priority of invention thereof as against McBerty's subsequent application for reissue.
>
> In the first place, it may be remarked in passing, that the attitude of the parties is quite different from that shown in *Bechman* v. *Wood*. McBerty did not come into the Patent Office originally after his rival, but before; and when he made his reissue application, his rival's later claims had been made. He does not, therefore, stand in the situation of one who claims a specific invention, with specifications and claims that are not embraced in the original application of an earlier applicant, but which the latter seeks by subsequent amendment to dominate with claims that have no foundation in the original description of his invention.
>
> We agree, however, with the Commissioner of Patents that the amended claims of Cook are clearly shown and described in the specifications of his original applications, and that his amendment constitutes no departure which would subordinate him to the claim of even an intervening applicant, as was the case in *Bechman* v. *Wood*.

In *Phillips* v. *Sensenich*, *supra*, facts similar to those in the present case existed. Sensenich's original application was filed November 9, 1904. Phillips's application was filed March 6, 1905, and Sensenich's divisional application containing the claims in controversy was not filed until August 26, 1905. The court, however, held that Sensenich was entitled to the date of filing of his original application as a constructive reduction to practice of the invention in issue.

In the more recent case of *Lotz* v. *Kenny*, *supra*, in which a similar state of facts was present, the court stated:

> It is quite clear that the invention of the issue was disclosed in the prior application, though no specific claims therefor were made until after the issue of the patent to Lotz. The claims could have been inserted therein by amendment, but for the rule of the Patent Office which does not permit a patent to issue for two separate inventions. Under such conditions, nothing remained but to file a new and divisional application, or to abandon this part of the invention.
>
> The first contention on behalf of the appellant is that, as section 4888 Revised Statutes requires that the application shall not only contain a full description of the invention, but also contain claims for the same, it is not permissible to amend by setting up a new claim to the invention or a part thereof not before claimed. The unsoundness of this proposition in a case where the subject-matter is contained in the application though not followed by a specific claim therefor, has been pointed out in the recent case of *Phillips* v. *Sensenich*, present term.
>
> Where the conditions of the original application require division instead of its amendment, merely, to secure a patent embracing the additional claims, the rule is necessarily the same, as held in the case last cited; and the new application dates back to the original one, securing to the applicant the benefit of a constructive reduction to practice as of that date. (*Duryea* v. *Rice*, 28 App. D. C., 422, 435.)

In distinguishing that case from the ruling in *Bechman* v. *Wood* the court said:

> In *Bechman* v. *Wood*, (15 App. D. C., 484, 491,) the original specifications did not disclose the broad claim of the issue, and it was not made for nearly three years after filing, and after Bechman had entered the Office making a claim for another specific form of the generic invention; and it was said, on the authority of *Railway Co.* v. *Sayles* (97 U. S., 554):
>
> "But it was not competent for Wood so to alter his specifications as to interfere with other inventions made prior to the alteration."
>
> Where, as in this case, the invention was shown in the original application, and the making of the claim involved no material alteration of the specifications, the rule in *Bechman* v. *Wood*, does not apply. (*McBerty* v. *Cook*, 16 App. D. C., 133, 138; *Luger* v. *Browning*, 21 App. D. C., 201, 205.)

Inasmuch as Dempster was first to conceive the invention, and since his orginal application, which was filed prior to von Recklinghausen's alleged reduction to practice, contained a full disclosure of the invention here in issue, it is clear that under the authorities above discussed the decision of the Examiners-in-Chief awarding priority of invention to Dempster was right. The decision is accordingly affirmed.

EX PARTE SEARS.

Decided July 7, 1909.

1. PATENTABILITY—DUPLICATION OF PARTS.

The provision of two cranes in a boring-machine for the purpose of enabling the new work to be hoisted to position simultaneously with the removal of the completed piece *Held* to amount to a patentable improvement where the prior art shows only one crane.

2. SAME—APPEAL—PRESENTATION OF NEW CLAIMS.

The practice of submitting new claims for the original consideration of the Commissioner on appeal not approved.

APPEAL from Examiners-in-Chief.

BORING-MACHINE.

Mr. James W. See and *Messrs. Brock, Becken & Smith* for the appellant.

BILLINGS, *First Assistant Commissioner:*

This is an appeal from a decision of the Examiners-in-Chief affirming the rejection by the Primary Examiner of the following claims:

1. A boring-machine comprising a body, a chuck mounted thereon for rotation on a vertical axis, a tool-bar mounted in the body and fitted for sliding motion in the line of the axis of the chuck, a first jib-crane having its mast vertically pivoted on a vertical axis at one side of the chuck, a second jib-crane having its mast pivoted on a vertical axis at the opposite side of the chuck, hoisting and lowering mechanism at each of said cranes, a power device for the actuation of said hoisting and lowering mechanism, and coupling devices for connecting said power device with the hoisting and lowering mechanism of the two cranes alternatively or simultaneously, combined substantially as set forth.

2. A boring-machine comprising a body, a chuck mounted thereon for rotation on a vertical axis, a tool-bar mounted in the body and fitted for sliding motion in the line of the axis of the chuck, a first jib-crane having its mast vertically pivoted on a vertical axis at one side of the chuck, a second jib-crane having its mast pivoted on a vertical axis at the opposite side of the chuck, hoisting and lowering mechanism at each of said cranes, a power device for the actuation of said hoisting and lowering mechanism, and coupling devices for connecting said power device with the hoisting and lowering mechanism of the two cranes and adapted to hoist a load on one crane while lowering a load on the other crane, combined substantially as set forth.

3. A boring-machine comprising a body, a chuck mounted thereon for rotation on a vertical axis, a tool-bar mounted in the body and fitted for sliding motion in the line of the axis of the chuck, a first jib-crane having its mast vertically pivoted on a vertical axis at one side of the chuck, a second jib-crane having its mast pivoted on a vertical axis at the opposite side of the chuck, a chain and winding mechanism at each of said cranes, a driving-shaft, gearing connecting the driving-shaft idly with the chain and winding mechanism of both cranes, and clutches to serve in connecting said gearing operatively with the chain and winding mechanism of either two cranes, combined substantially as set forth.

The references are: Putnam, April 19, 1881, No. 240,458; *American Machinist* of January 21, 1888, illustration on page 5; catalogue of Pond Machine Tool Co., illustration on pages 28 and 30, Plainfield, N. J.

The invention is a boring-machine of ordinary type, provided with two hoisting-cranes, one on each side of the machine. These cranes are provided with coupling devices for independently connecting the cranes to a common source of power, so that the crane may be operated simultaneously in opposite directions. By means of this construction one crane may be used for raising an object to be acted upon by the machine while the article which has been previously operated upon by the machine is being lowered from it.

The references show a boring-machine provided with one crane. If the device claimed by the appellant covered nothing more than a boring-machine to which two similar cranes were attached, it is quite clear that the invention would not be patentable, for the reason that it would cover only a duplication of what is shown in the prior art. It is believed, however, that applicant has done more than this and that claims 1 and 2 set forth his new construction with sufficient particularity to warrant the grant of a patent.

As stated by the appellant in his brief:

> With the old boring-machines provided with a single crane, the machine had to be stopped or allowed to run idle, while the hoisting chain or cable was attached to the completed piece of work, the work was lowered to the floor, the chain was connected to a new piece of work, and until the new piece of work was hoisted to position on the machine. In this way, a great deal of time was lost, as the machine was necessarily idle a good part of the time.
>
> On the other hand, with the applicant's invention, practically no time at all is lost in the handling of the work, for while one piece is being bored, a new piece of work may be hoisted by one crane in position to be swung under the boring-tool, then when the boring is completed, the finished piece of work may be swung to one side by the second crane, thereby permitting the new piece of work to be swung to working position with practically no hiatus at all in the boring operation.

Taking this view, it is held that the inventor has made an advance in the art and that he is entitled to a patent therefor.

Two claims have been submitted with the brief, for which consideration is asked. The practice of presenting new claims for original consideration by the Commissioner is not approved. No good reason is seen for making an exception in this case, and therefore no comment is made upon the claims presented.

Claims 1 and 2 cover the invention in this case and may be allowed. Claim 3, however, sets forth nothing more than a duplication of what is shown to be old in the references of record.

The decision of the Examiners-in-Chief is reversed as to claims 1 and 2 and affirmed as to claim 3.

WILLIAMS *v.* WEBSTER *v.* SPRAGUE.

Decided October 2, 1909.

1. INTERFERENCE—MOTIONS TO DISSOLVE—RENEWAL MOTIONS—APPEAL—PIECEMEAL ACTION.

Where a motion to dissolve embodying two grounds is denied transmission as to both, *Held* that the grounds may not be separately prosecuted, one by direct appeal and the other by renewal motion and subsequent appeal.

2. SAME—SAME—SAME—SAME.

The bringing of a renewal motion waives the right of appeal from the decision on the original motion.

ON MOTION.

WIND-SHIELD.

Mr. Albert H. Graves for Williams.

Messrs. Gillson & Gillson for Webster.

Messrs. Munn & Co. for Sprague.

BILLINGS, *Acting Commissioner:*

This case comes up on a motion by Sprague to dismiss two appeals of Webster's from decisions of the Examiner of Interferences refusing to transmit motions to dissolve.

The appeals arose in the following manner: Webster brought a motion to dissolve based on two grounds. The Examiner of Interferences refused to transmit this motion as to either of the grounds. Webster then brought a renewal motion for dissolution based on but one of the grounds before set forth, and as to this ground he made the motion more specific, with a view to overcoming the reason of the Examiner of Interferences for refusing to transmit it. The ground of this second motion was unpatentability of the issue over eight references cited, the subject-matter of which was set forth at some length, and in conclusion it was said that reliance was placed on these references "separately and conjointly." This motion was considered by the Examiner of Interferences and denied transmission in so far as it depended upon the patents cited conjointly, because it was indefinite as to how the references were to be combined.

After this decision on the second or renewal motion, but within the limit of appeal set in the first decision, Webster took an appeal from the decision on the first motion in so far as it denied transmission on the ground not covered in his renewal motion.

A few days later he took an appeal from the decision on the second motion, in so far as it was against him. It is these two appeals which Sprague now seeks to have dismissed. He has brought separate motions for their dismissal, but these are in their nature alternative, for he urges, on the one hand, that the second or renewal motion was improper on account of the then pending original motion, and, on the other hand, that the appeal on the original motion was improper because that motion was, in effect, abandoned by the filing of the renewal motion. It will be readily seen that to sustain either one of these objections robs the other of its force. In short, it is clear that Webster is entitled to one of these appeals, and I believe equally clear that he is not entitled to both of them. To permit a party to prosecute separately, by renewal motions, one or more separate grounds of dissolution advanced in an original motion and then to appeal on the separate motions as they are decided against him would be to sanction a piecemeal procedure, which has been uniformly and properly condemned by the Office.

It becomes necessary, then, to determine which of the two appeals is valid. *The Encyclopaedia of Pleading and Practice* (vol. 14, pp. 191, 192) states as follows:

> Obtaining leave to renew a motion has been held to waive the right of appeal from the first order, and it is clear that an actual renewal of the motion is such a waiver. (Citing authority.)

Webster's renewal motion accordingly amounted to an abandonment of his right to appeal on the original motion. It is clearly equitable that it should be so construed; otherwise a party might seek the same relief by several collateral proceedings, which would work an unnecessary hardship on the other parties.

There appears to be no authority for the contention of Sprague that the renewal motion was improper because of a contemplated appeal upon the original motion, which appeal was, in fact, subsequently taken. The authority above quoted states further, on page 192:

> The pendency of an appeal from an order is no bar to an application for leave to renew the motion upon which the order was founded.

It is held, therefore, that Webster's appeal based on his original motion is out of order and that the appeal based upon the renewal motion is proper. The former appeal is accordingly dismissed. The latter will be considered at the time for which the hearing is noticed.

DECISIONS OF THE U. S. COURTS.

Court of Appeals of the District of Columbia.

LANG *v.* GREEN RIVER DISTILLING COMPANY.

Decided June 1, 1909.

1. TRADE-MARKS—OPPOSITION—OPPOSER'S RIGHT TO REGISTRATION IMMATERIAL.

Where in an opposition proceeding it appears that the opposer adopted its mark prior to the date of adoption by the applicant of his mark, the question of the registrability of opposer's mark is immaterial, the sole question to be considered being that of the similarity of the marks.

2. SAME—SAME—SIMILAR MARKS—"GREEN RIBBON," "GREEN RIVER."

Held that registration of the words "Green Ribbon" as a trade-mark for whisky was properly refused in view of the prior use of the words "Green River" on the same class of goods, as the similarity of the marks is such as to be likely to cause confusion in the mind of the public.

Mr. E. T. Fenwick for the appellant.

Mr. F. M. Phelps for the appellee.

SHEPARD, *C. J.:*

The appellant, Sam Lang, made application for the registration of a trade-mark for whisky consisting of the words "Green Ribbon" in large printed letters, beneath which is a monogram consisting of the letters S. L. within a circular wreath. After some amendments to the application, unimportant to mention, the application was allowed and passed

to publication on April 22, 1907. June 6, 1907, the Green River Distilling Company filed an opposition to the registration. It alleged that the words "Green River," had been adopted and used as a trade-mark for whisky by J. W. McCulloch in 1890, and continuously used thereafter by him and his successor, said company, of which corporation McCulloch was the president. The right to use said mark had been assigned to said company at the time of its organization in 1903. It was alleged that he had registered the words as a trade-mark on December 25, 1900; that the company had registered it on August 8, 1905, and reregistered it on January 18, 1907. The final allegation was that the words "Green Ribbon," which Lang sought to register, are so nearly like "Green River" in sound and appearance as to be likely to cause confusion in the trade, and to permit applicant's goods to be substituted for opposer's, to the damage of the business and reputation of the latter.

The Examiner of Interferences was of the opinion that the real question was whether the respective words "Green Ribbon" and "Green River" were so nearly alike as to be liable to confuse the public.

Much testimony was taken, from which it clearly appears that "Green River" had been adopted as a trade-mark and used since 1890 by McCulloch and his successor, on a high-grade distilled whisky made in a distillery owned by McCulloch and by him sold to the company, that was located near the Green river in Kentucky. It also appears that the said whisky, so marked, had been widely advertised throughout the United States, and has been sold extensively in this country and abroad. It appears that Sam Lang is a retail dealer in liquor in the cities of Denver and Cripple Creek, in the State of Colorado. He applied the mark "Green Ribbon" to whisky bottled by him, the place of manufacture of which was not shown. Nor does it appear at what date Lang commenced the use of the mark. This whisky does not appear to have had an extensive sale, and there are some circumstances in evidence which would lead to an inference that Lang adopted the mark with a view to obtaining the benefit of the reputation of the Green River whisky which was well established in Denver and other places in the State of Colorado. The testimony of manufacturers and dealers in whisky, on behalf of the appellee, tended to show that the general public would likely be confused and deceived by the similarity of the respective marks. Testimony of witnesses on behalf of Lang, among whom were barkeepers in his employ, and users, and sellers of whisky, tended to show that there would be no confusion in the marks by the public. The Examiner held that there was no resemblance sufficient to produce confusion, and dismissed the opposition. On appeal to the Commissioner, this decision was reversed, and the opposition sustained.

Under the testimony we think it immaterial to inquire into the registration obtained by the appellee under the ten-years clause of the Trade-Mark Act, or to consider whether the appellant would be entitled to registration of "Green Ribbon" as a technical trade-mark. The substantial question, as stated by the tribunals of the Office, is as to whether the proposed trade-mark, "Green Ribbon," so nearly resembles the trade-mark of the appellee—

> as to be likely to cause confusion in the mind of the public, or to deceive purchasers. (Sec. 5, Trade-Mark Act.)

As said by Mr. Justice Bradley:

> Similarity, not identity, is the usual recourse when one party seeks to benefit himself by the good name of another. What similarity is sufficient to effect the object has to be determined in each case by its own circumstances. We may say, generally, that a similarity which would be likely to deceive or mislead an ordinary unsuspecting customer is obnoxious to the law. (*Celluloid Mfg. Co.* v. *Cellonite Mfg. Co.*, 32 Fed., 94, 97.)

The dominating feature of appellant's mark is the words, "Green Ribbon," printed in large letters. Green River whisky had been well advertised and had an established reputation as an excellent article. As intimated above there are some circumstances to indicate that when Lang undertook to introduce his whisky he had in mind the mark of the appellee. The word "Green" is the first object that attracts the eye of the purchaser when seen, and the ear when uttered. "River" and "Ribbon" are somewhat similar when represented or sounded. That Lang used the monogram and a label differing in color of background from that of appellee, does not weaken the inference as to his intention in adopting the conspicuous feature of the mark. Had he wanted to avoid all confusion with appellee's mark, he could readily have found another, and as attractive a name for his product. There is nothing in the evidence tending to show any other circumstance suggesting the name adopted, other than its resemblance to the well-known mark of the appellee.

As was said by the Commissioner, the similarity of the labels is far more striking than their dissimilarity. And we agree in his conclusion as thus stated:

> The words as pronounced are not easily distinguishable, and the appearance of "Green Ribbon" upon a bottle of whisky, without opportunity for comparison with a bottle containing the label bearing the mark "Green River" would be likely to cause confusion in the mind of the public.

We have not deemed it important to review the many cases in which the question of similarity and confusion has been considered. These, or most of them, will be found in the decisions below and in the briefs of counsel. In the application of the general principle which is embodied in the statute, each particular case turns upon its own special facts and circumstances and it would be practically impossible to find another substantially identical in respect of these.

Being of the opinion that there was no error in the decision it will be affirmed; and the clerk will certify this decision to the Commissioner of Patents.

ADJUDICATED PATENTS.

The Hall reissue patent, No. 11,811, (original No. 600,200,) for an insoluble waterproof compound for coating paper, etc., is void for prior use of the same or similar compound for more than two years prior

to the application. *Cascin Co. of America* v. *A. M. Collins Mfg. Co.*, (C. C.,) 172 Fed. Rep., 237.

The Schroeder patents, Nos. 546,251 and 546,123, each for a thread-package, construed and *Held* valid and infringed. *Armstrong* v. *Belding Bros. & Co.*, (C. C.,) 172 Fed. Rep., 234.

The Hall patent, No. 626,537, for an enameling compound for surfacing paper and method of producing the same, is void for prior use of the compound for many years, produced by the same method. *Cascin Co. of America* v. *A. M. Collins Mfg. Co.*, (C. C.,) 172 Fed. Rep., 237.

Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 23, 1909.

George W. Prangle, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of G. H. Mullen, of Guyandotte, W. Va., for registration of a trade-mark and trade-marks registered to George W. Prangle, of 555 Broadway, Council Bluffs, Iowa, and James K. Neagley, of Wilkes-Barre, Pa., and the notice of said declaration sent by the Patent Office by registered mail to the said George W. Prangle having been delivered to Mrs. G. W. Prangle, and the attorney of record for said George W. Prangle having advised the Office that said Prangle is deceased and that his widow does not desire to take further account of this matter, notice is hereby given to the said George W. Prangle, his assigns or legal representatives, that if they or any of them desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents in order that the notice of declaration of this interference may be forwarded to them.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall be entered at the expiration of the period of publication, the interference will be proceeded with as in case of default.

C. C. BILLINGS, *Acting Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 23, 1909.

James K. Neagley, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of G. H. Mullen, of Guyandotte, W. Va., for registration of a trade-mark and trade-marks registered to George W. Prangle, of 555 Broadway, Council Bluffs, Iowa, and James K. Neagley, of Wilkes-Barre, Pa., and the notice of said declaration sent by the Patent Office by registered mail to the said James K. Neagley having been returned by the Post-Office Department, notice is hereby given to the said James K. Neagley, his assigns or legal representatives, that if they or any of them desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents in order that the notice of declaration heretofore sent by and returned to the Office may be forwarded to them.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall be entered at the expiration of the period of publication, the interference will be proceeded with as in case of default.

C. C. BILLINGS, *Acting Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 11, 1909.

George D. Nichols, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Ella A. Silloway, of No. 1 West Thirty-fourth street, New York, N. Y., for registration of a trade-mark and two trade-marks registered to George D. Nichols, of 378 Canal street, New York, N. Y., and the notice of said declaration sent by the Patent Office by registered mail to the said George D. Nichols having been returned by the Post-Office Department, notice is hereby given to said George D. Nichols, his assigns or legal representatives, that if they or any of them desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents in order that the notice of declaration heretofore sent by and returned to the Office may be forwarded to them.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall be entered at the expiration of the period of publication, the interference will be proceeded with as in case of default.

C. C. BILLINGS, *Acting Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 9, 1909.

Frederick H. Hammer, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of C. E. Sears & Company, of Circleville, Ohio, for registration of a trade-mark and trade-marks registered to Frederick H. Hammer, of 215 Davis street, San Francisco, Cal.; Jane M. McMurray, of Frederick, Md., and Augustus W. Kriete, of Dunnsville, Va., respectively, and the notice of said declaration sent by the Patent Office by registered mail to the said Frederick H. Hammer having been delivered to Hammer & Company, who are not of record in connection with the registration of Frederick H. Hammer, and no record evidence that Hammer & Company are the successors to the trade-mark rights of Frederick H. Hammer having been filed, and the time allowed by the Office for filing such evidence having passed, the situation in this case is practically the same as in those cases where the post-office is unable to deliver the notice of interference to the registrant, and notice is therefore hereby given to said Frederick H. Hammer, his assigns or legal representatives, that if they or any of them desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents in order that the notice of declaration of the interference may be sent to them.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall be entered at the expiration of the period of publication, the interference will be proceeded with as in case of default.

C. C. BILLINGS, *Acting Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., September 23, 1909.

Hygienic Specialty Company, its assigns or legal representatives, take notice:

An interference has been declared by this Office between a trade-mark registration to the Hygienic Specialty Company, of 2016 Columbia avenue, Philadelphia, Pa., and two applications for registration of trade-marks by the following named parties: (1) Telfer Coffee Company, Detroit, Mich., and (2) Benham & Griffith Company, of Spokane, Wash., and the notice of such declaration sent by registered mail to the said Hygienic Specialty Company at the address above given has been returned by the Post-Office Department undelivered.

Notice is therefore hereby given to the said Hygienic Specialty Company, its assigns or legal representatives, that if they or any of them desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall have been entered at the expiration of the period of publication, the interference will proceed as in case of default.

C. C. BILLINGS, *Acting Commissioner.*

THE
OFFICIAL GAZETTE
OF THE
United States Patent Office.
[BY AUTHORITY OF CONGRESS.]

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Patents	766	No. 939,197 to No. 939,962, inclusive.
Designs	13	No. 40,336 to No. 40,348, inclusive.
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Labels	3	No. 15,067 to No. 15,069, inclusive.
Reissues	3	No. 13,036 to No. 13,038, inclusive.
Total	832	

TO CITIZENS OF THE UNITED STATES.

States.	Patents and Designs.	Trade-Marks and Labels.	States.	Patents and Designs.	Trade-Marks and Labels.
Alabama	9	.....	Ohio	59	3
Arkansas	1	.....	Oklahoma	5	1
California	31	.....	Oregon	8	.....
Colorado	4	.....	Pennsylvania	68	3
Connecticut	15	.....	Rhode Island	17	2
Delaware	.....	.....	South Carolina	.....	.....
Florida	2	.....	South Dakota	1	.....
Georgia	7	.....	Tennessee	7	4
Idaho	2	.....	Texas	6	.....
Illinois	60	5	Utah	2	.....
Indiana	22	2	Vermont	3	.....
Iowa	9	.....	Virginia	3	.....
Kansas	10	.....	Washington	11	.....
Kentucky	7	.....	West Virginia	6	.....
Louisiana	3	.....	Wisconsin	25	.....
Maine	3	.....	Wyoming	1	.....
Maryland	4	.....			
Massachusetts	45	6	Alaska, District of	.....	.....
Michigan	29	2	Arizona Territory	2	.....
Minnesota	13	1	District of Columbia	4	.....
Mississippi	4	.....	Hawaii Territory	.....	.....
Missouri	23	3	New Mexico Ter'y	3	.....
Montana	2	.....	Panama	1	.....
Nebraska	8	.....	Porto Rico	.....	.....
Nevada	2	.....	U. S. Army	.....	.....
New Hampshire	2	.....	U. S. Navy	.....	.....
New Jersey	45	3			
New York	103	12	Total to citizens of the United States	707	47
North Carolina	2	.....			
North Dakota	4	.....			

TO CITIZENS OF FOREIGN COUNTRIES.

Countries.	Patents and Designs.	Trade-Marks.	Countries.	Patents and Designs.	Trade-Marks.
Argentina	.....	.....	Natal	.....	.....
Austria-Hungary	3	.....	Netherlands	.....	.....
Belgium	.....	.....	Newfoundland	.....	.....
Brazil	1	.....	New South Wales	.....	.....
British West Indies	.....	.....	New Zealand	1	.....
Canada	11	1	Norway	.....	.....
Cape Colony	1	.....	Queensland	1	.....
Chile	.....	.....	Russia	1	.....
China	.....	.....	Scotland	1	.....
Costa Rica	.....	.....	South Australia	.....	.....
Cuba	.....	.....	Spain	.....	.....
Denmark	.....	.....	Sweden	1	.....
Ecuador	.....	.....	Switzerland	2	.....
England	17	1	Tasmania	.....	.....
France	9	.....	Transvaal, South Africa	1	.....
Germany	17	.....	Trinidad	.....	1
Haiti	.....	.....	Victoria	1	.....
Ireland	.....	.....	Western Australia	3	.....
Italy	1	.....			
Japan	.....	.....	Total to citizens of foreign countries	72	3
Java	.....	.....			
Mexico	.....	.....			

Changes in Classification.

(ORDER No. 1,828.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 27, 1909.

The following changes in the classification of inventions are hereby directed, to take effect immediately:

In Division XVI, class 178, Telegraphy, abolish subclasses 3, Annunciators, and the subclasses thereunder, and 28, Indicators, and in lieu thereof establish the following:

324. Annunciators—
325. Auxiliary,
326. Grouped units,
327. Multiple variation—
328. Step-by-step,
329. Single variation—
330. Circuit closing,
331. Station selectors—
332. Step-by-step.
333. Annunciator systems—
334. Answer-back,
335. Auxiliary,
336. Elevator,
337. Multiple variation—
338. Step-by-step,
339. Single variation,
340. Station selective—
341. Reed,
342. Step-by-step—
343. Strength and polarity,
344. Strength and polarity.
345. Target.

Annunciator systems—

C. C. BILLINGS,
Acting Commissioner.

Amendments to Amendments.

RULE 74. When an amendatory clause is amended, it must be wholly rewritten, so that no interlineation or erasure shall appear in the clause, as finally amended, when the application is passed to issue. If the number or nature of the amendments shall render it otherwise difficult to consider the case or to arrange the papers for printing or copying, the Examiner or Commissioner may require the entire specification to be rewritten.

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business November 2, 1909.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action.		No. of applications awaiting action.
		New.	Amended	
313	1. Fences; Harrows and Diggers; Plows; Seeders and Planters; Trees, Plants, and Flowers.	Sept. 4	Sept. 21	379
128	2. Aeronautics; Bee Culture; Dairy; Label-Affixers; Paper Files and Binders; Pneumatic Despatch; Pneumatics; Presses; Store-Service; Tobacco.	July 1	Aug. 5	788
175	3. Annealing and Tempering; Coating with Metal; Electrochemistry; Metal-Foinding; Metallurgy; Shaping Fluid Metal.	Sept. 22	Oct. 13	177
282	4. Bridges; Conveyers; Cranes and Derricks; Excavating; Hoisting; Hydraulic Engineering; Loading and Unloading; Metallic Building Structures.	July 7	Sept. 23	739
107	5. Bookbinding; Harvesters; Jewelry; Music.	July 24	Sept. 3	508
318	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Medicines; Preserving; Sugar and Salt.	Aug. 17	Sept. 16	391
312	7. Educational Appliances; Clutches; Games and Toys; Mechanical Motors; Nut and Bolt Locks; Optics; Velocipedes.	Sept. 8	Sept. 25	489
131	8. Beds; Chairs; Furniture; Kitchen and Table Articles; Store Furniture.	July 12	Sept. 30	457
142	9. Air and Gas Pumps; Fire-Extinguishers; Hydraulic Motors; Pumps; Sewerage; Wind-Wheels.	June 17	Oct. 1	450
282	10. Carriages and Wagons.....	Sept. 2	Sept. 13	642
154	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus.	Sept. 7	Sept. 14	306
324	12. Elevators; Journal-Boxes, Pulleys, and Shafting; Lubrication; Machine Elements.	Sept. 1	Sept. 7	505
320	13. Arms, Projectiles, and Explosive Charges, Making; Metal-Working, Etc.	July 15	Sept. 20	506
307	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Metal-Ornamenting; Sheet-Metal Ware, Making; Tools; Wire-Working.	June 18	Sept. 21	497
308	15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Sheets and Fabrics; Liquid Coating Compositions; Paper-Making; Plastic Block and Earthenware Apparatus; Plastic Compositions; Plastics.	Aug. 13	Oct. 18	632
109	16. Telegraphy; Telephony.....	June 24	Sept. 16	315
103	17. Linotyping; Matrix-Making; Paper Manufactures; Printing.	Aug. 13	June 7	228
327	18. Injectors and Ejectors; Steam and Vacuum Pumps; Steam-Boilers; Steam-Engines; Steam-Engine Valves.	July 1	Aug. 9	367
236	19. Dampers, Automatic; Furnaces; Heat-Distributing Systems; Stoves and Furnaces.	Sept. 7	Sept. 7	384
179	20. Artificial Limbs; Builders' Hardware; Dentistry; Locks and Latches; Safes; Undertaking.	Sept. 8	Sept. 17	250
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370	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Time-Controlling Mechanism.	Aug. 9	Sept. 21	344

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Oldest new case, May 26; oldest amended, June 7.

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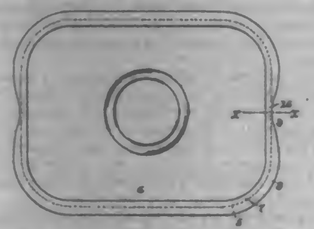
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Subscription per year..... $2.00

PATENTS

GRANTED NOVEMBER 9, 1909.

939,197. METHOD OF HEADING SHEET-METAL CANS. BENJAMIN ADRIANCE, Brooklyn, N. Y. Filed July 22, 1907. Serial No. 384,967.



1. The method of heading sheet-metal cans which consists in placing a flanged cover on a flanged can-body, clenching a relatively limited portion of the cover-flange to the body-flange by means of a tool having an acting face whose longitudinal section presents substantially the same contour as that of the acting face of the seaming tool which is to follow the clenching tool in the operation of completing the heading, and then causing said seaming tool to fold-over said flanges, introducing said seaming tool first at the clenching point as a starting point, substantially as described.

2. The method of heading sheet-metal cans which consists in placing a flanged cover on a flanged can-body, clenching a relatively limited portion of the cover-flange to the body-flange by means of a tool having a grooved acting face whose cross-section presents substantially the same contour as the grooved acting face of the seaming tool which is to follow the clenching tool in the operation of completing the heading, and then causing said seaming tool having a grooved acting face to fold-over said flanges, introducing said seaming tool first at the clenching point as a starting point, substantially as described.

939,198. LIQUID-MEASURER. CHARLES C. ALLEN, Kansas City, Mo. Filed Dec. 8, 1908. Serial No. 466,544.

1. In liquid measurers the combination with a receptacle or container of liquids having a capillary discharge opening, a movable diaphragm adapted to displace said liquid in small quantities, a casing, connecting means connecting said casing with said receptacle, and a plunger within said casing coacting with the diaphragm to move said diaphragm within the receptacle, and measuring devices on the plunger for determining the amount of liquid displaced by the movement of the diaphragm.

2. In liquid measurers, the combination with a tube for holding the liquid having an opening in its upper end, and a capillary discharge opening, a movable diaphragm adapted to displace the liquid in small quantities, a casing having an opening in its lower end registering with the opening in the upper end of said tube, means connecting said tube with said casing, and a plunger within said casing, a plunger rod and measuring devices on the said rod adapted to co-act with and control the movement of said plunger.

3. In liquid measurers the combination with a tube for holding the liquid having an opening in its upper end and a capillary discharge opening, a movable diaphragm within said tube adapted to displace the liquid in small quantities, a casing having an opening in its lower end registering with the opening in the upper end of said tube, said casing having an opening in its upper end, a plunger within said casing, co-acting with the diaphragm, and a plunger rod, and measuring devices on the plunger rod, controlling the movement of the plunger.



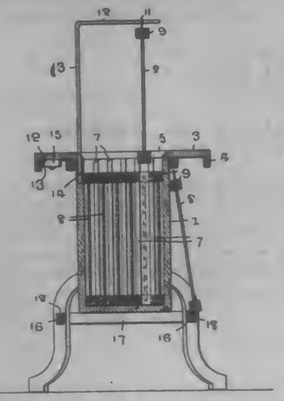
4. In liquid measurers the combination with a tube for holding the liquid having an opening in its upper end, and a capillary discharge opening, a movable diaphragm within said tube adapted to displace the liquid in small quantities, a casing having an opening in its lower end registering with the opening in the upper end of said tube and an opening in the upper end of said casing having radial openings extending therefrom, means connecting said tube with said casing, and a plunger within the said casing, a plunger-rod movable in the opening in the upper end of said casing, and lugs on said rod arranged at measured distances and adapted to move with said rod through said radial openings.

5. In liquid measurers the combination with a tube for holding the liquid having an opening in its upper end, and a capillary discharge opening, a movable diaphragm within said tube adapted to displace the liquid in small quantities, a casing having an opening registering with the opening in the upper end of said tube, said casing having an opening in the upper end of said casing, and radial openings extending therefrom in opposite directions, a plunger within said casing adapted to co-act with the diaphragm in said tube, and a rod within said opening in the upper end of said casing connected with said plunger, and lugs, on said rod in vertical series, and the lugs in one series alternating in position with the lugs in the other series and spaced at measured distances apart.

939,199. COMBINED CABINET AND DISPLAY-RACK. ANDREW E. BAKER, Wabash, Ind. Filed Nov. 27, 1908. Serial No. 464,540.

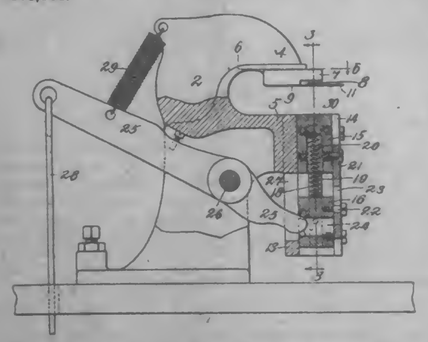
In a device of the class described, the combination with a cabinet, an overlapping top for said cabinet, said top

having a depending flange around its edges and frames adapted to enter said cabinet; of a supporting rod having a h wizontal extension at one end, said rod being adapted



to be mounted above the cabinet to support the frames above the cabinet and means coöperating with said flange to secure said supporting rod below the cover when not in use.

939,200. MACHINE FOR SETTING FASTENERS. WALTER E. BENNETT, Portsmouth, N. H., assignor to Morley Button Manufacturing Company, Boston, Mass., a Corporation of Maine. Filed Dec. 30, 1907. Serial No. 408,561.



1. A machine for setting a flexible tag of the character described, comprising a frame having a pair of opposed rigid jaws, one jaw having means to hold the tag with the shanks in vertical position, and the other jaw having a vertical guideway, a work-engaging block mounted to slide in the guide-way having a pair of apertures extending therethrough adapted to register with the shanks of the tag, a plunger carrying block mounted in said guideway on the side of the work-engaging block opposite the tag holding means, said plunger carrying block having a pair of plungers extending into and movable within said apertures, a spring normally urging said blocks apart, means to limit the extent of the separation of said blocks, and a lever mounted on said frame and connected with the plunger carrying block adapted first to move it together with the work-engaging block toward the tag holding jaw, and thereafter to move said plungers in said apertures independently of the work-engaging block.

2. A machine for setting a flexible tag of the character described, comprising a frame having a pair of opposed rigid jaws, the upper jaw having means to hold the tag, shanks downward, and the other jaw having a vertical guideway, a work-supporting block mounted to slide in the guideway having a pair of apertures extending therethrough adapted to register with the downwardly pointing shanks of the tag, a plunger carrying block mounted to slide in said guideway below said work-supporting block and carrying a pair of plungers extending into and movable within said apertures, a spring normally urging said blocks apart, means carried by said blocks to limit the extent of their movement of separation, and a lever mounted on said frame and connected with the plunger carrying block first to move it together with the work-supporting block toward the upper jaw and thereafter to move said plungers in said apertures independently of the work-supporting block.

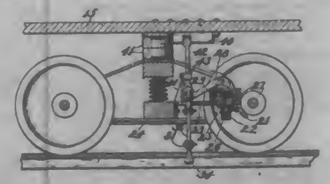
3. In a machine for setting a flexible tag of the character above described, a tag-supporting member provided with a pair of slots adapted to receive the shanks of the fasteners provided on either end of the tag and to hold the flexible body of the tag flat at each side of the slots, and a relatively movable member for clenching the shanks of said fasteners.

4. In a machine for setting a flexible tag of the character above described, a tag-supporting member having a pair of slots adapted to receive the shanks of the fasteners provided on either end of the tag and to hold the flexible body of the tag flat at each side of the slots, a plate between said slots to support the center of the flexible body of the tag, and a relatively movable member for clenching the shanks of said fasteners.

5. In a machine for setting a flexible tag of the character above described, a tag-supporting member having a pairs of slots adapted to receive the shanks of the fasteners provided on either end of the tag and to hold the flexible body of the tag flat at each side of the slots, a plate between said slots to support the center of the flexible body of the tag, said plate being narrower between the openings of said slots than between the bases of said slots, and a relatively movable member for clenching the shanks of said fasteners.

[Claims 6 to 8 not printed in the Gazette.]

939,201. SAFETY DEVICE FOR RAILWAYS. OSCAR J. BEHREND, Milwaukee, Wis. Filed Jan. 7, 1909. Serial No. 471,081.



1. A safety device for railways, comprising a clutching means carried by the trucks of the cars for engaging beneath the heads of the rails, pneumatically controlled operating mechanism for the clutching means, and pneumatic actuating means on the locomotive for releasing the operating means.

2. A safety device for railways, comprising pivotally mounted clutch arms, a lever having connection with the clutch arms, a spring bearing on the lever, a pneumatically released trip pin engaged by the lever to normally resist the action of the spring and hold the clutch arms away from the rails, and means on the locomotive for controlling the admission of pressure to the pneumatically operated trip pin.

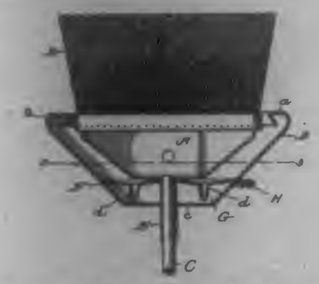
3. A safety device for railways, comprising swinging clutch arms pivotally mounted on the trucks and adapted to engage beneath the heads of the rails, hooked engaging arms movable therewith, engaging plates on the car bottom to be engaged by the hooked engaging arms, and means on the locomotive for causing the engagement of the clutch arms and the engaging arms.

4. A safety device for railways, comprising swinging clutch arms mounted on the car truck, and adapted to engage beneath the heads of the rails, a rod having connections with the clutch arms, a bell crank lever having one arm pivotally connected to the said rod, a coil spring bearing on the other arm of the bell crank lever, a piston fitting in a cylinder and having its stem projecting in the path of the bell crank lever, and means on the engine for causing the admission of pressure to the cylinder to release the piston stem from the path of the bell crank lever and permit the spring to throw the clutch arms into engagement with the rails.

5. A safety device for railways, comprising swinging clutch arms mounted on the car truck, and adapted to engage beneath the heads of the rails, a rod having connections with the clutch arms, a bell crank lever having one arm pivotally connected to said rod, a coil spring bearing on the other arm of the bell crank lever, a piston fitting in a cylinder and having its stem projecting in the path of the bell crank lever, hooked engaging arms connected with the clutch arms, arc shaped engaging plates secured to the car bottom and adapted to be engaged by the engaging arms, and means on the engine for causing the admission of pressure to the cylinder to release the piston stem from the path of the bell crank lever and permit the spring to throw the clutch arms into engagement with the rails and the engaging arms into engagement with the engaging plates.

[Claims 6 to 9 not printed in the Gazette.]

939,202. DRIP-RECEIVER. HUBERT O. BESSETTE, Woonsocket, R. I. Filed Aug. 20, 1909. Serial No. 513,833.



A drip receiver for use on whitewash and other brushes, comprising a receptacle having an opening in its top, a diaphragm or partition fixed in said receptacle and spaced from the bottom thereof to form a chamber and having depending tubes and also having portions fixed or inclined downwardly to the upper ends of said tubes, a cock communicating with said chamber and extending outside the receptacle, and a sleeve fixed to the bottom of the receptacle and also to said diaphragm or partition.

939,203. CUFF. EDWIN L. BEVINGTON, Chicago, Ill. Filed Sept. 2, 1908. Serial No. 451,387.



1. In combination, a supplemental cuff comprising inner and outer folds, the outer fold being provided with a button hole adjacent each edge and the inner fold opposite each button hole being provided with a finding aperture, the material of the inner fold cut away to form such aperture being of sufficient extent to readily expose the buttonhole in the sleeve beneath and a portion of the material surrounding such buttonhole.

2. In combination, a supplemental cuff comprising inner and outer folds, the outer fold being provided with a button hole adjacent each edge and the inner fold opposite each button hole being provided with a U shaped finding slot of sufficient size to expose the button hole in the sleeve beneath and a portion of the material surrounding such button hole and extending to the edge of the cuff.

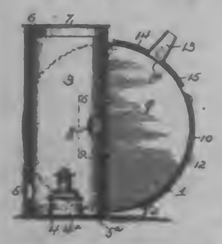
939,204. COLLAR. EDWIN L. BEVINGTON, Chicago, Ill. Filed Oct. 26, 1906. Serial No. 459,560.



1. A fold over member of the character described comprising a pair of continuous opposing sheets folded over intermediate their edges with a guide strip interposed between the sheets adjacent the line of folding over but entirely at one side of such line of folding over.

2. A fold over member of the character described comprising a pair of continuous opposing sheets folded over intermediate their edges with a pair of guide strips interposed between the sheets adjacent the line of folding one on either side of such line.

939,205. EGG-TESTER. JOHN W. BILLINGS, Beatrice Nebr., assignor of one-half to Arthur John Billings, Beatrice, Nebr. Filed June 5, 1909. Serial No. 500,880.



1. In an egg tester, the combination with a casing having arm holes and a vertical shell adapted to contain a light device and provided with an opening communicating with the interior of said casing, of a sight device adjustably mounted on said casing.

2. In an egg tester, the combination with a casing having a curved wall forming a self contained dark chamber provided with arm holes, and a vertical shell adapted to contain a light-device and having openings communicating with said casing, of a sight device adjustably mounted on the curved exterior of the casing above the arm holes.

3. In an egg tester, the combination with a cylindrical drum or casing forming a self contained dark chamber having arm holes in its peripheral wall and a shell passing through said drum or casing and disposed at right angles to the axis of the latter, said shell having light openings communicating with the interior of the casing, of a sight device adjustably mounted on the peripheral face of the shell or casing above the arm holes, said shell or casing having an opening under said sight device, and light shields surrounding the arm openings of the drum or casing.

4. In an egg tester, the combination with a casing or dark chamber having arm holes and a vertical shell adapt-

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business November 2, 1909.

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128	2. Aeronautics; Bee Culture; Dairy; Label-Affixers; Paper Files and Binders; Pneumatic Despatch; Pneumatics; Presses; Store-Service; Tobacco.	July 1	Aug. 5	788
175	3. Annealing and Tempering; Coating with Metal; Electrochemistry; Metal-Founding; Metallurgy; Shaping Fluid Metal.	Sept. 22	Oct. 13	177
232	4. Bridges; Conveyers; Cranes and Derricks; Excavating; Hoisting; Hydraulic Engineering; Loading and Unloading; Metallic Building Structures.	July 7	Sept. 23	739
167	5. Bookbinding; Harvesters; Jewelry; Music.	July 24	Sept. 3	558
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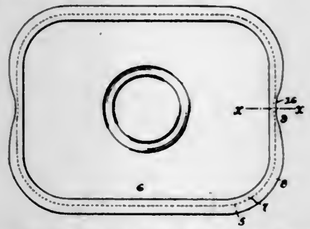
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PATENTS

GRANTED NOVEMBER 9, 1909.

939,197. METHOD OF HEADING SHEET-METAL CANS. BENJAMIN ADRIANCE, Brooklyn, N. Y. Filed July 22, 1907. Serial No. 384,967.



1. The method of heading sheet-metal cans which consists in placing a flanged cover on a flanged can-body, clenching a relatively limited portion of the cover-flange to the body-flange by means of a tool having an acting face whose longitudinal section presents substantially the same contour as that of the acting face of the seaming tool which is to follow the clenching tool in the operation of completing the heading, and then causing said seaming tool to fold-over said flanges, introducing said seaming tool first at the clenching point as a starting point, substantially as described.

2. The method of heading sheet-metal cans which consists in placing a flanged cover on a flanged can-body, clenching a relatively limited portion of the cover-flange to the body-flange by means of a tool having a grooved acting face whose cross-section presents substantially the same contour as the grooved acting face of the seaming tool which is to follow the clenching tool in the operation of completing the heading, and then causing said seaming tool having a grooved acting face to fold-over said flanges, introducing said seaming tool first at the clenching point as a starting point, substantially as described.

939,198. LIQUID-MEASURER. CHARLES C. ALLEN, Kansas City, Mo. Filed Dec. 8, 1908. Serial No. 466,544.

1. In liquid measurers the combination with a receptacle or container of liquids having a capillary discharge opening, a movable diaphragm adapted to displace said liquid in small quantities, a casing, connecting means connecting said casing with said receptacle, and a plunger within said casing coacting with the diaphragm to move said diaphragm within the receptacle, and measuring devices on the plunger for determining the amount of liquid displaced by the movement of the diaphragm.

2. In liquid measurers, the combination with a tube for holding the liquid having an opening in its upper end, and a capillary discharge opening, a movable diaphragm adapted to displace the liquid in small quantities, a casing having an opening in its lower end registering with the opening in the upper end of said tube, means connecting said tube with said casing, and a plunger within said casing, a plunger rod and measuring devices on the said rod adapted to co-act with and control the movement of said plunger.

3. In liquid measurers the combination with a tube for holding the liquid having an opening in its upper end and a capillary discharge opening, a movable diaphragm within said tube adapted to displace the liquid in small quantities, a casing having an opening in its lower end registering with the opening in the upper end of said tube and an opening in the upper end of said casing having radial openings extending therefrom, means connecting said tube with said casing, and a plunger within the said casing, a plunger-rod movable in the opening in the upper end of said casing, and lugs on said rod arranged at measured distances and adapted to move with said rod through said radial openings.



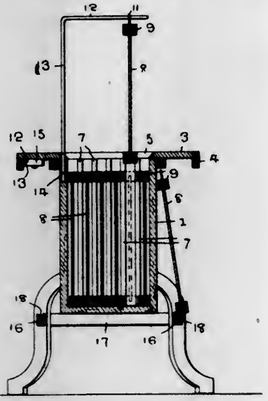
4. In liquid measurers the combination with a tube for holding the liquid having an opening in its upper end, and a capillary discharge opening, a movable diaphragm within said tube adapted to displace the liquid in small quantities, a casing having an opening in its lower end registering with the opening in the upper end of said tube and an opening in the upper end of said casing having radial openings extending therefrom, means connecting said tube with said casing, and a plunger within the said casing, a plunger-rod movable in the opening in the upper end of said casing, and lugs on said rod arranged at measured distances and adapted to move with said rod through said radial openings.

5. In liquid measurers the combination with a tube for holding the liquid having an opening in its upper end, and a capillary discharge opening, a movable diaphragm within said tube adapted to displace the liquid in small quantities, a casing having an opening registering with the opening in the upper end of said tube, said casing having an opening in the upper end of said casing, and radial openings extending therefrom in opposite directions, a plunger within said casing adapted to co-act with the diaphragm in said tube, and a rod within said opening in the upper end of said casing connected with said plunger, and lugs on said rod in vertical series, and the lugs in one series alternating in position with the lugs in the other series and spaced at measured distances apart.

939,199. COMBINED CABINET AND DISPLAY-RACK. ANDREW E. BAKER, Wabash, Ind. Filed Nov. 27, 1908. Serial No. 464,540.

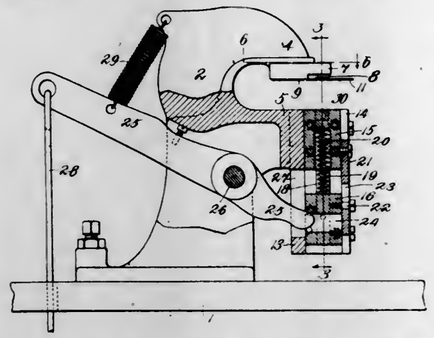
In a device of the class described, the combination with a cabinet, an overlapping top for said cabinet, said top

having a depending flange around its edges and frames adapted to enter said cabinet; of a supporting rod having a horizontal extension at one end, said rod being adapted



to be mounted above the cabinet to support the frames above the cabinet and means coöperating with said flange to secure said supporting rod below the cover when not in use.

939,200. MACHINE FOR SETTING FASTENERS. WALTER E. BENNETT, Portsmouth, N. H., assignor to Morley Button Manufacturing Company, Boston, Mass., a Corporation of Maine. Filed Dec. 30, 1907. Serial No. 408,561.



1. A machine for setting a flexible tag of the character described, comprising a frame having a pair of opposed rigid jaws, one jaw having means to hold the tag with the shanks in vertical position, and the other jaw having a vertical guideway, a work-engaging block mounted to slide in the guide-way having a pair of apertures extending therethrough adapted to register with the shanks of the tag, a plunger carrying block mounted in said guideway on the side of the work-engaging block opposite the tag holding means, said plunger carrying block having a pair of plungers extending into and movable within said apertures, a spring normally urging said blocks apart, means to limit the extent of the separation of said blocks, and a lever mounted on said frame and connected with the plunger carrying block adapted first to move it together with the work-engaging block toward the tag holding jaw, and thereafter to move said plungers in said apertures independently of the work-engaging block.

2. A machine for setting a flexible tag of the character described, comprising a frame having a pair of opposed rigid jaws, the upper jaw having means to hold the tag, shanks downward, and the other jaw having a vertical guideway, a work-supporting block mounted to slide in the guideway having a pair of apertures extending therethrough adapted to register with the downwardly pointing shanks of the tag, a plunger carrying block mounted to slide in said guideway below said work-supporting block and carrying a pair of plungers extending into and movable within said apertures, a spring normally urging said blocks apart, means carried by said blocks to limit the extent of their movement of separation, and a lever mounted on said frame and connected with the plunger carrying block first to move it together with the work-supporting block toward the upper jaw and thereafter to move said plungers in said apertures independently of the work-supporting block.

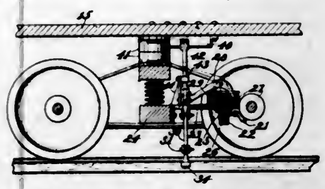
3. In a machine for setting a flexible tag of the character above described, a tag-supporting member provided with a pair of slots adapted to receive the shanks of the fasteners provided on either end of the tag and to hold the flexible body of the tag flat at each side of the slots, and a relatively movable member for clenching the shanks of said fasteners.

4. In a machine for setting a flexible tag of the character above described, a tag-supporting member having a pair of slots adapted to receive the shanks of the fasteners provided on either end of the tag and to hold the flexible body of the tag flat at each side of the slots, a plate between said slots to support the center of the flexible body of the tag, and a relatively movable member for clenching the shanks of said fasteners.

5. In a machine for setting a flexible tag of the character above described, a tag-supporting member having a pairs of slots adapted to receive the shanks of the fasteners provided on either end of the tag and to hold the flexible body of the tag flat at each side of the slots, a plate between said slots to support the center of the flexible body of the tag, said plate being narrower between the openings of said slots than between the bases of said slots, and a relatively movable member for clenching the shanks of said fasteners.

[Claims 6 to 8 not printed in the Gazette.]

939,201. SAFETY DEVICE FOR RAILWAYS. OSCAR J. BEAEND, Milwaukee, Wis. Filed Jan. 7, 1909. Serial No. 471,081.



1. A safety device for railways, comprising a clutching means carried by the trucks of the cars for engaging beneath the heads of the rails, pneumatically controlled operating mechanism for the clutching means, and pneumatic actuating means on the locomotive for releasing the operating means.

2. A safety device for railways, comprising pivotally mounted clutch arms, a lever having connection with the clutch arms, a spring bearing on the lever, a pneumatically released trip pin engaged by the lever to normally resist the action of the spring and hold the clutch arms away from the rails, and means on the locomotive for controlling the admission of pressure to the pneumatically operated trip pin.

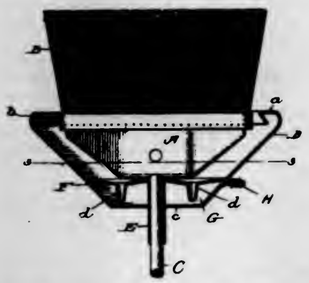
3. A safety device for railways, comprising swinging clutch arms pivotally mounted on the trucks and adapted to engage beneath the heads of the rails, hooked engaging arms movable therewith, engaging plates on the car bottom to be engaged by the hooked engaging arms, and means on the locomotive for causing the engagement of the clutch arms and the engaging arms.

4. A safety device for railways, comprising swinging clutch arms mounted on the car truck, and adapted to engage beneath the heads of the rails, a rod having connections with the clutch arms, a bell crank lever having one arm pivotally connected to the said rod, a coil spring bearing on the other arm of the bell crank lever, a piston fitting in a cylinder and having its stem projecting in the path of the bell crank lever, and means on the engine for causing the admission of pressure to the cylinder to release the piston stem from the path of the bell crank lever and permit the spring to throw the clutch arms into engagement with the rails.

5. A safety device for railways, comprising swinging clutch arms mounted on the car truck, and adapted to engage beneath the heads of the rails, a rod having connections with the clutch arms, a bell crank lever having one arm pivotally connected to said rod, a coil spring bearing on the other arm of the bell crank lever, a piston fitting in a cylinder and having its stem projecting in the path of the bell crank lever, hooked engaging arms connected with the clutch arms, arc shaped engaging plates secured to the car bottom and adapted to be engaged by the engaging arms, and means on the engine for causing the admission of pressure to the cylinder to release the piston stem from the path of the bell crank lever and permit the spring to throw the clutch arms into engagement with the rails and the engaging arms into engagement with the engaging plates.

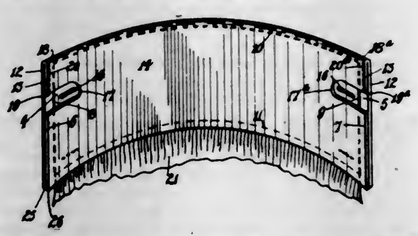
[Claims 6 to 9 not printed in the Gazette.]

939,202. DRIP-RECEIVER. HUBERT O. BESSETTE, Woonsocket, R. I. Filed Aug. 20, 1909. Serial No. 513,833.



A drip receiver for use on whitewash and other brushes, comprising a receptacle having an opening in its top, a diaphragm or partition fixed in said receptacle and spaced from the bottom thereof to form a chamber and having depending tubes and also having portions fixed or inclined downwardly to the upper ends of said tubes, a cock communicating with said chamber and extending outside the receptacle, and a sleeve fixed to the bottom of the receptacle and also to said diaphragm or partition.

939,203. CUFF. EDWIN L. BEVINGTON, Chicago, Ill. Filed Sept. 2, 1908. Serial No. 451,387.



1. In combination, a supplemental cuff comprising inner and outer folds, the outer fold being provided with a button hole adjacent each edge and the inner fold opposite each button hole being provided with a finding aperture, the material of the inner fold cut away to form such aperture being of sufficient extent to readily expose the buttonhole in the sleeve beneath and a portion of the material surrounding such buttonhole.

2. In combination, a supplemental cuff comprising inner and outer folds, the outer fold being provided with a button hole adjacent each edge and the inner fold opposite each button hole being provided with a U shaped finding slot of sufficient size to expose the button hole in the sleeve beneath and a portion of the material surrounding such button hole and extending to the edge of the cuff.

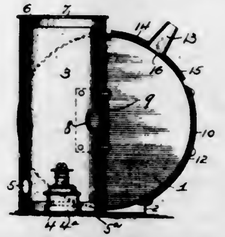
939,204. COLLAR. EDWIN L. BEVINGTON, Chicago, Ill. Filed Oct. 26, 1908. Serial No. 459,560.



1. A fold over member of the character described comprising a pair of continuous opposing sheets folded over intermediate their edges with a guide strip interposed between the sheets adjacent the line of folding over but entirely at one side of such line of folding over.

2. A fold over member of the character described comprising a pair of continuous opposing sheets folded over intermediate their edges with a pair of guide strips interposed between the sheets adjacent the line of folding one on either side of such line.

939,205. EGG-TESTER. JOHN W. BILLINGS, Beatrice, Nebr., assignor of one-half to Arthur John Billings, Beatrice, Nebr. Filed June 5, 1909. Serial No. 500,380.



1. In an egg tester, the combination with a casing having arm holes and a vertical shell adapted to contain a light device and provided with an opening communicating with the interior of said casing, of a sight device adjustably mounted on said casing.

2. In an egg tester, the combination with a casing having a curved wall forming a self contained dark chamber provided with arm holes, and a vertical shell adapted to contain a light-device and having openings communicating with said casing, of a sight device adjustably mounted on the curved exterior of the casing above the arm holes.

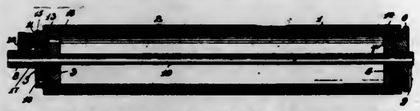
3. In an egg tester, the combination with a cylindrical drum or casing forming a self contained dark chamber having arm holes in its peripheral wall and a shell passing through said drum or casing and disposed at right angles to the axis of the latter, said shell having light openings communicating with the interior of the casing, of a sight device adjustably mounted on the peripheral face of the shell or casing above the arm holes, said shell or casing having an opening under said sight device, and light shields surrounding the arm openings of the drum or casing.

4. In an egg tester, the combination with a casing or dark chamber having arm holes and a vertical shell adapt-

ed to contain a light device and provided with an opening communicating with the interior of said casing, of a sight device movable on said casing, the latter being also provided at one side of said sight device with an auxiliary sight opening or peek hole.

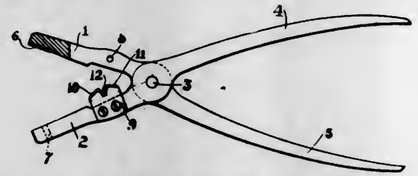
5. In an egg tester, the combination with a drum or dark chamber having a curved wall and provided with arm holes, said drum also having an opening therein, a vertical shell or cylinder passing through said drum and having openings communicating with the interior of the latter, and a sight device movably mounted upon said drum and communicating with said opening in the latter.

939,206. ROLLER. ANDREW E. BLIGHT, Tottenville, N. Y. Filed May 6, 1909. Serial No. 494,256.



The combination of a platen having a rubber cushioning surface, plugs pneumatically sealing the said platen, heads attached to said plugs, a valve located in one of the said heads, a hollow rod securely set in and attached to the said plugs and the said heads and extended through the said roller, the extended hollow bearings located on the outside of the said rod, the said hollow rod extending through the said hollow bearings, rings for clenching the said platen to the said plugs and heads whereby the thickness and pliability of the platen may be varied.

939,207. TOOL FOR DETACHING CARPET-FASTENERS. WARREN H. BOLES, Newark, N. J., assignor to Boles Friction Fastener Company, Newark, N. J., a Corporation of New Jersey. Filed Aug. 14, 1907. Serial No. 388,515.



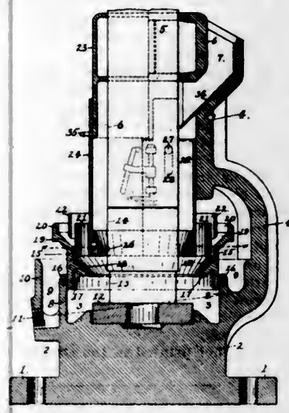
1. A tool for attaching and detaching carpet fasteners, comprising jaws and means for moving them toward and from each other, one of said jaws being provided with a hole for holding the shank of a fastener pin provided with upward-projecting teeth, the other of said jaws being provided with a cutter having a recess with cutting edges extending laterally therefrom.

2. A tool for attaching and detaching carpet fasteners, comprising jaws and means for moving them toward and from each other, one of said jaws being provided with a hole for holding the shank of a fastener pin provided with upward-projecting teeth, the other of said jaws being provided with a cutter having a recess with a cutting edge therein, and having outside of said recess other cutting edges.

3. A tool for attaching and detaching carpet fasteners, comprising jaws and means for moving them toward and from each other, one of said jaws being provided with a hole for holding the shank of a fastener pin provided with upward-projecting teeth, the other of said jaws being provided with a cutter having a recess with a cutting edge therein, and having adjacent said recess bevel cutting edges.

939,208. STAMP-MORTAR. MARTIN P. BOSS, San Francisco, Cal. Filed July 9, 1906. Serial No. 325,300.

1. In a stamp-mortar, a vertically adjustable dividing wall separating it into an inner space in which the stamp operates and to which the ore is fed, and an outer space communicating with the inner space under said wall, into which said outer space the ore is expelled by the blow of the stamp, said wall having the inner surface of its lower end inwardly sloping to direct the material to the crushing surfaces.



2. In a stamp-mortar, the combination of a sizing ring fitted to the wall of the mortar cavity, and an inner dividing wall separating the mortar cavity into an inner space in which the stamp operates and to which the ore is fed, and an outer space between said wall and ring communicating with the inner space under said wall, into which said outer space the ore is expelled by the blow of the stamp.

3. In a stamp-mortar, the combination of a vertically adjustable sizing ring fitted to the wall of the mortar cavity, and a vertically adjustable inner dividing wall separating the mortar cavity into an inner space in which the stamp operates and to which the ore is fed, and an outer space between said wall and ring communicating with the inner space under said wall, into which said outer space the ore is expelled by the blow of the stamp.

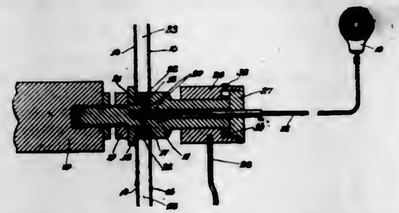
4. In a stamp-mortar, the combination of a sizing ring fitted to the wall of the mortar cavity, and an inner wall descending into said cavity, to a plane below the normal level of the ore therein, and separating said cavity into an inner space in which the stamp operates and to which the ore is fed, and an outer space between said wall and ring communicating with the inner space under said wall, into which said outer space the ore is expelled by the blow of the stamp.

5. In a stamp-mortar, the combination of a vertically adjustable sizing ring fitted to the wall of the mortar cavity, and an inner vertically adjustable dividing wall descending into said cavity to a plane below the normal level of the ore therein, and separating said cavity into an inner space in which the stamp operates and to which the ore is fed, and an outer space between said wall and ring communicating with the inner space under said wall, into which said outer space the ore is expelled by the blow of the stamp.

[Claims 6 to 12 not printed in the Gazette.]

939,209. SPEED INDICATING OR RECORDING DEVICE. WILLIAM H. BRISTOL, Waterbury, Conn. Filed Apr. 23, 1909. Serial No. 491,834.

In a speed indicating or recording apparatus: vacuum producing means comprising a rotating shaft, hollow for a portion of its length, means to provide an air chamber communicating with the chamber formed by the hollow portion of said shaft and open at its periphery to the atmosphere, said air chamber to be rotated by said hollow shaft; a driving shaft connected to said hollow shaft; a stationary head, and a cap screwed thereto, surrounding the open end of said hollow shaft, and a spring supporting said head and cap to secure the same against rotation and to hold the same on said hollow shaft; pressure indicating



or recording means; and means to connect the hollow portion of said hollow shaft with said pressure indicating or recording means to communicate to the latter the vacuum produced by the rotation of said air chamber.

939,210. COMBINATION DOOR-LOCK. ALVIE E. BROWN and JAMES M. ROBERTS, Crayne, Ky. Filed June 2, 1908. Serial No. 436,209.



1. A combination lock embodying alining rotary shafts, a tumbler fixed to one of the shafts, and an engaging element carried by the other shaft and having connection with the tumbler to admit of the latter being operated by turning either selected one of the shafts, one of the shafts being movable longitudinally away from the other shaft to disengage said element and tumbler, whereby one of the shafts may be turned relative to the other to re-set the device.

2. A combination lock embodying alining rotary shafts, a tumbler fixed to one of the shafts, and a yoke rigid with the other shaft and engaging with the tumbler to admit of the latter being operated by turning either selected one of the shafts, one of said shafts being movable longitudinally away from the other shaft to disengage the yoke and tumbler, whereby one of the shafts may be turned relative to the other to re-set the device.

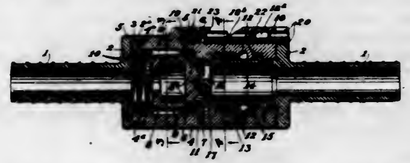
3. A combination lock embodying alining rotary shafts, a tumbler carried by one of the shafts to turn therewith, a yoke rigid with the other shaft and adapted for engagement with the tumbler, one of said shafts being movable longitudinally, and means for normally maintaining such movable shaft in operative relation to the other shaft to hold the yoke and tumbler associated and admit of the latter being operated by turning any selected one of the shafts.

4. A combination lock embodying alining rotary shafts, a tumbler carried by one of the shafts to turn therewith, a yoke rigid with the other shaft and adapted for engagement with the tumbler, one of said shafts being movable longitudinally, and means for yieldingly maintaining said movable shaft in operative relation to the other shaft to hold the yoke and tumbler associated and admit of the latter being operated by turning any selected one of the shafts.

5. A combination lock embodying a main shaft, a tumbler carried by the main shaft, hollow shafts rotatably mounted upon the main shaft on opposite sides of the tumbler, a second tumbler carried by one of the hollow shafts, and an operative connection between the hollow shafts.

[Claims 6 to 10 not printed in the Gazette.]

939,211. AIR-HOSE COUPLING. EDWARD L. BROWN, Cleveland, Ohio, assignor of one-third to P. L. Andrews, Toledo, Ohio, and one-third to Chas. Eisle, Cleveland, Ohio. Filed Mar. 15, 1909. Serial No. 483,412.



1. In a coupling for tubular conduits, the combination with a tubular member having a longitudinal opening therethrough, said opening being enlarged in diameter toward one of its ends so as to form an annular shoulder, that portion of the opening having the smaller diameter being provided with a circumferential groove, of a valve in the enlarged part of said opening, said valve being adapted to seat itself on said shoulder, a second tubular member, means for attaching the second tubular member to the first tubular member, a tubular extension on the said second member, said extension being adapted to enter the smaller part of the said opening and to hold the said valve away from the shoulder, when the members are attached together, a packing ring within the said circumferential groove, said ring being adapted to contact with the said tubular extension and to establish therewith a fluid proof joint, and means for locking the two tubular members together after they have been attached.

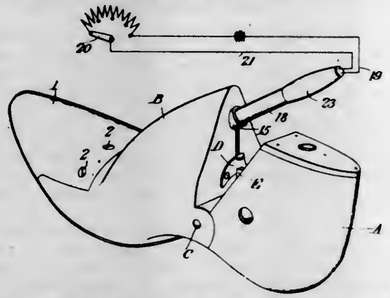
2. In a coupling for tubular conduits, the combination with a tubular member having a longitudinal opening therethrough, said opening being enlarged in diameter toward one of its ends so as to form an annular shoulder, that portion of the opening having the smaller diameter being provided with a circumferential groove adjacent said shoulder and with a spiral groove adjacent the outer end of said opening, of a valve in the enlarged part of said opening, said valve being adapted to seat itself on said shoulder, a second tubular member having a spiral rib adapted to fit as a screw thread into the said spiral groove, a tubular extension on the said second member, said extension having a diameter substantially equal to the smaller diameter of the said opening, said extension being adapted to push the valve away from the said shoulder when the second member is screwed into the first member and a packing ring within the said circumferential groove, said ring being adapted to contact with the said tubular extension and to establish therewith a fluid-proof joint.

3. In a coupling for tubular conduits, the combination with a tubular member having a longitudinal opening therethrough, said opening being enlarged in diameter toward one of its ends so as to form an annular shoulder, that portion of the opening having the smaller diameter being provided with a circumferential groove adjacent said shoulder and with a spiral groove adjacent the outer end of said opening, of a valve in the enlarged part of said opening, said valve being adapted to seat itself on said shoulder, a second tubular member having a spiral rib adapted to fit as a screw thread into the said spiral groove, a tubular extension on the said second member, said extension being adapted to push the valve away from the said shoulder when the second member is screwed into the first member, a packing ring within the said circumferential groove, said ring being adapted to contact with the said tubular extension and to establish therewith a fluid-proof joint, and means for locking the said second

member in position after the valve has been moved off of the said shoulder.

4. In a coupling for tubular conduits, the combination with a coupling section provided at one end with a valve-chamber and at the other with a receiving opening, said receiving opening having a spiral groove and carrying a gasket intermediate said spiral groove and said valve-chamber, and a spring-resisted valve normally closing communication between said chamber and receiving opening; of an opposing coupling section having a flanged head terminating in an open valve-stem adapted to unseat said valve when the coupling sections are drawn together, said valve-stem being provided with a peripheral spiral rib adapted to traverse said spiral groove and having its open end adapted to take into said gasket and form a fluid-tight joint upon the initial engagement of said spiral rib with said spiral groove and prior to the unseating of said valve by said valve-stem.

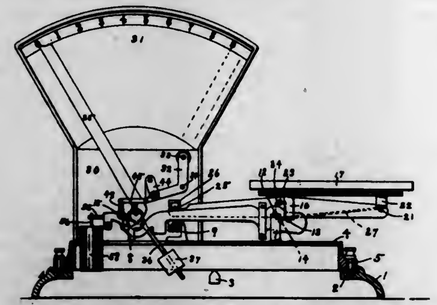
939,212. SHOE-LAST. ADAM J. BUCH, Portsmouth, Ohio. Filed Jan. 17, 1908. Serial No. 411,273.



1. A last having a toe piece of heat conductive material, said toe piece being provided with a recess, in combination with an electrical heater housed in said recess, an insulating packing between the heater and the walls of the recess, and a metallic plate secured upon the under side of the last and serving to retain the heater in its recess or housing.

2. A last having a metallic toe piece provided with a recess in its under side, an electrical heater housed within said recess and a protecting plate or cover extending beneath the bottom of the last and connected detachably with the latter and with the toe piece, said plate constituting a cover to secure the heater in its housing and also serving to assist in securing the toe piece upon the last.

939,213. SCALE. FREMONT H. BUCKINGHAM, Detroit, Mich., assignor to Standard Computing Scale Company, Limited, Detroit, Mich., a Limited Partnership. Filed Feb. 18, 1900. Serial No. 478,682.



1. In a scale, the combination of a base, a main scale beam provided with pivots at each end and pivotally mounted on the base intermediate its ends, a second lever having pivots at each end and intermediate its ends, connecting blocks mounted on pivots on the front arm of the main lever upon which blocks the second lever is mounted, a platform resting on pivots carried by the front arms of both levers, a swinging link engaging the rear arm of the second lever to hold it from rising, a link connecting the front arm of both levers to prevent endwise movement between them, a pendulum connected to the rear end of the main lever, and an indicator secured to said pendulum.

2. In a scale, the combination of a base, a vertical plate mounted on the base, a scale lever pivotally mounted on said base intermediate its ends, a pendulum pivotally mounted on said base, a yoke pivotally connected to the rear end of the lever, a pin pivotally engaging the yoke and the pendulum, an adjuster mounted on said plate, and a connector between the adjuster and one end of said yoke.

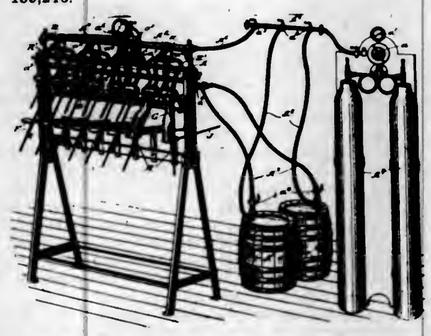
3. In a scale, the combination of a base, a scale lever mounted thereon intermediate its ends, a weight receiving device mounted on one end of said lever, a pendulum mounted on said base near the opposite end of the lever and provided with an arm having a pivot mounted thereon, a pin mounted on said pivot, a yoke resting on said pin and having downwardly extending arms engaging pivots at the end of said lever, and means to control the movement of said yoke and pin.

4. In a scale, the combination of a base, a scale lever fulcrumed on said base and having arms extending forward and rearward, a weight receiving device mounted on the forward arm, a pendulum pivoted adjacent the rear end of the lever and having a laterally extending arm, a compression member and a tension member connecting the arm on the pendulum to the rear arm of the scale lever to coördinate the movements of the same, and a pointer to indicate the movements.

5. In a scale, the combination of a base, a main lever pivotally mounted thereon intermediate its ends, and having a pivot at its rear end, a pendulum pivotally mounted on said base, connections between the pendulum and said pivot on the rear end of the main lever whereby the lever and pendulum are caused to swing in unison, a second lever, a link connected to said base and engaging a pivot at the rear end of the second lever, a platform supported by pivots mounted on the front ends of both levers, and connecting blocks resting on pivots mounted on the front end of the main lever, said second lever having pivots intermediate its ends resting on the connecting blocks.

[Claims 6 to 10 not printed in the Gazette.]

939,214. BOTTLING-MACHINE. JOSEPH H. CHAMP, Cleveland, Ohio. Filed May 29, 1903. Serial No. 159,246.



1. In a bottle filling machine, the combination of a liquid supply, a chamber provided with fluid pressure regulating mechanism, said chamber having its upper portion communicating directly with the upper portion of said supply and having its lower portion communicating directly with the lower portion of said supply, a fluid pressure supply apart from said liquid supply and said chamber, and a bottle mouth-piece adapted to have connection with liquid and fluid-pressure supplies, respectively.

2. In a bottle filling machine, the combination of a liquid supply, a chamber provided with fluid pressure regulating mechanism, fluid communication directly between the upper portion of said supply and the upper portion of said chamber, fluid communication directly between the lower portion of said supply and the lower portion of said chamber, a fluid-pressure supply apart from said liquid supply and said chamber and a bottle mouth-piece having several fluid ways, one of said ways adapted to provide communication between the upper portion of said liquid supply and said mouth-piece, another of said ways adapted to provide communication between the lower portion of said liquid supply and said mouth-piece, and yet another way adapted to provide communication between said fluid-pressure supply and said mouth-piece.

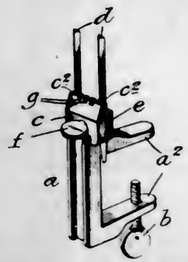
3. In a bottle filling machine, the combination of a liquid supply receptacle, a bottle mouth-piece, a way having valve means and connecting said mouth-piece directly with the upper portion of said supply receptacle, a way having valve means and connecting said mouth-piece directly with the lower portion of said supply receptacle, each such way connected directly to said mouth-piece separately from the connection of the other way, a chamber provided with fluid pressure regulating mechanism, a way connecting the upper portion of said chamber and the upper portion of said supply receptacle, and a way connecting the lower portion of said chamber and the lower portion of said supply receptacle.

4. In a bottle filling machine, the combination of a liquid supply source, a bottle mouth-piece, ways between said two members, respectively adapted to connect the lower and upper portions of said supply source directly with said mouth-piece, valve means controlling said ways, a chamber distinct from said supply source and provided, with fluid pressure regulating mechanism, a way providing constant communication between the upper portion of said chamber and the upper portion of said supply source, and a way providing constant communication between the lower portion of said pressure regulating chamber and the lower portion of said supply source.

5. In a bottle filling machine the combination of a liquid supply receptacle and pressure-fluid supply receptacle relatively distinct, pressure regulating mechanism for said liquid supply, a bottle mouth-piece, a way connecting said mouth-piece with said fluid-pressure supply receptacle, a way connecting said mouth-piece directly with the upper portion of the liquid supply receptacle, a way connecting said mouth-piece directly with the lower portion of the last named supply receptacle, each such way being connected directly to said mouth-piece separately from the connection of any other way, and unitary valve means controlling said ways, substantially as set forth.

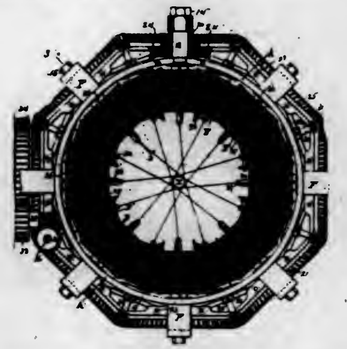
[Claims 6 to 28 not printed in the Gazette.]

939,215. BLADE-SHARPENING DEVICE. WILLIAM D. CHAPIN, New York, N. Y. Filed Aug. 24, 1908. Serial No. 449,905.



A blade sharpening device comprising a support provided with a cross head in which is placed a vertically arranged cutting or file bar, said cross head being also provided in the top thereof with spaced transverse notches or recesses adapted to receive the back edge of a blade.

939,216. BRAIDING-MACHINE. ABRAHAM E. CHERNACK, Boston, Mass., assignor to Chernack Braider Company, Boston, Mass., a Corporation of Maine. Filed Oct. 23, 1908. Serial No. 459,129.



1. A braiding machine, having a cylinder, with serpentine raceways crossing each other, in combination with two sets of bobbins and means for traversing the bobbins in opposite directions in the raceways, said traversing means including rotary wheels and slotted hinged conveyer arms and means to keep the hinged arms toward the cylinder.

2. A braiding machine, having a cylinder with serpentine raceways, crossing each other, in combination with two sets of bobbins and means for traversing the bobbins in opposite directions in the raceways, said traversing means including rotary wheels, outside the cylinder, slotted conveyer arms hinged to the wheels, springs to press the arms toward the cylinder, said arms being adapted to engage, and be disengaged from, the bobbin spindles as the wheels rotate and to transfer the spindle from one wheel to the next.

3. A braiding machine, having a cylinder with serpentine raceways crossing each other in the plane of the braiding point, in combination with two sets of bobbins, means for traversing said bobbins in opposite directions in the raceways, thread guides for each bobbin and means for moving one of said thread guides to take up the slack of the thread as the bobbin passes from one position to another.

4. A braiding machine, having a cylinder with serpentine raceways, crossing each other in the plane of the braiding point in combination with two sets of bobbins, means for traversing said bobbins in opposite directions in the raceways and means for taking up the slack of the threads of the bobbins as they pass from one position to another across said braiding plane.

5. A braiding machine, having a cylinder with serpentine raceways crossing each other, in combination with two sets of bobbins, hollow spindles therefor, thread-guide rods in the hollow spindles, means for traversing the spindles in the raceways and means for moving the said rods in the spindles to take up the slack of the threads as the bobbins pass from one position to another.

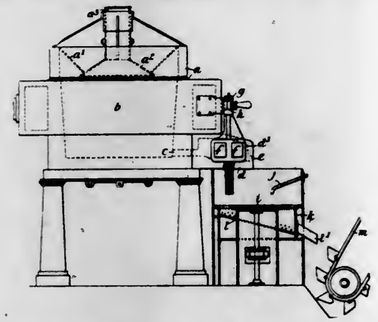
[Claim 6 not printed in the Gazette.]

939,217. MANUFACTURE OF CEMENT. SHERARD O. COWPER-COLES, Westminster, London, England. Filed Jan. 17, 1908. Serial No. 411,356.

1. The process of manufacturing cement which consists in fusing a mixture of the ingredients from which the cement is formed, and then subjecting the fused mass to the action of an electric current and further raising the temperature of the mass to bring about certain reactions and set free the sulfur, substantially as described.

2. The process of manufacturing cement consisting in fusing in a cupola or other furnace a mixture of the ingredients from which the cement is formed and then in

subjecting the fused mass to the action of an electric current whereby the temperature of the mass is further raised, substantially as described.

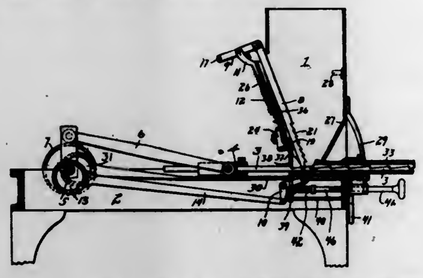


3. The process of manufacturing cement consisting in fusing in a cupola or other furnace a portion of the mixture of the ingredients from which the cement is formed and then subjecting the fused mass to the action of an electric current, chalk or lime, necessary to complete the mixture being added when the temperature has been increased by the said current, substantially as described.

4. The process of continuously manufacturing cement, which consists in fusing a mass of cementitious material, continuously drawing off portions of the molten mass and subjecting it to the action of an electric current to further raise its temperature, to bring about reactions and to set free the sulfur, and continuously discharging the calcined material, substantially as described.

5. The process of continuously manufacturing cement which consists in fusing a mass of cementitious material, continuously drawing off portions of the mass and subjecting it to the action of an electric current to bring about certain reactions and to set free the sulfur, continuously supplying chalk or lime, necessary to complete the mixture to said material while it is being acted upon by the electric current and continuously discharging the material, substantially as described.

939,218. HORSE-COLLAR MACHINE. JOHN C. COLLETT and ALBERT C. JACKSON, Dayton, Ohio, assignors to The Foglesong Machine Company, Dayton, Ohio. Filed Jan. 9, 1909. Serial No. 471,384.



1. In a machine of the type specified, a hopper, reciprocating feed bars mounted within said hopper, means for actuating said feed bars, arresting bars mounted at the sides of the feed bars, a feed rod mounted at the bottom of the hopper, arresting bars mounted at the side of said feed rod, means for adjusting the arresting bars, and means for actuating the said feed bars and said feed rod.

2. In a machine of the type specified, a hopper, feed bars mounted within said hopper, a feed rod mounted at the bottom of the hopper, means for actuating said feed bars and said feed rod, and means for instantaneously stopping the feeding action of said feed bars and said feed rod.

3. In a machine of the type specified, a hopper, feed bars mounted within said hopper, a feed rod mounted at the bottom of said hopper, arresting bars mounted at the sides of said feed bars and said feed rod, and a cam lever adapted to actuate said arresting bars to stop the feeding action of the feed bars and the feed rod.

4. In a machine of the type specified, a hopper, two sets of feed bars mounted in said hopper, the bars of one set being joined at their ends by a block, and an adjustable incline bearing against said block.

939,219. STROP FOR RAZOR-BLADES. ISAIAH CONRAD, Philadelphia, Pa. Filed Aug. 11, 1909. Serial No. 512,307.

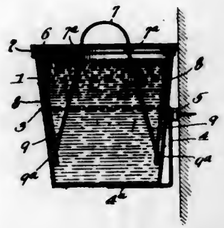


1. As an article of manufacture, a razor strop, comprising jaws, strops fixed to the inner faces of both jaws, and a spring connecting the jaws normally holding them in open position at an angle to each other.

2. As an article of manufacture, a razor strop, comprising two metal jaws having inwardly turned edges, strops secured to the inner faces of said jaws between the inwardly turned edges, means hinging the inner ends of said jaws together and a spring engaging the inner ends of said jaws and normally holding them apart at an angle to each other.

3. As an article of manufacture, a razor strop comprising two metal jaws, strops secured to the inner faces of said jaws, the inner ends of said jaws bent substantially as shown, a staple hinging said jaws together, a cylindrical spring engaging the inner ends of said jaws and normally holding them apart at an angle to each other, and the inner end of said jaws bent forming strops limiting the opening movement of the jaws.

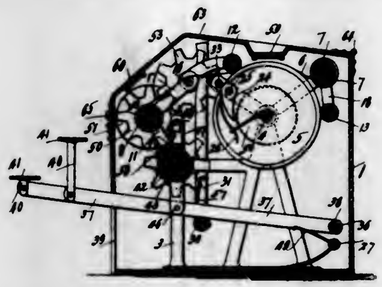
939,220. AIR-TIGHT FIRE-PAIL. CHARLES F. CRANE, New York, N. Y. Filed Feb. 20, 1908. Serial No. 416,914.



1. A device of the kind described comprising a receptacle, a cover fitting upon said receptacle and movable vertically with respect thereto, guide rods arranged in said receptacle and carried by its sides, and links pivotally connected to the under side of the cover and at a distance from its edges, said links sliding upon said guide rods, as and for the purpose set forth.

2. A device of the kind described comprising a pail, guide rods secured to the pail upon opposite sides of the center of the pail, a cover, a bail carried by the cover, the ends of the bail extending through the cover, and connecting links engaging the ends of the bail at their upper ends and in slidable engagement with the guide rods at their lower ends.

939,221. COMPUTING-MACHINE. JOHN M. DALY, Chicago, Ill. Filed Apr. 11, 1904. Serial No. 202,553.



1. In a device of the character described, a key, mechanism for limiting the stroke of said key, and means for automatically changing the position of said limiting mechanism after a predetermined number of strokes of said key, and thereby change the distance of stroke of said key.

2. In a device of the character described, registering mechanism, a key for operating said mechanism, mechanism for limiting the stroke of said key, and means for automatically changing the position of said limiting mechanism after a predetermined number of strokes of said key, and thereby change the distance of stroke of said key.

3. In a device of the character described, the combination of a plurality of numbering wheels, a plurality of keys each adapted when operated to actuate said numbering wheels, mechanism for limiting the stroke of each of said keys, and means for automatically changing the position of said limiting mechanism after a predetermined number of strokes of said keys, and thereby change the distance of stroke of said keys, said limiting mechanism being so arranged as to cause the numbering wheels to register and display a greater amount each time the position of said limiting mechanism is changed.

4. In a device of the character described, registering mechanism, keys for operating said mechanism, limiting means for said keys, mechanism for automatically changing the limiting means, and mechanism operated by the keys for controlling the change of said limiting means.

5. In a device of the character described, a key, means for regulating the length of stroke of said key when said key is being depressed, and means for automatically changing said regulating means, thereby allowing said key to be depressed a greater distance with each change of said regulating means.

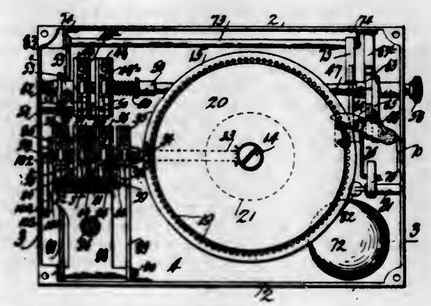
[Claims 6 to 63 not printed in the Gazette.]

939,222. TONNAGE-EQUATING MACHINE. JOHN M. DALY, Chicago, Ill. Filed Jan. 4, 1902. Serial No. 294,662.

1. In a device of the character described, registering mechanism, comprising a plurality of numbering wheels registering in uniform sequence, means for operating said mechanism, a member having a scale associated with said register operating means and serving as a guide to the operation of the same, and an adjustable member serving as a stop to limit the movement given to the register operating means.

2. A device for computing tonnage resistance of railway trains, comprising registering mechanism, means for operating said mechanism, a member having a series of indicating points comprising a tonnage scale, said series of points being marked by numbers serving as a guide in operating the registering mechanism by the operating means, and an adjustable member serving both as a means of limiting the movement given to the register operating means and as a guide for the computation of the resistance of trains hauled by engines having a different rating.

3. A device for computing tonnage resistance of railway trains, comprising registering mechanism, means for operating said mechanism, a member having a scale, said scale serving as a guide to the operation of the register operating means, an adjustable member serving both as a means of limiting the movement given to the register operating means and as a guide for the computation of the resistance of trains hauled by engines having a different rating.



4. In a computing machine, the combination with adding devices and means for operating the same, a numerical scale adjusted to a unit of rating and associated with said operating means, the numerals thereon representing gross weights of cars and contents, and means coöperating with the numbers on the scale and serving as a stop for the operating means, whereby when the operating means is moved from a point opposite certain numerals on the scale representing cars of less gross weight than the rating unit, to the stop, the adding devices will register an amount greater than said numerals, and when the operating means is moved from a point opposite certain numerals on the scale representing cars of a greater gross weight than the rating unit, to the stop, the adding device will register an amount less than said numerals.

5. In a device of the character described, the combination with register operating means, of a member containing a scale composed of characters based on a unit of rating, a rating chart associated with said scale, and a stop member for limiting the movement given to the register operating means, said stop member being arranged to coöperate with said rating chart.

[Claims 6 to 60 not printed in the Gazette.]

939,223. PROCESS FOR ELECTROLYTICALLY REMOVING IRON-OXID SCALE. CHARLES W. DANFORTH and NOBLE JONES, Sharon, Pa. Filed June 25, 1909. Serial No. 504,379.

1. The process of electrolytically removing iron-oxid scale from the surface of iron and steel, which consists in subjecting same as cathode to the action of an electric current, while submerged in a solution containing bisulfate of an alkaline metal in water.

2. The process of electrolytically removing iron-oxid scale from the surface of iron and steel, which consists in subjecting same as cathode, to the action of an electric current, while submerged in a solution containing an acid sulfate.

3. The method of removing iron-oxid scale from the surface of iron or steel, which consists of passing an electric current of the proper density to same as cathode from an electrolyte containing a solution of a bisulfate of an alkaline metal at a temperature of not less than 40° C.

4. The process of removing iron-oxid scale electrolytically from the surface of iron and steel, which consists in placing same in a solution containing a bisulfate of an alkaline metal in water, and of passing to the metal as cathode an electric current of not less than 7 amperes per square foot.

939,224. PROCESS OF ELECTROLYTICALLY REMOVING IRON-OXID SCALE. CHARLES W. DANFORTH and NOBLE JONES, Sharon, Pa. Filed Aug. 28, 1909. Serial No. 515,120.

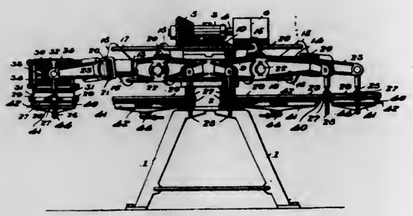
1. The process of electrolytically removing iron-oxid scale from the surface of iron and steel, which consists in subjecting same as cathode to the action of an electric current, while submerged in a solution containing bisulfate of an alkali metal dissolved in diluted sulfuric acid.

2. The process of removing electrolytically iron-oxid scale from the surface of iron and steel, which consists in subjecting same as cathode, to the action of an electric current, while submerged in a solution containing mineral acid and acid sulfate.

3. The electrolytic method of removing iron-oxid scale from the surface of iron and steel, which consists in passing an electric current of the proper density to same as cathode from an electrolyte containing bisulfate of an alkali metal dissolved in diluted sulfuric acid, at a temperature of not less than 40° C.

4. The process of removing iron-oxid scale electrolytically from the surface of iron and steel, which consists in placing same in a solution containing bisulfate of an alkali metal dissolved in diluted sulfuric acid, and of passing to same as cathode an electric current of not less than 7 amperes per square foot.

939,225. CONCRETE-BLOCK MACHINE. OLIVER H. DAVIS, Buffalo, N. Y. Filed Feb. 27, 1908. Serial No. 418,089.



1. In a centrifugal concrete block machine, the combination with a rotarily mounted frame, of mold supporting cradles pivoted to said frame for both outward and lateral swinging relative to said frame.

2. Ih a centrifugal concrete block machine, the combination with a rotarily mounted frame, of mold supporting cradles adjustably supported by said frame, whereby the molds may be positioned at different heights.

3. In a centrifugal concrete block machine, the combination with a rotarily mounted frame, of mold supporting cradles having adjustable pendent hangers pivoting them to the frame.

4. In a centrifugal concrete block machine, the combination with a rotarily mounted frame, of mold supports and hangers therefor which are adapted to permit swinging of the mold supports in a general vertical plane and pivotal connections between said hangers and the frame which are disposed in general upright arrangement at an angle to the horizontal whereby the mold supports will assume a general radial relation to the machine when it is at rest.

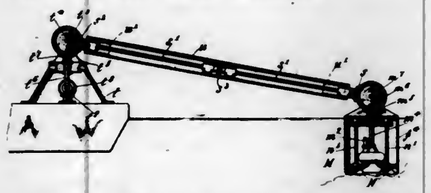
939,226. ADJUSTABLE PICTURE-HANGER. JOHN DEGAN, Roxbury, Mass. Filed Dec. 28, 1908. Serial No. 469,555.

As an article of manufacture, a picture frame hanger comprising a length of wire having an eye formed at one end and a threaded portion disposed upon the opposite end thereof for securing said length of wire to a frame. said wire being turned over at equi-distant points throughout its length to form a plurality of loops for adjustably engaging a cord for supporting the frame, the crossed portions of said length of wire forming said loops being spaced



apart to admit of the passage of the cord longitudinally of the same.

939,227. DREDGE. CHARLES W. DIEHL, New York, N. Y. Filed Nov. 11, 1908. Serial No. 462,003.



1. In a dredge, the combination of a movable excavating element, a stationary power-supply element, a boom connecting the two elements, means to transmit power along the boom from one element to the other and means to discharge the excavated matter from a point near the excavating element.

2. In a dredge, the combination of an excavating element including a pump, a stationary element having a source of power, means to maintain a constant distance between the two elements, and means to transmit power from one element to the other.

3. In a dredge, the combination of an excavating element including a pump, a stationary element having a source of power, a boom connecting the two elements, and means to transmit power along the boom from one element to the other.

4. In a dredge, the combination of a movable excavating element, a stationary power-supply element, a turntable upon the power-supply element, a boom connecting the two elements, means to transmit power along the boom from one element to the other and means to discharge the excavated matter from a point near the excavating element.

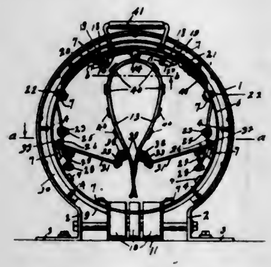
5. In a dredge, the combination of a movable excavating element, a stationary power-supply element, a boom pivotally related to the two elements, means to transmit power along the boom from one element to the other and means to discharge the excavated matter from a point near the excavating element.

[Claims 6 to 10 not printed in the Gazette.]

939,228. HOG-TRAP. JOHN DOBBY, St. Paul, Nebr. Filed Sept. 28, 1908. Serial No. 455,122.

1. In a machine of the class described, the combination of a support, comprising circular frame supporting members, an elongated circular frame revolubly mounted within said supporting members, and animal securing means mounted within said frame.

2. In a machine of the class described, the combination of a support, comprising circular frame supporting members, a circular frame revolubly mounted within said supporting members, animal securing means mounted within said circular frame, and mechanism for opening and closing said securing means.



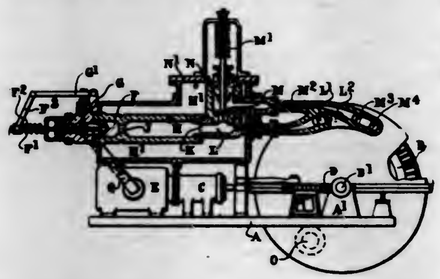
3. In a machine of the class described, the combination of a support, a revoluble frame mounted in said support, animal securing means of separable parts pivotally and slidably supported in said frame, means for separating such parts, and means for moving said securing means lengthwise of the frame.

4. In a machine of the class described, the combination of a support, a revoluble frame mounted in said support, a plurality of arms pivotally mounted within the inclosure of said frame, certain of said arms movable outwardly in one direction, while certain other of said arms are movable outwardly in the opposite direction, and means projecting from without said frame for actuating said arms.

5. In a machine of the class described, the combination of a support, a frame revolubly mounted in said support, a plurality of oppositely movable arms pivotally supported in said frame, mechanism for operating said arms to open and close the same, means for moving the arms lengthwise of the frame, and a head rest secured to said frame.

[Claims 6 to 31 not printed in the Gazette.]

939,229. INTERNAL-COMBUSTION GAS-TURBINE. GEORGE E. DOD, Maryborough, Queensland, Australia. Filed Dec. 2, 1907. Serial No. 404,726.



1. An internal combustion gas turbine comprising a combustion chamber having two passages leading from one end, nozzles at the outer ends of said passages, a valve controlling the communication of one passage with the combustion chamber, said chamber having an inlet passage at its other end, a valve controlling the passage, a compressed air reservoir communicating with said inlet passage, a fuel supply also communicating with said inlet passage, and means operated by the movement of the last named valve for opening the fuel supply to the passage.

2. An internal combustion gas turbine comprising a combustion chamber having a series of passages connected with one end thereof, nozzles at the outer ends of said passages, a valve in one passage, means for supplying compressed air and fuel to the other end of said combustion chamber, a water jacket surrounding the combustion chamber and secured to one end thereof and a stuffing box located between the other end of the jacket and the combustion chamber.

939,230. WOVEN FABRIC. THOMAS B. DORNAN, Philadelphia, Pa. Filed June 3, 1908. Serial No. 436,495.



1. A woven fabric comprising heavy figuring warp threads, a plurality of sets of light binding and figuring warp threads of different colors, figuring weft threads of different colors, and binding weft threads, the binding warp threads being arranged so that figuring weft threads of the same color are bound by binding warp threads of different colors in different repeats of the weave.

2. A woven fabric comprising heavy figuring warp threads, a plurality of sets of light binding and figuring warp threads of different colors, figuring weft threads outside of the heavy warp threads, and binding weft threads between the heavy warp threads, the binding warp threads being arranged so that figuring weft threads of the same color are bound by binding warp threads of different colors in different repeats of the weave.

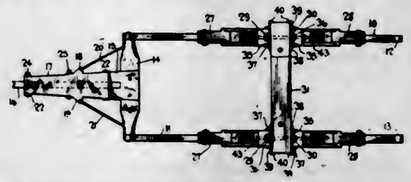
3. A woven fabric comprising heavy warp threads, binding weft threads between the heavy warp threads, light figuring and binding warp threads, and figuring weft threads outside of the heavy warp threads and bound by the binding warp threads, the weft threads being arranged, in some portions of the fabric, with two figuring weft threads and a binding weft thread in each loop of binding warp thread, and at other portions of the fabric with a pair of figuring weft threads in each alternate loop of binding warp thread and a single binding weft thread in each intermediate loop of binding warp threads.

4. A woven fabric comprising heavy figuring warp threads, binding weft threads between the heavy warp threads, figuring weft threads outside of the heavy warp threads, and binding warp threads, the weft threads being arranged with two figuring threads and a binding thread in a loop of binding warp threads, and at some portions of the fabric the two figuring weft threads in a loop being on opposite sides of the heavy warp threads, while at other portions both figuring threads are on the same side of the heavy warp threads.

5. A woven fabric comprising two sets of heavy warp threads, figuring weft threads above and below the heavy warp threads, and two sets of light binding and figuring warp threads, of which each set passes, at some portions of the fabric, alternately over and under the figuring weft threads and the binding weft threads, and, at other portions of the fabric, alternately over the figuring weft threads on the upper face of the fabric and under the figuring weft threads on the lower face of the fabric.

[Claims 6 and 7 not printed in the Gazette.]

939,231. SLED. JOSEPH Z. DUCHARME, Alcide, N. D Filed Mar. 31, 1909. Serial No. 487,025.



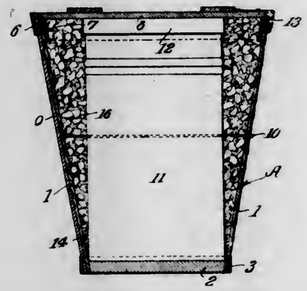
1. In a sled the combination with the runners, of knees connected to the runners and provided with transverse beam sockets, said sockets having vertical seats in their confronting faces, a beam bearing in said sockets, and combined wearing and holding plates each formed from a

single plate and located between the beam and knee, each plate having a rib bent therein and engaging in the adjacent socket seat and with ears bent laterally from the plate at the ends and bearing respectively against the opposite faces of the knees.

2. In a sled the combination with the runners, of knees connected to the runners and provided with transverse beam sockets, said sockets having vertical seats in their confronting faces, a beam bearing in said sockets, combined wearing and holding plates each formed from a single plate and located between the beam and knee, each plate having a rib bent therein and engaging in the adjacent socket seat and with a plurality of ears at the ends, two of said ears directed laterally and bearing against the opposite faces of the knees and the remaining ears bearing against the beam, and means for securing the last mentioned ears to the beam.

3. In a sled the combination with the runners, of knees connected to the runners and provided with transverse beam sockets, said sockets having vertical seats in their confronting faces and with transverse apertures communicating through the seats, a beam bearing in said sockets and provided with transverse recesses opposite said knee apertures, pins extending through said recesses and apertures, and combined wearing and holding plates each formed from a single plate and located between the beam and knee, each plate having a rib bent therein and engaging in the adjacent socket seat and with ears bent laterally from the plate at the ends and bearing respectively against the opposite faces of the knees.

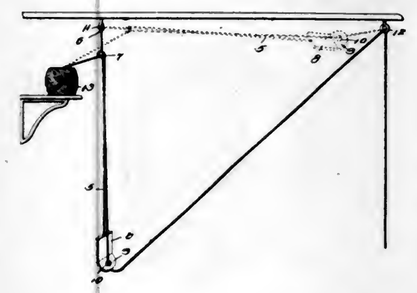
939,232. SHIPPING-PACKAGE. FREDERICK F. EAST, Baltimore, Md. Filed Aug. 18, 1908. Serial No. 449,013.



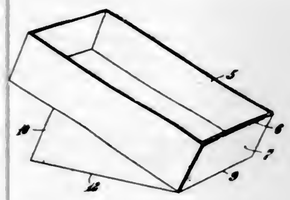
A shipping package of the character described, comprising an independent metallic receptacle, removably secured within an outer receptacle composed of a plurality of substantially vertically extended staves, having a circular bottom, means securing the ends of the staves around the bottom, with the adjacent edges of each stave overlapping that of the other, a pair of hoops having the opposite ends of the said staves secured thereinbetween, a metal hoop secured around the said staves at a point midway the length thereof, a plurality of substantially vertically extended staves exteriorly provided around the said first mentioned staves, and spaced predetermined distances apart, reinforcing the said first mentioned staves, a cover removably secured on the said receptacle, whereby the said first mentioned receptacle is removably positioned within the latter, substantially as described.

939,233. TWINE TAKE-UP. JOHN B. EASTMAN, Smethport, Pa. Filed Mar. 10, 1909. Serial No. 482,459.

A twine take-up comprising the combination with a supporting eye, of a pendent wire stem having a terminal eye engaging said supporting eye, said stem near said terminal eye having a coil and at its lower end a flat weight having a portion extending obliquely downward with the guide opening therein, and a twine guiding screw eye in spaced relation to said supporting eye, a twine to be carried through said coil, weight opening and said guiding screw eye, as and for the purpose set forth.



939,234. DISPLAY-BOX. ALBERT EICHHORN and JESSE EICHHORN, Philadelphia, Pa. Filed Jan. 26, 1909. Serial No. 474,396.



1. The combination of a box and a lid, the lid having an extension adapted to lie in a plane corresponding with the top of the box and having wedge shaped side portions substantially perpendicular thereto, the parts proportioned and related so that the lid will either close the box, or support the open box at the required inclination for display.

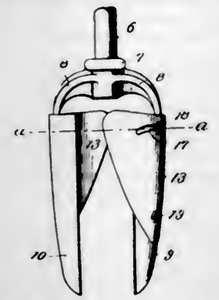
2. The combination of a box and a lid, the lid having an extension adapted to lie in a plane corresponding with the top of the box and having wedge shaped side portions and an end portion substantially perpendicular thereto, the end portion connected with the side portions, the parts proportioned and related so that the lid will either close the box, or support the open box at the required inclination for display.

3. The combination of a box and a lid, the lid having an extension adapted to lie in a plane corresponding with the top of the box, and having wedge shaped side portions and an end portion substantially perpendicular thereto, the parts having a double hinged connection so proportioned and related that the lid will cover and close the box in one position, while in another position the inclined side portions will lie beneath the box and support the same at the required angle for display.

4. The combination of a box and a lid, the lid having a main flat extension and side and end portions perpendicular thereto, the side portions having inclined edges, said lid portions having a flexible joint intermediate its extension and a flexible joint connection with the box, as and for the purpose specified.

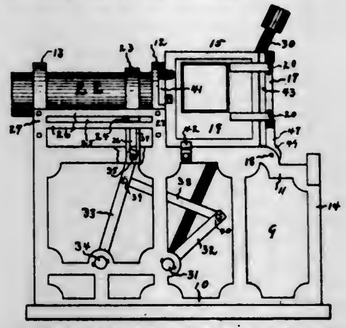
5. The combination of a box and a lid attached thereto, said lid comprising a flat extension and an open sided wedge shaped extension foldable around the side of the box and underneath the same to hold it in an inclined position.

939,235. ATTACHMENT FOR POST-HOLE AUGERS. EMANUEL EISENBRAUN, Tripp, S. D. Filed Mar. 27, 1908. Serial No. 423,602.



The combination with a post auger comprising two main segmental cutting blades tapering toward their lower ends, of auxiliary segmental cutting blades tapering toward their lower ends, means for connecting said auxiliary blades at their lower smaller ends to swing upon said main blades intermediate the ends thereof, and means for adjustably connecting said auxiliary blades at their upper ends to said main blades, whereby the cutting edges of said auxiliary blades extend obliquely across the cutting edges of the main blades.

939,236. CEMENT-BLOCK MACHINE. FRANKLIN J. EMAL and CHARLES P. HORN, Pickrell, Nebr. Filed Dec. 14, 1908. Serial No. 467,339.

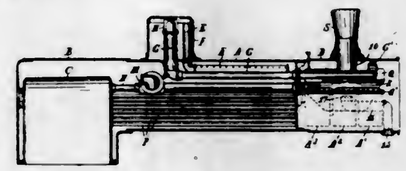


1. In a machine for molding blocks, the combination of a stationary frame; a plurality of mold plates mounted upon the frame to form a molding box with core openings in one of its sides; a pair of guides adjacently disposed and secured upon the frame; a pair of adjacent, hollow, cylindrical members seated within said guides and within said core-openings; a yoke intermediate said guides transversely secured upon the cylindrical members; means upon said yoke for causing a sliding movement of the cylindrical members within said guides and core openings.

2. In a machine for the purpose named, the combination with the frame; a molding box upon the frame and comprising side-plates and end-plates one of said side-plates being apertured; a pair of guides adjacently secured upon the frame; a longitudinal, tubular excavator seated within said guides and traversing said apertured side-plate; a slotted yoke intermediate said guides and secured upon said excavator; a lever having one of its ends mounted upon the frame, its opposite end engaging the slot of said yoke; means to actuate said lever to cause sliding movements of said longitudinal, tubular excavator while seated within said guides and apertured side-plates.

3. In a machine for molding blocks, the combination of a stationary frame having longitudinal, adjacent guides; a plurality of mold plates mounted upon the frame to form a molding box with core openings in one of its sides; a pair of adjacent, transversely-disposed guides secured upon the frame; a pair of adjacent, hollow cylindrical members seated within said transversely-disposed guides and within said core openings; a yoke intermediate the transversely-disposed guides and having a rigid mounting upon the cylindrical members and provided with end-portions engaging between the longitudinal, adjacent guides of said frame; means upon said yoke for causing sliding movements of the cylindrical members within said adjacent, transversely-disposed guides and within said core openings, said end-portions of the yoke engaging between said longitudinal, adjacent guides of the frame.

939,237. SUPERHEATER FOR LOCOMOTIVE-BOILERS. LEWIS E. FEIGHTNER, Lima, Ohio, assignor to Lima Locomotive & Machine Company, Lima, Ohio, a Corporation of Ohio. Filed Mar. 27, 1909. Serial No. 486,074.



1. In a fire-tube locomotive boiler having a superheater in its smokebox, and a cylinder near its rear end, the combination of a smoke-passage extending from the firebox directly to the smokebox and an outlet-pipe for conducting steam from the superheater to the cylinder, which pipe passes through the said smoke-passage, so that the heat of the gases to which the steam in said pipe is exposed increases as it approaches the cylinders.

2. In a tubular locomotive boiler, the combination, with the firebox, smokebox, and smoke-flues connecting the same, of a tubular superheater supported in the firebox, a smoke-passage extended directly from the firebox to the smokebox, a cylinder steam-pipe connected with the superheater outlet and extended through such smoke-passage, and thence laterally through the shell of the boiler, and a damper J for closing the smoke-passage when the steam is not required for the cylinders.

3. In a tubular locomotive boiler, the combination, with the firebox, smokebox, and smoke-flues connecting the same, of a tubular superheater supported in the firebox, a smoke-passage extended directly from the firebox to the smokebox, a cylinder steam-pipe connected with the superheater outlet and extended through such smoke-passage and thence laterally through the shell of the boiler, an annular damper fitted movably upon the cylinder pipe within the smokebox, and means for pressing the same toward the forward tube flue-sheet for closing the smoke-passage when the steam is not required for the cylinders.

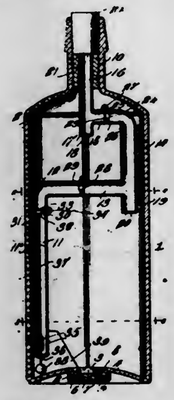
4. In a tubular locomotive boiler, the combination, with the firebox, smokebox, and smoke-flues P connecting the same, of a tubular superheater supported in the firebox the superheater having an inlet with connection to a steam supply-pipe, the gas or smoke-pipe L extended from the smokebox through the water-space of the boiler to the junction-box M, with the pipe N connecting such junction-box to the firebox, the flange W connecting the junction-box tightly with the barrel A of the boiler and having an opening through such barrel, the cylinder-pipe K connected with the superheater outlet and extended through the smoke-pipe L with gas-passage L' between the two pipes, and the elbow O extended from the cylinder-pipe within the junction-box to the outer side of the barrel.

5. In a tubular locomotive boiler, the combination, with the firebox, smokebox, and smoke-flues P connecting the same, of a tubular superheater supported in the firebox the superheater having an inlet with connection to a steam

supply-pipe, the gas or smoke-pipe L extended from the smokebox through the water-space of the boiler to the junction-box M, with the pipe N connecting such junction-box to the firebox, the flange W connecting the junction-box tightly with the barrel A of the boiler and having an opening through such barrel, the cylinder-pipe K connected with the superheater outlet and extended through the gas-pipe L with gas-passage L' between the two pipes, the elbow O connected with the cylinder-pipe K inside the junction-box by the joint K' and extended outside of the barrel for connection to the cylinder steam-chests, and the junction-box having an aperture 23 in the top with cover X bolted thereon for access to the joint K'.

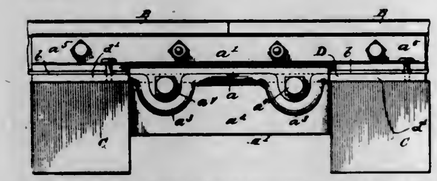
[Claim 6 not printed in the Gazette.]

939,238. NON-REFILLABLE BOTTLE. EDWARD FERGUSON, Washington, D. C. Filed Nov. 7, 1908. Serial No. 461,530.



A bottle having a hollow tubular element provided with a portion disposed in the neck of the bottle, said element having horizontally disposed portions and also provided with vertical portions connected with said horizontal portions and communicating therewith, a horizontally disposed hingedly connected valve in one of the vertical portions, vertically disposed oppositely swinging valves in the horizontal portions, said element having inlet passages communicating with the interior of the bottle adjacent to the bottom thereof, a depending weighted rod carried by the horizontally disposed valve, the horizontal portions of said element being disposed slightly above the lower ends of the vertical portions, and a liquid deflector disposed adjacent to the inlet passages and formed integral with one of the vertical portions of said element.

939,239. RAILWAY-RAIL JOINT. HENRY T. FISKE, East Cleveland, Ohio. Filed Sept. 28, 1908. Serial No. 455,131.



1. As a new article of manufacture, a forged railway-rail joint comprising a clamping member adapted to engage the rail-flange, and a downwardly projecting truss-plate integral with said clamping member, said joint being struck outwardly at intervals along the line of junction of said clamping member and truss-plate to form bosses.

2. As a new article of manufacture, a forged railway-rail joint comprising an integral plate struck up to form a V-shaped clamping member adapted to engage the rail-flange, and a downwardly projecting truss-plate continuous with the corresponding side of said clamping member, outwardly directed bosses being struck in said joint along the line of junction of said clamping member and truss-plate.

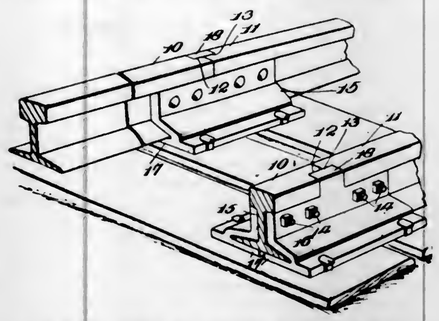
3. As a new article of manufacture, a forged railway-rail joint comprising an integral plate struck up to form a V-shaped clamping member, adapted to engage the rail-flange, and oppositely directed plates continuous with the corresponding sides of said clamping member and respectively constituting a fish-plate and a truss-plate for the joint, outwardly directed bosses being struck in said joint along the line of junction of said clamping member and truss-plate.

4. A railway-rail joint comprising a pair of integral plates, each struck up to form a V-shaped clamping member adapted to engage the respective rail-flanges, and a downwardly projecting truss-plate extending along the corresponding side of said clamping member, outwardly directed bosses being struck in said plate along the line of junction of said clamping member and truss-plate, and bolts adapted to draw said plates together, said bolts extending through oppositely positioned bosses of the respective plates.

5. A railway-rail joint comprising a pair of integral plates, each struck up to form a V-shaped clamping member adapted to engage the respective rail-flanges, and oppositely directed plates continuous with the corresponding sides of said clamping member and respectively constituting a fish-plate and a truss-plate for the joint, outwardly directed bosses being struck in said joint along the line of junction of said clamping member and truss-plate, and bolts adapted to draw said plates together, said bolts extending through oppositely positioned bosses of the respective plates.

[Claims 6 to 9 not printed in the Gazette.]

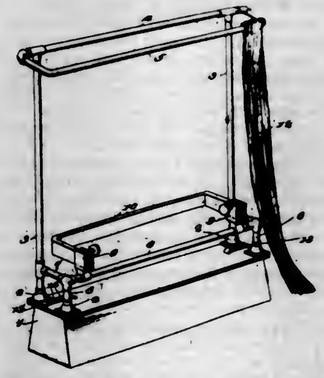
939,240. RAIL-JOINT. EDWARD J. FROST, Nottingham, Ohio, assignor of one-half to William Joite, Cleveland, Ohio. Filed Mar. 8, 1909. Serial No. 481,889.



1. In a rail joint the combination with adjacent rail ends having beveled faces on the outer sides thereof in the treads of the same, the beveled faces extending inwardly from the end of the rails a distance approximately equal to the width of the abutting ends of the treads of the rails, of fish-plates clamped against the sides of said rails, a flange upwardly extended intermediately of the upper edge of the outer of said fish-plates, a beveled face formed on said flange for bearing against the beveled faces on the treads of said rails, said flange on said fish-plate serving as a tread, and bases inwardly extended from the lower ends of said fish plates for engagement beneath the bases of said rails.

2. In a rail joint the combination with two rails having their tread portions cut-away in registered relation at the outer sides thereof, of fish-plates engaged against the opposite sides of said rail, a member projected upwardly from the outer of said fish-plates to bear in the cut-away portion, the member being of a length approximately twice the width of the abutting ends of the rails and bases carried by said fish-plates to engage beneath the rails.

939,241. FOLDING BED. CHARLES R. GARDNER, Aurora, Ind. Filed Jan. 7, 1909. Serial No. 471,198.



1. The combination of a base, uprights projecting from the base, a frame carried by the uprights and adapted to receive drapery, standards projecting from the base and connected to the uprights, a fulcrum rod connecting the standards, clamps pivoted upon the fulcrum rod, and a bed detachably engaged by the clamps and adapted to be swung into an upright position so as to be concealed by the drapery upon the before mentioned frame.

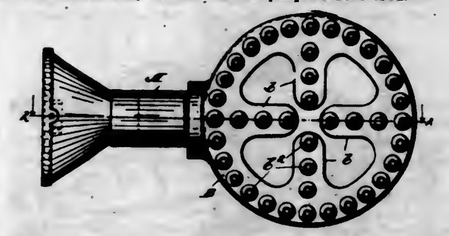
2. The combination of a base provided with sockets, upright rods projecting upwardly from the base and having their lower ends fitted within a portion of the sockets, a horizontal frame carried by the upright rods and adapted to receive drapery, standards projecting upwardly from the base and having their lower ends received within the remaining portion of the sockets, connecting means between the standards and the uprights, a fulcrum rod connecting the standards, clamps pivotally mounted upon the fulcrum rod, a bed detachably engaged by the clamps and adapted to be swung into an upright position so as to be concealed by the drapery upon the before mentioned frame, and slides upon the base for engaging the bed to lock it in an upright position.

3. In a device as specified the combination of a base, uprights projected from said base, a horizontal frame carried by said uprights, a drapery hung upon said horizontal frame to conceal the same and said base, standards projected in parallel forwardly of said uprights, a fulcrum rod carried by said standards, clamps disposed on said fulcrum rod in spaced relation, a bed detachably engaged upon said clamps and slides longitudinally mounted on said base for engagement with the lower end of said bed when the same is folded in a forward position to lock the same in such position.

939,242. GAS-BURNER. BERNARD A. GEURINK, East Cleveland, Ohio, assignor to The Trenkamp Stove & Manufacturing Company, Cleveland, Ohio, a Corporation of Ohio. Filed June 12, 1909. Serial No. 501,758.

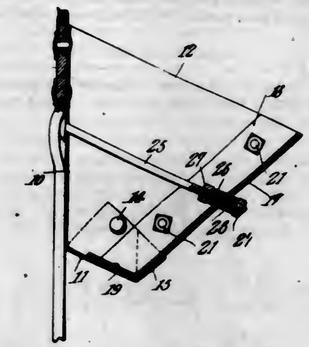
1. A gas burner comprising an outer annular chamber, and inwardly directed radial arms communicating therewith, said chamber and arms being provided with apertures for the escape of the gas therefrom, and the space between the ends of said arms and on either side thereof being left open, substantially as and for the purpose described.

2. A gas burner comprising an outer annular chamber, and radial arms extending inwardly therefrom toward the center of the burner, but out of contact with each other, whereby such center and the space on either side of said arms is left unobstructed, said chamber and arms being provided with apertures for the escape of the gas therefrom, substantially as and for the purpose described.



3. A gas burner comprising an outer annular chamber, radial arms extending inwardly toward the center of the burner but not meeting, whereby such center is left unobstructed, and other shorter arms located between aforesaid arms, said chamber and arms being provided with apertures for the escape of the gas therefrom, and the space between said arms being left open.

939,243. CONVEYER-BUCKET. JAMES B. GIBSON, Webb City, Mo. Filed Oct. 9, 1908. Serial No. 456,929.

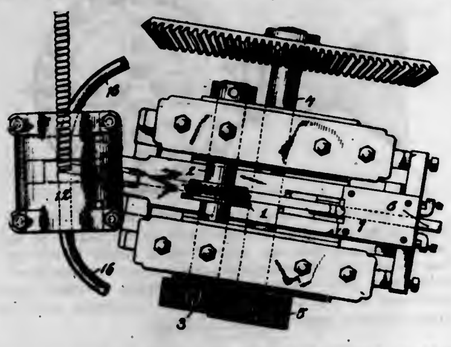


In a conveyer bucket, a body section formed of a single sheet of metal, and comprising a rear plate, a bottom and end members, the ends of the bottom being turned up to form flanges parallel with the end members, and the front of the bottom being bent upward to form a front flange, the ends of said front flange having wings that fit within the flanges of the bottom, securing means extending through openings formed in the end flanges, wings and end portions, a detachable front section formed of a single sheet of metal, and comprising a front plate, the opposite side edges of which are bent to form flanges that fit within the end portions of the body section, and a base flange arranged to rest on the bottom of the body section.

939,244. APPARATUS FOR MAKING SPIRAL TUBING. EDWIN T. GREENFIELD, Kiamesha, N. Y. Filed Apr. 29, 1908. Serial No. 429,846.

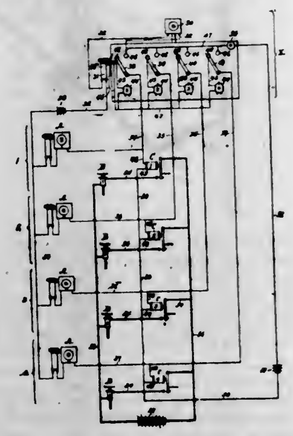
1. A machine for making spiral tubing having a pair of die-rollers for curving a strip laterally, a bending die having a circular opening therein the wall of which is provided with spirally-formed grooves and a plurality of grooves extending lengthwise of said opening and crossing said spiral grooves, a plurality of openings through the die leading to said lengthwise grooves, pipes communicating with said last-named openings, and an opening through said die leading to said spirally-grooved wall through which a strip may be forced into contact with said wall, substantially as set forth.

2. A machine for making spiral tubing having a pair of die-rollers for curving a strip laterally, a bending die having a circular opening therein the wall of which is provided with spirally-formed grooves and a plurality of grooves extending lengthwise of said opening and crossing said spiral grooves, a holder for said die formed to provide a



chamber between it and the die, pipes leading to said chamber, openings leading from said chamber to said lengthwise grooves, and an opening through said die leading to said spirally-grooved wall through which a strip may be forced into contact with said wall, substantially as set forth.

939,245. CREDIT SYSTEM. JACOB O. GREENWALD, Milwaukee, Wis. Filed Sept. 21, 1905. Serial No. 279,391.



1. In a credit system, a central station and a series of sub-stations, telephones at the sub-stations connected with the central station, annunciators at the central station for the sub-stations adapted to be operated from the respective sub-stations, a telephone at the central station, switch mechanism for connecting the telephone at the central station with the telephone at any of the sub-stations, check punching devices at the sub-stations having connection with the central station, and a circuit closer at the central station adapted to be placed into connection with the check punching device of any sub-station by the operation of the switch mechanism for connecting the telephone of that sub-station with the telephone of the central station, whereby the operation of the circuit closer will produce the operation of the check punching device of that sub-station which is in telephone communication with the central station.

2. In a credit system, a central station and a series of sub-stations, telephones at the sub-stations connected with the central station, annunciators at the central station for the respective sub-stations, switches at the central station for normally connecting the annunciators with the respective sub-stations so as to be operated therefrom, a telephone at the central station adapted to be substituted for the annunciator of any sub-station by the change in position of the switch for that sub-station, check punching devices at the sub-stations, a circuit closer at the central station having connection with said switches and adapted to be connected with the check punching device of any sub-station when the switch for that sub-station is in position to connect the telephone of said sub-station with the telephone of the central station, whereby the operation of the circuit closer will produce the operation of the check punching device of that sub-station having telephone communication with the central station.

3. In a credit system a central station and a series of sub-stations, telephones at the sub-stations, station wires connecting the telephones of the respective sub-stations with the central station, annunciators at the central station for the respective sub-stations, switches at the central station for normally connecting the annunciators with the station wires of the respective sub-stations so as to be operated from said sub-stations, a telephone at the central station adapted to be substituted for the annunciator of any sub-station by the change in position of the switch for that sub-station, relays at the sub-stations connected with the station wires thereof, a circuit closer at the central station having connection with the said switches and adapted to be connected with the relay of any sub-station when the switch for that sub-station is in the position to connect the telephone thereof with the telephone of the central station, whereby the operation of the circuit closer will produce the operation of the relay of that sub-station which has telephone communication with the central station, and a check punching device at each sub-station to be operated by the operation of the relay of that sub-station.

939,246. WHIP-SOCKET. RUDOLPH HABEKOST, Squirrel, Idaho. Filed Apr. 16, 1908. Serial No. 427,415.



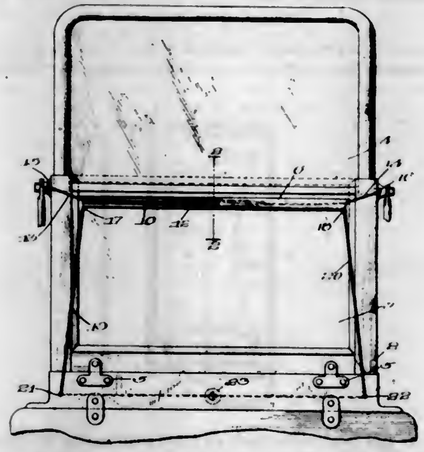
A whip socket comprising a casing, a stem slidable vertically within the casing, the casing being provided with a removable imperforate bottom, spacing elements projecting upwardly from the bottom and along the wall of the casing, a disk fixed on the upper end of the spacing elements, said disk being provided with a central aperture through which the stem passes, whip gripping members comprising each a shank which is connected at the upper end of the stem and an arcuate jaw which is formed to partly embrace the whip handle when received in the casing, means for holding the stem in lowered position, and means for guiding the shank and jaws of the gripping members comprising a cylinder having a frusto-conical opening therethrough provided in its walls with slots adapted to receive the shanks of the gripping members.

939,247. PIPE AND CLEANER THEREFOR. MELBURN A. HADCOCK, Stevens Point, Wis. Filed Apr. 27, 1908. Serial No. 429,371.



The combination with a pipe having an opening in the bowl thereof alining with the bore of the stem, of a cleaner for said pipe comprising a spiral wire having its convolutions adapted to lie in intimate contact with and throughout the bore of the stem and with the base of the bowl, and a plug fitting within said opening in the bowl and having its inner surface adapted to conform with the inner contour of said bowl, said plug being attached to the spiral cleaner and constituting the manipulating member therefor.

939,248. CLEANER. JOSEPH HADKA, Chicago, Ill. Filed May 2, 1908. Serial No. 430,449.



1. A surface cleaner comprising a hollow body, a spring therein, flexible cleaner-supporting members connected to said spring and projecting from said hollow body, and manually operable means for moving said body.

2. A cleaner having a scraping edge and a hollow body, oppositely disposed flexible devices projecting from said hollow body, and a normally contracted extensible member interposed between adjacent portions of the devices within the hollow body.

3. The combination of a cleaning device having a hollow body, a spring in said body, cords attached to said spring and extending from the ends of said cleaning device to the upper corners of a shield to be cleaned, cords attached to the ends of said cleaning device and extending to the lower corners of said shield, and means to permit of pulling the last mentioned cords.

939,249. CAR-MOVER. RANDOLPH F. HAGEMAN, New Madison, Ohio. Filed July 17, 1909. Serial No. 508,188.

1. A car-mover comprising a shoe arranged for engagement with the rail, having a pair of downwardly projecting lugs for preventing any lateral displacement thereof, an anti-friction roller journaled in the forward extremity of said shoe adapted to simultaneously engage the car wheel and the rail, a lever fulcrumed at the rearward extremity of said shoe, a wheel engaging block carried by said shoe above said roller, and means carried by said lever for actuating said block.

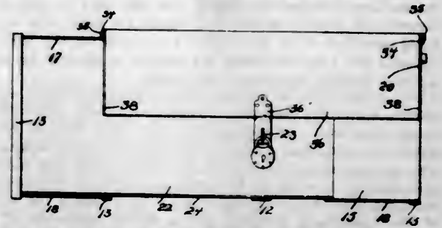


2. A car-mover comprising a shoe, having outwardly projecting lugs to engage the head of a rail, an anti-friction roller journaled in the forward extremity of said shoe adapted to simultaneously engage the car wheel and the rail, a lever pivoted at the rear extremity of said shoe, a wheel-engaging block secured to the extremity of said lever through the instrumentality of a toggle-joint, and an anti-slipping device carried on the lower face of said shoe adapted to engage the rail in rear of said roller and co-operate with the latter to support said shoe upon the rail.

3. A car-mover comprising a shoe, having outwardly projecting lugs to engage the head of a rail, an anti-friction roller journaled in the forward extremity of said shoe adapted to simultaneously engage the wheel and the rail, a lever pivoted at the rear extremity of said shoe, a wheel-engaging block carried by said shoe above said roller and secured to the extremity of said lever through the instrumentality of a toggle joint, and a tri-angularly formed adjustable anti-slipping device carried on the under face of said shoe in rear of said roller and adapted to coöperate with the latter to support said shoe on said rail.

4. A car mover comprising a shoe having a pair of oppositely disposed lugs adapted to engage the head of a rail, an antifriction roller journaled in the forward extremity of said shoe and adapted to simultaneously engage the wheel and rail, a lever pivoted to the rear extremity of said shoe, a wheel engaging block supported in said shoe above said roller and having a rounded face to engage said wheel, said block being connected to the extremity of said lever through the instrumentality of a toggle joint, and a detachable antislipping device projecting from the bottom face of said shoe in rear of said roller and adapted to co-operate with the latter to support said shoe on said rail.

939,250. FOLDING CRATE. JOHN I. HALL, East Worcester, N. Y. Filed Feb. 17, 1909. Serial No. 478,396.



1. The combination with a back, of a stub bottom section, two stub side sections extending from said back section, a folding bottom section pivotally held between the ends of said stub side sections, the edges of said folding side sections being flush with the face of said bottom when said bottom is in a folded condition, a folding end section secured to each of said stub end sections, a front panel hingedly connected to said folding end sections, and a partition secured to said back and working above said stub bottom section and arranged to be secured to said front panel.

2. The combination with a back, of a stub bottom section secured to said back, two stub side sections extending from said back and being also secured to said stub bottom section, said side sections extending beyond said bottom section, a bottom section pivotally secured between said side sections, bottom supporting flanges secured to the lower edges of said stub side sections, a hingedly connected

side section secured to each stub side section, a front panel pivotally secured to each hingedly connected side section, bottom supporting flanges secured to each of said hingedly connected side sections and a two-part folding lid secured to said back section.

3. The combination with a back, of a stub bottom section extending from said back, two stub end sections extending from said back, said end sections projecting beyond said stub bottom section, a folding bottom section pivotally held between said stub end sections, a folding end section secured to each of said stub end sections, a front panel pivotally secured to said folding end sections, means carried by said folding end sections to support said bottom, and a two-part lid secured to said back section.

4. The combination with a back, of a stub bottom section, two stub side sections extending from said back section, the vertical edges of said side sections being reinforced by channel-forming sheet metal bindings, a folding bottom section pivotally held between the ends of said stub sections, the edges of said folding side sections being flush with the face of said bottom when said bottom is in a folded condition, a folding end section, the opposite vertical edges of which are reinforced by channel-forming sheet metal bindings, links within said channels securing said end sections, a front panel hingedly connected to said end sections by means of a link, and a partition secured to said back and working above said stub bottom section, as and for the purpose set forth.

939,251. KITCHEN UTENSIL. FRANK H. HAMBLIN, Worcester, Mass. Filed Dec. 14, 1908. Serial No. 467,529.



1. As an article of manufacture, a circular foraminous plate having its edges upturned and forming an integral circumferential wall surrounding the same, a handle pivotally mounted on the inner side of said wall below the top thereof and adapted to project over and rest on the top thereof and capable of swinging inside the wall, said wall being provided with an inward projection on the inside opposite the point at which the handle is pivoted for removably holding the end of the handle.

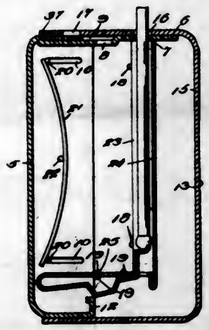
2. As an article of manufacture, a kitchen utensil comprising a circular foraminous plate, continuous circumferential side walls extending from the edge thereof constituting an integral continuation of the foraminous material, a sheet metal binding on the edge of the side walls, said binding having an inwardly projecting circumferential bead near the outer edge thereof for clamping the edge of the foraminous material, and a handle consisting of a single piece of wire of substantially the same length as the diameter of said plate pivoted to the circumferential side wall, whereby when swung over on its pivots inside the utensil, the end of the handle will engage under the bead on the opposite side and be removably held in position therein.

3. As an article of manufacture, a kitchen utensil comprising a circular foraminous plate, continuous circumferential side walls extending from the edge thereof constituting an integral continuation of the foraminous material, a sheet metal binding on the edge of the side wall, said binding having an inwardly projecting circumferential bead near the outer edge thereof for clamping the edge of the foraminous material, a sheet metal plate fixed to said sheet metal binding and having two perforated ears thereon inside said binding, and a handle consisting of a single piece of wire the opposite ends thereof being offset from the handle and forming pivots in the perforations of said ears and said handle being of substantially the same length as the diameter of said plate, whereby when swung over on its pivots inside the utensil, the end of the handle will engage under the bead on the opposite side and be removably held in position therein.

4. As an article of manufacture, a kitchen utensil having on the inner surface thereof near the edge a plate having two inwardly extending perforated ears and provided with a handle having a main body in a plane, and a pair of outwardly extending projections below said plane, said projections extending through said perforations, whereby the handle can be swung outwardly on its pivots and the body thereof will engage the edge of the utensil so as to serve for supporting the same and whereby the handle can be swung over into the utensil and will then occupy a position at a distance from the edge thereof.

5. As an article of manufacture, a kitchen utensil having near the edge thereof two inwardly projecting perforated ears, and a handle comprising a body substantially in a plane provided with two legs projecting at right-angles to said plane at one end of the handle, said legs having integral projections in alinement entering said perforations, whereby said handle is pivotally mounted on the inside of the edge of the utensil and when swung outwardly it will engage the edge of the utensil to form a fulcrum and when swung inwardly will be located at a distance from said edge.

939,252. AUTOMATIC MATCH-BOX. JOHN G. HANNA, Austin, Tex. Filed Apr. 10, 1909. Serial No. 489,048.

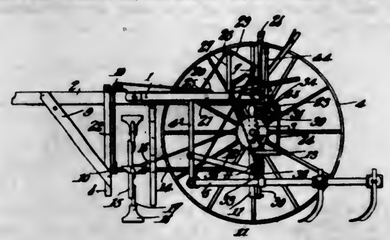


1. The combination with an outer shell having an escape opening and a channel extending from said opening, of a spring held ejector carried by said shell having a lifting head within said channel, an inner shell telescoping into said first mentioned shell having an upstanding lip arranged to contact with said ejector, two pins carried by said outer shell and held within slots of said inner shell, a pin carried by said inner shell, and a spring held between said pins, to normally hold said shells apart.

2. A match box having in combination, an outer shell provided with an escape opening, a plate having a match-receiving channel registering with said opening, a bottom extending from said channel having an opening and being continued in a spring arm having an extending stem ending in a head held within said bottom opening, an inner shell telescoping within said first mentioned shell and having an upstanding lip arranged at times to contact with said spring arm, and means to hold said shells in a protracted spring held position.

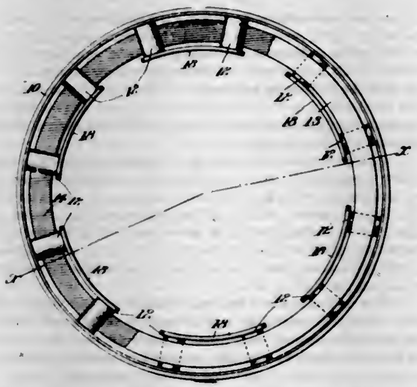
3. A match box having in combination, an outer shell provided with an escape opening, a plate having a match receiving channel registering with said opening, a bottom extending from said channel having an opening and being continued in a spring arm having an extending stem ending in a head held within said bottom opening, and an inner shell telescoping within said first mentioned shell with an upstanding lip to contact with said spring arm, all arranged substantially as and for the purpose set forth.

939,253. COTTON-CHOPPER. IRVIN F. HARRIS, Forreston, Tex. Filed May 21, 1909. Serial No. 497,379.



In combination with a wheel-mounted frame, a chopper comprising guides depending from the frame, members slidably mounted in the guides, a shaft journaled for rotation in the members, a disk adjustably mounted upon the shaft, hoe-blades mounted upon the disk, a shaft journaled for rotation upon the frame, wheels fixed to the last said shaft, chains adapted to wind upon the said wheels in opposite directions, and being connected with the members slidably mounted in the guides, a lever mechanism mounted upon the frame, a chain connected at one end with the said lever mechanism and adapted to wind about the axis of the said shaft which is journaled upon the frame, a vertically disposed shaft journaled upon one of the said guides, a pinion slidably mounted upon the last said shaft and operatively engaging the first said shaft, a shaft transversely journaled with relation to the frame, means operatively connecting the last said shaft with the said vertically disposed shaft, means operatively connecting the said transversely disposed shaft with the supporting wheels of the frame, the last said means including clutch members, a lever fulcrumed upon the frame, and rods operatively connecting said lever with the said clutch members, the said rods at their inner ends being pivotally connected with the lever at opposite sides of the fulcrum point thereof.

939,254. FIFTH-WHEEL. JOHN HERBY, Jamestown, N. Y. Filed Dec. 4, 1908. Serial No. 465,976.



1. In a fifth-wheel, the combination of an outside circular band or strip, a series of pins or spindles fixed thereto and projecting radially from the inner side thereof, supporting means for the inner ends of said pins, rollers loosely mounted on the pins, and ring-tracks with which the rollers engage, said rollers having a diameter in excess of the width of said inner supporting means whereby the ring-tracks may be moved radially over the rollers and past the vertical plane of said supporting means in response to irregularities in the ring tracks.

2. In a fifth wheel, the combination of an outside band or circular strip, a series of pins or spindles fixed thereto and projecting radially from the inner side thereof, independent segmental plates on the inner ends of the pins or spindles and each connecting the pins or spindles in groups, and rollers loosely mounted on the pins or spindles said rollers having a greater diameter than the width of the segmental plates, whereby the ring tracks move radially over the rollers and edges of the plates in response to irregularities in the ring tracks.

3. In a fifth wheel, the combination of an outside band or circular strip, pins or spindles fixed thereto and projecting radially from the inner side thereof, said pins or spindles having their outer ends reduced to form shoulders which abut against the inner surface of the outside band and said reduced portions of the pins being passed through said band and fixed thereto, rollers loosely mounted on the pins, ring-tracks rotatably mounted on said rollers, and independent segmental plates connecting the inner ends of the pins or spindles in groups, said pins or spindles having their inner ends reduced to pass through the plates and to be fixed therein and to form shoulders which abut against the inner side of said plates, and said plates having a width less than the diameter of the rollers to permit the ring tracks to slide radially to compensate for irregularities therein.

4. An improved fifth-wheel comprising an annular series of rollers, means for supporting the inner and outer ends of said rollers, and hubless, substantially narrow, annular track-rings adapted to operate over the rollers, said inner roller supporting means having a width less than the diameter of the rollers whereby the ring-tracks may move over the edges of said inner supporting-means to compensate for irregularities in said ring-tracks.

939,255. PURSE OR BAG FRAME. CHRISTIAN HIERING and ALBERT FULLER, Newark, N. J., assignors to J. E. Mergott Company, Newark, N. J., a Corporation of New Jersey. Filed Mar. 10, 1908. Serial No. 420,212.



1. In a bag or purse frame, the combination with a pair of frame sections, of an edge or bead strip connected with one of said frame sections, said strip having a centrally cut-away portion to limit the upward movement of the catch, bearings formed integrally at the inner end of said cut-away portion of said strip, a spring actuated catch provided with cylindrical end trunnions pivotally connected with said bearings and in normal retaining contact with said cut-away portion of such edge or bead strip.

2. In a bag or purse frame, the combination of a pair of hinged frame members with a U-shaped strip secured to the end of one of said members and overlapping the other member, said strip being provided with a central lateral recess to limit the upward movement of the catch, integral ears adjacent to the ends of said recess and bent over to form bearings, a catch member located in said recess, cylindrical trunnions at the ends of said catch for pivotal engagement with said bearings, and projections on said catch for engagement with the wall of said strip to limit its oscillatory movement.

3. In a bag or purse frame, the combination of a pair of hinged frame members with a U-shaped strip secured to the end of one of said members and overlapping the other member, said strip being provided with a central lateral recess to limit the upward movement of the catch, integral ears adjacent to the ends of said recess and bent over to

form bearings, a catch member located in said recess, cylindrical trunnions at the ends of said catch for pivotal engagement with said bearings, a torsion spring lying in a groove in said catch and concentrically secured in the axes of said trunnions and having one extremity thereof secured in the channel of said strip against rotation.

939,256. BAG-FASTENER. CHRISTIAN HIERING and ALBERT FULLER, Newark, N. J., assignors to The J. E. Mergott Company, Newark, N. J., a Corporation of New Jersey. Filed Dec. 14, 1908. Serial No. 467,386.



1. In a bag fastener, the combination of a chambered cap, a single independent locking member slidably secured within said cap, means arranged above the cap and secured to the locking member for operating and permitting independent movement of the same, and a spring located within the cap and adapted to bear upon said locking member to retain it in a locked position.

2. In a bag fastener, the combination of a bag frame comprising a pair of hinged members, a chambered cap secured to one of said members, a single locking member slidably secured within said cap, said locking member being provided with notches in its front wall, means arranged above the cap and secured to the locking member for operating and permitting independent movement of the same, a spring located within the cap, and a locking clip rigidly secured to the other frame member for engagement with said locking element.

3. In a bag fastener, the combination of a chambered cap provided with slots in its upper side, a locking member located in said cap, means slidably arranged above the cap, and provided with means passing through the said slots for operating and permitting independent movement of the locking member, and a spring located within the cap and adapted to bear upon said locking member to retain it in a locked position.

4. In a bag fastener, the combination of a chambered cap provided with slots in its upper side, a locking member located within said cap, means slidably arranged above the cap, and provided with means passing through the said slots and slidably secured to said locking member for operating the same, and a spring located within the cap and adapted to bear upon said locking member to retain it in a locked position.

5. In a bag fastener, the combination of a chambered cap notched in its front wall and slotted in its upper wall, a single independent notched locking member slidably secured within said cap, means slidably arranged above the cap and provided with means passing through the slotted upper wall and slidably secured to said locking member for operating and permitting independent movement of the same, and a spring located within the cap and adapted to bear upon said locking member to maintain it in a locked position.

[Claim 6 not printed in the Gazette.]

939,257. BAG-FASTENER. CHRISTIAN HIERING and ALBERT FULLER, Newark, N. J., assignors to The J. E. Mergott Company, Newark, N. J., a Corporation of New Jersey. Filed Dec. 14, 1908. Serial No. 467,387.

1. In a bag fastener, the combination of a chambered base and a catch member having a spring integrally formed therewith, one limb of said catch member fulcrumed and extending through a cut-away portion in the rear wall of said base, the other limb of said catch member extending through a cut-away portion in the front wall of said base.

2. In a bag fastener, the combination of a base having a chamber in its underside, and having a portion of its front and rear walls cut-away, and a catch member having a spring integrally formed therewith fulcrumed and extending through the cut-away portion in the rear wall of said base, the other limb of said catch member extending through the cut-away portion in the front wall of said base.

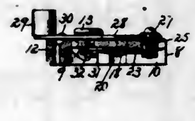


3. In a bag fastener, the combination of a chambered base, a catch member having a spring integrally formed therewith, one limb of said catch member fulcrumed and extending through a cut-away portion in the rear wall of said base, the other limb of said catch member extending through a cut-away portion in the front wall of said base, and integral spring tongues formed on said catch member designed to bear against the upper and inner surface of the chambered base.

4. As a new article of manufacture, a catch member consisting of a piece of metal having a spring integrally formed therewith, inturned spring tongues cut away from the body of said piece of metal and integral flanges extending from said piece of metal.

5. As a new article of manufacture, a catch member having a spring integrally formed therewith and integral limbs extending from said catch member.

939,258. ELECTRIC SWITCH. FREDRICK HOERLE, Plainville, Conn. Filed Nov. 12, 1907. Serial No. 401,800.



1. A base, secondary contacts arranged thereon, a switch arm and a post pivotally united to permit engagement of the arm with either of the contacts, said post having retaining means arranged to disengage by a movement of said post in a line transversely to its axis to disengage it from the base, means for retaining the post in position on the base, a primary contact, and connections between said post and primary contact.

2. A base, secondary contacts arranged thereon and having openings facing each other, a switch arm and a post pivotally united to permit engagement of the arm with either contact, said post having retaining means arranged to be disengaged by a movement of said post in a line transversely to its axis to disengage it from the base, a primary contact, and connections between said post and primary contact.

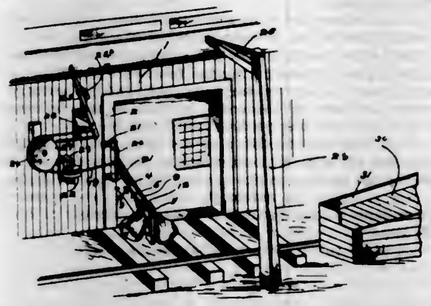
3. A base having a slot extending from its edge, secondary contacts mounted on the base, a switch arm and a post pivotally united, said post fitting said slot, means for retaining the post in the slot, a primary contact, and connections between said post and primary contact.

4. A base having secondary contacts, a switch arm and a post pivotally united, said post being removably attached to the base, a primary contact, and a toe projecting from said post to continuously connect with said contact when the post is in place.

5. A base, secondary contacts mounted thereon, a switch arm and a post pivotally united, said post projecting through the base and removably secured thereto, a toe secured to the post and projecting therefrom underneath the base, and a primary contact located underneath the base in position to continuously touch said toe when the post is in place.

[Claims 6 to 12 not printed in the Gazette.]

939,259. MAIL-DELIVERING APPARATUS. JOHN T. HOWARD, South Bend, Ind. Filed Mar. 19, 1909. Serial No. 484,388.



1. A mail bag delivery apparatus comprising a bar having a pivotal connection with a doorway of a car, a bag-supporting lever pivotally connected to one end of said bar, a trip lever for holding the supporting lever in a bag holding position, a rocking lever carried by the car, a cable connection between the trip lever and the rocking lever, and means for actuating the rocking lever to cause the trip lever to release the bag-supporting lever.

2. A mail bag delivery apparatus comprising a bar having a pivotal connection with a doorway of a car, a bag-supporting lever carried by one end of said bar, a trip lever also carried by said bar and normally holding the supporting lever in a bag-holding position, a lever carried by the inner end of the bar, a rod connection between the trip lever and the lever at the inner end of the bar, a rocking lever carried by the car, a connection between the rocking lever and the lever at the inner end of the bar, and means for actuating the rocking lever to cause its connections to release the trip lever from its supporting lever holding position.

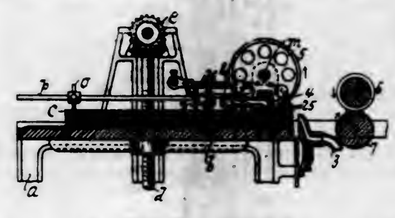
3. A mail bag delivery apparatus comprising a bar having an intermediate hinge connection with the doorway of a car, a bag supporting lever carried by one end of the bar, a trip lever supported by the bar adjacent to the supporting lever and provided with a rest shoulder for holding the supporting lever in a bag-holding position, a rocking lever carried by the car, a connection between the rocking lever and the trip lever, and means for actuating the rocking lever to remove the trip lever from its bag lever supporting position.

4. A mail bag delivery apparatus comprising an angular arm carried by a doorway of a car, a delivery bar provided with an intermediate socket with which said arm engages, said lever being provided with a cut-away forwardly extending portion, a trip lever pivotally connected with the end of said extending portion, a bag-supporting lever engaged with the bottom edge of the bar and held in a bag-holding position by the trip lever, a vertically disposed lever carried by the other end of said bar, a rocking lever carried by the exterior of the car and having a cable connection with the vertically disposed lever, a rod connection between the last mentioned lever and the trip lever, and means for actuating the rocking lever to exert a pull upon the cable and the rod to cause the trip lever to release the bag-supporting lever.

5. A mail bag delivery apparatus comprising a bar having a pivotal connection with the doorway of a car and adapted to be swung on its pivot with one end projecting exteriorly of the car, the exterior end of the bar being cut-away on its bottom portion, a trip lever pivotally connected to the upper edge of the exterior end of the bar, said trip lever being provided with an intermediate stop shoulder for contacting with the bar to limit the movement of said lever in one direction and also provided with a bottom rest shoulder, a bag-supporting lever pivotally connected with the inner end of the cut-away portion of the bar and normally held in a bag-holding position by the rest shoulder of the trip lever, a vertically disposed lever carried by the inner end of the bar, a rod connection between the trip lever and the vertically disposed lever, a rocking lever carried by the car, a cable connection between the rocking lever and the vertically disposed lever, and means for actuating the rocking lever to impart a pull on the cable and rod to cause the trip lever to release the bag-supporting lever.

[Claim 6 not printed in the Gazette.]

939,260. AUTOMATIC PAPER-FEEDER. JOSEPH HAEN, Brooklyn, N. Y. Filed Dec. 19, 1908. Serial No. 468,334.



1. In a machine of the class described a suction tube for lifting sheets, means for setting the tube to open and to closed position a stop pawl for arresting the setting means and a chain with lugs for releasing the stop pawl, said chain having sections which can be removed or inserted as required by sheets of varying lengths.

2. In a machine of the class described a suction tube adapted to be set into open and closed position, a screw threaded sleeve engaged by and lengthwise movable on the tube, a pinion or sprocket having frictional engagement with the screw threaded sleeve and carried lengthwise thereby to engagement with the tube to rotate and set the latter, and a stop pawl for arresting the rotation of the screw threaded sleeve to allow the rotation of the tube to move the sleeve with sprocket free from the tube and arrest its rotation.

3. In a machine of the class described a suction tube adapted to be rotatively set into open and closed position, a screw threaded sleeve engaged by the tube and movable along the same, a shoulder or collar on the tube, a pinion or sprocket in frictional engagement with the sleeve and moved thereby to engage the collar to rotate the tube, and a stop pawl to arrest the rotation of the sleeve for the rotation of the tube to longitudinally move the sleeve with the sprocket clear of the shoulder.

939,261. MACHINE FOR CONTOURING CROWN-MATRICES. FERNANDO O. JAQUES, Jr., Cranston, R. I., assignor to Central Tool Company, a Corporation of Rhode Island. Filed Jan. 29, 1909. Serial No. 475,027.

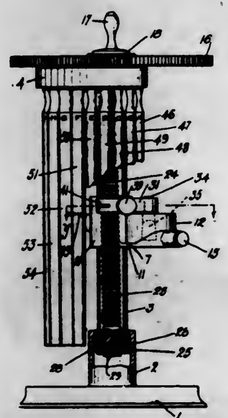
1. In a machine for contouring crown matrices, the combination with a flask for fused metal, of means for supporting a tooth model within the flask, and means for imparting radially oscillating and vertically reciprocating movement to the model supporting means.

2. In a machine for contouring crown matrices, the combination with a flask for fused metal, of a frame, means upon the frame for supporting a tooth model within the flask, and means upon the frame for imparting radially oscillating and vertically reciprocating movement to the model supporting means.

3. In a machine for contouring crown matrices, the combination with a flask for fused metal, of a frame, means mounted in the frame for supporting a tooth model within the flask, and means upon the frame engaging the supporting means for imparting radially oscillating and vertically reciprocating movement to the model supporting means.

4. In a machine for contouring crown matrices, the combination with a flask for fused metal, of a frame, means mounted in the frame and radially and vertically movable therein for supporting a tooth model within the

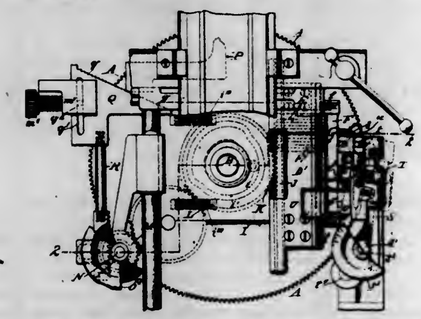
flask and means upon the frame for imparting continuous oscillating and reciprocating movement to the supporting means.



5. In a machine for contouring crown matrices, the combination with a frame, of a rod pivotally mounted at its lower end in the frame, means upon an intermediate portion of the rod for holding a tooth model, and means upon the frame engaging the upper end of the rod for oscillating the rod.

[Claims 6 to 27 not printed in the Gazette.]

939,262. LINOTYPE-MACHINE. FRANK JOHANNESEN, Erie, Pa., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Apr. 8, 1908. Serial No. 425,920.



1. In a mold for a line-casting machine, a cap portion, a series of liners movable transversely to the cap, spring-actuated means for advancing the liners against the cap, means for holding the liners away from the cap, and controllable means for determining the number of liners to be placed in each position: whereby the length of the mold slot may be varied at will.

2. In a slotted mold for a line-casting machine, a cap portion and means for moving the same transversely of the slot to vary the thickness of the slug, in combination with a body portion, a series of liners slidable transversely of the slot, spring-actuated means for advancing the liners toward the cap, and controllable means for holding a predetermined number of liners away from the cap; whereby any desired number of liners may be caused to serve as one wall of the mold slot, and the remaining liners caused to limit the length of the slot.

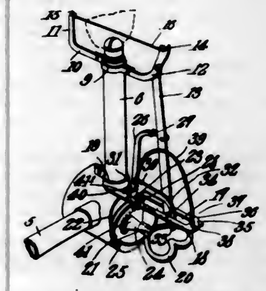
3. In combination, the mold cap, the mold body, the series of sliding liners, the reciprocating plate I adapted to advance and retract the liners, springs tending to disengage the liners from the plate, and controllable means whereby any desired number of liners may be connected with the plate.

4. In combination with a revolving disk, a slotted mold secured thereto and including a series of sliding liners for changing the length of the slot, means for automatically operating said liners during the rotation of the disk, and controllable devices to vary the action of the automatic means; whereby the automatic mechanism may be caused to give the mold any predetermined length.

5. In combination with a rotary disk, the slotted mold including the sliding liners, a sliding plate to advance and retract the liners, springs tending to advance said plate, a cam to effect its automatic retraction, and manually controllable means for determining the number of liners advanced.

[Claims 6 to 11 not printed in the Gazette.]

939,263. SELF-CLOSING GAS-BURNER. CARL A. JOHNSON, Tolar, N. Mex., assignor of one-fifth to John T. Coleman, Tolar, N. Mex. Filed Mar. 9, 1909. Serial No. 482,293.



1. In a device of the class described, a valve-actuating member upon the stem of the valve, a spring operatively connected with the said member for actuating the same, a detent for holding the valve-actuating member in operative position, an arm to which the detent is pivoted, a thermostatic element connected to the arm, and a member engaged by the arm and having connection with the detent, movement of the arm in one direction serving to move said detent out of engagement with said valve-actuating member through the medium of the member connected with said detent.

2. In a device of the class described, a burner valve, a valve-actuating member loose upon the stem of the said valve, a spring operatively connected with the said member for actuating the same, a finger upon the stem of the valve, said valve-actuating member having a lug engaged by the said finger when the valve is moved to open position, a detent holding said valve-actuating member in position when so moved, and an arm to which the detent is pivoted, a thermostatic element connected to the arm, and a member engaged by the arm and having connection with the detent, movement of the arm in one direction serving to move said detent out of engagement with the said valve-actuating member through the medium of the member connected with said detent.

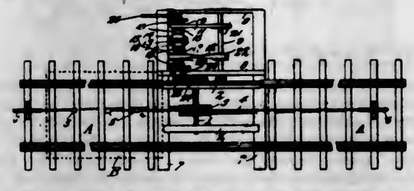
3. In a device of the class described, a burner valve, a valve-actuating member loose upon the stem of said valve, a spring operatively connected with the said member for actuating the same, a finger upon the stem of the valve adapted to engage with the valve-actuating member whereby to move the same to operative position when the valve stem is turned in one direction, a detent holding said valve-actuating member in operative position when so moved, a member to which the detent is pivoted, a thermostatic element connected to the said member, and a compensating member engaged by the member and having connection with the detent, movement of the member in one direction serving to move said detent out of engagement with said valve-actuating member through the medium of the compensating member.

4. In a device of the class described, a burner valve, a valve-actuating member loose upon the stem of said valve, a spring operatively connected with said member for actuating the same, an arm, a thermostatic element connected with the arm, a detent engaging with the valve-actuating member when the same is in one position, whereby to hold the same in operative position, and a member pivoted to the detent and engageable at a number of points with the said arm, movement of the arm in one direction serving to move the detent out of engagement with the valve-actuating member through the medium of the compensating member.

5. In a device of the class described, a burner valve, a valve-actuating member loosely mounted upon the stem of the valve, a finger upon the valve stem engageable with the valve-actuating member, whereby to move the same to operative position when the stem is turned in one direction, a pivoted arm, a thermostatic element connected with the arm, a detent pivoted to the arm and engaging with the valve-actuating member to hold the same in operative position, and a member pivoted to the detent and having frictional engagement with the arm, rocking of the arm in one direction through expansion or contraction of the thermostatic element serving to disengage said detent from said valve-actuating member through the medium of the member pivoted to the detent.

[Claims 6 and 7 not printed in the Gazette.]

939,264. CARRIAGE-OPERATING MECHANISM FOR SAWMILLS. CHARLES A. JONES, Broadwater, Mo., assignor of one-half to Samuel L. Emmert, Broadwater, Mo. Filed May 12, 1908. Serial No. 432,499.

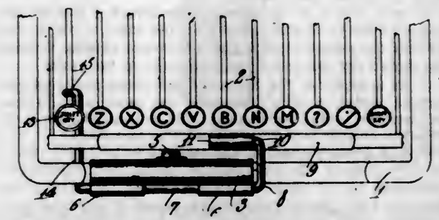


1. In operating mechanism for saw mill carriages, the combination of a shaft, bearings forming mountings for said shaft, means for moving the shaft longitudinally in its bearings, a clutch member fast to said shaft, sleeves constituting hollow shafts located upon opposite sides of said clutch member, and mounted concentric with the aforementioned shaft, independent bearings for said sleeves, clutch members secured to the inner ends of said sleeves and adapted to coöperate with the clutch member of the first-mentioned shaft, said clutch members being in contact with the innermost bearings of the respective sleeves so as to be supported thereby against lateral thrust when the clutch member of the shaft is in engagement with the clutch member of either of said sleeves, and means for rotating the said sleeves in opposite directions.

2. In carriage operating mechanism for saw mills, the combination of a shaft 10 adapted to receive both a rotary and a longitudinal movement, bearings supporting said shaft, a clutch member 13 fast to the shaft, sleeves concentric with the shaft and arranged upon opposite sides of the clutch member 13, independent bearings for the sleeves, clutch members 14 and 15 secured to the inner ends of the respective sleeves and adapted to coöperate with the clutch member 13, and supported against lateral thrust by respective inner bearings of said sleeves, drive pulleys fast to the said sleeves, a shaft 9 mounted parallel with the shaft 10 and adapted to have the driving power applied thereto, drive pulleys fast to the shaft 9, and drive belts connecting the drive pulleys of the shaft 9 and the aforesaid sleeves, one of said drive belts being crossed.

3. In carriage operating mechanism for saw mills, the combination of a reciprocating carriage, a shaft 1, connecting means between said shaft and carriage to effect opposite movement of the latter in both directions, a gear wheel fast to the shaft 1, a shaft 10 mounted to receive both a rotary and a longitudinal movement, a gear wheel fast to the shaft 10 and of such length as to maintain intermeshing relation with the gear wheel fast to the shaft 1 throughout the range of movement of the shaft 10, a clutch member fast to the shaft 10, sleeves concentric with the shaft 10 and arranged upon opposite sides of the clutch member thereof, independent bearings for said sleeves, clutch members secured to the inner ends of the sleeves and supported against lateral thrust by the innermost bearings of the respective sleeves when the clutch members of the shaft 10 and one of the sleeves are in engagement, pulleys fast to said sleeves, a shaft 9 mounted parallel with the shaft 10 and adapted to have the driving power applied thereto, pulleys fast to the shaft 9, and drive belts connecting the pulleys of shaft 9 with the pulleys of the said sleeves, one of said belts being crossed.

939,265. TYPE-WRITER ATTACHMENT. ADA C. KENDRICK, Williamsburg, Kans. Filed July 17, 1909. Serial No. 508,120.



1. An attachment for typewriters comprising a clip adapted to engage and be secured to the frame of a typewriting machine, and a shaft journaled in the clip and having one end bent to over-ride the space bar of the machine and the other end bent to engage the shift key lever of the machine.

2. An attachment for typewriters comprising a sheet metal clip adapted to engage and be secured to the frame of a typewriting machine and having an alined portion bent into journal bearings, and a shaft journaled in the bearings formed on the clip and having one end bent to over-ride the space bar of the machine and the other end bent to engage the shift key lever of the machine.

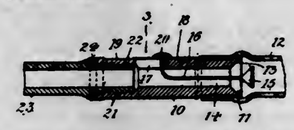
3. An attachment for typewriters comprising a sheet metal clip of U shape having centrally located wings extending from the free edges of the legs of the clip and having portions of the edge of one leg bent into cylindrical form to constitute journal bearings, and a shaft extending through the journal bearing formed on the clip and having one end bent to over-ride the space bar of the machine when the clip is attached and the other end bent to engage the shift key lever of the machine.

4. An attachment for typewriters comprising a clip adapted to engage and be secured to the frame of a typewriting machine and provided on one side with bearings, and a shaft journaled in said bearings and movable about an axis parallel with the length of the clip, said shaft having its ends bent in the same general direction, one end terminating in a manipulating handle adapted to over-ride the space bar of the machine when the clip is applied and the other end being bent to under-ride the frame of the machine and to extend along the shift key lever at the corresponding end of the machine and terminating in a hook portion adapted to engage over said lever.

939,266. VAGINAL SYRINGE. ERNST H. KESKE, Hoboken, N. J. Filed Nov. 16, 1908. Serial No. 462,814.

1. In a device of the character described, a supply tube, a slotted perforated socket adapted to be coupled thereto,

a valve controlling the socket perforation, a stem secured to the valve and engaging the socket slot, a slide connected to the stem, and a discharge nozzle communicating with the socket perforation.



2. In a device of the character described, a supply tube, a slotted perforated socket adapted to be coupled to said tube, a valve controlling the socket perforation, a stem connected to the valve and engaging the socket slot, a slide embracing the socket and secured to the stem, and a discharge nozzle communicating with the socket perforation.

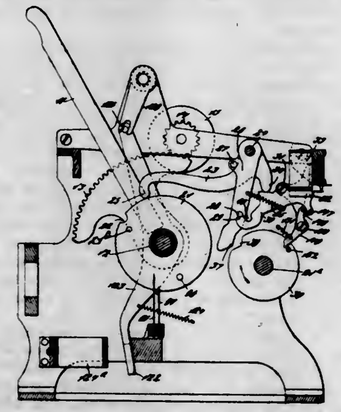
3. In a device of the character described, a supply tube, a slotted perforated socket adapted to be coupled to said tube, a valve controlling the socket perforation, a stem connected to the valve and engaging the socket slot, a slide embracing the socket and secured to the stem, a knob on the slide, and a discharge nozzle communicating with the socket perforation.

4. In a device of the character described, a slotted perforated socket, a slide embracing the same, a valve controlling the socket perforation, and means passing through the socket slot for connecting the slide to the valve.

5. In a device of the character described, a slotted perforated socket, a slide embracing the same, a valve controlling the socket perforation, and a stem engaging the socket slot and connecting the slide to the valve.

[Claim 6 not printed in the Gazette.]

939,267. STORE-SERVICE CREDIT-SYSTEM APPARATUS. CHARLES F. KETTERING, Dayton, Ohio, assignor to The National Cash Register Company, Dayton, Ohio, a Corporation of Ohio (incorporated in 1906). Filed Oct. 29, 1906. Serial No. 341,085.



1. A store service system including a cash register having a settable transaction element and an operating mechanism, in combination with a device controlled by said transaction element and serving to lock said operating mechanism, means for indicating at a distance the condition of said element and means for releasing said locking device from a distance.

2. A store service system including a cash register having a movable element for determining the class of entry to be made and an operating mechanism, in combination with a device under control of said element for locking said operating mechanism, means for releasing said locking device from a distance and a device for warning the distant operator when the movable element has not been properly adjusted.

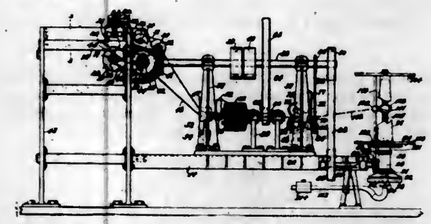
3. A store service system comprising a cash register having a transaction determining element, and an operating mechanism in combination with a device operable when said element has a particular adjustment to lock said operating mechanism, and means operable from a distance for releasing said lock and maintaining same released until said mechanism completes its operation.

4. A store service system comprising a cash register having means for locking same under predetermined conditions independenet of the operation of the cash register, means for releasing said locking means from a distance, and an operator identifying means at the cash register set with the release of said locking means.

5. A store service system comprising a cash register having means for controlling the characteristics of transactions entered in the machine, means for locking the machine when a particular transaction is to be entered, means operated electrically from a distance for releasing said locking means and an operator identifying means at the cash register set when the machine is released.

[Claims 6 to 32 not printed in the Gazette.]

939,268. MACHINE FOR MAKING TWINE. CONRAD KIBBEN, Appleton, Wis. Filed Aug. 29, 1907. Serial No. 390,575.



1. In a machine for making twine, the combination with a feed way or holder for the material, of a rotatable roller beneath and projecting through an opening in the bottom of said feed way or holder, and a non-rotating reacting member above the roller coöperating with said roller in gripping the lengths of material deposited in the feed way or holder, and pulling all of the lengths of said material lengthwise along and through the feed way or holder.

2. In a machine for making twine, the combination with a feed way or holder for the material, of a rotatable roller beneath and projecting through an opening in the bottom of said feed way or holder, and a weight suspended above the roller and coöperating with said roller in gripping the lengths of material deposited in the feed way or holder and pulling said lengths of said material along and through the feed way or holder.

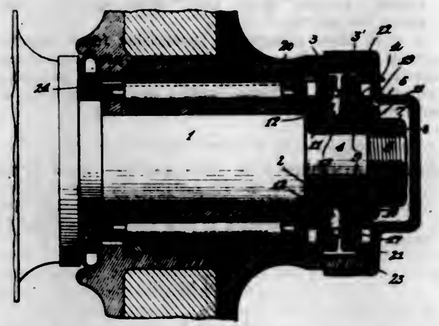
3. In a machine for making twine, the combination with a feed way or holder for the material, of a rotatable roller beneath and projecting through an opening in the bottom of the feed way or holder, and a weight suspended above the roller and coöperating with said roller in gripping the lengths of material deposited in the feed way or holder and pulling the lengths of said material along and through the feed way or holder, said weight provided on its forward side with a deflecting plate projecting upwardly from the lower edge of said forward side of the weight.

4. In a machine for making twine, the combination of a feed way or holder for the material, a rotatable roller beneath and projecting through an opening in the bottom of the feed way or holder, a weight above the roller and cooperating with said roller in gripping the lengths of material deposited in the feed way or holder and pulling the lengths of said material along and through the feed way or holder, a medially fulcrumed lever having one end pivotally connected to the weight, and a weight mounted on the opposite end of the lever.

5. In a machine for making twine, the combination of a feed way or holder for the material, a rotatable roller beneath and projecting through an opening in the bottom of the feed way or holder, a weight above the roller and cooperating with said roller in gripping the lengths of material deposited in the feed way or holder and pulling the lengths of said material along and through the feed way or holder, a medially fulcrumed lever having one end pivotally connected to the weight, and a weight adjustably mounted on the opposite end of the lever.

[Claims 6 to 24 not printed in the Gazette.]

939,269. THRUST-BEARING. ALBERT T. KILLIAN, Buffalo, N. Y., assignor, by direct and mesne assignments, to National Anti-Friction Roller-Bearing Company, Buffalo, N. Y., a Corporation of New York. Filed Mar. 5, 1909. Serial No. 481,238.



1. In combination with a shaft or axle and a relatively rotatable hub thereon, a locking-sleeve on the axle provided with annular radial flanges forming an annular channel, one of the flanges being removably fastened on the sleeve and the inner corners of the channel being oppositely beveled, a pair of raceway rings inclosed in said channel and having their inner corners beveled off, these beveled surfaces being shorter than the coöperating beveled surfaces in the aforesaid channel, the adjacent faces of said raceways being provided with annular grooves, and antifriction rolling elements in said grooves, the hub being provided with shoulders engaging the outer sides of said annular raceways or rings, for the purpose set forth.

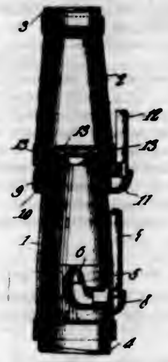
2. In combination with a shaft or axle and a hub thereon, of a locking-sleeve on the axle provided with annular flanges forming a channel, independently rotatable raceway-rings in said channel and adapted to frictionally engage the opposite flanges of the sleeve, rolling elements between said rings, and shoulders on the hub adapted to frictionally engage the outer edges of said rings, for the purpose set forth.

3. In combination, a shaft and a rotatable hub thereon, a pair of rings surrounding the axle and having engagement therewith and also with the hub and having their adjacent faces provided with annular grooves and tracks whose faces are oppositely beveled, a series of radially arranged thrust-receiving rollers, and a series of radially arranged spacing-rollers smaller in diameter than the thrust-rollers and having reduced end-extensions running on said tracks, for the purpose set forth.

939,270. AIR LIFT-PUMP. FRANK G. KIMBALL, Whittier, Cal. Filed Mar. 10, 1908. Serial No. 420,225.

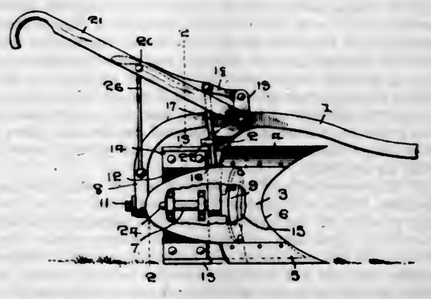
1. In an air lift pump, a pipe having above its inlet jet ports arranged in a circular series, and presented in a direction to discharge tangentially to the circle thus described, and also obliquely with respect to the axis of the pipe.

2. In an air lift pump, a pair of frusto-conical pipes disposed in alinement with each other, the smaller end of the lower pipe discharging into the larger end of the upper pipe, an air injecting nozzle arranged centrally in the lower portion of the lower pipe, and an annular fluid chamber arranged at the top of said lower pipe, and provided with jet ports arranged in a circular series and presented in a direction to discharge tangentially to the circle thus described, and also to discharge obliquely with respect to the axis of the pipes.



3. In an air lift pump, the combination with the discharge pipe thereof, of an injector pipe entering said discharge pipe in a transverse direction, and so bent that its end portion is in the line of the axis of the discharge pipe, whereby it forms an injector nozzle, said injector pipe having a flattened form in cross section from its point of entrance to and including the bend in it, the longer dimension of such flattened form being parallel to the axis of the discharge pipe.

939,271. REVERSIBLE PLOW. WILHELM KOEHLER, Spielerville, Ark. Filed May 25, 1909. Serial No. 498,259.



1. In a plow construction of the class described, the combination with a beam having a standard depending therefrom and an auxiliary standard in the rear thereof; of a shaft rotatably mounted in the lower ends of said standards, a mold board fixed to one end of said shaft, a share at each edge of the mold board, a landside, straps fixed to said land side and said moldboard and having loops thereon intermediate of said landside and moldboard to receive the first referred to standard and means to hold the mold board in its adjusted position.

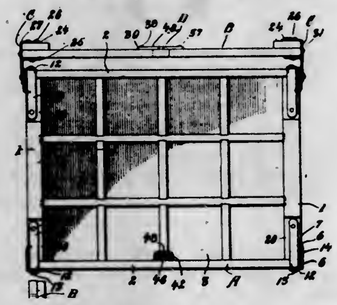
2. In a plow construction, the combination with a beam having a standard; of a shaft rotatably mounted in said standard, a moldboard fixed to said shaft and having a share at the upper and lower edges thereof, a plate attached to said shaft and constituting a land side, straps connect-

ing said plate to the mold board, said straps having looped portions intermediate of said land side and said mold board and means to engage said straps and hold said mold board in its adjusted position.

3. In a plow construction, the combination with a beam and a standard therefor; of a shaft rotatably mounted on said standard, a mold board attached to said shaft and adapted to rotate therewith, plow shares at the upper and lower edges of the mold board, a plate forming a land side and provided intermediate of said landside plate and moldboard with loops to receive said standard, loops connecting said plate to the mold board, rods adapted to hold said straps in engagement with the standard and the mold board against rotation and means to raise and lower said rods.

4. In a plow construction, the combination with a beam having a standard; of a shaft rotatably mounted in said standard, a plate having right angled lateral extensions at its ends, straps connecting the plate to the mold board, said straps having loops therein intermediate of said plate and mold board to receive the standard, rods adapted to hold the straps in engagement with the standard and a lever to which said rods are secured, whereby when the lever is operated, said rods will be moved into or out of engagement with the straps.

939,272. BOX OR CASE. FREDERICK J. KRESS, Pittsburg, Pa. Filed Aug. 4, 1906. Serial No. 329,251.



1. In a separable or knock-down box or case, the combination of the end pieces having horizontal corner stays permanently attached along their lower edges, the horizontally slidable grooved bottom, and suitable side pieces resting on and independent of the said bottom, the said corner stays having upwardly turned flanges which engage within the grooves of the bottom and having tongues 12 which are bent around the edges of the bottom and are attached at their extremities to the end pieces, substantially as set forth.

2. In a separable or knock-down box or case, the combination of the end pieces formed with the interior vertical grooves 32, the interior partitions engaging the said grooves by their ends, the horizontal bottom corner stays attached to the end pieces and having upwardly extending flanges and the horizontally slidable bottom having exterior grooves in which said flanges engage to permit the horizontal sliding of the bottom, the said partitions being confined between the bottom and the upper ends of the said grooves in the end pieces, substantially as set forth.

3. In a separable or knock-down box or case, the combination of end pieces, a slidable bottom piece extending to the ends of the case under the lower edges of the end pieces, independent of the latter, and having grooves on its under face parallel with the end pieces, side pieces resting on the bottom piece, independent thereof, and having vertical grooves 18, vertical corner stays permanently attached to the end pieces and having flanges 17 engaging the grooves of the side pieces, and bottom corner stays also permanently attached to the end pieces and having upwardly extending flanges engaging the grooves of the bottom piece, substantially as set forth.

4. In a separable or knock-down box or case, the combination of end pieces, a horizontally slidable bottom piece extending to the ends of the case under the lower edges of the end pieces, independent of the latter, and having grooves on its under face parallel with the end pieces and removable by sliding forward or backward parallel with the end pieces, side pieces resting on the bottom piece, independent thereof, and having vertical grooves, vertical corner stays permanently attached to the end pieces and having flanges engaging the grooves of the side pieces, and bottom corner stays also permanently attached to the end pieces and having upwardly extending flanges engaging the grooves of the bottom piece, said corner stays having tongues bent over the edges of the bottom and side pieces respectively and attached to the end pieces, substantially as set forth.

939,273. WOOD-BLIGHT COMPOSITION. JOHN W. LAFER, Catawba Island, Ohio. Filed Mar. 25, 1909. Serial No. 485,840.

A wood blight composition, comprising ferric arsenite, calcium arsenite, cupric arsenite, sodium arsenite, calcium sulfate, calcium hydroxid, sodium hydroxid, potassium hydroxid, cupric hydroxid, sodium di-sulfid, calcium di-sulfid and water, in the described proportions.

939,274. KINETOSCOPIC APPARATUS. JOHN E. LAGERGREN, New York, N. Y., assignor, by mesne assignments, to The Ikonograph Company of America, New York, N. Y., a Corporation of New York. Filed Mar. 14, 1907. Serial No. 362,267.



1. The combination in a kinetoscope, of an axially movable driving shaft, a shutter, and means adapted to displace said shutter on axial movement of said shaft independent of its rotation.

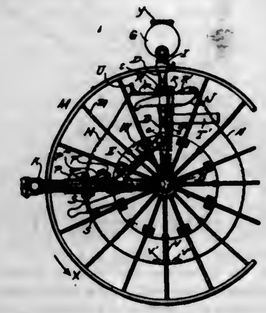
2. The combination in a kinetoscope, of an axially movable driving shaft, a crank rigidly mounted on said shaft, a shutter, and means adapted to displace said shutter on axial movement of said shaft.

3. The combination in a kinetoscope with a frame, having an opening, of an axially movable driving shaft on said frame, a shutter for said opening, and means adapted to displace said shutter on axial movement of said shaft independent of its rotation.

4. The combination in a kinetoscope with a frame, having an opening, of an axially movable driving shaft on said frame, a crank rigidly mounted on said shaft, a shutter for said opening, and means adapted to displace said shutter on axial movement of said shaft.

939,275. CONCRETE CONVEYING AND MIXING CART. FREDRICK H. LATHROP, Chicago, Ill. Filed Dec. 21, 1908. Serial No. 468,560.

1. The combination of a frame, a hollow non-rotatable axle secured at its ends to said frame, wheels on the axle, and a receptacle rotatably mounted on the axle, said receptacle provided with an opening and a cover to said opening, means to latch the cover closed, means to latch the receptacle to the frame in a non-rotatable position, and means to latch the receptacle to the wheels to rotate with said wheels.



2. The combination of a frame, a non-rotatable axle attached to the frame, a baffle plate secured to the axle, wheels on the axle, and a receptacle rotatably mounted on the axle, an elevating board secured in place in said receptacle and said receptacle provided with an opening and a cover to said opening, means to latch the cover closed, means to latch the receptacle to the frame in a non-rotatable position, and means to latch the receptacle to the wheels to rotate with said wheels.

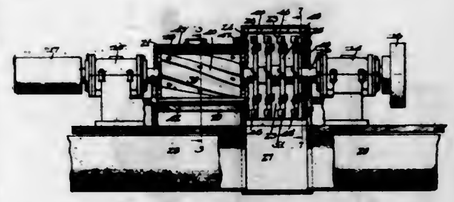
3. The combination of a frame, a non-rotatable axle attached to the frame, a baffle plate secured to the axle, wheels on the axle, said frame, axle and wheels being arranged so that when the device is drawn along the ground the wheels support the device and are rotated, and a receptacle rotatably mounted on the axle, an elevating board secured in place in said receptacle, and said receptacle provided with an opening and a cover to said opening, means to latch the cover closed, means to latch the receptacle in a non-rotatable position, and means to latch the receptacle to the wheels to rotate with said wheels.

4. The combination of a frame, a non-rotatable hollow axle attached to the frame, a water receptacle, communicating passage ways from the water receptacle to the hollow axle, valves to said passage ways, wheels on the axle, said frame, axle and wheels arranged so that when the device is drawn along the ground the wheels support the device and are rotated on the axle, a receptacle rotatably mounted on the axle, said axle provided with apertures opening into the receptacle and said receptacle provided with an opening, a cover to said opening, means to latch the cover closed, means to latch the receptacle in a non-rotatable position, and means to latch the receptacle to the wheels to rotate with said wheels.

5. The combination of a frame provided with a non-rotatable hollow axle, wheels on the axle, the frame and one of the wheels respectively provided with a socket, a water receptacle, communicating passage ways from the water receptacle to the hollow axle, said frame, axle and wheels arranged so that when the device is drawn along the ground the wheels support the device and are rotated, and a receptacle rotatably mounted on the axle, such axle provided with apertures opening into the receptacle and such receptacle provided with an opening and a cover to such opening, projections on the cover, a lever movably mounted on the axle, such lever arranged to engage with the projections to latch the cover closed, and a longitudinally movable bolt attached to the receptacle, arranged to engage in the socket on the frame to latch the receptacle in a non-rotatable position, said bolt arranged to engage in the last named socket to latch the receptacle to the wheels to rotate with such wheels.

[Claim 6 not printed in the Gazette.]

939,276. MACHINE FOR CUTTING, BEATING, AND PULVERIZING. CHRISTIAN M. LAURITZEN, Chicago, Ill. Filed Feb. 29, 1908. Serial No. 418,495.



1. In a machine of the character described, the combination with a cutting chamber, of a rotary cutter horizontally placed in said chamber constructed so as to convey the material lengthwise thereof, a beating chamber into which the cutter feeds, beaters in said beating chamber, and a common shaft extending through the cutting and beating chambers upon which the cutter and the beaters are arranged.

2. In a machine of the character described, the combination with a beating chamber, of a shaft therein, and a plurality of beaters on the shaft, an end of said chamber formed with teeth in opposition to the points of which the beaters work, the teeth being reversed on opposite sides of the shaft.

3. In a machine of the character described, the combination with a cutting chamber, of a horizontally placed rotary cutter constructed so as to drive the material lengthwise thereof, a beating chamber at the end of and communicating with the cutting chamber, beaters in said chamber, a common shaft extending through the cutting chamber and the beating chamber on which the cutter and the beaters are arranged, a receiving chamber under the beating chamber and a screen between the beating chamber and the receiving chamber through which the material passes from one chamber to the other.

4. In a machine of the character described, the combination with a horizontal, cylindrical cutting chamber, of a beating chamber at the end of the cutting chamber and in communication therewith, a common shaft extending through said chambers, a screw-like cutter and conveyer having spiral edges arranged on the shaft in the cutting chamber, the wall of the cutting chamber being provided with cutting edges in opposition to which the spiral cutter and conveyer operates, beaters on the shaft within the beating chamber, and a screen around said beaters.

5. In a machine of the character described, the combination with a horizontal, cylindrical cutting chamber, of a beating chamber at the end of the cutting chamber and in communication therewith, a common shaft extending through said chambers, a screw-like cutter and conveyer having spiral edges arranged on the shaft in the cutting chamber, the wall of the cutting chamber being provided with cutting edges in opposition to which the spiral cutter and conveyer operates, beaters on the shaft within the beating chamber, the end walls of the beating chamber being provided with teeth against which the material treated is driven by the action of the beaters, and a screen surrounding said beaters.

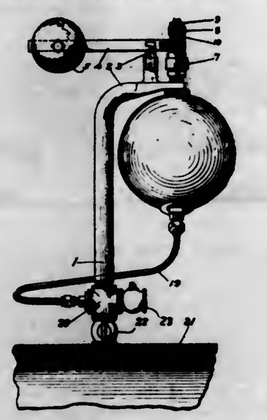
[Claims 6 to 18 not printed in the Gazette.]

939,277. AIR-VALVE. JOHN W. LEDOUX, Swarthmore, Pa., assignor to Simplex Valve & Meter Company, Camden, N. J., a Corporation of New Jersey. Filed Apr. 19, 1906. Serial No. 312,540.

1. An air valve comprising a coupling, a standard supported by said coupling, a balance supported by said standard, a vessel supported by said balance, and a coiled tube leading from said coupling to said vessel.

2. A reciprocating vessel, a flexible tube leading thereto, a passage leading from said vessel and terminating in a port having a conical seat, and a stationary valve having

a conical point which fits said seat and closes said valve, said port moving away from said valve point clear of said valve and opening said passage on the rise of said vessel.

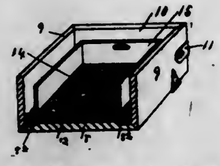


3. A standard, a reciprocating vessel, means supported by said standard for balancing said vessel, a flexible tube leading to the bottom of said vessel, a passage leading from the top of said vessel, said passage terminating in a port, and a stationary valve carried by said standard for controlling said port, said port being moved away from said valve to open said passage on the rise of said vessel.

4. A vessel, means comprising a lever for balancing said vessel, a passage leading to said vessel, a passage leading from said vessel and terminating in a port having a conical seat, and a valve comprising a stationary pin having a conical point fitting said seat to control said port, said port being moved away from said valve point to open said passage on the rise of said vessel.

5. A standard, a reciprocating vessel, means supported by said standard for balancing said vessel, a coiled flexible tube leading to the bottom of said vessel, a passage leading from the top of said vessel and terminating in a port having a conical seat, and supported by said standard a valve in the form of a pin having a conical point, said port being moved away from said valve point to open said passage on the rise of said vessel.

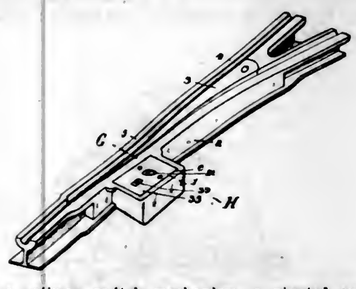
939,278. CUSHION-STUFFING DEVICE. CHARLES A. LEE, Oneida, N. Y. Filed Dec. 23, 1907. Serial No. 407,659.



In a device for stuffing cushions the combination of a forming receptacle having opening side walls and a bottom and a filling receptacle substantially the same form as the interior of the forming receptacle and less in all its dimensions and consisting of a frame having side and end walls only, substantially as set forth.

939,279. RAILWAY-SWITCH MECHANISM. BRUNO LEGAULT, Montreal, Quebec, Canada. Filed Mar. 1, 1909. Serial No. 480,654.

1. In a railway switch mechanism, a pivoted switch point, a box rigidly secured adjacent to said point, an operating and locking spindle in said box extending upwardly through and terminating on the upper side of the lid of said box, means for retaining said spindle normally in its uppermost position, and means connecting said spindle to the said point.



2. In a railway switch mechanism, a pivoted switch point, a box secured adjacent thereto, a box contained within the aforesaid box having a well or a recess arranged therein, an operating and locking spindle turning in said well extending upwardly and terminating slightly above the lid of said box, means for retaining said spindle in its uppermost position, and means operatively connecting said spindle with said point.

3. In a railway switch mechanism, a pivoted switch point, a box rigidly secured adjacent to said point, a box contained within the aforesaid box having a partition thereacross forming a receptacle, and a well or recess to one side of said receptacle, an operating and locking spindle operating in said well, and means operatively connecting said spindle with said point.

4. In a railway switch mechanism, a pivoted switch point, a box rigidly secured adjacent to said point, a box contained within the aforesaid box having a lubricating substance receptacle, a well or recess to one side of said receptacle and a slide-way to the other side of said well, a locking spindle turning in said well, a slide traveling in said slide-way and operatively connected to said spindle, and a link connecting said slide to said point.

5. In a railway switch mechanism, a pivoted switch point, a box rigidly secured adjacent to said point, a box contained within the aforesaid box having a lubricating substance receptacle at one end, a cross slide-way at the other end and an intermediate partition having a central well or recess, a spindle turning in said well or recess having gear teeth toward the upper end, a rack sliding on said slide-way, a link connecting said rack with the point, and means locking said spindle in a fixed position at the finish of each operation.

[Claims 6 to 14 not printed in the Gazette.]

939,280. BOWLING-ALLEY AMUSEMENT DEVICE. HARRY LEIGHTON, Geneva, Ohio, assignor of one-half to Walter S. Clark, Middlefield, Ohio. Filed Sept. 15, 1908. Serial No. 453,069.



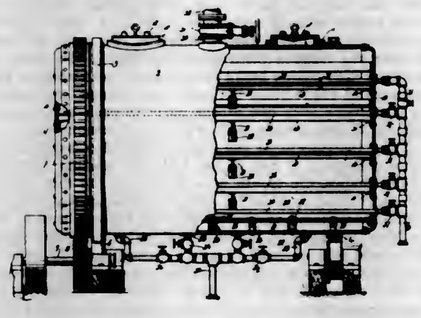
1. In a bowling-alley amusement device, an alley provided at its rear end with a cross-plate fitted flush with the upper surface thereof and carrying a rearwardly-extending hook-bar, the alley having a recess surrounding said hook-bar, and an operating-pin provided with a loop-eye taking over said hook-bar and resting in said recess.

2. In a bowling-alley amusement device, an alley provided at its rear end with a rearwardly-extending hook-bar, a framework provided with pulleys carrying rope-members, a pendent operating-pin secured to one end of said rope members and adapted to be secured to said hook member, and a trapese member formed at the other end of said rope members.

3. A bowling-alley amusement device, comprising an alley provided at its rear end with a hook member, a ducking-tub, a framework carrying rope members providing pendent operating-pin and trapese members disposed above said hook member and ducking-tub, respectively, said operating-pin member being adapted to be engaged by said hook member and said trapese member being adapted to carry an occupant normally sustained by the engagement of said operating-pin member with said hook member.

4. A bowling-alley amusement device, comprising an alley provided at its rear end with a cross-plate carrying a rearwardly-extending hook-bar, a ducking-tub, and intermediate platforms and a bumper, a framework provided with front and rear cross-bars disposed above said rear end and said ducking-tub, and rope members mounted on pulleys secured to said cross-bars and provided at their front with an operating-pin adapted to be engaged by said hook-bar and at their rear with a trapese normally sustained by the engagement of said operating-pin with said hook-bar.

939,281. PERCOLATOR. JOHN B. LIVINGSTON, New Haven, Conn. Filed May 28, 1909. Serial No. 498,988.



1. A percolator comprising a cylindrical casing adapted to be revolved, an outlet pipe at the top, and a series of discharge pipes at the bottom, a plurality of perforated pipes arranged in series and directly entering through one end of the casing, and means for independently controlling each series.

2. A percolator comprising a cylindrical casing adapted to be revolved, longitudinally arranged channel irons extending from end to end of the casing, inlet and outlet pipes, and perforated naphtha and steam pipes entering through one end of the casing and resting upon the upper edges of said channel irons.

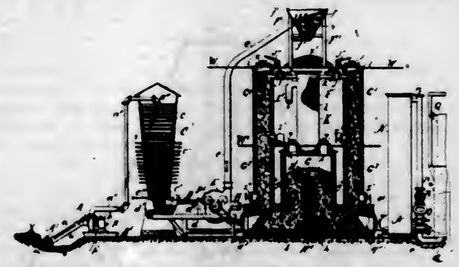
3. A percolator comprising a cylindrical casing adapted to be revolved, longitudinally arranged channel irons, inlet and outlet pipes, and naphtha and steam pipes entering through one end of the casing and resting upon the upper edge of said channel irons, the said naphtha and steam pipes having upwardly opening perforations.

4. A percolator comprising a cylindrical casing adapted to be revolved, longitudinally arranged channel irons extending from end to end of the casing, transversely arranged beams on which the channel irons rest, inlet and outlet pipes, and upwardly opening perforated naphtha and steam pipes entering one end of the casing and resting upon the upper edges of said channel irons.

5. A percolator comprising a cylindrical casing adapted to be revolved, brackets at opposite ends of said casing, longitudinally arranged channel irons secured at opposite ends to said brackets, inlet and outlet pipes, and upwardly opening perforated naphtha and steam pipes entering one end of the channel and resting upon the upper edges of said channel irons.

[Claim 6 not printed in the Gazette.]

939,282. APPARATUS FOR MANUFACTURING GAS. BURDETT LOOMIS, Hartford, Conn. Filed Feb. 2, 1906. Serial No. 299,126.



1. A cupola gas-generator having at the top a fuel supply opening, and at the base, a horizontal extension chamber provided with a door, a charring, or drying and distilling chamber mounted on, and opening into said extension chamber and having an upper outlet pipe for gas and vapor and means for supplying air to the generator, substantially as described.

2. The combination with a gas generator and a charring and distilling chamber connecting with the base thereof and having a gas outlet pipe, of means for heating air, a blower elevator having a moist fuel supply, a pipe connecting the air heater with said elevator, and a delivery pipe therefrom, for elevating and drying the moist material, substantially as described.

3. The combination with a gas generator and a connecting charring and distilling chamber, having a gas outlet pipe, of a connecting gas condenser and air heater, means for supplying air thereto, a blower elevator having a moist fuel supply, and a pipe connecting the air heater with said elevator for elevating and drying the moist material in transit, substantially as described.

4. The combination with a gas generator and a charring and distilling chamber connecting with the base thereof and having a gas outlet pipe, of a hopper above said charring chamber, a blower elevator having a moist fuel supply and air inlet pipe, and a delivery pipe connecting the blower elevator with said hopper, substantially as described.

5. The combination with a gas generator and a connecting charring and distilling chamber, having a gas outlet pipe, of a connecting gas-condenser and air heater, means for supplying air thereto, a cutter for moist material, a connected blower-elevator and a pipe connecting the air heater with said elevator for elevating and drying the moist material, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

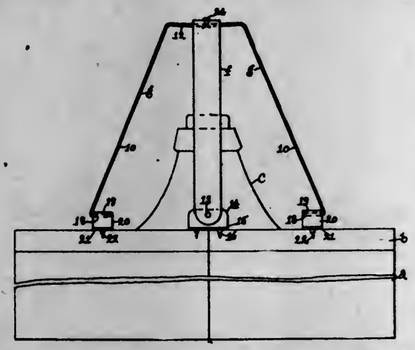
939,283. PROTECTOR FOR CARBOYS. FRANK B. LOTHROP, South Acton, Mass. Filed May 18, 1909. Serial No. 496,787.

1. The combination with a carboy provided with a cover having an opening through which the neck of the bottle projects, of a guard for the neck of the bottle attached to said cover and comprising members extended substantially at right angles to each other over the neck of the bottle and one of which is pivotally secured to said cover and the other pivotally secured to the first-mentioned member and detachably secured to said cover, substantially as described.

2. The combination with a carboy provided with a cover having an opening through which the neck of the bottle projects, of a guard for the neck of the bottle comprising members extended substantially at right angles to each other over the neck of the bottle, and one of which is detachably secured at its lower ends to said cover, substantially as described.

3. The combination with a carboy provided with a cover having an opening through which the neck of the bottle projects, of a guard for the neck of the bottle comprising

members extended substantially at right angles to each other over the neck of the bottle, and one of which is pivotally secured at its lower ends to said cover, substantially as described.



4. The combination with a box or casing containing a bottle whose neck projects above the said casing, of a guard for the neck of the bottle comprising substantially arch-shaped members extended substantially at right angles to each other over the neck of the bottle and one of which members is detachably secured at its lower ends to the box to permit said member to be moved so as to enable the neck of the bottle to be accessible, substantially as described.

939,284. QUICK-ACTING WOODWORKING-VISE. WALTER Y. MENTZER, Grand Rapids, Mich., assignor to Oliver Machinery Company, Grand Rapids, Mich., a Corporation of Michigan. Filed July 10, 1909. Serial No. 506,874.



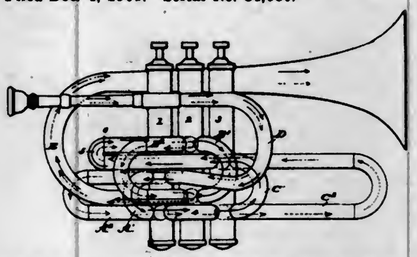
1. A quick acting vise, comprising a fixed jaw, a stirrup below the same, a half nut in the stirrup, a movable jaw, a screw rotative in the movable jaw and laterally engaging the half nut, and a pivoted yoke in which the screw is slidable.

2. A quick acting vise, comprising a fixed jaw and a movable jaw, guide rods fixed in the movable jaw and spaced apart, a screw between the guide rods and rotative in the movable jaw, a stirrup surrounding the screw and spaced apart therefrom, a half nut in the stirrup laterally engaged by the screw and supporting the same, a yoke pivoted at the rear and vertically movable at the front, in which yoke the guide rods and screw are slidable longitudinally.

3. A quick acting vise, comprising a fixed jaw, a horizontally disposed plate integral therewith, a movable jaw, guide rods spaced apart and fixed in the movable jaw, a screw between the guide rods and rotative in the movable jaw, a stirrup on the plate supporting the screw, a half nut in the stirrup beneath the screw, and a yoke pivoted to the plate at the rear of the stirrup and having tubular side portions in which the guide rods are slidable.

4. A quick acting vise, comprising a fixed jaw having an integral plate to attach to the under side of a bench top, a movable jaw opposite the fixed jaw and extended below the plane of the plate, parallel guide rods spaced apart and fixed in the movable jaw, a screw between said rods and rotative in the movable jaw, a stirrup depending near the front of the plate and supporting the screw, a half nut in the stirrup and laterally engaged by the screw, a yoke pivoted to the rear of the plate extending forward therefrom and having tubular side portions in which the rods are slidable, and also having transverse portions in which the screw is slidable.

939,285. CORNET. Z ALBERT MEREDITH, Elkhart, Ind. Filed Dec. 4, 1901. Serial No. 84,680.



1. In an instrument of the character described, the combination, with a plurality of valve-casings, a mouth-pipe, a bell tube and a valve piston for each casing provided with two pairs of ports, each port passing through the valve piston with its axis in a plane at a right angle to the direction of the length thereof, of two tubes or bends of different lengths for each valve-casing, the tubes or bends of each casing being connected at both ends to said casing, and connections between said casings, each adapted to register with one of the ports in each of the valve pistons of the casings with which it is connected.

2. An instrument of the class described comprising the valve casings 1, 2 and 3, the bell pipe leading from the second casing, the mouth pipe leading to the first casing, the short tube or bend A′ and the long tube or bend A^2 connected with the casing 1, the short tube or bend B′ and the long tube or bend B^2 connected with the second casing, the short tube or bend C′ and the long tube or bend C^2 connected with the 3rd casing, such tubes being connected at their adjacent ends with their respective casings in the same plane transversely of such casings, the tuning slide connected at one end with the third valve casing and at its other end with the second valve casing on the opposite side of the instrument from its connection with the third casing, said slide encircling the first casing in its passage between the second and third casings, and the piston valves operating in their respective casings and having each two pair of ports extending through it with their axes in planes at right angles to its length, the ports of each piston valve opening at one end in alinement with each other and in a line parallel with the axis of such piston valve substantially as and for the purposes set forth.

3. The combination in a cornet or similar instrument, of the first, second and third valve casings, the pairs of tubes for each casing and connected at both their ends with their respective casings with the adjacent ends of the tubes of each pair connected with their casings in the same plane transversely of said casing, a tube connecting the first and third casings, and the tube extending between the third and second casing and encircling the first casing, and the mouth pipe communicating with the first casing and the bell tube leading from the second casing, substantially as set forth.

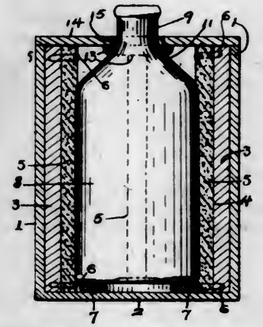
4. In an instrument of the character described, the combination, with a series of valve casings, a valve piston in each casing provided with ports having their axes in planes at right angles to the direction of the length of said piston, whereby said ports are arranged in parallel transverse planes, of tubes arranged in pairs and adapted to connect said ports, the corresponding ends of each pair being connected with one of said valve casings in a common transverse plane, whereby the wind passage will be without vertical deviation in either position of the valves.

5. An instrument of the character described comprising valve casings, tubes connected thereto and valve pistons

mounted in said casings and provided with ports having their axes extending at right angles to the direction of the length of said valve piston and arranged to connect said tubes and to provide for the passage of the wind through each valve the same number of times and in the same plane when the valve is in its open tone or valve tone position.

[Claims 6 to 13 not printed in the Gazette.]

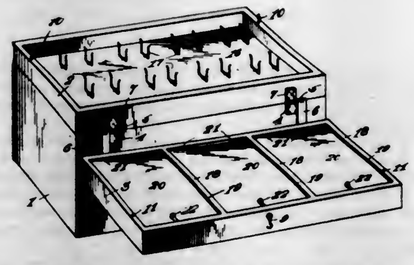
939,286. CARBOY. ACHILLES J. MILLER, Cleveland, Ohio. Filed Feb. 27, 1907. Serial No. 359,552.



1. In a carboy, the combination of a casing angular in cross section, corner pieces arranged in the inner corners of said case, said corner pieces being provided with V-shaped grooves, a length of asbestos rope arranged in each groove of said corner pieces, an asbestos mat arranged in the bottom of said case, a bottle arranged in said case on top of said mat and in contact with the asbestos rope, an asbestos collar arranged on said bottle and a cover secured to said case so as to press on said asbestos collar, substantially as described and for the purpose set forth.

2. In a carboy, the combination of a casing angular in cross section, corner pieces arranged in the inner corners of said case, said corner pieces being provided with longitudinally extending grooves on the inner faces thereof, a length of asbestos rope arranged in the groove in each corner piece, and a bottle arranged in said case and having its sides in engagement with the rope in said grooves, substantially as described.

939,287. BOX. HENRY L. MINER, Brandon, Vt. Filed Mar. 25, 1909. Serial No. 485,728.

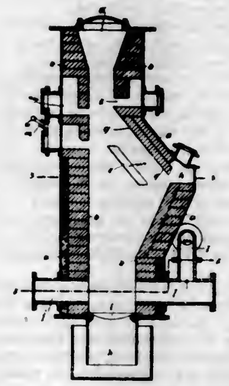


1. A box of the character described comprising bottom, top and intermediate sections superposed and hinges uniting said sections and each having one strap secured to the bottom section and concentrically pivoted long and short straps, the long ones being secured to the top section and the short ones to the intermediate section.

2. A box of the character described comprising a bottom section with an open top, a tray forming an intermediate section, a tray forming a top section, hinges each having one strap secured to the bottom section and having long and short concentrically pivoted straps, the short straps being secured to the intermediate section or tray and the long straps being secured to the top section, whereby said intermediate and top sections may swing to a horizontal position to one side of the bottom section, object retaining means upon the bottom of the intermediate section or tray and one or more covers or closures for retaining objects in the top section.

3. A box of the character described comprising a rectangular bottom section having an open top, upright partitions therein dividing it into compartments, an intermediate section in the form of a tray, clips upon the bottom of the intermediate section for retaining objects or articles therein, a top section in the form of an open tray, partitions in said top section, hinged lids or covers closing the compartments of the top section, fastenings for said lids or covers, strap hinges each having one strap secured to the bottom section and long and short concentrically pivoted straps, the long straps being secured to the top section and the short straps to the intermediate section, socket and pin connections between the three sections for preventing them from shifting laterally with respect to each other and fastenings for securing said sections together in closed position.

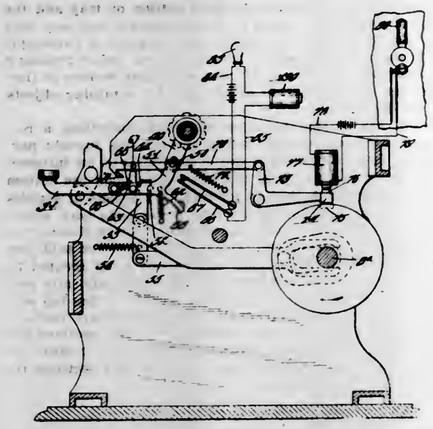
939,288. GAS-PRODUCER. GEORGE L. MORTON, Four Oaks, Sutton Coldfield, England. Filed Feb. 1, 1909. Serial No. 475,541.



1. In a gas producer a shell having a charging aperture, a lateral air inlet near said charging aperture, an outwardly projecting sloping portion below said air inlet, the angle of inclination of said sloping portion being the angle of the natural slope of the fuel and said portion being constructed to cover the fuel without leaving any intermediary space between the fuel and said portion, and supplementary air inlets at the height of said sloping portion.

2. In a gas producer a shell having a charging aperture, a lateral air inlet near said charging aperture, an outwardly projecting sloping portion below said air inlet, the angle of inclination of said sloping portion being the angle of the natural slope of the fuel and said portion being constructed to cover the fuel without leaving any intermediary space between the fuel and said portion and without closely packing the fuel, supplementary air inlets at the height of said sloping portion and an inwardly sloping portion below said first named sloping portion.

939,289. CASH-REGISTER. WILLIAM H. MUZZY, Dayton, Ohio, assignor, by mesne assignments, to The National Cash Register Company, Dayton, Ohio, a Corporation of Ohio (incorporated in 1906). Filed Sept. 22, 1905. Serial No. 279,576.



1. The combination in a machine for printing a sales slip, of a validating device in said machine, means for locking the machine when the validating device is brought into operation, mechanism for unlocking the machine from a distance, and means for accounting at such a distant point for the transaction validated.

2. The combination with a sending machine, including a sales slip validating mechanism, of means in said machine for setting up the validating mechanism, a lock for said machine controlled by said means, a receiving machine located at a distance, means for operating the lock of the sending machine from the receiving machine, and means for accounting at the receiving machine for the character and amount of the transaction.

3. The combination with a sending machine, of a validating stamp therein, means for adjusting the stamp for operation, a lock for the sending machine, a receiving machine provided with means for unlocking the sending machine, and a signal at the receiving machine controlled by the setting device for the validating stamp at the sending machine.

4. The combination with a sending machine, of a validating stamp therein, means for setting the validating stamp, a lock for the sending machine a receiving machine and connections for controlling said lock, and an accounting mechanism in the receiving machine connected to the sending machine, but thrown out of operative position when the validating device is operated.

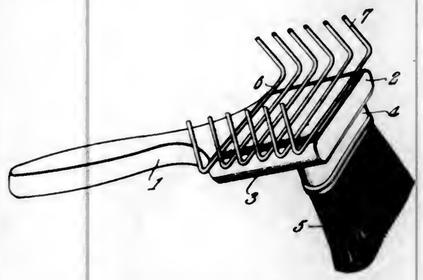
5. The combination with a sending machine, of a slip printing mechanism therein, a validating stamp in said machine, means for setting said stamp, a receiving machine, an accounting mechanism in the receiving machine controlled by the sending machine, a lock for the sending machine, means at the receiving machine for controlling said lock, and means for preventing the adjustment of the sending machine while the receiving machine is being operated.

[Claims 6 to 35 not printed in the Gazette.]

939,290. DEVICE FOR CLEANING BRUSHES OF CARPET-SWEEPERS. FANNY W. MYERS, New York, N. Y. Filed Mar. 25, 1909. Serial No. 485,653.

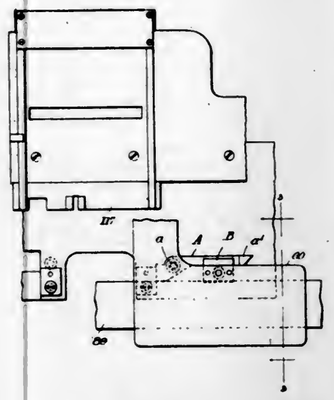
1. A device of the class described including a sleeve, parallel spring wires secured thereon and extending beyond opposite portions thereof, the terminals of each wire constituting converging spring fingers, and a handle insertible into the sleeve.

2. The combination with a handle, of a sleeve thereon, a series of parallel members secured upon the sleeve and extending at right angles to the longitudinal center of the handle, and opposed series of resilient fingers formed by



the ends of the members, said series being supported beyond opposite portions of the sleeve and converging toward their free ends, all of the fingers of each series being disposed in the same plane.

939,291. LINE-CASTING MACHINE. JAMES MCNAMARA, Montreal, Quebec, Canada, assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Apr. 17, 1909. Serial No. 490,448.



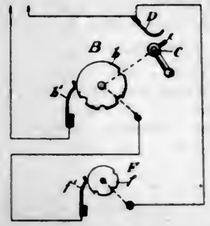
1. In a machine of the class described, the line carriage, means for depressing the matrices to a common level, and intermediate means for controlling the movements of the carriage.

2. In a machine of the class described, the line carriage, a detent to control the movement of the carriage, and a matrix alining device acting to control the carriage detent.

3. In a machine of the class described, the line carriage and the matrix depressor slide, in combination with the intermediate detent, A, controlled by the slide and acting to prevent the advance of the carriage.

4. In a machine of the class described, the line carriage for transferring the composed line to the distributing mechanism, in combination with means for depressing the members of the line to a common level, and means acting normally to prevent the advance of the line carriage toward the distributer whenever the depressor fails to properly aline the matrices.

939,292. TEST FOR FIRE-ALARM APPARATUS. JAMES G. NOLEN, Chicago, Ill., assignor of one-half to Frank B. Cook, Chicago, Ill. Filed Sept. 24, 1903. Serial No. 174,463.



1. The combination of a suitable circuit, a normally wound master signaling device in the circuit normally closing the same, a test device comprising a circuit breaker, in said circuit, and means associated with the first said signaling device short circuiting the circuit breaker of the test device when the master signaling device is run down to a predetermined degree.

2. The combination of an electrical circuit including two signal transmitting devices connected in series, and means adapted, upon the operation of one of said devices to short circuit the other device; one signal transmitting device including normally wound up clock work, adapted when released to operate the means for effecting a short circuiting of the other device, and the other signal transmitting device including normally unwound clock work.

3. The combination of two signal transmitting devices, suitable circuit connections, and means adapted upon the operation of one of said devices to short circuit the other device, one signal transmitting device including normally wound-up clock-work, adapted when released to operate the means for effecting a short circuiting of the other device, and said other signal transmitting device including normally unwound clock work.

4. The combination of a signal transmitting device, a testing device, suitable circuit connections, and a normally open switch adapted automatically to close a short circuit aronnd the testing device upon the operation of the signal transmitting devices, said signal transmitting device including normally wound-up clock work and said testing device including normally unwound clock work.

5. The combination of a signal transmitting device, another signal transmitting device, a line circuit connected with both of said devices, each device being adapted for transmitting a signal over the line circuit, and a normally open switch adapted automatically to close a short circuit around one of said signal transmitting devices upon the operation of the other signal transmitting devices; one signal transmitting device including normally wound-up clock work and the other signal transmitting device including normally unwound clock work.

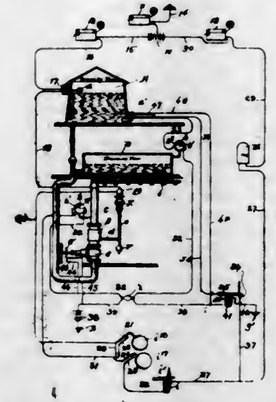
[Claims 6 and 7 not printed in the Gazette.]

939,293. FIRE-PROTECTION SIGNAL SYSTEM. JAMES G. NOLEN and JOHN E. SHEPHERD, Chicago, Ill. Filed Apr. 25, 1904. Serial No. 204,779.

1. In combination with a fire extinguisher system comprising a water tank, a float therein to indicate a drop in the water level, a riser, a variable pressure valve in the riser, a float valve controlled by said variable pressnre valve, and a sprinkler connected with the riser, of a signal system comprising a central signal-receiving instrument, a signal transmitting instrument associated with the water tank float for actuation thereby, as described, another signal transmitting instrument associated with the float valve for actuation thereby, a battery and circuit connections including in series the battery, the signal receiving instrument and both of said signal transmitting instruments.

2. In combination with a fire extinguisher system comprising a riser and a gate valve in said riser, an alarm system comprising a signal receiving instrument, and a battery included in a grounded main circuit, a subcircuit parallel to a portion of said main circuit, a signaling device in one of said circuits, an electro-magnet for actuating said device arranged in a portion of the main circuit paralleled by the sub-circuit, an independent grounded local circuit, a battery in said circuit, a circuit breaker in the sub-circuit, a magnet controlling said circuit breaker in the independent circuit, contact springs associated with the gate valve arranged to be moved into contact as the valve is closed and separated when the valve is open, and connections from one of said springs to the independent local circuit and from the other spring to the sub-circuit.

3. In a fire protection signal system, a valve; a normally-wound transmitter adapted to transmit different, distinguishable signals, and comprising two sets of circuit make-and-break-devices, and a motor for actuating said make-and-break devices; a main circuit including one of said sets of make-and-break devices; a signal responsive apparatus operatively associated with said circuit; a supervisory circuit in shunt to said make-and-break devices of the main circuit, said shunt including the remaining make-and-break devices; electro-magnetic means, controlled by the condition of the supervisory shunt, for controlling the motor; and means associated with the valve for control thereby adapted and arranged to condition the shunt to initiate one signal as the valve is moved from normal position and to initiate another distinguishable signal as the valve is returned to normal position.

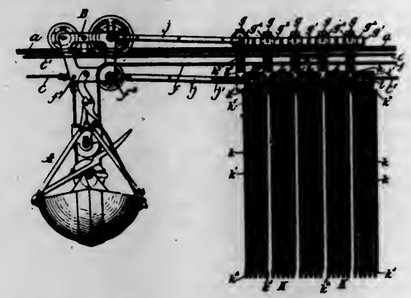


4. In a fire protection signal system, a valve; a normally wound transmitter adapted to transmit two distinguishable signals and comprising two sets of signaling devices, and a motor for said signaling device; a main circuit including one set of signaling devices; a signal responsive apparatus operatively associated with said circuit; a supervisory circuit in shunt to said set of signaling devices of the main circuit, and including the other set of signaling devices, electro-magnetic means controlling the motor, responsive to a break of the supervisory circuit to condition the transmitter to transmit one signal and to the closing of said circuit to condition the transmitter to transmit another distinguishable signal, and means associated with the valve for automatic control by movement thereof, controlling the condition of the supervisory shunt.

5. In a fire protection signal system, the combination with a valve of a fire extinguisher system, of a signaling system comprising signal responsive apparatus, means of current supply, circuit connections and a signal transmitter arranged and adapted to transmit one signal as the valve is moved in one direction, and another distinguishable signal as the valve is moved in the opposite direction.

[Claims 6 to 17 not printed in the Gazette.]

939,294. HOISTING OR CONVEYING APPARATUS. ALMON E. NORRIS, Cambridge, Mass. Filed May 16, 1906. Serial No. 317,103.



1. A hoisting and conveying apparatus having a supporting cable, a trolley carriage mounted to travel along said cable, a hoisting and conveying device carried by said carriage, an endless traversing rope connected to said carriage and controlled by suitable rope winding devices, a hoist-operating rope for the hoisting and conveying device leading from the trolley carriage to said cable-way end, separate carrier trolleys mounted to travel upon said supporting cable, said trolleys being provided with depending frames and end abutting plates adapted to hold the upper ends of said frames separated by a fixed distance when the carriers are closed in upon each other, a rigid frame connecting the foremost carrier with the main trolley carriage, appropriately positioned sheaves upon each of said frames affording support respectively to the strands of said endless traversing rope and the said hoist operating rope, and distance connections between adjacent carriers comprising a plurality of sets of connecting rods and intermediate trolley carriers for said rods the latter mounted to travel upon a strand of the traversing rope, said rods having a jointed or linked connection each with the next adjacent one, the end members of said series being sustained by the said carrier frames and the intermediate members by the said rod carriers.

2. A hoisting and conveying apparatus having a cable, a trolley carriage mounted to travel upon said cable, a hoisting and conveying device carried by said carriage, a plurality of operating ropes leading to said carriage, separate trolley carriers mounted to travel upon said supporting cable and provided with appropriately positioned sheaves affording support to said operating ropes, a rigid frame connecting the foremost carrier with the main trolley or carriage, and separating means between the said carriers comprising a plurality of rods having jointed connection each with the next adjacent one, said rods receiving support intermediate the said carriers from one or more trolley carriers, the latter mounted to travel upon one of the said operating ropes.

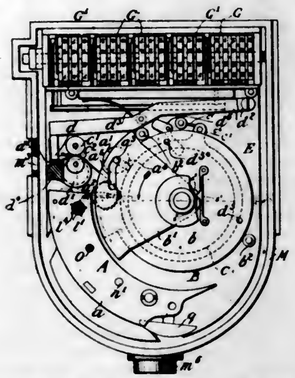
3. A cable-way apparatus having a cable, a trolley carriage thereon, a plurality of operating ropes leading to the carriage, a plurality of fall rope carriers on said cable affording support to said operating ropes, separating or distance connections between adjacent carriers, and intermediate carriers mounted upon one of said operating ropes for affording intermediate support to said connections.

4. A cable-way apparatus having a cable, a trolley carriage, an operating rope leading to the carriage from one end of the cable-way, separate rope carriers mounted upon said cable provided each with means for affording support to said operating rope, separating or distance connections between said carriers, and means carried by said operating rope for affording support to said connections intermediate said carriers.

5. A cable-way apparatus having a cable rope, a trolley carriage therefor, an operating rope leading to said trolley carriage, a plurality of carrier devices adapted to traverse said cable and provided each with means for affording support to said operating rope, connecting means between said carriers for insuring their separation at a predetermined distance on the traverse of the trolley carriage toward the farther end of the cable-way, and means movable upon one of said ropes for supporting said connecting means intermediate the said carriers.

[Claims 6 to 37 not printed in the Gazette.]

939,295. MACHINE FOR PRINTING AND ISSUING TICKETS AND REGISTERING FARES. RUFFIN NORTH, Oxford Street, London, England, assignor to Robert Casner Campbell, Chicago, Ill., and London, England. Filed Dec. 17, 1904. Serial No. 237,350.



1. A ticket printing and issuing device embracing a segmental type-carrier, an impression roller having oscillatory movement about an axis concentric with the type-carrier, means for supporting a roll of paper concentrically with the type-carrier, and intermittently rotating feed rollers engaging the end of the strip of paper.

2. A ticket printing and issuing device comprising a segmental type-carrier, an impression roller having oscillatory movement on an axis concentric with the type-carrier, means for supporting a roll of paper concentrically with the segmental type-carrier, and intermittently rotating feed rollers acting to hold the end portion of the strip of paper in the printing stroke of the impression roller and to deliver the printed part of the strip from the machine in the return stroke of said impression roller.

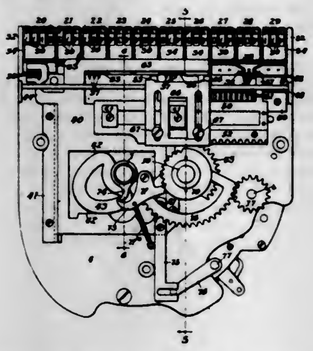
3. A ticket printing and issuing device comprising a segmental type carrier, an impression roller having oscillatory movement about an axis concentric with the type carrier, means for advancing the impression roller into position to act upon the types of the type-carrier and holding it in its advanced position during its movement over the type-carrier in one direction and for retracting said impression roller and holding it in its retracted position during its return movement, means for supporting a roll of paper concentrically with the type-carrier, and intermittently rotating feed rollers adapted to engage the end portion of the strip of paper.

4. A ticket printing and issuing device comprising a segmental type-carrier, provided with printing types, an oscillating impression roller, an oscillating inking roller, said impression and inking rollers having movement about an axis concentric with the type-carrier, a support for sustaining a roll of paper concentrically with the type-carrier, feed rollers engaging the end portion of the strip of paper, and a shield for the inking roller adapted to prevent contact of the strip of paper with said inking roller.

5. A ticket printing and issuing device comprising a segmental type-carrier, an oscillating impression roller adapted to swing about an axis concentric with the type-carrier, means for supporting a roll of paper concentrically with the type-carrier, adapted to frictionally retard the rotation of the roll in the withdrawal of the strip from the same, feed rollers located at one end of the segmental type-carrier, adapted to engage the end of the strip of paper, said impression roller being adapted to press the portion of the strip of paper extending between said feed rollers and the roll of paper against the types on the type-carrier during the swinging movement of said impression roller in one direction, and means actuating the said feed rollers during the swing of the impression roller in the opposite direction, for delivering the printed portion of the strip from the machine.

[Claims 6 to 31 not printed in the Gazette.]

939,296. REGISTERING APPARATUS. RUFFIN NORTH, Paris, France, assignor to Robert Casner Campbell, Chicago, Ill., and London, England. Filed Mar. 6, 1909. Serial No. 481,742.



1. A registering device comprising a plurality of sets of rotative disks which turn on a common axis of rotation, each set of disks being provided with a swinging operating member, a main, reciprocating actuating member, a secondary actuating member carried by and having shifting movement with said main actuating member, said secondary actuating member being movable on the main actuating member in a direction transverse to the direction of movement of said main actuating member, and said secondary actuating member being provided with an arm adapted to act on the swinging operating member of either one of the several sets of disks, a manually operable member acting on said secondary actuating member when the main actuating member is in its retracted position to give shifting movement to said secondary actuating member, and means for holding said secondary actuating member from shifting movement on the main actuating member in the forward and backward movements of said main actuating member.

2. A registering apparatus comprising a plurality of sets of rotative disks which turn upon a common axis of rotation, each set of disks being provided with a swinging operating member, a main, reciprocating actuating member provided with an arm adapted to act constantly upon the operating member of one of the said sets of disks for registering totals, a secondary actuating member carried by the main actuating member and adjustable thereon in a direction transverse to the direction of movement of said main actuating member, said secondary actuating member being provided with an arm adapted to act upon the operating member of either one of the others of said sets of disks, and a manually adjustable member connected with and giving shifting movement to said secondary actuating member.

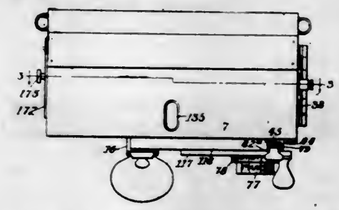
3. A registering apparatus comprising a plurality of sets of rotative disks which turn upon a common axis of rotation, each set of disks being provided with a swinging operating member, a main, reciprocating actuating member, a secondary actuating member carried by the main actuating member and adjustable thereon in a direction transverse to the direction of movement of said main actuating member, said secondary actuating member being provided with an arm adapted to act upon the operating member of either one of said sets of disks, a manually operable member acting on said secondary actuating member when the main actuating member is in its retracted position to give shifting movement to said secondary actuating member on the main actuating member, and a scale-plate which partakes of the shifting movement of said secondary actuating member and has sliding connection with the latter.

4. A registering apparatus comprising a plurality of sets of rotative disks which turn upon a common axis of rotation, each set of disks being provided with a swinging operating member, a main reciprocating actuating member, a secondary actuating member carried by the main actuating member and adjustable thereon in a direction transverse to the direction of movement of said main actuating member, said secondary actuating member being provided with an arm adapted to act upon the operating member of either one of the said sets of disks, a manually operable member, a rack-bar on the secondary actuating member and an oscillating gear-segment which is given movement by the said manually operable member, said rack-bar having intermeshing engagement with said gear-segment when the main actuating member is in its retracted position.

5. A registering apparatus comprising a plurality of sets of rotative disks which turn upon a common axis of rotation, each set of disks being provided with a swinging operating member, a main reciprocating actuating member, a secondary actuating member carried by the main actuating member and adjustable thereon in a direction transverse to the direction of movement of said main actuating member, said secondary actuating member being provided with an arm adapted to act upon the operating member of either one of the said sets of disks, a manually operable member, a rack-bar on the secondary actuating member, an oscillating gear-segment connected with and actuated by the manually operable member, said rack-bar having intermeshing engagement with the gear-segment when the main actuating member is retracted, and means acting to hold said secondary actuating member from shifting movement at times when said rack-bar is disengaged from the gear-segment.

[Claims 6 to 13 not printed in the Gazette.]

939,297. TICKET PRINTING AND ISSUING MACHINE. RUFFIN NORTH, Paris, France, assignor to Robert Casner Campbell, Chicago, Ill., and London, England. Filed Mar. 6, 1909. Serial No. 481,743.



1. An apparatus for printing and issuing tickets, comprising a rotatively adjustable type-roller, impression means, a pivotally mounted, oscillating, manually operable member having geared connection with and turning said type-roller, an endwise movable scale plate, a rack bar arranged parallel with the scale plate and having endwise movement therewith, and a gear segment attached to and turning with said manually operable member and adapted for intermeshing engagement with said rack bar.

2. An apparatus for printing and issuing tickets, comprising an exterior casing or inclosure having a flat top wall, a rotatively adjustable type-roller, impression means, a pivotally mounted, oscillating, manually operable member having geared connection with and turning said type-roller, an endwise movable scale plate located beneath and

parallel with the top wall of the casing, a rack bar below and parallel with said scale plate and having endwise movement with the latter, a gear segment attached to and turning with the said manually operable member, and adapted for intermeshing engagement with said rack bar, said top wall being provided with a sight hole through which the scale plate can be observed.

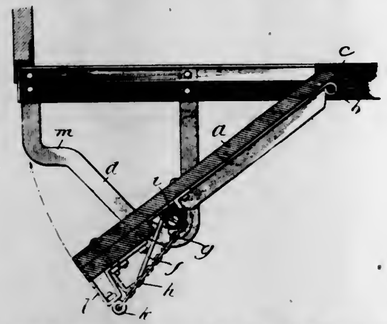
3. An apparatus for printing and issuing tickets, comprising a rotatively adjustable type-roller, impression means including an oscillating member which is given forward and backward movement in the printing of each ticket, a reciprocating plate which is given movement from the said oscillatory member, a secondary plate carried by the first named sliding plate and movable laterally thereon, a scale-plate movable laterally with said secondary plate, and operative connections between said type-roller and said secondary plate, whereby the latter is given lateral shifting movement to correspond with the rotative adjustment of said type-roller.

4. An apparatus for printing and issuing tickets, comprising a rotatively adjustable type-roller, impression means including an oscillating member which is given forward and backward movement in the printing of each ticket, a reciprocating plate which is given movement from the said oscillatory member, a secondary plate carried by the first named plate and movable laterally thereon, a scale-plate movable laterally with said secondary plate and having sliding connection therewith, a guide-rod for said scale-plate, and operative connections between said type-roller and said secondary plate, whereby the latter is given lateral shifting movement to correspond with the rotative adjustment of said type-roller.

5. An apparatus for printing and issuing tickets, comprising a rotatively adjustable type-roller, impression means including an oscillatory member having forward and backward movement in the printing of each ticket, a main sliding plate which is given reciprocatory movement by the turning of said oscillatory member, a secondary plate carried by and movable laterally upon the main sliding plate, a scale-plate connected and movable laterally with said secondary plate, and a manually operable member which is connected with and gives movement to the rotatively adjustable type-wheel, and which is also connected with and gives lateral shifting movement to said secondary sliding plate.

[Claims 6 to 26 not printed in the Gazette.]

939,298. DOOR-OPERATING MECHANISM FOR DUMP-CARS. SPENCER OTIS, Chicago, Ill., assignor to National Dump Car Company, Chicago, Ill., a Corporation of Maine. Filed Mar. 11, 1907, Serial No. 361,703. Renewed Sept. 29, 1908. Serial No. 455,302.



1. In a dump car, a door, an operating shaft adapted to support the door at all times, means to rotate said shaft, and means coöperating with said shaft and with the door to cause the said shaft to reciprocate bodily when rotated.

2. In a dump car, a door, an operating shaft adapted to support the door at all times, means to rotate said shaft, and a flexible member connected to said shaft and to the door, whereby when the shaft is rotated the flexible member winds thereon and imparts bodily movement thereto.

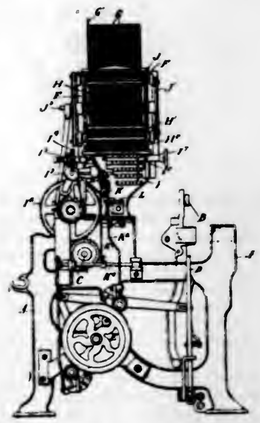
3. In a dump car, a door, an operating shaft adapted to support the door at all times, means to rotate said shaft, and a chain connected to said shaft and to the door, whereby when the shaft is rotated the chain winds thereon and imparts bodily movement thereto.

4. In a dump car, a door, an operating shaft adapted to support the door at all times, a support for said shaft, and means coöperating with said shaft and with the door to cause said shaft to reciprocate bodily on said support when rotated.

5. In a dump car, a door, an operating shaft adapted to support the door at all times, an inclined support for said shaft, and means coöperating with said shaft and with the door to cause said shaft to reciprocate bodily on said support when rotated.

[Claims 6 to 13 not printed in the Gazette.]

939,299. PATTERN MECHANISM FOR LOOMS. HENRY A. OWEN and ALBERT K. PRATT, Whitinsville, Mass., assignors to The Whitin Machine Works, Whitinsville, Mass., a Corporation of Massachusetts. Filed Sept. 28, 1906. Serial No. 336,559.

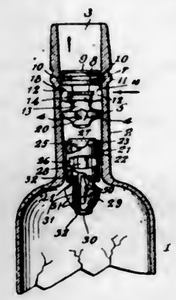


In a loom pattern mechanism, a dobby comprising upright side frames disposed at the end of the loom frame and substantially parallel with the heddles thereof, a series of upright levers mounted to oscillate between said frames and adapted for operating the heddles and certain of said levers being provided with depending extensions, having connections with the drop-box motion, in combination with means for selectively and similarly operating all of said levers comprising a clutch-driven pattern-chain shaft with means for manually and independently rotating the same and a single pattern chain carried by said shaft between the aforesaid side-frames.

939,300. NON-REFILLABLE BOTTLE. LUCIUS M. PACKARD, Brockton, Mass. Filed Jan. 15, 1909. Serial No. 472,513.

1. A guard for non-refillable bottles comprising a head provided with a central opening, a body portion spaced from the hollow head, means for connecting the body portion to the head, one or more wings, and a petticoat provided with openings, said wings and petticoat being mounted on the body portion.

2. In a guard for non-refillable bottles the combination of a head provided with a central opening, a body portion spaced from the hollow head, downwardly extending arms connecting the head and body portion,—one or more wings on the body portion, and an apertured petticoat, the apertures in the petticoat being located beneath the wings.

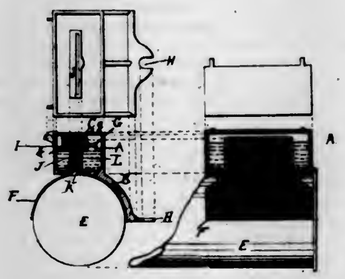


3. In a guard for non-refillable bottles the combination of a head provided with a central opening, a body portion spaced from the hollow head, downwardly extending arms connecting the head and body portion and one or more wings on the body portion, the upper part of the body member being provided with a depression forming shoulders to stop or deflect a wire or similar substance.

4. In a guard for non-refillable bottles the combination of the hollow head provided with an annular groove to coöperate with a suitable packing, a body portion spaced from the hollow head, arms connecting the body portion and head, the upper portion of the body member being provided with a depression forming shoulders, one or more wings mounted on the upper portion of the body member and an apertured petticoat mounted on the lower portion of the body member, the apertures in the petticoat being arranged beneath the wing.

5. A guard for non-refillable bottles comprising a head provided with a central opening, a solid body portion, arms for connecting the solid body portion to the head, a plurality of wings, a circular petticoat provided with openings, said wings and circular petticoat being mounted on the solid body portion.

939,301. LUBRICATING DEVICE. FINDLEY R. PAINE, Albany, N. Y., assignor to Standard Oil Company of New York, a Corporation of New York. Filed Dec. 31, 1908. Serial No. 470,220.

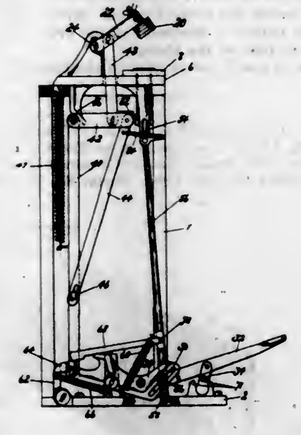


1. A box adapted to hold a lubricating fluid; a dam in said box; a fibrous material placed over said dam, one end thereof in the box and the other in contact with the place where it is desired to deposit the lubricating fluid; an adjustable clamp adapted to hold said fibrous material in position in contact with said dam.

2. A box adapted to hold a fluid; a dam in said box; an apron placed over said dam with one end thereof in the box the other protruding therefrom adapted to contact with the place where it is desired to deposit the fluid; an adjustable clamp extending over the top of the dam and adapted to press the apron against the side of the dam; said clamp capable of adjustment within said box whereby said pressure upon said apron may be increased or diminished and the deposit of the fluid thus regulated.

3. A box adapted to hold a fluid; a dam in said box; a fibrous apron passing over said dam, having one end in said box and the other end thereof protruding from said box; a clamp composed of two parts, a U-shaped member and a screw; said clamp extending over the dam and engaging said apron, substantially as described.

939,302. HEEL-BUILDING MACHINE. WILLIAM PARIS, Manchester, N. H., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Aug. 17, 1905. Serial No. 274,563.



1. A heel building machine, having in combination, a support provided with a heel building space arranged to permit a heel blank to be assembled therein, a clamp for pressing the elements of the blank into engagement with the support, a nail driver arranged to force a nail through said blanks, a movable device arranged for manipulation by the operator, mechanism for transmitting to the clamp force applied to said device by the operator and for thereafter actuating the nail driver, and means for locking the clamp in its effective position arranged to be mechanically actuated in the acting movement of said device and constructed to be mechanically thrown out of operation in the return movement of said device to its initial position.

2. In a machine of the class described, the combination with a frame and a heel support carried by the frame, of a clamp movably mounted upon the frame, a driver passage in said heel support arranged approximately perpendicular to the face of said support a driver in said passage and mechanism for actuating said clamping device including a member pivotally supported intermediate its ends upon the frame, means providing connection between the clamp and member at one side of its pivot, mechanism arranged to be actuated by the operator for imparting a rocking movement to said member, a connection between the driver and said mechanism arranged to impart movement to the driver in a direction opposite to that of the clamp and locking means constructed to automatically engage said member and secure it in effective position and arranged to be mechanically thrown out of operation to permit the return movement of said member.

3. In a machine of the class described, the combination with a support provided with a space formed to receive heel lifts, an ejector arranged to engage the lifts in said space at a plurality of points and constructed to raise said

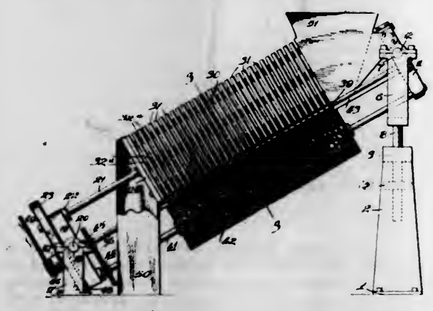
lifts into an inclined position in said space, and means for actuating said ejector.

4. In a machine of the class described, the combination with a support provided with a space formed to permit a heel blank to be built up therein and a clamp movable with relation to said support for clamping said blank, of an ejector arranged to act upon the blank in said space, means for controlling the movement of said clamp and mechanism for actuating said ejector arranged to be automatically brought into action in the return movement of the clamp.

5. In a machine of the class described, the combination with a heel support having a driver passage arranged therein approximately perpendicular to the face of the support, of a movable clamp, a driver in said passage and mechanism for actuating said clamp and driver including a member pivotally supported intermediate its ends and having an inclined cam slot on one side of the pivot, means providing connection between the clamp and the member, a treadle provided with a pin working in said cam slot and arranged to impart a locking movement to said member and means for connecting the driver and treadle arranged to impart a movement to the driver in a direction opposite to that of the clamp.

[Claims 6 and 7 not printed in the Gazette.]

939,303. COTTON-SEPARATOR. WARREN A. PATTERSON, St. Louis, Mo., assignor to The Cotton Harvester Company, St. Louis, Mo., a Corporation of South Dakota. Filed Aug. 22, 1908. Serial No. 449,863.



1. In a cotton separator, a cylinder composed of a series of rings spaced apart, internally projecting longitudinal ribs carried by said cylinder, a series of saws disposed beneath the cylinder and operating between said rings, a brush disposed beneath the saws, and means for imparting rotation to said cylinder, said saws and said brush.

2. In a cotton separator, a cylinder composed of a series of rings spaced apart, a shaft projecting through said cylinder, blades mounted on said shaft, internally projecting ribs carried by said cylinder, a series of saws disposed beneath the cylinder and operating between said rings, a brush disposed beneath the saws, and means for imparting rotation to said cylinder, said saws and said brush.

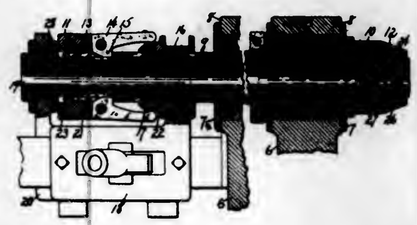
3. In a machine of the class described a hollow cylinder made up of a series of rings spaced apart, means whereby said cylinder is rotated, a series of saws arranged for operation so that their peripheries pass through the spaces between the rings and means whereby the front end of the hollow cylinder is raised and lowered to vary the inclination thereof.

4. In a cotton separator an inclined hollow cylinder made up a series of rings spaced apart, internally projecting longitudinal ribs carried by said cylinder, means whereby said cylinder is rotated and means whereby the inclination of the cylinder is varied.

5. In a cotton separator an inclined hollow cylinder made up of a series of rings spaced apart, means whereby said cylinder is rotated, means whereby the front end of the cylinder is raised and lowered and held in the desired adjustment, and a series of saws the peripheries of which pass through the spaces between the rings.

[Claim 6 not printed in the Gazette.]

939,304. CHUCK. WALTER B. PEARSON, Chicago, Ill., and ERNEST R. SEWARD, Hartford, Conn.; said Seward assignor to The Hartford Machine Screw Company, Hartford, Conn., a Corporation of Connecticut. Filed June 10, 1908. Serial No. 437,689.



1. A chuck including a cap having a beveled inner surface, a jaw closer movable axially of the chuck and having a coöperating beveled surface arranged to move away from the beveled surface on the cap in a movement to release the jaws, jaws having radial movement and a longitudinal movement, the latter independent of the jaw closer, and arranged to be actuated thereby, and means for operating the jaw closer.

2. A chuck including a cap having a beveled inner surface, a jaw closer including radially movable fingers having a coöperating beveled surface arranged to move away from the beveled surface on the cap in a movement to release the parts, jaws having radial movement permitted by the operation of the jaw closer and a longitudinal movement independently thereof, and means for operating the jaw closer.

3. A chuck including a cap having a beveled inner surface jaws having free radial movement and also having longitudinal movement, a jaw closer having movement axially of the chuck to close the jaws, and also having a beveled surface arranged to move away from the beveled surface on the cap in a movement to release the jaws, means for operating the jaw closer, said jaw closer and jaws being arrranged to move backward simultaneously but also having independent longitudinal movement, and means for operating the jaw closer.

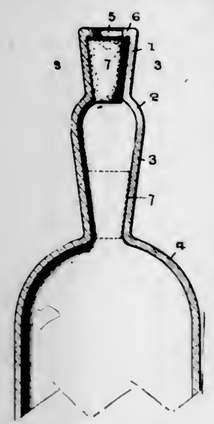
4. A chuck including a cap having a beveled inner surface jaws having free radial movement and also having longitudinal movement, a jaw closer to move axially of the chuck and having fingers to close the jaws, and also having a beveled surface arranged to move away from the beveled surface on the cap in a movement to release the jaws, means for operating the jaw closer, said closer and jaws having simultaneous backward movement but also having independent longitudinal movement, means for limiting the forward movement of the jaws, and means for operating the jaw closer.

5. A chuck including a cap having a beveled inner surface, a jaw closer having a coöperating beveled surface arranged to move away from the beveled surface on the cap in a movement to release the jaws, jaws movable radially and also longitudinally, a feed tube operating to move the jaws forward, means for operating the feed tube, means for limiting the forward movement of the jaws, and means for operating the jaw closer.

[Claims 6 to 14 not printed in the Gazette.]

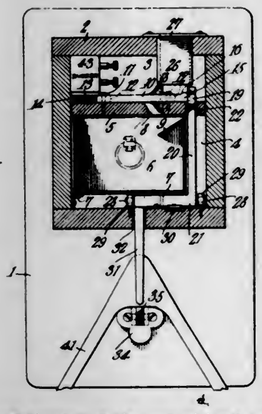
939,305. NON-REFILLABLE BOTTLE. SALVATOR PELOSO, New York, N. Y. Filed Dec. 1, 1908. Serial No. 465,514.

A bottle having its neck provided at its extreme upper end with an annular flange extending inwardly from its inner surface and adapted to form a contraction of the pouring or entrance end of said neck, said neck having a downwardly and inwardly inclined portion terminating some distance below the upper edge of said neck, said neck also being rounded outwardly and then downwardly and inwardly to its point of connection with the body of the



bottle, said point of connection forming also a contraction between the said neck and said body, and a closure of tapered outline and corresponding in general outline to the inner surface of the upper tapered portion of said neck, said closure also being adapted to conform to the general interior surface outline of the lower portion of said neck.

939,306. COIN-CONTROLLED GAME-ELEMENT CARRIER. ROSCOE F. PENDLETON, Norwich, N. Y. Filed Jan. 13, 1908. Serial No. 410,619.

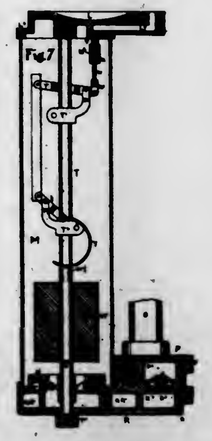


1. A game element carrier comprising a projecting support for the game element from which the latter may hang pendently, a rock shaft and a support therefor above the game element support, two arms of equal length fast on the shaft and disposed at right angles one to the other, one arm being in the path of removal of the game element when on the support and the other arm being in the path of the movement of the game element onto the support and each arm having its free end when in operative relation to the support adjacent to the free end of the latter, another arm fast on the shaft and carrying one element of a lock, and another lock member co-acting with the first lock member to lock the rock shaft with one of the arms in operative relation to the game element support.

2. A game element carrier comprising a support for the game element, a rock shaft and a support therefor above the game element support, two rock arms of equal length fast on the shaft, one arm being in the path of removal of the game element when on the support and the other arm being in the path of movement of the game element onto the support and each arm having its free end when in operative relation to the support adjacent to the free end of the latter, and another rock arm on the shaft provided with a stop or tooth constituting one member of a lock, and a spring-controlled sliding bar normally in the path of the toothed end of the third rock arm and constituting the other member of the lock, the rock arm provided with the lock member having a limited range of movement with reference to the other lock member without disengaging therefrom.

3. A game element carrier comprising a support for the game element and adapted to project horizontally and to carry the game element pendently, a rock shaft and support therefor above the game element support, a rock arm on the shaft normally in the path of removal of the game element from its support, another arm on the rock shaft and movable therewith into operative relation to the support for the game element as the first arm moves out of the path of the game element, both rock arms being of such length as to have their free ends in operative relation with the free end of the support when moved to active position, a third rock arm on the shaft and movable therewith and with the other rock arms, a latch member normally in but movable out of the path of the third rock arm, the said third rock arm having a limited range of movement without disengaging from the latch member, a spring engaging the rock shaft for constraining said shaft to remain in either limit of its movement about its axis of rotation, an electric signal circuit, and circuit terminals one of which is engaged by the third rock arm when moved to the locked position, the circuit terminals being held apart by the third rock arm during its limited range of movement while in the locked position.

939,307. PNEUMATIC PUMP OR APPARATUS FOR RAISING WATER BY MEANS OF COMPRESSED AIR. THOMAS O. PERRY, Chicago, Ill. Filed Apr. 12, 1907. Serial No. 367,864.



1. The combination with two water chambers having inlet and outer water valves, a reversible air valve adapted to admit and exhaust air to and from said water chambers, main air inlet and exhaust ports controlled by said

air valve, a motor operable by compressed air adapted to reverse said air valve in either direction, auxiliary air vents in said water chambers, vent valves adapted to open and close said vents and counteracting air ducts leading to said motor from said air vents, of floats located in said water chambers in operative connection with said vent valves to open and close said air vents when water is discharged from and admitted to the chambers, and counterweights within said water chambers above the level of said floats to counterbalance a portion of the weight of the floats to cause a maximum pressure to be exerted upon the valves at the instant of closure and then to reduce said pressure.

2. The combination with two water chambers having inlet and outlet water valves, a reversible air valve adapted to admit and exhaust air to and from said water chambers, main air inlet and exhaust ports controlled by said air valve, a motor operable by compressed air adapted to reverse said air valve in either direction, auxiliary air vents in said water chambers, vent valves adapted to open and close said vents, and counteracting air ducts leading to said motor from said air vents, of floats in said water chambers adapted to open and close said air vents when water is discharged from and admitted to the chambers, and counterbalancing lever connections within said chambers between said floats and vent valves to counterbalance a portion of the weight of the floats and impart a maximum initial pressure thereupon.

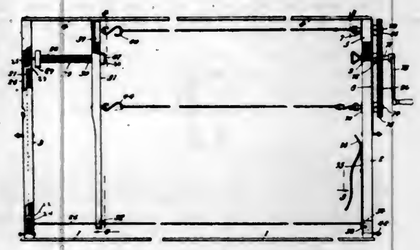
3. The combination with two water chambers having inlet and outlet water valves, a reversible air valve adapted to admit and exhaust air to and from said water chambers, main air inlet and exhaust ports controlled by said air valve, a motor operable by compresed air adapted to reverse said air valve in either direction, auxiliary air vents in said water chambers, vent valves adapted to open and close said vents, and counteracting air ducts leading to said motor from said air vents, of floats in said water chambers for opening and closing said air vents when water is discharged from and admitted to either of said chambers, and compound levers intervening between said valves and floats, said levers being provided with counterbalancing elements located within said chambers above the level of said floats to counterbalance a portion of the latter and vary the pressure thereon.

4. The combination with two water chambers having inlet and outlet water valves, a reversible air valve adapted to admit and exhaust air to and from said water chambers, main air inlet and exhaust ports controlled by said air valve, a motor operable by compressed air adapted to reverse said air valve in either direction, auxiliary air vents in said water chambers, vent valves adapted to open and close said vents, and counteracting air ducts leading to said motor from said air vents, of floats in said water chambers adapted to open and close said air vents when water is discharged from and admitted to the chambers, partial counterbalancing connections within said water chambers for connecting said floats and valves, the location of said connections being such that the inflowing water will first act upon the floats and then upon the connections to reduce the pressure upon the valves after the first positive impact of closure.

5. The combination with two water chambers having inlet and outlet water valves, a reversible air valve adapted to admit and exhaust air to and from said water chambers, main air inlet and exhaust ports controlled by said air valve, a motor operable by compressed air adapted to reverse said air valve in either direction, auxiliary air vents in said water-chambers, vent valves adapted to open and close said vents and counteracting air ducts leading to said motor from said air vents, of floats within said water chambers, said floats being impervious to water under pressure, and means within said chamber for partially counterbalancing said floats, said counterbalancing means being located above the level of submergence of said floats to cause the latter to exert a maximum initial pressure in closing the valves and then to reduce said pressure to maintain the closure of the valves while preventing them from sticking to the valve seats.

[Claims 6 to 8 not printed in the Gazette.]

939,308. ROPE-MAKING MACHINE. HOMER PERSONETT, Atwood, Ill. Filed Feb. 10, 1909. Serial No. 477,046.



1. In combination with supports securely spaced apart, means for detachably holding separate rope strands, means for twisting the separate rope strands in a common direction, means for connecting the rope strands to the holding means, twisting means, whereby the separate strands may be twisted upon themselves in an opposite direction to the first twisting, a rope connected to the holding means adapted to flexibly support the same, means for guiding the rope on the supports and means for holding the rope under fixed tension.

2. In combination, rigid supports, a rope movable on the supports, a rope supporting guide connected with one end of the rope and supported slidably thereon, hooks detachably secured at spaced points to the guide, shafts formed with looped ends secured on one of the supports at correspondingly spaced points, a drive shaft rotatably mounted on said support intermediately of the shaft, means for connecting the shafts to the drive shaft, hooks detachably connected to the shafts and means for holding the rope under fixed tension.

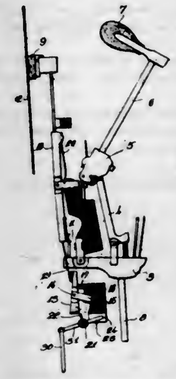
3. In combination, rigid supports, a drive shaft rotatable on one of the supports spaced driven shafts rotatable on said support, sprockets mounted on the outer ends of said shafts, loops formed on the inner ends of the shafts, means for connecting the drive to the driven shafts whereby the driven shafts are driven in a common direction and oppositely to that of the drive shaft, hooks detachably connected with the shaft loops, a rope movable on the supports, rollers arranged on the supports for guiding the rope, a block connected to one end of the rope, a spring guide connected to the block, a spring slidable on the guide, a T-shaped rope supporting guide connected to the forward end of the spring and slidable on the rope, hooks detachably connected to the rope guide, and means for holding the rope under fixed tension.

4. In combination, a T-shaped support, a base for the support, a second support formed with a longitudinal groove and spaced openings communicating therewith, rollers secured in the openings, a rope movable in the groove and over the rollers, a T-shaped rope supporting guide slidably supported on the rope, a spring for connecting the rear end of the rope and the guide, hooks detachably arranged on the arms of the T-shaped guide and on said guide proper, shafts extending through the arms of the T-shaped support, a shaft extending through the lower portion of said support, a drive shaft extending through the support last named, sprockets mounted on the outer ends of all the shafts, a sprocket chain for connecting the sprockets, hooks arranged on the inner ends of the shafts, and means secured to the T-shaped standard for holding the rope under fixed tension.

5. A rope making machine of the class described having a rigid frame, one of the end pieces of said frame being T-shaped, a movable T-shaped post arranged opposite thereof, means mounted on said T-shaped members for supporting a rope, means for twisting said rope, a spring connected with said movable post, and a flexible support connected with said spring.

[Claims 6 and 7 not printed in the Gazette.]

939,309. SOSTENUTO ATTACHMENT FOR PIANOS. EMANUEL PETERSON, Wakefield, Mass. Filed June 1, 1909. Serial No. 499,447.



1. In a piano, the combination with piano strings, damper levers therefor, and means to actuate the levers independently, of a movable follower adapted to engage each lever and to move in unison therewith, and means common to all the followers to lock those followers from movement which are in a position corresponding to the inoperative position of the damper levers.

2. In a piano, the combination with a piano string, a hammer therefor, a damper lever, and means to actuate the hammer and damper lever simultaneously, of a spring-pressed follower constantly in engagement with the damper lever, and a movable sostenuto rail to engage the follower and lock the latter from movement.

3. In a piano, the combination with a string and a damper lever therefor, of a pivotally-mounted follower, a spring to maintain said follower in engagement with the damper lever, and a movable sostenuto rail adapted when raised to engage the follower and lock it from movement.

4. In a piano, the combination with a string and a damper lever therefor, of a pivotally-mounted follower, a spring to maintain said follower in engagement with the damper lever, and a movable sostenuto rail adapted when raised to engage the end of the follower when the latter is in the position assumed by it when the damper lever is removed from the string.

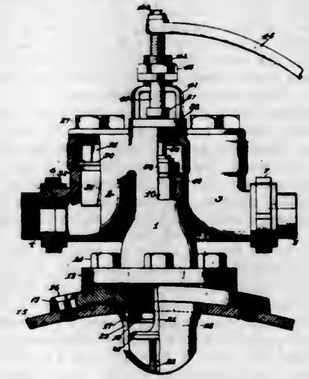
5. In a piano, the combination with damper levers, of a sostenuto rail to hold the damper levers in inoperative position, and a spring for operating the sostenuto rail.

[Claim 6 not printed in the Gazette.]

939,310. ATTACHMENT FOR FEED-WATER INJECTORS. COLUMBUS PHILLIPS, Meridian, Miss. Filed July 29, 1905, Serial No. 271,762. Renewed Apr. 9, 1909. Serial No. 488,975.

1. The combination with a shell adapted to be secured to a boiler-shell, and means of communication between the interior of the shell and the interior of the boiler, of a plurality of passages also communicating with the interior of the shell, and communicating, respectively, with a source of feed-water supply, said passages being adapted to be independently cut off from communication with said source of feed-water supply, and means of cutting-off any one or all of said passages from communication with the interior of the shell.

2. The combination with a shell adapted to be secured to a boiler-shell, and means of communication between the interior of the shell and the interior of the boiler, of a plurality of passages also communicating with the interior of the shell, and communicating, respectively, with a source of feed-water supply, said passages being adapted to be independently cut off from communication with said source of feed-water supply, means of cutting-off any one or all of said passages from communication with the interior of the shell, and depending levers for operating said means, respectively.



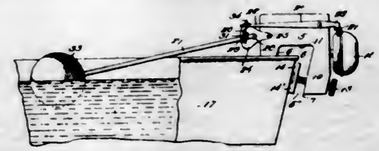
3. The combination with a shell adapted to be secured to a boiler-shell, provided with check-controlled means of communication with the interior of the boiler, of a plurality of passages also communicating with the interior of the shell and adapted to make communication respectively with a source of feed-water supply, and independent valves for cutting-off communication between said passages and the interior of said shell.

4. The combination with a shell, adapted to be secured to a boiler-shell and provided with a single main bore, and check-controlled means of communication between said bore and the interior of the boiler, of a plurality of passages also communicating with the interior of the shell and adapted to make communication respectively with a source of feed-water supply, and independent valves for cutting-off communication between said passages and the interior of said shell.

5. The combination with a shell provided with a bore and adapted to be secured to a boiler-shell, of a plurality of passages communicating with the bore of the shell, checks controlling said passages respectively, screw plugs in the shell concentric with the checks, respectively, and independent valves intermediate to said bore and said checks, for cutting-off said passages, respectively.

[Claims 6 to 10 not printed in the Gazette.]

939,311. AUTOMATIC ALARM FOR REFRIGERATOR DRIP-PANS. JOHN F. PHILLIPS, Gorgona, Panama. Filed Nov. 13, 1908. Serial No. 462,508.

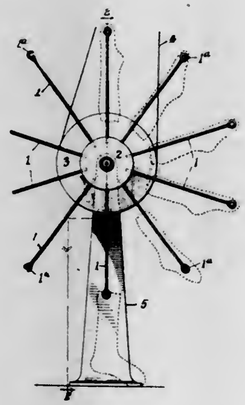


1. An alarm for drip pans comprising an attaching device, a sounding device connected with the attaching device, an adjustable pan engaging screw engaged in the attaching device, a lip carried by the attaching device below the screw, a clamping screw disposed oppositely to the adjusting screw, a clamp plate engaged with the clamping screw and extending over the adjusting screw and the lip, a lever pivoted upon the attaching device, said lever being movable to operate the sounding device, a float lever pivoted to the attaching device, means carried by the float lever for operating the first named lever, and a float carried by the float lever.

2. An alarm for drip pans comprising an attaching device, a sounding device carried by the attaching device, a lever pivoted upon the attaching device and arranged for movement to operate the sounding device, a slotted member pivoted upon the attaching device, a float lever pivoted to said member and having adjustment in the slot, a yoke carried by the member and arranged for the reception of one end of the first named lever and for operation of the said first named lever to operate the sounding device and a float carried by the float lever.

3. An alarm for drip pans comprising an attaching member, a sector shaped member pivoted at its minor portion upon the attaching member, said sector shaped member having an arcuate slot therein, a float lever extending across the arcuate slot and pivotally connected with the sector shaped member, the pivot point of the float lever being concentric with the arcuate slot, a clamping device engaged in the float lever and through the slot, said clamping device being operable to hold the float lever at different points in its pivotal movement, a float carried by the float lever, a yoke carried by the sector shaped member above the float lever, a bell carried by the attaching member, and a lever pivoted upon the attaching member for operation to sound the bell, said second lever extending into the path of movement of the yoke, for engagement in and movement by the yoke when the float lever is raised to ring the bell.

939,312. HOSIERY-TURNER. FRANK POPE, Kankakee, Ill., assignor to Paramount Knitting Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 25, 1907. Serial No. 359,266.



1. A hosiery turner comprising a series of rotatable rods mounted to rotate in unison in a vertical plane, and means for supporting said rods.

2. A hosiery turner comprising a center piece rotatable in a vertical plane, and a series of turning rods secured thereto at their inner ends and rotatable in a vertical plane.

3. A hosiery turner comprising a series of radially arranged turning rods, and means for rotating said rods in unison.

4. A hosiery turner comprising a series of rotatable turning rods mounted to rotate in unison and having eyes at their outer ends.

5. A hosiery turner comprising a support, a disk mounted to rotate thereon on a horizontal axis, and a series of radially-arranged turning rods secured at their inner ends to said disk and rotatable in a vertical plane.

[Claims 6 and 7 not printed in the Gazette.]

939,313. FABRIC FOR LACING-TIPS AND THE LIKE AND COMPOSITION FOR THE SAME. GEORGE W. PRENTICE, Providence, R. I. Filed Aug. 18, 1906. Serial No. 331,184.

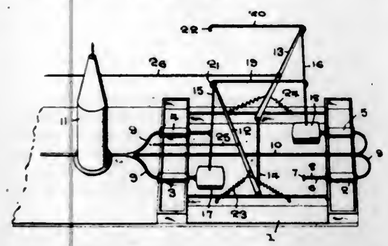
1. As an article of manufacture a textile fabric treated with a composition of glue, isinglass, and lamp-black, substantially as described.

2. A composition for treating textile fabrics composed of glue, isinglass, and lamp-black, substantially as described.

3. As an article of manufacture, a textile fabric treated with a composition of glue, isinglass, shellac, and lamp-black, substantially as described.

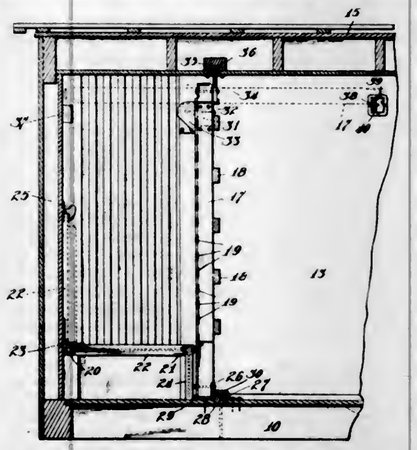
4. A composition for treating textile fabrics composed of glue, isinglass, shellac, and lamp-black, substantially as described.

939,314. AIR-COMPRESSOR. FREDERICK A. PREUSS, Green Garden precinct, Madison county, Nebr. Filed Feb. 23, 1909. Serial No. 479,677.



An air compressor, comprising the combination with air pumps having piston rods extending therefrom, heads at the outer ends of said piston rods, springs surrounding said rods, a tank and pipes extending from said pumps to said tank; of standards pivotally mounted between the pumps, means for actuating said standards, weights carried by said standards and adapted to be swung into engagement with the ends of the piston rods, means to limit the swinging movement of said standards and springs adapted to cause said standards to swing back and forth.

939,315. REFRIGERATOR-CAR. HERMAN PRIES, Michigan City, Ind. Filed June 21, 1909. Serial No. 503,406.



1. In a refrigerator car, in combination, a body, a movable partition for dividing the body into two compartments, stops projecting from the walls of the body for engaging the partition at one side thereof and adjacent its upper end, such stops being spaced apart from the top of the body, means for staying the partition on the side opposite the stops, and an additional support attached to the body coöperating with the stops to carry the partition in a substantially horizontal position.

2. In a refrigerator car, in combination, a body, a movable partition for dividing the body into two compartments, studs projecting inwardly from the body walls adjacent the tops thereof and engaging one face of the partition, and an additional support for the partition when raised to a substantially horizontal position and moved back on the studs.

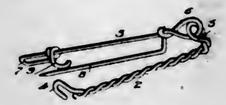
3. In a refrigerator car, in combination, a body having instanding studs adjacent the tops of its side walls, a movable partition for dividing the body into two compartments, such partition bearing against the studs and being slidable thereon when raised to a substantially horizontal position.

4. In a refrigerator car, in combination, a body having instanding studs adjacent the tops of its side walls, a movable partition for dividing the body into two compartments, such partition bearing against the studs and being slidable thereon when raised to a substantially horizontal position, and a latch secured to the body and engaging the partition when raised.

5. In a refrigerator car, in combination, a body having instanding studs adjacent the tops of its side walls, a movable partition for dividing the body into two compartments, such partition bearing against the studs and being slidable thereon when raised to a substantially horizontal position, and a gravity latch secured to the body and movable into a pocket in the wall thereof and adapted to engage the partition when raised.

[Claims 6 and 7 not printed in the Gazette.]

939,316. BAG-FASTENER. NETTIE L. RANUM, Devils Lake, N. D. Filed May 24, 1909. Serial No. 498,048.



In a bag fastener, the combination of two members each constructed of wire and bent into loops which are linked together, whereby said members are hinged, one of said members being formed of twisted strands of wire and terminating in a fastening device, and the other of said members being bent at its free part into a fastening device adapted to engage the fastening device aforesaid, and a guard, said second member being provided with an integral pin adapted to be engaged with said guard.

939,317. WRENCH. EDWARD C. REA and GEORGE W. REA, Baker City, Oreg. Filed Mar. 9, 1909. Serial No. 482,397.

1. A wrench comprising a handle provided with a forked end, a carrier slidably mounted on said handle, a wrench head rotatably mounted in said carrier, and means for locking said head against movement.

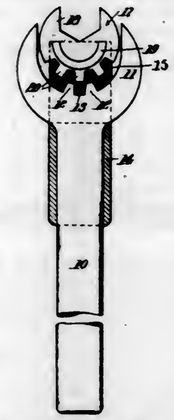
2. A wrench comprising a handle, a carrier slidably mounted thereon, a rotatable head removably mounted in said carrier, and means for locking said head.

3. A wrench comprising a handle provided with a forked end, a carrier slidably mounted on said handle and provided with grooves, a rotatable head mounted in said carrier and provided with ribs engaging said grooves, and means for preventing rotation of said head.

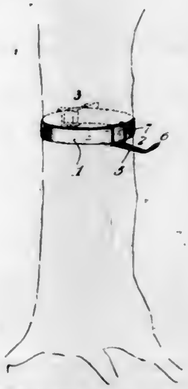
4. A wrench comprising a handle provided with a forked end, a carrier slidably mounted thereon and provided with semicircular grooves, a circular wrench head rotatably mounted in said carrier and provided with semicircular ribs engaging said grooves, and means for engaging said head to prevent rotation thereof.

5. A wrench comprising a handle provided with a forked end, a carrier slidably mounted on said handle, a rotatable wrench head removably mounted in said carrier and provided with peripheral teeth, said handle being provided with teeth adapted to engage the teeth of said head.

[Claim 6 not printed in the Gazette.]



939,318. PORTABLE SUSPENDING DEVICE. CHARLES F. REDMAN, Youngstown, Ohio. Filed Apr. 30, 1909. Serial No. 493,201.



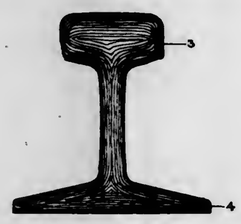
1. A portable suspending device comprising an attaching band and a hanger hook provided with slide loops receiving the band and holding prongs for engagement with a support.

2. A portable suspending device comprising an attaching band and a hanger hook consisting of a length of wire bent to provide a main offstanding hook arm, a pair of upstanding slide loops receiving the band, and rearwardly projected holding prongs located at the lower ends of the slide loops.

939,319. RAIL. NORMAN RENDLEMAN, Knoxville, Pa., assignor to Jones & Laughlin Steel Company, Pittsburg, Pa., a Corporation of Pennsylvania. Filed Sept. 29, 1908. Serial No. 455,283.

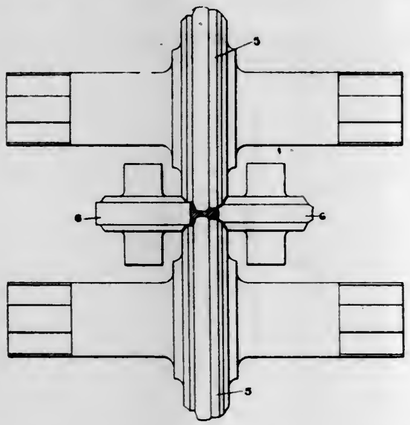
1. A structural shape having in the enlargement along one edge of the web a strata produced in reduction, disposed in planes substantially at right angles to the direction in which stress is applied to the shape when in use.

2. A rail having the strata formed in the head and flange during reduction, disposed in planes substantially at right angles to the direction in which load is applied to the rail.



3. A rail having strata formed in the head, web and flange during reduction, so disposed that the strata in the head and flange are in substantially parallel planes and at right angles to the planes of the strata of the web.

939,320. METHOD OF MANUFACTURING RAILS. NORMAN RENDLEMAN, Knoxville, Pa., assignor to Jones & Laughlin Steel Company, Pittsburg, Pa., a Corporation of Pennsylvania. Filed Sept. 29, 1908. Serial No. 455,284.

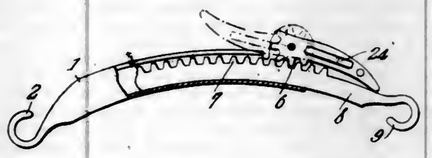


1. As an improvement in the art of manufacturing rails, the method herein described which consists in subjecting the metal which is being rolled to reducing pressure applied in directions substantially parallel with the web or the direction in which loads are normally applied to the finished rail.

2. As an improvement in the art of manufacturing rails the method herein described which consists in causing a stratification of the metal of the head and flange portions in planes at an angle to the web or the direction in which loads are to be applied to the finished rail by reducing pressure applied in directions substantially at right angles to the planes in which it is desired the strata should extend.

3. As an improvement in the art of manufacturing rails, the method herein described which consists in reducing an ingot or bloom to a "shape" or "form" of a height greater than that of the rails to be formed, reducing the head, flange and web portions the reducing pressure applied to the head and flange portion being at or approximately at right angles to the direction in which reducing pressure is applied to the web portion of the shape.

939,321. HAME-FASTENER. GUS W. REYER, Wichita, Kans. Filed Apr. 29, 1909. Serial No. 492,979.



1. In a device of the class described, a holder; a laminated lever pivoted in the holder and comprising a center member and side members disposed upon either side of the center member, all of said members being longitudinally slotted, the slot of the center member being longer than the slots of the side members; a catch transversely mounted in the slots and being arranged to engage the holder; resilient catch-actuating means housed in the slot of the center member and being laterally retained by the side members; and a tension member mounted in the holder and being operable by the lever.

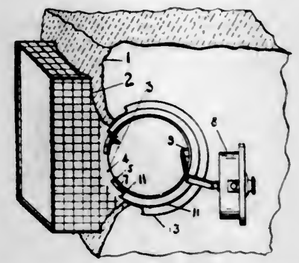
2. In a device of the class described, a holder; a laminated lever pivoted in the holder and comprising a center member and side members disposed upon either side of the center member, all of said members being longitudinally slotted, the slot of the center member being longer than the slots of the side members; a Y-shaped catch transversely mounted in the lever, the shank of the catch being disposed in the slot of the center member and being laterally retained by the side members; and the extremities of the arms of the catch being extended to engage the exterior of the side members; and a tension member mounted in the holder and being operable by the lever.

3. In a device of the class described, a holder; a laminated lever pivoted in the housing and comprising a center member and side members disposed upon either side of the center member, all of said members being longitudinally slotted, the slot of the center member being longer than the slots of the side members; a Y-shaped catch transversely mounted in the lever, the shank of the catch being disposed in the slot of the center member and being laterally retained by the side members, the arms of the catch being arranged to register in the slots of the side members and being terminally extended to engage the exterior of the side members; and a tension member mounted in the holder and being operable by the lever.

4. In a device of the class described, a holder; a laminated lever pivoted in the holder and comprising a center member, and side members disposed upon either side of the center member, all of said members being longitudinally slotted, the slot of the center member being longer than the slots of the side members; a Y-shaped catch transversely mounted in the lever, the shank of the catch being disposed in the slot of the center member and being laterally retained by the side members; and the extremities of the arms of the catch being extended to engage the exterior of the side members; a tension member mounted in the holder and being operable by the lever; resilient catch-actuating means housed in the slot of the center member and being laterally retained by the side members.

5. In a device of the class described, a holder; a laminated lever pivoted in the housing and comprising a center member and side members disposed upon either side of the center member, all of said members being longitudinally slotted, the slot of the center member being longer than the slots of the side members; a catch transversely mounted in the lever, the shank of the catch being disposed in the slot of the center member and being laterally retained by the side members, the arms of the catch being arranged to register in the slots of the side members and being terminally extended to engage the exterior of the side members; a tension member mounted in the holder and being operable by the lever; resilient catch-actuating means housed in the slot of the center member and being laterally retained by the side members.

939,322. WALL-SAFE. WILLIAM H. REYNOLDS, Toledo, Ohio, assignor to The Mellink Manufacturing Company, Toledo, Ohio, a Corporation of Ohio. Filed Apr. 23, 1909. Serial No. 491,839.



1. The combination with a wall safe adapted to be embedded in a wall, said safe having an opening, of a door frame attachable to the safe after the safe is embedded in a wall, and a finish rim engaging said frame and independently adjustable toward and from the safe.

2. A wall safe adapted to be built into a wall, said safe having a side of uniform thickness provided with an opening, a frame for the opening forming a door jamb, a door hinged to move into seating relation with the jamb, and an endless rim adjustable toward and from the safe to finish to the wall surrounding the opening.

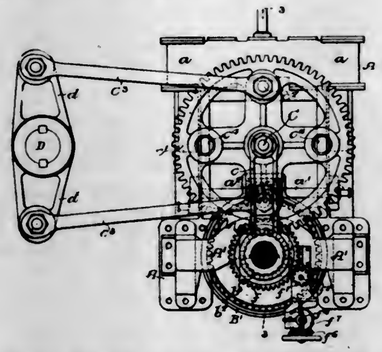
3. The combination with a masonry wall, of a safe having an opening surrounded by the wall, a hinged circular door mounted to close the opening, a frame for the door, and a rim to finish the joint of the wall surrounding the opening, said rim adjustable toward and from the safe independently of the door frame.

4. A wall safe adapted to be built into a wall, said safe having an opening, a door frame attachable at the opening after the safe is built into a wall, a hinged door mounted to seat in said frame, and a finish rim adjustable independently of the door frame, said rim having an inwardly extending frictional holding flange.

5. A wall safe having an opening, a casing for the opening, a door for the casing, and an adjustable endless finish rim having an inwardly extending frictional holding flange surrounding the casing.

[Claims 6 to 9 not printed in the Gazette.]

939,323. STEERING-GEAR. ROBERT S. RILEY, Providence, R. I., assignor to Williamson Bros. Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Sept. 3, 1908. Serial No. 451,484.



1. Rudder operating mechanism including a source of power, with a series of elements, connected to form a trapezoidal figure, and interposed between said source of power and the rudder, so as to constitute means for increasing the leverage on the rudder, one of the elements forming an end of said trapezoidal figure being capable of being moved bodily toward and from the other end thereof.

2. Rudder operating mechanism including a source of power, and a series of elements connected to form a trapezoidal figure interposed between said source and the rudder, with means for permitting the element forming one side of said figure to bodily approach another side thereof when the device is operated from its normal position.

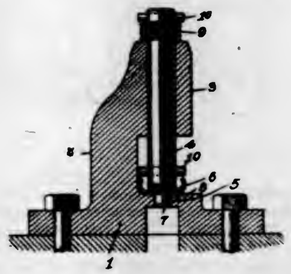
3. In rudder operating mechanism the combination of a source of power, and a series of elements connected to form a trapezoid interposed between said source of power and the rudder, said mechanism including a device capable of permitting a change in certain of the dimensions of said figure when such change is required by the operation of the rudder.

4. The combination of a rudder head, arms connected thereto, a rotatably mounted toothed segment movable relatively to the rudder head toward and from the same, links connecting the toothed segment and said arms, the distance between the points of connection of the links to the segment being less than the distance between the points of connection of the arms to the rudder head, an operating shaft, and mechanism including worm gearing connecting said shaft with the toothed segment.

5. The combination in a rudder operating mechanism of a rotatable rudder head and a rotatable segment mounted to be capable of relative bodily movement toward and from each other, a source of power connected to said segment, and means connecting said segment and the rudder head, said parts being arranged to permit an angular movement of said segment to cause a different angular movement of the rudder head.

[Claims 6 to 10 not printed in the Gazette.]

939,324. METAL-PUNCH. WILLIAM C. ROBINSON, Pittsburg, Pa. Filed May 29, 1909. Serial No. 499,227.



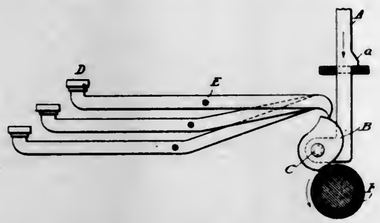
A hand operative punching tool having in combination a bar having one end reduced to form a perforating point and having a beveled or inclined shoulder at the base of said point and an anvil block having an opening therein for the reception of the point the end wall of the opening being beveled or outwardly inclined.

939,325. KEYBOARD MECHANISM FOR LINE-CASTING MACHINES. JOHN R. ROGERS, Brooklyn, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Jan. 23, 1909. Serial No. 473,804.

1. The vertically guided reed and the cam carried thereby, in combination with the continuously rotating roll, and the finger key acting to arrest the rotation of the cam.

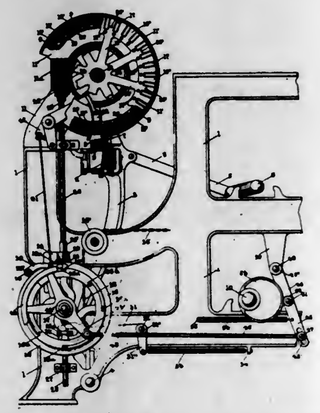
2. The vertically guided reed and means for limiting its descent, in combination with the toothed cam carried thereby, an underlying, continuously rotating roll, and a finger key adapted to engage the cam.

3. The vertically guided reed A and the toothed cam carried thereby, in combination with the continuously ro-



tating roll underlying the cam, and means independent of the reed for arresting the rotation of the cam and releasing the same at will.

939,326. WEFT-REPLENISHING LOOM. EPPA H. RYON, Worcester, Mass., assignor to Crompton & Knowles Loom Works, a Corporation of Massachusetts. Filed July 11, 1908. Serial No. 443,067.



1. In a weft replenishing loom, a lay, a rotatable magazine for bobbins, means to oscillate said magazine in unison with the shifting shuttle boxes, and to rotate said magazine, said means consisting of a worm gear attached to the magazine, and a longitudinal and rotatable worm coöperating with said worm gear, and means to operate said worm.

2. The combination with a magazine for a shifting shuttle box loom, of means to oscillate and rotate the magazine, said means consisting of a worm and worm gear, combined with means to automatically give to said worm a longitudinal and a rotary motion.

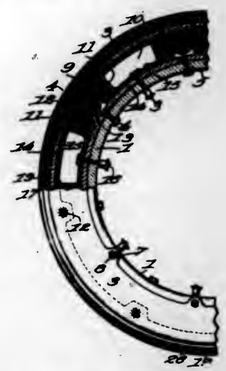
3. In a magazine for weft replenishing looms, a rotatable sleeve or hub having thereon supports for the ends of the bobbins, a worm gear attached to said hub, a worm meshing with said gear, and means under the control of pattern mechanism to impart a longitudinal motion to said worm, combined with devices to impart to said worm a rotary motion.

4. In a weft replenishing loom, a magazine for bobbins, means to oscillate said magazine in unison with the shifting shuttle boxes, and to rotate said magazine when a change of filling takes place, said means consisting of a worm, a worm gear, a ratchet and devices to operate the same.

5. In combination, a magazine for bobbins, a worm gear attached thereto, a worm coöperating with said worm gear, a shaft attached to said worm, a mechanism under the control of pattern surfaces to move said shaft longitudinally, and devices to rotate said shaft.

[Claims 6 to 11 not printed in the Gazette.]

939,327. ELASTIC TIRE FOR VEHICLE-WHEELS. BENTO MARTINS DE SA, Rio de Janeiro, Brazil. Filed Mar. 2, 1908. Serial No. 418,913.



1. In an elastic vehicle wheel rim, the combination of a felly, a retaining device mounted thereon and comprising an angle ring seated on said felly and a clamping ring secured to said angle ring, a plurality of alternately disposed solid and pneumatic cushioning elements seated in said retaining device, a circular tread holder projecting into said device and seated on said elements, said holder having inwardly projecting angular flanges, and an elastic circular tread member engaged by said holder.

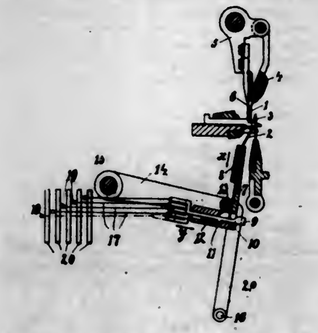
2. In an elastic vehicle wheel rim, the combination of a felly, a retaining device mounted on said felly and comprising laterally disposed radially projecting walls, a plurality of alternately disposed solid and pneumatic cushioning elements seated in said retaining device, a circular tread holder projecting into said device and seated on said elements, and an elastic tread portion engaged and retained by said holder.

3. In an elastic vehicle wheel, the combination of a retaining device comprising an angle ring and a clamping ring forming radially projecting walls, alternately disposed solid and independently inflatable cushioning elements disposed between said walls, a tread portion projecting between said walls and seated on said elements, and means engaging said walls, tread portion and certain of said elements to permit radial movement of said tread portion and elements with respect to said walls and prevent relative circumferential movement with respect to said walls, tread portion and certain of said elements.

939,328. LACE-PATTERN MECHANISM FOR STRAIGHT-KNITTING MACHINES. BRUNO SALZER and GUSTAV WALTHER, Chemnitz, Germany. Filed Mar. 25, 1907. Serial No. 364,391.

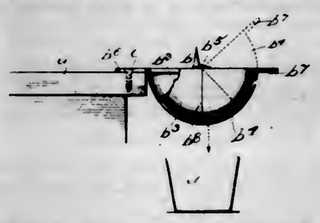
1. In a straight-bar knitting machine the combination of a jacquard-apparatus, stop needles projecting upward from below into engagement with the point-shifting needles adapted to press the latter away from the frame needles, a stop needle bar, means for independently moving certain of said stop needles in said bar, comprising a selecting jack connected to said stop needle bar and selecting jacks movably arranged in said bar and means for operating said selecting jacks from said jacquard-apparatus.

2. In a straight-bar knitting machine the combination of a plurality of divisions each including in equal numbers stop needles and selecting jacks therefor, a plurality of primary actuating members equal in number to the selecting jacks of one of said divisions and operatively connected with all of said divisions, and a single jacquard



acting through said primary members and jacks to independently operate the needles of all of said divisions.

939,329. KITCHEN UTENSIL. JOHN SAUL, Jersey City, N. J. Filed Feb. 19, 1909. Serial No. 478,822.



1. A device of the class described comprising a bowl-shaped receptacle divided transversely into two parts hinged together at the top of the side portions thereof, one of said parts being adapted to be secured to a support and the other being provided with a handle.

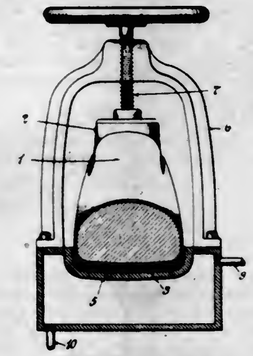
2. A device of the class described comprising a bowl-shaped receptacle divided transversely into two parts hinged together at the top of the side portions thereof, one of said parts being adapted to be secured to a support and the other being provided with a handle, that part which is adapted to be secured to a support being also provided with a transverse blade member the edge of which is directed upwardly.

939,330. APPARATUS FOR APPLYING RUBBER SOLES TO BOOTS AND SHOES. EMMETT A. SAUNDERS, South Bend, Ind. Filed Jan. 10, 1907. Serial No. 351,634.

1. In a device of the character described, a mold adapted to form the heel, sole and foxing portion of a shoe from rubber or other plastic material, means for applying heat to said mold for vulcanizing its contents, means for applying pressure to said mold while vulcanizing, and means for causing resistance to the plastic material so the same will be forced into the pores of the upper.

2. In a device of the character described, a mold adapted to form the heel, sole and foxing portion only of a shoe, a last adapted to fit into said mold and assist in the formation of said heel, sole and foxing portion therein, said mold being so formed as to closely engage the foxing-line of said last to cause a resistance and prevent the free flowing of the material therefrom, and means for applying heat and pressure to the material.

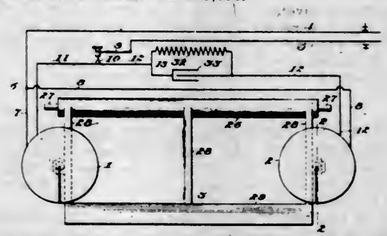
3. In a device of the character described, a mold adapted to form the heel, sole and foxing portion of a shoe, a last over which a shoe may be formed the same being adapted to fit the mold and assist in the formation of the heel, sole and foxing therein, means for applying heat and pressure to the material, and means in said last and mold for causing resistance to the plastic material so that the same will be formed into the pores of the upper.



4. In a device of the character described, a mold adapted to form the heel, sole and foxing portion of a shoe, a last over which a shoe may be formed the same being adapted to fit the mold and assist in the formation of the heel, sole and foxing therein, said mold being so formed as to closely fit the upper on the last at the foxing-line thereof to cause a resistance and insure the plastic material being formed into the pores of the upper, and means for applying heat and pressure to the material.

5. In a device of the character described, a mold adapted to form the heel, sole and foxing portion of a shoe from rubber or other plastic material, means for applying heat to said mold for vulcanizing its contents, a last or form to assist in the formation of the heel, sole and foxing portion, means for applying pressure to said mold while vulcanizing, and means engaging the foxing-line to better retain the material while under pressure.

939,331. ALTERNATING-CURRENT ELECTRIC MOTOR. JOHN T. SCHAAFF, Washington, D. C. Filed Mar. 9, 1906. Serial No. 305,090.



1. An alternating-current electric motor, comprising a plurality of separate electromagnets, spaced apart, a single armature member reciprocable in the same direction by both magnets, a source of alternating electric current connected to both magnets, and a phase-retarder in the circuit of one magnet.

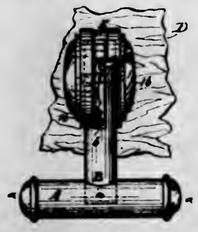
2. An alternating-current electric motor, comprising a plurality of separate electromagnets, spaced apart, each electromagnet comprising a slotted core and armature, a single armature member reciprocable in the same direction by both magnets, a source of alternating electric current connected to both magnets, and a phase-retarder in the circuit of one magnet.

3. An alternating-current electric motor, comprising a plurality of separate electromagnets, spaced apart, each electromagnet comprising a slotted metal core, shell and

armature, a single armature member reciprocable in the same direction by both magnets, a source of alternating electric current connected to both magents, and a phase-retarder in the circuit of one magnet.

4. An alternating-current electric motor, comprising a plurality of separate electromagnets, spaced apart, each electromagnet comprising a tubular metal member slotted longitudinally at two points, a single armature member reciprocable in the same direction by both magents, a source of alternating electric current connected to both magnets, and a phase-retarder in the circuit of one magnet.

939,332. HANDLE. GEORGE A. SCHEHR, Cincinnati, Ohio. Filed Aug. 11, 1909. Serial No. 512,295.



1. In handle-construction, the combination of an arm, a handle on it, a bracket to which the arm is connected with a pivotal joint and a cap which covers this joint on both sides of the arm.

2. In a handle, the combination therewith of an arm, a support, a pin whereby the arm is pivotally jointed to this support and a cap which covers this joint and both ends of the pin.

3. In handle-construction, the combination of an arm, a handle secured to one end of it, a support at its other end to which the arm is connected with a pivotal joint and a cap which covers this joint and is mounted to move with the arm.

4. The combination of a handle, an arm to which it is secured, means to attach it in position and to which the arm is pivotally jointed and a cap seated upon this joint and filling the space between it and the object on which the handle is used.

5. The combination of a handle, an arm to which it is secured, a bracket to attach it in position and to which the arm is pivotally jointed and a cap seated upon this joint so as to move with the arm and covering the bracket on which the arm is supported.

[Claims 6 to 8 not printed in the Gazette.]

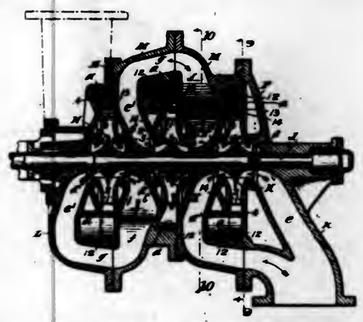
939,333. CENTRIFUGAL AND SIMILAR PUMP, BLOWER, AND THE LIKE. WALTER SCHEURMANN, Newark-upon-Trent, England, assignor to Henry R. Worthington, a Corporation of New Jersey. Filed June 14, 1907. Serial No. 378,885.

1. A centrifugal pump, blower or the like, having a spiral diffusing passage of increasing area surrounding the impeller and connecting with the impeller through a narrow throat and developing gradually into a helical passage through which the impeller delivers.

2. In a multi-stage centrifugal pump, blower or the like, an impeller having a spiral diffusing passage of increasing area surrounding it and connecting with the impeller through a narrow throat and developing gradually into a helical passage connecting with the suction passage of the next impeller.

3. In a multi-stage centrifugal pump, blower or the like, an impeller having a spiral diffusing passage of increasing area surrounding it and connecting with the impeller through a narrow throat and developing gradually into a helical passage connecting with a spiral passage of decreasing area delivering to the axial suction of the next impeller.

4. A multi-stage centrifugal pump, blower or the like, having a spiral diffusing passage of increasing area surrounding each impeller and connecting with the impeller through a narrow throat and developing gradually into a helical passage, and a spiral passage of decreasing area surrounding the axial suction of the second and subsequent impellers and into which the helical passage from the preceding impeller delivers.



5. In a centrifugal pump, blower or the like, the combination with an impeller, of spiral diffusing passage *a* surrounding the impeller and connecting with the impeller through a narrow throat and formed by spiral wall 12 terminating in fin 4, and having the side wall 14 on the delivery side inclined to form the helical passage *b* of increasing area.

[Claims 6 to 14 not printed in the Gazette.]

939,334. TRACTION DEVICE. MAX E. SCHMIDT, Convent, N. J. Filed Oct. 28, 1908. Serial No. 459,852.



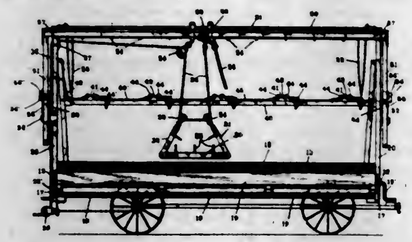
1. A traction device comprising an endless platform composed of a plurality of coupled-together unitary carriers provided with underneath rails having downwardly presented treads, a plurality of shafts rotatable in stationary bearings and provided with wheels upon which said treads bear for support and propulsion of said platform, means for imparting rotation to some of said shafts, and means for transmitting rotation therefrom to others of said shafts.

2. A traction device comprising an endless platform composed of a plurality of coupled-together unitary carriers provided with underneath rails having downwardly presented treads, a plurality of mutually parallel shafts rotatable in stationary bearings and provided with wheels upon which said treads bear to progress straightly, means for imparting rotation to some of said mutually parallel shafts, means for transmitting rotation therefrom synchronously to others of said mutually parallel shafts, and, interposed between groups of said parallelly disposed shafts radially disposed shafts provided with idler wheels upon which said treads bear to progress curvedly.

3. A traction device comprising an endless platform composed of a plurality of coupled-together unitary carriers provided with underneath rails having downwardly presented treads, a plurality of shafts rotatable in stationary bearings and provided with wheels upon which said treads bear for support and propulsion of said platform, means for imparting rotation to some of said shafts, sprocket wheels in mutual alinement and rotated by consecutive pairs of said shafts, and endless chains operatively engaging with said sprocket wheels to transmit rotation synchronously from one to another of said shafts.

4. A traction device comprising a plurality of independent, coupled-together, unitary carriers, supporting rails, a plurality of smooth faced bearing wheels tracking with said rails to support each said carrier respectively, a motor, means to transmit power from said motor directly to some of said wheels to positively rotate them while supporting one of said carriers, and means to transmit power from said motor to positively rotate others of said wheels while supporting others of said carriers, substantially as and for the purposes described, whereby traction opposed to said motor is increased, substantially as and for the purposes described.

939,335. SHOCK-LOADER. JAMES B. SCHUMAN, Indianapolis, Ind., assignor to The Schuman Company, Indianapolis, Ind., a Corporation of Maine. Filed Apr. 17, 1905, Serial No. 256,081. Renewed Feb. 8, 1908. Serial No. 414,980.



1. The combination, with a portable vehicle, of a transversely movable and vertically swingable platform mounted thereon, means for moving said platform transversely to permit it to swing vertically, and lifting mechanism arranged above said platform.

2. The combination, with a portable vehicle, of a transversely movable and vertically swingable platform mounted thereon, means for holding said platform in normal receiving position, means for moving said platform transversely to permit it to swing vertically, and lifting mechanism arranged above said platform.

3. The combination, with a portable vehicle, of a transversely movable and vertically swingable platform mounted thereon, means for moving said platform transversely to permit it to swing vertically, and a guard rail arranged above the platform in position to engage the upper ends of material loaded on said platform.

4. The combination, with a portable vehicle, of a transversely movable and vertically swingable platform mounted thereon, means for holding said platform in normal receiving position, means for moving said platform transversely to permit it to swing vertically, and a guard rail arranged above the platform in position to engage the upper ends of material loaded on said platform.

5. The combination, with a portable vehicle, of a receiving platform pivotally mounted thereon so as to swing vertically, means for normally retaining said platform in receiving position, and lifting mechanism arranged above said platform.

[Claims 6 to 42 not printed in the Gazette.]

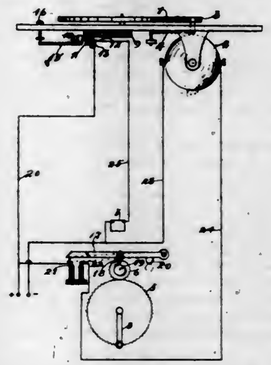
939,336. RAILWAY-TRACK CONSTRUCTION. SAMUEL J. SCOTT, Columbus, Ohio, assignor of one-third to John A. McDowell, Columbus, Ohio. Filed Feb. 19, 1909. Serial No. 478,886.

1. In a railway track construction, the combination with opposing inner and outer plates having a channel space between their upper portions and provided with lateral bearing flanges between their upper and lower edge portions, of a track rail section having its web portion adapted to seat within the channel space between said plates and its head adapted to bear upon the upper edges of said plates, bolts detachably connecting said plates and track section web, and means for rigidly connecting said plates with transverse ties.



2. In a railway track construction, the combination with opposing inner and outer plates having a channel space between their upper portions and provided with lateral bearing flanges between their upper and lower edge portions, of a track rail section having its track web portion adapted to seat within the channel space between said plates, means for detachably connecting said plates and track section web and transverse metallic ties having T shaped upper portions which pass through transverse T shaped slots formed in those portions of the inner and outer plates that lie below the lateral bearing flanges.

939,337. SYNCHRONIZING DEVICE FOR PICTURE-MACHINES AND PHONOGRAPHS. PAUL SEILER, Oakland, Cal., assignor of one-half to Samuel Joseph Johns, San Francisco, Cal. Filed Oct. 7, 1908. Serial No. 456,554.

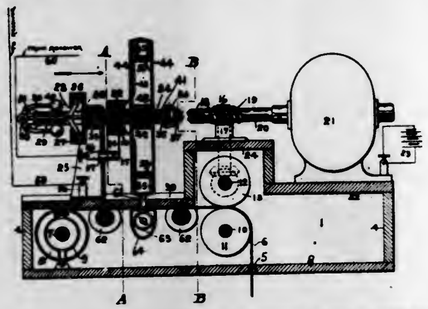


1. In a combination picture machine and phonograph apparatus, a motor circuit, a ticker circuit, and means for simultaneously closing said circuits.

2. In a combination picture machine and phonograph apparatus, a motor circuit, a ticker circuit, a phonograph, a picture machine a rhythmical make and break device in said ticker circuit, and means on said picture machine for simultaneously closing said circuits.

3. In a combination picture machine and phonograph apparatus, a picture machine, a phonograph, a motor circuit, a ticker circuit, a rhythmical make and break device in said ticker circuit, means for independently setting said picture machine, rhythmical make and break device, and phonograph at their respective starting points, and means for closing said circuits simultaneously.

939,338. ELECTRICAL TRANSMISSION OF GRAPHIC MESSAGES. GILBERT SELLERS, Chicago, Ill. Filed July 18, 1908. Serial No. 444,227.



1. Means for electrically transmitting graphic messages and views of objects, including a message-sheet of varying degree of transparency; a source of light; means for projecting the light from said source of light through said message-sheet by a step-by-step movement; a series of rotating, light-sensitive, elements upon which the rays of light are projected after passing through said message-sheet; an electrical circuit including said light-sensitive elements; means for transmitting the various undulations in the intensity of the current in said circuit caused by the action of the light-rays upon the light-sensitive elements, to a receiving station, and a reproducing instrument therein including means for translating the varying undulations of said current into a visible reproduction of the transmitting message.

2. The method of electrically transmitting messages and views of objects, which consists in exposing said messages, and views of objects, successively and step by step to a series of rapidly revolving light-sensitive substances which will change its electric conductivity in accordance with the intensity of the light acting upon said substances, and transmitting the electrical undulations or variations in the intensity of the current and the rapidity of the undulations to a reproducing instrument and to translate these electrical undulations and varying impulses into light-rays of correspondingly varying intensity and projecting the same upon a reflecting surface which renders them visible to the human eye.

3. In an apparatus for electrically transmitting messages, pictures and images of objects, means for translating said image into a series of electrical impulses; a transmission circuit; and means for retranslating these electrical impulses into a duplicate of the sending image including a series of revolving reflecting surfaces.

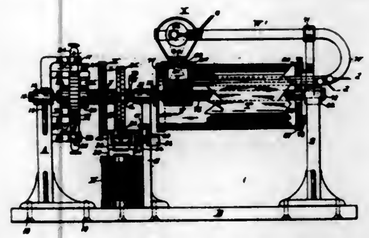
4. In an apparatus for electrically transmitting messages, pictures and images of objects, means for translating said image into a series of electrical impulses of varying intensity; a transmission-circuit, and means for retranslating these electrical impulses into a duplicate of the sending image including a series of revolving reflecting surfaces.

5. In an apparatus for electrically transmitting messages, pictures and images of objects, means for translating said image into a series of electrical impulses of varying rapidity; an electrical transmission circuit, and means for retranslating said electrical impulses into a duplicate of the original image including a series of revolving reflecting surfaces.

[Claims 6 to 19 not printed in the Gazette.]

939,339. ELECTRIC TRANSMISSION OF MESSAGES. GILBERT SELLERS, Chicago, Ill. Filed Nov. 25, 1908. Serial No. 464,488.

1. A system of electrical transmission of graphic messages, including a message-sheet of varying intensity and density; a source of light the rays of which are projected through said message-sheet; an electrical circuit the electrical resistance of which is governed by the light passing through said message-sheet; means for alternately changing and reversing the electrical current in said circuit, and means for moving the message-sheet bodily past said source of light by a step-by-step movement.



2. A system of electrical transmission of graphic messages, including a message-sheet of varying density; a source of light; means for projecting the rays of light from said source through said message-sheet; a local circuit; an element in said local circuit which is light-sensitive and changes its electro-conductivity under the influence of light passing through said message-sheet; a transmission circuit; means in said transmission circuit for moving the message-sheet bodily by a step-by-step movement past said source of light, and means in said local circuit for alternately reversing the current in said local circuit to initiate the operation of the means that move the message-sheet.

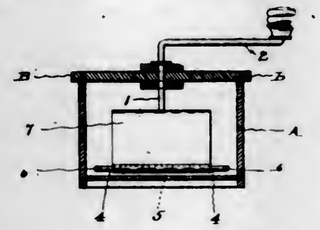
3. A system of electrical transmission of graphic messages including a source of light; a message-sheet of varying density; mechanism for moving said message-sheet bodily by a step-by-step movement past said source of light; a local electrical circuit the electrical resistance of which is governed by the varying intensity of the light passing through said message-sheet; a commutator in said local circuit; a galvanometer in said local circuit; an electrical transmission circuit, said galvanometer being adapted to open and close the transmission circuit, and means in the transmission circuit adapted to rotate said commutator and to operate the mechanism that moves the message-sheet, said commutator comprising two disks each having a series of peripheral sections interlocking with, and electrically insulated from, the other; a source of electrical energy supplying the local circuit of which the commutator disks form a part, one of said disks being positively, and the other negatively charged.

4. A system of electrical transmission of graphic messages including a source of light; a message-sheet of varying density; mechanism for moving said message-sheet bodily by a step-by-step movement and at intervals of longer and shorter duration of time past said source of light; a local electro-circuit the electrical resistance of which is varied by the varying intensity of the light passing through said message-sheet; a transmission circuit; a galvanometer in the local circuit and adapted to open and close the transmission circuit; a commutator in the local circuit adapted to alternately reverse the current flowing through said local circuit to actuate said galvanometer, and means in the transmission circuit adapted to rotate said commutator intermittently and to operate the mechanism that moves the message-sheet.

5. A system of electrical transmission of graphic messages including a source of light; a message-sheet of varying density; mechanism for passing said message-sheet bodily by a step-by-step movement past said source of light; a local electrical circuit; a selenium cell in said local circuit; means for projecting the rays of light from said light-source through said message-sheet upon said selenium cell, whereby the electro-conductivity of the local circuit is caused to vary in accord with the varying intensity of the rays of light passing through said message-sheet; a galvanometer in said local circuit; a commutator in said local circuit and including two interlocking, electrically insulated disks one of which is positively and the other negatively excited; an electrical transmission circuit; means in said transmission circuit adapted to move the message-sheet and the commutator intermittently, said galvanometer being adapted to open and close the transmission circuit.

[Claims 6 to 9 not printed in the Gazette.]

939,340. WASHING-MACHINE. WILLIAM C. SIMMONS and LEE R. SIMMONS, Beaver City, Nebr. Filed Feb. 16, 1909. Serial No. 478,344.

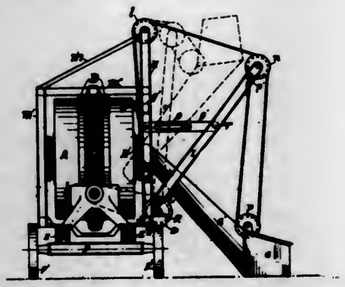


1. In a washing-machine, a rubber consisting of an inverted U-shaped casing open at its ends, an elongated open loop having parallel sides secured to the lower edges of the casing, and a vertical shaft secured to the casing, substantially as shown and described.

2. In a washing-machine, a rubber consisting of an inverted U-shaped casing open at its ends, an elongated open loop secured to the lower edges of the casing, a tubular member in the upper portion of the casing, and a vertical shaft secured to the casing, substantially as shown and described.

3. A washing-machine comprising a tub, a cover for the tub, a vertical shaft journaled in the cover having a crank-handle on its upper end, the lower end of the shaft formed with a horizontal extension and bent to form an open loop having parallel sides and curved ends, an inverted U-shaped casing secured to the shaft and having its lower edges secured to the parallel sides of the loop, and a tubular member secured to the shaft and located in the upper portion of the casing, substantially as shown and described.

939,341. POWER CHARGING DEVICE FOR CONCRETE-MIXERS. ALBERT E. SMITH, Milwaukee, Wis., assignor to The T. L. Smith Company, Milwaukee, Wis., a Corporation of Wisconsin. Filed Nov. 18, 1908. Serial No. 463,205.



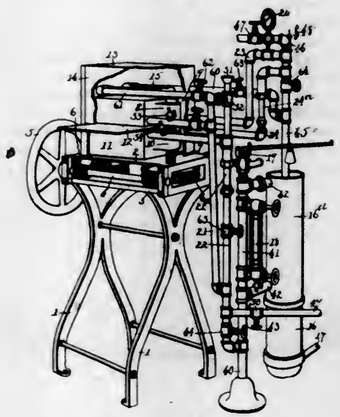
1. A power charging device for concrete mixers, comprising a framework extending upward from the mixer frame, a loading bucket having a long spout pivoted to said framework with its nose in position to enter the mixer drum, while the bucket is resting on the ground, a swinging boom hinged to said framework, means limiting the outward swing of said boom, a hoisting device on the mixer, sheaves on the bucket and on the upper ends of the boom and frame, a hoisting rope connected to the boom near its upper end, leading under the sheave on the bucket, over the two upper sheaves and thence to the hoisting device.

2. A power charging device for concrete mixers, comprising a frame on the mixer, a boom hinged on the frame, a bucket with a long spout hinged to the frame, a hoisting device and a hoisting rope attached to the upper end of the boom and passing under a sheave on the bucket, over sheaves on the upper part of the boom and the frame, and to the hoisting device.

3. A power charging device for concrete mixers, comprising a loading bucket, a hinged or swinging boom, a hoisting device, a frame work on the mixer, and a rope attached to the upper end of the boom, leading around sheaves on the bucket, the upper part of the boom and of the frame to the hoisting device.

4. In a power charging device for concrete mixers, a boom hinged at its lower end, means limiting the outward swing of the boom, a loading bucket provided with a sheave, means guiding the discharge end of the bucket and a hoisting rope attached to the boom and leading around the sheave on the bucket and over a sheave on the boom.

939,342. VULCANIZER. FRANK E. SMITH, Hartford, Conn. Filed July 24, 1906. Serial No. 327,553.



1. Two platens, means for varying the space between the platens, means for supplying heat to the platens, a frame adapted to fit between said platens, a cover for said frame, and means accessible when the frame is between the platens for locking the cover in position.

2. Two platens, means for varying the space between the platens, means for supplying heat to the platens, a frame to be located between said platens, a cover for said frame, and means movable on said frame and accessible from without the platens to lock the cover in position.

3. Two platens, means for moving the platens one toward another, means for supplying heat to the platens, a casing providing a chamber above the platens, and a rack consisting of coils of pipe located within said chamber.

4. Two platens, means for moving the platens one toward another, means for supplying heat to the platens, a casing surrounding the platens and providing a chamber thereover, and a rack consisting of a coil of pipes located within said chamber.

5. In a vulcanizer, a heater, platens, means for applying force to the platens, pipes extending from the heater to the platens, a casing providing a chamber overlying the platens, and a rack including coils of pipe extending from said heater and located within said chamber.

[Claims 6 to 14 not printed in the Gazette.]

939,343. METALLIC RAILWAY-TIE. JOHN G. SNYDER, Altoona, Pa. Filed July 6, 1909. Serial No. 506,210.



1. A metallic railway tie consisting of a casing having downwardly and inwardly turned sides and a support substantially central thereof, extending downward from the top in a longitudinal direction, and means to secure a rail to the casing.

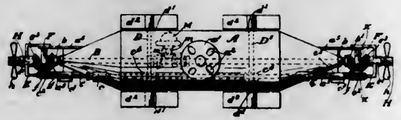
2. A metallic railway tie formed by turning the longer ends of a T beam downwardly and inwardly toward the web of the beam, and means to secure a rail to said tie.

3. A metallic railway tie formed by turning the longer ends of a T beam downwardly and inwardly toward the web, means to secure a rail to said die, and a filling for said tie.

4. The combination of a metallic railway tie formed by turning the longer ends of a T beam downwardly and inwardly toward the web, a clip for holding the rail in place, means in the tie for holding the clip in adjusted position, and means for securing the clip to the casing.

5. A metallic railway tie formed by turning the longer ends of a T beam downwardly and inwardly toward the web of the beam, slots with projections therein cut in said tie, a clip for holding the rail in place having a downward turned flange adapted to engage the projections in said slots, and means for securing the clip to the tie.

939,344. CRAFT ADAPTED TO TRAVEL IN A RESISTING MEDIUM. CHARLES M. STANLEY, Hamilton, Ohio. Filed July 24, 1908. Serial No. 445,249.



1. A submarine boat having in combination a body or hull, driving shaft terminals extending through the ends of the body in a common longitudinal axis thereof, screw propellers connected with each of said terminals in constant driving relation, and adjustable while maintaining such connection to opposite vertical and any intermediate radial positions of a semi-circle in the vertical plane of the propeller axis.

2. In a sub-marine boat, the combination of a body, screw propellers at the ends of said body and in the longitudinal central plane thereof, said propellers being mounted upon horizontal axes arranged at right angles to their axes of rotation, means for operating the propellers, and unitary means for adjusting the angle of the propellers relatively to said body.

3. In a submarine boat, the combination of a propeller at each end of the boat, whose shaft is journaled in a yoke pivoted to a fixed portion of the boat, said yoke, a shaft and trains of gears to supply power to said propellers, a worm gear fixed to each of said yokes, a worm meshing with each of said worm gears and fixed to an adjusting shaft, said adjusting shaft, and means for rotating the adjusting shaft.

4. In a submarine boat the combination of a body; driving shaft terminals extending fore and aft through the body in a common longitudinal axis thereof; yokes pivoted transversely to the axis of said terminals in a horizontal plane; means applied to said pivots to adjust said yokes to varying radial relations with said terminals and screw propellers journaled fore and aft in said yokes in constant driving connection with said shaft terminals in any adjusted position of the yokes.

5. In a submarine boat in combination with fore and aft screw propellers adjustable in their vertical axial planes, a pair of horizontal guides at opposite sides near the bow of the craft and a similar pair near the stern—said guides being adjustable to various angles upon their horizontal axes, and with connecting mechanism whereby said guides may be operated in synchronism with the adjustment of the propellers.

939,345. ARBOR FOR SHELL-REAMERS. ROSWELL H. STEARNS, Milwaukee, Wis., assignor to Morse Twist Drill and Machine Co., New Bedford, Mass., a Corporation of Massachusetts. Filed Jan. 2, 1909. Serial No. 470,286.



1. In a device of the described class, the combination of an arbor provided with a transverse slot and a longitudinally extending key way, a collar seated upon the arbor and adapted to partially cover said slot, said collar having a key way in its inner surface, a shell fitted to said arbor with one end abutting the collar, and a key in said key ways, connecting the collar and shell with the arbor and the collar and shell with each other.

2. In a device of the described class, the combination of an arbor provided with a transverse slot and a longitudinally extending key way, a longitudinally movable member mounted upon the arbor, to partially cover the key way and slot, and provided with an internal key way and notched end portion coincident with the key ways, a shell fitted to the arbor with its inner end abutting said movable member, and having a notch registering with the arbor key way and with the notch in said movable member, and a key fitted to said key ways and notches, said arbor key way being of sufficient length to permit a limited outward movement of the collar sufficient to loosen the shell.

3. In a device of the described class, the combination of an arbor, a shell adapted to fit one end thereof, a member mounted upon the arbor and longitudinally movable thereon, a key having a concealed portion slidingly mounted in channels in said member and in the arbor, and provided with a wider portion engaging notches in the abutting ends of said member and the shell, and means for actuating said member to push the shell longitudinally along the arbor.

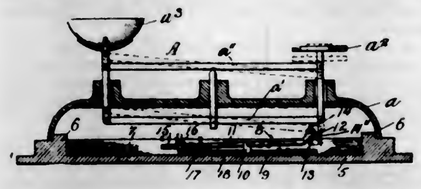
939,346. DETACHABLE KNIFE-BLADE. MARK H. STERLING, Bisbee, Ariz. Filed June 22, 1908. Serial No. 439,851.

In a knife the combination with, a blade having a shank or tang at one end thereof, a handle comprising an inner tubular member split longitudinally at one end with the edges of said end bent outwardly to form a stop, a ring slidable on said split end, a tubular outer member removably fitting over said inner member and having a shoulder at its inner end arranged to engage said clamping ring to force and hold it in operative position against



said stop formed by the bent ends of the tubular inner member, and a cap fitting over the outer end of said outer tubular member and detachably engaged with the outer end of said inner tubular member.

939,347. FRICTION AND INERTIA COUNTERACTING DEVICE FOR SCALES. ERNEST H. STRAUSS, Chicago, Ill., assignor to American Commerce & Specialty Co., Chicago, Ill., a Corporation of Maine. Filed Aug. 29, 1904. Serial No. 222,532.



1. In combination with a scale having a hollow base and a movable scale element within the base, a self-contained tension device arranged within the scale base to be concealed thereby and associated with said movable scale element to normally exert no effect thereon and to exert a restoring tension on said element when the latter is moved to unbalanced position.

2. As an article of manufacture, a self-contained tension device for scales adapted for association with a movable scale part to oppose the action of the counterpoise through a portion of the movement of said scale part, comprising a carrying plate, a movable member constructed and adapted to be set beneath the hollow base of the scale for concealment thereby, and said movable member being movable within certain limits only to be put under tension, and adjusting means for varying one limit of movement of said member.

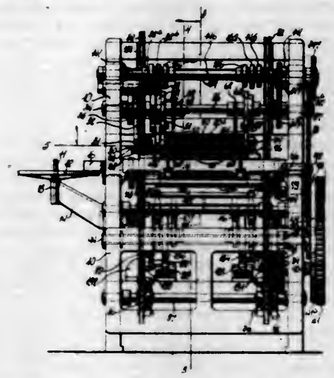
3. The combination with a scale having a hollow base and a movable lever within the base, of a self contained tension device arranged within the scale's base to be concealed thereby, and associated with said scale lever to normally exert no effect thereon, and to exert a restoring tension upon said lever when the latter is moved to unbalanced position, said tension device being adjustable toward and from the scale lever fulcrum to vary its effect upon said lever.

4. The combination with a scale having a hollow base and a movable scale-element within the base, of a stand on which the scale-base rests, and a tension device carried by the stand arranged to be concealed by the scale-base, and associated with the movable scale-element to normally exert no effect thereon and to exert a restoring tension on said element when the latter is moved to one unbalanced position.

5. In combination with a scale having a hollow base and a movable lever-element within the base, a stand on which the scale-base rests, and a tension device carried by said stand and adjustable longitudinally thereof, said tension device being arranged to be concealed by the scale-base and associated with the movable scale-element to normally exert no effect thereon and to exert a restoring tension thereon when the scale-element is moved to one unbalanced position.

[Claims 6 to 9 not printed in the Gazette.]

639,348. MATCH-MACHINE. WILLIAM R. SWETT, Roanoke, Va., assignor to Acme Match Company, Roanoke, Va., a Corporation of Virginia. Filed Dec. 30, 1908. Serial No. 470,050.



1. In a match machine, the combination with the splint cutters, of a stock holder directly above the cutters, spring pressed fingers held opposite the stock holder, means for feeding the stock into the stock holder and between it and the fingers, means for cutting off the stock, and means for pushing the stock between the cutters.

2. In a match machine, the combination with the cutters and the stock holder above the cutters, of a series of elbow fingers pivoted above the stock holder and extending to a point opposite it, means for holding one of the members of each finger against the stock in the stock holder, means for feeding stock into the stock holder and between it and the fingers, means for cutting off the stock in the stock holder, and means for feeding the stock to the cutters.

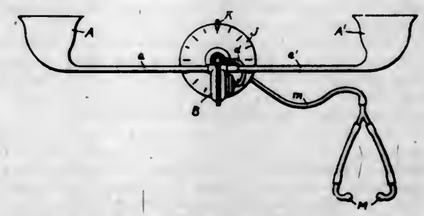
3. In a match machine, the combination with the cutters and the stock holder above the cutters, of a horizontally disposed guide arranged opposite one end of the cutters and delivering to a point above them, and plural stock tables having spindles thereon, each table being adapted to deliver stock into the guide.

4. In a match machine, the carrier, comprising carrying chains, separable cross bars supported on the chains, pairs of plates spaced apart on the chains and each pair provided with interlocking fingers, and steadying plates arranged between the said finger plates.

5. In a match machine, the combination of the carrier having separable plates with interlocking fingers, of opening devices, cam actuated and carrying rollers adapted to enter between and separate the members of the carrier.

[Claims 6 to 15 not printed in the Gazette.]

939,349. SOUND-LOCATING DEVICE. JOHN B. TAYLOR, Schenectady, N. Y. Filed Apr. 12, 1909. Serial No. 489,494.



1. A sound-locating device comprising a pair of separated sound-receivers, a device subjected to the opposing effects of the sound-waves entering the two receivers and

responsive to the resultant of said opposing effects, and means for transmitting an indication proportional to said resultant.

2. A sound-locating device comprising a pair of separated sound-receivers, a diaphragm, connections from said receivers to opposite sides of said diaphragm, and a transmitter actuated by the movement of said diaphragm.

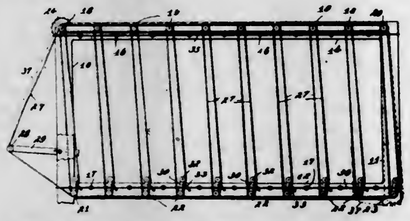
3. A sound-locating device comprising a pair of separated sound-receivers, a diaphragm, connections from said receivers to opposite sides of said diaphragm, and a transmitter comprising a second diaphragm connected to and actuated by the first.

4. A sound-locating device comprising a pivoted support, a pair of sound-receivers supported thereon a distance apart, a diaphragm carried by said support in symmetrical relation to said receivers, connections from said receivers to opposite sides of said diaphragm, and a transmitter actuated by the movement of said diaphragm.

5. In a sound-locating device comprising a pivoted support, a pair of sound-receivers supported thereon a distance apart, a diaphragm carried by said support in symmetrical relation to said receivers, connections from said receivers to opposite sides of said diaphragm, a transmitter comprising a second diaphragm connected to and actuated by the first, and a transmitting tube leading from the second diaphragm through the axis of the support.

[Claims 6 to 8 not printed in the Gazette.]

939,350. FILM-DRYING MACHINE. FREDRICK B. THOMPSON, Chicago, Ill., assignor, by direct and mesne assignments, to National Waterproof Film Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 28, 1909. Serial No. 474,795.



1. In a film-drying machine, in combination, a plurality of rollers and a continuous film carrying tape running on the rollers and having one of its faces only in contact therewith.

2. In a film-drying machine, in combination, a pair of rollers, and a continuous film carrying tape running on such rollers and being wound spirally about them as a pair.

3. In a film-drying machine, in combination, a pair of rollers, a continuous film carrying tape running on such rollers and being wound spirally about them as a pair, and guides interposed between the several turns of the tape.

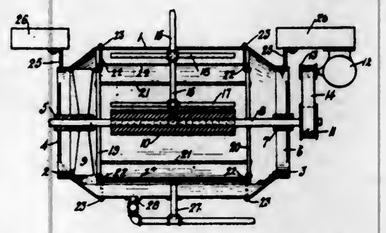
4. In a film-drying machine, in combination, a plurality of rollers, a film carrying tape running on the rollers and having one of its faces only in contact therewith, and means for driving the rollers.

5. In a film-drying machine, in combination, a plurality of rollers arranged in pairs, and a film carrying tape wound spirally around each pair of rollers, one of its faces being always outward.

[Claims 6 to 10 not printed in the Gazette.]

939,351. HUMIDIFIER. MARSHALL TILLOTSON, Providence, R. I., assignor to John W. Coggeshall, Cranston, R. I. Filed Dec. 16, 1907. Serial No. 406,607.

1. An article of the class described comprising a suitable casing, a shaft mounted to revolve in said casing, a brush mounted on said shaft and extending substantially the entire length of said casing, a perforated water supply pipe in close proximity and extending parallel to said brush, and means for drawing a current of air through said casing upon all sides of the brush.



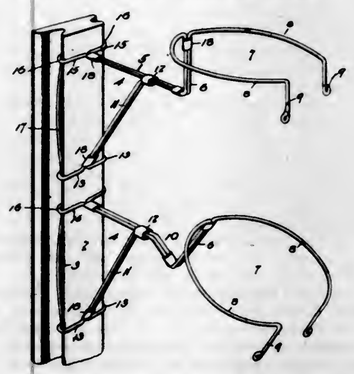
2. An article of the class described comprising an outer casing, a supplemental casing secured within said outer casing, a brush mounted to revolve within said supplemental casing and extending substantially the entire length thereof, means for supplying moisture to the inside and outside of said supplemental casing, and means for drawing a current of air through said outer casing and upon both the interior and exterior of said supplemental casing.

3. An article of the class described comprising a suitable casing open at each end, a shaft mounted in said casing, a fan, an elongated brush and a driving pulley secured to said shaft, a fabric-bag open at each end and secured within said casing, and a perforated water supply pipe upon the interior and exterior of said bag.

4. An article of the class described comprising a suitable casing open at each end, a shaft mounted in said casing and having a fan, an elongated brush and a driving pulley secured thereon, two rings secured within said casing, a fabric-bag open at each end mounted on said rings, a water supply pipe extending through the side of said casing and bag, a series of perforated branch pipes extending from the end of said water supply pipe in close proximity and parallel to the elongated brush, and a perforated branch pipe arranged between the fabric-bag and casing.

5. An article of the character described comprising a suitable casing, a brush mounted to revolve in said casing and extending substantially the entire length thereof, a water-supply pipe extending through said casing at right angles to said brush and provided at its free end with a U-shaped fitting, a series of perforated branch pipes secured in said U-shaped fitting and extending in close proximity and parallel to said brush, and a fan mounted to revolve adjacent one end of said brush.

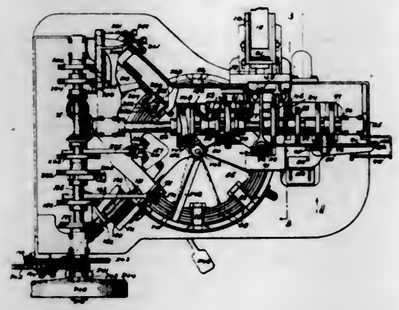
939,352. HAT-HOLDER. WILLIAM T. TRUITT, New York, N. Y. Filed Nov. 21, 1908. Serial No. 463,920.



1. In a hat holder of the class described, the combination with a supporting element, of the holder proper comprising a main hanger arm provided at its outer end with an offstanding hat support and at its inner end provided with a slide clasp slidably engaging such supporting element, a brace connected with the hanger arm and also provided with a slide clasp slidably engaging said supporting element, and connectors between the separate slide clasps.

2. In a hat holder of the class described, the combination with a supporting element having oppositely arranged holding ribs of the holder proper comprising a wire bracket member having a main hanger arm provided at its outer extremity with a supporting post carrying a hat support, and at its inner end provided with a slide clasp having clasping hooks engaging said holding ribs, an inclined brace leg united at its upper end with a hanger arm and provided at its lower end with a slide clasp having clasping hooks embracing said holding ribs, and connecting bars between the upper and lower holding hooks or clamps.

939,353. PACKAGING-MACHINE. BENJAMIN W. TUCKER, Newark, N. J., assignor to The American Tobacco Company, New York, N. Y., a Corporation of New Jersey. Filed Aug. 1, 1904. Serial No. 218,981.



1. In a packaging machine, the combination of means for presenting charges of articles or material with wrapper sheets folded about three sides of the charges and the sides of the wrapper upstanding, means for folding the upstanding sides of the wrappers down to overlap over the charges, means for applying paste to one of the sides of the wrappers while it is upstanding, means for folding the extending ends of the wrappers to close the ends of the packages, and means for applying paste to portions of the ends of the wrapper folded against the partially closed ends of the package for securing the last folded portions of the extending ends of the wrappers, substantially as described.

2. The combination of a carrier having a plurality of pockets for receiving charges of articles or material with wrapper sheets folded about three sides of the charges and the sides of the wrapper upstanding, means for folding the upstanding sides of the wrappers down to overlap over the charges, means for applying paste to one of the sides of the wrapper while it is upstanding for securing the overlapping sides of the wrappers, means for folding the extending ends of the wrappers to close the ends of the packages, and means for applying paste to portions of the ends of the wrapper folded against the partially closed ends of the package for securing the last folded portions of the extending ends of the wrappers, substantially as described.

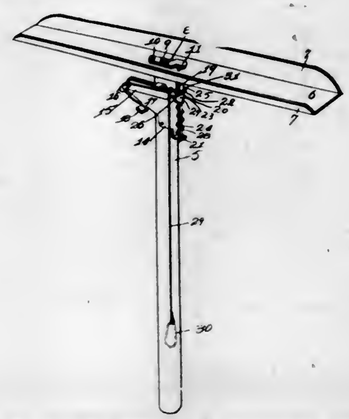
3. The combination of a carrier, a feed-way from which articles are received by the carrier, means for moving the carrier past the end of the feed-way, a holding device having an inclined bearing face for engaging the end article in the feed-way to crowd it back slightly into the feed-way, and means for controlling the operation of said holding device to cause it to be moved into operative position and held in operative position during the movement of the carrier past the end of the feed-way, substantially as described.

4. The combination of a carrier, a feed-way from which articles are received by the carrier, means for moving the carrier past the end of the feedway, a reciprocating holding block 55, and means for reciprocating the block 55 to engage the end article in the feedway as the carrier moves past the end of the feedway, said block having an inclined engaging face for crowding the end article back into the feedway, substantially as described.

5. The combination of a depositing plunger formed to carry a plurality of cigarettes or similar articles arranged in a layer side by side, an inclined feedway through which the cigarettes move sidewise and from which they are received by the depositing plunger, a reciprocating holding block 55, and means for reciprocating the block to engage the end cigarette in the feedway as the plunger moves past the end of the feedway, said block having an inclined engaging face for crowding the end cigarette back into the feedway, substantially as described.

[Claims 6 to 33 not printed in the Gazette.]

939,354. FLASH-LIGHT APPARATUS. JAMES W. UNDERWOOD, St. Louis, Mo. Filed Feb. 10, 1909. Serial No. 477,247.



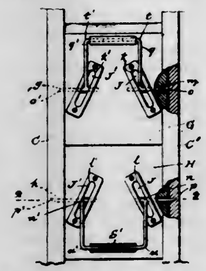
In a flashlight apparatus, the combination of a supporting rod; a pan mounted on the upper extremity of said rod; a firing-block mounted upon the upper face of the bottom of said pan, said pan being provided with a perforation beneath the firing-block; a base-plate mounted on the supporting rod; a trigger loosely and pivotally mounted on the base-plate; a slotted bracket mounted on said supporting rod; a hammer slidably mounted in the slots of said bracket; a spring whereby said hammer is normally held in contact with the firing-block; a spring whereby the trigger is normally held in contact with the hammer, and whereby the trigger is restored to contact with the hammer after each discharge, substantially as described.

939,355. SILO. FRANK J. VAN COTT, Unadilla, N. Y. Filed Aug. 3, 1908. Serial No. 446,549.

1. A silo, having an opening in one side, a series of doors fitting in said opening, and means carried by said doors and engaging the silo for securing the doors in position, said means consisting of a pair of rods mounted in each door and having their upper outer ends engaging the silo and having their lower ends connected to form a series of strips to provide a ladder for the silo.

2. A silo, having an opening extending from top to bottom, strips arranged at each side of the opening and having beveled faces, a series of doors having their edges

beveled to fit said strips, means mounted in said doors and engaging the strips to secure the doors in position, said means consisting of a pair of rods mounted in each door and having their upper outer ends engaging the silo and having their lower ends connected to form a series of strips to provide a ladder for the silo.

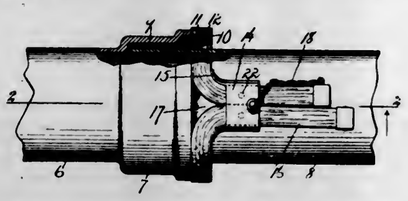


3. A silo, having an opening therein, doors fitted in said opening and provided with a horizontal passage, bended arms fitted in said passage and adapted to engage the silo, and means for moving said bended arms into and out of engagement with the silo.

4. A silo, provided with an opening therein, a series of doors fitting in said opening, a pair of horizontal movable arms fitting in each door and adapted to engage the silo, and slotted plates in which said arms have a vertical movement to cause said arms to engage the silo to secure the doors in position and to disengage the silo to permit the removal of the doors.

5. In combination with the vertical strips at each side of the opening of the silo, the doors fitting in said opening, the pair of movable arms fitted in each door for engaging the vertical strips to secure the doors in position, means connecting the arms outside the doors, and means engaging said arms to cause them to engage and disengage said vertical strips.

939,356. LEAD-JOINT RUNNER. WILLIAM VANDERMAN, Willimantic, Conn. Filed Feb. 23, 1907. Serial No. 359,011.



1. A lead joint runner clamp including clamp plates joined by a bridge, said plates extending beyond the bridge and flaring outward each from the other.

2. A lead joint runner clamp including oppositely disposed clamp plates projecting from a bridge and at an angle thereto, and the bridge uniting said clamp plates and forming an inclosure open at the side opposite the bridge.

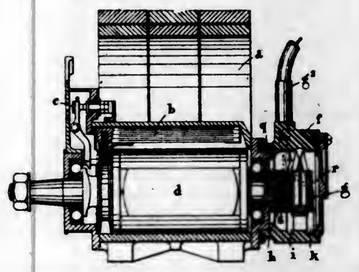
3. A lead joint runner clamp including a bridge, side plates projecting from the bridge at an angle thereto, said clamp plates terminating in outwardly flaring foot portions and forming an inclosure open at the side opposite the bridge.

4. A lead joint runner clamp including a bridge, clamp plates projecting at an angle from said bridge and having outwardly flaring foot portions projecting beyond said bridge and forming an inclosure open at the side opposite the bridge.

5. A lead joint runner clamp including a bridge, oppositely disposed clamp plates projecting at an angle from said bridge and flaring outwardly each from the other, said plates terminating in outwardly flaring foot portions and forming an inclosure open at the side opposite the bridge.

[Claims 6 and 7 not printed in the Gazette.]

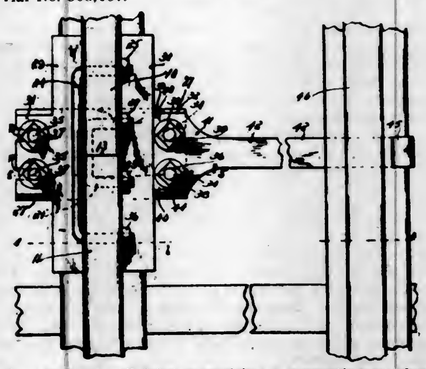
939,357. MAGNETO-ELECTRIC MACHINE FOR IGNITION PURPOSES. CHARLES A. VANDERVELL and FREDERICK I. HOFFMAN, London, England. Filed Sept. 25, 1908. Serial No. 454,809.



1. In a magneto-electric machine having a movable element a current distributer consisting of a device having a series of paths joined up as one continuous path, a series of contact pieces disposed in the said paths, a shuttle adapted to co-act with the said paths and constituting a contact piece which co-acts with the contact pieces of the said paths, the shuttle being carried directly by the movable element of the magneto-electric machine and means for permitting the shuttle to follow the continuous path, substantially as described.

2. In a magneto-electric machine, a current distributer comprising a box of insulating material, having a series of paths joined up as one continuous path, contact pieces arranged in said paths, an armature, a shuttle carried by the armature, said shuttle constituting a contact piece connected to armature, and means for permitting the shuttle to travel in the continuous path and make contact with the contact pieces arranged therein.

939,358. RAILWAY-RAIL JOINT. WILLIAM WALLACE, Sydney, Nova Scotia, Canada. Filed June 21, 1909. Serial No. 503,467.



1. A railway rail joint comprising a supporting member extending beneath the rail ends, and provided with open recesses in the ends, clamp plates bearing against the vertical webs, clamp members bearing upon the tie flanges and against the clamp plates and provided with extensions engaging upon the supporting member, said extensions having open recesses in the sides registering with the recesses of the supporting member, clamp bolts operating through said registering recesses, and connecting means between the clamp plates and operating through the vertical webs of the rails.

2. A railway rail joint comprising a supporting member extending beneath the rail ends, clamp plates bearing against the vertical webs, one of said clamp plates having an intermediate longitudinal slot, and transverse apertures near the ends, and the other clamp plate having transverse apertures registering with the apertures and slot of the first mentioned plate, clamp members bearing upon the tie flanges and against the clamp plates and provided with extensions engaging upon the supporting member, connecting means between the supporting member and the clamp members, a relatively short U-bolt fitting in the slot of the clamp plate and extending through the apertures of the clamp plate, and a relatively long U-bolt extending by its terminals through the apertures of the clamp plates.

3. A railway rail joint comprising a supporting member extending beneath the rail ends, clamp plates bearing against the vertical webs, clamp members bearing upon the tie flanges and against the clamp plates and provided with extensions engaging upon the supporting member, connecting means between the supporting member and the clamp members, connecting means between the clamp plates and operating through the vertical webs of the rails, and a brace member connected at one end to one of said clamp members and adapted to be coupled to the opposite rail at its other end.

939,359. CUTTING-TOOL. ANTHONY E. WALLER, Pawtucket, R. I. Filed Apr. 18, 1906. Serial No. 312,413.

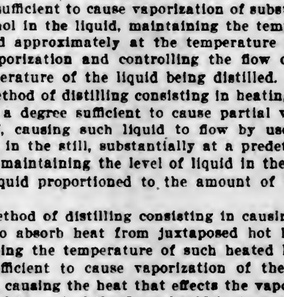
A cutting tool comprising a shank having a comparatively deep offset intermediate its length, said offset being substantially heavier than the ends of said shank, and having a diagonal tool receiving opening traversing its width and projecting into an end of said shank, a cutter head adjustable on the opposite end of said shank, a pair of wedge-blocks carried by said head, said head having an opening therethrough of sufficient depth to receive said shank and said wedge blocks, a set screw entered through said offset to secure a cutter entered in said diagonal opening and a set-screw entered through said head and bearing on said shank to secure a second cutter between said wedges and to suspend said block carrying said second cutter in a position opposing said first mentioned cutter.

939,360. PUMP-BRACKET. LOUIS A. WASHBURNE, St. Johns, Mich. Filed Feb. 5, 1909. Serial No. 476,323.

1. A pump-bracket consisting of a standard one part of which forms a leg and the other part of which forms an arm extending therefrom, said arm being formed with a depression; a slotted shelf formed at one side with connecting devices fastened in said depression; and a brace which connects the free end of said leg with the side of the shelf opposite said connecting devices.

2. A pump-bracket consisting of a standard; a slotted shelf formed at one side with grooved connecting devices; and a brace connecting said standard with the side of the shelf opposite from said grooved connecting devices.

3. A pump-bracket consisting of a standard; a reversible shelf fastened at one side to said standard detachably and formed at its opposite side with means for the attachment of one end of a brace-rod in both the normal and reversed positions of said shelf; and a brace-rod one end of which



is fastened to the side of said shelf opposite from said standard and the other end of which is fastened to the latter.

939,361. ART OF DISTILLING ALCOHOLS AND OTHER VOLATILE LIQUIDS. ADDISON G. WATERHOUSE, Good Ground, N. Y. Filed Aug. 24, 1908. Serial No. 449,995.

1. The method of distilling consisting in heating liquid to a degree sufficient to cause vaporization of substantially all the alcohol in the liquid, maintaining the temperature of the liquid approximately at the temperature required for such vaporization and controlling the flow of liquid by the temperature of the liquid being distilled.

2. The method of distilling consisting in heating a body of liquid to a degree sufficient to cause partial vaporization thereof, causing such liquid to flow by use of the temperature in the still, substantially at a predetermined degree, and maintaining the level of liquid in the still by a flow of liquid proportioned to the amount of the first named flow.

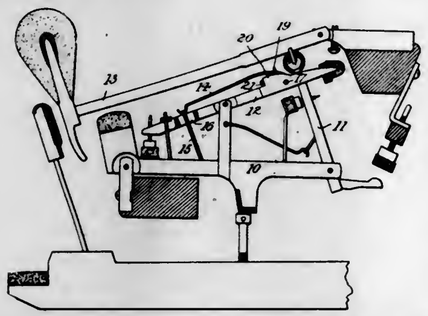
3. The method of distilling consisting in causing liquid in transit to absorb heat from juxtaposed hot liquid in transit, raising the temperature of such heated liquid to a degree sufficient to cause vaporization of the alcohol thereof, and causing the heat that effects the vaporization of the alcohol to control the flow of said juxtaposed liquid.

4. The method of distilling consisting in transmitting the heat from one current of liquid to another circulating from and to a heated body of liquid, causing partial vaporization of such body of liquid, and causing said circulation of liquid by the temperature of such body of liquid.

5. The method of distilling consisting in causing cold supply liquid to absorb the heat from juxtaposed hot discharge liquid while both are in transit and distilling such liquid and controlling the flow of such supply and discharged liquid by raising the temperature of the liquid just sufficient to effect the generation of the alcoholic vapor therefrom.

[Claims 6 to 13 not printed in the Gazette.]

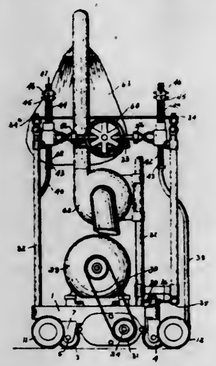
939,362. REPEATING-ACTION FOR GRAND PIANOS. FERNANDO A. WESSELL, HENRY A. NICKEL, and ARTHUR L. WESSELL, New York, N. Y., assignors to Wessell, Nickel & Gross, New York, N. Y. Filed July 8, 1909. Serial No. 506,462.



1. In a repeating action for grand pianos, a slotted repeating lever, and a pin traversing the slot of said lever, combined with a repeating spring engaging the pin and having a bendable tail which extends above said lever, and with a regulating screw tapped into the lever and operatively engaging the tail.

2. In a repeating action for grand pianos, a slotted repeating lever having a boss, a pin traversing the slot of said lever, a repeating spring engaging the pin and having a bendable tail which extends above the lever, and a regulating screw tapped into the boss and operatively engaging the tail.

939,363. SURFACING-MACHINE. ALFRED H. WHATLEY, Providence, R. I., assignor to United States Floor Surfacing Machine Company, Providence, R. I., a Corporation of Rhode Island. Filed Dec. 23, 1907. Serial No. 407,753.



1. A floor surfacing machine comprising a base, a plurality of power shafts mounted therein, a horizontal frame pivotally mounted at one side to each shaft, each frame being provided at the opposite side with a bearing sleeve parallel with said shafts, surfacing rolls each having a shaft mounted in one of said bearing sleeves, and rods engaging the free end of each frame and means for raising or lowering said rods independently or in unison.

2. A floor surfacing machine comprising a base, a plurality of power shafts mounted therein, a horizontal frame for each shaft having one side pivotally mounted upon the shaft and provided at its opposite side with a sleeve parallel with said shaft, a shaft mounted in each sleeve, a surfacing roll at one end of each shaft, power mechanism connecting the other end of each surfacing roll shaft with its power shaft, and rods engaging the free end of each frame and means for raising and lowering said rods independently or in unison.

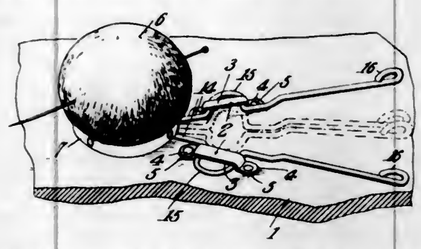
3. A floor surfacing machine comprising a frame, a rotatable surfacing roll mounted therein, a slidable block, means for guiding the same, means for raising and lowering said block, a rod passed through said block and suspended from the latter, said rod being connected to said frame, and means for permitting a limited relative movement between said rod and said block.

4. A floor surfacing machine comprising a frame, a rotatable surfacing roll mounted therein, a slidable block, means for guiding the same, a rotatable shaft for raising and lowering said block, a rod passed through said block and suspended from the latter, said rod being connected to said frame, and means for permitting a limited movement between the rod and said block.

5. A floor surfacing machine comprising a frame, a rotatable surfacing roll mounted therein, a slidable block, means for guiding the same, means for raising and lowering said block, a rod passed through said block and suspended from the latter, said rod being connected to said frame and free to move relatively to said block, and springs carried by said rod and arranged to engage opposite ends of said block.

[Claims 6 to 18 not printed in the Gazette.]

939,364. HAT-CARRIER. GEORGE H. WHEARY, Racine, Wis. Filed June 5, 1909. Serial No. 500,295.



1. The combination with a receptacle, of keepers on the bottom of the same, a hat support, and holding arms attached to said support and projecting from the side of the same, the projecting portions of the holding arms extending between the keepers and having lateral offsets engaging the same.

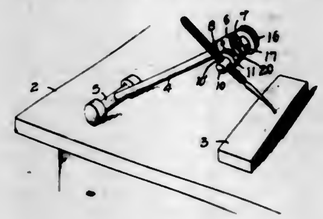
2. The combination with a receptacle, of keepers on the bottom of the same, a hat support, and holding arms having a spring head attached to the under side of the hat support, the said arms projecting from said head laterally beyond the hat support and between the keepers and provided with lateral offsets to engage the keepers.

3. The combination with a receptacle, of a hat support, a socket on the bottom of said support having an opening at one side and provided with stops at the ends of said opening, diverging spring arms having a head seated within the said socket passing through the said opening and provided with lateral off-sets, and keepers in the receptacle arranged to be engaged by the said off-sets.

939,365. DENTAL-INSTRUMENT SHARPENER. CHARLES WIETHOFF, Minneapolis, Minn. Filed Jan. 11, 1909. Serial No. 471,552.

1. A device of the class described comprising an arm having a base or foot at one end adapted to rest upon a table and freely movable thereon and a clamp mounted on the opposite end of said arm, said clamp having a socket to receive a dental tool shank, said shank having a revolving movement independently of said clamp and a movement with said clamp at an angle to said arm, substantially as described.

2. A device of the class described, comprising an arm having a base or foot at one end and a clamp at its opposite end, said clamp being capable of revolving around said arm and provided with a socket to receive the shank of a dental tool and allow the tool to be swung in a plane parallel with said arm or at an angle thereto, and a single clamping screw adapted to lock said clamp on said arm and the shank of the tool on said clamp simultaneously.



3. A device of the class described, comprising an arm having a base or foot piece at one end adapted to rest on a table or other surface, a clamp mounted on the opposite end of said arm and comprising a split collar adapted to oscillate at right angles to said arm, a screw passing through said collar and having a head at one end provided with a socket to receive the shank of a dental tool, the opposite end of said screw being threaded and provided with a thumb nut and the movement of said nut serving to tighten said collar on said arm and lock the tool shank in its socket, substantially as described.

4. The combination, with a supporting arm, of a clamping device mounted thereon and comprising a split collar, a screw passing therethrough and having a head on one end and provided with a socket to receive the shank of a tool, a disk interposed between said head and collar and adapted to bear on the tool shank and having a graduated periphery, and a ring secured on said arm also having a graduated surface and said collar having marks opposite said graduated surfaces, and said screw having a threaded end and a thumb nut therefor adapted to contact with said collar, substantially as described.

5. The combination, with a supporting arm, having a graduated ring secured thereon, of a split collar loosely mounted on said arm and having a mark opposite the graduations on said ring, a pin passing through said collar and having a threaded end provided with a thumb nut, and a head having a socket to receive the shank of a dental tool, and a spring arranged on said screw between said thumb nut and collar, substantially as described.

[Claim 6 not printed in the Gazette.]

939,366. TELEMETER. HEINRICH WILD, Jena, Germany, assignor to The Firm of Carl Zeiss, Jena, Germany. Filed June 2, 1908. Serial No. 436,314.



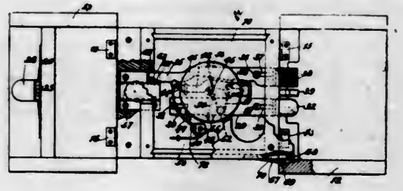
1. In a telemeter consisting of two telescopes the combination with two objective systems, an ocular prism system, an ocular system and a measuring appliance, of a middle casing containing the ocular prism system, two lateral casings containing the two objective systems and an appliance for indicating a displacement of the ocular prism casing and the objective casings relatively to each other in the direction of sight, this appliance comprising two physical marks, located one in each telescope, a reproducing system for obtaining two optical marks by projecting a real image of each physical mark, an optical mark and one of the remaining three marks being placed together in a convenient configuration so as to form a pair of control marks, and a magnifying system for this pair.

2. In a telemeter consisting of two telescopes the combination with two objective systems, an ocular prism system, an ocular system and a measuring appliance, of a middle casing containing the ocular prism system, two lateral casings containing the two objective systems, two physical marks located one in each objective casing, a reproducing system located in the ocular prism casing for obtaining two optical marks by projecting a real image of each physical mark, an optical mark and one of the remaining three marks being placed together in a convenient configuration so as to form a pair of control marks, and a magnifying system applied to this pair.

3. In a telemeter consisting of two telescopes the combination with two objective systems, an ocular prism system, an ocular system and a measuring appliance, of a middle casing containing the ocular prism system, two lateral casings containing the two objective systems, two physical marks located one in each objective casing, a reproducing system, located in the ocular prism casing and including a separating prism system, for obtaining two optical marks by projecting a real image of each physical mark, these two optical marks being placed together in a convenient configuration so as to form a pair of control marks, and a magnifying system applied to this pair.

4. In a separating prism telemeter the combination with two objective systems, an ocular prism system, an ocular system and a measuring appliance, of a middle casing containing the separating prism system, two lateral casings containing the two objective systems, two physical marks located one in each objective casing, a reproducing system, located in the separating prism casing and including the separating prism systems of the telemeter, for obtaining two optical marks by projecting a real image of each physical mark, these two optical marks being placed together in a convenient configuration so as to form a pair of control marks, and a magnifying system applied to this pair.

939,367. BALLOT-BOX. WILLIAM W. WILLS, Janesville, Wis. Filed Aug. 22, 1907. Serial No. 389,643.



1. A ballot box, comprising a ballot carrier adapted to discharge ballots therefrom, a ballot receptacle adapted to receive a ballot from the carrier each time the carrier is moved in one direction, a longitudinally movable arm connected to the carrier in such manner as to cause a movement of said carrier each time the arm is actuated, a bell sounding arm to one side of and parallel to the first mentioned arm and connected to said first mentioned arm so as to be movable simultaneously therewith, said bell carrying arm provided at one end with a projecting diagonally disposed lug, and bell or gong mechanism comprising a sounding bow and a striking clapper, the striking end or head of the latter provided with a projecting finger adapted to be engaged by the diagonally disposed lug of the gong sounding arm on the movement of said arm in both directions.

2. A ballot box, comprising a ballot carrier adapted to discharge ballots therefrom, a ballot receptacle adapted to receive a ballot from the carrier each time the carrier is moved in one direction, a movable arm connected to the carrier in such manner as to cause a movement of said carrier each time the arm is actuated, said movable arm provided with a projecting recessed finger, a gong sounding arm provided with a trip, and also with a projecting pin extending into the recess of the first mentioned arm, and bell or gong mechanism adapted to be acted upon by the trip of the gong sounding arm, on each movement of said gong sounding arm.

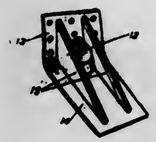
3. A ballot box carrying an arm adapted to have a limited movement in opposite directions, and provided with a projecting recessed finger, a gong sounding arm provided with a trip, and also provided with a projecting pin extending into the recess of the first mentioned arm, bell or gong mechanism adapted to be operated by the trip of the gong operating arm, to cause a sounding of the alarm, on the movement of said gong sounding arm.

4. A ballot box, comprising a ballot carrier having means for discharging a ballot therefrom, a ballot receptacle adapted to receive a ballot from the carrier each time the carrier is moved in one direction, a movable arm connected to the carrier in such manner as to cause a movement of said carrier each time the arm is actuated, said arm also provided with a projecting recessed finger, another movable arm provided with a projecting finger adjacent to the finger of the first named arm, the recesses of the two fingers registering, gong sounding mechanism, a gong sounding arm intermediate of the two first mentioned arms and provided with a projecting trip and with a projecting pin, the latter entering the registering recesses of the two adjacent fingers, and bell or gong mechanism adapted to be operated by the trip of the gong sounding arm, whenever either of the two first mentioned arms are operated.

5. A ballot box, comprising a ballot carrier having means for discharging a ballot therefrom, a ballot receptacle adapted to receive a ballot from the carrier each time the carrier is moved in one direction, a movable arm connected to the carrier in such manner as to cause a movement of said carrier each time the arm is actuated, another movable arm, bell sounding mechanism, said mechanism consisting of a sounding bow mounted upon a stem, and a clapper adapted to be operated by the bell sounding mechanism to cause an alarm, upon a movement of either of the two arms, and a spring coiled around the stem of the sounding bow and having two arms extending respectively to the two movable arms, and adapted to return the arms to normal position, after said arms have been actuated.

[Claims 6 to 12 not printed in the Gazette.]

939,368. BOILER-BRACKET. WILLIAM WITHEM, Indianapolis, Ind., assignor to Atlas Engine Works, Indianapolis, Ind., a Corporation of Indiana. Filed Jan. 29, 1909. Serial No. 475,041.



1. A sheet metal boiler bracket having its ends bent at an angle to each other, a pair of separated hollow ribs struck up from the body of the sheet in the angle between the two ends, and an intermediate suspension-rod pocket struck up from the body of the plate at the bend thereof and extended partially between the adjacent faces of the two hollow ribs, substantially as shown and described.

2. A sheet metal boiler bracket comprising, a portion adapted for attachment to a boiler shell, a laterally extending portion, a pair of hollow knee-brace ribs in the angle, a suspension rod pocket between the knee braces, and a sole plate carried by said laterally extending portion.

3. A sheet metal boiler bracket comprising, a portion adapted for attachment to a boiler shell, a laterally extending portion, a pair of hollow knee-brace ribs in the angle, a suspension rod pocket between the knee braces and a sole plate having upwardly extending flanges embracing the edges of the laterally extending portion.

939,369. SWEEPING COMPOUND. FRANK D. WOLFGRAM and EDWARD KLAUSMAN, Milwaukee, Wis., assignors to Sanitary Brush and Compound Company, Milwaukee, Wis., a Corporation of Wisconsin. Filed Dec. 30, 1908. Serial No. 470,070.

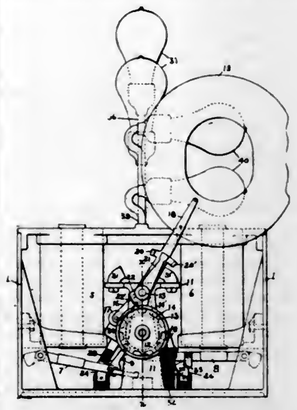
1. A sweeping compound, comprising a wood fiber or saw dust, water, potassium silicate, paraffin wax and sulfate of soda.

2. A sweeping compound, comprising red cedar flour, tallow, animal fiber, water, formaldehyde, glycerin, isinglass, potassium silicate, paraffin wax, and sulfate of soda.

3. A sweeping compound, comprising the following ingredients or their substantial equivalents in approximately the proportions given; mixture A comprising red cedar flour eighty five per cent., tallow ten per cent. and animal fiber five per cent., mixture B comprising water ten per cent., formaldehyde two per cent., glycerin three to five per cent., isinglass two to three per cent., paraffin wax two per cent., and potassium silicate ten per cent., and sulfate of soda from twenty to thirty per cent.

4. A sweeping compound, comprising wood fiber or saw dust, tallow, animal fiber, water, potassium silicate, paraffin wax and sulfate of soda.

939,370. BLOCK-SIGNALING APPARATUS. STEPHEN A. WOOD, Providence, R. I., assignor to United Electric Signal Company, Providence, R. I., a Corporation of Massachusetts. Filed May 14, 1906. Serial No. 316,624.



1. In a signaling apparatus, the combination, with a target arm, of means normally out of engagement with said target-arm which is adapted to engage said target-arm to operate the same, and magnetically actuated means for actuating said target-operating means.

2. In a signaling apparatus, the combination, with a target-arm, of a second arm for operating said target-arm, said second arm being arranged and adapted to engage and disengage said target-arm, and means for rocking said second arm.

3. In a signaling apparatus, the combination of a shaft having a target-arm mounted thereon, a second arm mounted adjacent said target-arm and adapted to engage and disengage said target arm to operate the same, and means for rocking said second arm, substantially as described.

4. In a signaling apparatus, the combination, with a target-arm, of an oscillating arm for operating said target-arm, said target-arm and oscillating arm being so arranged that the initial movement of the oscillating arm brings said arm into engagement with said target-arm to operate the same, and means for operating said oscillating arm.

5. In a signaling apparatus, the combination of a target, an oscillating arm for operating said target, said target and arm being so arranged that the initial movement of the arm in either direction brings said arm into engagement with said target to operate the same, and means for oscillating said arm, substantially as described.

[Claims 6 to 17 not printed in the Gazette.]

939,371. DETONATOR. CLIFFORD A. WOODBURY, Chester, Pa., assignor to The E. I. du Pont de Nemours Powder Company, Wilmington, Del., a Corporation of New Jersey. Filed Jan. 9, 1909. Serial No. 471,411.



1. A detonator comprising a shell having an open lower end and containing in its lower portion an insensitive explosive, and having a fulminating compound above the same.

2. A detonator comprising a shell having a perforated lower end, and containing in its lower portion an insensitive explosive and having a fulminating compound above the same.

3. A detonator comprising a shell having an open lower end, and containing in its lower portion a solid nitro aromatic explosive, and having a fulminating compound above the same.

4. A detonator comprising a shell having an open lower end, and containing in its lower portion a solid nitro aromatic explosive, and having a fulminating compound above the same, the lower exposed surface of the solid nitro aromatic explosive being fused.

5. A detonator comprising a shell having a perforated lower end, and containing in its lower portion a solid nitro aromatic explosive, and having a fulminating compound above the same.

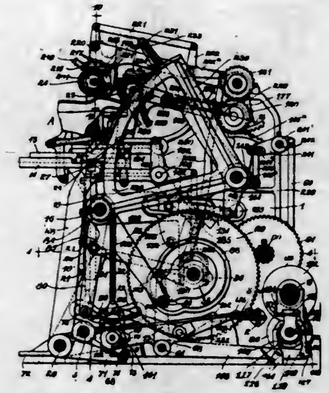
[Claims 6 to 20 not printed in the Gazette.]

939,372. AUTOMATIC LEVELER. ERASTUS WOODWARD, Somerville, Mass., assignor, by mesne assignments, to Thomas G. Plant, Boston, Mass. Filed Sept. 7, 1906, Serial No. 333,611. Renewed Mar. 23, 1909. Serial No. 485,233.

1. An organized machine of the type described comprising in combination a former, a shoe supporting jack, means for producing relative progressive movement between them, means for moving said jack into or out of position for said progressive movement and for producing relative vertical movement of said former and jack to bring the shoe into operative contact with said former at the commencement of progressive movement of said jack and for depressing it out of contact therewith at the conclusion of said movement.

2. An organized machine of the type described comprising in combination a former, a shoe supporting jack, means for producing longitudinal movement thereof to effect laying or leveling of the sole of a shoe mounted on said jack, means for moving said jack into and out of position beneath said former and for elevating said jack to bring said sole into contact with said former.

3. An organized machine of the type described comprising in combination a vibrating former, a shoe supporting jack, machine means for producing longitudinal movement of said jack to effect laying or leveling the sole of a shoe mounted thereon, means for moving said jack into and out of position beneath and for elevating said jack to bring said sole into operative contact with said former at the commencement of the leveling movement of said jack and for depressing it out of contact therewith at the conclusion of said movement.



4. An organized machine of the type described comprising in combination a former, a shoe supporting jack, means for producing variable longitudinal movement of said jack adapted to effect laying or leveling the sole of different sizes or styles of shoes to be mounted on said jack, means for moving said jack into and out of position beneath said former and for elevating said jack to bring said sole into operative contact with said former at the commencement of the leveling movement of said jack and for depressing it out of contact therewith at the conclusion of said movement.

5. An organized machine of the type described comprising in combination a vibrating former, a shoe supporting jack, means for producing relative progressive movements between said vibrating former and jack to effect leveling of the shoe sole mounted on the latter, and means for moving said jack into and out of position beneath said former and for elevating said jack to bring said sole into operative contact with said former at the commencement of the leveling movement of said jack and for depressing it out of contact therewith at the conclusion of said movement.

[Claims 6 to 82 not printed in the Gazette.]

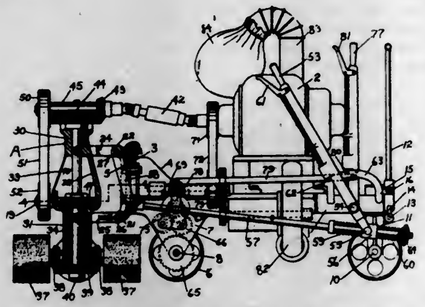
939,373. SURFACING-MACHINE. FRED R. ALLEN, Providence, R. I., assignor to United States Floor Surfacing Machine Company, Providence, R. I., a Corporation of Rhode Island. Filed Oct. 9, 1908. Serial No. 456,874.

1. A surfacing machine comprising a portable supporting frame, a plurality of dressing devices carried by said frame, and adapted to be rotated either on their own axes or about a common center, and means for holding said devices against one of said motions while performing the other.

2. A surfacing machine comprising a portable supporting frame, a plurality of dressing rolls carried by said frame, and adapted to be rotated on their own axes and also rotated about a common center, and means for locking said rolls against one of said motions while performing the other.

3. A surfacing machine comprising a portable supporting frame, a plurality of dressing rolls carried by said frame, a plurality of shafts on which said rolls are mount-

ed, means for rotating said rolls on said shafts, a sleeve for carrying said shafts, said sleeve being adapted to be rotated when desired and means whereby said sleeve may be locked against rotation while said rolls are being rotated.

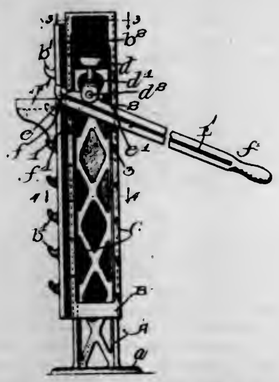


4. A surfacing machine comprising a portable supporting frame, a plurality of dressing rolls carried by said frame, a plurality of shafts on which said rolls are mounted, means for rotating said rolls on said shafts, a sleeve for carrying said shafts, and a worm and gear for rotating said sleeve.

5. A surfacing machine comprising a portable supporting frame, an upright roll carrying head, a plurality of rolls in said head, an upper bearing and a lower bearing in said head provided with an inclosed space between them for containing lubricant, a sleeve for carrying a plurality of shafts on which said rolls are mounted, means for rotating said rolls, and independent means whereby said sleeve may be rotated or locked as desired while said rolls continue to rotate on their own axes.

[Claims 6 to 16 not printed in the Gazette.]

939,374. LIFTING-JACK. FRANCIS M. ALLERTON, Benton Harbor, Mich., assignor of one-third to Oscar R. Allerton, Benton Harbor, Mich., and one-third to Warren E. Allerton, Chicago, Ill. Filed July 31, 1908. Serial No. 446,221.



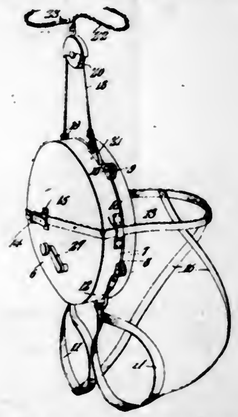
1. In a lifting jack, two relatively sliding members, two rows of teeth on one member, and a lever swiveled on the other member so as to move freely about a vertical axis, and adapted to engage the teeth of first one row and then the other.

2. In a lifting jack, two relatively movable members, two rows of teeth on one member, a ball and socket joint on the other member, and a lever attached to the ball and socket joint and adapted to engage the teeth of first one row and then the other.

3. In a lifting jack, two relatively movable members, two vertical rows of teeth on one member, a fulcrum on the other member, consisting of a universal joint disposed between said rows of teeth, and a lever on said fulcrum, adapted to engage said teeth.

4. In a lifting jack, two relatively sliding members, two rows of teeth on one member, a ball and socket joint on the other member, disposed between said rows of teeth, a pivot carried by the ball and socket joint, and a lever on said pivot, adapted to engage said teeth, the teeth of one row being staggered with relation to those of the other row.

939,375. FIRE-ESCAPE. JAMES E. ANDREWS, La Crosse, Kans. Filed Mar. 23, 1909. Serial No. 485,187.



In a fire escape, a casing comprising end walls provided each with marginal flanges presented toward each other, and having perforated ears, a partition between the outer ends of the flanges and forming compartments in the casing, said partition having perforated ears on its periphery fitting between the ears of the flanges, and fastening means passing through said ears, a reel mounted in one of the compartments, and having its shaft journaled in the walls thereof and extending into the other compartment, a shaft journaled in the walls of the last mentioned compartment, a spur wheel on said shaft, a pinion on the reel shaft meshing with said spur wheel, a spring secured at one end to the spur wheel shaft and at the other end to the casing, a crank shaft on the spur wheel shaft, a line wound on the reel and passing out of the casing and fastened thereto, a pulley over which that portion of the line on the outside of the casing passes, suspension means for the pulley, and a sling carried by the casing.

939,376. INTERNAL-COMBUSTION ENGINE. WILLIAM M. APPLETON, Weston-super-Mare, England. Filed May 13, 1909. Serial No. 495,783.



In a two-cycle internal combustion engine, the combination of two pairs of cylinders each pair comprising a power cylinder and a displacer cylinder, the front ends of the power cylinders being open to the atmosphere, a two-throw crank-shaft the crank-pins of which are at an angle of 180° to each other, pistons in said cylinders, connecting rods for coupling the pistons to the crank-pins of the crank-shaft, the pistons of one power cylinder and one displacer cylinder being coupled to the same crank-pin, valves for the admission of the explosive mixture to the displacer cylinders, exhaust ports in the forward ends of the power cylinders which are opened and closed by the pistons of said cylinders, and a pipe or passage connecting the back end of each of the displacer cylinders with the forward end of the power cylinder of the other pair, said passages being so located that they are uncovered by the pistons in the power cylinders as said pistons approach the ends of both of their strokes whereby each displacer cylinder is placed alternately in communication with the back end of its power cylinder and with the atmosphere through the front end of said cylinder, the cylinders of each pair being set at such an angle to one another that the piston of each displacer cylinder is moving on its suction stroke during the whole of the time the passage between said cylinder and its power cylinder is in communication with the atmosphere through the front end of said power cylinder, as set forth.

939,377. COMBINATION LANTERN AND HEATER. OLIVER H. ARMINOTON, Cumberland, R. I., assignor to Frank H. Andrews, Providence, R. I. Filed Mar. 15, 1909. Serial No. 483,397.



1. In combination with a lantern having a tubular chimney, a plurality of arms projecting upwardly from the upper end of said chimney, a grating secured to and upheld by said arms and spaced from the end of said chimney, and a lid removably covering said grating.

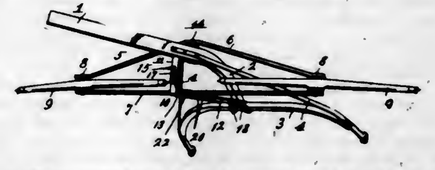
2. In combination with a lantern having a tubular sheet metal chimney provided with a plurality of integral arms projecting upwardly from the upper edge thereof, a grating upheld by said arms and spaced from the end of said chimney said arms bent to engage and hold said grating, and a lid removably covering said grating.

3. In combination with a lantern having a tubular chimney, a plurality of arms projecting upwardly from the upper end of said chimney, a grating secured to and upheld by said arms, said grating comprising an inner and an outer ring connected together by bars extending above the plane of said outer and inner rings, and a lid removably covering said grating and in its closed position resting on said bars and spaced from said rings.

4. In combination with a lantern having a tubular chimney, a plurality of arms projecting upwardly from the upper end of said chimney, a grating secured to and upheld by said arms, said grating comprising an inner ring to which said arms are secured, and an outer ring, said rings connected with radial bars, and a lid hinged to said outer ring.

5. In combination with a lantern having a tubular sheet metal chimney provided with a plurality of integral arms projecting upwardly from the upper edge thereof, a grating comprising an inner ring and an outer ring connected by radial bars, said arms bent to engage said inner ring and hold said grating above said chimney and spaced therefrom, and a lid hinged at one edge to said outer ring and provided at its opposite edge with a resilient catch adapted to engage said outer ring.

939,378. DRAFT APPLIANCE. OTTO ATKINSON, Adrian, Mo., assignor of one-half to J. B. Atkinson, Adrian, Mo. Filed Mar. 22, 1909. Serial No. 485,054.

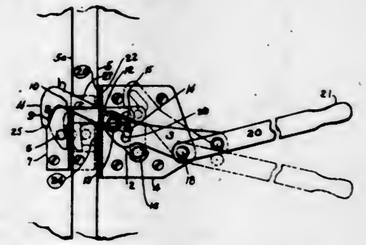


1. The combination with a vehicle tongue having a cross-piece, of a support having an upper rearwardly-extending portion and a lower bifurcated rear terminal, an arched double-tree section, a bolt adapted to extend through said section, the tongue and the rearwardly-extending portion of the support, another double-tree section pivotally secured to said support, and means for securing the rear bifurcated end of the support to the cross-piece of the tongue.

2. The combination with a vehicle tongue, of a support comprising a plurality of sections whereby said support may be lengthened or shortened both vertically and longitudinally, means for removably securing said support to the tongue, and a double-tree comprising two sections, one of which is pivotally secured to the tongue and the other to the support.

3. The combination with a vehicle tongue, of a support comprising a plurality of sections whereby said support may be lengthened or shortened both vertically and longitudinally, means for removably securing said support to the tongue, a double-tree comprising two sections one of which is pivotally secured to the tongue and the other to the support, and swingletrees pivotally mounted between the ends of said double-tree sections.

939,379. EXTENSION-TABLE LOCK. JOHN A. BARBRAKE, Canton, Ohio, assignor to The Seng Company, Chicago, Ill., a Corporation of Illinois. Filed June 22, 1908. Serial No. 439,678.



1. A lock for two separable table parts including a post on one part, a guide on the other part, a link and a lever eccentrically pivoted on the same part, there being an L-shaped slot in the lever, an arm controlled by the guide and having a hook on its free end, and a pivot in the lever-slot connecting the other end of the arm with the link, whereby the link-arm pivot is adapted to be oscillated by the lever to engage and draw the hooked end of the arm against the post, and then to be locked by the shoulder of the lever-slot.

2. A lock for two separable table parts including a post on one part, a guide on the other part, a link and a lever eccentrically pivoted on the same part, there being a slot in the lever, an arm controlled by the guide and having a hook on its free end, and a pivot in the lever slot connecting the other end of the arm with the link, whereby the link-arm pivot is adapted to be oscillated by the lever to engage and draw the hooked end of the arm against the post.

3. A lock for two separable table parts including a post on one part, a guide on the other part, a lever pivoted to

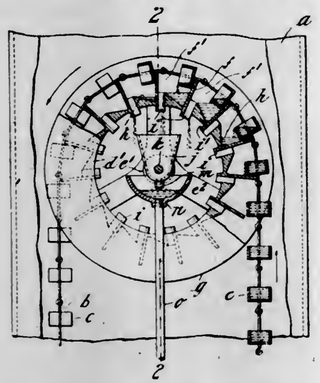
the same part and having an L-shaped slot therein, an arm controlled by the guide and having a hook on its free end, a pivot on the other end of the arm adapted to operate in the lever-slot, and means for guiding the arm pivot whereby the same is adapted to be oscillated by a rotation of the lever to engage and draw the hooked end of the arm against the post and then to be locked by the shoulder of the lever-slot.

4. A lock for two separable table parts including a post on one part, a guide on the other part, a lever pivoted to the same part and having a slot therein, an arm controlled by the guide and having a hook on its free end, a pivot on the other end of the arm adapted to operate in the lever-slot, and means for guiding the arm pivot whereby it is adapted to be oscillated by a rotation of the lever to engage and draw the hooked end of the arm against the post.

5. A lock for two separable table parts including a post on one part, a guide on the other part, a link pivoted to the same part, an arm controlled by the guide and having a hook on its free end, and a pivot connecting the other end of the arm with the link, with means for oscillating the link-arm pivot to engage and draw the hooked end of the arm against the post, and means for locking the parts in this relation.

[Claims 6 and 7 not printed in the Gazette.]

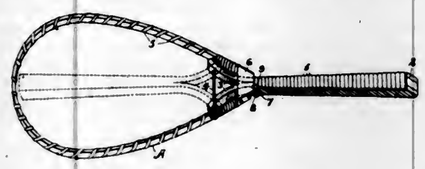
939,380. LIQUID-ELEVATOR FEED-WHEEL. JOHN F. BARKER, Springfield, Mass., assignor to Gilbert & Barker Manufacturing Company, Springfield, Mass., a Corporation. Filed Aug. 27, 1908. Serial No. 450,468.



1. A feed-wheel of the character described provided with a plurality of elevator bucket receiving compartments, each compartment having an inclined bottom portion forming a pocket between the inclination thereof and one side of the compartment and also having its bottom provided with a comparatively narrow ledge-like portion adjacent said inclined portion which is provided with a narrow opening extending substantially throughout its length and leading to the interior of the wheel, and a thinly constructed fin or border projecting from the opening to cause the liquid to flow vertically from the opening, whereby the liquid will be gradually and uniformly discharged from the pocket through said opening when the wheel is rotated.

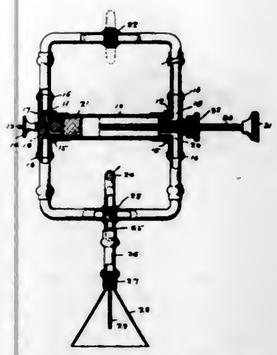
2. A feed-wheel of the character described provided with a plurality of elevator bucket receiving compartments, each compartment having an inclined bottom portion forming a pocket between the inclination thereof and one side of the compartment and also having an elongated comparatively narrow opening terminating short of the ends of the compartment and leading to the interior of the wheel, and a thinly constructed fin or border projecting from the opening to cause the liquid to flow vertically from the opening, said fin or border having one open side with its closed side having its inner face disposed in alinement with the corresponding side wall of said opening, whereby the liquid will be gradually and uniformly discharged from the pocket through said opening of each pocket when the wheel is rotated.

939,381. FRAME FOR LANDING-NETS. GEORGE M. BARNES, Mill Valley, Cal., assignor to Carlos G. Young, Berkeley, Cal. Filed Nov. 4, 1908. Serial No. 460,984.



A frame for landing nets having a plate covering one side of its inner end, a handle having spreading branches hinged in said end, said branches reposing within the walls of said frame when the handle is extended, and a catch pivotally secured to said handle and arranged to engage said plate.

939,382. AUTOMATIC BURETTE. STANLEY D. BEARD, Shelton, Conn. Filed Feb. 3, 1909. Serial No. 475,849.



1. A fluid measuring device comprising a barrel, a freely mounted plunger in the barrel, a conduit connecting opposite ends of the barrel and having a stop cock which, when open, will permit fluid to flow from one end of the barrel to the other, a four-way cock, and conduits connecting the casing of the latter with opposite ends of the barrel.

2. A liquid measuring device comprising a horizontal barrel, a freely mounted plunger therein, a conduit connecting opposite ends of the barrel and having a stop cock which, when open, will permit liquid to flow from one end of the barrel to the other, and connections whereby liquid passed into said barrel at one end will cause liquid to be ejected from the other end of the barrel by means of said plunger, the barrel having two ports at each end, one port of each pair being close to the upper side of the barrel to prevent trapping of air when the device is being filled.

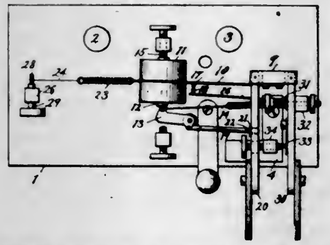
3. A fluid measuring device comprising a barrel having heads each formed with upper and lower ports and having nipples, a freely mounted plunger in the barrel, a controllable connection between two of the nipples of the heads respectively and a controllable connection between the other two nipples of the heads respectively, one of the controlling devices being a stop cock and the other controlling device being a four-way cock.

4. A liquid measuring device comprising a horizontal barrel, a freely mounted plunger therein, means for adjustably restricting the play of the plunger in the barrel, a conduit connecting opposite ends of the barrel and having a stop cock which, when open, will permit liquid to flow from one end of the barrel to the other, a four-way cock, and conduits connecting the casing of the latter with opposite ends of the barrel.

5. A liquid measuring device comprising a horizontal barrel, a freely mounted plunger therein, an adjustable screw extending into said barrel for limiting the play of the plunger, a conduit connecting opposite ends of the barrel and having a stop cock which, when open, will permit liquid to flow from one end of the barrel to the other, a four-way cock and conduits connecting the casing of the latter with opposite ends of the barrel.

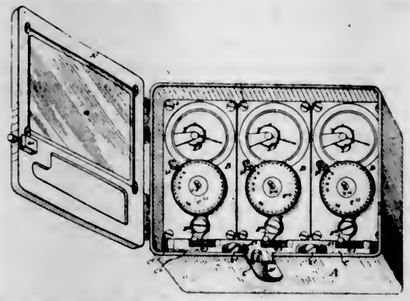
[Claims 6 to 8 not printed in the Gazette.]

939,383. TELEGRAPH-TRANSMITTER. BENJAMIN F. BELLOWS, Cleveland, Ohio. Filed July 29, 1907. Serial No. 386,105.



In a telegraph transmitter, the combination of a vibrator, a key lever, spring actuated means under the control of the key lever for deflecting the vibrator from its normal position, a contact carried by said vibrator, a spring arm fixed at one end and having near its other end a contact point opposed to the contact point on the vibrator, the vibrator and said spring being electrically connected with opposite terminals of a telegraph circuit, a second key lever adjacent to the first mentioned lever, a contact associated with the second key lever and adapted to be engaged thereby by a movement of said key lever toward the first mentioned key lever, a spring acting upon the second key lever to move it away from the first mentioned key lever, a stop limiting said movement; said key lever and contact being electrically connected with opposite terminals of the same telegraph circuit specified.

939,384. TIME-LOCK. EDGAR M. BENHAM, Cincinnati, Ohio, assignor to Banker's Dust-Proof Time Lock Company, Cincinnati, Ohio, a Partnership. Filed Apr. 22, 1907. Serial No. 369,615.



1. A time-lock device embodying a watch-movement, without a motor; a rotatable arbor journaled adjacent to such movement; gears immediately connecting the two in forward movement only; and an actuating spring wound directly upon said arbor.

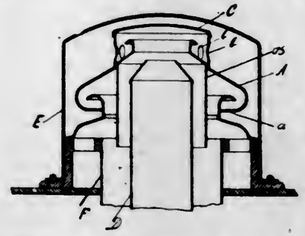
2. A time-lock device embodying in combination a watch-movement without an actuating motor; a rotatable arbor journaled adjacent thereto; an actuating spring wound upon said arbor; a ratchet-impelled gear upon said arbor and actuated thereby in one direction only; said gear meshing immediately with the receiving gear upon the watch movement.

3. A time-lock mechanism embodying in combination a watch-movement without a motor; a rotatable arbor journaled adjacent thereto; an actuating spring wound upon the same; a fixed ratchet, a loose gear adjacent thereto upon said arbor; spring-actuated pawls upon the loose gear engaging the ratchet in one direction only, and a gear upon the watch movement meshing directly with said gear upon the spring-actuated arbor.

4. A time-lock device embodying in combination, a watch-movement without an actuating motor; a rotatable arbor journaled adjacent to said watch-movement; gears connecting the two immediately in forward movement only; and a graduated disk fastened upon said arbor for regulating the degree of winding with reference to a fixed pointer.

5. A time-lock device embodying in combination, a watch-movement without an actuating motor; a rotatable arbor journaled adjacent to said watch-movement; gears connecting the two directly in forward movement only; and a graduated disk upon said arbor for regulating the degree of winding a fixed pointer arranged with reference to the graduations upon said disk; and a stud upon said disk to engage the bolt releasing mechanism and to act as a stop limiting excessive rotation of the disk.

939,385. CARRIAGE-LAMP. HERMANN BLAU, Augsburg, Germany. Filed Aug. 6, 1908. Serial No. 447,278.



1. In a carriage-lamp, the combination of a hood closed at the top and front, relatively to the direction of motion of the carriage, and provided with a lateral aperture, and a cover, provided with parts forming a conduit for the admission of air, situated within the hood, substantially as described.

2. In a carriage-lamp, the combination of a hood closed at the top and front, relatively to the direction of motion of the carriage, and provided with a lateral aperture, and a cover, provided with parts forming a conduit for the admission of air and a conduit for the exit of the products of combustion, situated within the hood, substantially as described.

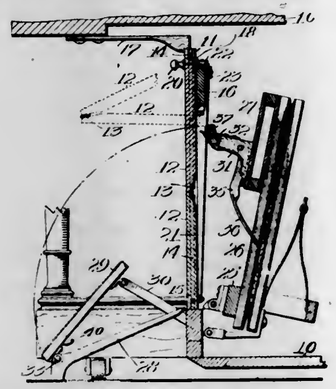
3. In a carriage-lamp, the combination of a hood closed at the top, front and back, relatively to the direction of motion of the carriage, and provided with a lateral aperture, and a cover, provided with parts forming a conduit for the admission of air and a conduit for the exit of the products of combustion, situated within the hood, substantially as described.

4. In a carriage-lamp, the combination of the roof of the carriage, a hood closed at the top and front, relatively to the direction of motion of the carriage, superimposed on the roof and provided with a lateral aperture, and a cover, provided with parts forming a conduit for the admission of air, extending from above to below the roof, situated within the hood, substantially as described.

5. In a carriage-lamp, the combination of the roof of the carriage, a hood closed at the top and front, relatively to the direction of motion of the carriage, superimposed on the roof and provided with a lateral aperture, and a cover, provided with parts forming a conduit for the admission of air and a conduit for the exit of the products of combustion, extending from above to below the roof, situated within the hood, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

939,386. PEDAL AND PANEL MECHANISM. THEODORE P. BROWN, Worcester, Mass., assignor to Simplex Piano Player Company, Worcester, Mass., a Corporation of Massachusetts. Filed Aug. 13, 1908. Serial No. 448,307.



1. The combination with a musical instrument case having an opening, of a removable panel therefor comprising an upright and foldable members connected with the upright, and a spring fixed to the case and having a notch engaging the top of the upright for holding the panel in position.

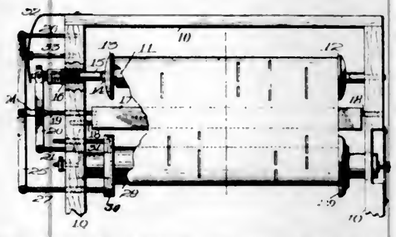
2. The combination with a musical instrument case having an opening, of a removable panel therefor comprising an upright and foldable members near the upright, a spring fixed to the casing and having a notch engaging the top of the upright for holding the panel in position, and a cross piece back of the panel and means supported by the upright for folding the members of the panel.

3. The combination with a musical instrument case having an opening, of a panel therefor comprising an upright, foldable members adjacent thereto, a flexible member connected with the foldable members for operating them, a handle on the upright connected with the flexible member and means for removably holding the upright in position.

4. The combination with a musical instrument case having an opening, of a panel therefor, means for opening the panel and folding it at the top of the opening, a folding pedal mechanism, means for locking the pedal mechanism behind the panel, and means whereby the panel can be removed as an entirety without unlocking or disturbing the pedal mechanism.

939,387. TRACKER MECHANISM FOR MUSICAL INSTRUMENTS. THEODORE P. BROWN, Worcester, Mass., assignor to Simplex Piano Player Co., Worcester, Mass., a Corporation of Massachusetts. Filed Apr. 9, 1909. Serial No. 488,816.

1. In a musical instrument, the combination with a tracker constructed in one piece and movable longitudinally as a whole, a music roll having a movable flange at one end and resilient means for normally moving said flange toward the center of the roll, of means connected with said resilient means for automatically moving the entire tracker bodily when the movable flange is moved in either direction a distance equal to half the distance through which said movable flange moves and in the same direction, whereby the center of the tracker always will be half way between the flanges of said spool and the tracker channels will always remain the same distance apart.



2. In a musical instrument, the combination with a longitudinally movable tracker, and a music roll having a movable flange, of resilient means for normally and yieldingly moving said flange toward the center of the roll, and a lever pivoted to said resilient means, whereby the lever will be moved positively whenever the flange moves in either direction, said lever being connected with the tracker, for moving it.

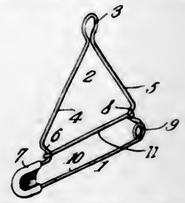
3. In a musical instrument, the combination with a longitudinally movable tracker, and a music roll having a movable flange, of resilient means for normally and yieldingly moving said flange toward the center of the spool, and a lever connected with the tracker at its center, pivoted to said resilient means at one end, and pivoted at a stationary point at the opposite end, whereby the lever will move with the flange, and the tracker will be moved half as far as said flange.

4. In a musical instrument, the combination with a movable tracker, a music roll, and take-up roll, each of said rolls having a movable flange, of means for moving the tracker automatically when the movable flange on the music roll is moved, a distance equal to half the distance through which said movable flange moves in the same direction, and means operated directly by the movable flange on the music-roll for simultaneously moving the movable flange on the take-up roll.

5. In a musical instrument, the combination of a longitudinally movable tracker, a music roll, and a take-up roll, each of said rolls having a fixed flange at one end and a yielding longitudinally movable flange at the other and means controlled by the movable flange on the music roll, for keeping the center of the tracker in line with a line half way between the flanges on the music roll and take-up roll, said means comprising a rod yieldingly engaging the movable flange on the music roll, a lever pivoted at one end to a stationary object and at the other to said rod, and pivotally connected at a point half way between the ends to the tracker, and a lever fixed at one end, connected at the other end with the movable flange on the take-up roll and connected at its center with the center of the first named lever.

[Claims 6 and 7 not printed in the Gazette.]

939,388. COLLAR-SUPPORTER. BENJAMIN C. BUBAR, Blaine, Me. Filed June 25, 1908. Serial No. 440,280.



A device for holding vest and shirt collars in position comprising a wire bent to form a button-engaging eye adapted to enter between the folds of a shirt collar, the wire being flexed to form divergent members below said eye, the lower extremities of said members being turned inward to form seats and then both turned to one and the same side and brought together laterally beyond the divergent member at that side to form a safety-pin adapted to take in the fabric of a vest, and a brace extending between and having its ends looped in said seats.

939,389. SEAT-FRAME. EDWARD G. BUDD and JOSEPH A. WOLLE, Philadelphia, Pa., assignors to Hale-Kilburn Metal Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Sept. 14, 1905. Serial No. 278,497.



1. In a seat-frame, the combination of a hollow pedestal and a yoke having an integral boss closed at its end adapted to fit within the end of said hollow pedestal, and means located within said boss for spreading the walls thereof, substantially as set forth.

2. In a seat-frame, the combination of an integral yoke and means for supporting the same, said yoke being generally U-shaped in transverse cross-section and provided with bolt-bosses adapted to receive bolts coacting with an overlying structure, substantially as set forth.

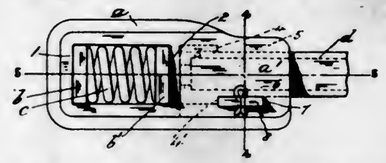
3. In a seat-frame, the combination of a yoke of U-shaped transverse section and means for supporting the same, the arms of said yoke extending forwardly and rearwardly, respectively, and both said arms being arranged upon one side of the general plane of the seat-frame, substantially as set forth.

4. The combination of a support, a yoke mounted thereon having arms of U-shaped transverse cross-section extending forwardly and rearwardly respectively, both said arms being arranged upon one side of the general plane of said support, bearing surfaces for connecting-rails on the top of the ends of said arms, and means for securing such rails upon said surfaces, substantially as set forth.

5. The combination of a pedestal, a yoke secured thereon and having arms extending forwardly and rearwardly respectively, connecting-rails, bearing surfaces for said rails on the upper side and bosses on the lower side of the ends of said arms, and means coacting with said rails and said bosses for securing the rails upon the arms of the yoke, substantially as set forth.

939,390. DRAW-BAR AND YOKE ATTACHMENT FOR DRAFT-GEARS. CYRUS L. BUNDY, Jersey City, N. J., and JULIUS J. ACKER, Horton, Kans., assignors to Transom Draft Gear Company, St. Louis, Mo., a Corporation of Delaware. Filed Apr. 10, 1909. Serial No. 489,165.

1. In a car draft-gear, the combination of the draw-bar having a shoulder on two opposite sides, a loop-shaped yoke comprising two longitudinal and two transverse walls, a pocket projecting outward from one of the said transverse walls in longitudinal alinement with the yoke and adapted for the insertion therein from below of the said bar, the said pocket having a recess adapted to be engaged by one of the said shoulders, and a removable key adapted to be inserted through the walls of the said pocket and to engage the other said shoulder and underside thereat of the said bar in its assembled position, substantially as described and for the purpose set forth.



2. In a car draft-gear, the combination with the draw-bar of a yoke partitioned therefrom, and having a pocket adapted for the insertion and engagement therewith of the said bar, and means external to the said bar for interlocking it with the said pocket, substantially as described.

939,391. BALL-BEARING. WILLIAM E. CANE, Toronto, Ontario, Canada, assignor to William John Murray, Toronto, Canada. Filed Nov. 9, 1908. Serial No. 461,773.



1. In a double-ball bearing, the combination with an outer ring having an internal annular groove and an inner ring having an external annular groove, of the minor and major balls and a floating cage comprising the sides having concave recesses held against the major balls where the surface speed of the balls is the slowest, blocks adapted to hold the contacting points of the minor balls adjacent to the contacting points of the major balls and extending between the sides of the cage and having rectangular projecting ends so held and fastened in the side rings of the cage, so as to hold the rings together and each minor ball and its contacting point with the major balls on a line passing through the center thereof and of the major balls adjacent thereto as and for the purpose specified.

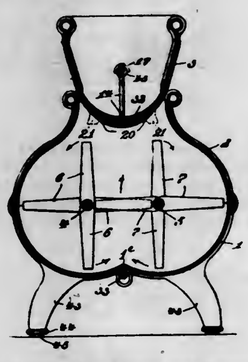
2. In a double-ball bearing, the combination with an outer ring having an internal annular groove and an inner ring having an external annular groove, of the minor and major balls and a floating cage comprising the sides having concave recesses held against the major balls at the slowest points of rotation at each side, blocks provided with recesses having one end semi-circular and provided with a hole and the opposite end enlarged and staked and having rectangular projecting ends so riveted in the side rings of the cage, so as to hold the rings together and each minor ball on a line passing through the center thereof and of the major balls adjacent thereto as and for the purpose specified.

3. In a double-ball bearing and cage therefor, a rectangular block formed with a recess in which the minor ball is adapted to fit, such recess having a minor opening at one end and a major opening at the opposite end through which the ball is placed in position in the block, the edge of the larger opening being staked to retain the ball in position preparatory to assembling as specified.

939,392. DOUGH-MIXING MACHINE. CYRUS CHAMBERS, Jr., Overbrook, Pa. Filed Oct. 4, 1905. Serial No. 281,256.

1. In a dough mixing machine, the combination of a mixing vessel and mixing mechanism therein, said mixing mechanism comprising a pair of parallel rotatable shafts provided with interdigitating mixing blades extending

nearly the distance between said shafts, said blades integral with their supporting shafts and having their transverse extensions adjacent the shaft greater than the shaft's diameter and a filleted joinder between blade and shaft, as and for the purpose specified.



2. In a dough mixing machine, the combination of a mixing vessel, a pair of coöperating mixing elements operating therein, said elements comprising parallel shafts, each with radiating blades spirally arranged, the blades having enlarged shoulders adjacent the supporting shaft and tapering toward the outer ends to facilitate carrying the dough upwardly and tearing it apart in the air.

3. In a dough mixing machine, the combination of a liquid containing basin, two sets of mixing blades operating therein, means for moving one set of blades toward the other beneath the liquid and for causing the movement of one set away from the other above the liquid, means for sifting flour automatically into the liquid, the proportion, position and operation of the mixing blades being such as to draw the flour lightly through the liquid and then lift the resultant dough out of the liquid and away from the blade-actuating means and then pull it apart in the air above.

4. In a dough mixing machine, the combination of a liquid containing basin, a pair of parallel shafts, each provided with mixing blades wider at the shaft, than the diameter of the shaft, said width being in a direction transverse the axis of the shaft, and means for moving the shafts simultaneously so that the blades of one shaft will approach the blades of the other beneath the liquid, and separate in the air above the liquid.

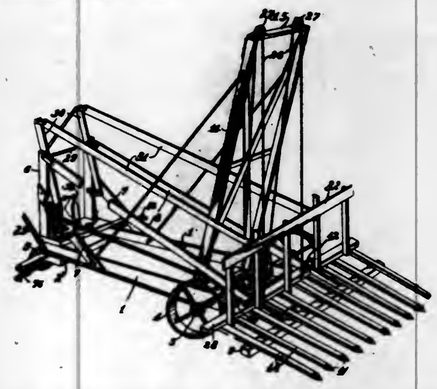
5. In a dough mixing machine, the combination of a liquid containing basin, a pair of parallel shafts, each provided with mixing blades set transversely thereto wider at the shaft end than the shaft diameter, means for moving the shafts simultaneously so that the blades of one shaft will approach the blades of the other beneath the liquid and separate in the air above the liquid, means for sifting flour into the liquid containing basin, and means for coupling the operation of the sifter and rotating shafts.

[Claims 6 to 24 not printed in the Gazette.]

939,393. HAY-STACKER. AMOS B. CLIPPINGER and MAURICE A. CLIPPINGER, Kansas City, Mo. Filed Oct. 4, 1907. Serial No. 395,926.

1. In a combination hay rake and stacker, the combination with a truck frame, of rake beams pivotally mounted on said frame, a rake tiltably mounted on said beams, means for elevating said beams and rake, arms pivotally mounted on said frame, tilting arms connected with said arms and with said rake, an operating crank carried by said frame and having upturned portions, links connecting said arms with upturned portions on said operating crank, and a handle on one of said upturned portions, for the purpose set forth.

2. In a combination hay rake and stacker, the combination with a truck frame, of standards on said frame, arms pivoted to said standards, rake beams pivoted to said standards and projecting from said frame, a rake carried by said beams, means for raising and lowering said beams and rake, tilting arms connected with said rake and with said arms at one side of the arm pivots, and means connected with said arms at the opposite side of said pivots whereby said arms are rocked and the rake tilted, substantially as set forth.



3. In a combination hay rake and stacker, the combination of a truck frame, of standards supported near the rear of said frame, rake beams pivoted on said standards and projecting from the front of said frame, a rake carried by said beams, arms pivoted to said standards with portions projecting above and below the pivotal point, tilting arms pivoted to the upper ends of said arms and connected with said rake, an operating crank carried by said frame, and means connecting said crank with the lower ends of said arms, for the purpose set forth.

4. In a combination hay-rake and stacker, the combination with a truck frame, of standards supported near the rear of said frame, rake beams pivoted on said standards and projecting from the front of said frame, a rake carried by said beams, arms pivoted to said standards with portions projecting above and below the pivotal point, tilting arms pivoted to the upper ends of said arms and connected with said rake, a revoluble rod anchored on said frame, upturned portions at the ends and center of said rod, links pivoted to said end upturned portions and to said arms, yokes on said links adapted for engagement with said end upturned portions, and a handle on said center upturned portion, substantially as set forth.

5. In a combination hay rake and stacker, the combination of a truck frame, comprising longitudinal and front and back cross bars, said longitudinal bars having horizontal perforations in their forward ends, rake beams pivoted on said frame and extending forwardly therefrom, blocks seated on said forward cross bar and supporting the loose ends of said rake beams, said blocks having perforations therein adapted to register with the perforations in said longitudinal bars, bolts extending through said perforations and securing said blocks in position, a rake connected with said rake beams, and means for raising and lowering said beams and rake.

[Claim 6 not printed in the Gazette.]

939,394. BUCKLE. ABRAHAM COHEN, New York, N. Y. Filed May 17, 1909. Serial No. 496,526.



1. A buckle comprising a rectangular frame, a clip adapted for longitudinal movement rotatably mounted on said frame, lugs carried by said clip adapted to overlap the side members of said frame, means also carried by said clip adapted to underlap the side members of said frame, whereby said clip is prevented from falling ont of said frame, means carried by said clip adapted to engage a strap, and a plurality of pins carried by said frame adapted to limit the longitudinal movement of said clip.

2. A buckle comprising a rectangular frame, a clip, adapted for longitudinal movement rotatably mounted on said frame, lugs carried by said clip adapted to overlap the side members of said frame, means also carried by said clip adapted to underlap the side members of said frame, whereby said clip is prevented from falling out of said frame, means carried by said clip adapted to engage a strap, and a plurality of pins carried by said frame adapted to limit the longitudinal movement of said clip, some of said pins being positioned relative to said clip to adapt them to act as a fulcrum for said clip.

939,395. FLY-SCREEN. EDWARD CURTISS, Virginia, Minn., assignor of one-fourth to Millard Livingston Matheson, one-fourth to Elmer Matheson, and one-fourth to August De Noble, Virginia, Minn. Filed July 28, 1909. Serial No. 510,118.



The combination in a fly screen, of a main frame having recesses in the inner sides of its side bars and alined recesses in the under side of its top bar, a plate fixed to the inner side of one side bar and having seats, a sub-frame fixed to the face of the main frame, a sub-frame disposed and movable above the first-named sub-frame and having bars of a shape and size to occupy the said recesses in the main frame, a piece of reticulated material interposed and fixed between the first-named sub-frame and the main frame and having a portion continued up and fixed to and movable with the second named sub-frame, and a resilient handle fixed to one of the bars of the said sub-frame and having a protuberance adapted to be sprung into and out of the said seats.

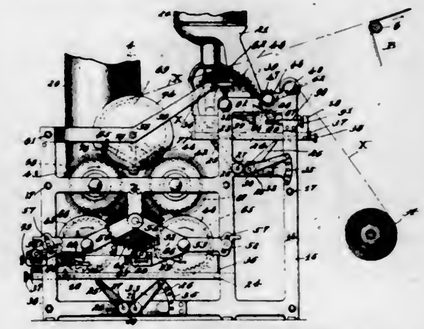
939,396. WEB-COATING MACHINE. WALTER A. DANIELS, Chicago, Ill., assignor, by direct and mesne assignments, to National Waterproof Film Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 28, 1909. Serial No. 474,816.

1. The combination with means for applying a liquid to the surface of an apertured web, of means for directing an air blast through the apertures of the web.

2. In a machine for coating the surface of an apertured web, in combination, a liquid-applying brush, an air nozzle directed toward the brush, and means for causing the travel of the web between the brush and nozzle.

3. In a machine for coating the surface of a web having a marginal row of apertures, in combination, a rotatable roller support for the web, the face of the roller being of less width than the web, a liquid-applying brush roller rotatably mounted in front of the support, and a stationary nozzle located at the side of the roller support, such nozzle being directed radially outward.

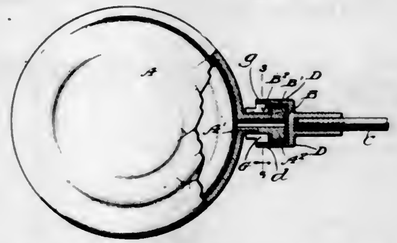
4. In a machine for coating the surface of a web having a marginal row of apertures at each side, in combination, a rotatable roller support for the web, the face of the roller being of less width than the web, a stationary tubular spindle for the roller, a chambered disk fixed to the spindle at each side of the roller, the chambers of the disks being in communication with the passage through the spindle, outwardly-directed apertures in the periphery of the disks, and liquid-applying means operating in front of the roller and disks.



5. In a machine for coating the surface of a web having a row of sprocket-engaging apertures, in combination, a liquid-applying roller engageable with the face of the web, a sprocket wheel engageable with the sprocket apertures of the web, and spur gear connection between the liquid-applying roller and the sprocket wheel.

[Claims 6 to 9 not printed in the Gazette.]

939,397. COUPLING FOR FLOATS. CHARLES DARGENT, New York, N. Y. Filed July 10, 1906. Serial No. 325,435.



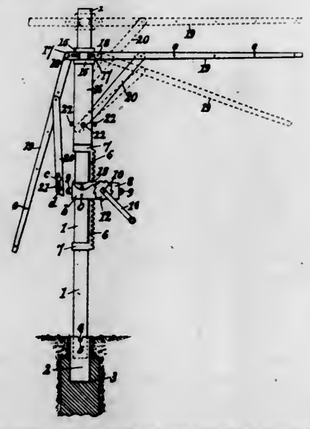
1. The combination with a float formed with a neck and a flange, of a packing embracing said flange and extending over the edge of same, screw threaded members embracing the neck of the float, and a cap fitting over the packing, flange and neck, and secured to said screw threaded members.

2. The combination with a float body provided with an extension having an annular flange, of a packing embracing said flange, externally screw threaded members embracing said extension, a valve operating rod, and a cap provided with oppositely extending screw threaded recesses, one recess embracing said rod and the other recess embracing said packing and flange, and removably securing said packing in position by means of engagement with said screw threaded members.

939,398. CLOTHES-DRIER. GEORGE B. DEACON, London, Ontario, Canada. Filed Sept. 9, 1908. Serial No. 452,332.

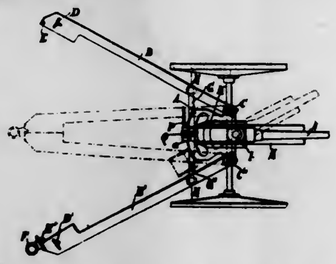
1. In a device of the class described, a tubular standard, a head and dependent sleeve fitted to and adapted to revolve around said standard, arms adapted to carry a clothes line pivotally mounted on said head, and headed bolts mounted on said sleeve, in combination with braces

in each of which is formed an elongated slot having an angular extension at one end, one end of each brace being pivotally secured at one end to each of said arms, and the other slotted end being adapted to engage with one of said bolts on said sleeve, and means for supporting said head and sleeve on said standard.



2. In a device of the class described, a tubular standard, a head and dependent sleeve supported by said standard, arms adapted to carry a clothes line pivotally mounted on said head, headed bolts mounted on said sleeve and braces in each of which an elongated slot is formed, one end of each brace being pivotally secured at one end to each of said arms, and the other slotted end adapted to engage with one of said bolts on said sleeve, in combination with a canopy supported by said arms, and extending over the clothes line carried thereby.

939,399. GUN-CARRIAGE FOR FIELD ORDNANCE. JOSEPH A. DEPORT, Paris, France. Filed Sept. 22, 1908. Serial No. 454,258.



1. A gun-carriage on wheels comprising two beams jointed to the wheeled carriage so as to extend rearwardly thereof and adapted to be brought together to form the trail, and means for anchoring each beam to the ground.

2. A gun-carriage on wheels comprising two hollow beams jointed to the wheeled carriage so as to extend rearwardly thereof, a cross bar pivoted to the wheeled carriage, a ball and socket joint within each of the beams through which joint the corresponding end of the said cross bar is adapted to slide, and means for anchoring each of the said beams to the ground.

939,400. SAFETY-RAZOR. WILLIAM DEBBE, Philadelphia, Pa. Filed Dec. 2, 1907. Serial No. 404,831.

1. In a safety razor, a blade in combination with a holding device comprising an integrally formed guard; a strap extending parallel with the guard between permanent connections with the holding device; means for preventing flexure of the blade between the strap and the front support for the blade below a plane passing through these points, and means in the rear of the strap for springing the blade about the same as a fulcrum for the purpose of pressing the cutting edge of the blade down along said guard.



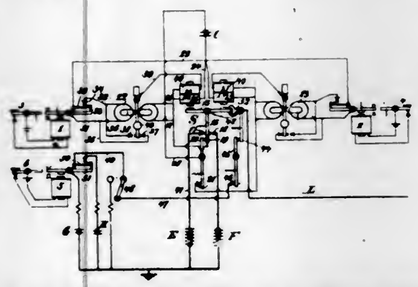
2. In a safety razor, a holder having a guard along an edge thereof, a pivoted strut adjacent to an opposite edge and a strap extending between fixed connections and disposed between said guard and strut.

3. In a safety razor, a blade, in combination with a holder having a guard, a strap disposed substantially parallel to said guard and a pivoted cam on the opposite side of said strap from said guard, said strap and cam engaging said blade to said holder and pressing it down along said guard.

4. In a safety razor, a holder comprising a head having a revoluble cam with guards thereon.

5. In a safety razor, a blade, in combination with a holder therefor, said holder comprising a body portion, guards fixed along an edge thereof, a cam having guards pivoted at a farther edge thereof, and engaging means between said sets of guards.

939,401. TELEGRAPH SYSTEM AND APPARATUS. THOMAS B. DIXON, New York, N. Y. Filed Nov. 25, 1904, Serial No. 234,128. Renewed Mar. 5, 1909. Serial No. 481,540.



1. The herein described method of transmitting simultaneous telegraphic messages in the same direction, through a single circuit, which consists in transmitting the signals of one message by fluctuations of a relatively weak current and in transmitting the signals of two other messages by relatively stronger current impulses occurring in pairs, one at the beginning and the other at the end of each signal, the signals of one message being transmitted by positive pulses and the signals of the other message by negative pulses.

2. The herein described method of transmitting simultaneous telegraphic messages in the same direction, through a single circuit, which consists in transmitting the signals of one message by reversals of a relatively weak current and in transmitting the signals of two other messages by impulses of relatively stronger current, said impulses occurring in pairs, one at the beginning and the other at the end of each signal, the signals of one message being transmitted by positive pulses and the signals of the other message by negative pulses, said pulses being of too brief duration to prevent the effective transmission and receipt of the signals of the first message.

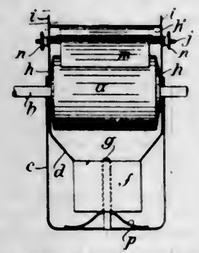
3. The herein described method of transmitting simultaneous telegraphic messages through a single circuit, which consists in transmitting three messages in each direction, one by fluctuations of a relatively weak current and the other two by relatively stronger current impulses occurring in pairs, one at the beginning and the other at the end of each signal, the signals of one message being transmitted by positive pulses and the signals of the other message by negative pulses, and in avoiding interference between messages in opposite directions by a method of duplex telegraphy.

4. The herein described method of transmitting simultaneous telegraphic messages through a single circuit, which consists in transmitting three messages in each direction, one by reversals of a relatively weak current and the other two by impulses of relatively stronger current, said impulses occurring in pairs, one at the beginning and the other at the end of each signal, the signals of one message being transmitted by positive pulses and the signals of the other message by negative pulses, and in avoiding interference between messages in opposite directions by a method of duplex telegraphy.

5. A telegraph system comprising in combination a line conductor, means for supplying current to the line, and two double current pulsatory transmitting instruments, one for each direction of current, controlling relatively strong currents, and a further transmitting instrument controlling a relatively weak current and adapted by its operation to produce fluctuations therein, said pulsatory transmitting instruments arranged to produce current pulses too brief to prevent the effective transmission and receipt of signals from said third transmitter.

[Claims 6 to 38 not printed in the Gazette.]

939,402. SHARPENING AND HONING DEVICE FOR RAZORS. THEODOR DOSWALD, Triest, Austria-Hungary. Filed July 1, 1909. Serial No. 505,424.



1. A sharpening and honing device, comprising a cylindrical honing body and a blade support capable of revolving around said body.

2. A sharpening or honing device, comprising a stationary cylindrical honing body and an adjustable blade support capable of revolving around said body.

3. A sharpening and honing device comprising a cylindrical honing body, a blade support capable of being revolved around said body, and means to adjust a blade at an angle to the latter.

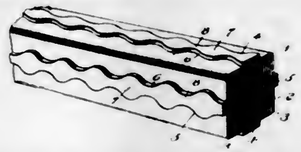
4. A sharpening and honing device comprising a cylindrical honing body, a blade support capable of being revolved around said body, means to adjust a blade at an angle to the latter and means to regulate the pressure of a blade against the body.

5. A sharpening and honing device, comprising a stationary cylindrical honing body, a spindle therefor, a hoop pivoted on the spindle, a blade holder adjustable on the hoop and a weight carried by the latter.

[Claims 6 and 7 not printed in the Gazette.]

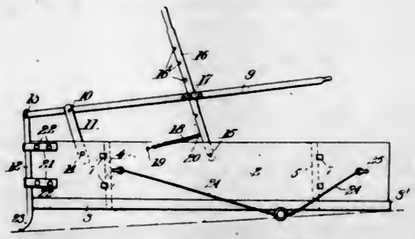
939,403. REINFORCING-BAR FOR CONCRETE. JAMES M. DUDLEY, Bessemer, Ala. Filed Jan. 10, 1908. Serial No. 410,126.

1. A reinforcing bar having ribs arranged thereon in pairs, the ribs of each pair lying upon diametrically opposite portions of the bar, the plane including the ribs forming one pair lying approximately at right angles to the plane which includes the ribs of the other pair, the ribs of each pair having alternating wide and narrow portions of substantial dimensions.



2. A reinforcing bar having ribs arranged thereon in pairs on the sides of the bar and removed from the corners thereof, the axes of one pair lying in a plane at approximately right angles to the plane which includes the axes of the ribs of the other pair, the ribs of each pair having alternating wide and narrow portions of substantial dimensions which are similarly arranged in ribs of each pair and relatively staggered in ribs of different pairs.

939,404. SCRAPER. FRANK J. DUMOND and DAVID W. HALL, Rose, Kans. Filed Apr. 12, 1909. Serial No. 489,485.



1. In a scraper or drag, the combination with a main beam or land side, and a scraping beam with a cutting blade on the lower surface, the beams connected at their front ends and supported by front and rear cross braces and tie rods; a perpendicular elevating rod slidably mounted by metal straps on the rear of the scraping beam, and curved at its lower end, forming a ground slide, its upper end pivotally attached to the end of the lifting lever; a lifting lever pivotally attached at one end to the elevating rod and fulcrumed on the bar, and adjustable to the notched upright shaft; a notched upright shaft pivotally attached to the scraping beam, and a coil spring attached to the shaft and beam; a fulcrum bar, one end pivoted to the scraper beam and the opposite end to the lever; and equalizing draft rods, all substantially as and for the purposes described.

2. In a scraper or drag of the class described, a main beam and a scraping beam, connected at their front ends and provided with supporting cross braces and tie rods; a slidable elevating rod, curved at its lower end forming a land slide; its upper end pivoted to the lever; a lifting lever pivoted to the elevating rod and pivotally operating on the fulcrum bar, and adjusted to a notched upright shaft by staple attachment; a notched upright shaft pivoted to the scraping beam near the top and approximately in the longitudinal center; a coil spring connected to the shaft and beam, all substantially as described.

939,405. MITER-GAGE. JOHN ERIKSON and GUSTAF R. WIKANDER, New York, N. Y. Filed Dec. 21, 1908. Serial No. 468,455.

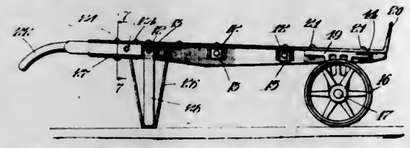
1. A tool of the class described, comprising a handle provided in its opposite sides with longitudinal recesses, two blades or arms pivoted in the head of said handle and adapted to be folded into said recesses, said blades or arms being provided at the pivotal ends with intermeshing gears

whereby the movement of one of said blades or arms will also move the other, an adjustable plate connected with one side of the head of the handle and in which the pivot pins of said arms or blades are secured, said plate being adapted to be moved into different positions so as to adjust the said pivot pins and the said gears with reference to each other.


Fig 3.

2. A tool of the class described, comprising a handle provided in its opposite sides with longitudinal recesses, two blades or arms pivoted in the head of said handle and adapted to be folded into said recesses, said blades or arms being provided at their pivotal ends with intermeshing gears whereby the movement of one of said blades or arms will also move the other, an adjustable plate connected with one side of the head of the handle and in which the pivot pins of said arms or blades are secured, said plate being adapted to be moved into different positions so as to adjust the said pivot pins and the said gears with reference to each other, the opposite side of said head of the handle being also provided with a friction device adapted to bear on said gears.

939,406. TRUCK. JOHN F. FIERKE, Dundee, Ill., assignor to Illinois Iron & Bolt Company, Carpentersville, Ill., a Corporation of Illinois. Filed June 15, 1909. Serial No. 502,279.



1. In a truck, the combination with metal angle bar sills, of metal cross pieces connecting said sills, wooden handles having ends square in cross section, which are set into the angles of the sills, bolts for securing the handles to the sill, supporting wheels for said frame, and legs comprising V-shaped strips of metal secured at one end to the sills and at the other secured to the under sides of said handles.

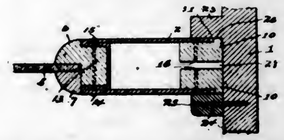
2. In a truck, the combination with angle bar sills, metal cross pieces connecting said sills, wooden handles having ends square in cross section, set into the angles of the sills, legs comprising strips of metal secured at one end to the sills and at the other extending along the under side of said handles, and bolts securing the handles to the vertical flanges of the sills, and securing the handles to the horizontal parts of the sills and to said metal strips forming the legs.

3. In a truck, the combination with angle bar sills, of channel bar cross pieces, wooden handles provided with ends square in cross section which are set into the angles of the sills and abut the rearmost of said cross pieces, legs comprising V-shaped strips of metal secured to the sills, bolts securing said handles to said sills and to the legs, and braces for the legs comprising a strip of metal riveted to the V-shaped strips and set into and riveted to the rearmost cross piece.

4. In a truck, the combination with pressed steel angle bar sills of truss form, of pressed steel channel bar cross pieces provided at their ends with lugs adapted to be riveted to said sills, wooden handles having squared ends seated in the angles of the sills and abutting against the rearmost cross piece, legs comprising strips of metal secured at one end to the sills, and at the other extending under the handles, bolts securing the handles to the sills and to the legs, braces for the legs comprising a strip of metal riveted to the V-shaped strips and set into and riveted to the rearmost cross piece, and wheels at the forward end of said truck.

5. In a truck, the combination with angle bar sills, of channel bar cross pieces, wooden handles provided with ends square in cross section, which are set into the angles of the sills and abut the rearmost of said cross pieces, legs comprising V-shaped strips of metal secured to the sills, bolts securing said handles to said sills and to the legs, and a single transverse brace for both legs, consisting of a strip of metal riveted at each end to the V-shaped strips and extending through channel of and riveted to the rearmost cross piece.

939,407. METAL SASH. HENRY H. FORSYTH, Chicago, Ill., assignor, by mesne assignments, to Forsyth Brothers Company, Chicago, Ill., a Corporation of Illinois. Filed Nov. 3, 1904. Serial No. 231,263.



1. A window sash having transversely yieldable frame-engaging members, each of said members having side portions with an inwardly turned end permitting transverse yielding of said member.

2. A window sash having vertical transversely yieldable frame-engaging members, each of said members having side portions with an inwardly turned end permitting transverse yielding of said member.

3. A metal sash having transversely yieldable frame-engaging members unitary with and constituting elements of the sash, each of said members comprising a pair of substantially parallel sections having an inwardly turned end and so disposed as to permit transverse yielding of said member at its end.

4. A metal sash having a permanently secured filling strip adapted to seat the glass when inserted frontwise of the opening, in combination with a detachable glazing strip securing the glass in place.

5. A metal sash having a permanently secured filling strip adapted to seat the glass when inserted frontwise of the opening, in combination with a detachable wooden glazing strip securing the glass in place.

[Claims 6 to 47 not printed in the Gazette.]

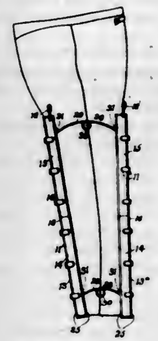
939,408. GARMENT-PRESSER. CHARLES A. FRIEDRICH, New York, N. Y. Filed Aug. 18, 1908. Serial No. 449,142.

1. In a garment presser, a member having two parts, a link pivotally held at one end to one part and having an elongated slot at the other end, and a pin operating in the slot and held to the other part.

2. In a garment presser, a member having two parts, each part comprising a body having a beveled end substantially centrally thereof and a slot at said beveled end, a link pivotally held at one end to one part, and having an elongated slot at the other end, a pin fitting the slot and held to the other part, a facing of soft material extending lengthwise of both parts, and means whereby the member may be suspended.

3. In a garment presser, a member having two parts, each part comprising a body having a beveled end and a slot at said beveled end, a link pivotally held at one end to one part and having an elongated slot at the other end, a pin fitting the slot and held to the other part, and a facing of soft material extending lengthwise of both parts.

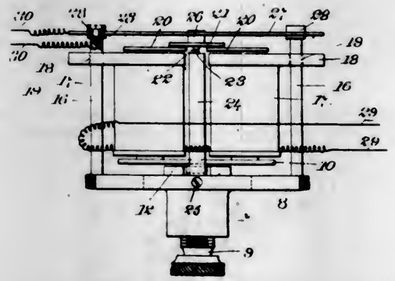
4. In a garment presser, a member having two parts, each part comprising a body having a beveled end substantially centrally thereof and a slot at said beveled end, a link pivotally held at one end to one part and having an elongated slot at the other end, and a pin fitting the slot and held to the other part.



5. In a garment presser, a member having two parts, a link pivotally held at one end to one part, and having an elongated slot at the other end, and a pin fitting the slot and held to the other part.

[Claim 6 not printed in the Gazette.]

939,409. ELECTROMAGNETIC RELAY. DAVID I. GARRETSON, New York, N. Y., and MARCUS O. ANTHONY, Englewood, N. J., assignors to Garretson-Anthony Company, a Corporation of New York. Filed Oct. 27, 1908. Serial No. 459,723.



1. In a telegraph relay the combination of an elastically mounted contact piece, an armature connected therewith, a stationary contact piece, and an electromagnet so located that the armature may approach the magnet pole pieces but cannot reach them because its further movement is checked by the meeting of the contact pieces.

2. In a telegraph relay the combination of a contact piece mounted on a flexible diaphragm, an armature connected therewith, a stationary contact piece, and an electromagnet so located that the armature may approach the magnet pole pieces but cannot reach them because its further movement is checked by the meeting of the contact pieces.

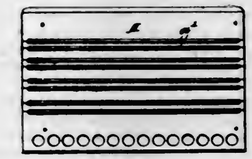
3. In a telegraph relay the combination of an elastically mounted contact piece, an armature connected therewith, a stationary contact piece, and an electromagnet so located that the armature may approach the magnet pole pieces but cannot reach them because its further movement is checked by the meeting of the contact pieces, the stationary contact piece being adjustable toward or away from the flexibly mounted contact piece.

4. In a telegraph relay the combination of an elastically mounted contact piece, an armature connected therewith, a stationary contact piece, and an electromagnet so located that the armature may approach the magnet pole pieces but cannot reach them because its further movement is checked by the meeting of the contact pieces, the magnets being adjustable toward and from the armature.

5. In a telegraph relay a frame and electromagnets carried thereby, a flexible diaphragm mounted on the frame but insulated therefrom, and an armature mounted on the diaphragm within the field of force of the magnet, together with a make and break contact device controlled by the movements of the diaphragm, one contact being in electrical connection with the frame and the other with the diaphragm, the two contacts being normally separated when the magnets are neutral, by a distance less than the elastic movement of the diaphragm.

[Claims 6 to 13 not printed in the Gazette.]

939,410. BAKE-OVEN. BERNARD A. GHURINK, East Cleveland, Ohio, assignor to The Trenkamp Stove & Manufacturing Company, Cleveland, Ohio, a Corporation of Ohio. Filed May 29, 1909. Serial No. 499,211.



1. As an article of manufacture, a lining plate for an oven or the like, comprising a sheet of metal, spaced sections of the material of the sheet being removed along an edge thereof, and said sheet being thereupon transversely crimped in line with the sections thus removed to form guide ribs terminating short of such edge, substantially as described.

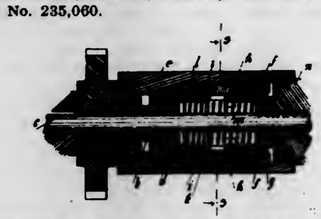
2. As an article of manufacture, a lining plate for an oven or the like, comprising a sheet of metal, spaced sections of the material of the sheet at each end being removed and said sheet thereupon transversely crimped in line with the sections thus removed to form guide ribs, such ribs opening freely on the rear side, and terminating short of the ends of said sheet, and the ends of such ribs being rounded shut, substantially as described.

3. As an article of manufacture, a lining plate for an oven or the like comprising a sheet of metal flanged at each end, spaced sections of the material of the sheet at each end being removed and said sheet thereupon transversely crimped in line with the sections thus removed to form guide ribs directed oppositely to such flanges, such ribs opening freely on the rear side, and terminating short of the ends, of said sheet, and the ends of such ribs being rounded shut, substantially as described.

4. As an article of manufacture, a lining plate for an oven or the like, comprising a sheet of metal, spaced sections of the sheet being removed along an edge thereof to provide recesses and said sheet thereupon transversely crimped in line with the recesses thus provided to form guide ribs terminating short of such edge, and said sheet being slitted adjacent to such recesses to permit the ends of such ribs to be rounded shut, substantially as described.

5. As an article of manufacture, a lining plate for an oven or the like, comprising a sheet of metal, flanged along an edge thereof, spaced sections of the material of the sheet being removed along such edge to provide recesses and the sheet being thereupon transversely crimped in line with the recesses thus provided to form guide ribs directed oppositely to such flanges, such ribs opening freely on the rear side, and terminating short of such edge of said sheet, and the inner adjacent corners of said sheet being slitted adjacent to such recesses to permit the ends of such ribs to be rounded shut, substantially as described.

939,411. DRIVING AND BRAKE CLUTCH. FRIEDRICH T. GOTTSCHALK, Dresden, Germany. Filed Dec. 1, 1904. Serial No. 235,060.
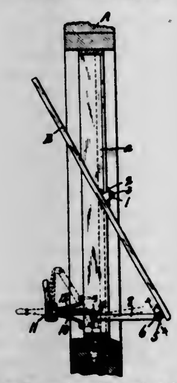


1. A driving and braking clutch mechanism comprising a driving member, a driven member, a longitudinally movable cone screwed on one member, an opposed fixed cone and an intermediate wedge member, whereby the movable cone can be moved toward the other to force the wedge member outward on their conical surfaces and a coiled spring attached at one end to the longitudinally movable cone and engaging frictionally at its other end with the other cone substantially as set forth.

2. A driving and braking clutch mechanism comprising a driving member, a driven member a longitudinally movable cone screwed on one member, an opposed fixed cone a non-rotatable double wedge member between the two cones and within the driven member and a coiled spring attached at one end to the longitudinally movable cone and engaging frictionally at its other end with the other cone substantially as set forth.

3. A driving and braking clutch mechanism comprising a driving member, a driven member a screwed extension on the driving member, a longitudinally movable cone on said screwed extension, an opposed cone, an intermediate wedge between the two cones and within the driven member, an engaging lug on the longitudinally movable cone, a corresponding recess in the wedge, and a coiled spring attached at one end to the longitudinally movable cone and engaging frictionally at its other end with the other cone substantially as set forth.

4. A driving and braking clutch mechanism comprising a driving member, a cone longitudinally movable on said member an opposed stationary cone a double-wedge member intermediate the two cones, a lug on one cone member, a corresponding recess in the intermediate double-wedge member, guides on the fixed cone to prevent rotation of the wedge, a tubular driven member surrounding the cones and wedge and a coiled spring attached at one end to one cone and engaging frictionally with the other cone substantially as set forth.

939,412. MECHANISM FOR OPERATING SWINGING WINDOWS. JOHN S. GOURLAY, Eastwood, N. Y. Filed Sept. 17, 1908. Serial No. 453,484.



In combination with a plurality of swinging windows arranged in sequence side by side, and each provided with a pin, a rock shaft extending transversely across the several windows, a hand lever secured to the shaft to rock the same, crank arms secured to the shaft, one for each sash, separately movable links hinged at one end to their respective crank arms and having their opposite ends formed with hooks movable into and out of interlocking engagement with their respective pins on the sashes for the purpose described.

939,413. PROCESS OF ASSAYING FOR SILVER. JOSEPH C. HAMES, Goldfield, Nev. Filed Apr. 21, 1909. Serial No. 491,314.

1. The process of assaying for silver, which consists in adding to a quantity of ore pulp, camphor, iodin, potassium iodid and a solvent, adding sodium cyanid, precipitating the silver in the solution from the assay on zinc, dissolving the precipitated silver in nitric acid, adding starchy matter to the solution, and determining the amount of silver in the solution.

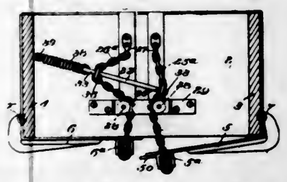
2. The process of assaying for silver, which consists in adding to a quantity of ore pulp, camphor, iodin, potassium iodid and a solvent, adding sodium cyanid, precipitating the silver in the solution from the assay on zinc, dissolving the precipitated silver in nitric acid, adding starchy matter and sodium hyposulfite to the solution, and determining the amount of silver in the solution.

3. The process of assaying for silver, which consists in adding to a quantity of ore pulp, camphor, iodin, potassium iodid and a solvent, adding sodium cyanid, precipitating the silver in the solution from the assay on zinc, dissolving the precipitated silver in nitric acid, adding indicator means to the said solution, and determining the amount of silver in the solution.

4. The process of assaying for silver, which consists in adding to a quantity of ore pulp, camphor, iodin, potassium iodid, and a solvent, adding sodium cyanid, precipitating the silver in the solution, dissolving the silver and ascertaining the quantity of silver in the solution.

5. The process of assaying for silver, which consists in adding to a quantity of ore pulp, camphor, iodin, potassium iodid, and a solvent, adding sodium cyanid, precipitating the silver in the solution, dissolving the precipitated silver, adding starchy matter to the solution, and ascertaining the quantity of silver in the solution.

939,414. DUMPING-WAGON. JOHN HEBERLING, Rochester, N. Y. Filed Nov. 2, 1906. Serial No. 341,696.



1. In a dumping wagon, the combination with a box, movable bottom doors thereon and flexible connections for operating them having end portions extending beyond the ends of the doors and anchored, of a movable spreader arranged between the anchored end portions of the connections and means for drawing said connections to close the doors.

2. In a dumping wagon, the combination with a box, movable bottom doors thereon and flexible connections extending beneath them and anchored at points beyond the doors, of a movable spreader arranged between said extending ends of the connections and mechanism for winding the other ends of said connections to close the doors.

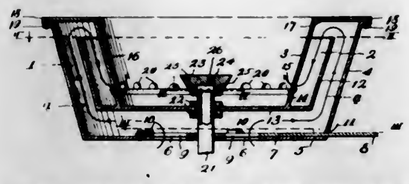
3. In a dumping wagon, the combination with a box, movable bottom doors thereon, winding mechanism and flexible connections attached thereto extending beneath the doors and anchored at one end of the box beyond the doors, of a movable device spreading said connections between their points of attachment and the doors and means normally tending to move the device relatively to the doors to automatically cause a relative lengthening of one connection and shortening of the other.

4. In a dumping wagon, the combination with a box, movable bottom doors thereon, winding mechanism and flexible connections attached thereto extending beneath the doors and having their ends extending upwardly and anchored at one end of the box, of guides holding portions of said ends in their normal position, a movable member supported by the connections and separating their ends a distance greater than the distance between the guides.

5. In a dumping wagon, the combination with a box, movable bottom doors thereon and a winding shaft located at one end of the box, of door-operating connections attached to the shaft at one end and having their other extremities extending upwardly from the doors and anchored to the box, a bar supported at its ends by said connections and spreading the latter between their points of anchorage and the doors.

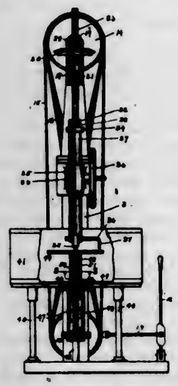
[Claims 6 and 7 not printed in the Gazette.]

939,415. GAS OR OIL BURNER. ORVILLE J. HEINDEL, Kansas City, Mo. Filed May 19, 1909. Serial No. 497,070.



A burner consisting of an outer casing comprising an annular wall and a bottom portion having openings, a valve for controlling said openings, an intermediate casing consisting of an annular wall and a bottom portion, spaced apart from the outer casing and provided with a cup, an inner casing comprising an annular wall having openings at its lower edge and an annular flange at its upper portion secured to the wall of the outer casing, and a fuel supply-pipe leading to the cup.

939,416. WHEEL-PAINTING MACHINE. JACOB HEINZ, Detroit, Mich., assignor to Acme White Lead and Color Works, Hamtramck, Mich., a Corporation of Michigan. Filed Apr. 5, 1909. Serial No. 488,102.



1. In a wheel painting machine, the combination of a tank, a cylinder connecting to the bottom of said tank and having its lower end closed, a hollow piston slidable in said cylinder and having its wall slotted and grooved, a spring within the piston and cylinder, a revoluble plate at the upper end of the piston and adapted to receive the wheel to be painted, a spindle supported above the plate, means to move the spindle up and down at will, and means to revolve the spindle in either direction.

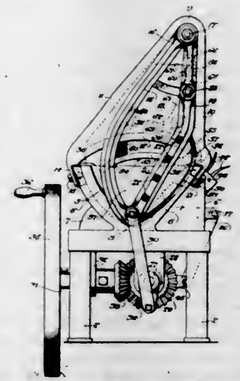
2. In a wheel painting machine, the combination of a paint receptacle having a central cylindrical portion extending downward, a spring within the extension, a wheel supporting piston within the extension and supported by the spring, a revoluble plate at the upper end of the piston, a frame, a vertical spindle mounted in the frame, means to move the spindle up and down, means to revolve the spindle in either direction at will, and an arm on the lower end of the spindle to engage the wheel on the revoluble plate.

3. In a wheel painting machine, the combination of a tank, a spring held wheel support mounted in said tank, a revoluble plate carried thereby, a bed on which said tank is mounted, upright frames on said bed, parallel shafts carried by said frames at their upper and lower ends, means to drive the upper shaft from the lower in either direction at will, a vertically movable sleeve supported by one column, a spindle revoluble therein, means to raise and lower the spindle and sleeve, and gears between the spindle and the upper shaft for driving the spindle.

4. In a wheel painting machine, the combination of a tank to receive the coating liquid, a spring held wheel support within the tank, a revoluble and vertically movable wheel driving device above the tank, and means on said driving device to engage the wheel on the support.

5. In a wheel painting machine, the combination of a tank to receive the coating liquid, a revoluble plate to receive the wheels, a spring held device to support the plate, a revoluble and vertically movable spindle centrally mounted above the plate and tank, means to revolve the spindle in either direction, and means on the spindle to engage the spokes of the wheels.

939,417. MEAT-SLICING MACHINE. ISIDORE HELLER, Chicago, Ill., assignor to Wolf, Sayer & Heller, Chicago, Ill., a Corporation. Filed Aug. 31, 1908. Serial No. 450,968.



1. In a meat-slicing machine, the combination with the bed-plate and trough, of a standard at one end of the trough, a knife-frame pivoted at its upper end to the upper end of said standard, a knife secured to the lower side edge of said frame, a shaft journaled beneath said bed-plate, a crank-arm on one end of said shaft, a link connecting said arm and the lower end of said knife-frame, and means for rotating said shaft, substantially as described.

2. In a meat-slicing machine, the combination with the bed-plate and trough, of an upright standard at one end of the trough, a knife frame pivoted at its upper end to the upper end of said standard, a knife secured to one edge of said frame, a follower-plate in said trough, a feed-screw journaled on the machine, a releasable part-nut

connected to said follower-plate and arranged to engage said screw, a drive shaft journaled on the machine, connections between said shaft and the lower end of said knife-frame, pawl-and-ratchet connections between said shaft and said feed-screw arranged to intermittently advance said follower-plate during the back stroke of said knife-frame and means for rotating said drive-shaft, substantially as described.

3. In a meat slicing machine, the combination with the bed-plate and trough, of an upright standard at one end of the trough, a knife-frame pivoted at its upper end to the upper end of said standard, a knife secured to the lower side edge of said frame, a follower plate in said trough, a feed-screw journaled outside and adjacent one edge of said trough, a releasable part-nut connected to said follower-plate and arranged to engage said screw, a longitudinally extending shaft journaled below said bed-plate, crank-arms fixed to the opposite ends of said shaft, a link connecting one of said arms and the lower end of said knife-frame, a pawl-and-ratchet device for intermittently rotating said feed-screw, a link connecting the other of said arms to said pawl-and-ratchet device, said arms being so arranged that said feed-screw will be operated to intermittently advance said follower-plate during the backward movements of said knife, and means for rotating said drive shaft.

4. In a meat slicing machine, the combination with a bed-plate and trough, of a standard at one end of the trough, a knife-frame pivoted at its upper end to the upper end of said standard, a knife secured to one edge of said frame, a follower-plate in said trough, a feed-screw journaled on the machine, a releasable part-nut connected to said follower-plate and arranged to engage said screw, a pawl-and-ratchet for rotating said screw, a longitudinal shaft journaled below said bed-plate, crank-arms fixed to the opposite ends of said shaft, a link connecting one of said crank-arms to the lower end of said knife-frame, a link connecting the other crank-arm and said pawl-and ratchet, a short transverse shaft journaled beneath said bed-plate, beveled gears connecting said transverse shaft and said longitudinal shaft, and means for rotating said transverse shaft, substantially as described.

5. In a meat slicing machine, the combination with a trough, of a reciprocating knife at one end of the trough, a feeder for advancing the meat in said trough, operating mechanism for reciprocating said knife and for intermittently advancing said feeder during the backward movements of said knife, a pivoted, spring-held clamp-arm at one end of said trough adjacent said knife and a one-way acting trip dog for releasing said clamp-arm during the backward movement of said knife, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

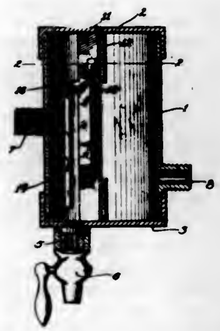
939,418. WATER-FILTER. ISAAC K. HISEY and RANDOLPH M. WARDLE, Carlton, Oreg. Filed May 22, 1909. Serial No. 497,582.

1. A device of the character described comprising a vessel provided with an inlet and a discharge, slotted plates slidably fitting said vessel, a screen interposed between said plates, and a deflecting strip carried by one of said plates and arranged in the path of the incoming liquid.

2. A device of the character described comprising a vessel provided with an inlet and a discharge, slotted plates slidably fitting said vessel, a screen interposed between said plates, and a deflecting strip having an angular end connection with one of said plates and arranged parallel with the slot therein and also in the path of the incoming liquid.

3. A device of the character described comprising a vessel provided with an inlet and a discharge, said vessel being provided with oppositely disposed side grooves, a pair of slotted plates slidably fitting said grooves, a screen interposed between said plates, and a guard strip carried by one of said strips and arranged in the path of movement of the incoming liquid.

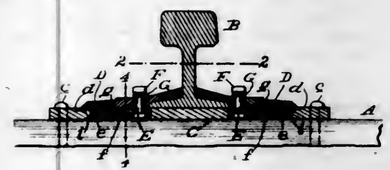
4. A device of the character described comprising a vessel, sealing caps for each end thereof, plates slidably mounted in said vessel and provided with a central elongated slot, a screen between said plates and covering the slots therein, and a guard carried by one of said plates and arranged parallel with but spaced from the slot therein.



5. A device of the character described comprising a vessel provided with an inlet and a discharge, sealing caps for each end thereof, a pair of plates slidably fitting said vessel and each provided with a complementally arranged centrally located slot, a screen between said plates and covering the said slots, and a guard strip carried by one of said plates and arranged parallel with but spaced from the slot therein and also in the path of the incoming liquid.

[Claims 6 and 7 not printed in the Gazette.]

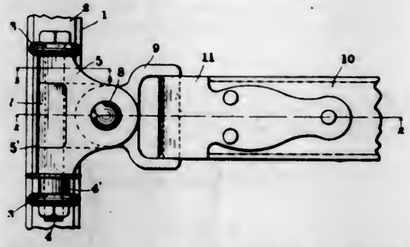
939,419. RAIL-FASTENING. JACOB HITZERT, Onaway, Mich. Filed July 17, 1909. Serial No. 508,193.



1. In means for the purpose described, the combination of a base plate having suitably spaced notches in its upper side and extending in the direction of and throughout its width and also having vertically disposed apertures, spaced from said notches, and grooves and comparatively narrow slots extending inwardly from the said apertures; said grooves being formed in the under side of the plate and said slots in the upper side thereof, a rail arranged on said base plate and between the said notches thereof, apertured rail-holding members arranged on the base plate and the base of the rail and extending from the web of the rail in opposite directions and having depending terminals at their outer ends disposed in the said notches of the base plate and at opposite sides of the said slots, bolts having their heads disposed in the said grooves of the base plate and their shanks extending upwardly through the slots in the base plate and the apertures in the holding members, and means on the bolts for holding the holding members thereto.

2. In means for the purpose described, the combination of spaced sleepers, base plates arranged thereon and having spaced notches in their upper sides and extending in the direction of their width, rails superposed on said base plates and arranged end to end, rail-holding members arranged on and connected with the base plates and also arranged on the bases of the rails and extending between the rail webs and the said notches and having depending terminals disposed in the latter, and longitudinally disposed plates disposed at opposite sides of and connected with the rail webs and extending between and joining the holding members on the spaced sleepers and base plates.

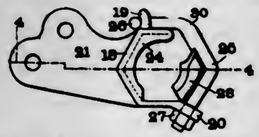
939,420. HAME AND TRACE CONNECTION. FREDERICK F. HODGES, Kalamazoo, Mich. Filed June 19, 1908. Serial No. 439,379.



1. In a hame and trace connection, the combination with the pivot-bolt 4 of a hame with retaining eyes 3—3, of a sheet metal clip 5 open at the center and having fingers 6 wrapped about said bolt forming eyes completely embracing the said bolt toward each end within its retaining eyes 3; a central U-shaped loop 7 of sheet metal embracing the central portion of said bolt; a swivel 9 within the arms of said sheet metal clip, and a pivotal rivet 8 extending therethrough, coacting for the purpose specified.

2. In a hame and trace connection, the combination with the pivot bolt of a hame, of a sheet metal clip 5 with fingers 6 wrapped about and formed into eyes completely embracing the said pivot toward each side; a central U-shaped loop of sheet metal wrapped around the said bolt; a swivel 9 between the sides of said U-shaped loop; and a pivotal rivet extending therethrough, coacting for the purpose specified.

939,421. ANGLE-COCK HOLDER FOR RAILWAY-CARS. LOUIS A. HOHAN, St. Louis, Mo. Filed Aug. 16, 1909. Serial No. 513,036.



1. The combination with an automatically locking angle cock, of a holder surrounding the head and provided with a way for the passage of the rear end of the handle of the cock.

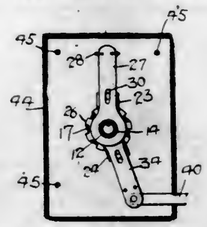
2. The combination with an automatically locking angle cock, of a holder composed of two parts, adapted to be secured together around the head, one of said parts having a reduced portion, forming a way for the passage of the rear end of the operating handle of the cock.

3. The combination with an angle cock, of a holder for said cock, comprising two parts, adapted to surround the head, one of said parts being provided with a pair of bifurcated lugs, and the other part having one end T shaped to engage one of said lugs, and the other end threaded and provided with a nut to engage the other of said lugs.

4. The combination with an automatically locking angle cock, of a holder for said cock, comprising two parts, to surround the head, one of said parts being provided with a pair of bifurcated lugs, and the other part having one end T shaped to engage one of said lugs, and the other end threaded and provided with a nut to engage the other of said lugs, said latter part having a reduced portion, forming a way for the passage of the handle of the cock.

5. The combination with an automatically locking angle cock, of a holder for said cock, comprising two parts adapted to surrround the head, one of said parts being provided with a pair of bifurcated lugs, and the other part having one end T shaped to engage one of said lugs, and the other end threaded and provided with a nut to engage the other of said lugs, said latter part having a reduced portion adjacent to the T shaped end, forming a way for the passage of the handle of the cock.

939,422. INDICATOR. WILLIAM HOUGHTON, Bath, Me. Filed Mar. 15, 1909. Serial No. 483,606.



1. An indicator of the class described, comprising the combination with a dial having sets of numerals thereon and means to expose and exchange each set of numerals singly; of a pair of disks, one of which is fixed to the dial, teeth on the peripheries of said disks, the upper surface of one set of said teeth being tapered, a pair of latches, each having a pair of tongues thereon adapted to engage the teeth on the disks, means to normally hold the latches in engagement with the disks and means to move one of said latches, whereby the disks and dial attached thereto will be rotated a predetermined distance.

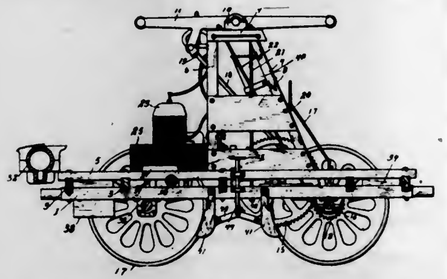
2. An indicator of the class described, comprising the combination with a dial having sets of numerals thereon and a shaft extending from said dial; of a tubular socket disposed over said shaft, means to fix the socket to the shaft, a disk fixed to the socket, said disk having teeth around its periphery, a similar disk rotatably mounted on the socket and having teeth on its periphery, the upper faces of which are straight, a pair of latches, each latch having tongues adapted to engage said teeth, arms supporting said latches, means to normally hold the latches in engagement with the disks and additional means to move one set of said arms and rotate the disk and dial attached thereto.

3. An indicator of the class described, comprising the combination with a dial having sets of numerals thereon, a cover plate for said dial having a slot therein, through which the numerals of the dial are exposed, a tubular shaft fixed to said dial having channels in its free end, a socket surrounding said shaft, a screw extending through the socket and entering one of said channels, a disk having a notch therein adapted to engage the outer end of the screw and fix the disk to the socket, said disk having teeth thereon, the edges of which are vertical to form shoulders, a similar disk rotatably mounted on the socket and having teeth thereon, upper faces of which are straight, a latch above and below said disks, each having a pair of tongues adapted to engage the teeth on the disks, supporting arms for each of said latches, means to movably mount the latches between the arms, means to yieldingly hold the latches in engagement with the disks and additional means to swing the arms supporting the lowermost latch, whereby the disks and dial attached thereto will be rotated in one direction.

4. An indicator, the combination with a box having an opening in one wall thereof and a swinging door for said box; of a dial positioned in said opening, said dial having a shaft thereon, a cover plate for the dial, means to retain the dial and cover plate in the opening, a socket engaging the shaft on the dial, means to fix the socket to the shaft, a pair of disks on said socket, one of which is fixed thereto, said disks having teeth around their peripheries, spring actuated latches having tongues thereon

adapted to engage said teeth, arms to support said latches and means to connect one set of arms to the door of the box, whereby when said door is opened and closed, said arms will be moved back and forth and the disks and dial rotated in one direction.

939,423. MOTOR HAND-CAR. WILLIAM S. HOVEY and MILTON H. RIX, Three Rivers, Mich., assignors to Sheffield Car Company, Three Rivers, Mich. Filed July 13, 1909. Serial No. 507,376.



1. In a structure of the class described, the combination with the traction wheels; of car body, comprising longitudinal sills; a platform; a gallows-frame, comprising uprights arranged above the central pair of longitudinal sills, connecting cross pieces for said uprights, the uprights at one end of said gallows-frame being vertical and those at the other end being inclined inwardly; an engine arranged between the said central longitudinal sills and through said platform at the end of said gallows-frame having the vertical uprights; a walking beam mounted on said gallows-frame with one end projecting over said engine; a guard arranged about said engine and secured to said gallows frame; and driving connections for said walking beam and engine to said traction wheels.

2. In a structure of the class described, the combination with the traction wheels; of car body, comprising longitudinal sills; a platform; a gallows-frame, comprising uprights arranged above the central pair of longitudinal sills, connecting cross pieces for said uprights, the uprights at one end of said gallows-frame being vertical and those at the other end being inclined inwardly; an engine arranged between the said central longitudinal sills and through said platform at the end of said gallows-frame having the vertical uprights; a walking beam mounted on said gallows-frame with one end projecting over said engine; and driving connections for said walking beam and engine to said traction wheels.

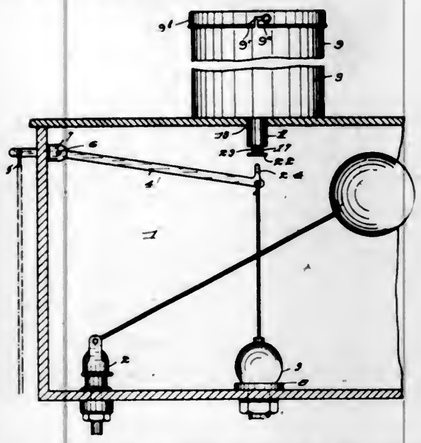
3. In a structure of the class described, the combination with the traction wheels; of car body, comprising longitudinal sills; a platform; a gallows-frame, comprising uprights arranged above the central pair of longitudinal sills, connecting cross pieces for said uprights, the uprights at one end of said gallows-frame being vertical and those at the other end being inclined inwardly; an engine arranged between the said central longitudinal sills and through said platform at the end of said gallows-frame having the vertical uprights; a walking beam; a guard arranged about said engine and secured to said gallows-frame; and driving connections for said walking beam and engine to said traction wheels.

4. In a structure of the class described, the combination with the traction wheels; of car body, comprising longitudinal sills; a platform; a gallows-frame, comprising uprights arranged above the central pair of longitudinal sills, connecting cross pieces for said uprights, the uprights at one end of said gallows-frame being vertical and those at the other end being inclined inwardly; an engine arranged between the said central longitudinal sills and through said platform at one end of said gallows-frame having the vertical uprights; a walking beam; and driving connection for said walking beam and engine to said traction wheels.

5. In a structure of the class described, the combination with the traction wheels; of car body; a gallows-frame; comprising uprights, connecting cross pieces for said uprights, the uprights at one end of said gallows-frame being vertical and those at the other end being inclined inwardly; an engine arranged at the end of said gallows-frame having the vertical uprights; a walking beam mounted on said gallows frame with one end projecting over said engine; a guard arranged about said engine and secured to said gallows frame; and driving connections for said walking beam and engine to said traction wheels.

[Claims 6 to 15 not printed in the Gazette.]

939,424. VALVE FOR WATER-CLOSET-DISINFECTING DEVICES. JAMES KNEEN, Oakland, Cal. Filed May 14, 1909. Serial No. 495,951.

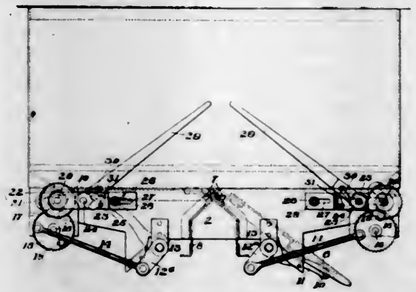


1. In a device of the character described, the combination with a flushing tank provided with a discharge valve operating lever, of a disinfectant holder having a tube communication with said tank, a valve stem slidable through said tube, a valve carried by said stem, a spring for normally holding said valve to the upper end of said tube, and a cap carried by the inner end of said stem and adapted to be engaged by said lever to open the valve when said lever is holding the discharge valve in an open position.

2. In a disinfecting device for closet bowls, the combination with a flushing tank provided with a flushing lever, of a disinfectant holder having a tube connection with the interior of said tank, a guiding diaphragm carried by said tube and provided with perforations, a valve stem projecting through said tube, a valve on said stem and adapted to be seated on the inner end of said tube, a cap carried by the other end of said stem, a spring coiled about said stem and interposed between the cap and the diaphragm for holding the valve to its seat, and means carried by said lever for contact with said cap to raise said valve from its seat when said lever is moved in one direction.

3. In a disinfecting device for closet bowls, the combination with a flushing tank provided with a flushing lever, a disinfectant holder carried by said tank, a tube connecting between the tank and said holder, said tube being provided with a valve seat at its upper end, a perforated guiding diaphragm carried by said tube, a valve stem extending through said tube and diaphragm, a guiding flange carried by said stem and provided with clearance between its sides and said tube, a cap carried by the other end of said stem, a spring carried by said stem and interposed between said cap and the diaphragm, and means carried by said lever for contact with said cap to raise said valve from its seat.

939,425. CAR-DOOR-OPERATING MECHANISM. CHARLES A. LINDSTRÖM, Allegheny, Pa., assignor to Pressed Steel Car Company, Pittsburg, Pa., a Corporation of New Jersey. Filed Nov. 20, 1907. Serial No. 402,989.



1. In a car door mechanism, a door, means for closing said door, door supporting means geared to said door closing means to move into door supporting position when the door is closed and means for operating said mechanism.

2. In a car-door mechanism, a door and means for closing said door, in combination with means operatively connected to said door closing means for disengaging said door from said closing means and supporting said door in closed position, and means for operating said mechanism.

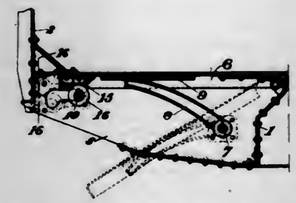
3. In a car-door operating mechanism, a drop door, means for raising said door to closed position and door supporting means operatively connected to said door raising means for further raising said door when moved into door supporting position to disengage said door from its raising means and carry the weight of the door off of its raising means.

4. In a car-door mechanism, a suitably mounted shaft, an arm or lever rigidly mounted on said shaft and adapted to close said door and a second shaft adapted to be moved into door supporting position and take the weight of said door from said arm or lever.

5. In a car-door mechanism, a door, a suitably mounted shaft, an arm or lever on said shaft adapted to close said door, a second shaft movable into door supporting position and adapted to take the weight of the door from said arm or lever, suitable operative connections between said shafts to insure their operation in proper sequence and means for operating said mechanism.

[Claims 6 to 49 not printed in the Gazette.]

939,426. CAR-DOOR-OPERATING MECHANISM. CHARLES A. LINDSTRÖM, Pittsburg, Pa., assignor to Pressed Steel Car Company, Pittsburg, Pa., a Corporation of New Jersey. Filed Apr. 8, 1909. Serial No. 488,558.



1. In a dump car, a discharge door, a bodily movable and rotatable shaft for first closing said door and then moving into position to hold said door in closed position, a recess in the car underframe for holding said shaft in door closing position and cam means operable upon rotation of said shaft to force the latter out of said recess.

2. In a dump car, the combination with a drop door in the car underframe and a bodily movable shaft connected to a device in engagement with said door to operate the latter, of a shaft retaining recess formed in said underframe, cam means independent of the connection between said shaft and door, operable upon rotation of said shaft to force the latter from said recess to permit bodily translation of said shaft and means for rotating said shaft.

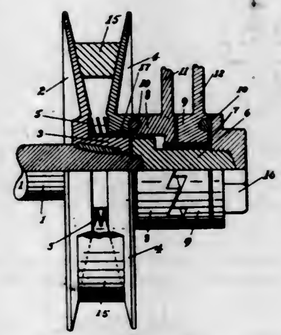
3. In a dump car, the combination with a drop door in the car underframe and a bodily movable shaft connected to a device in engagement with said door to operate the latter, of a shaft retaining recess formed in said underframe, toothed devices independent of the connection between said shaft and door arranged to operate after limited preliminary rotation of said shaft to force the latter from said recess to permit bodily translation of said shaft and means for rotating said shaft.

4. In a dump car, the combination with a drop door in the car underframe and a bodily movable shaft connected to a device in engagement with said door to operate the latter, of a shaft retaining recess formed in said underframe, a projection mounted on said shaft independent of the connection between said shaft and door and arranged to engage the underframe after limited preliminary rotation of said shaft to remove the latter from said recess to permit bodily translation of said shaft and means for rotating said shaft.

5. In a dump car, having a suitable underframe and a drop door mounted on said underframe, a slotted bearing formed with a shaft retaining recess and a projection adjacent said recess, a bodily movable shaft adapted to rest in said recess and connected to a device in engagement with said door and a projection adapted to rotate with said shaft and after limited preliminary rotation of said shaft to engage the projection on said bearing to force said shaft from said recess to permit bodily translation of said shaft and means for rotating said shaft.

[Claims 6 to 18 not printed in the Gazette.]

939,427. VARIABLE-SPEED DEVICE. WILLIAM F. MAIN, Salt Lake City, Utah. Filed June 1, 1909. Serial No. 499,589.



1. In a device of the class described, the combination with a shaft, of one disk of a pulley keyed thereto, the other disk of said pulley slidably keyed to the hub of the first mentioned disk, a cam and anti-friction bearings between said cam and the last mentioned disk, a cam adapted to engage with the first mentioned cam, a lever secured thereon whose lower end is extended, forming bearings for a belt tightener, a belt tightener and a belt whose edges are cut to fit between said disks, as and for the purposes described.

2. In a device of the class described in combination, a shaft, a pulley formed of two disks spaced and resiliently held apart, a cam on said shaft, ball bearings between said cam and said pulley, another cam adapted to engage with the first mentioned cam, each of which cams is provided with an operating lever and a belt tightener secured to one of said levers, as and for the purposes described.

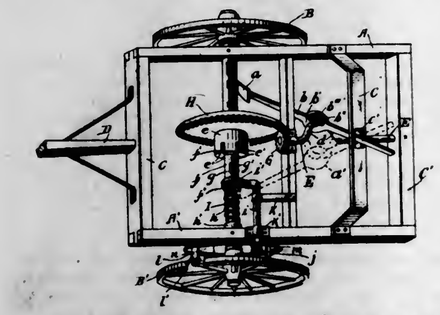
8. In a device of the class described in combination, a shaft, one disk of a pulley keyed thereon, the other disk of said pulley slidably keyed to the hub of said first mentioned disk, a nut threadably secured on the end of said shaft, a sleeve on said nut, cams on said sleeve, a lever on each of said cams, a belt tightener secured to one of said levers and an endless belt whose edges are cut at the same angle as the flanges of said disk, as and for the purposes described.

939,428. PNEUMATIC TIRE. JAMES L. MAITLAND, Passaic, N. J., assignor of one-third to William A. Callanan, Jersey City, N. J., and one-third to Charles Rider, Mountainville, N. J. Filed Feb. 6, 1908. Serial No. 414,541.



In a pneumatic tire, an outer split tube of the clencher type having layers of fabric embedded therein and extending around the inner surface thereof, an inner tube located within the outer tube, of smaller external diameter than the internal diameter of the outer tube and therefore spaced therefrom, said inner tube having double spaced walls in its tread portion and its sides, which walls merge into each other along the inner circumference of the inner tube and thereby inclose a crescent-shaped space, a crescent-shaped solid filling of felt permanently placed within said space, contiguous sheets of wire and asbestos inserted in said felt filling and extending across the tread portion of the tire and partially around the side portions of the filling, and a removable, independent, intermediate, protective pad of felt entirely inclosing the inner tube, said pad tapering uniformly from its middle to its edges and being therefore crescent-shaped in section, said felt pad being provided with an internal heat- and puncture-resisting layer embedded therein, consisting of contiguous sheets of asbestos and wire fabric, said protective layer in the felt pad extending around and inward beyond the protective layer of asbestos and wire forming the core of the inner tube.

939,429. COTTON-CHOPPER. SIMON L. MARTIN, Oklahoma, Okla. Filed July 16, 1909. Serial No. 507,910.



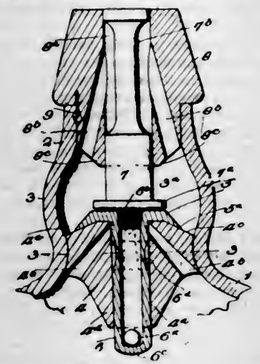
1. In a cotton-chopper having a frame of side and end sills mounted upon wheels; a crank shaft in line of the travel of the machine having its rear end journaled in the rear sill and intermediate its ends forming a crank its forward end being supported by a cross beam and having a bevel pinion secured thereon; a shovel having an extended handle with an enlargement intermediate its ends and an opening in said enlargement adapted to rest upon and be carried by said crank for the purpose of operating said shovel to remove surplus cotton; means for controlling the upper end of said shovel handle; a bevel wheel H in mesh with said pinion and loosely mounted upon the main shaft of the machine and having a hub with radial slots therein; a longitudinally slidable sleeve mounted on the main shaft of said machine and having upon its outer end a peripheral flange, and intermediate its ends a longitudinal slot to be engaged by a pin extending therethrough and into the main shaft to rotate said sleeve in unison with said shaft the inner end of said sleeve having a projection adapted to engage the said radial slots in said hub to rotate the said bevel wheel; a sleeve-sliding rod having a pulley laterally secured upon its outer end, its inner end being bent at a right angle and formed into fingers to engage the said flange of the said sleeve to operate the same, and means for reciprocating said rod for the purposes described.

2. In a cotton-chopper having a frame of side and end sills mounted upon wheels; a crank shaft in line of the travel of the machine having its rear end journaled in the rear sill and intermediate its ends forming a crank its forward end being supported by a cross beam and having a bevel pinion secured thereon; a shovel having an extended handle with an enlargement intermediate its ends and an opening in said enlargement adapted to rest upon and be carried by said crank for the purpose of operating said shovel to remove surplus cotton; means for controlling the upper end of said shovel handle; a bevel wheel in mesh with said pinion and loosely mounted upon the main shaft of the machine and having a hub with radial slots therein; a longitudinally slidable sleeve mounted on the main shaft of said machine and having upon its outer end a peripheral flange, and intermediate its ends a longitudinal slot to be engaged by a pin extending therethrough and into the main shaft to rotate said sleeve in unison with said shaft the inner end of said sleeve having a projection adapted to engage the said radial slots in said hub to rotate the said bevel wheel; a sleeve-sliding rod having a pulley laterally secured upon its outer end, its inner end being bent at a right angle and formed into fingers to engage the said flange of the said sleeve to operate the same; a disk-like band having peripheral legs at right angles to said band, said legs having perforated feet for securing them to one of the wheels of the machine, said band having upon its outer face wedge-like projections adapted to contact with said pulley to operate said sleeve-sliding rod, substantially as described.

939,430. NON-REFILLABLE BOTTLE. STEWART A. MINER, Camrose, Alberta, Canada. Filed July 3, 1908. Serial No. 441,803.

1. In a bottle or receptacle of the type set forth, provided with a neck, a partition arranged within said neck and provided with a central opening, and other openings at the sides of the central opening and upwardly and inwardly inclined and in communication at their upper ends with said central opening, a valve adapted to close downward on said partition and having a stem loose in the central opening of said partition, said stem having a groove in its side to register with the inclined openings of the partition and provide an escape when pouring off the liquid contents of the bottle.

2. A non-refillable bottle comprising a body portion, a neck carried by said body portion and a plurality of partitions each having a central opening and other openings at the side of the central opening and upwardly and inwardly inclined to terminate at their upper ends with each of said central openings, stems loosely mounted within the central openings in said partitions, said stems having circumferential grooves formed in the sides thereof adjacent their upper ends registered at times with all of the openings in said partitions, and flanges formed on said stems for preventing the displacement of the same and



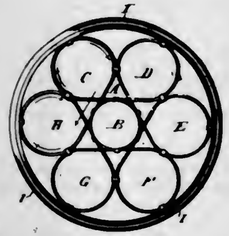
also for the purpose of sealing the openings formed in said partitions.

939,431. HAIR-TONIC. FRIEDRICH W. E. MÜLLER, Chicago, Ill. Filed Aug. 6, 1909. Serial No. 511,659.

1. A hair tonic, consisting of water, an extract of ripe black currants, granulated sugar, best corn whisky and port wine, substantially in the proportions described and for the purpose specified.

2. A hair tonic, consisting of pure water ten per cent., an extract of ripe black currants, twenty-five per cent., granulated sugar five per cent., best corn whisky forty per cent. and port wine twenty per cent., substantially as described.

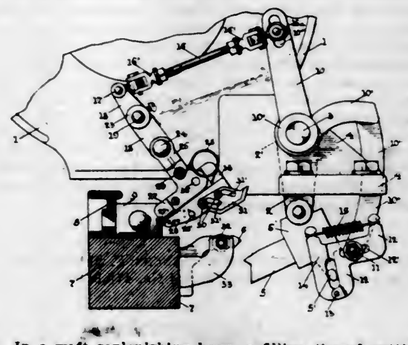
939,432. SPRING VEHICLE-WHEEL. ESTHER MURRAY, Glasgow, Scotland. Filed Feb. 27, 1908. Serial No. 418,159.



1. In a spring vehicle wheel, the combination with a hub and a rim, of a continuous one piece strip of yielding material supportingly interposed between the hub and the rim, said strip being bent to form a plurality of circular loops arranged in abutting relation with respect to each other and with respect to the rim and out of engagement with the hub, means connecting said loops with each other at engaging points thereof, and means connecting said loops with said rim at engaging points of the loops therewith, said strip being provided with a plurality of straight sections connecting adjacent loops and lying tangentially against the hub with the straight sections crossing each other, and means connecting said straight connections with the hub at the point of engagement therewith.

2. In a spring vehicle wheel, the combination with a hub and a rim, of a continuous one piece strip of yielding material supportingly interposed between the hub and the rim, said strip being bent to form a plurality of circular loops, means connecting said loops with each other, and means connecting said loops with said rim, said strip being provided with straight sections connecting adjacent loops, and means connecting said straight sections with said hub.

939,433. FILLING-THREAD-CUTTING DEVICE FOR WEFT-REPLENISHING LOOMS. BENJAMIN F. MCGUINESS, Worcester, Mass., assignor to Crompton & Knowles Loom Works, a Corporation of Massachusetts. Filed Apr. 11, 1907. Serial No. 367,473.



1. In a weft replenishing loom, a filling thread cutting mechanism supported independently of the lay, and connected with the filling transferrer mechanism, and moved inwardly toward the selvage of the goods into operative position, preparatory to the transfer of filling, and subsequently moved outwardly and away from the selvage of the goods, and means for moving said filling thread cutting mechanism inwardly and outwardly.

2. In a weft replenishing loom, a filling thread cutting mechanism supported independently of the lay, and connected with the filling transferrer mechanism, and moved inwardly toward the selvage of the goods, into operative position, preparatory to the transfer of filling, and subsequently moved outwardly and away from the selvage of the goods, and into position to be engaged by a shuttle not properly boxed, and means for moving said filling thread cutting mechanism inwardly and outwardly.

3. In a weft replenishing loom, a filling thread cutting mechanism supported independently of the lay, and connected with the filling transferrer mechanism, and moved inwardly toward the selvage of the goods, into operative position, preparatory to the transfer of filling, and subsequently moved outwardly and away from the selvage of the goods and into position to be engaged by the shuttle not properly boxed, and means for moving said filling thread cutting mechanism inwardly and outwardly, said filling thread cutting mechanism comprising two holding or clamping jaws, and two cutting blades, normally yieldingly held in closed position, and means for yieldingly holding said jaws in closed position, and positively opened to receive the filling thread on the forward beat of the lay, and means for positively opening said jaws.

4. In a weft replenishing loom, a filling thread cutting mechanism, comprising two holding or clamping jaws, and two cutting blades, normally yieldingly held in closed position, and adapted to be positively opened to receive the filling thread, by engagement with a roll or device carried on the lay, on the forward beat of the lay, and yieldingly closed on disengagement from said roll or device, said clamping jaws and cutting blades being supported on a plate attached to a lever, and said plate and lever, said lever pivotally mounted on a stationary stud, and its hub adapted to be rotated and moved longitudinally on said stud, and a spring connected with said hub, and connections intermediate said lever and the bunter of the transferrer mechanism, and said bunter, the movement of which into its raised position will move the cutting mechanism into its operative position, and the movement of which, to operate the transferrer arm through the engagement of the dagger on the lay, will move said cutting mechanism into its inoperative position.

5. In a weft replenishing loom, a filling thread cutting mechanism, comprising two holding or clamping jaws, and two cutting blades, normally yieldingly held in closed

position, and adapted to be positively opened to receive the filling thread, by engagement with a roll or device carried on the lay, on the forward beat of the lay, and yieldingly closed on disengagement from said roll or device, said clamping jaws and cutting blades being supported on a plate attached to a lever, and said plate and lever, said lever pivotally mounted on a stationary stud, and its hub adapted to be rotated and moved longitudinally on said stud, and a spring connected with said hub, and connections intermediate said lever and the bunter of the transferrer mechanism, and said bunter, the movement of which into its raised position will move the cutting mechanism into its operative position, and the movement of which, to operate the transferrer arm through the engagement of the dagger on the lay, will move said cutting mechanism into its inoperative position, and a yielding connection between said bunter and the connections to the cutting mechanism.

939,434. HOSE-COUPLING. VINCEN P. MCVOY, Mobile, Ala. Filed Feb. 4, 1909. Serial No. 475,959.



1. In a hose coupling, a section having external left-handed threads and oppositely disposed projections at the end within the circumference and extending in a direction of the length of the section, a coöperating section having an annular projection with oppositely disposed lugs at the extreme outer end of said projection with an annular space between the same and the adjacent shoulder to receive the projections of the first-named section, and an annular socket, a gasket in said socket, the spaces between said lugs being tapered, clearance being left between the opposed metal faces of the two sections, and a coupling ring mounted upon the first-named section for limited rotation.

2. In a hose coupling, a section having external left-handed threads and oppositely disposed projections at the end within the circumference and extending in the direction of the length of the section, a coöperating section having an annular projection with oppositely disposed lugs at the extreme outer end of said projection with an annular space between the same and the adjacent shoulder to receive the projections of the first-named section, diametrically disposed ends of which are rounded at their starting point and an annular socket with undercut wall, the spaces between said lugs being tapered, a gasket in said socket, clearance being left between the opposed metal faces of the two sections and a coupling ring mounted upon the first-named section for limited rotation.

939,435. HOSE-COUPLING. VINCEN P. MCVOY, Mobile, Ala. Filed Feb. 4, 1909. Serial No. 475,960.



1. In a hose coupling, a body portion having an annular interrupted flange between its ends and projections at one end extending in the direction of the length of the body, a coöperating member having separated flanges and a socket for a gasket, a coupling sleeve having separated flanges and a reduced portion with lug extended beyond the end thereof to engage in the space between the ends of the portions of the interrupted flange, and a tightening and locking ring having threaded engagement with the coupling sleeve.

2. In a hose coupling, a body portion having an annular interrupted flange between its ends and projections at one end extending in the direction of the length of the body, a coöperating member having separated flanges and a socket for a gasket, a coupling sleeve having separated flanges and a reduced portion with lug extended beyond the end thereof to engage in the space between the ends of the portions of the interrupted flange, and a tightening and locking ring having threaded engagement with the coupling sleeve, the entering ends of said flanges being tapered.

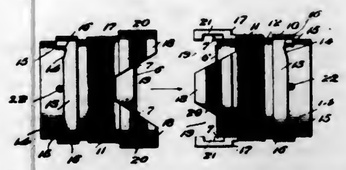
3. In a hose coupling, a body portion having at one end an annular internal flange and projections extending in the direction of the length of the body portion, and between its ends with a peripheral interrupted flange and reduced portion forming a shoulder, a coöperating member having at one end an internal annular flange, an exterior flange and at the end with a gasket-receiving socket and separated flanges adjacent thereto, a coupling sleeve having internal separated flanges and an exteriorly threaded portion and a reduced portion with lug extending beyond the end thereof to move in the space between the ends of the portions of said interrupted flange, and a tightening and locking ring engaging said threaded portion.

4. In a hose coupling, a body portion having at one end an annular internal flange and projections extending in the direction of the length of the body portion, and between its ends with a peripheral interrupted flange and reduced portion forming a shoulder, a coöperating member having at one end an internal annular flange, an exterior flange and at the end with a gasket-receiving socket and separated flanges adjacent thereto, a coupling sleeve having internal separated flanges and an exteriorly threaded portion, a tightening and locking ring engaging said threaded portion, and means for limiting the rotation of said ring.

5. In a hose coupling, a body portion having between its ends a peripheral interrupted flange and a reduced portion with shoulder, a coöperating member adapted to interlock with the body portion and carrying a gasket, a coupling sleeve having a threaded peripheral portion, a tightening and locking ring having threaded engagement therewith and a stop member extending radially of the ring and adapted to engage the sleeve to limit the rotation of the ring.

[Claims 6 to 10 not printed in the Gazette.]

939,436. HOSE-COUPLING. VINCEN P. MCVOY, Mobile, Ala. Filed Feb. 6, 1909. Serial No. 476,376.



1. In a hose coupling, a coupling section comprising an inner member with spaced lugs, a member loosely mounted thereon for limited rotation and having an exterior annular groove and an annular portion beyond the same with stop shoulders and having tapered projections with grooves upon their inner faces, means engageable with said shoulders for limiting the endwise movement of said member, and a tightening ring having engagement with said member and limited in its axial movement.

2. In a hose coupling, a coupling section comprising an inner member with spaced lugs, a member loosely mounted thereon for limited rotation and having an annular groove and an annular portion beyond the same with stop shoulders and having tapered projections with grooves upon their inner faces, means engageable with said shoulders for limiting the endwise movement of said member, and a tightening ring having engagement with said member and limited in its axial movement and having an inwardly extended flange covering the means which limits the endwise movement of the intermediate member.

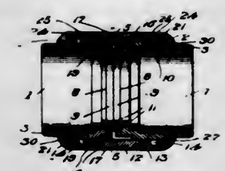
3. In a hose coupling, a coupling section comprising a body portion with spaced lugs extending radially and endwise beyond the body of the member, a sleeve loosely embracing said member and having tapered lugs with inner grooves at one end and a cut away portion at the other with depressions at the end of said cut away portion, a stop member in the body portion, and a tightening ring rotatably mounted on the intermediate member and having limited endwise displacement.

4. In a hose coupling, interengaging sections, each comprising a body portion with spaced lugs, a sleeve embracing the same and having tapered projections with grooves upon their inner faces, means limiting the endwise displacement of said sleeve on the body portion and a tightening ring having threaded engagement with said sleeve engageable with the projections of an opposing member and having limited endwise displacement.

5. In a hose coupling, interengaging sections, each comprising a body portion with spaced lugs, a sleeve embracing the same and having tapered projections with grooves upon their inner faces, means limiting the endwise displacement of said sleeve on the body portion, and a tightening ring having threaded engagement with said sleeve engageable with the projections of an opposing member and having limited endwise displacement, said sleeve having a cut away portion and depressions near the ends of said cutaway portion, and means on the body portin engageable in said cutaway portion and depressions to limit the endwise displacement of the sleeve.

[Claims 6 to 10 not printed in the Gazette.]

939,437. HOSE-COUPLING. VINCEN P. MCVOY, Mobile, Ala. Filed Feb. 6, 1909. Serial No. 476,377.



1. In a hose coupling, a coupling section comprising a body portion having at one end separated lugs within the periphery thereof, a sleeve member loosely embracing the same and having interrupted threads and projections with inturned flanges, and a tightening and locking ring rotatably mounted on the sleeve member, means being provided engageable between said threads for preventing endwise separation of the parts.

2. In a hose coupling, a coupling section comprising a body portion having at one end separated lugs within the periphery thereof, a sleeve member loosely embracing the same and having interrupted threads and projections with inturned flanges, and a tightening and locking ring rotatably mounted on the sleeve member, means being provided engageable between said threads for preventing endwise separation of the parts, the contacting faces of said lugs and inturned flange being serrated.

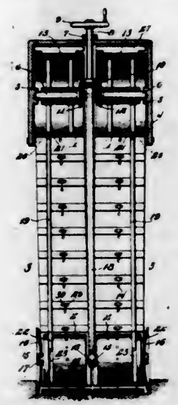
3. In a hose coupling, a coupling section composed of a body portion having separated lugs, a sleeve member embracing the body portion and having projections with inturned flanges at their outer ends, said sleeve member having circumferential screw threads with an interrupting groove, a tightening and locking ring having threaded engagement with the threads of the sleeve member, and inwardly extending means carried by said ring disposed in said groove for limiting the axial movement of the ring.

4. In a hose coupling, a coupling section composed of a body portion having separated lugs, a sleeve member embracing the body portion and having projections with inturned flanges at their outer ends, said sleeve member having circumferential screw threads with an interrupting groove, a tightening and locking ring having threaded engagement with the threads of the sleeve member, inwardly extending means carried by said ring disposed in said groove for limiting the axial movement of the ring, a portion of said groove being cut through to form a slot, and outwardly extending means on the body portion working in said slot for limiting the rotation of the sleeve.

5. A hose coupling section comprising a body portion with an annular band, a reduced portion and annular shoulder upon one side of said band, an annular groove upon the opposite side of the band, spaced lugs within the periphery of the band, a sleeve member rotatably mounted upon the body portion and having projections with inturned lugs at their outer ends, said sleeve member having exterior threads with an interrupting groove, stop means carried by said band and engageable with the end walls of said groove and a tightening and locking ring having threaded engagement with the threaded portion of the sleeve member, and means carried by said ring and engaged in said groove for limiting the axial movement of the ring.

[Claims 6 to 8 not printed in the Gazette.]

939,438. SQUARE-HOLE AUGER. JACOB NIELSEN, Butte, Mont. Filed Jan. 8, 1909. Serial No. 471,328.



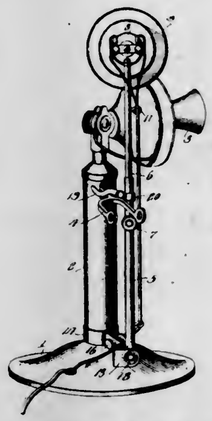
1. In a boring device, the combination of upper and lower drums, flexible cutter belts traveling over said drums, means for driving the upper drums and transmitting motion to the belts, means for causing said belts to drive the lower drums, circular saws mounted on the arbors of the lower drums, each of the belts being composed of a series of rabbeted overlapping sections movable relatively to one another and laterally with respect to their direction of travel.

2. A boring device of the class described embodying upper and lower drums, circular saws fast on the shafts of the lower drums, means for imparting motion to the upper drums, flexible cutter belts passing over the upper and lower drums and serving to transmit motion to the lower drums and to receive motion from the upper drums, a center reach rod connecting the shafts of the upper and lower drums, and braces for supporting the outer end portions of the drums, each of said belts embodying a series of connected overlapping sections movable relatively to one another laterally with respect to their direction of travel.

3. In a boring device of the class described, the combination with an upper set of drums, and a lower set of drums, the upper drums being spaced at a greater distance apart than the lower drums, the endless flexible cutter belts passing around the upper and lower belts, means for imparting motion to said belts and drums, dished circular

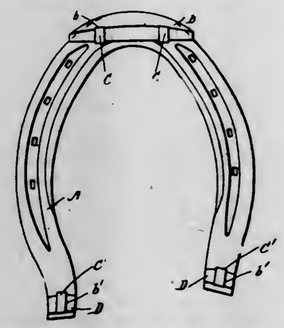
saws actuated by the lower drums at opposite ends thereof, cutter bits carried by said belts, and means for causing the opposite runs of said belts to move in parallel planes, each of said belts being made up of a plurality of overlapping sections movable relatively to one another laterally with respect to their direction of travel, substantially as described.

939,439. TELEPHONE ATTACHMENT. HENRY R. PALMER, Seattle, Wash. Filed Mar. 3, 1908. Serial No. 419,024.



In a desk set, the combination with the transmitter supporting column, of a clip consisting of a metal strap, encircling said column and having the opposite ends thereof brought into parallel relation to each other to form clamping jaws disposed at an angle to the line of projection of the mouth piece of the transmitter, a clamping screw connecting said jaws, a tubular receiver supporting standard embodying telescopic sections and having its lower end held between the clamping jaws of said clip adapting said standard to swing toward and away from the receiver hook at an angle to the line of projection of the mouth piece of the transmitter, and a disconnecting arm adjustably mounted on said standard and adapted to interlock with the receiver hook of the transmitter and hold the receiver standard in an upright position.

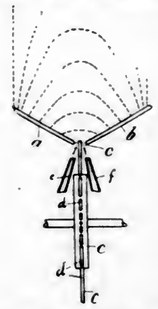
939,440. HORSESHOE. ISAAC C. PATSCH, Houston, Pa. Filed Mar. 16, 1909. Serial No. 483,746.



1. A horse shoe having a calk of relatively soft material provided with a groove which extends across the calk from base to top intermediate of its ends, and a spike or peg of relatively hard material welded in the groove and having its exposed side and end projecting beyond the adjacent surface of the calk to afford additional strength and security.

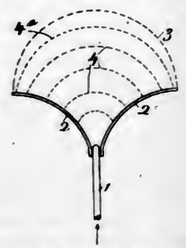
2. A horse shoe having a toe calk of relatively soft material provided with a plurality of grooves which extend across the calk from base to top intermediate of its ends, and spikes or pegs of relatively hard material welded in the grooves and having their exposed sides and ends projecting beyond the adjacent surface of the calk to afford additional strength and security.

939,441. APPARATUS FOR PRODUCING ELECTRIC DISCHARGES. HARRY PAULING, Gelsenkirchen, Germany, assignor to The Firm of Salpeters-Äure-Industrie-Gesellschaft, Ges. M. B. H., Gelsenkirchen, Germany. Filed Dec. 18, 1905. Serial No. 202,295.



Apparatus for producing electric discharges having in combination stationary electrodes with a distance between them large enough to prevent ignition, a conductor successively passing and thereby alternately increasing and decreasing the distance between the said electrodes and blast pipes adapted to extinguish the discharges before short-circuiting between the electrodes may occur, substantially as described and for the purpose set forth.

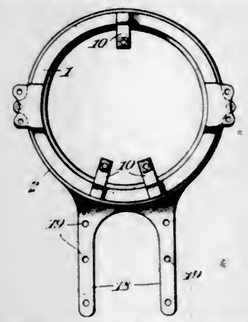
939,442. PROCESS FOR THE PRODUCTION OF VOLTAIC HIGH-CURRENT ARCS. HARRY PAULING, Gelsenkirchen, Germany, assignor to The Firm of Salpetersäure-Industrie-Gesellschaft, G. M. B. H., Gelsenkirchen, Germany. Filed Aug. 13, 1906. Serial No. 330,388.



The herein described process, consisting in elongating the voltaic arcs produced at the place of greatest proximity of the electrodes by causing them by suitable means to propagate along the electrodes and in passing the gas to be acted upon by the electrical discharges in currents of equal quantity and velocity in inclined direction against each other and meeting in the plane of the electrodes, substantially as described and for the purpose set forth.

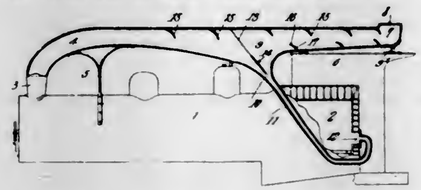
939,443. CENTER-BEARING. HARVEY S. RADER, Palmerton, Pa. Filed Dec. 18, 1908. Serial No. 468,191.

A center bearing comprising upper and lower sections provided with oppositely arranged ball races, upwardly extending concentric flanges on the upper section, downwardly extending flanges on the lower section, the concentric flanges of one section embracing and overlapping the like flanges of the other section and forming an annular grease channel, a series of balls mounted in the ball races



and between the concentric flanges by which they are inclosed, and retaining clips secured to one section and each embodying a fork carrying a pin, and a roller journaled on said pin and working against the other section to hold the sections together while permitting relative rotative movement thereof.

939,444. SPARK-ARRESTER. ELZIE L. RIDGWAY, Frost, Tex. Filed Feb. 23, 1909. Serial No. 479,327.



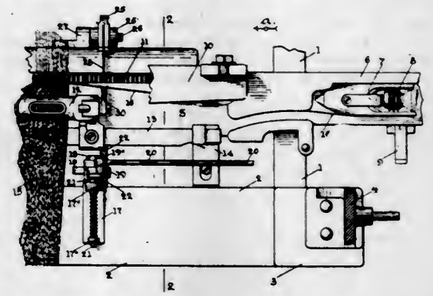
1. A spark arrester for locomotives comprising a conduit connected at one end to the smoke stack of the locomotive and having an outlet at the other end and also at an intermediate point having another outlet leading from the under side of the conduit, a pervious screen in the conduit extending across the same above the intermediate outlet, deflectors or baffles in the conduit on the upper wall thereof on both sides of the screen, and other baffles on the lower wall of the conduit between the screen and the outlet of the conduit at the end remote from the smoke stack.

2. A spark arrester for locomotives comprising a conduit leading from the smoke-stack to a point of discharge near the rear end of the locomotive, said conduit having at an intermediate point a funnel outlet toward which the bottom walls of the conduit slope, another conduit leading from the funnel to the fire-box of the locomotive, a slanting screen depending from the top of the first named conduit at a point coincident with the funnel outlet, and a non-pervious continuation of said screen entering the throat of the funnel.

3. A spark arrester for locomotives comprising a conduit leading from the smoke-stack to a point of discharge near the rear end of the locomotive, said conduit having at an intermediate point a funnel outlet toward which the bottom walls of the conduit slope, another conduit leading from the funnel to the fire-box of the locomotive, a slanting screen depending from the top of the first named conduit at a point coincident with the funnel outlet, a non-pervious continuation of said screen entering the throat of the funnel, and deflectors or baffles within the first named conduit.

4. A spark arrester for locomotives comprising a conduit leading from the smoke-stack to a point of discharge near the rear end of the locomotive, said conduit having at an intermediate point a funnel outlet toward which the bottom walls of the conduit slope, another conduit leading from the funnel to the fire-box of the locomotive, a slanting screen depending from the top of the first named conduit at a point coincident with the funnel outlet, a non-pervious continuation of said screen at the throat of the funnel, deflectors or baffles within the first named conduit on the upper wall thereof, and other baffles on the lower wall thereof between the funnel and the discharge end of the conduit.

939,445. FILLING-THREAD-CUTTING MECHANISM. EPPA H. RYON, Worcester, Mass., assignor to Crompton & Knowles Loom Works, a Corporation of Massachusetts. Filed Apr. 17, 1907. Serial No. 368,781.



1. In a filling thread cutter for looms, a cutter blade on the lay and a pair of jaws, on a stationary part of the loom, means for holding said cutter blade and said jaws out of engagement with each other during the normal operation of the loom, and means including connections to the filling transferring mechanism to cause them to be moved into engagement with each other on the forward beat of the lay, when a change of filling takes place, to sever the thread of the spent bobbin, and also the thread of the transferred bobbin.

2. In a filling thread cutter for looms, a pair of jaws located in front of the reed, a cutter blade adjustably mounted on the lay back of the reed, and means for moving said cutter blade and said jaws out of engagement with each other, during the normal operation of the loom, and means including connections to the filling transferring mechanism to move said cutter blade between said jaws on the forward beat of the lay for two consecutive picks, when a change of filling takes place.

3. In a filling thread cutter for looms, a cutter blade situated on the lay and back of the reed line, and a pair of jaws, and means to hold said cutter blade out of engagement with said jaws during the normal operation of the loom, and means including connections to the filling transferring mechanism to cause said blade to enter said jaws on the forward beat of the lay for two consecutive picks when a change of filling takes place.

4. In a filling thread cutter for looms, the combination with the lay, and a movable cutter-blade carried thereon and adapted to extend through the reed, of jaws on a stationary part of the loom, adapted to receive said cutter-blade, the breast beam, and a pivoted lever thereon, said lever adapted to be moved into the path of a rod connected with the cutter-blade, to cause the movement of the cutter-blade on the forward movement of the lay.

5. In a filling thread cutter for looms, the combination with the lay, and a movable cutter-blade carried thereon, and adapted to extend through the reed, and jaws mounted upon a stationary part of the loom, and adapted to receive said cutter-blade, of the breast-beam, a pivoted lever thereon, said lever adapted to be moved into the path of a rod connected with the cutter-blade, to cause the movement of the cutter-blade, and a locking device for yieldingly holding said lever.

[Claim 6 not printed in the Gazette.]

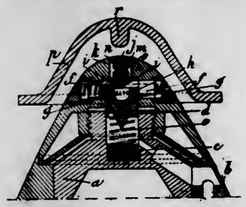
939,446. PRESS-BUTTON. RUDOLPH SCHERWE, Hamburg, Germany. Filed Oct. 26, 1907. Serial No. 399,391.



1. In a pressure button, a conical male member having lateral recesses in the conical face thereof said conical face extending below said recesses, a female member and means within the latter for engaging said recesses and for causing the automatic separation of the members by the pressure of said means upon said conical face when the members are relatively rotated.

2. In a pressure button, a female portion, a truncated conical male portion having lateral recesses in the conical face thereof and oppositely acting resilient means within said female portion adapted to engage said recesses when the two portions are assembled and to be spread apart upon the partial relative rotation of the said portions, whereby the automatic separation of the latter is caused by the pressure of said means on said conical portion.

939,447. SAFETY DEVICE FOR THE FUSES OF PROJECTILES. EUGENE SCHNEIDER, Le Creuzot, France. Filed Apr. 17, 1909. Serial No. 490,503.



1. In a safety device for projectile fuses, the combination of a fuse having a striker and means normally holding the same out of exploding position, yielding means engaging said striker to lock the same in safety position, and a key-operated plunger movable into position to disengage said holding means from said striker to cock the latter for firing.

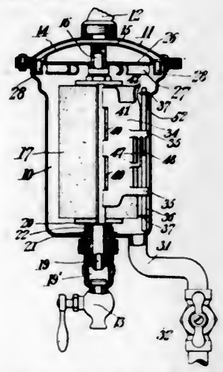
2. In a safety device for projectile fuses, the combination of a fuse having a spring-pressed striker normally held in safety position and provided with a retaining shoulder, yielding members each of which is provided with a lug adapted to engage said retaining shoulder to lock the striker in safety position against accidental advance of said striker, and a releasing plunger for engagement with said yielding members to disengage said members from said striker to cock the latter for firing.

3. In a safety device for projectile fuses, the combination of a key-operated releasing plunger, a striker in the path of said plunger and provided with a retaining groove, means normally holding the same out of firing position, oppositely disposed spring-pressed locking bolts having retaining projections for engaging said groove in the striker to normally hold the latter in safety position, said bolts being provided with noses in the path of said plunger and adapted to be engaged thereby for releasing said bolts, but inoperative to release said bolts on the accidental change of momentum of said striker.

939,448. FILTER. ANDREW G. SHEAK, Binghamton, N. Y., assignor to The Nineteen Hundred Washer Company, Binghamton, N. Y., a Corporation. Filed Nov. 20, 1908. Serial No. 463,669.

1. In filtering apparatus a revoluble cylindrical filtering member, a slidable gravity-operated cleansing strip therefor, and means for deflecting said strip into contact with the filtering member, said member and means coöperating to support the strip.

2. In filtering apparatus, a revoluble cylindrical filtering member, a movable cleansing strip therefor, and immovable means in the path of said strip, said means and strip coöperating for maintaining constant unvarying pressure between the strip and said member.



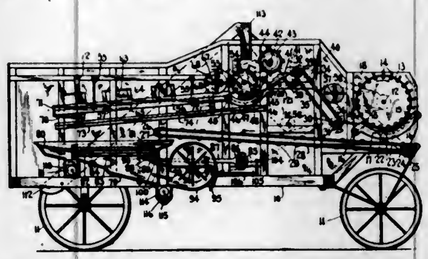
3. In filtering apparatus, a filtering chamber, a revoluble cylindrical filtering member therefor, a movable cleaning member arranged to engage the filtering member, and means separate from and in the path of said member and coöperating therewith for automatically maintaining uniform pressure between the two members and compensating for wear on said members.

4. In filtering apparatus a filtering chamber, a revoluble cylindrical filtering member arranged therein, a movable cleaning and grinding member arranged to engage the filtering member, and means separate from and in the path of said movable member and coöperating therewith for automatically maintaining the filtering and cleaning and grinding members in engagement with constant unvarying pressure, said means compensating for wearing away of such members.

5. In filtering apparatus, a filtering chamber, a revoluble cylindrical filtering member therein, a cleansing strip, a pivotally and slidably mounted support therefor, a fixed deflecting device, and means carried by the support and coöperating with said deflecting device for urging the strip under practically uniform stress in the direction of the filtering member.

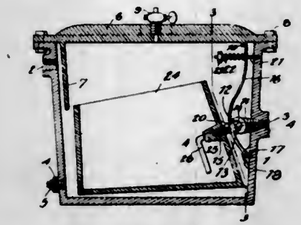
[Claims 6 to 14 not printed in the Gazette.]

939,449. GRAIN-SEPARATOR. WILLIAM P. SILVER, Isabel, Kans. Filed Mar. 20, 1909. Serial No. 484,816.



In a grain separator, a cylinder, a concave held beneath said cylinder, a support for said concave, means to independently adjust either edge of the concave support and move the concave with reference to said cylinder, an endless apron extending rearwardly and upwardly from the said concave, a convex feeder adjacent the upper end of said apron, a beater held in operative relation to said feeder, a second cylinder and concave, a straw rack extending from the second concave, means for oscillating the straw rack and resiliently supported loosening fingers projecting above the straw rack.

939,450. STEAM-TRAP. HAROLD D. SINGER and HOWARD VAN DOREN PRATT, Hospital Ill. Filed Oct. 22, 1908. Serial No. 458,994.



1. A steam trap comprising a box formed with an entrance port and a discharge port, a longitudinally bored plug screwing to and in the discharge port, a valve seated on the plug for controlling the discharge port, a strap pivotally mounted on the box for holding the valve to its seat, and a float bucket connected to the valve and arranged to close the same.

2. A steam trap comprising a casing having steam entrance and discharge ports, a cover arranged over the casing, a plug screwing in the discharge port of the casing, a valve mounted on the plug and having a threaded stem, a float bucket having screwed connection with said stem and provided with an interiorly threaded off-set, a discharge pipe having a downwardly bent portion screwed in the off-set of said bucket, off-sets formed at the ends of the valve body, a resilient yoke pivoted to the inner face of one of the end walls of the casing and having off-sets to engage those of the valve body, and resilient means for holding the free end of said yoke in position.

939,451. ROLLER-SKATE. THOMAS SPACIE, Chicago, Ill. Filed Aug. 22, 1908. Serial No. 449,769.



1. A skate roller comprising a body portion consisting of two sections, each comprising a web consisting of a central flat portion and an outer inclined portion, and a tread portion formed integral with the web of a section of said roller, said sections being arranged with their flat web portions in contact and their inclined web portions outwardly divergent, and means for securing the outer edge of the tread portion of the roller to the roller section other than that on which said tread portion is formed, the webs of said roller sections being provided with central openings adapted to receive the axle of the skate.

2. A skate roller comprising a body portion consisting of two sections, each comprising a web consisting of a central flat portion and an outer inclined portion, and a tread portion formed integral with the web of one section of said roller, said sections being arranged with their flat web portions in contact and their inclined web portions outwardly divergent, and means for securing the outer edge of the tread portion of the roller to the roller section other than that on which said thread is formed, said means consisting of an inwardly projecting flange on said tread portion with which the edge of said roller section interlocks, the webs of said roller sections being provided with central openings adapted to receive the axle of the skate.

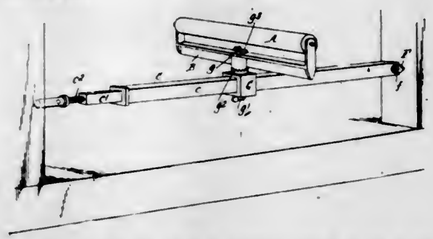
3. A skate roller comprising a body portion consisting of two sections, each comprising a web consisting of a central flat portion and an outer inclined portion, a tread portion formed integral with the web of a section of said roller, said sections being arranged with their flat web portions in contact and their inclined web portions outwardly divergent, and means for securing the outer edge of the tread portion of the roller to the roller section other than that on which said tread portion is formed, the webs of said roller sections being provided with central openings adapted to receive the axle of the skate and flanges on said webs, which surround said openings.

4. A skate roller comprising a body portion consisting of two sections, each comprising a web consisting of a central flat portion and an outer inclined portion, a tread portion formed integral with the web of a section of said roller, said sections being arranged with their flat web portions in contact and their inclined web portions outwardly divergent, and means for securing the outer edge of the tread portion of the roller to the roller section other than that on which said tread portion is formed, the webs of said roller sections being provided with central openings adapted to receive the axle of the skate and flanges formed integral with said webs which surround said openings.

5. In a skate, the combination with the axle thereof, of a skate roller comprising a body portion consisting of two sections, each comprising a web consisting of a central flat portion, and an outer inclined portion, and a tread portion formed integral with the web of a section of said roller, said sections being arranged with their flat web portions in contact and their inclined web portions outwardly divergent, and means for securing the outer edge of the tread portion of the roller to the roller section other than that on which said tread portion is formed, the webs of said roller sections being provided with central openings adapted to receive the axle of the skate, and ball bearings whereby said roller is revolubly mounted on said axle, said ball bearings comprising bearing cones on said roller, ball cups mounted on said axle and anti-friction balls secured in ball races formed between said cones and cups.

[Claim 6 not printed in the Gazette.]

939,452. LUMBER-ROLLER FOR CARS. EDGAR L. STOCKING, Buffalo, N. Y. Filed May 14, 1909. Serial No. 495,910.



1. The combination with a lumber roller, of an extensible supporting bar therefor comprising telescoping sections, teeth provided on one of said sections, a dog carried by the other section and adapted to engage said teeth to hold said sections extended, said dog being released by inverting the bar, and an extension screw at the outer end of one of said sections, substantially as set forth.

2. The combination with a lumber roller, of an extensible supporting bar therefor comprising inner and outer telescoping sections, teeth provided interiorly on the lower side of the outer section, a gravity dog pivoted on the inner section and adapted to engage said teeth to hold the sections extended, said dog being released by inverting the bar, and an extension screw at the outer end of one of said sections, substantially as set forth.

3. The combination with a lumber roller, of an extensible supporting bar therefor comprising telescoping sections, teeth provided on one of said sections, a dog pivoted on the other section and adapted to engage said teeth to hold said sections extended, said dog being movable relative to its pivot and adapted to bear against a fixed part of the section on which it is pivoted to relieve the pivot from

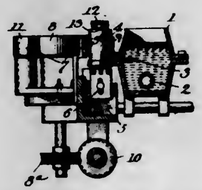
strain, and an extension screw at the outer end of one of said sections, substantially as set forth.

4. The combination with a lumber roller, of an extensible supporting bar therefor comprising telescoping sections, teeth provided on one of said sections, a dog carried by the other section and adapted to engage said teeth to hold said sections extended, said dog being released by inverting the bar, a latch for limiting the relative movement of said sections, and an extension screw at the outer end of one of said sections, substantially as set forth.

5. The combination with a lumber roller, of an extensible supporting bar therefor, comprising inner and outer telescoping sections, teeth provided interiorly on the lower side of the outer section, a gravity dog pivoted on the inner section and adapted to engage said teeth to hold the sections extended, said dog being released by inverting the bar, an extension screw at the outer end of one of said sections, a pivot block adjustable on the outer section lengthwise thereof, and a frame which is angularly adjustable on said pivot block and in which the roller is journaled, substantially as set forth.

[Claim 6 not printed in the Gazette.]

939,453. SEALING APPARATUS. JAMES C. THOM, Helmetta, N. J., assignor to American Snuff Company, New York, N. Y., a Corporation of New Jersey. Filed Jan. 16, 1907. Serial No. 352,511.



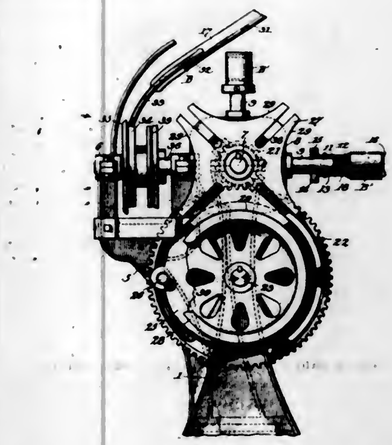
1. In a sealing apparatus, a tank for the sealing medium having a slotted wall, a frame, a run-way carried by said frame and located adjacent to and parallel with the slotted wall of the tank, a sealing medium conveyer located in the slotted wall of the tank and extending into the path of movement of the articles to be sealed on said run-way, a gage rail located above and at the side of the run-way adjacent the tank, a belt supporting bar opposite the gage rail at the other side of the run-way, and an endless belt traversing and supported by said bar.

2. In a sealing apparatus, a tank for the sealing medium having a slotted wall, a frame, a run-way carried by said frame and located adjacent to and parallel with the slotted wall of the tank, a sealing medium conveyer located in the slotted wall of the tank and extending into the path of movement of the articles to be sealed on said run-way, a gage rail located above and at the side of the run-way adjacent the tank, a belt supporting bar opposite the gage rail at the other side of the run-way, an endless belt traversing and supported by said bar, and a guide over the run-way to bear against the articles to be sealed in their travel along said run-way.

939,454. MACHINE FOR APPLYING BOTTOMS TO CANS. JAMES C. THOM, Helmetta, N. J., assignor to American Snuff Company, New York, N. Y., a Corporation of New Jersey. Filed Feb. 7, 1907. Serial No. 356,293.

1. In a machine for applying end-closures to can-bodies, the combination with a mandrel adapted to receive a can body, a can-end closure feeding-mechanism arranged to present a can-closure in the path of movement of the can body, and means for securing such closure to such body.

2. In a machine for applying end-closures to can-bodies, the combination with a revoluble carrier provided with a series of mandrels adapted to receive can-bodies, a can-end-closure feeding-mechanism arranged to present closures in the path of movement of the can-bodies, means for intermittently moving said carrier, and means for securing said closures to said bodies.



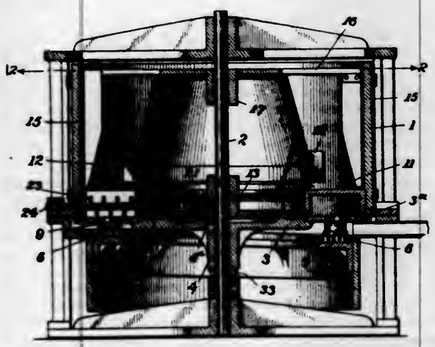
3. In a machine for applying end-closures to can-bodies, the combination of a series of revoluble and rotatable mandrels provided with crimper elements and a constantly rotating crimper element permanently arranged adjacent the path of movement of said mandrels.

4. In a machine for applying end-closures to can-bodies, the combination with a series of revoluble and rotatable mandrels provided with crimper and beader elements and a rotary member having crimper and beader elements cooperatively arranged with relation to said mandrels.

5. In a machine for applying end-closures to can bodies, the combination with a series of mandrels to receive the can bodies, can-end-closure feeding mechanism, and means for crimping the can-end-closures to the can bodies.

[Claims 6 to 24 not printed in the Gazette.]

939,455. MACHINE FOR FILLING BOXES. JAMES C. THOM, Helmetta, N. J., assignor to American Snuff Company, New York, N. Y., a Corporation of New Jersey. Filed July 8, 1907. Serial No. 382,657.



1. In a vessel filling machine, the combination with a vat having an elongated discharge hopper of capacity sufficient to discharge into a plurality of vessels, a traveling bottom for said hopper provided with a series of openings adapted to communicate with said hopper, and means for continuously moving said traveling bottom, and means for moving vessels to be filled in register with the openings in the traveling hopper bottom.

2. In a vessel filling machine, the combination with a vat having an elongated discharge hopper of capacity sufficient to discharge into a plurality of vessels, a traveling hopper bottom provided with a series of openings adapted to communicate with said hopper, means for continuously moving said hopper bottom, means for causing vessels to move with said hopper bottom in register with the openings therein, and means for supporting the vessels.

3. In a vessel filling machine, the combination with a vat having an elongated discharge hopper of capacity sufficient to discharge into a plurality of vessels, a traveling bottom for said hopper, provided with a series of openings adapted to communicate with said hopper, means for continuously moving said hopper bottom, means for causing vessels to move with said hopper bottom in register with the openings therein, and a vessel run-way beneath the traveling bottom.

4. In a vessel filling machine, the combination with a vat having an elongated discharge hopper of capacity sufficient to discharge into a plurality of vessels, a traveling bottom for said hopper provided with a series of openings adapted to communicate with said hopper, means for continuously moving said traveling bottom, means for causing vessels to move with said traveling bottom in register with the openings therein, and a vessel run-way beneath the traveling bottom inclined from the point of reception of the vessels to the vessel filling point and declining from thence to the point of discharge.

5. In a vessel filling machine, the combination with a vat having an elongated discharge hopper, a compressor located in said hopper, a traveling hopper bottom provided with a series of openings adapted to communicate with the hopper, means for moving vessels in register with the openings in said traveling hopper bottom, and means for continuously moving said hopper bottom, substantially as described.

[Claims 6 to 26 not printed in the Gazette.]

939,456. FOUNTAIN-PEN. HENRY J. UPTON, Somerville, Mass., assignor to Davidson Rubber Company, Boston, Mass., a Corporation of Massachusetts. Filed Feb. 21, 1908. Serial No. 416,963.



In a fountain pen, the combination of an open ended fountain having a ring about its open end with a cap having inside a conical joint surface to coöperate with the ring and having its mouth proportioned to loosely fit the fountain when the conical joint is complete and cooperate with the opposed portion of the fountain as a stop against lateral movement of the cap upon the fountain, substantially as shown and described.

939,457. EXPANSION-BOLT. CHARLES D. VERNON and JACOB P. MORNINGSTAR, Wheeling, W. Va.; said Morningstar assignor to said Vernon. Filed Sept. 10, 1908. Serial No. 452,467.



1. The combination with an article whose interior wall or surface is provided with a spiral path, of a bolt having an inclined recess in its side, and slidable means in said recess whereby meshing engagement is had with said spiral path when the bolt is subjected to an outward pull, said means retaining said engagement when the bolt is turned forward and drawing said bolt farther into said article.

2. In a device of the character described, a bolt having a recess in the side thereof, forming a shoulder and an inclined face, the latter extending outward from said shoulder toward the point of the bolt, a tapered key slidably mounted in said recess, and spaced transverse spines carried by the face of said key, said key and bolt being adapted for freely entering a threaded hole without turning, and said spines being adapted for meshing engagement with the threads of said hole when the bolt is partially withdrawn.

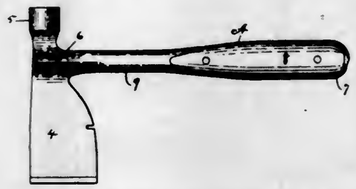
3. The combination with an article whose interior wall or surface is provided with a spiral path, of a bolt having an inclined recess in its side, a key slidably mounted in said recess, and spaced ribs carried by said key in mesh with the spiral path of said wall.

4. An expansion bolt adapted for mounting in the end of a coil-spring, said bolt comprising a bolt-body having a recess in its side which forms a shoulder and an inclined face, the latter extending from said shoulder toward the point of the bolt, and a tapered key slidably mounted in said recess, said key having on its surface spaced upright V-shaped ribs meshing with the coils of the spring.

5. An expansion bolt adapted for mounting within the end of a coil-spring, said bolt comprising an unthreaded bolt-body having a recess in its face which forms a shoulder and an inclined face, the latter extending from said shoulder toward the point of the bolt, a wedge-like key slidably mounted in said recess, and a plurality of cross-ribs in the face of said key adapted to seat in the spiral interstices of a spring whereby threaded engagement is had between said key and said spring, said bolt being adapted to be turned forward for increasing the depth to which it is seated in the spring, and vice versa.

[Claim 6 not printed in the Gazette.]

939,458. HATCHET. WILLIAM S. WARD, Plantsville, Conn., assignor to H. D. Smith and Company, Plantsville, Conn., a Corporation of Connecticut. Filed June 6, 1907. Serial No. 377,579.



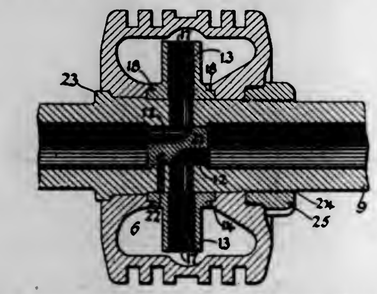
A hatchet comprising a head and a handle portion; the said head consisting of a blade 4, hammer head 5 and a handle junction 6 intermediate the said blade and head, the two sides at the said junction projecting slightly more than the parts immediately above and below the said junction; the said handle portion consisting of a shank 9, formed in continuation of the said handle junction, and a flattened handle frame 7; the said blade 4, hammer head 5, handle junction 6, shank 9, and handle frame 7 being all formed of drop forged metal in a single forging, substantially as described.

939,459. INTERNAL-COMBUSTION ENGINE. ARTHUR J. WEST, Pittsburg, Pa., assignor to The Westinghouse Machine Company, a Corporation of Pennsylvania. Filed Nov. 7, 1906. Serial No. 342,415.

1. The combination of a hollow piston rod having radial openings, a hollow piston on said rod and having openings registering with those in the piston rod, a partition plug in the piston rod and provided with ports leading into and from the piston and removable nozzles in the piston, said nozzles being held in position between the walls of the piston rod and the piston.

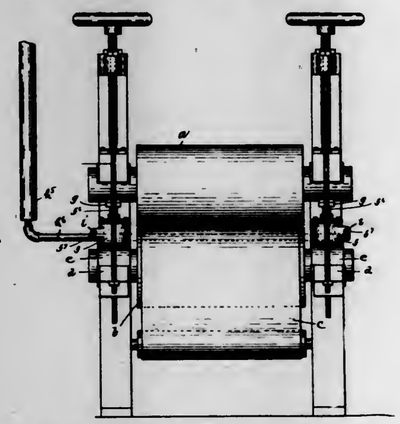
2. The combination of a hollow piston rod having radial ports, a ported partition plug in the piston rod and communicating with the ports in the piston rod, said plug be-

ing so positioned that fluid flowing in from one end of the piston rod will be directed through the ports in the plug and in the piston rod and whereby fluid passing through ports in the piston rod and plug may be directed out through the opposite end of the piston rod, a hollow piston on the piston rod, nozzles in the piston and having base flanges removably seated in recesses in the piston, said nozzles registering with ports in the plug.



3. The combination of a hollow piston rod having lateral openings, a partition plug in the rod having independent ports registering with those in the rod, a hollow piston on the rod and removable nozzles in the piston communicating with the ports in the plug, said nozzles being frictionally held in place.

939,460. WET-MACHINE. WALLACE WHITE, Lawrence, Mass. Filed Feb. 1, 1909. Serial No. 475,372.



1. In a wet-machine, the combination with the upper and lower press-rolls and the felt, of a pair of retarding-devices arranged beneath the journals of the upper press-roll and adapted to retard downward movement of said roll and consequent severe compression of the felt is prevented, substantially as described.

2. In a wet-machine, the combination with the upper and lower press-rolls and the felt, of a pair of retarding-devices removably supported beneath the journals of the upper press-roll and adapted to engage said journals and to be operated by a downward movement of said press-roll when it passes off the end of a sheet, substantially as described.

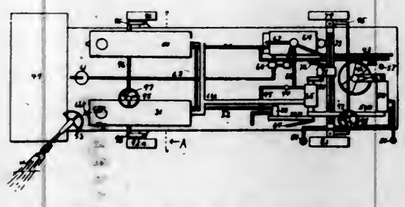
3. In a wet-machine, the combination with the upper and lower press-rolls and the felt, of a pair of retarding-devices removably placed on the bearing-boxes of the lower press-roll and having rests adapted to engage the journals of the upper press-roll and movable downward by said upper press-roll to operate the retarding-devices and thereby in turn retard downward movement of said roll, substantially as described.

4. In a wet-machine, the combination with the upper and lower press-rolls and the felt, of a pair of cylinders containing pistons arranged beneath the journals of the upper press-rolls, said pistons having rests adapted to engage said journals, whereby downward movement of said roll operates to force the pistons into the cylinders and thereby retard downward movement of the roll, substantially as described.

5. In a wet-machine, the combination with the upper and lower press-rolls and the felt, of a pair of fluid-pressure cylinders containing pistons arranged beneath the journals of the upper press-roll, said pistons having rests adapted to engage said journals, whereby downward movement of said roll forces the pistons into the cylinders to retard the downward movement of the roll and a fluid supply to which both of said cylinders are connected, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

939,461. MACHINE FOR MELTING SNOW FROM STREETS AND SIDEWALKS. HENRY E. WILLAIM, New York, N. Y. Filed Oct. 30, 1902. Serial No. 129,375.



1. The combination, with a self-propelled vehicle, of fuel burners adapted to generate heat in proximity to the road surface, reservoirs for fuel, connections between said reservoirs and said burners, means adapted to feed said fuel from said reservoirs to said burners, a blower for supplying air for the combustion of the fuel, a water compartment adapted to protect the frame of said vehicle from the heat of combustion, and means for circulating water through said compartment.

2. The combination, in a self-propelled vehicle, of oil burners, oil tanks with pipe connections to said burners, an oil pump adapted to force oil through said connections from tanks to burners, a fan for supplying air for the combustion of the oil, a steam boiler, a steam engine, steam connections between said boiler and said engine, an oil burner located within the fire-box of said boiler, pipe connections between said oil tanks and said burner, steam connections between said boiler and said burner, and transmission devices connecting said engine with said oil pump, fan and vehicle.

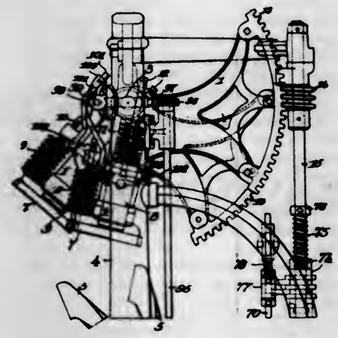
3. The combination, in a self-propelled vehicle, of oil burners, oil tanks, an oil pump, pipe connections between said tanks, burners and pump, a fan for supplying air for the combustion of the oil, a steam boiler, a steam engine, steam connections between said boiler and said engine, an oil burner located within the fire box of said boiler, pipe connections between said oil tanks and said burner, steam connections between said boiler and said burner, a pilot burner with connection to said oil tanks and said boiler adapted to heat and ignite the first mentioned burners, and power transmission devices connecting said engine with said oil pump, fan and vehicle.

4. In combination with a snow melting vehicle, a water heater, a power driven pump adapted to take water from near the road surface and force said water into said heater, and a nozzle for the discharge of the heated water from said heater.

5. In combination with a snow melting vehicle, means adapted to take water from near the road surface, means adapted to heat said water, and means for discharging the heated water upon snow adjacent to said vehicle.

[Claims 6 to 18 not printed in the Gazette.]

939,462. SOLE-PRESSING MACHINE. ERASTUS E. WINKLEY, Lynn, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed May 18, 1903, Serial No. 157,707. Renewed Mar. 12, 1908. Serial No. 420,693.



1. A sole pressing machine, having, in combination, a shoe supporting jack, a coöperating sole pressing form, means for relatively actuating the jack and form to press the sole of a shoe supported upon the jack, and means controlled by the thickness of the sole of the shoe for determining the number of pressing operations to which the sole of the shoe is subjected, substantially as described.

2. A sole pressing machine, having, in combination, a shoe supporting jack, a coöperating sole pressing form, mechanism acting continuously to move the jack and form to subject the sole of a shoe supported upon the jack to a plurality of rolling pressures, means acting automatically to stop the jack in a position of presentation, and means permanently embodied in the machine for varying the number of pressing operations to which the sole is subjected, substantially as described.

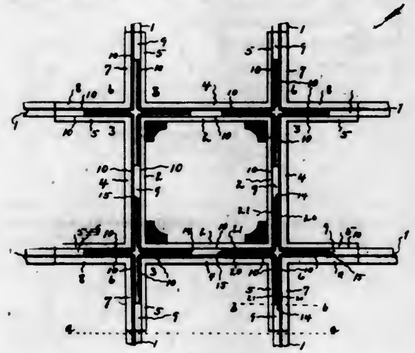
3. A sole pressing machine, having, in combination, a shoe supporting jack, a coöperating sole pressing form, mechanism acting continuously to relatively actuate the jack and form to subject the sole of a shoe supported upon the jack to a plurality of pressing operations and thereafter relatively actuate the jack and form through a greater distance to bring the jack and form into a position of presentation, and means permanently embodied in the machine for varying the number of pressing operations to which the sole of the shoe is subjected, substantially as described.

4. A sole pressing machine, having, in combination, a shoe supporting jack and a coöperating sole pressing form arranged to subject the sole of a shoe supported upon the jack to a rolling pressure, mechanism for imparting to the jack and form relatively long movements from and toward a position of presentation and intermediate shorter movements, and means for varying the number of such intermediate shorter movements, substantially as described.

5. A sole pressing machine, having, in combination, a shoe supporting jack, a coöperating sole pressing form, means for relatively actuating the jack and form to subject the sole of a shoe supported upon the jack to a rolling pressure, and means controlled by the thickness of the sole of the shoe for determining the number of pressing operations to which the sole of the shoe is subjected, substantially as described.

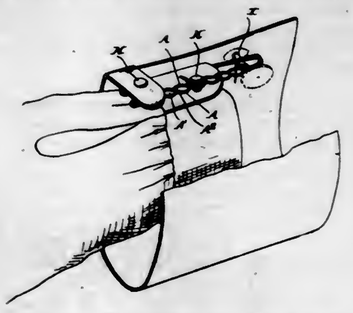
[Claims 6 to 14 not printed in the Gazette.]

939,463. GROOVE-FILLING DEVICE FOR STREET-RAILWAY CROSSINGS. PHILIP K. YOUNG, Omaha, Nebr. Filed Dec. 30, 1908. Serial No. 470,100.



The combination with a plurality of rails crossing each other at an angle, of a groove filling device therefor, comprising a spider, each arm of which is curved downwardly from the intersection of said arms to the outer end thereof, each of said arms having an upstanding rib entirely along one edge thereof, said spider being flat upon its under face and being seated in recesses which are in addition to the usual grooves of the rails whereby the extreme ends of the lowest portions of the arms of the spider lie flush with the bottom of the usual grooves of the rail, substantially as described.

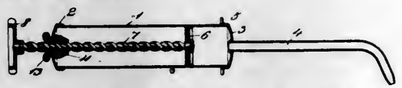
939,464. CUFF-HOLDER. WILLIAM S. BACHMAN, Williamsport, Pa., assignor to Clifford L. Stryker, Williamsport, Pa. Filed Nov. 3, 1908. Serial No. 460,911.



1. A cuff holder embodying yielding longitudinal corrugated bars between which the shank of a button may be adjustably held, upwardly extending divergent offsets at one end of said bars forming an open entrance for the head of the said button, a seat for the base-flange of a button supported by said offsets, a button shank engaging loops above said seat and a button shank engaging hook at the opposite ends of the bars.

2. A cuff holder embodying yielding longitudinal corrugated bars between which the shank of a button may be adjustably held, upwardly extending divergent offsets at one end of said bars forming an open entrance for the head of the said button, a seat for the base flange of a button supported by said offsets, a button flange clamp and shank engaging loop above the seat, said loop having an entrance open toward the opposite end of the holder and a hook formed by the reversely bent ends of the bars at the said opposite end of the holder.

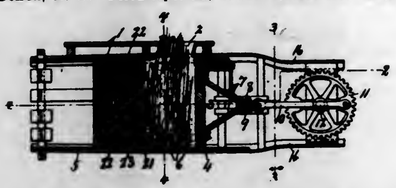
939,465. COMBINED OIL AND GREASE GUN. FREDERIC J. BALL, New York, N. Y. Filed Apr. 17, 1909. Serial No. 490,549.



1. A combined oil and grease gun comprising a barrel, a plunger having a spirally grooved shank, a shank-engaging nut and a lock nut for clamping the shank engaging nut to and releasing it from the barrel.

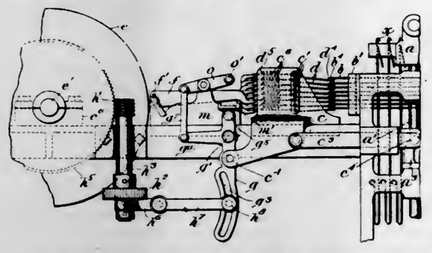
2. A combined oil and grease gun comprising a barrel having a recess in its rear end, a plunger having a spirally grooved shank passing through said recess, a shank-engaging nut located in the recess and a lock nut having a screw threaded engagement with the walls of the recess for clamping the shank engaging nut to and releasing it from the barrel.

939,466. BALING-PRESS. FRED A. BOTHWELL, East Genoa, N. Y. Filed Apr. 25, 1908. Serial No. 429,236.



In a hay press, a rectangular horizontal press box open at both ends and having its top formed with an inlet for the hay, the baling chamber of said box tapering from the said inlet to the discharge end of the box, a supporting frame for the press box extending forwardly beyond the inlet end, a reciprocatory piston movable in the forward end of the box across the inlet, a sliding cross head connected to the piston, guides for said cross head secured to said frame, a revolving eccentric mounted in the forwardly-extending portion of the supporting frame, and a connecting rod between the eccentric and cross head for reciprocating the piston.

939,467. MACHINERY FOR MANUFACTURING TEXTILE FABRICS. WILLIAM BOWKER, Boston, Mass. Filed Sept. 9, 1908. Serial No. 452,242.



1. In machinery to produce in a textile fabric any given pattern, the combination of jacquard needles; a rigid design to which the pattern shall conform having on its face in relief and intaglio respectively, and in parallel rows transverse to its length and equidistant apart between the middle lines of the rows, low prominences and shallow depressions located in predetermined relative order in each row, for representing the needles severally and respectively and for selecting which of them shall and which of them shall not be moved out of normal position; means to advance the face of the design step by step a predetermined distance at each step and to arrest its advance at the end of each step; lever-acting pointed keys adapted to swing on their fulcrums and be operated by pressure against their points; fulcrums of the keys located relatively near the key-points and distant from the lifter points; means to support the fulcrums and keys in position for acting in connection with the design and the needles; means to effect selective connection of the design with the key-points and the needles at each resting-stage of said advance and to sever the connection thereat; and means to move out of normal position the needles selected to be moved; substantially as and for the purposes set forth.

2. The combination of the key-points; the lever-acting keys; the key-fulcrums located relatively near the key-points and distant from the lifter points; the sliding carriage supporting and bearing the keys and key-fulcrums; the needle-workers and the sliding needle-worker carriage; the jacquard needles; the rigid design and its prominences and depressions in relief and intaglio respectively; means to advance the face of the design step by step a predetermined distance at each step; means to work the sliding carriage of the key-mechanism and put the key-points into and out of encounter with the face of the design at predetermined instants; and means to move the sliding needle-worker carriage and the needle-workers away from and toward the jacquard at predetermined intervals; all coöperating to move such of the jacquard needles as desired lengthwise out of normal position between each resting stage of said advance and the next, substantially as set forth.

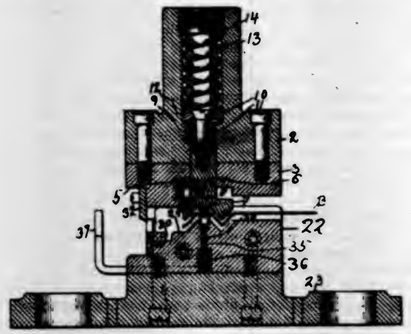
3. In machinery to produce in a textile fabric any given pattern, key-mechanism having the combination of a supporting carriage; a plurality of lever-acting keys on the carriage; an equal plurality of key-points normally on a single line and level associated with the keys respectively and adapted to be operated by pressure against the points; an equal plurality of lifter points of the keys adapted to move with and by operation of the key-points respectively and located in divisions on several lines and levels, one division on one line and level and the others on other lines and levels; and an equal plurality of fulcrums of the keys in a line with each other on the carriage; all coöperating so that pressure against the key-points on the single line and level imparts movement to the corresponding lifter points on the several lines and levels, substantially as set forth.

4. In machinery to produce in a textile fabric any given pattern, key-mechanism having the combination of a supporting carriage; a plurality of lever-acting keys on the carriage; an equal plurality of key-points normally on a single line and level, associated with the keys respectively, adapted to be operated to enter depressions in the face of any resisting body brought into encounter with the points; an equal plurality of lifter points of the keys adapted to move with and by operation of, and always either in or out of normal position mutually with, their respective associate key-points; and an equal plurality of fulcrums of the keys in a line with each other on the carriage; all coöperating so that the key-points and the lifter points, according as the key-points encounter slight prominences and depressions on meeting the face of the resisting body, move out of or remain in normal position in any combination predetermined by the character and relative positions of the prominences and depressions, substantially as set forth.

5. In machinery to produce in a textile fabric any given pattern, key-mechanism having the combination of a supporting carriage; a plurality of lever-acting keys on the carriage; an equal plurality of key-points normally on a single line and level, associated with the keys respectively and adapted to be operated by pressure against the points; an equal plurality of lifter points of the keys adapted to move with and by operation of their respective associate key-points; and an equal plurality of fulcrums of the keys in a line with each other on the carriage relatively near the key-points and distant from the lifter points; all coöperating so that minute movement of the key-points imparts relatively long movement to the lifter points, substantially as set forth.

[Claims 6 to 8 not printed in the Gazette.]

939,468. FORMING-DIES. EDWARD D. BOYCE, New York, N. Y. Filed Jan. 21, 1909. Serial No. 473,411.



1. The combination of two die members supported to be brought together, one member having a plunger slidable therein with a channel in its lower face having flat sides and also having a tongue at the bottom of the channel, the other die member being provided with a ridge projection with the flat sides corresponding to the sides of the channel and also having a slot at the middle part shaped to receive said tongue, said die member having a flat face adjacent said ridge and a slot extending parallel with said slot, the other die member having a flat face adapted to engage said latter slotted face.

2. The combination of two die members supported to be brought together, one member having a plunger slidable therein with a channel in its lower face having flat sides and also having a tongue at the bottom of the channel, the other die member being provided with a ridge projection with the flat sides corresponding to the sides of the channel and also having a slot at the middle part shaped to receive said tongue, said die member having a flat face adjacent said ridge and a slot extending parallel with said slot, the other die member having a flat face adapted to engage said latter slotted face, one of said die members having a cutter beyond the flat portion.

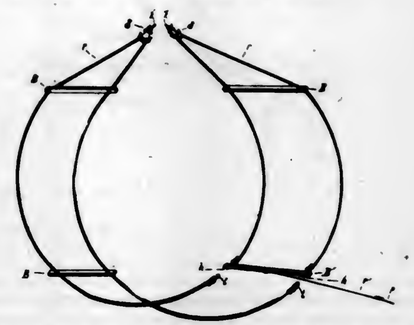
3. The combination of two die members supported to be brought together, one member having a plunger slidable therein with a channel in its lower face having flat sides and also having a tongue at the bottom of the channel, the other die member being provided with a ridge projection with the flat sides corresponding to the sides of the channel and also having a slot at the middle part shaped to receive said tongue, said die member having a flat face adjacent said ridge and a slot extending parallel with said slot, the other die member having a flat face adapted to engage said latter slotted face, and means for advancing the plunger in its die member.

4. The combination of two die members supported to be brought together, one member having a plunger slidable therein with a channel in its lower face having flat sides and also having a tongue at the bottom of the channel, the other die member being provided with a ridge projection with the flat sides corresponding to the sides of the channel and also having a slot at the middle part shaped to receive said tongue, said die member having a flat face adjacent said ridge and a slot extending parallel with said slot, the other die member having a flat face adapted to engage said latter slotted face, and a coil spring on the plunger to force it toward the other die member.

5. The combination of two die members supported to be brought together, one member having a plunger slidable therein with a channel in its lower face having flat sides and also having a tongue at the bottom of the channel, the other die member being provided with a ridge projection with the flat sides corresponding to the sides of the channel and also having a slot at the middle part shaped to receive said tongue, said die member having a flat face adjacent said ridge and a slot extending parallel with said slot, the other die member having a flat face adapted to engage said latter slotted face, and a coil spring on the plunger to force it toward the other die member, one of said die members having a cutter beyond the flat portion.

[Claims 6 and 7 not printed in the Gazette.]

939,469. HAY-SLING. JOHN M. BOYD, Fond du Lac, Wis. Filed Jan. 8, 1906. Serial No. 295,094.



1. In a hay sling, in combination with the ropes arranged in two sections, cross bars or spreaders attached to each section suitable self releasing hooks rigidly secured to the inner end cross bar of one section, with their ends projecting outwardly and opening in opposite directions, means whereby the opposite section may be coupled with said hooks between the adjoining cross bars of the two sections, means for closing said hooks, and means whereby the coupling may be locked in both hooks, or released, simultaneously, substantially as and for the purposes set forth.

2. In a hay sling, in combination with the ropes arranged in two sections, a cross bar or spreader attached to one section and provided with rigid inclined or self-releasing hooks at or near each end, opening outwardly, or toward each end of said bar, means whereby the opposite section may be coupled with said hooks, means for closing the mouth or opening in said hooks, and means whereby the same may be locked or released simultaneously, substantially as and for the purposes set forth.

3. In a hay sling, a spreader or locking bar provided with rigid inclined or self-releasing hooks attached near each end, short levers or fingers pivoted in the ends of said bar, and adapted to close the mouths of said hooks to secure the coupling links, rods connecting said fingers with a central locking mechanism, and a spring actuated dog adapted to automatically lock said mechanism, substantially as and for the purposes set forth.

4. In a hay sling, in combination with a suitable locking bar or spreader, provided with suitable couplings at each end, rods connecting said coupling mechanism with a central locking mechanism, a pivoted locking piece connecting the inner ends of both rods, and a pivoted dog adapted to lock said locking piece when in the proper position, substantially as set forth.

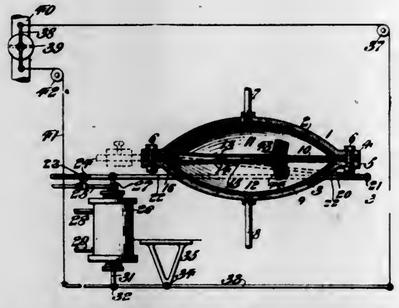
5. The combination of the locking bar B'., hooks *h. h.* attached at or near each end of said bar, fingers $h.^2$ $h.^2$ pivoted in slots provided in the ends of said bar, rods *d. d.* connecting said fingers with the central locking piece *e.* a dog *e.* adapted to lock said locking piece, and means, as *h'*, *h'*., whereby ropes may be attached to said locking bar, substantially as and for the purposes set forth.

[Claims 6 to 13 not printed in the Gazette.]

939,470. FLUID-PRESSURE REGULATOR. FRANCIS H. BROWN, Philadelphia, Pa. Filed Nov. 11, 1908. Serial No. 462,001.

1. In combination, a diaphragm casing, a diaphragm therein subject to pressure on both sides, a rotary shaft

mounted in the casing, and an arm directly connecting said diaphragm to said shaft and moving in the arc of a circle.



2. In a device of the character described, the combination of a movable member subject to pressure on both sides, and a second member suitably fulcrumed and having one end directly contacting with the movable member whereby the contacting end moves in the arc of a circle.

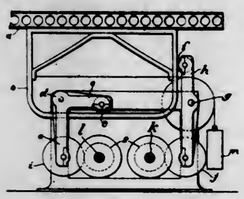
3. In a device of the character described, the combination of a movable member subject to pressure on both sides, a second member suitably fulcrumed and having one end directly contacting with the movable member whereby said contacting end moves in the arc of a circle, a counterbalance for said second member, and mechanism operatively connected with said second member.

4. In a fluid pressure regulator, a rigid container, a flexible container therein having two independent compartments and a diaphragm separating said compartments, a pivoted arm having one end always in contact with said diaphragm, means for admitting a constant fluid pressure to one of said compartments, and means for admitting a variable fluid to the other of said compartments.

5. In a fluid pressure regulator, a rigid container, a flexible container therein having two independent compartments and a diaphragm separating said compartments, a pivoted arm having one end always in contact with said diaphragm, means for admitting a constant fluid pressure to one of said compartments, means for admitting a variable fluid to the other of said compartments, and means for limiting the movement of said diaphragm in either direction.

[Claims 6 to 12 not printed in the Gazette.]

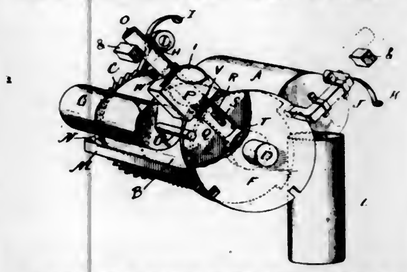
939,471. EMBROIDERING-MACHINE. JOACHIM BRUNNSCHWEILER, Hauptwil, Switzerland. Filed June 20, 1908. Serial No. 439,513.



1. In embroidering machines, the combination with the fabric frame of two feelers in connection with said fabric frame, two and only two longitudinal guide bodies for said feelers, means for holding the feelers against the two guide bodies and means for producing a relative movement between the feelers and the two guide bodies in the longitudinal direction of these latter, said guide bodies being provided upon their length with elevations and depressions in accordance with the pattern to be embroidered and corresponding as regards one with the motion of the fabric frame in the vertical direction, and as regards the other with the motion of the same in the lateral direction, so as to form a continuous profile path for the related feelers on the fabric frame, so that on their relative longitudinal motion they can shift the corresponding feelers and thereby effect an automatic guidance of the fabric frame in accordance with the importance of their respective elevations and depressions, and true to the pattern, substantially as and for the purpose described.

2. In embroidering machines, the combination with the fabric frame of two feelers in connection with said fabric frame, two and only two rotary longitudinal guide bodies for said feelers, means for holding the feelers against the two guide bodies and means for producing a relative movement between the feelers and the two guide bodies in the longitudinal direction of these latter, said guide bodies being composed each of a set of helical disks furnished on their circumference with elevations and depressions in accordance with the pattern to be embroidered, in one guide body for the vertical displacement of the fabric frame and in the other guide body for its horizontal or lateral displacement, so as to form a continuous profile path for the related feelers on the fabric frame, and being arranged to shift on their relative longitudinal motion the corresponding feelers and thereby to effect an automatic guidance of the fabric frame in accordance with the importance of their respective elevations and depressions, and true to the pattern, substantially as and for the purpose described.

939,472. BANKING-MACHINE. ANDERSON CLARK, Macon, Ga. Filed Oct. 16, 1907. Serial No. 397,754.



1. An automatic banking apparatus, comprising a roller, a shaft to which the same is fixed, a wheel keyed to said shaft and having cam edges upon its circumference terminating in shoulders, a notched wheel rotating with said shaft, a pivotal lever, a coin and receptacle therefor carried by said lever, means engaging said notched wheel and actuated by said coin and receptacle for releasing the notched wheel, mechanism carried by the lever and adapted to engage a shoulder upon said cam edged wheel and cause the latter to make a partial rotary movement as the lever is swung in one direction, and means coöperating with said roller for feeding a paper forward as the latter is rotated, as set forth.

2. An automatic banking apparatus, comprising a roller, a shaft to which the same is fixed, a wheel keyed to said shaft and having cam edges upon its circumference terminating in shoulders, a notched wheel rotating with said shaft, a movable ratchet normally engaging the notches of said wheel, a pivotal lever, a coin and receptacle therefor carried by the lever, mechanism carried by the lever and adapted to engage a shoulder upon said cam edged wheel and cause the latter to make a partial rotary movement as the lever is swung in one direction, and means coöperating with said roller for feeding a paper forward as the latter is rotated, as set forth.

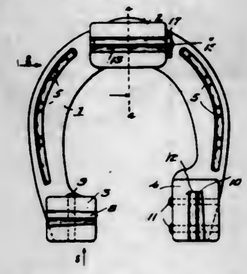
3. An automatic banking apparatus, comprising a roller, a shaft to which the same is fixed, a wheel keyed to said shaft and having cam edges upon its circumference terminating in shoulders, a notched wheel rotating with said shaft, a movable ratchet normally engaging the notches of said wheel, a pivotal lever, a coin and receptacle therefor carried by the lever and adapted to release and hold said ratchet from the notched wheel, a sleeve upon said lever and provided with a projection adapted to engage one of said shoulders of the cam edged wheel to cause a partial revolution to be imparted to the latter as the lever is swung in one direction, and means coöperating with the cylinder for feeding a strip of paper forward as the cylinder is rotated, as set forth.

4. An automatic banking apparatus, comprising a roller, a shaft to which the same is fixed, a wheel keyed to said shaft and having cam edges upon its circumference terminating in shoulders, a notched wheel rotating with said shaft, a movable ratchet normally engaging the notches of said wheel, a pivotal lever, a coin and receptacle therefor carried by the lever and adapted to release and hold said ratchet from the notched wheel, a spring-pressed sleeve mounted upon the lever and having a projection designed to engage one of the shoulders upon said cam edged wheel whereby, as the lever is moved in one direction, a partial revolution may be imparted to said roller, and means cooperating with the latter for feeding a strip of paper forward as the cylinder rotates, as set forth.

5. An automatic banking apparatus, comprising a roller, a shaft to which the same is fixed, a wheel keyed to said shaft and having cam edges upon its circumference terminating in shoulders, a notched wheel rotating with said shaft, a movable ratchet normally engaging the notches of said wheel, a pivotal lever, a coin and receptacle therefor carried by the lever and adapted to release and hold said ratchet from the notched wheel, a spring-pressed sleeve mounted upon the lever, a pin carried by the lever and passing through slots in said sleeve, a projection of the latter adapted to engage one of the shoulders of said cam edged wheel whereby, as the lever is swung in one direction, a partial revolution may be imparted to said roller, and means coöperating with the latter for causing a strip of paper to be fed forward as the roller rotates, as set forth.

[Claim 6 not printed in the Gazette.]

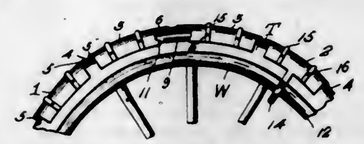
939,473. HORSESHOE. GEORGE W. COGSWELL and WILLIAM H. MACCRONE, Rochester, N. Y. Filed Dec. 17, 1908. Serial No. 468,040.



A horseshoe having at its toe and heel thickened portions, those at the heel projecting the one laterally and the other longitudinally beyond the heel portions of the shoe proper, and detachable calks seated in grooves extending longitudinally of said thickened portions.

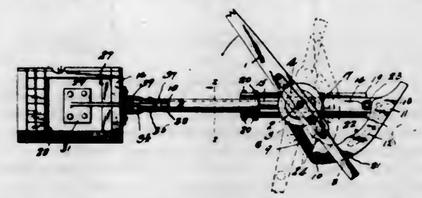
939,474. TIRE-PROTECTOR. FRED R. COLVIN and COLLINS R. COLVIN, Lansing, Mich. Filed Apr. 27, 1909. Serial No. 492,516.

1. A tire protector comprising a flexible body composed of loosely connected semi-cylindrical plates to receive the tire, the end plates being formed at their opposing ends with extended tongues bent upon themselves to provide elongated eyes, a U-shaped connecting member having its cross portion arranged in one of said eyes and its parallel arms apertured, a removable fastening passed through the other eye and the apertures in the arms of said U-shaped member, and coil springs uniting the opposing ends of the end plates and arranged at the opposite sides of said end plates.



2. The herein described tire protector comprising a flexible body to extend around the tread of a tire and composed of semi-cylindrical longitudinally curved plates, each of the latter having at the central portions of its ends integral tongues bent to form eyes, rectangular links arranged in the opposing eyes of adjacent plates to flexibly connect the same, the end plates having the tongues at their opposing ends made of greater length to provide elongated eyes, said opposing ends of the end plates being formed at their corners with apertured ears, a U-shaped bolt removably arranged in the elongated eyes of said end plates, a pair of coil springs engaged with the apertured ears on said end plates, inwardly extending arms formed integral with the side edges of certain of said plates, the inner portions of said arms being disposed in spaced parallel relation and apertured, and clamping bolts arranged in the spaced apertured ends of said arms.

939,475. PRESS. LAURANCE H. CONNER, Altus, Okla. Filed Aug. 8, 1908. Serial No. 447,600.



1. The combination with a rotatable beam having anti-friction rollers thereon, of a pivoted cam lever adapted to be operated by said beam, a reciprocating plunger, an anti-friction member thereon adapted to engage said cam lever, and a movable joint between said cam lever and plunger.

2. The combination with a pivoted cam lever of a reciprocating plunger having an anti-friction roller thereon adapted to engage said lever, a movable joint between said lever and plunger and rotatable means for moving said cam lever on its pivot.

3. The combination with a pivoted cam lever and plunger having an anti-friction roller thereon to engage said lever, a second anti-friction member carried by said plunger, a groove in said cam lever adapted to receive said second anti-friction member and rotatable means adapted to swing said cam lever on its pivot.

4. The combination with the reciprocating plunger having guide bars therefor and provided with an anti-friction roller, of a cam lever having a movable connection with said plunger, curved bearing surfaces provided on the inner and outer faces of said cam lever and a rotatable beam having an anti-friction roller to engage the outer curved face of said lever; and the anti-friction roller on the plunger adapted to engage the inner curved surfaces on said lever.

5. The combination with the cam lever having a plunger connected thereto and provided with curved bearing surfaces of a rotatable beam provided with an anti-friction roller to engage one of said curved surfaces to move the plunger in one direction and a second anti-friction roller adapted to engage said cam lever to move it in reverse direction.

[Claim 6 not printed in the Gazette.]

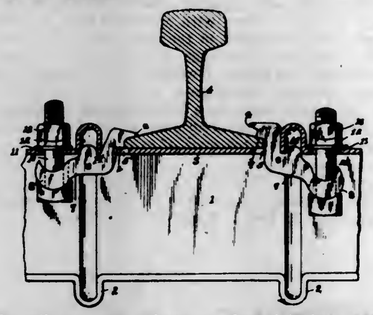
939,476. DENTAL INLAY-HOLDER. BENJAMIN F. COPP, Las Cruces, N. Mex. Filed July 2, 1909. Serial No. 505,705.



1. A device of the class described comprising a tube and an adhesive member mounted upon the tube.

2. A device of the class described comprising a perforated tube and an adhesive member mounted upon the tube and arranged to engage the perforations thereof.

939,477. RAIL-SUPPORT. GEORGE M. COTÉ, Pittsburg, Pa., assignor to Standard Steel Tie Company, Pittsburg, Pa., a Corporation of Delaware. Filed Mar. 23, 1908. Serial No. 422,580.



1. In rail supports, a fastener adapted to bear against the rail and a member adapted to pass through a slot in said fastener and secure the same to the tie, the abutting portions of said fastener and said member being in the form of coacting curves, for the purposes described.

2. In rail supports, a fastener adapted to bear against the rail and having an arm adapted to extend through an aperture in the tie and a bolt passing through a slot in the extremity of said arm and secured to said tie, said bolt having a rounded head adapted to engage a reversely rounded face on said arm, for the purposes described.

3. In rail supports, a fastener adapted to bear against the rail and having an arm adapted to extend through an aperture in the tie and a bolt passing through a slot in the extremity of said arm and secured to said tie, the engagement of the bolt with the fastener arm and with the tie being that of coacting curved surfaces, for the purposes described.

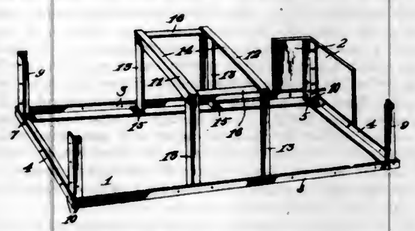
4. In rail supports, a fastener adapted to bear against the rail and having an arm adapted to extend through an aperture in the tie, means for securing said arm to the tie and a projection on said arm adapted to engage a recess in said tie, for the purposes described.

5. In rail supports, a fastener adapted to bear against the rail and having an arm adapted to extend through an aperture in the tie, means for securing said arm to said tie and a projection on said arm adapted to engage the hollow rib on said tie, for the purposes described.

939,478. VEHICLE-BODY. EUGENE W. CROSBY, Sheffield, Ala. Filed July 9, 1908. Serial No. 442,788.

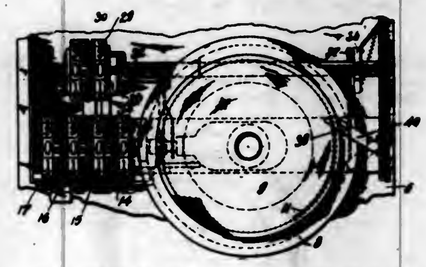
1. In a vehicle body, a rectangular bottom frame having side and end bars formed from a single piece of angle metal, said angle metal having its horizontal flanges cut and its vertical flanges bent to cause the cut portions of the horizontal flanges to overlap, the horizontal flanges at the ends of the angle metal being also overlapped, vertical fastenings passed through the overlapping portions of the horizontal flanges, and corner posts secured in and rising from the corners of said bottom frame.

2. In a vehicle body, a rectangular bottom frame having side and end bars formed from a single piece of angle metal, said angle metal having its horizontal flanges cut and its vertical flanges bent to cause the cut portions of the horizontal flanges to overlap, the horizontal flanges at the ends of the angle metal being also overlapped, vertical fastenings passed through the overlapping portions of the horizontal flanges, angle metal corner posts having their lower ends set in the corners of the bottom frame



and secured to the vertical flanges of the latter, a seat frame consisting of front and rear inverted U-shaped members each formed from a single piece of angle metal, the depending ends of said members being engaged with the angular side bars of the bottom frame and having their extremities bent outwardly at right angles and secured to the horizontal flanges of said angular side bars, and horizontal angle metal connecting bars arranged between the U-shaped members and secured in the upper corners of the same.

939,479. COMPUTING-MACHINE. JOHN M. DALY, Chicago, Ill. Filed Apr. 10, 1907. Serial No. 367,449.



1. In a computing machine, the combination of a plurality of coöperating registering wheels, a rotatable member operatively connected to said wheels, and a plurality of interchangeable rings adapted to encircle said member, each ring provided with a different scale to coöperate with said member and register wheels.

2. In a machine for equating train tonnage, the combination of suitable registering mechanism, and a plurality of interchangeable members, each member having a scale attached thereto, the said scales being dissimilar for the purpose of suiting the several scales to engines of different pulling capacity.

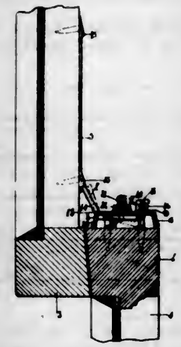
3. In a machine for equating train tonnage, the combination of registering mechanism, means for operating said mechanism, and a plurality of interchangeable rings, adapted to encircle said register operating means, and each ring having a scale based upon a different rate for calculation.

4. In a machine for equating train tonnage, the combination of registering mechanism, a revolnble disk operatively connected with said mechanism, a plurality of interchangeable members adapted to have association with said disk and having a scale attached thereto, and serving as a guide to the operation of said disk, said scales being dissimilar for the purpose of suiting the several scales to engines of different pulling capacity.

5. In a computing machine, the combination of a plurality of registering wheels, a plurality of tallying wheels, a disk operatively connected with the registering wheels, means capable of being operated simultaneous with the operation of the disk, for actuating the tallying wheels, and a plurality of interchangeable rings adapted to encircle said disk, each of said rings having a scale attached thereto based upon a different rating for calculation.

[Claims 6 to 23 not printed in the Gazette.]

939,480. SASH-LOCK. JOHN C. DEGGIM, Cleveland, Ohio. Filed Dec. 17, 1908. Serial No. 467,969.



1. A sash-lock having a hollow casing adapted to be fixed on the top of the lower sash and provided with openings front and rear in its top, a locking member having a straight middle portion at its center confined in said casing and upturned ends projecting through said openings respectively, one of said ends being outwardly inclined and adapted to make locking engagement with the upper sash and the other end having a right angled extremity overhanging a portion of said casing, a headed stem suspending said locking member in the sash and a spring about said stem resting on said casing.

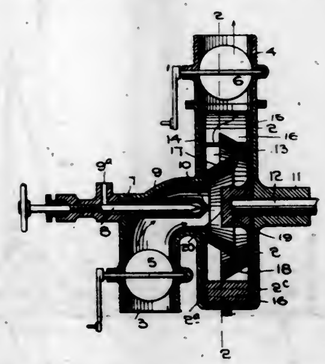
2. A sash-lock having a casing with front and rear openings in its top, a tilting locking member having ends extending through said openings and a pivot spring support engaging the middle of said member and adapted to hold the same against the inside of said casing, said spring being outside the casing.

3. A sash-lock having a casing with openings front and rear in its top, a locking member having a spring supported pivot suspending the same in said casing and its ends extending through said openings and adapted to tilt within limits on its pivot, said spring adapted to lift said member in the casing and a locking member adapted to be interposed between the front end of said locking member and the top of said casing.

939,481. CARBURETER. EDGAR A. DICKSON, Denver, Colo., assignor of one-half to Edwin W. Hurlbut, Denver, Colo. Filed Dec. 21, 1907. Serial No. 407,491.

1. A carbureter, comprising in combination with a circular housing having a central inlet and a peripheral outlet, an injector entering said housing through said inlet, and a rotary mixing member having opposed concentric baffles formed therein adapted to receive fluid elements opposite said inlet and to discharge said elements in a mixed condition through said outlets, said mixing member comprising means for passing the fluid from side to side thereof and means to finally discharge them peripherally.

2. A carbureter, comprising in combination with a circular housing having a central inlet and a peripheral outlet, an injector entering said housing through said inlet, and a rotary mixing member adapted to receive fluid elements opposite said inlet and to discharge said elements in a mixed condition through said outlet, said mixing member comprising opposing disks having intermediate joining vanes and opposingly disposed conoidal flanges.



3. A carbureter comprising in combination with a circular housing having a central inlet and a peripheral outlet, an injector entering said housing through said inlet, and a rotary mixing member adapted to receive fluid elements opposite said inlet and to discharge said element in a mixed condition to said outlet, said mixing member comprising opposing disks having intermediate joining vanes and opposingly disposed conoidal flanges, said vanes being disposed to cause an outwardly directed draft.

4. A carbureter comprising in combination with a circular housing having a central inlet and a peripheral outlet, an injector entering said housing through said inlet, and a rotary mixing member adapted to receive fluid elements opposite said inlet and to discharge said elements in a mixed condition through said outlet, said mixing member comprising opposed and jointly rotating disks, one of said disks having a central opening located adjacent and concentrically of said inlet and the other a corresponding projection, opposing conoidal flanges formed on said disks and concentric with said projection, and radial blades disposed between said disks and adapted to deflect a draft current outwardly.

5. A carbureter comprising in combination with a circular housing having a central inlet and a peripheral outlet, an injector entering said housing through said inlet, and a rotary mixing member adapted to receive fluid elements opposite said inlet and to discharge said elements in a mixed condition through said outlet, said mixing member comprising opposing concentric elements for passing the fluid from side to side thereof, and means to finally discharge them peripherally, and valves for controlling said inlet and outlet.

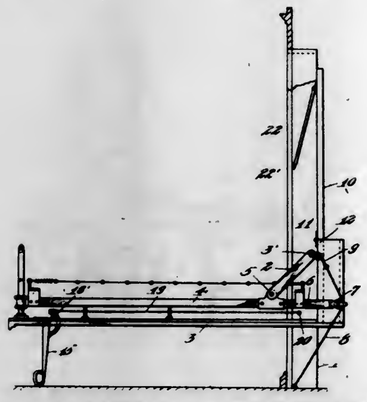
[Claims 6 to 9 not printed in the Gazette.]

939,482. WALL OR CABINET BED. NAPOLEON B. DOUGLASS, Seattle, Wash. Filed Nov. 18, 1908. Serial No. 463,291.

1. A cabinet or wall bed comprising a casing, a frame provided with a bearing member, means for suspending said frame in vertical position for swinging movement to its lowered position and for bodily movement in an outward direction, and a flexible track secured to said casing at points above and below the lower end of said frame and arranged for engagement by the bearing member on said frame to effect bodily movement of said frame in an outward direction during swinging thereof to its lowered position.

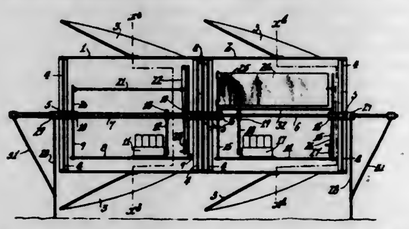
2. A cabinet or wall bed comprising a frame provided with a bearing member, means for suspending said frame in vertical position for swinging movement to its lowered position and for bodily movement in an outward direction, and a flexible track arranged for engagement by the bear-

ing member on said frame to effect bodily movement of said frame in an outward direction during swinging thereof to its lowered position.



3. A cabinet or wall bed comprising a casing, a frame, hangers pivoted to said casing and to said frame, said frame being provided with a bearing member, and a flexible track carried by said casing and arranged to be engaged by said bearing member and have the latter travel thereon to effect bodily movement of said frame in an outward direction.

939,483. AIR-SHIP. BOYD W. DYSART, Los Angeles, Cal. Filed Aug. 24, 1908. Serial No. 450,104.



1. In an air ship, an elongated, horizontal cylinder having closed side walls and open ends, spiral blades on the outer surface of the cylinder forming a revolving aeroplane, and means for rotating the cylinder, the space at the front and at the rear of the cylinder being clear of obstructions to permit of the passage of air through and out of the cylinder.

2. In an air ship, a plurality of elongated, horizontal concentric cylinders each having closed side walls and open ends, spiral blades on the outer surface of the cylinders, and means for rotating the cylinders in opposite directions, the space at the front and at the rear of the plurality of cylinders being clear of obstructions to permit of the passage of air through and out of the cylinders.

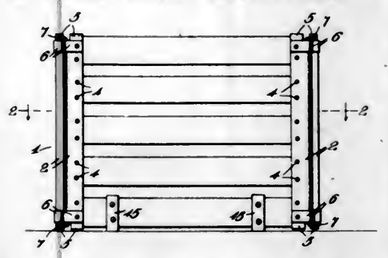
3. In an air ship, a plurality of elongated, horizontal concentric cylinders each having closed side walls and open ends, spiral blades on the outer surface of the cylinders, and means for rotating the cylinders in opposite directions, a shaft extending through both cylinders, arms securing one cylinder to said shaft, a sleeve on said shaft and arms securing the other cylinder to said sleeve, the space at the front end and at the rear of the plurality of cylinders being clear of obstructions to permit of the passage of air through and out of the cylinders.

4. In an air ship, a plurality of cylinders, a shaft extending through the cylinders, a sleeve on the shaft, arms projecting from said sleeve and supporting the forward cylinder, arms projecting from said shaft and supporting the after cylinder, platforms suspended inside the cylinders, and engines on the platforms connected respectively with said sleeve and shaft for driving the same.

5. In an air ship, a plurality of cylinders, a shaft extending through the cylinders, a sleeve on the shaft, arms projecting from said sleeve and supporting the forward cylinder, arms projecting from said shaft and supporting the after cylinder, platforms suspended inside the cylinders, and engines on the platforms connected respectively with said sleeve and shaft for driving the same, a horizontal rudder in the forward cylinder, and a vertical rudder in the after cylinder.

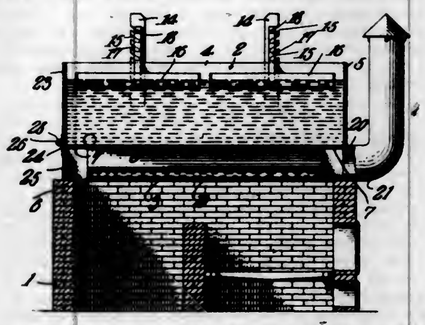
[Claims 6 and 7 not printed in the Gazette.]

939,484. FOLDING CRATE. FRANK C. EDSON, Le Roy, N. Y. Filed Jan. 21, 1909. Serial No. 473,593.



A crate comprising slatted side and bottom sections, combined cleats and hinge members adapted to be secured to the ends of said slatted sections to hold the slats in spaced position, said cleats consisting of plates bent upon themselves to form grooves or channels adapted to receive the ends of the slats, means to secure said ends in said channels, extensions formed on the opposite ends of the plates and adapted to be bent over and around the outer edges of the outer slats of the sections, reinforcing strips adapted to be secured around said cleats adjacent to their outer ends, link shaped connecting bars adapted to be engaged with the bent portions of the plates whereby the sections are hingedly connected together, and a bottom connecting pintle comprising a bar adapted to be engaged with the bent portion of the bottom cleat, and right angularly projecting off-set ends formed on said bar to engage the cleats at the opposite ends of the side to which the bottom is hingedly connected.

939,485. CANNING APPARATUS. THOMAS H. EIDSON, Elkin, N. C. Filed Jan. 17, 1908. Serial No. 411,348.



1. In canning apparatus a boiler having a longitudinally extending flue therein and spaced from the bottom, said flue terminating in heads extending throughout the width of the boiler at each end thereof, one of said heads having an inlet port for the reception of products of combustion from a furnace, an outlet stack extending from the other head of the flue, there being spaces between the sides of the flue and the sides of the boiler for the reception of water contained in the boiler, a damper constituting one wall of the inlet head of the flue, means for actuating the damper, and a tray detachably and adjustably supported within the boiler.

2. In canning apparatus the combination with a furnace open at the top; of a boiler mounted upon the furnace, a flue extending longitudinally within and spaced from the bottom of the boiler, said flue having terminal heads extending throughout the width of the end portions of the boiler, one of said heads having an inlet port opening into the said furnace for the reception of combustion products, a stack connected to the other head, a damper movably mounted upon the boiler and constituting one wall of the receiving head of the damper, said flue being spaced from the sides as well as from the bottom of the boiler, and a tray detachably and adjustably supported within the boiler.

3. In an apparatus of the class described, the combination with a boiler having a flat bottom provided with an opening extending transversely across one end thereof, a horizontal wall in the boiler at one end thereof and disposed over the opening, a vertical wall coöperating with the first wall to form a head and provided with an opening, a head in the opposite end of the boiler and provided with an opening, a flue having its ends connected with the openings of the heads, a tubular member extending out of the boiler and communicating with the second mentioned head, and a stack removably supported on the said tubular member.

4. In an apparatus of the class described, the combination of a receptacle having a flat bottom provided with an opening extending transversely across one end thereof, a horizontal wall in the receptacle at one end thereof and disposed over the opening, a vertical wall coöperating with the first wall to form a chamber and provided with an opening, a chamber in the opposite end of the receptacle and provided with an opening, a duct formed on the bottom of the receptacle and having its ends connected with the openings of the chambers, a short tube extending out of the receptacle and communicating with the second-mentioned chamber, and a stack removably supported on the said tube.

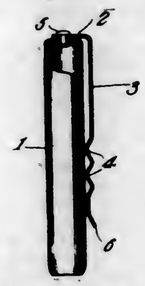
939,486. VIOLIN. FRED O. FISH, Winchester, Mass. Filed Dec. 20, 1905. Serial No. 292,535.



1. A violin having a finger board provided with guiding projections located between the strings, shaped and arranged to leave free spaces at the stopping position to permit the fingers to be shifted slightly, the surface of the finger board, except for such projections, being smooth and even.

2. An attachment for a violin consisting of a sheet of material adapted to be secured to an ordinary finger board beneath the strings and provided with guiding projections, shaped and arranged to extend between the strings and leave free spaces at the stopping positions to receive the fingers of the player and to permit the fingers to be shifted slightly.

939,487. LOSS-PREVENTING DEVICE. MYRON T. FISH, Ithaca, N. Y. Filed Nov. 16, 1908. Serial No. 462,886.



1. A device of the class described comprising a tubular cap having a closed end; a rivet inserted in the closed end of the cap; and a resilient clip having one of its ends rotatably mounted upon the rivet, its other end being bent into contact with the side wall of the cap; the rivet being headed on one end to engage the cap and headed on the other end to engage the clip.

2. A device of the class described comprising a tubular cap having a closed end; a rivet inserted in the closed end of the cap; and a resilient clip journaled for rotation at one end upon the rivet, the said clip being tapered to its free extremity, and said tapered portion being bent into substantial parallelism with the side walls of said cap and spaced therefrom, the said clip in its tapered portion being corrugated to contact normally with the side wall of the cap; the rivet being headed on one end to engage the closed end of the cap, and headed on the other end to retain the clip.

939,488. SAWING-MACHINE. ALFRED FISHER, Jackson, Miss. Filed Oct. 29, 1908. Serial No. 460,040.



The combination with a saw, of a reciprocating work holder movable beside the saw and having clamps at opposite ends comprising converging blocks between which the work is placed, the blocks having overhanging shoulders inclined downwardly toward one end, to engage over the ends of the work, and a form between the clamps, at the edge of the carriage adjacent to the saw, the form being inclined laterally with respect to the plane of the saw and downwardly in the same direction as the shoulders.

939,489. TELEMETER-ROD. CHARLES E. FLANAGAN, Steubenville, Ohio, assignor of one-half to Isaac M. Scott, Steubenville, Ohio. Filed Mar. 3, 1909. Serial No. 481,124.



1. A telemeter rod consisting of a rod having a plurality of sets of graduations in different units arranged longitudinally thereon, and a movable target having a plurality of horizontal members with vernier markings thereon registering with all of said sets of graduations.

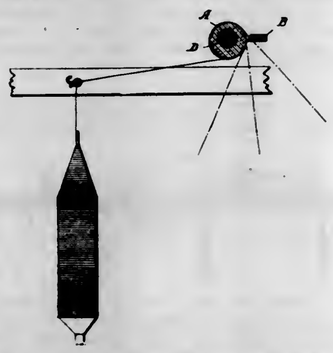
2. A telemeter rod consisting of a rod having a plurality of sets of graduations in different units arranged longitudinally thereon, and a target slidably mounted on said rod and having vernier markings registering with all of said sets of graduations.

3. A telemeter rod consisting of a target pole having a plurality of sets of graduations in different units thereon, a plate fixed upon said pole and having a sight-aperture therein, a target movably mounted upon said pole and having a sight-aperture therein adapted to be brought into register with the aperture in said plate and also having a plurality of sets of vernier markings adapted to register with all of said sets of graduations.

4. A telemeter rod consisting of a rod having a plurality of sets of graduations in different units thereon, a fixed plate carried by said rod, a movable target carried by said rod, indicating means carried by said target registering with all of said sets of graduations, said plate and said target having sight-apertures therein whereby said rod may be accurately adjusted at right angles to a distant telescope's line of vision.

5. In a device of the character described, a rod composed of two hinged sections, a pair of metal plates carried by opposite sides of one section and projecting outward therefrom to form a pocket for the reception of the other section when the rod is folded, integral wings having sight-apertures therein standing at right angles to each of said plates, and a target slidably mounted on said rod.

939,490. YARN-CLEARER OR SLUB-CATCHER. GEORGE W. FOSTER, Lowell, Mass. Filed Dec. 7, 1906. Serial No. 346,799.



1. The combination in a slubbing device of a stud upon a fixed support, a cylinder A having an eccentric opening receiving said stud, means for holding the cylinder frictionally upon the stud, and a member B having a beveled edge and supported radially in respect to the cylinder with its sharp edge adjacent thereto.

2. The combination of a stud, a member A supported thereby, a member B, and a bushing adjustable upon the stud and supporting the member B.

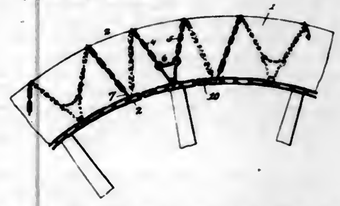
3. The combination with a member A and the rotatable bushing having an arm with a socket, a member B fitting at one end of said socket, and a spring retaining the said member in its socket.

4. In a device for the purpose set forth, a head, a knife blade upon the head, an eccentrically pivoted roller positioned upon the head above the knife, means for retaining the roller in spaced relation with the knife, substantially as described.

5. In a device for the purpose set forth, in combination, a suitable head or support, a blade-shaped jaw mounted on said support, a rotatable eccentrically-mounted jaw arranged on said support parallel with the blade-shaped jaw, and means for holding the rotatable jaw at any point of rotation, whereby the width of the opening between the jaws is adjusted, the said rotatable jaw being constructed to present in its various adjustments curved surfaces to the thread passing between the jaws.

[Claims 6 to 8 not printed in the Gazette.]

939,491. ANTISLIPPING ATTACHMENT FOR TIRES. MATHEW J. FRAMBACH, Hartley, Iowa, assignor of one-half to Ernest F. Broders, Hartley, Iowa. Filed Apr. 14, 1909. Serial No. 489,927.



1. In an anti-slipping device for tires, a pair of side chains made up of short pieces of chain joined together at suitable intervals by coiled springs adapted to engage the ends of the short pieces of chain, a plurality of groups of cross chains arranged in the form of a V and connected to the side chains by means of a triangular hook member engaging two of the cross chains and one of the side chains upon one side of a tire and single hook members connecting the cross chains with the side chain upon the opposite side of the tire substantially as shown and described.

2. In an anti-slipping device for tires, a pair of side chains each composed of short pieces of chain joined together by resilient members interposed at suitable intervals to form a complete chain of any desired length, the two ends of the complete chain being connected by a catch member having an eye engaging one end of the complete chain, the material forming the eye extending a short distance therefrom and turned at an angle to form a shoulder adapted to engage the other end of the complete chain, the turned portion extending from the shoulder portion any desired distance and having its free end formed into an engaging member to secure the catch member in engagement with one of the links of the complete chain, and cross chains connecting the two side chains substantially as shown and described.

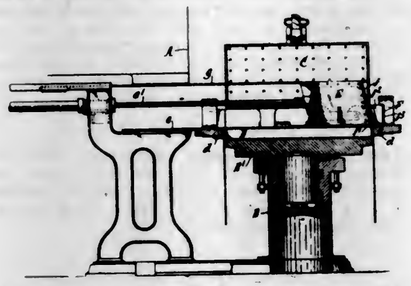
3. In an anti-slipping device for tires, a pair of side chains formed of short lengths of chain connected by coiled springs engaging the links of the short lengths of chain, cross chains connecting with one of the side chains through the medium of an integral hook member having loops adapted to engage the ends of two of the cross chains, the loops being spaced apart, with the material forming the same extending downwardly substantially in the form of a V with the free ends thereof brought together and formed into a hook for engaging the side chain and hook members adapted to connect the opposite ends of the two cross chains with the opposite side chain substantially as shown and described.

939,492. MACHINE FOR FORMING OIL-CAKES. ALFRED W. FRENCH, Piqua, Ohio. Filed Jan. 26, 1909. Serial No. 474,198.

1. In a cake forming machine, the combination with a mold box, of a charge box which receives the charge of meal and is moved over the mold box to deposit the charge therein, said charge box having at one end an extension provided with a wall which extends below the horizontal plane of the lower edge of the adjacent end wall of the box, substantially as set forth.

2. A charge box for cake forming machines which receives the charge of meal and is moved over the mold box to deposit the charge therein, said charge box having at one end thereof outwardly beyond its end wall a wall which extends below the horizontal plane of the lower edge of said end wall, substantially as set forth.

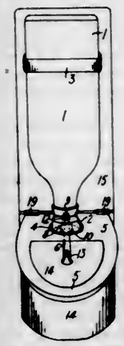
3. A charge box for cake forming machines which receives the charge of meal and is moved over the mold box to deposit the charge therein, one end wall of said charge box terminating at its lower edge above the horizontal plane of the lower edges of the other walls of the box, said box having an extension with a wall which is located outwardly beyond said end wall and extends downwardly below the horizontal plane of the lower edge of said end wall, substantially as set forth.



4. A charge box for cake forming machines which is moved over the mold box and has a main chamber open at the top for receiving the charge of meal and open at the bottom for delivering the charge into the mold box, and which has a supplemental chamber at one end with an end wall which extends downwardly below the horizontal plane of the lower edge of the adjacent end wall of said main chamber, substantially as set forth.

5. The combination with a meal receptacle, and a mold box, of a charge box which is moved over the mold box and has a main chamber open at the top for receiving the charge of meal from said receptacle and open at the bottom for delivering the charge into said mold box, and which has a supplemental chamber with an end wall which extends downwardly below the horizontal plane of the lower edge of the adjacent end wall of said main chamber, said supplemental chamber receiving only meal scraped from the mold box, substantially as set forth.

939,493. DRINKING-FOUNTAIN FOR BIRDS, FOWLS, AND ANIMALS. WILLIAM B. GETHING, Cape Town, Cape Colony. Filed Jan. 21, 1908. Serial No. 412,021.



1. A drinking fountain comprising a trough, a tube projecting upwardly therefrom, said tube having a slot at its lower end and its upper end open, a reservoir adapted to be supported on the trough, and a cap carried by the reservoir and having an opening adapted to register with the opening in the tube, and a second opening through which the water passes from the reservoir to the trough.

2. A drinking fountain comprising a trough, a tube projecting upwardly from said trough, said tube having a slot in its lower end and its upper end open, a reservoir supported on the trough, a cap covering the mouth of the reservoir, and having a conical portion extending into the mouth of the reservoir, said conical portion having its inner end open and registering with the opening in the tube and said conical portion also having openings adjacent its base through which the water passes from the reservoir to the trough.

3. A drinking fountain comprising a trough, a tube secured to the bottom thereof and projecting upwardly, said tube having a slot in its lower end and its upper end open, a cover for the trough having openings therein, one of said openings surrounding the top of the tube, a reservoir resting on said cover, a cap covering the mouth of said reservoir and having a conical portion projecting inwardly into the reservoir, said conical portion having openings in its face through which the water passes from the reservoir to the trough, and also having its upper end portion communicating with the opening in the top of the tube.

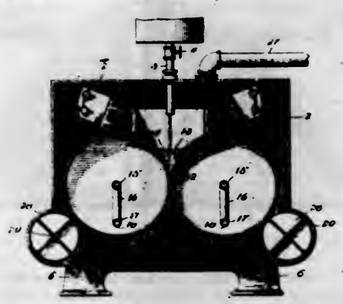
4. A drinking fountain comprising a trough, a tube secured to the bottom thereof and projecting upwardly, said tube having a slot in its lower end and its upper end open, a hinge cover for the trough having an opening therein, and a second opening through which the upper end of the tube projects, cross bars supported on said cover and extending across the second opening, a reservoir resting on said cross bars, a cap closing the mouth of said reservoir and having an opening registering with the opening in the upper end of the tube and also having openings through which the water passes from the reservoir into the trough.

939,494. SOLDER FOR ALUMINUM. LOUIS GOPPMAN, Pittsburg, Pa. Filed July 26, 1909. Serial No. 509,543.

1. A compound for soldering aluminum composed of tin, antimony, lead, zinc, and copper.

2. The herein described solder for aluminum consisting of a composition of substantially the following proportions, tin, 49.05%; antimony, 3.43%; lead, 26.06%; zinc, 20.31%; and copper, 1.10%, for the purposes described.

939,495. PROCESS OF DESICCATING MILK. FRANCIS N. GOVERS, Owego, N. Y. Filed Nov. 12, 1904. Serial No. 232,517.



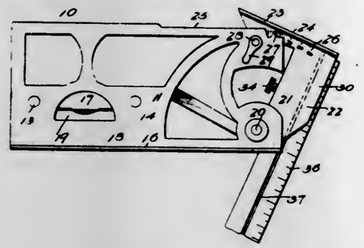
1. The process of desiccating milk which consists in rapidly partially condensing the same under diminished atmospheric pressure at a temperature below 212° F., withdrawing portions of the partially condensed material from below the surface thereof and subjecting it in thin masses to heat at a temperature below 212° F., under diminished atmospheric pressure.

2. The process of desiccating milk which consists in rapidly partially condensing the same by boiling it violently by exposure, under diminished atmospheric pressure, to moving heated surfaces, withdrawing the partially condensed material from the bottom of the mass in thin layers or films of uniform thickness upon the said heated surfaces, under diminished atmospheric pressure.

3. The process of desiccating milk which consists in rapidly partially condensing the same by bringing it in small quantities under diminished atmospheric pressure

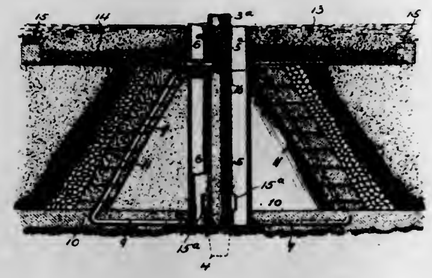
into contact with heated surfaces maintained at a temperature below 212° F. but sufficiently high to produce almost immediate violent ebullition of the whole volume of the milk, withdrawing the partially condensed material from the bottom of the mass in the form of thin layers or films upon moving rollers and subjecting the same to heat at a temperature below 212° F., under diminished atmospheric pressure.

939,496. TOOL. FRANK H. GAUER, Oakland, Cal. Filed Jan. 28, 1909. Serial No. 474,645.



A tool of the character described comprising spaced apart side members provided with bottom flanges and an upper pointer, a blade holder pivotally mounted between said members and having a circle scale marked thereon which coöperates with said pointer to indicate the angular degree of said blade holder, a blade carried by said blade holder, means for limiting the inward swing of said blade holder, and means for clamping the blade holder between said members.

939,497. FILTER. JAMES W. HAMMETT, Eureka, W. Va. Filed June 16, 1909. Serial No. 502,608.



1. A filter comprising cap and base plates and a body wall intermediate the plates, and having holes therein, tie rods connecting the plates and reinforcing the wall, and a plurality of pipes passing through the top plate and communicating with the chamber formed by the plate and body wall.

2. A filter comprising cap and base plates, and a body wall intermediate the plates and having holes through same, tie rods connecting the plates and reinforcing the wall and a plurality of pipes passing through said cap plate, two of said pipes communicating with the filter chamber and the third pipe terminating in a discharge nozzle below the base plate.

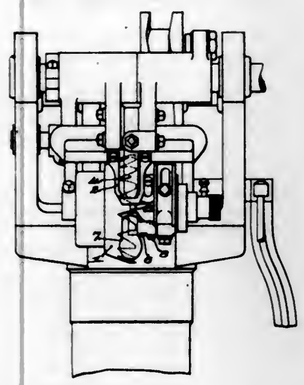
3. A submerged filter comprising a body wall provided with perforations, a base plate, a cap plate resting on the body, a plurality of pipes passing through the cap plate and communicating with the filter chamber, a bed of gravel and sand covering the perforated body, and an open work hood located above the cap plate and covered with gravel and sand.

4. A submerged filter comprising a body having numerous perforations through same, a flanged base plate, a cap plate, pipes passing through the cap plate and secured to the flanges of the base plate, the said pipes being in open communication with the filter chamber and a bed of gravel and sand covering the perforated body.

5. A submerged filter comprising a top plate, a bottom plate and a built up reinforced and perforated body, the parts reinforcing the body also connecting the top and bottom plates, and a series of pipes passing through the top plate and secured to the base plate, the said pipes communicating with the interior of the filter chamber.

[Claims 6 and 7 not printed in the Gazette.]

939,498. INSEAM-TRIMMING MACHINE. FRANK H. HAWKINS and ADELORD BOURGEOIS, Lynn, Mass., assignors to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Jan. 13, 1908. Serial No. 410,706.



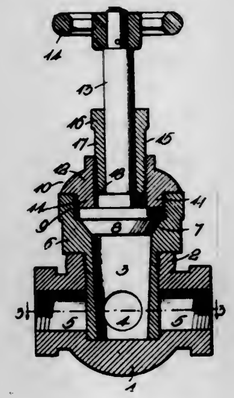
1. An inseam trimming machine, having, in combination, a cylindrical trimming knife, means for guiding a shoe during the trimming operation comprising a guard consisting of a thin sheet extending outside of the knife in close proximity thereto and arranged to bear on the sole inside of the inseam and a support located in front of the knife from which the guard projects over the edge of the knife.

2. An inseam trimming machine, having, in combination, a cylindrical trimming knife, means for guiding a shoe during the trimming operation comprising a guard consisting of a thin sheet extending outside of the knife in close proximity thereto, arranged to bear on the sole inside of the inseam and extending parallel to the edge of the knife a sufficient distance to protect the hand of the operator and a support located in front of the knife from which the guard projects over the edge of the knife.

3. An inseam trimming machine, having, in combination, a cylindrical knife, means for guiding a shoe during the trimming operation comprising a guard consisting of a thin sheet extending outside of the knife in close proximity thereto, and arranged to bear on the sole inside of the inseam, and a support for the guard located in front of the cutting edge of the knife arranged to support the guard close to the edge of the knife.

4. An inseam trimming machine, having, in combination, a cylindrical knife, means for guiding a shoe during the trimming operation comprising a guard consisting of a thin sheet extending outside of the knife in close proximity thereto, and arranged to bear on the sole inside of the inseam, and a support for the guard located in front of the cutting edge of the knife and extending inside of the knife beyond its cutting edge.

939,499. VALVE. THOMAS J. HENDRICKS, Rome, Ga. Filed May 3, 1909. Serial No. 493,614.

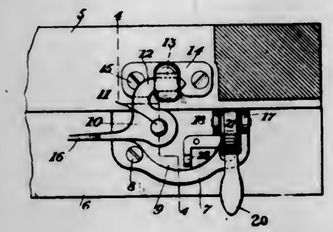


1. A valve of the class described comprising a casing, a plug screwing into the casing, a closure head closing the upper end of the plug and having a stem extending above the plug, a cap screwing on the upper end of the plug and a second adjustable plug screwing through the cap for holding the closure head in operative position.

2. A valve of the class described, comprising a casing, a plug screwing into the casing, a head formed at the outer end of the plug and provided in its top surface with a recess forming a seat and an exteriorly threaded rim above said recess, a cap screwing on said rim, a closure head seating in said recess and having a stem extending through said cap, and an adjusting plug screwing through the cap for holding the closure head in its seat.

3. A valve of the class described, comprising a casing, a plug screwing into the casing, a head formed at the outer end of the plug, said head having a recess in its top surface forming a seat and an exteriorly threaded rim above its recessed portion, a cap screwing on said rim, a closure head provided with a stem and an annular shoulder at the lower end of its stem, and an adjusting plug screwing through the cap against the shoulder of the valve for holding the latter to its seat.

939,500. SASH-HOLDER. JASPER N. HILTON, Dayton, Ohio. Filed Aug. 26, 1908. Serial No. 450,302.



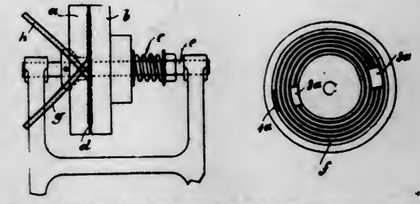
The combination with upper and lower window sashes, of a base plate fixed to one meeting rail, spaced ears rising from said base plate, a cam eccentrically mounted between the ears and having a manually operable lever, a rubber shoe carried by the cam, ratchet teeth projecting from the cam, and a spring controlled locking dog pivotally mounted on the base plate and engaging the ratchet teeth to hold the cam in locked adjusted position.

939,501. COUPLING FOR ELECTRIC CONDUCTORS. JESSE L. HINDS, Syracuse, N. Y., assignor to Crouse-Hinds Company, Syracuse, N. Y., a Corporation of New York. Filed Apr. 1, 1909. Serial No. 487,126.



A coupling for electric conductors comprising a compressible sleeve and means for compressing the same, the sleeve having a smooth bore for receiving a conductor and making electrical contact therewith throughout substantially the extent of said bore, said sleeve having a lengthwise slot extending transversely therethrough, the opposing walls of the slot inclining in the same general direction, and one of such walls being disposed substantially tangential to the bore of the sleeve adjacent to the opposite wall of the slot, whereby the slot is provided at one side thereof at the meeting surfaces of said tangential wall of the slot and the bore of the sleeve with a relatively thin and flexible lengthwise edge which coacts with the opposing inner edge of the slot and enters the bore of the sleeve in a direction substantially tangential to such bore without materially altering the curvature of the sleeve or injuring the conductor within said sleeve, thus adapting the sleeve for use on electric conductors of different diameter, substantially as described.

939,502. BALL-GRINDING MACHINE. CARL A. HIRTH, Cannstatt-Stuttgart, Germany. Filed Jan. 16, 1909. Serial No. 472,716.



1. A ball grinding machine having in combination with a pair of grinding disks, one of said disks having a series of annular grooves and a plurality of gaps which interrupt said grooves to transmit the balls from one groove to another said gaps being arranged symmetrically around the center to equalize the pressure between the disks, substantially as described.

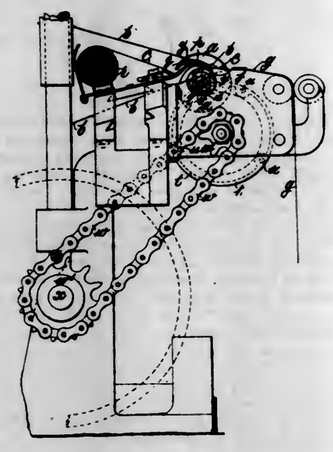
2. A ball grinding machine having in combination with a pair of grinding disks each furnished with a series of annular grooves on their meeting faces, one of said disks having a plurality of gaps which interrupt said grooves to transmit the balls from one groove to another said gaps being arranged symmetrically around the center to equalize the pressure between the disks, substantially as described.

3. A ball grinding machine having in combination with a pair of grinding disks each furnished with a series of annular grooves on their meeting faces, each of said disks having a plurality of openings which interrupt said grooves to transmit the balls from one groove to another said gaps being arranged symmetrically around the center to equalize the pressure between the disks, substantially as described.

939,503. BEATING-UP MECHANISM OF LOOMS FOR WEAVING. WILLIAM HOLLAS, ROBERT FARNWORTH, and THOMAS JACKSON, Bolton, England. Filed Jan. 19, 1909. Serial No. 473,172.

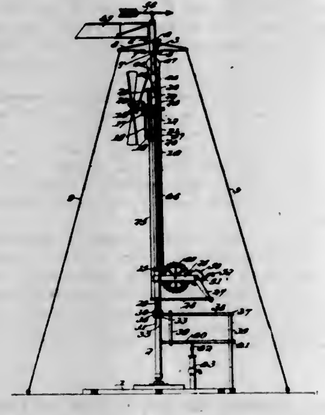
1. A reed and beating-up device for a loom, comprising an actuating shaft, a series of reed plates mounted to revolve with the said shaft but free to slide longitudinally on

it, each reed plate being cam-shaped and provided with a curved slot, and a spring encircling the said shaft and permitting the said reed plates to be moved apart to a limited extent.



2. A reed and beating-up device for looms comprising a plurality of cam-shaped plates having slits or passages in alinement with each other to receive the weft, means for separating the plates from each other, a shaft for supporting the plates, bearings for the shaft, means for holding the plates together in an axial direction, a slotted disk on the shaft, a disk mounted on a second shaft having pins for engaging with the slots of the slotted disk, a sprocket wheel on the second shaft, a third shaft carrying a sprocket wheel and a chain for communicating motion between the two sprocket wheels substantially as described.

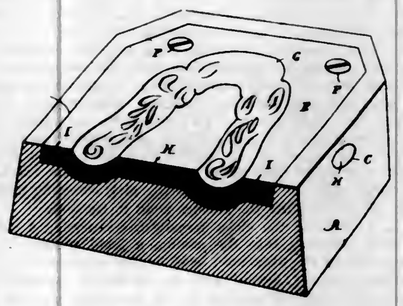
939,504. WINDMILL-TOWER. WILLIAM HOPPER, Jefferson, Iowa. Filed May 17, 1909. Serial No. 496,340.



1. In a device of the class described, a base, a tower rotatably mounted thereon, a wind wheel frame slidably mounted on the tower, means for raising the frame, a pivoted yoke mounted near the lower end of the tower, a vertical operating rod mounted near the upper end of the tower, a connection between said rod and the free end of said yoke, a crank wheel on the wind wheel shaft, a pitman connected with the crank wheel and having a loop to receive the operating rod, a shoulder on the operating rod to form a stop for the loop of the pitman, and connections between the yoke and the pump for operating the latter, when the wind wheel and its frame are in extreme raised or operative position.

2. In a device of the class described, a base, a tower rotatably mounted thereon, a wind wheel frame slidably mounted on the tower, a wind wheel mounted in said frame, manually operated means for raising the wind wheel frame, a pivoted yoke near the lower end of the tower, a collar slidably mounted on the tower beneath the yoke, links between the yoke and collar, a vertical operating rod mounted near the upper end of the tower, a flexible connection between the operating rod and the pivoted end of the yoke, a crank wheel on the wind wheel shaft, a pitman connected with the crank wheel and having a loop to receive the lower end of the operating rod when the wind wheel frame is in raised or operative position, a shoulder forming a stop on the lower end of the operating rod, and connection between the collar and the pump for operating the latter when the wind wheel frame is in operative position.

939,505. DIE. FRANK H. HOTCHKISS, Shelton, Conn. Filed Mar. 11, 1908. Serial No. 420,304.



1. A die of the class described, the same comprising a die block having a recess therein, a die plate secured within the recess, a filling plate of soft metal arranged beneath the die plate, and a plate of fusible metal between the die plate and filling plate and fusing the same together.

2. A die comprising a die block having a suitable recess therein, a die plate within the recess, screws for retaining the plate in place, a layer of filling material interposed between said die plate and the block, and a plate of fusible metal beneath the die plate uniting the same to the filling metal.

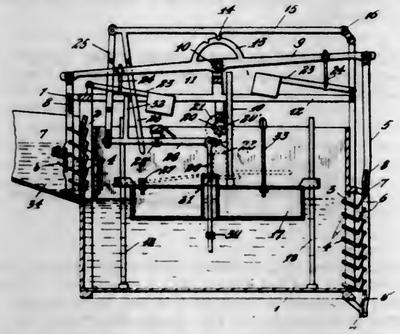
3. A die of the class described, comprising a die block having a recess therein and a hole communicating through the side of said recess, shouldering lugs formed within the recess, a die plate arranged within the recess upon said lugs, means for retaining the plate in the recess upon the lugs, and a filling plate of metal intermediate of the die plate and block.

4. A die of the class described, comprising a die block having a recess therein, a die plate secured in the recess, a filling plate of metal within the recess intermediate of the die plate and block, and a plate of fusible metal between and fused with the die plate and filling plate uniting the same.

5. A die of the class described, the same comprising a block having a recess therein, a die plate secured within the recess, a metal filling plate of uniform thickness within the recess intermediate the die plate and block, and a plate of fusible metal beneath the filling plate for uniting said parts together.

[Claim 6 not printed in the Gazette.]

939,506. WATER-MOTOR. JULIUS HUBMANN, Tacoma, Wash., assignor of one-third to Eliza Dean and one-sixth to Charles F. Bailey, Seattle, Wash. Filed Dec. 24, 1908. Serial No. 469,166.



1. In a water motor, a float chamber provided with ingress and egress openings, gates for said openings of the float chamber, said gates being formed of sections supported for movement, means connecting the sections of each gate for simultaneous movement, means to lock the gate sections against movement, a float in said chamber, and means controlled by said float for operating said first means to alternately open the openings of said chamber to passage of the water.

2. In a water motor, a float chamber provided with ingress and egress openings, gates therefor, a float in said chamber, means controlled by said float to alternately open said gates, means for locking said gates against movement, and means operated by and during movement of said float to operate said lock means to a releasing position.

3. In a water motor, a float chamber provided with ingress and egress openings, gates therefor, a float in said chamber, means controlled by said float to simultaneously open one gate and close the other, means for locking said gates against movement of said float, and means to operate said lock means to a releasing position.

4. In a water motor, a float chamber provided with ingress and egress openings, gates therefor, a float in said chamber, means controlled by said float for alternately opening said gates including a pivoted member each end of which is connected with a respective gate, means to lock said swingingly supported member against movement, and means operated by and during movement of said float to release said last means.

5. In a water motor, a float chamber provided with ingress and egress openings, gates therefor, a float in said chamber, means for simultaneously opening one gate and closing the other, lock means controlled by said float for holding said first means against movement, and means for operating said first means after it has been released.

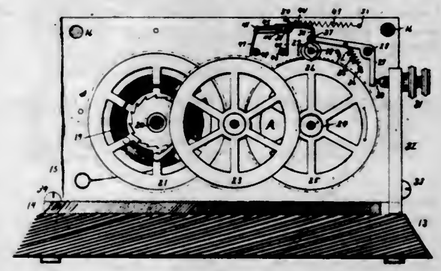
[Claims 6 to 8 not printed in the Gazette.]

939,507. TELEGRAPH SENDING-MACHINE. JOHN A. HULIT, Topeka, Kans., assignor, by mesne assignments, to The Hulit Transmitter Company, Topeka, Kans., a Corporation of Kansas. Filed Sept. 3, 1908. Serial No. 451,487.

1. The combination of a frame, a rotary circuit closer mounted therein, a motor for driving said circuit closer, stops for stopping said motor with the circuit closed and for stopping said motor with the circuit open, and a device controlled by the operator for operating one of said stops alone and for operating both of said stops in unison, at the will of the operator.

2. The combination of a frame, a rotary circuit closer mounted therein, a motor for driving said circuit closer, and manually controlled stops for stopping said motor with the circuit closed and for stopping said motor with the circuit open.

3. The combination of a frame, a rotary circuit closer mounted therein, a motor for driving said circuit closer, and spring-pressed manually operable stopping and releasing devices associated therewith, normally stopping said motor with the circuit closer in one position, and adapted by pressure in one way to release said motor and permit it to drive the circuit closer to another position and to stop it with the circuit closer in that other position, and also adapted by pressure in another way to free the motor so as to freely drive the circuit closer, and also adapted on being released from either pressure to stop said motor with the circuit closer in normal position.

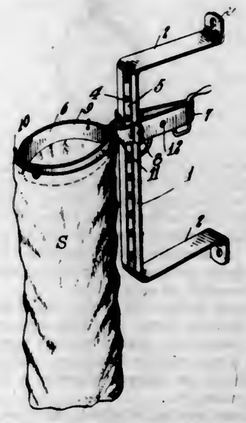


4. The combination of a frame, a single circuit closer mounted therein, and a manually controlled mechanism associated therewith, with means whereby a pressure in one way will produce a rapid succession of closings and openings of said circuit closer and a pressure in another way will produce but a single closing of said circuit closer, and a release from either pressure will restore said circuit closer to normal open position.

5. The combination of a frame, a circuit closer mounted therein, a motor for driving said circuit closer, and manually controlled stopping and releasing devices for stopping said motor with the circuit closer in a normal primary position; for releasing said motor and permitting it to drive said circuit closer so as to effect a rapid succession of closings and openings, and for releasing and stopping said motor with the circuit closer in a secondary position.

[Claims 6 to 15 not printed in the Gazette.]

939,508. SACK-HOLDER. JOSEPH E. HULL, Rodamers, W. Va. Filed Apr. 10, 1909. Serial No. 489,135.

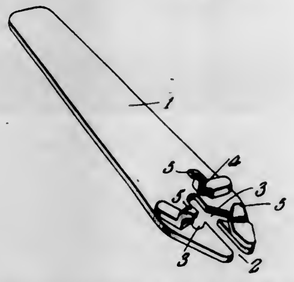


1. A device of the character described comprising a U-shaped bracket having its parallel arms disposed horizontally and formed at their extremities with apertured attaching feet, the intermediate portion of said bracket being disposed vertically and having a longitudinal series

of seats, a horizontally disposed bag supporting member arranged for sliding movement on said vertically disposed connecting portion of the bracket and a catch upon said bag supporting member and adapted to engage said seats.

2. A device of the character described comprising a bracket for attachment to an upright support and provided with an upright portion having a longitudinal series of seats, a horizontally disposed, vertically adjustable member consisting of oppositely disposed intermediate loops to slidably engage the opposite edges of said upright portion of the bracket, a rearwardly extending open arm, and forwardly extending oppositely curved arms, means upon the latter for engaging and supporting a sack, and a pivoted catch in the open portion of the rear arm and adapted to engage said seats in the upright portion of the bracket.

939,509. WIRE-SPLICER. ISAAC G. HUSTON, Carey, Ohio. Filed May 4, 1909. Serial No. 493,937.



A wire splicer comprising a bar having a passage at one end and recesses formed in the bar at the opposite sides of the passage and communicating with the passage at points intermediate the ends thereof, and lugs located upon the bar one adjacent each recess and one adjacent the inner end of the passage.

939,510. PENDANT. ARCHILLE JACQUES, Attleboro, Mass. Filed May 4, 1909. Serial No. 493,897.



1. A pendant having movable members each provided with an annular hinge member arranged at a right angle to the pendant member, and a hollow pivot fitted within and connecting the said annular hinge members.

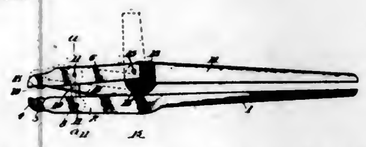
2. A pendant having relatively movable members provided with an annular hinge combined with a tubular pivot, said hinge having a plurality of stops whereby to limit the movement of said hinge.

3. A pendant having relatively movable members provided with annular hinge portions, the opposite ends of which are undercut to seat a tubular pivot, the opposed ends of said hinge portions being provided with a plurality of stops adapted for impact whereby to limit the movement of the members.

4. A pendant having relatively movable members pivotally connected by interfitting annular hinge portions slidingly fitted to a tubular pivot, said hinge portions being undercut on their opposed faces and provided with a plurality of stops thereon adapted for impact whereby to limit the movement of the members.

5. A pendant having relatively movable members connected by an annular hinge having internal annular ribs adapted to slidingly seat a tubular pivot, said annular ribs having interfitting stops slidingly seated on said pivot and adapted for impact whereby to limit the movement of the members.

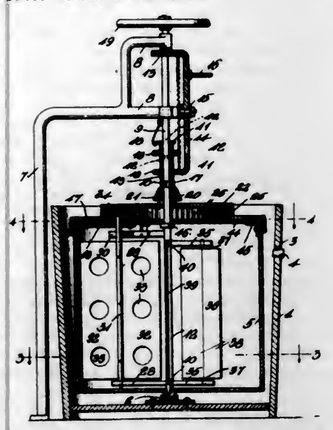
939,511. CHAIN-MANIPULATING TOOL. JENS C. JENSEN, Yorktown, Kans. Filed Jan. 26, 1909. Serial No. 474,343.



1. A tool of the character described comprising a handle provided at one end with a jaw, a second jaw, a link pivotally connected to the jaws, a second handle member provided at its inner end with a cam for engagement with the first mentioned jaw and pivotally connected to the second jaw whereby the outer ends of the jaws may be forced toward and away from each other, each jaw having a transverse groove in its inner face, and a spring secured to one of the jaws and bearing against the other jaw and provided with a slot intermediate its ends to embrace said link.

2. A device of the character described comprising a handle provided at one end with a jaw having an opening therein, a second jaw having an opening therein, a link having its ends fitted in the openings of the jaws and pivoted therein, a second handle member provided at its inner end with a cam for engagement with the first mentioned jaw and pivotally and adjustably connected to the second jaw whereby the outer ends of the jaws may be forced toward and away from each other, and a spring secured to one of the jaws and bearing against the other jaw and provided with a slot intermediate its ends to embrace said link.

939,512. COMBINED CHURN AND ICE-CREAM FREEZER. WILLIAM A. JONES, Denton, Tex. Filed Feb. 4, 1909. Serial No. 476,028.



1. In a device of the class described, the combination of a supporting frame, a tub arranged below and spaced from said frame and adapted to receive a revoluble receptacle, a shaft mounted to revolve in said frame, and having a pinion fixed to its upper end, a dasher mounted to revolve with said shaft, an operating gear mounted to rotate on said frame and to mesh with said pinion, a sleeve slidably and rotatably mounted on said shaft, receptacle

engaging means carried by said sleeve, and vertically spaced gears fixed on said sleeve to mesh respectively with said operating gear to adapt said sleeve for connection with receptacles of varying heights.

2. In a device of the class described, the combination of a supporting frame, a tub arranged below said frame and adapted to receive a revoluble receptacle, a cover adapted to be engaged with said receptacle to turn the same, a clutch member on said cover, a dasher shaft rotatably mounted in said frame, and formed in separable sections, an adjustable sleeve arranged on said sections to hold them together, a clutch member on the lower end of said sleeve to operatively engage a clutch member on the receptacle cover, an operating gear wheel mounted on said frame, upper and lower gears arranged on said sleeve to turn therewith and adapted to respectively engage said operating gear to provide for the connection of the sleeve with receptacles of varying heights, and a pinion fixed to said shaft and adapted to mesh with said operating gear for turning the shaft in a direction opposite to the receptacle.

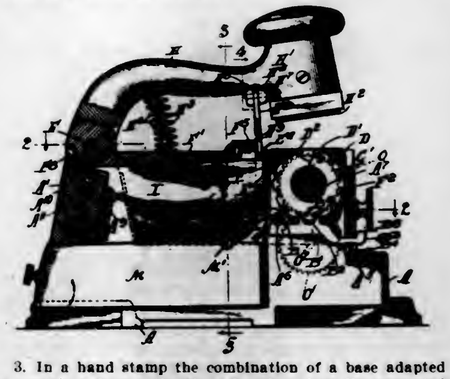
3. In a device of the class described, a supporting frame having a laterally extending arm, a tub arranged below and spaced from said arm, a receptacle arranged in said tub, an operating cover arranged on said receptacle, a clutch member on said cover, a dasher shaft revolubly mounted in said frame arm, a revoluble dasher in said receptacle, a sleeve slidably and rotatably mounted on said shaft, means to hold said sleeve in adjusted position on said shaft, a clutch member on the lower end of said sleeve to engage the clutch member on said cover, an operating gear wheel mounted on said frame arm, upper and lower gears on said sleeve adapted to mesh respectively with said operating gear to provide for the connection of the sleeve to receptacles of varying heights, and a pinion fixed on said shaft and adapted to mesh with said operating gear to drive said shaft in a direction opposite to said sleeve.

4. In a device of the class described, a supporting frame having a laterally extending arm, a tub arranged below and spaced from said arm, a receptacle revolubly mounted in said tub, a cover for connection with said receptacle, an upwardly projecting annular flange arranged on said cover and provided on its inner face with a series of gear teeth, a clutch member arranged on said cover, a false lid arranged on said receptacle below said cover, a dasher shaft composed of separable sections and mounted in said frame arm, a clutch member adjustably mounted on said shaft to engage the clutch member on said cover, means for operating said shaft and sleeve, means for operating said shaft and adjustable clutch member in opposite directions, a plurality of dashers arranged on said shaft within said receptacle, one of said dashers being removable, an operating gear on said removable dasher and adapted to operatively engage the teeth on the annular flange of said cover to provide for the operation of said dasher independently of the other dashers.

939,513. HAND-STAMP. ALEXANDER D. JOSLIN, Chicago, Ill. Filed Apr. 3, 1909. Serial No. 487,835.

1. In a hand stamp, the combination of a base, and a housing pivoted thereon; with a locking mechanism inclosed in the wall of said base, said mechanism consisting of a bolt movable horizontally into and out of a bore in said housing, and a tumbler movable vertically in slidable engagement with said bolt, said tumbler being adapted to be moved by a certain key insertible in said wall, whereby said bolt can be adjusted to engage said housing as a spring catch releasable by pressure, or to enter said bore as a lock releasable only by means of said key and the movement of said tumbler thereby.

2. In a hand stamp, the combination of a base, an arm and housing pivotally joined thereto, and a locking mechanism within the wall of said base adapted to be operated by a key insertible in said wall, whereby said base and housing can be locked together and released by a key with a spring pressed bolt vertically supported in said base beneath and in contact with the pivotal joint of said housing said bolt being adapted to enter a recess in said joint and to hold said housing when it is unlocked and raised to the open position as described.



3. In a hand stamp the combination of a base adapted to contain a drawer therein, a housing pivotally supported on said base; means in said housing adapted to engage a drawer contained in said base; with a drawer insertible in said base, said drawer being adapted to be engaged by the means in said housing and secured in said base, said drawer being removable from said base only when said housing is in the open position.

4. In a hand stamp the combination of a base, adapted for the insertion of a drawer therein, a housing pivoted on said base adapted when closed on said base to lock a drawer in said base; means in said base for locking said housing in the closed position on said base, and means in said base for holding said housing in an open position; with a drawer insertible in said base when said housing is in an open position and adapted to be locked in said base when said housing is in the closed position.

5. In a hand stamp, a base, a drawer insertible therein, a housing pivoted on said base adapted when closed thereon to lock said drawer in said base, a locking mechanism in said base adapted to lock said base and housing together, and a spring pressed catch in said base adapted to engage and hold said housing in the open position on said base.

[Claims 6 to 15 not printed in the Gazette.]

939,514. TURBINE. CHARLES A. KAISER, New York, N. Y., assignor of one-half to Emil Glaser, Brooklyn, N. Y. Filed Jan. 7, 1907. Serial No. 351,074. Renewed Apr. 20, 1909. Serial No. 491,194.

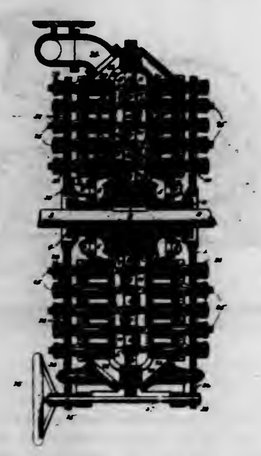
1. In a steam turbine, a wheel having concentric series of vanes, fixed vanes for directing steam to said series of vanes first from one side and then from the other for the successive series, and annular partitions laterally movable toward and from the wheel whereby the path of the steam may be alternated throughout the system.

2. In a steam turbine, a casing having fixed vanes rigidly attached thereto, a wheel revoluble between the fixed vanes and also having vanes thereon, and annular partitions between the fixed vanes movable to change the direction of the steam through the wheel.

3. In a steam turbine, a wheel having a series of vanes, fixed vanes or blades on either side of the vanes of said wheel, said fixed vanes on one side of the wheel having exactly the same relation to the vanes thereof as the fixed vanes on the other side of the wheel have to said vanes and annular partitions movable axially between said fixed vanes to change the direction of the flow of steam.

4. In a steam turbine, a wheel having a series of vanes, said vanes having exactly the same characteristics when considered from one side of the wheel as they have when considered from the other side, both in the matter of form and direction, fixed vanes on either side of said wheel, said fixed vanes having the same characteristics and relations to the movable vanes on one side of the wheel as

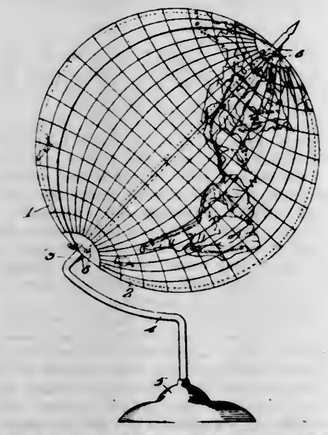
they have on the other, and annular partitions movable axially between said fixed vanes to change the direction of the flow of steam.



5. In a steam turbine, a wheel having a series of vanes inclined to the direction of movement of the wheel, said vanes having the same shape and direction when considered from one side of the wheel as they have when considered from the other, inclined fixed vanes or blades on either side of the wheel, the fixed vanes on each side being adapted to direct steam against the vanes of the wheel to produce movement thereof, the fixed vanes on one side having the same form and characteristics with respect to the vanes of the wheel as those on the other side, and annular partitions movable axially between said fixed vanes to change the direction of the flow of steam.

[Claims 6 to 15 not printed in the Gazette.]

939,515. EDUCATIONAL DEVICE. ALEXANDER S. KILROY, Great Falls, Mont. Filed Dec. 14, 1908. Serial No. 467,435.



1. A device of the character described comprising a supporting rod, a rotatable globe removably arranged on said rod and composed of separable sections and overlapping eyes upon the edges of the sections of the globe to receive said supporting rod.

2. A device of the character described comprising a supporting rod, a sectional globe, overlapping eyes on the edges of the sections of the globe to receive said rod and means for retaining the globe on the rod.

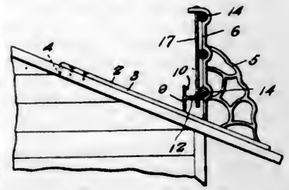
3. A device of the character described comprising a supporting rod, a sectional globe, overlapping eyes on the edges of the sections of the globe to receive said rod, and a spring catch for retaining the globe upon the rod.

4. A device of the character described comprising a supporting rod, a globe composed of separable half-sections, alining eyes formed at diametrically opposite points on the edge of one half-section of the globe, said eyes being adapted to receive the rod, an eye upon one point of the other half-section adapted to also receive said rod and a clasp diametrically opposite said eye on the last mentioned section of the globe for retaining the sections together and upon the rod.

5. A device of the character described comprising a supporting rod, a globe composed of separable half-sections, alining eyes formed at diametrically opposite points on the edge of one half-section of the globe, said eyes being adapted to receive the rod, an eye upon one point of the other half-section adapted to also receive said rod and a pivoted hook diametrically opposite the eye on the last mentioned section of the globe, said hook being adapted to engage the rod.

[Claims 6 and 7 not printed in the Gazette.]

939,516. SNOW-GUARD FOR ROOFS. JOHN M. LAIRD, Huntingdon, Pa. Filed Jan. 7, 1909. Serial No. 471,168.



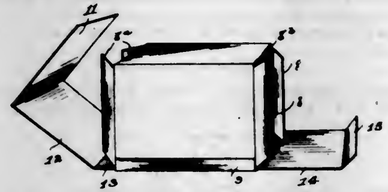
1. A snow guard comprising base plates, upright guard supporting brackets formed at the outer ends of said plates, said brackets comprising rear vertical members provided along their bodies with outwardly bent portions forming seats and at their upper ends with inwardly projecting extensions, a plurality of cylindrical guards seated in the outwardly bent portions of the brackets, horizontal supporting bars near the lower ends of the rear vertical pieces of the brackets, and vertical keeper pins insertible through the extensions and supporting bars of the supporting brackets and adapted to hold the guards in position.

2. A snow guard comprising a base plate, an upright guard supporting bracket at the outer end of said plate, said bracket comprising a rear vertical member provided along its body with a series of outwardly bent portions forming semi-circular seats and at its upper end with an inwardly extending extension, a rearwardly extending horizontal supporting bar near the lower end of the rear vertical member of the bracket, and a keeper pin insertible through the extension of the bracket and said horizontal supporting bar.

939,517. BOX. EMIL LANGSCHMIDT, Chicago, Ill., assignor to Wm. Wrigley, Jr., & Co., Chicago, Ill., a Corporation of Illinois. Filed May 10, 1909. Serial No. 495,141.

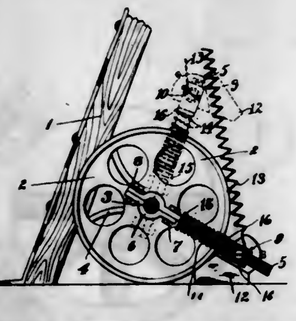
1. A box of the character described, comprising an outer shell forming side walls, one opposed pair of which latter are provided with end extensions or flaps adapted to be folded transversely of said shell at its ends, and an inner shell comprising end and side sections hinged together, said side sections being disposed inwardly of and parallel with the other pair of side walls of the outer shell, respectively, and said end sections overlapping said end extensions and forming the end walls of the box, substantially as described.

2. A box of the character described, of rectangular cross-section, comprising an outer shell forming the four side walls of the box, one opposed pair of which latter are provided with end extensions or flaps narrower than the side walls from which they project and adapted to be folded transversely of said shell at its ends, and an inner shell comprising a continuous strip folded transversely at intervals to form a continuous side section and a two-part side section disposed inwardly of and parallel with the other pair of side walls of said outer shell, respectively, and continuous end sections overlapping said end extensions and forming the end walls of the box, substantially as described.



3. A box comprising an outer shell and an inner shell, said outer shell consisting of side walls hinged together with extensions or flaps on one end of two oppositely disposed walls thereof, and said inner shell comprising sections hinged together and composed of opposite end and side sections, said end sections forming the end walls of the box and one of them overlying and covering said extensions, and said side sections lying inwardly of and parallel with the other oppositely disposed walls of said outer shell and one of them comprising two separate members constituting locking devices to secure said end sections respectively in folded position, substantially as described.

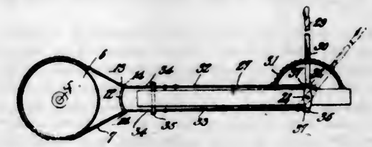
939,518. BLOCKING DEVICE FOR TRUCKS. PAUL E. LATTNER and SAMUEL N. ROBINSON, Minneapolis, Minn. Filed Dec. 3, 1908. Serial No. 465,830.



1. The combination with a wheeled truck, of a pair of guide rods pivotally mounted on the axle thereof, a tie bar rigidly secured to the inner ends of said guide rods and connecting the same for common oscillatory movements, a transverse rod or bar mounted on the free ends of said guide rods for lateral movements toward and from the axle, and a pair of wheel blocking shoes rigidly secured to and projecting from the end portions of said laterally movable rod or bar, and adapted to block the wheels of said truck, substantially as described.

2. The combination with a two-wheeled truck, of a pair of guide rods pivotally mounted on the axle of said truck, a tie bar rigidly connected to the inner ends of said guide rods and connecting the same for common oscillatory movements, a rod or bar mounted on the free ends of said guide rods for lateral movements toward and from the axle, wheel blocking shoes rigidly secured to and projecting from the end portions of said laterally movable rod or bar, springs on said guide rods tending to move the shoes outward, and a spring connected to said laterally movable rod or bar, and tending to move the shoes upward.

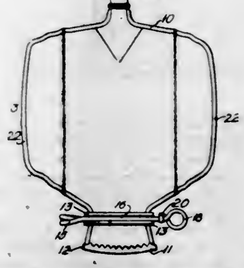
939,519. BAND-BRAKE. JOHN N. LAWRENCE, Nevada, Mo. Filed Mar. 15, 1909. Serial No. 483,464.



1. The combination with a band brake, the ends of the brake band being slotted, of a support, a hand lever fulcrumed on the support, connections between the hand lever and the ends of the brake band, said connections being made on opposite sides of the fulcrum of the said lever, and a pin projecting from the support and passing through the slots of the brake band.

2. The combination with a band brake, of a support, a hand lever fulcrumed thereon, connections between the hand lever and the ends of the brake band, said connections being located on opposite sides of the fulcrum of the lever, and means for holding one of said connections stationary while the other connection is being operated by the hand lever to apply the brake.

939,520. SYRINGE OR THE LIKE. CHARLES P. LEYNER, Boston, Mass., assignor to John George Leyner, Denver, Colo. Filed Mar. 7, 1908. Serial No. 419,672.



1. In a device of the character described, a flexible receptacle provided with an orifice, and a clamp adapted to hold opposite sides of said receptacle in contact with each other, said clamp being substantially U-shaped in form and having two arms extending across said receptacle, one of said arms being provided with a hook adapted to receive the other of said arms, the free ends of both of said arms extending beyond said hook.

2. In a device of the character described, a flexible receptacle provided with a orifice, and a clamp adapted to hold opposite sides of said receptacle in contact with each other, said clamp consisting of a wire bent to form a torsional spring having two arms extending across said receptacle, one of said arms being provided with a hook adapted to receive the other of said arms, the free ends of both of said arms extending beyond said hook.

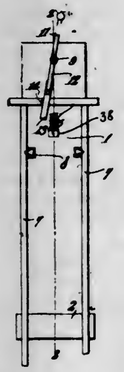
3. In a device of the character described, a flexible receptacle provided with an orifice, and a clamp adapted to hold opposite sides of said receptacle in contact with each other said clamp being substantially U-shaped in form and having two arms extending across said receptacle, one of said arms being adapted to interlock with the other of said arms, the free ends of both of said arms extending beyond the interlocking point.

4. In a device of the character described, a flexible receptacle provided with an orifice, and a clamp adapted to hold opposite sides of said receptacle in contact with each other, said clamp being substantially U-shaped in form and having two arms extending across said receptacle, one of said arms being adapted to interlock with the other of said arms, the free ends of both of said arms extending beyond the interlocking point and constituting substantially parallel finger pieces extending transversely of said arms.

5. In a device of the character described, a flexible receptacle provided with an orifice, and a clamp adapted to hold opposite sides of said receptacle in contact with each other, said clamp consisting of a substantially U-shaped wire having two-arms extending across said receptacle, one of said arms being provided with a hook adapted to receive the other of said arms, said wire being bent to form two loops extending beyond said hook.

[Claims 6 to 8 not printed in the Gazette.]

939,521. FLUSHING-TANK. CHARLES C. LINDLEY, Memphis, Tenn. Filed Nov. 6, 1908. Serial No. 461,392.



1. A flushing tank provided with a water receptacle adapted to automatically rise and fall, an outlet valve for said receptacle connected to opening and closing means, an inlet pipe provided with a cock, and means for opening said cock when the receptacle rises and closing it when the receptacle falls.

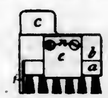
2. A flushing tank provided with a vertically movable water receptacle, a fixed inlet pipe having a cock thereon, an outlet valve for said receptacle connected to opening and closing means the whole movable with the receptacle and a rod connecting the tank with said cock to open and close the same as the tank rises and falls.

3. A flushing tank provided with an upright water receptacle automatically movable in vertical direction, a lever supporting on one arm said receptacle and on its other arm an adjustable counterbalance, a fixed feed pipe and cock thereon arranged to discharge into said receptacle, a discharge valve for said receptacle connected with means for opening and closing the same movable with said receptacle, a rod connected to said receptacle and the cock for opening and closing said cock as the receptacle rises and falls, and a fixed means adapted to release the discharge valve opening means and permit said discharge valve to close by gravity.

4. A flushing tank provided with an intermediately fulcrumed lever, an upright water receptacle automatically movable in vertical direction supported on one arm of said lever, counterbalanced by a movable weight on the other arm, an inlet pipe containing a cock connected by a rod to said receptacle, a crank shaft journaled diametrically at the top of the receptacle, a hand crank having a diametrically opposite projection, a discharge valve in said receptacle opened by said crank shaft to exhaust the water in said receeptacle and permit it to rise and open the inlet cock, and means for disengaging said hand crank and permitting the outlet valve to close by gravity.

5. A flushing tank provided with a counterbalanced water receptacle, a fixed feed pipe therefor containing a cock, a discharge valve in said receptacle, a horizontal shaft provided with a crank extending across said section, a valve rod serving as an overflow pipe connected to the crank on said shaft, a hand crank on said shaft for turning the same to open the outlet valve, said crank being a pin projecting in the opposite direction, a connecting rod attached to said receptacle and the cock for opening and closing said cock as the receptacle rises and falls, and a stop for preventing the escape of said pin on the hand shaft until the receptacle has risen high enough to permit it to escape when the outlet valve closes by gravity.

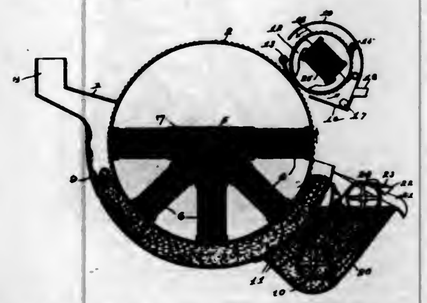
939,522. BRUSH-GUARD. ABRAM D. LOCKWOOD, Peekskill, N. Y. Filed May 27, 1908. Serial No. 435,223.



1. In a brush holder, a block as a backing for the brush block, spring plates on the ends of the block to secure the brush block endwise, hooks on the ends of the spring plates to engage with the under side of the brush block, a handle on the top of the block, and a flange on one side of the holder of a depth to correspond with the depth of a brush.

2. The combination of a brush, a block as a backing for the brush block, clamping and hooking spring plates on the end of the holder block to secure the brush, and a flange on the side of the holder of a depth to coincide with the depth of the brush.

939,523. MAGNETIC ORE-SEPARATOR. WAYNE D. LUDWICK, Seattle, Wash., assignor to Northwest Metallurgical Company, Seattle, Wash., a Corporation. Filed Sept. 22, 1906, Serial No. 335,724. Renewed May 20, 1909. Serial No. 497,328.



1. An ore separator comprising a receptacle, a drum mounted to rotate within the receptacle, a plurality of magnets spaced about the lower interior portion of the drum, means to pass ore through the receptacle, magnetic means to remove magnetic material from the exterior of the drum and means for simultaneously loosening the said magnetic material from the separating drum by spraying within the field of the magnetic removing means.

2. An ore separator comprising a receptacle, a drum mounted to rotate in the receptacle, a plurality of magnets spaced about the lower interior portion of the drum, a chute adapted to introduce material into the receptacle, means to discharge waste material from the receptacle, magnetic means to remove magnetic material from the exterior of the drum, and means for simultaneously loosening the said magnetic material from the separating drum by spraying within the field of the magnetic removing means.

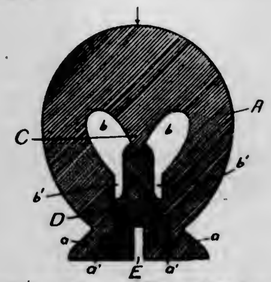
3. An ore separator comprising a receptacle, a drum mounted to rotate within the receptacle, magnets spaced about the lower interior portion of the drum, means to introduce material into the receptacle, a pan secured to and adapted to receive refuse from the receptacle, means to discharge material from the pan, magnetic means to remove magnetic material from the drum, and means for simultaneously loosening the said magnetic material from the separating drum by spraying within the field of the magnetic removing means.

4. An ore separator comprising a receptacle, a drum mounted to rotate within the receptacle, a plurality of magnets spaced about the lower interior portion of the drum, means to pass ore through the receptacle, a pan in communication with the receptacle and adapted to receive refuse material therefrom, a conveyer mounted in the pan, magnetic means to remove magnetic material from the exterior of the drum, and means for simultaneously loosening the said magnetic material from the separating drum by spraying within the field of the magnetic removing means.

5. An ore separator comprising a receptacle, a drum mounted to rotate in the receptacle, a plurality of magnets spaced about the lower interior portion of the drum, means to pass ore through the receptacle, magnetic means disposed adjacent the drum and above the inclosed magnets and adapted to remove magnetic material from the exterior of the drum, and means for simultaneously loosening the said magnetic material from the separating drum by spraying within the field of the magnetic removing means.

[Claims 6 to 8 not printed in the Gazette.]

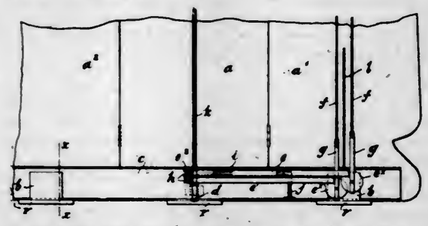
939,524. CUSHION-TIRE. WILLIAM E. MARENGO, Worcester, Mass., assignor of one-half to John B. Proulx, Southbridge, Mass. Filed Apr. 16, 1909. Serial No. 490,374.



1. An elastic cushion rubber tire having continuous annular diverging chambers extending outwardly at an angle to the line of pressure on the tire, or to the tread thereof, and divided by an annular inwardly projecting portion or ridge, said tire having at its inner part an opening communicating with the entrance to said chambers, and said tire including a solid bridge-piece of elastic material arranged in its inner portion between said chambers, but not filling the latter, and in engagement with the said inwardly projecting portion or ridge, thus serving to brace the tread portion of the tire against the applied pressure, but leaving said diverging chambers unfilled with solid material.

2. An elastic rubber cushion tire having diverging annular chambers b, an inwardly projecting portion or ridge C dividing said chambers, an annular chamber B, a bridge-piece D closely fitting the inner part of said chamber and contracted at the upper part of said chamber to leave annular openings or chambers b' communicating with said chambers b, said bridge-piece having an annular groove at its outer part to receive the said inwardly projecting portion or ridge C, and the base or attaching portion of said tire being provided with a slit E.

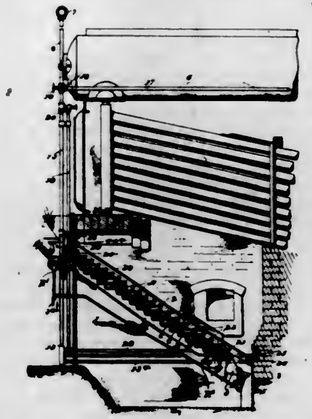
939,525. MUSIC-TURNER. WILLIAM MARK and ROBERT MARK, Durdar, Carlisle, England. Filed Apr. 19, 1909. Serial No. 490,664.



1. In a music-leaf turner, the combination, with a back, of spring-controlled turning-arms pivoted at one end to the middle part of the back and having thin guide-disks at their free ends, leaf-holders, for engaging the sheets, provided at their lower ends with loop-shaped clips which straddle the said disks and the lower parts of the sheets, and pins pivotally connecting the said clips and disks.

2. In a music-leaf turner, the combination, with a back, of turning-arms having forked brackets at one end which are pivoted to the middle part of the back, said arms having also thin guide-disks at their free ends, leaf-holders provided with loop-shaped clips which are pivoted to the said disks, said clips being arranged to straddle the said disks and the lower parts of the sheets, curved links pivoted in the said forked brackets on one side of their pivot, and springs secured between the said links and back.

939,526. FURNACE. WILLIAM B. MERKEL, New York, N. Y., assignor to John S. S. Fulton, Fullerton, Pa. Filed Dec. 14, 1907. Serial No. 406,530.



1. In a furnace, a grate having fixed and movable bars, means for bodily moving said movable bars as a unit relatively to said fixed bars, said movable bars having watertight passages therein, and connections between said movable bars.

2. In a furnace having a grate comprising alternately arranged fixed and movable grate bars, means for bodily moving said movable bars back and forth in the spaces intermediate said fixed bars, and means for supplying cooling water to both series of grate bars.

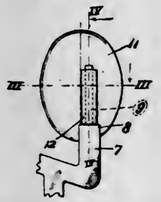
3. In a furnace having a boiler and feed water supply and a grate comprising alternately arranged fixed and movable bars, means for bodily moving said movable bars, a cooling water circulating system in which both movable and fixed bars are included, and means for conducting the feed water to and through said circulating system before its entrance to the boiler.

4. In a furnace having a boiler and a grate comprising alternately arranged fixed and movable grate bars, means for bodily moving said movable bars, a cooling water circulating system in which the fixed and movable bars are included, means for conducting cooling water from the boiler through said circulating system, and means for returning the cooling water to the boiler from the circulating system.

5. In a furnace having a boiler and feed water supply, and a grate comprising alternately arranged fixed and movable grate bars, means for bodily moving said movable bars, a cooling water circulating system in which both the fixed and the movable bars are included, means for conducting the feed water to and through said circulating system before its entrance to the boiler, and means automatically actuated on the cut off of said feed water supply for conducting water from the boiler through said circulating system.

[Claims 6 to 16 not printed in the Gazette.]

939,527. EYEGLASS-GUARD. CHARLES L. MERAY, Kansas City, Mo. Filed Aug. 17, 1908. Serial No. 448,933.



1. In an eye-glass guard, an attaching member, and a pad eccentrically mounted on said attaching member.

2. In an eye-glass guard an attaching member having a pad shank, a pad, and a collar secured to said pad at one side of the pad center and movably mounted on said shank, for the purpose set forth.

3. The combination of an attaching member having a shank of greater width than thickness, a pad, and a collar eccentrically mounted on said pad.

4. In an eye-glass guard, the combination of an attaching member having a shank substantially elliptical in cross section, a collar having a channel of substantially the same contour, but of greater diameter than said shank, and a pad carried by said collar, the connection between said collar and pad being at one side of the central meridian of said pad, and said collar being adapted for limited rocking movement on said shank, substantially as and for the purpose set forth.

5. In an eye-glass guard, the combination of an attaching member having a shank of less thickness than width, a collar having a channel of substantially the same cross sectional contour, but of greater dimensions than said shank, and a pad carried by said collar, said shank being projected through the collar channel, substantially as set forth.

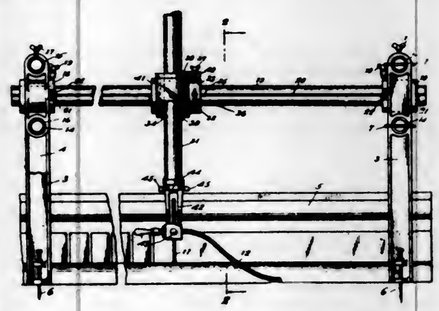
[Claims 6 to 8 not printed in the Gazette.]

939,528. STONE-CUTTING MACHINE. WILLARD F. MEYERS, New York, N. Y. Filed Jan. 22, 1909. Serial No. 473,698.

1. A stone-cutting machine comprising the combination of a cutting tool, a supporting frame, a tool carrier mounted to have rotative movement thereon and adapted to receive a horizontal, vertical and lateral adjustment, and means for adjusting the cutting tool in the plane of rotation independently of the adjustment of the tool carrier.

2. A stone-cutting machine comprising the combination of a cutting tool, a cross-bar and end supports therefor, a tool carrier connected so as to have rotative movement relatively to the cross-bar and adapted to receive a horizontal, vertical and lateral adjustment, and means for adjusting the cutting tool in the plane of rotation independently of the adjustment of the tool carrier.

3. A stone-cutting machine comprising the combination of a cutting tool, a cross-bar, a tool-supporting bar mounted to have rotative movement relative to the cross-bar and adjustable longitudinally of the cross-bar and transversely thereof to vary the length of the radius of rotation, and a tool carrier mounted on the end of the tool-supporting bar and adjustable thereon at right angles thereto in the plane of rotation.

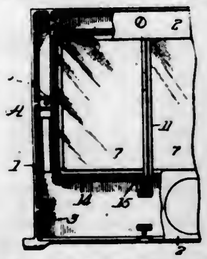


4. A stone-cutting machine comprising the combination of a cutting tool, a cross-bar and horizontal end supports therefor, the cross-bar being adjustable longitudinally of its supports, a tool-supporting bar mounted to have rotative movement relative to the cross-bar and adjustable longitudinally of the cross-bar and transversely thereof to vary the length of the radius of rotation, and a tool carrier mounted on the end of the tool-supporting bar and adjustable thereon at right angles thereto in the plane of rotation.

5. A stone-cutting machine comprising, in combination with a cutting tool, a cross-bar, a bracket mounted to rotate thereon and adjustable longitudinally thereof, a tool-supporting bar supported in the bracket substantially perpendicular to the cross-bar and adjustable longitudinally in its support to vary the length of the radius of rotation, and a tool carrier mounted on the end of the tool-supporting bar and adjustable thereon at right angles thereto in the plane of rotation.

[Claims 6 to 10 not printed in the Gazette.]

939,529. STOVE. LEWIS MOORE, Joliet, Ill., assignor to Moore Brothers Company, Joliet, Ill., a Corporation of Illinois. Filed May 12, 1909. Serial No. 495,442.



1. An oven door comprising a door proper and a lining therefor, said door proper and lining being provided with corresponding openings together forming an opening through said oven door, said door proper being also provided with a rabbet around the opening therein and the edges of the door lining around the opening in said lining projecting over the rabbet in the door proper, a window comprising a plurality of relatively small panes or plates of glass secured in the opening in said oven door for closing the same, the outer edges of said panes or plates of glass extending into the space between the rabbet in said door proper and the edges of the door lining around the opening therein which project over said rabbet, the means for securing said panes or plates of glass in said opening comprising frame members which extend across said opening in said oven door between adjacent panes or plates of glass the ends of which are adapted to be clamped in the rabbet in the door proper by the projecting edges of the door lining around the opening therein and which are provided with grooves adapted to receive the edges of said panes or plates of glass, substantially as described.

2. An oven door comprising a door proper and a lining therefor, said door proper and lining being provided with corresponding openings together forming an opening through said oven door, said door proper being also provided with a rabbet around the opening therein and the edges of the door lining around the opening in said lining projecting over the rabbet in the door proper, a window comprising a plurality of relatively small panes or plates of glass secured in the opening in said oven door for closing the same, the outer edges of said panes or plates of glass extending into the space between the rabbet in said door proper and the edges of the door lining around the opening therein which project over said rabbet, said space being slightly wider than the thickness of said panes or plates of glass, the means for securing said panes or plates of glass in said opening comprising frame members which extend across said opening in said oven door between adjacent panes or plates of glass, the ends of which are adapted to be clamped in the rabbet in the door proper by the projecting edges of the door lining around the opening therein and which are provided with grooves adapted to receive the edges of said panes or plates of glass, said grooves being slightly wider than the edges of the panes or plates of glass which they are adapted to receive, substantially as described.

3. An oven door comprising a door proper and a lining therefor, said door proper and lining being provided with corresponding openings together forming an opening through said oven door, said door proper being also provided with a rabbet around the opening therein and the edges of the door lining around the opening in said lining projecting over the rabbet in the door proper, a window comprising a plurality of relatively small panes or plates of glass secured in the opening in said oven door for closing the same, the outer edges of said panes or plates of glass extending into the space between the rabbet in said door proper and the edges of the door lining around the opening therein which project over said rabbet, said space being slightly wider than the thickness of said panes or plates of glass, the means for securing said panes or plates of glass in said opening comprising frame members which extend across said opening in said oven door between adjacent panes or plates of glass, the ends of which are adapted to be clamped in the rabbet in the door proper by the projecting edges of the door lining around the opening therein and which are provided with grooves adapted to receive the edges of said panes or plates of glass, said grooves being formed by thin metal flanges and being slightly wider than the edges of the panes or plates of glass which they are adapted to receive and being contracted at their outer ends so as to bear upon the surfaces of said panes or plates of glass with a slight frictional engagement, substantially as described.

4. An oven door comprising a door proper and a lining therefor, said door proper and lining being provided with corresponding openings together forming an opening through said oven door, said door proper being also provided with a rabbet around the opening therein and the edges of the door lining around the opening in said lining projecting over the rabbet in the door proper, a window comprising a plurality of relatively small panes or plates of glass secured in the opening in said oven door for closing the same, the outer edges of said panes or plates of glass extending into the space between the rabbet in said door proper and the edges of the door lining around the opening therein which project over said rabbet, the means for securing said panes or plates of glass in said opening comprising frame members which extend across said opening in said oven door between adjacent panes or plates of glass the ends of which are adapted to be clamped in the rabbet in the door proper by the projecting edges of the door lining around the opening therein and which are provided with grooves adapted to receive the edges of said panes or plates of glass, substantially as described.

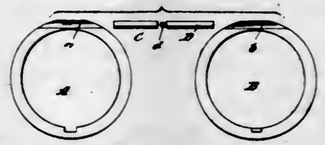
2. An oven door comprising a door proper and a lining therefor, said door proper and lining being provided with corresponding openings together forming an opening through said oven door, said door proper being also provided with a rabbet around the opening therein and the edges of the door lining around the opening in said lining projecting over the rabbet in the door proper, a window comprising a plurality of relatively small panes or plates of glass secured in the opening in said oven door for closing the same, the outer edges of said panes or plates of glass extending into the space between the rabbet in said door proper and the edges of the door lining around the opening therein which project over said rabbet, said space being slightly wider than the thickness of said panes or plates of glass, the means for securing said panes or plates of glass in said opening comprising frame members which extend across said opening in said oven door between adjacent panes or plates of glass, the ends of which are adapted to be clamped in the rabbet in the door proper by the projecting edges of the door lining around the opening therein and which are provided with grooves adapted to receive the edges of said panes or plates of glass, said grooves being formed by thin metal flanges and being slightly wider than the edges of the panes or plates of glass which they are adapted to receive and being contracted at their outer ends so as to bear upon the surfaces of said panes or plates of glass with a slight frictional engagement, substantially as described.

3. An oven door comprising a door proper and a lining therefor, said door proper and lining being provided with corresponding openings together forming an opening through said oven door, said door proper being also provided with a rabbet around the opening therein and the edges of the door lining around the opening in said lining projecting over the rabbet in the door proper, a window comprising a plurality of relatively small panes or plates of glass secured in the opening in said oven door for closing the same, the outer edges of said panes or plates of glass extending into the space between the rabbet in said door proper and the edges of the door lining around the opening therein which project over said rabbet, the means for securing said panes or plates of glass in said opening comprising frame members which extend across said opening in said oven door between adjacent panes or plates of glass the ends of which are adapted to be clamped in the rabbet in the door proper by the projecting edges of the door lining around the opening therein and which are provided with grooves adapted to receive the edges of said panes or plates of glass, the frame members which receive adjacent edges of adjacent panes or plates forming a substantially unitary structure, substantially as described.

5. An oven door comprising a door proper and a lining therefor, said door proper and lining being provided with corresponding openings together forming an opening through said oven door, said door proper being also provided with a rabbet around the opening therein and the edges of the door lining around the opening in said lining projecting over the rabbet in the door proper, a window comprising a plurality of relatively small panes or plates of glass secured in the opening in said oven door for closing the same, the outer edges of said panes or plates of glass extending into the space between the rabbet in said door proper and the edges of the door lining around the opening therein which project over said rabbet, the means for securing said panes or plates of glass in said opening comprising frame members which extend across said opening in said oven door between adjacent panes or plates of glass the ends of which are adapted to be clamped in the rabbet in the door proper by the projecting edges of the door lining around the opening therein and which are provided with grooves adapted to receive the edges of said panes or plates of glass, the frame members which receive adjacent edges of adjacent panes or plates of glass being formed from an integral strip of thin sheet metal comprising connected web sections disposed with their rear surfaces in contact, means for connecting the outer ends of said web sections and outwardly projecting marginal flanges on said web sections, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

939,530. HINGE-JOINT FOR LOCKETS, &c. EDWARD MORRIS, Newark, N. J., assignor to The Shiman Miller Manufacturing Company, New York, N. Y., a Corporation of New York. Filed Feb. 29, 1908. Serial No. 418,422.



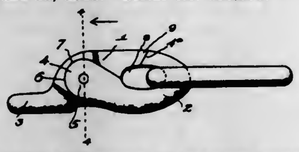
1. In a hinge joint, the combination with two members to be hinged together, of a pintle consisting of two parts having a swivel connection one with the other, one part of the pintle being secured to one member and the other part to the other member.

2. In a hinge joint, the combination with two members to be hinged together, each member having a groove formed therein, said grooves when opposed to each other forming a bore, of a pintle formed of two parts having a swivel connection one with the other, said pintle fitting in said bore, and means for securing one part of the pintle to one member and the other part to the other member.

3. The combination with two halves of a locket each having a transverse groove near its edge and said grooves together forming a semi-cylindrical bore when the two halves are in contact face to face, of a pintle fitted in said bore and consisting of two parts having a swivel connection one with the other, and means for securing one part of the pintle to one half of the locket and the other part to the other half.

4. The combination with two halves of a locket each having a transverse groove near its edge and said grooves together forming a semicylindrical bore when the two halves are in contact face to face, of a pintle fitted in said bore and consisting of two parts one having a threaded bore and the other a reduced and threaded end portion to fit said bore, and means for securing one part of said pintle to one-half of the locket and the other part to the other half.

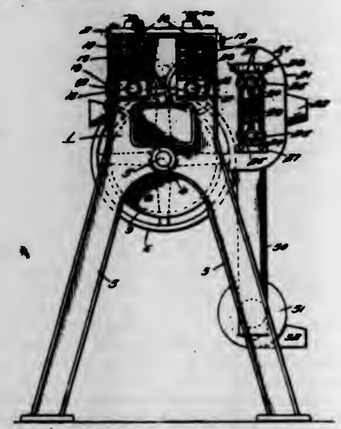
939,531. SNAP-HOOK. THOMAS T. MORROW, Ray, Ind. Filed June 15, 1908. Serial No. 438,653.



1. A snap hook comprising an attaching tongue or shank member provided with a notch or recess in its front end forming vertically spaced arms, the front ends of which are beveled or inclined downwardly and inwardly, the incline of one arm being in a plane at an angle to the incline of the other arm, and a hook member having its rear end bifurcated to receive said shank member and pivotally connected thereto, said hook member having a shoulder arranged between the arms thereof with its face inclined downwardly and outwardly and adapted to engage the inclined end of the lower arm of the shank member, the free end of the hook beak being beveled downwardly and outwardly to engage the beveled end of the upper shank arm.

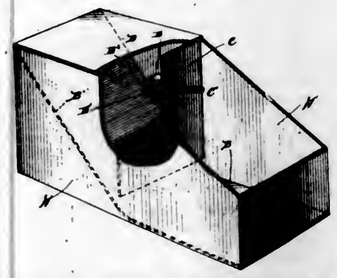
2. A snap hook comprising an attaching or shank member having a loop at one end arranged at right angles thereto and recesses at opposite sides thereof with curved walls at the rear ends of said recesses, the front end of said shank member having a recess therein forming longitudinally extending arms arranged above and below the recess, the front end of said arms being inclined or beveled downwardly and inwardly at different angles, the lower arm being longer than the upper and having a greater inclination, and a hook member having its rear end bifurcated to receive said shank member, with the terminations of said bifurcated ends rounded to fit against the curved rear walls of the side recesses of said shank member and pivoted to said shank, said hook member having a shoulder between the arms thereof with its face inclined downwardly and outwardly and adapted to engage the inclined end of the lower arm of the shank member, the free end of the hook beak being beveled downwardly and outwardly to engage the beveled end of the upper shank arm.

939,532. COTTON-BALE-TIE STRAIGHTENING AND CLEANING MACHINE. FRANK M. MORTON and WILLIAM H. DISMUKE, Phoenix, Ariz. Filed Feb. 4, 1909. Serial No. 476,086.



In a machine of the character described, a supporting frame, a series of straightening rolls, revolubly mounted in said frame, means to operate said rolls, a brush casing, rigid brackets thereon, parallel guide rods removably mounted in said brackets, bearings freely slidably mounted on said rods, brush shafts journaled in said bearings, cleaning brushes mounted on said shafts within said casing, and a spiral spring connecting said bearings so as to normally hold the brushes in engagement together with a suction tube connected to the casing.

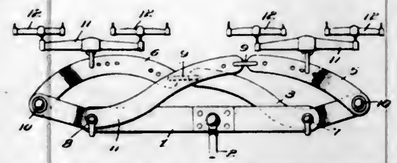
939,533. FEED-BOX. ALFRED D. MYERS, Colchester, Ill. Filed Dec. 8, 1908. Serial No. 466,434.



1. A feed box comprising a rectangular shaped box having one end cut away, a bottom arranged within the box having an inclined portion, a partition arranged within the box over the lower end of the inclined portions of the bottom said partition being provided with a plurality of perforations, a cover for closing one end of the box and a vessel arranged over the perforations of the partition within the closed portion of the box having a nozzle, a cap for closing said nozzle, said vessel being adapted to contain medicine whereby the same will be inhaled by an animal as he eats out of the box.

2. A feed box provided with a bottom, having an inclined portion, a partition arranged within said feed box forming a hopper, and a feed box proper, said hopper being closed by a hinged lid, said partition having openings formed therein, and a vessel arranged over said openings within said hopper for holding medicine.

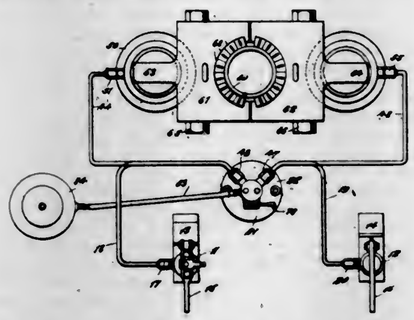
939,534. FOUR-HORSE DOUBLETREE. MICHAEL McEVOY, Neola, Iowa. Filed Mar. 9, 1909. Serial No. 482,380.



A four-horse doubletree or draft appliance constructed substantially as herein set forth, the same comprising a swingletree, equalizing levers arranged upon opposite sides of the swingletree and pivotally connected to the end portions thereof to provide outwardly extending short arms and inwardly projecting long arms having their end portions overlapping, the arms of said levers being forwardly diverged and having the end portions of the long arms rearwardly deflected, draft levers pivotally connected at their outer ends to the short arms of the respective equalizing levers and having their inner ends adjustably connected to the long arms of the opposite equalizing levers, said draft levers being longitudinally curved and arranged with their concaved edges facing rearwardly, and doubletrees adjustably connected with the draft levers intermediate the ends of the latter and provided with swingletrees.

939,535. HYDRAULIC-PRESSURE GENERATING AND APPLYING DEVICE. JAMES W. NELSON, New York, N. Y. Filed Feb. 14, 1908. Serial No. 415,868.

1. In combination, a plurality of separate and independently operating mechanisms for generating hydraulic pressure, a plurality of separate devices for conjointly applying the generated pressures, and means for equalizing the applied pressures and for rendering effectively inoperative one or all of said generating mechanisms.



2. In combination, a plurality of separate and independently operating mechanisms for generating hydraulic pressures, a plurality of devices for conjointly applying the generated pressures, and means for equalizing the applied pressures and for rendering effectively inoperative one or more of said generating mechanisms and for simultaneously relieving the applied pressures.

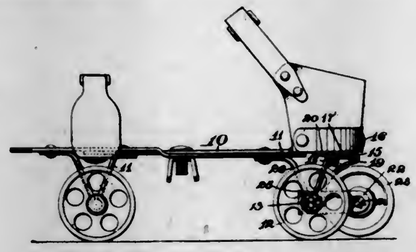
3. In combination, a plurality of independently operating pumps, a plurality of devices conjoining to apply the generated pressures, and means common to all of said elements for equalizing, controlling and finally simultaneously relieving the applied pressures.

4. In combination, a plurality of pumps, a plurality of devices separate therefrom conjoining to apply the generated pressures, and a flexible conduit from each of said pumps and to each of said applying devices, said conduits uniting in a member which is provided with means for controlling the flow through said conduits.

5. In combination, a plurality of pumps, a plurality of devices separate therefrom for applying the generated pressures, means for effecting the conjoint action of said applying devices, and a flexible conduit from each of said pumps, and to each of said applying devices, said conduits uniting in a member which is provided with means for rendering effective operations of one only of said pumps and for equalizing the applied pressures.

[Claims 6 to 8 not printed in the Gazette.]

939,536. BRAKE FOR ROLLER-SKATES. SAMUEL J. NESBITT, Sr., Elizabeth, N. J. Filed May 22, 1909. Serial No. 497,692.



1. In a roller skate the combination of a bracket, a shaft in the bracket and skate wheels on the shaft, a brake-wheel, means for suspending the brake-wheel so that it can swing on the shaft, and a flexible braking-strip so disposed that it is compressed between the bracket and the brake-wheel when the skate is tilted backward.

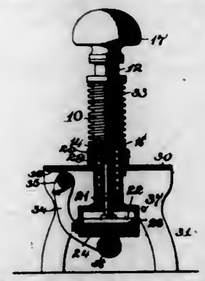
2. In a roller skate the combination of a bracket, a shaft on the bracket, skate wheels on the shaft, with a U-shaped yoke pivotally arranged on the shaft and adapted to have its movement limited to one direction by the bracket, a brake-wheel rotatably mounted in the yoke, and a flexible braking-strip disposed between the bracket and the brake-wheel so as to be compressed between them when the skate is tilted backward.

3. In a roller skate the combination of a bracket, a shaft on the bracket, skate wheels on the shaft, with a U-shaped yoke pivotally arranged on the shaft and adapted to have its movement limited to one direction by the bracket, a brake-wheel rotatably mounted in the yoke, and a flexible braking-strip having one end secured between the bracket and the skate and having its free end suspended between the brake-wheel and the bracket.

4. In a roller skate, a supporting bracket having a bearing, a shaft in the bearing, skate wheels on the shaft, the bracket having upwardly divergent arms, one of the arms being recessed, a yoke arranged to swing on the shaft, a brake-wheel rotatably mounted in the yoke, and a braking-strip having one end secured in the recess of the bracket and having its other end suspended between the brake-wheel and the recessed arm of the bracket.

5. In a roller skate, a supporting bracket having a bearing, a shaft in the bearing, skate wheels on the shaft, the bracket having upwardly divergent arms, one of the arms being recessed, a yoke arranged to swing on the shaft, a brake-wheel rotatably mounted in the yoke, and a braking-strip having wings on one end, the winged end being adapted to be arranged in the recess of the bracket, the wings limiting the movement of the strip in one direction, the free end of the strip being suspended between the brake-wheel and the recessed arm of the bracket.

939,537. STAMP-AFFIXER. EINAR W. NIELSEN, Hoboken, N. J. Filed June 8, 1909. Serial No. 500,004.



1. A stamp affixer comprising a sleeve, a plunger in the sleeve, a grip on the end of the plunger, a stamp receptacle on the bottom of the sleeve, means for holding stamps in the receptacle, a moistening roll, means for pivotally suspending the moistening roll beneath the stamp receptacle, and means for passing the moistening roll across the bottom of the stamps when the stamp receptacle is forced downward.

2. A stamp affixer comprising a sleeve, a plunger in the sleeve, a grip on the end of the plunger, a stamp receptacle on the bottom of the sleeve, means for holding stamps in the receptacle, a moistening roll, means for pivotally suspending the moistening roll beneath the stamp receptacle, means for passing the moistening roll across the bottom of the stamps when the stamp receptacle is forced downward, and means for returning the moistening roll to its normal position on the return of the stamp receptacle without touching the stamps.

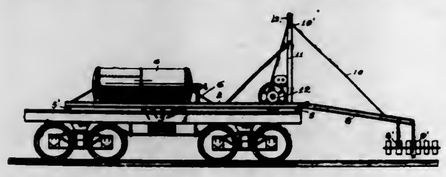
3. A stamp affixer comprising a standard, a reciprocating stamp receptacle in the standard, means for operating the receptacle, a moistening device, means for passing the moistening device across the bottom of the receptacle when the receptacle is forced from its normal position, and means for returning the moistener to its normal position when the receptacle returns to its normal position, the returning means preventing the engagement of the moistener with the stamp receptacle on its return.

4. A stamp affixer comprising a standard, a stamp receptacle adapted to reciprocate therein, means for reciprocating the receptacle, means for holding stamps in the receptacle, arms arranged to swing in the standard, a moistener on the arms, co-acting means between the receptacle and the arms for passing the moistener across the stamps when the receptacle is forced downward, and co-acting means on the receptacle and the arms to prevent the engagement of the moistener with the stamps in the receptacle when the receptacle and the arm are returned to their normal position.

5. A stamp affixer comprising a standard, a stamp receptacle, means for reciprocating the stamp receptacle, arms arranged to swing in the standard, a moistening roll on the arms, a pin on the receptacle, a cam surface on the arms along which the pin travels on the descent of the receptacle to swing the arms, the moistener on the arms adapted to pass along the bottom of the receptacle to moisten the stamps when the arms are swung, and means on the arms for preventing the engagement of the pin with the cam surface on the return of the arms and the receptacle.

[Claims 6 and 7 not printed in the Gazette.]

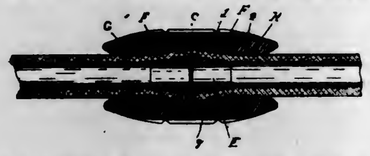
939,538. WEED-BURNING CAR. GEORGE L. O'NEALE, San Jose, Cal. Filed Mar. 18, 1909. Serial No. 484,246.



1. A weed burning car, the same comprising a suitable railway car, an auxiliary platform rotatably mounted thereon, an oil reservoir mounted thereon, a swinging ladder or frame hinged to one end of the auxiliary platform, a weed burning appliance carried at the outer end portion thereof, an oil feed pipe for delivering oil from the reservoir to the burner, and means on the auxiliary platform for raising and lowering the swinging ladder or frame and the burner appliance carried thereby.

2. A weed burning car, the same comprising a suitable railway car, an auxiliary platform rotatably mounted thereon, a swinging ladder or frame hinged to one end of the auxiliary platform, a weed burning appliance carried at the outer end portion thereof, and means on the auxiliary platform for raising and lowering the swinging ladder or frame and the burner appliance carried thereby.

939,539. PIPE-COUPLING. FRANK C. PAHLOW, Detroit, Mich., assignor of one-half to Antonio C. Pessano, Detroit, Mich. Filed May 22, 1908. Serial No. 434,307.



1. In a coupling, the combination with adjoining sections of hose, of tubular clamps applied to the hose ends leaving meeting portions of the hose between the clamps, each of said clamps consisting of a tapering thimble and a correspondingly tapered wedge ring encircling said hose, tubular coupling nuts swiveled upon said rings, each of said nuts having a reduced externally threaded inner end and the outer end being fashioned to form a hand grip, and an internally threaded coupling sleeve engaging the reduced threaded sections of the coupling members.

2. In a coupling, the combination with adjoining sections of hose, of tubular clamps applied to the hose ends, leaving meeting portions of the hose between the clamps, each of said clamps consisting of a tapering thimble within the hose end, a correspondingly tapered wedge ring encircling said hose and having a smooth cylindrical outer surface, tubular coupling nuts swiveled upon said rings, each of said coupling nuts being formed with a shoulder abutting against the rear end of its respective ring and having a reduced externally threaded inner end and the outer end fashioned to form a hand grip, the threads of both of said nuts being pitched in the same direction, and an internally threaded coupling sleeve engaging the reduced threaded sections of the coupling members, said coupling nuts and said sleeve being so shaped and arranged that the outer surfaces longitudinally of said members form a substantially uniform curved surface.

3. In a coupling, the combination with adjoining sections of hose, of tubular clamps applied to the hose ends leaving meeting portions of the hose between the clamps, each of said clamps consisting of a tapering thimble and a correspondingly tapered wedge ring encircling said hose, tubular coupling nuts swiveled upon said rings, each of said nuts being formed with a shoulder abutting against the rear end of its respective ring and having an externally threaded inner end and the outer end being fashioned to form a hand grip, the threads on both of said nuts being pitched in the same direction, and an internally threaded coupling sleeve engaging the externally threaded portions of the coupling members.

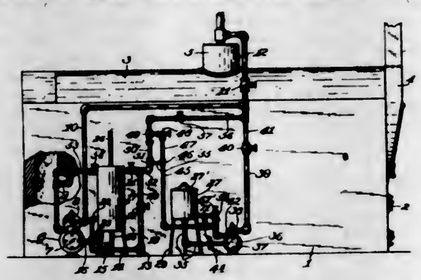
4. In a coupling, the combination with adjoining sections of a hose, clamps applied to the hose ends leaving meeting portions of the hose between the clamps, each of said clamps consisting of a thimble and a corresponding wedge ring encircling said hose, coupling nuts swiveled upon said rings, each provided with a shoulder abutting against the rear end of its respective ring and having an externally threaded inner end, the threads on both of said nuts being pitched in the same direction, and an internally threaded coupling sleeve engaging the external threaded portions of the coupling members.

5. In a coupling, the combination with adjoining sections of hose, of tubular clamping nuts applied to the hose ends, leaving meeting portions of the hose between the clamps, each of said clamps consisting of a tapering thimble within the hose end, and a corresponding tapered wedge ring encircling said hose and having a smooth cylindrical outer surface, tubular coupling nuts swiveled upon said wedge rings, each having a recessed inner face engaging its respective wedge ring whereby a shoulder is formed abutting against the rear end of the ring, and having a reduced externally threaded inner end and the outer end fashioned to form a hand grip, the threads of both of said nuts being pitched in the same direction, and an internally threaded coupling sleeve engaging the reduced threaded sections of the coupling members, said coupling nuts and said sleeve being so shaped and arranged that the outer surfaces longitudinally of said members form a substantially uniform curved surface.

939,540. BOILER-COMPOUND MIXER AND FEEDER. THOMAS E. PALMER and WILLIAM W. BAKER, Elwood, Ind. Filed May 24, 1909. Serial No. 498,047.

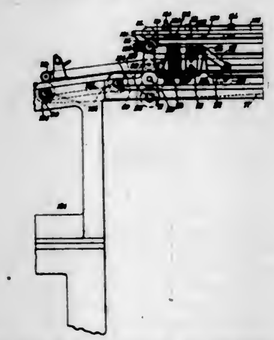
1. Means for mixing and feeding boiler compound including a mixing tank, a force-pump, a supply-pipe leading from the tank to the force-pump, a discharge-pipe leading from the force-pump, a branch-pipe leading from the discharge-pipe to the tank and provided with a weighted valve to normally close the passage therethrough, a valve for partially closing the discharge-pipe to create pressure therein for opening the weighted valve, and a jet-pipe in the tank connected to the branch-pipe.

2. A boiler compound mixer and feeder including a mixing tank, a force-pump, a supply-pipe leading from the tank to the force-pump, a strainer in the tank over the opening of the supply-pipe, a discharge-pipe leading from the force-pump, a branch-pipe leading from the discharge pipe to the tank and having a valve-case connected therewith, a valve seated in the valve-case, a spring normally holding the valve to the seat, means for adjusting the tension of the spring, two concentrically-arranged curved



jet-pipes in the tank connected with the branch-pipe, a valve connected with the discharge-pipe, and a sight-feed glass connected with the discharge-pipe.

939,541. SHEET-INVERTING APPARATUS FOR USE IN CONNECTION WITH PRINTING-MACHINES. THOMAS R. G. PARKER, Broadheath, England, assignor to Linotype and Machinery Limited, London, England. Filed July 22, 1907. Serial No. 384,960.



1. In sheet inverting apparatus, the combination of two superposed boards, endless tapes encircling each of them, devices adapted to raise and lower the upper flights of the tapes relatively to the boards, other endless tapes adapted to coöperate with the upper flight of the first-mentioned ones when these flights are raised, for moving the sheets over the respective boards in the general line of travel of such sheets, an adjustable switch adapted to direct the sheets to the upper or lower set of coöperating tapes, sheet guiding devices adapted to guide the sheets from the upper side of the upper board to the under side thereof in a direction transverse to their general line of travel, and rollers adapted to nip the sheets and move them off the lower board in the direction of their general line of travel.

2. In sheet inverting apparatus, the combination of two superposed boards, endless tapes encircling each of them and adapted to move the sheets over the respective boards in the general line of travel of such sheets, sheet guiding devices adapted to guide the sheets from the upper side of the upper board to the under side thereof in a direction transverse to their general line of travel, and devices adapted to move the sheets off the lower board in the direction of their general line of travel.

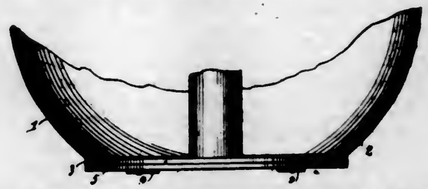
3. In sheet inverting apparatus, the combination of two superposed boards, endless tapes encircling them and adapted to move the sheets over the respective boards in the general line of travel of such sheets, grooves in the boards adapted to receive the upper fight of the tapes, devices adapted to raise and lower the said fights out of and into the grooves, a gripper cylinder adapted to guide the sheets off the upper board to the lower board, and devices adapted to move the sheets off the lower board in the direction of their general line of travel.

4. In sheet inverting apparatus, the combination of two superposed boards, endless tapes encircling each of them and adapted to move the sheets thereover in the general line of travel of such sheets, sheet guiding devices adapted to guide the sheets from the upper side of the upper board to the under side thereof in a direction transverse to their general line of travel, endless chains encircling the lower board and adapted to receive the sheets from the last named guiding devices, move them over the said lower board in a direction transverse to their general line of travel, and deliver them to the above named tapes which encircle the lower board.

5. In sheet inverting apparatus, the combination of two superposed boards, endless tapes encircling each of them and adapted to move the sheets thereover in the general line of travel of such sheets, sheet guiding devices adapted to guide the sheets from the upper side of the upper board to the under side thereof in a direction transverse to their general line of travel, endless chains encircling the lower board, sheet grippers adapted to receive the sheets from the last named guiding devices, and devices adapted to open the grippers to release the sheets.

[Claims 6 to 12 not printed in the Gazette.]

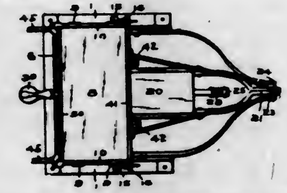
939,542. LANTERN. JOHN H. PENCE, Greeneville, Tenn. Filed Jan. 29, 1909. Serial No. 474,918.



1. The combination with a lantern of the class set forth, of a base for said lantern, said base comprising a disk having a central reduced opening, a peripheral ring member upon its under face, a candle holding member adapted to be positioned within the ring member, and resilient securing members pivotally connected with the ring member adapted to engage the under face of the candle holding member to sustain the same in position against the under face of the disk member.

2. A base for candle lanterns comprising a disk having a central candle opening, a peripheral depending ring member, resilient buttons pivotally connected with the ring member adjacent to its inner edge, said buttons being each provided with an upturned tongue, and a candle supporting disk adapted to be positioned within the ring member and to be contacted by the resilient buttons.

939,543. CONCRETE-BLOCK MACHINE. CHARLES E. PHILLIPS, Indianapolis, Ind. Filed Aug. 7, 1908. Serial No. 447,496.



1. A machine of the above specified class comprising the supporting frame, a mold box supported by said frame, a movable core adapted to be laterally moved into said mold box, means adapted to move said core into the mold

box, and means adapted to move said core into an inclined position with relation to the horizontal during said inward movement into the box mold.

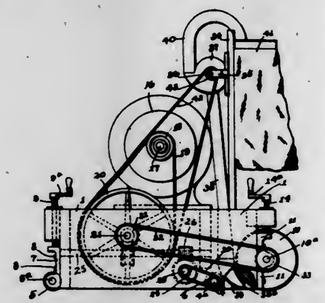
2. A machine of the above specified class comprising the supporting frame, a mold box supported by said frame, a movable core adapted to be laterally moved into said mold box, means adapted to be moved into said mold box, means adapted to prevent lateral movement of the core during said inward movement, and means adapted to move said core into an inclined position with relation to the horizontal during said inward movement into the box mold.

3. A machine of the above specified class comprising the supporting frame, a mold box supported by said frame, a movable core adapted to be moved into said mold box, means for moving said core into the mold box, means adapted to elevate said core above its normal path of travel during said inward movement, and means arranged in said mold box to permit said core to be elevated.

4. A machine of the above specified class comprising the supporting frame, a mold box comprising the back-plate rigidly fixed to the supporting frame, a front plate pivotally secured to said supporting frame, end plates pivotally secured to said front plate and provided with slots, a bottom plate adapted to engage the slots and be carried by said end plates, means for securing the front and end plates to the rear plate, a movable core adapted to be moved into the mold box, means for moving said core into the mold box, means adapted to elevate said core during said inward travel, and means arranged in said mold box to permit said core to be elevated.

5. A machine of the above specified class comprising the supporting frame, a mold box pivotally mounted on said frame, a movable core, means adapted to laterally move said core into and out of the mold box, a lever moved to its initial position by the outward travel of the core, said lever adapted to move said core into an inclined position with relation to the horizontal during the inward travel of said core into the mold box, and means adapted to normally hold said lever against the core.

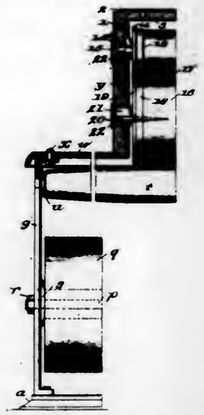
939,544. BOWLING-ALLEY FINISHING AND LEVELING MACHINE. ORSON L. PICKARD, Columbus, Ohio. Filed Feb. 18, 1909. Serial No. 478,636.



1. A machine of the character described comprising a frame, a bearing roller mounted upon the forward portion of said frame, a bearing roller mounted at the rear end of said frame, independent vertically adjustable bearing members in which the ends of the rear bearing roller are mounted, an abrading drum mounted at the forward end of the machine, independent vertically adjustable bearing members in which said abrading drum is journaled, a motor, means for driving one of the rollers from the motor and means for driving the abrading drum from the motor.

2. In a machine of the character described, the combination with a frame, said frame comprising parallel side members, of transverse spacing members, bearing members mounted upon the ends of the side members of the frame, means for vertically adjusting said bearing members with relation to the ends of said frame, said side members of the frame having overhanging end portions, screws threaded into said overhanging portions, the lower ends of said screws bearing upon said bearing members, a bearing roller journaled in said bearing members at one end of the frame, an abrading member journaled in said bearing members at the opposite end of the frame, a second bearing roller journaled in the frame intermediate the first named bearing roller and the abrading drum, a motor, means for driving said abrading drum from said motor, and means for driving the last named bearing roller from said motor.

939,545. AUTOMATIC ROLL-PAPER CUTTER AND PRINTER. GILBERT V. A. PINE, Baltimore, Md., assignor to Automatic Roll Paper Printer Manufacturing Company, Baltimore, Md., a Corporation of Delaware. Filed Mar. 11, 1909. Serial No. 482,681.



1. The combination of a supporting frame, a paper carrying roll journaled therein, a printing roll, and a guide roll in proximity thereto, said guide roll tapering from the center toward both ends, substantially as described.

2. The combination of a supporting frame, a paper carrying roll journaled therein, a guide roll also journaled therein, said guide roll being tapered from the center outwardly, a printing roll resting on said guide roll, and a blotting device, substantially as described.

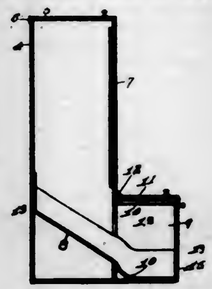
3. The combination of a supporting frame, a paper carrying roll journaled therein, a guide roll also journaled therein, said guide roll tapering from the center toward both ends, a printing roll resting on said guide roll, a blotting device, and a weighted knife adapted, in connection with the blotting device, to hold the end of the web of paper, substantially as described.

4. The combination of a supporting frame, a heavy knife pivotally mounted therein, a roll supported by said knife, a blotting roll against which said roll is adapted to bear, by the weight of said knife, a paper carrying roll journaled in said frame, a guide roll also journaled in said frame, said guide roll tapering from the center outwardly, and a printing roll resting on said guide roll, substantially as described.

5. The combination of a supporting frame, a blotting device mounted therein, a heavy knife pivotally mounted in said frame and provided with means for holding the end of the paper against the blotting device, a paper carrying roll journaled in said frame, a guide roll also journaled in said frame, said guide roll tapering from the center toward both ends, a printing roll resting on said guide roll, and an ink roll resting on said printing roll, said printing roll and ink roll being provided with coacting means for keeping them in proper relation to each other, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

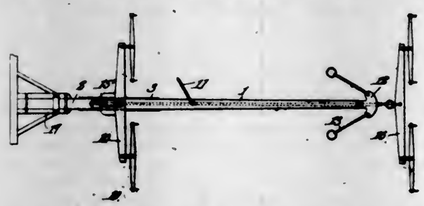
939,546. DISPLAY-BIN. ALFRED H. PLUMER, St. Louis, Mo. Filed Apr. 5, 1909. Serial No. 488,077.



1. A display bin comprising a main body section provided with a transparent window in its front wall; a hinged cover mounted upon said main body section; an extension bin mounted at the front of the main body section and communicating with the interior of the said main body section, the said extension bin being provided with front and side walls, said side walls being provided with inwardly projecting flanges at their tops, and said extension bin having a bottom which is concaved from front to back and from end to end, substantially as described.

2. A display bin comprising a main body section provided with a transparent window in its front wall; a hinged cover mounted upon said main body section; an extension bin mounted at the front of the main body section and communicating with the interior of the said main body section, the said extension bin being provided with front and side walls, said side walls being provided with inwardly projecting flanges at their tops, said extension bin having a bottom which is concaved from front to back and from end to end, and having a vertically and removably mounted front wall, substantially as described.

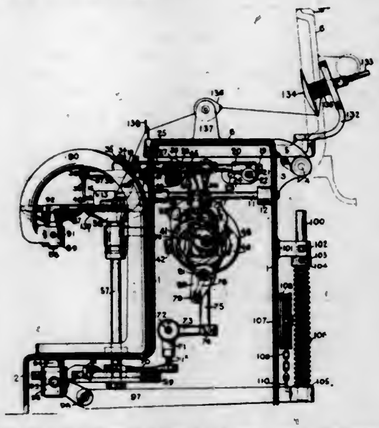
939,547. DRAFT-TONGUE. THOMAS POJAR, Dodge, Nebr. Filed Apr. 14, 1909. Serial No. 489,803.



A draft tongue comprising a main portion and a stub portion spaced from the main portion, side plates connecting the said portions together, a pulley journaled between the side plates and between ends of the said tongue portions, a bracket slidably mounted upon the said plates and having means for connection with a tree, a tip-iron fixed to the main portion of the tongue, a pulley journaled to the said tip iron, and a flexible means joined at one end to the said bracket and passing around the pulley journaled between the side plates and over the pulley at the tip-iron, and projecting beyond the end of the tongue for connection with a draft tree.

939,548. OVERSEAMING SEWING-MACHINE. EMIL PRAZAK, Elizabeth, N. J., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed May 29, 1907. Serial No. 376,291.

1. In an overseaming sewing machine, the combination with the main-shaft, a needle, and means connected with the main-shaft for reciprocating the same, of a looper-bar, a looper carried thereby, an oscillating bearing in which the rearward portion of said looper-bar is fitted to slide and oscillate, a sleeve loosely fitted upon said looper-bar in advance of said bearing and confined from endwise movement thereon, a transverse crank-shaft having crank-arms embracing said loose sleeve, a pivotal connection between said crank-arms and said sleeve, a crank mounted upon and axially adjustable on said crank-shaft, and an operative connection intermediate the main-shaft and said adjustably mounted crank.



2. In an overseaming sewing machine, the combination with the main-shaft, a needle, and means connected with the main-shaft for reciprocating the same, of a looper-bar, a looper-carrier comprising a collar fitted upon said looper-bar and adapted for adjustment longitudinally thereof, a looper having a shank secured to said looper-carrier and adjustable thereon transversely of the looper-bar, an oscillating bearing in which the rearward portion of said looper-bar is fitted to slide and oscillate, a sleeve loosely fitted upon said looper-bar in advance of said bearing and confined from endwise movement thereon, a rocking member having an axis of movement transversely of said looper-bar, an operative connection intermediate said loose sleeve and a point of said rocking member eccentric to its axis of motion, and an adjustable operative connection intermediate the main-shaft and said rocking member whereby the movements of the latter may be varied for different adjustments to correspondingly vary the operation of the looper.

3. In an overseaming sewing machine, the combination with the main-shaft, a needle, and means connected with the main-shaft for reciprocating the same, of a looper-bar, a looper-carrier comprising a collar fitted upon said looper-bar and adapted for adjustment longitudinally thereof, a looper having a shank secured to said looper-carrier and adjustable thereon both axially and transversely of the looper-bar, an oscillating bearing in which the rearward portion of said looper-bar is fitted to slide and oscillate, a sleeve loosely fitted upon said looper-bar in advance of said bearing and confined from endwise movement thereon, a rocking member having an axis of movement transversely of said looper-bar, an operative connection intermediate said loose sleeve and a point of said rocking member eccentric to its axis of motion, and an adjustable operative connection intermediate the main-shaft and said rocking member whereby the movements of the latter may be varied for different adjustments to correspondingly vary the operation of the looper.

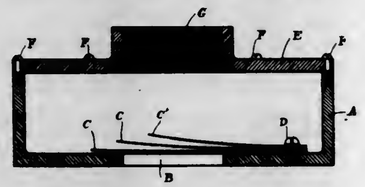
4. In an overseaming sewing machine, the combination with the main-shaft, a needle, and means connected with the main-shaft for reciprocating the same, of a looper-bar, a looper carried thereby, an oscillating bearing in which the rearward portion of said looper-bar is fitted to slide and oscillate, a transverse rod upon which said bearing is adapted to oscillate, a plurality of fixed bearings longitudinally disposed in respect of said looper-bar to which said

transverse rod is removably fitted for arrangement alternately in different longitudinal positions, a sleeve loosely fitted upon said looper-bar in advance of said bearing and confined from endwise movement thereon, a rocking member having an axis of movement transversely of said looper-bar, an operative connection intermediate said loose sleeve and a point of said rocking member eccentric to its axis of motion, and an operative connection intermediate the main-shaft and said rocking member.

5. In an overseaming sewing machine, the combination with a stand provided with a supporting platform, a sewing machine frame mounted thereon, a main-shaft journaled therein, a needle, and means connected with the main-shaft for reciprocating the same, of a looper-bar, a looper carried thereby, connections intermediate said main-shaft and looper-bar for imparting to the latter reciprocating, rising-and-falling and oscillating movements to cause the looper to coöperate with the needle in the production of overseaming stitches, a vertical feed-shaft, means connected with the main-shaft for imparting thereto step-by-step rotary movements, a horizontal feed-wheel mounted upon the feed-shaft adjacent the needle-path, a presser-wheel bracket pivotally mounted upon the frame and constructed with an upwardly extending arm and a rearwardly extending arm, a presser-wheel carried by said upwardly extending arm and adapted to coöperate with the feed-wheel in advancing the work to space the stitches, a spring interposed between a fixed member of the frame and said rearwardly extending arm of the presser-wheel bracket for forcing the same downwardly to yieldingly maintain the presser-wheel in operative relation with the feed-wheel, a pulley-wheel mounted upon the frame, a pulley-wheel mounted beneath the same upon the under side of the supporting platform, a knee-lever also pivotally mounted upon the under side of said platform, and a chain or cord connected with the rearwardly extending arm of the presser-wheel bracket and led upwardly over the first-named pulley and downwardly through the platform and around the second-named pulley and connected with said knee-lever.

[Claim 6 not printed in the Gazette.]

939,549. REED AIR-INTAKE REGULATOR FOR CARBURETERS. FREDERICK C. REINEKING, Jersey City, N. J. Filed June 3, 1909. Serial No. 499,938.



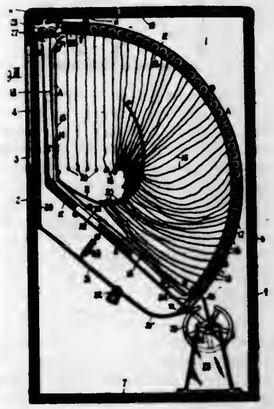
1. In reed air intake regulatora for carbureters, a plurality of reeds superimposed over a common air intake slot, said reeds being of different lengths.

2. In reed air intake regulators for carbureters, a plurality of reeds superimposed over a common air intake slot, said reeds being of different degrees of curvature.

939,550. REPEATING MECHANICAL SIGN APPARATUS. FLAVEL A. RUDOLPH, Maplewood, Mo. Filed July 27, 1908. Serial No. 445,504.

1. In a mechanical repeating sign apparatus, the combination of a casing, circuit runways in said casing, a plurality of sign carriers operable in said runways, signs carried by said carriers, means for imparting step by step movements to said sign carriers, and means interior of the circuit of, and independent of, said runways for supporting the inner ends of said signs during the movements of the sign carriers through the lower portions of the runways, substantially as set forth.

2. In a mechanical repeating sign apparatus, the combination of a casing, circuit runways in said casing, a plurality of sign carriers operable in said runways, signs carried by said carriers, means at the bottoms of said runways for imparting movement to said sign carriers in upward and forward directions whereby said carriers are moved to the fronts and tops of the runways, and a member having connection with said last named means whereby said sign carriers are temporarily arrested at the fronts and tops of the runways during the period that the signs are exposed to view, and previous to the descent of the carriers through normally unoccupied portions of the runways to the aforesaid means for imparting movement thereto, substantially as set forth.



3. In a mechanical repeating sign apparatus, the combination of a casing, runways in said casing, a plurality of sign carriers operable in said runways, signs carried by said carriers, an operating shaft, pusher arms carried by said shaft and arranged for engagement with said carriers, a controller wheel carried by said shaft, a rock shaft having catcher arms to receive said carriers and operable in said runways, and means operable by said controller wheel whereby said rock shaft is actuated to move said catcher arms into sign carrier receiving position, substantially as set forth.

4. In a mechanical repeating sign apparatus, the combination of a casing, runways in said casing, a plurality of sign carriers operable in said runways, signs carried by said carriers, an operating shaft, pusher arms carried by said shaft and arranged for engagement with said carriers, a controller wheel carried by said shaft, a rock shaft having catcher arms to receive said carriers operable in said runways, and spring governed means operable by said controller wheel whereby said rock shaft is actuated to move said catcher arms into sign carrier receiving position, substantially as set forth.

939,551. STRAINER AND SEPARATOR FOR GASOLENE-SUPPLY. GEORGE M. SCHEBLER, Indianapolis, Ind. Filed May 22, 1909. Serial No. 497,685.

1. A separator and strainer, comprising a main body having inlet and outlet openings, a hollow post communicating with the inlet passage, a screen arranged between the outlet from said post and the outlet from the main body, a water chamber arranged below said screen, and a cock for opening and closing the water chamber.

2. A separator and strainer, comprising a main body having inlet and outlet openings, a hollow post communicating with the inlet passage, a screen arranged between the outlet from said post and the outlet from the main body, a water chamber arranged below said screen, a partition separating said water chamber from the screen chamber, and a cock for opening and closing the water chamber.

3. A separator and strainer, comprising a main body having a main chamber, a hollow post carried by the main body and projecting from the lower end of said chamber, a screen surrounding the said post and arranged in the lower end of said chamber, a separator body surrounding said post, said separator body coöperating with the lower end of the main chamber to close the same and said separator body comprising a water chamber, and a stop cock for closing the lower end of said water chamber, the said hollow post having communicating passages forming communication from the interior thereof to a chamber below the screen and to the water chamber.



4. A separator and strainer, comprising a main body having a main chamber with an outlet passage, a hollow post carried by said main body and projecting downwardly beyond the open end of the main chamber and having an inlet passage therethrough, a screen arranged across the open lower end of the main chamber, a separator body sleeved upon the hollow post and engaging said post at an intermediate point, said separator body having a cup-shaped flange at its upper end to coöperate with the lower end of the main chamber of the main body and forming a chamber below the screen, and also having a water chamber surrounding the hollow post, the said hollow post having passages giving access to the chamber below the screen at a point immediately above the point of intermediate engagement of the separator body with the hollow post, and also having passages communicating from the interior of the post to the water chamber, and a stop-cock closing the lower end of the hollow post and the water chamber, said stop cock having threaded engagement with the hollow post and engaging the separator body to hold the same in place.

5. A separator and strainer, comprising a main body having a main chamber with an outlet passage, a hollow post carried by said main body and projecting downwardly beyond the open end of the main chamber and having an inlet passage therethrough, a screen arranged across the open lower end of the main chamber, a separator body sleeved upon the hollow post, said separator body having a cup-shaped flange at its upper end to coöperate with the lower end of the main chamber of the main body and forming a chamber below the screen, and also having a water chamber surrounding the hollow post, the said hollow post having passages giving access to the chamber below the screen, and also having passages communicating from the interior of the post to the water chamber, and a stop-cock closing the lower end of the hollow post and the water chamber.

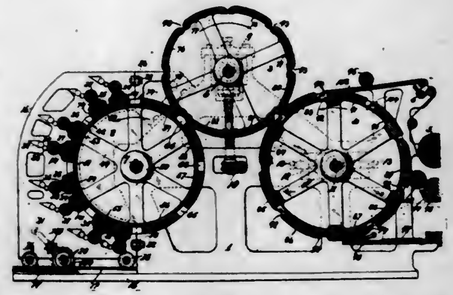
[Claims 6 to 8 not printed in the Gazette.]

939,552. PUZZLE. ALBERT SCHESNACK, Bevier, Mo. Filed Aug. 22, 1908. Serial No. 449,755.



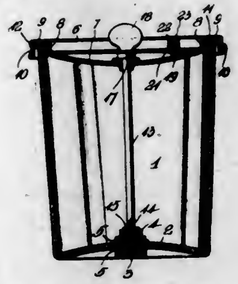
A puzzle of the class described consisting of interlocking frame-like members inclosing an open space, one of said members comprising a continuous body or frame provided with a lateral loop having spaced sides and arranged between the sides of said member, the other member comprising a frame formed with terminals one of which is an eye and the other of which projects through and beyond said eye, the loop of the first member being adapted to pass into the eye aforesaid, and the second member having a projection adjacent to its terminals forming a guide to facilitate interlocking of the two members after they have been separated.

939,553. MULTIPLE-PRINTING PRESS. AUGUST SCHEUERER, Jr., Hoboken, N. J. Filed June 21, 1906. Serial No. 322,667.



In a multiple-color printing machine, a paper cylinder having segmental surface subdivisions with intervening open spaces which contain gripping attachments adapted to receive and hold the sheets of material designed to be printed upon and placed on said segmental surface subdivisions, means for feeding the paper or other material in sheets from a continuous paper or material roll to the paper cylinder, a supplemental roller placed so as to come in surface contact with each of the printed sheets attached to the paper cylinder a reservoir for supplying neutralizing and drying solution to said supplemental roller, whereby the sheets of the paper are subjected to the action of the neutralizing and drying solution before receiving a second color imprint, substantially as described.

939,554. SEALED DRINKING VESSEL. JOHN C. SCHLEICHER, New York, N. Y. Filed Mar. 18, 1909. Serial No. 484,176.



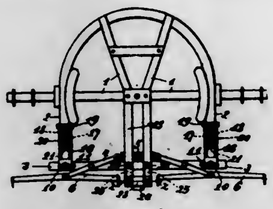
1. A device of the class described comprising a receptacle, a cap for the receptacle, a packing channel in the cap adapted to receive the rim of the receptacle, and means passing through the cap and connected to the bottom of the receptacle for sealing the cap upon the receptacle.

2. A device of the class described comprising a receptacle, a threaded plug secured in the bottom of the receptacle, a cap, a sealing ring carried thereby adapted to engage the rim of the receptacle and a rod passing through

the cap and threaded into the plug in the bottom of the receptacle whereby the cap is fastened and sealed upon the receptacle.

3. A device of the class described comprising a receptacle, a connecting device secured to the bottom of the receptacle, a cap for closing the mouth of the receptacle, means passing through the cap adapted to be adjustably secured to the connecting device for securing the cap upon the receptacle and a venting device carried by the cap.

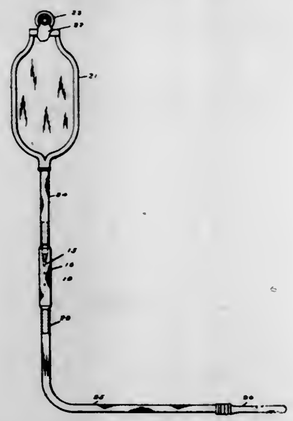
939,555. FORE-CARRIAGE OF VEHICLES. JACQUES SCHMITT, Zurich, Switzerland. Filed June 16, 1908. Serial No. 438,801.



1. In a fore-carriage, in combination, a cross-bar, substantially straight levers each of which being formed of two plates and inclined to the cross-bar to which the levers are pivoted, means attached to the levers for hanging the swingle-trees, a spring connecting the inner ends of said levers, divided lateral arms of the fore-carriage frame, springs between the parts of the lateral arms and means for securing the cross-bar to the movable parts of the lateral arms.

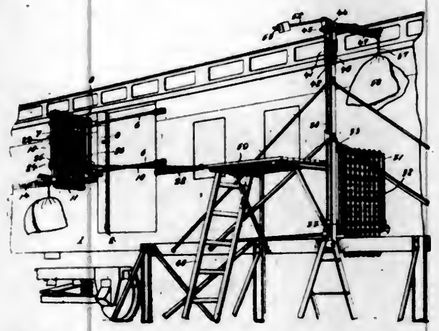
2. In a fore-carriage, in combination, a cross bar, means for adjustably and movably securing said cross bar to the fore carriage, a pair of levers mounted on said cross bar, a spring connecting the inner ends of said levers together, and means attached to the levers for hanging the swingle-trees.

939,556. LIQUID-DROPPER. EUKIDAS K. SCOTT, Kansas City, Mo. Filed June 11, 1909. Serial No. 501,552.



In liquid droppers, a liquid dispensing receptacle having a restricted discharge opening, means for supplying liquid to said receptacle, and a specific-gravity regulator for regulating the discharge of the liquid.

939,557. RAILWAY-MAIL CATCHER AND DELIVERER. WYATT T. SEBREE, Carrollton, Ky., assignor of one-sixth to J. Francis Jett, one-sixth to Henry Smith, one-sixth to Lewis Thoma, one-sixth to David M. Bridges, and one-sixth to Josiah Jett, Carrollton, Ky. Filed June 8, 1908, Serial No. 437,347. Renewed Apr. 5, 1909. Serial No. 488,073.



1. A mail catching and delivering apparatus for railway mail service comprising, in combination with a car, a frame pivotally mounted thereon, a netting mounted upon said frame, a rod pivoted at one end to said frame and its other end connected yieldingly to the car, and mail bag supporting means upon said frame, as set forth.

2. A mail catching and delivering apparatus for railway mail service comprising, in combination with a car, a frame pivotally mounted thereon, a netting mounted upon said frame, a rod pivoted at one end to said frame, a bar secured to the car, said rod having an eye through which said bar passes and a spring against which said eye bears yieldingly, and means upon the frame for supporting a mail bag, as set forth.

3. A mail catching and delivering apparatus for railway mail service comprising, in combination with a car, a frame pivotally mounted thereon, a netting mounted upon said frame, a rod pivoted at one end to said frame, a bar mounted horizontally upon the outer face of the car, one end of said rod having an eye through which said bar passes, a coiled spring upon said bar and against which said eye is adapted to bear yieldingly, as set forth.

4. A mail catching and delivering apparatus for railway mail service comprising, in combination with a car, a frame pivotally mounted thereon, a netting mounted upon said frame, an apron projecting from said frame, a bar pivoted to the swinging edge of said frame and having yielding connection with the car, as set forth.

5. A mail catching and delivering apparatus for railway mail service comprising, in combination with a car, a frame pivotally mounted thereon, a netting mounted upon said frame, an apron projecting from said frame, a bar pivoted to the swinging edge of said frame, a bar fastened to the side of the car, said rod having an eye through which said bar passes, a spring upon said bar and bearing yieldingly against said eye, and means upon said frame adapted to support a mail bag, as set forth.

[Claims 6 to 16 not printed in the Gazette.]

939,558. RIVET-SPINNING MACHINE. WENDELIN P. SENG, Chicago, Ill. Filed Feb. 15, 1909. Serial No. 478,079.

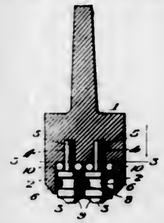
1. A rotary tool for riveting machines, comprising a rotary spindle, a pair of rollers mounted in the end of the spindle, gudgeons projecting from the center of the rollers into said spindle, and anti-friction bearings between the gudgeons and spindles for relieving the end-thrust and lateral strain on the rollers, substantially as shown and described.

2. A rotary tool for riveting machines, comprising a rotary spindle having a pair of circular recesses in its end

and bores extending into the spindle at the center of said recesses, grooved swaging rollers mounted in the recesses, gudgeons projecting from the center of the rollers into the bores, and anti-friction devices surrounding each gudgeon and interposed between the inner side of the roller and bottom of the recess, substantially as shown and described.

3. A rotary tool for riveting machines, comprising a rotary spindle having recesses at its outer end, each recess communicating with a bore extending into the spindle, swaging rollers mounted in the recesses side by side and having registering peripheral grooves, a pin extending transversely through the spindle and engaging in the aforesaid grooves, gudgeons extending from the center of the swaging-rollers into the bores, and anti-friction balls surrounding the gudgeons and interposed between the inner ends of the swaging-rollers and bottoms of the recesses.

4. A rotary tool for riveting machines, comprising a rotary spindle having recesses in its outer end, said recesses being separated at their inner ends by a dividing wall, swaging-rollers mounted side by side in the outer portions of the recesses and having gudgeons projecting into the inner portions of said recesses, and anti-friction balls surrounding the gudgeons and interposed between the inner ends of the rollers and bottoms of the recesses; together with means for holding the rollers rotatably in the spindle, substantially as shown and described.



5. A rotary tool for riveting machines, comprising a rotary spindle having recesses in its outer end, said recesses being separated at their inner ends by a dividing wall, swaging-rollers mounted side by side in the outer portions of the recesses and having registering peripheral grooves, a locking-pin extending transversely through the spindle and engaging in the grooves, gudgeons extending from the center of the swaging-rollers into the spindle at the bottom of the recesses, and anti-friction balls in the inner portions of the recesses around the gudgeons and interposed between the inner ends of the rollers and bottoms of the recesses, the anti-friction balls for one roller being separated from those for the other roller by the aforesaid dividing wall, substantially as shown.

939,559. RIVET-SPINNING MACHINE. WENDELIN P. SENG, Chicago, Ill. Filed Feb. 15, 1909. Serial No. 478,080.



1. A rotary tool for riveting machines, comprising a spindle, swaging rollers journaled therein on a single axle, means for separating the rollers within the spindle, and means for bringing the rollers together at the outer end of the spindle.

2. A rotary tool for riveting machines, comprising a spindle having a head with outwardly converging walls, swaging rollers journaled in the spindle-head between the converging walls and disposed at opposite inclinations, separating means between the inner ends of the rollers, and anti-friction devices between the sides of the rollers and aforesaid walls of the spindle-head.

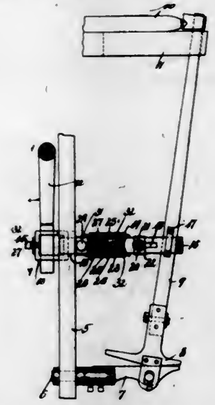
3. A rotary tool for riveting machines, comprising a spindle having a head with outwardly converging walls, swaging rollers journaled in the spindle-head between the converging walls on a single axle and disposed at opposite inclinations, separating means between the inner ends of the rollers, annular channels or race-ways in the outer sides of the rollers, and anti-friction balls in the race-ways to bear against the aforesaid walls of the spindle-head, substantially as shown and described.

4. A rotary tool for riveting machines, comprising a spindle having a head with outwardly converging walls, an axle extending between said walls, swaging rollers journaled in the spindle-head between the converging walls on said axle and disposed at opposite inclinations, and a tapered division plate projecting from the spindle-head into the space between the rollers at the inner ends of the latter.

5. A rotary tool for riveting machines, comprising a spindle, having outwardly converging walls, a bolt or axle extending between said walls, swaging rollers journaled on the bolt or axle and disposed at opposite inclinations, and a tapered wall projecting from the spindle into the space between the rollers, and engaging the bolt or axle, substantially as shown and described.

[Claim 6 not printed in the Gazette.]

939,560. PICKER-STICK MECHANISM FOR LOOMS. LEWIS P. SHERMAN, Biddeford, Me., assignor of one-half to Richmond H. Ingersoll, Biddeford, Me. Filed Nov. 29, 1907. Serial No. 404,353.



1. A picker stick mechanism having in combination, a picker stick, a picker shaft arm, a lug stick connected to said picker stick and said arm, said lug stick consisting of two blocks slidably connected together and rotatable relatively to each other, means to adjust said blocks toward and away from each other, and means connecting said blocks to each other and adapted to draw them toward each other.

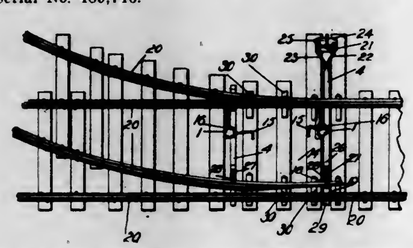
2. A picker stick mechanism having in combination, a picker stick, a picker shaft arm, a lug stick connected to said picker stick and said arm, said lug stick consisting of two blocks slidably connected together and rotatable relatively to each other, means to adjust said blocks toward and away from each other, and a spring connecting said blocks to each other and adapted to draw them toward each other.

3. A picker stick mechanism having in combination, a picker stick, a picker shaft arm, a lug stick connected to said picker stick and said arm, said lug stick consisting of two blocks, and a rod connecting said blocks to each other, said rod having screw-threaded engagement with one of said blocks and slidable within the other of said blocks, and means tending to draw said blocks toward each other whereby said lug stick is adapted to be extended when said picker stick strikes an object during its power stroke.

4. A picker stick mechanism, having in combination, a picker stick, a picker shaft arm, a lug stick connecting said picker stick and said arm, said lug stick consisting of two blocks, a rod connecting said blocks to each other, said rod having screw-threaded engagement with one of said blocks and slidable within the other of said blocks, and a spring arranged to draw said blocks toward each other, said lug stick being constructed and arranged to be extended when said picker stick strikes an object during its power stroke.

5. A picker stick mechanism, having in combination, a picker stick, a picker shaft arm, a lug stick connecting said picker stick and arm, said lug stick consisting of two blocks, a rod connecting said blocks together, said rod having screw-threaded engagement with one of said blocks and slidable within the other of said blocks, and means adapted to draw said blocks toward each other, said lug stick being constructed and arranged to be extended when said picker stick strikes an object during its power stroke.

939,561. SPLIT-SWITCH QUADRANT ADJUSTMENT. JAMES L. SOUTAR, Seattle, Wash. Filed Apr. 13, 1909. Serial No. 489,746.



1. In a split switch adjustment, a quadrant, means for connecting said quadrant to each of the points of the switch and means for swinging said quadrant on one of said connecting means.

2. In a split switch adjustment, a quadrant, means for connecting said quadrant to each of the points of the switch, means for swinging said quadrant on one of said connecting means, and means for locking said quadrant at a predetermined position whereby the points of the switch may be locked apart at a predetermined distance.

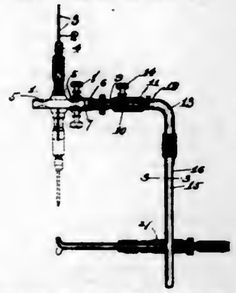
3. In an adjustment for point switches, a connecting rod and a switch stand operating said rod and means for connecting said connecting rod to one of the switch points, a quadrant and means for supporting said quadrant secured to the opposite switch point, means whereby said quadrant may be operated to adjust the distance between the points.

4. In an adjustment for point switches, a connecting rod and a switch stand operating said rod and means for connecting said connecting rod to one of the switch points, a quadrant and means for supporting said quadrant secured to the opposite switch point, means whereby said quadrant may be operated to adjust the distance between the points and a pin engaging a plurality of apertures in said quadrant whereby said quadrant may be locked at a predetermined position.

5. In a switch point adjusting device, a quadrant having an aperture provided therein, a quadrant supporting piece secured to one of the switch points engaging said aperture whereby said quadrant is pivotally connected to said switch point, said quadrant being provided with a plurality of holes concentrically disposed relative to said pivotal connection and a pin engaging one of said holes to lock said quadrant from swinging.

[Claim 6 not printed in the Gazette.]

939,562. MICROMETER. HENRY SPAHN, Chicago, Ill. Filed Dec. 19, 1908. Serial No. 468,409.



1. The combination with a depth-gage of a jointed L-shaped member removably secured at the free end of one arm to the base of said gage, said arm being separable between its ends and the parts thereof pivotally movable with relation to each other, means for holding said parts against relative movement, the other arm of said member being adapted to be held parallel with the rod of said depth gage, and a trammel point slidable on said last-named arm and having its free end disposed in axial alinement with said rod.

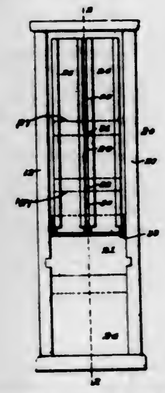
2. The combination with a depth-gage of a jointed L-shaped member removably secured at the free end of one arm to the base of said gage, said arm being separable between its ends and the parts thereof pivotally movable with relation to each other, means for holding said parts against relative movement, the other arm of said jointed member being adapted to be held parallel with the rod of said depth gage, a member slidable on said last-named arm, and a point member removably and adjustably mounted in said last named member and adapted to be adjusted thereon to bring the free end thereof into axial alinement with said rod.

3. The combination with a depth gage, of a jointed member removably secured to the base thereof, the parts of said jointed member being separable and rotatable relatively to each other, and a member adjustably engaged with said jointed member and having a point-portion disposed parallel with the axis of said jointed member, said last-named member being movable toward and away from said jointed member, the free end of said point-portion being adapted to be disposed in axial alinement with the rod of said depth-gage.

939,563. COIN-CONTROLLED VENDING-MACHINE. ELIJAH F. SPAULDING, Brooklyn, N. Y. Filed Feb. 19, 1909. Serial No. 478,839.

1. In a coin-controlled vending machine having a coin-slot plate and a tray for the goods to be sold, a slide below said plate, a handle for operating the slide, a pivoted goods-ejector carried by said slide, a coin-chute, a tiltable coin-receiver to receive the coin from said chute and become thereby tilted in the path of the lower end of said ejector to hold the same arrested during the movement of said handle and slide to carry the upper end of said ejector against the piece of goods sold, and a latch for locking the slide and handle in their inoperated position and operable from said receiver when it tilts under the weight of a coin to free said slide and handle; substantially as set forth.

2. In a coin-controlled vending machine having a coin slot plate and a tray for the goods to be sold, a slide below said plate, a handle for operating the slide, a pivoted goods-ejector carried by said slide, a coin-chute, a tiltable coin-receiver to receive the coin from said chute and become thereby tilted in the path of the lower end of said ejector to hold the same arrested during the movement of said handle and slide to carry the upper end of said ejector against the piece of goods sold, and a latch for locking the slide and handle in their inoperated position and operable from said receiver when it tilts under the weight of a coin to free said slide and handle, said latch being pivotally mounted and having a shoulder at one end to engage a part connected with said slide and a rear overbalancing portion to be engaged by the receiver, when the latter is tilted, to move said latch from its locking position; substantially as set forth.



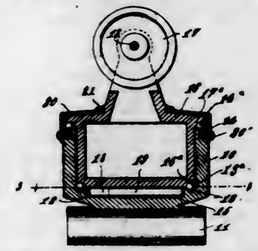
3. In a coin-controlled vending machine having a coin-slot plate and a tray for the goods to be sold, a slide below said plate, a handle for operating the slide, a pivoted goods-ejector carried by said slide, a coin-chute, a tiltable coin-receiver to receive the coin from said chute and become thereby tilted in the path of the lower end of said ejector to hold the same arrested during the movement of said handle and slide to carry the upper end of said ejector against the piece of goods sold, and a downwardly yieldable frame connected with and forming a part of said slide and supporting said ejector, whereby the latter is enabled to yield downwardly under the weight of goods in said tray after it has ejected the lower piece from the tray and is to return to its initial position; substantially as set forth.

4. In a coin-controlled vending machine having a coin-slot plate and a tray for the goods to be sold, a slide below said plate, a handle for operating the slide, a pivoted goods-ejector carried by said slide, a coin-chute, a tiltable coin-receiver to receive the coin from said chute and become thereby tilted in the path of the lower end of said ejector to hold the same arrested during the movement of said handle and slide to carry the upper end of said ejector against the piece of goods sold, and a downwardly yieldable frame connected with and forming a part of said slide and supporting said ejector and comprising two side arms pivotally connected with said slide, a rod connecting said arms on which said ejector is mounted and a spring having an upward tension against said frame; substantially as set forth.

5. In a coin-controlled vending machine having a coin-slot plate and a tray for the goods to be sold, a slide below said plate, a handle for operating the slide, a pivoted goods-ejector carried by said slide, a coin-chute, a tiltable coin-receiver to receive the coin from said chute and become thereby tilted in the path of the lower end of said ejector to hold the same arrested during the movement of said handle and slide to carry the upper end of said ejector against the piece of goods sold, and a downwardly yieldable frame connected with and forming a part of said slide and supporting said ejector and comprising two side arms pivotally connected with said slide, a rod connecting said arms on which said ejector is mounted, a transverse bar connecting said arms, a spring having an upward tension against said frame and a spring connected with said bar and flexed against the ejector for steadying the same and in one position of the ejector pressing the lower end of the same against the tilted coin-receiver; substantially as set forth.

[Claims 6 to 14 not printed in the Gazette.]

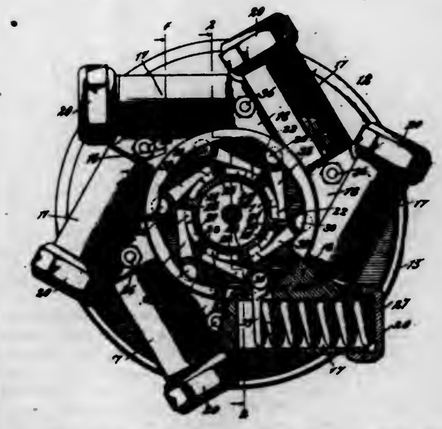
989,564. TROLLEY-HEAD. TYSON R. STAM, West Union, Iowa. Filed Apr. 13, 1909. Serial No. 489,720.



1. In a trolley head, the combination of a cup having a recess in its bottom, a turntable rotatably mounted within the cup, and having a lug projecting downwardly into said recess to engage opposite walls of the latter, and limit the rotation of the said cup, a spring mounted in the recess and connecting the cup with the lug of the turntable and normally holding said turntable in a predetermined position, said spring being housed between the bottom of the cup and the turntable, and a trolley wheel carried by the turntable.

2. In a trolley head, the combination of a cup having a recess in its bottom, said recess being sector-shaped and terminating at one end in a notch, a turntable rotatably mounted in said cup and having a lug extending into the recess to limit the rotation thereof, a leaf spring secured in said lug at one end and extending at its other end into said notch whereby the turntable will be maintained in normal position, means inclosing the cup and retaining the turntable in position, and a trolley wheel carried by the turntable.

939,565. SPRING-WHEEL. HORACE H. TAYLOR, San Jose, Cal., assignor of one-half to himself, and one-half to Frank J. Mayhew, San Francisco, Cal. Filed June 22, 1907. Serial No. 380,361.



1. The combination with an inner hub, an outer hub, and means for preventing the lateral movement of one upon the other, of a plurality of cylinders mounted upon

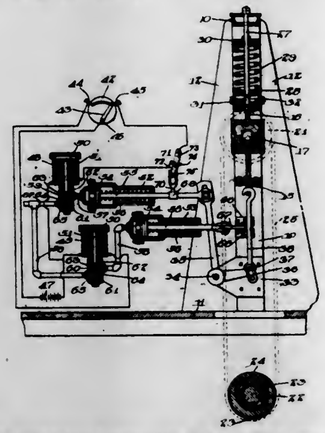
said outer hub, spiral springs inclosed in said cylinders, and rock-shafts having one of their arms enter said cylinders and engage said spiral springs and the other adapted to engage said inner hub.

2. The combination with an inner hub, an outer hub, and means for preventing the lateral movement of one upon the other, of cylinders mounted upon said outer hub, a spiral spring inclosed in each of said cylinders and rock shafts, each having one of its arms projecting within one of said cylinders and engaging the inner end of the spring therein, and having its outer arm extending substantially tangential to said inner hub and adapted to engage the same.

3. The combination with an inner hub, a circumferential member thereon having a plurality of recesses, an outer hub, and means for preventing the lateral movement of one of said hubs upon the other, of a plurality of cylinders carried on said outer hub and substantially at right angles with the radii of the inner hub which, projected, cross the inner ends of said cylinders, spiral springs in said cylinders, a plurality of rock-shafts having one of their arms adapted to engage the inner ends of said springs and the other of their arms extending substantially tangential to the said member on said inner hub and adapted to engage a recess thereon.

4. The combination with an inner hub provided with a peripheral recessed shoulder and with annular bearing plates, an outer hub consisting of an annular plate adapted to engage the bearing plates on said inner hub and a casing, of a plurality of cylinders on said casing, spiral springs carried by said cylinders, a spider removably secured within said casing, a ring carried in said casing and provided with a plurality of journals, and rock-shafts journaled in said ring and in said spider and provided with an arm adapted to engage the lower end of said springs and having the other arm extending substantially tangential to and adapted to engage said recessed peripheral shoulder on said inner hub.

939,566. TEMPERATURE-CONTROLLED TRANSMISSION MECHANISM. HORACE H. TAYLOR, San Jose, Cal., assignor of one-half to himself, and one-half to Frank J. Mayhew, San Francisco, Cal. Filed Aug. 2, 1907. Serial No. 386,792.



1. In a temperature-controlled transmission mechanism, the combination of a driven shaft, a second shaft yieldingly supported adjacent thereto, an endless belt connecting said two shafts, and temperature-controlled means for moving said yieldingly-supported shaft toward said first-mentioned shaft whereby said endless belt is slacked.

2. In a temperature-controlled transmission mechanism, the combination of a driven shaft, a second shaft yieldingly-supported adjacent thereto, an endless belt connecting said two shafts, a bell-crank lever, connections between one arm of said lever and said second shaft, and temperature-controlled means connected with the other arm of said lever whereby it is adapted to turn said lever and move said second shaft toward said first-mentioned shaft so that said endless belt is slacked.

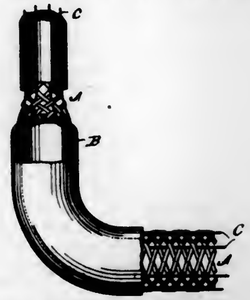
3. In a temperature-controlled transmission mechanism, the combination of a driven shaft, a second shaft yieldingly-supported adjacent thereto, an endless belt connecting said two shafts, temperature-controlled means for moving said yieldingly-supported shaft toward said first-mentioned shaft whereby said endless belt is slacked, and a latch adapted to automatically catch and hold said shaft when moved to its position nearer said first-mentioned shaft.

4. In a temperature-controlled transmission mechanism, the combination of a driven shaft, a second shaft yieldingly-supported adjacent thereto, an endless belt connecting said two shafts, temperature-controlled means for moving said yieldingly-supported shaft toward said first-mentioned shaft whereby said endless belt is slacked, a latch adapted to automatically catch and hold said shaft when moved to its position nearer said first-mentioned shaft, and temperature-controlled means for disengaging said latch.

5. In a temperature-controlled transmission mechanism, the combination of a driven shaft, a second shaft yieldingly-supported adjacent thereto, an endless belt connecting said two shafts, a bell-crank lever, connections between one arm of said lever and said second shaft, temperature-controlled means connected with the other arm of said lever whereby it is adapted to turn said lever and move said second shaft toward said first-mentioned shaft so that said endless belt is slacked, a latch adapted to automatically catch and hold said lever in its turned position, and temperature-controlled means for disengaging said latch.

[Claims 6 and 7 not printed in the Gazette.]

939,567. REINFORCED CONCRETE. FERDINAND THUN, Reading, Pa. Filed Oct. 21, 1907. Serial No. 398,440.



1. A reinforced structure of concrete or the like comprising a braided wire fabric provided with interwoven warp wires adapted to control extension of the fabric and concrete covering therefor filling the interstices of the fabric.

2. A reinforced structure of concrete or the like comprising a braided wire fabric provided with interwoven warp wires and adjustable in width by lengthwise stretching or contraction upon said warp wires, and concrete covering therefor filling the interstices of the adjusted fabric.

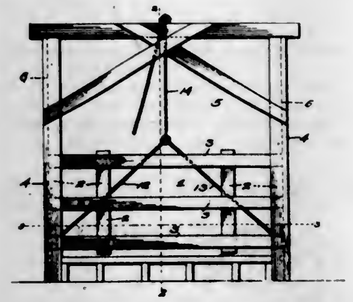
3. A reinforced structure of concrete or the like comprising a loosely braided tubular fabric of wire or the like provided with interwoven warp wires and adjustable in width by lengthwise stretching or contraction upon said warp wires and concrete covering therefor filling the interstices of the adjusted fabric.

4. A reinforced structure of concrete or the like comprising a loosely braided wire fabric provided with interwoven warp wires and having a portion thereof to one side of its longitudinal center line extended by stretching and an opposite portion contracted upon an interwoven warp wire to thereby form a bend.

5. A reinforced structure of concrete or the like comprising a loosely braided wire fabric provided with interwoven warp wires and having a portion thereof to one side of its longitudinal center line extended by stretching and an opposite portion contracted upon an interwoven warp wire to thereby form a bend, and concrete covering for said shaped fabric filling the interstices thereof.

[Claims 6 and 7 not printed in the Gazette.]

939,568. GATE. FRANK B. TICE, Polo, Ill. Filed Sept. 17, 1908. Serial No. 453,530.

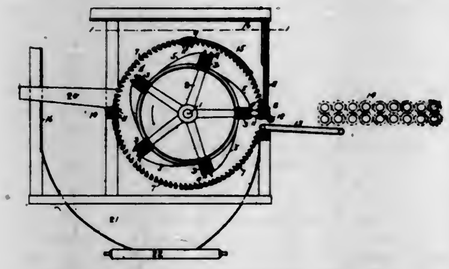


1. In combination, a sliding gate, a clutch bar pivoted thereto, a spring to normally hold the free end of the clutch bar in outward or braking position, and manually operable means to swing the free end of the clutch bar inwardly toward the gate or out of braking position.

2. In combination, a sliding gate, a pair of clutch bars pivoted to the upper edge and at opposite ends of the gate, springs between the free ends of the clutch bars and the gate to normally hold the former in outward or braking position, and pivotal means between the clutch bars and gate operable to swing the free ends of the former inwardly or out of braking position.

3. In combination, a sliding gate, a pair of clutch bars pivoted to the upper edge and at opposite ends of the gate, springs between the free ends of the clutch bars and the gate for normally holding the former in outward or braking position, links pivoted at their outer ends to the clutch bars and gate respectively and connected together at their inner ends, and cords connected to the inner ends of the links whereby said links cause the free ends of the clutch bars to swing inwardly out of braking position when a pull is exerted upon the said cords.

939,569. FIBER-CLEANING APPARATUS. JUSTIN K. TOLES, Los Angeles, Cal. Filed Sept. 4, 1907. Serial No. 391,395.



1. In a fiber cleaning apparatus, an outer casing provided with a delivery port, a rotary member, fiber cleaning devices and shields carried thereby, on the periphery thereof, said shields serving to throw fiber away from said rotary member, a casing comprising slats with beveled sides surrounding said rotary member, and a series of dampers to regulate admission of air passing through said casing to said delivery port.

2. In a fiber cleaning apparatus, in combination an outer casing provided with an open port through which cleaned fiber is delivered, a stationary member, a rotary member provided with deflecting shields, fiber cleaning devices carried by each of said members, an apertured casing surrounding said rotary member, said casing provided with scraping means, and means to regulate admission of air passing through said casing to said delivery port.

3. In a fiber cleaning apparatus, in combination, a rotary member and a stationary member, fiber cleaning appliances thereon serving to pull apart and comb the fiber, stationary cleaning appliances comprising slats having projecting edges contiguous to said rotary member, and curved shields mounted on the periphery of said rotary member, said shields serving to throw fiber against said stationary appliances.

4. In a fiber cleaning apparatus, in combination, a rotary member and a stationary member, fiber cleaning appliances thereon comprising teeth coacting to pull apart and comb the fiber, a plurality of stationary cleaning appliances contiguous to said rotary member, and a plurality of curved shields mounted on the periphery of said rotary member, said shields serving to throw fiber against said stationary appliances.

5. In a fiber cleaning apparatus, a rotary member, fiber cleaning appliances thereon, a plurality of stationary cleaning appliances contiguous to said rotary member, and a plurality of shields mounted on said rotary member, said shields each being substantially in the form of a segment of a spiral and arranged to throw fiber away from said rotary member and against said stationary cleaning appliances.

[Claims 6 to 10 not printed in the Gazette.]

939,570. COMPOSITION OF MATTER FOR GENERATING HEAT. FRANK J. TONE, Niagara Falls, N. Y. Filed Dec. 29, 1906. Serial No. 350,042.

1. As a new composition of matter, a mixture of finely-divided metal-containing substance, a normal oxygen compound of an element having less affinity for oxygen than is possessed by the metal, and a highly oxidized unstable oxygen compound.

2. As a new composition of matter, a mixture of finely divided silicon-containing substance, a normal oxygen compound of an element having less affinity for oxygen than is possessed by the silicon, and a highly oxidized unstable oxygen compound.

3. As a new composition of matter, a mixture of finely divided silicon, a normal oxygen compound of an element having less affinity for oxygen than is possessed by the silicon, and a highly oxidized unstable oxygen compound.

4. As a new composition of matter, a mixture of finely divided metal-containing substance, a normal oxygen compound of an element having less affinity for oxygen than is possessed by the metal of said substance, and potassium permanganate.

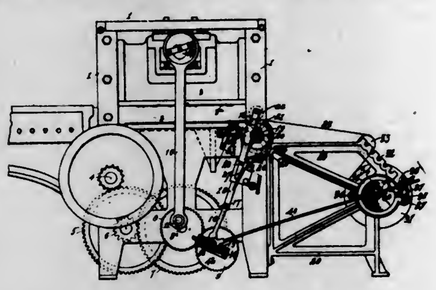
5. As a new composition of matter, a mixture of finely divided silicon, a normal oxygen compound of an element having less affinity for oxygen than is possessed by the silicon, and potassium permanganate.

[Claims 6 and 7 not printed in the Gazette.]

939,571. PAPER-BOX-BLANK MACHINE. JOHN R. VAN WORMER, Toledo, Ohio. Filed Jan. 23, 1909. Serial No. 473,849.

1. In a machine of the described character, a co-acting platen and reciprocating die-carrier, means for revolubly supporting a paper roll, a feed-roll adapted to feed the paper from such paper roll between the platen and the die-carrier, means for actuating the feed-roll between the working strokes of the die-carrier, a brake-mechanism for

the feed-roll, a brake-mechanism for the paper roll support, and means for actuating said two brake-mechanisms in harmony with the movement of the die-carrier.



2. In a machine of the described character, a co-acting platen and reciprocating die-carrier, means for revolubly supporting a paper roll, a feed-roll adapted to feed the paper from such paper roll between the platen and the die-carrier, means for actuating the feed-roll between the working strokes of the die-carrier, a brake-mechanism for the feed-roll, a brake-mechanism for the paper roll support, means for actuating said two brake-mechanisms in harmony with the movement of the die-carrier, and means for varying the rotations of the feed-roll independently of the movement of the die-carrier.

3. In a machine of the described character, a co-acting platen and reciprocating die-carrier, means for revolubly supporting a paper roll, a feed-roll adapted to feed the paper from such paper roll between the platen and the die-carrier, means for actuating the feed-roll between the working strokes of the die-carrier, a brake-mechanism for the feed-roll, a brake-mechanism for the paper roll support, means for actuating said two brake-mechanisms in harmony with the movement of the die-carrier, and means for varying the rotations of the feed-roll independently of the movement of the die-carrier, and for correspondingly varying the stress of the brake-mechanisms.

4. In a machine of the described character, a blank-cutting mechanism, means for revolubly supporting a paper roll, a feed-roll adapted to feed the paper from such paper roll to said cutting mechanism, a radially adjustable crank, driving connections between the crank and the feed-roll, a brake for the paper roll support and connections between the crank and said brake.

5. In a machine of the described character, a blank-cutting mechanism, means for revolubly supporting a paper roll, a feed-roll adapted to feed the paper from such paper roll to said cutting mechanism, a radially adjustable crank, driving connections between the crank and the feed-roll, a brake for the paper roll support, a brake for the feed-roll and connections between the crank and said brakes.

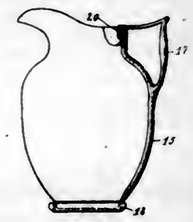
[Claims 6 and 7 not printed in the Gazette.]

939,572. FRANGIBLE RECEPTACLE. JOHN L. WATSON, Sr., and JOHN L. WATSON, Jr., Los Angeles, Cal. Filed Mar. 5, 1909. Serial No. 481,378.

1. A frangible body having a bottom portion provided with external threads and a transverse channel, the bottom portion being slightly reduced in size at the channel; a detachable non-frangible handle having a base plate adapted to fit into the channel in the bottom; and a securing ring adapted to be screwed upon the threaded bottom and thereby secure the handle to the body.

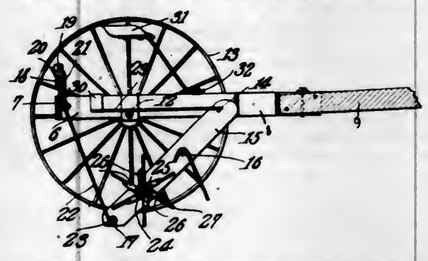
2. The combination of a receptacle having a frangible body, said body having a reduced exterior bottom provided with external threads and a transverse channel therein; a detachable non-frangible handle having a base plate adapted to fit into the channel in the bottom; a securing ring adapted to be screwed upon the threaded portion of the bottom and secure the handle to the body.

3. The combination of a receptacle having a body, said body having a reduced exterior bottom portion provided with external threads and a transverse channel therein; a detachable handle having a base plate adapted to fit into



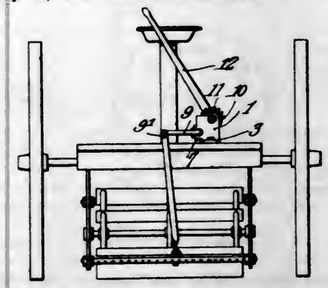
the channel in the bottom and a securing clip at the top thereof adapted to fit over the upper edge of the receptacle; and a securing ring adapted to be screwed upon the threaded bottom.

939,573. STALK-CUTTER. JOHN R. WEATHERLY, Atlanta, Ga. Filed Jan. 28, 1909. Serial No. 474,647.



In a machine of the class described, a main frame having side members, a frame mounted to be raised and lowered in the main frame, cutting devices arranged in the last mentioned frame, the main frame having a rear cross member, an upstanding bracket mounted upon the member, a crank arm disposed against the forward side of the said bracket and in a plane in front of the said rear cross member of the main frame, a lever having one end disposed against the rear face of the bracket, and in the plane of the said rear cross member, a bolt passed through the crank arm and lever, and relatively fixing the same and supporting the same for rocking movement, and a bar pivoted at its upper end to the extremity of the crank arm and extending downwardly and forwardly, and connected to the rear of the cutter frame.

939,574. LEVER. JOHN R. WEATHERLY, Americus, Ga., assignor of one-half to John T. Taylor, Americus, Ga. Filed May 15, 1909. Serial No. 496,142.

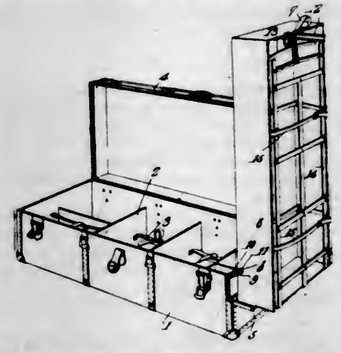


1. The combination with an agricultural implement, of a crank arm attached thereto, an operating lever, and connections between the lever and the crank arm whereby the crank arm may be raised or lowered at will and when lowered may vibrate independently of the operating lever.

2. The combination with an agricultural implement, of a crank arm, connections between the crank arm and the implement, a pinion mounted on said crank arm, a mutilated gear arranged to mesh with said pinion and rotate the same to raise or lower the crank arm and to bring its mutilated portion against the pinion to permit free vibration of the same when the implement is at work, and means for operating the said mutilated gear.

3. The combination with an agricultural machine, of a housing secured thereon, a pinion mounted in said housing, and containing an angular axial bore, a crank arm secured in said bore, a mutilated gear arranged to mesh with said pinion and also having an angular axial bore, and an operating lever having an angular rocking end removably held in said bore.

939,575. WARDROBE-TRUNK. GEORGE H. WHEARY, Racine, Wis. Filed Mar. 20, 1909. Serial No. 484,710.

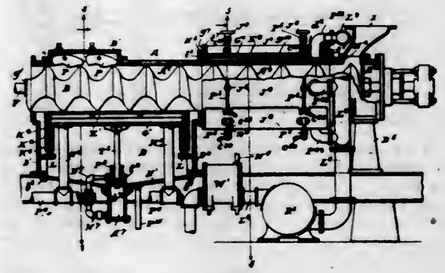


1. A trunk comprising a casing, a closure for the top thereof, a hinged panel normally flush with and constituting a portion of one wall of the casing, means movably engaging the casing and panel to hold said panel at right angles to the end wall of the casing, and a wardrobe section mounted upon said panel, the panel constituting the bottom of the section when said section extends upwardly from the outwardly extending panel and with its outer face open, said outer face constituting the top of the section when the panel is in alinement with the end wall, said section being shiftable into the casing to constitute a tray.

2. A trunk comprising a casing, a closure for the top thereof, a panel hingedly connected to one end wall of the casing and normally flush therewith, means movably connecting the casing and panel for supporting said panel at right angles to the end wall of the casing, a wardrobe section mounted upon the panel, said panel constituting the bottom thereof, said section being shiftable into the upper portion of the casing to constitute a tray and into an upright position outside of the casing to constitute a wardrobe, the said section having an open face constituting the top thereof when the section is within the casing and the outer portion thereof when the section is in upright position outside of the casing, the closure being movable to shut position while the wardrobe section is outside of the casing.

939,576. CARRYING AND PRESSING APPARATUS. CHARLES S. WHEELWRIGHT, Bristol, R. I., assignor to International Continuous Filter Press Company, Providence, R. I., a Corporation of Rhode Island. Filed Dec. 14, 1908. Serial No. 467,501.

1. In a device of the class described the combination with a conveying and pressing cylinder adapted to receive and forward under pressure material saturated with and accompanied by water, drain plates for said cylinder, and means for pressing the material and forcing the water through said drain plates, of means for forcing said water or a part thereof back through said drain plates into said cylinder against the pressure therein.



2. In a device of the class described the combination with a conveying and pressing cylinder adapted to receive and forward under pressure material saturated with and accompanied by water, drain plates for said cylinder, and means for pressing the material and forcing the water through said drain plates, of means for automatically forcing said water or a part thereof back through said drain plates into said cylinder against the pressure therein.

3. In a device of the class described the combination with a conveying and pressing cylinder adapted to receive and forward under pressure material saturated with and accompanied by water, of drain plates for said cylinder, means for pressing the material and forcing the water through said drain plates, and means for automatically forcing said water or a part thereof back through said drain plates into said cylinder against the pressure therein at predetermined intervals.

4. In a device of the class described the combination with a conveying cylinder adapted to receive and forward under pressure material saturated with and accompanied by water, and provided with a drain plate for the passage of said water from said cylinder, of apparatus outside of said cylinder adapted to receive water through said drain plate and permit its passage through said outside apparatus, means for closing said outside apparatus to the passage of water and means for forcing the water back into the cylinder through the drain plate against the pressure in said cylinder.

5. The combination with a chamber adapted to receive and press material, a drain plate in the wall of said chamber for the passage of water from said chamber and apparatus outside of said chamber adapted to receive water through said drain plate and permit its passage through said outside apparatus, of means for closing said outside apparatus to the passage of water and means for forcing said water back into the chamber through the drain plate against the pressure in said chamber.

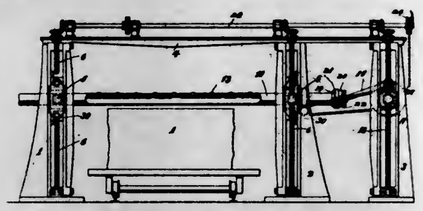
[Claims 6 to 14 not printed in the Gazette.]

939,577. STONE-FLUTING MACHINE. GEORGE N. WILLIAMS, Jr., New York, N. Y. Filed Jan. 29, 1909. Serial No. 474,993.

1. A machine for fluting stone having a plurality of tubes with longitudinally extending cut-away portions armed with cutting teeth, in combination with mechanism for reciprocating the tubes and mechanism for rotating them on their longitudinal axes.

2. In a machine for fluting stone, a fluting tool comprising a tube having a longitudinally extending cut-away portion armed with cutting teeth, in combination with mechanism for reciprocating the tool and mechanism for rotating it on its longitudinal axis.

3. A stone fluting tool comprising a tube having a longitudinally extending cut-away portion armed with cutting teeth.

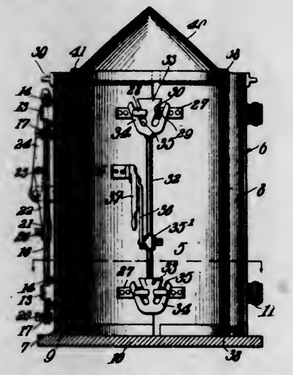


4. In a machine for cutting flutes in the display surfaces of stones, an elongated saw blade curved transversely to its length to correspond to the curvature of the desired flute and mounted to be brought against the display surface of the stone, and mechanism for reciprocating the saw blade and rotating it to remove a core from the stone and leave the desired flute.

5. In a machine for fluting stone, a frame-work, oppositely disposed cross-frames supported therein, a plurality of fluting tools comprising tubes mounted for rotation about their axes in said cross-frames, and having longitudinally extending cut-away portions armed with cutting teeth, and mechanism for reciprocating said tools.

[Claim 6 not printed in the Gazette.]

939,578. PORTABLE CONCRETE-TILE MOLD. FRANCIS M. WILTROUT, Corunna, Ind. Filed Oct. 12, 1908. Serial No. 457,355.



1. A mold including an inner expansible shell and an outer sectional shell, spaced apart to form an intermediate molding compartment, headed lugs secured to the adjacent ends of the inner shell, a rod having oppositely disposed wedge shaped heads operating between the adjacent lugs for expanding the inner shell, and hooks carried by and having their free ends spaced from said heads and also arranged to engage the lugs for contracting said inner shell, the said hooks and wedge-shaped heads engaging under the heads of the lugs.

2. A mold including an inner shell, a sectional outer shell spaced from the inner shell to form an intermediate molding compartment, brackets secured to one of the sections of the outer shell and provided with laterally extending lugs, perforated brackets secured to the mating section and provided with guide fingers arranged to embrace the brackets of the mating section, a rod slidably mounted in the perforations of the ears, hooks extending upwardly in the same direction from the rod and provided with cam faces arranged to engage the lugs on the adjacent brackets for locking the sections of the outer shell in assembled position, an operating lever, and a link connection between the operating lever and said rod.

939,579. TYPE-WRITING MACHINE. CLIO B. YAW, Arlington, N. J., assignor to Remington Typewriter Company, Ilion, N. Y., a Corporation of New York. Filed June 5, 1908. Serial No. 436,938.



1. In a typewriting machine, a roll-holder device comprising a roll-holder proper, a shaft extending therethrough, pinions fixed to said shaft outside said roll-holder, and a friction spring contained within said roll-holder and surrounding said shaft, said friction spring cooperating with said roll-holder and said shaft to frictionally connect them.

2. In a typewriting machine, a roll-holder device comprising a roll-holder proper, a shaft passing therethrough and connected with said roll-holder, pinions on the ends of said shaft, and screws for holding said pinions in place, said screws being provided with heads which serve as guides for said roll-holder device when it is mounted in the machine.

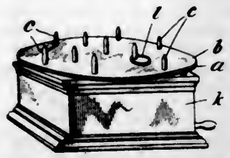
3. In a typewriting machine, the combination of a rack on the machine, a roll-holder provided with a pinion, and a loader operative to receive the roll-holder from outside the machine and to move it to bring said pinion into mesh with said rack.

4. In a typewriting machine, the combination of a roll-holder provided at its ends with pinions, a pair of racks mounted on the machine, and a loader operative to receive the roll-holder and to move it to bring said pinions into mesh with said racks.

5. In a typewriting machine, the combination of a roll-holder, guide-ways therefor on the machine, said guide-ways being provided with entrances, a loading device for receiving said roll-holder from outside said guide-ways, said device being movable to introduce said roll-holder into the entrances to said guide-ways and to move it a limited distance along said guide-ways.

[Claims 6 to 37 not printed in the Gazette.]

939,580. GAME APPARATUS. LUCRETIA T. YOUNG, Red Bank, N. J. Filed Apr. 3, 1909. Serial No. 487,682.



1. A game apparatus comprising a board rotatable upon a substantially vertical axis, pins or pegs carried upon the board perpendicular to the surface thereof and adapted to be engaged by playing rings, and means to rotate the board continuously.

2. A game apparatus comprising a board rotatable upon a substantially vertical axis, pins or legs carried upon the board perpendicular to the surface thereof and adapted to be engaged by playing rings, means to rotate the board continuously, and means to control the speed of rotation of the board.

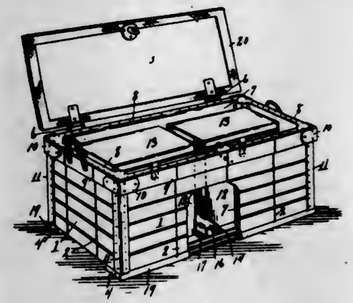
3. A game apparatus comprising a supporting case, a driving mechanism having a substantially vertical spindle, a governor and speed controlling mechanism, and a board mounted upon said spindle and having upon its upper surface substantially vertical pegs or pins adapted to be engaged by playing rings.

939,581. MOLDING MECHANISM. WILLIAM ZIMMERMAN, Chicago, Ill., assignor of one-third to Emil Moehrlin. Filed May 11, 1908. Serial No. 432,286.



A mold provided with an electrical heating element, said element conforming its shape and position to the cavity of the mold.

939,582. SHIPPING-CRATE. HENRY N. BACKUS, Detroit, Mich. Filed Aug. 21, 1905. Serial No. 274,995.

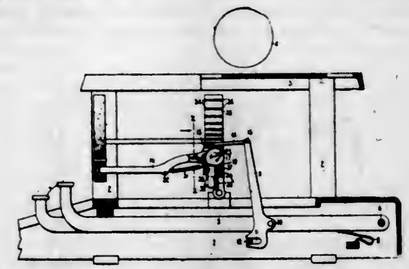


A shipping crate, the walls of which are formed of a slatted fabric, metal strands binding the slats of said fabric together, the upper slats of the fabric forming the four walls of the crate being relatively thick and heavy, a metallic lining for said crate covering the inner surface of the walls and bottom, the central portion of the metallic lining of the bottom of the crate being depressed and said depressed bottom portion having a drain opening leading from the bottom thereof, the upper edge of the metallic lining of the crate being flanged over onto the heavy upper slats forming the top of the walls, and a dividing strip at the bottom crossing the depressed central portion above the plane of said depression, the ends of said strip being supported on the marginal portions of the bottom of the crate.

939,583. TYPE-WRITING MACHINE. EDWIN E. BARNEY, Syracuse, N. Y., assignor to The Monarch Typewriter Company, Syracuse, N. Y., a Corporation of New York. Filed Apr. 4, 1904. Serial No. 201,429.

1. In a typewriting machine, the combination of a type bar having a bifurcated portion, a hanger having an eye that is adapted to be received within the bifurcated portion of said type bar, a bearing disk received within said eye, and a plurality of rivets that extend through said disk and connect it to the bifurcated portion of the type bar and unite the type bar and hanger.

2. In a typewriting machine, the combination of a type bar and a hanger, one of said parts being bifurcated to receive the other, a disk arranged within an opening in the part that is contained within the bifurcated portion and having a direct peripheral bearing on the wall of said opening, and means positively connected to the bifurcated portion and disk and interlocking therewith for positively preventing relative rotation between said disk and the bifurcated portion.



3. In a typewriting machine, the combination of a type bar, a hanger, a disk carried by one of said parts and having a peripheral bearing for direct coöperation with the other part, and connecting means off-set from the center of rotation of the type bar to positively connect the bearing disk to the part that carries it.

4. In a typewriting machine, the combination of a type bar having a bifurcated portion, a hanger having an eye that is adapted to be received within the bifurcated portion of said type bar, a bearing disk received within said eye and which is thicker than said eye and affords a peripheral bearing for the type bar in the eye of the hanger, and means that extend through said disk extraneous to the pivotal center of the type bar and positively connect it against rotation relatively to the bifurcated portion of the type bar and unite the type bar and hanger.

5. In a typewriting machine, the combination of a type bar and hanger, one of said parts being bifurcated to receive the other, the part received within the bifurcated portion being in the nature of an eye, a disk having a peripheral bearing portion seated within said eye and which constitutes the pivotal connection between the bifurcated portion and eye, and rivets that are offset from the pivotal center of the type bar and pass through said bearing disk and unite the sides of said bifurcated portion.

[Claims 6 to 25 not printed in the Gazette.]

939,584. PROCESS OF MANUFACTURING BENZOATE. EDWIN O. BARSTOW, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a Corporation of Michigan. Filed Oct. 25, 1905. Serial No. 284,402.

1. In a process of manufacturing benzoates, the step which consists in oxidizing to the acid a side-chain substitution product of a member of the benzene series of hydrocarbons, by means of a chlorin-containing reagent in the presence of a basic neutralizing reagent and a suitable solvent.

2. In a process of manufacturing benzoates, the step which consists in oxidizing to the acid a side-chain substitution product of a member of the benzene series of hydrocarbons, by means of a chlorin-containing reagent in the presence of an alkaline earth hydrate and a suitable solvent.

3. In a process of manufacturing benzoates, the step which consists in oxidizing to the acid a side-chain substitution product of a member of the benzene series of hydrocarbons, by means of a chlorin-containing reagent in the presence of lime and water.

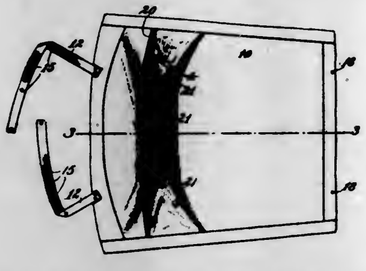
4. In a process of manufacturing benzoates, the step which consists in oxidizing to the acid a side-chain substitution product of a member of the benzene series of hydrocarbons, by means of bleaching powder in the presence of a suitable solvent, such bleaching powder containing sufficient lime to neutralize the acid formed by the reaction.

5. In a process of manufacturing benzoates, the step which consists in oxidizing to the acid a side-chain substitution product of a member of the benzene series of hydro-

carbons, by means of bleaching powder in the presence of water and of lime in excess of that contained in said bleaching powder.

[Claims 6 to 16 not printed in the Gazette.]

939,585. BED-COVERING. WILLIAM H. BENDER, Brooklyn, N. Y. Filed Feb. 19, 1909. Serial No. 478,805.



1. A cover-sheet having at the lower side of its upper end portion a transverse pocket which opens toward the lower end of the sheet; substantially as set forth.

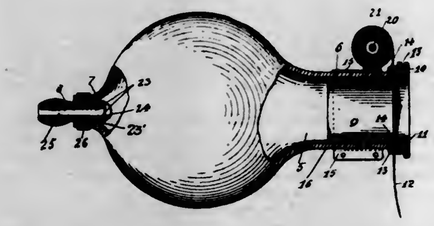
2. A cover-sheet having at the lower side of its upper end portion a transverse pocket which opens toward the lower end of the sheet, the material of said pocket being full so as to bag downwardly and afford a covering when adjacent portions of the sheet below it are pushed upwardly; substantially as set forth.

3. A cover-sheet having at the lower side of its upper end portion a transverse pocket which opens toward the lower end of the sheet, and the said pocket at its mouth being weighted so that the pocket may open when adjacent portions of the sheet below are pushed upwardly; substantially as set forth.

4. A cover-sheet having at the lower side of its upper end portion a transverse pocket which opens toward the lower end of the sheet, and said sheet having means at its upper and lower ends for fastening it to the bed; substantially as set forth.

5. A cover-sheet having at the lower side of its upper end portion a transverse pocket which opens toward the lower end of the sheet, and said sheet having at its upper end flexible connections for securing it to the head of the bed and at its lower end connections of elastic nature for securing it to the foot of the bed; substantially as set forth.

939,586. TOY. JOHN B. BOWMAN, Los Angeles, Cal. Filed Jan. 11, 1909. Serial No. 471,559.



1. A device of the class described, comprising an expansible body and inflation means therefor, a paper clamping mechanism secured to said body, and a roll of cartridge supply material secured to said body adjacent to said clamping mechanism, said supply material adapted to be engaged by said clamping mechanism.

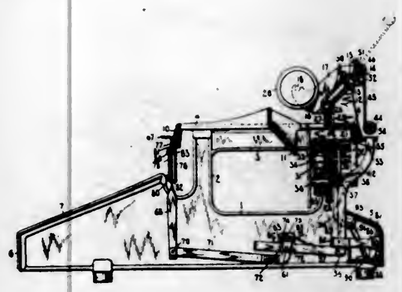
2. A device of the class described, comprising an expansible body and inflation means therefor, and a paper cartridge clamping mechanism connected to said body.

3. A device of the class described, comprising an expansible body, a cover for said body, an air inlet valve connected to said body, and a paper cartridge clamping mechanism secured to the body.

4. A device of the class described, comprising an expansible body member formed of an elastic material, a cover for said body formed of inelastic material, an air inlet valve attached to and communicating with the interior of said body, and an annular paper clamping mechanism secured to said body, said mechanism adapted to retain a paper cartridge in operative relation to said body member during inflation.

5. A device of the class described, comprising an expansible body member formed of an elastic material, a protective covering therefor, said covering being of an inelastic material, an air inlet valve attached to and communicating with the interior of said body, a paper clamping mechanism secured to said body, and a roll of cartridge supply material secured adjacent to said clamping mechanism.

939,587. TYPE-WRITING MACHINE. ALEXANDER T. BROWN, Syracuse, N. Y. Filed June 3, 1907. Serial No. 377,082.



1. In a typewriting machine, the combination of a carriage, an adjustable carriage stop, a carriage stop bar on which said carriage stop is adjustably mounted, said stop bar being normally in relatively inaccessible position, and supporting means for said bar arranged to allow the bar to be moved to an abnormal and more accessible position to afford access to said stop.

2. In a typewriting machine, the combination of a platen, a carriage stop bar mounted behind said platen, a stop adjustably mounted on said bar, supporting means for said bar arranged to allow the bar to be elevated to afford access to said stops from the front of the machine.

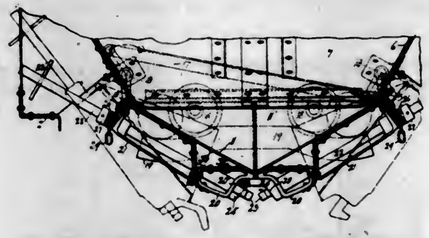
3. In a typewriting machine, the combination of a carriage, a carriage stop, and a bar mounted on said carriage and carrying said stop, said bar being mounted to be swung toward the front of the machine when it is desired to have access to said stop.

4. In a typewriting machine, the combination of a carriage, a carriage stop, a stop carrier on which said stop is adjustably mounted, a coöperating stop with which said carriage stop coöperates to arrest the carriage when said stop carrier is in normal position, said stop carrier being movable to a more accessible position when it is desired to adjust said carriage stop.

5. In a typewriting machine, the combination of a carriage, a stop bar mounted on said carriage by pivoted arms and normally hanging down behind said carriage but capable of being swung up to a more accessible position, and one or more stops adjustably mounted on said bar.

[Claims 6 to 22 not printed in the Gazette.]

939,588. DUMP-CAR. CHARLES H. CLARK, Crafton, Pa. Filed June 24, 1909. Serial No. 504,047.



1. Doors for a dump car, and devices on the doors for holding them closed and operative at either side of the car for releasing the doors.

2. Doors for a dump car opening toward opposite sides thereof, and devices on the doors for holding them closed and operative at either side of the car for releasing the doors.

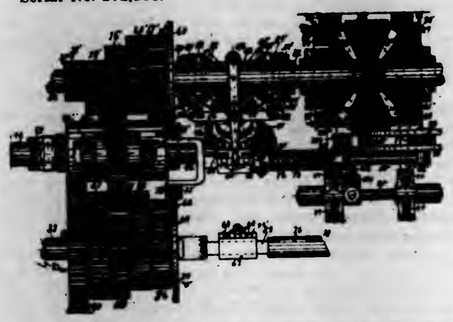
3. The combination with a dump car, of interchangeable doors removably mounted thereon, and means carried wholly by the doors for holding them closed.

4. The combination with a dump car, of interchangeable doors mounted thereon, and door-operating and holding means mounted wholly on the doors.

5. An inclined bodily movable door for a dump car, rolling supports located on the door to sustain the load, devices on which the supports roll and shaped to lower the supports as the door moves from closed position, the door rotatable vertically on the supports, and guide devices connected to the door for determining and controlling the rotation of the door as it moves bodily.

[Claims 6 to 27 not printed in the Gazette.]

939,589. VARIABLE-SPEED-TRANSMISSION GEAR. EDWARD P. COWLES, Lansing, Mich. Filed Sept. 5, 1903. Serial No. 172,106.



1. In a variable speed gear mechanism, the combination of two elements geared together and each comprising a plurality of gears of different diameters, constantly connected to a common rotatable member, the gears of one element being arranged in reverse order to those of the other and each gear adapted to act with a particular gear in the other element, and means for transferring the connection between said elements from one of said coacting pairs to another without interrupting such connection.

2. In a variable speed gear mechanism, the combination of two elements geared together and mounted to rotate about parallel axes, each element comprising a plurality of gears of different diameters, each arranged concentric with its axis, and one or more gears arranged alternately of those aforesaid and eccentric to said axis, each gear being arranged to act with a particular gear in the other element, and means for transferring the connection between said elements from one of said coacting pairs to another without interrupting such connection.

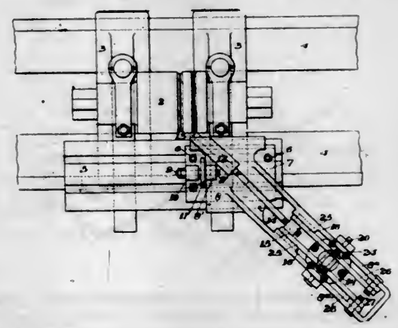
3. In a variable speed gear mechanism, the combination of two elements geared together and mounted to rotate about parallel axes, each element comprising a plurality of gears of different diameters, each arranged concentric with its axis, and one or more gears arranged alternately of those aforesaid and eccentric to said axis, each intermediate eccentric gear having two shifting teeth which, respectively, aline with a tooth in each of the adjacent concentric gears, the concentric gears of one element being arranged reversely to the similar gears of the other element and each gear being arranged to act with a particular gear of the same form in the other element, means for rotating one of said elements, means for shifting the connection from a coacting pair of concentric gears to an adjacent pair of coacting eccentric gears, and vice versa, when the shifting teeth of said pairs are in alinement, and means for preventing such shifting when the said teeth are out of alinement.

4. In a variable speed gear mechanism, the combination of two elements geared together and mounted to rotate about parallel axes, each element comprising a plurality of gears of different diameters, each arranged concentric with its axis, and one or more gears arranged alternately of those aforesaid and eccentric to said axis, each intermediate eccentric gear having two shifting teeth which, respectively, aline with a tooth in each of the adjacent concentric gears, the concentric gears of one element being arranged reversely to the similar gears of the other element and each gear being arranged to act with a particular gear of the same form in the other element, means for rotating one of said elements, means for shifting the connection from a coacting pair of concentric gears to an adjacent pair of coacting eccentric gears, and vice versa, when the shifting teeth of said pairs are in alinement, and means acting on both said elements for positively preventing such shifting when said teeth are out of alinement.

5. In a variable speed gear mechanism, the combination of two elements geared together and each comprising a plurality of gears of different diameters, the gears of one element being arranged in reverse order to those of the other and each gear adapted to act with a particular gear in the other element, a lever, means adapted to be actuated by said lever for transferring the connection between said elements from one of said coacting pairs to another without interrupting such connection, and means for preventing such shifting until the parts are in a particular relation.

[Claims 6 to 16 not printed in the Gazette.]

939,590. APPARATUS FOR SHAPING ROLLS. WILLIAM U. DENNISON, Youngstown, Ohio. Filed July 1, 1908. Serial No. 441,319.

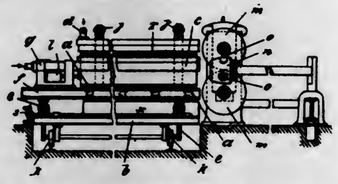


1. Apparatus for shaping slots in rolls, comprising a support for the roll, a cutting tool mounted to reciprocate

obliquely with relation to the axis of the roll, means for reciprocating the cutting tool, and means for moving said tool along the axis of the roll; substantially as described.

2. Apparatus for shaping slots in rolls, comprising a support for the roll, a cutting tool mounted to reciprocate obliquely with relation to the axis of the roll, means for reciprocating the cutting tool, means for advancing the tool to compensate for wear, and means for moving said tool along the axis of the roll; substantially as described.

939,591. APPARATUS FOR WELDING TUBES. HUGO DICKE, Frankfort-on-the-Main, and EMIL KLINKMANN, Zawodzie, near Kattowitz, Germany, assignors to The Corporation of Dellwik-Fleischer, Wassergas Gesellschaft M. B. H., Frankfort-on-the-Main, Germany. Filed Jan. 2, 1908. Serial No. 409,028.



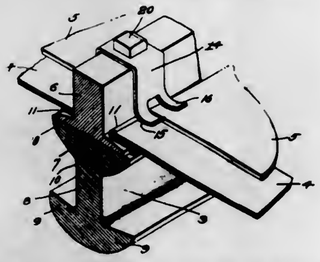
1. In a tube welding apparatus, the combination of a carriage, a tube support on said carriage, a burner support vertically adjustable on said carriage, and burners relatively adjustable toward and from each other on said burner support.

2. In a tube welding apparatus, the combination of a carriage, tube supporting rollers on said carriage, a burner support vertically adjustable on said carriage, and burners relatively adjustable toward and from each other on said support.

3. In a tube welding apparatus, the combination of a carriage, a tube support on said carriage, a burner support vertically adjustable on said carriage, burners relatively adjustable toward and from each other on said burner support, welding rolls, and a coöperating mandrel, adapted to receive the tube from the carriage and weld the heated edges thereof.

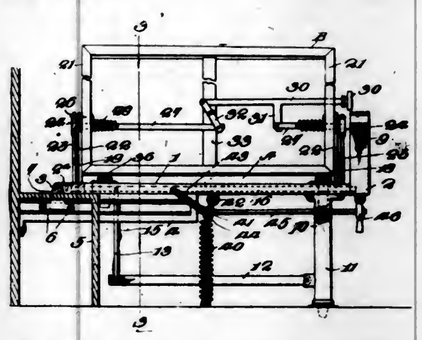
4. In a tube welding apparatus, the combination of a reciprocatory carriage, a tube support on said carriage, a burner support, including a vertically adjustable frame and supporting yokes on said carriage, a lower burner mounted on said frame, an upper burner adjustably mounted on said yokes, welding rolls and a coöperating mandrel adapted to receive the tube from the carriage.

939,592. SASH-BAR CONSTRUCTION FOR SKYLIGHTS IN GREENHOUSES. JAMES F. M. FARQUHAR, Boston, Mass. Filed Feb. 14, 1907. Serial No. 357,238.



In a sash bar construction, the combination with a metal body member presenting a web having at its upper edge a head provided with a flat top surface and having at its lower edge laterally-extending, glass-receiving flanges, the under face of said flanges occupying the same plane as the under face of the parting member, and a clip embracing the parting member and provided with feet to rest on the glass.

939,593. FOLDING CAR-SEAT. JOHN S. FARRELL and JESSE S. LEWIS, Pittsburg, Pa. Filed Feb. 20, 1909. Serial No. 479,130.



1. In a folding car seat the combination of a support, a seat hinged at one end to the support, a pedestal hinged at the opposite end of the seat, a foot rest hinged at one end of the pedestal, and means for supporting the opposite end of the foot rest from the seat.

2. In a folding car seat the combination of a support, a seat hinged at one end to the support, a pedestal hinged at the opposite end of the seat, a foot rest hinged at one end to the pedestal and extending longitudinally below the seat, and a hanger pivoted to the opposite end of the foot rest and to the seat.

3. In a folding car seat, the combination of parallel guides extending substantially perpendicularly from the side wall of the car above the floor, a seat having a hinged and slidable connection at one end with the guides and adapted to be swung upwardly against the car wall, a reversible back for the seat, the back being adapted to be folded against the seat, and means for supporting the free end of the seat.

4. In a folding car seat, the combination of parallel guides extending substantially perpendicularly from the side wall of the car above the floor, a seat having a hinged and slidable connection at one end with the guides and adapted to be swung upwardly against the car wall, a pedestal hinged to the opposite end of the seat, a foot rest hinged at one end to the pedestal and extending longitudinally below the seat, and a member pivotally supporting the other end of the foot rest from the seat.

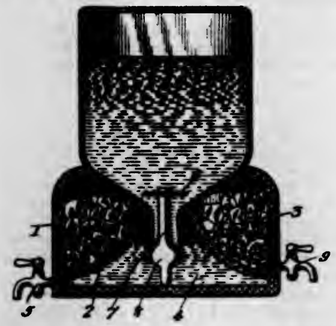
5. The combination with a car wall and the box disposed at the base thereof, of guide ways secured to the wall and supported on the box, runners traveling in the guide ways, a seat hinged at one end to the runners, and means for supporting the opposite end of the seat.

[Claims 6 to 19 not printed in the Gazette.]

939,594. APPARATUS FOR COOLING AND DISPENSING LIQUIDS. GEORGE W. FULPER and WILLIAM H. FULPER, Flemington, N. J., assignors to Fulper Pottery Company, Flemington, N. J., a Corporation of New Jersey. Filed Jan. 20, 1906. Serial No. 297,073.

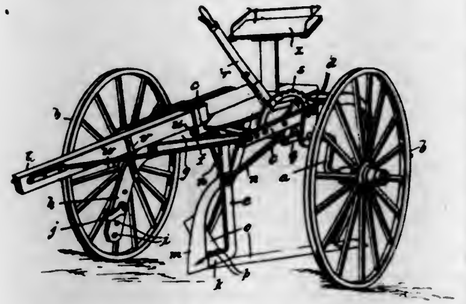
1. An apparatus for cooling and dispensing liquids, comprising a receptacle provided with a rim for supporting a bottle in inverted position, and a substantially conical wall or partition having its smaller end uppermost and integrally connected at its lower end with the side wall of the receptacle adjacent the bottom thereof, said partition being provided at its upper portion with an opening to seat the neck of the bottle.

2. An apparatus for cooling and dispensing liquids, comprising a receptacle of single thickness, an upwardly extending wall or partition having its upper end smaller than the lower end, and integrally connected at its lower end with the side wall of the receptacle above and adja-



cent the bottom of the latter, said partition being provided at its upper portion with an opening to seat the neck of the bottle, and a faucet in the side wall of the receptacle just above the base and communicating directly with the liquid chamber below said partition.

939,595. SAGE-BRUSH AND WEED CUTTER. HENRY E. GALE and ERNEST E. KRENGEL, Twin Falls, Idaho. Filed July 26, 1909. Serial No. 509,490.



1. A cutter comprising a pivoted frame embodying side beams and a cutter-standard, the cutter-standard being provided with a draft-bar, vertical and horizontal blades secured to the standard, and means for vertically adjusting said frame.

2. A cutter comprising a pivoted frame embodying side beams and a cutter-standard provided with a draft-bar, vertical and horizontal blades secured to the standard, said side beams extending downwardly to support the rear ends of the horizontal cutters, and means for vertically adjusting said frame.

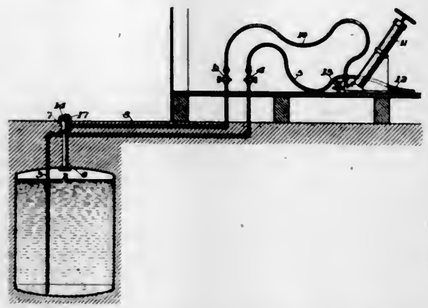
3. A cutter comprising a pivoted frame embodying side beams and a cutter-standard braced apart, the cutter-standard being formed at its upper end into a horizontal portion and a depending forward portion forming a draft-bar, vertical and horizontal blades secured to the standard, and means for vertically adjusting the pivoted frame.

4. A cutter comprising a pivoted frame embodying side beams and a cutter-standard braced apart, the cutter standard being formed at its upper end into a horizontal portion and a depending forward portion forming a draft-bar, and its lower end being formed into a forwardly extending foot, vertical and horizontal blades secured to the foot of the standard, and means for vertically adjusting the pivoted frame.

5. A cutter comprising a pivoted frame embodying side beams and a cutter-standard, the cutter-standard being formed at its upper end into a horizontal portion and a depending forward portion forming a draft-bar, a tongue pivoted to the cutter-standard and side beams, means for adjusting the tongue vertically, vertical and horizontal cutters secured to the standard, and means for vertically adjusting the pivoted frame.

[Claim 6 not printed in the Gazette.]

939,596. STORAGE GASOLENE APPARATUS. HORACE E. GRANT, Pittsburg, Pa. Filed July 20, 1907. Serial No. 384,767.



1. In a gasolene storage apparatus, a tank having an outlet pipe, an air pressure pipe leading to the tank, a pump connected to the end of the air pipe, and a release valve connected to the air pressure pipe and arranged to release the pressure therein, said valve being accessible from the operator's position at the pump, substantially as described.

2. In a gasolene storage apparatus, a storage tank, an outlet pipe therefor having a movable end portion, an air pressure pipe leading to the tank and having a flexible connection with a portable air pump, and a release valve connected to the air pressure pipe and arranged to release the pressure therein, said valve being accessible from the operator's position at the pump, substantially as described.

3. In a gasolene storage apparatus, a storage tank, an outlet pipe and an air supply pipe therefor, both provided with cocks, a portable air pump having flexible connection with the air pressure pipe, and a release valve connected to the air pressure pipe and arranged to release the pressure therein when it is desired to stop the flow, said valve being accessible from the operator's position at the pump, substantially as described.

4. In a gasolene storage apparatus, a storage tank, an outlet pipe and an air supply pipe both provided with cocks, a portable air pump having flexible connection with the air pressure pipe, and a pet cock connected to the air pressure pipe arranged to allow the air pressure to escape; substantially as described.

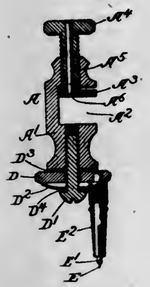
5. In a gasolene storage apparatus, a tank having a gasolene outlet pipe and an air pressure pipe, flexible pipes connected to the ends of said pipes, a portable air pump connected to one of the pipes, and a valve arranged to release the pressure in the air pressure pipe, said valve being at the pump end of the flexible pipe, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

939,597. BEAM-COMPASS. FRANK S. HURST, Los Angeles, Cal. Filed May 4, 1906. Serial No. 315,148.

1. Beam compasses comprising a centering part and a moving part, a beam to which said parts are clamped, a disk connected with said centering part, a holding piece passing loosely through said disk, a centering point substantially parallel to said holding piece eccentrically

mounted upon said disk, and means for connecting said holding piece and said disk so as to hold said disk in any desired position.



2. Compasses comprising a point adapted to engage the surface on which the compasses are used, a rotatable device to which said point is eccentrically connected, a holding part, a screw substantially parallel to said point passing loosely through said rotatable device and engaging said holding part, and a friction device between the screw and the rotatable device.

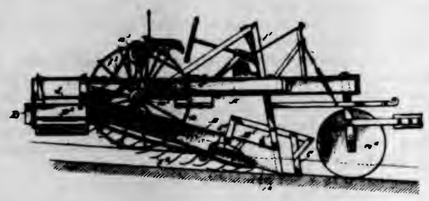
3. Beam compasses comprising two parts, one the marking part and the other the centering part, a beam to which said parts are clamped, the centering part provided with an engaging point, a disk to which the engaging point is eccentrically fastened said engaging point projecting from the lower face thereof, a holding device loosely passing through said disk and projecting on each side thereof, the holding device and the engaging point substantially parallel to each other and means for frictionally holding said disk in any desired position.

4. Beam compasses comprising a centering part adapted to be connected to the beam, a disk rotatably connected therewith, a frictional device for frictionally clamping said disk to the part said disk located between the frictional device and said part, a centering point eccentrically mounted upon said disk the engaging point being substantially parallel to the axis of rotation of said disk.

5. Beam compasses comprising a centering part adapted to be connected to the beam, a disk rotatably connected therewith, a frictional device for frictionally clamping said disk to the part, a centering point eccentrically mounted upon said disk, and friction reducing washers between the frictional surfaces associated with said disk.

[Claims 6 and 7 not printed in the Gazette.]

939,598. MACHINE FOR DIGGING DITCHES. EDWARD JESCHKE, Bellevue, Ohio, assignor to The Jeschke Manufacturing Company, Bellevue, Ohio, a Corporation of Ohio. Filed Dec. 24, 1908. Serial No. 469,132.



1. In a machine of the character described, the combination of a running gear, a shovel, means adapted to receive material from said shovel and discharge the same fro mthe machine, and a cutter in advance of said shovel, said cutter being adapted to sever the layer of material taken by said shovel angularly with respect to a horizontal plane, whereby such layer may be laterally compressed, substantially as described.

2. In a machine of the character described, the combination of a running gear, a shovel, means adapted to receive material from said shovel and discharge the same from the machine, and a cutter in advance of said shovel, said cutter being arranged and constructed to sever a central portion from the layer of material being taken by said shovel.

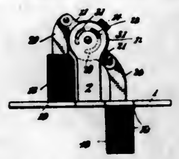
3. In a machine of the character described, the combination of a running gear, a shovel, means adapted to receive material from said shovel and discharge the same from the machine, and a cutter in advance of said shovel, said cutter being arranged and constructed to sever a central portion from the layer of material being taken by said shovel, the cut between such central and the remaining portions being angular with respect to a horizontal plane.

4. In a machine of the character described, the combination of a running gear, a shovel, means adapted to receive material from said shovel and discharge the same from the machine, and a cutter in advance of said shovel, said cutter being of general U-shape and so disposed as to sever a central portion from the layer of material taken by said shovel.

5. In a machine of the character described, the combination of a running gear, a shovel, means arranged to discharge earth laterally from the machine, an endless conveyer adapted to receive material from said shovel and elevate the same to said discharging means, said conveyer comprising a series of leaves adapted to hang loosely on the under side of the conveyer and to lie flat on the upper side thereof, and a cutter in advance of said shovel, said cutter being adapted to sever the layer of material taken by said shovel angularly with respect to a horizontal plane, whereby such layer may be laterally compressed, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

939,599. TWO-POLE SNAP-SWITCH. LOUIS KELLNER, New York, N. Y. Filed Dec. 5, 1908. Serial No. 466,061.



1. In a switch of the class described, a standard having a stud, a sleeve longitudinally and angularly movable on said stud, switch elements angularly movable with said sleeve, a rocker plate and spring for tensioning the said switch elements and sleeve to move angularly, push buttons connected to said rocker plate to oscillate the same, means forming part of said standard for initially restraining movement of said sleeve, and means forming part of said rocker plate for releasing said restraining means.

2. In a switch of the class described, a standard having a stud, a sleeve longitudinally and angularly movable on said stud, switch elements angularly movable with said sleeve, means for tensioning said switch elements and sleeve to move angularly, a pair of push buttons for operating said means, said sleeve having a lug to engage the standard to initially restrain its movement, and said means engaging said sleeve to displace it longitudinally to release said lug from said standard.

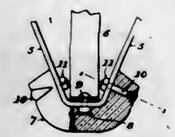
3. In a switch of the class described, a standard having holes, a sleeve rotatable thereon and having a lug to engage the hole of the standard, switch elements angularly movable with said sleeve, a rocker plate having a cam surface to displace said sleeve longitudinally when said rocker plate is moved angularly for a predetermined arc or throw, and a pair of push buttons connected to said rocker plate.

4. In a switch of the class described, a standard having a stud, a sleeve longitudinally and angularly movable on said stud, a spring within said sleeve for impelling it longitudinally, means forming part of said standard to engage said sleeve and initially restrain it from angular movement, a rocker plate having a cam surface to engage said sleeve to impel it longitudinally in opposition to said spring, and means for impelling said sleeve angularly.

5. In a switch of the class described, a sleeve having an arcuate rib with a central lug, a standard having a hole to receive said lug, a rocker plate having an arcuate slot to receive said rib, and a spring tensioned by said rocker to impel said sleeve and move the same angularly when it is released from said standard.

[Claims 6 to 8 not printed in the Gazette.]

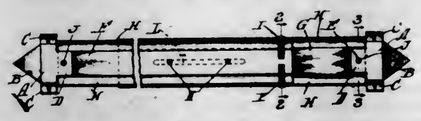
939,600. HAND-TRUCK. ADOLPH B. KERNDL, Milwaukee, Wis., assignor of one-half to Fred C. D. Treichel, Milwaukee, Wis. Filed July 6, 1909. Serial No. 505,971.



1. A buffer-foot provided with apertures adjacent to its ends and with an intermediate clearance recess for the head or nut of the bow and brace securing bolt of a hand-truck leg to which the foot is bolted through said apertures.

2. A buffer-foot of molded elastic material that conforms in contour to the bow of a hand-truck leg and is provided with apertures adjacent to its ends and with an intermediate clearance recess for the head or nut of the bow and brace securing bolt of said leg to which the foot is bolted through said apertures.

939,601. STAIR-CARPET FASTENER. CHARLES W. KIRSCH, Three Rivers, Mich., assignor to Kirsch Manufacturing Company, Three Rivers, Mich., a Corporation of Michigan. Filed Dec. 7, 1908. Serial No. 466,272.

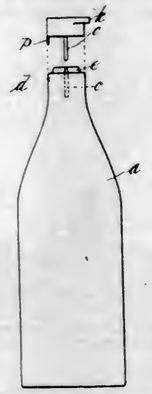


1. A stair carpet fastener comprising fastening plates disposed on opposite sides of the carpet and secured in the corner formed by the meeting of the tread and riser, flanges on said plates extending toward the carpet, and provided with openings, and longitudinally adjustable fastening strips provided at their ends with projections, said ends being adapted to pass under said flanges of said plates and said projections entering the openings in the latter.

2. A stair carpet fastener comprising fastening plates disposed on opposite sides of the carpet and secured in the corner formed by the meeting of the tread and riser, flanges on said plates extending toward the carpet, and provided with openings, and longitudinally adjustable fastening strips having flaring side flanges and provided at their ends with projections, said ends being adapted to pass under said flanges of said plates and said projections entering the openings in the latter.

3. A stair carpet fastener comprising end plates provided with flanges extending at an angle of forty-five degrees to said plate and ninety degrees to each other, said flanges being secured to the tread and riser of a stairway, one of said plates being disposed on either side of the carpet, end flanges on said plates extending toward the carpet and having openings therein, longitudinally telescopically adjustable fastening strips passing at their ends underneath the end flanges of said plates, and projections on said ends of said strips entering said openings in said end flanges.

939,602. ANTIREFILLABLE BOTTLE. JED N. LANDON, Hartland, Vt. Filed May 21, 1909. Serial No. 497,446.



1. In an anti-refillable bottle, the neck portion of which is provided with an opening arranged in parallel relation to the axis of the bottle, a cap provided with a pin for entering said opening, and means on the cap for effecting its removal after sealing the same.

2. In an anti-refillable bottle, the neck portion of which is provided with an opening arranged in parallel relation to the axis of the bottle, a cap provided with a pin for entering said opening, means on the cap for effecting its removal, after sealing the same, said means comprising a lip projecting beyond the body portion of the cap.

3. In an anti-refillable bottle, the neck portion thereof being formed with a pyramid-shaped end, a ledge portion between said pyramid-shaped end and the outer surface of the neck of the bottle, a cap formed with a recess in the under portion thereof, a depending ring element for engaging the ledge portion, and means for effecting the sealing of the cap to the bottle, said means including openings in the neck of the bottle, and depending pins carried by the cap for engaging said openings, substantially as described.

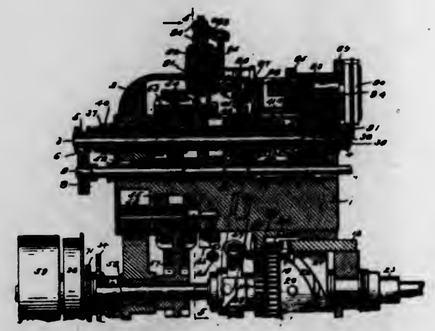
939,603. EMBROIDERING ATTACHMENT FOR SEWING-MACHINES. DAVID C. LEE, Detroit, Mich. Filed Jan. 2, 1906. Serial No. 294,181.



An embroidering attachment for sewing machines formed from a single piece of resilient wire bent to form an intermediate coil 10 and two laterally extending arms 11 and 14, the terminal of the arm 11 being formed into a needle receiving eye 13 and its intermediate portion formed into an upstanding angular offset 12 to permit the coil and eye to rest upon the bed plate of a machine, and the terminal of the arm 14 being formed into a needle encircling loop 15 that bears against the under side of the needle bar, thence bent upward at right angles to the plane of the loop

15 and formed into a loop 18 that projects across the arm 14, the upper member of the loop 18 being provided with a bend 19 to engage with a boss on a needle bar, and its terminal being formed into a finger hold 20.

939,604. AUTOMATIC SCREW-MACHINE. HARRY B. LESTER, Hartford, Conn., assignor to The Davis Sewing Machine Company, Dayton, Ohio, a Corporation of Ohio. Filed Jan. 28, 1907. Serial No. 354,497.



1. A screw machine having a rotatable head, mechanism for imparting rotatory movement to the head, gearing driven continuously from the driving shaft, mechanism for connecting and disconnecting the head rotating mechanism with said gearing, means controlling the action of the connecting and disconnecting mechanism, gearing driven continuously from the driving shaft, and a cam continuously rotated by said latter gearing and actuating the controlling means for different periods whereby the number of stops of the head during each revolution may be varied, substantially as specified.

2. A screw machine having a spindle head, mechanism for imparting rotatory movement to the head, gearing driven continuously from the driving shaft, mechanism for connecting and disconnecting the head rotating mechanism and said gearing, means controlling the action of the connecting and disconnecting mechanism, gearing driven continuously from the driving shaft, a cam rotated continuously by said latter gearing and actuating the controlling means for different periods whereby the distance of the rotatory movement of the head may be increased or diminished, spindles carried by the head and mechanism for rotating the spindles, substantially as specified.

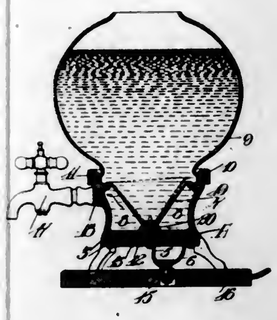
3. A screw machine having a spindle head mechanism for imparting intermittent rotatory movement to the head, stock spindles carried by the head, mechanism for rotating the spindles continuously in the same direction, means for feeding a rod longitudinally through each spindle when the head is idle, means for clamping a rod in each spindle, mechanism for operating the feeding means and the clamping means in conjunction with the head rotating mechanism, a larger number of end tool holders than there are stock spindles, and means for adjusting the head rotating mechanism whereby the head may be stopped so as to present each spindle with its feed and clamp in line with every tool holder or only part of the tool holders, substantially as specified.

4. A screw machine having a spindle head, mechanism for imparting rotatory movement to the head, gearing driven continuously from the driving shaft, mechanism for connecting and disconnecting the head rotating mechanism and said gearing, means controlling the action of the connecting and disconnecting mechanism, gearing driven continuously from the driving shaft, a cam rotated continuously by said latter gearing, said cam being adjustable so that it may act for a longer or shorter period on the controlling means, and tool holders movable axially of the spindles, substantially as specified.

5. A screw machine having a rotatable spindle head, spindles carried by the head, mechanism for rotating the spindles, adjustable mechanism for rotating the head a greater or less amount, and a greater number of axially moving tool holders than there are spindles, substantially as specified.

[Claims 6 to 15 not printed in the Gazette.]

939,605. ELECTRIC WATER-HEATER. HENRI G. LEVY and GEORGE N. BLANCHARD, San Francisco, Cal.; said Blanchard assignor to said Levy. Filed Mar. 29, 1909. Serial No. 486,600.



1. A heating unit comprising two sheets of insulated material the opposed surfaces of which are normally coated with a binder which will become active on the application of heat thereto; and a winding of bare metal and insulating material between the sheets forming a flat insulated coil, said winding being united to the sheets to bind the several parts and thereby form a substantially rigid heating element.

2. A heating unit comprising two opposed sheets of mica having their adjacent surfaces coated with a substance which fuses on the application of heat thereto, and a flat coil between said sheets and in contact therewith, said coil being formed of alternate windings of bare wire and asbestos twine, and said coating serving as a binder for uniting the sheets to each other and to said coil.

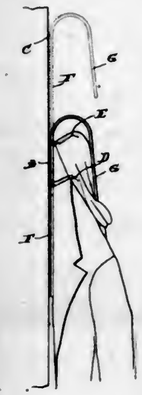
3. A heating unit comprising two sheets of insulating material and an interposed flat coil composed of a winding of bare wire and intermediate asbestos twine, and a shellac coating on the inner surfaces of the sheets for uniting the sheets and winding to each other when heat is applied thereto.

4. The combination with a water-containing receptacle provided with a flat-faced under surface, of a heating unit comprising two sheets of insulating material, the opposed surfaces of which are normally coated with a binder which will become active on the application of heat thereto, and a winding of bare metal and insulating material between the sheets forming a flat insulated coil, said winding being united to the sheets to combine the several parts and thereby form a substantially rigid heating element, the terminals of the wire extending outward from between the sheets, one of said sheets lying against the said flat-faced surface of the receptacle, a plate forming a base support for the other sheet, and fastenings for securing the base support and intermediate heating element.

5. A water-heater consisting of a reservoir, with a flat bottom, and one side of said flat bottom having a recess, a heating coil in said recess, and a loose fitting conically inverted valve in the reservoir, the apex of the valve open and contiguous to said bottom, said valve forming a conical partition in the reservoir.

[Claims 6 to 10 not printed in the Gazette.]

939,606. GARMENT-HOLDER. CHARLES C. LIVINGSTON, Faribault, Minn. Filed Jan. 25, 1909. Serial No. 473,945.



1. A garment holder comprising a base adapted to be secured to a suitable support and provided with parallelly-arranged vertical guides, a hook member projecting outwardly from said base, a hook-shaped guard having a shank presenting parallel separated standards mounted to slide vertically in the said guide and having its prong moving in a path beyond the end of the hook member whereby after a garment has been placed on the hook member the shank may be slid downwardly to bring the prong outside of the garment and thus prevent the removal of the garment from the hook members.

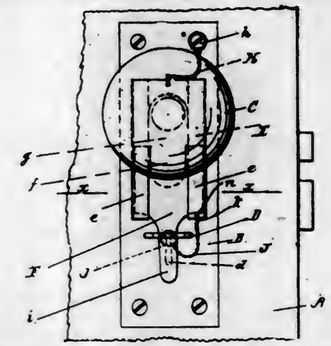
2. A garment holder comprising a base adapted to be secured to a suitable support and provided with parallelly-arranged vertical guides, a plurality of hook members projecting outwardly from said base and formed integrally therewith, a hook-shaped guard having a shank presenting parallel separate standards mounted to slide vertically in the said guides and having its prong moving in a path beyond the end of the hook members whereby after a garment has been placed on the hook members the shank may be slid downwardly to bring the prong outside of the garment and thus prevent the removal of the garment from the hook members.

3. A garment holder comprising a base adapted to be secured to a suitable support and bent to form a plurality of outwardly projecting hook members, a guard member mounted on said base and having an arm moving in a path beyond the end of the hook members whereby after garments have been placed on the hook members the guard may be moved to bring its arm outside of the garments and thus prevent the removal of the garments from the hook members.

939,607. KEY-FASTENER. WILLIAM A. LOVELAND, Minneapolis, Minn. Filed May 7, 1909. Serial No. 494,609.

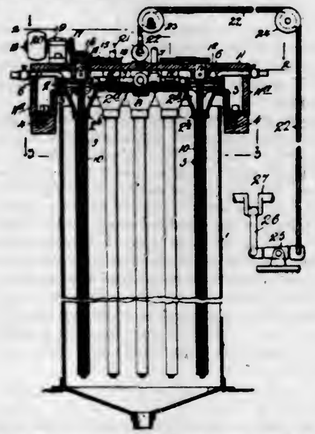
1. The combination, with a lock provided with a door-knob and a key, of a guide provided with a slot which engages with the door-knob, and a locking-plate slidable in the said guide and having a slot in its upper end for engaging with the door-knob and having also a tongue at its lower part for engaging with the eye of the key.

2. The combination, with a lock provided with a door-knob and a key, of a guide provided with a slot which engages with the door-knob, a locking-plate slidable in the said guide and having a slot in its upper end for engaging with the door-knob and having also a tongue at its lower part for engaging with the eye of the key, a stop-link engaging with a hole in the guide below the locking-plate,



and a chain connected to the said link and having a ring for engaging with the shank of the key.

939,608. PIPE-CLEANING APPARATUS. GEORGE A. LUTZ, Plainfield, N. J., assignor to American Circular Loom Company, Portland, Me., a Corporation of Maine. Filed Oct. 10, 1908. Serial No. 457,059.



1. A pipe or tube cleaning apparatus comprising means to supply abrading material to the interior of a pipe, a cleaning device within such pipe, and means to rotate said device within the pipe.

2. A pipe or tube cleaning apparatus comprising means to sustain a pipe in vertical position with both ends open, means to supply abrading material to the interior of a pipe through the upper end, a cleaning device within such pipe, and means to reciprocate said device within the pipe.

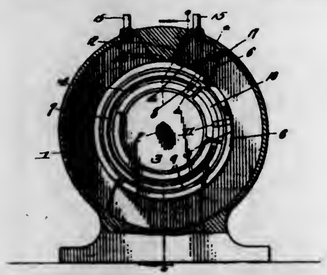
3. A pipe or tube cleaning apparatus comprising means to supply abrading material to the interior of a pipe, a cleaning device within such pipe, and means to rotate and simultaneously reciprocate said device within the pipe.

4. A pipe cleaning apparatus comprising a tank, a pan provided with an opening, a pipe secured in alinement with said pan, a cleaning device to pass through said pipe, and means to rotate said cleaning device.

5. A pipe cleaning apparatus comprising a tank, a pan provided with an opening, a pipe secured in alinement depending from and communicating with said opening, a suspended cleaning device to pass through said pipe, and means to reciprocate said device within the pipe.

[Claims 6 to 13 not printed in the Gazette.]

939,609. ROTARY ENGINE. JOSEPH A. MACK, Salida, Colo. Filed Nov. 27, 1908. Serial No. 464,679.

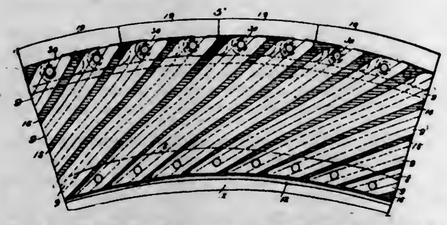


1. In a rotary engine, a cylinder, a fixed abutment therein, a shaft passing through said cylinder, a rotatable piston concentric with said shaft, the periphery of the piston engaging the abutment, semi-annular overlapping grooves formed on opposite sides of said piston, bores leading from said grooves, and opening through the periphery of said piston, wings hinged to the piston and covering said bores when folded, and means for admitting steam to said grooves.

2. In a rotary engine, a cylinder, a shaft, a rotatable piston on the shaft, the periphery of the piston being provided with two cut out portions, wings hinged to the piston and folding in to said cut out portions, bores formed in the piston, said bores opening respectively into said cut out portions and opposite sides of the piston, and semi-annular grooves formed upon opposite sides of the piston, each of said grooves communicating at one end with one of said bores.

3. In a rotary engine, a cylinder, a rotatable piston, the opposite sides of said piston being provided with grooves, the groove upon one side over-lapping the groove upon the opposite side, annular packing rings arranged parallel to the grooves, packing strips separating opposite ends of each groove, an abutment carried by the cylinder, said abutment having a curved inner face, packing strips carried by said face, said strips being in engagement with the piston, bores formed in the piston, said bores communicating respectively with said grooves and opening through the periphery of the piston, wings hinged to the piston, said wings when closed folding over the said bores, exhaust pipes upon opposite sides of the abutment, and steam inlet pipes discharging into said grooves, as and for the purpose set forth.

939,610. TIRE FOR VEHICLE-WHEELS. THOMAS MIDGLEY, Worthington, Ohio. Filed Nov. 23, 1908. Serial No. 464,169.



1. A tire for vehicle wheels provided with a casing whose sides are composed of interlocked alternate flexible and inflexible members.

2. A tire for vehicle wheels provided with a casing whose sides are composed of tapering alternate flexible and inflexible members.

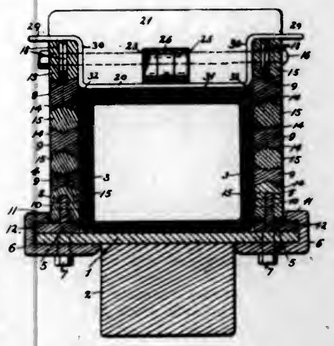
3. A tire for vehicle wheels provided with a casing whose sides are composed of alternate flexible and inflexible members arranged at an angle to the tread of the tire.

4. A tire for vehicle wheels provided with a casing whose sides are composed of tapering alternate flexible and inflexible members, and having a tread detachably secured between the sides.

5. A tire for vehicle wheels provided with a casing having sides composed of flexible and inflexible members, base plates to engage the rim of the wheel and to which said sides are secured, and a separate tread interposed and secured between the sides.

[Claims 6 to 8 not printed in the Gazette.]

939,611. TIRE FOR VEHICLE-WHEELS. THOMAS MIDGLEY, Worthington, Ohio. Original application filed Nov. 23, 1908, Serial No. 464,169. Divided and this application filed Feb. 10, 1909. Serial No. 477,040.



1. A tire for vehicles provided with a casing having composite sides of separate members, part of which are resilient, tread-carriers, tread-sections on said carriers, links extending throughout the circumference of the casing, and transverse bolts engaging said sides, tread-carriers and links.

2. A tire for vehicles provided with a casing having separate sides composed of alternate flexible and inflexible members, tread-carriers interposed between and covering the periphery of said sides, a separate tread, reinforcing links below the surface of the tread, and reinforcing bolts engaging the inflexible members of the sides, the tread-carriers, the links and the tread.

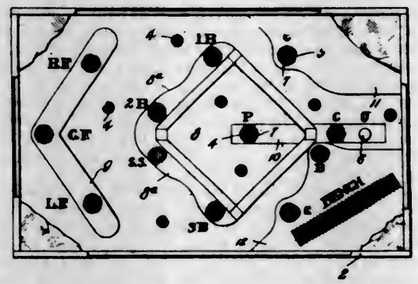
3. A tire for vehicles provided with a casing having separate sides, a separate tread, reinforcing metallic links on each side of the casing and between the sides, and transverse bolts engaging said sides, links and tread.

4. A tire for vehicles provided with a casing composed of separate detachable sides, a separate detachable tread, transverse bolts engaging said sides and tread, an inflatable inner tube, and an interposed lining between said tube and thread.

5. A tire for vehicles provided with a casing composed of separate sides of alternate flexible and inflexible members, base-plates for engaging the rim of a wheel, and to which said sides are secured, a separate tread, reinforcing metallic links engaging said sides and said tread below the surface of the tread, and transverse bolts engaging said sides, links and tread.

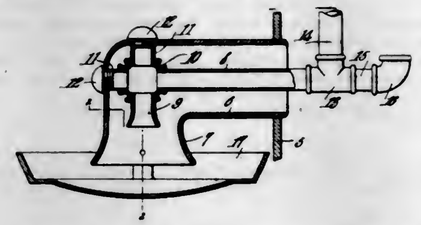
939,612. BASE-BALL PUZZLE. TIMOTHY MOONEY, Boston, Mass. Filed Mar. 8, 1909. Serial No. 482,044.

A base ball puzzle of the class described consisting of a base having on its upper surface elevated planes representative of a base ball diamond and outfield, said planes having therein pockets at intervals, the plane representing the diamond having incurved edge portions, other planes adjacent to the inner end of the diamond and elevated somewhat above the first mentioned planes and also having pockets therein as well as incurved edges for the purpose described, the pockets being of different colors, and



balls movable freely on the base and adapted to be seated in the various pockets and colored in a manner corresponding thereto.

939,618. LIQUID-FUEL BURNER. BENTON MOORE, Cherryvale, Kans. Filed June 25, 1909. Serial No. 504,334.



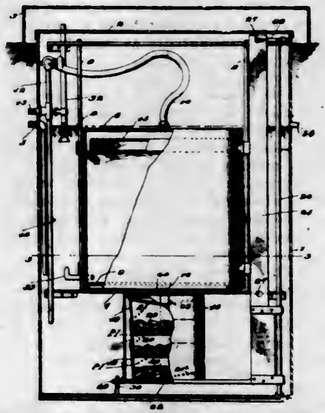
1. A liquid fuel burner comprising an air-supply pipe open at its ends, a fuel pipe entering one end of said pipe and discharging from the other end thereof, said fuel pipe extending through the air pipe in spaced relation thereto, a T-coupling connected to the outer end of the fuel pipe, a supply pipe connected to the lateral branch of the coupling, and an elbow connected to the branch of the coupling which is in line with the branch to which the fuel pipe is connected, said elbow being upwardly presented.

2. A liquid fuel burner comprising an air supply pipe open at its ends, and having at one end a downwardly directed discharge mouth, a fuel pipe entering the opposite end of said pipe, and extending therethrough in spaced relation therewith, a cross coupling connected to the inner end of the fuel pipe, a nozzle connected to said coupling, and projecting in the direction of the aforesaid discharge mouth, tubes connected to the other branches of said coupling, and extending to the air-supply pipe, there being openings in said pipe to receive the said tubes, and plugs closing the outer ends of the tubes.

939,614. ACETYLENE-GAS GENERATOR. FREDERICK J. MOSS, Conneaut Lake, Pa. Filed Feb. 18, 1908. Serial No. 416,505.

1. In a machine of the character described, the combination of a bell for collecting the gas, a generator located underneath the bell, a valve at the upper end of the generator controlled by the vertical movement of the bell, and a support upon which the generator is mounted, the generator being movable with the support, and the support being adapted to swing horizontally to bring the generator beneath the bell or to a position to clear the same and to move vertically to elevate the generator to convenient position for cleaning and charging or to lower the same into a position to swing beneath the bell.

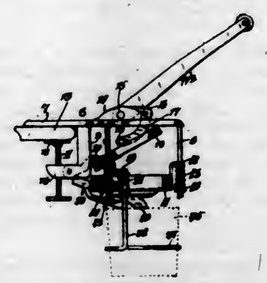
2. In combination a bell adapted to receive a quantity of gas and adapted to rise and fall, a generator arranged beneath the bell and provided with a valve adapted to be operated by the vertical movement of said bell, a support for the generator adapted to swing horizontally and to move vertically, the generator being mounted upon said support, and movable therewith, and means for securing the support in position underneath the bell.



3. In combination with a tank for containing a quantity of water, a bell mounted in the tank and adapted to rise and fall and open at its lower end, a generator arranged beneath the bell within the lower portion of the tank, a valve in the upper portion of the generator, and adapted to be controlled by the vertical movement of the aforesaid bell, and a support for said generator mounted to swing horizontally and move vertically, the generator being mounted upon said support and movable therewith.

4. In combination, a tank, a bell located in the tank and adapted to rise and fall, a generator located in the lower portion of the tank beneath said bell, a support for the generator mounted to swing horizontally and to move vertically, the generator being mounted upon said support and movable therewith, a projection extending from said support, and means fitted to the lower portion of the tank to coöperate with said projection and support to secure the latter in proper position.

939,615. FRUIT CUTTER AND SQUEEZER. DOSIER H. MOSTELLER, Chicago, Ill., assignor to The Mosteller Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed June 2, 1908. Serial No. 436,190.



1. A fruit squeezer, comprising a frame having a plurality of supporting rods, a slotted bar, an upper cross plate, a movable presser plate, a fixed casing having its arms secured about the supporting rods, springs positioned about the supporting rods under the arms of the casing, a removable strainer within the fixed casing, and

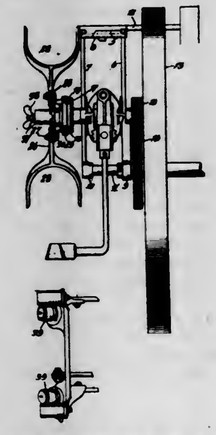
means for actuating the presser plate, substantially as described.

2. A fruit squeezer, comprising a frame having a plurality of supporting rods, a slotted bar, an upper cross plate, a movable presser plate, a fixed casing having its arms secured about the supporting rods, springs positioned about the supporting rods under the arms of the casing, a removable slotted strainer within the fixed casing, a knife secured to the under side of the frame adjacent the strainer, and means for automatically actuating the knife and presser plate, substantially as described.

3. A fruit squeezer, comprising a frame having a plurality of supporting rods, a slotted bar, an upper cross plate, a movable presser plate, a fixed casing having its arms secured about the supporting rods, springs positioned about the supporting rods under the arms of the casing, a removable slotted strainer within the fixed casing, a movable knife member pivoted between lugs on the under side of the device, the blade of the knife being adjacent the slotted strainer and its weighted end contacting the arm of the movable presser plate, and means for automatically actuating the knife member and presser plate, substantially as described.

4. In a fruit squeezer, a frame having a plurality of supporting rods, a fixed casing having its arms secured about the supporting rods, springs positioned about the supporting rods under the arms of the casing, a movable presser plate, and means for actuating the presser plate against the casing, substantially as described.

939,616. WIRE-REEL AND MOUNTING THEREFOR. FRANK P. MURPHEY, Decatur, Ill. Filed Nov. 23, 1908. Serial No. 464,087.



1. In a device of the class described, a shaft, a friction clutch comprising a fixed clutch member mounted on the shaft, a loose clutch member coöperating therewith and provided on its outer face with lugs, a reel provided with a reel hub socketed in said loose clutch member, and further provided with lugs coöperating with the lugs on the loose clutch member, an adjusting rod entered into the shaft, a spring surrounding said rod and adapted to be compressed by the retraction of said rod, and connections between the rod and the reel hub for imparting pressure to the reel hub due to the compression of the spring, substantially as described.

2. In a device of the class described, a shaft, a friction clutch comprising a fixed clutch member mounted on the shaft, a loose clutch member coöperating therewith and provided on its rear face with lugs, a reel provided with a reel hub socketed in said loose clutch member, and further provided with lugs coöperating with the lugs on the loose clutch member, an adjusting rod entered into the shaft, a spring surrounding said rod and adapted to be compressed by the retraction of said rod, a cap surrounding the rod and bearing against the reel hub, and an adjusting nut on the end of the rod bearing against the cap adapted to transmit pressure against the cap due to the compression of the spring, substantially as described.

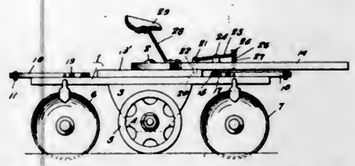
3. In mechanism of the class described, in combination with a main shaft and a drive wheel mounted thereon, an extension on the end of the main shaft outwardly projecting beyond the drive wheel, a frame carried by said extension and having bearing points thereon a sufficient distance apart to prevent lateral movement of the frame, a support for the rear end of the frame extending outside of the periphery of the drive wheel, and a reel carried by the frame, substantially as described.

4. In mechanism of the class described, in combination with a main shaft and a drive wheel mounted thereon, an extension on the end of the main shaft outwardly projecting beyond the drive wheel, a frame carried by said extension and having bearing points thereon a sufficient distance apart to prevent lateral movement of the frame, a support for the rear end of the frame extending outside of the periphery of the drive wheel, and a reel carried by the frame, the frame extending rearwardly from the extension on the main shaft, substantially as described.

5. In mechanism of the class described, in combination with a main shaft and a drive wheel mounted thereon, an extension on the end of the main shaft outwardly projecting beyond the drive wheel, a frame carried by said extension and having bearing points thereon a sufficient distance apart to prevent lateral movement of the frame, a support for the rear end of the frame extending outside of the periphery of the drive wheel, a reel carried by the frame, a friction clutch for rotating the reel, and gearing between the friction clutch and the main shaft for actuating the clutch, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

939,617. REVERSIBLE PLOW. JOSEPH J. NALL, Kimbolton, N. C. Filed Nov. 21, 1908. Serial No. 463,905.



1. An implement of the character described comprising a body, a reversible tongue, reversible plows having rotatable standards, arms fixed intermediate their ends on said standards, a connecting means between the outer ends of said arms and the body, means carried by the tongue for engaging and actuating the inner end of either of said arms, whereby the plows will be simultaneously reversed when the tongue is reversed and means for retaining the tongue in adjusted position.

2. An implement of the character described comprising an axle, supporting wheels thereon, a vertical pivot carried by said axle, a beam mounted intermediate its ends on said pivot, reversible plows carried by the ends of said beams and having rotatable standards, arms carried by said standards, a connecting member fixed to the axle and connected to said arms, and a reversible tongue having means to engage and actuate either of said arms, whereby the plows will be simultaneously reversed when the tongue is reversed.

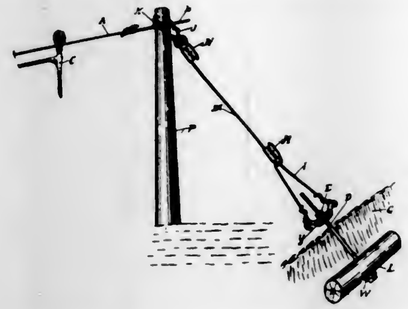
3. An implement of the character described comprising an axle, supporting wheels thereon, a pivot on said axle, a beam mounted intermediate its ends on said pivot, rotatable plow carrying standards in said beam adjacent its ends, arms upon said standards, an arcuate rod fixed to the axle and pivoted to said arms, a reversible tongue on said pivot and having means to engage and actuate said beam to automatically reverse the standards and means for locking the tongue in an adjusted position.

4. An implement of the character described comprising an axle, supporting wheels thereon, a pivot on said axle, a beam mounted intermediate its ends on said pivot, rotatable plow carrying standards in said beam adjacent its ends, arms upon said standards, an arcuate rod fixed to the axle and pivoted to said arms, a reversible tongue on said pivot, said beam being formed with seats, a lug depending from the tongue and adapted to enter either of said seats and to engage said beam to automatically reverse the standards when the tongue is reversed, and means for locking said tongue in an adjusted position.

5. An implement of the character described comprising a body, a reversible tongue, reversible plows having rotatable standards, arms carried by said standards, a wheeled axle on which the body is pivotally mounted, resilient connections between said arms and the axle and means carried by the tongue and adapted to engage either one of said arms, whereby the plows will be simultaneously reversed when the tongue is reversed.

[Claim 6 not printed in the Gazette.]

939,618. SUPPORTING DEVICE FOR OVERHEAD TRACKS. ALBERT H. NELLER and WILLIAM LOUDEN, Fairfield, Iowa. Filed Aug. 5, 1908. Serial No. 447,075.



1. In supporting devices for overhead tracks, a post set in the ground, a suspended track-wire supported at one end by a suitable connection passed through the upper end of the post, an anchor-block planted in the ground beyond the end of the track-wire and in line therewith, a threaded anchor-bolt passed up through the anchor-block so the threaded end will be above the ground an anchor-wire connected to the upper end of the post so it will be above the line of the track-wire on the inner side of the post and below it on the outer side, and means to adjustably connect the anchor-wire to the anchor-bolt.

2. In supporting devices for overhead tracks, a post, a track-wire, a threaded tension bolt passed through the post and connected to the track-wire, an anchor-wire on the opposite side connected to the upper end of the post, an anchor block planted in the ground, a threaded anchor bolt passed up through the anchor block so the threaded end will be above the ground, a yoke adjustably secured to the anchor-bolt and a V-shaped wire centrally connected to the anchor-wire and having loops on its ends catching under the ends of the yoke.

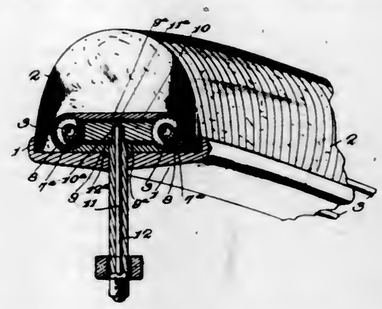
3. In supporting devices for overhead tracks, a post, a track-wire supported at one end by the post, an anchor wire connected to the top of the post, an anchor-block planted in the ground, a threaded bolt passed up through the block so the threaded end will be above the ground, a yoke adjustably secured to the bolt, and having hooks on each end, and a V-shaped wire connected at its center to the anchor-wire, and having loops on its ends connected to the hooks of the yoke.

4. In supporting devices for overhead tracks, a post set in the ground, a suspended track-wire supported at one end by a suitable connection passed through the upper end of the post, an anchor-block planted in the ground beyond the end of the track-wire and in line therewith, a threaded anchor-bolt passed up through the anchor-block so the threaded end will be above the ground, an anchor-wire, a separate loop shaped wire surrounding the upper end of the post so as to be above the line of the track-wire on the inner side of the post, and below it on the outer side, and having smaller loops on its ends connected to the upper end of the anchor-wire, and means to adjustably connect the lower end of the anchor-wire to the upper end of the anchor-bolt.

5. In supporting devices for overhead tracks, a post, a track-wire supported at one end by the post, an anchor block planted in the ground, a threaded anchor bolt passed up through the block so the threaded end will be above the ground, an anchor wire having a hook on each of its ends, clamps to close said hooks and prevent them from spreading, a loop shaped wire surrounding the top of the post and having loops on its ends connected to the hook on the upper end of the anchor-wire and means to adjustably connect the anchor bolt to the hook on the lower end of the anchor-wire.

[Claims 6 to 9 not printed in the Gazette.]

939,619. TIRE-FASTENER. LOUIS M. NELSON, Douglas, Wyo. Filed Jan. 26, 1909. Serial No. 474,326.



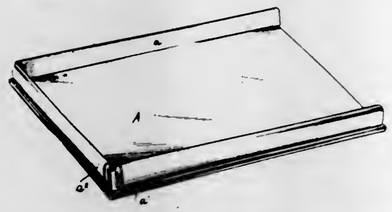
1. The combination with a tire formed with longitudinal bores, circumferentially extending tie rods mounted in said bores, the ends of said tie rods being oppositely threaded, of a casing mounted in the tire and formed with a cylindrical body portion and laterally extended ends, worms mounted in the ends of the casing, sleeves rigidly connected to said worms, and protruding in opposite directions from the ends of the casing, said sleeves being formed with oppositely threaded bores engaging the threads of the tie rod extremities, a worm gear mounted in the body portion of the casing and lying between and in the same plane as said bores and meshing with the worms, said worm gear being formed with a non-circular socket, a stem adapted to be slipped into the casing and formed with an outer extremity fitting in said socket, and a tie screw extending through said stem and screwing into the gear whereby to detachably hold the stem in position.

2. The combination with a tire formed with longitudinal bores, and tie rods mounted in said bores, the tie rods being formed with oppositely threaded extremities, of coupling sleeves formed with oppositely threaded bores engaging the threaded extremities of the tie rods, worms secured to said sleeves, a worm gear interposed between and in the same plane with the worms and meshing therewith, the worm gear being formed with a socket, a hollow stem mounted in said socket, and a tie screw extending through said stem and engaging the worm gear to detachably hold the stem in place.

3. The combination with a tire formed with longitudinal bores, and tie rods mounted in said bores, the tie rods being formed with oppositely threaded extremities, of coupling sleeves formed with oppositely threaded bores engaging the threaded extremities of the tie-rods, worms

secured to said sleeves, a worm gear interposed between and in the same plane with the worms and meshing therewith, and means for turning said worm gear.

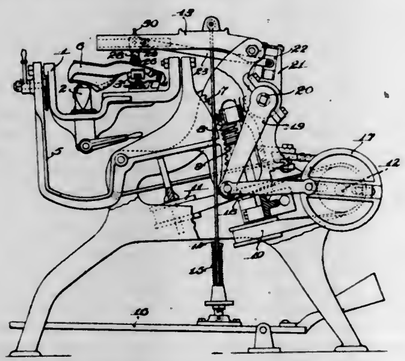
939,620. PRINTER'S GALLEY. ALFRED S. ORCHARD, Philadelphia, Pa., assignor to Keystone Type Foundry, Philadelphia, Pa., a Corporation. Filed Feb. 29, 1908. Serial No. 418,427.



1. A printer's galley comprising a single sheet of metal cut and bent to form a bottom, two sides and an end, the end and sides being at right angles with the bottom and at right angles with each other and also looped over the outer edge of said bottom to form the loop a' along the edges of said bottom, the outer portions of said sides and end being extended and bent back and down to rest in the corners between said loop a' and the sides and end, and the corners between the end and sides being secured by extending a lip on one through a perforation in the other and clenching, and extending the end of one part and doubling it back to serve as a support for the end of the other part, substantially as set forth.

2. A printer's galley comprising a single sheet of metal cut and bent to form the galley with sides and end at right angles with the bottom, the corners being secured by extending a lip on one through a perforation in the other part and clenching, and extending the end of one part and doubling it back to afford a support for the other part, substantially as set forth.

939,621. SOLE-LEVELING MACHINE. CHANDLER L. PARKER, Lynn, and WILLIAM C. COLLYER, Reading, Mass., assignors to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Dec. 26, 1905. Serial No. 293,176.



1. A sole leveling machine, having, in combination, a shoe supporting jack and means acting automatically to exert a rolling and a separate rubbing action upon the sole of a shoe supported upon the jack to level the sole.

2. A sole leveling machine, having, in combination, a shoe supporting jack, a sole leveling roll, and means for actuating the roll to exert upon the sole of a shoe supported upon the jack an alternate rolling and rubbing action to level the sole.

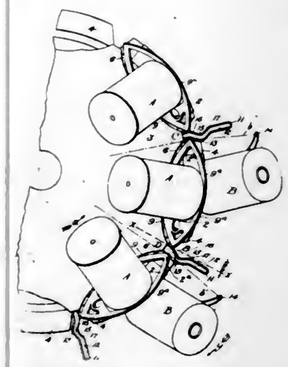
3. A sole leveling machine, having, in combination, a shoe supporting jack, a sole leveling roll, means for vibrating the roll while in contact with the sole of a shoe supported upon the jack, and means for locking the roll from rotation during its vibrating movement in one direction.

4. A sole leveling machine, having, in combination, a shoe supporting jack, a sole leveling roll, means for vibrating the roll while in contact with the sole of a shoe supported upon the jack, said roll being free to rotate on its axis during its vibrating movement toward the heel end of the sole and means for locking the roll from rotation during its vibrating movement toward the toe end of the sole.

5. A sole leveling machine, having, in combination, a shoe supporting jack, a sole leveling roll, means for vibrating the roll while in contact with the sole of a shoe supported upon the jack, and means for locking the roll from rotation during its vibrating movement in either direction while permitting the roll to rotate on its axis during its vibrating movement in the opposite direction.

[Claims 6 to 8 not printed in the Gazette.]

939,622. BRAIDING-MACHINE. EDWARD F. PARKS and SIMON W. WARDWELL, Providence, R. I. Filed Aug. 2, 1907. Serial No. 386,813.



1. In a braiding machine, the combination of two sets of yarn supplies, carriers to carry one set of supplies, means to pass the yarns from the second set of supplies to either side of the carriers and guides to act with further deflecting effect on the yarns in their passage by the carriers, as described.

2. In a braiding machine, the combination of two sets of yarn supplies, carriers for one set of supplies formed with edges of lenticular form, deflecting means for deflecting the yarns to different side edges of the carriers and guides below the carriers to coact with their lenticularly formed edges in deflecting the yarns from the other set of supplies in their passage by the first set.

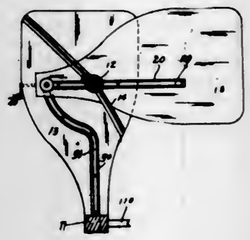
3. In a braiding machine, the combination of two sets of supplies revolving in opposite directions, carriers for one set of supplies, with lenticularly formed edges, deflecting means for alternately carrying the yarns in position to contact with different edges and guides below the carriers revolving in the opposite direction from the carriers and coöperating with the lenticularly formed edges of the carriers in deflecting the yarns in their passage about the supplies on the carriers.

4. In a braiding machine, the combination of two sets of supplies revolving in opposite directions, carriers for one set of supplies, and guides revolving in the opposite direction from the carriers and formed with V-shaped slots coacting with the carriers to guide the yarns around the carriers in the manner and for the purpose specified.

5. In a braiding machine, the combination of revolving carriers carrying one set of yarn supplies, a second set of yarn supplies revolving in a direction opposite to that of the carriers means for deflecting their yarns to different sides of the carriers, and guides revolving with the second set of supplies, each formed with a slot having reversely inclined faces that coact with the carriers in passing said yarns about the latter as described.

[Claims 6 to 14 not printed in the Gazette.]

939,623. EXTENSION-ARM FOR CHAIRS. FLOYD E. PAYNE and MILUS M. HOUSE, Indianapolis, Ind. Filed June 4, 1908. Serial No. 436,646.



1. A chair including a stationary widened arm, a cross bar mounted on the front post of the chair with its two ends secured to said stationary arm and spaced from said arm, a movable widened arm mounted between said stationary arm and cross bar, and means for guiding and holding said movable arm.

2. A chair including a stationary widened arm, a bar secured upon the front post of the chair under sid arm and secured at its ends to the edges of said arm and spaced from said arm, a movable widened arm located between said stationary arm and cross bar, a longitudinal guide on the under side of said movable arm, bearings mounted on said cross-bar for said guide that permits the movable arm to be moved longitudinally, a longitudinal guide in the under side of said stationary arm, and a bearing connected with the inner end of said movable arm that engages and travels along said guide.

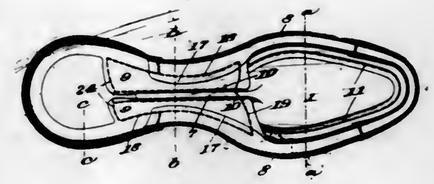
3. A chair including a stationary widened arm, a transverse bar mounted on the front post of the chair with its ends secured to said arm and said arm spaced from said bar, a movable widened arm mounted between said stationary arm and said bar, a bearing for said movable arm that is mounted on said bar and arranged to permit said movable arm to move laterally, a guide on the under side of said stationary arm that is curved concentrically with said bearing, and a bearing extending from the end of said movable arm in movable engagement with the guide on the stationary arm whereby the movable arm can be moved laterally in connection with the stationary arm.

4. A chair including a stationary widened arm, a cross-bar mounted upon the front post of the chair with its ends secured to the edges of said arm and spaced therefrom, a movable arm between said stationary arm and bar, a bearing for said movable arm that is mounted on said bar and arranged to permit the movable arm to move longitudinally and laterally, a guide on the under side of said stationary arm that has a longitudinal portion and another portion curved concentrically with said bearing, and means extending from said movable arm into movable engagement with the guide on the stationary arm whereby the movable arm may be moved longitudinally and then laterally.

5. A chair including a stationary arm, a movable widened arm, means for supporting the forward end of the stationary arm, a guide connected with said movable arm having lateral grooves therein, a bearing connected with said support and projecting astride said guide and engaging the arm in said grooves, whereby said arm will not only be movable but the vertical relationship between the arms be maintained.

[Claims 6 to 11 not printed in the Gazette.]

939,624. SEWED SHOE. GEORGE L. PIERCE, New York, N. Y. Filed Dec. 8, 1906. Serial No. 346,918.



1. A shoe comprising a main sole having a feather extended around the edges of its forward part upon its top surface, and provided with a similar feather extended around the edges of its heel part upon its lower surface, an upper having the lower edges of its forward part stitched to the main sole along the feather at the top surface of the forward part of said sole, whereby the edge portions of the forward part of said main sole are permitted to project outside of said upper, the lower edges of the rear part of the upper being carried beneath the heel part of said main sole and stitched thereto along the feather at the underside thereof, a welt secured along said feather at the underside of the heel part of the main sole and extended around said heel part in line with the projecting edge portion of the forward part of the main sole, and a lift arranged beneath the heel part of the main sole and secured around its edges to said welt.

2. A shoe comprising a main sole, an upper having its forward edge portions secured to the main sole, said main sole having its edge portions extended outside the upper at its forward and shank parts but notched out around its heel part and provided with shoulders at the forward ends of said notched out part, a welt connected with and extended around the heel part of the upper and directed outwardly therefrom within the notched out part of the main sole with ends abutting upon the shoulders at the forward ends of the notched out part, and a lift secured to the welt and arranged beneath the heel part of the main sole.

3. A shoe comprising a main sole having a feather extended centrally along the top surface of its shank part, and an upper having the edges of its forward and rear parts secured along the edge portions of the forward and heel parts of said main sole, and having the opposite edges of its shank part provided with projections which are lapped across the top surface of the shank part of the main sole and are stitched at their adjacent edges to said centrally arranged feather.

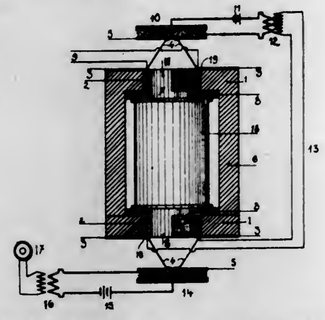
4. A shoe comprising a main sole, an upper having the edges of its forward and rear parts secured along the edges of the forward and heel parts of said main sole, and having the opposite edges of its shank portion provided with projections which are extended across and secured to the top surface of the shank part of the main sole, and secured to each other adjacent to the center of said shank part of the main sole, an outer sole extended beneath the forward part of the main sole, a lift arranged beneath the heel part of the main sole, and stitching extended transversely across the shank part of the main sole adjacent to the forward and heel parts thereof, and passed through the outer sole, heel lift and through the forward and rear edges of the inwardly extended projections of the shank part of the upper.

5. A shoe having a main sole, and an upper the forward part of which has its lower edges secured along the forward part of said main sole, and the shank part of

which has its opposite edges provided with projections which are lapped across the top surface of the shank part of the main sole, the shank part of said main sole being channeled adjacent to the central portion of its top surface, and the inner edges of the projections of the shank part of the upper being secured to the shank part of the main sole along such channeled central portion thereof.

[Claims 6 to 10 not printed in the Gazette.]

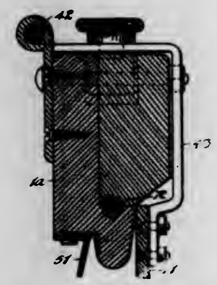
939,625. APPARATUS FOR STRENGTHENING WEAK ELECTRICAL CURRENTS. ANTON POLLÁK, Paris, France. Filed Aug. 7, 1908. Serial No. 447,422.



1. An apparatus for the strengthening of weak electric currents, including in combination a magnet having a shell with two end plates and a core with two ends between which and the end plates there is a narrow air space, a coil in each of said air spaces supported movably in the direction of its axis only, a microphone actuated by each of said coils, one of said coils carrying the current to be strengthened and the other coil being in the circuit of the microphone of the first coil.

2. An apparatus for the strengthening of weak electric currents, including in combination a magnet having a shell 6 with opposite apertured end plates 1, and having a core 7 with its opposite ends lying in the apertures of said end plates with narrow air spaces between the core and the end plates, coils 2 in said air spaces and supported movably in their axial direction, and microphones attached to said coils.

939,626. ELECTRICALLY-ACTUATED TRAIN-SWITCH. JOSEPH Y. PORTER, Detroit, Mich. Filed Dec. 10, 1908. Serial No. 466,766.



1. In combination with a bridge piece, provided with electrical carrying terminals and a central part insulated therefrom and adapted to carry a main wire over the insulated part, an electrical conducting plate secured to the insulated central part, a second electrical conducting plate in hinged relation to the central insulating part, adapted to be brought into electrical contact with the trolley wheel, substantially as described.

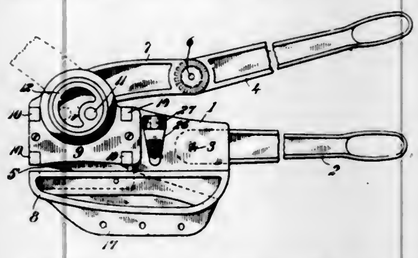
2. A bridge piece adapted to form a continuation of the running wire for a trolley wheel, and to carry the conductor wire over said bridge and thereby furnish a section of the running track electrically insulated from the conducting wire, an electrical conductor plate secured to the insulated part, a second electrical conductor hinged to the insulated part and adapted to hang in close relation to the trolley wheel traveling the conductor plate on said insulated part and motor elements in electrical connection with said hinged conductor whereby said motor elements may be actuated by a current passing through the trolley wheel, substantially as described.

3. The combination with a bridge piece, provided with electrical conducting terminals, an insulating central piece having a partial facing of electrical conducting material, a hanging member of electrical conducting material adapted to hang in contact with the trolley wheel running said facing, a conductor leading from said hanger through an intermediate motor to the ground, and an electrical conductor leading from the main wire and making electrical contact with said facing, substantially as described.

4. A bridge for trolley roads, having in combination an insulating section adapted to cover the main wire, overlapping plates arranged on opposite sides of said insulating section, and electrical connections normally discontinuous but adapted to be made continuous by a trolley wheel interposed between sections thereof, substantially as described.

5. A trolley bridge, having in combination an insulating portion adapted to engage the lead wire in its normally straight condition, an insulating portion adapted to force the trolley wheel downward below the lead wire, a constant circuit contact bar parallel with the lead wire, an intermittent circuit conducting bar insulated from the constant circuit, contact bar adapted to be brought into circuit with the trolley wheel, substantially as described.

939,627. METAL-SHEARS. GEORGE POTSTADA, San Francisco, Cal. Filed Jan. 28, 1908. Serial No. 413,132.



1. In a metal shear, a shear head having a knife channel and an eye, a plate secured to the head and having an eye opposite the eye in the knife head, a knife sliding between the plate and the head in the knife channel thereof, a double eccentric adapted to rotate in the eyes of the head and the plate, lugs carried by the head and adapted to prevent movement of the plate in the plane of the face of the head, a pin carried by the eccentric and adapted to move the knife when the eccentric is turned in the eyes of the plate and head, and a movable block surrounding the pin and movable in the knife in a line parallel with the sheet of metal to be cut.

2. In a metal shear, a shear head having a knife channel and an eye, a plate secured to the head and having an eye opposite the eye of the knife head, a knife sliding in the channel in the knife head, an eccentric having one part movable in the eye of the plate and another part movable in the eye of the knife head said knife being carried between the two parts of the eccentric, and a pin passing through the eccentric and supporting the knife.

3. In a metal shear, a shear head having a knife channel and an eye near the top thereof, a plate secured to the head and having an eye opposite the eye of the knife head

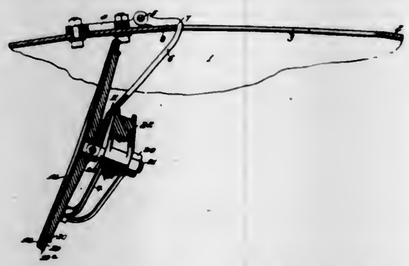
lugs adapted to prevent the plate from moving in the plane of the knife, a knife movable in the knife channel of the head an eccentric having a part movable in the head of the shear and another part movable in the eye of the plate secured thereto, said knife extending up between the two parts of the eccentric, and a pin securing the knife to the eccentric and adapted to move the knife when the eccentric is moved.

4. In a metal shear, a head having two eyes therein and a knife channel, an eccentric adapted to fit the eyes, and a knife carried between the parts of the eccentric bearing on each eye.

5. In a metal shear, a shear head having a knife channel and two eyes, an eccentric carried in the eyes, a knife carried by the eccentric and adapted to be moved thereby, a finger secured to one side of the shear head and extending downwardly and outwardly from the same and adapted to bear on a sheet of metal being cut, and means to operate the shear.

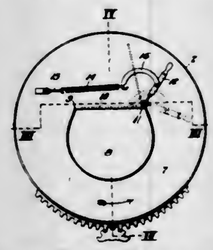
[Claims 6 to 9 not printed in the Gazette.]

939,628. MANHOLE-CLOSURE. CHARLES C. PUFFER, Rochester, N. Y., assignor to The Pfaudler Company, Rochester, N. Y., a Corporation of New York. Filed Jan. 23, 1905. Serial No. 242,299.



In a manhole closure for tanks or similar vessels, the combination with a wall having an aperture, a cover therefor adapted to fit the inner surface of the wall having an annular peripheral groove in its outer face and a gasket lying in said groove and provided with a flanged edge projecting laterally beyond the edge of the cover, of an arm hinged to the exterior face of the wall and having a bifurcated extremity extending to the center of the cover and forming two separated bearing portions, lugs on the latter embracing said bearings and hinge pins uniting them, an outwardly projecting bolt on the cover located between the bearings and a yoke mounted thereon and adapted to engage the outer face of the wall.

939,629. CONCRETE-MIXER. MATTHEW H. REED, Pittsburg, Pa. Filed Feb. 10, 1909. Serial No. 477,164.



1. A rotary concrete mixer drum provided in its interior with an adjustable material-deflecting element having a limited range of movement, a rocking shaft extending longitudinally of the drum carrying said element and having an operating lever, and spring mechanism connected with the drum and lever adapted to positively hold the lever, shaft and deflecting element when thrown to the limit of movement in either direction, substantially as set forth.

2. A rotary concrete mixer drum provided in its interior with an adjustable material-deflecting element having a limited range of movement, a rocking shaft extending longitudinally of the drum carrying said element and having an operating lever, and spring mechanism connected with the drum having an arc-shaped terminal engaging the lever and adapted to positively hold it and the shaft and deflecting element when thrown to the limit of movement in either direction, substantially as set forth.

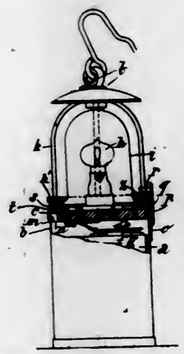
3. A rotary concrete mixer drum provided in its interior with an adjustable material-deflecting element having a limited range of movement, a rocking shaft extending longitudinally of the drum carrying said element and having an operating lever at each end, and spring mechanism connected with the drum and one of said levers adapted to positively hold the levers, shaft and deflecting element when thrown to the limit of movement in either direction, substantially as set forth.

4. A rotary concrete mixer drum provided in its interior with an adjustable material-deflecting element having a limited range of movement, a rocking shaft extending longitudinally of the drum carrying said element and having an operating lever at its end, and spring mechanism embodying an arc-shaped portion connected with said lever adapted to exert tension thereon to positively hold the lever, shaft and deflecting element when thrown to the limit of movement in either direction, substantially as set forth.

5. The combination with the mixing drum and its chute, of a hinged chute cover and a support therefor and spring controlled means for holding the hinged cover either open or closed.

[Claims 6 to 11 not printed in the Gazette.]

939,630. MINER'S ELECTRIC LAMP. HERMANN REMANÉ, Berlin, Germany, assignor to Deutsche Gasglühlicht Actien Gesellschaft (Auergesellschaft), Berlin, Germany, a Corporation of Germany. Filed May 22, 1908. Serial No. 434,254.



1. In a miner's electric lamp, and in combination, a casing for the source of current, a removable cover for same, a lamp carried by said cover, a rotatable ring on said cover, and means carried by said ring and casing respectively whereby the rotation of the ring will hold the cover to the casing.

2. In a miner's electric lamp, and in combination, a casing for the source of the current, a removable cover for same, a lamp carried by said cover, a rotatable ring on said cover having a recess, and a catch on said casing adapted to engage in the recess of said ring and to be held when the latter is rotated.

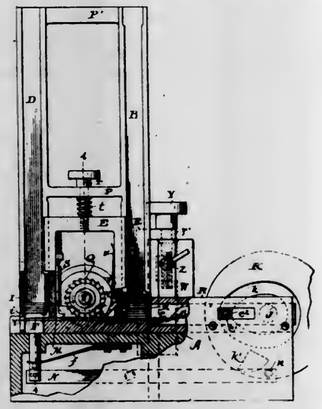
3. In a miner's electric lamp, and in combination, a casing for the source of the current, a removable cover for same, a lamp carried by said cover, a collar forming part of said cover and having a recess, a ring rotatable on said collar, and also having a recess, and a catch on said casing having a part adapted to engage in the recesses of said ring and collar and to be covered by the ring when rotated.

4. In a miner's electric lamp, and in combination, a casing for the source of the current and having a recess in same, a removable cover for said casing, a flange on said cover to engage said recess, a lamp and a protective cage carried by said cover, a screwed flange carried by said cage, a screwed collar forming a part of said cover, and with which the screwed flange of the cage can engage, a ring having a recess and rotatable on said collar, a catch on said casing adapted to engage in the recess of said ring and to be held when the latter is rotated, and a fork on said catch to engage a part of the protective cage.

5. In a miner's electric lamp, and in combination, a casing for the source of the current and having a recess in same, a removable cover for said casing, a flange on said cover to engage said recess, a lamp, a lamp glass and a protective cage carried by said cover, a screwed flange carried by said cage adapted to seat on the lamp glass, a screwed collar forming a part of said cover, and with which the screwed flange of the cage can engage, a ring having a recess and rotatable on said collar, a catch on said casing adapted to engage in the recess of said ring and to be held when the latter is rotated, and a fork on said catch to engage a part of the protective cage.

[Claims 6 and 7 not printed in the Gazette.]

939,631. MATRIX-CHANNELING MACHINE. HORACE A. REYNOLDS, Woonsocket, R. I., assignor to Electric Compositor Company, New York, N. Y., a Corporation of New Jersey. Filed Jan. 16, 1907. Serial No. 352,619.

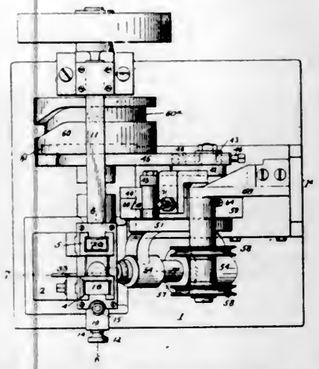


1. The combination of a bed plate having a channel in its top face, a cutter rotatably supported above said channel, a feed magazine supported above said channel with its lower edge a suitable distance above the bottom of said channel, a reciprocating push bar moving backward and forward in said channel under said magazine, a vertically movable frame E, a spring pressing said frame downward, adjustable means for limiting said downward movement, and the spring actuated dog V carried by said frame and located between the cutter and said magazine.

2. The combination of a bed plate having a channel in its top surface, a feed magazine supported over one end of said channel, a receiving magazine supported over the other end of said channel, a reciprocating push bar operating in said channel beneath the receiving magazine, a cutter rotatably mounted over the channel between said magazines, a vertically movable frame having two depending members whose lower edges are over said channel and close to the respective magazines, a spring which yieldingly presses said frame downward, adjustable means for limiting said downward movement, a spring actuated dog V pivoted to one member of said frame between the cutter and feed magazine, a spring actuated presser foot supported on the other member of said frame between the cutter and the receiving magazine, a vertically movable plunger located under the receiving magazine, and mechanism for effecting properly timed movements of said push bar and plunger.

3. The combination of a bed plate having a channel in its top surface, a feed magazine supported over one end of said channel, a receiving magazine supported over the other end of said channel, a reciprocating push bar operating in said channel beneath the receiving magazine, a cutter rotatably mounted over the channel between said magazines, a vertically movable frame having two depending members whose lower edges are over said channel and close to the respective magazines, a spring which yieldingly presses said frame downward, adjustable means for limiting said downward movement, a spring actuated dog V pivoted to one member of said frame between the cutter and feed magazine, a vertically movable plunger located under the receiving magazine, mechanism for effecting properly timed movement of said push bar and plunger, a movable gate normally projecting across said channel, and a latch yieldingly holding the gate in position.

939,632. DOVETAIL-NOTCH-CHAMFERING MACHINE FOR MATRICES. HORACE A. REYNOLDS, Woonsocket, R. I., assignor to Electric Compositor Company, New York, N. Y., a Corporation of New Jersey. Filed Jan. 16, 1907. Serial No. 352,621.



1. The combination of a table in which is a channel, a presser foot located over said channel, with a slide mounted to move on an inclined guideway which is at an angle to the table top, mechanism for reciprocating said slide upon said guide-way, a rotatable spindle which is mounted upon said slide with its axis at an angle to the table top which is less than the angle of the path of the slide thereto.

2. The combination of a table having in its top surface a channel for the reception of matrices to be operated upon, a spring-actuated presser foot located above said channel, a reciprocating push bar operating in said channel, a fixed standard carrying an inclined guide-way, a slide mounted and movable upon said guide-way, a spindle mounted upon said slide with its axis at a less inclination to the plane of the table top than is said guide-way, means for rotating said spindle, and means for reciprocating said slide upon said guide-way.

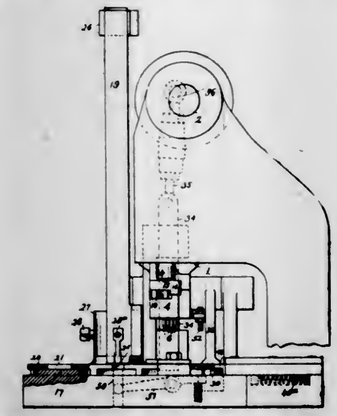
3. The combination of a bed having a guide-way, a standard mounted to move upon said guide-way, a guide-way secured to said standard and set at considerable inclination to a plane of said bed, a slide mounted upon said inclined guide-way, a rotatable spindle mounted upon said slide with its axis at a less inclination to the plane of said bed than is the guide-way of said slide, mechanism for rotating said spindle, means for fastening the slide to its guide-way and the standard to its guide-way, and mechanism by which reciprocating motion is transmitted to either the slide or said standard when the other is fixed to its guide-way.

4. The combination of a bed plate having a horizontal guide-way, a standard movably mounted upon said guide-way, means to prevent said movement, a guide-way carried by said standard which is set at a considerable angle to a horizontal plane, a slide mounted and movable upon said guide-way, means preventing said movement, a rotatable spindle mounted upon said slide, another slide movable in a path substantially parallel with the path in which said standard may move, means imparting reciprocatory motion to said last mentioned slide, mechanism for transmitting motion from said slide to the inclined slide.

5. The combination of a bed plate having a horizontal guide-way, a standard movably mounted upon said guide-way, means to prevent said movement, a guide-way carried by said standard which is set at a considerable inclination to a horizontal plane, a slide mounted and movable upon said guide-way, means preventing said movement, a rotatable spindle mounted upon said slide, another slide movable in a path substantially parallel with the path in which said standard may move, a bell crank lever pivoted to said standard, one arm of which is operatively connected with the slide last mentioned, and a link connecting the other arm of said lever with the inclined slide.

[Claim 6 not printed in the Gazette.]

939,633. COMBINATION PUNCHING-MACHINE FOR MATRICES. HORACE A. REYNOLDS, Woonsocket, R. I., assignor to Electric Compositor Company, New York, N. Y., a Corporation of New Jersey. Filed Jan. 26, 1907. Serial No. 354,189.



1. The combination with a punch press of a punch carrier adapted to be secured to the reciprocating head of the press, which carrier consists of a built up block having a plurality of vertical holes extending from its bottom upward, horizontally movable stop bars mounted in said carrier and located respectively above the upper ends of said holes and having notches in their lower surfaces, punches movably mounted in said vertical holes, means preventing the punches from dropping from said holes, said stop bars having two notches in their top surfaces arranged substantially as specified, and a lock bar adapted to engage in the notches with a plurality of said stop bars.

2. The combination with a punch press of a punch carrier adapted to be secured to the reciprocating head of the press, which carrier consists of a built up block having a plurality of vertical holes extending from its bottom upward, horizontally movable stop bars mounted in said carrier recesses and located respectively above the upper ends of said holes and having notches in their lower surfaces, punches movably mounted in said vertical holes, means preventing the punches from dropping from said holes, said stop bars having two notches in their top surfaces arranged substantially as specified, a lock bar adapted to engage in the notches with a plurality of said bars, and a latch retaining said lock bar in place.

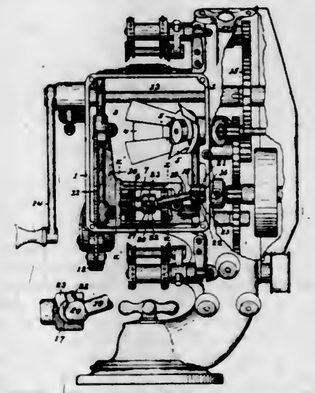
3. The combination with a punch press of a punch carrier adapted to be secured to the lower end of the press head, said carrier containing a vertical hole extending from the lower end thereof upward and a transverse recess with which the upper end of said hole communicates, a punch movably mounted in said vertical hole, a device carried by said carrier, engaging in said notch to prevent the punch from dropping out, a stop bar movable in said transverse recess having in its lower edge a notch, one end of which is beveled, and having in its upper edge two notches for the reception of a locking bar, a lock bar adapted to engage in one of said recesses to prevent endwise movement of said stop bar.

4. The combination with a punch press of a punch carrier adapted to be secured to the lower end of the press head, which carrier contains two groups of vertical holes, each group being arranged in two rows, whereof the holes in one row are staggered with respect to the holes in the other row, said carrier also containing two transverse recesses with which the upper ends of the two groups of holes respectively communicate, a series of stop bars fitted to and movable in each of said transverse recesses, each stop bar being over one of the vertical punch holes and having in its lower surface a notch.

5. The combination with a punch press, of a punch carrier adapted to be secured to the lower end of the press head, which carrier contains two groups of vertical holes, each group being arranged in two rows, whereof the holes in one row are staggered with respect to the holes in the other row, said carrier also containing two transverse recesses with which the upper ends of the two groups of holes respectively communicate, a series of stop bars fitted to and movable in each of said transverse recesses, each stop bar being over one of the vertical punch holes and having in its lower surface a notch, and each of said stop bars having also in its top face two notches, two locking bars respectively associated with the two groups of stop bars and adapted to engage in said top recesses to prevent endwise movement of the stop bars.

[Claims 6 and 7 not printed in the Gazette.]

939,634. KINETOSCOPE. ALVAH C. ROEBUCK, Chicago, Ill. Filed Apr. 4, 1908. Serial No. 425,094.



1. In a kinetoscope, the combination of a shutter journaled on a stationary axis, a carriage movable to and from said shutter, a film feeding mechanism mounted on said

carriage, and an intermediate operative connection between the shutter and the film feeding mechanism, the same comprising a shaft journaled in the main frame or housing and provided with a knuckle at one end, a shaft of the film feeding mechanism journaled in said carriage and having a knuckle at one end, and an intermediate shaft having universal connections with said knuckles at its respective ends, substantially as set forth.

2. In a kinetoscope, the combination of a shutter journaled on a stationary axis, a carriage movable to and from said shutter, a film feeding sprocket drum journaled in said carriage, and an intermediate operative connection between the shutter and the film feeding mechanism, the same comprising a shaft journaled on the main frame or housing and provided with a knuckle at one end, a shaft of the film feeding mechanism journaled in said carriage and having a knuckle at one end, and an intermediate shaft having universal connections with said knuckles at its respective ends, substantially as set forth.

3. In a kinetoscope, the combination of a shutter journaled on a stationary axis, a carriage movable to and from said shutter, a film feeding sprocket drum and intermittent gearing for operating the same mounted on said carriage, and an intermediate operative connection between the shutter and the film feeding mechanism, the same comprising a shaft journaled in the main frame or housing and provided with a knuckle at one end, a shaft of the film feeding mechanism journaled in said carriage and having a knuckle at one end, and an intermediate shaft having universal connections with said knuckles at its respective ends, substantially as set forth.

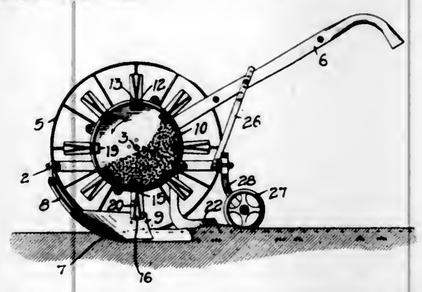
4. In a kinetoscope, the combination of a shutter journaled on a stationary axis, a carriage movable to and from said shutter, a film feeding mechanism mounted on said carriage, and an intermediate operative connection between the shutter and the film feeding mechanism, the same comprising a shaft journaled in the main frame or housing and provided with a knuckle at one end, a shaft of the film feeding mechanism journaled in said carriage and having a knuckle at one end, and an intermediate shaft having spherical heads at its ends and studs extending radially from said heads, said knuckles being formed with cylindrical cavities and with slots in the walls of such cavities and adapted for engagement with the spherical heads and radial studs aforesaid, substantially as set forth.

5. In a kinetoscope, the combination of a shutter journaled on a stationary axis, a carriage movable to and from said shutter, a film feeding sprocket drum journaled in said carriage and an intermediate operative connection between the shutter and the film feeding mechanisms, the same comprising a shaft journaled on the main frame or housing and provided with a knuckle at one end, a shaft of the film feeding mechanism journaled in said carriage and having a knuckle at one end, and an intermediate shaft having spherical heads at its ends and studs extending radially from such heads, said knuckles being formed with cylindrical cavities and with slots in the walls of such cavities and adapted for engagement with the spherical heads and radial slots aforesaid, substantially as set forth.

[Claim 6 not printed in the Gazette.]

939,635. SUGAR-BEET SEEDER. GUSTAV M. ROOS, Waverly, Minn., assignor of one-half to Lambert G. Rose, Minneapolis, Minn. Filed Jan. 4, 1909. Serial No. 470,638.

1. A machine of the class described, comprising a frame having carrying wheels, a revolving hopper arranged between said carrying wheels and having feed openings in its periphery, and spouts therefor, said hopper consisting of a substantially circular receptacle adapted to contain the seeds in bulk which roll around and are thoroughly mixed as the hopper revolves, the discharge ends of said spouts being out of contact with the soil, and a furrow opener operating in advance of said hopper and having side wings or blades between which said spouts pass as said hopper revolves, means for permitting the discharge of the seeds while a spout is passing between said blades, and said blades serving as wind shields during the deposit of the seeds between them.



2. A sugar beet seeding machine, comprising a frame having an axle and carrying wheels therefor and handle bars, a hopper supported in said frame between said wheels and consisting of a receptacle wherein the seeds are deposited in bulk, said hopper being provided with a series of radial spouts, and means controlling the passage of the seeds to said spouts, the discharge ends of said spouts being out of contact with the ground, a furrow-opener operating in advance of said spouts and curved blades operating in the rear of said spouts.

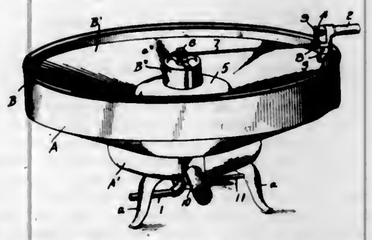
3. A machine of the class described, comprising a frame and carrying wheels therefor, a hopper arranged to revolve in a vertical plane and having peripheral walls, which are inclined outwardly from the ends of the hopper toward the middle portion thereof, said peripheral walls having feed openings at intervals and slides therefor, said slides having pockets adapted to communicate with said openings, and feed spouts arranged to communicate with the said pockets and receive the seeds therefrom, and said slides normally registering with said feed openings, and means for actuating said slides at intervals to cause their pockets to register temporarily with said spouts.

4. A machine of the class described, comprising a frame having carrying wheels, a revolving hopper having feed openings at intervals, and feed slides having pockets arranged to normally register with said openings, means for actuating said slides, and guard plates provided within said hopper over said feed openings, said guard plates being open at each end and allowing the passage of seeds to said openings.

5. A machine for seeding sugar beet seed, comprising a frame having carrying wheels, a revolving hopper having a series of feed openings and spouts therefor, means for delivering the seeds through said feed openings in groups—there being two groups in each hill, and a furrow opener operating in advance of said hopper.

[Claims 6 to 8 not printed in the Gazette.]

939,636. MILK-HEATER. HENRY C. ROOT, Westgrove, Pa. Filed Feb. 6, 1909. Serial No. 476,469.



1. A liquid heater comprising a body in the form of a vessel having a bottom tapered toward its center, hollow cones mounted within said vessel and arranged with a narrow space between them and also between the lower cone and the bottom of the vessel and formed with an internal passage-way for the heating agent adjacent to both their bottom and top surfaces, an inlet for the liquid to be heated arranged to discharge through passage-ways formed in the hub of said upper cone, through the channel formed between the cones and between the lower cone and the bottom of the vessel, substantially as set forth.

2. A milk heater comprising the outside casing, or vessel, with a tapered bottom having a central receiving chamber a discharge pipe leading therefrom, a series of hollow cones mounted within said body one above the other and arranged with a narrow passage-way between the lower cone and the bottom of the vessel and also with like narrow passage-ways between the adjacent sides of said cones, an inlet supply for the liquid to be heated arranged to discharge onto the top surface of the upper cone and flow through apertures in the hub of said upper cone to the space between the cones, out through said space and down through the space between the lower cone and the bottom of the vessel to the central receiving chamber, a heating agent supply arranged to discharge within the lower cone and flow outwardly over the bottom thereof and back to its center, over a centrally arranged partition therein, up through passage-ways leading into the adjacent cone, out over the bottom of said cone and back over a centrally arranged partition therein to the center of said cone, and out through passage-ways in the top of the hub of the upper cone to the discharge pipe, whereby the liquid to be heated and the heating agent flow in opposite directions, substantially as set forth.

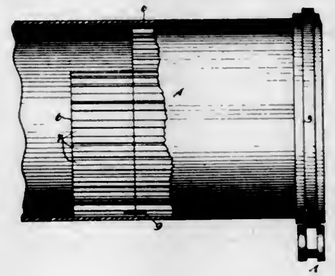
3. In a liquid heater, the combination of the outer casing having an inclined bottom and formed with a central receiving chamber, a discharge pipe leading therefrom, a series of hollow cones arranged one above the other within said casing with narrow passage-ways between them and between the lower cone and the bottom of said casing, partitions arranged within said cones extending from the hubs thereof to near their outer edges dividing said cones into narrow passage-ways leading from the upper chamber of one cone into the lower chamber of the next cone above, a central tube extending through the hubs of said several cones to above the normal level of the liquid to be heated, a tube on the hub of the upper cone surrounding said central tube and extending above the top thereof, said hub being formed with passage-ways leading from the upper chamber therein into said tube, a discharge tube connected with the lower end of said central tube, an inlet supply pipe for the heating agent connected with the lower chamber of the lower cone, an inlet pipe for the liquid to be heated arranged to discharge the liquid onto the stop surface of the upper cone to flow through passage-ways near the center of said upper cone to between said cones, and between the lower cone and the bottom of the casing, to the discharge pipe, substantially as set forth.

4. In a liquid heater, the combination of the casing, a central tube extending up from the center of the bottom of said casing, hollow cones formed with hubs mounted one above the other on said central tube, a passage-way for the heating agent being formed through said cones from the center of the lower cone to its outer edge and back to its center, then into the next cone above, and back and forth through the succeeding upper cones until it discharges into said central tube, an inlet pipe for the liquid to be heated arranged to discharge onto the top surface of the upper cone, passage-ways for said liquid being formed through the hub of the upper cones to between the cones and from between the cones to between the lower cone and the bottom of the vessel, substantially as set forth.

5. In a liquid heater, the combination of the outer casing, the several cones arranged one above the other within said casing and tapered toward the center with passage-ways for the liquid to be heated to flow through the top surface of the upper cone through its hub over the top surface of the adjacent cone and over the bottom of the casing to the central receiving chamber, said cones being formed with passage-ways leading from near their centers to their outer edges and back and discharging through a central tube projecting through their several hubs, the heating agent inlet supply pipe connected with said passage-way and the liquid to be heated supply pipe arranged to discharge onto the top surface of the upper cone, substantially as set forth.

[Claims 6 to 8 not printed in the Gazette.]

939,637. TUBE-MILL LINING. GEORGE H. ROTHERHAM, Tonopah, Nev. Filed Feb. 2, 1909. Serial No. 475,647.

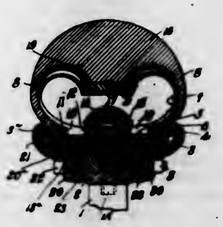


1. A tube mill comprising a cylinder, and an inside lining for the cylinder consisting of segmental corrugated plates, the adjacent ends of the plates grooved longitudinally of the cylinder, and short keys fitting in said grooves and bridging the joint between the ends of contiguous horizontally alined plates, each of said keys having one portion fitting the groove of one plate and having another portion extending beyond said plate and adapted to enter a horizontally alined groove in the adjacent plate to thereby lock the plates in position in the cylinder.

2. In a tube mill, the combination of a cylinder having an inside lining comprising a plurality of segmental plates conforming to the curvature of the cylinder, the longitudinal edges of the plates spaced apart sufficiently to allow a plate to be turned inwardly toward the axis of the mill to remove the plate without disturbing the others, and means fitting between these spaced longitudinal edges of the plates for holding the plate in position, independent of other fastening means.

3. In a tube mill, the combination of a cylinder, and an inside lining for the cylinder, consisting of a series of segmental plates, conforming to the curvature of the cylinder, the longitudinal edges of the plates spaced apart, and longitudinally grooved, with keys fitted in the grooves adjacent to the ends of the plates to lock the plates in position in the cylinder, the spacing apart of said plates being sufficient to admit a tool between the plates, and to permit a key to be driven out endwise to release the plate, and the spacing between said plates also being sufficient to allow a plate to be turned inwardly toward the axis of the cylinder to remove a plate without disturbing the others.

939,638. RESILIENT TIRE. WILLIAM H. ROWLING, Salinas, Cal. Filed May 19, 1908. Serial No. 433,758.



1. The combination with a vehicle wheel and the felly thereof, of a tire comprising a retaining ring encircling the felly and formed in its periphery with an annular re-

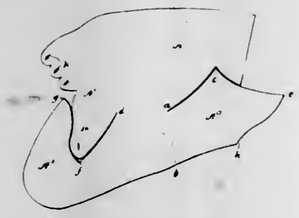
cess having under-cut walls, a series of transverse springs formed at their ends with heads fitting in the recess and arranged for engagement with the under-cut walls thereof, a locking ring encircling the retaining ring and interposed between the heads of the springs, said locking ring being in the form of a split band and being formed with a circumferential series of openings, bolts passing through the respective openings and the retaining ring and the felly, and arranged to draw said locking ring inwardly, whereby to hold the heads in engagement with the under-cut walls of the recess, and a tread incasing the springs.

2. The combination with a vehicle wheel and the felly thereof, of a tire comprising a retaining ring encircling the felly and formed in its periphery with an annular recess having under-cut walls, a series of transverse springs formed at their ends with heads fitting in the recess and arranged for engagement with the under-cut walls thereof, a locking ring encircling the retaining ring and interposed between the heads of the springs, said locking ring being in the form of a split band and being formed with a circumferential series of openings, bolts passing through the respective openings and the retaining ring and the felly, and arranged to draw said locking ring inwardly, whereby to hold the heads in engagement with the under-cut walls of the recess, said openings being elongated to permit the play of the bolts upon the inward movement of the locking ring, and a tread incasing the springs.

3. The combination with a vehicle wheel and the felly thereof, of a tire comprising a retaining ring encircling the felly, a series of transverse springs formed at their ends with transversely spaced heads arranged for engagement with the retaining ring, a locking ring encircling the retaining ring and holding the heads in engagement therewith, said locking ring being formed in its periphery with an annular groove, a resilient bumper encircling the locking ring and received in the groove, and a tread incasing the springs.

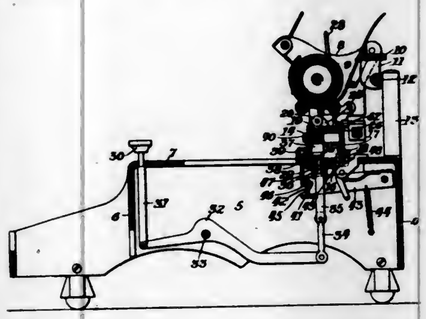
4. The combination with a vehicle wheel and the felly thereof, of a tire comprising a retaining ring encircling the felly, a series of transverse springs formed at their ends with transversely spaced heads arranged for engagement with the retaining ring, a locking ring encircling the retaining ring and interposed between the spaced heads of the springs, to hold the same in such engagement, said locking ring being formed in its periphery with an annular groove having under-cut walls, and a resilient bumper encircling the locking ring and engaged with the under-cut walls of the groove, as and for the purpose specified.

939,639. BOOT OR SHOE UPPER. DOMENICK SACK, Vandergrift Heights, Pa. Filed Feb. 25, 1909. Serial No. 479,940.



In a blank for the formation of boots or shoes consisting of a single piece of material involving four distinct coacting members A, A', A^2, and A^3, the heel portion A^3 being detached from the upper A by means of an approximately right angled slit ending at "*a*" forming the flap "*j*" as an integral part of the upper A, and providing a bending line *a*—*b*; a continuous slit *d* to *g* forming the toe piece A^2 and securing front flap A' involving a fastening tongue member "*m*"; substantially as described and shown.

939,640. TYPE-WRITER-CARRIAGE STOP MECHANISM. MARSHALL B. SARGENT, Momence, Ill., assignor to Emerson Typewriter Company, Chicago, Ill., a Corporation of Maine. Filed Apr. 20, 1909. Serial No. 491,027.



1. In typewriter carriage stop mechanism, in combination with a carriage and escapement devices, a rack bar carried by the carriage and adapted to be raised and lowered with respect to the escapement devices, and having a rack connected therewith, a plurality of column stop pins normally lying below the carriage, and devices for independently lifting such pins to assume a position in the path of travel of a portion of the carriage, a lift bar adapted to be raised by the upward movement of any one of the pin lifting devices, and a brake lever having one of its ends in position to be engaged by the lift bar and raised therewith, and having its other end in position to engage the rack bar and lift the same and exert a braking action thereon, substantially as described.

2. In typewriter carriage stop mechanism, in combination with a carriage and escapement devices, a rack bar carried by the carriage and adapted to be raised and lowered with respect to the escapement devices, and having a rack connected therewith, a plurality of column stop pins normally lying below the carriage, and devices for independently lifting such pins to assume a position in the path of travel of a portion of the carriage, a pivoted lift bar adapted to be raised by the upward movement of any one of the pin lifting devices, and a brake lever having one of its ends in position to be engaged by the lift bar and raised therewith, and having its other end in position to engage the rack bar and lift the same and exert a braking action thereon, substantially as described.

3. In typewriter carriage stop mechanism, in combination with a carriage and escapement devices, a rack bar pivoted at its ends to the carriage, and adapted to be raised and lowered with respect to the escapement devices, and having a rack connected therewith, a plurality of column stop pins normally lying below the carriage, and devices for independently lifting such pins to assume a position in the path of travel of a portion of the carriage, a lift bar adapted to be raised by the upward movement of any one of the pin lifting devices, and a brake lever having one of its ends in position to be engaged by the lift bar and raised therewith, and having its other end in position to engage the rack bar and lift the same and exert a braking action thereon, substantially as described.

4. In typewriter carriage stop mechanism, in combination with a carriage and escapement devices, a lift bar pivoted at its ends to the carriage and adapted to be raised and lowered with respect to the escapement devices, and having a rack connected therewith, a plurality of column stop pins normally lying below the carriage, and devices for independently lifting such pins to assume a position in the path of travel of a portion of the carriage, a pivoted lift bar adapted to be raised by the upward movement of any one of the pin lifting devices, and a brake lever having one of its ends in position to be engaged by the lift bar and raised therewith, and having its other end in position to engage the rack bar and lift the same and exert a braking action thereon, substantially as described.

5. In typewriter carriage stop mechanism, in combination with a carriage and escapement devices, a rack bar carried by the carriage and adapted to be moved toward and from the escapement devices and having a rack connected therewith, a plurality of column stop pins normally lying outside of the path of travel of the carriage, and devices for independently moving such pins to assume a position in the path of travel of a portion of the carriage, a bar adapted to be moved by the movement of any one of the pin actuating devices, and a brake lever having one of its ends in position to be engaged by said bar and moved therewith, and having its other end in position to engage the rack bar and move the same out of engagement with the escapement devices and exert a braking action thereon, substantially as described.

[Claim 6 not printed in the Gazette.]

939,641. CLOSURE-REMOVING DEVICE FOR RECEPTACLES. HOMER E. SHEPARD, Rochester, N. Y., assignor of one-half to Charles Gallery, Rochester, N. Y. Filed July 22, 1908. Serial No. 444,692.



1. The combination with a receptacle and a closure therefor, of a slide guided on one of said parts in a straight line and having a portion coöperating with the other to cause their separation.

2. The combination with a receptacle and a closure therefor, of a slide guided on one of said parts in a straight line, and a bevel portion on the other with which the slide coöperates to separate the closure from the receptacle.

3. The combination with a receptacle, and a closure therefor, of a handle arranged in an inner position on the receptacle, slidable outwardly to a projected position and having a portion adapted to coöperate with the closure on the outward movement to cause it to open.

4. The combination with a receptacle and a closure therefor, of a handle carried by the receptacle movable to an inner and an outer position thereon, and an annular beveled portion on the closure with which the handle is adapted to coöperate on its movement to open the receptacle.

5. The combination with a receptacle and a closure therefor, of a handle comprising a U-shaped slide having one arm guided on the bottom of the receptacle and the other arm guided through the vertical wall thereof.

[Claims 6 to 11 not printed in the Gazette.]

939,642. METHOD OF CONSTRUCTING AND ERECTING REINFORCED-CONCRETE BEAMS, GIRDERS, AND ARCH-RIBS. FRANK W. SKINNER, Tompkinsville, N. Y. Filed Feb. 20, 1908. Serial No. 416,871.



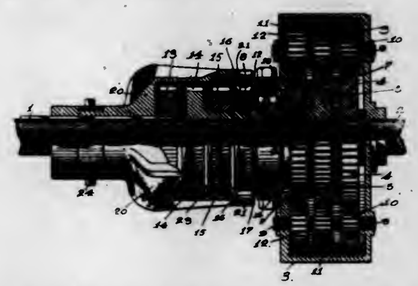
1. The process of construction of a reinforced concrete beam, girder, or arch rib, by the following steps; the assembling of the reinforcement metal with temporary compression members adapted to make with it a complete, efficient girder, the erection of this girder in its final position in the structure and its connection to the structure, the inclosure of the metal reinforcement with a form or mold, the filling of the form or mold with a plastic material, the removal of the temporary compression member after the concrete has developed a set and strength to resist the compression stress in the girder.

2. The process of construction of a reinforced concrete girder, arch rib, or beam by a combination of the following steps, assembling a temporary top flange member to the web, so as to form a complete girder efficient to support its own weight and additional erection loads during construction, supporting the ends of the girder in position required for the finished structure, inclosing the bottom flange and web members by a form or mold, filling the form or mold with a plastic material, removing the top flange member, and any temporary portions of the form or mold after the concrete has developed a set and strength to resist the compression stress in the girder.

3. The process of construction of a reinforced concrete girder, beam, or arch rib, by a combination of the following steps, riveting together a web plate, bottom flange angles and shearing and bonding angles transverse to the flange angles, assembling top flange pieces and separators to the web plate, attaching a form or mold to the top flange pieces, connecting the web plate to supports at the end adapted to carry the weight of the girder and its load, filling the form or mold with concrete, removing the top flange pieces and any temporary portions of the filiers and form after the concrete has developed a set and strength to resist the compression stress in the girder, and filling with concrete any cavities left by the removal of temporary pieces.

4. The process of construction of a reinforced concrete beam, girder, or arch rib, by a combination of the following steps, assembling together the permanent metal reinforcement required to provide for tension and shearing stresses, with a temporary compression member adapted to combine with the permanent metal and form a complete girder efficient to resist construction stresses by the development of the strength of the permanent steel and the temporary compression member, acting together before the development of compressive strength in the concrete; inclosing the permanent reinforcement metal by a form supported by the girder; supporting the girder at the ends only, without intermediate supports or false-work; filling the form with concrete; and removing the temporary compression member after the concrete has developed strength to resist the compression stresses in the girder.

939,643. CHANGEABLE-SPEED TRANSMISSION MECHANISM. ARTHUR L. SLEE, Berkeley, Cal. Filed Apr. 20, 1908. Serial No. 428,011.



1. In a changeable speed transmission mechanism, the combination of a driving and a driven shaft in alinement, variable speed gears independently rotatable about the axis of the driven shaft, a gear fast on the driven shaft, gear connections between the variable speed gears and said driven shaft gear, means for connecting the driving shaft with any of said variable speed gears, and means for reversing the direction of movement of one of the variable speed gears to reverse the movement of the driven shaft.

2. In a changeable-speed transmission mechanism, the combination of a driving and a driven shaft in alinement;

variable-speed gears independently rotatable about the axis of the driven shaft; a gear fast on the driven shaft; a counter shaft; variable-speed pinions on said counter shaft, separately engaging said variable-speed gears and said driven-shaft gear; means for connecting the driving shaft with any of said variable-speed gears; means for directly connecting and disconnecting said driving shaft with and from the driven shaft; and means for reversing the direction of movement of one of the variable-speed gears, to reverse the driven shaft.

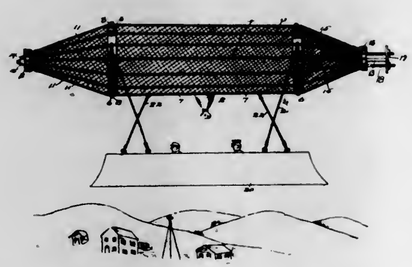
3. In a changeable-speed transmission mechanism, the combination of a driving and a driven shaft in alinement; a gear fast on the driven shaft; a sleeve rotatably mounted on the driven shaft; a gear carried by said sleeve; a counter-shaft; pinions carried thereby meshing reapectively with the sleeve-gear and with the driven shaft-gear; a ratchet carried by said sleeve; and a slidable pawl-carrier on the driving shaft, and a pawl carried thereby adapted to be moved into and out of engagement with said ratchet.

4. In a changeable-speed transmission mechanism, the combination of a driving and a driven shaft in alinement; a gear fast on the driven shaft; a plurality of concentric sleeves independently rotatable about the axis of the driven shaft; a gear carried by each sleeve; a counter-shaft; pinions thereon respectively engaging each sleeve-gear and the driven shaft-gear; a ratchet carried by each sleeve; and a slidable pawl-carrier on the driving shaft, and pawls carried thereby to separately and successively engage and release any of said ratchets.

5. In a changeable-speed transmission mechanism, the combination of a driving and a driven shaft in alinement; a gear fast on the driven shaft; a sleeve rotatably mounted on the driven shaft; a gear carried by said sleeve; a counter-shaft; pinions thereon meshing respectively with the sleeve-gear and with the driven shaft-gear; a ratchet carried by said sleeve; a second ratchet fast on the driven shaft; and a pawl-carrier slidably mounted on the driving shaft and pawls on said carrier adapted to engage with and to be disengaged from either of said ratchets.

[Claims 6 to 8 not printed in the Gazette.]

939,644. BALLOON. ROMULUS C. TILGHMAN, Anacostia, D. C. Filed Dec. 28, 1908. Serial No. 469,575.



1. In a balloon, the combination with a bag, of bands encircling the same, longitudinally extending cables connecting said bands, a shaft extending throughout the bag and cable tightening means carried by the shaft and connected with the bands.

2. In a balloon, the combination with a substantially cylindrical bag, of a shaft extending throughout the length thereof, cables extending outside the bag and connected at their opposite ends with the opposite ends of the shaft, and spreading bands surrounding the bag between the bag and cables.

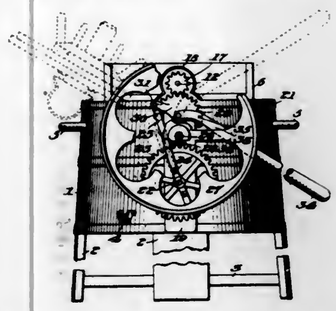
3. In a balloon, the combination with a gas bag, of a shaft extending therethrough, cables lying outside of and engaging said bag, means connected with the shaft for varying the tension of the cables, and car sustaining means connected with the cables.

4. In a balloon, the combination with a gas bag, of a shaft extending longitudinally therethrough, sustaining bands surrounding said bag, a disk longitudinally shiftable mounted on said shaft contiguous to one end thereof, means for adjusting said disk along the shaft, cables connecting said disk to one of said bands, cables connecting the bands, and cables connecting the second band to the opposite end of the shaft from that sustaining the sliding disk.

5. In a balloon, the combination with a substantially cylindrical bag, of a shaft extending throughout the length thereof, cables extending outside the bag and connected at their opposite ends to the shaft, spreading bands surrounding the bag between the bag and cables, and means connected with the shaft for tightening the cables.

[Claim 6 not printed in the Gazette.]

939,645. GEARING FOR WASHING-MACHINES. ARBA VAN WORMER, Fort Wayne, Ind., assignor to Horton Manufacturing Company, Fort Wayne, Ind. Filed Jan. 13, 1908. Serial No. 410,494.



1. In a washing machine gearing a rotary reciprocal vertical shaft; a rotary reciprocal horizontal shaft at right angles thereto; means for operatively connecting said shafts; an operating lever fulcrumed at its forward end independently of the horizontal shaft; means for operatively connecting the lever with the horizontal shaft consisting of a fixed pinion on the last mentioned shaft, and a sector gear connected to the lever, and engaging the undermost section of the pinion; a balance wheel whose axis is below the lever and in parallel relation with the horizontal shaft; and a pitman pivotally connected at its upper end to the sector gear, and at its lower end to the balance wheel.

2. The combination with a rotary reciprocal vertical shaft, a rotary reciprocal horizontal shaft at right angles thereto, means for operatively connecting said shafts, of a lever fulcrumed at its forward end independent of said horizontal shaft, a sector gear adjustably mounted on the forward end of said lever, a fixed pinion on the horizontal shaft whose undermost segment is engaged by the sector gear, a balance wheel whose axis is below and parallel to said horizontal shaft, and means including a pitman for imparting motion from said sector to said wheel.

3. The combination with a rotary reciprocal vertical shaft, a rotary reciprocal horizontal shaft arranged at right angles thereto, means for operatively connecting said shafts, of a lever fulcrumed at its forward end independent of said horizontal shaft, a sector gear adjustably mounted on the forward end of said lever, a balance wheel whose axis is below and parallel to said horizontal shaft, a pitman whose upper end is pivotally connected to said sector and whose lower end is pivotally connected to the balance wheel, and a continuously revoluble gear on the adjacent end of the horizontal shaft in mesh with the said sector.

4. The combination with a rotary reciprocal vertical shaft, a rotary reciprocal horizontal shaft at right angles thereto, means mounted on the adjacent ends of said shafts for operatively connecting the same and a pinion on the opposite end of said horizontal shaft, of a lever fulcrumed at its forward end independent of said horizontal shaft, a balance wheel whose axis is below said lever and parallel to said horizontal shaft, a sector-gear carried by said lever and engaging the undermost segment of said pinion, a gear indirectly actuated by said lever for operating said wheel; and a pitman whose upper end is pivotally connected to the sector gear, and whose lower end is pivotally connected to the balance wheel.

5. The combination with a rotary reciprocal vertical shaft, a rotary reciprocal horizontal shaft at right angles thereto, means for operatively connecting said shafts, and a pinion on the outer end of said horizontal shaft, of a lever fulcrumed at its forward end whose axis is parallel to said last mentioned shaft, a sector-gear carried thereby and engaging the undermost segment of said pinion, a balance wheel and means including a pitman for imparting motion from said lever to said wheel.

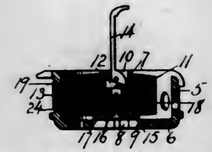
[Claim 6 not printed in the Gazette.]

939,646. LUBRICANT. JAMES W. WATKINS, Zanesville, Ohio, assignor of one-half to Joseph T. Adams, Terre Haute, Ind. Filed Jan. 14, 1909. Serial No. 472,341.

1. A temperature-reducing lubricant formed by bringing together soap, graphite, ammonia, mineral machine oil, tallow, common salt and water.

2. A temperature-reducing lubricant formed by bringing together Italian castile soap, flaked graphite, ammonia, mineral machine oil, tallow, common salt and water, in substantially the proportions specified.

939,647. BOBBIN-CASE. LUCIUS E. WEAVER, East Hampton, Conn. Filed Jan. 27, 1909. Serial No. 474,458.



1. A bobbin case having an end wall with a recess therein, a presser located in said recess, means located outside of said recess for exerting force against the presser to force it against the bobbin when the latter is locked in the case, means for supporting the bobbin within the case, and means for locking the bobbin in the case.

2. A bobbin case having an end wall with a recess therein, a presser located within said recess, a spring located outside of said recess and arranged to force the presser against the bobbin when the latter is located in the case, means for supporting the bobbin within the case, and means for locking it in position.

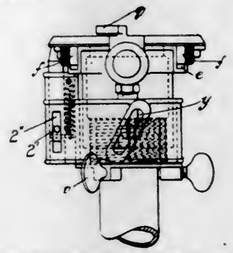
3. A bobbin case having a slot formed in its end wall, a presser including a stem having a branch located within said slot, a spring exerting force upon said stem to press said branch against a bobbin when the latter is locked in the case, means for supporting a bobbin within the case, and means for retaining the bobbin in position.

4. A bobbin case, a bobbin supporting post located within the case, the latter having a recess for a presser, a presser having a stem extending within said post and a branch projecting through the post into the recess in the case in position to underlie a bobbin, a spring located within the post to continually force the presser against a bobbin in the case, and means for retaining the bobbin in the case.

5. A bobbin case having a slot extending through its bottom, a post extending from the bottom of said case and having a slot registering with the slot in the case, a presser including a stem located within the post and a branch located in said slots, a spring to continually retain the presser against a bobbin in the case, and means for retaining a bobbin in the case.

[Claims 6 to 8 not printed in the Gazette.]

939,648. DIE-STOCK. FREDERIC E. WELLS and FRED W. WELLS, Greenfield, Mass.; said Frederic E. Wells assignor to said Fred W. Wells. Filed Jan. 6, 1908. Serial No. 409,443.



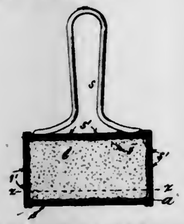
1. As an improvement in die-stocks having, in combination, a main body portion, a hub integral therewith and interiorly threaded at the outer end thereof, a cylindrical element engaging said threaded portion, a second cylindrical or collar element engaging the outer surface of the hub, chasers provided with teeth on an edge thereof, said chasers being radially disposed with relation to the main body portion, and operative means between the teeth of said chasers and the second cylindrical element for radially moving the chasers during the operation of cutting a thread, whereby a tapered thread may be cut.

2. In combination, a main body portion provided with radially disposed grooves therein a support for said body portion, thread-cutting chasers located in said grooves and provided with teeth receiving grooves and thread-cutting teeth, as described, a rotatable plate mounted on said main body portion and provided with spirally arranged threads for engaging said grooves of the chasers, operative means carried by the main body portion for operating the rotatable plate, whereby the thread cutting chasers will be moved in a radial direction during the thread-cutting operation, said operative means including a collar element having an inclined slot therein, means on the body portion engaging said slot and said collar being operable from said body support, as described, whereby a tapered thread may be cut.

3. A tool for cutting a tapering thread having, in combination with the main body portion, a collar element, a support for the body portion and provided with an abutment for engaging said collar element, means carried by the main body portion for imparting a rotary movement to the collar element, chasers radially arranged with relation to the main body portion, a chaser adjusting element and means for transmitting the rotary movement of the collar element to the chaser-adjusting element so as to move the chasers radially, and means for adjustably locking said last mentioned means whereby the chasers can be adjusted to a predetermined radial position, said adjustable locking means including a spring-actuated pin engaging the chaser adjusting element.

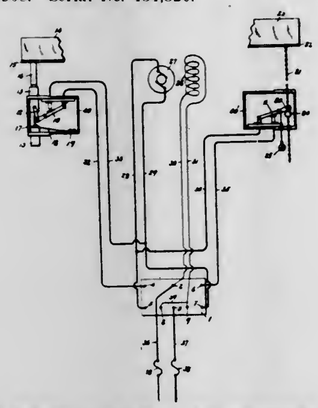
4. A die-stock comprising a body portion internally threaded at one end, a lead-screw engaging the same and provided with a flange, a rotatable collar element mounted on the body portion and having an inclined slot therein, a fixed pin carried by the body portion and engaging the slot, the collar element being operated by the fixed pin, chasers mounted in the body portion, a chaser-adjusting plate provided with means for operating the chasers and provided with recesses therein, a spring-pressed pin carried by the collar element and engaging the recesses whereby when the lead-screw is operated the collar element will have a rotary movement imparted thereto, and whereby the rotary movement of the collar element will be imparted to the chaser-adjusting plate, and the chasers operated as described.

939,649. BLUING DEVICE. ABRAHAM L. WILLCOCKS and ALFRED P. THORLEY, New York, N. Y. Filed Nov. 30, 1908. Serial No. 465,039.



An original package of the character described consisting of a porous bag containing a soluble coloring matter, a stiff cylindrical shaped shell having perforations in its ends and sides and an imperforated bottom forming an anti drip trough and provided with a looped shaped handle secured to the shell at right angles to the plane of the anti drip trough as and for the purpose set forth.

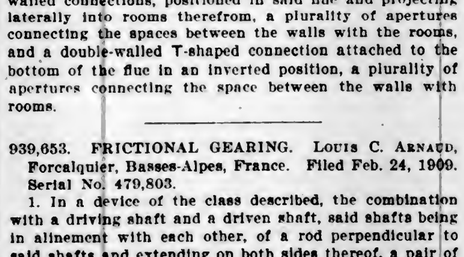
939,650. ELECTRICAL CONTROLLING SYSTEM FOR ROLLING OR SLIDING SHUTTERS, ELEVATORS, &c. LESTER G. WILSON, Larchmont, N. Y. Filed May 23, 1908. Serial No. 434,520.



In a system for operating and controlling a rolling metallic shutter adapted to be raised or lowered by an electric motor, in combination, a double pole double throw knife switch adapted to close either of two circuits each including the motor said switch being provided with extra contacts one of which is adapted to engage one of said switch blades when said switch is closed in either direction and said extra contacts being joined to one end of the field circuit of said motor; a normally closed single throw single pole knife switch in one of said independent circuits the handle of said switch being joined by a link to a bar adapted to be struck and moved vertically by the bottom bar of the shutter when fully closed thereby opening said circuit; and a normally closed single throw single pole knife switch in the other of said independent circuits the handle of said switch having a weight attached thereto adapted to hold said switch closed, said handle being further attached to a chain a remote end of which is attached above the switch to the bottom bar of the shutter so that as the shutter reaches the limit of its upward movement said switch is opened; substantially as and for the purpose described.

939,651. AEROPLANE. SAMUEL W. APPLEGATE, South Bend, Ind. Filed Apr. 20, 1909. Serial No. 490,998.

1. In an aerial navigator, oppositely disposed aeroplanes united in spaced relation to each other, a body mounted for tilting movement between said planes, a propeller at the forward end of the body, propellers arranged centrally within the planes, means operating the said propellers in unison, a tail piece, means forming a ball and socket connection between the tail piece and the rear end of the body, and manually operable means for adjusting the tail piece.



2. In an aerial navigator, spaced oppositely disposed open frame structures united together and having a covering to provide aeroplanes, a substantially cigar-shaped shell pivotally mounted centrally between the said planes, and propeller means for effecting the forward travel of the navigator.

3. In an aerial navigator, spaced oppositely disposed open frame structures united together and having a covering to provide aeroplanes, a substantially cigar-shaped shell pivotally mounted centrally between the said planes, propeller means for effecting the travel of the navigator, and adjustable guide means at the rear end of the shell.

939,652. METALLIC FLUE. LAYTON D. ARMSTRONG, Dallas, Tex. Filed Apr. 27, 1909. Serial No. 492,460.



1. In a device of the character described, the combination with an inner, smoke conducting flue, of an outer ventilating flue, surrounding the same, cruciform double walled connections, adapted to be positioned in said flue and project laterally into rooms and a double-walled T-shaped connection, adapted to attach to the lower extremity of the flue in an inverted position.

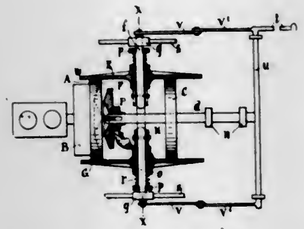
2. In a device of the character described, the combination with an inner smoke-conducting flue, of an outer ventilating flue, surrounding the same, cruciform double walled connections, positioned in said flue and projecting laterally into rooms therefrom, a plurality of apertures connecting the spaces between the walls with the rooms, and a double-walled T-shaped connection attached to the bottom of the flue in an inverted position, a plurality of apertures connecting the space between the walls with rooms.

939,653. FRICTIONAL GEARING. LOUIS C. ARNAUD, Forcalquier, Basses-Alpes, France. Filed Feb. 24, 1909. Serial No. 479,803.

1. In a device of the class described, the combination with a driving shaft and a driven shaft, said shafts being in alinement with each other, of a rod perpendicular to said shafts and extending on both sides thereof, a pair of friction disks, rotatably and slidably mounted on said rod, circular members rigidly mounted on each of said shafts and adapted to enter into frictional engagement with said disks, and means for obtaining and interrupting said frictional engagement.

2. In a device of the class described, the combination with a driving shaft and a driven shaft in alinement with each other, of a rod perpendicular to said shafts, a pair of friction disks mounted on said rod, circular members rigidly mounted on each of said shafts and adapted to enter into frictional engagement with said disks, means for moving said rod in a direction parallel to said shafts, means for guiding said rod in said direction and means for obtaining and interrupting said frictional engagement.

3. In a device of the class described, the combination, with a driving shaft and a driven shaft in alinement with each other, of a rod perpendicular to said shafts, a pair of friction disks loosely mounted on said rod, circular members rigidly mounted on said shafts and adapted to enter into frictional engagement with said disks, a lever and means coacting with said lever and said rod for imparting sliding motion to said rod when said lever is actuated.



4. In a device of the class described, the combination, with a driving shaft and a driven shaft in alinement with each other, of a rod perpendicular to said shafts, a pair of friction disks loosely mounted on said rod, circular members rigidly mounted on each of said shafts, and adapted to enter into engagement with said disks, a plurality of oscillatable members adapted to interrupt said engagement and means for actuating said oscillatable members.

5. In a device of the class described, the combination, with a driving shaft and a driven shaft in alinement with each other, of a rod perpendicular to said shafts, a pair of friction disks loosely mounted on said rod, circular members rigidly mounted on said shafts and adapted to enter into engagement with said disks, a plurality of oscillatable members mounted on said rod adapted to interrupt said engagement and means for actuating said members.

[Claims 6 to 11 not printed in the Gazette.]

939,654. NUT-LOCK. WILLIAM ATKINS, St. John, New Brunswick, Canada, assignor of two-thirds to Alexander W. MacRae, St. John, New Brunswick, Canada. Filed Feb. 18, 1909. Serial No. 478,652.



A nut lock comprising, in combination with a bolt having a recess in one end thereof, the walls of which are split forming flexible fingers with their outer ends convexed, a nut adapted to fit the threaded portion of the bolt and having legs which are inclined and adapted to conform to the inclination of the flange of the rail upon which they rest, the opposite upright sides of the nut having transversely disposed grooves, a washer having a hollow boss which flares outwardly and through which said fingers are adapted to project, said fingers adapted to be outwardly flexed against the inner flaring face of said boss, and wings projecting from said washer at points diametrically opposite and at right angles to the face of the washer and engaging said grooves in the nut, as shown and described.

939,655. HEAD-REST. JAMES BARKER, ALFRED BARKER, and JOSEPH BARKER, Philadelphia, Pa. Filed Apr. 29, 1907. Serial No. 370,777.



1. The combination of a standard having a forked end, a head rest having an extension passing between the forks of the standard, a screw threaded pivot pin adapted to screw threaded openings in the forks of the standard and the extension, so that as the head rest swings it will travel on the screw pivot, and a clamp screw adapted to a threaded opening in one of the forks and bearing against the side of the extension to hold the head rest in the position to which it is adjusted.

2. The combination in a head rest, of a body portion, a paper roll receptacle open at the top and fitting under the forward end of the body portion and shaped at the front to form a slit for the passage of the paper from the roll and over the head rest, slotted lips projecting from the rear of the paper roll receptacle, and bolts screwed into the body portion and adapted to the slots in the lips to hold the paper roll receptacle to the body portion.

3. The combination in a head rest, of a roll receptacle under the forward end of the head rest, a hinged paper clamp pivoted to the rear of the head rest, and narrow lugs projecting from the head rest to hold the paper away from the body of the head rest so that the paper can be readily grasped between the lugs.

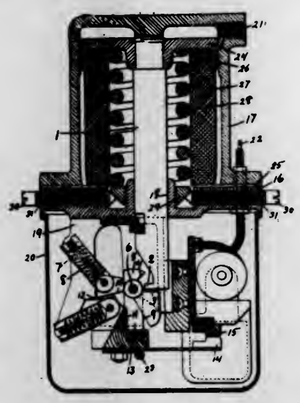
4. The combination in a head rest, of a body portion, a standard to which the body portion is pivoted, a paper roll receptacle open at the top and detachably secured to the underside of the body portion, a clamp made in two parts, one part being secured to the rear of the body portion and having extensions, the other part being pivoted to said extensions and curved in cross section, a spring tending to hold the upper edge of the pivoted part against the fixed part, the lower edge of the pivoted part acting as a cutter, and lugs bent up from the fixed part and acting to hold the edge of the paper away from the head rest.

939,656. GOVERNOR. NORMAN C. BASSETT, Milwaukee, Wis., assignor to Allis-Chalmers Company, Milwaukee, Wis., a Corporation of New Jersey. Filed July 22, 1907. Serial No. 384,843.

1. The combination in a governor, of a cap having an inwardly projecting wall at its opening, a rod extending within said cap, an abutment on said rod and loosely slidable within said cap, a compressible fluid-impervious member surrounding said rod and in free contact with said abutment and said projecting wall of said cap forming a pressure chamber without and surrounding said member, and separate elastic means tending to permit free extension of said member when compressed.

2. The combination in a governor, of a cap having an inwardly projecting wall at its opening, a rod extending within said cap, an abutment on said rod and loosely

slidable within said cap, a hollow rubber cylinder surrounding said rod and in free contact with said abutment and said projecting wall of said cap forming a pressure chamber without and surrounding said cylinder, and a spring within said cylinder and surrounding said rod and tending to permit free extension of said cylinder when compressed.

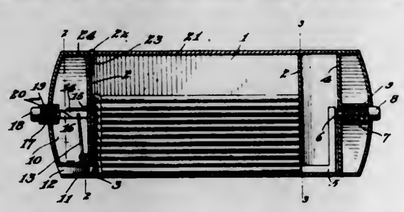


3. The combination in a governor of a base member, a cap, a reciprocatable rod provided with an abutment extended within said cap, and a hollow rubber cylinder and a spring both retained between said abutment and said base member and both located within said cap.

4. The combination in a governor of a base member, a cap, a reciprocatable rod provided with an abutment extended within said cap, a hollow rubber cylinder and a spring both retained between said abutment and said base member and both located within said cap, and means for varying the pressure exerted by said spring.

5. The combination in a governor of a base member, a cap, a reciprocatable rod provided with an abutment extended within said cap, a hollow rubber cylinder and a spring both retained between said abutment and said base member and both located within said cap, means for varying the pressure exerted by said spring, and means to prevent the collapsing of said rubber cylinder.

939,657. POCKET MATCH-SAFE. JOHN F. BEATTY, Morton, Pa. Filed Jan. 5, 1909. Serial No. 470,810.

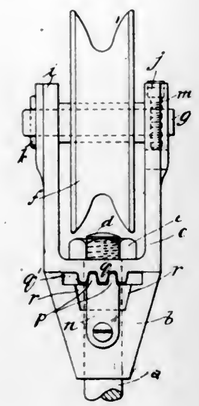


1. The combination with a match compartment having a match chamber at one edge thereof, of an area sufficient to accommodate but a single match, a gate normally closing the exit of said chamber, an ejector registering with an end of said chamber, a block, a spring hinge supporting said block, a rod connecting said block and gate, normally holding the gate in closed position by the action of said spring hinge, and push buttons controlling the operation of said block and said ejector.

2. In a device of the character described, the combination with a match receptacle having a match chamber communicating therewith, and of an area sufficient to receive but a single match, a gate normally closing the exit from said chamber, an ejector registering with one end of said chamber, an outwardly spring-pressed button in one end of the device connected to said ejector, an outwardly spring-pressed button in the other end of said device, a block, a spring hinge connecting said block to the match receptacle, a rod connecting said block with the gate, and a cam block connected with the last mentioned push button and in cam engagement with said first mentioned block, so that when said cam block is projected inwardly by means of its push button, the first mentioned block will be moved on its hinge to open said gate.

3. A match safe, comprising a receptacle, three partitions in said receptacle dividing it into a match compartment and an ejector compartment, a match receiving chamber communicating with said match compartment, and of an area to accommodate but a single match, an ejector in said ejector compartment registering through an opening in one of said partitions with the end of said match chamber, and a spring pressed push button in one end of the receptacle for projecting the ejector inwardly to eject but a single match from said chamber.

939,658. TROLLEY-HEAD. JOSEPH J. BENNETT, Pittsfield, Mass. Filed Dec. 3, 1907. Serial No. 404,908.

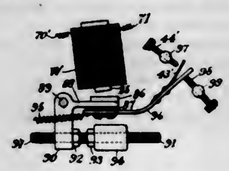


1. As an improvement in trolley-heads having, in combination with the pole thereof, a head piece proper, a harp, means for rotatably securing the one to the other, the lower edge of the harp being provided with a rack, an arm pivotally secured to the head and provided with teeth at its upper extremity meshing with the rack of the harp, and means located in the path of movement of the arm for limiting the rotary movement of the harp.

2. As an improvement in trolley-heads in combination with the head portion proper, a pivotal element secured thereto and provided with gear teeth at its upper end, the upper edge of the teeth being in the plane of the upper edge of the trolley-head, a harp pivotally secured to the head portion and provided with teeth on its lower edge for engagement with the teeth of the pivotal element, and means on the head portion for limiting the movement of the pivotal element, as described.

3. In a trolley-head construction, the combination with a trolley-pole terminating in a head element, as *b*, and provided with a recess portion as q^1, a harp pivotally secured to the head element and provided with teeth at its lower portion and located in the recess portion of the head, an arm pivoted to the head and provided with teeth at its upper extremity and meshing with the teeth of the harp, and stops, as *r*, for limiting the rotary movement of the harp as described, whereby breakage of the teeth on the harp is prevented.

939,659. RAILWAY TRAFFIC-CONTROLLING SYSTEM. HENRY BEZER, Newark, N. J. Filed Jan. 18, 1907. Serial No. 352,979.



1. A railway traffic-controlling system comprising an electric traffic-controlling circuit, means for supplying traffic-controlling current to the traffic-controlling circuit, means for reversing the traffic-controlling current flowing through the traffic-controlling circuit, traffic-controlling electro-translative apparatus comprising two electro-magnets or electro-translative devices opposed to each other in their electro-translative efforts and both included in the traffic-controlling circuit and subject to the traffic-controlling current aforementioned, a source of auxiliary current having a circuit including at least one of the electro-translative devices or magnets of the electro-translative apparatus, and a traffic-controlling apparatus controllable by the electro-translative apparatus.

2. A railway traffic-controlling system comprising an electric traffic-controlling circuit, means for supplying traffic-controlling current to the traffic-controlling circuit, means for reversing the traffic-controlling current flowing through the traffic-controlling circuit, traffic-controlling electro-translative apparatus comprising two electro-magnets or electro-translative devices opposed to each other in their electro-translative efforts and both included in the traffic-controlling circuit and subject to the traffic-controlling current aforementioned, a source of auxiliary current having a circuit including both of the electro-translative devices or magnets of the electro-translative apparatus, and a traffic-controlling apparatus controllable by the electro-translative apparatus.

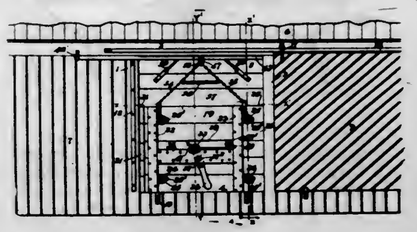
3. A railway traffic-controlling system comprising traffic-controlling apparatus in control of traffic along a railway, electro-translative apparatus in control of the traffic-controlling apparatus, an electric traffic-controlling circuit arranged to supply traffic-controlling current to the electro-translative apparatus, means for supplying the traffic-controlling current to the traffic-controlling circuit, means for reversing the traffic-controlling current in the traffic-controlling circuit, and a source of auxiliary current arranged to supply such auxiliary current to the electro-translative apparatus, such electro-translative apparatus being responsive to joint action of the auxiliary current and a given direction of the traffic-controlling current in the traffic-controlling circuit to break connection between the source of auxiliary current and the electro-translative apparatus.

4. A railway traffic-controlling system comprising a traffic-controlling apparatus in control of traffic along a railway, electro-translative apparatus in control of the traffic-controlling apparatus and including two electro-magnets or translative devices opposed to each other in their electro-translative efforts, a traffic-controlling circuit arranged to supply traffic-controlling current to both magnets or translative devices of the electro-translative apparatus, means for supplying such traffic-controlling current to the traffic-controlling circuit, a source of auxiliary current arranged to supply such auxiliary current to both electro-magnets or translative devices and to one of such devices augmentively relative to a given direction of current in the traffic-controlling circuit and to the other device attenuatively relative to such given direction of current in the traffic-controlling circuit, and means for reversing the traffic-controlling current in the traffic-controlling circuit whereby to reverse the relationship of such traffic-controlling current to the auxiliary current in the two electro-magnets or translative devices and thus actuate the electro-translative apparatus.

5. A railway traffic-controlling system comprising a traffic-controlling apparatus in control of traffic along a railway, electro-translative apparatus in control of the traffic-controlling apparatus and including two electro-magnets or translative devices opposed to each other in their electro-translative efforts, a traffic-controlling circuit arranged to supply traffic-controlling current to both magnets or translative devices of the electro-translative apparatus, means for supplying such traffic-controlling current to the traffic-controlling circuit, a source of auxiliary current arranged to supply such auxiliary current to both electro-magnets or translative devices and to one of such devices augmentively relative to a given direction of current in the traffic-controlling circuit and to the other device attenuatively relative to such given direction of current in the traffic-controlling circuit, means for reversing the traffic-controlling current in the traffic-controlling circuit whereby to reverse the relationship of such traffic-controlling current to the auxiliary current in the two electro-magnets or translative devices and thus actuate the electro-translative apparatus, and means controllable by the electro-translative apparatus for discontinuing the supply of auxiliary current to the electro-magnets or translative devices when the electro-translative apparatus has been actuated.

[Claims 6 to 31 not printed in the Gazette.]

939,660. GRAIN-CAR DOOR. HENRY J. BICKLE and MALCOLM MCMILLAN, Gladstone, Manitoba, Canada, assignors of one-fourth to Colin William McMillan, Westbourne, Canada, and one-fourth to Charles Henry Kenny, Winnipeg, Canada. Filed July 23, 1908. Serial No. 445,032.



1. In a device of the class described the combination with the door posts, one of which has a vertically directed channel formed therein at the inner edge, the other of which has a vertically directed channel formed within the face of the post, of a grain-door formed from two overlapping sections each of a length, less than the distance between the door posts, the outer one being provided with a number of longitudinal slots, bolts passing through the slots and into the inner section whereby the sections are rendered slidably interconnected, a lever pivotally fastened to the outer section, a bolt passing through the end of the lever and into the inner section there being a longitudinal slot formed in the outer section through which the said bolt passes, and a latch having a shoulder formed thereon which is adapted to engage with the bolt to lock the parts in position, as and for the purpose specified.

2. In a device of the class described the combination with a grain car door formed from two slidably interconnected and overlapping sections, of a lever pivotally fastened to the outer section, said lever having a slotted end, a bolt extending through the slot and into the inner section there being an opening formed on the outer section through which said bolt passes and a locking bar pivotally fastened to the outer section and adapted to engage with the bolt and having a portion of its outer end cut away to form a shoulder which is adapted to engage the bolt to hold the parts in locked position, as and for the purpose specified.

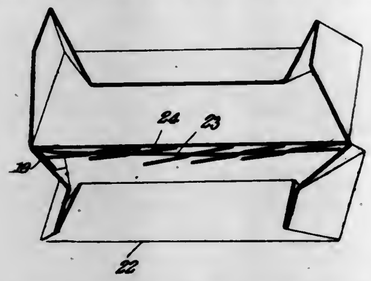
3. In a device of the class described the combination with a grain door of suspension means for the door con-

sisting in a set of interconnected and diverging chains having their free ends connected to the door, and their upper ends carried by a track passing across the doorway opening, and a spring connecting the chains together intermediate their ends as and for the purpose specified.

4. In a device of the class described the combination with a grain door and the body of the car to the sides of the doorway opening, of a track secured to the body of the car and passing longitudinally from the exterior to the interior thereof, and suspending means operative on the track and connected to the door, as and for the purpose specified.

5. In a device of the class described the combination with the grain car door and the walls of the car to the side of the doorway opening, of a track formed from channel iron having inwardly and upwardly turned flanges thereon, such track being secured at its one end within the car and at its outer end without the car, a set of rollers operating on the flanges and interconnected by a cross shaft, a bar on the shaft and diverging chains passing from the bar and secured to the door, as and for the purpose specified.

939,661. FOLDING EGG-BOX. CHARLES T. BLOOMER, Newark, N. Y. Filed July 6, 1909. Serial No. 506,156.



1. A folding egg box having side and end members collapsible against the bottom of the box, longitudinal and cross partition members collapsible against one side of the box and with the said side against the bottom of the box within the confines of the said side and bottom of the box, said partition members being joined to the box against removal by a longitudinal partition member.

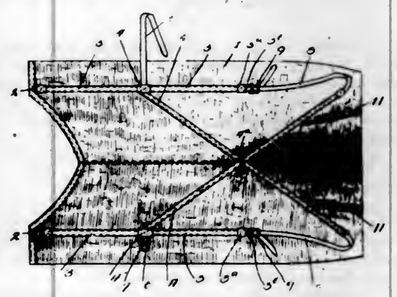
2. A folding egg box having partition members capable of being disposed longitudinally and transversely of the box and a double hinge connection between a longitudinal partition member and one end of the box.

3. A folding egg box having a longitudinal partition member with an end extension in one piece therewith and having a portion secured to the box and another portion between the secured portion and the partition member foldable onto said secured portion.

939,662. HORSE-BLANKET. EARL S. BURWELL, Madison, Wis. Filed Feb. 6, 1908. Serial No. 414,620

1. The combination with an animal blanket, of two longitudinal strips secured thereto, each extending rearwardly in straight lines from one of two points respectively near the side edges of the blanket and approximately midway between the ends of the blanket, two fastening devices attached to the forward end of the blanket near its side edges respectively and in alinement with the said strips, two cross strips secured to the blanket, each extending from a point which is in the longitudinal centra. line of the blanket and to the rear of said first mentioned points backward and rearward, and two connecting straps each adapted to connect the rear end of one of the cross strips with the rear end of one of the longitudinal strips and to be passed around the rear leg of the horse.

2. The combination with an animal blanket, of the two fastening devices attached to its forward edge and near its side edges respectively, the longitudinal strips secured to the blanket, each extending rearwardly from one of two points which are near the side edges respectively of the blanket and approximately midway between the ends of the blanket, two cross strips secured to the blanket, each extending upward and rearward from one of the said points and then downward and rearward on the other side of the blanket, two connecting straps each adapted to be passed around one of the hind legs of the horse and to connect the rear end of one of the longitudinal strips with the rear end of one of the cross strips.

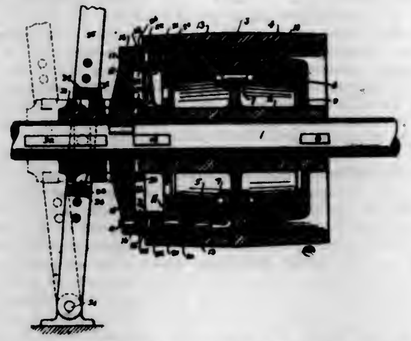


3. The combination with an animal blanket, of the fastening devices attached to the forward end of the blanket and near its side edges respectively adapted to secure the blanket about the neck of the horse, two longitudinal strips secured to the blanket, each extending rearward from one of the fastening devices in a straight line and approximately parallel to the edge of the blanket, two cross strips secured to the blanket, each extending diagonally upward and rearward from a point on one of the longitudinal strips and then diagonally downward and rearward on the other side of the blanket, two connecting straps, each adapted to connect the rear end of one of the longitudinal strips with the rear end of the adjacent cross strip and the connecting strap 5 secured at one end at one of the said points and designed to be detachably secured at its other end to the other said point at which the cross strips meet the longitudinal strips.

4. The combination with an animal blanket, of two fastening devices adapted to secure the blanket about the neck of the horse, two longitudinal strips secured to the blanket, one near each side of the blanket, a strap adapted to pass under the horse and to secure the blanket about the body of the horse, cross strips, each running from a point near one side edge of the blanket and near the front edge of the blanket diagonally across the blanket to a point near the opposite rear corner, and straps, each adapted to be passed about one of the hind legs of the horse and to connect the rear end of one of the cross straps with the rear end of an adjacent longitudinal strap.

939,663. PULLEY-CLUTCH. ARTHUR H. CAMERON, Knox township, Columbiana county, Ohio. Filed July 1, 1909. Serial No. 505,396.

1. A pulley clutch comprising a rotatable shaft, a pulley rotatably mounted thereon, inclined clutch members fixedly mounted upon said pulley, a clutch member fixedly mounted upon said shaft on one side of said pulley and adapted to frictionally engage the clutch member upon said pulley, a second clutch member mounted upon said shaft and adapted for rotation therewith while being longitudinally slidable thereon, a spider fixedly mounted upon said shaft, screw pins adjustably connected to said spider, screw pins adjustably connected to said slidable clutch member, said screw pins arranged in alined pairs, barrels having internally right and left screw threaded apertures, said barrels mounted upon said screw pins and adapted for rotation thereon, the screws mounted on said spider and the screws mounted upon said movable clutch member being relatively right and left threaded, arms connected to said barrels, said arms provided with sockets, a sliding head mounted upon said shaft and adapted for rotation therewith while being adapted for longitudinal sliding movement thereon, arms connected to said head, said arms provided with sockets, connecting rods provided at both ends with ball shaped extremities, one end of each rod being arranged in the socket of one of the screw arms and the other end arranged in the socket in one of the arms of the sliding head, and means for sliding the said head on the shaft.



2. In a pulley clutch a rotatable shaft, a pulley rotatably mounted upon said shaft, said pulley provided with cone members having inclined frictional surfaces, a cup member provided with a frictional surface adapted to engage one of the frictional surfaces upon said pulley, said cup member fixedly mounted upon said shaft, a spider fixedly mounted upon said shaft, a cup member slidably mounted upon said shaft but keyed against rotation thereon, said slidable cup member provided with an inclined frictional surface adapted to engage the other frictional surface of the said cone members and screw operated mechanism between said spider and said slidable cup member for moving said slidable cup member toward said first mentioned cup member to bring the frictional clutch surfaces of the cone members and cup members into engagement.

3. In a pulley clutch a shaft, a pulley rotatably mounted upon said shaft, said pulley provided with two members having frictional surfaces, a third member fixedly mounted upon said shaft and provided with a frictional surface adapted to engage the frictional surface of one of the two members with which said pulley is provided, a spider fixedly mounted upon said shaft, a fourth member slidably mounted upon said shaft but keyed against rotation thereon, said fourth member provided with a frictional surface adapted to engage the frictional surface of the second member with which said pulley is provided, and screw means between said spider and said fourth member for moving said fourth member toward said third member to bring the frictional surfaces of the first and second members into engagement with the frictional surfaces of the third and fourth members.

4. In a device of the character described, a shaft, a pulley rotatably mounted upon said shaft, said pulley provided with frictional members, a frictional member fixedly mounted upon said shaft and adapted for engagement with one of the frictional members on said pulley, a frictional member slidably mounted upon said shaft and adapted for frictional engagement with the other frictional member on said pulley, a spider fixedly mounted upon said shaft, screw pins adjustably connected to said slidable member, screw pins adjustably connected to said spider, the screw pins connected to said slidable member and the screw pins connected to said spider being of relatively right and left thread, right and left threaded barrels connecting opposite pins upon said spider and said slidable member in pairs, and means for rotating said barrels upon said pins.

5. In a device of the character described a shaft, a pulley rotatably mounted upon said shaft, said pulley provided with a clutch member, a slidable clutch member mounted upon said shaft and adapted for sliding movement into engagement and out of engagement with the clutch member upon said pulley, said slidable clutch member adapted for rotation with said shaft, a spider fixedly mounted upon said shaft, screw threaded pins connected to said spider, screw threaded pins connected to said slidable clutch member, each of said screw threaded pins on said spider being in line with one of the screw threaded pins on said slidable member, said pins upon said spider and upon said slidable member provided with relatively right and left hand threads, a right and left threaded barrel arranged upon said screw threaded pins and adapted for rotation thereon to move said pins toward each other or away from each other, arms connected to said barrels and adapted for movement in a plane substantially at right angles to said shaft, a head adapted for rotation with said shaft but slidable longitudinally thereon, said head provided with arms, connecting rods, each connecting rod at one end connected to one of the arms of one of the barrels and at the other end connected to one of the arms of the slidable head, said slidable head adapted to move toward said spider until the points of connection between the arms on said head and said connecting rods have moved beyond the plane of rotation of the arms connected to said barrels, and means for limiting the sliding movement of the slidable head.

939,664. ROAD-SCRAPER. CYRUS H. CASNER, Hepburnville, Pa. Filed Feb. 26, 1908. Serial No. 417,857.

1. In a scraper, the combination of a bar, a scraper blade and a rake carried by the bar and means by which the blade and rake may be independently adjusted.

2. In a scraper, the combination of a bar having a flat face presented to the road surface, lugs carried by the bar, a scraper blade having arms seated in sockets in the lugs, a rake having arms similarly seated, the arms being perforated and the pins passing through holes in the lugs and serving to hold the blade and rake in adjusted position.

3. The combination of a bar having a flat face presented to the road surface, lugs carried by the bar, a scraper blade having arms seated in sockets in the lugs, a rake having arms similarly seated, the arms being perforated, pins passing through holes in the lugs and serving to hold the blade and rake in adjusted position, and guiding devices intermediate the blade and the rake for supporting the lower portions of the last two.

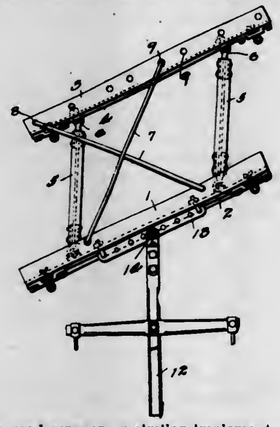
4. In a scraper, the combination of a frame including a front and a rear bar, a cutting blade adjustably secured to the front bar and a smoothing blade adjustably secured to the rear bar.

5. In a scraper, a frame including a front bar and a rear bar, each having a flat face presented to the road sur-

face, a cutting blade having a forwardly curved edge, adjustably secured to the front bar and a vertical smoothing blade adjustably secured to the rear bar.

[Claims 6 to 8 not printed in the Gazette.]

939,665. ROAD-SCRAPER. CYRUS H. CASNER, Williamsport, Pa. Filed May 19, 1908. Serial No. 433,726.



1. In a road scraper or similar implement, the combination of two scraper bars, links connecting the bars in parallel relation and a rigid brace connecting the bars to hold them in adjusted position.

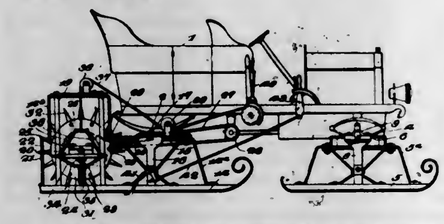
2. In a road scraper or similar implement, two scraper bars, links connecting the bars in parallel relation, and a rigid extensible brace connecting the bars at a different angle from that of the links.

3. The combination of two scraper bars, links pivotally connected to the bars serving to retain them in parallel relation and braces pivotally connected to one of the bars and adapted to readily engage and disengage the other bar so as to hold the bars in adjusted position.

4. The combination of two scraper bars, links pivotally connected to the bars serving to maintain the bars in parallel relation and rigid braces connecting the bars, one of the braces being provided with longitudinally extensible adjustment.

5. The combination of two scraper bars, links pivotally connected to the bars and serving to retain them in parallel relation, crossed braces and means for connecting the braces to the bars in different positions so as to secure the bars in different relative positions.

939,666. AUTOMOBILE SLEIGH ATTACHMENT. SEWALL L. CHARLES, Neillsville, Wis. Filed Feb. 8, 1909. Serial No. 476,679.



1. A sleigh attachment for automobiles, comprising a series of sleigh runners adapted to be applied to the axles of the automobile, vertical guide rods mounted in pairs upon the rear of said sleigh runners, blocks loosely mounted between each pair of the vertical guide rods, a shaft journaled between the blocks, a sleigh propelling wheel upon the shaft, and means for transmitting motion from the engine of the automobile to the shaft.

2. A sleigh attachment for automobiles, comprising a series of sleigh runners adapted to be applied to the axles of the automobile, a vertical guide rod upon each of the sleigh runners of the rear axle, a block movably mounted upon each of the guide rods and adapted to be swung about a horizontal axis, a bearing member mounted upon each of the blocks so as to be turned about a vertical axis, a shaft journaled upon the bearing members, a sleigh propelling wheel applied to the shaft, and means for transmitting motion from the engine of the automobile to the shaft.

3. A sleigh attachment for automobiles, comprising a series of sleigh runners adapted to be applied to the axles of the automobile, bearings mounted upon one pair of the sleigh runners so as to turn about either a vertical axis or a horizontal axis, a shaft journaled upon the bearings, a sleigh propelling wheel applied to the shaft, and means for transmitting motion from the engine of the automobile to the shaft.

4. A sleigh attachment for automobiles, comprising a series of sleigh runners adapted to be applied to the axles of the automobile, bearings movably mounted upon one pair of the sleigh runners, a shaft journaled upon the bearings, a sleigh propelling wheel applied to the shaft, springs normally tending to move the bearings downwardly to hold the sleigh propelling wheel in an operative position, means for raising the bearings against the action of the springs to lift the sleigh propelling wheel into an inoperative position, and means for transmitting motion from the engine of the automobile to the shaft.

5. A sleigh attachment for automobiles, comprising a series of sleigh runners adapted to be applied to the axles of the automobile, vertical guide rods upon one pair of the sleigh runners, blocks slidably mounted upon these guide rods, bearings upon these blocks, a shaft journaled upon the bearings, a sleigh propelling wheel applied to the shaft, springs acting upon the blocks to draw them downwardly and normally hold the sleigh propelling wheel in an operative position, means for moving the blocks upwardly to throw the sleigh propelling wheel into an inoperative position, and means for transmitting motion from the engine of the automobile to the shaft.

[Claims 6 to 10 not printed in the Gazette.]

939,667. THREAD-COP. ARTHUR N. CHARTIER, Brookline, Mass. Filed Feb. 28, 1908. Serial No. 418,202.

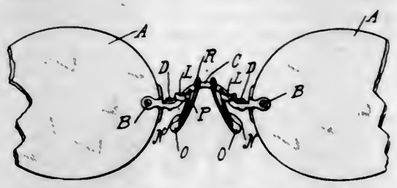


1. A thread cop comprising a core, a cylindrical thread body wound thereon, a base plate secured to move with the core and body, and yielding material held under compression between the plate and lower end of the thread body and overlapping the edge of the body, substantially as described.

2. A thread cop consisting of a core, a cylindrical thread body wound thereon, a base plate secured to move with the core and body by a bushing fitting within the lower end of the core, and felt held under compression between the plate and end of the thread body and overlapping the edges thereof, substantially as described.

3. A thread cop consisting of a core, a cylindrical thread body wound thereon, a base plate permanently secured to the end of the core, and felt held under compression between the plate and the end of the thread body and overlapping the edges of the thread body, substantially as described.

939,668. EYEGLASSES. STEPHEN J. CLULEE, Attleboro, Mass., assignor to Bay State Optical Company, a Corporation of Maine. Filed July 10, 1909. Serial No. 506,920.



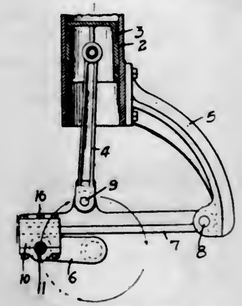
1. As an improved article of manufacture, a clamping member for eyeglasses comprising a lever provided with a perforation to receive a pivot and with a laterally bent end portion, an arm extending downwardly from the bent portion, and an upwardly diverging arm connected with the lower end of the first arm and adapted to contact with the bent portion of the lever.

2. As an improved article of manufacture, a clamping member for eyeglasses comprising in a single piece a flat lever provided with a semicircular bent end portion, a vertical arm connected at its top with said end portion by an edgewise loop, a second arm beside the first arm, and an edgewise loop connecting the first and second arms.

3. As an improved article of manufacture, a clamping member for eyeglasses formed from a blank of thin metal and comprising a flat lever provided with a laterally disposed semicircularly bent end portion, a depending arm, an edgewise loop between the arm and bent portion of the lever, a second arm interspaced from said bent end portion of the lever, and an open edgewise loop between the second and first arms.

4. In eyeglasses, the combination with the bridge and pivot, of a flat clamping member comprising a flat lever portion resting upon the bridge and provided with a laterally bent end portion, said lever portion being provided with a perforation to receive the post, a depending arm connected at its top to the bent end portion, and an upwardly diverging arm adjacent the first arm, and connected therewith by an open loop.

939,669. EXPLOSIVE-ENGINE. ALBERT J. COLE, Minneapolis, Minn. Filed Mar. 5, 1909. Serial No. 481,301.



1. The combination, with an explosive engine cylinder, its piston, connecting rod and crank shaft, of a lever having a pivotal connection at a fixed point, and a fixed pivotal connection with said connecting rod, and a sliding connection with said crank shaft, whereby a rapid piston movement is obtained on the working stroke and an increase in leverage on the crank, substantially as described.

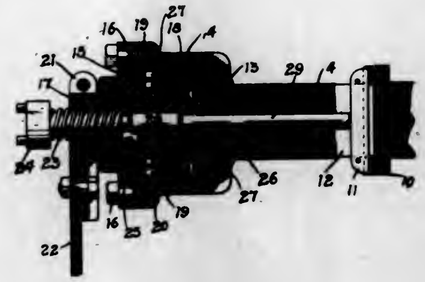
2. The combination, with an explosive engine cylinder, its piston, connecting rod and crank shaft, of a lever fulcrumed on the working side of the engine and having a fixed pivotal connection with said connecting rod, and means carried by said crank shaft having a sliding anti-friction bearing on said lever whereby a leverage on the piston will be obtained during the compression stroke.

3. The combination, with an explosive engine cylinder, its piston, connecting rod and crank shaft, of a lever having a fixed pivotal connection at one end and pivoted at a fixed point intermediate to its ends to said connecting rod, and means connecting said lever and crank shaft whereby a more rapid movement of the piston will be obtained on the working stroke and an increase in leverage on the crank during that stroke and a leverage on the piston during the compression stroke.

4. The combination, with an explosive engine cylinder, its piston, connecting rod and crank shaft, of a lever fulcrumed on the working side of said engine and crank shaft and having a fixed pivotal connection with said connecting rod, and anti-friction wheels carried by said crank shaft and having an anti-friction bearing on said lever, substantially as described.

5. The combination, with an explosion engine cylinder, its piston and connecting rod, of a crank shaft, a lever having a fixed pivot at one end on the working side of said crank shaft, and a fixed pivotal connection intermediate to its ends with said piston rod, a box having anti-friction bearings on said lever and adapted to slide freely thereon, said box being journaled on said crank shaft and whereby a more rapid movement of the piston will be obtained on the working stroke and an increasing leverage on the crank during that stroke, and a leverage on the piston during the compression stroke.

939,670. HOISTING OR LOGGING DEVICE. WILLIAM H. CORBETT, Portland, Oreg. Filed Dec. 28, 1907. Serial No. 408,349.

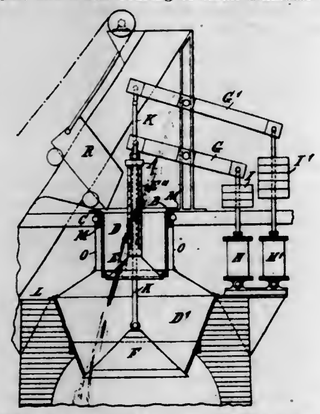


The combination, with a shaft, of a drum loosely mounted thereon, a friction device for locking said drum and rendered operative by axial movement thereof in one direction, a carrier provided on one end of said shaft, a nut within said carrier and having an interiorly threaded socket, and a chamber in one end concentric with said socket, a thrust screw fitting in said socket, a loose cylindrical bushing arranged within said chamber between one end of said shaft and said socket, said bushing being of substantially the same diameter from end to end and having a longitudinal and rotary movement within said chamber, a thrust pin fitting within said bushing and contacting with the inner end of said thrust screw, and means interposed between said pin and said drum for transmitting the thrust of said screw to said drum, substantially as described.

939,671. APPARATUS FOR CHARGING BLAST-FURNACES. WALTER CROOKE, Millom, and ARTHUR CROOKE, Frodingham, England. Filed Oct. 24, 1906. Serial No. 340,326.

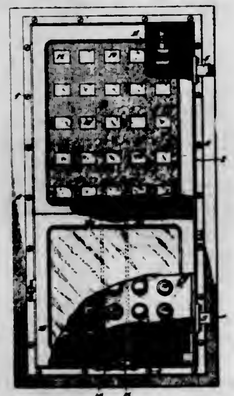
In apparatus for the purpose set forth, the combination with a hopper seated on a bell suspended by a rod, of a bell and hopper of larger size therebelow, means for ro-

tating the upper hopper and bell independently of the lower hopper, and a ball bearing of small diameter applied



to the suspending rod of said upper bell and hopper to take the weight thereof, substantially as described.

939,672. ANNUNCIATOR-CASE. HERBERT D. CROUCH, Montreal, Quebec, Canada, assignor to Western Electric Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 25, 1907. Serial No. 364,253.

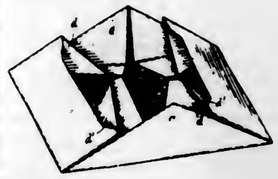


1. An annunciator case comprising front and rear sections, a wall dividing said front section into an upper compartment for inclosing the annunciator mechanism and a lower compartment from which a portion of said mechanism is accessible for manipulation, and a door for said lower compartment for permitting ready access to said mechanism.

2. A waterproof annunciator case comprising a rear section and a front section hinged together and forming a box like structure, means for rendering the meeting edges of said sections watertight, and horizontal and vertical watertight plates dividing said front section into an upper compartment and lower front and rear compartments, the portion of the front wall of said casing covering said lower front compartment forming a door to said front compartment, accessible from the exterior of said case.

939,673. CARD-CASE OR POCKET-BOOK. MICHAEL W. CUMMINGS and JAMES F. JORDAN, Olyphant, Pa. Filed July 14, 1908. Serial No. 443,536.

1. A card case, comprising a body portion, side portions folded thereupon, double triangular portions folded under the side portions at each corner, end portions folded upon said body and side portions, and triangular portions folded under the end portions and upon the side portions to form end pockets, said side portions forming locks for said double triangular portions, and means for covering and protecting the folds and keeping them in position including an insertion leaf for said pockets.

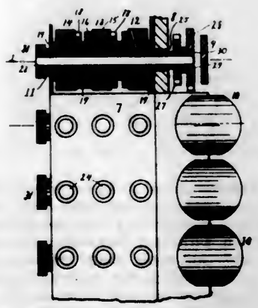


2. A card case, comprising a body portion, side portions folded thereupon, double triangular portions folded under said side portions at each corner, end portions folded upon said body and said side portions, and triangular portions folded under the end portions and upon the side portions to form end pockets, said side portions being about one half the width of said body portion and said end portions being of such width that when folded they are separated by a narrow interval, and an insertion cover and protector strip for the folds adapted for insertion in said pockets.

3. A card case, comprising a body portion, side portions folded thereupon, double triangular portions folded under the side portions at each corner, end portions folded upon said body and side portions, and triangular portions folded under the end portions and upon the side portions to form end pockets, said side portions being about one half the width of said body portion and overlapping at their meeting edges, and said end portions being of such width that when folded they are separated by a narrow interval, and an insertion cover and protector strip for the folds.

4. A card case, comprising a body portion, side portions folded thereupon, double triangular portions folded under the side portions at each corner, end portions folded upon said body and side portions, and triangular portions folded under the end portions and upon the side portions to form end pockets, said side portions overlapping at their meeting edges, and said end portions being of such width that when folded they are separated by a narrow interval, and an insertion cover and protector strip for the folds, having locking end folds adapted for insertion behind said double triangular portions.

939,674. COUNTER CONSTRUCTION FOR VOTING-MACHINES. CHARLES F. CURRY, Topeka, Kans., assignor to The Kansas Voting Machine Company, Topeka, Kans., a Corporation of Kansas. Filed Oct. 24, 1908. Serial No. 459,326.



1. In a voting machine and the like, the combination of a main frame, a sub-frame comprising a channel, and a series of counters mounted in the sub-frame; each counter comprising a hollow shaft mounted in the side walls

of the channel, counter disks on said shaft between the side walls, and a ratchet and stem, said stem fitted non-rotatably in said hollow shaft.

2. In voting machines and the like, the combination of a main frame, a sub-frame comprising a channel detachably secured to the main frame, and a series of counters mounted in the sub-frame; each counter comprising a shaft mounted in the side walls of the channel, counter disks on said shaft between the side walls, and an operating ratchet outside said side walls and fitted detachably and non-rotatably to said shaft.

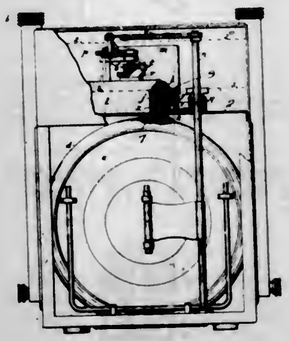
3. In voting machines and the like, the combination of a main-frame, a sub-frame independent of the main frame and attachable thereto, a series of hollow shafts mounted in the sub-frame, a series of counting disks mounted on each shaft and intermediate mechanism between adjacent counting disks, a stem fitted non-rotatably on each shaft and a ratchet and a star-wheel secured on each stem, and a spring-pressed pawl for each star-wheel.

4. The combination of a main frame, a channel attachable thereto, a series of hollow shafts mounted in the side walls of the channels and having squared ends, a series of suitably inscribed counting disks on each shaft, intermittently-operated gearing between the adjacent disks on each shaft, a square stem extending through each hollow shaft, a star-wheel and a ratchet secured to one end of said stem and a head on the other end, and a spring-pressed pawl engaging each star-wheel.

5. The combination of a main frame, a channel attachable thereto, a series of hollow shafts mounted in the side walls of the channel and having squared ends, a series of suitably inscribed counting disks on each shaft, intermittently-operated gearing between the adjacent disks on each shaft, a square stem extending through each hollow shaft, a star-wheel and a ratchet secured to one end of each stem and a head on the other end, a spring-pressed pawl engaging each star-wheel, each pawl comprising a single piece of sheet-metal with a bent-over V-shaped lug, and an extension spring between each two adjacent pawls for holding said pawls pressed against the respective star-wheels.

[Claim 6 not printed in the Gazette.]

939,675. AUTOMATIC OILING DEVICE FOR GAS-METER DIAPHRAGMS. JAMES R. DALY, New Orleans, La., assignor to John Emory Cross, Baltimore Md. Filed Aug. 17, 1908. Serial No. 448,972.



1. In a gas meter, a measuring chamber, a flexible diaphragm dividing the measuring chamber into two chambers for the gas so that both sides of the diaphragm are exposed to the gas, a container for oil accessible from without to receive oil without opening the measuring chamber, the measuring chamber and the oil container being connected by a passage, and a wick leading from the container through the passage to the diaphragm, the whole being so constructed that access of the gas to the oil in the container is prevented.

2. In a gas meter, a measuring chamber, a flexible diaphragm dividing the measuring chamber into two chambers for the gas so that both sides of the diaphragm are exposed to the gas, a container for oil accessible from without to receive oil without opening the measuring chamber, the measuring chamber and the oil container being connected by a passage, and a wick leading from the container through the passage to the diaphragm, the whole being so constructed that access of the gas to the oil in the container is prevented, and means for compressing the wick a predetermined amount to regulate the supply of oil.

3. In a gas meter, a measuring chamber, a flexible diaphragm dividing the measuring chamber into two chambers for the gas so that both sides of the diaphragm are exposed to the gas, a container for oil accessible from without to receive oil without opening the measuring chamber, and means whereby oil is conducted from the container to the diaphragm, the whole being so constructed that access of the gas to the oil in the container is prevented.

939,676. PROCESS OF REGULATING INITIAL STRAINS IN ROLLING STRUCTURAL MATERIAL. ALBERT H. EMERY, Stamford, Conn. Filed May 26, 1908. Serial No. 435,115.



1. The process of regulating the initial strains in rolled structural material which consists in developing by rolling, while rolling from a heated blank, strains that partly neutralize the strains that would otherwise be set up in the member when cooled and thus decrease injurious strains when the member is cooled.

2. The process of regulating the initial strains in rolled structural material which consists in developing during rolling, while rolling from a heated blank, strains of compression in the thicker part and tension in the thinner part so that said strains tend to counteract or avoid injurious strains when the member is cooled.

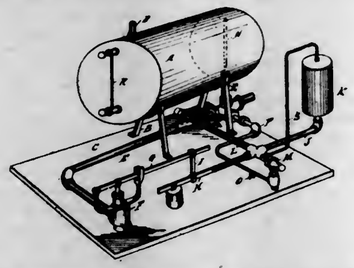
3. The process of regulating the initial strains in rolled structural material which consists in developing during rolling, while rolling from a heated blank, strains of compression in the thicker part and tension in the thinner part, of such magnitude at the completion of the rolling, that said strains largely neutralize the strains that would otherwise result from unequal contraction in cooling.

4. The process of regulating initial strains in rolling structural material from heated blanks which consists in regulating the rolling during the last pass between the rolls so that the percentage reduction of the thick part of the member is sufficiently greater than that of the thin part, as to cause, strains of compression in the thick part and tension in the thin part which strains will be partly or wholly relieved in cooling.

5. The process of regulating the initial strains in rolled structural material which consists in artificially cooling the thicker parts of the member while rolling, and in developing, in the final rolling, strains of compression in the thicker part and tension in the thinner part so that said strains tend to counteract or avoid injurious strains when the member is cooled.

[Claims 6 and 7 not printed in the Gazette.]

939,677. STEAM-TRAP. NORMAN ENGLISH, Detroit, Mich. Filed Mar. 25, 1909. Serial No. 485,574.

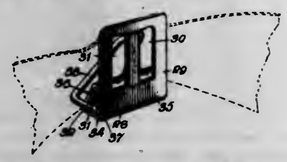


1. In a steam trap, in combination with a fixed tank, a pipe leading thereinto from the steam coils, an outflow pipe therefrom, a valve controlling the flow therethrough, a trunnion pipe leading from a point in said outflow pipe intermediate the tank and the valve, a movable tank, a pipe extending thereto from connection with the trunnion transversely to the axis thereof, interconnecting link and lever members whereby the valve is held closed when the movable tank is at the upper limit of its travel, and a vent pipe connecting the upper portions of the tanks, its ends being above the possible water level therein and there being an intermediate portion external thereto and to the trunnion through which air expelled from either tank by the rise of water therein may be released into the outside air, substantially as described.

2. In a steam trap, the combination of a fixed tank into which the water of condensation may flow, a movable tank, a discharge pipe leading from the fixed tank, a normally closed valve controlling the flow therethrough, a trunnion connection between the discharge pipe and the movable tank adapted to be rocked on its axis by the weighting of the movable tank due to the accumulation of water therein, vent pipes permitting the permanent escape of air or the flow thereof from one to the other of said tanks as the same are filled with water, and means whereby motion due to the rise and fall of the movable tank is communicated to said valve to cause the opening thereof and the consequent release of the water previously held thereby in the outlet pipe and to thereafter close the valve, substantially as described.

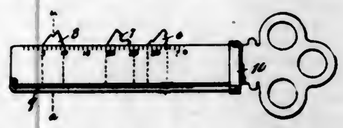
3. In a steam trap, in combination with a fixed tank, an inlet pipe leading thereinto from the steam coils, an outlet pipe therefrom, a trunnion branching from said outlet pipe near its point of connection with the tank, a movable tank, a lever arm supporting the same at one side of the trunnion, a portion of said arm being hollow, whereby the interior of the tank is connected with the trunnion and thereby with the discharge pipe, a valve controlling the flow from the discharge pipe, and interconnecting means between it and the tank, whereby it is held closed when the tank is in raised position, and is opened by the descent of the tank due to its weighting when the water of condensation enters it from the fixed tank.

939,678. TIE-HOLDER. ARTHUR A. FELIX, New York, N. Y. Filed Feb. 16, 1909. Serial No. 478,246.



A tie having a holder comprising a plate member having a substantially triangular loop portion, and a member of wire formed with a loop portion and with extended portions arranged at substantially right angles thereto and with angularly extending parts forming engaging surfaces adapted to frictionally engage the sides of the loop portion of the other member so as to be pivoted thereto.

939,679. KEY FOR LOCKS. ISADORE C. FREUD, Detroit, Mich. Filed Dec. 26, 1908. Serial No. 469,200.



1. A key for use with locks, having in combination a body member, independent ward members having projecting lock-engaging ends, slidable in either direction therealong, and means engaging lengthwise of the body member, adapted to engage said ward members, and to thereby hold them in desired relative position with respect to one another and to the body member, substantially as described.

2. A key for use with locks, having in combination a body member having an indicating scale along one of its lateral faces, movable ward members capable of movement therealong in either longitudinal direction, and means engaging said ward members for holding them in desired position therealong and with respect to one another, substantially as described.

3. A key for use with locks, having in combination a body member, ward members adjustable therealong, a keeper member adapted to hold said ward members in adjustment by engagement with the rear portion of each, pivotally connected to said body member and held in its ward holding position, substantially as described.

939,680. CUFF-BUTTON. LESLIE A. GARDNER, Oakland, Cal. Filed Sept. 21, 1908. Serial No. 454,008.



In a device of the character described, the combination with a pair of buttons, a link for said buttons, and a protective sleeve for said link, the latter having flared ends.

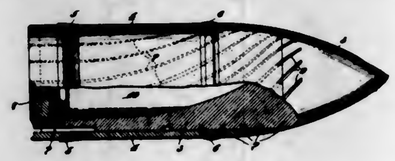
939,681. VEHICLE-WHEEL. LOUIS GARNIER, Clermont-Ferrand, France. Filed Feb. 5, 1908. Serial No. 414,366.



1. In combination, a wheel provided with a felly, bolts extending through said felly and projecting radially therefrom, means for anchoring the inner ends of said bolts to said felly, cushioning masses surrounding said bolts and supported by said felly, a solid tire mounted on said masses and provided with openings receiving the outer free ends of said bolts, and sleeves in said openings supported on said masses and extending radially beyond the outer ends of said bolts, substantially as described.

2. In combination, a wheel provided with a felly, bolts extending through said felly and projecting radially therefrom, means for anchoring the inner ends of said bolts to said felly, cushioning masses surrounding said bolts and supported by said felly, a solid tire mounted on said masses and provided with openings receiving the outer ends of said bolts, sleeves in said openings supported on said masses and extending radially beyond the outer ends of said bolts, and a protecting sheath covering said tire and extending inwardly therefrom about said felly.

939,682. PROJECTILE. HENRY M. GLEASON, Philadelphia, Pa. Filed Oct. 20, 1906. Serial No. 339,756.



1. A projectile, comprising a cylindrical body provided with spiral grooves on its surface, and a metal jacket shrunk over said body and covering said grooves throughout the entire cylindrical portion of said body so as to form passages opening at the rear of the body and also near the front end thereof, said passages adapted to permit the escape of gas through the projectile from the rear thereof.

2. A projectile, comprising a body having grooves on its periphery extending from the rear to near the front thereof, said grooves being straight near the rear of the projectile and spiral near the front thereof, and a metal jacket covering said grooves.

3. A projectile for use with smooth bore guns, comprising a cylindrical body provided with spiral grooves on its surface, a metal jacket covering said grooves so as to form passages opening at the rear of the body and also near the front end thereof, and a solid band of soft metal around the periphery of said jacket to form a gas check.

4. A projectile for use with smooth bore guns, comprising a cylindrical body provided with spiral grooves on its surface, a metal jacket covering said grooves so as to form passages opening at the rear of the body and also near the front end thereof, and a solid band of soft metal around the periphery of said jacket near its forward end to form a centering band.

5. A projectile for use with smooth bore guns, comprising a cylindrical body provided with spirally arranged passages extending from the rear to near the front of said body and a solid band of soft metal around the periphery of its body near its rear end to form a gas check and a similar soft metal band around the periphery of its forward end to form a centering band.

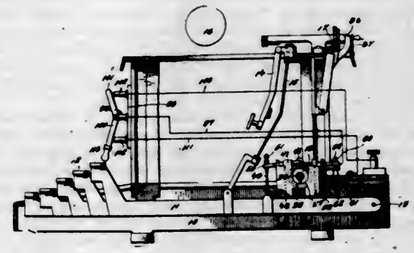
[Claim 6 not printed in the Gazette.]

939,683. TELEGRAPH-TRANSMITTER. GEORGE M. GODDARD, Rutland, Vt., assignor of one-third to George C. Thrall, Rutland, Vt., and one-third to Rutland Machine & Automobile Company, Rutland, Vt. Filed May 29, 1908. Serial No. 435,728.

1. In a telegraph transmitter, a shaft provided with a longitudinally extending clutch groove therein, a cam mounted thereon and having a clutch member disposed within the cam to enter said groove, and a key lever cooperating with said cam and provided with an electrical contact.

2. In a telegraph transmitter, a shaft provided with a clutch recess therein, a cam mounted thereon and provided with a clutch member therein to enter said recess, a key coöperating with said cam and provided with an electrical contact, and means for normally holding said cam member in unclutched position relative to said shaft.

3. In a telegraph transmitter, a shaft provided with a clutch recess therein, a cam mounted thereon, a key lever coöperating with said cam and provided with an electrical contact, a clutch member carried by said cam to enter said recess, a cam lever adapted to normally retain said member in unclutched position, and an operating connection for said lever.

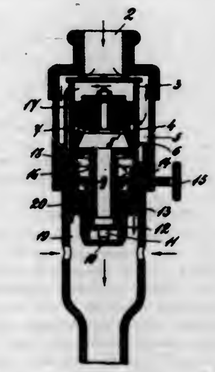


4. In a telegraph transmitter, a shaft provided with a clutch recess therein, a cam mounted thereon, a key lever coöperating with said cam and provided with an electrical contact, a clutch member carried by said cam to enter said recess, a cam lever adapted to normally retain said member in unclutched position, and a key board lever connected to said cam lever to release the same from said cam.

5. In a telegraph transmitter, a shaft provided with a clutch recess therein, a cam mounted thereon, a key lever coöperating with said cam and provided with an electrical contact, a clutch member carried by said cam to enter said recess, a cam lever adapted to retain said member in unclutched position, a key board lever connected to said cam lever to release the same from said cam, and a tension spring connection from both the cam lever and key lever to retain them normally in contact with the periphery of the cam.

[Claims 6 to 31 not printed in the Gazette.]

939,684. GAS-REGULATOR. MAX GRAETZ, Berlin, Germany. Filed Apr. 1, 1909. Serial No. 487,189.



1. In combination with a burner tube, a ported casing, a movable piston within said casing controlling said ports, a nozzle, a fluid connection to said nozzle through said

ported casing, said connection being also in communication with one side of said piston, and a connection from the space on the other side of said piston to a point external to the nozzle.

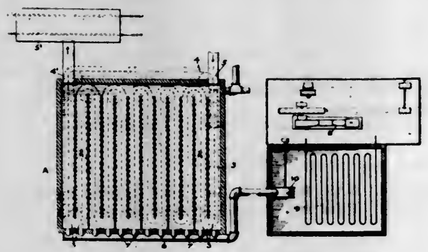
2. In combination with a burner tube, a ported casing in the path of the combustible, a piston movable within said casing to regulate said ports, said piston normally leaving said ports open to admit fluid to its under side, and a conduit leading from the casing above the piston and opening into the burner mixing chamber.

3. In combination with a burner tube, a ported casing in the path of the combustible, a grooved piston within said casing having its groove normally opposite the port in said casing and provided with a port leading from said groove to the under side of the piston, and a conduit leading from the casing above the piston and opening into the burner mixing chamber.

4. In combination with a burner tube, a ported casing in the path of the combustible, a grooved piston having its groove normally opposite the port in said casing and provided with a port leading from said groove to the under side of the piston, a nozzle through which the fluid flows from the under side of said piston and a conduit leading from the upper side of said casing above the piston and opening into the burner tube past said nozzle.

5. In combination with a burner tube, a nozzle, a casing, a movable member within said casing and pressed upon by the fluid passing to said nozzle, said member being arranged to regulate the opening for the passage of the fluid and a conduit leading from the said casing at the opposite side of the movable member to that which is pressed by the fluid passing to the nozzle and opening into the burner tube past the nozzle.

939,685. APPARATUS FOR COOLING FRUITS. MARSHALL W. GROOM, San Jose, Cal. Filed Sept. 4, 1907. Serial No. 391,320.

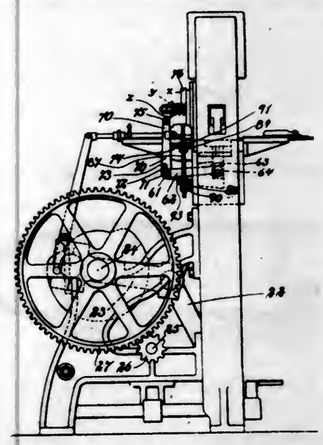


An apparatus for cooling fruit, which comprises a closed chamber divided by partitions into a series of runways, an endless conveyer having a receiving and a discharge portion outside said chamber, and with a sinuous portion traversing the successive runways, a cold air pipe having nozzles arranged to discharge into said runways, alternate of said nozzles discharging in a direction contrary to the travel of the conveyer, and the intermediate nozzles discharging in the same direction with the conveyer, and a source of cold air supply for said air pipe.

939,686. HEEL-COMPRESSING MACHINE. GEORGE B. GROVER, Lynn, Mass., assignor to W. J. Young Machinery Company, Lynn, Mass., a Corporation of Massachusetts. Filed June 14, 1905. Serial No. 265,195.

1. In a compressing machine, a die and a coöperating mold movable toward and from said die, an ejector in said mold and movable relatively thereto, and means comprising a cam and connections between the cam and the ejector for causing said ejector to rise in the mold during the last half of the descent of the mold, and to drop during the first half of the ascent of said mold.

2. In a compressing machine, a mold comprising side dies adapted to separate and receive a blank, and then to close and compress said blank, a movable ejector in said mold normally at the bottom thereof, means for actuating said dies, and means comprising a bodily movable cam and connections between the cam and the ejector for raising and lowering said ejector while the dies are opened approximately to their fullest extent.



3. In a compressing machine, a frame, a reciprocating head, a heel-seat die, a top-lift plate adapted to sustain a blank and movably mounted on said head, said head and top-lift plate being movable toward and from said die, and mechanism including a lever and a cam bodily movable in the frame for operating said lever to lift said plate during the latter half of the movement of the head away from said die.

4. In a compressing machine, a frame, a reciprocating head, a heel-seat die, a top-lift plate adapted to sustain a blank and movably mounted on said head, said head and top-lift plate being movable toward and from said die, and mechanism including a lever and a cam bodily movable on the frame for lifting said plate during the latter half of the movement of the head away from said die and lowering said plate during the first portion of the motion of said head toward said die.

5. A compressing machine comprising a mold, a coöperating die, means for relatively moving said mold and die, and an independently movable plate normally forming the bottom of the mold, combined with means including a lever and a cam movable with the head for causing said plate first to move with said mold away from the die, and then to ascend relatively to the mold during the last half of the movement of the mold.

[Claims 6 to 21 not printed in the Gazette.]

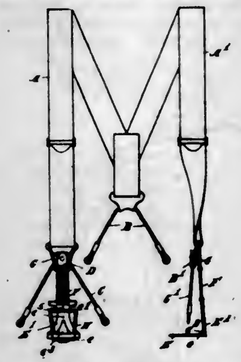
939,687. SUSPENDER-CHECK. FRANK B. HAWES, Lowell, Mass. Filed July 6, 1909. Serial No. 506,174.

1. A check attachment for suspenders comprising a plate, means of suspending the same by its upper edge in vertical position from the shoulder-strap of a suspender, a piece hinged to the lower edge of said plate and means for holding the same perpendicular to or, at will, parallel with said plate.

2. A check-attachment for suspenders comprising a plate, a link adapted to engage a shoulder-strap, a strap connecting the lower end of said link and the upper part of said plate, a piece hinged to the lower part of said plate and provided with a backwardly extending arm, a spring secured to said plate and bearing against said arm to hold said piece in or out of parallelism with said plate and a stop to limit the turning of said piece on said plate to a right angle.

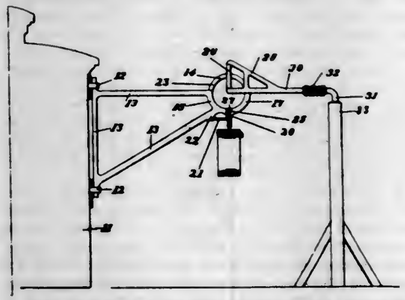
3. A check-attachment for suspenders, comprising a plate, a link adapted to engage a shoulder-strap, a strap

connecting the lower end of said link and the upper part of said plate, a piece hinged to the lower part of said plate and provided with a backwardly extending arm, a spring secured to said plate and bearing against said arm to hold said piece in or out of parallelism with said plate and a stop projecting from said piece below said arm and



adapted to strike said spring and to limit the turning of said piece on said plate to a right angle.

939,688. MAIL-DELIVERING APPLIANCE FOR RAILWAY-TRAINS. HENRY J. HILL, Jersey City, N. J. Filed July 12, 1909. Serial No. 507,214.



1. A mail delivering appliance comprising a hinged extension arm carried by the mail car adapted to swing outward from said mail car and having a supporting device consisting in hinged sections to be closed by the weight of the mail pouch; a pouch carrying device adapted to hold said pouch and to be carried by said supporting device; and means embodying an inclined extension adapted to raise the said pouch carrying device out of engagement with said supporting device.

2. A mail delivering appliance comprising a hinged extension arm carried by the mail car adapted to swing outward from said mail car and having a ring-like supporting device at the outer end, said device consisting in two quarter segments of a channeled ring suitably hinged together; a ring to carry the mail pouch adapted to rest within and maintain in closed relation the said quarter segments; and means embodying an inclined extension adapted to enter the said ring to raise the same out of engagement with the said quarter segments.

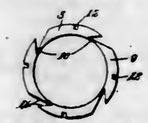
3. A mail delivering appliance comprising a hinged extension arm carried by the mail car adapted to swing outward from said mail car, and having at the outer end two channeled segments of a ring suitably hinged together, one of said segments having an extension forming part of the channel of the other segment; a ring to carry the mail pouch adapted to rest within and to maintain in closed relation the said segments by resting upon the said extension of the one segment; and means embodying an inclined extension adapted to enter the said ring to raise the same out of engagement with the said extension of the segment.

4. A mail delivering appliance comprising a hinged extension arm carried by the mail car adapted to swing outward from said mail car and having a ring-like supporting device at the outer end, said device consisting in two quarter segments of a channeled ring suitably hinged together; a ring having a diameter greater than the rocking movement of the mail car to carry the mail pouch and adapted to rest within and maintain in closed relation the said quarter segments; and means embodying an inclined extension adapted to enter the said ring to raise the same out of engagement with the said quarter segments.

5. A mail delivering appliance comprising a hinged extension arm carried by the mail car adapted to swing outward from said mail car, and having at the outer end two channeled segments of a ring suitably hinged together, one of said segments having an extension forming part of the channel of the other segment; a ring having a diameter greater than the rocking movement of the mail car to carry the mail pouch and adapted to rest within and to maintain in closed relation the said segments by resting upon the said extension of the one segment; and means embodying an inclined extension adapted to enter the said ring to raise the same out of engagement with the said extension of the segment.

[Claims 6 to 12 not printed in the Gazette.]

939,689. COUPLING FOR ELECTRIC CONDUCTORS. JESSE L. HINDS, Syracuse, N. Y., assignor to Crouse-Hinds Company, Syracuse, N. Y., a Corporation of New York. Filed Apr. 1, 1909. Serial No. 487,125.



A coupling for electric conductors comprising a compressible sleeve and means for compressing the same, the sleeve having a smooth unbroken bore for receiving a conductor and making electrical contact therewith throughout substantially the extent of said bore, said sleeve having a lengthwise groove in its periphery, the opposing walls of the groove inclining in the same general direction, and one of such walls being disposed substantially tangential to the bore of the sleeve adjacent to the opposite wall of the groove, whereby the groove is provided at one side thereof with a wall decreasing in thickness toward the juncture of said opposing walls and terminating in a thin, flexible, lengthwise portion which buckles inwardly as the sleeve is compressed and permits the contiguous portion of said wall to move relatively to the opposite wall of the groove in a direction substantially tangential to the bore of the sleeve, thus avoiding injury to the conductor and adapting the sleeve for use on electric conductors of different diameters.

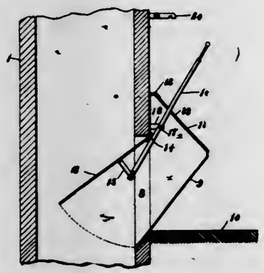
939,690. WASTE-CHUTE. GEORGE A. HOFMEYER, Undercliff, N. J. Filed Sept. 11, 1906. Serial No. 334,107.

1. The combination with a chute, of a hopper, outer and inner doors for said hopper adapted to move each independent of the other, and means for locking one door in fixed position by opening of the other door and releasing said first mentioned door by closing of the other door.

2. The combination with a chute, of a hopper, outer and inner doors for said hopper adapted to move each independent of the other, and means for holding one door closed by opening of the other door and releasing said first mentioned door by closing of the other door.

3. The combination with a chute, of a hopper, outer and inner doors for said hopper adapted to move each independent of the other, and means for locking the inner door in fixed position by opening of the outer door and releasing said inner door by closing of the outer door.

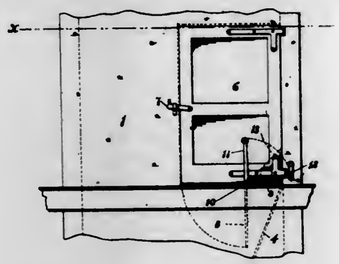
4. The combination with a chute, of a hopper, outer and inner doors for said hopper adapted to move each independent of the other, and means for holding the inner door closed by opening of the outer door and releasing said inner door by closing of the outer door.



5. The combination with a chute, of a hopper, outer and inner doors for said hopper, a controlling lever for one of said doors, and means for locking said lever by opening of the other door and releasing said first mentioned door by closing of the other door.

[Claims 6 to 13 not printed in the Gazette.]

939,691. WASTE-CHUTE. GEORGE A. HOFMEYER, Undercliff, N. J. Filed Sept. 11, 1906. Serial No. 334,108.



1. The combination with a chute, of a hopper, outer and inner doors for said hopper adapted to move each independent of the other, and means for locking either of said doors by opening of the other door and releasing the first mentioned door by closing of said other door.

2. The combination with a chute; of a hopper, an outer door for the hopper swinging on a vertical axis, an inner door hinged on a horizontal axis, and a lever or crank on the axis of the inner door extending past the outer door and swinging in a plane parallel therewith when closed and closely adjacent its outer face.

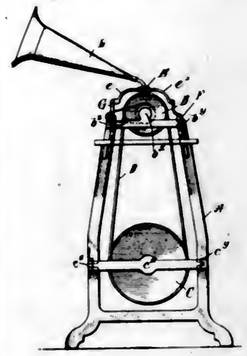
3. The combination with a chute; of a hopper, an outer door for the hopper swinging on a vertical axis, an inner door hinged on a horisontal axis which latter projects beneath the outer door when closed at a point adjacent its lower edge and between its vertical edges, and a lever or crank on said axis standing outside the outer door when the latter is closed.

4. The combination with a chute, of a hopper, outer and inner doors for said hopper adapted to move each independent of the other, and means for holding either one of said doors closed in fixed position by opening of the other door and releasing the first mentioned door by closing of said other door.

5. The combination with a chute, of a hopper, outer and inner doors for said hopper adapted to move each independent of the other, and means for locking the outer door in fixed position by opening of the inner door and releasing said outer door by closing of the inner door.

[Claims 6 to 13 not printed in the Gazette.]

939,692. PHONOGRAPH. FRANK E. HOLMAN, Silverton, Oreg., assignor of one-half to John E. Innis, Silverton, Oreg. Filed Dec. 22, 1908. Serial No. 468,815.



1. In a phonograph, a frame, a feed roller arranged in one end of said frame, an idler arranged in the other end of said frame, hinged bearings for said feed roller and said idler, a flexible recording surface carried by said feed roller and said idler, said recording surface consisting of an endless belt arranged to run on both of said rollers, and a stylus arranged to engage said recording surface.

2. In a phonograph, a frame provided with upper and lower stationary bearings, a feed roller mounted in said upper bearings, an idler mounted in said lower bearings, upper and lower hinged bearings carried by said frame and arranged to swing into alinement with the respective upper and lower stationary bearings and a flexible recording surface carried by said rollers.

3. In a phonograph, a frame provided with upper and lower stationary bearings, a shaft having a guide flange on the end of the roller adjacent the stationary bearing, a lower shaft journaled in said lower stationary bearing, an idler carried by said lower shaft and provided with a flange on the end adjacent the stationary bearing, and upper and lower hinged bearings carried by said frame and arranged to swing into alinement with their respective stationary bearings and adapted to engage the ends of the upper and lower shafts respectively.

939,693. INSTRUMENT FOR HANDLING SEMIPLASTIC SUBSTANCES. JOHN HOLTZMANN, Baltimore, Md. Filed May 5, 1908. Serial No. 430,939.



In an instrument of the character described the combination of an outer slotted tube of uniform diameter from end to end and provided at its open end with a laterally-projecting flange and having a screw-threaded opposite end; a cap having threads to engage the screw-threaded end of said outer tube and said cap carrying a rod which projects through the outer tube and terminates adjacent the said flange thereon,—said rod being rigid with the cap; an intermediate tube of uniform diameter from one open end to the other open end and closely fitting the said rod, and a sleeve encircling the outer tube and carrying a projection that extends through the slot of said outer tube and enters the wall of the intermediate tube, substantially as described.

939,694. BOLT-CASE. RICHARD W. HUBBARD, Ashtabula, Ohio. Filed Mar. 19, 1909. Serial No. 484,445.



A device for the purpose described, formed of a single piece of bent sheet-metal, and comprising a barrel, adjacent loops at the base of the barrel, flanges arranged in a common plane and extending in opposite directions from the loops, and sector-shaped portions grouped together and forming the rear end wall of the barrel.

939,695. VEHICLE-WHEEL. TRAUGOTT HÜBSCHER, Weehawken Heights, N. J. Filed Dec. 29, 1908. Serial No. 469,854.



1. A vehicle wheel having opposed dished tension heads secured to the hub and detachably connected to the rim portion of the wheel, said heads constructed to move into and out of the rim opening in applying them to and removing them from the rim, when detached.

2. The combination in a vehicle wheel, of a hub, a rim having attaching means secured thereto, opposed dished heads carried on the hub and detachably engaging said means, and means to spread the heads apart to force them into engagement with the first named means and place the heads under tension.

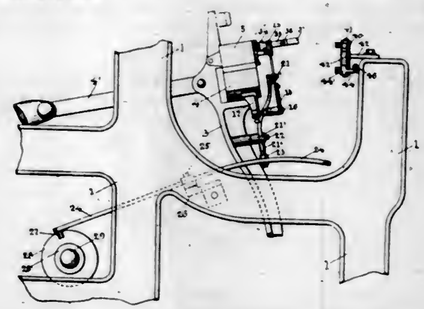
3. The combination in a vehicle wheel, of a rim, a channel member secured on the inner side of the rim having hooks, a hub, and opposed dished tension heads connected to the hub and having hooks at the perimeters thereof engaging with the hooks of the channel member.

4. The combination in a vehicle wheel, of a hub, a rim, a channel member secured on the inside of the rim having the edges inwardly turned to form hooks, and opposed dished tension heads connected to the hub and having outwardly-turned hooks at the margins detachably engaging in the hooks of the channel member.

5. The combination in a vehicle wheel, of inner and outer portions, opposed dished tension heads connected to the inner portion and having hooks detachably engaging with the outer portion of the wheel, said heads being radially split to permit of the springing of the hooks into and out of engaging position.

[Claims 6 and 7 not printed in the Gazette.]

939,696. FILLING-DETECTOR MECHANISM FOR LOOMS. GEORGE F. HUTCHINS, Worcester, Mass., assignor to Crompton & Knowles Loom Works, a Corporation of Massachusetts. Filed June 21, 1906. Serial No. 322,680.



1. In a filling detector mechanism for a weft replenishing loom, a detector or feeler, a spring normally operative to hold said detector out of engagement with the filling, and yielding means, positively actuated to move said detector to engage the filling.

2. In a filling detector mechanism for a weft replenishing loom, a detector or feeler carried on and movable with the lay, a spring normally operative to hold said detector out of engagement with the filling, and yielding means, positively actuated to move said detector to engage the filling.

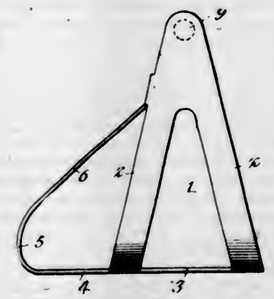
3. In a filling detector mechanism for a weft replenishing loom, a detector or feeler carried on the end of the lay, opposite from the magazine, a spring normally operative to hold said detector out of engagement with the filling, and yielding means, positively actuated to move said detector to engage the filling.

4. In a weft replenishing loom, the combination with a shuttle binder, of a detector or feeler carried on the binder, and means to operate the detector or feeler, to cause it to engage with, and be disengaged from the filling in the shuttle.

5. In a weft replenishing loom, having two or more drop or change shuttle boxes, the combination with the shuttle binder of each box, of a detector or feeler carried on the binder, and means to operate the detector or feeler, to cause it to engage with, and be disengaged from the filling in the shuttle.

[Claims 6 to 20 not printed in the Gazette.]

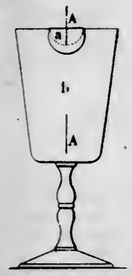
939,697. SAFETY-STIRRUP. JOHN L. JAMES, May, Okla. Filed May 19, 1909. Serial No. 497,010.



A stirrup formed in one piece of sheet metal and comprising a diamond shaped body apertured and bent to provide upstanding inverted V-shaped sides, a bottom bar ex-

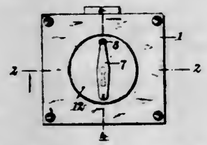
tending at a right angle to the major axis of the diamond-shaped body and bent upward on a curve and extended backward at an angle to form a toe-strap, the latter terminating at its upper end in a tee-shaped cross bar the opposite extremities of which are welded to the sides of the stirrup and a suspension bar mounted between the upper extremities of the sides, substantially as described.

939,698. LABIAL PROTECTING MEANS FOR DRINKING GLASSES, BOWLS, CUPS, SPOONS, AND THE LIKE. LEON JANCEY, Paris, France. Filed Oct. 15, 1908. Serial No. 457,838.



A labial insulating or protecting means adapted to be applied on the edge of drinking glasses, cups, bowls, spoons and the like, said means comprising a sheet of ductile material having a substantially continuous outline, and provided in its edge at opposite points with notches for the purpose set forth.

939,699. SEAL ATTACHMENT FOR LOCKS. CHARLES H. JOHNSON, Petaluma, Cal. Filed Mar. 13, 1909. Serial No. 483,137.



1. In a device of the class described, the combination with a lock, of a seal for said lock, a cover for said seal having an opening therein, a protector for said opening, means adapted to hold said protector over the opening, and a lock adapted to engage said protector when in its position away from the opening and also adapted to hold it in such position.

2. In a device of the class described, the combination with a lock, of a seal for said lock, a cover for said seal, having an opening therein, a protector for said opening, and a pivot-pin for said protector, adapted to hold the seal in place.

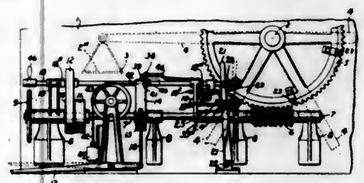
3. In a device of the class described, the combination with a lock, of a seal for said lock, a cover for said seal, having an opening therein, a protector for said opening, a pin adapted to support said protector and to pierce said seal, a pin adapted to hold said protector over the opening and to pierce said seal, and a pin adapted to hold said protector away from the opening and to pierce said seal.

4. In a device of the class described, the combination with a lock having a front plate, of a seal for said lock, and a cover for said seal having a concealed hinge located behind the front plate.

5. In a device of the class described, the combination with a lock having a front plate, of a seal for said lock, a cover for said seal having a concealed hinge located behind the front plate, and means for locking said cover to the lock.

[Claims 6 to 10 not printed in the Gazette.]

939,700. ROTARY CARRIER. FRANK A. JOHNSON, Salisbury, Mass. Filed Feb. 28, 1908. Serial No. 418,214.



1. In a machine of the class described, a revolving carrier, a worm shaft to impart motion thereto having fast and loose pulleys thereon, a shipper bar, a shipper lever movably connected to said shipper bar, means on said carrier to operate said shipper bar to stop the said carrier, a brake and locking means rendered operative upon movement of said shipper bar to arrest said carrier, means to release said brake and locking means and return said shipper lever to operative position, a supporting member for said brake and locking mechanism and anti-friction means between said brake and locking mechanism and said shipper bar, a cushioning device to permit gradual return of said shipper bar, a base member, guide members thereon and presenting to each other faces of irregular outline, a slide member adapted to move between said guide members, means to retain said slide member in position, said base member having means permitting the reciprocation of the lever to cause similar reciprocation of said slide member, and means to adjust one guide member to permit the slide member to return the lever without the path of normal reciprocation.

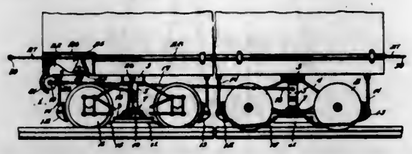
2. In a machine of the class described, a revolving carrier, a worm shaft to impart motion thereto having fast and loose pulleys thereon, a shipper bar, a shipper lever movably connected thereto, means on said carrier to operate said shipper bar to stop the said carrier, means to change the plane of oscillation of said shipper bar, a brake and locking means rendered operative upon movement of said shipper bar, to arrest the said carrier, means to release said brake and locking means and additional means to return said shipper lever to continuous operative position, and a supporting member for said brake and locking mechanism and anti-friction means between said brake and locking mechanism and said shipper bar.

3. In a machine of the class described, a revolving carrier, a worm shaft to impart motion thereto having fast and loose pulleys thereon, a shipper bar, a shipper lever movably connected to said shipper bar, means on said carrier to operate said shipper bar to stop the said carrier, slide and guide members to control the plane of oscillation of said shipper bar, a brake and locking means rendered operative on movement of said shipper bar, to arrest said carrier, means to release said brake and locking means and additional means to return said shipper lever to operative position, a supporting member for said brake and locking mechanism, anti-friction means between said brake and locking mechanism and said shipper bar, and means to provide gradual return of said shipper bar.

4. Actuating and stop mechanism for a revolving carrier, comprising a worm shaft having fast and loose pulleys thereon to impart motion to the carrier, a shipper bar, a shipper lever movably connected thereto, shipper lever actuating means adapted to be mounted upon the carrier to actuate said lever to stop the carrier, a brake and locking means rendered operative upon movement of said shipper bar to lock said carrier against rotation, means to release said brake and locking means and return said shipper lever to former position, a supporting member for said brake and locking mechanism and anti-friction means between said brake and locking mechanism and said shipper bar, a cushioning device to permit gradual return of said shipper bar, a base member, guide members thereon presenting to each other faces of irregular outline, a slide member adapted to move between said guide members, means to retain said slide member in position, said base member having means permitting the reciprocation of the lever to cause similar reciprocation of said slide member, and means to adjust one guide member to permit the slide member to return the lever without the path of normal reciprocation.

5. A rotary carrier, means automatically to arrest rotation thereof at desired times, and a slide member and guide members therefor to change the plane of oscillation of the automatic motion arresting means above its fulcrum and to simultaneously throw one member of the stopping means into continuous rotation relation to said carrier and means to rotate said carrier irrespective of said stopping means.

939,701. CAR-BRAKE. JOHN W. JOHNSON, Custer, Okla. Filed Nov. 18, 1908. Serial No. 463,275.



1. A car brake embodying a combined wheel and rail brake shoe adapted to simultaneously engage a wheel and the adjacent rail, means for normally suspending said brake shoe above and out of contact with the rail and also out of contact with the wheel, and means for automatically releasing said brake shoe upon the separation of the cars from each other, substantially as described.

2. A car brake embodying a combined wheel and rail brake shoe adapted to simultaneously engage a wheel and the adjacent rail, a winding shaft having a flexible connection extending therefrom to said brake shoe for releasing the latter, and means operated by the parting of the cars for tripping said winding shaft.

3. A car brake embodying a combined wheel and rail brake shoe, means for suspending said brake shoe out of contact with the rail and wheel, a winding shaft, a flexible connection extending from said shoe to said shaft, a dog for locking said shaft, and means operable upon the separation of the cars for tripping said dog.

4. A car brake embodying a combined wheel and rail brake shoe adapted to simultaneously engage a wheel and the adjacent rail, means for flexibly supporting said brake shoe out of contact with the rail and wheel comprising a chain, and a winding shaft for said chain, dog and ratchet elements for locking said shaft, a trip lever adapted to cooperate with said dog, and a flexible connection extending lengthwise of the car and adapted when drawn in either direction to operate said trip lever, substantially as and for the purpose described.

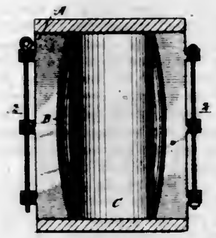
5. A car brake embodying a combined wheel and rail brake shoe, means for suspending said shoe out of contact with the rail and wheel comprising chains, a winding shaft for said chains, means for automatically tripping said shaft upon the separation of the cars, another wheel brake shoe, and a connector chain extending from one of said shoes to the other, whereby one shoe is adapted when set, to set the other shoe.

[Claim 6 not printed in the Gazette.]

939,702. METHOD FOR FORMING SHEET-METAL BODIES. ISAAC N. JONES, Defiance, Ohio, assignor to John C. Vandenbroek, Defiance, Ohio. Filed Jan. 28, 1909. Serial No. 474,665.

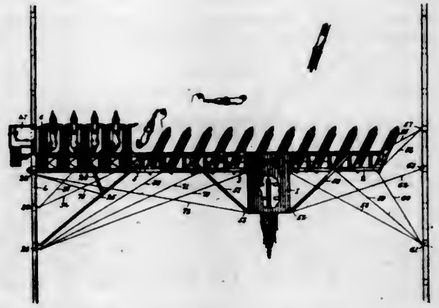
1. The herein described method of forming sheet metal bodies, consisting in inserting in a mold a cylindrical blank, supporting an explosive at approximately the center of the mold, closing the ends thereof, and igniting the explosive whereby to expand the blank into contact with the inner surface of the mold.

2. The herein described method for forming sheet metal bodies, consisting in placing a cylindrical blank into a bilge shaped mold, closing the ends thereof, supporting an explosive at approximately the center of the blank and igniting the same.



3. The herein described method for forming hollow sheet metal bodies, which consists in placing the blank in a mold whose internal surface is shaped to correspond with the external surface of the body to be formed, sealing the mold, suspending a high explosive therein at substantially the center thereof, and exploding the same whereby to forcibly press every part of the blank into intimate contact with the internal surface of the mold.

939,703. STARTING AND SEPARATING GATE. ROBERT V. JONES, Seattle, Wash. Filed Dec. 29, 1908. Serial No. 469,806.



1. A starting and separating gate, comprising a frame composed of upper and lower bars connected together in spaced relation and adapted to be arranged transversely of the track, a plurality of spacing members, each consisting of spaced parallel bars arranged in a horizontal plane and connected together, said members having one end pivoted between the first named bars, means for locking said members in a position perpendicular to the bars, a barrier hinged to the free end of each of the last named bars, and coöperating with the barrier of the bar of the adjacent member for closing the space betwen said members, springs connected with said barriers and normally acting to move them into a position in alinement with the corresponding spaced member, means for locking the barriers in a position transverse to the spacing members, and means for simultaneously releasing the locking means of all of the barriers.

2. A starting and separating gate, comprising a frame adapted to be arranged transversely of the track, spacing members having one end pivoted to the frame, means for locking said members perpendicular to the frame, a barrier pivoted to each corner of the end of the members remote from the frame, each barrier coöperating with the adjacent barrier of the adjacent member to close the space

therebetween, springs connected with said barriers and normally acting to move them into a position in alinement with the corresponding spaced member, means for locking the barriers in a position transverse to the spacing members, and means for simultaneously releasing the locking means of all of the barriers.

3. A starting and separating gate, comprising a frame, adapted to be arranged transversely of the track, spacing members having one end pivoted to the frame, means for locking said members perpendicular to the frame, a barrier pivoted to each corner of the end of the members remote from the frame, each barrier coöperating with the adjacent barrier of the adjacent member to close the space therebetween, means for locking the barriers in a position transverse to the spacing members, and means for simultaneously releasing the locking means.

4. A starting and separating gate, comprising a frame, adapted to be arranged transversely of the track, spacing members having one end pivoted to the frame, means for locking said members perpendicular to the frame, a barrier pivoted to each corner of the end of the members remote from the frame, each barrier coöperating with the adjacent barrier of the adjacent member to close the space therebetween, means for locking the barriers in a position transverse to the spacing members, and means for simultaneously releasing the locking means, and means for moving the frame away from the track.

5. A starting and separating device, comprising a frame arranged transversely of the track, spacing members pivoted thereto and in spaced relation, barriers pivoted to the members, springs connected thereto and normally acting to move the barriers into alinement with the spacing members, a locking means for each barrier to retain it transverse to the spacing members and means for simultaneously releasing the locking members.

939,704. PLOW. HENRY H. JULICH, Mount Hope, Wis. Filed Mar. 8, 1909. Serial No. 482,111.



1. A plow comprising a moldboard, a share to match said moldboard, means for locking the said share to said moldboard, embodying a sliding member, and a spring-retained key to hold the said sliding member in locked position.

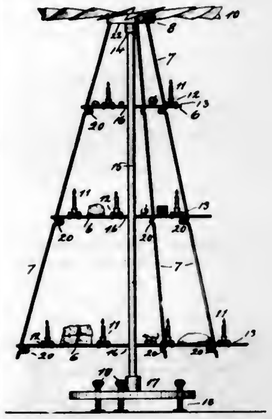
2. A plow comprising a moldboard, a share to match said moldboard, means for locking the said share to said moldboard, embodying a sliding member, a plurality of open ended bayonet slots to receive and hold said sliding member, and a spring seated detent adapted to seat behind said sliding member to hold the same in said slots.

3. A plow comprising a moldboard having a series of open ended horizontal slots, a share to match said moldboard and having a series of projections adapted to be secured in the said slots by a sliding engagement, and a key to hold the said share in its secured position by closing one of said slots.

939,705. HEAT-OPERATED DISPLAY DEVICE. JOHN R. KELLER, Cincinnati, Ohio, assignor of one-half to Thomas S. Spivey, Cincinnati, Ohio. Filed Jan. 20, 1909. Serial No. 473,284.

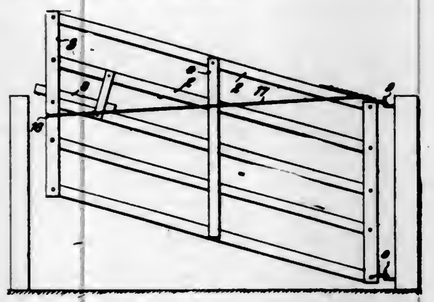
1. In a display-device, the combination of an air-motor supported in an elevated position, rods depending therefrom, each provided with equally spaced projections, and shelves supported upon these projections.

2. In a display-device, the combination of an air-motor supported in an elevated position, rods depending therefrom, each provided with equally spaced projections, which are formed by kinking these rods, and shelves notched at their edges to admit these rods to permit the kinks to pass below the shelves to support them.



3. In a display-device, the combination of a post, pointed at its upper end, a base to which it is rigidly connected an air-motor having a hub with an inverted socket fitted to loosely rest upon this pointed end of the post, shelf-supporting rods connected to and depending from the hub of the motor, shelves supported exclusively by these rods, they being centrally perforated to clear the post and candle-sockets provided on these shelves.

939,706. GATE-HINGE STRUCTURE. GEORGE I. KENDRICK and JAMES CARROLL, Pittsfield, Ill. Filed Mar. 25, 1909. Serial No. 485,757.

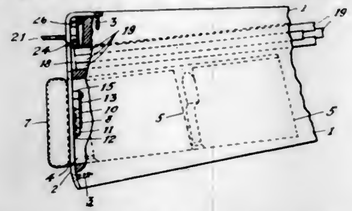


1. In a gate, opposed horizontal members pivotally connected by vertical members, a gate post having upwardly projecting pintles, a ratchet plate attached to the rear end of one of said horizontal members, said ratchet plate having teeth upon its upper face and having an eye at its rear end adapted to engage with said pintle, and a tension brace engaging the free end of the gate and extending rearward and engaging with the ratchet teeth of said plate.

2. A gate having at its rear end a ratchet plate, said plate having teeth on its upper face and being provided at its rear end with an eye, a tension brace engaging the free end of the gate and adapted to extend back over and engage with one of said teeth, and a pintle having an upwardly turned end with which said eye on the ratchet plate engages to pivotally support the gate.

3. In a gate, the combination with a series of vertical and horizontal gate sections pivoted to each other, and a gate post having pintles thereon, of a horizontal plate attached to the rear end of one of said horizontal sections, said plate having at its rear end means for engaging said pintle and being provided with upwardly projecting ratchet teeth, and a tension brace attached at its forward end to the free edge of the gate and at its rear end extending over said ratchet teeth.

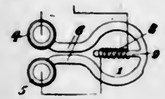
939,707. GUN-STOCK. LAWRENCE F. KENNEDY, Minneapolis, Minn. Filed July 14, 1909. Serial No. 507,516.



1. The combination with a gun stock having a cartridge clip chamber in its butt end, of a butt-plate having a corresponding opening, a cover plate therefor, a lug formed on the side and midway of the length of the cover plate and having shoulders one of which is parallel with and the other at right angles to the cover plate, a slot in the butt-plate to receive such lug, a pair of studs provided on the butt-plate at opposite sides of said slot, a pintle connecting the lug to said studs, and a flat spring arranged on the butt-plate at the side of the clip chamber and adapted to press upon the cover plate lug for holding the plate in its closed and open positions, substantially as set forth.

2. The combination with a gun stock having chambers in its butt-end and a butt-plate having corresponding openings, of cover plates therefor, heads formed on the sides of the plates and having flat shoulders, one of which is parallel and the other at right angles to the cover plate, slots in the butt-plate to receive such heads, studs at the sides of the slots, pintles connecting the heads to the studs, and flat springs arranged lengthwise of the butt-plate and adapted to press upon said heads for holding the plates respectively in their closed and open positions, substantially as set forth.

939,708. MERCURY AND OTHER VAPOR ELECTRIC LAMP. HENRY A. KENT, Bound's Green, and HAROLD G. LACELL, Finchley, England, assignors to Silica Syndicate Limited, London, England. Filed Dec. 1, 1908. Serial No. 465,483.



1. In a vapor electric lamp of the type described, means in close proximity to the electrode heated for raising the temperature of said electrode to substantially that of its companion of different polarity whereby the condensation of vapor at the electrode heated is prevented.

2. In a vapor electric lamp of the type described, means in close proximity thereto for heating the negative electrode to substantially the temperature of the positive electrode whereby the condensation of vapor at the negative electrode is prevented.

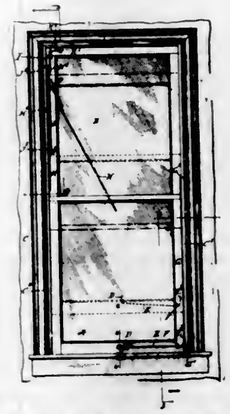
3. In a vapor electric lamp of the type described, means in close proximity thereto for heating the negative electrode to substantially the temperature of the positive electrode by heat radiated during the operation of the lamp, substantially as and for the purpose described.

4. In a vapor electric lamp of the type described, means for automatically heating the negative electrode to substantially the temperature of the positive electrode by the heat of a closely juxtaposed portion of the lamp at a higher temperature, substantially as and for the purpose described.

5. In a vapor electric lamp of the type described, a negative electrode and a positive electrode closely juxtaposed to maintain the temperature of said electrodes substantially equal, as and for the purpose described.

[Claim 6 not printed in the Gazette.]

939,709. SASH HOLDER AND LOCK. THEODORE KEPHART, Sinnamahoning, Pa. Filed Mar. 1, 1909. Serial No. 480,732.



1. A sash holder and lock, comprising a vertically disposed runner for attachment to the window casing, a spring lever device on the sash and adapted to be moved toward and from the runner, whereby it may be brought into engagement with said runner to hold the sash raised by frictional contact, the said spring lever device and the said runner having interlocking means in register with each other at the time the sash is closed to lock the sash in the closed position.

2. A sash holder and lock, comprising a vertically disposed runner provided with a shoulder and secured to the window casing, a lever fulcrumed on the window sash, a bearing on the window sash, and a link connected at one end with the said lever and provided at the other end with an arm for engagement with the said runner and the shoulder thereof.

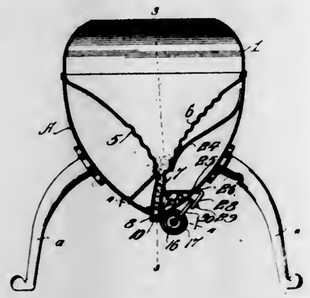
3. A sash holder and lock, comprising a vertically disposed runner having a shoulder and secured to a window casing, a lever fulcrumed on the window sash, a bearing on the sash, and a link connected at one end with the lever and provided at its free end with an upwardly projecting spring arm for engagement with the runner.

939,710. MATCH HOLDER OR SAFE. HENRY M. KING, Hattiesburg, Miss. Filed Dec. 4, 1908. Serial No. 466,012.

1. A match safe comprising a casing containing a hopper having a movable wall and an opening for the discharge of the matches one at a time, a member having a channel in line with the discharge opening and adapted to receive the lowermost match, an ejector arranged to operate in said channel to effect delivery of the matches therefrom one at a time, an actuating rod exterior to the casing, connecting means between said actuating rod and ejector, a member connected with the movable wall of the hopper, and extending beyond the casing, and a cam connected with said actuating rod and movable therewith and adapted to coöperate with the said connecting member to effect positive movement of said movable wall.

2. In an apparatus of the class described, the combination of a casing, a hopper therein formed with a contracted throat through which the matches feed by gravity in a column, one wall of the throat being movable, a spring pressing on the wall to hold the same in normal

position, an ejector for removing the lowermost match from the throat, a cam connected with the ejector, and a horizontally disposed member hingedly connected with the said movable wall and having a dependent portion arranged to be engaged by the cam for moving the wall laterally against the tension of the said spring.



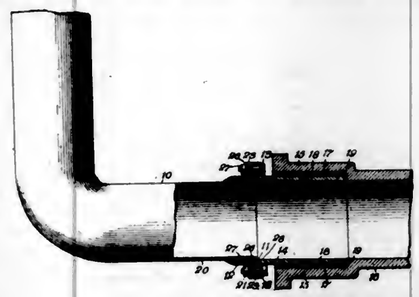
3. A match safe comprising a casing containing a hopper having a movable wall, and provided with a channel to receive a single match and having a delivery opening in line with said channel, an actuating rod mounted exterior to the casing and adapted to receive a rectilinear movement, an ejector connected with said actuating rod and arranged to operate in the aforementioned channel to effect delivery of the matches therefrom one at a time, a rod connected with the movable wall of the hopper and extending beyond the casing, a cam connected with said actuating rod and adapted to engage with the projecting end of the rod connected with said movable wall for operating the same at each delivery of a match, and means for igniting the match in its final delivery.

4. A match safe comprising a casing having slots and openings in its sides, a channeled bar located at the bottom of the casing with the channel opening upward and adapted to receive the lowermost match, said channeled bar having its ends projecting beyond the ends of the casing, the one forming a guide chamber and the other a jaw, a second jaw arranged opposite the jaw formed by the projecting end of the channeled bar, a barrel secured to a side of the casing adjacent the channeled bar and having longitudinal slots in its sides, an actuating rod mounted for longitudinal movement within said barrel, a spring coöperating with said actuating rod, an ejector connected with the actuating rod and adapted to operate within the channeled bar, the connecting means between the ejecting and actuating rod operating in corresponding longitudinal slots of the barrel and casing, means within the casing for agitating the matches to insure positive feed thereof, and having a portion extended through an opening in a side of the casing, and a cam connected with said actuating rod and movable therewith and adapted to actuate said match agitating means, the connecting means between said cam and actuating rod, operating in a longitudinal slot in a side of the barrel.

5. The combination of a casing, a hopper therein provided with a movable wall, an ejector arranged at the bottom of the casing for delivering the lowermost match, an actuating rod mounted at the bottom of the casing, a spring pressing on the rod, a grip on the rod, a connection between the rod and ejector, a member connected with the said movable wall of the hopper and slidable back and forth through the wall of the casing; and a wedge exterior to the casing and connected with the rod and arranged to engage the said member for actuating the said wall.

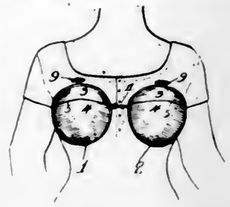
939,711. WASTE-FERRULE. JOSEPH KLEIN, New York, N. Y., assignor of one-half to Emil Stern, New York, N. Y. Filed Jan. 4, 1909. Serial No. 470,628.

The combination with a waste member provided with an annular flange, of a waste pipe having an enlarged end forming an internal annular shoulder, a ferrule member, one end of which abuts against said shoulder while its opposite end is provided with an annular flange having an overhanging portion, the outer surface of said flange abutting the flange of the waste member, a clamping ring having an annular flange formed with peripheral notches



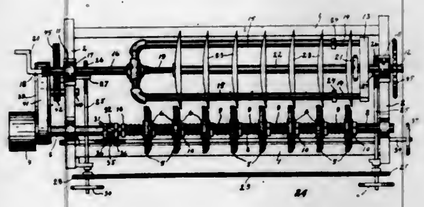
registering with bolt holes in the flange of the ferrule and means for connecting the clamping ring and ferrule comprising bolts extending through the holes in the ferrule flange and the notches in the clamping ring flange, and nuts bearing against said clamping ring flange, and the overhanging portion of the ferrule flange.

939,712. DRESS-SHIELD. ROSE S. KLEINERT, New York, N. Y. Filed Feb. 24, 1909. Serial No. 479,810.



A pair of imperforate concavo-convex breast shields of uniform thickness throughout and comprising fabric and water-proof material, a safety pin secured to the upper edge of each shield, a band secured to the side edge of one shield and having a hook and eye engagement with the other shield, an elastic band connecting the far edges of the shield and adapted to extend around the body of the wearer and a take-up buckle associated with said elastic band.

939,713. DISK-SHARPENER. FRED H. KLENKE, Ashton, Ill. Filed Apr. 27, 1908. Serial No. 429,414.



1. In a device of the class named, a rotatably mounted shaft, and plurality of spaced apart rotary grinders slidably mounted thereon; a plurality of collars, fixed to said shaft, and limiting the movement of said grinders in one direction; and a plurality of springs interposed between said collars and grinders, and permitting a limited movement in the opposite direction, substantially as described.

2. In a device of the class named, a rotatably mounted shaft; a plurality of spaced-apart rotary grinders slidably mounted thereon; and a plurality of springs, interposed between said grinders, so as to permit a limited movement of said grinders longitudinally of said shaft, in one direction thereon, substantially as shown and set forth.

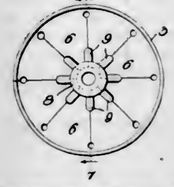
3. In a device of the class named, a rotatably mounted shaft; a plurality of spaced-apart rotary grinders slidably mounted thereon; means for permitting a limited movement of said grinders upon such shaft in one direction; and means of longitudinal adjustment of said shaft, substantially as shown and described.

4. In a device of the class named, a telescopic frame, suitably supported in the machine; means for rotatably supporting a gang of disks within said frame; and means for lateral adjustment of said frame, substantially as set forth.

5. In a device of the class named, a rotatably mounted shaft; a plurality of spaced-apart rotary grinders slidably mounted thereon; means for limiting the movement of said grinders in one direction upon said shaft; means for rotatably supporting a gang of disks in said device; and means for moving such gang of disks into engagement with said grinders, and out of engagement therewith, as desired, substantially as shown and for the purpose named.

[Claims 6 to 9 not printed in the Gazette.]

939,714. METHOD OF MANUFACTURING METAL WHEELS. GRIGORY KOWARSKY, Riga, Russia. Filed Mar. 5, 1909. Serial No. 481,256.



1. A method of constructing metal wheels which consists in dividing a bar longitudinally by a staggered cut to form two members, then bending each of said members into circular form and uniting the ends thereof, and then mounting a hub on the free end of the cut portion of each member.

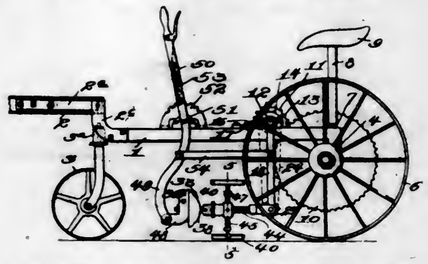
2. A method of constructing metal wheels which consists in dividing a bar longitudinally by a staggered cut to form two sections each having substantially triangular laterally extending members with V-shaped recesses between them, then bending each of said sections into circular form and uniting the ends thereof, and then mounting a hub on the free ends of the cut portion of each section.

3. A method of constructing metal wheels which consists in dividing a bar longitudinally by a staggered cut to form two members, with an aperture arranged at the apex of each element formed by said staggered cut to provide a plurality of truncated triangular members, then bending each of said members into circular form and uniting the ends thereof, and then mounting a hub on the free ends of the truncated triangular members.

4. A method of constructing metal wheels which consists in dividing a bar longitudinally on a staggered line, then dividing the so cut sections transversely into suitable lengths, then bending said lengths into circular form and uniting the meeting edges thereof, and then mounting a hub on the free ends of the cut portion of each section.

5. A method of forming metal wheels from flanged iron bars which consist in dividing a bar longitudinally into sections by a staggered cut, then bending said sections into circular shape to form the body portion and rim of the wheel, and then mounting a hub at the center of said body portion.

939,715. BEET-BLOCKER. ERNEST KRAAK, Fremont, Ohio. Filed June 19, 1908. Serial No. 439,403.



1. In a beet blocker, a frame, a drive axle having ground wheels, a power transmitting shaft geared to the drive axle, cutting mechanism on opposite sides of the machine operated from the power transmitting shaft and consisting of cutters carrying reversely arranged cutting devices, shafts on which the cutters are longitudinally movable, cam means for moving the cutters longitudinally on their shafts during the progress of the machine, and means for adjusting the cutting mechanism.

2. In a beet blocker, a frame, a power transmitting shaft, means for operating said shaft, and cutting mechanism connected to said shaft and having longitudinal movement automatically imparted thereto during the progress of the machine.

3. In a beet blocker, a frame, cutting mechanism supported by the frame and including rotatable cutters, and means for operating the cutting mechanism and also for automatically moving the latter longitudinally during the progress of the machine.

4. In a beet blocker, a frame, ground engaging devices supporting the frame, cutting mechanism at opposite sides of the frame including longitudinally extending rotatable shafts, means operatively connecting the mechanism to the frame, means for actuating said shafts, cutting devices including cutters rotatably mounted on and longitudinally movable over the shafts, resilient means for holding the cutters normally in a forward position, and cam means with which portions of the cutting devices are held in continual engagement.

5. In a beet blocker, a frame adjustable to various widths, cutting mechanism at opposite sides of and suspended from the frame and including rotatable cutters, and mechanism for operating said cutting mechanism and including a counter-shaft for each cutting mechanism at the opposite sides of the frame, the said operating mechanism including the counter-shafts being adjustable to compensate for the adjustment of the frame.

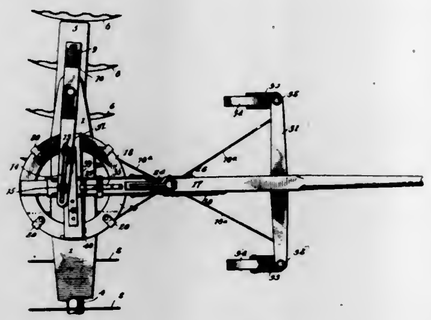
[Claims 6 to 12 not printed in the Gazette.]

939,716. PLOWING-MACHINE. DANIEL F. KUSTER and GUSTAV J. NIEMANN, Washtucna, Wash. Filed July 20, 1908. Serial No. 444,320.

1. In a plowing machine, the combination with a cross frame, a turn table carried by said frame, a beam mounted on said turn table, a plane disk section suspended from said frame at one side of its center, a dished disk section pivotally suspended from the frame at the other side of the center, and pivotal connections between the said dished disk section and the beam.

2. In a plowing machine, the combination with a cross frame carrying at one side of its center a plane disk section and at the other side a dished disk section, said dished disk section pivotally suspended from the cross frame, a beam pivotally mounted on said cross frame, an arm extending from said pivoted section over the beam, a slide

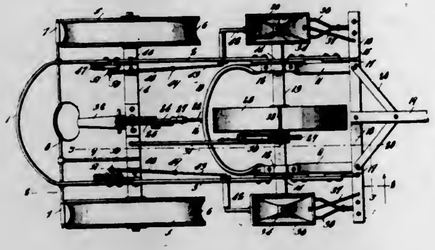
mounted on said beam, a sliding connection between the arm of the pivoted disk section and the slide, and means for moving said slide to control the angle of the dished disks.



3. In a plowing machine, the combination with a cross frame carrying at one side of its center a rigid section of plane disks, and at the other side of its center, a section of dished disks and pivotally suspended therefrom, a turn table mounted on said frame consisting of upper and lower circle irons, a beam mounted on the upper circle iron, pawls carried by said beam to lock the upper and lower circle irons, means for throwing said pawls into locking engagement with said circle irons, and means for unlocking the same, and pivotal connections between the dished disk section and the beam.

4. In a plowing machine the combination with a cross-frame carrying at one side of its center a rigid plane disk section and at the other side of the center a dished disk section pivotally secured to said frame, a slotted arm projecting from said section, a beam mounted on said cross frame, a slide mounted on the beam, a pin or stud projecting from said slide and slidably engaging the slotted arm, a hand lever pivoted to the beam, and connecting bars pivotally connected to said lever and to the forward end of the slide.

939,717. CORN-PLANTER. COLONEL W. LANHAM, Hustonville, Ky. Filed Aug. 29, 1908. Serial No. 450,814.



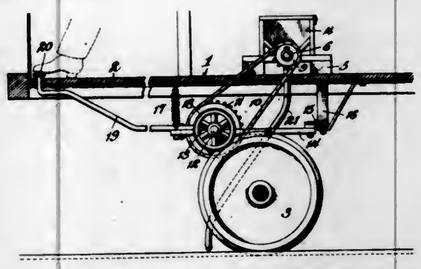
1. A corn planter comprising a substantially U-shaped frame, a cross bar to which the ends of the arms of the frame are pivotally connected, a tongue rigid with the cross bar, a shaft arranged transversely of the main frame covering wheels on the ends of the shaft, an auxiliary frame having arms of lesser length than the arms of the main frame arranged therebetween, said arms having their free ends rigid with the cross bar, a shaft journaled transversely of the auxiliary frame the arms of the main frame being provided with vertical loops through which the ends of the shaft pass a power wheel at the center of the shaft, a ratchet wheel rigid with the power wheel, a lever journaled on the shaft, a pawl on the lever for engaging the ratchet wheel to rotate the power wheel, hoppers on the main frame through which the ends of the shaft pass, dropping wheels on the ends of the shaft within the hopper, said dropping wheels being provided at spaced intervals with openings for receiving the charge, the power wheel being provided on its peripheral surface with ribs corresponding to the position of the charge openings on the dropping wheels, a rock shaft on the main frame, an arm projecting from the rock shaft, a chain connecting the free end of the arm with the auxiliary frame, and a lever for manipulating the shaft whereby to raise and lower the rear end of the auxiliary frame.

2. A corn planter comprising a substantially U-shaped frame, a cross bar to which the ends of the arms of the frame are pivotally connected, a tongue rigid with the cross bar, a shaft arranged transversely of the main frame covering wheels on the ends of the shaft, an auxiliary frame having arms of lesser length than the arms of the main frame arranged therebetween, said arms having their free ends rigid with the cross bar, a shaft journaled transversely of the auxiliary frame the arms of the main frame being provided with vertical loops through which the ends of the shaft pass a power wheel at the center of the shaft, dropping mechanism at each end of the shaft, a rock shaft on the main frame, an arm projecting therefrom, a chain connecting said arm with the auxiliary frame, and a lever for manipulating the shaft whereby to raise and lower the auxiliary frame.

3. A corn planter comprising a substantially U-shaped frame, a cross bar to which the ends of the arms of the frame are pivotally connected, a tongue rigid with the cross bar, a shaft arranged transversely of the main frame covering wheels on the ends of the shaft, an auxiliary frame having arms of lesser length than the arms of the main frame arranged therebetween, said arms having their free ends rigid with the cross bar, a shaft journaled transversely of the auxiliary frame the arms of the main frame being provided with vertical loops through which the ends of the shaft pass a power wheel at the center of the shaft, dropping mechanism at each end of the shaft, and means for raising and lowering the rear end of the auxiliary frame.

4. A corn planter comprising a substantially U-shaped frame, a tongue connected with the frame, a shaft arranged transversely of the frame, covering wheels on the ends of the shaft, an auxiliary frame arranged between the arms of the main frame, a shaft journaled transversely of the auxiliary frame, the arms of the main frame being provided with vertical loops through which the ends of the shaft pass, a power wheel on the shaft within the auxiliary frame, dropping mechanism at each end of the shaft, and means for raising and lowering the rear end of the auxiliary frame.

939,718. TRACK-SANDING DEVICE. EDWIN L. LARSON, De Kalb, Ill. Filed Apr. 29, 1909. Serial No. 492,919.



1. In a track sanding device, the combination of a car, a hopper carried thereby, a feed screw in the hopper, a floating shaft disposed exterior to the hopper, means for mounting the shaft on the car, a sprocket and chain device between the screw and shaft, a pulley on the shaft, means for moving the pulley into engagement with the wheel of the car, means for normally holding the pulley out of engagement with the wheel, and a sand-conducting conduit leading from the screw to the track.

2. In a track sanding device, the combination of a car body, a hopper mounted thereon, a feed screw in the hopper, a swinging frame mounted on the car body to move in a vertical plane, a shaft mounted on the frame, a driving connection between the shaft and screw, a pulley on the shaft arranged to engage one of the car wheels, a spring connected with the frame and car body to normally hold the pulley away from the car wheel, means for moving the frame against the tension of the spring to engage the pulley with the wheel, and a sand-conducting conduit leading from the screw to the track.

3. In a track sanding device, the combination of a car body, a hopper mounted thereon, a rotary feed element disposed in the hopper, a conduit arranged to receive sand from the element and deliver it to the track rail, a frame mounted under the floor of the car body to swing on a horizontal axis, a contractile spring secured to the car body and to the frame for holding the free end of the latter raised, a pulley mounted on and movable with the frame to engage with a wheel of the car, a sprocket and chain connection between the pulley and sand-feeding element for rotating the latter and permitting the frame to be raised or lowered, and an operating device rigidly connected with and carried by the front end of the frame for moving the pulley into engagement with the car wheel against the tension of the said spring.

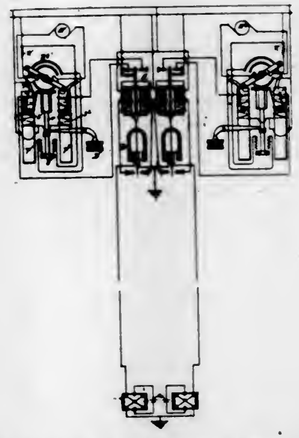
4. In a track sanding device, the combination of a car, a sand-containing hopper thereon, a feed-screw mounted in the hopper, a shaft disposed parallel with the screw, a sprocket and chain device between the shaft and screw, a swinging frame, a bracket on the car, a hinged connection between the frame and bracket, bearings on the frame for said shaft, a pulley on the shaft for engaging the periphery of one of the car wheels, a spring connected with the car and frame for holding the latter raised with the pulley out of engagement with the said wheel, an arm connected with the frame, means connected with the arm for depressing the frame against the tension of the said spring to operatively connect the pulley with the said wheel, and a sand-conducting conduit between the screw and track to be sanded.

939,719. REMOTE ELECTRIC-CONTROL SYSTEM FOR SEARCH-LIGHTS AND THE LIKE. ALEXIS LE BLANC, New York, N. Y. Filed Feb. 5, 1909. Serial No. 476,212.

1. In a system of remote control, a motor, a reversing switch for said motor including means for governing the direction of rotation and speed of said motor, a local circuit for energizing said means, an electro-magnetic relay connected to said circuit for automatically controlling said circuit, a moving coil relay for controlling said electro-magnetic relay, an auxiliary circuit for operating said relay and a controller for operating said relays, whereby the reversing switch and their means are actuated to vary the speed and direction of said motor.

2. In a system of remote control, a motor or group of motors, reversing switches for each of said motors or groups of motors, including means for governing the direction of rotation and speed of each motor or groups of motors, local circuits for energizing said means, an electro-magnetic relay connected to said circuits for automatically controlling said circuits, a moving coil relay for controlling said electro-magnetic relay an auxiliary circuit for operating said relay, a controller, a portable support to which said controller is secured for operating said relays whereby the reversing switches and their means are actuated to vary the speed and direction of said motor or groups of motors.

3. In a system of remote control, a motor or group of motors, reversing switches for each of said motors or groups of motors, including means for governing the direction of rotation and speed of each motor or groups of motors, local circuits for energizing said means, an electro-magnetic relay connected to said circuits for automatically controlling said circuits, a moving coil relay for controlling said electro-magnetic relay an auxiliary circuit for operating said relay and a controller for operating said relays, whereby the reversing switches and their means are actuated to vary the speed and direction of said motor or groups of motors.

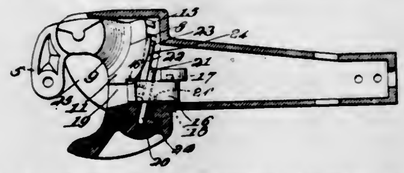


4. In a system of remote control, a motor, an electro-magnetically actuated switch for operating said motor, a local circuit for the actuating coil of said switch and motor, relays for controlling said local circuit, a controller and an independent source of current for operating one of said relays, whereby the switch is actuated to vary the speed and direction of said motor.

5. In a system of remote control, a motor, electrically controlled mechanism for operating said motor, a local circuit for energizing said means and motor, relays, an auxiliary circuit for operating said relays, a controller, a portable support upon which said controller is mounted and adapted to control said auxiliary circuit to vary the speed and direction of said motor.

[Claims 6 to 12 not printed in the Gazette.]

939,720. CAR-COUPLING. WATSON S. LENNON, Tucson, Ariz. Filed July 30, 1908. Serial No. 446,144.



1. In a car coupler the combination of a hollow drawhead a knuckle mounted to swing laterally therein, the inner free end of said knuckle being provided with a face adapted to lie opposite one face of said hollow drawhead when in operative position, a locking member constructed to lie between said faces when the knuckle is in closed position and means operable in one direction for moving said locking member out of the path of said knuckle and to swing said knuckle into open position and operable in the other direction to close said knuckle.

2. In a car-coupler, the combination of a hollow drawhead a knuckle mounted to swing laterally therein and having its inner free end spaced from the side wall of said

hollow drawhead when the knuckle is in closed position, a locking block mounted to lie between the free end of the knuckle and the side wall of the drawhead and a vertically movable lever for releasing said block and swinging said knuckle into open or closed position.

3. In a car coupler the combination of a hollow drawhead provided at one side with vertically spaced arcuate shoulders extending a portion of the width of the head, the lower wall or bottom of said head having a recess arranged adjacent the lower arcuate shoulder, the lower wall of said recess having an aperture therein, a lever fulcrumed intermediately of its ends at the inner end of said recess with one end projecting through said aperture and the other end housed normally within said recess and a knuckle mounted to swing laterally in said drawhead and provided at its inner end with vertically spaced arcuate shoulders for engagement with the shoulders of the drawhead to form guides for said knuckle and prevent its accidental disengagement and a cam arranged on the rear face of said knuckle for engagement by said lever to provide for the opening of the knuckle.

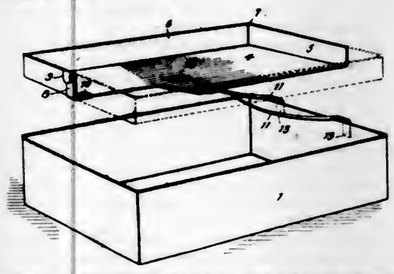
4. In a car coupler the combination of a hollow drawhead provided at one side with vertically spaced arcuate shoulders extending a portion of the width of the head, the lower wall or bottom of said head having a recess arranged adjacent the lower arcuate shoulder the lower wall of said recess having an aperture therein, a lever fulcrumed intermediately of its ends at the inner end of said recess with one end projecting through said aperture and the other end housed normally within said recess and a knuckle mounted to swing laterally in said drawhead and provided at its inner end with vertically spaced arcuate shoulders for engagement with the shoulders of the drawhead to form guides for said knuckle and prevent accidental disengagement, a cam arranged diagonally on the rear face of said knuckle for engagement by said lever to move the knuckle into open position and means carried by said knuckle for engagement by said lever for throwing said knuckle into closed position.

5. In a car coupler the combination of a hollow drawhead provided at one side with vertically spaced arcuate shoulders extending a portion of the width of the head, the lower wall or bottom of said head having a recess arranged adjacent the lower arcuate shoulder, the lower wall of said recess having an aperture therein, a lever fulcrumed intermediately of its ends at the inner end of said recess with one end projecting through said aperture and the other end housed normally within said recess and a knuckle mounted to swing laterally in said drawhead and provided at its inner end with vertically spaced arcuate shoulders for engagement with the shoulders of the drawhead to form guides for said knuckle and prevent its accidental disengagement, a cam extending diagonally across the rear face of said knuckle for engagement by said lever to open the knuckle on the movement of said lever in one direction and a stop on said knuckle for engagement by said lever when moved in the other direction to close said knuckle.

939,721. DISPLAY BOX AND TRAY. EDGAR M. LEWIS, Moundsville, W. Va. Filed Apr. 29, 1909. Serial No. 492,820.

1. The combination with a box, of a tray seated therein, said tray having at one end an angular clip, provided at each end with an overlying flange, one of which is passed through the bottom of the tray and overlies the upper face thereof, and the other being adapted to engage the edge of the box, a flexible strand secured by one end to the under face of the bottom of the tray at approximately the center thereof, and having at its free end a clip for engaging the edge of the box opposite the point of engagement of the first named clip, said strand being of a length sufficient to support the edge of the tray flush with the edge of the box.

2. The combination with a box, of a tray seated therein, and provided at one end with means for engaging the adjacent edge of the box, a flexible strand secured by one end to the under face of the bottom of the tray at approximately the center thereof, and having at its free end a clip for engaging the edge of the box opposite the point of engagement of the first named clip, said strand being of a length sufficient to support the edge of the tray flush with the edge of the box.

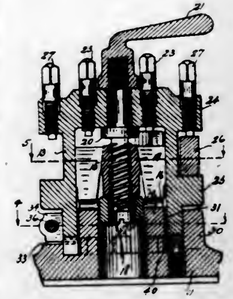


3. The combination with a box, of a tray seated therein, and provided at one end with means for engaging the adjacent edge of the box, and a flexible strand secured by one end to the under face of the tray at approximately the center thereof, and provided at the other end with means for engaging the opposite edge of the box, said strand being of a length sufficient to support the edge of the tray flush with the edge of the box.

4. The combination with a box, of a tray seated therein, and provided at one end with means for engaging the adjacent edge of the box, and a flexible strand secured by one end to the bottom of the tray and provided at the other end with means for engaging the opposite edge of the box, said strand being of a length sufficient to support the edge of the tray flush with the edge of the box and being attached at a point remote from that edge of the box engaged by the means at the ends of the strand for the purpose set forth.

5. The combination with the box of a tray seated therein, and provided at one end with means for engaging the edge of the box, and at the other end with a flexible strand whose one end is connected with the box adjacent to its edge, and the other with the bottom of the tray at a point remote from said edge, said strand being of a length sufficient to support the tray with the edge thereof flush with the edge of the box.

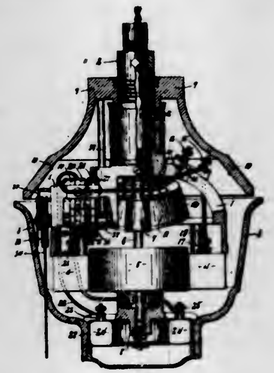
939,722. TOOL-POST FOR LATHES. CHARLES L. LIBBY, Indianapolis, Ind. Filed Feb. 6, 1908. Serial No. 414,499.



1. A tool post in a lathe including a tubular stationary member with an upper portion longitudinally split and having an internal bore tapering upwardly, a tool holder with a cylindrical portion fitting over and about said stationary member, a screw mounted in the top of said tool holder so as not to be vertically movable independently of the tool holder and with its threaded end extending down into the bore of said stationary member, a conical wedge mounted on the screw in the tapering bore of the stationary member, a handle for operating said screw, and a stop secured in the bore of said stationary member for limiting the downward movement of said conical wedge.

2. A tool post in a lathe including a cross slide with a circular upwardly extending portion, an annular boss surrounding said upwardly extending portion so as to leave an annular space between them, said boss being split at one side, means for drawing the split ends of the boss toward each other, a stationary upwardly projecting pin in said annular recess, a tool holder with a cylindrical lower end adapted to fit in said annular recess and provided with notches to receive said pin when the tool holder is adjusted to position, and means mounted in connection with said upwardly extending portion from the cross slide for elevating the tool holder for adjustment and lowering it to adjusted position and clamping it in place.

939,723. ELECTRIC-MOTOR FAN. NATHEN A. LOCKE, Fulton, N. Y., assignor to Hunter Fan & Motor Company, Fulton, N. Y., a Corporation of New York. Filed Jan. 27, 1908. Serial No. 412,835.



1. In a motor-fan, a frame, a vane-wheel, one of said parts being movable toward and from the other, a motor, and power transmitting means supported by the frame and interposed between the motor and the vane-wheel, a switch for controlling the operation of the motor, and means movable with the switch for moving one of said parts toward and from the other, substantially as and for the purpose described.

2. In a motor-fan, a frame, a vane-wheel, one of said parts being movable toward and from the other, a motor, power transmitting means supported by the frame and interposed between the motor and the vane-wheel, a switch for controlling the operation of the motor, and means movable with the switch for moving one of said parts toward and from the other, the latter means comprising a rotatable cam, substantially as and for the purpose specified.

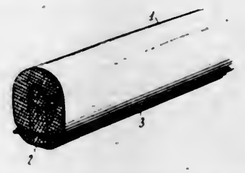
3. In a motor-fan, a frame, a vane-wheel, one of said parts being movable toward and from the other, a motor, and power transmitting means supported by the frame and interposed between the motor and the vane-wheel, a switch for controlling the operation of the motor, and means movable with the switch for moving one of said parts toward and from the other, the latter means comprising a rotatable cam and a rod having one end engaging the cam and the other end engaging the relatively movable part, substantially as and for the purpose set forth.

4. In a motor-fan, a frame, a vane-wheel, one of said parts being movable toward and from the other, a motor, and power-transmitting means supported by the frame and interposed between the motor and vane-wheel, a switch for controlling the operation of the motor, and means operated by the switch for moving one of said parts toward and from the other, substantially as and for the purpose set forth.

5. In a motor-fan, a frame, a vane-wheel, one of said parts being movable toward and from the other, a motor and power-transmitting means supported by the frame and interposed between the motor and vane-wheel, a rotatable switch for controlling the operation of the motor, and means operated by the switch for moving one of said parts toward and from the other, comprising a cam rotatable with the switch, substantially as and for the purpose specified.

[Claims 6 and 7 not printed in the Gazette.]

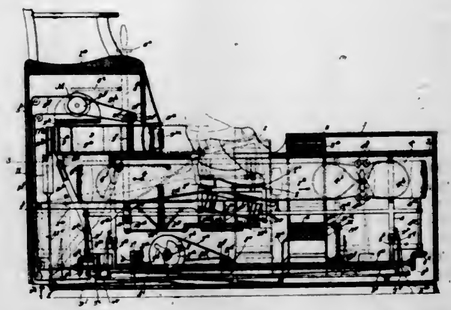
939,724. BELTING. HENRY LOEB, New York, N. Y. Filed May 18, 1908, Serial No. 433,498. Renewed Oct. 8, 1909. Serial No. 521,770.



1. As a new article of manufacture, a laminated cylindrical belt for sewing machines, comprising a flat filling of raw-hide, and a raw-hide cover folded longitudinally upon itself to receive the filling and being stitched thereto, said cover having its longitudinal edges arranged in spaced relation to each other, said edges and the outer longitudinal edge of the filling forming a portion of the periphery of the belt.

2. As a new article of manufacture, a laminated cylindrical belt comprising a raw-hide cover including a pair of spaced portions, and a filling of raw-hide disposed between said portions and stitched thereto, one of the longitudinal edges of the filling forming a portion of the periphery of the belt.

939,725. BOOT AND SHOE POLISHING MACHINE. HARRY C. LOWENSTEIN, Oakland, Md. Filed June 13, 1908. Serial No. 438,355.



1. In combination, a tubular belt, means for traveling the belt, and stationary devices within the belt for distending the same.

2. In combination, a tubular belt, devices for longitudinally traveling the belt, and means for axially rotating the belt as it travels.

3. In combination, a tubular belt, external grooved guide rollers therefor, a frame within the belt positioned by said rollers, and belt distending devices attached to said frame.

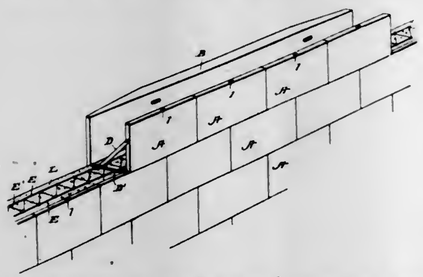
4. In combination, a tubular belt, external grooved guide rollers therefor, a frame within the belt provided

with rollers positioned by the exterior rollers, and belt distending devices attached to said frame.

5. In a boot and shoe polishing machine, the combination of a foot rest, an endless tubular belt, means for traveling the belt, and internal stationary means for distending the belt.

[Claims 6 to 26 not printed in the Gazette.]

939,726. COMPOSITE WALL AND METHOD OF CONSTRUCTING SAME. JOHN H. MAGDIEL, Salt Lake City, Utah, assignor to Magdiel-Morris Manufacturing Company, Salt Lake City, Utah, a Corporation of Utah. Filed May 22, 1909. Serial No. 497,763.



1. The method of building a faced concrete wall, which consists in laying a layer of concrete filling, building a permanent facing above the layer of concrete filling at one side of the same said permanent facing to become a part of the completed wall, independently anchoring said facing by braces extending downwardly into the subjacent layer of filling and then filling with concrete behind said facing and embedding the anchors.

2. The method of building a faced concrete wall, which consists in laying alternately a layer of concrete and a facing of upright slabs, the facing of slabs being built in advance and above each subjacent layer of concrete and being independently braced obliquely down into an embedded anchorage in the middle of said subjacent layer of concrete and then sealing said holding means by a succeeding layer of concrete enveloping the anchorage.

3. The method of building a faced concrete wall, which consists in laying a layer of concrete filling, erecting above this layer at one side a permanent upright facing of surface slabs to form a mold side and permanent wall facing, bracing these slabs independently down into the middle of the subjacent layer of filling, embedding in the wall on the opposite side protruding mold-supporting anchors and supporting and working thereon a horizontally shiftable mold side.

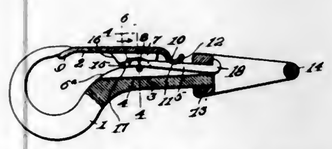
4. The method of building a faced concrete wall, which consists in laying a layer of concrete filling, erecting above this layer at one side a permanent upright facing of surface slabs to form a mold side and permanent wall facing, bracing these slabs independently down into the middle of the subjacent layer of filling in a direction inclined to the vertical to receive the falling concrete thereon at an acute angle.

5. A faced concrete wall, composed of a succession of layers, each layer consisting of an external series of slabs, a filling of concrete behind it and a series of inclined braces extending from the upper part of each layer of wall slabs downwardly through said filling of concrete and anchored in the body of concrete of the layer below the layer containing said braces.

[Claims 6 to 14 not printed in the Gazette.]

939,727. SNAP-HOOK. MATTI MAKI, Lakota, N. D. Filed Mar. 27, 1908, Serial No. 423,680. Renewed Oct. 4, 1909. Serial No. 520,968.

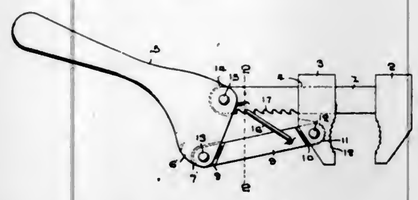
1. The combination of a hook having a shank provided with a guide and a stop shoulder, a keeper tongue for the hook pivoted upon the shank, an attaching member slidable upon the shank of the hook and a locking slide arranged in the guide in the shank and having at one end means for retaining the attaching member upon the shank and at its other end means for engaging and actuating the keeper tongue and also for engaging the stop shoulder.



2. The combination of a hook having a shank provided with a guide, a stop shoulder, and a cam surface, a keeper tongue for the hook pivoted upon the shank and having a cam surface, an attaching member slidable upon the shank of the hook and a locking slide arranged in the guide in the shank and having at one end a portion to engage the attaching member and retain it upon the shank and at its other end a portion to engage the cam surface upon the tongue and the cam surface and stop shoulder upon the shank of the hook.

3. The combination of a hook having a straight shank of rectangular shape in cross section provided with a longitudinal channel, a stop shoulder and a cam face, a keeper tongue for the hook having upon its sides flanges to straddle the hook and pivoted thereto, the forward portions of said flanges being provided with cam surfaces, the rear end of the tongue being also provided with a cam surface, an attaching member slidable upon the shank and adapted to engage the cam surface upon the rear end of the tongue, and a locking slide arranged in the channel in the shank and having at its rear end a lateral projection to engage the attaching member and retain it upon the shank and at its other end a cross head to engage the cam surfaces upon the flanges of the tongue and the cam surface and stop shoulder upon the shank of the hook, substantially as described.

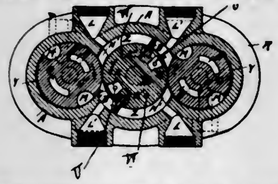
939,728. WRENCH. DENNIS MALLORY, Edgar, Nebr. Filed Feb. 9, 1909. Serial No. 476,887.



1. A wrench comprising a shank having a fixed jaw thereon, a handle pivotally connected adjacent one of its edges to the shank, a lateral extension on said handle, a movable jaw slidably mounted on said shank, a bar pivoted at its ends to said extension and movable jaw, a link carried by the bar, said shank having a plurality of notches therein to receive said link and hold the movable jaw in its adjusted position.

2. A wrench comprising a shank having a jaw fixed at one end thereof and having notches in one of its edges, a handle pivoted to the opposite end of the shank, the pivotal point being adjacent one edge of the handle, a lateral extension on the pivoted end of the handle, a movable jaw on the shank, a bar pivotally connecting the movable jaw to the lateral extension, a link pivoted to the bar, the free end of which link is adapted to engage the notches in the shank and hold the movable jaw in its adjusted position, the meeting faces of said jaws having concavities, the surfaces of which are provided with teeth.

939,729. ROTARY ENGINE. JOHN MARKS, Devonport, New Zealand. Filed Oct. 31, 1908. Serial No. 460,519.



1. A rotary engine comprising a casing having exhaust ports, a rotatable piston therein spaced from the wall of the casing and provided on its periphery with diametrically disposed radial vanes and in one end with longitudinal inlet ports opening laterally into the space between the piston and the casing, a recessed roller abutment on each side of said piston having ports in one end, and a casing head having inlet ports registering with the ports in the piston end and other inlet ports opening directly into said space, the ends of the abutment ports having ports to control the passage of motive fluid through the latter ports.

2. A rotary engine comprising a casing having exhaust ports, a rotatable piston therein spaced from the wall of the casing and provided on its periphery with vanes and in one end with longitudinal inlet ports opening laterally into the space between the piston and casing, a recessed roller abutment on each side of said piston having ports in one end, a casing head having inlet ports registering with the ports in the piston and other inlet ports opening directly into said space, the rollers having ports in their ends to control the passage of motive fluid to the latter ports, and an independent adjustable plate between the piston and each abutment and the casing to hold the ported ends of said parts tight against the casing head.

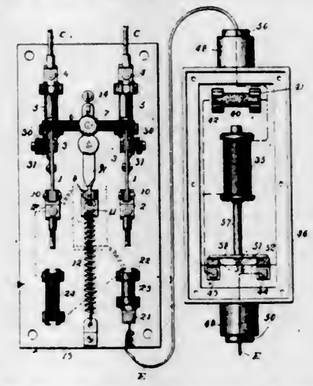
3. A rotary steam engine comprising a casing, having exhaust ports, a rotatable piston therein spaced from the wall of the casing and provided with peripheral vanes and longitudinal inlet ports in one end opening laterally into the space between the piston and casing, a recessed roller abutment on each side of said piston having ports in one end, and a casing head having inlet ports registering with the ports in the piston through which motive fluid enters to turn the piston in one direction and other inlet ports opening directly into said space for the admission of motive fluid to turn the piston in the opposite direction, the abutment rollers, having ports in their ends to control the latter ports, the ends of the piston having recesses formed therein and connected together to preserve the balance of pressure and means connecting said recesses with a space between the casing and each abutment roller on the side opposite the piston.

4. A rotary steam engine comprising a casing having exhaust ports, a rotatable piston therein provided with inlet ports in one end opening laterally into the space between the piston and casing, a recessed roller abutment on each side of said piston, a casing head having inlet ports registerable with the ports in said piston, an independent adjustable plate between the piston and abutments and the casing for holding the ends of said parts steam tight against the casing head, said piston having its ends recessed and connected by holes for the passage of the motive fluid to balance the pressure, and passages and channels in said adjustable plates to conduct the motive fluid from the recesses in the adjacent piston end to a space between the casing and each abutment roller on the side opposite the piston.

5. A rotary engine comprising a casing having exhaust ports and a casing head provided with two sets of inlet ports, a centrally disposed rotatable piston and an abutment roller on each side thereof geared to said piston, one set of said inlet ports adapted to connect direct with ports in one end of said piston at certain predetermined points in its rotation to permit motive fluid to enter and rotate the piston in one direction, the other set of inlet ports which enable the direction of rotation of the engine to be reversed when motive fluid passes therethrough, to connect with ports in one end of each abutment, which abutment ports, at the proper time also connect with continuations of said other set of ports in the casing head that open into the space surrounding the piston, and independent adjustable means for holding the piston and abutment rollers tight against the casing head.

[Claim 6 not printed in the Gazette.]

939,730. AUTOMATIC ELECTRIC-CIRCUIT BREAKER. WILLIAM F. METER and WILLIAM L. RIDEOUT, Oshkosh, Wis., assignors to Electrical Manufacturing Company, Oshkosh, Wis., a Corporation of Wisconsin. Filed July 22, 1908. Serial No. 444,842.



1. In an automatic circuit breaker, the combination with a switch, means for opening the switch upon the passage of a current of high potential, and a conductor leading from said switch to the earth, of a solenoid in circuit with said conductor, a block of high resistance carbon arranged in parallel with said solenoid, means controlled by the solenoid for breaking the line to the earth before the switch contacts have been broken, and a closed casing inclosing said solenoid and the make and break devices operated thereby.

2. In an automatic circuit breaker, the combination with a switch having contacts, of an electromagnet in series circuit with the switch contacts to open said switch, and means to open the circuit before the switch contacts are broken so as to prevent arcing at the switch contacts.

3. In an automatic circuit breaker, the combination with a switch, of an electromagnet in circuit with the switch to open said switch, and means constructed to open the said circuit before the switch contacts are broken.

4. In an automatic circuit breaker, the combination with a switch, of means to open the switch, an electromagnet in circuit with the switch to control said means, and means constructed to open said circuit after the opening means has been set in operation and before the switch contacts have been broken.

5. In an automatic circuit breaker, the combination with a switch, of means to open the switch, a latch to hold said means in closed position, an electromagnet in circuit with the switch to operate the latch, and means constructed to open said circuit after the latch has been operated and before the switch contacts have been broken.

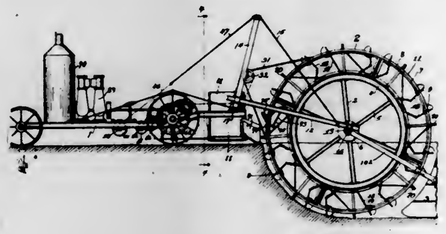
[Claims 6 to 11 not printed in the Gazette.]

939,731. EXCAVATING-MACHINE. DAVID W. MILLER, Chicago, Ill. Filed Jan. 8, 1907. Serial No. 351,347.

1. In a wheel-excavator, the combination with a wheel frame, of a series of scraper blades mounted upon the periphery of the wheel and arranged approximately radial thereto, and diggers interposed between the scrapers and projecting radially beyond the acting edges of the latter.

2. In a wheel-excavator, the combination with a wheel frame, of a series of scraper blades mounted upon the

periphery of the wheel and arranged approximately radial thereto, and a plurality of spring digger teeth mounted upon or contiguous to each scraper blade and projecting at their acting ends radially beyond the scraper blades.



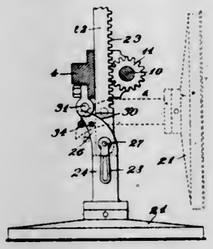
3. In a wheel excavator, the combination with a wheel frame, of a series of scraper blades mounted upon the periphery of the wheel and arranged approximately radial thereto, and a plurality of spring digger teeth mounted upon or contiguous to each scraper blade and projecting at their acting ends radially beyond the scraper blades, each of said spring teeth having the form of flat strap-like members convexly curved with their convexity toward the rear and their point inclined forwardly and radially outward.

4. In a wheel-excavator, the combination with a wheel frame, of a series of scraper blades mounted upon the periphery of the wheel, arranged approximately radially thereto and extending transversely with reference to the face of the wheel, each scraper blade being pivotally mounted intermediate its length, and a series of springs yieldably connecting its inner end with an adjacent part of the wheel frame.

5. In a wheel excavator, the combination with a wheel frame, of a series of yieldable scraper blades mounted upon the periphery of the wheel and arranged approximately radially thereto, a plurality of rigid scraper blades similarly mounted upon the wheel frame and interposed between the yieldable scraper blades, and diggers arranged at intervals apart around the periphery of the wheel frame and between the scraper blades.

[Claims 6 to 27 not printed in the Gazette.]

939,732. PRESS. HENRY G. MILLER, Cleveland, Ohio, assignor to The Ideal Filter Company, Cleveland, Ohio, a Corporation of Ohio. Filed Jan. 8, 1909. Serial No. 471,318.



1. The combination, with a casing, of a follower, a support therefor, such support comprising an upper and a lower section pivotally connected together, and means for causing one of said sections to swing at an angle with respect to the other.

2. The combination, with a casing, of a follower, a support therefor, such support comprising an upper and a lower section pivotally connected together, and means automatically operative by the raising of the support for causing one of said sections to swing at an angle with respect to the other.

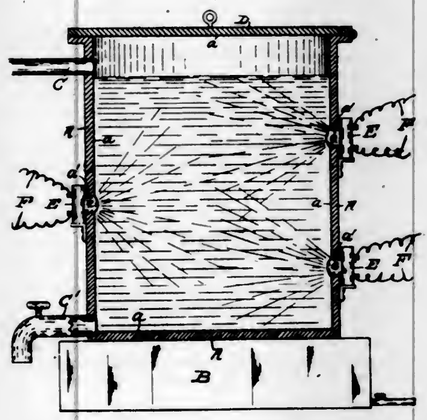
3. The combination, with a casing, of a follower, a support therefor, said support comprising an upper and a lower section pivotally connected together, means for raising and lowering said support, and means adapted to engage the lower section of the support during the elevation of such support to cause the lower section to be deflected at an angle with respect to the upper section.

4. The combination, with a casing, of a follower, a support for said follower, said support comprising an upper and a lower portion pivotally connected together, means for raising and lowering said support, means for causing the lower portion to be deflected at an angle with respect to the upper portion, and means for preserving the alinement between said portions when in operative relation to each other.

5. The combination, with a casing, of a follower cooperating therewith, a frame above said follower, a support for the follower, a shaft mounted adjacent to the frame for raising and lowering the follower support, and means carried by the frame and adapted to engage said support when it has been elevated a predetermined distance to thereby tilt the support and the press carried thereby.

[Claims 6 to 16 not printed in the Gazette.]

939,733. METHOD OF BLEACHING ROSIN. LAWRENCE C. MINOR, Cincinnati, Ohio. Filed May 12, 1909. Serial No. 495,537.



1. The method of bleaching rosin which consists in the artificial production of ultra-violet light rays and subjecting rosin to the action of said rays, substantially as specified.

2. The method of bleaching rosin which consists in the artificial production of ultra-violet light rays and subjecting melted rosin to the action of said rays, substantially as specified.

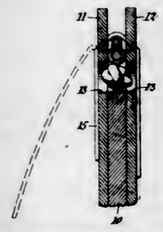
3. The method of bleaching rosin which consists in the artificial production of short ultra-violet light rays and subjecting rosin to the action of said rays, substantially as specified.

4. The method of bleaching rosin which consists in the artificial production of short ultra-violet light rays and subjecting the melted rosin to the action of said rays, substantially as specified.

5. The method of bleaching rosin which consists in the projection of artificial ultra-violet light rays into a vessel having light reflecting walls and subjecting rosin to the action of said rays, in said vessel, substantially as specified.

[Claim 6 not printed in the Gazette.]

939,734. HOLDER AND PROTECTOR FOR MUSICAL-INSTRUMENT STRINGS. OTTO J. MÜLLER, New York, N. Y. Filed Mar. 9, 1909. Serial No. 482,387.

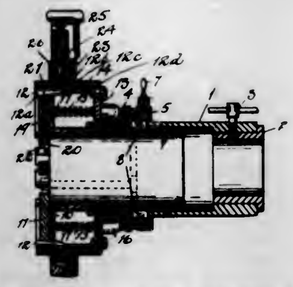


1. A holder and protector for musical instrument strings, comprising a disk, and two plates or sheets secured to opposite sides thereof and extending outwardly beyond the peripheral edge thereof to leave a peripheral groove, said side plates each having an aperture therein to receive the terminal knot of a musical instrument string.

2. A holder and protector for musical instrument strings, comprising a flat, circular disk, two plates secured to opposite sides thereof and extending outwardly beyond the periphery of said disk, said plates having apertures therein adjacent the periphery to receive the terminal knot of the musical instrument string, said plates also having notches or apertures therein adjacent the opposite end of the string, and a flexible tab in engagement with opposite sides of said plates for holding said strings in position.

3. In combination, a flat, circular disk, two plates or sheets secured to opposite sides thereof and extending outwardly beyond the periphery thereof to leave a peripheral channel, each of said plates having an aperture therein adjacent the periphery of the disk, and each having a second aperture therein, a musical instrument string wound about said disk within said groove and having a terminal knot for entering within the first-mentioned apertures, and a flap having one end thereof secured to one of said plates and extending through said second-mentioned apertures into engagement with the opposite side of the other plate, for retaining said string within said groove.

939,735. THREAD-CUTTING TOOL. WILLIAM MUACHEY, Detroit, Mich. Filed June 12, 1908. Serial No. 438,052.



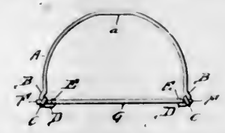
1. In a thread cutting tool, the combination of a work engaging part, a head engaging said part with a feed screw connection, means for connecting and disconnecting the feed screw connection, chasers carried by the head, a ring on the work engaging part provided with pins to engage the chasers, said pins having inclined faces and recesses to permit the chasers to withdraw to clear the work, and springs engaging the head and said ring to return the chaser carrying head to its initial position upon the disconnection of the feed screw connection.

2. In a thread cutting tool, the combination of a work engaging part, a head engaging said part with a feed screw connection, means for connecting and disconnecting the feed screw connection, chasers carried by the head, means carried by the work engaging part to engage and adjust the chasers, said means being constructed and arranged to permit said chasers to withdraw clear of the work, and said chaser carrying member being movable longitudinally relative to said means, and means to return the chaser carrying head to its initial position upon disconnection of the feed screw connection.

3. In a thread cutting tool, the combination with a work engaging part, a head, chasers mounted in said head for radially sliding movement, pins to engage the chasers, said pins being provided with inclined faces and with recesses at the rear of said inclined faces to permit the chasers to withdraw radially to clear the work, said chaser carrying member being movable longitudinally relative to said pins, means to retain the chasers in their position when withdrawn clear of the work, and means to return the head to its initial position.

4. In a thread cutting tool, the combination of a work engaging part, a head engaging said part with a feed screw connection, means for connecting and disconnecting the feed screw connection, chasers carried by the head, means carried by the work engaging part to engage and adjust the chasers, said means being constructed and arranged to permit said chasers to automatically withdraw clear of the work, and means to return the chaser carrying head to its initial position upon the disconnection of the feed screw connection.

939,736. BAG-CLOSURE. FRANK McKAIN, Cleveland, Ohio. Filed Jan. 16, 1909. Serial No. 472,724.



1. A bag closure comprising two members made of wire or the like, the ends of one member being coiled to form loops and extensions projecting therefrom, and the ends of the other member being offset to form pivots in said loops, the said extensions forming stops for the latter member, limiting the opening movement thereof.

2. A bag closure comprising two separable spring members made of wire or the like, one member having pivots at the ends and the other member having bearings at the ends into which said pivots project and are held by the resiliency of the member, and also having means to prevent the withdrawal of said pivots from the bearings when the members are in open position.

939,737. HYDRAULIC-PRESSURE GENERATING, CONTROLLING, AND APPLYING APPARATUS. JAMES W. NELSON, New York, N. Y. Filed Dec. 21, 1908. Serial No. 468,436.

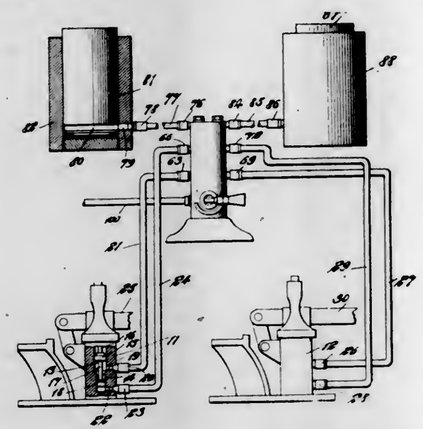
1. In combination, a plurality of multiple pumps, means apart therefrom for applying the generated pressures, and an individually-movable fitting containing all valves which are downwardly seating therein.

2. In combination, a plurality of multiple pumps, means apart therefrom for applying the generated pressures, an individually-movable fitting containing all valves which are downwardly-seating therein, and means for retaining said fitting in a proper vertical position during operation of the device.

3. In combination, two double pumps, means apart therefrom for applying the generated pressures, and an individually-movable fitting containing all valves which are downwardly seating therein, and means for retaining said fitting in a proper vertical position during operation of the device.

4. In combination, a plurality of multiple-plunger pumps, means apart therefrom for applying the generated

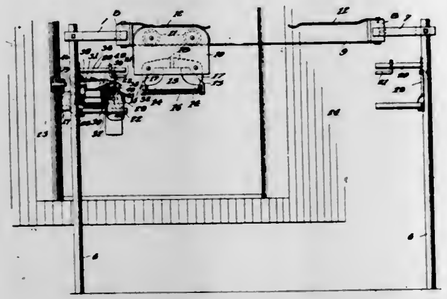
pressures, the pump valves seating downwardly in an individually-movable fitting, and means for controlling said valves to render one or more of the plungers in each pump inoperative.



5. In combination, two double-plunger pumps, means apart therefrom for applying the generated pressures, the pump valves seating downwardly in an individually-movable fitting, and means for controlling said valves to render one or more of the plungers in each pump inoperative.

[Claims 6 to 25 not printed in the Gazette.]

939,738. MAIL-POUCH CATCHING AND DELIVERING APPARATUS. JOHN A. OLSON, Paterson, N. J., assignor of one-half to Louis F. Braun, Paterson, N. J. Filed Nov. 24, 1908. Serial No. 464,274.



1. A mail pouch catching and delivering apparatus, comprising, in combination, uprights erected on the land adjacent to the railway track, a stationary mail pouch support secured thereto, a runway substantially parallel with said railway track, arms secured to said uprights connected by said runway at a point substantially in line with the stationary mail pouch supports, a box having wheels adapted to run on said runway, angle lever jaws pivotally mounted in said box, a member depending from said box, spring controlled catches at each end of said depending member to co-act with the angle lever jaws to catch and hold a mail pouch delivered from a moving train; in combination with a railway, a vehicle running thereon, a laterally swinging support secured to said vehicle, a vertical swinging sliding body mounted on said support, an arm pivotally connected to the outer end of said sliding body, means for locking said pivotal arm and sliding body together, supports for a mail pouch, one rigid and one pivotal, secured to said outer arm, a sliding pin passing through said outer arm and between said mail pouch supports, adapted to be engaged by the end of the member depending from the trolley box, to unlock said pivotal arm and sliding body, a spring controlled catch lever co-acting with a hook on the end of said arm adapted to catch and hold the mail pouch supported on the stationary arms of the uprights, erected adjacent to the railway track, and means for drawing in said pivotal arm, when said locking device is released, simultaneously with the delivery of one pouch from the moving train to the trolley receiving device, and the catching of a pouch by the moving train from the stationary pouch support, substantially as shown and described.

2. In mail bag exchange mechanism, the combination with car-carried mechanism, of coöperating track-side mechanism, the latter including a support, a bag carrier movably mounted on the support and having a bag-holding mouth, and movable retaining catches respectively depending and upstanding in the mouth and having coacting free ends.

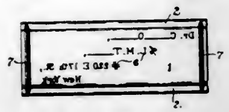
3. In mail bag exchange mechanism, the combination with car-carried mechanism, of coöperating track-side mechanism, the latter including a support, a bag holder movably mounted on the support and having a bag-holding mouth, a pivoted catch mounted on the carrier and having a free end depending in the mouth, and a yielding catch pivoted below the mouth and having an upstanding free end projecting into the mouth and co-acting with said depending end.

4. In mail bag exchange mechanism, the combination with car-carried mechanism, of coöperating track-side mechanism, the latter including a support, a bag carrier mounted thereon and having oppositely disposed bag-receiving devices, catches pivotally mounted on the carrier, and a spring having its ends connected respectively to the catches to maintain the same in operative positions.

5. In mail bag-exchange mechanism, the combination with track-side mechanism, of coöperating car-carried mechanism, the latter including a bag supporting arm that is movable rearwardly from a projecting operative position and has forwardly extending bag-receiving and delivering devices, means for automatically moving the arm rearwardly, and means for holding it against such movement.

[Claims 6 to 27 not printed in the Gazette.]

939,739. PRINTING-PLATE. CHARLES OWENS, Chattanooga, Tenn., assignor to Montague Mailing Machinery Co., a Corporation of Tennessee. Filed June 20, 1907, Serial No. 379,959. Renewed Apr. 20, 1909. Serial No. 491,195.



1. A printing plate consisting of sheet metal having means thereon for making the impression, the sheet metal being turned downwardly along its margin and thence outwardly forming a marginal flange depressed below the impression surface and in line with the space beneath said surface, substantially as described.

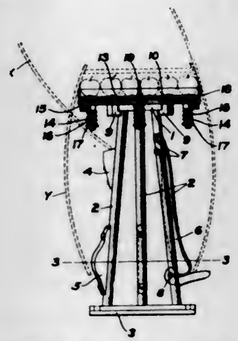
2. A printing plate having means thereon to make the impression and having flanges upon the reverse side turned upon themselves in contact and closed, and a card index or slip carried by the said closed flanges on the said reverse side, substantially as described.

3. A printing plate having means thereon to make the impression and having corrugations extending transversely of the plate at or near the ends thereof and upon the side upon which the impression means are located, said plate having its margin depressed into a lower plane in respect to the impression surface, substantially as described.

4. A printing plate consisting of sheet metal having its marginal portion bent downwardly and thence outwardly below the plane of the main part of the plate, the said depressed marginal portion being rolled on the under side of the plate, substantially as described.

5. A printing plate having means thereon for making the impressions and having its margins depressed and extending outwardly, forming a marginal flange below the impression surface, said marginal flange being thickened in respect to the body of the plate, substantially as described.

939,740. FRUIT-PACKING DEVICE. FRANKLIN B. PEASE, Rochester, N. Y. Filed Mar. 14, 1907. Serial No. 362,365.



1. In a fruit packing device, the combination of a tray for the fruit provided with means for holding a sheet of paper over said fruit; a standard for said tray; and means for supporting the standard and tray in the erect position.

2. In a fruit packing device, the combination of a tray; spikes projecting therefrom for holding a sheet of paper over the fruit in the tray; a standard for said tray; and means for supporting the standard and tray in the erect position.

3. In a fruit packing device, the combination of a tray having a depressible rim; a standard therefor; and means for supporting the standard and tray in the erect position.

4. In a fruit packing device, the combination of a tray having a spring-supported rim; a standard therefor; and means for supporting the standard and tray in the erect position.

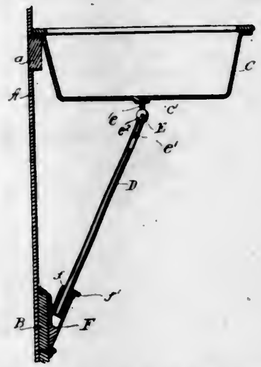
5. In a fruit packing device, the combination of a tray for fruit; and means for holding a sheet of paper to said tray and over said fruit.

[Claims 6 to 17 not printed in the Gazette.]

939,741. ADJUSTABLE SUPPORT FOR SINKS. FRANCIS J. RAEHN, Pittsburg, Pa. Filed Nov. 6, 1908. Serial No. 461,363.

1. In a sink support, the combination with a sink and means for supporting one side thereof, of supports arranged to act against the bottom of the sink, and each support comprising a pivotal connection attached to the bottom of the sink, a rod-like member attached to said connection, and a socket for the lower end of said rod-like member, the said socket having a throat movably fitting the said member and a set screw for securing the said member in the throat, said socket having a hollow interior larger than the end of said member whereby it may be inclined with respect to the axis of the socket to effect the level adjustment of the sink as described.

2. In a sink support, the combination with a sink and means for supporting one side thereof, of supports arranged to act against the bottom of the sink, and each support comprising a pivotal connection attached to the bottom of the sink, an inclined rod-like member attached to the said connection, and an inclined socket for the lower end of said rod-like member, the said socket having a throat movably fitting the said member, and a set screw arranged to secure the said member in the said throat, said socket having a hollow interior larger than the end of said



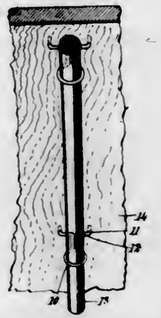
member whereby it may be inclined with respect to the axis of the socket to effect the level adjustment of the sink as described.

939,742. TREATMENT OF QUEBRACHO EXTRACT. ALBERT REDLICH and JULIUS WLADIKA, Vienna, Austria-Hungary. Filed June 30, 1909. Serial No. 505,234.

1. The process for treating quebracho extracts which consists in mixing the hot liquor obtained by diffusion from the quebracho wood with an alkali, heating the mixture directly with exclusion of air, adding a quantity of acid equivalent to the quantity of alkali used, cooling the resultant mixture, to precipitate the resinous matter, and drawing off the clear liquor.

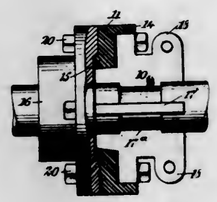
2. The process for treating quebracho extracts which consists in mixing the hot liquor obtained by diffusion from the quebracho wood with an alkali, heating the mixture under pressure and with exclusion of air, adding a quantity of acid equivalent to the quantity of alkali used, cooling the resultant mixture, to precipitate the resinous matter, and drawing off the clear liquor.

939,743. HOLDER FOR CONCRETE-REINFORCING. JOHN W. REED, Hammond, Ind. Filed Jan. 25, 1909. Serial No. 474,055.



A holder for reinforcing bars constructed of a single piece of wire bent intermediate its length to form an eye to receive the reinforcing bar, with the end portions of the wire extended from the eye to provide nail prongs having offset striking heads, the said prongs being so arranged with respect to the bar that the eye will be opened when the prongs are spread apart, whereby the eye may be passed over the bar from the side.

939,744. SHAFT-COUPLING. FRANK B. RICHARDSON, Slidell, La. Filed Jan. 9, 1908. Serial No. 409,926.



1. In a coupling, a continuous unbroken flanged collar, a split flanged collar separate from the first mentioned collar, a ring intermediate said collars binding the portions of the split collar together, and means passing through the flanges of the collars and through the ring joining them together.

2. In a coupling for joining together two sections of a shaft, a member made of separable sections and having a tapered boss, with a flange projecting outwardly from the enlarged end of the boss, a collar attached to one section of the shaft, a second member fitting over the tapered boss of the first member and locking the sections of the first member together and to the other section of the shaft and having a laterally-projecting flange fitting over the outwardly-projecting flange of the first member, and means passing through and joining the two members and collar together.

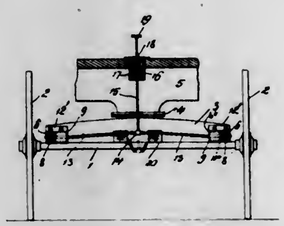
3. In a coupling, a collar and a split collar arranged end to end, a ring between the opposing ends of the two collars, locking the portions of the split collar together, and means joining the collars and ring.

4. In a coupling, a flanged collar, a flanged split collar having a tapered boss on its inner face, a locking-ring intermediate said collars and fitting over the boss of the split collar, and means passing through the flanges of the collars and through the locking-ring joining them together.

5. In a coupling, a flanged collar, a split flanged collar, a locking-ring intermediate said collars having a laterally-projecting flange fitting over the flange of the split collar and of substantially the same external diameter as the flange of the other collar, and means passing through the flanges of the collars and through said ring joining them together.

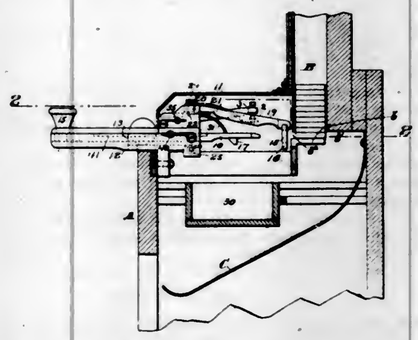
[Claim 6 not printed in the Gazette.]

939,745. HORSE-DETACHER. WILLIAM J. S. RITSCHER, Pittsburg, Pa. Filed Mar. 6, 1908. Serial No. 419,496.



In a horse detacher, the combination with an axle, and a bolster mounted thereon, of casings carried by said bolster, one at each end thereof, said casings having apertured outer and inner end walls, and a rear wall projecting above the top wall and laterally from each outer end wall, apertured lugs formed integral with that portion of the rear wall which projects from the outer end wall of each casing, said apertured lugs associating with the apertured outer end walls of said casings, means extending through that portion of the rear wall which projects above the top wall for securing the casings to the bolster, pins extending through said casings and into said lugs, said pins of a length greater than the length of a rear wall of the casing, said pins adapted to couple a pair of shafts to said bolster, heads carried by the pins and arranged within the casings, springs arranged within the casings, surrounding the pins and abutting against said heads and normally tending to maintain said pins in coupling engagement with the shafts, receptacles positioned against the forward face of said bolster, one at each side of the center of the bolster, means extending through the bolster and receptacles for securing the latter to the receptacles, pulleys arranged within the receptacles and journaled on said means, said receptacles spaced from each other, chains extending through the receptacles, engaging said pulleys and connected at their outer ends to the inner ends of said pins, a bearing head connecting the inner ends of the chains together, a casing attached to the body portion of the vehicle, a vertically movable rod connected at its lower end to said head, said rod extending through the casing and connected to the body portion of the vehicle, a tread plate carried on the upper end of the rod, an abutment secured to the rod and arranged within the casing which is attached to the body of the vehicle, and a spring surrounding the rod and interposed between the bottom of the casing and said abutment.

939,746. COIN-OPERATED MACHINE. WILLIAM W. ROSENFIELD, New York, N. Y., assignor to Rosenfield Manufacturing Company, a Corporation of New York. Filed May 21, 1902. Serial No. 108,307.



1. In a coin operated machine, the combination of a movable coin receiving member for advancing the coin edgewise, means for limiting the movement of said member, a knife edge extending transversely of the direction of movement of the coin receiving member and held under yielding tension in position to engage the edge of the coin as the latter is advanced by the coin receiving member, and connections between the knife edge and said means for controlling said means to permit the coin receiving member to make its full movement, substantially as described.

2. In a coin operated machine, the combination of a movable coin receiving member for advancing the coin edgewise on edge, means for limiting the movement of said member, a knife edge extending transversely of the direction of movement of the coin receiving member and held under yielding tension in position to engage the edge of the coin as the latter is advanced by the coin receiving member, and means between the knife edge and said means for controlling said means to permit the coin receiving member to make its full movement, substantially as described.

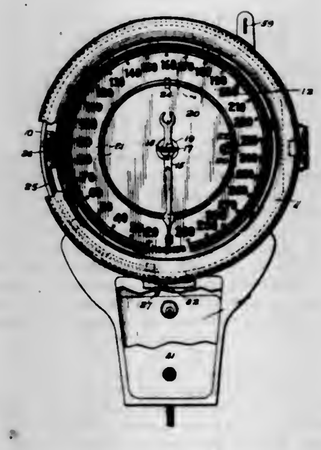
3. In a coin operated machine, the combination of a movable coin receiving member for advancing the coin edgewise, a stop for limiting the movement of said member, a knife edge extending transversely of the direction of movement of the coin receiving member and held under yielding tension in position to engage the edge of the coin as the latter is advanced by the coin receiving member, connections between the knife edge and said stop for causing said stop to be moved to permit the coin receiving member to make its full movement, and means for preventing return movement of the coin receiving member by engagement with the coin after the coin receiving member has been moved a distance greater than that to which it is limited by said stop, substantially as described.

4. In a coin operated machine, the combination of a movable coin receiving member, means for limiting the movement of said member, a sharpened member held under yielding tension in position to engage the edge of the coin as the latter is advanced by the coin receiving member, connections between the sharpened member and said means for controlling said means to permit the coin receiving member to make its full movement, and a duplex stop having a part for preventing return movement of the coin receiving member by engagement with the coin and having a part for engaging the coin receiving member to limit its operative movement when no coin is in position thereon, substantially as described.

5. In a coin operated machine, the combination with a movable coin receiving member, of a duplex stop for limiting the operative movement of the coin receiving member and preventing return movement thereof, said stop having a part projecting into the path of the coin to cause the stop to be moved by the coin to permit the coin receiving member to make its full operative movement and having a part for preventing return movement of the coin receiving member, substantially as described.

[Claims 6 to 17 not printed in the Gazette.]

939,747. WEIGHING-MACHINE. WILLIAM W. ROSENFIELD, New York, N. Y., assignor to Rosenfield Manufacturing Company, a Corporation of New York. Filed Jan. 9, 1907. Serial No. 351,420.



1. The combination with a movable member, of indicating means for indicating the amount of movement of said member, a second movable member for controlling the operation of said indicating means arranged to be limited in its forward movement by the first movable member, locking means for normally locking said second movable member against movement, means for operating the locking means to release said second movable member, a third movable member normally free to move with and arranged to be limited in its movement by the first movable member, means for locking the third movable member against forward movement, and means for limiting the forward movement of the second movable member beyond a certain position relatively to the third movable member.

2. The combination with a movable member, of indicating means for indicating the amount of movement of said member, a second movable member for controlling the operation of said indicating means arranged to be limited in its forward movement by the first movable member, locking means for normally locking said second movable member against movement, means for operating said locking means to release said second movable member, a third movable member normally free to move with and arranged to be limited in its movement by the first movable member, means controlled by the initial movement of the second movable member for locking the third movable member against forward movement, and means for limiting the forward movement of the second movable member beyond a certain position relatively to the third movable member.

3. The combination with a weighing mechanism free to operate, of indicating means, a movable member for controlling the operation of said indicating means arranged to be limited in its forward movement by a part of the weighing mechanism, locking means for normally locking said movable member against movement, means for operating the locking means to release said movable member, a second movable member normally free to move with and arranged to be limited in its movement by said part of the weighing mechanism, means for locking the second movable member against forward movement, and means for limiting the forward movement of the first movable member beyond a certain position relatively to the second movable member.

4. The combination with a weighing mechanism free to operate, of indicating means, a movable member for controlling the operation of said indicating means arranged to be limited in its forward movement by a part of the weighing mechanism, a locking means for normally locking said movable member against movement, means for operating the locking means to release said movable member, a second movable member normally free to move with and arranged to be limited in its movement by said part of the weighing mechanism, means controlled by the initial movement of the first movable member for locking the second movable member against forward movement, and means for limiting the forward movement of the first movable member beyond a certain position relatively to the second movable member.

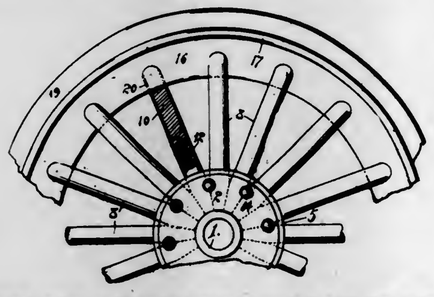
5. The combination with a movable member, of indicating means for indicating the amount of movement of said member, a pinion connected with said indicating means, a sliding rack bar for moving in engagement with said pinion for controlling the operation of said indicating means, said sliding rack bar being arranged to be limited in its forward movement by said movable member, locking means for normally locking said rack bar against movement, means for operating the locking means to release said rack bar, a second movable member normally free to move with the first movable member, means controlled by the movement of the rack bar for locking the second movable member against forward movement, and means for limiting the forward movement of the rack bar beyond a certain position relatively to the second movable member.

[Claims 6 to 11 not printed in the Gazette.]

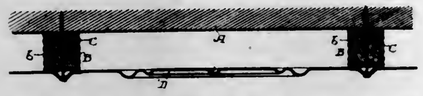
939,748. RESILIENT WHEEL. JAMES ROUNTREE, Berkeley, Cal. Filed July 27, 1908. Serial No. 445,676.

A wheel having a hub, radial hollow spokes fixedly secured to said hub, coiled springs therein, reciprocating plungers within the spokes, pressed outward by said springs, and a rim having an annular inwardly extending

web, the spokes being slotted at their outer ends to receive said web, and the web of said rim being loosely received within said slotted ends in contact with the outer ends of the plunger, substantially as described.



939,749. FURRING-STRIP. FRANK E. SAGENDORPH, Philadelphia, Pa. Filed May 10, 1909. Serial No. 495,204.



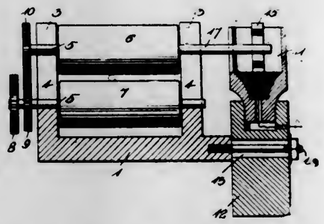
1. The combination of a series of supporting structures, furring strips mounted thereon, metal plates on the said strips, each strip being provided with a metallic covering of which at least three thicknesses are interposed between the plates and the supporting structures.

2. The combination of a series of supporting structures, furring strips mounted thereon, metallic plates on the said strips, each strip being provided with a metallic covering, the ends of which overlap so as to provide a double thickness of metal between said strip and the supporting structure.

3. The combination of a supporting structure, a series of furring strips thereon each provided with a corrugated metal covering, with metal plates mounted on said strips.

4. As a new article of manufacture, a furring strip consisting of a supporting body and a metallic covering therefor, the edges of said covering being overlapped to provide a double thickness of metal over one side of said body.

939,750. ALARM FOR CARDING-MACHINES. EUGENE P. SCHMITT, Seymour, Ind. Filed Apr. 16, 1908. Serial No. 427,480.

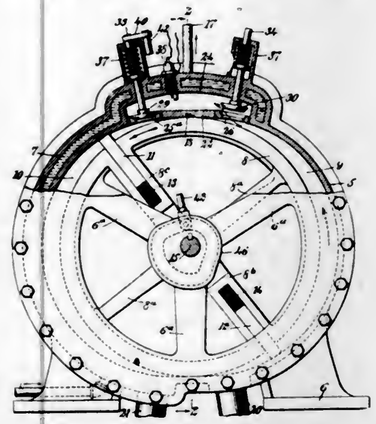


1. A device of the class described, the combination with a frame, of a pair of roving rollers revolubly mounted therein, one of which is adapted to move toward and from the other roll in accordance with changes in the size of the roving, a terminal box carried by said frame adjacent said rollers, a pair of terminals therein, an electrical alarm circuit including said terminals, means for adjusting the terminals with respect to the rollers, and means carried by the movable roller for bridging the terminals in the extreme movement thereof in either direction.

2. A roving alarm, comprising a vertically movable roving roller, a contact carried thereby, an electric circuit, and a single pair of terminals arranged on either side of said contact and adapted to be bridged by the moving contact in the extreme movement of said roller in either direction.

3. A roving alarm comprising a vertically movable rotary roller, an electric alarm circuit, a pair of separated terminals therein, and a contacting device lying between said terminals but normally out of engagement therewith, said contacting device being controlled by said roller and adapted to engage said terminals in the extreme movement of said roller in either direction.

939,751. ROTARY ENGINE. GEORGE SCHULZ, New York, N. Y. Filed Feb. 27, 1909. Serial No. 480,352.



1. The combination of a casing, a revoluble member mounted therein and provided with pistons adapted to revolve bodily within said casing, a plurality of explosion chambers connected with said casing and separated from each other, said explosion chambers being disposed abreast relatively to the general direction of rotation, separate valve mechanisms for opening and closing communication between each of said explosion chambers and said casing, and separate igniting devices for exploding charges contained in the respective explosion chambers.

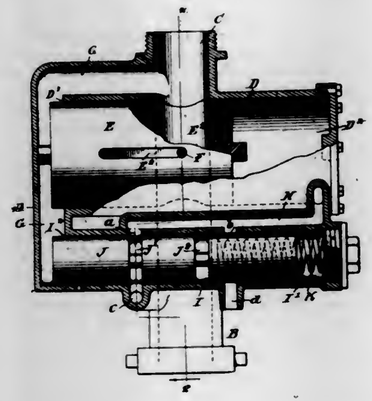
2. The combination of a casing, a revoluble member mounted therein and adapted to be turned by pressure due to an explosion, an explosion chamber connected with said casing and adapted to receive therefrom an explosive charge under compression, a pressure-operated valve mounted within said explosion chamber for the purpose of opening and closing communication between said casing and said explosion chamber, and another valve mounted within said explosion chamber and actuated periodically by power and independently of explosions, for the purpose of opening when an explosion takes place within said explosion chamber, and of closing after said explosion takes place.

3. The combination of a casing provided with a plurality of compartments separate from each other, a revoluble member mounted within said casing and disposed intermediate said compartments, said revoluble member being provided with pistons movable relatively thereto and so spaced from each other as to be capable of extending into different compartments, a single explosion chamber common to said compartments, a valve so mounted as to be controllable by pressure of an aeriform body for opening and closing communication between said explosion chamber and one of said compartments, and a valve controllable positively by power for opening and closing communication between said explosion chamber and the other of said compartments.

4. The combination of a casing, an explosion chamber connected therewith, a piston disposed within said casing and separating the same into compartments disposed upon opposite sides of said piston, a valve for opening and closing communication between said explosion chamber and one of said compartments, means for actuating said valve, means for opening said valve positively by power and independently of explosions occurring within said chamber, and another valve for opening and closing communication between another compartment and said explosion chamber, said last-mentioned valve being free to open under pressure of an explosive mixture passing from said last-mentioned compartment into said explosion chamber.

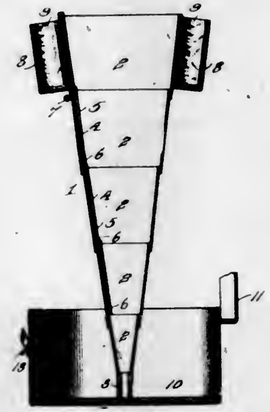
5. The combination of a casing having generally an elliptical form, a revoluble member mounted within said casing and separating the same into two compartments, a pair of pistons carried by said revoluble member and adapted to enter opposite compartments at the same time, an explosion chamber provided with ports for communicating with different compartments upon opposite sides of said revoluble member, a valve for closing one of said ports, means for actuating said valve positively by power and independently of explosions, another valve disposed intermediate said explosion chamber and the opposite compartment, said last-mentioned valve being controllable by pressure of an aeriform body tending to pass from said last-mentioned compartment into said explosion chamber.

939,752. AUTOMATIC PRESSURE CONTROL. JAMES H. SMITH, Rochester, N. Y. Filed Jan. 15, 1909. Serial No. 472,442.



In a device of the class described, a cut-off valve comprising a casing provided with an inlet having means whereby it may be connected with the hydrant and with an outlet having means whereby it may be connected with a fire hose, a main piston valve movable transversely of the casing and provided with an opening for placing the inlet in communication with the outlet, a connection between the hydrant side of the casing and one end of the piston valve for moving the same in one direction, a connection between the fire hose side and the other end of said valve for moving it in the opposite direction, a controlling piston valve beyond the main piston valve, and provided with means controlling the last named connection, a connection between the hydrant side of the casing and one end of said controlling valve for moving it in one direction, and a spring at the other end for moving it in the opposite direction.

939,753. COMBINED GRAPHOPHONE-HORN AND RECORD-CASE. WALTER SMITH, Viropa, W. Va. Filed June 15, 1909. Serial No. 502,306.



1. A graphophone horn comprising a series of collapsible sections, and record holding means carried by one of said sections.

2. A graphophone horn comprising a series of telescopic sections, and record holding means surrounding one of said sections.

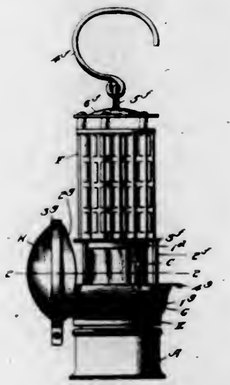
3. A graphophone horn comprising a series of telescopic sections, and a record holder embodying a series of record receptacles grouped about the larger section.

4. A graphophone horn provided with record holding means.

5. A graphophone horn provided with an annular series of record holders.

[Claims 6 to 8 not printed in the Gazette.]

939,754. LENS-CARRIER FOR LANTERNS. FURMAN D. SPEAR, Brooklyn, N. Y. Filed Mar. 27, 1909. Serial No. 486,072.



1. A lens carrier comprising a collar, a lens frame rigidly mounted upon and projecting outwardly from said collar, and projecting bearing members extending outwardly from the periphery of said collar, the straight line connecting the outer extremities of adjacent projecting members lying outside the periphery of the said collar.

2. A lens carrier comprising a collar, a lens frame secured to one side of the collar, and a bearing plate con-

nected to said collar and extending outwardly from the periphery thereof on the side opposite the said lens frame.

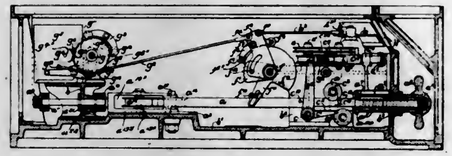
3. A lens carrier comprising a tapered collar, a lens frame secured to said collar, a lens mounted on said frame, and projecting bearing members extending outwardly from the periphery of said collar.

4. A lens carrier comprising a tapered collar, a lens frame secured to said collar and provided with a tubular screen, a lens mounted on said frame, and projecting bearing members secured to said collar and extending outwardly beyond the periphery thereof.

5. The combination with a lantern, of means for flexibly suspending the same, and a lens carrier mounted on said lantern, said lens carrier comprising a collar embracing the lantern, a lens frame secured to said collar, a lens mounted on said frame, and projecting members extending outwardly from the periphery of said collar upon opposite sides of the axis of the lens aperture in the lens frame.

[Claim 6 not printed in the Gazette.]

939,755. VOTING-MACHINE. GEORGE STACY and GEORGE A. JULIUS, Perth, Western Australia, Australia. Filed Dec. 26, 1906. Serial No. 349,478.



1. In a voting machine the combination with a pull bar provided with a pair of pins and a locking strip, of a locking mechanism for the bar, said mechanism comprising a slide frame, a lever connected therewith, a pivoted locking arm adapted to engage the locking strip when the bar is pulled outwardly, and a lever engaging said arm for maintaining it out of engagement with the locking strip when the bar is pulled inwardly, said last-mentioned lever adapted to be shifted in alternate directions by said pins, when the bar is pulled outwardly and forced inwardly.

2. In a voting machine, the combination with a pull bar provided with a pair of pins and a locking strip, of a lock-mechanism for the bar, said mechanism comprising a slide frame, a lever connected therewith, a pivoted locking arm adapted to engage the locking strip when the bar is pulled outwardly, and a lever engaging said arm for maintaining it out of engagement with the locking strip when the bar is pulled inwardly, said last-mentioned lever adapted to be shifted in alternate directions by said pins, when the bar is pulled outwardly and forced inwardly, combined with means for shifting said frame, causing thereby the oscillating of the lever connected therewith and the shifting of the locking arm.

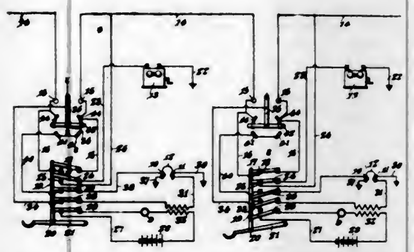
3. A voting machine comprising the combination with a pull bar, of means for locking said bar when pulled outwardly, said means comprising a locking arm engaging with the bar for retaining it in out position, a slide frame connected with and adapted to shift said bar, a flexible member engaging with the frame for shifting it, and means for drawing the flexible member, causing thereby the shifting of the frame.

4. In a voting machine, the combination with a pull bar carrying a locking strip, of a locking arm adapted to engage with said strip to lock the bar in an out position, a retaining arm for maintaining said locking arm in an inoperative position until said strip has cleared the locking arm, means for shifting said retaining arm, said shifting means being arranged in such relation with respect to said retaining arm that the said arm will not be actuated until the strip has cleared the locking arm, and means for actuating the locking arm when released.

5. In a voting machine, the combination with a voter's actuating pull bar, of means for determining the number of votes registered on the pull of said bar, said means comprising a spindle, a cam carried thereby and provided with an arm, a pin and slot connection between said arm and said bar, a slotted pawl-carrying member mounted upon the spindle, a pawl connected to said member and provided with rollers adapted to engage with the periphery of the cam, and a toothed segment supported by the spindle and adapted to be engaged by the pawl.

[Claims 6 to 29 not printed in the Gazette.]

939,756. TELEPHONE SYSTEM. FRANK E. SUMMERS, Scotland county, Mo. Filed Mar. 10, 1908. Serial No. 420,188.



1. In a telephone system, the combination of a line divided into sections, a telephone instrument located between adjacent sections and including a receiver and transmitter adapted to be connected in circuit with either section of the line, a main signaling device at the instrument normally connected in circuit with the line sections, a second receiver at the instrument arranged to be connected with one line section when the first receiver is connected with the other section for conversation between subscribers, said second receiver forming an emergency signaling device for permitting a message to be received over the idle section of the line while the main signaling device is out of circuit, and a single manually controlled means whereby a called subscriber can connect his telephone instrument with one line section or the other to determine over which the call signal is received and to converse with the calling subscriber and at the same time connect the idle section of the line with the second receiver.

2. In a telephone system, the combination of a plurality of telephone instruments, a calling signal device at each instrument normally in circuit and automatically cut out of circuit upon removal of the receiver from the hook of the instrument, a line divided into sections with adjacent sections connected with each telephone instrument, an emergency signal device at each telephone instrument, and a single switch at each instrument for connecting the receiving and transmitting devices thereof with one line section while connecting the other line section with the emergency signaling device.

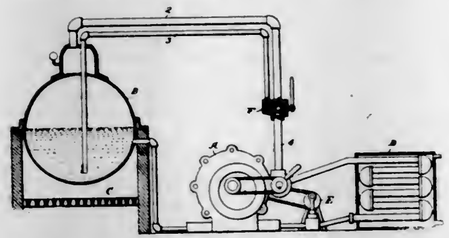
3. In a system of the character set forth, the combination with a plurality of telephone instruments including receiving mechanism and contact points electrically connected thereto, of a line comprising separate sections extending from one instrument to the next, the adjacent sections having contact points at each instrument, and a switch electrically connected to the receiving mechanism and movable into simultaneous engagement with either contact point of the line sections and a point of the receiving mechanism, and being also movable into simultaneous engagement with both of the line section contact points to connect said line sections.

4. In a system of the character set forth, the combination with a plurality of telephone instruments including transmitting and receiving mechanism, of a line comprising separate sections extending from one instrument to the next, the sections adjacent to each instrument having contact points at said instrument, signaling means at each instrument, a switch electrically connected to the transmitting and receiving mechanism of each instrument and movable into engagement with either contact point, a movable receiver supporting hook, and a switch automatically controlled by the movement of the hook for connecting together and disconnecting the sections of the line without including the signaling means in such connection.

5. In a system of the character set forth, the combination with a plurality of telephone instruments including transmitting and receiving mechanism, of an electrically operated signal for each instrument, a line connecting the instruments and comprising separate sections extending successively from one instrument to the next, a movable receiver supporting hook for each instrument, a switch operated thereby and connecting the line sections that extend to and from the instrument when the receiver is on the hook and disconnecting the said line sections when the receiver is off the hook, a switch operated by said hook for cutting in and out the signal, and means for connecting the transmitting and receiving mechanism to either section independently of the other when the sections are thus disconnnected by the actuation of the hook operated switch.

[Claims 6 to 18 not printed in the Gazette.]

939,757. METHOD AND MEANS OF UTILIZING VOLATILE LIQUIDS AS A MOTIVE POWER. EDWIN TAYLOR, Brooklyn, N. Y., assignor to Gerard Development Company, a Corporation of New York. Filed Mar. 16, 1906. Serial No. 306,459.



1. The within described method of utilizing the energy of a volatile liquid, the same consisting in carrying together defined proportions of said liquid in a volatile state and a non-volatile liquid, both in a heated state, to a transformer of energy, wherein the expansive force of the volatilized liquid is utilized in the presence of the other in its liquid state.

2. The within described method of utilizing the energy of a plurality of liquids of different vaporizing points, the same consisting in heating the said combination until one is vaporized while another remains in liquid form, carrying both in defined proportions through a transformer and thereafter condensing the vaporized liquid in the presence of the non-vaporized liquid.

3. The within described method of utilizing the energy of a volatile liquid, the same consisting in mixing it with another liquid having a higher vaporizing point, heating the mixture to volatilize a portion of the volatile liquid, conducting the one in a gaseous and the other in a liquid state in different but regulated proportions to, and utilizing the expansive force of the gas in the presence of the non-volatile liquid in, a transformer, and thereafter condensing the gas in the presence of the liquid.

4. The within described method of utilizing the energy of a volatile liquid, the same consisting in mixing the liquid with a lubricating liquid having a higher vaporizing point, heating the mixture to vaporize a portion of the volatile liquid, and conducting the vapor so formed and the other liquid in a liquid state in regulated quantities to a transformer of energy the proportions of the vapor and the liquid conducted to the transformer being independent of the proportions of the mixed liquids.

5. The combination with an engine for utilizing the expansive force of a volatile liquid, of means for volatilizing a part of a mixture of relatively volatile and non-volatile liquids, pipes for conducting both the gas and liquid as such to the engine, a single valve device constructed to control the combined flow of the gas and liquid in the required proportions to the engine, a condenser, and means for returning the mixture to the boiler.

[Claims 6 and 7 not printed in the Gazette.]

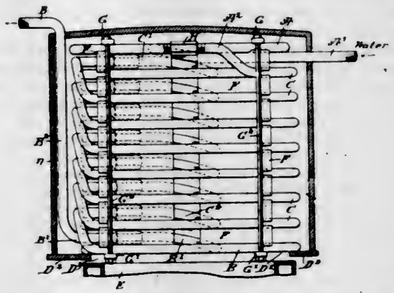
939,758. WAGON-BED. CHARLES B. TILLERY, London, Ky. Filed Feb. 19, 1909. Serial No. 478,775.



1. A wagon having a wagon box provided with a bottom, sides, a front end board and a removable rear end gate, in combination with an unloading frame in said box, said unloading frame comprising side boards nearly coextensive in length with and disposed on the inner sides of the sides of the box and a front end board connecting such side boards together, said box being open at its rear end, and a clevis at one end of said unloading frame to facilitate withdrawal thereof through the rear of the box.

2. A wagon having a wagon box provided with a bottom, sides, a front end board and a removable rear end gate, in combination with an unloading frame in said box, said unloading frame comprising side boards nearly coextensive in length with and disposed on the inner sides of the sides of the box and a front end board connecting such side boards together, said box being open at its read end, and a clevis at one end of said unloading frame to facilitate withdrawal thereof through the rear of the box, said clevis being pivotally connected to the unloading frame and adapted by gravity to assume a vertical position within the rear end of said unloading frame.

939,759. STEAM-GENERATOR. FRED N. TILTON, Hartford, Conn. Filed Oct. 29, 1908. Serial No. 460,017.



1. A steam generator, comprising a cylindrical shell having an opening in the bottom for the passage of heat, a plurality of pipe coils arranged one above the other in said shell, the lowermost coil being seated on the bottom of the shell, the said pipe coils being connected in series, the connections extending between adjacent pipe coils, radially arranged blocks interposed between the coils to hold the same spaced apart, the said blocks having notches at the top and bottom to fit the pipes, oppositely arranged top and bottom bars engaging the top and bottom coils, and extending respectively above and below the corresponding outer ends of the notched blocks, and bolts extending outside of said coils and connecting the ends of the top and bottom bars with each other to bind the coils together.

2. A steam generator, comprising a top pipe coil connected at its inner end with a water supply, a bottom pipe coil having its inner end terminating in a steam outlet intermediate pipe coils, of which the uppermost has its outer end connected with the outer end of the said top pipe coil, the said intermediate coils each having its inner end connected with the outer end of the next pipe coil below, the connection passing between adjacent coils, blocks interposed between the coils, the said blocks having notches at the top and bottom to fit the pipes, oppositely arranged top and bottom bars engaging the top and bottom coils and projecting at their ends beyond the coils, and bolts extending outside of said coils and connecting the projecting ends of the top and bottom bars to bind the coils together.

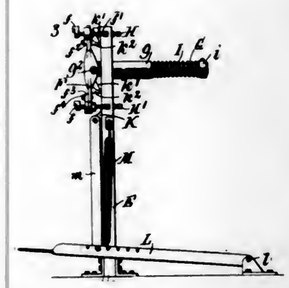
3. A steam generator, comprising a top pipe coil, a bottom pipe coil, and intermediate pipe coils, a water inlet pipe extending between the top coil and the next following coil below and connected with the inner end of the top pipe coil, a connection between the outer end of the said top pipe coil and the outer end of the uppermost intermediate pipe coil, a connection between the inner end of each intermediate coil and the outer end of the next pipe coil below, the connection extending over the top of the corresponding intermediate coil and then down the outside thereof to connect with the said outer end of the next following coil below, the bottom pipe coil having its inner end terminating in a steam outlet.

4. A steam generator, comprising a top pipe coil, a bottom pipe coil and intermediate pipe coils arranged one above the other, a water inlet pipe connected with the inner end of the top pipe coil, the said water inlet pipe extending between the top coil and the next following coil below, a connection between the outer end of the said top pipe coil and the outer end of the uppermost intermediate pipe coil, a connection between the inner end of each intermediate pipe coil and the outer end of the next following intermediate coil, the connection extending over the top of the corresponding intermediate coil and then down the outside thereof to connect with the outer end of the next following intermediate coil below, a connection between the inner end of the lowermost intermediate coil and the outer end of the bottom pipe coil, the said connection extending on top of the lowermost intermediate coil and over the outer end thereof and merging into the said outer end of the bottom pipe coil, the bottom pipe coil having its inner end terminating in a steam outlet pipe passing over the top of the bottom coil to the outside thereof.

5. A steam generator, comprising a shell having an opening in the bottom for the passage of the heat to the interior thereof, a top pipe coil, a bottom pipe coil seated on the bottom of the shell, and intermediate pipe coils arranged one above the other and all inclosed in said shell, a water inlet pipe connected with the inner end of the top pipe coil, the said water inlet pipe extending between the top coil and the next following coil below, a connection between the outer end of the said top pipe coil and the outer end of the uppermost intermediate pipe coil, a connection between the inner end of each intermediate pipe coil and the outer end of the next following intermediate coil, the connection extending over the top of the corresponding intermediate coil and then down the outside thereof to connect with the said outer end of the next following intermediate coil below, the bottom pipe coil having its inner end terminating in a steam outlet pipe, and a connection between the inner end of the lowermost intermediate coil and the outer end of the bottom pipe coil, the said connection extending over the top of the lowermost intermediate coil and merging into the said outer end of the bottom pipe coil.

939,760. SAWING-MACHINE. FRANCIS N. TREVOR, Lockport, N. Y., assignor to Trevor Manufacturing Company, Lockport, N. Y. Filed June 1, 1907. Serial No. 376,764.

1. The combination of a saw, a pendulous carriage movable toward and from the saw, a gage movable laterally toward and from the plane of the saw, laterally movable supporting means for said gage, a vertically movable wedge device independent of said supporting means, and means for moving said wedge device vertically to engage said gage and shift the same in a horizontal direction, and means for returning said gage to its original position, substantially as set forth.



2. The combination of a saw, a pendulous carriage movable toward and from the saw, a gage movable horizontally toward and from the carriage, laterally movable supporting means for said gage, a wedge device independent of said supporting means and movable vertically to engage said gage and shift the same in a horizontal direction, a treadle connected with said wedge device for operating the same, and means for returning said gage to its original position, substantially as set forth.

3. The combination of a saw, a carriage movable toward and from the saw, a gage movable toward and from the carriage, a laterally movable support for said gage, a movable wedge device, means for moving said wedge device to shift said gage in one direction, means for limiting the movement of said gage in the opposite direction, and means for returning said gage, when shifted, to its original position, substantially as set forth.

4. The combination of a saw, a carriage movable toward and from the saw, a gage movable toward and from the carriage, a support for said gage, a movable wedge device adapted to engage said gage, means for moving said wedge device to shift said gage in one direction, adjustable stops for limiting the movement of said gage in the opposite direction, and a spring acting on said support for holding said gage normally in engagement with said stops and for returning said gage, when shifted, to its original position in engagement therewith, substantially as set forth.

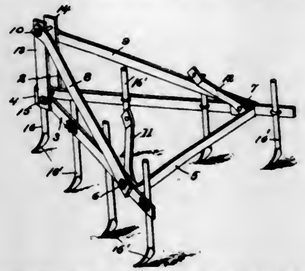
5. The combination of a saw, a carriage movable toward and from the saw, a gage, a sliding support on which said gage is pivoted and which is movable toward and from the plane in which the carriage moves, a sliding wedge device having inclined faces arranged to engage parts of the gage at opposite sides of its pivot, means for moving said wedge device to shift the gage in one direction, and a spring on said support for returning the gage, substantially as set forth.

[Claims 6 to 8 not printed in the Gazette.]

939,761. COMBINED PLANTER AND HARROW. JOSEPH M. TUCKER, Ripley, Tenn. Filed July 20, 1909. Serial No. 508,585.

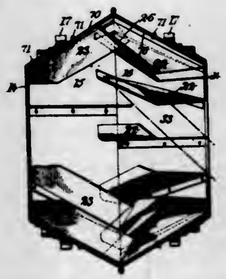
1. In a device of the character described, the combination with a planter formed with a frame, of a harrow formed with a substantially V shaped frame, means for connecting said harrow frame to the planter frame at the front end thereof, a plurality of teeth secured to said harrow frame, and a plurality of spaced means for bracing said harrow frame and also connecting the same with said planter frame.

2. In a device of the character described, the combination with a planter formed with a frame, of a harrow comprising a frame, means for connecting said harrow frame with said planter near the front end thereof, a plurality of inclined braces connecting the rear of said harrow frame



with said planter frame, said braces being spaced apart at their upper ends, and a cross brace for holding spaced apart the rear ends of said harrow frame.

939,762. DRUM BATCH-MIXER. WILLIAM R. TUTTLE, Nunda, N. Y. Filed Jan. 23, 1909. Serial No. 473,387.



1. In a batch-mixer, a drum having heads, the sides of the drum converging toward its heads, and wings secured to the inside of the drum, the wings being disposed from a point in close proximity to one of the heads of the drum to a point beyond the greatest diameter of the drum.

2. In a batch mixer, a drum converging toward its ends, and radially disposed wings secured to the inside of the drum, the wings being disposed from a point in close proximity to one of the ends of the drum to a point beyond the greatest diameter of the drum.

3. In a batch-mixer, a drum converging toward its ends, and concave wings spaced apart disposed in the drum from a point in close proximity to one of its ends to a point beyond the greatest diameter of the drum.

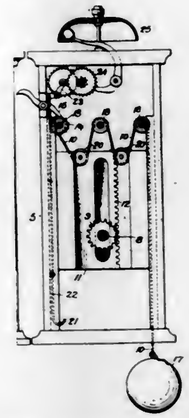
4. In a batch-mixer, a drum converging toward its ends, and concave wings spaced apart disposed in the drum to rotate therewith from a point in close proximity to one of its ends to a point beyond the greatest diameter of the drum, the outer ends of the wings being cut obliquely to form obtuse angles with their inner sides.

5. In a batch-mixer, a drum converging toward its ends, and radially-disposed wings spaced apart disposed in the drum to rotate therewith, the wings extending from a point in close proximity to one of the ends of the drum to a point beyond the greatest diameter of the drum, the outer ends of the wings being cut obliquely to form obtuse angles with their inner sides.

[Claims 6 to 10 not printed in the Gazette.]

939,763. WATER-GAGE. HENRIK H. VAAGE, Brooklyn, N. Y. Filed Jan. 29, 1909. Serial No. 475,055.

1. In a liquid gage, the combination with a float, of a shaft, a cord permanently secured to the shaft at one end and carrying the float at the other, of a weight suspended from the cord, a dial, a hand for the same with a shaft having a pulley which is rotated by the weight on movement thereof, clock work, a signal operated by the clock-work, and a projecting arm to control the clock and operated by the descending weight.



2. In a liquid gage, the combination with a float, of a shaft, a cord secured at one end to the shaft and carrying the float at the other, a weight hung on the cord, a dial, a hand journaled in the dial and carrying a pinion, gear teeth on the weight to operate the pinion, a signal, clock work for operating the signal, and an arm for controlling the clock work and operated by the weight as it descends.

3. In a liquid gage, the combination with a float, of a shaft, a cord carrying same and having one end permanently secured to the shaft, a weight with gear teeth hung on the cord, an indicator with a pinion operated by the teeth on the weight, a signal, clock work normally locked and adapted to operate the signal, a pawl normally locking the clock-work and a rod with an arm to release the clock-work when the weight descends.

4. In a liquid gage, the combination with a float, of a cord attached to same, an arbor carrying the other end of the cord; a weight hung on the cord and having gear teeth, an indicator with a pinion meshing with the gear teeth of the weight, a dial with figures, a signal bell and operating clock work, means normally locking the clock work and means operated by the weight for releasing the clockwork when the float allows the weight to descend a certain distance.

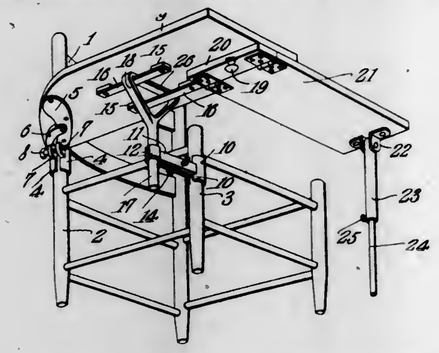
5. In a liquid gage, the combination with a float, of a cord carrying same, pulleys for guiding the cord, an arbor with means for winding thereon the other end of the cord, a weight provided with gear teeth hung on the cord, a pinion with an indicator operated by the gear teeth, clock-work, a signal bell adapted to be rung by the clock work, a trip normally locking the clock work, an arm in the path of the weight as it falls and connected with the trip and a ratchet and pawl to prevent the arbor from unwinding the cord.

939,764. DETACHABLE BOOK-REST FOR CHAIRS. THOMAS E. VICKERS and ALBERT L. HENRY, Wrightsville, Ga. Filed Apr. 9, 1909. Serial No. 488,973.

1. A device of the class described comprising a pair of support-engaging clamps; an arm-board terminally assembled with one of said clamps; and a depending standard permanently assembled with the arm-board and adjustable thereon longitudinally of the arm-board, the standard being engageable by the other of said clamps.

2. A device of the class described comprising a pair of support-engaging clamps; an arm-board terminally assembled with one of said clamps; a guide plate mounted longitudinally of the arm-board upon the lower face thereof and spaced therefrom; and a standard arranged to be

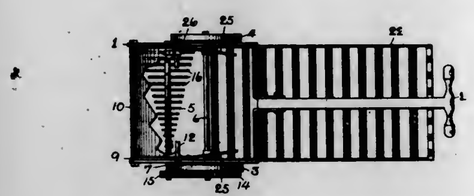
engaged by the other of said clamps, and having a head to engage and to slide upon the guide plate.



3. A device of the class described comprising a pair of support engaging clamps; an arm-board terminally assembled with one of said clamps; a depending standard permanently assembled with the arm-board and adjustable thereon longitudinally of the arm-board, the standard being engageable by the other of said clamps; a lap-board swiveled to one end of the arm-board; and a telescoping leg hinged to the free extremity of the lap-board.

4. A device of the class described comprising a pair of support-engaging clamps; an arm-board terminally assembled with one of said clamps; a depending standard permanently assembled with the arm-board and adjustable thereon longitudinally of the arm-board, the standard being engageable by the other of said clamps; a lap-board swiveled upon one end of the arm-board; and a leg hinged to the free end of the lap-board; the lap-board being tiltable into depending position beneath the arm-board and the leg being engageable by the standard-supporting clamp when the lap-board is in depending position.

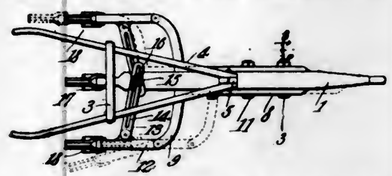
939,765. ROTARY LAWN-RAKE. CHARLES WALTE, Louisville, Ky. Filed Nov. 27, 1908. Serial No. 464,580.



In a lawn rake, a frame, a driving-wheel mounted on said frame, a rotary rake, and spur gear operatively connecting said driving-wheel and said rotary rake, said rake comprising a shaft made of two bars of malleable material secured side by side, strips of spring metal secured transversely between the bars and forming diametrical rake-teeth, the said bars being twisted so that the rake-teeth are arranged in spiral relation.

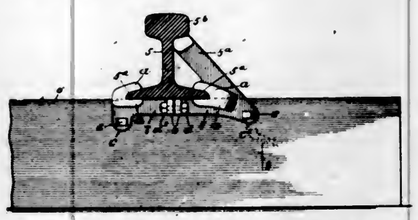
939,766. CULTIVATOR. SAMUEL WALTMAN, Wesson, Miss. Filed Apr. 1, 1909. Serial No. 487,202.

A cultivator comprising a primary beam having at its opposite sides channels and transverse perforations, arms fitting snugly within the channels and having perforations adapted to register with the perforations of the beam, bolts serving in common for securing the arms at the opposite sides of the primary beam in adjusted relation to the primary beam, said arms having outstanding portions, secondary beams pivotally connected with the outstanding portions of the arms, links pivotally connected to the sec-



ondary beams, and means for securing the inner end portions of the said links with relation to the primary beam.

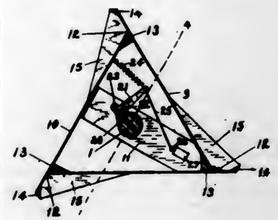
939,767. RAILROAD-TRACK-RAIL HOLDER AND BRACE. JOHN T. WEST, Bowling Green, Ky. Filed Oct. 29, 1908. Serial No. 459,975.



1. A device of the class described, comprising a sectional body portion, the sections being provided with lateral perforated lugs at their meeting point, and each with a jaw at its opposite end for engaging the rail base, and with depending perforated ears or lugs adjacent to the jaws, one of the sections being extended to form an inclined brace for the purpose set forth.

2. A device of the class described, comprising a sectional body portion, the sections being provided with lateral perforations at their meeting point, and each with a jaw at its opposite end for engaging the rail base, and with depending perforated ears or lugs adjacent to the jaws.

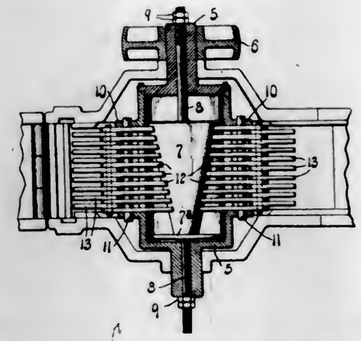
939,768. ROTATABLE SIGN. DONALD I. WHITESIDE, San Francisco, Cal. Filed Sept. 18, 1908. Serial No. 453,839.



1. The combination of a post, walls arranged at an angle of 60 degrees with one another, each wall extending beyond the edge of an adjacent wall, a cross piece secured to the upper portion of each wall on the inner surface at the middle thereof and extending at right angles therefrom, a pivot passed through all of said cross pieces and screwed into said post, and a washer between said cross pieces and the top of the post, substantially as described.

2. The combination of a post, a prismatic frame around the post, each side of which is extended beyond an adjacent side to form a wing at an angle with the latter, cross pieces connected with the sides, a metallic element passed through said cross pieces into the top of the post, a lower cross piece through which the post passes, a brake lever pivoted thereon, a strap secured to said lever and surrounding the post, a spring secured to said lever and to the frame, a weight, and a cord secured to said weight and to the brake lever, substantially as described.

939,769. PULVERIZER. MILTON J. WILLIAMS, Chicago, Ill. Filed Feb. 16, 1909. Serial No. 478,211.



1. In a pulverizer, the combination with a casing, of a rotating element therein, hammer supports carried by said element, longitudinal rows of pivoted revolving hammers mounted on said hammer supports and means adjustable in a direction across the path of movement of said hammers for engaging the hammer supports and taking up wear at the ends of the hammers.

2. In a pulverizer, the combination with a casing, of a rotating element therein, longitudinal rows of pivoted revolving hammers arranged on said rotating element, each of said hammers having supports of various lengths depending upon the position of the hammer in the row, and means coöperating with said hammer supports for taking up wear at the ends of the hammers.

3. In a pulverizer, the combination with a casing, of a shaft mounted therein, a member carried by said shaft within the casing, hammer supports of various lengths carried by said member, hammers pivotally connected to said hammer supports, and means adjustable lengthwise the shaft for coöperating with said hammer supports to take up wear at the ends of the hammer supports.

4. In a pulverizer, the combination with a casing, of pivotally revolving hammers arranged therein, a cylindrical member for carrying said hammers, and a threaded rod and cone within said cylindrical member for adjusting said hammers inwardly and outwardly, said rod extending through the end of the cylindrical member and provided at its extremity with a nut for locking the parts in their adjusted positions.

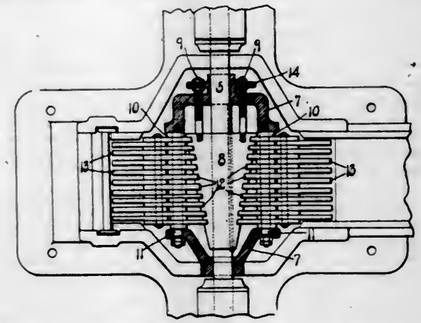
5. In a pulverizer, the combination with a casing, a cylindrical member mounted therein, levers of various lengths mounted upon said cylindrical member, hammers pivotally mounted on the outer ends of said levers, and an adjustable cone arranged within the cylindrical member and coöperating with the inner ends of said levers of varying lengths.

[Claims 6 to 8 not printed in the Gazette.]

939,770. PULVERIZER. MILTON J. WILLIAMS, Chicago, Ill. Filed Feb. 16, 1909. Serial No. 478,212.

1. In a pulverizer, the combination with a casing, of a shaft mounted therein, head pieces on the shaft within the casing, a series of levers arranged between the head pieces, hammers pivotally carried by the levers, a member arranged to slide on the shaft between the head pieces and engaging all of the levers and adjustable means seated in one of the head pieces and engaging said sliding member.

2. In a pulverizer, the combination with a casing, of pivoted revolving hammers arranged in said casing, a shaft for carrying said hammers, head pieces on the shaft and between which said hammers are mounted, and means arranged wholly within the casing and coöperating with one of said head pieces for adjusting said beaters inwardly and outwardly.



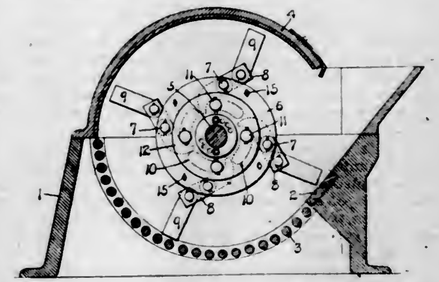
3. In a pulverizer, a casing, a shaft journaled therein, head pieces on the shaft within the casing, rods connecting said head pieces, levers of different lengths mounted on said rods, hammers pivotally carried by the outer ends of the levers, a conical member loosely mounted on the shaft between the head pieces and engaging the inner ends on the levers and adjustable means seated in one of the head pieces for shifting the conical member lengthwise upon the shaft.

4. In a pulverizer, the combination with a casing, a shaft mounted in said casing, head pieces carried by said shaft, a cone mounted between the head pieces, means for adjusting said cone longitudinally upon the shaft, rings secured in position between said head pieces, levers pivotally mounted between said rings and having their inner ends bearing upon said cone, and hammers or beaters carried by the outer ends of said levers.

5. In a pulverizer, a casing, a shaft mounted for rotation therein, head pieces arranged on the shaft, levers pivotally held between the head pieces, rotating hammers pivotally carried by the outer ends of the levers, an adjustable member arranged between the head pieces and coöperating with the inner ends of the levers for adjusting the hammers inwardly and outwardly, and means whereby said adjustable member is locked after adjustment.

[Claim 6 not printed in the Gazette.]

939,771. PULVERIZER. MILTON J. WILLIAMS, Chicago, Ill. Filed Feb. 16, 1909. Serial No. 478,213.



1. In a pulverizer, the combination with a casing, of a shaft, a frame fixed thereon within the casing, a series of sets of hammer supports pivotally arranged in the frame, revolving hammers pivotally carried by the hammer supports and an adjustable means arranged for rotation on the shaft and engaging the inner ends of all of the hammer supports.

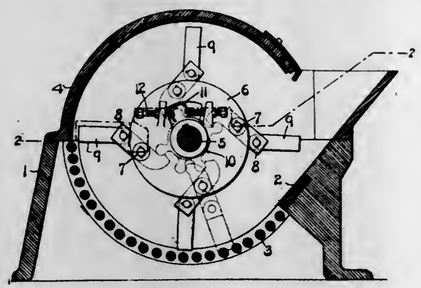
2. In a pulverizer, the combination with a casing, a shaft, disks fixed to said shaft, levers pivotally supported between said disks, revolving hammers pivotally carried by the outer ends of said levers and rotatable means cooperating with the inner ends of said levers for adjusting the hammers inwardly and outwardly.

3. In a pulverizer, the combination with a casing, a shaft mounted in the casing, disks fixed to said shaft, levers pivotally mounted upon said disks, revolving hammers carried by said levers, disks rotatably mounted on said shaft, means for locking the last mentioned disks in their rotatably adjusted positions, and means carried by said rotary disks and coöperating with said levers for adjusting said hammers, to move the hammers outwardly to take up the wear.

4. In a pulverizer, a casing, a shaft journaled for rotation therein, disks fixed on said shaft, in which disks are formed a series of concentric slots, rods passing through corresponding slots, a series of sets of levers pivotally held between the disks, the inner ends of which levers bear upon the rods, revolving hammers pivotally carried by the outer ends of said levers, and rod-adjusting means located on the shaft adjacent to the disks and engaging the ends of all of the rods.

5. In a pulverizer, a casing, a shaft journaled for rotation therein, disks fixed on said shaft, in which disks are formed a series of concentric slots, rods passing through corresponding slots, a series of sets of levers pivotally held between the disks, the inner ends of which levers bear upon the rods, revolving hammers pivotally carried by the outer ends of said levers, rod-adjusting means located on the shaft adjacent to the disks and engaging the ends of all the rods, and means whereby the rod-adjusting means is locked to the disks after adjustment.

939,772. PULVERIZER. MILTON J. WILLIAMS, Chicago, Ill. Filed Feb. 16, 1909. Serial No. 478,214.



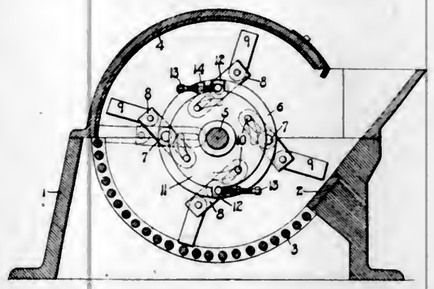
1. In a pulverizer, the combination with a casing, a shaft mounted therein, disks on said shaft, hammer supports carried by said disks, a rotary element mounted on the shaft between the disks for coöperating with said hammer supports to adjust the hammers outwardly, and means for locking said rotary element in adjusted positions.

2. In a pulverizer, the combination with a casing, a shaft mounted therein, disks fixed on said shaft, hammer supports pivotally supported by said disks, hammers in the outer ends of said supports, a rotary sleeve having projections for coöperating with the inner ends of said hammer supports, and means for locking said rotary sleeve in adjusted positions.

3. In a pulverizer, a casing, a shaft mounted for rotation therein, disks fixed on said shaft, hammer supports pivotally supported by said disks, hammers pivotally carried by the outer ends of the supports, a rotary member arranged on the shaft between the disks and coöperating with said hammer supports to adjust the hammers outwardly, and adjustable means arranged on the disks and engaging parts of the rotary sleeve for shifting the same.

4. In a pulverizer, a casing, a shaft mounted for rotation therein, disks fixed on said shaft, hammer supports carried by said disks, hammers pivotally carried by the hammer supports, and a rotary element mounted on the shaft between the disks for coöperating with the hammer supports to simultaneously and uniformly adjust the hammers inwardly and outwardly.

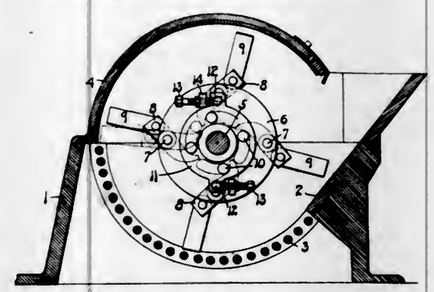
939,773. PULVERIZER. MILTON J. WILLIAMS, Chicago, Ill. Filed Feb. 16, 1909. Serial No. 478,215.



1. In a pulverizer, the combination with a casing, a shaft mounted on said casing, disks mounted on said shaft, hammer supports pivotally mounted between said disks, the inner ends of said hammer supports being slotted, hammers carried by the outer ends of said hammer supports, rods coöperating with said slotted inner ends and means for circumferentially adjusting said rods.

2. In a pulverizer, the combination with a casing, a shaft mounted on said casing, disks mounted on said shaft, through-bolts supported by said disks, hammer supports pivotally mounted on said through-bolts, hammers carried by the outer ends of said supports, the inner ends of said supports being slotted, rods passing through circumferentially disposed slots in said disks and engaging the slotted ends of said supports, rotatable disks in which said rods are mounted, and means for circumferentially adjusting said rotatable disks and locking them in adjusted positions.

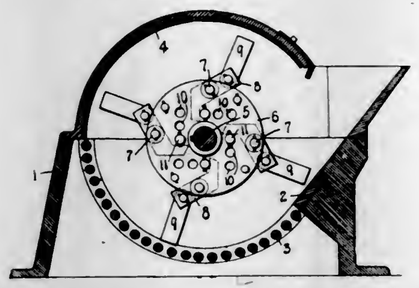
939,774. PULVERIZER. MILTON J. WILLIAMS, Chicago, Ill. Filed Feb. 16, 1909. Serial No. 478,216.



1. In a pulverizer, the combination with a casing, of a shaft, disks mounted upon said shaft, hammer supports pivotally arranged between said disks, hammers carried by said supports, means coöperating with the inner ends of said hammer supports for adjusting the hammers outwardly, a rotatable disk in which said adjusting means is mounted, and a threaded connection between said fixed and movable disks whereby the latter may be adjusted.

2. In a pulverizer, the combination with a casing, a shaft mounted therein, disks mounted on said shaft, hammers supported by said disks, and means for adjusting said hammers outwardly, said means comprising circumferentially adjustable rods, rotatable disks in which said rods are mounted and a threaded rod connecting the fixed and movable disks whereby the latter may be partially rotated to circumferentially adjust said rods.

939,775. PULVERIZER. MILTON J. WILLIAMS, Chicago, Ill. Filed Feb. 16, 1909. Serial No. 478,217.



1. In a pulverizer, the combination with a casing, of a shaft, disks mounted on said shaft, hammer supports pivotally mounted between said disks, revolving hammers pivotally carried by said supports, rods mounted in said disks against which the inner ends of the hammer supports engage, and which rods are adjustable in the disks whereby the wear of the hammers may be taken up.

2. In a pulverizer, a casing, a shaft journaled therein, disks mounted on the shaft, a series of rods removably seated in the disks, a series of hammer supports pivotally mounted on each of the rods, hammers carried by said hammer supports and adjustable means seated in the disks and coöperating with the inner portions of the hammer supports for effecting the adjustment of the hammers.

3. In a pulverizer, a casing, a shaft journaled therein, disks mounted on the shaft, a series of sets of hammer supports pivotally carried between the disks, angular projections on the inner ends of the hammer supports, means adjustably seated in the disks and engaging the angular projections on the ends of said hammer supports, and hammers pivotally carried by the outer ends of the hammer supports.

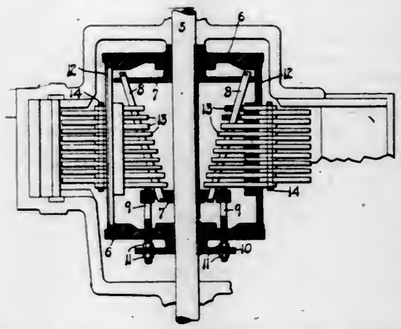
4. In a pulverizer, a casing, a shaft journaled therein, disks mounted on said shaft, said disks having a series of sets of openings, each opening of a set being at a different distance from the shaft than the other openings, rods arranged to be inserted in any of said openings, hammer supports pivotally arranged between the disks, angular projections on the inner ends of said hammer supports, which projections coöperate with said rods and hammers carried by the outer ends of the hammer supports.

939,776. PULVERIZER. MILTON J. WILLIAMS, Chicago, Ill. Filed Feb. 16, 1909. Serial No. 478,218.

1. In a pulverizer, the combination with a casing, of a shaft, slotted hammer supporting bars carried by the shaft, hammer supports arranged to slide through the slotted bars, hammers mounted between the outer ends of said supports, and means coöperating with the inner ends of said supports to move them and their carried hammers outwardly.

2. In a pulverizer, a casing, a shaft journaled therein, hammer supports mounted to move radially relative to said shaft, hammers pivotally mounted on the outer ends of the hammer supports, and adjustable means arranged to slide on the shaft between the hammer supports and engaging the inner ends of all of the radially moving hammer supports for positively adjusting said hammer supports inwardly and outwardly.

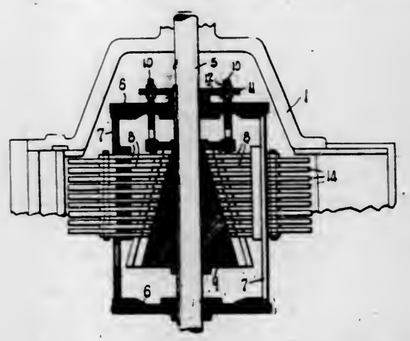
3. In a pulverizer, the combination with a shaft, disks carried thereby, guide bars carried by said disks, hammer supports arranged to slide through said bars, hammers pivotally carried by said supports and a frame movable longitudinally the shaft, said frame having inclined rods engaging said hammer supports.



4. In a pulverizer, the combination with a casing, a shaft mounted in said casing, hammer supports movable radially with respect to said shaft, hammers pivotally carried by said supports, inclined rods passing through openings in the inner ends of said hammer supports, means for moving said rods longitudinally relative to said shaft, and means whereby the rod-moving means is locked after movement.

5. In a pulverizer, a casing, a shaft journaled therein, a series of slotted bars carried by the shaft, hammer supports carried by the slotted bars and arranged to move radially relative to the shaft, revolving hammers pivotally carried by the outer ends of the hammer supports, there being openings formed in the inner ends of the hammer supports, inclined rods passing through said openings, disks arranged to slide upon the shaft and engaging the ends of the inclined rods, and adjustable means engaging one of the disks for shifting the same and the inclined rods.

939,777. PULVERIZER. MILTON J. WILLIAMS, Chicago, Ill. Filed Feb. 16, 1909. Serial No. 478,219.



1. In a pulverizer, the combination with a casing, of a shaft mounted therein, a cylindrical frame fixed on the shaft, a series of rows of hammer supports arranged to slide in said frame and to move radially with respect to the shaft, revolving hammers pivotally mounted on the outer ends of the hammer supports, the inner ends of which hammer supports are T shaped, an adjustable cone on the shaft within the frame and which cone is provided with T shaped grooves which receive the inner ends of the hammer supports.

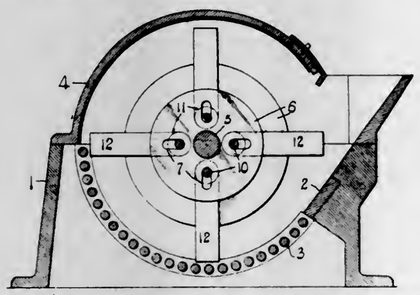
2. In a pulverizer, the combination with a casing, of a shaft mounted therein, hammer supports movable radially with respect to said shaft, revolving hammers pivotally

carried by said supports, the inner ends of said supports being provided with lateral projections, and a cone moving longitudinally the shaft, said cone having T shaped grooves for engagement with the hammer supports.

3. In a pulverizer, the combination with a casing, of a shaft mounted therein, disks mounted on said shaft, guide bars supported by said disks, radially movable hammer supports mounted in said guide bars, hammers pivotally mounted on the outer ends of said supports, a longitudinally movable elements mounted on the shaft between the disks and having interlocking engagement with the inner ends of said hammer supports to force them inwardly and outwardly, and means for moving said element longitudinally of the shaft, said means securing said element in its adjusted positions.

4. In a pulverizer, the combination with a casing, of a shaft mounted therein, a frame fixed on said shaft a plurality of rows of hammer supports arranged to slide in the frame, the inner ends of said supports being provided with lateral projections, revolving hammers pivotally mounted on the outer portions of said supports, a cone arranged for longitudinal movement on the shaft, in which cone are formed grooves which receive the inner ends of the hammer supports, and means whereby said cone is adjusted longitudinally on the shaft to move the hammers radially with respect to the shaft.

939,778. PULVERIZER. MILTON J. WILLIAMS, Chicago, Ill. Filed Feb. 16, 1909. Serial No. 478,220.



1. In a pulverizer, a casing, a shaft mounted for rotation therein, disks fixed on said shaft, disks arranged to slide on said shaft, inclined rods carried by the sliding disks, which inclined rods pass through the fixed disks, and revolving hammers pivotally mounted on said rods.

2. In a pulverizer, the combination with a casing, a shaft mounted in said casing, disks fixed to said shaft and provided with radial slots, inclined rods passing through said slots, revolving hammers pivotally mounted on said inclined rods between the disks, adjusting means on the shaft and connected to the ends of the rods for moving the same through the radial slots and spacing rings between said hammers.

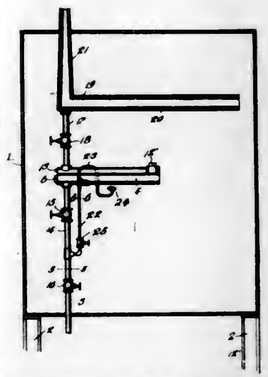
3. In a pulverizer, the combination with a casing, a shaft mounted in said casing, disks fixed to said shaft and provided with radial slots, inclined rods passing through said slots, sliding disks mounted on the shaft for supporting said rods, means located on the shaft and connected to one of the sliding disks for moving both of said disks upon the shaft, revolving hammers pivotally mounted on the rods between the fixed disks, and means for locking said sliding disks and their carried inclined rods in longitudinally adjusted positions.

4. In a pulverizer, a casing, a shaft mounted for rotation therein, disks fixed on said shaft, disks arranged to slide on said shaft, inclined rods carried by the sliding disks, which inclined rods pass through the fixed disks, revolving hammers pivotally mounted on said rods, and spacing rings arranged between the hammers.

5. In a pulverizer, a casing, a shaft mounted for rotation therein, an adjustable frame mounted on the shaft, which frame comprises disks and inclined rods, a series of revolving hammers pivotally mounted and spaced apart upon the inclined rods, and means carried by the shaft whereby the hammers are held to move radially with respect to the shaft when the frame is adjusted upon said shaft.

[Claim 6 not printed in the Gazette.]

939,779. GENERATOR AND MIXER. EDWIN R. WILSON, Hillsdale, Ind. Filed Oct. 16, 1908. Serial No. 458,072.



1. A generator comprising a body provided with a plurality of longitudinal chambers, each containing a filling of porous material, each chamber having an internally threaded open end and provided with an inlet at one end of the generator and an outlet at the opposite end thereof, said generator also being provided with a vapor passage communicating at one end with the outlets of the chambers and having at its opposite end a discharge passage, and further provided with threaded openings at its opposite ends, and plugs closing the internally threaded open ends of the chambers and the threaded end openings of the vapor passage.

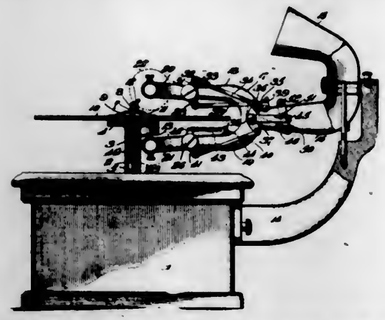
2. In a hydrocarbon lighting or heating system, the combination of a hydrocarbon supply pipe, a generator, a hydrocarbon feed pipe leading from the supply pipe to the generator, said pipes being provided with controlling valves, a valved discharge pipe leading from the generator for the discharge of the vapor, a valved burner pipe connected with the feed pipe between the valves in said supply and feed pipes and having a portion partially surrounding the generator and carrying a burner, and an L-shaped mixing tube having horizontal and vertical branches, said branches being in communication at their point of intersection with the vapor discharge pipe.

939,780. WINDOW-SCREEN. HARRY B. WILSON, San Francisco, Cal. Filed Aug. 14, 1908. Serial No. 448,591.



The herein described window screen provided with rows of eyelets secured to the screen material, said eyelets each having a flange projecting therefrom at some distance from one end, said end being projected through a hole in the screen material and a washer applied to said end to hold the eyelet in place, and a sheet metal deflector secured to the screen and extending across the same above the rows of eyelets, said deflector having an outwardly curved portion extending over the openings in the eyelets and spaced therefrom for the purpose described.

939,781. TALKING-MACHINE. WARREN W. WOOSTER, Berlin, N. J. Filed Mar. 2, 1908. Serial No. 418,829.



1. In a talking machine, a plurality of sound boxes, and means operated by the movement of the machine for automatically moving said sound boxes alternately one toward and the other away from a record.

2. In a talking machine, a record support, a plurality of sound boxes actuated to contact with different sound grooves and means operated by the movement of the machine for actuating said sound boxes alternately.

3. In a talking machine, a plurality of sound boxes, a record support holding a record above the path of one sound box and means operated by the movement of the machine for actuating said sound boxes alternately to bring the same into operative position.

4. In a talking machine, a plurality of sound boxes, means for causing the needle of one sound box to contact with the spiral groove of a record and for holding the other sound box out of contact position, and means for actuating the first mentioned sound box for removing the needle thereof out of engagement with the spiral groove and for actuating said holding means to cause the needle of the second mentioned sound box to be brought into contact with a spiral groove of a record.

5. In a talking machine, a plurality of sound boxes, means for causing the needle of one sound box to contact with the spiral groove of a record and for holding the other sound box out of operative position, and a cam face for removing the needle of the first mentioned sound box out of engagement with the spiral groove and for actuating said holding means to cause the needle of the second mentioned sound box to be brought into contact with a spiral groove of a record.

[Claims 6 to 19 not printed in the Gazette.]

939,782. DUMPING-WAGON. THOMAS WRIGHT, Jersey City, N. J. Filed May 29, 1909. Serial No. 499,141.



1. In a dumping cart or wagon, in combination, a truck, a body thereabove, guides attached to said body, main legs guided at one end in said guides, means for guiding the other ends of said main legs on said truck, means for exerting an upward thrust in said main legs, front legs pivotally mounted on said truck, links connected with the ends of said main legs, and members connecting said links with said front legs pivotally attached to the wagon body and adapted to support the wagon body.

2. In a dumping cart or wagon, in combination, a truck, a body thereabove, guides attached to said body, main legs guided at one end in said guides, means for guiding the other ends of said main legs on said truck, means for exerting an upward thrust in said main legs, front legs pivotally mounted on said truck, links connected with the ends of said main legs, members connecting said links with said front legs connected directly with the wagon body and adapted to support the same, and means independent of the aforesaid parts for guiding the rear portion of said body.

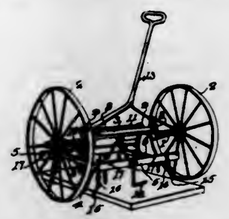
3. In a dumping cart or wagon, in combination, a truck, a body having guides attached to the under side thereof, main legs having their upper ends guided in said guides, means for guiding the lower ends of said main legs on said truck, floating levers attached to the under side of said body forwardly thereof, links connecting the upper ends of said main legs with said floating levers, and front legs pivotally mounted on said truck and pivotally attached to said floating levers.

4. In a dumping cart or wagon, in combination, a truck, a body having guides attached to the under side thereof, main legs having their upper ends guided in said guides, means for guiding the lower ends of said main legs on said truck, floating levers attached to the under side of said body forwardly thereof, links connecting the upper ends of said main legs with said floating levers, front legs pivotally mounted on said truck and pivotally attached to said floating levers, and back legs pivotally attached to said body and pivotally mounted on said truck.

5. In a dumping cart or wagon, in combination, a truck, a body above said truck having guides on the under side thereof disposed longitudinally of said body, guide rails in said truck, main legs having their upper ends guided in said guides, rollers attached to the lower ends of said main legs and running on said guide rails, means for advancing said main legs to elevate said body, floating levers pivotally mounted on the under side of said body forwardly thereof, links connecting the lower ends of said levers and the upper ends of said main legs, front legs pivotally attached to said levers at an intermediate point thereon and pivotally attached to said truck, and rear legs pivotally attached to said truck and to said body.

[Claim 6 not printed in the Gazette.]

939,783. LIFTING-TRUCK. ALVA A. AKE, Bellevue, Ohio. Filed Aug. 27, 1908. Serial No. 450,444.



1. A device of the character described comprising an axle having an offset portion, wheels mounted on said axle, and an arm mounted on the offset portion of said axle at a point out of alinement with the vertical plane extending through the ends of said axle, a work-support connected to said arm, and means for moving said arm about a horizontal axis.

2. A device of the character described, comprising an axle having an offset portion, wheels mounted on said axle, an arm rigidly secured to said offset portion of said axle at a point out of alinement with the vertical plane extending through the ends of said axle, and means for rotating said axle about its longitudinal axis.

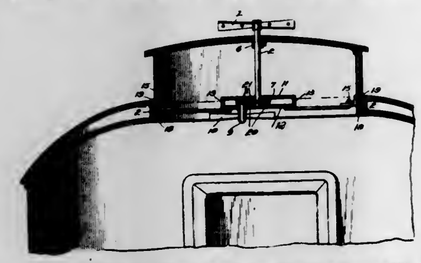
3. A device of the character described comprising an axle, ground wheels mounted thereon, forwardly extending arms secured to said axle, a work-supporting frame suspended from the outer ends of said arms, means for securing the work beneath said work-supporting frame, and means for rotating said axle to elevate said frame.

4. A device of the character described comprising an axle, ground wheels mounted on said axle, arms secured to said axle, extending beyond the same and having their outer ends bent at an angle thereto, said ends being so arranged that the rotation of said axle about its longitudinal axis in one direction will move the same into substantially the same vertical plane with the ends of said axle, a work-support connected to the ends of said arms, and means for rotating said axle.

5. A device of the character described comprising an axle having its central portion bent rearwardly to form a recess in said axle, ground wheels mounted on said axle, forwardly extending arms mounted on said rearwardly bent portion of said axle and having their outer ends extending upwardly, a work-supporting frame connected to the outer ends of said arms, and means for rotating said axle about its longitudinal axis.

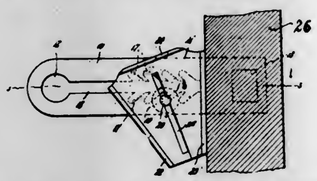
[Claims 6 to 10 not printed in the Gazette.]

939,784. CAR-VENTILATOR. CARL M. ASKEGREN, Pensacola, Fla. Filed May 21, 1909. Serial No. 497,499.



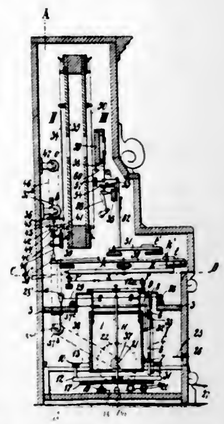
A car ventilator, comprising in combination with a wind wheel arranged above the car roof, a fan arranged under the car roof, and gear wheels connecting the shafts of said wheel and shaft, a hanger embodying a gear case comprising top and bottom plates between which the gear wheels are housed and in which said shafts are journaled, hanger arms arranged in pairs extending in opposite directions from said casing, and hanger brackets having slots in which the extremities of the hanger arms are received and held.

939,785. DOOR-FASTENER. JERRY AUGER, Marenisco, Mich., assignor of one-half to Thophil Bacon, Marenisco, Mich. Filed June 2, 1909. Serial No. 499,628.



A door securer comprising a main plate adapted to be arranged between a door and its joint, means for connecting said plate to the jamb, said plate having a relatively large aperture at the outer end with a contracted slot leading from the aperture and with a plurality of recesses leading laterally from the slot, a pin extending through the slot and with a head smaller than the aperture but larger than the slot, and a locking member having converging sides and a slot closed at the ends and through which said pin extends.

939,786. PIANO-VIOLIN. JOHANN BAJDE, near Laibach, Austria-Hungary, assignor to The Firm of Ludwig Hupfeld Aktiengesellschaft, Leipzig, Germany. Filed Jan. 16, 1908. Serial No. 411,131.



1. A ring bow comprising a ring frame, hairs stretched across the same in chords of equal length and at varying angles to one another and means to change the tension of the hairs.

2. A ring bow comprising a ring frame, a plurality of independent supports mounted thereon, hairs stretched across the frame on the supports in chords of equal length and at varying angles to one another, and adjustable tensioning members connecting the hairs in groups.

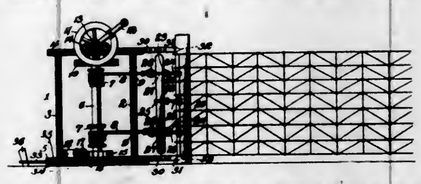
3. A ring bow comprising a ring frame, grooved pins and tightening screws mounted therein, hairs stretched between the screws and a pair of pins in equal chords, said hairs being spaced apart by the grooves in said pins.

4. In a piano violin, the combination with a ring bow, means to rotate the same and a stationary cylindrical sounding board mounted within the bow, of a plurality of bars pivotally connected with the board, each separately movable parallel to itself, a string stretched on each bar, means to normally hold the strings out of contact with the bow and means to swing the bars on their pivots to bring the strings into contact with the bow.

5. In a piano violin, the combination with a ring bow, means to rotate the same, and a stationary cylindrical sounding board mounted within the bow, of a plurality of bars connected with the board and movable parallel to the axis thereof, string supports mounted on the bars, a string on each bar stretched on the supports, and means to move the bars independently of each other to bring the strings into contact with the bow.

[Claims 6 to 11 not printed in the Gazette.]

939,787. WIRE-STRETCHER. JOHN F. BALL, Estep, W. Va., assignor of one-half to Van Buren Greene, Greenview, W. Va. Filed Apr. 17, 1909. Serial No. 490,450.



1. A wire stretcher comprising a frame, a vertical windlass shaft mounted in the frame, spaced flexible connections secured to and arranged to be wound around the windlass shaft, a vertical bar arranged in spaced relation with the windlass shaft and carried by the flexible connections, and a plurality of wire-engaging devices connected with the vertical bar and arranged at different elevations.

2. A wire stretcher comprising a frame, a vertical windlass shaft mounted in the frame, gearing for rotating the shaft, spaced flexible connections secured to and arranged to be wound around the shaft, a vertical bar arranged in spaced relation with the vertical shaft, and a plurality of wire-engaging devices provided with swivels connected with the vertical bar and also attached to the flexible connections of the vertical shaft.

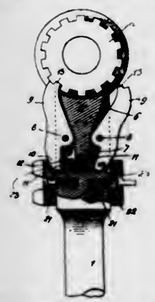
3. A wire stretcher comprising a frame, a vertical shaft having spaced flexible connections, a vertical bar arranged in spaced relation with the shaft, wire-engaging devices located at different elevations and having eyes, and swivels consisting of stems piercing the vertical bar and provided at their outer ends with eyes linked into the eyes of the wire-engaging devices, and rings swiveled to the inner ends of the stems and connected with the flexible connections.

4. A wire stretcher including a frame, a vertical shaft having spaced flexible connections, a vertical bar arranged in spaced relation with the shaft, outer wire-engaging devices, swivels connected with the wire-engaging devices and with the flexible connections and having stems piercing the vertical bar, and an intermediate wire-engaging device provided with a swiveled loop slidably arranged on the vertical bar between the said swivels.

5. A wire stretcher including a frame, a vertical shaft having spaced flexible connections, upper and lower post-engaging bars projecting from the frame and having terminal points to prevent the wire stretcher from slipping, said bars also spacing the frame from a post to enable the wires to be stretched past the latter, a vertical bar arranged in spaced relation with the shaft and being of a length less than the distance between the upper and lower post-engaging bars and carried by the flexible connections, and wire-engaging devices connected with the vertical bar and arranged at different points along the same.

[Claim 6 not printed in the Gazette.]

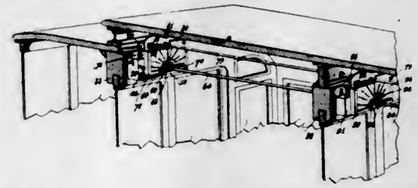
939,788. WRENCH. PETER BARTOK, Pittsburg, Pa. Filed Jan. 14, 1909. Serial No. 472,309.



1. A wrench comprising a handle having one end bifurcated to provide a pair of arms, one of said arms being longer than the other, a web arranged between and connected to said arms and forming in connection with said arms a pair of oppositely disposed recesses and said web in connection with the bottom of the furcation forming a transversely extending opening, a grooved and a toothed nut gripping member shiftably mounted in said elongated arm and extending in the upper end of the furcation, said short arm having a tongue at its upper end extending in the groove of said member, pawls arranged in said recesses, pivots for said pawls, said pawls adapted to engage in said teeth for coupling and shifting said nut gripping member when the handle is oscillated, a transversely extending spring mounted in said opening and engaging the lower ends of the pawls for maintaining them in engagement with the teeth, and winged buttons pivotally connected to the handle at a point below said furcation and each provided with a cut-away portion adapted when positioned in the plane of the lower end of the pawl to maintain it in engagement with one of the teeth, said buttons further constituting means for holding the pawl out of engagement with the teeth when a button is shifted to engage the lower end of a pawl.

2. A wrench comprising a handle having one end bifurcated to provide a pair of arms, one of said arms being longer than the other, a web arranged between and connected to said arms and forming in connection with said arms a pair of oppositely disposed recesses and said web in connection with the bottom of the furcation forming a transversely extending opening, a nut gripping member shiftably mounted in the upper end of said elongated arm and extending in the upper end of the furcation, said nut gripping member furthermore provided with a plurality of teeth, pawls arranged in said recesses, pivots for said pawls, and adapted to engage in said teeth for coupling and shifting said nut gripping member when the handle is oscillated, a transversely extending spring mounted in said opening and engaging the lower ends of the pawls for maintaining them in engagement with the teeth, and winged buttons pivotally connected to the handle at a point below said furcation and each provided with a cut-away portion on its inner face adapted when positioned in the plane of the lower end of a pawl to maintain said pawl in engagement with one of the teeth, said buttons further constituting means for holding the pawl out of engagement with the teeth when a button is shifted to engage the lower end of a pawl.

939,789. FARE-RECORDER. FRANK BATT, North Tonawanda, N. Y. Filed Jan. 9, 1907. Serial No. 351,555.



1. In a fare-recorder, the combination with a casing having a record-receiving device, of means for causing the fares collected between any two points to be recorded distinctively upon the record-receiving device, so that the fares collected for passage between any points may be ascertained.

2. In a fare-recorder, the combination with a casing of a record-receiving device therein, of mechanism to record the fares collected on said record-receiving device, and means for indicating any two stations along the line of travel from and to which the fare has been recorded.

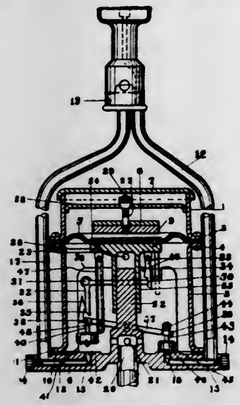
3. In a fare-recorder, the combination with a casing having a record-receiving device therein and invisible from without the same, of mechanism to record the fares collected on said record-receiving device, and means exposed to view to indicate the stations or points from and to which the fares are recorded.

4. In a fare-recorder, the combination with a casing, of recording mechanism and means to visibly indicate from and to which points the fares collected are recorded.

5. In a fare-recording device, the combination of a recorder having recording-mechanism and an indicating-device to indicate the points or stations from and to which the fare collected has been recorded, an indicating-device separate from said recorder to indicate the points or stations from and to which the fare collected has been recorded, and operating-mechanism to actuate said recording-mechanism and both indicating-devices from either compartment.

[Claims 6 to 25 not printed in the Gazette.]

939,790. AUTOMATIC LIGHTING AND EXTINGUISHING DEVICE. ARTHUR J. BEDFORD, Melbourne, Victoria, Australia. Filed Feb. 19, 1909. Serial No. 478,944.



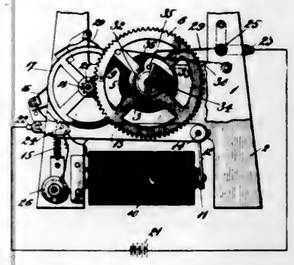
1. In a device for automatically lighting and extinguishing street gas lamps and pilot light therewith, the combination with a gas cylinder, valve mechanism therein a flexible weighted diaphragm adapted to coöperate with suspended loading weights or act independently thereof and automatically operate the valve mechanism contained within the gas cylinder by variations of gas pressure, of a slotted lifting link, a pivoted rocking lever actuated by said link for opening a burner gas outlet valve and closing a pilot light valve simultaneously; and a slidable rod guided by a hole in a transverse lug of a vertical plate to prevent the flexible weighted diaphragm from swerving as it rises or falls by the various gradations of gas pressure within the gas cylinder, as described and as shown.

2. In a device for automatically lighting and extinguishing street gas lamps and pilot light therewith provided with a gas cylinder, valve mechanism therein a flexible weighted diaphragm adapted to coöperate with suspended loading weights or act independently thereof and automatically operate the valve mechanism contained within the gas cylinder by variations of gas pressure, a slotted lifting link, a rocking lever actuated by said link a burner gas outlet valve at one end of the lever for admitting or shutting off gas to the burner, and a pilot light valve at the other end of the lever for the supply or cut off of gas to the pilot light, a bell crank lever provided with a lift catch engaging the catch of the pivoted rocking lever, a trip pawl pivotally suspended from said diaphragm to engage a fixed guide pin and the free end of the bell crank lever by a subsequent decrease of gas pressure, as described and as shown.

3. In a device for automatically lighting and extinguishing street gas lamps and pilot light therewith provided with a gas cylinder, valve mechanism therein a flexible weighted diaphragm adapted to coöperate with suspended loading weights or act independently thereof and automatically operate the valve mechanism contained within the gas cylinder by variations of gas pressure, a rocking lever within the cylinder, a trip pawl carried by the diaphragm, a vertical plate within the cylinder, a bell crank lever pivotally mounted on the vertical plate and intermediately disposed between the trip pawl and the rocking lever, and provided with a lift catch on its depending arm to engage with or disengage from a catch of said pivoted rocking lever, a burner gas outlet valve at one end of the rocking lever and a pilot light valve at its other end to open or close gas ports communicating with gas outlet passages in the bottom end cover of the gas cylinder, burner feed pipe and pilot light tube, as described and as shown.

4. In a device of the class described, the combination with a cylinder, a diaphragm therein, means for supplying gas to said cylinder below the diaphragm, a main burner and pilot light burner connected with said cylinder, a rocking lever within the cylinder, valves mounted thereon for controlling the supply of gas to said burners, a link connected to the diaphragm and having a slot therein, a pin on one end of the rocking lever engaging with said slot, a catch on said rocking lever, a bell crank lever having a catch thereon adapted to engage with the catch on the rocking lever, and a trip pawl carried by the diaphragm and adapted to engage with the bell crank lever.

939,791. SELF-WINDING MECHANISM. AARON D. BLODGETT, Newton, and FRED S. ATKINSON, Brookline, Mass., assignors to Blodgett Clock Company, Boston, Mass., a Corporation of Maine. Filed Mar. 1, 1909. Serial No. 480,638.



1. In a machine of the character specified, the combination with a spindle, of a spring connecting therewith for turning it, means for winding said spring, said means comprising a toothed wheel loosely arranged on said spindle and with which the loose end of the spring connects, means whereby said wheel may be turned for winding said spring, said means comprising an electro-magnet, means whereby said magnet may be intermittently excited, an armature, an angularly bent lever to the power-receiving arm of which said armature is secured and the actuating arm of which lever is longer than the power-receiving arm thereof, means for pivotally supporting and arranging said lever whereby the actuating arm thereof and armature carried by it may assume a normal position away from the pole or poles of said magnet, a yielding stop for limiting the movement of the actuating arm of said lever whereby said armature may continuously be maintained closely adjacent to the pole or poles of said magnet, a driving pawl carried by the actuating arm of the lever, a wheel driven by said pawl, and means whereby the rotary force of said wheel when driven by the pawl may be increased and transmitted to said toothed wheel with which the spring connects for turning said wheel and winding the spring, and means for holding the spring when wound.

2. In a machine of the character specified, the combination with a spindle, of a spring connecting therewith for turning said spindle, a rotary spring-retaining member loosely arranged upon said spindle and to which the loose end of the spring is secured, mechanism for turning said member for winding said spring, said mechanism comprising in part an electro-magnet, means whereby said magnet may be intermittently excited, an armature, an angularly bent lever to the power-receiving arm of which said armature is secured, the actuating arm of which lever is longer than the power-receiving arm thereof, means for pivotally supporting and arranging said lever whereby said armature may be normally supported in the field of said magnet closely adjacent to the pole or poles thereof and assume a normal position away from the same, means whereby power received and imparted by said lever may be received, increased and transmitted to said spring-retaining member for turning said member and winding said spring, and means for holding the spring when wound.

3. In a machine of the character specified, the combination with a supporting frame, of a spindle, a spring connecting therewith by which the spindle is turned, a spring-retaining member loosely arranged to turn around said spindle for winding said spring, mechanism comprising in part a lever through which power may be imparted to said spring-retaining member for turning said member and winding said spring, means whereby said lever may be vibratorily actuated by the intermittent breakage and completion of an electric circuit completed through the frame of the machine and mechanism carried by it, said circuit comprising in part contacts one of which is affixed directly to the frame of the machine and the other insulated therefrom, said contacts being arranged to normally contact with one another and of which contacts also the one affixed to the frame of the machine extends beyond the end of the other contact when the contacts are in normal position touching one another, and a member affixed to the actuating arm of said lever for intermittently engaging the end of said projecting contact, lifting the same and breaking the circuit as the actuating arm of the lever is vibrated, substantially as and for the purposes set forth.

4. In a machine of the character specified, the combination with a spindle, of a spring connecting with the spindle for turning it, a wheel loosely arranged on said spindle and to which the loose end of the spring is secured, mechanism whereby said wheel may be turned for winding said spring and hold the spring when wound, means for actuating the winding operation of said mechanism through the completion of an electric circuit, said means having in its circuit contacts arranged to lie normally out of contact with one another and at a point adjacent to said spindle, and means for bringing said contacts into contact with one another for completing the circuit, said means comprising a cam loosely arranged upon said spindle the head of which cam is adapted to close said contacts when said cam has been turned to a determinate position, means whereby said spindle may act to pick up said cam and carry it to said determinate position, and means attached to said wheel for releasing said cam by the turning of the wheel for winding the spring.

5. In a machine of the character specified, the combination with a spindle, of a spring connecting with the spindle for turning it, a spring-retaining member to which the loose end of the spring is secured and by which the spring is wound upon turning said member around said spindle, mechanism for turning said member and winding said spring, means for actuating the winding operation of said mechanism through the completion of an electric circuit, said means comprising in part contacts for completing the electric circuit, said contacts being normally out of touch with one another, a cam loosely arranged upon said spindle for closing said contacts, a pin projecting laterally from said cam, a pin projecting from said spindle arranged to engage the pin on said cam for turning the same to a position where the cam may close said contacts, and a pin on said spring-retaining member adapted and arranged to engage said cam releasing it from said contacts upon the turning of said member for winding the spring.

[Claim 6 not printed in the Gazette.]

939,792. REGULATING-VALVE. BERTHOLD BLÜMEL, Milwaukee, Wis., assignor to Allis-Chalmers Company, Milwaukee, Wis., a Corporation of New Jersey. Filed Mar. 12, 1906. Serial No. 305,496.

1. A casing, a plurality of oppositely movable valves therein, passages in the casing, one of the valves controlling a plurality of said passages and by moving in either direction allowing pressure actuation of another of the valves in the opposite direction.

2. A casing, a plurality of valves therein, and sets of passages in the casing, one of the valves controlling the sets of passages at a constant ratio of opening for pressure actuation of another of the valves.

3. The combination with a casing provided with ports, of a valve provided with ports seated in said casing and movable therein under the influence of a fluid under pressure admitted to said casing, a second valve also provided with ports adapted to register with the ports of said first mentioned valve and the ports of said casing, said second mentioned valve being also movably seated in said casing and being adapted to be actuated by the fluid under pressure admitted to said casing.

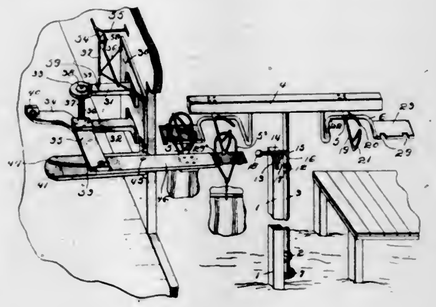


4. The combination with a casing provided with ports, of a valve provided with ports seated in said casing, a second valve provided with ports also seated in said casing, the ports in said valves and casing being adapted to register, and each of said valves being provided with opposed pressure surfaces whereby differences of pressure of the fluid upon said surfaces are adapted to actuate said valves.

5. The combination with a casing provided with ports, of a valve provided with ports seated in said casing, a second valve provided with ports also seated in said casing, the ports in said valves and casing being adapted to register, and each of said valves being provided with opposed pressure surfaces whereby differences of pressure of the fluid upon said surfaces are adapted to actuate said valves, and means to vary the pressures exerted upon said pressure surfaces of said valves by the fluid.

[Claim 6 not printed in the Gazette.]

939,793. MAIL DELIVERING AND RECEIVING DEVICE. JOHN A. BOSSI, Wyalusing, Wis. Filed Feb. 27, 1909. Serial No. 480,381.



1. In an apparatus of the class described, the combination with a support, a rotatable support carried by said stationary support, of a pivoted locking member carried by said support, a lug carried by said rotatable support, yieldable means connected to said stationary support and to said pivoted locking member for normally holding the same in engagement with said lug, and mail bag supporting means carried by said rotatable support.

2. In an apparatus of the class described, the combination with a stationary support, a rotatable support carried by said stationary support and provided with a lug formed thereon, of a latch pivotally connected to said stationary support, a lug carried by said rotatable sup-

port, said latch member provided with a hooked end, said hooked end adapted to catch said lug for normally holding the rotatable support in a set position, a coil spring connected, at one end, to said stationary support, and at its other end to said latch member for normally holding said hooked end in engagement with said lug, and means secured to said stationary support, and said rotatable support, for retarding the rotary movement of said rotatable support.

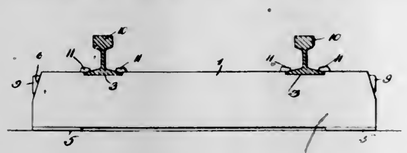
3. In an apparatus of the class described, the combination with a stationary support, a rotatable support carried by said stationary support, of a casing carried by said stationary support, spring-pressed means positioned in said casing and eccentrically connected to said rotatable support for retarding the rotary movement of the same, and mail bag supporting means carried by said rotatable support.

4. In an apparatus of the class described, the combination with a stationary support, of brackets carried by said support, a rotatable support rotatably mounted upon said brackets, a circular disk secured to the lower end of said rotatable support, yieldable retarding means carried by said stationary support and connected to said rotatable support, said retarding means comprising a casing secured to said stationary support, a plunger positioned in said casing and having one end eccentrically connected to said disk carried by the lower end of said rotatable support and yieldable means positioned in said casing and adapted to exert an inward pressure upon said plunger.

5. In an apparatus of the class described, the combination with a support, of a bracket carried by said support, detachable mail bag catching means secured to said bracket, mail bag catching means carried by said support, said catching means comprising a forked member provided with a long arm and a short arm, said long arm provided with a folded outer end, constituting a hook and adapted to prevent the accidental displacement of a mail bag after it has been delivered thereon.

[Claims 6 to 22 not printed in the Gazette.]

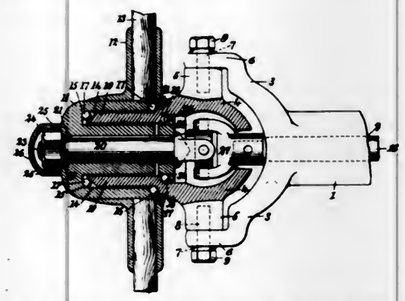
939,794. METALLIC TIE. THADDEUS B. BRADFORD, Monongahela, Pa. Filed Apr. 16, 1909. Serial No. 490,242.



1. In a metallic tie, the combination with rails, of an inverted channel shaped bar having inclined sides and a top plate, said top plate adjacent to the ends thereof being cut away to receive the base flanges of said rails, a support arranged between the sides of said tie and at each end thereof, a wooden block mounted upon each support and adapted in conjunction with the sides of said tie to support said rails, spikes driven into said blocks for holding said rails thereon, said tie having the ends thereof cut away to permit of the outer ends of said blocks being gripped.

2. In a metallic tie, the combination with rails, of an inverted channel shaped bar having inclined sides and a top plate, said top plate adjacent to the ends thereof being cut away to receive the base flanges of said rails, a support arranged between the sides of said tie and at each end thereof, a wooden block mounted upon each support and adapted in conjunction with the sides of said tie to support said rails, spikes driven into said blocks for holding said rails thereon, said tie having the ends thereof cut away to permit of the outer ends of said blocks being gripped, and outwardly extending flanges carried by the lower edges of the tie at the ends thereof.

939,795. COMBINED STEERING AND DRIVING AXLE. JAMES W. BUCHAN, Eastman, Ga., assignor of one-third to William L. Taylor, Eastman, Ga. Filed June 2, 1908. Serial No. 436,214.



1. In a device of the class described, an axle having an opening therethrough, a driving shaft arranged in said opening, the axle being provided with laterally extending arms having parallel extensions, a steering knuckle arranged between the arms of the axle and having extensions engaging the parallel extensions of said arms and pivoted thereto, said steering knuckle having an outwardly extending supporting sleeve, a wheel having a hub provided with an opening extending centrally through the hub, the hub having an annular recess concentric with said opening for receiving the said supporting sleeve, the said recess opening at the inner end of the hub, a pintle extending through said central opening of the hub and connected with the driving shaft for the transmission of power to the wheel, the hub being mounted to slide on the pintle and to turn therewith, and means for adjusting the hub longitudinally on the pintle.

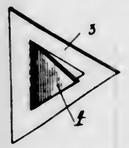
2. In a device of the class described, an axle having an opening therethrough, a driving shaft arranged within said opening and extending beyond the ends of said axle, said axle further having arms, a steering knuckle pivotally arranged between said arms and having an outwardly extending supporting sleeve, a wheel having a hub provided with an annular recess opening at the inner end of the hub for receiving the sleeve of said steering knuckle, grooves in said recess for holding rollers, the hub having an opening therethrough, a pintle arranged within said opening, the said pintle extending inward beyond the inner end of the hub, a key rigid with said pintle and arranged within a slot in said hub and adapted to move longitudinally in said slot, a universal joint connecting the inner end of said pintle to said driving shaft, an annular member arranged about said pintle and adjacent to said universal joint, said member having a recess to receive the key of said pintle, rollers located between said member and said supporting sleeve of said steering knuckle, and means at the outer end of said pintle, remote from said universal joint, whereby said member, said supporting sleeve and said hub may be adjusted with respect to one another.

3. In a device of the class described, an axle having an opening therethrough, a driving shaft arranged within said opening, the axle having arms, a steering knuckle arranged between said arms and having extensions pivoted thereto, the said steering knuckle having an integral supporting sleeve, a hub having an axial opening therethrough and an annular recess concentric with said opening, the said recess opening at the inner end of the hub and adapted to receive said sleeve, a pintle extending through said axial opening of the hub, the hub being mounted to slide on said pintle but non rotatable in respect thereto, the said pintle projecting beyond the inner end of the hub and having a shoulder on its inner portion, a driving connection between the driving shaft and the inner end of the pintle, an annular member rigidly held on said pintle at the inner end of the body of the hub and engaging the said shoulder, bearings interposed between the ends of the sleeve and said annular member and the innermost portion of the recess respectively, and means for moving the hub longitudinally on the pintle to adjust said bearings.

4. In a device of the class described, an axle having an opening therethrough, a driving shaft arranged within said opening and extending beyond the ends of said axle, said axle having arms, a steering knuckle pivotally arranged between said arms and having an integral supporting sleeve, a wheel having a hub provided with an annular recess opening at the inner end of the hub for receiving the sleeve of the steering knuckle, the hub having an opening therethrough, a pintle arranged in said opening and extending beyond the ends of the hub, the pintle being provided with a longitudinal key engaging a slot in said hub, a universal joint connecting the inner projecting end of said pintle with the driving shaft, an annular member held on said inner projecting end of the pintle adjacent to the universal joint, and means at the outer end of said pintle for adjusting the hub on said supporting sleeve.

5. In a device of the class described, a hollow axle having laterally extending arms provided with parallel extensions, a steering knuckle arranged between the arms of the axle, and having extensions abutting against the said parallel extensions of the arms of the axle, pivots connecting the extensions of the said arms and the steering knuckle, the said steering knuckle having an outwardly extending supporting sleeve, a wheel having a hub provided with an annular recess for receiving the supporting sleeve of the knuckle, the said recess opening at the inner end of the hub, the wall at the inner end of the recess being provided with a groove, and a second groove being formed at the entrance of the recess in the outer wall, bearings in said grooves between the said sleeve and said hub, a pintle extending through a central opening in the body of the hub and projecting beyond the inner end of the hub, the hub being mounted to slide on the pintle and to turn therewith, a driving shaft arranged in the hollow axle, a universal joint connecting the inner projecting end of the pintle with the driving shaft, the said pintle having a shoulder on its inner end between the inner end of the body of the hub and the universal joint, an annular member held on the pintle at the inner end of the body of the hub and engaging the said shoulder, the said member being spaced from the body of the hub, bearings located between said annular member and the supporting sleeve of the steering knuckle, and means for moving the hub longitudinally on the pintle to adjust said bearings.

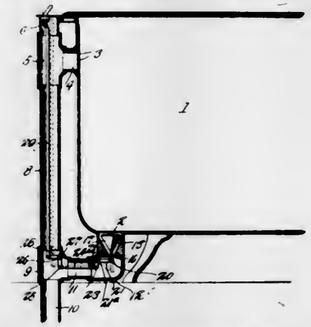
939,796. GLAZIER'S POINT. CHARLES A. BUFFAT, Knoxville, Tenn. Filed June 17, 1908. Serial No. 438,995.



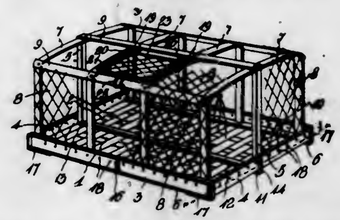
A glazier's point comprising a flat triangular body portion having slits adjacent two of its sides and a barb or spur formed by said slits integrally joined to the other side, and bent outward to the angle of the plane of the body portion.

939,797. ATTACHMENT FOR BATH-TUBS. ADAM BULIN, St. Paul, Minn. Filed Sept. 11, 1908. Serial No. 452,626.

A tub or basin provided with discharge passages at the bottom thereof and with overflow perforations adjacent to the top of the tub or basin, an elbow communicating with the discharge passages and provided with a chamber and with a valve seat, a sliding valve located in the chamber, a coupling member located adjacent to the elbow, a horizontally disposed pipe connecting the elbow with the coupling member, a bell crank lever carried by the elbow, a bell crank lever carried by the coupling member, connections between the first and second named bell crank levers, connections between the sliding valve and the first named bell crank lever, a drain pipe communicating with the overflow perforations, a lever, connections between the lever and the second named bell crank lever, and means for engaging the lever for holding the valve in its adjusted position.

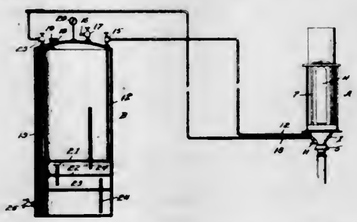


939,798. POULTRY-COOP. CLIFFORD I. BUMPASS, Bumpass, Va. Filed Mar. 16, 1909. Serial No. 483,749.



In a coop, the combination with the slatted bottom, of side and end pieces, strips secured above and below the bottom at either side thereof and adjacent the side pieces, U-shaped slide plates having their lower portions secured to the said strips and having their upper portions secured and braced to the side and end pieces, arched members secured to the side pieces, and having their lower ends engaging said strips, thereby clamping the slatted bottom between said strips, said side pieces having apertures, and a wire mesh work interwoven about the arched members and in engagement with said apertures.

939,799. LIQUID-FUEL-LIGHTING SYSTEM. ARTHUR BURTON, Whitesboro, Tex. Filed July 23, 1908. Serial No. 445,050.



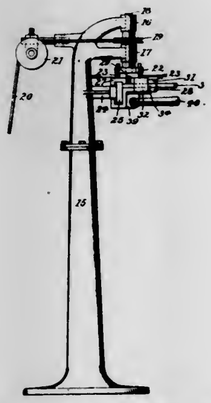
1. The combination of a main burner, a pilot burner adjacent thereto, a tank, partitions sub-dividing the tank into a vertical series of intercommunicating compartments,

tubes supported by the partitions and extending above and below the same to form an air space and a liquid fuel space in each of said compartments, an air pipe leading from the upper part of the air space of the lowermost compartment to the said pilot burner, and a liquid fuel pipe leading from the bottom of the liquid fuel space of the uppermost compartment to the main burner.

2. The combination of a main burner, a mantle therefor, a vaporizer disposed adjacent the mantle and arranged to deliver vapor to the burner, a pilot burner arranged to deliver vapor to the mantle, an air-tight liquid-containing tank having superimposed compartments in the bottom thereof, tubes extending into adjacent compartments to afford a means of communication therebetween, a valve controlled pipe connecting the pilot burner with the vapor space in said tank, and a second valve-controlled pipe arranged to convey liquid fuel from the tank to the vaporizer.

3. An incandescent lamp comprising a burner base, a burner body supported on the burner base and spaced therefrom, a valve casing mounted on the burner base at one side of the burner body, a vaporizer connected at one end with the said valve casing and consisting of an inverted U-shaped tube, a nozzle at the opposite end of the tube arranged beneath the burner body for delivering a jet of vapor thereto, a mantle supported by the vaporizer and arranged over the vapor body, a liquid fuel supply pipe connected with the aforesaid valve casing, and a vapor supply pipe on the burner base and leading into the burner body and constituting a pilot burner.

939,800. LINO-SLUG-TRIMMING MACHINE. SAMUEL R. CARTER, New York, N. Y. Filed Jan. 18, 1909. Serial No. 472,793.



In a lino-slug trimming machine, a rail, an indexed slide engaging said rail, means for clamping a lino-slug to the slide, a rotary cutter having an outer cutting edge, and a stop adapted to be engaged by the slide, the correlation between the parts being such that when the slide engages said stop, the prolongation of the slide-index constitutes a tangent of the circle described by said outer cutting edge.

939,801. RAIL-TIE. ANDREW J. CHAMBLISS, Xenia, Ohio. Filed May 25, 1909. Serial No. 498,188.



1. A rail tie comprising a lower member provided with openings, and an upper member provided with lugs fitting in the openings.

2. A rail tie comprising a lower member provided with openings and stops, an upper member mounted upon the lower member within the stops and provided with lugs fitting in the openings.

3. A rail tie comprising a lower member provided with stops and openings, and an upper arched member having horizontally disposed ends provided with lugs fitting in the openings.

4. A rail tie comprising a lower member, an upper yielding member, pins formed on the upper member, clamps provided with recesses receiving the pins, and bolts passing through the clamps and upper member.

5. A rail tie comprising a lower member, and an upper rail supporting member provided with bases connected to the lower member for limited lateral movements.

[Claim 6 not printed in the Gazette.]

939,802. POT AND KETTLE COVER. ISAIAH CHAPMAN, Eckelson, N. D., assignor of one-half to Peter E. Knudsen, Eckelson, N. D. Filed Jan. 30, 1909. Serial No. 475,139.



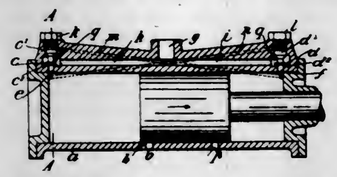
1. In combination with a receptacle having diametrically opposite arranged ears secured thereon, and a bail pivotally secured to the ears and provided with a hand grip, of a cover for the receptacle arranged between the bail ears and secured to said receptacle by a hinge that is located in a plane at right angles to the plane of the bail-ears, spaced ears secured to the cover and arranged thereon opposite to the hinge and in a plane substantially parallel with the plane of the bail-ears and in close proximity thereto, and link members respectively pivoted to the bail at either end of the hand-grip and to the spaced ears of the cover.

2. In combination with a receptacle having diametrically opposite arranged ears secured thereon, and a bail pivotally secured to the ears and provided with a hand-grip, of a cover for the receptacle arranged between the bail ears and secured to said receptacle by a hinge that is located in a plane at right angles to the plane of the bail-ears, spaced ears secured to the cover and arranged thereon opposite to the hinge and in a plane substantially parallel with the plane of the bail-ears and in close proximity thereto, said ears being arranged at an angle to the plane of the bail, and link members formed of strips of sheet metal and having the lower ends pivotally secured to the spaced ears on the cover and their body portions given a quarter turn or twist, the upper ends thereof being bent around the bail at either end of the hand-grip to form pivotal connections therewith.

939,803. PNEUMATIC TOOL. CHARLES CHRISTIANSEN, Gelsenkirchen, Germany. Filed May 19, 1909. Serial No. 497,112.

1. A pneumatic tool comprising a cylinder, a valve at each end for the admission of air thereto, means whereby the pressure of the compressed air acting directly on each valve serves to open it in its turn, and means whereby the pressure of the compressed air at each end of the cylinder closes the valve at the opposite end.

2. A pneumatic tool comprising a cylinder, a lateral valve chamber at each end having direct communication with the cylinder for the admission of compressed air thereto, a valve in each valve chamber and a communicating passage between the outer portion of each lateral valve chamber and the opposite end of the cylinder.



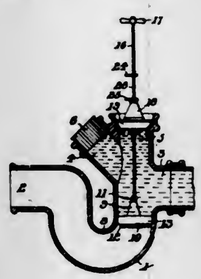
3. A pneumatic tool comprising a cylinder, a lateral valve chamber at each end thereof, a port leading directly from each valve chamber into the cylinder for the passage of compressed air thereto, a valve in each valve chamber, an entrance for compressed air, a passage leading therefrom to each valve chamber, and a passage from the outer portion of each lateral valve chamber to the opposite end of the cylinder.

4. In a pneumatic tool, the combination with a cylinder, and a piston reciprocating therein, of admission valves one for each end of the cylinder, pistons connected with each of said valves and reciprocating within chambers which are closed at both ends, a passage for each of said chambers connecting the same with the cylinder at the other end thereof, and passages connecting the other end of each of said chambers with the atmosphere.

5. In a pneumatic tool, the combination with a cylinder, and a piston reciprocating therein, of admission valves one for each end of the cylinder, pistons connected with each of said valves and reciprocating within chambers which are closed at both ends, a passage for each of said chambers connecting the same with the cylinder at the other end thereof, passages connecting the other end of each of said chambers with the atmosphere, passages connecting both sides of each of said chambers, and means to regulate the cross-sectional area of each of said passages.

[Claim 6 not printed in the Gazette.]

939,804. TESTING-PLUG FOR SEWER-TRAPS. JOHN F. CHRISTY, Sheridan, Pa. Filed Sept. 28, 1908. Serial No. 455,016.



1. For plugging the clean-out and the outlet of sewer traps at opposite sides of the inlet, where the clean-out is smaller than the outlet, a plug having a foldable elastic cup-washer adapted to fit the interior of the said outlet, a plug adapted to close the clean-out by a movement toward the said outlet, and means connecting the said plugs together.

2. For plugging the clean-out and the outlet of sewer traps at opposite sides of the inlet, where the clean-out is smaller than the outlet, a plug adapted to fit the said outlet, a plug adapted to close the clean-out by a movement toward the said outlet, and means connecting the said plugs together, said connecting means being adjustable whereby the larger plug may move to uncover the outlet at the bend in the trap.

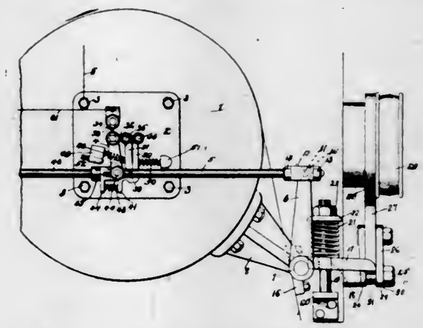
3. In a plug for closing the outlet of a trap having a clean-out smaller than the said outlet, a support, a sectional washer of larger diameter than the clean-out adapted to be carried by the said support, and a foldable packing ring adapted to be supported by said washer and adapted to the said outlet.

4. In a plug for closing the clean-out and the outlet of a trap having an inlet between the same, the clean-out being smaller than the outlet, a packing support in the outlet, a rod connected to the support and extending through the clean-out, a foldable annular packing for the outlet slidable on the rod, a valve slidable on the rod and adapted to close the clean-out by an inward movement, and releasable means for preventing the valve and the packing-ring support from movement, one away from the other.

5. In a plug for closing the clean-out and the outlet of a trap having an inlet between the same, the clean-out being smaller than the outlet, a packing to close the outlet, a support for the same, a notched rod connected to the support and extending through the clean-out, a valve slidable on the rod and adapted to close the clean-out, and a slotted lock coöperating with the said notches for preventing the valve and the packing-ring support from movement, one away from the other.

[Claims 6 to 10 not printed in the Gazette.]

939,805. IGNITION DEVICE FOR EXPLOSIVE-ENGINES. ARTHUR F. CLARKE, Butler, Pa. Filed Sept. 27, 1906. Serial No. 336,438.



1. In an ignition device for explosive engines, a stationary and a rocking electrode located within the cylinder of the engine, said electrodes being normally in position for electrical contact, and means on the outer side of the cylinder head and operated by the shaft of the engine for suddenly moving the rocking electrode to break the contact, said means cushioning the return movement of the rocking electrode to its normal position.

2. In an ignition device for explosive engines, a stationary and a rocking electrode located within the cylinder of the engine, said electrodes being normally in position for electrical contact, said rocking electrode being operable from without the cylinder head, means normally positioned by said rocking electrode and movable to a point out of contact therewith for suddenly moving the rocking electrode to break the contact, the movement of said means in one direction taking place at a predetermined point in the movement of the shaft of the engine, said means cushioning the return movement of the rocking electrode to its normal position.

3. In an ignition device for explosive engines, a stationary and a rocking electrode located within the cylinder of the engine, said electrodes being normally in position for electrical contact, said rocking electrode being operable from without the cylinder head, and a pivotally mounted lever normally positioned by said rocking electrode and

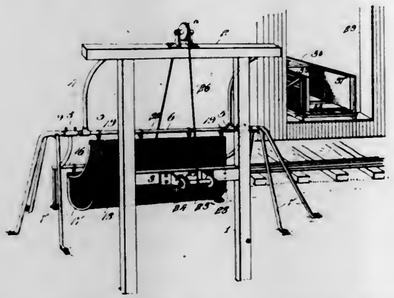
movable to a point out of contact therewith for suddenly moving the rocking electrode to break the contact, the movement of said lever in one direction taking place at a predetermined point in the movement of the shaft of the engine, means coöperating with said lever being provided for cushioning the return movement of said lever.

4. In an ignition device for explosive engines, a stationary and a rocking electrode located within the cylinder of the engine, said electrodes being normally in position for electrical contact, said rocking electrode being operable from without the cylinder head, a pivotally mounted lever positioned by said rocking electrode and movable to a point out of contact therewith for suddenly moving the rocking electrode to break the contact, means actuated by the shaft of the engine for moving said lever in one direction, and independent means for returning said lever to impart a hammer blow to the electrode, said latter means cushioning the return movement of the rocking electrode to its normal position.

5. In an ignition device for explosive engines, a stationary and a rocking electrode located within the cylinder of the engine, said electrodes being normally in position for electrical contact said rocking electrode being operable from without the cylinder head, a pivotally mounted lever normally positioned by said rocking electrode and movable to a point out of contact therewith for suddenly moving the rocking electrode to break the contact, means actuated by the shaft of the engine for moving said lever in one direction, the movement of said lever being of predetermined length and without effecting the normal position of the rocking electrode, said means being automatically released when said movement has been completed, and means for moving the lever in the opposite direction to impart a hammer blow to the electrode when the lever is released, said latter means cushioning the return movement of the rocking electrode to its normal position.

[Claims 6 to 14 not printed in the Gazette.]

939,806. MAIL-BAG DELIVERER. SOLON B. COLBERT, Pierce City, Mo., assignor of one-half to Sandford J. Douthitt, Pierce City, Mo. Filed Oct. 17, 1908. Serial No. 458,273.



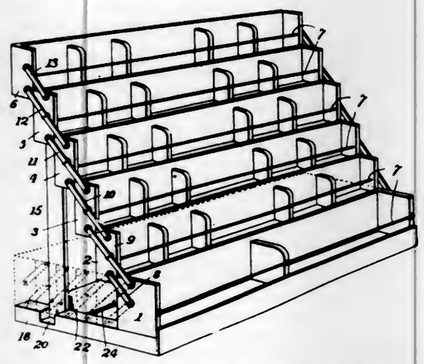
1. A mail bag deliverer comprising a projector, springs secured to said projector, means for holding said springs in retracted condition, means for releasing said holding means, plates pivoted within the bottom of said projector, and means for holding said plates in inclined position.

2. In a mail bag deliverer, a projector, a frame within which said projector is mounted, springs connected to said projector and frame, a hook bar connected to said projector and extending through said frame, a lever for operating said hook bar, a sliding plate for engaging said hook bar, and a foot lever for disengaging said sliding plate.

3. In a mail bag deliverer, a frame, a projector mounted to slide in said frame, springs connected to said projector and frame, means for retracting said springs, recoil springs, a hook bar, means for actuating said bar, means for holding said bar in adjusted position, and means for releasing said holding means.

4. A mail bag deliverer comprising a frame, a bar pivoted to said frame, a receiver consisting of a reticulated container suspended from said bar at one edge of said receiver by means of rings, a rope or cable connected to the other edge of said receiver, a pulley on the frame over which said cable passes, and a windlass for raising or swinging said receiver around said bar.

939,807. PACKING AND DISPLAY RECEPTACLE. WILLIAM E. COLLINS, Cambridge, N. Y., assignor to Jerome B. Rice Seed Company, Cambridge, N. Y. Filed May 7, 1909. Serial No. 494,572.



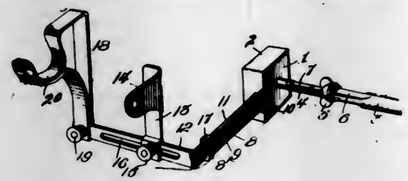
1. A display rack or receptacle, comprising a base and a plurality of sections or trays, connecting links at the ends of said trays adapted to hold the trays in progressively stepped order when the trays are being moved into extended position and to permit said trays to stand side by side when they are in lowered position, supports pivotally secured to the base and arranged to swing outwardly to brace and support the overhanging sections when in extended position, means for automatically moving the supports into engagement with the trays when they are raised into extended position, and means for bracing the supports against lateral stress.

2. A display rack or receptacle, comprising a plurality of sections or trays, means for maintaining the sections parallel while being moved into stepped relation and when in alinement side by side, supports adapted to move under one section and bear against the bottom thereof and against the side of the adjacent section, and means to brace the supports against lateral stress.

3. A display rack or receptacle, comprising a plurality of sections or trays, means for maintaining the sections parallel while being moved into stepped relation and when in alinement side by side, supports adapted to move under one section and bear against the bottom thereof and against the side of the adjacent section, means to brace the supports against lateral stress, and means for automatically moving the supports into operative position when the sections are placed in stepped relation.

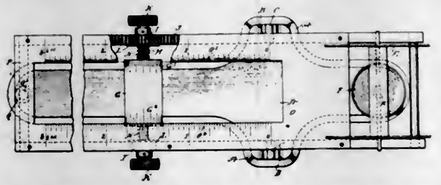
939,808. WINDOW-SHADE AND LACE-CURTAIN SUPPORT. HERBERT F. COOK, Lake Mills, Iowa. Filed May 2, 1908. Serial No. 430,549.

A device of the class described comprising a pair of clamping blocks, a longitudinally extensible clamping connection interposed between said blocks, brackets supported by said blocks and each embodying a bracket arm rigidly connected to one block, an angular bracket arm having a portion which overlaps said arm and has a sliding adjustment relatively thereto and also a portion extending in a plane parallel to the plane of the extensible connection, said angular portion being slotted lengthwise, a curtain shade bracket extending upward from said angular portion



and embodying an offset shoulder which rests on the upper edge of the angular portion of the bracket, and a fastening device carried by said curtain bracket and movable in and along said slot.

939,809. SCALE. SAMUEL C. COOPER, Nunda, N. Y. Filed Feb. 25, 1908. Serial No. 417,662.



1. A weighing scale provided with a graduated beam and a cylindrical poise mounted to roll along a portion of the said beam different from that having the graduations and provided on its peripheral face with graduation marks for reading on the graduation marks of the said beam, and means for rolling the poise lengthwise of the beam.

2. A weighing scale provided with a beam supporting the load at one side of its fulcrum and having the other provided with a scale, racks extending longitudinally on the graduated end of the beam, a cylindrical poise having a scale on its peripheral face for register with the said beam scale, and pinions on the said poise and in mesh with the said racks.

3. A weighing scale provided with a beam supporting the load at one side of its fulcrum and having the other provided with a scale, racks extending longitudinally on the graduated end of the beam, a cylindrical poise having a scale on its peripheral face for register with the said beam scale, pinions on the said poise and in mesh with the said racks, and a friction device for holding the poise and its pinions in the adjusted position.

4. A weighing scale provided with a beam supporting the load at one side of its fulcrum and having the other provided with a scale, racks extending longitudinally on the graduated end of the beam, a cylindrical poise having a scale on its peripheral face for register with the said beam scale, a shaft on the poise, and pinions secured on the said shaft and in mesh with the said racks.

5. A weighing scale provided with a beam supporting the load at one side of its fulcrum and having the other provided with a scale, racks extending longitudinally on the graduated end of the beam, a cylindrical poise having a scale on its peripheral face for register with the said beam scale, a shaft on the poise, pinions secured on the said shaft and in mesh with the said racks, springs coiled on the said shaft, and washers bearing against the racks and pressed on by the said springs.

[Claims 6 to 10 not printed in the Gazette.]

939,810. PENHOLDER. ROBERT J. COX, Chaney, Okla. Filed June 2, 1909. Serial No. 499,734.

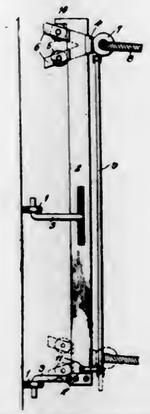
1. In a device of the class described, a pen stock provided with a longitudinal guideway, a ferrule connected to said stock and having a longitudinal guideway, an ejector plate slidable in said ferrule and having a pen slidable in said stock guideway, and a guide fin engaging in said ferrule guideway.



2. In a device of the class described, a ferrule having a longitudinal guideway, a resilient split sleeve carried by said ferrule, an ejector plate slidable in said ferrule and having a guide fin engaging in said guideway, said ejector plate engaging in the split of the sleeve and provided with a projecting point between which and the sleeve a pen point is adapted to be inserted.

3. In a device of the class described, a ferrule having a longitudinal guideway and a longitudinal slot, a handle having a longitudinal cavity and connected to said ferrule, a resilient split sleeve carried by said ferrule, an ejector plate slidable in said ferrule and having a guide fin engaging in said guideway and a guide fin projecting through said longitudinal slot, a push button carried by the projecting fin, a guide stem operating in the guide cavity of the handle, and a pen point engaging projection extending forwardly of the plate.

939,811. CLOTHES-LINE SUPPORT. GEORGE A. CULBERTSON, Chicago, Ill. Filed Jan. 18, 1909. Serial No. 472,978.



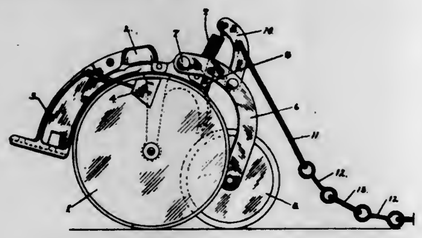
1. A device of the kind described comprising screw eyes, a vertically arranged strip, hooks pivotally connecting said strip to said eyes, a bracket slidable on the strip an eye carried by the bracket, a rod connected to said bracket, and means for supporting the lower end of the rod on the lower end portion of the strip.

2. A device of the kind described comprising a vertically arranged strip adapted to fold against the wall, a bracket slidably mounted upon said strip, rollers carried by the bracket and engaging one face of the strip, means carried by the bracket for engagement with the clothes line, a rod connected at one end to said bracket and a pin carried by the other end of the rod, the said strip being perforated adjacent its lower end to receive said pin.

939,812. DISK DRILL. SPENCER E. DAVIS, Minneapolis, Minn. Filed Sept. 21, 1908. Serial No. 454,061.

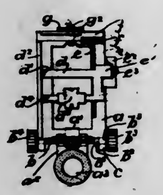
1. In a device of the kind described, the combination with a pair of diverging disks, and a seed boot to which said disks are journaled, of a presser wheel arranged to run between said disks, the said presser wheel being interlapped with the said disks, substantially as described.

2. In a device of the kind described, the combination with disks for opening the furrow, of a presser wheel interlapped with and arranged to run between said disks, and a drag device arranged to work behind said presser wheel, substantially as described.



3. In a device of the kind described, the combination with a seed boot and a pair of diverging disks journaled thereto, of a pair of laterally spaced downwardly curved bars pivotally connected at their upper ends to said seed boot, a presser wheel interlapped with and located between, and journaled to the lower ends of said bars, and arranged to work between the rear portions of said disks, a spring connection between said seed boot and the said bars, yieldingly forcing said presser wheel downward, and a drag chain connected to said bars and arranged to work behind said presser wheel, substantially as described.

939,813. SIGHT FOR FIREARMS. WILLIAM J. C. DOWNEY, South Perth, Western Australia, Australia. Filed June 25, 1908. Serial No. 440,355.



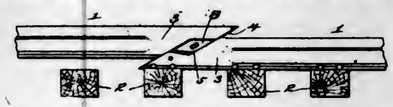
1. In a sight for firearms, the combination with a sight leaf having a pair of spaced shoulders and a slidably related seat block between the shoulders, of a bracket having means for holding the seat block against movement and a transverse spindle having threaded engagement with the seat block and carried by the sight leaf and rotatably mounted on the shoulders but having no axial movement relative thereto.

2. In a sight for firearms, the combination with a sight leaf of a sight plate adjustable longitudinally of the sight leaf and including a transverse bar, and a sight piece mounted on the bar and having a V-shaped notch at one end and an opening at another end, the sight piece being reversible on the bar.

3. In a sight for firearms, a pivotally mounted sight leaf arranged to assume a vertical or horizontal position on the barrel of a firearm and a disk provided with sight openings and pivotally mounted at the free end of the sight leaf in a plane at a right angle to the plane of the sight leaf.

4. In a sight for firearms, the combination with a sight leaf and an adjusting screw extending longitudinally thereof, of a sight plate having a threaded grooved portion rigid therewith for engagement with the screw, and a member provided on the sight plate for engagement with the sight leaf to maintain the engagement of the screw and grooved portion, said member being operable to permit of the movement of the sight plate in effecting a disengagement of the screw and the grooved portion.

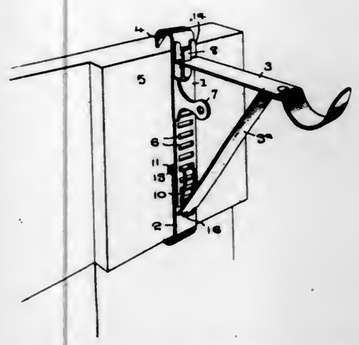
939,814. RAILWAY-RAIL JOINT. ROBERT S. DU BOSE, Odessa, Fla. Filed Aug. 27, 1909. Serial No. 514,884.



1. The combination, with railway rails having inclined end faces, of a diamond shaped scarf depending from one end of the rails and diminishing in thickness lengthwise and inwardly from one of said faces to the rail, flanges extending from the other of said faces and having edges inclined parallel with said faces and forming a socket, and means for securing the scarf in the socket.

2. The combination, with a railway rail having an inclined end face, diminishing in width from the rail tread to the base of the rail, and flanges projecting from the sides of the said face and having edges inclined from the rail-base parallel with said face and forming a socket, of a meeting rail having an inclined end face, a scarf, one end of which is formed by this end face, such scarf increasing in thickness from the rail to its said face, and means for securing the scarf in the socket.

939,815. CURTAIN-BRACKET. CHARLES B. DUMOND, Waterbury, Conn. Filed Apr. 13, 1909. Serial No. 489,586.
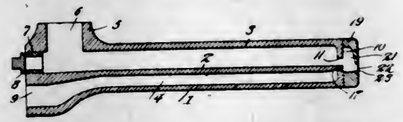


1. A device of the character described, comprising hook ended members, one of said members having an outstanding bearing and a multiplicity of openings therein, and the other member having a loop passed through or effecting engagement with any one of said openings and a pole support having connection with one of said members and with the loop of the other member.

2. A device of the character described, comprising hook ended members, one of said members having an additional outstanding downwardly presented hook and the other member having a loop, one of said members having a multiplicity of openings adapted to receive said loop and a pole supporting member having its upper limb provided with a hook at one end for engagement with said downwardly presented hook, the lower limb of said last-referred to member having engagement with said loop.

3. A device of the character described, comprising hook ended members, one of said members having an additional downwardly presented hook near its upper end and a multiplicity of openings therein, and the other member having a loop connected to its upper end for engagement with said openings, and a pole supporting member having its upper limb provided at one end with an upstanding hook and a slot near said hook, said upstanding hook receiving said additional downwardly presented hook and said slot also receiving said downwardly presented hook, the lower limb of said pole supporting member having a tongue for engagement with said loop.

4. A device of the character described, comprising hook ended members, one of said members having an additional downwardly presented hook and a lateral outstanding bearing, also a multiplicity of openings, the other hook ended member having a loop at its upper end for engagement with said openings and depending in front of the first-referred to hook ended member and a pole supporting member having its lower limb provided with a tongue for engagement with said loop, the upper limb of the last-referred to member having an upstanding hook presented to the first-referred to hook ended member, also a slot at the base of said upstanding hook, said first-referred to downwardly presented hook being received by said upstanding hook and the slot of said pole supporting member.

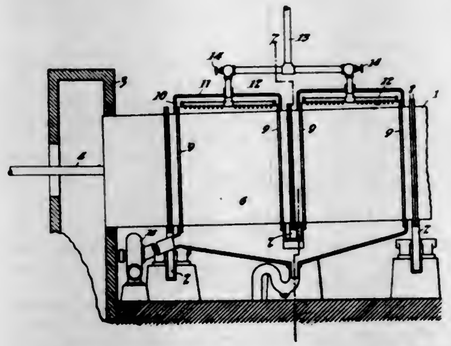
939,816. OIL-BURNER. CHARLES ECKLAND, Stockton, Cal. Filed Mar. 25, 1908. Serial No. 423,233.



1. An oil burner comprising a body provided with oil and steam passages, a flange formed on the upper wall of the oil passage at the discharge end thereof, said flange being provided with a horizontally disposed edge and with laterally inclined side edges, and flanges formed on the lower wall of the oil passage at the discharge end thereof, the edges of said last-named flanges being arranged in parallel relation to the inclined edges of the first-named flange, said flanges providing the oil passage with a horizontal discharge opening having laterally and upwardly inclined branches.

2. An oil burner comprising a body provided with oil and steam passages, the oil passage being provided with a horizontally disposed discharge opening having upwardly and laterally inclined branches, the steam passage being provided with a discharge opening disposed in an upwardly inclined plane, and a block secured to the inner end of the body and provided in its inner side with a recess communicating with the discharge openings of the passages, the outer wall of the recess being provided with an opening through which the mixed oil and steam are discharged, the bottom walls of the recess and opening in the block forming a horizontal plate disposed below the discharge opening of the steam passage.

939,817. CEMENT-KILN. THOMAS A. EDISON, Llewellyn Park, Orange, N. J. Filed Mar. 8, 1907. Serial No. 361,415.



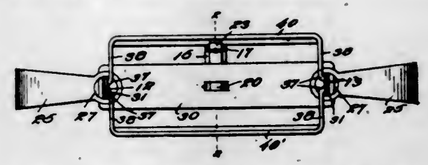
1. In cement burning apparatus, the combination with a rotary cement kiln formed of sections and having outwardly extending flanges near the ends of certain sections, of a stationary casing surrounding the kiln at one or more of said sections and having inwardly extending flanges coöperating with a loose fit with the kiln flanges, means located within the casing for spraying water upon the kiln, and means for leading off the water, substantially as described.

2. In cement burning apparatus, the combination with a rotary cement kiln formed of sections and having outwardly extending flanges near the ends of certain sections, of a stationary casing surrounding the kiln at one or more of said sections and having inwardly extending flanges coöperating with a loose fit with the kiln flanges, means located within the casing for spraying water upon the kiln, and means for causing the passage of air through the flanged joints into said casing, and means for leading off water, air and steam from said casing, substantially as described.

3. In cement burning apparatus, the combination with a rotary cement kiln formed with flanges, a casing surrounding the kiln and having flanges coöperating with those of the kiln, spraying devices located within the casing for spraying water upon the kiln, and an exhauster or fan connected with the casing, substantially as and for the purposes set forth.

4. In cement burning apparatus, the combination with a rotary cement kiln formed with flanges, a casing surrounding the kiln and having flanges coöperating with those of the kiln, spraying devices located within the casing for spraying water upon the kiln, and a trap connected with the lower end of the casing for carrying off water therefrom, substantially as and for the purposes set forth.

939,818. TRAP. PAUL ELFSTROM, Hemmington, Minn. Filed May 11, 1909. Serial No. 495,234.



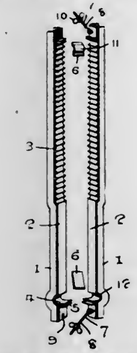
1. The combination with a flat bar having its ends bent to provide two guiding ears disposed in parallel spaced relation each ear having two openings, said ears being of a width less than the width of said bar, an L-shaped trigger carrier secured to said bar, the upstanding member of said carrier being slotted to provide a bearing bar at the upper end of said carrier, two U-shaped jaw springs having an opening at each end surrounding said guide ears, a curved spring plate having its ends slotted and slidably held upon said ears and between the ends of said jaw springs, a rectangular trigger having a lever arm, an extending trigger lip, and bent upon itself to form a bearing held upon said bearing bar, said lever arm being secured to said spring plate, and two similar jaws having straight meeting edges and arms bent at right angles and ending in gudgeons held within said ear openings, said trigger lip reaching over the edge of one of said jaws when said trap is set.

2. The combination with a base bar having two terminal upstanding guide ears, a trigger plate having its ends slotted and guides upon said guide ears, a trigger carrier secured to said base bar, U-shaped jaw springs having their ends engaged about said ears, two jaws carried by said ears and arranged to be engaged by said jaw springs, and a trigger carried by said trip member engaging one of said jaws.

939,819. MOLD. JOHN N. ERIXON, Concord, Ill. Filed Apr. 21, 1908. Serial No. 428,323.

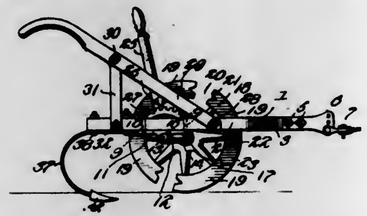
A mold for plastic fence posts, comprising opposed members, each consisting of a lateral plate and right angled

plates, one arm of each of said right-angled plates being applied to the outer surface of each lateral plate near the longitudinal edges of such plate, each of said lateral plates having a right-line plane surface for a portion of its length, the greater portion of said plate being formed with a series of closely arranged notches of curvilinear outline, said notches facing inwardly, the lower ends of said lateral plates being provided with approximately U-shaped formations, additional L-shaped plates applied to said lateral plates, one arm of each of said L-shaped plates being arranged opposite to and spaced off from one arm of each of said U-shaped formations, an end plate received within the spaces thus provided between said



U-shaped formations and said L-shaped plates, additional L-shaped plates applied to said lateral plates at the opposite ends of the latter, one arm of each of said last referred to L-shaped plates being spaced off from the terminal of each of the notched portions of the lateral plates, an additional end plate adapted to be received within the spaces formed by the latter L-shaped and the notched portions of said lateral plates, and means of fastening, said fastening means including nut-equipped screw-threaded rods said rods being pivotally connected to the L-shaped end plates of one of said lateral members and received in notches in the L-shaped plates of the opposed lateral member.

939,820. AGRICULTURAL IMPLEMENT. WALTER B. ESTIS, Coffeeville, Ala., assignor of one-fourth to Mattie A. Tharp and one-fourth to Judie Tharp, Cunningham, Ala. Filed May 7, 1909. Serial No. 494,564.

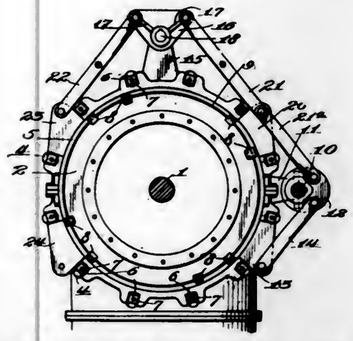


1. In a cotton thinner, a roller having a rim formed of spaced sections, laterally movable filler blocks adapted to fit within the spaces between the sections, the meeting edges of the sections and filler blocks having interengaging portions, and means coacting with said interengaging portions for securing said filler blocks to said rim sections.

2. In a cotton thinner, a roller having a rim formed of spaced sections, the meeting edges of the sections being provided with transverse grooves, laterally movable filler blocks having tongues adapted to fit within said grooves to close the spaces between the sections, and means for securing said filler blocks to said rim sections.

3. In a cotton thinner, a roller having a rim formed with spaced sections, the meeting edges of the sections being provided with transverse grooves, laterally movable filler blocks having tongues adapted to fit within said grooves to close the spaces between the sections, and set screws upon the rim sections arranged to project into the grooves and engage the tongues of the blocks.

939,821. TURBINE. JOHN H. FELTHOUSEN, York, Pa. Filed Jan. 6, 1909. Serial No. 470,966.



1. The combination with a turbine having gates, of a ring operatively connected to the gates and loosely suspended clear of contact with any part of the turbine over which it moves, and means for shifting the ring in opposite directions around the turbine to correspondingly move the gates.

2. The combination with a turbine having gates, of a ring operatively connected to the gates, and means serving the double function of shifting the ring and suspending the same clear of any part of the turbine over which it is mounted.

3. The combination with a turbine having gates, of a ring applied over and movable around a portion of the turbine and operatively connected to the gates, the ring being suspended and held clear of all parts of the turbine over which it moves, means connected to different portions of the ring for suspending and shifting the latter in opposite directions, and prime motion imparting means cooperating with said suspending and shifting means.

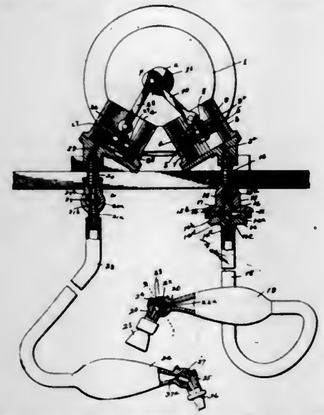
4. The combination with a turbine having gates, of a ring movably mounted over a portion of the turbine and operatively connected to the gates, means for suspending the ring clear of any part of the turbine over which it moves and for actuating the said ring and connected to different parts of the latter, and prime means for operating the said suspending and actuating means to equally apply a shifting force to different portions of the ring.

5. The combination with a turbine having gates, of a ring connected to the gates for operating the latter and supported wholly out of contact with the part of the turbine over which it is mounted, motion transmitting means connected to the ring and holding the said ring clear of the part of the turbine over which it is mounted, and means for actuating the said motion transmitting means to shift the ring in opposite directions.

[Claim 6 not printed in the Gazette.]

939,822. MASSAGE AND AIR-COMPRESSING MACHINE. JOSEPH B. FEY, Columbus, Ohio. Filed Feb. 17, 1909. Serial No. 478,487.

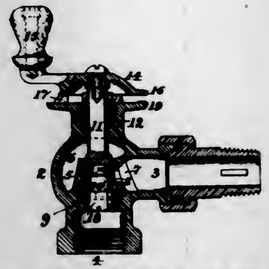
1. In a machine of the character described, the combination with a cylinder, a piston therein, and means for imparting a reciprocating movement to said piston, of a valve casing connected with one end of said piston, a rotary valve in said casing having a port therethrough, said casing having an internal recess, a pair of passages leading from separated points in said rotary valve seat to a single passage in the lower portion of the valve casing, a check valve adapted to normally close one of the passages of said pair, an air conductor connected with said valve casing, and a massage cup at the end of said conductor.



2. In a machine of the character described, the combination with a cylinder, a piston therein, and means for imparting a reciprocating motion to said piston, of a valve casing connected with said cylinder, a valve controlled passage in said casing intersected by a check valve adapted to be opened only on the up-stroke of the piston, an air conductor connected with said valve casing and its passage, an angular terminal member on said conductor, a rotary valve seated in said terminal member and having a central passage, said terminal member having a plurality of ports extending from the valve seat through its wall, and a massaging cup carried by said terminal member.

3. In a machine of the character described, the combination with a cylinder and a reciprocatory piston therein, of a valve casing, a valve mounted therein, a pair of separated ports in said valve casing, said valve being adapted to bring either of said ports into communication with the cylinder a check valve in one of said ports, said check valve opening toward the cylinder, a massage cup, and a conductor leading from said massage cup to said valve casing, both of the ports of said valve casing being in communication with said conductor.

939,823. VALVE. JAMES L. FITTS, Merchantville, N. J., assignor to Warren Webster & Company, a Corporation of New Jersey. Filed July 10, 1909. Serial No. 506,882.



1. In a valve, the combination of the body part having inlet and outlet ports and a conical valve seat within the body having its larger end in communication with the inlet port and its side in communication with the outlet port, with a conical plug valve piece fitting the valve seat and having a port opening through the side and larger end and said plug valve piece also having a stem extending through the valve body and its annular larger end extending slightly below the valve seat, a stuffing box around the valve stem, a handle to operate the conical plug valve piece, and a ring shaped bushing screwed into the body part below the valve piece of larger diameter than the bottom of the valve seat and of smaller diameter than the inlet port and forming an annular abutment for holding it in its valve seat with the proper degree of pressure.

2. In a valve, the combination of the body part having inlet and outlet ports and a conical valve seat within the body having its larger end in communication with the inlet port and its side in communication with the outlet port, with a conical plug valve piece fitting the valve seat and having a plurality of ports of relatively different sized openings through the conical face of the valve plug and at intervals about its circumference and a port through its larger end and said plug valve piece also having a stem extending through the valve body, a stuffing box around the valve stem, a handle to operate the conical plug valve piece, a ring shaped bushing screwed into the body part below the valve piece for holding it in its valve seat with the proper degree of pressure, and means to indicate from the outside of the valve the position of the several ports of the plug valve piece with respect to the port through the valve seat.

3. In a valve, the combination of the body part having inlet and outlet ports and a conical valve seat within the body having its larger end in communication with the inlet port and its side in communication with the outlet port, with a conical plug valve piece fitting the valve seat and having a port opening through the side and larger end and said plug valve piece also having a stem extending through the valve body and its annular larger end extending slightly below the valve seat, a stuffing box around the valve stem, a handle to operate the conical plug valve piece, and a ring shaped bushing screwed into the body part below the valve piece of larger diameter than the bottom of the valve seat and of smaller diameter than the inlet port and forming an annular abutment for holding it in its valve seat with the proper degree of pressure.

4. In a valve the combination of the body part having inlet and outlet ports and a conical valve seat within the body having its larger end in communication with the inlet port and its side in communication with the outlet port and also having walls for forming a closed compartment adjacent to the smaller end of the valve seat, with a conical plug valve piece fitting the valve seat and having a port opening through the side and larger end and said plug valve piece also having a stem extending through the valve body, said valve stem passing through the closed chamber to the outside of the valve body, a stuffing box around the valve stem and separated from the inlet and outlet ports by the interposition of the closed chamber, a handle to operate the conical plug valve piece, and a ring shaped bushing screwed into the body part below the valve piece for holding it in its valve seat with the proper degree of pressure.

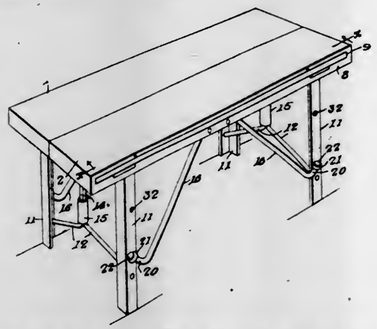
5. In a valve, a body having inlet and outlet ports and an annular valve seat between them, the large end of the seat opening toward one of the ports and the wall of the seat opening into another of the ports by a passageway and also having a closed chamber in communication with the small end of the conical seat but having no direct communication with the inlet and outlet ports, combined with a plug valve fitting the valve seat and provided with a port extending through its side and larger end and a valve stem extending through the closed chamber and valve body to the outside thereof, and a stuffing box carried by the valve body and forming a steam tight packing about the valve stem.

[Claims 6 to 9 not printed in the Gazette.]

939,824. FOLDING TABLE. CHARLES E. FORBES and ANTON SINGER, Springfield, Ohio, assignors to Webster and Perks Tool Company, Springfield, Ohio, a Copartnership. Filed Jan. 17, 1908. Serial No. 411,243.

1. A folding table comprising a table top, a detachable extension therefor, a resilient supporting bracket for said extension having its ends spaced apart, and sockets formed in said table to receive the ends of said bracket, the sock-

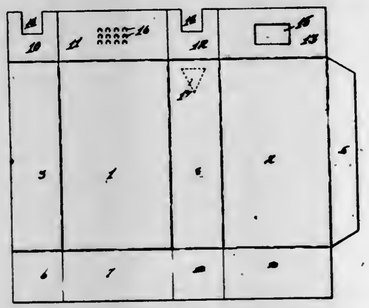
ets being spaced apart a distance different from the distance between the ends of said bracket when the same is detached.



2. A folding table comprising a table top having supporting legs, a detachable extension for said table top, and a supporting bracket for said extension comprising a substantially V-shaped resilient member, said table top having a recess near said extension adapted to receive the end of one arm of said bracket, the adjacent leg having a recess adapted to receive the other end of said bracket, the distance between said recesses being different from the distance between the ends of said arms when the bracket is detached.

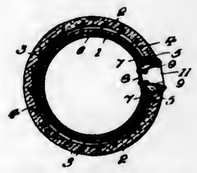
3. A folding table comprising a longitudinally divided two part table top, the two parts of said table top being hinged one to the other, a pair of legs pivotally connected to each end of said table, means for retaining said legs in their extended position, a brace for each pair of said legs comprising two rods, one of said rods being connected to each of said legs near the lower end thereof, extending inwardly to a point substantially midway between said legs, thence upwardly and having its upper end connected to the adjacent part of said table top, and a collar extending about the upwardly extending portions of said rods.

939,825. SPICE-BOX. EMIL FRANK, Cincinnati, Ohio, assignor to The Frank Tea & Spice Company, Cincinnati, Ohio, a Firm. Filed Dec. 28, 1908. Serial No. 469,679.



A blank for a spice-box comprising four sides defined by a scored line, each side having the transverse folding top section, the first top section being formed with a central orifice, the second and fourth top sections being formed with corresponding notches adapted when these sections are folded together to form an orifice registering with the first-named orifice, and the fourth folding top section being formed with a series of indentations for sprinkling perforations adapted to register with the underlying orifice of the first three top sections.

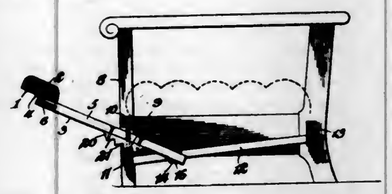
939,826. SILO. CONRAD GMINER, Waupaca, Wis. Filed Mar. 17, 1909. Serial No. 483,899.



1. A silo embodying a continuous wall and having a doorway, jambs abutting the opposing ends of the wall, an integral anchoring element embedded in the wall and positively secured at its opposite ends to the respective jambs, and means for closing the doorway.

2. A silo embodying a continuous wall constructed in tiers and provided with a vertically disposed doorway, jambs disposed at the opposing ends of the wall, a cable placed between sundry of said tiers with its opposite ends fastened to the respective jambs and anchoring the same in position, and means for closing the doorway.

939,827. ADJUSTABLE FOOT-REST FOR MORRIS CHAIRS. CLARENCE L. GREILICK, Traverse City, Mich., assignor to Traverse City Chair Co., Traverse City, Mich., a Corporation of Michigan. Filed Jan. 13, 1909. Serial No. 472,120.



1. The combination of a chair having a fixed longitudinal guide extending rearward from the front to the back of the chair, the latter being also provided with a supporting portion located above the front end of the guide, a foot rest having a bar movable inwardly and outwardly over the supporting portion to lower and raise the foot rest, and a connection slidably and pivotally connecting the bar with the guide.

2. The combination of a chair having a fixed guide and provided with a supporting portion located above the front end of the guide, a foot rest having a bar movable longitudinally over the supporting portion to raise and lower the foot rest, a connection slidable along the guide and pivoting the bar to permit the latter to be moved inward and outward abd to be swung upward and downward, and means located in advance of the said connection for securing the foot rest in its adjustment.

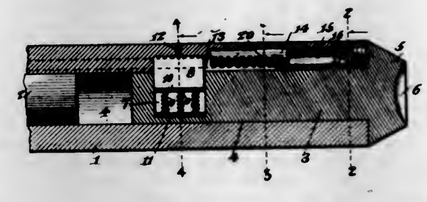
3. The combination of a chair provided at the front with an opening and having a supporting portion at the bottom thereof, a longitudinal guide extending rearwardly beyond the opening and having its front end located below the said supporting portion, a foot rest including a bar extending through the opening and movable inwardly and outwardly over the supporting portion to lower and raise the foot rest, a connection slidable along the guide bar and pivoting the bar of the foot rest to the same, and means carried by the bar and extending along the same and engaging the supporting portion for securing the foot rest in its adjustment.

4. The combination of a chair frame provided at the front with an opening and having a supporting portion at the bottom thereof, a longitudinal guide bar extending rearwardly beyond the opening, a foot rest including a bar extending through the opening and movable inwardly and outwardly over the supporting portion to lower and raise the foot rest, a connection slidable along the guide bar and pivoting the bar of the foot rest to the same, and a ratchet carried by the bar of the foot rest and extending along the same and engaging the supporting portion of the chair frame for holding the foot rest at different elevations.

5. The combination of a chair frame having spaced openings and provided at the bottom thereof with supporting portions, guide bars extending rearwardly beyond the openings, a foot rest having the bars movable through the said openings and over the supporting portions to raise and lower the foot rest, and means for connecting the foot rest with the guide bars including substantially U-shaped members slidable along the guide bars and composed of spaced sides and a connecting portion, and coöperating members secured to the bars of the foot rest and having portions arranged in parallelism with the connecting portion of the U-shaped member, and pivots connecting the parallel portions of the members.

[Claims 6 to 8 not printed in the Gazette.]

939,828. PNEUMATIC HAMMER. HUMPHREY H. GROBES, Jersey City, N. J. Filed Mar. 31, 1908. Serial No. 424,357.



1. A pneumatic tool including a casing, a bit or engaging member, a locking device extending from the bit or member to the casing for retaining the former in the latter, and a pneumatically actuated plunger mounted in one of the walls of the casing and arranged in the path of the said device for cushioning the same.

2. A pneumatic tool including a casing provided in its walls with a chamber and having an air passage communicating with the chamber at the outer portion thereof for maintaining a constant pressure within the said chamber, a plunger operating in the said chamber and normally held at the limit of its inward movement by the said pressure, a bit or engaging member, and means carried by the bit or engaging member and arranged to engage the plunger.

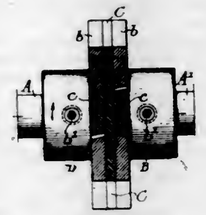
3. A pneumatic tool including a casing, a bit or engaging member, an interior locking device mounted on one of the parts and arranged to engage the other, a plunger mounted on the part engaged by the said device and arranged in the path of the same, and means for maintaining a constant pressure of air on the plunger to cushion the said device.

4. A pneumatic tool including a casing provided with an interior way extending longitudinally of the casing, the latter being also provided with a chamber extending along and communicating with a portion of said way, a bit or engaging member, a device projecting from the bit or engaging member and movable in the said way, and a pneumatically cushioned plunger operating in the said chamber and located in the path of the said device.

5. A pneumatic tool including a casing having an interior longitudinal way, a bit or engaging member provided with a recess, a block extending from the recess and operating in the way for preventing the bit or engaging member from leaving the casing, and a yieldable device also arranged in the recess and holding the block in an extended position, said device being composed of inner and outer plates, and a plurality of springs interposed between and connected with the plates.

[Claim 6 not printed in the Gazette.]

939,829. INSULATING SHAFT-COUPLING. JOHN R. GRUNDY, Philadelphia, Pa., assignor to The Charles Bond Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Mar. 29, 1909. Serial No. 486,515.



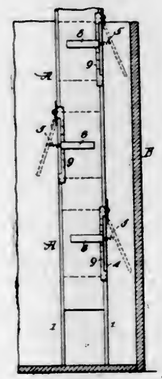
1. The combination of two shafts, a flanged hub mounted on each shaft, an insulating disk between said hubs, a series of segmental projections on each face of said disk each having radial undercut sides, there being recesses having undercut sides in each of the flanges.

2. The combination of two shafts, a flange fixed to each shaft and each having a recess or recesses, with a disk of insulating material mounted between said flanges and having projections on opposite faces in line with each other and entering the recess or recesses of the flanges.

3. The combination of two shafts, a flange mounted on each shaft, a disk of insulating material mounted between the flanges, and means for connecting said disk and flanges, the same consisting of two series of projections having undercut sides and mounted on opposite faces of said disk, the projections of one series being respectively in line with those of the other series and fitting recesses formed with inclined sides in the flanges.

4. The combination of two shafts, each having fixed to it a flange, each flange having a series of openings provided with inclined sides, with a disk of insulating material mounted between the flanges and provided on each face with a series of projections, the projections being capable of entering the openings in the flanges and having their sides undercut.

939,830. BEAN-CHUTE. RICHARD A. HAENKE and HENRY O. HAENKE, Mount Pleasant, Mich. Filed Feb. 15, 1909. Serial No. 478,142.

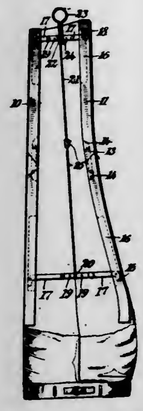


1. The improved chute for delivering beans into bins or like receptacles, consisting of a box-like tube provided interiorly with inclined shelves and a series of lateral openings arranged between them, and doors for said openings which are hinged at the top and adapted to open outward, and, when closed, are flush with the side of the chute, and spiral springs arranged on the side of said chute and con-

nected with the lower portions of the doors and adapted to hold them normally closed, as described.

2. The improved chute for the purpose specified, consisting of a spout having lateral openings whose lower and side edges are beveled inward, and doors therefor which are hinged at the top and adapted to close in the openings flush with the side of the spout, a spiral spring connected with each door and arranged exteriorly on the side of the chute, and a horizontal sheathing constituting a protector for the spring, as shown and described.

939,831. TROUSERS-STRETCHER. EDWARD N. HALLETT, Canton, Pa. Filed Jan. 7, 1909. Serial No. 471,106.

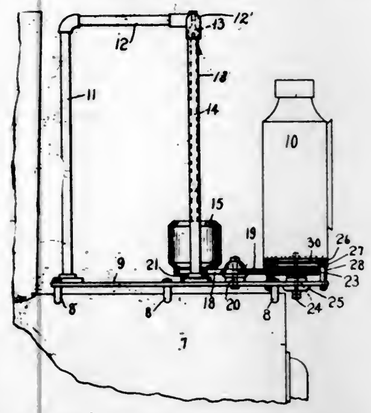


1. In a trousers stretcher, oppositely disposed side bars, two pairs of stretcher members pivoted to said side bars, an operating rod, pivots connecting the pairs of stretcher members respectively, one of the pivots being secured to the rod near one of its terminals, and the other pivot having a sliding engagement with the rod, means in connection with one pair of stretcher members and the side bars for limiting the movement of said pair of stretcher members to a predetermined extended position from the side bars respectively, the rod being looped to form an eye, by which it may be hung up, the other terminal of the rod having a hook which engages the stretcher members which are connected by the pivot, with which the rod has a sliding engagement.

2. In a trousers stretcher, oppositely disposed, divided side bars, the abutting ends of which are cut obliquely respectively, there being recesses in the adjoining ends of the side bars respectively, links pivoted in the recesses, by which the side bars are united respectively, two pairs of stretcher members pivoted to the side bars, an operating rod, pivots connecting the pairs of stretcher members respectively, one of the pivots being secured to the operating rod near one of its terminals, and the other pivot having a sliding engagement with the operating rod, means for limiting the movement of one pair of pivoted stretcher members to a predetermined position relatively to said side bars respectively, the rod being looped to form an eye, by which it may be hung up, the other terminal of the rod having a hook which engages the stretcher members which are connected by the pivot, with which the rod has a sliding engagement.

3. In a trousers stretcher, oppositely disposed side bars, two pairs of stretcher members pivoted to said side bars, an operating rod, pivots connecting the pairs of stretcher members respectively, one of the pivots being secured to the rod near one of its terminals, and the other pivot having a sliding engagement with the rod, and means in connection with the stretcher members and the side bars for limiting the movement of the upper stretcher members upwardly and the lower stretcher members downwardly, the rod being looped to form an eye by which it may be hung up, the other terminal of the rod having a hook which engages the stretcher members which are connected by the pivot with which the rod has a sliding engagement.

939,832. LOCOMOTIVE-HEADLIGHT. JOSEPH A. HAMBY and SAMUEL S. BUTCHER, Columbus, Ga. Filed Dec. 19, 1907. Serial No. 407,225.



1. The combination, with a supporting platform, and an upstanding bracket secured thereto and including a forwardly-projecting arm, of a gear segment rotatably mounted upon said platform and including a slotted arm; a slotted guide plate arranged transversely of the platform and in spaced relation thereto, said guide plate being disposed beneath said slotted arm; a member secured to the forward end of the bracket arm; a rod pivoted at its upper end to said member, and provided at its lower end with a weight; a depending pin secured to the weight, said pin extending through the slots in the segment arm and guide plate, to rotate the segment during the swinging movement of said rod; a gear mounted upon said platform in mesh with said segment; and a head-light connected with the last-mentioned gear.

2. The combination, with a supporting platform, and an upstanding bracket secured thereto and including a forwardly-projecting arm, of a gear segment rotatably mounted upon said platform and including a slotted arm; a slotted guide plate arranged transversely of the platform, and in spaced relation thereto, said guide plate being disposed beneath said slotted arm; a member secured to the forward end of the bracket arm; a pendulum pivoted at its upper end to said member, and having its lower end extending through the slots in the segment arm and guide plate, to rotate the segment during its swinging movement; a vertical pin rotatably mounted upon the platform in advance of the segment; a gear secured to said pin intermediate the ends thereof, said gear meshing with said segment; a head-light secured to the upper end of said pin; a plate disposed between the last-mentioned gear and the head-light and secured to said platform, said plate being provided with a central opening through which the pin loosely extends; and a series of anti-friction bearings interposed between said plate and the bottom of the head-light.

3. The combination, with a supporting platform, and an upstanding bracket secured thereto and including a forwardly-projecting arm, of a gear segment rotatably mounted upon said platform and including a slotted arm; a slotted guide plate arranged transversely of the platform, and in spaced relation thereto, said guide plate being disposed beneath said slotted arm; a member secured to the forward end of the bracket arm; a rod pivoted at its upper end to said member, and provided at its lower end with a weight; a depending pin secured to the weight, said pin extending through the slots in the segment arm and guide plate, to rotate the segment during the swinging movement of said rod; a vertical pin rotatably mounted upon the platform in advance of the segment; a gear secured to said pin intermediate the ends thereof, said gear meshing with said segment; a head-light secured to the upper end of said pin; a plate disposed between the last-mentioned gear and the head-light, and secured to said platform, said plate being provided with a central opening through which the pin loosely extends; and a series of anti-friction bearings interposed between said plate and the bottom of the head-light.

939,833. BUILT-UP ARTICLE. WALTER C. HARLOW, Brooklyn, N. Y. Filed Dec. 24, 1907. Serial No. 407,969.



A built-up, composite article consisting of sectional, metal shells too thin for structural strength, and a substantial body of cementitious material self-hardened in contact with and adhering to said metal shells and supporting and holding together said shells to constitute a metal jacket or surface.

939,834. DENTAL TOOTH-CLAMP. GEORGE A. HARPER, Shreveport, La., assignor of one-half to Thaddeus M. Hall, Shreveport, La. Filed Feb. 20, 1909. Serial No. 479,108.



1. A dental appliance substantially as herein described comprising a bow clamp, jaws at its ends to engage on opposite sides of a tooth, cut out portions adjacent to said ends and forming inwardly projecting lugs to facilitate the opening of the jaws, outwardly projecting lugs for holding absorbent material, a projecting lug to engage a tooth in the jaw opposite the one being clamped, and also having a holder for a mirror, and a mirror held therein, substantially as set forth.

2. A dental appliance comprising a bow clamp adapted at its ends to engage on opposite sides of a tooth, and an outwardly projecting lug or portion midway between the ends of the clamp and adapted to engage alongside a tooth in the opposite jaw to prevent the displacement of the clamp by the inward pressure of the cheek, substantially as set forth.

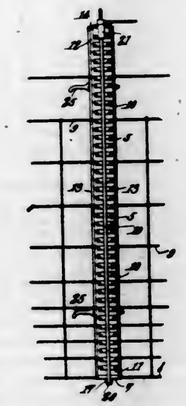
3. A dental appliance provided with a bow clamp provided midway between its ends with circumferentially extending slits, separating tongues, one of which is bent outwardly to form a lug for preventing the displacement of the clamp when applied for use, and the other of which is bent to form a mirror holder, substantially as set forth.

4. A dental appliance comprising a bow clamp adapted at its ends to engage on opposite sides of a tooth, and provided adjacent the said ends and also midway between its ends with circumferentially extending slits, separating tongues bent to operate substantially as and for the purposes set forth.

5. A dental appliance having means to engage a tooth in one jaw, and means to extend between said jaw and the other jaw, and provided with means to engage a tooth in said other jaw to prevent the displacement of the appliance by the inward pressure of the cheek, substantially as set forth.

[Claim 6 not printed in the Gazette.]

939,835. FENCE-CLAMP. ABRAHAM C. HARRISON, Grand Rapids, Ohio. Filed Jan. 18, 1909. Serial No. 472,849.



1. A fence clamp comprising a supporting element; a series of alined jaws slidably mounted upon the supporting element; and a clamping rod having its lower terminal removably mounted in the supporting element, its upper terminal being mounted in the upper jaw of the series, the said rod being arranged to draw all of the jaws together.

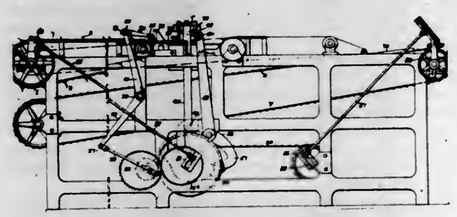
2. A fence clamp comprising a supporting element; a series of alined coacting jaws slidably mounted upon the supporting element and having their ends inturned to engage the supporting element; and means for operating the jaws.

3. A fence clamp comprising a body member; a plate longitudinally mounted upon the body member and spaced therefrom; a plurality of coacting jaws slidably mounted upon the plate and having their ends inturned to engage the edges of the plate; and means for operating the jaws.

4. A fence clamp comprising a supporting element; alined coacting jaws slidably mounted upon the supporting element, each of said jaws having a shoulder to overlap the adjacent jaw; and means for operating the jaws.

5. A fence clamp comprising a body member; a series of alined jaws slidably mounted upon the body member; a jaw-clamping means having its lower terminal removably assembled with the body member, its upper terminal being mounted in the upper jaw of the series; side plates carried by the body member and being provided at their upper extremities with inbent lugs to engage said upper jaw.

939,836. CAKE-COATING MACHINE. PEMBROKE D. HARTON, Philadelphia, Pa. Filed May 8, 1908. Serial No. 431,586.



1. The combination, in a cake coating machine, of means for feeding cakes to the surface of an icing bath, lifting mechanism vertically movable in said icing bath, said lifting mechanism comprising a series of wires paralleling each other, and means for removing the cakes from said wires comprising arms having wires stretched thereon.

2. The combination, in a cake coating machine, of means for feeding cakes to the surface of an icing bath, means for lifting said cakes from the surface of said bath, means movable across the face of the cakes for automatically scraping surplus icing from the same after the lifting operation, and means for removing said cakes from the lifting means and simultaneously turning the same.

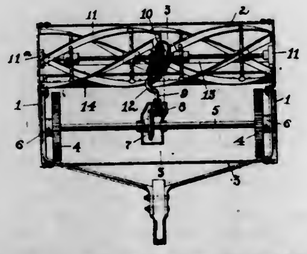
3. The combination, in a cake coating machine, of means for feeding the cakes to the surface of a body of icing, mechanism vertically movable in said icing for lowering the cakes onto the surface of the icing and lifting the same therefrom, and means for engaging said cakes to turn them over and bring the iced face uppermost, said means comprising arms capable of horizontal movement to receive the cakes, and oscillating movement to deposit the same.

4. The combination, in a cake coating machine, of means for moving the cakes, a tank containing icing onto the surface of which the cakes are deposited, means for lifting said cakes from the surface of the icing, means for removing the excess icing from the cakes after they have been lifted, oscillating arms arranged to pass beneath the cakes and remove them from the lifting means, said arms carrying the cakes and depositing them iced side up, and a conveyer belt for removing the cakes as deposited by the arms.

5. The combination, in a machine for coating cakes, of means for feeding said cakes, an icing tank having a body of icing therein, means for pushing said cakes from the feeding means to the icing, a vertically reciprocable dipping frame in said icing, wire supports carried by the frame to receive said cakes, arms for removing the cakes from the dipping frame, and means for reciprocating said arms and turning them to deposit the cakes upon a conveyer.

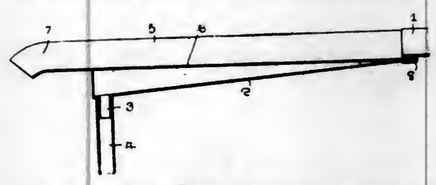
[Claims 6 to 23 not printed in the Gazette.]

939,837. GRASS-CUTTING DEVICE. WILLIAM S. HAYDEN, Pueblo, Colo. Filed May 3, 1909. Serial No. 493,597.



In a lawn mower, thin straight parallel side plates, and front and rear bars connecting said side plates and forming a rectangular frame, a cutter shaft journaled between the side plates, and having two sets of alternate and overlapping blades, a shaft and ground wheels journaled between the side plates at the rear, and a crank shaft having its opposite ends geared respectively to the cutter shaft and ground wheel shaft, and having its crank arranged to clear the ends of the alternate blades of the cutter shaft, all of said operating parts being located within said rectangular frame, substantially as described.

939,838. EAVES-TROUGH. GEORGE HENSLER, Remington, Ind. Filed Mar. 10, 1909. Serial No. 482,612.



1. A device of the character described, comprising an incline-bottomed member having at its lower end a nozzled outlet, a superposed member fixed to the aforesaid member and forming a filter delivering into the first referred to member, the second referred to member extending beyond said incline-bottomed member, and an additional eaves trough member, having a pocket upon its outer surface, said pocket being notched at one of its upper ends and said superposed eaves trough member having an overlying tapered clip adapted to be received by said notch and to engage the perpendicular wall thereof, said pocket being adapted to receive one end of said superposed eaves trough member.

2. A device of the character described, comprising eaves trough members, one of said members having a nozzled outlet and its bottom formed upon an incline, one of the other of said members being superposed with relation to the aforesaid member and adapted to form a filter therefor, and a third member provided upon its outer surface with a pocket having one of its upper ends formed with a notch, the opposite end of said pocket being arranged a short distance below the upper edge of said member, and said superposed member having an overlying tapered clip received by said notch and adapted to engage the perpendicular wall thereof.

939,839. TAPE. THOMAS P. HIMES, Edgewood, R. I. Filed June 22, 1909. Serial No. 503,711.



1. A tape or ribbon of the character described, comprising a plurality of longitudinal threads laid side by side, adhesive material on said threads to assist in binding the same together and a binding thread wound around said longitudinal threads to bind said latter threads together.

2. A tape or ribbon of the character described comprising a plurality of longitudinal threads laid side by side, adhesive material on said threads, and a plurality of binding threads wound around said longitudinal threads in a helical form to bind said latter threads together.

3. A tape or ribbon of the character described comprising a plurality of longitudinal threads laid side by side, adhesive material on said threads to assist in binding the same together, and a plurality of binding threads wound around said longitudinal threads in a helical form to bind said latter threads together.

4. A tape, comprising body strands arranged one alongside the other, a binding strand passing spirally around the said body strands and pressed into intimate contact with the same, and an adhesive substance connecting the said body strands and binding strands with each other.

5. An article of manufacture, a ribbonette consisting of a series of parallel strands, disposed in a flat formation, a binder strand spirally disposed about said parallel strands, and adhesive material uniting all of said strands.

[Claim 6 not printed in the Gazette.]

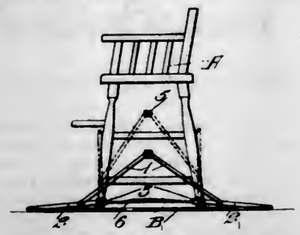
939,840. SOUVENIR LOCKET-SPOON. ISIDORE HOLSMAN, Portland, Oreg. Filed Apr. 16, 1909. Serial No. 490,421.



1. A souvenir spoon consisting of a handle, and a main part having hinged thereto a shell-like false piece inclosing one face of such main part, but leaving an intermediate cavity constituting a locket for a miniature or like object, and means for holding such false piece in place, said false piece being made to simulate the appearance of that face of the main portion which it covers, so as to render such false piece indiscernible on casual inspection.

2. A souvenir spoon consisting of a bowl having a catch portion on one end and a handle, a shell like false piece hinged to the bottom of the bowl and spaced from the latter to form an intermediate cavity, constituting a locket for a miniature or like object, the front inner portion adjacent the end of the bowl having a catch to engage the catch portion to lock the bowl and false piece together, the upper edges of the false piece terminating at the edges of the bowl and made to simulate the appearance of the bottom of the bowl.

939,841. CHAIR ATTACHMENT. ARTHUR V. JACKSON and WALTER H. JACKSON, Pinole, Cal. Filed Mar. 2, 1909. Serial No. 480,831.



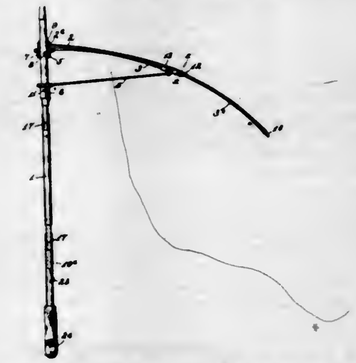
1. A chair attachment consisting of levers fulcrumed to the chair legs, an apron with which the outer ends of the levers are connected, and by which levers the apron may be extended or drawn up about the chair leg, rods having their lower ends connected with the levers outside of their fulcrum points, the inner ends converging upwardly, and adjustable connections between the contiguous ends of the arms.

2. In an attachment for chairs, levers fulcrumed to the chair legs, an apron, to the angles of which the outer ends of the levers are connected, rods having the lower ends pivoted to the extension levers outside of their fulcrum points, said rods converging upwardly beneath the chair, and guided slidable bars with the contiguous ends of which the rods are connected.

3. In an attachment for chairs, clamps surrounding the lower ends of the chair legs and having apron-extending levers fulcrumed thereto, said clamps having lugs adapted to engage the bottom of the chair leg, and means for maintaining the clamps in position upon the chair leg.

4. In a chair attachment, clamps and means by which they are secured to the lower ends of the chair legs, turnbuckle or tension devices connecting diagonally opposite clamps, and lugs extending downwardly from the clamps and engaging the bottom of the chair legs, levers having their inner ends fulcrumed to the clamps, and an apron, with the angles of which the outer ends of said levers engage, rods having the lower ends connected with the levers exterior to said lever fulcrums, said rods converging upwardly beneath the chair, and an adjustable device with which the contiguous ends of the rods connect, said device serving to raise or lower the rods, and fold or extend the levers and apron.

939,842. FOLDING UMBRELLA. XAVIER J. JOLLER, St. Paul, Minn. Filed Jan. 18, 1909. Serial No. 472,936.



1. The combination with an umbrella consisting of a stick, ribs, stretchers connected with the ribs, and a cover, of a notch and runner connecting the ribs and stretchers respectively with the stick, said notch and runners comprising sections adapted to embrace the stick, and means securing said notch and runner to the stick permitting separation of the sections thereof to bodily remove them with the ribs and stretchers.

2. The combination with an umbrella consisting of a stick, a cover, ribs and stretchers connected with the stick, and stretchers connected with the ribs, of a notch and runnner mounted on the stick and respectively connecting the ribs and stretchers thereto, said notch and runner each comprising sections hinged at one edge, and catches connecting the other edges of the sections and permitting pivotal opening movement of the same to bodily remove them from the stick with the ribs and stretchers.

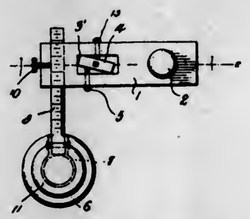
3. In a folding umbrella, the combination of a stick, a cover, said stick being comprised of hollow sections, means connecting the sections together, and reinforcing means for said connection consisting of a slide movable in the hollow sections to a position breaking joint with the joined portions, a sleeve surrounding and slidable on the sections at the joined portions, and means for holding the slide and sleeve in said positions.

4. In a folding umbrella, the combination of a stick, a cover, said stick being comprised of sections, means connecting the sections together, and reinforcing means for said connection consisting of a slide movable in the sections at the joined portions, a sleeve surrounding the sections at the joined portions, a runner mounted on the stick, stretchers connected with the runner for raising the cover, and a spring catch mounted on the slide at the joint aforesaid for coöperation with the runner.

939,843. GLASS-CUTTING TOOL. JOHN LAMB, San Francisco, Cal. Filed Jan. 18, 1909. Serial No. 472,865.

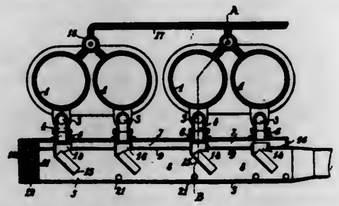
In a glass cutting tool, the combination with a guide block, a handle for operating the same, and a cutter car-

ried by said block, of an attachment for circular glass cutting comprising a base provided with an upwardly projecting stem having an annular groove at its upper portion, a rotatable member mounted on the lower portion of the stem, a handle arranged on the upper portion of the stem and engaging the upper portion of the rotatable member to hold the same in place, a screw passing through the



handle and entering the groove in the stem to prevent displacement of the handle, a gage bar pivotally connected at one end with the rotatable member of the stem and provided with graduations on its surface longitudinally thereof, and a fastening screw passed through the guide block for engagement with the gage bar to adjustably connect the parts together.

939,844. COMBUSTION DEVICE FOR DOING AWAY WITH EXHAUST-GASES IN COMBUSTION-ENGINES. KARL LEHMANN, Wilmersdorf-Berlin, and ERNST LEHMANN, Küstrin-Neustadt, Germany. Filed Aug. 20, 1909. Serial No. 513,734.



1. In a combustion device for exhaust gases of combustion engines, the combination with the cylinder exhaust pipe and the engine exhaust pipe, of a combustion chamber disposed between said exhaust pipes, said combustion chamber having an air inlet and a connection with said engine exhaust pipe and between said connection and air inlet a connection with said cylinder exhaust pipe; and a deflector disposed opposite the mouth of said cylinder exhaust pipe and adapted to direct the flame jets entering said combustion chamber from said cylinder exhaust pipe away from said air inlet to induce a suction therethrough.

2. In a combustion device for exhaust gases of combustion engines, the combination of a plurality of combustion cylinders, a combustion chamber having lateral openings opposite the mouths of the exhaust pipes of said cylinders and provided with an air inlet, an engine exhaust pipe connected with said combustion chamber, and deflectors in said combustion chamber between said air inlet and engine exhaust pipe and opposite the mouths of said cylinder exhaust pipes, said deflectors being adapted to direct the flame jets entering said chamber away from said air inlet for inducing a suction therethrough.

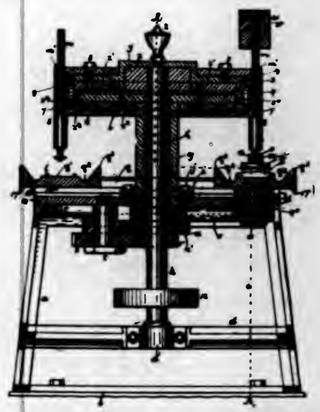
3. In a combustion device for doing away with exhaust gases in combustion engines, the combination, with the engine cylinder exhaust pipe and the exhaust pipe of the engine, of a chamber in open relation with the atmosphere and with said exhaust pipes, a partition dividing said chamber into an air-suction chamber and a combustion chamber, said partition having an aperture opposite said cylinder exhaust pipe, and deflecting means on said partition in said combustion chamber opposite said aperture.

4. In a combustion device for doing away with exhaust gases in combustion engines, the combination, with the engine cylinder exhaust pipe and the exhaust pipe of the engine, of a chamber in open relation with the atmosphere and with said exhaust pipes, a partition dividing said chamber into an air-suction chamber and a combustion chamber, said partition having an aperture opposite said cylinder exhaust pipe, a nozzle in said aperture, and deflecting means on said partition in said combustion chamber opposite said aperture.

5. In a combustion device for doing away with exhaust gases in combustion engines, the combination, with the engine cylinder exhaust pipe and the exhaust pipe of the engine, of a chamber in open relation with the atmosphere and with said exhaust pipes, said chamber being formed at one part by two sleeves inclosing a space containing a non-combustible filling pervious to air, a partition dividing said chamber into an air-suction chamber and a combustion chamber, said partition having an aperture opposite said cylinder exhaust pipe, and deflecting means on said partition in said combustion chamber opposite said aperture.

[Claims 6 to 8 not printed in the Gazette.]

939,845. AUTOMATIC PRESCRIPTION-LENS-GRINDING MACHINE. ERNEST O. MATTERN, Portland, Oreg. Filed June 27, 1908. Serial No. 440,749.



1. In a surface-grinding machine, the combination of a frame, a guide-base, a lap-plate mounted therein, a vibrating-head mounted above the lap-plate, a buzzer secured dependent in said vibrating-head, operating means including a speed differentiating element, and independent connections arranged to impart a rectilinear movement to one and a circular movement to the other of said lap-plate and vibrating-head.

2. In a lens-grinding machine, the combination of a frame, a guide-base, a lap-plate mounted thereon, a vibrating-head mounted above the lap-plate, a buzzer and means including a universal joint holding such buzzer dependent in said vibrating-head, operating means including a speed differentiating element, and independent connections arranged to impart a reciprocating movement to the lap-plate and a circular movement to the vibrating-head.

3. A machine of the character described comprising a table, a guide-plate on the table, a lap-plate mounted thereon and reciprocable in a straight line, a hollow standard mounted on the table, a quadrilateral flange-head rigid on the upper end of the standard, a vertical shaft journaled in said standard, an eccentric disk rigid on the upper end of the shaft, a vibrating-head mounted on said flange-head of the standard and said eccentric disk, said vibrating-head comprising a centrally apertured plate slidably seated on the flange-head of the standard, means restraining said plate to a straight line reciprocation, a cap inclosing said eccentric disk, means restraining the cap to a straight line reciprocation at right angles to said plate, and a case inclosing said movable parts of the buzzer-head, means for removably securing a buzzer to the vibrating-head, and means whereby said lap-plate and said buzzer are operated simultaneously but at unequal speed.

4. A machine of the character described comprising a table, a guide-plate on the table, a lap-plate mounted thereon and reciprocable in a straight line, a hollow standard mounted on the table, a quadrilateral flange-head rigid on the upper end of the standard, a vertical shaft journaled in said standard, an eccentric disk rigid on the upper end of the shaft, a vibrating-head mounted on said flange-head of the standard and said eccentric disk, said vibrating-head comprising a centrally apertured plate slidably seated on the flange-head of the standard, means restraining said plate to a straight line reciprocation, a cap inclosing said eccentric disk, means restraining the cap to a straight line reciprocation at right angles to said plate, and a case inclosing said movable parts of the vibrating-head, a series of vertical sockets on the sides of the case, stems vertically movable in said sockets, means restraining said stems against rotation, means for jointedly connecting a buzzer to the lower end of the stem, and means whereby said lap-plate and said buzzer are operated simultaneously but at unequal speed.

5. A machine of the character described comprising a table, a guide-plate on the table, a lap-plate mounted thereon and reciprocable in a straight line, a hollow standard mounted on the table, a quadrilateral flange-head rigid on the upper end of the standard, a vertical shaft journaled in said standard, an eccentric disk rigid on the upper end of the shaft, a vibrating-head mounted on said flange-head of the standard and said eccentric disk, said vibrating-head comprising a centrally apertured plate slidably seated on the flange-head of the standard, means restraining said plate to a straight line reciprocation, a cap inclosing said eccentric disk, means restraining the cap to a straight line reciprocation at right angles to said plate, and a case inclosing said movable parts of the vibrating-head, a series of vertical sockets on the sides of the case, stems vertically movable in said sockets, means restraining said stems against rotation, means for jointedly connecting a buzzer to the lower end of the stem, a weight on said stem, and means whereby said lap-plate and said buzzer are operated simultaneously but at unequal speed.

[Claims 6 to 8 not printed in the Gazette.]

939,846. PORK OR LIKE SCORER. HERBERT MATTHEWS, Kidderminster, England. Filed Feb. 15, 1909. Serial No. 478,083.



1. In a pork or like scorer, a holder having a curved bed and provided with open ended guide slots, and knives and distance pieces mounted within the holder and conforming to the curvature of the said bed.

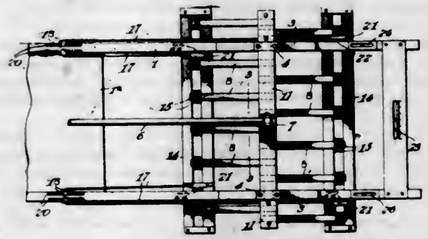
2. In a pork or like scorer, the combination with a holder, of a plurality of knives within said holder, said holder forming a guard with open ended slots in the sides thereof, a pin passing transversely through said knives and the slots and adapted to lock the knives with the cutting edges in any desired position relative to the guard.

3. In a pork or like scorer, a holder having a curved extremity with slotted sides, a clamping means movably mounted in the slotted sides and a plurality of knives held in spaced relation on the clamping means and all simultaneously and equally movable with the clamping means in the end of the holder.

4. A pork or like scorer comprising a holder having a longitudinally chambered bed, and sides adjacent to the

bed provided with slots curved similarly to the bed, laterally separated curved knives carried by said holder which seat themselves upon said chambered bed, a transverse pin passing through said knives and seated in slots in the sides of the holder, and a clamping nut on the end of the pin for securing same at any desired position in said slots, whereby the knives can be adjusted so as to extend more or less from the front of the holder.

939,847. RAILWAY-TRACK-TAMPING MACHINE. WILLIAM C. MAXWELL, Ocala, Fla. Filed Aug. 17, 1909. Serial No. 513,243.



1. In a railway track tamping machine, the combination of a frame, a rock shaft journaled upon the frame, a tamper arm projecting from the rock shaft and having a yielding connection therewith, and a tamping element carried by the said tamper arm.

2. In a railway track tamping machine, the combination of a frame, a rock shaft journaled upon the frame, a tamper arm having one end thereof hinged to the rock shaft, a spring bearing against the tamper arm to hold it rigid with the rock shaft until a predetermined pressure is exceeded, and a tamping element carried by the outer end of the said tamper arm.

3. In a railway track tamping machine, the combination of a frame, a rock shaft journaled upon the frame, a tamper arm having one end thereof hinged to the rock shaft, a tamping element carried by the other end of the tamper arm, a spring retaining strip applied to the rock shaft and notched to receive the tamper arm, and a spring fitted within the said notch and engaging the tamper arm to hold it rigid with the rock shaft until a predetermined pressure is exceeded.

4. In a railway track tamping machine, the combination of a frame, a series of reciprocating tamping elements mounted upon the frame and arranged in a row, a guide member engaging the tamping elements to direct them in their movements, and means for swinging the guide member into various angles with respect to the track.

5. In a railway track tamping machine, the combination of a frame, two sets of reciprocating tamping members mounted upon the frame and arranged in rows, guide members engaging the tamping members of the respective rows to direct the same in their movements, and means for moving the guide members toward and away from each other and turning them to various angles with respect to the track.

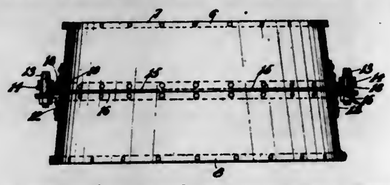
[Claims 6 to 8 not printed in the Gazette.]

939,848. FLASK FOR SAND MOLDS. JAMES D. MILLAR, Milwaukee, Wis. Filed Dec. 4, 1908. Serial No. 465,993.

1. A flask for sand molds, comprising a flask member, and a sand supporting member pivotally connected to the flask member and constructed and adapted to be moved horizontally into and out of operative position.

2. A flask for sand molds, comprising a flask member provided with a recessed lower portion, and a sand-supporting member pivotally connected to the flask member and constructed and adapted to be moved horizontally into the recessed portion and into operative position.

3. A flask for sand molds, comprising a circular flask member provided with recessed lower portions, and curved sand supporting members pivotally connected to the flask member and constructed and adapted to be moved into the recessed portions and into operative position.

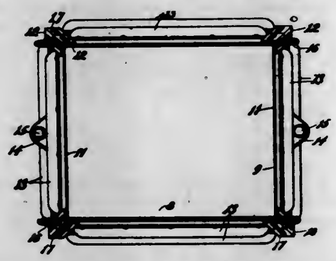


4. A flask for sand molds, comprising a flask member, and a sand supporting member pivotally connected to the flask member and constructed and adapted to be moved horizontally into the flask member to a position beyond the inner face of said flask member.

5. A flask for sand molds, comprising a flask member provided with recessed lower portions, sand supporting members pivotally connected at their ends to the flask member and constructed and adapted to be swung horizontally into the recesses and project inwardly beyond the inner face of the flask member, and means for limiting the outward movement of said members.

[Claims 6 to 9 not printed in the Gazette.]

939,849. MOLDING-FLASK. JAMES D. MILLAR, Milwaukee, Wis. Filed Dec. 4, 1908. Serial No. 465,994.



1. A molding flask, comprising a flask member, and a sand supporting rod removably connected to said flask member and removable therefrom endwise.

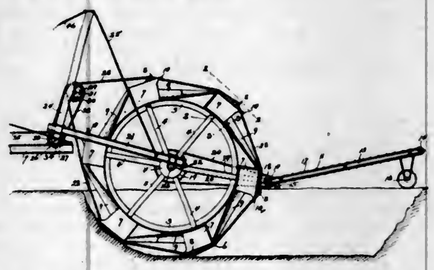
2. A molding flask, comprising a flask member provided with openings, and a sand supporting rod inserted through said openings and removably positioned adjacent to one of the inner faces of the flask member and constructed and adapted to be removed therefrom endwise.

939,850. EXCAVATING-MACHINE. DAVID W. MILLER, Chicago, Ill. Original application filed Jan. 8, 1907, Serial No. 351,347. Divided and this application filed Feb. 11, 1908. Serial No. 415,310.

1. The combination with an excavating wheel, of a conveyer comprising a frame extending rearwardly in the rear of the wheel, links connecting the conveyer frame with said wheel, and ground wheels carried by and supporting the frame of the conveyer.

2. The combination with an excavating wheel, of a conveyer comprising a frame portion, ground wheels carried by and supporting said frame portion, an endless traveling belt conveyer upon said frame, means connecting said conveyer with said wheel, and means connecting said endless traveling conveyer with said wheel whereby the rotation of the latter drives said endless carrier.

3. The combination with an excavating wheel, a conveyer comprising a frame extending rearwardly in the rear of said wheel, links connecting the conveyer frame with the wheel, ground wheels carried by and supporting the frame of the conveyer, an endless traveling carrier upon said conveyer frame, a driving belt operatively connecting said carrier with the wheel whereby the rotation of the latter drives the carrier.



4. The combination, with an excavating wheel, of a conveyer comprising a frame extending rearwardly from the rear of said wheel and inclining upwardly and rearwardly, links connecting the conveyer frame with the wheel, and ground wheels carried by and supporting the frame of the conveyer, said ground wheels straddling the excavation formed by the excavating wheel.

5. The combination with an excavating wheel, of a conveyer, a series of rigidly mounted buckets secured to said wheel and discharging rearwardly upon said conveyer.

[Claims 6 to 14 not printed in the Gazette.]

939,851. LINK CUFF-BUTTON. EUGENE W. MOSSHOUSE, Providence, R. I., assignor to B. A. Ballou & Company, Incorporated, Providence, R. I., a Corporation of Rhode Island. Filed Mar. 25, 1909. Serial No. 485,658.



1. The improved blank for cuff-link button-posts herein described, consisting of a central bar, a cross bar extending at right angles from one end of the central bar on two opposite sides thereof; a wing at each end of said cross bar at right angles thereto; a second cross bar extending at right angles from the other end of said central bar on two opposite sides thereof; and a wing at each end of said second cross bar at right angles thereto, all made in a single piece of metal in one plane.

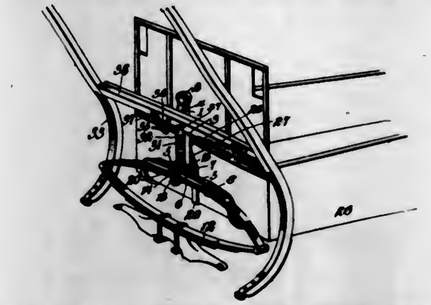
2. The improved post for cuff link buttons made in one piece of metal and comprising a curved post; a cross bar having a quarter-twist near each end thereof and projecting at right angles from said post at one end of the latter; a second cross bar having a quarter-twist near each end thereof and projecting at right angles from said post at the other end of the latter; a wing at each end of the first named cross bar extending on two opposite sides thereof at right angles thereto; and a wing at each end of the second named cross bar at right angles thereto, extending on two opposite sides thereof.

3. In combination with a pair of cuff buttons, a curved rigid post connecting the same and having at each of its ends two oppositely directed T-shaped heads in alinement with each other at right angles to said post, the two alined T-shaped heads of each end being secured to the contiguous button solely by the pressure of a bent edge of such button, and said post and the four T-shaped heads thereof being in one piece.

4. In a cuff button, the combination of a rigid post having at each end, integral therewith, two T-shaped heads in alinement with each other and oppositely directed at right angles with the post; a cup-shaped button having an annular flange of uniform width adapted to receive one pair of said T-shaped heads of the post, which flange is turned over upon said T-shaped heads into a roll of sufficient diameter to receive and embrace said post-heads, but in that portion thereof intermediate said post-heads turned over into a close roll; and another cup-shaped button having a similar annular flange adapted to receive and embrace the other pair of T-shaped heads of the post by a similar roll, but in that portion thereof intermediate said post-heads formed into a close roll.

5. In a cuff button, the combination of a curved rigid post, having at each end a cross bar directed at right angles with said post; an integral wing at each end of said cross bar extending at right angles therewith; a concavo-convex button having an annular flange and adapted to receive the pair of wings of one end of the post, which flange contiguous to said wing is rolled over to secure the same in position along the outer edge and the two tips of each of said wings, respectively, but rolled over into a close roll in that portion between the wings of said pair; and another concavo-convex button similarly flanged and rolled and adapted to receive and secure the other pair of wings at the opposite end of said post.

939,852. BUGGY-SHAFT SUPPORT. JEFF D. MCCABE, Woodbury, Tenn., assignor of one-third to Robt. Lesley Mason and one-third to Benjamin Laurence, Woodbury, Tenn. Filed Dec. 22, 1908. Serial No. 468,750.



1. A shaft support including a standard, a catch arranged in a vertical position in front of the standard and composed of spaced sides and a connecting portion, means for securing the connecting portion to the standard, and a coöperating loop having terminal attaching arms to be secured to the lower face of the cross bar of a pair of shafts and extending upwardly and rearwardly, the engaging portion of the loop being located above and in rear of the said cross bar, whereby when the shafts are swung upward the loop will be carried between and engaged by the sides of the catch without the cross bar of the shafts coming in contact with the same.

2. A shaft support including a standard, a catch projecting forwardly from the standard and composed of spaced sides and a connecting portion, a clip passing between the sides of the catch and embracing the connecting portion thereof and the standard and adjustably securing the catch to the front of the standard, said clip being provided with means located at the back of the standard for detachably interlocking it with the same, and a member coöperating with the catch and having means for connecting it with a pair of shafts.

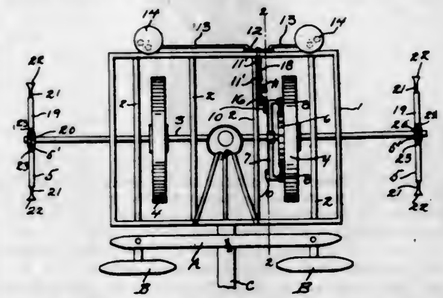
3. A shaft support including a standard, a catch extending forwardly from the standard, a horizontal clip embracing the standard and receiving the catch and provided with a clip plate having a projection for engaging the standard, the latter being provided with a plurality of recesses for the reception of said projection, whereby the clip is interlocked with the standard, and a member cooperating with the catch and having means for connecting it with a pair of shafts.

4. A shaft support including a standard provided at its lower end with means for mounting it upon the front spring of a vehicle, a catch extending forwardly from the standard, a coöperating member designed to be connected with a pair of shafts and adapted to engage with the catch, and a brace secured at its upper portion to the standard and provided at its lower end with means for connecting it with the bottom of a buggy.

5. A shaft support including a standard provided at its lower end with means for mounting it upon the front spring of a vehicle, a catch extending forwardly from the standard, a coöperating member designed to be connected with a pair of shafts and adapted to engage with the catch, and an upright brace located in rear of the standard and provided at its upper end with a forwardly extending angular arm secured to the standard, the lower end of the brace being provided with a rearwardly extending arm arranged to be fastened to the lower end of a buggy.

[Claims 6 and 7 not printed in the Gazette.]

939,853. CORN-PLANTER. LEWIS E. MCQUITTY, Mulvane, Kans. Filed Apr. 21, 1909. Serial No. 491,235.



1. In a machine of the class described, the combination with a rectangular frame, of traction wheels revolubly mounted upon a shaft supported in said frame, a ratchet carried by one of said wheels, seed receptacles supported on said frame, tripping arms secured to said shaft and having their ends disposed at right angles, said arms having spring pressed dogs adapted to engage with said ratchet, outwardly extending adjustable lugs on said arms, a bell crank lever mounted in said frame, a disk on the outer end of said lever, and rods pivotally secured to said disk and adapted to open said seed receptacles when the crank arm of the lever is engaged by said lugs.

2. In a machine of the class described, the combination with a rectangular frame, of traction wheels revolubly mounted in said frame, a ratchet carried by one of said wheels, seed receptacles supported upon said frame, tripping arms having their ends disposed at right angles and carrying means engaging with said ratchet to adjust said arms, outwardly extending transversely adjustable lugs on said arms, a bell crank lever mounted in bearings on said frame, a coiled spring disposed upon said lever between said bearings, a bar pivoted upon a bracket secured to said frame, a chain connecting one end of said bar with said lever, a disk on the outer end of said lever, and rods pivotally secured to said disk and adapted to open said seed receptacles when the end of said bar is engaged by said lugs.

3. In a machine of the class described, the combination with a rectangular frame, of traction wheels revolubly mounted upon a shaft supported in said frame, a ratchet carried by one of said wheels, seed receptacles supported upon said frame, radially extending tripping arms mounted on said shaft, said arms having their extremities angularly extended, spring pressed pawls carried by the extremities of said arms engaging with said ratchet, a bell crank lever mounted in bearings on said frame, a coiled spring disposed upon said lever between said bearings, a bar pivotally mounted on said frame, a chain connecting

one end of said bar with said lever, transversely adjustable lugs carried by said tripping arms adapted to engage with the inner end of said bar to rotate said lever, a disk on the outer end of said lever, rods pivotally secured to said disk adapted to open said seed receptacles when the end of said bar is engaged by said lug, and radially adjustable marking arms secured to the ends of said shaft.

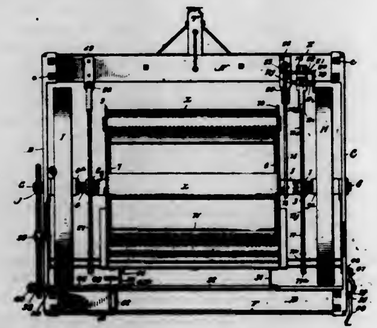
939,854. SASH-LOCK. HARALD NEBLE, Stamford, Conn. Filed Apr. 2, 1909. Serial No. 487,501.



1. A sash lock comprising a keeper having a prong at one end, a stud, fastening means covered by said stud to prevent the unauthorized removal of said keeper, and a pivoted latch engaging said keeper.

2. A sash lock comprising a keeper secured to a sash and provided with a sliding bolt, a latch pivoted to a sash, said latch being held in locked position by said bolt, said keeper being provided with a prong at one end, a stud, and fastening means covered by said stud to prevent the unauthorized removal of the keeper.

939,855. CLAY-GATHERING MACHINE. CHARLES E. OLDEN, Mason City, Iowa. Filed Jan. 14, 1909. Serial No. 472,197.



1. In a clay gathering machine, a frame, an adjustable scoop carried thereby, a rotatable cylinder for receiving the accumulated charge, and a series of pivoted buckets adapted to receive material from the scoop and to deliver it into the cylinder.

2. In a clay gathering machine, a frame, a scoop pivotally attached thereto, a rotatable cylinder for receiving the accumulated charge, and a series of spring-actuated pivoted buckets adapted to receive material from the scoop and to deliver it into the cylinder.

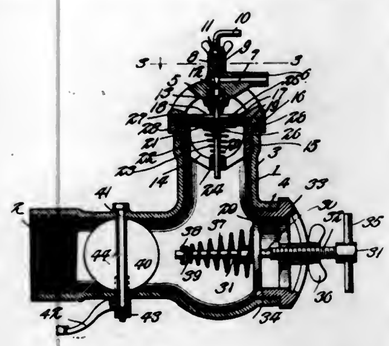
3. In a clay gathering machine, a main frame, a central shaft mounted in said frame, wheels on said shaft, a cylindrical receptacle loosely mounted on said shaft, a frame loosely mounted on said shaft and bearing buckets, a clutch mechanism for transmitting the movement of the shaft to said elevator frame, and a second clutch mechanism for transmitting the movement of the shaft to said cylinder.

4. In a clay gathering machine, a main frame, a central shaft mounted in said frame, wheels on said shaft, an elevator frame loosely mounted on said shaft and bearing buckets, a cylindrical receptacle loosely mounted on said shaft within said elevator frame, a clutch mechanism for transmitting the movement of the shaft to said elevator frame, means for preventing the rotation of the cylinder, and mechanism for releasing the cylinder and for transmitting the movement of the shaft to said cylinder.

5. In a clay gathering machine, a main frame, a pivoted scoop secured thereto, an axle centrally mounted in said frame, wheels carried by said axle, an elevator frame mounted upon said axle, a cylindrical receiver mounted upon said axle within said elevator frame, means for raising said scoop by power from the axle, and means for automatically throwing the raising means out of gear operated by the upward movement of the scoop.

[Claims 6 and 7 not printed in the Gazette.]

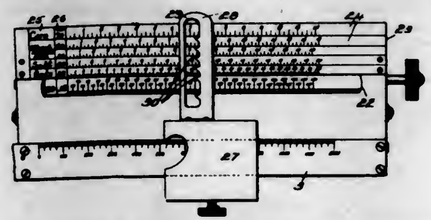
939,856. CARBURETER. RALPH PAPANTI, Springfield, Mass. Filed Sept. 25, 1908. Serial No. 454,673.



1. A carbureter comprising a casing, a valve support connected to the casing, a skeleton cap fitted to the valve support, a nipple formed on said cap and provided with a feed duct, a valve adjustably mounted in the cap, a spray nozzle removably fitted in said cap, a partition formed in the cap and provided with a central opening, a valve seat ring disposed between said partition and a shoulder on the valve support, a needle valve for the spray nozzle, a disk valve secured to the shank of the needle valve, a convolute spring interposed between said partition and said valve seat ring, a spring for seating the disk valve, and an air valve connected to the casing.

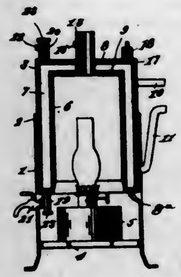
2. In a carbureter, the combination of a casing, a spring seated air valve removably connected to the casing, a valve support having a threaded connection with the casing, a skeleton cap having a threaded connection to said valve support, a nipple formed on the cap and provided with a feed duct, a valve adjustably mounted in the cap, a spray nozzle removably fitted in said cap, a partition formed on said cap and provided with a central opening, a valve seat ring disposed between said partition and a shoulder on the valve support, a needle valve for the spray nozzle, a disk valve secured to the shank of the needle valve, a convolute spring interposed between said partition and valve seat ring, and a spring for seating the disk valve and the needle valve.

939,857. SCALE. JOHN L. PIPE, Quincy, Ill. Filed Sept. 29, 1908. Serial No. 455,322.



The combination with a scale beam, of an attachment therefor comprising standards adapted to be removably secured to the beam, rollers mounted for simultaneous movement in the standards, an indicating chart arranged on the rollers, a cover inclosing the rollers and chart and formed with an opening through which a desired portion of the chart may be exposed, a poise for the beam, a pointer carried by the poise and registering with the exposed portion of the chart, and a fixed scale plate secured on the cover and arranged above the sight opening therein, said pointer being adapted to coöperate with the indicating marks on the scale plate.

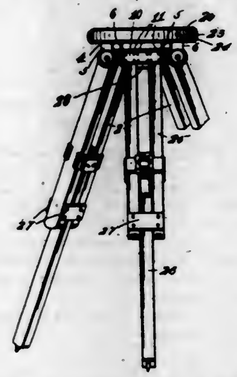
939,858. TEMPERATURE-REGULATING APPARATUS. JAMES M. PULLEN, Ozark, Mo. Filed Jan. 25, 1909. Serial No. 474,130.



1. In a temperature regulating apparatus, the combination of a stand having an open top and means in its bottom for supporting a heater, a body removably and reversibly arranged in the open top of the stand and consisting of outer and inner spaced drums united at one end by an annular ring and each being provided with a closed end, said closed ends being spaced apart as well as the remainder of said drums in order to provide a liquid-containing chamber closed at both ends, a pipe extending through the closed ends of said drums, said pipe being adapted to be opened when the body is in one position and closed when in the reversed position, and flow and return pipes communicating with said chamber adjacent the opposite ends of the body.

2. In a temperature regulating apparatus, the combination of a body having outer and inner drums united at one end by an annular ring and having closed ends, said closed ends being spaced apart as well as the remainder of said drums in order to provide a liquid-containing chamber closed at both ends, a pipe extending through the closed ends of said drums, said pipe being adapted to be opened when the body is in one position and closed when in the reversed position, flow and return pipes in communication with said chamber at points adjacent the opposite ends of the body, pipes projecting from the opposite ends of the body, and in communication with the space or chamber between the drums, the last mentioned pipes having their outer ends closed and their side portions formed with openings, a cock and a plug interchangeably arranged in the last mentioned openings, the closed end of the outer drum being formed with a filling opening, a removable closure for the latter, and means for supporting said body with either end uppermost, the last mentioned means being adapted to support a heater.

939,859. TRIPOD. JAMES M. PULLEN, Ozark, Mo. Filed Feb. 15, 1909. Serial No. 477,855.



1. In a tripod, the combination of a head, a pair of bearing ears depending therefrom and having their opposing faces concaved and formed with annular bearing grooves, a leg arranged between the ears and having at the sides of its upper end circular bearing ribs to enter the grooves in said ears, and a transverse pivot passed through said leg and ears.

2. In a tripod, the combination of a head, a plate secured upon the bottom of the latter and formed with integral bearing ears struck downwardly from said plate, said ears being arranged in pairs, the opposing faces of the ears of each pair being concaved and formed with concentric bearing grooves, legs, bands surrounding the upper ends of said legs and having their ends concaved and formed with annular concentric bearing ribs to enter the grooves in said ears and adjustable pivots passed through said legs and ears and consisting of sections having screw threaded engagement with each other.

3. In a tripod, the combination of a head, a leg, the latter consisting of two sections, one having spaced bars to receive the other, clamping plates disposed on opposite sides of said sections, a U-shaped member carried by the inner or lower section and arranged in said clamping plates, a cam lever upon said U-shaped member and a cushioning device arranged upon said U-shaped member.

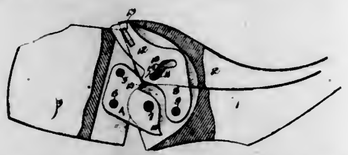
4. In a tripod, the combination of a head, a leg, the latter consisting of two sections, one having spaced bars to receive the other, clamping plates disposed on opposite sides of said sections, a U-shaped member carried by the inner or lower section and arranged in said clamping plates and a cam lever upon said U-shaped member, the portion of the clamping plate beneath said lever being channeled to receive a wear plate.

939,860. LOCKING COLLAPSIBLE LAST. CHARLES F. PYM, Essex, Ontario, Canada, assignor to Krentler-Arnold Hinge Last Company, Detroit, Mich., a Corporation of Michigan. Filed Mar. 5, 1906. Serial No. 304,172.

1. A last, comprising a collapsible forepart, and a heel-part permanently connected to the forepart having an up and down movement with relation to said forepart for shortening and lengthening the last, connecting means connecting said heel-part and forepart to permit said movement of the heel-part, and means operating independently of said connecting means to distend the forepart after the heel-part is in lengthened position.

2. A last, comprising a collapsible forepart, and a heel-part permanently connected to the forepart having an up and down movement with relation to said forepart for shortening and lengthening the last, and means, operating separate from the heel-part, for positively forcing the forepart into collapsed position and into expanded position.

3. A last, comprising a collapsible forepart, and a relatively movable heel-part permanently secured thereto, and means carried solely by said forepart for positively forcing the forepart into collapsed position.

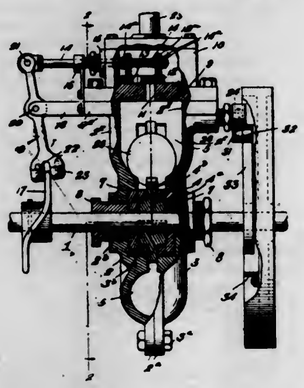


4. A last, comprising a collapsible forepart, and a heel-part permanently connected to the forepart having an up and down movement with relation to said forepart for shortening and lengthening the last, and means for expanding the forepart after the heel-part has moved downwardly, and for collapsing the forepart before the heel-part has moved upwardly.

5. A last, comprising a collapsible forepart, and a heel-part permanently connected to the forepart having an up and down movement with relation to said forepart for shortening and lengthening the last, and means for expanding the forepart after the heel-part has moved downwardly.

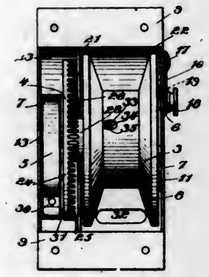
[Claims 6 to 27 not printed in the Gazette.]

939,861. ROTARY ENGINE. JAMES A. QUILL, Eureka, Cal. Filed Apr. 7, 1909. Serial No. 488,439.



An engine of the character described comprising a main shaft, a rotary piston consisting of a hub fixed to said shaft, a circular plate centrally arranged on said hub, and a cylindrical head at one point on said plate, a cylinder having an annular chamber to receive the piston head and composed of opposing circular plates formed with annular depressions to form the cylinder chamber, said plates having united flanges on their projecting edges, and having their central portions formed on their outer faces with internally screw threaded bosses, and on their inner faces concentric circular seats, flanged packing rings arranged in said recesses of the plates and having central openings to receive the main shaft, and annular flanges to receive the projecting ends of said hub, externally screw threaded glands on the main shaft and arranged in the threaded bosses of said plates to impinge against said packing rings, a swinging abutment in the cylinder, a rock shaft for said abutment, a cam mechanism for actuating the rock shaft from the main shaft, a steam chest connected to the cylinder, a slide valve in said steam chest, a cam disk fixed to the main shaft, and a rocking arm actuated by said cam disk and operatively connected to the stem of said slide valve.

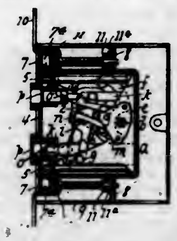
939,862. CLOTHES-LINE REEL. SAMUEL S. RIDER, Brookland, D. C. Filed Mar. 9, 1908. Serial No. 420,041.



1. A device of the character described comprising a suitable casing, a reel carried therein, a partition plate within said casing dividing the same into two compartments, said reel being housed in one compartment, mechanism for rotating said reel, said mechanism comprising a coil spring having one end thereof mounted concentrically with said reel, a gear wheel mounted concentrically with said reel to which the free end of said spring is connected, said gear wheel having its teeth extending transversely from the periphery thereof, an intermediate gear wheel mounted on said partition plate, said intermediate gear wheel having regularly extending teeth in mesh with the transversely extending teeth of said first mentioned gear wheel, a pinion wheel carried on said reel and mounted concentrically therewith, said pinion wheel having its teeth extending transversely therefrom and in mesh with said intermediate gear wheel, substantially as described.

2. A device of the character described comprising a suitable casing, a reel housed therein, mechanism for rotating said reel housed in said casing, said mechanism comprising a spiral spring, a gear wheel to which one end of said spring is connected, said gear wheel being mounted concentrically with said reel, an intermediate gear wheel associated with said first mentioned gear wheel and in mesh therewith, said intermediate gear wheel being mounted at a point between the periphery of said gear wheel and its center, and a pinion wheel carried on said reel and mounted concentrically therewith, said pinion wheel being in mesh with said intermediate wheel, substantially as described.

939,863. ELECTRIC SWITCH. JOSEPH H. RUSBY, Nutley, N. J. Filed Feb. 23, 1907. Serial No. 358,879.



1. An electric switch comprising a support, an actuating finger piece, a one piece lever on the support engaged directly by the finger piece, said lever having an integral arm, a spring mounted concentrically with said lever and engaged by said arm, a latch piece hinged eccentrically to said lever piece and having a single lug and being operatively connected with said lever, and a blade actuating piece mounted concentrically with said lever, and having an extension engaged by the spring, said actuating piece being lugged to coact with the latch piece lug.

2. An electric switch comprising a base, contacts, a blade, a blade actuating mechanism, said mechanism comprising push buttons, sleeves about the buttons, a frame, and an outwardly bearing spring mounted on the frame and connected to the sleeves to force the latter toward the face of the switch, said frame having guiding slots for the sleeves, and said sleeves having lugs reciprocating in said slots.

3. An electric switch comprising a base, contacts, a blade, a blade actuating mechanism, said mechanism comprising a frame, a spring, push bars with heads forming buttons, and tubes engaged by the spring and forming surrounding sleeves for the buttons and bars, each of said tubes having a closed top pierced for the entry of a key and having an upper lug to be engaged by the button head, each tube also having a lower lug and said frame having slots for guiding and arresting the said lower lugs.

4. An electric switch comprising a base, contacts, a blade, a blade actuating mechanism, a top strap, a push button guided by the top strap, said top strap being suitably tapped for securing a cover plate and being extended beyond the switch and an adjusting screw rotatively supported at one end in the extended portion of the strap, said base having a lug for supporting the opposite end of said adjusting screw.

5. An electrical switch comprising a blade actuating mechanism, a blade, contacts, an adjusting screw, an adjusting lug on the adjusting screw, and a base, said base comprising a bottom section and two side and end sections, each side and end section provided with outwardly extending lugs, the lugs on the side and end sections provided with holes, the said adjusting screw extending through said holes for securing the said side and end sections together, the said lugs on the said side and end sections reciprocally serving to support said adjusting screw.

[Claim 6 not printed in the Gazette.]

939,864. FINGER-RING. LOUIS E. SADLER, Attleboro, Mass., assignor to The F. H. Sadler Company, Attleboro, Mass., a Corporation of Rhode Island. Filed Nov. 18, 1908. Serial No. 463,141.

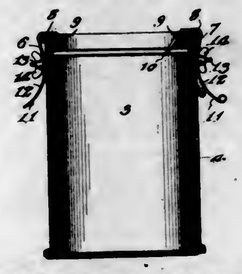


1. A finger ring formed of two parts, comprising a head member having holes formed in the sides thereof, a body member provided with prongs, the two parts being secured together by inserting the prongs of the body member through the holes in the head member and bending them at right angles.

2. A finger ring consisting of a body member formed of a strip of metal bent to form approximately three-quarters of a circle and having prongs on each end, and a hollow box-shaped head having holes in the sides for the prongs, the two parts being secured together by bending the prongs back against the inside of the head member, as shown.

3. In a finger ring, the combination of a body member a having the ends 7 7 on which are the prongs 8 8 and a hollow box-shaped head b having the bottom 9, the sides 10 10 in which are the holes 11 11, the ends 12 12 and the top 13, and being secured to the body member a by bending the prongs 8 8 back against the sides 10 10 of the head member, as described.

939,865. ICE-CREAM CAN. LOUIS H. SCHECK, Batavia, N. Y. Filed May 27, 1909. Serial No. 498,615.



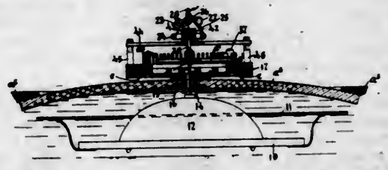
1. The combination of a can, a spacing jacket to receive the same, a can-retaining member having a shank secured to the jacket, and a hook-shaped upper end to take over the upper edge of the can, said hook-shaped upper end of the member having its portion within the can enlarged to form a scraper blade.

2. The combination of a foraminous spacing jacket, can sections arranged in said jacket, and a locking device upon the jacket and adapted to take over the upper edges of both of the can sections to retain them in the jacket.

3. The combination of a foraminous spacing jacket, can sections arranged in said jacket, and a locking device adjustably mounted on the jacket and having spaced hook-shaped portions to take over the upper edges of both of the can sections to retain them in the jacket.

4. The combination of a foraminous spacing jacket, can sections arranged in said jacket, a locking device having a shank mounted on the jacket and having spaced hook-shaped portions to take over the upper edges of both of the can sections, said hook-shaped portions having broad flat plates to form scraper blades.

939,866. APPARATUS FOR RECORDING-COMPASSES. EDWIN SCHUETTE and NICHOLAS DEDRICK, Manitowoc, Wis.; said Dedrick assignor to said Schuette. Original application filed June 22, 1908, Serial No. 441,892. Divided and this application filed Dec. 18, 1908. Serial No. 468,105.



1. In a recording-compass, the combination of a ring of contact-points, a contact-arm mounted to rotate about an axis concentric therewith, and an antifriction device rotatably mounted on the end of said contact-arm and adapted to contact successively with said points and be rotated thereby as said arm turns about its axis.

2. In a recording-compass, the combination of a ring of contact-points, a contact-arm mounted to rotate about an axis concentric therewith, and a star-wheel rotatably mounted on the end of said contact-arm and adapted to contact successively with said points as said arm turns about its axis.

3. In a recording-compass, means for making frictionless electric contact with the axis of the needle comprising, in connection with the magnetic needle, a central pivot-point rising vertically therefrom, a counterbalanced pivot-member having a recessed bearing resting and freely moving upon said pivot-point and means for connecting the pole of an electric circuit with said pivot member.

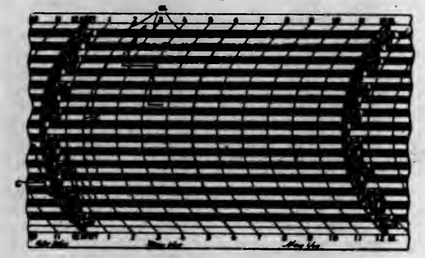
4. In a recording-compass, means for making frictionless electric contact with the axis of the needle compris-

ing, in connection with the magnetic needle, a central pivot-point rising vertically therefrom, a member resting and freely movable on said pivot-point, means for attaching one pole of an electric-circuit to said member, and means for counterbalancing said member to hold it upright on said pivot-point.

5. In a recording-compass, means for making frictionless electric contact with the axis of the needle comprising, in connection with the magnetic needle, a central pivot-point rising vertically therefrom, a member resting and freely movable on said pivot-point, means for attaching one pole of an electric-circuit to said member, and weighted counterbalance arms radiating from and extending below the level of said pivot-point.

[Claims 6 to 24 not printed in the Gazette.]

939,867. CHART FOR RECORDING-COMPASSES. EDWIN SCHUETTE, Manitowoc, Wis. Original application filed June 22, 1908, Serial No. 441,892. Divided and this application filed May 27, 1909. Serial No. 498,766.



1. A chart for a recording-compass divided into a plurality of longitudinal strips corresponding to the compass-rhumbs and arranged with two opposite rhumbs on opposite sides thereof and the rhumbs to right and left of the rhumb-line joining said opposite rhumbs arranged alternately in serial order proceeding from one of said extreme rhumbs to the other extreme rhumb.

2. A chart for a recording-compass divided into a plurality of longitudinal strips corresponding to the compass-rhumbs arranged with the north and south rhumbs on opposite sides thereof and the intermediate rhumbs to right and left of the meridian arranged in alternate succession from north to south, symmetrical east and west rhumbs being adjacent to each other.

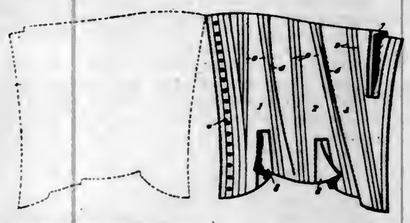
3. A chart for a recording-compass divided into a plurality of longitudinal strips corresponding to the compass-rhumbs and arranged with two opposite rhumbs on opposite sides thereof and the rhumbs to right and left of the rhumb-line joining said opposite rhumbs arranged alternately in serial order proceeding from one of said extreme rhumbs to the other extreme rhumb, alternate strips being distinguished to the eye from the others as by coloring, shading or the like.

4. A chart for a recording-compass divided into a plurality of longitudinal strips corresponding to the compass-rhumbs arranged with the north and south rhumbs on opposite sides thereof and the intermediate rhumbs to right and left of the meridian arranged in alternate succession from north to south, symmetrical east and west rhumbs being adjacent to each other, the east bearings being distinguished to the eye from the west bearings as by coloring, shading or the like.

5. A chart for a recording-compass divided into a plurality of longitudinal strips corresponding to the compass-rhumbs and arranged with two opposite rhumbs on opposite sides thereof and the rhumbs to right and left of the rhumb-line joining said opposite rhumbs arranged laterally in serial order proceeding from one of said extreme rhumbs to the other extreme rhumb, and a plurality of transverse lines corresponding to equal intervals of time.

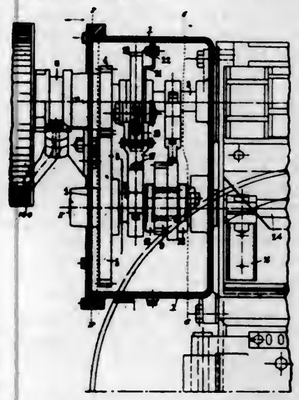
[Claim 6 not printed in the Gazette.]

939,868. CORSET. AGNES M. C. SERRUYS and MARGUERITE M. J. SERRUYS, Spokane, Wash. Filed Sept. 30, 1908. Serial No. 455,525.



A corset, embodying in each side a plurality of stiffened sections united vertically on lines at varying angles to the front and rear edges of the corset side, the intermediate and rear sections being provided each with a hip gore located entirely within its section and adapted to lie on opposite sides of the hip of the wearer.

939,869. MECHANICAL STOKER FOR FURNACES. FRIEDRICH W. SEYBOTH, Zwickau, Germany. Filed May 14, 1909. Serial No. 496,041.



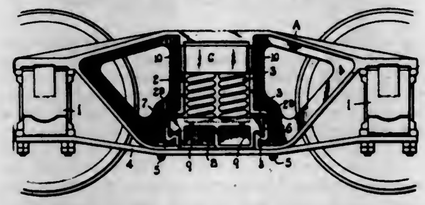
1. A mechanical stoker for furnaces, comprising, in combination, a spring actuated shovel-actuating shaft, a shovel operable thereby, a double-armed lever, a rotatable pinion carried by said lever, a cam disk rigidly connected with said pinion and carried by the lever, a tappet keyed to said shovel-actuating shaft and engageable by the cam disk, and a driving pinion meshing with that first-named.

2. A mechanical stoker for furnaces, comprising, in combination, a spring actuated shovel-actuating shaft, a shovel operable thereby, a double-armed lever, a rotatable pinion carried by said lever, a cam disk rigidly connected with said pinion and carried by the lever, a tappet keyed to said shovel-actuating shaft and engageable by the cam disk, a driving pinion meshing with that first-named, and means for slowly rocking said double-armed lever.

3. A mechanical stoker for furnaces, comprising, in combination, a shovel-actuating shaft, a double-armed lever mounted to rock around the said shaft, a pinion rotatably carried by said lever, a cam disk rigidly connected with said pinion, a tappet keyed to said shaft and engageable by the cam disk, a pinion rotatable around said shaft and meshing with the pinion carried by the lever, a breaking-roll shaft, and means carried by the latter shaft for rocking the double-armed lever.

4. A mechanical stoker for furnaces, comprising, in combination, a spring-actuated shovel-actuating shaft, a shovel operable thereby, a sleeve rotatable on said shaft, a double-armed lever mounted to rock on said shaft, a rotatable pinion carried by said lever, a cam disk connected with said pinion and carried by the lever, a tappet keyed to said shovel-actuating shaft and engageable by the cam disk, a pinion carried by the sleeve mentioned and meshing with the pinion carried by the lever, an eccentric carried by the sleeve, a link operated by said eccentric, a second shaft, a gear wheel fixed thereon, a pawl carried by said link for engagement with the last-named gear, an eccentric rigidly mounted on the second shaft, and a link operated by said eccentric and connected with the double-armed lever.

939,870. CAR-TRUCK. CHARLES S. SHALLENBERGER, St. Louis, Mo., assignor to Charles McLure Clark, St. Louis, Mo. Filed Oct. 29, 1908. Serial No. 460,102.



1. A side frame for trucks having bolster jaws open at the bottom, and a tension bar located within and spanning said opening; substantially as described.

2. A side frame for trucks having bolster jaws open at the bottom, and a tension block located within and spanning said opening; substantially as described.

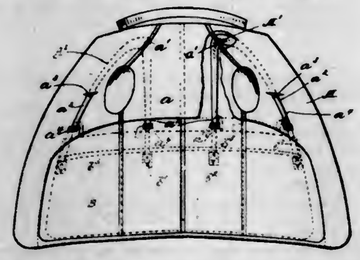
3. A side frame for car trucks having a bolster-receiving opening in its under side, and a removable tension member located within and extending across said opening; substantially as described.

4. A side frame for car trucks in the form of a casting having a bolster-receiving opening in its under side, and a removable tension member located within and extending across said opening; substantially as described.

5. A side frame for car trucks having a bolster-receiving opening in its under side, and a removable tension member located wholly within said opening; substantially as described.

[Claims 6 to 19 not printed in the Gazette.]

939,871. GARMENT. PERRY B. SHERMAN, Cleveland, Ohio. Filed Nov. 25, 1908. Serial No. 464,394.

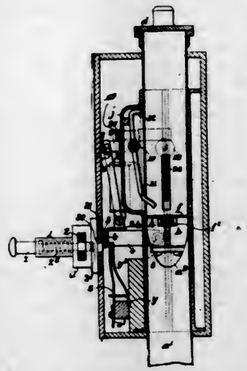


1. The combination with an outer garment of the character described, of an elongated pocket apart from said garment but adapted to lie within the skirt thereof and extending substantially entirely around such skirt, and means firmly secured between the coat lining and material of the coat proper for detachably securing said pocket to said garment at points along said pocket intermediate thereof, said lining being provided with slits for such means to extend through when desired, whereby said means may be hidden between the coat lining and material of the coat after the removal of the pocket.

2. The combination with a coat, of an elongated pocket apart from said coat but adapted to lie within the skirt thereof and extending substantially entirely around such skirt, two shoulder straps secured in said coat between the lining and material of the coat proper, and means for detachably securing the ends of said straps to points at the ends of said pockets and intermediately between such ends, respectively, said lining being provided with slits for such strap ends to extend through, whereby such ends may be hidden between the coat lining and material of the coat after removal of the pocket.

3. The combination with a coat, of an elongated pocket apart from said coat but adapted to lie within the skirt thereof, said pocket being co-extensive with such skirt and comprising a plurality of compartments, two straps firmly secured in said coat between the lining and material of the coat, one at each shoulder seam, the ends of said straps hanging freely and such lining being provided with slits for such ends to extend therethrough when desired, and means for detachably securing such strap ends to points at the ends of said pocket and between the compartments therein, respectively, said strap ends being adapted to be hidden between the coat lining and material of the coat proper after the removal of the pocket.

939,872. PNEUMATIC-DESPATCH SYSTEM. PERCY R. SHILL, Leytonstone, England, assignor of one-fourth to Charles William Bluemel, one-fourth to Frank Henry Bluemel, and one-fourth to Ernest Adolphus Bluemel, Wolston, England. Filed Aug. 14, 1908. Serial No. 448,631.



1. An electrically-controlled pneumatic despatch tube, cash railway or the like, comprising an air-tube, an air-propelling device connected to said air-tube, a multiple-way electric selector-switch, an electric generator, electro-magnetically-controlled carrier-switch-apparatus at the several stations, electrical connections between said carrier-switch apparatus, said electric generator and said selector-switch, a plunger for actuating the contacts of said multiple-way selector-switch, a detent-bar for holding said plunger in its pressed-in position, an electromagnet for disengaging said detent-bar from said plunger, a releasing switch for connecting and disconnecting said disengaging electromagnet to and from said electric generator, electric connections between said electric generator, said electromagnet and said releasing switch and means controlled by a carrier in a sending terminal of said air-tube for opening and closing said releasing switch.

2. An electrically-controlled pneumatic despatch-tube, cash railway or the like, comprising an air-tube closed on itself, substations branching from said air-tube, an air-propelling device connected in the circuit of said air-tube, carriers adapted to move in said air-tube, carrier-switches serving as air-valves and adapted to deflect said carriers into the substations, electromagnets for moving said car-

rier-switches into their operative positions, a manually-operated multiple-way electric selector-switch, an electric generator, electric connections between said electric generator, said electromagnets and said selector-switch, sending terminals comprising means for retaining the carriers, electromagnets for releasing said carrier-retaining means, electromagnets for releasing said carrier-switches, and an electric time-switch for periodically closing interruptions in the circuits of said electro-magnets.

3. In an electrically-controlled pneumatic despatch-tube, cash railway or the like, a multiple-way electric selector-switch and central-station carrier-despatching apparatus comprising a series of spring contact-pieces, a plunger adjustable laterally to register with any one of said contact-pieces, a spring urging said plunger away from said contact-pieces, a detent-bar adapted to hold said plunger in engagement with any one of said contact-pieces, an electromagnet for disengaging said detent-bar from said plunger, an electric generator, an air-tube, and means for closing the circuit of said electromagnet when there is no carrier in the sending terminal of said air-tube and for opening said electric circuit when a carrier is in said sending terminal.

4. In an electrically-controlled pneumatic despatch-tube, cash railway or the like, a multiple-way electric selector-switch and central-station carrier-despatching apparatus, comprising a series of spring contact-pieces, a plunger adjustable laterally to register with any one of said contact-pieces, a spring urging said plunger away from said contact-pieces, a detent-bar adapted to hold said plunger in engagement with any one of said contact-pieces, an electromagnet for disengaging said detent-bar from said plunger, an electric generator, an air-tube, a switch controlling the circuit of said electromagnet, and a weighted operating lever for said switch, said lever extending into the sending terminal of said air-tube in such a manner as to open the switch when there is a carrier in said sending terminal and to close said switch when said carrier has been despatched.

5. In an electrically-controlled pneumatic despatch-tube, cash railway or the like, a multiple-way electric selector-switch and central-station carrier-despatching apparatus, comprising a series of spring contact-pieces, a plunger adjustable laterally to register with any one of said contact-pieces, a spring urging said plunger away from said contact-pieces, a detent-bar adapted to hold said plunger in engagement with any one of said contact-pieces, an electromagnet for disengaging said detent-bar from said plunger, an electric generator, an air-tube, means for closing the circuit of said electromagnet when there is no carrier in the sending terminal of said air-tube and for opening said electric circuit when a carrier is in said inlet end, a pivoted lever, a link pivotally connecting said lever and said detent-bar through a pin and slot connection, and an arm fixed to said lever and extending into the sending terminal of said air-tube so as to cause the detent-bar to be supported directly in the path of said plunger when there is no carrier in said sending terminal and to be supported in position for retaining said plunger in its pushed-in position when a carrier is in said sending terminal.

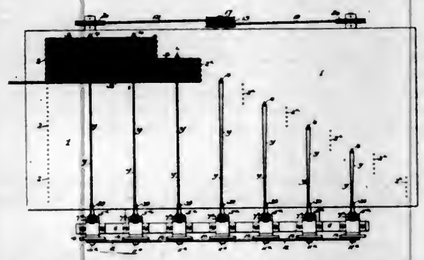
[Claims 6 to 13 not printed in the Gazette.]

939,873. LAYING-TABLE FOR ROPE PORTIÈRES. WILLIAM T. SMITH, Philadelphia, Pa. Filed Jan. 29, 1908. Serial No. 413,309.

1. A laying table for rope portières having rope engaging devices at different distances apart in the direction of the lay of the rope.

2. A laying table for rope portières having rope engaging devices at different distances apart in the direction of the lay of the rope, and having a series of devices for engaging tying threads and operating the same to secure together the successive lays of the rope.

3. A laying table for rope portières having rope engaging devices at different distances apart in the direction of the lay of the rope, and means for engaging tying threads and operating the same to secure together the successive lays of the rope, said means having elements disposed diagonally across the table.



4. A laying table for rope portières having rope engaging devices at different distances apart in the direction of the lay of the rope, means for engaging tying threads which extend transversely to the successive lays of the rope, and means for causing said tying threads to engage with one another between successive lays of the rope.

939,874. HAT-PROTECTOR. WILLIAM J. STEWART, New York, N. Y. Filed May 29, 1909. Serial No. 499,143.



1. A hat protector consisting of a collapsible tubular body of thin highly elastic pure rubber having open and closed ends, said body having one or more integral thickened annular bands between its ends, and having also, at its open end, an integral thickened annular band.

2. A hat protector consisting of a collapsible tubular body of thin, highly elastic rubber having open and closed ends, said body having near its middle a contracted and thickened integral annular portion or band, and at its open end a second contracted thickened integral annular portion or band.

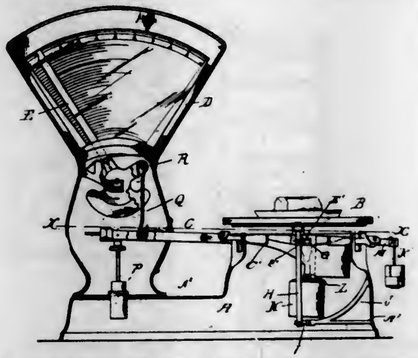
3. A hat protector consisting of a collapsible body of thin, highly elastic rubber and having open and closed ends, said body having near its middle a thickened integral annular portion or band, and at its open end a second thickened integral annular portion or band.

939,875. SCALE. WALTER F. STIMPSON, Detroit, Mich. Filed Nov. 24, 1906. Serial No. 344,851.

1. A scale comprising a platform a circular base beneath said platform, having a tangentially extending portion and a platform supporting lever or beam fulcrumed within the circular portion of said base and extending parallel to the tangential portion thereof.

2. A scale comprising a platform, a base having a circular portion beneath said platform and a tangentially extending portion, a platform supporting lever or beam fulcrumed within said circular portion of the base and extending parallel to said tangential portion, an indicator mounted upon the end of the tangential portion of said base, and a connection between the free end of said beam and said indicator.

3. A scale comprising a platform, a circular base beneath said platform having a tangentially extending portion, a platform supporting lever or beam within the circular portion of said base and extending parallel to the tangential portion thereof, said lever terminating in an enlarged circular frame and pairs of pivots on opposite sides of said circular frame respectively for supporting the platform and for the fulcrum of the beam, each pair comprising members projecting in opposite directions.

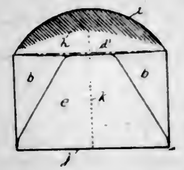


4. A scale comprising a weighing platform, a supporting beam therefor terminating in an enlarged portion beneath said platform, pairs of pivots upon opposite sides of said enlarged portion, one member of each pair being a platform supporting and the other a fulcrum pivot, and the members of each pair projecting in opposite directions only from their points of attachment to the beam to provide clearance for their respective bearings.

5. A scale comprising a weighing platform, a supporting beam therefor terminating in an enlarged circular framework beneath said platform, and pairs of pivots on opposite sides of said circular portion, one member of each pair being a platform supporting and the other a fulcrum pivot, and the members of each pair projecting in opposite directions from their points of attachment to the circular framework to provide clearance for their respective bearings.

[Claim 6 not printed in the Gazette.]

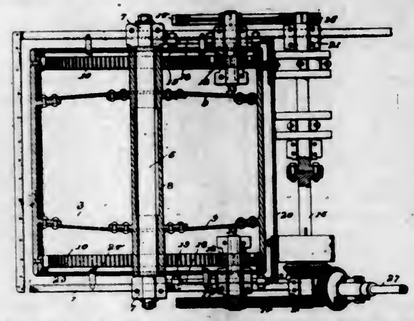
939,876. ENVELOP. LYMAN R. SWETT, Boston, Mass. Filed Aug. 11, 1909. Serial No. 512,413.



An envelop formed from a blank having a quadrangular body, approximately right-angled side flaps whose upper edges are nearly in alinement with the upper edge of the sealed envelop, a bottom flap having a broad outer edge, a central adhesive surface on said body adapted to adhere to the folded lower flap, there being a line of central cross perforations short of the width of the envelop, and a single dry-gummed sealing flap adapted to seal both pockets, as described.

939,877. ROAD-ROLLER. MARQUIS J. TODD and DAVID FARQUHAR, Buffalo, N. Y., assignors to Buffalo Steam Roller Company, Buffalo, N. Y., a Body Corporate of New York. Filed Mar. 30, 1908. Serial No. 424,032.

1. In a road roller, in combination, a main frame, a roll mounted on said frame, continuous racks within the roll at the opposite ends thereof, two sets of gearing at opposite sides of the frame extending into the roll and in mesh with said racks, fixedly mounted shields fitted within the ends of said roll adjacent to said racks, said gearing comprising short shafts, brackets forming bearings for said short shafts mounted on said frame and extending into the roll, beyond the planes of said racks, pinions on said shafts in mesh with said racks, said brackets supporting said shafts on opposite sides of said pinions, and gear wheels on the outer ends of said short shafts, said shields having openings to accommodate said brackets, and an engine driven shaft mounted on said main frame adjacent to said roll and having pinions in mesh with the gear wheels of said short shafts.

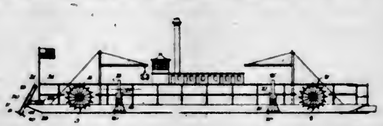


2. In a road-roller, a frame, a roll mounted on said frame having a continuous rack at each end thereof, two sets of gearing at opposite sides of the frame meshing with said racks, and an engine-driven crank-shaft for actuating both sets of gearing, said crank-shaft being formed in sections, one of which may be adjusted axially relatively to the other.

3. In a road roller, a frame, a roll mounted on said frame and beveled at its ends, continuous racks within the ends of said roll, two sets of gearing at opposite sides of the frame in mesh with said racks, brackets forming bearings for said gearing mounted on said frame and extending into the roll, an engine driven shaft for actuating both sets of gearing, said shaft being mounted on said frame adjacent to said roll, and fixedly mounted shields having beveled edges conforming to the bevels of the roll, said shields also having openings to accommodate said brackets.

4. In a road-roller, a frame, a roll mounted thereon, continuous racks within opposite ends of the roll, two short shafts extending into the ends of the roll, bearings for said shafts, gearing carried by said shafts, cheek plates secured to the sides of said frame and having angled ends extending inwardly forward of the roll, said bearings being supported by said frame and cheek plates, a brace plate extending transversely of the frame and secured to the angled ends of said cheek-plates, and an engine-driven crank-shaft mounted on said frame for driving said gearing.

939,878. BOAT. WILLIAM T. URIE, Kansas City, Mo. Filed May 28, 1909. Serial No. 498,989.



1. In a light draft boat, the combination of four propelling wheels disposed in pairs fore and aft, a spar cooperating with the wheels to effect movement of the boat off and away from a sandbar, power means for operating the spar to lift the boat, anchoring spuds disposed contiguous to the propelling wheels, and means for raising and lowering the spuds.

2. In a light draft boat, means for propelling the same, comprising four wheels disposed at each side fore and aft, independent engines for driving said wheels in either direction, a spar provided with movable wings at one end

and mounted on one end of the boat and adapted to engage the river bottom and while the propelling wheels are rotating to move the boat, mechanism for positioning the spar and actuating the same, oscillating spuds disposed contiguous to the propelling wheels, and cushioning devices disposed in relation to the spuds and adapted to cushion the same when oscillated.

939,879. WRENCH. LAWSON G. VAN OSMER, Trafford, Pa. Filed Jan. 28, 1909. Serial No. 474,788.

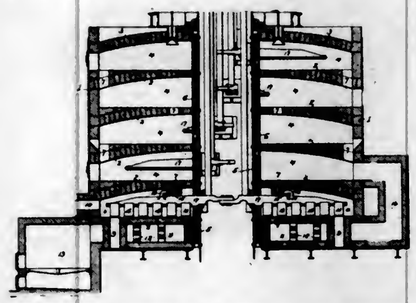


1. In a wrench, the combination with a toothed shank having a fixed jaw, and a detachable handle, of a jaw slidably mounted upon said shank and having a longitudinal recess to receive said shank, said jaw being recessed and provided with two openings, a member pivotally mounted in said recess, a pawl loosely connected to the lower end of said member, and having a tooth for engaging said toothed shank, a coil spring connecting said pawl with the outer end of said member, a pin arranged transversely in said recess for limiting the movement of said pawl, a cam pivotally mounted in one of said openings for moving said pawl and placing said spring under greater than the normal tension, a double thumb piece carried by said cam and adapted to engage the outer edge of said jaw for retaining the tooth of said pawl out of engagement with said shank, and a plate secured upon said jaw for retaining said member within said recess and said jaw in engagement with said shank, substantially as described.

2. In a wrench, the combination with a toothed shank having a fixed jaw, and a detachable handle, of a jaw slidably mounted upon said shank, said jaw having a recess formed therein, a member pivotally mounted in said recess, a pawl loosely connected to said member and having a tooth adapted to engage said toothed shank, a coil spring connecting the outer end of said member with said pawl for retaining the tooth of said pawl in engagement with said toothed shank, a pin carried by the movable jaw and engaged by said pawl, and a pivoted cam mounted in said jaw for moving said pawl out of engagement with said shank and placing said spring under greater than the normal tension, said pin acting as a fulcrum for said pawl during said operation, substantially as described.

939,880. ROASTING AND LIKE FURNACE. UTLEY WEDGE, Ardmore, Pa. Filed Nov. 29, 1907. Serial No. 404,309.

1. A furnace in which are combined an open member in which the heating gases have access to the material under treatment and a muffle member from which said heating gases are excluded, means for collecting the gases produced in said muffle member, and a central shaft carrying, in both the open and muffle members of the furnace, means for stirring and conveying the material on the hearths thereof.



2. A furnace in which are combined two members operating successively upon the material under treatment, one of said members being an open member in which the heating gases have access to the material under treatment and the other a muffle member from which said heating gases are excluded, means for collecting the gases produced in the muffle member of the furnace, and a central shaft carrying means located both in the open and muffle members of the furnace and serving to stir and convey the material upon the hearths of the same.

3. A furnace in which are combined an open member to which the heating gases have access, a muffle member from which the heating gases are excluded, and means whereby the material under treatment is caused to pass first through the open member and then through the muffle member.

4. A furnace in which are combined two members, operating successively upon the material under treatment, one of said members being an open member and the other a muffle member, the communication between said members having a seal whereby flow of gas therethrough is prevented.

5. A furnace in which are combined an open member, a muffle member, and means whereby the material under treatment is caused to pass first through the open member and then through the muffle member, communication between said members having a seal whereby flow of gas therethrough is prevented.

[Claims 6 to 18 not printed in the Gazette.]

939,881. ROASTING-FURNACE. UTLEY WEDGE, Ardmore, Pa. Filed Feb. 24, 1909. Serial No. 479,736.

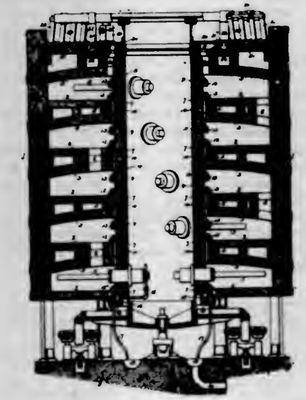
1. The combination of the fixed structure of a furnace, a rotating shaft therein, and an external ore-luted feeding device having, as an element, a plate carried by said rotating shaft.

2. The combination of the fixed structure of a furnace, a rotating shaft therein, and an ore-luted feeding device having, as an element, a plate carried by said rotating shaft, and embedded in the mass of ore.

3. The combination of the fixed structure of a furnace, a rotating shaft therein, and an external ore-luted feeding device having, as elements, a plate carried by said rotating shaft, means for removing portions of the mass of ore which forms the lute, and means for replenishing the same.

4. The combination of the fixed structure of a furnace, a rotating shaft therein, and an ore-luted feeding device having, as elements, a plate carried by said rotating shaft, means for removing portions of the mass of ore which forms the lute, and feeding them into the furnace through a roof opening surrounding the shaft, and means for replenishing the mass of ore which forms the lute.

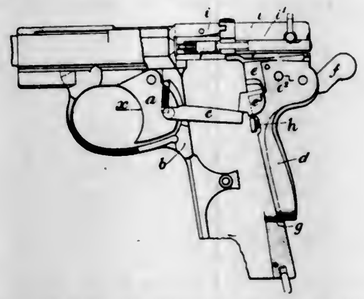
5. The combination of the fixed structure of a furnace, a rotating shaft therein, and an ore-luted feeding device having, as elements, a plate carried by said rotating shaft, a feeding device mounted upon said plate and serving to remove portions of the mass of ore which forms the lute and feed them into the furnace through a roof opening sur-



rounding the shaft, and means for replenishing the mass of ore which forms the lute.

[Claims 6 to 25 not printed in the Gazette.]

939,882. AUTOMATIC FIREARM. WILLIAM J. WHITING, Handsworth, near Birmingham, England. Filed Apr. 9, 1909. Serial No. 488,917.



1. In a fire arm, the combination of a main frame, a safety housing movable with respect to the frame, and firing mechanism comprising a hammer and sear carried by said housing, and a trigger and sear-tripping bar carried by the main frame, said sear being carried into operative relation with the said tripping-bar when the housing is moved in one direction.

2. In a fire arm, the combination of a frame carrying a trigger and a sear-tripping bar, a housing movable relatively to the frame and arranged at the rear of the handle or grip thereof, a spring for normally holding the housing in inoperative position, and a hammer and sear carried by said housing, the releasing part of the sear being in substantial alinement with the tripping bar but normally inoperative thereby, a movement of said housing carrying the sear into coöperative relation with the tripping bar.

3. In a fire arm, the combination of a frame provided with a handle or grip, a trigger and sear-tripping bar mounted in the frame, a safety housing movably mounted with respect to the handle or grip and having a spring for normally holding it in retracted position, a hammer, a sear coöperative with the hammer and arranged to be moved into operative and inoperative relation with respect to the tripping bar by movements of the safety housing, and means coöperative with the sear for locking the same from tripping movement while the housing is in retracted position.

4. In a fire arm, the combination of a frame having a handle or grip, a trigger and sear-tripping bar carried by the frame, a safety housing pivoted to the frame in rear of the handle or grip, a hammer, a sear coöperative with the hammer and carried by the safety housing, said sear having an extension arranged to be carried into coöperative relation with the sear-tripping bar when the housing is pressed toward the handle, the frame having a portion adapted to receive said extension on the sear and thereby hold the latter permanently in bent position while the safety housing is retracted.

5. In a fire arm, the combination of a frame having a handle or grip, a reciprocatory breech slide thereon, a trigger and sear-tripping bar mounted in the frame, a safety housing movably mounted with respect to the handle or grip, a hammer, and a sear coöperative with the hammer and arranged to be carried into operative and inoperative relation with the tripping bar by movements of said housing, said sear being carried into locked engagement with the breech slide to prevent releasing of the sear when the safety housing is in retracted position.

[Claim 6 not printed in the Gazette.]

939,883. MOP. GUSTAV B. WICHMANN and DAVIS RICH, St. Louis, Mo. Filed Nov. 16, 1908. Serial No. 462,904.



1. A mop head comprising a ferrule, a slidable swab receiving draw loop extending directly through said ferrule, and means whereby said draw loop may be moved longitudinally of said ferrule so as to pull the draw loop into the latter.

2. A mop head comprising a ferrule, a slidable swab receiving draw loop extending directly through said ferrule, a carrier ring loosely fitted to said ferrule and to which said draw loop is connected, and means operable upon said ferrule whereby said carrier ring may be moved longitudinally of said ferrule so as to pull the draw loop into the latter.

3. A mop head comprising a screw threaded ferrule, a slidable swab receiving draw loop extending directly through said ferrule, a carrier ring loosely fitted to said ferrule and to which said draw loop is connected, and a screw threaded draw nut operable on said ferrule and adapted to move said carrier ring longitudinally of said ferrule so as to pull the draw loop into the latter.

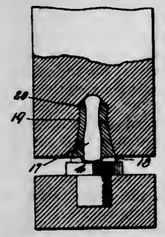
4. A mop head comprising a slotted screw threaded ferrule, a slidable draw loop extending through the slots in said ferrule, a carrier ring loosely fitted to said ferrule and to which said draw loop is connected, and a screw threaded draw nut operable on said ferrule whereby said carrier ring may be moved longitudinally of said ferrule so as to pull the draw loop into the latter.

939,884. PROCESS OF MAKING STEEL-CENTER CALKS. JOHN R. WILLIAMS, Scranton, Pa. Filed Nov. 27, 1907. Serial No. 404,077.

1. An improvement in the art of producing steel center calks which consists in introducing the center part within the calk and then compressing the body of the calk upon the center part and simultaneously causing a change in diameter of the center part, and leaving a relatively enlarged lower portion.

2. An improvement in the art of producing steel center calks which consists in introducing a pin of substantially uniform diameter into the bore in the body of the calk, then forcing a die upon the calk, compressing the upper

end of the body upon the upper portion of the pin, changing thereby the relative diameters of the upper and lower portions of the pin, and tapering the calk.



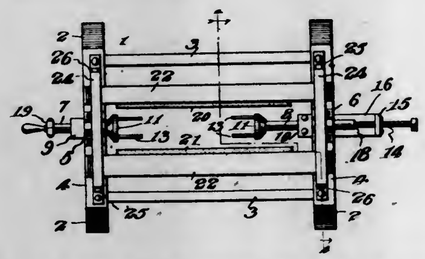
3. The art of producing steel center horseshoe calks which consists in providing a blank with central bore, introducing a steel pin into the bore and then setting the blank down by a die, to compress the blank inward upon the upper portion of the pin and thereby gripping the pin, forcing the pin downward and upsetting its portion below the grip to enlarge the same and tapering the blank.

4. The art of producing steel center horseshoe calks which consists in providing a blank with central bore, introducing a steel pin into the bore and then setting the blank down by a die, to compress the blank inward upon the upper portion of the pin and thereby gripping the pin, through the medium of the compressed body portion and forcing the upper portion of the pin downward relatively to the lower portion to enlarge the latter, the downward movement of the die being arrested above the lower end of the pin.

5. The process of manufacturing steel center calks which consists in pressing the calk about the steel pin and then stretching the calk endwise to contract it into intimate relation with the pin.

[Claims 6 to 8 not printed in the Gazette.]

939,885. SHARPENER FOR LAWN-MOWER CUTTERS. VINCEL WILLIMACK, Lost Nation, Iowa. Filed May 27, 1909. Serial No. 498,665.

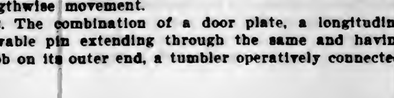


1. In a machine of the character described, the combination of a stand having a top composed of longitudinal and end bars, inverted U-shaped guide members on said end bars, longitudinal bars slidable in said guide members, coarse and fine grinding surfaces arranged in the opposing faces of said slidable bars, screws for adjusting said slidable bars, longitudinally alined shafts journaled in the bearing on the end bars of the stand, one of said shafts being longitudinally slidable, means for adjusting said slidable shaft, means for rotating the other shaft and means upon the opposing ends of said shafts for supporting work between said grinding surfaces.

2. In a machine of the character described, the combination of a support, inverted U-shaped guide members on said support, a longitudinal bar slidable in said guide members and carrying a grinding surface, screws in said guide members for adjusting said bar, longitudinally alined shafts journaled in bearings on said support, one of said shafts being longitudinally slidable, means for adjusting said slidable shaft, means for rotating the other shaft, means upon the opposing ends of said shafts for supporting work.

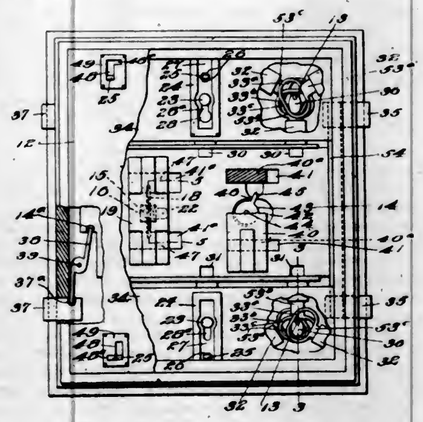
3. In a machine of the character described, the combination of a stand having a top composed of side and end bars, transverse guide member on said end bars, a longitudinal bar having its ends slidable in said guide members and its inner face recessed, a grinding block arranged in the recess of said bar, screws for adjusting said bar, opposing bearings on said end bars, longitudinally alined shafts in said bearings, one of said shafts being longitudinally slidable, a crank handle on the outer end of the other shaft, a bracket on one end of the stand, a stationary nut on said bracket, and an adjusting screw in said nut to engage the outer end of the slidable shaft, heads upon the opposing inner ends of said shafts and formed with centrally arranged seats to receive the ends of a shaft of a lawn mower cutter, longitudinally projecting pins on said heads to engage the ends of the lawn mower cutter.

939,886. BLASTING-CARTRIDGE. GEORGE WOLSEY and LOUIS FUSSEY, Alpena, Mich., assignors to James Murray, Alpena, Mich. Filed Feb. 7, 1908, Serial No. 414,854. Renewed June 24, 1909. Serial No. 504,154.



A blasting cartridge comprising an elongated tubular mass of a high explosive quality inclosing a core of explosive of a low detonating quality, said core having a detonator and fuse attached to one end thereof, said cartridge being surrounded by a tightly fitting water-proof casing, said casing having its end adjacent the detonator and fuse open.

939,887. PERMUTATION-LOCK. OTTO ANDERSON, Cleveland, Ohio. Filed Feb. 11, 1909. Serial No. 477,279.



1. In a lock, the combination of a rotary knob and pin, an indicator plate mounted on the pin and arranged to be turned with respect thereto, the knob having projections engageable with the plate in various positions, the pin being movable lengthwise to disengage said projections, a tumbler operatively connected to said pin, and releasable means engageable with the pin to hold the same against lengthwise movement.

2. The combination of a door plate, a longitudinally movable pin extending through the same and having a knob on its outer end, a tumbler operatively connected to the pin, a dial and an index plate extending around the pin on the outer side of the door, the index plate being mounted to turn on the pin to vary the combination, and the knob being engageable with the indicator plate in the various positions of the latter and disengageable by longitudinal movement of the pin, and means on the inside of the door plate to prevent such longitudinal movement.

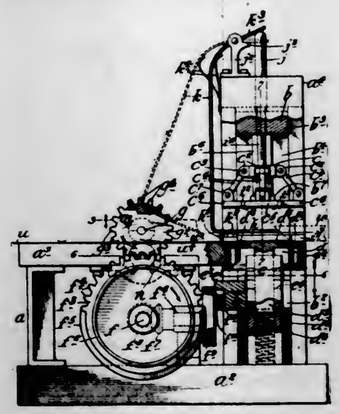
3. The combination of a door plate, a tumbler-actuating rotary pin movable lengthwise in the plate and having a knob and indicator at its outer end and a head at its inner end, the knob being normally engaged with the indicator and disengageable therefrom by pulling the pin outwardly, and a latch device engaging under the said head, on the inside of the door plate, to normally prevent said outward pull.

4. In a lock, the combination of a knob spindle, a cam thereon, and a series of sliding tumblers arranged symmetrically around the same and provided with springs pressing them against the cam with substantially equal force, one of said tumblers being active and the others being false.

5. In a lock, the combination of a knob spindle, a cam thereon, a sliding tumbler bearing against the cam and actuated by turning the spindle, and means to equalize the turning stress on the spindle in all positions of the cam.

[Claim 6 not printed in the Gazette.]

939,888. MACHINE FOR MAKING PAPER DISHES. ISAAC BERTIN, New York, N. Y. Filed Jan. 14, 1908. Serial No. 410,748.



1. In a machine for forming dishes from a strip of paper or similar material, a frame provided with a base plate having an opening, a vertically movable spring supported plunger mounted in said frame and provided with a head normally flush with the top of the base plate, said head being provided with hinged wings also normally flush with the top of the base plate, means whereby said wings will be raised when said plunger is lowered, a vertically movable top plunger mounted above the bottom plunger and adapted to operate in connection therewith, said plunger being provided with a head which corresponds with the head of the bottom plunger and with hinged wings which correspond with the wings of the head of the bottom plunger and are adapted to be raised by the wings of the bottom plunger, and means for forcing the wings of the top plunger downwardly when the said plunger is raised, and devices for operating said top plunger.

2. In a machine for forming dishes from a strip of paper or similar material, a frame provided with a base plate having an opening, a vertically movable spring supported plunger mounted in said frame and provided with a head normally flush with the top of the base plate, said head being provided with hinged wings also normally flush with the top of the base plate, means whereby said wings will be raised when said plunger is lowered, a vertically movable top plunger mounted above the bottom plunger and adapted to operate in connection therewith, said plunger being provided with a head which corresponds with the head of the bottom plunger and with hinged wings which correspond with the wings of the head of the bottom plunger and are adapted to be raised by the wings of the bottom plunger, and means for forcing the wings of the top plunger downwardly when the said plunger is raised, and devices for operating said top plunger, said machine being also provided with means for forming a blank from said strip of material and feeding said blank into position on the head of the bottom plunger.

3. In a machine of the class described, a frame provided with a base plate, a vertically movable spring supported bottom plunger mounted therein and provided with a head normally flush with the top thereof, said head being provided with hinged wings having springs which normally hold them flush with the top of the base plate, means for feeding a strip of material into the machine, forming a blank therefrom and feeding said blank onto said plunger, a supplemental top plunger mounted over the bottom plunger and provided with a head corresponding with the head of the bottom plunger and with hinged wings corresponding with the hinged wings of the head of the bottom plunger and adapted to be raised thereby when said bottom plunger is depressed, means for raising the wings of the head of the bottom plunger when said plunger is depressed, means for depressing the wings of the head of the top plunger when said top plunger is raised, and devices for operating said top plunger.

4. In a machine for forming dishes from paper or similar material, a frame provided with a base plate, a vertically movable bottom plunger mounted therein and provided with a head normally flush with the top of the base plate, transversely arranged gage bars mounted at the opposite sides of said plunger and ranging forwardly and backwardly of the machine, said gage bars being provided at their rear ends with stationary gages and at their front ends with movable gages, said gages being adapted to position a blank on said plunger as it is fed into position thereon, a vertically movable top plunger mounted over the bottom plunger and adapted to operate in connection therewith, said plungers being provided with means for forming a dish from said blank, means for normally holding the head of the bottom plunger flush with the base plate, and devices for operating the top plunger.

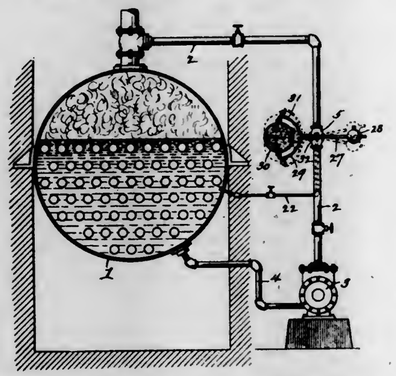
5. In a machine for forming dishes from paper or similar material, a frame provided with a base plate, a vertically movable bottom plunger mounted therein and provided with a head normally flush with the top of the base plate, transversely arranged gage bars mounted at the opposite sides of said plunger and ranging forwardly and backwardly of the machine, said gage bars being provided at their rear ends with stationary gages and at their front ends with movable gages, said gages being adapted to position a blank on said plunger as it is fed into position thereon, a vertically movable top plunger mounted over the bottom plunger and adapted to operate in connection therewith, said plungers being provided with means for forming a dish from said blank, means for normally holding the head of the bottom plunger flush with the base plate, and devices for operating the top plunger, said machine being also provided with means for feeding a strip of material thereinto, forming a blank therefrom and feeding said blank into position on the bottom plunger.

[Claims 6 to 19 not printed in the Gazette.]

939,889. FEED-WATER REGULATOR. CHARLES BRENT, Brandon, Manitoba, Canada. Filed Jan. 25, 1907. Serial No. 354,007.

1. In a feed water regulator, in combination, a boiler, a pump for supplying water to said boiler, a steam line from said boiler to said pump, a valve casing in said steam line,

a valve within said casing, a hollow stem for said valve and having an opening communicating with the steam space of said casing, a weighted lever carried by said valve stem and normally tending to open said valve, a reservoir on said lever for counteracting the effect of said weighted lever a pipe in communication with the opening in said valve stem for supplying steam to said reservoir and a suitable connection between said reservoir and the water space in the boiler, said pipe and said last mentioned connection serving to maintain a water level in the reservoir corresponding to that in the boiler.

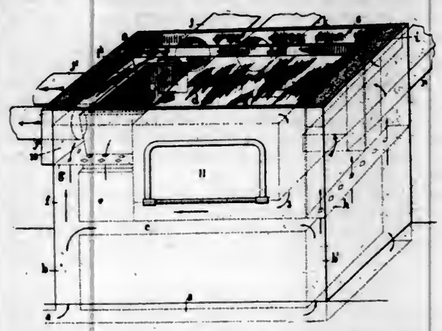


2. In a feed water regulator, in combination, a pump for supplying water to said boiler, a steam line from said boiler to said pump, a valve casing in said steam line, a portion projecting from one side of said valve casing and having a water supply opening therein, a valve within said casing, a hollow valve stem for said valve and projecting out of said casing in an opposite direction to said portion having the water supply opening, the opening in said stem having communication with the steam space in said valve casing, a weighted lever secured to said valve stem and pivotally mounted upon the water supply portion projecting from said casing, a water pipe secured to said lever and in open communication with the water supply opening, a receptacle also mounted upon said lever and in communication with said water pipe and adapted to receive water therefrom, and a steam pipe connected to said receptacle and in open communication with said hollow valve stem.

3. In a feed water regulator, in combination, a boiler, means for supplying water to said boiler, a steam line from the boiler to said water supply means, a valve casing in said steam line, a valve in said casing and having a plurality of ports, a valve seat in said casing also having a plurality of ports adapted to be arranged normally out of registration with the ports of said valve when it is closed, a hollow stem for said valve passing out of the casing and having an opening communicating with the steam space thereof, means normally tending to shift said valve into an open position, a reservoir communicating with said hollow stem for counteracting the tendency of said valve shifting means and adapted to be supplied with water and means whereby water and steam may be supplied to said reservoir so that the water level in the boiler may be maintained in the reservoir.

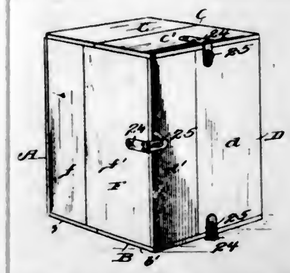
939,890. STOVE. JEAN E. CHOLTUS and HUBERT JEANNEASON, Paris, France. Filed July 7, 1908. Serial No. 442,335.

A stove having walls and partitions forming an oven, a fire-box, an ash-pit, a flue for heating the oven passing from the fire-box over and under the oven, a cold-air chamber beneath the lower part of the flue, an upper chamber surrounding the fire-box, a lower heating chamber adjacent to the ash-pit and communicating with the cold-air chamber, a rear heating chamber at the rear of the oven, distributing pipes communicating with the upper heating chamber, distributing pipes communicating with the rear heating chamber, and means for conducting air to the



cold-air chamber, the rear wall of the oven being provided with a closable opening connecting the oven and the rear heating chamber, and perforated partitions being provided between the upper and lower chambers and the cold-air and rear heating chambers respectively.

939,891. REFRIGERATOR. EDWARD F. CRAMER, Satsop, Wash. Filed Sept. 16, 1908. Serial No. 453,300.



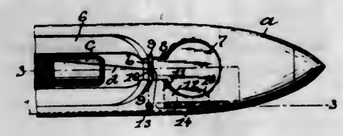
1. In collapsible refrigerator structures, in combination, a main wall, wall sections connected thereto at its edges, wall sections hinged to the corresponding sections first named and forming, with the latter, complete walls, a wall opposite to the main wall and comprising hingedly connected sections, one of which is hinged to the adjacent section of one of said complete walls, and means for holding corresponding sections in extended relation against movement on their connecting hinges.

2. In collapsible refrigerator structures, in combination, a main wall, wall sections connected thereto at its edges, wall sections hinged to the corresponding sections first named and forming, with the latter, complete walls, a wall opposite to the main wall and comprising hingedly connected sections, one of which is hinged to the adjacent section of one of said complete walls, means for holding corresponding sections in extended relation, against movement on their connecting hinges, a removably supported ice pan, supporting means for said pan associated with one of said walls, and a drip tube secured to one of said walls and having communication with said pan and with the exterior of said structure.

3. In collapsible refrigerator structures, in combination, a rear wall A, a top wall C having a section c connected to the wall A and a section c' hinged to the section c, a bottom wall B having a section b connected to the wall A and a section b' hinged to the section b, side walls E and F, having respective sections e and f connected to the wall A and having respective sections e' and f' hinged to the corresponding sections e and f, a front wall D having a section d hinged to the section e' and having a section d' hinged to the section d, and means for locking said walls against relative movement in their assembled relation.

4. In collapsible refrigerator structures, in combination, a rear wall A, a top wall C having a section c connected to the wall A and a section c' hinged to the section c, a bottom wall B having a section b connected to the wall A and a section b' hinged to the section b, side walls e and f, having respective sections e and f connected to the wall A and having respective sections e' and f' hinged to the corresponding sections e and f, a front wall D having a section d hinged to the section e' and having a section d' hinged to the section d and means for locking certain corresponding pairs of said sections in extended relation, said means comprising a bar pivoted to one of the sections of the pair to be locked and oppositely arranged keepers, one provided on each section of the pair, to receive the ends of said bar.

939,892. LOOM-SHUTTLE. JOHN V. CUNNIFF and CHARLES RAFFERTY, Fall River, Mass. Filed Oct. 28, 1908. Serial No. 459,928.

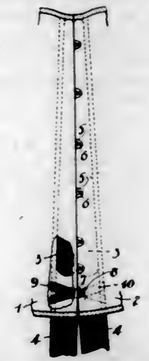


1. A shuttle, comprising a body having a bobbin cavity, a threading cavity entered into said body adjacent said bobbin cavity at the delivery end thereof to a depth substantially below the axis of said shuttle, an axial passage joining said bobbin cavity and said threading cavity, a second passage connecting said threading cavity with the delivery side of the shuttle, a delivery eye extending substantially parallel to and lying adjacent to said second passage and means located between said second passage and delivery eye whereby the thread may be automatically carried into said eye but is prevented from falling back therefrom.

2. A shuttle, comprising a body having a bobbin cavity, a threading cavity entered into said body adjacent said bobbin cavity at the delivery end thereof to a depth substantially below the axis of said shuttle, an axial passage joining said bobbin cavity and said threading cavity, a second passage connecting said threading cavity with the delivery side of the shuttle, a delivery eye extending substantially parallel to and lying adjacent to said second passage, a downwardly and rearwardly inclined slot connecting said second passage and said delivery eye, and an inclined pin entering said eye near the upper wall of said slot and inclined away therefrom, whereby a thread will automatically proceed from said passage to said eye, but may not return.

3. A shuttle, comprising a body having a bobbin cavity, a threading cavity entered into said body adjacent said bobbin cavity at the delivery end thereof to a depth substantially below the axis of said shuttle, an axial passage joining said bobbin cavity and said threading cavity, a second passage connecting said threading cavity with the delivery side of the shuttle, a delivery eye extending substantially parallel to and lying adjacent to said second passage, a downwardly and rearwardly inclined slot connecting said second passage and said delivery eye, and an inclined pin entering said eye near the upper wall of said slot and inclined away therefrom, whereby a thread will automatically proceed from said passage to said eye, but may not return, said pin continuing internally of said shuttle body to substantially inclose said second passage whereby to strengthen the structure.

939,893. CORSET. JOHN A. DALEY, West Brookfield, Mass., assignor to Olmstead-Quaboag Corset Company, West Brookfield, Mass., a Corporation of Massachusetts. Filed Apr. 19, 1909. Serial No. 490,718.



In a corset, a front line connection including reinforcing steels terminating well above the lower edge of the corset with fastening devices carried thereby and secured thereto, an additional fastening device carried by the lower flexible portion of the corset below the ends of the steels, said fastening devices corresponding with those carried by the steels, and hose supporter straps attached to the flexible front edges of the corset, each of said fastening devices comprising a stud and loop, the lowermost loop being depressed to provide a receiving cavity for the said head.

939,894. WORK-HOLDER FOR SEWING-MACHINES. ALBERT H. DE VOE, Elizabeth, N. J., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed June 12, 1908. Serial No. 438,028.



1. A work-holder comprising a stretching ring, an elastic band coöperating therewith in clamping the margin of that portion of the work stretched across said ring, and a series of spaced work-embracing fingers fulcrumed upon and substantially tangentially with the adjacent portions of said ring and adapted to swing in planes transverse to that of said ring.

2. A work-holder comprising a stretching ring, means for maintaining a section of the work stretched across the same, and a series of spaced work-embracing fingers adapted to be shifted transversely in relation to the plane of said ring and serving in conjunction therewith to confine the unstretched portion of the work.

3. A work-holder comprising a stretching ring, an elastic band coöperating therewith in clamping the margin of that portion of the work stretched across said ring, and a series of fingers reflexly bent to embrace the unstretched portion of the work exterior to said ring and having their free ends movable toward and from the latter and adapted when in operative position to confine the spring in engagement with the work.

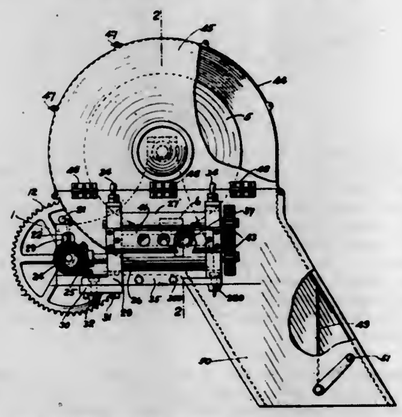
4. A work-holder comprising a stretching ring having a work-engaging edge and a series of spaced fulcrum lugs with tangentially arranged bearings offset from the plane of said work-engaging edge, an elastic band coöperating with said stretching ring in clamping the margin of that portion of the work stretched across said ring, and a series of work-embracing fingers having angularly arranged

shanks each fitted to one of said bearings and adapted to swing transversely of said ring.

5. A work-holder comprising a stretching ring provided with an external work-receiving groove or channel, and an endless elastic band of circular cross section exceeding in diameter the width of said groove or channel in the stretching ring, and coöperating with the latter in clamping the margin of that portion of the work stretched across said ring.

[Claims 6 and 7 not printed in the Gazette.]

939,895. POWDER-CUTTING MACHINE. CHARLES DOBBS, Haskell, N. J., assignor to Lafin and Rand Powder Company, New York, N. Y., a Corporation of New York. Filed Oct. 20, 1908. Serial No. 458,735.



1. In a powder cutting machine, the combination with a driving shaft and a cutter operated thereby, of feed rolls, positively actuated means to adjust said rolls toward or from each other to maintain them at a fixed distance apart, power transmitting mechanism between the driving shaft and both feed rolls, and adjusting means engaging said power transmitting mechanism and adapted to be operated to maintain the driving connection between the driving shaft and the feed rolls notwithstanding the adjustment of the latter.

2. In a powder cutting machine, the combination with a driving shaft and a cutter operated thereby, of a transmission shaft, feed rolls, driving connections between the driving shaft and transmission shaft, driving connections between the transmission shaft and both feed rolls, positively actuated means to adjust the feed rolls toward or from each other, to maintain them at a fixed distance apart, and means to adjust the transmission shaft to maintain its driving connection with the feed rolls in any of their adjusted positions.

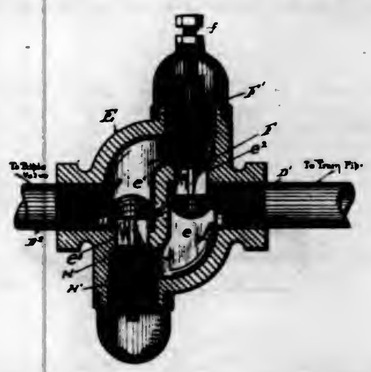
3. In a powder cutting machine, the combination with a driving shaft and a cutter operated thereby, of a transmission shaft, feed rolls, driving connections between the driving shaft and transmission shaft, driving connections between the transmission shaft and both feed rolls, means to adjust the feed rolls to vary the distance between their axes and hold them fixed in their adjusted relations, means to adjust the transmission shaft to maintain its driving connection with the feed rolls in different adjusted positions of the latter, and means to adjust the driving connections between the driving shaft and the transmission shaft.

4. In a powder cutting machine, the combination with a driving shaft and a cutter operated thereby, of a transmission shaft, feed rolls, driving connections between the driving shaft and transmission shaft, driving connections between the transmission shaft and one of the feed rolls, driving connections between such feed roll and the other feed roll, means to positively vary and define the distance between the feed rolls, and means to adjust the transmission shaft to maintain its driving connection with the first named feed roll.

5. In a powder cutting machine, the combination with a cutter, of a pair of feed rolls, means for operating the cutter and rolls in unison, a housing supporting the rolls, said housing being pivoted on a vertical axis to permit said rolls to swing outwardly at an angle to the cutter.

[Claims 6 to 14 not printed in the Gazette.]

939,896. REGULATOR FOR AIR-BRAKES. CHARLES J. DORAN, Erie, Pa., assignor of one-third to Ward R. Hulbert and one-third to Gustave M. Siegrist, Erie, Pa. Filed June 3, 1909. Serial No. 499,998.



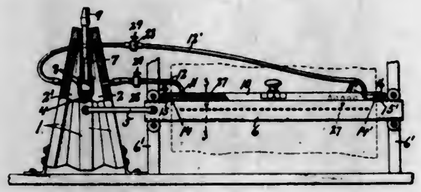
1. An automatic regulator for air-brake systems comprising substantially two chambers, one communicating with the train-pipe and the other with the triple-valve, valve mechanism in the wall separating said chambers adapted to open toward the chamber communicating with the triple-valve when the pressure in the chamber communicating with the train-pipe rises above the predetermined point, and adapted to open toward the chamber communicating with the train-pipe, when the pressure in that chamber falls below the pressure in the other chamber, substantially as set forth.

2. An automatic regulator for air-brake systems comprising substantially two chambers having valve openings between them, one chamber communicating with a train-pipe and the other with a triple-valve, a valve for closing one of the openings between said chambers opening toward the chamber communicating with the triple-valve, adjustable spring mechanism for applying pressure to said valve, and a valve for closing the other opening between said chambers opening toward the chamber communicating with the train-pipe, adapted to close when the pressure in the chamber communicating with the train-pipe is greater than the pressure in the other chamber, substantially as set forth.

3. The combination in an air-brake regulator adapted to be inserted in the branch-pipe leading from the train-pipe to the triple valve of an air-brake mechanism, of a hollow shell, a wall having two openings therein dividing said shell into two chambers, one of which communicates with the train-pipe and the other with the triple-valve, and valves operating in opposite directions for closing the openings in said dividing wall, and adjustable spring mechanism operating on one of said valves to prevent the opening thereof before a predetermined pressure is established in the chamber communicating with the train pipe, substantially as set forth.

4. An air-brake regulator adapted to be placed in the branch-pipe leading from the train-pipe to the triple-valve of an air-brake system, consisting substantially of a shell, a wall having openings therein and dividing said shell into two chambers, one of which communicates with the train-pipe and the other with the triple-valve, a valve opening toward the triple-valve for closing one of said openings, adjustable spring mechanism for applying pressure to said valve, and a valve opening toward the train-pipe adapted to close the other of said openings when the pressure in the chamber communicating with the train-pipe is greater than the pressure in the chamber communicating with the triple-valve, substantially as set forth.

939,897. GUIDE MECHANISM FOR TRAVELING SHEETS. LEWIS B. DOMAN, Elbridge, N. Y., assignor to Amphion Piano Player Company, Elbridge, N. Y., a Corporation of New York. Filed Nov. 10, 1908. Serial No. 461,931.



1. The combination with a traveling music sheet and tracker bar, of a valve support movable relatively to the tracker bar and provided with valve ports, valves for said ports, operating members for said valves engaging opposite edges of the sheet, and a pneumatic controlled by said valves for maintaining normal relation between the music sheet and tracker bar.

2. The combination with a traveling music sheet and tracker bar, of a valve support movable relatively to the tracker bar and provided with valve ports, valves for said ports, operating members for said valves engaging opposite edges of the sheet, a pneumatic controlled by said valves for maintaining normal relation between the music sheet and tracker bar, and means for locking the valve board to the tracker bar.

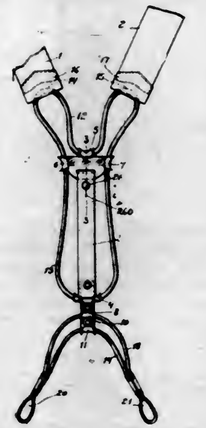
3. The combination with a traveling sheet and movable tracker bar, of means for maintaining normal relation between the sheet and tracker bar comprising a movable member normally balanced under equal air tension and controlling the movement of the tracker bar, separate air ports communicating with opposite sides of said member, separate normally closed valves for said ports, guide fingers for the edges of the music sheet movable with and independently of the tracker bar and controlling the opening of said valves to vary the air tension at the side of the movable member communicating with the opened port and thereby causing the movement of the tracker bar for restoring normal relation between the music sheet and tracker bar.

4. In combination with a traveling sheet or web, a movable tracker bar, a movable member normally balanced under equal air tension and controlling the movement of the tracker bar, separate normally closed air ports communicating with opposite sides of said movable member, separate devices, including guide fingers movable with the tracker bar and engaging the edges of the music sheet and operable by the disturbance of normal relation between the music sheet and tracker bar to open one of said ports and thereby vary the air tension at the side of the movable member which communicates with such opened port, one at least of said fingers being adjustable toward and from the other, and means for effecting such adjustment.

5. In combination with a tracker and music sheet of a pneumatic self-playing musical instrument, a pneumatic having separate compartments and an interposed movable partition between the compartments, separate conduits leading from the compartments, manually operated valves connected to said conduits and adapted to be opened to the atmosphere to admit the latter to one or the other of the compartments for actuating the partition, and connections between the partition and tracker for shifting the latter relatively to the music sheet.

[Claim 6 not printed in the Gazette.]

939,898. SUSPENDERS. GEORGE M. EDGARTON, Boston, Mass., assignor to George M. Edgarton Co., Inc., Boston, Mass., a Corporation of Massachusetts. Filed Oct. 31, 1906, Serial No. 341,423. Renewed Mar. 13, 1909. Serial No. 483,296.



1. A pair of suspenders comprising shoulder straps; a back strap; and band members each held by the ends of the shoulder straps against sliding movements relatively thereto, said band members forming two loops, one of said loops having a sliding connection with the upper end of the back strap, and the other passing on opposite sides of the back strap and held slidingly by the lower portion thereof, the upper end of the back strap having guide eyes for the vertical portions of the band members which extend from the shoulder straps to the lower portion of the back strap.

2. A pair of suspenders comprising shoulder straps; a back strap; and a cord doubled upon itself at two points and held immovably at such points by the shoulder straps, the intermediate portions of the cord forming two bights or loops, one of which extends across the upper end of the back strap and is confined slidingly thereby, while the other passes beside the edges of the back strap and across the lower portion thereof, being also confined slidingly.

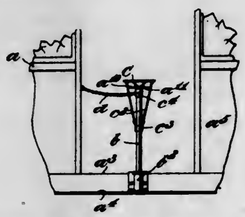
3. In a pair of suspenders, in connection with the shoulder straps, the back strap, and the flexible band connecting them; the plate, having top and side band-guiding eyes, connected to the upper end of the back strap; and a second plate secured to the lower end of the back strap, having a plurality of separate guides or eyes for the above-named band, and for a garment-supporting band.

939,899. PAY-WITHIN PASSENGER RAILWAY-CAR. AXEL H. ENGLUND, Philadelphia, Pa., assignor to The Pay-Within Car Company, Wilmington, Del., a Corporation of Delaware. Filed Mar. 16, 1909. Serial No. 483,680.

1. In a passenger car, a door control stand situated at a point in the space where the car-body merges into a platform, an operating handle thereon, and a grip placed so as to guard the operating handle from contact while an object is leaning against the upper end of said grip, substantially as and for the purposes described.

2. In a passenger car, the combination of a car-body and platform, the car body merging into the platform, a door control stand situated at a point where the car-body

merges into the platform and at approximately a central point to the cross-section area, an operating means therefor and a guard for protecting the operating means from contacting with passengers, substantially as and for the purposes described.



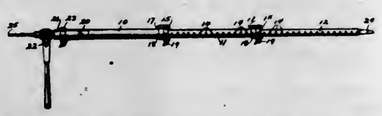
3. In a passenger car, a standard to define a conductor's station between a vestibule or platform and the main body of the car and to control a door and step of said vestibule or platform, the said standard having a passenger grip-hold connected therewith, substantially as and for the purposes described.

4. In a passenger car, a standard to define a conductor's station, interposed between a platform or vestibule and main body of the car and therefrom arranged to control the positions of a door and step of said platform or vestibule by means of a hand-lever and said standard having a grip-hold arranged in connection therewith so as not to interfere with the operation by said hand-lever of the platform or vestibule door and step for admitting persons to the car, substantially as and for the purposes described.

5. In a passenger car, a hollow standard interposed between a vestibule or platform and main body of the car, a bracket embracing said standard and having a pin projection for entering said standard to lock the same and a grip-hold having arms and a collar connected with said standard, substantially as and for the purposes described.

[Claim 6 not printed in the Gazette.]

939,900. RATCHET AND DRILL EXTENSION. HARRY J. FORSTER, Chicago, Ill. Filed July 18, 1905. Serial No. 270,286.



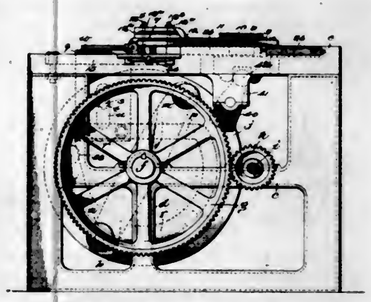
In a device of the class described, a bar rigid throughout, provided at one end with a square tapering extension having a center bearing at its extremity, and at the other end with a clamping sleeve to fit the feed screw of a ratchet, whereby a ratchet may be applied to either end of said bar.

939,901. HORSESHOE-BENDING MACHINE. DANIEL FABULER, Chattanooga, Tenn. Filed Dec. 26, 1908. Serial No. 469,358.

1. In a horse shoe bending machine, the combination of a former provided with a die, means for moving said former first in a straight path and then in a curved path, and devices which, as said former is moved in a straight line, bend a blank around said die, substantially as described.

2. In a horse shoe bending machine, the combination of a supporting frame, a disk mounted therein having a cam groove, part of said groove being straight and part curved, a disk mounted therein parallel to said cam, a former, carrying a die, located between said cam and said disk and provided with means projecting into the cam groove, means whereby the rotation of said disk moves said former and means for driving said disk, substantially as described.

3. In a horse shoe bending machine, the combination of a supporting frame, a disk fixedly supported thereon and having a cam groove, part of said groove being straight and part curved, a shaft mounted in said frame, a disk fixed on said shaft parallel to said cam, a former and die arranged to travel around said shaft in the space between said cam and disk, said former being slotted and having means extending into the cam groove, a pin, carrying a roller located in the slot of the former and secured to said disk and means for rotating said shaft, substantially as described.



4. In a horse shoe bending machine, the combination of a supporting frame, a disk fixed thereto and having a cam groove on one face part of said groove being straight and part curved, a disk parallel to said cam, a former adapted to be moved in the space between said disk and cam and provided with a slot, pins, with rollers thereon, screwed into said former and entering the cam slot, a pin secured to said disk, carrying a roller in the slot of the former, said cam being provided with a removable plug located opposite to part of the groove, and means for operating said disk, substantially as described.

5. In a horse shoe bending machine, means for holding a blank, comprising a pair of slidable arms, having heads adapted to engage the blank, levers adjustably engaging said arms, links attached to said levers and a spring attached to said links and acting to force said heads toward each other, substantially as described.

[Claims 6 to 11 not printed in the Gazette.]

939,902. RACE-STRAP. LOYD B. GARRISON, Artesia, N. Mex. Filed Oct. 20, 1908. Serial No. 458,678.

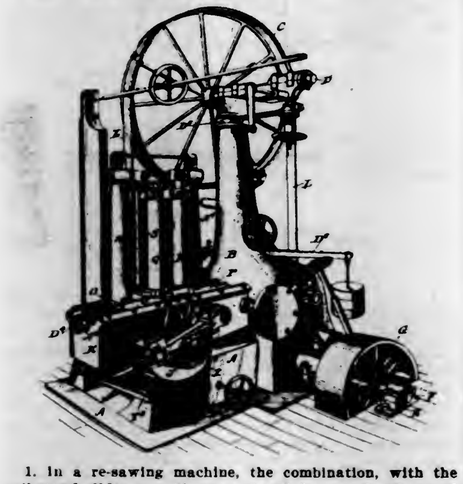


1. In combination with a strap or like binder provided with a fastener embodying a pivoted latch, a series of stops located at intervals in the length of the strap, each of said stops consisting of a button and a pin, the buttons being provided with depending projections adapted to be embedded in the upper surface of the strap and the pins passed through the strap and having their projecting ends riveted.

2. In combination with a strap or like binder provided with a fastener embodying a pivoted latch, a series of stops located at intervals in the length of the strap, each of said stops consisting of a button and a pin, the latter passed through the strap and having its projecting end riveted, and said button having a rim at its outer edge embedded in the strap to supplement the action of the pin and prevent the latch entering between the button and the strap.

3. The herein-described fastening means for straps and like binders, the same consisting of a series of buttons in the length of the strap, pins for securing the buttons to the strap, a frame comprising a base plate having upstanding side-pieces and provided at one end thereof with a depending lip adapted to bear against the adjacent end of the strap, there being lugs depending from the base plate and piercing the strap with their terminals clenched, and a latch pivoted to the frame between said side-pieces and adapted to engage any one of the buttons to secure the strap when tightened, said latch comprising angularly disposed parts, and side-pieces connecting said parts at their edges.

939,903. RESAWING-MACHINE. HENRY J. GILBERT, Saginaw, Mich., assignor to William B. Mershon and Company, Saginaw, Mich., a Corporation of Michigan. Original application filed Sept. 8, 1896, Serial No. 605,049. Divided and this application filed May 26, 1906. Serial No. 318,816.



1. In a re-sawing machine, the combination, with the roll-stand slides movable toward and from each other and the saw line, of a pair of independently rotatable wheels geared to the respective slides, and a weighted lever connected with said wheels and tending to turn them together in a direction to move the rolls toward the saw line.

2. In a re-sawing machine, the combination, with the roll-stand slides movable toward and from each other and the saw line, of a pair of independently rotatable wheels geared to the respective slides, a weighted lever connected with said wheels and tending to turn them together in a direction to move the rolls toward the saw line, and means for disconnecting said lever from and re-connecting it with said wheels at will.

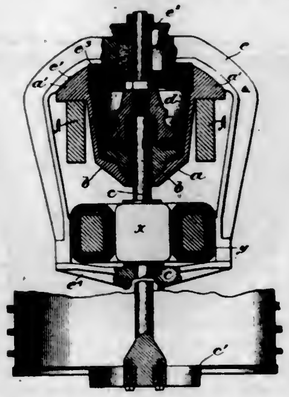
3. In a re-sawing machine, the combination, with the roll-stand slides movable toward and from each other and the saw line, of a pair of independently rotatable wheels geared to the respective slides, a weighted lever connected with said wheels and tending to turn them together in a direction to move the rolls toward the saw line, and means for disconnecting said lever from one of said wheels at will while leaving it connected with the other wheel.

4. In a re-sawing machine, the combination with the roll-stand slides movable toward and from each other and the saw line, of a concentric sleeve and shaft so geared at their rear ends to the respective slides as to move the latter in opposite directions, toward or from the saw line, when the shaft and sleeve are turned in unison in one direction or the other and provided upon their front ends with a pair of wheels for turning them, to adjust the respective sets of rolls toward and from the saw line.

5. In a re-sawing machine, the combination, with the roll-stand slides movable toward and from the saw line, of a concentric sleeve and shaft so geared at their rear ends to the respective slides as to move the latter in opposite directions, toward or from the saw line, when the shaft and sleeve are turned in unison in one direction or the other and provided upon their front ends with a pair of wheels, and a weighted lever connected with said wheels and tending to turn them together in a direction to move the rolls toward the saw line.

[Claims 6 to 51 not printed in the Gazette.]

939,904. CENTRIFUGAL MACHINE. GEORGE N. GODDARD, Newton, Mass., assignor to American Tool & Machine Company, Boston, Mass., a Corporation of Massachusetts. Filed Nov. 11, 1905. Serial No. 286,820.



1. A centrifugal machine embracing in its construction an oscillatory rotary basket-carrying shaft, an electric motor whose rotatable element is secured directly to said shaft, a yoke for supporting the non-rotatable element of said motor, said yoke having engagement with said rotary shaft above and below the center of oscillation of said shaft and provided with a spherically curved bearing surface concentric with the center of oscillation of said shaft, substantially as described.

2. A centrifugal machine embracing in its construction, a hanger provided with a spherically curved convex bearing surface, an oscillatory yoke supported upon said spherical bearing surface, a rotary oscillatory basket-carrying shaft suspended from said hanger by means of a ball and socket joint, said rotary shaft having a rotary engagement with said yoke above its center of oscillation whereby the oscillatory movement of said shaft is imparted to said yoke, and an electric motor whose rotary element is secured directly to said shaft and whose non-rotatable element is secured to said oscillatory yoke, substantially as described.

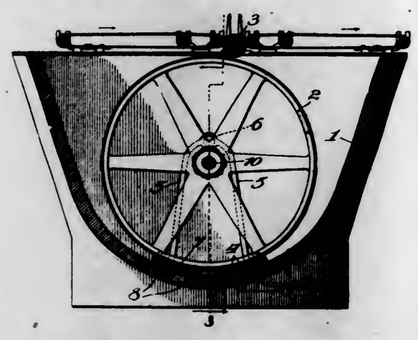
3. A centrifugal machine embracing in its construction, a rotary basket-carrying shaft suspended by means of a ball and socket joint to permit gyration of the shaft and basket, an electric motor whose rotatable element is secured to said shaft and whose non-rotatable element is supported by a yoke having bearings independent of said shaft, said yoke having a bearing engagement with the rotary shaft above said universal joint whereby the two elements of the motor are made to oscillate in unison, substantially as described.

4. A centrifugal machine embracing in its construction, a hanger, an oscillatory head having a ball and socket engagement with said hanger, a rotary basket-carrying shaft rotatably supported upon said oscillatory head, a yoke supported by said hanger and having bearing engagement with the upper end of said rotary shaft, an electric motor whose armature is secured to said shaft and whose field is secured to and supported by said yoke, substantially as described.

5. A centrifugal machine embracing in its construction, a hanger, a rotary basket-carrying shaft suspended from said hanger by a ball and socket joint, a carrying yoke supported upon said hanger by a spherical joint, said yoke

being provided with a bearing for engaging the upper end of the rotary shaft, means for opposing a yielding resistance to the oscillation of said yoke, and an electric motor whose armature is secured directly to the shaft and whose field is connected to and supported by said yoke, substantially as described.

939,905. AGITATOR. FREDERICK E. GOLDSMITH, Middletown, Ohio, assignor, by mesne assignments, to The Ceramic Machinery Company, Hamilton, Ohio. Filed Sept. 2, 1904, Serial No. 223,071. Renewed Aug. 30, 1909. Serial No. 515,338.



1. Agitating mechanism for tile coating machines, consisting of an agitator mounted in the vat of the machine in proximity to the bottom thereof, operating means for agitating said frame, and a cushioning device between the agitator and operating means, substantially as described.

2. In a coating machine, the combination of a concave bottomed vat, of an agitator mounted to swing to and fro in proximity to the curved bottom of the vat, actuating means, and a cushioning device between the agitator and actuating means, substantially as described.

3. In a coating machine, the combination with a vat for the coating material, of a drum mounted to rotate within said vat, and an agitator frame mounted between the lower portion of the drum and vat, and means for agitating said frame, substantially as described.

4. In a coating machine, the combination with a vat for the coating material and with a drum mounted to rotate therein, of an agitator comprising a transverse body extending between the bottom of the drum and vat, lateral arms suspending said body from points adjacent to the axis of the drum, and means for agitating said frame about its points of suspension, substantially as described.

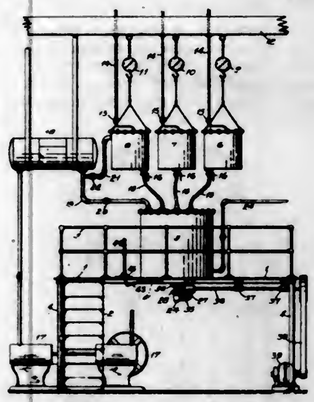
5. Agitating mechanism for coating machines, comprising an agitating frame mounted in the vat of the machine, an exterior driving part, and means interposed between the frame and driving part by which the frame is cushioned, substantially as described.

[Claims 6 to 13 not printed in the Gazette.]

939,906. APPARATUS FOR MAKING SOAP. WILLIAM A. GRANT, East Orange, N. J., assignor to Royal Solvent Company, a Corporation of New York. Filed Sept. 7, 1907. Serial No. 391,837.

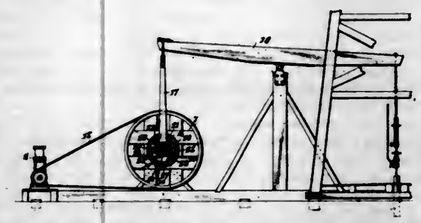
1. In an apparatus for making soap, the combination of a converter having a discharge port in its bottom, means for controlling said port, a charging container above said converter and adapted to discharge thereinto by gravity, a valved duct leading from the bottom of said container to the top of said converter, a compressed-air supply, ducts leading from said compressed-air supply to the tops of said converter and container, respectively, and valves for said last-mentioned ducts.

2. In an apparatus for making soap, the combination of a converter having in its bottom a port adapted to discharge the contents of the container by gravity, means for controlling said discharge port, charging containers above said converter adapted to discharge thereinto by gravity, valved ducts leading from the bottoms of said containers to the top of said converter, a compressed-air supply, ducts leading from said compressed-air supply to the top of said converter and one of said containers, respectively, and valves for said last-mentioned ducts each independent of the other.



3. In a converter, the combination of a cylindrical body portion arranged with its central axial line vertical, an axial shaft in said converter, a diametrically disposed rectangular frame in said converter having its rim adjacent to the walls of the converter, arms on said shaft and frame, means for rotating said shaft and frame, means for charging said cylindrical body portion, a compressed-air duct opening into the top of said cylindrical body portion adjacent to its curved walls, and a gate at the bottom of said cylindrical body portion also adjacent to its curved walls, said compressed-air inlet and gate being at opposite sides of the path of the said rotary frame.

939,907. DRILLING-MACHINE. JAMES W. GREEN, Portland, Oreg., assignor of one-half to James G. Pelton, Arleta, Oreg. Filed Aug. 27, 1906. Serial No. 332,190.



1. In well drilling mechanism, the combination with relatively rotatable driving and driven members, of a circular friction rim carried by one member, a shoe carried by the other member and engaging the rim, and means for yieldingly maintaining the shoe at all times in engagement with the rim, said means permitting the relative rotation of the rim and shoe, when the speed of the driven member exceeds that of the driving member.

2. In well drilling mechanism, the combination with a rotatable wheel, of a rotatable crank member journaled on the wheel, a rim carried by the wheel, a shoe that engages the inner face of the rim, and means for yieldingly holding the same against the rim at all times to effect the clutching action of the two when there is a resistance to the rotation of the crank member, said means permitting a sliding movement of the shoe upon the rim when the crank member's speed exceeds that of the wheel.

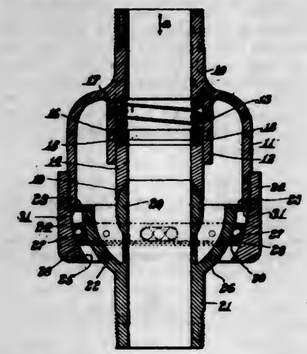
3. In well drilling mechanism, the combination with a driving member, of a driven member, a clutch element carried by one member, a coacting clutch element, spaced links connecting the latter element to the other member, and means for urging said latter element into coaction with the first mentioned member.

4. In well drilling mechanism, the combination with a driving member, of a driven member, a rim carried by one member, spaced links pivotally connected to the other member, and a shoe pivotally connected to the links.

5. In well drilling mechanism, the combination with a driven crank member, of a driving wheel having its axis of rotation substantially coincident therewith, a rim mounted on the wheel, a shoe coöperating with the rim, spaced links each pivotally connected at one end to the crank member and at its other end to the end of the shoe, and means for yieldingly urging the shoe into coaction with the rim.

[Claims 6 to 12 not printed in the Gazette.]

939,908. FLEXIBLE PIPE-JOINT. WARREN A. GREENLAW, Melrose Highlands, Mass., assignor to The Greenlaw Manufacturing Co., Boston, Mass., a Corporation of Maine. Filed Jan. 23, 1908. Serial No. 412,287.

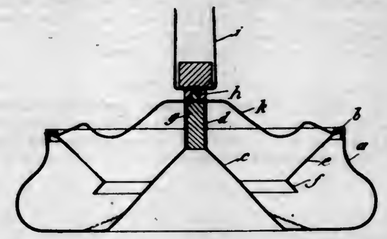


1. In a flexible pipe joint, the combination of a pipe member provided with a cup-shaped end; a second pipe member provided with a ball-shaped end and a semi-spherical apron having an outwardly projecting flange at its end; a stop for said ball end supported by the first-mentioned pipe member; a cap secured to the first-mentioned pipe member and provided with a semi-spherical inner wall; and anti-friction members interposed between said wall and said apron, movable in a path concentric to said semi-spherical apron and limited in movement in one direction by said outwardly projecting flange.

2. In a flexible pipe joint, the combination of a pipe member provided with a cup-shaped end; a second pipe member provided with a ball-shaped end and a semi-spherical apron; a cap secured to the first-mentioned pipe member and provided with a semi-spherical inner wall; anti-friction members interposed between said wall and said apron; a cage to retain said anti-friction members; and shoulders on said pipe members to limit the movement of said cage.

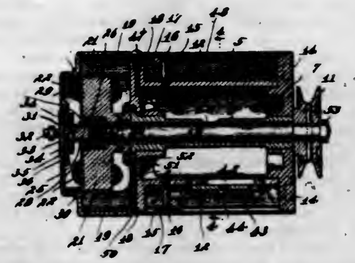
3. In a flexible pipe joint, the combination of a pipe member provided with a cup-shaped end having a cylindrical chamber and a tubular extension within said cup-shaped end; a spring-pressed tubular member within said chamber provided with a semi-spherical recess at one end; a second pipe member provided with a ball end adapted to fit said recess and a semi-spherical apron concentric with said ball end; a cap secured to the first-mentioned pipe member for retaining said ball end to its seat; a plurality of anti-friction members interposed between said cap and said apron; a cage for retaining said anti-friction members in position; and shoulders on said pipe members for limiting the movement of said cage about the center of said ball.

939,909. ASH-TRAY. SIEGFRIED GRÜNTHAL, Munich, Germany. Filed Nov. 3, 1908. Serial No. 460,931.



In an ash-tray in which the ashes glide through a slot between an outer and an inner funnel into a covered casing the combination of a casing having its bottom pressed inward in form of an upward directed funnel and ending into a short pipe, and a cover having also the shape of a funnel and forming by its lower outwardly bent edge a circular slot with the funnel of the casing, an elastic double fork mounted over the short pipe of the casing and riveted to the cover and a match box screwed upon said short pipe adapted to press by means of the elastic fork the cover upon the casing substantially as described and for the purpose set forth.

939,910. MAGNETO-GENERATOR. ROBERT H. HASSLER, Indianapolis, Ind. Filed Mar. 23, 1908. Serial No. 422,840.



1. In a device of the class described, a cylindrical support providing a lubricating reservoir, a series of magnets arranged about the axis of the support and projecting at one end to form a multipolar magnetic field, a shaft in the reservoir and carrying an armature in the said field, and means whereby the shaft may be revolved.

2. In a magneto-electric generator, a casing of non-magnetic material, a driving-shaft in the casing, a lubricating reservoir within the casing and communicating with the driving-shaft, a plurality of magnets mounted on the casing, and an armature secured to the driving-shaft and adapted to be rotated thereby.

3. In a device of the class described, a casing of non-magnetic material forming a lubricating reservoir, a bearing in the reservoir and having a port opening into the reservoir, a driving-shaft journaled in the bearing, a plurality of magnets on the casing, and an armature on the driving-shaft and adapted to be rotated thereby.

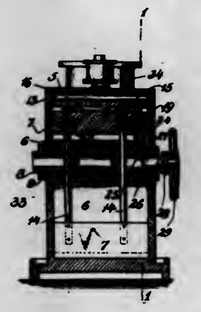
4. In an alternating current generator for ignition purposes, a cylindrical casing of non-magnetic material forming a reservoir for lubricating material, a plurality of mag-

nets arranged lengthwise on the outside of the casing, a shaft extending through the reservoir, an armature on one end of the shaft, and means whereby the shaft may be driven.

5. In an alternating current generator for ignition purposes, a cylindrical non-magnetic casing forming a reservoir for lubricating material, a plurality of magnets arranged lengthwise on the outside of the casing, projecting portions of the magnets forming pole pieces at one end, a shaft extending through the casing, an armature on the shaft, and means to introduce lubricant into the reservoir without disassembling the armature and pole pieces.

[Claims 6 to 9 not printed in the Gazette.]

939,911. PUMP. ALBERT HEIMANN and LEO FLATOW, New York, N. Y. Continuation of application Serial No. 341,550, filed Nov. 1, 1906. This application filed Dec. 23, 1907. Serial No. 407,619.



1. A rotary pump comprising a casing, an eccentrically arranged hub, diametrically arranged paddle blades carried by the hub, stems for connecting the said paddle blades together, and means operating concentrically with the said hub, but controlled from the exterior thereof, for adjusting the said connection, whereby the distance between the two said paddle blades may be lengthened or shortened.

2. A rotary pump comprising a casing, an eccentrically arranged hub, diametrically arranged paddle blades carried by the hub, stems for connecting the said paddle blades together, and a single adjusting stem, longitudinally disposed within the said hub, and having a plurality of cam surfaces, one for engagement with each said connecting stem, for simultaneously operating upon the said connecting stems to uniformly adjust the same, whereby the distance between the two said paddle blades may be lengthened or shortened.

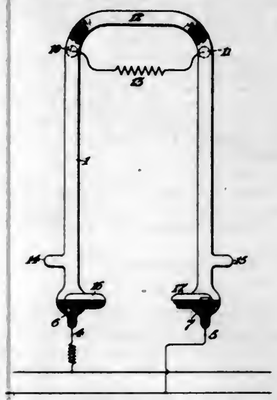
3. A rotary pump comprising a casing, an eccentrically arranged hub, diametrically arranged paddle blades carried by said hub, stems for connecting the said paddle blades together, said stems secured fast to one paddle blade and having a sliding fit with the other said paddle blade, and means operating concentrically with the said hub, but controlled from the exterior thereof, for adjusting the latter said paddle blade with respect to the stems, whereby the distance between the two said paddle blades may be increased or decreased.

4. A pump comprising a casing, a hub eccentrically mounted with respect thereto, radial paddle blades carried thereby, a rotary adjusting stem arranged to radially adjust the said paddle blades, and a spindle, disposed concentrically with respect to said hub, arranged to engage the inner end of said adjusting stem for effecting the said adjustment.

5. A rotary pump comprising a casing, a hub eccentrically mounted with respect thereto, a radial paddle blade carried thereby, a rotary adjusting stem carried by said paddle blade, and means for rotating said stem from the exterior of said casing.

[Claims 6 to 10 not printed in the Gazette.]

939,912. GAS OR VAPOR ELECTRIC LAMP. PETER C. HEWITT, New York, N. Y., assignor to Cooper Hewitt Electric Company, New York, N. Y., a Corporation of New York. Original application filed Apr. 9, 1904, Serial No. 202,286. Divided and this application filed June 29, 1905. Serial No. 267,526.



The method of securing a closed metallic circuit between electrodes of a vapor electric apparatus, for the purpose of starting, which consists in connecting the electrodes by passing the starting current between the electrodes within the container for a portion of the way adjacent to the electrodes, and for the remainder of the way more remote from the electrodes passing the current outside of the container.

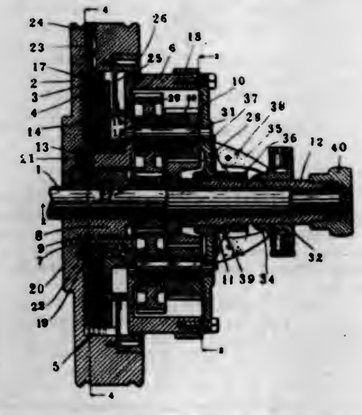
939,913. BAG-FRAME CATCH. CHRISTIAN HIERING and ALBERT FULLER, Newark, N. J., assignors to J. E. Mergott Company, Newark, N. J., a Corporation of New Jersey. Filed Sept. 28, 1905. Serial No. 280,423.



In a purse or bag fastener, the combination with a pair of hinged frame members, of a catch member mounted on each of said frame members for mutual coöperation, each catch member comprising a rigid base plate having intgral prongs thereon for riveting the same to said frame members and an engaging enlargement provided with a cylindrical face, laterally and vertically offset from said base plate, whereby when the enlargements of the two catch members are snapped past each other, the bag frame members will be fastened together, said enlargements being provided with holes therethrough in which are secured handles or knobs, said knobs or handles being of smaller diameter than said enlargement to facilitate opening and closing said fastener.

939,914. TRANSMISSION-GEAR. WILLIAM S. HOVEY, Three Rivers, Mich., assignor to The Sheffield Car Company, Three Rivers, Mich. Original application filed Jan. 14, 1907, Serial No. 352,222. Divided and this application filed Nov. 2, 1908. Serial No. 460,691.

1. The combination of a driving shaft; a chambered fly-wheel open at one side; a revolubly-mounted longitudinally adjustable member having a hub projecting into and rotatably and slidably mounted on the hub of said fly-wheel; a plurality of friction disks arranged within said fly-wheel and connected to revolve therewith; a plurality of friction disks connected to said hub of said adjustable member to revolve therewith, interposed between said disks connected to said fly-wheel; a clamping disk revolubly mounted on the hub of said adjustable member and adapted to bear against the outer friction disk; a plurality of coiled springs arranged to hold said adjustable member normally outward; a thrust ring for the inner ends of said springs arranged in said fly-wheel; projecting pins on said thrust ring arranged to engage the hub of said adjustable member; an annular plate projecting inwardly from the rim of said fly-wheel between said clamping disk and said adjustable member; and means for shifting said adjustable member.



2. The combination of a driving shaft; a chambered fly-wheel open at one side; a revolubly mounted longitudinally adjustable member having a hub projecting into and rotatably and slidably mounted on the hub of said fly-wheel; a plurality of friction disks arranged within said fly-wheel and connected to revolve therewith; a plurality of friction disks connected to said hub of said adjustable member to revolve therewith, interposed between said disks connected to said fly-wheel; a clamping disk revolubly mounted on the hub of said adjustable member and adapted to bear against the outer friction disk; an annular plate projecting inwardly from the rim of said fly-wheel between said clamping disk and said adjustable member; and means for shifting said adjustable member.

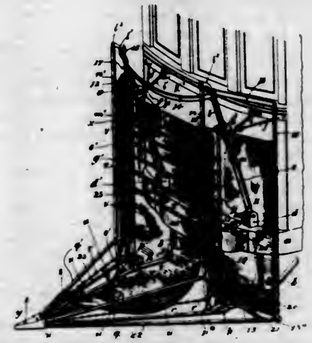
3. The combination of a driving shaft; a chambered fly-wheel open at one side; a revolubly-mounted longitudinally adjustable member having a hub projecting into and rotatably and slidably mounted on the hub of said fly-wheel; a plurality of friction disks arranged within said fly-wheel and connected to revolve therewith; a plurality of friction disks connected to said hub of said adjustable member to revolve therewith, interposed between said disks connected to said fly-wheel; a clamping disk revolubly mounted on the hub of said adjustable member and adapted to bear against the outer friction disk; a plurality of coiled springs arranged to hold said adjustable member normally outward; a thrust ring for the inner ends of said springs arranged in said fly-wheel; projecting pins on said thrust ring arranged to engage the hub of said adjustable member; and means for shifting said adjustable member.

4. The combination of a driving shaft; a chambered fly-wheel open at one side; a revolubly-mounted longitudinally adjustable member having a hub projecting into and rotatably and slidably mounted on the hub of said fly-wheel; a plurality of friction disks arranged within said fly-wheel and connected to revolve therewith; a plurality of friction disks connected to said hub of said adjustable member to revolve therewith, interposed between said disks connected to said fly-wheel; a clamping disk revolubly mounted on the hub of said adjustable member and adapted to bear against the outer friction disk; and means for shifting said adjustable member.

5. The combination of a driving shaft; a chambered fly-wheel open at one side; a revolubly-mounted longitudinally adjustable member having a hub projecting into and rotatably and slidably mounted on the hub of said fly-wheel; a plurality of friction disks arranged within said fly-wheel and connected to revolve therewith; a plurality of friction disks connected to said hub of said adjustable member to revolve therewith, interposed between said disks connected to said fly-wheel; a clamping disk revolubly mounted on the hub of said adjustable member and adapted to bear against the outer friction disk; a plurality of coiled springs arranged to hold said adjustable member normally outward; a thrust ring for the inner ends of said springs arranged in said fly-wheel; projecting pins on said thrust ring arranged to engage the hub of said adjustable member; and means for shifting said adjustable member.

[Claims 6 and 7 not printed in the Gazette.]

939,915. CAR-FENDER. MARCUS L. KEIZUR, Baker City, Oreg., assignor to Standard Fender Company, Portland, Oreg. Filed Dec. 30, 1907. Serial No. 408,705.



1. The combination with a car, of a V-shaped basket-like carrier hinged at its inner end to the car and comprising converging frame-members, and a yielding bottom covering therefor, means supporting said carrier in extended position from the car, such means including pendent flexible members, yielding strands stretched taut between said pendent members and the tip of said carrier, said strands being arranged to constitute side inclosures for said carrier, spaced apart from and above the underlying outer rigid frame-members of said carrier, and serving also as yielding guards for said rigid frame-members.

2. The combination with a car, of a V-shaped basket-like carrier hinged at its inner end to the car and comprising converging frame-members, and a yielding bottom covering therefor, means supporting said carrier in extended position from the car, such means including pendent flexible members, yielding strands stretched taut between said pendent members and the tip of said carrier, said strands being arranged to constitute side inclosures for said carrier, spaced apart from and above the underlying outer rigid frame-members of said carrier, and serving also as yielding guards for said rigid frame-members, a bar transversely fastened on said side-inclosures of said carrier near the forward end of and providing a closure for said carrier.

3. The combination with a car, of a V-shaped basket-like carrier hinged at its inner end to the car and comprising converging frame-members, and a yielding bottom covering therefor, means supporting said carrier in extended position from the car, such means including pendent flexible members, yielding strands stretched taut between said pendent members and the tip of said carrier,

said strands being arranged to constitute side inclosures for said carrier, spaced apart from and positioned above the underlying outer rigid frame-members of said carrier, and serving also as yielding guards for said rigid frame-members, and yielding sheering guards arranged to extend taut along the sides of said carrier laterally spaced therefrom.

4. The combination with a car, of a V-shaped basket-like carrier hinged at its inner end to the car and comprising converging frame-members and a yielding bottom covering therefor, extensible arms each comprising two telescoping members hingedly supported by the car, means supporting said arms in oblique position, non-flexible supporting members hingedly suspended from said extensible arms, the lower ends of said non flexible members being jointedly connected to and normally supporting said V-shaped carrier in extended position, flexible strands pendent from said extensible arms and fastened at their lower ends to the side frame-members of said carrier, said flexible pendent strands being arranged in advance of and spaced from said non-flexible frame-supporting members, means whereby said flexible pendent strands are maintained at a tension, yielding strands stretched taut between said pendent members and the tip of said carrier, said strands being arranged to constitute side inclosures for said carrier spaced apart from and positioned above the underlying outer rigid frame-members of said carrier and serving also as yielding guards for said rigid frame-members, yielding sheering guards arranged to extend taut along the sides of said carrier and laterally spaced therefrom, a bar transversely fastened on said side-inclosures of said carrier near the forward end of and providing a front end closure for said carrier, and a transversely arranged and vertically extending apron secured at its sides to said flexible pendent strands.

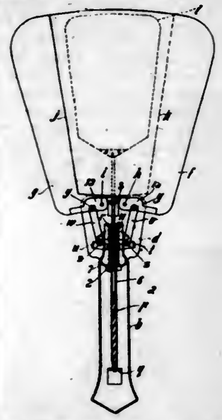
5. The combination with a car, of a V-shaped basket-like carrier hinged at its inner end to the car and comprising converging frame-members and a yielding bottom covering therefor, extensible arms each comprising two telescoping members hingedly supported by the car, means supporting said arms in oblique position, non-flexible supporting members hingedly suspended from said extensible arms, the lower ends of said non flexible members being jointedly connected to and normally supporting said V-shaped carrier in extended position, flexible strands pendent from said extensible arms and fastened at their lower ends to the side frame-members of said carrier, said flexible pendent strands being arranged in advance of and spaced from said non-flexible frame-supporting members, and means whereby said flexible pendent strands are maintained at a tension, yielding strands stretched taut between said pendent members and the tip of said carrier, said strands being arranged to constitute side inclosures for said carrier spaced apart from and positioned above the underlying outer rigid frame-members of said carrier and serving also as yielding guards for said rigid frame-members, yielding sheering guards arranged to extend taut along the sides of said carrier and laterally spaced therefrom, a bar transversely fastened on said side-inclosures of said carrier near the forward end of and providing a front end closure for said carrier, and a transversely arranged vertically extending apron secured at its sides to said flexible pendent strands, and vertical sheering wings comprising a frame and a yielding covering therefor, which sheering wings are arranged at a sheering angle in advance of and spaced from the corners of the car.

[Claims 6 to 16 not printed in the Gazette.]

939,916. FAN. LOUIS L. KORACH, Chicago, Ill. Filed Jan. 27, 1909. Serial No. 474,598.

1. In a device of the class described, the combination of a handle, a plurality of side leaves supported by the handle and movable with respect to each other, a rotary leaf supported by the handle, means for spreading the side leaves, and means for rotating the rotary leaf.

2. In a device of the class described, the combination of a handle, pivoted leaves supported by the handle, a rotary leaf, means for rotating the rotary leaf, and means for moving the pivoted leaves in a plane at an angle to the plane of rotation of the rotary leaf.



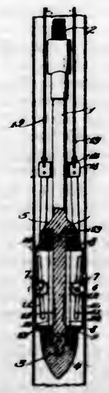
3. In a device of the class described, the combination of a handle, a leaf pivotally connected with the handle, a rotary leaf supported by the handle, means for rotating the rotary leaf, and means for moving the pivoted leaf in a direction different from the direction of movement of the rotary leaf.

4. In a device of the class described, the combination of a handle, a plurality of side leaves supported by the handle and in movable relation to each other, means for moving said side leaves to and from extended and collapsed positions respectively, an intermediate leaf adapted to be rotated when the side leaves are in extended position, and means for rotating the intermediate leaf.

5. In a device of the class described, the combination of a handle, a plurality of leaves pivotally connected with the handle, and adapted to swing in a plane parallel with the longitudinal center of the latter, a rotary leaf, and means for rotating said rotary leaf.

[Claims 6 to 15 not printed in the Gazette.]

939,917. CASING-PERFORATOR. CLEMENS E. LAPP and WILLIAM H. HARRISON, Los Angeles, Cal. Filed Mar. 11, 1909. Serial No. 482,734.



1. As a new article of manufacture, a tool bar having flat faces and having apertures extending through the flat faced portion, combined with tool elements, individually seated against said flat faces and coextensive therewith and fastening bolts passed through said apertures and holding said tool elements assembled.

2. As a new article of manufacture, a tool bar having flat faces, combined with tool elements coextensive with the flat faces and means removably securing said tool elements upon said tool bar and seated against the flat faces thereof for removal laterally therefrom.

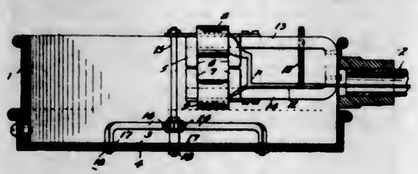
3. In a casing perforator, in combination, a tool bar, a plurality of radially disposed blocks mounted on said tool bar and provided with upwardly and outwardly inclined guide means, perforating means movably associated with each block and having a pin engaged in said guide means, a member axially slidable on said tool bar and arms connecting said member and said perforating means whereby the latter are moved by the former.

4. In a casing perforator, in combination, a tool bar, blocks assembled upon the tool bar, perforating means carried by the blocks, and means for adjustably positioning the blocks at desired positions radially away from the tool bar.

5. In a casing perforator, in combination, a tool bar, blocks assembled upon the tool bar, perforating means carried by the blocks and spacing and adjusting plates interposed between the bar and the blocks.

[Claims 6 to 10 not printed in the Gazette.]

939,918. ENAMELING-POWDER DISTRIBUTER. WILLIAM LINDSAY, Chicago, Ill. Filed July 6, 1909. Serial No. 505,982.



1. An enameling powder distributer consisting in a container having a long rigid handle adapting it to be held in the hands of the workman and moved about over the heated bath-tub or article to be enameled, and provided with a fine mesh wire sieve bottom and a coarse mesh support therefor, an electromagnet having a movable member and a connection between the movable member of the electromagnet and said coarse mesh support, substantially as specified.

2. An enameling powder distributer consisting in a container having a long rigid handle adapting it to be held in the hands of the workman and moved about over the heated bath tub or article to be enameled, and provided with a fine mesh wire sieve bottom and a coarse mesh support therefor, an electromagnet having a movable member and a connection between the movable member of the electromagnet and said coarse mesh support, said connection having a plurality of divergent arms, substantially as specified.

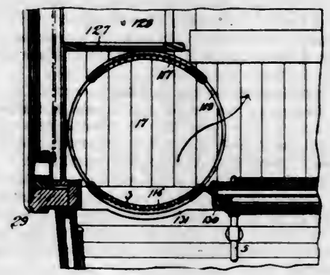
3. An enameling powder distributer consisting in a container having a long rigid handle adapting it to be held in the hands of the workman and moved about over the heated bath tub or article to be enameled, and provided with a fine mesh wire sieve bottom and a coarse mesh support therefor, an electromagnet and a connection between the movable member of the electromagnet and said coarse mesh support, said electromagnet being of horse-shoe type, and one of its poles being a movable member to which said connection is attached, substantially as specified.

4. An enameling powder distributer consisting in a container having a long rigid handle adapting it to be held in the hands of the workman and moved about over the heated bath tub or article to be enameled, and provided with a fine mesh wire sieve bottom and a coarse mesh support therefor, an electromagnet and a connection between the movable member of the electromagnet and said coarse mesh support, said electromagnet being of horse shoe type, and one of its poles being a movable member to which said connection is attached, and an adjusting means between the two arms of said horse shoe magnet, substantially as specified.

5. An enameling powder distributer consisting in a container having a long rigid handle adapting it to be held in the hands of the workman and moved about over the heated bath tub or article to be enameled, and provided with a fine mesh wire sieve bottom and a coarse mesh support therefor, an electromagnet and a connection between the movable member of the electromagnet and said coarse mesh support, said electromagnet being of horse shoe type, and one of its poles being a movable member to which said connection is attached, and an alternating current electric circuit for said magnet to cause the limbs of said magnet to be alternately and reversely polarized at each reversal of the current, substantially as specified.

[Claims 6 to 8 not printed in the Gazette.]

939,919. CAR-DOOR. FRANCIS X. MALOCSAY, Jersey City, N. J., assignor to William H. Heulings, Philadelphia, Pa. Original application filed Sept. 1, 1908, Serial No. 451,161. Divided and this application filed Dec. 9, 1908. Serial No. 466,620.



1. In a car of the class described, a door comprising two panels held in fixed relation with a space between them sufficient for a passenger, means for mounting said panels so that they rotate about a common axis, a partition adjacent to said panels and two posts parallel to said partition and adjacent to one of said panels when the door is in its closed position.

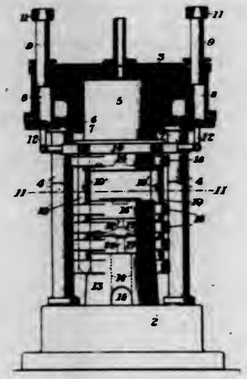
2. In a car of the class described, a partition and posts parallel thereto, a floor, a ceiling, a pair of parallel panels fixed to a disk revolving in said ceiling and separated sufficiently to let a passenger pass between them and means for mounting said disk so that it can revolve above the axis of said panels.

3. In a car of the class described, a floor with a circular groove therein, a ceiling, a partition and posts extending between said floor and ceiling, a disk and means for mounting the same so that it will revolve in said ceiling, curved panels suspended from said disk and means for guiding the lower ends of the panels in said circular groove.

4. In a device of the class described, a partition and posts, a floor and a ceiling secured to said posts and partition, a disk and means for mounting the same so that it will revolve in said ceiling, a door composed of two curved panels suspended from said disk and means in said floor for guiding the lower ends of said panels.

5. In a car of the class described, a partition and posts parallel thereto, a floor and a ceiling uniting said posts, an annular groove in said floor and a disk mounted in said partition, a door suspended from said disk having its lower ends guided by said groove, means for pivotally mounting said disk so that it is free to revolve and means for permitting said disk to revolve in one direction only.

939,920. FORGING-PRESS. CAMILLE MERCADER, Pittsburg, Pa.; Eugene Mercader, administrator of said Camille Mercader, deceased, assignor to Herman Laub, trustee, Pittsburg, Pa. Filed Apr. 10, 1906. Serial No. 311,015.



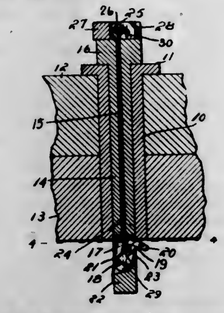
1. The combination with a forging press having opposing anvil faces and means for advancing and retracting one of said faces, of forming dies mounted between said faces, guides parallel with the line of movement of the movable anvil face, and means arranged to move the dies against the movable anvil face.

2. The combination with a forging press having opposing anvil faces and means for advancing and retracting one of said faces, of a plurality of forming dies mounted between said faces, and means for connecting one or more of said dies to move with the movable anvil face.

3. The combination with a forging press having opposing anvil faces and means for advancing and retracting one of said faces, of a plurality of forming dies mounted between said faces, and means movable with the movable die face and arranged to connect one or more of said dies to the movable anvil face.

4. The combination with a forging press having opposing anvil faces and means for advancing and retracting one of said faces, of a plurality of forming dies mounted between said faces, rods connected to the movable anvil faces and extending parallel with the line of movement thereof, and means for connecting either of the dies to said rods.

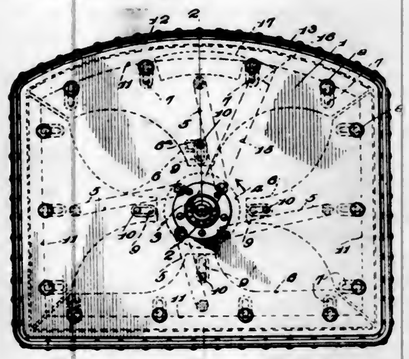
939,921. LOCK-BOLT. LAWRENCE MOELLER and DANIEL MOELLER, Andrew, Iowa; said Lawrence Moeller assignor to said Daniel Moeller. Filed July 17, 1908. Serial No. 444,081.



1. A device of the class described comprising a bolt having a longitudinal bore and with a head at one end and a transverse cavity at the other end, an arm adapted to swing in said cavity and to extend beyond the bolt and to be withdrawn into the cavity, a pull rod extending through the bore of the bolt and connected at one end to the arm, a cam device pivotally connected to the rod at the other end and bearing by one side upon the head of the bolt when the arm is in extended position, and bearing endwise upon the bolt head when the arm is in withdrawn position.

2. A device of the class described comprising a bolt having a longitudinal bore and with a transverse cavity at one end and a head at the other end, said head having a transverse recess communicating with the bore of the bolt, an arm adapted to swing in said cavity and to extend beyond the bolt and to be withdrawn into the cavity, a pull rod extending through the bore of the bolt and connected at one end to the arm, a cam device pivotally connected to the rod at the other end and bearing by one side upon the head of the bolt and concealed within the recess when the arm is in extended position, and bearing endwise against the bolt head and within the recess when the arm is in withdrawn position.

939,922. VAULT-CLOSURE. ALLEN M. MYERS and WILLIAM A. POISTER, Gallon, Ohio, assignors to The Gallon Metallic Vault Company, Gallon, Ohio. Filed Apr. 28, 1908. Serial No. 429,673.



1. A vault closure comprising a head, bolts secured to said head, latch plates mounted on the rear face of said head and each formed with a slot to receive the respective bolts, each latch plate being also formed at its inner end with a slot, guide pins secured to said head and received in the slots at the inner ends of the respective plates, an actuating pin mounted in said head, and an operative connection between said pin and said plates.

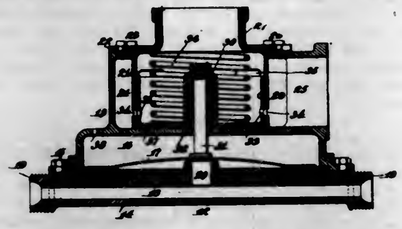
2. A vault closure comprising a head, an actuating pin mounted in said head, a disk secured to said pin at the rear face of the head, latch plates secured to the rear face of the head, and links pivotally connecting said disk with said plates, one of the plates being provided with a protuberance designed to be engaged by the adjacent link.

3. A vault closure, comprising a head, means for sealing said head in a vault, said means including an actuating pin mounted to turn in the head, a pawl secured to said pin at the rear face of the head, and a ratchet arranged for engagement by said pawl.

4. A vault closure, comprising a head, an actuating pin mounted to turn in said head, latch plates mounted on the rear face of the head in outwardly sliding connection therewith, one of said plates being provided on its rear face with a ratchet, and a pawl secured to said pin at the rear face of the head and arranged to engage said ratchet.

939,923. GOVERNOR FOR INTERNAL-COMBUSTION ENGINES. WILLIAM M. POWER, Portchester, N. Y. Filed Apr. 15, 1905. Serial No. 255,748.

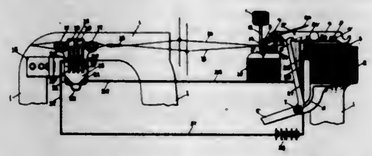
1. In a governor for internal combustion engines, the combination with the circulating pump and connections with the water jacket of the motor, of a branch connected to such connections and a governor coöperating with the branch, said governor containing a chamber through which the water circulates, the said governor including a throttle valve for controlling the entrance of the mixture to the engine, means for causing the said governor to respond to changes in pressure within the circulating system, and means for varying the position of the throttle valve independently of the speed of the engines.



2. In a governor for explosive engines, the combination with a casing, a diaphragm chamber therein, a base having a water passage, nipples communicating with the ends of the water passage, a diaphragm clamped between the casing and the base and within the diaphragm chamber, a valve-casing within the casing, the said valve-casing having a flange secured to the casing, a throttle valve within the valve-casing, ports formed within the valve and valve-casing, a stem on the valve extending into the diaphragm chamber, and engaging with the diaphragm, a hollow boss formed on the valve and engaging with the stem, and a guide secured to the casing and surrounding the stem.

3. In a governor for explosive engines, the combination with the engine of a pump and the circulating system of the water jacket, a governor arranged between the carbureter and the inlet valve of the engine, the said governor including a throttle valve for the mixture, a spring for opening the valve and a diaphragm for closing it, and tubular connections between the circulating system and the governor, the said connections including a four-way cock, by means of which the outlet from the diaphragm may be cut off as the inlet thereto is opened, and by means of which the pressure within the regulator may be controlled.

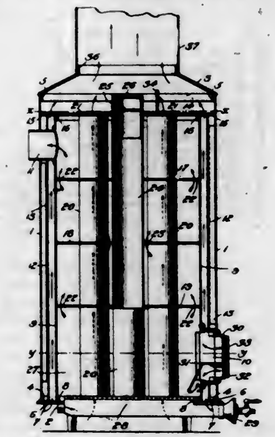
939,924. ELECTRIC WARP STOP-MOTION. JOHN REGAN, New Bedford, Mass., assignor to Crompton & Knowles Loom Works, a Corporation of Massachusetts. Filed Mar. 18, 1909. Serial No. 484,189.



1. In a warp stop motion for looms, a filling fork having a magnetic member thereon, an electric circuit, an electro-magnet supported on a stationary part of the loom, a drop device to close the circuit and energize the electro-magnet to hold the filling fork from being moved, a weft hammer to engage the filling fork and move it to operate mechanism to stop the loom.

2. In a warp stop motion for looms, a filling fork having a magnetic member thereon, a weft hammer to move the fork on the absence of filling, an electric circuit, an electro-magnet supported on a stationary part of the loom, and under the magnetic member on said fork, and means for energizing said electro-magnet to prevent the moving of the filling fork.

939,925. HEATER. ALFRED L. SCHELLHAMMER, Warren, Pa., assignor to Pennsylvania Furnace and Stove Company, Warren, Pa., a Corporation of Pennsylvania. Filed July 29, 1908. Serial No. 445,952.



1. A heater comprising in combination a casing, a suitable burner, a sight tube within the casing directed toward and terminating above said burner, a transparent closure for said tube, and means for diverting the products of combustion away from said tube, substantially as described.

2. A heater comprising in combination a casing, a suitable burner, a vertically arranged sight tube within the casing directed toward and terminating above said burner, a transparent closure for said tube, and means for diverting the products of combustion away from said tube, substantially as described.

3. A heater comprising in combination a casing, a suitable burner, a sight tube within the casing having an open end directed toward and terminating above said burner, a transparent closure for said tube above its open end, and means for diverting the products of combustion away from said tube, substantially as described.

4. A heater comprising in combination a casing, a suitable burner, a sight tube within the casing directed toward and terminating above said burner, a transparent closure for said tube, and means for diverting the products of combustion away from said tube including a baffle-plate near the lower end thereof, substantially as described.

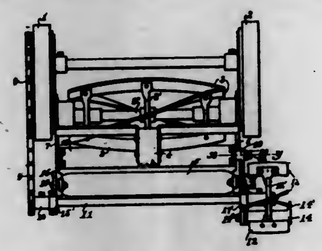
5. A heater comprising in combination a casing having inner and outer concentric walls, a suitable burner, a central sight tube within the casing directed toward and terminating above said burner, a transparent closure for the top of the sight tube, and a plurality of baffle plates surrounding said tube, substantially as described.

[Claims 6 to 15 not printed in the Gazette.]

939,926. LAWN-MOWER TRIMMING ATTACHMENT. HENRY SMITH, Bellingham, Wash., assignor of one-half to John A. Barger, Bellingham, Wash. Filed Sept. 23, 1908. Serial No. 454,436.

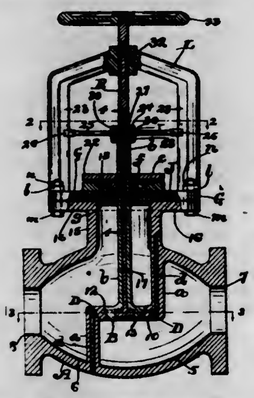
1. In a lawn mower, drive wheels and a main cutter-shaft and a cutter carried thereby, in combination with a second shaft, a trimming cutter on one end of said second shaft, a shear plate attached to one of the sides of the lawn mower coöperating with said trimming cutter, a removable attachment fastened to each side of said lawn mower, said attachments furnishing bearings for said second shaft and so located that said second shaft may be parallel with the main cutter shaft of said mower, a sprocket wheel on the other end of said second shaft, a sprocket wheel on one of said drive wheels and a chain over said sprocket wheels.

2. In a device of the character described, the combination of the frame of a lawn mower, a shaft on which is mounted a cutter head and a driving gear, a plurality of fixtures each suited to furnish a bearing for said shaft and



each having a slotted hole through which is a screw or bolt attached to the frame of the lawn mower, and a clip of adjustable length suited to span the width of one of the side castings of said mower and being adapted for attachment to one of said fixtures.

939,927. VALVE DEVICE FOR CORROSIVE LIQUIDS. WILLIAM H. SMITH, Cleveland, Ohio, assignor of one-half to Michael F. Barrett, Cleveland, Ohio. Filed Mar. 2, 1908. Serial No. 418,796.



1. In a valve-device for corrosive liquids, a valve-casing having a non-corrodible cast metal body which is provided interiorly with a passageway extending through the valve-casing and has a flaring valve-seat forming a portion of the surrounding wall of the said passageway, said valve-seat being reinforced by a hard metal frame which is "cast in" the non-corrodible metal of the valve-seat-forming portion of the body and wholly unexposed to the said passageway, which frame surrounds the valve-seat, and a suitably supported movable valve controlling continuity in the said passageway and arranged and beveled to render it capable of seating against the flaring valve-seat.

2. In a valve-device for corrosive liquids, a valve-casing having a non-corrodible cast metal body which is provided interiorly with a passageway extending through the valve-casing and has an annular flaring valve-seat forming a portion of the surrounding wall of the said passageway, said valve-seat being reinforced by a hard metal frame which is in the form of a ring which is "cast in" the non-corrodible metal of the valve-seat-forming portion of the body and wholly unexposed to the said passageway, which ring surrounds the valve-seat and has its internal surface flaring in the direction in which the valve-seat flares, and a valve controlling continuity in the said passageway and arranged to seat against the said valve-seat.

3. In a valve-device for corrosive liquids, a valve-casing having a non-corrodible cast metal body which is provided interiorly with a passageway extending through the valve-casing and has an outwardly projecting tubular neck which is integral with the body, said body being provided with a partition which has a portion arranged opposite the inner end of the aforesaid neck and is provided with a valve-seat which is formed by the surrounding wall of an aperture formed in the partition and flaring in the direction of the said neck, said valve-seat being reinforced by a hard metal frame which is "cast in" the non-corrodible metal of the valve-seat-forming portion of the body and wholly unexposed to the aforesaid passageway, which frame surrounds the valve-seat, and a valve controlling continuity in the said passageway and arranged to seat against the valve-seat.

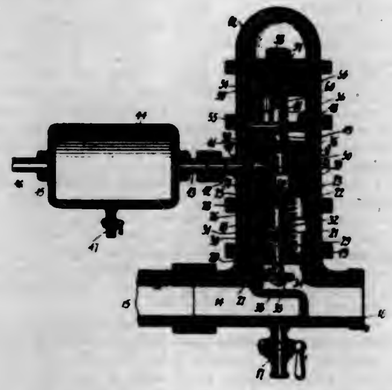
4. In a valve-device for corrosive liquids, a valve-casing having a non-corrodible cast metal body which is provided interiorly with a passageway extending through the valve-casing and has an outwardly projecting tubular neck which is integral with the body, said body being provided centrally between the ends of the aforesaid passageway with a partition which has a central portion which is arranged opposite the inner end of the neck and end-portions which are arranged substantially parallel with the neck, said partition having a valve-seat which is formed around an aperture formed in the central portion of the partition and reinforced by a hard metal frame which is "cast in" the non-corrodible metal of the valve-seat-forming portion of the partition and wholly unexposed to the aforesaid passageway and surrounds the valve-seat, said frame being provided with two arms which are rigid with the frame and arranged at opposite sides respectively of the said frame and projecting the one toward and into the neck and the other in the opposite direction, and a valve controlling continuity in the said passageway and arranged to seat against the valve-seat.

5. In a valve-device for corrosive liquids, the combination, with a valve-casing having a non-corrodible cast metal body which is provided interiorly with a passageway extending through the valve-casing, which body has an outwardly projecting tubular neck and is also provided internally with a valve-seat which extends around the said passageway and is arranged opposite the inner end of the neck, and a valve controlling continuity in the said passageway and provided with a stem extending through and beyond the outer end of the neck, of a non-corrodible cast metal cap instrumental in closing the outer end of the neck and provided in its outer side with a recess extending around the valve-stem, which cap is reinforced interiorly by a hard metal plate arranged between the inner end of the recess and the inner side of the cap; packing within the inner end of the recess; a gland controlling the compression of the packing; means for operating the gland to shift the gland inwardly or loosen the gland relative to the packing, and means for effecting an endwise movement of the valve-stem to open or close the valve.

[Claims 6 and 7 not printed in the Gazette.]

939,928. AIR-BRAKE RETAINING-VALVE. JOSEPH F. SPIEGEL, Galeton, Pa., assignor of one-fourth to Fred C. Williams and one-fourth to Edward A. Lacy, Galeton, Pa. Filed Dec. 28, 1908. Serial No. 469,527.

1. In a device of the kind described; a valve body adapted to communicate with the exhaust of the triple valve of an air brake system; a bonnet mounted on said valve body having an open upper end and an apertured diaphragm across the lower end; a valve stem slidably held in said apertures; a valve carried at the lower end thereof; a piston held in the bonnet upon the upper end of said valve stem and arranged to slide longitudinally of said stem; an adjustable collar on said stem; a spring held on said stem between the collar and the piston; a second spring held between the diaphragm and the piston; a cylinder mounted on the open end of the valve bonnet, said cylinder being provided with a relatively small bore below, a relatively large bore above, an exhaust port at the lower end of the small bore, a second port formed in the small bore, and a third port leading from the large bore to the second port; a piston provided with a head fitting the large bore, a stem, and a head fitting the small bore having an annular groove therearound, a central bore, and a port connecting the groove and bore; a closure for said cylinder; a spring held above said piston; an adjusting nut to vary the tension of said spring; and a reservoir adapted to communicate at one end with the second and third ports in the cylinder and at the other end with a train line by means of a relatively minute port.



2. In a device of the kind described, a valve body adapted to communicate with the exhaust of the triple valve of an air brake at one end and with an opening leading to the atmosphere at the other end; a bonnet mounted on said valve body; a valve stem; a valve carried at the lower end thereof; a piston held in the bonnet; an adjustable collar on said stem; a spring held on said stem between the collar and the piston; a second spring held between the diaphragm and the piston; a cylinder mounted on the open end of the valve bonnet, said cylinder being provided with a relatively small bore below, a relatively large bore above, an exhaust port at the lower end of the small bore, a second port above the exhaust port in the small bore, and a third port leading from the large bore to the second port; a piston provided with a head fitting the large bore, a stem and a head fitting the small bore having an annular groove therearound, a central bore, and a port connecting the groove and bore; a closure for said cylinder; a spring held above said piston; an adjusting nut to vary the tension of said spring; and a reservoir adapted to communicate at one end with the second and third ports in the cylinder and at the other end with a train line by means of a relatively minute port.

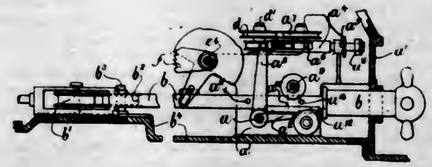
3. In a device of the kind described, a valve body adapted to communicate with the exhaust of the triple valve of an air brake system at one end and with the atmosphere at the other end; a bonnet mounted on said valve body having an apertured diaphragm across the lower end, a valve in said valve body; a piston held in the bonnet; a resilient connection between said piston and valve; a spring held between the diaphragm and the piston; a cylinder mounted on the open end of the valve bonnet, said cylinder being provided with a relatively small bore below, a relatively large bore above, an exhaust port at the lower end of the small bore, a second port above the exhaust port in the small bore, and a third port leading from the large bore to the second port, a piston provided with a head fitting the large bore, a stem, and a heading fitting the small bore having an annular groove therearound, a central bore, and a port connecting the groove and bore; a closure for said cylinder; a spring held above said piston; an adjusting nut to vary the tension of said spring; and a reservoir adapted to communicate at one end with the second and third ports of the cylinder and at the other end with a train line by means of a relatively minute port.

4. In a device of the kind described, a valve body adapted to communicate with the exhaust of the triple valve of an air brake system at one end and with an opening leading to the atmosphere at the other end; a bonnet mounted on said valve body; a piston held in said bonnet; means to normally hold said piston at one end of said bonnet; a valve; a resilient connection between said piston and valve; a cylinder provided with a plurality of ports held above said bonnet; a piston valve arranged to slide in said cylinder; means normally pressing the piston valve downward; an element to adjust the last mentioned means; and a reservoir adapted to communicate at one end with two of the ports in the cylinder and at the other end with a train line by means of a relatively minute port, the pressure from said reservoir being arranged to force said piston valve upward when at a predetermined pressure.

5. In a device of the kind described, a valve body, a valve held in said valve body, a valve bonnet mounted on said valve body, a pressure actuated piston held to slide in said bonnet and provided with a centrally located recess, a valve stem provided with a reduced portion and a head adapted to be held in said recess, said reduced portion being longer than the depth of said recess, and said head being of less thickness than the depth of the recess, and a retaining plate held upon said piston head to engage the reduced portion of the valve stem and prevent separation of said stem and piston.

[Claim 6 not printed in the Gazette.]

939,929. VOTING-MACHINE. GEORGE STACY and GEORGE A. JULIUS, Perth, Western Australia, Australia. Original application filed Dec. 26, 1906, Serial No. 349,478. Divided and this application filed Aug. 21, 1907. Serial No. 389,467.



1. In a voting machine, a plurality of operating bars, means to lock each bar in its operative position, an element operated by each bar as it is moved to operative position, to move through a "unit" distance, means to engage said element at the completion of its movement through the "unit" distance and to prevent further movement thereof and means operable subsequent to the operative movement of a bar to move said engaging means to a position permitting of a further movement of the element through a "unit" distance upon the next operative movement of another bar.

2. In a voting machine, a plurality of operating bars, means to lock each bar in its operative position, an element operated by each bar as it is moved to operative position, to move through a "unit" distance, means to engage said element at the completion of its movement through the "unit" distance and to prevent further movement thereof and means operable automatically by a locking means subsequent to the operative movement of the bar controlled by said locking means to move said engaging means to a position permitting of a further movement of the element through a "unit" distance upon the nxet operative movement of another bar.

3. In voting machines, in combination, an axially movable operating bar formed with a projection, a pivoted locking member movable to operatively engage said projection at the completion of the operative movement of the bar, a pivoted stop normally engaging the locking member to hold the same inactive, a pin provided on the bar to engage said stop and to move the same out of engagement with said locking member, and means for moving said locking member into operative position upon the disengagement of said stop therefrom.

4. In voting machines, in combination, independently movable operating bars, and regulatable means for permitting of the operation of a selected number of said bars and for preventing the movement of other bars beyond the determined selected number, and comprising a movable stepped cam, operative connections between said cam and each bar, for causing operative movement of the former upon operative movement of the latter, a stop pawl having movement to engage any selected step of said cam, and means for locking said stop pawl at selected positions with relation to said stepped cam.

5. In voting machines, in combination, independently movable operating bars and means for permitting of the operation of but one bar at a time and for preventing the operation of two or more of said bars simultaneously, said means comprising a movable stepped cam, a snail cam movable through an angle corresponding to the angle of movement of the stepped cam, a pawl arranged to engage the successive steps of the stepped cam and provided with an arm engaging the snail cam, operative connections between the stepped cam and each operating bar for causing operative movement of the former upon operative movement of the latter and means for causing operative movement of the snail cam at the completion of the operative movement of each operating bar.

[Claims 6 to 12 not printed in the Gazette.]

939,930. COMPOSITION OF MATTER FOR THE GENERATION OF HEAT. FRANK J. TONE, Niagara Falls, N. Y., assignor to The Carborundum Company, Niagara Falls, N. Y., a Corporation of Pennsylvania. Filed May 25, 1905. Serial No. 262,183.

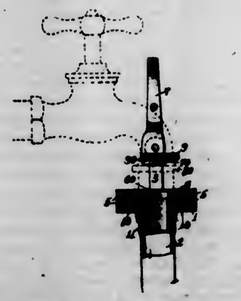
1. The herein described composition of matter for generating heat, which consists in a mixture of finely divided metallic silicon with an oxidizing compound of an element having less affinity for oxygen than is possessed by silicon, said composition having the property of self-propagating reaction when ignited locally by external means, substantially as described.

2. The herein described product comprising an auto-combustible mixture of powdered silicon and powdered oxygen-containing compounds of metals of less chemical stability than silicon dioxid.

3. An auto-combustible mixture consisting of silicon and one or more oxygen-containing compounds of metals of less chemical stability than silicon dioxid capable of self-propagating reaction therewith.

4. An auto-combustible mixture of one or more oxygen-containing compounds of metals of less chemical stability than silicon dioxid, and a reducing agent in which silicon is an active constituent.

939,931. FAUCET AND HOSE COUPLING. HUGH P. TOWLE, San Jose, Cal., assignor of five-eighths to John H. McGehee, San Jose, Cal. Filed Nov. 25, 1908. Serial No. 464,496.



1. A hose and faucet coupling device, comprising a nipple plate having a yielding bearing face adapted to be fitted against the mouth of the faucet, standards adjustably mounted on said nipple plate, a yoke pivotally mounted on the standards to straddle the forward end of the faucet, the ends of said yoke having locking edges eccentric to its fulcrum for engaging the rim edges of a faucet having a rim surrounding its mouth.

2. In combination with a faucet having bearing shoulders at the opposite sides; a plate having a nipple for a hose connection, standards passing through said plate and projected from said plate, adjustable devices carried by said standards for engaging said plate, a yoke pivotally mounted on the standards to straddle the faucet, the ends of said yoke having cam-like portions for engaging shoulders on a faucet.

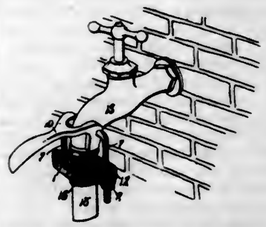
3. A hose and faucet coupling device, comprising a nipple plate having yielding bearing surface to engage the mouth edge of a faucet, standards mounted on the plate, a yoke pivotally mounted on the standards and adapted for straddling the outer end of the faucet, said yoke having its ends formed with cam-shaped locking portions, for engaging shoulders on a faucet, and a supplemental yoke member pivotally mounted on the extreme ends of the other yoke member.

4. A hose and faucet coupling device, comprising a nipple plate having a yielding bearing face to engage the mouth edge of a faucet, standards adjustably mounted on the said plate, a yoke pivotally mounted between the standards to straddle the outer end of the faucet, the ends of the said yoke having locking edges eccentric to the yoke fulcrums for engaging the rim edge of a faucet having a rim adjacent to its mouth.

5. A hose and faucet coupling device comprising a nipple plate having a yielding bearing face, standards adjustably mounted on the plate, a yoke pivotally mounted between the standards, the outer ends of the yoke having locking edges eccentric to the fulcrum of the yoke, and a supplemental yoke pivotally mounted between the extreme ends of the other yoke.

[Claim 6 not printed in the Gazette.]

939,932. FAUCET HOSE-COUPLING. HUGH P. TOWLE, San Jose, Cal., assignor of five-eighths to John H. McGehee, San Jose, Cal. Original application filed Nov. 25, 1908, Serial No. 464,496. Divided and this application filed Apr. 13, 1909. Serial No. 489,575.



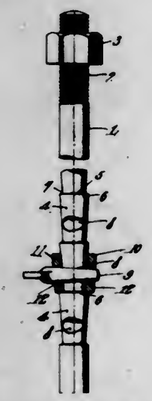
1. A hose faucet coupling, comprising a nipple plate, a depressed seat surrounding its central passage, a yielding washer in said seat, standards adjustably mounted on the plate, a yoke pivotally mounted between the standards, the outer ends of which have their edges arranged to clamp against a faucet flange when turned down, thereon.

2. A hose and faucet coupling that comprises a main plate, having a central passage and a depressed annular seat that surrounds the passage, a nipple for fitting through the said passage having an enlarged head to rest in the said seat, a clamp device carried by the main plate for locking the said main plate against the discharge end of the faucet.

3. A hose and faucet coupling that comprises a main plate having a central passage and a nipple pendent from the passage, a semicircular vertical flange on the upper face of the plate adjacent to the passage, and clamping devices mounted on the plate for clamping the said plate against the discharge end of the faucet.

4. A hose and faucet coupling that comprises a main plate having a central passage and a nipple pendent from the passage, a semicircular vertical flange on the upper face of the plate adjacent to the passage, and adjustable clamping devices mounted on the plate for clamping the said plate against the discharge end of the faucet.

939,933. QUICKLY-ADJUSTABLE BOLT. NICHOLAS W. TRAUTNER, Red Wing, Minn., assignor of two-fifths to Henry C. Kohn, Red Wing, Minn. Filed May 6, 1909. Serial No. 494,243.



1. A bolt having a threaded portion, a nut located upon the threaded portion, said bolt having a series of conical portions, and a nut having a recess provided with inclined walls adapted to receive the conical portions of the bolt.

2. A bolt having a threaded portion and a series of conical portions, each conical portion having a laterally disposed notch, said bolt having a threaded extremity, a nut located upon said extremity, a nut having a recess provided with inclined walls adapted to receive one of the conical portions and a key pin passing through the said nut and adapted to enter the notch in the conical portion.

3. A bolt having a threaded extremity, a nut located upon said extremity, said bolt having a series of mutilated frusto conical portions, a nut having a recess with inclined walls adapted to receive one of the conical portions and a securing device carried by the last said nut for engagement with the mutilated portion of the said conical portion.

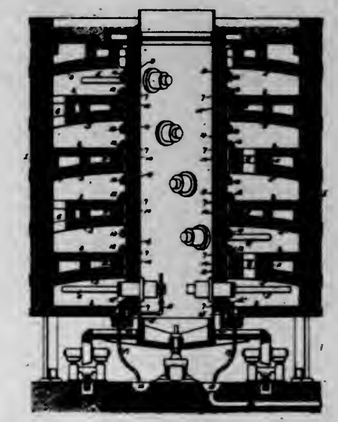
939,934. FURNACE. UTLEY WEDGE, Ardmore, Pa. Original application filed Feb. 24, 1909, Serial No. 479,736. Divided and this application filed May 7, 1909. Serial No. 495,206.

1. The combination of the central, hollow rotating shaft of a furnace, refractory blocks constituting a protecting casing for said shaft, and bars on the shaft for supporting said blocks, the horizontal portions of said bars having edge flanges contained in grooves in the blocks and protected by said blocks from the direct action of the heat.

2. The combination of the rotating shaft of a furnace, the superposed hearths and supporting tiles for the inner portions of said hearths, said tiles having flanges projecting above the level of the hearth.

3. The combination of the fixed structure of a furnace having superposed working chambers, with a central rotating shaft having incasing blocks with beveled flanges for deflecting outwardly any material which may fall from one working chamber to another around the shaft casing.

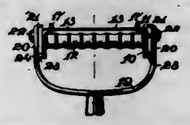
4. The combination of the fixed structure and the rotating central shaft of a furnace with an annular trough upon the lower portion of one of said members and a flange upon the lower portion of the other member, said flange projecting into said trough for sealing purposes, and the member which is carried by the fixed structure having in the lowermost chamber of the furnace a deflecting flange surrounding the shaft.



5. The combination of the rotating shaft of a furnace, refractory blocks constituting a casing for said shaft, and a supporting bar for said blocks having formed integral therewith one of the members of a seal for preventing access of air to the furnace around the lower end of the shaft.

[Claims 6 and 7 not printed in the Gazette.]

939,935. SAFETY-RAZOR. HENRY WILCOX, Newark, N. J., assignor of one-half to Wellesley W. Gage, New York, N. Y., and one-half to Frank Brabson, Newark, N. J. Filed Sept. 19, 1908. Serial No. 453,772.



1. A safety razor comprising a casing, a blade on the casing, the blade having its opposite edges sharpened, a handle pivoted to the casing and in pivotal relation therewith whereby the handle can be swung to a tilted position on either side to place either of the sharpened edges in operative position, and coöperating elements on the handle and the casing to lock the blade on the casing and lock the casing in its tilted position on the handle, said elements being operated by the swinging of the handle.

2. A safety razor comprising a casing, a blade on the casing, a handle having a yoke to embrace the sides of the casing, the yoke having arms made of spring material and having a spring action toward each other, a cam on each side of the casing and adapted to be acted on by the arms to force the casing at an angle to the arms, and fingers on the ends of the arms to engage the blade to lock it on the casing.

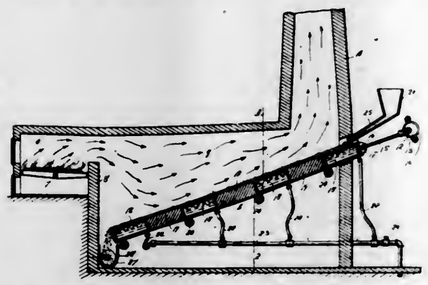
3. A safety arsor comprising a casing, a blade on the casing, a handle having a yoke made of spring material, the yoke having arms pivoted to the casing and having inwardly projecting fingers to engage the blade when the casing is tilted, and cams on the opposite sides of the casing to engage the spring arms and lock the casing in its tilted position.

4. A safety razor consisting of side plates, studs on the side plates, cams on the side plates, a blade adapted to rest on the side plates and having slots to receive the studs, a handle, a yoke on the handle having arms pivoted in the side plates, the arms having a spring action and being adapted to be engaged by the cams on the side plates, and fingers on the ends of the arms.

5. A safety razor having a casing consisting of side plates, and fluted rollers connecting the opposite ends and adapted to form guards, a blade with its two opposite edges sharpened and secured on the casing with its sharpened edges adjacent to the guards, a handle pivoted to the casing, and co-acting elements on the handle and the casing whereby the swinging of the handle locks the blade on the casing and locks the casing in its different positions.

[Claims 6 to 16 not printed in the Gazette.]

939,936. ROASTING-FURNACE. ARTHUR R. WILFLEY, Denver, Colo., assignor of one-half to Joseph Seep, Oil City, Pa. Filed Feb. 19, 1907. Serial No. 358,169.



1. A roasting furnace comprising a roasting chamber, and means for causing the ore to travel therethrough *en masse*, and means equipped with a flexible inlet and outlet located at different intervals for cooling the ore while so traveling through the said chamber to prevent overheating.

2. In an ore roasting apparatus, the combination with a roasting chamber, of means located therein for causing the ore to travel *en masse* in the said chamber, the said means being provided with a number of independent cooling media, each provided with a separate inlet and outlet pipe, over which the ore must pass with which it is brought in contact during the roasting operation.

3. In a roasting furnace, the combination with a roasting chamber, of means movably mounted for causing the ore to travel *en masse* therein, and a number of cooling jackets located at suitable intervals in the said chamber and each supplied with a separate inlet and outlet means and the said jackets placed in suitable proximity to the traveling ore to prevent over-heating, substantially as described.

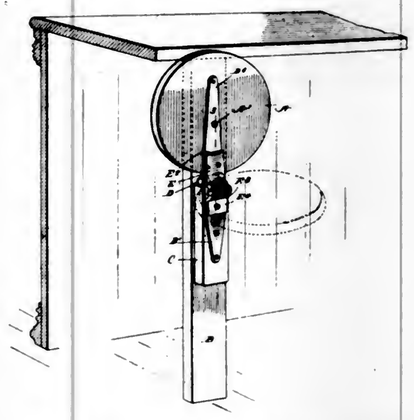
4. The combination with a roasting chamber, of a hearth movably mounted therein and carrying cooling media located at different intervals and each provided with a separate inlet and outlet pipe and means for imparting a shaking movement to the hearth to cause the material to travel thereover.

5. A roasting furnace comprising a roasting chamber through which the ore is adapted to travel, and a number of independent members, each having a separate inlet and outlet means, for subjecting the ore while traveling through the furnace to a cooling influence during the entire period of the roasting operation to prevent overheating and the consequent clinging of the ore particles.

[Claim 6 not printed in the Gazette.]

939,937. FOLDING SEAT. WESLEY G. WINANS, Spokane, Wash. Filed Dec. 29, 1908. Serial No. 469,840.

1. In a stool substantially as described, the combination of a fixture, a seat, a block approximately equal in thickness to the seat and secured to the fixture, a hinge having one strap secured to the block and the other strap secured to the underside of the seat, a spring hinge having one leaf secured to the block below the pintle of the first hinge and its other leaf sliding along the underside of the hinge leaf secured to the seat, and a stop on the underside of said leaf for engagement by the free edge of the spring actuated leaf, all substantially as and for the purposes set forth.



2. The combination with a seat and a supporting block, of a hinge having straps secured one to the block and the other to the seat, and a pintle above the block and between the same and the seat and a spring actuated plate pivoted at one end below the said hinge pintle and in advance thereof and arranged at its free edge to slide along the hinge strap on the seat in opening and closing the seat, and a stop projection for engagement by the free edge of said spring actuated plate to limit the opening movement of the seat, substantially as set forth.

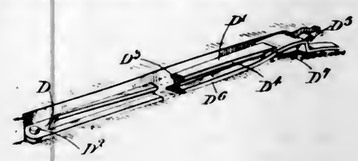
939,938. COMPOSITION OF MATTER. CHARLES F. ACKERMAN, Cleveland, Ohio, assignor, by mesne assignments, of one-half to David S. Hawkins, Cleveland, Ohio. Filed July 7, 1906. Serial No. 325,050.

1. The composition of matter, containing copper, zinc, nickel, and lead, together with relatively small quantities of arsenic and aluminum.

2. The composition of matter comprising copper, zinc, nickel, lead, arsenic and aluminum, combined in substantially the manner herein described.

3. The herein described composition of matter containing sixty parts, by weight, of copper, one and one-half parts of arsenic, twelve parts of nickel, twenty-three parts of zinc, five parts of lead, and one and one-half parts of aluminum.

939,939. POINT-OPERATING MECHANISM FOR TRAMWAYS. THOMAS N. ATKINSON, St. Margarets-on-Thames, England, assignor of one-half to Otto List, St. Petersburg, Russia. Filed Nov. 17, 1908. Serial No. 463,099.



1. The combination with a switch point, of a swinging actuating member connected to the point and provided with a longitudinal cam and a lateral flange below the cam, and a car member arranged to travel on the flange and against the cam to move the actuating member and throw the switch point.

2. The combination with a switch point, of a swinging actuating member connected to the point and provided with an elevated longitudinal cam portion having its opposite edges diverging toward the free end of the member, said actuating member having a lateral longitudinal flange below and at each side of the cam, and a car member arranged to travel upon one of the flanges and against the cam to move the actuating member and throw the switch point.

3. In point mechanism for railways the combination of, a switch-member that can be displaced laterally in relation to the direction of travel of the vehicle, means operatively connecting such member with the points, an operating member carried by the vehicle and that can at will be depressed, such member being so alined that when depressed it is in the path of the switch member, one of these members presenting to the other a cam-face that is disposed laterally in relation to the direction of travel of the vehicle, and the switch-member having a vertical cam-face to receive the foot of the operating member and rising to the level of the track at that end last passed over by the vehicle, for the purpose set forth.

4. In point mechanism for railways the combination of, a switch member pivoted at one end and having on each side a cam-face that is disposed laterally to the direction of travel of the vehicle, an operating member on a vehicle so disposed relatively to the switch-member as to strike one of the cam-faces as the vehicle passes and thus displace the switch-member laterally, a second operating member on a vehicle so disposed as to strike the other cam-face to displace the switch-member in the opposite direction, and means operatively connecting the switch-member with the points, the switch-member having at each side a flange upon which the respective operating members are adapted to travel, substantially as set forth.

5. The combination with a switch point, of a swinging actuating member connected to the point, and a car member arranged to engage and move the swinging actuating member, the latter having a vertically-disposed cam portion to lift the car member as it leaves the swinging member.

[Claims 6 to 12 not printed in the Gazette.]

939,940. PROCESS OF MANUFACTURING BENZOATE. EDWIN O. BARSTOW, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a Corporation of Michigan. Original application filed Oct. 25, 1905, Serial No. 284,402. Divided and this application filed Mar. 14, 1906. Serial No. 305,958.

1. In a process of manufacturing benzoates, the step which consists in oxidizing to the acid a side-chain substitution product of a member of the benzene series of hydrocarbons, by means of a chlorin-containing reagent in the presence of a hydrate of an alkali metal and a suitable solvent.

2. In a process of manufacturing benzoates, the step which consists in oxidizing to the acid a side-chain substitution product of a member of the benzene series of hydrocarbons, by means of a chlorin-containing reagent in the presence of sodium hydrate and water.

3. In a process of manufacturing benzoates, the step which consists in oxidizing to the acid a side-chain substitution product of a member of the benzene series of hydrocarbons, by means of sodium hypochlorite in the presence of sodium hydrate and water.

4. In a process of manufacturing benzoates, the step which consists in oxidizing to the acid a chlorinated derivative of a member of the benzene series of hydrocarbons, by means of a chlorin-containing reagent in the presence of a hydrate of an alkali metal and a suitable solvent.

5. In a process of manufacturing benzoates, the step which consists in oxidising to the acid a chlorinated derivative of a member of the benzene series of hydrocarbons, by means of a chlorin-containing reagent in the presence of sodium hydrate and water.

[Claims 6 to 10 not printed in the Gazette.]

939,941. PROCESS OF MANUFACTURING BENZOATE. EDWIN O. BARSTOW, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a Corporation of Michigan. Original application filed Oct. 25, 1905, Serial No. 284,402. Divided and this application filed Mar. 14, 1906. Serial No. 305,959.

1. In a process of manufacturing benzoates, the step which consists in oxidizing to the acid a partially oxidized oxygen-containing product of a member of the benzene series of hydrocarbons by means of a chlorin-containing reagent in the presence of a basic neutralizing reagent and a suitable solvent.

2. In a process of manufacturing benzoates, the step which consists in oxidizing to the acid a partially oxidized oxygen-containing product of a member of the benzene series of hydrocabons by means of a chlorin-containing reagent in the presence of an alkaline earth hydrate and a suitable solvent.

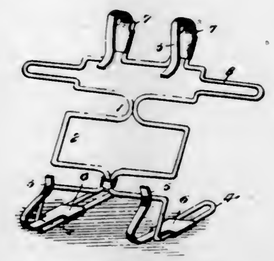
3. In a process of manufacturing benzoates, the step which consists in oxidizing to the acid a partially oxidized oxygen-containing product of a member of the benzene series of hydrocarbons by means of a chlorin-containing reagent in the presence of lime and water.

4. In a process of manufacturing benzoates, the step which consists in oxidizing to the acid a partially oxidized oxygen-containing product of a member of the benzene series of hydrocarbons by means of bleaching powder in the presence of a suitable solvent, such bleaching powder containing sufficient lime to neutralize the acid formed by the reaction.

5. In a process of manufacturing benzoates, the step which consists in oxidizing to the acid a partially oxidized oxygen-containing product of a member of the benzene series of hydrocarbons by means of bleaching powder in the presence of water and of lime in excess of that contained in said bleaching powder.

[Claims 6 to 11 not printed in the Gazette.]

939,942. DISPLAY-HOLDER. JACOB BRAUCHLI, Hampton, Va., assignor to Old Dominion Specialty Manufacturing Company, Newport News, Va., Incorporated. Filed Mar. 19, 1907. Serial No. 363,181. Renewed Apr. 8, 1909. Serial No. 488,735.



1. A display holder comprising a single wire doubled upon itself and having its end portions bent to provide symmetrical inner and outer loops, and basal loops, the said inner and outer loops lying in the same plane to form a frame and the basal loops projecting at an angle from the said frame to form a base to support it in upright position upon an approximately horizontal surface.

2. A display holder comprising a single wire doubled upon itself and having its end portions bent to provide symmetrical inner and outer loops and basal loops, the said inner and outer loops lying in the same plane to form a frame, and the basal loops projecting at an angle from the said frame to form a base to support it in upright position upon an approximately horizontal surface, and clips projected from the basal loops in an opposite direction thereto and having portions extended upward in front of the aforesaid frame to form retaining means for securing an article in place upon the frame.

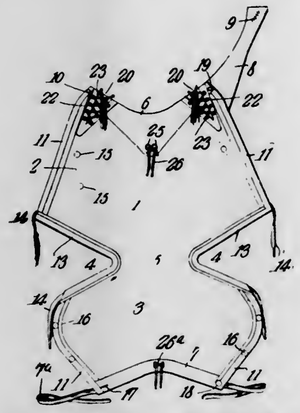
3. A display holder consisting of a single wire having end portions bent to provide symmetrical inner and outer loops forming a frame and basal loops, the inner loops being in contact and certain inner loops being joined, and means for attaching an article to be displayed to the frame of the holder.

4. A display holder comprising a frame and a base, either or both comprising loops, and a clip slidable upon any one of said loops and serving to retain an article to be displayed in position.

5. A display holder comprising an upright frame and supporting basal loops, and clips projected from the basal loops in an opposite direction thereto and having portions extended upward in front of the said frame to hold an article to be displayed in position.

[Claim 6 not printed in the Gazette.]

939,943. CATAMENIAL GARMENT. ANNA L. BRODTON, Mobile, Ala., assignor of one-half to Emile Tacon and Eva G. Tacon, Mobile, Ala. Filed Dec. 10, 1907, Serial No. 405,920. Renewed Mar. 31, 1909. Serial No. 487,053.



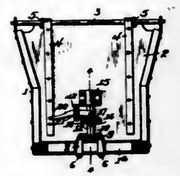
1. A catamenial garment of the character described divided at its side edges by indentations into a front portion and a back portion, V-shaped notches near each edge of the top of the front portion provided with eyelets, and elastic laces in said eyelets for closing said V-shaped notches.

2. A catamenial garment of the character described divided at its side edges by indentations into a front portion and a back portion, V-shaped notches near each edge of the top of the front portion, the edges of said notches being folded, flexible inelastic strips in said folds and eyelets inserted therein, and elastic laces in said eyelets for closing said V-shaped notches.

3. A catamenial garment of the character described, divided at its side edges by indentations into a front portion and a back portion, V-shaped notches near each edge of the top of the front portion provided with eyelets, laces in said eyelets for closing the V-shaped notches, and a piece of water proof material cemented at its edges to the inner side of said front portion over each of said notches.

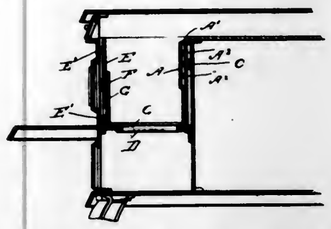
939,944. END-GATE FOR MINE-CARS. LOUIS F. BRUBAKER, Cambridge, Ohio, assignor of one-half to Michael J. Conroy, Cambridge, Ohio. Filed Mar. 26, 1908. Serial No. 423,435.

In a dump-car having a drawbar, a swinging end-gate, a vertically-movable spring-pressed bar mounted on the outer face of said end-gate adjacent to its lower edge and having a beveled lower end, a member mounted upon the car floor in straddling relation to said drawbar whereby rigidity is maintained in both said member and said drawbar, said member having an integral upwardly and inwardly inclined lip upon the drawbar-overlying portion



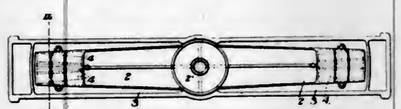
thereof behind which the beveled end of said bar normally rests, and a lever for elevating said bar to withdraw its beveled end from engagement with said lip.

939,945. GRATE. CHARLES F. BUTLER, Marshall, Mich. Filed Dec. 18, 1905, Serial No. 292,288. Renewed June 6, 1908. Serial No. 437,197.



A grate for kitchen stoves comprising a bottom, an extensible back supported by said bottom, a front resting loosely upon said bottom and parallel to the back, and angled arms having their upper portions secured to the inner face of the front, the horizontal portions of said arms resting upon and extending across the bottom and bearing against the back, said arms holding the front and back in position relative to each other.

939,946. TRUCK-BOLSTER. JACOB J. BYERS, Cameron, Mo., assignor to The National Malleable Castings Company, Chicago, Ill., a Corporation of Ohio. Filed Jan. 27, 1909. Serial No. 474,435.



1. A truck bolster comprising two members, capable of a relative horizontal swinging motion, one of said members having means for supporting it on a car truck, and the other member having a bearing for a body bolster; substantially as described.

2. A truck bolster comprising a member having means for supporting it on a car truck, and a second member supported on the first named member, and having a bearing for a body bolster; said members being capable of a limited, radial, horizontal motion relatively to each other independently of the movement of the body bolster; substantially as described.

3. A car truck having a bolster formed with a member bearing on the truck and a second load supporting member, mounted upon the other member to swing horizontally about its center independently of the movements of the car truck, the second load supporting member having thereon bearings for a body bolster; substantially as described.

4. A truck bolster comprising a lower member arranged to be supported on a car truck, and an upper member of less length than the lower member, and having bearings within the lower member to permit a limited radial, horizontal, relative movement of the two members, said upper member having bearings for a body bolster; substantially as described.

5. A truck bolster comprising a lower member arranged to be supported on a car truck, and an upper member of less length than the lower member, and having central and end bearings within the lower member to permit a limited radial, horizontal, relative movement of the two members; substantially as described.

[Claim 6 not printed in the Gazette.]

939,947. TREATMENT OF COPPER OR COPPER-NICKEL MATTES. JAMES T. CARRICK, Johannesburg, Transvaal, assignor of one-half to Basil Stuart Pattison, Johannesburg, Transvaal. Original application filed Feb. 18, 1908, Serial No. 416,616. Divided and this application filed Oct. 6, 1908. Serial No. 456,434.

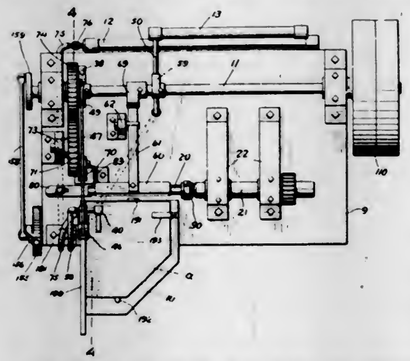
1. The process which consists in digesting matte in acid, recovering substantially pure cuprous sulfid, and bessemerizing such cuprous sulfid with the use of extraneous gaseous or vaporous fuel.

2. The hereindescribed process which consists in producing sulfureted hydrogen and substantially pure cuprous sulfid, bessemerizing the cuprous sulfid, and utilizing the sulfureted hydrogen as fuel in the bessemerizing process.

3. The hereindescribed process which consists in producing sulfureted hydrogen and substantially pure cuprous sulfid, fusing the cuprous sulfid, bessemerizing the cuprous sulfid and utilizing the sulfureted hydrogen as fuel in the bessemerizing process.

4. The hereindescribed process of treating nickeliferous matte which consists in digesting the matte, bessemerizing the residual cuprous sulfid, and separating the nickel contained in the cuprous sulfid by slagging it off as nickel silicate.

939,948. MACHINE FOR MAKING PAPER SHELLS. JOHN CHESNEY, Paulsboro, N. J., assignor to The E. I. du Pont de Nemours Powder Company, Wilmington, Del., a Corporation of New Jersey. Original application filed Dec. 11, 1906, Serial No. 347,380. Divided and this application filed Oct. 25, 1907. Serial No. 399,106.



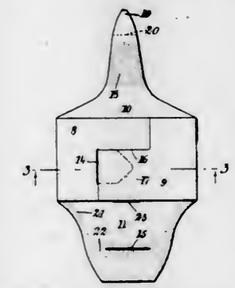
1. In a machine for making paper shells, the combination with the table for supporting the pile of paper, of means for conveying the paper sheets from the table, an upright screw shaft on which the table is sustained, means to turn the screw-shaft, thereby elevating the table, a two part nut engaging the screw-shaft, arms extending forwardly from the two parts respectively of the nut and pivoted between the nut and their ends, whereby the parts may be retracted by moving the free ends of said arms toward each other, lugs extending rearwardly from the two parts respectively of the nut, a spring between said lugs normally holding the two parts of the nut in engagement with the screw-shaft, means for supporting the nut, and driving mechanism adapted to rotate the shaft while permitting it to move vertically.

2. In a machine for making paper shells, the combination with the table for supporting the pile of paper, of a pneumatic picker overlying the pile, a slide on which the picker is supported and by the movement of which the picker is moved horizontally into and out of position to select a sheet of paper, an exhaust chamber, a pipe connecting the exhaust chamber and the picker, a spring-pressed valve normally closing the pipe, the driving shaft, a cam thereon adapted to operate said valve to open the pipe, a spring-pressed lever connected with the slide and normally holding it in one position, and a cam on the driving shaft adapted to operate said lever and thereby move the slide toward its other position.

3. In a machine for making paper shells, the combination with the table for supporting the pile of paper, of a pneumatic picker overlying the pile, means to reciprocate the picker, outwardly and inwardly respectively, into and out of position to select a sheet of paper, means to exhaust air from the picker when the same is in position to select a sheet of paper, and a holder moving with the picker and extending outwardly so as to overlie the inner edge of the pile when the picker is in its inner position, thereby preventing the picker from catching in the paper when moved outwardly.

4. In a machine for making paper shells, the combination with the machine frame, of a vertically movable table for supporting the pile of paper, a side-plate secured to the frame and extending above and alongside the table, a slide movable back and forth on the side-plate as a guide, an exhaust pipe carried by said slide and overhanging the table, a hollow pneumatic picker carried by and depending from and communicating with said exhaust pipe, a valve on said pipe, a driving shaft, and means operated thereby to respectively reciprocate the picker and control the operation of said valve.

939,949. SAFETY-ENVELOP. RICHARD HASEL, New York, N. Y., assignor of one-third to Gustav Bonneck and one-third to Herman Hotz, New York, N. Y. Filed Feb. 15, 1909. Serial No. 477,895.



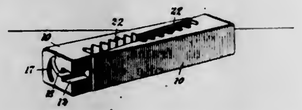
1. A safety envelop comprising a back panel, a pair of end panels connected with said back panel and adapted to overlap, one of said end panels being provided with a slot, the other end panel being provided with a shoulder and also with a flap, said flap being of proper size to fit into the slot of the opposite end panel, said back panel being further provided with side panels, one of which has a plurality of slots, the other having a tongue for extending through said last-mentioned slots, said side panels and said end panels being so disposed that when one of said end panels overlaps the other said shoulder carried by one of said end panels is disposed parallel with and adjacent to the slot in one of said side panels, thereby

enabling said tongue carried by the opposite side panel to be extended beneath the portion of said panel provided with said shoulder.

2. A safety envelop comprising a back panel, end panels connected therewith and adapted to be secured together, one of said end panels having a comparatively narrow portion, and a pair of side panels to be folded over said end panels and overlapped, one of said side panels being provided with slots which are adapted to register with opposite edges of a portion of one of said end panels, the other of said side panels being provided with a tongue for extending through said slots and beneath said narrow portion of said end panel.

3. A safety envelop compriaing a back panel, a pair of end panels to be connected together, one of said end panels having a narrow portion, a side panel provided with a gummed edge and adapted to be secured upon said end panels, after the same are folded, said side panel being provided with slots which register with opposite edges of said narrow portion, and another side panel provided with a tongue a portion of which is gummed, said tongue being of proper length to extend into one of said slots beneath said narrow portion and outwardly through the other of said slots.

939,950. QUOIN. MARTIN MUCHLER, New York, N. Y., assignor to Arnie Muchler, New York, N. Y. Filed Mar. 23, 1909. Serial No. 485,167.



1. The combination of two wedges slidable one on the other, with the corresponding ends of the wedges reversely arranged, a pawl carried by one of the wedges and a ratchet bar carried by the other wedge, having teeth on different faces, with the teeth on one face adapted to be engaged by the pawl and prevent the retraction of the wedges as their thickened ends are moved toward each other, and the tooth on the other face adapted to engage the pawl and prevent the separation of the wedges by a relative endwise movement in one direction, and means to revolve the ratchet bar to bring either the teeth or the tooth into position to be engaged by the pawl.

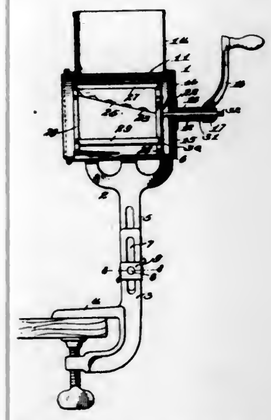
2. The combination of two wedges slidable one on the other, with the corresponding ends of the wedges reversely arranged, a pawl carried by one of the wedges and a ratchet bar carried by the other wedge, having teeth on different faces, with the teeth on one face adapted to be engaged by the pawl and prevent the retraction of the wedges as their thickened ends are moved toward each other, and the tooth on the other face adapted to engage the pawl and prevent the separation of the wedges by a relative endwise movement in one direction, means to revolve the ratchet bar to bring either the teeth or the tooth into position to be engaged by the pawl, and means to limit the rotary movement of the ratchet bar when the teeth and the tooth are respectively in operative and inoperative positions.

3. The combination of two wedges, each having a rib on its inclined face slidably received in a way formed in the other wedge, and means to lock the wedges against retraction and prevent their separation by an endwise movement in one direction, including a member having different working portions and revolubly mounted to successively bring the said portions into working position.

4. The combination of two blocks slidable one on the other, a pawl carried by one of the blocks, a ratchet bar carried by the other block and having teeth on different faces, and means to revolve the ratchet bar to successively bring the teeth of the different faces into position to be engaged by the pawl.

5. The combination of a pair of endwise extensible members, a ratchet bar carried by one of said members and having ratchet teeth, a pawl carried by the other member and arranged to engage with the teeth of the ratchet bar and lock the two members from endwise movement in one direction and permit of the free endwise movement of the members in the opposite direction, and means to revolve the ratchet bar relatively to the members to carry the teeth into and out of operative position for the pawl.

939,951. VEGETABLE-CUTTER. WILLIAM S. MYERS and CHARLES C. KAHNE, Ashland, Ky. Filed Nov. 30, 1908. Serial No. 465,282.



1. In vegetable cutters of the type set forth, in combination, a rotatable member having a resilient cutting knife and a resilient gage portion opposite to the knife, and means for effecting relative adjustment between the knife and the gage portion to vary the thickness of the cuts made by the knife, comprising a wedge shaped part for insertion between the knife and the gage portion.

2. In vegetable cutters of the type set forth, in combination, a cutting cylinder provided with a slit having angular extensions, said slit forming a cutting knife and an opposed gage portion, and means for adjusting said gage portion toward and away from said knife, comprising a wedge shaped part for insertion between the knife and the gage portion.

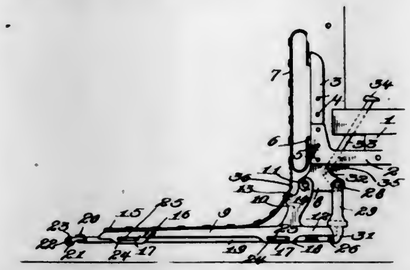
3. In vegetable cutters of the type set forth, in combination, a cutting cylinder having a slit formed with angular extensions, said slit defining a cutting knife and an opposed gage portion, and means rotatably assembled with respect to the cylinder and including a wedge-shaped part for engagement with said gage portion to adjustably position the latter with respect to said knife.

4. In vegetable cutters of the type set forth, in combination, a cutting cylinder having a slit formed with extensions, said slit defining a cutting knife and an opposed gage portion, and means for adjusting said gage portion with respect to said knife comprising two rings mounted in the cylinder, and connections between the rings, said rings having each a peripheral wedge-shaped portion for engagement over said gage portion to adjustably position the latter with respect to said knife.

5. In vegetable cutters of the type set forth, in combination, a cutting cylinder having a slit formed with angular extensions, said slit defining a cutting knife and an opposed gage portion, means movably assembled with respect to the cylinder and including a wedge-shaped part for engagement between said knife and said gage portion to effect the relative adjustment thereof, and means for holding the adjusting means normally against movement with relation to the cylinder.

[Claims 6 to 9 not printed in the Gazette.]

939,952. CAR-FENDER. JOHN O'LEARY, Cohoes, N. Y., assignor of one-fourth to George H. McDowell, Cohoes, N. Y. Filed Nov. 9, 1908. Serial No. 461,729.



1. In a fender, the combination of a main portion comprising a pair of arms having upwardly projecting extensions, means to which said extensions are movably attached, the arms having contact projections in rear of the extensions, a bed carried by said arms, a slidable frame engaging the arms and having a striking means at its front extremity normally projected beyond the said arms, and locking dogs to engage the rear projections of the arms and released from the latter by the rear terminals of the slidable frame.

2. In a fender, the combination with a car end, of vertically adjustable means carried thereby, a main fender portion having side arms provided with extensions pivotally connected to said means, the said arms also having rear contact projections, a bed disposed on the arms, a slidable frame held by the arms and having a front striker bar, and locking devices also movably attached to the said vertically adjustable means to engage the rear contact projections of the arms, the locking devices being released from the contact projections by the rear terminals of the slidable frame.

3. In a fender, the combination of a movably suspended main frame having slots in the opposite side portions thereof, a releasing frame slidably mounted in the main frame and provided with oppositely extending studs engaging the said slots, and locking devices having portions to engage the main frame and for contact with portions of the releasing frame.

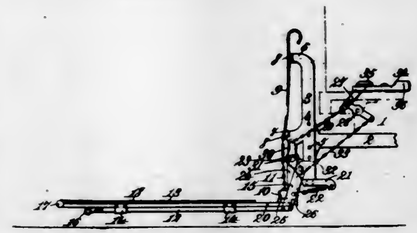
4. In a fender, the combination with a car end, of supporting arms connected thereto, uprights adjustably connected to the front extremities of said arms, a spring buffer supported by said uprights, a main frame movably suspended from the lower extremities of the uprights, a releasing frame slidably mounted in the main frame and provided with a striker means at its front extremity, locking devices also movably connected to the lower extremities of the uprights to engage the rear extremities of the main frame, the locking devices being disengaged from the rear extremities of the main frame by the releasing frame, and a spring bed mounted on the said main frame.

939,953. CAR-FENDER. JOHN O'LEARY, Cohoes, N. Y. Filed Apr. 22, 1909. Serial No. 491,560.

1. In a fender, the combination of a bed consisting of a lower supporting frame and a sliding frame held on the supporting frame, means fixed to the lower supporting frame for movably suspending the bed as a whole, means to which said suspending means is movably connected, locking devices having outer projections for engagement by rear portions of the sliding frame, and springs attached to the said suspending means and to the means to which the said suspending means is movably connected.

2. In a car fender, the combination of a bed consisting of a lower supporting frame and a sliding frame held on the supporting frame, pivoted means for movably suspending the bed, locking devices to engage a portion of the bed and adapted to be released by the sliding frame, and springs attached to the suspending means for the bed.

3. In a fender, the combination with a car end, of uprights secured thereto, a fender bed having suspended means pivoted to the uprights and including a sliding frame, locking devices having portions to engage the bed and released by the sliding frame, and springs coöperating with the rear portion of the bed.

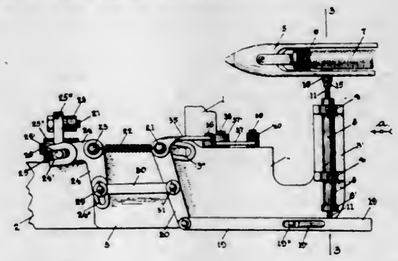


4. In a fender, the combination of a bed including a sliding frame, means for movably suspending the bed and having a resistance device connecting the same, locking devices to engage the resistance device of the suspending means and adapted to be released by the sliding frame, and springs attached to the suspending means.

5. In a fender, the combination of a bed including a sliding frame, swinging means for movably suspending the bed, locking devices movably engaging portions of the suspending means, and means for throwing the bed downwardly when released.

[Claims 6 to 9 not printed in the Gazette.]

939,954. FILLING-DETECTOR MECHANISM FOR WEFT-REPLENISHING LOOMS. EPPA H. RYON, Worcester, Mass., assignor to Crompton & Knowles Loom Works, a Corporation of Massachusetts. Filed Feb. 4, 1909. Serial No. 476,067.



1. In a filling detector mechanism, a rod or spindle, a sleeve having a cam slot and surrounding said rod or spindle, and movable therewith in one direction, a projection on said rod or spindle, extending into the cam slot in said sleeve, for the purpose stated.

2. In a filling detector mechanism, a rod or spindle having two heads attached thereto, one of said heads fixed to said rod, the other of said heads being free to revolve, and means to cause the coöperation of said heads with the filling in the shuttle.

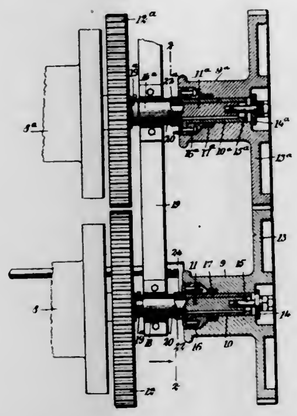
3. In a filling detector mechanism, a rod or spindle having two adjacent heads attached thereto, one of said heads fixed to said spindle, the other of said heads being free to revolve, and means, including a shuttle and filling therein, to move said shaft longitudinally.

4. In a filling detector mechanism, a rod or spindle, means to support the same, a sleeve surrounding said spindle, and having a cam slot, and a longitudinal slot, a spring bearing against said sleeve, means, including a shuttle and filling therein, to operate said spindle, against the action of said spring, and to rotate said shaft when the filling has been practically exhausted.

5. In a filling detector mechanism, a rod or spindle having a central point, and a head on the end of said spindle having prongs or teeth surrounding said point, to coöperate with the filling on a cop or bobbin in a shuttle, and said shuttle, and means, including a cop or bobbin, to cause a partial rotation of said spindle when the filling on the cop or bobbin has been practically exhausted.

[Claims 6 and 7 not printed in the Gazette.]

939,955. HOISTING APPARATUS. HERBERT W. BACHELDER, Schenectady, N. Y. Filed June 16, 1908. Serial No. 438,756.



1. The combination of drums, a shaft extended from each drum, drums journaled on the shafts and geared together to revolve in opposite directions, and means for alternately connecting and disconnecting the last mentioned drums with their respective shafts.

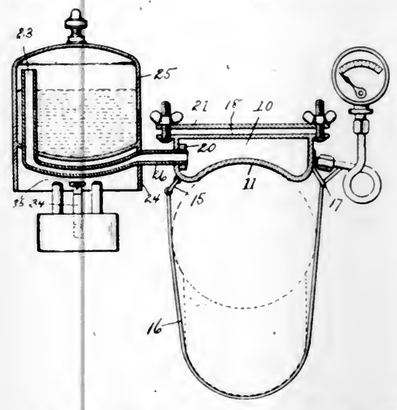
2. The combination of a mast, a bullwheel fixed to the mast, two drums geared together, to revolve in opposite directions and arranged in the same transverse plane, a cable passing about the bullwheel having its ends respectively connected to the drums, means for actuating the drums, and means for connecting one of the drums with the actuating means and releasing the other drum therefrom.

3. In a hoisting apparatus, a boom, means for swinging the boom, including two drums arranged on separate and independent shafts and driven one from another to rotate in opposite directions, friction clutches for throwing the drums into and out of operation, and means for simultaneously moving one of said clutches into engagement with its drum and releasing the other clutch from the opposite drum.

4. The combination of two drums geared together to rotate in opposite directions, with the longitudinal axis of one of the drums arranged in advance of the longitudinal axis of the other drum, means for driving the drums, including friction clutches, collars having cam faces for throwing said clutches into engagement with the drums and releasing them therefrom, and means for simultaneously actuating said collars to engage one of said clutches and release the other.

5. The combination of two drums geared together, thimbles on which the drums are journaled, a friction-wheel rigid with each thimble and inclosed within the hubs of the drums, means normally tending to force the friction-wheels from the drums, shafts geared together on which the thimbles are slidably splined, and means for simultaneously forcing one of said thimbles and its friction-wheel against the tension of said means, to engage the friction wheel with its drum and release the other friction wheel.

939,956. SUPERHEATER FOR USE IN CONNECTION WITH VULCANIZERS AND OTHER APPARATUS. JOSEPH BERLINER, Hanover, Germany, assignor to Emile Berliner, Washington, D. C. Filed July 23, 1908. Serial No. 444,999.



1. In a vulcanizer or the like, the combination with a boiler, a vulcanizing box or casing, a steam pipe leading from the steam space of the boiler into the vulcanizing box or casing and extending beneath the bottom of the boiler, said steam pipe beneath the boiler being exposed to the same heating flame which heats the boiler.

2. In a vulcanizer or the like, the combination with a boiler, a vulcanizing box or casing, a steam pipe leading from the steam space of the boiler into the vulcanizing box or casing and extending beneath the bottom of the boiler, said steam pipe beneath the boiler being exposed to the same heating flame which heats the boiler, said boiler having a depending wall to protect the heating flame.

3. In a vulcanizer, a box or casing, a boiler, a steam tube supporting the boiler, connected at one end to the box or casing and at its other end opening into the steam space of the boiler, said steam tube from its point of exit from the boiler extending adjacent the bottom thereof and being exposed to the same heating flame which heats the boiler.

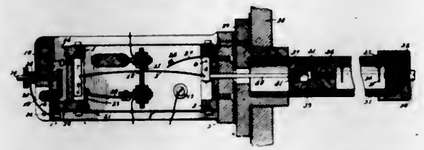
4. In a vulcanizer, a box or casing, a boiler, a steam tube supporting the boiler connected at one end to the box or casing and at its other end opening into the steam space of the boiler, said steam tube from its point of exit from the boiler extending adjacent the bottom thereof, a lamp suspended from the boiler having a heating flame directed against the boiler and that portion of the tube beneath the boiler.

5. In a vulcanizer, a box or casing, a boiler, a steam tube supporting the boiler connected at one end to the box or casing and at its other end opening into the steam space of the boiler, said steam tube from its point of exit from the boiler extending adjacent the bottom thereof, a lamp suspended from the boiler having a heating flame directed against the boiler and that portion of the tube beneath the boiler, said heating flame being inclosed within an annular wall depending from the boiler.

939,957. THERMOSTAT. HARRY G. GEISSINGER, West Orange, N. J., assignor to Geissinger Regulator Company, a Corporation of New York. Filed Nov. 30, 1908. Serial No. 465,336.

1. A thermostat comprising a normally straight flexible member constrained into a free arch, two other flexible members, one upon either side thereof and having a different rate of thermic expansion therefrom, and connecting-devices connecting the ends of said members.

2. A thermostat comprising a pair of flexible members substantially similar in construction and in thermic properties, rigid pieces connecting the opposite ends of said members, and an intermediate member constrained into a free arch between said pieces and subjected to the varying expansion and contraction of said members.



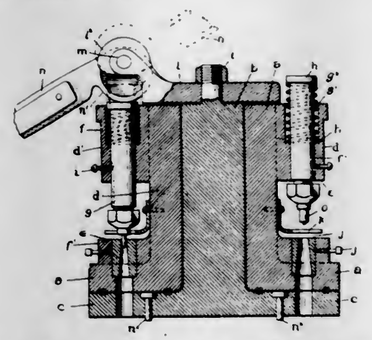
3. A thermostat comprising a plurality of flexible members having different thermic constants, means connecting the ends of said members, and means for changing the relative positions of one member with respect to the other members.

4. A thermostat comprising flexible members having different thermic constants, means connecting the ends of said members, means for altering the relation of one member with respect to the others, and separate means for altering the position of two members with respect to the third member.

5. A thermostat comprising a plurality of flexible members having different thermic constants, means connecting the ends of said members, and means for laterally adjusting the connecting means at one end of said flexible members.

[Claims 6 to 18 not printed in the Gazette.]

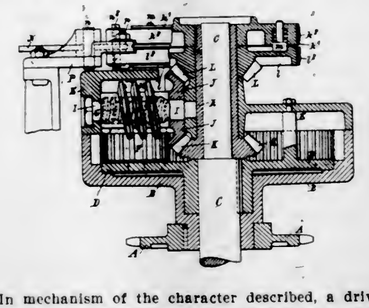
939,958. ROTARY PUNCHING-MACHINE. FRANK KOELSCH, Scranton, Pa.; Margaret Koelsch administratrix of said Frank Koelsch, deceased. Filed Apr. 8, 1909. Serial No. 488,726.



1. A rotary punching machine comprising a support having a pivot stem, a rotary frame having a central cylinder aperture engaging said pivot stem, and a plurality of radial punch and die carrying portions, reciprocatory punch holders fitting in the punch carrying portions, a top plate secured to said stem and provided with upward extending end lugs capable of alinement with the punches an operating lever having an eccentric head provided with journal bearings in said end lugs, retracting springs for the punch holders and means for retaining punch and die in vertically alined position.

2. A rotary punching machine, comprising a support having a pivot stem and provided with a plurality of vertical perforations, a top plate secured to said stem and provided with upward extending end lugs capable of alinement with the punches, a rotary frame having a central cylinder aperture engaging said stem, a base resting upon said support, and provided with a plurality of vertical apertures capable of alinement with the support apertures, a plurality of radial punch carrying portions and an equal number of radial die carrying portions, reciprocatory punch holders fitting in said punch carrying portions and having upper heads and vertical guide grooves in their lower portions, said punch carrying portions having annular recesses surrounding the upper portions of the punches, retracting springs fitting in said recesses and bearing at the upper ends thereof against the punch heads, radial pins engaging said guide grooves of the punch holders, a removable pin engaging alined perforations of said support and rotary frame, and an operating lever having an eccentric head provided with journal bearings in said end lugs.

939,959. GEARING FOR STENTERING-MACHINES. ALBERT E. SIMPSON, Bury, England, assignor of one-half to Bentley & Jackson, Limited, Bury, England. Filed Aug. 31, 1909. Serial No. 515,550.



1. In mechanism of the character described, a driving shaft, a toothed wheel loosely mounted thereon and a sprocket wheel fixed to said toothed wheel, in combination with a driver secured to said shaft, a pinion carried by said driver and gearing with said toothed wheel, a worm wheel carried by said pinion, a worm gearing therewith carried by said driver and means for causing said worm to be driven in either direction whereby the speed of the sprocket wheel is accelerated or retarded, substantially as described.

2. In mechanism of the character described, a driving shaft, a toothed wheel loosely mounted thereon, and a sprocket wheel fixed to said toothed wheel, in combination with a driver secured to said shaft, a pinion carried thereby and gearing with said toothed wheel, a worm wheel carried by said pinion, a worm gearing therewith carried by said driver, and gearing for driving said worm in either direction together with brakes controlling the action of said gearing, whereby the speed of the sprocket wheel is accelerated or retarded, substantially as described.

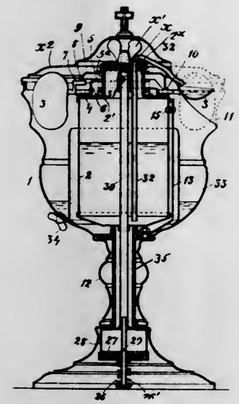
3. In variable speed gearing, a driving shaft, a toothed wheel mounted loosely thereon and a driven member fixed to the latter, in combination with a driver secured to said shaft, a pinion carried by said driver and gearing with said toothed wheel, a worm wheel carried by said pinion, a worm gearing therewith carried by said driver and means for causing said worm to be driven in either direction whereby the speed of the driven member is accelerated or retarded, substantiallily as described.

939,960. CHALICE. GUSTAF VALLEY, Malmö, Sweden. Filed Feb. 27, 1909. Serial No. 480,395.

1. A chalice comprising a body portion, a plurality of rotatable rings mounted in the upper portion thereof, a cup rotatably mounted on each ring, and normally occupying a vertical position, means for causing each cup to assume a horizontal position at one point in its movement, and means for supplying the cup while in a horizontal position with the wine.

2. A chalice comprising a body portion, a plurality of rotatable rings mounted in the upper portion thereof, a cup rotatably carried by each ring and normally occupying a vertical position, means for causing the cups to assume a horizontal position, means for supplying the cup while

in a horizontal position with wine, and means for removably supporting the rings.



3. A chalice comprising a body portion, a plurality of rotatable rings mounted in the upper portion thereof, a shaft carried by each ring and extending radially therefrom, a cup rotatably carried at the end of each shaft, an angle arm connected with each cup, a ring 9 mounted above the angle arms and having a downwardly projecting portion adapted to engage with the angle arms to force the same downwardly to cause the cups to assume a horizontal position, and means for supplying the cups while in a horizontal position with wine.

4. A chalice comprising a body portion, a plurality of rotatable rings mounted in the upper portion thereof, a radially extending shaft carried by each ring, a cup rotatably mounted on the end of each shaft and normally lying in a vertical position, an angle arm connected to each cup, a ring 9 located above the angle arm and having a downward projecting portion with which the angle arms engage whereby the cup will be caused to assume a horizontal position, means for supplying wine to the cups while in a horizontal position, a movable frame, and hooks thereon engaging with the shafts to rotate the rings.

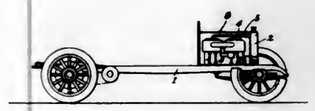
5. A chalice comprising a body portion, a plurality of rotatable rings mounted in the upper portion thereof, a radially extending shaft carried by each ring, a cup rotatably mounted on the end of each shaft and normally lying in a vertical position, an angle arm connected to each cup, a ring 9 located above the angle arm and having a downwardly projecting portion with which the angle arms engage whereby the cup will be caused to assume a horizontal position, means for suppiying wine to the cups while in a horizontal position, a movable frame, a pair of spring controlled hooks thereon adapted to engage with two of the shafts at a time for bringing said shafts under the projection, spring controlled stationary hooks, one preventing backward movement of the cups and the other allowing but one cup at a time to be engaged by the movable hooks.

[Claims 6 to 9 not printed in the Gazette.]

939,961. RADIATOR SUSPENSION FOR MOTOR-CARS. GIOVANNI ENRICO, Turin, Italy, assignor, by mesne assignments, to F. I. A. T., Poughkeepsie township, N. Y., a Corporation of New York. Filed Dec. 10, 1906. Serial No. 347,045.

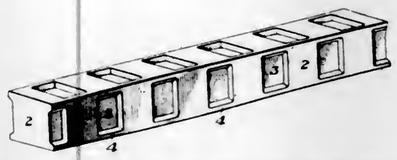
1. The combination with a chassis comprising separated side parts, of a radiator having trunnions at opposite sides, bearings for said trunnions carried by said side frames, and a support connecting the body of the radiator and the chassis, substantially as described.

2. The combination with a chassis, of a radiator supported thereby, trunnion supports for the radiator permitting swinging movement on a horizontal axis, one member of said trunnion supports being mounted on the



side of the radiator and the other on the chassis, and means for supporting the top of the radiator.

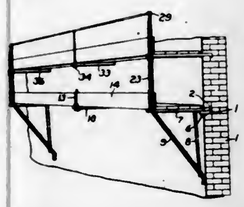
939,962. REINFORCING-BAR. THOMAS W. JENKS, Avalon, Pa. Filed Feb. 2, 1907. Serial No. 355,416.



A reinforcing bar for concrete construction substantially square in cross section, each face of the bar constituting a flat plane surface and being provided with depressions included within the boundaries of such face, said depressions being shallow and bounded within inclined sides substantially square in configuration, the depressions in each face being staggered with relation to the depressions in each adjacent face.

REISSUES.

13,036. SCAFFOLDING. GEORGE E. HUMPHRIES, Wellington, New Zealand. Filed Feb. 27, 1909. Serial No. 480,488. Original No. 867,274, dated Oct. 1, 1907, Serial No. 359,517.



1. A scaffold hook or anchor comprising a portion adapted to project substantially at right angles to a wall and an upwardly curved inner end portion having a holding point.

2. A scaffold hook or anchor provided at its inner end with a holding point and between the latter and the outer end of the hook with a wall face protecting fulcrum adapted to bear down upon the wall at a point in from said face.

3. In a scaffolding the combination of a scaffold hook or anchor comprising a portion adapted to project substantially at right angles to a wall and an upwardly curved inner end portion having a holding point with a bracket supported by said hook and coöperating with the wall beneath said hook.

4. In a scaffolding the combination of a scaffold hook or anchor comprising a supporting end adapted to project substantially at right angles to a wall and provided with side swing restraining faces, and an upwardly curved inner end portion having a holding point, with a bracket supported by said hook and steadied against side swing by said restraining faces.

5. In a scaffolding the combination of a scaffold hook or anchor comprising an outer portion adapted to project at right angles to a wall and having a tapered aperture therein and an upwardly curved inner end portion having a holding point with a bracket adapted for support by said hook and having a portion formed for engaging the tapered walls of said aperture.

6. A scaffolding comprising, in combination, a scaffold hook, a bracket supported thereby, a putlog bar at a different level from said bracket and supported at its outer end by the latter and having its greatest transverse dimension vertically arranged and having a substantial portion of its length formed for insertion into the mortar space of a wall.

7. A scaffolding comprising, in combination, a scaffold hook, a bracket supported thereby, a putlog bar at a different level from said bracket and supported at its outer end by said bracket, the greatest transverse dimension of said bar being vertically arranged and a substantial portion of its length being formed for insertion into the mortar space of a wall and an anchor lug on said bar for preventing longitudinal movement thereof when in its normal position.

8. A scaffolding comprising, in combination, a scaffold hook, a bracket supported thereby, a putlog bar at a different level from said bracket, a bracket supported post for supporting the outer end of said bar, the latter having its greatest transverse dimension vertically arranged and a substantial portion of its length formed for insertion into the mortar space of a wall.

9. In a scaffolding the combination of supporting eyes provided with outwardly tapered apertures, means for securing said eyes to a support, brackets provided with tapered hooks for engaging said apertures, and downwardly inclined struts on said brackets for abutting against said support, substantially as described.

10. In scaffolding, the combination of supporting eyes, means for securing said eyes to a support, brackets adapted to engage said eyes and to abut against said support, upward extensions upon said bracket provided with notches at their tops, bolts extending through the lower portions of said upward support, side posts provided with notches in their lower ends for engaging said bolts, bolts extending through said side posts in position to engage the notches in said upward extension, and means for tightening said bolts for clamping said side posts in position on said upward extensions, substantially as described.

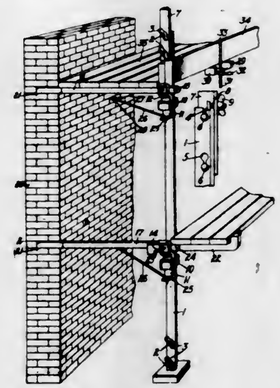
11. In scaffolding, the combination of supporting eyes, means for securing said eyes to a support, brackets adapted to engage said eyes and to abut against said support, upward extensions on said bracket, side posts detachably secured to said upward extensions, eyes formed at the upper ends of said side posts and provided with slots extending through the walls thereof, chains secured to said side posts and adapted to be latched in said slots, and a side rail supported on said chains, substantially as described.

12. In scaffolding, the combination of brackets, means for securing them to a support, a guard board extending between and resting on said brackets, a rod secured to said support and extending beneath said guard board, a bracket hooked over said guard board and provided with a yoke for receiving said rod, a tapered key in said yoke for wedging said rod in the latter, and a screw threaded in the upper portion of said bracket for engagement with said guard board for clamping together said guard board and rod, substantially as described.

13,037. SCAFFOLDING. GEORGE E. HUMPHRIES, Wellington, New Zealand. Filed Feb. 27, 1909. Serial No. 480,489. Original application filed Sept 18, 1907, Serial No. 393,467. Renewed Aug. 10, 1908, Serial No. 447,825. Original No. 898,368, dated Sept. 8, 1908.

1. An integral scaffold putlog bar having its greatest transverse dimension vertically arranged and having a substantial portion of its length formed for insertion into the mortar space of a wall.

2. An integral scaffold putlog bar having its greatest transverse dimension vertically arranged, a substantial portion of its length being formed for insertion into the mortar space of a wall, and anchoring means to retain said bar in place when in normal position.



3. An integral scaffold putlog bar having its greatest transverse dimension vertically arranged, a substantial portion of its length being formed for insertion into the mortar space of a wall, and an anchoring lug engaging said wall when the bar is in normal position.

4. In a scaffolding the combination of an integral scaffold putlog bar having its greatest transverse dimension vertically arranged and having a substantial portion of its length formed for insertion into the mortar space of a wall, a supporting standard, and frictional means for connecting said putlog bar to said standard in any adjusted position of said bar and standard, said means being rendered effective by the superposed weight thereon.

5. In a scaffolding the combination of an integral scaffold putlog bar having its greatest transverse dimension vertically arranged and having a substantial portion of its length formed for insertion into the mortar space of a wall, anchoring means to retain said bar in place when in normal position, a supporting standard, and frictional means for connecting said putlog bar to said standard at any elevation and at any distance from said wall, said means being rendered effective by the superimposed weight thereon.

6. In a scaffolding the combination of an integral scaffold putlog bar having its greatest transverse dimension vertically arranged, a substantial portion of its length being formed for insertion into the mortar space of a wall and an anchoring lug on said bar engaging said wall when the bar is in normal position, a supporting standard, frictional means for connecting said putlog bar to said standard in any adjusted position of said bar and standard, said means being rendered effective by the superposed weight thereon, and a tie-rod connecting said standard with said wall.

7. In scaffolding, the combination of an upright standard, clips adjustably mounted on said standard, floor bars provided with means for securing them to a support, extension bars overlapping said floor bars adjacent said standards, shiftable means carried by said clips for locking the

latter in their adjusted positions, and seats on said shiftable means for supporting the overlapping portions of said floor bars and extension bars, whereby said clips will be locked by the weight on said bars, substantially as described.

8. In scaffolding, the combination of an upright standard, clips adjustably mounted on said standard, floor bars provided with means for securing them to a support, extension bars overlapping said floor bars adjacent said standards, lugs carried by the inner ends of said extension bars for engaging the bottoms of said floor bars, shiftable means carried by said clips for locking the latter in their adjusted positions, and seats on said shiftable means for supporting the overlapping portions of said floor bars and extension bars, whereby said clips will be locked by the weight on said bars, substantially as described.

9. In scaffolding, the combination of an upright standard, clips adjustably mounted on said standard, floor bars provided with means for securing them to a support, extension bars overlapping said floor bars adjacent said standards, wedges slidably carried by said clips for engaging said standards, and seats on the upper ends of said wedges for supporting the overlapping portions of said floor bars and extension bars, substantially as described.

10. In scaffolding, the combination of an upright standard provided with a series of horizontal shoulders, clips adjustably mounted on said standard for engagement with said shoulders, floor bars provided with means for securing them to a support, extension bars overlapping said floor bars adjacent said standards, wedges slidably carried by said clips for engaging said standards, and seats on the upper ends of said wedges for supporting the overlapping portions of said floor bars and extension bars, substantially as described.

11. In scaffolding, the combination of an upright standard, clips adjustably mounted on said standard, floor bars provided with means for securing them to a support, extension bars overlapping said floor bars adjacent said standards, wedges slidably carried by said clips for engaging said standards, seats on the upper ends of said wedges for supporting the overlapping portions of said floor bars and extension bars, and means for locking said bars in said seats, substantially as described.

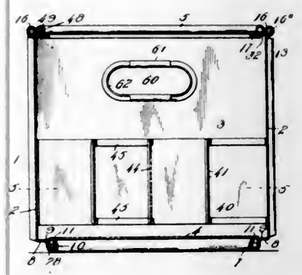
12. In scaffolding, the combination of an upright standard, clips adjustably mounted on said standard, floor bars provided with means for securing their rear ends to a support, shiftable means carried by said clips for locking the latter in their adjusted positions on said standard, seats on said shiftable means for supporting said floor bars, and tie rods extending angularly from said shiftable means to said support, substantially as described.

13. In scaffolding, the combination of an upright standard, clips adjustably mounted on said standard, floor bars provided with means for securing their rear ends to a support, wedges slidably carried by said clip for engaging said standards, seats on said wedges for supporting said floor bars, and tie rods connecting said wedges to said support, substantially as described.

14. In scaffolding, the combination of an upright standard, clips adjustably mounted on said standard, floor bars provided with means for securing their rear ends to a support, wedges slidably carried by said clip for engaging said standard, seats on said wedges for supporting said floor bars, perforated lugs on said wedges for preventing accidental displacement of the latter from said clips, and tie rods connecting said perforated lugs to said support, substantially as described.

15. In scaffolding, the combination of an upright standard, clips adjustably mounted on said standard, floor bars provided with means for securing their rear ends to a support, wedges slidably carried by said clip for engaging said standards, seats on said wedges for supporting said floor bars, perforated lugs on said wedges for preventing accidental displacement of the latter from said clips, tie rods connected at their outer ends to said lugs, and anchor pins provided with eyes intermediate their ends for securing the inner ends of said tie rods to said support, substantially as described.

13,038. METAL BOX. GOTTLIEB KLENK and JACOB F. FINK, Defiance, Ohio, assignors, by mesne assignments, to Defiance Pressed Steel Company, a Corporation of Ohio. Filed Oct. 16, 1907. Serial No. 397,760. Original No. 778,680, dated Dec. 27, 1904, Serial No. 216,834.



1. A metal beer-box made in sections, having the upper edges reinforced, the sections being interlocked and seamed to provide an outwardly-projecting flange at the bottom of the box, and a rest adjacent and between the box sides and ends and the flange, substantially as described.

2. A metal box made in sections having the upper edges reinforced, the sections being seamed to provide an outwardly-projecting flange at the bottom of the box, a separate reinforcing element inclosed within the flange, and a rest adjacent and between the box sides and ends and the flange, substantially as described.

3. A metal box made in sections having the upper edges reinforced, the sections seamed to provide an outwardly-projecting flange at the bottom of the box, a rest adjacent and between the box sides and ends, and the flange, and interlocking seams at the corners of the box to form outwardly-projecting flanges, substantially as described.

4. A metal box made in sections having the upper edges reinforced, the sections being interlocked and seamed to provide an outwardly-projecting flange at the bottom of the box, a rest adjacent and between the box sides and ends and the flange, and metal compartments formed in sections connecting the sides and ends of the box, substantially as described.

5. A metal box made in sections having the upper edges reinforced with an inwardly-projecting support, the reinforced edges having an internal strengthening element, the sections being seamed to form an outwardly-projecting flange at the bottom of the box, and a rest surrounding the flange at the outside, substantially as described.

6. A metal box made in sections and comprising sides, ends and bottom, the corners of the sides and ends being seamed to form outwardly-projecting flanges, the upper edges of the sides and ends being reinforced, the sides, ends, and bottom being seamed at the bottom of and a short distance from the edges of the box to form an outwardly-projecting flange, substantially as described.

7. A metal box made in sections and comprising sides, ends, and bottom, the corners of the sides and ends being interlocked and seamed to form outwardly-projecting flanges, reinforcing elements incased within said flanges, the sides and ends having beads and a supporting-flange at their upper edges, a strengthening element within the beads, and an outwardly-projecting flange at the bottom of and a short distance from the edge of the box, substantially as described.

8. A metal box made in sections, means securing the sections together, each section being reinforced at its upper edge, and a clip connecting the upper corners of the sides and ends, said clip consisting of a base and extended wings, and an overlapping flange, the wings being held by the reinforcement at the upper edges, substantially as described.

9. A metal box made in sections, means securing the sections together, each section being reinforced at its upper edge and also having an inwardly-projecting support, and a clip at the corners of the end and side sections, said clip engaging the upper and lower sides of the support, and held in position by the reinforcement, substantially as described.

10. A metal box having a series of zigzag sections extending from side to side of the box, flanges at the ends of the sections, means securing the flanges to the box, and ties having hooked ends connecting the abutting corners of the sections, said hooked ends engaging two abutting sections and holding the same together, substantially as described.

11. A metal box made in sections, the seams of the sections interlocking and extending from the box, a depressed reinforced support at the top of the box, a cover bent over at its outer ends and reinforced by a rod embraced by the bent-over ends, said reinforced ends being seated in the reinforced support, and means for securing the cover, substantially as described.

12. A metal box having a plurality of partitions having angles which abut against each other, notches formed in the edges of the angles, and ties connecting the partitions at the angles, said ties fitting the notches, substantially as described.

13. A metal box having a plurality of partitions having angles which abut against each other, ties having hooked ends connecting the top and bottom of said abutting sections, and reinforcing-flanges along the top and bottom of the sections.

14. A metal beer-box made in sections, each section having beads formed on all corners, a top-reinforcing element at the top, the beads at the top of the sections engaging the top-reinforcing element, a bottom-reinforcing element, the beads at the bottom of the sections engaging the bottom-reinforcing element, corner-reinforcing elements, the beads at the corners of the sections engaging the corner-reinforcing elements, and corner-clips at the upper corners of the box.

15. A rectangular metal box made of a plurality of sections of sheet metal, having the upper edges reinforced, the sheet metal sections being interlocked and seamed to provide an outwardly and downwardly projecting flange on the bottom of, and a short distance from the bottom edges of the box and parallel to said bottom edges and being shaped to provide a rest adjacent and between the bottom edges and the flange, said rest being in the same vertical planes as the upper reinforced edges of the box, the upper reinforced edges, the rest and the downwardly projecting flange at the bottom of the box each being rectangular in configuration.

16. A metal box made in sections and having sides, ends and bottom, the vertical edges of the sides and ends being interlocked and seamed to form flanges on the exterior of the box, the sides and ends having beads at their upper edges, an inner supporting flange below the said beads adapted to reinforce the upper edges of the box, a strengthening element within the beads, the section being seamed to provide an outwardly and downwardly projecting flange on the bottom of, and a short distance from the bottom edges of the box and parallel to the said bottom edges.

17. A rectangular metal box made in sections and comprising sides, ends and bottom, the vertical edges of the sides and ends being interlocked and seamed to form flanges on the exterior of the box, the sides and ends having beads at their upper edges, an inner supporting flange below the said beads adapted to reinforce the upper edges of the sides and ends, a strengthening element within the beads, the sections being seamed to provide an outwardly and downwardly projecting flange on the bottom of, and a short distance from the bottom edges of the box and parallel to the said bottom edges, said downwardly projecting flange being in the same vertical planes with the said inner supporting flange.

DESIGNS.

40,336. FLAG. CHARLES Y. TURNER, New York, N. Y. Filed June 28, 1909. Serial No. 504,941. Term of patent 14 years.



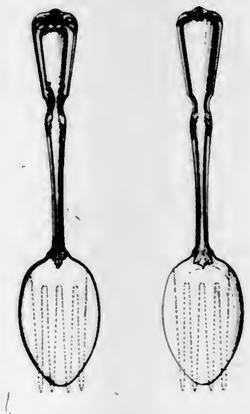
The ornamental design for a flag as shown and described.

40,337. CUFF-BUTTON. JOSEF PEJCHAR, Cincinnati, Ohio. Filed May 28, 1909. Serial No. 499,065. Term of patent 7 years.



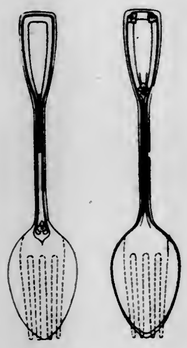
The ornamental design for a cuff-button, as shown.

40,338. SPOON OR FORK. GEORGE L. TURNER, Taunton, Mass., assignor to Reed & Barton Corporation, Taunton, Mass., a Corporation of Massachusetts. Filed Aug. 23, 1909. Serial No. 514,307. Term of patent 14 years.



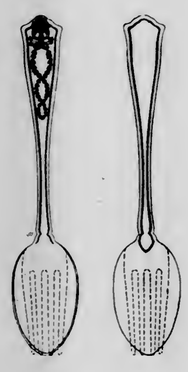
The ornamental design for a spoon or fork as shown.

40,339. HANDLE FOR SPOONS, FORKS, OR SIMILAR ARTICLES. ALBERT ANGELL SOUTHWICK, New York, N. Y., assignor to Tiffany & Company, New York, N. Y., a Corporation of New York. Filed July 21, 1909. Serial No. 508,847. Term of patent 7 years.



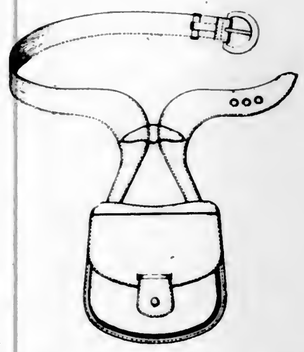
The ornamental design for a handle for a spoon, fork, or similar article as shown.

40,340. HANDLE FOR SPOONS, FORKS, OR SIMILAR ARTICLES. ALBERT ANGELL SOUTHWICK, New York, N. Y., assignor to Tiffany & Company, New York, N. Y., a Corporation of New York. Filed July 21, 1909. Serial No. 508,848. Term of patent 7 years.



The ornamental design for a handle for a spoon, fork, or similar article as shown.

40,341. PURSE AND BELT THEREFOR. JULIUS LAMBERT, Hoboken, N. J. Filed May 22, 1909. Serial No. 497,813. Term of patent 7 years.



The ornamental design for a purse and a belt therefor, as shown.

40,342. TOY FIGURE. OTTO LINGOHR, Solingen, Germany. Filed July 30, 1908. Serial No. 446,205. Term of patent 3½ years.



The ornamental design for a toy figure, as shown.

40,343. LIGHT-SHADE. ANDREW J. SANFORD, Newark, Ohio. Filed Aug. 12, 1909. Serial No. 512,613. Term of patent 14 years.



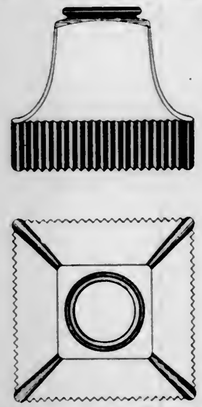
The ornamental design for a light shade, as shown and described.

40,344. LIGHT-SHADE. ANDREW J. SANFORD, Newark, Ohio. Filed Aug. 12, 1909. Serial No. 512,614. Term of patent 14 years.



The ornamental design for a light shade, as shown and described.

40,345. LAMP-SHADE. JACOB KAPPLER, Philadelphia, Pa., assignor to Gill & Company, Philadelphia, Pa., a Corporation of Pensylvania. Filed July 17, 1909. Serial No. 508,247. Term of patent 7 years.



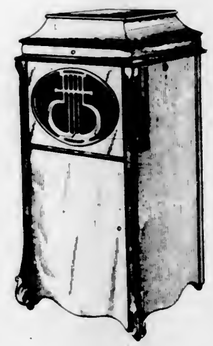
The ornamental design for a lamp shade, as shown.

40,346. VERTICAL INVERTED INCANDESCENT GAS-BURNER. ARTHUR BRAY, Leeds, England. Filed June 8, 1909. Serial No. 500,986. Term of patent 14 years.



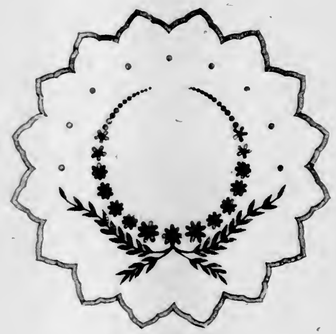
The ornamental design for the vertical inverted incandescent gas burner as shown and described.

40,347. PHONOGRAPH-CABINET. PETER WEBER, Orange, N. J., assignor to New Jersey Patent Company, West Orange, N. J., a Corporation of New Jersey. Filed Sept. 11, 1909. Serial No. 517,348. Term of patent 14 years.



The ornamental design for a phonograph cabinet, as shown.

40,348. DOILY. ROBERT GAIR, New York, N. Y. Filed Aug. 13, 1909. Serial No. 512,768. Term of patent 3½ years.



The ornamental design for a doily, as shown.

TRADE-MARKS

PUBLISHED NOVEMBER 9, 1909.

The following trade-marks have been adjudged entitled to registration under the act of February 20, 1905, and are published in compliance with section 6 of said act. Said section provides:

"Any person who believes he would be damaged by the registration of a mark may oppose the same by filing notice of opposition, stating the grounds therefor, in the Patent Office within thirty days after the publication of the mark sought to be registered, which said notice of opposition shall be verified by the person filing the same before one of the officers mentioned in section two of this act. If no notice of opposition is filed within said time the Commissioner shall issue a certificate of registration therefor, as hereinafter provided for."

Marks which are stated to have been "Used ten years" are registrable under the last proviso of section 5 of said act, which is as follows:

"And provided further, That nothing herein shall prevent the registration of any mark used by the applicant or his predecessors, or by those from whom title to the mark is derived, in commerce with foreign nations or among the several States, or with Indian tribes, which was in actual and exclusive use as a trade-mark of the applicant or his predecessors from whom he derived title for ten years next preceding the passage of this act."

Section 14 of said act provides for the following fee:

"On filing notice of opposition to the registration of a trade-mark, ten dollars."

Ser. No. 22,732. (CLASS 32. FURNITURE AND UPHOLSTERY.) WILSON & MAYERS, Washington, D. C. Filed Oct. 16, 1906.



Particular description of goods.—Buffets, Sideboards, Chairs, Tables, China-Closets, Bookcases, Cabinets, Parlor-Suits, Stools, Divans, Settees, Couches, Beds, Bureaus, Chiffonniers, Dressing-Tables, Hall-Racks, Mirrors, Upholstered Furniture and Upholstery, Desks, Mattresses, Bed-Springs, Bolsters, and Pillows.

Ser. No. 32,267. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) A. PRÉE, Dresden, Germany. Filed Jan. 16, 1908.

Preolit

Particular description of goods.—Paint for Iron, Corrugated Sheet-Iron, or Plate, Wood, Stone, Cement, and Pasteboard.

Ser. No. 34,860. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ACME REMEDY COMPANY, Piqua, Ohio. Filed May 21, 1908. Used ten years.



Particular description of goods.—Cough-Syrup, Liniment and Ointment Used as a Remedy for Tetter, Piles, Eczema, Scrofulous Ulcers, Burns, Scalds, Cuts, Bruises, Wounds, Chilblains, Pimples, Boils, and All Skin Diseases.

Ser. No. 36,901. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) LEOP. PFEIFFER, Vienna, Austria. Filed Aug. 24, 1908.



The same being a portrait of the wife of the said Leop. Pfeiffer.

Particular description of goods.—Hair-Nets.

Ser. No. 36,902. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) LEOP. PFEIFFER, Vienna, Austria. Filed Aug. 24, 1908.



The same being a portrait of the wife of the said Leop. Pfeiffer.

Particular description of goods.—Hair-Nets.

Ser. No. 37,137. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) THE RUDOLPH WURLITZER CO., Cincinnati, Ohio. Filed Sept. 3, 1908. Used ten years.

SIBERIAN

Particular description of goods.—Musical Strings.

Ser. No. 37,147. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) THE RUDOLPH WURLITZER CO., Cincinnati, Ohio. Filed Sept. 3, 1908.

MONOPOL

Particular description of goods.—Musical Strings.

Ser. No. 37,148. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) THE RUDOLPH WURLITZER CO., Cincinnati, Ohio. Filed Sept. 3, 1908. Used ten years.

SPOHR

Particular description of goods.—Musical Strings.

Ser. No. 37,152. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) THE RUDOLPH WURLITZER CO., Cincinnati, Ohio. Filed Sept. 3, 1908. Used ten years.

PAGANINI

Particular description of goods.—Musical Strings.

Ser. No. 37,160. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) THE RUDOLPH WURLITZER CO., Cincinnati, Ohio. Filed Sept. 3, 1908. Used ten years.

HOWARD

Particular description of goods.—Accordions, Banjos, Guitars, Zithers, Mandolins, Musical Strings, Mandolin-Picks, Harmonicas, Music-Stands, Guitar Capo Tastos, Talking-Machine Needles, Bandurrias, Drums.

Ser. No. 37,399. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HENRY G. & J. ADAM HESS, Ogden, Utah. Filed Sept. 15, 1908.



The portrait shown being that of the daughter of Mrs. Marie A. Hess.

Particular description of goods.—Crackers.

Ser. No. 38,530. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BURNS AND REED, New York, N. Y. Filed Nov. 9, 1908.



Particular description of goods.—Blended Roasted Coffee and Blended Tea.

Ser. No. 38,899. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) LEOP. PFEIFFER, Vienna, Austria. Filed Nov. 25, 1908.



The same being a portrait of the wife of the said Leop. Pfeiffer.

Particular description of goods.—Hair-Nets.

Ser. No. 39,103. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) ROBERT S. TYUS, Montreal, Canada. Filed Dec. 4, 1908.

SNAP

Particular description of goods.—A Chemical Mixture for Hand or Skin Cleansing Purposes.

Ser. No. 39,489. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) ARTHUR H. THOMAS COMPANY, Philadelphia, Pa. Filed Dec. 22, 1908.

A.H.T. CO

Particular description of goods.—Acetometers; Acid Basins and Pumps; Aeroscopes; Air-Pumps; Alkalimeters; Arsenic Apparatus; Aspirators; Balances; Barometers; Beakers; Blowers; Blowpipes Used in Qualitative and Quantitative Blowpipe Analysis; Burettes; Casseroles; Cement-Testers; Sedimentation and Percentage Tubes; Comparators; Nessler Tubes; Condensers; Crucibles; Cylinders; Deflagration Globes and Spoons; Dehydrating Apparatus; Desiccators; Dialyzers; Evaporation and Preparation Dishes; Drying-Ovens; Eudiometers; Assay, Bacteriological, and Boiling Flasks; Funnels; Nitrogen-Bulbs; Nitrometers; Gas Bottles, Burettes, Generators, and Holders; Gas-Washing Bottles; Hemacytometers; Creamometers; Lactobutyrometers; Polariscopes; Refractometers; Retorts; Spectroscopes; Spherometers; Test-Tubes; Tintometers; Horismascopes; Albuminimeters; Ureometers; Purinometers; Uricometers.

Ser. No. 39,584. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FRANK J. FOURNEY, Williamsport, Pa. Filed Dec. 28, 1908.



Consists of my portrait.

Particular description of goods.—A Remedy for Rheumatism.

Ser. No. 40,074. (CLASS 39. CLOTHING.) WALTER R. LETT, San Francisco, Cal. Filed Jan. 22, 1909.



Particular description of goods.—Knitted Underwear and Hosiery.

Ser. No. 40,215. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CALIFORNIA FRUIT CANNERS ASSOCIATION, San Francisco, Cal. Filed Jan. 29, 1909. Used ten years.



Particular description of goods.—Canned Fruit and Canned Vegetables.

Ser. No. 40,326. (CLASS 9. EXPLOSIVES, FIREARMS, EQUIPMENTS, AND PROJECTILES.) GRANTORPETS TÄNDSTICKSFABRIKS AKTIEBOLAG, Westervik, Sweden. Filed Feb. 3, 1909.



Consists of the representation of a pine-tree produced upon a scroll.

Particular description of goods.—Matches.

Ser. No. 40,544. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) PECK, STOW & WILCOX CO., Southington, Conn., and New York, N. Y. Filed Feb. 15, 1909.

P.S.&W.

Particular description of goods.—Braces, Bits, Chisels, Drawing-Knives, Hammers, Hatchets, Screw-Drivers, Pincers, Pliers, Wrenches, Bolt-Cutters, Punches, Snips, Pipe-Crimpers, Cutting-Nippers, Rivet Sets and Headers, Grooving-Tools, Roofing-Tools, Scratch-Awls, and Ratchet and Breast Drills.

Ser. No. 40,926. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE M. A. LIOTTA CHEMICAL COMPANY, New York, N. Y. Filed Mar. 3, 1909.

EUBELLINE

Particular description of goods.—Hair-Tonics.

Ser. No. 41,207. (CLASS 39. CLOTHING.) WM. MOORE KNITTING CO., Cohoes, N. Y. Filed Mar. 15, 1909.

THE GRANITE

Particular description of goods.—Knitted Underwear.

Ser. No. 41,235. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MAX COHN, Peoria, Ill. Filed Mar. 17, 1909.

IMPERIAL COTTO

Particular description of goods.—Stock Food.

Ser. No. 41,307. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) M. C. PETERS MILL CO, Omaha, Nebr. Filed Mar. 20, 1909.



Particular description of goods.—A Sugar-Meal Composed of Ground Hay or Alfalfa Treated with Sugar or Molasses and Used as a Stock and Poultry Food.

Ser. No. 41,630. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) SHELDON AXLE COMPANY, Wilkes-Barre, Pa. Filed Apr. 6, 1909.

EMPIRE

Particular description of goods.—Vehicle-Axles, Not Including Bicycle-Axles.

Ser. No. 41,703. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) HERMAN ZÖHRLAUT LEATHER CO., Milwaukee, Wis. Filed Apr. 9, 1909.

TRYSOMET

Particular description of goods.—Shoe-Leather.

Ser. No. 41,929. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) NICHOLAS ASHTON AND SONS, Liverpool, England. Filed Apr. 22, 1909.

D V

No claim is made to the exclusive use of the letters "D. V."

Particular description of goods.—Salt.

Ser. No. 41,958. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) CRUCIBLE STEEL COMPANY OF AMERICA, Pittsburg, Pa. Filed Apr. 23, 1909.

JB

Particular description of goods.—Laminated Steel Plates, Bars, and Shapes.

Ser. No. 42,373. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) J. J. SAVILLE & COMPANY, LIMITED, Sheffield, England. Filed May 12, 1909.

MARGELINE

Particular description of goods.—Tool-Steel and Steel in Bar, Rod, Sheet, and other Unwrought and Partly-Wrought Forms.

Ser. No. 42,494. (CLASS 39. CLOTHING.) MORTON G. LUCHS, New York, N. Y. Filed May 18, 1909.



Particular description of goods.—Men's, Women's, and Children's Leather Gloves.

Ser. No. 43,032. (CLASS 37. PAPER AND STATIONERY.) EMILE A. KLABER, New York, N. Y. Filed June 15, 1909.

RONEO

Particular description of goods.—Duplicating Apparatus Comprising Letter-Presses and Stencil-Printers, Parts for Such Machines, Copying-Paper for Letter-Presses, Book-Covers for Such Copying-Paper, and Stencil-Paper, Backing-Sheets, and Impression-Sheets for Stencil-Printers.

Ser. No. 43,171. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THOMAS C. JENKINS, Pittsburg, Pa. Filed June 22, 1909. Used ten years.

VIENNA

Particular description of goods.—Wheat-Flour.

Ser. No. 43,172. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THOMAS C. JENKINS, Pittsburg, Pa. Filed June 22, 1909.

WHITE RIVER

Particular description of goods.—Wheat-Flour.

Ser. No. 43,184. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) JOHANN HOFF, New York, N. Y. Filed June 22, 1909. Used ten years.

HOFF'S MALTED SODA

Particular description of goods.—Malted Soda.

Ser. No. 43,309. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) I. A. WILLIAMS, Sparks, Ga. Filed June 28, 1909.



Consisting of the portrait of myself and my signature.

Particular description of goods.—An Internal and Topical Medicinal Remedy for Diseases of the Stomach and Bowels, Also for Colds, the Grippe, and Croup, and for Sprains, Bruises, Pleurisy, Sore Throat, Headache, Sciatica, and Rheumatism.

Ser. No. 43,333. (CLASS 43. THREAD AND YARN.) THE BULLARD THREAD COMPANY, Holyoke, Mass. Filed June 30, 1909.

CONGRESS

Particular description of goods.—Spooled Sewing-Thread.

Ser. No. 43,334. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) AUSTIN, NICHOLS & CO., New York, N. Y. Filed June 30, 1909. Used ten years.

RODIER BRAND

Particular description of goods.—Sterilized and Hermetically-Sealed Camembert Cheese, Mushrooms, Truffles, Artichokes, Flageolets, Mixed Vegetables, Peas, Tunny Fish, Sardines, Bar-le-Duc, Cherries, French and Italian Olive-Oil, Pâté de Foie Gras, and Purée de Foie Gras; and Spaghetti, Macaroni, and Vermicelli in Packages.

Ser. No. 43,351. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CARL ADOLF THIES, Charlotte, N. C. Filed July 1, 1909.



Particular description of goods.—Salves.

Ser. No. 43,487. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) AUSTIN, NICHOLS & CO., New York, N. Y. Filed July 12, 1909.

PLAZANET BRAND

Particular description of goods.—Canned Sardines in Olive-Oil.

Ser. No. 43,635. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) KINGAN & COMPANY, LIMITED, Belfast, Ireland; Indianapolis, Ind.; San Francisco, Cal.; Washington, D. C.; Richmond, Va.; Jacksonville, Fla.; Pittsburg, Pa.; Baltimore, Md.; Philadelphia, Pa.; Syracuse and New York, N. Y., and Columbus, Ohio. Filed July 19, 1909.

PEARL

Consists of the word "Pearl."

Particular description of goods.—Cured and Smoked Meats and Lard.

Ser. No. 43,688. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) THE ARABOL M'F'G. CO., New York, N. Y. Filed July 22, 1909.

BELLICOSA.

Particular description of goods.—Soap Powder in Highly-Concentrated Form Used for Softening Purposes in Connection with Textile Materials.

Ser. No. 43,980. (CLASS 37. PAPER AND STATIONERY.) THE TAYLOR-BUAT CO., Holyoke, Mass. Filed Aug. 5, 1909.

AEOLIAN

Particular description of goods.—Cover, Text, Book, Coated, Vellum, Bond, and Ledger Papers.

Ser. No. 43,998. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) H. HAMSTRA AND COMPANY, Grand Rapids, Mich. Filed Aug. 6, 1909.



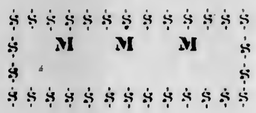
Particular description of goods.—Biscuits.

Ser. No. 44,054. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) HERMAN WONDERLICH, Providence, R. I. Filed Aug. 10, 1909.



Particular description of goods.—Shoe-Polish.

Ser. No. 44,081. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) FARMERS' COTTON OIL & FERTILIZER COMPANY, Huntsville, Ala. Filed Aug. 11, 1909.



Particular description of goods.—Cotton-Seed Meal.

Ser. No. 44,150. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WEBERS, Milwaukee, Wis. Filed Aug. 14, 1909.



Consists of the letter "W" placed within the center of two pairs of circles. In the space between the inner and outer pairs of circles there is a wreath tied with a flowing ribbon. To the right of this circular configuration there is the outline of an oval, the ends of which terminate in scrolls. Within this oval there are placed the words "Webers" and "Milwaukee;" but no claim is made to this name "Webers" and the geographical term "Milwaukee."

Particular description of goods.—Candies, Chocolates, and Sweetmeats.

Ser. No. 44,216. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE ALLEN & WHEELER COMPANY, Troy, Ohio. Filed Aug. 18, 1909.



Particular description of goods.—Wheat-Flour.

Ser. No. 44,229. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MANHATTAN EYE SALVE COMPANY, Owensboro, Ky. Filed Aug. 19, 1909.

M. E. S. CO.

Particular description of goods.—Medicinal Ointments for Diseases of the Eye, Ear, Nose, and Throat.

Ser. No. 44,230. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) M. L. MCDONALD JR. & CO., Santa Rosa, Cal. Filed Aug. 19, 1909.



Particular description of goods.—Dried Fruits.

Ser. No. 44,259. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) THE C. J. ROOT COMPANY, Bristol, Conn. Filed Aug. 20, 1909.

ROCO

Particular description of goods.—Counting-Machines.

Ser. No. 44,272. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) THE HILL & GRIFFITH CO., Cincinnati, Ohio. Filed Aug. 21, 1909.



Particular description of goods.—Facing Used in Making Molds in Which Metals Are Cast.

Ser. No. 44,285. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NORTH LUBEC MFG. & CANNING CO., North Lubec, Me. Filed Aug. 21, 1909.



Particular description of goods.—Canned Sardines in Cotton-Seed Oil.

Ser. No. 44,286. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) NEW YORK AND KENTUCKY CO., Rochester, N. Y. Filed Aug. 21, 1909.



Particular description of goods.—Cocktails.

Ser. No. 44,298. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) NATIONAL ECONOMIC GAS BLAST CO., New York, N. Y. Filed Aug. 23, 1909.

REVELATION

Particular description of goods.—Gas-Stoves, Gas-Furnaces, Gas-Burners, and Blowpipes.

Ser. No. 44,353. (CLASS 12. CONSTRUCTION MATERIALS.) GEO S. MEPHAM & CO., East St. Louis, Ill. Filed Aug. 25, 1909.



Particular description of goods.—Dry Mortar-Colors.

Ser. No. 44,397. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) MILTON BRADLEY COMPANY, Springfield, Mass. Filed Aug. 28, 1909.



Particular description of goods.—A Game.

Ser. No. 44,398. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) MILTON BRADLEY COMPANY, Springfield, Mass. Filed Aug. 28, 1909.

DOWN AND OUT

Particular description of goods.—A Game.

Ser. No. 44,399. (CLASS 39. CLOTHING.) HALCYON KNITTING MILLS CO., South Bethlehem, Pa. Filed Aug. 28, 1909.



Particular description of goods.—Hosiery.

Ser. No. 44,427. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE WAUKESHA CANNING COMPANY, Waukesha, Wis. Filed Aug. 30, 1909.

AJAX

Particular description of goods.—Canned Vegetables.

Ser. No. 44,442. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) ROBERT A. VANCLEAVE, Philadelphia, Pa. Filed Aug. 30, 1909.

O-U-KID

Particular description of goods.—Nursing-Bottles.

Ser. No. 44,443. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MARTIN C. OLSON, Chicago, Ill. Filed Aug. 30, 1909.

„ZEPTO"

Particular description of goods.—An Antiseptic Tartar-Remover in the Form of a Pencil.

Ser. No. 44,445. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WONDER SPECIALTY COMPANY, Pittsfield, Mass. Filed Aug. 31, 1909.



Particular description of goods.—Sweeping Compounds.

Ser. No. 44,447. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ALABAMA-GEORGIA SYRUP CO., Montgomery, Ala. Filed Aug. 31, 1909.

ALAGA

Particular description of goods.—Cane and Corn Compound Syrup.

Ser. No. 44,460. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CASEIN, LIMITED, Battersea, London, England. Filed Aug. 31, 1909.

CRYSOVA

Particular description of goods.—Egg Substitutes.

Ser. No. 44,487. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) EBERTS & BRO., Jeffersonville, Ind. Filed Sept. 1, 1909. Used ten years.

AGME

Particular description of goods.—Wheat-Flour.

Ser. No. 44,492. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) MODEL HEATING COMPANY, Philadelphia, Pa. Filed Sept. 2, 1909.

LEDOM

Particular description of goods.—Heating-Furnaces and Cooking Stoves and Ranges.

Ser. No. 44,571. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) EDWARD B. GIBFORD, Adrian, Mich. Filed Sept. 7, 1909.

ZIG-ZAG

Particular description of goods.—Razor-Strops.

Ser. No. 44,586. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) D. W. SHOYER & CO, New York, N. Y. Filed Sept. 8, 1909.

TOTEM POLE

Particular description of goods.—Hammocks.

Ser. No. 44,587. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) NATIONAL COLOR CO., Detroit, Mich. Filed Sept. 8, 1909.

LIGHTNING

Particular description of goods.—Dyeing Materials.

Ser. No. 44,590. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) LUBIN MANUFACTURING COMPANY, Philadelphia, Pa. Filed Sept. 8, 1909.



Particular description of goods.—Kinetoscopic Films.

Ser. No. 44,640. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) ROGERS & THOMPSON, West New York, N. J., and New York, N. Y. Filed Sept. 11, 1909.



R&T

Particular description of goods.—Broad Silk in the Piece, Cotton Piece Goods, and Silk and Cotton Piece Goods.

Ser. No. 44,697. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) DOVER STAMPING AND MANUFACTURING COMPANY, Cambridge, Mass. Filed Sept. 15, 1909. Used ten years.

DOVER

Particular description of goods.—Receptacles Made of Tinware and Sheet-Iron—viz., Dish-Pans, Bread-Pans, Washbowls, Milk-Pans, Pudding-Pans, Preserve-Kettles, Saucepans, Cups, Pie-Plates, Muffin-Pans, Corn-Cake Pans, Scoops, Dippers, Spoons, Refrigerator-Pans, Bath-Tubs, Tea-Kettles, Match-Safes, Milk-Strainers, Funnels, Tea-Trays, Dust-Pans, and Sprinkling-Pots.

Ser. No. 44,759. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) WILLIAMS SILK M'F'G CO., New York, N. Y. Filed Sept. 18, 1909.



Particular description of goods.—Silk in the Piece.

Ser. No. 44,825. (CLASS 3. BAGGAGE, HORSE EQUIPMENTS, PORTFOLIOS, AND POCKET-BOOKS.) STEIMER & MOORE WHIP CO., Westfield, Mass. Filed Sept. 20, 1909.

PLYMOUTH
ROCK

Particular description of goods.—Whips.

Ser. No. 44,826. (CLASS 3. BAGGAGE, HORSE EQUIPMENTS, PORTFOLIOS, AND POCKET-BOOKS.) STEIMER & MOORE WHIP CO., Westfield, Mass. Filed Sept. 20, 1909.

TEXTILENE

Particular description of goods.—Whips.

Ser. No. 44,827. (CLASS 3. BAGGAGE, HORSE EQUIPMENTS, PORTFOLIOS, AND POCKET-BOOKS.) STEIMER & MOORE WHIP CO., Westfield, Mass. Filed Sept. 20, 1909.

Magnacio

Particular description of goods.—Whips.

Ser. No. 44,828. (CLASS 3. BAGGAGE, HORSE EQUIPMENTS, PORTFOLIOS, AND POCKET-BOOKS.) STEIMER & MOORE WHIP CO., Westfield, Mass. Filed Sept. 20, 1909.

The OPENER

Particular description of goods.—Whips.

Ser. No. 44,846. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) LEINSTER DUFFY, Newbern, N. C. Filed Sept. 21, 1909.

SEVODINE

Particular description of goods.—A Remedy for Use in the Treatment of Colds, Catarrh, Rheumatism, Headache, Neuralgia, Toothache, and Sore Throat.

Ser. No. 44,860. (CLASS 3. BAGGAGE, HORSE EQUIPMENTS, PORTFOLIOS, AND POCKET-BOOKS.) FIBRE SPECIALTY CO., Kennett Square, Pa. Filed Sept. 22, 1909.

Hercules

Particular description of goods.—Trunks.

Ser. No. 44,902. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOHN R. DICKEY, Bristol, Tenn. Filed Sept. 23, 1909. Used ten years.

OLD RELIABLE

Particular description of goods.—Eye-Water.

TRADE-MARKS

REGISTERED NOVEMBER 9, 1909.

75,712. COPY-MULTIPLYING MACHINES. The Bosworth-Staley Company, Chicago, Ill.
Filed June 18, 1909. Serial No. 43,083. PUBLISHED SEPTEMBER 7, 1909.

75,713. PEROXID OF HYDROGEN. Custer Chemical Co., New York, N. Y.
Filed June 22, 1909. Serial No. 43,185. PUBLISHED SEPTEMBER 7, 1909.

75,714. CORDIALS. Henry H. Shufeldt & Co., Peoria, Ill.
Filed July 23, 1909. Serial No. 43,736. PUBLISHED SEPTEMBER 7, 1909.

75,715. PIANOS, ORGANS, AUTOMATIC PIANO-PLAYERS, AND SELF-PLAYING PIANOS. Paul Brown Klugh, Chicago, Ill.
Filed April 17, 1909. Serial No. 41,847. PUBLISHED SEPTEMBER 7, 1909.

75,716. STRAIGHT RYE WHISKY. Paris, Allen & Company, New York, N. Y.
Filed July 12, 1909. Serial No. 43,482. PUBLISHED SEPTEMBER 7, 1909.

75,717. CORDIALS. Dr. J. G. B. Siegert & Hijos, Port of Spain, Trinidad.
Filed July 12, 1909. Serial No. 43,467. PUBLISHED SEPTEMBER 7, 1909.

75,718. TOWELING. Slater Manufacturing Company, Pawtucket, R. I.
Filed June 26, 1909. Serial No. 43,280. PUBLISHED SEPTEMBER 7, 1909.

75,719. TOWELING. Slater Manufacturing Company, Pawtucket, R. I.
Filed June 26, 1909. Serial No. 43,281. PUBLISHED SEPTEMBER 7, 1909.

75,720. ROOFING-FELT, DEADENING-FELT, BUILDING-PAPERS, AND ROOFING-PAPERS. Weatherproof Manufacturing Company, St. Louis, Mo.
Filed July 9, 1908. Serial No. 36,035. PUBLISHED SEPTEMBER 7, 1909.

75,721. BOYS' OUTER SUITS. John J. Connell, Boston, Mass.
Filed July 23, 1909. Serial No. 43,714. PUBLISHED SEPTEMBER 7, 1909.

75,722. BOYS' OUTER SUITS. John J. Connell, Boston, Mass.
Filed July 23, 1909. Serial No. 43,715. PUBLISHED SEPTEMBER 7, 1909.

75,723. BOYS' OUTER SUITS. John J. Connell, Boston, Mass.
Filed July 23, 1909. Serial No. 43,716. PUBLISHED SEPTEMBER 7, 1909.

75,724. CORSETS. Corset H Company, Worcester, Mass.
Filed June 23, 1909. Serial No. 43,210. PUBLISHED SEPTEMBER 7, 1909.

75,725. TOILET-BRUSHES. Howard Brush Company, New York, N. Y.
Filed May 4, 1909. Serial No. 42,212. PUBLISHED SEPTEMBER 7, 1909.

75,726. TOILET-BRUSHES. Howard Brush Company, New York, N. Y.
Filed May 4, 1909. Serial No. 42,213. PUBLISHED SEPTEMBER 7, 1909.

75,727. OVERALLS, WORK-SHIRTS, JUMPERS, AND DUCK COATS. Maxwell-McClure Fitts Dry Goods Co., Kansas City, Mo.
Filed June 16, 1909. Serial No. 43,044. PUBLISHED SEPTEMBER 7, 1909.

75,728. REFRIGERATORS. McCray Refrigerator Company, Kendallville, Ind.
Filed July 17, 1909. Serial No. 43,606. PUBLISHED SEPTEMBER 7, 1909.

75,729. OIL, GAS, AND VAPOR STOVES. Novelty Manufacturing Company, Jackson, Mich.
Filed October 29, 1908. Serial No. 38,346. PUBLISHED SEPTEMBER 7, 1909.

75,730. HOSIERY. Richmond Hosiery Mills, Chattanooga, Tenn., and Rossville, Ga.
Filed June 21, 1909. Serial No. 43,160. PUBLISHED SEPTEMBER 7, 1909.

75,731. HOSIERY. Richmond Hosiery Mills, Chattanooga, Tenn., and Rossville, Ga.
Filed June 21, 1909. Serial No. 43,162. PUBLISHED SEPTEMBER 7, 1909.

75,732. HOSIERY. Richmond Hosiery Mills, Chattanooga, Tenn., and Rossville, Ga.
Filed June 21, 1909. Serial No. 43,165. PUBLISHED SEPTEMBER 7, 1909.

75,733. WOVEN OR FABRIC BELTING, TEXTILE BELTING, AND HOSE. The Rossendale-Reddaway Belting & Hose Co., Newark, N. J.
Filed July 1, 1909. Serial No. 43,356. PUBLISHED SEPTEMBER 7, 1909.

75,734. PERCOLATORS AND FILTERS. Charles A. Stelle, Chicago, Ill.
Filed July 27, 1909. Serial No. 43,822. PUBLISHED SEPTEMBER 7, 1909.

75,735. PACKING AND JOINTING MATERIALS. Turner Bros. Ltd., Rochdale, England.
Filed February 8, 1909. Serial No. 40,424. PUBLISHED SEPTEMBER 7, 1909.

75,736. BEER TAPS AND BUSHES. American Tap Bush Company, Detroit, Mich.
Filed July 28, 1909. Serial No. 43,834. PUBLISHED SEPTEMBER 7, 1909.

75,737. BREAD. Brunner Baking Company, Buffalo, N. Y.
Filed June 24, 1909. Serial No. 43,232. PUBLISHED AUGUST 17, 1909.

75,738. CHEWING-GUMS. The Canadian Chicle Company, Peterborough, Ontario, Canada.
Filed April 5, 1909. Serial No. 41,618. PUBLISHED SEPTEMBER 7, 1909.

75,739. LAXATIVES, ANTISEPTIC POWDER, AND MEDICINAL SUPPOSITORIES. The Cardolax Company, New York, N. Y.
Filed May 24, 1909. Serial No. 42,652. PUBLISHED SEPTEMBER 7, 1909.

75,740. BLENDED COFFEE. CLARK GROCERY CO, Memphis, Tenn.
Filed October 17, 1908. Serial No. 38,102. PUBLISHED SEPTEMBER 7, 1909.

75,741. CHOCOLATES AND BONBONS. F. H. ROBERTS COMPANY, Boston, Mass.
Filed April 19, 1909. Serial No. 41,863. PUBLISHED AUGUST 24, 1909.

75,742. FIRE-EXTINGUISHERS. THOMAS V. FORSTER, New York, N. Y.
Filed June 22, 1908. Serial No. 35,655. PUBLISHED SEPTEMBER 7, 1909.

75,743. COMPOUND OF LARD AND TALLOW. FRED. ECKART PACKING COMPANY, Fort Wayne, Ind.
Filed July 17, 1909. Serial No. 43,608. PUBLISHED SEPTEMBER 7, 1909.

75,744. CIGARS. GARCIA & VEGA, New York, N. Y.
Filed December 1, 1908. Serial No. 39,029. PUBLISHED SEPTEMBER 7, 1909.

75,745. CATTLE FEED CONSISTING OF MIXTURES OF MOLASSES, GRAINS, AND THEIR BY-PRODUCTS. THE GREAT WESTERN CEREAL COMPANY, Chicago, Ill.
Filed July 31, 1907. Serial No. 29,143. PUBLISHED SEPTEMBER 7, 1909.

75,746. CAN-OPENERS. NIRA J. HAWKS, New York, N. Y.
Filed June 19, 1909. Serial No. 43,107. PUBLISHED SEPTEMBER 7, 1909.

75,747. COCKS, NOZZLES, UNIONS, AND VALVES. THE LUNKENHEIMER COMPANY, Cincinnati, Ohio.
Filed March 6, 1909. Serial No. 40,973. PUBLISHED SEPTEMBER 7, 1909.

75,748. RUBBER WATER-BOTTLES AND SYRINGES. THE MECHANICAL RUBBER COMPANY, New York, N. Y.
Filed September 20, 1907. Serial No. 30,118. PUBLISHED SEPTEMBER 7, 1909.

75,749. BREADS, PIES, AND CAKES. HARRY J. MEES, Philadelphia, Pa.
Filed September 14, 1908. Serial No. 37,373. PUBLISHED SEPTEMBER 7, 1909.

75,750. GARTER, SUSPENDER, AND BELT WEBS, ELASTIC AND NON-ELASTIC, BRAIDED, OR WOVEN. MOORE WEB CO., Fall River, Mass.
Filed May 18, 1908. Serial No. 34,808. PUBLISHED AUGUST 25, 1908.

75,751. CERTAIN FOODS. RATCLIFF-SANDERS GROCER COMPANY, Tulsa, Okla.
Filed March 30, 1908. Serial No. 33,756. PUBLISHED DECEMBER 15, 1908.

75,752. LEATHER-POLISHES. S. M. BIXBY & Co., New York, N. Y.
Filed July 10, 1909. Serial No. 43,448. PUBLISHED SEPTEMBER 7, 1909.

75,753. METAL CORNER-BARS FOR CONCRETE CURBS. STEEL PROTECTED CONCRETE CO., Philadelphia, Pa.
Filed April 20, 1909. Serial No. 41,893. PUBLISHED AUGUST 24, 1909.

75,754. SAD-IRON WAXING AND POLISHING MATS. UNION WAXED & PARCHMENT PAPER COMPANY, Hamburg, N. J.
Filed December 29, 1908. Serial No. 39,588. PUBLISHED MARCH 2, 1909.

75,755. MALLEABLE CASTINGS. THE UNITED STATES MALLEABLE IRON CO., Toledo, Ohio.
Filed July 16, 1909. Serial No. 43,564. PUBLISHED SEPTEMBER 7, 1909.

75,756. OLIVE-OIL, MACARONI, CAPERS, MUSHROOMS, AND PRESERVED VEGETABLES. VON BREMEN, ASCHE & Co., New York, N. Y.
Filed March 16, 1909. Serial No. 41,233. PUBLISHED SEPTEMBER 7, 1909.

75,757. CERTAIN ARTICLES OF JEWELRY. WHITESIDE & BLANK, Newark, N. J.
Filed January 18, 1909. Serial No. 39,986. PUBLISHED MARCH 23, 1909.

75,758. CANNED FRUITS, BERRIES, VEGETABLES, BAKED BEANS WITH TOMATO SAUCE, SAUERKRAUT, HOMINY, AND PORK AND BEANS. THE SEARS & NICHOLS COMPANY, Chillicothe and Frankfort, Ohio.
Filed April 28, 1909. Serial No. 42,076. PUBLISHED SEPTEMBER 7, 1909.

LABELS

REGISTERED NOVEMBER 9, 1909.

15,067.—*Title:* "SHAUGHNESSY'S SPECIAL BLENDED WHISKEY." (For Blended Whisky.) M. SHAUGHNESSY DISTILLING CO., St. Louis, Mo. Filed February 23, 1909.

15,068.—*Title:* "WANIGAS." (For Straight Rye Whisky.) JAS. J. WALL, Duluth, Minn. Filed March 18, 1909.

15,069.—*Title:* "JAPAN LACQUER." (For a Varnish or Wood-Finisher.) CAPITOL PAINT, OIL & VARNISH COMPANY, Washington, Pa. Filed January 22, 1909.

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

COMMISSIONER'S DECISIONS.

PRATT *v.* DE FERRANTI AND HAMILTON.

Decided June 10, 1909.

1. INTERFERENCE — PRIORITY — RIGHT TO MAKE THE CLAIMS—DIFFERENCE IN DISCLOSURE.

Where the terms of the claims in issue are found to apply aptly to the structure of a party to the interference who has copied them from the patent of the other party, *Held* he has a right to make the claims even though his disclosure embodies an element the use of which it was the expressed purpose of the patentee to render unnecessary by the structure particularly referred to in the claims.

2. SAME—SAME—SAME—DIFFERENCE IN TERMINOLOGY.

Where the interference involves a structure creating a "main" and a "leakage" flux, it is immaterial for the purposes of the interference that the flux described as the "main flux" by one party is called the "leakage-flux" by the other, and vice versa, in their respective specifications.

APPEAL from Examiners-in-Chief.

ELECTRIC METER.

Mr. Albert G. Davis for Pratt.

Messrs. Spear, Middleton, Donaldson & Spear for de Ferranti and Hamilton.

BILLINGS, *Assistant Commissioner:*

This is an appeal by de Ferranti and Hamilton from the decision of the Examiners-in-Chief affirming the decision of the Examiner of Interferences awarding priority of invention to Pratt.

This interference involves the application of Pratt, which was filed April 20, 1904, and the patent to de Ferranti and Hamilton, granted December 12, 1905, upon an application filed August 14, 1903. Inasmuch as the applications of the interferants were copending de Ferranti and Hamilton derive no benefit from the issue of their patent, and the burden is upon Pratt to prove priority of invention by a preponderance of evidence.

The invention in issue relates to induction-meters for alternating electric currents in which the rotating element which actuates the dials of the meter consists of a non-magnetic disk located between two electric magnets. Rotation is imparted to this disk by reason of the torque produced by the dephasement of the magnetic fluxes passing between the poles of the respective electromagnets. In the devices of each party one of the electromagnets is energized by a few turns of the conductor of the main or working circuit, while the other electromagnet is energized by a large number of turns of wire of a shunt-circuit connected across the main circuit. The rotating disk is therefore subject to the influence of two magnetic fluxes of different phases. Manifestly the greatest rotary effect upon the disk is produced when the two fluxes are dephased with reference to each other exactly ninety degrees, and it is only when such ninety degrees dephasement is reached that the speed of rotation of the disk is accurately proportional to the amount of electrical energy consumed in the main circuit.

In order to increase the dephasement of the fluxes of the opposing magnets, both of the parties to this interference have wound the shunt-coil on the intermediate leg of a magnet having three legs or a multiple thereof, the coil being wound in the de Ferranti and Hamilton construction some distance above the pole-faces, while in the Pratt structure the winding on the intermediate leg is brought very close to the lateral pole-faces of the pole on the intermediate leg. In each case the number of lines of force from the shunt-magnet which thread the disk is largely restricted, a greater number of lines passing across the air-space between the outer legs and the middle leg of the shunt-magnet, the latter serving to secure a dephasement of the flux of the shunt-magnet from that of the magnet in the main circuit.

The issue of this interference is as follows:

1. An electric meter for use on alternating circuits comprising in combination a series electromagnet; a multipolar shunt-magnet; a coil connected as a shunt across the supply-mains and wound on a part only of said shunt-magnet whereby considerable magnetic leakage is produced from the remaining parts, together with a rotatable element mounted between said series and said shunt magnets.

2. An electric meter for use on alternating circuits comprising in combination, a multipolar series electromagnet; a multipolar shunt-magnet; a coil connected as a shunt across the supply-mains and wound on a part only of said shunt-magnet whereby considerable magnetic leakage is produced from the remaining parts, together with a rotatable element mounted between said series and said shunt magnets.

De Ferranti and Hamilton presented no testimony, and are therefore restricted to the filing date of their application—August 14, 1903—for conception and constructive reduction to practice of the invention.

Pratt has presented testimony which establishes the reduction to practice of the invention disclosed in his application as early as June, 1902, and his

proofs of this fact are not disputed by de Ferranti and Hamilton. It is, however, contended that Pratt's application does not disclose the invention in issue and that he therefore has no right to make the claims in controversy. It is pointed out that Pratt defines the flux which passes between the magnet-poles as the "main flux," and it is urged that it cannot properly be termed a "considerable leakage flux" within the meaning of the issue. It is further contended that Pratt's construction is not capable of producing a ninety-degree lag without the use of lagging-coils, which it is the purpose of the de Ferranti and Hamilton invention to avoid.

The first of these contentions is clearly untenable. Although it is true that Pratt defines the flux which traverses the air-gap between the adjacent magnet-poles as the "main flux" and that which threads the disk as "leakage," while de Ferranti and Hamilton call the flux from the intermediate leg of the magnet to the others across the intervening air-spaces "leakage," the torque for rotating the disk in each case is produced in the same manner. As stated by the Examiner of Interferences:

> It is not believed that the expression "leakage" should be given the restricted meaning which the patentees suggest. The flux produced by the shunt-magnets of both parties may well be divided into two parts, first, that which threads the disk and which, in conjunction with the flux of the series magnet, produces rotation; and, second, all the remaining flux which flows through the magnetic circuit. The first-mentioned portion of the flux de Ferranti and Hamilton term the working flux, whereas Pratt designates this the leakage-flux, the remaining flux de Ferranti and Hamilton term the leakage-flux, whereas Pratt designates this the main flux. This, however, is simply a transposition of terms; both admittedly use the same portion of the flux to secure rotation.
>
> It seems reasonable that all the flux, in both cases, which does not pass through the rotatable element should be termed leakage-flux. This is a proper interpretation of the term, and one which clearly and accurately and in the same sense applies to the constructions of both parties.

It is therefore clear that in so far as the real invention is concerned it is immaterial that the terminology originally used by Pratt and de Ferranti and Hamilton to define the functions of their respective structures differed.

In respect to the contention that the device disclosed in Pratt's application does not embody the invention in issue, because the magnetic leakage of the shunt-magnet is incapable of producing exactly ninety degrees lag without the use of a lagging-coil, it is of interest to refer to the history of the cases of the respective parties and to the preliminary proceedings in this interference.

The basis for this contention is found in lines 18 to 35, page 1, of the specification of de Ferranti and Hamilton's patent, which read as follows:

> In these meters it is necessary to produce a lag of ninety degrees of the magnetic field produced by the shunt-current behind the impressed electromotive force.
>
> The object of our invention is to provide a simple form of meter in which the required phase displacement is obtained without the use of special arrangements, such as additional choking-coils or secondary circuits.
>
> Our invention consists, broadly, in employing a shunt-magnet having large magnetic leakage through non-hysteretic and non-conductive material, such as air, so as to obtain a lag of ninety degrees of the effective torque-producing flux behind the impressed electromotive force without the use of additional flux-retarding devices.

It is pointed out that in the de Ferranti and Hamilton patent the "large magnetic leakage" through air is accomplished by winding the coil of the shunt-magnet upon the intermediate leg thereof at a considerable distance from its poles, whereas the coil of Pratt's shunt-magnet extends down the inner leg substantially to the adjacent portions of the magnet, usually referred to as "pole-faces."

It appears that after the granting of de Ferranti and Hamilton's patent involved herein Pratt presented in his application four claims copied from that patent. The Primary Examiner, in letters dated March 6, 1906, and May 8, 1906, rejected these claims, upon the ground that Pratt had no right to make the same, stating that the expressions "wound on a part only of the shunt-magnet" and "wound on a part of the shunt-magnet remote from its poles," when read in the light of the de Ferranti and Hamilton patent, were limited, in effect, to the winding of the coil of the shunt-magnet upon the core so that the parts adjacent to the poles were left bare, while in Pratt's device the winding, which extended substantially to the poles, is not "on a portion of said core remote from its poles" or "on a portion only of said magnet" in the sense referred to in de Ferranti and Hamilton's specification. Upon argument of this question, however, the Examiner was convinced of Pratt's right to make the claims and this interference was declared, with all of the four claims constituting the counts of the issue. Thereafter a motion was made by de Ferranti and Hamilton to dissolve the interference upon the ground, *inter alia*, that Pratt had no right to make the claims. The Examiner in his decision upon the motion for dissolution said:

> In de Ferranti and Hamilton the shunt-coil is wound on the upper portion of the middle leg of the magnet, leaving the lower portion of that leg entirely exposed, whereby great leakage is permitted. In Pratt's case the shunt-coil is wound over the whole length of the middle leg of the magnet from the junction of the legs to the polar extremities, a structure which would undoubtedly tend to materially confine the leakage of magnetic lines. It should be borne in mind, however, that the examination as to leakage of a magnet of this form cannot be confined to the plane of the magnet, because there will be a lateral leakage from the right and left hand legs of the magnet toward the observer and away from the observer (looking upon the magnet as represented in the drawing) and returning to the body of the magnet at the central pole.
>
> In the first and second counts of the issue the limitation, or rather intended limitation, relates to the relation of the shunt-coil to the magnet-core, and is expressed as follows: "a coil connected as a shunt across the supply-mains and wound on a part only of said shunt-magnet." The structure of both of these parties, so far as that definition is concerned, is equally covered by this language, because a part only of the magnet is in no wise a satisfactory definition of the special feature of either one of these magnets. The central leg, or any portion of the central leg, or any other portion of the magnetic body can be described as a part only of the shunt-magnet. De Ferranti and Hamilton have attempted to define this structure by the functional statement "whereby considerable magnetic leakage is produced from the remaining parts." The Examiner is not at all satisfied that this functional distinction is a real distinction between the cases in interference. As remarked above, there is a lateral leakage which is not controlled especially by the position of the shunt-magnet, and that lateral leakage will be considerable and will be present in both cases.

It is believed that this statement of the Examiner in respect to the interpretation of the claims in issue is sound. It is further to be observed that the counts of the issue do not call for a lag of exactly ninety degrees, and there is no reason which requires that this limitation be imported into the claims. Although de Ferranti and Hamilton state in their specification that the object of their invention is to obtain the required phase displacement—without the use of special arrangements such as additional choke-coils, etc.—

it is apparent that the de Ferranti and Hamilton structure does not give the exact ninety degrees lag, for several means of adjusting the lag are described in the specification of the patent, lines 8 to 21, page 3, of which read as follows:

> We prefer to make the shunt-core somewhat longer than the coil which it supports and to mount the coil so that it can be longitudinally adjusted on the core. This is shown in Fig. 2, the coil *d* being adjusted by inserting washers *e*, of suitable thickness.
>
> We may use any of the following four methods of adjusting the lag: first, altering positions of shunt-coil on its core; second, varying diameter of the sleeve *l* of Fig. 10; third, varying length of said sleeve *l*; fourth, varying resistance *t* in the shunt-circuit. These methods may be used either separately or in conjunction.

The adjustments thus specified are clearly the functional equivalent of Pratt's lagging-coil.

It is well settled that claims forming the issue of an interference will be construed as broadly as the natural meaning of their terms will warrant.

For the reasons above stated I am of the opinion that the claims in issue are directed to an invention which is found in the structures disclosed in each of the interfering applications and that the terms of these claims, while appropriated by Pratt from the specification of de Ferranti and Hamilton, clearly and aptly describe the structure disclosed in Pratt's application. It is therefore held that Pratt has a right to make the claims forming the counts of the issue of this interference.

Inasmuch as Pratt has established a reduction to practice of the invention disclosed in his application prior to any date of conception which can be accorded to de Ferranti and Hamilton he is entitled to be awarded priority of invention.

The decision of the Examiners-in-Chief is affirmed.

P. J. BOWLIN LIQUOR COMPANY *v.* J. AND J. EAGER COMPANY.

Decided October 21, 1909.

TRADE-MARKS—WHISKY AND GIN—GOODS OF THE SAME DESCRIPTIVE PROPERTIES.

Whisky and gin are goods of the same descriptive properties. (the decision in *Vanden Bergh & Company v. Belmont Distillery Co.* (107 O. G., 2235) overruled.)

APPEAL from Examiner of Interferences.

TRADE-MARK FOR HOLLAND GIN.

Mr. Arthur E. Wallace for P. J. Bowlin Liquor Company.

Mr. A. Parker Smith for J. and J. Eager Company.

BILLINGS, *Acting Commissioner:*

This is an appeal by the P. J. Bowlin Liquor Company from a decision of the Examiner of Interferences sustaining a demurrer to its notice of opposition and adjudging that the same should be dismissed.

The mark for the registration of which the J. and J. Eager Company made application is the word "Humboldt" as a trade-mark for Holland gin. The P. J. Bowlin Liquor Company opposed the registration of this mark on the ground that it was the owner of the mark "Humboldt" as applied to whisky and had obtained a certificate of registration therefor, No. 50,014, dated February 27, 1906. The J. and J. Eager Company demurred to this notice of opposition on several grounds; but the only ground argued before the Examiner of Interferences and decided by him was that the goods of the respective parties are not of the same descriptive properties. The Examiner of Interferences in sustaining the demurrer based his decision on the ruling in *Vanden Bergh & Company* v. *Belmont Distillery Co.*, (107 O. G., 2235,) in which it was held that whisky and gin are goods of different descriptive properties.

That decision was rendered in a case arising under the Trade-Mark Act of 1881, which did not provide for an appeal from the decision of the Commissioner of Patents. In two cases arising under the act of 1905 the Court of Appeals of the District of Columbia has rendered decisions bearing upon the question of when goods must be considered to be of the same descriptive properties.

These decisions are *Walter Baker & Company, Limited*, v. *Harrison* (138 O. G., 770; 32 App. D. C., 272) and *Phoenix Paint and Varnish Company* v. *Lewis & Bros.*, (139 O. G., 990; 32 App. D. C., 285.) In the former the court said:

> Things may be said to possess the same descriptive properties when they can be applied to the same general use. Coffee and cocoa, when used as beverages, are at once associated as belonging to the class of beverages in general domestic use. They belong to the class of beverages universally used on the table and sold in prepared packages for that purpose. Should the same mark be granted to different persons for use on coffee and cocoa, respectively, the natural and certain result would be, that the one wishing to profit by the use of the same mark would adopt the style of package used by the other, and, by such unauthorized imitation, cause confusion in the mind of the purchasing, consuming public as to the quality of the goods so marked. The intent of the statute is to protect the rightful owners of trade-marks in their valuable property rights, and it seems to tax the courts to the utmost to protect those rights against the ingenuity of counsel and the designs of sharp competitors. A mark should be denied, not only when used upon goods of the same descriptive properties as a similar registered mark, but when used on goods belonging to the same general class.

In the latter it was said:

> We think two trade-marks may be said to be appropriated to merchandise of the same descriptive properties in the sense meant by the statute when the general and essential characteristics of the goods are the same. To rule that the goods must be identical would defeat the purpose of the statute and destroy the value of trade-marks. The test is whether there is such a sameness in the distinguishing characteristics of the goods as to be likely to mislead the general public. If there is, only one mark should be registered.

Applying these principles thus announced by the court to the facts in this case, it must be held that gin and whisky are goods of the same descriptive properties. The decision in *Vanden Bergh & Company v. Belmont Distillery Company, supra*, so far as it holds otherwise, is therefore overruled.

The decision of the Examiner of Interferences is reversed.

IN RE MARVIN ESTATE COMPANY.

Decided September 20, 1909.

ACCESS TO ABANDONED APPLICATION—ACCESS GRANTED.

Where suit is brought on a patent the record of which shows that one of the claims thereof was allowed in a prior application belonging to the same assignee and was transferred to the application on which the patent was granted, *Held* that the defendants are entitled to inspect and obtain copies of said prior application.

ON PETITION.

Messrs. Winkler, Flanders, Bottum & Fawcett for the Marvin Estate Company.

Mr. Thos. Ewing, Jr., and *Mr. Vernon M. Dorsey* for Booth.

TENNANT, *Assistant Commissioner:*

This is a petition by the Marvin Estate Company for leave to inspect and obtain copies of the record of an application, including the appeal file, Serial No. 91,389, filed January 27, 1902, by Herbert C. Booth, and also of a division of said application.

The ground upon which this petition is based is that the petitioner is defendant in a suit brought by the Vacuum Cleaner Company in the United States Circuit Court for the Northern District of California, as assignee, for the infringement of Patent No. 847,947, granted to David F. Kenney March 17, 1907, for an apparatus for removing dust, in which the record shows that claim 3, one of the claims involved in said suit, was transferred to the application upon which the Kenney patent was granted from the application of Booth, No. 91,389, to which access is requested.

The record of Patent No. 847,947 shows that the Primary Examiner finally rejected the claims of the Kenney application and that upon appeal to the Examiners-in-Chief the decision of the Examiner was reversed. It appears from the contents of the appeal file that Kenney petitioned the Commissioner of Patents to remand his application to the Examiners-in-Chief for the purpose of presenting a claim to that tribunal for a recommendation as to its patentability. The argument submitted therewith is, in part, as follows:

> Counsel is informed that in the application of H. C. Booth, No. 91,389, filed January 27, 1902, a claim has been allowed in language as follows:
>
> "1. In a suction cleaning apparatus, the combination of a suction-nozzle adapted to be moved over the surface and having a narrow inlet-slot, a power-operated suction-pump, and impurity-collecting means between said nozzle and pump adapted to remove the impurities from the air and prevent fouling the pump while permitting the working vacuum to be maintained at the nozzle."
>
> In view of these actions of the Board, it seems clear that applicant is entitled to the following claim:
>
> "In a suction cleaning apparatus, the combination of a suction-nozzle adapted to be moved over the surface and having a narrow inlet-slot, a suction-creating device capable of maintaining a sufficient vacuum, and impurities-collecting means between the nozzle and suction-creating device and suitably connected therewith for removing the impurities from the air, substantially as described."
>
> To secure consideration of this claim under the rules, applicant requests this application to be remanded to the Board to consider applicant's request, which is hereby presented, that the above claim be recommended by the Board as allowable.

The record shows that the Examiners-in-Chief recommended the allowance of this claim, and thereafter Kenney presented an amendment containing the claim which had been recommended by the Examiners-in-Chief, stating in connection therewith—claim 3 applicant understands was allowed in an application to H. C. Booth.

This claim is the identical claim except for the words "as substantially described," which Kenney had stated in his petition to the Commissioner had been allowed in Booth's application, No. 91,389.

In addition to the statements in the record showing the transfer of claim 3 of the Kenney patent from the Booth application, No. 91,389, there appear in the record of the Kenney patent the affidavit of John Platt, an expert in this art, and also the affidavit of the applicant, Kenney, which show the identity and operation of the device disclosed in Kenney's patent and that covered by a British patent to Booth, No. 17,433, series of 1901, and that Kenney was the owner of the Booth application, No. 91,389, at the time the claim was transferred from that application to Kenney's application. Comparison shows that the Booth application, No. 91,389, is substantially identical with the British patent granted to him. It therefore follows that the disclosure of Booth's application, No. 91,389, will place no knowledge of other inventions of his in the hands of the public. The case is in this respect similar to the case *in re The New York Woven Wire Mattress Company*, (121 O. G., 688,) in which it is said:

> All of the reasons for preserving original applications and caveats in secrecy do not exist in reissue applications, and therefore the same character of showing is not required to warrant furnishing copies. A reissue applicant has no secret invention to be concealed from the public, since he has necessarily disclosed it in his patent. All that can be concealed in a reissue case is the procedure and new claims made.

It is, however, urged in behalf of Kenney that the Commissioner is without authority to grant access to the pending application of Booth without a certificate or order of the court before which the suit for infringement is being tried. This contention is believed to be without force. As stated in the *Metropolitan West Side Elevated Railroad Company et al. v. Siemens*, (85 O. G., 290:)

> To sustain the second point it is urged on behalf of Siemens that in view of the opinion of the court in *U. S., ex rel. Bulkley, v. Butterworth, Commr. of Patents* (C. D., 1897, 685; 81 O. G., 505) no discretion is vested in the Commissioner to grant or withhold copies of such papers as those in question without a certificate or order from the court in which the case is pending. I do not so interpret the decision referred to. As a general rule it will probably be found to be safer to require an order or certificate from a court of competent jurisdiction before furnishing parties with copies of pending or abandoned applications. But when a patentee has referred to a prior application for a patent, whether such reference appears upon the face of the specification or only among the application papers, and thereafter brings suit upon his patent, he cannot with very good grace urge that the papers referred to by him are "private papers."

It is well settled that the history of claims in the Patent Office during the pendency of an application has a material bearing upon the scope of such claims when construed by the courts in infringement cases, and it is the settled practice of the Patent Office to permit access to applications which the record of the patent shows led to the grant of the claims contained in the patent on a proper showing of interest by the party desiring access to such application. (*Ex parte Doman*, 115 O. G., 804; *ex parte Lewis and Unger*, 106 O. G., 543; *ex parte Lanning*, 124 O. G., 2902; *in re The Vacuum Specialty Company*, *supra*.) The authority of the Commissioner to grant access to such applications is believed to be sustained by the opinion of the court in the case of *MacWilliam v. Connecticut Web Company*, (119 Fed. Rep., 509,) in which the court said:

> It is not quite clear what sort of certificate this court is asked to give. No reference is made to any statute or to any rule or regulation of the Patent Office requiring a certificate of court as prerequisite to the production for inspection and copy of an abandoned application. For aught that appears, the Commissioner of Patents has full power in the premises. From the argument in the briefs of counsel for the respective parties, it would seem that the principal matter of dispute between them is as to whether the application is relevant and material to the issues in this suit. The Supreme Court, however, in *Hiesse v. Garlington*, (92 U. S., 1; 23 L. Ed., 521,) has indicated that, in the course of taking proofs in equity, all such questions should be reserved for final hearing,

and the testimony preserved for the appellate court should the decision at final hearing be adverse to its admission. This court is prepared to sign a certificate to the effect that, in conformity to the rulings of the United States Supreme Court, it would admit said abandoned application in evidence if it, or a certified copy, were offered, notwithstanding any objections to its relevancy, materiality, or pertinency.

The facts in this case are substantially the same as those appearing in the case of *in re The Vacuum Specialty Company*, (142 O. G., 1114,) and, for the reasons stated in that decision, it is believed that the petitioner is entitled to access to the Booth application and to the record of the proceedings on appeal therein.

I find, however, no reason for permitting access to the divisional application, since it does not appear that any action in that application led to the allowance of claims now forming a part of the Kenney patent.

The petition is granted to the extent indicated.

HAMMOND AND DONAHUE *v.* COLLEY *v.* NORRIS.

Decided October 30, 1909.

INTERFERENCE—MOTION TO AMEND UNDER RULE 109—APPEAL.

A motion to dissolve the interference and a motion to amend under Rule 109 were transmitted to the Primary Examiner, who granted the former, but denied the latter. *Held* that the fact that appeal was not taken from the decision on the motion to dissolve constitutes no ground for the dismissal of the appeal from the decision on the motion to amend.

PETITION.

APPEAL on motion.

HOISTING APPARATUS.

Mr. H. J. Livermore and *Mr. Horace Van Everen* for Hammond and Donahue.

Mr. S. W. Bates for Colley.

Messrs. Emery & Booth for Norris.

TENNANT, *Assistant Commissioner:*

This case is before me upon petition by Norris that the case be remanded to the Examiners-in-Chief for the purpose of hearing and deciding an appeal from the decision of the Examiner refusing certain claims presented under Rule 109, and also upon an appeal from certain portions of the decision of the Examiner refusing such claims.

The record shows that the preliminary statements were approved January 29, 1909, and on that date an order was issued against Hammond and Donahue to show cause on or before March 1, 1909, why judgment on the record should not be rendered against them. On February 27, 1909, Norris filed a motion for dissolution and also a motion to amend under Rule 109. On March 8 the Examiner of Interferences rendered judgment against Hammond and Donahue and on the same day transmitted in part Norris's motion to dissolve and also his motion to amend. On April 16 the Examiner granted the motion for dissolution, setting the limit of appeal to expire May 8, 1909. No appeal was taken from this decision. On May 12, 1909, the Examiner rendered a decision denying Norris's motion to amend, and appeal was taken from that decision to the Examiners-in-Chief as to certain questions appealable to that tribunal and to the Commissioner upon certain other questions. The Examiners-in-Chief held that inasmuch as the decision of the Examiner dissolving the interference had become final the appeal upon the claims presented under Rule 109 was improperly taken and dismissed the appeal.

In my opinion the conclusion of the Examiners-in-Chief was erroneous. Rule 109 gives an interferant the right at any time within thirty days after the preliminary statements of the parties have been received and approved on motion duly made to file an amendment to his application containing *any* claims which in his opinion should be made the basis of an interference between himself and *any* of the other parties.

It is further provided that motions for dissolution will not be transmitted in regard to such claims—

> where the questions could have been disposed of in connection with the admission of the claims.

The purpose of this rule is to settle all preliminary questions relating to the issue of an interference in a single proceeding, and the Examiner should decide under such circumstances not only the question of dissolution of the interference, but also the questions raised by the claims presented under Rule 109, in order that all these questions may be reviewed, if necessary, by the appellate tribunals upon the same appeal. The fact that the decision of the Examiner dissolved the interference upon the issues originally set forth does not preclude the right of *inter partes* consideration of the claims presented under Rule 109. The applicants are entitled to full action upon all these questions before the termination of the interference. Under these circumstances I am of the opinion that the Examiners-in-Chief should have considered Norris's appeal from the rejection of the Examiner of the claims presented under Rule 109. The case is accordingly remanded to the Examiners-in-Chief for this purpose.

Consideration of the appeal to the Commissioner from the action of the Primary Examiner is deferred until the Examiners-in-Chief have rendered their decision upon the merits, in order to avoid piecemeal consideration of the case.

The petition is granted.

ADJUDICATED PATENTS.

The Caswell reissue patent, No. 12,337, (original No. 806,394,) for a dump-car, *Held* not infringed. *National Dump Car Co. v. Ralston Steel Car Co.*, (C. C. A.,) 172 Fed. Rep., 393.

The Brown patent, No. 618,163, for a method of electrical control, *Held* void for anticipation. *Westinghouse Electric & Mfg. Co. v. Toledo, P. C. & L. Ry. Co.*, (C. C. A.,) 172 Fed. Rep., 371.

The Herzog patent, No. 628,464, for an electric signaling apparatus, *Held* valid, but not infringed. *Herzog v. New York Telephone Co.*, (C. C.,) 172 Fed. Rep., 425.

The Kemp patent, No. 632,124, for an improvement in manure-spreaders, construed and *Held* not infringed. *International Harvester Co.* v. *Richardson Mfg. Co.*, (C. C.,) 172 Fed. Rep., 436.

The Oschatz patent, No. 772,743, for a drum, construed and, as limited by the prior art, *Held* not infringed. *Aranow* v. *J. Chein & Co.*, (C. C.,) 172 Fed. Rep., 445.

Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 30, 1909.

William McGlaughlin, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The Crystalene Mfg. Company, of 3100 Archwood avenue, Cleveland, Ohio, for registration of a trade-mark and trade-marks registered to William McGlaughlin, of Sharpsburg, Pa., and the Crystal Tablet Company, of Rochester, N. Y., and the notice of said declaration sent by registered mail to the said William McGlaughlin having been returned undelivered, notice is hereby given to the said William McGlaughlin, his assigns or legal representatives, that if they or any of them desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall have been entered at the expiration of the period of publication, the interference will proceed as in case of default.

C. C. BILLINGS, *Acting Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 30, 1909.

Crystal Tablet Company, its assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The Crystalene Mfg. Company, of 3100 Archwood avenue, Cleveland, Ohio, for registration of a trade-mark and trade-marks registered to William McGlaughlin, of Sharpsburg, Pa., and the Crystal Tablet Company, of Rochester, N. Y., and the notice of said declaration sent by registered mail to the said Crystal Tablet Company having been returned undelivered, notice is hereby given to the said Crystal Tablet Company, its assigns or legal representatives, that if they or any of them desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall have been entered at the expiration of the period of publication, the interference will proceed as in case of default.

C. C. BILLINGS. *Acting Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 23, 1909.

James K. Neagley, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of G. H. Mullen, of Guyandotte, W. Va., for registration of a trade-mark and trade-marks registered to George W. Prangle, of 555 Broadway, Council Bluffs, Iowa, and James K. Neagley, of Wilkes-Barre, Pa., and the notice of said declaration sent by the Patent Office by registered mail to the said James K. Neagley having been returned by the Post-Office Department, notice is hereby given to the said James K. Neagley, his assigns or legal representatives, that if they or any of them desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents in order that the notice of declaration heretofore sent by and returned to the Office may be forwarded to them.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall be entered at the expiration of the period of publication, the interference will be proceeded with as in case of default.

C. C. BILLINGS, *Acting Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 23, 1909.

George W. Prangle, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of G. H. Mullen, of Guyandotte, W. Va., for registration of a trade-mark and trade-marks registered to George W. Prangle, of 555 Broadway, Council Bluffs, Iowa, and James K. Neagley, of Wilkes-Barre, Pa., and the notice of said declaration sent by the Patent Office by registered mail to the said George W. Prangle having been delivered to Mrs. G. W. Prangle, and the attorney of record for said George W. Prangle having advised the Office that said Prangle is deceased and that his widow does not desire to take further account of this matter, notice is hereby given to the said George W. Prangle, his assigns or legal representatives, that if they or any of them desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents in order that the notice of declaration of this interference may be forwarded to them.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall be entered at the expiration of the period of publication, the interference will be proceeded with as in case of default.

C. C. BILLINGS, *Acting Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 11, 1909.

George D. Nichols, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Ella A. Silloway, of No. 1 West Thirty-fourth street, New York, N. Y., for registration of a trade-mark and two trade-marks registered to George D. Nichols, of 378 Canal street, New York, N. Y., and the notice of said declaration sent by the Patent Office by registered mail to the said George D. Nichols having been returned by the Post-Office Department, notice is hereby given to said George D. Nichols, his assigns or legal representatives, that if they or any of them desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents in order that the notice of declaration heretofore sent by and returned to the Office may be forwarded to them.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall be entered at the expiration of the period of publication, the interference will be proceeded with as in case of default.

C. C. BILLINGS, *Acting Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 9, 1909.

Frederick H. Hammer, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of C. E. Sears & Company, of Circleville, Ohio, for registration of a trade-mark and trade-marks registered to Frederick H. Hammer, of 215 Davis street, San Francisco, Cal.; Jane M. McMurray, of Frederick, Md., and Augustus W. Kriete, of Dunnsville, Va., respectively, and the notice of said declaration sent by the Patent Office by registered mail to the said Frederick H. Hammer having been delivered to Hammer & Company, who are not of record in connection with the registration of Frederick H. Hammer, and no record evidence that Hammer & Company are the successors to the trade-mark rights of Frederick H. Hammer having been filed, and the time allowed by the Office for filing such evidence having passed, the situation in this case is practically the same as in those cases where the post-office is unable to deliver the notice of interference to the registrant, and notice is therefore hereby given to said Frederick H. Hammer, his assigns or legal representatives, that if they or any of them desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents in order that the notice of declaration of the interference may be sent to them.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall be entered at the expiration of the period of publication, the interference will be proceeded with as in case of default.

C. C. BILLINGS, *Acting Commissioner.*

THE
OFFICIAL GAZETTE
OF THE
United States Patent Office.

[BY AUTHORITY OF CONGRESS.]

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Patents	691	No. 939,963 to No. 940,653, inclusive.
Designs	16	No. 40,349 to No. 40,364, inclusive.
Trade-Marks	74	No. 75,759 to No. 75,832, inclusive.
Reissues	4	No. 13,039 to No. 13,042, inclusive.
Total	785	

TO CITIZENS OF THE UNITED STATES.

States.	Patents and Designs.	Trade-Marks.	States.	Patents and Designs	Trade-Marks.
Alabama	2	.....	Ohio	45	2
Arkansas	5	.....	Oklahoma	6	1
California	19	3	Oregon	6	.....
Colorado	10	.....	Pennsylvania	58	2
Connecticut	14	2	Rhode Island	7	.....
Delaware	1	.....	South Carolina	2	.....
Florida	2	1	South Dakota	2	1
Georgia	8	.....	Tennessee	4	3
Idaho	1	.....	Texas	14	2
Illinois	67	7	Utah	1	.....
Indiana	14	.....	Vermont	.....	.....
Iowa	19	1	Virginia	7	1
Kansas	7	1	Washington	10	1
Kentucky	7	2	West Virginia	5	.....
Louisiana	3	2	Wisconsin	20	1
Maine	9	.....	Wyoming	.....	.....
Maryland	5	1			
Massachusetts	52	3	Alaska, District of	.....	.....
Michigan	20	1	Arizona Territory	1	.....
Minnesota	7	.....	District of Columbia	5	.....
Mississippi	2	.....	Hawaii Territory	.....	.....
Missouri	13	3	New Mexico Ter't'y	.....	.....
Montana	2	.....	Panama	.....	.....
Nebraska	7	1	Philippine Islands	.....	.....
Nevada	.....	.....	U. S. Army	.....	.....
New Hampshire	3	1	U. S. Navy	.....	.....
New Jersey	33	3			
New York	104	17	Total to citizens of the United States	634	63
North Carolina	3	.....			
North Dakota	2	.....			

TO CITIZENS OF FOREIGN COUNTRIES.

Countries.	Patents and Designs.	Trade-Marks.	Countries.	Patents and Designs.	Trade-Marks.
Argentina	.....	.....	Netherlands	1	.....
Austria-Hungary	3	.....	Newfoundland	.....	.....
Belgium	2	.....	New South Wales	1	.....
Brazil	.....	.....	New Zealand	1	.....
Bulgaria	.....	.....	Norway	1	.....
British West Indies	.....	.....	Persia	.....	.....
Canada	12	.....	Queensland	.....	.....
Cape Colony	.....	.....	Russia	.....	.....
Chile	.....	.....	Scotland	4	.....
China	.....	.....	South Australia	.....	.....
Cuba	.....	.....	Spain	.....	.....
Denmark	.....	.....	Sweden	3	.....
Ecuador	.....	.....	Switzerland	1	.....
England	13	5	Tasmania	.....	.....
France	5	.....	Transvaal, South Africa	.....	.....
Germany	20	3	Victoria	3	.....
Haiti	.....	.....	Western Australia	.....	.....
Ireland	1	.....			
Italy	1	3	Total to citizens of foreign countries	73	11
Japan	.....	.....			
Mexico	1	.....			

Disclaimer.

911,856.—*Warren H. Walker*, Racine, Wis. RAIL-ANCHOR. Patent dated February 9, 1909. Disclaimer filed November 3, 1909, by the assignee, *Otto R. Barnett.*

Enters this disclaimer—

"To that part of the claim in said specification which is in the following words, to wit:

"1. A rail-anchor comprising a pair of jaws and a lever member to which one of said jaws is pivoted, substantially as described.

"3. A rail-anchor comprising a lever member adapted to engage a tie or the like and having a pair of jaws secured thereto and adapted to grip the base of a rail upon opposite sides thereof; one of said jaws being movable relative to said lever member, as and for the purposes described."

Publishers' Catalogues.

This Office would be pleased to receive from manufacturers and publishers such catalogues, circulars, price-lists, or other advertisements relating to the sciences and mechanical arts as are published by them for gratuitous distribution; but notice is hereby given such manufacturers or dealers who feel disposed to send their publications that not less than three copies should be forwarded in order that the subjects may be properly indexed, classified, and subclassified in the Scientific Library for convenient and ready reference.

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business November 9, 1909.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended	No. of applications awaiting action.
313	**1.** Fences; Harrows and Diggers; Plows; Seeders and Planters; Trees, Plants, and Flowers.	Sept. 10	Oct. 6	376
128	**2.** Aeronautics; Bee Culture; Dairy; Label-Affixers; Paper Files and Binders; Pneumatic Despatch; Pneumatics; Presses; Store-Service; Tobacco.	July 1	Aug. 5	793
175	**3.** Annealing and Tempering; Coating with Metal; Electrochemistry; Metal-Founding; Metallurgy; Shaping Fluid Metal.	Sept. 29	Oct. 19	161
232	**4.** Bridges; Conveyers; Cranes and Derricks; Excavating; Hoisting; Hydraulic Engineering; Loading and Unloading; Metallic Building Structures.	July 14	Oct. 1	732
167	**5.** Bookbinding; Harvesters; Jewelry; Music.	Aug. 2	Sept. 7	560
318	**6.** Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Medicines; Preserving; Sugar and Salt.	Sept. 3	Sept. 16	396
312	**7.** Educational Appliances; Clutches; Games and Toys; Mechanical Motors; Nut and Bolt Locks; Optics; Velocipedes.	Sept. 17	Oct. 6	500
131	**8.** Beds; Chairs; Furniture; Kitchen and Table Articles; Store Furniture.	July 19	Sept. 30	446
142	**9.** Air and Gas Pumps; Fire-Extinguishers; Hydraulic Motors; Pumps; Sewerage; Wind-Wheels.	June 17	Oct. 20	450
332	**10.** Carriages and Wagons	Sept. 10	Sept. 20	591
154	**11.** Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus.	Sept. 20	Sept. 23	305
324	**12.** Elevators; Journal-Boxes, Pulleys, and Shafting; Lubrication; Machine Elements.	Sept. 14	Sept. 17	554
329	**13.** Arms, Projectiles, and Explosive Charges, Making; Metal-Working, Etc.	July 21	Oct. 2	480
307	**14.** Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Metal-Ornamenting; Sheet-Metal Ware, Making; Tools; Wire-Working.	July 7	Oct. 13	472
308	**15.** Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Sheets and Fabrics; Liquid Coating Compositions; Paper-Making; Plastic Block and Earthenware Apparatus; Plastic Compositions; Plastics.	Aug. 20	Oct. 25	624
109	**16.** Telegraphy; Telephony	June 24	Sept. 16	306
103	**17.** Linotyping; Matrix-Making; Paper Manufactures; Printing.	Sept. 2	Sept. 3	237
327	**18.** Injectors and Ejectors; Steam and Vacuum Pumps; Steam-Boilers; Steam-Engines; Steam-Engine Valves.	July 24	Aug. 9	366
236	**19.** Dampers, Automatic; Furnaces; Heat-Distributing Systems; Stoves and Furnaces.	Sept. 30	Sept. 7	357
179	**20.** Artificial Limbs; Builders' Hardware; Dentistry; Locks and Latches; Safes; Undertaking.	Sept. 11	Sept. 17	231
112	**21.** Brakes and Gins; Carding; Cloth-Finishing; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving.	July 10	Oct. 6	463
249	**22.** Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Firearms; Marine Propulsion; Ordnance; Railway-Rails and Joints; Railway-Ties and Fasteners; Ships.	Aug. 28	Sept. 15	305
379	**23.** Acoustics; Coin-Handling; Horology; Recorders; Registers; Time-Controlling Mechanism.	Aug. 26	Oct. 1	357

Applications Under Examination—Continued.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended	No. of applications awaiting action.
144	**24.** Apparel; Apparel Apparatus; Electricity, Medical and Surgical; Sewing-Machines; Surgery.	Sept. 1	Oct. 6	404
312	**25.** Butchering; Mills; Threshing; Vegetable Cutters and Crushers.	Oct. 12	Oct. 16	245
106	**26.** Electric Heating and Rheostats; Electric Railways; Electricity, Generation; Motive Power.	June 1	Sept. 18	687
372	**27.** Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus.	Sept. 28	Sept. 20	377
382	**28.** Internal-Combustion Engines; Miscellaneous Heat-Engine Plants.	July 31	Sept. 17	426
147	**29.** Coopering; Fire-Escapes; Ladders; Roofs; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking-Tools.	Aug. 2	Sept. 16	548
152	**30.** Fluid-Pressure Regulators; Illuminating-Burners; Liquid and Gaseous Fuel Burners; Type-Writing Machines.	Sept. 29	Oct. 18	233
172	**31.** Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue; Water Purification.	Sept. 9	Oct. 11	221
278	**32.** Carbonating Beverages; Dispensing Beverages; Dispensing-Cans; Fine Arts; Packaging Liquids; Refrigeration.	Sept. 10	Oct. 12	220
164	**33.** Cutlery; Domestic Cooking Vessels; Electric Signaling; Masonry and Concrete Structures; Paving; Tents, Canopies, Umbrellas, and Canes.	Aug. 19	Sept. 18	460
304	**34.** Railways; Railway-Brakes; Railway Rolling-Stock.	Sept. 3	Oct. 11	212
244	**35.** Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Garment-Supporters; Toilet.	Aug. 30	Oct. 7	782
264	**36.** Curtains, Shades, and Screens; Drafting; Driers; Engraving; Measuring Instruments; Photography.	Aug. 2	Aug. 21	797
107	**37.** Electric Lighting; Electricity, Conductors; Electricity, General Applications.	July 27	Aug. 24	684
378	**38.** Artesian and Oil Wells; Bottles and Jars; Care of Live Stock; Fishing and Trapping; Stationery; Stone-Working.	June 16	Oct. 4	796
321	**39.** Baths and Closets; Water Distribution.	June 26	Sept. 2	667
280	**40.** Baggage; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Lighting-Fixtures; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	June 15	Sept. 20	700
125	**41.** Railway Draft Appliances; Resilient Tires and Wheels.	June 22	Sept. 18	622
279	**42.** Railway Signaling; Signals	July 12	Oct. 14	253

Oldest new case, June 1; oldest amended, Aug. 5.

Total number of applications awaiting action..... 19,396

161	TRADE-MARKS AND DESIGNS: Trade-Marks	Oct. 8	Oct. 28	652
	Designs	Oct. 11	Nov. 1	91

Trade-Marks.

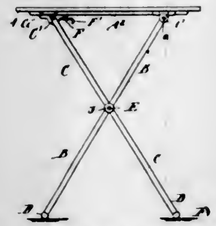
The publication of trade-marks under the act of February 20, 1905, in the OFFICIAL GAZETTE, commenced May 2, 1905, and will appear in each weekly number of the GAZETTE thereafter.

Extra copies of the trade-mark portion of the GAZETTE, which will be sold separately, may be obtained single or in quantities for five cents each. Coupons will be taken in payment thereof.

PATENTS

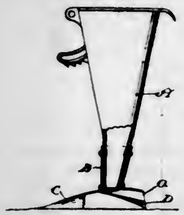
GRANTED NOVEMBER 16, 1909.

939,963. FOLDING TABLE. FORTESQUE W. ANDERSON, Middletown, N. Y. Filed Dec. 10, 1908. Serial No. 466,759.



In a folding table of the character set forth, a top having upon one side of its center seats with cam-like forward ends and rounded recesses, two pairs of crossed legs, pivotally united at their centers, means connecting the upper ends of the inner legs, housings attached to the under side of the top near one edge to which the upper ends of the outer legs are pivoted, ways upon the under side of the top at right angles to the pivots of the legs, a slide attached to said rod and working in said ways, the construction being such that when the slide is drawn along the ways the legs are brought into the same plane, the said rod and the pivots of the upper leg being in axial alinement, and means on the upper ends of the inner legs adapted to spring into said seats for automatically locking the parts with the top in its horizontal position, said means being rounded and frictionally engaged in the recesses of said seats.

939,964. SEEDING-MACHINE. HENRY ARNOLD, Newmarket, Ontario, Canada. Filed June 4, 1909. Serial No. 500,098.



1. In seeding apparatus the combination of an approximately triangular cultivator shoe convexly curved both longitudinally and transversely; a distributing plate located underneath the arch of the shoe; and means for discharging grain onto said plate.

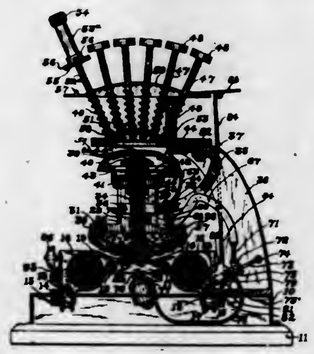
2. In seeding apparatus the combination of an approximately triangular cultivator shoe convexly curved both longitudinally and transversely; a distributing plate located underneath the arch of the shoe provided with rearwardly inclined radiating grooves; and means for discharging grain onto said plate over the point from which said grooves radiate.

3. In seeding apparatus the combination of a rearwardly-inclined, transversely-convexed distributing plate; means for discharging grain onto said plate; and a cultivator shoe adapted to open up the soil for the passage of the distributing plate and to allow the soil to close over the distributed seed.

4. In seeding apparatus the combination of a rearwardly inclined transversely convexed distributing plate provided with rearwardly radiating grooves, means for discharging grain into said plate over the point from which said grooves radiate and a cultivator shoe adapted to open up the soil for the passage of the distributing plate and to allow the soil to close over the distributed seed.

5. In seeding apparatus the combination of a cultivator shoe concave underneath and having a seed opening therein; seed distributing means located below said opening; means for conveying seed to said opening; and a scoop insertible between the shoe and seed distributing means.

939,965. TYPE-WRITER. SAUL ARONSON, New York, N. Y., assignor of one-third to Leo Ehrlich, New York, N. Y. Filed Dec. 16, 1907. Serial No. 406,654.



1. A typewriter comprising a freely swinging type block, a cam surface connected with the type block, plunger keys operating against the cam surface to approximately position the type block, and means for definitely and accurately positioning the type block by a further movement of the keys.

2. A typewriter having a freely swinging type block, a cam connected with the block, plunger keys operating on the cam to approximately position the block, a locking device to accurately fix the final position of the block, and means for actuating the locking device by a further movement of the plunger keys.

3. A typewriter comprising a freely swinging type block, a cam surface connected with the type block, plunger keys operating on the said cam surface to approximately position the type block, and a centering device actuated by the said keys to definitely fix the position of the type block.

4. A typewriter comprising an oscillating type block having groups of type on its face, a cam surface connected with the type block, plunger keys operating against the cam surface to approximately position the type block, a centering device actuated by the keys to definitely fix the position of the type block, and means for displacing the

type block independently of the regular type keys to bring the desired character of a type group into use.

5. A typewriter comprising a freely suspended type block having type on its face and perforations on its back, the perforated part of the type block having the perforations arranged to accord with the type, a plunger to enter the perforations and fix the position of the type block, cam mechanism to first tilt the type block and then actuate the plunger, and independent means for displacing the type block.

[Claims 6 to 15 not printed in the Gazette.]

939,966. METHOD OF MOLDING ARTICLES. LEO H. BAEKELAND, Yonkers, N. Y. Filed Jan. 28, 1909. Serial No. 474,869.

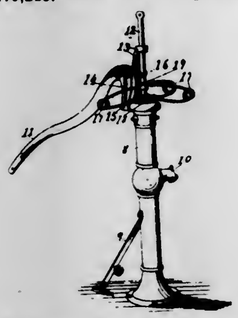
1. The method of molding articles which consists in comminuting a partial reaction product of phenol and formaldehyde, molding the mass under pressure, and transforming the same into an insoluble and infusible condensation product.

2. The method of molding articles which consists in comminuting a partial reaction product of phenol and formaldehyde, molding the mass under pressure, and transforming the same in the mold into an insoluble and infusible condensation product.

3. The method of molding articles, which consists in preparing a comminuted mixture of a partial reaction product of phenol and formaldehyde and a filling material, molding said mixture, and transforming the partial reaction product into an insoluble and infusible final condensation product.

4. The method of molding articles, which consists in preparing a comminuted mixture of a partial reaction product of phenol and formaldehyde and a filling material, molding said mixture, transforming the partial reaction product into an insoluble and infusible final condensation product, and providing the molded article with a surface layer containing a larger proportion of said final condensation product.

939,967. COUNTERBALANCING DEVICE FOR PUMPS. JAMES O. BANE, Waseca, Minn. Filed Feb. 20, 1909. Serial No. 479,215.



In a pump, a reciprocating rod and counterbalancing springs therefor; two plates for attaching these springs to the pump body; one of the plates being secured firmly upon the rod and the other plate resting upon a fixed portion of the pump, this plate being open at one edge and having apertures in its under side, and a closing piece fitted to the opening and having lugs fitted to engage the said apertures in the plate.

939,968. CONCRETE-TILE MOLD. BERNARD T. BECKMAN, Lowell, Ind. Filed June 28, 1909. Serial No. 504,842.

1. In a tile making machine, an outside mold having a bell-shaped upper end, a rotatable and longitudinally movable shaft mounted in said mold, a packer-head secured to said shaft, and a former ring seated on the upper portion of the mold, said ring being mounted to rotate with the shaft and to move longitudinally, independently thereof.



2. A tile molding machine comprising an outer mold having a bell shaped upper end, a rotatably and vertically movable shaft mounted in said mold, a packer head secured to said shaft, a sleeve splined on the shaft, arms secured to said sleeve and extending downwardly, a ring secured to said arms to seat in the bell shaped upper end of the mold, and means to raise the sleeve and ring independently of the shaft.

3. A tile molding machine comprising an outside mold having a bell-shaped upper end, a rotatably and vertically movable shaft mounted in said mold, a packer head secured to said shaft, a sleeve splined on the shaft, arms secured to said sleeve, a ring secured to said arms and seated in the upper end of the mold, a flange on said ring to engage the upper edge of the mold, a ring rotatably mounted on the sleeve aforesaid and having laterally projecting pins, and a forked lever engaging said pins.

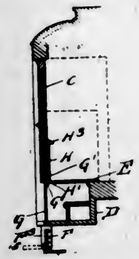
939,969. INCANDESCENT ELECTRIC LIGHT. JAMES T. BIGGER, Owensboro, Ky. Filed Apr. 17, 1908. Serial No. 427,565.



1. In an electric lamp, the combination of a terminal cap, a plug mounted therein and provided at one face with spaced tongues, substantially U-shaped contacts embracing the respective tongues, filaments electrically connected to and controlled by the respective contacts, the plug being formed with an opening disposed transversely with respect to the tongues and opening outwardly through said face between the tongues, and a push-piece slidably mounted in the opening and carrying a contact having a limited movement between the tongues and adapted to be engaged with either selected one of the first named contacts.

2. In an electric lamp of the character described, the combination with a cap, of an insulating plug mounted therein and provided at one face with spaced dovetailed tongues, substantially U-shaped contacts embracing the respective tongues and clamped thereon, filaments of different lengths electrically connected to and controlled by the respective contacts, and a push-piece slidably mounted in the plug and provided with a contact adapted to be moved into engagement with either selected one of the first named contacts.

939,970. FOLDING CAR-STEP. GEORGE F. BRANDAU, Utica, N. Y. Filed Apr. 26, 1909. Serial No. 492,390.



1. In combination with a car, a pivotal angled gravity step pivoted to the platform, means for limiting the downward throw of said step, a rod pivoted to the step, and a pivotal trap door adapted to engage the end of said rod and hold the step folded.

2. In combination with a car, a step having pintles projecting therefrom, bracket arms secured to the platform and in which said pintles are pivotally mounted, a right angled projection for said step adapted to contact with the rear edges of said bracket arms to limit the outer throw of the step, a rod connected to one of said pintles, and a hinged trap door adapted to bear against the end of said rod to hold the step folded.

3. In combination with a car, a step having pintles projecting therefrom, bracket arms secured to the platform and in which said pintles are pivotally mounted, a right angled projection for said step adapted to contact with the rear edges of said bracket arms to limit the outer throw of the step, a crank arm fixed to one of said pintles, a rod pivoted to said crank arm and having a free angled end, a trap door hinged upon the platform and adapted to engage the free end of said rod to normally hold the step folded.

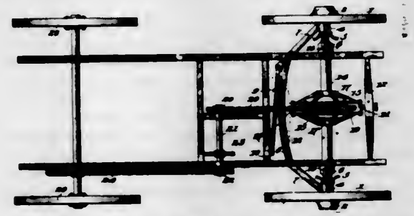
939,971. FEED-BAG. THOMAS BRENNAN, New York, N. Y. Filed June 19, 1908. Serial No. 439,300.



A feed bag attachment comprising a casing adapted to be fastened to the bag, a pin or shaft mounted in said casing, a hollow bobbin revolubly mounted on said shaft and within the casing, a cord wound over the bobbin and projecting through an opening in the casing, lugs projecting outward from the side of the bobbin arranged concentric to the said shaft, a dog pivotally mounted within and on the casing and having its end movable in and out of the path of the said lugs, a spring for pressing the dog into the path of the lugs and a manually operative cam coacting with the dog to move it out of the path of the lugs against the action of the spring.

939,972. FRONT-WHEEL DRIVE FOR TRACTION-VEHICLES. LEWIS K. BROWN, Asotin, Wash. Filed Sept. 8, 1908. Serial No. 452,156.

1. With an axle casing and housing inclosing a centrally disposed differential gear and inclosed driving sprocket wheel, having live axle pieces rotatably located within the casing and connected at their inner ends with a differential gear, the combination of coaxial perpendicular hinges on the axle casing between the central housing and the wheels, near each end of the casing and a short distance from each of the wheels, a bell crank fastened on the back of each of the laterally swingable portions of the axle casing and extending rearwardly therefrom, a universal joint in the live axle intersected by the axis of the vertical hinge on the axle casing, a laterally swingable portion of the live axle connected with the universal joint and journaled in the laterally swingable portion of the axle casing and protruding outwardly through the end of the swingable portion of the axle casing, a wheel hub with an outwardly projecting collar keyed rigidly on the protruding end of the swingable piece of live axle, a roomy recess being formed on the inner side of the hub on the rim of which a wheel is built in a plane intersecting the swingable piece of live axle through its bearing in the swingable piece of axle casing; horizontal gudgeons forwardly and rearwardly disposed on the centrally located housing of the differential gear, a recess on the back end of the back gudgeons, rollers in the recess and a bearing on the yieldably supported body of the vehicle back of and against the rollers, bearings rotatably fastened on the gudgeons, leaf springs across the bearings and fastened thereto the outer ends of the springs being fastened across under the front end of the body of the vehicle supporting it yieldably and holding the axle mechanism substantially at right angles across the front of the vehicle.

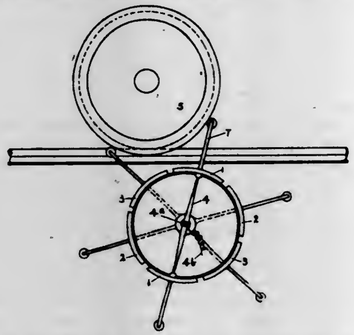


2. In a front axle casing and housing having inclosed sections of a live axle and a differential and driving gear centrally located the combination therewith of horizontal gudgeons forwardly and rearwardly placed thereon centrally; a roller bearing between the back end of one of the gudgeons and the body of the vehicle, leaf springs fastened across the gudgeons and under the front end of the vehicle to carry it yieldably and hold the axle mechanism substantially at right angles to the body of the vehicle, co-axial vertical hinges on the axle casing near the outer ends, bell cranks on the hinged pieces of the axle casing and extending rearwardly, universal joints in the two sections of the live axle concentric with the vertical hinges on the axle casing, recessed wheels with outwardly projecting hubs keyed on the outer ends of the jointed axle, the planes of the wheel tires intersecting the axle bearings in the hinged portions of the axle casing.

939,973. BLOCK-SIGNALING SYSTEM. FREDERICK F. BRUSH, Detroit, Mich. Filed Aug. 26, 1907. Serial No. 390,169.

1. In a block signal system, the combination with a railway block having electrically-actuated semaphores, a positive and a negative main, a conductor from the positive main to the semaphore, a conductor from the semaphore to the negative main, and means for interrupting the current through said semaphore, said means comprising a pair of oppositely placed electrically-actuated rotors carrying contact points adapted to maintain the semaphore current when the contact points are in engagement and to interrupt the current when they are out of engagement; means for actuating said rotors comprising a plurality of armatures on each of said rotors, electro-magnets arranged around the periphery of each rotor adapted to

attract said armatures, together with means for selectively energizing one of said magnets and deënergizing the others, said means comprising a plurality of contact segments, each connected to one of said magnets, and means adapted to be actuated by the wheels of a passing train for establishing electrical current through one of said segments and its corresponding magnet.



2. In a block signal system, the combination with a railway block having electrically actuated signals, a positive and a negative main, of a signal circuit leading from the positive to the negative main and including the signal, means for interrupting the signal circuit, said means comprising a pair of oppositely placed electrically actuated rotors, contact points carried by the rotors, the contact points adapted to maintain the signal current only when in engagement with each other, individual electrically energized means for actuating either rotor step-by-step in either direction, and a wheel actuated track device for selectively energizing any individual means.

3. In a block signal system, the combination with a railway block having electrically actuated signals, a positive and a negative main, of a signal circuit leading from the positive to the negative main, and including the signal, means for interrupting the signal circuit, said means comprising a pair of oppositely placed electrically actuated rotors, contact points carried by the rotors, the contact points adapted to maintain the signal circuit only when in engagement with each other, electrically energized means for actuating either rotor in either direction independently of the remaining rotor, and a wheel-actuated track device for effecting the selective energization of the rotor actuating means.

4. In a block signal system, the combination with a railway block having electrically-actuated semaphores, a positive and a negative main, a conductor from the positive main to the semaphore, a conductor from the semaphore to the negative main, and means for interrupting the current through said semaphore, said means comprising a pair of oppositely placed electrically-actuated rotors carrying contact points adapted to maintain the semaphore current when the contact points are in engagement and to interrupt the current when they are out of engagement; armatures carried by the rotors, electro-magnets arranged around the periphery of each rotor adapted to attract said armatures, together with means for selectively energizing one of said magnets and deënergizing the others.

5. In a block signal system, the combination with a railway block having electrically actuated signals, a positive and a negative main, of a signal circuit leading from the positive to the negative main and including the signal, means for interrupting the signal circuit, said means comprising a pair of oppositely placed electrically actuated rotors, contact points carried by the rotors, the contact points adapted to maintain the signal circuit, only when in engagement with each other, individual electrically energized means for actuating either rotor step-by-step in either direction and a wheel actuated track device for selectively energizing any individual means, the track device comprising a plurality of contact segments, each connected to an individual rotor actuating means and an arm actuated by the wheels of a passing train for establishing a circuit through any one of the segments and the rotor actuating means.

[Claims 6 to 27 not printed in the Gazette.]

939,974. RAILWAY SIGNALING APPARATUS. FREDERICK F. BRUSH, Detroit, Mich. Filed July 27, 1908. Serial No. 445,672.



1. A step by step actuated track instrument comprising a polyangular member adapted to be engaged and partially rotated by a car wheel in passing, the car wheel actuating the member in one direction through a partial step, and means for imparting a further rotary movement in the same direction to the member subsequent to the engagement of the car wheel therewith to complete the step.

2. A step by step actuated track instrument comprising a polyangular member adapted to be engaged by a car wheel in passing, the car wheel actuating the member through a partial step movement, a suitably journaled shaft to which the member is secured, a star wheel on the shaft, and means engaging the star wheel for imparting a further rotary movement to the member subsequent to the engagement of the car wheel therewith and in the same direction of travel to complete the step.

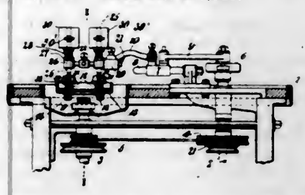
3. A step by step actuated track instrument comprising a polyangular member adapted to be engaged and partially rotated by a car wheel in passing, a suitably journaled shaft to which the member is secured, a star wheel on the shaft and a spring actuated pawl engaging the star wheel to actuate the member through the remainder of its step immediately subsequent to the engagement of the car wheel and member, and releasably hold the member in locked position at the completion of the step.

4. A track instrument comprising a polyangular member adapted to be engaged by a car wheel in passing, a shaft to which the member is secured, a star wheel on the shaft and means for retaining the star wheel and rotating member in semi-locked position.

5. A track instrument comprising a polyangular member adapted to be engaged by a car wheel in passing, a shaft to which the member is secured, a star wheel on the shaft and a pawl yieldingly engaging the star wheel.

[Claims 6 to 11 not printed in the Gazette.]

939,975. LENS-GRINDING MACHINE. FERDINAND BUCHHOP, New York, N. Y., assignor to The Meyrowitz Manufacturing Company, a Corporation of New Jersey. Filed Dec. 16, 1908. Serial No. 467,811.



1. In a lens grinding machine, a plurality of rigidly connected tools guided to reciprocate in a fixed path, a work-carrier movable across the path of movement of said tools, a plurality of work-holding spindles, and yielding means for depressing said spindles independently in said carrier.

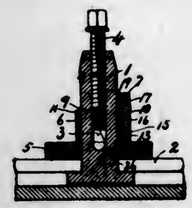
2. In a lens grinding machine, a plurality of rigidly connected tools guided to reciprocate in a fixed path, a carrier having a plurality of arms projecting therefrom, work-holding spindles vertically depressible in the extremities of said arms, and independent means for bearing said spindles downward.

3. In a lens grinding machine, a plurality of rigidly connected tools guided to reciprocate in a fixed path, a work-carrier movable in a rectilinear path transverse to the path of said reciprocation, said work-carrier having a plurality of arms with vertical holes of non-circular transverse section, a plurality of spindles slidably guided in said holes, and means for equally and independently depressing said spindles.

4. In a lens grinding machine, a plurality of rigidly connected tools guided to reciprocate in a fixed path, a work-carrier movable in a rectilinear path transverse to the path of said reciprocation, said work-carrier having a plurality of arms with vertical holes of non-circular transverse cross section, a plurality of spindles slidably guided in said holes, springs for elevating the spindles, and weights of a force preponderating over said springs to depress the spindles when desired.

5. In a lens grinding machine, a plurality of rigidly connected tools guided to reciprocate in a fixed path, a work-carrier having a pair of equal arms pivoted thereto to constitute an equalizing lever, and work-holding spindles supported at the extremities of said arms.

939,976. LATHE-TOOL HOLDER. JAMES CARR and WILLIAM CARR, Syracuse, N. Y., assignors to The Henry G. Thompson & Son Company, New Haven, Conn., a Corporation of Connecticut. Filed Oct. 2, 1907. Serial No. 395,537.



1. In combination with a tool post having a transverse slot, a support for the tool post, lower and upper clamping jaws rotatable about and both embracing the tool post and having tool seats in one and the same side, the lower jaw having a key way movable into and out of registration with the slot, a key in said key way extending through the slot, means to engage said key to clamp the tool post and lower jaw to the support, and separate means for clamping the upper jaw to the lower jaw.

2. In combination with a slotted tool post and support therefor, lower and upper tool clamping jaws rotatable about said post and provided with undercut tool seats in one and the same side, the lower jaw being provided with a key way and the upper jaw extending across the key way, a key movable in the key way into and out of said slot and key way, a set screw in the tool post engaging the key, and separate means for clamping the upper jaw to the lower jaw, the meeting faces of the jaws being provided with an interfitting tongue and groove.

3. In a lathe tool holder, a tool post and bed piece, the tool post being provided with a transverse slot, lower and upper separable jaws, both embracing the tool post, the lower jaw resting upon the bed piece and provided with a lengthwise key way registered with the slot in the tool post, a key in the key way and slot, a clamping screw in the tool post engaging said key and clamping it and the lower jaws to the bed piece, said jaws having under cut tool seats in one side thereof parallel with the key way, and separate means for clamping the upper jaw to the lower jaw.

4. In a lathe tool holder, a tool post having a transverse slot and threaded aperture at right angles to the slot, lower and upper jaws embracing the tool post, the lower jaw having a lengthwise key way opening downward from its upper side, a key slidable in the key way and slot, limiting stops on the key and lower jaw for limiting the sliding movement of the key into and out of the slot in the tool post, a screw in a threaded aperture in the tool post engaging the key, the upper jaw engaging the lower jaw at one side of the key way and extending across said key way, and means engaging the jaws at the opposite side of the key way for clamping them together, the latter side of the jaws being provided with under cut tool seats.

5. In a lathe tool holder, lower and upper clamping jaws, the lower jaw having a lengthwise key way, said jaws having an interfitting tongue and groove at one side of the key way and under cut tool seats at the opposite side of the key way, means for clamping said jaws together, a key slidable in the key way, and stops for limiting the sliding movement of the key in said key way.

939,977. CEMENTITIOUS COMPOSITION AND PROCESS OF MAKING THE SAME. WILLIAM E. CARSON, Riverton, Va. Filed Feb. 19, 1909. Serial No. 478,976.

1. As a new composition of matter, a calcareous cementitious material comprising a directly produced basic aluminate of calcium hydrated to a point short of complete hydration and setting and forming a dry hydrated powder.

2. As a new composition of matter, a cementitious material comprising a directly produced combination of a basic oxid and a sesquioxid, the ratio of basic oxid to sesquioxid being greater than 3 : 1, said combination being hydrated to a point short of complete hydration and setting and forming a dry powder.

3. As a new composition of matter, a calcareous cementitious material comprising a directly combined composition of bauxite and lime, said composition being hydrated to a point short of complete hydration and setting subsequent to its formation, and said hydrated composition forming a dry powder.

4. The process of producing cementitious compositions which comprises igniting together a mixture of a material comprising a basic oxid and material comprising a sesquioxid, the ratio of the former oxid to the latter oxid being greater than 3 : 1, and subsequently hydrating to a point short of completion to form a dry cementitious mass.

5. The process of producing cementitious compositions which comprises igniting together a mixture of material comprising lime and alumina, the ratio of the lime to the alumina being greater than 3 : 1, and subsequently hydrating the product to a point short of complete hydration to form a dry cementitious mass.

[Claim 6 not printed in the Gazette.]

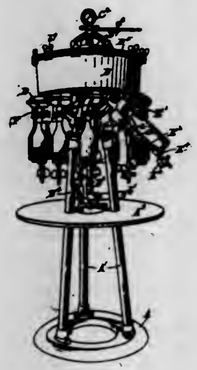
939,978. BOTTLING-MACHINE. JOSEPH H. CHAMP, Cleveland, Ohio. Filed Jan. 16, 1907. Serial No. 352,500.

1. In a bottle filling machine, bottle holding means comprising a bottle mouth-piece and a bottle rest movable relatively to said mouth-piece, said mouth-piece and rest having two conjoint movements distinct from such bottle rest movement, and from each other, and fluid pressure means adapted to automatically thus move said rest relatively to said mouth-piece upon one such conjoint movement.

2. In a bottle-filling machine, bottle holding means comprising a bottle mouth-piece and a bottle rest movable relatively to said mouth-piece, said mouth-piece and rest having conjoint oscillatory movement, and conjoint translatory movement and fluid pressure means adapted to automatically thus move said rest relatively to said mouth-piece upon such conjoint oscillatory movement.

3. In a bottle filling-machine, a plurality of conjointly movable bottle holding means each comprising a bottle mouth-piece and a fluid pressure bottle lift movable relatively to said mouth-piece, said mouth-piece and lift in each individual bottle holding means having conjoint movement distinct from such bottle lift movement and from the general conjoint movement of said bottle-holding

means, and valve means adapted to automatically control the flow of fluid to each of said lifts upon the conjoint movement of the individual bottle holding means to which it belongs.

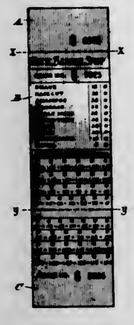


4. In a bottle-filling machine, a plurality of conjointly rotatable bottle-holding means each comprising a bottle mouth-piece, a fluid pressure bottle-lift reciprocatorily mounted relatively to said mouth-piece, said mouth-piece and lift in each individual bottle-holding means having conjoint movement distinct from such reciprocatory bottle-lift movement, and from the general conjoint rotative movement of said bottle-holding means, and valve means adapted to automatically control the flow of fluid to said lift upon such individual conjoint movement.

5. In a bottle-filling machine, a plurality of bottle-holding means each comprising a bottle mouth-piece, and a fluid pressure bottle-lift reciprocatorily mounted relatively to said mouth-piece, said mouth-piece and lift in each individual bottle-holding means having conjoint oscillatory movement, and valve means adapted to automatically control the flow of fluid to said lift upon such conjoint movement.

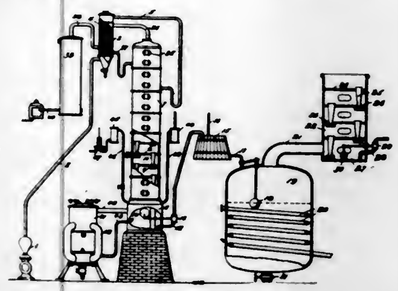
[Claims 6 to 44 not printed in the Gazette.]

939,979. BARBER'S ACCOUNT-CHECK. JEFFERSON CHURCH, New York, N. Y. Filed Dec. 11, 1907. Serial No. 405,982.



An account check of the character described, comprising a body provided with a detachable section, said body being provided with two tabulated portions, the first tabulated portion containing printed matter descriptive of the character of work to be performed, and the price to be charged for each piece of work, the second tabulated portion containing a table showing combinations of aggregate charges that could be made for any work provided for in the first-mentioned tabulated portion, the detachable portion also containing a reversed arrangement of the aggregate charges, the charges on said detachable portion being so disposed as to permit the simultaneous punching of the same amount on both the body and the detachable portion when the latter portion is bent back upon the body.

939,980. PROCESS OF MAKING ACETATES. HARRY O. CHUTE, Cleveland, Ohio. Filed Mar. 31, 1906. Serial No. 309,114.



1. In the manufacture of acetates, the process which consists in fractionating out concentrated wood alcohol and accompanying volatile impurities from pyroligneous acid, distilling the residual acid and saturating the acid in the vapors with a base at a temperature above the boiling point of water.

2. In the manufacture of acetates, the process which consists in fractionating out concentrated wood spirit and accompanying volatile impurities from pyroligneous acid, distilling the residual acid and saturating the acid in the vapors with lime at a temperature above the boiling point of water.

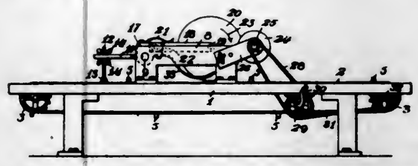
3. In the manufacture of acetates, the process which comprises fractionating away concentrated wood spirit and accompanying impurities from pyroligneous acid to produce a purified substantially unconcentrated acid, distilling such acid as a whole and passing the vapors to exit through a conduit maintained above the boiling point of water, alkali being fed into the vapor exit end of such conduit and acetate solution removed from the vapor inlet end.

4. In the manufacture of acetates, the process which consists in fractionating concentrated wood alcohol and accompanying impurities from pyroligneous acid, distilling the purified acid, and neutralizing the acid in the vapors by passing said vapors past a stream of lime and water flowing in the opposed direction, replenishing said lime stream with quicklime whereby a water-boiling heat is generated.

5. In the manufacture of acetates, the sub-process which consists in boiling dilute acetic acid and passing the evolved vapors past a body of alkali maintained at a temperature above the boiling point of water.

[Claim 6 not printed in the Gazette.]

939,981. CUTTING-MACHINE FOR PASTRY. EDWARD B. COBURN, Worcester, Mass. Filed Apr. 14, 1909. Serial No. 489,959.



1. In a pastry cutting machine, a supporting table, a feeding mechanism, a series of rotating cutters, means for applying a yielding pressure to each of said cutters independently, and means for simultaneously adjusting said cutters vertically.

2. In a pastry cutting machine, a supporting table, a feeding mechanism, a series of rotating cutters, means for applying a yielding pressure to each of said cutters independently, means for simultaneously adjusting said cutters vertically and means for limiting the downward movement of said cutters.

3. In a pastry cutting machine, a supporting table, a series of rotary cutters journaled above said table, a pair of endless chains extending across said table outside said cutters provided with lugs for engaging a pan or support for the material to be cut, means for simultaneously adjusting said cutters relatively to said supporting table, and means for the lateral adjustment of said cutters between said chains.

4. In a pastry cutting machine, a rocking shaft, arms splined to said shaft and longitudinally adjustable thereon, levers pivoted on said arms, shoulders on said arms to limit the downward movement of said levers, springs carried by said arms bearing on said levers, cutters carried by the free end of said levers, and means for axially adjusting said shaft.

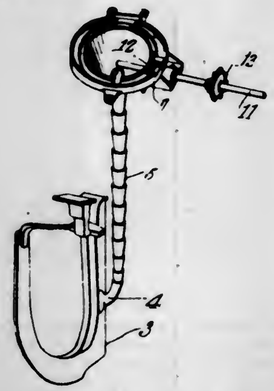
5. In a pastry cutting machine, a series of rotating cutters, a support for the material to be cut, a driving mechanism for said cutters consisting of rotating disks in frictional engagement with the edges of said cutters and arranged to rotate the engaged edges of said cutter toward said support, pivoted levers supporting said cutters, and means for limiting the downward movement of said levers.

[Claims 6 to 8 not printed in the Gazette.]

939,982. COMPOSITION OF MATTER. FRANCIS J. CONBOY, Auburn, N. Y. Filed Nov. 28, 1908. Serial No. 464,818.

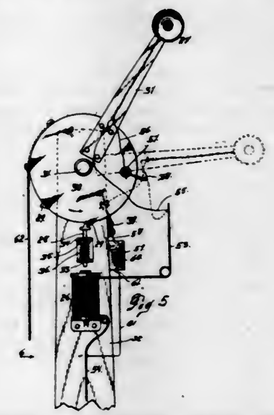
A composition of matter comprising the following ingredients in the proportions named:—30 pounds of asbestos, 30 pounds of tar or pitch, four pounds of cottton or equivalent fibrous substance and one-half pound of carnauba or equivalent wax, thoroughly mixed together to form a composite body.

939,983. ATTACHMENT TO CORN-PLANTERS. FAYETTE A. COOK, Elkader, Iowa. Filed July 26, 1909. Serial No. 509,636.



A planter attachment comprising a shoe, a seed-box mounted thereon, a valve located in the lower portion thereof, said shoe having in its side at a point between the seed-box and the valve a seed inlet, a flexible tube connected with said seed inlet, an individual seed-box having its outlet connected with said tube, a dropping mechanism located in the bottom of said individual seed-box, an operating shaft connected with the seed-dropping mechanism in the individual seed-box, bearings for said shaft, a sprocket wheel fixed to said shaft, a spindle for attachment to the frame of the planter at one side of the said shaft, an idle pulley journaled upon said spindle, and a chain adapted to be moved in an orbit about the axle of the planter and said idle pulley, the sprocket wheel upon the shaft having its periphery in contact with the upper run of the chain at a point between the axle and the idle pulley.

939,984. ELECTRIC RAILWAY SIGNALING APPARATUS. WILLIAM J. COOK, Denver, Colo. Filed July 18, 1908. Serial No. 443,320.



1. In apparatus of the class described, the combination of signaling mechanism comprising a movable signal having a tendency to assume the danger position, a latch for locking the signal in such a position that it indicates no danger, an electromagnet which when energized will act on the latch to release the signal and allow it to assume the danger position, a circuit make-and-break device, a breakable device connected with the circuit make-and-break device and normally holding the same in the open circuit position, and means connected with the breakable device and leading to a danger point, the said means being arranged to be acted on by track disturbances sufficiently to disrupt the breakable device and allow the circuit make-and-break device to move to a position to close the circuit of the said magnet.

2. In electric railway signaling apparatus, the combination of a movable signal, a latch for normally locking the signal in a position to indicate no danger, an electromagnet which when energized acts to release the locking device and allow the signal to move to the danger position, a circuit in which said magnet is located, a breakable device, a circuit make-and-break device with which the breakable device is connected, whereby the circuit make-and-break device is held in the open circuit position, means connected with the breakable device and leading to a danger point along the track, and so arranged that a strain upon said device will disrupt the same and allow the circuit make-and-break device to move to the circuit closing position.

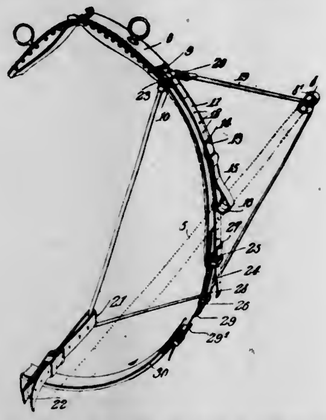
3. In apparatus of the class described, the combination of signaling mechanism comprising a disk mounted to rotate and provided with a signaling arm whose normal tendency is to assume the danger position, a latch for locking the disk in such a position that the signaling arm indicates no danger, an electromagnet which when energized will act on the latch to release the disk and allow the signaling arm to assume the danger position, a circuit make-and-break device, a breakable device connected with the circuit make-and-break device and normally holding the same in the open circuit position, and means connected with the breakable device and leading to a danger point,

the said means being arranged to be acted on by track disturbances, sufficiently to disrupt the breakable device and allow the circuit make-and-break device to move to the circuit-closing position, substantially as described.

4. In electrical signaling apparatus, the combination of a movable signal, a latch for locking the signal in the position to indicate no danger, an electro-magnet so arranged that when energized it acts on the locking device to release the signal and allow the same to move to the danger position, a circuit in which the said magnet is located, a spring-actuated circuit make-and-break device, and a breakable device connected to hold the make-and-break device in the open circuit position, and means connected with the breakable device and extending to a point of danger along the track whereby as the breakable device is disrupted, the circuit make-and-break device will move to close the circuit through the electro-magnet, substantially as described.

5. In electrical railway signaling apparatus, the combination of a movable signal, a latch for normally locking the signal in the position to indicate no danger, an electro-magnet which when energized acts to release the locking device and allow the same to move to the danger position, a circuit in which said magnet is located, a breakable device, a circuit make-and-break device with which the breakable device is connected whereby the circuit make-and-break device is held in the open circuit position, means connected with the breakable device and leading to a danger point along the track and so arranged that a strain upon said device will disrupt the breakable device and allow the circuit make-and-break device to move to the circuit closing position, an electric lamp mounted on the movable signal, a circuit in which said lamp is located, and means for closing said circuit as the signal moves to the danger position, substantially as described.

939,985. HARNESS. HEZEKIAH H. CRAWFORD, El Paso, Tex. Filed Oct. 31, 1908. Serial No. 460,471.



1. In a harness of the class described, a thimble adapted to receive the end of a shaft, a loop upon the thimble, a hold-back strap, passed through the loop and freely movable there-through, a saddle to which the hold-back strap is connected, and a trace connected with the saddle.

2. In a harness of the class described, a thimble with a metal cap adapted to receive the end of a shaft, the said thimble having an integral tongue at its open end bent back upon the thimble and secured thereto, to form a loop, a saddle and a hold-back strap connected with the saddle and passed loosely through the loop.

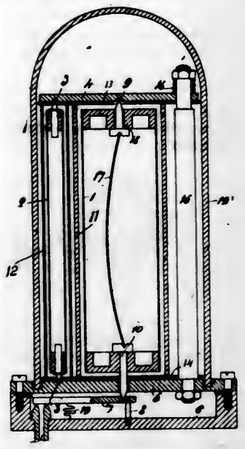
3. In a harness of the class described, a thimble adapted to receive the end of a shaft, a loop upon the thimble, a saddle, a girth, a connection between the saddle and the girth, on the billet of the saddle, a thill loop carried by the connection, a hold-back strap connected at both ends to the said connection, and working loosely through the loop upon the thimble, and a trace connected with the said connection.

4. In harness of the class described, a harness saddle, a thimble adapted to receive the end of a shaft, a billet strap connected to the saddle near the top thereof, a trace, a loop at the end of the trace, and a single strap connected at both ends to the said billet adjacent the upper end thereof and passed loosely through a loop upon the thimble and the loop at the end of the trace, a second billet strap carried by the harness below the first mentioned billet strap, and means carried by the single strap for attachment to the second mentioned billet strap.

5. In a harness of the class described, a harness saddle, a thimble adapted to receive the end of a shaft, the thimble being provided with a loop, a billet strap connected to the harness saddle near the top thereof, a trace, said trace being provided at its end with a loop, a strap connected at both ends with the said billet strap adjacent its upper end and passed loosely through the loop upon the thimble and upon the trace, a loop receiving the intermediate portion of the strap, means securing the strap in the last mentioned loop, the said loop being detachably connected with the said billet strap adjacent the lower end thereof, a second billet strap carried by the harness saddle below the first mentioned strap and arranged for connection with the girth, and means carried by the said last mentioned loop for attachment to the last mentioned billet strap.

[Claim 6 not printed in the Gazette.]

939,986. AUTOMATICALLY OPENING AND CLOSING VALVES. GUSTAF DALÉN, Stockholm, Sweden, assignor, by mesne assignments, to American Gasaccumulator Company, a Corporation of New Jersey. Filed July 20, 1907. Serial No. 384,839.



1. In a device for automatically opening and closing a valve in a conduit, the combination with two bodies adapted to be unequally expanded by the influence of light, of means connecting the bodies with the valve so as to operate the valve and actuated by said unequal expansion.

2. In a device for automatically opening and closing a valve in a conduit the combination with two solid bodies adapted to be unequally expanded by influence of light, of means connecting the bodies with the valve so as to operate the valve and actuated by said unequal expansion.

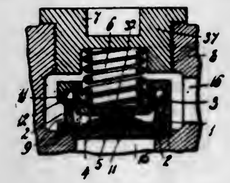
3. In a device for automatically opening and closing a valve in a conduit the combination with two solid bodies, one of which is light-reflecting whereas the other is light-absorbing, of means connecting the bodies with the valve so as to operate the valve and actuated by the unequal expansion of the bodies by influence of light.

4. In a device for automatically opening and closing a valve in a conduit, the combination with two solid bodies, one of which is light-reflecting whereas the other is light-absorbing, of mechanical means connecting the bodies with the valve so as to operate the valve and actuated by the unequal expansion of the bodies by influence of light.

5. In a device for automatically opening and closing a valve in a conduit the combination with a light-reflecting solid body inserted between a fixed and a movable part of the apparatus of a light-absorbing solid body inserted between said movable part and a valve plate.

[Claims 6 to 8 not printed in the Gazette.]

939,987. VALVE. CLARENCE A. DAWLEY, New York, N. Y. Filed May 21, 1907. Serial No. 374,836.



1. A valve structure comprising in combination a valve chamber and seat, a valve, a combined valve guide and stop on the opening side of the valve seat engaging the valve on its outer side, and seated in a seat surrounding the valve seat, and a spring holding said guide and stop in place.

2. A valve structure comprising in combination a valve chamber and seat, a cup valve, and a combined valve guide and stop on the opening side of the valve seat engaging the valve on its outer side and seated in a seat surrounding the valve seat, and having an annular recess adapted to receive the edge of said cup valve.

3. A valve structure comprising in combination a valve chamber and seat, a cup valve, a valve guide engaging the outer edge of said cup, and seated in a seat surrounding the valve seat, and a valve stop projecting into said cup, there being between said guide and stop, a recess adapted to receive the edge of said valve cup.

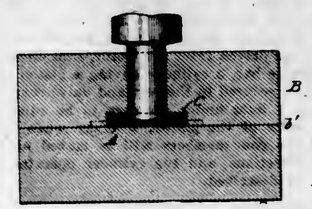
4. A valve structure comprising in combination a valve chamber and seat, a cup valve, an outside guide for the valve, and means projecting into the cup of said valve when the latter is open and occupying the greater part of the cross-section of the cup space and serving, with the valve, to inclose in said cup space an air chamber of minimal dimensions adapted for efficient cushioning.

5. A valve structure comprising in combination a valve chamber and seat, a cup valve, and means for guiding the valve, said valve structure comprising an annular cushioning recess which the edge of the valve enters.

[Claims 6 to 17 not printed in the Gazette.]

939,988. METHOD OF PRODUCING MATRICES. PHILIP T. DODGE, Washington, D. C., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed July 25, 1907. Serial No. 385,567.

The method of forming a linotype matrix and producing thereon hardened and condensed surfaces of predetermined dimensions without fins or projections, which consists in providing a blank of approximately the form of the required matrix, inclosing said blank in a tightly-closed die cavity of the exact form and dimensions of the required matrix, and applying pressure to the side of the blank at a point wholly within the marginal limits or the effective surfaces of the blank; whereby the displacement of the metal in said limited area will cause the material of the blank to flow outward and fill the tightly-closed die cavity,



thereby hardening and condensing the surface of the matrix and giving it the exact form and dimensions required.

939,989. PROCESS FOR OBTAINING INTIMATE MIXTURES. EMILE DOR-DELATTRE, Liege, Belgium. Filed Nov. 15, 1907. Serial No. 402,361.



1. The herein described method or process of mixing granular substances consisting in depositing the material in a plurality of masses, withdrawing portions of each of said masses and forming therefrom another mass separate from those aforesaid, continuing this operation to form a plurality of such secondary masses, treating said secondary masses in a similar manner to form a third set of masses each containing portions of all of said secondary masses and continuing such procedure until the desired mixture is obtained.

2. The herein described method or process of mixing granular substances consisting in depositing the material in a plurality of masses, simultaneously withdrawing material from the bottom of each of said masses and depositing the same successively in a plurality of secondary masses each independent of those aforesaid, and by similar operations forming as many subsequent series of masses as are necessary to produce the desired mixture.

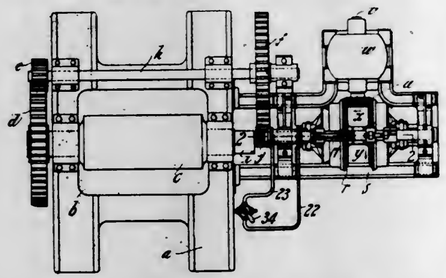
3. The herein described method or process of mixing granular substances consisting in depositing the material in a plurality of masses, withdrawing horizontal layers of material from all of said masses and depositing the same vertically in masses independent of those aforesaid, and similarly treating the second and subsequent series of masses until the desired mixture is obtained.

4. The herein described method or process of mixing granular substances, consisting in depositing the substances to be mixed in a plurality of independent vertical masses, simultaneously withdrawing the lowermost portion of the contents of each of said masses and transferring the same to the first of a plurality of independent masses similar to those aforesaid, continuing this step and forming said secondary masses successively until all of the first said series of masses is thus shifted, and, by similar operations, forming subsequent series of masses until the desired mixture is obtained.

939,990. PLATING-MACHINE. HAROLD F. DUNBAR, Turners Falls, Mass. Filed Feb. 2, 1909. Serial No. 475,557.

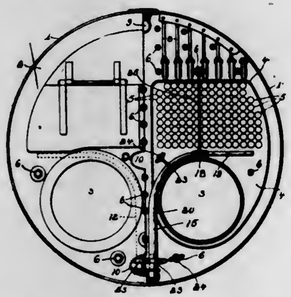
1. A paper-plating machine having in combination with a continuously operating motor, a cylinder, means for re-

tating the cylinder in opposite directions, said means including a shaft and connecting means between said shaft and the cylinder, a pair of frictional cone-members connected to said shaft, means to move the cone members in opposite directions for engaging oppositely rotating members that are driven from the motor, said means including a reciprocable bar, a cylinder having a piston therein, the piston being secured to the bar, and valve construction for permitting a fluid under pressure to be admitted to the opposite sides of the piston, whereby when the valve is operated the cone-members will be moved alternately in opposite directions, and the cylinder operated in reverse rotation, as described.



2. A plating machine having in combination, a shaft, a pair of frictional cone members thereon, means for rotating the same in opposite directions, a cylinder, a piston therein, connecting means between said cone members and said cylinder, a four-way valve for admitting and releasing a fluid under pressure, whereby the movements of the piston are controlled, substantially as described.

939,991. WATER-CIRCULATOR FOR BOILERS. CHARLES C. ECKLIFF, Grand Haven, Mich. Filed Nov. 28, 1908. Serial No. 464,830.



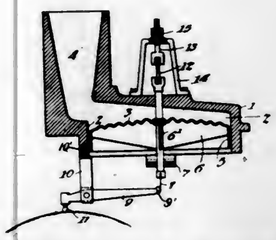
1. A boiler, a fire chamber extending into said boiler, a pipe opening at one end into the lower part of the boiler and extending upward therein over the fire chamber and thence longitudinally of the fire chamber and laterally thereof, said pipe lying close to the top of the fire chamber and being flattened to present an increased heating surface to the heat from the fire chamber, and means for detachably and removably supporting said pipe within the boiler.

2. A boiler, a fire chamber in the boiler, a pipe extending longitudinally within the lower part of the boiler and open at its ends, a pipe extending vertically upward from the horizontal pipe and over the fire chamber, and a nipple on the horizontal pipe projecting into the lower end of the vertical pipe to detachably connect said pipes.

3. A boiler, a fire chamber extending into said boiler, horizontally extending pipes in the lower part of said boiler having open ends, vertically extending pipes detachably connected to said horizontal pipes at their lower ends and extending upward therefrom, one near the forward end of said fire chamber and the other near the rear end thereof and said vertical pipes being extended over and longitudinally of said fire chamber in opposite directions and thence each extended laterally from said chamber in opposite directions toward the sides of the boiler.

4. A boiler, a cylindrical fire chamber extending into said boiler, pipes opening at their lower ends into the lower part of the boiler and extending upward therein, one near each end of the fire chamber and bent to the arc of said chamber to extend over the same, thence extended longitudinally of said chamber and laterally at its upper end, said pipes being flattened throughout their portions which lie adjacent to the fire chamber, and means for detachably supporting said pipes within the boiler.

939,992. PHONOGRAPHIC RECORDING AND REPRODUCING MACHINE. THOMAS A. EDISON, Llewellyn Park, Orange, N. J. Filed Mar. 16, 1907. Serial No. 362,596.



1. In phonographic recording or reproducing apparatus, the combination with a casing, a vibrating piston freely movable therein, a stylus lever having a fixed pivot, a stylus mounted thereon, connections between the said lever and one face of the piston, and a spring device attached to the other face of the piston and the casing for maintaining the stylus in engagement with the recording or record surface, substantially as set forth.

2. In phonographic recording or reproducing apparatus, the combination with a casing, a vibrating piston freely movable therein, a stylus lever having a fixed pivot, a stylus thereon, connections between the stylus lever and the piston including a tension device, a second tension device for maintaining the stylus in engagement with the recording or record surface, and means for adjusting the latter tension device, substantially as and for the purposes set forth.

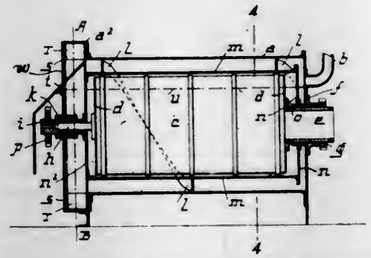
3. In phonographic recording or reproducing apparatus, the combination with a casing, a vibrating piston freely movable therein, a stylus lever having a fixed pivot, a stylus thereon at one side of the pivot, connections between the stylus lever on the other side of the pivot and the piston, and maintaining the stylus in engagement with the record surface, and adjusting means for the tension device, a tension device exerting upward stress on the piston and through said connections on the end of the stylus lever remote from the stylus, and thus maintaining the stylus in engagement with the record surface, substantially as set forth.

4. In phonographic recording or reproducing apparatus, the combination with a casing, a vibrating piston freely movable therein, a stylus lever having a fixed pivot, a swivel for said pivot, a stylus on the stylus lever, connections between the lever and piston, and a tension device mounted above the said piston and exerting an upward pull on the same, for maintaining the stylus in engagement with the record or recording surface, substantially as set forth.

5. In phonographic recording or reproducing apparatus, the combination with a casing, a vibrating piston freely movable therein, a stylus lever having a fixed pivot and having a curved forward end, a stylus mounted on the stylus lever near its other end, a spring encircling the curved end of the stylus lever, and secured to the stylus lever and to the piston, and a tension device for maintaining the stylus in engagement with the record or recording surface, substantially as and for the purposes set forth.

[Claim 6 not printed in the Gazette.]

939,993. CONTINUOUS CENTRIFUGAL STRAINING APPARATUS. ANDERS J. ERICSSON, Stocksund, Stockholm, Sweden, assignor to Aktiebolaget Separator, a Company, Stockholm, Sweden. Filed July 24, 1908. Serial No. 445,173.



1. In a continuously working centrifugal straining apparatus, in combination a perforated rotating drum, a stationary cylindrical vessel surrounding said drum, there being an inlet to said vessel for the liquid to be treated, and means to convey to the outside of the apparatus the solid particles thrown off from the perforated drum and centrifugally deposited on the inner wall of the surrounding vessel.

2. In a continuously working centrifugal straining apparatus, in combination a perforated rotating drum, a stationary cylindrical vessel surrounding said drum, there being an inlet to said vessel and an outlet from the interior of the drum for the fluid, passing through the perforations and means to convey the solid particles thrown off from the perforated drum and centrifugally deposited on the inner wall of the surrounding vessel to the outside of the apparatus.

3. In a continuously working centrifugal straining apparatus, in combination a perforated, rotating drum, a stationary cylindrical vessel surrounding said drum, there being an inlet to said vessel, and an outlet from the interior of the perforated drum and rotating scrapers in the space between the drum and the vessel for conveying the solid particles centrifugally deposited on the inner wall of the surrounding vessel to the outside of the apparatus.

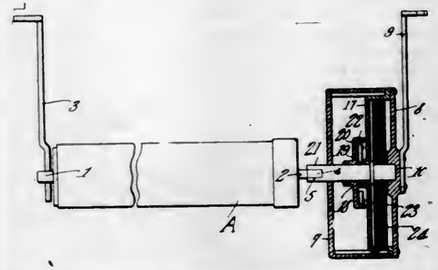
4. In a continuously working centrifugal straining apparatus, in combination a perforated rotating drum, a stationary cylindrical vessel surrounding said drum, there being an inlet to said vessel, and an outlet from the interior of the drum for the separated fluid, and rotating oblique scrapers in the space between the drum and the vessel entirely surrounding the drum for conveying the solid particles to the outside of the apparatus.

5. In a continuously working centrifugal straining apparatus in combination a perforated rotating drum, a stationary cylindrical vessel surrounding said drum, there being an inlet to said vessel, and an outlet from the interior of the drum, and rotating screw-formed scrapers in the space between the drum and the vessel entirely surrounding the drum for conveying the solid particles to the outside of the apparatus.

[Claim 6 not printed in the Gazette.]

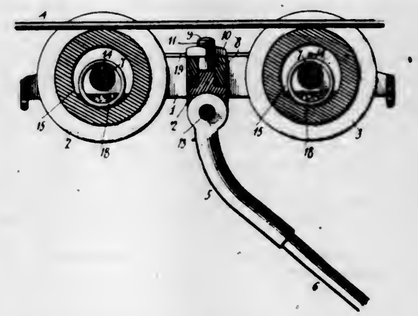
939,994. SHADE-ROLLER FIXTURE. NATHAN FLEISCHAKER, Joplin, Mo. Filed Sept. 15, 1908. Serial No. 453,127.

A fixture for rollers comprising a non-rotatable housing, an intermediate member within the housing having a tubular extension provided with notches, a spindle mounted for rotation within the housing and intermediate member, a spring secured at its ends to the spindle and intermediate member respectively and disposed to be wound upon the spindle when said spindle is rotated in one direction, a disk secured to the spindle, and pawls pivotally connected to the disk, one of said pawls overhanging and normally



engaging one of the notches in the tubular extension, said pawls being shiftable by centrifugal force out of engagement with the notched extension.

939,995. CURRENT-COLLECTOR. GEORGE R. FORSTER, Fithian, Ill. Filed June 15, 1908. Serial No. 438,585.



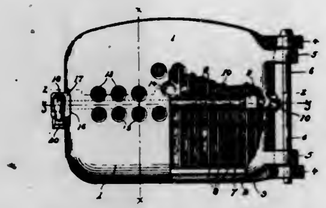
1. The combination, with a harp and a bearing pin carried thereby, of a trolley-wheel rotatably mounted upon said pin and provided with an interiorly-located lubricant chamber arranged axially thereof; a series of anti-friction rollers located interiorly of the wheel and surrounding said pin; and a ring disposed within said chamber and suspended from said rollers, said ring extending into the lubricant contained in said chamber for supplying the same to said pin and said rollers.

2. The combination with a trolley pole, of a harp pivotally connected with the pole for movement in both vertical and horizontal planes; a pair of bearing pins carried by the harp; a trolley wheel rotatably mounted upon each pin and provided with an interiorly located lubricant chamber arranged axially thereof; a series of anti-friction rollers located interiorly of each wheel and surrounding the pin upon which the latter is mounted; and a ring suspended from each series of rollers and extending into the lubricant contained in the adjacent chamber for supplying the same to the rollers and the pins.

3. The combination of a harp consisting of an oblong skeleton frame provided with a central transverse bridge having a vertical opening formed therethrough; a bolt rotatably fitted in said opening and provided with a pair of spaced depending ears; a downwardly bowed eye bolt having its eye portion fitting in the space between said ears and pivoted to the latter; a trolley pole to which the lower end of said eye bolt is attached; a pair of bearing

pins carried by the harp; a trolley wheel rotatably mounted upon each pin and provided with an interiorly located lubricant chamber arranged axially thereof; a series of anti-friction rollers located interiorly of each wheel and surrounding the pin upon which the latter is mounted; and a ring suspended from each series of rollers and extending into the lubricant contained in the adjacent chamber for supplying the same to the rollers and the pins.

930,996. FURNACE FIRE-DOOR. JOHN R. FORTUNE, Detroit, Mich. Filed Mar. 25, 1908. Serial No. 423,080.



1. The combination of a door front having a series of openings, a lining secured to the door front and formed with a series of independent vertical passages each having an end wall adjacent to one of the openings in the door front and each passage adapted to receive air through said opening and discharge it at its opposite end.

2. The combination of a door front having a series of openings, a lining spaced from the door front and secured thereto, a series of ribs on the lining forming air passages between the door front and lining, and a rib extending transversely to said ribs and forming end walls for the passages, said passages each communicating with the atmosphere through one of the openings in the door adjacent to said transverse rib and adapted to communicate with the interior of a furnace at its opposite end.

3. The combination of a door front having one or more holes along its longitudinal center line, a lining secured to the door front and formed with air passages in its surface adjacent to the door front, said passages extending in opposite directions from said center line of the door front and each communicating with the atmosphere at its inner end through said holes in the door front and open at its opposite end.

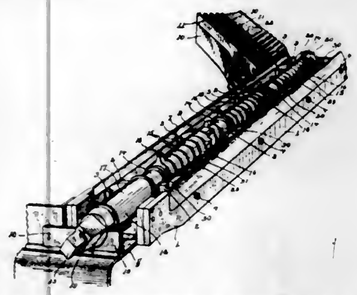
4. The combination of a door front having a series of openings adjacent to its longitudinal center line, a lining, parallel ribs on the lining forming air passages between the lining and door front, and a rib adjacent to said openings extending transversely to the parallel ribs and dividing the air passages formed by said ribs into air passages extending in opposite directions from said transverse rib, said passages communicating with the atmosphere through said openings in the door front and open at their ends at the edges of said lining.

5. The combination of a door front having inwardly extending flanged edges and provided with a row of openings at each side of its longitudinal center line, a lining attached to the door front with a space between it and the door front and between its upper and lower edges and the flanged edges of the door front, a longitudinal rib on the lining extending toward the inner surface of the door front between its rows of openings, a series of vertical ribs on the lining extending upwardly and downwardly from the longitudinal rib and forming air passages, and means for securing the lining to the door front.

[Claims 6 to 12 not printed in the Gazette.]

939,997. FURNACE. JOHN R. FORTUNE, Detroit, Mich. Filed Apr. 15, 1908. Serial No. 427,138.

1. In a furnace, the combination with grate-bars, of a bearer consisting of independent sides adapted to support the ends of said bars, detachable bearing-members extending across between said sides and bolts extending across the bearer and through said bearer sides to draw the sides toward each other and clamp the bearing members between them, and a clinker bar supported by the bearing members.



2. In a furnace, the combination with grate-bars, of a bearer consisting of sides adapted to support the ends of said bars, and provided with vertical grooves closed at their lower ends, transverse bearing members detachably engaging at their ends said grooves, bolts extending across the bearer and through its sides to secure the sides together and the bearing-members in their grooves, and a clinker bar supported by said bearing-members.

3. In a furnace, the combination with grate-bars, of a bearer for supporting one end of said bars consisting of parallel sides having vertical grooves closed at their lower ends, bearing-members extending across between said sides with their ends engaging said grooves, bolts extending across the bearer and through its sides adjacent to each bearing-member to draw the sides together and clamp the members between them, lugs on each bearing-member projecting beneath said bolts, and a clinker bar supported by said bearing members.

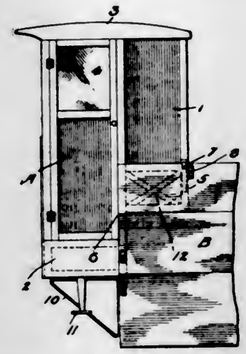
4. In a furnace, the combination with a series of grate-bars and a bearer supporting the ends of said bars, of a rotatable clinker bar consisting of a shaft formed square in cross section, members having teeth sleeved upon said shaft, bearing-members on said bearer for said clinker bar each formed with a bearing of greater diameter than the diameter of the clinker bar shaft, and open at its upper side to permit the lifting out of said shaft, a bearing thimble within the bearing of one of said bearing-members having a square opening to fit the shaft and provided with a flange at one end to engage the end of the bearing, and means on the shaft near one end thereof to engage the thimble of the adjacent bearing and hold the shaft from longitudinal movement and the thimble within its bearing.

5. In a furnace, the combination with grate-bars, of a bearer having sides adapted to support one end of said bars, bearing-members extending across between said sides, a clinker bar supported by said bearing members extending longitudinally between the bearer sides with a wider space between it and one of said sides than between it and the other side, and a filler adapted to engage the bearing-members at its ends and be detachably supported thereby within the widest space.

[Claims 6 to 12 not printed in the Gazette.]

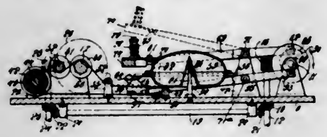
939,998. STORM-FRONT FOR WAGONS. HERMAN FOSTER, Wolcott, Ind. Filed Feb. 8, 1909. Serial No. 476,615.

1. In combination with a wagon body, comprising spaced sides, a detachable storm front therefor comprising a top, and a body consisting of a rear seat portion extending over the front end of the wagon body into the space between its sides, and a front entrance portion projecting below the seat portion and on the out side of the front end of the wagon body, a door on the entrance portion, supporting members on the seat section engaging the sides, a transverse support passing through opposite sides of the wagon body and detachably connected with the rear seat portion to prevent displacement of the storm front, and bracket supports on the front of the wagon body engaging the base of said entrance portion.



2. In combination with a wagon body comprising a front end gate and opposite sides extending above said end gate, a storm front detachably mounted on the wagon body and consisting of a top, a rear seat section, and a front entrance section extending at its lower end below the seat section, the seat section being arranged so as to extend over the front end gate and between the sides of the wagon body, hooks extending from opposite sides of the seat sections and engaging over the sides of the wagon body, a detachable rod passing through the sides of the wagon body and detachably connected with the rear side of the seat section, and supporting brackets projecting from the front end gate beneath and supporting the entrance section.

939,999. APPARATUS FOR RECORDING DEVIATIONS IN THE COURSE OF A VESSEL. JOSEPH FRASER and CHARLES JUMEAUX, Auckland, New Zealand, assignors of one-third to Samuel Edgar Fraser, Waihi, New Zealand. Filed Oct. 5, 1907. Serial No. 396,090.



1. The combination, with a magnetic needle and a gimbal supporting medium therefor, of an inking device, a spring connecting the inking device with the needle, a striker above the inking device, a pad below the inking device, means for operating the striker, and means for moving a ribbon of paper between the inking device and the pad.

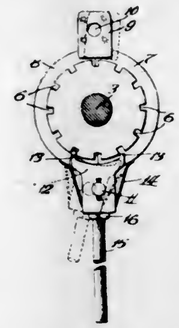
2. In apparatus of the class described, an inking device and a striker, one of said parts being movable around a vertical axis, said striker comprising levers pivoted to oscillate vertically, a weight upon the ends of the levers and springs supporting the said weight, in combination with stops whereon the levers fall, and means for oscillating the levers.

3. The combination with a magnetic needle and a gimbal supporting medium therefor, of an inking vessel having a hole in its bottom, a cap applied to the vessel, a wick passing through the hole aforesaid, means for moving a ribbon of paper near to said wick and comprising a roller upon which a paper ribbon may be coiled, a roller for receiving paper, a tooth wheel mounted on the second named roller, frictional means between said roller and the tooth wheel, a second tooth wheel gearing with the first tooth wheel, a roller to which the second tooth wheel is fixed, pins projecting radially from the last mentioned roller, means for guiding papers to the rollers, means for temporarily supporting the paper while passing between the rollers, and means for striking the inking device while the paper is so supported.

4. In apparatus of the class described, an inking device mounted for movement about a vertical axis, a striker adapted to strike the inking device in any position, means to rock said striker, a movable platen, means for rocking said platen to and from the inking device, and means for moving a paper ribbon between said inking device and platen.

5. In an apparatus of the class described, an inking device mounted for movement about a vertical axis, and comprising a coiled spring, an inking reservoir carried by the free end of said spring and a wick leading from said reservoir.

940,000. COMBINED NUT AND WRENCH. AUGUST A. FRIZ, St. Louis, Mo. Filed July 26, 1909. Serial No. 509,672.



1. The combination with a nut having an annular groove formed in its body portion, of a ring embracing said groove, a head pivoted to said ring teeth formed integral with said head arranged to engage the nut and a lever secured to said head.

2. In combination with a nut having an annular groove formed in its body portion, there being slots formed in the periphery of said nut, a ring carried by said nut, a head pivoted to said ring, teeth on said head, a spring carried by said head adapted to engage said ring and normally hold the teeth out of engagement with said slots, and a lever carried by said head.

3. In combination with a nut having an annular groove formed in its body portion, there being slots formed in the periphery of said nut, a separable ring in said groove, extensions formed on said ring, a head pivoted to said extensions, a spring carried by said head adapted to engage said ring to normally hold the teeth out of engagement with the slots and a lever carried by said head.

4. In combination with a cylindrical nut having an annular groove formed in its periphery, there being slots formed in the periphery of said nut, a ring consisting of two mating halves fitted in said annular groove, extensions formed on said ring, plates connecting said extensions, a bifurcated head pivoted to one of said extensions, a spring carried by said head for engagement with said ring, teeth formed integral with the head for engagement with said slots and a lever carried by said head.

940,001. HINGING-GAGE. WILLIAM H. GELBAUGH, Tacoma, Wash. Filed Nov. 28, 1908. Serial No. 464,903.

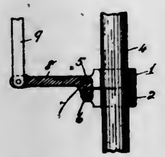
1. In a device of the class described, two gage members longitudinally-adjustably connected, one of the said members having a straight edge, and a circular scratch gage adjustably connected with the other member and formed with a plurality of peripheral scratch points.

2. In a device of the class described, two gage members longitudinally-adjustably connected, one of the said members having a straight-edge and the other a flange substantially parallel thereto and a scratch gage detachably secured upon the said flange and formed with a plurality of radial, sharp-pointed arms.



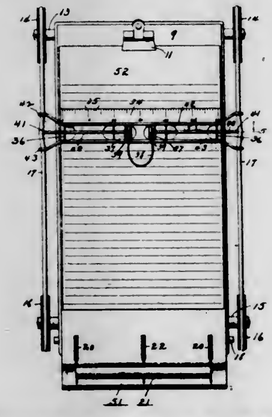
3. In combination, two longitudinally-adjustably connected gage members having parallel flanges at adjacent ends, scratch points projecting oppositely from opposite edges of the said flanges, one of the said flanges having a right angular extension at its opposite end, and a scratch-element longitudinally adjustable relative to the said extension.

940,002. CLUTCH. THOMAS H. GERRARD, Troy, N. Y., assignor of one-half to Edmond A. Michon, Troy, N. Y. Filed Apr. 10, 1908. Serial No. 426,389.



A clutch for sliding members comprising a pair of clutch-members located in different horizontal planes and adapted to receive the sliding members and to shearingly engage the opposite sides thereof, an angle-lever having a vertical arm pivotally connected with both of said clutch-members, and a lifting member positively connected directly with a horizontal arm of said lever and constituting the sole support for said lever and said clutch-members.

940,003. COPY-HOLDER. FRED M. GIDDINGS, Galesburg, Ill., assignor of one-fourth to George W. Palmer and one-fourth to Charles A. Westring, Galesburg, Ill. Filed June 13, 1908. Serial No. 438,289.



1. In a copy-holder, in combination, endless belts, means for actuating them, and a line-guide carried by said belts, said actuating means constituting also a doffer for said line-guide.

2. In a copy-holder having a table, endless belts traversing its length, a doffable line-guide on said belts, wheels embraced by said belts, a shaft whereon some of said wheels are mounted, a ratchet-wheel on said shaft, a pawl for actuating it, and means for imparting periodic movements to said pawl.

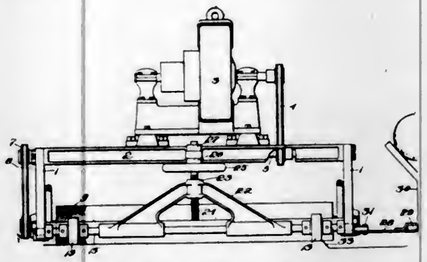
3. In a device of the character described, in combination with a table and a traveling belt at each side thereof, a line-guide comprising a plate, bent fingers fixed thereto and adapted to engage said belts on one side thereof, and spring-actuated fingers slidably mounted with reference to said plate and adapted to engage said belts on the other side thereof, whereby said line-guide is carried along with and by said belts.

4. In a device of the character described, in combination with a table and a traveling belt at each side thereof, a line-guide comprising a plate, bent fingers fixed thereto and adapted to engage the outer portion of and to extend beyond said belts, and slidable fingers adapted to engage the inner sides of said belts whereby said line-guide is carried along with and by said belts.

5. In a device of the character described, in combination with a table and a traveling belt at each side thereof, a line-guide comprising a plate, bent fingers fixed thereto and adapted to engage the outer portions of and extend beyond said belts, slidable fingers adapted to engage the inner sides of said belts, whereby said line-guide is carried along with and by said belts, and a spring whereby said slidable fingers may be actuated in one direction.

[Claim 6 not printed in the Gazette.]

940,004. BOWLING-ALLEY-SURFACING MACHINE. GEORGE B. GONIA, Revere, Mass. Filed Dec. 21, 1905, Serial No. 292,744. Renewed Apr. 5, 1909. Serial No. 488,119.



1. A machine of the kind described, comprising a frame, two sets of supporting wheels, and an abrading roll, combined with means for simultaneously adjusting one set of said wheels with relation to the other set of wheels for varying the pressure transmitted by the frame to said abrading roll, and means for independently adjusting the wheels of said other set for varying the angle of said abrading roll with relation to the floor.

2. A machine of the kind described, comprising a frame, heavy driving mechanism mounted on said frame to weight the latter, an abrading roll at the front of the machine, front supporting means consisting of separated supporting wheels journaled in the frame adjacent the opposite ends of said abrading roll, and rear supporting means at the rear of the frame, combined with means for adjusting one of said supporting means with relation to the other suporting means for varying the pressure transmitted from the frame to said abrading roll, and means for independently adjusting said separated wheels for varying the angle of said abrading roll with relation to the floor.

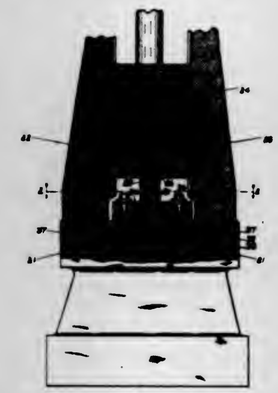
3. A floor surfacing machine, comprising a frame weighted by superposed operating mechanism mounted thereon, an abrading roll at the front of the machine, front separated supporting means adjacent the opposite ends of said roll supporting the front end of said frame at its opposite front corners, rear supporting means supporting said frame at a single point at the rear end of the frame, and means for raising the rear end of the frame with relation to said rear supporting means to transmit thereby the weight of said weighted frame directly to said roll for controlling the pressure of the latter on the floor.

4. A floor surfacing machine, comprising a frame weighted by superposed operating mechanism mounted thereon, separated supporting means supporting the front end of said frame at its opposite front corners and means supporting said frame at a single point at its rear end, whereby said weighted frame has substantially a three-point support, an abrading roll at the front of the machine, and means for transmitting the weight of said weighted frame directly to said roll for controlling the pressure of the latter on the floor, including adjusting means for varying the relative vertical height of said separated front supporting means for thereby varying the lengthwise pressure of said abrading roll.

5. A floor surfacing machine, comprising a frame, heavy operating mechanism mounted on said frame as a means of weighting the same, separated supporting means arranged to support said weighted frame at three points, two at the opposite front corners adjacent the ends respectively of the abrading roll and one intermediately at the rear of the machine, an abrading roll extending transversely of the machine ahead of said two front supporting means, and means for raising and lowering the machine at said intermediate rear support for increasing and decreasing the pressure of the roll on the floor by transferring thereto more or less of the weight of said frame.

[Claims 6 to 12 not printed in the Gazette.]

940,005. DIE-HOLDER FOR DROP-HAMMERS. WILLIAM F. GORTON, Muncie, Ind., assignor to Ontario Silver Company, Muncie, Ind., a Corporation of Indiana. Filed Apr. 24, 1909. Serial No. 492,206.

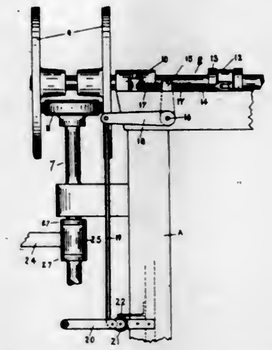


1. The combination of a die holding block having a die receiving recess therein, a die having inclined sides seated in said recess, keepers mounted in apertures in the die block arranged at right angles with the die and having inclined faces corresponding to the inclined faces on the die, and inclined wedges mounted in apertures in the die holding block for forcing the keepers into contact with the die.

2. The combination of a holding block having a tool receiving recess therein with apertures arranged alongside said recess and other apertures arranged at substantially right angles with the last named apertures, a tool adapted to be seated in the receiving recess, keepers arranged within the apertures leading into said recess, and wedge like devices for operating said keepers.

3. The combination of a holding block having a tool receiving recess therein with apertures arranged alongside said recess and other apertures arranged at substantially right angles with the last named apertures, a tool adapted to be seated in the receiving recess, keepers arranged within the apertures leading into said recess, and wedge like devices for operating said keepers, the adjacent faces of the tool and the keepers being correspondingly tapered at the points of engagement.

940,006. FRICTION-GEARING. JOHN L. GRAHAM, Reynoldsville, Pa., assignor to Wickes Brothers, Saginaw, Mich., a Corporation of Michigan. Filed June 1, 1908. Serial No. 435,902.



1. In a reversing mechanism, the combination with a drive shaft, friction disks mounted thereon and spaced apart from each other, a longitudinally movable countershaft, a friction wheel fixedly mounted thereon, and means for engaging one or the other of the friction disks with the wheel, of a longitudinally adjustably rod lying substantially parallel with the countershaft, an arm, one end of which is secured to the rod, the opposite end of the arm journaled on the countershaft at a point remote from the friction surfaces, and means carried by the countershaft and located on opposite sides of the arm to permit the latter to shift the countershaft.

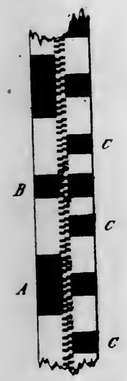
2. In a reversing mechanism, the combination with a countershaft, a friction wheel thereon, a drive shaft, and friction disks carried by the drive shaft, the friction wheel received between the disks, of a lever adapted to shift the disks, a longitudinally movable rod connected to the lever, a swinging arm engaging the rod, a crank for actuating the arm, a hand lever, and a link connecting the hand lever and crank.

3. In a reversing mechanism, the combination with a countershaft, a friction wheel thereon, a drive shaft, and friction disks carried by the drive shaft, the friction wheel received between the disks, of a lever adapted to shift the disks, a longitudinally movable rod connected to the lever, a swinging arm, the rod passing loosely through the arm, springs mounted on the rod on opposite sides of and abutting the arm, a crank for actuating the arm, a hand lever, and a link connecting the crank and hand lever.

4. The combination with a countershaft, a friction wheel thereon, slidably supported opposed friction disks between which the friction wheel is received, and a lever for shifting the disks, of a rod connected to the lever, a swinging arm for actuating the rod, means engaging the arm for normally retaining the latter in its intermediate position, a rotatably supported notched hub, a hand lever for actuating the hub, a linkage connecting the hand lever and the arm, and a detent yieldingly engaging one of the notches in the hub to retain the arm in one or the other of its positions.

5. In a reversing mechanism, the combination with a pair of shafts, a friction wheel on one shaft, a pair of friction disks on the remaining shaft, and a lever adapted to cause the engagement of one or the other of the friction disks with the wheel, of a swinging arm, a centering device connecting the arm and lever, and means for actuating the arm.

940,007. STADIA-ROD. JULIAN H. GRANBERY, East Orange, N. J. Filed Sept. 10, 1908. Serial No. 452,413.



1. A stadia rod having in its graduation major division-characters each consisting of a smaller rectangle a constant fraction of one unit in vertical width and a larger rectangle having a vertical width three times as great and disposed with its middle third horizontally opposite the smaller rectangle, whereby the vertical distance between successive horizontal edges of the character is a constant fraction of one unit.

2. A stadia or leveling rod having in combination with major division-characters, minor division-characters consisting of rectangles one-tenth, or other constant fraction, of one unit in vertical width, certain of said minor division characters extending a major portion of the horizontal distance across the rod and certain others a minor portion of such distance, as the major or minor importance of the division indicated requires; in each sequence of minor division-characters the characters of major and minor length being alternated; individual rectangles being invariably separated by spaces having the same vertical width as the rectangles.

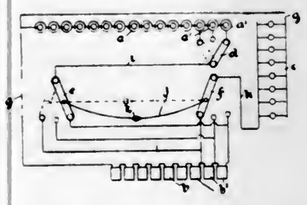
3. A stadia rod having in its gradnation major division-characters each consisting of a smaller rectangle a constant fraction of one unit in vertical width and a larger rectangle having a vertical width three times as great and disposed with its middle third horizontally opposite the smaller rectangle, and minor division-characters arranged between said major division-characters, being in the form of rectangles of the same vertical width as said smaller rectangles of the major division-characters, the vertical distance between the nearest horizontal edges of next-neighboring characters also being the same constant fraction of one unit.

4. A stadia rod having in its graduation major division-characters each consisting of a smaller rectangle a constant fraction of one unit in vertical width and a larger rectangle having a vertical width three times as great and disposed with its middle third horizontally opposite the smaller rectangle, and minor division-characters arranged between said major division-characters, being in the form of rectangles of the same vertical width as said smaller rectangles of the major division-characters, certain of the minor division-characters between nearest major division-characters extending across a major portion of the width of the rod and certain thereof across a lesser portion of the width of the rod, the vertical distance between the nearest horizontal edges of next-neighboring characters also being the same constant fraction of one unit.

5. A stadia rod having in its graduation major division-characters each consisting of a smaller rectangle a constant fraction of one unit in vertical width and a larger rectangle having a vertical width three times as great and disposed with its middle third horizontally opposite the smaller rectangle, two minor division-characters arranged between nearest major division-characters, being in the form of rectangles of the same vertical width as the smaller rectangles of said major division-characters and extending horizontally across a minor portion of the width of the rod, and another minor division-character between said two minor division-characters, similar thereto but extending across a major portion of the width of the rod, the vertical distance between the nearest horizontal edges of next-neighboring characters also being the same constant fraction of one unit.

[Claim 6 not printed in the Gazette.]

940,008. COMBINED PRIMARY AND SECONDARY BATTERY SYSTEM. JULIUS H. GUOLEB, Milwaukee, Wis. Filed June 17, 1909. Serial No. 502,649.

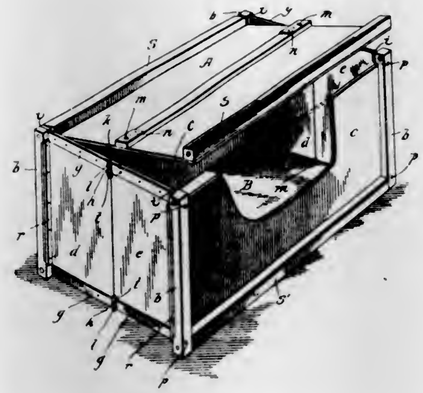


1. A system of electrical distribution comprising, in combination, a primary battery comprising a plurality of cells, a secondary battery comprising a plurality of cells, a service-circuit one pole of which is connected to one pole of said primary battery and to one pole of said secondary battery, a multipolar switch several poles of which are connected to successive end-cells on the free end of said primary battery, a pair of multipolar switches the fixed pole of one of which is connected to said first-named switch and the fixed pole of the other to the other pole of said service-circuit and the several movable poles of each of said pair of switches being connected to successive end-cells of said secondary battery in corresponding succession, and a mechanical connection between the movable elements of the respective switches which limits the position of the switch in the discharging-circuit to one of the poles connected to the cells in the charging-circuit.

2. A system of electrical distribution comprising a secondary battery, a primary battery connected to opposite poles thereof to charge said battery and a service-system connected to opposite poles thereof to discharge said battery, a multipolar switch interposed in the circuit between one end of said secondary battery and one end of said primary battery and the several poles of which are connected to the several end-cells of said secondary battery, a second multipolar switch interposed in the discharging-circuit between the same end of said secondary battery and said service-circuit, and the several poles of which are connected to the several end-cells of said secondary battery in the same manner as said first-named switch; and a connection between the moving-elements of the two switches limiting the adjustment of said last-named switch to poles corresponding to end-cells which are included in the charging-circuit.

3. A system of electrical distribution comprising, in combination with a secondary battery and a pair of multipolar-switches respectively connected to successive end-cells thereof, a service or discharging-circuit one pole of which is connected to one of said multipolar switches, a charging-circuit including a source of electric current one pole of which is connected to the other multipolar-switch, and the other pole of said discharging-circuit being connected to the other pole of said secondary-battery, a mechanical connection between the movable elements of said switches which prevents the discharging-switch from being moved to a position including more end-cells than are included by the charging-switch but permits it to be moved to a position including less end-cells than are included by the charging-switch and prevents said charging-switch from being moved to a position cutting out end-cells included in the discharging circuit but permits it to be moved to a position including cells not included in the discharging-circuit.

940,009. FOLDING BOX. HENRY L. GULLINE, Granby, Quebec, Canada. Filed July 23, 1906. Serial No. 327,378.



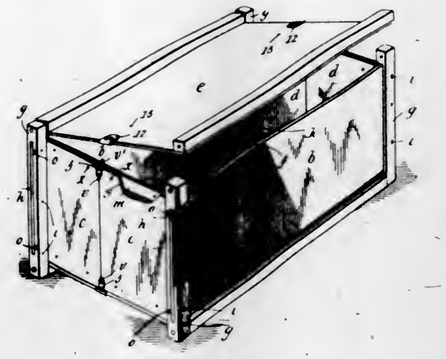
1. In a folding box or crate comprising corner posts, sides secured rigidly to the posts, ends hinged to the said posts and each made in two pieces hinged together to fold inwardly, such last mentioned hinges being located midway the width of the box, and top and bottom hinged to the ends of the corner posts, the pintles of the said middle hinges presenting pin portions parallel thereto and projecting through holes in the top and bottom of the box, such holes completely encircling the pins for the purpose of bracing the folding ends.

2. In a folding box or crate comprising corner posts, sides secured rigidly to the posts, ends hinged to the said posts and each made in two pieces hinged together to fold inwardly, such last mentioned hinges being located midway the width of the box, and top and bottom hinged to the ends of the corner posts and each having a bar with perforated ends secured along its middle, the pintles of the said middle hinges presenting pin portions parallel thereto and projecting through holes in the top and bottom, and through the perforations of the bars, such holes and perforations completely encircling the pins for the purpose of bracing the said folding box.

3. In a folding box or crate comprising sides, ends constructed to fold, and top and bottom, hinges connecting together the parts of each folding end and presenting pins projecting through holes in the top and bottom when the box is closed, and the said pins having projections adapted to be acted upon by the folded ends for the purpose of positioning the said pins between the members of the box when the latter is folded.

4. In a folding box or crate comprising sides, ends constructed to fold, and top and bottom, hinges connecting together the parts of each folding end and presenting pins projecting through holes in the top and bottom when the box is closed and the said pins having projections adapted to be acted upon by the folded ends and distance pieces retaining the said pins in place for the purpose of positioning the said pins between the members of the box when the latter is folded.

940,010. FOLDING BOX. HENRY L. GULLINE, Granby, Quebec, Canada. Filed Oct. 30, 1906. Serial No. 341,316.



1. In a folding box comprising corner posts, sides of less thickness than the posts, hinged top and bottom, and folding ends, the posts being longitudinally slotted parallel to the longitudinal plane of the box, and the end portions of the sides being set in such slots; and means pivotally connecting the folding ends to the inside faces of the posts for the purpose of allowing the said posts to lie in tight contact outside of the ends when the box is folded.

2. In a folding box comprising corner posts, sides of less thickness than the posts, hinged top and bottom, and folding ends, the posts being longitudinally slotted midway of the width of the said posts and parallel to the longitudinal plane of the box, and the end portions of the sides being set in such slots; and means pivotally connecting the folding ends to the inside faces of the posts for the purpose of allowing the said posts to lie in tight contact outside of the ends when the box is folded.

3. In a folding box comprising corner-posts, sides, and folding ends, the top and bottom edges of the ends being mortised and having embedded therein hinge leaves pivotally connecting the members of the said ends to each other and to the corner posts, the said top and bottom edges of the ends completely covering both sides of the said hinge-leaves.

4. In a folding box comprising corner-posts, sides, and folding ends, the top and bottom edges of the ends being mortised and having embedded therein hinge leaves pivotally connecting the members of the said ends to each other and to the corner posts, the said top and bottom edges of the ends completely covering both sides of the said hinge-leaves the hinge-leaves and mortised edges being provided with a coat of waterproof substance.

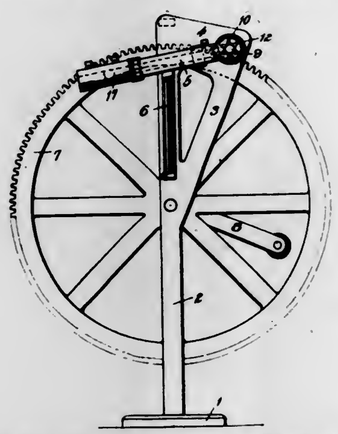
5. In a folding box comprising corner-posts, sides, and folding ends, the top and bottom edges of the ends being mortised and having embedded therein hinge leaves pivotally connecting the members of the said ends to each other and to the corner posts, the said top and bottom edges of the ends completely covering both sides of the said hinge-leaves the hinge-leaves and mortised edges being provided with a coat of shellac.

[Claims 6 to 14 not printed in the Gazette.]

940,011. MILK-BOTTLE WASHER. WILLIAM W. HAGGARD, Winchester, Ky. Filed Feb. 17, 1909. Serial No. 478,469.

A device of the kind described comprising parallel upright standards, a gear wheel mounted vertically between said standards, a frame carried at the side of one standard, a shaft journaled in said frame, a pinion carried by said shaft and meshing with the gear wheel, downwardly in-

clined shafts carried by the frame, means carried by the first mentioned shaft for driving the downwardly inclined



shafts, and means carried by said shafts for holding brushes.

940,012. CONNECTOR. THEODORE A. HAMMOND, Passaic, N. J. Filed Mar. 18, 1908. Serial No. 421,847.



The herein described terminal connector for connecting an electrical conductor to a post, the said terminal connector being formed from a single blank of sheet material and comprising a central shank extending longitudinally of the conductor and provided at one extremity with a sleeve for engaging the conductor, the two end portions of the shank being each provided with a pair of oppositely disposed perforated gripping members which extend in parallel planes from the edges of the shank, the perforations of one set of gripping members being adapted to register with the perforations of the opposite set of gripping members to receive the post and the resiliency of the shank then holding the said gripping members in engagement with the post.

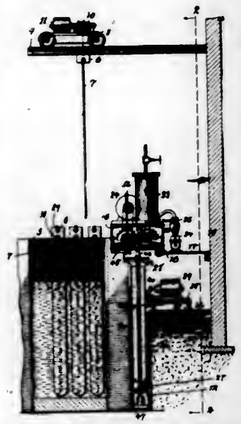
940,013. APPARATUS FOR HARVESTING AND CUTTING PLATE-ICE. DAVID J. HAVENSTEITE, Newark, N. J. Filed Aug. 17, 1908. Serial No. 448,879.

1. In a plate ice harvesting and cutting apparatus, two parallel horizontal shafts, oppositely disposed circular saws on said shafts, means for supporting and lowering an ice cake between said shafts to be vertically divided by said saws and means for guiding said cake during its descent.

2. In a plate ice harvesting and cutting apparatus, two parallel horizontal shafts, oppositely disposed circular saws on said shafts, means for supporting and lowering an ice cake between said shafts to be vertically divided by said saws, and a receptacle for said ice cake below said saws, constructed to receive and guide said ice cake during its descent.

3. In a plate ice harvesting and cutting apparatus, means for lowering an ice cake, means for dividing said cake vertically during the lowering thereof, means for horizontally dividing said vertically divided cake, and mechanism for raising said divided cake to expose new portions thereof to said horizontal dividing means.

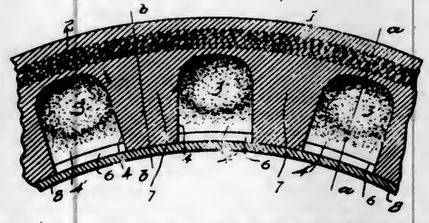
4. In a plate ice harvesting and cutting apparatus, means for lowering an ice cake, a motor, means actuated by said motor for dividing said cake vertically during the lowering thereof, means for horizontally dividing said vertically divided cake, mechanism actuated by said motor for raising said divided cake to expose new portions thereof to said horizontal dividing means, and means for disconnecting at will said raising mechanism from said motor.



5. In a plate ice harvesting and cutting apparatus, two rotary parallel shafts, oppositely disposed circular saws on said shafts, and means for supporting and lowering an ice cake between said shafts: whereby said ice cake is divided by said saws vertically and from opposite sides.

[Claims 6 to 12 not printed in the Gazette.]

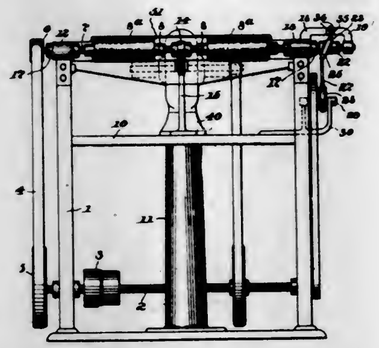
940,014. VEHICLE-TIRE. CHESTER O. HENDERSON, Dayton, Ohio, assignor of one-third to William A. Pickens, Indianapolis, Ind. Filed Sept. 24, 1908. Serial No. 454,632.



A rubber tire having a series of cells the side walls of which curve inwardly and terminate in abutting flanges which form the bottoms of the cells, and the end walls of which extend substantially in parallel planes and provide solid portions of the tire of substantial thickness between the cells, and a rim united to the tire and inclosing the abutting flanges.

940,015. BUFFING-MACHINE. JOHN J. HEYS, Lynn, Mass., assignor, by mesne assignments, to Manufacturers Machine Company, Montclair, N. J., a Corporation of New Jersey. Filed Oct. 27, 1905, Serial No. 284,595. Renewed Apr. 14, 1909. Serial No. 489,886.

1. A buffing machine comprising, in combination, a shaft having a buffing roll mounted thereon, bearings for said shaft in which it is free to rotate and move longitudinally, a cam-box mounted loosely on said shaft to turn independently thereof, means connecting the cam-box with the shaft to cause said shaft and cam-box to move together in an axial direction, said cam-box having an inclined groove or way, a box-yoke fitting said inclined groove or way, and means to move the box-yoke transversely of the cam-box to impart to the latter and said shaft movement in an axial direction.



2. A buffing machine comprising, in combination, a shaft having a buffing roll mounted thereon, bearings for said shaft in which it is free to rotate and move longitudinally, a cam-box mounted loosely on said shaft to turn independently thereof, means connecting the cam-box with the shaft to cause said shaft and cam-box to move together in an axial direction, said cam-box having an inclined groove or way, a box-yoke fitting said inclined groove or way and provided with a guide stem, and means to move the box-yoke transversely of the cam-box to impart to the latter and said shaft movement in an axial direction.

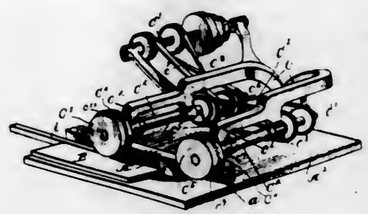
3. A buffing machine comprising, in combination, a shaft, buffing rolls secured thereto, a cam-box on said shaft and having an inclined groove or way, a collar connecting the cam-box to said shaft to permit relative rotative and prevent relative longitudinal movements of said shaft and cam-box, a box-yoke fitting the inclined groove or way of said cam-box, a guide stem secured to said box-yoke, ears on the frame embracing said guide stem, and means to move the box-yoke transversely of said cam-box to impart to the latter and said shaft movement in an axial direction.

4. A buffing machine comprising, in combination, a shaft, buffing rolls secured thereto, a cam-box on said shaft and having an inclined groove or way, a collar connecting the cam-box to said shaft to permit relative rotative and prevent relative longitudinal movements of said shaft and cam-box, a box-yoke fitting the inclined groove or way of said cam-box, a guide stem secured to said box-yoke, ears on the frame embracing said guide stem, an eccentric, connections between said eccentric and the box-yoke, and means for operating said eccentric.

5. A buffing machine comprising a shaft, a buffing tool carried thereby, means for rotating said shaft, a yoke 18 having a bearing 19 for the extension of said shaft, a cam-box loosely mounted on said shaft and having an inclined groove or way, means connecting the cam-box and shaft to cause them to move together in an axial direction, ears 36 carried by the yoke, a box-yoke having an inclined portion engaging the inclined groove or way in the cam-box and provided with a guide stem 35, and means for reciprocating said box-yoke transversely of said cam-box, as and for the purpose described.

940,016. FEED DEVICE FOR SAW AND LIKE MACHINES. HARRY J. HICK, Alliance, Ohio. Filed Aug. 21, 1908. Serial No. 449,616.

1. In mechanism of the class described, the combination with stock-supporting means, of feed members mounted so as to be conjointly movable toward and from said supporting means, said members moving in opposite directions to advance and retract the stock, respectively, when in contact therewith, one such member being located nearer said supporting means than the other, whereby the latter is retained out of contact with the stock when the former is in such contact.



2. In feed mechanism for saws and the like, the combination with stock-supporting means, of feed members mounted so as to be conjointly movable toward and from said supporting means, said members being respectively located on opposite sides of the plane of the saw and moving in opposite directions to advance and retract the stock, when in contact therewith, one such member being mounted nearer said supporting means than the other, whereby the latter is retained out of contact with the stock when the former is in such contact.

3. In feed mechanism for saws and the like, the combination with stock-supporting means, two similar pairs of feed members mounted so as to be conjointly movable toward and from said supporting means, one pair in front and the other to the rear of the saw, the members of each pair moving in opposite directions to advance and retract the stock, respectively, when in contact therewith, the set of members for advancing the stock being mounted nearer said supporting means than the other set, whereby the latter set is retained out of contact with the stock when the former is in such contact.

4. In mechanism of the class described, the combination of stock-supporting means, a frame movable toward and from the same, and feed members borne by said frame and moving in opposite directions to advance and retract the stock, respectively, when in contact therewith, one such feed member being located nearer said supporting means than the other, whereby the latter is retained out of contact with the stock when the former is in such contact.

5. In feed mechanism for saws and the like, the combination of stock-supporting means, a frame movable toward and from the same, and feed members borne by said frame, said members being respectively located on opposite sides of the plane of the saw and moving in opposite directions to advance and retract the stock when in contact therewith, the stock-advancing member being carried nearer said stock-supporting means than the other member, whereby the latter is retained out of contact with the stock when the former is in such contact.

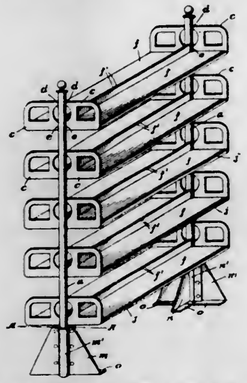
[Claims 6 to 11 not printed in the Gazette.]

940,017. SHELVING. GEORGE HOLDEN, Merchantville, N. J., assignor to Merritt & Company, a Corporation of Pennsylvania. Filed Apr. 3, 1907. Serial No. 366,123.

1. In metallic shelving the combination of two end pieces each provided at the upper part of the inner edge with a portion adapted for suspending said end pieces and having an upturned angular flange g' on the inner side of its lower edge, and a shelf piece provided at its ends with a complementary angular flange h adapted to engage the flange g' of the end pieces and having a lug i at one end adjacent to the angular flange h adapted to engage the end of the flange g' of the end piece.

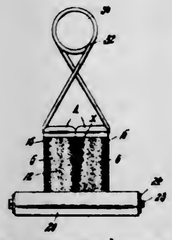
2. Shelving consisting of a pair of uprights, a pair of shelf supporting pieces extending radially in diametrically opposite directions from each upright, and a shelf piece carried by the two supporting pieces on each side, the in-

ner edges of said shelf pieces meeting in a vertical plane through the uprights and having an upturned flange *f'*



forming a longitudinal dividing rib between the shelf-pieces.

940,018. KNIFE AND FORK SCOURER. WILLIAM D. HOLMES, New Bloomfield, Pa. Filed Mar. 27, 1908, Serial No. 423,618. Renewed Apr. 12, 1909. Serial No. 489,527.



1. A scourer having in combination, a slotted base plate, a pin passing through said slot, two scouring members interchangeably and adjustably held upon said pin, and means to hold said scouring members together in a spring pressed condition.

2. The combination in a device of the character described, of a slotted base plate, a pin passing through the slot of said base plate, two scouring members each having a perforated stem working within said slot and upon said pin, and means to hold said members together under spring pressed condition at their upper and lower ends.

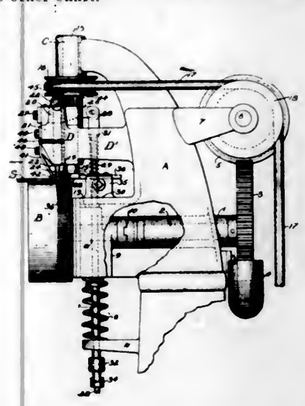
3. The combination with a base plate, of two abrading members, of means to interchangeably and adjustably hold said members, and a spring extending from the upper end of said members.

940,019. CHANNEL-LIP-TURNING MACHINE. WILLIAM H. HOOPER, Lynn, Mass., assignor, by mesne assignments, to Thomas G. Plant, Boston, Mass. Filed Nov. 13, 1907, Serial No. 401,938. Renewed Apr. 14, 1909. Serial No. 489,846.

1. In a channel lip turning machine, the combination with a feed wheel and means to operate it, of inner and outer lip turning tools, means for rotating them in unison, a guide associated with each of said tools, and means to move one of the tools and its associated guide toward and from the other tool and its guide.

2. In a channel lip turning machine, the combination with a feed wheel and means to operate it, of inner and outer lip turning tools, means for rotating them in unison, a guide associated with one of said tools, said guide being interposed between the end of said tool and the surface of the channel in the shoe sole.

3. In a channel lip turning machine, the combination of a feed wheel and means to rotate it, of two parallel lip turning shafts each carrying a lip turning tool, operative connections between said shafts, means for rotating one of said shafts, a guide interposed between the end of each of said shafts and the feed wheel, and means for swinging one of said shafts and its associated guide toward and from the other shaft.



4. In a channel lip turning machine, the combination of a feed wheel and means to rotate it, an outer lip turning shaft and its tool, a pivotally mounted inner lip turning frame, an inner lip turning shaft mounted therein, gearing connections between said lip turning shafts, and means for lowering the feed wheel and thereafter swinging the inner lip turning frame and its shaft away from the outer lip turning shaft.

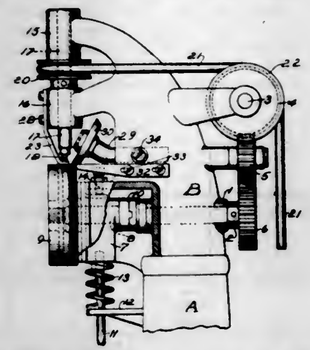
5. In a channel lip turning machine, the combination of a feed wheel, an outer lip turning shaft carrying outer lip turning devices, an inner lip turning shaft carrying inner lip turning devices, a swinging frame carrying one of said lip turning shafts, means for driving said lip turning shafts, means for moving the feed wheel to and from said lip turning devices, connections interposed between said means and the swinging frame constructed and arranged to move one of said lip turning devices away from the other subsequent to the movement of the feed wheel from said devices, and to return the lip turning device to its initial position prior to the return movement of the feed wheel to its initial position.

[Claims 6 to 15 not printed in the Gazette.]

940,020. LIP-TURNING MACHINE. WILLIAM H. HOOPER, Lynn, Mass., assignor, by mesne assignments, to Thomas G. Plant, Boston, Mass. Filed Dec. 2, 1907, Serial No. 404,813. Renewed Apr. 14, 1909. Serial No. 489,847.

1. In a machine for turning a channel lip in a direction toward the edge of the sole, the combination of a feeding wheel, a rotary tool constructed and arranged to enter the channel of a shoe sole and turn the channel lip upward and in a direction toward the sole edge, consolidating means constructed and arranged to act upon the edge of the sole outside the channel lip and consolidate the material of the insole along the base of the channel lip and means for relatively adjusting the said rotary tool and consolidating means toward and from each other.

2. In a machine for turning a channel lip in a direction toward the edge of the sole, the combination of a lip turning tool constructed and arranged to enter the channel of the shoe sole and turn the channel lip upward and in a direction toward the sole edge, a consolidating wheel constructed and arranged to act upon the sole outside and adjacent the base of the channel lip and consolidate the material of the insole along said base and a feeding wheel having a supporting surface extending beneath both the lip turning tool and consolidating wheel and furnishing a bearing for the sole directly opposite thereto.



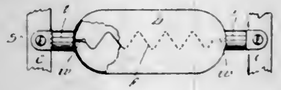
3. In a machine for turning a channel lip in a direction toward the edge of the sole, the combination of a feeding wheel, a rotary tool constructed and arranged to enter the channel of a shoe sole and turn the channel lip upward and in a direction toward the sole edge, a guide projecting into the channel and over the end of the lip turning tool, and consolidating means constructed and arranged to act upon the edge of the sole outside the channel lip and consolidate the material of the insole along the base of the channel.

4. In a lip turning machine, the combination of a tool shaft, a lip turning tool unyieldingly mounted with respect to said shaft for acting upon the channel face of the lip, constructed and arranged to turn said lip upward and toward the sole edge, consolidated means constructed and arranged to act upon the sole outside of the channel lip and adjacent the base thereof and consolidate the material of the sole along said base and a feeding wheel having a bearing surface opposite both the lip turning tool and consolidating means.

5. In a lip turning machine, the combination of feeding means, a lip turning tool for acting upon the channel face of the lip, constructed and arranged to turn said lip upward and toward the sole edge, consolidating means constructed and arranged to act upon the sole outside of the channel lip and adjacent the base thereof and consolidate the material of the sole along said base, and a stop arranged at the feed side and in advance of the lip turning tool.

[Claims 6 to 8 not printed in the Gazette.]

940,021. LUMINOUS ELECTRIC HEATER. WILLIAM F. HOWARD, West Ealing, and ALBAN B. COUSINS, Abingdon-on-Thames, England. Filed Feb. 1, 1909. Serial No. 475,357.



1. A luminous electric heater, consisting of a bulb of glass or other suitable material exhausted of air, and an electric filament of spiral or other longitudinally contractile form placed therein, said bulb being provided with massive metal terminals of low resistance and wires sealed in the ends thereof and to said terminals and with which said filament is electrically and mechanically connected, and said terminals being adapted to be electrically and mechanically connected with a heater frame.

2. A luminous electric heater consisting of a bulb of glass or other suitable material exhausted of air, and an electric filament placed therein, said bulb being provided with inflexible massive metal terminals of low electrical resistance and wires sealed in the ends thereof and to said terminals and with which said filament is connected, and said terminals being adapted to be electrically and mechanically connected with a heater frame.

940,022. ADJUSTABLE ARCH-SUPPORTER. THOMAS HUGHES, East Somerville, Mass., assignor, by mesne assignments, of one-half to Charles J. Walsh, Cambridge, Mass. Filed Jan. 5, 1909. Serial No. 470,828.

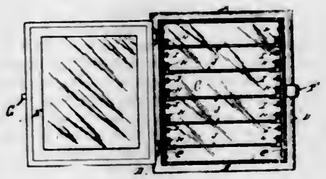


1. An instep arch supporter, comprising a flexible body shaped for engaging the arch of a foot, an arched spring that extends lengthwise of the body and means for holding the spring against the body, said means consisting of a pair of opposing plates, connected at one end to the flexible body and means at the other ends of said opposing plates for slidably connecting said ends with one another.

2. In an arch supporter, the combination with a flexible body shaped to fit the arch of a foot, a pair of opposing metal plates that extend lengthwise of the flexible body, the outer end of each plate being secured to the flexible body, the inner ends thereof being longitudinally slotted and lapping each other, a rivet connection that fits the said slots, and an arched spring removably mounted in the said opposing plates and held to engage the under side of the flexible body.

3. In an arch supporter, the combination with a flexible body shaped to fit the arch of a foot, a pair of opposing metal plates that extend lengthwise of the flexible body, the outer ends thereof being secured to the flexible body and having a shoulder, the inner ends thereof being longitudinally slotted and lapping each other, a rivet connection for the slotted lapped ends, and one or more arched springs removably mounted on the said plates and held thereby to engage the under side of the flexible body.

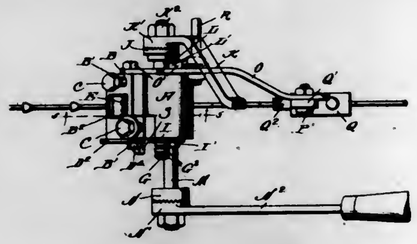
940,023. CABINET. CHARLES M. HUTCHINSON, Girard, Pa., assignor to Erie City Manufacturing Company, Erie, Pa., a Corporation of Pennsylvania. Filed Nov. 9, 1908. Serial No. 461,693.



1. A shelf bracket of sheet metal, consisting of an inverted U-shaped fold, having an extension on one of the arms thereof at a right angle thereto and closing the opening between the arms of said U-shaped fold, the arm of said U-shaped fold having said right-angle extension being provided with slots adapted to embrace headed studs, substantially as and for the purpose set forth.

2. A shelf bracket formed of sheet metal comprising substantially a horizontal shelf supporting surface, a rear perpendicular surface having stud embracing slots in the ends thereof and a perpendicular protecting fold in front of said rear perpendicular surface, said parts being integral with each other, substantially as and for the purpose set forth.

940,024. SAW-SWAGE. ROBERT S. JACKSON, Malvern, Ark. Filed Nov. 2, 1908. Serial No. 460,744.



1. In a device of the kind described, the combination with a block provided with a recess, of a plate arranged over said recess and an eccentric shaft mounted in said plate, an anvil loosely mounted on said eccentric shaft provided with a lug, means for locking said shaft in its adjusted position together with means for locking said anvil in its adjusted position and a shaft provided with an eccentric die portion mounted within the block adapted to operate upon the top of the teeth.

2. In a device of the kind described, the combination with a diametrically slotted block having a recess communicating with the slot, of a plate adjustably mounted over said recess, an anvil adjustably carried by said plate working in the recess of said block, means for locking and holding said block in position upon a saw and a shaft provided with an eccentric die portion adapted to operate upon the top of a tooth of a saw.

3. In a device of the kind described, the combination with a diametrically slotted cylindrical swage block, having a flattened portion, said block being provided with a recess, of a plate adjustably mounted on said flattened portion, an eccentric shaft mounted in said plate carrying an anvil provided with a lug adapted to extend under the point of a tooth of a saw, means for locking said anvil in its adjusted position, means for locking said block on a saw and a shaft provided with an eccentric die portion extending transversely through said block adapted to operate upon the top of the tooth of a saw.

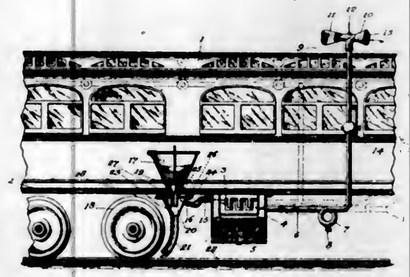
4. In a device of the kind described, the combination with a swage block, of a plate adjustably mounted on said block, an eccentric shaft mounted in said plate, means for locking said shaft, an anvil mounted on said shaft, set screws for engaging said anvil, and a shaft co-acting with the anvil provided with an eccentric die portion.

5. In a device of the kind described, the combination with a swage block, of a plate adjustably mounted on the block, a shaft provided with an eccentric mounted in said plate, a plate carried by the shaft provided with openings, a screw adapted to extend through one of said openings for locking said shaft to said plate, an anvil mounted on said shaft, set screws carried by the block for holding said anvil in its adjusted position, means for locking said block on a saw and a shaft mounted transversely within the block provided with an eccentric portion adapted to operate upon the top of a tooth of a saw.

[Claim 6 not printed in the Gazette.]

940,025. RAIL-SANDING DEVICE. CLARENCE F. JOHNDROW, Auburn, N. Y., assignor of one-half to Earl N. Elliott, Auburn, N. Y. Filed May 9, 1908. Serial No. 431,972.

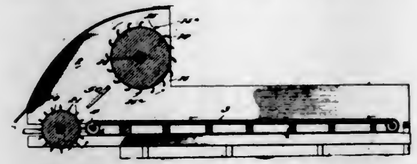
1. In a track sanding device for electric and other cars a sand distributing pipe having an outlet near the rail and in front of the car wheel, an inclosed funneled top part provided with a central aperture, an air chamber between said inclosed funneled top part and the floor of the car having means for inclosing the sides of the same, a sand magazine having an outlet downwardly extended through the floor of the car through said air chamber and said central aperture of said inclosed funneled top part of said sand distributing pipe into the funnel combined with boxed or inclosed resistance plates of a thermo-electric-generator and means for forcing an air current from the interior or exterior of the car into said box or inclosure for heating the same and means for conducting said heated air current from said box or inclosure into the said funneled portion and said air chamber of said sand-distributing pipe around said outlet of said sand magazine and thence through the said sand distributing pipe and its outlet substantially as described and shown.



2. In a track sanding device for electric and other cars a sand distributing pipe having an outlet near the rail and in front of the car wheel, a funneled top part having a flanged closure at its top end provided with a central aperture, an air chamber formed by said flanged closure and a gasket piece or annulus between it and the under side of the floor of the car and means for securing the same in position, a sand magazine having an outlet pipe downwardly extended through the floor of the car said air chamber and said central aperture in said flanged closure into the said funneled top part of said sand distributing pipe combined with boxed or inclosed resistance plates of a thermo electric generator and means for forcing an air current from either the interior or exterior of the car into and through said box or inclosure around said resistance plates where it becomes heated and having means for regulating the force or flow of said air current and also having means for collecting and eliminating any condensation of said air current with means for conducting or throwing said heated air current into said funneled top part of said sand distributing pipe in such manner that it shall be thrown through said central aperture of said flanged closure of said funneled part into and around the air chamber above and thence down and around the said outlet of said sand magazine out of the outlet end of said sand distributing pipe substantially constructed and arranged for joint operation in the manner and for the purpose herein specified and shown.

3. In a track sanding device for electric cars and otherwise the combination of a sand distributing pipe having at the bottom end an outlet near the rail in front of the car wheel and at the top end a funnel shaped portion having a flanged closure at the top provided with a central opening, a gasket or annulus carried on said flanged closure adapted to form the sides of an air space or chamber between the under side of the floor of the car and the upper side of said flanged closure, means for securing the whole in proper position to the under side of said floor of said car, a sand magazine in the car directly over said air chamber having a sand outlet projecting downwardly through the floor of the car through the said air space or chamber and through the said central opening of said flanged closure into the said funneled end of the said distributing pipe, with a box or inclosure surrounding the resistance plates of a thermo electric generator having hinged doors at the sides, and an air conduit or pipe having a rotary portion provided with a wind vane and a screened funnel or hood at its top end adapted to receive and throw or draw a current of air either from the interior or exterior of the car through the said box or inclosure, as the car moves along, where it absorbe the heat generated by the said resistance plates of said thermo electric generator, a check draft or damper adapted to regulate the force of said air current and a coil for further checking the force of the same provided with a stop-cock adapted to withdraw the condensation therefrom, and a pipe connecting said box or inclosure with said funneled part of said sand distributing pipe also provided with a coil having a stop cock and adapted to convey the heated air current into said funneled portion of said sand distributing pipe in such manner and at such an angle as to cause it to be thrown through the central opening of the flanged closure into the air chamber above and around in the same and from thence down and around the sand outlet of the sand magazine along through the sand distributing pipe and out at the outlet of the same conjointly operative in the manner and for the purpose herein described and shown.

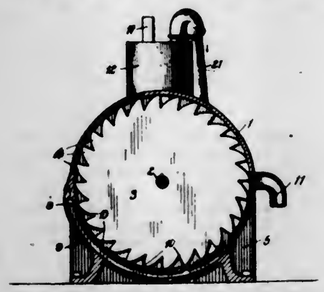
940,026. FEEDER FOR THRESHING-MACHINES. ADOLPH F. JOHNSON and HENRY C. JOHNSON, Forest, Idaho. Filed July 21, 1908. Serial No. 444,687.



1. An apparatus of the character described, comprising a trough, an endless conveyer mounted to run in said trough, a casing secured at one end of the trough, a leveling drum journaled in said casing above the conveyer, a feeding drum journaled in said casing level with one end of the conveyer, means for actuating the conveyer and feeding drum, means for turning the leveling drum in a direction reverse to the movement of the upper stretch of the conveyer, and a presser board hinged in the casing between the two drums, and designed to rest upon the grain as it is passed to the feeding drum.

2. An apparatus of the character described, comprising a trough, an endless conveyer mounted to run over the bed of the trough, a casing secured to the trough at one end thereof, a leveling drum journaled in said casing above the conveyer and provided with a plurality of teeth, a feed drum journaled in said casing at the rear of the leveling drum and below the same, said feed drum being also located at the rear of the conveyer and level with one end thereof, the feed drum being also provided with a plurality of teeth, means for rotating said drum, and a presser board hinged in the casing between the two drums and designed to rest on the grain as it is passed to the feed drum.

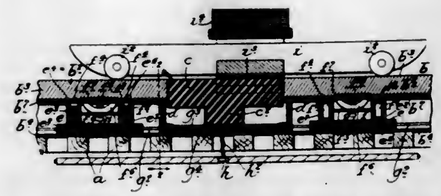
940,027. GASOLENE-ENGINE. JOHN C. JOHNSON, Randalls, Iowa. Filed Jan. 4, 1909. Serial No. 470,617.



1. In a gasolene engine a vertically arranged cylindrical casing, a shaft passing transversely therethrough, a toothed disk fixed upon said shaft, a horisontally extending casing upon the rear side of the vertical casing, the horizontal casing being arranged beneath the shaft, a partition parallel to said shaft dividing said horizontal casing into two compartments, means for admitting an explosive mixture under pressure to one of said compartments, means for exploding the said mixture in said compartment and a valve controlled pipe leading from said compartment to the other compartment, the last mentioned compartment opening into the said vertical casing, thereby admitting the exploded gases to the said disk, as and in the manner set forth.

2. A gasolene engine consisting of a vertical casing, a shaft passing therethrough, a toothed disk upon said shaft and within the vertical casing, the said casing having a circumferential bore extending throughout its lower portion and communicating at various points with the interior of the casing, and having an exhaust opening upon one side, a horizontally extending casing arranged upon one side of the vertical casing and below the shaft, a pump mounted above said horizontal casing, said pump being driven from the shaft and supplying a compressed explosive vapor to the horizontal casing, the said casing being divided into two separate compartments, one of which receives the explosive mixture from the pump and the other of which communicates with the bore of the vertical casing, and a valve controlled pipe connecting the two compartments.

940,028. THIRD-RAIL ELECTRIC-RAILWAY SYSTEM. CHARLES KOZESNIK, New York, N. Y. Filed Apr. 25, 1908. Serial No. 429,163.



1. In a third rail electric railway system, a third rail composed of separate sections, the adjacent ends of which are insulated, said sections being composed of top bearing portions and box-shaped bottom portions insulated from each other, the box-shaped bottom portions being closed at the ends by transverse insulating partitions, a conductor passing through the box-shaped bottom portions and insulated at the ends of the sections, vertically movable armatures placed in the separate sections, and contact devices secured to the bottom of the top bearing portions of the third rail sections over said armatures.

2. In a third rail electric railway system, a third rail composed of separate sections comprising top bearing portions and box-shaped bottom portions insulated from each other, insulating blocks placed between the ends of said sections, the box-shaped portions of said sections being also provided adjacent to their ends with transverse insulating partitions, a conductor bar passed through the bottom portions of said sections and composed of separate parts connected at the ends of the sections, said bar being also insulated at said ends of the sections, vertically movable armatures placed in the bottom box-shaped portions of said sections and contact devices secured to the bottom of the top bearing portions of said third rail sections over said armatures.

3. In a third rail electric railway system, a third rail composed of separate sections comprising top bearing portions and box-shaped bottom portions insulated from each other, insulating blocks placed between the ends of said sections, insulating partitions placed in the end parts of the box-shaped bottom portions, a conductor bar passed through the bottom portions of said sections and composed of separate parts connected at the ends of said sections, said bar being also insulated at said ends of the sections,

vertically movable armatures placed in the bottom box-shaped portions of said sections, and contact devices secured to the bottom of the top bearing portions of the said third rail sections and over said armatures; said armatures being composed of vertically arranged end members, a tie-plate connecting said end members, contact devices secured to said tie-plate, and insulating caps placed on said end members.

4. In a third rail electric railway system, an armature composed of hollow vertically arranged end members, a central plate connecting said members, a contact device secured to said plate, and insulating caps placed on said end members.

5. In a third rail electric railway system, a third rail composed of separate sections comprising top bearing portions and bottom box-shaped portions connected and insulated, vertically movable armatures placed in the box-shaped bottom portions of the third rail sections and composed of connected end members and a central contact device, the end members being provided with insulating caps.

[Claims 6 to 11 not printed in the Gazette.]

940,029. WINDOW-FRAME. ALBERT W. KRIEGER, Avis, Pa., assignor of one-half to Reuben H. Meek, Avis, Pa. Filed Mar. 6, 1909. Serial No. 481,658.



1. In a device of the class described, a slotted casing; a panel to fit the slot in the casing; and a guide plate carried by the panel and having inclined arms to inclose the panel and to engage the casing in sliding relation.

2. In a device of the class described, a slotted casing; a panel to fit the slot in the casing; and a guide plate carried by the panel and having inclined arms to fit in the edges of the panel and to engage the casing in sliding relation.

3. In a device of the class described, a slotted casing a panel to fit the slot in the casing; and a guide plate carried by the panel and comprising a body portion laterally extended beyond the panel to engage the face of the casing and inclined arms to inclose the panel and to engage the casing in sliding relation.

4. In a device of the class described, a slotted casing; a panel to fit in the slot in the casing; and a guide plate carried by the panel and comprising a body portion laterally extended beyond the panel to engage the face of the casing and inclined arms to fit in the edges of the panel and to engage the casing in sliding relation.

940,030. PLATE-HOLDER. ROBERT KROEDEL, Rochester, N. Y., assignor to Eastman Kodak Co., Rochester, N. Y., a Corporation of New York. Filed June 1, 1908. Serial No. 435,949.

1. In a plate holder, the combination with a plate chamber open on its front side and guides leading from said opening toward the plane of the rear wall of the chamber and opening on the exterior and to the rear of the holder, of a removable slide or shutter composed of relatively stiff but elastic material adapted to be inserted in the guides in rear of said chamber and operating to close the open front side of the latter.

2. In a plate holder, the combination with a plate chamber open on its front side, its rear wall being extended beyond the end of the chamber and provided with a slot and a flange adjacent the slot, the slot and flange being formed simultaneously by turning forward a portion of the wall and guides leading from the slot to the open side of the chamber, of a slide or shutter adapted to extend within the slot and operating in the guides to close the open side of the chamber and a light seal secured beneath the flange and engaging the rear face of the shutter.



3. The combination with a camera back having an opening therein, of a plate holder arranged in said opening with its rear wall substantially coincident with the rear face of the back and comprising a plate chamber having an open side on the interior of the back, guides leading rearwardly from said open side and opening upon the exterior of the holder and back and a removable slide or shutter composed of a relatively stiff but elastic material adapted to be inserted in the guides from in rear of the holder and back and to control the open side of the chamber.

4. The combination with a camera back having an opening therein, of a plate holder carried thereby comprising a plate chamber arranged within the opening and having an open side on the inner side of the back, flanges thereon forming a bearing against the rear face of the back, guides leading rearwardly from the open side of the chamber and intersecting the plane of the rear face of the back and a removable slide or shutter movable in the guides to control the open side of the chamber and adapted to be inserted and withdrawn from the rear of the holder and back.

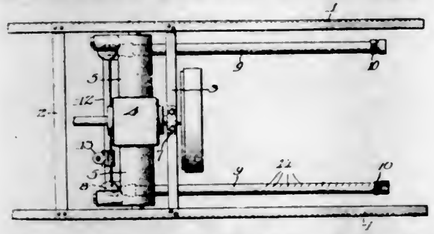
5. The combination with a camera back having an opening therein, of a plate holder provided with an open plate chamber arranged in the opening and having an opening in its outer wall, said outer wall being extended in the same plane to constitute a flanged bearing against the rear of the back, a slide or shutter movable through the opening in the holder to close the chamber and securing devices on the back engaging over the flanges on the holder.

[Claims 6 to 13 not printed in the Gazette.]

940,031. AUTOMOBILE-ENGINE. ALVARO S. KROTZ, Chicago, Ill., assignor to Sears, Roebuck & Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 16, 1908. Serial No. 467,867.

1. In an automobile, in combination, a chassis; an internal combustion engine comprising two opposed cylinders, said engine being secured to said chassis and being disposed in a horizontal position beneath the chassis and extending transversely thereof; an individual exhaust pipe for each cylinder, said pipe communicating at its forward end with its cylinder and extending lengthwise of the chassis; and a transverse pipe connecting the forward portions of said individual exhaust pipes.

2. In an automobile, in combination, a chassis; an internal combustion engine comprising two cylinders, said engine being secured to said chassis; an individual exhaust pipe for each cylinder, said pipe communicating at its forward end with its cylinder and extending lengthwise of the chassis; a transverse pipe connecting the forward portions of said individual exhaust pipes; and a relief valve located in said transverse connecting pipe.



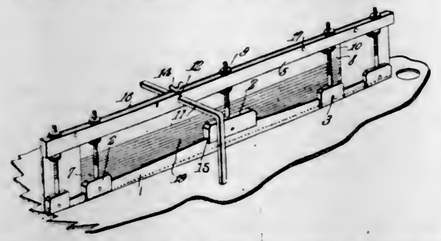
3. In an automobile, in combination, a chassis; an internal combustion engine comprising two cylinders, said engine being secured to said chassis; an individual exhaust pipe for each cylinder, said pipe communicating at its forward end with its cylinder and extending lengthwise of the chassis; and a transverse pipe connecting the forward portions of said individual exhaust pipes at points relatively close to the cylinders.

4. An engine comprising two opposed cylinders; two vertically extending individual exhaust pipes each connected at its upper end with one of said cylinders; two exhaust pipes affording an outlet for the exhaust, and each connected at one of its ends with the lower end of one of said vertically extending pipes; and a transverse pipe connecting the pipes affording an outlet for the exhaust.

5. An engine comprising two opposed cylinders; two vertically extending exhaust pipes each connected at its upper end with one of said cylinders; two exhaust pipes affording an outlet for the exhaust, and each connected at one of its ends with the lower end of one of said vertically extending pipes; and a transverse pipe connecting the lower ends of said vertically extending pipes and the forward ends of the pipes that afford an outlet for the exhaust.

[Claims 6 to 9 not printed in the Gazette.]

940,032. STRAIGHT-EDGE FOR CIRCULAR SAWS. BARTHELEMY LAFLEUR, Abbotsford, British Columbia Canada. Filed June 15, 1909. Serial No. 502,350.

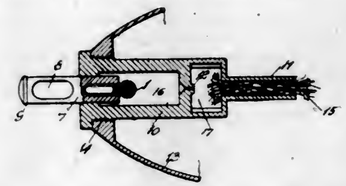


1. A device of the class described comprising a resilient blade; a rigid member arranged adjacent the blade; adjustable means for crowning the blade connecting the rigid member and the blade; and an opaque member assembled with the rigid member and arranged to extend past the adjacent edge of the blade.

2. A device of the class described comprising a resilient blade; a rigid member arranged adjacent the blade; adjustable means for crowning the blade connecting the rigid member and the blade; and an opaque member assembled with the rigid member and arranged to extend past the adjacent edge of the blade, the opaque member being graduated to indicate the crown of the blade.

3. A device of the class described comprising a resilient blade; threaded rods terminally assembled with the blade; a stiff bar having openings to receive the rods; upper and lower nuts mounted upon the rods and arranged to engage opposite sides of the bar; and an opaque member assembled with the rigid member and arranged to extend past the adjacent edge of the blade, the opaque member being provided with apertures to receive the lower of said nuts.

940,033. TORPEDO. MARTINUS LARSEN, New York, N. Y. Filed July 1, 1909. Serial No. 505,354.



1. The herein described ignition device for a torpedo, comprising a chamber containing a chemical which will ignite in the presence of water, a protruding movable plug for contact with bodies exterior to the torpedo, a pocket in the plug for water exterior to the chamber, whereby upon the plug striking an obstruction water will be caused to enter the chamber from said pocket, an inclosing tube for said chemical, adapted to be broken upon impact of the torpedo.

2. The herein described ignition device for a torpedo, comprising a chamber containing a chemical which will ignite in the presence of water, a protruding movable plug for contact with bodies exterior to the torpedo, a pocket in the plug for water exterior to the chamber, whereby upon the plug striking an obstruction water will be caused to enter the chamber from said pocket, an inclosing tube for said chemical, adapted to be broken upon impact of the torpedo, said inclosing tube having the air exhausted therefrom.

3. In a torpedo ignition device, a chamber having a chemical ignitible in the presence of water, and an impact impelled mechanism movable into said chamber and formed to deliver a quantity of water of submersion to said chamber upon impact, said chemical being inclosed in a capsule, said impact impelled mechanism being adapted to break said capsule.

4. In a torpedo ignition device, a chamber having a chemical ignitible in the presence of water, and an impact impelled mechanism movable into said chamber and formed to deliver a quantity of water of submersion to said chamber upon impact, said chemical being inclosed in a capsule, said impact impelled mechanism being adapted to break said capsule, said capsule containing a vacuum.

5. In an ignition device for a torpedo, a chamber having a chemical ignitible in the presence of water, said chemical being contained within a capsule, and a movable element projecting from said chamber, and movable thereinto by impact, said element being formed to provide a delivery of the limited quantity of water of submersion to said chamber during its movement under impact.

[Claims 6 to 12 not printed in the Gazette.]

940,034. WIRE-SUPPORTING DEVICE. JOHN M. LEADON, Jr., Shieldsville, Minn. Filed Feb. 24, 1909. Serial No. 479,761.

1. A fastening device consisting of a body, a flattened ring upon each end of said body, an engaging member upon one margin of said ring, said member being adapted to interlock with the opposite margin of said ring when the latter is bent.

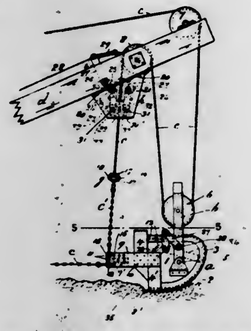
2. A fastening device comprising a pair of flattened rings, a flexible connection between the rings, an engaging

member upon one margin of each ring adapted to interlock with the opposite margin of the ring when the latter is properly bent.



3. A fastening device, comprising a pair of flexible rings, a connection between the rings, a crescentic engaging member upon one margin of each ring, said member adapted to interlock with the opposite margin of the ring when the latter is bent upon itself.

940,035. EXCAVATING APPARATUS. ARTHUR E. LEHMANN, St. Charles, Mo. Filed May 26, 1909. Serial No. 498,466.



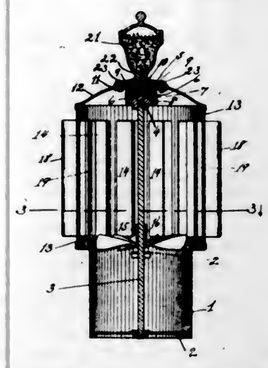
1. In apparatus of the class described, the combination of an excavating bucket having its front end open and a suitable cutting edge thereat, means for supporting the bucket in the digging position, a traction member fixed to the bucket and projecting forward from its said end, and a cable adapted to be directly coupled to the said member at varying heights respectively, from the said edge for hauling the bucket and regulating the depth of cut by the said edge into the material to be excavated, substantially as described.

2. In apparatus of the class described, the combination of an excavating bucket having its front end open, a bail pivoted to the bucket at a point rearward of the center of gravity thereof, a traction member fixed to the bucket and projecting forward from its said end, means adapted to be connected to the bail in its vertical position for supporting the bucket thereat, means for raising the bucket at varying points respectively, of the said member about the said pivotal point, and means adapted to engage the said bail for limiting the inclination thereto of the bucket when so raised, substantially as described.

3. In apparatus of the class described, the combination of an excavating bucket having its front end open, a bail pivoted to the bucket at a point rearward of the center of gravity thereof, a traction member fixed to the bucket and projecting forward from its said end, means adapted to be connected to the bail in its vertical position, and to the said member, for raising the bucket at both the said points of connection thereto, simultaneously, and means for limiting the said raising of the bucket through the said member while continuing to raise it through the bail, for dumping the bucket at a predetermined, and varying heights respectively, from the ground, substantially as described.

4. In apparatus of the class described, the combination of an excavating bucket open at its front end, a bail pivoted to the bucket at a point rearward of the center of gravity thereof, a traction member fixed to the bucket and projecting forward from its said end, means adapted to be connected to the bail in its vertical position, and to the said member, for raising the bucket at both the said points of connection thereto, simultaneously, means for limiting the said raising of the bucket through the said member while continuing to raise it through the bail, for dumping the bucket, and means for dislodging the excavated material from the walls of the bucket while being dumped, substantially as described.

940,036. VENTILATOR. GUSTAVE A. LEWIS, Troy, N. Y., assignor of one-half to Edward Manogue Co., a Corporation of New York. Filed Feb. 26, 1908. Serial No. 417,792.



1. In a ventilator, the combination with a ball-bearing supported upon a vertical axis and having a fixed member, and a movable member provided with a central socket; of a rotatory ventilator-hood having a central convexed boss adapted to rest within said socket in said movable member of the ball-bearing, and self-adjustable therein.

2. In a ventilator, the combination with a ball-bearing supported upon a vertical axis and having a lower fixed member, and an upper movable member; of a rotatory ventilator-hood having its top supported upon the movable member of said ball-bearing, and an oil-cup mounted upon the outer side of said hood-top and communicating through the hood-top with said ball-bearing.

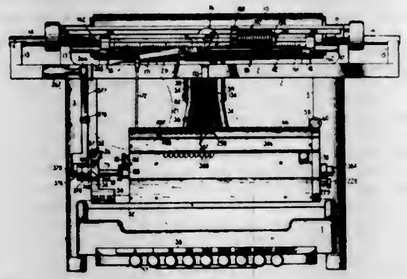
3. In a ventilator, a rotatively mounted ventilator-hood provided with peripheral openings, and having adjacent to the forward edges of said openings outwardly and rearwardly extending vanes and adjacent to the edges of said openings inwardly and forwardly inclined vanes.

4. In a ventilator, the combination with a ventilator-pipe; of a hood rotatively mounted to inclose the outer end of said pipe, said hood being provided with peripheral openings, and having adjacent to the forward edges of said openings outwardly and rearwardly extending vanes, and adjacent to the rear edges of said openings inwardly and forwardly inclined vanes; and a wind-wheel rotatively mounted within the outer end of said ventilator-pipe in fixed relation to said hood.

940,037. WRITING AND ADDING MACHINE. MARQUIS H. LOCKWOOD, New York, N. Y., assignor to Union Typewriter Company, Jersey City, N. J., a Corporation of New Jersey. Filed Mar. 16, 1904. Serial No. 198,333.

1. In an adding machine, the combination of a key lever, adding mechanism and an adjustable connection between said key lever and said adding mechanism including a lever 98 pivotally connected to said key lever, the set screws 103 for adjustably holding said lever 98 in fixed relation to the key lever and the link 96 connecting said lever 98 to said adding mechanism.

2. In a writing and adding machine, the combination of a group of numeral keys; printing means actuated by said keys; a carriage and a platen, of adding mechanism controlled by said numeral keys and having a universal bar operatable by any of said keys, said universal bar being movable through substantially the same distance by the different keys; and means for connecting said universal bar to and disconnecting it from said adding mechanism.



3. In a writing and adding machine, the combination with the group of numeral keys, the printing means actuated thereby, the carriage, and the platen, of adding mechanism controlled by said numeral keys; a universal bar operatable by any of said numeral keys, said universal bar being movable through substantially the same distance by the different keys; and means controlled by said carriage for connecting said universal bar to and disconnecting it from said adding mechanism.

4. In an adding machine, the combination of numeral keys; a universal bar for said numeral keys; a pivoted lever 131, having lever 129 pivoted thereto, means for moving said lever 131 about its pivot to bring said lever 129 into or out of operative connection with said universal bar; and adding mechanism controlled by said lever 129.

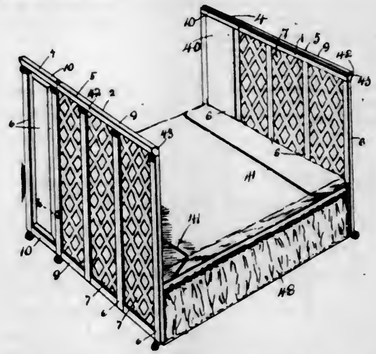
5. In a writing and adding machine, the combination with the keys including numeral keys, the key actuated printing means, the carriage, and the step-by-step feed device therefor, of adding mechanism having a denomination selecting device, a separate step-by-step mechanism for said denomination selecting device, and means controlled by said carriage for making said step-by-step mechanism operatable by the numeral keys during a predetermined portion of the line of writing.

[Claims 6 to 135 not printed in the Gazette.]

940,038. FOLDING BED. JAMES LYONS, Brooklyn, N. Y., assignor to Hockley M. Thomas, New York, N. Y. Filed Apr. 14, 1909. Serial No. 489,905.

1. In a folding bed, the combination of head and foot pieces, each comprising a fixed section and a pivoted section, a bedding support arranged between the head and foot pieces and pivotally carried by the fixed sections and adapted to swing from a horizontal to a vertical position transversely of its longitudinal axis, the pivoted sections being of such width as to have their free edges substantially meeting when the bedding support is in its vertical position and the pivoted sections are folded in front of the bedding support, and means coöperating with the pivotal connections between the bedding support and fixed sections for preventing lateral play between the bedding support and the head and foot pieces and allow independent play of the pivoted sections of the head and foot pieces.

2. In a folding bed, the combination of head and foot pieces, each comprising a fixed section and a pivoted section, and a bedding frame disposed between the head and foot pieces and pivotally engaging the fixed sections thereof at points spaced from the edge of the frame, the pivots of said pivotal engagement being constructed and disposed for preventing lateral play of the head and foot pieces while permitting independent swinging movement of the said pivoted sections.



3. In a folding bed, the combination of head and foot pieces, each comprising a fixed section and a pivoted section, a bedding support arranged between the head and foot pieces and pivoted to the fixed sections to swing vertically transversely of its longitudinal axis, the pivoted sections being adapted to be swung to a position in front of the bedding support when the same is pivoted to a raised position, and the pivoted sections being dimensioned when so positioned as to overlap substantially all parts of the bedding support, and means engaging the pivotal connections between the bedding support and fixed sections for obviating lateral play therebetween.

4. In a folding bed, the combination of head and foot pieces, each comprising a fixed section and a pivoted section, a bedding frame arranged between and pivotally carried by the head and foot pieces and adapted to swing upon such pivotal support, transversely of its longitudinal axis from a horizontal to a vertical position, and means for locking the bedding frame in its horizontal position, in its vertical position and in an intermediate position, so that the bedding is confined within the limits of the bed structure when the bed is folded and prevented from contacting with contiguous structures.

5. In a folding bed, the combination of head and foot pieces, each comprising a fixed section and a pivoted section, a bedding frame arranged between and pivotally carried by the head and foot pieces and adapted to swing upon such pivotal support transversely of its longitudinal axis from a horizontal to a vertical position, and means for locking the bedding frame in various positions throughout its pivotal travel and in its vertical position, so that the bedding is confined within the limits of the bed structure when the bed is folded and prevented from contacting with contiguous structures.

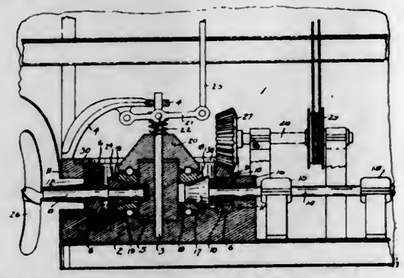
[Claims 6 to 20 not printed in the Gazette.]

940,039. PROPELLING AND STEERING DEVICE FOR VESSELS. WALTER B. MARBLE, Tacoma, Wash. Filed June 19, 1909. Serial No. 503,057.

1. In a propelling and steering mechanism, the combination with a fixed rotating engine shaft; an angularly adjustable propeller shaft; a set of beveled friction cones and rings adapted to drive the propeller shaft from the engine shaft irrespective of the angular relation therebetween; and means for controlling the angular position of the propeller shaft.

2. In a propelling and steering mechanism, the combination of a stationary bed piece having vertical cylindrical walls with a stern slot therethrough; a concentric carrier ring mounted within and engaging said walls and having a forward slot therein; a propeller shaft, with propeller thereon, mounted on said carrier ring opposite to the slot therein and extending through the slot in the

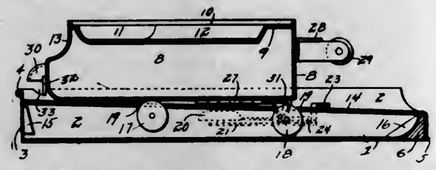
stationary walls; means for adjusting said carrier ring about the axis thereof; an engine shaft extending through the stationary walls and through the slot in the carrier rings; and means for transmitting the rotation of the engine shaft to the propeller shaft irrespective of the angular relation therebetween.



3. In a propelling and steering mechanism, the combination of a stationary bed piece having vertical cylindrical walls with a stern slot therethrough; a concentric carrier ring mounted within and engaging said walls and having a forward slot therein; a propeller shaft, with propeller thereon, mounted on said carrier ring opposite to the slot therein and extending through the stern slot in the stationary walls; means for adjusting said carrier ring about the axis thereof; an engine shaft extending through the stationary walls and through the slot in the carrier ring; and a set of beveled friction cones and rings adapted to drive the propeller shaft from the engine shaft irrespective of the angular relation therebetween.

4. In a propelling and steering mechanism, the combination of a stationary bed piece having vertical cylindrical walls with a stern slot therethrough; a concentric carrier ring mounted within and engaging said walls and having a forward slot therein; a propeller shaft, with propeller thereon, mounted on said carrier ring opposite to the slot therein and extending through the stern slot in the stationary walls; a beveled gear formed on the carrier ring; a controlled beveled gear engaging the gear formed on the carrier ring and adapted to adjust said carrier ring about the axis thereof; an engine shaft extending through the stationary walls and through the slot in the carrier ring; and a set of beveled friction cones and rings adapted to drive the propeller shaft from the engine shaft irrespective of the angular relation therebetween.

940,040. DRIP-PAN. JOHN MENZL and BERNARD L. SCHWARTZ, Dayton, Ohio. Filed Oct. 26, 1908. Serial No. 459,508.



1. A flat drip pan adapted to be placed under a refrigerator, the same having a top closure provided with a gutter extending approximately from one end to the other end of said top and communicating with the interior of said pan through an opening therein, and a handle attached to the end of said drip pan containing said opening.

2. The combination with a base pan, of a supplemental drip pan supported in said base pan upon rollers, and means for maintaining said supplemental drip pan in a level position until the water entering it is of sufficient weight to cause the forward end of said drip pan to engage a forward set of rollers, at which time said supplemental drip pan moves forwardly in the base pan.

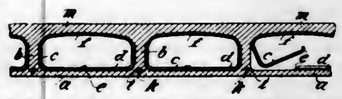
3. The combination with a base pan, having tracks therein, an upper drip pan supported upon said tracks with intervening rollers, the rearward rollers forming a pivot for said upper drip pan to turn upon when the weight of the water entering said upper drip pan becomes excessive in the portion of said drip pan lying in front of the rearward rollers.

4. The combination of a base pan having removable tracks therein, and means for securing said base pan at its forward end to a floor beneath a refrigerator, rollers mounted in said tracks, a drip pan supported upon the rearward rollers and adapted to engage the forward rollers to travel thereon from beneath a refrigerator, said drip pan having a depression in its upper side, and an opening leading from said depression to the front portion of said drip pan, and means for maintaining said drip pan in a level position until the weight of the water entering the same is sufficient to cause said drip pan to tilt forwardly in engagement with the front rollers.

5. The combination with a base pan, removable tracks in said base pan, a drip pan supported on said tracks on intervening rollers, said drip pan having a portion of its rearward side extended inwardly to reduce the containing area of the rear end of said drip pan, and the upper side of said drip pan having a depression to receive the dripping water, said depression communicating with the interior of the drip pan at its forward end, and means for maintaining said drip pan in a level position on the rearward rollers until the weight of the water entering the same is sufficient to cause said drip pan to engage the forward rollers.

[Claims 6 and 7 not printed in the Gazette.]

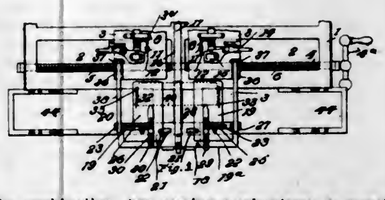
940,041. PRODUCTION OF HOLLOW REINFORCED-CONCRETE SLABS. MILUTIN MILANKOVITCH, Vienna, Austria-Hungary. Filed June 15, 1909. Serial No. 502,259.



1. Method of producing hollow reinforced concrete slabs by means of patterns with flat lower surfaces, consisting in casting the upper plate over the lower plate simultaneously with the ribs between the patterns in removing the upper plate at those points where it is not required as a support, in order to provide openings for the removal of the pattern, and then covering said openings with cast pieces.

2. Means for producing reinforced concrete slabs comprising in combination a pattern consisting of two angle-shaped sides whose meeting edges are beveled, said sides determining the size of the ribbed walls, and a cover piece resting on their edges and springing back against their outer faces.

940,042. BUTTONHOLE-MACHINE. HENRY C. MILLER, Waterford, N. Y. Filed Apr. 25, 1905. Serial No. 257,375.



1. In combination, two sewing mechanisms, a movable sectional platform for introducing an article to the sewing mechanism, means connecting each sewing mechanism with a platform section, gages for gaging an article placed on the platform sections, means for increasing or decreasing the distance between the sewing mechanisms, the platform sections, and the gages in one operation, and means to guide the platform to the sewing mechanisms.

2. In combination, sewing mechanism, gages supported independently of the sewing mechanism, means for supporting an article to be operated upon, means for moving the sewing mechanism and simultaneously varying the distance between the gages, and means to guide the article supporting means when presenting the article to the sewing mechanism.

3. In combination, means for forming stitches, a movable sectional platform for carrying an article to the means for forming stitches, gages carried by the platform sections, means connecting the platform sections and the means for forming stitches, means for moving the means for forming stitches and simultaneously varying the distance between the gages to accommmodate articles of different length, and means for guiding the platform to the means for forming stitches.

4. In combination, sewing mechanism, a movable sectional platform for introducing an article to the sewing mechanism, gages carried by the platform sections, means connecting the sewing mechanism and one of the platform sections, means for moving the sewing mechanism and the platform section in one operation, said movement varying the distance between the gages, and means to guide the platform to the sewing mechanism.

5. In combination, base plates, sewing mechanism having a work support mounted on one of the base plates, gages, a movable sectional platform adapted to receive an article to be operated upon, and adapted to be moved to deliver and position said article on the work support, means for holding the article after it is positioned, means for simultaneously adjusting the base plates and the platform sections to vary the distance between the gages, and means for guiding the platform to the sewing mechanism.

[Claims 6 to 35 not printed in the Gazette.]

940,043. SECONDARY BATTERY. WILLIAM MORRISON, Chicago, Ill. Filed June 8, 1903. Serial No. 160,647.



1. In an electric reversible galvanic battery in which there is a suitable alkaline solution and zinc is the active element, a support or grid therefor comprising a plurality of superimposed screens of woven wire secured together and disposed in a substantially horizontal position at or near the bottom of the cell, said active element of zinc being electro-deposited downward in the direction of gravity in the charge upon said support or grid, together with a positive electrode above the negative electrode.

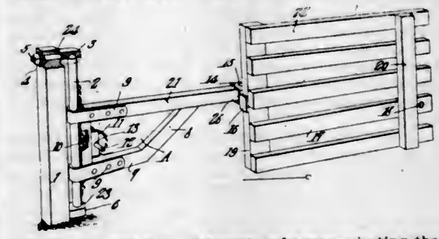
2. In an electric reversible galvanic battery in which there is a suitable alkaline solution and zinc is the active element, a substantially horizontal support or grid therefor having openings or pores therein comprising a plurality of superimposed screens of woven wire secured together, and oxid of zinc in said openings or pores which is reduced electrically to metallic zinc in the charge, together with a positive electrode above the negative electrode.

3. In an electric reversible galvanic battery in which there is a suitable solution of alkali and zinc is the active element, a support or grid therefor comprising a plurality of superimposed screens of woven wire secured together and zinc electro-deposited from the solution in the direction of gravity upon said electrode support or grid, which said support or grid is substantially horizontally disposed, together with a positive electrode above the negative electrode.

4. In an electric reversible galvanic battery in which there is a suitable alkaline solution and zinc is the active element, a negative support or grid therefor having perforations or openings therein and disposed in a substantially horizontal position at or near the bottom of the cell, said active element of zinc being electro-deposited downward in the direction of gravity in the charge upon said negative support or grid, together with a positive electrode above the negative electrode, the zinc on said active element being in excess of the capacity of said solution to dissolve.

5. In an electric reversible galvanic battery in which there is an alkaline electrolyte, and zinc is the active element, a substantially horizontal negative support comprising a plurality of superimposed screens of woven wire secured together, and having zinc deposited thereon in excess of the capacity of the electrolyte to dissolve whereby after the electrolyte has dissolved all of said zinc up to its full capacity, the balance of said zinc is oxidized, together with a positive electrode above said negative electrode.

940,044. GATE. JOHN E. MULLEN, New Hampton, Iowa. Filed June 29, 1909. Serial No. 505,017.

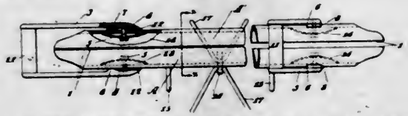


1. The combination of a post, a frame projecting therefrom and extending across a gate opening, and a gate pivotally secured at one end to the outer end of said frame and adapted at its opposite end to be engaged by the inner end of the frame whereby the gate may be held against the frame to entirely close the gate opening or may be swung out beyond the end of the same to leave the gate opening barred by the said frame.

2. In a gate of the class described, the combination with a gate post having inwardly projecting mountings, the upper one of said mountings being detachable, of an auxiliary post journaled in said mountings and provided with an integral rack on its inner face, a frame vertically movable on said auxiliary post, a shaft in the frame, one extremity of which is a crank receiving shank, while the other is a stud, a gear mounted on said shaft and meshing with the rack and a gate at the extremity of the frame having an orifice at its outer end which, when the gate is closed, is adapted to receive the stud.

3. In a gate of the class described, the combination with a post, of an auxiliary post pivotally secured thereto, a vertical movable frame carried by said auxiliary post having mounted therein a gear adapted to mesh with a rack formed integral with the inner face of said auxiliary post, the shaft of said gear extending laterally on both sides of said frame, a gate pivoted at one extremity of said frame adapted to swing in a semicircle on one side thereof, said gate having an orifice in its outer extremity adapted to house one extremity of said gear shaft when the gate rests against said frame, as and for the purpose set forth.

940,045. SAW-FILING CLAMP. GEORGE MCKENZIE, Bay City, Mich. Filed Nov. 2, 1908. Serial No. 460,729.



1. A saw filing clamp comprising a pair of jaw carrying members, one of which is movable toward and from the other, means for supporting the stationary member, the outer face of one of said members being convex, a lever having a concave recess pivoted to the convex face of the member, the convex face receivable in the concave recess when the lever is in one position, means for pivotally connecting the lever with the opposite jaw carrying member, and means tending to automatically separate the jaw carrying members.

2. A saw filing clamp comprising a pair of jaw-carrying members, the space between which is free and unobstructed, means for supporting one of said members, means lying out of the line of the path of movement of the members for connecting the members, and additional means carried by one of the members and free from and abutting the opposite member for separating the lower edges of the jaw carrying members to force the upper edge of one jaw carrying member closer to the upper edge of the remaining jaw carrying member.

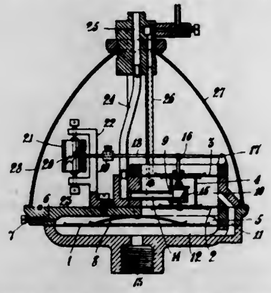
3. A saw filing clamp comprising a pair of jaw carrying members the space between which is free and unobstructed, means for supporting one of said members, a cam lever engaging the opposite jaw carrying member for advancing the latter toward the supported member, an abutment carried by one of the jaws and lying in a plane below the point of engagement of the cam lever with the movable member, and an adjustable element carried by the opposite jaw member and unconnected with and adapted to impinge against the abutment to cause the upper edge of the movable jaw carrying member to approach the upper edge of the supported jaw member more closely.

4. A saw filing clamp comprising a pair of jaw carrying members the space between which is free and unobstructed, means for supporting one of said members, a cam lever engaging the opposite jaw carrying member for advancing the latter toward the supported member, abutments carried by the supported jaw member on a plane beneath the point of engagement of the cam lever with the movable member, apertured ears carried by the movable member, the ears lying opposite the abutments, and screws mounted in the ears and contacting with the abutments for separating the lower edges of the jaw carrying members to force the upper edge of the movable member closer to the upper edge of the supported member, the screws being unconnected with the abutments.

5. A saw filing clamp comprising a pair of jaw carrying members one at least of which has a convex outer surface, a headed pin projecting outward through the wall of one of the members, a lever recessed to conform to the outer convex surface of one of said members, the pin connecting the recessed end of the lever to the member, means connecting the lever to the opposite member, and a spring interposed between the headed end of the pin and the wall of the member to automatically separate the members when the recessed lever is in position to receive the convex face of the adjacent member.

[Claims 6 to 12 not printed in the Gazette.]

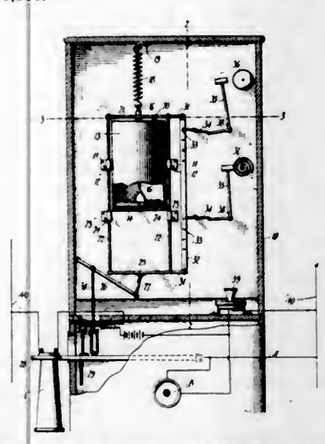
940,046. APPARATUS FOR LIGHTING AND EXTINGUISHING GAS-LIGHTS FROM A DISTANCE. JOHN F. NÄSSÉN and AXEL E. T. BERGSTRÖM, Stockholm, Sweden. Filed May 5, 1909. Serial No. 494,167.



1. In an apparatus of the character described, the combination of a gas valve, a diaphragm operatively connected to the said gas valve, and a second diaphragm movable independently of the former, said latter diaphragm forming together with the former a closed chamber communicating through a narrow passage with the outer air, substantially as and for the purpose set forth.

2. In an apparatus of the character described, the combination of a gas valve, a diaphragm adapted to actuate the said gas valve, and a second diaphragm of larger extension placed at a distance from the former, said diaphragms forming between them a closed member communicating through a narrow passage with the outer air, substantially as and for the purpose set forth.

940,047. ATTACHMENT FOR TELEPHONES. JOHN W. NILSSON, Balfour, N. D. Filed Jan. 19, 1909. Serial No. 473,160.



1. An attachment for telephones having a receiver and transmitter, comprising an audible signaling device, a second transmitter adapted to be connected to the telephone circuit, and means to operatively connect the signaling device to a receiver fork.

2. An attachment for telephones having a receiver and transmitter, comprising a bell, a movable element, means to operate the bell when the movable element is moved, a second transmitter adapted to be connected to the telephone circuit, and other means to operatively connect the movable element to a receiver fork.

3. An attachment for telephones comprising a casing, a bell mounted therein, a movable element, a dash-pot to control the motion of said element, mechanical means to operate the bell when the element is moved, a transmitter adapted to be connected to the telephone circuit, and other means to operatively connect the movable element to a receiver fork.

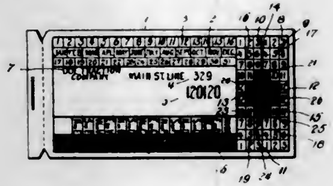
4. An attachment for telephones comprising a bell, a movable frame, a hammer arranged to strike said bell, an operating lever to move said hammer, means on said frame to actuate the operating lever, and other means to operatively connect the frame to a receiver fork.

5. An attachment for telephones comprising a bell, a hammer arranged to strike the bell, a lever arranged to actuate said hammer, a movable frame, means on said frame to actuate the lever, a dash-pot to control the motion of said frame, a transmitter adapted to be connected to the telephone circuit, and other means to operatively connect the movable frame to a receiver fork.

[Claims 6 to 10 not printed in the Gazette.]

940,048. TRANSFER-TICKET. RUFUS C. OSMAN, Philadelphia, Pa., assignor to Globe Ticket Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Sept. 9, 1908. Serial No. 452,274.

1. A transfer ticket comprising a body portion having means to constitute a plurality of separate groups of indications, each group including a plurality of hour indications and a single indication spaced from the hour indications and forming an index to the group, the index for the group being located on the boundary of the group, the indexes of adjacent groups being in close juxtaposition, the index of each group having a contrast distinction to the remaining indications of the group.



2. A transfer ticket comprising a body portion having means to constitute a plurality of separate groups of indications, each group having a rectangular boundary and including a plurality of hour indications and a single indication located at one of the corners of the rectangle and forming an index for the group, the indexes of adjacent groups being in close juxtaposition.

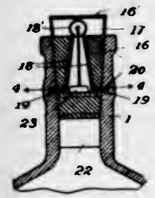
3. A transfer ticket comprising a body portion having means to constitute a plurality of separate groups of indications each group including a plurality of hour indications and a single indication spaced from the hour indications and forming an index to the group, adjacent groups having the hour indications in similar position with respect to the index, whereby the indications of one group will form a guide for the punching of a similar indication of the adjacent group.

4. A transfer ticket comprising a body portion having means to constitute a plurality of separate groups of indications each group including a plurality of hour indications and a single indication spaced from the hour indications and forming an index to the group, each group having its hour indications in numerical sequence and positioned within a plurality of rows, the rows of each group containing the same numerical indications.

5. A transfer ticket comprising a body portion having means to constitute a plurality of separate groups of indications each group including a plurality of hour indications and a single indication spaced from the hour indications and forming an index to the group, each group having the hour indications positioned in parallel rows, the index being located at the end of two adjacent rows.

[Claims 6 to 8 not printed in the Gazette.]

940,049. BOTTLE. OREST PAPP, McKeesport, Pa. Filed May 24, 1909. Serial No. 498,098.



1. The combination with a bottle, of a stopper therefor, one of said parts being provided with a recess and the other of said parts with a coöperating latch, a lock for said latch constructed to lock the latch in latching position, one of said parts being provided with a destructible portion which must be broken in order to expose the latch and the lock for operation.

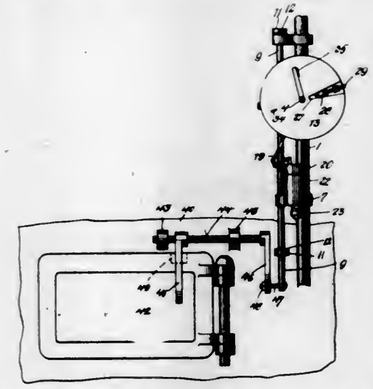
2. The combination with a stopper, of a latch sealed in said stopper constructed to latch the stopper to a bottle, a lock for said latch constructed to lock it in latching position, and also sealed in the stopper, said stopper being provided with a destructible portion which must be broken in order to expose the latch and the lock for operation.

3. The combination with a stopper, of a latch constructed to latch the stopper to a bottle, a lock constructed to lock the latch in latching position, both the latch and the lock being sealed in the stopper, a spring to move the lock to operative position, said stopper being provided with a destructible portion which must be broken in order to expose the latch and lock for operation.

4. The combination with a stopper provided with an inverted V-shaped recess, and an enlarged portion above the recess provided with a destructible cap, of an inverted V-shaped latch located in the recess for latching the stopper to a bottle, said latch comprising spring arms provided with latch lugs protruding from the stopper, and a head extending into the enlarged portion, the walls of the recess limiting the outward movement of the arms, the cap being arranged to be broken to expose the head of the latch for operation.

5. The combination with a stopper, of a latch for latching the stopper to a bottle, comprising a pair of spring-arms provided with latching lugs protruding from the stopper, a rotatable lock adapted to engage the arms and lock them in operative position, a spring for rotating the lock into operative position, an operating shaft on which the lock is mounted, all of said parts being sealed in said stopper, and said stopper being provided with a destructible cap to expose the shaft and latch for operation.

940,050. AUTOMATIC SHUT-OFF. JAMES F. PARKER, Pittsburg, Pa., assignor to Pittsburg Automatic Smoke Preventor Company, Pittsburg, Pa., a Copartnership. Filed Dec. 6, 1907. Serial No. 405,408.



1. In an automatic shut-off, the combination with a pipe, a valve carried thereby and provided with an elongated stem, of a drum loosely mounted upon said stem and having two compartments formed therein, a counterpoise located in one of said compartments, a needle valve arranged between said compartments, a flanged collar carried by said drum, lugs carried by said drum, an arm carried by said valve stem and adapted to engage said lugs, an actuating rod movably supported by said pipe, a chain connection between said collar and said actuating rod, and a dash pot supported by said pipe and having a plunger connected to said collar, substantially as described.

2. In an automatic shut-off, the combination of a pipe, a valve carried thereby and provided with an elongated stem, of a drum loosely mounted upon said stem and having two compartments formed therein, a counterpoise located in one of said compartments, a flanged collar carried by said drum, an actuating rod movably supported by said pipe and connected to said collar, a dash pot supported by said pipe and having a plunger connected to said collar, and means for simultaneously revolving said drum and said valve stem.

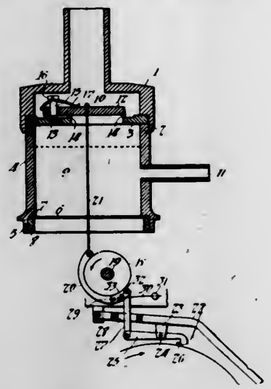
3. In a shut-off device the combination with a pipe, a valve carried thereby and provided with an elongated stem, of a drum journaled upon said stem and having compartments formed therein, a counterpoise in one of said compartments, a flanged collar carried by said drum

means carried by said pipe and connected to said collar for revolving said drum, means carried by said valve stem and engaging said drum for moving the stem in unison with said drum, and means carried by said pipe for cushioning the return movement of said drum.

4. In a shut-off device, the combination with a pipe, a valve carried thereby and provided with an elongated valve stem, of a drum revolubly mounted upon said stem, said drum having compartments formed therein, a needle valve arranged between said compartments, a flanged collar carried by said drum, means supported by said pipe for revolving said drum, means for moving said stem in unison with said drum, and means carried by said pipe for retarding the return movement of said drum.

5. In a shut-off device, a supply pipe, and the valve therein having an extended stem projecting at right angles to the supply-pipe, a sleeve revoluble on said stem, a drum mounted on said sleeve, the said stem extending through the front and rear walls of the drum, an arm on the outer end of said stem, means carried by the outer end of the drum to engage said arm whereby the stem is moved in unison with the drum, a reciprocatory actuating rod, a pulley carried by said drum on the inner end thereof, connections between said rod and the pulley whereby the drum is rotated together with the stem when the rod is moved in one direction, and means for moving said rod in one direction.

940,051. SOUND-REPRODUCER. ALEXANDER N. PIERMAN, Newark, N. J., assignor to New Jersey Patent Company, West Orange, N. J., a Corporation of New Jersey. Filed Mar. 20, 1909. Serial No. 484,789.



1. In a phonograph, the combination with a stylus lever and reproducer stylus carried thereby, and means supporting said lever so that the stylus may track the record, of frictional means for amplifying the movement of said stylus, means for varying the flow of a fluid under pressure through an orifice, and means for transmitting the amplified movements caused by said frictional means to said varying means, substantially as described.

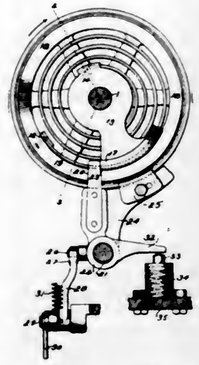
2. In a phonograph, the combination with a reproducer stylus mounted to track the record, of an air reproducer and frictional and lever connections between said stylus and the movable member of said air reproducer, for imparting to said movable member amplified movements corresponding to the movements of said stylus, and causing the air passing said movable member to be thrown into vibrations corresponding to the movements of said movable member, but still further amplified, substantially as described.

3. In a phonograph, the combination with a sound box having two chambers, a valve plate between said chambers and a valve co-acting therewith, of means for conducting a steady current of air or gas to one of said chambers, a rotating frictional member, a brake shoe co-acting therewith, connections from said shoe to said valve, a reproducer stylus, and connections from said stylus to said brake shoe, substantially as described.

4. In a phonograph, the combination with a sound box having chambers closed at one end, a valve seat and co-acting valve at the other end, means for conducting air or gas under pressure to said chamber, and a chamber on the other side of said valve connected to an outlet, of co-acting frictional members, a reproducer stylus, connections from said stylus to one of said frictional members, and connections from said member to said valve to impart such movement of said member to said valve as causes said valve to move toward its seat, the pressure of air tending to move it from its seat, substantially as described.

5. In a phonograph, the combination with a sound box having chambers closed at one end, a valve seat and co-acting valve at the other end, means for conducting air or gas under pressure to said chamber, and a chamber on the other side of said valve connected to an outlet, of a rotating frictional member and a co-acting frictional member, an apertured floating weight, a stylus lever mounted on said weight, a connection from said lever to said co-acting frictional member extending through said aperture, a one way connection from said co-acting member to said valve to move the latter in opposition to the air pressure, and additional means steadily but resiliently acting to hold the valve on its seat, substantially as described.

940,052. STOPPING MECHANISM. THOMAS G. PLANT, Boston, Mass. Filed Dec. 2, 1907, Serial No. 404,795. Renewed Apr. 14, 1909. Serial No. 489,890.



1. A stopping mechanism, comprising in combination, a driving shaft, fast and loose clutch members associated therewith, said fast clutch member having a reverse stop to bring the mechanism to rest upon reverse movement of said shaft, an initial stopping arm mounted for rotative movement with respect to said shaft, a spring having one end connected to the initial stopping arm and the other end connected to the fast clutch member, a stop finger, and means for moving said stop finger into and out of the path of movement of the initial stopping arm and reverse stop.

2. A stopping mechanism, comprising in combination, a driving shaft, fast and loose clutch members associated therewith, said fast clutch member having a reverse stop, an initial stopping arm mounted for rotative movement with respect to said shaft, a spring having one end connected to the initial stopping arm and the other end connected to the fast clutch member, a stop finger, means for moving said stop finger into and out of the path of movement of the initial stopping arm and reverse stop, and yielding means acting through the stop finger to cushion the stopping action of the reverse stop.

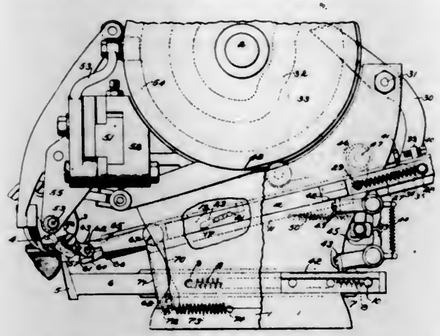
3. A stopping mechanism, comprising in combination, a driving shaft, fast and loose clutch members associated therewith, the fast clutch member having a face cam and reverse stop to bring the mechanism to rest upon reverse movement of said shaft, an initial stopping arm having a projecting stop member, a spring having one end connected to the initial stopping arm and the other end connected to the fast clutch member, a stop finger, and means for forcing the stop finger toward the said fixed clutch member to engage the stop finger with the said face cam in the path of movement of the projecting stop member, and thereafter place said stop finger in the path of the reverse stop.

4. A stopping mechanism, comprising in combination, a driving shaft, fast and loose clutch members associated therewith, the fast clutch member having a face cam and reverse stop, an initial stopping arm having a projecting stop member, a spring having one end connected to the initial stopping arm and the other end connected to the fast clutch member, a stop finger, means for forcing the stop finger toward the said fixed clutch member to engage the stop finger with the said face cam in the path of movement of the projecting stop member and thereafter place said stop finger in the path of the reverse stop, and a brake movable with said stop finger.

5. In a stopping mechanism, the combination of a shaft, fast and loose clutch members associated therewith, the fast clutch member having a face cam and reverse stop, an initial stopping arm having a projecting stop member, a spring connecting the initial stopping arm and fast clutch member, a stop finger, and means acting normally to move the stop finger into engagement with said face cam and into the path of movement of the projecting stop member to bring the initial stopping arm to rest, and then into the path of the reverse stop.

[Claim 6 not printed in the Gazette.]

940,053. SEWING-MACHINE. THOMAS G. PLANT, Boston, Mass. Filed Jan. 29, 1908, Serial No. 413,159. Renewed Apr. 14, 1909. Serial No. 489,892.



1. A sewing machine of the character described, comprising, in combination, a welt guide, means for moving the welt guide toward and from the work, and means rendered effective by feeling contact with the work for locking said welt guide in welt guiding position.

2. A sewing machine of the character described, comprising, in combination, an oscillatory welt guide, means for oscillating said welt guide, and means rendered effective by feeling contact with the work for locking said welt guide in guiding position.

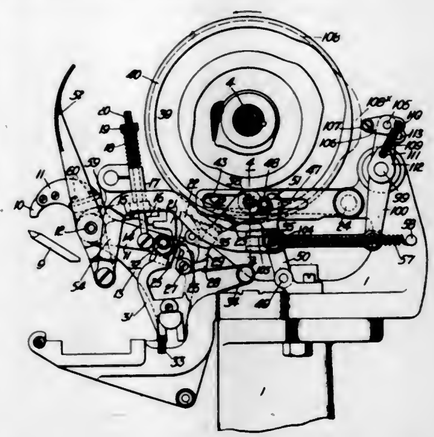
3. A sewing machine of the general character described, comprising, in combination, a back gage movable relative to the work, means to cause the back gage to move forward to feel for the work, a welt guide operatively connected to said back gage, and a lock rendered effective upon the gage finding the work to lock the back gage and welt guide in position.

4. In a sewing machine of the character described, the combination of a back gage, means to yieldingly move the back gage toward the work, means to periodically withdraw the back gage from the work, a welt guide connected to and movable by said back gage, and means rendered effective upon contact of the gage with the work to lock the gage and welt guide in position.

5. In a sewing machine of the character described, the combination of a back gage, a welt guide, means to move the back gage and welt guide into feeling contact with the work, and means rendered effective by such feeling contact with the work to lock the back gage and welt guide from further movement.

[Claims 6 to 9 not printed in the Gazette.]

940,054. SOLE-SEWING MACHINE. THOMAS G. PLANT, Boston, Mass. Filed Feb. 4, 1908, Serial No. 414,161. Renewed Apr. 14, 1909. Serial No. 489,893.



1. In a sole-sewing machine, the combination with a work support, of a movable presser-foot, means to force said presser-foot against the work on the work support with a normally light pressure, means to increase said pressure at intervals and to lock said presser-foot when the pressure has been increased, and means under control of the operative to successively release the presser-foot from increased pressure and to unlock the presser-foot.

2. In a sole-sewing machine, the combination of a work support, a movable presser-foot, means to force said presser-foot against the work on the work support with a normally light pressure, means to increase said pressure at intervals and to lock said presser-foot when the pressure has been increased, means under control of the operator to release the presser-foot from increased pressure and then unlock the presser-foot, and to restore such increased pressure and lock the presser-foot again in its position of increased pressure.

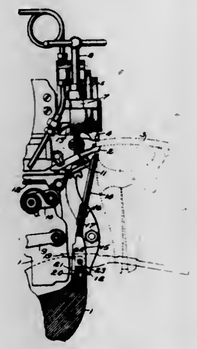
3. In a sole-sewing machine, the combination of a work support, a movable presser-foot, means to force said presser-foot against the work on the work support with a normally light pressure, means to increase said pressure at intervals and to lock said presser-foot when the pressure has been increased, means under control of the operator to release the presser-foot from increased pressure and thereafter unlock the presser-foot, and automatically acting means to restore such increased pressure and lock the presser-foot in its position of increased pressure.

4. In a sole-sewing machine, the combination with a work support, of a movable presser-foot, means to force said presser-foot against the work on the work support with a normally light pressure, means to increase said pressure at intervals and to lock said presser-foot when the pressure has been increased, means under control of the operator to release the presser foot from increased pressure and to thereafter unlock the presser foot, and means for thereafter lifting the presser foot from the work.

5. In a sole-sewing machine, the combination of a work support, a movable presser-foot, means to force the presser-foot against the work on the work support with a normally light pressure, means to increase said pressure at intervals and to lock the presser-foot in its position of increased pressure, means operative by stopping the machine to release the presser-foot from increased pressure and to unlock the presser-foot and devices thereafter operative through said last mentioned means to raise the presser-foot.

[Claims 6 to 16 not printed in the Gazette.]

940,055. SOLE-SEWING MACHINE. THOMAS G. PLANT, Boston, Mass. Filed Feb. 14, 1908. Serial No. 415,836. Renewed Apr. 14, 1909. Serial No. 489,894.



1. In a sole-sewing machine, the combination of the work support, the needle and looper, means for moving the looper about the needle, a guard support mounted on the machine frame to be moved into and out of operative position, and a guard sustained by said support to protect the work from contact by the looper as the latter moves about the needle during the operation of the machine.

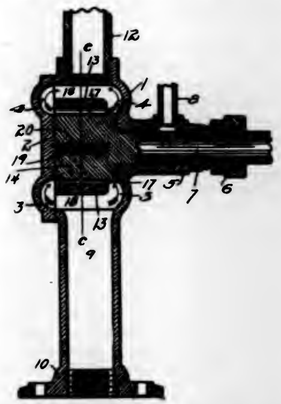
2. In a sole-sewing machine, the combination of the work support, the needle and looper, means for moving the looper about the needle, a guard support mounted upon the machine frame to move it into and out of operative position and a flexible guard mounted upon the said support and disposed in front of the looper to protect the work supported on the work support from contact by the looper as the latter carries the thread about the needle.

3. In a sole-sewing machine, the combination of the work support, the needle and looper, means for moving the looper about the needle, a guard, a guard support mounted upon the machine frame to swing the guard into and out of operative position in front of the looper to protect the work supported on the work support from contact by the looper as the latter carries the thread about the needle, and means for holding the guard in either operative or inoperative position.

4. In a sole-sewing machine, the combination of the work support, the needle and looper, a flexible guard disposed below the work support in front of the looper, a guard support hinged to the machine frame and carrying said guard, a spring for holding the guard support and guard in either operative or inoperative position, and a stop to limit the movement of the guard support and guard in one direction.

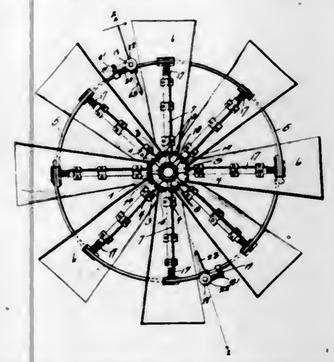
940,056. HYDRAULIC PUMP. AUGUSTINE J. POCOCK, Dayton, Ohio. Filed June 27, 1908. Serial No. 440,606.

A pump of the type specified, consisting of a hollow standard constituting an inlet pipe and extending on one side in a side plate and on two opposite sides in a swell or enlargement which extends in the form of a ring, an impeller within said ring, said swell or enlarged portion and the side plate integrally joined to the hollow standard, terminating at the top of the pump in a screw-threaded nozzle or extension in alinement with the hollow standard, an outlet pipe connected with said nozzle, the said ring forming on the interior of the pump walls between the impeller and inlet and outlet chambers communicating



with the hollow standard and the outlet pipe, and a detachable side plate opposite the integral side plate, said detachable and integral side plates providing ports leading from the inlet chamber below the impeller to the interior of the ring, and from the interior of the ring above the impeller to the outlet chamber, substantially as specified.

940,057. WINDMILL. FREDRICK A. PREUSS, Green Garden township, Madison county, Nebr. Filed Mar. 11, 1908. Serial No. 420,521.

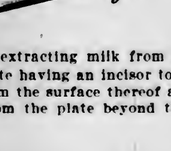


1. A windmill comprising, in combination, a shaft, a wind-wheel frame mounted thereon, said frame having a peripheral band and spokes, a series of vanes mounted on said frame slotted to receive said band and lie adjacent said spokes, horizontal casings rotatably securing said vanes to said spokes and permitting radial movement, a slidable member mounted on said shaft and having a star-wheel whose fingers are in engagement with said vanes to impart rotation thereto, a weighted lever secured to said peripheral band and projecting rearwardly over said shaft, and direct lever connections between said sliding member and said weighted levers, to automatically rotate said vanes.

2. In wind mills, in combination, a shaft, a wind wheel structure thereon including a frame having vanes mounted thereon for partial rotation, operating means comprising a collar fast on the shaft, a sleeve slidable on the shaft, connections between the sleeve and the vanes to move the latter pivotally when the former is moved slidably and an expansive coil spring between the collar and the sleeve, and actuating means comprising weighted arms pivoted on the wheel structure, levers pivoted on the sleeve, links pivoted to the levers and the collar and links connecting the arms and the levers.

3. In wind mills, in combination, a shaft, a wind wheel structure comprising a frame having partially rotatable vanes mounted thereon, operating means comprising a collar fast on the shaft, a sleeve slidable on the shaft, operative connections between the sleeve and the vanes and an expansive coil spring between the collar and the sleeve for holding the latter in a normal position, and actuating means comprising a lever pivoted to the sleeve, a link pivoted to the lever and to the collar and means for moving the lever on its pivot.

940,058. DENTAL INSTRUMENT. SAMUEL QUIGLEY, Fitchburg, Mass., assignor of one-half to Frederic I. Johnson, Fitchburg, Mass. Filed Aug. 6, 1908. Serial No. 447,328.



1. A dental instrument, comprising a rotatable head, a series of blades longitudinally slidable in said head, provided with cutting edges at their ends, and means operating automatically for sliding said blades in said head.

2. In a dental instrument, the combination with a rotatable head and means for rotating said head, of a series of cutting blades carried by said head, and means for imparting a longitudinal sliding movement to said blades by the rotation of said head.

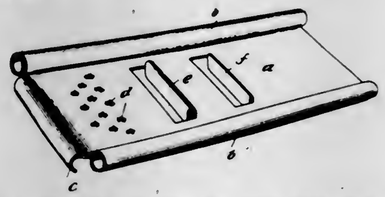
3. In a dental instrument, the combination with a rotatable head, of a series of cutting blades carried by said head, and means acting automatically for imparting a longitudinal sliding movement to each blade individually.

4. In a dental instrument, the combination with a rotatable head, of a series of cutting blades carried by said head, means for rotating said head, and a nonrotatable cam engaged by said blades to impart a longitudinal movement thereto.

5. In a dental instrument, the combination with a rotatable head and means for rotating said head, of a series of cutting blades carried by said head, and means for imparting a longitudinal sliding movement to each blade individually by the rotation of said head.

[Claims 6 to 14 not printed in the Gazette.]

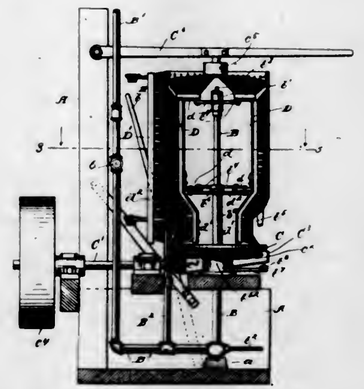
940,059. CULINARY UTENSIL. WILFRED QUINBY, White Plains, N. Y. Filed June 4, 1908. Serial No. 436,592.



1. A device for extracting milk from green corn comprising a metal plate having an incisor tooth or teeth projecting upward from the surface thereof and two ribs projecting upward from the plate beyond the incisor teeth, the rib adjacent to said teeth being relatively round and the rib beyond relatively sharp for the purpose specified.

2. A device for extracting the milk from green corn, which consists in a metal plate having rolled side edges to stiffen it and a hook at one end to engage the edge of a pan, said plate having an incisor tooth or teeth projecting upward from its surface and having two ribs beyond the teeth, the ribs being transversely disposed and the rib near the teeth being relatively round and the rib beyond relatively sharp, for the purpose specified.

940,060. MACHINE FOR WASHING CANS AND THE LIKE. JAKE L. RANNEY, Macedonia, Ohio. Filed May 16, 1907. Serial No. 374,078.



1. In a device of the character described, the combination with a frame of a substantially horizontally disposed, rotary support adapted to receive the vessel to be washed, such vessel being placed open end down thereon; means for fixedly securing said vessel on said support, such means comprising a lever mounted thereabove, and a member rotatably attached thereto and adapted to be pressed centrally upon the upper end of such vessel; and a relatively stationary expansible brush adapted to be inserted in such vessel.

2. In a device of the characted described, the combination with a frame of a substantially horizontally disposed, rotary support adapted to receive the vessel to be washed, such vessel being placed open end down thereon; means for fixedly securing the vessel on said support; a second relatively stationary support extending within such vessel when thus secured; brush members pivotally secured to such stationary support on axes parallel therewith and adapted to be swung outwardly into contact with the interior of such vessel's walls; and means for thus swinging such brush members.

3. In a device of the character described, the combination with a frame of a rotary support adapted to receive the vessel to be washed, such vessel being placed open end down thereon; means for fixedly securing the latter upon said support; a stationary support extending axially within such vessel when thus secured; radially extending arms rigidly mounted upon said support; other arms rotatably mounted thereon; brush members pivotally secured to said first-named arms on axes parallel with said support; and means connecting said brush members with said last-named arms, whereby upon rotation of the latter said brush members may be swung upon their pivotal axes.

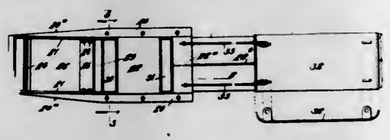
4. In a device of the character described, the combination with a frame of a rotary support adapted to receive the vessel to be washed, such vessel being placed open end down thereon; means for fixedly securing the latter upon said support; a stationary liquid supply pipe extending axially within such vessel when thus secured; spaced, ra-

dially extending arms rigidly mounted upon said pipe; other arms rotatably mounted upon said pipe; brush members pivotally secured at the ends of said first named arms on axes parallel with said supply pipe; and links connecting said brush members with said last-named arms, whereby upon rotation of the latter said brush members may be swung upon their pivotal axes.

5. In a device of the character described, the combination with a frame of a rotary support adapted to receive the vessel to be washed, such vessel being placed open end down thereon; means for fixedly securing the latter upon said support; a stationary liquid supply pipe extending axially within such vessel when thus secured, said pipe terminating in a rose; spaced, radially extending pairs of arms rigidly mounted upon said pipe; a sleeve rotatably mounted upon said pipe below the lower pair of said arms; other arms borne by said sleeve and rotatable therewith; brush members pivotally mounted upon the ends of said rigidly mounted arms; links connecting said rotatably mounted arms with said brush members whereby upon rotation of said arms the latter are swung upon their pivotal axes; and means for rotating said sleeve to thus actuate said arms and brush members.

[Claims 6 to 11 not printed in the Gazette.]

940,061. APPARATUS FOR LAYING CONCRETE SIDEWALKS, CURBS, &c. ERNEST L. RANSOME, New York, N. Y., assignor to Ransome International Conduit Co., New York, N. Y., a Corporation of Maine. Filed Dec. 17, 1907. Serial No. 406,832.



1. An apparatus for forming concrete work with substantially plane horizontal surfaces comprising a traveling mold having a top molding wall adapted to form such surface and side walls extending down from the side portions of the top molding wall and connected to move with the same along the side walls of the work, the bottom of the mold being open.

2. An apparatus for forming concrete work with substantially plane horizontal surfaces comprising a traveling mold having a top molding wall adapted to form such surfaces and inclined downward toward the rear to exert on the work a troweling and compression action and side walls extending down from the side portions of the top molding wall and connected to move with the same along the side walls of the work, the bottom of the mold being open.

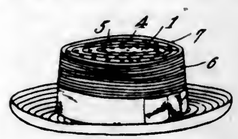
3. An apparatus for molding concrete work, comprising a traveling mold having two horizontally disposed molding surfaces at different elevations, a vertically disposed molding surface connecting them, and side walls extending downward from the outer edges of both of the horizontal walls, the side walls attached to and traveling with the horizontal walls whereby to form a curb and gutter by a single operation.

4. An apparatus for molding concrete work, comprising a traveling mold having a member with a substantially flat horizontally disposed molding surface and vertically disposed walls or molding surfaces attached to and sustaining said horizontal member, the vertical walls moving with the apparatus as a part thereof and having runners at their lower edges which bear on the earth to sustain the apparatus.

5. An apparatus for molding concrete work, comprising a traveling mold having a member with a substantially flat horizontally disposed molding surface and vertically disposed walls attached to the sides of such member and traveling therewith as a part of the apparatus, the bottom of the mold being open.

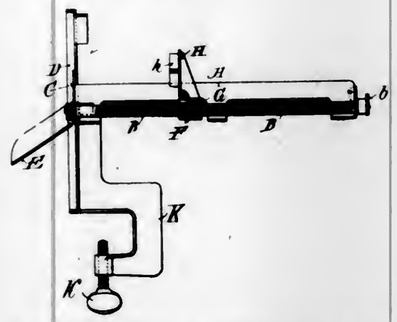
[Claims 6 to 32 not printed in the Gazette.]

940,062. HAT. JAMES R. RASH, Henderson, Ky. Filed Jan. 24, 1908. Serial No. 412,454.



A hat having its crown fashioned from a series of bands having their edges overlapped, the upper band of the series being yieldable and being extended within the contour of the crown to form a binding-strip; and a tip assembled with the binding-strip and spaced from the crown; the tip being fashioned from transparent, multiorificed, waterproof material tinted to correspond with the crown, the tip being provided with annular corrugations to simulate the overlapping edges of the crown-forming members, the outer depression caused by the corrugations being arranged to receive the binding-strip.

940,063. VEGETABLE-SLICER. GUSTAF L. REENSTIERNA, Edgewater, N. J., assignor of two-thirds to William H. Hinners, Edgewater, N. J. Filed July 21, 1908. Serial No. 444,569.



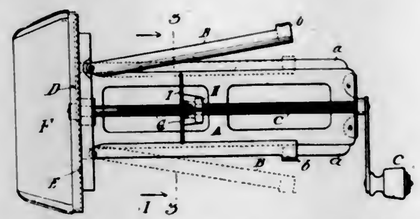
1. In a vegetable slicer, the combination with a supporting trough, the cutter, and a threaded feed screw, of a collar loosely encircling said screw, a movable jaw connected to said collar by a pivot extending transversely with respect to the axis of the screw, and provided with a curved portion of less extent than the periphery of the screw having threads thereon to engage those of the screw, and a pusher located in said trough and rigidly secured to said jaw, whereby by tilting said pusher upon said pivotal connection said jaw is disengaged from said screw.

2. In a vegetable slicer, the combination with a V-shaped supporting trough, of a screw threaded shaft mounted rotatably in the bottom of said trough, a slicing knife rigidly secured to said shaft at one end of the trough, means for rotating said screw, a collar loosely surrounding the threaded portion of the shaft, a jaw secured to said collar by a pivot disposed transversely to the axis of said shaft and provided with a curved threaded portion of less extent than the periphery of the screw for removably engaging the threads of the screw, a pusher located in the trough, rigidly secured to said jaw and disposed in a plane perpendicular to the axis of the screw, whereby by inclining the pusher to the axis of the screw, said jaw is removed from engagement therewith.

3. In a vegetable slicer, the combination with a V-shaped supporting trough, of a screw threaded shaft mounted rotatably in the bottom of said trough, a slicing knife rigidly secured to said shaft at one end of the trough, means for rotating said screw, a collar loosely surrounding the threaded portion of the shaft, a jaw secured to said collar by a pivot disposed transversely to the axis of said shaft and provided with a curved threaded portion of less extent than the periphery of the screw for removably engaging the threads of the screw, a pusher located in the trough, rigidly secured to said jaw and disposed in a plane perpendicular to the axis of the screw, a plurality of thin intersecting blades projecting from the face of the pusher for engaging the article to be sliced.

4. In a vegetable slicer, the combination with the horizontally disposed V-shaped trough and a screw clamp secured thereto, for detachably securing it to a suitable support, a threaded shaft lying in the bottom of said trough and mounted rotatably in the ends thereof, a slicing knife secured rigidly to one end of said shaft, a handle rigidly secured to the other end of said shaft, a collar loosely encircling said shaft, a movable jaw connected with the said collar by a pivot extending transversely of the axis of said shaft and having a curved threaded portion of less extent than the periphery of the shaft, extending rearwardly from said pivot, and normally engaging the screw, and a pusher located in said trough and rigidly connected with said jaw.

940,064. VEGETABLE-SLICER. GUSTAF L. REENSTIERNA, Edgewater, N. J., assignor of three-fourths to William H. Hinners, Edgewater, N. J. Filed Aug. 10, 1908. Serial No. 447,673.



1. In a vegetable slicer, the combination with the supporting trough, the slicing knife and means for operating said knife, of a longitudinal guide bar parallel to and above the bottom of said trough and having its inner edge sharpened to form a cutting edge to engage the article to be sliced.

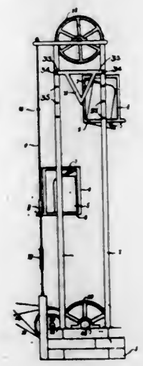
2. In a vegetable slicer, the combination with the supporting trough, the slicing knife and means for operating said knife, of a longitudinal guide bar parallel to and above the bottom of said trough and having its inner edge sharpened to form a cutting edge to engage the article to be sliced, said bar being pivotally supported at one end and means for securing the other end of said guide bar detachably in operative position.

3. In a vegetable slicer, the combination with the supporting trough, the slicing knife and means for operating the same, of a pair of oppositely arranged guide bars parallel to and on opposite sides of the center of the bottom of said trough, said bars having longitudinal horizontally disposed, inwardly projecting sharpened edges, to engage the article to be sliced.

4. In a vegetable slicer, the combination with the supporting trough, the slicing knife and means for operating the same, of a pair of oppositely arranged guide bars parallel to and on opposite sides of the center of the bottom of said trough, said bars having longitudinal horizontally disposed inwardly projecting sharpened edges, to engage the article to be sliced, each of said bars being pivotally mounted at one end to permit the other end to swing outwardly and means for detachably securing the free ends of said bars in operative position.

5. In a vegetable slicer, the combination with the supporting trough, the rotary slicing knife and means for rotating said knife, said trough having horizontally disposed lateral flanges, of a pair of opposing guides lying on said flanges and having their inner edges sharpened to engage the article to be sliced, each of said guides being pivoted to the trough at one end, and provided adjacent to the other end with a retaining device for detachably engaging the adjacent flanged portion of the trough to secure said guide detachably in operative position.

940,065. AUTOMATIC DUMPING-ELEVATOR. GEORGE E. RICHMOND, Houston, Tex. Filed Sept. 15, 1908. Serial No. 453,071.



1. In an automatic elevating device, elevators, cars carried by said elevators, said cars being pivotally mounted in said elevators means for securing said dumping device to said frame springs carried by each of said elevators, one end of same being secured to its elevator and the other end thereof being secured to its car, a frame in which said elevators operate, an adjustable dumping device mounted upon said frame, pulleys, cables operating in said pulleys and being attached to said elevators and means for rotating said pulleys.

2. In an automatic elevating device, a frame, an elevator, a shifting device, means for operating same, a dumping device, means for restoring said elevator to its normal position, means for lowering and raising said elevator and means for automatically stopping said elevator at any given point.

3. In an automatic elevating mechanism, an elevator frame, an elevator carrying a pivotally mounted car, a spring so attached to said car and said elevator as to tend to hold said car in an upright position and against being tilted, a tilting device adjustably mounted upon said elevator and so placed that it will tilt one or more cars when brought in contact with it.

4. An automatic elevator in combination with an elevator frame, cables for operating said elevator, means for operating said cables, a pivotally mounted car carried by said elevator adapted to tilt forward, means for tilting said car, means for restoring said car to its natural position, a shifting device carrying sprocket wheels, idlers, a drive pulley, a shifting bar and means for operating said shifting bar.

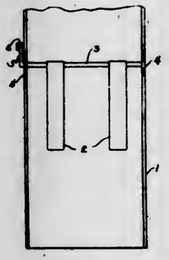
5. In an automatic elevator, an elevator frame, an elevator adapted to operate therein, an elevator car, shifting device, an adjustable dumping device, means for operating said elevator, means for operating said car and means for operating said shifting device.

[Claims 6 and 7 not printed in the Gazette.]

940,066. AUTOMATIC COUNTING APPARATUS. GEORGE E. RICHMOND, Houston, Tex. Filed Dec. 19, 1908. Serial No. 468,293.

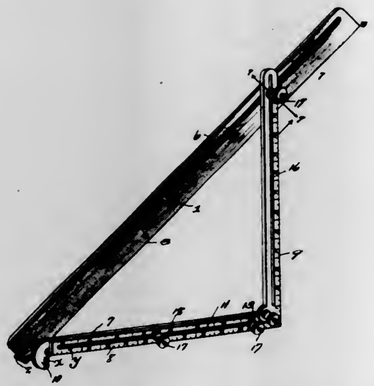
1. An automatic registering device comprising a chute, an axle revolubly mounted thereon and carrying trips which extend to the bottom of said chute, a crank arm carried on one end of said axle and being provided with a slot in the free end thereof, a rod having an adjustable hinge connection with the free end of said crank arm,

a collar for limiting the said rod to vertical movement, a mechanical register, an elastic connection between the said rod and the said mechanical register.



2. An automatic registering device comprising a chute, an axle revolubly mounted thereupon by means of suitable boxings, a trip integral with said axle operating within said chute, a crank arm mounted upon one end of said axle and carrying a bearing at its free end, a rod having an adjustable hinge connection with said crank arm, a collar for limiting the rod to vertical movement; all in combination with a mechanical register and a helical spring for connecting the said rod with the operative means of said mechanical register, substantially as described.

940,067. RAFTER-MARKING INSTRUMENT. JOHN L. RICHTER, San Antonio, Tex. Filed Jan. 16, 1909. Serial No. 472,647.



1. A device for measuring rafters, comprising, in combination with a base bar, a leg pivotally mounted on said bar on the line of its measuring edge, a member extensibly mounted on said leg, and a leg pivotally secured to said extensibly mounted member and having a universally movable connection with said bar, whereby the angular relationship of said legs and bars may be varied.

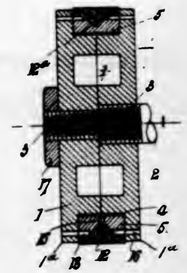
2. A device for measuring rafters, comprising, in combination with a base-bar, a leg pivotally mounted on said bar on the line of its measuring edge, a member extensibly mounted on said leg, and a leg pivotally secured to said extensibly mounted member and having a pivotal and sliding connection with said bar, said pivotal connection between said extensibly mounted member and said second mentioned leg being limited to a maximum right angle.

3. A device for measuring rafters, comprising, in combination, a slotted base-bar, a leg pivotally secured to said bar, a slotted member extensibly mounted on said leg, and a slotted leg pivotally secured to said slotted member, and having its arcual movement thereon limited to a maximum right angle, said slotted leg also having a connection with the slot in said base-bar whereby a universal connection is made to adjust said slotted leg independently of said first leg.

4. A device for measuring rafters comprising in combination a slotted base-bar, a leg pivotally secured to said bar, a right angled member formed on said leg to indicate a line through the pivot point of said leg, a slotted member extensibly mounted on said leg, a slotted leg pivotally secured to said slotted member and having a universally slidable connection with said slotted portion of said bar, whereby to vary the angular adjustments of its various parts.

5. A device for measuring rafters comprising in combination, a base-bar comprising an angle-bar, and having a pivot bearing formed on the line of its measuring edge, a leg pivotally mounted on said bearing, a member extensibly mounted on said leg, and a leg pivotally secured to said extensibly mounted member and having a universally movable connection with said bar, whereby the angular relationship of said legs and bar may be varied.

940,068. MEANS FOR PACKING RECIPROCATING PISTONS AND THE LIKE. SAMUEL ROBINSON, Pimlico, London, England. Filed Feb. 19, 1909. Serial No. 478,807.

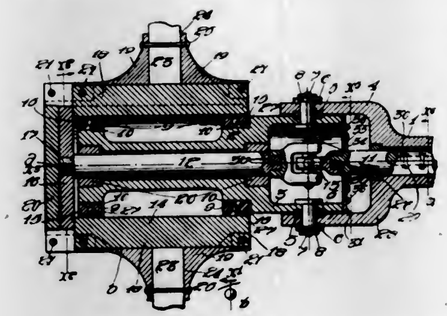


1. The combination, with a piston having a circumferential groove, and having also lateral steam passages between the said groove and its outer faces; of an expansion-ring provided with springs and arranged in the bottom of the said groove, and an outer packing-ring which bears on the said expansion-ring, one of the said rings being provided with expansion chambers for steam at its side portions between it and the other ring, which chambers communicate with the said steam passages.

2. The combination, with a piston having a circumferential groove, and having also lateral steam passages between the said groove and its outer faces; of an expansion-ring provided with springs and arranged in the bottom of the said groove, and an outer packing-ring, one of the said rings being provided at its middle part with an annular projection which engages with a corresponding recess in the other ring, and one of the said rings being provided with expansion chambers for steam at its side portions between it and the other ring, which chambers communicate with the said steam passages.

3. The combination, with a piston having a circumferential groove, and having also lateral steam passages between the said groove and its outer faces; of an expansion-ring provided with springs and arranged in the bottom of the said groove, and an outer packing-ring formed of segments and wedge-shaped packing-strips inserted between the ends of the segments and bearing against the said expansion-ring, one of the said rings being provided with expansion chambers for steam at its side portions between it and the other ring, which chambers communicate with the said steam passages.

940,069. WHEEL-DRIVE FOR AUTOMOBILES. THOMAS G. ROWE, Los Angeles, Cal. Filed Aug. 1, 1907. Serial No. 386,671.

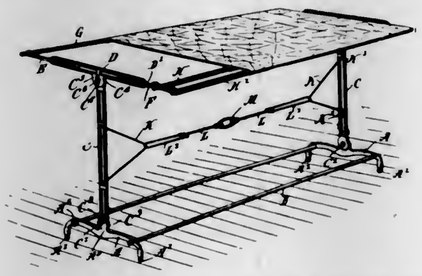


1. The combination of the two-part, pivotal jointed axle incasing a universal jointed two-part driver having a clutch member to engage a notched boxing surrounding part of said driver, with a spoke-shell surrounding said boxing, means for tightening said shell to cause it to rotate with said driver and boxing, and a dust-cap fitting the end of the spoke-shell and clamped thereon by the tightening of the shell.

2. A wheel for a motor-car having a longitudinally slotted spoke-shell, a boxing provided with feathers to fit said slots, and bolts to spring the walls of the slots to clamp the boxing.

3. A wheel for motor-cars comprising a slotted spoke-shell, a boxing provided with feathers to fit the slots, and bolts through the walls of the slots and through the feathers to spring the walls of the slots and to hold the feathers.

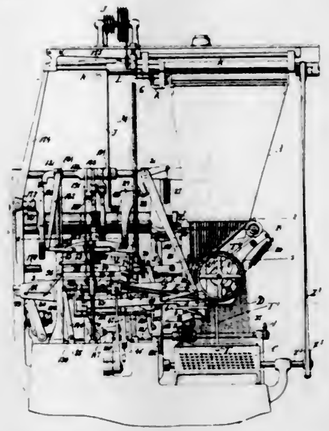
940,070. QUILTING-FRAME. SIDNEY S. RUSSELL, Columbia, S. C. Filed Jan. 14, 1909. Serial No. 472,196.



1. In a quilting frame substantially as herein described, the combination of the top frame main bars having grooves in their faces and longitudinal openings adjacent said grooves, extension bars having lugs at their inner ends overlapping the walls of the openings in the main bars on one side and also having portions projecting into said openings, washers on the sides of the main bars opposite said lugs, bolts connecting said overlapping devices, bolts projecting through the base walls of the grooves in the main bars, the extension bars being slotted longitudinally for the passage of said bolts, and work supporting means carried by the extension bars, substantially as and for the purposes set forth.

2. The combination in a quilting frame of main bars having longitudinal grooves, and longitudinal slots adjacent said grooves, extension bars slidable in said grooves and having lugs at their inner ends overlapping the walls of the slots in the main bars on one side of the latter, and also having portions projecting into said slots, washers on the sides of the main bars opposite said lugs, bolts connecting said overlapping devices, and work supporting devices carried by the extension bars, substantially as set forth.

940,071. TYPOGRAPHIC MACHINE OR MACHINE OF LIKE CHARACTER. SAFE DEPOSIT AND TRUST COMPANY OF BALTIMORE and ABNER GREENLEAF, Baltimore, Md., executors of Ottmar Mergenthaler, deceased, assignors to Mergenthaler Linotype Company, a Corporation of New York. Filed Feb. 6, 1904. Serial No. 192,476.



1. The combination of an elevator and intermediate receiving means with means to transfer groups of matrices successively to the intermediate receiving means and additional means to transfer the several groups of matrices simultaneously from the intermediate receiving means to the elevator.

2. The combination of an intermediate elevator and means to transfer groups of matrices successively thereto with a main elevator and means to transfer the matrices from the intermediate elevator to the main elevator.

3. The combination of an intermediate elevator and means to transfer groups of matrices successively thereto with a main elevator and means to move the intermediate elevator to the main elevator and to shift the matrices thereto.

4. An adjustable mold provided with locking jaws, one of the jaws being connected to a movable section of the mold, and the other jaw consisting of an adjustable wedge.

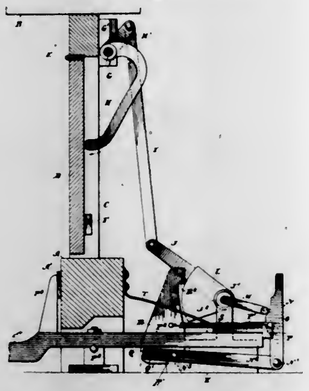
5. In a typographic machine, the combination of a slide, a gate sustained thereby and movable relatively thereto in a vertical direction and in opposite directions, actuating means for the slide, and automatic means for moving the gate vertically with reference to the slide and in opposite directions; whereby the gate may be withdrawn vertically from active relation to the line, restored to its initial position, and finally again moved vertically to active position.

[Claims 6 to 31 not printed in the Gazette.]

940,072. AUTOMATIC-PIANO ATTACHMENT. JOSÉ SAMPERE, New York, N. Y., assignor to The Regina Company, Rahway, N. J., a Corporation of New Jersey. Filed June 15, 1907. Serial No. 379,116.

1. The combination of a casing having an opening in one of its walls, a movable door arranged to close said opening, mechanism for moving said door to an open position, means for locking said mechanism to hold the door in its open position and means for operating said door moving mechanism to open the door and for releasing said locking means.

2. The combination of a casing having an opening in one of its walls, a movable door arranged to close said opening, mechanism arranged to move said door to an open position, a device for operating said mechanism and means for automatically returning said device to normal position without affecting the door-opening mechanism.



3. The combination of a casing having an opening in one of its walls, a movable door arranged to close said opening, mechanism for moving said door to an open position, means for operating said door opening mechanism said means being capable of a movement relative to said mechanism and a spring for returning said means to its normal position.

4. The combination of a casing provided with an opening in one of its walls, a door arranged to close said opening, mechanism for moving said door to leave the opening free, means for locking said door in its open position and a depressible pedal adapted to operate said door moving mechanism, said pedal being arranged to release the locking means to permit the door to return to its initial position to again close said opening.

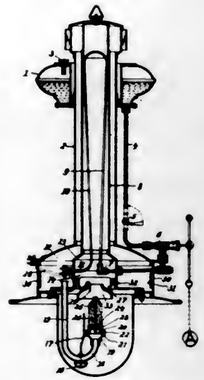
5. The combination of a casing provided with an opening in one of its walls, a door arranged to close said opening, a cam mounted on a stationary part of the casing, connections from said cam to said door, a pedal for operating said cam to cause said door to open, a locking member arranged to engage said cam after it has been operated by the pedal to maintain the door in its open position, and means connected with said locking member and arranged to be operated by the pedal to release said cam and permit the door to close.

[Claim 6 not printed in the Gazette.]

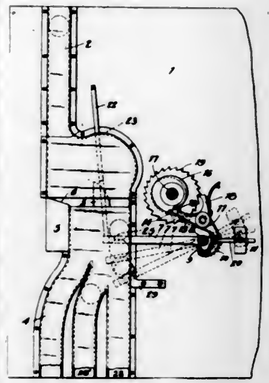
940,073. LAMP. EWALD SCHMIDT, Mahlsdorf, near Berlin, Germany, assignor to The Firm of J. Hirschhorn, Berlin, Germany. Filed Mar. 11, 1908. Serial No. 420,468.

1. In a lamp, an outer casing, a vessel attached to the upper part of the same, a vertical upwardly bent mixing tube carrying at one end a burner-head below said casing, a nozzle over the other end of said mixing tube, a gasifier over said burner-head, and a pipe provided with regulating means connecting said vessel with said gasifier, in combination with an inner casing encircling said gasifier, and a tube, connected with the latter, extending upward in said inner casing above the level of said vessel and returning to the level of said gasifier, passing through said inner casing and connected to said nozzle, said mixing tube having a hole in its lowest bent portion and being provided with a receptacle communicating with the interior of the tube through said hole, and a heat-conducting rod arranged adjacent to said burner-head and extending into said receptacle.

2. In a lamp, a mixing tube having two vertical arms, and a curved bottom portion, a burner on one arm, a receptacle attached to and communicating with the bottom portion of said tube, and a rod extending from inside said receptacle through said tube to near said burner.



940,074. COIN-SELECTING MECHANISM FOR VENDING-MACHINES. EDWARD D. SCHMITT, Baltimore, Md., assignor to Maria L. Pollock, Baltimore, Md. Filed Nov. 20, 1908. Serial No. 463,723.



1. In a machine of the character described, the combination with a coin-runway comprising upper and lower sections, the lower section consisting of three separate receiving chutes, of a gravity-operated barrier, arranged in the path of the coin, provided with a slot for the passage of the coin and with a solid portion to prevent the passage of another coin when the barrier is moved from normal position.

2. In a machine of the character described, the combination with a coin-runway, comprising upper and lower sections, the lower section consisting of three separate receiving-chutes, of a gravity-operated barrier, arranged in the path of the coin, provided with a slot for the passage of the coin and with a solid portion to prevent the passage of another coin when the barrier is moved from normal position, and means for returning the barrier to normal position.

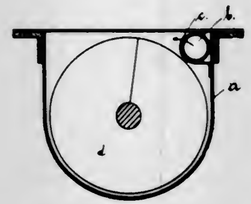
3. In a machine of the character described, the combination with a coin-runway comprising upper and lower sections, the lower section consisting of three separate receiving chutes, of an anvil arranged below the upper section, and a gravity-operated barrier, arranged in the coin-path, provided with a slot for the passage of the coin and with a solid portion to prevent the passage of another coin when the barrier is moved from normal position.

4. In a machine of the character described, the combination with a coin-runway comprising upper and lower sections, the lower section consisting of three separate receiving-chutes, of an anvil arranged below the upper section, a gravity-operated barrier, arranged in the coin-path, provided with a slot for the passage of a coin and with a solid portion to prevent the passage of another coin when the barrier is moved from normal position, and means for returning said barrier to normal position.

5. In a machine of the character described, the combination with a coin-runway comprising upper and lower sections, the lower section consisting of three separate receiving-chutes, of a fixed barrier between said sections, an anvil arranged below the upper section, and a gravity-operated barrier, arranged in the coin-path, provided with a slot for the passage of the coin and with a solid-portion to prevent the passage of another coin when the barrier is moved from normal position.

[Claims 6 to 16 not printed in the Gazette.]

940,075. DEVICE FOR PREVENTING DUST DETONATIONS. PAUL SCHUSTER, Hötensleben, near Magdeburg, Germany. Filed Apr. 13, 1908. Serial No. 426,890.

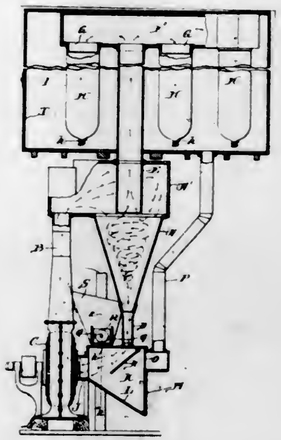


A device for preventing dust detonation comprising a closed casing and conveying means in the casing, a pipe located on one side of the casing at the upper portion thereof, said pipe having perforations in its upper portion, directed upwardly for directing the watery vapors against the top of the casing.

940,076. SEPARATOR. JONATHAN M. SEAVER, Boston, Mass. Filed Aug. 18, 1908. Serial No. 449,129.

1. In a separator of the character described, in combination, a centrifugal separator chamber, a dust collector, a dust pipe connecting the upper middle part of said centrifugal separator chamber with said dust collector adapted to carry off the finer particles separated from the mass in said separator chamber, a gravity separator chamber, a connection between the bottom of said centrifugal separator chamber and said gravity separator chamber adapted to carry the particles not carried off by said dust pipe from the centrifugal separator chamber into the gravity separator chamber, and a blower connected on its suction side with the gravity separator chamber and on its blast side with the centrifugal separator chamber, whereby a continuous circuit of air is maintained through said separator chambers, by suction in said gravity separator chamber and by blast in said centrifugal separator chamber, and whereby the blast of air in said centrifugal separator chamber is divided, part passing through said dust pipe and carrying the separated dust to the dust collector, and part passing into said gravity separator chamber and carrying the rest of the material in conjunction with gravity from the centrifugal separator chamber into the gravity separator chamber.

2. In a separator of the character described, in combination, a centrifugal separator chamber, a dust collector, a dust pipe connecting the upper middle part of said centrifugal separator chamber with said dust collector adapted to carry off the finer particles separated from the mass in said separator chamber, a gravity separator chamber, a connection between the bottom of said centrifugal separator chamber and said gravity separator chamber adapted to carry off the particles not carried off by said dust pipe from the centrifugal separator chamber into the gravity separator chamber, and a blower connected on its suction side with the gravity separator chamber and on its blast side with the centrifugal chamber by a blast pipe, the cross sectional area of the blast pipe being greater than the cross sectional area of the connection between the centrifugal and gravity separator chambers, whereby a continuous circuit of air is maintained through said separator chambers, by suction in said gravity separator chamber and by blast in said centrifugal separator chamber, and whereby the blast of air in said centrifugal separator chamber is divided, part passing through said dust pipe and carrying the separated dust to the dust collector, and part passing through said relatively smaller connection into said gravity separator chamber and carrying the rest of the material in conjunction with gravity from the centrifugal separator chamber into the gravity separator chamber.

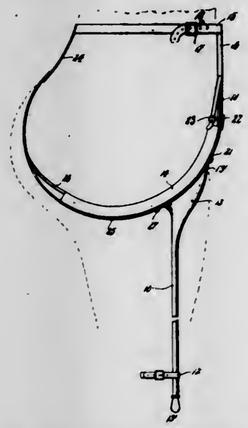


3. In a separator of the character described, in combination, a centrifugal separator chamber, a dust pipe leading from the upper middle part of said chamber, a dust collector comprising a casing into which said dust pipe leads, said casing having one or more openings, and dust receptacles of porous material connected with said openings, a dust chamber inclosing said receptacles, a gravity separator chamber, a duct connecting the bottom of said centrifugal separator chamber with said gravity separator, a blower connected on its suction side with the gravity separator chamber and on its blast side with the centrifugal separator chamber, and a return pipe connecting said dust chamber surrounding said dust receptacles with said gravity separator chamber.

940,077. URINAL. MATTIE L. SHERMAN, Lolin, Tex. Filed Apr. 19, 1909. Serial No. 490,821.

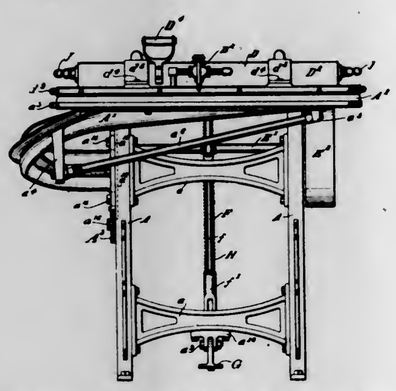
In a device of the kind described, a tubular body portion, a pocket formed at the upper end thereof and provided with an oval mouth, an adjustable ring surrounding said mouth, and a flange extending outward from said mouth; in combination with a supporter comprising a belt, a flap depending therefrom, straps attached to the lower corners thereof and to the front edge of the flange, a centrally disposed strap carried by said flap and attached

to the front of the ring, a pinning strip, other straps attached to the corners of the pinning strip and the rear of



the flange, and a second centrally disposed strap attached to the pinning strip and the rear of the ring.

940,078. GARMENT-PRESSING MACHINE. HENRY P. SHUPE, Cleveland, Ohio. Filed Oct. 28, 1908. Serial No. 459,847.



1. In a device of the class described, a pressing member comprising the combination of two non-communicating compartments, one of which is formed with a pervious side; a steam duct traversing both said compartments and adapted to discharge into one of same; and means in the other compartment for superheating the steam in that part of the duct located therein; and a manually operable valve controlling communication between that part of said duct located in the one compartment and that part located in the other.

2. In a device of the class described, the combination of a suitable frame; a pressing member oscillatorily mounted upon the latter; a link articulating with said member and provided with an extension; a bell crank mounted upon said frame, and having one of its arms forming a toggle in conjunction with said link; a treadle arm; a connecting rod articulating with the latter and the other arm of said crank; and a spring having one end attached to said link extension and the other end attached to said connecting rod.

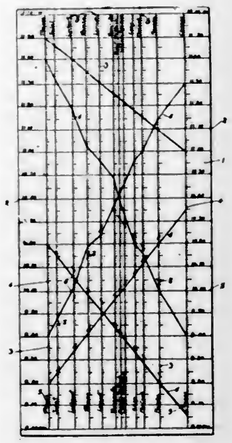
3. In a device of the class described, a pressing member comprising the combination of two non-communicating compartments, one of which is formed with a pervious side; a steam duct traversing both said compartments and adapted to discharge into one of same; means in the other compartment for superheating the steam in that part of the duct located therein; and a manually operable valve controlling communication between that part of said duct located in the one compartment and that part located in the other.

4. In a device of the class described, the combination of two relatively movable pressing members, the one member being provided with a steam chamber having a concave perforated wall, together with a normally flat and flexible member secured adjacent to said perforated wall; the other member having a normally curved pressing surface.

5. In a device of the class described, the combination of two relatively movable pressing members; the one member being provided with a rigid concave surface and a normally flat or plane flexible member secured adjacent to said surface; the other member being provided with a normally and substantially rigid convex surface.

[Claims 6 and 7 not printed in the Gazette.]

940,079. TRAIN-DESPATCHER'S CHART. PAUL J. SIMMEN, Oakland, Cal. Filed Feb. 18, 1907. Serial No. 358,151.



1. A train despatcher's chart having parallel time lines, and distinguishing marks therefor, and parallel spaced signal station lines transverse to the time lines, at different distances from each other, such distances being proportionate to the running distances between the stations, and distinguishing marks therefor, substantially as described.

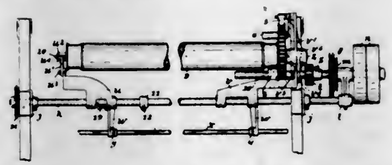
2. A train despatcher's chart having parallel time lines, and distinguishing marks therefor, and parallel signal station lines transverse to the time lines, and distinguishing marks therefor, and train schedule lines, substantially as described.

3. A train despatcher's chart having uniformly spaced time lines and distinguishing marks therefor, and spaced signal station lines crossing the time lines at a uniform angle, and at different distances from each other, such distances being proportionate to the running distances between the stations, and distinguishing marks therefor, substantially as described.

4. A train despatcher's chart having uniformly spaced time lines and distinguishing marks therefor, and spaced signal station lines crossing at the time lines at a uniform angle and at different distances from each other, such distances being proportionate to the running distances between the stations, and distinguishing marks therefor, and a train schedule marking extending in a general oblique direction relative to the time and station lines, substantially as described.

5. A train despatcher's chart having parallel time lines and distinguishing marks therefor, and parallel spaced signal station lines transverse to the time lines at different distances from each other, such distances being proportionate to the running distances between the stations, and distinguishing marks therefor, in combination with train controlled marking devices operating on said chart at points generally corresponding to said signal station lines, and located in a series extending across the chart in the direction of the time lines.

940,080. WARPING-MACHINE. GRANT SIPP, Paterson, N. J. Filed Dec. 3, 1908. Serial No. 465,769.



1. The combination, with the frame, of the beam, a supporting means for the beam movable rectilineally on the frame, a part of said means being a rotary beam-rotating and holding member, a rotary driving shaft extending parallel with the path of movement of the supporting means, and a member splined on said shaft for transmitting rotary motion from the shaft to the rotary member, said splined member being movable on the shaft rectilineally with said means, substantially as described.

2. The combination, with the frame, of the beam, a supporting means for the beam movable rectilineally on the frame, a part of said means being a rotary beam-rotating and holding member, a rotary driving shaft extending parallel with the path of movement of the supporting means, and a member splined on said shaft for transmitting rotary motion from the shaft to the rotary member, a part of said means limiting the movement of the splined member on the shaft in one direction, substantially as described.

3. The combination, with the frame, of the beam, a supporting means for the beam movable rectilineally on the frame, a part of said means being a rotary beam rotating and holding member, a rotary driving shaft extending parallel with the path of movement of the supporting means, and a member splined on said shaft for transmitting rotary motion from the shaft to the rotary member, a part of said means limiting the movement of the splined member on the shaft in one direction and said splined member being free of said means for movement on the shaft in the other direction, substantially as described.

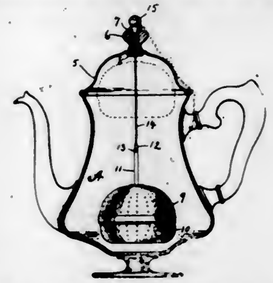
4. The combination, with the frame, of the beam, a supporting means for the beam movable rectilineally on the frame, a part of said means being a rotary beam rotating and holding member, a rotary driving shaft extending parallel with the path of movement of the supporting means, and a member splined on said shaft for transmitting rotary motion from the shaft to the rotary member, said means having a part thereof penetrated by the shaft and disposed at one side of the splined member and said splined member being free of said means for movement on the shaft away from said part, substantially as described.

5. The combination, with the frame, of a rectilineally movable structure arranged in said frame, the beam, a rotary beam-rotating member movable with said structure, said beam being supported in said structure and said member, means for moving said structure, and means for rotating said member, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

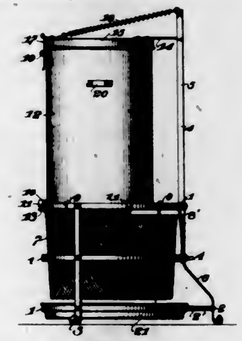
940,081. TEA OR COFFEE POT. CHARLES F. SMITH and GEORGE E. CURTISS, New Britain, Conn., assignors to Landers, Frary and Clark, New Britain, Conn., a Corporation. Filed Dec. 31, 1908. Serial No. 470,171.

1. In a tea or coffee pot, a vertically perforated cover, a tea ball having a rod extending upwardly therefrom, a latch pivoted by its middle to the upper end of the said rod and a chain attached by one end to one end of said latch, the other end of said latch being free to project laterally beyond the said rod and serve as a tripping end, the said latch being of a width to pass through the perforated cover when brought to a vertical position by a vertical pull on the free end of the chain and of a length such that it will not pass therethrough when turned to a horizontal position, and adapted to be turned into such horizontal position for supporting the tea ball by the engagement of the tripping end of the said latch on the top of the perforated cover, after the release of the said free end of the chain.



2. In a tea or coffee pot, a cover having a vertically perforated knob centrally mounted therein, a tea ball having a rod extending upwardly therefrom, a latch pivoted in the upper end of the said rod having the lower end free and a chain attached by one end to the upper end of the said latch and adapted to permit and prevent the downward passage of the said rod through the said knob according to the position of the said latch.

940,082. COMBINED GARBAGE-CAN AND RUBBISH-BURNER. EDWIN D. SMITH, Pittsburg, Pa. Filed Sept. 24, 1908. Serial No. 454,585.



1. A combined garbage can and rubbish burner comprising a frame, a can mounted on the frame, and a basket received in the frame beneath the can, said basket being covered and provided with an opening for the introduction of the material to be burned for drying the contents of the can.

2. A combined garbage can and rubbish burner, comprising a frame, a receptacle adapted to receive the material to be burned, a standard connected to the frame, a can mounted on the frame above the receptacle, and a cover hinged to the standard.

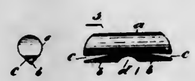
3. A combined garbage can and rubbish burner, comprising a frame, a receptacle adapted to receive the material to be burned, a standard connected to the frame, a can mounted on the frame above the receptacle, a cover hinged to the standard, and means for locking the cover to the can.

4. A combined garbage can and rubbish burner, comprising a frame, a basket received in the frame to receive the material to be burned, a holder mounted on the frame over the basket, a can received on the holder, means on the can for locking it in position, a standard connected to the frame, a spring controlled hinged cover connected to the standard and means for adjustably locking the cover to the can.

5. A combined garbage can and rubbish burner, comprising a frame having rings, legs for supporting the frame, a standard connected to the frame, a can mounted on the frame, a basket beneath the can for receiving the rubbish to be burned, a hinged cover connected to the standard, and means for locking the cover on the can.

[Claim 6 not printed in the Gazette.]

940,083. STUD OR RIVET. EDWIN B. STIMPSON, Brooklyn, N. Y., assignor to Edwin B. Stimpson Company, a Corporation of New York. Filed Dec. 27, 1906. Serial No. 349,608.

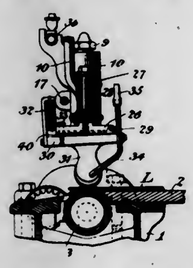


1. A rivet consisting of a metal piece slitted from opposite ends toward the center, the slits nearly meeting at said center, that portion of the metal piece on one side of the slits constituting flexible prongs and that portion on the opposite side of the slits constituting the rivet head.

2. A rivet consisting of a metal piece slitted from opposite ends toward the center, the slits nearly meeting at said center at which place the metal piece is cut away in transverse direction to the length of the aforesaid slits, that portion of the metal piece on the same side with the aforesaid transverse cut constituting flexible prongs, and that portion on the opposite side of the slit constituting the rivet head.

3. A rivet consisting of a metal piece provided with two slits which proceed from the corners of opposite ends of the piece and incline in opposite directions toward the center at which they nearly meet, that portion of the piece which has the taper extremities due to the aforesaid inclination of the slits constituting flexible prongs, and that portion on the opposite side of the slits constituting the rivet head.

940,084. MACHINE FOR CREASING LEATHER AND THE LIKE. EDWIN B. STIMPSON, Brooklyn, N. Y., assignor to Edwin B. Stimpson Company, a Corporation of New York. Filed Nov. 27, 1907. Serial No. 404,119.



1. In a creasing machine, the combination of a head having a slot lengthwise thereof, a rod in said slot adjustable along the length thereof and adapted to be fixedly secured therein, and a creasing device carried by said rod having a boss engaging the sides of the slot in the head and prevented thereby from turning.

2. In combination with the head of a creasing machine, a creasing device, comprising a pair of members hinged together, one serving to support the device from the head of the machine and the other having a portion adapted to contact with the material, means yieldingly separating the hinged members, and means adjustably uniting said members.

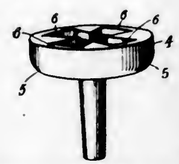
3. In a creasing machine, the combination of a head, and a creasing device comprising a pair of members hinged together, one of which has a portion contacting with the material and the other having an extension received through a longitudinal slot in the head of the machine and adapted to be fixed therein in various positions of adjustment, and means adapted to hold the hinged members yieldingly separated at adjustable distances.

4. In combination with the head of a creasing machine, a creasing device, comprising two members hinged together, one of which is adapted to be secured to the head of a machine and the other of which has a portion adapted to contact with the material, and a rib on the inside face of one of the members coacting with a slot in the inside face of the other.

5. In a creasing machine, the combination of a head; head adjusting means adapted to adjust both ends of the head simultaneously through equal distances to and from the work; creasing devices carried by said head, each separately adjustable in a direction to and from the work.

[Claims 6 to 12 not printed in the Gazette.]

940,085. TIRE-PROTECTIVE RIVET. EDWIN B. STIMPSON, Brooklyn, N. Y., assignor to Edwin B. Stimpson Company, a Corporation of New York. Filed Jan. 24, 1908. Serial No. 412,384.



1. A protective-rivet, comprising a shank-member and a head-member, the shank-member having a head comprising radiating arms, and the head-member having an opening adapted in shape to receive the radiating arms of the shank-member, said opening having the ends of its arms separated from the periphery of the head-member by a wall.

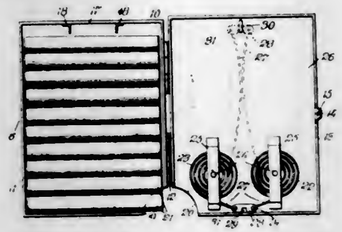
2. A protective-rivet, comprising a shank-member and a head-member, the shank-member having a head comprising radiating arms, and the head-member having an opening adapted in shape to receive the radiating arms of the shank-member, said opening having the ends of its arms separated from the periphery of the head-member by a wall, the sides of the shank-arms tapering inwardly toward the bottom and the corresponding side walls of the opening through the head-member co-acting therewith.

3. A protective-rivet, comprising a shank-member and a head-member, the shank-member having a head comprising radiating arms, the sides of the arms tapering inwardly toward the bottom and the head-member having an opening through it from top to bottom corresponding in shape to and adapted to receive the head of the shank-member, the botttom edges of the arms of the shank-member projecting and being swaged under the head-member.

4. A protective-rivet, comprising a head and shank, the head having its road-contacting face recessed with an opening having radiating arms, the ends of said arms being separated from the adjacent periphery of the head by a wall.

940,086. HOLDER. GEORGE STOCKER, New York, N. Y. Filed Apr. 8, 1909. Serial No. 488,647.

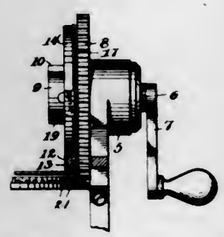
1. A device of the character described, comprising a casing having a body member, and a lid member hinged thereto, means extending from the body member to space the articles from one wall thereof, a hook device carried by the lid member, a spring device formed by two coil spring members held to the lid member at one of their ends, a follower having a notched portion adapted to engage the hooked device, said follower being carried by rods extending on opposite sides thereof and adapted to automatically release the follower from the hook member when the lid is forced to a closed position to permit the follower to force the articles along the body of the casing to be removed therefrom.



2. A device of the character described, comprising a casing having a body member, and a lid member hinged thereto, a hook device carried by the lid member, a spring device held to the lid member, a follower having a portion adapted to engage said hook device and be held thereby, and means to automatically release the follower from said device when the lid is forced to a closed position to permit the follower to force the articles along the body of the casing in position to be removed therefrom.

3. A device of the character described, comprising a casing having a body member, and a lid member, a hook device carried by the lid member, a spring device held to the lid member and adapted to engage said hook member and be held thereby, and means whereby the spring device may be automatically released.

940,087. TYPE RECEIVING AND SUPPORTING DEVICE. ELAH TERRELL, Columbus, Ohio, assignor to Edward V. Gambier, trustee. Filed Mar. 29, 1906, Serial No. 308,728. Renewed June 10, 1907. Serial No. 378,289.



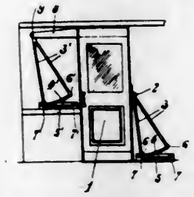
1. A disk and a spring web secured to one side thereof but free near the periphery of the disk and which does not extend over the peripheral face of the disk, said disk and spring arranged to receive between them one leg of each of one or more L-shaped type, the other leg or legs of such type lying against the peripheral face of the disk.

2. A disk and a spring web secured to one side thereof but free near the periphery of the disk, said web being of greater diameter than said disk but does not extend over the peripheral face of the disk, said disk and spring web arranged to receive between them one leg of each of one or more L-shaped type, the other leg or legs of such type lying against the peripheral face of the disk.

3. A disk and a spring web secured to one side thereof but free near the periphery of the disk and which does not extend over the peripheral face of the disk, said disk and spring arranged to receive between them one leg of each of one or more L-shaped type, the other leg or legs of such type lying against the peripheral face of the disk, a shaft and means for alining a plurality of said disks on said shaft.

4. A disk and a spring web secured to one side thereof but free near the periphery of the disk, said web being of greater diameter than said disk but does not extend over the peripheral face of the disk, said disk and spring web arranged to receive between them one leg of each of one or more L-shaped type, the other leg or legs of such type lying against the peripheral face of the disk, a shaft and means for alining a plurality of said disks on said shaft.

940,088. DOOR-HANGER. ALPHONSE THEYSKENS, Testelt, Belgium. Filed Mar. 23, 1907. Serial No. 364,147.



1. A door, a sector-shaped lever pivoted to said door on one side and having its arcuate portion depending downward, a rail to guide the arcuate portion of said sector-shaped lever, and means connected to the opposite side of the door for supporting and guiding the upper end thereof and adapted to describe a movement similar to that of the side supported by said lever.

2. A door, a sector-shaped lever pivoted on one side at about the middle portion thereof and depending downward, a rail near the bottom of the door and constituting a guide for the arcuate portion of said sector-shaped lever, and means connected to the opposite side of the door for supporting and guiding the upper end thereof and adapted to describe a movement similar to that of the side supported by said lever.

3. A door, a sector-shaped lever pivoted on one side at about the middle portion thereof and depending downward, a rail near the bottom of the door and constituting a guide for the arcuate portion of said sector-shaped lever, said rail and lever having portions 4, 5, adapted to intermesh with one another, and means connected to the opposite side of the door for supporting and guiding the upper end thereof and adapted to describe a movement similar to that of the side supported by said lever.

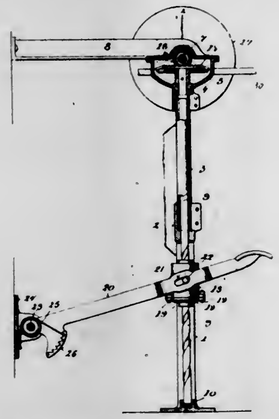
4. A door, a sector-shaped lever depending therefrom on one side, said lever having an arcuate portion of less length than the desired travel of the door, a horizontal rail constituting a guide for said arcuate portion of said lever whereby the door has a level movement throughout a portion of its throw, and a slight downward movement at the limit of its throw, and means connected to the opposite side of the door for supporting and guiding the upper end thereof and adapted to describe a movement similar to that of the side supported by said lever.

5. A door, a sector-shaped lever pivoted thereto and depending therefrom at one side of the door, means for supporting the arcuate portion of said lever, and means connected to the opposite side of the door for supporting and guiding the upper end thereof and adapted to describe a movement similar to that of the side supported by said lever.

940,089. DRIVING-GEAR FOR GRINDING-MACHINES. JAMES M. THOMPSON, Milwaukee, Wis., assignor to Luther Bros. Co., Milwaukee, Wis. Filed Dec. 9, 1907. Serial No. 405,713.

1. A driving-gear for a grinding-machine or the like, comprising a frame, a shaft mounted in the frame, a spindle carried by the frame, the spindle being provided with a screw-threaded section, driving-gears connecting said spindle and shaft, a rotatory nut mounted upon the screw-threaded section of the aforesaid spindle, a non-

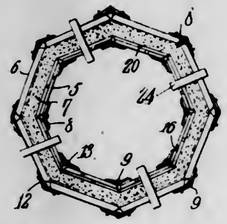
rotatable housing for the nut, a spring-controlled actuating lever for the housing, and locking means in connection with said nut and housing, whereby the aforesaid nut is held against rotation when the lever is actuated in one direction.



2. In a grinding-machine, a vertically disposed frame, a spindle mounted in the frame, the spindle being provided with a screw-threaded section, a rotatory nut mounted upon a screw-threaded section, a non-rotatable longitudinally movable housing for the nut, a spring-controlled actuating lever in connection with the housing, a shaft horizontally mounted in the frame, and transmission-gears connecting the shaft and spindle.

3. In a grinding-machine, a bifurcated standard, a tube fitted in the standard, a gear-housing secured to the upper tube end, a spindle revolubly mounted in the tube and bifurcated standard, the spindle being threaded at its lower end, a rotatory nut mounted upon the threaded end of the spindle, a non-rotatable housing for the nut, a foot-lever in connection with the housing, locking means in connection with the housing and nut, a spring in connection with the foot-lever, whereby the same is lifted in opposition to manual-power applied thereto, a horizontally disposed shaft mounted in the gear-housing, and meshed bevel-gears secured to the wheel-shaft and spindle within the gear-housing.

940,090. MOLD FOR MAKING CONCRETE STRUCTURES. JAMES M. TIMMONS, Delaware, Ohio. Filed Sept. 23, 1907. Serial No. 394,224.



1. A mold including inner and outer shells spaced apart to form an intermediate molding compartment, each shell being formed of a plurality of sections, groove forming ribs extending laterally from one of said shell sections and projecting within the molding compartment, and bridge pieces connecting the ribs.

2. A mold including inner and outer shells each formed of a plurality of pivotally connected sections, hinges disposed at the juncture of adjacent sections and having elongated slots formed therein, and fastening devices passing through said slots and engaging the sections for locking the sections in adjusted position.

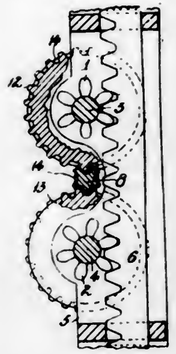
3. A mold including sectional inner and outer shells spaced apart to form an intermediate molding compartment, slotted hinges connecting the sections of each shell, and ribs extending laterally from the sections of the outer shell and projecting within the molding compartment.

4. A mold including sectional inner and outer shells spaced apart to form an intermediate holding compartment, each section of the inner shell being formed of two or more members having a pin and slot connection between the same.

5. A mold including sectional inner and outer shells spaced apart to form an intermediate holding compartment, the sections comprising the inner shell being each formed of two or more members having a pin and slot connection between the same, and ribs extending laterally from the sections of the outer shell and projecting within the molding compartment.

[Claims 6 to 12 not printed in the Gazette.]

940,091. DOUBLE-PINION TOOTHED GEAR-TRAIN. WILLIAM TREWHELLA, Trentham, Victoria, Australia, assignor to himself and Benjamin Trewhella, Trentham, Australia. Filed Apr. 14, 1908. Serial No. 427,051.



1. In a train of gearing, a toothed element, a frame therefor, a pair of pinions having parallel axles journaled in the frame and gearing with said element, a toothed wheel fast upon the axle of each pinion, a floating pinion geared with said toothed wheels and having its axis normally in the plane of the axes of the first mentioned pinions but free to move out of said plane to conform with slight differences in the relative angular velocity of said pinions, and means to rotate said floating pinion.

2. In a train of gearing, a frame, a pair of pinions mounted on parallel axles journaled in the frame, a longitudinal rack slidably mounted in the latter, a pair of toothed wheels fixed on the axle of each pinion, and a pair of floating rotatable pinions in axial line gearing with said toothed wheels and arranged so that their axis is normally in the same plane as the axes of said first mentioned pinions but free to move out of said plane to conform with slight differences in the relative angular velocity of said pinions.

940,092. SHOE-STRETCHER. JOHN UMDENSTOCK, Peoria, Ill. Filed Mar. 5, 1909. Serial No. 481,253.

1. In a shoe stretcher, the combination of a pair of pivoted jaws, an open clamp member pivotally and adjustably connected with one jaw, and in such a manner that it may be swung on its pivot and locked in adjusted position, and a coöperating die member pivotally and adjustably connected with the opposite jaw, whereby said die member may be moved correspondingly to said clamp member.

2. In a shoe stretcher, the combination of a pair of pivoted jaws, an open clamp member connected with one jaw and provided with a depending shoulder, and a coöperating die member connected with the opposite jaw.



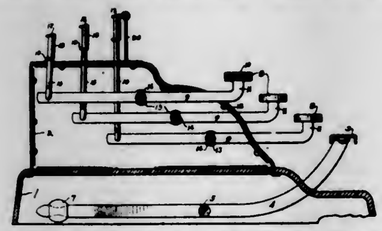
3. In a shoe stretcher, the combination of a pair of pivoted jaws, an open clamp member pivotally and adjustably connected with one jaw, an engaging shoulder depending from said clamp member, and a die member pivotally and adjustably connected with the opposite jaw, and adapted when said jaws are closed, to enter the clamping member.

4. In a shoe stretcher, the combination of a pair of pivoted jaws, a clamp member connected with one jaw and provided with an approximately circular opening and an elongated slot merging into said opening, a die member connected with the opposite jaw and adapted when the jaws are closed, to enter the elongated slot of the clamp member, and a presser head arranged to have a detachable connection with said die member and adapted, when the jaws are closed, to enter the approximately circular slot in said clamp member.

5. In a shoe stretcher, the combination of a pair of pivoted jaws, a clamp member connected with one jaw and provided with an approximately circular opening and an elongated slot merging into said opening, an engaging shoulder projecting from said clamp member, a die member connected with the opposite jaw and adapted when the jaws are closed, to enter the elongated slot of the clamp member, and a presser head arranged to have a detachable connection with said die member and adapted, when the jaws are closed, to enter the approximately circular slot in said clamp member.

[Claims 6 to 15 not printed in the Gazette.]

940,093. EDUCATIONAL DEVICE. ROLLO M. VICK, Alliance, Ohio. Filed Jan. 5, 1909. Serial No. 470,833.



1. In an educational device for acquiring skill on a key board, a casing, horizontally disposed key bars pivotally mounted in said casing, vertically disposed letter bars pivotally connected to said key bars, letter plates attached to said letter bars, a shield for normally concealing said letter plates, blank keys attached to said key bars, the arrangement of said keys being identical with the arrangement of the keys on the key board on which skill is to be acquired, and the arrangement of said letter plates with reference to said keys being such that when the various keys are depressed the appropriate corresponding letter plates will be raised above said shield.

2. In a device of the character described, a casing, a series of key bars, a series of blank keys, letter bars, letter plates, and a shield, the key bars pivotally mounted in the casing, the blank keys attached to one end of the various key bars, the letter bars pivotally connected to the opposite ends of the key bars, the letter plates attached to the said letter bars, and the said shield adapted to normally conceal said letter plates.

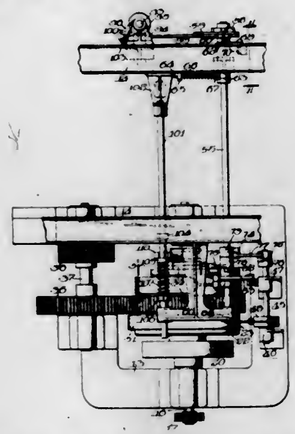
940,094. SCARF-PIN. EMIL WAGNER, Cincinnati, Ohio. Filed July 2, 1908. Serial No. 441,590.



1. A scarf-pin having an open ring at one end, a loop terminating in a pointed hook at its other end, both arranged to lie in one plane, a shank projecting from the ring and a setting carried at the end of this shank, the face of this setting being arranged approximately parallel to the plane of ring and loop.

2. A scarf-pin having a portion of it at one end shaped to form a loop and a portion at the other end shaped to form an open ring, loop and ring being arranged to lie flat in one plane, the extreme pointed end of the loop being slightly bent to one side and out of parallelism with the pin and also out of the plane of the loop and the pin at the open end of the ring being also turned out of the plane of the ring to form a shank, and a set carried at the end of this shank, the face of which is approximately parallel to the plane of the ring back of it.

940,095. DRIVING MECHANISM. JOSEPH J. WALSER, Chicago, Ill., assignor to The Goss Printing Press Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 5, 1908. Serial No. 466,121.



1. A variable speed device, comprising a driving-shaft, a main drive wheel having a clutch member, a coacting clutch member driven by said driving-shaft, speed-reducing gearing connected with said main drive wheel for driving the same from said driving-shaft at a slower speed, and means for connecting said speed-reducing mechanism with said driving-shaft and arranged to be automatically disconnected from the driving-shaft when said clutch members coöperate to increase the speed of said main drive wheel.

2. A variable speed device, comprising a driving-shaft, a main drive wheel having a clutch member, a coacting clutch member driven by said driving-shaft, speed-reducing gearing connected with said main drive wheel for driving the same from said driving-shaft at a slower speed, and ratchet mechanism for connecting said speed-reducing mechanism with said driving-shaft and arranged to be automatically disconnected from the driving-shaft when said clutch members coöperate to increase the speed of said main drive wheel.

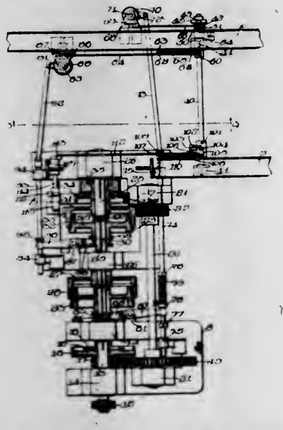
3. A variable speed device, comprising a driving-shaft, a main drive wheel having a clutch member, a coacting clutch member driven by said driving-shaft, speed-reducing gearing connected with said main drive wheel for driving the same from said driving-shaft at a slower speed, and means for connecting said speed-reducing mechanism with said driving-shaft and arranged to be automatically disconnected from the driving-shaft when said clutch members coöperate to increase the speed of said main drive wheel, said connecting means including a single lever for controlling the various speeds of said main drive wheel and also including operative connections between said lever and said clutch members.

4. A variable speed device, comprising a driving-shaft, a main drive wheel having a clutch member, a coacting clutch member driven by said driving-shaft, speed-reducing gearing connected with said main drive wheel for driving the same from said driving-shaft at a slower speed, ratchet mechanism for connecting said speed-reducing mechanism with said driving-shaft and arranged to be automatically disconnected from the driving-shaft when said clutch members coöperate to increase the speed of said main drive wheel, said connecting means including a single lever for controlling the various speeds of said main drive wheel and operative connections between said lever and said clutch members.

5. A variable speed device, comprising a main drive shaft, a main drive wheel loosely mounted on said shaft and having a clutch member, a coacting clutch member mounted on said drive shaft and rotating therewith, speed-reducing gearing connected with said main drive wheel for driving the same from said main drive shaft at a slower speed, and means for connecting said speed-reducing mechanism with said main drive-shaft and arranged to be automatically disconnected with said main drive-shaft when said clutch members coöperate to drive said main drive wheel substantially at full speed.

[Claims 6 to 31 not printed in the Gazette.]

940,096. VARIABLE-SPEED DRIVING MECHANISM. JOSEPH J. WALSER, Chicago, Ill., assignor to The Goss Printing Press Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 9, 1909. Serial No. 471,452.



1. In combination, a driving-shaft, a pinion rotatably mounted on said driving-shaft, means adapted to drive said pinion from said shaft in one direction but allow it to rotate free of said shaft when traveling at a greater speed, a counter-shaft, a large gear on said counter-shaft meshing with the pinion on said driving-shaft, a second shaft, a driving gear secured to said second shaft, a slow-speed clutch-member rotatably mounted on said second shaft, gearing connecting the same with said counter-shaft, a second slow-speed clutch-member slidingly mounted on said second shaft, a fast-speed clutch-member keyed to said second shaft, a second high-speed clutch-member slidingly mounted on said first shaft, and means for bringing said slow-speed clutch-members into engagement, disconnecting them and bringing said high-speed clutch-members into engagement.

2. In combination, a driving-shaft, a pinion rotatably mounted on said shaft, pawl and ratchet mechanism connecting said pinion with said shaft, a counter-shaft, a gear on said counter-shaft meshing with said pinion, a second shaft, a driving gear secured to said second shaft, a slow-speed clutch-member rotatably mounted on said second shaft, gearing connecting the same with said counter-shaft, a second slow-speed clutch-member slidingly mounted on said second shaft, a fast-speed clutch-member keyed to said second shaft, a second high-speed clutch-member slidingly mounted on said first shaft, and means for bringing said slow-speed clutch-members into engagement, disconnecting them and bringing said high-speed clutch-members into engagement.

3. In combination, a driving-shaft, a drum rotatably mounted on said shaft, means for rotating said drum from said driving-shaft in one direction only and adapted to permit said drum to rotate freely on said driving shaft in the same direction, a counter-shaft, a pinion on said drum, a gear on said counter-shaft meshing therewith, a second shaft, a driving gear secured to said second shaft, a slow-speed clutch-member rotatably mounted on said second shaft, gearing connecting the same with said counter-shaft, a second slow-speed clutch-member slidingly mounted on said second shaft, a fast-speed clutch-member keyed to said second shaft, a second high-speed clutch-member slidingly mounted on said first shaft, and means for bringing said slow-speed clutch-members into engagement, disconnecting them and bringing said high-speed clutch-members into engagement.

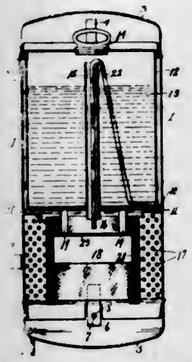
4. In combination, a driving-shaft, a drum rotatably mounted on said driving-shaft, pawl and ratchet connections between said drum and said driving-shaft, a counter-shaft, a pinion on said drum, a gear on said counter-shaft meshing therewith, a second shaft, a driving gear secured to said second shaft, a slow-speed clutch-member rotatably mounted on said second shaft, gearing connecting the same with said counter-shaft, a second slow-speed clutch-member slidingly mounted on said second shaft, a fast-speed clutch-member keyed to said second shaft, a second high-speed clutch-member slidingly mounted on said first shaft, and means for bringing said slow-speed clutch-members into engagement, disconnecting them and bringing said high-speed clutch-members into engagement.

5. In combination, a driving shaft, a drum rotatably mounted on said shaft, means for rotating said drum from said driving-shaft in one direction, a counter-shaft, a pinion on said drum, a gear on said counter-shaft meshing therewith, a second shaft, a driving gear secured to said second shaft, a slow-speed clutch-member rotatably mounted on said second shaft, gearing connecting the same with said counter-shaft, a second slow-speed clutch-member slidingly mounted on said second shaft, a fast-speed clutch-member keyed to said second shaft, a second high-speed clutch-member slidingly mounted on said first shaft, a lever, connections between said lever and said clutches adapted as said lever is moved in one direction to first move said slow-speed clutch-members into engagement, then, as said lever is moved farther in the same direction, to bring said fast-speed clutch-members into engagement, and, after said high-speed clutch-members are brought into engagement, to separate said slow-speed clutch-members.

[Claim 6 not printed in the Gazette.]

940,097. DISINFECTING APPARATUS. PATRICK J. WALSH, Detroit, Mich. Filed Mar. 1, 1909. Serial No. 480,711.

1. A disinfecting apparatus, comprising a case adapted to be fixed to a support, a reservoir removably seated in said case, an absorbent wick-holder removably located within said case below said reservoir and having a flat top, a wick upon said holder projecting above the flat top thereof, and means for discharging continuously a small quantity of fluid from said reservoir centrally onto the flat top of said wick holder.



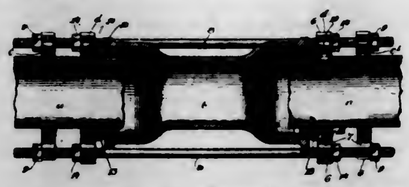
2. A disinfecting apparatus comprising an exterior case adapted to be secured to a support, a reservoir removably seated in said case, an absorbent wick holder within the case below said reservoir, a wick upon and surrounding said holder, the top of said holder being flat, and means for discharging a small quantity of fluid from the reservoir onto the flat top of said holder to flow through said wick.

3. A disinfecting apparatus, comprising a reservoir, a wick holder suspended from said reservoir, said reservoir and wick holder being removably seated in a case, an absorbent wick upon said holder, a vertical tube in said reservoir passing through the bottom thereof, a feeding wick having one portion thereof passing through said tube and the other portion lying in the fluid of said reservoir.

4. A disinfecting apparatus, comprising a case, a reservoir removably seated in said case, a wick holder depending from the bottom of said reservoir and permanently attached thereto, means for removably supporting the reservoir within said case, an absorbent wick upon the wick holder, a tube in the reservoir passing through the bottom thereof, a feeding wick having one portion lying within said tube, and the other portion extending into the fluid within the reservoir.

5. A disinfecting apparatus, comprising a fixed case, a reservoir removably mounted in said case, a wick holder attached to said reservoir and removable therewith, an absorbent wick upon said holder, a vertical tube within the reservoir passing through the bottom thereof over the top of the wick holder, a feeding wick having a portion thereof passing through said tube, and the remaining portion immersed in the fluid of said reservoir.

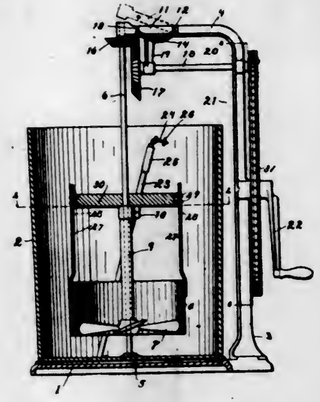
940,098. DEVICE FOR JOINING PARTS OF CONDUITS. GEORGE M. WEHRLE, New York, N. Y., assignor to National Water Main Cleaning Co., New York, N. Y., a Corporation of Maine. Filed Feb. 29, 1908. Serial No. 418,521.



1. A device for temporarily connecting the ends of broken gas-, water-, sewer- and other hollow conduits, the device comprising a section of pipe, two stationary flanges, composed of a series of links hinged one to another and provided with slotted lugs and of means for drawing and securing together the ends of its terminal links, the flanges being set upon the section of pipe one near each of its ends; compressible packings, one at each end of the broken conduit; movable flanges, provided with slotted lugs, one set beyond each packing; and means for drawing the movable flanges toward, and securing them to, the stationary flanges, substantially as herein shown and described.

2. A device for temporarily connecting the ends of broken gas-, water-, sewer- and other hollow conduits, the device comprising a section of pipe, stationary flanges, composed of a series of links hinged one to another and provided with slotted lugs, and of means for drawing and securing together the ends of its terminal links, the flanges being set, one near each end, upon the section of pipe; compressible packings, one at each end of the broken conduit; movable flanges, provided with slotted lugs, one set beyond each packing; screw-threaded bolts, inserted in the lugs and screw-nuts on the ends of the bolts, substantially as herein shown and described.

940,099. CHURN. OTIS D. WELDS, Jackson, Mich., assignor of one-half to Fred D. Handy, Jackson, Mich. Filed Jan. 23, 1909. Serial No. 473,864.



1. The combination with a base, of a barrel arranged on said base; a standard on one side of said base having an arm at its upper end projecting horizontally over said barrel; a dash shaft; a pivot bearing for the lower end thereof arranged on the bottom of said barrel; a U-shaped strap-like bearing pivoted on said arm by a transverse pivot and adapted to embrace the end of the same and be swung down over the upper end of said shaft, the end of said arm coacting therewith in forming the bearing for said shaft; a pin for securing said bearing in its engaging position; and driving connections for said shaft.

2. The combination with a base, of a barrel arranged on said base; a standard on one side of said base having an arm at its upper end projecting horizontally over said barrel; a dash shaft; a pivot bearing for the lower end thereof arranged on the bottom of said barrel; a U-shaped strap-like bearing pivoted on said arm by a transverse pivot and adapted to embrace the end of the same and be swung down over the upper end of said shaft, the end of said arm coacting therewith in forming the bearing for said shaft; and driving connections for said shaft.

3. In a churn, the combination with a barrel, of a vertically-arranged dasher shaft; a dasher, having propeller like blades, carried by said shaft; an open ended cylinder carried by said blades and projecting upwardly therefrom; a deflector arranged against the wall of said barrel in an

inclined position with its lower end resting on the bottom thereof, having a laterally turned pin at its upper end; and staples on the inside of said barrel adapted to receive said pin, whereby said deflector is removably supported.

4. In a churn, the combination with a barrel, of a dasher; a deflector arranged against the wall of said barrel in an inclined position with its lower end resting on the bottom thereof, having a laterally turned pin at its upper end; and staples on the inside of said barrel adapted to receive said pin, whereby said deflector is removably supported.

5. In a churn, the combination with a barrel of a dasher comprising a shaft; dasher blades having a sleeve-like hub adjustably mounted on said shaft; a dasher cylinder open at each end arranged about said dasher blades; a pair of strap-like hangers for said cylinder having a series of perforations therein; a crosspiece arranged on said shaft to rest on the hub of said dasher blades, said cross piece being provided with pins adapted to engage said perforations in said cylinder hangers, whereby the said dasher cylinder is adjustably supported relative to said dasher blades; deflectors arranged in said barrel; and a stop on said dasher cylinder arranged to engage said deflectors.

[Claims 6 to 12 not printed in the Gazette.]

940,100. MEANS FOR FILLING HOLES WITH CONCRETE. LOUIS E. WELSH, Philadelphia, Pa., assignor, by direct and mesne assignments, to American Concrete Piling Company, Philadelphia, Pa., a Corporation of New Jersey. Filed Dec. 29, 1908. Serial No. 469,833.



1. In a means for filling holes with concrete, of a tubular structure, means for normally closing the bottom of said structure, said tubular structure being provided with successive means whereby it can be charged with concrete at progressing levels as it is lowered into the hole in the ground, and means for opening the bottom of the tube so as to allow the entire mass to be discharged into the hole without disintegrating the mass.

2. The combination in means for filling holes with concrete, of a tubular structure having successive openings through which short sections of the tube may be filled with concrete, a device for closing the end of the tube, and means for releasing the device to discharge the contents of the tube.

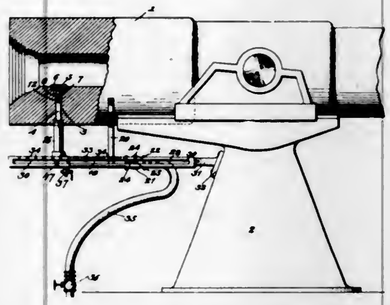
3. The combination in means for filling a hole with concrete, of a tubular structure having a series of openings arranged at intervals, doors for closing said openings, a device at the bottom of the tube for retaining the concrete in the tube until it is lowered in the hole to the distance desired, and means for releasing the device so as to allow the concrete to escape from the tube into the hole.

4. The combination in means for filling holes with concrete, of a tubular structure having a series of openings at different levels through which the concrete can be deposited in the tube, movable means for opening and closing the bottom of the tube, and a hopper at the upper end of the tube.

5. The combination in means for filling holes with concrete, of a tubular structure having a detachable bottom so as to allow the contents of the tube to be discharged into the hole, said tube having a series of openings throughout its length, pivoted doors for closing the openings, and means for locking said doors in a closed position.

[Claims 6 to 8 not printed in the Gazette.]

940,101. AUTOMATIC GUN-HOSE. GEORGE L. WETZEL. Baltimore, Md. Filed Sept. 17, 1908. Serial No. 453,507.



1. A gun hose comprising a water supply pipe, a discharge nozzle, a valve arranged in said pipe, means whereby said nozzle is projected into the bore by the pressure of the water in said pipe when said valve is opened, and means to automatically operate said valve.

2. A gun hose comprising a water supply pipe, a valve controlling the supply therethrough, a discharge nozzle, a protecting cap connected to and operated by said nozzle, a spring retracted nozzle-operating plunger adapted to be acted upon by the pressure of water in said supply pipe, and means operated by the recoil of the gun to automatically operate said valve whereby the water is automatically discharged into the bore of the gun.

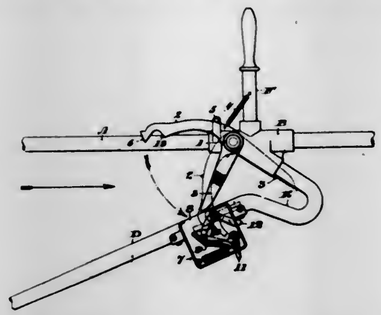
3. A gun hose comprising a water supply pipe, a discharge nozzle operated by the pressure of water in said pipe to project the same to an operative position for the discharge of water into the bore of the gun, a retracting spring adapted to retract said nozzle to its normal position, and a protecting cap for the nozzle arranged to be automatically operated by the movement of said nozzle.

4. A gun hose comprising a water supply pipe, a discharge nozzle adapted to be projected to an operative position by the pressure of water in said pipe, an operating bar, a controlling valve having a sliding engagement with said bar, and means adjustable in said bar to open said valve upon the recoil of the gun and to close the valve upon the restoration of the gun to its normal position.

5. A gun hose comprising a water supply pipe, a spray nozzle operatively mounted in the gun and adapted to be projected to a position for discharging water into the bore of the gun by the pressure of the water in said supply pipe, a plunger on said nozzle to receive the pressure of the water in the supply pipe, a retracting spring engaged with said plunger to retract said discharge nozzle, a protecting cap secured to the upper end of the spray nozzle and adapted to automatically open and close the passage in the gun through which the nozzle projects, an operating bar, a controlling valve arranged in said supply pipe, and having a sliding engagement with said operating bar, and means adjustable in said bar to operate the valve.

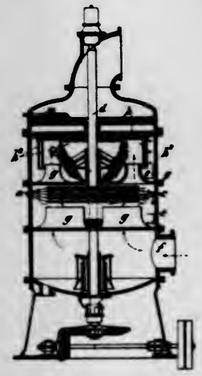
[Claims 6 to 8 not printed in the Gazette.]

940,102. MAIL-BAG CATCHER. WALTER WEVER, South Milwaukee, Wis. Filed Jan. 30, 1909. Serial No. 475,103.



In a mail-catcher, comprising an oblique rod having a U-shaped throat at its shank-end and a latch-member in pivotal connection therewith, the latch-member comprising an arm having a spear-head and a tail-piece to normally extend across the mouth of the U-shaped throat of the mail-catcher rod; in combination with a housing secured to said mail-catcher rod, a spring-controlled locking-dog mounted in the housing for engagement with the spear-head of the latch-member arm, and a set-trigger for the dog arranged to lie across the path of the travel of the head of said latch-member, by which it is engaged to effect release of said locking-dog.

940,103. GAS-WASHER. WALTHER FELD, Honningen-on-the-Rhine, Germany. Filed Aug. 31, 1909. Serial No. 515,507.



1. In a gas washer a vessel adapted to contain the washing fluid, a rotatable shaft passing vertically therethrough, centrifugal members carried thereby and dipping their lower ends into said liquid and formed to spray the latter by centrifugal action upon the rotation of the shaft, together with a screen rotating with said shaft, in combination with a gas inlet and a gas outlet arranged to direct the gas from the inlet through the sprayed liquid and screens to the outlet, substantially as described.

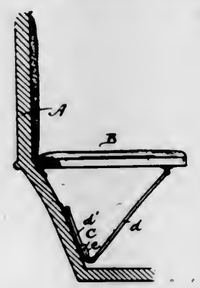
2. In a gas washer a vessel adapted to contain the washing fluid, a rotatable shaft passing vertically therethrough, centrifugal members carried thereby and dipping their lower ends into said liquid and formed to spray the latter by centrifugal action upon the rotation of the shaft, together with a vertical screen rotating with said shaft, in combination with a gas inlet and a gas outlet arranged to direct the gas from the inlet through the sprayed liquid and screens to the outlet, substantially as described.

3. In a gas washer a vessel adapted to contain the washing fluid, a rotatable shaft passing vertically therethrough, centrifugal members carried thereby and dipping their lower ends into said liquid and formed to spray the latter by centrifugal action upon the rotation of the shaft, together with a vertical screen concentric with the centrifugal members and rotating with said shaft, in combination with a gas inlet and a gas outlet arranged to direct the gas from the inlet through the sprayed liquid and screens to the outlet, substantially as described.

4. In a gas washer, a vessel adapted to contain the washing fluid, a rotatable shaft passing vertically therethrough, centrifugal members carried thereby and dipping their lower ends into said liquid and formed to spray the latter by centrifugal action upon the rotation of the shaft, together with a screen rotating with said centrifugal members and arranged to supplement the centrifugal action of the latter, in combination with a gas inlet and a gas outlet arranged to direct the gas from the inlet through the sprayed liquid and screens to the outlet, substantially as described.

5. In a gas washer, a vessel adapted to contain the washing fluid, a rotatable shaft passing vertically therethrough, centrifugal members carried thereby and dipping their lower ends into said liquid and formed to spray the latter by centrifugal action upon the rotation of the shaft, together with a plurality of concentric vertical screens arranged outside said centrifugal members and rotating therewith, in combination with a gas inlet and a gas outlet arranged to direct the gas from the inlet through the sprayed liquid and screens to the outlet, substantially as described.

940,104. AMBULANCE. JOHN P. L. WILSON, Cleveland, Ohio, assignor to The White Company, Cleveland, Ohio, a Corporation of Ohio. Filed July 29, 1907. Serial No. 386,111.

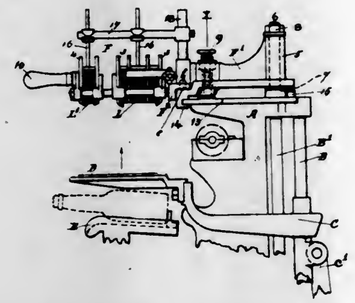


1. In an ambulance, the combination of a seat hinged to the side thereof, and a toggle whose links are respectively pivoted to the under side of the seat and to the side of the ambulance under said seat, said toggle links being of such length that when the seat is in a horizontal position the toggle link hinged to the side will be stopped by engagement with said side.

2. In an ambulance, the combination of a seat hinged to the side thereof, a toggle whose links are respectively pivoted to the under side of the seat and to the side of the ambulance under said seat, and a flanged rest-plate secured to the side of the ambulance for engagement, when the seat is in horizontal position, with that toggle link which is pivoted to the ambulance side.

3. In an ambulance, the combination of a seat hinged to the side thereof, a toggle whose links are respectively pivoted to the under side of the seat and to the ambulance side under the seat,—the said ambulance side under the seat being inclined inward, and the two links being of such length, substantially as described that when the seat is swung upward the toggle will be straightened out.

940,105. LABELING-MACHINE. FRANK O. WOODLAND, Worcester, Mass. Filed May 1, 1908. Serial No. 430,301.



1. In a labeling machine, in combination with means for supporting a bottle, means for affixing a label thereto, and glue-applying pickers that take the labels from the supply-holder and present them at position for affixment, a laterally displaceable label-holder, and means for effecting a sidewise movement thereof for temporarily displacing the label-holder out of feeding contact with the pickers.

2. In a labeling machine, a reciprocating picker-carrier with glue-applying pickers thereon, a label-holder for supplying labels to said pickers, and means for shifting the label-holder laterally to carry the labels thereon transversely from or into the path of the picker.

3. In a labeling machine, in combination with a reciprocating picker-carrier having glue-applying pickers mounted thereon, a bottom-delivery label-holder adapted for supporting a pack of labels from which labels are taken singly by said picker; a pivotal connecting means for supporting said label-holder which permits a lateral swing movement thereof for shifting the label pack laterally from and into alinment with the pickers.

4. In a bottle-labeling machine, a label-holder comprising a carrying member pivotally connected with the supporting frame to have a lateral swinging movement, and a label-holding section or body member detachably connected with said carrying member, and provided with sets of guides for sustaining a pack, or packs, of labels thereon, with the plane of the labels parallel with the plane of the swinging movement, and means for swinging said label-holder sidewise from its normal position.

5. In a labeling machine the combination, of a bottle-supporting means, a set of vertically reciprocating glue-applying pickers, a non-lifting laterally movable label-holder, means for temporarily shifting said label-holder transversely from the path of the pickers, and an automatically releasable catch-device for retaining said label-holder at its normal working position.

[Claims 6 to 9 not printed in the Gazette.]

940,106. ROLLER-BEARING WHEEL. AUGUST WULFF, Cedar Falls, Iowa, assignor to Wagner Manufacturing Company, Cedar Falls, Iowa, a Corporation of Iowa. Filed Jan. 25, 1909. Serial No. 474,174.



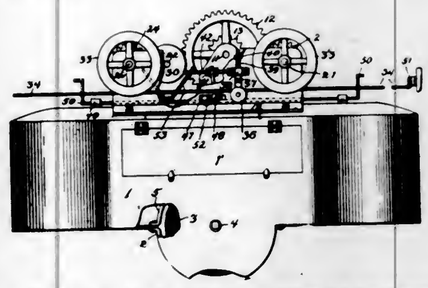
1. A wheel composed of side plates, means for connecting said plates, one plate formed with a rim, said rim formed with a flange, the opposite plate formed with an offset overlying the juncture of the first plate and rim, the latter plate also formed with a flange peripherally of the offset therein, and a bushing rigidly mounted centrally of said plates.

2. A wheel composed of side plates, means for connecting said plates, means for mounting said plates for rotation, one plate formed with a rim, said rim formed with a flange, the opposite plate formed with an offset overlying the juncture of the first plate and rim, the latter plate also formed with a flange peripherally of the offset therein.

3. A wheel composed of side plates, one of said plates concavo-convex and formed with a hub, said plate also formed with a circumferential ring, said ring formed with a circumferential rim extending laterally therefrom and said rim formed with a circumferential flange, the other plate concavo-convex to less degree and formed with a hub, the latter plate also formed with a flange offset from and circumferentially thereof, the offset at the juncture of the latter flange and plate overlying the juncture of the ring and rim of the first plate, a bushing within the hubs and means for connecting said plates.

4. A wheel composed of side plates, one of said plates concavo-convex and formed with a hub, said plate also formed with a circumferential ring, said ring formed with a circumferential rim extending laterally therefrom across the plate, said rim formed with a circumferential flange, the other plate concavo-convex to less degree and formed with a hub and a flange offset from and circumferentially thereof, the offset at the juncture of the latter flange and plate overlying the juncture of the ring and rim of the first plate, a bushing within the hubs, the ends of the hubs clenched on the ends of the bushing, a shaft within the bushing, and rollers interposed between said bushing and shaft.

940,107. RURAL-MAIL-DELIVERY CAR. WILLIAM B. YARBERRY, Goddard, Kans. Filed Oct. 15, 1908. Serial No. 457,802.



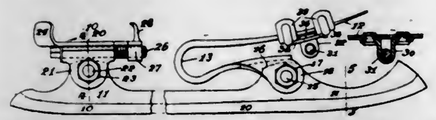
1. In a rural mail delivery car comprising a box having an oval top, V-shaped ends and a transverse semicircular projection on the under side, a vertical recess in one side of said box, a removable plate to cover said recess, an upward extension from the inner side of the aforesaid recess and a vertical longitudinal extension from the top of said car, an involute spring transversely mounted within said car in the aforesaid transverse semicircular projection, as described and specified.

2. In a rural mail delivery car comprising a box having an oval top, V-shaped ends and a transverse semicircular projection on the under side, a vertical recess in one side of said box, a removable plate to cover said recess, an upward extension from the inner side of the aforesaid recess and a vertical longitudinal extension from the top of said car, an involute spring transversely mounted within said car in the aforesaid transverse semicircular projection, a plurality of cog-wheels mounted in the aforesaid vertical recess of the car and in engagement with the aforesaid involute spring, a plurality of shafts extending from the top of the aforesaid plate, transversely over the car and pivotally mounted in the vertical longitudinal extension from the top of said car, gear wheels mounted on one end of said shafts, means for engaging said wheels with the shafts, means for alternately engaging and disengaging said wheels, means for governing the speed of said car, means for braking said car, drive wheels mounted on the aforesaid shafts to ride the trolley-wire, said wheels having grooved perimeters bearing semicircular grooved tires, as described and specified.

3. In a rural mail delivery car comprising a box having an oval top, V-shaped ends and a transverse semicircular projection on the under side, a vertical recess in one side of said box, a removable plate to cover said recess, an upward extension from the inner side of the aforesaid recess and a vertical longitudinal extension from the top of said car, an involute spring transversely mounted within said car in the aforesaid transverse semicircular projection, a plurality of cog-wheels mounted in the aforesaid vertical recess of the car and in engagement with the aforesaid involute spring, a plurality of shafts extending from the top of the aforesaid plate, transversely over the car and pivotally mounted in the vertical longitudinal extension from the top of said car, gear wheels mounted on one end of said shafts, means for engaging said wheels with the shafts, means for alternately engaging and disengaging said wheels, means for governing the speed of the car, means for braking said car, drive wheels mounted on the aforesaid shafts to ride the trolley-wire, said wheels having grooved perimeters bearing semicircular grooved tires, a yielding adjustable shank, a spring mounted on said shank, an offset on the lower end of said shank and a sheave pivotally mounted on said shank, a brake-bar slidably mounted on the top of said car, the free ends of said bar having upward and parallel bends, a bent spring rigidly affixed to said bar beneath the brake-disk, vertical pins in said bar on each side of the reversing lever, such a distance that when the car is reversed the brake will be released by the throw of the lever, as described and specified.

4. In a rural mail delivery car having driven wheels, said wheels having grooved perimeters bearing semicircular grooved rubber-tires in combination with a trolley wire, said wire mounted in an arm extending perpendicular to the pole, said arm approximately T shaped, one extension provided with a log-screw to enter the post, the lateral extensions grooved to receive the trolley-wire, as described and specified.

940,108. ICE-SKATE. ROBERT YATES, Passaic, N. J. Filed Aug. 29, 1908. Serial No. 450,832.



1. A skate having a runner, a heel plate, and a separate toe plate hinged to the runner on a single transverse bearing pin, to permit of a rocking movement of the toe plate in a vertical longitudinal plane.

2. A skate having a runner, a heel plate, and a separate toe plate comprising a spring having a single loop and supported on the runner by one of its arms.

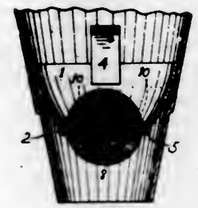
3. A skate having a runner, a heel plate, and a separate toe plate comprising a spring having a single loop hinged to the runner on a transverse bearing pin.

4. A skate having a runner, a heel plate, and a separate toe support comprising a piece of elastic metal extending rearwardly, then reverted and extended forwardly to form a spring and hinged to the runner on a transverse bearing pin.

5. A skate having a runner, a heel plate, and a separate toe support comprising a piece of elastic metal extending rearwardly, then reverted and extended forwardly to form a spring and secured at the forward end of its lower arm to the runner.

[Claims 6 to 14 not printed in the Gazette.]

940,109. SOUND-REGULATOR. WILLIAM W. YOUNG, Springfield, Mass. Filed Jan. 9, 1907. Serial No. 351,419.



1. The combination, with a tube of a sound producing or reproducing instrument or machine, of a removable sound regulator consisting of a flaring cup-shaped member open throughout and bearing at its larger end directly against the sides of said tube and otherwise curved inwardly and out of touch with such sides, the sides of said member being imperforate.

2. As a new article of manufacture, a regulator, of the class described, consisting of an externally-corrugated bell-shaped member open at both ends adapted to be inserted in and removed from a tubular part of a sound-producing or -reproducing instrument or machine, such member having an unobstructed passage therethrough and arranged at one terminal to bear directly against the sides of said tubular part.

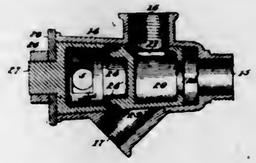
3. As a new article of manufacture, a regulator, of the class described, consisting of a soft flexible or yielding bell-shaped member open at both ends adapted to be inserted in and removed from a tubular part of a sound-producing or -reproducing instrument or machine, such member having an unobstructed passage therethrough and arranged at one terminal to bear directly against the sides of said tubular part.

4. As a new article of manufacture, a regulator, of the class described, consisting of a bell-shaped member open at both ends adapted to be inserted in and removed from a tubular part of a sound-producing or -reproducing instrument or machine, such member having an unobstructed passage therethrough and arranged at one terminal to bear directly against the sides of said tubular part, and a diaphragmal member in the mouth or most constricted part of said bell-shaped member.

5. As a new article of manufacture, a regulator, of the class described, consisting of a bell-shaped member open at both ends adapted to be inserted in a tubular part of a sound-producing or -reproducing instrument or machine, of a diaphragmal member in the mouth of said bell-shaped member adapted to open and close such mouth.

[Claims 6 to 8 not printed in the Gazette.]

940,110. ACETYLENE-GENERATOR. JOHN ZANDER, Chicago, Ill., assignor to Acetylene Apparatus Manufacturing Co., Chicago, Ill., a Corporation of West Virginia. Filed Mar. 21, 1907. Serial No. 363,584.



1. A gas generator comprising a generating chamber having a vent-pipe, a liquid-inlet and a flush-out, and unitary means for (1) simultaneously opening or closing both the liquid-inlet and the vent-pipe or (2) simultaneously opening or closing both the flush-out and the vent-pipe.

2. A gas generator comprising a generating chamber having an opening, means, including a two-way valve, for

supplying liquid and withdrawing residuum through said opening, and a chamber-vent passage controlled by said valve.

3. A gas generator comprising a generating chamber having an opening, a valve having passages for supplying liquid and withdrawing residuum through said opening, a chamber-vent pipe, and a valve-passage arranged to open or close said vent-pipe when either the liquid-inlet or flush-out is opened or closed.

4. A gas generator comprising a generating chamber having an opening controlled by a valve, the casing of said valve having a liquid-inlet port, a flush-out port and two vent-ports, a supply-pipe connected to said liquid-inlet port, a chamber-vent pipe connected to one vent-port, and a valve-plug constructed to open and close either the liquid-inlet port and the vent-ports or the flush-out and the vent-ports.

5. A gas generator comprising a generating chamber having an opening controlled by a valve, the casing of said valve having a liquid-inlet port, a flush-out port and two vent-ports, a supply-pipe connected to said liquid-inlet port, a chamber-vent pipe connected to one vent-port, and a valve-plug having one passage arranged to connect either the liquid-inlet port or the flush-out port and the generating chamber, and another passage arranged to connect the vent-ports.

[Claims 6 to 9 not printed in the Gazette.]

940,111. FLUX FOR USE IN SOLDERING. WILHELM ACKERMANN, Berlin, Germany. Filed Oct. 8, 1908. Serial No. 456,712.

1. The method of manufacturing boracic water-glass consisting in heating a mixture containing boracic acid, an alkali and water in such proportions that three to four molecules of anhydrous boracic acid correspond to one molecule of the anhydrous alkali and to a quantity of water nearly equal to the weight of the anhydrous substance.

2. The method of manufacturing boracic water glass which consists in heating a mixture containing boracic acid, an alkaline sodium combination and water in such proportions that three to four molecules of anhydrous boracic acid correspond to one molecule of sodium oxid and to a quantity of water nearly equal to the weight of the anhydrous substance.

3. A hard solder flux consisting of three to four molecules of boracic acid, one molecule of an alkali, and water.

4. As a new article of manufacture, boracic water-glass consisting of three to four molecules of boracic acid, one molecule of sodium oxid and water.

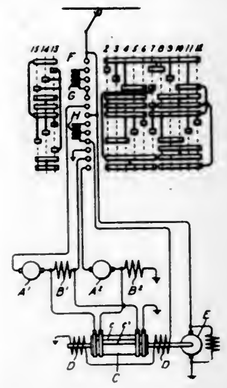
5. Method of manufacturing boracic water-glass consisting in heating one part by weight of aqueous boracic acid ($B_2O_3 + 3H_2O$) with three parts by weight of borax containing ten molecules of water ($Na_2O.2B_2O_3 + 10H_2O$).

940,112. MOTOR-CONTROL SYSTEM. ERNST F. W. ALEXANDERSON, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Sept. 11, 1907. Serial No. 392,253.

1. The method of operating a plurality of series motors mechanically connected to drive a common load, which consists in connecting the motors to the line with each motor field in series with its armature, impressing independent voltages on the field terminals of the several motors, and simultaneously varying the amounts of said voltages.

2. The method of braking a plurality of series motors mechanically connected to drive a common load, which consists in impressing independent voltages on the field terminals of the several motors and gradually increasing said voltages simultaneously as the motor speed falls, while maintaining each motor field in series with its armature.

3. The method of braking a plurality of series motors mechanically connected to drive a common load, which consists in impressing independent voltages on the field terminals of the several motors and varying simultaneously the amounts of said voltages so as to cause the motors to act as generators to return energy to the line, and then disconnecting the motors from the line and short-circuiting them.

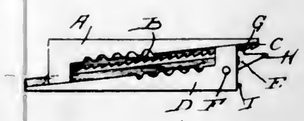


4. The method of braking a series motor which consists in connecting a source of voltage in shunt to the motor field and varying the amount of said voltage so as to cause the motor to act as a generator to return energy to the line and then disconnecting the motor from the line and short-circuiting the motor.

5. The method of operating a plurality of series motors mechanically connected to drive a common load, which consists in connecting the motors to the line first in series and then in parallel, maintaining each motor field always in series with its armature, impressing independent voltages on the field terminals of the several motors, and simultaneously varying the amounts of said voltages.

[Claims 6 to 17 not printed in the Gazette.]

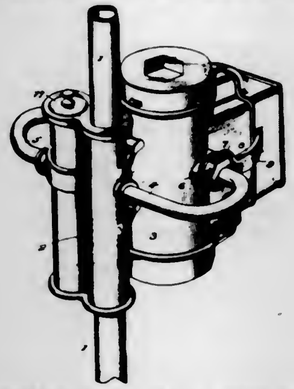
940,113. PRINTER'S QUOIN. THOMAS J. AMUNDSON, Chicago, Ill. Filed May 15, 1909. Serial No. 496,138.



1. Printers' quoins comprising in combination, a quoin having the usual side rack and a central rib serrated to form a ratchet, a companion quoin slotted inward from its thicker end in the plane of the ratchet, a pawl pivoted in the slot to engage and disengage the ratchet and provided with an arm projecting beyond the end of its quoin at some distance from the ratchet when the pawl is engaged therewith, a stop preventing the arm from swinging beyond the plane of the working face of the quoin which carries it, and a spring arranged to urge the pawl toward ratchet engaging position or oppositely toward the limit fixed by the stop, according as the stop is moved in one or the other direction from a certain point.

2. Printers' quoins comprising in combination, a quoin having a lateral rack and a central, longitudinal rib serrated to form a ratchet, a companion quoin slotted inward from its thicker end in the plane of the ratchet and provided with a bar crossing the slot near the quoin's working face, a detachable spring engaging the quoin at the bottom of the slot, bent over said bar and projecting, in the slot, beyond the same, a ratchet-engaging pawl pivoted in the slot above the free end of the spring and adapted to swing into engaging position and oppositely against the bottom of the slot and to flex said spring in leaving either limit of its path, substantially as set forth.

940,114. PROPORTIONAL METER. JAMES C. ANDERSON, Highland Park, Ill. Filed June 15, 1903, Serial No. 161,564. Renewed Mar. 30, 1909. Serial No. 486,815.



1. In combination with a main or conduit of a given area, and a measuring meter of less capacity than the main or conduit, an intermediate coupling having one passage of substantially equal area with the main or conduit and communicating with the outlet pipe of the meter, and a secondary passage communicating with the inlet pipe of the meter and also with the main passage, said two passages separated by a horizontal wall in the main passage, and means located in the secondary passage for automatically directing proportionate quantities of water back to the primary passage, and to and through the meter, substantially as set forth.

2. In combination with a main or conduit and an independent measuring meter, a coupling intermediate the main or conduit and the meter and formed with adjacent communicating water passages; a reciprocating valve located in one of said water passages and adapted to be operated in one direction by the pressure of the water in the main, and to be adjustably balanced in the opposite direction; a pipe leading from the passage in which the valve is located to one side of the meter; and a pipe leading from the opposite side of the meter and entering the primary water passage of the coupling at substantially a right angle thereto, substantially as hereinbefore set forth.

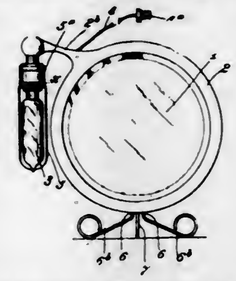
3. In combination with a main or conduit and a measuring meter, a coupling intermediate the main or conduit and the meter and communicating with the meter, a controller or valve located in the coupler and adapted to be operated by the pressure of the water in the main or conduit to direct proportionate quantities of water back to the main or conduit and to and through the measuring meter, means for moving the valve in opposition to the pressure, and means for adjusting the valve to varying pressures in the main or conduit, substantially as set forth.

4. In combination with a main or conduit and a measuring meter; a coupling intermediate the main or conduit and the meter; means for proportionately dividing the quantity of water flowing through the main or conduit; a pipe leading from the coupling to the meter to deliver a proportionate quantity of water to be measured; and a pipe leading from the meter back to the coupling and having its delivery end projecting into the coupling and transverse to the axis of the coupling, whereby the current of water delivered therefrom is directed across the current of water flowing through the coupling, substantially as hereinbefore set forth.

5. In a coupling such as described and in combination with a main or conduit and a measuring meter, a reciprocating piston valve adapted to be operated by the pressure within the main and located within a seat in the coupling, a spring for adjusting the valve to the pressures exerted upon it, and means for varying the tension of the spring, substantially as and for the purpose set forth.

[Claims 6 to 8 not printed in the Gazette.]

940,115. PORTABLE MIRROR. CHARLES W. ANGELL, Lima, Ohio. Filed July 6, 1908, Serial No. 442,023. Renewed Apr. 10, 1909. Serial No. 489,234.



1. In a portable mirror, the combination of a mirror and frame therefor, of a stud at the back of the mirror and a bent wire stand frame frictionally engaged with said stud.

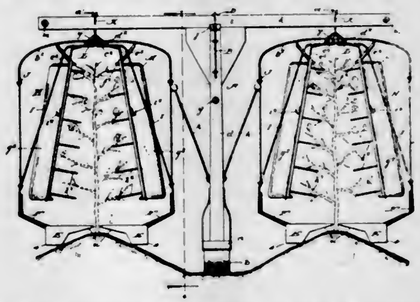
2. In a portable mirror, the combination of a mirror and frame therefor, of a stud at the back of the mirror, and a bent wire stand frame frictionally engaged with said stud, said frame including a folding leg.

3. In a portable mirror, the combination of a mirror and frame therefor, a stud at the back of the mirror, a bent wire stand frame frictionally engaged with said stud, said frame including a folding leg, and means whereby said leg may be adjusted with reference to the mirror to change its inclination when supported on a horizontal surface, substantially as described.

4. In a portable mirror, the combination of a mirror and its containing frame, said frame having an arm rigidly secured thereto, means for frictionally and rotatively supporting the mirror at the back, an electric lamp attached to said arm of the frame, and a reflector in connection with said lamp, whereby by rotating the mirror the light of the lamp can be thrown upon either side of the face of the user of the mirror, substantially as described.

5. A portable mirror comprising, in combination, a mirror and a containing frame, means for supporting the mirror, an electric lamp and reflector, and means, in connection with the mirror, for supporting the lamp and reflector beyond the edge of the mirror and rotatively with reference to the support of the mirror, whereby said lamp and reflector can be moved, without detachment from their support, to stand either at the right hand or at left hand side of the mirror to throw the light of the lamp upon either side of the face of the user.

940,116. INSECT-CATCHER. ELISHA ATTAWAY, Morrow, La. Filed Apr. 27, 1909. Serial No. 492,483.



1. The combination in an insect catcher, of carrying means movable above a row of plants, agitators connected with and arranged below the carrying means and movable through portions of the plants at opposite sides of the

row, traps disposed below the said agitators and having inwardly and upwardly extending flanges, receiving plates connected to and extending outwardly and upwardly relative to the traps, portions interposed between the traps and the receiving plates and having transversely disposed oblong apertures, and hangers detachably connected with the carrying means and having portions extending through the said oblong apertures and terminating in angularly disposed portions which in one position of the hangers are adapted to be withdrawn through the oblong apertures.

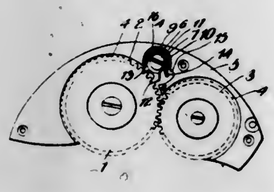
2. An insect catching apparatus comprising a main frame movable longitudinally between two rows of plants, a sub-frame superposed on the main frame and adapted to overhang the rows of plants, and catching devices each connected with and depending from an overhanging portion of the sub-frame and respectively comprising agitators, and traps disposed below the agitators.

3. An insect catching apparatus comprising a main frame movable longitudinally between two rows of plants, a sub-frame superposed on and detachably connected with the main frame and adapted to overhang the rows of plants, hangers detachably connected with the overhanging portions of the sub-frame, longitudinal bars supported by and detachably connected with the hangers, agitators detachably connected with and depending from the said longitudinal bars and adapted to move at opposite sides of the rows of plants and having means movable through portions of the plants, and traps disposed below the agitators and detachably connected with the hangers.

4. An insect catching apparatus comprising a main frame movable longitudinally between two rows of plants, a sub-frame superposed on and detachably connected with the main frame and adapted to overhang the rows of plants, fore and aft hangers detachably connected with the overhanging portions of the sub-frame, longitudinal bars supported by and detachably connected with the fore and aft hangers, agitators detachably connected with and depending from the said longitudinal bars and adapted to move at opposite sides of the rows of plants and having means movable through portions of the plants and also having shields arranged outside said means, traps disposed below the agitators and detachably connected with the hangers and having inwardly and upwardly inclined flanges, receiving plates connected to and extending outwardly from the traps and resting on the hangers, and a connection between the forward portions of the sub-frame and the rear hangers.

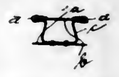
5. The combination of two opposed frame portions interlocked with each other; one of said frame portions having a bifurcated end extending beyond the other frame portion, a pivoted bail-shaped catch on said bifurcated frame portion, a hook connected to the other frame portion and adapted to extend through the said bifurcation, and a removable link having an eye removably arranged on the hook and adapted to be removably secured in the bail-shaped catch.

940,117. WATCH. ANDERS AUNE, Waltham, Mass. Filed Dec. 3, 1908. Serial No. 465,810.



In a winding mechanism, a winding wheel, a click comprising a pivoted arm, a click pawl carried at the end on one side of said arm and lying in the path of and adapted to be operated by the winding wheel, a locking pawl on the end of the arm at the opposite side, said locking pawl being longer than the click pawl and adapted to be engaged with the teeth of the winding wheel to lock the same, and a circular spring integral with the arm adapted to maintain the click pawl in engagement with the winding wheel.

940,118. FLEXIBLE RULER FOR DRAWING CURVES. CARL BARTELS and OTTO BARTELS, Schwaan, Germany. Filed Oct. 29, 1908. Serial No. 460,051.



1. A flexible ruler comprising two resilient plates held in spaced parallel relation, and a plurality of separating strips immovably attached to one plate and slidably connected at each end to opposite edges of the other plate.

2. A flexible ruler comprising two resilient plates held in spaced parallel relation, and separating strips having looped ends immovably attached intermediate their ends to one plate and slidably connected by their looped ends to the other plate.

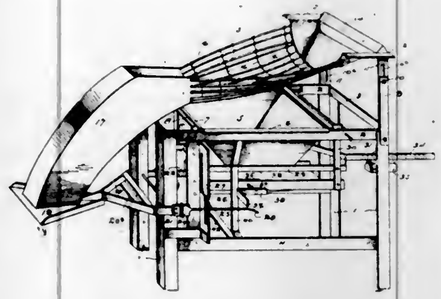
3. A flexible ruler comprising two resilient plates, and strips immovably attached to one plate and adapted to hold the other plate in spaced parallel relation thereto by loops on the ends of said strips frictionally engaging the second named plate.

4. A flexible ruler comprising two resilient plates held in spaced parallel relation, and a plurality of separating strips immovably attached intermediate their ends to one of said plates and having loops formed on their ends to frictionally embrace the edges of the other plate and slide thereon when the ruler is deflected.

5. A flexible ruler comprising two resilient plates held in spaced parallel relation, resilient strips fixed immovably on one of said plates and slidably attached to the other plate by self-acting frictional connections.

[Claim 6 not printed in the Gazette.]

940,119. EGG-SEPARATOR. PATRICK A. BAYLESS and CHARLES F. REDMAN, Oklahoma, Okla. Filed Apr. 24, 1909. Serial No. 491,944.



1. An egg separating apparatus comprising a main frame, a separating chute carried thereby, a discharge nozzle carried by said chute for conveying the yolks, a rocking tray receiving the whites from said chute, and a tilting section carried by said tray which is rocked to an open position when the whites and yolks of an egg fall thereon.

2. An egg separating apparatus comprising a main frame, a screening chute carried thereby for separating the yolks from the whites, a tray receiving the whites from said chute, and a tiltable section carried by said tray which is rocked to an open position when the whites and yolks of an egg fall thereon.

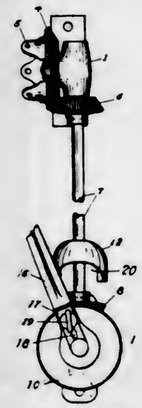
3. An egg separating apparatus comprising a chute for separating the whites from the yolks and delivering the same separately, a tray receiving the whites from said chute, and means carried by said tray for permitting the escape therefrom of both the yolks and whites should the same be delivered thereon.

4. An egg separating apparatus comprising a separating chute, a nozzle carried thereby, a tray in communication with said chute, and a tiltable section carried by said tray.

5. An egg separating apparatus comprising a chute for separating the whites from the yolks but adapted to permit the escape of the entire contents of a defective egg, and a counterweighted tray receiving the whites from said separating chute and adapted to be automatically actuated to permit a defective egg to escape therefrom.

[Claims 6 to 26 not printed in the Gazette.]

940,120. AWNING-FIXTURE. FREDERICK O. BERG, Spokane, Wash. Filed Nov. 16, 1908. Serial No. 462,982.

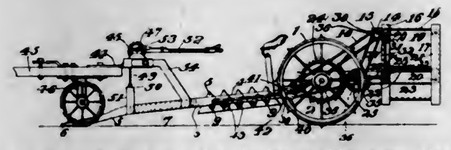


1. In an awning fixture, the combination with a support, a shaft mounted upon the support, and a gear-wheel attached to the shaft, of a gear-inclosing cup slidably and revolubly mounted upon the shaft, the said cup having lugs engaging the cogs of the gear and the support respectively.

2. The combination with a support, a shaft mounted upon the support, and a cog-wheel attached to the shaft, of a locking member revolubly and reciprocally mounted upon the shaft, the said member having lugs engaging the cogs of the wheel and a recess engaging a lug on the support.

3. The combination with a support, a shaft mounted upon the support, and a cog-wheel attached to the shaft, of a cog-inclosing member revolubly and reciprocally mounted upon the shaft, and means for locking the said member to the cogs of the wheel and the support respectively.

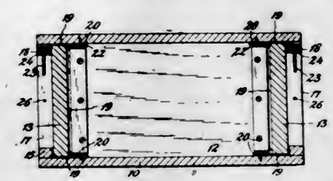
940,121. POTATO DIGGING AND GATHERING MACHINE. JOHN K. BLEASHACK, Bloomer, Wis. Filed Dec. 14, 1908. Serial No. 467,444.



1. A potato digging and gathering machine comprising a main axle, a carriage pivotally mounted thereon, a shovel at the front end of the carriage, a carrier arranged in rear of the shovel, to receive the potatoes, beaters pivotally mounted in rear of the carrier to separate the dirt and vines from the potatoes, a second upwardly inclined carrier to receive the separated potatoes, vines and dirt, a carrier frame supported upon the carriage in rear of the supporting wheels, a third carrier arranged in said carrier frame to receive the potatoes, dirt and vines from the upwardly inclined carrier, a fourth carrier arranged in the carrier frame to tavel in a direction at right angles to the direction of travel of the third carrier, a receptacle arranged at one side of the carrier frame to receive the potatoes, and means for driving the carriers and beaters from the main axle, the slats of the third mentioned carrier being spaced apart sufficiently to permit the potatoes, free of the vines and dirt, to drop upon the fourth mentioned carrier.

2. In a machine of the class described, a carriage provided with rearwardly and longitudinally extending extensions, an upright carrier frame mounted upon the extensions of the carriage, a slatted carrier having horizontal upper and lower portions mounted in the carrier frame, means supported by the main supporting frame for digging the potatoes and for separating them from the dirt and vines, an upwardly inclined carrier mounted in the main frame to receive and deliver the separated potatoes, dirt and vines upon the upper portion of the slatted carrier, a third carrier mounted in the carrier frame between the upper and lower horizontal portions thereof and arranged to travel in a direction at right angles to the direction of travel thereof, a potato receptacle arranged at one side of the carrier frame to receive the potatoes from the third carrier, and means for driving the carriers, the slats of the slatted carrier being spaced sufficiently apart to permit the potatoes, free of the dirt and vines, to fall upon the third carrier.

940,122. KNOCKDOWN BOX. THEODORE A. BRENNER, Reedsville, Wis. Filed Oct. 9, 1908. Serial No. 456,999.



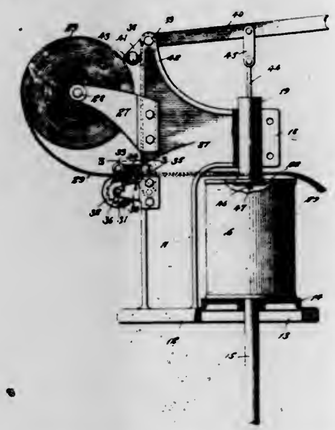
1. A knock down box, comprising top and bottom and side and end pieces, cleats on the ends of the top and bottom and side pieces to fit outside of the end pieces, metal guide strips on the inner faces of the top and bottom and side pieces spaced from the cleats and parallel therewith and having one edge spaced from the pieces to which they are connected, said guide strips being adapted to fit inside of the end pieces approximately the full length thereof, and metal locking strips on the top and bottom and side edges of the end pieces with their edges projecting beyond the inner face of the end pieces and adapted to slidingly fit within the slots formed by the spaced edges of the guide strips and the pieces to which they are secured when said end pieces are fitted between the guide strips and the cleats.

2. A knock down box, comprising top and bottom and side and end pieces, cleats on the ends of the top and bottom and side pieces to fit outside of the end pieces, the cleats of the bottom piece bearing against the cleats of the side pieces, and the cleat of one side piece bearing on the bottom piece and the cleat of the top piece, and the cleats of the other side piece bearing on the bottom piece and the top piece, and the cleats of the top piece bearing on the cleats of the last mentioned side piece and extending through openings therefor in the other side piece to the end of the top piece, guide strips on the top and bottom and side pieces spaced from the cleats and parallel therewith with one edge raised from the surface of the

pieces to which they are connected, locking strips on the top and bottom and side edges of the end pieces with their edges projecting laterally from the face of the end pieces and fitting within the spaced edges of the guide strips when the edges of the end pieces are fitted between said guide strips and the cleats, and means for engaging the top piece with a side piece to lock all of the parts together.

3. A knock down box, comprising top and bottom and side and end pieces, cleats on the top and bottom and side pieces, guide strips on the top and bottom and side pieces spaced from the cleats and parallel thereto with one edge raised from the face of the piece to which it is attached, locking strips on the top and bottom and side edges of the end pieces projecting therefrom to fit within the raised edges of the guide strips when the edges of the end pieces are fitted between said guide strips and the cleats, the cleats of the bottom piece being confined between the side pieces and the side pieces being confined between the top and bottom pieces, and T-shaped bolts fitting in correspondingly shaped openings in the cleats of the top piece and passing through openings in the cleats of one of the side pieces with its nuts engaging said side piece to clamp the parts together, the other side piece being provided with cut away parts to permit the cleats and guide strips of the top piece to pass, there being openings in the ends of the bottom and side pieces to receive the bolts when the parts are disconnected and laid one upon the other with the end pieces contained between them.

940,123. VACUUM-SEALING MACHINE FOR CONTAINERS. JULIUS BRENZINGER, Mount Vernon, N. Y., assignor to Max Ams Machine Company, Mount Vernon, N. Y., a Corporation of New York. Filed Oct. 28, 1907. Serial No. 399,540.



1. The combination, with means for forming a sealed chamber with and exterior of an apertured container, of means for exhausting air from said chamber, and means for successively forming a stopper and delivering the same through said chamber to seal said aperture.

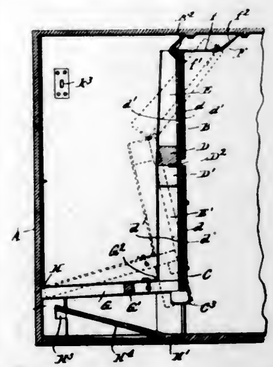
2. The combination, with means for forming a sealed chamber with and exterior of an apertured container, of means for exhausting air from said chamber, and means adapted at one operation to form a stopper and deliver the same through said chamber to seal said aperture.

3. The combination, with means for forming a sealed chamber with and exterior of an apertured container, of means for exhausting air from said chamber, means for advancing a strip of stopper-forming material, and means for successively punching a stopper therefrom and delivering the same through said chamber to seal said aperture.

4. The combination, with a body having a projecting yielding ring in the lower face thereof and means for applying the apertured flat face of a container to said ring to form therewith and with said body a chamber open through said aperture to the interior of said container, of an exhaust passage leading through said body from said chamber, and means for successively forming a stopper and delivering the same through said chamber to seal said aperture.

5. The combination, with a body having a projecting yielding ring in the lower face thereof and means for applying the apertured flat face of a container to said ring to form therewith and with said body a chamber open through said aperture to the interior of said container, of an exhaust passage leading through said body from said chamber, means for advancing a strip of stopper-forming material, and means for successively punching a stopper therefrom and delivering the same through said chamber to seal said aperture.

940,124. REFRIGERATOR-CAR. ALFRED G. BROWN, Winona, Minn., assignor to Union Fibre Company, Winona, Minn., a Corporation of Minnesota. Filed Apr. 12, 1909. Serial No. 489,357.



1. In a refrigerator car, the combination with a bunker having a front wall formed of an upper and lower section hinged together to fold inwardly, a bottom section hinged at one end to the end wall of the car and coöperating at the other end with the lower end of the lower section, said top section being suspended from the top of the car at a greater distance from the end wall of the car than the height of said section whereby the sections may be folded inwardly and upwardly against the top and end of the car respectively.

2. In a refrigerator car, the combination with a bunker having a front wall formed of an upper and lower section hinged together to fold inwardly, a bracket secured to the car roof from which the top section is freely suspended and in which said section moves back and forth during the folding movement.

3. In a refrigerator car, the combination with the bunker, having a front wall of two sections hinged together, a support from which the top section is suspended, and coöperating locking means on the top section and support for locking said section at the extremes of its swinging movement.

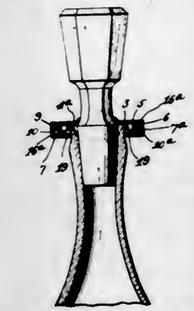
4. In a refrigerator car, the combination with the ice bunker, having a sectional front wall, brackets mounted on the car roof, a pintle carried by the top wall section by means of which it is suspended from the bracket, and coöperating locking means on the bracket and pintle for locking the top section at extremes of its movement, substantially as described.

5. In a refrigerator car, the combination with an ice bunker having hinged sectional walls, a bracket secured to the car roof having a depressed portion and a horizontal portion, a pintle carried by the top section of the bunker adapted to move back and forth in said horizontal portion

of the bracket during the folding movement of the section, and to rest within the depressed portion at the extremes of said movement, and means for locking the section, substantially as described.

[Claim 6 not printed in the Gazette.]

940,125. BOTTLE-LOCK. WILLIAM H. BRYAN, Baltimore, Md. Filed Nov. 6, 1908. Serial No. 461,872.



1. A bottle lock comprising a cover, a permutation locking mechanism including a bolt capable of engaging a bead on the exterior of the bottle, said cover, locking mechanism and bolt removable from the bottle as a unit.

2. A bottle lock comprising a cover, a permutation mechanism and a spring actuated bolt urged into locking position, said permutation mechanism controlling the movement of the bolt, said cover permutation mechanism and bolt removable from the bottle as a unit.

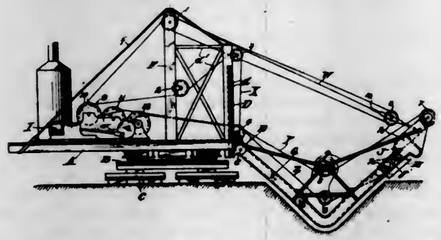
3. A bottle lock comprising a cover provided with a notch, a permutation ring having a notch capable of registering with that in the cover, a locking member having a lug capable of entering the registering notches and a casing inclosing the locking member and ring and rotatably securing them to the cover.

4. The combination with a stopper and a notched cover secured thereto, said cover forming a permutation member of a lock; of a permutation ring also having a notch capable of registering with the notch in the cover, and a locking member having a lug capable of entering the notches when registering.

5. The combination with a permutation locking mechanism having a plurality of coöperating relatively movable members and adapted to engage a continuous bead on the exterior of the bottle; of a stopper connected to one of the relatively movable members of said mechanism to operate the same.

[Claims 6 to 14 not printed in the Gazette.]

940,126. DRAINAGE-EXCAVATOR. MORTON G. BUNNELL, Chicago, Ill., assignor to Frederick C. Austin, Chicago, Ill. Filed Dec. 11, 1908. Serial No. 467,051.



1. In a drainage excavator, a runway pivoted at one end to swing up and down, an excavating bucket, means for causing the bucket to travel back and forth on the said runway, means whereby the bucket dumps without leaving the runway, and means for effecting a raising and lowering of the pivoted end of said runway.

2. In a drainage excavator, a runway arranged to swing up and down, adapted to hang down in the excavation, an excavating bucket and means for causing the same to travel back and forth on the said runway, to form the excavation, and means on the outer end of the runway for causing the bucket to automatically discharge its load before returning to starting point.

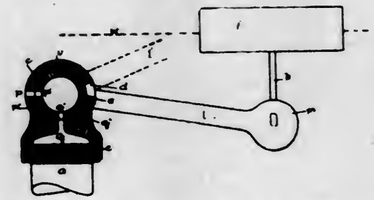
3. In a drainage excavator, a vertically swinging runway, an excavating bucket and means for causing it to travel back and forth on the runway, said runway being substantially V-shaped, and having one or more sheaves arranged above and in line with or centrally of the rounded apex or bottom thereof, the said sheave or sheaves constituting part of the said means for causing the bucket to traverse the runway.

4. In a drainage excavator, a substantially V-shaped runway pivoted at one end, means for raising and lowering the pivoted end of said runway, an excavating bucket and means for causing it to travel back and forth on the said runway, and means on the outer end portion of the runway for automatically causing the bucket to discharge its load.

5. In a drainage excavator, a vertically swinging runway, an excavating bucket, means for causing the bucket to travel back and forth on the said runway, means whereby the bucket dumps without leaving the runway, and means for effecting a vertical and bodily raising and lowering of the entire runway, whereby the depth of the ditch or trench may be varied without varying the slant or angle of the sides thereof.

[Claims 6 to 21 not printed in the Gazette.]

940,127. FLOAT-VALVE FOR WATER-TANKS. EDWIN N. CAMPBELL, Council Bluffs, Iowa. Filed Nov. 30, 1908. Serial No. 465,149.



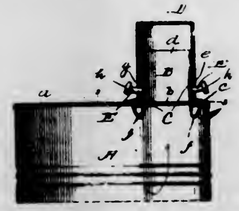
1. In a float valve, the combination of a tank, a supply pipe, a valve housing receiving said supply pipe, the said valve housing having a port communicating with said supply pipe and a rotary valve adapted to open and close said port in said housing and a projection upon said valve at right angles to said port adapted to press the valve against the side of the chamber having the said port, and a weighted lever attached to the end of said valve and a float attached to said lever.

2. In a float valve, the combination of a supply pipe, a valve housing receiving said supply pipe, a port communicating with said supply pipe in said housing, a second port, a rotary valve adapted to open and close both of said ports and a projection upon said valve at right angles with the first named port, and said projection arranged to strike the housing of said valve when said ports are closed by the rotation of said valve, and a weighted lever attached to said rotary valve and extending in the same direction as said projection and a float and connection engaging said weighted lever.

940,128. CLOSURE FOR POWDER-CANS. GEORGE W. CHILDS, Seeleyville, Ind. Filed Oct. 14, 1908. Serial No. 457,683.

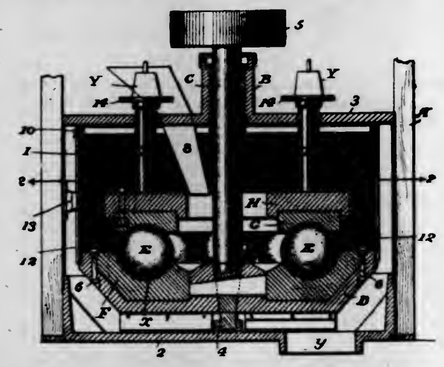
The herein described closure for powder cans, comprising a tubular body having an outwardly extending

horizontal flange at its lower end, adapted to bear on the head of a can, around an opening in said head, a removable cap on the tubular body, resilient connectors fixedly connected at their upper ends to the inner side of the tubular body and extending through the lower end of the body and having outwardly-directed heads at their lower ends and below the lower end of the body; the said heads having downwardly and inwardly inclined outer



sides and also having horizontal upper sides separated from the under-side of the body flange by a space of a size to snugly receive the head of the can, and finger-pieces fixed to and extending outwardly from the connectors, at intermediate points in the length thereof, and also extending loosely through apertures in the wall of the tubular body.

940,129. PULVERIZING-MILL. JOHN C. CLARK, Atlanta, Ga. Filed Dec. 5, 1908. Serial No. 466,160.



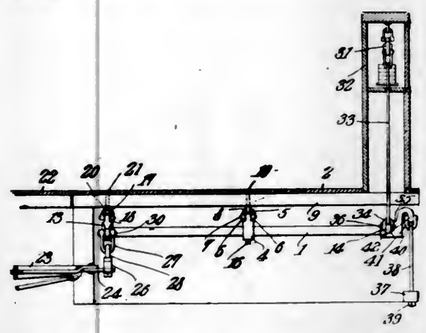
1. The combination in a grinding machine of a vertical rotatable shaft, a basin carried at the lower end of the said shaft provided with a grooved annular grinding face, a series of spherical grinding members, a ring resting upon said members, arms extending upwardly from said ring, means for supporting removable weights upon said arms, and a stationary spider having openings through which the arms extend.

2. The combination in a grinding machine of a vertical rotatable shaft, a basin carried at the lower end of the said shaft provided with a grooved annular grinding face, a series of spherical grinding members, a ring resting upon said members, arms extending upwardly from said ring, means for supporting removable weights upon said arms, a stationary spider having openings through which the arms extend, and a screen carried by the basin and extending therefrom to said spider.

3. The combination of the frame, central bearings, shaft rotating in said bearings, a basin carried by the shaft, grinding members in the basin, a yielding screen carried by the basin and extending upward from the periphery thereof, vertical ribs on said screen, and a rigid contact piece carried by the frame in position to be struck by the ribs.

4. The combination in a grinding machine, of a vertical rotatable shaft, a basin carried at the lower end of the said shaft and provided with a grooved annular grinding face, a series of spherical grinding members, a ring resting upon said members, arms extending upwardly from said ring, means for applying pressure to said arms, and a stationary spider having openings through which the arms extend.

940,130. SCALE EXTENSION. DAVID N. COLLINS, Colorado Springs, Colo. Filed June 9, 1908. Serial No. 437,582.



1. In a weighing scale of the character described, an extension consisting of pipe sections; a supporting frame; a lever on one end of the pipe extension hinged at its rear end to and suspended from the supporting frame; a scale platform with an extension; a hinged connection between the outer end of said lever, and the scale platform extension; a scale beam and rod; and a lever on the other end of the pipe extension hinged at its rear end to and suspended from the supporting frame, and hinged to the scale beam rod at its forward end.

2. In a weighing scale of the character described, an extension consisting of pipe sections; a supporting frame; levers on the ends of the pipe extension hinged at their rear end to and suspended from the supporting frame; hinged supporting means suspending the pipe sections between the ends of the pipe extension; a scale platform having an extension; a hinged connection between the outer end of one of the pipe levers and the scale platform extension; a scale beam and rod; and a hinged connection between the outer end of the other pipe lever, and the scale beam rod.

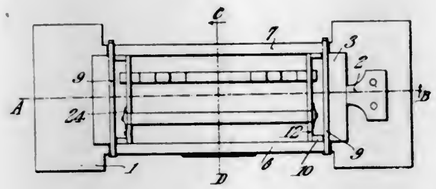
3. In a weighing scale of the character described, a supporting frame; an extension formed of pipe sections; a supporting member connecting the adjacent ends of the pipe sections and hinged to the supporting frame; a lever mounted on one end of the pipe extension and hinged at its rear end to and suspended from the supporting frame; a scale platform with an extension; a hinged connection between said extension, and the outer end of one of the pipe levers; a scale beam and rod; and a hinged connection between the outer end of the other pipe lever and the scale beam rod.

4. In a weighing scale of the character described, a supporting frame; a scale beam and rod; an extension consisting of pipe sections hinged to and suspended from the supporting frame; a lever on each end of the pipe extension hinged at its rear end to and supported from the supporting frame; a scale platform with an extension; a flexible hinged connection suspended from the outer end of one of the pipe levers in which connection rests the end of the scale platform extension; and a hinged connection between the outer end of the other pipe lever, and the scale beam rod.

5. In a weighing scale of the character described, a supporting frame; a scale beam and rod; an extension consisting of pipe sections hinged to and suspended from the supporting frame; a lever on each end of the pipe extension hinged at its rear end to and supported from the supporting frame; a scale platform with an extension; a hinged connection between said extension and the outer end of one of the pipe levers; a hinged connection between the other pipe lever and the scale beam rod; and means for limiting the upward movement of said pipe lever.

[Claims 6 and 7 not printed in the Gazette.]

940,131. MACHINE FOR MOLDING CONCRETE BLOCKS. CHARLES COLWITZ, Shiocton, Wis. Filed May 8, 1909. Serial No. 494,838.



1. A mold including a supporting structure, a longitudinally slotted pallet removably mounted on said structure, there being a slot within the structure and registering with the slot in the pallet, front and rear panels hingedly connected to the supporting structure, said pallet being interposed therebetween, end panels detachably secured to the side panels and bearing on the pallet, said pallet having transverse shoulders constituting abutments for the end panels, there being slots extending into said end panels from the top and bottom edges thereof, a core removably mounted within the upper slots in the end panels and having projecting portions bearing on the pallet, a core slidably mounted within the slots in the pallet and supporting structure, and removably mounted in the lower slots in the end panels, means for supporting said last mentioned core above the pallet, and means for shifting said core downwardly within the slots.

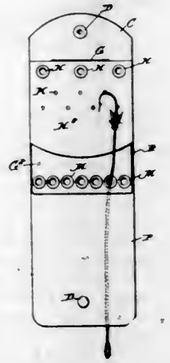
2. A mold including a slotted table, front and rear panels hingedly connected to the table, retaining cleats on said panels, end panels interposed between the front and rear panels and bearing against the cleats, a pallet extending under the end panels and between the front and rear panels, said pallet having a slot registering with the slot in the table, a core slidably mounted within the registering slots and projecting into slots in the end panels, means connected to the table for supporting the core and means for lowering the core within the slots.

3. The combination with a table having a slot therein and guide loops extending downward from the table and under the slot, of front and rear panels hingedly connected to the table, end panels interposed therebetween, a pallet insertible under the end panels and between the side panels, said pallet having a slot registering with the slot in the table, a core slidably mounted within the registering slots and projecting into slots in the end panels, means for supporting the core between the panels, and means for lowering the core into the guide loops.

940,132. FLY-BOOK. SAMUEL E. CREASEY, Portland, Me. Filed June 30, 1909. Serial No. 505,129.

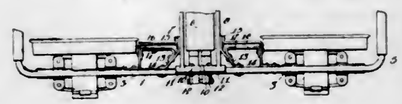
1. A fly book comprising, a body portion presenting on its face a hard, smooth surfacing layer, a facing strip overlying the layer and provided with holes to receive the hooks, the said body portion provided at its base with holes to receive and maintain separate the snells, and flaps at opposite edges of the body portion to fold over and protect the tackle.

2. A fly book comprising, a body portion, a plate of celluloid secured on the face of the body portion, a facing strip overlying the layer and provided with holes to receive the hooks, means securing the said body portion and the celluloid plate together at the lower edge and presenting holes to receive and maintain separate the snells,



and flaps at the opposite edges of the body portion adapted to fold one over the other, and means for securing the said flaps together.

940,133. CAR-TRUCK. EDMUND A. CURTIS, Decatur, Ill. Filed May 9, 1908. Serial No. 431,738.



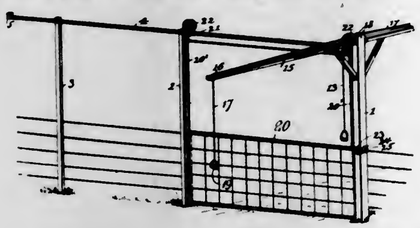
1. In a truck frame, the combination with upper side frame members or wheel pieces, of a pair of transom bars fitting between said wheel pieces and provided at their ends with integral abutting members extending at right angles to the ends of the transom bars and engaging the inner ends of adjacent flanges coöperating with each other to act as transverse braces for the transom bars.

2. In a truck frame, the combination with upper side frame members or wheel pieces, of a pair of transom bars fitting between said wheel pieces and each provided at each end with a right angled extension over-lying and resting directly upon the upper edge of the corresponding wheel piece, the adjacent extensions being arranged to engage each other at their inner ends, and an angle brace connected to the outer face of each end of each transom bar and to the inner face of the adjacent wheel piece.

3. In a truck frame, the combination with upper frame members or wheel pieces, of transverse bars spaced apart and fitting between said wheel pieces and each provided at each end with an extension over-lying and resting directly upon the upper edge of the corresponding wheel piece, and independently formed three-sided strut braces secured to and engaging the outer faces of the transom bars and the corresponding wheel pieces at points remote from the exterior angle formed between the wheel pieces and transom bars.

4. In a truck frame, the combination with upper side frame members or wheel pieces, of spaced apart transom bars fitting between said wheel pieces and each provided with a right angled extension over-lying and resting directly upon the upper edge of the corresponding wheel piece, adjacent ones of said extensions coöperating with each other to form brace members, and independently formed three-sided angle braces secured to and engaging the outer faces of the transom bars and the corresponding wheel pieces at points remote from the exterior angles formed by said transom bars and wheel pieces.

940,134. SLIDING GATE. FRED H. DOERING, Salida, Colo. Filed Apr. 5, 1909. Serial No. 488,011.



1. In a sliding gate, a latch post having formed in its upper end a passage and a vertically disposed recess, track supporting posts, a gate supporting track pivotally mounted at one end in one of said posts and having its free end engaged with the passage and recess in said latch post, a cross bar secured to the upper end of said latch posts, guide pulleys arranged on the outer ends of said bar and in the upper end of said latch post, track raising cords connected to the free end of the track and extending in opposite directions through said guide pulleys whereby the free end of the track may be raised from either side of the gate, a track supporting spring arranged in the recess in said latch post, a spring retracting cord connected to said spring and extending down to within convenient reach of the person passing through the gate, whereby said spring may be retracted to permit the free end of the track to lower after being raised by the track raising cords, and a gate slidably mounted on said track and adapted to slide to open and closed positions when the free end of the track is raised and lowered.

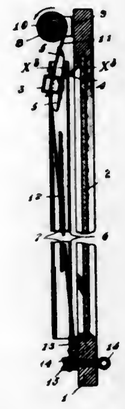
2. In a sliding gate, a latch post, a gate supporting track pivotally mounted at one end and adapted to loosely engage the track posts at its free end, means to raise the free end of the track in said gate post, a spring to hold said end of the track in raised position, means to retract said spring and thus permit the free end of the track to lower, a gate having a supporting frame, supporting rollers mounted in the upper end of said frame and adapted to travel on said track whereby when the free end is in raised position, the gate will open and when said end of the track is in a lowered position, the gate will close, a keeper on said latch post, and a latch on the gate adapted to automatically engage said keeper when the gate closes and to be disengaged therefrom when the free end of the track and gate are raised.

940,135. DEVICE FOR CLEANING THE OUTSIDE OF WINDOWS. JOHN EDMAN, Minneapolis, Minn., assignor of one-half to Martin L. Hundeby, Minneapolis, Minn. Filed July 27, 1908. Serial No. 445,458.

1. The combination with a window and a pair of laterally spaced vertical guides, secured adjacent to the sides thereof, each of which guides has inner and outer channels that run together at upper and lower extremities, of a bar having a scraper blade for action on the window pane and arranged to engage with the sash, at the limit of its upper movement, shoes rigidly secured to the ends of said bar and having reversely beveled upper and lower ends, a device operating to yieldingly hold said bar in its uppermost position, and a downwardly extended operating connection from the said bar, whereby the said shoes will travel through the inner channels of said guides when moved downward and will travel through the outer channels of said guides when moved upward.

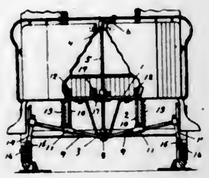
2. The combination with a window and a pair of laterally spaced vertical guides secured adjacent to the sides thereof, of a guide bar having a scraper blade for action on the window pane, the said vertical guides being adjustable toward and from the window pane to vary the engagement of said scraper blade with the pane, and means for moving said blade-equipped bar from the inner side of said window pane, substantially as described.

3. The combination with a window and a pair of laterally spaced vertical guides secured adjacent to the sides thereof, each of said guides having inner and outer channels that run together at their upper and lower extremities, of a bar having a scraper blade for action on the



window pane, shoes applied to the ends of said bar and having reversely beveled upper and lower ends, a device operating to yieldingly hold said bar in one extreme position, and an operating connection from said bar extending to the inner side of the window, substantially as described.

940,136. SWITCH-OPERATING MECHANISM FOR CARS. FRANK G. EIBEL, Lancaster, Pa. Filed Mar. 13, 1909. Serial No. 483,214.



1. In a switch-tongue operating mechanism, the combination with the car frame, a supporting frame secured to and depending therefrom, a vertical shaft journaled in said hanger and provided with a turning and a locking means, a shifting lever formed with bifurcated swivel ends and secured upon the lower end of said vertical shaft, switch-tongue operating rods secured to said swivel ends and adapted to be extended or receded by the action of said shaft, means for retaining said rods in a normally raised position, and means for depressing said rods to bring the switch-tongue mover into action.

2. In a railway switch operating mechanism, in combination with the car platform, of a vertical shaft extending above and below said platform, a locking means secured upon said shaft above said platform for retaining said shaft in a semi-revolved position, a cross arm secured upon the lower end of said shaft below said platform, lateral movable rods carried in vertical movable slides and having their inner ends secured to said cross arm by a swivel connection, adjustable arms provided with swivel-tongue operating V-shaped rollers secured upon the outer ends of said rods, means for retaining the outer ends of said rods in a normally raised position, and means for depressing the ends of said rods and the switch-tongue operating rollers held thereby.

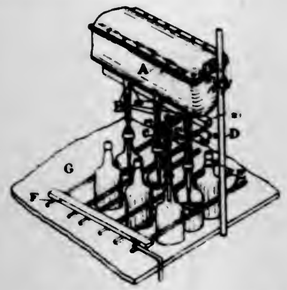
940,137. COINCIDENCE-TELEMETER. OTTO EPPENSTEIN, Jena, Germany, assignor to The Firm of Carl Zeiss, Jena, Germany. Filed Jan. 4, 1909. Serial No. 470,595.



1. A telemeter consisting of two telescopes with one ocular, but each having a lens system which produces a real object image extending through the ocular field in the direction of the base line, one of the lens systems having a greater focal length than the other, and a scale system fixed in the ocular field with the strokes at right angles to the base line.

2. A telemeter consisting of two telescopes with one ocular, one telescope having a lens system which produces a real object image extending through the ocular field in the direction of the base line, the other telescope having two lens systems of different focal length, the focal length of one system being larger and the focal length of the other system smaller than that of the lens system of the first telescope, and the partial real object images produced by the two lens systems of the second telescope extending side by side through the ocular field in the direction of the base line, and two supplementary scales of opposite direction fixed in the ocular field side by side with the strokes at right angles to the base line.

940,138. BOTTLE-FILLING MACHINE. JAMES M. FALLS and LEONARD P. WILLIAMS, Louisville, Ky., assignors to Louisville Filler Company. Filed Aug. 26, 1908. Serial No. 450,346.



1. In a bottle-filling machine, an improved delivery apparatus for air and overflow liquids from the bottles while filling, being the combination of a sliding perforated tube closed above the perforation, a valve integrally attached to the sliding tube, means for providing a tight contact between the said valve and the corresponding surface below same in such manner as to seal the sliding tube, a headpiece inclosing a chamber through which the upper portion of said tube slides, and which bears the fixed valve seat, a spring operating to seat said valve, and means for arresting said tube as it enters a bottle beneath, with the air and overflow outlets from a multiplicity of bottles in a different row, and means for conducting the air and overflow liquids into the aforesaid chamber.

2. In a bottle filling machine, the head piece inclosing a cylindrical chamber into which leads an inflow tube, means for firmly holding said head piece at a variable distance in front of a line of filling tubes, a tube closed at the top and designed to slide upward and downward through said chamber, said tube being perforated so that when raised the perforations drain said chamber, and two corresponding valve seats, one integral with the floor of the chamber, the other fixed to the sliding tube, the two being so placed that when the tube slides to its lowest position the chamber is completely sealed with the exception of the inflow tube.

3. In a bottle filling machine, air tubes for the escape of air and overflow liquid from bottles while liquid is entering same and a device for triplicate sealing of the said air and overflow tubes, consisting of an air tube sealed in each of several movable filling tubes, chambers into which said air tubes discharge while the filling tube is discharging but whose walls close the opening of said air tubes when the filling tube is depressed; a conduit leading from said chambers and terminating in a second chamber, a sliding delivery tube in said second chamber perforated so that the perforations drain the chamber when the sliding tube is pushed upward but are closed by the bearing in which the tube slides, when said tube is depressed, and a spring-operated valve concentric with the sliding tube, seating when the tube is depressed and adapted to seal the outflow passage from the chamber.

4. In a bottle filling machine, parts forming a closed passage for conducting the air and overflow liquid from bottles while filling into a bottle or bottles in one of the transverse rows not yet advanced to a filling position, and a spring-actuated valve hermetically closing said air and overflow passage so that no opening appears from end to end, said valve being closed by a spring and opened by the upward pressure of a bottle-top.

5. In a bottle-filling machine, the combination of a multiplicity of filling tubes provided with air and overflow tubes, parts forming a single closed chamber into which all of said air and overflow tubes deliver without access of air, a slidable tube within said chamber, and a ring-seated valve concentric with said tube, operating when closed to seal the entire length of said air and overflow passage, as well as said slidable tube.

[Claims 6 to 13 not printed in the Gazette.]

940,139. DERAILER. JOHN T. FARRELL, Houston, Tex. Filed Apr. 30, 1908. Serial No. 430,050.



1. In a derailer, the combination with a rail, of a bracket secured to the rail and provided with side arms having a plurality of bolt receiving openings, a grooved block disposed between the side arms, and a bolt passing through one of the openings in each side arm and the block for pivotally and adjustably supporting the same.

2. A derailer of the character described comprising supporting means adapted to be located adjacent to a rail, a block 8 pivoted to said support adapted to rest upon a rail having the shoe portion 11 and the projection 15 arranged substantially as and for the purpose described.

3. A derailer of the character described comprising a support adapted to be mounted adjacent to a rail, a block 8 pivoted to said support, and means adapted to connect the block and the rail for fastening the block against removal from the tread.

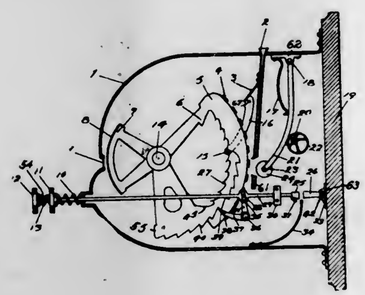
4. A derailer of the character described comprising a support formed to embrace one of the base flanges of a rail, means adapted to engage the web of a rail and said support for fastening the same in place, and a block 8 pivoted to the support adapted to rest upon the tread of the rail substantially as and for the purpose described.

5. A derailer of the character described comprising a support adapted to be mounted adjacent to a rail, a block 8 adapted to rest upon the tread of a rail, and means whereby the block may be bodily adjusted to different positions relative to and pivoted to the support substantially as described.

940,140. TELEPHONE-CALL-RECORDING DEVICE. GEORGE R. FAWKES, Waterloo, Iowa. Filed Nov. 19, 1908. Serial No. 463,366.

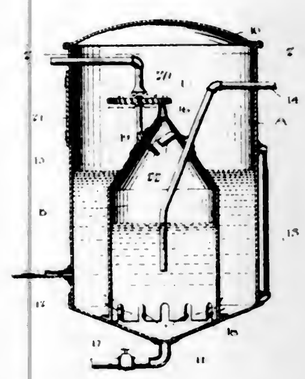
1. In an apparatus for the purpose set forth, the combination of a plurality of recording devices mounted to

rock on a common shaft, each of said recording devices being formed of oppositely located integral sectors, each of which is provided on the edge of its arc with a denary series of numerals, each of the numerals on said sectors being formed of separated characters outlined in projecting pins of even length which move in the same arc, the pin-bearing sectors having on one side both outwardly and inwardly projecting ratchet-teeth, a manually operable actuating device adapted for reciprocation, a driving-pawl connected with said actuating device and adapted to engage the outwardly projecting ratchet teeth on one of said recording devices only to move the latter through the space of one tooth during each reciprocation of said actuating device, a spring-controlled holding-pawl engaging the inwardly-directed ratchet teeth on each recording device, each of the said recording devices having the lower and upper ends of its range of inwardly-directed ratchet-teeth terminating in an inclined plane, the lowermost plane being adapted to throw said holding-pawl out of and the uppermost plane to push it back into engagement with said ratchet-teeth, said pawl being so formed and engaged by its controlling-spring that the latter will keep it out of engagement with said ratchet-teeth after said pawl is raised away therefrom by the first-mentioned inclined plane and until it is returned to its first position by said second-mentioned inclined plane, engaging-means on said recording devices adapted when one of said devices has moved by steps to the last of its series of numerals to coact to move the next adjacent recording device one step in its numerical series, and independent means for holding and carrying a blank at will into engagement with alined pin-outlined numerals in one certain row only on the several recording devices to thereby puncture on said blank a record therefrom.



2. In an apparatus for the purpose set forth, the combination of a plurality of devices mounted to rock on a common shaft, each of said devices being formed of oppositely located integral sectors, each of which has on its edge a plurality of characters, such sectors each having both outwardly and inwardly projecting ratchet-teeth, a manually-operable actuating device adapted for reciprocation, a driving-pawl connected with said actuating device and adapted to engage the outwardly projecting ratchet teeth on one of said sectors only to move the latter through the space of one tooth during each reciprocation of said actuating-device, a holding-pawl engaging the inwardly-directed ratchet-teeth on each sector, each of the said sectors having at the limit of each of the lower and upper ends of its range of inwardly-directed ratchet-teeth means respectively adapted to disengage or reëngage said holding-pawl from or with said ratchet-teeth, means adapted to keep said holding-pawl disengaged from said ratchet-teeth after it is elevated therefrom and until it is returned to its holding position by the shifting-means at the upper end of each row of said ratchet-teeth, and engaging-means on said sectors adapted when one of the sectors has moved by steps to the last of its character series to coact to move the next adjacent sector one step in its character series.

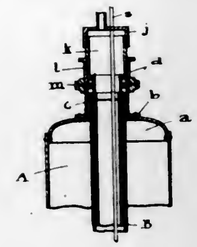
940,141. DUST-SEPARATING TANK. DANIEL FOGARTY, Ottawa, Ontario, Canada. Filed July 11, 1908. Serial No. 443,127.



1. A dust separating tank, including means for passing the dust-laden air through a liquid, means for giving direction to the current after passage through the liquid, a rotary member interposed in the path of said current adapted to be turned solely by the same, and being adapted to impart a centrifugal movement to the particles of the current, and an exhaust nozzle above the center of the rotary member adapted to create an exhausting current in alinement with the axis of the rotary member.

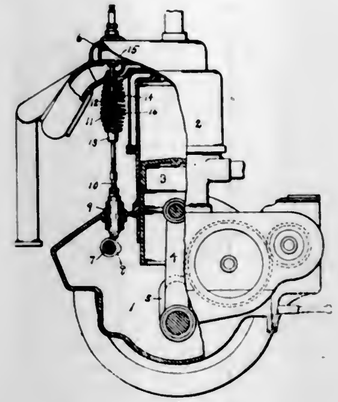
2. A dust separating tank including a liquid containing casing, a downwardly discharging pipe for the dust-laden air, a member surrounding the same having a discharge nozzle adapted to give direction to the air which bubbles through the liquid, a fan supported with the end of the blades extending in the path of the air discharged from the nozzle and an exhaust nozzle above the center of the fan.

940,142. SEPARATING-TANK FOR VACUUM CLEANING APPARATUS. DANIEL FOGARTY, Ottawa, Ontario, Canada. Filed July 11, 1908. Serial No. 443,128.



An improved vacuum separating tank comprising in combination, a vertically extending cylindrical casing having a hand-hole near the bottom for the removal of dirt, and having an internally screw-threaded aperture at the top thereof, an externally screw-threaded cylindrical member engaging the aperture, a cylindrical screen extending within the chamber, a ring connecting the screen with the cylindrical member, a vacuum suction pipe connected to said cylindrical member and adapted to exhaust the interior of the chamber, and a small downwardly discharging pipe for the dust laden air extending through the cylindrical member.

940,143. VALVE-STEM LUBRICATOR AND PACKING. WILLIAM E. FOLTZ, Detroit, Mich. Filed July 23, 1909. Serial No. 509,176.



1. A valve-stem lubricator and packing consisting of a tubular body independently mounted on the stem and having an inwardly extending perforated flange intermediate its ends, a fibrous packing within the body below the flange, and means to keep the packing under pressure.

2. A valve-stem lubricator and packing, consisting of a tubular body independently mounted on the stem and having an inwardly extending flange and an oil receptacle, and a fibrous packing within the body adapted to receive lubricating oil through openings in the body, and means to keep the packing under pressure.

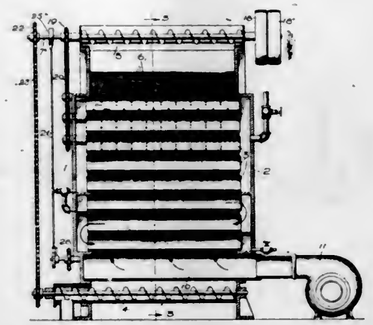
3. A valve-stem lubricator and packing adapted to be mounted on a valve-stem below the bearing sleeve of the stem, and consisting of a tubular body having a perforated inwardly-extending flange intermediate its ends, the upper end of the body being of larger diameter than the bearing sleeve, the lower end of the body being tapering, a fibrous gasket within the body below the flange, a metal washer engaging the outer face of the gasket, and a spring mounted on the valve stem engaging the washer to force the gasket into the tapering body and the flange against the end of the sleeve to prevent leakage around the stem.

4. A valve-stem lubricator and packing adapted to be mounted on the stem, consisting of a tubular body, a perforated flange intermediate the ends, the upper part of the body forming an oil receptacle, the lower part of the body tapering upward, a fibrous gasket within said tapering portion of the body, a washer mounted on the stem in engagement with the gasket, and a spring mounted on the stem in engagement with the washer.

940,144. DRIER. CHARLES E. GEIGER, Louisville, Ky., assignor of one-third to himself, one-third to William E. Koop, and one-third to G. Walker Fiske, Louisville, Ky. Filed Dec. 3, 1908. Serial No. 465,779.

1. A drier having, in combination, a heating element consisting of a pipe system through which the heating medium is supplied, the pipes of the system being disposed and connected to form between them a passage for a drying element; a drying chamber within which such heating element is contained, having means for controlling the advance through it of the material treated; means for discharging a drying medium within the material in the drying chamber at distributed points in its height, and means for permitting free air escape from such chamber through the outer walls thereof at distributed points in the latter.

2. A drum having in combination a heating compartment comprising a pipe system through which the heating medium is supplied, the pipes of the system being disposed and connected to form between them a passage for a drying element; a drying chamber within which such heating compartment is contained having means for controlling the advance through it of the material treated, and means for causing forced circulation of a drying medium from below upward through the heating compartment, said compartment having limited communication with the space through which the material passes in the drying chamber distributed throughout its height, said drying chamber having free outer air communication through its outer side walls distributed throughout their height.



3. In a drier having, in combination, a heating element comprising a pipe system through which the heating medium is supplied, the pipes of the system being disposed and connected to form between them a passage for a drying element; a drying chamber within which such heating element is contained, provided at its upper end with an inlet for the material to be treated and at its lower end with a discharge passage; a valve device for controlling the discharge of the material through such passage; means for discharging a drying medium within the material in the chamber at distributed points in its height, and means for permitting the escape of air from said chamber at distributed points in the height of the latter.

4. A drier having, in combination, a heating element consisting of a pipe system through which the heating medium is supplied, the pipes of the system being disposed and connected to form between them a passage for a drying element; a drying chamber within which such heating element is contained, provided at its upper end with an inlet and at its lower end with a discharge passage for the material; means for supplying a drying medium to said passage between the system of pipes, the disposition and connection between said pipes being such as to permit the discharge of the drying medium from said passage into the drying chamber at distributed points in the height of the latter, and means for permitting free air escape from said drying chamber.

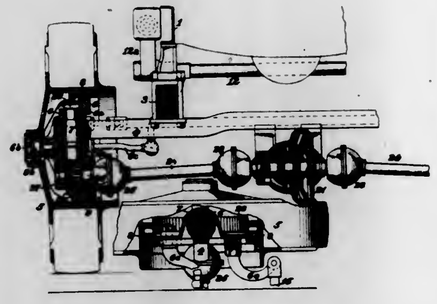
5. A drier having, in combination, a heating element comprising a pipe system in which the heating medium circulates; a drying chamber within which such heating element is contained, provided at its upper end with an inlet for the material to be treated and at its lower end with a trough into which the material is discharged; a rotary valve device controlling the entrance to such trough, and a conveyer in the trough to drive the material therefrom.

[Claims 6 to 19 not printed in the Gazette.]

940,145. MOTOR-VEHICLE. BUDD D. GRAY, Providence, R. I., assignor to American Locomotive Company, New York, N. Y., a Corporation of New York. Filed May 6, 1907. Serial No. 372,091.

1. In a motor vehicle, the combination of a fixed axle, a steering pin secured therein adjacent to one of its ends and having journals projecting above and below the axle, a steering knuckle mounted on and vibratable about the steering pin and having a peripheral bearing surface and a central journal, a supporting wheel eccentric to the axle

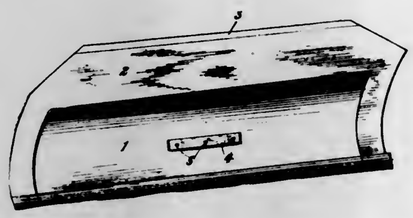
and having a hub inclosing the steering pin and steering knuckle and mounted rotatably on the peripheral bearing surface and central journal of the steering knuckle, a gear journaled in the steering knuckle, a gear fixed to the wheel and engaging the gear of the steering knuckle, means eccentric to the wheel for rotating the gear of the steering knuckle, and means for moving the steering knuckle about the axis of the steering pin.



2. In a motor vehicle, the combination of a fixed axle, a steering pin secured therein adjacent to one of its ends and having journals projecting above and below the axle, a steering knuckle mounted on and vibratable about the steering pin and having a peripheral bearing surface and a central journal, a supporting wheel having a hub inclosing the steering pin and steering knuckle and mounted rotatably on the peripheral bearing surface and central journal of the steering knuckle, a gear journaled in the steering knuckle, a gear fixed to the wheel and engaging the gear of the steering knuckle, a lever arm secured to and projecting inwardly from the steering knuckle, a driving shaft eccentric to the wheel, and a universal joint connecting the driving shaft with the shaft of the gear of the steering knuckle.

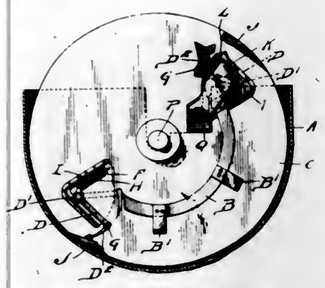
3. In a motor vehicle the combination of a fixed axle, a supporting wheel fitted to rotate on bearings eccentric to the axle, a steering knuckle for said supporting wheel, consisting of a plate or disk having a peripheral wheel bearing surface and a central journal, sockets or bearings perpendicular to its axis to fit the journals of a steering pin, and sockets or bearings parallel with its axis to receive the shaft of a wheel driving gear.

940,146. MAILING-TUBE. VICTOR GUERTIN, Montreal, Quebec, Canada. Filed Sept. 23, 1908. Serial No. 454,334.



A mailing tube of the character described, comprising a flexible foundation sheet, and a plate secured to said sheet and provided with downturned ends by which it may be secured to the foundation sheet, and having gripping teeth projecting inwardly from its face.

940,147. POTATO-PLANTING MACHINE. WILLIAM A. HALL, Sr., Pardeeville, Wis. Filed Aug. 13, 1908. Serial No. 448,410.

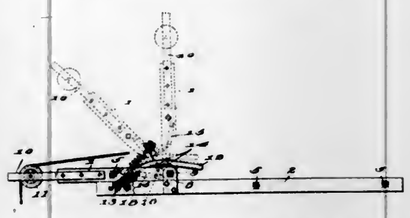


1. The combination of a trough, a disk which revolves therein, a picker carried by the disk and having a point projecting toward the rim of the disk and movable outwardly toward the bottom of the trough to impale a potato therein, an apron located beside the disk and having a slot through which the picker point passes and means to retract the picker point as it passes through the slot.

2. The combination of a trough, a disk revoluble therein, a spring actuated picker lever pivoted to one side of the disk and having at one end a point projecting toward the rim of the disk, a shovel projecting laterally from the same side of the disk at the rim thereof and opposite to the picker point and moving in proximity to the bottom of the trough to lift a potato therein into position to be impaled by the point, and means to retract the point and dislodge the potato therefrom at another position during the revolution of the disk.

3. The combination of a trough, a disk revoluble therein, a spring actuated picker lever pivoted to the side of the disk and having at one end a picker point offset laterally therefrom and projecting radially toward the rim of the disk, the lever vibrating in a plane parallel to the side of the disk to advance or retract the point, means carried by the disk opposite to the point to support a potato or the like, a cam fixed beside the disk in the trough and in the path of the lever and shaped to retract said lever and point against the tension of the spring, said cam terminating at a point near the bottom of the trough, whereby the lever will run off the cam and be advanced by the spring to impale a potato in the trough, and means beside the upper part of the disk to dislodge the potato from the point.

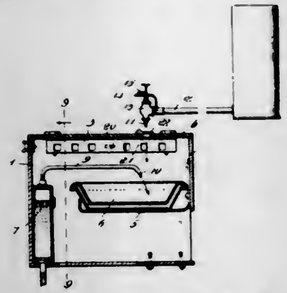
940,148. HOISTING APPARATUS. GEORGE HAMMOND, Chicago, Ill. Filed June 12, 1908. Serial No. 438,179. Renewed Aug. 16, 1909. Serial No. 513,189.



1. A hoisting apparatus comprising a base; a jib pivoted thereto; hoisting devices carried by the jib, and operating to swing the same on its pivot; a latch-bar pivoted to the base; and a keeper therefor on the jib.

2. A hoisting apparatus comprising a base consisting of spaced horizontal beams; a jib comprising a pair of beams pivotaly mounted on the base beams and projecting from one end thereof; a yoke connecting the free ends of the jib beams; a pulley carried by the yoke; a latch-bar pivoted to the base; and a keeper therefor on the jib.

940,149. LIQUID-FUEL BURNER. ROYAL M. HAMMOND, Delivale, Kans. Filed Mar. 24, 1908. Serial No. 422,886.



1. In a device of the class described, the combination with a casing having a flue opening in its side, a burner pan arranged on said side and above said opening, thereby causing the products of combustion to be directed under the pan to keep it heated, and a boiler in the casing having means to direct steam to said pan.

2. In a device of the class described, the combination with a casing having a removable side and an opening beneath the same, a burner pan secured within the casing on said side and above said opening, thereby causing the products of combustion to be directed under the pan to keep it heated, and a boiler in the casing having means to direct steam to said pan.

3. In a device of the class described, the combination with a casing having a removable side and a flue opening beneath the same, brackets carried on said side, a burner pan removably secured on said brackets to coöperate with the flue opening to cause the products of combustion to be directed beneath the pan to keep it heated, and a boiler in the casing having means to supply steam to the pan.

4. In a device of the class described, the combination with a casing having a removable sectional side, a burner pan secured to one of the sections of the removable side, a source of fuel supply adapted to feed fuel to said burner pan, a boiler arranged in the casing and having a nozzle for the discharge of steam to said burner pan, said casing having an opening beneath the pan whereby the products of combustion are caused to travel underneath the same to keep it heated.

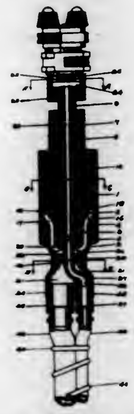
5. In a device of the class described, the combination with a casing, of a supporting pan arranged therein, a sediment pan removably held in the supporting pan and separated therefrom except at the supporting edges, means for feeding fuel thereto, a boiler arranged in the casing for supplying steam to the pan, means for regulating the supply of air to the burner, and means to regulate the supply of water to the boiler.

940,150. ROTARY MOTOR. ELMER E. HAUER, Springfield, Ohio, assignor to The Lagonda Manufacturing Company, Springfield, Ohio, a Corporation of Ohio. Filed Dec. 21, 1908. Serial No. 468,676.

1. In a rotary motor for driving a tube cleaning device, means independent of the motor operating means to conduct a stream of liquid through the motor for the purpose specified.

2. In a rotary motor for driving a tube cleaning device, a conduit through the motor independent of the motive agent channels for the purpose of discharging a stream of liquid in front of the motor.

3. A motor for driving a tube cleaning device, said motor adapted to be driven by air or steam and having a separate conduit to deliver a stream of water through the motor for the purpose specified.



4. In a rotary motor such as described, a driving shaft with a conduit to deliver a stream of liquid in front of the motor for the purpose specified.

5. A rotary motor and a tube cleaning device secured thereto and driven thereby and a conduit through said motor and device to deliver a stream of liquid for the purpose specified.

[Claims 6 to 10 not printed in the Gazette.]

940,151. RESISTANCE UNIT. HARRY E. HEATH, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed Oct. 3, 1906. Serial No. 337,158.

1. An electrical resistance comprising a flexible heat refractory insulating material having a conductor chemically deposited therein.

2. An electrical resistance comprising a flexible heat refractory insulating material having a conducting material precipitated therein.

3. An electrical resistance comprising a sheet of flexible heat refractory insulating material having a conductor deposited in the texture thereof.

4. An electric heating resistance comprising a sheet of heat refractory insulating fabric rendered partially conductive by chemically deposited metal distributed throughout the same.

5. An electric heating resistance comprising a sheet of flexible heat refractory insulating material rendered partially conductive by a deposit of metal on the inner fiber thereof.

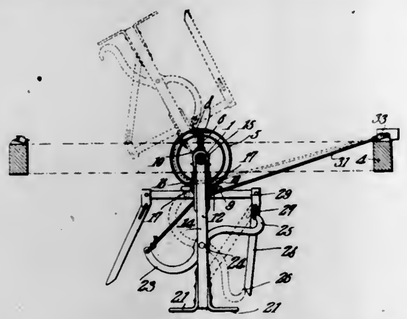
940,152. MAIL-CRANE. HENRY J. HEDRICK, Lacon, Ill. Filed June 19, 1909. Serial No. 503,194.

1. A mail crane including an arm mounted for swinging movement, a gripping lever fulcrumed upon the arm, a trigger pivotally connected to the arm and arranged for engagement with one end of the lever, said trigger and lever being movable in parallel planes, and means for automatically actuating the lever independently of the arm and subsequent to the disengagement of the trigger and lever.

2. A mail crane including an arm mounted for swinging movement, a jaw upon the arm, a gripping lever fulcrumed upon the arm, a pivotally supported trigger carried by the arm, said trigger and lever being movable in parallel planes, coöperating means upon the trigger and lever for holding the lever against movement, means for automatically actuating the lever when released to clamp an object between the lever and jaw.

3. A mail crane including an arm mounted for swinging movement, a gripping lever fulcrumed thereon, a trigger

pivotally connected to the arm, said trigger and lever being movable in parallel planes, coöperating means upon the lever and trigger for holding said lever against movement, means for automatically actuating the lever to grip, between the lever and arm, an object movable against the trigger to release the lever.

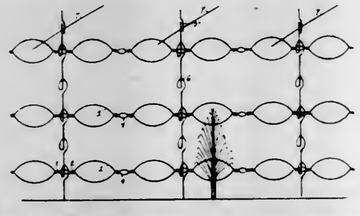


4. A mail crane including an arm mounted for swinging movement, a gripping lever fulcrumed thereon and having a hooked end, a trigger pivotally supported by and movable with the arm, said trigger and lever being movable in parallel planes, means upon the trigger for engaging the hook to hold the lever against movement, means for automatically actuating the lever when unlocked, said trigger being disposed in the path of an object to be gripped by the lever and arm, and means for limiting the swinging movement of the arm.

5. A mail crane including a standard, an arm mounted for swinging movement thereon, bag-gripping means carried by the arm, means for automatically actuating said means, a trigger for holding said means against movement, said trigger and arm being disposed to be actuated by an object to be engaged by said gripping means, and means for preventing return movement of the arm subsequent to such actuation.

[Claims 6 to 10 not printed in the Gazette.]

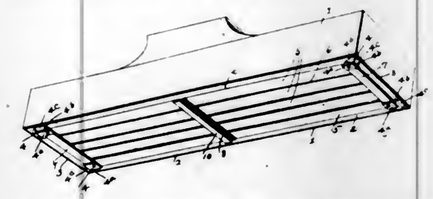
940,153. FLOWER-SUPPORTER. ADAM HEIM, Connersville, Ind. Filed Feb. 23, 1909. Serial No. 479,482.



1. In a support for flowers, the combination with a stake having a vertically disposed clamping slot, of a transverse support consisting of strands of wire twisted upon one another at intervals and formed into rings at the ends of the twisted portions through which rings stalks of plants or flowers may pass, the strands in the middle of the twisted portions being separated and disposed in a plane at right angles to the plane of the rings and adapted to enter the slot in said stake to hold the rings in horizontal position.

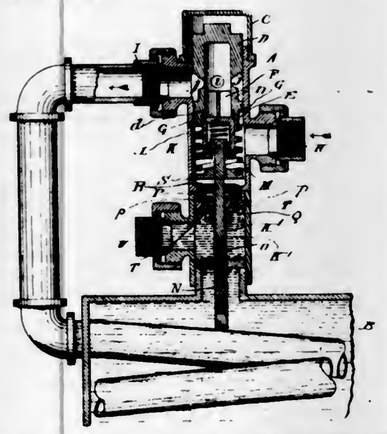
2. A trellis for flowers, consisting of stakes each having a series of vertically disposed clamping slots, and a series of transverse supports each consisting of strands of wire twisted upon one another at intervals and formed into rings at the ends of the twisted portions through which rings stalks of plants or flowers may pass, said twisted portions having the strands at their middle separated and disposed in a plane at right angles to the plane of the rings and adapted to enter the slots in the stakes, whereby the transverse supports may be held in place and the rings thereof maintained in horizontal planes.

940,154. DETACHABLE FLOOR FOR VEHICLE-BODIES. WILLIAM B. C. HERSHEY, Columbus, Ohio. Filed Dec. 10, 1908. Serial No. 466,774.



In a detachable vehicle body floor and supports therefor, the combination with the vehicle body, its side and end sills, and corner brackets each of which comprises a member secured to the undersides of the adjoining ends of a side and end sill and further comprises a depressed integrally formed floor supporting member, of a fixed bar extending transversely between the side sills, and a floor for the vehicle body adapted to be detachably supported upon the depressed members of said corner brackets and upon said transverse bar.

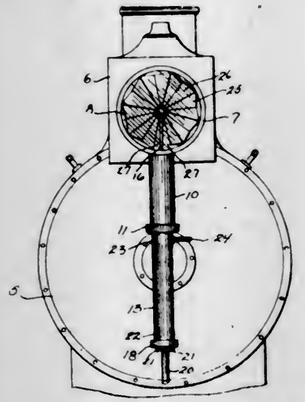
940,155. THERMOSTATIC VALVE. ALEXANDER D. HORNE, Glasgow, Scotland. Filed Dec. 14, 1908. Serial No. 467,431.



1. A thermostatic controlling device comprising in combination with a hot water tank, of a valve casing communicating with said tank and provided with a water outlet and a steam inlet and outlet, a valve member provided with a seat anchored in said casing between said steam inlet and outlet, a valve closure for said seat controlling communication between said steam inlet and outlet, a spring acting to unseat said valve closure, means closing communication between the water and steam portions of said casing, a tube depending from said means into the tank water containing gutta-percha, and an element interposed between the gutta-percha and said valve closure for seating the latter upon expansion of the former.

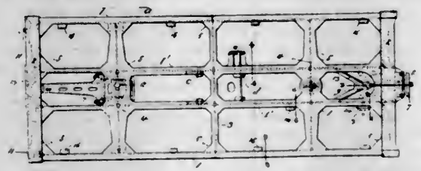
2. A thermostatic controlling device comprising in combination with a hot water tank, of a valve casing communicating with said tank and provided with a water outlet and a steam inlet and outlet, a valve member provided with a seat and anchored in said casing between said steam inlet and outlet, a two part valve closure for said seat controlling communication between said steam inlet and outlet and comprising a seat portion and a stem portion, a spring interposed between said seat portion and stem portion, a spring acting on said stem portion for normally unseating said valve, means closing communication between the water and steam portions of said casing, a tube depending from said means into the tank water and containing gutta-percha, and an element interposed between the stem portion of said closure member and the gutta-percha for seating said valve closure upon expansion of the gutta-percha.

940,156. HEADLIGHT-COVER. CHARLES W. HOUGHTON, Dubuque, Iowa. Filed Apr. 16, 1909. Serial No. 490,215.



A headlight cover comprising a cylindrical member, a collar threaded upon the lower end of the said member, a threaded sleeve carried by the collar and extending downwardly therefrom, a cylinder having a threaded upper end engaged with the sleeve, a packing gland located centrally of the sleeve, a piston rod slidably engaged in the packing gland and extending into the cylindrical member and into the cylinder, a piston carried by the piston rod within the cylinder and arranged for sliding movement therewithin, a star fan connected with the upper end of the piston rod for movement with the piston rod to lie at times within the cylindrical member, and at times to lie extended therefrom to cover a head light, a circular plate engaged with the lower end of the cylinder, screws adjustably engaged through the plate and arranged for operation to vary the limit of downward movement of the piston, and means for admitting fluid under pressure to the opposite ends of the cylinder for movement of the piston in opposite directions.

940,157. LOCOMOTIVE-TENDER FRAME. CLARENCE H. HOWARD, St. Louis, Mo., assignor to Locomotive Tender Frame Company, St. Louis, Mo., a Corporation of Delaware. Filed Mar. 18, 1908. Serial No. 421,769.

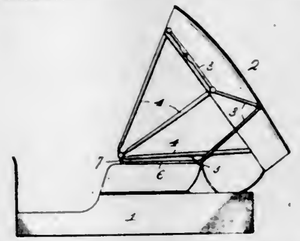


1. In a locomotive tender frame of the class described, the combination of two longitudinal side members, and a transverse member integral therewith and adapted for the application thereto of a suitable draft-gear, substantially as described.

2. In a locomotive tender frame of the class described, the combination with one of the longitudinal members, of a bracket integral therewith and adapted for coupling the end of the truck safety-chain thereto, substantially as described.

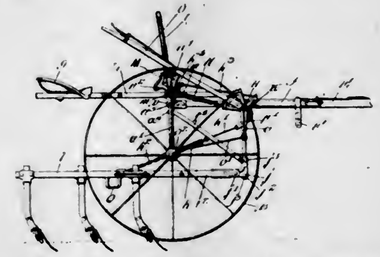
3. In a locomotive tender frame of the class described, the combination with a longitudinal member thereof, of a bracket integral with the said member and adapted to support the operating rod of the water-scoop, substantially as described.

940,158. YIELDING BUGGY-TOP SUPPORT. CHARLES P. JOHNSON, Eureka, Kans. Filed Aug. 13, 1908. Serial No. 448,331.



The combination with the stud of a buggy railing, of a buggy-top supporter comprising a V-shaped spring-leaf resting upon said stud and provided at its terminals with concaved seats, cushions affixed to said seats, and a second V-shaped spring-leaf secured to the first-mentioned one for securing it to the stud, said second spring-leaf extending upward some distance beneath the arms of the first-mentioned spring-leaf to reinforce the same and having its lower central portion bent to snugly embrace the bottom and sides of the stud, substantially as shown and described.

940,159. CULTIVATOR. WILLIAM E. JOHNSON, Rock Island, Ill., assignor to Rock Island Plow Company, Rock Island, Ill., a Corporation of Illinois. Filed Jan. 19, 1906. Serial No. 296,751.



1. A cultivator comprising gangs, a combined balancing shaft and arch, a wheel axle, a frame supported on the wheel axle, connection between the balancing shaft and the wheel axle, a lever for rocking said balancing shaft, and thereby rocking the axle relatively to the frame, coupling posts hung from said balancing shaft, braces uniting said coupling posts to the axle whereby the draft is thrown on the arch, articulated couplings between said posts and shovel gangs, and connections for raising and lowering said shovel gangs.

2. A cultivator comprising a combined balancing shaft and arch, means operated by the said balancing shaft for balancing the weight of the cultivator, shovel gangs, and articulated coupling members for said gangs supported from the end portions of the said balancing shaft.

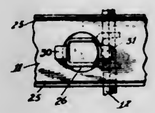
3. A cultivator comprising a pair of wheels, a body frame supported upon said wheels, a combined balancing shaft and arch and means operated thereby for balancing the weight upon said wheels, shovel gangs, articulated coupling members for said gangs supported from the said balancing shaft, and connections for raising and lowering said gangs.

4. A cultivator comprising a pair of wheels, a combined balancing shaft and arch, and means operated thereby for balancing the weight upon said wheels, shovel gangs, articulated coupling members hung upon said balancing shaft and connected with the forward ends of said gangs, and gang lifting and lowering means mounted on said balancing shaft.

5. A cultivator comprising a pair of wheels, a combined balancing shaft and arch and means operated thereby for balancing the weight on said wheels, shovel gangs, draft connections for said gangs, rocker arms on said balancing shaft, hand levers connected with the upper ends of said rocker arms, and suitable articulated connection between said gangs and the lower ends of said rocker arms.

[Claims 6 to 29 not printed in the Gazette.]

940,160. GUARDED-END STEEL-LEVER HARROW. WILLIAM E. JOHNSON, Rock Island, Ill., assignor to Rock Island Plow Company, Rock Island, Ill., a Corporation of Illinois. Filed Sept. 10, 1908. Serial No. 452,391.



1. A harrow comprising a frame, tooth bars, flanged end bars, said end bars formed from channel bars and provided with a series of holes through which the ends of said tooth bars project, and combined tooth holding and locking means for holding said tooth bars against lateral movement.

2. A harrow comprising a frame, tooth bars, flanged end bars, said end bars formed from channel bars and provided with a series of holes through which the ends of said tooth bars project, tooth clips, end tooth clips, and teeth mounted thereon, and locking means integral with said end tooth clips for holding said tooth bars against lateral movement, the flanges of said channel bars forming a guard for the ends of said tooth bars.

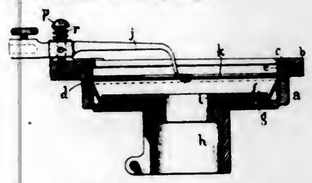
3. A harrow comprising a frame, tooth bars, tooth clips secured thereto, teeth fitting within said clips, end channel bars provided with a series of holes through which the ends of said tooth bars project, and end tooth clips provided with extensions adapted to pass through said openings and engage said channel bars.

4. A harrow comprising a frame, tooth bars, tooth clips secured thereto, teeth fitting within said clips, end channel bars provided with a series of holes through which the ends of said tooth bars project, end tooth clips provided with extensions adapted to pass through said openings, and means for holding said ends and extension within said channel bars.

940,161. SOUND-BOX FOR TALKING-MACHINES. MORRIS KEEN, Philadelphia, Pa. Filed July 9, 1909. Serial No. 506,664.

1. In a sound box, a body part having a circular interior provided with an annularly grooved wall, combined with a yielding lining secured to the body at its front part and extending inwardly over the annular groove and secured adjacent to the back of the body, a diaphragm yieldingly supported by the yielding lining adjacent to and in the plane of the annular groove, and a stylus bar having a connection with the diaphragm.

2. In a sound box, a body part having a circular interior provided with an annularly grooved wall, combined with a yielding lining secured to the body at its front part and extending inwardly over the annular groove and secured adjacent to the back of the body by a clamping ring within the body for clamping the middle part of the yielding lining adjacent to the back of the body, means to hold the clamping ring in position upon the back, a diaphragm yieldingly supported by the yielding lining adjacent to and in the plane of the annular groove, and a stylus bar having a connection with the diaphragm.



3. In a sound box, a body part having a circular interior provided with an annularly grooved wall, combined with a yielding lining secured to the body at its front part and extending inwardly over the annular groove and secured adjacent to the back of the body by a clamping ring within the body for clamping the middle part of the yielding lining adjacent to the back of the body, means to hold the clamping ring in position upon the back consisting of a tubular part resting against the back and having a screw-threaded end extending through the back and engaging the clamping ring, a diaphragm yieldingly supported by the yielding lining adjacent to and in the plane of the annular groove, and a stylus bar having a connection with the diaphragm.

4. In a sound box, a body part having a circular interior provided with an annularly grooved wall, combined with a yielding lining secured to the body at its front part and extending inwardly over the annular groove and secured adjacent to the back of the body, a diaphragm yieldingly supported by the yielding lining adjacent to and in the plane of the annular groove, and a stylus bar having a connection with the diaphragm, and means for yieldingly supporting the stylus bar normally in an intermediate position for holding the diaphragm in line with the annular groove in the body.

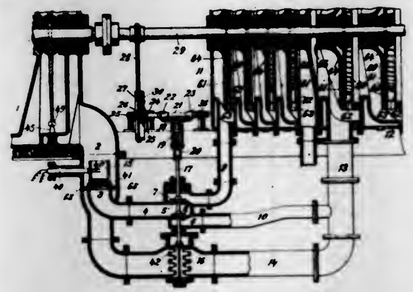
5. In a sound box, the combination of a circular body having its inner wall provided with a deep annular groove, a clamping cap adapted to the outer rim of the body, an annular lining of yielding material clamped between the rim of the body and the cap, means within the body for clamping the inner part of the yielding lining at a point within the body, a diaphragm within the body and engaging the yielding lining in the plane of the deep annular groove, and a stylus bar connected with the diaphragm.

[Claims 6 and 7 not printed in the Gazette.]

940,162. ELASTIC-FLUID ENGINE. CHARLES V. KERR, Rutherford, N. J. Filed July 9, 1904. Serial No. 215,879.

1. The combination of an elastic fluid engine, an air compressor, a combustion chamber, a burner therein, a pipe for feeding a mixture of combustible gases to said burner and having two inlet ports, valves controlling said ports, two tubes respectively communicating with said ports, a gas compressor communicating with one of said tubes, a pipe extending from the air compressor, and communicating with the other of said tubes and separately also beyond said combustion chamber at a point to meet the products of combustion from said combustion chamber, a valve across the last named pipe and means controlled by the load on said engine for regulating all of said valves, said means consisting of a rod carrying all of said valves, and a governor connected up with said rod and with said engine.

2. The combination of an elastic fluid engine, an air and a gas compressor driven thereby, a combustion chamber, of sufficient capacity to permit of complete combustion before the products of combustion leave said chamber, pipes connecting said air and gas compressors to said chamber for feeding compressed gas and air to said chamber, another pipe carrying compressed air to the products of combustion at a point beyond said chamber, a valve across each pipe, and a single stem for operating said valves.



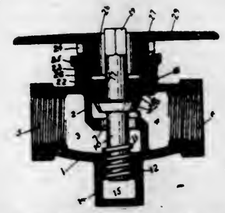
3. The combination of an elastic fluid turbine, a cooling chamber communicating therewith, a combustion chamber within said cooling chamber, pipes for conveying gas and air to said chambers, rotary compressors coupled to said turbine and connected with said pipes, valves across said pipes, and a governor driven by said engine for operating said valves only during change of load, and provided with means for holding said valves rigidly in the position to which said governor adjusts them.

4. The combination of an elastic fluid engine, an air compressor, a gas compressor, a shaft common to the above named elements for permitting said compressors to be driven by a portion of the power of said engine, valves for maintaining the correct proportion of air and gas for complete and continuous combustion and adapted to be opened and closed or partly opened and closed for varying the quantity of the mixture of said air and gas without destroying the proportion of the elements of said mixture, a third valve for admitting and gradually regulating the quantity of cooling compressed air, as an independent supply from that for mixing with said gas, a burner receiving and continuously combining said mixture, a combustion chamber in which said mixture begins and finishes its combustion, means for igniting said mixture for continuous combustion, a cooling air pipe for said cooling compressed air terminating beyond said combustion chamber at a point where it opens only to the products of complete combustion, a cooling chamber in which said pipe terminates, and of greater cross section than that of said combustion chamber through all the distance from the latter's outlet to the inlet port of said engine, and an automatic regulator driven by said engine, and operating each of the said three valves for controlling automatically the speed of the engine by controlling the quantity of gas and the quantity of air supplied both for combustion and cooling, the cross section of said cooling chamber being of the dimensions stated to permit the admitted compressed cooling air to form a cooling jacket for the walls of the cooling chamber while at the same time in contact with the products of combustion, with which said cooling air gradually intermingles, the three valves being mounted upon the same stem, and driven to different positions by said common stem and said regulator being provided with means for locking the three valves in the position to which the regulator adjusts them, said regulator unlocking and engaging with said valves only during a change of load on the engine.

5. In an engine driven by a working fluid, the combination of means for supplying to the engine compressed air and gas, a burner for continuously combining the air and gas, means for supplying additional air for reducing the temperature of and mingling with the products of combustion, a centrifugal device continually driven by said engine, and mechanism for causing said device to be connected to and to regulate both of the above named means at each variation of speed of said device.

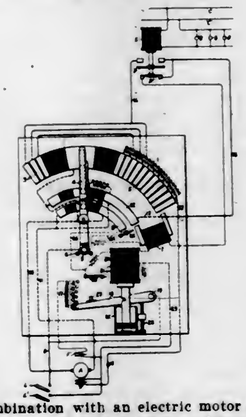
[Claims 6 to 11 not printed in the Gazette.]

940,163. VALVE OF THE GLOBE TYPE. HENRY J. KIEL, Wheeling, W. Va. Filed Jan. 6, 1908. Serial No. 409,591.



In a valve of the class described, the combination with the casing and apertured partition provided with a valve-seat, of a valve disk adapted to close said aperture, a screw-threaded stem on one side of said disk, whereby the latter is raised and lowered, an operating stem on the other side of said disk, packing through which said last mentioned stem passes, a screw-threaded gland to hold said packing in place, and a cover-plate for the valve having screw-threaded engagement with said gland.

940,164. MOTOR-CONTROLLING DEVICE. CHARLES D. KNIGHT, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Jan. 21, 1907. Serial No. 353,196.



1. The combination with an electric motor and a starting rheostat therefor, of means independent of said rheostat for causing the speed of said motor to be automatically and gradually varied a predetermined amount when the controlling element of the rheostat reaches a certain position and means for changing the amount of said variation.

2. The combination with an electric motor and a starting rheostat therefor, of means independent of said rheostat for automatically and gradually increasing the speed of said motor a predetermined amount when the controlling element of the rheostat reaches running position and means for varying the amount of said increase.

3. The combination with an electric motor and a starting mechanism therefor, of means for automatically and gradually varying the field strength of said motor when the starting mechanism occupies a certain fixed position and means for changing the amount of said variation.

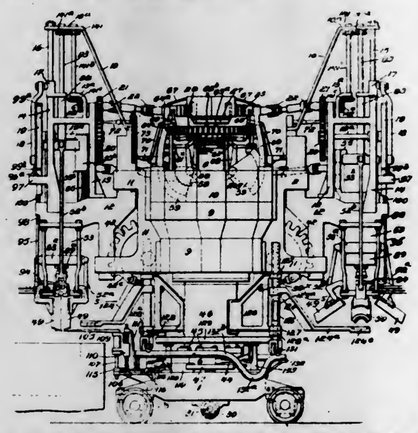
4. The combination with an electric motor and a starting mechanism therefor, of a field resistance, means inde-

pendent of said starting mechanism for automatically and gradually increasing said resistance when the starting mechanism reaches running position and means for varying the amount of said increase.

5. The combination with an electric motor and a starting rheostat therefor, of a field resistance, a controlling member therefor having a bias away from full field position, and means controlled by the current for automatically moving said member to full field position.

[Claims 6 to 20 not printed in the Gazette.]

940,165. MECHANISM FOR PRODUCING HOLLOW GLASSWARE. CHRISTIAN J. KOENIG, Alton, Ill. Filed Dec. 13, 1906. Serial No. 347,716.



1. In a glass working apparatus, a dipping head, a blank mold and a body mold thereon, each of said molds having relatively a plurality of glass receiving and shaping cavities, means for simultaneously gathering the molten mass in all the cavities in the blank mold and for subsequently blowing the forming blanks to the desired form when contained in the body mold, and a means for closing the body mold around the shaped blank as the blank mold moves from engagement with the said shaped blank.

2. Automatic mechanism constructed whereby under one action of movement to gather molten glass mass and simultaneously shape the said mass into a plurality of independent primarily formed bodies and under a subsequent action to impart a final shape to the primarily shaped bodies simultaneously, as set forth.

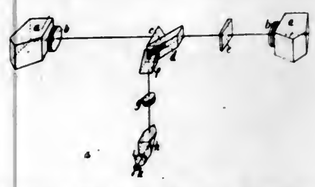
3. In a glass shaping machine, a mold having two sets of opposing members, one set of which is adapted for giving the initial shaping to the molten glass, the other adapted for the final shaping of the initially shaped glass, means for simultaneously and intermittently bringing the two opposing sets of the mold into and out of operative positions and a means for filling the initially shaping set of molds with molten glass, and then blowing the initially shaped mass when it is surrounded by the final shaping mold members.

4. In a glass shaping machine, the combination with an open bottom mold; of a means for moving the said open bottom mold into a pool of molten glass, a vacuum pump which acts under one direction of movement to fill the mold with glass and on the other direction of movement as a blower, means for moving the mold away from the pool and closing the bottom thereof as the pump acts to blow the molten mass and means for closing the bottom of the mold during the blowing operation.

5. In a machine of the character described, the combination of the simultaneously movable parison and blowing molds, an air exhausting device connected therewith, the parison portion having a filling aperture adapted to be brought into operative relation with a mass of molten glass when the air is exhausted from the mold, and means for adjusting the blowing mold to inclose the parison as the parison mold is disengaged therefrom and means for then blowing the said parison.

[Claims 6 to 47 not printed in the Gazette.]

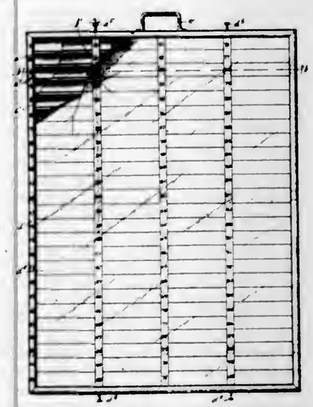
940,166. SEPARATING-PRISM TELEMETER. ALBERT KÖNIG, Jena, Germany, assignor to The Firm of Carl Zeiss, Jena, Germany. Filed Apr. 28, 1908. Serial No. 429,613.



1. A horizontal separating prism telemeter with elevated entrance pupils, comprising two objectives reflecting prisms for suitably deflecting the optical axes individually, a separating prism system, an ocular, an inverting lens system arranged with vertical axis between the separating prism system and the ocular, and means for moving one of the images projected by the objectives.

2. A horizontal separating prism telemeter with elevated entrance pupils, comprising two objectives, two optical square prisms, a separating prism system adapted to combine, in a vertical plane, the two optical axes proceeding from the objectives and the optical square prisms, an inverting lens system placed on the combined optical axis, a reflecting prism adapted to deflect the combined axis into a direction parallel to the base line, an ocular and means for moving one of the images projected by the objectives.

940,167. SEED-GERMINATING TESTER. WILLIAM E. LACY, Avon, N. Y. Filed Apr. 28, 1908. Serial No. 429,752.

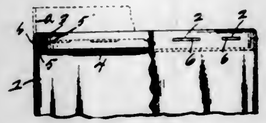


1. A device of the character described including a body portion, laterally extending walls therein, division plates running longitudinally of the body portion, and flanges on the division plates projecting between said lateral walls and secured to said body portion.

2. A device of the character described including a body portion, laterally extending walls therein, division plates running longitudinally of the body portion, flanges on the division plates projecting between said lateral walls, blocks positioned between the flanges, and means for securing the blocks to said flanges and to the bottom of the body portion.

3. A device of the character described including a body portion, laterally extending walls therein, division plates running longitudinally of the body portion, flanges on the division plates, blocks positioned between said lateral walls and secured to the flanges, and strips on the bottom of said body portion secured to said blocks.

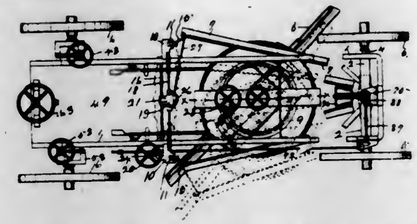
940,168. METAL PACKAGE. JOSEPH H. LA FAVE, Defiance, Ohio. Filed Jan. 9, 1908. Serial No. 409,936.



1. In a metal package, a sheet metal body the outer edges of which are turned over to form a chime and provided with spaced elongated slots adjacent to the chime, and a sheet metal head having a marginal flange fitting within the body and having tongues to enter the slots therein, substantially as described.

2. In a metal package, a sheet metal body the outer edges of which are turned over to form a chime and provided with spaced elongated slots adjacent to the chime, and a sheet metal head having a marginal flange fitting within the body and provided with outwardly directed tongues upon the flange to enter the slots in the body, the turned over edge of the body forming the chime abutting against the head, substantially as described.

940,169. ROAD-MAKING MACHINE. ELIAS L. LATHROP, Galion, Ohio. Filed Feb. 6, 1909. Serial No. 476,556.



1. In a road making machine means for laterally adjusting the scraper blade, consisting of a transverse rotatable screw; means for actuating the screw; a nut or bur mounted on the screw by a screw threaded connection; a fixed bar in parallel relation to the screw and forward thereof; a boxing slidably mounted on the bar, and having a socket on its front face, and provided upon its rear face with a pair of apertured ears embracing the bur and loosely receiving the said screw; and a rod having a ball on its inner end adapted to form a bearing in the socket of the boxing, and having its other end pivotally connected to the blade supporting means.

2. In a road making machine, means for laterally shifting the scraper-blade supporting means, consisting of a transverse revoluble screw; means for actuating the screw; a nut or bur mounted on the screw; a boxing having a locked engagement with the nut, and slidably mounted on a suitable support; and means for connecting the boxing to the blade supporting means by a ball and socket joint.

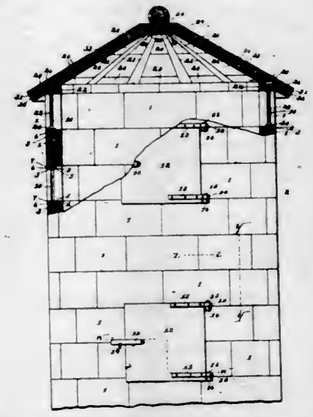
3. In a road making machine, means for limiting the rotary movement of the blade locking means for the purpose specified, consisting of means upon the lower end of the upright operating shaft for limiting the same to a quarter revolution.

4. In blade locking means, a vertical rotary shaft provided upon its lower end with a diametric pin with extended ends; a plate fixed on the shaft above the said pin; locking means connected to the ends of the said plate; and means fixed in coöperative relation with the said pin for limiting the shaft to a quarter turn.

5. In a road making machine an extensible rear axle consisting of an axle box centrally pivoted, and provided upon its rear face and midway of its ends with a segmental rack; a pair of axles slidably mounted in the axle box and provided upon one face thereof with a longitudinal rack; means for actuating the said axles longitudinally; and means for rotating the axle box on its pivot fulcrum.

[Claims 6 and 7 not printed in the Gazette.]

940,170. SILO. BENJAMIN F. LOCKWOOD, Lyons, N. Y. Filed Feb. 1, 1908. Serial No. 413,745.



1. The combination with a silo having the body composed of concrete, and provided with a series of openings, of hoops extending across the top and bottom of each opening, and laterally swinging doors for said openings, having hinges connected to said hoops as set forth.

2. The combination with a silo composed of concrete and provided with an opening and having two embedded metal hoops extending across the top and bottom of the opening, of a laterally swinging door supported by said hoops as set forth.

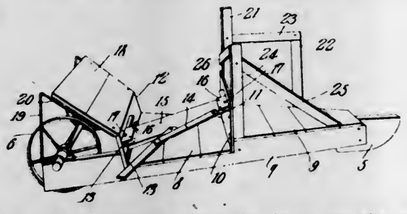
3. The combination with a silo composed of concrete and provided with an opening and having two embedded metal hoops extending across the top and bottom of the opening, of a pair of plates rigidly connected at one end to the respective hoops and having their opposite ends projecting at the exterior of the silo, and a door hinged to the projecting ends of the plates as set forth.

4. The combination with a silo having the body composed of concrete and provided with an opening, and having concealed metal reinforcing hoops extending thereabout, two of said hoops passing across the top and bottom of the opening respectively, of a door for said opening provided with a pair of hinges at one side of the opening, one member of the hinges extending into the silo-body and fastened rigidly to the hoops, and the other hinge-members suitably fastened to the door, a catch-plate connected to a hoop, and a latch-bar pivoted to the door and adapted to engage said catch-plate as set forth.

5. The combination with a silo having the body composed of concrete-blocks laid in courses and provided with an opening extending the depth of two courses, the blocks of each course provided in their top faces with coinciding grooves forming concealed channels extending around the body, and reinforcing metal hoops disposed in said grooves, of a door provided with a pair of hinges fastened to the hoop passing across the top and bottom of the opening, as set forth.

[Claims 6 to 9 not printed in the Gazette.]

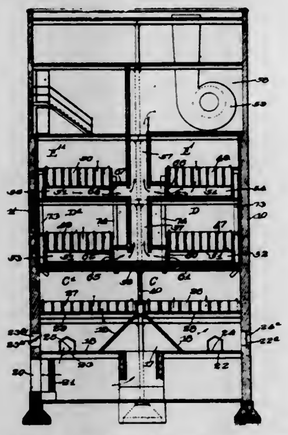
940,171. STALK-CUTTER. THOMAS J. LOVE, Lincoln, Ill. Filed Nov. 6, 1908. Serial No. 461,386.



1. In a stalk-cutter, a supporting frame, opposite uprights thereon, one of said uprights being inclined with respect to the other upright, transverse guides on the inclined upright, a single guide on the other upright, and a knife-supporting frame slidably mounted at one end on the single guide, and engageable at the other end with either of the guides of the inclined upright.

2. In a stalk-cutter, a supporting frame mounted on wheels at one of its ends, transverse upstanding boards mounted on the frame, a knife-supporting frame mounted between said boards, and a guard projecting from one of the boards over the wheels of the supporting frame.

940,172. MALT-KILN. OTTO H. LUEBKERT, Chicago, Ill., assignor to Saladin Pneumatic Malting Construction Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 6, 1908. Serial No. 419,438.



1. A malt kiln having a plurality of compartment chambers arranged side by side, means for heating air, means for causing the heated air to pass successively through the malt in said chambers and intermediate means for mixing cool air therewith.

2. A malt kiln having a plurality of compartment chambers, means for heating air, means for causing heated air to pass successively and in opposite directions through the malt in said chambers and intermediate means for malting cool air therewith.

3. A malt kiln having a plurality of chambers arranged side by side and having compartments provided with perforated floors, means for heating air, means for causing heated air to flow successively through the malt in said compartments and intermediate means for mixing cool air therewith.

4. A malt kiln having a plurality of chambers having compartments provided with perforated floors, means for heating air, means for causing heated air to flow successively and in opposite directions through the malt in said compartments and intermediate means for mixing cool air therewith.

5. A malt kiln having a plurality of chambers arranged side by side and having compartments provided with perforated floors, means for heating air, flues for conducting heated air to said chambers, exhaust flues communicating with said chambers, means for causing heated air to pass successively through the malt in said chambers and intermediate means for mixing cool air therewith.

[Claims 6 to 22 not printed in the Gazette.]

940,173. FENCE-POST. JOHN O. MACE, Grundyville, Tex. Filed May 18, 1909. Serial No. 496,688.

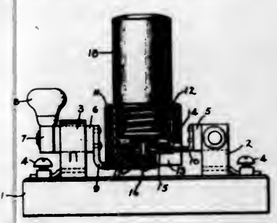


1. A fence post comprising a hollow body of sheet metal having lapped edges, stiffening braces fitted within the post and fastening means passed through the lapped joint, the braces, and the opposite side of the body of the post.

2. A fence post comprising a hollow body of sheet metal having interlocked lapped edges, stiffening braces fitted within the post and fastening means passed through the lapped joint, the braces, and the opposite side of the body of the post.

3. A fence post comprising a hollow body of sheet metal having lapped edges, stiffening braces having curved ends to closely fit the inner sides of the post body and perforated, a bolt passed through the lapped edges, the stiffening braces and the opposite side of the post body and means for securing the bolt in position.

940,174. COMBINED SWITCH AND FUSE-PIPE. FREDERICK MACKINTOSH, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Sept. 30, 1907. Serial No. 395,112.



1. A switch-blade composed of two sections with their adjacent ends arranged to overlap, insulation interposed between said ends, means for rigidly clamping said overlapping ends together, and plug contacts respectively connected to said ends.

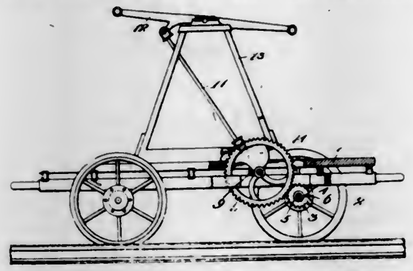
2. A switch-blade composed of two sections with their adjacent ends arranged to overlap, an insulating socket having its bottom portion interposed between said overlapping ends, a screw shell contact within said insulating socket and in engagement with the upper section, and a center contact bolt connected to the lower section and extending through the bottom of the insulating socket and operating to clamp the several parts together.

3. A switch-blade composed of two insulated portions overlapping each other, a socket of insulation supported on one of said portions, a screw-threaded shell contact having a flange interposed between the other of said portions and the socket, a central screw contact securing said parts together, and a fuse-plug screwed into said shell and making contact therewith and with said screw.

4. A switch-blade composed of a hinge-portion and a contact-portion, an arm secured to each portion, a socket of insulation supported on one of said arms and having an opening to permit the other arm to project into it, a screw threaded shell in said socket in contact with the arm therein, a central screw tapped into the socket supporting arm, a plate of insulation between the head of said screw and the other arm, and a fuse-plug screwed into said shell.

5. A switch blade in two sections, insulation interposed between the adjacent ends thereof, together with plug contacts respectively connected to said ends, and means for rigidly uniting said parts together.

940,175. HAND-CAR. JOSEPH MARSHALL, Covington, Tenn., assignor of one-half to William Rooch Miller, Ripley, Tenn. Filed Feb. 25, 1909. Serial No. 479,951.



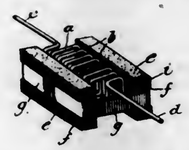
1. A hand car comprising a body, an axle, supporting and drive wheels upon the latter, a transverse shaft provided with an integral crank, driving gears fixed on the crank shaft on opposite sides of the crank and formed with integral solid web portions and with spaced lugs, the latter receiving the side portions or arms of the crank between them, set screws in said lugs for holding the crank rigidly between the latter, pinions fixed to the axle and in mesh with said gears, a walking beam and a pitman connecting the latter to said crank.

2. The herein described hand car comprising a body, an axle, supporting and drive wheels upon the latter, a transverse crank shaft having an integral crank portion journaled at its ends in bearings upon the bottom of the body, driving gears fixed to the crank shaft on opposite sides of its crank and formed with integral solid web portions and with spaced lugs upon said web portions, said lugs being adapted to receive the side portions or arms of the crank between them, set screws in said lugs to rigidly retain the crank between them, pinions fixed to the axle and in mesh with said gears, adjustable collars upon the axle on opposite sides of said pinions, a walking beam and a pitman connecting the latter to said crank.

3. The herein described hand car comprising a body, an axle having longitudinal keyways, supporting and drive wheels upon the axle, pinions upon the axle, strap collars upon the axle on opposite sides of each pinion, longitudinal keys passed through the keyways in the axle and through the pinions and collars, set screws in said collars, a transverse crank shaft having an integral crank portion at its center and also having its ends journaled in bearings upon the bottom of the body, driving gears fixed to the crank shaft on opposite sides of its crank and adapted to mesh with said pinions, said gears being formed with integral solid web portions and with spaced lugs upon said web portions, said lugs being adapted to receive the side portions of the arms of the crank between them, set screws in said lugs to rigidly retain the crank between them, a walking beam, and a pitman connecting the latter to said crank.

940,176. LIGHTNING-ARRESTER. CHARLES T. MASON, Sumter, S. C., assignor to The Sumter Telephone Mfg. Co., Sumter, S. C., a Corporation of South Carolina. Filed May 1, 1908. Serial No. 430,331.

1. A lightning arrester comprising a coil having abrupt turns or angles and a flat face or side, a grounding block arranged exteriorly of the coil and extending along and in close proximity to the flat face or side thereof, and means for securing said block directly to the coil.



2. A lightning arrester, comprising a coil to be inserted in the line circuit and having abrupt turns or angles, grounding blocks arranged exteriorly of and on opposite sides of said coil and adjacent said abrupt turns, insulating strips inserted between the coil and the grounding blocks, and means for removably securing the blocks to the coil.

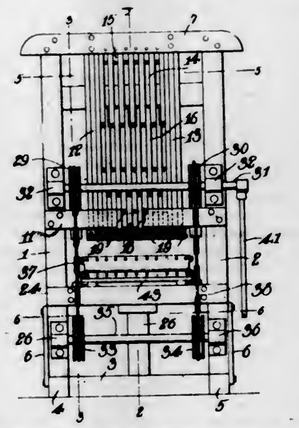
3. In a lightning arrester, the combination with a coil having abrupt turns or angles and a flat face or side, of a grounding block arranged exteriorly of the coil and extending along the flat face or side thereof, and means for detachably clamping said block to the coil.

4. In a lightning arrester, the combination with a coil having abrupt turns or angles and a flat face or side, of a grounding block arranged exteriorly of the coil and extending along the flat face or side thereof, and a clip to clamp the block on the coil.

5. A lightning arrester, comprising a coil having flat sides and abrupt turns or angles, a grounding medium disposed exteriorly of said coil, insulating material interposed between the coil and the grounding medium, and spring clips adapted to secure the several parts together.

[Claims 6 to 8 not printed in the Gazette.]

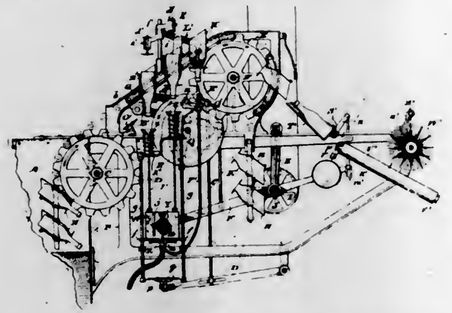
940,177. BRICK-MACHINE. PHILIP J. MEAD, Morenci, Mich. Filed Sept. 22, 1908. Serial No. 454,180.



In a brick molding machine, the combination of a supporting base, spaced uprights secured thereto, oppositely disposed cross bars connecting the outer faces of the upper ends of said uprights, a bar mounted between said cross bars and having depending longitudinally spaced apertured lugs, links pivotally connected at one end to said lugs, oppositely disposed cross bars connecting the outer faces of said uprights intermediately of their ends, plungers mounted to move vertically between said intermediate cross bars, links pivotally connected at one end to said plungers and at their other ends to the free ends of said first mentioned links, a cross bar arranged at the front of said frame to limit the movement of said links, a table

mounted between said uprights, a vertically movable mold box arranged below said plungers in position to receive them, means for raising and lowering said mold box, and means for operating said links to raise and lower the plungers.

940,178. BOTTLER'S APPARATUS. GEORGE J. MEYER, Milwaukee, Wis. Filed June 25, 1906. Serial No. 323,193.



1. The combination of a soak-tank, a bottle-conveyer having intermittent travel through the tank, vertically reciprocative bottle-neck seats and bottle-bottom clamp-plates, a vertically reciprocative gear-box, hollow spindles having their drive in the box, water-pipes in connection with the spindles to rotate therewith and extend through the bottle-neck seats, water-distributing brush-tips in connection with the pipes, a water-way having connections discharging into said spindles, and means controlling start and stop of the spindle-drive as well as concurrent opening and closing of the water-way, the motion of said conveyer being arrested during the time the bottle-cleaning mechanism is in operation.

2. The combination of a soak-tank, a bottle-conveyer having intermittent travel through the tank, vertically reciprocative bottle-neck seats and bottle-bottom clamp-plates, a vertically reciprocative gear-box, hollow spindles having their drive in the box, water-pipes in connection with the spindles to rotate therewith and extend through the bottle-neck seats, water-distributing brush-tips in connection with the pipes, a water-way having connections discharging into said spindles, a pipe provided with bottle-rinsing nozzles and suitably connected to the water-way, and means controlling start and stop of the spindle-drive as well as concurrent opening and closing of the water-way, the motion of said conveyer being arrested during the time bottle-cleaning and rinsing operations take place.

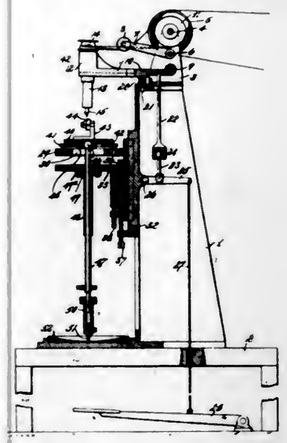
3. The combination of a soak-tank, a bottle-conveyer having intermittent travel through the tank, a reciprocative carrier, bottle-neck seats having yielding support in conjunction with the support, guide-shells inclosing said seats, cups having shanks in yielding connection with the shells, a gear-box in independent reciprocative connection with said carrier, water pipes in connection with driven-spindles in the gear-box, and extended through the aforesaid seats, water-distributing brush-tips in connection with the pipes, reciprocative bottle bottom clamp-plates alined with said pipes, the washing mechanism being engageable with bottles suspended mouth down in racks of the conveyer when the latter is at rest, and means for automatic supply and cut-off of water with respect to the aforesaid pipes.

4. The combination of a soak-tank, an endless link-belt type bottle-conveyer having travel through the tank, inclined rollers along which the bottles delivered from the conveyer have parallel gravity descent in interstices between pairs of same, a cylindrical brush journaled in bearings over the rollers crosswise of same, means for actuating said rollers and brush, and means for supplying water to the brush.

5. The combination of a soak-tank, a bottle-conveyer having travel through the tank, a tilt-tray arranged to receive the bottles discharged from the conveyer, means for intermittently actuating the tray, inclined rollers along which bottles dumped from the tray have gravity descent, a cylindrical brush journaled in bearings over the rollers, means for actuating said rollers and brush, and means for supplying water to the brush.

[Claim 6 not printed in the Gazette.]

940,179. ENGRAVING-MACHINE. PETER J. MEYER, New York, N. Y. Filed Apr. 28, 1909. Serial No. 492,756.

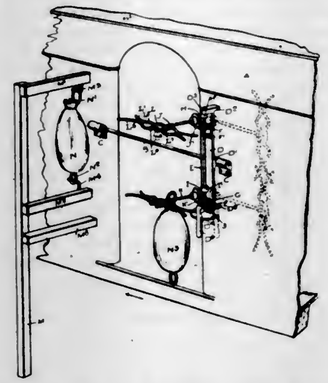


1. The herein described engraving machine, comprising a standard, a work table support upon the standard, a universal movable work table upon said work table support, a clamp for the work carried by the table, a tracer arm universally pivoted to the work table, a second support secured to the standard, a sleeve having a universal connection with said second support, the said tracer arm extending through said sleeve, a tracing point at the end of said arm, and a pattern to be engaged thereby, an engraving tool, a spindle therefor, means for rotating the spindle, a bracket carrying the spindle, said bracket being pivoted to the standard, and a treadle adapted to control the vertical position of the engraving tool with relation to the work.

2. The herein described engraving machine, comprising a standard, a work table support upon the standard, a universally movable work table upon said work table support, a clamp for the work carried by the table, a tracer arm universally pivoted to the work table, a second support secured to the standard, a sleeve having a universal connection with said second support, the said tracer arm extending through said sleeve, a tracing point at the end of said arm, and a pattern to be engaged thereby, an engraving tool, a spindle therefor, means for rotating the spindle, a bracket carrying the spindle, said bracket being pivoted to the standard, and a treadle adapted to control the vertical position of the engraving tool with relation to the work, the engraving tool work, universal joint and sleeve, with universal joint for the tracer arm, being all in vertical alinement.

940,180. MAIL CATCHING AND DELIVERING DEVICE FOR RAILWAYS. WILLIAM M. MOLONEY, Toronto, Ontario, Canada, assignor to James Playfair, Midland, Canada. Filed June 26, 1909. Serial No. 504,615.

1. A mail catching and delivering device for railways comprising a rod extending across the mail car door and suitably supported at each side thereof, a bar adjustable from one end of the rod to the other and a grip at each end of said bar as and for the purpose specified.



2. A mail catching and delivering device for railways comprising a rod extending across the mail car door and suitably supported at each side thereof and a bar provided with an outwardly extending grip and provided with a boss through which the rod extends, a bevel quadrant secured to the bar, a spindle extending through the bevel quadrant, a shaft journaled in suitable bearings and swung on the vertical spindle, a pinion on the rod meshing with the bevel quadrant on the bar and a suitable grip secured on the outer end of the rod as and for the purpose specified.

3. A mail catching and delivering device for railways comprising a rod extending across the mail car door and suitably supported at each side thereof and a bar provided with an outwardly extending grip and provided with a boss through which the rod extends, a bevel quadrant secured to the bar, a spindle extending through the bevel quadrant, a shaft journaled in suitable bearings and swung on the vertical spindle, a pinion on the rod meshing with the bevel quadrant on the bar, a suitable grip secured on the outer end of the rod, a post located on the side of the track in proximity to the path of the car and provided with arms having hooks to receive the rings at the top and bottom of the mail bag as and for the purpose specified.

4. The combination with a vertical bar suitably held in the side of a car, of a vertical spindle journaled therein, the horizontally disposed spindles suitably connected to the vertical bar and swinging therewith, gripping jaws at the end of the horizontal spindles and means connected to the vertical spindle for swinging the jaws to the vertical when the horizontal rods are swung inwardly as and for the purpose specified.

5. The combination with a vertical bar suitably held in the side of a car, of a vertical spindle journaled therein, the horizontally disposed spindles suitably connected to the vertical spindle and swinging therewith, gripping jaws at the end of the horizontal spindles, a handle secured in the end of the vertical spindle, and a notched quadrant with which the same co-acts secured on the end of the bar carrying the vertical spindle as and for the purpose specified.

[Claims 6 to 8 not printed in the Gazette.]

940,181. PROCESS FOR TREATING TOBACCO, &c. GEORG MONTAG, Mannheim, Germany, assignor to Gesellschaft für Tabakveredelung M. B. H., Mannheim, Germany. Filed July 29, 1908. Serial No. 445,999.

1. The hereindescribed process of manufacturing tobacco, which consists in extracting the juice from green unfermented tobacco in a cold state by means of pressure, saturating leaves to be treated with said juice and then heating the saturated leaves.

2. The hereindescribed process of manufacturing tobacco, which consists in extracting the juice from green unfermented tobacco in a cold state by means of pressure, saturating leaves to be treated with said juice, and then heating the saturated leaves to about 35 degrees C.

3. The hereindescribed process of manufacturing tobacco, which consists in extracting the juice from green unfermented tobacco in a cold state by means of pressure, allowing the extracted juice to ferment, saturating the leaves to be treated with the fermented juice and then heating the saturated leaves.

4. The hereindescribed process of manufacturing tobacco, which consists in extracting the juice from green unfermented tobacco in a cold state by means of pressure, allowing the extracted juice to ferment, saturating the leaves to be treated with the fermented juice and then heating the saturated leaves to about 35 degrees C.

5. The hereindescribed process of manufacturing tobacco, which consists in extracting the juice from green unfermented tobacco in a cold state by means of pressure, allowing the extracted juice to ferment in a closed vessel, separating the juice from the sediment formed during fermentation, saturating the leaves to be treated while in a green condition with the separated juice and heating the saturated leaves to about 35 degrees C. in an earthenware oven.

[Claim 6 not printed in the Gazette.]

940,182. RADIATOR-VALVE. JOHN B. MORGAN and CHARLES R. WEBSTER, Rochester, N. Y. Filed Mar. 25, 1909. Serial No. 485,572.

1. A radiator valve having, in combination, a casing having therein a valve seat and provided with an inlet passage and an outlet passage located on opposite sides, respectively, of said valve seat, a check valve adapted to contact with said seat, an arm adapted to carry said valve, a rock shaft to which said arm is fast, said casing being provided with an annular seat and said rock shaft being provided with an annular flange contacting with said annular seat, a spring acting to hold said annular flange against said annular seat, a spring adapted to hold said valve against said valve seat, means whereby the tension of said springs may be adjusted independently of each other, and a secondary casing within which both of said springs and said adjusting means are located.

2. A radiator valve having, in combination, a casing having therein a valve seat and provided with an inlet passage and an outlet passage located on opposite sides, respectively, of said valve seat, a check valve adapted to contact with said seat, an arm adapted to carry said valve toward and away from said seat, a rock shaft to which said arm is fast, an arm having screw-threaded engagement with said shaft, a nut having screw-threaded engagement with said shaft, a screw having screw-threaded engagement with said second arm and bearing against said nut, and a spring connected to said second arm and adapted to hold said valve in contact with said seat.

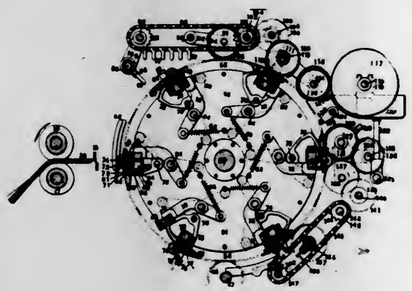
3. A radiator valve having, in combination, a casing having therein a valve seat and provided with an inlet passage and an outlet passage located on opposite sides, respectively, of said valve seat, a check valve adapted to contact with said seat, an arm adapted to carry said valve toward and away from said seat, a rock-shaft to which said arm is fast, said casing being provided with an annular seat and said rock shaft being provided with

an annular flange contacting with said annular seat, a spring adapted to hold said flange in contact with said annular seat, a nut having screw-threaded engagement with said shaft and adapted to be rotated thereon to adjust the tension of said spring, an arm having screw-threaded engagement with said shaft, a screw having screw-threaded engagement with said second arm and bearing against said nut, and a spring connected to said second arm and adapted to hold said valve in contact with said seat.

4. A radiator valve having, in combination, a main casing having therein a valve seat and provided with an inlet passage and an outlet passage located on opposite sides, respectively, of said valve seat, a check valve adapted to contact with said seat, an arm on which said valve is supported, a rock shaft to which said arm is fast, a secondary casing into which said rock shaft extends, a second arm located in said secondary casing and fast to said rock shaft, and a spring connected to said second arm and arranged to normally hold said valve against said seat, said spring being located in said secondary casing.

5. A radiator valve having, in combination, a main casing having therein a valve seat and provided with an inlet passage and an outlet passage located on opposite sides, respectively, of said valve seat, a check valve adapted to contact with said seat, an arm on which said valve is supported, a rock shaft to which said arm is fast, said rock shaft being arranged with its axis in a plane parallel to the plane of said valve seat, a secondary casing into which said rock shaft extends, and a spring located in said secondary casing connected to said rock shaft and arranged to normally hold said valve against said seat.

940,183. MACHINE FOR THE MANUFACTURE OF PAPER BAGS. EDUARD F. MÜLLER, Leipzig-Reudnitz, Germany. Filed Jan. 12, 1907. Serial No. 352,019.



1. In a paper bag machine the combination with a rotatory drum of a pair of drawing rolls for advancing the tube into the interior of the rotatory drum, a cutting-off mechanism supported between the drawing rolls and the drum, a plurality of gripping devices and means for operating the cutting-off mechanism and gripping devices so timed that the latter grip the tube at the same moment the cutting-off mechanism is severing off from the tube a length of a blank, the tube being gripped on the line on which the bottom is opened.

2. In a paper bag machine the combination of a rotatory drum, a pair of drawing rolls for advancing the tube, a cutting-off mechanism supported between the drawing rolls and the rotatory drum, grippers in the said drum, a series of formative devices adapted for the successive stages of forming the bottoms of the bags, disposed about said drum and means carried by the drum for operating said formative devices, means for successively operating said grippers to engage the paper tube on the line on which the bottom is opened and at the moment the cutting-off mechanism supported between the drawing rolls and the drum is cutting the tube to form blanks of predetermined length the relative positions of the cutting mechanism and grippers being such that the portions of the blanks projecting from the grippers are of the size required to form the bottom of the bags and means to shift the cutting-off mechanism away from and toward the rotatory drum for adjusting the length of the tube projecting from the grippers according to the different lengths required for the bottoms of the different sizes of bags.

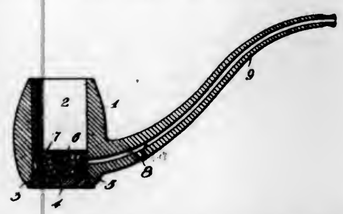
3. In a paper bag machine the combination with a rotatory drum of a pair of drawing rolls for advancing the tube into the interior of the rotatory drum, cutting-off mechanism supported between the drawing rolls and the rotatory drum, means for adjusting the cutting-off mechanism to cut off the tube at a certain distance desired from the periphery of the rotatory drum according to the bottoms of the different sizes of the bags, a plurality of grippers located within said drum, together with levers and cam for opening said grippers and springs for closing the same.

4. In a paper bag machine the combination with a rotatory drum of a pair of drawing rolls for advancing the tube into the interior of the rotatory drum, a cutting-off mechanism supported between the drawing rolls and the drum, means for adjusting the cutting-off mechanism to cut off the tube at a certain distance desired from the periphery of the rotatory drum according to the bottoms of the different sizes of the bags, a plurality of grippers carried by said drum, and a series of formative devices comprising bars and slides mounted on said bars fixed between the walls of the drum, said slides being provided with pivoted tongues serving to open the bottom part of the blank into a box shape, and cams for alternately moving said slides toward the central plane of the drum and away from said plane.

5. In a paper bag machine the combination with a rotatory drum of a pair of drawing rolls for advancing the tube into the interior of the rotatory drum, a cutting-off mechanism supported between the drawing rolls and the drum, means for adjusting the cutting-off mechanism to cut off the tube at a certain distance desired from the periphery of the rotatory drum according to the bottoms of the different sizes of the bags, a plurality of grippers carried by said drum and a series of formative devices comprising bars and slides mounted on said bars fixed between the walls of the drum, said slides being provided with pivoted tongues serving to open out the part for the bottom of the blank into a box form, cams 82 for alternately moving said slides toward the central plane of the drum, said cams 82 being adjustable to determine the travel of the slides according to the different sizes of the bags, and cams 83 to move the slides away from said plane.

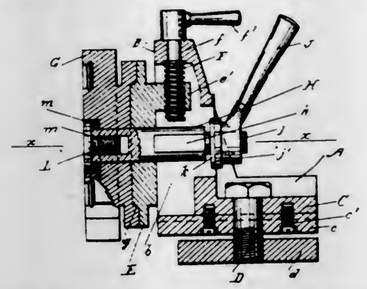
[Claims 6 to 10 not printed in the Gazette.]

940,184. PIPE. HERBERT W. NICHOLES, Atlanta, Ga. Filed Jan. 14, 1909. Serial No. 472,300.



In combination with a pipe bowl having a stem opening entering the same adjacent the bottom, of a cartridge adapted to be used in said bowl comprising a threaded disk adapted to close the lower end of the bowl, a pin projecting upwardly from the center of said disk, a perforated cap plate integral with the pin and arranged parallel to the disk immediately above the stem opening, a fire-proof mat surrounding said pin and resting on the disk and forming a washer and a porous absorbent material surrounding the pin and filling the chamber between the plate and disk, said disk being below the stem opening so as to form a tar and nicotin well.

940,185. TOOL-HOLDER. HARRY C. NORRICK, Muncie, Ind. Filed Mar. 7, 1908. Serial No. 419,746.



1. In a tool-holder, the combination, with a supporting standard provided with a base for supporting it on a machine-rest and having also a guide arranged at an angle to the said base, of a slide engaging with the said guide, means for sliding the said slide on the guide, a turret-head carried by the said slide and revoluble in a plane arranged at a right-angle to the said base and provided with a series of holders for tools, and a single locking-device for clamping the said turret-head and slide to the said guide.

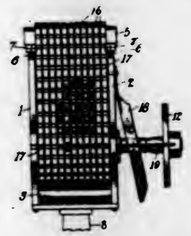
2. In a tool-holder, the combination, with a supporting standard provided with a base for supporting it on a machine-rest and having also a dovetailed guide provided with a slot and arrranged at an angle to the said base, of a slide provided with a dovetailed portion which engages with said guide and having also a projection, means for sliding the said slide on the said guide, a turret-head mounted to revolve against the said projection in a plane arranged at a right-angle to the said base and provided with a series of holders for tools, and a single locking-device for clamping the said turret-head and slide to the said guide.

3. In a tool-holder, the combination, with a guide, a slide adjustable on the said guide, and a revoluble turret-head carried by the said slide and provided with a series of holders for tools; of a non-revoluble spindle passing through openings in the said turret-head, slide and guide and having a screw-threaded portion at one end, a locking-device engaging with the said screwthreaded portion, and an adjustable screw secured to the other end of the said spindle and provided with a head for retaining the turret-head on the spindle and affording a means for compensating for the wear of the bearing surfaces of the said turret-head, locking device slide and guide.

4. In a tool-holder, the combination, with a standard provided with a base for supporting it on a machine-rest and having also a guide which projects upwardly from the said base at an angle thereto, of a slide mounted on the said guide and provided with a circular projection on one side, means for sliding the said slide toward and away from the said base, and a turret-head mounted on the said circular projection and revoluble in a plane arranged at a right-angle to the said base.

940,186. HAND-STAMP. JOHN C. OTTESON, Plainfield, N. J. Filed May 5, 1908. Serial No. 430,950.

1. In a device of the kind described, in combination, a plurality of type bands, a plurality of adjusting disks therefor, an adjusting member movable transversely of the disks and provided along its length with ratchet teeth, means for connecting said member with the disks singly, a manually actuated spring member arranged to engage the teeth of the adjusting member to shift the latter step by step, and locking means actuated by the adjusting member to lock the bands successively in adjusted position.

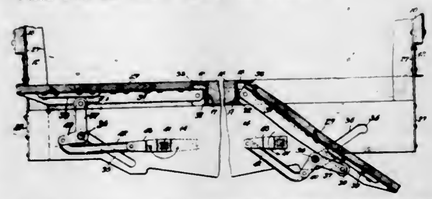


2. In a device of the kind described, the combination with a plurality of type bands, of a plurality of adjusting disks therefor, an adjusting member movable transversely of the disks and provided along its length with ratchet teeth, means for connecting said member with the disks singly, and a manually actuated spring member arranged to engage the teeth of the adjusting member to shift the latter step by step.

3. In a device of the kind described, the combination with a plurality of type-bands, provided with notches between the type carried thereby, of means for adjusting the bands singly, including a member adjustable transversely of the bands; and a locking bar connected to the adjustable member for adjustment therewith and adapted to enter the notches between the type on the bands.

4. In a device of the kind described, in combination, a pair of side members; an alining bar carried thereby; a longitudinally slotted tubular shaft rotatably mounted in the side members; a plurality of disks loosely mounted on the tubular shaft; a plurality of type-bands mounted on the disks and passing over the alining bar; an adjusting shaft mounted to slide in the tubular shaft and provided with ratchet teeth; a yielding device carried by the adjusting shaft, extending through the slot in the tubular shaft and adapted to engage the disks singly to rotate the same; a spring lever carried by one of the side members and engaging the ratchet teeth on the adjusting shaft; a locking bar arranged to slide across the type-bands in notches between the type thereon; and means connecting the locking bar with the adjusting shaft to cause the bar to slide in unison with the said shaft; as and for the purposes set forth.

940,187. DUMP-CAR. JOHN PEARSON, Chicago, Ill. Filed Dec. 21, 1906. Serial No. 348,861.



1. In a car, central longitudinal sills, central angle-irons above the sills, and deck-beams having end-portions and a connecting web between the sills and irons.

2. In a car, central longitudinal sills, central angle-irons above the sills, and deck-beams having end-portions connected by a cross-web, the end portions having flanges secured to the sills and the web located between the sills and angle-irons and secured thereto.

3. In a dump-car, a frame having cross-supports provided with inclined slots, a rod in the slots, a series of

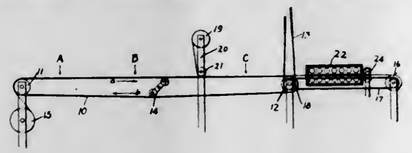
dump-doors on the frame, bell-crank levers pivoted on the rod, each having an arm engaging a door in the line of the dead center of the lever pivots when the doors are closed, and means to move the levers.

4. In a dump-car, a frame having cross-supports provided with inclined slots, a rod in the slots, a series of dump-doors on the frame, bell-crank-levers pivoted on the rods each having an arm supporting a door and arranged in the line of the weight or load therefor, and means to operate the levers to open and close the doors.

5. In a dump-car, a frame having cross-supports provided with inclined slots, a rod in the slots, a series of dump-doors on the frame, a shaft, bell-crank levers on the rods each having an arm supporting a door, links connecting the shaft and the free arm of the bell-cranks, and means to operate the shaft.

[Claims 6 to 13 not printed in the Gazette.]

940,188. PROCESS OF MAKING INSULATING FABRICS. CHARLES F. PETERSON, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Mar. 27, 1906. Serial No. 308,261.



1. The process of making sheet insulating material which consists in shellacking overlapping fragments of mica to a continuous web of material, covering the mica with a second web of material and applying a second coating of shellac.

2. The process of making sheet insulating material which consists in shellacking overlapping fragments of mica to a continuous web of paper, covering the mica with a second web of paper and applying a second coating of shellac.

3. The process of making sheet insulating material which consists in coating a web of material with adhesive as it passes over a moving support, applying fragments of mica to the web, covering the mica with a second web midway of the support, and applying a coating of adhesive to said cover.

4. The process of making sheet insulating material which consists in coating a web of material with adhesive as it passes over a belt moving at the speed of the web, applying fragments of mica to the adhesive, covering the mica midway of the belt with a second web of material to which an insulating adhesive is applied, and then drying by heat.

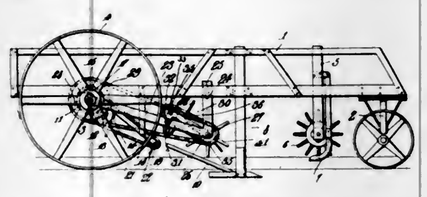
5. The process of making sheet insulating material which consists in coating a web of material with adhesive as it passes over a belt moving at the speed of the web, applying an insulating substance to the adhesive, covering the same midway of the belt with a second web of material and then drying by heat.

[Claims 6 and 7 not printed in the Gazette.]

940,189. BEET-HARVESTER. GEORGE A. PINGREE, Rocky Ford, Colo. Filed Mar. 9, 1909. Serial No. 482,343.

1. In a beet harvester having a digger and an elevator means for transmitting the beets from the digger to the elevator comprising a plurality of sets of fingers arranged for movement about an axis and resiliently held toward each other and moving over the digger toward the elevator.

2. In a beet harvester comprising a digger and an elevator, means for transmitting the beets from the digger to the elevator comprising a plurality of sets of fingers arranged to rotate about an axis and located over the digger and movable toward the elevator, and a series of fingers arranged for orbital movement in a plane between the first said sets of fingers.

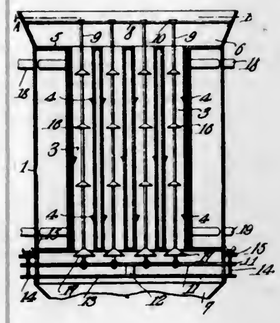


3. In a beet harvester comprising a digger and an elevator means for transmitting the beets from the digger to the elevator comprising a plurality of sets of fingers mounted for rotation about an axis and located over the digger and movable toward the elevator, means for resiliently holding the said sets of fingers toward each other, and another set of fingers arranged for orbital movement between the first set of fingers.

4. In a beet harvester comprising a digger and an elevator, means for transmitting the beets from the digger to the elevator, arms pivotally mounted at their rear ends and free for limited vertical movement at their forward ends, a shaft journaled for rotation at the forward portions of the arms, fingers mounted upon the shaft for rotation about the axis thereof, and a second set of fingers arranged for orbital movement about the axis of the supporting shaft of the first said set of fingers.

5. In a beet harvester comprising a digger and an elevator, means for transmitting the beets from the digger to the elevator comprising arms pivotally supported at their rear ends and free for vertical movement at their forward portions, a shaft journaled for rotation at their forward portions, two sets of fingers mounted upon the shaft, resilient means for holding the said sets of fingers toward each other, arms pivoted at their forward ends upon said shaft and free for vertical movement at their rear ends, a shaft journaled at the rear ends of the last said arms, and fingers arranged for orbital movement about both of the said shafts and in a plane between the sets of fingers upon the first said shafts.

940,190. GRAIN-DRIER. PETER PROVOST, Milwaukee, Wis. Filed Mar. 23, 1909. Serial No. 485,248.



1. In a device of the class described a casing having grain inlets and outlets, grain-heating devices interposed between said inlets and outlets, a separate valve for each outlet, and means for adjustably supporting the valves, and means for simultaneously shifting said valves.

2. In a device of the class described a casing having grain inlets and outlets, means interposed between said inlets and outlets for heating grain, separate valves upon the outlets, and a series of baffle devices connected to each valve.

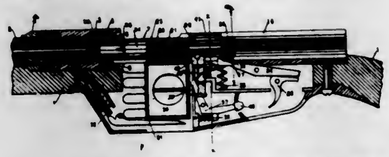
3. In a device of the class described a casing having grain inlets and outlets, grain-heating devices interposed between said inlets and outlets, a valve for each outlet, baffles connected to each of the valves, and means for simultaneously shifting the valves and baffles.

4. A grain-heater comprising a casing having grain inlets and outlets, tubular connections between said inlets and outlets, a valve for each outlet, an adjustable support for each valve, and means for simultaneously shifting all of the valves.

5. A grain-drier comprising a casing having grain inlets and outlets, tubes connecting said inlets and outlets, a supporting frame, a valve adjacent the outlet of each tube, adjustable connections between the valves and the frame, said connections extending longitudinally within the tubes, baffles carried by the connections, and baffles within and fixed relatively to the tubes.

[Claim 6 not printed in the Gazette.]

940,191. MAGAZINE-FIREARM. JOSEPH REBMAN, Dallas, Tex. Filed June 12, 1909. Serial No. 501,686.



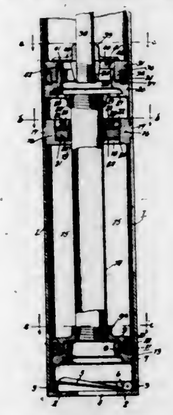
1. In a magazine fire-arm, the combination with the rotary bolt 7, provided with the locking lugs 6, and with the helical groove 11, terminating in the recess 18, of the bolt housing 10, provided with the lateral grooves 9, and the recesses 5, having inclined approaches 19 communicating with said groove, the sliding hand-piece 14, the connecting rod 13 and the lug 12 upon the latter operating in said helical groove.

2. In a magazine fire-arm, the combination with the breech bolt 7, and the bolt housing 10, of the trigger 33, the lever 34 operated by said trigger, the upper extremity of which is adapted to obstruct the forward progress of the firing pin, the hinged door 41 in the bolt housing adapted to prevent forward movement of the breech-bolt when lowered, the pivotally mounted lever 43, having a projection adapted to enter the recess in the breech-bolt to prevent rearward motion of the same, and the metal strip 45 adapted to unlock lever 43 to permit the breech-bolt to be rearwardly moved.

3. In a magazine fire-arm, the combination with a breech bolt, having a helical groove partially encircling its outer surface, said groove terminating at its rear extremity in a transverse recess, of locking lugs on either side of the forward portion of the bolt, a firing pin within said bolt, a head rigid upon the rear extremity of the pin exterior to the bolt, a lug projecting from said head, a bolt housing provided with lateral longitudinal grooves to guide the locking lugs, and with a groove receiving the lug on said head, a pivoted lever one of whose extremities is adapted to block the passage of the lug on the head of the firing pin, when the bolt is in its operating position, a spring normally holding said extremity of the lever raised, and a trigger adapted to raise the other end of said lever, thereby discharging the gun.

4. In a magazine fire-arm, the combination with a breech bolt having a helical groove in its outer surface, and provided with oppositely positioned locking lugs, of a spring pressed firing-pin within said bolt, having a square, forward portion, and projecting from the rear extremity of the bolt, a lug having rigid connection with the rear extremity of the pin, a housing in which said bolt is slidably mounted, having longitudinal grooves receiving separately the locking lugs and the lug rigid with the firing pin, an ejector in the forward portion of the bolt having a square central aperture, receiving the square forward portion of the firing pin, a centrally pivoted lever, one extremity of which blocks said lug upon the rear end of the firing pin, when the gun is ready to discharge, a spring normally preventing said extremity of the lever from being displaced, a trigger adapted to raise the lower extremity of the lever, to discharge the gun, a sliding hand-piece on the forward portion of the gun stock, and a rod attached to the sliding hand piece, having a lug upon its rear extremity projecting into said helical groove of the breech bolt.

940,192. DOUBLE-ACTING PUMP. JOHN J. REXROTH, Chicago, Ill. Filed Feb. 5, 1909. Serial No. 476,298.



1. In a double acting pump, the combination of a cylinder having an imperforate wall and of uniform interior diameter from end to end, a fixed cross-head dividing the interior of the cylinder into a lower section closed at its upper end and an upper section closed at its lower end, a piston having a central chamber and operative below the fixed cross-head in the lower section of the cylinder and creating and maintaining a vacuum between the piston and cross-head, the piston having downwardly extending circumferential packing rings, a piston having a central chamber and operative above the fixed cross-head in the upper section of the cylinder, the piston having upwardly extending circumferential packing rings, the fixed cross-head furnishing a lower and an upper induction-eduction chamber, each endwise expansible and contractible by and with the strokes of the pistons and of the same capacity approximately, and a hollow imperforate piston rod connecting the central chambers of the two pistons and slidable through the fixed cross-head, the hollow piston rod or transmission tube and the chambers of the two pistons furnishing a conduit between the induction-eduction chambers of the sections of the cylinder below and above the fixed cross-head, substantially as described.

2. In a double acting pump, the combination of a cylinder having an imperforate wall and of uniform interior diameter from end to end, a fixed cross-head having a central packing and dividing the interior of the cylinder into a lower section closed at its upper end and an upper section closed at its lower end, a piston having a central chamber and operative below the fixed cross-head in the lower section of the cylinder and creating and maintaining a vacuum between the piston and cross-head, the piston having around its periphery downwardly extending cup leather packing rings, a piston having a central chamber and operative above the fixed cross-head in the upper section of the cylinder, the piston having around its periphery upwardly extending cup leather packing rings, the fixed cross-head furnishing a lower and an upper induction-eduction chamber, each endwise expansible and contractible by and with the stroke of the pistons and of the

same capacity approximately, and a hollow imperforate piston rod connecting the two pistons and slidable through the fixed head and its packing, the hollow piston rod or transmission tube and the chambers of the two pistons furnishing a conduit between the induction-eduction chambers of the sections of the cylinder below and above the cross-head, substantially as described.

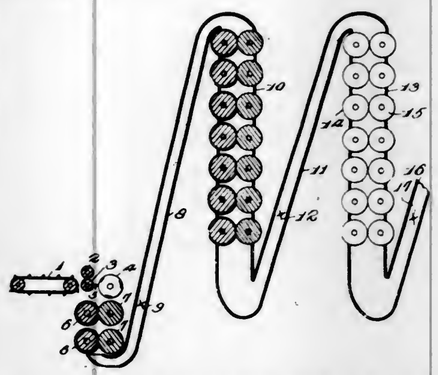
3. In a double acting pump, the combination of a cylinder having an imperforate wall and of uniform diameter from end to end, a fixed cross-head having a central packing and dividing the interior of the cylinder into a lower section closed at its upper end and an upper section closed at its lower end, a peripheral packed piston having a central chamber and operative below the fixed head in the lower section of the cylinder and creating and maintaining a vacuum between the piston and cross-head, a peripheral packed piston having a central chamber and operative above the fixed head in the upper section of the cylinder, the fixed cross-head furnishing a lower and an upper induction-eduction chamber, each endwise expansible and contractible by and with the stroke of the pistons and of the same capacity approximately, a hollow imperforate piston rod connecting the two pistons and slidable through the fixed head and its packing, the hollow piston rod or transmission tube and the chambers of the two pistons furnishing a conduit between the induction-eduction chambers of the two sections of the cylinder above and below the fixed cross-head, an induction valve below the lower piston, a pump rod connected to the upper piston, and an eduction valve above the upper piston and carried by the pump rod, substantially as described.

4. In a double acting pump, the combination of a cylinder having an imperforate wall and of uniform diameter from end to end and having its interior divided into upper and lower twin sections, the lower section closed at its upper end and the upper section closed at its lower end, each section having an induction-eduction chamber of the same capacity approximately, a peripheral sealed piston for each section of the cylinder, each piston having an upper and lower peripheral packing ring, the ring of the lower piston extending downwardly and the ring of the upper piston extending upwardly, for sealing the lower piston on the downstroke and the upper piston on the upstroke, each piston having a central chamber and the lower piston operative in the lower section of the lower cylinder and creating and maintaining a vacuum between the piston and cross-head, a hollow imperforate piston rod connecting the two pistons and furnishing, in connection with the chambers of the two pistons, communication between the induction-eduction chambers of the twin sections of the cylinder, for simultaneously drawing into the induction-eduction chamber of each section of the cylinder an approximately equal volume of water with each upstroke of the pistons and discharging a single equal volume of water from the chamber of the upper section of the cylinder with each up and with each down stroke of the pistons, substantially as described.

5. In a double acting pump, the combination of a cylinder having an imperforate wall and of uniform diameter from end to end, and having its interior divided into separate twin sections closed at their adjoining ends against communication with each other, each section having an induction-eduction chamber of the same capacity approximately, a peripheral packed and sealed piston for each section, each piston having two peripheral packings, one packing above the other, and each packing formed of cup leather, both cup leathers of the lower piston downwardly extending and both cup leathers of the upper piston upwardly extending, each piston having a central chamber and the lower piston operative in the lower section of the cylinder and creating and maintaining a vacuum between the piston and cross-head, a hollow imperforate piston rod connecting the two pistons and furnishing, in connection with the chambers of the two pistons, communication between the induction-eduction chambers of the twin sections of the cylinder, and valves controlling the induction and eduction of water into and from the sections of the cylinder, substantially as described.

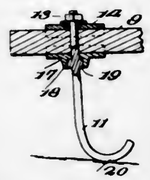
[Claims 6 to 16 not printed in the Gazette.]

940,193. ALFALFA DRIER AND MILL. WILLIAM E. RICKEY, Rocky, Okla. Filed July 29, 1908. Serial No. 445,996.



In a mechanism of the character specified, the combination of a carrier, a pair of feed rolls adapted to receive the material from the carrier, a cutting mechanism, arranged to receive the material from the feed rolls, a series of vertical shafts, spouts connecting the lower end of one shaft with the upper end of the next shaft, and connecting the cutting mechanism with the upper end of the first shaft of the series, fan blowers in the length of said spouts, pairs of coöperating cutter rolls located in the length of one of the shafts, and pressure rolls arranged in the length of another shaft.

940,194. DISK TONGUE DEVICE. JACOB C. ROATH, Adrian, Ill. Filed Apr. 20, 1909. Serial No. 491,164.



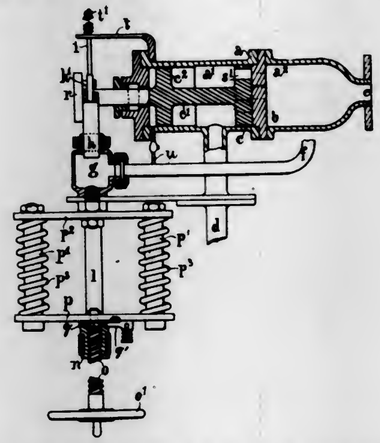
1. The combination with a vehicle having a tongue, plates secured to the opposite faces of the tongue, one of said plates being provided with an enlargement having an angular socket formed therein, a shank piercing both plates and provided with an angular enlargement arranged to enter said socket, and spaced shoes depending from the shank and normally supported in elevated position above the ground when the vehicle is in motion and adapted to bear against the ground to form a support for the tongue when the vehicle is at rest.

2. The combination with a vehicle having a tongue, plates secured to the opposite faces of the tongue and provided with longitudinal flanges adapted to bear against said tongue, one of the plates being provided with a depending enlargement having an angular socket formed therein, a threaded shank extending through both plates and having its lower end bifurcated to form depending shoes provided with rearwardly curved terminals, a squared portion on the shank fitting within the socket, and a clamping nut engaging the threaded end of the shank and bearing against the adjacent plate.

3. The combination with a vehicle having a tongue, a plate secured to the tongue and having an angular socket formed therein, a shank piercing the plate and provided with an angular enlargement arranged to enter said socket, the lower end of said shank being curved laterally to form a depending shoe normally supported in elevated

position above the ground when the vehicle is in motion and adapted to bear against the ground to form a support for the tongue when the vehicle is at rest.

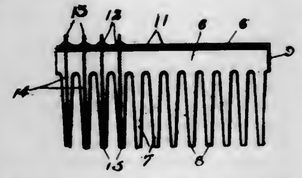
940,195. REDUCING OR PRESSURE-REGULATING VALVE FOR STEAM-ENGINES AND THE LIKE. HENRI ROUX, Marseille, France. Filed July 20, 1908. Serial No. 444,453.



1. In a reducing valve, a valve box, a ported partition dividing the valve box into a main and a supplemental chamber, a valve stem having a rotary valve disk formed with ports registerable with the ports of the partition, said valve stem and valve disk being located in the supplemental chamber, a packing member on the valve stem spaced apart from the rotary valve disk, a supply pipe connected with the supplemental chamber between the rotary disk and the packing member, an arm connected with the outer end of the valve stem, a plunger engaging the arm, a cylinder for the plunger, a pipe connecting the main chamber with a plunger cylinder, and means for holding the plunger under tension.

2. In a reducing valve, a valve box, a ported partition dividing the valve box into a main and a supplemental chamber, a valve stem in the supplemental chamber having a rotary valve disk formed with ports registerable with the ports of the partition, a packing member on the valve stem spaced apart from the valve disk, a supply pipe connected with the supplemental chamber between the disk and the packing member, an arm connected with the outer end of the valve stem, a plunger engaging the arm, a cylinder for the plunger, a pipe connected with the main chamber and the plunger cylinder, a frame connected with the plunger, parallel spaced bars arranged on the frame, springs engaging the spaced bars, and a screw for adjusting the springs.

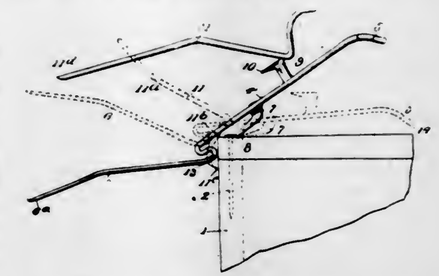
940,196. FLUID-DISTRIBUTING COMB. VERNIE SARTELL, Highwood, Mont. Filed Oct. 1, 1908. Serial No. 455,742.



1. In a liquid distributing comb, the combination with a hollow back portion, of depending hollow teeth communicating with the back portion, said teeth having openings at their points, said back having a plurality of threaded openings therein, one above each tooth, of a plurality of threaded plugs one engaged in each of the threaded openings, a helical spring secured at its upper end to each of the plugs, said springs extending downwardly within the teeth, and valves secured to the lower ends of the springs and arranged to lie normally in position to close the openings at the points of the teeth, said springs, valves and plugs being connected for simultaneous removal.

2. In a fluid distributing comb, the combination with a hollow back portion, and a plurality of depending hollow teeth communicating with the back portion, said teeth having liquid discharge openings at their points, said back portion having a plurality of openings therein one located above each tooth, of a plurality of plugs, one of said plugs being engaged in each of the second named openings, and a helical spring secured in each plug, said springs extending downwardly from the plugs and into the depending teeth, and valves rigidly secured to the lower ends of the springs and arranged to lie normally in a position to close the liquid discharge openings of the teeth, said springs and valves being arranged for removal from the device simultaneously with the plugs.

940,197. NAIL-PULLER. LEVI SCARBROUGH, Kell, Ill. Filed Oct. 16, 1908. Serial No. 458,025.



1. A nail extractor comprising a flat body portion having nail engaging claws projecting from one face thereof, said body portion being provided with a plurality of openings therethrough, and a lever entirely separate from but engageable with the body portion through any of these openings and adapted to fulcrum against the object from which the nail is to be withdrawn.

2. A nail extractor comprising a flat body portion having opposed nail engaging claws projecting from opposite faces of the body portion and located at different positions longitudinally along the body portion, in combination with a lever detachable from but engaging with the body portion and adapted to fulcrum against the object from which the nails are to be withdrawn.

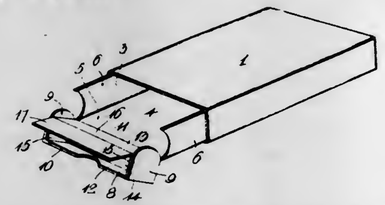
3. A nail extractor comprising a body portion having a foot at one end and a handle at the other, said body portion being provided with a plurality of slots therethrough, a nail engaging claw secured to one face of the body portion and projecting therefrom and a lever having an angularly bent end adapted to be passed through any one of said slots and to engage with the side of an object from which the nail is to be withdrawn.

4. A nail extractor comprising a flat body portion having a plurality of slots therethrough, said body being formed at one end with a fulcrum foot and at the other end with a handle, opposed nail engaging claws projecting from opposite faces of the body portion, and a lever having an angularly bent end with an outwardly bent termination, the angularly bent end of the lever being insertible through any one of the slots and the termination being engageable with the side of an object from which the nail is being withdrawn.

5. A nail extractor comprising a flat body portion having a downwardly bent end forming a foot and a handle at the opposite end, said body being formed with two adjacent slots therethrough, a nail engaging claw attached to one face of the body portion between slots and projecting toward the handle end of the device, a nail engaging claw projecting from the opposite face of the body portion and located between the fulcrum foot and the slot adjacent thereto, and an operating lever having an angularly bent end provided with an outwardly turned termination, the angularly bent end of the lever being insertible through one or the other of said slots and the termination being engageable with the side of an object from which the nail is to be withdrawn.

[Claim 6 not printed in the Gazette.]

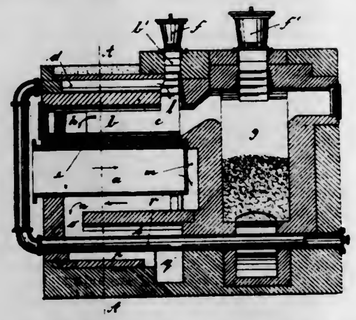
940,198. CIGARETTE AND MATCH BOX. SIMON SCHENDEL, New York, N. Y. Filed Apr. 5, 1909. Serial No. 487,924.



1. In a box of the class described, a casing, a sliding member adapted to be received by the casing, said sliding member having an outer pivoted section adapted to swing in a plane beneath the body thereof, a removable box-like member arranged in the pivoted section of the sliding member and forming a match receptacle in connection therewith, said box-like member being separate and distinct from the pivoted section of the sliding member, and comprising a bottom, inner side piece, end pieces, and a pivoted top piece.

2. In a box of the class described, a casing, a sliding member adapted to slide in the casing, said sliding member having an outer pivoted section adapted to swing in a plane beneath the body thereof, and a removable approximately rectangular box-like member comprising a bottom, a side piece, end pieces, and a pivoted lid arranged in the pivoted section with its side piece at the inner or pivoted side thereof, said box like member forming in connection with the pivoted section a match receptacle.

940,199. RETORT-FURNACE. ERNST SCHMATOLLA, London, England. Filed Apr. 10, 1909. Serial No. 489,203.



1. In a retort-furnace, the combination with a gas-producer, of a horizontal retort rectangular in cross-section and having a vertical bottom adjacent to one side of said gas-producer, a chamotte-plate on the top side of said retort, a brickwork-structure in one piece with said gas-producer and comprising a combustion chamber for same above said chamotte-plate, flues on the sides of said retort and communicating with the combustion chamber, a return flue beneath the horizontal bottom of said retort and communicating with the side flues, a heating chamber beneath the return flue and communicating therewith, and a sole-flue communicating with the heating chamber, and air-pipes passing through said heating chamber and extending upward to said combustion chamber.

2. In a retort-furnace, the combination with a gas-producer, of a horizontal retort rectangular in cross-section and having a vertical bottom adjacent to one side of said gas-producer, a chamotte-plate on the top side of said retort, a brickwork-structure in one piece with said gas-producer and comprising a passage leading thereto, a combustion chamber above said chamotte-plate and communicating with the passage, air-heating passages above the combustion chamber and communicating therewith at the passage, flues on the sides of said retort and communicating with the combustion chamber on the side opposite to the passage, a rear flue on the vertical bottom of said retort and communicating with the side flues, a return flue beneath the horizontal bottom of said retort and communicating with the rear flue, a heating chamber beneath the return flue and communicating therewith, and a sole-flue communicating with the heating chamber, and air-pipes passing through said heating chamber and extending upward to said air-heating passages.

3. In a retort-furnace, the combination with a gas-producer, of a horizontal retort rectangular in cross-section and having a vertical bottom adjacent to one side of said gas-producer, a chamotte-plate on the top side of said retort and forming a hearth, a brickwork-structure in one piece with said gas-producer and comprising a passage leading thereto, an inlet in its top at the passage, a combustion chamber above said chamotte-plate and communicating with the inlet and the passage, air-heating passages above the combustion chamber and communicating with the inlet, flues on the sides of said retort and communicating with the combustion chamber on the side opposite to the passage, a rear flue on the vertical bottom of said retort and communicating with the side flues, a return flue beneath the horizontal bottom of said retort and communicating with the rear flue, a heating chamber beneath the return flue and communicating therewith, and a sole-flue communicating with the heating chamber, and air-pipes passing through said heating chamber and extending upward to said air-heating passages, and a charging device above said inlet.

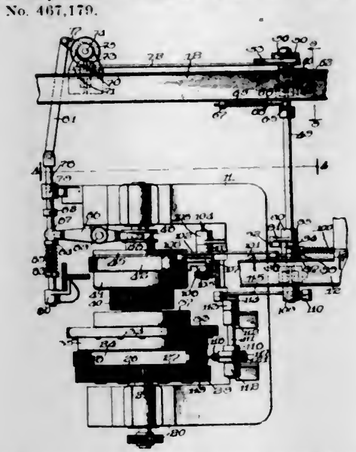
4. In a retort-furnace, the combination with a gas-producer, of a horizontal retort rectangular in cross-section and having a vertical bottom adjacent to one side of said gas-producer, chamotte-plates on the top side and the sides of said retort, a brickwork-structure in one piece with said gas-producer and comprising a combustion chamber for same above said retort, flues on the sides and the vertical bottom of said retort and communicating with said combustion chamber, a return flue beneath the horizontal bottom of said retort and communicating with the side flues, a heating chamber beneath the return flue and communicating therewith, and a sole-flue communicating with the heating chamber, and air-pipes passing through said heating chamber and extending upward to said combustion chamber.

5. In a retort-furnace, the combination with a gas-producer, of a horizontal retort rectangular in cross-section and having a vertical bottom adjacent to one side of said gas-producer, chamotte-plates on the top side and the sides of said retort, a brickwork-structure in one piece with said gas-producer and comprising a passage leading thereto, a combustion chamber above said retort and communicating with the passage, air-heating passages above the combustion chamber and communicating therewith at the passage, flues on the sides of said retort and communicating with the combustion chamber on the side opposite to the passage, a rear flue on the vertical bottom of said retort and communicating with the side flues, a return flue beneath the horizontal bottom of said retort and

communicating with the rear flue, a heating chamber beneath the return flue and communicating therewith, and a sole-flue communicating with the heating chamber, and air-pipes passing through said heating chamber and extending upward to said air-heating passages.

[Claim 6 not printed in the Gazette.]

940,200. GEARING. HANS C. SCHROEDER, Chicago, Ill., assignor to The Goss Printing Press Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 12, 1908. Serial No. 467,179.



1. In combination, a single driving shaft, a gear secured thereon, a driving gear rotatably mounted on said driving shaft, slow speed gearing carried on said driving shaft and driven by said first gear, connections between said slow speed gearing and said driving gear adapted to drive said driving gear in one direction, means for throwing said slow speed gearing into operative relation with said driving gear, a clutch member rotatably mounted on said driving shaft and rigidly connected with said driving gear, a second clutch member on said driving shaft and rotated thereby, and means for throwing said clutch members into engagement while said slow speed mechanism is still in operative relation with said driving gear.

2. In combination, a single driving shaft, a gear secured thereon, a driving gear rotatably mounted on said driving shaft, slow speed gearing carried on said driving shaft and driven by said first gear, pawl and ratchet connections between said slow speed gearing and said driving gear, a clutch member rotatably mounted on said driving shaft and rigidly connected with said driving gear, a second clutch member on said driving shaft and rotated thereby, and means for throwing said clutch members into engagement while said slow speed mechanism is still in operative relation with said driving gear.

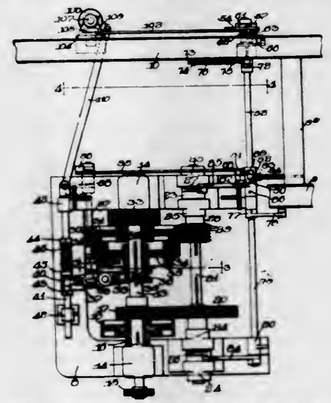
3. In combination, a drive shaft, a driving gear rotatably mounted on said driving shaft, a gear keyed to said driving shaft, planetary gearing mounted on said driving shaft and adapted to be engaged with and to be driven by said fixed gear, pawl and ratchet connections between said planetary gearing and said driving gear, means for throwing said planetary gearing into operative relation with said driving gear, a clutch member on said driving gear, a second clutch member on said driving shaft, and means for throwing said clutch members into engagement while said slow speed mechanism is still in operative relation with said driving gear.

4. In combination, a driving shaft, a driving gear rotatably mounted on said shaft, a clutch member connected with said driving gear, a second clutch member mounted on said shaft and adapted to be moved into engagement with said first clutch member, a spider rotatably mounted on said shaft, stub-shafts journaled in said spider, gears mounted on said stub-shafts, gearing operatively connecting said shaft with the gears on said spider, gears carried on the other ends of said stub-shafts on said spider, an internal gear revolubly mounted on said driving shaft and adapted to be engaged by said last-mentioned gears, connections between said internal gear and said driving gear adapted to drive the same in one direction, a brake on said spider, means for applying the brake to said spider to hold the same against rotation and drive said driving gear at slow speed, and means for throwing said clutch members into engagement while said spider is held against rotation.

5. In combination, a driving shaft, a driving gear rotatably mounted on said shaft, a clutch member connected with said driving gear, a second clutch member mounted on said shaft and adapted to be moved into engagement with said first clutch member, a spider rotatably mounted on said shaft, stub-shafts journaled in said spider, gears mounted on said stub-shafts, gearing operatively connecting said shaft with the gears on said spider, gears carried on the other ends of said stub-shafts on said spider, an internal gear revolubly mounted on said driving shaft and adapted to be engaged by said last-mentioned gears, pawl and ratchet connections between said internal gear and said driving gear, a brake on said spider, means for applying the brake to said spider to hold the same against rotation and drive said driving gear at slow speed, and means for throwing said clutch members into engagement while said spider is still held against rotation.

[Claims 6 and 7 not printed in the Gazette.]

940,201. VARIABLE-SPEED DRIVING MECHANISM. HANS C. SCHROEDER, Chicago, Ill., assignor to The Goss Printing Press Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 14, 1909. Serial No. 472,299.



1. The combination with a driving-shaft, a clutch-member rotatably mounted on said driving-shaft, a driving-pinion connected to said clutch-member, a second clutch-member slidingly mounted on said driving-shaft, and means for moving said clutch-members into and out of engagement, of a pinion rotatably mounted on said driving-shaft, means for rotating said pinion in one direction from said driving-shaft, a counter-shaft, a gear on said counter-shaft of larger size than said pinion and meshing therewith, a friction device on said counter-shaft adapted to frictionally engage the periphery of said first clutch-member, and means for shifting said counter-shaft toward and from said driving shaft and causing frictional engagement between said counter-shaft and said first clutch-member.

2. The combination with a driving-shaft, a gear rotatably mounted on said driving-shaft, a clutch-member fixedly connected with said gear, and a second clutch-member slidingly mounted on said driving-shaft and adapted to be brought into engagement with said loose clutch-member and drive the same, of a pinion rotatably mounted on said driving-shaft, pawl and ratchet connections be-

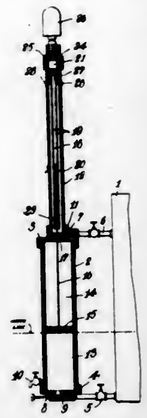
tween said driving-shaft and said pinion, a counter-shaft adapted to be moved toward and away from said driving-shaft, a large gear on said counter-shaft meshing with said pinion, a friction member on said counter-shaft adapted when said counter-shaft is moved toward said driving-shaft to frictionally engage said loose clutch-member, means for moving said clutch-members into and out of engagement, and means for moving said counter-shaft toward and away from said driving-shaft.

3. The combination with a driving-shaft, a gear rotatably mounted on said driving-shaft, a clutch-member fixedly connected with said gear, and a second clutch-member slidingly mounted on said driving-shaft and adapted to be brought into engagement with said loose clutch-member and drive the same, of a pinion rotatably mounted on said driving shaft, pawl and ratchet connections between said driving-shaft and said pinion, a counter-shaft adapted to be moved toward and away from said driving-shaft, a large gear on said counter-shaft meshing with said pinion, a friction member on said counter-shaft adapted when said counter-shaft is moved toward said driving-shaft to frictionally engage said loose clutch-member, a clutch shifting device for moving said clutch-member into and out of engagement, a hand-lever, connections between said hand-lever and said clutch shifting device, means operated by said lever for shifting said counter-shaft toward and away from said driving-shaft, said lever and its connecting devices being adapted when said lever is moved in one direction to first move said counter-shaft toward said driving-shaft and bring said friction device into friction engagement with said loose clutch-member, then, as said lever is moved farther in the same direction, to operate said clutch-moving means to cause engagement of said clutch members and, as said clutch-members are brought into engagement to shift said counter-shaft away from said driving-shaft.

4. The combination with a driving-shaft, a gear rotatably mounted on said driving-shaft, a clutch-member fixedly connected with said gear, and a second clutch-member slidingly mounted on said driving-shaft and adapted to be brought into engagement with said loose clutch-member and drive the same, of a pinion rotatably mounted on said driving-shaft, pawl and ratchet connections between said driving-shaft and said pinion, a counter-shaft adapted to be moved toward and away from said driving-shaft, a large gear on said counter-shaft meshing with said pinion, a friction member on said counter-shaft adapted when said counter-shaft is moved toward said driving-shaft to frictionally engage said loose clutch-member, a clutch shifting device for moving said clutch-members into and out of engagement, a brake, a hand-lever, connections between said hand-lever and said clutch-shifting device, means operated by said lever for shifting said counter-shaft toward and away from said driving-shaft, said lever and its connections being adapted when said lever is moved in one direction to first move said counter-shaft toward said driving-shaft and bring said friction device into frictional engagement with said loose clutch-member, then as said lever is moved farther in the same direction, to operate said clutch-moving means to throw said clutch members into engagement, and, as said clutch-members are brought into engagement, to shift said counter-shaft away from said driving-shaft, said connections being also adapted as said lever is swung in the opposite direction to move said clutch-members out of engagement.

5. The combination with a driving-shaft, a gear rotatably mounted on said driving-shaft, a clutch-member fixedly connected with said gear, and a second clutch-member slidingly mounted on said driving-shaft and adapted to be brought into engagement with said loose clutch-member and drive the same, of a pinion rotatably mounted on said driving shaft, pawl and ratchet connections between said driving-shaft and said pinion, a counter-shaft adapted to be moved toward and away from said driving-shaft, a large gear on said counter-shaft meshing with said pinion, a friction member on said counter-shaft adapted when said counter-shaft is moved toward said driving-shaft to frictionally engage said loose clutch-member, a clutch shifter for moving said clutch-members into and out of engagement, a brake adapted to be applied to said loose clutch-member, a hand-lever, connections between said hand-lever and said clutch-shifter, connections operated by said lever for shifting said counter-shaft toward and away from said driving-shaft, and connections between said lever and said counter-shaft and between said lever and said brake, said lever and its connections being adapted when said lever is moved in one direction to first move said counter-shaft toward said driving-shaft and bring said friction device into friction engagement with said loose clutch-member, then, as said lever is moved farther in the same direction, to operate said clutch-moving means to throw said clutch members into engagement, and, as said clutch-members are brought into engagement, to shift said counter-shaft away from said driving-shaft, said connections being also adapted, as said lever is swung in the opposite direction, to move said clutch-members out of engagement, and, as said lever is moved to the limit of its motion in the backward direction, to clamp said brake upon said loose clutch-member.

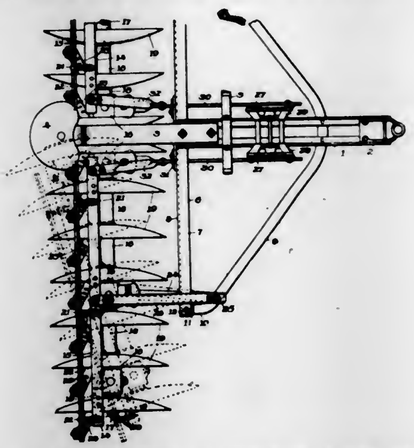
940,202. LOW-WATER SIGNAL FOR BOILERS. JOHN L. SETZER, Stanberry, Mo. Filed Dec. 14, 1908. Serial No. 467,430.



In a device of the class described, the combination with a boiler, of a cylinder having steam and water connections with said boiler, a piston traveling in the cylinder between said connections, a piston rod thereon passing through the cylinder, a supplemental cylinder mounted on the first named cylinder and having a steam inlet from said steam connection, said supplemental cylinder being adapted to receive the piston rod, a whistle having an inlet port, a valve in said supplemental cylinder to control said port, a guiding extension carried by the valve and surrounding the piston rod, a spring to normally hold said valve on its seat, and a pin on the piston rod traveling in slots in the guiding extension and adapted to engage and move the guiding extension to release the valve in the extreme lower movement of the piston.

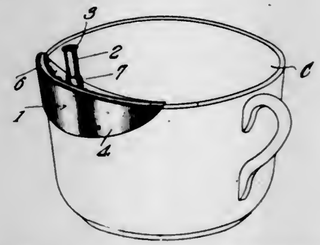
940,203. DISK HARROW. CHARLES S. SHARP, Auburn, N. Y., assignor to International Harvester Company, a Corporation of New Jersey. Filed Mar. 25, 1909. Serial No. 485,610.

1. A harrow including, in combination, a draft frame, disk gangs, said draft frame including a tongue member, a transverse member secured to the rear end of said tongue member, a curved member having its forward middle portion secured to said tongue member and its rearward diverging ends secured to opposite ends of said transverse member, a connection between said disk gangs and said draft frame, said connection including a draft bar having its rear end pivotally connected with the gang frame and its forward end pivotally connected with the rear end of the curved member of the draft frame in front of the transverse member, said transverse member having a slot therein adapted to receive said bar in a slidable manner.



2. A harrow including, in combination, a draft frame, disk gangs, said draft frame including a tongue member, a transverse member secured to the rear end of said tongue member, a curved member having its forward middle portion secured to said tongue member and its rearward diverging ends to opposite ends of said transverse member, said disk gangs having a frame, axles and axle boxes, said frame including an upper bar and hangers connecting said bar with said axle boxes, a connection between said disk gangs and said draft frame, said connection including a draft bar having its rear end pivotally connected with a gang axle box and its forward end pivotally connected with the rear ends of the curved member of the draft frame in front of the transverse member of the draft frame, said transverse member having a slot therein adapted to receive said bar in a slidable manner, a brace member having one end pivotally connected with the upper bar of the gang frame and its opposite end with said curved member of the draft frame coaxially with said draft bar.

940,204. DRINKING-CUP ATTACHMENT. DELIA M. SIMPSON, Chicago, Ill. Filed Feb. 26, 1909. Serial No. 480,122.



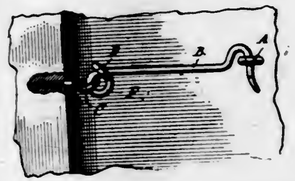
1. A sanitary attachment for drinking cups comprising a guard formed of two coacting joined members curved to conform to the shape of the cup with the outer member more extended than the inner member, and a suction tube adjustably connected therewith.

2. A sanitary attachment for drinking cups embodying two cup-engaging members, and a suction tube adjustably connected with one of the members and obliquely disposed relatively to the other.

3. A sanitary attachment for drinking cups comprising two cup-engaging members, one of which is provided with an upstanding collar, and a suction tube adjustably mounted in the collar and being obliquely disposed relatively to the other member.

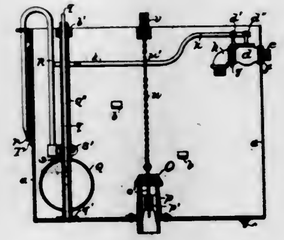
4. A sanitary attachment for drinking cups comprising two longitudinally bowed cup-engaging members, the edges of which are curved, with the widest part of each at its center, a collar carried by one of the members and disposed obliquely relatively to the other member, and a suction tube adjustably mounted in the collar.

940,205. GATE-HOOK. CHARLES L. SMITH, Ponca, Nebr. Filed Dec. 24, 1908. Serial No. 469,181.



In a gate hook, the combination of an eye formed on the under side of the arm B, with a stop D around said arm in front of the eye F, said eye connected to the screw eye C having depressed top side centers and its front center slightly raised all substantially as described and shown, for the purpose specified.

940,206. LIQUID-MEASURING TANK. THOMAS L. SMITH and EDWARD W. MEYER, Milwaukee, Wis., assignors to The T. L. Smith Company, Milwaukee, Wis., a Corporation of Wisconsin. Filed Oct. 16, 1908. Serial No. 457,986.



1. A liquid measuring tank comprising an inlet valve having a lever for operating the same, a vertically guided float to engage said lever to close the inlet valve when the water level is at its maximum desired height, a discharge valve having a connection for opening said valve by hand, a part on said connection positioned to engage the inlet valve lever and hold said valve closed whenever the discharge valve is open, a scale on the outside of the tank of a length equal to the rise and fall of the water level, an index rod attached to said float extending outside of the tank, and operating over said scale to show the volume of the tank vacated as the water flows out.

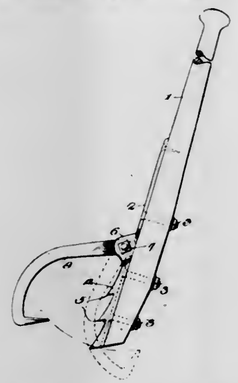
2. In a liquid measuring tank, an inlet valve a gravity operated lever engaging said valve to open it, a vertical guide rod attached to the tank, a float having a pipe extending therethrough adapted to slide on said guide rod, said float adapted to engage said lever to close said inlet valve, and means for discharging the tank.

3. A liquid measuring tank, having an inlet valve, a gravity operated lever engaging said valve to open the same, a discharge valve having a hand operated connection for opening same, adapted to engage said lever, and thereby hold the inlet valve closed while the outlet valve is

open, and a float having an attached indicator showing the quantity of water discharged at one continuous opening of the discharge valve, said float engaging said lever to close the inlet valve.

4. A liquid measuring tank having an inlet valve, a lever for operating the same, a float guided vertically, a clamp on the float vertically adjustable to engage said lever to close the inlet valve at any determined level of the water, an outlet valve and means engaging the lever to hold the inlet valve closed while the outlet valve is open.

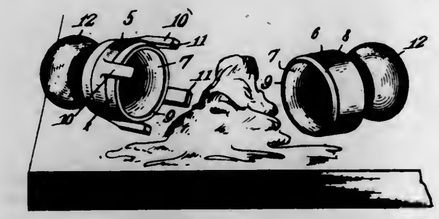
940,207. CANT-HOOK. JESSE B. SNYDER, Plum Run, Pa. Filed July 30, 1909. Serial No. 510,492.



1. In a cant hook, the combination with the handle, of a plate suitably secured thereon, said plate having its edges bent upward to form flanges, teeth formed on the flanges, said flanges terminating at their upper ends in a pair of ears, a hook pivotally secured between said ears, said hook being so constructed that the point thereof will just clear the lower end of the plate as it is swung inward, the lower teeth on the plate projecting therefrom and forming a groove through which the point of the hook passes.

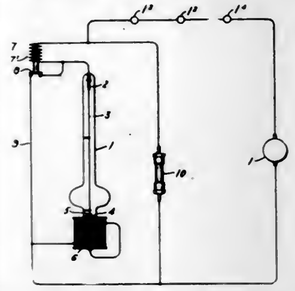
2. In a cant hook, the combination with a handle, of a plate formed with upwardly projecting flanges secured thereon, teeth formed on said flanges, the lower teeth on the flanges projecting below the lower end of the plate and at an angle of 60 degrees therewith, and a hook pivotally secured between the flanges and adapted to swing free of the end of the plate but between said teeth, said teeth being adapted for use as a peavey.

940,208. MOLD FOR MAKING NEST-EGGS. JOSEPH M. SOUTHERLAND, Monte Ne, Ark. Filed June 18, 1908. Serial No. 439,237.



A mold of the class described comprising mating sections having molding compartments adapted to register with each other when said sections are assembled, the said sections when assembled, being relatively rotatable the edge of each section at its open end being exteriorly beveled, and offset fingers integral with one of the sections and projecting beyond the open end thereof, said fingers having their opposing faces beveled toward their extremities, whereby the outer ends of the fingers will describe a circle of greater diameter than that described by the inner ends of the fingers, the circle described by the opposed faces of the fingers at their inner ends having a diameter the same as the diameter of either section.

940,209. ATTACHMENT FOR MERCURY-LAMPS. CHARLES P. STEINMETZ, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Oct. 22, 1904. Serial No. 229,525.



1. In an electrical system, a series circuit, means for supplying current thereto, a vapor electric lamp, a conducting path in shunt with said lamp, automatic means for decreasing the current in said shunt path when the line current reaches a predetermined value, and a self-reducing resistance shunting said lamp.

2. The combination of an evacuated envelop, electrodes within said envelop for maintaining a current flow therethrough, starting means for initiating a current flow between said electrodes, said means having an appreciable time element, and a resistance permanently connected between said electrodes and having a negative temperature co-efficient.

3. The combination of a vapor electric apparatus having a high initial resistance and a relatively low running resistance, and a resistance unit in shunt with said lamp, having a negative temperature co-efficient, and adapted normally to carry no appreciable current.

4. In an electrical system, a series circuit, a plurality of lamps supplied by said circuit, said lamps having a high initial resistance and a relatively low running resistance and having an appreciable time interval at starting, and a self-reducing resistance in shunt with each of said lamps and capable of withstanding a high potential during the normal starting interval of a lamp, but adapted to break down if that interval is prolonged.

5. The combination of a mercury vapor lamp and a self-reducing resistance in shunt with said lamp, said resistance having an appreciable time limit.

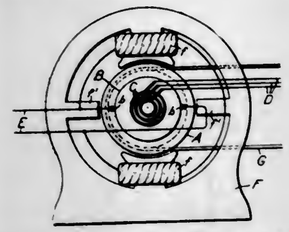
[Claims 6 to 8 not printed in the Gazette.]

940,210. DYNAMO-ELECTRIC MACHINE. CHARLES P. STEINMETZ, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Mar. 20, 1909. Serial No. 484,687.

1. A dynamo-electric machine having an armature provided with a commutator, electrical connections whereby motor current is delivered to, and generator current taken from, said armature, one of the currents flowing through the commutator and being less in amount than the other of said currents, and unwound commutating poles located at the points of commutation of the currents flowing through the commutator and magnetized by the resultant armature reaction.

2. A dynamo-electric machine having an armature provided with a commutator, electrical connections whereby

motor current is delivered to and generator current taken from the armature, the generator current being taken through the commutator and the motor ampere turns in the armature being in excess of the generator ampere turns, and unwound commutating poles located at the points of commutation of the generator current and magnetized by the resultant armature reaction.



3. A dynamo-electric machine having an armature provided with a commutator, electrical connections whereby motor current is delivered to and generator current taken from the armature, the generator current being taken through the commutator, mechanical connections whereby mechanical power is delivered by the armature, and unwound commutating poles located at the points of commutation of the generator current and magnetized by the resultant armature reaction.

4. A dynamo-electric machine having an armature provided with a commutator, electrical connections whereby motor current is delivered to and generator current taken from the armature, the generator current being taken through the commutator, and unwound commutating poles located at the points of commutation of the generated current and magnetized by the resultant armature reaction.

5. A dynamo-electric machine having an armature provided with a commutator and collector rings, electrical connections to said commutator and collector rings whereby motor current is delivered to and generator current taken from the armature, the armature ampere turns due to the current through the collector rings being in excess of the ampere turns due to the current through the commutator, and unwound commutating poles located at the points of commutation of the current flowing through the commutator.

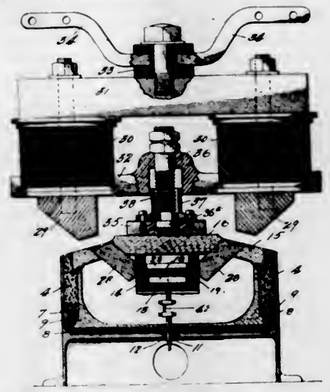
[Claim 6 not printed in the Gazette.]

940,211. ELECTRIC-RAILWAY SYSTEM. WILLIAM M. STEPHENS, Philadelphia, Pa., assignor to Railways Surface Contact Supplies Company, Wilmington, Del., a Corporation of Delaware. Filed Jan. 4, 1907. Serial No. 350,827.

1. In a contact system of electric traction, a contact box, a pair of contact elements located therein, and an armature or closer adapted to be magnetically attracted toward and into electrical contact with said contact elements, said armature or closer comprising a pair of magnetic metal plates secured together by a one-piece connection of superposed layers of flexible metal, substantially as described.

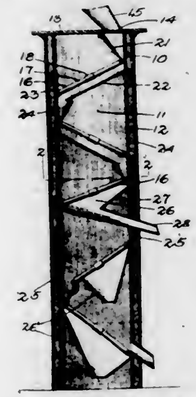
2. In a contact system of electric traction, a contact box, a pair of contact elements located therein, and an armature or closer adapted to be magnetically attracted toward and into electrical contact with said contact elements, said armature comprising a pair of magnetic metal plates secured together by a one-piece connection of superposed layers of flexible metal having their ends secured about said plates, and facing plates of high conductive properties imposed upon said metallic layers about said first named plates, substantially as described.

3. In a contact system of electric traction, the combination with a stationary member, a feed wire, and elements for electrically connecting said member with said feed wire upon the action of a magnet, of a contact shoe, rails mounted parallel with and at the sides of said shoe, magnets disposed at selected points along said rails, superposed transverse bars connecting said rails and supporting said magnets and elastic connections between said contact shoe and the lower of said bars, the upper of said bars having swivel connections with the axles of a car, substantially as described.



4. In a contact system of electric traction, the combination with a stationary contact member, a feed wire, and elements for electrically connecting said member with said feed wire upon the action of a magnet, of a contact shoe, rails mounted parallel with and at the side of said shoe, magnets disposed at selected points along said rails, superposed transverse bars connecting said rails and supporting said magnets, elastic connections between said contact shoe and the lower of said bars, the upper of said bars having swivel connections with the axle of a car, and a bar mounted longitudinal of the car and connected to and dead-grounded upon the said axles and provided with brushes depending therefrom beyond the ends of said shoe to contact with said member after the passage of the shoe thereover, substantially as described.

940,212. SEPARATOR. JOHN M. STONE, Newberg, Oreg. Filed Nov. 18, 1907. Serial No. 402,772.



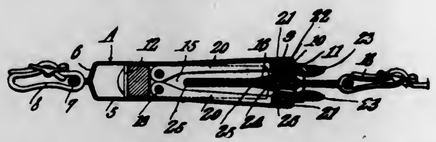
1. A separator including a casing having a plurality of alternately inclined screen members therein, a receiving opening in the top of the casing, openings through the casing adjacent the bases of certain of the screens, and chutes adapted to receive material from said openings, inclined floor members disposed in spaced relation beneath certain of said screens, said floor members stopping short of the lower ends of the screens, pivoted vanes attached beneath the opening in the top of the casing and

the lower edges of said inclined floors, to yieldably retard movement of material thereby and means for diverting screened material from the casing at various points.

2. A separator including a casing having a plurality of alternately inclined screen members therein, a receiving opening in the top of the casing, openings through the casing adjacent the bases of certain of the screens, chutes arranged to receive material from said openings, means for diverting screened material from the casing at various points, and means for directing material from the chutes into the casing at certain points.

3. In a device of the class described, the combination with a casing of alternately inclined screen members, said casing having openings therethrough adjacent the bases of certain of the screens, inclined deflectors disposed in spaced relation with certain of the screens and stopping short of the lower ends of the screens, means for diverting screened material from the casing at various points and means for conducting into the casing below the last named means material passing over certain of the screens.

940,213. SNAP. JOHN A. STUBBLEFIELD, Salem, Oreg. Filed Jan. 14, 1909. Serial No. 472,200.



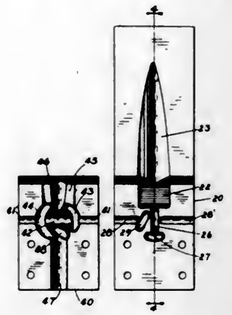
1. A device of the class described comprising a socket member and a plug member removably fitted in the socket member and having means thereon for automatically locking it in the socket member when inserted therein, and a transverse pin in the socket member, the plug member having a rounded end formed with a notch to receive said pin whereby the plug member may be held in alinement with the socket member.

2. A device of the class described comprising a socket member, shoulders upon the said members, and a plug member removably fitted into the socket member and having means thereon to engage with the shoulders upon the socket member for automatically locking the plug member within the socket member when inserted therein, and a transverse pin carried by the socket member, the end of the plug member being rounded and formed with a slot, the edges of the slot at the said rounded end being adapted to ride over the pin upon insertion of the plug member into the socket member whereby, upon such insertion, the plug member will be alined with the socket member.

3. A device of the class described comprising a socket member and a plug member fitted removably into the socket member, the said plug member comprising a body, locking elements pivoted upon the body and movable toward and from each other, the said body being formed with a web extending between the locking elements, a spring fitted upon the web and having its end portions engaging with the locking element and tending normally to separate the same, the said web portion of the body of the plug projecting beyond one end of the said socket member and being adapted for the connection of a strap or the like.

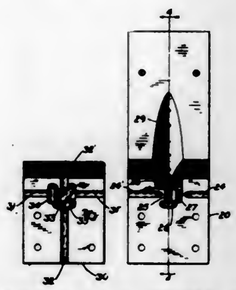
940,214. DIE. LAFE SWANK, Anderson, Ind., assignor to Dwiggins Wire Fence Company, Anderson, Ind., a Corporation of Indiana. Filed Jan. 11, 1909. Serial No. 471,648.

A tying die for wire fabrics comprising a member having formed in its mating face a pair of alined semi-circular grooves 28 and 28', a groove 26 crossing the line of grooves 28 and 28' between said grooves, a groove 29 crossing the line of grooves 28 and 28' and lying between grooves 28 and 26 and at an angle to both of said grooves, and a curved groove 27 arranged substantially at right angles to groove 26 and at one end thereof, said member also having a plunger slot formed therethrough and emerging closely adjacent one end of groove 26; and also comprising a mating die member having formed in its face a pair of separated alined grooves 41 and 41' adapted to register with grooves 28 and 28' respectively, an intermediate groove 42 in alinement with grooves 41 and 41', a pair of alined grooves 46 and 47 lying substantially at right angles to the line of grooves 41 and 41' and upon opposite sides thereof, a curved groove 43 crossing the



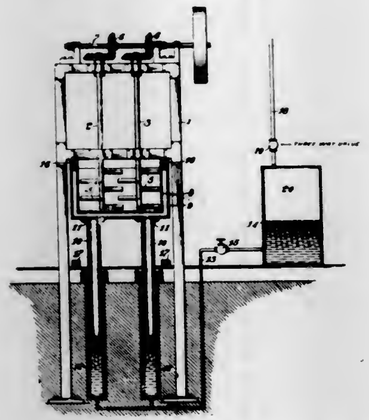
line of groove 41 between said groove and groove 42 and of a depth greater than said grooves, a curved groove 44 lying between grooves 41' and 42 and crossing the same and of greater depth than said grooves, and a groove 48 lying between grooves 47 and 42 at an angle to both of said grooves and of greater depth than said grooves, all substantially as shown and described.

940,215. DIE. LAFE SWANK, Anderson, Ind., assignor to Dwiggins Wire Fence Company, Anderson, Ind., a Corporation of Indiana. Filed Jan. 11, 1909. Serial No. 471,649.



A die comprising two mating members, one of which has formed in its mating face a pair of alined semi-cylindrical grooves 31 and 31', a pair of alined semi-cylindrical grooves 32 and 32' in substantially the same plane as grooves 31 and 31', and lying at an angle thereto and intersecting the same, a groove 33 lying diagonally relative to the lines of the previously mentioned two pairs of grooves and of a depth exceeding the depth of said grooves, a groove 34 lying substantially at right angles to groove 31 and crossing the same and of a depth exceeding the depth of said groove 31, and a groove 35 lying substantially at right angles to groove 32 and crossing the same and merging into one end of groove 33 and of a depth exceeding the depth of groove 32; and the other of which mating members has formed in its mating face a pair of separated semi-cylindrical alined grooves 24 and 24' adapted to register with the grooves 31 and 31' respectively, a groove 25 lying substantially at right angles to the line of grooves 24 and 24' and crossing the same, two grooves 26 and 28 substantially parallel with the line of grooves 24 and 24' and arranged one at each end of groove 25, and a groove 27 substantially parallel with groove 25 and extending across the line of grooves 24 and 24' and lying between groove 25 and the adjacent end of groove 24; said member having also formed therethrough a plunger slot 22 which at its inner end merges into groove 28.

940,216. MIXING-MACHINE FOR EXPLOSIVES. HERBERT TALLEY, Joplin, Mo. Filed June 7, 1909. Serial No. 500,483.



1. In a mixing machine, the combination with mixing means, of a movable bowl or receptacle in which the mixing means is adapted to operate, and hydraulic means for raising, lowering, and supporting the mixing bowl wherever positioned.

2. In a mixing machine, the combination with mixing means, of a movable bowl or receptacle in which the mixing means is adapted to operate, hydraulic means for raising and lowering the mixing bowl, and a valve for shutting off back flow of the hydraulic pressure, whereby the mixing bowl is supported where positioned.

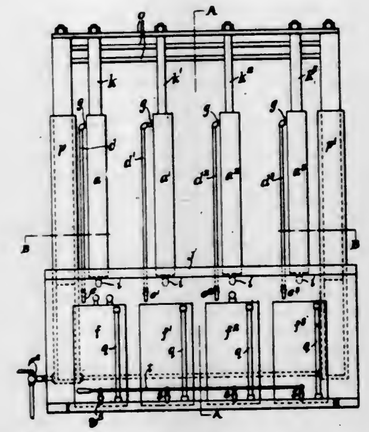
3. In a mixing machine, the combination with mixing means, of a movable bowl or receptacle in which the mixing means is adapted to operate, hydraulic means for raising and lowering the mixing bowl whereby the mixing bowl is supported where positioned, and an accumulator for said hydraulic means which has controllable means for the admission and exhaust of compressed air to control the raising and lowering of the mixing bowl.

4. In a mixing machine, the combination with mixing means, of a movable bowl or receptacle in which the mixing means is adapted to operate, a hydraulically operated piston on which the bowl is supported and by which said bowl is raised and lowered, and means for hydraulically operating said piston and sustaining the pressure thereon.

940,217. METHOD AND APPARATUS FOR DETERMINING PROPORTIONS IN COMPOUNDS AND MIXTURES. LOWNDES TAYLOR, Swarthmore, Pa. Filed Sept. 11, 1908. Serial No. 452,556.

1. The herein described method of determining the relative proportions of substances to be mixed or compounded to produce a given ratio between the characteristics of such substances, which consists in simultaneously discharging a fluid, in separate volumes proportional to the ratio of the chosen characteristics of each ingredient, collecting together the displaced volumes representing the same characteristic of all the ingredients, and repeating the first operation for the different ingredients until there is established between the collected volumes of fluid the given ratio of the characteristics represented by such collected volumes.

2. The herein described method of determining the relative proportions of substances to be mixed or compounded to produce a given ratio between the characteristics of such substances, which consists in assembling a series of separate bodies of fluid, simultaneously discharging from said separate bodies volumes of fluid proportional to the ratio of the characteristics of such ingredient, collecting together the discharged volumes representing the same characteristic in all the ingredients and repeating the first operation for the different ingredients until there is established between the collected volumes of fluid the given ratio of the characteristics represented by such collected volumes.



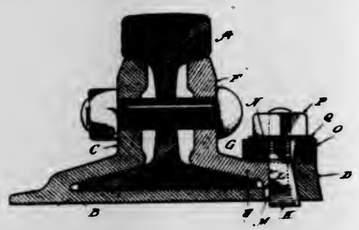
3. The herein described method of determining the relative proportions of substances to be mixed or compounded to produce a given ratio between the characteristics of such substances, which consists in assembling a series of separate bodies of water in separate receptacles, simultaneously displacing from said separate bodies volumes of water proportional to the ratio of the characteristics of such ingredient, collecting together the discharged volumes representing the same characteristic in all the ingredients, and repeating the first operation for the different ingredients until there is established between the collected volumes of water the given ratio of the characteristics represented by such collected volumes.

4. In apparatus for the purpose described, the combination of a series of sets of vessels each set representing one of the ingredients of the compound, means for simultaneously discharging from the vessels of each set separate volumes of fluid proportional to the ratio of the characteristics of the ingredient represented by such set, a series of receivers, and means for separately collecting the volumes discharged from the vessels representing the same characteristic in the different sets and discharging each of such collected volumes into one of the receivers.

5. In apparatus for the purpose described, the combination of a series of sets of vessels adapted to contain liquid, each set of vessels representing one of the ingredients of the compound, a series of independently operated sets of discharging devices for discharging volumes of liquid from said vessels, the devices on each set being arranged to discharge from the corresponding set of vessels volumes proportional to the ratio of the characteristics in the ingredient represented by such set of vessels, a series of receivers, and means for separately collecting the volumes discharged from the vessels representing the same characteristic in the different sets and discharging each of such collected volumes into one of the receivers.

[Claims 6 to 12 not printed in the Gazette.]

940,218. RAIL-SPLICE. JAMES THOMAS, Joliet, Ill. Filed Nov. 18, 1908. Serial No. 463,329.



1. The combination with a rail, of a supporting base therefor having at one side a portion to engage the rail, said base extending beneath and beyond the other side of the rail a member to engage the side of the rail last mentioned and extending to and partially overlying the extended portion of the base and a clamping device extending vertically through the base and adapted to bear at opposite sides against said base and the member and adapted to shift them relatively in a lateral direction to cause them to engage and hold the rail between them, part of said device bearing directly and partially upon both the base and the member.

2. The combination with a rail, of a supporting base therefor having at one side a portion to engage one side of the rail, said base extending beneath and beyond the other side of the rail, a member to engage the side of the rail last mentioned and overlying its base and overhanging the extended portion of the supporting base, means extending through and engaging the latter and the member and adapted to shift them laterally with respect to one another, those portions of the said base and member with which the means engages lying directly opposite one another and a device to engage the means and force it between the described parts, the same overhanging the extension of the supporting base and bearing only upon the same at that side and also overhanging the member and the rail-base at its other side and exerting downward pressure thereon.

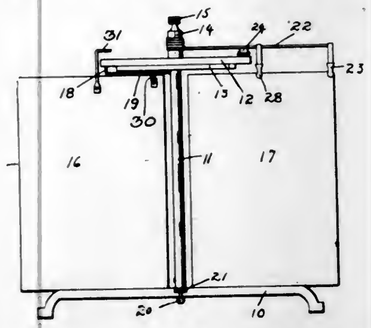
3. In a rail splice the combination with a rail, of a supporting-base therefor having an upwardly extending portion at one side to inclose one side of the rail and having a vertical extension at its opposite side beyond the side of the rail, a member to inclose the rail at said other side of the rail, the same lying between the rail and the said vertical extension, a member extending vertically through the base between the member and the extension and adapted to separate them, and means in positive engagement with the said means to impart movement thereto, said means bearing partially upon the vertical extension and partially upon the said member.

4. The combination with a rail, of a supporting-base therefor having at one side a portion to engage one side of the rail, said base extending beneath and beyond the rail and having an upturned portion at its other side, a member interposed between the upturned portion and the rail to engage the latter, a wedging device interposed between the said upturned portion and said member and adapted to be drawn between them, means operatively engaging said device to impart movement thereto and adapted to exert downward pressure partially upon both the upturned portion and said member.

5. The combination with a rail, of a supporting-base therefor having a portion to engage the rail, said base extending beneath and beyond the other side of the rail, a member to engage the side of the rail last mentioned and extending to and partially overlying the extending portion of the said supporting base, and having a recess in its edge, there being an opening in the supporting-base beneath said recess, a wedge to enter the opening of the base and engage said base and lie within the recess of the member, the portions of the base and member with which the wedge engages lying directly opposite one another, and means to draw the wedge into the opening and adapted to exert downward pressure partially upon both the base and the member.

[Claim 6 not printed in the Gazette.]

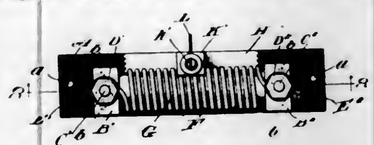
940,219. MUSIC-TURNER. EDWARD E. VAN DINE, Elmira, N. Y. Filed Sept. 30, 1908. Serial No. 455,431.



1. In a music leaf turner the combination of a base, backs upwardly extended from said base, a tube upwardly extended from said base between said backs, a disk pivotally secured about the upper extremity of said tube, a spring carried by said tube and extended about the same connected to said disk, a plurality of arms pivotally and concentrically disposed above said disk, a spring disposed against said disk, an engagement member disposed upon the upper face of said disk to carry said spring for abutment with said arms for the purpose of actuating said arms separately upon the rotation of said disk, a rod disposed through said tube for locking engagement with said disk, a spring carried by one of said backs engaged with said rod to normally hold the same in engagement with said disk and a lever pivotally disposed upon said base and connected to said rod for depressing the same at times.

2. In a music leaf turner the combination with a base and backs upwardly disposed on said base, of a tube carried by said base positioned between said backs, a disk pivotally disposed about the upper extremity of said tube, a spring disposed between said tube and said disk for rotating said disk, a plurality of radially extended arms disposed on said tube above said disk, an engagement member carried by said disk for locking engagement with the foremost of said arms to rotate the same upon the actuation of said disk, a lever carried by said base, a rod disposed through said tube having locking engagement with said disk and connected to said lever for releasing said disk and a stop upwardly extended from one of said backs for preventing the complete rotation of said arms.

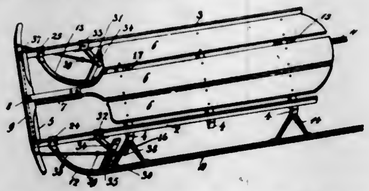
940,220. LIGHTNING-ARRESTER. EUGENE W. VOGEL, Chicago, Ill. Filed May 5, 1906. Serial No. 315,280.



1. In a lightning arrester, the combination with a base of insulating material, a pair of posts of conducting material supported on said base, a conducting coil of wire interposed between and secured at its ends to said posts, and a ground conductor supported on said base in proximity to said coil and having its ends projecting into proximity to said posts.

2. In a lightning arrester, a base of insulating material, a pair of posts of conducting material on said base, a conducting coil of wire interposed between said posts, a pair of bolts passing through said base and securing the ends of the coil to the posts and the posts to the base, and a ground conductor supported on said base in proximity to said coil and having its ends projecting into proximity to said post.

940,221. DEPRESSIBLE-RUNNER DIRIGIBLE SLED. MAURICE WALKER, New York, N. Y. Filed Aug. 28, 1909. Serial No. 515,024.



1. In a dirigible sled, a body framework; a single pair of parallel side runners movably secured to said framework; and means for selectively depressing each of said runners to elevate the corresponding side of the sled and tilt the sled toward the other side.

2. In a dirigible sled, a body framework; a single pair of parallel side runners; means securing said runners to said framework and preventing upward and lateral movements of said runners but permitting downward movement thereof relatively to said framework; and means for selectively depressing each of said runners to elevate the corresponding side of the sled and tilt the sled toward the other side.

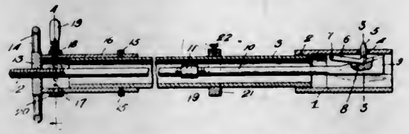
3. In a dirigible sled, a body framework; a single pair of parallel side runners upwardly curved at their forward ends and movably secured to said framework; and means for selectively depressing each of said runners to elevate the corresponding side of the sled and tilt the sled toward the other side.

4. In a dirigible sled, a body framework; a single pair of parallel side runners upwardly curved at their forward ends; means securing said runners to said framework and preventing upward and lateral movements of said runners but permitting downward movement thereof relatively to said framework; and means for selectively depressing each of said runners to elevate the corresponding side of the sled and tilt the sled toward the other side.

5. In a dirigible sled, a body framework; a single pair of parallel side runners upwardly curved at their forward ends; brackets securing said runners at the rear to said framework against lateral movement but permitting a downward rotation of each runner in its own plane; brackets secured to the forward ends of said runners and each comprising a sliding connection with the said framework to permit a downward movement of the forward portion of each runner but to prevent upward and lateral movements of the same; and means for selectively depressing the forward portion of each of said runners.

[Claims 6 to 8 not printed in the Gazette.]

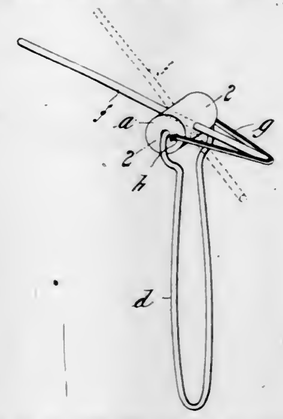
940,222. FLUE-CUTTER. JOSEPH M. WENZEL, Corsica, S. D. Filed Apr. 3, 1909. Serial No. 487,733.



1. A flue cutter comprising a body having a tubular intermediate section, a tubular outer section formed with a transverse opening and with internal longitudinal guide ways or shoulders adjacent said opening, a lever pivoted at one end in said outer section and having an angular outwardly projecting end formed with a cutting blade to project through the transverse opening in said outer section, a tubular inner section to telescope the inner end of the intermediate section and formed adjacent to its inner end with an annular series of openings, a set screw for retaining the inner section in adjusted position, a longitudinally movable rod extending through the body and having its inner end screw threaded, and its outer end formed with a wedge having a flat portion to slide on the longitudinal guide shoulders in the outer section, the opposite face of said wedge being inclined and formed with a groove to receive said blade-carrying lever, a hand wheel having an internally threaded hub to engage the inner section and arranged on the threaded end of said rod to serve as an actuating nut for the latter, a hand lever formed with a collar to surround and rotate upon the apertured portion of the inner section, and a spring pressed bevel ended pawl carried by said hand lever and adapted to enter the apertures or openings in said inner section.

2. A flue cutter comprising a body having a tubular intermediate section, a tubular outer section formed with a transverse opening and with internal longitudinal guide ways or shoulders adjacent said opening, a lever pivoted at one end in said outer section and having an angular outwardly projecting end formed with a cutting blade to project through the transverse opening in said outer section, a tubular inner section to telescope the inner end of the intermediate section and formed adjacent to its inner end with an annular series of openings, a set screw for retaining the inner section in adjusted position, a longitudinally movable rod extending through the body and having its inner end screw threaded and its outer end formed with a wedge having a flat portion to slide on the longitudinal guide shoulders in the outer section, the opposite face of said wedge being inclined and formed with a groove to receive said blade-carrying lever, a hand wheel having an internally threaded hub to engage the inner section and arranged on the threaded end of said rod to serve as an actuating nut for the latter, a hand lever formed with a collar to surround and rotate upon the apertured portion of the inner section, a spring pressed bevel ended pawl upon said hand lever to enter the apertures or openings in said inner section, a collar longitudinally slidable on said intermediate section, and fastening screws in said collar.

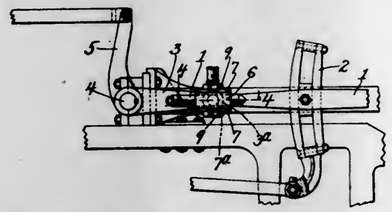
940,223. TOY. FRANK B. WHITCHER, West Springfield, Mass., assignor of two-thirds to The Maynard Rubber Corporation, Springfield, Mass., a Corporation of Connecticut. Filed Feb. 25, 1909. Serial No. 480,013.



In a toy of the class described, an arrow-guiding and supporting element, means for pivotally supporting the

arrow-guiding element, an opening through the arrow-guiding element for receiving an arrow, means for projecting the arrow comprising an elastic element secured to the arrow-guiding element, whereby when the arrow is placed in the barrel and the elastic element placed under tension, the arrow may be projected as described.

940,224. JOINT FOR SHIFTING MEANS FOR RADIUS-RODS. OTIS W. YOUNG, Chicago, Ill., assignor to Young-Mann-Averill Company, a Corporation of Illinois. Filed Aug. 12, 1908. Serial No. 448,112.



1. In a locomotive, in combination with a shifting lever and a radius rod, a slide bearing for one of said parts which is universally jointed to the other part.

2. In a locomotive, in combination with a shifting lever and a radius rod, a member in which the rod is mounted for sliding and which is universally jointed to the lever.

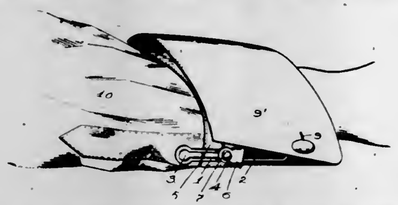
3. In a locomotive, in combination with a shifting lever and a radius rod, a bearing in which the radius rod is mounted for sliding and turning, and which is universally jointed to the lever.

4. In a locomotive, in combination with a shifting lever and a radius rod, a bearing in which one of said parts is mounted for sliding, and a yoke pivoted to said bearing and to the other part, the two pivots being transverse to each other and to the slide bearing.

5. In a locomotive, in combination with a shifting lever and the radius rod, a bearing in which the rod is mounted for sliding and a yoke pivoted to said bearing and to the lever, the two pivots being transverse to each other and to the slide bearing of the rod.

[Claims 6 and 7 not printed in the Gazette.]

940,225. CUFF-HOLDER. WILLIAM S. ARNOLD, San Francisco, Cal. Filed Aug. 4, 1908. Serial No. 446,846.



1. A cuff holder comprising a plate having a longitudinal slot therein and a connecting enlarged opening, the enlarged opening adapted to loosely receive a button of the shirt sleeve and the slotted portion to engage beneath the button head, an adjusting member slidably mounted on the slotted portion of the plate, the adjusting member having an opening therein of a diameter greater than the width of the slot but approximately the size of the enlarged opening of said plate whereby said openings may register and the adjusting member with the engaged button adjusted along the slotted portion of the plate, and means carried by the end of the plate for engaging a cuff.

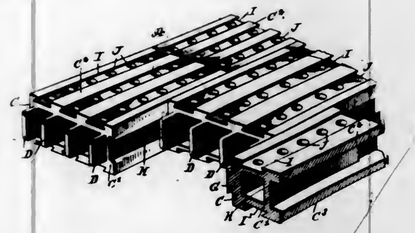
2. An article of the described character, the same comprising an extension plate, provided with a centrally slotted portion, which terminates in an enlarged button opening, a slide adjustably mounted on the extension plate and having a button opening registrable with the button opening of the said extension plate, and cuff-buttons, connected to the lower portion of the slotted extension plate.

940,226. DEVICE FOR ADJUSTING WINDOW-SHADES. ARTHUR R. BARNETT and ELSWORTH PICKEL, Portland, Oreg., assignors to James B. Godfrey, trustee, Portland, Oreg. Filed Feb. 17, 1909. Serial No. 478,481.



In means of the class described, the combination of a window frame, hollow guides at opposite sides thereof, supporting members at the top of the frame coacting with said guides, rollers mounted on said supporting members, brackets movable vertically on the guides, a shade supported in said brackets, a winding device comprising a handle and drum rotatably mounted on one side of the frame, a flexible connection connected with the bracket remote from the winding device and extending over the rollers aforesaid, another flexible connection secured to the bracket adjacent to the winding device and passing over the adjacent roller, a winding connection secured to the winding device, and having connection with the aforesaid flexible connections and being arranged in the adjacent hollow guide, the drum of the winding device having a projection and being movable lengthwise of its axis, and a plate supporting said winding device and having openings to receive the projection of the winding drum for adjustment of the latter.

940,227. INTERLOCKING BUILDING-BLOCK. BENJAMIN BENAS, New York, N. Y., assignor of one-half to Otto Castillo, Hoboken, N. J. Filed Oct. 31, 1907, Serial No. 400,031. Renewed Mar. 23, 1909. Serial No. 485,235.



1. A wall, floor, ceiling or like structure comprising building blocks alike in construction and interlocked endwise and sidewise, the faces of the interlocked blocks having dovetail grooves, the bottoms of the dovetailed grooves being provided with openings for the retention of plaster and the like.

2. A building block having a hollow body provided with longitudinal openings, a dovetail groove at one side and a dovetail tongue at the other side, one end of the block having lengthwise projecting tongues and the other end having on its inner face rabbets for the reception of the end tongues of another block, the top and bottom of the block being provided with a plurality of longitudinal grooves having openings in their bottoms.

3. A building block having a hollow body provided with spaced longitudinal vertical partitions forming passages from one end of the block to the other end, the partitions and side walls projecting beyond one end of the body forming tongues, the other end of each partition and side wall being provided with a rabbet for the reception of the corresponding projecting end tongues of another block, the rabbet being of a depth equal to the thickness of the tongues.

4. A building block having a hollow body provided with spaced longitudinal vertical partitions forming passages from one end of the block to the other end, the side walls and partitions terminating at one end of the hollow body in tongues projecting beyond said end, the other end of each side wall and partition being provided with a rabbet for the reception of the corresponding projecting end tongue of another block, one side of the hollow body having a longitudinally extending dovetail tongue and the other side having a corresponding dovetail groove.

5. A building block having a hollow body provided with spaced longitudinal vertical partitions forming passages from one end of the block to the other end, the side walls and partitions terminating at one end of the hollow body in projecting tongues, the other end of each side wall and partition being provided with a rabbet for the reception of the corresponding projecting end tongue of another block, one side of the hollow body having a longitudinally extending dovetail tongue and the other side having a corresponding dovetail groove, the upper and lower faces of the hollow body being provided with dovetail grooves having openings in the bottoms for the retention of plaster and the like.

940,228. THREAD-CUTTING CLIP. HARRY R. BENDA, New York, N. Y. Filed July 10, 1907. Serial No. 383,036.

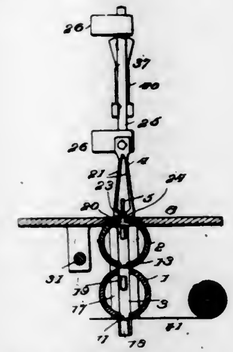


A sheet-metal thread holding and cutting device for attachment to spools, consisting of a body adapted to overlie the end face of a spool-head, said body being provided with slits and integral tongues adapted to project through said slits into the spool-head, and an integral projection bent perpendicularly from one side of said body to resiliently overlie the side face of the spool-head, said projection extending substantially parallel to the line of bending between body and projection, and an incision being formed between the adjacent edges of body and projection, the inner end of which incision is sharpened to cut the thread.

940,229. SPANGLE CUTTING AND ATTACHING MACHINE. GEORGE W. BINGHAM, New York, N. Y. Filed June 15, 1906, Serial No. 321,893. Renewed Sept. 11, 1909. Serial No. 517,287.

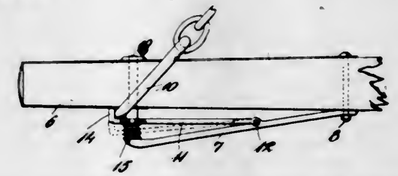
1. In a machine of the character set forth, the combination of a plurality of die members having die openings, means for causing the die openings of the said die members to be placed in register at intervals, and punch members adapted to coöperate with the said die openings to shape the blank and to transfer it from the die opening of one member to the die opening of another member.

2. In a machine of the character set forth, the combination of a plurality of rotatable die members having die openings adapted to be placed in register at intervals, and punch members located interiorly of said die members adapted to coöperate with the said die openings to shape



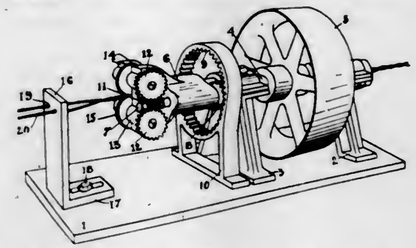
the blank and to transmit it from the die opening of one member to the die opening of another member.

940,230. NECK-YOKE ATTACHMENT. PETER BISSEN, Stacyville, Iowa. Filed Apr. 16, 1908. Serial No. 427,537.



The combination with a wagon tongue and holdback iron thereon, of a safety catch plate hinged at its rear end to the upper side of the rear part of the iron and projecting forwardly beside the upright part of the iron and provided with a hook at the front end to retain the neck yoke ring, and a spring coiled around the upright part of the iron and bearing upwardly against the catch plate.

940,231. WIRE-TWISTING MACHINE. LOUIS BLESSING, Jackson, Mich. Filed Apr. 10, 1909. Serial No. 489,237.

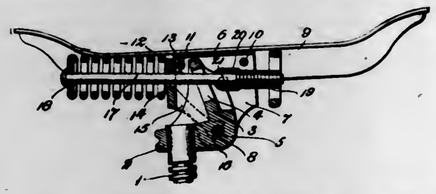


1. A wire twisting machine comprising a base, a pair of bearing brackets thereon, a horizontal hollow main shaft journaled in the brackets, a driving wheel on the shaft between the bearings, a roll head on the shaft, a worm shaft journaled in the head parallel to the main shaft, a pinion secured on the worm shaft, a gear bracket on the base, an internal gear concentric with the main shaft secured in the gear bracket in mesh with the pinion, a pair of parallel roll arbors journaled in the head transverse to the main shaft, worm gears on the arbors in mesh with the worm, a pair of opposed feed rolls on the

arbors and an angle gage plate adjustable longitudinally on the base having a pair of guide apertures in substantial alinement with the feed rolls and shaft.

2. A wire twisting machine comprising a base, a pair of bearing brackets thereon, a horizontal, hollow main shaft journaled in the brackets, a driving wheel on the shaft between the bearings, a roll head on the shaft, a worm shaft journaled in the head parallel to the main shaft, a pinion secured on the worm shaft, an upright bracket on the base, an internal gear formed integrally on the bracket concentric with the main shaft in mesh with the worm pinion, a pair of roll arbors journaled in parallel relation in the head transversely to the worm shaft, a worm pinion secured on each arbor in mesh with the worm, a peripherally grooved roll on each arbor, said rolls coacting to force wire through the main shaft, an angle plate in axial alinement with the shaft having a pair of guide apertures opposite the feed rolls, a slotted foot on the plate, and a clamping screw in the base engaging the slotted foot.

940,232. CHAIR-IRON. HARRY W. BOLENS, Port Washington, Wis. Filed Dec. 9, 1907. Serial No. 405,816.



1. A chair-iron, comprising a post, a head having a transverse portion bored and provided with recesses near its ends communicating with said bore, a hinge-pintle extending through the bore beyond the ends of the transverse portion of the head, a spreader mounted to oscillate on the ends of the hinge-pintle, a separate bridge piece supported at its upper end by the spreader and having depending members bearing on the hinge-pintle in the aforesaid recesses of the head, and a spring adjustment the spring of which bears against the bridge.

2. A chair-iron, comprising a post, a head, a transverse hinge-pintle extending through the head, a spreader mounted to oscillate upon the hinge-pintle, a pin extending transversely through the spreader near the rear end thereof, a separate bridge piece the upper end of which fits between the sides of the spreader and is provided with notched lugs bearing against the pin, and depending members on said bridge piece notched at their lower ends to bear upon the hinge-pintle, and a spring adjustment the spring of which bears against the bridge.

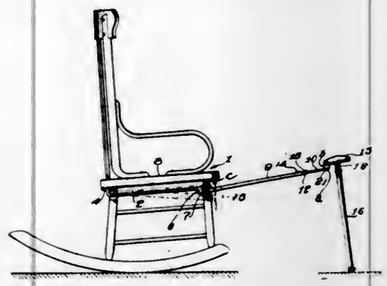
3. A chair-iron, comprising a head, a supporting-post, a hinge-pintle mounted in the head, a spreader mounted to oscillate on the pintle, a pin passing through the spreader, a bridge, the lower end of which removably engages the hinge-pintle and the upper end of which similarly engages the pin, and a spring-adjustment, the spring of which bears against the bridge.

4. A chair-iron, comprising a head, a supporting-post, a hinge-pintle mounted in the head, an inverted U-shape spreader mounted to oscillate on the hinge-pintle, sheet-metal spider-arms, angular in cross-section, mounted on the angles of the spreader, pins passing through the sides of the arms and sides of the spreader, a bridge comprising an upper notched end engaging the rear pins and a lower notched end engaging and bearing upon the hinge-pintle, and a spring-adjustment, the spring of which bears against the bridge.

5. A chair-iron, comprising a post, a head at the upper end thereof, a hinge-pintle passing through the head, an inverted U-shape spreader mounted on the hinge-pintle, a transverse pin extending across and connecting the terminals of the spreader, the bridge 12, having the notched ribs 13 engaging the pin and the lower depending arms 15, notched and engaging the hinge-pintle, a spring-adjustment, and a spring for the same bearing on the bridge.

[Claim 6 not printed in the Gazette.]

940,233. RECLINING ROCKING-CHAIR. MARTIN BRUFLAT, Los Angeles, Cal. Filed Mar. 13, 1908. Serial No. 420,957.



1. The combination with a rocking-chair, of attaching feet secured to the lower face of the bottom of the chair, running rails supported by the attaching feet, there being stops at the forward ends of the running rails, a yoke mounted to slide upon the running rails and engage said stops, seats carried by the yoke, a telescopic connecting link extending forwardly from the yoke, a leg-rest pivotally connected to the forward end of the telescopic connecting link, legs extending downwardly from the leg-rest, there being projections upon the lower end of the legs to engage in the seats carried by the yoke, so that by condensing the telescopic connecting link the projections of the leg-rest legs may be placed in the seats of the yoke and the leg-rest moved backwardly, the yoke sliding upon the running rails to fold the leg-rest out of use.

2. The combination with a rocking-chair, of drop running-rails secured to the lower face of the seat of the rocking-chair and having stops at their forward ends, a yoke having guide ways in its lower face adapted to run upon said drop running-rails, seats carried by the yoke, a telescopic connecting link extending forwardly from the center of the yoke, a leg-rest pivotally connected to the forward end of the telescopic connecting-link, extension legs for supporting the leg-rest, said extension legs having projections to engage the seats of the yoke, so that by condensing the telescopic connecting-link the projections upon the leg-rest legs may be placed in the seats of the yoke and the leg-rest moved backwardly under the seat of the rocking-chair.

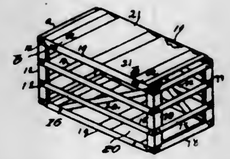
3. The combination with a rocking-chair, of drop running rails secured to the lower face of the rocking-chair seat and having stops at their forward ends; a yoke adapted to slide upon the running-rails and adapted to engage said stops, seats carried by the yoke, a telescopic connecting-link extending forwardly from the yoke, a leg-rest pivotally connected to the forward end of the telescopic connecting-link, so as to fold in one direction and to be rigid in the other direction; extension legs for the leg-rest and having projections adapted to engage in the seats of the yoke, so that by condensing the telescopic connecting-link the projections upon the leg-rest-legs may be placed in the seats of the yoke and the yoke slid backwardly upon the rails, and means for supporting the leg-rest in its folded position.

4. The combination with a rocking-chair, of drop running-rails secured to the lower face of the rocking-chair seat and having stops at their forward ends; a yoke adapted to slide upon the running-rails and adapted to engage said stops, seats carried by the yoke, a telescopic connecting-link extending forwardly from the yoke, a leg-rest pivotally connected to the forward end of the telescopic connecting-link, so as to fold in one direction and to be rigid in the other direction; extension legs for the leg-rest and having projections adapted to engage in the seats of the yoke, so that by condensing the telescopic connecting-link the projections upon the leg-rest-legs may be placed in the seats of the yoke and the yoke slid backwardly upon the rails, and hooks and eyes for supporting the leg-rest in its folded position.

5. In a reclining rocking-chair, a yoke slidingly connected to the bottom of the rocking-chair seat, a telescopic connecting link extending forwardly from the yoke, one member having a notch and the other member having a pawl to engage the notch to hold the connecting link in its condensed position; a leg-rest pivotally connected to the forward end of the telescopic connecting link, there being stops to limit the pivotal motion; legs for supporting the leg-rest, so that when the legs are substantially vertical and the leg-rest is in position for use the pivotal connection between the telescopic connecting link and the leg-rest is rigid, and so that the rest may be folded backwardly and upwardly and the leg-rest and yoke slid backwardly under the seat of the rocking-chair, and means for supporting the legs and leg-rest in their folded positions.

[Claims 6 to 8 not printed in the Gazette.]

940,234. FOLDABLE METAL EGG-CASE. ALBERT R. BURLESON, Webster City, Iowa. Filed Apr. 13, 1908. Serial No. 427,266.



A foldable metal case, comprising two skeleton sides each composed of two uprights and a plurality of flat bars pivotally connected, the lower bar and the upper bar of each side having a fixed stud, a brace pivoted to the corner of each side and each brace provided with a notch at its other end to admit one of said studs and two skeleton ends each composed of horizontal bars riveted to said uprights of the sides, a flat bottom and flat top each having flanges at its side edges and notches in the flanges to admit said fixed studs on said bars and slidably connected with bars of the parallel sides, to fold together as set forth without detaching any part of the box.

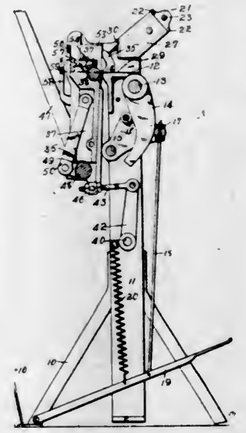
940,235. HORSESHOE-CALK FORMER. ELMER N. CHILDS, Perry, Iowa, assignor to American Calking Machine Company, Perry, Iowa, a Corporation of Iowa. Filed Jan. 13, 1908. Serial No. 410,501.

1. In a device of the class described, the combination of a stationary horseshoe receiving and supporting block, a swage block having one face substantially parallel with the adjacent face of the horseshoe receiving and supporting block, means for moving the swage block and for securing it in various positions, means for guiding the movement of the swage block so that it will move at an angle of about forty-five degrees relative to the parallel faces of said blocks, and a calk bending device arranged for movement substantially at right-angles to the parallel faces of said blocks.

2. In a device of the class described, the combination of a stationary horseshoe receiving and supporting block, a swage block having one face substantially parallel with the adjacent face of the horseshoe receiving and supporting block, means for moving the swage block and for securing it in various positions, means for guiding the movement of the swage block so that it will move at an angle of about forty-five degrees relative to the parallel faces of said blocks, and a calk bending device arranged for movement substantially at right-angles to the parallel faces of said blocks, and an adjustable face plate on the swage block to co-act with the calk bending machine.

3. In a device of the class described, the combination of a stationary horseshoe receiving and supporting block, a swage block having one face substantially parallel with the adjacent face of the horseshoe receiving and supporting block, means for moving the swage block and for securing it in various positions, means for guiding the movement of the swage block so that it will move at an angle of about forty-five degrees relative to the parallel faces of said blocks, and a calk bending device arranged for movement substantially at right-angles to the parallel faces of said blocks, and means for tilting the calk bending devices to various angles relative to the horseshoe receiving block.

4. In a device of the class described, the combination of a stationary horseshoe receiving and supporting block, a swage block having one face substantially parallel with the adjacent face of the horseshoe receiving and supporting block, means for moving the swage block and for securing it in various positions, means for guiding the movement of the swage block so that it will move at an angle of about forty-five degrees relative to the parallel faces of said blocks, and a calk bending device arranged for movement substantially at right-angles to the parallel faces of said blocks, and spring actuated means for moving the swage block in a direction away from the horseshoe receiving block.



5. In a device of the class described, the combination of a horseshoe receiving block, brackets supported above it, a swage block slidingly mounted in said brackets, and capable of movement in said brackets at an angle of about forty-five degrees relative to the horseshoe receiving block, means for moving the swage block in said brackets, a frame capable of up and down movement in front of the horseshoe receiving block, a roller in said frame designed to engage the ends of a horseshoe clamped between the swage block and the horseshoe receiving block, and spring actuated means for normally elevating the swage block.

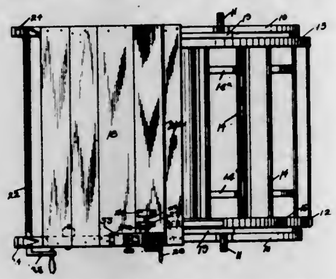
[Claims 6 to 12 not printed in the Gazette.]

940,236. SCREEN-WIRE CABINET AND MEASURING-TABLE. NORMAN W. CLOUSE, Newton, Iowa. Filed June 15, 1908. Serial No. 438,513.

1. In a device of the class described, the combination of a standard, an axle rotatably mounted upon the standard, two disks fixed to the end portions of the axle, a series of trough shaped receptacles arranged between the disks and open at their outer portions, a detachable shaft in the center of each of said trough shaped receptacles, two arms pivoted to the axle, a table pivoted to

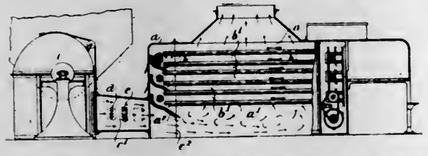
said arms, legs pivoted to the side of the table opposite from said arms, and means for connecting the lower ends of said legs with the said standard.

2. In a device of the class described, the combination of a standard, an axle rotatably mounted in the standard, two disks fixed to the end portions of the axle, a series of trough shaped receptacles fixed between said disks open at their outer portions, and each designed to receive a roll of screen wire or the like therein, springs fixed to the



said trough shaped receptacles to yieldingly engage a roll of material therein, a shaft detachably mounted in the central portion of each of said trough shaped receptacles, the table top, legs pivoted to the opposite end of the table top, means for connecting the lower ends of said legs with the standard, a slotted shaft slidingly and rotatably mounted at the end of the table opposite from the said arms.

940,237. APPARATUS FOR DRYING TEA, GRAIN, OR OTHER SUBSTANCES. SAMUEL C. DAVIDSON, Belfast, Ireland. Filed Apr. 13, 1908. Serial No. 426,870.



1. In drying apparatus the combination with a drying chamber, a series of endless belts of trays therein, means for opposing the flow of air around the ends of said trays, an air pressure chamber in the base of said drying chamber, the lower end of said belts of trays forming the upper wall of said pressure chamber, and an inlet duct relatively narrow in comparison with the depth of the pressure chamber and disposed next the floor thereof whereby the air forced in through said inlet opening passes as a layer along the floor of the pressure chamber before being distributed therein substantially as set forth.

2. In drying apparatus, the combination of a drying chamber a superimposed series of endless belts of trays in said drying chamber, means for opposing the flow of air around the ends of said trays, an air inlet opening into the base of the drying chamber next the floor thereof and extending across the full width of the drying chamber, means for forcing a relatively large volume of air into the drying chamber through said air inlet, and an air pressure chamber formed by an inclosed space in the base of the drying chamber and into which the said air inlet opens, said air pressure chamber being of a greater depth than the said inlet opening, whereby the air forced in through said inlet opening flows in a direction parallel with the to and fro movement of the belt of traveling trays and as a layer along the floor of said pressure chamber and of approximately the full width of said belt of trays, substantially as and for the purposes set forth.

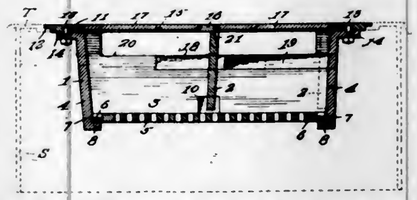
3. In drying apparatus wherein the material to be dried is carried on belts of trays, the combination with means for opposing the flow of air around the ends of said trays, and a pressure chamber comprised by an inclosed space in the base of the drying chamber of means for forcing a relatively large volume of air into one end of said pressure chamber as a layer of air along the floor thereof and of the full width of the pressure chamber and parallel with the to and fro movement of the trays, substantially as and for the purpose set forth.

4. In drying apparatus wherein the material to be dried is carried upon endless belts of trays, the combination with means for opposing the flow of air around the ends of said trays, and a pressure chamber comprised by an inclosed space in the base of the drying chamber of an air inlet opening into one end of said pressure chamber and a deflecting plate extending from a position adjacent to the lowermost belt of trays downward over said air inlet so as to restrict the height thereof in relation to the height of the pressure chamber substantially as and for the purpose set forth.

5. In drying apparatus wherein the material to be dried is carried upon endless belts of trays, the combination with means for opposing the flow of air around the ends of said trays, and a pressure chamber comprised by an inclosed space in the base of the drying chamber, of an air inlet opening into one end of said pressure chamber, an inclined deflecting plate extending downward over the inlet opening so as to form a gradually restricted air duct leading into said pressure chamber and whereby the entering air is caused to flow along the floor in a wide flat stream of less height than the pressure chamber and of substantially the full width of the drying chamber, substantially as and for the purposes set forth.

[Claims 6 to 8 not printed in the Gazette.]

940,238. COOK-STOVE ATTACHMENT. OVILA DESCHAMPS, Moosup, Conn. Filed May 13, 1909. Serial No. 495,609.



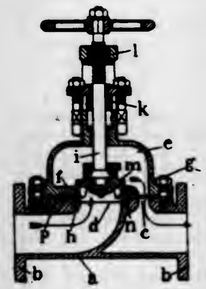
A supplemental fire box for use in the regular fire box of a stove, comprising an elongated body having upright side and end walls and an open top and bottom, one of said side walls being formed with an opening, and the inner faces of both the side walls being formed with longitudinally extending guide grooves, an upright transverse partition plate in the body and formed upon its opposite sides with horizontally projecting slide bars to engage and slide in said guide grooves whereby the partition may be moved from the center to one end of the body, a dumping grate in the bottom of said body, and a lid-carrying supporting top plate upon the top of the body and shaped to engage the lid openings in the top of a stove.

940,239. STOP OR LIKE VALVE. GERHARD J. O. D. DIKKERS, Lonneker, near Hengelo, Netherlands. Filed June 21, 1907. Serial No. 380,157.

1. In a valve, a valve-casing having a flat top-surface extended to form a flanged edge and having an inlet passage, an outlet passage and a recess around the inlet passage, a valve seat removably fitted within the recess and having an opening therethrough, in combination with a detachable cap formed to clamp the valve seat in the recess aforesaid, said cap carrying a valve stem and a valve for opening and closing the inlet passage through the valve seat.

2. In a valve, a valve casing having a top surface extended to provide a flange, said casing having an inlet passage and an outlet passage and formed for connection

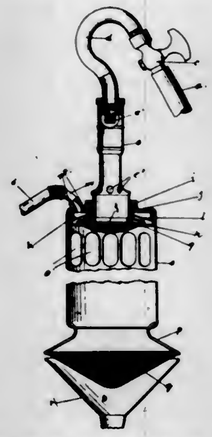
with inlet and outlet pipes, a detachable cap having a bottom surface extended to form a flange and having inlet and outlet passages in register with those of the casing, a removable valve seat for the inlet passage of the casing and clamped in position between the two flanges aforesaid, said cap carrying a valve stem and a valve for opening and closing the inlet passage through the valve seat.



3. In a valve, the combination with a casing, a cap having a flat bottom surface provided with passages, a valve-seat and a sheet of packing-material, with openings cut in it in correspondence with passages in the bottom-surface of the cap.

4. In a valve, the combination with a cap, a casing, a flanged valve-seat in a recess in the flat top-surface of the casing and a sheet of packing-material, fitting the flange and collar of the valve-seat and placed on the flat top-surface of the casing and the collar of the valve-seat on one side, so that when the cap is bolted on said casing, a tight joint is secured and all joints lie in one plane and are covered by the sheet of packing-material.

940,240. INSTANTANEOUS WATER-HEATER. CHARLES E. DURYEA, Reading, Pa. Filed Feb. 20, 1907. Serial No. 358,349.



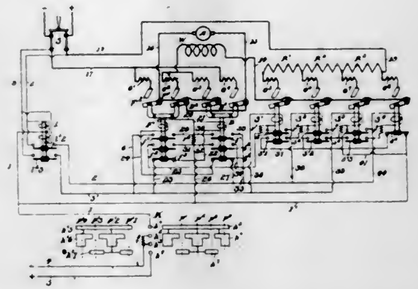
1. In a water heater, the combination of a blue flame gas burner, an annular water-spraying device arranged to project a tubular spray of water from the burner to entrain the products of combustion issuing from the mouth thereof, and a mingling tube projecting from the burner to surround the mingled spray and products of combustion, said tube having air inlet openings adjacent the mouth of the burner, substantially as set forth.

2. In a water heater, the combination of a gas burner, an annular water-spraying device arranged to project a tubular spray of water from the burner to entrain the products of combustion issuing from the mouth thereof, a mingling tube projecting from the burner to surround the mingled spray and products of combustion, and a strainer mounted in the discharge end of the mingling tube, substantially as set forth.

3. In a water heater, the combination of a blue flame gas burner having a tubular combustion casing, an annular water-spraying nozzle fitting the outer wall of said tubular casing and adapted to pass over the end of the casing, an annular spring clip engaging the casing to retain said nozzle in position, and a mingling tube projecting from the nozzle to surround the mingled spray and products of combustion, substantially as set forth.

4. In a water heater, the combination of a blue flame gas burner having a tubular combustion casing, an annular water-spraying nozzle surrounding said casing, and a mingling tube carried by and projecting from the nozzle to surround the mingled spray and products of combustion, said tube having its edge inturned at one end to engage the nozzle and being formed of relatively thin, resilient sheet metal, whereby it may be deformed and passed over the nozzle, substantially as set forth.

940,241. SYSTEM OF CONTROL FOR ELECTRIC MOTORS. ARTHUR C. EASTWOOD, Cleveland, Ohio. Filed Dec. 3, 1908. Serial No. 465,818.



1. In a control system, the combination of a series of electrically-actuated speed-controlling switches, a control circuit, adjacent pairs of said switches having one end of their windings connected to opposite sides of the control circuit and the other end of their windings adapted to be connected to a common control conductor, and means for connecting said common control conductor to one and then to the other side of the control circuit in order to cause the successive closure of the said speed-controlling switches.

2. In a control system, the combination of a control circuit, a plurality of electrically-actuated speed-controlling switches arranged to be closed in a predetermined order, succeeding switches in the order of their closure having one end of their windings connected to opposite sides of the control circuit and the other ends adapted to be connected to a common control conductor, and means for alternately connecting said control conductor to one side and then to the other side of said control circuit.

3. In a control system, the combination of a series of electrically actuated switches the successive closure of which governs the speed of an electric motor, a master controller, a single conductor between said master controller and the windings of said series of electrically actuated switches, the connections being such that the step by step actuation of the said master-controller causes the successive energization of the windings of said series of electrically actuated switches.

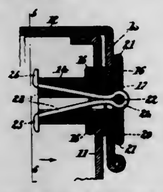
4. In a control system, an electric motor, an electrically governed reversing switch for controlling the direction of rotation of said motor, a plurality of independently actuated switches for controlling the speed of said motor, a

master controller for governing the action of said reversing switch and the successive closure of said speed controlling switches, and a single conductor between said master controller and said reversing and speed controlling switches.

5. In a control system, a reversing switch, a series of independently actuated speed controlling switches, a master switch, a single conductor between said master switch and said reversing and speed controlling switches, and means at the master switch for producing successive reversals of the direction of current flow through said control conductor for causing successive closure of said switches.

[Claims 6 to 8 not printed in the Gazette.]

940,242. BOX-SEAL. JOHN J. FERRALL and EDMUND MACKAY, New York, N. Y., assignors to National Biscuit Company, a Corporation of New Jersey. Filed May 24, 1907. Serial No. 375,398.



1. The combination with a receptacle and cover, of a sealing device comprising a member having a frangible section thereon, and a resilient attaching member secured to said frangible section, said sealing device being adapted to engage said receptacle and cover, substantially as specified.

2. A sealing device for receptacles, comprising a head having an integral frangible section, and a separate resilient attaching member carried by the frangible section on said head, and adapted to engage said receptacle, substantially as specified.

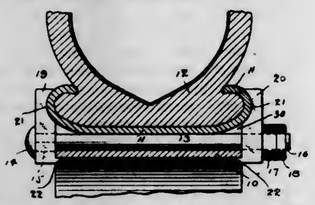
3. A sealing device for receptacles, comprising a head having a central, integral, frangible section, and an attaching member secured intermediate its ends to said frangible section, and adapted to engage said receptacle, substantially as specified.

4. A sealing device for receptacles comprising a flat head having a central, integral, frangible section, and a resilient attaching member secured intermediate its ends to said frangible section, and adapted to engage said receptacle, substantially as specified.

5. A sealing device for receptacles, comprising a flat head having a central, integral, frangible section, and a resilient attaching member comprising a plurality of prongs provided at their free ends with engaging means and secured at their connected ends to the frangible section of said head, substantially as specified.

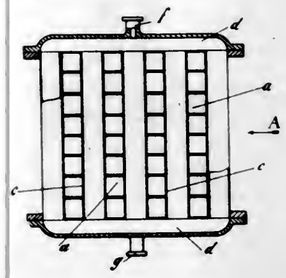
[Claims 6 to 9 not printed in the Gazette.]

940,243. MEANS FOR ATTACHING DEMOUNTABLE RIMS. HARRY H. FORD, Bridgeport, Conn., assignor of one-half to Harry H. De Loss, Bridgeport, Conn. Filed Aug. 17, 1908. Serial No. 448,823.



The combination with a wheel rim and a tire rim of appreciably greater diameter than the wheel rim, of a plurality of bolts lying between said rims, and clamps on said bolts which engage said rims respectively and secure them rigidly, to each other, the clamps having inwardly extending lips engaging under the wheel rim and having portions engaging both inner and outer portions of the tire rim to hold the tire rim spaced from the wheel rim.

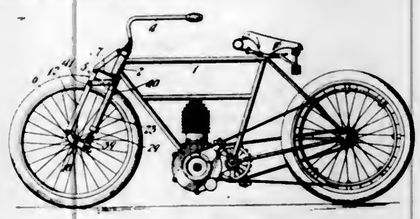
940,244. HEAT-TRANSMITTER. HANS FRIEDENTHAL, Nicolassee, near Wannsee, Germany. Filed Aug. 13, 1907. Serial No. 388,370.



1. A heat transmitter comprising a body having a series of tubes for a fluid of one temperature and another series of tubes in proximity to said first named tubes and extending at right angles thereto for a fluid of a different temperature, substantially as described.

2. A heat transmitter consisting of a serpentine pipe being embedded in a metallic plate, which is provided with numerous transverse passages uniformly arranged and of equal cross section, substantially as described.

940,245. SPRING-FORK FOR WHEELED VEHICLES. JOHN W. GATES, Los Angeles, Cal. Filed Aug. 11, 1908. Serial No. 448,031.



1. The combination with a wheel of a wheeled vehicle, of a frame having means extending on both sides of the wheel, said means comprising at each side of the wheel a forward, rigid member, and a rearward, elastic member, lever means pivoted to said members at each side of the wheel and directly connected to the axle of the wheel at each side of the wheel to provide for vertical and rearward movements of the wheel and to equalize the movement on the two sides of the wheel.

2. The combination with a wheel of a wheeled vehicle, of a frame having means extending on both sides of the wheel, said means comprising at each side of the wheel a forward, rigid member, and a rearward, elastic member, lever means pivoted to said members at each side of the wheel and directly connected to the axle of the wheel at each side of the wheel, said lever means having a yoke member extending over the wheel, to provide for vertical and rearward movements of the wheel and to equalize the movement on the two sides of the wheel.

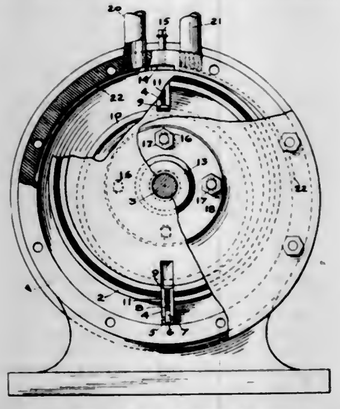
3. The combination with the frame of a wheeled vehicle, having a steering post member comprising a steering post sleeve, of a steering post mounted to turn in said sleeve, a fork connected to said steering post member, a lever pivoted to each arm of said fork and extending rearwardly and downwardly, means uniting said levers and extending upwardly over the front wheel, a front wheel connected to and supported by said levers, and elastic resisting means connecting each of said levers to the steering post member.

4. The combination with the frame of a wheeled vehicle, having a steering post member comprising a steering post sleeve, of a steering post mounted to turn in said sleeve, a fork connected to said steering post member, a lever pivoted to each arm of said fork and extending rearwardly and downwardly, means uniting said levers and extending upwardly over the front wheel, a front wheel connected to and supported by said levers, and elastic resisting means connecting each of said levers to the steering post member, and comprising a tube pivotally connected to the steering post member, spring means in said tube, and a rod connected to the lever and extending in said tube, said rod having a nut screwing thereon and engaging said spring means.

5. The combination with the frame of a wheeled vehicle, having a steering post member comprising a steering post sleeve, of a steering post mounted to turn in said sleeve, a fork connected to said steering post member, a lever pivoted to each arm of said fork and extending rearwardly and downwardly, means uniting said levers and extending upwardly over the front wheel, a front wheel connected to and supported by said levers, and elastic resisting means connecting each of said levers to the steering post member, and comprising a tube pivotally connected to the steering post member, spring means in said tube, and a rod connected to the lever and extending in said tube, said rod having a nut screwing thereon and engaging said spring means, an additional spring above the first named spring and a collar slidable on the rod and within the tube between the two springs.

[Claims 6 to 10 not printed in the Gazette.]

940,246. ROTARY ENGINE. JOHN C. HAGERTY, Santa Cruz, Cal. Filed Aug. 24, 1908. Serial No. 449,064.



1. In an apparatus of the character described, a cylindrical casing, a journal shaft extending through said casing at one side of the center, a cylindrical piston-carrying drum mounted upon the shaft, means for adjusting the drum to maintain a close contact between its periphery and one side of the casing, said means comprising bolts arranged at each side of the center of the shaft and extending through the casing, and a fixed flange bearing against the casing and provided with slots for the reception of said bolts, said drum being so mounted upon the shaft as to be capable of a slight rocking movement.

2. In an apparatus of the character described, the combination of an exterior cylindrical casing, a journal-shaft extending through said casing at one side of the center, a cylindrical piston carrying drum mounted upon the shaft and adjustable therewith to maintain a close contact between its periphery and one side of the casing, bearings for said shaft, said bearings having outstanding flanges fitting the outer sides of the casing and provided with slots, bolts passing through said flanges and casing and engaging the drum whereby the shaft and drum may be adjustably moved with relation to the casing to compensate for wear of the parts, pistons slidable radially within the drum having automatically projecting packing-plates at the outer edges, rings or flanges projecting concentrically from the interior of the drum ends, and automatically adjustable bearings on the inner ends of the pistons adapted to travel upon said flanges whereby the pistons are moved in contact with the interior of the casing while the drum revolves eccentrically thereto.

940,247. POLYPOINT PENCIL. JOHN C. HARING, Jersey City, N. J., assignor to Edward Todd & Co., New York, N. Y. Filed Aug. 17, 1908. Serial No. 448,890.



1. A pencil provided with a magazine comprising a plurality of lead-carriers, a single rotatable propelling sleeve surrounding said magazine and normally out of engagement with said carriers, and means for engaging and operating any desired carrier by said sleeve independently of the other.

2. A pencil provided with a magazine comprising a plurality of lead-carriers, a single propelling sleeve rotatable relatively to said magazine and normally out of engagement with said carriers, and means for forcing one of said carriers into engagement with said sleeve.

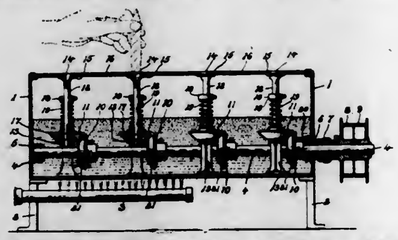
3. A pencil comprising a group of guide-tubes provided with longitudinal slots, lead-carriers in said tubes having pins projecting through said slots, collars surrounding said tubes, one of which is provided with notches in line with the slots in the tubes, a propelling sleeve having a helical slot adapted to engage one of said pins, and means for forcing one of said carriers longitudinally to cause its pin to leave its notch in the collar and engage in the slot in said sleeve.

4. A pencil comprising a rotatable group of lead-carriers, a rotatable propelling sleeve surrounding said group, and a cam arranged to act upon all of said carriers for forcing each of said carriers in succession longitudinally to engage with said sleeve.

5. A pencil provided with a magazine comprising a plurality of lead-carriers, a rotatable propelling sleeve encircling said magazine and having a helical propelling slot, a non-rotatable longitudinally-movable driving sleeve surrounding said propelling sleeve and having a helical slot, a pin on said propelling sleeve engaging with the slot in the driving sleeve, and a cam arranged to act on all of said carriers as the magazine is rotated, for forcing each carrier successively into engagement with the slot in the propelling sleeve.

[Claim 6 not printed in the Gazette.]

940,248. CIGAR END OR TUCK FORMING MACHINE. RICHARD HELMS, Detroit, Mich., assignor to San Telmo Cigar Mfg. Company, Detroit, Mich., a Corporation of Michigan. Filed Apr. 6, 1908. Serial No. 425,313.



1. A device of the character described comprising a fluid receptacle, means for heating the fluid in said receptacle, a cover for the receptacle having an opening, a vertical spindle in the receptacle, a forming cup on the upper end of the spindle within the opening in the cover with its rim in the plane of the upper surface of the cover, and means within the receptacle for rotating the spindle.

2. A device of the character described comprising a fluid receptacle, means for heating the fluid in said receptacle, bearings in the ends of said receptacle, a drive shaft in said bearings, a series of vertical spindles in the receptacle, cups on the upper ends of said spindles projecting through the top of the receptacle, friction cones on the lower ends of said spindles near the bottom of the receptacle, and friction cones on the drive shaft engaging the cones on the spindles.

3. The combination with a tank adapted to contain hot water, of a removable cover for the tank provided with a series of openings, a longitudinally extending drive-shaft in the tank, a series of vertically extending spindles in the tank mounted in bearings at their lower ends, cups on the upper ends of the spindles engaging the openings in the cover, friction-cones on the lower ends of the spindles, cones on the drive-shaft engaging cones on the spindles, and means for revolving the drive-shaft.

4. The combination with a tank adapted to contain hot water and provided with bearings in its ends, of a longitudinally extending drive-shaft mounted in said bearings, a series of friction-cones on said drive-shaft, a series of vertical spindles, cups on the upper ends of said spindles, cones on the spindles to turn therewith and movable longitudinally thereon and springs to yieldingly hold the cones on the spindles in contact with the cones on the drive-shaft.

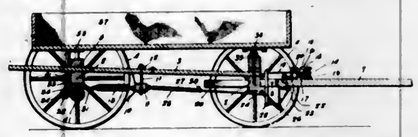
5. The combination with a tank adapted to contain water, and means beneath the tank for heating the water, of a drive-shaft mounted in bearings in the ends of the tank, a series of friction-cones on the drive-shaft within the tank, a series of vertical spindles within the tank, bearings on the bottom of the tank for the lower ends of the spindles, a removable cover for the tank having a series of openings, cups on the upper ends of the spindles adapted to engage the openings in the cover, flanges on the cups engaging the under side of the cover, friction-cones on the spindles to turn therewith and movable longitudinally thereon, collars on the spindles and coil-springs on the spindles between the collars and the cones to yieldingly hold said cones in contact with the cones on the drive-shaft.

[Claims 6 to 9 not printed in the Gazette.]

940,249. WAGON-BRAKE. JAMES E. HEWITT, League City, Tex. Filed Aug. 3, 1908. Serial No. 446,629.

1. The combination of a vehicle, a brake therefor, a vertically movable support for the body of the vehicle, a hanger depending from said support, a spring for actuating the brake, a flexible connection between said spring and said hanger and a guide for said flexible connection.

2. The combination of a vehicle having a vertically movable body, a brake for the vehicle, a hanger movable vertically with the body of the vehicle, a spring for actuating the brake, a flexible connection between said spring and hanger and a guide for said flexible connection



3. The combination of a vehicle having a vertically movable body, a brake for the vehicle, a hanger movable vertically with the body of the vehicle, a spring for actuating the brake, a flexible connection between said spring and hanger, a guide for said flexible connection and means for releasing the brake.

4. The combination of a vehicle, a brake therefor, a vertically movable support for the body of the vehicle, a hanger depending from said support, a spring for actuating the brake, a flexible connection between said spring and said hanger, a guide for said flexible connection, and a draft device adapted to release the brake.

5. The combination with a vehicle running gear having bolsters and standards thereon, of supplemental body supporting bolsters arranged above the first mentioned bolsters and vertically slidable on their standards, springs for cushioning one of said supplemental bolsters, a brake mechanism, a spring for holding said brake mechanism applied, an operative connection between the last mentioned spring and the other supplemental bolster and means for releasing the brake.

[Claims 6 to 8 not printed in the Gazette.]

940,250. STAND FOR MOTOR-CYCLES AND BICYCLES. FRED C. HOFFER, WILLIAM H. WHITESELL, and FRED H. BENTE, Los Angeles, Cal., assignors to Excelsior Supply Company, Chicago, Ill., a Corporation. Filed Apr. 16, 1908. Serial No. 427,550.

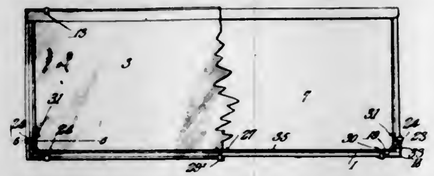


1. In a bicycle support, a plate like member adapted to be secured to the rear end of a bicycle frame, the lower end of said member being provided with a laterally extending projection and the rear edge being provided with a slotted extension to register with the slot in the frame, and a support pivotally secured to said member above said projection, the free end of the support being adapted to be moved into a position below the wheel in front of a vertical line through the projection and thereby support the wheel and prevent the bicycle from falling over sidewise, the support being in engagement with the projection when its free end is thus holding the bicycle.

2. In a bicycle support, a plate like member adapted to be secured to the rear end of a bicycle frame and having a slotted extension on its rear edge to correspond with the slot of the frame, the upper end of the plate being perforated and the lower end provided with a laterally extending projection, a pin on the intermediate portion of the plate for the attachment of a seat or luggage carrier, and a prop like support pivotally secured at its upper end to the perforated portion of the plate, the free end of the prop being adapted to be moved into a position below the wheel in front of a vertical line through said lateral projection, said prop engaging with said projection when in its holding position.

3. In combination with a bicycle, a pair of plates secured to the rear of the frame, one upon each side thereof, each plate having its rear edge provided with a slotted extension to register with the slotted portion of the frame, the axle of the wheel being adapted to be projected through said slots and thereby assist in holding the plates in position, the lower portion of each plate being provided with a laterally extending lug, and a U-shaped stand pivotally secured to said plates above the wheel axle and having its lower end adapted to be moved into a position below the wheel and in front of a vertical line through said lugs, the sides of the stand engaging with said lugs when its lower end is in its forward position.

940,251. SHOW-CASE. ARVID JOHNSON, North Bend, Oreg. Filed Mar. 29, 1909. Serial No. 486,409.



1. A corner and top clamp for show cases comprising angular strips fitting the corners of the case on the inside and the outside, the outer strips having hooks engageable over the edge of the top of the case, and the inner strips having flanges engageable with the upper edges of the front and side walls of the case, and a connection between said strips passing through said walls.

2. A corner and top clamp for show cases comprising angular strips fitting the corners of the case, on the inside and the outside, the outer strips being slotted and having hooks engageable over the edge of the top of the case, and the inner strips having flanges engageable with the upper edges of the front and side walls of the case, and a connection between said strips passing through said walls and the slots of the outer strips.

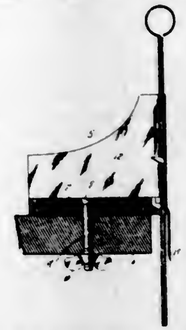
3. In a show case, a corner and top clamp having hooks engageable over the edge of the top of the case, and over the upper edges of the front and side walls, said clamp also having an aperture, and a tie wire connected at its ends to the rear wall of the case, and looped intermediate its ends, said looped portions passing through the aperture of the clamp, and extending downwardly therefrom, and fastened to the bottom of the case.

4. In a show case, corner and top clamps comprising angular strips fitting the corners of the case on the inside and outside thereof, the outer strips having hooks engageable over the edge of the top of the case, and the inner strips having flanges engageable with the upper edges of the front and side walls of the case, a connection between said strips passing through said walls, and a tie wire connected at its ends to the rear wall of the case, and intermediate of its ends to the inner strips, said wire being also looped intermediate its ends, and said looped portions extending down to and being fastened to the bottom of the case.

5. In a show case, corner and top clamps comprising angular strips fitting the corners of the case on the inside and outside, the outer strips having hooks engageable over the edge of the top of the case, and the inner strips having flanges engageable with the upper edges of the front and side walls of the case, a connection between the strips passing through said walls, perforated ears on the inner strips, and a tie wire, connected at its ends to the rear wall of the case, and passing intermediate of its ends through the perforations of the ears, said wire being also looped intermediate of its ends, and said looped portions extending down to and being fastened to the bottom of the case.

[Claims 6 to 8 not printed in the Gazette.]

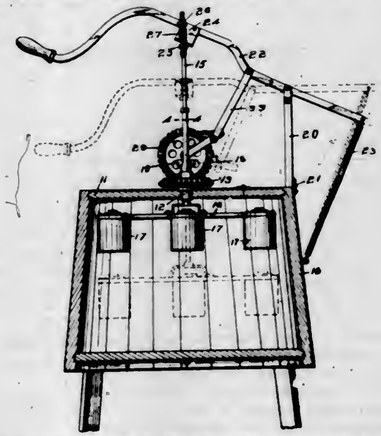
940,252. VEGETABLE-SLICER. VINCENT JOHNSON, Aspen, Colo. Filed Oct. 19, 1907. Serial No. 398,199.



1. A vegetable slicer comprising a relatively stationary body part having vertically disposed guides, a slicing plate adapted to engage said guides, the said plate having upper and lower openings formed therein, and blades formed integral with the said plate, and offset adjacent said openings in opposite directions, the said blades having horizontally arranged cutting edges, the slicing plate having a cutter provided with a series of coöperating, vertically disposed knives extending below the lower edge and crosswise of one of the slicing blades, the body part of the slicer having a bottom whose forward extremity is fashioned to coöperate with the slicing blades and knives, substantially as described.

2. A vegetable slicer, comprising a relatively stationary body part having vertically disposed guides, a slicing plate adapted to engage said guides, the said plate having upper and lower openings formed therein, and blades formed integral with the said plate and offset adjacent said openings in opposite directions, the said blades having horizontally arranged cutting edges, the slicing plate having a cutter provided with a series of coöperating vertically disposed knives extending below the lower edge and crosswise of one of the slicing blades, the cutting edges of the knives being inclined to produce a shearing action, the body part of the slicer having a bottom whose forward extremity is fashioned to coöperate with the slicing blades and knives, substantially as described.

940,253. GEARING DEVICE FOR WASHING-MACHINES. WILLIAM H. JOHNSON, Des Moines, Iowa. Filed Mar. 13, 1909. Serial No. 483,192.

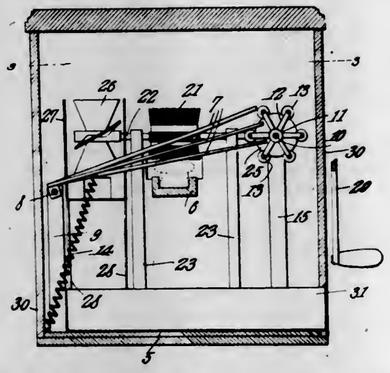


1. A gearing for washing machines, comprising a body portion, a sleeve rotatably mounted therein, a beveled

pinion on the sleeve, said sleeve having slots in its sides above the beveled pinion, a shaft extended through the sleeve, a guide device slidingly and non-rotatably mounted on the shaft with its ends extended through the slots in the sleeve, an operating lever, means for connecting the operating lever with the said shaft, a second beveled pinion in mesh with the first, an arm pivotally supported at the center of the second beveled pinion, a spring actuated pawl carried by the arm to engage the second pinion, and a link connecting said arm with the operating lever.

2. A device of the class described, comprising a body portion, a fulcrum member hinged to the body portion, an operating lever fulcrumed to the fulcrum member, a spring attached to the operating lever and to the body portion, a sleeve rotatably mounted in the body portion and having slots in its sides, a beveled pinion fixed to the sleeve, a shaft extended vertically through the sleeve, said shaft having flat sides, a guide device loosely mounted on the flat portion of said shaft and having projecting ends extended through the slots in the sleeve, a bracket fixed to the operating lever, a nut adjustably mounted on the shaft to engage the under surface of said bracket, a spring mounted on the shaft to engage the top surface of said bracket, an adjusting nut on the shaft above the spring for adjusting the tension thereof, a bracket mounted upon the body portion, a beveled pinion mounted in said bracket and in mesh with the first beveled pinion, a bifurcated arm pivoted to the shaft of the second pinion, a pawl pivoted between the sides of said arm to engage the second beveled pinion, a spring for said pawl, and a link pivoted to the bifurcated arm and to the operating lever.

940,254. ERASER-CLEANING MACHINE. JAMES A. JONES, Logansport, Ind. Filed Jan. 15, 1909. Serial No. 472,530.

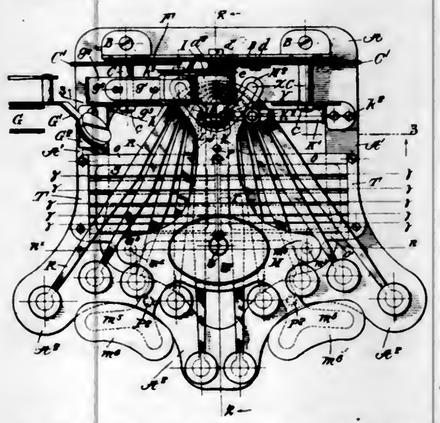


1. In an eraser cleaner, a horizontally extending slideway on which the erasers are supported, and a plurality of beaters arranged side by side, and working in succession across a single eraser on the slideway, whereby said beaters also operate to successively act as holders for the eraser.

2. In an eraser cleaner, a horizontally extending slideway on which the erasers are supported, a plurality of beaters working above the slideway, and engageable with the erasers thereon, a rotatable shaft extending parallel to the slideway, wipers on the shaft for actuating the beaters, a shaft extending transversely of the slideway above the same, and geared to the aforesaid shaft, a brush mounted on the transverse shaft, and engageable with the erasers after they pass the beaters, and operating means connected to the first-mentioned shaft.

3. In an eraser cleaner, a base, standards rising therefrom, a shaft supported by the standards, beaters pivotally mounted at one end on the shaft, a rotary shaft, wipers thereon engageable with the free ends of the beaters for lifting them, an eraser support beneath the beaters, springs connected at one end to the base, and at their other ends to the beaters between the eraser support and the pivoted ends of the beaters, and operating means for the rotary shaft.

940,255. STENOGRAPHIC MACHINE. WILLIAM J. KEHOE, Washington, D. C. Filed Mar. 25, 1909. Serial No. 485,719.



1. In a stenographic machine the combination of a series of finger keys each carrying a type, a platen, a feed shaft connected therewith, a feed plate actuated by the finger keys, a ratchet wheel carried by the feed shaft, and a pawl carried by the feed plate provided with a tooth of relatively soft non-metallic material engaging the ratchet wheel.

2. In a stenographic machine, the combination of a feed shaft, a ratchet-wheel carried thereby, a pawl provided with a tooth of relatively soft non-metallic material engaging the ratchet-wheel, means for actuating the pawl, a detent wheel connected to revolve with the ratchet-wheel, and a detent dog of relatively soft non-metallic material engaging the detent wheel.

3. In a stenographic machine, the combination of a feed shaft, a ratchet-wheel carried thereby, a pawl provided with a tooth of relatively soft non-metallic material engaging the ratchet-wheel, means for actuating the pawl, a detent wheel carried by the feed shaft, a detent dog of relatively soft non-metallic material engaging the detent wheel, and means for adjusting the position of the dog relatively to the detent wheel.

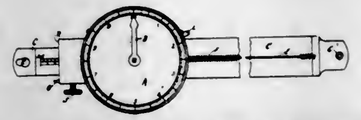
4. In a stenographic machine, the combination of a feed shaft, a ratchet-wheel carried thereby, a pawl comprising a tooth of relatively soft non-metallic material, and a shank provided with a socket into which the dog is removably fitted, and means for actuating said pawl.

5. In a stenographic machine, the combination of the base plate, the feed plate, posts on which the feed plate rocks, a spring connected with the feed plate in rear of the plane of the posts for depressing the rear end of the feed plate, and an adjustable buffer for limiting the upward movement of the rear end of the feed plate.

[Claims 6 to 8 not printed in the Gazette.]

940,256. CHEST-EXPANSION-MEASURING DEVICE. CHARLES W. KENNEDY, ERIC W. CARLSON, and NICKOLAUS C. JEFFES, Schenectady, N. Y. Filed Feb. 23, 1909. Serial No. 479,602.

1. A chest-measuring device consisting of a graduated belt attached to a dial one portion of said belt being elastic, and one portion thereof non-elastic, a pointer on the face of said dial, said pointer mounted upon a hub within said dial, a non-elastic connection between said hub and the non-elastic-portion of said belt whereby the expansion of the elastic portion of said belt will cause said non-elastic connection to move the pointer on the face of the dial a distance equal to the expansion of the belt.



2. In a chest-expansion measuring device, a belt consisting of two sections, one section of non-elastic graduated material, the other section consisting of elastic material, one end of each section attached to a dial, the free ends of said sections adapted to be attached together around the person's chest, a dial, a pointer on the face of the dial, a pulley in the rear of said dial having a hub extending to the face of the dial upon which said pointer is adapted to be mounted, a non-elastic material attached to said pulley at one end and extending along the elastic portion of the belt and attached to the non-elastic portion at the other end, whereby the expansion of the chest expanding the elastic portion of said belt will be indicated by said pointer upon the face of said dial.

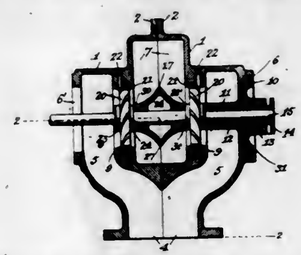
3. In a chest measuring device a dial, a drum attached to one side of said dial, a non-elastic graduated belt adapted to be rolled upon said drum, an elastic belt attached to the other side of said dial, means for attaching the ends of said belts together, a pointer on the face of said dial, a pulley in the rear of said dial, a hub to said pulley, said hub being adapted to operate said pointer, a spring attached to said hub and adapted to return said pointer to normal position, a non-elastic material extending along the elastic belt and connected with the non-elastic belt at one end and with said pulley on the other, substantially as described for the purposes set forth.

4. In a chest-expansion measuring device a dial, a belt consisting of two sections, one section being non elastic and having a graduated scale thereon and attached to one side of said dial, the other section of said dial being elastic and attached to the other side of said dial, means for attaching the free ends of said belt together around the person's chest, whereby the normal measurements of the chest will be indicated upon the graduated scale upon said belt, a pulley in the rear of said dial, a hub upon which said pulley is mounted, a pointer adapted to be operated by said hub, a brake adapted to operate upon said hub, a spring adapted to hold the brake upon said hub, a lever whereby the brake may be released from said hub, a spring adapted to return said hub carrying said pointer to normal position when released from said brake, a non-elastic connection extending along the elastic portion of said belt between said pulley and the non-elastic portion of said belt whereby the expansion of the chest will be indicated by said pointer upon the face of the dial, substantially as described for the purposes set forth.

5. A chest-expansion measuring device consisting of a dial, a pointer on the face of the dial, a pulley in the rear of said dial, a hub upon which said pulley is mounted, means for mounting said pointer upon said hub, a brake adapted to operate upon said hub, a spring adapted to hold the brake upon said hub, a lever adapted to release the brake from said hub, a spring adapted to return said hub carrying said pointer to normal position when released from said brake, a belt adapted to pass around a person's chest, one end being attached to said dial and the other end to said pulley substantially as described for the purposes set forth.

940,257. CENTRIFUGAL PUMP. CHARLES V. KERR, Wellsville, N. Y. Filed Feb. 18, 1907. Serial No. 357,924.

1. A centrifugal pump comprising a shaft mounted for rotation, a propeller fixed on said shaft, suction and discharge passages leading to and from said propeller respectively and a diffusing member loosely mounted on said shaft adjacent said propeller in said discharge passage.



2. A centrifugal pump comprising a shaft mounted for rotation, a propeller fixed on said shaft, a suction passage leading to said propeller, a discharge passage of spiral form leading from said propeller, and a diffusing cone loosely mounted on said shaft adjacent said propeller in said discharge passage.

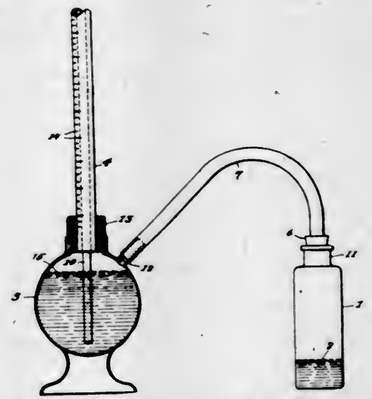
3. A centrifugal pump comprising a rotary shaft, a pair of opposed propellers fixed thereon, a supply passage for each of said propellers, a common discharge passage of spiral form between said propellers and a diffusing member consisting of a double cone loosely mounted on said shaft and held between said propellers.

4. A centrifugal pump comprising a rotary shaft, a propeller fixed thereon, supply and discharge passages therefor and a hollow conical diffusing member in said discharge passage, loose upon said shaft and adjacent said propeller, said member being provided with an axial passage to its hollow interior and a peripheral passage therefrom.

5. A centrifugal pump comprising a rotary shaft, opposed propellers fixed thereon, supply passages therefor, a common discharge passage between said propellers and a hollow diffusing member consisting of a double cone, said cone having ports at its axis and other ports at its peripheral ridge both opening into its hollow interior.

[Claims 6 to 11 not printed in the Gazette.]

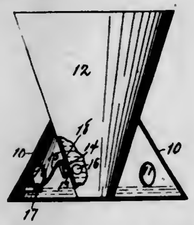
940,258. BAKING-POWDER TESTER. FRANCIS KIELY, Los Angeles, Cal. Filed May 10, 1909. Serial No. 495,187.



A baking powder tester comprising a gas generating vessel formed with an opening, a spoon formed with a tubular stem said spoon opening downwardly so as to discharge its contents when the stopper is placed in the opening of said vessel and with a stopper around said stem, said stopper adapted to slidably fit said opening and removable therefrom and said spoon being smaller than said opening so as to be insertible therethrough, a gas

measuring device comprising a vessel for containing liquid, a measuring tube adapted to extend into said liquid and provided with a scale, and a tube connecting said vessel of the gas generator with the said vessel of the measuring device.

940,259. STOCK AND POULTRY FOUNTAIN. ANDREW A. KRAMER, Kansas City, Kans. Filed Nov. 17, 1908. Serial No. 463,469.



1. A stock and poultry fountain, comprising a frustum shaped sheet metal pan open at its apex and provided with drink openings in its side, and a frustum shaped sheet metal tank loosely and removably mounted in inverted position within and wholly supported by the pan and open at its top, said tank formed with a valve controlled opening communicating with said pan.

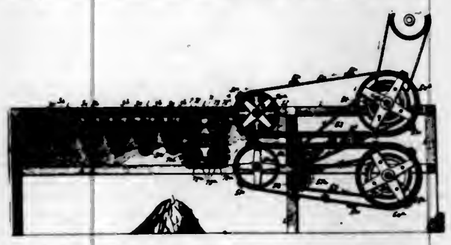
2. A stock and poultry fountain, comprising a frustum shaped sheet metal pan open at its top and provided with drink openings in its side, and a frustum shaped sheet metal tank of greater altitude than the pan and mounted in an inverted position therein, the tank closed at its lower end and resting on the bottom of the pan and open at its upper end, the walls of said pan and tank inclining on different planes, said tank formed with a valve controlled opening within and communicating with said pan, the apex opening of the pan fitting and supporting the central portion of the tank.

3. A stock and poultry fountain, comprising a frustum shaped sheet metal pan open at its apex and formed with circular drink openings in its side, an inverted frustum shaped sheet metal tank mounted in the pan, closed at its bottom and open at its top and resting on the bottom of the pan, the inverted frustum shaped tank formed with a communicating port, a valve in said tank and adapted to close said port, a float lever located within the pan and fulcrumed on the tank and connected to said valve, and a float within said pan below the drink openings thereof and secured to said lever.

4. A stock and poultry fountain, comprising a pan formed of sheet metal and having a base and a frustum shaped wall secured to said base and open at its apex, said wall formed with circular openings near the base; a tank formed with a base and a flaring wall fixed to said base, said tank constructed of sheet metal and adapted to be mounted in and project outside of said pan, the base of the tank resting on the base of the pan and the wall of the pan embracing, fitting and supporting the central portion of the wall of the tank, the wall of the tank formed with a port near its base and communicating with the pan; a float lever within the pan fulcrumed to the wall of the tank; a stem pivoted to the float lever and extending through the port; a valve on said stem within the tank and adapted to close said port; and a float on said lever within the pan and below the drink openings thereof.

940,260. WILLOW-STRIPPING MACHINE. CARL C. LARSEN, Sioux City, Iowa, assignor of one-half to Franz Shenkberg, Sioux City, Iowa. Filed Dec. 26, 1908. Serial No. 469,324.

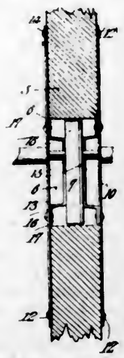
1. A willow stripping machine that comprises a frame, a stripping mechanism, means for forcing the willow through the said mechanism and a discharging means adapted to grip the peeled willow as it leaves the stripping mechanism, said discharging means comprising a pair of coacting belts, having, at intervals transversely disposed rubber strips for gripping the peeled willow strips and a single drive gear coöperatively connected with the stripping mechanism, the means for forcing the willow through the said mechanism and the discharging means.



2. A willow stripping machine that comprises a frame, a series of sets of superimposed feeding in rolls mounted in one end of the frame, stripping means consisting of a pair of coacting endless belts, having transversely disposed brushes, said belts and brushes being in longitudinal alinement with the feeding in rolls, a discharging means comprising a pair of coacting endless belts having, at intervals, transversely disposed rubber strips for gripping the peeled willow strips and a single drive gear coöperatively connected with the feeder in rolls, the stripping and the discharging means.

3. A willow stripping machine that comprises a frame, a series of sets of superimposed feeding in rolls mounted in one end of the frame, stripping means consisting of a pair of coacting endless belts, having transversely disposed brushes, said belts and brushes being in longitudinal alinement with the feeding in rolls, a discharging means comprising a pair of coacting endless belts having, at intervals, transversely disposed rubber strips for gripping the peeled willow strips, guides for holding the opposing gripping portions of the belts in a contacting position and a single drive gear coöperatively connected with the feeder in rolls, the stripping and the discharging means.

940,261. LOCK-ESCUTCHEON. PAUL K. MAGRUDER, San Antonio, Tex. Filed May 21, 1909. Serial No. 497,383.

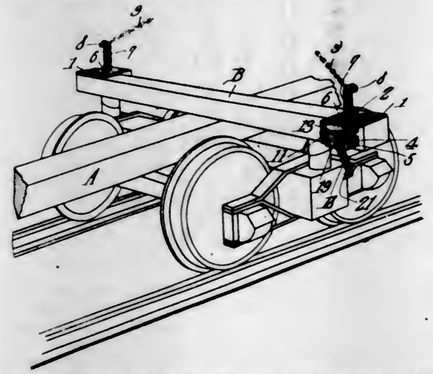


1. In a lock escutcheon, an escutcheon plate, a web integral with the plate, a lock casing supported from the said plate, and an escutcheon plate supported by the lock casing.

2. In a lock escutcheon, an escutcheon plate, a web integral with the plate, a bracket carried by the said plate, a lock casing supported by the bracket, and an escutcheon plate removably supported upon the lock casing.

3. In a lock escutcheon, in combination, an escutcheon plate, a lock casing, a bracket connecting the casing and escutcheon plate and supporting the casing upon the plate in spaced relation with respect thereto, said lock casing having a removable face plate, a second escutcheon plate, and a bracket supporting the last mentioned escutcheon plate from and in spaced relation with respect to the face plate of the lock casing.

940,262. STANDARD ATTACHMENT FOR LOGGING-CARS. MARK MAJETTE, Columbia, N. C. Filed May 21, 1909. Serial No. 497,411.



1. A device of the class described including a pivotally supported standard having a seat therein, a supporting member movably mounted adjacent the standard and disposed to be engaged by the seat, means for locking the supporting member against movement, and means movable with said locking means for shifting the supporting member out of the seat immediately subsequent to the unlocking of the member.

2. A device of the class described including a pivotally supported standard, said standard having a seat, a supporting member movable into the seat to hold the standard in elevated position, a swinging locking device for holding said member against movement from the seat, and means movable with said locking device for shifting the supporting member out of the seat when said member is unlocked.

3. A device of the class described including a recessed bracket, means for attaching the same to a supporting structure, a standard mounted for swinging movement within the recess and having a seat therein, a supporting pin pivotally mounted within the bracket and movable into position transversely of the recess and into engagement with the seat to support the standard, and means carried by the bracket for shifting said pin out of the seat and recess.

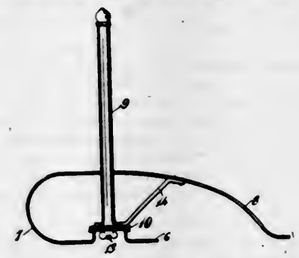
4. A device of the class described including a recessed bracket, means for attaching the same to a supporting structure, a standard mounted for swinging movement within the bracket and having a seat, a supporting pin pivotally mounted within the bracket and shiftable across the recess and into the seat, means for locking the pin against movement, and means movable with said locking means for shifting the pin out of the seat and recess when unlocked.

5. A device of the class described including a recessed bracket, means for attaching the same to a supporting structure, a standard pivotally mounted within the recess and having a seat, pivoted means movable across the recess and into the seat for supporting the standard in a predetermined position, and a lever pivotally connected to the bracket and shiftable against said means to release the standard.

[Claims 6 to 10 not printed in the Gazette.]

940,263. DISPLAY DEVICE. WILLIAM MARKS, Pasco, Wash. Filed Feb. 23, 1909 Serial No. 479,355.

1. In combination in a display device, a display shield, an upright mounted on each side of said shield and provided with a longitudinally extending slot, a holding member secured in place in the slots and movable along said uprights, springs for yieldingly forcing said member toward said shield, and means for varying the width between said uprights and the length of said member.



2. In combination in a display device, a base portion, two uprights mounted on said base portion and provided with longitudinally extending slots, a holding member secured in place in said slots and movable along said uprights, a spring located within each upright for yieldingly forcing said member toward said shield, and means for varying the width between said uprights and the length of said member.

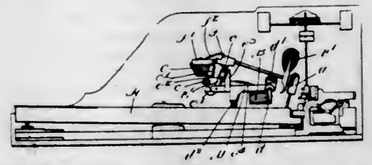
3. In combination in a display device, a base portion base pieces movably mounted on said base portion, an upright rigidly mounted on each base piece, a holding member secured in place by said uprights and movable longitudinally thereof, means for yieldingly forcing said holding member toward said base portion, means for varying the length of said member to accommodate variations in the distance between said uprights, and means for securing said base pieces to said base portion.

4. In combination in a display device, a base portion, a display shield and handle portion integrally formed therewith, base pieces provided with longitudinally extending slots mounted on said base portion, an upright mounted on each base piece and provided with a longitudinally extending slot, a holding member movable along said uprights and secured thereto by means of said slots, a spring mounted in each upright for yieldingly forcing said member toward said shield, means for varying the length of said member to accommodate variations in the distance between said uprights, and a screw extending through the slots in said base pieces for securing said pieces to said base portions.

5. In combination in a display device, a base portion, a display shield, uprights mounted on said base portion and movable laterally thereof, an extensible holding member engaging said uprights, and means for yieldingly forcing said member toward said shield.

[Claim 6 not printed in the Gazette.]

940,264. PIANO-ACTION. FRANZ MEYER, Oak Park, Ill. Filed Apr. 12, 1906. Serial No. 311,226.



1. In a grand piano action, the combination of a key, a hammer, a grand support, an articulated jack extending between the support and hammer butt, and means on the grand support for retaining the jack normally in an upright position, said means comprising a part constantly engaging the upper section of the jack.

2. In a grand piano action, the combination of a key, a hammer, a pivoted grand support, a jack having its lower

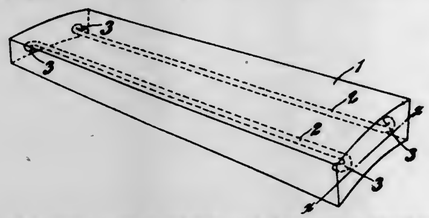
end pivoted on said support, said jack consisting of upper and lower pivotally connected sections, a spring tending to keep the jack normally straightened-out or distended, the upper end of the jack engaging the butt of the hammer, means for engaging the lower end of the jack to cause the same to buckle or bend at the joint thereof, and means on the grand support for retaining the jack normally in an upright position, said means comprising a part constantly engaging the upper section of the jack.

3. In a grand piano action, the combination of the piano key A, the hammer F, the grand support D, the hammer rest d^1, the jack support e^3 mounted on the grand support, the jointed or articulated jack E mounted on said grand support always engaging the upper end of the support e^3, the spring e^4 for holding the jack in a normally straightened-out or distended position, and the stationary stop c for engaging the lower end of said jack to cause the latter to buckle or bend at the joint thereof, said jack support e^3 supporting the jack E normally in an upright position, substantially as, and for the purpose set forth.

4. In a grand piano action, the combination of a piano key, a hammer, an articulated or jointed jack constituting a medium of connection between the key and the hammer, means for normally retaining the jack in an upright position, means for engaging the lower end of the jack to cause the same to buckle or bend at the joint thereof, said first-mentioned means comprising a support constantly engaging the upper section of said jack.

5. In a grand piano action, the combination of a piano key, a hammer, a pivoted grand support, a jointed or articulated jack having its lower end pivoted on the forward end of said grand support, a jack support rigidly secured to said grand support, a spring for constantly holding the upper section of said jack against said jack support, tending to keep the jack normally straightened out or distended, and means for engaging the lower end of the jack to cause the same to buckle or bend at the joint thereof, the upper end of the jack engaging the butt of said hammer.

940,265. SECTIONAL ASBESTOS COVERING. WILLIAM J. MOELLER, Hartwell, Ohio, assignor to The Philip Carey Manufacturing Company, Lockland, Ohio, a Corporation of Ohio. Filed Mar. 7, 1908. Serial No. 419,640.

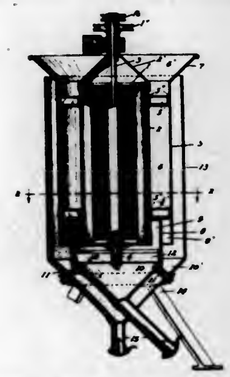


As a new article of manufacture, a section of asbestos insulating covering comprising porous and felted material formed of one piece in combination with a reinforcement bar extending in general direction longitudinally of said section and embedded therein, said reinforcement bar having projections extending transversely thereof, substantially as set forth and for the purposes specified.

940,266. MAGNETIC SEPARATOR. WALTER B. MOORE, Walla Walla, Wash. Filed Sept. 23, 1907. Serial No. 394,240.

1. In a magnetic separator, the combination of a tank, a rotating magnetic means in said tank, and a wall fixed to rotate with said magnetic means and being spaced therefrom to provide a passage-way for the material to be separated, the upper portion of said wall being flared outwardly.

2. In a magnetic separator the combination of a tank, a magnet therein, a rotating shield inclosing said magnet and having a conical upper portion, and a wall spaced from and fixed to rotate with said shield, the upper portion of said wall being flared and arranged about the conical upper portion of said shield to provide a hopper.



3. A magnetic separator comprising a cylindrical casing, means supporting the same for rotation, a wall extending entirely around said casing and being spaced therefrom to provide a passage-way for the materials to be separated, means for feeding the materials into the passage-way provided between said casing and said wall, means connecting said wall to said casing for rotation therewith, and magnetic means supported in said casing for rotation independently thereof.

4. In a magnetic separator, a tank, a rotatable magnetic means for catching the magnetic particles, and a vertically arranged rotatably supported wall surrounding said magnetic means having its lower end spaced from the bottom wall of said tank and being spaced from said magnetic means to provide a passage-way for the materials to be separated, said magnetic means comprising a magnet and a shield therefor each supported for independent rotation.

5. In a magnetic separator, a tank, a rotatably supported magnetic means for catching the magnetic particles, a rotatably supported wall surrounding said magnetic means and being spaced therefrom to provide a passage-way for reception of the materials to be separated, the upper portion of said wall being flared to form a hopper, as specified.

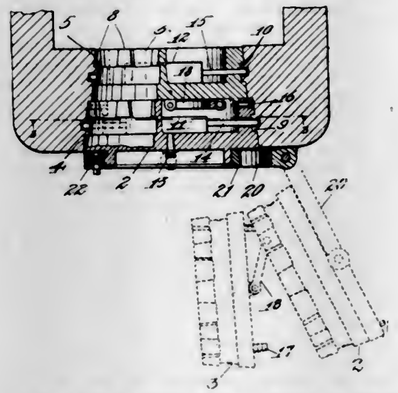
[Claims 6 to 8 not printed in the Gazette.]

940,267. NUT-LOCK. MILES H. MCCOY, Coshocton, Ohio, assignor of one-half to William H. Dean, Coshocton, Ohio. Filed Jan. 25, 1909. Serial No. 474,187.



In a nut lock, the combination of a threaded bolt formed with a longitudinally extending groove, one wall of which is relatively small and radially disposed, while the opposite wall is angularly disposed relative to the radial wall and of greater width than the radial wall, and a nut having an opening by which it is adapted to screw on the bolt, the nut being formed with a recess produced by two distinct and contiguous depressions, one of which has a substantially straight wall merging into the bolt-receiving opening of the nut, and a ball mounted in said recess, the two depressions of the recess being both shaped to snugly fit the ball, and the depression with the substantially straight wall being relatively deeper than the other depression, whereby in the movement of the nut on the bolt in the direction to screw the nut up against the work, the inclined wall of the groove in the bolt and the straight wall of the relatively large depression will easily move the ball out into the far end of the deeper depression so as to permit the easy movement of the nut in such direction, and whereby the opposite movement of the nut will permit the ball to drop into the relatively shallow depression and engage with the radial wall of the groove in the bolt so as to prevent the unscrewing movement of the nut.

940,268. SAFE OR VAULT. WILLIAM G. NORRIS, Seattle, Wash. Filed Apr. 8, 1908. Serial No. 425,928.



1. A safe or vault comprising a body, a plurality of doors for closing the entrance to such body, and a connecting device between said doors whereby said doors are adapted to be held in releasable engagement one with the other for bodily movement of one door directly from the opposing face of the other entirely in an outward direction.

2. A safe or vault comprising a body having circular jamb surfaces, doors rotatably fitting each in its respective jamb surface, locking means for securing said doors in their jambs arranged for operation by rotation of said doors, means for releasably connecting said doors for simultaneous movement, and a connecting device for supporting one door on the other for bodily movement directly from the opposing face thereof.

3. A safe or vault comprising a body having jamb surfaces, a plurality of doors fitting each in its respective jamb surface, a connecting means pivotally engaged with each of said doors for supporting one door for bodily movement on the other, and releasable means for normally securing said doors in relative position.

4. A safe or vault comprising a body and a swingingly supported rotary door, said body and door having complementary locking parts arranged to be engaged in locking relation by rotation of said door, a second door, a connecting device arranged between said doors for supporting said second door for bodily movement from said first named door, and means for securing said doors against independent movement.

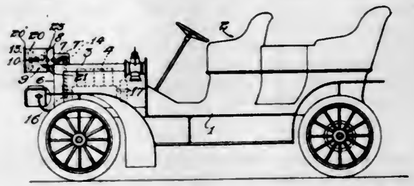
940,269. ADJUSTABLE HAMES-FASTENER. JOHANN OPPENHEIM, Vienna, Austria-Hungary. Filed June 11, 1908. Serial No. 437,891.



1. A pair of hames having studs thereon arranged in pairs, a locking device comprising two members hinged together, each of said members having a longitudinal slot therein adapted to receive a pair of studs, and each member having a series of recesses on each side of the slot and arranged transversely, and a transverse elongated projection carried by each hame and arranged between the studs forming a pair, and adapted to engage one of the transverse recesses so as to prevent longitudinal movement of the parts.

2. A pair of hames having studs thereon having openings in their outer ends, a locking device comprising two members hinged together, each of said members having a longitudinal slot therein adapted to receive said studs, a series of recesses on the outer face of said members, a bar S having a projection thereon adapted to engage with one of the recesses, and a pin passing through the holes in the studs to hold the bar in position.

940,270. WIND-DEFLECTOR FOR AUTOMOBILES. JAMES M. PATRICK, Los Angeles, Cal. Filed Jan. 11, 1909. Serial No. 471,806.



1. In an automobile, a wind deflector for the purpose stated comprising a cone at the front portion of the automobile and means for producing a rearward draft of air against the front of the cone, said cone being located to direct said draft above the front portion of the automobile.

2. In an automobile, a wind deflector for the purpose stated comprising a cone at the front portion of the automobile, and extending above the front portion of the automobile, a fan at the front of the cone, and means for rotating said fan.

3. In an automobile, a wind deflector for the purpose stated comprising a cone at the front portion of the automobile, a fan at the front of the cone, and means for rotating said fan, and a casing surrounding said fan and extending into proximity with said cone leaving a space between the rear end of the casing and the cone, said fan and casing extending above the front portion of the automobile to direct the draft from the fan and cone over the front portion of the automobile.

4. In combination with an automobile and its hood and the engine, a radiator located within the hood of the wind deflector at the front of the automobile and comprising a cone, a fan in front of the cone, and means for rotating said fan, said wind deflector being extended partly in front of the automobile and partly in front of the hood to project a diverging conical sheet of air over and obliquely outside of the hood and within the hood to neutralize the natural rearward draft at the front of the machine and to aid in cooling the radiator.

5. In an automobile, the combination of means for producing a rearward current of air at the front of the automobile, the discharge from said means extending upwardly and laterally over and at the sides of the front portion of the automobile, and a deflector at the rear of said means for deflecting said current of air upwardly and outwardly over and at the side of the front portion of the automobile and producing a forward suction directly at the rear of said deflector.

940,271. SHUTTLE. LUIGI PAVIA, Allentown, Pa. Filed July 21, 1906. Serial No. 327,142.

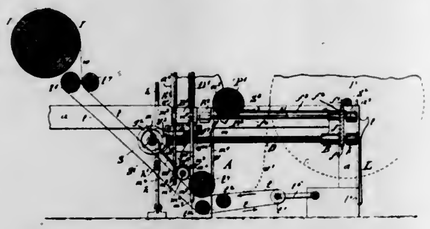
1. A shuttle having an extension cavity formed with upwardly converging side walls, a spindle pivoted in the shuttle and having its butt within the converging side

walls of said cavity, the sides of the spindle converging upwardly to seat against the converging walls of the cavity, said spindle being split longitudinally from its butt and tending normally to remain collapsed or contracted from end to end of its split portion, and means, operative on the split portion of the spindle at the butt thereof, for forcing apart the sides of the latter when the spindle is closed, substantially as described.



2. A shuttle having an extension cavity formed with upwardly converging side walls, a spindle pivoted in the shuttle and having its butt within the converging side walls of said cavity, the sides of the spindle converging upwardly to seat against the converging walls of the cavity, said spindle being split longitudinally from its butt and tending normally to remain collapsed or contracted from end to end of its split portion, a spring arranged in the split portion of the spindle at the butt thereof for forcing apart the sides of the latter when the spindle is closed and plates arranged against the side walls of said cavity for taking the wear of the sides of said spindles, substantially as described.

940,272. ROLL-RENEWING ATTACHMENT FOR PRINTING-PRESSES. JAMES T. PETO, New York, N. Y., assignor to Samuel Thomas Walkup, New York, N. Y. Filed Apr. 27, 1905. Serial No. 257,691.



1. In a roll-renewing attachment for printing presses, the combination of a pair of horizontal screw-spindles, a pair of vertical screw-spindles, means for imparting simultaneously rotary motion to both sets of screw-spindles, blocks on the horizontal screw-spindles, the blocks being provided with upright bars for retaining the spindle of a new roll of paper, blocks on the vertical screw-spindles provided with brackets for receiving the spindle of the spent roll, a power-transmitting shaft, a double clutch-mechanism on said shaft, means for throwing it in mesh with the power-shaft, and means on one of the blocks of the vertical screw-spindles and on one of the blocks of the horizontal screw-spindles for automatically throwing said double clutch-mechanism out of mesh with the power-shaft and thereby arresting the motion of the same when the blocks arrive at either end of their motion.

2. In a roll-renewing attachment for printing presses, the combination of horizontal screw-spindles, a pair of vertical screw-spindles, blocks located on the horizontal screw-spindles and provided with vertical bars for engaging the spindle of the new roll, blocks on the vertical screw-spindles provided with brackets for receiving the spindle of the spent roll, a power-shaft, means for transmitting motion from said power-shaft to the horizontal and vertical screw-spindles, a double clutch-mechanism on the power-shaft consisting of a shiftable member and two rotary clutch-members, a crank-mechanism for shifting the movable clutch-member in engagement with either one of the rotary clutch-members, a hand-lever connected with said crank-mechanism, and means located, respectively, on one of the blocks of the vertical screw-spindles and on one of the blocks of the horizontal screw-spindles for automatically shifting the movable clutch-member out of mesh with the rotary clutch-member for interrupting the motion of the power-shaft and parts operated thereby.

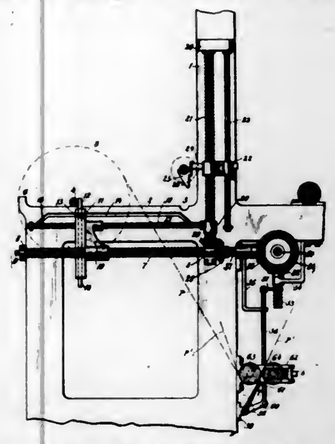
3. In a roll-renewing attachment for printing presses, the combination, with the supporting side-frames, of horizontal screw-spindles, blocks on said screw-spindles, retaining-bars guided in said blocks and projecting above the side-frames, and roll-lifting levers fulcrumed to the upper corners of the side-frames and provided with end-lugs and hook-shaped projections for receiving the spindle of the new roll preparatory to lifting it into position on the ingoing ends of the side-frames.

4. In a roll-renewing attachment for printing presses, the combination, with a horizontal set of screw-spindles, a vertical set of screw-spindles, blocks on said horizontal screw-spindles, blocks on the vertical screw-spindles, means on the blocks of the horizontal screw-spindles for retaining the spindle of the new roll, brackets on the blocks of the vertical screw-spindles for engaging the spindle of the spent roll, a set of tapes extending to the impression-cylinder of the press, means for guiding and tensioning said tapes, a serrated cutting-blade, pivoted and spring-actuated fingers applied to the supporting-shaft of said cutting-blade, rods attached to the blocks of the vertical screw-spindles, said rods being provided with projecting pins for engaging the fingers and oscillating the cutting-blade at the proper time for cutting the web of the spent roll and returning the cutting-blade into its former position.

5. In a roll-renewing attachment for printing presses, the combination of a pair of horizontal screw-spindles, blocks on said spindles, and bars for holding the spindle of the new roll, of a starting-mechanism connected with the spindle of the new roll for imparting rotary forward motion to the spindle and roll.

[Claims 6 to 18 not printed in the Gazette.]

940,273. MEANS FOR SUPPLYING ROLLS OF PAPER TO PRINTING-PRESSES. LOUIS F. PFISTER, New York, N. Y., assignor to Samuel Thomas Walkup, New York, N. Y. Filed Aug. 9, 1905. Serial No. 273,327.



1. In combination with a printing press, means for supporting a spindle of a roll of paper and guiding it to its operative position for use for the press, a device having means for engagement with said spindle, and means for feeding said device toward said operative position, and means for withdrawing said device away from engagement position with the spindle, when said spindle has reached said operative position.

2. In combination with a printing press, means for supporting a spindle of a roll of paper and guiding it to its operative position for use for the press, a device having means for engagement with said spindle, and means for feeding said device toward said operative position, and means for automatically withdrawing said device away from engagement position with the spindle, when said spindle has reached said operative position.

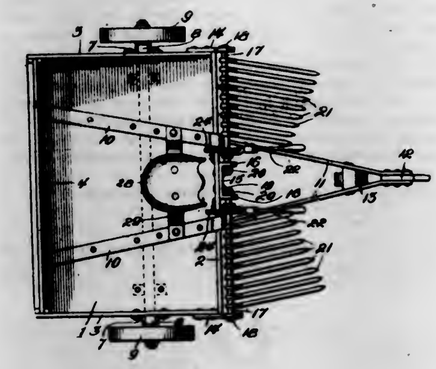
3. In combination with a printing press, means for supporting a spindle of a roll of paper and guiding it to its operative position for use for the press, a device having means for engagement with said spindle, and means for feeding said device toward and away from said operative position, and means for withdrawing said device away from engagement position with the spindle, when said spindle has reached said operative position and also when said device has reached the point farthest away from said position.

4. In mechanism of the character described, the combination with a suitable support for the spindle of a roll of paper, and provided with recesses forming its journal bearings when in its operative position, a device for engagement with the front of said spindle while on said support, and having a movement along the same whereby the roll may be drawn along said support by its web, and its movements along the same to the recesses regulated by the movement of said device on which the spindle bears.

5. In mechanism of the character described, the combination with a suitable support for the spindle of a roll of paper, and provided with recesses forming its journal bearings when in its operative position, two devices for engagement respectively with the front of said spindle beyond the two ends of the roll, while said spindle is on said support, and said two devices having a movement along said support, whereby the roll may be drawn along the same by its web, its transverse position insured, and its movement along the support regulated by the movement of the devices on which the spindle bears.

[Claims 6 to 70 not printed in the Gazette.]

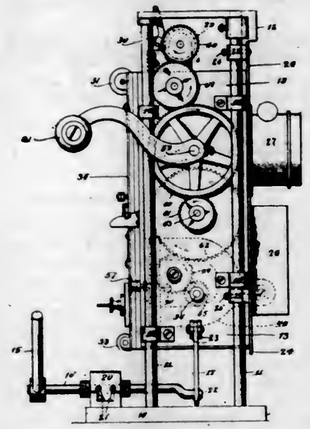
940,274. COTTON-PICKER. WILLIS A. PHIPPS, Fay, Okla. Filed June 26, 1909. Serial No. 502,584. Renewed Oct. 8, 1909. Serial No. 521,751.



1. A cotton picker comprising a wheeled receptacle, a draft means secured to the receptacle, and a set of relatively spaced picker fingers secured to the receptacle, the fingers being of relatively different lengths and inclined inwardly in the direction of the longitudinal axis of the picker.

2. A cotton picker comprising a wheeled receptacle, a draft means secured to the receptacle, sets of relatively spaced picker fingers secured to the receptacle, the picker fingers being inclined inwardly in the direction of the longitudinal axis of the picker.

940,275. KINETOSCOPE. JOHN J. PINK and JOSEPH FLETCHER, Chicago, Ill., assignors to John J. Pink, Chicago, Ill. Filed Mar. 30, 1908. Serial No. 424,008.



1. In a machine of the class described, the combination with a fulcrumed, vertically oscillatable and longitudinally reciprocable carrier having suitable film engaging means rigidly secured thereto, of a stationary fulcrum member upon which said carrier is slidably fulcrumed, a suitably operated cam shaft arranged in a plane which passes through the carrier fulcrum and extends approximately at right angles to the film and means on said shaft for oscillating said carrier longitudinally of the film and bodily shifting it in a straight line into and out of engagement therewith.

2. In a machine of the class described, the combination with a fulcrumed, vertically oscillatable carrier having suitable film engaging means rigid therewith, of a stationary pin upon which said carrier is slidably fulcrumed, a suitably operated cam shaft arranged in a plane which passes through the carrier fulcrum and extends approximately at right angles to the film, and a single cam on said shaft for oscillating said carrier longitudinally of the film and bodily shifting it in a straight line longitudinally of itself into and out of engagement with said film.

3. In a machine of the class described, the combination with a fulcrumed, vertically oscillatable carrier having pins rigid therewith for engagement with the film, of a stationary pin upon which said carrier is slidably fulcrumed, a suitably operated cam shaft arranged in a plane which passes through the carrier fulcrum and extends approximately at right angles to the film, and a single cam thereon for reciprocating said carrier longitudinally of itself in a straight line and oscillating it longitudinally of the film.

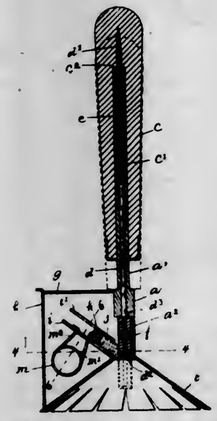
4. In a machine of the class described, the combination with a fulcrumed, vertically oscillatable carrier having suitable film engaging means rigid therewith, of a stationary pin upon which said carrier is slidably fulcrumed, a suitably operated cam shaft arranged between the film engaging means and the carrier fulcrum and a cam upon said cam shaft for oscillating the carrier longitudinally of the film and reciprocating it transversely thereof.

5. In a machine of the class described, the combination with a fulcrumed, vertically oscillatable and longitudinally reciprocable carrier plate having suitable film engaging means rigid therewith, and being formed with four bearing surfaces arranged in the form of a hollow square, of a stationary pin upon which said carrier plate is slidably fulcrumed, a suitably operated cam shaft, a single cam thereon having two concentric bearing faces and two ec-

centric bearing faces connecting the concentric bearing faces, all of said bearing faces of the cam being arranged to bear simultaneously upon the bearing faces of the hollow square.

[Claims 6 to 19 not printed in the Gazette.]

940,276. GAS-LIGHTER. FREDERICK H. POMEROY, Bradford, Mass., assignor, by mesne assignments, to Safety Gas Lighter Co., Haverhill, Mass., a Corporation of Massachusetts. Filed Nov. 19, 1908. Serial No. 463,395.



1. A gas lighter comprising a holder, a spark-producing material supported thereby, an abrader having a longitudinally extending abrading face and mounted in said holder to move longitudinally of said face, a handle for directly moving said abrader, and means for holding said material in engagement with said abrader while it is being moved by said handle, substantially as described.

2. A gas lighter comprising a holder, a spark-producing material supported thereby, an abrader having a longitudinally extending abrading face, and mounted in said holder to move longitudinally of said face, a handle connected to said abrader and movable therewith to reciprocate the same, and means for holding said material in engagement with said abrader while the latter is reciprocating, substantially as described.

3. A gas lighter comprising an abrader having an abrading face, a spark producing material, a holder therefor, a spring for pressing said material and said abrader together to hold said abrading face and the material in frictional engagement and to feed them together as either becomes worn by the other, and means permitting relative movement of said abrader and said material while in engagement, substantially as described.

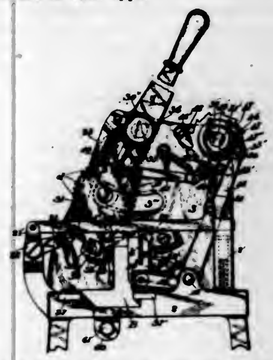
4. A gas lighter comprising an abrader having an abrading face, a spark-producing material, a holder therefor, a spring for pressing said material against said abrading face to hold the material in frictional engagement therewith and to feed the same thereto, and means permitting relative movement of said abrader and said material while in engagement, substantially as described.

5. A gas lighter comprising a holder, an abrading-rod, mounted to reciprocate longitudinally therein, a spark-producing material, and means for pressing the same against the side of said rod, substantially as described.

[Claims 6 to 14 not printed in the Gazette.]

940,277. MACHINE FOR MAKING TYPES AND TYPE-BARS. FRANCIS H. RICHARDS, Hartford, Conn., assignor, by mesne assignments, to American Typographic Corporation, a Corporation of New Jersey. Filed Dec. 17, 1900. Serial No. 40,086.

1. In a typebar machine, the combination with a blank holder for a typebar blank, of a type die, means for imparting a relative working movement to the typebar blank and the die to form a type on the edge of such blank while the forming type is supported at its forward side by adjoining stock, and separate means for forming a space in advance of said type.



2. In a typebar machine, the combination with a blank holder for a typebar blank, of a type die, means for imparting a relative working movement to the typebar blank and the die to form a type on the edge of such blank, and separate means for forming a space in advance of said type not earlier than the beginning of the type-making operation.

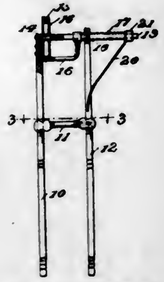
3. In a typebar machine, the combination with a blank holder for a typebar blank, of a type die, means for imparting a relative curvilinear working movement to the typebar blank and the die to form a type on the edge of such blank while the forming type is supported at its forward side by adjoining stock, and separate means for forming a space in advance of said type.

4. In a typebar machine, the combination with a blank holder for a typebar blank, of a type die, means for imparting a relative reciprocatory working movement in a curvilinear path to the typebar blank and the die to form a type on the edge of such blank while the forming type is supported at its forward side by adjoining stock, and separate means for forming a space in advance of said type.

5. In a typebar machine, the combination with a blank holder for a typebar blank, of a type die, means for rolling the typebar blank in contact with said die to form a type on the edge of such blank while the forming type is supported at its forward side by adjoining stock, and separate means for forming a space in advance of said type.

[Claims 6 to 58 not printed in the Gazette.]

940,278. PALLET-SETTING IMPLEMENT. GUSTAV W. RIEBE, Itasca, Wis. Filed Mar. 31, 1909. Serial No. 486,922.

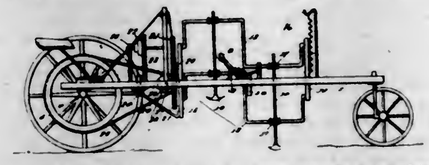


1. A pallet setting implement including a lever, an anvil mounted about said lever, a bracket rigidly disposed on said lever at an intermediate point thereof, a second lever pivoted in said bracket, a brace carried by said anvil and extended over the same, a sleeve mounted on said brace and slotted to receive the outer end of said second lever, a bar slidably disposed in said sleeve and connected with said second lever and a spring disposed between said sleeve and said second lever.

2. A pallet setting implement including a lever, a bracket rigidly carried by said lever and extended outwardly therefrom, a second lever pivotally disposed in the outer end of said bracket, an anvil carried by said first lever, a brace disposed upon said anvil and curved in overhanging relation to the same, a sleeve mounted upon said brace and having longitudinal slots formed in the opposite faces thereof for the reception of said pivoted lever, a bar slidably disposed through said sleeve and being centrally apertured to loosely receive said pivoted lever, a pin carried by said bar at the apertured portion to engage said pivoted lever, and a spring disposed between said sleeve and said lever for depressing said bar.

3. A pallet setting implement including a lever, a second lever pivotally carried by said first lever, a sleeve supported upon said first lever, and longitudinally slotted for the reception of the extremity of said second lever, a bar slidably disposed in said sleeve and connected to said second lever to be actuated thereby, and a spring connected between said sleeve and said second lever to depress said bar.

940,279. COTTON-CHOPPER. NORMAN ROBINET, Tonkawa, Okla. Filed Apr. 14, 1908. Serial No. 427,041.



1. In an implement of the character described for thinning rows of plants, the combination of a main frame mounted upon supporting wheels, a supplemental frame hinged at one side to a side of the main frame and free to move at its opposite side, means mounted upon the main frame for moving the supplemental frame vertically at its free side and securing the same in an adjusted position, and chopping mechanism mounted upon said supplemental frame.

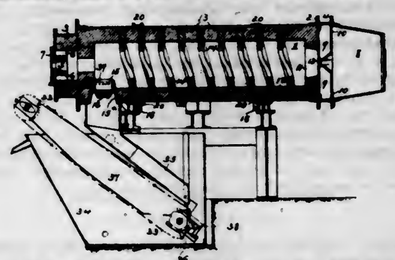
2. In combination a main frame mounted upon wheels, one of which constitutes a driver, a supplemental frame pivoted at one side to the main frame and adjustable vertically at its opposite side, chopping mechanism carried by the supplemental frame, a transverse shaft mounted on the supplemental frame, means for transmitting motion from said transverse shaft to the chopping mechanism, and connecting means between said transverse shaft and the said driver, said connecting means being arranged about in line with the axis of the supplemental member.

940,280. ANNEALING AND HARDENING FURNACE. WALTER S. ROCKWELL, New York, N. Y., assignor to W. S. Rockwell Company, New York, N. Y. Filed Dec. 4, 1908. Serial No. 466,007.

1. In an annealing furnace having a feed opening at one end and a block and tile lining, of means for revolving the furnace, and a discharging door adjacent the rear end of the furnace, adapted to automatically open and close once at each revolution of the furnace.

2. In an annealing furnace, the combination with a cylinder having a fire block or tile lining, of a hopper at one end of said furnace, an automatically opening door at the discharge end thereof and means for rotating the furnace.

3. In an annealing furnace, the combination with a cylinder and a lining composed of a series of fire tile blocks arranged in spiral form and intermediate blocks also in spiral form and projecting beyond said first mentioned blocks, and means for revolving the furnace.

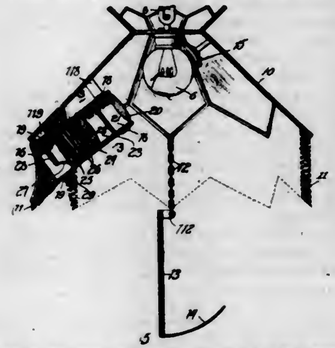


4. In an annealing furnace, the combination with a cylinder having a feed opening at one end, and a lining having a spiral conveyer formation, of means for revolving the furnace, and an automatically opening and closing door for discharging the articles at the rear end of the spiral conveyer at each revolution of the furnace.

5. In an annealing furnace, the combination with a cylinder having a feed opening at one end, and provided with a lining, of a feed hopper carried by and rotating with the cylinder and having an automatically opening and closing door for feeding the material into the furnace, means for automatically discharging the material near the opposite end and means for rotating the furnace.

[Claims 6 to 15 not printed in the Gazette.]

940,281. ADVERTISEMENT-DISPLAYING APPARATUS. JOSEPH T. ROFFY, Chicago, Ill., assignor, by mesne assignments, to Hyman B. Lefkowitz, New York, N. Y. Filed Nov. 21, 1908. Serial No. 463,765.

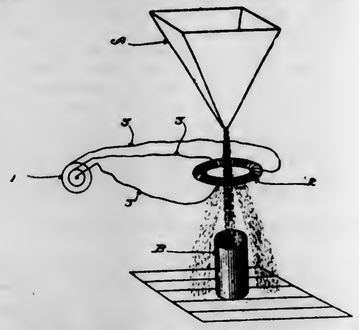


1. A show-window illuminating and advertisement-displaying apparatus comprising, in combination, a translucent dome, a lamp located in the upper part of said dome, a lens-holder supported within the dome to extend inclinedly from said lamp to project the advertisement to be displayed upon the sidewalk adjacent to said window, an advertisement-bearing transparent plate in said holder, and lenses arranged in said holder relative to each other and to said plate and lamp to project the advertising-matter on the plate in magnified form upon said sidewalk.

2. A show-window illuminating and advertisement-displaying apparatus comprising, in combination, a translucent dome provided with a depending apron containing an opening, a lamp in the upper portion of said dome, and a lens-device consisting of a lens-holder rigidly supported within said dome to extend inclinedly in line with said opening to project the advertisement to be displayed upon the sidewalk adjacent to said window, an advertisement-bearing transparent plate in said holder, and lenses arranged in said holder relative to each other and to said plate and lamp to project the advertising-matter on the plate in magnified form upon said sidewalk.

3. An advertisement-displaying apparatus for show-windows comprising, in combination, a lamp, a translucent dome on said lamp provided with a depending apron containing a binding-equipped opening, a reflector supported at one side of said lamp, and a lens-device comprising a barrel supported within said dome on the frame thereof to extend inclinedly in line with said reflector and opening to project the advertisement to be displayed upon the sidewalk adjacent to said window, an advertisement-bearing transparent plate in the barrel, and lenses arranged in said barrel relative to each other and to the plate and lamp to project the advertising-matter on said plate in magnified form upon said sidewalk.

940,282. ELECTRIC SEPARATOR. GEORGE D. ROGERS, Gloucester, Mass. Filed Dec. 30, 1905. Serial No. 293,872.



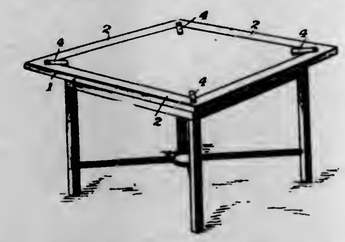
1. The means of separating mixed substances, in a subdivided state, mechanically, comprising a polyphase coil, and means for subjecting the mixture to the influence of the rotating electric field of the said coil.

2. A separator comprising a separating element constituted of a normally stationary polyphase coil, and means for conducting through the rotary electric field thereby produced the mixed substances which are to be separated.

3. A separator comprising a separating element constituted of a normally stationary polyphase coil, and means for conducting through free space through the rotary electric field thereby produced the mixed substances which are to be separated.

4. A separator comprising a separating element constituted of a normally stationary polyphase coil, and means for conducting through the inclosure of such coil the mixed substances which are to be separated.

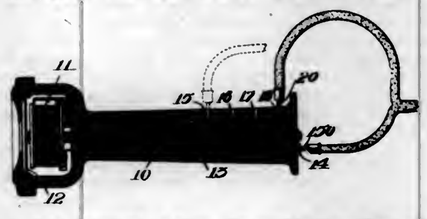
940,283. CARD-TABLE. MAY B. SAMUEL, Philadelphia, Pa. Filed Oct. 27, 1908. Serial No. 459,747.



1. In a table, the combination with a smooth level topped border having sides meeting at angles, of a central part depressed slightly below the border, and spring clips secured in said border at the corners and having thin flat flexible portions extending diagonally inward over the depressed portion.

2. In a table, the combination with a smooth level topped border, having sides meeting at angles, of a central part depressed slightly below the border, superimposed sheets of suitable material fitting within and filling said depressed portion, and spring clips secured in the corners of said border substantially on a level with the top of the border and having thin flat flexible portions extending diagonally over and bearing upon the edges of said sheets.

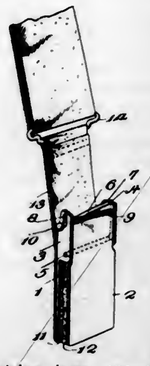
940,284. TELEPHONE. FREDERICK G. SARGENT, Westford, Mass. Filed Mar. 3, 1909. Serial No. 481,160.



1. In a telephone receiver, the combination of an electro-magnet having a plurality of coils, a terminal connected in series with all of said coils, a plurality of terminals located in alinement along the shank of the receiver, each connected in series with one of said coils, said coils being connected in series with each other, whereby when a conductor having two terminals is connected with the first named terminal its other terminal can be connected with any one of said plurality of terminals, and one or more of the coils on the electro-magnet will be brought into the circuit in series.

2. In a telephone receiver, the combination of an electro-magnet having a plurality of coils, a terminal connected with all of said coils, a plurality of terminals located along the shank of the receiver, each connected with one of said coils, whereby when a conductor having two terminals is connected with the first named terminal its other terminal can be connected with any one of said plurality of terminals, and one or more of the coils on the electro-magnet will be brought into the circuit.

940,285. HOSE-SUPPORTER. EDWARD C. SCRUGGS, Nashville, Tenn. Filed Dec. 28, 1908. Serial No. 469,520.

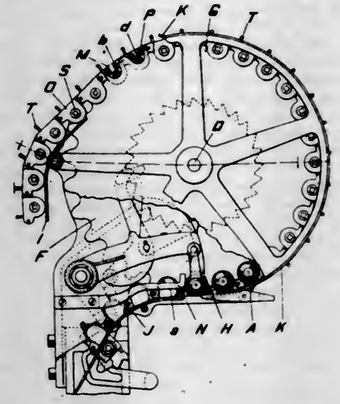


1. A clip comprising jaws, one of said jaws being formed at one end with longitudinally extending ears, and a U-shaped spring, one arm of which extends through said ears and the other jaw to pivotally connect said jaws together, the ears being formed respectively with a recess and an opening through which the other arm of the spring extends, and in which said last named arm is mounted for a spring movement, the other jaw being formed with a tongue designed to be engaged by said arm.

2. A clip, comprising jaws one of which is formed with ears and the other of which is formed with a tongue designed to extend between said ears, a pintle arm passing through said ears and the said other jaw and pivotally connecting said jaws together, one of said ears being formed with a slot and a latch arm engaging said other ear and passing through said slot and designed to engage said tongue and hold the arms in closed position.

3. A clip, comprising jaws one of which is formed with ears, and the other of which is formed with a tongue designed to lie between said ears, and a U shaped spring provided with a pintle arm extending through said ears and the said other jaw, and pivotally connecting said jaws together, the said ears being formed respectively with a recess and an opening through which the other arm of the spring extends into engagement with the tongue.

940,286. AUTOMATIC WEFT-REPLENISHING MECHANISM FOR LOOMS. MELVIN L. STONE, Lowell, Mass., assignor to Draper Company, Portland, Me., a Corporation of Maine. Filed Dec. 11, 1907. Serial No. 406,121.



1. An automatic weft-replenishing loom having, in combination, a rotary magazine having separated sprocket wheels, a transferrer, means for feeding the magazine one step whenever the transferrer acts, and a detachable flexible chain-carrier of indefinite length coöperating with said rotary magazine, said chain-carrier having means for grasping and yieldingly holding at butts and tips respectively a large number of weft-carriers, and having also a guide and a separated anchorage for the thread of each weft-carrier.

2. An automatic weft-replenishing loom having, in combination, a rotary magazine having separated sprocket wheels, a transferrer, means for feeding the magazine one step whenever the transferrer acts, and a detachable flexible carrier of indefinite length coöperating with said rotary magazine, said flexible carrier having means for holding a large number of weft-carriers, and having also an anchorage for the thread of each weft-carrier.

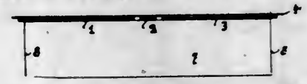
3. An automatic weft-replenishing loom having, in combination, a rotary magazine having separated sprocket wheels, a transferrer, means for feeding the magazine one step whenever the transferrer acts, and a detachable flexible-carrier of indefinite length coöperating with said rotary magazine, said flexible carrier having means for holding a large number of weft-carriers.

4. An automatic weft-replenishing loom having, in combination, a rotary feeder, a transferrer, means for moving said feeder one step at each action of the transferrer, and a detachable flexible-carrier of indefinite length coöperating with said rotary feeder, said flexible-carrier having means for holding a large number of weft-carriers.

5. An automatic weft-replenishing loom having, in combination, a feeder, a transferrer, means for moving said feeder one step at each action of the transferrer, and a detachable flexible-carrier of indefinite length coöperating with said feeder, said flexible-carrier having means for holding a large number of weft-carriers.

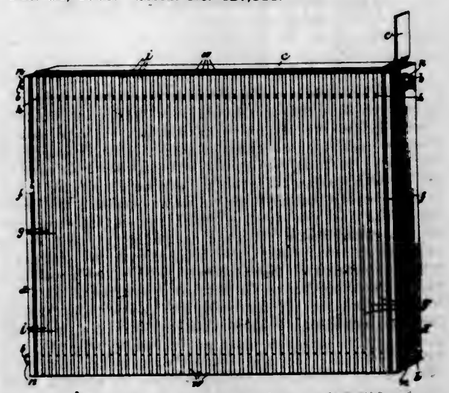
[Claims 6 to 13 not printed in the Gazette.]

940,287. PROCESS FOR CLOTH BOOKBINDING. MELCHIOR TAPROGGE, Neheim, Germany. Filed Nov. 9, 1908. Serial No. 461,798.



An improved process for manufacturing cloth book-covers, consisting in starching card-boards, drying the same and then sticking them upon the cloth by means of a heated metal pressure plate which is of such dimensions that a margin of the card-boards and of the cloth remains which is not covered by said metal plate, the starch on the card boards being liquefied by the heat from said metal plate, the remaining margin preserving its original brilliancy of color, substantially as described.

940,288. STORAGE BATTERY. ALFRED O. TATE, Toronto, Ontario, Canada, assignor to Tate Electrolytic Company of America, a Corporation of New York. Filed Feb. 24, 1908. Serial No. 417,314.



1. A unifunctional storage battery plate embracing a series of thin narrow conducting strips all connected together electrically at one end and separated from each other by porous insulating material, all such conducting strips being insulated at their lateral edges from the electrolyte, substantially as described.

2. A unifunctional storage battery plate embracing a series of thin narrow conducting strips all connected together electrically at one end and separated by similar strips of porous insulating material, all such conducting strips being insulated at their lateral edges from the electrolyte, substantially as described.

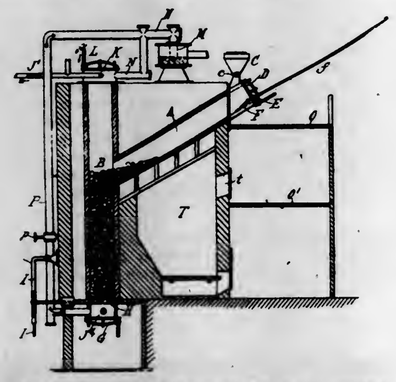
3. A unifunctional storage battery plate embracing a series of relatively thin narrow lead strips all connected together electrically at one end and separated from each other by like strips of porous insulating material, all such lead strips being insulated at their lateral edges from the electrolyte, substantially as described.

4. A unifunctional storage battery plate embracing a series of conducting strips all connected together at one end and separated from each other by relatively thin strips of porous insulating material; in combination with means for binding them all together, all such conducting strips being insulated at their lateral edges from the electrolyte, substantially as described.

5. A unifunctional storage battery plate embracing a series of strip or ribbon like conductors all connected together electrically and separated from each other by porous insulating strips of like form; in combination with cushion strips and binding plates, said ribbon like conductors being all insulated at their lateral edges from the electrolyte, substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

940,289. PROCESS OF MANUFACTURING MIXED COAL-GAS AND CARBURETED WATER-GAS. WALTER THOMAS, Vancouver, British Columbia, Canada. Filed Apr. 13, 1908. Serial No. 426,748.



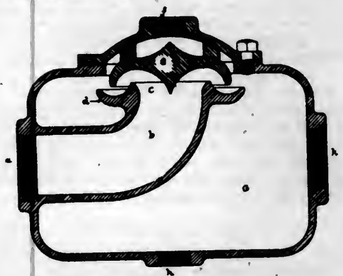
1. The process of manufacturing gas, which consists in partly distilling coal in an inclined or horizontal body and freely conducting off the resulting gas without passage through coke for retaining volatile illuminants, pushing the partly distilled coal into a vertical body and completing the distillation, at suitable intervals spraying hydrocarbon oil into the distilling retort and passing the resulting vapor and gas down through the incandescent coke for converting them into fixed enriching gas, and passing such gas off at the base, and mixing it with the coal gas.

2. The process of manufacturing gas, which consists in partly distilling coal in an inclined or horizontal body and freely conducting off the resulting gas without passage through incandescent coke, whereby the volatile illuminants will be retained, pushing the partly distilled coal into a vertical body and therein completing distillation and heating the coke to incandescence, at suitable intervals decomposing steam by passage up through the incandescent coke and mixing the resulting water gas with the coal gas, then when a vertical body of incandescent coke has been formed, passing hydrocarbon oil down into the same and therein generating fixed hydrocarbon gas and passing the same off at the base of the coke and mixing it with the coal gas and water gas for enriching the same.

940,290. SILMNCER FOR INTERNAL-COMBUSTION ENGINES. WILLIAM L. TOBEY, Winthrop, Mass. Filed May 14, 1909. Serial No. 496,093.

1. In a silencer for internal combustion engines, the combination of an expansion chamber containing a centrally located vertical inlet nozzle having a connecting passage to outside of expansion chamber, a horizontal gas deflecting and water scattering plate having a water inlet centrally located over said plate and a gas outlet substantially as described.

2. In a silencer for internal combustion engines, the combination of an expansion chamber, a centrally located vertical inlet nozzle having a connecting passage to outside of expansion chamber, said nozzle having a surrounding flange below and near the top of said nozzle to deflect the escaping gases into immediate contact with the water delivered over the edge of a superimposed horizontal gas deflecting and water scattering plate having a water inlet centrally located over said plate and a gas outlet substantially as described.



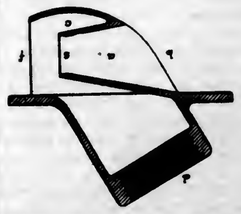
3. In a silencer for internal combustion engines, the combination of an expansion chamber containing a centrally located vertical inlet nozzle having a connecting passage through expansion chamber to outside of chamber, said nozzle having a surrounding saucer shaped flange to deflect the escaping gases into immediate contact with the water delivered over the edge of a superimposed horizontal gas deflecting and water scattering plate before said gases enter said expansion chamber, a water inlet located centrally over said water scattering plate and a gas outlet substantially as described.

4. In a silencer for internal combustion engines, the combination of an expansion chamber, a centrally located vertical inlet nozzle having a connecting passage to outside of expansion chamber, and a surrounding flange below and near the top of said nozzle to deflect the gases at nozzle outlet into direct contact with the water from the outside edge of a superimposed horizontal gas deflecting and water scattering plate having a water inlet centrally located over said plate, a gas outlet and a water drain substantially as described.

5. In a silencer for internal combustion engines, the combination of an expansion chamber, a vertical inlet nozzle having a connecting passage through the expansion chamber, and a saucer shaped flange, surrounding and located immediately below said nozzle outlet, to deflect the gases into immediate contact with the water flowing from the edge of a superimposed horizontal gas deflecting and water scattering plate having a water inlet centrally located over said plate, a gas outlet and a water drain substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

940,291. UNDER-WATER EXHAUST-OUTLET FOR INTERNAL-COMBUSTION ENGINES. WILLIAM L. TOBEY, Winthrop, Mass. Filed June 24, 1909. Serial No. 504,203.



1. In an under water exhaust nozzle, the combination of an exhaust chamber, with a contained water inlet chamber having its water outlet approximately concentric with the exhaust outlet substantially as described.

2. In an under water exhaust nozzle the combination of an exhaust chamber with a contained water inlet nozzle having its water outlet approximately the same area as the exhaust inlet pipe and concentric with the exhaust outlet substantially as described.

3. In an under water exhaust nozzle, the combination of an exhaust chamber with a contained water inlet chamber having water inlet and outlet orifice of approximately the same area, and with water outlet approximately concentric with exhaust outlet substantially as described.

4. In an under water exhaust nozzle an exhaust chamber having an opening in the forward shell, of approximately the same area as the exhaust inlet pipe, said opening to project a jet concentric with and approximately half the area of the exhaust outlet.

940,292. METHOD OF SEPARATING COPPER, NICKEL, AND OTHER METALS FROM COPPER-NICKEL MATTE. HORACE L. WELLS, New Haven, Conn. Filed Feb. 19, 1909. Serial No. 478,878.

1. The herein described method of separating nickel and copper from a rich matte containing their sulfids, the said method consisting in pulverizing the matte and agitating it with hydrochloric acid solution heated below the boiling point and containing not more than 25% of actual hydrochloric acid, the solution resulting containing the nickel and the solid residue resulting containing the copper.

2. The herein described method of separating nickel and copper from a matte containing their sulfids consisting in treating fresh matte and any of its derived solid residues which are not exhausted of their nickel with fresh hydrochloric acid and any of its derived liquids which are not exhausted of their free acid, in a progressive manner until exhausted or substantially exhausted solid residues and liquids are obtained.

3. The herein described method of separating nickel and copper from a matte containing their sulfids, the said method consisting in pulverizing the matte and treating it with heated hydrochloric acid solution, and then progressively treating the resulting solution and its derivatives with matte and its solid derivatives, and the resulting solid residue and its derivatives with hydrochloric acid solution and its acid liquid derivatives.

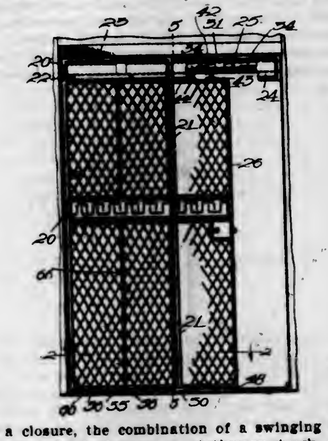
4. The herein described method of separating nickel and copper from a matte containing their sulfids, the said method consisting in pulverizing the matte and treating it with heated hydrochloric acid solution, and then progressively treating the resulting nickeliferous solution and the resulting solid cupriferous residue respectively with matte and its solid derivatives and hydrochloric acid solution and its acid liquid derivatives until substantially all of the hydrochloric acid in the initial solution has been changed to nickel chlorid and until substantially all of the nickel in the initial charge of matte has been removed.

940,293. RECOVERING HYDROCHLORIC ACID FROM NICKEL-CHLORID SOLUTION. HORACE L. WELLS, New Haven, Conn. Filed May 4, 1909. Serial No. 493,970.

The herein described method of recovering hydrochloric acid from the nickel chlorid solution produced by treating a matte containing nickel and copper sulfids with hydrochloric acid, in order that the recovered hydrochloric acid may be used again in treating such matte, which method consists in adding to the nickel chlorid solution the proper quantity of sulfuric acid and ammonium sulfate to form with the nickel chlorid present, the sparingly soluble salt known as nickel-ammonium sulfate, and separating the liquid from the resulting precipitate.

940,294. DOOR. ALBERT A. WHEELER, MARTIN V. HASKINS, and ALBERT H. WHEELER, Worcester, Mass. Filed Apr. 12, 1909. Serial No. 489,452.

1. In a closure for elevators and the like, the combination of a hinged door, a track section thereon, a stationary track section adapted to register with the track section on the hinged door when the latter is closed, means connected with said track sections, whereby the movable one is stopped in registration with the stationary one when the swinging door is swung to closed position, and a sliding door adapted to be moved along said track sections.



2. In a closure, the combination of a swinging door a track section fixed thereon, a stationary track section adapted to register therewith when the swinging door is closed, means on said track sections for causing such registration, a sliding door movable along said track sections, and means on the swinging door for preventing the sliding door from being removed therefrom when the swinging door is open.

3. In a closure, the combination of a swinging door, a track section thereon, a stationary track section adapted to register with the track section on the door when the door is closed, said track sections having means on their ends for limiting the motion of the movable section in one direction, and a sliding door supported by said track sections and adapted to move from one to the other.

4. In a closure, the combination of a swinging door having a header thereon, a track section mounted on the door behind said header, a fixed header in the door-way, at the same elevation as the first named header, a fixed track section behind the fixed header, whereby both track sections are concealed by the headers, and a sliding door adapted to be supported by said track sections and movable from one to the other.

5. In a closure, the combination of a swinging door having a header thereon, a track section mounted on the door behind said header, a fixed header in the door-way at the same elevation as the first named header, a fixed track section behind the fixed header, whereby both track sections are concealed by the headers, a sliding door adapted to be supported by said track sections and movable from one to the other, and means whereby said swinging door will be locked at all times except when the sliding door is supported entirely by the track on the swinging door.

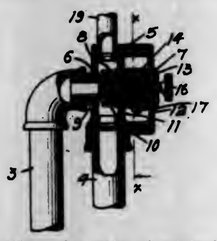
[Claims 6 to 25 not printed in the Gazette.]

940,295. VALVE FOR WATER-CLOSET TANKS. JOHN F. WILLIS, Minneapolis, Minn. Filed July 17, 1908. Serial No. 444,087.

1. The combination, with a water closet tank, of a casing having an inlet opening and a valve seat inclosing said opening, a plunger valve having a face to engage said seat, a float having a rod secured to said valve, said casing having diagonally arranged slots on each side of said valve and cam surfaces formed on the edges of said slots and said rod engaging said cam surfaces and causing the reciprocation of said plunger valve when said float is moved vertically.

2. The combination, with a water closet tank, of a casing having a water inlet and valve seat therefor, and

a plunger valve having a face to engage said seat, said casing having bearings for said valve, a float having a rod fitting within a socket in said plunger valve and adjustable lengthwise therein, said casing having slots in its wall on each side of said valve, said slots being oppositely inclined to the vertical and adapted to receive said float rod whereby when said float is moved vertically, said rod contacting with the edges of said slots, will impart a reciprocating movement to said valve, substantially as described.



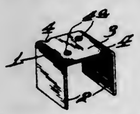
3. The combination, of a water closet tank, of a casing having inlet, and discharge openings and pipe connections therefor, said inlet opening having a valve seat, a plunger valve mounted in said casing and arranged to engage said seat and close said inlet opening, a float having a rod mounted in said valve and means including oppositely inclined surfaces engaging said rod and imparting a reciprocating movement to said valve during the vertical movement of said float, substantially as described.

4. A ball cock, comprising a casing having inlet and discharge openings, said inlet opening having a valve seat, a valve arranged to contact with said seat and close said inlet opening, a rod having a longitudinal and rotary adjustment in said valve, a float carried by said rod, and means having inclined surfaces arranged to contact with said rod and impart a reciprocating movement to said valve when said rod is oscillated, substantially as described.

5. A ball cock, comprising a casing having inlet and discharge openings, said inlet opening having a valve seat, a valve arranged to engage said seat and close said inlet opening, a rod mounted in said valve, the wall of said casing having an obliquely arranged slot therein, through which said rod projects, said rod contacting with the inclined surface at the edge of said slot, and a float carried by said rod, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

940,296. REINFORCED-CONCRETE FLOOR CONSTRUCTION. ULYSSES S. G. ATHEY, St. Louis, Mo. Filed June 10, 1909. Serial No. 501,318.



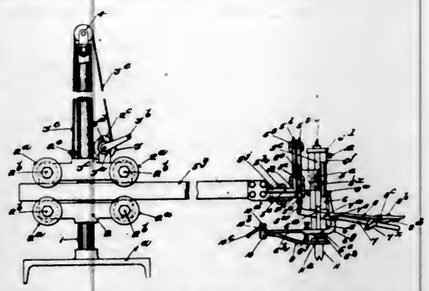
1. In a concrete floor construction, the combination of crossing reinforcing bars, of an inverted U-shaped support positioned beneath the point where said bars cross each other, said support being provided with diagonally disposed recesses a bonding wire positioned in said recesses and embracing said support and bars and the ends thereof united, there being openings formed in the support diagonally opposed to said recesses.

2. In a concrete floor construction, the combination of reinforcing bars arranged at angles and in different planes relative to each other, of an inverted U-shaped support constructed of a single piece of sheet metal positioned beneath the lowermost bars, said support being provided with diagonally disposed recesses a bond wire engaging said recesses and passing around said support and said bars and the ends thereof united, there being openings formed in the support diagonally opposed to said recesses, the inner margins of said openings being nearer the longitudinal center of the support than the inner margins of said recesses.

3. A support for reinforcing bars in concrete construction, consisting of a substantially U-shaped piece of sheet metal having diagonally disposed recesses formed in its upper side margins and diagonally disposed perforations formed in the upper body portion of the support intermediate said recesses, which recesses and perforations serve to permit the attachment to the support of different sized reinforcing bars.

4. A support for reinforcing bars in concrete construction consisting of a substantially U-shaped piece of sheet metal having diagonally disposed recesses formed in its upper side margins and perforations in the upper portion of the support arranged opposite to the recesses, whereby bars of different transverse dimensions may be secured to said support by a bond wire.

940,297. PNEUMATIC SURFACING-MACHINE. GEORGE L. BADGER, Quincy, Mass. Filed Feb. 8, 1907. Serial No. 356,330.



1. In apparatus of the character described, an impact-tool including bolts secured thereto, a tool-carrier through which said bolts pass and slide freely and means pivotally connected with the tool and tool-carrier to move the tool longitudinally of its axis.

2. In apparatus of the character described, an impact-tool including bolts secured thereto, a tool-carrier having bow-shaped arms through which said bolts pass and slide freely and means pivotally connected with the tool and tool-carrier to move the tool longitudinally of its axis.

3. In apparatus of the character described, an impact-tool including bolts secured thereto, a tool-carrier provided with guide-tubes through which said bolts pass and slide freely and means pivotally connected with the tool and tool-carrier to move the tool longitudinally of its axis.

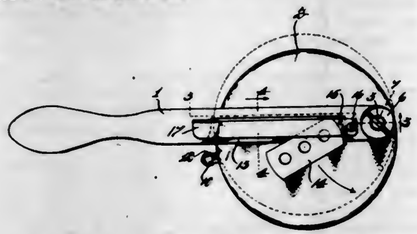
4. In apparatus of the character described, an impact-tool including clamp-plates secured thereto by bolts, a tool-carrier through which said bolts pass and slide freely and means pivotally connected with the tool and tool-carrier to move the tool back and forth longitudinally of its axis.

5. In apparatus of the character described, an impact-tool including bolts secured thereto, a tool-carrier through which said bolts pass and slide freely and means pivotally connected with the tool and tool-carrier to move the tool with relation to the tool-carrier and means to normally retain the tool in adjusted position.

[Claims 6 to 63 not printed in the Gazette.]

940,298. RAZOR-SHARPENING DEVICE. ARTHUR D. BENSON, New York, N. Y., and JOHN F. HARRIS, Hoboken, N. J. Filed Dec. 10, 1908, Serial No. 466,743. Renewed Oct. 9, 1909. Serial No. 521,860.

1. A device for stropping or honing razor blades comprising in combination a blade supporting member and a movable disk member having an abrasive surface of a different character on each side thereof, said disk being pivotally and reversibly mounted upon said supporting member, means for clamping to said supporting member a razor blade with the edge thereof standing in the path of said movable abrasive disk.

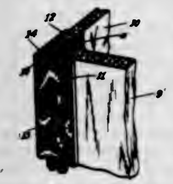


2. A device for stropping or honing razor blades comprising in combination a blade supporting member and a movable disk member having an abrasive surface of a different character on each side thereof, said disk being pivotally and reversibly mounted upon said supporting member whereby either surface may be adjusted to working position, said supporting member being provided with a beveled seat portion adapted to support a razor blade at an angle to the working surface of said disk.

3. A device for stropping or honing razor blades comprising in combination a blade supporting member and a movable disk having abrasive surfaces rotatably mounted thereon, said supporting member provided with a beveled seat portion adapted to support a razor blade at an angle to the surface of said abrasive disk, and a clamp member pivoted at one end to said supporting member having an offset portion fitting into said seat portion for securing a razor blade thereon.

4. A device for stropping or honing razor blades comprising in combination a blade supporting member and a circular stropping disk eccentrically pivoted to said supporting member and provided with a leather-covered surface and a canvas-covered surface, said disk being also reversibly mounted upon said supporting member whereby either surface may be adjusted to working condition, said supporting member being provided with a beveled seat portion adapted to support a razor blade at an angle to the working surface of said disk, and a clamp member pivoted at one end to said supporting member and having an offset portion fitting into said seat portion for securing a razor blade thereon.

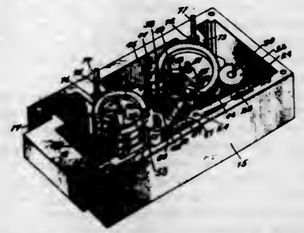
940,299. SHOW-CASE. JOSEPH F. BIERENDT, Los Angeles, Cal. Filed Jan. 21, 1909. Serial No. 473,490.



1. A show case comprising a top and base frame, suitable rear supports for the same, front and side glasses maintained in said top and base frames, and clamps for the front corners of said glasses, such clamps comprising metal channels engaging said glasses and having their inner corners disposed adjacent each other, projecting angle irons rigidly secured to the non-adjacent sides of said metal channels and forming intermediate recesses, plates in said top frame above said recess, rods screwed into said plates and extending through said recesses and said base frame, and securing means on the lower ends of said rods, as described.

2. A show case comprising the combination of a bottom supporting frame, a floor on said frame, rear supporting posts, dovetails thereon extending through said floor, screws projecting through said dovetails into said base, screws projecting through said floor into said posts, a top frame mortised into said posts, angle irons secured to said top frame and posts, front and side glasses set into said posts and base and top frames, and clamps for the front corners of said glasses, such clamps comprising metal channels engaging said glasses and having their inner corners disposed adjacent each other, projecting angle irons rigidly secured to the non-adjacent sides of said metal channels and forming intermediate recesses, plates in said top frame above said recess, rods screwed into said plates and extending through said recesses and said base frame, and securing means on the lower ends of said rods, as described.

940,300. LOCK. BRUCE BORLAND, Chicago, Ill. Filed June 14, 1905. Serial No. 265,206.



1. In a multiple-key lock, the combination with a two-part tumbler the respective parts whereof are constructed to be reset for coaction with different keys, of means for resetting the said tumbler, and a supplemental lock for locking the said resetting means against surreptitious resetting of the tumblers, said supplemental lock being locked and unlocked by a key.

2. In a multiple-key lock, the combination with a plurality of two-part tumblers the respective parts whereof are constructed to be reset for coaction with different keys of an adjusting-eccentric for resetting the tumblers, and a supplemental lock for locking the eccentric.

3. In a multiple-key lock, the combination with a plurality of two-part tumblers the respective parts of which are constructed to be reset for coaction with different keys, of means for resetting the said tumblers, and a supplemental tumbler-lock for locking the said resetting means against surreptitious resetting of the tumblers, said supplemental lock being locked and unlocked by a key.

4. In a multiple-key lock, the combination with a plurality of two-part tumblers the respective parts of which are constructed to be reset for coaction with different keys, of an adjusting eccentric for resetting the said tumblers, a supplemental tumbler lock, and pinions interposed between the eccentric and supplemental lock for locking the said eccentric.

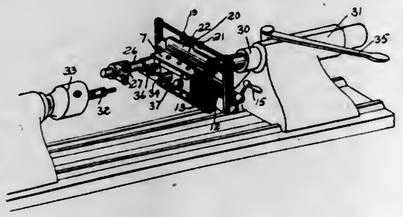
5. In a multiple-key lock, the combination with a two-part pivoted-tumbler the respective parts of which are constructed to be reset for coaction with different keys, of means for resetting the said tumbler, and a supplemental lock for locking the said resetting means against surreptitious resetting of the tumblers, said supplemental lock being locked and unlocked by a key.

[Claims 6 to 83 not printed in the Gazette.]

940,301. COMBINATION LATHE-TOOL. OTTO CARLBORG, Providence, R. I., assignor to Goodson Electric and Manufacturing Company, Providence, R. I., a Corporation of New York. Filed Feb. 11, 1908. Serial No. 415,290.

1. A combination lathe tool comprising a head, a carriage mounted on said head and provided with means for supporting a plurality of tools, means for adjusting said

carriage on said head, a rod carried by said head, stops adjustably mounted on said rod and arranged to conform to the positions of the tools, and a pivoted tongue on said carriage arranged to engage said stops.

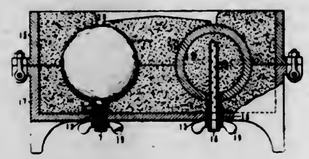


2. A combination lathe tool comprising a head, a carriage mounted on said head and provided with means for supporting a plurality of tools, means for adjusting said carriage on said head, arms carried by said head, a threaded rod supported by said arms, threaded stops working on said rod, and a pivoted tongue on said carriage arranged to engage said stops.

3. A combination lathe tool comprising a head, a tool supporting carriage mounted on said head and provided with means for supporting a plurality of tools, means for adjusting the carriage on said head, and a yoke mounted on the face of said carriage and adjustable with relation to said tool supporting means, said yoke being provided with means for supporting a supplemental tool.

4. A combination lathe tool comprising a head, a tool supporting carriage mounted on said head and provided with means for supporting a plurality of tools, means for adjusting the carriage on said head, and a yoke the arms of which straddle said tool holding means and adjustable with relation to the latter, said yoke being provided with means for supporting a supplemental tool.

940,302. CASTING APPARATUS. AMBROSE CASEY, Seneca Falls, N. Y., assignor to The Goulds Manufacturing Company, Seneca Falls, N. Y., a Corporation of New York. Filed Oct. 22, 1908. Serial No. 459,071.



1. An apparatus of the nature disclosed for casting spherical shells comprising in combination, a mold box comprising two sections separable in a divisional line coincidental with a diameter of the spherical shell to be cast, one of said sections having a wall substantially in parallelism with said divisional line and provided with a socket, a spherical pattern having a stem adapted to directly interfit in said socket and of such length that a diameter of said spherical pattern will coincide with the divisional line of said section, and a spherical core of less diameter than said pattern and having a stem adapted to directly interfit in said socket and of such length as to position said core concentrically within the space formed by said pattern.

2. An apparatus of the nature disclosed for casting spherical shells comprising in combination, a mold box comprising two sections separable in a divisional line coincidental with a diameter of the spherical shell to be cast, one of said sections having a wall substantially in parallelism with said divisional line and provided with a socket, a spherical pattern having a stem provided with a tapered end adapted to directly interfit in said socket and of such length that a diameter of said spherical pattern will coincide with the divisional line of said section, and a spherical core of less diameter than said pattern and having a stem provided with a tapered end adapted to directly interfit in said socket and of such length as to position said core concentrically within the space formed by said pattern.

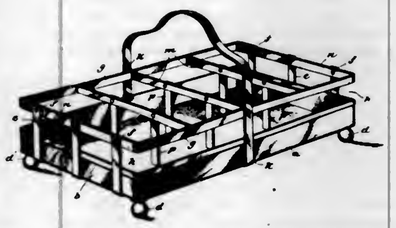
3. In a device of the class described, in combination, a sectional mold box provided with a tapering socket, a pattern and a core each of which is provided with a stem having a tapering portion adapted to directly fit within said socket.

4. In a device of the class described, in combination, a sectional mold box provided with a tapering socket, a pattern and a core each of which is provided with a stem having a tapering portion adapted to directly fit within said socket, the stem of said core being longer than the stem of said pattern.

5. In a device of the class described, in combination, a sectional mold box provided with a tapering socket, a pattern and a core each having a tapering stem adapted to directly engage said socket, and means removably engaging said stems whereby the pattern and core may be held in position within said box.

[Claims 6 to 12 not printed in the Gazette.]

940,303. TOAST-RACK. CHILION P. CONGER, New York, N. Y. Filed June 12, 1907. Serial No. 378,469.



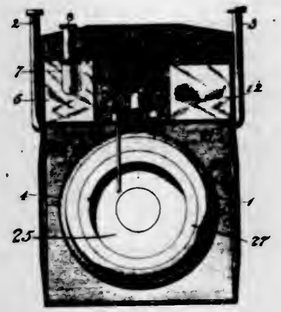
1. A rack for triscuit or crackers, including a quadrangular shallow pan having a solid bottom, upturned sides and marginal upright bars, a marginal top rail having connection with the upper end portions of said bars, a central transverse partition bar parallel to opposite sides of the marginal top rail and separated therefrom throughout its length by uninterrupted spaces whereby the rack is divided into compartments each of which extends entirely across the same, said partition bar having brace connection with the bottom of said pan, and an upright handle bar lying in the same plane as said partition bar.

2. A rack for triscuit or crackers, including a quadrangular shallow pan having a solid bottom, vertical sides and marginal upright bars, a marginal top rail having connection with the upper end portions of said bars, transverse partition bars parallel to opposite sides of the marginal top rail and separated throughout their length from each other and from the parallel sides of the marginal top rail by uninterrupted elongated spaces, and a handle bar.

940,304. AUTOMATIC OILING DEVICE FOR GAS-METER DIAPHRAGMS. JAMES R. DALY, New Orleans, La., assignor to John Emory Cross, Baltimore, Md. Filed Mar. 16, 1908. Serial No. 421,582.

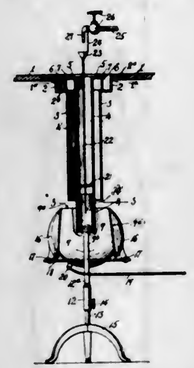
In a gas meter, a flexible diaphragm, both sides of which are normally in contact with the gas, a receptacle for oil isolated from the gas and separated therefrom so as to prevent free access of gas to the oil receptacle, a wick holder in the form of an upright tube closed at one

end, a tube leading from the oil receptacle to the wick holder, and a wick, one end of which is in the holder, the



wick extending from the holder into contact with the diaphragm.

940,305. PETROLEUM-BURNER. WILLIAM H. EATON, Clay Center, Kans. Filed Aug. 8, 1908. Serial No. 447,580.



1. A petroleum burner attachment for stoves comprising a support, a globular fire-pot on said support, vertical draft-tubes communicating with the fire-pot, a supply pipe having an outlet above the fire-pot and means for revolving the fire-pot.

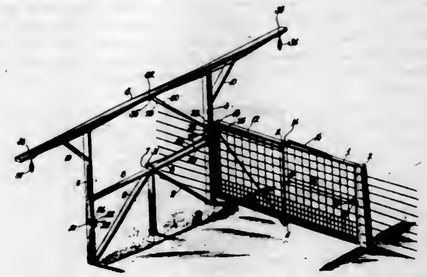
2. A petroleum burner attachment for stoves comprising a support, a globular fire-pot adjustable vertically on said support, vertical down-draft-tubes communicating with the fire-pot, a supply pipe having an outlet above the fire-pot and means for revolving the fire-pot.

3. A petroleum burner attachment for stoves comprising a support, a globular fire-pot mounted on said support and provided with openings, clap covers for covering said openings when not in use, a supply pipe having an outlet above said fire-pot and means for revolving the fire-pot.

4. A petroleum burner attachment for stoves comprising a support, a globular fire-pot mounted on said support and provided with holes, clap covers for covering said holes, means for adjusting the covers, inner and outer down draft-tubes communicating with the fire-pot and an oil supply pipe having an outlet above the fire-pot.

5. In combination in a petroleum burner for stoves, a globular fire-pot, means for supplying oil thereto, outer and inner draft-tubes communicating with the fire-pot, said inner draft-tube being provided with a flange and lugs and adjusting screws passing through said lugs for adjusting the draft-tube vertically.

940,306. GATE-OPERATING ATTACHMENT. JOHN B. FAULKNER, Holt, Mo., assignor of one-half to R. H. Bevins, Kansas City, Mo. Filed June 29, 1908. Serial No. 441,017.



1. The combination with a hinged gate, of a swing-frame carried by the gate, with its free end projecting toward the hinge-end of the gate, yielding means for holding the free end of the frame pressed toward the gate, and a suitably guided cable connected and bearing a slidable relation with the free end of the swing-frame, to swing the latter away from the gate to impart swinging movement thereto.

2. The combination with a hinged gate and locking mechanism to secure the gate open or closed, of a swing-frame carried by the gate and projecting rearwardly from its pivotal point of connection with the latter, yielding means for holding the free or rear end of the swing frame pressed toward the gate, means pivotally movable with the swing-frame and connected to said locking mechanism, and a cable suitably guided and connected and bearing a slidable relation with the free end of the swing-frame to swing the latter away from the gate to cause it it impart swinging movement thereto.

3. The combination with a hinged gate, of a swing-frame pivoted to the gate and projecting toward the hinge-end of the latter from said pivotal point, a retractile spring connecting the swing-frame and the gate, tending to hold the free end of the former close to the latter, and a suitably-guided cable connected to the free end of the swing-frame whereby the latter may be swung away from the gate to impart swinging movement to the latter.

4. The combination with a hinged gate, of a swing-frame pivoted to the gate and projecting toward the hinge-end of the latter from said pivotal point, a retractile spring connecting the swing-frame and the gate, tending to hold the free end of the former close to the latter, and a suitably-guided cable anchored at one end inward of the gate and bearing a slidable relation to the swing-frame so that when the free or opposite end of the cable is pulled, it shall swing the free end of the swing-frame away from the gate to impart swinging movement to the latter.

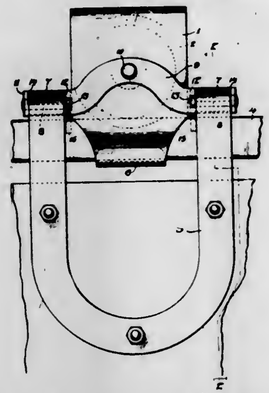
940,307. DOOR-HANGER. WILLIAM D. FERRIS, Sterling, Ill. Filed May 6, 1907. Serial No. 372,092.

1. A door hanger comprising a frame, a track wheel journaled therein and a door strap hinged to said frame adjacent the lower edge of said wheel and in line with the central vertical plane thereof, substantially as described.

2. A door hanger comprising a frame, a track wheel journaled therein and a door strap hinged to said frame between the axle and lower edge of said wheel and in line with the central vertical plane thereof, substantially as described.

3. In a door hanger, the combination with a track, of a track wheel, a frame wherein said wheel is journaled and a depending door bracket hinged to said frame between said track and the axle of said wheel and in line with the central vertical plane of said track and track wheel, substantially as described.

4. In a door hanger, the combination with a track, of a single, grooved, track wheel mounted on said track, the groove of said wheel being V-shaped and wider than said track, a frame centrally mounted on the axle of said wheel, a door bracket hinged to said frame above the track and below the axle of the wheel and in line with the central, vertical plane of said wheel track and guard lugs fixed to said frame and coöperating with said track to prevent the displacement of said track wheel, substantially as described.



5. In a door hanger, the combination with a track, of a single, grooved wheel mounted on said track, the groove of said wheel being V-shaped and wider than said track, a frame centrally mounted on the axle of said wheel and having downwardly and outwardly inclined end portions, said end portions having longitudinally extending pintles arranged closely adjacent the contacting tread surfaces of said track and said wheel and in line with a vertical plane extending centrally through the contacting portions of said track and wheel, and a door bracket hinged to said pintles, said frame having a guard lug extending downwardly and bent around the lower edge of said track, substantially as described.

[Claims 6 to 14 not printed in the Gazette.]

940,308. KNIFE FOR CUTTING OIL-CLOTH. ARTHUR H. FESEMYER, Donora, Pa. Filed Apr. 10, 1909. Serial No. 489,152.



1. An oil cloth knife having a handle portion, and a blade portion offset laterally where it emerges from one end of said handle portion and provided with a depending cutting portion lying in the same plane as the portion extending from the offset portion.

2. An oil cloth knife having a handle portion, a blade portion offset laterally where it emerges from one end of said handle portion and provided with a depending cutting portion lying in the same plane as the portion extending from the offset portion, and a downwardly extending portion at the other end of said handle portion.

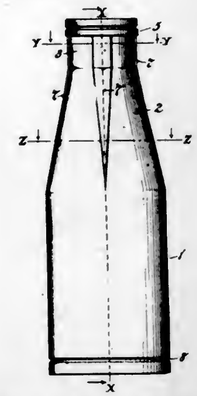
940,309. TROLLEY-HEAD. BENJAMIN F. FOSS, Fairfield, Me. Filed Apr. 7, 1909. Serial No. 488,510.

The herein described trolley head comprising a trolley wheel and fork, a screw threaded bushing in each side of the fork having a longitudinal slot therein, a pin having a transverse hole passing through it near each end with a longitudinal slot extending from said hole to the end of the pin, said pin extending through the axis of the trolley wheel and through each of said bushings and a cotter pin passing through the holes in the pin and the slots in



the bushings, shoulders being formed on the fork to hold the cotter pin in place.

940,310. BOTTLE. EDWIN T. GREENFIELD, Kiamesha, N. Y., assignor to Greenfield Paper Bottle Company, New York, N. Y., a Corporation of New Jersey. Filed Dec. 14, 1908. Serial No. 467,371.



1. As an article of manufacture a paper bottle embracing a body part and a bottom therefor; a neck and throat provided with box plaits, the edges of the plaits of the neck being parallel throughout the length thereof and the like edges of the plaits of the throat converging from the lower end of the neck to the lower end of the throat, substantially as described.

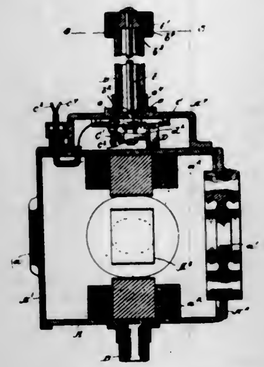
2. As an article of manufacture a bottle constructed of paper or analogous material, the neck and throat being formed at one end of a tube and with box plaits, the outer edges of which are parallel throughout the length of the neck, while the outer edges of the plaits of the throat converge from the bottom of the neck to the top of the body part; together with a bottom secured at the lower end of said body part, substantially as described.

3. A paper bottle having a box plaited neck and throat; a tubular body; and a cup-shaped bottom secured to the lower end of the body, the edges of the box plaits being parallel throughout the length of the neck and converging from the lower end thereof throughout the length of the throat, substantially as described.

4. As an article of manufacture a bottle constructed of paper and embracing a tubular body part, a bottom, a throat, a neck, and a strengthening ring for the neck; the neck and throat being provided with box plaits, the outer edges of which are parallel throughout the length of the neck, while the like edges of the plaits for the throat converge from the bottom of the neck to the top of the body part, the bottom being secured to the lower end thereof by concentric beads and the strengthening ring similarly secured to the neck, substantially as described.

5. As an article of manufacture a bottle constructed of paper and embracing a tubular body part, a bottom, a throat, a neck, and a strengthening ring for the neck; the neck and throat being provided with box-plaits, the outer edges of which are parallel throughout the length of the neck, while the like edges of the plaits for the throat converge from the bottom of the neck to the top of the body part, the bottom being secured to the lower end thereof by concentric beads and the strengthening ring similarly secured to the neck; together with a cup shaped cap adapted to act as a cover for the bottle, substantially as described.

940,311. COMBINATION SWITCH AND BLOW-OUT. WILLIAM C. HAFEMEISTER, Cleveland, Ohio, assignor to The Van Dorn Electric and Manufacturing Company, Cleveland, Ohio, a Corporation of Ohio. Filed July 12, 1907. Serial No. 383,384.



1. In a device of the character described, the combination of a fixed contact member, a movable contact member, a bellows provided with a tube directed to discharge a jet of air between the same, and an actuating member connected to operate both said movable contact member, and said bellows in one direction, said actuating member releasing said bellows after thus actuating the same, and means operating said bellows in the opposite direction.

2. In a device of the character described, the combination of a fixed contact member, a pivotal contact member, a bellows provided with a tube directed to discharge a jet of air between the same, a spring for compressing said bellows, and an actuating member connected both to rotate said second contact member and to expand said bellows against said spring and thereupon release the same, said actuating member having limited rotative movement with respect to said second contact member whereby said bellows is expanded before the breaking of the circuit by movement of said contact member.

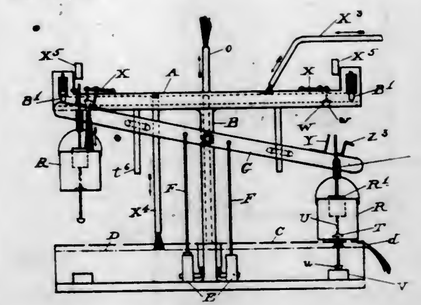
3. In a device of the character described, the combination of a fixed contact member, a movable contact member, and a cylinder and a piston therein, one of the same being provided with a tube directed to discharge a jet of air upon a point of contact between said members, an actuating member connected both to operate said movable contact member, and to move said piston and cylinder apart, said actuating member having limited movement with respect to said contact member, and said actuating member releasing said cylinder and piston after thus moving the same apart, and means operating to move said cylinder and piston together.

4. In a device of the character described, the combination of a fixed contact member, a pivotal contact member, an air cylinder and a piston therein, one of the same being provided with a tube directed to discharge a jet of air upon the point of contact between said members, a spring tending to move said cylinder and piston together, and an actuating member connected both to rotate said second contact member and to move said piston and cylinder apart against said spring, and thereupon release the same, said actuating member having limited movement with respect to said second contact member, whereby said cylinder and piston are thus moved apart before the breaking of the circuit by movement of said contact member.

5. In a device of the character described, the combination of a fixed contact member, a pivotal contact member, a bellows provided with a tube directed to discharge a jet of air between said contact members, a spring for compressing said bellows, and joint actuating means for said second contact member and said bellows, said means including an angular block connected with said contact member and having a limited rotative movement with respect thereto, and a reciprocable member connected with said bellows and resiliently held in contact with said angular block, rotation of the latter being effective to reciprocate said member outwardly prior to actuating said contact member.

[Claims 6 to 9 not printed in the Gazette.]

940,312. AUTOMATIC PUMPING SYSTEM. JOHAN HANSON, Auburn, Mass. Filed Sept. 29, 1908. Serial No. 455,266.



1. An automatic pumping device, provided with a base tank, a standard extending from said base tank, said standard supporting an elevated tank and a walking beam, buckets at each end of said beam, means to fill and empty said buckets, buffers mounted on vertical extensions on the extreme ends of said elevated tank, blocks attached to right angled levers, said right angled levers being fulcrumed on said vertical extensions, latches reciprocated by said right angled levers and intermediate brackets attached to the opposing ends of said walking beam, said brackets being elevated and extending over the ends of said latches and means for releasing said latches.

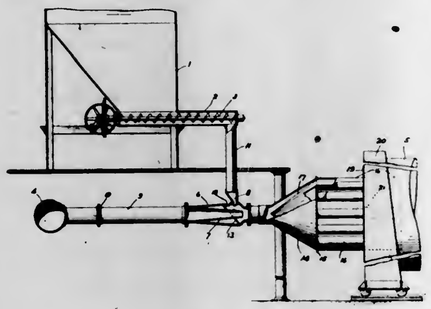
2. An automatic pumping device, provided with a base tank, a standard on said base tank, a walking beam and elevated tank mounted on said standard, receptacles provided with hangers pivotally connected to opposite ends of said walking beam, means to fill and empty said receptacles, floats provided with upwardly and downwardly projecting rods located within said receptacles, blocks disposed above the top rods of said floats, right angled levers attached to said blocks, and intermediate levers, latches pivoted to said intermediate levers, bolts with friction rollers thereon, pivoted to said latches, brackets attached to the opposite ends of said walking beam, said

brackets elevating and riding over said bolts, springs contacting said bolts, for the purpose as specified.

3. An automatic pumping device comprising upper and lower tanks, a standard connecting said tanks, pumps in the lower tank, a walking beam pivoted on said standard, rods connecting said walking beam with said pump, U-shaped brackets on opposite ends of said walking beam, projections on said brackets, receptacles supported by said brackets, floats in the receptacles, said floats having rods extending upwardly and downwardly therefrom, said upwardly extending rods passing through and guided by said projections, means for filling said receptacles from the upper tank, means whereby an end of said walking beam is retained in a raised position, means comprising said floats for releasing said walking beam, and means for emptying said receptacles into the lower tank.

4. An automatic pumping device comprising upper and lower tanks, a standard connecting said tanks, pumps in the lower tank, a walking beam pivoted on said standard, rods connecting said walking beam with said pumps, receptacles carried on the ends of said walking beam, the opposite ends of said upper tank having apertures with valve seats therein, plates pivotally mounted on said tank, depending rods on said plates, valves carried by said rods, said valves adapted to be seated in said valve seats, brackets carried by said walking beam adapted to contact said plates and raise said valve, whereby said receptacles are filled, and means for emptying said receptacles into said lower tank.

940,313. FUEL-FEEDER. WILLIAM H. HARDING, Philadelphia, and CHARLES M. SAEGER, Allentown, Pa. Filed Aug. 8, 1908. Serial No. 447,636.



1. A fuel feeder provided with means for establishing a stream consisting of a mixture of air and powdered fuel and with a plurality of straight tubes and having, intermediate of the tubes and means, an expanded mixing chamber communicating with the tubes and means, and the axes of the tubes being parallel with each other and with the axis of the means, whereby the air and fuel in traversing the feeder are thoroughly mixed and are discharged in lines parallel with the axis of the means for forming the stream of the air and fuel mixture.

2. A fuel feeder provided with means for establishing a stream consisting of a mixture of air and powdered fuel and with a plurality of straight tubes and having, intermediate of the tubes and means, an expanded mixing chamber communicating with the tubes and means, said chamber provided with means for sub-dividing the stream and the axes of the tubes being parallel with each other and with the axis of the means, whereby the mixture is discharged in lines parallel with the axis of the means for forming the stream of the air and fuel mixture, substantially as described.

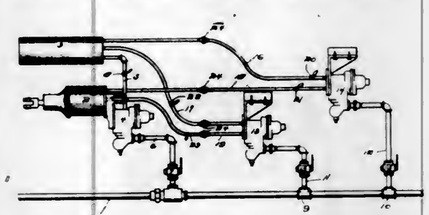
3. A fuel feeder comprising a casing provided with an inlet for powdered fuel and with an air nozzle terminating in advance of the inlet, a conical shell having a head and communicating at its apex with the discharge end of the casing and provided internally with a cone or pyramid having grooves or passages in its wall, and a series of tubes projecting from the head of the shell near the periphery and alined with the grooves, substantially as described.

4. A fuel feeder comprising a casing provided with an inlet for powdered fuel and with an air nozzle terminating in advance of the inlet, a conical shell having a head and communicating at its apex with the discharge end of the casing and provided internally with a conical or pyramidical deflector having grooves or passages in its wall, a series of tubes projecting from the head of the shell near its periphery and alined with the grooves in the deflector, and a hood plate through which the tubes pass and which is provided with an air opening, substantially as described.

5. In apparatus of the type recited the combination of a casing provided with a fuel inlet and an air nozzle, a pair of outwardly flaring shells between which the mixture of air and fuel passes, and a series of straight tubes projecting from said shells parallel with the axes thereof and through which the mixture is discharged, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

940,314. AIR-BRAKE SYSTEM. JOHN W. HICKS, Goldsboro, N. C. Filed Apr. 14, 1909. Serial No. 489,854.



1. An air brake system comprising a train pipe, auxiliary reservoir, brake cylinder, and a plurality of triple valves each having an independent communication with said train pipe, reservoir and cylinder.

2. An air brake system comprising a train pipe, auxiliary reservoir, brake cylinder, a plurality of triple valves, and an independent valve controlled communication between each triple valve and said pipe, reservoir and cylinder.

3. An air brake system comprising a train pipe, auxiliary reservoir, brake cylinder, independent triple valves, a separate pipe connection between each valve and the train pipe, a separate pipe connection between said valves and the reservoir, and a separate pipe connection between said valves and the brake cylinder.

4. An air brake system comprising a source of pressure supply, an auxiliary reservoir, a brake cylinder, and independent connections between the source of pressure supply and the reservoir and between the reservoir and the cylinder.

5. An air brake system comprising a train pipe, a plurality of feed pipes arranged in spaced relation thereon, a triple valve carried by each feed pipe, an auxiliary reservoir, a pipe connection between each triple valve and said reservoir, a braking cylinder, and an independent pipe connection between each triple valve and the braking cylinder.

[Claims 6 and 7 not printed in the Gazette.]

940,315. COMBINED POCKET-BOOK AND SAVINGS-BANK. EDMUND S. HOCH, Chicago, Ill. Filed Nov. 30, 1908. Serial No. 465,153.

1. A flat pocket-case having a compartment for sheets or cards, one of the side walls of which is made double so as to provide a savings compartment of considerable length and width but of little depth, a cover for said savings compartment, and a lock for said cover, there being also a coin slot leading to said savings compartment.



2. A pocket-case having a partition dividing it into two compartments each of which is arranged to receive sheets or cards, and a savings bank arranged in said partition, said bank being arranged to retain coins with their flat faces extending in the direction of the partition, and there being also a coin-receiving slot leading to said bank.

3. A pocket-case open at one end and having a longitudinal partition dividing it into two compartments closed at one end, said partition being hollow and having at the end adjacent to the closed ends of said compartments a movable cover provided with a coin slot, and a lock for said cover.

4. A pocket-case open at one end and having a longitudinal partition dividing it into two compartments closed at one end, said partition being hollow and having at the end adjacent to the closed ends of said compartment a movable cover provided with a coin slot, a lock for said cover, and a flap on said case for closing the open end thereof.

5. A pocket case open at one end and having a longitudinal partition dividing it into two compartments closed at one end, said partition being hollow and having at the end adjacent to the closed ends of said compartments a movable cover.

[Claim 6 not printed in the Gazette.]

940,316. ADVERTISING-CARD. WALTER O. HOLT, Providence, R. I., assignor to Livermore & Knight Company, Providence, R. I., a Corporation of Rhode Island. Filed Dec. 17, 1908. Serial No. 468,063.



1. In an advertising device, a base capable of reflecting light; a letter or symbol in parallelism with respect to said base and capable of reflecting light; and means interposed between the letter or symbol and base for varying at will the intensity of the shadow cast upon the base from said letter or symbol and caused by said light.

2. In an advertising device, the combination of a source of light; a base capable of reflecting said light; a letter or symbol permanently extending in parallelism with respect to said base and capable of reflecting said light; and shiftable means interposed between the letter or symbol and base for varying at will the width of the shadow cast upon the base from said letter or symbol and caused by said light.

3. In an advertising device, the combination of a base; an adjustable support mounted upon the base; a letter or symbol mounted on said support; and means for limiting the gravitative movement of the letter or symbol so mounted, when the base is extended in a vertical plane.

4. In an advertising device, the combination of a base; a letter or symbol extending parallel with said base; and a collapsible support fastened on one side to the base and on the opposite side to the letter and comprising a folded strip in the form of a parallelogram, with a diagonally extending stay piece within said parallelogram.

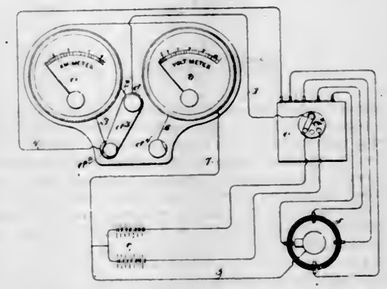
940,317. SIZING COMPOSITION. WILLIAM HOSKINS, La Grange, Ill. Filed Mar. 19, 1909. Serial No. 484,539.

1. A paper sizing compound, consisting of a mixture of saponified rosin, inert material and a rosin-soap-decomposing reagent, in suitable proportions, all the ingredients of the mixture being in dry, pulverulent condition, for the purpose set forth.

2. A paper sizing compound, consisting of a mixture of saponified rosin, inert material and a rosin-soap-decomposing reagent more slowly soluble than rosin-soap, in suitable proportions, all the ingredients of the mixture being in dry, pulverulent condition, for the purpose set forth.

3. A paper sizing compound, consisting of a mixture of saponified rosin, inert material, dehydrated alum or aluminum sulfate, in suitable proportions, all the ingredients of the mixture being in dry, pulverulent condition, for the purpose set forth.

940,318. ELECTRIC MEASURING INSTRUMENT. ADRIAN H. HOYT, Penacook, N. H. Filed Oct. 18, 1907. Serial No. 397,964.

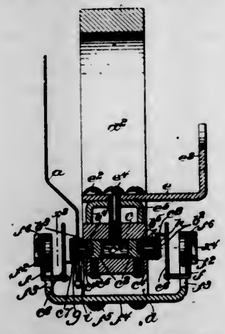


In an electric measuring device, the combination with a source of current; of an ammeter and a voltmeter mounted on a standard common to both; a circuit leading from said source of current through said ammeter; a low resistance switch arm connected with said circuit between the source of current and the ammeter; a switch terminal adapted to be bridged by said switch arm, said switch terminal being connected with the source of current to form a shunt circuit around the ammeter when the switch arm is in contact therewith; and a conductor leading from the source of current through the voltmeter and terminating in a switch contact adapted to be engaged by the switch member aforesaid, to complete a circuit through the voltmeter.

940,319. ELECTRIC MEASURING INSTRUMENT. ADRIAN H. HOYT, Penacook, N. H. Filed Jan. 20, 1908. Serial No. 411,700.

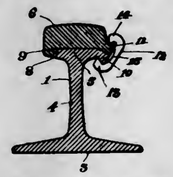
In an electric measuring instrument, the combination with a permanent magnet of the horse-shoe type; of an armature support comprising pole-pieces adapted to be secured to the inner sides of the permanent magnet; upper and lower members joining said pole-pieces; a core connected with one of said members; bearings located in the ends of said core; an armature frame surrounding said core and provided with pivots to engage said bearings; a

pointer connected to said armature frame; an arm connected with said frame; a coil-spring connected at one end with said arm and at the other end with one of the mem-



bers which join the pole-pieces; and an armature winding extending around said armature frame, outside of the parts connected therewith.

940,320. RAILROAD-RAIL. JOSEPH HUNTINGTON, Philadelphia, Pa. Filed Sept. 24, 1909. Serial No. 519,412.



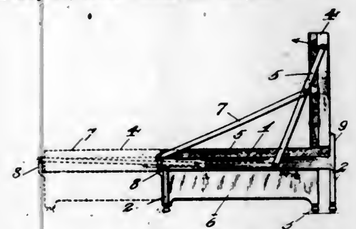
1. In a railroad rail, a base, a web, a head, a removable tread portion resting on the head, one side of said head and one side of said tread portion being provided with interlocking parts, the other side of said head being provided with a downwardly-extending rib and the corresponding side of said tread portion being provided with an upwardly-extending rib, and a securing member having one end engaged with one of said ribs and the other end bent into engagement with the other of said ribs.

2. In a railroad rail, a base, a web, a head, a removable tread portion resting on the head, one side of said head and one side of said tread portion being provided with interlocking parts, the other side of said head being provided with a downwardly-extending rib and the corresponding side of said tread portion being provided with an upwardly-extending rib, and a securing member having one end engaged with one of said ribs and the other end bent into engagement with the other of said ribs, said member being provided with an undercut portion affording a space between the body of said member and an adjacent part of the rail.

3. In a railroad rail, a base, a web, a head, a removable tread portion resting on the head, one side of said head being provided with a protecting rib and one side of said tread portion being provided with a groove fitted to said rib, the other side of said head being provided with a downwardly-extending rib and the corresponding side of said tread portion being provided with an upwardly-extending rib, and a securing member having one end engaged with said downwardly extending rib and the other end bent into engagement with said upwardly-extending rib.

4. In a railroad rail, a base, a web, a head, a removable tread portion resting on the head, one side of said head and one side of said tread portion being provided with interlocking parts, the other side of said head being provided with a downwardly-extending rib and the corresponding side of said tread portion being provided with an upwardly-extending rib, the union of said head and said tread portion between said ribs being below the union of the main body of said head and the main body of said tread portion, and a securing member having one end engaged with one of said ribs and the other end bent into engagement with the other of said ribs.

940,321. SOFA-BED. LOUIS G. IHRIG, Tacoma, Wash. Filed May 11, 1908. Serial No. 432,323.



1. A sofa bed comprising a base part provided at its forward and rear edges with legs, a second part normally arranged vertically at the rear edge of said base part, straight arms pivoted to said base part and to the upper portion of said second part for supporting said second part for swinging to a horizontal position beyond the forward edge of said base part, said base part being provided at its rear edge with a fixed vertical extension to prevent outward swinging of the lower of said second part, a supporting means arranged beneath said base part for sliding outwardly beneath said second part when the same is arranged horizontally, lugs on the outer side edge of said supporting means for limiting its movement inwardly beneath said base part, and links pivoted to said lugs and to the upper portions of said arms.

2. A sofa bed comprising a base part provided at its rear edge with a fixed vertical extension, a second part normally arranged vertically at the rear edge of said base part and bearing against the vertical extension thereof, legs for said base part, arms pivoted to the upper portion of said second part and to said base part for supporting said second part for swinging to a horizontal position beyond the forward edge of said base part, a supporting means arranged beneath said base part for sliding outwardly beneath said second part when the same is arranged in a horizontal position, and links pivoted to the outer edge portion of said supporting means and to said arms, said links being normally inclined upwardly in a rearward direction to serve as arms for said base part.

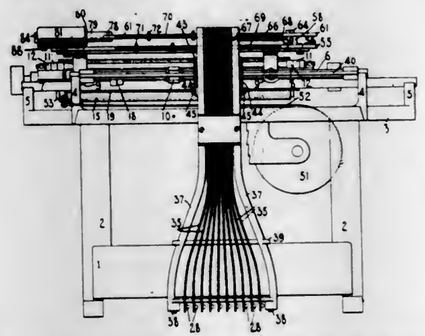
940,322. TYPE-WRITING MACHINE. OSCAR L. INGHAM, Walla Walla, Wash., assignor to Union Typewriter Company, Jersey City, N. J., a Corporation of New Jersey. Filed Jan. 6, 1908. Serial No. 409,500.

1. In a typewriting machine and tabulating mechanism, the combination of a carriage, tabulator stops for arresting the carriage, and impact means which are brought into operation before the tabulator stops co-act, said impact means including a cushion supported device.

2. In a typewriting machine and tabulating mechanism, the combination of a carriage, tabulator stops for arresting the carriage, an air cushion, and impact means coöperating therewith to absorb the shock of the carriage before said stops are brought into coöperative relation.

3. In a typewriting machine and tabulating mechanism, the combination of a carriage, tabulator stops for arresting the carriage, an air cushion, impact means coöperating therewith to absorb the shock of the carriage before said stops are brought into coöperative relation, and means for regulating the effect of said air cushion.

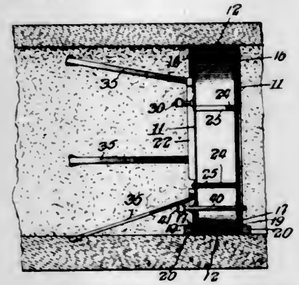
4. In a typewriting machine and tabulating mechanism, the combination of a carriage, tabulator stops for arresting the carriage, impact means which are brought into operation before the tabulator stops co-act, said impact means including a cushion supported device, and means for regulating the effect of said impact means.



5. In a typewriting machine and tabulating mechanism, the combination of a carriage, tabulator stops for arresting the carriage, a dash-pot, and impact means coöperative with said dash-pot, said impact means being thrown into operation before said stops are brought into engagement.

[Claims 6 to 44 not printed in the Gazette.]

940,323. BULKHEAD FOR TUNNELS AND THE LIKE. GEORGE W. JACKSON, Chicago, Ill. Filed Apr. 28, 1908. Serial No. 429,620.



1. A bulk-head for tunnels and the like, comprising a hollow frame, or casing, which proximates in form and dimensions the cross section of the bore of the tunnel and provided with a hollow, inflatable rim in open communication with the casing, and means for admitting an inflating medium to the casing and to the rim for expanding the rim outwardly against the tunnel walls.

2. A bulk-head for tunnels and the like comprising a frame or casing consisting of two rigidly connected plates which proximate in form and dimensions the cross section of the bore of the tunnel, a marginal rim adapted for contact with the tunnel walls comprising a flexible strip attached at its margins to the margins of the plates and arranged to be supported by said plates immediately adjacent to the tunnel walls, and means for expanding the rim outwardly against the tunnel walls.

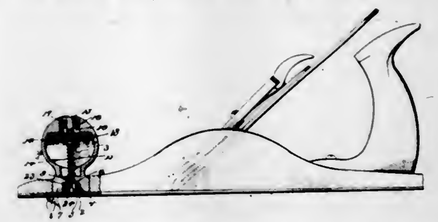
3. A bulk-head for tunnels and the like comprising an imperforate frame which proximates in form and dimensions the bore of the tunnel and a flexible, expansible, hollow rim adapted for contact with the tunnel walls and supported immediately adjacent to the tunnel walls by the frame, and braces arranged to extend between one side of the frame and the bottom and side walls of the tunnel, substantially as specified.

4. The combination with a bulk-head for tunnels and the like provided with an expansible rim adapted for engagement with the wall of the tunnel, and flanged bars attached to the lower side of said bulk-head and affording means for supporting the bulk-head in a vertical position.

5. A bulk-head for tunnels and the like comprising a hollow frame consisting of rigidly connected side plates and an inflatable rim comprising a flexible strip overlapping at its margins the margins of said side plates, and reinforcing bars attached to said plates and between which and the plates the margins of said rim strip are clamped.

[Claim 6 not printed in the Gazette.]

940,324. OIL-CUP FOR PLANES. DAVID JAMES, Coffeyville, Kans. Filed June 22, 1907. Serial No. 380,239.



1. The combination with a plane, of an oil cup attached to the upper face of the plane and in communication with the lower face of the plane, a valve controlling the flow of oil from the cup, and a plug carried by the valve for preventing the communication from being filled with dirt.

2. The combination with a plane, of an oil cup attached to the upper face of the plane and in communication with the lower face of the plane, the cup having a filling opening therein, a valve controlling the upper end of the lower communication, a plug carried by the valve for closing the lower end of said opening, a valve stem carried by the valve and extending within the filling opening, and a head within the filling opening for closing the same and adapted to operate the valve stem.

3. The combination with a plane, of an oil cup attached to the upper face of the plane and in communication with an opening through the plane, the oil cup having a filling opening, a head closing said opening and having a screw-threaded sleeve extending within the oil-cup, an elastic washer carried by the sleeve and engaging the walls of the filling opening, a nut on said sleeve for expanding the washers, a valve stem screwed within the sleeve, a valve carried by the stem and controlling the opening through the plane, and means carried by the stem for preventing the last named opening from being filled with dirt.

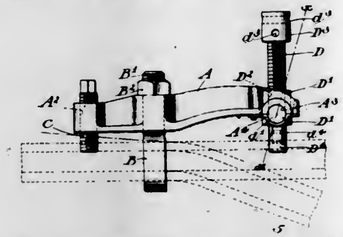
4. The combination with a plane, of an oil cup attached to the upper face of the plane and in communication with an opening through the plane, the oil-cup having a filling opening, a head closing said opening and having a recess in its upper face, a screw carried by the oil-cup and having its head extending within the recess, the said head having a cut-away portion to correspond with the curvature of the screw-head, a sleeve carried by the head and extending within the oil cup, an elastic washer carried by the sleeve and engaging the walls of the filling opening, a nut on said sleeve for expanding the washer, a valve stem screwed within the sleeve, a flange surrounding the opening through the plane and forming a valve seat on its lower face, a valve carried by the stem, a spring surrounding the stem between the sleeve and the flange and normally holding the valve stem upward with the valve seated, and a screw sleeve screwed upon the lower end of the valve stem and normally filling the lower end of the opening extending through the plane for preventing the same from being filled with dirt.

5. The combination with a plane, of an oil cup attached to the upper face of the plane and in communication with the lower face thereof, a vertically disposed valve stem within the oil cup and having a valve carried thereby and working in combination with a valve seat within the cup,

and a plug carried by the lower end of the valve stem and closing the communication between the oil cup and the lower face of the plane.

[Claim 6 not printed in the Gazette.]

940,325. RAIL-BENDING TOOL. JAMES R. JAMES, Ridley Park, Pa. Filed May 3, 1909. Serial No. 493,725.

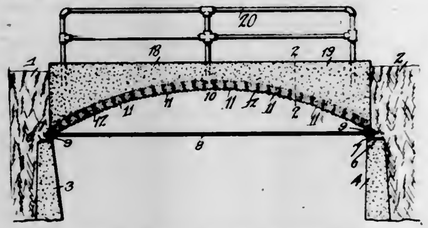


1. A rail bending tool comprising a beam provided with a centrally disposed grip, a set screw threaded to one end of the beam, a trunnioned head and a bending screw adapted thereto at the opposite end of the beam.

2. A rail bending tool, comprising a beam having a grip for engaging a rail, said grip being adapted to turn in the beam and having a nut to prevent it from turning, a set screw adapted to a threaded opening in one extremity of the beam, a head fulcrumed to the other extremity of the beam and a bending screw threaded to said head.

3. A rail bending tool, comprising a beam, a grip for engaging a rail adapted to an opening in the beam in which it is normally free to turn, means for securing the grip against turning, a set screw threaded to one of the extremities of the beam, a head fulcrumed to the other extremity of the beam, a bending screw threaded to said head and a block swiveled to the end of the bending screw.

940,326. BRIDGE. JOSEPH F. KASPAR, Prague, Nebr. Filed May 4, 1909. Serial No. 493,806.



1. A structure of the character described comprising transversely extending plastic supporting bars arranged in an arch shape, a trough carried by each bar and having interlocking and nested engagement with the adjoining trough and also with the adjoining bar, plastic side members supported by said bars, and a filling of earth between said side members.

2. A structure of the character described comprising transversely extending plastic supporting bars arranged in an arch shape, a sheet metal trough provided with corrugations and surrounding each of said bars whereby each trough has an interlocking and nested engagement with its bar and also with the adjoining trough and bar, plastic side members supported by said bars, and a filling of earth between said side members.

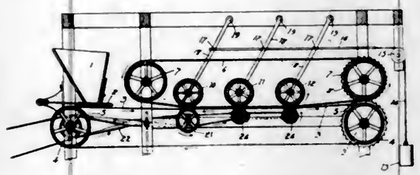
3. A bridge comprising supporting pillars, transversely extending plastic bars carried thereby, a trough partially surrounding each bar and provided with corrugations for interlocking and nested engagement with its bar and the adjoining troughs and bars, side members supported by said bars, and a filling of earth between said side members.

4. A bridge comprising a flooring formed of transversely arranged arch shaped plastic bars, a sheet metal trough partially surrounding each bar and having an interlocking and nested engagement with its bar and the adjoining bars and troughs, vertically arranged side members formed of plastic material and supported by said bars, said side members having their top surfaces arranged in a horizontal plane, and a filling of earth carried by said flooring between said side members the top surface of which is in the same plane as the tops of the side members.

5. A bridge comprising a plurality of plastic bars, means for retaining the same in an arch shape, a sheet-metal trough carried by each bar and having interlocking and nested engagement therewith and with the adjoining bars and troughs, side members supported by said bars, said side members being of plastic material and provided with horizontal upper surfaces, and a road-bed for said bridge formed of earth the top surface of which is in the same plane as the top surfaces of said side members.

[Claim 6 not printed in the Gazette.]

940,327. RAISIN-SEEDING MACHINE. WILLIAM H. KNAPP, Fresno, Cal., assignor of one-half to William Henry McKenzie, Fresno, Cal. Filed Nov. 15, 1907. Serial No. 402,236.



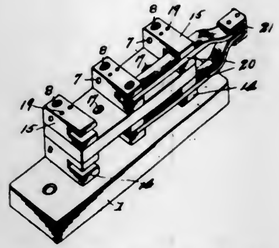
1. A raisin seeding machine comprising endless wire bands, drums around which said bands extend in close proximity to each other to form a conveyer between said drums, means for rotating said drums, means for feeding raisins on to said conveyer, means for forcibly pressing the raisins against said conveyer to protrude the seeds of the raisins between the wires thereof, means for cutting the skins of the raisins over the protruded seeds and means for removing the seeds from the raisins, substantially as described.

2. A raisin seeding machine comprising endless wire bands, drums around which said bands travel in close proximity to each other to form a conveyer between said drums, a belt above and in close proximity to said conveyer, means for feeding the raisins between said conveyer and belt, means for forcibly pressing the belt against the conveyer to protrude the seeds of the raisins through the wires of the belt, means for cutting the skins of the raisins, and means for removing the seeds from said raisins, substantially as described.

3. A raisin seeding machine comprising endless wire bands, drums around which said bands travel in close proximity to each other to form a conveyer between said drums, a belt above and in close proximity to said conveyer, means for feeding the raisins between said conveyer and belt, means for forcibly pressing the belt against the conveyer to protrude the seeds of the raisins through the wires of the belt, comprising rollers above said belt, obliquely extending levers attached to said rollers, a link attached to said levers, and a weight attached to said link, means for cutting the skins of the raisins, and means for removing the seeds from said raisins, substantially as described.

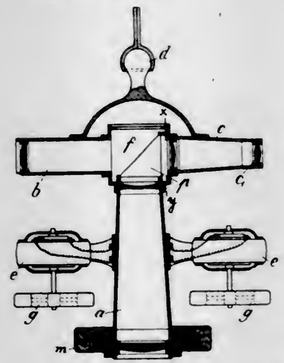
4. A raisin seeding machine comprising endless wire bands, drums around which said wire bands extend in close proximity to each other to form a conveyer between said drums, means for rotating said drums, means for feeding raisins on to said conveyer, means for forcibly pressing the raisins against said conveyer to protrude the seeds of the raisins between the wires thereof, means for cutting the skins of the raisins over the protruded seeds, comprising a wheel having knives therein and means for revolving said wheel, and means for removing the seeds from the raisins, substantially as described.

940,328. ELECTRIC SWITCH. OTTO M. KNOBLOCK, South Bend, Ind. Filed Mar. 6, 1907. Serial No. 360,969.



A switch comprising an insulating base, an upper and lower set of contact blocks, each provided with a slot at one end extending parallel to the face of the base, a plurality of pivoted blades adapted to engage the contact blocks of both sets, and an intermediate insulating member for insulating one set from the other said intermediate member and the lower set of contact blocks being secured to the insulating base independently of each other, and the upper set of contact blocks being secured to the intermediate insulating means, whereby the upper set of contact blocks with the intermediate insulating member, can be removed independently of the lower set of contact blocks.

940,329. OPTICAL INSTRUMENT FOR DETERMINING THE DIRECTION OF TRAVEL OF AIR-SHIPS AND THE LIKE. OTTO KRELL, Charlottenburg, Germany, assignor to Siemens-Schuckert-Werke G. M. B. H., Berlin, Germany, a Corporation of Germany. Filed Aug. 27, 1908. Serial No. 450,553.



1. An optical instrument of the character described having means for observing simultaneously a point below and a point on the horizon, and lines within the instrument coinciding with the direction of the apparent motion of the point below when such direction coincides with the point on the horizon.

2. An optical instrument comprising two telescopes, an eye-piece tube common to both, and a plurality of lines in its field of vision, one of said telescopes permitting observation of a point below, and the other telescope permitting observation of a point on the horizon and said lines coinciding with the direction of the apparent motion of the point below when such direction coincides with the point on the horizon.

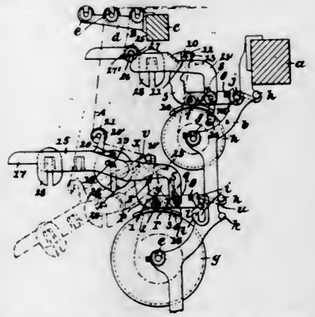
3. In an optical instrument, the combination of a frame, a horizontal objective-tube mounted thereon, a vertical objective-tube on said frame, an eye-piece tube on said frame, which is common to said objective-tubes, and a glass prism in said frame having a plurality of lines thereon occupying part of the field of vision in said eye-piece tube, said lines being arranged in vertical planes parallel to the axis of said horizontal objective-tube.

4. In an optical instrument, the combination, with cardanic suspension means, of a frame, a horizontal objective-tube mounted thereon, a vertical objective-tube on said frame, a common eye-piece tube on said frame, and a glass prism in said frame having a plurality of lines thereon occupying part of the field of vision in said eye-piece tube, said lines being arranged in vertical planes parallel to the axis of said horizontal objective-tube.

5. In an optical instrument, the combination, with cardanic suspension means, of a frame, a horizontal objective-tube mounted thereon, a vertical objective-tube on said frame, an eye-piece tube on said frame, common to said objective-tubes, a glass prism in said frame having a plurality of lines thereon occupying part of the field of vision in said eye-piece tube, said lines being arranged in vertical planes parallel to the axis of said horizontal objective-tube, and a gyroscope mounted on said vertical objective-tube.

[Claims 6 and 7 not printed in the Gazette.]

940,330. LET-OFF MECHANISM FOR NARROW-WARE LOOMS. GEORGE W. KUENNETH, Paterson, N. J. Filed May 6, 1908. Serial No. 431,128.



1. In a let off mechanism for looms, the combination, with a suitable support and a warp roll, of a brake-lever for the warp-roll, and a controlling lever for the brake-lever, the fulcrum for the controlling lever forming an open bearing and one of said levers comprising means for locking the controlling lever against displacement from its fulcrum in the normal position of said lever, substantially as described.

2. In a let-off mechanism for looms, the combination, with a suitable support and a warp roll, of a brake lever for the warp-roll and a controlling lever for the brake-lever fulcrumed in the brake-lever, the fulcrum for the controlling lever forming an open bearing and one of said levers comprising means for locking the controlling lever against displacement from its fulcrum in the normal position of said levers, substantially as described.

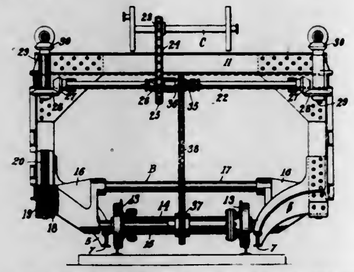
3. In a let-off mechanism for looms, the combination with a suitable support and a warp roll, of a brake lever for the warp-roll and a controlling lever for the brake-lever, the fulcrum for the controlling lever forming an open bearing and said levers having the one a curved face and the other a projection opposed to each other in the normal positions of said levers but adapted to clear each other in the abnormal positions of said levers, substantially as described.

4. In a let-off mechanism for looms, the combination, with a suitable support and a warp-roll, of a lever structure exerting a braking control on the warp-roll and fulcrumed in said support, the fulcrum forming an open bearing and said lever structure and the support having parts engageable with each other to limit the movement of said structure on its fulcrum in the direction for braking, substantially as described.

5. In a let-off mechanism for looms, the combination, with a suitable support and a warp-roll, of a lever structure exerting a braking control on the warp-roll and fulcrumed in said support, the fulcrum forming an open bearing, and said lever structure and said support having the one a hook-shaped tail and the other a stud engageable with each other to limit the movement of said structure on its fulcrum in the direction for braking, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

940,331. LOG-LOADING APPARATUS. AUGUST W. KURZ, Cleveland, Ohio. Filed June 28, 1905. Serial No. 267,336.



1. A log loading apparatus comprising a stationary frame, a plurality of movable wheel-supporting frames mounted therein and screw shafts for raising and lowering said wheel-supporting frames.

2. The combination of a frame, having inwardly inclined base members adapted to form a fixed support for the frame, a plurality of vertically movable wheel-supporting frames, traction wheels carried by the movable frames, and means for raising and lowering such movable frames.

3. The combination of a frame, inwardly inclined base members forming a fixed support for the frame, movable wheel-supporting frames, traction wheels carried by the movable frames, vertically disposed shafts connected with the movable frames, and means for actuating said shafts to raise and lower the movable frames.

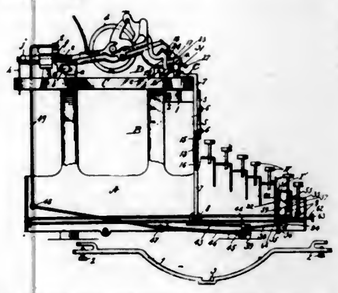
4. The combination of a frame having a plurality of vertically disposed posts or supports, a shaft passing through each of said posts, wheel-supporting frames in engagement with said shafts, wheels carried by said supporting frames, and means for actuating the shafts to raise and lower the wheel-supporting frames with their wheels.

5. The combination of a stationary frame, a plurality of wheel-supporting frames mounted therein, vertically disposed members engaging with the wheel-supporting frames, means for actuating said members to raise and lower the frames and means adjacent to the vertically disposed members for stiffening and strengthening the same.

[Claims 6 to 11 not printed in the Gazette.]

940,332. TYPE-WRITING MACHINE. CHARLES S. LABOFISH, Washington, D. C., assignor to Union Typewriter Company, Jersey City, N. J., a Corporation of New Jersey. Filed Oct. 15, 1902. Serial No. 127,412.

1. In a typewriting machine, the combination of printing mechanism, a series of rock shafts for actuating said printing mechanism, a series of finger keys for moving said rock shafts, tabulating mechanism, and means for shifting the tabulating mechanism into and out of operative relation to said finger keys, a shifted part of said tabulating mechanism being moved into the paths of depression of said finger keys so as to be directly actuated by said finger keys.



2. In a typewriting machine, the combination of printing mechanism, finger keys therefor, tabulating devices and a bar mounted for movement in two directions transverse to the length thereof and controlled by said finger keys, and operative connections between said bar and certain of said tabulating devices to transmit movement thereto.

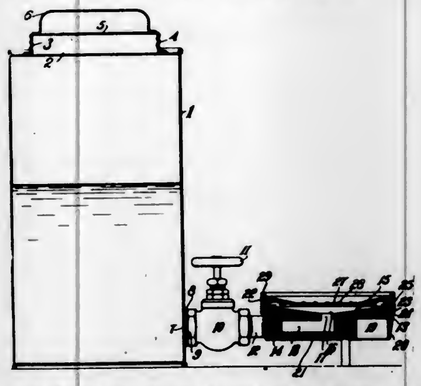
3. In a typewriting machine, the combination of printing mechanism, finger keys therefor, tabulating devices, a bar operatively connected to said tabulating devices, and means for moving said bar in a direction transverse to its length to effect a movement of the bar into and out of cooperative relation with the finger keys.

4. In a typewriting machine, the combination of printing mechanism, finger keys therefor, tabulating devices, a swinging bar operatively connected to said tabulating devices, means for normally maintaining the bar out of operative relation with the finger keys, and means for moving said bar in a direction transverse to its length to effect a movement of the bar into coöperative relation with the finger keys.

5. In a typewriting machine, the combination of a carriage, mechanism for releasing said carriage, printing mechanism, finger keys therefor, tabulating devices, a swinging bar operatively connected to said tabulating devices and carriage releasing mechanism, means for normally maintaining the bar out of operative relation with the finger keys, and means for moving said bar in a direction transverse to its length to effect a movement of the bar into coöperative relation with the finger keys.

[Claims 6 to 37 not printed in the Gazette.]

940,333. CEMENT-POT. HORACE W. LAWSON, Nashua, N. H. Filed Dec. 5, 1908. Serial No. 466,108.

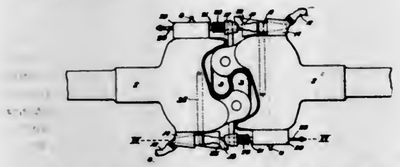


1. A cement pot, having, in combination, a reservoir, a brush pan, a closed conduit connecting the reservoir and brush pan, and a cover for the pan having its outer portion imperforate and its central portion in a restricted area provided with a group of small perforations.

2. A cement pot, having in combination, a reservoir, a brush pan, a closed conduit connecting the reservoir and brush pan, a cover for the pan having a dipping basin provided with non-perforated sides and a group of small perforations in its bottom, substantially as described.

3. A cement pot, comprising, a brush pan having a cement chamber, a removable cover therefor having a depressed dipping basin formed with non-perforated sides and a group of perforations in the bottom of said basin leading to the cement chamber, substantially as described.

940,334. COUPLING MECHANISM. WILLIAM D. LEFTWICH, Wilkinsburg, Pa. Filed Jan. 11, 1909. Serial No. 471,725.



1. In a car coupler, the combination with the main coupler head provided with a swinging jaw and a terminal element at one side having a plurality of hose connections adapted to receive and make connection with a co-acting element of another similar coupler, of a transversely arranged sliding locking wedge extending through each coupler head adapted to tighten said elements together, said locking wedge having shoulders arranged to be engaged by the terminal of the inner arm of the coupling jaw, substantially as set forth.

2. In a car coupler, the combination with the main coupler head provided with a swinging jaw and a terminal element at one side having a plurality of hose connections adapted to receive and make connection with a co-acting element of another similar coupler, of a transversely arranged sliding locking wedge extending through each coupler head adapted to tighten said elements together, said locking wedge having shoulders arranged to be engaged by the terminal of the inner arm of the coupling jaw, and a retracting spring arranged to withdraw the locking wedge from engagement, substantially as set forth.

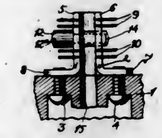
3. In a car coupler, the combination of a main coupler head provided with a swinging jaw, a hose coupling terminal element at one side thereof provided with a plurality of hose connections adapted to make connection with a co-acting terminal of another similar coupler and having a tapered guiding socket, a fluid-conducting terminal element at the other side of the coupler head provided with a tapered guiding projection and a guide stem loosely coupled therewith, a plurality of hose connections for said terminal element, a guiding housing mounted on the coupler head engaging said stem and provided with a cushioning spring, a transversely arranged sliding locking wedge adapted to engage and couple together one of said conducting terminal elements with the terminal element of a co-acting coupler head, said locking wedge being mounted transversely in the interior of the main coupling head and having shoulders adapted to be engaged by the tail of the coupling jaw, and a spring for normally holding the locking wedge in retracted position, substantially as set forth.

4. In a car coupler, the combination with the main coupler head provided with a guide stem housing, of a terminal connecting element having a plurality of hose connections, a ball-and-socket joint therefor, a carrying rod mounted in the housing and provided with a sliding lock adapted to interengage with a portion of the ball-and-socket joint mechanism to hold the terminal element rigidly thereon, and adapted to retract from engagement therewith to provide for flexibility of the ball-and-socket joint, substantially as set forth.

5. In a car coupler, the combination with the main coupler head provided with a guide stem housing, of a terminal connecting element having a plurality of hose connections, a ball-and-socket joint therefor, a carrying rod mounted in the housing and provided with a sliding lock adapted to interengage with a portion of the ball-and-socket joint mechanism to hold the terminal element rigidly thereon, and adapted to be retracted from engagement therewith to provide for flexibility of the ball-and-socket joint, said sliding lock having shouldered portions adapted to be engaged by the inner terminal of the coupler jaw for actuating it, substantially as set forth.

[Claim 6 not printed in the Gazette.]

940,335. BINDING-POST. HENRY E. LEPPERT, New Britain, Conn., assignor to The Hart Manufacturing Company, Hartford, Conn., a Corporation of New Jersey. Filed Feb. 25, 1909. Serial No. 479,930.



1. In a binding post, the combination of a stationary member having two opposing walls, a screw-threaded member projecting from the inside of one of said walls, a screw-threaded member passing freely through the other wall and adapted to clamp a conductor against the inside of said first mentioned wall, one of said members being free to revolve and the other being fixed against a movement of revolution.

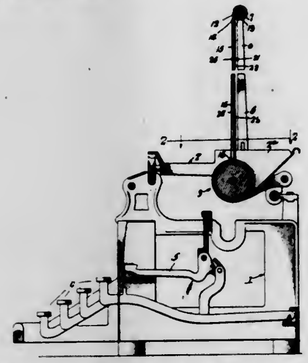
2. In a binding post, the combination of a stationary member having two opposing walls, a screw-threaded member projecting from the inside of one of said walls and free to revolve relatively thereto, a second screw-threaded member having its inner face between said walls but held from a movement of revolution relatively to said stationary member, said second member being adapted to clamp a conductor against the inner face of said first mentioned wall.

3. In a binding post, the combination of a stationary member having two opposing walls each having an opening, a revoluble screw passing through the opening in one wall, the head of the screw being adapted to engage the outer side of said wall, a screw-threaded member passing through the opening in the other wall and free to move longitudinally therethrough, said member being adapted to clamp a conductor against the inside of said first mentioned wall, the screw-threaded member and the opening through which it passes being of irregular shapes.

4. In a binding post, the combination of a stationary member having two opposing walls each having an opening, a revoluble screw passing through the opening in one wall, the head of the screw being adapted to engage the outer side of said wall, a screw-threaded member passing through the opening in the other wall and free to move longitudinally therethrough and adapted to clamp a conductor against the inside of said first mentioned wall, the screw-threaded member and the opening through which it passes being of irregular shapes, said screw-threaded member being elongated and having its greatest dimension at an angle to the axis of the stationary member.

5. The combination of a stationary member having a vertical wall and horizontal securing lugs, a screw passing through said fixed member and having a slotted head bearing against one side of said wall, a member having screw-threads engaging with the screw-threads of said screw, said member being held from revolution by said stationary member, but free to move laterally thereto so as to clamp a conductor against the other side of said wall, and a base having a perforation parallel to said vertical wall and in line with the space between said wall and said member.

940,336. ATTACHMENT FOR TYPE-WRITERS. EDWARD Z. LEWIS, Chicago, Ill. Filed Sept. 18, 1909. Serial No. 518,315.



1. In a typewriter, in combination with a platen, a carbon ribbon in the form of an endless belt, and means for attaching one loop of said ribbon to the platen.

2. In a typewriter, in combination with a platen, a carbon ribbon in the form of an endless belt with one loop attached to the platen, both sections of the ribbon being adapted to be wound about the platen.

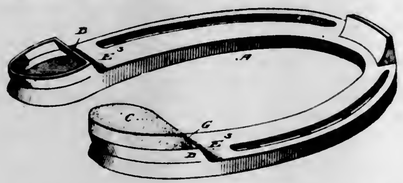
3. In a typewriter, in combination with a platen, a carbon ribbon comprising superimposed sections attached to said platen and adapted to be wound thereupon.

4. In a typewriter, in combination with a platen, a carbon ribbon in the form of an endless belt with one loop of the belt attached to the periphery of the platen, and means for maintaining said belt in tension.

5. In a typewriter, in combination with a platen, a carbon ribbon in the form of an endless belt with one loop attached to the platen, means for maintaining said belt in tension, and both sections of the ribbon being adapted to be wound about the platen.

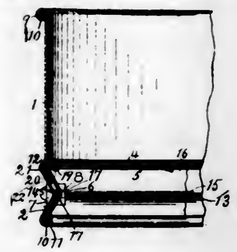
[Claims 6 to 13 not printed in the Gazette.]

940,337. HORSESHOE. GUSTAV LOEFFLER, Tampa, Fla. Filed Jan. 8, 1909. Serial No. 471,299.



A horseshoe comprising a metallic body having a major portion and also having heel sockets each of which is made up of an undercut forward end wall, a correspondingly inclined portion E^3 depending below the underside of said major portion, and back and side walls also depending below the major portion and each having a lower inwardly inclined portion and an upper outwardly inclined portion, and elastic pads disposed in the said sockets of the body and also disposed below and bearing against the edges of the side and back walls of the sockets, and having grooves in the upper portions of their rear ends and sides corresponding in cross-sectional shape and size to the inwardly and outwardly inclined portions of the back and side walls of the sockets and snugly receiving the said portions and also having forward ends arranged against the undercut forward end walls of the sockets and also against the inner sides of the extended portions E^3 and inclined throughout correspondingly to said end walls and the inner sides of said extended portions E^3.

940,338. RIDDLE OR SIEVE. FRANK MARTIN and MARTIN V. HASKINS, Worcester, Mass. Filed Mar. 25, 1908. Serial No. 423,112.



1. The combination, in a device of the class specified, of a rim having a grooved part to form an interior groove and having an interior ridge which starts from the base of the aforesaid grooved part of said rim and extends downwardly and inwardly and then downwardly and outwardly, a compressible binder inside of such rim and similarly formed to said ridge, a flanged foraminous bottom adapted to be held in said groove by such binder with the flange of said bottom between the downwardly and inwardly extending portions of said binder and rim, and means to fasten the binder and rim together.

2. The combination, in a device of the class specified, of a rim having an interior inwardly directed ridge substantially V-shaped in cross-section, a compressible binder in such rim, such binder having a ridge like the aforesaid ridge of said rim, a flanged foraminous bottom adapted to rest on such binder with its flange between downwardly and inwardly extending portions of said binder and rim, and means to fasten the binder to the rim, such means passing through and bearing against said ridges at a point in the bends or elbows thereof.

3. The combination, in a device of the class specified, of a perforated rim, a compressible binder having overlapping and slotted terminals in such rim, a flanged foraminous bottom adapted to rest on such binder with its flange between said binder and the adjacent wall of said rim, and means to fasten the binder to the rim, such means comprising a screw passing through the rim perforation and the binder slots and nuts respectively outside of the rim and inside of the binder on said screw.

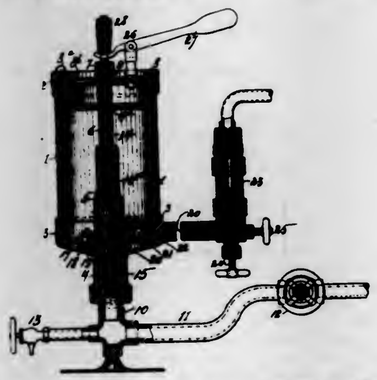
4. The combination, in a device of the class specified, with a perforated rim having an interior ridge, a compressible binder in such rim, said binder having overlapping and slotted terminals and a ridge similar to that in the rim, the perforation in the rim and the slots in the binder being in the bends or elbows of the ridges, and a flanged foraminous bottom adapted to rest on such binder with its flange between downwardly and inwardly extending portions of said binder and rim, of a screw passing through said perforation and slots, and nuts on said screw capable of closely and firmly embracing the parts of said ridges with which said nuts contact.

5. The combination, in a device of the class specified, of a rim having an interior bead at the base and an interior inwardly-directed ridge above substantially V-shaped in cross-section, a compressible binder in such rim, such binder also being substantially V-shaped in cross-section like the aforesaid ridge of said rim, a flanged foraminous bottom adapted to rest on such binder with its flange between the downwardly and inwardly inclined parts of said binder and rim, and means to fasten the binder to the rim.

[Claims 6 and 7 not printed in the Gazette.]

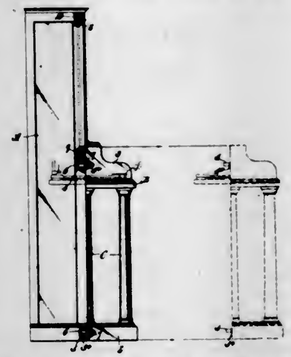
940,339. LUBRICATOR. JAMES A. MARTIN, Toledo, Ohio; Charles E. Martin administrator of said James A. Martin, deceased. Filed Sept. 19, 1905. Serial No. 279,113.

1. In a device of the described character, an oil reservoir, having a downwardly projecting central extension and an upwardly projecting central extension said two extensions having a common axial bore, the bore of the downward extension being larger than the bore of the upward extension, a tube connected with the upper extension and leading to the top of the reservoir, a piston rod in said tube, a piston in the bore of smaller diameter connected with said piston rod, a plunger in the bore of larger diameter connected with said smaller plunger, there being a duct leading from the reservoir to the chamber of said pistons, an inwardly opening valve in said duct, there being also a duct leading from said piston chamber, an outwardly opening valve in said latter duct, and means for operatively connecting the latter duct with the steam space of an engine cylinder.



2. In a lubricator, an oil-reservoir including a member forming a bottom closure for the reservoir, there being a downwardly projecting central extension upon said member having an axial bore adapted for connection with the steam-space of an engine-cylinder, there being also an upwardly projecting central extension upon said member having an axial bore of less diameter than the bore first mentioned, a tube connected with the bore of the upper extension and extending upwardly through the oil-reservoir, a piston in each of said two bores, and a piston rod in said tube connected with said two pistons.

940,340. UPRIGHT-PIANO CASE. CHARLES MAYER, St. Louis, Mo. Filed Dec. 14, 1908. Serial No. 467,424.



1. A piano case comprising a main portion in which the action and other parts are arranged, a detachable portion which carries the key-board, devices on one of said portions having heads that project into openings in the other portion of the case and coöperate with shoulders thereon to retain the detachable portion of the case in operative position, and vertically adjustable rods adapted to be moved into engagement with said devices to prevent them from being disengaged from said shoulders; substantially as described.

2. A piano case comprising a main portion in which the action and other parts are arranged, a detachable portion consisting of a key-board support, legs, base pieces fastened to the lower ends of said legs, and side pieces arranged adjacent the ends of the key-board support, devices on said side pieces and base pieces having heads that project into openings in the main portion of the case, plates extending over said opening and provided with elongated slots through which the heads on said devices pass, and vertically adjustable rods in the main portion of the case that engage said heads and thus hold them in engagement with said plates; substantially as described.

940,341. BOWLING-PIN. BENJAMIN MERKLEN, Brooklyn, N. Y., assignor to Benjamin Merklen, Jr., Brooklyn, N. Y. Filed Apr. 28, 1909. Serial No. 492,782.



1. A ten pin comprising a head, a base, and a body portion, said body portion having a relatively smooth axial bore, said head and base each extending within the body portion and having their inserted ends adjacent each other, the line of separation of the inserted ends being approximately midway of the length of the body portion, and means for connecting said inserted ends, said means extending into the head and base respectively.

2. In a ten pin, a head, a base, and a body portion, said body portion having a relatively smooth bore and comprising a series of strips secured together with the grain of adjacent strips extending in approximate parallel planes and at right angles to each other, said strips each extending in opposition to and having a direct securing engagement with either the head or base.

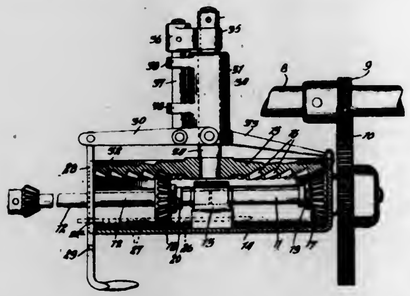
3. A ten pin comprising a head having a stud, a base also having a stud, said studs extending in axial alinement and each having a longitudinally extending recess, a dowel pin fitting and being secured within the recesses to secure the head and base together, and a body portion surrounding the studs, the free ends of said studs being located entirely within and extending approximately midway of the length of the body portion.

4. A ten pin comprising a head having a stud, a base also having a stud, said studs extending in axial alinement and each having a longitudinally extending recess, a dowel pin fitting and being secured within said recesses to secure the head and base together, and a body portion surrounding the studs, the free ends of said studs being located entirely within and extending approximately midway of the length of the body portion, said body portion being of laminated construction.

940,342. DIFFERENTIAL POSITIVE-FEED MECHANISM. ROBERT MILNE, Rockford, Ill., assignor to Rockford Drilling Machine Company, Rockford, Ill., a Corporation of Illinois. Filed Dec. 19, 1908. Serial No. 468,390.

1. In mechanism of the class described, a disk gear having a plurality of concentric rings of teeth, a slidably mounted bevel pinion adapted to engage with the teeth of

any selected ring, a shaft on which the disk gear is mounted, a sleeve within which the shaft is mounted, a member connected with the shaft, a slidably mounted rod connected with said member, and a lever engaging said slidably mounted rod to throw the disk gear into and out of mesh with the pinion, substantially as described.



2. In mechanism of the class described, the combination of a disk gear provided with a plurality of rings of teeth, a shaft upon which the gear is mounted, a lever and connections for imparting longitudinal movement to said shaft, a shaft set at an angle to the disk gear shaft, a pinion mounted thereon and adjustable to different positions to engage with a selected ring of teeth, a notched bar connected with said pinion, a shifting bar entered through one of the notches of the notched bar and connected with the lever for shifting the disk gear shaft, and provided, at a suitable point, with a notch adapted to permit longitudinal movement of the notched bar when moved to a position to disengage the gearing, substantially as described.

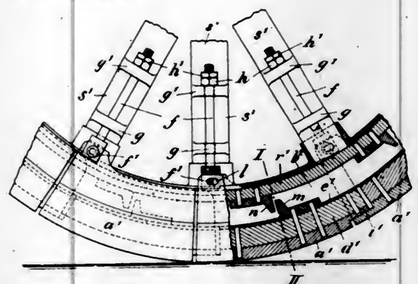
3. In mechanism of the class described, the combination of a disk gear provided with concentric rings of teeth, two shafts, each provided with a pinion, a member for connecting said pinions and moving them in unison to engage selected rings of teeth on the disk gear, a shaft upon which the disk gear is mounted, a shifting member for imparting longitudinal movement to said shaft, connected with the pinion connecting member in a manner to lock the pinion connecting member against movement, save when the member is moved to a position to throw the gearing out of mesh, substantially as described.

4. In mechanism of the class described, the combination of a disk gear provided with concentric rings of teeth two shafts journaled adjacent to the disk gear, a bevel pinion on each of said shafts, a member connecting said bevel pinions and adapted to shift them in unison to engage with selected rings of teeth, a notched bar connected with said pinion connecting member, a shifting bar adapted to engage with the notches of said notched bar and lock the same, and provided, at a suitable point, with a notch adapted to register with the notched bar to permit longitudinal movement of the latter, a shaft upon which the disk gear is mounted, and connections between said shaft and said shifting bar for moving the shaft by a movement of the shifting bar such that when the gearing is disengaged the notch in the shifting bar will be brought into register with the notched bar, substantially as described.

5. In mechanism of the class described, the combination of a disk member, two shafts mounted adjacent to the disk member, companion members mounted upon the shafts and adapted to engage with the disk member, means for moving one of said companion members toward and from the axis of the disk member, and means for effecting a break in the train of transmission, the two last mentioned means being held in engagement in a manner to lock the former against movement, save only when a break in the train of transmission is effected, substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

940,343. TIRE-SHIELD. OTTO A. F. MITTELSTÄDT, Hohensaathen-on-the-Oder, Germany. Filed Mar. 11, 1908. Serial No. 420,517.

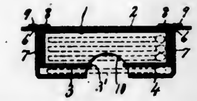


1. The combination with a wheel, of a pair of tires mounted on the rim thereof forming an annular channel between them, a plurality of overlapping shoes covering the tires, longitudinally movable rods connected to the shoes, radially disposed stops mounted on the wheel rim, and a stop connected with each shoe normally distanced from the rim stops and adapted to engage the latter.

2. The combination with a wheel, of a pair of tires mounted on a rim thereof forming an annular channel between them, a filling piece surrounding the tread of the tires, a plurality of overlapping shoes covering the filling piece, rods connected to the shoes, mounted on the wheel spokes and movable longitudinally thereof, radially disposed stops mounted on the wheel rim, and a stop connected with each shoe normally distanced from the rim stops and adapted to engage the latter.

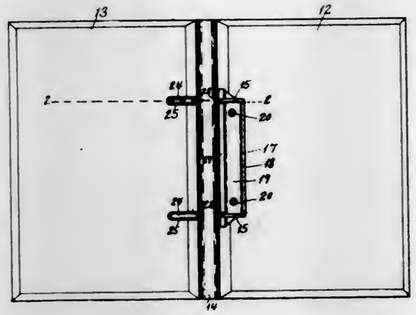
3. The combination with a wheel, of a pair of tires mounted on the rim thereof forming an annular channel between them, a filling piece surrounding the tread of the tires, a plurality of overlapping shoes covering the filling piece, connecting rods mounted on the wheel spokes and adapted to move longitudinally thereof, radially disposed stops mounted on the wheel-rim, a stop connected with each shoe normally distanced from the rim-stops and adapted to engage the latter, and pins mounted in the ends of the connecting rods taking through slots formed in one end of the shoes for the purpose specified.

940,344. MATCH-SAFE. WILLIAM G. MONK, Syracuse, N. Y. Filed Aug. 27, 1908. Serial No. 450,523.



A match safe comprising a back section having each side and the bottom marginal portions thereof each provided with a plurality of slots, a flanged front section arranged against the front face of said back section, said flanged front section having its flanges formed with tongues extending through the slots of the side marginal portions of said back section whereby said front section is secured to the back section, said front section having the lower end thereof cut away in a curvilinear manner, and the bottom section having side flanges and a bottom flange, said bottom section overlapping the front section and positioned against the front of said back section, the flanges of said back section provided with tongues extending through the slots of the marginal portion of the bottom of the back section and one of the slots of each of the side marginal portions of the back section whereby the bottom section is connected to the back section, said back section cut away to provide a flaring opening and further having its bottom flange cut away in a curvilinear manner.

940,345. TEMPORARY BINDER. GEORGE H. MOORE, Boston, Mass. Filed May 21, 1909. Serial No. 497,498.



1. A temporary binder comprising a cover composed of side members, and an intermediate back member flexibly connected therewith, and a sheet-securing arm adjacent the back member and having one end permanently and the other end separably connected with one of the side members and projecting from the inner surface thereof, the separable connection being at a point between the permanent connection and the intermediate back member of the cover, the other side member of the cover being provided with an aperture adapted to receive the sheet-securing member when the cover is closed, whereby the side members are adapted to lie parallel with each other in contact with an interposed pack of sheets.

2. A temporary binder comprising a cover composed of side members, and an intermediate back member flexibly connected therewith, and sheet-engaging means including a plurality of hooks permanently and movably mounted on one of the side members, and rigid keepers therefor carried by the same side member between the permanent connection of the hooks and the back member, said hooks projecting from the inner side of said member adjacent the back member, the other side member being provided with apertures adapted to receive said hooks when the cover is closed.

3. A temporary binder comprising a cover composed of side members and an intermediate back member flexibly connected therewith, and sheet-securing means connected wholly with one of the side members, and including a sheet-engaging member projecting therefrom adjacent the intermediate back member, the back member being movable independently of the sheet-securing means, and the other side member being provided with an aperture adapted to receive the sheet-engaging member when the cover is closed, one end of the sheet-engaging member being permanently connected to its supporting side member and the other end being separably connected to said side member between the permanent connection and the back member of the cover.

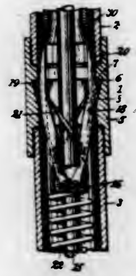
940,346. FOLDABLE UMBRELLA. ALFRED M. MORTON, Little Rock, Ark. Filed June 23, 1908. Serial No. 439,895.

In a foldable umbrella comprising ribs, means midway between the outer and inner extreme ends of each rib to hold the cover more securely in place, said means consisting of a plurality of rings secured to said cover and each of which encircles a corresponding rib, a series of hooks secured in spaced relation along the lower edge of said cover, a series of corresponding rings, one of each connected to a rib at its outer end, said hooks of said cover adapted to engage the rings of said ribs, said first-mentioned rings together with said second mentioned rings



with their corresponding hooks coöperating to hold said cover in proper place.

940,347. PLUNGER MECHANISM FOR OIL-WELLS. LEO R. MCCARTHY and JOHN C. VROMAN, Spartansburg, Pa. Filed June 28, 1907. Serial No. 381,246.

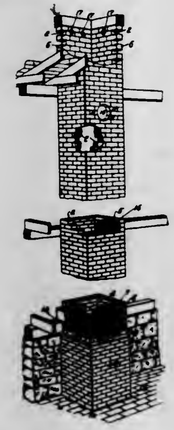


In a well, in combination, a pipe having an annular groove on the inner side thereof, a square collar, a pair of pawls pivotally attached to said collar on one side thereof, a second pair of pawls pivotally attached to said collar on another side thereof, said pawls being adapted to engage said annular groove to lock said collar within said pipe, springs rigidly attached to individuals of said pawls and thrusting against the opposite pawl, said pawls having upwardly extending spurs at their upper extremities, and shoulders adjacent to said spurs for engaging said groove, a stem passing through said collar, a reciprocating plunger having a valve and attached to said stem, a spring thrusting against said collar and constraining said plunger downwardly, and a cable attached to said stem for raising said plunger.

940,348. VENTILATING-CHIMNEY. JACOB M. MCINTOSH, Warren, Ohio. Filed Mar. 16, 1908. Serial No. 421,434.

1. A ventilating chimney comprising lower vent bricks, each of said vent bricks provided with a lateral, externally open vent communicating with a vertically disposed air chamber extending through the body of the brick said air chamber communicating with a horizontally disposed groove in the upper surface of the said brick, courses of ventilating bricks laid on said vent bricks, each of said

ventilating bricks provided with a vertically disposed air chamber extending through the body of the brick and communicating with a horizontally disposed groove in the upper surface of the brick, all of the grooves in the bricks of each course being in serial communication around the chimney and each vertically disposed air chamber being in communication with the grooves in the upper surface of two of the bricks in the course below, and vent bricks at the top of the chimney, each provided with a lateral vent communicating with the interior of the flue and with the grooves in the ventilating bricks below, whereby the air may enter through the lower vents, ascend through the vertical air chambers in the ventilating bricks, circulate horizontally through the grooves in the top surface of the ventilating bricks, and exhaust through the top vents into the flue of the chimney.

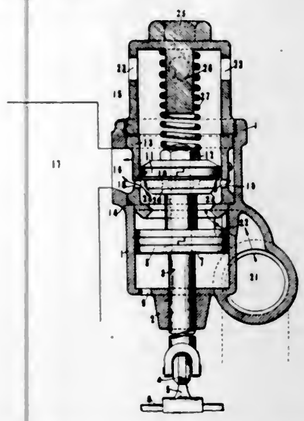


2. A ventilating chimney of the class described, comprising courses of upper and lower vent bricks, said vent bricks provided with V-shaped openings, air chambers and grooves, the V-shaped openings of said vent bricks registering with each other, courses of ventilating bricks provided with air chambers and grooves arranged above the grooves of said vent bricks, the air-chambers and passage-ways in said ventilating bricks and vent bricks in inter-communication with each other and courses of upper and lower vent bricks provided with air chambers, passage-ways and V-shaped openings arranged at the top of the chimney, and above the last course of ventilating bricks, the V-shaped openings in said vent bricks at the top of the chimney registering with each other, and the air chambers of said vent bricks communicating with the air chambers and passage-ways of the ventilating bricks below the vent bricks, said opening in said vent bricks at the top of the chimney opening into the flue of the same, substantially as described.

940,349. ENGINE-VALVE. WILLIAM R. MCKEEN, Jr., Omaha, Nebr., assignor to Edward H. Harriman, Arden, N. Y. Filed Jan. 17, 1907. Serial No. 352,728.

1. In apparatus of the class described, in combination, a piston valve, a cylinder, a source of compressed fluid supply, means provided with ports co-acting with said valve adapted in one position of said valve to open said cylinder to the exhaust and in another position of said valve to open communication between said cylinder and said source of compressed fluid supply, a second valve interposed between said source of supply and said cylinder, and a single means adapted to actuate both valves.

2. In apparatus of the class described, in combination, a piston valve, a cylinder, a source of compressed fluid supply, means provided with ports co-acting with said valve adapted in one position of said valve to open said cylinder to the exhaust and in another position of said valve to open communication between said cylinder and said source of compressed fluid supply, a second valve interposed between said source of supply and said cylinder, a stem upon which both of said valves are mounted, and means adapted to reciprocate said stem and, upon said first valve occupying exhaust position, to hold said second valve against its seat.



3. In apparatus of the class described, in combination, a piston valve, means provided with ports with which said valve co-acts, a source of compressed fluid supply, means leading from said source of supply to said valve, a valve in said last-mentioned means controlling the passage therethrough, a stem upon which both of said valves are mounted, a piston upon said stem exposed to pressure from said source of supply upon one side and tending to force said stem in one direction, and means adapted intermittently to force said stem in the opposite direction.

4. In apparatus of the class described, in combination, a piston valve, a cylinder, a source of compressed fluid supply, means provided with ports leading to said cylinder and co-acting with said valve, means connecting said source of supply with said valve, a second valve interposed in said connecting means, a stem upon which both of said valves are mounted, said valves being so formed as upon said stem being moved in one direction to close said second valve and open said cylinder to the exhaust and upon said stem being moved in the other direction to open said second valve and open said cylinder to said source of supply, a piston upon said stem exposed to pressure from said source of supply upon one side and adapted to tend to force said valves into said first position, and a cam adapted intermittently to force said valves into said second position.

5. In apparatus of the class described, in combination, a piston valve, a cylinder, a source of compressed fluid supply, means provided with ports leading to said cylinder and co-acting with said valve, means connecting said source of supply with said valve, a second valve interposed in said connecting means, a stem upon which both of said valves are mounted, said valves being so formed as upon said stem being moved in one direction to close said second valve and open said cylinder to the exhaust and upon said stem being moved in the other direction to open said second valve and open the said cylinder to said source of supply, a spring operatively related to said stem and adapted to tend to force said valves into said first position, and intermittently acting means adapted to force said valves into said second position.

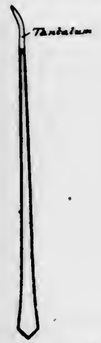
[Claims 6 to 12 not printed in the Gazette.]

940,350. HOD. HUGH MCLANE, Bangor, Me., assignor of one-half to Earl W. Wilde, Bangor, Me. Filed Mar. 3, 1909. Serial No. 481,166.



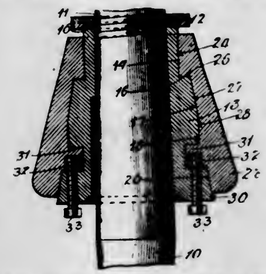
The combination of the hod proper; the yoke; the handle pivotally attached to the yoke; and means of locking the handle rigidly to the yoke.

940,351. DENTAL INSTRUMENT. OTTO NEUGEBAUER, Hanover, Germany, assignor to Siemens & Halske A. G., Berlin, Germany, a Corporation of Germany. Filed Nov. 19, 1907. Serial No. 402,929.



A dental instrument for working fillings having its operative part or parts composed of tantalum.

940,352. STONE-CRUSHER HEAD. WESLEY G. NICHOLS, Chicago, Ill., assignor to American Brake Shoe & Foundry Company, Jersey City, N. J., a Corporation of New Jersey. Filed Sept. 6, 1906. Serial No. 333,559.



1. A composite crusher head, comprising a hollow, generally-conical manganese steel mantle, a coacting generally-conical core within said mantle, longer than the mantle to permit a vertical extension of said mantle without loosening the support of the core, means effecting positive but detachable connections between the mantle and core only in a single zone below the middle of the mantle.

2. A composite crusher head, comprising a hollow, generally-conical manganese steel mantle, a common steel core shaped generally for coaction with said mantle, extending above the mantle at its upper end, in cylindrical form coinciding with a cylindrical upper portion in the inner surface of the mantle, and means effecting positive connection between the mantle and core in a single zone below the middle of the mantle, whereby a longitudinal extension of the mantle above the zone of positive connection does not free the mantle from the support of the core at its upper end.

3. The combination with a tapering shaft, of a core fitting thereon, jam nuts threaded on said shaft above the core, a mantle carried by the core, and effecting positive connection with the core only in a zone below the middle of the core, said mantle and core being provided with cylindrical coacting surfaces adjacent their upper end, the cylindrical surface of the core extending beyond the end surface of the mantle to the end of the core with which the jam nuts coact, whereby longitudinal stretching of the mantle to the end of the core may not free said mantle from support of the core or disturb the jam nuts.

4. In a composite crusher head, a hollow, generally conical manganese-steel mantle, a coacting generally conical core, said core and mantle being provided at different vertical planes with cylindrical zones of varying diameters for maintaining contact under different conditions of stretching of the mantle and means for securing said mantle and core together.

5. In a composite crusher head, a core of generally conical exterior shape, a manganese steel mantle of generally conical shape interfitting therewith, and means positively connecting said mantle with the core only in a zone below the center of the mantle, said core and mantle being provided with coacting cylindrical surfaces closely contiguous to said zone of positive connection.

940,353. ROLLER SIDE BEARING. JOHN F. O'CONNOR, Chicago, Ill., assignor to W. H. Miner Company, Chicago, Ill., a Corporation of Illinois. Filed May 8, 1908. Serial No. 431,661.



1. In a roller side bearing, the combination with body and truck bolsters, of an upper side bearing plate secured to the body bolster, and a lower side bearing plate secured to the truck bolster, an interposed inclined rotatable disk and a plurality of sets of radially arranged antifriction short cylindrical peripherally-contacting rollers interposed between the lower side bearing plate and said rotatable disk, said lower bearing plate and said rotatable disk having annular conical treads parallel to each other the outer set being composed of a greater number of rollers than the inner set substantially as specified.

2. In a roller side bearing, the combination with body and truck bolsters, of an upper side bearing plate secured to the body bolster, and a lower side bearing plate secured to the truck bolster, an interposed inclined rotatable disk and a plurality of sets of radially arranged antifriction short cylindrical peripherally-contacting rollers interposed between the lower side bearing plate and said rotatable disk, said lower bearing plate and said rotatable disk having annular conical treads parallel to each other, the outer set being composed of a greater number of rollers than the inner set substantially as specified.

3. In a roller side bearing, the combination with body and truck bolsters, of an upper side bearing plate secured to the body bolster, and a lower side bearing plate secured to the truck bolster, an interposed inclined rotatable disk and a plurality of sets of radially arranged antifriction short cylindrical peripherally-contacting rollers interposed between the lower side bearing plate and said rotatable disk, said lower bearing plate and said rotatable disk having annular conical treads parallel to each other,

and a separating ring between adjacent sets of anti-friction rollers, the outer set being composed of a greater number of rollers than the inner set substantially as specified.

4. In a roller side bearing, the combination with body and truck bolsters, of an upper side bearing plate secured to the body bolster, and a lower side bearing plate secured to the truck bolster, an interposed inclined rotatable disk and a plurality of sets of radially arranged anti-friction short cylindrical peripherally-contacting rollers interposed between the lower side bearing plate and said rotatable disk, said lower bearing plate and said rotatable disk having annular conical treads parallel to each other, and a plurality of separating rings interposed between adjacent sets of anti-friction rollers, the outer set being composed of a greater number of rollers than the inner set substantially as specified.

5. In a roller side bearing, the combination with body and truck bolsters, of an upper side bearing plate secured to the body bolster, and a lower side bearing plate secured to the truck bolster, an interposed inclined rotatable disk and a plurality of sets of radially arranged anti-friction short cylindrical peripherally-contacting rollers interposed between the lower side bearing plate and said rotatable disk, said lower bearing plate and said rotatable disk having annular conical treads parallel to each other, said lower bearing plate having an annular inner rim or hub and an annular outer rim, the outer set being composed of a greater number of rollers than the inner set substantially as specified.

[Claims 6 to 10 not printed in the Gazette.]

940,354. AZIN DYE AND PROCESS OF MAKING SAME. PHILIPP OTT, Leverkusen, near Cologne, Germany, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed Oct. 15, 1908. Serial No. 457,849.

1. The process for producing dyestuffs of the azin series, which process consists in oxidizing in the presence of ammoniacal cupric oxid by means of oxygen, as hereinbefore defined, paradiamins and arylated 1.3-naphthylenediamins, substantially as described.

2. The process for producing dyestuffs of the azin series, which process consists in oxidizing in the presence of ammoniacal cupric oxid by means of oxygen, as hereinbefore defined, substitution products of paradiamins with at least one free amino group and arylated 1.3-naphthylenediamins, substantially as described.

3. The process for producing dyestuffs of the azin series, which process consists in oxidizing in the presence of ammoniacal cupric oxid by means of oxygen, as hereinbefore defined para-diamins and sulfonic acids of arylated 1.3-naphthylenediamins, substantially as described.

4. The process for producing dyestuffs of the azin series, which process consists in oxidizing in the presence of ammoniacal cupric oxid by means of oxygen, as hereinbefore defined, substitution products of para-diamins with at least one free amino group and sulfonic acids of arylated 1.3-naphthylenediamins, substantially as described.

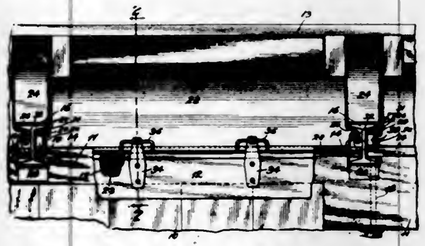
5. The process for producing new dyestuffs of the azin series, which process consists in oxidizing in the presence of ammoniacal cupric oxid by means of oxygen, as hereinbefore defined, aminodiphenylamin compounds with at least one free amino group and monosulfonic acids of arylated 1.3-naphthylenediamins, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

940,355. CAR-ROOF. JOHN PEARSON, Chicago, Ill. Filed Aug. 10, 1906. Serial No. 330,050.

1. In a car-roof, a ridge-pole, diagonal braces extending from the corners of the car to the center of the ridge-pole, and a series of carlines extending the width of the car above the pole and braces and stepped into the diagonal braces.

2. In a car-roof, a ridge-pole, diagonal braces extending from the corners of the car to the center of the pole, a series of purlins, a series of carlines extending the width of the car above the pole, purlins, and braces, and means to secure the carlines to the pole and to the braces at their intersections therewith.



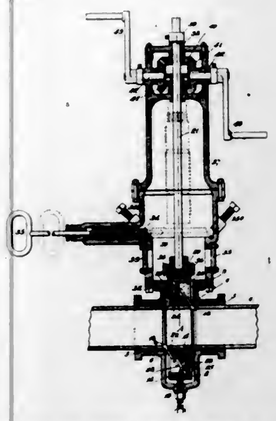
3. In a car-roof, a series of carlines extending above the roof-boards, a running-board, and cleats coöperating with opposite sides of the carlines and secured to the running-board.

4. In a car-roof, a series of carlines extending above the roof-boards, a running-board, and opposite cleats secured to the board and coöperating with the carlines, to prevent displacement of the board.

5. In a car-roof, a series of flanged carlines extending above the roof-boards, a running board, and cleats secured to the running-board and extending under the flanges of the carlines.

[Claims 6 to 15 not printed in the Gazette.]

940,356. VALVE-INSERTING MACHINE. FREDERICK A. PHELPS, Newark, N. J. Filed Jan. 5, 1907. Serial No. 350,888.

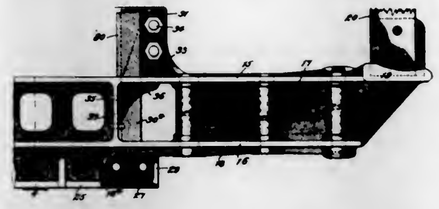


1. A machine for inserting a valve in a pipe or main, having a rotary tool holder, an inclined tool thereon, a worm for moving the tool toward or away from the work, a star-wheel for rotating the worm and a frame carrying two stops, and means for moving the frame to cause either of the two stops to engage with the star-wheel to rotate it in one direction or the other and advance or withdraw the tool from the work.

2. A machine for inserting a valve in a pipe or main having a casing with immovable valve seats thereon, a tool holder between the seats and inclined tools carried by the tool holder, and adapted to cut a section from the pipe or main, whereby the gap so formed will be wider than the distance between the valve seats.

3. A machine for inserting a valve in a pipe or main, having a casing with immovable valve seats thereon, a tool-holder between the seats, inclined cutting tools carried by the tool-holder, means for rotating the tool-holder, and means for feeding the cutting tools, for cutting a section from the pipe of less width than the space between the valve seats, and for cutting a gap in the pipe wider than the distance between the valve seats.

940,357. CAR-FRAME. EDWARD POSSON, Chicago, Ill. Filed Oct. 21, 1907. Serial No. 398,462.



1. In a car, the combination of an end sill comprising front and rear plates with a connecting web, and a longitudinal center sill comprising a channel beam, the rear plate of the end sill having a hole corresponding in shape to the section of the channel beam.

2. In a car, the combination of an end sill comprising front and rear vertical plates and a vertical cross web near the center thereof, and a longitudinal sill comprising a channel beam, the rear plate of the end sill having a slot beside the said cross web adapted to receive the end of the said channel beam.

3. In combination an end sill consisting of front and rear plates, the rear plate having a slot therein, and a center sill comprising a channel beam with its flanges embracing a wooden beam, the end of the channel beam projecting through the said slot and abutting the front plate and the end of the wooden beam abutting the rear plate.

4. In a car, an end sill comprising front and rear plates connected by a horizontal web, tubular enlargements in said web adapted to receive the ends of the car truss rods, and a seat between the front and rear plates adapted to receive the end of the center sill.

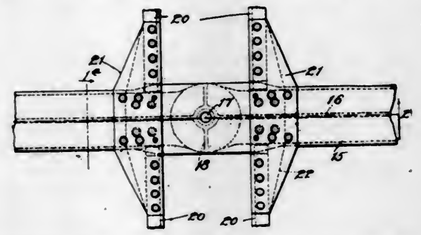
5. In a car, the combination of an end sill comprising a vertical plate with a slot therein and a rearwardly projecting tongue, and a center sill member consisting of a wooden beam embraced by the flanges of a channel beam, the end of the channel beam projecting through the slot and the end of the wooden beam being bolted to the said tongue.

[Claims 6 to 8 not printed in the Gazette.]

940,358. UNDERFRAME FOR RAILWAY-CARS. EDWARD POSSON, Chicago, Ill. Filed Oct. 21, 1907. Serial No. 398,464.

1. In a car, a body bolster having an I-section with a diminishing width of web thereof toward the ends of the bolster, the under flanges thereof sloping upwardly from the center toward the sides of the car, center sill channel beams with their ends abutting the said bolster, and four gusset plates overlapping the joints between said channel beams and the bolster both above and below.

2. In a car, a body bolster having an I-section with a diminishing width of web thereof toward the ends of the bolster, the under flanges thereof sloping upwardly from the center toward the sides of the car, center sill channel beams with their ends abutting the said bolster, and four gusset plates overlapping the joints between said channel beams and the bolster both above and below, the lower gusset plates having their intermediate portion in an inclined plane lying close against the sloping undersides of the bolster and having their end portions in a



horizontal plane underlying the ends of the center sill channel beams.

940,359. TELEPHONE DETECTOR DEVICE. THEODORE W. RALPH, North Augusta, Ontario, Canada. Filed Nov. 16, 1908. Serial No. 462,983.



1. A device of the class described comprising a base; two tracks supported by said base and each provided with strips of current-conducting material separated by blocks of insulating material; a roller operating between said tracks, and an axle for said roller insulated therefrom and designed to operate over the top of the strips and blocks of said conducting and non-conducting material when the device is tilted, as set forth and for the purpose specified.

2. A device of the class described comprising a base; two tracks supported by said base and each provided with strips of current-conducting-material separated by blocks of insulating material, and a roller operating upon said strips and blocks of conducting and non-conducting material when the device is tilted, and a guard for each track preventing the displacement of said roller, as set forth and for the purpose specified.

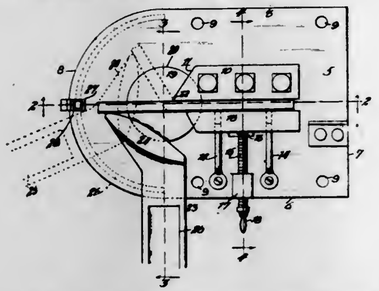
3. A device of the class described comprising a base; posts held in said base; two tracks each carried by two of said posts at their ends; strips of current-conducting material separated by blocks of insulating material, carried by each of said tracks, and a roller operating upon said strips and blocks of conducting and non-conducting material when the device is tilted, as set forth and for the purpose specified.

4. A device of the class described comprising a base; posts held in said base; two tracks each carried by two of said posts at their ends; means whereby the said tracks can be adjusted in position, strips of current-conducting material separated by blocks of insulating material, carried by each of said tracks, and a roller operating upon said strips and blocks of conducting and non-conducting material when the device is tilted, as set forth and for the purpose specified.

5. A device of the class described comprising a base; posts held in said base; two tracks each carried by two of said posts at their ends; means whereby the said tracks can be adjusted in position; strips of current-conducting material separated by blocks of insulating material, carried by each of said tracks; a roller operating upon said strips and blocks of conducting and non-conducting material when the device is tilted, and a guard carried at each end by said posts and above each or said tracks as set forth and for the purpose specified.

[Claims 6 to 9 not printed in the Gazette.]

940,360. BAR-BENDER. JERRE T. RICHARDS, Chicago, Ill. Filed Mar. 18, 1909. Serial No. 484,076.



1. In a bar bender, the combination of a bed plate, a clamping section fixed to the bed plate, a movable clamping section adjustably mounted on the bed plate, a disk revolubly mounted within the bed plate, a bar bender formed integrally with the revoluble disk, and means for regulating the travel of the bar bender, substantially as described.

2. In a bar bender, the combination of a bed plate, a clamping section fixed to the bed plate, having its forward end beveled to form a bending point, a movable clamping section adjustably mounted on the bed plate, a disk revolubly mounted within the bed plate, a bar bender formed integrally with the revoluble disk, and means for regulating the travel of the bar bender, substantially as described.

3. In a bar bender, the combination of a bed plate, a clamping section fixed to the bed plate, having its forward end beveled to form a bending point, a movable clamping section adjustably mounted on the bed plate, guide rods for the movable clamping section secured to the bed plate, a threaded stem for regulating the movement of said clamping section, a disk revolubly mounted within the bed plate, a bar bender formed integrally with the revoluble disk, and means for regulating the travel of the bar bender, substantially as described.

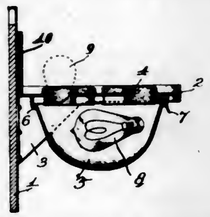
4. In a bar bender, the combination of a bed plate, a clamping section fixed to the bed plate, having its forward end beveled to form a bending point, a movable clamping section adjustably mounted on the bed plate, guide rods for the movable clamping section secured to the bed plate, a threaded stem for regulating the movement of said clamping section, a disk revolubly mounted within the bed plate, a bar bender formed integrally with the revoluble disk, and having its forward end enlarged to form a toe, and means for regulating the travel of the bar bender, substantially as described.

5. In a bar bender, the combination of a bed plate, a clamping section fixed to the bed plate, having its forward end beveled to form a bending point, a movable clamping section adjustably mounted on the bed plate, guide rods for the movable clamping section secured to the bed plate, a threaded stem for regulating the movement of said clamping section, a disk revolubly mounted within the bed plate, and having for its bearing seat a ledge formed in the body of the bed plate, a bar bender formed integrally with the revoluble disk, and having its forward end enlarged to form a toe, and a body portion extending back therefrom and forming a handle, and means for regulating the travel of the bar bender, substantially as described.

[Claim 6 not printed in the Gazette.]

940,361. EGG-TESTER. WILLIAM RIGLING, Hamilton, Ohio. Filed Sept. 2, 1909. Serial No. 515,847.

1. An egg tester comprising a back piece, a shelf projecting horizontally therefrom and provided with a group of fabric-lined egg-receiving perforations, a concave reflector disposed with its concave side upward and below the shelf and encircling the group of perforations with its rim, and an electric lamp disposed within the concave reflector, combined substantially as set forth.

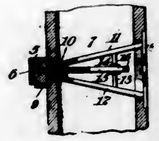


2. An egg tester comprising a back-piece, a shelf projecting horizontally therefrom and provided with a group of fabric-lined egg-receiving perforations, a concave reflector disposed with its concave side upward and below the shelf and encircling the group of perforations with its rim, hooks depending from the shelf and adapted to engage the rim of the reflector, and an electric lamp disposed within the concave reflector, combined substantially as set forth.

3. An egg tester comprising a horizontal member provided with a group of fabric-lined egg-receiving perforations, an illuminating device disposed below said perforations, and a vertical mirror disposed above said member at one side of said group of perforations, combined substantially as set forth.

4. An egg tester comprising a back-piece, a shelf projecting horizontally therefrom and provided with a group of fabric-lined egg-receiving perforations, a concave reflector disposed with its concave side upward and below the shelf and encircling the group of perforations with its rim, a forwardly facing mirror disposed against said back-piece, and an electric lamp disposed within the concave reflector, combined substantially as set forth.

940,362. DOOR-FASTENING DEVICE. MAX RITCHEL, Centerville, Iowa. Filed Feb. 2, 1909. Serial No. 475,657.



1. In a device of the class described the combination with a support, of a gate-member, a locking member secured to said gate-member and extending entirely across the same, and being provided with an enlarged head-portion at one end thereof, having a screw-threaded socket formed therein, a lock carried by said support, and provided with a screw-threaded member adapted to engage said socket in said enlarged head-portion for holding said gate-member in a locked position upon said support.

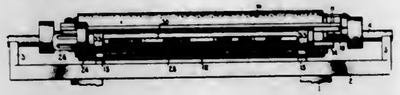
2. In a device of the class described the combination with a support, of a gate-member carried by said support and a locking-device carried by said support, and comprising a supporting bracket, provided near one end with a screw-threaded aperture and a transverse apertured brace intermediate the sides of said bracket, a screw-threaded member positioned in said apertured end and said brace, and adapted to engage said gate-member for securing the same in a locked position.

3. In a device of the class described the combination with a support, of a gate-member carried by said support, a locking-device carried by said support and comprising a substantially A-shaped supporting bracket carrying near one end a plate substantially L-shaped in cross section, and a locking-member carried by said bracket and passing through said plate and adapted to engage said gate-member for holding the same in a locked position.

4. In a device of the class described the combination with a support, of a gate-member, provided with a hinged locking-member secured thereto, a locking-device carried by said support comprising an enlarged head-portion provided with diverging arms and supporting at their opposite end a plate, a transversely extending brace secured at its end to said diverging arms and carrying intermediate its ends a collar, a longitudinally adjustable locking-means rotatably mounted in said collar and engaging said head, and adapted to engage said locking-member carried by said gate-member for securing said gate-member in a locked position.

5. In a device of the class described, the combination with a support, of a gate member, a locking device carried by said support and comprising an enlarged end and a plurality of rearwardly-extending portions constituting braces, and means carried thereby and adapted to engage said gate member for securing the same in a locked position.

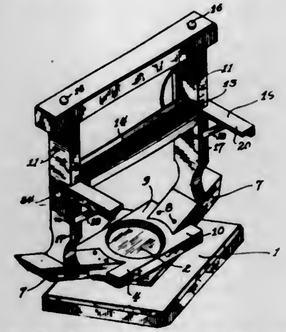
940,363. TYPE-WRITING MACHINE. CHRISTOPHER C. ROBBINS, Portland, Oreg., assignor to Wyckoff, Seamans & Benedict, Ilion, N. Y., a Corporation of New York. Filed July 11, 1906. Serial No. 325,621.



1. In a typewriting machine, the combination of a scale casing, a removable core therein, and a sheath of paper or the like suitably attached to said core and provided with a plurality of scales.

2. In a typewriting machine, the combination of a scale casing having a reading opening, a removable rotary core in said casing, and a scale sheet suitably attached to said core and provided with a plurality of scales.

940,364. PAPER-ROLL HOLDER. HENRY C. ROSEBERY, Taro, Va. Filed June 5, 1909. Serial No. 500,297.



1. In a device of the class described the combination with a base, of a frame rotatably mounted upon said base, a paper roller carried thereby, rollers carried by the sides of said frame adapted to be engaged by the edges of the paper for facilitating the unwinding of the paper, and a cutter carried by said frame.

2. In a device of the class described the combination with a supporting base, of a frame supported thereby, and provided with a base portion, a plurality of diverging upwardly extending arms, a plurality of side braces supported thereby, and a paper roll carried by said frame.

3. In a device of the class described the combination with a supporting base, of a frame, said frame provided with a base portion comprising a primary and an auxiliary section, means carried by said supporting base and adapted to engage said base portion for rotatably securing said frame upon said supporting base, a plurality of laterally-extending arms adapted to secure said primary and auxiliary portions of said base portion together, a pair of side portions mounted upon said laterally-extending arms, and a paper roller carried by said side portions.

4. In a device of the class described the combination with a rotatably-mounted frame, comprising a pair of side portions provided with longitudinally-extending grooves, of rotatably-mounted rollers positioned within said grooves, a paper roller positioned between said side members, said rollers adapted to facilitate the withdrawing of said paper from said roller, and a cutter carried by said frame.

5. In a device of the class described the combination with a frame provided with side portions having longitudinally-extending grooves in one face thereof, of rollers positioned therein, a top portion positioned upon the upper ends of said side portions, said upper portion provided with sockets formed therein adapted to receive the upper ends of said rollers, said rollers provided with a tapering lower end terminating in a reduced portion, said longitudinally-extending grooves provided at one end with a notch adapted to receive said reduced portion upon one end of said roller for securing the roller within said groove, a paper roller adapted to be supported by said frame, and a cutter carried by said frame.

[Claims 6 to 11 not printed in the Gazette.]

940,365. TRUCK-WHEEL-BLOCKING DEVICE. LEE SAMUEL, Chicago, Ill. Filed June 18, 1909. Serial No. 502,884.



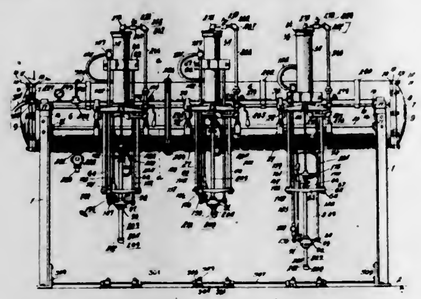
1. In a truck-wheel blocking device, the combination with the truck-frame, axle and wheels, of a cross-rod mounted on the lower side of the frame, springs supported by the rod, a cross-bar mounted on the springs, wheel-blocks on the ends of the cross-bar, and hooks connected to the cross-bar and adapted to engage the axle to guide the movement of the cross-bar and wheel-blocks.

2. In a truck-wheel blocking device, the combination of springs mounted on the truck-frame, a cross bar carried by the springs, blocks carried by the bar, and means to limit the movement of the bar, the springs permitting the blocks to be swung so as to engage between the truck wheels and floor.

940,366. FILLING APPARATUS FOR LIQUIDS. SIMON SCHLANGEN, Chicago, Ill., assignor to Schlangen Racker Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 27, 1907. Serial No. 394,833.

1. In a filling apparatus for liquids, the combination of a supporting frame, a cross head at the lower end of the supporting frame, slidable rods passing through the cross head of the supporting frame, a sealing head carried by the slidable rods, a reciprocating filling tube passing through the cross head and sealing head, a hollow piston valve at the upper end of the filling tube and having around its upper end a projecting seating face, a casing for the hollow piston valve vertically movable with and independent of the valve, and having on one side an inlet for liquid

with an interior seating face below the inlet coacting with the seating face of the hollow valve, a slidable cross bar carrying the casing and vertically movable on the slidable rods, a piston rod connected with the slidable cross bar, a piston connected with the piston rod, a cylinder in which the piston reciprocates, and means for admitting pressure to and discharging pressure from the cylinder above and below the piston, substantially as described.



2. In a filling apparatus for liquids, the combination of a supporting frame, a cross head at the lower end of the supporting frame, slidable rods passing through the cross head of the supporting frame, a sealing head carried by the slidable rods, a reciprocating filling tube passing through the cross head and sealing head, a hollow piston valve at the upper end of the filling tube, a casing for the hollow piston valve vertically movable with and independent of the valve, a slidable cross bar carrying the casing and vertically movable on the slidable rods, a piston rod connected with the slidable cross bar, a piston connected with the piston rod, a cylinder in which the piston reciprocates, a controlling valve at the discharge end of the filling tube, a stem for the controlling valve upwardly extending in the filling tube and connected with the piston rod and having a limited vertical movement independent of the vertical movement of the filling tube, and means for admitting pressure to and discharging pressure from the cylinder above and below the piston, substantially as described.

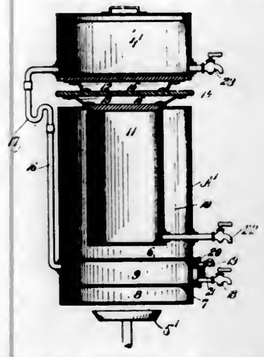
3. In a filling apparatus for liquids, the combination of a sealing cross head having a longitudinal passage opening at one end through the cross head, a sealing plug carried by the cross head, a filling tube passing through the cross head and forming a channel around the exterior of the filling tube, with the channel opening into the longitudinal passage of the cross head, a controlling valve at the open end of the longitudinal passage in the cross head and formed of a casing having two ports and a valve plug having a single port, a tube in communication with each port of the valve casing, each tube leading to a filling tank, and means for turning the valve plug for opening and closing communication with the ports of the valve casing, substantially as described.

4. In a filling apparatus for liquids, the combination of a sealing cross head having a longitudinal passage opening at one end through the cross head, a sealing plug carried by the cross head, a filling tube passing through the cross head and forming a channel around the exterior of the filling tube, with the channel opening into the longitudinal passage of the cross head, a controlling valve at the open end of the longitudinal passage in the cross head and formed of a casing having two ports and a valve plug having a single port, tubes in communication with each port of the valve casing, each tube leading to the filling tank, a valve stem connected at its lower end with the valve plug, a double cam flange around the lower end of the valve stem, a single cam flange around the upper end of the valve stem, and means, operating through the rising and falling movements of the filling tube, for engaging the cam flanges and turning the valve plug into open and closed positions, substantially as described.

5. In a filling apparatus for liquids, the combination of a sealing cross head having a longitudinal passage opening at one end through the cross head, a sealing plug carried by the cross head, a filling tube passing through the cross head and forming a channel around the exterior of the filling tube, with the channel opening into the longitudinal passage of the cross head, a controlling valve at the open end of the longitudinal passage in the cross head and formed of a casing having two ports and a valve plug having a single port, tubes in communication with each port of the valve casing, each tube leading to the filling tank, a valve stem connected at its lower end with the valve plug, a double cam flange around the lower end of the valve stem, a single cam flange around the upper end of the valve stem, and rollers carried by the filling tube at its upper end and engaging and operating the cam flanges on the valve stem for turning the valve plug into open and closed positions, substantially as described.

[Claims 6 to 43 not printed in the Gazette.]

940,367. MILK-HEATER. ADOLPH H. SCHLUETER, Oakland, Cal. Filed May 20, 1908. Serial No. 433,845.



1. A milk heater comprising a tank having partitions in its lower portion dividing said portion into a plurality of compartments, a heater underlying the lowermost of said compartments, a cold milk tank arranged above the casing having a connecting pipe leading from it into the intermediate of the compartments in the lower part of the casing, said compartment adapted to be heated from a compartment below, a coffee urn contained within the casing above said compartments, and draw-offs from the coffee urn and said intermediate compartment.

2. A milk heater comprising a casing having horizontal partitions in its lower portion dividing said portion into a plurality of compartments, a heater underlying the lowermost compartment, a non heat-conducting shelf above the casing, a cold milk tank supported on said shelf and protected from the heat of the underlying casing, a trapped-pipe connecting the cold milk tank with the intermediate of the compartments in the lower part of the casing, said compartment adapted to be heated from the compartment below, a coffee urn within the upper portion of the casing, and separate draw-offs from said urn and said intermediate compartment.

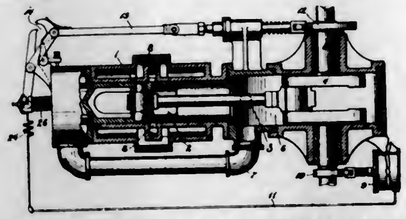
940,368. WHIFFLETREE. HENRY O. SCHULTZ, Canton, Ohio, assignor of one-half to A. J. Huff, Canton, Ohio. Filed Sept. 8, 1908. Serial No. 452,047.

As a new article of manufacture, a whiffletree of the character described, comprising complemental wooden sections 1, a flat reinforcing bar 2 of solid metal interposed between and coextensive with the sections, fastening elements 3 inserted through the complemental sections and the reinforcing bar to secure the parts together, the reinforcing bar being formed at one longitudinal edge with an outstanding bead or flange 4 arranged beyond and overlapping the peripheries of the respective sections 1 and terminating short of the ends of the bar to provide oppositely facing shoulders, ferrules 6 carrying tug-engaging means and mounted terminally on the whiffletree and abutting against the aforementioned shoulders, and a me-



tallic strap 5 in the form of a closed loop encircling the whiffletree intermediate of the ferrules, the strap conforming with and being fitted to the edge of the whiffletree opposite to the flange 4 and being spaced from the other edge of the whiffletree to provide an attaching eye, all as and for the purpose specified.

940,369. LIQUID-FUEL-COMBUSTION ENGINE. HANS R. SETZ, Pittsburg, Pa. Filed Feb. 27, 1909. Serial No. 480,456.



1. In a liquid fuel combustion engine having a main cylinder provided with an exhaust port intermediate its ends and a piston, an auxiliary cylinder opening into the end of the main cylinder, and an auxiliary piston arranged to open and cut off communication between the two cylinders and provided with a passage for supplying liquid fuel to the main cylinder and with a second passage leading from the rear side of the piston to the fuel passage.

2. In a liquid fuel combustion engine having a main cylinder provided with an exhaust port intermediate its ends and a piston, an auxiliary cylinder opening into the end of the main cylinder, an auxiliary piston arranged to open and cut off communication between the two cylinders and provided with a passage for supplying liquid fuel to the main cylinder and with a second passage leading from the rear side of the piston to the fuel passage, and means for forcing a charge of liquid fuel through the passage when the piston approaches the rear end of its stroke.

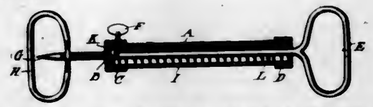
3. In a liquid fuel combustion engine having a main cylinder provided with an exhaust port intermediate its ends and a piston, an auxiliary cylinder opening into the end of the main cylinder, an auxiliary piston arranged to open and cut off communication between the two cylinders and provided with a passage for supplying liquid fuel to the main cylinder and with a second passage leading from the rear side of the piston to the fuel passage, a valve in the fuel passage, and means for opening the valve and injecting a charge of fuel through the passage when the main and auxiliary pistons approach the rear ends of their strokes.

4. In a liquid fuel combustion engine having a main cylinder provided with an exhaust port intermediate its ends and a piston, an auxiliary cylinder opening into the end of the main cylinder, an auxiliary piston arranged to open and cut off communication between the two cylinders and provided with a passage for supplying liquid fuel to the main cylinder and with a second passage leading from the rear side of the piston to the fuel passage, and controlling and operating means for the auxiliary piston whereby it is maintained in forward position with the two cylinders in communication until the main piston approaches the rear end of its stroke and then moved back cutting off communication between the cylinders and forcing the air at its rear side through the said second passage.

5. In a liquid fuel combustion engine having a main cylinder provided with an exhaust port intermediate its ends and a piston, an auxiliary cylinder opening into the end of the main cylinder, an auxiliary piston arranged to open and cut off communication between the two cylinders and provided with a passage for supplying liquid fuel to the main cylinder and with a second passage leading from the rear side of the piston to the fuel passage, yielding means normally tending to carry the auxiliary piston to the rear, a catch for maintaining such piston in its forward position until the main piston approaches the rear end of its stroke, and means for then releasing the catch to permit the yielding means to carry the auxiliary piston to the rear.

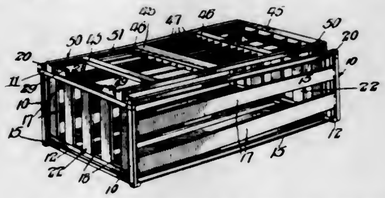
[Claims 6 to 16 not printed in the Gazette.]

940,370. DIRT-TAMPING TOOL. HENRY A. SHERMAN, Van Vleck, Tex. Filed Aug. 2, 1907. Serial No. 386,760½.



In a tamping tool, a tubular handle, a tamping bar longitudinally movable therein, a coil spring surrounding the bar, means carried by the bar for engaging the spring and a hand grasp or loop for retracting the bar, whereby the operating spring is compressed as set forth.

940,371. COLLAPSIBLE BOX OR CRATE. GEORGE A. SHRAUD, Blue Island, Ill. Filed Apr. 28, 1908. Serial No. 429,597.



1. In a folding crate having side, end, top and bottom walls, corner posts to which the side walls of the crate are attached, upper and lower end frame members extending betweeen and pivoted at their ends to the posts by means permitting the posts to swing sidewise in the direction of the planes of the end walls to collapse or fold the crate, the end walls of the crate being hinged to the top wall thereof and serving when in their normal vertical positions to lock the crate in its open position, and locking devices on the floor of the crate for locking the swinging end walls in their vertical positions, said swinging ends being freely movable vertically relatively to their hinges to clear the same of said locking devices.

2. A folding crate comprising end frames consisting of corner posts to which the side walls of the crate are attached, and upper and lower transverse frame members extending between the posts to which the top and bottom walls of the crate are permanently attached, horizontal pivot rods extending between the end frames at the corners thereof and constituting a binding connection between said frames and serving as pivots between said posts and transverse frame members of each end frame, said posts being provided near their pivoted ends with upwardly facing shoulders which engage said transverse frame members to prevent the posts swinging sidewise in one direction, while permitting them to swing sidewise in

the other direction to collapse the crate, and swinging ends hinged at their upper sides to the crate and extending between the side walls thereof to lock the crate in its open position.

3. A folding crate having corner posts to which the side walls of the crate are attached, upper and lower transverse members extending between and pivotally connected at their ends to the upper and lower ends of the posts to which the top and bottom walls of the crate are attached, said posts each being provided at its upper and lower ends with shoulders which engage said transverse frame members, the pivotal axes between each end of each post and the end of the adjacent transverse member being located out of line with or at one side of the shoulder at said end of the post, the parts being arranged to permit the posts to swing sidewise in one direction only to permit the crate to collapse, and means operating to normally lock the crate in its open position.

4. A folding crate having corner posts to which the side walls of the crate are attached, upper and lower transverse members extending between and pivotally connected at their ends to the upper and lower ends of the posts to which the top and bottom walls of the crate are attached, said posts each comprising two strips of equal length fixed flatwise together, each strip extending at one end of the post beyond its mating strip to provide oppositely facing shoulders at the ends of the posts for contact with said pivotally connected transverse members, the extended ends of the posts beyond said shoulders being provided laterally at the sides of the shoulders with pivot apertures through which and the ends of the transverse members extend the pivots by which said parts are pivotally connected, and means for locking the crate in its open position.

5. A folding crate having corner posts to which the side walls of the crate are attached, upper and lower transverse members extending between and pivotally connected at their ends to the upper and lower ends of the posts to which the top and bottom walls of the crate are attached, said posts each comprising two strips of equal length fixed flatwise together, each strip extending at one end of the post beyond its mating strip to provide oppositely facing shoulders at the ends of the posts for contact with said pivotally connected transverse members, each strip of each post extending laterally beyond its mating strip, each strip of each post being provided beyond the end of its mating strip with a pivot aperture through which and the adjacent end of one of the transverse members extends the pivot by which said parts are pivotally connected, and means for locking the crate in its open position.

[Claims 6 to 8 not printed in the Gazette.]

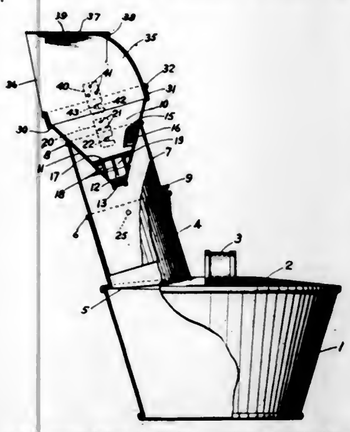
940,372. MILK-PAIL. CALEB E. SHREVE, Atlantic City, N. J. Filed Dec. 17, 1908. Serial No. 467,927.

1. A pail provided with an inlet opening and a hood over said opening, the only inlet to said hood facing downwardly, and means arranged to secure said hood and pail by their relative rotation.

2. A pail comprising a body portion and a strainer removably connected thereto and communicating therewith, said strainer being provided with an opening in the lower portion thereof, a closure for said opening, a screened opening in said strainer above said first mentioned opening, and a screen in said strainer between said openings.

3. A pail comprising a body portion, a tubular spout extending upwardly from said body portion, a tubular member telescoping in said spout, a strainer resting removably within the upper end of said telescoping member and locking means carried by said strainer and adapted to engage with means provided therefor upon said telescoping member, or with means provided therefor upon said spout for locking said strainer either upon said telescoping member or upon said spout.

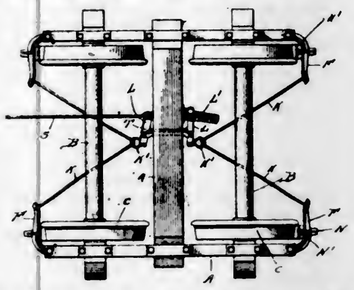
4. A pail comprising a body portion, a tubular spout extending upwardly from said body portion, a tubular member telescoping in said spout, a strainer resting removably within the upper end of said telescoping member, locking means carried by said strainer and adapted to engage with means provided therefor upon said telescoping member, or with means provided therefor upon said spout for locking said strainer either upon said telescoping member, or upon said spout, and a hood having a transparent portion carried by said strainer to protect the inlet thereof.



5. A pail comprising a body portion, a tubular spout projecting therefrom, a tubular member telescoping in said spout, and a wedge engaging in a pocket provided therefor in said spout between said spout and said tubular member for locking said tubular member in position.

[Claims 6 to 27 not printed in the Gazette.]

940,373. CAR-BRAKE. WILLIAM J. STAHR, Nescopeck, Pa. Filed Apr. 1, 1909. Serial No. 487,296.

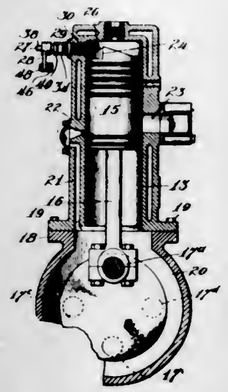


1. In combination with a truck, wheels mounted therein, swinging brake shoe carrying members mounted upon the truck, shoes carried by said members, springs mounted upon the truck and adapted to normally hold the shoes upon the members and said members from normal contact with the wheels, as set forth.

2. In combination with a truck, wheels mounted therein, swinging brake shoe carrying members mounted upon the truck, a brake shoe having an apertured shank portion extending through an opening in said member, a spring fastened to the truck and passing about the pivotal point of said swinging member and engaging one of the apertures in said shank portion of the shoe, as set forth.

3. In combination with a truck, wheels mounted therein, swinging brake shoe carrying members mounted upon the truck, a brake shoe having an apertured shank portion extending through an opening in said member, a spring fastened to the truck and passing about the pivotal point in said swinging member and having a split end adapted to pass through an aperture in said shank portion of the brake shoe and tending to normally hold the brake shoe from contact with the wheels, as set forth.

940,374. IGNITING APPARATUS FOR EXPLOSIVE-ENGINES. BENJAMIN F. STEWART, Chicago, Ill. Filed Aug. 8, 1908. Serial No. 447,621.



1. In a gas engine in combination, a cylinder, a piston reciprocable within the cylinder, a projection formed on the head of the piston having a plane face parallel to the direction of the movement of the piston and adjacent a side wall of the cylinder, an insulated rotatable spindle entering the chamber of the cylinder through a side wall thereof, and an electrode coöperating with the face of the projection on the piston mounted on the inner end of the spindle out of line with the axis of rotation thereof.

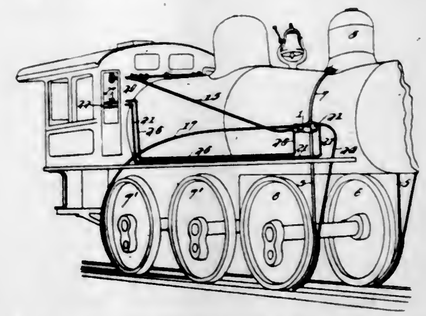
2. In a gas engine, in combination, a plurality of cylinders, an electric circuit continuously supplied with current, a sparking electrode within the chamber of each of the cylinders, all of the electrodes being electrically connected in one branch of the electric circuit, means for simultaneously shifting all of the electrodes longitudinally with respect to the cylinders, a piston reciprocable within each of the cylinders toward and away from the electrode, all of the pistons being electrically connected in the other branch of the electric circuit, operative connection between the pistons whereby they approach the electrodes in succession, and means for delivering an explosive charge to each of the cylinders at each cycle of movement of the piston therein.

3. In a gas engine, in combination, a cylinder, a sparking electrode within the chamber of the cylinder, a piston reciprocable within the cylinder toward and away from the electrode but never contacting therewith, an electric circuit of which said electrode and said piston constitute the terminals, said electric circuit being continuously supplied with current, and lever-operated means for shifting the electrode within the cylinder longitudinally thereof whereby the time of relative approach between the piston and electrode to sparking position is changed with respect to the cycle of movement of the piston within the cylinder.

940,375. TRACK-SANDING APPARATUS. JOSEPH W. STICKLEY, Norfolk, Va. Filed July 29, 1909. Serial No. 510,224.

1. A track sanding apparatus, composed of a hollow sand box having a tapering discharge mouth, an air nozzle connected to each end of said box so as to extend thereinto above the taper thereof, a sand pipe connected to each end of said box and having their ends leading to points adjacent the track, the free ends of the nozzles extending into the inner ends of the sand pipes, a slide connected to said box and disposed below and out of contact with said air nozzles and pipes at the base of said tapering discharge mouth, said slide being formed with an opening to register with said discharge mouth, and a pipe connected to the discharge mouth and leading downwardly at a point adjacent the track and in proximity to the free end of one of said sand pipes.

2. A track sanding apparatus composed of a sand box, means for feeding sand from said box to two separate points on each rail of the track, and means for feeding the sand from said box to a third point on each rail of the track in proximity to one of the first named points and a slide and controlling means for the discharge of the sand from said box.



3. In a track sanding apparatus, a pair of sand boxes arranged one on each side of the locomotive boiler, a pair of sand pipes connected to each box and discharging at separated points on the rail, independent air controlled means in the cab for feeding sand through each of said pipes, a pipe leading from each of said sand boxes to the rail, and means for governing the discharge of sand through the last named pipe, said means being operable by the engineer from within the cab.

4. A track sanding apparatus composed of a sand box, a pair of sand pipes leading from opposite ends of the box and discharged at different points on one of the rails of the track, a third sand conveying pipe independent of each of the first named sand pipes and leading from the bottom of said box, and a reciprocatory slide in said sand box, and connections whereby sand may be independently conveyed through either of the three named pipes.

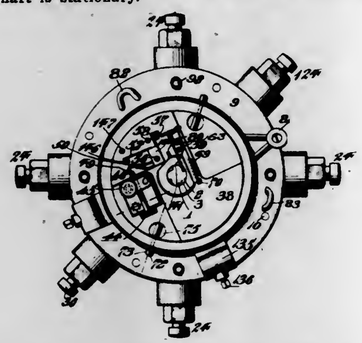
5. In a track sanding apparatus, a sand box on each side of the locomotive boiler, a sand pipe leading from each box to discharge onto the rails constituting the track, a slide for each box controlling the feed of sand into each sand pipe and having means to limit its movement in one direction, and means for operating the slides in unison composed of a pair of levers pivotally connected at their inner ends and being pivotally mounted at their centers, and a connecting rod pivoted to the outer end of each lever and leading to the slides.

[Claims 6 to 9 not printed in the Gazette.]

940,376. IGNITION SYSTEM FOR EXPLOSION-ENGINES. PAUL R. WERNER, Philadelphia, Pa. Filed Oct. 5, 1908. Serial No. 456,227.

1. In an ignition system including primary and secondary circuits, the combination with a casing of terminals carried thereby and leading to the different cylinders and terminals leading to the primary and secondary circuits, a shaft rotatably mounted in said casing, a selector brush carried by said shaft and adapted to rotate in proximity to the cylinder terminals, a head rotatably carried by said casing, a contact producing mechanism carried by said head and controlled by said shaft, the relative movement of said contact mechanism and shaft producing but a single spark for each explosion and the circuit at the contact mechanism remaining open when the contact mechanism and shaft stop at any relative location to each other, and means for actuating said head to produce a contact in the primary circuit and a spark in the secondary circuit when said shaft is stationary.

2. In an ignition system including primary and secondary circuits, a casing, a head rotatably mounted thereon, a shaft rotatably mounted in said head, contact producing mechanism carried by said head and adapted to be actuated by said shaft on its rotation, cylinder terminals suitably supported, a selector mounted on said shaft and adapted to rotate in proximity to said terminals, a primary terminal adapted to lead the current to said contact mechanism, a secondary terminal suitably supported and operatively connected with said selector, means for rotating said head to advance or retard the spark, the relative movement of said contact mechanism and shaft producing but a single spark for each explosion and the circuit remaining open when the contact mechanism and shaft stop at any relative location to each other, and means for rotating said head to produce a contact in the primary circuit and a spark in the secondary circuit when said shaft is stationary.



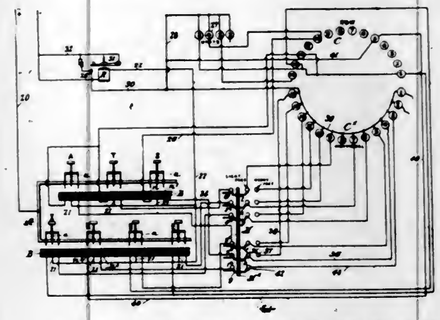
3. In an ignition system, a stationary casing, a shaft rotatably mounted therein, a selector brush carried by said shaft, cylinder terminal leads suitably supported in the path of said selector, a secondary terminal lead suitably supported and electrically connected with said selector, a primary terminal lead suitably supported, a spring actuated plunger supported by said last named terminal, a head rotatably mounted on said casing, a stationary contact with which said plunger is at all times electrically connected, a contact producing mechanism carried by said head and adapted to be operated by said shaft, means for rotating said head in one direction, and means for causing said head to automatically return to its normal position and during such movement to cause said contact device to produce a spark while said shaft is stationary.

4. In an ignition system including primary and secondary circuits, a stationary casing, a shaft rotatably mounted therein, a selector carried by said shaft and insulated therefrom, selector lead terminals suitably supported and in the path of said selector, a primary and a secondary terminal, one of which is connected with said selector, a head rotatably mounted on said casing, a contact mechanism with which the other of said terminals is always electrically connected, said shaft having means thereon for actuating said contact mechanism on the rotation of said shaft, the relative movement of said contact mechanism and shaft producing but a single spark for each explosion and the circuit remaining open when the contact mechanism and shaft stop at any relative location to each other, and means for rotating said head to produce a contact in the primary circuit and a spark in the secondary circuit while said shaft is stationary.

5. In an ignition system dispensing with a vibrating coil, a stationary casing, a shaft rotatably mounted therein, a selector carried by said shaft and insulated therefrom, cylinder lead terminals in the path of said selector, a primary and a secondary lead terminal, one of which is electrically connected with said selector, a rotatably mounted contact mechanism with which said primary terminal is connected, a secondary coil, a primary coil, a condenser bridging said primary coil, and said shaft having means thereon for actuating said contact mechanism on the rotation of the shaft, the relative movement of said contact mechanism and shaft producing but a single spark for each explosion and the circuit at the contact mechanism remaining open when the contact mechanism and shaft stop at any relative location to each other.

[Claims 6 to 56 not printed in the Gazette.]

940,377. TYPE CASTING AND COMPOSING MACHINE. WILLIAM ACKERMAN, New York, N. Y., assignor to United States Graphotype Company, New York, N. Y., a Corporation of New York. Filed Dec. 28, 1905. Serial No. 293,603.



1. In a machine for registering upon a type-casting-machine-controller the composition to be cast in the casting machine, a key-board having groups of keys representing a plurality of lay-outs or fonts or parts thereof, selective means for registering upon the casting-machine-controller the several characters appearing in the several key-board groups, means for connecting the several key-board keys to the controller selective means, and means whereby said connections may be established for one key-board group and rendered inoperative from another key-board group.

2. In a machine for registering upon a type-casting-machine-controller the composition to be cast in the casting machine, a key-board having groups of keys representing a plurality of lay-outs or fonts or parts thereof, selective means for registering upon the casting-machine controller the several characters appearing in the several key-board groups, means for connecting the several key-board keys to the controller selective means, and means whereby said connections may be simultaneously established for all the keys of one key-board group and rendered inoperative from the keys of another key-board group.

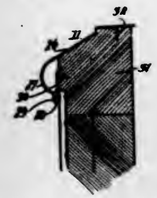
3. In a machine for registering upon a type-casting machine-controller the composition to be cast in the casting machine, a key-board having groups of keys representing a plurality of lay-outs or fonts or parts thereof, selective means for registering upon the casting machine controller the several characters appearing in the several key-board groups, and means whereby one at a time of said key-board groups may be placed in operative connection with the controller registering means.

4. A machine for registering upon a type-casting-machine controller the composition to be cast in the casting machine, a key-board having keys representing the characters adapted to be registered upon the controller, selective means for registering on the controller the several characters corresponding to the key-board keys, and means whereby a plurality but less than all of said character keys may be connected to the controller registering means.

5. A machine for registering upon a type-casting machine controller the composition to be cast in the casting machine, a key-board having keys representing the characters adapted to be registered upon the controller, selective means for registering on the controller the several characters corresponding to the key-board keys, and means whereby said keys may be interchangeably connected in groups to said controller registering means.

[Claims 6 to 15 not printed in the Gazette.]

940,378. CAR CONSTRUCTION. THOMAS DUNBAR and LARS J. BERG, Chicago, Ill., assignors to Metallic Sheathing Company, a Corporation of Illinois. Filed May 19, 1908. Serial No. 433,668.



1. A car wall having spaces above the windows covered by a metallic sheathing composed of vertically disposed slat sections of channel formation, each of the sections comprising a face wall having along its edges side walls, one of the side walls being secured to the car wall and the other side wall interlocked into the next adjacent secured wall, leaving seams between the sections in simulation of a car having wooden sheathing, and a metallic sheathing covering the remainder of the car having an appearance identical with the sheathing above the windows, and a continuous sash rest located intermediate the upper and lower sheathing and overlying the upper edge of the lower sheathing and serving to protect the same, substantially as described.

2. A car wall having its lower portion covered by a metallic sheathing terminating below the window line, a continuous sash rest having its lower edge reversely bent or turned to provide a hooked or channel edge overlying the upper portion of the lower sheathing, and a rigidly secured attaching strip entered into the hooked edge of the sash rest, and an upper sheathing extending down to the sash rest and composed of individual sections each comprising a face wall having on one side an obliquely inwardly extending attaching wall terminating in an attaching flange and having along its other edge the outwardly obliquely extending wall adapted to interlock with the next adjacent attaching wall, and attaching means, as screws, entered through the attaching flanges of the individual sections of the sheathing, substantially as described.

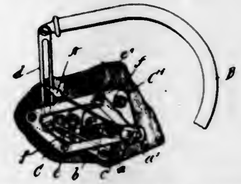
3. A car wall having its lower portion covered by a metallic sheathing terminating below the window line, a continuous sash rest overlying the upper edge of the lower sheathing and serving to protect the same, and an upper sheathing extending down to the sash rest and composed of individual sections each comprising a face wall having on one side an obliquely inwardly extending attaching wall terminating in an attaching flange and having along its other edge the outwardly obliquely extending wall adapted to interlock with the next adjacent attaching wall, and attaching means, as screws, entered through the attaching flanges of the individual sections of the sheathing, substantially as described.

4. A car wall having its lower portion covered by a metallic sheathing terminating below the window line, a continuous sash rest having its lower edge reversely bent or turned to provide a hooked or channeled edge overlying the upper portion of the lower sheathing, and a rigidly secured attaching strip entered into the hooked edge of the sash rest, and an upper metallic sheathing intermediate the window spaces and extending down to the sash rest, substantially as described.

5. In combination with a car sheathing, an outwardly rounded metallic sash rest having its lower edge reversely bent or turned to form a hooked or channeled edge overlying and protecting the upper edge of the sheathing, and a rigidly secured attaching strip entered into the hooked or channeled edge of the sash rest for holding the same in close contact with the underlying sheathing, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

940,379. FRAME FOR GAGE-MOVEMENTS. FREDERICK C. BLANCHARD and ERNEST B. CROCKER, Bridgeport, Conn., assignors to The Ashcroft Manufacturing Company, Bridgeport, Conn., a Corporation of Connecticut. Filed Dec. 30, 1907. Serial No. 408,477.



1. In a gage, the combination with a support, and an actuating member, of a frame carried by said support, a gage hand and a hand actuating mechanical train mounted upon said frame, and connections between the frame and support whereby the former may be adjusted with relation to the latter, around the hand staff axis as a center.

2. In a gage, the combination with a support, and an actuating member, of a gage hand, a frame, a hand actuating mechanical train mounted in said frame and connected with said actuating member, said frame comprising stops to limit the gage movement, and connections between said frame and support whereby the former may be adjusted relative to the latter around the hand staff axis as a center.

3. In a gage, the combination with a support, and an actuating member, of a gage hand, a frame, a gage hand crank, a motion multiplying lever carried by said frame and connected with said actuating member, an articulated connection between said lever and said hand crank, said frame comprising stops to limit the gage movement, and connections between said frame and support whereby the former may be adjusted relative to the latter, around the hand staff axis as a center.

4. In a gage, the combination with a support, and an actuating member, of a gage hand, a gage hand crank, a frame, a motion multiplying lever carried by said frame and connected with said actuating member, an articulated connection between said lever and said hand crank, said frame comprising stops arranged in the path of said lever to limit the gage movement, and connections between said frame and support whereby the former may be adjusted relative to the latter, around the hand staff axis as a center.

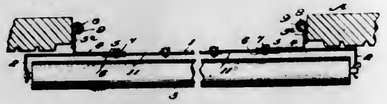
5. In a gage, the combination with a support, and an actuating member, of a gage hand, a gage hand crank, a motion multiplying lever connected with said actuating member, an articulated connection between said lever and said hand crank, a frame in which said lever and hand crank are mounted, and comprising stops to limit the gage movement, and connections between said frame and support whereby the former may be adjusted relative to the latter, around the hand staff axis as a center.

[Claims 6 to 8 not printed in the Gazette.]

940,380. ADJUSTABLE SHADE-HANGER. WILLIAM B. CASWELL, Newport, R. I., assignor of one-half to Annie E. Caswell, Newport, R. I. Filed Nov. 30, 1908. Serial No. 465,273.

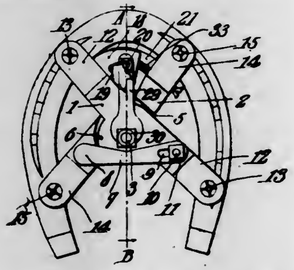
1. In a shade hanger, the combination of parallel guideways, slides consisting of perpendicularly arranged members one of which terminates in a bead movable longitudinally in the guideways, the other members of the slides being disposed transversely of the guideways and formed with vertically facing clips, a shade support posi-

tioned in the clips and formed in proximity thereto with slots, fastening elements passed through the members of the clips and the corresponding slots to adjustably connect the slides to the support, and means for maintaining the slides in different longitudinally adjusted positions in the guideways.



2. In a window fixture, the combination of vertical guide ways, slides consisting of angularly disposed members, one of which is arranged in the plane of the corresponding guide way and terminates in a bead movable longitudinally therein, the other members of the slides being laterally disposed in a plane intersecting the planes of the guide ways and being formed with vertically facing clips, a shade support constructed in sections mounted in the respective clips and formed with adjusting slots, detachable fastening elements passed through the clips and the adjusting slots, and means for suspending the slides in different vertical positions in the guide ways.

940,381. ICE-CREEPER FOR HORSESHOES. GEORGE H. ECHOLS, Springfield, W. Va. Filed June 7, 1909. Serial No. 500,544.



1. The combination with a horse shoe, of relatively movable cross bars terminally adapted to secure sharp pointed calks, a toe clamp combined with said cross bars, a revoluble heel clamp assembled with said cross bars, and means for holding said cross bars in operative position.

2. The combination with a horse shoe, of pivotally connected cross bars terminally adapted to secure sharp pointed calks, a toe clamp terminating in a clamping portion engaging the upper face of said horse shoe, and an adjustable link for holding said cross bars in operative position.

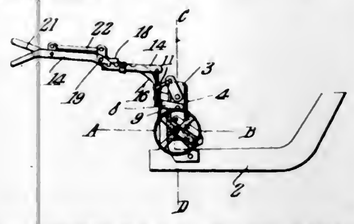
3. The combination with a horse shoe, of pivotally connected cross bars terminally adapted to slidingly fit the inner walls of a horse shoe and to secure sharp pointed calks thereto, one of said cross bars being provided with a laterally extending ear having an adjusting bolt, the other provided with a lateral extending ear having formed therein a slot to engage said adjusting bolt, clamping members adapted for contact with the upper surface of said horse shoe whereby to secure said cross bars to said horse shoe, and an adjustable link combined with said cross bars and operating to lockingly hold the said cross bars in operative position.

4. The combination with a horse shoe, of relatively movable cross bars having terminal off-set portions adapted to slidingly fit the inner walls and lower surface of a horse shoe and to secure sharp pointed calks thereto, a king bolt pivotally connecting said cross bars, a toe clamp secured at one end to one of said cross bars and terminating at the other end in a clamping portion engaging the upper surface of said horse shoe, a heel clamp axially engaging said king bolt and revoluble thereupon, and a link connecting said cross bars and adapted to lock the same in operative position.

5. The combination with a horse shoe, of interfitting cross bars terminating in off-set extensions adapted to receive sharp pointed calks, one of said cross bars having a laterally extending ear and the other a set screw adapted to bear against said ear whereby to adjust said cross bar in operative position, a king bolt pivotally connecting said cross bars, a toe clamp engaging the toe portion of said horse shoe, a heel clamp mounted for rotation on said king bolt and terminating in flared clamping portions for engagement with the upper surface of said horse shoe, and a link connecting the free ends of said cross bars and operating to lock the members in operative position.

[Claim 6 not printed in the Gazette.]

940,382. GAGE-WHEEL FOR CORN-PLANTERS. WILLIAM T. ELLIS, Weston, Ohio. Filed Aug. 9, 1909. Serial No. 511,953.



1. The combination with a furrow opener, of a standard, a slide guided thereon, a gage wheel movable with the slide, a rock shaft, a link connection between said shaft and the slide, a crank arm extending from the rock shaft, an arcuate toothed guide strip, an actuating bar slidable along said guide strip, said bar being pivotally connected to the crank arm, and means carried by the bar for engaging the teeth on the strip to lock the bar and strip against relative movement.

2. The combination with a furrow opener, of a standard, a slide guided on the standard, a gage wheel movable with the slide, a rock shaft, cranks thereon, a link connection between one of the cranks and the slide a curved guide strip having teeth thereon, an actuating bar, a yoke secured thereto and slidably mounted upon the guide strips, said bar pivotally engaging one of the cranks, and means carried by the bar for engaging the notched strip to hold the bar and strip against relative movement, said bar being shiftable in the direction of the length of the guide strip to actuate the rock shaft and the slide.

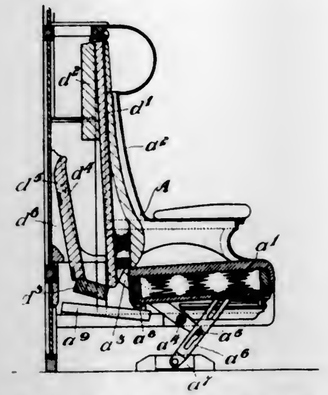
940,383. RAILWAY-COACH. ROLAND A. FELTON, Birmingham, England. Filed July 8, 1908. Serial No. 442,608.

1. The improvements in sleeping coaches for railway trains, consisting in the combination of a back capable of pulling out and a seat worked therefrom and coacting therewith to form a bed, of a housing at the back of the seat and the mechanism for causing the mattress and bedding to slide into or out of same upon the operation of the seat back, the means for forming an upper berth above same coöperating therewith to form a roof to screen the lower berth and with the means for dressing in either berth without necessity of coming out into the coach.

2. In sleeping coaches a seat back capable of pulling out with side levers fulcrumed on pins and extending beyond same with connections to slotted links pivoted on floor blocks and connected to the underframe of the seat so that as the seat back is lowered, said links are thrown over to carry the seat to the end of the seat back to cooperate therewith to form a bed.

3. In a sleeping car, the combination with a seat frame, of a seat and a back therefor each movably mounted in said frame, extensions hinged to said back, and means

connecting the back and the seat to move the latter rearwardly under said extensions to support the same when the back is lowered.

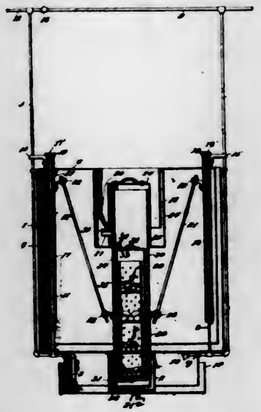


4. In a sleeping car, the combination with a seat frame, of a seat and a back each movably mounted in said frame, foldable extensions hinged to the lower portion of said back and forming therewith a flush extension when the back is lowered, and means connecting the back and the seat for moving the latter rearwardly beneath the extensions to support the same when the back is moved downwardly.

5. In a sleeping car, the combination with a seat frame, of a seat and back each movably mounted in said frame, a foldable extension connected with said back, means connecting said seat and back for moving the seat rearwardly beneath the extension to support the same when the back is lowered, and means for folding the extension behind the back when the same is raised.

[Claims 6 to 11 not printed in the Gazette.]

940,384. ACETYLENE-GAS GENERATOR. ZIBA A. FERREL, Oskaloosa, Iowa. Filed Nov. 13, 1908. Serial No. 462,491.

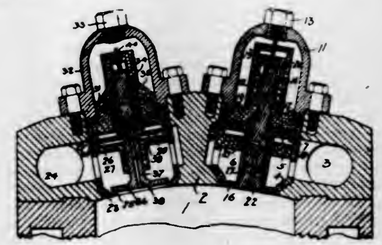


1. In an acetylene gas generator the combination of a gas bell having an opening and provided with a flange pendent from said opening, a receptacle located within the gas bell, a shell surrounding the upper portion of the receptacle and said pendent flange and adapted to receive a quantity of water to form a liquid seal, a carbid holder arranged within the receptacle, and a cover fitted over the upper portion of the receptacle and having a lateral nozzle at its lower end to deliver the gas into the space formed between the said shell and the pendent flange.

2. In an acetylene gas generator the combination of a gas bell having an opening in its top and a flange pendent from said opening, said flange having a portion pressed inward therefrom to form a projection, a receptacle arranged within the gas bell, a shell surrounding the upper portion of said receptacle and the said pendent flange and adapted to contain a quantity of water to form a liquid seal, a carbid holder arranged within said receptacle, and a cover fitted upon the upper portion of said receptacle and having a lateral nozzle near its lower end to extend beneath the said projecting portion of the pendent flange.

3. In an acetylene gas generator the combination of a gas bell having a pendent flange, a generator arranged within the gas bell and movable therewith and comprising a receptacle, and a cover for the upper portion of said receptacle, having a lateral nozzle for the escape of the gas, said nozzle having the upper portion provided with a web in which a series of small openings are formed.

940,385. FLUID-PRESSURE VALVE. JOSEPH FOLCO, Tacoma, Wash. Filed Sept. 10, 1908. Serial No. 452,440.

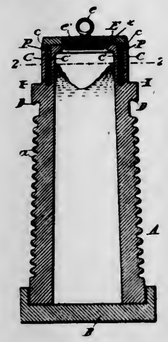


1. In a fluid pressure valve, the combination of a cylinder; a valve chamber communicating therewith and having a valve seat formed thereon; a disk valve adapted to close said valve seat; a spring engaging said valve to keep it closed against said seat; and means adapted to come into action, after the valve is opened, against the action of said spring, to reduce the effect of said spring, but to be inoperative when the valve is closed.

2. In a fluid pressure valve, the combination of a cylinder; a valve chamber communicating therewith and having a valve seat formed thereon; a disk valve adapted to close said valve seat; a spring engaging said valve to keep it closed against said seat; a secondary chamber; a secondary disk secured to the valve and fitting said secondary chamber; and a passage through said valve to the under side of said secondary disk and adapted to communicate with said secondary chamber when said valve is opened, to reduce the effect of said spring, but to be closed against communicating with said secondary chamber when said valve is closed.

3. In a fluid pressure valve, the combination of a cylinder; a valve chamber communicating therewith and having a valve seat formed thereon; a disk valve adapted to close said valve seat; a secondary chamber; a secondary disk fitting said secondary chamber; a valve shank joining said disk valve and said secondary disk and having a passage therein extending from below the disk valve to a point below the secondary disk; a spring engaging said shank to keep the valve closed against said valve seat; and a port to said secondary chamber and adapted to close the communication of said passage with said chamber when said valve is closed, but to open the communication between said parts when the valve is opened.

940,386. INGOT-MOLD. EMIL GATHMANN, Bethlehem, Pa., assignor to Gathmann Engineering Company, New York, N. Y., a Corporation of Maine. Filed June 14, 1909. Serial No. 502,109.



1. A metallic mold, the lower portion of which is provided with a roughened surface to accelerate heat radiation and to thus favor the cooling of the molten mass to a greater extent at the bottom part of the mold than at the upper part thereof, and the upper part of which is provided with means outside its inner walls for conserving the heat of the adjacent molten mass within the mold.

2. A metallic mold, the lower portion of which is ribbed to accelerate heat radiation and to thus favor the cooling of the mold while the upper portion is equipped with means for preventing heat radiation and for conserving the heat of the molten metal adjacent said upper portion.

3. A metallic mold, in which all that part of the mold below a relatively small part thereof at the upper end is constructed with means for favoring the radiation of heat from the molten mass, which lower portion constitutes approximately 85 per cent. of the entire contents of the mold, while the upper portion of the mold, which represents in extent approximately twice the extent of the vertical shrinkage of the metal during solidification, is provided with heat insulating means.

4. A metallic mold, the lower portion of which is ribbed or roughened to favor heat radiation, while the upper portion is provided with heat insulating means arranged between the inner and outer walls of the upper portion of the mold and out of contact with the fluid metal.

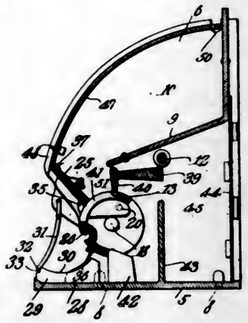
5. A metallic mold, the lower portion of which is ribbed or roughened to favor heat radiation, while the upper portion is surrounded by heat insulating means and which is closed at the top by a cap or covering of insulating material which is a poor conductor of heat and which has no chemical effect on the material from which the ingot is cast.

940,387. MATCH-SAFE. JOSEPH E. GEARHART, Clearfield, Pa. Filed Dec. 26, 1908. Serial No. 469,258.

1. A match-safe, including a magazine, an abraded member supporting means for a delivered match, and a revoluble match selecting and delivering member having a combined oscillatory and longitudinal movement for transferring a single match from the magazine to the abraded member and to the supporting means.

2. A match-safe including a magazine, supporting means for a delivered match, and a selecting and delivering member having a combined oscillatory and longitudinal movement for delivering a single match to the supporting means at each operation of said member, and a spring for yieldingly holding the said member against both oscillatory and longitudinal movement.

3. A match-safe including a magazine, supporting means for a delivered match, an igniting device, and a cylindrical match selecting and delivering member having a combined oscillatory and longitudinal movement for igniting the match and delivering the same to the supporting means, and a pivotally supported apron bearing upon said member.

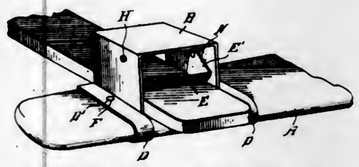


4. A match-safe including a magazine supporting means for a delivered match, an igniting device, and a cylindrical match selecting and delivering member having a combined oscillatory and longitudinal movement for presenting the head of a match to the igniting device, and a spring for yieldingly holding said member against both longitudinal and oscillatory movement.

5. A match-safe including a magazine, supporting means for a delivered match, a spring controlled selecting and delivering cylinder having a combined oscillatory and longitudinal movement for delivering a single match to the supporting means, and a match igniting device for lighting a match when the selecting and delivering member is operated.

[Claims 6 to 19 not printed in the Gazette.]

940,388. SAFETY-CLIP FOR SWINGLETREES. ELIAS GRAHAM, Hazel Dell, Ill., assignor of one-third to H. E. Warfel and one-third to Dayton E. Bowers, Hidalgo, Ill. Filed Mar. 22, 1909. Serial No. 485,004.

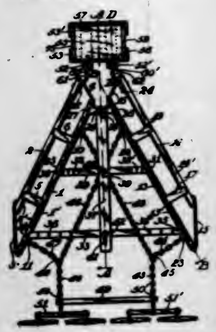


In combination with a swingle tree, a safety clip, comprising a housing open on two of its opposite sides and through which a trace strap is adapted to pass, the opposite closed sides of said housing each having laterally extending flanges which are bent upon themselves to form resilient clips designed to engage over the edge of a whiffle tree, and a clamping member pivotally mounted at its ends to the opposite walls of the housing and adapted to bear against a trace strap held intermediate the same and the whiffle tree, as set forth.

940,389. ROAD-GRADER. ARNOLD W. HADLEY and HARVEY M. SMITH, Monroe township, Morgan county, Ind. Filed Apr. 9, 1909. Serial No. 488,904.

1. A road grader including a pair of opposed compound scrapers comprising each a pair of rigidly connected blades, one blade of each pair being shorter than the other blade, and the shorter blades extending rearward beyond the plane of the rearward ends of the other blades, and a plurality of tie-bars connected adjustably to the pair of opposed compound scrapers.

2. A road grader including a pair of opposed scraping blades, tie-bars connecting the scraping-blades together, the scraping-blades converging rearward, a pair of draft-chains connected to the rearward portions of the scraping-blades, a beam connected to the draft-chains, and guide-chains connected to the forward portions of the scraping-blades and the draft-chains.



3. A road grader including a pair of opposed scraping-blades each provided at the forward end thereof with a chain having a hook on its end, a pair of crossed draft-chains, each connected to a different one of the scraping-blades and connected also to the hook of the chain with which the opposed scraping-blade is provided, and tie-bars connected to the scraping-blades.

4. A road grader including a pair of opposed compound scrapers each comprising a pair of blades connected rigidly together, a plurality of tie-bars connected to one of the blades of each one of the compound scrapers, and a pair of draft-chains, each connected to each pair of blades.

5. A road grader including a pair of opposed scraping-blades, a plurality of tie-bars connected to the pair of scraping-blades, a foot-board mounted upon the tie-bars, a pair of draft-chains, each connected with an end portion of a different one of the scraping-blades and connected also with the opposite end portion of the opposed scraping-blade, the chains being crossed and extending under the tie-bars.

[Claim 6 not printed in the Gazette.]

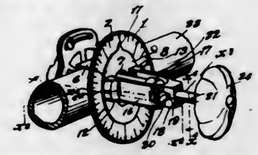
940,390. MACHINE FOR CUTTING, BEVELING, SPLITTING, AND GROOVING LEATHER. CARL HILDEBRANDT, Dusseldorf, Germany. Filed July 2, 1908. Serial No. 441,711.



A device of the character described, comprising a divided knife carrier composed of an upper section having a socket, and a lower rotatable section having a pin engaging said socket, means for locking the lower section to the upper section, a holder, a set screw that adjustably secures the upper carrier-section to the holder, an arm slidably supporting the holder, and means for locking the holder to said arm.

940,391. REGULATOR FOR GAS-STOVES. ANNA M. JOHNSON, Early, Iowa. Filed Dec. 15, 1908. Serial No. 467,704.

1. An indicator for gas stoves comprising a dial-plate having a central opening to receive the stuffing-box of the burner, arms extending backwardly from the dial-plate to engage the supply-pipe for engagement with the burner to hold the dial-plate from rotation, a pointer-plate against the front face of the dial-plate, a tubular extension extending backwardly from the pointer-plate through the opening in the dial-plate, a flange upon the rear end of the tubular extension to hold the pointer-plate rotatably in position, a head extending forwardly from the pointer-plate and adapted to be secured to the valve-stem, so that by rotating the valve-stem the pointer-plate will be rotated to move the pointer upon the dial.



2. An indicator for gas stoves comprising a dial-plate having a central opening to receive the stuffing-box of the burner, a dial upon the dial-plate, arms extending backwardly from the dial-plate to engage the burner and hold the dial-plate against rotation, a pointer-plate against the front face of the dial-plate, a tubular extension extending from the pointer-plate through the opening in the dial-plate, a flange for holding the extension in the opening, bases removably secured to the pointer-plate, arms extending forwardly from the bases one on each side of the stuffing-box of the burner, a head connecting the forward ends of the arms and having a bore to receive the valve-stem, and a set-screw in the head for engaging the valve-stem.

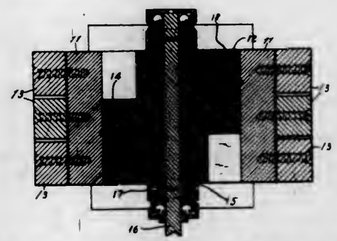
3. An indicator for gas stoves comprising a dial-plate, a pointer-plate rotatably secured thereto, arms projecting rearwardly from the dial-plate to engage a gas-pipe, and a part fastened to the pointer-plate and adapted to engage a valve-stem to be rotated therewith.

4. An indicator for gas stoves comprising a dial-plate, a pointer-plate rotatably secured thereto, arms projecting rearwardly from the dial-plate to engage a gas-pipe, and a part fastened to the pointer-plate and adapted to engage a valve-stem to be rotated therewith, said part being detachably connected with the pointer-plate and adapted to be accommodated between the arms of the dial-plate to make a compact package for shipment.

5. An indicator for gas stoves comprising a dial-plate having two openings therethrough, a pointer-plate rotatably connected therewith and provided with two openings registrable with and of less diameter than the openings of the dial-plate; a part to engage a valve-stem, and screws insertible through the openings of the dial-plate and screwed into said part, the openings in the pointer-plate being countersunk to accommodate the heads of said screws.

[Claim 6 not printed in the Gazette.]

940,392. ELECTRIC GENERATOR. EDWARD T. KENNEY, Indianapolis, Ind., assignor to The Henricks Novelty Company, Indianapolis, Ind., a Corporation of Indiana. Filed Apr. 16, 1908. Serial No. 427,334.



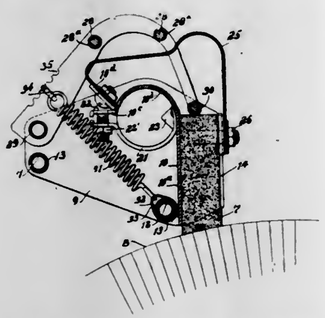
1. In a generator, the combination of a pair of poles, a rotor coöperating with said poles and provided at opposite ends with a plurality of wings angularly separated from each other and relatively angularly displaced so as to be brought into successive coaction with the poles in

opposite magnetic relations, said rotor being laminated in its wings in planes substantially at right angles to the axis of the rotor and in its intermediate portion being laminated substantially parallel with the axis of the rotor, and a suitable winding surrounding the rotor between the wing members.

2. In a generator, the combination of oppositely magnetized poles, a rotor coöperating with said poles and provided at opposite ends with radially extending portions adapted to simultaneously coöperate with the poles in successive magnetic alternation, said rotor being laminated in its radial extensions in planes substantially at right angles to the axis of the rotor and in its intermediate portion being laminated substantially parallel with the axis of the rotor, and a suitable winding surrounding the rotor between said radial extensions.

3. In a generator, the combination of a rotor comprising a central portion and a pair of wing members at its ends, each of said wing members comprising three radially extending wings spaced 120 degrees and the wings of one of said members angularly displaced relative to the other, the medial portion of said rotor being laminated substantially parallel with the axis and the wing portions being laminated substantially at right angles to the axis, a pair of magnetic poles arranged to coöperate with both wing members and magnetically spaced a distance substantially equal to the angular displacement of the wings of one wing member relative to the wings of the other wing member, and a winding surrounding the rotor between the wing members thereof.

940,393. BRUSH-HOLDER. EARLE R. KNIGHT, Norwood, Ohio, assignor to The Bullock Electric Manufacturing Company, a Corporation of Ohio. Filed Aug. 30, 1905. Serial No. 276,375.



1. In a brush holder, a pair of side plates, and a separate sheet metal spacing plate therefor, said spacing plate having a curved or arched portion and a portion forming a guide for a brush.

2. A brush-holder comprising side plates and a separate curved or arched connecting-plate intermediate the ends of the side plates, said connecting-plate forming a bearing for the brush-holder stud.

3. In a brush-holder, side plates and a connecting-plate, said side plates having openings, and said connecting-plate having a curved or arched portion adapted to receive the supporting stud.

4. In a brush-holder, parallel side plates having openings to receive a supporting stud, and a spacing plate, all said plates being formed of sheet metal punchings, said spacing plate having an upper portion bent to form a bearing for the supporting stud.

5. In a brush-holder, parallel side plates, and a connecting-plate for holding said side plates a predetermined distance apart, said connecting-plate having a flat portion forming a brush guide and an upper portion curved to receive a supporting stud.

[Claims 6 to 15 not printed in the Gazette.]

940,394. TANNIN-CONTAINING EXTRACT AND PROCESS OF PRODUCING SAME. ALEXANDER KUMPFMILLER, Hocklingsen, near Hemer, Germany. Filed Sept. 24, 1908. Serial No. 454,615. (Specimens.)

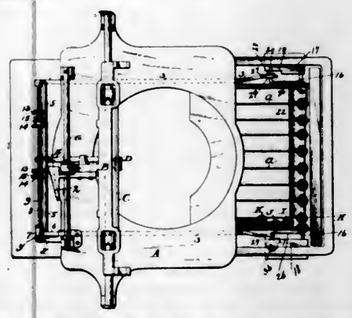
1. The process of producing an easily soluble tan liquor free from sediment from a tannin-containing extract and a purified waste cellulose sulfite solution consisting in eliminating from said waste solution sulfurous acid by subjection to a vacuum and calcium compounds by concentration and filtration, preparing separately the vegetable tannin-containing extract and mixing both together.

2. The process of producing an easily soluble tan liquor free from sediment from a tannin-containing extract and a purified waste cellulose sulfite solution consisting in eliminating from said waste solution sulfurous acid by subjection to a vacuum and calcium compounds by concentration and filtration, preparing separately the quebracho extract and mixing both together whereby the easily soluble tan liquor is obtained free from sediment.

3. The process of producing a tan-liquor easily soluble in water, consisting in preparing a vegetable tannin-containing extract, purifying a waste cellulose sulfite solution by heating same and then pouring it into a chamber from which the air is partially exhausted eliminating thereby sulfurous acid, concentrating the liquor and precipitating insoluble calcium sulfite, separating the latter by filtration, adding carbonate of sodium to the solution transforming thereby the bisulfite of calcium into sulfite of calcium and the calcium salts of organic acids into sodium salts, filtering and adding hydrochloric acid to the filtrate, and mixing the remaining solution with the vegetable tannin-containing extract.

4. The process of producing a tan-liquor easily soluble in water, consisting in preparing a vegetable tannin-containing extract, purifying a waste cellulose sulfite solution by heating same and then pouring it into a chamber from which the air is partially exhausted eliminating thereby sulfurous acid, concentrating the liquor and precipitating insoluble calcium sulfite, separating the latter by filtration, adding carbonate of sodium to the solution transforming thereby the bisulfite of calcium into sulfite of calcium and the calcium salts of organic acids into sodium salts, filtering and adding hydrochloric acid to the filtrate, mixing the remaining solution with the vegetable tannin-containing extract, and adding some coloring material.

940,395. TABULATING DEVICE FOR TYPE-WRITERS. CHARLES S. LABOFISH, Washington, D. C., assignor to Union Typewriter Company, Jersey City, N. J., a Corporation of New Jersey. Filed Jan. 9, 1901. Serial No. 42,676.



1. The combination with tabulating mechanism, of keys for actuating said tabulating mechanism, means for rendering the tabulating mechanism operable by said keys, and means for locking the tabulating mechanism out of control of said keys.

2. In a typewriting machine, the combination of printing mechanism, a series of printing keys therefor, tabulating mechanism adapted to be actuated by said printing keys, means for rendering the tabulating mechanism operable by said keys, and means for locking said tabulating mechanism out of control of said printing keys.

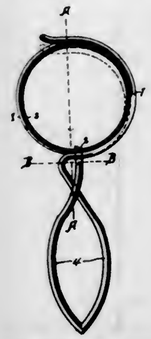
3. In a typewriting machine and tabulating mechanism, the combination of a carriage, printing instrumentalities, printing keys therefor, mechanism for arresting the carriage at a predetermined point, the arresting mechanism being controlled by said printing keys, means for rendering the arresting mechanism inoperative by the printing keys, and means for locking the arresting mechanism in the inoperative position.

4. In a typewriting machine and tabulating mechanism, the combination of a carriage, printing instrumentalities, printing keys therefor, means for automatically releasing the carriage, mechanism for arresting the carriage at a predetermined point, the releasing means and arresting mechanism being controlled by said printing keys, means for rendering the releasing means and arresting mechanism inoperative by the printing keys, and means for locking the releasing means and arresting mechanism in the inoperative position.

5. In a typewriting machine and tabulating mechanism, the combination of a carriage, printing instrumentalities, printing keys therefor, means for automatically releasing the carriage, denominational mechanism for arresting the carriage at the proper denominational position, the releasing means and denominational mechanism being controlled by said printing keys, means for rendering the releasing means and denominational mechanism inoperative and to permit a free and independent actuation of the printing keys, and means for locking the releasing means and denominational mechanism in the inoperative position.

[Claims 6 to 65 not printed in the Gazette.]

940,396. CAN-OPENER. ADOLPH C. LEMM, Fremont, Ohio. Filed May 27, 1909. Serial No. 498,705.

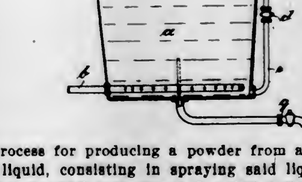


1. A device of the character described made with all its several parts integral, and comprising; a spring influenced finger, adapted to embrace a cylindrical cap or cover, and made to follow the lead of a screw thread thereon; a knife portion, normally spring held against said finger, but when said device is operated, made to travel under the edge of said cover while the plane of travel of said finger increases in distance therefrom; and a handle portion for the operation of said device; substantially as described.

2. A device of the character described, comprising; a spring influenced finger; adapted to embrace a cylindrical cap or cover, and to follow the lead of a screw thread thereon; a knife portion, normally spring held against said finger, and means for causing the same to travel under the edge of said cover while the plane of travel of said finger increases in distance therefrom; together with spring operating means for holding said knife against said finger, and a handle portion for the operation of said device; all in combination and substantially as described.

3. A can opening device of the character described which is provided with a spring influenced gripping finger, adapted to embrace a cylindrical cap or cover, and to follow the lead of a screw thread thereon; a handle portion for the operation of said device and a knife carried thereby, for insertion between the lower edge of said cover and the usual gasket; said knife being normally spring held against said finger, but adapted to travel under said edge with the operation of said device; and means integral therewith for causing the same to travel under said edge while said device is being operated and the plane of travel of said finger increases in distance therefrom; all in combination together with spring operating means for holding said knife against said finger, substantially as described.

940,397. BINDING-POST. ADAM LÜNGEN, New York, N. Y., assignor to Edwards & Company, a Corporation of New York. Filed Jan. 16, 1909. Serial No. 472,642.

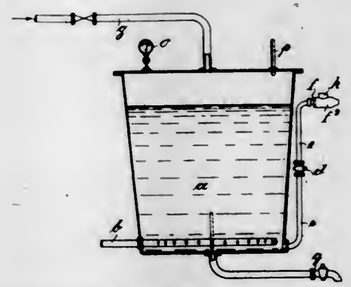


1. A binding post comprising a body with a pair of upwardly projecting arms, a screw journaled in both of said arms and extending therebetween, means for preventing longitudinal displacement of said screw in either direction, said arms, and a traveling nut on said screw guided by said body in a longitudinal but non-rotative movement.

2. A binding post comprising a body having upwardly bent arms, a screw journaled in both of said arms and extending therebetween and having a head and a collar to prevent its longitudinal movement in either direction, and a traveling nut having a lower flat face guided against said body.

3. A binding post comprising a body having upwardly projecting arms with flat inside faces parallel to one another, and a flat bottom face perpendicular thereto, a screw loosely received between said arms, said screw having a head at one end and a collar at the other end to limit its longitudinal movement, and a traveling nut having end faces parallel to the faces of said arms, and having a bottom face guided upon said remaining face of said body.

940,398. PROCESS FOR THE PRODUCTION OF SOAP POWDER. WILHELM LÜBING, Hanover, Germany, assignor to Gebrüder Körting Actiengesellschaft, Körtingsdorf, near Hanover, Germany. Filed Dec. 8, 1908. Serial No. 466,461.



1. A process for producing a powder from a hot high pressure liquid, consisting in spraying said liquid while maintaining the high pressure, and assisting the spraying and transmitting heat to the high pressure liquid by a hot gaseous fluid free from moisture introduced just at the point where the hot high pressure liquid begins to spray and expand.

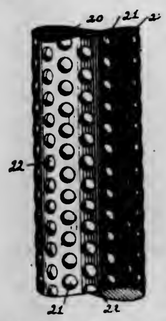
2. A process for producing a powder from a hot high pressure liquid, consisting in spraying said liquid while maintaining the high pressure, and assisting the spraying and transmitting heat to the high pressure liquid by a hot gaseous fluid of lower pressure but free from moisture introduced just at the point where the hot high pressure liquid begins to spray and expand.

3. A process for producing a powder from a hot high pressure liquid, consisting in spraying said liquid while maintaining the high pressure, and passing an annular current of superheated steam of lower pressure than the high pressure liquid to join said high pressure liquid just at the point where the said liquid begins to spray and expand.

4. The improvement in the art of producing dry powder from a hot high pressure liquid by spraying said liquid while maintaining the high pressure, consisting in transmitting dry heat and assisting thereby the spraying by means of a hot gaseous fluid of lower pressure to the hot high pressure liquid at the point where said liquid begins to spray and expand.

5. The improvement in the art of producing dry powder from a hot high pressure liquid by spraying said liquid while maintaining the high pressure, consisting in transmitting dry heat and assisting the spraying by means of an annular current of superheated steam of lower pressure at the point where said high hot pressure liquid begins to spray and expand.

940,399. CONCRETE-STEEL CONSTRUCTION. WILLIAM MUESER, New York, N. Y. Filed July 6, 1903. Serial No. 164,283.



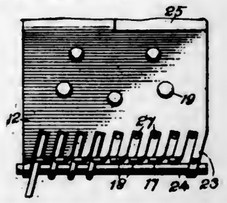
1. A metal bar having substantially the same cross sectional area throughout its length, for use as a core to be embedded in concrete, the surface of all of the sides of which is provided with a large number of interruptions of its continuity, whereby it presents a substantially continuous but actually much interrupted surface.

2. A compound bar or unit of construction consisting of a metal bar having substantially the same cross sectional area throughout its length and the surface of all of its sides provided with a large number of interruptions of its continuity whereby it presents a substantially continuous but actually much interrupted surface, embedded in an envelop of concrete.

3. A metal bar, for reinforcing concrete, of constant cross-sectional area some longitudinal body portions of the bar being plane surfaced and of unbroken continuity and other longitudinal portions being much interrupted, the interruptions whether projections or depressions, being so grouped as to occur within every cross section and to equalize every cross-section in area.

940,400. BELT-LACING TOOL AND SQUARE. HARRY T. MUMFORD, New York, N. Y., assignor to Mumford Manufacturing and Supply Company, a Corporation of New York. Filed May 2, 1908. Serial No. 430,564.

1. A tool of the character described, having its body portion provided with a plurality of obliquely disposed teeth projecting therefrom and forming obliquely disposed slots extending into said body portion lengthwise thereof to form angularly disposed lacing.



2. A tool of the character described, having its body portion provided with slots obliquely disposed with relation to the lacing end of the tool to cause the lacing to assume a spiral form.

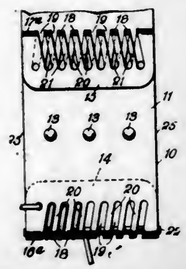
3. A tool of the character described, having its body portion provided with slots obliquely disposed with relation to the lacing end of the tool to cause the lacing to assume a spiral form, and with teeth projecting on opposite sides of the body portion.

4. A tool of the character described, comprising a body portion having a straight edge at one side thereof, and a plurality of substantially L-shaped teeth spaced apart and extending on opposite sides of the body portion and at right angles to said edge.

5. A tool of the character described, comprising a body portion having a straight edge at one side thereof, and a plurality of teeth extending outward from opposite sides of the body portion and at right angles to said edge and spaced apart so as to provide angularly disposed grooves between said teeth.

[Claims 6 to 10 not printed in the Gazette.]

940,401. BELT-LACING TOOL. HARRY T. MUMFORD, New York, N. Y., assignor to Mumford Manufacturing and Supply Company, a Corporation of New York. Filed Dec. 26, 1908. Serial No. 469,486.



1. A tool of the character described, comprising a body portion having its ends provided with oppositely and inwardly extending parts, and with angularly disposed guides forming spaces between the same.

2. A tool of the character described, comprising a body portion having an end provided with an inwardly extending part, and with angularly disposed guides forming spaces between the same.

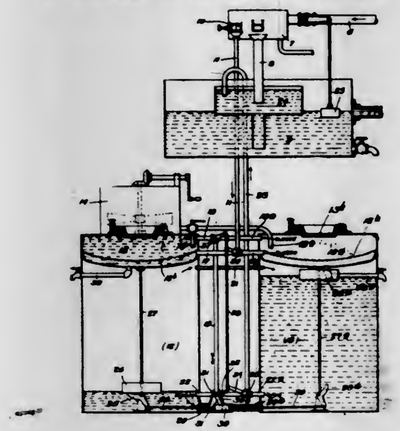
3. A tool of the character described, comprising a body portion having an end provided with an inwardly extending part spaced from said body portion for the end of the belt to be laced, and with angularly arranged guides spaced apart and forming loops at the end for a mandrel to be seated between the body portion and said extending part, the part of the guides on the extending part being at an angle with respect to the part on the body portion.

4. A tool of the character described, comprising a substantially rectangular body portion having its ends provided with oppositely and inwardly extending parts, and with angularly disposed guides spaced apart and forming loops at said ends, the guides of one end being oppositely arranged with respect to the other and the parts of the guides in the body portion being at an angle to the parts in the inwardly extending parts.

5. A tool of the character described, comprising a substantially rectangular and S-shaped body having angularly disposed guides arranged in the ends thereof.

[Claims 6 to 11 not printed in the Gazette.]

940,402. FEEDING DEVICE FOR WATER-PURIFYING APPARATUS. DUNCAN W. PATTERSON, Philadelphia, Pa. Filed Mar. 26, 1907. Serial No. 364,630.



1. In a feeding device the combination of a plurality of closed tanks and means to introduce into each of them in turn a supply of water under head, means to mix a chemical in the water, and means to conduct the displaced air in such tank to the next tank in turn, to thereby drive out water in the latter and elevate it, substantially as described.

2. The combination of a series of tanks having means to mix a chemical therein and empty the tank without loss of air pressure therein, proper connections and valves to introduce the air displaced in one tank of the series and to allow the consequent escape of water contained therein under pressure.

3. A series of closed tanks having means to mix chemicals therein and fill each tank with water, automatic means to shift the incoming stream of water to another tank when the first is full, means to preserve air pressure in each tank while filling and emptying, and means to conduct the air from each tank as it fills to the next in series, to displace the water therein under head.

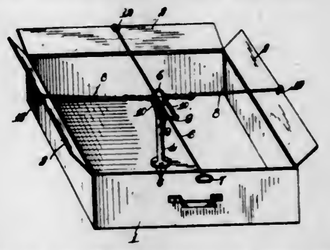
4. The combination with an elevated water supply and a receiving reservoir, of a plurality of tanks placed below the reservoir, said tanks being air connected and some of them filled with air, proper pipes and valves to admit water into each tank and drive the air into another, and thereby displace fluid contained therein and raise it to said reservoir, substantially as described.

5. In a water purifying apparatus the combination of a plurality of closed air-connected chemical feeding tanks, a water supply under head, and proper valves and connections adapted to fill one of the tanks with water and thereby drive the air into another tank, of the series to thereby displace and elevate the water therein.

[Claims 6 to 15 not printed in the Gazette.]

940,403. ASH-PAN. RICHARD B. PATTERSON, Sr., East Chicago, Ind., assignor of one-half to John M. Weber, Chicago, Ill. Filed June 1, 1909. Serial No. 499,379.

1. In an ash pan, wings hinged to the upper edges of the lateral and rear sides thereof, a standard provided in said pan, and means coöperating with said standard for adjusting the angular disposition of said wings.



2. In an ash pan, wings hinged to the upper edges of the lateral and rear sides thereof, a standard provided in said pan, and means coöperating with said standard engaging the upper edges of said wings, for adjusting the angular disposition of said wings.

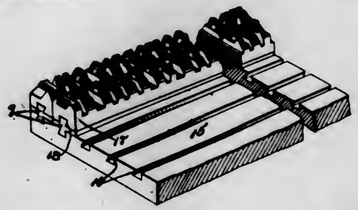
3. In an ash pan, wings coextensive with and hinged to the upper edges of the lateral and rear sides thereof, rods connected to and inwardly projecting from said wings, operative connections between said rods, and a guiding standard coöperating with said operative connections for effecting the angular adjustment of said wings, substantially as described.

4. In an ash pan, wings coextensive and in hinged connection with the upper edges of the lateral and rear sides thereof, a standard provided in said pan, a rod connected to the rearward wing and projecting to the front extremity of said pan, shorter arms connected to and inwardly projecting from said lateral wings, means effecting a flexible connection between said shorter rods and said first named rod, said standard serving as a means of changing the direction of movement of said flexible means upon the actuation of said first named rod, substantially as described.

5. In an ash pan, wings coextensive and in hinged connection with the upper edges of the lateral and rear sides thereof, a rod connected to the rear wing and projecting to the front extremity of said pan, an operative connection between said rod and said lateral wings, substantially as described.

[Claim 6 not printed in the Gazette.]

940,404. MANUFACTURE OF TYPE-BARS. FRANCIS H. RICHARDS, Hartford, Conn., assignor, by mesne assignments, to American Typographic Corporation, a Corporation of New Jersey. Filed Dec. 6, 1902. Serial No. 134,084.



1. A typebar having two portions of similar metal one of these being a hardened back and the other a face of sufficient softness to receive type thereon by impress of dies, and means dovetailing one into the other.

2. A typebar comprising two portions of similar metal one of these having a back of sufficient hardness to hold the bar in shape and the other a face of sufficient softness to receive die impressions, and means dovetailing one into the other.

3. In a composite typebar, the combination with a series of type heads, of a hardened base strip said base strip having means for engaging with a form plate.

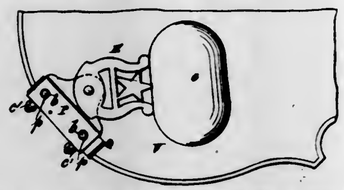
4. In a composite typebar, the combination with a series of type heads, of a hardened base strip having means on

one of its faces for locking said heads to the strip and holding means on another face thereof.

5. A composite typebar, comprising in combination a series of type heads and a hardened base strip whose width is substantially equal to the width of the type heads, said strip having a longitudinal rib on one of its faces engaging with the type heads and holding means on the opposite side thereof.

[Claims 6 to 25 not printed in the Gazette.]

940,405. SHOULDER-PAD ATTACHMENT FOR VIOLIN CHIN-RESTS. CONRAD SCHAUMBURG, New York, N. Y. Filed June 14, 1909. Serial No. 501,967.



1. The combination of a violin chin rest formed with a lower clamp member fitting on the under-side of a violin, buttons attached to said lower clamp member, a base plate formed with round holes engaging with the buttons secured to said clamping member, a locking plate slidable on said base plate, an extension arm pivotally attached to said base plate and adapted to be turned thereon, and a shoulder pad attached to said extension arm, for the purpose described.

2. The combination of a violin chin rest formed with a lower clamp member fitting on the under-side of a violin, buttons attached to said lower clamp member, a base plate formed with round holes engaging with the buttons secured to said clamp member, a locking plate slidable on said base plate, an extension arm projecting from said base plate and a shoulder pad attached to said extension arm, for the purpose described.

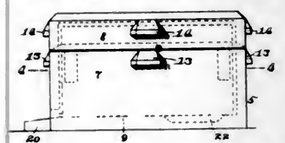
940,406. STOVEPIPE. FRANK SCHMIDT, Cincinnati, Ohio, assignor to The E. H. Huenefeld Company, Cincinnati, Ohio, a Corporation of Ohio. Filed July 1, 1907. Serial No. 381,700.



1. A pipe formed of a substantially rectangular metal sheet, one of the meeting edges of said sheet being turned inwardly and the other of said meeting edges being turned outwardly, both being interlocked to form a joint, one of said meeting edges having a portion cut away near one end of the pipe for forming an abbreviated turned meeting edge, the said meeting edge of the pipe where said portion is cut away being provided with a notch, and the other meeting edge resting within said notch, the pipe being also formed with a circumferential bead located between said notch and the end of said abbreviated turned meeting edge, substantially as described.

2. A pipe formed of a substantially rectangular metal sheet, one of the meeting edges of said sheet being turned inwardly and the other of said meeting edges being turned outwardly, both being interlocked to form a joint, one of said meeting edges having a portion cut away near one end of the pipe for forming an abbreviated turned meeting edge, the said meeting edge of the pipe where said portion is cut away being provided with a notch, the other of said meeting edges having a portion of its turned edge pressed against the face of the pipe at that end thereof at which said portion is cut away for forming a reinforced edge which rests within said notch, the pipe being also formed with a circumferential bead located between said notch and the end of said abbreviated turned meeting edge, substantially as described.

940,407. BEEHIVE. GEORGE R. SINNICKSON, Haddonfield, N. J. Filed July 20, 1908. Serial No. 444,543.



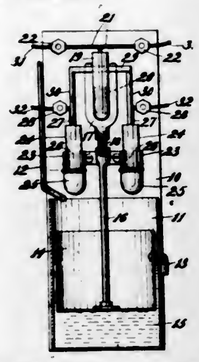
1. In a bee-hive, an outer concrete casing comprising a bottom, side walls and a cover and having an entrance opening; an inner wooden casing comprising side walls and a cover and having an entrance opening; and comb frames suspended within the wooden casing.

2. In a bee-hive, an outer concrete casing comprising a bottom, side walls and a cover and having an entrance opening; an inner wooden casing comprising side walls and a cover and having an entrance opening, the side walls of the inner casing being arranged in spaced relation to the side walls of the outer casing; and comb frames suspended within the wooden casing.

3. In a bee-hive, an outer concrete casing comprising a bottom, side walls and a cover and having an entrance opening; an inner wooden casing comprising side walls and a cover and having an entrance opening; the side walls of the inner casing being arranged in spaced relation to the side walls of the outer casing; spacing members within the space between said casings; and comb frames suspended within the wooden casing.

4. A bee hive comprising an inner wooden casing having an entrance opening, a two part outer concrete casing, the lower part having an entrance opening and an upwardly and inwardly beveled top and the upper part having an upwardly and inwardly beveled bottom fitted to the top of the lower part, and a strip of flexible material connected to the inner casing and extending between the two parts of the outer casing.

940,408. DOUBLE-ACTING SWITCH. CLARENCE J. SPELLMAN, Wauwatosa, Wis., assignor of one-half to Charles W. Norris, Milwaukee, Wis. Filed Dec. 7, 1908. Serial No. 466,380.



1. A double acting electric switch, comprising a pair of stationary mercury cups, a suitably operated member carrying a third mercury cup and depending contact arms to dip within the pair of mercury cups, and stationary contacts to dip within the third mercury cup when the member is moved to withdraw the contact arms from contact with the mercury in the pair of cups.

2. A double acting electric switch for controlling two electric circuits, closing one circuit when it opens the other, comprising a pair of stationary mercury cups, a suitably operated member, a U-shaped mercury cup carried by the member, stationary contacts forming terminals of an electric circuit and projecting into the ends of the U-shaped mercury tube to be connected by the mercury therein when the member is raised, a pair of contact arms carried by the member and extending into the pair of stationary mercury cups to be dipped into the mercury thereof when the member is lowered, and contacts making connection with the mercury in the pair of mercury cups and forming the terminals of another electric circuit.

3. A double acting electric switch for controlling two electric circuits, closing one circuit when it opens the other, comprising a pair of stationary U-shaped mercury cups, a suitably operated yoke member, a U-shaped mercury tube carried in the crotch of the yoke member, stationary contacts forming terminals of an electric circuit and projecting into the ends of the U-shaped mercury tube to be connected by the mercury therein when the yoke member is raised, a cross bar mounted on the ends of the yoke member and forming depending contact arms extending into one arm of each of the stationary U-shaped mercury cups to be dipped into the mercury thereof when the yoke member is lowered, and contact wires dipping into the mercury in the other arms of the pair of U-shaped mercury cups and forming the terminals of another electric circuit.

4. A double acting electric switch for controlling two electric circuits, closing one circuit when it opens the other, comprising a base, spring clips thereon having curved projecting tube seats, a pair of U-shaped tubes fitting in the clips and on the tube seats and constituting mercury cups, a terminal wire dipping into the mercury in one arm of each of the mercury cups, a receptacle, means for supplying liquid to the receptacle and for drawing the liquid from the receptacle at a predetermined level, a float within the receptacle, a stem on the float, a yoke member carried by the stem and insulated therefrom, a U-shaped mercury cup carried in the crotch of the yoke member, a cross piece mounted on the ends of the yoke member and forming depending contact arms extending into the other ends of the pair of U-shaped tubes and dipping into the mercury thereof when the float sinks, and a pair of contact wires extending into the ends of the U-shaped mercury cup to be connected by the mercury therein when the float is in its upper position and to be out of contact with the mercury when the float sinks.

5. A double acting electric switch, comprising a stationary mercury cup, a suitably operated member carrying a second mercury cup and a depending contact arm to dip within the first mercury cup, and a stationary contact to dip within the second mercury cup when the member is moved to withdraw the contact arm from contact with the mercury in the first mercury cup.

940,409. SHAVING-MUG. ARTHUR TOFFLER, Cleveland, Ohio. Filed Oct. 17, 1908. Serial No. 458,148.



1. A shaving mug having an opening in its bottom some distance from its lower edge, a movable stopper for the bottom substantially hidden by such lower edge and a member for supporting the soap some distance above such stopper to allow free draining.

2. In a shaving mug, the combination with the wall of the mug and a partial bottom in the form of an annular flange, of a stopper below the bottom and within the wall of the mug, such stopper having a dish-shaped portion adapted to engage such flange.

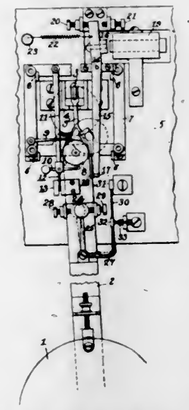
3. The combination in a shaving mug with the wall of the mug and an annular flange projecting inward from the wall some distance above the lower edge, of an arm pivoted to the mug beneath such flange, and a head on such arm adapted to close the opening surrounded by the flange.

4. In a shaving mug, the combination with the wall of the mug and an annular flange integral therewith and extending inwardly and forming a bottom with an opening in the center, such bottom being some distance above the lower edge of the mug, an ear formed on the under side of such flange, an arm pivoted to said ear, a head carried on said arm and adapted to close the opening through the annular flange, and means for forcing such head into closing engagement with the flange.

5. A shaving mug having a draining opening combined with a stopper for the opening and mechanism for causing the stopper to close the opening, and means for holding the stopper away from the opening.

[Claims 6 to 11 not printed in the Gazette.]

940,410. PENDULUM-ACTUATED CLOCK. EDWARD W. VAILL, Jr., Englewood, N. J. Filed June 17, 1909. Serial No. 502,667.



1. A controlling device for pendulum actuated clocks, comprising, an oscillatory weight connected with the pendulum, means for preventing the oscillation of said weight when the vibrations of the pendulum are less than a predetermined amplitude, power mechanism for driving the pendulum, and means for making said power mechanism active when said weight ceases to oscillate.

2. A controlling device for pendulum actuated clocks, comprising a weight connected with the pendulum and adapted to oscillate when the vibrations of the pendulum are more than a predetermined amplitude, means for preventing the oscillation of the weight during vibrations of the pendulum less than said amplitude, a power mechanism, and means connected with said weight for making said power mechanism active when said weight ceases to oscillate.

3. A controlling device for pendulum actuated clocks, comprising an oscillatory weight, means connected with the pendulum for causing the center of oscillation of said weight to vibrate in accordance with the vibrations of said pendulum, means for preventing the oscillation of the weight during vibrations of the pendulum less than a pre-

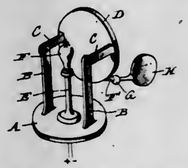
determined amplitude, a pendulum driving device, and means connected with said weight for making said driving device operative when said weight ceases to oscillate.

4. A controlling device for pendulum actuated clocks, comprising an oscillatory weight connected with the pendulum, stops for limiting the movement thereof to a less extent in one direction than the other past the center line of oscillation, and a motor device made operative by the movement of the pendulum when said weight rests against the stop farther removed from the center line of oscillation during a complete oscillation of the pendulum.

5. A circuit controlling device for pendulum actuated clocks, comprising an oscillatory weight having its center of oscillation carried by the pendulum, stops for limiting the movement of said weight to a less extent in one direction than in the other past its center line of oscillation, a motor device, and means connected with said weight for making said motor device operative when said weight rests against the stop farther removed from its center line of oscillation, during a complete oscillation of the pendulum.

[Claims 6 to 14 not printed in the Gazette.]

940,411. MIRROR. HOLGER VARDER, New York, N. Y. Filed May 28, 1908. Serial No. 435,395.



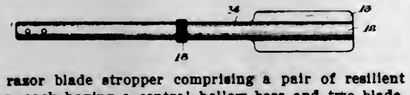
1. In a mirror, a stand, the main mirror hinged to said stand, a lamp fast on said stand back of the main mirror in line with the hinge-connection between the main mirror and the stand, and auxiliary mirrors at the side of the main mirror to deflect the light from said lamp to the front of the main mirror.

2. In a mirror, a stand, uprights on said stand, arms hinged to said uprights, the main mirror carried by said arms, a lamp fast on said stand back of said main mirror in line with the joints between the arms and uprights, and auxiliary mirrors adjustably mounted on said main mirror to deflect the light from the lamp to the front of the main mirror.

3. In a mirror, a stand, the main mirror adjustably mounted on said stand, a lamp mounted on said stand back of said mirror in the center of movement of the mirror, and auxiliary mirrors adjustable on said main mirror to deflect the light from the lamp to the front of the main mirror.

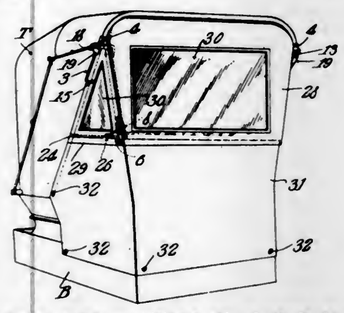
4. In a mirror, a stand, uprights on said stand, arms hinged to the upper ends of said uprights, the main mirror carried at the free ends of said arms, a lamp mounted on said stand back of said mirror between the hinged connections between the uprights and arms, arms projecting from the front of the mirror, ball-and-socket joints in said arms, and auxiliary mirrors carried at the extremities of the latter arms.

940,412. RAZOR-BLADE STROPPER. WILLIAM W. TROWBRIDGE and CHARLES H. WHEELOCK, Newton, Mass. Filed Mar. 12, 1909. Serial No. 482,894.



A razor blade stropper comprising a pair of resilient plates, each having a central hollow boss and two blade-clamping jaws at opposite sides of the boss, the resilience of the plates permitting one pair of jaws to meet, while the jaws of the other pair are separated by an interposed blade, the back of which is supported by the interior of the boss adjacent to the meeting jaws, the plates being entirely separable from each other whereby a two-edged razor blade may be held by the frictional and clamping engagement of the two pairs of jaws on its sides, the plates being provided with connected shanks which are provided with means for pressing the plates and jaws toward each other.

940,413. STORM-SHIELD. CHARLES F. WENSINGER, Fremont, Ohio. Filed Sept. 2, 1908. Serial No. 451,405.



1. A storm shield comprising a pair of standards means at the upper ends of the standards to engage a buggy-top and support a shield, a pair of shield-engaging hooks rotatably connected with the standards, a pair of bow-engaging arms carried by said hooks, and springs carried by the standards and acting on said bow-engaging arms.

2. A storm shield comprising a pair of standards, a yoke carried by said standards, resilient bow-engaging arms attached to the ends of the yoke, bow-engaging clips carried by the upper portions of bow-engaging arms, and prop-engaging hooks on said arms below said clips.

3. A storm shield embodying a pair of standards, a pair of shield engaging hooks rotatably combined therewith, a pair of bow engaging arms carried by the hooks, springs carried by the standards and co-acting with the arms to cause them to engage with the buggy bow, a brace connecting the lower ends of the standards, a yoke arranged at the top of the standards, a brace for connecting the standards and holding the yoke combined therewith, a pair of resilient bow engaging arms carried by the yoke, and a bow engaging clip, and a prop engaging clasp carried by each of the latter arms.

4. A storm shield comprising a pair of standards, means for holding the same properly spaced apart, a pair of shield engaging hooks rotatably connected with the standards, a pair of spring pressed bow engaging arms carried by the hooks, a yoke supported by the upper connecting brace, a pair of resilient bow engaging arms carried by the yoke, and a bow engaging clip and a prop engaging clasp adjustably connected with each of the resilient bow engaging arms.

940,414. PROCESS OF MAKING METAL RINGS FOR PIPE-COUPLINGS. GEORGE H. WHITE, Oil City, Pa., assignor to S. R. Dresser Manufacturing Company, Bradford, Pa. Filed Jan. 13, 1906, Serial No. 295,889. Renewed Sept. 8, 1909. Serial No. 516,798.



1. The herein described process of forming metal rings provided with flared ends and an internal bead, which consists in forming a skelp having a central longitudinal bead on one face, and lateral edges inclined toward the beaded face, severing said skelp and forming a blank therefrom having its ends parallel and inclined to the faces thereof, bending the blank into circular form with the bead on the inner side and welding the ends together, flaring the ends of the ring so formed and bringing its inclined edges perpendicular to the axis of the ring and expanding the portions of the ring between said flared portions to bring it to a true circle of required diameter.

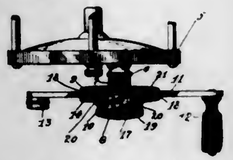
2. The herein described process of forming metal rings having an internal bead, and flared ends, which consists in forming a blank consisting of a flat plate of a width substantially equal to the length of the desired ring, and a length greater than the periphery thereof, said plate being provided with a longitudinal bead on one face, and having its edges inclined toward its beaded face, forming the blank into a ring with the bead inside and welding the ends together and then flaring the ends of the ring outwardly, and bringing said inclined edges perpendicular to the axis of the ring.

3. The herein described process of forming metal middle rings for pipe couplings which consists in bending a plate or blank having its edges inclined toward one of its faces, into ring form, welding the ends of the blank together and then bending marginal portions at each end of the ring outwardly to bring the inclined faces thereof perpendicular to the axis of the ring, substantially as described.

4. The herein described process of forming a wrought metal middle ring for pipe couplings having an internal bead and outwardly flared ends, which consists in forming a blank consisting of a flat plate of wrought metal having a longitudinal bead located centrally on one face of the same, bending said blank into the form of a ring, with the bead on the inside, welding the ends of the blank together, and preserving the continuity of the bead during the welding operation, bending the marginal portions of the ring at each end thereof outwardly and expanding the ring to a circle of predetermined diameter while preserving the internal bead, to true the ring and standardize it.

5. The herein described process of forming a wrought metal middle ring for pipe couplings, having outwardly flared ends, which consists in forming a blank consisting of a plate of wrought metal, bending said blank into ring form, and welding the ends together, bending marginal portions only of the ring, at each end of the same outwardly to form packing recesses, and expanding the welded and flared ring to a circle of predetermined internal diameter, to true the ring and standardize it.

940,415. DRAG-HANDLE FOR FISHING-REELS. THOMAS M. WILLIAMS, Los Angeles, Cal. Filed Oct. 22, 1908. Serial No. 459,034.



1. A crank handle, comprising a rigid friction member having a lubricating device formed integrally therewith, a handle member in movable engagement therewith, a second friction member in locked engagement to said first friction member, and a tension means secured to said first named member.

2. A crank handle, comprising a plurality of friction disks, one of said disks being provided with rotating means, a lubricating device formed integrally with one of said friction disks, and a tension mechanism secured to said disks, whereby the tension on the disks may be increased or diminished.

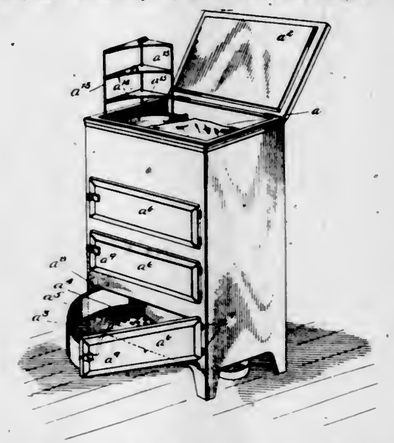
3. A crank handle, comprising a handle and a friction device therefor, a lubricating device rigidly secured to said friction means, and means to vary the tension in said friction means.

4. A crank handle, comprising a handle and a tension mechanism therefor, means to automatically lubricate said tension mechanism, and a tension varying means secured to said mechanism.

5. A crank handle, comprising a rigid friction member having a lubricating device formed integrally therewith, a handle member in movable engagement with said member, a second friction member secured in locked engagement with said first named member, and means to vary the tension on said friction members.

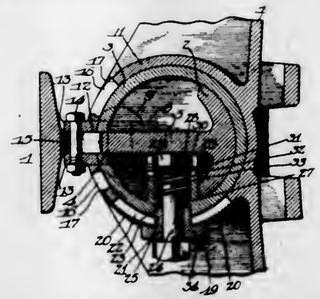
[Claims 6 and 7 not printed in the Gazette.]

940,416. REFRIGERATOR. WILLIAM H. YOUNG, Decatur, Ga. Filed July 18, 1908. Serial No. 444,191.



In a refrigerator, a series of movable drawers, the bottom of each drawer having a perforated portion which is, at all times, irrespective of the position of the drawer, interior of the refrigerator, and having an imperforate portion which is normally interior of the refrigerator, but exterior thereof when the drawer is moved to the limit of its outward range of movement, and means for limiting the range of outward movement of said drawers.

940,417. BRAKE-BEAM. HENRY ZIEMSS, Jr., Chicago, Ill. Filed Oct. 21, 1908. Serial No. 458,805.



1. A brake beam comprising a beam having a web, and a sleeve slotted to receive said web and secured to said web.

2. A brake beam comprising a beam having a web, and flanges at one edge of said web, a sleeve slotted at one side to receive said web, said flanges being curved to lie within said sleeve, and means for securing said sleeve to said web.

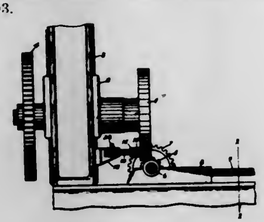
3. A brake beam comprising an I-beam, a portion of one head of said beam being bent, a sleeve having a slot extending through one side of said sleeve from one end of said sleeve to a point near the other end of said sleeve, said slot receiving the central web of the I-beam, the end of the latter being notched to receive the closed end of the slot, said bent head lying within said sleeve, ears upon the inner end of said sleeve in contact with opposite sides of said central web, and securing means extending through said ears.

4. A brake-head-supporting sleeve having a longitudinal beam-receiving slot therein extending from the inner end of said sleeve, the other end of said slot being closed, and an attaching ear at the inner end of said sleeve at each side of said slot.

5. A brake head having a hub, the peripheral wall of said hub having a beam-receiving opening therein, two opposite edge walls of which opening constitute stops.

[Claims 6 to 17 not printed in the Gazette.]

940,418. WORK-SUPPORT FOR METAL-WORKING MACHINES. WILLIAM F. ZIMMERMANN, Newark, N. J., assignor to Gould & Eberhardt, Newark, N. J., a Corporation of New Jersey. Filed Jan. 16, 1909. Serial No. 472,593.

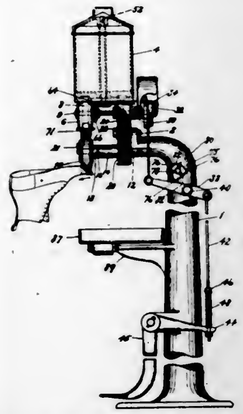


1. In work supports for metal working machines, the combination with an inclined block of a similarly inclined work supporting member in reverse relation thereto and having a slidable dovetail engagement therewith, forming substantially a parallel supporting surface for the work in all positions of said supporting member, an aperture in said supporting member substantially at right angles to the supporting surface, the ends whereof form the sliding limits of said supporting member, an abutment arranged at the small end of said block and extending beyond the inclined surface thereof to engage with said aperture, a spring pressed plunger provided in the narrow end of said supporting member, to engage with said abutment to constantly draw said supporting member against said abutment, substantially as described.

2. In work supports for metal working machines, the combination with an inclined block, of a similarly inclined work supporting member in reverse relation thereto, and having a slidable dovetail engagement therewith, forming substantially a parallel supporting surface for the work in all positions of said supporting member, an aperture in said supporting member, substantially at right angles to the supporting surface, the ends whereof form the sliding limits of said supporting member, said block provided with a hole therethrough, substantially at right angles to the work supporting surface, a key secured therein whereby said block can be secured to any suitable support or stud, said key projecting beyond the inclined surface of said block to engage said aperture, a spring pressed plunger provided in the narrow end of said supporting member, to engage with the projected portion of said key to constantly draw said supporting member against said key, substantially as described.

3. In work supports for metal working machines, the combination with an inclined work supporting member 16, provided with an aperture therein and a spring pressed plunger 19 in the narrow end thereof, of an inclined block 15 having a hole therethrough and a key 17 secured therein, said key 17 projecting beyond the inclined surface of said block 15, into said aperture to form the abutment for said spring pressed plunger 19, and the inclined surfaces of said supporting member 16 and block 15 arranged in reverse relation and provided with a slidable dovetail engagement substantially as described.

940,419. MACHINE FOR APPLYING PLASTIC OR ADHESIVE MATERIAL. ORRELL ASHTON, Lawrence, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Feb. 8, 1905. Serial No. 244,764.



1. In a machine of the class described, the combination with means for holding gum, of a presenter, means for actuating the presenter to deliver gum once for each piece of work to be coated, and means for regulating the whole quantity of gum delivered by the presenter at each operation into position to be applied to the work.

2. In a machine of the class described, the combination with means for holding gum, of a presenter for delivering gum intermittently in regulated quantities into position to be applied to the work, means for varying the quantity of gum carried by the presenter, and means for actuating the presenter.

3. In a machine of the class described, the combination with means for holding gum, of a presenter, means for actuating the presenter to deliver gum in regulated quantities in position to be applied to the work, and adjustable means for varying the operation of the presenter to control the amount of gum delivered by it at each operation of the machine.

4. In a machine of the class described, the combination with means for holding gum, of a presenter arranged to receive gum from the holder and carry it into position to be applied to the work, and means for actuating the presenter to deliver the gum intermittently.

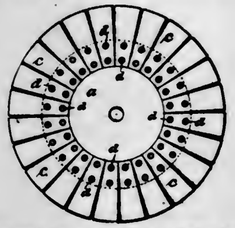
5. In a machine of the class described, the combination with means for holding gum, of a gum presenter arranged to receive gum from the holder, and means for advancing the presenter step by step to bring loaded portions thereof successively into position for the gum to be applied to the work.

[Claims 6 to 36 not printed in the Gazette.]

940,420. TRIMMING-KNIFE. WILLIAM H. AYERS and CHARLES A. DOAR, Lyndhurst, N. J. Filed Aug. 4, 1909. Serial No. 511,145.

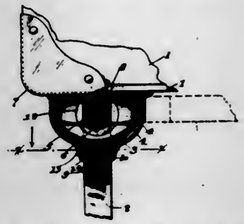
1. A trimming knife of circular form comprising a mandrel disk for a driving shaft and a series of circularly arranged flat blades having curved peripheral cutting edges and slightly spaced apart, and means for securing the same to the mandrel disk.

2. A trimming knife of circular form comprising a circular mandrel disk centrally apertured for a driving shaft, said mandrel disk having a circumferential edge recess or reduced portion and a series of circularly arranged flat blades received in said recess, and rivets for securing the



same to the mandrel disk, said blades being slightly spaced apart so as to provide between them air gaps and having their cutting edges arranged in a true circle, substantially as set forth.

940,421. FOLDING LEG FOR TRUNKS. ROBERT C. BAIN, Chicago, Ill. Filed Feb. 13, 1909. Serial No. 477,766.



1. In a device of the class described, a trunk and legs hinged thereto, each leg having an enlarged rectangular portion at its upper extremity, said portion being provided with a slot, a hinge member having a portion extending through said slot, a spring provided in said hinge member and adapted to engage the upper inner edge of said slot for normally holding said leg in either vertical or folded position, substantially as described.

2. In a device of the class described, a leg hinge formed integral with the corner piece of a trunk, two recessed portions formed in the body of said hinge in vertical alinement, two portions formed in a leg adapted to seat in said recessed portions respectively and a leaf spring seated in the body of said hinge for normally maintaining said two portions seated in said recessed portions, substantially as and for the purposes specified.

3. In a device of the class described, a trunk and folding legs therefor, each leg comprising an enlarged slotted portion at its upper extremity, a hinge body portion secured to the trunk adjacent each corner thereof, a recessed portion at the lower extremity of said body portion adapted to engage said slotted portion, a recessed portion in said body portion adapted to engage the upper extremity of said leg, and a spring passing through the leg slot adapted to maintain the leg in either the folded or vertical position, substantially as and for the purposes specified.

940,422. DUST-PAN. WILLIAM E. BALLMAN, Detroit, Mich. Filed Feb. 27, 1908. Serial No. 418,020.

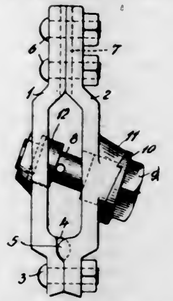
1. The combination with a dust pan, of a handle having forwardly projecting arms provided with downwardly extending hooked terminals which engage the back of the pan, a depending leg member centrally disposed with respect to said arms, having a straight portion which stands parallel with and bears against the outer face of the pan at the back, a downwardly extending loop which serves as a leg to elevate the rear of the pan, and a foot member which is secured to the bottom of the pan to retain the handle in place.

2. The combination with a dust pan having a rolled rear edge, of a handle provided with forwardly extending diverging arms each having a recess in its under face to receive said rolled edge and each having a terminal hook which engages the front face of the rear of the pan, a



leg member extending downwardly from the handle to raise the rear of the pan, the foot portion of said leg being secured to the bottom of the pan to retain the handle in place.

940,423. WIRE-STRETCHER. JOHN C. BARCLAY, Montclair, N. J. Filed July 16, 1909. Serial No. 508,032.



1. A stretching or tightening device, such as described, comprising a frame member having an open space within which the wire or the like may be wound, and means for guiding such wire or the like thereto, and a rotatable member mounted in bearings in said frame on opposite sides of said open space and adapted to wind up upon itself the wire or the like, the axis of said rotatable member being oblique with respect to the direction of pull upon it, said two members having interlocking means.

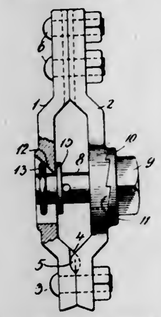
2. A stretching or tightening device, such as described, comprising a frame member having an open space within which the wire or the like may be wound, and means for guiding such wire or the like thereto, and a rotatable member mounted in bearings in said frame on opposite sides of said open space and adapted to wind up upon itself the wire or the like, the axis of said rotatable member being oblique with respect to the direction of pull upon it, said two members having coacting ratchet teeth.

3. A stretching or tightening device, such as described, comprising a frame member having an open space within which the wire or the like may be wound, and means for guiding such wire or the like thereto, and a rotatable member mounted in bearings in said frame on opposite sides of said open space and adapted to wind up upon itself the wire or the like, said two members having coacting ratchet teeth, the axis of said rotatable member being oblique with respect to the direction of pull upon it, the consequent longitudinal force-component to which said spindle is subjected, due to pull on the wire, being in a direction to keep said ratchet teeth in contact.

940,424. WIRE-STRETCHER. JOHN C. BARCLAY, Montclair, N. J. Filed July 16, 1909. Serial No. 508,033.

1. A stretching or tightening device, such as described, comprising a bearing member and a rotatable member mounted in a bearing therein and adapted to wind up upon itself the wire or the like to be tightened, said two members having interlocking means, the bearing member hav-

ing, on that side of the bearing aperture toward which the pull on the wire or the like tends to draw the rotatable member, an oblique surface inclined laterally, and the rotatable member having a portion adapted to bear against such surface, whereby the pull on said rotatable member tends to hold it in locked position.



2. A stretching or tightening device, such as described, comprising a bearing member and a rotatable member mounted in a bearing therein and adapted to wind up upon itself the wire or the like to be tightened, said rotatable member provided with means, released by axial motion of such member in one direction, for preventing rotary motion of such member in one direction, said bearing member having an enlarged opening for the passage of said rotatable member, and having, on that side of said bearing opening toward which the pull on the wire or the like tends to draw the rotatable member, an oblique surface inclined laterally, the rotatable member having means adapted to press against said surface, whereby the pull on said rotatable member tends to hold it in locked position.

3. A stretching or tightening device, such as described, comprising a frame and a spindle mounted in bearings on said frame and adapted to wind up upon itself the wire or the like to be tightened, said spindle provided with ratchet teeth adapted to be engaged with corresponding teeth of the frame by axial motion of the spindle, said frame having an enlarged aperture through which the spindle passes and having on that side of said bearing aperture toward which the pull on the wire or the like tends to draw the rotatable member a beveled surface, the spindle provided with a collar adapted to work against that surface.

4. A stretching or tightening device, such as described, comprising a frame member having an open space within which the wire or the like may be wound, and means for guiding such wire or the like thereto, and a rotatable member mounted in bearings in said frame and adapted to wind up upon itself the wire or the like, said frame having an oblique surface inclined laterally, and the rotatable member having a portion adapted to bear against such surface, said frame and rotatable member having interlocking means, whereby the pull on said rotatable member tends to hold it in locked position.

5. A stretching or tightening device, such as described, comprising a frame member having an open space within which the wire or the like may be wound, and means for guiding such wire or the like thereto, and a rotatable member mounted in bearings in said frame and adapted to wind up upon itself the wire of the like, said frame having an oblique surface inclined laterally, and the rotatable member having a portion adapted to bear against such surface, said frame and rotatable member having coacting ratchet teeth, whereby the pull on said rotatable member tends to hold it in locked position.

[Claim 6 not printed in the Gazette.]

940,425. SCALE FOR RANGE-FINDERS. ARCHIBALD BARR and WILLIAM STROUD, Anniesland, Glasgow, Scotland. Filed June 19, 1909. Serial No. 503,044.

1. A rangefinder having a horizontally arranged scale and means for causing the scale to appear vertical.

2. A rangefinder having a horizontally arranged scale, a system of reflectors and an eyepiece for causing the scale when viewed therethrough to appear vertical.



3. A rangefinder having a horizontally arranged scale, a system of reflecting prisms and an eyepiece for causing the scale to appear vertical.

4. A rangefinder having a horizontally arranged scale, a system of reflecting prisms, and an eyepiece inclined at about 45° to the plane of triangulation, for the purposes set forth.

5. A range finder having a horizontally arranged scale graduated on the upper and under sides, and an outer casing provided with a window beneath which the said horizontally arranged scale is located, in combination with an eye-piece at the opposite side of the casing and a system of reflectors for causing the scale when viewed through the eye-piece to appear vertical, for the purposes set forth.

[Claims 6 to 9 not printed in the Gazette.]

940,426. AUGER-BIT. JOHN W. CALDWELL, Coolamon, New South Wales, Australia. Filed May 26, 1903. Serial No. 158,769.



1. An auger comprising a shank with spiral side wings or blades reduced throughout the upper part of their extension to a comparatively shallow rib or flange.

2. An auger comprising a shank with spiral side wings or blades reduced throughout the upper part of their extension to a comparatively shallow rib or flange, whose upper face is substantially transverse to the axis of the bit at each horizontal element, while the periphery and lower face merge and extend from the upper face to the face of the next lower convolution.

3. An auger comprising a shank provided with one or more cutting lips having its cutting edge extending outward to the periphery of the auger, the lip also having a peripheral beveled cutting edge extending rearward from the outer extremity of the said cutting edge.

4. An auger comprising a shank provided with one or more cutting lips having its cutting edge extending outward to the periphery of the auger, the lip also having a peripheral beveled cutting edge extending rearward from the outer extremity of the said cutting edge, that is formed by beveling the normal top surface of the said cutting lip, at its outer portion.

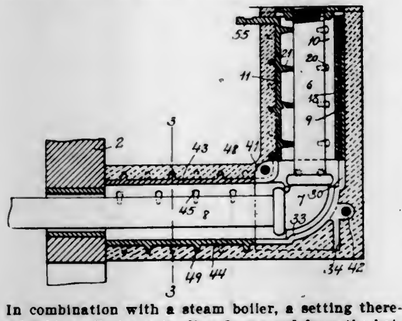
5. An auger comprising a shank provided with one or more cutting lips having its cutting edge extending outward to the periphery of the auger, the lip also having a peripheral beveled cutting edge extending rearward from the outer extremity of the said cutting edge, and an upwardly projecting spur beginning at the rear of said peripheral cutting edge and extending rearward.

[Claims 6 to 9 not printed in the Gazette.]

940,427. PROTECTOR FOR BLOW-OFF PIPES. ALDEN R. CHAMBERS, Somerville, Mass. Filed Jan. 5, 1909. Serial No. 470,829.

1. A protector for the blow-off pipe of a boiler, comprising a casing shaped to surround such pipe and having diverging wings to deflect and distribute the products of combustion.

2. In combination with a steam boiler and a blow-off pipe, a protector for said blow-off pipe constructed as a casing incipsing the pipe and having wings extending outwardly in such directions as to distribute the products of combustion toward the sides of the boiler.



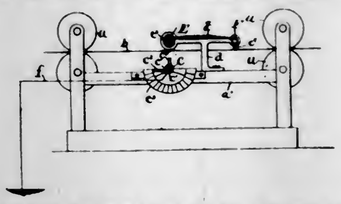
3. In combination with a steam boiler, a setting therefor, and a blow-off pipe extending downward from the bottom of the boiler and rearward through the rear wall of said setting, a protector for said blow-off pipe comprising a section resting upon the rearward portion of said blow-off pipe and surrounding the upper part thereof, having lips at its edges, a bottom section having coöperating lips supported by the lips of said upper section, two sections inclosing the angle of said pipe, and upright sections inclosing the downwardly extending portion of said pipe, the last-named sections being provided with diverging wings or plates to spread the products of combustion.

4. In combination with a steam boiler and a blow-off pipe, a protector for said blow-off pipe including vertical plates meeting in front of said pipe and extending from their junction toward the rear and sides of the boiler, and a rear piece connected to said plates and coöperating therewith to inclose the pipe.

5. A protector for blow-off pipes of boilers, comprising two flat plates arranged to meet at one edge and form an angle, a cylindrically curved piece extending across the angle formed by said plates coöperating to surround and inclose the upright part of such pipe, two similarly formed pieces to inclose the elbow or angle of the pipe, each having a laterally and longitudinally curved part and a plane wing, and two approximately semi-cylindrical pieces having interlocking flanges or lips at their edges, inclosing the rearwardly extending part of the blow-off pipe.

[Claims 6 to 11 not printed in the Gazette.]

940,428. APPARATUS FOR NEUTRALIZING ELECTRICITY IN MOVING MATERIAL. WILLIAM H. CHAPMAN, Portland, Me., assignor to Chapman Electric Neutralizer Company, Portland, Me., a Corporation of Maine. Filed Nov. 3, 1905. Serial No. 285,677.



1. The herein described apparatus for neutralizing static electricity in moving material consisting of a comb conductor located adjacent to the moving material and connected with earth, an insulated conductor located adjacent to said comb conductor charged with electricity of the same polarity as that of the material to be treated.

2. The herein described apparatus for neutralizing static electricity in moving material consisting of a comb conductor located adjacent to the moving material and connected with earth, an insulated conductor for inducing a charge of electricity in said comb conductor and located on the opposite side of the moving material and means for charging said insulated conductor with electricity of the same polarity as that of the material to be treated.

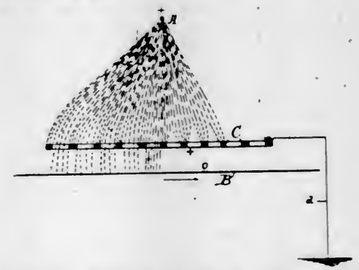
3. The herein described apparatus for neutralizing static electricity in moving material consisting of a comb conductor located adjacent to the material and connected with earth, an insulated conductor adjacent to said comb conductor for including a charge of electricity therein, and a collecting comb conductor connected with said insulated conductor and located adjacent to the moving material at a point where it is charged with electricity.

4. The herein described apparatus for neutralizing static electricity in moving material consisting of a comb conductor located adjacent to the material and connected with earth, an insulated conductor adjacent to said comb conductor and on the opposite side of the moving material for inducing a charge of electricity in said comb conductor and a collecting comb conductor located adjacent to the material at a point where it is charged with electricity and connected with said insulated conductor.

5. The herein described apparatus for discharging electricity onto or collecting it from a body to be neutralized consisting of a metal rod, one or more collars on said rod each having a stud or projection of insulating material on one side thereof with a longitudinal opening extending through said stud to said rod and a metallic conductor extending from said rod through said opening and terminating in the end thereof with a fine point.

[Claims 6 to 8 not printed in the Gazette.]

940,429. METHOD OF NEUTRALIZING STATIC ELECTRICITY. WILLIAM H. CHAPMAN, Portland, Me., assignor to Chapman Electric Neutralizer Company, Portland, Me., a Corporation of Maine. Filed Dec. 18, 1905. Serial No. 292,388.



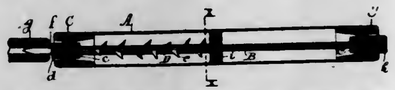
1. The herein described process of neutralizing static electricity in a charged surface which consists in charging a conductor embodying fine radiating surfaces with electricity of high voltage and of a polarity opposite to that of the surface to be neutralized and interposing between said conductor and surface to be neutralized a perforated screen of metal or other conducting material connected to earth.

2. The herein described process of neutralizing static electricity in a charged surface which consists in charging a conductor embodying fine radiating surfaces with electricity of high voltage and of a polarity opposite to that of the surface to be neutralized, interposing between said conductor and the surface to be neutralized a perforated screen of metal or other conducting material connected to earth and causing an accumulation on said screen of the electricity of the same kind as radiated from said conductor.

3. The herein described process of neutralizing static electricity in a charged surface which consists in charging a conductor embodying fine radiating surfaces with electricity of high voltage and of a polarity opposite to that of the surface to be neutralized, interposing between said conductor and the surface to be neutralized a perforated

screen of metal or other conducting material connected to earth and inserting a high resistance in the earth connection for causing an accumulation on the screen of the electricity radiated from said conductor.

940,430. PROCESS AND APPARATUS FOR NEUTRALIZING STATIC ELECTRICITY. WILLIAM H. CHAPMAN, Portland, Me., assignor to Chapman Electric Neutralizer Company, Portland, Me., a Corporation of Maine. Filed Apr. 2, 1906. Serial No. 309,352.



1. The herein described apparatus for removing static electricity which consists of a tube of conducting material connected to earth and having a longitudinal slot therein, a longitudinally disposed insulated conductor within said tube and means for supplying a high voltage charge to said conductor.

2. The herein described conductor for neutralizing static electricity which consists of a tube having one or more openings through the sides thereof, an insulating bushing at each end, a metal rod extending through said tube and said bushings and a tubular covering for said rod having projecting points for discharging high voltage electricity.

3. The herein described conductor for use in neutralizing static electricity which consists of a laterally perforated tube having extending longitudinally through it an insulated conductor composed of a metal rod having a tubular covering provided with projecting points for discharging high voltage electricity.

4. The herein described conductor for use in neutralizing static electricity which consists of a laterally perforated tube having a longitudinally disposed insulated metal rod therein, said rod having a tubular covering composed of a spirally wound strip of thin metal having sections cut and bent outward forming projecting points and edges from which the high voltage electricity discharges.

5. The herein described conductor for use in neutralizing static electricity which consists of a laterally perforated tube having a longitudinally disposed insulated metal rod therein, said rod having a tubular covering composed of a spirally wound strip of thin metal having angular slits in its edge forming pointed sections which are bent outward to form discharging points and edges.

[Claims 6 and 7 not printed in the Gazette.]

940,431. MEANS FOR NEUTRALIZING STATIC ELECTRICITY. WILLIAM H. CHAPMAN, Portland, Me. Filed Mar. 13, 1908. Serial No. 420,781.



1. The herein described process of neutralizing static electricity in yarn, paper and other material which consists of locating in the vicinity of the material to be neutralized a discharging conductor having one or more fine discharging points adapted to discharge electricity into the air, producing an alternating charge of high voltage electricity in said conductor by electrostatic induction, and conducting to earth the discharge not passing to said material.

2. The herein described means for neutralizing static electricity which consists of an insulated main conductor connected with a source of high voltage alternating electricity, a discharging conductor having one or more fine points adapted to effect a discharge through the air, a condenser inserted between said conductors and a grounded conductor located adjacent to the points of said discharging conductor.

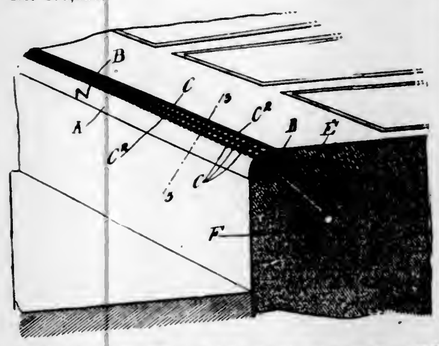
3. The herein described means for neutralizing static electricity which consist of a main conductor covered with insulating material and connected with a source of high voltage alternating electricity, a discharging conductor having a fine discharging point adapted to effect a discharge through the air, a condenser plate adjacent to said main conductor and connected to said discharging conductor, and a grounded conductor located adjacent to said discharging point.

4. The herein described means for neutralizing static electricity which consist of an insulated cable connected with a source of high voltage alternating electricity, a metal sleeve on the outside of said cable, a discharging conductor with a fine discharging point connected with said sleeve and a grounded conductor located adjacent to said discharging point.

5. The herein described means for neutralizing static electricity which consist of an insulated cable connected with a source of high voltage alternating electricity, a metal sleeve on the outside of said cable, a discharging conductor having a fine discharging point connected with said sleeve, a casing of insulating material in which the body of said discharging conductor is contained and a grounded conductor located adjacent to said discharging point.

[Claims 6 to 10 not printed in the Gazette.]

940,432. NOSING FOR CURB-CORNERS. WILLIAM S. CLIFFORD, New York, N. Y. Filed Feb. 4, 1909. Serial No. 475,984.

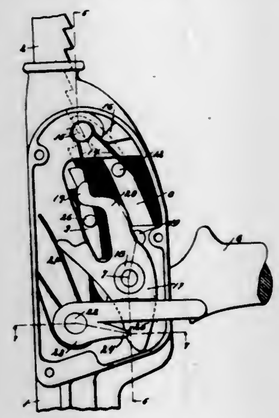


In a nosing for curb corners, galvanized strips, treads on the strips, dovetail joints between the ends of the strips, hollow lugs on the inner side of the strips, screw threads in the hollow lugs, bolts engaging the threads in the lugs, and separate circular anchor plates surrounding the bolts adjacent their heads.

940,433. LIFTING-JACK. EUGENE COOK, Kalamazoo, Mich. Filed Jan. 20, 1909. Serial No. 473,324.

1. In a lifting jack, the combination with the frame, of a rack bar; a pivoted lever; a pair of pawls having laterally projecting pins thereon, one of said pawls being pivotally mounted on said lever; a spring arranged to engage said pins on said pawls whereby they are held yieldingly in engagement with said rack; a pivotally-mounted reversing member; an actuating spring for said reversing member, said reversing member being provided with fingers arranged to engage said pins on said pawls, one of said fingers being provided with a pin-engaging shoulder whereby said reversing member is held against the tension of its actuating spring during a partial movement of the lever; a stop for the inner pawl arranged on the outer pawl substantially opposite its pivot; and means for holding said reversing member in its inoperative position.

2. In a lifting jack, the combination with the frame, of a rack bar; a pivoted lever; a pair of pawls having laterally projecting pins thereon, one of said pawls being pivotally mounted on said lever; a spring arranged to engage said pins on said pawls whereby they are held yieldingly in engagement with said rack; a pivotally-mounted reversing member; an actuating spring for said reversing member, said reversing member being provided with fingers arranged to engage said pins on said pawls, one of said fingers being provided with a pin-engaging shoulder whereby said reversing member is held against the tension of its actuating spring during a partial movement of the lever; a stop for the inner pawl; and means for holding said reversing member in its inoperative position.



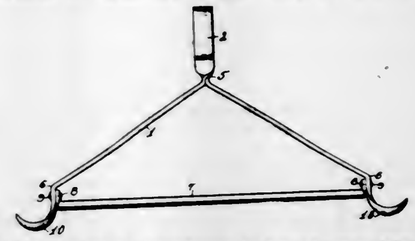
3. In a lifting jack, the combination with the frame, of a rack bar; a pivoted lever; a pair of pawls having laterally projecting pins thereon, one of said pawls being pivotally mounted on said lever; a spring arranged to engage said pins on said pawls whereby they are held yieldingly in engagement with said rack; a pivotally-mounted reversing member; an actuating spring for said reversing member, said reversing member being provided with fingers arranged to engage said pins on said pawls, one of said fingers being provided with a pin-engaging shoulder whereby said reversing member is held against the tension of its actuating spring during a partial movement of the lever; and means for holding said reversing member in its inoperative position.

4. In a lifting jack, the combination with the frame of a rack bar; a pivoted lever; a pair of pawls, one of said pawls being pivotally mounted on said lever; a spring arranged to engage said pawls whereby they are held yieldingly in engagement with said rack; a pivotally mounted reversing member; an actuating spring for said reversing member, said reversing member being arranged to engage said pawls, one of the pawls being adapted to hold said reversing member against the tension of its actuating spring during a partial movement of the lever; a stop for the inner pawl; and means for holding said reversing member in its inoperative position.

5. In a lifting jack, the combination with the frame of a rack bar; a pivoted lever; a pair of pawls, one of said pawls being pivotally mounted on said lever; a spring arranged to engage said pawls whereby they are held yieldingly in engagement with said rack; a pivotally mounted reversing member; an actuating spring for said reversing member, said reversing member being arranged to engage said pawls, one of the pawls being adapted to hold said reversing member against the tension of its actuating spring during a partial movement of the lever; and means for holding said reversing member in its inoperative position.

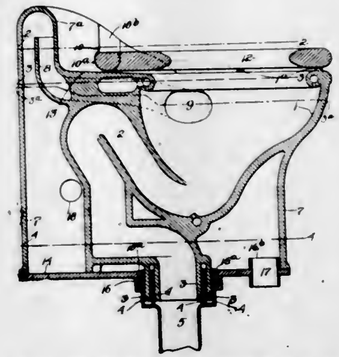
[Claims 6 to 10 not printed in the Gazette.]

940,434. HOG-GAMBREL. CLARENCE G. COULTAS, Murrayville, Ill. Filed Jan. 5, 1909. Serial No. 470,772.



As an article of manufacture, a gambrel comprising a triangular frame having an upper central suspending hook at one corner thereof, and an engaging hook at each of the other corners, said engaging hooks being bent out of the plane of said frame at an angle of from 35 to 45 degrees, whereby said engaging hooks are brought to a convenient angle for entering between the tendons and bones of the legs of an animal when forced apart to apply said gambrel.

940,435. STOOL FOR WATER-CLOSETS. DAVID CRAIG, Melrose, Mass., assignor to The David Craig Company, a Corporation of Maine. Filed Oct. 31, 1904. Serial No. 230,660.



1. A stool for water closets comprising a bowl made with a skirt surrounding the same, and a conduit having a point of elevation above the rim of the bowl, and communicating at one end with the interior of the bowl at a point above the normal water level therein, and at its other end with the interior of the skirt.

2. A stool for water closets comprising a bowl made with a skirt surrounding the same, the skirt having an upward fold or extension, and a conduit communicating at one end with the interior of the bowl at a point above the normal water level therein, and at its other end with the interior of the upward fold of the skirt, at a point above the rim of the bowl.

3. As a new article of manufacture, a stool for water closets, comprising a bowl provided at each side near the rear with an integral projection extending above the rim of the bowl, each projection being provided with a socket having a restricted opening and a relatively larger inner end, and a seat having a pair of trunnions removably mounted in said sockets, each trunnion being in the form of a truncated cylinder whereby it may be passed through the restricted opening of its socket, and when turned in the enlarged inner end will be held therein against dislodgment.

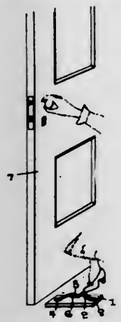
4. As a new article of manufacture, a stool for water closets, comprising a bowl provided at its rear with an integral projection extending upward above the rim of the bowl and in a curved line about the rear side of the bowl, said projection being provided at each end with a socket

having a restricted opening and a relatively larger inner end, and a seat having a pair of trunnions removably mounted in said socket, each trunnion being in the form of a truncated cylinder whereby it may be passed through the restricted opening of its socket, and when turned in the enlarged inner end will be held therein against dislodgment.

5. A stool for water closets comprising a bowl made with a skirt surrounding and supporting the same, said skirt being made with integral projections extending above the rim of the bowl, one at either side near the rear, each projection being provided with a socket having a restricted opening and a relatively larger inner end, and a seat having a pair of trunnions removably mounted in said sockets, each trunnion being in the form of a truncated cylinder, whereby it may be passed through the restricted opening of its socket, and when turned in the enlarged inner end will be held therein against dislodgment.

[Claims 6 to 19 not printed in the Gazette.]

940,436. DOOR-STOP. DAVID CROCKETT, Birmingham, Ala. Filed Aug. 25, 1909. Serial No. 514,510.



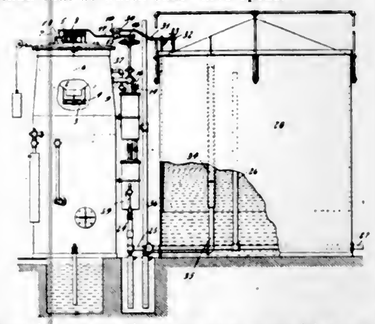
1. A door stop comprising the combination with a body having a strip of pliable material attached thereto, of a latch one end of which is fixed to the body and the opposite end resting thereon, said latch being bowed upwardly between its ends and provided at its longitudinal center with a recess, the end walls of which are curved, said body being provided with a double inclined stud and said latch being provided with a corresponding recess in its under surface receiving said double inclined portion of said stud.

2. In a door stop the combination with a body and a strip of felt attached to the lower face thereof, of a latch having one of its ends fixed to said body and its opposite end resting thereon, said latch being bowed between its ends and having its central portion depressed to form a recess, the end walls of said recess being curved and a wear plate below said latch, said body being provided with a double inclined stud said stud having a securing stem inserted in said body, said latch having a corresponding recess in its under side receiving the double inclined portion of said stud.

940,437. ACETYLENE-GENERATING APPARATUS. AUGUSTINE DAVIS, East Orange, N. J. Filed Apr. 16, 1909. Serial No. 490,435.

1. Acetylene generating apparatus, comprising, a pressure generator, having feed mechanism and pressure control mechanism therefor adapted to be set for a predetermined pressure, a gasometer, gas connection between the generator and gasometer including a pressure-operated valve adapted to be set for a higher generator pressure, and means adapted to be actuated by said gasometer to maintain the generator feed mechanism in operation when the gas in the gasometer is less than a predetermined volume.

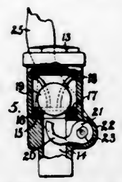
2. Acetylene generating apparatus, comprising, a pressure generator, having feed mechanism and pressure control mechanism operatively associated with said feed mechanism and adapted to be set for a predetermined pressure above and below which it stops and starts the feed mechanism respectively, a gasometer, gas connection between the generator and gasometer including a pressure operated valve adapted to be set for a higher generator pressure, and a member operatively associated with said pressure control mechanism and adapted to be actuated by said gasometer when the gas therein is less than a predetermined volume to render said pressure control mechanism inoperative to stop said feed mechanism at a pressure above that for which said control mechanism is set but lower than that at which said valve opens.



3. Acetylene generating apparatus, comprising, a pressure generator, having carbid feed mechanism including a motor, and a pressure diaphragm operatively associated with said motor and adapted to be set for a predetermined pressure above and below which said motor is stopped and started respectively, a gasometer including a bell, gas connection between said gasometer and generator including a pressure controlled valve adapted to be set for a higher generator pressure, and a weight moved by the gasometer bell and adapted to be imposed upon said diaphragm in opposition to the generator pressure when said bell is below a predetermined level, said weight being adapted to make up the difference between the pressures for which said diaphragm and valve are set.

4. Acetylene generating apparatus, comprising, a pressure generator, having carbid feed mechanism including a motor, and a pressure diaphragm operatively associated with said motor and adapted to be set for a predetermined pressure above and below which said motor is stopped and started respectively, a gasometer including a bell, gas connection between said gasometer and generator including a pressure controlled valve adapted to be set for a higher generator pressure, a weight moved by the gasometer bell and adapted to be imposed upon said diaphragm in opposition to the generator pressure when said bell is below a predetermined level, said weight being adapted to make up the difference between the pressures for which said diaphragm and valve are set, and blow-off mechanism forming a part of said gasometer and adapted to become operative when said bell rises to a predetermined level.

940,438. BEER-FAUCET. THERON DAVIS, New York, N. Y. Filed Oct. 23, 1908. Serial No. 459,411.



1. A faucet comprising a barrel having a chambered head an intake above the valve and a discharged portion, a ball valve located in the said chambered head, mechanism for lifting the valve, and a skeleton guide supported adjacent to the valve seat and extending upward so as to properly guide and frictionally engage the valve in its up and down movement.

2. A faucet having a barrel portion, a chambered head an intake above the valve and discharge portion, a ball valve in the said chambered head, means for lifting the valve, and a ball-like guide arranged adjacent to the valve seat and curving upward and outward so as to guide and frictionally engage the valve in its up and down movement.

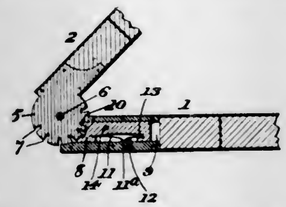
3. A faucet of a general elbow shape, with a chambered vertically arranged head having a valve-seat in the lower part thereof and an in-take above the valve, a washer on the seat, a ball-like guide secured to the washer and extending upward into the head, a ball valve operating in and frictionally engaging the guide, and means for raising the ball valve.

4. A faucet having a horizontal barrel, a vertical chambered head receiving the discharge from the barrel and having an outlet at the bottom, a cap to close said chamber, a ball valve in the chamber below the intake, means for lifting the valve, and a washer supported on the valve-seat and having an upwardly extending ball-like guide which frictionally engages the ball-valve when the latter is lifted.

5. In a faucet of the kind described, the combination with the ball valve and its casing, of the handled journal of relatively large size extending well into the casing below the valve, said journal having a reduced inner portion to receive the valve finger, a finger on the reduced end of the journal abutting with a shoulder on the journal and the valve casing and adapted to swing up against the ball valve, and a fastening screw extending through the journal and threaded to fit a corresponding socket in the casing.

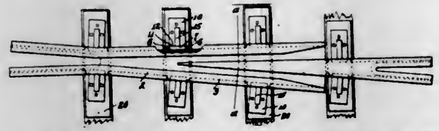
[Claims 6 and 7 not printed in the Gazette.]

940,439. MEASURING INSTRUMENT. OTTO W. DOLPH, Cincinnati, Ohio. Filed Apr. 11, 1908. Serial No. 426,554.



A measuring-instrument comprising a pair of leg-members, a disk joint having three disk parts, the two outer parts having protractor or degree lines or marks thereon and the inner disk part having radial notches along its peripheral edge to coincide with said degree marks, a locking-bolt having a projection at its fore end adapted to engage each of said notches, a spring carried by said bolt and a projection in the bolt chamber or guide-way adapted to be engaged by said spring for retaining the bolt in locked or unlocked position.

940,440. REVERSIBLE FROG. WILLIAM H. DOTTER and RAPHAEL S. HAYS, Carlisle, Pa., assignors to The Frog, Switch & Manufacturing Company, Carlisle, Pa., a Corporation of Pennsylvania. Filed Apr. 29, 1909. Serial No. 492,871.



1. A reversible frog having along its rail portion reinforcing integral ribs located in pairs at intervals, the ribs of each pair being spaced apart to form a brace receiving recess.

2. A reversible frog having along its rail portion reinforcing integral ribs located in pairs at intervals, the ribs of each pair being spaced apart to form a brace receiving recess and each substantially flush with the side faces of the tread surfaces of the rails.

3. A reversible frog having along its rail portion reinforcing integral ribs located in pairs at intervals, the ribs of each pair being spaced apart to form a brace receiving recess, and braces each having a part thereof fitting within one of said recesses.

4. A reversible frog having along its rail portion reinforcing integral ribs located in pairs at intervals, the ribs of each pair being spaced apart to form a brace receiving recess and each substantially flush with the side faces of the tread surfaces of the rails, and braces each having a part thereof fitting within one of said recesses.

5. A reversible frog having along its rail portion reinforcing integral ribs located in pairs at intervals, the ribs of each pair being spaced apart to form a brace receiving recess, and braces each having a part thereof fitting within one of said recesses, each of said braces comprising a bottom plate and an upright plate having a part shaped to conform to the curved inner surfaces of the rail portions and connected by ribs.

[Claims 6 to 17 not printed in the Gazette.]

940,441. HARD-CENTER FROG. WILLIAM H. DOTTER and RAPHAEL S. HAYS, Carlisle, Pa., assignors to The Frog, Switch & Manufacturing Company, Carlisle, Pa., a Corporation of Pennsylvania. Filed June 29, 1909. Serial No. 505,028.



1. In a railway frog, the combination of one or more side or wing rails each provided with a double bend having therebetween a relatively long straight and unbent portion, each such side rail having the inner side of its head cut away but projecting appreciably inwardly of the web, whereby the rail is not materially weakened, and a hard metal insert bolted interiorly of the rail or rails.

2. In a railway frog, the combination of one or more side or wing rails each provided with a double bend having therebetween a relatively long straight and unbent portion, each such side rail having the inner side of its head cut away but projecting appreciably inwardly of the web, whereby the rail is not materially weakened, and a hard metal insert bolted interiorly of the rail or rails and having intermediate such points of flexure of the side rail a wheel surface of a width at least substantially equal to the width of the head of the rail.

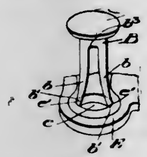
3. In a railway frog, the combination of a pair of side or wing rails each having a double bend and therebetween a relatively long straight and unbent portion, each side rail having the inner side of its head cut away but projecting appreciably inwardly of the web, whereby the rail is not materially weakened, and a hard metal insert bolted interiorly of the rails and having a point, said insert having wheel surfaces each of a width at least substantially equal to the width of the head of the rail.

4. In a railway frog, the combination of a pair of side or wing rails each provided with a double bend and therebetween a relatively long straight and unbent portion, each such side rail having the inner side of its head cut away but projecting appreciably inwardly of the web, whereby the rail is not materially weakened, and a hard metal insert bolted interiorly of the rails and having wheel surfaces each of which, intermediate of and adjacent to such points of flexure, is of substantially the same width as the width of the head of the rail.

5. In a railway frog, the combination of one or more side or wing rails, and an exteriorly located wheel engaging hard metal insert bolted to each of said side rails.

[Claims 6 to 20 not printed in the Gazette.]

940,442. RIVET. ANDREW L. EATON, New York, N. Y.; Clara S. Eaton executrix of said Andrew L. Eaton, deceased. Filed Feb. 2, 1905. Serial No. 243,803.



1. A rivet having prongs the bodies of which are substantially parallel with each other and the free extremities of which are elastic and diverge laterally beyond the planes of said bodies when unconfined and are adapted to be compressed into approximately the planes of said bodies when inserted into driving position into the element by which it is to be directed.

2. A rivet having prongs the bodies of which are substantially parallel with each other and the free extremities of which are elastic and diverge laterally beyond the planes of said bodies when unconfined, and means having an opening to receive said prongs, said opening adapted to compress said free extremities into approximately the planes of the bodies when the prongs are inserted thereinto to be driven.

3. In a device of the class described, a plate having an opening therein, said opening being enlarged at opposite sides, a rivet having prongs, the ends of the prongs being adapted to be inserted and held in the enlarged portion of the opening, as and for the purpose set forth.

4. In a device of the class described, a plate having an opening which is enlarged at opposite sides, and a rivet having prongs which are adapted to be forced through the enlarged portion of said opening, said prongs having diverging elastic free extremities.

5. In a device of the class described, a plate having an opening therein, said opening being enlarged at opposite sides, and a rivet having diverging prongs, the ends of the prongs being adapted to be inserted and held in the enlargements of the opening, and said enlargements being so located in the plate that the prongs must lie in a predetermined position in relation thereto.

[Claims 6 to 8 not printed in the Gazette.]

940,443. BELT-FASTENER. CLARA S. EATON, New York, N. Y. Filed Sept. 19, 1906. Serial No. 335,175.



1. In a belt fastener, a plate having an opening therein, a rivet having prongs adapted to be inserted therein, one of said elements provided with a groove and the other with a projection to fit said groove.

2. In a belt fastener of the class described, a plate having an opening therein adapted to receive a rivet and provided with a guide by which to position said rivet, and a rivet having prongs and also provided with a guide to coact with the first mentioned guide, said guides being so located that the prongs of the rivet must lie in a predetermined relation with respect to the plate.

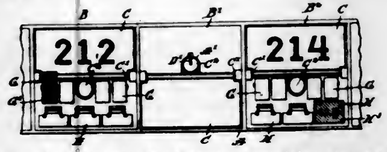
3. In a belt fastener of the class described, a plate having an opening therein, said opening having irregularities on its wall, and a rivet having prongs and provided with corresponding irregularities adapted to mate with the irregularities in said opening and to be guided thereby, the said irregularities being so located as to cause the prongs of the rivet to lie in a predetermined relation with respect to the plate.

4. In a belt fastener, a plate having an opening, the wall of which is provided with one or more projections, and a rivet having prongs and provided with one or more grooves to receive said projections, the projections and grooves being so located that the prongs of the rivet must lie in a predetermined relation with respect to the plate.

5. In a belt fastener of the class described, a plate having an opening adapted to receive a rivet and provided at opposite sides of said opening with guides by which to position said rivet therein, and a rivet adapted to said opening and provided with diverging elastic free extremities adapted to bind against the wall thereof.

[Claims 6 to 9 not printed in the Gazette.]

940,444. VISUAL-SIGNAL APPARATUS. RUDOLF EINBIGLER, New York, N. Y. Filed Apr. 8, 1909. Serial No. 488,617.



1. A visual signal apparatus, comprising an annunciator board provided with annunciator units one for a person, each unit having a name plate, different station plates, electro-mechanisms for actuating the said plates, and controlling circuits from different sections leading to each unit, each controlling circuit containing the electro-mechanism for the said name annunciator plate and the electro-mechanism for one of the said station annunciator plates.

2. A visual signal apparatus, comprising a name plate mounted to swing, electro-magnets for controlling the said name plate, a station plate mounted to swing, an electro-magnet for operating the same, and a controlling circuit for both sets of electro-magnets to actuate both plates simultaneously from one station.

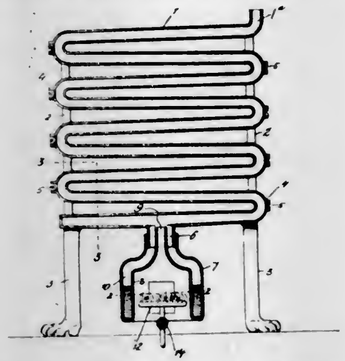
3. A visual signal apparatus, comprising an annunciator board provided with annunciator units, each unit having a name plate, different station plates normally hidden by the said name plate, electro-magnetic mechanisms for the said plates of each unit, and controlling circuits for each unit, each controlling circuit containing the electro-magnetic mechanism for the said name plate and the electro-magnetic mechanism for one of the said station plates.

4. A visual signal apparatus, comprising an annunciator board provided with annunciator units, each having a pivoted name plate, a plurality of pivoted station plates normally covered up by the said name plate, electro-magnetic mechanisms, one for swinging the said name plate upward into display position and the other for swinging the name plate downward into closing position, an electro-magnetic mechanism for each of the said station plates to swing the same upward into display position, and a plurality of controlling circuits, each containing the electro-magnetic mechanism for the said name plate and the electro-magnetic mechanism for one of the said station plates.

5. A visual signal apparatus, comprising an annunciator board provided with annunciator units, each having a pivoted name plate, a plurality of pivoted station plates normally covered up by the said name plate, electro-magnetic mechanisms, one for swinging the said name plate upward into display position and the other for swinging the name plate downward into closing position, and electro-magnetic mechanism for each of the said station plates to swing the same upward into display position and against the face of the said name plate, the latter on closing swinging the station plates downward into closing position, and a plurality of controlling circuits, each containing the electro-magnetic mechanism for the said name plate and the electro-magnetic mechanism for one of the said station plates.

[Claims 6 and 7 not printed in the Gazette.]

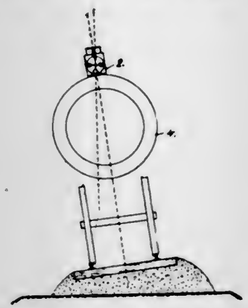
940,445. RADIATOR. WELKER J. ELDER, Wilkinsburg, Pa., assignor of one-half to Beatt Elkins, Wilkinsburg, Pa. Filed Feb. 2, 1909. Serial No. 475,590.



1. A radiator comprising a sinuous coil discharging to the atmosphere and having the arms thereof arranged one above the other and disposed in alternating inclined relation to each other, the lowermost arm being closed at its free end and provided intermediate its ends with a depending sleeve, supporting legs in which the ends of each arm of the coil is received and supported, and a burner housing depending from said sleeve and formed with a combustion chamber and a vaporizing chamber, each in communication with the coil, said vaporizing chamber arranged to receive the condensation from the lowermost arm.

2. A radiator comprising a sinuous coil discharging to the atmosphere and having the arms thereof arranged one above the other and disposed in alternating inclined relation to each other, the lowermost arm being closed at its free end and provided intermediate its ends with a depending sleeve, each arm provided with a drain-out opening, plugs normally closing said openings, supporting legs in which the ends of each arm are received and supported, and a burner housing depending from said sleeve and formed with a combustion chamber and a vaporizing chamber, each in communication with the coil, said vaporizing chamber arranged to receive the condensation from the lowermost arm.

940,446. LOCOMOTIVE-HEADLIGHT. SILAS W. EMERY, Big Run, Pa. Filed May 17, 1907. Serial No. 374,206.

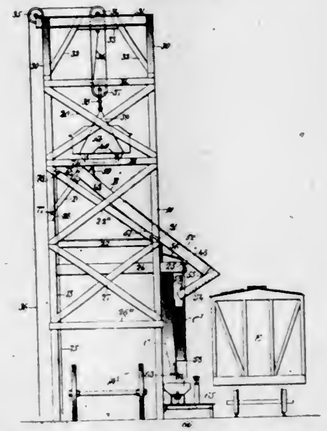


1. The combination in an attachment for headlights, of a vertically pivoted conical reflector, a rearwardly-extending arm carried thereby, a pendulum-arm weighted at its lower end and having an upwardly-extending arm forked to receive said rearwardly-extending arm, and weighted-arms carried by and projecting in opposite directions from the pendulum-arm at the pivotal point of the latter.

2. The combination with a locomotive boiler, of a housing secured thereto, a conical headlight reflector, pivots disposed upon the top and bottom of said reflector, brackets interiorly of said housing and upon the top and bottom thereof, said pivots positioned within said brackets, the upper of said pivots provided with a rearwardly-extending arm, a pendulum pivotally-secured to the rear wall of said housing at a point below the level of said arm, said pendulum having a bifurcated upper end adapted to slidably embrace the free end of said arm, a weight provided at the lower end of said pendulum, oppositely-extending alining arms carried by the sides of said pendulum at the pivotal point of the latter and a counterbalance weight provided at the opposite ends of each of said arms.

3. The combination with a locomotive boiler, of a housing secured thereto, a conical headlight reflector, pivots disposed upon the top and bottom of said reflector, brackets interiorly of said housing and upon the top and bottom thereof, said pivots positioned within said brackets, the upper of said pivots provided with a rearwardly-extending arm, a pendulum pivotally-secured to the rear wall of said housing at a point below the level of said arm, said pendulum having a bifurcated upper end adapted to slidably embrace the free end of said arm, a weight provided at the lower end of said pendulum, oppositely-extending alining arms carried by the sides of said pendulum at the pivotal point of the latter and a counterbalance weight provided at the opposite ends of each of said arms, said pendulum arms below the pivot point being of greater length than the counterweight arms, the said pivots being disposed in vertical alinement.

940,447. WAGON-DUMP. EDWARD EWEL, Grand Island, and SHERMAN L. CLEMENT, North Loup, Nebr. Filed June 19, 1907. Serial No. 379,774.



1. In a wagon dump, a skeleton structure, a hoist for the wagon body carried thereby, a screen chute pivoted upon the structure, means carried by the chute for supporting the wagon body, a hinged prop for the inner end of the chute whereby to hold it in discharge position, means for operating the prop, and means for conducting foreign matter from the chute.

2. In a wagon dump, a skeleton structure, a screen chute pivoted to the structure extending partially within and partially without the same, a hinged prop for holding the chute in discharge position, said prop being provided with stops for limiting its swinging movement, means for operating the prop, and dust conducting members located beneath the screen section of the chute and carried thereby.

3. In a wagon dump, the skeleton structure, a screen chute pivoted to the structure and extending partially

within and partially without the same, said chute being provided with a dust conducting apron beneath a portion of its screen section, and a pocket beneath another portion of the screen section, the outlet for the pocket facing the outlet end of the apron, whereby the dust in the pocket will be discharged therefrom as the chute moves from discharging position.

4. In a wagon dump, a skeleton structure, a screen chute pivoted to the structure and extending partially within and partially without the same, said chute being provided with a dust conducting apron beneath a portion of its screen section, and a pocket beneath another portion of the screen section, the outlet for the pocket facing the outlet end of the apron, a receiver for the dust from the apron and pocket, the dust from the apron entering the receiver while the screen chute is in discharge position, and the dust from the pocket entering the receiver as the chute is moved from discharge position, a prop for temporarily holding the chute in discharge position; and independent manipulating devices for the chute and the prop.

5. In a wagon dump, a structure having a chamber therein for the upward passage of a wagon body, a screen chute pivoted to the said structure extending farther within the same than without, the said screen chute consisting of an apron extending from its inner end downward in direction of its outer end, a partition in front of the delivery end of the said apron, a second apron located at the outer end portion of the said chute, having an opposite inclination to the inclination of the first named apron, forming a pocket in the chute, the outlet whereof is opposite yet below the outlet end of the first named apron, and a screen section extending over the major portion of the first apron and over the entire portion of the second apron forming the said pocket, the latter apron being in advance of the said partition, and means for bringing the said chute to a discharge position.

[Claims 6 to 13 not printed in the Gazette.]

940,448. SPARK-PLUG FOR INTERNAL-COMBUSTION ENGINES. MAURICE EYQUEM, Paris, France. Filed Apr. 28, 1908. Serial No. 429,616.



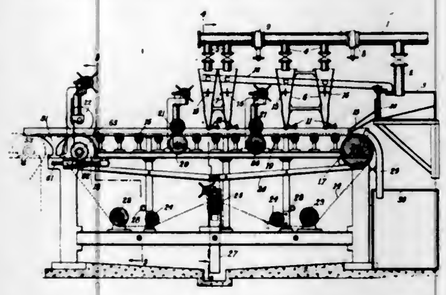
1. A spark plug for the ignition of internal combustion engines, comprising a tubular electrode, a cock mounted on the latter and opening to the exterior, a short circuiting rod arranged on the plug of the cock and keyed so as to come in contact with the metal body of the spark plug when the cock is open, substantially as described.

2. A spark plug for the ignition of internal combustion engines comprising a hollow rod, a central electrode, a joint provided with holes on its periphery and securing the electrode to the hollow rod, a cock mounted upon the hollow rod and opening to the exterior, a short circuiting rod mounted on the plug of the cock, substantially as described.

3. A spark plug for the ignition of internal combustion engines, comprising a tubular electrode, a cock mounted on the latter and opening to the exterior, a short circuiting rod mounted on the plug of the cock, an operating button of insulating material mounted at the one end of the cock plug, a current conductor at the other end of the cock plug, substantially as described.

4. A spark plug for the ignition of internal combustion engines, comprising a tubular electrode, a cock mounted on the latter and opening to the exterior, a short circuiting rod mounted on the plug of the cock, an operating knob or button of insulating material mounted at the one end of the cock plug, a current conductor rod constituting a continuation of the said plug, a contact abutment carried by said rod, a pressure washer movable on said rod and pressing against the contact abutment by a returning spring, and a wire clamp provided with an opening, substantially as described.

940,449. APPARATUS FOR MANUFACTURE OF COMPOSITION BOARD. JOHANN FERLA, New York, N. Y. Filed May 29, 1907. Serial No. 376,438.



1. In apparatus of the character described, the combination with board-forming apparatus of pulp feeding devices for said board-forming apparatus, said pulp-feeding devices comprising a main reservoir and a supplementary reservoir, valves to control the escape of pulp from said reservoirs, and an overflow conduit extending from said supplementary reservoir to said main reservoir.

2. In apparatus of the character described, the combination with suitable supporting and driving devices, of a pulp carrying web through which moisture can drain readily, the carrying lead of said web being arranged to travel in a straight path, a second traveling web having its carrying lead arranged for movement in the same plane with the first-mentioned web and adapted to receive material from said first-mentioned web, the latter web being formed of absorbent material, a blank-receiving table, and means to obtain the blank-receiving surface of said table in the same horizontal plane as the carrying surfaces of the traveling webs.

3. In apparatus of the character described, the combination with an endless web of wire gauze having its carrying lead arranged in a horizontal plane, of pulp-feeding devices arranged near the forward end of said web, and an overflow pipe supported adjacent said feed devices and flush with the pulp-receiving surface of said web.

940,450. PROCESS OF MANUFACTURING COMPOSITION BOARDS. JOHANN FERLA, St. George, N. Y., assignor of one-fourth to Charles L. Parmelee, Orange, N. J. Filed Sept. 8, 1906, Serial No. 333,804. Renewed Apr. 1, 1908. Serial No. 424,537.

1. The process of producing composition boards consisting in first mixing hydraulic cement and fibrous material in the dry state, and then adding to the dry mixture glue, an acid solvent for glue and water in sufficient quantity to make the material flow readily, next forming layers from the mixture, then pressing the layers and finally allowing the pressed layers to set or harden.

2. The process of producing composition boards consisting in first mixing asbestos, hemp and hydraulic cement in the dry state, then adding acetic acid, glue and water in sufficient quantity to make the mixture flow freely, forming layers of material from the mixture, pressing the layers and allowing them to set or harden.

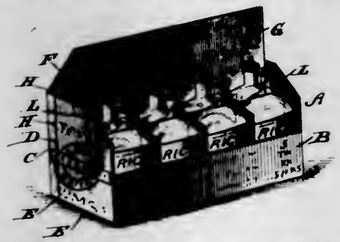
3. The process of producing composition boards which consists in forming a mixture containing mineral fiber, hydraulic cement and water in sufficient quantity to make the mixture flow freely, forming a layer of the mixture, draining the excess of liquid from the layer, pressing the layer in a vacuum and allowing it to harden.

4. The process of producing composition boards consisting in forming a mixture containing mineral fiber, hydraulic cement and water in sufficient quantity to make the mixture flow freely, flowing the mixture on a moving perforated screen in a layer to permit the excess water to drain off, pressing the layer in a vacuum and allowing it to set or harden.

5. The process of producing composition boards consisting in first making a mixture containing mineral fiber, hydraulic cement and water in sufficient quantity to make the mixture flow freely, flowing the mixture on a moving screen in a layer to allow the excess of water to drain off, piling a plurality of the layers of material in a press with interposed pieces of sheet metal, pressing the layers in a vacuum, and finally allowing the material to set or harden.

[Claims 6 to 9 not printed in the Gazette.]

940,451. PACKING AND DISPLAY CASE. FRANK S. FERRY, Philadelphia, Pa., assignor to Halsey J. Tibbals Chemical Manufacturing Company, a Corporation of Delaware. Filed Dec. 26, 1908. Serial No. 469,484.



1. A case of the character stated, comprising a box having the upper front edges of its sides chamfered and its front wall cutaway with its top terminating below said chamfered edges and a closure integral with said box and comprising movably united members, one serving as the top of the box and the other as a display member when opened, and as a closure for the portion of the box above its cutaway front when in its closed position.

2. A case of the character stated, comprising in a single integral element a box having a bottom, a back, sides and a front of less height than said sides and a top comprising two members movably united, the one adapted to form the top and the other engageable between said sides and within the box and bearing against said front to form the complement of the front of the box.

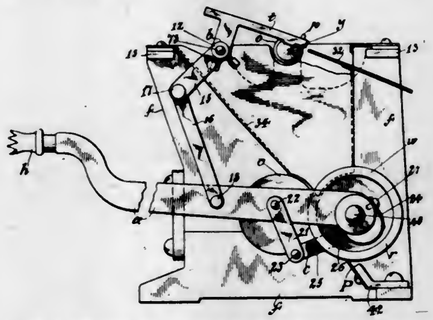
3. A case of the character stated, comprising in a single integral element a box having a bottom, a back, sides and a front of less height than said sides and a top comprising two members movably united, the one adapted to form the top and the other engageable between said sides and within the box and bearing against said front to form the complement of the front of the box, said top member serving as a brace for the front member of the cover when the latter is in its vertical position on the top of the box to display the contents of the latter and serve as a display member for advertising matter.

4. A blank for a box of the character described comprising in a single element a front member of less width than the height of the box and having a bottom member at one side thereof and a member at one end thereof at right angles thereto, a corresponding member at the opposite end the said bottom member being confined within the area of said end members, a back member with an attaching member at one end, a bottom member upon one side, closing and display members upon the opposite side.

5. A blank for a box of the character described comprising in a single element a front member of less width than the height of the box and having a bottom member at one side thereof and a member at one end thereof at right angles thereto, a corresponding member at the opposite end the said bottom member being confined within the area of said end members, a back member with an attaching member at one end, a bottom member upon one side, closing and display members upon the opposite side, the said bottom members having interlocking portions.

[Claim 6 not printed in the Gazette.]

940,452. CANCELING-MACHINE FOR TICKETS. WILBUR C. FISK and JOHN A. SEELY, New York, N. Y. Filed Apr. 3, 1909. Serial No. 487,757.



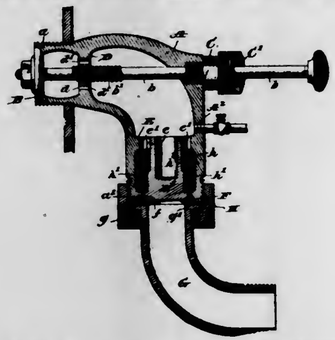
1. In a machine of the character described the combination of a pair of parallel, rotating, tubular cylinders, perforations in the wall of one cylinder registering with cutting projections on the surface of the other cylinder, an oscillating table located above said cylinders, a chute or passage above said table having glass walls or contact surfaces composed of parallel acute-angled ribs, means fixed on the surface of said table for separating articles differing in size and gravity, a shelf fixed at an angle, a supplemental receptacle fixed at the outer edge of said shelf, and means for jarring the oscillating table when it reaches a point in its movement in line with said shelf, all so arranged as to first dislodge articles of a predetermined size and gravity and to retain articles of a different size and gravity until said table reaches an approximately vertical plane.

2. In a canceling machine the combination of suitable canceling devices, a chute or passage leading to said devices, a tilting table, a shelf fixed in a radial line with said table when said table is at an acute angle to the horizontal in its rotary movement, means for jarring said table in its tilting movement when said table is in line with said shelf and means for rotating said table and said canceling devices successively.

940,453. CHECK-VALVE FOR LOCOMOTIVE-BOILERS AND THE LIKE. THEODORE R. FONDREN, Lancaster, Tex. Filed Mar. 19, 1907. Serial No. 363,236.

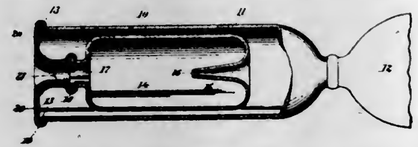
In combination with a boiler, an elbow fitting positioned without the boiler, comprising a horizontal branch projecting within the boiler and a vertical branch depending from the outer end of said horizontal branch, a cutoff valve adapted to close the end of the horizontal branch projecting within the boiler, said horizontal branch being provided adjacent the end extending within the boiler, with a wall extending transversely thereof having a central opening and a plurality of openings surrounding said central opening, and an operating rod secured to the cutoff valve, said rod having a threaded engagement with the central opening of said wall and extending without the fitting, said vertical branch being provided adjacent the lower end thereof with a wall extending transversely thereof having a central opening and a plurality of openings surrounding said central opening, a pipe adapted to lie secured to the lower end of said fitting, a valve seat interposed between the adjacent ends of said fitting and

pipe, and means for detachably clamping the pipe to the fitting and holding the valve seat in position, a check valve within said fitting and adapted to coöperate with said valve seat, said valve being provided with a portion



snugly fitting the central opening in the transverse wall adjacent the lower end of the vertical arm of the fitting and a drain cock in the vertical branch above the check valve.

940,454. BREAST-PUMP. EDMUND P. FOWLER, New York, N. Y. Filed Oct. 3, 1908. Serial No. 455,988.



1. A breast pump comprising a plurality of receptacles, means yieldingly connecting said receptacles adapted to engage a nipple, and means for varying the fluid pressures in said receptacles, substantially as specified.

2. A breast pump comprising a plurality of receptacles, means yieldingly connecting said receptacles at one end adapted to engage a nipple, and means for varying the fluid pressure in said receptacles, substantially as specified.

3. A breast pump comprising a plurality of receptacles, means yieldingly connecting said receptacles at one end adapted to engage a nipple, and a compressible member secured to one of said receptacles, substantially as specified.

4. A breast pump comprising an outer receptacle, and an inner receptacle, a diaphragm connecting said receptacles together at one end, and means for varying the fluid pressure within said outer receptacle to actuate said inner receptacle and said diaphragm, substantially as specified.

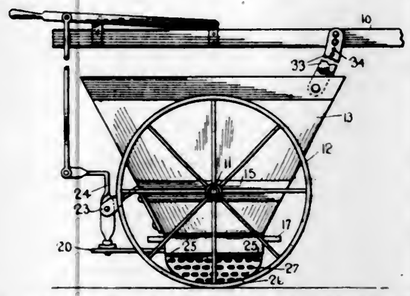
5. A breast pump comprising an outer receptacle and an inner receptacle, an elastic diaphragm connecting said receptacles at one end adapted to engage a nipple, and a compressible member connected to said outer receptacle whereby to actuate said inner receptacle, substantially as specified.

[Claims 6 to 13 not printed in the Gazette.]

940,455. FERTILIZER-DISTRIBUTER. EDWARD C. GALLOWAY, Butlerville, Ark. Filed Nov. 9, 1908. Serial No. 461,777.

1. In a fertilizer distributer, a distributer plate having two anticlinally arranged outwardly curved halves each provided with a multiplicity of perforations.

2. In a fertilizer distributer, a hopper having a feed opening in the bottom, an axle extending through the hopper, wheels mounted on said axle, means to positively force fertilizer through the opening in the hopper, and a distributer plate having two anticlinally arranged halves each provided with a multiplicity of perforations held with its angle below and in alinement with said opening.



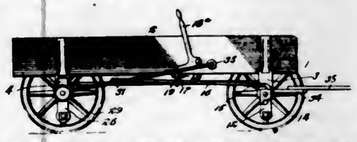
3. In a fertilizer distributer, a hopper having a feed opening in the bottom, means to vary the size of said opening, an axle extending through the hopper, wheels mounted on said axle, an element to positively force fertilizer through the opening in the hopper, and a distributer plate having two anticlinally arranged halves each provided with a multiplicity of perforations held beneath the hopper with its angle in alinement with said opening.

4. In a fertilizer distributer, a hopper having a feed opening in the bottom thereof, means to vary the size of the opening in the hopper, other means to close said opening, an axle extending through said hopper, wheels mounted on said axle, an element to positively force fertilizer through the opening in the hopper, and a distributer plate having two anticlinally arranged halves each provided with a multiplicity of perforations held below said hopper with its angle in alinement with the opening of the hopper.

5. In a fertilizer distributer, a hopper having an opening in the bottom, an axle extending through said hopper, wheels mounted on said axle, a delivery wheel on said axle provided with a series of arms curved in the direction of rotation of the wheel and having ends arranged to force the contents of the hopper through the opening, and a distributer plate having two anticlinally arranged halves each provided with a multiplicity of perforations held below said hopper with the angle of the plate in alinement with the opening.

[Claim 6 not printed in the Gazette.]

940,456. WAGON. GEORGE W. GAYLE, Gem, Kans. Filed Oct. 9, 1908. Serial No. 456,928.

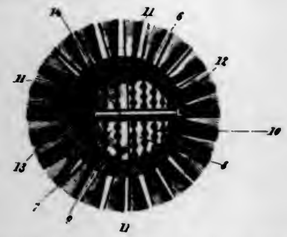


1. A wagon having pivoted wheeled front and rear axles of crank form, brackets pivotally mounted to the axles for supporting the wheels of the wagon, levers connected with the axles adapted for operation to move said axles so that the pivot points of the wheels can be disposed above the bottom of the wagon box and allowing said axles to rest upon the surface of the ground.

2. A wagon of the class described comprising a box, crank axles pivotally mounted beneath the box, pivotally mounted brackets carried by the axles, ground wheels carried by the brackets, and means for actuating said axles to raise or lower the said box.

3. A vehicle having a box, pivotally mounted axles carried by the box, pivotally mounted brackets carried by the axles, wheels upon said brackets, operating levers connected with the axles, and means upon the box for holding the levers in their locked positions.

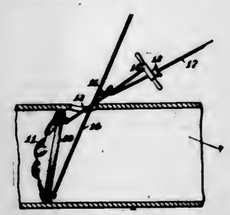
940,457. PIPE OR HOSE CLEANING DEVICE. CHRISTIAN C. GERHARDT, New York, N. Y. Filed May 15, 1907. Serial No. 373,858.



1. A cleaning device of the character described comprising a relatively heavy non-yielding spherical body composed of a plurality of parts conforming to each other and producing a continuous structure, resilient members secured to said parts and extending outwardly therefrom and entirely covering said body, and means for securing said parts together, substantially as specified.

2. A cleaning device of the character described comprising a relatively heavy, hollow, spherical body composed of two semispherical sections having interlocking edges and provided with radial perforations, brushes secured in said perforations and entirely covering said spherical body, and a screw extending through said body for securing said sections together, substantially as specified.

940,458. GAS-MAIN STOPPER. PATRICK GOODMAN, New York, N. Y. Filed May 14, 1909. Serial No. 495,981.



1. The combination of a gas main stopper having handle-bars connected thereto at approximately diametrically opposite points, and means to simultaneously force one of the handle-bars inwardly and draw the other handle-bar outwardly to lock the stopper in the gas main.

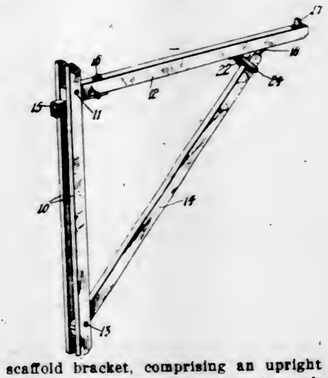
2. The combination of a gas main stopper having handle-bars connected thereto, a ring connected intermediate the length of one of the handle-bars, and a hook adapted to be engaged and disengaged with and from the ring and having a threaded shank adjustable on the other handle-bar.

3. The combination of a gas main stopper having handle-bars connected thereto, the handles movable relatively to each other in the direction of their lengths, and means carried by the handle-bars to simultaneously exert forces thereon in opposite directions, said means being detachably engaged.

4. The combination of a gas main stopper having handle-bars pivotally connected thereto at approximately diametrically opposite points, each bar having a hand-grip and a hook having a threaded shank passing through the hand-grip of one of the handle-bars, and a nut threaded on the shank of the hook and bearing on said grip.

5. The combination of an expansible gas main stopper having handle-bars connected thereto at approximately diametrically opposite points, a device carried intermediate the length of one of the handle-bars, and a member adjustable on the other handle-bar, having means to engage said device and force the handle-bars in opposite directions.

940,459. SCAFFOLD-BRACKET. ALBERT W. GUTHAT, Milwaukee, Wis. Filed Mar. 22, 1909. Serial No. 484,907.

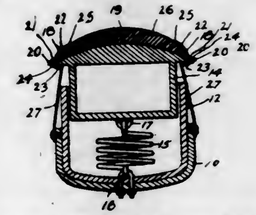


1. A scaffold bracket, comprising an upright member, an arm and a brace connected thereto, a knee plate on the arm forming a seat for the end of the brace, a stud on the knee plate entering an opening in the brace, and a swinging stirrup on the knee plate to engage the end of the brace and hold it against its seat and on the stud.

2. A scaffold bracket, comprising a pair of parallel bars, an arm member pivotally mounted between the bars at one end, a brace member pivotally mounted between the bars at the other end, a knee plate secured to the arm and having a projection forming a seat for the end of the brace, a stud projecting from the knee plate to enter an opening in the end of the brace, and a stirrup pivotally mounted on the knee plate to engage the end of the brace and hold it against its seat and on the stud.

3. A scaffold bracket, comprising a pair of bars, an arm pivotally connected therebetween at one end, a brace pivotally connected between the bars at the other end, a slotted hook on the arm for engaging a support, a knee plate mounted on the arm having a pair of projections to form a seat between them for the end of the brace, a stud on the knee plate to fit in a socket near the end of the brace, a lug on the knee plate countersunk in the arm to anchor the knee plate on the arm, a stirrup pivotally fitting in a groove on the top of the knee plate to engage the end of the brace and hold it against the seat and on the stud, and a lug on the stirrup to engage the arm and limit the degree of swing of the stirrup.

940,460. CUSHION-TIRE. GEORGE G. HAYES, Glenwood Springs, Colo. Filed Mar. 4, 1907. Serial No. 360,393.



1. A tire of the class described comprising a pair of sections and including a rim and a tread member, one end of the rim and tread member of each section being slotted for the reception of the other end of the rim and tread member respectively of the other section.

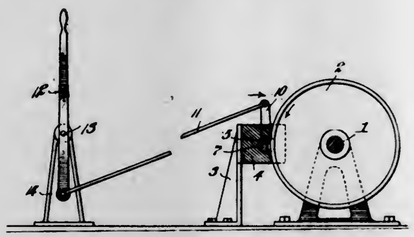
2. A tire of the class described comprising a pair of sections and including a rim and a tread member, one end of the rim and tread member of each section being slotted for the reception of the other end of the rim and tread member respectively of the other section, the latter ends being reduced.

3. A tire of the class described comprising a pair of sections and including a rim and a tread member, one end of the rim and tread member of each section being slotted for the reception of the other end of the rim and tread member respectively of the other section, and means for holding the ends of the tire sections.

4. A tire of the class described comprising a pair of sections and including a rim and a tread member, one end of the rim and tread member of each section being slotted for the reception of the other end of the rim and tread member respectively of the other section, and adjustable means for holding the ends of the tire sections.

5. A tire of the class described comprising a pair of sections each including a rim and a tread member, one of the rim and tread members of each section being slotted, the other ends of the sections being reduced and received in the slots, the slotted ends of each section being provided in each side with a slot, and bolts passing through the last mentioned slots and into the connecting section to hold the tire sections in adjustment.

940,461. BRAKE. EDMUND HEROLD, Brooklyn, N. Y. Filed Nov. 30, 1908. Serial No. 465,014.



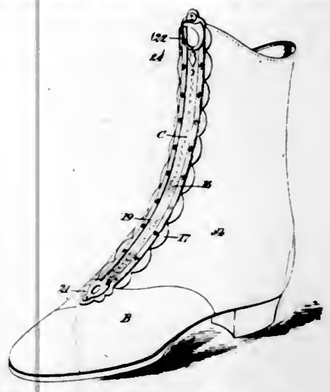
The combination with an element adapted to be moved or revolved in two directions, of a casing having a vertical passage between the walls of which a portion of the said element is disposed, cam means revolubly mounted in said casing provided with a plurality of element contacting points adapted to be engaged with the element to hold the same against movement, a bracket for supporting said casing, an actuating lever adapted to be manually manipulated and disposed in juxtaposition to the casing, and connections between the lever and the cam means so that when the former is operated the element contacting portions of the cam means can be engaged with the said element or disengaged therefrom.

940,462. SEPARABLE FASTENER FOR BOOTS AND SHOES. JEPPE JEPPERSON, Salt Lake City, Utah. Filed May 5, 1908. Serial No. 430,933.

1. In combination with a boot or shoe having an opening extending from the vamp, and a series of independent hooks arranged at each side of said opening and forming guides, of a tongue having longitudinally extending plates on its rear surface at each side of its center, means for spacing the said plates from the body of the tongue, the plates being adapted for sliding engagement with the said hooks, and arranged to draw the edges of said opening together or permit them to separate, and locking means for the tongue.

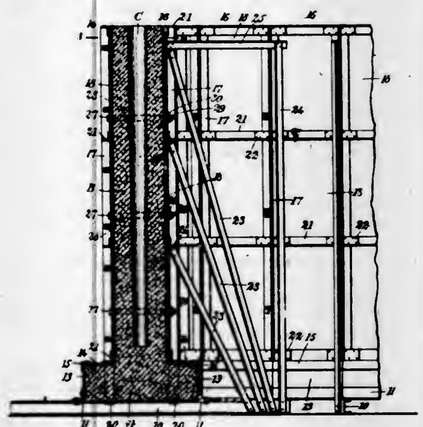
2. As an improved article of manufacture, a removable exterior tongue for boots and shoes, having a body section provided with a longitudinal binding at its side edges, an edge section secured to the binding at the under face of the tongue, and longitudinal plates also secured to the binding at the under face of the tongue and spaced from the body section of the tongue by said binding forming a slideway, the tongue being provided with locking means for engagement with the shoe.

3. The combination with a boot or shoe having an opening extending from the vamp, and guides arranged at each side of said opening, of a removable exterior tongue having a body section provided with a longitudinal binding at its side edges, longitudinal plates secured to the binding at the under face of the tongue and spaced from



the body section of the tongue by said binding forming a slideway for engagement with said guides, and locking means carried by the tongue for engagement with the shoe.

940,463. MOLD. JOHN R. KAY, New York, N. Y. Filed Mar. 27, 1908. Serial No. 423,558.



1. A mold having transverse base members, wall sections mounted upon said base members and movable longitudinally thereof whereby the thickness of the mold can be varied, said sections having at the longitudinal edges, uprights, the uprights of adjacent sections being removably secured together, spacing members between opposite wall sections, cross strengthening members connecting the uprights of each section at the outside thereof, and braces removably connecting said uprights and said base members.

2. A mold having transverse base members, wall sections mounted upon said base members and adjustable longitudinally thereof, said wall sections at the longitudinal edges having uprights, said uprights seating upon said base members, said wall sections having wall plates carried by said uprights, said wall sections at the lower ends having offset portions adapted to form a wall footing, said offset portions extending at the outside of said uprights, means for spacing the opposite wall sections, and means for bracing said wall sections.

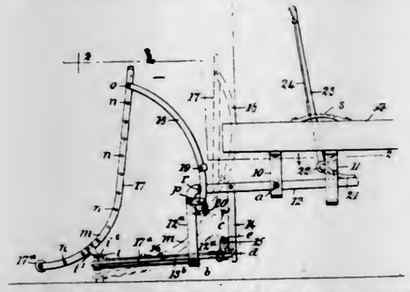
3. A mold having transverse base members consisting of I-beams, wall sections consisting of wall plates and angle iron uprights, the uprights of adjacent wall sections being removably secured together, said uprights resting upon said I-beams, angle irons removably secured to said I-beams and extending transversely thereof, footing plates secured to said angle irons and said wall plates, and braces removably secured to said I-beams and said uprights, said I-beams having the upper flanges cut away to permit said braces to be secured to the webs of said I-beams.

4. A mold having transverse laterally extended base members provided with recesses at the upper edges, wall sections adjustably mounted upon said base members and having uprights adapted to have the lower ends removably received by said recesses, braces removably connecting said uprights and said base members, further uprights removably mounted upon said base members, and cross-bars removably connecting said further uprights and said uprights of said wall sections, said cross bars being adapted to carry a staging.

5. A mold having a wall section, uprights extending above said wall section, and mold plates mounted upon said wall section and adapted to engage said uprights at the ends of said plates and intermediate the ends of said plates.

[Claims 6 to 8 not printed in the Gazette.]

940,464. CAR-FENDER. THOMAS J. KILLEEN, Portland, Oreg. Filed Sept. 1, 1908. Serial No. 451,174.



1. A car fender, comprising a fender frame, means for holding the frame normally above the rails of a track, a sliding catcher apron above the fender frame and normally projecting beyond the same, and means, whereby when the apron meets an obstruction it will be moved rearwardly over the frame, and the said frame released and allowed to drop onto the rails.

2. The combination with a fender-frame supported rockably near its rear edge, of a catcher-apron, concaved near its front edge, said apron being carried by the fender-frame and slidable thereon.

3. The combination with supported rock-arms having forwardly-depending limbs thereon, of a fender-frame pivoted near its rear edge upon said limbs, and detachable means for holding the fender-frame level.

4. The combination with two supported rock-arms, a depending limb forwardly on each arm, and a keeper-bar pivoted at its upper end on each rock-arm rearward of the limb thereon, said keeper-bars each having a notch in the lower end thereof, of a fender-frame pivoted on the lower portions of the limbs, and having side members thereon that may interlock with the notched ends of the keeper-bars.

5. The combination with two supported rock-arms, a depending limb on the forward end of each rock-arm, a fender-frame pivoted near its edge and at each side on the lower portions of said limbs, and means for releasably holding the fender-frame level, of a catcher-apron having a curved forward portion near the lower edge thereof, means for rockably supporting the apron on the front portion of the fender-frame, a roller journaled at its ends and supported transversely on the forward end of the catcher-apron, curved braces pivoted by one end of each on the side members of the apron near their upper ends, short arms on the lower ends of said braces lapped on respective limbs and pivoted thereon, and contractible springs connecting the arms with the side members of the fender-frame.

[Claims 6 to 10 not printed in the Gazette.]

940,465. FISH-HOOK. WILLIAM E. KOCH, Whitehall, N. Y. Filed Oct. 24, 1908. Serial No. 459,279.



1. A fish hook, and a loop made of a piece of doubled-up wire and having one end secured to the hook shank, said loop being bent away from the bend of the hook and thence toward the bend of the hook, and encircling the same at a point remote from the bill of the hook for the purpose set forth.

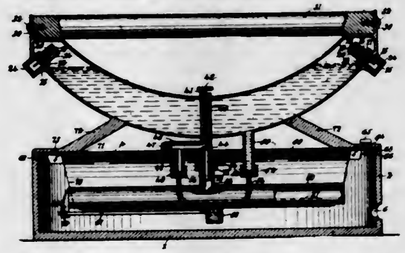
2. A fish hook provided with a bait retaining needle having its shank secured to the shank of the fish hook, the shank terminating in points extending toward and crossing each other.

3. A main fish hook, a loop having one end secured to the shank of said main fish hook and the other end encircling the bend thereof, a gang hook, a swivel connection between the said loop and the said gang hook, and a bait retaining needle on the shank of the said gang hook.

4. A main fish hook, a loop on the said main fish hook, a gang hook, a swivel connection between the said loop and the said gang hook, a bait retaining needle having oppositely arranged points on the shank of the said gang hook, an eye on the said gang hook, and a trail hook having a clasp engaging the said gang hook eye.

5. A fish hook provided with a bait retaining needle consisting of a body portion secured to the hook, and having at each end a point, said points extending toward and crossing each other.

940,466. SELF-HEATING FLAT-IRON. CHARLES S. KONIGSBERG and WILLIAM ALLEN, Oakland, Cal. Filed Nov. 17, 1908. Serial No. 463,100.

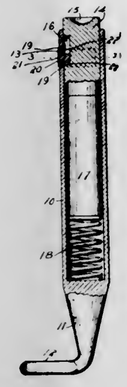


1. In a self-heating flat iron, the combination of a hollow body, a cover detachably secured to said body, a liquid fuel tank, a pipe projecting downwardly from said tank through said cover, a valve casing passing through said tank, a laterally-extending pipe communicating with said valve casing and having a depending portion extending through said cover, a vaporizing chamber connected to said downwardly-projecting pipe and to said depending portion, a valve in said casing having a stem projecting above said tank, a tube in line with said valve, and a burner communicating with said tube.

2. A flat iron comprising a body and a removable cover, a tank secured to the cover, a handle connected with the

tank a valve casing extending through the tank and the cover at the centers thereof and provided at its lower end with a valve seat, a boss on the inner surface of the cover coaxial with the valve seat, a pipe extending from the cover through the boss, the valve seat forming a communication between the casing and the pipe, an elongated burner having a lateral pipe fitting into the boss, and a set screw engaging the pipe for securing the burner in place.

940,467. RIVET-HOLDER. HENRY E. LAU, Pottstown, Pa. Filed Sept. 30, 1908. Serial No. 455,484.



1. A device of the class described comprising a tubular stock having an aperture through one side, a hammer spring supported within said stock, a die bearing upon said hammer and slidable in said stock and provided with a longitudinal slot opposite the opening in the stock, a latch operating through the aperture of said stock and into the slot of said die, and detachable means for maintaining said latch in position.

2. A device of the class described comprising a tubular stock having an aperture through one side, a hammer spring supported within said stock, a die bearing upon said hammer and slidable in said stock and provided with a longitudinal slot opposite the opening in the stock, a latch operating through the aperture of said stock and into the slot of said die, and yieldable means detachably engaging said stock and maintaining said latch in position.

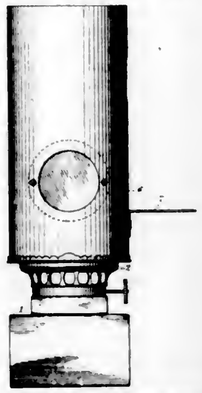
3. A device of the class described comprising a tubular stock having an aperture through one side and segmental channels in the stock at the opposite sides of the aperture thereof, a hammer spring supported within said stock, a die bearing upon said hammer and slidable in said stock and provided with a longitudinal slot opposite the opening in the stock, a latch operating through the aperture of said stock and into the slot of said die, and a resilient member bearing around said stock and against said latch and with inwardly directed ribs engaging in said channels and maintained in position thereby.

940,468. LAMP-CHIMNEY. GEORGE H. LEE, Omaha, Nebr. Filed Apr. 9, 1909. Serial No. 488,812.

1. A lamp having a burner with a substantially circular wick dome, said wick dome presenting a rounded upper face, and a chimney having guiding means near the lower edge thereof engaging said wick dome and affording means for centering said chimney on said burner.

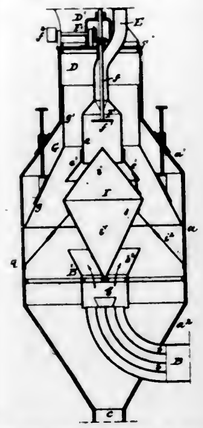
2. A lamp chimney having inwardly projecting members, in combination with a lamp burner having a substantially circular wick dome adapted to be engaged by said members and affording means for guiding the chimney into a central position.

3. A lamp having a burner with a substantially circular wick dome, and a chimney having inwardly projecting tongues adapted to engage the sides of said dome to center



said chimney as it descends, and a chimney seat disposed around said dome and supporting said chimney.

940,469. PNEUMATIC SEPARATOR. HARRY N. MIDDLETON, Westville, N. J. Filed Feb. 2, 1907. Serial No. 355,422.



1. The combination of a casing, a double cone mounted within the casing, a tailing spout in the lower end of the casing, an exhaust pipe communicating with the upper end of the casing, an air inlet pipe opening into the casing directly under the cone, a material feed tube having an enlarged end and situated directly above the cone, a spreader, means for rotating the spreader, a shell having a cylindrical and a conical portion surrounding a part of the cone, and means for adjusting the shell so as to increase or diminish the space between the shell and the cone.

2. The combination of a casing, a double cone consisting of two conical structures united base to base within the casing, an air inlet pipe entering the lower portion of the casing and opening at a point directly under the cone, a tube placed to discharge material upon the cone and having an enlarged end portion inclosing the upper end thereof, a spreader within the enlarged end of the tube, and means for rotating the spreader so as to distribute the material evenly over the outside of the cone.

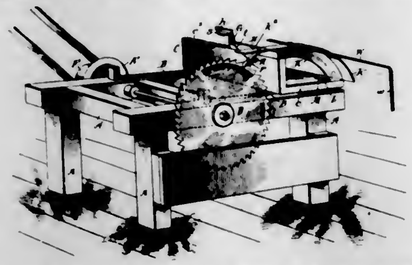
3. The combination of a casing, a double cone mounted within the casing, an air inlet pipe under the cone, an inlet tube for material, an outlet pipe for the air and finer particles of material, said outlet pipe having a tubular body portion connected with the casing, two quadrangular pipes connected to the tubular portion, with a spreader mounted in the material feed tube, and gearing for driving the spreader situated in the space between the two quadrangular pipes.

4. The combination of a casing having a cylindrical portion and conical extensions at each end, a tailing spout connected to the lower extension, an outlet pipe for air and light material connected to the upper extension, a double cone mounted within the casing, an air inlet pipe entering from the side of the casing and curved so as to discharge directly under the cone, a series of diaphragms in said pipe, a conical ring mounted above the opening in the pipe, an inlet tube for material having an enlarged end surrounding the upper portion of the cone, a spreader within said enlarged portion of the tube, means for rotating the spreader, a shell having a cylindrical portion extending into the air outlet pipe and having a conical portion situated between the casing and the upper portion of the cone, with means for vertically adjusting said shell.

5. The combination in a separator, of a casing, a double cone mounted within the casing, an air inlet pipe directly under the cone and an inlet pipe for material directly above the cone, an exhaust pipe for the air and the lighter particles of material, a shell mounted between the casing and the cone, means for vertically adjusting the shell, and means for vertically adjusting the cone.

[Claims 6 to 8 not printed in the Gazette.]

940,470. SAW-CARRIAGE. PATRICK J. MURPHY, Alexandria, Va. Filed Jan. 28, 1909. Serial No. 474,726.



1. In a saw mechanism, a frame, a carriage slidably mounted on said frame, a circular saw carried by said frame at one side thereon, a guard comprising an arc-shaped member provided with a flange arranged to extend out over the saw, and an integral Z-shaped lever pivotally mounted upon said carriage, a stop member carried by said lever for retaining said guard in its adjusted positions, and means for releasing the guard.

2. In a saw mechanism, a frame, a carriage slidably mounted on said frame comprising a slotted base portion and an upright portion, the latter bearing an upwardly extending arm, a guard comprising an arc-shaped member at one end of said carriage having a flange on its upper edge arranged to extend out over the saw and provided with a Z-shaped member arranged to pass through a slot in the carriage base, and an integral Z-shaped lever pivoted at its central portion upon said upwardly extending arm, a stop member pivotally secured to said lever, a bell-crank lever pivotally mounted on said Z-shaped lever and connected with said stop member, a lug on said upright portion adapted to be engaged by said stop member, and a gage rod adjustably secured upon said arc-shaped guard member.

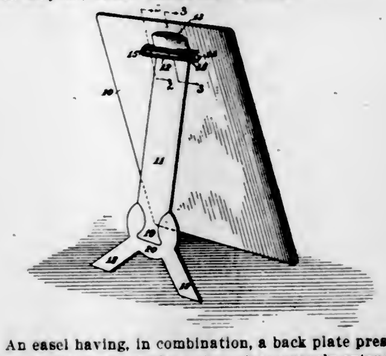
940,471. PROCESS OF RECOVERING TIN FROM WASTE. ALBERT NODON, Bordeaux, France. Filed Apr. 9, 1908. Serial No. 426,019.

1. The improved process for the recovery of tin from waste mixtures or alloys of or plated goods of tin with lead, which consists in treating such waste with a solution which will dissolve the tin without affecting the lead, and then electrolysing the resulting liquor.

2. The improved process for the recovery of tin from tin lead waste, which consists in treating the material with a solution of stannic sulfate having an excess of sulfuric acid mixed with an alkaline stannic baloid salt and electrolyzing the resulting liquor.

3. A process for recovering tin from tin lead waste, which consists in treating the material with a solution of stannic sulfate having an excess of sulfuric acid mixed with ammoniacal stannic bichlorid, and electrolyzing the resulting liquor.

940,472. EASEL. ERNEST OLDENBUSCH, New York, N. Y. Filed May 25, 1909. Serial No. 498,179.



1. An easel having, in combination, a back plate presenting upon its rear surface two transversely-extending loops or sockets adjacent the upper end in alinement with each other and spaced apart, and a boss or knob intermediate said sockets, a pivot pin carried by said loops or sockets and contacting with said boss, and a brace having a groove extending transversely thereof in the side thereof toward said back, for receiving said pin, and also having an upwardly-extending arm for contacting with said back and limiting the movement of the brace.

2. An easel having, in combination, a back plate presenting a rearwardly-extending boss, a brace having a pivot pin contacting intermediate its ends with said boss, and means for securing the ends of the pin to said plate.

3. An easel having, in combination, a back plate, a brace having a transverse groove in the side thereof toward said plate, a pintle rigidly secured within said groove so as to lie between the plate and the brace, and sockets carried by said plate and receiving the ends of the pintle.

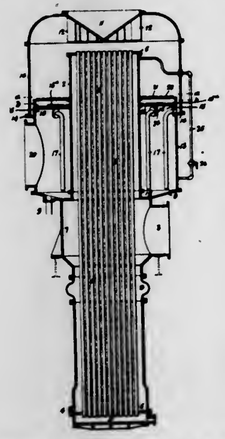
4. An easel, having in combination a back plate provided with a rearwardly-extending boss, a brace having a transverse groove in the side thereof toward said plate, a pintle rigidly secured within said groove so as to lie between the plate and the brace and to contact intermediate its ends with said boss, and sockets carried by said plate for receiving the ends of the pintle.

940,473. EVAPORATING APPARATUS. JOHN PARKER, Philadelphia, Pa., assignor to Kestner Evaporator Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Dec. 22, 1908. Serial No. 468,839.

1. In an evaporating apparatus, the combination of a heating chamber, a vertical evaporating tubular column, and a chamber communicating with the upper end of said tubular column and surrounding said heating chamber and having separate outlets for concentrated liquid and for vapor at points below the upper end of said tubular column.

2. In an evaporating apparatus, the combination of a heating chamber, a vertical evaporating tubular column therein, and a chamber containing liquid separating devices communicating with the upper end of said tubular column and surrounding said heating chamber and having separate outlets for concentrated liquid and for vapor at points below the upper end of said tubular column.

3. In an evaporating apparatus, the combination of a heating chamber, a vertical evaporating tubular column therein, and a chamber containing centrifugal liquid separating devices communicating with the upper end of said tubular column and surrounding said heating chamber and having separate outlets for concentrated liquid and for vapor at points below the upper end of said tubular column.

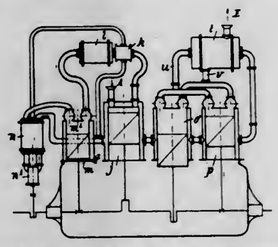


4. In an evaporating apparatus, a steam chamber, a plurality of vertical tubes therein, means for feeding liquid to the base of such tubes, a chamber inclosing the upper end of the steam chamber and in open communication with the ends of the tubes to receive liquid and vapor therefrom, means for separating entrained liquid from the vapors in such chamber, and means for separately removing concentrated liquid and vapor at points below the upper end of said tubes.

5. In an evaporating apparatus, a steam chamber, a plurality of vertical tubes therein, means for feeding liquid to the base of such tubes, a chamber inclosing the upper end of the steam chamber and in open communication with the ends of the tubes to receive liquid and vapor therefrom, means for separating entrained liquid from the vapor in such chamber, means for conducting the liquid to a point of discharge below the level of the top of the tubes and means for removing vapors at a point below the liquid discharge.

[Claims 6 to 17 not printed in the Gazette.]

940,474. COMBUSTION-ENGINE. CASIMIR S. PIESTRAK, London, England. Filed May 28, 1908. Serial No. 435,600.



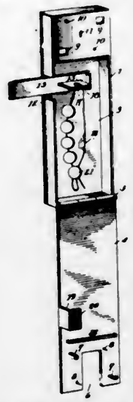
1. In an internal combustion engine, the combination of means provided with a jacket for compressing air; means for cooling said air to a temperature substantially equal to that of the surrounding atmosphere; a compressed air motor; means for insulating the same against an inflow of heat; means for conducting said cooled air into said motor, whereupon said air is caused to do work and to be further cooled; a temperature exchanger; a connection between said motor and said temperature exchanger; a second temperature exchanger; a connection comprising a pump between said temperature exchangers; a connection between said second temperature exchanger and said jacket by which said compressing means may be surrounded by cooled air; an engine having a cylinder and a jacket; a connection between said engine jacket and said compressor jacket; and means by which said air may be mixed with fuel and utilized in said engine cylinder, substantially as described.

2. In an internal combustion engine, the combination of a jacketed air compressor; a temperature exchanger *k* connected with said compressor; a motor *m* connected with said exchanger; a temperature exchanger *n* connected with said motor; connections between said exchanger *n* and the jacket of said compressor; jacketed cylinders *o* and *p*; connections from said compressor jacket to the jacket of said cylinders; a chamber *t*; connections between said cylinder jackets and said chamber *t*; and connections between said chamber and said cylinders *o* and *p*, substantially as described.

3. In an internal combustion engine, the combination of means to liquefy air; a temperature exchanger *k*; a connection between the same and said air liquefying means; engine cylinders *o* and *p* each provided with a jacket; connections between said exchanger and the jackets of said cylinders; a chamber *t*; connections between said jackets and said chamber; means for mixing said air with fuel in said chamber; and connections between said chamber and the interior of said cylinders, substantially as described.

4. In an internal combustion engine, the combination of means to liquefy air; jacketed engine cylinders; connections between said means and the jackets of said cylinders; a chamber *t* in which said air may be mixed with fuel; a jacket for the same provided with an exhaust escape E; a connection *u* between said chamber and the interior of said cylinders for the gases of combustion; and an exhaust connection *v* between said chamber jacket and said cylinders, substantially as described.

940,475. SEAL-LOCK. EDWARD L. PITTS, Yuma, Ariz., assignor of one-third to Andrew J. Locke and one-third to Jacob E. Ludy, Yuma, Ariz. Filed Apr. 1, 1909. Serial No. 487,249.



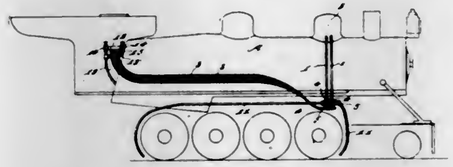
1. A device of the class described, comprising a main casing having at its one end a spring lock casing, a cover hinged to the other end of the casing, and having in its free end a recess, and provided adjacent to the recess with catches for coöperating with the lock, and with pins, and a keyhole uncovered by the recess, the main casing having in its side wall a notch for permitting the passage of a hasp, and on its rear wall a staple for engagement by the hasp, and for permitting the passage of a seal wire, the cover having a plate registering with the notch and closing the same, said plate having an angular portion at its free end for engaging the hasp.

2. A device of the class described, comprising a casing having at one end a lock, and provided inside the casing with a staple, and having a notch in one side edge in line with the staple for the passage of a hasp, a cover for the casing provided with catches for engagement by the lock, and with pins, the lock having openings for receiving the pins; said cover having a recess for permitting access to the lock, and said cover having an integral plate on one side edge for closing the notch.

3. A device of the class described, comprising a casing provided with a lock, and a staple within the casing and an opening in the side thereof for the passage of a hasp, and a cover hinged to the casing and provided with catches for engaging the lock, the cover having a cutaway portion at the lock for the purpose set forth.

4. In a device of the class described a sealing means for connecting a closure to a receptacle, a casing for containing said means, a cover for the casing, means for locking the cover to the casing, and means in connection with the cover for securing a frangible member over the locking means, to prevent access thereto without rupturing the frangible member.

940,476. TRACK-SANDING DEVICE. WILLIAM H. PRENDERGAST, Savannah, Ga., assignor of one-fourth to Joseph McCarthy and one-fourth to Robert Fechner, Savannah, Ga. Filed July 20, 1909. Serial No. 508,567.



1. In a track sanding device, the combination of a plurality of independent sand supply pipes, a sand trap at the lower end of each pipe, and having a cleaning opening at its outer side, a valve for closing the said opening of each trap, a sand delivery pipe leading from said trap, an air pipe for supplying air under pressure to each trap and supplying air to the latter at a point above the connection with the sand delivery pipe, an air chamber connected with all of the air pipes, a main valve controlling the supply of air to said air chamber, and independent valves controlling the supply of air from the air chamber to the air pipes.

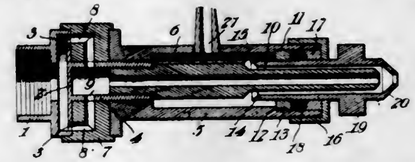
2. In a track sanding device, the combination of a sand supply pipe, a trap connected with the lower end of said pipe, a sand delivery pipe connected with the said trap, and an air supply pipe connected with the trap, the trap being provided with a single vertical air jet leading from the air supply pipe and terminating at a point above the connection of the sand delivery pipe.

3. In a track sanding device, the combination of a sand supply pipe, a trap connected with the lower end of said pipe, a sand delivery pipe connected with the said trap, and an air supply pipe connected with the trap, the trap being provided with a single vertical air jet leading from the air supply pipe and terminating at a point above the connection of the sand delivery pipe, and the trap having a cleaning opening at its outside and near the air jet and point of connection of the sand delivery pipe.

4. In a track sanding device, the combination of a sand supply pipe, a trap connected with the lower end of said pipe, and a sand delivery pipe connected with said trap, the opening from the trap to said sand delivery pipe being contracted at its inner end.

5. In a track sanding device, the combination of a sand supply pipe, a trap connected with the lower end of said pipe, a sand delivery pipe connected with said trap, an air supply pipe connected with the trap, and a jet pipe leading from the air supply pipe upwardly into the sand supply pipe.

940,477. SPRAYING-NOZZLE. ALMON E. PRESTON, Battle Creek, Mich. Filed Aug. 11, 1909. Serial No. 512,429.



1. In a nozzle of the character described, the combination, with an inner tube, and means for feeding a fluid under pressure therethrough, of an outer tube spaced away from said inner tube and having a port for connection with a source of supply of another fluid, an adjustable tube arranged intermediate of said inner and outer tubes and projecting beyond the same forming a chamber between it and the outer portion of said inner tube, and an air tight closure between the end of said outer tube and said intermediate tube, the outer extremity of said intermediate tube being drawn in around the end of the inner tube for the purpose specified.

2. In a nozzle of the character described, the combination with an inner tube, and means for feeding a fluid under pressure therethrough, of an outer tube spaced away from said inner tube and having a port for connection with a source of supply of another fluid, an adjustable tube arranged intermediate of said inner and outer tubes and projecting beyond the same forming a chamber between it and the outer portion of said inner tube, the inner end of said intermediate tube being adapted to abut against a shoulder on said inner tube, the outer extremity of said intermediate tube being drawn in around the end of said inner tube for the purpose specified, and an air tight closure between the end of said outer tube and said intermediate tube.

3. In a nozzle of the character described, the combination, with an inner tube and means for feeding a fluid under pressure therethrough, of an outer tube spaced away from said inner tube and provided with a port for connection with a source of supply of another fluid, an internally screw-threaded ring fitted in the end of said outer tube, an intermediate tube extending beyond said inner and outer tubes and having a screw-threaded connection with said ring, said intermediate tube being spaced away from said inner tube forming a chamber between them, the inner end of said intermediate tube being adapted to abut against a shoulder on said inner tube for the purpose specified, and an air tight closure between the extremity of said outer tube and said intermediate tube.

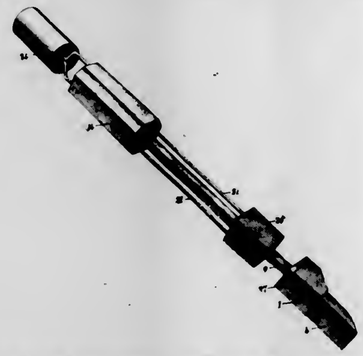
4. In a nozzle of the character described, the combination, with an inner tube and means for feeding a fluid under pressure therethrough, of an outer tube spaced away from said inner tube and provided with a port for connection with a source of supply of another fluid, an internally screw-threaded ring fitted in the end of said outer tube, an intermediate tube extending beyond said inner and outer tubes and having a screw-threaded connection with said ring, said intermediate tube being spaced away from said inner tube forming a chamber between them, the inner end of said intermediate tube being adapted to abut against a shoulder on said inner tube and its outer end drawn in around the extremity of said inner tube for the purposes specified, and an air tight closure between the extremity of said outer tube and said intermediate tube.

5. In a nozzle of the character described, the combination, with an inner tube and means for feeding a fluid under pressure therethrough, of an outer tube spaced away from said inner tube and provided with a port for connection with a source of supply of another fluid, an internally screw-threaded ring fitted in the end of said outer tube,

an intermediate tube extending beyond said inner and outer tubes and having screw-threaded connection with said ring, said intermediate tube being spaced away from said inner tube forming a chamber between them, the inner end of said intermediate tube being adapted to abut against a shoulder on said inner tube for the purpose specified, a milled band on said intermediate tube for adjusting the latter, and an air tight closure between the extremity of said outer tube and said intermediate tube.

[Claim 6 not printed in the Gazette.]

940,478. FARRIER'S IMPLEMENT. WARREN RAWALT, Blandinsville, Ill. Filed Dec. 9, 1908. Serial No. 466,687.



1. A farrier's implement, comprising a tool holder having a stem projecting therefrom, a handle on the end of the stem and in alinement therewith, a reciprocating hammer head on the stem between the handle thereof and the tool holder, and a handle connected with the hammer head, said handle being in alinement with the handle of the stem and guided in its movements by the handle of the stem.

2. A farrier's implement, comprising a tool-holder, a stem on said holder, a hammer-head slidably mounted on said stem, a handle secured to said stem and provided with guides, a handle for reciprocating said hammer-head, and means for connecting said hammer-head and operating handle, said means coöperating with said guides.

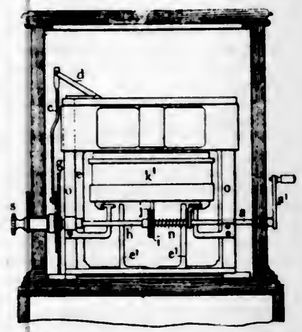
3. A farrier's implement, comprising a tool-holder, a stem on said holder, a hammer-head slidably mounted in said stem, a handle on said stem having guides formed therein, a handle for reciprocating said hammer-head, and rods connecting said hammer-head and its handle and passing through said guides.

4. A farrier's implement, comprising a tool-holder, a tool removably attached to said holder, a stem secured to said tool-holder, a handle on said stem having guides formed therein, a handle for reciprocating said hammer head, and a pair of rods attached to said hammer-head and its operating handle and passing through said guides.

5. A farrier's implement, comprising a tool-holder, a handle rigidly connected thereto, a slidably mounted hammer-head, and a handle connected thereto for reciprocating the same, said tool handle forming a guide for said hammer-head and provided with independent means for guiding said operating handle.

940,479. APPARATUS FOR VIEWING STEREOSCOPIC OR OTHER PICTURES. JULES RICHARD, Paris, France. Filed Feb. 5, 1908. Serial No. 414,337.

1. In an apparatus for the successive observing or examination of pictures, the combination of a box containing the pictures, a mechanism for producing a horizontal displacement of said box, a frame having vertical movement for the purpose of raising and lowering the pictures, a notched wheel for advancing the picture box, a crank driving plate adapted to be rotated continuously in one direction or the other, a pin carried by the plate and engaging the notches of the wheel, a connecting rod, and an arm connecting the vertical frame and the rod.



2. In an apparatus for the successive observing of pictures, the combination of a mechanism producing a horizontal movement of the picture containing box, a mechanism producing the vertical movement of the frame for raising the pictures, a notched wheel determining the movement of the box and of the frame, a rotatable plate, a pin carried by the plate and engaging the notches of the wheel, a contrivance for stopping the driving plate at each half revolution.

3. In an apparatus for the successive observing of pictures, the combination of a box containing the pictures, a vertically movable frame for raising and lowering the pictures, a notched wheel determining the movements of the box and of the frame, a driving plate, and a pin on the plate the notched wheel having a cam surface for engaging under said pin to disengage said pin.

4. In an apparatus for the successive observing of pictures, the combination of a box containing the pictures, a vertically movable frame for raising and lowering the pictures, a notched wheel determining the movements of the box and of the frame, a driving plate, a shaft, a pin carried by said plate, a notched wheel keyed on the shaft capable of being displaced longitudinally and a return spring for said shaft.

5. In an apparatus for the successive observing of pictures, the combination of a box containing the pictures, a vertically movable frame for raising and lowering the pictures, a notched wheel determining the movements of the box and of the frame, a driving plate, a shaft, a pin carried by said plate, a notched wheel keyed on a shaft capable of being longitudinally displaced, a return spring for said shaft, and a contrivance for preventing the displacing of the shaft carrying the notched wheel, except when the vertical frame is at the lower end of its travel.

940,480. ETCHING-MACHINE. HERMANN SCHEDLER, New York, N. Y. Filed Sept. 28, 1908. Serial No. 455,056.



1. An etching machine, comprising a paddle provided with holes extending through it, and further provided with slots, said slots forming angles with each other, a frame connected with said paddles for the purpose of actuating the same, and a trough partially inclosing said paddles and adapted to hold an acid.

2. In an etching machine, the combination of a trough provided with lugs, wedges engaging said lugs and movable relatively to the same, a frame resting upon said wedges and movable relatively to said trough, and paddles connected with said frame and depending into said trough for the purpose of agitating an acid therein.

3. In an etching machine, the combination of a trough, a frame movable relatively to the same, and a paddle mounted upon said frame, said paddle being provided with mutilations of different sizes extending through it.

4. A device of the character described, comprising a trough, a frame movable relatively to the same, and a paddle carried by said frame and extending into said trough, said paddle being provided with mutilations extending entirely through it, the said mutilations being of different sizes, some of said mutilations forming angles relatively to others of said mutilations for the purpose of facilitating the circulation of liquid through said paddle.

940,481. SHIPPING-BILL REGISTER. THEODORE F. SCHIRMER, Dayton, Ohio. Filed May 17, 1909. Serial No. 496,602.



1. In a shipping bill register, two series of pins, a rotating body upon which each series of pins are mounted, means for rotating said body to cause the pins of each series to successively engage perforations uniformly arranged in sheets of paper placed one upon the other, a pressure roller adapted to engage said sheets at the termination of each feeding operation and to release said sheets at the beginning of each feeding operation, and means so controlling said pressure roller.

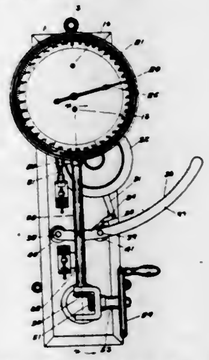
2. In a shipping bill register, two series of pins mounted upon a rotating body, means for rotating said body to cause the pins of each series to successively enter perforations in a plurality of sheets of paper arranged one above the other to uniformly feed said sheets, a cutting edge for severing said sheets, and a pressure roller adapted to rigidly engage said sheets at the termination of each feeding operation and to hold said sheets while they are being severed.

3. In a shipping bill register, two series of pins mounted upon a rotating body, means for rotating said body to cause the pins of both series to uniformly and successively enter perforations in a plurality of sheets of paper arranged one above the other to uniformly feed said sheets, a stripping plate adapted to strip the sheets from said pins, a cutting edge for severing said sheets, a pressure roller adapted to rigidly hold said sheets while being severed, and cams controlling said pressure roller and adapted to elevate said roller during each feeding operation.

940,482. TESTER. HENRY L. SCOTT, Providence, R. I. Filed Mar. 10, 1909. Serial No. 482,480.

1. In a tester, the combination with the frame, of an operating spindle rotatably mounted in the frame, means for actuating the spindle, a tube upon the frame around the spindle and provided with a slot, a sleeve loosely mounted upon the spindle within the tube, a web upon the sleeve extending through the slot, and slidingly mounted means upon the end of the web for engaging and exerting tension upon a sample.

2. In a tester, the combination with the frame, of an operating spindle rotatably mounted in the frame and provided with a screw thread, means for actuating the spindle, a tube upon the frame around the spindle and provided with a slot, a sleeve within the tube provided with a thread engaging the thread of the spindle, a web upon the sleeve extending through the slot, and slidingly mounted upon the end of the web for engaging and exerting tension upon a sample.



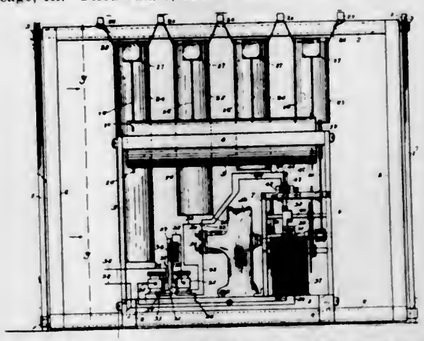
3. In a tester, the combination with the frame, of an operating spindle rotatably mounted in the frame, means for actuating the spindle, a tube upon the frame around the spindle and provided with a slot, a sleeve loosely mounted upon the spindle within the tube, a web upon the sleeve extending through the slot, slidingly mounted means for engaging one end of a sample and clamping means upon the end of the web for engaging the other end of a sample.

4. In a tester, the combination with the frame, of an operating spindle rotatably mounted in the frame, means for actuating the spindle, a tube upon the frame around the spindle and provided with a slot, a sleeve loosely mounted upon the spindle within the tube, slidingly mounted means for engaging one end of a sample and means upon the sleeve and extending through the slot for engaging the other end of a sample.

5. In a tester, the combination with the frame, of an operating spindle rotatably mounted in the frame, a tube upon the frame surrounding the spindle, and provided with a slot, a sleeve loosely mounted upon the spindle within the tube, means upon the sleeve extending through the slot for engaging one end of a sample, and slidingly mounted yielding means in the frame for engaging the other end of a sample.

[Claims 6 to 15 not printed in the Gazette.]

940,483. ELECTRIC CHIME. JAMES E. SCOVILL, Chicago, Ill. Filed Jan. 8, 1909. Serial No. 471,280.



1. In an electric chime, a main frame and chime bells attached thereto, a motor circuit and a motor, means actuated by said motor for vibrating said bells, a clock arbor, a clock circuit, a current make-and-break device actuated by said arbor, a relay in said clock circuit, an os-

ciliating armature actuated by said relay and adapted to close the motor circuit when said relay is energized, and a spacing wheel driven by said motor and provided with peripheral notches to control the time of maintaining the motor circuit closed at each operation of the chime, substantially as described.

2. In an electric chime, the combination of a frame and chime bells mounted therein, with a chime ringing device, a motor, and train of gearing for actuating said chime ringing device, a motor circuit, a switch in the same, a relay provided with an armature adapted when energized to close said switch, and clock controlled relay energizing means, substantially as described.

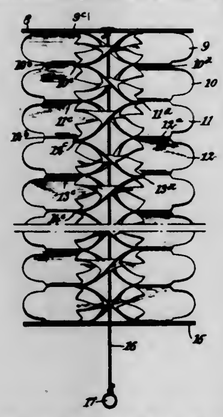
3. In an electric chime, a frame, chime bells mounted therein and a plurality of hammers, a hammer actuating cylinder, a motor and a train of gearing connecting said hammer actuating cylinder and said motor, a battery and a motor circuit, a clock circuit, a relay in said clock circuit, an oscillating armature for said relay adapted to close said motor circuit when said relay is energized, a spacing wheel actuated by said motor and having peripheral notches, an extension on the relay armature adapted to engage said notches when the motor circuit is open, substantially as described.

4. In an electric chime, a frame, chime bells mounted therein, and a plurality of hammers, a hammer actuating cylinder, a motor and a train of gearing connecting said hammer actuating cylinder and said motor, a battery and a motor circuit, a clock circuit, a relay in said clock circuit, an oscillating armature for said relay adapted to close said motor circuit when said relay is energized, a spacing wheel actuated by said motor and having peripheral notches, an extension on the relay armature adapted to engage said notches when the motor circuit is open, and a friction brake, actuated by said armature and controlled by said spacing wheel, said brake being adapted to control said motor and gear, substantially as described.

5. In an electric chime, two standards and a frame supported thereby comprising square tubular members and square reinforcing rods adapted to engage said standards, a hammer actuating cylinder frame mounted in said frame, chime bells, hammers for striking said chime bells, a cylinder for actuating said hammers, a motor and motor circuit and a relay and relay circuit, a relay armature and a blade secured thereto for closing the motor circuit when said relay is energized, a clock and a current make-and-break device in said relay circuit controlled by said clock, substantially as described.

[Claim 6 not printed in the Gazette.]

940,484. PAPER DECORATION. ABRAHAM SIMONSON, New York, N. Y. Filed June 12, 1907, Serial No. 378,484. Renewed Sept. 4, 1909. Serial No. 516,228.



1. A paper decoration, consisting of a plurality of layers of tissue paper or the like, pasted together, each alternate layer being pasted to the next successive layer at a plurality of points and pasted to the last preceding layer at a corresponding number of points, each of the last mentioned points being spaced from one of the first mentioned points, and all of said layers being provided with a plurality of slits, each of said slits serving to separate the points at which each layer is pasted to the one above and the one below.

2. A paper decoration, consisting of a plurality of layers of tissue paper or the like having symmetrically disposed radial slits forming symmetrical wing portions, the wing portions of each layer being pasted to the corresponding wing portions of the layer above at one edge thereof and to the corresponding wing portions of the layer below at the opposite edge thereof.

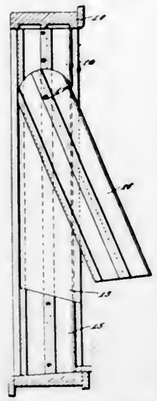
3. A paper decoration, consisting of a plurality of layers of tissue paper or the like having symmetrically disposed radial slits forming symmetrical wing portions, the wing portions of each layer being pasted to the corresponding wing portions of the layer above at one edge thereof and to the corresponding wing portions of the layer below at the opposite edge thereof, the points at which the paste is applied to the successive layers being closely adjacent and upon opposite sides of said slits.

4. A paper decoration, consisting of a plurality of layers of tissue paper or the like having radially disposed slits and enlarged openings at the inner ends of said slits, forming a central portion and radial wing portions, each wing portion having paste applied thereto upon the opposite sides thereof, the paste upon one side being adjacent one of the slits and the paste upon the opposite side being adjacent the other of the slits.

5. A paper decoration, consisting of a plurality of layers of tissue paper or the like having slits extending inward from the edge thereof and forming a central portion and separate wing portions, each wing portion being secured to the corresponding wing portions of the layer above and the layer below, said securing means being applied between the wings of two successive layers adjacent one edge of each wing portion and between the wings of the next succeeding layers adjacent the opposite edges thereof.

[Claim 6 not printed in the Gazette.]

940,485. WINDOW-FRAME. CHARLES SINGER, Winfred, S. D. Filed July 1, 1909. Serial No. 505,462.



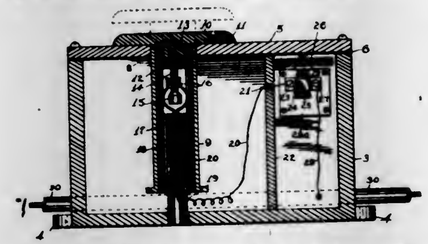
In combination, a window frame stile comprising a plurality of members, one of which is pivoted to swing in relation to the other, and each member constructed of a single sheet of metal and being provided with a substantially central rib, the metal adjacent to said rib forming a tongue extending at right angles to the rib, the lateral edges of the structure being bent upwardly at right angles to the main portions thereof forming guide flanges, and one of said flanges being further bent at its extreme edge to form a tongue lying in substantially the same plane and extending in the same direction as the aforesaid tongue, and a pair of sashes slidable in said frame, each of said sashes being grooved to receive one of said tongues and being provided also with metal plates coöperating with aforesaid metallic frame, substantially as and for the purpose set forth.

940,486. PHONOGRAPHIC NEEDLE. ANDREW J. SMITH, Chicago, Ill., assignor of one-half to Frederick R. Baker, Chicago, Ill. Filed Mar. 13, 1909. Serial No. 483,178.



A phonograph needle made from the spine of a cactus plant, said spine having rings or bands of greater hardness than the intermediate sections of the spine, and having its point formed to terminate in one of said rings or bands.

940,487. ELECTROMAGNETIC TRACTION SYSTEM. GARDNER L. STANBRO and AWREA D. WAGNER, Norfolk, Va. Filed June 7, 1906. Serial No. 320,666.



1. A traction system comprising a contact plate for feeding the car, a hollow supporting stem therefor, a normally open switch inclosed by said stem, a second normally open switch connected in series therewith, and magnetic means carried by the car for closing said switches one after the other.

2. An electric railway system comprising a plurality of divided hermetically sealed boxes, switches therein, an exteriorly disposed vertically liftable switch actuating plate, a second interiorly disposed pivoted switch actuating plate, a series wire for both switches, magnetic means carried by the car for lifting one of the said switches through said box in advance of the other for closing the same and completing the circuit and feeding the car through said exteriorly disposed plate.

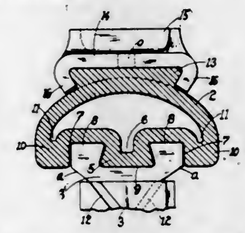
3. An electric railway system, comprising a car-feeding curved-edge vertically-movable plate, said plate being connected to an up-set circuit closer, a stationary tube, spring contacts at the upper portion of the stationary tube, a set of angularly disposed contact plates, a switch having a wedge-shaped circuit closer in striking alinement with said contact plates in series with the first named contacts, and magnetic means carried by the car for closing and releasing said contacts successively.

4. An electric railway system comprising a multiplicity of track boxes cast with a partition or division plate, switches therein, a removable cover for said boxes, a car feeding contact plate operating from the outside of said cover, a second interiorly disposed contact plate for making a contact for feeding the first named plate from the interior of the box, a series wire connecting both switches and magnetic means carried by the car for closing the circuit through one switch and then the other for feeding the car.

5. An electrical railway system, comprising a track box having a water tight partition therein to form two compartments, a switch in each compartment, an exteriorly disposed magnetically liftable plate arranged to operate one of said switches, a magnetically operated interiorly disposed plate arranged to operate the other of said switches, and magnetic devices carried by the car arranged to lift said exterior and said interior plates successively, and to hold said plates in their lifted position simultaneously.

[Claims 6 to 9 not printed in the Gazette.]

940,488. RABBLE-ARM AND RAKE. HENRY N. THOMSON and WILLIAM M. KELLY, Anaconda, Mont. Filed Aug. 16, 1909. Serial No. 513,156.



1. A hollow rabble-arm provided with a bottom stiffening rib traversed by an inner longitudinal channel for the flow of a circulating medium, the rib having disposed on each side thereof longitudinal grooves.

2. A hollow rabble-arm provided with a bottom dove-tailed stiffening rib traversed by an inner longitudinal water conducting channel, the rib having disposed on each side thereof longitudinal dove-tailed grooves.

3. A hollow rabble-arm provided with a bottom dove-tailed stiffening rib traversed by an inner longitudinal water conducting channel, the rib having disposed on each side thereof longitudinal dove-tailed grooves, in combination with a rake having a head provided with tongues for insertion in said grooves, and with a groove between the tongues for receiving the rib of the rabble-arm.

4. In combination with a hollow rabble-arm provided with a bottom stiffening dove-tailed rib traversed by an inner longitudinal water conducting channel, the rib having disposed on each side thereof longitudinal dove-tailed grooves, a series of rakes having heads engaging said rib and grooves, the bottoms of the sides of the arm embracing the sides of the heads and protecting the same against the furnace charge.

5. In combination with a furnace hearth, a rabble-arm, a series of rakes mounted thereon and detachable therefrom by a longitudinal movement thereof along the arm, an upper terminal roof scraping blade mounted on the arm and movable longitudinally thereon, the blade, arm, and terminal rake of the series being provided with openings adapted to register with one another, and a common locking pin or key passed through such registering openings.

[Claims 6 to 9 not printed in the Gazette.]

940,489. WINDING-MACHINE. SIMON W. WARDWELL, Providence, R. I. Filed Dec. 7, 1908. Serial No. 466,399.



1. In a winding machine, the combination with the winding spindle, traverse-bar, thread-guide and means to reciprocate the traverse-bar and thread-guide, of means to feed the guide along the bar and means on the traverse-bar to regulate the feeding of the guide to determine the taper of the base of the package wound.

2. In a winding machine, the combination of a rotating spindle, a reciprocating traverse-bar, means to rotate the spindle and means to reciprocate the bar, a thread-guide mounted on the bar, a wheel to feed the thread-guide along the bar and means to adjust the wheel in lateral relation to the winding spindle as the winding increases in diameter.

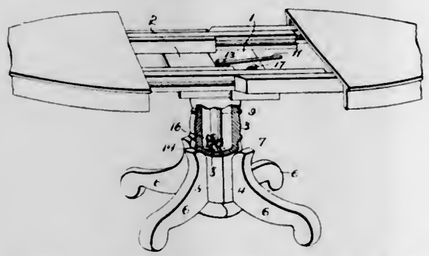
3. In a winding machine, the combination of a rotating spindle, a reciprocating traverse-bar, means to rotate the spindle and means to reciprocate the bar, a thread-guide mounted on the bar, a wheel to feed the guide along the bar, and means to hold the wheel in close proximity to the winding spindle at the beginning of the winding and to adjust the wheel away from the winding spindle as the cop increases in diameter.

4. In a winding machine, the combination of a rotating spindle, a reciprocating traverse-bar formed with eccentric screw threads, means to rotate the spindle and means to reciprocate the bar, a thread-guide mounted on the traverse-bar, a nut adapted to engage the threads on the bar, a wheel adapted to contact with the cop to turn the nut to feed the latter and propel the thread-guide along the bar, and means to adjust the wheel in lateral relation to the winding spindle according to the growing diameter of the cop being wound.

5. In a winding machine, the combination of a rotating spindle, a traverse-bar arranged to reciprocate longitudinally of the spindle, means to rotate the spindle and means to reciprocate the bar, a thread-guide mounted on the bar, means to feed the guide along the bar, including a progression wheel adapted to contact with the winding, and means to move the bar laterally to adjust the progression wheel toward or away from the winding spindle according to the diameter of the winding.

[Claims 6 to 27 not printed in the Gazette.]

940,490. TABLE. LOUIS WELKER, Jr., Williamsport, Pa. Filed Oct. 2, 1908. Serial No. 455,802.



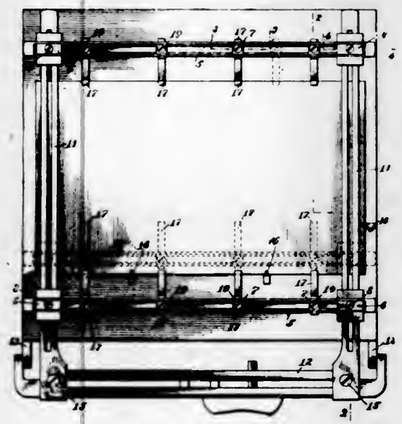
1. The combination with the two members of a divided pillar, of flexible cross bars secured in the respective members, a shaft revolubly mounted in one of said cross bars, a hook carried by said shaft, and a pin secured to the cross bar in the other pillar member and adapted to be engaged by said hook.

2. The combination with the members of a divided pillar, of flexible cross bars located within the respective pillar members, a shaft revolubly mounted in the cross bar in one pillar member, a pin fixed to the cross bar in the other pillar member, and a hook secured to said shaft, said hook having a cam portion to coöperate with said pin.

3. The combination with the members of a divided pillar, and bridge blocks to which the pillar members are secured, one of said bridge blocks having a slot open at one end, of a shaft mounted in one pillar member and passing through the slot in the bridge block to which said pillar member is secured, a plate removably secured to said bridge block and extending across the slot therein, a lip on said plate and disposed over the upper end of the shaft, a hook secured to said shaft within one pillar member and a pin in the other pillar member to be engaged by said hook.

4. The combination with the members of a divided pillar and bridge blocks to which the pillar members are secured, of flexible cross bars in said pillar members a shaft revolubly mounted in the cross bar in one pillar member, a hook secured to said shaft within the pillar member, a pin carried by the cross bar in the other pillar member to be engaged by said hook, an operating arm projecting from the upper end of said shaft, and a spring arm or clamp to be engaged by said operating arm to prevent movement of the shaft and to thus hold the hook out of alinement with the pin carried by the other pillar member.

940,491. GRIPPER FOR PRINTING-PRESSES. MORRY W. ALGER and CARL L. JACOBSON, Benton Harbor, Mich. Filed July 3, 1909. Serial No. 505,824.



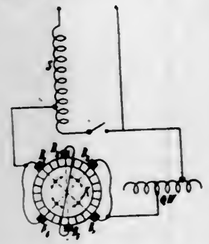
1. A gripper for printing presses comprising a plurality of vertically extended arms having each a continuous slot formed lengthwise therein; a plurality of horizontally extended arms slidably attached to the said vertical arms and having each a continuous slot formed lengthwise therein; a plurality of separate fastening devices slidably engaging each of the said vertical and said horizontal arms and adapted to hold the same in locked position; a plurality of yielding fingers slidably secured in the slots in said horizontally extended arms; and fastening devices for securing the said fingers in adjusted position.

2. A gripper for printing presses comprising a plurality of vertically extended arms having each a continuous slot formed lengthwise therein; a plurality of horizontally extended arms each having a continuous slot formed lengthwise therein; a plurality of fastening devices having guide extensions to fit within the slots in each of said arms, and adapted to secure the said arms rigidly together; a plurality of flat spring fingers having fastening blocks slidably mounted in the slots in said horizontal arms; and fastening devices for securing the said blocks rigidly in adjusted position.

940,492. ARRANGEMENT FOR REGULATION OF SPEED OF COMPENSATED SINGLE-PHASE MOTORS. ENGELBERT ARNOLD, Karlsruhe, Germany, and JENS L. LA COUR, Vesteras, Sweden. Filed Nov. 23, 1908. Serial No. 464,038.

1. In a compensated alternating current motor, in combination, a stator winding, a rotor winding having a commutator, brushes bearing on the commutator arranged to form with the rotor winding exciting and compensating circuits, and means whereby the amount of rotor winding included between the brushes of the exciting circuit may be varied without changing the direction of the magnetic axis of the compensating circuit.

2. In a compensated alternating current motor, in combination, a main stator winding, a rotor winding having a commutator, brushes bearing on the commutator arranged to form with the rotor winding exciting and compensating circuits, an auxiliary stator winding along the line of the magnetic axis of the exciting circuit, means whereby the amount of rotor winding included between the brushes of the exciting circuit may be varied without changing the direction of the magnetic axis of the compensating circuit, and means whereby the ampere turns of the auxiliary winding may be varied.



3. In a compensated alternating current motor, in combination, a main stator winding, a rotor winding having a commutator, brushes bearing on the commutator arranged to form with the rotor winding exciting and compensating circuits, an auxiliary stator winding along the line of the magnetic axis of the exciting circuit, means whereby the amount of rotor winding included between the brushes of the exciting circuit may be varied without changing the direction of the magnetic axis of the compensating circuit, and means whereby the ampere turns of the auxiliary winding may be reversed.

4. In a compensated alternating current motor, in combination, a main stator winding, a rotor winding provided with a commutator, brushes bearing on the commutator arranged to form with the rotor winding exciting and compensating circuits, an auxiliary stator winding along the magnetic axis of the exciting circuit, and means to shift the brushes toward and from each other without changing the direction of the axis of the compensating circuit.

5. In an alternating current motor, in combination, a rotor winding provided with a commutator, a stator winding having coils whose magnetic fields are in quadrature, brushes bearing on the commutator and connected in circuit with said stator coils on the line of one of said fields, certain of said brushes connected in a short-circuit on the line of the other magnetic field and arranged to be simultaneously adjusted toward and from each other.

[Claim 6 not printed in the Gazette.]

940,493. VIBRATORY DISINTEGRATOR FOR GAS-PRODUCERS. JOHN J. ASTOR, New York, N. Y. Filed May 10, 1909. Serial No. 495,123.

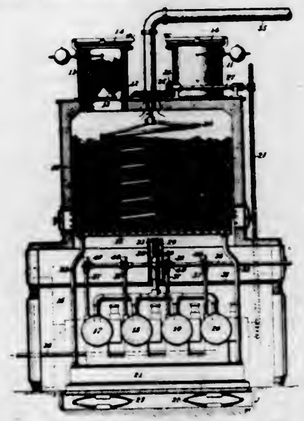
1. A gas producer, including a chamber adapted to receive peat, and means for rapidly and intermittently varying the gas pressure within said chamber.

2. A gas producer, including means for supporting peat, an internal combustion engine operated by the gas from the peat, and means operated by the engine for disintegrating the peat, said means operating to rapidly vary the pressure of the gas within said peat.

3. A gas producer, including means for supporting peat, an internal combustion engine operated by the gas from the peat, and means operated by the engine for disintegrating the peat, said means comprising a vibratory disintegrator operated by said engine and serving to rapidly raise and lower the pressure of the gas within said peat.

4. A gas producer, including means for supporting peat, an internal combustion engine operated by the gas from the peat, and means operated by the engine for disintegrating the peat, said means comprising connections between said engine and said supporting means for transmitting to the latter the jar of the engine.

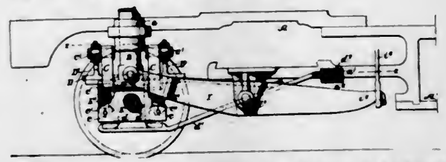
5. A gas producer, including means for supporting peat, an internal combustion engine operated by the gas from the peat, and means operated by the engine for disintegrating the peat, said means comprising a vibratory disinte-



grator operated by the exhaust gas from said engine and serving to rapidly raise and lower the pressure of the gas within said peat.

[Claims 6 to 10 not printed in the Gazette.]

940,494. FORWARD TRUCK FOR LOCOMOTIVES. WILLIAM L. AUSTIN, Philadelphia, Pa., assignor to Burnham, Williams & Company, Philadelphia, Pa., a Firm. Filed Apr. 13, 1909. Serial No. 489,736.



1. The combination of a center pin, adapted to a bearing in the main frame of the locomotive, said pin having a head at its lower end, said head having a longitudinal and a transverse opening, pins in each opening, two links attached to the longitudinal pin, a truck frame to which the links are connected, boxes in the truck frame, an axle mounted in the boxes, and an equalizing lever connected to the transverse pin carried by the head of the pivot pin.

2. The combination of a pivot pin adapted to a bearing in the frame of a locomotive, said pivot pin having a head, longitudinal and transverse pins carried by the head, links attached to the longitudinal pin, a frame having transverse members to which the links are connected, boxes mounted in the pedestals of the frame, springs mounted between the boxes and the pedestals, and a guide connected to the frame and extending rearwardly and adapted to a socket on the main frame of the locomotive.

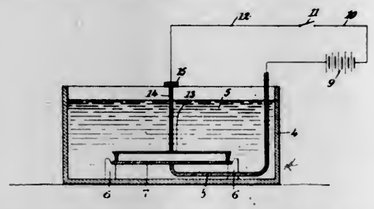
3. The combination of a locomotive frame, having a center bearing, a truck having pedestals, boxes mounted in the pedestals, an axle journaled in the boxes, springs mounted between the boxes and the frame, a center pin adapted to the center bearing on the locomotive frame, links connecting the lower portion of the center pin with the truck frame, and an equalizing lever connected to the center pin and to the main equalizing mechanism of the locomotive.

4. The combination of a locomotive frame, having a center bearing, a truck frame having pedestals, boxes mounted in the pedestals, an axle mounted in the boxes, springs mounted between the boxes and the frame, a rearwardly extending U-shaped guide attached to the pedestals

of the frame and adapted to a socket in the frame of the locomotive, a pivot pin adapted to the center bearing of the frame of the locomotive, two links connecting the lower portion of the pivot pin with the truck frame, and an equalizing lever pivoted to the locomotive frame, having one arm connected to the pivot pin and the other arm connected to the equalizing gear of the locomotive.

5. The combination of a locomotive frame, having a center bearing, a truck frame having arched members, pedestals depending from the said frame, boxes in the pedestals, axles mounted in the boxes, springs mounted between the boxes and the frame, a center pin adapted to the center bearing on the frame of the locomotive, links connecting the lower portion of the center pin with the arched members of the frame, one in advance and the other at the rear of the center pin, a U-shaped guide secured to the pedestals of the frame and having a central extension adapted to a socket in the frame of the locomotive, and an equalizing lever pivoted to the frame of the locomotive and forked at the forward end and pivoted to the lower portion of the center pin, the other arm of the lever being connected to the equalizing mechanism of the locomotive substantially as described.

940,495. ELECTRIC PROCESS FOR MAKING PICTURES. BRAXTON D. AVIS, Jr., Wallace, W. Va. Filed June 23, 1908. Serial No. 439,992.



1. The method herein described of making pictures, which consists in producing a conducting surface, spreading thereover a gelatinous film sensitive to light, exposing said film to the action of the light so that different portions of said film receive more light than others, and depositing a metal electrolytically upon said conducting surface and through said film so that varying quantities of said metal are deposited upon different portions of said surface.

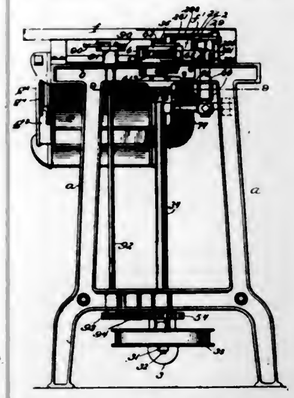
2. The method herein described of making pictures, which consists in preparing a conducting surface, coating the same with a film, the solubility of which is affected by light, exposing said film for the purpose of rendering different portions thereof insoluble in various degrees so as to vary electrical resistance of different portions of said film, and depositing a metal electrolytically upon said conducting surface through said film.

3. The method herein described of making pictures, which consists in preparing a conducting surface, coating the same with a medium the solubility of which is decreased quantitatively by the action of light, exposing different portions of said surface and said film to the unequal action of light sifted by aid of a transparency so as to practically vary the ohmic resistance of said film, and depositing directly upon said conducting surface varying quantities of a metal.

4. The method herein described of making pictures, which consists in preparing a metallic surface placing upon said surface a material sensitive to light and adapted, when subjected to different degrees of light, to acquire differen degrees of ohmic resistance corresponding to the intensity of the light, exposing said material thus treated to the action of light distributed unequally upon different portions of said surface and finally passing metal electrolytically through said material and depositing said metal directly upon said metallic surface.

5. The method herein described of making pictures, which consists in preparing a conducting surface, coating the same with a material normally soluble but adapted to be rendered insoluble by exposure to light, exposing said material through a transparency to the action of light so as to distribute said light unequally upon different portions of said film, and electrolytically depositing a metal directly upon said conducting surface, said metal passing through said material.

940,496. MAIL-MARKING MACHINE. WILLIAM BARRY, Oswego, N. Y. Filed May 14, 1909. Serial No. 495,992.



1. In combination, a printing couple, a reciprocatory feeder to deliver letters thereto, and letter separating devices arranged above and below the path of movement of the feeder and comprising a constantly operating reversely rotated roll, and a movable friction finger intercepting the letter path.

2. A letter separating mechanism comprising a reversely rotating roll and a swinging friction finger traversing the letter path and adapted to bear against the rear face of each letter as fed to the printing couple, said roll and finger being arranged one over the other.

3. A printing couple comprising a constantly rotating letter feeding roll and an opposing member, in combination with a letter separating device, and letter feeding means, said letter separating device comprising a constantly operating reversely rotating roll yieldingly held in frictional driven engagement with said roll of the printing couple.

4. A printing couple comprising a constantly rotating impression roll and an opposing member, in combination with a separating device comprising a reversely rotating roll yieldingly held in frictional driven engagement with the impression roll.

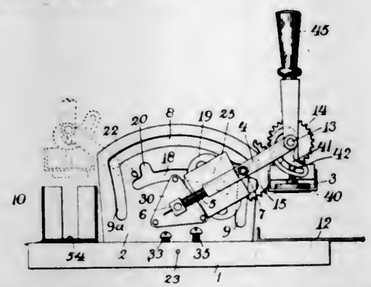
5. A printing couple comprising a yielding surface constantly rotating impression roll and a printing member, in combination with a separating roll yieldingly held across the letter path to said printing couple and in frictional driven engagement with the impression roll.

[Claims 6 to 31 not printed in the Gazette.]

940,497. AUTOMATIC STAMP MOISTENER AND AFFIXER. WILLIAM Z. BEAN, West Medford, Mass. Filed July 3, 1908. Serial No. 441,843.

1. The combination with a receiver for stamps and the like, of a yielding vacuum tip adapted to be pressed upon the contents of such receiver and also upon the articles to be stamped, of means for automatically pressing such stamps away from said tip when it is applied to the articles but inoperative when the tip is applied to the stamps.

2. The combination with a receiver for stamps and the like, of a stamp-engaging member adapted to adhesively seize the stamps, means for pressing said member upon the contents of said receiver and also upon the article to be stamped, and a moistening device pressed against the engaging face of said member both before and after it has seized a stamp.



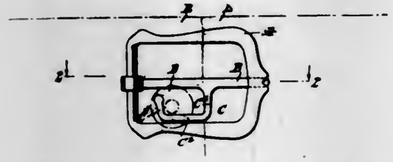
3. The combination with a receiver for stamps and the like, of a yielding vacuum tip adapted to be pressed upon the topmost stamp in such receiver, and then upon the article to which such stamps are to be applied, and a frame about the tip adapted to sink below the level of the tip when the latter affixes the stamps, but not when the tip attaches itself to the stamps.

4. The combination with a receiver for stamps and the like, of a yielding vacuum tip, a swinging frame loosely carrying the same into position for application within said receiver and also upon the articles to be stamped, and a moistening pad adapted to be brought into contact with the stamp being conveyed by said tip on its way to said articles.

5. The combination with a receiver for stamps and the like, of a swinging frame, a stamp seizing device carried thereby, a water receptacle sliding on said frame and provided with a moistening pad in its upper end, and means for moving said receptacle toward said stamp-seizing device.

[Claims 6 to 12 not printed in the Gazette.]

940,498. BUCKLE. ABRAHAM BIENENZUCHT, New York, N. Y. Filed Nov. 6, 1908. Serial No. 461,305.



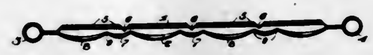
1. A buckle provided on its tongue between the ends thereof with a hook rigidly attached to the tongue, the free end of the hook extending upward.

2. A buckle comprising a buckle frame, a tongue pivoted thereon, and a hook integral with said tongue and approximately U-shaped and standing obliquely to the tongue.

3. A buckle comprising a buckle frame, a tongue pivoted thereon, and a hook integral with said tongue and approximately U-shaped and standing obliquely to the tongue, one arm of the hook extending downward from the tongue, the connecting bar of the hook extending inwardly and rearwardly, and the other hook arm rising from the free end of the connecting bar.

4. A buckle provided with a hook having an arm rigidly connected with a member of the buckle between the ends of the latter, an inclined connecting bar extending from said arm in direction of one end of the buckle, and a hook arm extending laterally from the end of the connecting bar, the free end of the hook arm being enlarged, the connecting bar and said hook arm being at the rear of the buckle and opposite the space inclosed by the buckle frame.

940,499. WASHBOARD. HENRY A. BIERLEY, Portsmouth, Ohio. Filed Feb. 10, 1909. Serial No. 477,139.

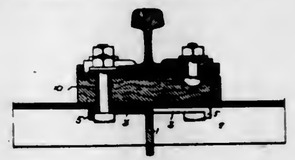


1. As an article of manufacture, a wash board comprising in the main two plates of sheet metal, the extreme edges of which are bent correspondingly into tubular form, one fitted and held frictionally within the other and permanently joined whereby to give strength to the edges, and the metal immediately adjacent thereto bent parallel and placed in contact with each other back to back whereby to afford support for the intermediate portion of the wash board.

2. As an article of manufacture, a washboard containing in the main two plates of sheet metal, the edges of which are bent into corresponding tubular form, and held together frictionally whereby one reinforces the other and both together constitute a rigid frame at the opposite edges of the board and the intermediate washing surfaces ribbed or corrugated, and provided with longitudinally disposed strengthening channels which constitute drains.

3. As an article of manufacture, a washboard, the two washing surfaces of which are made of channeled and corrugated sheet metal, the channels forming strengthening ribs and drains, the backs of the channels abutting each other whereby to afford support to strengthen the washing surfaces of the board.

940,500. METALLIC TIE. MAXIMILIAN F. BONZANO, Philadelphia, Pa., assignor to Penn Railroad Tie Company, Camden, N. J., a Corporation of New Jersey. Filed Jan. 13, 1909. Serial No. 472,119.



1. The combination, with a metallic tie having a top and side walls and a support for the rail, of a diaphragm extending between said walls and located beneath the rail, horizontally disposed wings carried by said diaphragm, and securing means for said support, said wings of the diaphragm being apertured for the passage of the bolts of said securing means.

2. The combination, with a metallic tie, of a diaphragm or web extending between the side walls of the same, having horizontal wings disposed in opposite directions and apertured for the passage of securing means for a rail support mounted on said tie.

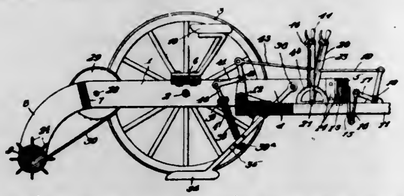
3. The combination, with a metallic tie, of a diaphragm or web extending between the side walls of the same and having horizontal wings disposed in opposite directions and apertured for the passage of securing means for a rail support mounted on said tie, said web also having hook portions for engagement with the lower portion of the side walls of the tie.

4. The combination, with a metallic tie, of a diaphragm extending between the side walls of the same, said diaphragm having horizontal wings disposed in opposite directions and apertured for the passage of bolts, and depending shoulders carried by said wings for engagement with the heads of said bolts to prevent movement of the latter.

5. The combination, with a metallic tie of channel shape, of a separate web or diaphragm extending between the side walls of the tie beneath the rail, said web having hooked portions to engage the side walls of the tie.

[Claims 6 to 9 not printed in the Gazette.]

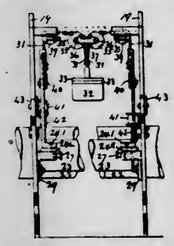
940,501. HARROW. ROY C. BOWMAN, West Austintown, Ohio. Filed Dec. 17, 1908. Serial No. 468,070.



1. A harrow comprising an axle, supporting and drive wheels thereon, a vertically tilting frame mounted intermediate its front and rear ends on said axle, a toothed pulverizing roll carried by the rear end of said frame, driving connections between said roll and one of the wheels, a tongue pivoted to the main frame, a transverse slide bar upon the tongue, guides upon the frame, and engaged with the ends of said slide bar and an adjusting means between the frame and tongue.

2. A harrow comprising a rectangular main frame having downwardly inclined hangers extending from the rear ends of its side bars, a transverse axle arranged intermediate the ends of the main frame and from which the latter swings, supporting and drive wheels upon said axle, a pulverizing roll journaled in said hangers at the rear of the frame, driving connections between said roll and one of the wheels, a transverse pivot in the forward portion of the frame, a tongue hung from said pivot and extending under the front end of the frame, an upright transversely extending slide bar upon said tongue and engaged with the front cross bar of the frame, guide members secured to the side bars of the frame and engaged with the ends of the slide bar, a bracket depending from the front cross bar of the frame, a bell crank pivoted on the tongue, a link connecting one arm of said bell crank to said bracket and means upon the tongue and connected to the other arm of said bell crank for adjusting the same.

940,502. MECHANISM FOR GUIDING AND APPLYING TENSION TO SPINDLE-DRIVING BANDS. JOHN BOYD, Bothwell, Scotland, assignor of one-half to David Phillips and James Scott & Sons, Limited, Dundee, Scotland. Filed May 14, 1909. Serial No. 497,134.



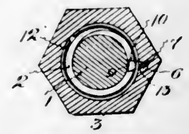
1. In mechanism of the character described, a frame, a tensioning cylinder, a bracket at each end of said cylinder, a lever pivoted on each of said brackets and supporting each end of the cylinder, in combination with a weight arm for each lever, a weight common to both levers and flexible means for connecting said arm of each lever to said common weight for the purpose described.

2. In mechanism of the character described, a frame, a tensioning cylinder, a bracket at each end of said cylinder, a lever pivoted on each of said brackets and supporting each end of the cylinder, in combination with a weight arm for each lever and a weight common to both levers and flexible means for connecting said arm of each of said levers to said common weight for the purpose described together with means for adapting said cylinder for tensioning the coils of a single band for driving a series of contiguous spindles.

3. In machines of the type described, a common horizontal driving cylinder, a plurality of spindles, band means for driving the same from said cylinder, a horizontal tensioning cylinder for tensioning said band means, independent levers one at each end of the tensioning cylinder to carry the same, in combination with a weight common to both levers for regulating the tension of the cylinder and keeping it from tilting, together with cords or chains connected to both levers and to the common weight, and guide pulleys for said cords or chains.

4. In machines of the type described, a common horizontal driving cylinder, a plurality of spindles, a common horizontal tensioning cylinder, independent levers one at each end of the tensioning cylinder to carry same and means substantially as described for adapting said cylinders for tensioning the coils of a single band for driving a series of contiguous spindles, in combination with a weight or set of weights common to both levers for regulating the tension of the cylinder and keeping it from tilting together with cords or chains connected to both levers and to the common set of weights, and guide pulleys for said cords or chains.

940,503. NUT-LOCK. LEON ST. CLAIR BRACH, New York, N. Y., assignor, by mesne assignments, to The United States Lock-Nut Company, a Corporation of New York. Filed Sept. 26, 1908. Serial No. 454,907.



1. In a device of the class described, a nut, a slot and an annular groove in said nut and near the center of the same, a pawl in said slot and means in said groove for holding said pawl in place.

2. In a device of the class described, a nut, a slot in said nut, an annular groove in said nut, a pawl in said slot and means in said groove for securing said pawl in said slot and forcing the same into the engagement with the threads of a bolt when the bolt is inserted in the nut or the nut is placed on a bolt.

3. In a device of the class described, a nut, a slot in said nut, an annular groove in said nut, a pawl with a slot registering with said groove and a ring in said groove and slot whereby the nut and pawl are held in their proper relations.

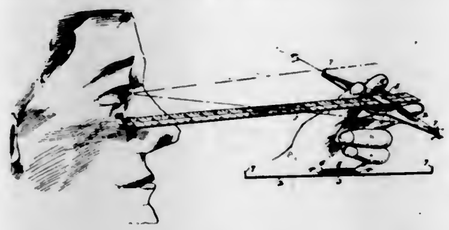
4. In a device of the class described, a nut, a slot in said nut, a groove in said nut, a pawl in said slot provided with a slot registering with said groove and provided with an inclined bottom and a spring ring in said groove and slot in said pawl and resting against one edge of the slot in said pawl, so that said pawl will be spring pressed against the threads of a bolt when in use and prevent loosening of the nut on the bolt.

940,504. PHOTOGRAPHER'S RANGE-FINDER. GEORGE B. BRAYTON, Boston, Mass. Filed Aug. 15, 1907. Serial No. 388,744.

1. A device of the character described, comprising a scale-bar, and a sight-bar longitudinally adjustable on the scale-bar and arranged transversely thereof and extending therefrom substantially in the plane of the scale-bar.

2. A device of the character described comprising a scale-bar, and a sight-bar movable thereon and having sight-points, the sight-points being fixed and the marking on the scale-bar reckoned for the size of plate by taking the distance between the fixed points as the numerator, and the length of the plate as the denominator the fraction thereof being the proportional part of an inch for the marking.

3. A device of the kind described comprising a scale-bar having markings thereon representing the size of the plate required and the focal length of the lens required for a given subject, and a sight-bar having lateral points at its ends and longitudinally movable on the scale-bar in respect to the said markings to thereby determine the size plate and focal length of lens required.



4. A device of the character described comprising a scale-bar having markings thereon indicating the focal length of the lens, and a sight-bar longitudinally and oscillatably mounted thereon and provided with laterally extending sight-points.

5. A device of the character described, comprising a scale-bar having thereon a plurality of columns each column having markings indicating the focal length of lens for that column and also indicated thereon the size of plate for the respective columns, and a transversely arranged longitudinally movable sight-bar having laterally extending sight-points.

[Claims 6 and 7 not printed in the Gazette.]

940,505. BOX-SEAL. EDWARD J. BROOKS, East Orange, N. J. Filed July 23, 1909. Serial No. 509,119.



1. The combination with a box and a superposed metallic box-strap under tension having overlapped ends, of a seal part having a sheet-metal bottom member formed with a passage for said overlapped ends of the box-strap and a superposed soft-metal top member, permanently united with each other, said box-strap ends and said bottom member of the seal part having locking portions projecting rigidly at substantially right angles to the subjacent box surface and interlocked with each other, and the soft metal of said top member filling the interstices of the seal part around the box-strap ends.

2. The combination with a box and a superposed metallic box strap under tension having overlapped ends, of a seal part having a sheet-metal bottom member formed with a passage for said overlapped ends of the box strap and a superposed soft-metal top member, permanently united with each other, said box-strap ends and said bottom member of the seal part having locking portions projecting rigidly at substantially right angles to the subjacent box surface and interlocked with each other around a central punch hole, said soft metal top member having a concave upper surface and distinguishing marks within its concavity, and the soft metal of said top member, displaced in forming such punch hole and concavity, filling the interstices of the seal-part around the box-strap ends.

3. An improved press-fastenable seal part for nailless box seals, composed of a sheet-metal disk formed with a box-strap passage adapted to admit the overlapped ends of a flat-metal box strap and constructed with a flat bottom adapted to be interlocked with said box strap ends by a punching operation, and a superposed soft-metal disk forming the top of such passage and adapted to be indented and stamped at such punching operation, substantially as hereinbefore specified.

940,506. SUBMARINE MINE. ALBERT P. BROOMELL, York, Pa. Filed May 14, 1909. Serial No. 495,983.



1. A submarine mine comprising a buoyant torpedo, an anchor therefor, a paying-out device between the anchor and torpedo, and a float operating in connection with the paying-out device for regulating the ultimate depth of the torpedo.

2. A submarine mine comprising a buoyant torpedo, an anchor, a paying-out device between the mine and anchor, means for detachably securing the paying-out device in connection with the anchor and means for automatically detaching the paying-out device from the anchor.

3. A submarine mine comprising a buoyant torpedo, an anchor below the same, a paying-out device between the anchor and the torpedo, and a gage float above the torpedo and operating upon the paying-out device whereby to regulate the ultimate depth of the torpedo.

4. The combination with a buoyant torpedo, and an anchor therefor, of a gage float above the torpedo, and means whereby the gage float may operate to regulate the ultimate depth of the torpedo.

5. A submarine mine comprising a buoyant torpedo, means for anchoring the same and a gage float above the torpedo and means whereby said float operates to regulate the ultimate depth of the torpedo.

[Claims 6 to 27 not printed in the Gazette.]

940,507. BRACKET OR SUPPORT FOR CURTAIN-SHADE ROLLERS. JAMES M. BRYANT, Benwood, W. Va., and HARRY H. BRYANT, Bellaire, Ohio, assignors of one-third to Will W. Gray, Benwood, W. Va., and Clarence E. Gray, Moundsville, W. Va. Filed May 3, 1909. Serial No. 493,569.

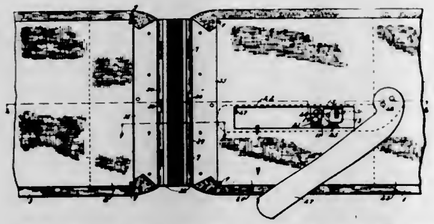


1. A bracket of the character described, comprising an oblong plate having an oblong opening formed therein with the material bordering upon the longitudinal edges of said opening bent outwardly to provide guide flanges, a shade roller support positioned at right angles to said plate and slidably held in engagement with the flanges thereof, and a locking plate having an opening through which the shade roller support extends, said locking plate being shiftable on the shade roller support to lock the latter in adjusted position.

2. A bracket of the character described, comprising a plate, longitudinal parallel flanges carried by said plate, a support, said support having a right angular portion

adapted to engage the rear sides of said flanges, a rivet carried by the right angular portion of said support, a locking member movably supported relatively to said support by the rivet thereof, and beveled enlargements carried by said member for engaging the outer sides of said flanges and binding the right angular portion of said support against the rear sides of said flanges.

940,508. TEMPORARY BINDER OR LOOSE-SHEET HOLDER. HARRY F. BUSHONG, Kalamazoo, Mich., assignor to The Kalamazoo Loose Leaf Binder Company, Kalamazoo, Mich. Filed Oct. 16, 1908. Serial No. 458,062.



1. The combination with the covers, one of said covers having a chamber therein, the inner wall of said chamber being slotted, of binding cords; a ratchet bar arranged in said chamber; a support in which the inner end of said ratchet is slidably mounted; a lever to which the outer end of said ratchet is connected, pivotally mounted on the inner wall of said cover, said lever being adapted, when closed, to cover said slot in the inner wall of said chamber; a cross bar to which said binding cords are secured arranged below said ratchet bar; a clip on said cross bar adapted to slidably embrace said ratchet; a pawl pivoted on said cross bar adapted to engage said ratchet; a spring for holding said pawl yieldingly in its engaging position, carried by said cross bar; a trip on said support for the inner end of said ratchet adapted to engage said pawl to throw it into its engaging position when the binder is fully opened; and finger pieces for said crossbar and pawl adapted to be manipulated through said slot.

2. The combination with the covers, one of said covers having a chamber therein, the inner wall of said chamber being slotted, of binding cords; a ratchet bar arranged in said chamber; a support in which the inner end of said ratchet is slidably mounted; a lever to which the outer end of said ratchet is connected, pivotally mounted on the inner wall of said cover, said lever being adapted, when closed, to cover said slot in the inner wall of said chamber; a cross bar to which said binding cords are secured arranged below said ratchet bar; a clip on said cross bar adapted to slidably embrace said ratchet; a pawl pivoted on said cross bar adapted to engage said ratchet; a spring for holding said pawl yieldingly in its engaging position, carried by said cross bar; and finger pieces for said cross bar and pawl adapted to be manipulated through said slot.

3. The combination with the covers, one of said covers having a chamber therein, the inner wall of said chamber being slotted, of binding cords; a ratchet bar arranged in said chamber; a support in which the inner end of said ratchet is slidably mounted; a lever to which the outer end of said ratchet is connected, pivotally mounted on the inner wall of said cover, said lever being adapted, when closed, to cover said slot in the inner wall of said chamber; a cross bar to which said binding cords are secured arranged below said ratchet bar; a clip on said cross bar adapted to slidably embrace said ratchet; a pawl pivoted on said cross bar adapted to engage said ratchet; a spring for holding said pawl yieldingly in its engaging position, carried by said cross bar; a trip on said support for the inner end of said ratchet adapted to engage said pawl to throw it into its engaging position when the binder is fully opened.

4. The combination with the covers, one of said covers having a chamber therein, the inner wall of said chamber being slotted, of binding cords; a ratchet bar arranged in said chamber; a support in which the inner end of said ratchet is slidably mounted, a lever to which the outer end of said ratchet is connected, pivotally mounted on the inner wall of said cover, said lever being adapted, when closed, to cover said slot in the inner wall of said chamber; a cross bar to which said binding cords are secured arranged below said ratchet bar; a clip on said cross bar adapted to slidably embrace said ratchet; a pawl pivoted on said cross bar adapted to engage said ratchet; and a spring for holding said pawl yieldingly in its engaging position, carried by said cross bar.

5. The combination with the covers, one of said covers having a chamber therein, the inner wall of said chamber being slotted, of binding cords; a ratchet bar arranged in said chamber; a support in which the inner end of said ratchet is slidably mounted; a pivoted lever to which the outer end of said ratchet is connected, said lever being adapted, when closed, to cover said slot in the inner wall of said chamber; a cross bar to which said binding cords are secured slidably connected to said ratchet bar; a pawl carried by said cross bar adapted to engage said ratchet; means for holding said pawl out of engaging position; and a trip on said support for the inner end of said ratchet adapted to engage said pawl to throw it into its engaging position when the binder is fully opened.

[Claims 6 to 23 not printed in the Gazette.]

940,509. FOUNTAIN-PEN NIB. DUNCAN CAMERON, Edinburgh, Scotland. Filed Nov. 28, 1908. Serial No. 464,817.

1. In a fountain pen, the combination with the barrel and lower feed bar, of a pen nib provided with a forward opening and a rear opening and an auxiliary upper feed bar having an intermediate tongue engaging the forward opening of the pen nib.

2. In a fountain pen, in combination, a lower feed bar, an upper feed bar and a pen nib provided with a forward opening and a rear opening supported between the feed bars, the upper feed bar having locking means integral therewith intermediate its length for locking engagement with the forward opening in said nib.

3. In a fountain pen, a nib having a forward elongated substantially triangular shaped opening and a rear independent feed opening and an upper feed bar having means to pass through the said triangular shaped opening to lock said nib and upper feed bar.

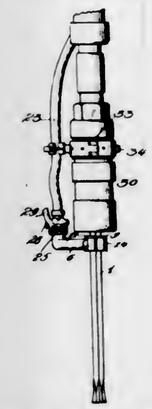
4. In a fountain pen, the combination with a lower feed bar and a nib having a forward opening and a rear opening, of an auxiliary feed bar in association therewith and provided with locking means engaging the forward opening in said nib.

5. In a fountain pen, in combination, a lower feed bar, an upper feed bar and an interposed nib having a slit terminating in an opening and having also an independent feed opening in its rear portion, the upper feed bar having an intermediate tongue which is engaged through the first opening.

[Claims 6 to 9 not printed in the Gazette.]

940,510. WATER ATTACHMENT FOR PNEUMATIC HAMMERS. CHARLES T. CARNAHAN and JEREMIAH MURPHY, Denver, Colo., assignors to C. T. Carnahan Manufacturing Co., Denver, Colo., a Corporation of Colorado. Filed Aug. 4, 1908. Serial No. 446,967.

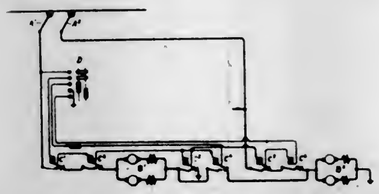
1. The combination of a drill hammer, a hollow drill fitted therein, a water attachment fixed to the drill having a bore communicating with the bore of the drill, a water supply hose connected to the water attachment and means for retaining said hose in parallelism with the hammer comprising a main clamp having complemental pivoted members secured to the cylinder of the hammer, and an auxiliary clamp attached to one of the members of the main clamp and having locking means independent of the main clamp and coöperative with said hose.



2. The combination of a drill hammer, a hollow drill fitted therein, a water attachment fixed to the drill and having a bore communicating with the bore of the drill, a hose connected to said attachment, a main clamp embodying pivotally connected members surrounding and secured to the cylinder of the hammer and having locking means therefor, and an auxiliary clamp having locking means operable independently of that for the main clamp and coöperative with the hose to retain the latter in proper position with respect to the hammer, the auxiliary clamp being supported on one of the pivoted members of the main clamp.

3. The combination of a drill hammer, a hollow drill fitted therein, a water attachment fixed to the drill and having a passage communicating with the bore thereof, a water supply hose connected to said attachment, and means for retaining said hose in proper relation with said hammer comprising a device attached to the hose and embodying a clamp which surrounds the cylinder of the hammer and a yieldable band interposed between said clamp and the hammer cylinder to form a shock-absorbing cushion.

940,511. MOTOR-VEHICLE. FRANK E. CASE, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Oct. 10, 1906. Serial No. 338,258.



1. In a motor driven vehicle, a plurality of current collectors all normally in engagement with the supply conductor under all speed conditions of the motor circuits, a plurality of motors, and a controller for said motors including means for connecting said collectors in independent motor circuits.

2. In a motor driven vehicle, a plurality of current collectors all normally in engagement with the supply conductor under all speed conditions of the motor circuits, a plurality of motors, and a controller for said motors including means for establishing a plurality of independent motor circuits each including one of said collectors.

3. In a motor-driven vehicle, a plurality of current collectors normally in engagement with the supply conductor, a plurality of motors, and motor-controlling switches arranged to connect the motors in series to one collector at starting and to connect them independently to different collectors for running.

4. In a motor-driven vehicle, a plurality of current collectors normally in engagement with the supply conductor, a plurality of motors, and motor-controlling switches arranged to establish a single series circuit for starting comprising one of said collectors, and to establish a plurality of independent parallel circuits for running each including one of said collectors.

940,512. DEVICE FOR LOWERING LIFE-BOATS. CHARLES J. CHRISTENSEN, New York, N. Y. Filed June 3, 1909. Serial No. 499,846.



1. The combination of rope clamping jaws, one of which is fixed and the other laterally movable to and from the fixed jaw, guides to direct the movement of the movable jaw, arranged at opposite sides of the fixed jaw and projecting beyond its clamping face, and an operating lever fulcrumed between the guides and having a cam intermediate its length pivotally connected to the movable jaw.

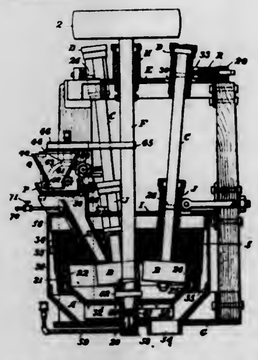
2. The combination of a base, a rope clamping jaw rigid with the base, guide-posts rigid with the base at the opposite sides and adjacent to one end of the said jaw, a rope clamping jaw laterally movable to and from the first-named jaw between said guide-posts, and a cam lever to operate the movable jaw, fulcrumed at its outer end between said guide posts and pivoted to the movable jaw adjacent to the cam.

3. The combination of a fixed rope-clamping jaw, guide posts arranged in pairs at the opposite sides of the clamping jaw and extended beyond the clamping face thereof, a laterally movable rope-clamping jaw guided between the posts, and an operating lever fulcrumed at its inner end between one pair of said posts and pivotally connected at an intermediate point to the movable clamping jaw.

940,513. GRINDING-MILL. JOHN C. CLARK, Atlanta, Ga. Filed Nov. 28, 1908. Serial No. 464,846.

1. The combination in a grinding mill of a rotatable pan, a shaft and horizontal grinding roller at the lower end of the shaft, and a bearing box for the shaft intermediate its ends, a normally fixed bearing on which said box rocks, a second box receiving the upper end of the shaft, and a spring bearing on said box and arranged to be compressed on the inward movement of the lower end of the shaft and roller.

2. The combination in a grinding mill of a rotatable horizontal pan, a shaft carrying a crushing roller at its lower end, a box supporting the shaft at the upper end, a second box receiving the shaft at a point between its ends, a support having a flat bearing face on which the lower box rocks, and means for shifting the lower box radially to different positions.



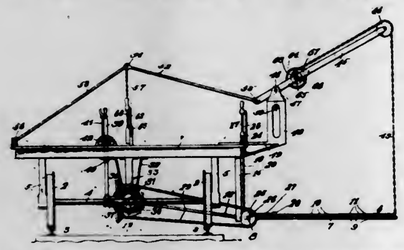
3. The combination in a grinding mill of a rotatable horizontal pan, a shaft carrying a crushing roller at its lower end, a box supporting the shaft at the upper end, a second box receiving the shaft at a point between its ends, a bearing on which the lower box rocks, a rod pivoted to said box and extending through part of the frame, and a spring and nut for shifting and holding the rod longitudinally.

4. The combination in a grinding mill of a rotatable horizontal pan, a shaft carrying a crushing roller at its lower end, a box receiving the shaft at a point between its ends, a bearing on which the box rocks, a box receiving the upper end of the shaft, a spring bearing on said upper box to resist the inward motion of the shaft and roller, and a cap plate provided with a slot in which the upper box may slide radially.

5. The combination of the rotatable basin, surrounding casing, and a screen supported fixedly and by the casing adjacent to and extending above the basin as set forth.

[Claims 6 to 10 not printed in the Gazette.]

940,514. GRASS-CUTTING ATTACHMENT FOR CARS. WALTER J. CLARKE and SAMUEL A. STREAM, El Reno, Okla.: said Stream assignor of one-half of his right to said Clarke. Filed Jan. 25, 1909. Serial No. 474,132.



1. The combination of a car having a platform and supporting wheels, a shaft arranged longitudinally beneath the platform, means for driving said shaft from the car wheel, a vertical guide depending from one side of the platform, a transversely extending and vertically swinging hanger hung from said shaft and arranged in said guide, a cutting mechanism pivotally mounted for swinging movement upon the outer end of said hanger, means for driving said cutting mechanism from said longitudinal shaft, means for raising and lowering the outer end of the hanger, a supporting member mounted upon the platform and connected to the outer end of the cutting mechanism, toggle links for actuating said member and means for adjusting said toggle links.

2. The combination of a car having a platform and supporting wheels, a shaft arranged longitudinally beneath the platform, means for driving said shaft from the car wheel, a vertical guide depending from one side of the platform, a transversely extending and vertically swinging hanger hung from said shaft and arranged in said guide, a cutting mechanism pivotally mounted for swinging movement upon the outer end of said hanger, means for driving said cutting mechanism from said longitudinal shaft, means for raising and lowering the outer end of the hanger, a vertical pivot carried by the platform, a bearing arranged on said pivot, a lever fulcrumed intermediate its ends in said bearing, a connection between the outer end of said lever and the outer end of said cutting mechanism, toggle links connected to the inner end of said lever for adjusting the same and means for adjusting said toggle links.

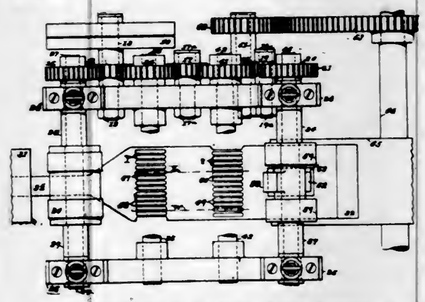
3. The combination of a car, a cutting mechanism projecting from one side of the same, means for driving said cutting mechanism, a bearing carried by the car and rotatable upon a vertical pivot, a vertically swinging supporting member mounted on said bearing, a connection between said member and said cutting mechanism, and toggle links for adjusting said member.

4. The combination of a car, a cutting mechanism projecting from one side of the same, means for driving said mechanism from the car wheels, a swinging supporting lever pivoted intermediate its ends and having its outer end connected to the outer end of the cutting mechanism, toggle links for adjusting the inner end of the supporting lever, a flexible element connected to said toggle links, and means for adjusting said element.

5. The combination of a car, a cutting mechanism projecting from one side of the same, means for driving said mechanism from the car wheels, a swinging supporting lever pivoted intermediate its ends and having its outer end connected to the outer end of the cutting mechanism and toggle links for adjusting the inner end of the supporting lever.

[Claims 6 to 13 not printed in the Gazette.]

940,515. PAPER-BAG MACHINE. EDWARD E. CLAUSSEN, Hartford, Conn. Filed Sept. 28, 1908. Serial No. 455,126.



1. The combination of a float to receive around it a tube of paper, means for cutting through the paper of the tube between the sides thereof at one place in the length of said float to form a series of transversely-disposed perforations in said tube, and means for subsequently cutting the stock between the perforations at an advanced place in the length of said float.

2. The combination of a float to receive around it a tube of paper, means for cutting through both plies of the tube between the sides thereof at one stage in the movement of the tube along the float to form a series of transversely-disposed perforations in each of said plies, and means for cutting the stock of said tube at an advanced stage in the movement of the tube and between said perforations in both plies.

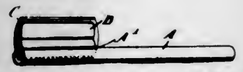
3. The combination of a float to receive around it a paper tube, a pair of cutting blades disposed at opposite sides of said float, having teeth said blades being movably mounted and related to cause one series of teeth to cut through one ply of the tube in advance of the other, said two series of teeth perforating the plies of the tube between the side edges thereof, a secondary pair of cutting blades also disposed at opposite sides of the float, having teeth said secondary blades being movably mounted and related to cause one series of teeth to cut through one ply in advance of the other, said two secondary series of teeth being located to cut through the stock between the perforations made by the primary two series of teeth, and the float having openings entirely therethrough to receive the four series of teeth.

4. The combination of a float to receive around it a paper tube and independent cutting mechanisms to act on the tube at different places in the length of said float each cutting mechanism involving a series of teeth extending transversely of the float the teeth of one cutting mechanism being out of line longitudinally of the float with the teeth of the other cutting mechanism.

5. The combination of a float to receive around it a paper tube and primary and secondary cutting mechanisms to act on the tube at different points in the length of the float and said mechanisms involving blades disposed above and below the float, provided with teeth disposed in series extending transversely of said float the teeth of the blades of the primary cutting mechanism being out of line longitudinally of the float with the teeth of the blades of the secondary cutting mechanism and the float having openings entirely therethrough to receive all four series of teeth.

[Claims 6 to 9 not printed in the Gazette.]

940,516. SAFETY-RAZOR-BLADE HOLDER. DAWSON CONEKIN, St. Petersburg, Fla., assignor of one-half to Paul A. Larche, Tampa, Fla. Filed June 21, 1909. Serial No. 503,346.

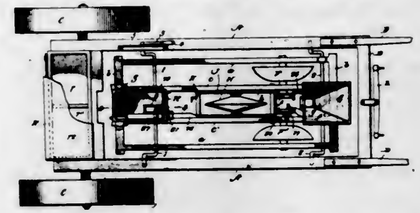


A blade holder for use in stropping safety razor blades comprising a handle, and jaws at the ends thereof and integral with the handle, said jaws inclining inwardly from their juncture with the handle portion to an intermediate point, with the said intermediate points of the opposite jaws in close proximity and arching thence outwardly to the outer ends of the jaws with said outer edges in close proximity and forming, with the intermediate points, bearings engaging the blades with the end of the handle adjacent to the jaws forming a stop for the inner end of a blade inserted between the jaws, all substantially as and for the purposes set forth.

940,517. COMBINED FERTILIZER-DISTRIBUTER AND PLANTER. FREDRICK W. DECKER, Brunswick, Ga., assignor of one-third to Albert Fendig, Brunswick, Ga. Filed Jan. 8, 1909. Serial No. 471,282.

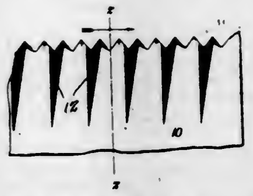
1. In a combined fertilizer distributing and planting device, a main frame, a second frame suspended within said main frame, means for raising or lowering said second frame, a fertilizer hopper pivoted to said second frame, means for agitating said hopper, a pair of disk plows secured to said frame in the rear of said hopper, a drill disk carried by said frame, means for raising and lowering said disk, a seed hopper in the rear of said drill disk, and means operated by one of said disk plows for feeding grain from said seed hopper.

2. In a combined fertilizer distributing and planting device, a main frame, a second frame within said main frame, a pair of parallel crank axles for suspending said second frame from said main frame, a pivoted fertilizer hopper carried upon said second frame, a pair of disk plows mounted in said second frame, one of said disk plows being provided with a ratchet wheel arranged to engage an arm on said hopper for agitating the same, a seed hopper, a reciprocating rod for feeding the seed from said hopper, a lever attached to one end of said rod and a disk secured to one of said disk plows and provided with pins arranged to engage the lever for operating the reciprocating rod.



3. In a combined fertilizer distributer and planter, a main frame, a second frame suspended within said main frame, means for raising and lowering said second frame and for maintaining it in a horizontal position, a fertilizer hopper carried by said second frame, a pair of disk plows carried by said second frame, a seed hopper, means for agitating said fertilizer hopper by the movement of one of said disk plows, means for feeding seed periodically by the movement of the other of said disk plows, an adjustable disk drill secured to said frame intermediate said disk plows and said seed hopper, and a roller secured to said frame in the rear of said seed hopper.

940,518. SAW-TOOTH. JOHN W. DUNN and HERMAN J. RANDALL, Alger, Mich. Filed Mar. 6, 1909. Serial No. 481,590.



1. A saw provided with a series of equiform and equispaced teeth and having a series of grooves upon each side of the blade dividing the teeth in sets of two on each side, the grooves upon one side being in staggered relation to the grooves upon the opposite side of the blade.

2. A saw provided with a series of equiform and equispaced teeth and having a series of grooves upon each side of the blade dividing the teeth in sets of two on each side, the grooves upon one side being in staggered relation to the grooves upon the opposite side of the blade, said grooves being substantially triangular in cross section.

3. A saw provided with a series of equiform and equispaced teeth and having a series of grooves upon each side of the blade dividing the teeth in sets of two on each side, the grooves upon one side being in staggered relation to the grooves upon the opposite side of the blade, said grooves being substantially triangular in cross section and tapering from the teeth toward the back of the blade.

940,519. SURGICAL APPLICATOR. EUGENE H. EASTMAN, Hot Springs, Ark. Filed Oct. 17, 1908. Serial No. 458,187.

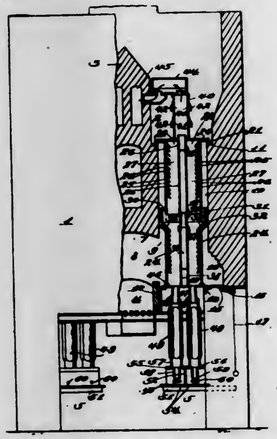
A surgical applicator comprising an open-end tube having a bore of uniform diameter throughout its length, a slit being formed in said tube and extending from its open end to near its closed end to accommodate a tampon cord

in inserting and removing a tampon from the tube, and an ejector in said tube projecting through the closed end



thereof for removing the tampon through the open end of such tube.

940,520. BONE-BLACK KILN. BERNHARDT EBA, North Warren, Pa. Filed May 13, 1909. Serial No. 495,713.



1. In an apparatus of the class set forth, a furnace, a chamber communicating with said furnace, retorts disposed in the chamber and composed of separable sections, and separable coupling devices interposed between and located within the contiguous ends of the said sections and providing communicating means between portions of the latter.

2. In an apparatus of the class set forth, a furnace, a chamber communicating with the furnace, and retorts disposed in the chamber and composed of separable sections each having interiorly guarded openings in opposite portions thereof.

3. In an apparatus of the class set forth, the combination of heating means, retorts composed of separable sections having interiorly located flues also separably united and having communication with the heating means, and tubular couplings connecting the said flues.

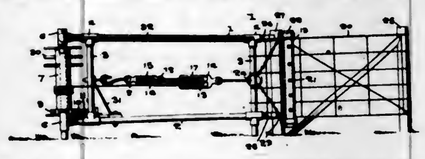
4. In an apparatus of the class set forth, the combination of heating means, and retorts having interiorly located flues terminally connected by tubular couplings.

5. In an apparatus of the class set forth, the combination of heating means, a chamber communicating with said heating means, retorts disposed in the chamber and composed of separable sections having interiorly located flues, and tubular coupling means for separably connecting the terminals of the flues.

[Claims 6 to 10 not printed in the Gazette.]

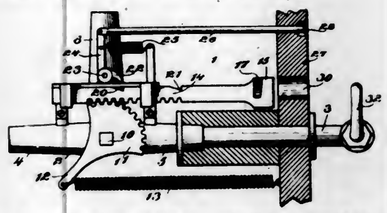
940,521. WIRE-STRETCHING APPLIANCE. GEORGE A. ENDICOTT, Sedalia, Mo. Filed May 6, 1909. Serial No. 494,379.

A device of the character described, comprising horizontal parallel members, vertical space-bars connected to said horizontal parallel members near their ends, standards, cross arms connecting said horizontal parallel members and said standards, a winding drum arranged in connection with said horizontal parallel members and said cross arms, a brace between one of said cross arms and the lower one of said horizontal parallel members, means for anchoring said arms and standards in position, a strap secured at its ends to the upper ends of said standards respectively and connected centrally to the upper one of



said horizontal parallel members at one end thereof, head blocks applied to said horizontal parallel members at one end of the same, a cable connected to said drum, and means adapted for applying the same for the stretching operation.

940,522. FAUCET. JOSEPH FALASCA, Yonkers, N. Y. Filed Oct. 31, 1907. Serial No. 400,012.



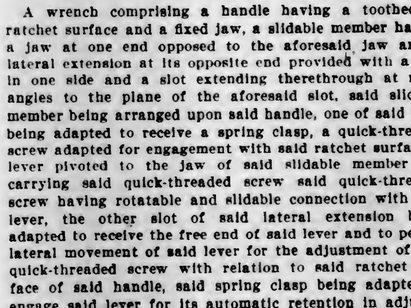
1. A faucet of the character described, comprising three ports, a plug arranged at the intersection of said ports one of said ports being a discharge port, ports or passages in said plug for bringing the discharge port into communication with each of the other ports separately, a toothed segment on said plug, said segment having a normal tendency to hold said plug in position for causing communication between a certain one of said ports and the discharge port, a toothed rack in mesh with said segment for moving said segment to cause communication between one of said ports and the discharge port, a pawl in engagement with said toothed rack for locking the said toothed rack against movement, and means for releasing said pawl from locking engagement with said rack to allow said segment and plug to resume their normal position, substantially as described.

2. A faucet of the character described, comprising a plug having suitable ports or passages therein to cause communication between three ports acting as conduits for liquids gases or the like, a segment carried on said plug having a normal tendency to close communication between two of said ports acting as conduits and to open communication between two of said ports acting as conduits, a rack in engagement with said segment for moving the same and said plug, means for locking said rack against movement, and means for releasing said rack to allow said plug and segment to resume their normal position, substantially as described.

940,523. RAILWAY-FROG. JAMES A. FOSTER, Helskell, Tenn. Filed June 9, 1909. Serial No. 501,103.

1. In a structure of the nature described, the combination of a continuous, outer main track rail and a continuous, outer side track rail, sectional inner main track and side track rails located between said continuous rails and separated by a transverse gap, a hinged point located between the sections of said inner rails, and a spring-controlled shifting member connected with said point in said gap and normally held against one of said continuous outside rails, substantially as described.

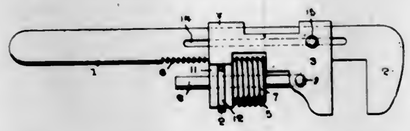
2. In a structure of the nature described, the combination of a continuous, outer main track rail and a continuous, outer side track rail, sectional inner main track and side track rails located between said continuous rails and separated by a transverse-gap, a hinged point located between the sections of said inner rails, and a spring-controlled shifting member connected with said point in said gap and normally held against said continuous side track rail, substantially as described.



3. In a structure of the nature described, the combination of a continuous, outer main track rail and a continuous, outer side track rail, sectional inner main track and side track rails located between said continuous rails, a hinged point located between the sections of said inner rails, a shifting member connected with said point, and a spring combined with said point and normally pressing the latter in the direction of said shifting member.

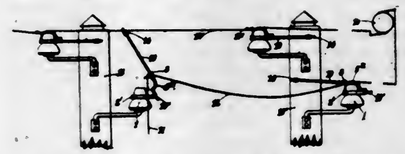
4. In a structure of the nature described, the combination of a continuous, outer main track rail and a continuous, outer side track rail, sectional inner main track and side track rails located between said continuous rails, a hinged point located between the sections of said inner rails, a shifting member adjacent one of the outer rails, a spring connected with said shifting member to normally hold the latter against said rail, and a spring applied to said point to normally press the latter in the direction of said shifting member, substantially as described.

940,524. WRENCH. SETH C. FOSTER, Nashville, Tenn. Filed Nov. 30, 1908. Serial No. 465,276.



A wrench comprising a handle having a toothed or ratchet surface and a fixed jaw, a slidable member having a jaw at one end opposed to the aforesaid jaw and a lateral extension at its opposite end provided with a slot in one side and a slot extending therethrough at right angles to the plane of the aforesaid slot, said slidable member being arranged upon said handle, one of said slots being adapted to receive a spring clasp, a quick-threaded screw adapted for engagement with said ratchet surface, a lever pivoted to the jaw of said slidable member and carrying said quick-threaded screw said quick-threaded screw having rotatable and slidable connection with said lever, the other slot of said lateral extension being adapted to receive the free end of said lever and to permit lateral movement of said lever for the adjustment of said quick-threaded screw with relation to said ratchet surface of said handle, said spring clasp being adapted to engage said lever for its automatic retention in adjusted position, said handle also having a longitudinal slot receiving a projection or stud from said slidable member for limiting the movement of the latter.

940,525. SAFETY DEVICE FOR OVERHEAD ELECTRIC CONDUCTORS. EMILE GIRAUD, Paris, France. Filed Oct. 4, 1906. Serial No. 337,457.



1. In a safety device for overhead electric conductors, an insulator, a metal piece embracing said insulator, an offset on said metal piece, an arch-shaped member pivotally connected to said offset and adapted to swing away from the insulator and having a groove for receiving the conductor, clamping means for securing the latter to said member, oppositely disposed projections on said member, a short-circuiting device adjacent to the insulator, and a contact arm on one of said projections and adapted to be automatically brought into engagement with the short-circuiting device when the conductor has been severed.

2. In a safety device for overhead electric conductors, an insulator, an embracing member carried on the insulator, an arch-shaped member pivotally connected to the embracing member and adapted to swing away from said insulator, means carried by the arch-shaped member for locking the conductor thereto, a short-circuiting device located near the insulator, and means extending outwardly from said arch-shaped member and adapted to be automatically shifted into contact with the short-circuiting device upon the breaking of the conductor.

940,526. ELECTRICAL RECEPTACLE. GILBERT W. GOODRIDGE, Bridgeport, Conn., assignor to The Bryant Electric Company, Bridgeport, Conn., a Corporation of Connecticut. Filed May 6, 1909. Serial No. 494,308.

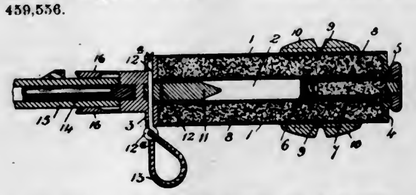


1. A screw shell for an electrical receptacle having securing flanges, portions of said receptacle being bent over upon said flanges to reinforce the same for the purpose specified.

2. A screw shell for an electrical receptacle having a base cut away to form securing flanges, portions of said base being rolled over upon said flanges to reinforce the same for the purpose specified.

3. A screw shell for an electrical receptacle having a base cut away to form securing flanges, portions of said base being shaped to and rolled over upon said flanges to reinforce the same for the purpose specified.

940,527. EXPLOSIVE GRENADE. FREDERICK M. HALE, London, England. Filed Oct. 26, 1908. Serial No. 459,556.



1. An explosive grenade arranged for attachment to the barrel of a small arm; in combination with positive

means for holding the grenade against projection until the gaseous pressure developed within the barrel becomes sufficiently great to overcome the action of said means.

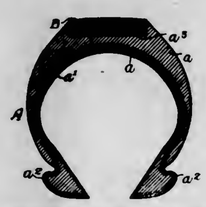
2. An explosive grenade having one member thereof arranged for insertion in the barrel of a small arm; in combination with positive means for effecting the attachment of the grenade to said barrel until the gaseous pressure developed within the latter becomes sufficiently great to overcome the action of said means.

3. A grenade having a stem arranged for insertion in the bore of a gun, and an explosive body portion located exteriorly thereof; in combination with positive means for effecting the attachment of the grenade to the gun until the gaseous pressure developed within the bore becomes sufficiently great to overcome the action of said means.

4. A grenade having a stem arranged for insertion in the bore of a gun, an explosive body portion located exteriorly thereof, and retaining means connected with said body portion and arranged to engage the outer surface of the gun.

5. A grenade having a stem arranged for insertion in the barrel of a small arm, an explosive body portion located exteriorly thereof, and a cylindrical retaining member connected with said body portion and arranged to fit over the end of the barrel.

940,528. TIRE. WILLIAM D. HARRIS, Philadelphia, Pa., assignor to Harris Tire & Rubber Co., Philadelphia, Pa., a Corporation of Maine. Filed Oct. 2, 1907. Serial No. 395,510.



A hollow tire having a rubber body portion provided with an annular recess in its wearing face, a piece of canvas extending longitudinally around the tire in the recess and having its edges turned up along the sides thereof so as to line said recess, with a body of fabric strips set in the recess upon said lining of canvas between said turned up edges, and said strips extending circumferentially of the tire and being arranged to lie in planes substantially perpendicular to the tread surface thereof.

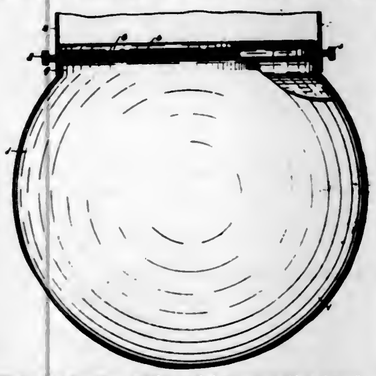
940,529. MOTOR-CAR WIND-SCREEN. JAMES HODGSON, Carlisle, England. Filed Jan. 9, 1909. Serial No. 471,481.

1. A wind screen for motor cars comprising a hinged section in combination with means operable at one side only of said section for retaining it in adjusted position, said means including slotted fixed supports at the ends of said section, bearings mounted on said section above the hinge thereof, and a threaded bolt extending longitudinally of said section across one face thereof and mounted in said bearings and having its ends extending through the slots of said supports, said bolt being provided with a head at one end and having a loose screw nut engaged with its other end, said nut being arranged when turned upon the bolt to exert a clamping pressure directly upon the adjacent support and also through said bolt and its head upon the other support.

2. A wind screen for motor cars comprising a hinged section in combination with means operable at one side only of said section for retaining it in adjusted position, said means including slotted fixed supports at the ends of said section, bearings mounted on said section above the hinge thereof, a bolt arranged longitudinally of said section across one face thereof and mounted in said bearings having its ends extending through the slots of said supports, said bolt being provided with a head at one end and a screw nut at the other end, said nut being arranged to exert a clamping pressure directly upon the adjacent support and also through said bolt and its head upon the other support and a compressible device interposed between one of said supports and an abutment on the bolt for the purpose set forth.



940,530. LAMP-GLOBE. ALFRED H. HUMPHREY, New York, N. Y. Filed Jan. 18, 1909. Serial No. 472,930.



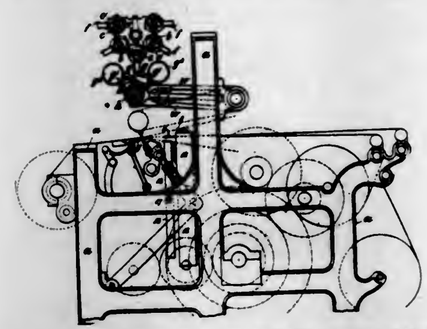
1. The combination with a globe supporting band, of a globe having an attaching flange adapted to be inserted into said band, said flange being provided with a cylindrical portion at its base adapted to fit said band, and being curved inwardly and thence outwardly and thence inwardly to form an annular groove-like portion above said cylindrical portion and a bead-like edge, said bead-like edge being adapted to fit said band; and screws arranged through said band to engage said groove of said attaching flange.

2. The combination with a globe supporting band, of a globe having an attaching flange adapted to be inserted into said band, said flange being provided with a cylindrical portion at its base adapted to fit said band, and being curved inwardly and thence outwardly and thence inwardly to form an annular groove-like portion above said cylindrical portion and a bead-like edge; and means for securing said attaching flange to said supporting band.

3. As a new article of manufacture, a globe having an attaching flange comprising a cylindrical portion, an annular groove and a bead-like edge, said cylindrical portion being at the base of said flange, said flange being curved inwardly and thence outwardly and thence inwardly to form said groove and said bead-like edge.

4. As a new article of manufacture, a globe having an attaching flange provided with a cylindrical portion, the upper edge of said flange being turned inwardly.

940,531. LOOM FOR WEAVING TUFTED PILE FABRICS. JAMES P. HUMPHRIES, Kidderminster, England. Filed Jan. 11, 1909. Serial No. 471,736.



1. In a loom, the combination, with the carrier chains; of a series of trough-shaped carriers having their ends permanently connected to said chains; and a series of spools removably supported within each carrier.

2. In a loom, the combination of a trough-shaped carrier; a series of pairs of perforated spring arms arranged therein; and a series of spools arranged end to end in said carrier and provided at their ends with axial pins adapted for insertion in the perforations in said arms.

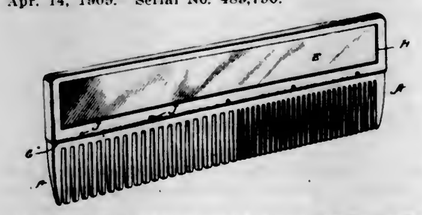
3. In a loom, the combination, with the carrier chains; of a trough-shaped carrier provided at each end with a pair of spaced lugs having their mutually-adjacent edges engaged with the links of the adjacent chain and conforming to the shape thereof, to prevent oscillation of the carrier with respect to said links; and a series of spools arranged in said carrier.

4. In a loom, the combination, with the carrier chains; of a trough-shaped carrier provided at each end with a pair of spaced lugs having their mutually-adjacent edges engaged with the links of the adjacent chain and conforming to the shape thereof, to prevent oscillation of the carrier with respect to said links; a series of pairs of perforated spring arms arranged therein; and a series of spools arranged end to end in said carrier and provided at their ends with axial pins adapted for insertion in the perforations in said arms.

5. In a loom, the combination, with a spool-carrier and its bar; of a series of tubes secured to said bar, each tube being provided with a strengthening member extending across and secured to the succeeding tube.

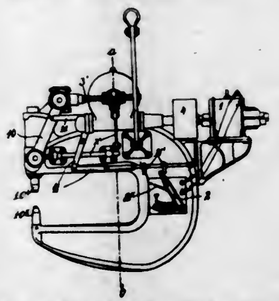
[Claims 6 to 11 not printed in the Gazette.]

940,532. COMB. WOLF JACOBS, New Orleans, La. Filed Apr. 14, 1909. Serial No. 489,790.



As an article of manufacture, a mirror case in the form of a pocketed frame open at one edge and opening laterally to expose a mirror, a mirror in said case and above the open edge thereof, and opposite the lateral opening, a comb having its back grooved longitudinally and fitted in the edge opening of the case with its grooved portion opposite the free edges of the said opening the said edges being bent into the grooved portion of the comb whereby the comb will retain the mirror in the case and will be held by the case in connection therewith, and rivets passed through the case and comb back, substantially as set forth.

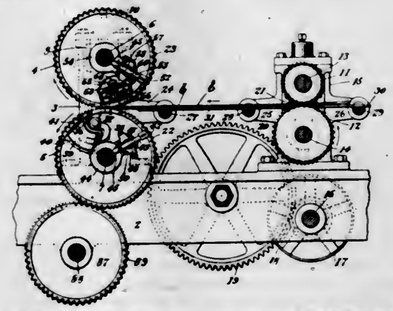
940,533. RIVETING-MACHINE. RUDOLF JAY, Leipzig, Germany, assignor to Leipziger Maschinenbau-Gesellschaft M. B. H., Leipzig, Germany. Filed Oct. 29, 1908. Serial No. 460,077.



1. In a machine of the class described, an intermittently operating tool, a driving shaft therefor, a fly wheel frictionally carried by said shaft, a motor for operating said fly wheel, and means for temporarily stopping the motor at the time the tool encounters the resistance of the work, substantially as described.

2. In a machine of the class described, an intermittently operating tool, a driving shaft therefor, a fly wheel carried by said shaft, a motor for operating the shaft, a starting device for the motor, means for automatically disconnecting the motor and shaft when the tool encounters the resistance of the work and an operating connection between the disconnecting means and starter.

940,534. DIAMOND-FOLD-FORMING MECHANISM FOR PAPER-BAG MACHINES. CHARLES D. KING, Brooklyn, N. Y. Filed Nov. 22, 1904. Serial No. 233,786.



1. In a paper-bag machine, diamond-fold-forming mechanism having gripping and releasing movements and embodying a plurality of automatic controlling devices having different operating periods, and operative for instantaneously effecting each of said movements, each of said devices including an electrical device which controls one of such movements and which is brought fully into action suddenly as compared with the gradual action of a cam.

2. In a paper-bag machine, diamond-fold-forming mechanism having gripping and releasing movements and em-

bodying a plurality of automatic controlling devices movable into action at different periods and also movable out of action at different periods and operative for instantaneously effecting each of said movements, each of said devices including an electrical device which controls one of such movements and which is brought fully into action suddenly as compared with the gradual action of a cam.

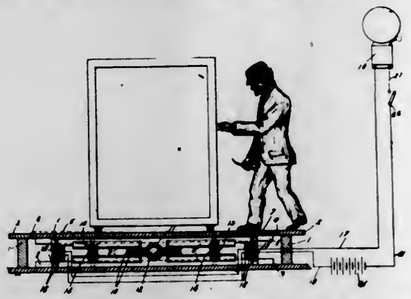
3. In a paper-bag machine, diamond-fold-forming mechanism embodying a plurality of blank-holding devices having gripping and releasing movements and also embodying a plurality of automatic controlling devices governing said blank-holding devices and having different operating periods, said controlling devices being operative for instantaneously effecting each of said movements of the blank-holding devices, and each of said controlling devices including an electrical device which controls one of said movements and which is brought fully into action suddenly as compared with the gradual action of a cam.

4. In a paper-bag machine, diamond-fold-forming mechanism embodying blank-feeding means, a plurality of blank-holding devices each having gripping and releasing movements, and a plurality of automatic controlling devices governing said blank-holding devices and having different operating periods governed by said blank-feeding means and each operative for instantaneously effecting each of the movements of the blank-holding device to which it corresponds, and each of said devices including an electrical device which controls one of such movements and is brought fully into action suddenly as compared with the gradual action of a cam.

5. In a paper-bag machine, diamond-fold-forming mechanism embodying blank-feeding means and also embodying blank-holding end-gripping means having gripping and releasing movements, blank-holding side-gripping means also having gripping and releasing movements, automatic controlling means governing said end-gripping and side-gripping means and governed by said blank-feeding means and operative for instantaneously effecting each of such movements of each of such gripping means, said means including an electrical device which controls one of such movements of each gripping means and which is brought fully into action suddenly as compared with the gradual action of a cam.

[Claims 6 to 34 not printed in the Gazette.]

940,535. BURGLAR-ALARM. MAX KORBEL, Kingston, Pa. Filed May 17, 1909. Serial No. 496,544.



1. A burglar alarm for safes comprising a yieldable safe support flush normally with the floor line, a pair of frames arranged below said support, an expansible and contractible means interposed between said frames for maintaining one of said frames in engagement with said support whereby said support is held in normal position, contacts carried by each of said frames and adapted when the support is depressed from normal position to be moved into engagement with each other, an alarm circuit-forming means connected with said contact, and means interposed between said frames whereby the upper of said frames is capable of tilting at its sides and ends upon the lower of said frames when pressure is applied to said support.

2. A burglar alarm for safes comprising a yieldable support arranged in operative relation with respect to the safe, a pair of frames arranged below said support, an expansible and contractible means interposed between said frames for maintaining said support in its normal position, contacts carried by each of said frames and adapted when the support is depressed to be moved into engagement with each other, an alarm circuit-forming means connected with said contact, a bearing plate carried by each of said frames and provided with a socket, the socket in one plate opposing the socket in the other plate, and a spherical body mounted in said socket-providing means whereby the upper of said frames is capable of tilting when pressure is applied to the sides and ends of said support.

940,536. SIGN. ROBERT C. LAFFERTY, Clarksburg, W. Va. Filed May 28, 1908. Serial No. 435,594.



1. A sign comprising a cap, having in its under side sockets, a head bar provided with upwardly projecting lugs entering and held in said sockets, and also having sockets in its lower side, said head bar having a main or body portion, and a hook-like flange along the front face thereof, and terminating at its upper edge below the upper edge of the main portion or body of the head bar, letters hooked into engagement with said flange and underlying the cap, and name bars suspended from the head bar and provided with upwardly projecting lugs on their upper face, and with corresponding sockets in their lower faces, and having longitudinal hook-like flanges on their front faces terminating at their upper edges below the upper edges of their respective name bars, and letters hooked on their respective hook-like flanges and underlying the next upper bar whereby they will be locked in place substantially as set forth.

2. The improvement herein described comprising a series of letter carrying bars having separate letters applied thereto, any number of the said bars being suspended from each other, the overlying bars extending above and in close proximity to the letters of the next lower bar whereby to lock the letters of the said next lower bars in connection with their respective bars.

3. The combination with a supporting bar, of a letter carrying bar suspended therefrom, and separate letters interlocked with the letter carrying bar and underlying and in close proximity to the next upper or supporting bar when the letter carrying bar is coupled thereto whereby the supporting bar will secure the letters in interlocked connection with their carrying bar.

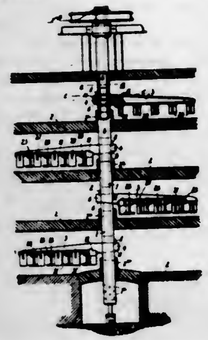
4. The combination with a letter carrying bar, and letters detachably engaged therewith, of a supporting bar for the letter carrying bar and said supporting bar extending above and in close proximity to the letter carrying bar locking the letters in connection therewith.

5. The combination of a letter having a downwardly opening hook on its rear side, and a support therefor having an upwardly opening hook on its front side for the hook of the letter, and means independent of the supporting hook and overlying the letter whereby to lock it in engagement with its supporting hook, substantially as set forth.

[Claims 6 to 8 not printed in the Gazette.]

940,537. RABBLE FOR ORE-ROASTING FURNACES. ARTHUR V. LEGGO, St. Kilda, Victoria, Australia. Filed Sept. 28, 1908. Serial No. 455,210.

1. In rabbles for ore roasting furnaces, the combination of a rabble shaft having a tapered hole formed horizontally therethrough, and a rabble arm having a correspondingly tapered butt end exactly fitted in said hole and connected with said shaft.



2. In rabbles for ore roasting furnaces, the combination of a hollow rabble shaft having a tapered hole formed horizontally through a thickened portion thereof, and a hollow rabble arm having a correspondingly tapered butt end fitted in said hole, the bottom side of said hole having a less inclination than the corresponding side of the butt end of the rabble arm, as and for the purpose described.

3. In rabbles for ore roasting furnaces a hollow rabble arm having an internal central partition which is formed obliquely at the butt end of said arm and extends vertically to a point near the outer end of the arm, the butt end of said arm being provided with air inlet and exit holes situated one on each side of the oblique part of the said partition.

4. In rabbles for ore roasting furnaces, a hollow rabble shaft having a tapered hole formed horizontally through a thickened portion thereof, a rabble arm having a correspondingly tapered butt end inserted through said hole, and a key engaged with the projecting end of said arm for retaining the same against displacement.

5. The combination, with a hollow rabble shaft having a tapered hole formed horizontally through a thickened portion thereof, of a hollow rabble arm provided with air inlet and outlet openings, and having a tapered butt end fitting in said hole, a key engaged with said end to hold said arm against displacement, and a longitudinal partition formed vertically in the outer end and obliquely in the butt end of said arm.

[Claims 6 to 9 not printed in the Gazette.]

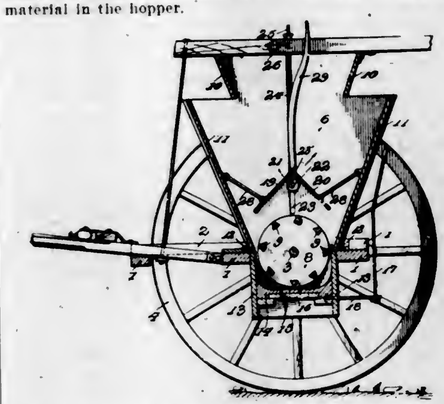
940,538. DISTRIBUTER. JAMES W. LE GORE, Le Gore, Md. Filed June 22, 1909. Serial No. 503,723.

1. In apparatus of the character described, a hopper having a pivoted side, a supporting shield or deflector within said hopper extending lengthwise thereof and located above the pivotal point of said side, and means for turning the side about its pivot.

2. In apparatus of the character described, a hopper having a pivoted side, a movable supporting shield or deflector having a continuous active face slanting downwardly toward the side of the hopper, a bottom for the hopper provided with feed openings, a rotatable feed reel above said bottom and below the deflector, means for moving the deflector to increase the opening between its lower end and the side of the hopper toward which it slants, and means for moving the said side about its pivot.

3. In apparatus of the character described, a hopper, a pivoted supporting shield or deflector within the hopper having a continuous active face slanting downwardly toward the side of the hopper, and manually operable means to vibrate said shield to increase the flow of material in the hopper.

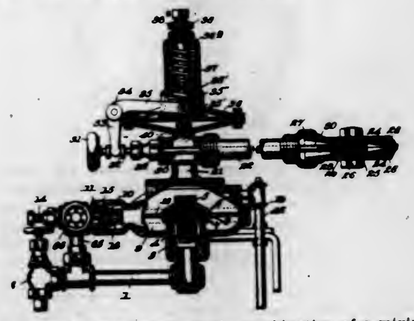
4. In apparatus of the character described, a hopper, a pivoted supporting shield or deflector having an active face slanting downwardly toward the side of the hopper, rotatable feeding means extending lengthwise of the hopper below the supporting shield or deflector, and manually operable means to vibrate said shield or deflector to suddenly vary the slant of said face to increase the flow of material in the hopper.



5. In apparatus of the character described, a hopper, a pivoted supporting shield or deflector within said hopper extending lengthwise thereof said shield or deflector having downwardly diverging sides, and means for turning the said shield or deflector to increase the slant of one of its sides.

[Claims 6 to 23 not printed in the Gazette.]

940,539. AUTOMATIC OIL-BURNER. ARTHUR H. LIGHT, Los Angeles, Cal., assignor to A. H. Light Engineering Company, Los Angeles, Cal., a Corporation of Arizona. Filed Feb. 19, 1909. Serial No. 478,844.



1. In an automatic burner, the combination of a mixing chamber for hydrocarbon fuel; a cylinder; a damper; connections between said cylinder and said chamber; connections between said damper and said cylinder; a burner nozzle connected to said chamber; and means to control the outlet of said nozzle and thereby vary the pressure in said chamber and cylinder, substantially as described.

2. In an automatic burner, the combination of a chamber for mixed oil and steam; a cylinder; connections between the same and said chamber; a damper; connections between the same and said cylinder; and automatic means comprising a burner nozzle for controlling the pressure in said chamber and thereby automatically controlling said damper, substantially as described.

3. In an automatic burner, the combination of a chamber for mixed oil and steam; a nozzle; connections between said nozzle and chamber; a cylinder; connections between the same and said chamber; a damper; connec-

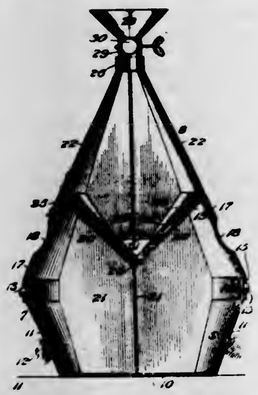
tions between the same and said cylinder; and automatic means for controlling the exit of said nozzle and the pressure in said chamber and thereby automatically controlling said damper, substantially as described.

4. In an automatic burner, the combination of a mixing chamber for fuel; a steam supply; an oil supply; a burner nozzle; connections between said nozzle and said chamber; means to vary the exit of said nozzle; a diaphragm adapted to be controlled from said steam supply; connections between said diaphragm and said nozzle controlling means; a damper; and means for controlling said damper from said chamber, substantially as described.

5. In an automatic burner, the combination of a mixing chamber for fuel; a steam supply; an oil supply; a burner nozzle; connections between said nozzle and said chamber; means to vary the exit of said nozzle; a diaphragm adapted to be controlled from said steam supply; connections between said diaphragm and said nozzle controlling means; an adjustable spring for controlling said diaphragm; a damper; and means for controlling said damper from said chamber, substantially as described.

[Claims 6 to 11 not printed in the Gazette.]

940,540. STOCK-FEEDER. JEFFERSON Z. LOOP, Philadelphia, Pa., and GEORGE R. J. NEWMAN, Washington, D. C. Filed Jan. 21, 1909. Serial No. 473,591.



1. In a feeder of the character described, the combination with a feed-holding receptacle having vertical radial partitions forming separate feed-holding chambers, of means for delivering feed simultaneously into the top of the receptacle at the meeting point of the partitions thereof, thereby delivering said feed simultaneously into all of the chambers.

2. In a feeder of the character described, the combination with a feed-holding receptacle having a tapered top provided with a receiving opening, said receptacle having radial partitions thereon that meet in line with the receiving opening, a funnel arranged upon said top and delivering through the receiving opening into all the chambers formed by the partition, and a controlling valve located in the funnel.

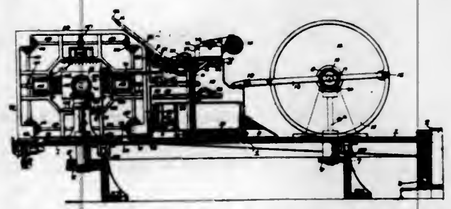
3. In a feeder of the character described, the combination with a feeding receptacle having a plurality of interior feeding chambers, of a feed-holding receptacle with separate feed-holding chambers located thereon; said receptacles being relatively movable and having delivery openings movable into and out of register.

4. In a feeder of the character described, the combination with a feeding receptacle having head-receiving openings and having a conical depression provided with feed-receiving openings, of a feed-holding receptacle having a conical bottom, rotatable in the depression and having delivery openings movable into and out of register with the feed-receiving openings.

5. In a feeder of the character described, the combination with a feeding receptacle, having upwardly tapered walls provided with head-receiving openings and having a top in the form of an inverted cone and provided with feed-receiving openings, of a feed-holding receptacle having a conical bottom located in the conical top and provided with feed-delivery openings, said receptacles having radially disposed partitions, and means for feeding material into the top of the feed-holding receptacle.

[Claims 6 to 16 not printed in the Gazette.]

940,541. PAPER-BOX-COVERING MACHINE. CHARLES W. MACDONALD, Philadelphia, Pa., assignor of one-third to Samuel T. MacDonald and one-third to William H. Davison, Philadelphia, Pa. Filed May 21, 1908. Serial No. 434,160.



1. The combination, in a paper box covering machine, of a chuck to receive a box blank, means for rotating said chuck, a sliding frame, a source of paper supply, carrying means for the paper operated by said sliding frame and vertically movable, means controlled by said frame for removing the end of said paper from the carrying means and applying it to the blank.

2. The combination, in a paper box covering machine, of a rotatable chuck to receive a box blank, a source of paper supply, carrying means for maintaining the free end of said paper adjacent the blank including a reciprocable element, means for reciprocating said element, and vertically movable means controlled by said reciprocating means for removing the end of the paper from the carrying means and applying it to the blank.

3. The combination, in a paper box covering machine, of a rotatable chuck to receive a box blank, a source of paper supply, means for presenting the free end of said paper to the blank, means for removing the paper from the presenting means and applying it to the blank, means for tucking in the paper on the blank, means for severing the paper after it has been applied to the sides of the blank, and means whereby said severing means is operated by the tucking-in means.

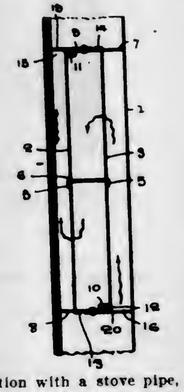
4. The combination, in a paper box covering machine, of a rotatable chuck to receive a box blank, a paper roll, means for maintaining the free end of said paper adjacent the blank, means for removing the paper from the first mentioned means and applying it to the blank, means for severing the paper after it has been applied to the latter, and means carried by the severing means for returning the paper to the first mentioned carrier of the same.

5. The combination, in a paper box covering machine, of a rotatable chuck to receive a box blank, a source of paper supply, means for presenting the free end of said paper to the blank, a sliding frame arranged to travel in line with the movement of said paper, means controlled by said sliding frame for removing the paper from the presenting means and applying it to the blank, means for tucking in the paper on the blank, means for severing the paper after it has been applied to the sides of the blank, and means whereby said severing means is operated by the paper tucking-in means.

[Claims 6 to 43 not printed in the Gazette.]

940,542. ATTACHMENT FOR STOVEPIPES. CHARLES E. MATHEWS, Doylestown, Wis. Filed May 11, 1909. Serial No. 495,337.

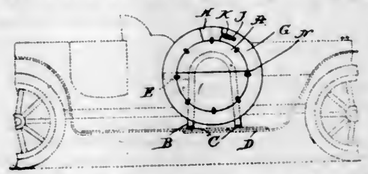
1. The combination with a stove pipe, of spaced-apart plates, one of said plates having a port at one end and the other plate having a port at its opposite end, caps rigidly secured to both ends of said plates, one cap extending beyond one plate and the other cap extending beyond the opposite plate, said caps being adapted to engage opposite walls of said stove pipe, and retaining members applied to said caps, each retaining member extending oppositely to the projecting portion of the cap to which it is applied and also adapted to engage the wall of the stove pipe to aid the retention of the attachment thus formed centrally in the stove pipe, one of said retaining members allowing the passage of the products of combustion upwardly intermediate of one plate and the wall of the stove pipe prior to passing of said products of combustion between the plates, and the other retaining member permitting like upward passing of said products of combustion after leaving said attachment and their entering the stove pipe at a point above the latter said attachment being removable from said stove-pipe.



2. The combination with a stove pipe, of spaced-apart plates, one of said plates having a port at one end and the other plate having a port at its opposite end, said plates having an inwardly extending flange at one end and the other plate having a corresponding flange at its opposite end, caps rigidly secured to both ends of said plates, one cap having a pocket at one edge for the reception of one of said flanges and the other cap having a pocket at its opposite edge for the reception of the other flange, and retaining members applied to said caps, each extending oppositely to the projecting portion of the cap to which it is applied and also adapted to engage the walls of the stove pipe to aid the retention of the attachment thus formed centrally in the stove pipe, one of said retaining members allowing the passage of the products of combustion upwardly intermediate of one plate and the walls of the stove pipe prior to the passing of said products of combustion between the plates, and the other retaining member permitting the passage of said products of combustion into the stove pipe after passing between said plates, above said attachment said attachment being removable from said stove-pipe.

3. The combination with a stove pipe, of spaced-apart plates, one of said plates having a port at one end and the other plate having a port at its opposite end, caps rigidly secured to both ends of said plates, one cap extending beyond one plate and the other cap extending beyond the opposite plate, said caps being provided with slits in their extending portions, said slits forming tongues adapted to be bent so as to form passages in said plates, and latch-bars applied to said caps, each extending oppositely to the projecting portion of the cap to which it is applied and also adapted to engage the walls of the stove pipe, one of said latch-bars allowing the passing of the products of combustion upwardly intermediate of one plate and the walls of the stove pipe prior to passing between said plates, and the other retaining member permitting the passage of said products of combustion into the stove pipe after passing between said plates, above said attachment said attachment being removable from said stove-pipe.

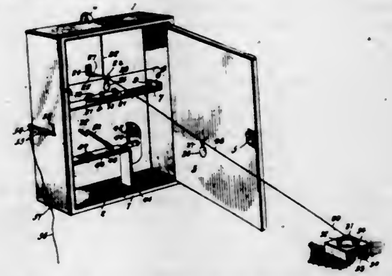
940,543. SPARE-TIRE CASE. JOSEPH J. MURRAY, Newton, Mass. Filed Feb. 26, 1908. Serial No. 417,813.



1. A device such as described, comprising a cylindrical box, a support for said box fastened to the rear face thereof and to the running-board of the vehicle adapted to maintain it in upright position, and means for maintaining a vehicle tire in position concentric to the periphery of said box.

2. A device such as described, comprising a cylindrical box, a support for said box fastened to the rear face thereof and to the running-board of the vehicle adapted to maintain it in upright position, and means for maintaining a vehicle tire in position concentric to the periphery of said box including a device extending from one peripheral edge of the box over said tire to the other peripheral edge.

940,544. LIGHT-CABINET. CHARLES F. MCCLURE and WILLIAM I. SHUMAN, Sullivan, Ill. Filed Apr. 14, 1909. Serial No. 489,764.



1. A device of the class described, comprising a cabinet, provided with a transverse shelf, a block thereon provided in its upper face with transverse grooves for receiving matches, a plate detachably connected with the shelf and resting on the block, a hook above the front edge of the plate, a receptacle removed from the cabinet, a wire connecting the back wall of the cabinet with the receptacle and passing over the hook, a ball of absorbent material provided with an eye through which the wire passes and slidable thereon, a cord of combustible material extending across the cabinet and in front of the eye of the ball and retaining the ball against the hook and above the heads of the matches in the grooves, a bracket below the shelf, a swinging arm hinged to the bracket and arranged to swing transversely of the matches, a plate secured to the arm and provided on the face adjacent the match heads with abrasive material, a spring in connection with the hinge and normally acting to retain the arm in horizontal position, a link pivoted to the arm and provided on its free end with a catch, the side wall of the cabinet having a slot through which the link passes when the arm is in vertical position, the catch engaging the edge of the notch, a lever pivoted to the cabinet and having one end below the catch for engaging and releasing the same when the lever is swung, and a cord connected with the other end.

2. A device of the class described, comprising a cabinet, provided with a transverse shelf, a block thereon provided in its upper face with transverse grooves for receiving matches, a plate detachably connected with the shelf and resting on the block, a hook above the front edge of the plate, a receptacle removed from the cabinet, a wire

connecting the back wall of the cabinet with the receptacle and passing over the hook, a ball of absorbent material provided with an eye through which the wire passes and slidable thereon, a cord of combustible material extending across the cabinet and in front of the eye of the ball and retaining the ball against the hook and above the heads of the matches in the grooves, a bracket below the shelf, a swinging arm hinged to the bracket and arranged to swing transversely of the matches, a plate secured to the arm and provided on the face adjacent the match heads with abrasive material, a spring in connection with the hinge and normally acting to retain the arm in horizontal position, a link pivoted to the arm and provided on its free end with a catch, the side wall of the cabinet having a slot through which the link passes when the arm is in vertical position, the catch engaging the edge of the notch, and means for releasing the catch.

3. A device of the class described, comprising a cabinet, provided with a transverse shelf, a block thereon provided in its upper face with transverse grooves for receiving matches, a plate detachably connected with the shelf and resting on the block, a hook above the front edge of the plate, a receptacle removed from the cabinet, a wire connecting the back wall of the cabinet with the receptacle and passing over the hook, a ball of absorbent material provided with an eye through which the wire passes and slidable thereon, a cord of combustible material extending across the cabinet and in front of the eye of the ball and retaining the ball against the hook and above the heads of the matches in the grooves, a bracket below the shelf, a swinging arm hinged to the bracket and arranged to swing transversely of the matches, a plate secured to the arm and provided on the face adjacent the match heads with abrasive material, a spring in connection with the hinge and normally acting to retain the arm in horizontal position, means for retaining the arm in vertical position, and means for releasing said means.

4. A device of the class described, comprising means for supporting a plurality of matches in substantial parallelism and with their heads in alinement, an arm mounted to swing transversely of the matches, a block supported by the arm for brushing the match heads as the arm swings, a spring for swinging the arm, means for restraining the swinging of the arm, a releasing device for the restraining means, a receptacle remote from the supporting means, a guide leading from said means to the receptacle, an inflammable body movable on the guide, and combustible means for retaining the body in position above the match heads.

5. A device of the class described, comprising means for supporting a body capable of ignition by friction, means for producing the friction, means for restraining the operation of said means, means operable at a point remote from the said supporting means for releasing the restraining means, a receptacle, a guide leading from a point adjacent to the supporting means to the receptacle, a combustible body movable on the guide, and combustible means for supporting the combustible body in position for ignition by said first named body.

[Claims 6 to 10 not printed in the Gazette.]

940,545. WELL-PUMP. WILLIAM A. MCGREGOR, Bradford, Pa. Filed Apr. 12, 1909. Serial No. 489,359.

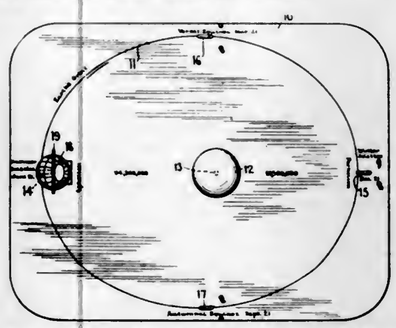
1. In a pump for oil-wells, the combination with a cylinder or pump-barrel and piston-rod, of a bushing secured in the upper end of the cylinder or pump-barrel and having an upward extension terminating in a head cut away at one side, and a coupling on the piston-rod cut away at one side so as to interlock with the aforesaid head on the bushing, substantially as shown and for the purpose set forth.

2. In a pump for oil-wells, the combination with a cylinder or pump-barrel, and piston-rod, of a bushing secured in the upper end of the cylinder or pump-barrel and having holes therethrough and an extension rising centrally therefrom, said extension terminating at its upper end in an enlarged octagonal head cut away at one side, a check-valve working on the extension below the head, and a leather apron secured to the underside of the check-valve and projecting beyond the outer edge thereof; together with a coupling on the upper end of the piston-



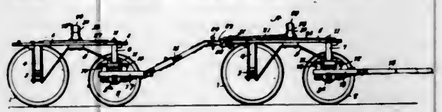
rod cut away at its lower end to interlock with the head on the extension of the bushing as herein shown and described.

940,546. TELLURIAN. DANIEL F. NICKOLS, Lincoln, Ill. Filed Dec. 19, 1908. Serial No. 468,386.



A device of the class described comprising a base member having thereon an elliptical line representing the orbit of the earth, a plurality of studs projecting from said base member upon said orbital line and inclined substantially in the same plane as the longer axis of the earth, a representation of the sun located upon said base within said orbital line, a globular member representing the earth and adapted to be detachably arranged rotatively upon said inclined studs, spaced pins located upon said base adjacent to said inclined pins, and an annular member adapted to inclose the globular representation of the earth and with a lateral offset provided with perforations adapted to engage over said spaced pins.

940,547. LOG-WAGON. WILLIAM M. NORRIS, Edwards, Miss. Filed June 10, 1909. Serial No. 501,307.

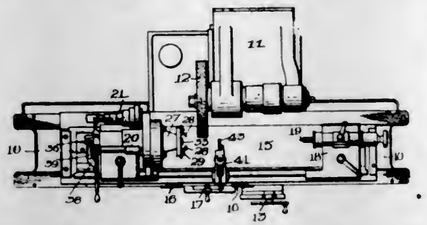


1. The improved log-wagon comprising front and rear trucks having each a platform and four wheels, and

arched reaches and braces connecting the platform with the bolsters, the front wheels being of such diameter that they are adapted to turn under the reaches, a swivel connection between the front axle and platform of each truck, and a swivel connection between the two trucks, substantially as shown and described.

2. In a log-wagon of the type indicated, the combination of the two four-wheel trucks and a draft attachment connecting the two and consisting of a log bolster pivoted to the front truck, a rearward extension thereof having a swivel bolt, and a tongue pivoted to the rear truck and connected with said swivel bolt, substantially as described.

940,548. MACHINE FOR GRINDING. CHARLES H. NORTON, JOHN C. SPENCE, and HIRAM N. CUDWORTH, Worcester, Mass., assignors to Norton Grinding Company, Worcester, Mass., a Corporation of Massachusetts. Filed Dec. 28, 1908. Serial No. 469,547.



1. In a device for grinding cylindrical and conical surfaces, the combination of a longitudinally movable head center, a foot stock center, and a gage movable transversely with respect to the foot stock center and located adjacent thereto.

2. In a machine for grinding cylindrical and conical surfaces, the combination of a longitudinally movable head center, a longitudinally movable foot stock center, said centers being adapted to receive the opposite ends of the work, a support and a gage adjustable longitudinally with respect to the centers and movable transversely in front of the foot stock center.

3. In a machine for grinding cylindrical and conical surfaces, the combination of a longitudinally movable head center for the work, a longitudinally movable foot stock center, said centers being adapted to receive the opposite ends of the work, a support, a gage movable transversely in front of the foot stock center, and a support for said gage slidable longitudinally, said gage being pivotally mounted thereon.

4. In a machine for grinding cylindrical and conical surfaces, the combination of a longitudinally movable head center for the work, a longitudinally movable foot stock center, said centers being adapted to receive the opposite ends of the work, a support, a gage movable transversely in front of the foot stock center, and yielding means for holding said gage in the path of the foot stock center.

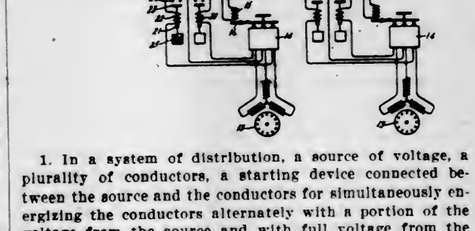
5. In a machine for grinding tool shanks, the combination of a grinding wheel, a carriage reciprocable in front of the grinding wheel, a head center mounted on said carriage, a foot stock center on the carriage, and a gage movable with the carriage and adapted to receive the end of the work.

[Claims 6 to 8 not printed in the Gazette.]

940,549. REVERSING DEVICE. CHARLES H. NORTON, JOHN C. SPENCE, and HIRAM N. CUDWORTH, Worcester, Mass., assignors to Norton Grinding Company, Worcester, Mass., a Corporation of Massachusetts. Filed Dec. 28, 1908. Serial No. 469,548.

1. The combination with a reciprocating table, and a reversing lever, of a dog movable with the table, and a reversing bar adjustably connected with said dog and having means for operating the reversing lever.

2. In a machine of the character described, the combination with a reciprocating table and a reversing lever, of a dog fixed on a table, and means for operating the lever adjustably connected with said dog.



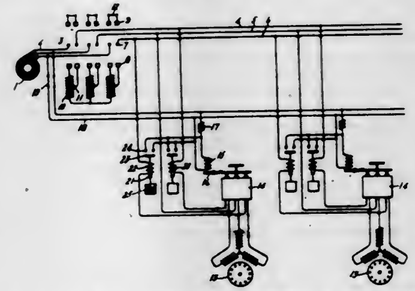
3. In a machine of the character described, the combination with a reciprocating table and a reversing device, of means movable with the table and adjustable thereon for operating the moving device, said means having a plurality of dogs fixed thereon for engaging the lever.

4. In a reversing device, the combination of an adjustable bar, a plurality of dogs mounted at fixed distances apart on said bar, and a reversing device adapted to be operated by said dogs.

5. In a reversing device, the combination of an adjustable bar, a plurality of dogs arranged at fixed distances apart on said bar, and a reversing lever adapted to be operated by said dogs, said reversing lever having a pin adapted to be located thereon in the path of the dogs, and means for moving said pin out of the way of the dogs.

[Claims 6 to 12 not printed in the Gazette.]

940,550. APPARATUS FOR STARTING ELECTRIC MOTORS. SIDNEY B. PAINE, Newton, Mass., assignor to General Electric Company, a Corporation of New York. Filed May 28, 1909. Serial No. 498,949.



1. In a system of distribution, a source of voltage, a plurality of conductors, a starting device connected between the source and the conductors for simultaneously energizing the conductors alternately with a portion of the voltage from the source and with full voltage from the source, a plurality of motors connected in parallel to the conductors, switches connected in series between the motors and the conductors, overload tripping devices for the switches, under-voltage electromagnetic tripping devices for the switches and conductors connecting said tripping devices to the source independently from the starting device.

2. In a system of distribution, a source of voltage, a plurality of conductors, a compensator connected between the source and the conductors adapted in one position to energize the conductors with a portion of the voltage from the source and in another position with the full voltage from the source, a plurality of motors connected in parallel to the conductors, switches connected in series between the motors and the conductors, under-voltage electromagnetic tripping devices for the switches, conductors

connecting said tripping devices to the source so as to be independent of the position of the compensator, and means operative upon an overload for actuating said tripping devices.

3. In a system of distribution, a source of voltage, a plurality of conductors, a compensator connected between the source and the conductors adapted in one position to energize the conductors with a portion of the voltage from the source and in another position with the full voltage from the source, a plurality of motors connected in parallel to the conductors, switches connected in series between the motors and the conductors, under-voltage electromagnetic tripping devices for the switches, conductors connecting said tripping devices to the source so as to be independent of the position of the compensator, and means operative upon an overload to short-circuit said tripping devices after a predetermined time.

940,551. MEANS FOR PROTECTING ROLL-BEARINGS OF TEXTILE MACHINERY. JOHN L. PATTERSON, Roanoke Rapids, N. C. Filed Feb. 6, 1909. Serial No. 476,507.



1. In combination with a spinning frame or like machinery, having open bearings and rolls with journals seated in said bearings; caps or covers extending over said journals and freely removable therefrom, said caps having extensions reaching over the portions of the rolls immediately beyond the journals proper, and serving to exclude dust and lint from the bearings and journals, substantially as described.

2. In combination with a roll stand having open seats or bearings, rolls provided with journals, said journals mounted in the open seats or bearings; and a freely removable closed cap or cover applied to the roll stand above the journals and adapted to extend over a plurality of said journals and to completely and closely cover the same and the open bearings.

3. In combination with a roll stand or frame having open seats or bearings; and caps applied to said seats or bearings extending over the journals, and having lugs beyond the journals provided with wipers to remove oil from the rolls at points beyond the journals.

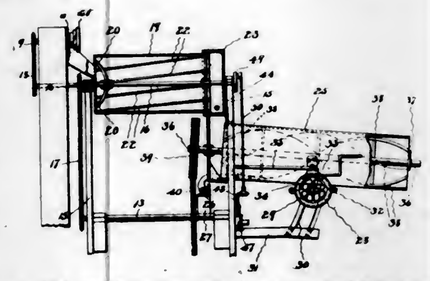
4. In combination with a roll stand A, A, having open seats or journal bearings; rolls B, C, having journals *g* seated in said bearings; caps J applied to said bearings and extending over the journals, and having depending lugs *e* provided with wipers *i*.

5. In combination with a roll stand A having open seats or journal bearings; rolls D seated in said bearings; caps K applied to said bearings and extending over the journals, and having lugs *l* provided with springs *k*, and with wipers *j* to remove surplus oil from the rolls at points beyond the journals.

[Claims 6 and 7 not printed in the Gazette.]

940,552. MORTAR OR CONCRETE MIXER. ANDREW M. PETERSON, Goodhue, Minn. Filed Jan. 8, 1909. Serial No. 471,265.

1. In a mortar or concrete mixer, a non-rotatable drum having one end pivotally supported, segmental racks suitably secured, a shaft journaled on said drum, pinions secured to said shaft and meshing with said racks, and means to rotate said shaft to adjust the inclination of said drum.



2. In a mortar or concrete mixer, a non-rotatable drum having one end pivotally supported, segmental racks suitably secured, a shaft journaled on said drum, pinions secured to said shaft and meshing with said segmental racks, a worm wheel secured to the shaft, a casing inclosing said wheel, and a worm shaft journaled in said casing and meshing with said worm wheel, said casing being held from rotation on the worm wheel.

3. A mortar or concrete mixer comprising a rotatable drum, endless belt conveyers for the dry ingredients of the mortar or concrete emptying into said drum, means to vary the relative speed of the belt conveyers to regulate the relative quantities of the dry ingredients, a non-rotatable drum positioned to receive the contents of said rotatable drum and pivotally secured at the receiving end, segmental racks suitably secured, a shaft journaled on said drum, pinions secured to said shaft and meshing with said racks, and means to rotate said shaft to adjust the inclination of said drum.

4. A mortar or concrete mixer comprising a rotatable drum having spiral projections on its interior, endless belt conveyers for the dry ingredients of the mortar or concrete emptying into said drum, the driving shafts of said conveyers having oppositely arranged cone pulleys secured thereto, a belt geared to said pulleys, a cap loosely mounted on the delivery end of said rotatable drum and having a spout connected therewith, a non-rotatable drum at the delivery end of said spout, a shaft journaled in said non-rotatable drum and having stirring blades secured thereto, said non-rotatable drum pivotally secured at the delivery end of the spout, a shaft journaled on said non-rotatable drum, segmental racks suitably secured, pinions secured to said shaft and meshing with said segmental racks, a worm wheel secured to the shaft, a casing inclosing said worm wheel, a worm shaft journaled in said casing and meshing with said worm wheel, and a water pipe for supplying water to said non-rotatable drum.

940,553. EMERGENCY CAR-COUPLING. EDWARD POSSON, Chicago, Ill., assignor to Grain Belt Car Specialty Company, a Corporation of Maine. Filed July 3, 1908. Serial No. 441,794.

1. In combination, an emergency coupling head having a socket in its end, a bolt having a head adapted to fit into said socket and be displaced therefrom, a chain, and a turn-buckle connecting the chain to the bolt.

2. In combination, an emergency coupling head having a downwardly opening socket in its end with a supporting ledge on the inside wall of the socket, a bolt having a head adapted to fit into such socket and rest upon said ledge, and a chain connected to said bolt.

3. In combination, an emergency coupling head having a downwardly opening socket in its end with lateral recesses in the socket, a T-bolt having its head adapted to fit into said recesses, and a chain connected to said bolt.

4. In combination, an emergency coupling head, a chain attached thereto and comprising an intermediate member with laterally projecting arms, and means for securing the chain to the under framework of the car.

5. In combination, an emergency coupling head, a pivoted knuckle therein, said head having an integral web extending horizontally across at the top from the main



part thereof to the part which joins the knuckle, a chain attached to the coupling head, and means to secure the chain to the under framework of the car.

[Claims 6 and 7 not printed in the Gazette.]

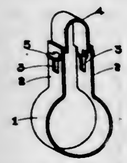
940,554. RAIL BRACE AND FASTENER. AUGUST F. W. PRELLE, Bassett, Nebr., assignor of one-third to O. E. Woods, Bassett, Nebr. Filed Mar. 1, 1909. Serial No. 480,588.

1. A rail brace comprising a pair of duplicate bars provided with laterally projecting hollow lugs upon opposite sides forming sockets and projections adapted to interlock when placed together, bolts extending through said bars said bars being provided with hooked outer ends and angled inner ends adapted to fit over the bases of the rails.

2. A rail brace comprising a pair of duplicate bars, each bar having an angled end and a hooked end and having an I-shaped cross section, laterally projecting lugs formed upon opposite sides of each of said bars, said lugs having sockets formed therein adapted to receive the lugs of the adjacent bar when said bars are secured side by by side.

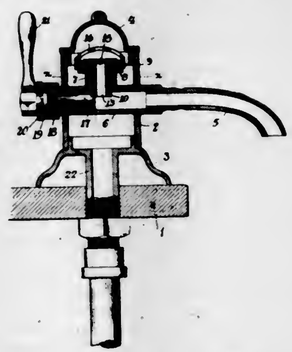
3. A rail brace comprising a pair of duplicate bars having hooked outer ends and angled inner ends adapted to fit over the bases of the rails, said bars having I-shaped cross sections and laterally projecting hollow lugs formed upon opposite sides of each of said bars, adapted to fit one within the other when said bars are arranged side by side and bolts for securing said bars together.

940,555. SUSPENSION DEVICE FOR TELEPHONE AND TELEGRAPH CABLES AND OTHER ELECTRICAL CONDUCTORS. EMERY C. READ, Franklin, Pa. Filed Nov. 25, 1908. Serial No. 464,446.



In a suspension device for telephone and telegraph cables, the combination with such cable and a suspension wire therefor, of a metallic clip adapted to engage said cable, the ends of said clip being approximately positioned and extending upward, there being a vertically-elongated eye formed in each of said ends, and a metallic clip adapted to engage said suspending wire; each end of said last-mentioned clip being formed into an outwardly-extending, horizontally-disposed button adapted to be engaged with, and disengaged from, said eyes when said wire-clip is turned to a position at a right angle to its normal position.

940,556. FAUCET. ANDREW J. ROBINSON, Boston, Mass. Filed Aug. 22, 1908. Serial No. 449,796.



1. A faucet comprising a casing, an inlet thereto for a liquid under pressure, an outlet having a valve-seat, a lift-valve on said seat, externally operated means for lifting said valve, and an adjustable cage above said valve, whereby the limit of said valve's movement can be varied to insure a specified flow of liquid therethrough.

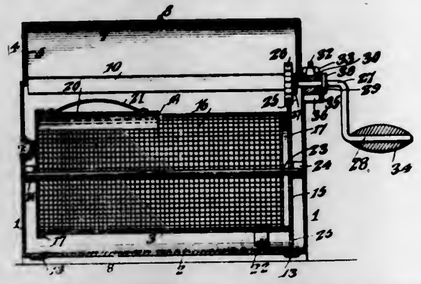
2. A faucet comprising a cylindrical casing receiving the liquid to be delivered, a tube traversing the casing diametrically and integral therewith, an outlet at one end of the tube, a spindle rotatably held in the opposite end of the tube and formed with a segmental shoulder and external means for turning it, a mouth having a horizontal seat being formed at an intermediate point of said tube, a valve resting upon the seat and normally closing the mouth, and a strut between said valve and shoulder for the elevation of the valve by the turn of the spindle.

3. A faucet comprising a cylindrical casing receiving the liquid to be delivered, a tube traversing the casing diametrically and integral therewith, an outlet at one end of the tube, a tubular branch rising from an intermediate point of the tube and terminating in a flanged seat, a valve normally resting upon the seat, a cage fixed to the flange of said seat, and externally actuated means for raising said valve.

4. A faucet comprising a tube having an outlet at one end, a collar fixed upon the other end, a spindle rotatable within said collared end and having an annular rib located between such end and collar, means for turning the spindle, a segmental shoulder being formed at the inner end of the spindle, a tubular section rising from the tube at an intermediate point, a valve closing the tubular section, a strut engaging said shoulder and valve for opening the latter, and means for supplying liquid to said tubular branch.

5. In a faucet, the combination of a casing, a vertically rising tubular member within said casing communicating at its lower end with the faucet outlet, means for admitting liquid within the casing, a valve-seat about the opening in said tubular member and screw threads about the periphery of said member, a valve resting on said seat, a strut rising within said tubular member and externally operated means for elevating it, and an internally threaded member engaging said screw threads, and limiting the upward movement of said valve.

940,557. MACHINE FOR COOKING SHELLED PEANUTS, &c. CARL O. ROE, Wesley, Iowa. Filed June 8, 1908. Serial No. 437,356.

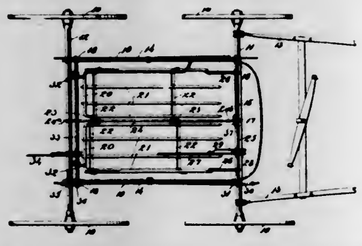


1. A machine of the class described including a casing, an inner removable receptacle, and a cover hinged to the casing and provided at its hinged edge with a continuous longitudinally disposed transversely curved flange or guard spaced from and spanning the hinge joint of the cover and extending downwardly and inwardly into the receptacle beyond the hinge joint when the cover is open, so as to direct the drip back into the machine when the inner receptacle is removed therefrom.

2. A machine of the class described including a casing, an inner removable receptacle, covers hinged to the casing at opposite sides thereof and provided at their hinged edges with inwardly extending longitudinal guards or flanges formed integral with the covers and curved transversely and spanning the hinge joints of the covers, said guards or flanges extending downward into the casing when the covers are open so as to direct the drip back into the machine when the inner receptacle is removed.

3. A machine of the class described including a casing provided with inner open bearings, an inner rotary receptacle provided at its ends with journals arranged in the said bearings, said receptacle being also provided with a gear, a sectional bearing mounted on the casing and having a hinged section or member, a shaft journaled in the sectional bearing and provided with a pinion meshing with the gear of the inner receptacle, and fastening means for securing the hinged section of the bearing.

940,558. STONE-GATHERER. JOHN M. ROHABAW, Diamond, Mo. Filed June 13, 1908, Serial No. 438,268. Renewed May 15, 1909. Serial No. 496,308.



1. A stone-gatherer comprising a supporting-frame, a rake carried thereby comprising hinged sections, and means for tilting the sections sidewise.

2. A stone-gatherer comprising a supporting-frame, a rake pivotally mounted thereon and comprising hinged sections, means for raising and lowering the free end of the rake, and means for tilting the sections sidewise.

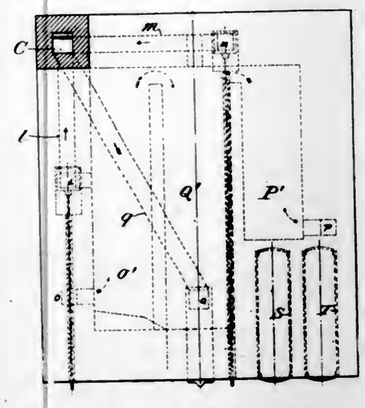
3. A stone-gatherer comprising a supporting-frame, a sectional rake carried thereby, a hinge-joint between the rake-sections including a hinge-rod pivotally mounted on the supporting-frame, means for raising and lowering the free end of the rake, means for supporting the free end of the hinge-rod in elevated position, and means for tilting the rake-sections sidewise.

4. A stone-gatherer comprising a supporting-frame, hoisting devices mounted thereon, a sectional rake pivotally mounted on the supporting-frame and connected at its ends from said hoisting devices, and a hinge connection between the rake-sections.

5. A stone-gatherer comprising a supporting-frame, rotatable shafts mounted on said frame, chains wound on the shafts, a sectional rake pivotally mounted on the supporting-frame and connected at its ends to the chains, and a hinge connection between the rake-sections.

[Claim 6 not printed in the Gazette.]

940,559. BAKER'S OVEN. WILLIAM SCHOENHAAR, Wilmington, Del. Filed Mar. 19, 1909. Serial No. 484,516.

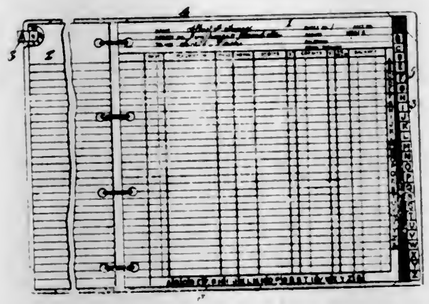


1. A baking oven, a baking chamber, a chimney at one end thereof, a fire chamber at the opposite end thereof, side and end passages connecting the baking chamber with the chimney, dampers for closing said passages, a passage connecting the fire chamber with the baking chamber, a damper for closing said passage, flues below the baking chamber, a side passage connecting the fire chamber with said flues, a damper for closing said passage, similar flues above the baking chamber, passages in the side walls of the furnace connecting the lower flues with the upper flues, a passage leading from the upper flues to the chimney, and a damper for closing said passage.

2. A baking oven comprising a baking chamber, a chimney at one corner thereof, a fire chamber at the corner farthest removed from the chimney, side and end passages connecting the baking chamber with the chimney, dampers for closing said passages, a passage connecting the fire chamber with the baking chamber, a damper for closing said passage, flues below the baking chamber, a passage in the side of the fire chamber communicating with the said flues, a damper for closing said passage, flues above the baking chamber, passages in the sides of the furnace connecting the lower flues with the upper flues, a passage leading from the discharge end of the upper central flue to the chimney, and a damper for closing said passage.

3. A baking oven comprising a baking chamber, a chimney at one end thereof, a fire chamber at the opposite corner thereof, side and end passages connecting the baking chamber with the chimney, dampers for closing said passages, a passage connecting the fire chamber with the baking chamber, a damper for closing said passage, a central and two side flues below the baking chamber, a passage connecting the fire chamber with the said central flue, a damper for closing said passage, three similar flues above the baking chamber, passages in the sides of the furnace connecting the lower flues with the upper side flues, a passage leading from the discharge end of the upper central flue to the chimney, and a damper for closing said passage.

940,560. SELF-INDEXING LOOSE-LEAF LEDGER. PETER W. SCHWANDER, Houston, Tex., assignor of one-third to Joseph J. Pastoriza, Houston, Tex. Filed July 30, 1908. Serial No. 446,166.



1. A self indexing loose leaf ledger comprising division sheets having projecting tabs bearing alphabetical characters arranged in alphabetical order from A to Z, and self indexing loose ledger leaves adapted to be filled in between the division sheets, each series of leaves between the division sheets each being provided at the side edge with a series of alphabetical characters reading in alphabetical order from the top to the bottom of the ledger and each adapted to be cut away to present a letter on the next adjacent series, said leaves being also provided at the bottom with a single series of alphabetical characters reading in alphabetical order and adapted to be cut away to present a letter on the next adjacent leaf, the letters presented by each leaf defining the position of the same in the sets or series between the division sheets when the said leaves are arranged in alphabetical order at both their side and bottom edges.

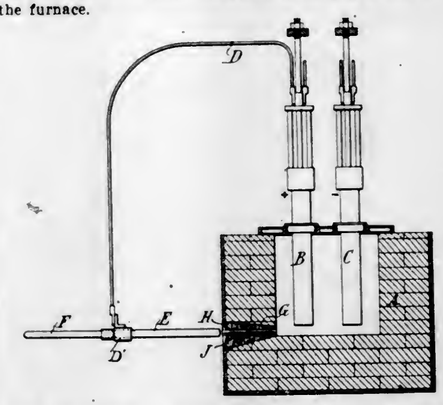
2. A self indexing loose leaf ledger including division sheets provided with projecting tabs bearing alphabetical characters to indicate the initial of a surname or the first name of a title, and self indexing loose ledger leaves arranged between the division sheets and provided at their free side edges with a single vertical series of alphabetical characters cut away to indicate the initials of the first Christian name or the second name of a title, said loose leaves being also provided at the bottom with a single horizontal alphabetical series arranged in alphabetical order and cut away to indicate the initials of the second Christian name or the third name of a title.

940,561. TAPPING-FURNACE. GEORGE O. SEWARD, Holcombs Rock, Va., assignor, by mesne assignments, to Electro Metallurgical Company, a Corporation of West Virginia. Filed May 3, 1904. Serial No. 206,252.

1. The process of operating a tapping furnace, which consists in closing the tap hole with a plug of incombustible material which includes a conductor, providing an electric arc at the tap hole, and melting out the closing material therewith.

2. The process of operating an electric tapping furnace which consists in closing the tap hole by means including a conductive material, and opening the tap hole by the heat from an electric current arcing to and carried through said conductive material.

3. The process of operating an electric tapping furnace which consists in closing the tap hole with a refractory material, and driving a rod of conductive material therethrough into contact with the conductive contents, and opening the tap hole by establishing an arc between said rod and an external electrode and thus burning a hole into the furnace.



4. The process of operating a tapping furnace which consists in closing the tap hole with a refractory material, driving therethrough a removable rod, and removing said rod by melting away the same.

5. The combination with an electric furnace of an external electrode and a conductive rod connecting with the conductive contents and passing to the outside of the furnace, said electrode being arranged in position to spring an electric arc to said rod.

[Claim 6 not printed in the Gazette.]

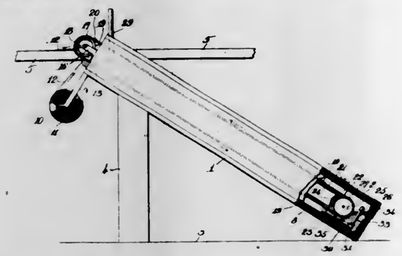
940,562. APPARATUS FOR JOINTING PIPES. WINFIELD S. SIGLER, San Pedro, Mexico. Filed Nov. 2, 1908. Serial No. 460,771.



1. A mold for joining the ends of pipes including an expansible and contractible member which conformably engages on the inner circumference of the pipe ends so as to extend on opposite sides of the line of juncture between the pipe ends, and a mold proper which conformably engages about the periphery of the pipe ends and which is formed with a groove which extends on opposite sides of the line of juncture between the pipe ends.

2. A mold for joining the ends of pipes including an expansible and contractible member which conformably engages on the inner circumference of the pipe ends so as to extend on opposite sides of the line of juncture between the pipe ends, and a mold proper which conformably engages about the periphery of the pipe ends and which is formed with a groove, which extends on opposite sides of the line of juncture between the pipe ends, means whereby the ends of pipes may be joined by the employment of plastic material including a split band which has its ends overlapping and which conformably engages on the inner circumference of the pipe ends so as to extend on opposite sides of the line of juncture therebetween, means whereby the diameter of said band may be increased or diminished, and a mold which conformably engages about the periphery of the pipe ends, said mold being designed to form a collar about the abutting ends of the pipe when plastic material is introduced therein.

940,563. APPARATUS FOR TREATING COATED TEXTILE FABRICS. ABRAHAM SYDEMAN and JAMES MEADE, Stoughton, Mass. Filed Mar. 13, 1906. Serial No. 305,905.



1. An apparatus for treating adhesive coated fabric comprising, a work-table, a support for a roll of fabric beneath the work-table, a water reservoir below said support, a rotatable guide mounted above the reservoir with its periphery passing therethrough, a hollow steam chest extending from said rotatable guide in an inclined direction to a position adjacent said work-table, means for supplying steam to said chest, and means for conducting the exhaust steam from the chest to the reservoir.

2. An apparatus for treating adhesive coated fabric adapted to be placed beneath a work-table and comprising, a support for a roll of fabric, a water reservoir below said support, a rotatable guide mounted above the reservoir with its periphery passing therethrough, and an inclined heater extending from adjacent the said rotatable guide to a position adjacent the work-table, whereby the coated fabric after passing from the roll through the reservoir will be deflected by the rotatable guide onto the heater and will be guided by the heater upwardly to the work table and will pass directly from the heater to the work-table.

3. An apparatus for treating adhesive coated fabric, comprising, a work-table, a support for a roll of fabric beneath the work-table, a water reservoir below said support, a rotatable guide mounted above the reservoir with its periphery passing therethrough, means for guiding the fabric from the roll on the support to the reservoir, a hollow steam chest extending from adjacent said rotatable guide to a position adjacent the work-table, means for supplying steam to said chest, and means for conducting the exhaust steam from the chest to the reservoir.

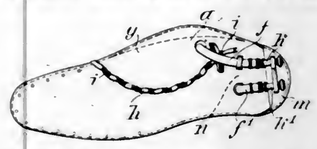
4. In apparatus of the class described, an elongated casing apertured at one end for the entrance and exit of the fabric to be treated, an elongated heater within the casing the fabric passing along the bottom, around one end, and over the top of the heater, with its coated face out-turned, means to raise the temperature of the heater to soften the coating, and means within the casing to moisten the fabric before it emerges from the casing to temper the softened coating.

5. In apparatus of the class described, a casing apertured for the entrance and exit of the fabric to be treated, a metallic heater within the casing and around which the fabric passes with its coated face exposed, means to introduce steam into said heater, to raise the temperature thereof, and means to temper the coating of the fabric by the water of condensation collecting in the casing.

[Claims 6 to 18 not printed in the Gazette.]

940,564. INSOLE OR SUPPORT FOR DEFORMED FEET. ISIDOR TAUBER, Vienna, Austria-Hungary. Filed Nov. 30, 1908. Serial No. 465,314.

1. An insole or support for curing deformed feet, comprising a rigid plate, a yielding or flexible cover attached to the plate and forming a pocket therewith, exchangeable and locally attachable air-cushions inserted in said pocket which afford to the foot at the deformed places a yielding support and decrease the surface pressure, and means for confining said air cushions to limited sections of the insole, whereby the said cushions can be shaped exactly to the foot by inflation according as the cure progresses.



2. An insole or support as described comprising an air-cushion consisting of caoutchouc covered with cloth, a support for said air-cushion made of yielding material and attached to said cloth cover, a rigid plate carrying said yielding material which prevents the cushion from expanding or bulging downward, and a band spanned over the cushion and limiting the inflation upward.

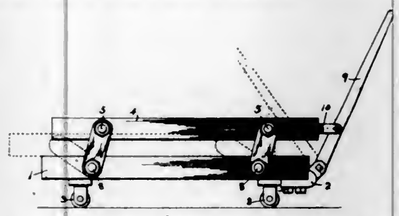
3. An insole or support as described comprising two layers forming a pocket, a removable cushion retained in position between the two layers of the sole by means of a lacing band or string, put through the layers of the insole and forming the space receiving the air-cushion.

4. An insole or support as described consisting of two layers forming a pocket and connected all around the edge except at the heel end of the insole, a removable air cushion inserted between the two layers and in the pocket, lacing passing through the layers and confining the air cushion to a limited section, the opening at the heel end through which the cushion is inserted or removed being adapted to be closed by a cap fixed to one layer and pulled over the end of the other layer.

5. An insole or support as described comprising two layers, an air-cushion provided with a tube and inserted between the layers, a wedge-shaped plate which assists in giving the proper position to the foot and serves for receiving the tube of the cushion and is removably attached to the under side of the insole.

[Claim 6 not printed in the Gazette.]

940,565. TRUCK. SIDNEY R. TEMPLE, Cincinnatus, N. Y. Filed June 16, 1909. Serial No. 502,488.



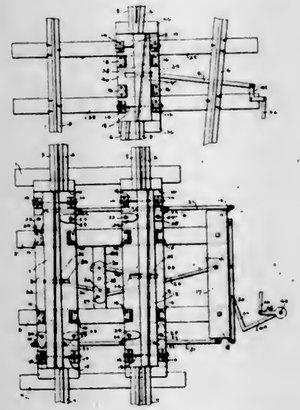
1. A truck comprising an upper and lower frame, a hand lever connecting the two, means pivotally connecting the two frames together, a rigid block carried by one of said frames in position to be directly engaged by the connecting means when the upper frame is raised, whereby to hold the latter locked in said raised position.

2. A truck comprising two frames, the upper of which is adjustable as to width, means for pivotally connecting the two frames, and means for raising and lowering the upper frame and automatically locking it in its raised position.

3. A truck comprising two frames mounted on caster wheels, a hand lever connecting the two, links connecting said frames, threaded bolts connecting the members composing the frames, and nuts on the bolts for adjusting the width of the frame or frames.

4. A truck comprising upper and lower frames, the frames each composed of two parallel bars, spacing blocks between the forward ends of the bars of the lower frame, bolts connecting the bars forming each frame, links extending from the upper to the lower bolts, abutments for the forward links whereby to lock the upper frame in its elevated position when elevated, and a lever connected with the two frames for raising and lowering the upper frame, and for moving the truck into position.

940,566. SWITCH. ANTHONY L. VISSAT, Bridgeville, Pa. Filed Apr. 20, 1909. Serial No. 491,179.



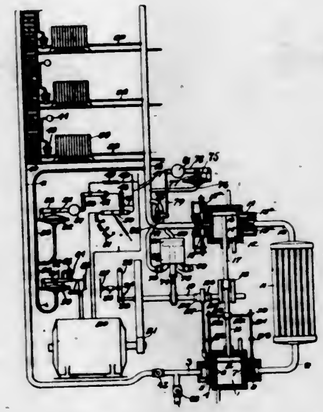
1. In a switch the combination with a main track, and a side track, of switch plates at the juncture of said tracks, blocks movably arranged upon said plates, shoes movably arranged upon said plates for shifting said blocks, a frog block at the intersection of said tracks, and means for simultaneously moving all of said blocks.

2. In a switch, the combination with a main track, and a side track, of switch plates at the juncture of said tracks, switch blocks movably arranged upon said plates, shoes movably mounted upon said plates for moving said blocks, bars extending under said plates for moving said shoes, a frog plate at the intersection of said tracks, a block movably mounted upon said plate, a bar for moving said block, and means for simultaneously moving all of said bars.

3. In a switch, the combination with a main track, and a side track, of switch plates at the juncture of said side tracks with said main track, switch blocks slidably mounted upon said plates, said blocks having flanged grooves formed therein, sets of shoes movably arranged upon said plates for moving said blocks, bars arranged beneath said plates for moving said shoes, depending tongues carried by said blocks and extending through said switch plates, a cross head for moving said tongues, a bar for moving said cross head, a frog plate at the inner section of said tracks, a block movably mounted upon said frog plate and having a flanged groove formed therein, a bar for moving said block, and means for simultaneously moving all of said bars.

4. In a switch, the combination with a main track, and a side track, of switch plates at the juncture of said side tracks with said main track, switch blocks slidably mounted upon said plates, said blocks having flanged grooves formed therein, sets of shoes movably arranged upon said plates for moving said blocks, bars arranged beneath said plates for moving said shoes, depending tongues carried by said blocks and extending through said switch plates, a cross head for moving said tongues, a bar for moving said cross head, means carried by said switch plates for guiding the ends of said blocks, a frog plate at the inner section of said tracks, a block movably mounted upon said frog plate and having a flanged grooved formed therein, a bar for moving said block, and means for simultaneously moving all of said bars.

940,567. HEATING APPARATUS. NATHANIEL B. WALES, Braintree, Mass. Filed Jan. 4, 1907. Serial No. 350,737.



1. A heating apparatus comprising a fluid expanding mechanism, a fluid compressing mechanism, means for supplying heat to the fluid between its admission to the expanding mechanism and its admission to the compressing mechanism, mechanism for driving said expanding and compressing mechanisms, a conduit to which the fluid is delivered from the compressing mechanism and from which it is delivered to the expanding mechanism, and devices for controlling the driving mechanism by the pressure in the conduit.

2. A heating apparatus comprising a fluid expanding mechanism, a fluid compressing mechanism, means for supplying heat to the fluid between its admission to the expanding mechanism and its admission to the compressing mechanism, mechanism for driving said expanding and compressing mechanisms, a conduit to which the fluid is delivered from the compressing mechanism provided with a plurality of delivery outlets, valves for controlling said outlets, and devices for controlling the driving mechanism by the pressure in the conduit.

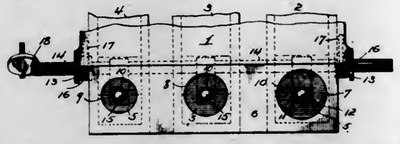
3. A heating apparatus comprising a fluid expanding mechanism, a fluid compressing mechanism, means for supplying heat to the fluid between its admission to the expanding mechanism and its admission to the compressing mechanism, mechanism for driving said expanding and compressing mechanisms, a conduit provided with a plurality of delivery outlets, valves for controlling said outlets, a separate thermostat for controlling each valve, and devices for controlling the driving mechanism by the pressure in the conduit.

4. A heating apparatus comprising a fluid expanding mechanism, a fluid compressing mechanism, means for supplying heat to the fluid between its admission to the expanding mechanism and its admission to the compressing mechanism, a conduit to which the fluid is delivered from the compressing mechanism, mechanism for varying the speed of the expanding and compressing mechanisms controlled by the pressure in the conduit.

5. A heating apparatus comprising a fluid expanding mechanism, a fluid compressing mechanism, means for supplying heat to the fluid between its admission to the expanding mechanism and its admission to the compressing mechanism, a conduit to which the fluid is delivered from the compressing mechanism and from which it is delivered to the expanding mechanism, mechanism for throwing the expanding and compressing mechanisms into and out of operation controlled by the pressure in the conduit.

[Claims 6 to 15 not printed in the Gazette.]

940,568. COIN-DETECTOR. HENRIETTA T. WERDEN, New York, N. Y., assignor of one-half to Sara L. W. Coe, New York, N. Y. Filed July 1, 1909. Serial No. 505,460.



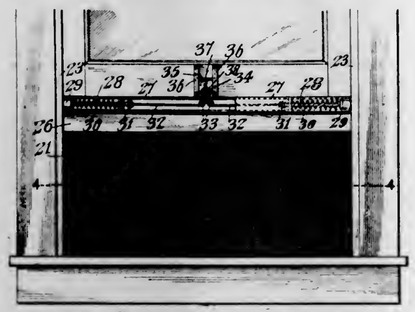
1. The combination with a coin chute provided with a coin inlet, of a spring actuated plunger having one end normally flush with the front face of the rear part of the chute behind the coin inlet, and means for operating said plunger to eject a spurious coin or token outwardly through said coin inlet.

2. The combination with a coin chute provided with a coin inlet, of a plunger passing through the rear wall of the chute in line with the coin inlet, a shaft provided with means for engaging said plunger, and means for manually operating said shaft to cause the plunger to eject a spurious coin or token outwardly through the coin inlet.

3. The combination with a coin chute provided with a coin inlet, of a spring actuated plunger adapted to enter the chute in rear of the coin inlet, a shaft, a cam arm on said shaft to engage the rear end of the plunger and force it outwardly to eject a spurious coin or token outwardly through the coin inlet, and a finger piece for turning said shaft.

4. The combination with a coin chute having its front wall near its upper end removed, of a steel plate secured to the rear wall of the chute opposite the open front thereof, and a plate secured to the front of the chute and having a coin opening in line with said steel plate, said coin opening being of a predetermined diameter to permit the passage of a proper coin and the space between said steel plate and the rear face of the front plate being such as to permit the entrance of a proper coin into the chute below said steel plate and coin opening.

940,569. WINDOW-SCREEN. JOHN L. WILOIS, Upland, Pa., assignor of one-half to Robert Ross, Chester, Pa. Filed Aug. 18, 1908. Serial No. 449,030.



1. The combination with a window frame including an end wall comprising spaced inner and outer sections, of a plate overlapping the outer wall section and extending over the space between said sections, said plate having an outstanding flange along its inner edge that is disposed adjacent but in spaced relation to the outer edge of the inner wall section, a window-sash movable in the frame and abutted against the plate outside the flange at the limit of its movement, a roller journaled in the space between the wall sections, a screen that wraps upon the roller and moves between the flange and the inner wall section, and means for connecting the screen to the sash.

2. The combination with a window frame including an end wall comprising spaced inner and outer sections, of a plate overlapping the outer wall section and extending over the space between said sections, said plate having an outstanding flange along its inner edge that is disposed adjacent but in spaced relation to the outer edge of the inner wall section, a window sash movably mounted in the frame and abutting against the plate outside the flange at the limit of its movement, ears carried by the plate and projecting into the space between the wall sections, a roller journaled in the ears, a screen that wraps upon the roller and moves between the flange and the inner wall section, and means for connecting the screen to the sash.

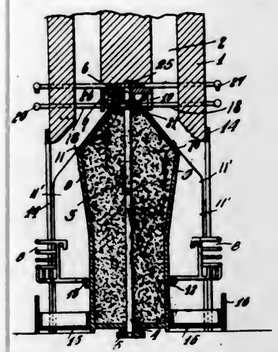
3. The combination with a window frame having a chamber provided with a slot, of a roller journaled in the chamber, a screen that wraps upon the roller, a sash operating in the frame, a casing having depending plates arranged to enter and fill the slot when the screen is in closed position that are clamped upon the free end of the screen, oppositely movable holding bolts located in the ends of the casing and projecting therefrom, means for independently holding the bolts in locking position and means carried by the casing for detachably connecting the same and thereby the screen to the sash.

4. The combination of a window frame, a sash slidably mounted therein, a self-winding screen mounted on the window frame, means on the screen for frictionally engaging the window frame to hold the screen open at different positions, a lifting device attached to the screen and operatively connected with the said means for disengaging the same from the window frame, a movable lifting device for the sash slidably mounted on the latter, and means for directly detachably connecting the lifting devices together to open or close the sash and screen simultaneously or permit independent movement of either.

5. The combination of a window frame, a sash mounted therein, a self-winding screen, elements on the screen for frictionally engaging the window frame to hold the screen open to different positions, a device operatively connected with the elements for releasing the same, a lifting device mounted on the sash and arranged to have a limited movement independently of the latter, and means for operatively connecting the said devices together whereby the last-mentioned device operates through the first-mentioned device to release the elements and hold the same released during the movement of the sash and winding or unwinding of the screen.

[Claims 6 to 11 not printed in the Gazette.]

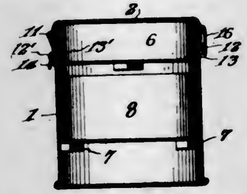
940,570. REVOLVING GRATE. ANNIE L. WILSON, Brunswick, Ga. Filed Apr. 7, 1909. Serial No. 488,438.



1. The combination of a vertical pivot carrying a grate and having at its upper end a squared portion, an upper bearing plate in which said pivot is rotated, and a horizontally slidable locking bar arranged on top of said bearing plate and having intermediate its ends an opening of greater size than the squared upper end of the pivot whereby said end of the pivot may be rotated in it, the ends of said opening being formed with a smaller squared portion adapted to receive the squared end of the pivot to lock the latter against rotation.

2. The combination of a rotatably mounted grate-carrying pivot, a ratchet wheel fixed to said pivot, a pair of links loosely arranged on the pivot adjacent the ratchet wheel, a pair of actuating levers having pawls at their inner ends to engage the ratchet wheel at opposite points, the intermediate portions of said levers having loose sliding and swinging connections with said links, means for supporting and guiding said levers, and springs for holding the pawls of said levers in engagement with the ratchet wheel.

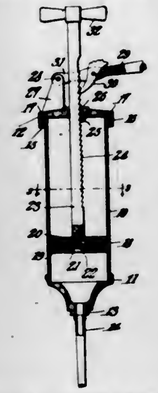
940,571. DINNER-PAIL. EDWIN M. ADAMS and GEORGE L. ADAMS, Owego, N. Y. Filed June 12, 1908. Serial No. 438,244.



1. A dinner pail including a lid, a rolled rim having a wire therein, a pair of openings in said rolled rim, a hook formed in said wire and projecting from one of said openings, a hasp also formed in said wire and projecting from the other of said openings, a socket member to receive said hook, and a staple to engage said hasp.

2. A dinner pail including a lid, a rolled rim having a wire therein, a pair of openings in said rolled rim, a hook formed in said wire and projecting from one of said openings, a hasp also formed in said wire and projecting from the other of said openings, a socket member secured to the pail to receive said hook, a staple to engage said hasp, and an open ring to engage said staple and lock said hasp.

940,572. LUBRICATOR. RAYMOND C. AGNER, Burlington, Wis. Filed Mar. 8, 1909. Serial No. 482,030.



1. A lubricator pump comprising a barrel having a projecting flange at one end, a ring loosely encircling the barrel below the flange, a cap fitting over the flanged end of the barrel, and having a marginal flange engageable with the ring, fastening means passing through said marginal flange and the ring, a plunger working in the barrel, a stem on the plunger having ratchet teeth, the aforesaid cap having an opening through which the stem extends, and said opening and stem being shaped to prevent rotation of the stem with respect to the cap, a lever pivotally mounted on the cap, and a pawl carried by the lever and engageable with the ratchet teeth of the stem.

2. A lubricator pump comprising a barrel having a projecting flange at one end, a ring loosely encircling the barrel below the flange, a cap fitting over the flanged end of the barrel, and having a marginal flange engageable with the ring, and fastened thereto, a plunger working in the barrel, a stem on the plunger, the aforesaid cap having an opening through which the plunger stem passes, and means for operating the plunger stem.

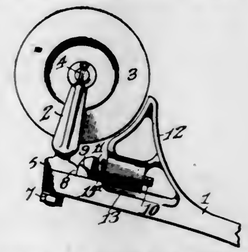
940,573. ANIMAL-POKE. PAUL W. AMLIE, Binford, N. D. Filed June 25, 1908. Serial No. 440,365.



1. An animal poke having a neck-receiving, major portion; the said portion being formed of two members detachably connected together above and below the same, one of the members terminating in an upwardly extending bar and the other member terminating in a depending bar, and a prodding device comprising resilient prods extending rearwardly and upwardly and formed of a single piece of thin and resilient sheet metal bent upon itself to form a loop to receive the depending bar and having an overlapping portion at its rear for preventing undue spreading apart of the prods as well as limiting the downward movement of the loop; said loop-portion having adjustable securing means in connection with the depending bar.

2. In an animal poke, the combination with a neck-receiving portion and a bar extending therefrom and having a notch in its forward edge; of a prodding device fixed on said bar and comprising a loop receiving the bar and having its lower edge seated in the notch thereof, and resilient or springy prods extending rearward and outward from the ends of the sides of the loop.

940,574. TROLLEY-HARP. JAMES T. ARCHER, Champaign, Ill., assignor of one-half to Francis M. Foltz, Urbana, Ill. Filed Nov. 18, 1908. Serial No. 463,283.



1. In a trolley pole terminal, a rotatable standard mounted in the end thereof and having a base formed with a flat face, a trolley wheel mounted on the standard, a housing formed on the pole terminal, a plunger slidably

mounted in the housing and movable at right angles to the axis of the standard, a head formed on the plunger having a flat face engaging the flat face of the base, the follower being slidable on the terminal and limited in its movement by a projection on one of such relatively slidable parts engaging in a slot in the other part, and a spring arranged in the said housing and engaging the plunger for yieldingly holding the same against the standard to resist turning thereof and arranged to return the standard to normal position.

2. In a trolley pole terminal, a rotatable removable standard at one end thereof carrying a wheel, the lower end of said standard being formed with a base having a face transverse to the trolley pole, a housing formed in one piece with the trolley terminal, a plunger located in the housing and provided with a transversely-extending head having a face larger than and contacting with the transverse face of the standard base, a spiral spring surrounding said plunger, means for limiting the movement of the plunger during the turning of the standard and for holding the plunger in place when the standard is removed, and a guard in front of the housing for preventing the guy wires contacting therewith.

3. In a trolley pole terminal, a standard at the end thereof supporting a trolley wheel, and having a base portion provided with a transverse face, a downwardly-projecting hub on the base having centrally-inclined sides and a screw-threaded shank, said hub adapted to engage with the end of a trolley terminal, a plunger mounted on the terminal and having a transverse head formed with a face adapted to contact with the standard base, a spring surrounding said plunger for forcing the head outward against the base, and a housing surrounding the spring, the upper face of the terminal being formed with a longitudinal slot and the plunger head having a downwardly-projecting stud engaging with said slot.

4. The combination of a trolley pole terminal having an aperture and a slot, a wheel-carrying standard rotatably mounted in the aperture, a cam on the standard, a movable element mounted to engage the cam, a projection on the element extending into the slot to limit the movement of the element and thereby the rotary movement of the standard in either direction, and a spring mounted on the terminal and engaging the element to return the standard to and yieldingly hold it in normal position.

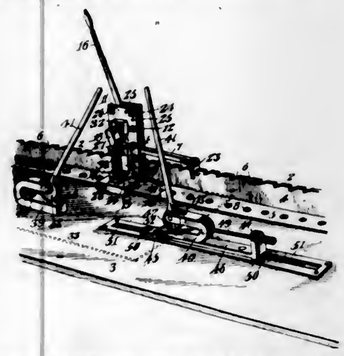
5. In a trolley terminal, a wheel-carrying standard rotatably mounted on the said terminal, a cam on the standard, a T-shaped element mounted on the terminal and having a head normally engaging the cam to hold the standard in central position, means on the terminal for limiting the movement of the element as the terminal turns and thereby limiting the turning of the standard in either direction from its central position, and a spring pressing on the element for returning the standard to yieldingly hold the same in central position.

940,575. PUNCHING-MACHINE. EDWARD BAMBAUER, Volta, Cal. Filed May 26, 1909. Serial No. 498,482.

1. A punching machine including a fixed track, a frame slidable along the same, a punch carried by the frame, an operating lever, means actuated by the operating lever for feeding the frame along the track during one movement of the lever, and means actuated by the lever for operating the punch during the movement of the said lever in the opposite direction.

2. A punching machine including a track, a slidable frame mounted on the track, a punch carried by the slidable frame, an operating lever, a dog pivotally connected to the operating lever and engaging the track and arranged to advance the frame along the track during the movement of the lever in one direction, and means actuated by the lever for actuating the punch when the said lever is moved in the opposite direction.

3. A punching machine including a track, a slidable frame mounted on the track, a punch carried by the slidable frame, an operating lever, a dog pivotally connected to the operating lever and engaging the track and arranged to advance the frame along the track during the movement of the lever in one direction, and a cam connected with the lever and arranged to operate the punch when the lever is moved in the opposite direction.



4. A punching machine comprising a track provided with teeth, a frame slidable along the track, an oscillatory operating lever, a dog pivoted to the lever and having a tooth for engaging the teeth of the track, a punch carried by the frame, and a cam connected with the lever and arranged to engage the punch.

5. A punching machine comprising a track provided with teeth, a frame slidable along the track, an oscillatory operating lever, a dog pivoted to the lever and having a tooth for engaging the teeth of the track, a punch carried by the frame, a cam connected with the lever and arranged to engage the punch, and means for limiting the oscillatory movement of the lever for controlling the teeth of the frame.

[Claims 6 to 17 not printed in the Gazette.]

940,576. OBSTETRICAL DEVICE. HENRY J. BARNES, Gunter, Tex. Filed May 14, 1908. Serial No. 432,952.



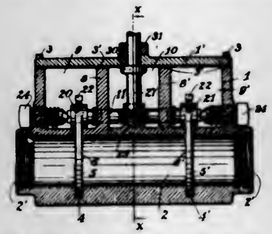
1. A device of the character described, comprising inflexible knee-receiving members, means for yoking together said members in relatively fixed relation to each other, and hand-holds applied to said members said hand-holds being connected to extensions of said knee-receiving members.

2. A device of the character described, including knee-receiving members, slotted and bolt engaged extensions formed with said members, and hand-holds connected to said members.

3. A device of the character described, comprising knee-receiving members, means connecting the same together, and hand-holds, each having a shank-portion outstanding therefrom, said shank-portion itself having a right angled extension, said shank portion being passed through an end-extension of a knee-receiving member, and one arm of the angle of said shank-portion extending in the direction of the longitudinal axis of said member and engaging said end-extension.

4. A device of the character described, comprising knee-receiving members, each formed of connected together metal strap-like portions, curved oppositely from each other and flared laterally and downwardly, means effecting connection between said members, and hand-holds applied to said knee-receiving members.

940,577. STRAIGHTWAY VALVE. THOMAS BARRETT, Maywood, Ill., assignor of one-half to James Richards, Maywood, Ill. Filed Jan. 30, 1909. Serial No. 475,240.



1. In a straightway valve, the combination of a valve casing, a passage through said casing, a transverse partition in said casing dividing the same into a valve chamber and a valve operating mechanism chamber, a rock shaft extending longitudinally through said chambers, a valve fixed to said shaft and extending across said passage adapted to close the way through the latter, a gear fixed to said shaft within the last said chamber, and exteriorly projecting rotatable means in mesh with said gear for actuating said valve passage closing means, substantially as described.

2. In a straightway valve, the combination of a valve casing, a passage through said casing, transverse partitions formed in said casing, a longitudinally extending rock shaft, means fixed to said shaft and extending across said valve passage adapted to close the way through the latter, a segmental gear fixed to said shaft, an exteriorly projecting actuating stem rotatably mounted in said casing, and a worm fixed to said stem in mesh with said segmental gear, substantially as described.

3. In a straightway valve, the combination of a valve casing, a liquid passage through said casing, transverse partitions formed in said casing, a two-part rock shaft rotatably mounted in bearings formed in said partitions, disk valves secured to the extremities of said shaft adapted to rest in seat-forming slots transversely extending of said valve passage, and rotatable means in operative connection with said rock shaft for actuating said disk valves, substantially as described.

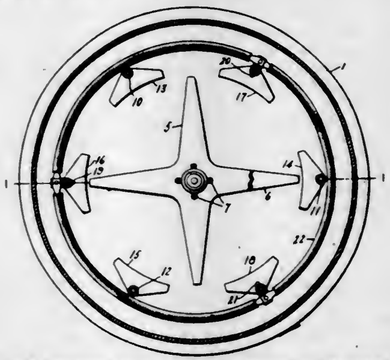
4. In a straightway valve, the combination of a substantially semi-cylindrical formed valve casing, a longitudinally extending liquid passage through said casing, transverse partitions formed in the interior of said casing dividing the latter into a plurality of chambers, a two-part rock shaft mounted in bearings provided in said partitions, the extremities of said shaft terminating in the end chambers of said plurality of chambers, a ground joint connection between said shaft and said partitions, disk valves secured to the extremities of said shaft adapted to close the way through said passage, and rotatable means for actuating said rock shaft, substantially as described.

5. In a straightway valve, the combination of a substantially semi-cylindrically formed valve casing, a longitudinally extending liquid passage formed through said casing, a plurality of transverse compartments formed in the interior of said casing above said passage, a two-part shaft rockingly mounted in bearings provided in the partitions forming said compartments, the extremities of said shaft terminating in the end compartments of said plurality thereof, a ground joint connection between said shaft and said partitions, adjusting set screws in engagement with the extremities of said shaft, a transversely disposed valve disk secured to the extremity of said shaft adapted to close the way through said passage, and rotatable means for locking said shaft, substantially as described.

[Claim 6 not printed in the Gazette.]

940,578. PROTECTIVE DEVICE FOR ELECTRIC CIRCUITS. SVEN R. BERGMAN, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed Oct. 13, 1905. Serial No. 282,583.

1. In a lightning arrester, a rotary member having a plurality of conducting arms, a plurality of contact plates in proximity to said arms but each having an angular width less than the angular distance between adjacent conducting arms, a second rotary member having conducting arms, a second set of contact plates coöperating therewith, means for continuously moving said rotary members, and means for permanently connecting one set of said contact plates to the line to be protected.



2. In a lightning arrester, a rotary member having arms, a plurality of contact plates arranged about said rotary member and coöperating therewith to form spark gaps, said rotary member having spaces between arms so proportioned with respect to the angular width of said contact plates that a constant sparking distance to said rotary member is insured while the sparking distance to any particular arm periodically increases and decreases as the rotary member is revolved.

3. The combination with a line conductor to be protected, of a rotary member having projecting arms, segmental contacts disposed about said rotary member, said contacts each having an angular width sufficient to permit high potential currents to discharge through said line to said projecting arms at any instant but insufficient to bridge across from one projecting arm to the next, and means for moving said rotary member.

4. The combination with a line conductor to be protected, of a conducting plate forming one side of a spark gap, a rotary member comprising a hub and radial arms, said member being movable with respect to said plate and separated therefrom by a gap which periodically increases in length, and other conducting plates coöperating with said rotary member to maintain a constant discharge path to said rotary member.

5. In a lightning arrester, a plurality of conductive plates connected together, a rotary member having radial arms coöperating with said plates to form spark gaps, the angular width of each of said arms being substantially less than the angular distance between adjacent plates, and means for moving said rotary member.

[Claims 6 to 12 not printed in the Gazette.]

940,579. BRACE FOR RAIL-SUPPORTING MEANS OF METALLIC TIES. MAXIMILIAN F. BONZANO, Philadelphia, Pa., assignor to Penn Railroad Tie Company, Camden, N. J., a Corporation of New Jersey. Filed Jan. 14, 1909. Serial No. 472,367.



1. The combination with a metallic tie, of a resilient block supporting the rail, a wear-plate interposed between said rail and block and to which the rail is secured, and a supporting brace for said wear-plate carried by the tie.

2. The combination with a metallic tie having a resilient block supporting a rail, and a wear-plate interposed between said rail and block, of a brace for said wear-plate and block carried by the tie, and a resilient member interposed between said brace and the block and wear-plate.

3. The combination with a metallic tie having a resilient block supporting a wear-plate, and a rail supported on and secured to said wear-plate, of a brace for said wear-plate, and means for securing said brace to the tie.

4. The combination with a metallic tie, of a resilient block supporting the rail, a wear-plate interposed between said rail and block, a brace carried by the tie, and a filling piece interposed between said brace and the block and wear-plate.

5. The combination with a metallic tie having a resilient block supporting a rail, and a wear-plate interposed between said rail and block, of a brace for said wear-plate and block carried by the tie, and a body of insulating material interposed between said brace and the block and wear-plate.

[Claims 6 to 8 not printed in the Gazette.]

. . EXPLOSIVE. CLARENCE U. BUCK, Wellsboro, Pa., assignor to Buck Explosive Company, Coudersport, Pa. Filed Oct. 31, 1908. Serial No. 460,490.

1. The process of preparing an explosive compound which consists of fusing a mixture of tri-nitro-phenol, di-nitro-phenol and a nitro-carbo-hydrate and then raising the temperature to about 350° F.

2. The process of producing an explosive compound which consists of mixing tri-nitro-phenol, di-nitro-phenol and soluble gun cotton in about the proportions herein specified and applying heat to melt the mixture and then adding to the mass barium nitrate combined with paraffin.

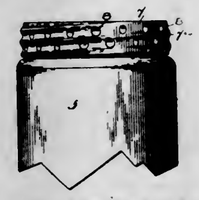
3. The process of producing an explosive compound consisting of reducing tri-nitro-phenol, di-nitro-phenol and soluble gun cotton, mixed in about the proportions herein stated to a fluent mass by the application of heat then combining with said mixture barium nitrate and paraffin, and finally adding to the mass, carbon, the several ingredients being combined in the proportions substantially as herein stated.

4. The process of producing an explosive, consisting in combining tri-nitro-phenol, di-nitro-phenol and soluble gun cotton in the presence of heat, producing a molten mixture, then heating barium nitrate and combining the same while warm with molten paraffin, and finally mixing the two compounds.

5. In the process of producing an explosive compound, the incorporation of tri-nitro-phenol, di-nitro-phenol and soluble gun cotton, in about the proportions stated, by heating the same to produce a gelatinized mass, then raising the temperature to about 350° F. and thoroughly agitating the mass to insure compounding of the ingredients to produce a product having a melting point of about 142° F.

[Claims 6 and 7 not printed in the Gazette.]

940,581. FRUIT-JAR. HENRY B. BURNS, Fond du Lac, Wis., assignor of one-eighth to William Walter Breister and one-fourth to Christian Eberhart, Fond du Lac, Wis. Filed Feb. 26, 1909. Serial No. 480,094.



1. A fruit-jar having a threaded neck portion, a screw-cap adapted to engage the thread on the neck and provided with holes through the threaded portion thereof, and a sealing device between the screw-cap and the mouth of the jar, substantially as shown and for the purpose set forth.

2. A fruit-jar having a threaded neck portion, a flanged screw-ring adapted to engage the thread on the neck and provided with holes through the threaded portion thereof, and a celluloid disk between the flange of the screw-ring and the mouth of the jar, substantially as shown and for the purposes set forth.

940,582. FOLDING CHAIR. FRANK M. BURROWES, Portland, Me., assignor to The E. T. Burrowes Company, Portland, Me., a Corporation of Maine. Filed Apr. 25, 1907. Serial No. 370,264.

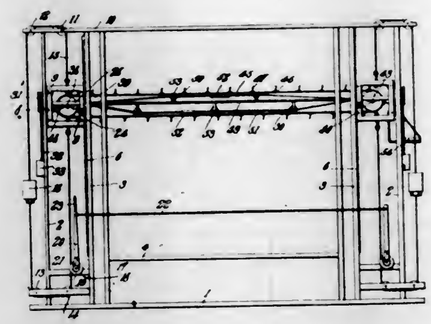


1. In a chair, a pair of parallel back bars, the lower ends of which are extended to form the front legs of the chair and the upper ends of which are provided on the inner sides thereof with longitudinally extending grooves, a pair of rear legs pivotally supported between the lower ends of said back bars, said rear legs being adapted when in folded position to lie wholly within the planes of the upper and lower surfaces of said back bars, a back support rigidly secured between the upper portions of said back bars and at one side of the grooves therein, said back support being positioned between the planes of the upper and lower surfaces of the back bars and a seat pivotally secured at its forward portion to the upper ends of said rear legs and provided at its rear end with projections engaging the grooves in the back bars, the rear portion of said seat being cut away to permit the same to clear the rigid back support when it is moved to its folded position.

2. In a chair, a pair of parallel back bars, the lower portions of which are extended to form the front legs of the chair and the upper portions of which are provided on their inner sides with longitudinally extending grooves, a fixed back support connecting the upper portions of said back bars and underlying the grooves therein, the said back support being positioned between the planes of the upper and lower surfaces of the back bars, rear legs pivotally supported between the lower ends of said back bars and adapted when in folded position to lie wholly within the plane of the upper and lower surfaces of the back bars, seat supporting side bars pivotally connected at their forward ends to the upper ends of said rear legs and provided at their rear ends with projections engaging the grooves in the back bars, the forward portions of said seat supporting side bars being of substantially the same thickness as the back bars and the rear ends of said side bars being reduced in thickness so as to clear the fixed back support and overlie the same when the chair is in its folded position.

940,583. APPARATUS FOR HANDLING ACID PHOSPHATE AND THE LIKE. JULIUS T. CAPERS, Montgomery, Ala. Filed Nov. 28, 1908. Serial No. 464,825.

1. An apparatus for handling phosphate comprising a container, an endless belt mounted for orbital movement along the conveyer, teeth carried by the belt, and means for moving the belt vertically and laterally while the belt is describing its orbital movement.



2. An apparatus for handling phosphate and the like comprising a container, carriages mounted for lateral movement at the ends of the container, shafts longitudinally disposed with relation to the carriages, an endless belt mounted for orbital movement about the said shafts and teeth carried by the belt.

3. An apparatus for handling phosphate and the like comprising a container, track-ways located at opposite ends of the container, carriages mounted for movement along the said track-ways, means for raising and lowering the track-ways, shafts longitudinally disposed upon the carriages, an endless belt mounted for orbital movement about the said shafts and teeth carried by the belt.

4. An apparatus for handling phosphate and the like comprising a container, carriages mounted for lateral movement at the ends of the container, means operatively connecting said carriages together, whereby their lateral movement will occur simultaneously, means for raising and lowering the carriages, shafts longitudinally disposed upon the carriages, an endless belt mounted for orbital movement about the said shafts and means carried by the belt.

5. An apparatus for handling phosphate and the like comprising a container, track-ways located at the opposite ends of the container, frames mounted for vertical movement at the opposite ends of the container and being connected with the said track-ways, means for raising and lowering the said frames and track-ways, carriages mounted for movement upon the track-ways, shafts longitudinally disposed upon the carriages, an endless belt mounted for orbital movement about the said shafts and teeth mounted upon the belt.

[Claims 6 and 7 not printed in the Gazette.]

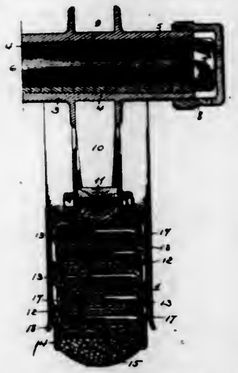
940,584. WHEEL. WILLIAM P. DAVIES, Cincinnati, Ohio. Filed Aug. 6, 1907. Serial No. 387,326.

1. A wheel provided with a tire portion comprising a spring plate bent to form a series of annular corrugations superimposed radially and cushions interposed between said corrugations.

2. A wheel provided with a tire portion comprising a spring plate bent to form a series of annular corrugations, cushions interposed between said corrugations, and plates embracing said corrugated spring plate and preventing lateral displacement thereof and of said cushions.

3. In a wheel, the combination with a body portion including a felly, of a tire portion comprising a spring plate bent to form a series of superimposed annular corrugations and seated on said felly, and cushions interposed between the corrugations of the spring plate.

4. In a wheel, the combination with a body portion including a felly, of a tire portion comprising a spring plate bent to form a series of annular corrugations and seated on said felly cushions interposed between the corrugations of said spring plate, and plates secured to the felly and



embracing the corrugated spring plate and interposed cushions.

940,585. STOCKING. GEORGIA T. DRENNAN, Biloxi, Miss. Filed Feb. 17, 1909. Serial No. 478,356.



1. As a new article of manufacture, a complete stocking for ordinary wear, the top of which is longitudinally ribbed, and is provided with a transversely ribbed gore.

2. As a new article of manufacture, the herein described stocking, the top of which is ribbed, said ribs extending longitudinally, the top being formed with a gore intersecting the knee-cap portion of some of the longitudinal ribs.

3. As a new article of manufacture, a stocking, the top of which is formed with a longitudinal ribbed portion, and a tranversely ribbed gore in said longitudinal ribbed portion, the transverse ribs of the gore decreasing as they progress up the stocking, and the gore being located at the knee-cap portion of the stocking.

940,586. BROWN VAT DYE AND PROCESS OF MAKING SAME. GADIENT ENGI and HANS KAPPELER, Basel, Switzerland, assignors to Society of Chemical Industry in Basle, Basel, Switzerland. Filed July 15, 1909. Serial No. 507,823.

1. The described process of making brown vat-dyestuffs, which consists in treating 4 : 4'-diamidoindigo with halogenating agents.

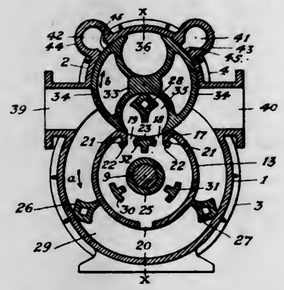
2. The described process of making brown vat-dyestuffs, which consists in treating 4 : 4'-diamidoindigo with bromin.

3. As new products the vat-dyestuffs, which can be obtained by treating 4 : 4'-diamidoindigo with halogenating

agents, forming in dry state brown powders, soluble in concentrated sulfuric acid and in fuming sulfuric acid with a blue color, dissolving in hot nitrobenzene with brown color and dyeing cotton and wool from an alkaline vat brown shades.

4. As new products the vat-dyestuffs, which may be obtained by brominating 4 : 4'-diamidoindigo and which form in a dry state brown powders, soluble in concentrated sulfuric acid and in fuming sulfuric acid with a blue color, dissolving in hot nitrobenzene with brownish red to reddish brown color and dyeing cotton and wool from an alkaline vat reddish brown shades.

940,587. ROTARY BLOWER. LEWIS E. FAGAN, Minneapolis, Minn. Filed Feb. 16, 1909. Serial No. 478,186.



1. In a rotary blower, a casing, longitudinally grooved hollow cores therein having ports at opposite sides, impeller blades arranged to revolve in the space between the cores and casing, and valves operated by the impeller for opening and closing core inlet ports, for the purpose set forth.

2. In a rotary blower, a casing, longitudinally grooved hollow cores therein having ports at opposite sides, impeller blades arranged to revolve in the space between the cores and casing, valves for opening and closing the core inlet ports, and a rotating disk for carrying the impeller blades and said valves, substantially as set forth.

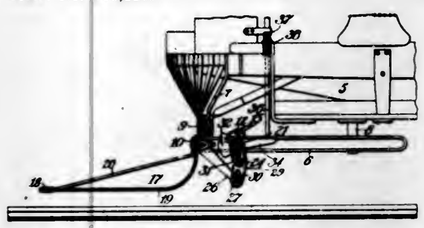
3. In a rotary blower, a casing, stationary cores therein providing an intermediate annular space and having longitudinal grooves in their surfaces, impeller blades arranged to revolve in such annular space, longitudinally recessed idler blades arranged to revolve in said core grooves, the cores being provided with air ducts extending transversely through the core bodies and connecting said surface grooves at the one side with the annular space at the opposite side, and valves carried by the impeller for controlling the inlets to said air ducts, substantially as set forth.

4. In a rotary blower, a casing, stationary cores therein providing an intermediate annular space and having longitudinal surface grooves and transverse air ducts connecting such grooves with the annular air space at the opposite side of the cores, impeller blades arranged to revolve in said annular space, longitudinally recessed idler blades arranged to revolve in the core grooves, valves for controlling the inlets to said air ducts, and a rotating disk for operating said impeller blades and valves, substantially as set forth.

5. In a rotary blower, a casing, stationary cores therein providing an intermediate annular space and having longitudinal surface grooves and transverse air ducts connecting such grooves with the annular air space at the opposite side of the cores, a disk arranged to rotate between the core ends, impeller blades carried by the disk and operating in the annular space, longitudinally recessed idler blades arranged to revolve in the core grooves, the said air ducts being arranged to permit the passage of air under pressure from the core grooves to the space between impeller blades at the opposite side, and valves controlled by the impeller rotations for opening and closing the inlets to said air ducts, substantially as set forth.

[Claims 6 to 9 not printed in the Gazette.]

940,588. CAR-FENDER. CHARLES D. B. FISK and DUTEE R. SMITH, Boston, Mass. Filed Dec. 5, 1908. Serial No. 466,127.



1. A car fender having in combination, a frame pivoted to swing about a horizontal axis, a toggle adapted to positively lock said frame normally raised above the ground, and means adapted to be operated by the motorman to actuate said toggle to release said frame and allow the same to drop.

2. A car fender having in combination, a frame pivoted to swing about a horizontal axis, a toggle comprising two pivotally connected members, one of which is pivotally connected to said frame, said members being normally so disposed as to positively lock said frame raised above the ground, and means adapted to be operated by the motorman to actuate said toggle to release said frame and allow the same to drop.

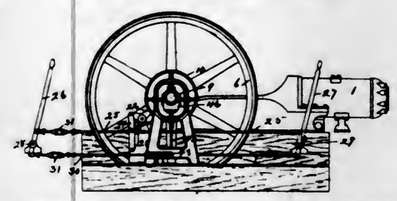
3. A car fender having in combination, a frame pivoted to swing about a horizontal axis, a toggle comprising two pivotally connected members normally so disposed as to positively lock said frame raised above the ground, an arm connected to one of said members, and a device adapted to be operated by the motorman to rock said arm about its axis to actuate said toggle to release said frame and allow the same to drop.

4. A car fender having in combination, a frame pivoted to swing about a horizontal axis, a toggle comprising two pivotally connected members normally so related as to positively lock said frame raised above the ground, a weight connected to said toggle to hold said members in such normal relation, and means adapted to be operated by the motorman to actuate said toggle to release said frame and allow the same to drop.

5. A car fender having in combination, a frame pivoted to swing about a horizontal axis, a toggle adapted to hold said frame normally raised above the ground, means adapted to be operated by the motorman to actuate said toggle to release said frame and allow the same to drop, and a spring connected to said toggle adapted to assist said frame in dropping.

[Claim 6 not printed in the Gazette.]

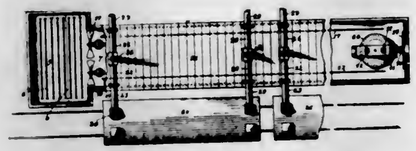
940,589. APPARATUS FOR DRILLING AND OPERATING WELLS. EDWIN J. FITHIAN and HARRY D. MURRAY, Grove City, Pa., assignors to Bessemer Gas Engine Company, Grove City, Pa., a Corporation of Pennsylvania. Filed Sept. 9, 1907. Serial No. 391,853.



1. In a well drilling rig, the combination of an engine; a reversing clutch actuated by the engine; actuating devices for said clutch, one of said devices moving in a direction parallel to the axis of the clutch and the other at right angles to the axis of the clutch; a cable for actuating said devices, said cable having a portion extending in a direction at right angles to the axis of the clutch connected with the device operating at right angles to the axis of the clutch, and a portion in a direction parallel to the axis of the clutch and connected with the device moving in a direction parallel to the axis of the clutch; and guiding means for the cable.

2. In a well drilling rig, the combination of an engine; a reversing clutch actuated by the engine; actuating devices for said clutch, one of said devices moving in a direction parallel to the axis of the clutch and the other at right angles to the axis of the clutch; a cable for actuating said devices, said cable having a portion extending in a direction at right angles to the axis of the clutch connected with the device operating at right angles to the axis of the clutch in two lines one above the other, and a portion connected with the device moving in a direction parallel to the axis of the clutch; and guiding means for the cable comprising a double sheave pulley at the meeting point of the divergent portions of the cable and a sheave pulley located to give a portion of the cable a direction parallel to the axis of the clutch.

940,590. REFRIGERATING APPARATUS. CASSIUS M. GAY, Los Angeles, Cal. Filed Apr. 6, 1908. Serial No. 425,384.



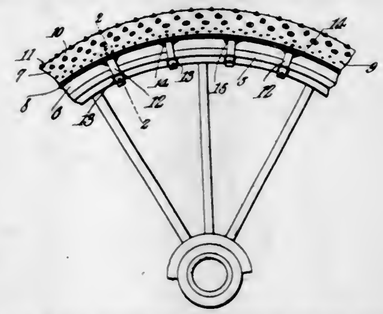
1. In a refrigerating apparatus an internally refrigerated air chamber; a low pressure duct connected to the upper portion of said chamber; a high pressure duct connected to the lower portion of said chamber, said two ducts being connected at their outer ends; a pressure regulated valve on the communication between said ducts, said valve controlling the admission of air from the high pressure duct to the low pressure duct; a pressure regulated valve opening into the low pressure duct at its outer end; and means to maintain in the low pressure duct a pressure below atmospheric pressure and in the high pressure duct a pressure above atmospheric pressure.

2. In a refrigerating apparatus, a high pressure duct and a low pressure duct, connected together; means to internally refrigerate said ducts; means to cause a circulation of air through said ducts; an outlet pipe leading from the high pressure duct and connected to the interior of the place to be refrigerated; an inlet pipe leading from the low pressure duct and connected to the interior of the place to be refrigerated.

3. In a refrigerating apparatus a refrigerating chamber; two ducts opening into said chamber, one at the top and one at the bottom thereof, the other ends of said ducts being connected; a valve on the connection between said ducts; means to cause a circulation of air through said ducts and through the refrigerating chamber; an outlet pipe from the lower of said ducts to a place of use; an inlet pipe from the upper of said ducts to the interior of the place of use; means in said ducts to exhaust air through said inlet pipe and to force air through said outlet pipe.

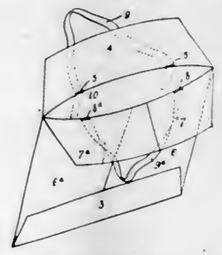
4. In a refrigerating apparatus an internally refrigerated chamber; two ducts leading from said chamber one from the top and one from the bottom thereof, said ducts communicating at their outer ends; a valve on said last communication; means to maintain the lower of said ducts with air at a pressure above atmospheric pressure, and the upper of said ducts with air at a pressure below atmospheric pressure; a plurality of pipes leading from the lower of said ducts and opening into separate places of use; a plurality of pipes leading from the upper of said ducts and opening into the interiors of said separate places of use.

940,591. TIRE-ARMOR. BENJAMAN F. GINN, Lenox, Iowa. Filed Dec. 16, 1908. Serial No. 467,911.



A tire armor comprising a continuous flexible covering consisting of an inner and an outer layer, rivets fastening the layers together, said rivets being located on the tread portion of the armor, and along the edges thereof, and the rivets of the tread portion projecting from the same to form traction spurs, rings fastened between the layers, and projecting partly from the edges thereof, filling pieces within the portions of the rings lying between the layers, a portion of the aforesaid rivets which are at the edges of the armor passing through the layers and the filling pieces and through the layers adjacent to the rings, straps passing through the projecting portions of the rings and across the felly of the wheel, and means for adjustably connecting the ends of the straps.

940,592. PAPER RECEPTACLE. GEORGE H. GRIFFITHS, Cleveland, Ohio. Filed Jan. 19, 1909. Serial No. 473,038.

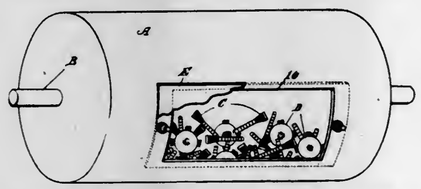


1. As a new article of manufacture, a paper shopping bag having a body provided with a pair of oppositely located upwardly extending flaps adapted to be bent over to form a cover for the bag, a handle of tape or similar material for each side of the bag, the ends of the handle projecting from the outside of the bag into the interior thereof, and one or more reinforcing strips pasted to the top of said bag and securing the ends of the tapes in place.

2. As a new article of manufacture, a paper bag having at the top and on opposite sides thereof an inwardly-folding flap, each of said flaps having a pair of apertures therethrough at its junction with the body of the bag, a handle of tape or similar textile material having its ends extending through the openings provided at the junction of each flap and the body of the bag, and one or more reinforcing strips pasted to the inner upper edge of the bag and to the ends of the handles within the top of the bag.

3. As a new article of manufacture, a paper shopping bag having at the top and on opposite sides thereof inwardly folding flaps, a pair of handles, one for each side of the bag and each having its ends located below the top of the bag and on the inside thereof, and a pair of strips, for each side of the bag and each strip pasted to the top of the bag and to the ends of each handle.

940,593. COATING DEVICE. GEORGE H. HARDMAN, New Bedford, Mass., assignor of one-half to Walter L. Parker, Lowell, Mass. Filed June 14, 1909. Serial No. 502,066.



1. The process of coating articles with shellac, stain or like material, which consists in revolving or rocking a revoluble barrel in which are said articles together with one or more hollow distributers which are filled with said shellac, stain or like material and are provided with passages from the interior whereby said shellac, stain or like material is gradually distributed upon said articles.

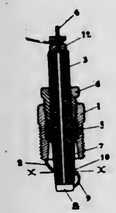
2. In a coating device, the combination of a revoluble barrel with one or more hollow distributers therein, each of which distributers comprises a hollow shell with one or more small passages from the interior to the exterior thereof whereby the coating material is gradually distributed.

3. In a coating device, the combination of a revoluble barrel, with one or more hollow distributers therein, each of which distributers comprises a hollow receptacle for the coating material, in which are passages to the outside, each of which passages is obstructed by fibrous material whereby the coating material is thinly distributed, and said coating material as described.

4. In a coating device, the combination of a revoluble barrel, with one or more hollow containers therein through each of which are a plurality of minute passages from the interior to the exterior.

5. In a coating device, the combination of a revoluble barrel, with one or more spherical hollow containers each of which comprises one or more brushes attached to the outside and a passage communicating from the bristles of each brush to the interior of the container.

940,594. SPARK-PLUG. ALFRED HELWIG, Detroit, Mich. Filed Feb. 23, 1909. Serial No. 479,526.



1. A spark plug comprising an outer shell having a spark terminal on its lower end, an insulated rotatable central stem adjustably secured in the shell having a terminal adapted to form a spark gap with the shell terminal when proximate thereto, and an annular insulated bridge on the stem forming a spark gap with each terminal.

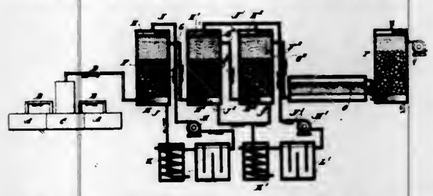
2. A spark plug comprising an outer shell, a spark terminal extending from the lower end thereof, an insulated rotatable central stem adjustably secured in the shell, a terminal on the stem adapted to form a spark gap with the shell terminal when proximate thereto, and an annular insulated bridge on the stem forming spark gaps with the terminals.

3. A spark plug comprising an outer shell having a spark terminal on one end thereof, an insulating bushing rotatably adjustable in the shell, an axial stem in the bushing having a spark terminal on the end adjacent the shell terminal, adapted to form a spark gap therewith when proximate thereto, and an annular bridge on the bushing forming a spark gap with each terminal.

4. A spark plug comprising an outer shell having a spark terminal on its inner end, an insulating bushing rotatably adjustable in the shell whose inner end extends past the shell terminal, an axial stem in the bushing having a terminal on its inner end adapted to form a spark gap with the shell terminal when proximate thereto, and an annular bridge on the bushing between and concentric with the two terminals with which it forms spark gaps.

5. A spark plug comprising an outer shell, an insulating bushing extending therethrough having an enlarged portion mediate its ends seated on a counterbore of the stem, a clamping nut adjustably securing the bushing, the inner end of the shell having an enlarged bore forming an air gap around the proximate portion of the bushing, a terminal on the inner end of the shell, an axial stem extending through the bushing, a terminal on the inner end thereof adapted when in register with the shell terminal to form an air gap therewith, and a metal annular bridge on the bushing adapted to form an air gap with both terminals.

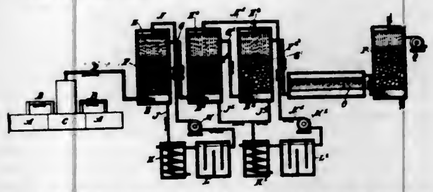
940,595. PURIFICATION OF BURNER-GASES. JOHN B. F. HERRESHOFF, New York, N. Y., assignor to General Chemical Company, New York, N. Y., a Corporation of New York. Filed Feb. 10, 1906. Serial No. 300,364.



1. The herein described process of purifying gases containing SO_2, which consists in bringing the gases into contact with a minutely distributed body of weak acid containing absorbed SO_2 and exposing them to the action of such acid until the solid impurities have been practically eliminated, and then removing non-solid impurities by filtration.

2. The herein described process of purifying gases containing SO_2, which consists in bringing the gases into contact with a minutely distributed body of weak acid containing absorbed SO_2 and exposing them to the action of such acid until the solid impurities have been practically eliminated, removing such acid from contact with the gases, cooling and purifying it and returning it into contact with the gases, and thereupon removing the liquid impurities from the gases by filtration.

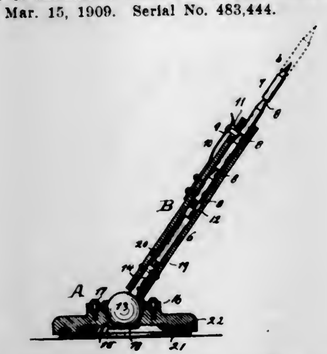
940,596. APPARATUS FOR PURIFYING BURNER-GASES. JOHN B. F. HERRESHOFF, New York, N. Y., assignor to General Chemical Company, New York, N. Y., a Corporation of New York. Original application filed Feb. 10, 1906, Serial No. 300,364. Divided and this application filed Apr. 5, 1907. Serial No. 366,514.



1. The herein described gas purifying apparatus, comprising a scrubbing tower having a spray inlet at the top and a liquid outlet at the bottom and also an inlet and an outlet for the gases, a cooler for receiving the liquid from the outlet of the scrubbing tower, a purifying or settling chamber connected with the outlet of said cooler, means for circulating the spray liquid through the scrubbing tower, the cooler and the settler, and apparatus connected with the gas outlet of the scrubbing tower for further treating the gases.

2. The herein described gas purifying apparatus, comprising a scrubbing tower having a liquid inlet at the top, a liquid outlet at the bottom, a gas inlet at the bottom, and a gas outlet at the top, a cooler connected with the liquid outlet of the scrubbing tower, a settling chamber connected with the outlet of the cooler, means of conveying the liquid from the settling chamber to the liquid inlet of the scrubbing tower, the said scrubbing tower, as well as the cooler and the settling chamber, being closed to the atmosphere, and apparatus connected with the gas outlet of the scrubbing tower, for further treating the gases.

940,597. PRITCH. CHARLES HOFF, Cincinnati, Ohio, assignor of one-half to Bernard Sicking, Cincinnati, Ohio. Filed Mar. 15, 1909. Serial No. 483,444.



1. A pritch consisting of a base, a sheath connected thereto, a pin slidably fitted to this sheath and spring-actuated means operating to hold the pin adjustably in certain positions within the sheath.

2. In a pritch the combination of a base provided with a socket, a ball fitted to this socket, a tubular sheath, a shank whereby ball and sheath are connected to each other, a pin adjustably fitted to this sheath and means to hold the pin in its adjusted position.

3. In a pritch, the combination of a base, a sheath adjustably connected thereto at its lower end and provided with a lateral opening near its upper end, a spring-actuated catch carried by the sheath and so connected that its free end projects through the opening mentioned and into the sheath, and a pointed pin slidably fitted into this sheath and provided with shoulders whereby, when in engagement with the catch, said pin is supported in a certain position within the sheath.

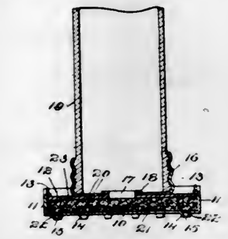
4. A pritch consisting of a base portion and a prop pointed at its free end and permanently connected to said base to extend in a direction inclined to the plane of said base.

5. A pritch for the purpose described which consists of a prop the free end of which is adapted to engage a carcass, a base to the upper side of which this prop is connected and means for adjusting it to various angles with reference to the base and in various vertical planes on this base to meet the position of a carcass.

[Claims 6 to 8 not printed in the Gazette.]

940,598. MOISTENING DEVICE. LEVERETT W. HOMIRE, Louisville, Ky. Filed Aug. 18, 1908. Serial No. 449,130.

1. In a device of the character described, a liquid receptacle, a casing connected with said receptacle and having a liquid passageway connected with the receptacle and apertures for the delivery of water and means contained within said casing for distributing water through said apertures in the form of globules.



2. In a device of the character described, a vertical receptacle having an opening in its bottom, a casing connected with said receptacle and having an opening connected with said opening in the receptacle and having a number of tubular bosses in its bottom and means located in said casing for retarding the flow of liquid through the same and distributing it through said bosses in the form of globules.

3. A casing of the character described consisting of a liquid receptacle, a casing connected and communicating with said liquid receptacle and having a number of openings in its bottom and a gauze like material located in said casing and serving to deliver liquid through said openings in its bottom in the form of globules.

4. In a casing of the character described, a liquid receptacle, a casing connected with and communicating with said liquid receptacle and having a number of openings and layers of reticulated material located in said casing and serving to deliver liquid through the openings in its bottom in the form of globules.

5. In an article of the class described, a receptacle, a casing associated and in communication with the receptacle, bosses formed upon the casing, and providing openings in communication with the casing, a fabric disposed within the casing and dependent within the bosses, said fabric being also in association with the communication between the casing and the receptacle.

940,599. MAKING ARTIFICIAL TEETH. JAMES HUMPHREY, Boston, Mass. Filed Oct. 17, 1908. Serial No. 458,165.

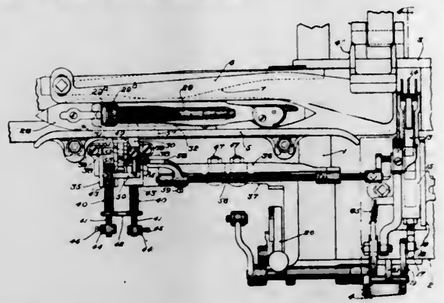


A templet for use in making an upper set of false teeth comprising a body portion of uniform thickness having a contour of a shape corresponding to that of the inner surface of the model from which the plate is made and provided on opposite sides with a plurality of slots 6 which terminate at their inner ends in tapering grooves 8.

940,600. DIFFERENTIAL FILLING-SUPPLY-GAGING DEVICE FOR LOOMS. SIMEON S. JACKSON, Readville, Mass., assignor to The Stafford Company, Readville, Mass., a Corporation of New York. Filed Oct. 22, 1908. Serial No. 458,949.

1. In filling-supply gaging devices for looms, the combination with two independently-movable contact-members, of a detent connected with one thereof, a latch movably connected with the other thereof and governed as to effective movement by engagement with the said detent, the latter preventing such movement until the predetermined extent of relative shift has occurred, means to relatively

adjust the detent and latch to vary the said extent, and a controller governed by the latch and permitted to act by the said effective movement.



2. In filling-supply gaging devices for looms, the combination with two independently-movable contact-members, of a detent connected with one thereof, a latch movably mounted upon the other thereof and normally held in restraint by the said detent, and a controller operatively engaged normally with the said latch and thereby itself controlled, and released for action as a result of the release of the latch.

3. In filling-supply gaging devices for looms, the combination with two independently-movable contact-members, of a detent connected with one thereof, a latch movably mounted upon the other thereof and normally held in restraint by the said detent, a controller operatively engaged normally with the said latch and thereby itself controlled, and released for action as a result of the release of the latch, and means for automatically resetting the parts.

4. In filling-supply gaging devices for looms, the combination with two independently-movable sliding contact-members, a detent connected with one thereof, a pivoted latch connected with the other thereof and normally held in restraint by the said detent until the predetermined extent of relative shift has occurred, and a controller restrained normally by the latch and released for action through the release of the latch, of means for automatically resetting the parts.

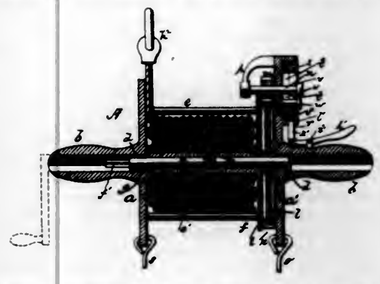
5. In filling-supply gaging devices for looms, the combination with two independently-movable contact-members, a detent connected with one thereof, a movable latch connected with the other and governed by engagement with the detent until the predetermined amount of relative shift has occurred, and a controller governed by the latch and released for action through the release of the latch, of a change-inducing dog controlled by the controller, a going-part of the loom adapted to engage with the said dog to bring about the contemplated change, and means in connection with said dog for resetting the latch.

[Claims 6 to 8 not printed in the Gazette.]

940,601. FIRE-ESCAPE. ALBERT A. JAHNKE, San Francisco, Cal. Filed Apr. 20, 1909. Serial No. 491,054.

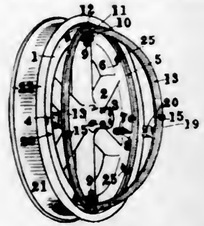
1. A fire escape comprising two spaced disks formed with hollow handles, a shaft journaled in said disks and handles, a drum-sleeve secured on said shaft and having a disk flange, and a gear wheel on said shaft between the drum flange and one of the main disks and a pinion engaging said gear wheel and a brake controlled by the rate of rotation of said pinion.

2. The herein described fire escape, comprising twin side disks, each having a hollow handle and connected to one another by the binding rods, one of which disks having a box, a sleeve mounted upon the shaft, having a flange, a gear wheel secured to the transverse shaft, and interposed between the flange and box disk, a pinion engaging the gear wheel and secured to the inner end of the shaft *n*, a brake shoe comprising twin blocks, having the slots to engage the flat surfaces of the pinion shaft and arranged within the box and a brake lever consisting of the handle *h'* fulcrumed to the hollow handle and pivoted



at its inner end to the lower end of a vertical rod *k'*, the upper end thereof contacting with the blocks.

940,602. VEHICLE-WHEEL RIM. OSWALD KIRSCH, Akron, Ohio. Filed Apr. 5, 1909. Serial No. 487,932.

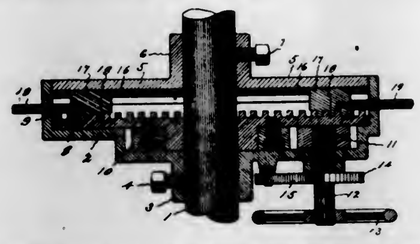


1. A vehicle wheel having a rim with an inclined outer face provided with a plurality of spaced recesses, a detachable rim provided with a plurality of spaced inwardly-projecting pins, arranged when said detachable rim is positioned, to be received in said recesses, said detachable rim arranged to carry an elastic tire, a pair of oppositely-disposed brackets mounted on the side of said wheel, each of said brackets provided with a radially-projecting pin, a pair of semi-circular members conforming in contour to said detachable rim the ends of which are mounted on said radially-projecting pins, each of said semi-circular members provided with a rotatable nut having a threaded aperture and a plurality of studs having threaded projecting ends carried by said wheel arranged to engage in the threaded openings in said nuts for clamping said semi-circular members against the inwardly-projecting pins of said detachable rim for removably locking them in said recesses whereby said detachable rim is temporarily secured in position.

2. A vehicle wheel having a rim with an inclined outer face provided with a plurality of spaced recesses, a tire rim adapted to be mounted on said wheel rim provided with a plurality of spaced inwardly projecting pins, arranged when said tire rim is positioned, to be received in said recesses, a pair of oppositely-disposed brackets mounted on the side of said wheel, a pair of semi-circular members conforming in contour to said tire rim the ends of which are pivotally-mounted on said brackets, each of said semi-circular members provided with means coöperating with an element carried by said wheel operating when said means and element are in engaging relation to draw said semi-circular members against the inwardly-projecting pins on said tire rim for removably locking them in said recesses, whereby said latter rim is temporarily secured in position on said wheel rim.

940,603. DRESSING-MACHINE REEL. RICHARD KNEBEL, Rockville, Conn. Filed Mar. 30, 1909. Serial No. 486,836.

1. An adjustable block mechanism for dresser reels, having blocks adapted to be pivoted to the reel bars, rods connected with the blocks, toothed dogs fastened to the rods, a helical gear meshing with the teeth of the dogs, and gears for rotating the helical gear.

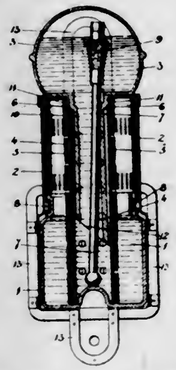


2. An adjustable block mechanism for dresser reels, having blocks adapted to be pivoted to the reel bars, rods connected with the blocks, toothed dogs fastened to the rods, a helical gear with its teeth engaging the teeth of the dogs, a spur gear connected with the helical gear, a spur pinion meshing with the spur gear, and a spindle for rotating the spur pinion.

3. An adjustable block mechanism for dresser reels, having blocks adapted to be pivoted to the reel bars, rods connected with the blocks, toothed dogs fastened to the rods, a helical gear having teeth meshing with the teeth of the dogs, a spur gear fastened to the helical gear, a spur pinion meshing with the spur gear, a spindle for rotating the spur gear, a handle for turning the spindle, and a ratchet and pawl for holding the spindle from turning.

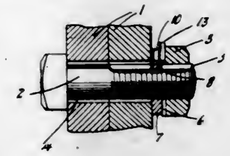
4. An adjustable block mechanism for dresser reels, having blocks adapted to be pivoted to the reel bars, rods connected with the blocks, toothed dogs fastened to the rods, a radially grooved disk for holding and guiding the dogs, a helical gear with teeth engaging the teeth of the dogs, a spur gear fastened to the helical gear, a spur pinion meshing with the spur gear, and means for rotating the pinion.

940,604. VAPORIZER FOR DISINFECTANTS. CHARLES C. LEATHERS, Leytonstone, England. Filed Oct. 30, 1908. Serial No. 460,348.



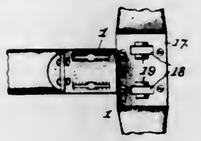
An apparatus for disinfecting or deodorizing purposes, comprising three superposed connected vessels, the top vessel being provided with a valve seat and having a tube depending through the second vessel and into the bottom vessel, an absorbent tube within said second vessel and surrounding the first named tube, and extending into the lowest vessel a rod and valve associated therewith, said rod being looosely disposed with respect to the walls of the containing vessels and being positioned in the top vessel and said first named tube, extending therefrom and coöperating with the valve seat in said top vessel.

940,605. NUT-LOCK. THOMAS LOUGHLIN, New Kensington, Pa. Filed June 15, 1909. Serial No. 502,231.



In a nut lock, a washer provided with a resilient detent adapted to engage a ratchet-faced nut for locking the nut, said detent projecting beyond the outer edge of the washer, and said washer having its outer edge provided with a pair of radially disposed sockets, one arranged at each side of the projecting portion of the detent and adapted to receive a tool for engagement with the projecting portion of the detent to release the latter from the nut.

940,606. CASTER FOR GYMNASIUM APPARATUS. FREDERICK MEDART, St. Louis, Mo.; Edward J. Medart, executor of said Frederick Medart, deceased, assignor to Fred Medart Manufacturing Company, St. Louis, Mo., a Corporation of Missouri. Filed Feb. 4, 1907. Serial No. 355,544.



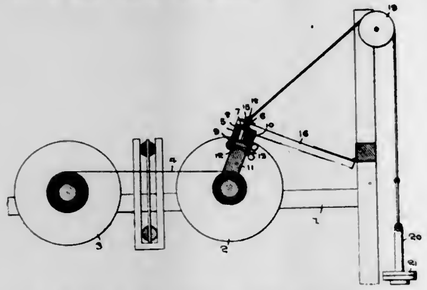
1. The combination of a supporting base having transverse extensions at each end, casters arranged at the midlength of said extensions and comprising caster carrying plates moving vertically in containing recesses formed therefor in the transverse extensions aforesaid, casters carried by said plates, and means for imparting vertical adjustment to said plates, substantially as set forth.

2. The combination of a supporting base having transverse extensions at each end, casters arranged at the midlength of said extensions and comprising caster carrying plates moving vertically in containing recesses formed therefor in the transverse extensions aforesaid, casters carried by said plates, and means for imparting vertical adjustment to said plates, the same comprising operating cam levers having eccentric body portions and angularly extending operating arms, substantially as set forth.

3. The combination of a supporting base having transverse extensions at each end, casters arranged at the midlength of said extensions and comprising caster carrying plates moving vertically in containing recesses formed therefor in the transverse extensions aforesaid, said recesses having vertical walls inturned at their lower ends to form stops, casters carried by said plates and means for imparting vertical adjustment to said plates, substantially as set forth.

4. The combination of a supporting base having transverse extensions at each end, casters arranged at the midlength of said extensions and comprising caster carrying plates moving vertically in containing recesses formed therefor in the transverse extensions aforesaid, said recesses having vertical walls inturned at their lower ends to form stops, casters carried by said plates, and means for imparting vertical adjustment to said plates, the same comprising cover plates arranged at the top of the containing recesses aforesaid, cam levers pivoted to said cover plates and having eccentric body portions bearing against the caster carrying plates and operating arms, substantially as set forth.

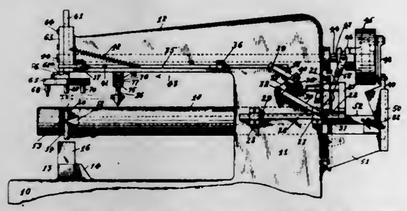
940,607. MEANS FOR APPLYING WAX TO LOOM-WARP. WILLIAM F. MINTEL, Pawtucket, R. I. Filed Apr. 6, 1909. Serial No. 488,253.



1. A device of the character described, comprising a warp filling frame, a holder, arms fixed to said holder and hinged to said warp filling frame, a plate applied to the lower surface of said holder and having hinged thereto a bar adapted to stand at right angles to said plate, an additional plate fixed to said holder and a nut-equipped bolt passing through said bar and one of said plates for the retention of a block of wax between said bar and plate, and means for suspending said holder in position.

2. A device of the character described, comprising a holder, a warp filling frame, arms hinged to said frame and secured to said holder, means for suspending said holder in position, said holder being provided with elongated openings, a plate applied to the lower surface of said holder, bolts for the retention of said plate in position, and extending through said openings, said bolts themselves being provided with securing means, a bar pivotally secured to said plate, an additional plate fixed to said holder, and nut-equipped bolts extending through said bar and the last mentioned plate for the retention of a block of wax between said bar and plate.

940,608. PIPE-RIVETING MACHINE. FRANK W. MCKNIGHT, Los Angeles, Cal., assignor of one-half to J. B. Krimminger, Los Angeles, Cal. Filed Dec. 16, 1908. Serial No. 467,762.



1. In a pipe riveting machine, a frame; a horn secured to the rear portion of the frame and extending toward the front portion, said horn having an anvil bar channel extending longitudinally therethrough; an anvil bar having a wedge shaped front end, longitudinally movable in the channel in said horn; means to reciprocate said anvil bar in said channel; a feed channel in the top portion of said horn extending from the rear to near the front thereof; a placing bar in the front portion of said horn vertically reciprocal across the front end of the feed channel; and means to feed rivets through said feed channel and deliver the same one at a time upon said placing bar.

2. In a pipe riveting machine, a frame; a horn secured to the rear portion of the frame and extending toward the front thereof, said horn having a feed channel extending longitudinally therein from the rear toward the front portion thereof; a placing bar in the front portion of said horn and vertically movable therein to reciprocate across the front end of the feed channel; a feed bar longitudinally movable in said feed bar channel; spring wings having the free ends thereof separated from the body of the feed bar and having the rear ends thereof secured to the feed bar; springs secured to the horn and extending obliquely across the feed bar toward the front of the machine, and then turning at right angles across the center of the same, and then toward the front, said springs being alternately placed on opposite sides of the feed bar channel; and means to reciprocate said feed bar in said channel.

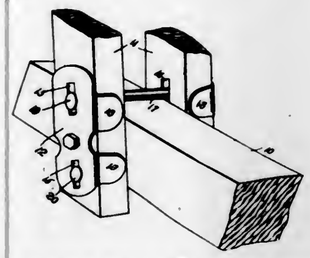
3. In a pipe riveting machine, a frame; a horn secured to the rear portion of the frame and extending toward the front thereof; said horn having a feed channel extending longitudinally therein from the rear to the front portion thereof, and an anvil bar channel extending longitudinally therethrough; an anvil bar in said last channel; means to reciprocate said anvil bar in said channel; means to feed rivets through said feed channel; and means to raise rivets so that the body projects out of said feed channel and to hold the same when being headed.

4. In a pipe riveting machine, a frame; a horn secured to the rear portion of the frame and extending toward the front thereof, said horn having a feed channel extending longitudinally from the rear toward the front portion thereof and also having an anvil bar channel extending longitudinally therethrough; a placing bar in the front portion of said horn, and vertically movable therein; a steadying bar in the front portion of said horn and vertically movable therein; feeding means in said feed channel adapted to feed rivets one at a time upon the placing bar; an anvil bar in said anvil bar channel, said anvil bar having the front end thereof pointed; means to move the anvil bar longitudinally in its channel whereby the placing bar is caused to move upwardly and the steadying bar is caused to move downwardly; a hammer operatively secured in the upper portion of the frame; and means to operate the hammer to cause it to head a rivet held on the supporting bar.

5. In a pipe riveting machine of the character described herein, a frame; an operating shaft revolubly mounted in the upper portion of said frame; a cam eccentrically mounted on the end of said shaft; a slide block mounted on said cam; a tool frame mounted in the end of the upper portion of said frame and adapted to reciprocate vertically, said frame being operable by said slide block; a tool head pivotally secured to said tool frame; a punch removably connected to said tool head; hammers connected to said tool head; in combination with a horn adapted to hold a pipe, said horn having a punching die therein and having means to feed a rivet from the rear end thereof to near the front and through a hole in the pipe and hold the same while the rivet is being headed.

[Claims 6 and 7 not printed in the Gazette.]

940,609. PLOW-HANDLE ADJUSTMENT. JAMES E. NEWBERRY, Decatur, Ga. Filed Apr. 3, 1909. Serial No. 487,773.



1. The combination with a plow beam, of handles pivoted upon opposite sides of the beam and provided with slots upon opposite sides of the pivot, bolts inserted through the slots and resting against the upper and under sides of the beam, and bearing members upon the exterior of the handles positioned to receive the strain of the bolts.

2. The combination with a plow beam, of plow handles pivoted upon opposite sides of the beam and having slots formed longitudinally of the handles upon opposite sides of the pivot, keeper members upon the exterior of the handles and provided with slots registering with the slots in the handles, and bolts extending through the registering slots and bearing upon the top and bottom of the beam.

3. The combination with a plow beam, of handles pivoted upon opposite sides of the beam, and having a slot formed through each of such handles below the pivot, a bolt inserted through the slots, and a member secured to the under side of the beam adapted to maintain the bolt substantially in engagement with the under surface of the beam.

4. As an article of manufacture, a keeper for plow handle adjustment comprising a plate having a central pivot opening with slots extending upon opposite sides of the pivot opening, and ears formed at the opposite edges and extending at right angles to the plane of the keeper.

5. As an article of manufacture, a keeper for plow handle adjustment comprising a substantially plane plate having a central pivot opening, and with alined slots formed upon opposite sides of the pivot opening, and ears formed upon opposite edges of the plate and turned at substantially right angles to the plane of such plate.

940,610. GAS LIGHTING AND EXTINGUISHING APPARATUS. VICTOR C. J. NIGHTINGALL, Melbourne, Victoria, Australia, assignor to The Nightingall Gas Control Company Limited, Melbourne, Australia. Filed June 8, 1909. Serial No. 500,984.



1. In a gas lighting apparatus, a plurality of revolving segmental switches, means for operating the switches simultaneously with the variation of the gas pressure, and means connected at certain segments of the switches and electrically operated for supplying gas to certain burners exclusively of the others upon a given number of variations of pressure and for supplying the remaining burners upon a subsequent number of variations of pressure.

2. In a gas lighting apparatus, a plurality of segmental switches, a pressure operated device for moving all of the switches at the same time, and means connected with certain segments of the switch and electrically operated for supplying gas to certain of the burners exclusively of the others upon a given number of variations of pressure and for supplying the remaining burners upon a subsequent number of variations of pressure.

3. In a gas lighting apparatus, a pressure controlled device, means electrically operated for controlling the supply of gas to the burners, a revolving segmental switch, a toothed wheel rigidly secured to said switch, and an arm engaging the toothed wheel and having connection with said pressure device whereby motion is transmitted from said pressure device to said toothed wheel for moving said switch.

4. In a gas lighting apparatus, a pressure operated member, a valve controlling the supply of gas to the burner, means for controlling said valve, said means being electrically operated, a revolving segmental switch, contact means bearing against said switch, a toothed wheel carried by said switch, and an arm connected to said pressure operated member and engaging said wheel for moving said wheel when moved by said pressure operated member.

5. In a gas lighting apparatus, a pressure operated bellows, means whereby said bellows may be operated only at a predetermined pressure, a revolving segmental switch, contact brushes bearing against the segmental switch, a toothed wheel carried by the switch, means contacting with the teeth of said wheel and of said bellows for conveying motion from said bellows to said wheel, and electromagnets connected with the contact brushes and arranged to control the gas supply to the burners.

[Claims 6 and 7 not printed in the Gazette.]

940,611. FILLING DEVICE. JACOB PAPISH, New York, N. Y. Filed Feb. 15, 1909. Serial No. 477,870.



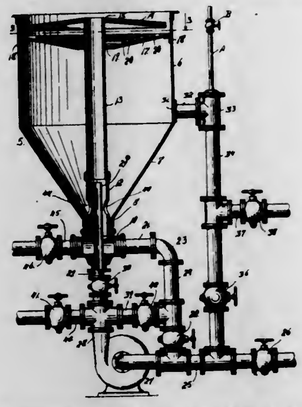
1. A device of the class described, comprising a funnel, a hood mounted upon the rim of said funnel, a support between said funnel and said hood, and a screw for advancing material downward through said funnel, said support and said hood having bearings for said screw.

2. A device of the class described, comprising a funnel, a hood arranged upon said funnel, a support positioned under said hood, common means for securing said funnel, said hood and said support together, and a screw for advancing material downwardly through said funnel, said hood and said support having bearings wherein said screw is journaled.

3. A device of the class described, comprising a funnel having a hollow stem adapted to be inserted in a receptacle, a shaft arranged longitudinally of said stem and having a crank whereby it can be manually operated, a helical rib carried by said shaft within said stem, said rib having a part extended upwardly and laterally into said funnel and forming a stirrer, and a hood mounted upon said funnel and partly covering the same, said hood having a bearing for said shaft.

4. A device of the class described, comprising a funnel having a hollow stem, said funnel at the rim having a flange, a hood having a flange and arranged upon said first flange, said hood having openings adjacent to its flange, a support having extremities extending through said openings, bolts for securing said flanges and said extremities of said support in place, a shaft arranged longitudinally of said stem and journaled upon said support, a crank rigid with said shaft, and a helical rib carried by said shaft.

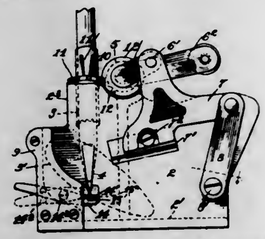
940,612. PULP-AGITATOR. WILLIAM C. PATERSON, Denver, Colo. Filed May 24, 1909. Serial No. 497,923.



1. The combination of an upright tank having a conical bottom, a centrally disposed pipe located in the said tank, its lower portion being in communication with the tank, an inlet pipe projecting upwardly through the bottom of the tank and entering the centrally located pipe, a pulp supply pipe for delivering fluid to the tank, through the inlet pipe and the centrally located pipe, a valve-controlled branch pipe communicating at one extremity with the body of the tank at a suitable point above the bottom, an air pipe connected with the said branch pipe, and pulp circulating means interposed between the pulp supply pipe and the said branch pipe, substantially as described.

2. The combination of an upright tank having a conical bottom, an inlet pipe projecting upwardly through the bottom of the tank, a pulp supply pipe for delivering fluid to the tank through the inlet pipe, a stand pipe connected at one extremity with the tank at a suitable point above the bottom, an air pipe open to the atmosphere, connected with the stand pipe and projecting above the level of the liquid in the tank, and a pump interposed between the inlet pipe and the stand pipe, for the purpose set forth.

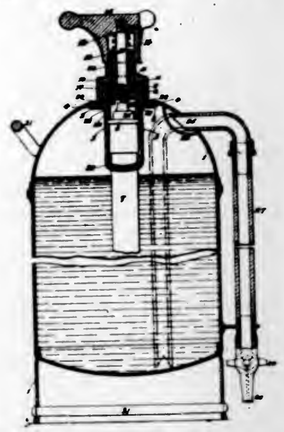
940,618. PENCIL-SHARPENING DEVICE. REINHART W. PITTMAN, New York, N. Y. Filed Nov. 23, 1908. Serial No. 464,072.



1. In a pencil sharpening device, the combination of a base piece provided with a pencil socket, a cutting blade, a cutting blade carrier, an operating crank shaft provided with a crank pin from which said carrier is hung, a swinging link pivoted at one end to the base piece and at the opposite end to the carrier, said link being resilient and twisted for the purpose of holding the blade to its cut during the cutting operation and means for rotating a pencil in said socket.

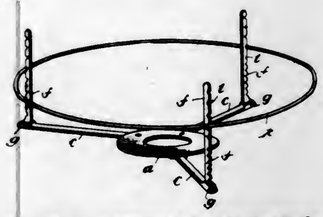
2. In a pencil sharpening device, the combination of a base piece provided with a pencil socket, a cutting blade, a cutting blade carrier, an operating crank shaft provided with a crank pin from which said carrier is hung, a swinging link pivoted at one end to the base piece and at the opposite end to the carrier said link being resilient and twisted for the purpose of holding the blade to its cut during the cutting operation, a sleeve rotatable in said socket and provided with inwardly projecting spring fingers for engaging a pencil, a worm and worm wheel for rotating the sleeve, and an adjustable stop for limiting the descent of the pencil in the pencil socket.

940,614. FIRE-EXTINGUISHER APPARATUS. HARRY V. R. READ, London, and ROBERT H. CAMPBELL, Edmonton, England. Filed Mar. 29, 1909. Serial No. 486,556.



In fire extinguishers and other liquid ejection apparatus, into which gas is liberated from a container of compressed or liquefied gas, the combination with the body part of the apparatus of a cylindrical connecting piece provided with a shoulder to support the container, a cylindrical piece capable of being inserted in the said connecting piece to hold the container in position against the shoulder, a cap secured to the said connecting piece and provided with a stuffing box, a stem carrying a piercer and passing through the stuffing box, a plunger movable in the cylindrical piece and connected to one end of the stem and an end piece connected to the other end of the stem and adapted to be projected outward by a spring together with sealed means for preventing accidental actuation of said plunger, all substantially as hereinbefore described.

940,615. SKIRT-GAGE. DANIEL A. REYNOLDS, New York, N. Y., assignor of one-half to Louis T. Adams, New York, N. Y. Filed Mar. 11, 1909. Serial No. 482,682.



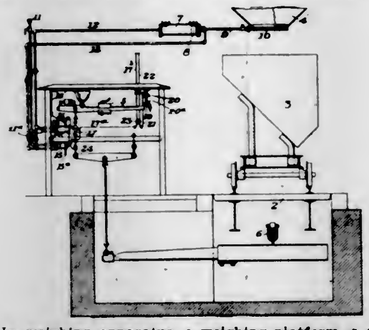
1. A skirt gage comprising a frame, standards mounted thereon and capable of extending vertically from the frame and of folding in under the same horizontally and a ring adjustably held by the standards.

2. A skirt gage comprising a frame, standards mounted thereon and capable of extending vertically from the frame and folding in under the same horizontally and a ring adjustably held by the standards, such ring being resilient to enable it to be adjusted.

3. A skirt gage comprising a base formed of a central part with beads thereon and arms riveted between the beads and extending outward from the central part, standards mounted on said arms and adapted to extend vertically and a ring adjustable on the standards.

4. A skirt gage comprising a base having notched arms, standards pivoted in the notches and having heels to engage the arms to limit inward movement of the standards and a ring adjustable on the standards.

940,616. AUTOMATIC CUT-OFF FOR WEIGH-SCALES. ROBERT W. ROMIG, Pittsburg, Pa., assignor to The Fairbanks Company, New York, N. Y., a Corporation of New Jersey. Filed July 16, 1907. Serial No. 384,048.



1. In weighing apparatus, a weighing platform, a scale beam, a cut-off device, a power cylinder for controlling the cut-off device, an electro-magnetically actuated valve for admitting power to said cylinder, the circuit of said valve being controlled by the movement of the scale beam, and manually controlled means for causing the reverse operation of the cylinder; substantially as described.

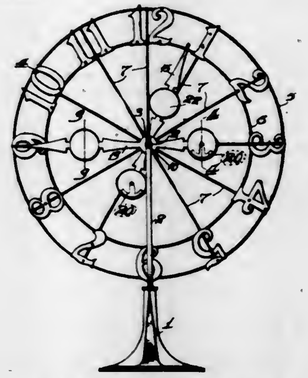
2. In weighing apparatus, a weighing platform, a scale beam, a cut-off device, a double-acting motive cylinder for actuating the cut-off device, a valve for controlling the admission of pressure to one end of said cylinder, electromagnetic means controlled by the scale beam for opening said valve, and a manually operated device for controlling the admission of pressure to the other end of said cylinder; substantially as described.

3. In weighing apparatus, a gate or cut-off, a cylinder for actuating the same, a valve for admitting power to one end of said cylinder, a magnet for opening said valve, and a second valve and connections for admitting power to the opposite end of the cylinder, said magnet having its circuit opened and closed by the scale beam of the weighing apparatus, and means controlled by the position of the last named valve to also open and close said circuit; substantially as described.

4. In weighing apparatus, a cut-off gate or shutter, a power cylinder for actuating the same, a magnetically actuated valve for controlling the admission of power to one end of said cylinder, and a manually-operated valve for controlling the admission of power to the opposite end of said cylinder, the circuit of the actuating magnet for the first named valve being opened and closed by the position of the scale beam, and means controlled by the position of the manually-operated valve to also open and close said circuit; substantially as described.

940,617. CLOCK. ROBERT C. SALOCH, St. Louis, Mo. Filed Mar. 17, 1909. Serial No. 484,071.

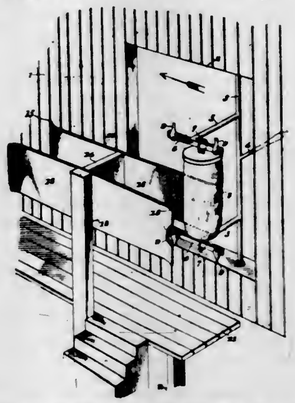
1. A clock, comprising a stand, parallel standards secured to said stand, a shaft mounted in said standards, a skeleton dial mounted on said shaft, an hour and minute hand loosely mounted on said shaft, each of which carries a watch movement and a counter weight, a weight secured to the center arbor of the minute hand movement, and a similar weight secured to the hour wheel of the hour hand movement.



2. In a clock of the class described, a shaft, a skeleton dial loosely mounted on said shaft carrying the usual numbers from 1 to 12, a minute hand and an hour hand loosely mounted on said shaft in front of said dial, a watch movement carried by one end of each of said hands, a counter weight carried by each of the opposite ends of said hands, a weight secured to the center arbor of the movement carried by the minute hand, and a similar weight carried by the hour wheel of the movement carried by the hour hand.

3. A clock of the class described, comprising a shaft, a skeleton dial carrying the usual numbers from 1 to 12 loosely mounted on said shaft, a weight secured to the periphery of said dial diametrically opposite the numeral 12, a minute hand and an hour hand loosely mounted on said shaft in front of said dial, a similar watch movement carried by one end of each of said hands, a similar counter-weight carried by each of the opposite ends of said hands, a weight in the form of a segment of a circle secured to the center arbor of the movement carried by the minute hand, and a similar weight carried by the hour wheel of the movement carried by the hour hand.

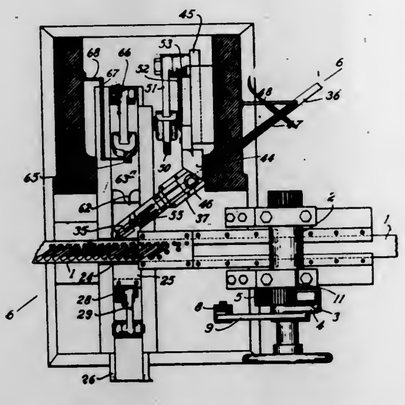
940,618. MAIL-BAG DELIVERER. HERBERT J. SANDERSON, Cowansville, Pa., assignor of one-fourth to William D. Sanderson, Cowansville, Pa. Filed May 28, 1909. Serial No. 498,974.



In a mail bag deliverer the combination of a post journaled vertically on the car, vertically spaced arms project-

ing perpendicularly from the post, horizontal cross pieces carried at the extremities of the arms and extending laterally on both sides thereof, latches pivoted to the extremities of the cross pieces, and a receiver arranged at one side of the track and supported at a suitable elevation to permit the arms to pass freely above and below the same, the receiver consisting of longitudinally extending spaced side members and a transverse partition connecting the members intermediate of the ends thereof.

940,619. METAL-WORKING MACHINE. FRANK W. SANFORD, Boston, and NORMAN MARSHALL, Newton, Mass., assignors, by mesne assignments, to Norman Marshall, Newton, Mass. Filed Aug. 25, 1903. Serial No. 170,705.



1. The combination of dies for punching a blank from sheet metal, feeding devices for feeding a metal strip between the dies, means for returning the blank to the hole in the strip, a carrier plate beyond the dies and below the path of the strip, and devices for transferring the blank from the strip into the path of the carrier, coöperating bending dies, and means for reciprocating the carrier plate between the transferring device and the bending dies, substantially as described.

2. The combination of dies for forming a blank from sheet metal, dies for upsetting the metal of said blank to form riveting studs, dies for forming a second blank having holes to register with said riveting studs, means for feeding said blanks from the forming dies into position with the holes in register with the riveting studs, devices for heading said riveting studs, and connected mechanism for operating the dies, feeding means and heading devices, substantially as described.

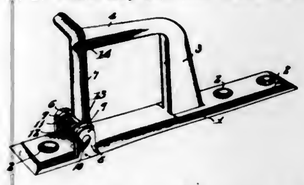
3. The combination of a female bending die, a plunger within the die, means for arresting the movement of the plunger, devices for feeding a blank into position at the die, devices for feeding a second blank into register with the first blank, and a male bending die coöperating with the female die to bend both blanks, substantially as described.

4. The combination of a female bending die, a plunger within the die, means for arresting the movement of the plunger, a male die and a bending die for acting on the blank out of the plane of the female die while held between the male die and plunger, substantially as described.

5. The combination of a female bending die, a male die coöperating therewith, a bending lug on the side of the male die arranged to be engaged by the blank, and a bending die for bending the blank against the bending lug, substantially as described.

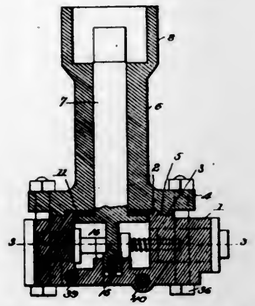
[Claims 6 to 17 not printed in the Gazette.]

940,620. HOLDBACK. MICHAEL D. SCHALLER, Vernon Center, N. Y. Filed May 24, 1906. Serial No. 318,591.



A holdback comprising an attaching plate, a strap engaging hook formed integral with the plate and having a portion projecting upwardly at right angles from the upper face of the plate and a portion extending rearwardly above the attaching plate and parallel thereto, the vertically extending portion of the hook being of less thickness than width, the rearwardly extending portion of the hook being of the same thickness throughout and being increased in width in the direction of its rearward end, the breadth dimension of the said rearwardly bent portion of the hook being at right angles to the breadth dimension of the vertical portion of the hook, and a spring controlled finger seating against the end of the said rearwardly extending portion of the hook.

940,621. VALVE. CHARLES H. SMITH, Scranton, Pa. Filed Apr. 27, 1909. Serial No. 492,550.

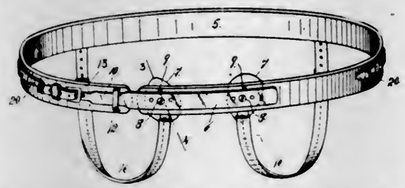


1. In an engineer's valve, a body portion, a cover secured thereon and provided with a neck portion, a joint seat formed on the cover portion, a stem positioned in the neck portion and provided with a stop member, a washer interposed between the stop member and the seat and adapted to provide an air tight joint, a lug projecting from the stop member, a resilient member carried by the body portion and engaging the projecting lug to hold the stop member in engagement with the washer member, a release port formed upon one side of the lug, a service port formed within the body portion on the opposite side of the lug, valves normally closing each of the ports, the lug being adapted to operate the valves, and means connected with the lug to open and close the valves.

2. In an engineer's valve, a body portion, a neck portion mounted on the body portion, a stem projecting into the neck portion, a stop member connected with the stem and arranged to engage the lower extremity of the neck portion, a lug projecting from the stop member and provided with a bifurcated end, a release valve positioned upon one side of the lug, a service valve positioned on the opposite side of the lug, a stem carried by each of the valves, the bifurcated end of the lug being in engagement with the stem of the release valve and the other end of the lug being in engagement with the stem of the service valve, and means for operating the stem to open and close the release valve and the service valve.

3. In an engineer's valve, a body portion, a neck portion mounted upon the body portion, a stem projecting into the neck portion, a lug carried by the stem and formed at one end with a bifurcation, a release valve carried by the body portion upon one side of the lug, a service valve carried by the body portion on the other side of the lug, a stem carried by each of the valves, a stem connected with the release valve having formed thereon a lug, the bifurcated end of the lug engaging the stem of the release valve and the end of the lug being carried thereby in engagement with the stem carried by the service valve, resilient means connected with each of the stems for holding the service valves in closed position and means for operating the stem to operate the lug to open and close each of the valves separately.

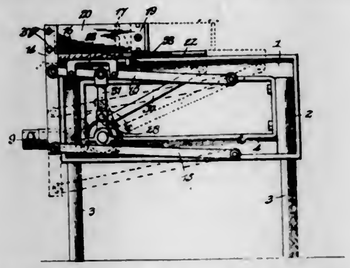
940,622. TRUSS. THOMAS H. STANLEY, Denver, Colo. Filed Nov. 19, 1907. Serial No. 402,908.



1. In a truss, the combination of a belt provided with a pad, a screw for securing the belt to the pad, and a fastening strap attached to the belt by the said screw in such a manner that the strap is movable on the screw, substantially as described.

2. The combination with a belt provided with a pad, of a fastening strap attached to the belt in front, a buckle slidably mounted upon an auxiliary strap attached to the belt in the rear to permit a movement longitudinally of the belt, a flexible key attached to the buckle holder and adapted to be passed through openings formed in the buckle holder and the strap upon which the latter is mounted.

940,623. BRICK-MACHINE. CHARLES M. STARR, South Bend, Ind. Filed Sept. 21, 1908. Serial No. 453,908.



1. In a brick machine, the combination of a supporting frame, a pallet mounted thereon, a mold wall movable vertically upon said frame at one side of said pallet, a mold wall beneath which the opposite side of said pallet extends, adjustably secured upon said frame to move toward and away from said first named wall and comprising spaced upstanding sections, a draw-head mounted to slide horizontally upon said frame, and provided with spaced partitions extending between said wall sections above said pallet, and means for simultaneously moving said movable wall and said draw-head, substantially as described.

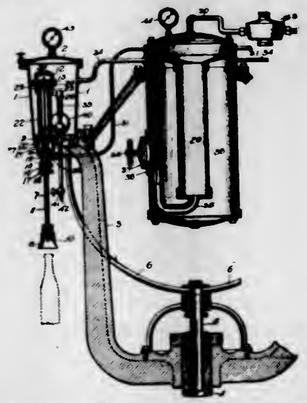
2. In a brick machine, the combination of a supporting frame, a pallet mounted thereon, a mold wall movable vertically upon said frame at one side of said pallet, a mold wall beneath which the opposite side of said pallet extends, adjustably secured upon said frame to move toward and away from said first named wall and comprising spaced upstanding sections, a draw-head mounted to slide horizontally upon said frame, and provided with spaced partitions extending between said wall sections above said pallet, and means for simultaneously moving said vertical movable wall and said draw-head, embodying an element for engagement with said pallet to force the same tightly against said partitions, substantially as described.

3. In a brick machine, the combination of a movable wall, a stationary wall opposing said movable wall, a pallet disposed between said walls, a draw-head having partitions extending through one of said walls and movable toward and away from the same, and devices engageable by said draw-head to force said pallet into close contact with the opposite wall, substantially as described.

4. In a brick machine, the combination of a supporting frame, a mold box disposed thereon, and comprising a wall, means supporting said wall from said frame for vertical movement with relation thereto, a wall opposing said first named wall, a pallet disposed between said walls, a horizontally movable drawhead provided with spaced partitions adapted to extend through said last named wall, said first named wall being connected to its supporting means for pivotal movement, and means to lock the said first named wall against vertical movement, substantially as described.

5. In a brick machine, the combination of a supporting frame, a mold box disposed thereon, and comprising a wall, a second wall opposing the same, and a pallet disposed between said walls, means supporting said first named wall from said frame for vertical movement with relation thereto, a horizontally movable drawhead provided with spaced partitions adapted to extend through said last named wall, said first named wall being connected to its said supporting means by elements forming pivots for the independent swinging movement thereof, means for moving said vertically movable wall and said drawhead, and means for locking said wall from vertical movement when it is desired to swing the same.

940,624. FILLING-MACHINE. FRANK C. H. STRASBURGER, Chicago, Ill., assignor to Bottlers Machinery Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed May 18, 1909. Serial No. 496,806.



1. In a filling machine, the combination of a beer tank connected with a source of supply, a filling mechanism connected with the tank, means for supplying pressure on the beer in the tank, means for supplying counter-pressure to the bottle to be filled, and means for maintaining a difference between said pressures corresponding to the hydrostatic pressure of the beer in the tank to the top of the bottle when in filling position.

2. In a filling machine, the combination of a beer tank connected with a source of supply, a filling mechanism connected with the tank, means for supplying pressure on

the beer in the tank, means for supplying counter-pressure to the bottle to be filled, means for maintaining a difference between said pressures corresponding to the hydrostatic pressure of the beer in the tank to the top of the bottle when in filling position, and means for automatically controlling the inflow of beer to the tank by permitting the escape of pressure therefrom.

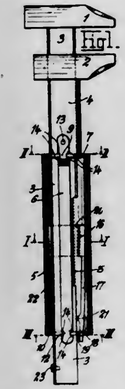
3. In a filling machine, the combination of a beer tank, a connection between said tank and a source of beer supply under pressure, said pressure decreasing as the beer is used, a filling mechanism connected with the tank, means for supplying pressure on the beer in the tank, means for supplying counter-pressure to the bottle to be filled, means for maintaining a difference between said pressure in the tank and the counter-pressure corresponding to the hydrostatic pressure in the tank to the top of the bottle when in filling position, and means for controlling the supply of beer to the tank comprising a pressure exhaust, a valve in said exhaust, and a float for operating said valve and controlled by the level of the beer in the tank.

4. In a filling machine, the combination of a beer tank, a filling mechanism connected therewith, a high pressure chamber connected to a source of pressure supply and adapted to furnish pressure to the bottle to be filled, a low pressure chamber connected to the beer tank, a connection between said chambers, and a valve in said connection.

5. In a filling machine, the combination of a beer tank, a filling mechanism connected therewith, a high pressure chamber connected to a source of pressure supply and adapted to furnish pressure to the bottle to be filled, a low pressure chamber connected to the beer tank, a connection between said chambers, a valve in said connection, and a weight on said valve to control the operation thereof.

[Claims 6 to 9 not printed in the Gazette.]

940,625. ADJUSTABLE SPANNER. PEDER P. STRÖMBERG, Gjesaasen, Norway, assignor of one-half to Olaf Ostby, Gjesaasen, Norway. Filed June 26, 1908. Serial No. 440,542.

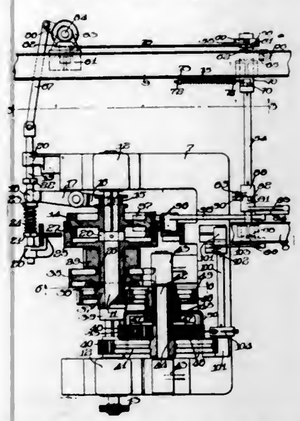


1. In an adjustable spanner or wrench, a bar provided with a wrench-jaw and also having a toothed portion, a second wrench-jaw, two plates connected with the second wrench-jaw and slidably and non-rotatably connected with the bar, an arm having teeth for engagement with those of the bar, a handle rotatably supported between said plates and inclosing the arm aforesaid and the toothed portion of the bar, said handle being provided with a portion which, upon its rotation, moves teeth of said arm into engagement with teeth of the bar.

2. In an adjustable spanner or wrench, a bar provided with a wrench-jaw and also having a toothed portion, a second wrench-jaw and a part for carrying the same and slidably engaging the bar, side straps connected with said carrying part and having reduced end portions, two plates slidably and non-rotatably connected with the bar and formed to engage with the reduced end portions of the bands, an arm having teeth for engagement with those of the bar, a handle rotatably supported between said plates and inclosing the arm aforesaid and the toothed portion of the bar, and means for normally holding said arm out of engagement with the bar, said handle being provided with a portion which, upon its rotation, moves teeth of said arm into engagement with teeth of the bar.

3. In an adjustable spanner or wrench, a bar provided with a wrench-jaw and also having a toothed portion, a second wrench-jaw, two plates connected with the second wrench-jaw and slidably and non-rotatably connected with the bar, a spring arm having teeth for engagement with those of the bar and also formed with a nose for engagement with the bar to hold the teeth away from those of said bar, and having a portion in engagement with one of said plates, a handle rotatably supported between said plates and inclosing the arm aforesaid and the toothed portion of the arm, and means capable, upon rotation of the handle, for moving the teeth of said arm into engagement with those of the bar.

940,626. VARIABLE-SPEED DRIVING MECHANISM. JOSEPH J. WALSER, Chicago, Ill., assignor to The Goss Printing Press Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 4, 1909. Serial No. 476,158.



1. In combination, a driving-shaft, a driving-gear rotatably carried on said shaft, clutch mechanism carried by said shaft and adapted when engaged to rotate said driving-gear with said shaft, means for throwing said clutch mechanism into and out of engagement, a countershaft, slow-speed mechanism mounted on said countershaft, gearing between said driving-shaft and said slow-speed mechanism, and pawl and ratchet mechanism between said slow-speed mechanism and said driving-gear on said driving-shaft and gearing connecting said pawl and ratchet mechanism with said slow-speed mechanism.

2. In combination, a driving-shaft, a driving-gear rotatably carried on said shaft, clutch mechanism carried on said shaft and adapted when engaged to rotate said driving-gear with said shaft, means for throwing said clutch mechanism into and out of engagement, a countershaft, slow-speed planetary gearing mounted on said counter-shaft, gearing between said planetary gearing and said driving-shaft, and pawl and ratchet mechanism between said planetary gearing and said driving-gear on said driving-shaft and gearing connecting said pawl and ratchet mechanism with said slow-speed mechaniam.

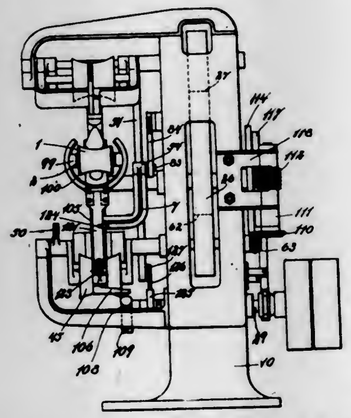
3. In combination, a driving-shaft, a driving-gear rotatably carried on said shaft, a clutch-member connected with said gear on said driving-shaft, a clutch-member carried by said driving-shaft and adapted to be thrown into engagement with said first clutch-member, a countershaft, planetary gearing carried by said countershaft, gearing between said planetary gearing and said driving-shaft, gearing operated by said spider, and pawl and ratchet connections between said last-named gearing and said driving-gear on said driving-shaft.

4. In combination, a main driving-shaft, a driving-gear rotatably carried on said driving-shaft, clutch mechanism mounted on said driving-shaft and connected with said driving-gear and adapted when thrown into engagement to rotate said driving-gear with said shaft, a countershaft, a spider on said countershaft, a drum concentric with said countershaft and rotatable with reference to said spider, means for holding said drum against rotation, an internal gear on said drum, pinions on said spider adapted to mesh with said internal gear, a pinion concentric with said countershaft and adapted to mesh with the pinions on said spider, slow-speed gearing between said last-named pinion and said driving-shaft, gearing driven by said spider, and pawl and ratchet connections between said last-named gearing and the driving-gear on said driving-shaft.

5. The combination with a driving-shaft, a clutch-member rotatably mounted on said driving-shaft, a gear secured to said clutch-member, a second clutch-member slidingly mounted on said driving-shaft, and means for moving said clutch-members into and out of operative engagement, of a pinion on said driving-shaft, a second shaft, a large gear rotatably mounted on said second shaft and meshing with said pinion, a small gear secured to said large gear, a spider rotatably mounted on said second shaft, a drum rotatably mounted on the hub of said spider and carrying an internal gear, pinions on said spider and meshing with said smaller gear on said second shaft and with the internal gear on said drum, a gear carried by said spider, a gear on said driving shaft, connections between said last-named gear and said rotatable clutch-member adapted to rotate said clutch-member from said last gear in one direction, a brake for holding said drum against rotation, and connections between said brake and said clutch moving mechanism.

[Claims 6 to 9 not printed in the Gazette.]

940,627. SOLE-LEVELING MACHINE. HAROLD A. WEBSTER, Haverhill, Mass., assignor, by mesne assignments, to Charles K. Fox, Haverhill, Mass. Filed Dec. 19, 1904. Serial No. 237,386.



1. A sole-leveling machine comprising a jack having a progressive movement in a predetermined path, a pivoted frame adapted to swing toward and from the path of the jack, and a leveling-tool carried by said frame and adapted to move laterally so as to vary the inclination of the tool with respect to the jack.

2. A sole-leveling machine comprising a jack, and a tool mounted to operate on a sole carried by said jack and arranged to oscillate about an axis extending in the same general direction as the length of the sole on which the tool is acting and also to turn about an axis perpendicular to said first-named axis and to the sole.

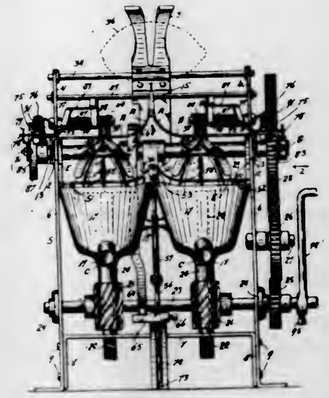
3. A sole-leveling machine comprising a jack, a tool mounted to operate on a sole carried by said jack and arranged to oscillate about an axis extending in the same general direction as the length of the shoe on which the tool is acting and also to turn about an axis pendendicular to said first-named axis and to the sole, and means for oscillating said tool about one of said axes.

4. A sole-leveling machine comprising a jack, a tool-holder pivoted for movement toward and from said jack, and an operating tool comprising a roll carried by said tool-holder and arranged to turn about three axes substantially perpendicular to each other.

5. A sole-leveling machine comprising a jack adapted to move progressively in a predetermined path, a tool adapted to act on a sole carried by said jack, means to oscillate said tool, said means being normally inoperative, and means for rendering said tool-oscillating means operative during the period in which the shank portion of a sole is in engagement with said tool.

[Claims 6 to 14 not printed in the Gazette.]

940,628. LEMON-SQUEEZER. JOHN WIENDL, Denver, Colo. Filed Nov. 3, 1908. Serial No. 460,831.



1. A lemon squeezer comprising a vertically reciprocating lemon supporting platform composed of members adapted to open and close in a horizontal direction, and lemon squeezing devices coöperating with said platform.

2. A lemon squeezer including a rotary abutment, and an opposing coöperating presser arm, and a vertically reciprocating, horizontally-opening-and-closing, lemon supporting platform.

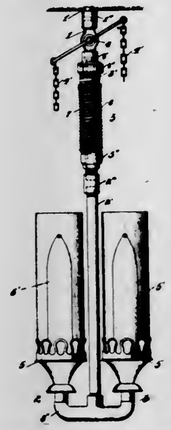
3. A device of the class described including an abutment mounted to rotate on a vertical axis, an opposing coöperating presser arm, and a vertically reciprocating, horizontally-opening-and-closing, lemon supporting platform.

4. A lemon squeezer including a rotary abutment of approximately coniform shape, an opposing presser arm mounted to oscillate, and a vertically reciprocating, horizontally-opening-and-closing, lemon supporting platform substantially as described.

5. A lemon squeezer including a rotary abutment having a pointed upper extremity, a coöperating presser arm, and a vertically reciprocating, horizontally-opening-and-closing, lemon supporting platform.

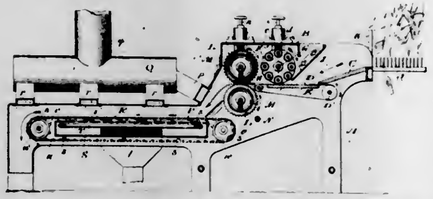
[Claims 6 to 24 not printed in the Gazette.]

940,629. SHOCK-ABSORBING DEVICE FOR GAS-MANTLE FIXTURES. HARRY E. WOODS, Chicago, Ill. Filed Jan. 25, 1908. Serial No. 412,572.



A gas fixture comprising an upper pipe section, in combination with a lower pipe section, a gas mantle fixture on said lower section, a helical coiled spring having its ends fastened to and connecting said upper and lower pipe sections, said pipe sections and spring having a common vertical axis, a laterally flexible armored tube joining the ends of said pipe sections within said coiled spring, the length of said tube being greater than the normal length of said spring and being normally flexed within the spring, said spring and tube together forming a longitudinally elastic and laterally flexible connecting and shock absorber between said pipe sections, substantially as described.

940,630. GRASS-CRIMPING APPARATUS. WILLIAM F. WYMAN, Oshkosh, Wis., assignor of one-half to Joseph A. Crum, Oshkosh, Wis. Filed Dec. 31, 1908. Serial No. 470,230.

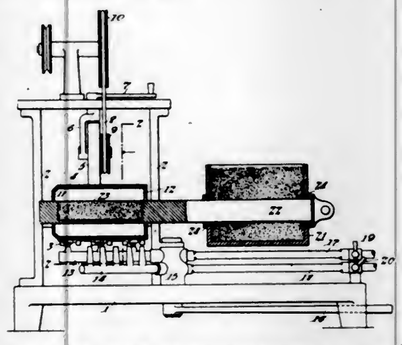


1. A grass-crimping apparatus comprising a feed-mechanism, means by which to straighten material on its way to said mechanism and to preserve the parallel condition of the fibers of the fed material, a pair of crimping rolls, an endless traveling vibratory screen-conveyer upon which material is discharged from said rolls, and means whereby a current of hot-air is forced through the conveyer and material thereon.

2. A grass-crimping apparatus comprising a feed-mechanism, means by which to straighten material on its way to said mechanism and to preserve the parallel condition of the fibers of the fed material, a pair of crimping-rolls, an endless traveling screen conveyer upon which material is discharged from said rolls, a hot-air distributer box within the confines of the conveyer, and cam-racks on the box opposed to lags of said conveyer.

3. A grass-crimping apparatus comprising a feed mechanism, means by which to straighten material on its way to said mechanism and to preserve the parallel condition of the fibers of the fed material, a pair of crimping-rolls and means for heating same, an endless vibratory traveling conveyer upon which material is discharged from the rolls, and means for hot-air drying of the crimped material on the conveyer and for expulsion of dust and chaff loosened from said material.

940,631. APPARATUS FOR MAKING DUPLICATE PHONOGRAPH-RECORDS. JONAS W. AYLSWORTH, East Orange, N. J., assignor to New Jersey Patent Company, West Orange, N. J., a Corporation of New Jersey. Original application filed May 16, 1906, Serial No. 317,082. Divided and this application filed Mar. 12, 1907. Serial No. 361,958.



1. Apparatus for making duplicate phonograph records, comprising in combination a hot tubular mold, means for rapidly rotating the same, means for introducing within the mold a charge of solid fusible material of definite quantity, and means for maintaining the heat of the mold until the record is formed, substantially as set forth.

2. Apparatus for making duplicate phonograph records, comprising in combination a hot tubular mold, means for rapidly rotating the same, means for introducing within the mold a measured charge of solid fusible material, and means for rapidly cooling the mold, substantially as set forth.

3. Apparatus for making duplicate phonograph records, comprising in combination a horizontal tubular mold, means for rapidly rotating the same, means for heating the mold, and horizontally movable means for introducing within the mold a charge of solid fusible material, substantially as set forth.

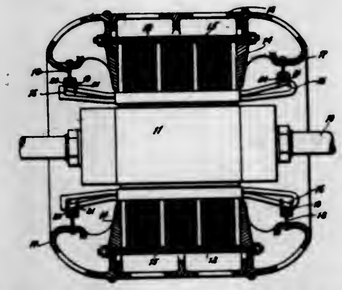
4. Apparatus for making duplicate phonograph records, comprising in combination a tubular mold, means for supporting and rapidly rotating the same, a gas burner for heating the mold, a water nozzle for cooling the mold, means for alternately coöperating the burner and nozzle with the mold, and means for introducing within the mold a charge of solid fusible material, substantially as set forth.

5. Apparatus for making duplicate phonograph records, comprising in combination a hot tubular mold, means for supporting and rapidly rotating the same, a receptacle adjacent to the mold containing unfused fusible material, and means for transferring a measured charge of such material from said receptacle and depositing the same in the mold, substantially as set forth.

[Claims 6 to 9 not printed in the Gazette.]

940,632. DYNAMO-ELECTRIC MACHINE. BERNARD A. BEHREND, Norwood, Ohio, assignor to Allis-Chalmers Company, a Corporation of New Jersey, and The Bullock Electric Manufacturing Company, a Corporation of Ohio. Filed Nov. 27, 1905. Serial No. 289,221.

1. In a dynamo-electric machine, a stationary armature comprising a core, a distributed armature winding comprising coils having portions projecting beyond the core, a stationary supporting member for the projecting portions of the coils, and separate means fastening each coil independently to said supporting member.



2. In a dynamo-electric machine, a stationary armature, armature coils having end-turns extending beyond the ends of the armature core, end heads and shields, supports for the end-turns secured to the end shields, and means engaging the end-turns and the supports for securing the end-turns to the supports.
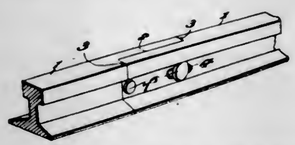
3. In a dynamo-electric machine, a stationary armature comprising a core and supporting frame, a distributed armature winding comprising coils having end-turns extending beyond the core, a supporting ring for the end-turns, and means binding the end-turns to the supporting ring.

4. In a dynamo-electric machine, a stationary armature comprising a core, a distributed armature winding comprising coils having end-turns extending beyond the core, an end-turn supporting ring, and means for fastening each end-turn separately and independently to the ring.

5. In a dynamo-electric machine, a stationary armature comprising a core, a core supporting frame, a distributed armature winding comprising coils having end-turns extending beyond said core, supporting rings for the end-turns secured to the frame of the machine, and means engaging the rings and end-turns for fastening said end-turns to the supporting rings.

[Claims 6 to 9 not printed in the Gazette.]

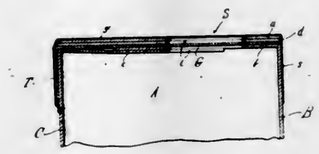
940,633. RAIL-JOINT. AMANDA BYNUM, Strathcona, Alberta, Canada. Filed Aug. 18, 1908. Serial No. 449,084.



1. In a rail joint, the combination of rails having their adjacent ends oppositely recessed or halved to form a scarf joint, said recesses terminating in oppositely facing shoulders and the reduced ends of the rails being formed in the web portions thereof near the respective shoulders with longitudinally elongated transverse openings and in their extremities with relatively narrow square apertures arranged to register with the respective openings, and fastening means mounted in the respective openings and arranged for a limited longitudinal movement therein, said fastening means having their extremities reduced to form shoulders arranged to abut against the inner faces of the opposing rail ends around the apertures, and the reduced extremities being square in cross section and fitting snugly in the square apertures, as and for the purpose specified.

2. In a rail joint, the combination of rails having their meeting ends scarf jointed and formed with registering openings, one of which is larger than the other, and a fastening element mounted in the larger opening and formed with a reduced portion secured in the smaller opening, the reduced portion providing a laterally facing shoulder bearing against the opposing rail end around the smaller opening, one of the openings being elongated to admit of the limited play of the fastening element.

940,634. PAPER BOX. CLAUDE B. DAVIS, Manchester, Va., assignor of one-half to Frank Hall, Ridgefield, N. J., and one-sixteenth to John W. Broski, Richmond, Va. Filed Mar. 9, 1909. Serial No. 482,213.



1. A receptacle having overlapping top flaps formed with registering discharge openings, in combination with a sliding gate inserted between certain of the flaps, and a single means positively engaging said gate to hold same against movement from its completely closed position and covering the free edges of said flaps to prevent the entrance of dust therebetween and overlying said discharge opening.

2. A receptacle having overlapping top flaps formed with registering discharge openings; in combination with a sliding gate inserted between certain of the flaps, and a single means abutting the free edges of said gate to hold same against movement from its completely closed position and covering the free edges of the flaps to prevent the entrance of dust therebetween and overlying said discharge opening.

3. A receptacle having overlapping top flaps formed with registering discharge openings, in combination with a sliding gate inserted between certain of the flaps, and a transparent covering overlying said discharge opening and directly engaging the free ends of the gate to hold same in its completely closed position, said transparent covering being fastened against the corresponding side faces of the body of the receptacle.

4. A receptacle having overlapping top flaps formed with registering discharge openings, in combination with a sliding gate inserted between certain of the flaps and having its free ends in registry with opposite outer faces of the receptacle and a covering over the opening in the outermost flap and fastened against opposite side faces of the receptacle which are in registration with the free ends of the gate whereby said cover will abut said free ends of the gate and hold same against movement from its completely closed position.

940,635. ELECTRODE ELEMENT FOR STORAGE BATTERIES. THOMAS A. EDISON, Llewellyn Park, Orange, N. J., assignor to Edison Storage Battery Company, West Orange, N. J., a Corporation of New Jersey. Original application filed Nov. 2, 1905, Serial No. 285,650. Divided and this application filed Feb. 6, 1908. Serial No. 414,574.

1. An electrode element comprising a perforated tubular inclosing pocket composed of a strip of steel, nondeformable under normal working conditions, containing a highly compressed mass of active material, and formed with a spirally arranged joint, substantially as and for the purposes set forth.

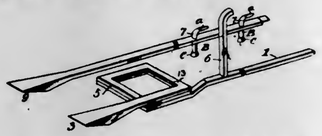
2. An electrode element comprising a perforated tubular inclosing pocket composed of a strip of steel, nondeformable under normal working conditions, containing a

highly compressed mass of active material, and formed with a spirally arranged joint, and provided with a series



of encircling rings, substantially as and for the purposes set forth.

940,636. CAR HEATING AND VENTILATING APPARATUS. FRANK H. FARRINGTON, Louisville, Ky. Filed Jan. 24, 1908. Serial No. 412,514.



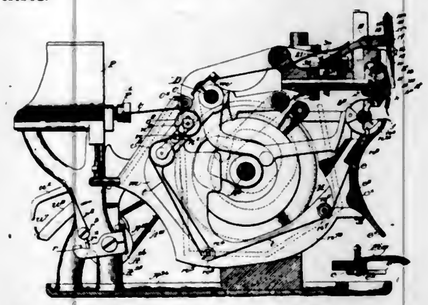
1. A car heating and ventilating apparatus, comprising pipes for conducting air, one of said pipes coiled around the fire-box of the engine for heating the same, said coils having a valve therein, a distributing pipe connected to said pipe, and the other pipe having flexible suction means connected thereto for discharging the foul air from the car.

2. A car heating and ventilating apparatus, comprising pipes for conducting air, one of said pipes coiled around the fire-box of the engine, a distributing pipe connected to said pipe, means within the coil whereby the air may be allowed to pass through the coil for heating the same or pass through to the distributing pipe without being heated, and the other pipe having flexible suction means connected thereto for discharging the foul air from the car.

3. A car heating and ventilating apparatus, comprising pipes adapted to extend the length of the train, one of said pipes coiled around the fire-box of the engine, a distributing pipe connected to said pipe adapted to extend approximately the length of the coach, a valve at the junction of the coil and the distributing pipe whereby the air may pass through the coil to be heated or pass directly into the distributing pipe without being heated and the other pipe having flexible suctions means connected thereto and extending into the car for removing the foul air.

940,637. SOLE-SEWING MACHINE. LOUIS GODDU, Winchester, Mass., assignor to Goddu Sewing Machine Co., Portland, Me., a Corporation of Maine. Filed Aug. 31, 1900. Serial No. 28,624.

1. A lock-stitch shoe-sewing machine having, in combination, a needle, a shuttle, means for actuating the needle and the shuttle to interlock the needle and shuttle threads, a depending nose on the face of the shuttle provided with a forwardly-open thread guiding groove, and a tension device in the face of the shuttle located above and substantially in line with said groove, the tension device comprising members engaging the thread laterally but not in front, so that by drawing the thread downwardly it may be at once drawn into position in the tension device and the shuttle nose, substantially as described.



2. A lock stitch shoe sewing machine, having, in combination, a needle, a shuttle, means for actuating the needle and shuttle to interlock the needle and shuttle threads, a cap to close the open face of the shuttle to inclose the shuttle thread, said cap having an extended grooved nose and being provided with a thread rest above said nose projecting at one side of the shuttle thread, said thread rest being independent of the nose and at a distance therefrom and a tension spring to act on the shuttle thread lying on the side of the said rest, substantially as described.

3. A lock stitch shoe sewing machine, having, in combination, a needle, a shuttle, means for actuating the needle and shuttle to interlock the needle and shuttle threads, a cap to close the open face of the shuttle to inclose the said thread, said cap being provided with a projecting thread rest, a tension spring to act on the shuttle thread lying on said rest, and a projection from said cap for supporting the free end of said spring, substantially as described.

4. A lock stitch shoe sewing machine, having, in combination, a needle, a shuttle, means for actuating the needle and shuttle to interlock the needle and shuttle threads, a cap to close the open face of the shuttle to inclose the said thread, said cap having an extended split nose, an open thread guide above and independent of said nose in which the thread may be drawn, and a thread rest independent of said thread guide and nose to sustain the shuttle thread, and a spring to act on the thread lying on said rest, to determine its tension, substantially as described.

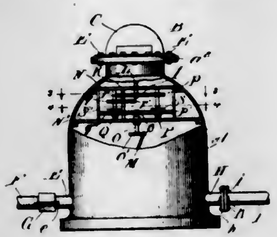
5. A lock stitch shoe sewing machine, having, in combination, a needle, a shuttle, means for actuating the needle and shuttle to interlock the needle and shuttle threads, said shuttle being provided with a notch at its face, a measuring device composed of a finger to act on the shuttle thread opposite said notch, a lever, a laterally movable support for said finger carried by said lever, and means for actuating the lever, substantially as described.

[Claims 6 to 14 not printed in the Gazette.]

940,638. GEARING FOR METERS. AUGUSTUS F. HINTZE, Chicago, Ill.; Etta L. Hintze administratrix of said Augustus F. Hintze, deceased. Filed Jan. 18, 1909. Serial No. 472,907.

1. In a gearing for meters, a driving pinion, two driven shafts, gear wheels revolubly supported on said shaft and meshing with said pinion, oppositely arranged ratchet wheels fixed to said shafts in proximity to said gear wheels, and pawls carried by the gear wheels and cooperating with said ratchet wheels.

2. In a meter, a driving member, a driven member, two trains of gearing between said driving member and said driven member, a ratchet wheel secured to one of the elements of each train, and a pawl connected to a second element of each train and coöperating with the ratchet wheel in that train, said ratchet wheels being oppositely arranged in the two trains so that each train is operative during movement of the driving member in one direction only, said trains being so proportioned that they actuate the driven member in the same direction but at different rates of speeds when the driving member is actuated in opposite directions at the same rate of speed.



3. In a meter, a driving member, a driven member, two trains of gearing between said members, one of said trains being arranged to actuate said driven member in a predetermined direction when the driving member moves in one direction and the other of said trains being arranged to actuate the driven member in the said predetermined direction when the driving member is moved in the opposite direction, each of said trains including a clutch for rendering that train inoperative when the driven member is being actuated through the other train, and said trains being so proportioned that they actuate the driven member at different rates of speed for a given rate of speed of the driving member.

940,639. INCANDESCENT MANTLE. OTTO KAUFMANN, New York, N. Y., assignor to Block Light Company, New York, N. Y. Filed Oct. 21, 1905. Serial No. 283,743.



1. An article of manufacture, a mantle or incandescent consisting of a tube of fabric having a cylindrical open end and a rounded terminal comprising a plurality of rounded sections, the adjacent edges of which are seamed together, the seams forming interior reinforcing ribs.

2. An inverted mantle having a cylindrical open top and a dome-formed smooth-surfaced base consisting of two sections, each of the general form of a quarter of a sphere, and seamed together at their edges.

3. An incandescent mantle constructed from a tubular stocking having a cylindrical open end and a smooth dome-shaped closed end formed of curved end sections and united at their edges by means of seams.

4. An incandescent mantle having a cylindrical open top and a reinforced dome-formed smooth-surfaced base of sections of curved form seamed together at their edges.

5. A mantle or incandescent, comprising a tube of fabric having one end closed the tube being severed on a curved line transversely of its length, said severed edges being secured together by a seam which is located inside of the closed end of the mantle tube, whereby the said closed end is reinforced by a seam extending transversely of the mantle.

[Claims 6 and 7 not printed in the Gazette.]

940,640. RAILWAY-TIE. JAMES W. LEAHY, Jersey City, N. J.; Mary A. Leahy administratrix of said James W. Leahy, deceased. Filed May 2, 1908. Serial No. 430,434.

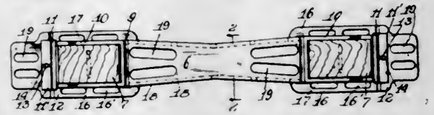


1. A cast steel railway tie comprising a single casting having two end sections and a central section, said central section being recessed at each side edge thereof, depending flanges at the side edges of the end sections extending from the ends of the tie to the ends of said recesses, and a longitudinal rib beneath the tie between said recesses and overlapping the inner ends of the flanges.

2. A cast steel railway tie comprising a single casting having two end sections and a central section, said end sections having pockets thereon and said central section being recessed at its side edges, depending flanges at the side edges of the end sections, a longitudinal rib beneath the central section between its side edges, said rib being deeper than the flanges, and transverse ribs on the end sections beneath the pockets.

3. A cast steel railway tie comprising a single casting having two end sections and a central section, depending flanges at the side edges of the end sections, a longitudinal rib beneath the central section between its side edges and deeper than the flanges, transverse ribs beneath the end sections, walls on the end sections to provide pockets for rail bearing blocks, webs extending outward from the outer pocket walls, and a web connecting the inner pocket walls.

940,641. RAILWAY-TIE. JAMES W. LEAHY, Jersey City, N. J.; Mary A. Leahy administratrix of said James W. Leahy, deceased. Filed May 2, 1908. Serial No. 430,435.



1. A cast steel railway tie comprising a base having pockets thereon adjacent to its ends to receive rail bearing blocks and tapered from said pockets to its middle, transverse ribs on the underside of the base beneath the pockets, lateral flanges on the base opposite said pockets, and depending flanges at the side edges of the base between said transverse ribs.

2. A cast steel railway tie comprising a base having pockets thereon to receive rail bearing blocks, said base projecting beyond the pockets, transverse ribs on the underside of the base beneath the pockets, lateral flanges on the base opposite said pockets, and depending flanges at the side edges of the base and extending from the rib beneath one pocket to the rib beneath the other pocket, said base being tapered from said pockets to its middle, and said base on each side of the pockets and said lateral flanges and depending flanges having openings therein to receive the track ballast.

3. A cast steel railway tie having end entrance pockets to receive rail bearing blocks and a groove in its base at the open end of each pocket, a locking plate to enter said groove to secure the block in the pocket, and means for fastening the locking plate in place.

940,642. CURTAIN-HOOK. CHARLES H. MAASS, Bergenfields, N. J., assignor to The John Kroder & Henry Reubel Company, New York, N. Y., a Corporation of New York. Filed Oct. 22, 1908. Serial No. 458,938.

1. A curtain-hook comprising a straight vertical elongated shank having a flat eye at its lower end, an inwardly-curved portion at the upper end of the shank, an

upwardly-curved portion at the end of the inwardly-curved portion, a downwardly-curved portion at the end of the upwardly-curved portion and forming therewith a ring-receiving hook offset by means of said inwardly and upwardly curved portions, and a downwardly-directed straight portion at the end of said downwardly-bent portion substantially adjacent to said hook and parallel to and substantially as long as said shank, said shank, said straight portion and the curved portions all lying in a plane perpendicular to the plane of said eye and passing through the center thereof.



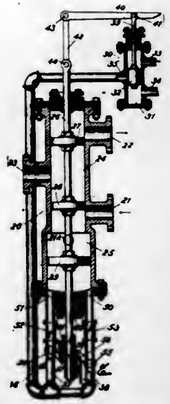
2. A curtain-hook comprising a straight vertical elongated shank having a flat eye at its lower end, an inwardly-curved portion at the upper end of said shank and forming therewith an obtuse angle, an upwardly-curved portion at the end of said inwardly-curved portion and forming an acute angle with said shank, a curved hook-receiving portion at the end of said upwardly-curved portion, and a downwardly-directed straight portion at the end of the hook-receiving portion and parallel to and substantially the same length as said shank, said straight portion, said shank and said curved portions lying in a plane perpendicular to the plane of said eye and passing through the center thereof.

940,643. HYDRAULIC VALVE. ERNEST W. MARSHALL, Yonkers, N. Y., assignor to Otis Elevator Company, Jersey City, N. J., a Corporation of New Jersey. Original application filed June 23, 1906, Serial No. 322,996. Divided and this application filed Jan. 9, 1909. Serial No. 471,413.

1. A motor comprising a cylinder and a piston, two ports in said cylinder, a separate valve for each port arranged to partially close either of said ports independently, and means for actuating one of said valves directly by a movement of the motor piston in one direction and the other of said valves directly by the movement of the motor piston in the opposite direction.

2. A motor comprising a cylinder and a piston, a port leading to the cylinder, a check-valve associated with said port and arranged to prevent a flow of fluid through said port from the cylinder, and a valve arranged to control the flow of fluid through said port; a second port leading from the cylinder, a check-valve associated with said second port arranged to prevent the flow of fluid through said port to the cylinder, and a valve arranged to control the flow of fluid through said second port, said motor piston being actuated by a flow of fluid through said ports; and means for actuating the valve which controls the flow of fluid through one of said ports when the motor piston is actuated by the flow of fluid through the other of said ports.

3. A motor comprising a cylinder, a movable piston therein, a port leading to the cylinder, a check-valve associated with said port arranged to prevent the flow of fluid through said port from the cylinder, and a valve arranged to control the flow of fluid through said port; a second port leading from the cylinder, a check-valve associated with said second port arranged to prevent the flow of fluid through said port to the cylinder, and a valve arranged to control the flow of fluid through said second port, said motor piston being actuated by a flow of fluid through said ports, and means actuated by the movement of the movable piston to partially close the valve which controls the flow of fluid through one of said ports when the piston is actuated by the flow of fluid through the other of said ports.



4. A main valve, a motor comprising a cylinder and a piston associated therewith, two ports in the motor cylinder, a valve arranged to partially close one of said ports directly by a movement of the piston from its central position in one direction, and another valve arranged to partially close the other of said ports directly by the movement of the piston in the other direction.

5. A main valve, a motor, comprising a cylinder associated therewith, a piston-rod, a piston affixed to said rod within the cylinder, two ports in the motor cylinder, independent valves arranged to control said ports, and a cam-member affixed to the piston-rod, said cam member being arranged to partially close one of said controlling valves by the movement of the piston-rod in one direction, and to partially close the other of the controlling valves by a movement of the piston-rod in the other direction.

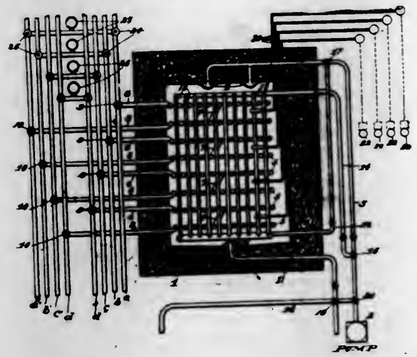
[Claims 6 to 10 not printed in the Gazette.]

940,644. APPARATUS FOR CONCENTRATING SOLUTIONS. EUDO MONTI, Turin, Italy. Original application filed Sept. 9, 1904, Serial No. 223,919. Divided and this application filed Nov. 4, 1905. Serial No. 285,936.

1. In an apparatus for concentrating solutions, the combination with a freezing tank, of a plurality of superposed coils arranged in pairs in said tank, and means for supplying a refrigerant to said coils independent of one another.

2. In an apparatus for concentrating solutions, the combination with a freezing tank, of coils arranged therein, means for directing a refrigerant through the coils, means for directing the solution to be concentrated through the coils, and means for drawing off the concentrated matter.

3. In an apparatus for concentrating solutions, the combination with the freezing tank, of coils arranged in pairs therein, means for directing a refrigerant successively through different pairs of the coils, means for drawing off the concentrated matter, and means for directing a warm fluid through the coils to melt the ice formed by passing the refrigerant through the coils, after the concentrated matter has been drawn off.

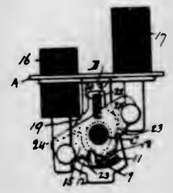


4. In an apparatus for concentrating solutions, the combination with the freezing tank, of coils arranged therein, means for directing a refrigerant through the coils, and means for directing a displacing fluid through the coils and then into the tank.

5. In an apparatus for concentrating solutions, the combination with the freezing tank, of coils arranged therein in pairs, means for directing a refrigerant successively through each of said pairs of coils, means for directing a gas into the tank, and means for permitting the removal of the concentrated matter.

[Claims 6 to 15 not printed in the Gazette.]

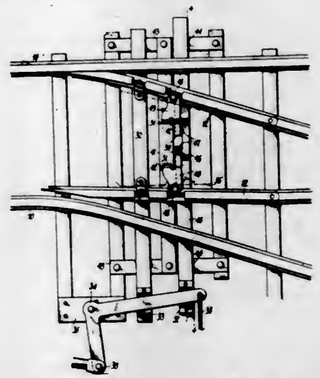
940,645. SWITCH. LEMBERT H. MOULTHROP, Bridgeport, Conn., assignor to The Perkins Electric Switch Mfg. Company, Bridgeport, Conn., a Corporation of Connecticut. Filed Sept. 12, 1908. Serial No. 452,777.



1. In a push button switch, a stationary standard having a guide-way for a stop lug, an oscillating contact piece and a stop lug moving therewith and traveling in said guideway, in combination with a sliding detent guided on said standard and adapted to block the passage of said stop lug across its guideway, an abutment on said standard, a spring bearing at one end against said abutment and at the other end against said detent, and tending to keep said detent in engagement with said stop lug, together with means to move said detent out of engagement with said stop lug.

2. In a push button switch, a stationary standard having a guideway for a stop lug, an oscillating contact piece and a stop lug moving therewith and traveling in said guideway, in combination with a slotted detent sliding on said standard and adapted to block the passage of said stop lug across its guideway, a lug on the said standard working in the slot in said detent and serving to guide the latter, together with a spring abutting at one end against said lug and at the other end against the end of said slot and tending to keep said detent in engagement with said stop lug, together with means to move said detent out of engagement with said stop lug.

940,646. RAILROAD-SWITCH. GEORGE L. MCFARLAND, Butler, Okla., assignor of one-fourth to J. V. McFarland and one-fourth to Sylvania Roman, Butler, Okla. Filed Nov. 27, 1908. Serial No. 464,620.



1. In a railroad switch, main line rails, siding rails, switch points, a switch bar adapted to move said switch points, a bar provided with oppositely disposed shoulders held beneath said switch points, pawls carried on the switch points one of which is adapted to engage one of said shoulders in open position and the other to engage the other shoulder in closed position, and train actuated means adapted to release the engaged pawl and move said switch bar.

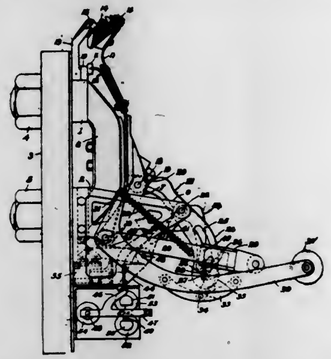
2. In a railroad switch, main line rails, siding rails, switch points, a switch bar adapted to move said switch points, a bar provided with oppositely disposed shoulders held beneath said switch points, pawls carried on the switch points one of which is adapted to engage one of said shoulders in open position and the other to engage the other shoulder in closed position, lifting arms attached to said pawls, a cam bar slidably mounted beneath said lifting arms, and train actuated means to successively move said cam bar, raise the lifting arm, and free the engaged pawl, and move said switch bar.

3. In a railroad switch, main line rails, siding rails, switch points, a switch bar adapted to move said switch points, a bar provided with oppositely disposed shoulders held beneath said switch points, pawls carried on the switch points one of which is adapted to engage one of said shoulders in open position and the other to engage the other shoulder in closed position, lifting arms attached to said pawls, a cam bar slidably mounted beneath said lifting arms, a bell crank lever, a clip on said switch bar loosely engaging one end of said bell crank lever, a second clip on said cam bar closely engaging said end, a rock shaft provided with a crank arm, a link connecting said crank arm with the other end of said bell crank lever, an upstanding rocker arm held on said rock shaft between two of said rails, and train supported means to depress said rocker arm and thereby actuate said bell crank lever to successively move said cam bar and free the engaged pawl, and move said switch bar to change the position of said points.

940,647. AUTOMATIC MAGNETIC CIRCUIT-BREAKER. WILLIAM M. SCOTT, Philadelphia, Pa., assignor to The Cutter Electrical and Manufacturing Company, a Corporation of New Jersey. Filed Jan. 19, 1907. Serial No. 353,047.

1. In an electrical switch, the combination with a fixed terminal block, of a movable laminated contact member, a cam member for cramping said laminated contact member against said terminal block, a second cam member for actuating said cam member, the pitches of the portions of the surfaces of said cam members, active during said cramp-

ing movement, being slight, said cam members serving to restrain said laminated contact member in normal position.



2. In an electrical switch for heavy currents, the combination with a fixed terminal block, of a movable laminated contact member, a cam member for cramping said laminated contact member against said terminal block, the pitch of the surface of said cam member, active during cramping movement, being slight, a second cam member for actuating said cam member, said cam members serving to restrain said laminated contact member in normal position, the locking strain being transmitted through said cam members.

3. In an electrical switch, the combination with a movable contact member, of a cam member for actuating the same, a member engaging said cam member to actuate the same by cam action, an actuator, and means for locking said actuator to said member.

4. In an electrical switch, the combination with a movable contact member, of a cam member for actuating the same, a member for actuating said cam member by pin and slot engagement, an actuator, and a latch for locking said actuator to said member, whereby said cam member may be actuated to move said contact member to normal position, said member when latched to said actuator constituting means for restraining said contact member in normal position.

5. In an electrical switch, the combination with a movable contact member, of a cam member for actuating the same, a lever engaging with said cam member to actuate the same by cam action, an actuator lever, and means for locking said levers together, whereby said actuator lever may move said contact member to normal position.

[Claims 6 to 32 not printed in the Gazette.]

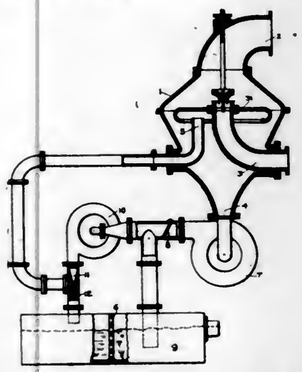
940,648. STEAM-CONDENSER. ROYAL D. TOMLINSON, Milwaukee, Wis., assignor to Allis-Chalmers Company, Milwaukee, Wis., a Corporation of New Jersey. Filed Aug. 29, 1908. Serial No. 450,874.

1. The combination in a condenser system, of a condenser, a pump for discharging water therefrom, and a pump and connections for discharging air therefrom, said latter pump having its suction directly connected to the discharge of said former pump.

2. The combination in a condenser system, of a condenser, a pump for discharging water therefrom, a pump for discharging air therefrom, an air pipe connecting from a water-free portion of said condenser to said air-discharging pump, and a connection from the discharge of said water-discharging pump to the suction of said air-discharging pump.

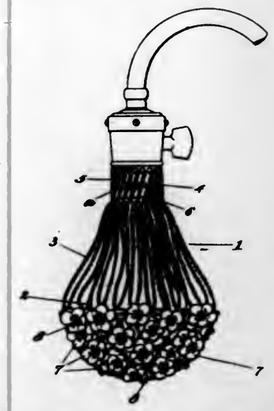
3. The combination in a condenser system, of a condenser, a pump for discharging water therefrom, a pump for discharging air therefrom, said latter pump having its suction directly connected to the discharge of said former pump, and an air pipe connecting from a water-free portion of said condenser to said air-discharging pump.

4. The combination in a condenser system, of a condenser, a pump for discharging water therefrom, a pump for discharging air therefrom, a lower connection between said condenser and said former pump, a separate upper



connection between said condenser and said latter pump, and a connection from the discharge of said former pump to the suction of said latter pump.

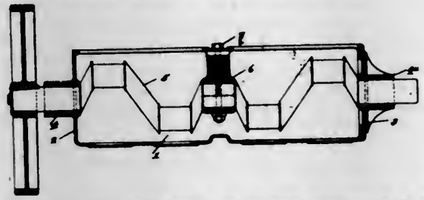
940,649. SHADE FOR ELECTRIC LAMPS. NELLIE C. BEBIN, London, England, assignor to Captain C. Wiener, Philadelphia, Pa. Filed Mar. 12, 1906. Serial No. 305,525.



An ornamental lamp shade comprising a clamp or holder, a bag shaped skeleton consisting of a flexible diagonal mesh network substantially as shown of wires having beads strung upon them, the shape of the network being variable to fit different globes and the like, strings of beads connecting the clamp or holder and the meshes of the network, and ornaments superposed on the network and secured thereto.

940,650. GAS OR GASOLENE ENGINE CONSTRUCTION. CHARLES HERRESHOFF, Bridgeport, Conn., assignor to Herreshoff Motor Company, Detroit, Mich., a Corporation of Michigan. Filed Apr. 30, 1907. Serial No. 371,120.

1. The combination with a crank-case having bearings carried by its end-walls and one of said end-walls removable, and carrying an intermediate bearing detachably secured thereto by means accessible from the exterior thereof, of a crank-shaft mounted in said bearings and removable endwise from the case by removing said end-wall and the securing means of intermediate bearing.

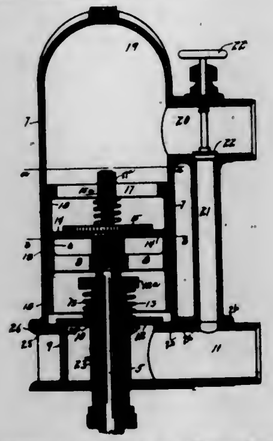


2. The combination with a crank case provided with an inverted saddle having an arched bearing surface concentric with the axis of the shaft, end bearings for said shaft, a hanger having an arched surface adapted to engage in the saddle and provided with a bearing concentric with the arched surface of said hanger, substantially as described.

3. The combination of a crank case made with one end wall and the side walls integral, a removable end wall, bearings in the said end walls for a crank shaft, a saddle adapted to engage a middle bearing member for said crank shaft, and a hanger adapted to engage said saddle and having an arched bearing surface adapted to pass through the end opening in said crank case, substantially as described.

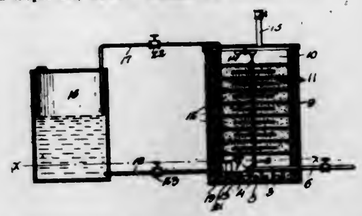
4. In combination with a crank case provided with one end closure made integral therewith and having a shaft bearing central thereto, a removable end closure having a shaft bearing central thereto, a hanger arranged to support the shaft at the middle point having a bearing arranged to engage said shaft and an arched bearing arranged to engage the case, the said arched bearing being concentric to the shaft bearing, and means for securing the said bearing to said case, substantially as described.

940,651. MILK-PUMP. CHARLES O. LUCAS, Dayton, Ohio, assignor to The Lucas Pump Co., Dayton, Ohio. Filed Jan. 13, 1909. Serial No. 472,068.



In a milk pump, a dome-shaped cylinder having an air chamber in the upper end thereof and provided with an outlet therefrom, in combination with a sub-base upon which said cylinder is removably supported, said sub-base providing on its upper surface a valve seat inclosed by the lower end of the cylinder, and a suction or inlet chamber, a hub extending through the axis of said sub-base and integral therewith, said hub extending above the upper surface of said sub-base and providing an inner valve seat therearound in a plane coinciding with the valve seat on the upper surface of the sub-base, an inlet valve adapted to simultaneously engage said valve seats so formed on the hub and the sub-base, said valve being supported and guided upon the portion of the hub extending above the sub-base, a piston having a rod extended downwardly through said hub, and an outlet valve carried in said piston.

940,652. CARBURETER. JOHN R. NYE, Waterville, Me. Filed Sept. 29, 1908. Serial No. 455,294.



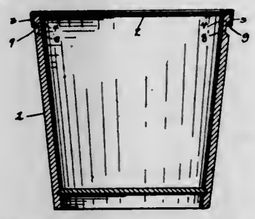
1. In combination with a liquid hydrocarbon supply tank and an air supply, of a carbureter, comprising a casing having a central vertical pipe extending from near the bottom to near the top, an air supply pipe entering the casing and in communication with the vertical pipe, a spring controlled valve at the junction of the two pipes, a drum removably mounted in the casing and having the upper end of the vertical pipe terminate within and below its upper end and providing an annular space in communication with the upper and lower ends of the casing, a series of disks mounted in the drum and having openings therein, said openings being arranged in zigzag order, a loosely packed absorbent packing within the spaces between the disks, means for feeding the fluid to the lower space of the carbureter, and a pipe leading from within near the bottom of the carbureter to the top of the fluid supply tank, as and for the purpose set forth.

2. In combination with a liquid hydrocarbon supply tank and an air supply, of a carbureter, comprising a casing, a vertical pipe arranged centrally of the casing and extending from a point near the bottom to near the top, the lower end of the same being connected to and in communication with the air supply pipe, a spring actuated valve for controlling the admission of air to the vertical pipe, a spiral passage formed in the bottom of the casing with a central chamber directly below the vertical pipe, a drum removably mounted in the casing so as to provide an annular space thereabout in communication with the outer space of the spiral passage and the space at the top of the casing, said vertical pipe terminating within and near the upper end of the drum, a series of disks carried by the drum, each one being provided with an opening through which the liquid may pass from the top to the bottom of the drum, said disks being so arranged as to have the openings in zig-zag order, a loosely packed absorbent material filling the spaces between the disks, a float controlled supply pipe in communication with the fluid supply tank and the bottom of the casing, and another pipe extending from near the bottom of the casing to the top of the supply tank, as set forth.

3. In combination with a liquid hydrocarbon supply tank and an air supply pipe, of a carbureter, comprising a casing, a vertical pipe arranged centrally of the casing and extending from a point near the bottom to near the top, the lower end of the same being connected to and in communication with the air supply pipe, a spring actuated valve for controlling the admission of air to said vertical pipe, controlled by the pressure of the air from the supply pipe, a short pipe in communication with the vertical pipe above the junction of the air and vertical pipes and having its lower end close to the bottom of the casing, so that fluid may be sucked into the vertical pipe by the action of the air pressure passing the point at which said short pipe joins the vertical pipe, a spiral strip mounted in the bottom of the casing and providing a spiral channel extending from the exterior of the casing to the center, at which point it forms a chamber directly below the vertical pipe and into which the short pipe depends, a cylindrical drum

removably mounted in the casing so as to provide a space above the same and rest upon the spiral strip so as to provide an annular space which communicates with the upper space of the casing and the spiral channel, said vertical pipe terminating near and within the upper end of the drum, a series of disks mounted in the drum, each disk having an opening therein and arranged so that the openings are in zig-zag order from the top to the bottom of the drum, a loosely packed absorbent material between the disks, a pipe leading from the fluid supply tank to the lower portion of the casing at the outer end of the spiral channel, a float controlled valve mounted in said channel to regulate the level of the fluid within the channel, and a pipe extending from above the spiral channel in the casing to the upper end of the fluid supply tank, as set forth.

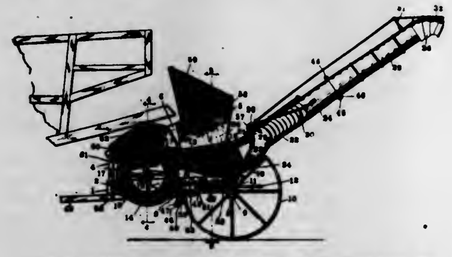
940,653. RECEPTACLE-CLOSURE. FRANCIS P. WILBUR and EDER B. MARSHALL, Milwaukee, Wis. Filed May 13, 1907. Serial No. 373,264.



The combination with a wooden bucket having an annular groove cut in its outer surface near the upper margin of its side walls, the said margin being trimmed to provide a cover receiving surface, a disk shaped cover resting flat upon said margin, and a retaining band having a vertical portion encircling the upper portion of the bucket and cover, with its lower margin turned abruptly inwardly and engaging in said groove, and its upper margin turned inwardly at right angles to its vertical portion and engaging the upper surface of the cover.

REISSUES.

13,039. PNEUMATIC STRAW-STACKER. SAMUEL D. FELSING, Crookston, Minn. Filed Jan. 13, 1905. Serial No. 240,972. Original No. 747,397, dated Dec. 22, 1903, Serial No. 146,373.



1. In a pneumatic straw-stacker, the combination of a hopper, means for forcing a blast of air into said hopper, and an extension forming an air-trunk connected flexibly with said hopper, the latter and the air-trunk having segmental, overlapping parts concentric with the pivot whereby said parts are connected.

2. In a pneumatic straw-stacker, a hopper, means for directing a blast of air into said hopper, an extension forming an air-trunk, arms extending from the latter and having pivotal connection with the frame of the hopper, and segmental overlapping portions upon the hopper and air-trunk.

3. In a pneumatic straw-stacker, a frame, a hopper, means for directing a blast of air into said hopper, an extension forming an air-trunk flexibly engaging said hopper and having arms pivotally connected with the frame, a discharge-spout flexibly connected with the air-trunk, and means for adjusting the latter and for retaining it in adjusted position.

4. In a device of the class described, a hopper, an extension forming an air-trunk flexibly connected with said hopper, a nut hingedly-connected with said extension, a screw-threaded shaft engaging said nut, an operating-shaft, supporting means for said shafts, and miter-gearing connecting said shafts.

5. In a device of the class described, a frame supporting a hopper, means for producing a blast of air, and a straw-exit, said frame being provided with depending supporting-boxes, in combination with a supporting rod or axle having an upwardly-extending pin, and a shifting lever connected with the frame and pivotally engaging the said pin.

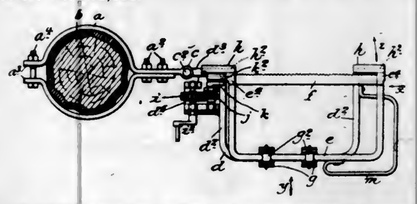
6. In a device of the class described, a hopper, an extension forming an air-trunk flexibly connected therewith, a discharge-spout comprising two members hingedly connected, the lower member of said spout being flexibly connected with the air-trunk and the upper member of said spout being provided with a flexible hood, means for adjusting the said spout, a hinged bracket upon the upper member of the latter, a winding drum, and a rope connected with said bracket and having one of its ends connected with the winding drum and the other end with the flexible hood.

7. In a device of the class described, a frame, a hopper, fan-casings supported in front of said hopper and discharging into the front end of the latter, said fan-casings having upper inverted-V-shaped portions and air-intakes in the sides thereof, a shaft journaled upon the sides of the frame and extending through the fan-casings, and fans upon said shaft, within the fan-casings.

8. In a device of the class described, a hopper, an extension forming an air-trunk flexibly connected with said hopper, a screw-threaded shaft, and a coöperating nut hinged to the adjustable air-trunk on an axis parallel with the pivot of the air trunk.

9. In a straw-stacker, the combination of a casing forming the body of the stacker and provided with front and rear hoppers, fan-casings mounted in the rear portions of the said casing and located between the rear hoppers and provided with caps having oppositely-inclined sides, and fans operating in the fan-casings, substantially as described.

13,040. APPARATUS FOR FELLING TREES. ETSON L. FREESE, New York, N. Y. Filed June 10, 1908. Serial No. 437,763. Original No. 839,466, dated Dec. 25, 1906, Serial No. 331,838.



1. An apparatus for felling trees, comprising a support adapted to be secured to a tree and provided with a projecting member, a main U-shaped frame pivoted to said member and adapted to swing in a plane parallel with that of the support, a supplemental U-shaped frame mounted on the main frame and movable longitudinally thereof, a saw connected with the ends of the side arms of the supplemental frame, and means for operating said supplemental frame.

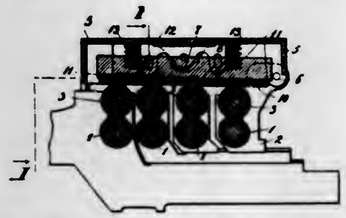
2. An apparatus for felling trees, comprising a clamp device adapted to be secured around the body of a tree in a horizontal plane and provided with a projecting member, a main U-shaped frame pivoted to said member and adapted to swing in a horizontal plane parallel therewith, a supplemental U-shaped frame mounted on the main frame and movable longitudinally thereof, a saw connected with the ends of the side arms of the supplemental frame, and means for reciprocating the supplemental frame longitudinally of the main frame.

3. An apparatus for felling trees, comprising a clamp device adapted to be secured around the body of a tree in a horizontal plane and provided with a projecting member, a main U-shaped frame pivoted to said member and adapted to swing in a horizontal plane parallel therewith, a supplemental U-shaped frame mounted on the main frame and movable longitudinally thereof, a saw connected with the ends of the side arms of the supplemental frame, and means for reciprocating the supplemental frame longitudinally of the main frame, said main frame being also provided with a handle by which it may be swung on its pivotal support.

4. In an apparatus for felling trees, the combination with a support adapted to be secured to the body of a tree and in a horizontal position, of a main supporting frame pivoted on said support and adapted to swing parallel therewith and thereover, a saw holding frame mounted on said main frame movable therewith and adapted to be reciprocated thereon, said main frame extending outward and supporting the outer end of said saw frame, and means for reciprocating the saw frame upon the main frame.

5. In an apparatus for felling trees, the combination with a support adapted to be secured to the body of a tree and in a horizontal position, of a main frame pivoted on said support and adapted to swing parallel therewith and above said support, a saw holding frame mounted on said main frame, movable therewith and adapted to be reciprocated thereon, said main frame extending outward and supporting the outer end of said saw frame, and means including a revolving shaft and crank for reciprocating said saw frame.

13,041. DRAW-BOX. ELWIN H. ROONEY, Whitinsville, Mass., assignor to The Whitin Machine Works, Whitinsville, Mass., a Corporation of Massachusetts. Filed July 28, 1909. Serial No. 510,152. Original No. 920,655, dated May 4, 1909, Serial No. 387,179.

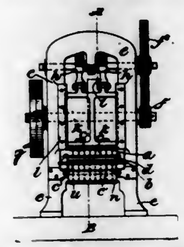


1. In a draw-box, the combination with the top rolls thereof, a clearer common to said rolls provided with a soft felt-like lining in engagement therewith, of means acting at diversified separate points on said clearer for pressing it upon said top rolls.

2. In a draw-box, the combination with the top rolls thereof, a clearer common to said rolls and provided with a felt-like lining in engagement therewith, of a number of springs acting upon said clearer at different points to press it toward the rolls and means for retaining said springs in such position.

3. In a draw-box, a series of top rolls, a clearer common to all of said rolls and provided with a felt-like lining in engagement therewith, said clearer being relatively stationary with respect to said rolls, in combination with a cover to said draw box loosely connected to said clearer and means interposed between said cover and clearer adapted to act on the latter at separate points to press the same firmly upon the rolls.

13,042. METHOD OF PREPARING TINNED SHEET-IRON BOXES, &c., FOR DETINNING, &c. HANS GOLDSCHMIDT, Essen-on-the-Ruhr, Germany, assignor, by mesne assignments, to Goldschmidt Detinning Company, Jersey City, N. J., a Corporation of New Jersey. Filed Mar. 4, 1907. Serial No. 360,618. Original No. 804,530, dated Nov. 14, 1905, Serial No. 243,403.



1. A method of preparing tinned boxes, etc., for detinning, consisting in compressing the boxes and also perforating the boxes.

2. A method of preparing tinned boxes, etc., for detinning, consisting in compressing the boxes between mechanically-moved surfaces and perforating the boxes.

3. A method of preparing tinned boxes, etc., for detinning, consisting in simultaneously compressing and perforating the boxes.

4. A method of preparing tinned boxes, etc., for detinning, consisting in rolling the boxes and also perforating the boxes.

5. A method of preparing tinned boxes, etc., for detinning, consisting in simultaneously rolling and perforating the boxes.

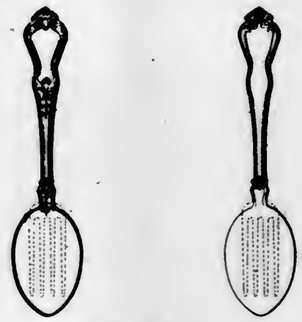
DESIGNS.

40,349. BROOCH. FRANK S. BOYDEN, Chicago, Ill. Filed Oct. 19, 1908. Serial No. 458,574. Term of patent 7 years.



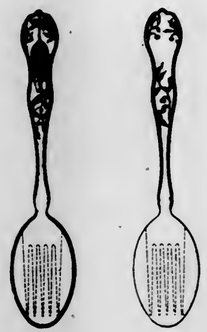
The ornamental design for a brooch, as shown.

40,350. SPOON, FORK, OR SIMILAR ARTICLE. GILBERT L. CROWELL, Jr., Arlington, N. J., assignor to Dominick and Haff, New York, N. Y., a Joint Stock Company. Filed Sept. 22, 1909. Serial No. 519,108. Term of patent 7 years.



The ornamental design for a spoon, fork, or similar article, as shown.

40,351. SPOON, FORK, OR SIMILAR ARTICLE. WILLIAM A. JAMESON, Niagara Falls, N. Y. Filed May 15, 1909. Serial No. 496,327. Term of patent 7 years.



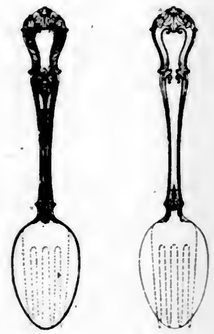
The ornamental design for a spoon, fork or similar article as shown.

40,352. SPOON OR SIMILAR ARTICLE. ERNEST MEYERS, Taunton, Mass., assignor to Gorham Manufacturing Company, Providence, R. I., a Corporation of Rhode Island. Filed Oct. 6, 1909. Serial No. 521,426. Term of patent 14 years.



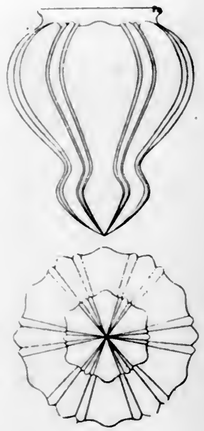
The ornamental design for a spoon or similar article, as shown.

40,353. HANDLE FOR SPOONS, FORKS, OR SIMILAR ARTICLES. CHARLES OSBORNE, New York, N. Y., assignor to Whiting Manufacturing Company, New York, N. Y., a Corporation of New York. Filed Sept. 17, 1909. Serial No. 518,295. Term of patent 14 years.



The ornamental design for a handle for a spoon, fork or similar article, as shown.

40,354. ARTIFICIAL-LIGHT SHADE. KRAFT BOOTH, Philadelphia, Pa., assignor to Gillinder & Sons, Inc., Philadelphia, Pa., a Corporation of Pennsylvania. Filed Sept. 18, 1909. Serial No. 518,456. Term of patent 14 years.



The ornamental design for an artificial light shade, as shown.

40,355. ELECTROLIER. JOSEPH W. TURNER, Des Moines, Iowa. Filed Aug. 4, 1909. Serial No. 511,251. Term of patent 14 years.



The ornamental design for an electrolier, as shown.

40,356. STOVE. HERBERT W. BEATTIE, Quincy, Mass., assignor to Sill Stove Works, Rochester, N. Y., a Corporation of New York. Filed Sept. 17, 1909. Serial No. 518,292. Term of patent 14 years.



The ornamental design for a stove as herein shown.

40,357. BRACKET FOR SUPPORTING FANS AND THE LIKE. BERNARD A. STOWE, Cleveland, Ohio, assignor to The Jandus Electric Company, Cleveland, Ohio, a Corporation of Ohio. Filed July 17, 1909. Serial No. 508,251. Term of patent 14 years.



The ornamental design for a bracket for supporting fans and the like, as shown.

40,358. INTERLOCKING TILE. GEORGE H. QUENNARD, Allendale, N. J. Filed Aug. 20, 1909. Serial No. 513,898. Term of patent 14 years.



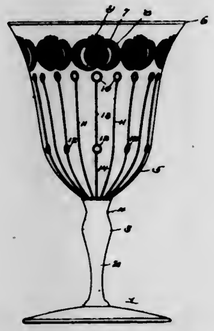
The ornamental design for an interlocking tile, as shown.

40,359. SHEET-GLASS. THOMAS JOHN WOODWARD, West Bromwich, England, assignor to Chance Brothers and Co. Limited, Glass Works, near Birmingham, England. Filed July 23, 1909. Serial No. 509,237. Term of patent 14 years.



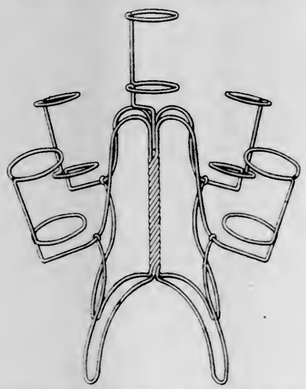
The ornamental design for sheet glass, as shown.

40,360. GOBLET. WILLIAM KNY, Kingswinford, near Dudley, England. Filed May 17, 1909. Serial No. 496,670. Term of patent 7 years.



The ornamental design for a goblet as shown and described.

40,361. STAND OR HOLDER FOR CUT FLOWERS AND PLANTS. ERNEST M. MOORE and PAUL J. TIMBERLAKE, Jackson, Mich., assignors to Ira A. Jones Company, Chicago, Ill., a Copartnership. Filed July 9, 1909. Serial No. 506,858. Term of patent 3½ years.



The ornamental design for a stand or holder for cut flowers and plants as shown.

40,362. SAFETY-PAPER. WILLIAM L. SERGEANT, Nutley, N. J., assignor to George La Monte & Son, New York, N. Y., a Corporation of New Jersey. Filed Apr. 29, 1909. Serial No. 493,046. Term of patent 14 years.



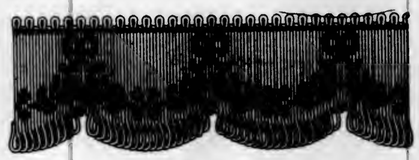
The ornamental design for safety paper, as shown and described.

40,363. BRAID. FREDERICK DOEBELI, New York, N. Y., assignor to A. Siegrist Co., New York, N. Y., a Copartnership. Filed Feb. 5, 1909. Serial No. 476,331. Term of patent 7 years.



The ornamental design for braid, as shown.

40,364. WOVEN EDGING. FRANKLIN W. OEHALE, Philadelphia, Pa. Filed Sept. 18, 1909. Serial No. 518,459. Term of patent 7 years.



The ornamental design for a woven edging as shown.

TRADE-MARKS

PUBLISHED NOVEMBER 16, 1909.

The following trade-marks have been adjudged entitled to registration under the act of February 20, 1905, and are published in compliance with section 6 of said act. Said section provides:

"Any person who believes he would be damaged by the registration of a mark may oppose the same by filing notice of opposition, stating the grounds therefor, in the Patent Office within thirty days after the publication of the mark sought to be registered, which said notice of opposition shall be verified by the person filing the same before one of the officers mentioned in section two of this act. If no notice of opposition is filed within said time the Commissioner shall issue a certificate of registration therefor, as hereinafter provided for."

Marks which are stated to have been "Used ten years" are registrable under the last proviso of section 5 of said act, which is as follows:

"And provided further, That nothing herein shall prevent the registration of any mark used by the applicant or his predecessors, or by those from whom title to the mark is derived, in commerce with foreign nations or among the several States, or with Indian tribes, which was in actual and exclusive use as a trade-mark of the applicant or his predecessors from whom he derived title for ten years next preceding the passage of this act."

Section 14 of said act provides for the following fee:

"On filing notice of opposition to the registration of a trade-mark, ten dollars."

Ser. No. 16,107. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE IROQUOIS IRON WORKS, Buffalo, N. Y. Filed Nov. 22, 1905.



Particular description of goods.—Steam-Rollers.

Ser. No. 20,536. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) AMERICAN RADIATOR COMPANY, East Orange, N. J.; Chicago, Ill.; New York, N. Y.; Philadelphia, Pa.; Boston, Mass.; London, England; Paris, France, and Berlin, Germany. Filed June 25, 1906. Used ten years.

IDEAL

Particular description of goods.—Radiators and Boilers.

Ser. No. 21,968. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) BOOTT MILLS, Lowell, Mass. Filed Sept. 7, 1906. Used ten years.

HARTFORD

Particular description of goods.—Cotton Piece Goods.

Ser. No. 30,677. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) GLENN SPRINGS COMPANY, Glenn Springs, S. C. Filed Oct. 19, 1907.



Particular description of goods.—Natural Mineral Water, Carbonated Water, and Aerated Water.

Ser. No. 35,804. (CLASS 48. MALT EXTRACTS AND LIQUORS.) THE KRANTZ BREWING CO, Findlay, Ohio. Filed June 26, 1908. Used ten years.

Krantz OLD DUTCH

Particular description of goods.—Beer.

Ser. No. 37,235. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CHAS LACEY PLUMB, Cranford, N. J., and New York, N. Y. Filed Sept. 4, 1908.

HAPPY DAY

Particular description of goods.—Wheat-Flour.

Ser. No. 37,984. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CHEMISCHE FABRIK AUF ACTIEN (VORM. E. SCHERING), Berlin, Germany. Filed Oct. 13, 1908.

Valisan

Particular description of goods.—Sedative Substances.

Ser. No. 38,323. (CLASS 39. CLOTHING.) JOHN J. COOK, New York, N. Y. Filed Oct. 29, 1908.



Particular description of goods.—Knitted Undergarments, Hosiery, Jerseys, and Sweaters.

Ser. No. 39,101. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) DENNIS WHEATLEY, London, England. Filed Dec. 4, 1908.



Particular description of goods.—Natural Mineral Table-Water.

Ser. No. 39,183. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) INTERNATIONAL BANANA FOOD CO., Chicago, Ill. Filed Dec. 8, 1908.



Particular description of goods.—Banana Pickles, Malted Bananas, Confections Made from Bananas, Canned Bananas, Preserve Made from Bananas, Meal Made from Bananas, Pastry-Flour Made from Bananas, Flour Made from Bananas, Infant's Food Made from Bananas, Food for Invalids Made from Bananas, Jelly Made from Bananas, Vinegar Made from Bananas, Dried Bananas, Syrup Made from Bananas.

Ser. No. 39,562. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) STONE-ORDEAN-WELLS COMPANY, Duluth, Minn. Filed Dec. 28, 1908.



Particular description of goods.—Canned Fish; Dried Fish; Smoked Fish; Pickled Fish; Salted Fish; Canned Roast Beef; Ham; Tripe; Picnic-Shoulders; Pickled Pigs' Feet; Canned Potted Meats; Canned Corned Beef; Sliced Dried Beef; Canned Deviled Ham; Dried Fruits; Evaporated Fruits; Dried Vegetables; Canned Soups; Soup-Stocks; Wheat-Flakes; Corn-Flakes; Prepared Cereal Breakfast Foods; Cornmeal; Cracked Wheat; Farina; Flaked Rice; Wheat-Flour; Rye-Flour; Graham Flour; Buckwheat-Flour; Potato-Flour; Hominy-Grits; Buckwheat-Grits; Groats; Hominy; Lentils; Oatmeal; Rolled Oats; Popcorn; Rice; Bird-Seeds; Shelled-Corn; Barley; Canned Baked Beans; Extract of Beef; Canned Clam-Juice; Canned Clam-Chowder; Canned Oysters; Jams; Jellies; Apple-Butter; Peanut-Butter; Marmalade; Canned Prepared Puddings; Prepared Sauces; Macaroni; Vermicelli; Spaghetti; Celery-Salt; Garlic; Vinegar; Cream-Cheese; Sage-Cheese; Hand-Cheese; Limburger Cheese; Brick-Cheese; Camembert Cheese; Swiss-Style Cheese; Sapsago-Cheese; Roquefort-Style Cheese; Pineapple-Cheese; Chicory; Chilli Sauce; Catsup; Chocolate; Cocoa; Cocoanut; Tea; Coffee; Coffee-Essence; Cereal and Malt Substitutes for Coffee; Canned Condensed Milk; Canned Evaporated Cream; Candy; Chewing-Gum; Crackers; Biscuits; Cookies; Cakes; Flavoring Extracts; Gelatin; Horse-Radish; Spices; Molasses; Maple-Syrup; Corn-Syrup; Cane-Syrup; Prepared Mustard; Prepared Yeast; Lard; Mince-Meat; Noodles; Nuts; Olive-Oil; Cotton-Seed Oil; Olives; Pickles; Pepper Sauce; Sago; Salad-Dressing; Laurel-Leaves; Limes; Linseed-Meal; Maple-Cream; Bay-Leaves; Curry-Powder; Fruit-Preserves; Sauer-Kraut in Bulk; Corn-Starch; Tapioca, and Oil-Meal.

Ser. No. 39,775. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CALIFORNIA FRUIT CANNERS ASSOCIATION, San Francisco, Cal. Filed Jan. 7, 1909. Used ten years.

COLTON
BRAND

Particular description of goods.—Canned Fruit and Canned Vegetables.

Ser. No. 40,093. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WILSON R CARBAUGH, Saxton, Pa. Filed Jan. 23, 1909.

THE ROYAL

Particular description of goods.—A Remedy for San Jose Scale.

Ser. No. 40,245. (CLASS 38. PRINTS AND PUBLICATIONS.) SIME SILVERMAN, New York, N. Y. Filed Jan. 30, 1909.

VARIETY

Particular description of goods.—Weekly Newspapers and Magazines.

Ser. No. 40,257. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CALIFORNIA FRUIT CANNERS ASSOCIATION, San Francisco, Cal. Filed Jan. 30, 1909. Used ten years.



Particular description of goods.—Canned Fruits and Canned Vegetables.

Ser. No. 40,459. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) FRANK B. LYON, Cuba, N. Y. Filed Feb. 10, 1909.



Particular description of goods.—Cream-Cheeses.

Ser. No. 40,692. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CALIFORNIA FRUIT CANNERS ASSOCIATION, San Francisco, Cal. Filed Feb. 19, 1909.



Particular description of goods.—Canned Fruits and Raisins.

Ser. No. 40,725. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) J. & W. NICHOLSON & CO. LIMITED, London, England. Filed Feb. 20, 1909.

BLACK SWAN

Particular description of goods.—Rum, Straight Whisky, and Brandy.

Ser. No. 40,857. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE DAVIS SEWING MACHINE COMPANY, Dayton, Ohio. Filed Mar. 1, 1909.

MARATHON

Particular description of goods.—Sewing-Machines.

Ser. No. 41,082. (CLASS 2. RECEPTACLES.) CONTINENTAL CAN CO., Syracuse, N. Y. Filed Mar. 11, 1909.



Particular description of goods.—Metal Cans.

Ser. No. 41,115. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOSEPH P. URBEN, Pittsburg, Pa. Filed Mar. 11, 1909.

ROSEQLINE

Particular description of goods.—Salve for the Face, Chapped Hands, and Burns.

Ser. No. 42,260. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) INTERNATIONAL BANANA FOOD CO., Chicago, Ill. Filed May 5, 1909.

Bonano



Particular description of goods.—A Compound of Roasted Bananas and Coffee.

Ser. No. 42,405. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE CHAMPLAIN VALLEY ASSOCIATION, Plattsburg, N. Y. Filed May 14, 1909.



Particular description of goods.—Potatoes, Turnips, Carrots, Beets, and Parsnips, Butter, Eggs, Maple Syrup and Sugar, Apples, Plums, Whortleberries, Strawberries, Raspberries, and Cherries.

Ser. No. 42,616. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) GESELLSCHAFT M. B. H. CLASSEN & CO., Schoneberg, Germany. Filed May 22, 1909.

FLUDOR

Particular description of goods.—Soldering-Fluxes in Solid, Liquid, Powder, and Paste Form for Soldering Metals.

Ser. No. 42,702. (CLASS 12. CONSTRUCTION MATERIALS.) F. J. LEWIS MFG CO., Chicago, Ill. Filed May 26, 1909.

Taxoid

Particular description of goods.—A Road-Tar for Bonding the Top Course of Stone in Broken-Stone Roads Known as "Macadam."

Ser. No. 42,748. (CLASS 39. CLOTHING.) CHARLES S. MERTON & CO., New York, N. Y. Filed May 29, 1909.



Particular description of goods.—Hats, Motor and Outing Caps.

Ser. No. 42,951. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) MISSING LINK APPLE CO., Clayton, Ill. Filed June 10, 1909. Used ten years.

MISSING LINK

Particular description of goods.—Plants and Trees.

Ser. No. 43,061. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) KING KLIP COMPANY, New York, N. Y. Filed June 17, 1909.



Particular description of goods.—Manicure Cutting-Tools, Pocket-Knives, Cigar-Cutters, and Clipping Attachments for Cigarette-Cases and Match-Boxes.

Ser. No. 43,245. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOSEPH PALAZZOLO, New York, N. Y. Filed June 25, 1909.

OTELLO

Particular description of goods.—Perfumery and Hair-Tonic.

Ser. No. 43,394. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) FEDERAL WATERPROOFING CO, St. Joseph, Mo. Filed July 3, 1909.



Particular description of goods.—Waterproof Cloth.

Ser. No. 43,521. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) TURNER, DAY & WOOLWORTH HANDLE CO., Louisville, Ky.; Memphis and Nashville, Tenn., and Huntington, W. Va. Filed July 14, 1909.

AMERICAN BEAUTY

Consists of the representation of a shield having the words "American Beauty" thereon.

Particular description of goods.—Wooden Tool-Handles.

Ser. No. 43,591. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) NATIONAL WATER MAIN CLEANING CO., New York, N. Y. Filed July 17, 1909.

EMPIRE

Consisting of the word "Empire."

Particular description of goods.—Hatch-Boxes for Metal Pipes.

Ser. No. 43,601. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) THE M. & J. SCHNAIBLE COMPANY, La Fayette, Ind. Filed July 17, 1909. Used ten years.

STAR ★ CITY

Particular description of goods.—Soap.

Ser. No. 43,693. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) I. H. C. CHEMICAL CO., Savannah, Ga. Filed July 22, 1909.



Particular description of goods.—A Compound or Remedy for Headache, Neuralgia, Colds, and La Grippe.

Ser. No. 43,766. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE J. WELLER COMPANY, Cincinnati, Ohio. Filed July 24, 1909. Used ten years.

WELLER'S

Particular description of goods.—Pickles, Catsup, Chilli Sauce, Mustard, Preserves, Jellies, and Canned Vegetables.

Ser. No. 43,880. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) LISTER AND COMPANY, LIMITED, Bradford, England. Filed July 29, 1909.

LISFUR

Particular description of goods.—Carpets and Rugs.

Ser. No. 43,994. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ERNEST A. G. INTEMANN, Jr., New York, N. Y. Filed Aug. 6, 1909.

E.A.G.I.

Particular description of goods.—Candies, Ice-Cream, and Ices.

Ser. No. 44,000. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) FRANKFURTER ASBESTWERKE AKTIENGESELLSCHAFT (VORMALS LOUIS WERTHEIM), Frankfort-on-the-Main, Germany. Filed Aug. 6, 1909.

Minerva

Particular description of goods.—Packings for Steam-Pipes, Steam-Engines, Steam-Boilers, and Machinery.

Ser. No. 44,019. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) M. COOK & Co., Nashville, Tenn. Filed Aug. 7, 1909.

REMEDOL

Particular description of goods.—A Remedy for Headache and Indigestion.

Ser. No. 44,049. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) GENEVA CUTLERY COMPANY, Geneva, N. Y. Filed Aug. 9, 1909.



Particular description of goods.—Razors.

Ser. No. 44,086. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MERRIMAC CHEMICAL CO., Boston, Mass. Filed Aug. 11, 1909.



Particular description of goods.—Arsenate of Lead.

Ser. No. 44,168. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) PHILADELPHIA PURE RYE WHISKEY DISTILLING COMPANY OF PENNSYLVANIA LIMITED, Eddington and Philadelphia, Pa. Filed Aug. 16, 1909.



Particular description of goods.—Straight Rye Whisky.

Ser. No. 44,181. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) PARK & TILFORD, New York, N. Y. Filed Aug. 17, 1909.

P&T

Particular description of goods.—Gin, Straight, Blended, and Compound Scotch Whisky, Straight, Blended, and Compound Irish Whisky, Straight, Blended, and Compound Rye Whisky, Corn Whisky, Brandy, Rum, and Liqueurs.

Ser. No. 44,218. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) H. H. MAYHEW CO., Shelburne Falls, Mass. Filed Aug. 18, 1909.



Particular description of goods.—Awls, Bits, Braces, Countersinks, Drills, Gimlets, Glass-Cutters, Nail-Sets, Punches, Reamers, Rifflers, Screw-Drivers, and Tack-Claws.

Ser. No. 44,306. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HENRY L. WEIS, Dayton, Ohio. Filed Aug. 23, 1909.

PRUNO-PIX

Particular description of goods.—A Medicinal Preparation for Coughs, Colds, Hoarseness, Sore Throat, Bronchitis, Whooping-Cough, Asthma, and Influenza.

Ser. No. 44,324. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) PHILIP WM. HESSBERG, Richmond, Va. Filed Aug. 24, 1909.

AS-U-LIKE-IT



Particular description of goods.—Talcum Powder.

Ser. No. 44,349. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) THOS. W. KENDRICK, Charlotte, N. C. Filed Aug. 25, 1909.

KENO

Particular description of goods.—A Carbonated Tonic Beverage and Syrup for Making the Same.

Ser. No. 44,377. (CLASS 15. OILS AND GREASES.) PENN PETROLEUM COMPANY, Philadelphia, Pa. Filed Aug. 27, 1909.

PIOUS

Particular description of goods.—Lubricating Oils and Greases.

Ser. No. 44,426. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE WAUKESHA CANNING COMPANY, Waukesha, Wis. Filed Aug. 30, 1909.

Wireless

Particular description of goods.—Canned Vegetables.

Ser. No. 44,485. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) POTATO IMPLEMENT COMPANY, Traverse City, Mich. Filed Sept. 1, 1909.

ACME

Particular description of goods.—Agricultural Sprayers, Agricultural Atomizers, Bellows, Powder-Guns, and Powder-Sprinklers.

Ser. No. 44,490. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) H D FOSS & CO., INCORPORATED, Boston, Mass. Filed Sept. 2, 1909.

CHOBISC

Particular description of goods.—Chocolate-Coated Crackers.

Ser. No. 44,497. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CALDWELL, IDAHO CREAMERY CO., LTD., Caldwell, Idaho. Filed Sept. 2, 1909.

Lucern

Particular description of goods.—Creamery-Butter.

Ser. No. 44,520. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE MIDLAND MANUFACTURING COMPANY, Tarkio, Mo. Filed Sept. 3, 1909.

SUNFLOWER

Particular description of goods.—Manure-Spreaders and Parts Thereof.

Ser. No. 44,522. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) W. O. HORN & BRO, New York, N. Y. Filed Sept. 3, 1909.



Particular description of goods.—Cravats, Neckties, and Neckscarfs.

Ser. No. 44,589. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) LAFAYETTE HINER, Colorado Springs, Colo. Filed Sept. 8, 1909.



Particular description of goods.—A Liniment for Cuts, Wounds, and Sores, Also for Eczema and Sore Throat.

Ser. No. 44,599. (CLASS 39. CLOTHING.) TANCHUM SILBERMAN, Baltimore, Md. Filed Sept. 9, 1909.

IXL

Particular description of goods.—Undershirts and Drawers, Night-Robes, and Pajamas Made of Woven Material.

Ser. No. 44,619. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOHN F. SCHUTZ, Baltimore, Md. Filed Sept. 10, 1909.

Tipsole

Particular description of goods.—Face Balms and Lotions.

Ser. No. 44,625. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) LOUIS LEVUSSOVE, New York, N. Y. Filed Sept. 10, 1909.



Particular description of goods.—Human Hair and Animal Hair.

Ser. No. 44,641. (CLASS 39. CLOTHING.) NORTH BROS. AND STRAUSS, Baltimore, Md. Filed Sept. 11, 1909.

PANTALO

Particular description of goods.—Undershirts, Drawers, Union Suits, and Knee-Drawers Made of Textile Material.

Ser. No. 44,643. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) OXFORD LINEN MILLS, North Brookfield, Mass. Filed Sept. 11, 1909.

OXOWEVE

Particular description of goods.—Towels.

Ser. No. 44,668. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) THE ATWOOD SUSPENDER CO., Schenectady, N. Y. Filed Sept. 13, 1909. Used ten years.

ATWOOD

Particular description of goods.—Suspenders and Arm-Bands.

Ser. No. 44,678. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) AUGUST DANWITZ, New York, N. Y. Filed Sept. 14, 1909.

O.K

Particular description of goods.—Laundry Blue.

Ser. No. 44,691. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOHN C. PRICE, Milwaukee, Wis. Filed Sept. 15, 1909.

PRAISORIA

Particular description of goods.—Tonics.

Ser. No. 44,696. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FREDERICK G. KESSLING, St. Louis, Mo. Filed Sept. 15, 1909.



Particular description of goods.—Remedy for Coughs, Colds, Bronchitis, and Lung Troubles.

Ser. No. 44,708. (CLASS 39. CLOTHING.) JAMES P. HARRINGTON, Brockton, Mass. Filed Sept. 15, 1909.



Particular description of goods.—Leather Shoes.

Ser. No. 44,718. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) AMERICAN STEAM GAUGE & VALVE MFG CO., Boston, Mass. Filed Sept. 16, 1909.

HYDRAULAGRAPH

Particular description of goods.—Recording-Gages.

Ser. No. 44,764. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE FRANCO-AMERICAN FERMENT COMPANY, New York, N. Y. Filed Sept. 18, 1909.



Particular description of goods.—A Bacteriological Product Containing Living Bacilli in Suspension, Indicated in the Treatment of Catarrhal and Inflammatory Conditions of the Nose, Throat, Mouth, and Gums and of the Intestinal and Genito-Urinary Tracts.

Ser. No. 44,814. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) NORVELL-SHAPLEIGH HARDWARE COMPANY, St. Louis, Mo. Filed Sept. 20, 1909.

Ultra

Particular description of goods.—Fish-Lines, Fish-Bait, Fishing-Reels, Fishing-Rods, and Fish-Hooks.

Ser. No. 44,905. (CLASS 39. CLOTHING.) HINMAN KNITTING COMPANY, Decatur, Ill. Filed Sept. 23, 1909.

"OLD FORT"

Particular description of goods.—Hosiery.

Ser. No. 44,924. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) THE MURALO COMPANY, New York and New Brighton, N. Y. Filed Sept. 23, 1909.

CARIBE

Particular description of goods.—Cold-Water Paints.

Ser. No. 44,955. (CLASS 17. TOBACCO PRODUCTS.) CARRERAS & MARCIANUS CIGARETTES LIMITED, London, England. Filed Sept. 25, 1909.

JETTY

Particular description of goods.—Tobacco, Cigars and Cigarettes, and Snuff.

Ser. No. 44,963. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE CAREY SALT COMPANY, Hutchinson, Kans. Filed Sept. 25, 1909.



SUNFLOWER BRAND

Particular description of goods.—Salt.

Ser. No. 45,040. (CLASS 5. ADHESIVES.) JOHN S. SORENSON, New York, N. Y. Filed Sept. 30, 1909.



Particular description of goods.—Glue.

Ser. No. 45,089. (CLASS 39. CLOTHING.) BIRDSEY-SOMERS CO., New York, N. Y. Filed Oct. 2, 1909.

WOMEN'S RIGHTS

Particular description of goods.—Corsets.

Ser. No. 45,090. (CLASS 39. CLOTHING.) BIRDSEY-SOMERS CO., New York, N. Y. Filed Oct. 2, 1909.

SUFFRAGETTES

Particular description of goods.—Corsets.

Ser. No. 45,092. (CLASS 5. ADHESIVES.) PAUL PUTTMANN, New York, N. Y. Filed Oct. 2, 1909.

Invincible

Particular description of goods.—Glue.

Ser. No. 45,112. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WALTER E. HARDMAN, Fort Wayne, Ind. Filed Oct. 4, 1909.

P. C. W

Particular description of goods.—Laxative Cathartic Pills.

Ser. No. 45,130. (CLASS 32. FURNITURE AND UPHOLSTERY.) PENFIELD MANUFACTURING COMPANY, Syracuse, N. Y. Filed Oct. 4, 1909.

THE THERMO

Particular description of goods.—Mattresses, Pillows, and Cushions.

Ser. No. 45,141. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOHN WYETH & BROTHER, INCORPORATED, Philadelphia, Pa. Filed Oct. 5, 1909.

PLASTULES

Particular description of goods.—A Medicinal Plastic Pill, Round or Oval, Coated or Uncoated.

Ser. No. 45,183. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) OLIVER T. MCKEEVER, Allentown, Pa. Filed Oct. 7, 1909.

RHEXIA

Particular description of goods.—Hair-Tonics.

TRADE-MARKS

REGISTERED NOVEMBER 16, 1909.

75,759. LEATHER SHOES FOR MEN AND WOMEN. BADGER AND HESLIN, New Haven, Conn.
Filed June 9, 1909. Serial No. 42,919. PUBLISHED SEPTEMBER 14, 1909.

75,760. BELTS FOR PERSONAL WEAR. THE BRIDGEPORT WEBBING COMPANY, INC., Bridgeport, Conn.
Filed July 12, 1909. Serial No. 43,489. PUBLISHED SEPTEMBER 14, 1909.

75,761. SALVE. NETTIE CANARY, Chicago, Ill.
Filed June 10, 1909. Serial No. 42,943. PUBLISHED SEPTEMBER 14, 1909.

75,762. OUTER WASH-SUITS, DRESS AND SHIRT WAISTS, KIMONOS, DRESSING-SACKS, AND HOUSE-WRAPPERS. CRIPPEN & REID, Saratoga Springs and Ballston Spa, N. Y.
Filed July 19, 1909. Serial No. 43,625. PUBLISHED SEPTEMBER 14, 1909.

75,763. MEN'S HATS. G. B. BORSALINO FU LAZZARO & Co., Alessandria, Italy.
Filed January 13, 1909. Serial No. 39,851. PUBLISHED SEPTEMBER 14, 1909.

75,764. MEN'S HATS. G. B. BORSALINO FU LAZZARO & Co., Alessandria, Italy.
Filed January 13, 1909. Serial No. 39,852. PUBLISHED SEPTEMBER 14, 1909.

75,765. MEN'S HATS. G. B. BORSALINO FU LAZZARO & Co., Alessandria, Italy.
Filed January 13, 1909. Serial No. 39,853. PUBLISHED SEPTEMBER 14, 1909.

72,766. REMEDY FOR RHEUMATISM. ALVIANO GIROLAMO, Latrobe, Pa.
Filed July 2, 1908. Serial No. 35,910. PUBLISHED SEPTEMBER 14, 1909.

75,767. MOUTH-WASHES AND TOOTHACHE MEDICINES. KAROL GRUSZKA, Chicago, Ill.
Filed June 28, 1909. Serial No. 43,312. PUBLISHED SEPTEMBER 14, 1909.

75,768. PYRAZOLONE-PHENYL-DIMETHYL-SALICYLATE. J. D. RIEDEL AKTIENGESELLSCHAFT, Berlin, Germany.
Filed July 28, 1908. Serial No. 36,368. PUBLISHED SEPTEMBER 14, 1909.

75,769. ADHESIVE COMPOSITIONS FOR THE PROTECTION OF TREES AND PLANTS FROM INSECTS. MASURY-YOUNG COMPANY, Boston, Mass.
Filed July 2, 1909. Serial No. 43,364. PUBLISHED SEPTEMBER 14, 1909.

75,770. SALVES, LOTIONS, FACE-CREAMS, AND POISON-OAK REMEDIES, FINGER-NAIL GLOSS, AND MANGE REMEDIES. THE OWL DRUG CO., San Francisco, Cal.
Filed April 27, 1909. Serial No. 42,066. PUBLISHED SEPTEMBER 14, 1909.

75,771. PERFUMERY. JOSEPH PALAZZOLO, New York, N. Y.
Filed August 11, 1909. Serial No. 44,075. PUBLISHED SEPTEMBER 14, 1909.

75,772. INSECTICIDE TO BE USED IN THE EXTERMINATION OF MITES AND LICE. RUDOLPH J. PAQUIN, Curtis, Nebr.
Filed August 6, 1909. Serial No. 43,993. PUBLISHED SEPTEMBER 14, 1909.

75,773. VACCINE VIRUS FOR ANIMALS. THE PASTEUR VACCINE COMPANY LIMITED, London, England.
Filed April 1, 1908. Serial No. 33,799. PUBLISHED SEPTEMBER 14, 1909.

75,774. HOSIERY. RICHMOND HOSIERY MILLS, Chattanooga, Tenn., and Rossville, Ga.
Filed June 21, 1909. Serial No. 43,166. PUBLISHED SEPTEMBER 14, 1909.

75,775. SHOES MADE WHOLLY OR IN PART OF LEATHER. THE TAPPAN SHOE MANUFACTURING COMPANY, Coldwater, Mich.
Filed July 17, 1909. Serial No. 43,600. PUBLISHED SEPTEMBER 14, 1909.

75,776. MEDICINE FOR AMENORRHEA AND DISORDERED MENSTRUATION. MALCOLM R. TIPTON, Portland, Oreg., and Seattle, Wash.
Filed July 6, 1909. Serial No. 43,405. PUBLISHED SEPTEMBER 14, 1909.

75,777. BOILERS AND HEATERS. AMERICAN RADIATOR COMPANY, East Orange, N. J.; Chicago, Ill.; New York, N. Y.; Philadelphia, Pa.; Boston, Mass.; London, England; Paris, France, and Berlin, Germany.
Filed June 25, 1906. Serial No. 20,538. PUBLISHED SEPTEMBER 14, 1909.

75,778. SUGAR-CONVERTING ANIMAL ENZYM FOR USE IN THE TREATMENT OF DIABETES. HARRIS SHERIDAN BAKETEL, New York, N. Y.
Filed July 30, 1909. Serial No. 43,887. PUBLISHED SEPTEMBER 14, 1909.

75,779. NEWSPAPERS. CO-OPERATIVE PRINTING COMPANY, Chicago, Ill.
Filed May 8, 1909. Serial No. 42,318. PUBLISHED SEPTEMBER 14, 1909.

75,780. FINGER-NAIL-POLISHING COMPOUND. CURIOSO DUST COMPANY, Los Angeles, Cal.
Filed February 16, 1909. Serial No. 40,565. PUBLISHED AUGUST 10, 1909.

75,781. LINIMENT. WALTER DEAL, Osage, Okla.
Filed June 3, 1909. Serial No. 42,823. PUBLISHED SEPTEMBER 7, 1909.

75,782. PREPARATION FOR NEURALGIA, RHEUMATISM, INDIGESTION, BLOOD AND SKIN DISEASES, AND BOILS. CHARLES A. FERGUSON, Memphis, Tenn.
Filed August 3, 1909. Serial No. 43,946. PUBLISHED SEPTEMBER 14, 1909.

75,783. SHEATHING-PAPER. FORD MANUFACTURING COMPANY, Chicago, Ill.
Filed July 8, 1909. Serial No. 43,429. PUBLISHED SEPTEMBER 14, 1909.

75,784. SHEATHING-PAPER. FORD MANUFACTURING COMPANY, Chicago, Ill.
Filed July 8, 1909. Serial No. 43,430. PUBLISHED SEPTEMBER 14, 1909.

75,785. CORSET-STEELS. THE H. W. GOSSARD COMPANY, Chicago, Belvidere, and Dixon, Ill., and Elkhart, Ind.
Filed July 10, 1909. Serial No. 43,446. PUBLISHED SEPTEMBER 14, 1909.

75,786. MATTRESSES. IDEAL MANUFACTURING COMPANY, Dallas, Tex.
Filed August 5, 1909. Serial No. 43,976. PUBLISHED SEPTEMBER 14, 1909.

75,787. GAS-MANTLES. THE INCANDESCENT LIGHT & SUPPLY CO., Wichita, Kans.
Filed July 15, 1909. Serial No. 43,557. PUBLISHED SEPTEMBER 14, 1909.

75,788. RIFLES, SHOTGUNS, PISTOLS, AND REVOLVERS. MARY ELIZABETH JOHNSON, trustee, Fitchburg, Mass.
Filed June 21, 1909. Serial No. 43,130. PUBLISHED SEPTEMBER 14, 1909.

75,789. REMEDY FOR CERTAIN DISEASES. KENTUCKY REMEDY CO., Henderson, Ky.
Filed July 16, 1909. Serial No. 43,575. PUBLISHED AUGUST 31, 1909.

75,790. FREEZERS. THE REID-EDELMUTH MANUFACTURING CO., Brooklyn, N. Y.
Filed July 30, 1909. Serial No. 43,884. PUBLISHED SEPTEMBER 14, 1909.

75,791. ADHESIVE CEMENT. ROBERT LOW'S SON & HOWARD, Esopus, N. Y., and London, England.
Filed August 31, 1908. Serial No. 37,057. PUBLISHED SEPTEMBER 14, 1909.

75,792. WASHBOILERS. HARRIS SHAPIRO, New York, N. Y.
Filed July 23, 1909. Serial No. 43,707. PUBLISHED SEPTEMBER 14, 1909.

75,793. CRUDE GLASS, PLATE-GLASS, AND HOLLOW GLASSWARE FOR ILLUMINATING PURPOSES. KARL STOCKHAUSEN, Dresden, Germany.
Filed September 2, 1908. Serial No. 37,130. PUBLISHED SEPTEMBER 14, 1909.

75,794. WHEAT-FLOUR. ABERDEEN MILL COMPANY, Aberdeen, S. D.
Filed July 17, 1909. Serial No. 43,598. PUBLISHED SEPTEMBER 14, 1909.

75,795. TOILET AND PUMICE SOAPS. ARTHUR C. BROWN, New York, N. Y.
Filed February 23, 1909. Serial No. 40,739. PUBLISHED AUGUST 10, 1909.

75,796. CERTAIN FOODS. BUFFALO CEREAL CO., Buffalo, N. Y.
Filed May 26, 1909. Serial No. 42,675. PUBLISHED SEPTEMBER 14, 1909.

75,797. STILL WINES. CARMEL WINE COMPANY, New York, N. Y.
Filed October 28, 1908. Serial No. 38,311. PUBLISHED SEPTEMBER 14, 1909.

75,798. BEER. CENTRAL CONSUMERS COMPANY, Louisville, Ky.
Filed June 12, 1909. Serial No. 42,986. PUBLISHED SEPTEMBER 14, 1909.

75,799. MORTAR-COLORS. CHATTANOOGA PAINT CO., Chattanooga, Tenn.
Filed May 13, 1909. Serial No. 42,401. PUBLISHED JUNE 29, 1909.

75,800. LADIES', MISSES', AND CHILDREN'S CLOAKS, OUTER SUITS, AND DRESSES. MARK J. COHN, New York, N. Y.
Filed July 14, 1909. Serial No. 43,526. PUBLISHED SEPTEMBER 14, 1909.

75,801. BLENDED COFFEE. EVARISTE COURTADE, New York, N. Y.
Filed April 22, 1909. Serial No. 41,931. PUBLISHED SEPTEMBER 14, 1909.

75,802. ENAMEL PAINTS. GEO. D. WETHERILL & CO., INC., Philadelphia, Pa.
Filed June 24, 1909. Serial No. 43,231. PUBLISHED SEPTEMBER 14, 1909.

75,803. FLAVORINGS. T. H. GROSSMITH, New York, N. Y.
Filed February 6, 1908. Serial No. 32,601. PUBLISHED SEPTEMBER 14, 1909.

75,804. CERTAIN TOOLS AND PARTS OF MACHINERY. J. J. SAVILLE & COMPANY, LIMITED, Sheffield, England.
Filed May 12, 1909. Serial No. 42,372. PUBLISHED SEPTEMBER 14, 1909.

75,805. BREAD. WILLIAM R. JENNINGS, Newport News, Va.
Filed June 23, 1909. Serial No. 43,205. PUBLISHED SEPTEMBER 14, 1909.

75,806. FLAVORING EXTRACT. LEE B. JORDAN, New Orleans, La.
Filed May 17, 1909. Serial No. 42,475. PUBLISHED SEPTEMBER 14, 1909.

75,807. WATER-CLOSETS. L. M. RUMSEY MANUFACTURING COMPANY, St. Louis, Mo.
Filed March 12, 1909. Serial No. 41,139. PUBLISHED SEPTEMBER 14, 1909.

75,808. WATER-CLOSETS. L. M. RUMSEY MANUFACTURING COMPANY, St. Louis, Mo.
Filed March 12, 1909. Serial No. 41,149. PUBLISHED SEPTEMBER 14, 1909.

75,809. MANUFACTURED GOAT-HAIR. LOUIS LEVUSSOVE, New York, N. Y.
Filed June 11, 1909. Serial No. 42,967. PUBLISHED SEPTEMBER 14, 1909.

75,810. CANNED VEGETABLES. MANITOWOC PEA PACKING COMPANY, Manitowoc, Wis.
Filed June 25, 1909. Serial No. 43,262. PUBLISHED SEPTEMBER 14, 1909.

75,811. SUGAR WAFERS. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed July 2, 1909. Serial No. 43,365. PUBLISHED SEPTEMBER 7, 1909.

75,812. BISCUIT. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed July 2, 1909. Serial No. 43,369. PUBLISHED SEPTEMBER 7, 1909.

75,813. NON-INTOXICATING MALT BEVERAGE. NEW ORLEANS BREWING CO., New Orleans, La.
Filed November 18, 1908. Serial No. 38,752. PUBLISHED JANUARY 5, 1909.

75,814. BLENDED COFFEE. NORWINE COFFEE COMPANY, St. Louis, Mo.
Filed April 14, 1909. Serial No. 41,782. PUBLISHED SEPTEMBER 14, 1909.

75,815. CANDY. ORTEGA LAND COMPANY, San Francisco, Cal.
Filed May 13, 1909. Serial No. 42,397. PUBLISHED SEPTEMBER 14, 1909.

75,816. YEAST. THE PASTEUR VACCINE COMPANY LIMITED, London, England, and Paris, France.
Filed April 1, 1908. Serial No. 33,800. PUBLISHED SEPTEMBER 14, 1909.

75,817. VACUUM CLEANING APPARATUS. LEMUEL WM. SERRELL, New York, N. Y.
Filed February 1, 1909. Serial No. 40,272. PUBLISHED SEPTEMBER 14, 1909.

75,818. SPECTACLE-GLASSES, LENSES, AND PHOTOGRAPHIC LIGHT-FILTERS. KARL STOCKHAUSEN, Dresden, Germany.
Filed May 22, 1909. Serial No. 42,615. PUBLISHED SEPTEMBER 14, 1909.

75,819. CERTAIN FOODS. STROHMEYER & ARPE COMPANY, New York, N. Y.
Filed September 9, 1908. Serial No. 37,280. PUBLISHED JANUARY 12, 1909

75,820. BLENDED TEA AND BLENDED COFFEE. THE TEA CONSUMERS' COMPANY, London, England.
Filed August 7, 1908. Serial No. 36,541. PUBLISHED SEPTEMBER 14, 1909.

75,821. HORSE, MULE, AND CATTLE FEED. UNITED GROCERY COMPANY, Jacksonville, Fla.
Filed July 16, 1909. Serial No. 43,571. PUBLISHED SEPTEMBER 14, 1909.

75,822. TRANSFERABLE PATTERNS. WALTER P. WEBBER, Lynn, Mass.
Filed June 7, 1909. Serial No. 42,872. PUBLISHED SEPTEMBER 14, 1909.

75,823. CARDED COTTON. WONALANCET COMPANY, Nashua, N. H.
Filed July 8, 1909. Serial No. 43,424. PUBLISHED SEPTEMBER 14, 1909.

75,824. CIGARS. MILTON L. EPPSTEIN, Fort Worth, Tex.
Filed July 8, 1909. Serial No. 43,432. PUBLISHED SEPTEMBER 14, 1909.

75,825. BOILER COMPOUNDS. HAGGERTY REFINING COMPANY, New York, N. Y.
Filed July 17, 1909. Serial No. 43,587. PUBLISHED AUGUST 31, 1909.

75,826. CANNED, PICKLED, AND PRESERVED MEATS. JOHN MORRELL & COMPANY LIMITED, Ottumwa, Iowa, and Liverpool, England.
Filed December 11, 1908. Serial No. 39,251. PUBLISHED APRIL 13, 1909.

75,827. BINDER-TWINE. THE LOCKWOOD-LUETKEMEYER-HENRY COMPANY, Cleveland, Ohio.
Filed July 19, 1909. Serial No. 43,626. PUBLISHED AUGUST 24, 1909.

75,828. TONIC TO BE USED IN STOCK FOODS FOR ANIMALS. ROSE MASTON CROCKER, Chicago, Ill.
Filed September 24, 1908. Serial No. 37,567. PUBLISHED JANUARY 26, 1909.

75,829. STEEL. SEEBOHM & DIECKSTAHL, LD., Sheffield, England.
Filed May 25, 1909. Serial No. 42,670. PUBLISHED SEPTEMBER 14, 1909.

75,830. BRUSHES. WILLIAM A. TOTTLE & CO., Baltimore, Md.
Filed May 24, 1909. Serial No. 42,645. PUBLISHED SEPTEMBER 14, 1909.

75,831. WRITING AND PRINTING PAPER. UNION CARD & PAPER CO, New York, N. Y.
Filed June 18, 1909. Serial No. 43,101. PUBLISHED SEPTEMBER 14, 1909.

75,832. BLENDED WHISKY. THE UNION DISTILLING CO., Cincinnati, Ohio.
Filed March 23, 1909. Serial No. 41,367. PUBLISHED SEPTEMBER 14, 1909.

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

COMMISSIONER'S DECISIONS.

EX PARTE SMITH.

Decided January 26, 1909.

PATENTABILITY—AGGREGATION.

Where two mechanisms for performing successive operations upon a piece of work are both old in the art, the assembling of these mechanisms upon a unitary support in such manner that the operator may transmit the work from one to the other without changing his position at the machine *Held* not to involve invention.

APPEAL from Examiners-in-Chief.

ROCK-DRILL SHARPENING AND SHAPING MACHINE.

Messrs. Fred G. Dieterich & Co. for the applicant.

MOORE, *Commissioner:*

This is an appeal from the decision of the Examiners-in-Chief affirming the action of the Examiner rejecting claims 1, 8, 9, 10, and 11 of the above-entitled application. The following claims sufficiently illustrate the subject-matter of the appealed claims:

1. In an apparatus of the class described, a column or support, a relatively fixed die-holding member and a movable die-holding member mounted on said column, dies carried by each of said die-holding members, an impacting-engine coöperating with said movable die and pneumatic means continuously tending to move said impacting-engine and said movable die toward the fixed die and simultaneously operating the impacting-engine.

8. In an apparatus of the class described, a rock-drill-bit-sharpening means, a bit shaping and gaging means, and a unitary support for said means combined with controlling devices for each of said means operative by a single operator while standing in one position, substantially as shown and described.

The references are: Allen, March 13, 1877, No. 188,224; Boyer, May 9, 1899, No. 624,447; Glossop, November 13, 1900, No. 661,798; Word, June 23, 1903, No. 731,728; Spreyer, May 8, 1906, No. 820,023.

The invention relates to mechanism for sharpening rock-drills and comprises a bed upon which mechanism is arranged for supporting the drill to be sharpened, a dolly adapted to be pneumatically operated to get shaped to the end of the bit and also to upset the same, and a shaping device supported from the same frame adapted to swage the upset bit in the proper size.

It appears that in the sharpening and resharpening of rock-drills it is necessary to alternately operate the two by the dolly and swaging mechanism until the correct size is given to the sharpened bit. It is the object of the present invention to locate these independent mechanisms upon a single frame in such proximity that there will be no loss of heat by the bit in transferring the same from one mechanism to another. It is also the object of the present invention to place the operating levers within the easy reach of the operator to enable him to accomplish the functions above referred to.

The mechanism for sharpening the bit and the device for reducing the end of the bit to the proper size are admittedly old in the prior art; but it is insisted that the assembling of two machines of different types upon a unitary support in such a manner that the operator may transmit the drill from one to the other without changing his position at the machine involves invention. In my opinion this contention is not well founded.

The patent to Spreyer shows that it is old to use a pneumatic means for moving the impacting-engine and also simultaneously operate the impacting-engine, and the conclusion of the Examiners-in-Chief that the patent to Spreyer anticipates claim 1 is clearly well founded.

Claims 8, 9, 10, and 11 comprise merely the aggregation of two mechanisms upon a common support, the particular mechanisms in these claims being old in the references cited against them, and it involved merely the exercise of mechanical skill to place the device for controlling the separate mechanisms within easy reach of the operator.

The decision of the Examiners-in-Chief is affirmed.

LACROIX *v.* TYBERG.

Decided December 28, 1908.

1. CLAIMS—COMBINATION—USE OF TERM "MEANS."

Where the invention claimed is a combination, *Held* that the term "means," followed by a statement of function, is properly readable on a structure in which such means consists of more than one element.

2. INTERFERENCE—APPEAL ON PRIORITY—PATENTABILITY OF THE ISSUE—SUPERVISORY AUTHORITY OF THE COMMISSIONER.

The question of the counts of the issue having different meanings and of their non-patentability will be considered on appeal on priority only under such extraordinary circumstances as will warrant the exercise of the supervisory authority of the Commissioner.

3. PUBLIC USE.

The fact that a license was taken out to make cigars on the premises where a cigar-making machine was being tested and that some of the cigars made were actually sold *Held* not to establish a public use of the machine where it appeared that the place where such tests were made was a machine-shop and not a cigar factory, the license being taken out in order to be able to make actual tests with tobacco, and that the machine was operated primarily for the purpose of developing imperfections in the machine and that many minor changes were made therein.

APPEAL from Examiners-in-Chief.

CIGAR-MACHINE.

Mr. James L. Norris for Lacroix.

Messrs. Philipp, Sawyer, Rice & Kennedy for Tyberg.

BILLINGS, *Assistant Commissioner:*

This is an appeal by Lacroix from the decision of the Examiners-in-Chief affirming the decision of the Examiner of Interferences awarding priority of invention in favor of Tyberg.

The issue is in six counts, as follows:

1. The combination, with a wrapping mechanism, of means for supporting a plurality of bunches, and means for transferring bunches from the supporting means to the wrapping mechanism.
2. The combination, with a wrapping mechanism, of means for supporting a mold, and means for transferring the bunch from the mold to the wrapping mechanism.
3. The combination, with a wrapping mechanism, of means for supporting a mold containing a plurality of bunches, and means for transferring the bunches from the mold to the wrapping mechanism.
4. The combination with a bunch-support operating to sustain a plurality of bunches, of a lifting device including means for engaging each bunch, and devices for operating the lifting device to remove the bunches from and transport them from the support.
5. The combination, with means for supporting a mold having a plurality of bunch-receptacles, of means for removing the bunches from said receptacles and transporting them from the mold.
6. The combination, with a bunch-support, of bunch-removing means, said means including a bunch-impaling device, and means for operating said bunch-removing means to transport the bunch from the support.

The application of Lacroix, the junior party to this interference, was filed October 10, 1902. Tyberg has two applications involved in the interference—viz., applications No. 123,979, containing counts 1, 2, and 3, filed September 19, 1902, and No. 53,211, containing counts 4, 5, and 6, which was filed March 28, 1901. The burden of proof rests upon Lacroix.

The Examiner of Interferences and the Examiners-in-Chief found that Tyberg reduced the invention of the issue to practice by completing and successfully testing a machine involving the construction called for by all the counts of the issue as early as March or April, 1900, but that in view of the allegation in his preliminary statement of reduction to practice in May, 1900, he could not be given a date of reduction to practice prior to May 1, 1900. They also found that since Lacroix does not allege an actual reduction to practice prior to October 10, 1902, the filing date of his application, he can prevail only in case he was the first to conceive and was exercising diligence in reducing to practice from the time Tyberg entered the field until October 10, 1902. They further found that the evidence fails to establish that Lacroix had a conception of the invention prior to that of Tyberg, but that even if such prior conception was proved Lacroix could not prevail, because there is no evidence corroborating his own testimony as to the exercise of diligence on his part from March, 1900, when Tyberg certainly had a full conception of the invention, to August, 1901, when Lacroix again commenced making drawings.

The voluminous evidence filed in the case was carefully analyzed in the decision of the Examiner of Interferences, and it is unnecessary to repeat it here. The decisions of the Examiner of Interferences and of the Examiners-in-Chief have been carefully reviewed in connection with the evidence filed, and are believed to fully warrant the conclusion reached by them.

On this appeal the main argument of Lacroix is that even if the above findings of the Examiner of Interferences and the Examiners-in-Chief are correct as to the dates to which the respective applicants are entitled Tyberg is not entitled to a patent containing claims corresponding to the counts of the issue. Lacroix contends in substance as follows, (brief, p. 39:)

First, that the Tyberg application does not disclose a machine coming within the wording of the first three counts of the issue.

Second, that as to counts 1, 2, and 3 the interference is merely in words, and the counts have a different meaning when read upon the structures of the respective parties.

Third, that if the evidence in behalf of Tyberg is held to establish a reduction to practice as early as March or May, 1900, the same evidence shows that the machine in which the invention was reduced to practice was in public use for more than two years before he filed his application for patent upon it, on September 19, 1902, and a statutory bar exists to the grant of a patent.

Fourth, that counts 4 and 5 are not readable on Lacroix's machine; also, that they are not patentable over patents cited.

Fifth, that count 6 is not patentable over the prior art, but if patentable then Lacroix is entitled to an award of priority.

Sixth, that according to the disclosure in the respective applications and the evidence filed Lacroix and not Tyberg is the inventor of the subject-matter defined in counts 1, 2, and 3 of the issue.

The first of the above contentions raises the question of the right of Tyberg to make the claims forming counts 1, 2, and 3 of the issue. The question of the right of one party to make the claims when material to the other party's right to a patent containing them was held to be a legitimate question to raise at final hearing as ancillary to that of priority by the Court of Appeals of the District of Columbia in the Podlesak and subsequent cases. (26 App. D. C., 399; 120 O. G., 2127.) In the present case if the counts of the issue will not read on Tyberg's structure he never made the invention of the issue and is not entitled to an award of priority.

In Tyberg's device a plurality of bunches are transferred by an arm carrying a series of needles from their support in the mold to a chain carrier.

From said chain carrier a swinging gripping device transfers the bunches one by one to the wrapping mechanism. In the device of Lacroix a single bunch is transferred at one operation by means of an oscillating arm from the mold to the wrapping mechanism and without the use of the intermediate chain carrier of Tyberg. Lacroix contends that the portion of claims 1, 2, and 3 calling for—

means for transferring the bunches from the mold to the wrapping mechanism—

is not properly readable on Tyberg's structure, since in the latter structure it must cover three elements—viz., the needle-bar, the chain carrier, and the swinging arm.

This contention is believed to be without force. The claims constituting these counts of the issue originated in the Tyberg application and should be construed in the light of his disclosure. In Tyberg's machine it was found advantageous to remove all the bunches from the mold at one operation. The wrapping mechanism, however, could operate on but one bunch at a time. It was therefore necessary in his device to provide the intermediate chain carrier to receive a plurality of bunches removed from the mold and permit them to be taken one at a time to the wrapping mechanism. The only function of the needle-bar, chain carrier, and swinging arm is to take the bunches from the mold to the wrapping device. Taken together they form the transfer mechanism or the—

means for transferring the bunches from the mold to the wrapping mechanism—

as called for in these counts of the issue. It is true that Lacroix shows a different species of transferring device, and the means in his case covers merely the oscillating arm and its operating mechanism. The term "means," however, is a generic one and equally applicable to either species of transferring device. In reply to the contention that it does not properly define Tyberg's invention it may be said that the invention of the counts under consideration does not reside in any particular construction of transferring means, but in the combination of the transferring means with the other elements of the combination claimed.

The second, fourth, and fifth of the above contentions of Lacroix—viz., that counts 1, 2, and 3 have different meanings in the respective applications and that there is consequently no interference in fact, that counts 4 and 5 are not readable on his own device, and that counts 4, 5, and 6 are not patentable over the prior art, and that for these reasons the interference should be dissolved—do not relate to matter that can properly be considered at final hearing on priority, except under such circumstances as would warrant the exercise of the supervisory authority of the Commissioner. (*Sobey v. Holeclaw*, 119 O. G., 1922; *Potter v. McIntosh*, 120 O. G., 1823; *Eschinger v. Drummond and Lieberknecht*, 121 O. G., 1348; *Lipschutz v. Floyd*, 130 O. G., 2718.) The counts of the issue were held patentable by the Primary Examiner at the time the interference was declared. Appellant brought a motion to dissolve the interference, which was denied by the Primary Examiner, and while all of the above grounds do not appear to have been included in said motion appellant should have urged them at that time, if he wished to raise them at all. It is well settled, as set forth in the decisions cited above, that the supervisory authority of the Commissioner will be exercised only under extraordinary circumstances and to correct a manifest error. The circumstances of the present case do not call for the exercise of the supervisory authority of the Commissioner.

The third contention of appellant relates to the alleged existence of the statutory bar of public use and not to the question of priority of invention. In the case of *Burson v. Vogel* (29 App. D. C., 388; 131 O. G., 942) the Court of Appeals of the District of Columbia said:

Whether Burson's use of his machine in his factory for more than two years before applying for a patent, amounted to such public use within the meaning of section 4886, Revised Statutes, as to bar his right to a patent, is not a question which can be raised in this case which involves priority of invention as between him and Vogel. The question is one for the consideration of the Commissioner on the final allowance of a patent.

In view of the fact, however, that this question was discussed and passed upon by the lower tribunals and that it can best be considered at the present time it may be stated that the testimony upon this point has been reviewed and is believed to show that such use as was made of Tyberg's machine more than two years prior to September 19, 1902, the filing date of his latest application, was an experimental use and not a public use of the invention.

It is true that the evidence shows that a license was taken out by the American Tobacco Company, the assignee of the Tyberg applications, in October, 1899, to make cigars on the premises where the Tyberg machine was being tested and perfected, and that the "Tyberg Exhibit Revenue Book" shows that some forty thousand cigars were made during tests of the machine in three months. It appears, however, that it was necessary under the internal revenue laws to take out a license and to account for all tobacco received in order to make actual tests of the machine with tobacco. The evidence shows that the machine was tested in a machine-shop rather than a cigar factory proper; that only employees of the company were admitted to the shop; that the machine was operated primarily for the purpose of developing imperfections in the machine, and that many minor changes were made whereby the percentage of waste was reduced. Under these circumstances the fact that incidentally cigars were produced, some of which were sold at a reduced price to the workmen and others were sufficiently perfect to be placed upon the market, does not change the character of the use from an experimental to a public one.

The sixth contention of appellant, relating to priority of invention of the structure of counts 1, 2, and 3, has already been considered and found unwarranted.

The decision of the Examiners-in-Chief is affirmed.

DECISIONS OF THE U. S. COURTS.

Court of Appeals of the District of Columbia.

IN RE WRIGHT & TAYLOR. IN RE C. H. GRAVES & SONS. IN RE E. H. TAYLOR, JR., & SONS.

Filed June 1, 1909.

1. TRADE-MARKS—GOODS OF SAME DESCRIPTIVE PROPERTIES—WHISKY, "STRAIGHT," "BLEND," AND "COMPOUND."

"Straight" whisky, "blended" whisky, and "compound" whisky are goods of the same descriptive properties within the meaning of the Trade-Mark Act.

2. SAME—TEN-YEARS CLAUSE—CONTEMPORANEOUS USE—FRAUDULENCY THEREOF.

A mark cannot be registered under the ten-years clause of section 5 of the Trade-Mark Act of February 20, 1905, when substantially the same mark was used by others on goods of the same descriptive properties during the ten-year period, even though such use was fraudulent or deceptive.

Mr. A. E. Wallace for Wright & Taylor.

Mr. F. W. Hackett, Mr. Samuel L. Powers, and *Mr. Clifford O. Warren* for C. H. Graves & Sons.

Mr. George W. Rea and *Mr. J. G. Carlisle* for E. H. Taylor, Jr., & Sons.

Mr. F. A. Tennant for the Commissioner of Patents.

VAN ORSDEL, *J.*:

These cases come here on appeals from a decision of the Commissioner of Patents in a trade-mark interference, involving the right to the registration of trade-marks for whisky, the dominating feature of each being the word "Taylor." All of the applications were refused by the Commissioner. The marks sought to be registered are indicated opposite the names of the respective applicants, as follows: Taylor & Williams, "Old Taylor;" Wright & Taylor, "Kentucky Taylor;" C. H. Graves & Sons, "G. A. Taylor;" and E. H. Taylor, Jr., & Sons, "Taylor." No appeal was taken by Taylor & Williams; hence they are eliminated from this inquiry.

The Commissioner found that the marks sought to be registered are not technical trade-marks. Each of the parties claims the right to register under the following provision of section 5 of the Trade-Mark Act of February 20, 1905:

> That nothing herein shall prevent the registration of any mark used by the applicant or his predecessors, or by those from whom title to the mark is derived, in commerce with foreign nations or among the several States, or with Indian tribes, which was in actual and exclusive use as a trade-mark of the applicant or his predecessors from whom he derived title for ten years next preceding the passage of this act.

It is clear that the marks before us are not registrable as technical trade-marks. The right to registration under the above statute is the sole question to be considered. It is conceded that each of the marks in question was used continuously by the party here claiming it for more than ten years prior to February 20, 1905.

The Commissioner of Patents found from the evidence that Wright & Taylor and C. H. Graves & Sons had been using their mark on goods purporting, from the advertisements and representations contained on the labels, to be pure whisky, when, in fact, the whisky was either a blend or a compound. The fraud thus practiced upon the public was held upon the authority of *Levy* v. *Uri* (31 App. D. C., 441) to be sufficient to divest these parties of any standing in the Patent Office. We agree with the Commissioner that the evidence shows that the marks were used by Wright & Taylor and C. H. Graves & Sons on whisky represented to be pure, when, in fact, construing the evidence most liberally in their favor, it was only entitled, in the case of the former, to be marked a compound, and, in the latter, a blend. We also find no fraudulent or deceptive use of the mark by E. H. Taylor, Jr., & Sons.

Having established this fact as to their opponents, E. H. Taylor, Jr., & Sons insist that they have had exclusive use of the trade-mark in issue for ten years next preceding the passage of the Trade-Mark Act, inasmuch as the opposing parties are shown to have used their marks deceptively during that period. This contention is based upon the theory that compound and imitation whiskies are not goods of the same descriptive qualities as pure, straight whisky. This argument would have great force in a court of equity in a suit for infringement or unfair competition, but we are considering the express terms of a statute. In section 1 of the Trade-Mark Act, we find that registration may be procured for a mark to be used on a "class of merchandise," and the applicant must name—

> the class of merchandise and the particular description of goods comprised in such class to which the trade-mark is appropriated.

Section 5 forbids the registration of a mark the same as one known to be in use by another on "merchandise of the same descriptive properties," or which resembles closely the mark of another "appropriated to merchandise of the same descriptive properties." In section 16, one may render himself liable for damages for using a colorable imitation of the trade-mark of another on merchandise of "substantially the same descriptive properties." It will be observed that Congress used liberal terms in placing limitations upon the registration and use of similar trade-marks. This is to protect the owner in a liberal use of his mark, but more particularly to protect the public from imposition arising from confusing goods of the same general class bearing the same or similar marks.

It is insisted by counsel for E. H. Taylor, Jr., & Sons that the proviso to section 5 of the Trade-Mark Act is to protect rights already acquired at the time of the passage of the law. The mark in question being non-technical, no right could have been asserted to it as a trade-mark; hence, Congress took no right away. So long as there was not a right to be divested, there was none to be reserved. Congress, by this act, was not preserving an existing right, but providing a method by which a right that did not exist before might be acquired. Hence, it was within its province to place any restriction upon those seeking its benefits that it might deem proper. Since, therefore, E. H. Taylor, Jr., & Sons are here claiming a privilege, and not asserting a right, we think they come within the limitations of the statute.

The act of Congress of June 30, 1906, known as the "Food and Drugs Act," was aimed at the suppression of the manufacture and sale of adulterated food and drugs, and also to prevent their misbranding. The classification of whisky and the proper branding of it under this act, has been the source of considerable contention. Attorney General Bonaparte, in a decision interpreting this feature of the act (26 Opinions of Attorney General, 216) said:

> The definition of "whisky" as a neutral spirit involves as its corollary that there can be such a thing as "imitation whisky." If the same process were followed of which we spoke in connection with artificial wine, namely, if ethyl-alcohol, either pure or mixed with distilled water, were given, by the addition of harmless coloring the flavoring substances, the appearance and flavor of whisky, it is impossible to find any other name for the product, in conformity with the pure-food law, than "imitation whisky."

The Attorney General properly held that "blend," "compound" and "imitation" whiskies are all entitled to the name of "whisky." They all belong to the one general class. They are "merchandise of the same descriptive properties." This view of the Attorney General is impliedly supported by a number of later decisions of the Federal courts. (*Union Distilling Co. et al.* v. *Bernhard Bettman et al.*, not yet reported; *Woolner & Co. et al.* v. *Percival G. Rennick, collector, et al.*, not yet reported; *Levy* v. *Uri, supra.*)

In *Taylor Company* v. *Taylor*, (85 S. W. Rep., 1085,) a suit between two of the parties to this interference, the Court of Appeals of Kentucky, considering the propriety of designating a mixture of whisky and ethyl-alcohol as "a blend," to protect the public from being defrauded by confusing it with "straight" whisky, said:

> The defendant may properly sell his brand of "Old Kentucky Taylor," provided he so frames his advertisement as to show that it is a blended whisky; but he cannot be allowed to impose upon the public a cheaper article, and thus deprive appellant of the fruits of his energy and expenditures by selling his blended whisky under labels or advertisements which conceal the true character of the article, for this would destroy the value of appellant's trade.

This defines what we conceive to be the purpose, both of the Trade-Mark Act and the pure-food law; to prevent unfair competition, and to protect the public from being imposed upon by designing manufacturers and traders.

We have held to a liberal interpretation of those clauses of the Trade-Mark Act, forbidding the registration of similar marks to be used on the same general class of merchandise. In the case of *Phoenix Paint & Varnish Co.* v. *John T. Lewis & Bros. Co.* (present term) we said:

> We think two trade-marks may be said to be appropriated to merchandise of the same descriptive properties in the sense meant by the statute when the general and essential characteristics of the goods are the same. The rule that goods must be identical would defeat the purpose of the statute and destroy the value of trade-marks. The test is whether there is such a sameness in the distinguishing characteristics of the goods as to be likely to mislead the general public.

The statute requires exclusive use, which we have held to be sole use. In *Worcester Brewing Corporation* v. *Reuter*, (30 App. D. C., 428,) this court, considering the meaning of the word "exclusive," as used in section 5 of the Trade-Mark Act, said:

> Inasmuch as the word is used in the statute in connection with the words "actual use," and both expressions are used to qualify the special right conferred by this provision of the act, we hold that an actual use must be shown to have been possessed and enjoyed by the applicant to the sole exclusion of all others. The use could not be exclusive if, during the period, it appears that another was using the same word as a trade-mark upon the same character of goods.

We have adhered to this ruling in many decisions since rendered. It cannot be said that there has been sole use by E. H. Taylor, Jr., & Sons of the word "Taylor" as a trade-mark for whisky when the record discloses the use of this mark by at least three others during the ten-years period on goods of the same descriptive properties.

A non-technical mark cannot be registered under this provision of the statute, when it is so similar to another mark in use during the same period as to cause confusion in trade. Assuming that Wright & Taylor are producing a whisky compound, and should advertise and mark it as such, and C. H. Graves & Sons are producing a whisky blend, and should advertise and mark it as such, they would doubtless have the right to use their respective marks without infringing the use of the mark of E. H. Taylor, Jr., & Sons. Can it be said that these three brands of whisky, though marked as above described, could come into the market, all bearing the "Taylor" mark, and not create confusion? This is inconceivable, and this is what the statute aims to prevent. They are all whiskies—"merchandise of the same descriptive properties"—produced and used for the same purpose. The difference is one of quality, and not of description. While it is perhaps unfortunate that one honestly complying with the law is compelled to suffer at the hands of commercial sharks, there is no relief afforded in this proceeding. It must be found in another forum.

The decision of the Commissioner of Patents is affirmed, and the clerk is directed to certify these proceedings, as by law required.

Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., November 10, 1909.

Johannes Dönitz, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Reginald A. Fessenden, of Brant Rock, Mass., for patent on an electrical measuring instrument and the patent granted to Johannes Dönitz, of Berlin, Germany, on June 21, 1904, No. 763,164, and the notice of said declaration sent by the Patent Office by registered mail to the said Johannes Dönitz having been returned undelivered, notice is hereby given to the said Johannes Dönitz, his assigns or legal representatives, that if they or any of them desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents in order that the notice of declaration heretofore sent by and returned to the Office may be forwarded to them.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall be entered at the expiration of the period of publication, the interference will be proceeded with as in case of default.

EDWARD B. MOORE, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., November 4, 1909.

The Wolff Chemical Company, its assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Edna S. Frisbie, of Crystal Lake, Ill., for registration of a trade-mark and a trade-mark registered to The Wolff Chemical Company, of 145 North Fourth street, Philadelphia, Pa., and the notice of said declaration sent by the Patent Office by registered mail to The Wolff Chemical Company having been delivered to Leatherford Company and said Leatherford Company having failed to comply with the requirement of the Office letter of September 11, 1909, to either call attention to an assignment from The Wolff Chemical Company of record in the Office prior to the declaration of the interference or to file an application for registration, notice is hereby given The Wolff Chemical Company, its assigns

or legal representatives, that if they or any of them desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents in order that the notice of declaration may be sent to them.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall be entered at the expiration of the period of publication, the interference will be proceeded with as in case of default.

EDWARD B. MOORE, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 30, 1909.

Crystal Tablet Company, its assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The Crystalene Mfg. Company, of 3100 Archwood avenue, Cleveland, Ohio, for registration of a trade-mark and trade-marks registered to William McGlaughlin, of Sharpsburg, Pa., and the Crystal Tablet Company, of Rochester, N. Y., and the notice of said declaration sent by registered mail to the said Crystal Tablet Company having been returned undelivered, notice is hereby given to the said Crystal Tablet Company, its assigns or legal representatives, that if they or any of them desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall have been entered at the expiration of the period of publication, the interference will proceed as in case of default.

C. C. BILLINGS, *Acting Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 30, 1909.

William McGlaughlin, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The Crystalene Mfg. Company, of 3100 Archwood avenue, Cleveland, Ohio, for registration of a trade-mark and trade-marks registered to William McGlaughlin, of Sharpsburg, Pa., and the Crystal Tablet Company, of Rochester, N. Y., and the notice of said declaration sent by registered mail to the said William McGlaughlin having been returned undelivered, notice is hereby given to the said William McGlaughlin, his assigns or legal representatives, that if they or any of them desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall have been entered at the expiration of the period of publication, the interference will proceed as in case of default.

C. C. BILLINGS, *Acting Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 23, 1909.

George W. Prangle, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of G. H. Mullen, of Guyandotte, W. Va., for registration of a trade-mark and trade-marks registered to George W. Prangle, of 555 Broadway, Council Bluffs, Iowa, and James K. Neagley, of Wilkes-Barre, Pa., and the notice of said declaration sent by the Patent Office by registered mail to the said George W. Prangle having been delivered to Mrs. G. W. Prangle, and the attorney of record for said George W. Prangle having advised the Office that said Prangle is deceased and that his widow does not desire to take further account of this matter, notice is hereby given to the said George W. Prangle, his assigns or legal representatives, that if they or any of them desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents in order that the notice of declaration of this interference may be forwarded to them.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall be entered at the expiration of the period of publication, the interference will be proceeded with as in case of default.

C. C. BILLINGS, *Acting Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 23, 1909.

James K. Neagley, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of G. H. Mullen, of Guyandotte, W. Va., for registration of a trade-mark and trade-marks registered to George W. Prangle, of 555 Broadway, Council Bluffs, Iowa, and James K. Neagley, of Wilkes-Barre, Pa., and the notice of said declaration sent by the Patent Office by registered mail to the said James K. Neagley having been returned by the Post-Office Department, notice is hereby given to the said James K. Neagley, his assigns or legal representatives, that if they or any of them desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents in order that the notice of declaration heretofore sent by and returned to the Office may be forwarded to them.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall be entered at the expiration of the period of publication, the interference will be proceeded with as in case of default.

C. C. BILLINGS, *Acting Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 28, 1909.

J. A. Meierdiercks and Sons, their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of L. Pickert Fish Company, of Boston, Mass., for registration of a trade-mark and a trade-mark registered to Yzermans & Company, of Vlaardingen, Netherlands, and also a trade-mark registered to J. A. Meierdiercks and Sons, of 710 Water street and 36 Harrison street, New York, N. Y., and the notice of said declaration sent by the Patent Office by registered mail to the said J. A. Meierdiercks and Sons having been returned by the Post-Office Department, notice is hereby given to the said J. A. Meierdiercks and Sons, their assigns or legal representatives, that if they or any of them desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents in order that the notice of declaration heretofore sent by and returned to the Office may be forwarded to them.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall be entered at the expiration of the period of publication, the interference will be proceeded with as in case of default.

C. C. BILLINGS, *Acting Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 11, 1909.

George D. Nichols, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Ella A. Silloway, of No. 1 West Thirty-fourth street, New York, N. Y., for registration of a trade-mark and two trade-marks registered to George D. Nichols, of 378 Canal street, New York, N. Y., and the notice of said declaration sent by the Patent Office by registered mail to the said George D. Nichols having been returned by the Post-Office Department, notice is hereby given to said George D. Nichols, his assigns or legal representatives, that if they or any of them desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents in order that the notice of declaration heretofore sent by and returned to the Office may be forwarded to them.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall be entered at the expiration of the period of publication, the interference will be proceeded with as in case of default.

C. C. BILLINGS, *Acting Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 9, 1909.

Frederick H. Hammer, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of C. E. Sears & Company, of Circleville, Ohio, for registration of a trade-mark and trade-marks registered to Frederick H. Hammer, of 215 Davis street, San Francisco, Cal.; Jane M. McMurray, of Frederick, Md., and Augustus W. Kriete, of Dunnsville, Va., respectively, and the notice of said declaration sent by the Patent Office by registered mail to the said Frederick H. Hammer having been delivered to Hammer & Company, who are not of record in connection with the registration of Frederick H. Hammer, and no record evidence that Hammer & Company are the successors to the trade-mark rights of Frederick H. Hammer having been filed, and the time allowed by the Office for filing such evidence having passed, the situation in this case is practically the same as in those cases where the post-office is unable to deliver the notice of interference to the registrant, and notice is therefore hereby given to said Frederick H. Hammer, his assigns or legal representatives, that if they or any of them desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents in order that the notice of declaration of the interference may be sent to them.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall be entered at the expiration of the period of publication, the interference will be proceeded with as in case of default.

C. C. BILLINGS, *Acting Commissioner.*

THE
OFFICIAL GAZETTE
OF THE
United States Patent Office.

[BY AUTHORITY OF CONGRESS.]

VOL. 148—No. 4. TUESDAY, NOVEMBER 23, 1909. PRICE—$5 per year.

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ISSUE OF NOVEMBER 23, 1909.

Patents	699	No. 940,654 to No. 941,352, inclusive.
Designs	7	No. 40,365 to No. 40,371, inclusive.
Trade-Marks	83	No. 75,833 to No. 75,915, inclusive.
Reissues	4	No. 13,043 to No. 13,046, inclusive.
Total	793	

TO CITIZENS OF THE UNITED STATES.

States.	Patents and Designs.	Trade-Marks.	States.	Patents and Designs.	Trade-Marks.
Alabama	3	1	Ohio	45	7
Arkansas	4	.....	Oklahoma	6	1
California	21	3	Oregon	4	1
Colorado	9	1	Pennsylvania	56	4
Connecticut	21	.....	Rhode Island	5	.....
Delaware	.....	.....	South Carolina	.....	.....
Florida	1	.....	South Dakota	1	.....
Georgia	10	1	Tennessee	8	2
Idaho	1	.....	Texas	15	.....
Illinois	81	2	Utah	2	.....
Indiana	21	.....	Vermont	.....	.....
Iowa	13	.....	Virginia	3	2
Kansas	11	.....	Washington	10	.....
Kentucky	8	.....	West Virginia	2	1
Louisiana	1	1	Wisconsin	13	1
Maine	3	1	Wyoming	.....	.....
Maryland	6	2			
Massachusetts	50	3	Alaska, District of	.....	.....
Michigan	22	2	Arizona Territory	1	.....
Minnesota	7	.....	District of Columbia	6	.....
Mississippi	3	.....	Hawaii Territory	1	.....
Missouri	33	2	New Mexico Ter't'y	.....	.....
Montana	2	.....	Panama	.....	.....
Nebraska	7	.....	Philippine Islands	.....	.....
Nevada	1	.....	U. S. Army	.....	.....
New Hampshire	2	1	U. S. Navy	.....	.....
New Jersey	31	4			
New York	86	29	Total to citizens of the United States	644	72
North Carolina	5	.....			
North Dakota	3	.....			

TO CITIZENS OF FOREIGN COUNTRIES.

Countries.	Patents and Designs.	Trade-Marks.	Countries.	Patents and Designs.	Trade-Marks.
Argentina	.....	.....	Natal	.....	.....
Austria-Hungary	2	.....	Netherlands	.....	.....
Belgium	.....	.....	Newfoundland	.....	.....
Brazil	.....	.....	New South Wales	.....	.....
British West Indies	.....	.....	New Zealand	2	.....
Canada	9	.....	Norway	.....	.....
Cape Colony	1	.....	Persia	.....	.....
Chile	.....	.....	Queensland	.....	.....
China	.....	.....	Russia	.....	.....
Costa Rica	.....	.....	Scotland	5	1
Cuba	.....	.....	South Australia	.....	.....
Denmark	.....	.....	Spain	.....	.....
Ecuador	.....	.....	Sweden	2	.....
England	12	1	Switzerland	2	.....
France	3	1	Tasmania	.....	.....
Germany	20	6	Transvaal, South Africa	.....	.....
Guatemala	1	.....	Victoria	.....	.....
Ireland	.....	.....	Western Australia	.....	.....
Italy	1	.....			
Japan	1	1	Total to citizens of foreign countries	61	10
Java	.....	.....			
Mexico	.....	.....			

Modified Order Relating to Executors and Administrators.

(ORDER NO. 1,827.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 22, 1909.

Order No. 1,792, dated January 20, 1909, published in volume 138 of the OFFICIAL GAZETTE, page 970, is modified by directing that whenever the right of applying for and obtaining a patent for an invention devolves upon an executor or administrator of a deceased inventor, or when the executor or administrator intervenes in the prosecution of an application, the proof of authority of such executor or administrator referred to in said order shall in all cases be recorded in the assignment records of this Office. A reference to this record should be placed in each application involved. This order will apply also to cases arising under section 4896, Revised Statutes.

(Signed) C. C. BILLINGS,
Acting Commissioner.

Communications to the Patent Office.

RULE 9. A separate letter should in every case be written in relation to each distinct subject of inquiry or application. Assignments for record, final fees, and orders for copies or abstracts must be sent to the Office in separate letters.

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business November 16, 1909.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended	No. of applications awaiting action.
313	**1.** Fences; Harrows and Diggers; Plows; Seeders and Planters; Trees, Plants, and Flowers.	Sept. 10	Oct. 15	396
128	**2.** Aeronautics; Bee Culture; Dairy; Label-Affixers; Paper Files and Binders; Pneumatic Despatch; Pneumatics; Presses; Store-Service; Tobacco.	July 1	Aug. 5	796
175	**3.** Annealing and Tempering; Coating with Metal; Electrochemistry; Metal-Founding; Metallurgy; Shaping Fluid Metal.	Oct. 11	Oct. 29	150
232	**4.** Bridges; Conveyers; Cranes and Derricks; Excavating; Hoisting; Hydraulic Engineering; Loading and Unloading; Metallic Building Structures.	July 26	Oct. 4	728
107	**5.** Bookbinding; Harvesters; Jewelry; Music.	Aug. 19	Sept. 8	554
318	**6.** Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Medicines; Preserving; Sugar and Salt.	Sept. 8	Sept. 21	369
312	**7.** Educational Appliances; Clutches; Games and Toys; Mechanical Motors; Nut and Bolt Locks; Optics; Velocipedes.	Sept. 20	Oct. 14	472
131	**8.** Beds; Chairs; Furniture; Kitchen and Table Articles; Store Furniture.	July 31	Oct. 2	426
142	**9.** Air and Gas Pumps; Fire-Extinguishers; Hydraulic Motors; Pumps; Sewerage; Wind-Wheels.	June 22	Oct. 25	467
332	**10.** Carriages and Wagons	Sept. 14	Sept. 27	608
154	**11.** Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus.	Sept. 29	Oct. 6	315
324	**12.** Elevators; Journal-Boxes, Pulleys, and Shafting; Lubrication; Machine Elements.	Sept. 27	Sept. 29	531
329	**13.** Arms, Projectiles, and Explosive Charges, Making; Metal-Working, Etc.	July 31	Oct. 14	489
307	**14.** Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Metal-Ornamenting; Sheet-Metal Ware, Making; Tools; Wire-Working.	July 9	Oct. 18	458
308	**15.** Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Sheets and Fabrics; Liquid Coating Compositions; Paper-Making; Plastic Block and Earthenware Apparatus; Plastic Compositions; Plastics.	Aug. 23	Nov. 2	621
109	**16.** Telegraphy; Telephony	June 24	Sept. 20	320
303	**17.** Linotyping; Matrix-Making; Paper Manufactures; Printing.	Sept. 18	Oct. 1	242
327	**18.** Injectors and Ejectors; Steam and Vacuum Pumps; Steam-Boilers; Steam-Engines; Steam-Engine Valves.	Aug. 16	Aug. 31	344
236	**19.** Dampers, Automatic; Furnaces; Heat-Distributing Systems; Stoves and Furnaces.	Oct. 5	Sept. 17	367
179	**20.** Artificial Limbs; Builders' Hardware; Dentistry; Locks and Latches; Safes; Undertaking.	July 22	Sept. 22	249
112	**21.** Brakes and Gins; Carding; Cloth-Finishing; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving.	July 12	Oct. 12	452
249	**22.** Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Firearms; Marine Propulsion; Ordnance; Railway-Rails and Joints; Railway-Ties and Fasteners; Ships.	Aug. 31	Sept. 22	281
379	**23.** Acoustics; Coin-Handling; Horology; Recorders; Registers; Time-Controlling Mechanism.	Sept. 9	Oct. 7	338

Applications Under Examination—Continued.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended	No. of applications awaiting action.
144	**24.** Apparel; Apparel Apparatus; Electricity, Medical and Surgical; Sewing-Machines; Surgery.	Sept. 17	Oct. 18	373
312	**25.** Butchering; Mills; Threshing; Vegetable Cutters and Crushers.	Oct. 16	Oct. 23	233
106	**26.** Electric Heating and Rheostats; Electric Railways; Electricity, Generation; Motive Power.	June 3	Sept. 22	680
372	**27.** Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus.	Sept. 23	Sept. 21	368
382	**28.** Internal-Combustion Engines; Miscellaneous Heat-Engine Plants.	Aug. 31	Oct. 1	445
147	**29.** Coopering; Fire-Escapes; Ladders; Roofs; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking-Tools.	Aug. 9	Sept. 16	324
152	**30.** Fluid-Pressure Regulators; Illuminating-Burners; Liquid and Gaseous Fuel Burners; Type-Writing Machines.	Oct. 2	Oct. 28	240
172	**31.** Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue; Water Purification.	Sept. 13	Oct. 15	235
278	**32.** Carbonating Beverages; Dispensing Beverages; Dispensing-Cans; Fine Arts; Packaging Liquids; Refrigeration.	Sept. 17	Oct. 18	214
164	**33.** Cutlery; Domestic Cooking Vessels; Electric Signaling; Masonry and Concrete Structures; Paving; Tents, Canopies, Umbrellas, and Canes.	Aug. 17	Sept. 29	478
304	**34.** Railways; Railway-Brakes; Railway Rolling-Stock.	Sept. 15	Oct. 27	173
244	**35.** Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Garment-Supporters; Toilet.	Sept. 15	Oct. 16	768
264	**36.** Curtains, Shades, and Screens; Drafting; Driers; Engraving; Measuring Instruments; Photography.	Aug. 2	Aug. 21	801
107	**37.** Electric Lighting; Electricity, Conductors; Electricity, General Applications.	Aug. 6	Aug. 31	683
378	**38.** Artesian and Oil Wells; Bottles and Jars; Care of Live Stock; Fishing and Trapping; Stationery; Stone-Working.	June 28	Oct. 13	823
321	**39.** Baths and Closets; Water Distribution.	June 26	Sept. 29	658
280	**40.** Baggage; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Lighting-Fixtures; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	June 15	Sept. 29	707
125	**41.** Railway Draft Appliances; Resilient Tires and Wheels.	July 6	Sept. 18	620
279	**42.** Railway Signaling; Signals	July 12	Oct. 18	230

Oldest new case, June 3; oldest amended, Aug. 5.

Total number of applications awaiting action..... 19,226

161	TRADE-MARKS AND DESIGNS:		
	Trade-Marks	Oct. 13	Nov. 1	595
	Designs	Oct. 26	Nov. 9	102

Trade-Marks.

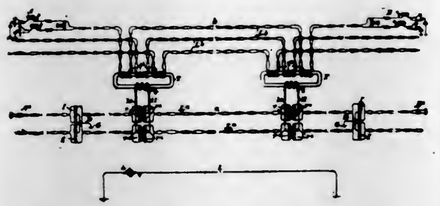
The publication of trade-marks under the act of February 20, 1905, in the OFFICIAL GAZETTE, commenced May 2, 1905, and will appear in each weekly number of the GAZETTE thereafter.

Extra copies of the trade-mark portion of the GAZETTE, which will be sold separately, may be obtained single or in quantities for five cents each. Coupons will be taken in payment thereof.

PATENTS

GRANTED NOVEMBER 23, 1909.

940,654. ART OF NULLIFYING INDUCTIVE DISTURBANCES. WILLIAM E. ATHEARN, New York, N. Y., assignor to American Telephone and Telegraph Company, a Corporation of New York. Filed Apr. 29, 1908. Serial No. 429,973.



1. The method of arranging for communication, lines employed in inducing neutralizing electromotive forces in other lines of communication, which consists in rendering each of the neutralizing lines electrically continuous independently of its associated neutralizing lines, and providing for the inducing currents a path separate from the neutralizing lines, such path excluding operating currents.

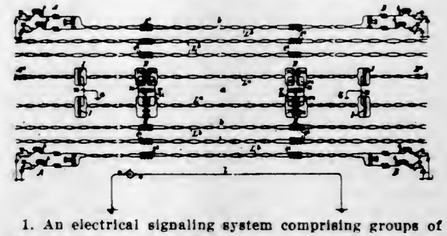
2. The method of protecting from inductive disturbances a plurality of signaling conductors, which consists in dividing the conductors into groups, providing in each group one or more signaling circuits, furnishing from each conductor in one group a path to a common return, said paths being permissive to induced currents but exclusive to signaling currents, and causing the induced electromotive force in the last-named group to induce in a second group an electromotive force in opposition to that caused by direct induction from the disturbing source.

3. The method of nullifying inductive effects in signaling conductors, which consists in providing a path to ground from said conductors permissive to currents resulting from the induced electromotive force but opaque to signaling currents, and causing said induced currents to create an electromotive force acting to reduce inductive disturbances in the signaling conductors.

4. The method of arranging circuits for the transmission of signals over a group of lines employed in a system for the purpose of inducing electromotive forces in other lines of said system to neutralize inductive effects produced in all the lines by some source external thereto, which consists in establishing paths for signaling currents in the neutralizing group of lines, said paths being independent of other similar paths in the same group and each path serving also to conduct induced currents, and separating the induced from the signaling currents over portions of the paths.

5. The method of arranging circuits for the transmission of signals over a group of lines employed in a system for the purpose of inducing electromotive forces in other lines of said system to neutralize inductive effects produced in all the lines by some source external thereto, which consists in establishing conducting paths in the neutralizing group of lines, said paths being independent of other similar paths in the same group and serving to conduct neutralizing currents resulting from the induced electromotive forces, generating in the neutralizing group of lines counter electromotive forces approaching in magnitude the induced electromotive forces, passing distinct signaling currents through the independent paths, and separating the induced from the signaling currents over portions of the paths.

940,655. ELECTRICAL CONDUCTING SYSTEM. WILLIAM E. ATHEARN, New York, N. Y., assignor to American Telephone and Telegraph Company, a Corporation of New York. Filed Apr. 29, 1908. Serial No. 429,974.



1. An electrical signaling system comprising groups of lines, an induction coil having a primary winding connected to the lines of one group and secondary windings joined to the lines of a second group, and means for preserving the electrical continuity of each line of the primary group independently of the associated lines.

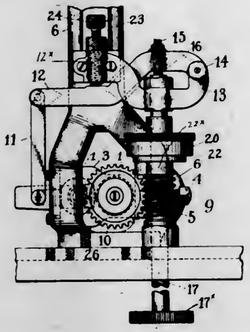
2. The combination with conducting circuits, of an induction coil having a winding connected to the circuits and dividing them into sections, and means for transmitting electrical impulses from section to section independently of the induction coil.

3. An electrical system comprising a plurality of conductors, a transformer having a primary winding and a plurality of secondary windings, a portion of the conductors being connected in parallel to the primary winding and other conductors united separately to the secondary windings, and means outside the transformer for permitting the flow of current through each of the conductors united to the primary winding.

4. The combination with a plurality of conductors and a common return conductor, of an induction coil having a primary winding connected in parallel with a plurality of the conductors and dividing them into sections and being provided with secondary windings joined to other conductors, repeating coils for electrically associating the conductor sections at opposite sides of the primary winding, and connections from the primary conductors to the common return conductor, said connections acting selectively with respect to the currents passing through the winding of the induction coil and those transmitted by the repeating coils.

5. In a signaling system subjected to induction from a source external thereto, the combination with two groups of conductors, of a transformer having a primary winding connected in one group of conductors, a secondary winding connected in the other group, said transformer being organized to generate under the influence of the external source upon the primary conductors an electro-motive force in the secondary winding opposing that caused by the external source, means for securing independent paths for the signaling currents through the primary conductors, and ground connections for induced currents from the primary conductors, said ground connections being situated at opposite sides of the transformer and being impassable to the said signaling currents.

940,656. TAKE-UP MECHANISM FOR KNITTING-MACHINES. GEORGE L. BALLARD, Norristown, Pa., assignor to Wildman Mfg. Co., Norristown, Pa. Filed Oct. 19, 1907. Serial No. 398,275.



1. In combination in a take-up for knitting machines, a pair of take-up rollers, a movable support therefor, driving means for the take-up rollers, including a clutch, and a pivoted lever connected with the movable take-up support for controlling the clutch, substantially as described.

2. In combination in a take-up for knitting machines, a pair of take-up rollers, driving means therefor, including a clutch, a movable support for the take-up rollers, and a connection between the said movable support and the clutch, including a pivoted lever and a link, substantially as described.

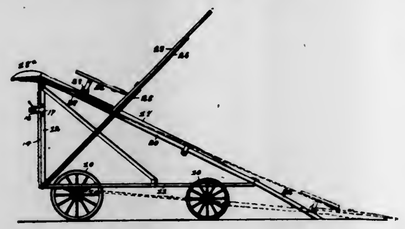
3. In combination in a take-up for knitting machines, a pair of take-up rollers, a movable support for the said rollers, a drive shaft, with means connecting the same with the rollers, including a clutch on the drive shaft and a connection for operating the clutch from the movable support of the take-up rollers, substantially as described.

4. In combination in a take-up for knitting machines, a pair of take-up rollers, a movable support for said rollers, a vertical drive shaft, with connections therefrom to the rollers, including clutch members on the drive shaft and a lever connected to the movable support of the take-up rollers, and arranged to operate the clutch, substantially as described.

5. In combination in a take-up for knitting machines, take-up rollers, a movable support therefor, worm gearing for driving the take-up rollers, a drive shaft extending through the worm, clutch members on the drive shaft to connect the worm with said shaft, and a connection from the movable support of the take-up rolls for operating the clutch, substantially as described.

[Claims 6 to 14 not printed in the Gazette.]

940,657. HAY-STACKER. EZRA BARNES, Lovilia, Iowa. Filed Dec. 17, 1908. Serial No. 468,038.

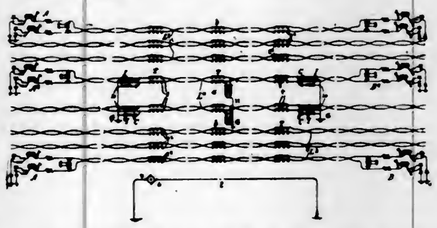


1. A hay stacker, comprising in combination with the running-gear of a wagon, a base portion mounted on said wagon gear, an extensible inclined track, a foldable continuation of said track adapted to reach the ground, a carrier movable on said track comprising a foldably hinged trough, rods suspended below said trough, and pivoted tubular rods secured to said base and having slots to permit the entrance of said suspended rods therein.

2. A hay stacker, comprising in combination with the running gear of a wagon, a base portion mounted on said wagon gear, an extensible inclined track, a foldable continuation of said track adapted to reach the ground, a carrier movable on said track comprising a foldably hinged trough, rods suspended below said trough, and pivoted tubular rods secured to said base and having slots to permit the entrance of said suspended rods therein, said extensible track comprising overlapping strips slidably secured together and having beveled ends to form a continuous incline.

3. A hay stacker, comprising in combination with the running-gear of a wagon, a base portion mounted on said wagon gear, an extensible inclined track, a foldable continuation of said track adapted to reach the ground, a carrier movable on said track comprising a foldably hinged trough, means to move said carrier and spread its parts, and a rack and gear for vertically adjusting the front end of said inclined track.

940,658. SYSTEM FOR NULLIFYING INDUCTIVE DISTURBANCES. JOHN A. BARRETT, New York, N. Y., assignor to American Telephone and Telegraph Company, a Corporation of New York. Filed Apr. 29, 1908. Serial No. 429,970.



1. The combination with signaling conductors arranged in groups each comprising a plurality of conductors, of an induction coil having primary and secondary windings included in different groups and continuing the circuit of each conductor independently of the associated conductors.

2. A signaling system comprising groups of conductors subjected to inductive disturbance from an external source, an induction coil having a plurality of both primary and secondary windings which are respectively included in different conductor groups, a common return conductor, and electrical connection between the primary conductors and return conductor, said connections tending to exclude signaling currents.

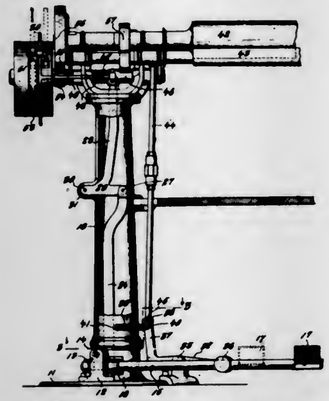
3. In a system for nullifying inductive disturbances, the combination with electrical conductors, of an induction coil having primary and secondary windings connected to separate groups of conductors, means for preserving the electrical continuity of each conductor through the induction coil independently of its associated conductors, a common return conductor, and a connection to the common return from each of the conductors united to the primary windings, said connections being resonant for induced disturbing currents.

4. The combination with signaling conductors arranged in groups each comprising a plurality of conductors, of an induction coil having primary and secondary windings included in different groups and continuing the circuit of each conductor independently of the associated conductors, and ground connections from each of the conductors united to the primary windings, said connections being resonant for currents of a particular frequency.

5. An electrical system comprising two groups of conductors, a transformer having primary and secondary windings separately connected in the respective groups, ground connections from the primary conductors, and a condenser and retardation coil included in each ground connection.

[Claim 6 not printed in the Gazette.]

940,659. TREADLE MECHANISM. WILLIAM BARTHOLOMEW, Chicago, Ill., assignor to Troy Laundry Machinery Company, Limited, Troy, N. Y., a Corporation of New York. Filed Feb. 21, 1908. Serial No. 417,057.



1. A treadle mechanism comprising a horizontally disposed main treadle mounted for oscillation and for a rotative movement about its longitudinal axis in combination with a horizontally disposed auxiliary lever independently mounted and movably connected to said treadle intermediate its pivot and foot piece for operation by the oscillation thereof.

2. In a treadle mechanism, a main treadle mounted for oscillation in a vertical plane and for a rotative movement about its longitudinal axis, and an independently mounted lever slidably connected at one end to said treadle for controlling a separate mechanism.

3. In a treadle mechanism, a main treadle mounted for oscillation and for a rotative movement about its longitudinal axis, an independently mounted auxiliary lever, and a connection from said auxiliary lever slidably mounted upon said treadle intermediate the pivot and foot piece thereof.

4. In a treadle mechanism, a main treadle mounted for oscillation and for a rotative movement about its longitudinal axis, an independently mounted auxiliary lever, a connection from said auxiliary lever slidably mounted upon said treadle intermediate the pivot and foot piece thereof, a crank arm extended from said main treadle, and an operating rod pivotally connected to said arm.

5. In a treadle mechanism, a main treadle mounted for oscillation and for a rotative movement about its longitudinal axis, an independently mounted auxiliary lever, a connection from said auxiliary lever slidably mounted upon said treadle intermediate the pivot and foot piece thereof, a crank arm extended from said main treadle, an operating rod pivotally connected to said arm, a supporting standard, and a shifting lever mounted thereon and pivotally connected to said operating rod.

[Claims 6 to 16 not printed in the Gazette.]

940,660. IRONING-PRESS. WILLIAM BARTHOLOMEW, Chicago, Ill., assignor to Troy Laundry Machinery Company, Limited, Troy, N. Y., a Corporation of New York. Filed Jan. 23, 1909. Serial No. 473,854.

1. In an ironing press, a fixed pressing head, a fluid pressure power cylinder pivotally mounted to oscillate in a vertical plane into and out of alinement with said head, and a vertically reciprocable piston rod having a cooperating pressing head movable in a straight line toward and from said fixed head.



2. In an ironing press, a fixed pressing head, a fluid pressure power cylinder mounted to oscillate in a vertical plane into and out of alinement with said head, a pivotal support for said cylinder disposed at the lower portion thereof, and a vertically reciprocable piston rod having a coöperating pressing head movable in a straight line from the pivotal axis of said cylinder.

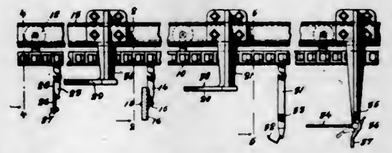
3. In an ironing press a fixed pressing head, an oscillating and reciprocable coöperating head, and a pivotally mounted fluid pressure motor directly and operatively connected to reciprocate said coöperating head in a straight line from the pivotal axis of said motor.

4. In an ironing press, a fixed ironing member, a cooperating ironing member mounted for movement toward and from the fixed member and pivotally supported at its lower portion to swing in a vertical plane into and out of alinement with the fixed member, an operating lever, a gear sector carried upon the shaft of said lever, and a cooperating segment supported upon the movable ironing member.

5. In an ironing press, a frame having a fixed ironing member mounted thereon, a cylinder pivotally mounted at the lower portion of said frame, a piston disposed within said cylinder and having an upwardly extending rod, a coöperating movable ironing member carried by the upper end of said rod, and power connections with said cylinder for controlling the movement of the piston therein.

[Claims 6 to 33 not printed in the Gazette.]

940,661. COMBINED DRY-ROOM CONVEYER. WILLIAM BARTHOLOMEW, Chicago, Ill., assignor to Troy Laundry Machinery Company, Ltd., Chicago, Ill., a Corporation of New York Filed Mar. 8, 1909. Serial No. 482,131.



1. A dry room conveyer arranged to travel in the same horizontal plane throughout its path and provided with a series of downwardly disposed goods supporting devices arranged in a common operative vertical plane and in relatively different horizontal planes from that of the path of the conveyer, and a series of goods releasing devices arranged in different horizontal planes and coöperating

only with the supporting device in the same horizontal plane with said releasing device to automatically cause the delivery of goods therefrom.

2. A dry room conveyer arranged to travel in the same horizontal plane throughout its path and provided with a series of downwardly disposed goods supporting devices having movable releasing members disposed in the same operative vertical plane and in relatively different horizontal planes from that of the path of the conveyer, and a series of goods releasing devices arranged in different horizontal planes to engage said member of the supporting devices which is disposed in the same horizontal plane with the releasing device.

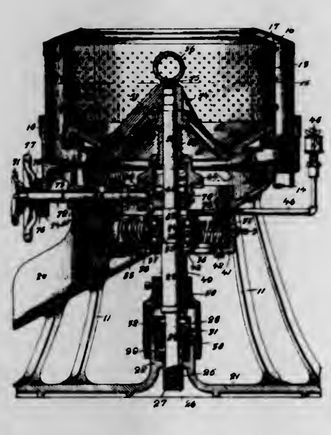
3. The combination with a traveling conveyer disposed in the same horizontal plane throughout its path, of a plurality of downwardly discharging goods support disposed in a common vertical plane and in different horizontal planes relative to the path of the conveyer and a plurality of fixed releasing devices disposed in a vertical plane to engage a member of the goods support and in different horizontal planes relative to the goods support adapted to coöperate therewith.

4. The combination with a conveyer, of a carrier thereon having a hanger provided with a fixed and movable retaining jaw, and a releasing device adapted to be interposed between the hanger and movable jaw and having a face to contact with said hanger and an inclined face to move said jaw.

5. In a conveyer, a carrier provided with a hanger having a fixed jaw and a coöperating spring held jaw, and relatively fixed means adapted to enter between said hanger and spring jaw and having an inclined surface to engage and move said spring jaw and an opposite straight face to contact with the hanger of said carrier.

[Claims 6 and 7 not printed in the Gazette.]

940,662. CENTRIFUGAL EXTRACTOR. WILLIAM BARTHOLOMEW, Chicago, Ill., assignor to Troy Laundry Machinery Company, Ltd., Chicago, Ill., a Corporation of New York. Filed Apr. 1, 1909. Serial No. 487,207.



1. In a centrifugal extractor, a casing, a driving shaft carrying a basket within the casing, a movable bottom to said basket, screw and nut shifting means beneath said bottom and connected thereto, and a shaft geared to rotate one of said means.

2. In a centrifugal extractor, a casing, a driving shaft carrying a basket within the casing, a movable bottom to said basket, a depending feeding member from said bottom, rotatable shifting means beneath said bottom and meshing with said member, and a shaft geared to rotate said means.

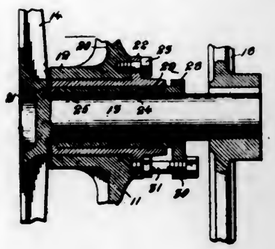
3. In a centrifugal extractor, a casing, a driving shaft carrying a basket within the casing, a movable bottom to said basket, rotatable shifting means beneath said bottom and connected thereto, a shaft geared to rotate said means, and a delivery chute disposed at the periphery of said movable bottom and inclined continuously downward from one side toward a common delivery point.

4. In a centrifugal extractor, a casing, a driving shaft carrying a basket within said casing, a movable bottom to said basket, rotatable shifting means beneath said bottom and connected thereto, a shaft geared to rotate said means, a downwardly inclined delivery chute disposed at the periphery of said movable bottom, and a yielding bearing for said shaft disposed beneath said bottom.

5. In a centrifugal extractor, a casing, a driving shaft, a basket within the casing and secured to the upper portion of said shaft, a central movable bottom provided with a depending screw mounted to move longitudinally on said shaft, a nut rotatably mounted on said shaft and connected to said screw, and means for rotating said nut.

[Claims 6 to 18 not printed in the Gazette.]

940,663. BEARING FOR STERILIZING-WASHERS. WILLIAM BARTHOLOMEW, Chicago, Ill., assignor to Troy Laundry Machinery Company, Ltd., Chicago, Ill., a Corporation of New York. Filed Apr. 14, 1909. Serial No. 489,801.



1. A trunnion bearing comprising a bearing box provided with an inwardly extending flange at one end, a series of packing rings disposed within said box in contact with each other and the inner ring being in contact with said flange, and interlocking means between said box and rings for retaining them against relative rotation.

2. A trunnion bearing comprising a bearing box provided with an inwardly extending flange at its inner end, a series of continuous packing rings disposed within said box, and peripheral projections from said rings adapted to enter a recess in said box to retain the rings against rotation therein.

3. A trunnion bearing comprising a bearing box provided with an inwardly extending flange at its inner end, a series of continuous packing rings disposed within said box, means for retaining said rings in position against rotation, an outwardly extending flange carried by said box, and means for connecting said flange and retaining means.

4. A trunnion bearing comprising a boxing having an inwardly extending flange at one end, and a series of continuous wear rings disposed in said boxing in contact with said flange and having peripheral projections interlocked with said boxing to retain them against rotation therein.

5. A trunnion bearing comprising a boxing having an inwardly extending flange at one end, a series of continuous wear rings disposed in said boxing in contact with said flange and having peripheral projections interlocked with said boxing to retain them against rotation therein, and a packing gland disposed within one end of said boxing to exert lateral pressure against said rings.

[Claims 6 to 8 not printed in the Gazette.]

940,664. AMUSEMENT DEVICE. MATHIAS B. BECKER, Chicago, Ill. Filed Nov. 21, 1907. Serial No. 403,215.



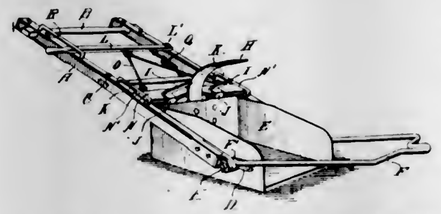
1. An amusement device comprising in combination an inclined rotating platform, cars movable by gravity on said platform and projections disposed near the peripheral portion of said platform and engaging said cars to carry the same from a lower to a higher elevation.

2. An amusement device comprising in combination, an inclined plane rotating on an inclined axis, cars traveling by gravity on said plane, means disposed adjacent the periphery of said plane and receiving said cars as they reach substantially the lowest portion of said plane and serving to return the same to a higher elevation, and means disposed on said plane in the paths of said cars to deflect the latter and cause the same to travel in an irregular course and at varied speed.

940,665. METHOD OF TREATING IRON OR STEEL. FREDERICK M. BECKET, Niagara Falls, N. Y., assignor to Electro Metallurgical Company, New York, N. Y., a Corporation of West Virginia. Filed Nov. 7, 1908. Serial No. 461,509.

The method of treating iron and steel, which consists in incorporating with the molten metal an alloy containing more than five per cent. each of titanium and silicon and less than ten per cent. of carbon, said alloy being relatively fusible as compared with metallic titanium and titanium carbid.

940,666. SCRAPER. HARVEY BINGAMAN and JOHN A. MILLER, Harding, S. D. Filed May 6, 1909. Serial No. 494,467.



1. A scraper, a frame and a draft rod pivoted thereto, hooks fastened to the rear edge thereof, a movable bar mounted upon said frame, straps upon the frame for guiding said bar, a lever pivoted to the frame, rods connecting said lever and bar, means for guiding said lever, and a curved bar adapted to limit the forward tilting movement of the scraper.

2. A scraper having angled stub shafts fastened to the opposite sides thereof, a draft bar and a frame pivotally mounted upon said shafts, bars fastened to the rear end of said scraper and bent to form recesses and their free ends inclined and extending over the rear end of the scraper, a curved bar fixed to the back of the scraper and adapted to limit its forward tilting movement, a bar sliding upon the frame and adapted to engage said recesses to hold the scraper from tilting, straps upon the frame for guiding said bar, a lever pivoted upon the frame, rods connecting the same with said sliding bar, and a spring fastened at one end to a part of the frame and its other end to the lever and serving to normally hold the latter at its farthest limit toward the scraper.

940,667. PAPER BOX. CHARLES S. BIRD, East Walpole, Mass. Original application filed May 25, 1908, Serial No. 434,872. Divided and this application filed May 13, 1909. Serial No. 495,668.



1. A rectangular folding paper box comprising end and side pieces having extension flaps having their combined width substantially the same as the width of said side and end pieces, turned in extension flaps integral with the sides and bent in and secured to their adjacent end pieces, and means adapted to hold the extension flaps of the sides in position so as to form the top and bottom of the box, substantially as described.

2. A rectangular folding paper box, comprising end and side pieces having extension flaps having their combined width substantially the same as the width of said side and end pieces, turned in extension flaps integral with the sides and bent in and secured to their adjacent end pieces, and a binding strip encircling the entire box adapted to hold the extension flaps of the sides in position so as to form the top and bottom of the box, substantially as described.

3. In a rectangular folding paper box, the combination of two rectangular side pieces and two rectangular end pieces, one end piece and one side piece being integral with each other and the four being secured to each other, extension flaps adapted to fold inwardly at substantially right angles with said sides and said end pieces, and means adapted to hold the extension flaps of the sides in position so as to form the top and bottom of the box, substantially as described.

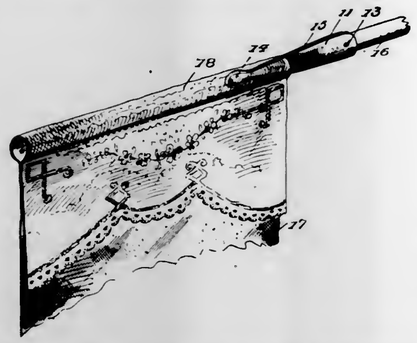
4. In a rectangular folding paper box, the combination of two rectangular side pieces and two rectangular end pieces, one end piece and one side piece being integral with each other and the four being secured to each other, extension flaps adapted to fold inwardly at substantially right angles with said sides and said end pieces, and a binding strip encircling the entire box adapted to hold the extension flaps of the sides in position so as to form the top and bottom of the box, substantially as described.

5. In a rectangular folding paper box, the combination of the side piece A and end piece B integral with each other, and the side piece A′ and the end piece B′ likewise integral with each other, the sides A and A′ having integral with themselves respectively the extension flaps E and G and E′ and G′, such extension flaps being substantially one-half the width of the sides A, A′, end flaps F, F′, integral with A and A′, adapted to be bent inwardly at substantially right angles and secured to the ends of the end pieces B′, B, respectively, a binding strip H^2 encircling the entire box, adapted to hold the extension flaps of the sides E, E′, G, G′, in position so as to form the top and bottom of the box respectively, substantially as described.

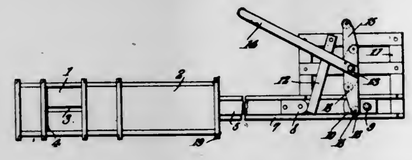
940,668. CURTAIN-ROD LEADER. CHARLES W. BOULTON, Waltham, Mass., assignor of one-half to James F. Shields, Waltham, Mass. Filed Jan. 28, 1909. Serial No. 474,713.

A device of the class described comprising two portions of flexible material having enlarged extremities and reduced and rounded extremities, said portions of material being positioned in laminated relation, and a metallic

strip clamped about the edges of said portions to secure the same, said strip terminated adjacent the enlarged extremities of said portions for the purpose of admitting of the insertion of a rod between the same.



940,669. HAY-PRESS. WILLIAM W. BOYKIN, Elm City, N. C., assignor of one-half to Angus B. Cameron, Elm City, N. C. Filed Feb. 23, 1909. Serial No. 479,349.



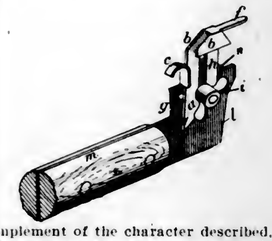
1. A baling press comprising a baling box, a plunger mounted for reciprocation therein, a bar slidably mounted under the baling box and communicating with the plunger through a slot in the bottom of the box a guide for said bar, said guide being fixed at one end to the baling box, a sweep frame attached to the opposite end portion of the said guide, stops mounted upon the said bar, a sweep mounted upon the sweep frame, and means operated by the sweep for engaging the stops to actuate the bar and plunger.

2. In combination with a baling press having a reciprocating plunger and a reciprocating bar operatively connected therewith, spaced stops mounted upon the bar, a sweep frame located adjacent, a sweep mounted for rotation about an axis upon the sweep frame, an arm fixed to the sweep, a lever pivoted to the sweep frame and having one end engaging one of the stops upon the bar, said arm having a shoulder for engagement with the lever and a projecting end for engagement with that stop opposite the stop with which the said lever is in contact.

3. In combination with a baling press having a reciprocating plunger and a reciprocating bar for operating the same, stops mounted upon the bar, a pivoted lever having a free end in contact with the side of one of the stops, a sweep-actuated arm mounted for rotation about an axis, and having a projecting end adapted to engage that stop opposite the one with which the lever is in engagement, and having shoulders for engagement with the said lever.

4. In combination with a baling press having a reciprocating plunger and a bar for actuating the same, a fixed stop mounted on the bar, a pivoted stop mounted on the bar and spaced from the first said stop, a lever fulcrumed and having its free end in engagement with the fixed stop, an arm mounted for rotation about an axis and having a projecting end for engagement with the pivoted stop, and undercut shoulders for engagement with the said lever.

940,670. KNIFE FOR TAPPING RUBBER-TREES. QUINCY Q. BRADFORD, Palolo Valley, Honolulu, Hawaii. Filed Feb. 3, 1909. Serial No. 475,795. (Dedicated to the public.)

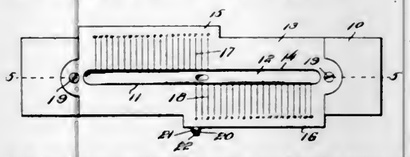


1. In an implement of the character described, the combination with a slotted shank, a cutting blade having a slot intersecting the first named slot, clamping means passing through the slot and guide lugs on the shank, one of the lugs being extended to regulate the depth of the cut, substantially as specified.

2. In an implement of the character described, comprising a handle, a slotted shank, a cutting element having a slot intersecting the first named slot, clamping means passing through the slot, guide lugs on the shank, one of which said lugs being extended to regulate the depth of the cut, and means for raising or lowering or tilting the said cutting element with respect to the shank, substantially as specified.

3. In an implement of the character described, comprising a support or shank having a slot therein, a cutting element comprising two blades arranged parallel to each other at its lower end, one blade at its upper end, a longitudinal slot in said cutting element, clamping means passing through the slot for carrying the cutting element on the support or shank, means for raising or lowering or tilting the cutting element with respect to the shank, guide lugs on the shank and a tongue projecting between the parallel blades, one of the said lugs and the tongue being arranged to regulate the depth of the cut, substantially as specified.

940,671. LEVEL. THOMAS H. BRITTAIN, Prairie View, Tex. Filed May 2, 1908. Serial No. 430,571.



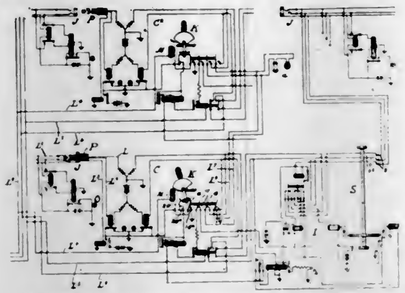
In a level, the combination with a stock and a spirit tube in said stock, of a plate disposed about said tube having offset portions oppositely disposed on said plate, a sleeve on the outer edge of one of said portions, a pointer adjustably secured in said sleeve and a set screw in said sleeve for engagement with said pointer.

940,672. COOKING UTENSIL. LAURENCE CARR, Oakland, Cal. Filed Sept. 22, 1908. Serial No. 454,257.



A culinary or cooking utensil having arranged bodily therein an outstanding annular portion with its lower face standing at right angles to said body and its upper surface or face rounded outwardly from the latter, said lower face of said outstanding portion being adapted to overlie a stove opening while said upper surface or face of said outstanding portion is adapted to form a baffle as against the overflowing contents of the vessel entering the stove opening.

940,673. TELEPHONE-KEY AND MEANS FOR ACTUATING THE SAME. WILLIAM CHRISTENSEN, Belmont, Mass., assignor to American Telephone and Telegraph Company, Boston, Mass., a Corporation of New York. Filed Aug. 26, 1907. Serial No. 390,204.



1. In a telephone exchange system, the combination with a plurality of operator's circuits for connecting substation lines, of a key individual to each connecting circuit, means for retaining each key in the position to which it is moved by the operator, and means common to the connecting circuits and under control of a telephone exchange operator for effecting the release of all the keys from the retaining means.

2. In a telephone exchange system, the combination with a plurality of operator's circuits for connecting substation lines, of a key individual to each connecting circuit, means for retaining each key in the position to which it is moved by the operator, and an exchange operator's keyboard including a key or device common to the connecting circuits and operable to effect the release of all the keys from the retaining means.

3. In a telephone exchange system, the combination with a plurality of operator's circuits for connecting substation lines, of a listening-key individual to each connecting circuit, means for retaining each key in the position to which it is moved by the operator, and a device common to the connecting circuits and operable by a telephone exchange operator for effecting the release of all the listening keys from the retaining means.

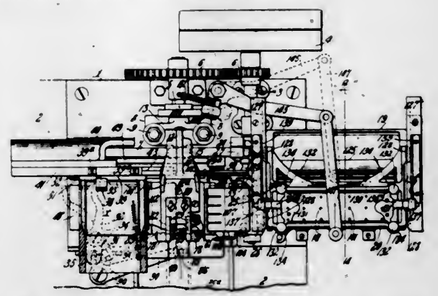
4. In a telephone exchange system, a plurality of listening keys situated at the position of a single operator and manually operable to a closed position, and operator's controlling means operable to restore said keys to their normal open position, said controlling means being common to all the keys but mounted independently and separated therefrom.

5. The combination with a plurality of listening keys adapted for use by a telephone operator, of means for temporarily locking each key in the listening position, an electromagnetic releasing mechanism for each key, and a contact device in circuit with all the releasing mechanisms and under the control of the operator, substantially as described.

[Claims 6 to 13 not printed in the Gazette.]

940,674. BOX-LABELING MACHINE. FREDERICK COATES, Springfield, Mass. Filed Jan. 30, 1909. Serial No. 475,281.

1. In a machine of the character described, in combination, opposed members having their locations at opposite sides of an upwardly open box receiving compartment, a support for a supply of sheet blanks or labels at one side of said compartment, a feed shelf having a box engaging abutment movably located in a plane above the top of said compartment, opposite from said blank support and means for moving it over and away from over said compartment, means for guiding boxes onto said feed shelf, a frame-like box carrier normally above said compartment and comprising rear and front members one of which is movable toward and from the other and one of said members having an extension for engagement under the lower edge portion of the box, a detent for temporarily maintaining the movable box carrier member in its opened relation preparatory to receiving a box therewithin and having a position whereby on the entrance of the box within the carrier said detent will be released to permit the movable carrier member to close and engage the box, means for transferring a blank from the supply support across the top of said compartment, means for imparting a downward movement to the carrier for conveying the box downwardly into said compartment and to transform the blank thereunder to U form and an upward return movement, and devices for folding the extremities of the blank upstanding at either side above the box onto the top of the latter.



2. In a machine of the character described, the combination with walls at opposite sides of a box receiving compartment, of a box-carrier normally above the compartment, a feed shelf horizontally movable above said compartment, means for reciprocating the feed shelf to push a box within the carrier, means operative firstly to elevate the carrier for positioning the box clear of the feed shelf on the retiring movement of the latter, to furthermore cause a descending movement of the carrier for conveying the box within the compartment and for thereafter upwardly returning the carrier to its normal position above the compartment.

3. In a machine of the character described, in combination, walls at opposite sides of an upwardly open box receiving compartment, a box carrier comprising front and rear vertical members, one of which is movable for an increased separation relatively to the other and having a box engaging projection, means for imparting a closing force to the movable member, means for feeding boxes horizontally above the top of the compartment into said carrier, a detent mounted on the carrier for normally maintaining the movable member in its opened position and having a member to be engaged for releasing the detent on the entrance of a box into the carrier, and means for imparting downward and returning upward movements to the carrier.

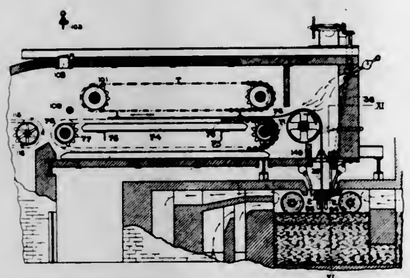
4. In a machine of the character described, in combination, walls at opposite sides of an upwardly open box receiving compartment, a box carrier comprising front and rear vertical members, one of which is movable for an increased separation relatively to the other and having a box engaging projection, means for imparting a closing force to the movable member, means for feeding boxes horizontally above the top of the compartment into said carrier, a detent mounted on the carrier for normally maintaining the movable member in its opened position having a member to be engaged for releasing the detent on the entrance of a box into the carrier, means for imparting downward and returning upward movements to the carrier, and a cam operative on the movable carrier member for opening the latter as the carrier arrives at a lowered position relatively to the box receiving compartment.

5. In a machine of the character described, in combination, walls inclosing a box receiving compartment, a box carrier comprising a top and rear and front substantially vertical members, the front member being pivotally connected to and depending from the top and provided at the

lower extremity with a cam engagement projection, a spring, for imparting a closing movement to the said pivoted front member, a spring pressed detent pivotally connected on the top of the box carrier and provided with a releasing member, means for feeding boxes within the carrier, means for imparting downward and returning upward movements to the carrier and a part having a cam or inclined face adjacent the front of the box receiving compartment with which said projection of the movable carrier member coacts in the descent of the carrier.

[Claims 6 to 30 not printed in the Gazette.]

940,675. DEVICE FOR MAINTAINING THE WIDTH OF SHEETS OF GLASS BEING DRAWN. IRVING W. COLBURN, Franklin, Pa., assignor to Colburn Machine Glass Company, Franklin, Pa., a Corporation of New Jersey. Filed Jan. 27, 1908. Serial No. 412,892.



1. In sheet glass drawing apparatus, the combination of means for drawing a sheet of glass, with automatic width-maintaining means intermittently seizing the edges of the sheet during the drawing operation.

2. In sheet glass drawing apparatus, the combination of means for drawing a sheet of glass, with automatic width-maintaining means intermittently seizing and releasing the edges of the sheet during the drawing operation.

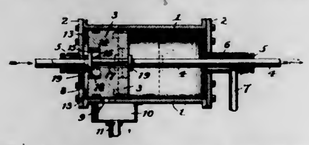
3. In sheet glass drawing apparatus, the combination of means for drawing a sheet of glass, with automatic sheet-stretching means intermittently seizing the edges of the sheet during the drawing operation.

4. In sheet glass drawing apparatus, the combination of means for drawing a sheet of glass, with automatic sheet-stretching means intermittently seizing and releasing the edges of the sheet during the drawing operation.

5. In sheet glass drawing apparatus, the combination of means for drawing a sheet of glass, with automatic width-maintaining and sheet-stretching means intermittently seizing and releasing the edges of the sheet during the drawing operation.

[Claims 6 to 20 not printed in the Gazette.]

940,676. AUTOMATIC BLEEDER FOR AIR-BRAKE SYSTEMS. EDWARD VAN HART CONLEY, 20, Kearney, N. J. Filed Dec. 31, 1908. Serial No. 470,131.



1. A device of the class described, comprising a casing having an exhaust port, said casing also having a port for communication with an auxiliary reservoir, and a piston arranged in said casing and controlling the port for communication with the auxiliary reservoir.

2. A device of the class described, comprising a casing having an exhaust port, said casing also having a port for communication with an auxiliary reservoir, a piston arranged in said casing and controlling the port for communication with the auxiliary reservoir, and means for maintaining the piston over said latter port when there is pressure in the train-pipe.

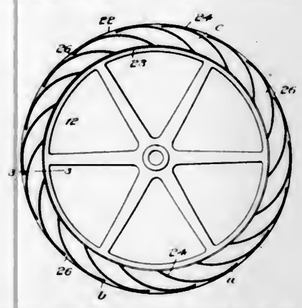
3. A device of the class described, comprising a casing having an exhaust port, said casing also having a port for communication with an auxiliary reservoir, a piston arranged in said casing and controlling the port for communication with the auxiliary reservoir, and means for testing the pressure conditions within said casing.

4. A device of the class described, comprising a casing having an exhaust port, said casing also having a port for communication with an auxiliary reservoir, a piston arranged in said casing and controlling the port for communication with the auxiliary reservoir, and means operable independently of the piston for testing the pressure conditions within said casing.

5. A device of the class described, comprising a casing having an exhaust port, said casing also having a port for communication with an auxiliary reservoir, a piston arranged in said casing and controlling the port for communication with the auxiliary reservoir, and a train-pipe connection at the side of the piston opposite to the exhaust port, whereby pressure in the train-pipe maintains the piston over the port for communication with the auxiliary reservoir.

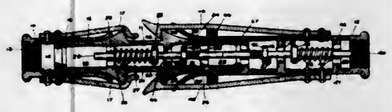
[Claim 6 not printed in the Gazette.]

940,677. WATER-WHEEL. DECATUR D. DENNIS, Pecos, Tex. Filed Aug. 29, 1907. Serial No. 390,579.



A gravity water wheel mounted to rotate on an inclined axis and comprising a base member, a cylindrical wall mounted on said base member, and a series of overlapping wings or blades extending outwardly and rearwardly from said wall, said wings or blades having their outer ends turned inwardly toward the axis of the wheel and forming a series of overlapping buckets each provided with an open upper side and a restricted discharge opening.

940,678. AUTOMATIC PIPE-COUPLING. FRANK C. DOANE and FRED E. CEEDER, Spokane, Wash., assignors of one-third to William A. MacKenzie, Spokane, Wash. Filed Apr. 24, 1909. Serial No. 491,965.



1. In a pipe coupling, composed of three sections, one each adapted to be secured to the ends of the pipes to be coupled together and a central section adapted to unite the other two, the said central section being circular in form and gradually increased in diameter from both ends as it approaches the center, with, however, a channel at the center portion of approximately the same diameter as

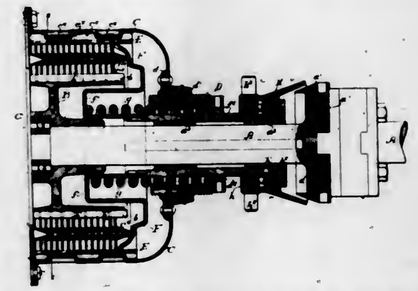
the outer ends of the section, with a rounded wall at one side and perpendicular wall at the other, the ends of the said central section adapted to enter bell-shaped openings in the ends of the other two sections and be retained therein by spring clutches secured to the end sections, with shoulders adapted to engage the rounded and perpendicular walls of the channel at the center of the central section, substantially as described.

2. In a pipe coupling, composed of three sections, one section provided with a chamber and a bell-shaped opening, one provided with a chamber at each end and two centrally located chambers, a valve stem extending longitudinally through the chambers carrying one valve loose upon the same and one rigidly secured thereto, the valve loose upon the stem located in one of the centrally disposed chambers, secured to a coil spring encircling the valve stem and capable of being seated at one end of the chamber and partially blocking the entrance thereto, the valve rigidly secured to the stem located in the other centrally disposed chamber against the end of a coil spring encircling the valve stem and capable of being seated at one end of the chamber and blocking the entrance thereto, and one provided with a chamber at one end and a bell-shaped opening at the other, two chambers centrally located therein, a valve stem extending longitudinally through the chambers carrying one valve loose thereon occupying one of the centrally disposed chambers secured to the end of a coil spring encircling the stem and capable of being seated at one end of the chamber and partially blocking the entrance thereto, the valve rigidly secured to the stem located in the other centrally disposed chamber against the end of a coil spring encircling the valve stem and capable of being seated at one end of the chamber and blocking the entrance thereto, substantially as described.

3. In a pipe coupling, composed of three sections, one section provided with a chamber and a bell-shaped opening, one provided with a chamber at each end and two centrally located chambers, a valve stem extending longitudinally through the chambers carrying one valve loose upon the same and one rigidly secured thereto, the valve loose upon the stem located in one of the centrally disposed chambers, secured to a coil spring encircling the valve stem and capable of being seated at one end of the chamber and partially blocking the entrance thereto, the valve rigidly secured to the stem located in the other centrally disposed chamber against the end of a coil spring encircling the valve stem and capable of being seated at one end of the chamber and blocking the entrance thereto, and one provided with a chamber at one end and a bell-shaped opening at the other, two chambers centrally located therein, a valve stem extending longitudinally through the chambers carrying one valve loose thereon occupying one of the centrally disposed chambers secured to the end of a coil spring encircling the stem and capable of being seated at one end of the chamber and partially blocking the entrance thereto, the valve rigidly secured to the stem located in the other centrally disposed chamber against the end of a coil spring encircling the valve stem and capable of being seated at one end of the chamber and blocking the entrance thereto, each of the valve stems held to a horizontal position by guides encircling the same between the chambers, and each valve stem provided with a shoulder near one end thereof capable of being seated against one of the circular guides, substantially as described.

940,679. FRICTION-CLUTCH. POWELL EVANS, Philadelphia, Pa. Filed Nov. 1, 1907. Serial No. 400,253.

1. The combination of a substantially cylindrical casing of pressed metal having a series of inwardly pressed portions forming interior ribs, a shaft substantially axially central of said cylindrical casing, a ribbed structure within the casing on said shaft, a series of plates notched to receive the ribs of said structure and mounted thereon, a second series of plates alternating with those of the first series and operatively connected to the interior of the ribs of the casing, a spring plate constructed to be held from rotating by said interior ribs of the casing, a spring adjustable between said casing and said spring plate, with means for moving the spring plate to compress the spring and release the plates of the two series from frictional engagement with each other.



2. The combination in a clutch of a casing an internally ribbed drum mounted within and non-rotatably held to the casing, a series of annular plates notched to receive the ribs of the drum and mounted within the same, a substantially cylindrical structure also provided with ribs, a second series of plates alternating with those of the first series and notched to receive the ribs of said cylindrical structure, with means for pressing the plates together, and means for relieving said plates of pressure.

3. The combination in a clutch of a casing, a drum within the casing provided with longitudinally extending recesses forming interior ribs and rigidly held to the casing, a series of plates notched to receive the ribs of the drum, a second series of plates also notched and alternating with the plates of the first series, a ribbed supporting structure for said latter series of plates, a plate notched to engage the ribs of the drum and placed to engage the end plate of the series, a spring operative between the casing and said latter plate for causing the members of the clutch to be coupled, with means for compressing said spring and releasing the clutch members.

4. The combination in a clutch of a casing, a drum within the casing provided with longitudinally extending recesses forming interior ribs, there being pressed portions on the casing extending into said recesses, a series of plates notched to receive the ribs of the drum, a second series of plates also notched and alternating with the plates of the first series, a ribbed supporting structure for said latter series of plates, a plate notched to engage the ribs of the drum and placed to engage the end plate of the series, a spring operative between the casing and said latter plate for causing the members of the clutch to be coupled, with means for compressing said spring and releasing the clutch members.

5. The combination of a shaft having on it a ribbed supporting structure, a series of plates mounted thereon and notched to receive the ribs of said structure, an internally ribbed structure having notched plates fitting its ribs and alternating with the plates of said first series, a spring plate placed to engage the endmost plate, a nut extending around the shaft and adjustably threaded into the end of the structure having the inwardly extending ribs, a spring around the shaft placed between the nut and the spring plate, with means for moving the spring plate against the action of the spring to uncouple the clutch members.

[Claim 6 not printed in the Gazette.]

940,680. FENCE-LOCK. GEORGE H. FARMILO, Schenectady, N. Y. Filed Mar. 2, 1909. Serial No. 480,892.

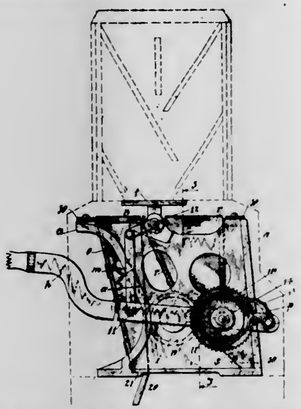
1. As an article of manufacture, a wire clamp for fences, comprising a body portion provided with a transversely extending aperture, one end of said body portion screw-threaded, and provided with a longitudinally extending slot intersecting said transverse aperture, said

aperture and said slot being adapted to receive cross wires, and a nut adapted to be threaded upon said threaded end for drawing the sides of said clamp toward one another and clamping said wires together.



2. As an article of manufacture, a wire clamp for fences, comprising a slotted body portion, said body portion provided with a transversely extending aperture near the center thereof, said body portion provided with a threaded tapering end provided with a slot formed in said threaded end and intersecting said transverse aperture said apertured threaded end constituting jaws, said aperture adapted to receive a vertical strand, said slot adapted to receive a longitudinal strand, and a nut screw-threaded upon said end and adapted to draw the jaws toward one another, and clamp said vertical strand in engagement with said longitudinal strand.

940,681. CANCELING-MACHINE FOR TICKETS. WILBUR C. FISK and JOHN A. SEELY, New York, N. Y. Filed July 27, 1909. Serial No. 509,787.



1. In a machine of the character described the combination with a pair of suitable canceling rollers, of a table arranged to tilt in two opposite directions, located above said rollers; a chute or passage connecting one edge of said table with said rollers; a chute or passage connecting the opposite edge of said table with a point outside said rollers, and means for tilting the table toward either of said passages and for operating said rollers.

2. In a machine of the character described the combination of a pair of suitable canceling rollers, a table located above said rollers, and arranged to tilt in either of two opposite directions; a chute or passage connecting said table and said rollers on one side, a chute or passage connecting said table with a point outside said rollers on the other side; a pivoted handle for tilting the table toward either chute or passage and for operating said rollers; and movable means for locking the movement of the table in one direction.

3. In a machine of the character described the combination of a suitable frame, a pivoted table capable of tilting in two opposite directions, a pair of canceling rollers, a passage for tickets between said table and said rollers; a passage for articles other than tickets between said table and a point outside said rollers; a pivoted operating handle, and means connecting said handle with said table and said rollers, whereby the table may be tilted in one direction to pass the tickets onto the rollers and in the opposite direction to pass articles other than tickets away from said rollers, substantially as described.

4. In an apparatus of the character described the combination of a suitable frame, a tilting table, suitable canceling rollers, a receptacle for tickets, a receptacle for small articles other than tickets, a pivoted operating handle, and means connecting said handle with said table and said rollers, whereby the table may be tilted in one direction to dump the tickets on the rollers, and the rollers operated by the reverse movement of the operating handle and whereby the table may be tilted in an opposite direction by extending the reverse movement of said handle to dump articles other than tickets into the other receptacle.

5. In an apparatus of the character described, the combination of a cast-iron frame, a tilting table having a corrugated glass surface, suitable canceling rollers, a portable receptacle of sheet metal for tickets; a portable receptacle of sheet metal for articles other than tickets; a pivoted operating handle; means connecting said handle with said table and said rollers, so arranged that the table may be tilted in one direction to dump the tickets in one receptacle, and the table may be tilted in an opposite direction to dump articles other than tickets in the other receptacle.

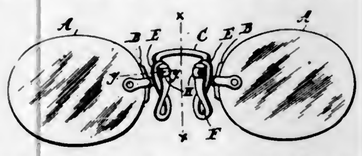
[Claim 6 not printed in the Gazette.]

940,682. LACING-NEEDLE. WILLIE T. GERMANY, Bogue Chitto, Miss. Filed Oct. 26, 1908. Serial No. 459,618.



A needle of the class described comprising a shank gradually tapering from one end to a point at the opposite end thereof, said shank containing a recess the inner end of which is formed with a beveled wall, a pivotal section connected to the shank within the recess and having a beveled inner end adapted to abut with the beveled wall of the recess, the pivotal section being adapted to swing in the plane of the face of the recess, and spurs projecting from the base of the recess and out of the path of movement of the pivotal section.

940,683. EYEGLASSES. FREDERICK HAMILTON, Providence, R. I. Filed Dec. 19, 1908. Serial No. 468,268.



1. A nose guard for eyeglasses composed of flat material and comprising a body and an attaching arm extending at substantially a right angle therefrom near its midlength, a spring loop extending from the junction of said arm with the body and bent edgewise of the material with its side portions out of the plane of the body, and a spring arm extending from said loop and disposed in a plane parallel with and disposed within the area of said body portion.

2. A nose guard for eyeglasses composed of flat material and comprising a body and an attaching arm extending at substantially a right angle therefrom near its midlength, a spring loop extending from the junction of said arm with the body and bent edgewise of the material with its side portions out of the plane of the body, and a spring arm extending from said loop and disposed in a plane parallel with and disposed within the area of said body portion, the opposite edges of said spring arm being provided with concavities.

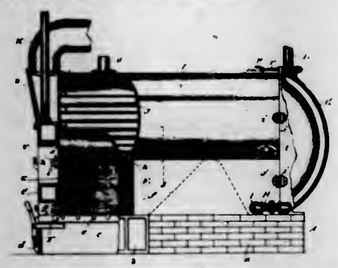
3. A nose guard for eyeglasses composed of flat material and comprising a body and an attaching arm extending at substantially a right angle therefrom near its midlength, a spring loop extending from the junction of said arm with the body and bent edgewise of the material with its side portions out of the plane of the body, and a spring arm extending from said loop and disposed in a plane parallel with and disposed within the area of said body portion, the opposite edges of said spring arm being provided with concavities, and an elastic band seated in said concavities and disposed within the area of the body portion and bearing thereagainst.

4. A nose guard for eyeglasses composed of flat material and comprising a body and an attaching arm extending at substantially a right angle therefrom near its midlength, a spring loop extending from the junction of said arm with the body and bent edgewise of the material with its side portions out of the plane of the body, and a spring arm extending from said loop and disposed in a plane parallel with and disposed within the area of said body portion, the opposite edges of said spring arm being provided with concavities and an elastic band seated in said concavities and disposed within the area of the body portion and bearing thereagainst, said band by reason of said concavities having its portions intermediate the concavities raised to form pad surfaces.

5. In a nose guard, the combination with the attaching arm, of a body plate integral therewith and provided at its end with a spring loop edgewise of the body plate and to one side of the plane of the body, a plate integral with the loop and parallel to the body plate, and an elastic band upon the second plate having a portion thereof intermediate the two plates and shielded by the body plate.

[Claim 6 not printed in the Gazette.]

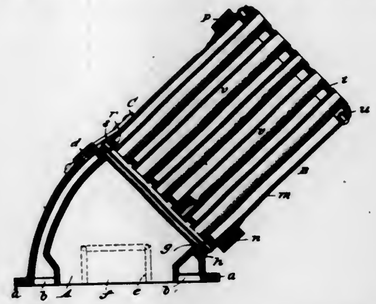
940,684. BOILER. DANIEL HANLON, Spokane, Wash. Filed May 17, 1909. Serial No. 496,353.



A boiler comprising a suitable base, a water-containing shell disposed above the base and having an under side concave in cross-section and also having longitudinal hollow depending portions at opposite sides of said concave underside, longitudinal flues extending through said shell, a front hollow water-containing section superposed on the base and arranged in front of the shell, a rear hollow water-containing section, superposed on the base and having a concave inner side opposed to the rear end of the shell, side hollow water-containing sections superposed on the base and interposed between and connected with the front and rear sections and having crosswise concavities in their upper sides receiving and holding the depending side portions of the shell, and an uptake arranged above the front water-containing section and adapted to receive products of combustion from the forward ends of the flues in the shell.

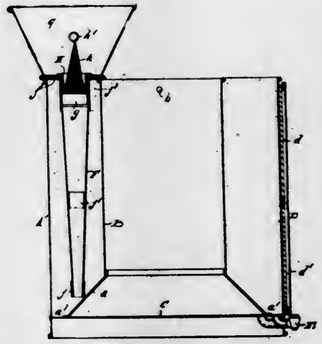
940,685. WATER-HEATER. DANIEL HANLON, Spokane, Wash. Filed May 17, 1909. Serial No. 496,354.

An auxiliary water heater adapted for use on upright heaters, and comprising a base containing a combustion chamber and having a horizontal lower end and an inclined upper end, the latter disposed at an angle of about 45 degrees, and an inclined dome extending upwardly from the inclined upper end of the base and at a right



angle to said end and having induction and eduction orifices for water and also having inclined flues for conducting products of combustion through the said dome and water contained therein.

940,686. CREAM-SEPARATING APPARATUS. JAMES W. HEATHCOTE, Heatherlee, Cape Colony. Filed June 25, 1908. Serial No. 440,356.



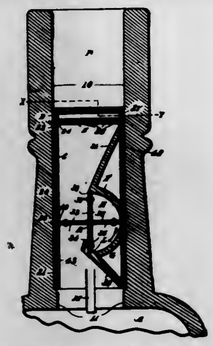
1. A cream separator consisting of two concentric cylinders, the outer containing cooling water and the inner milk, a vertical milk channel opening the inner cylinder to the periphery of the outer, an inspection window in the outer cylinder at the outer edge of the said channel, means for supporting the milk supplying apparatus in the milk channel and a central water supply tube leading through the bottom of the inner cylinder into the outer, substantially as herein described and shown.

2. In a cream separator, a supplying and straining apparatus consisting of a conical delivery tube, a strainer fitted at the lower end, a loose central strainer, means for supporting the tube at the upper end, a funnel fitting the top of the tube, a bucket strainer in the said funnel and a conical strainer placed in the said bucket, substantially as herein described and shown.

940,687. NON-REFILLABLE BOTTLE. FRED W. HERBERT, Pelham, N. H., assignor of one-half to Thomas J. Kennedy, Lowell, Mass. Filed Apr. 28, 1909. Serial No. 492,720.

1. The combination in a bottle, of a cylindrical outlet therefor, a hemispherical paddle box formed on one side thereof, a slanting outer wall for said paddle box in which

is a groove, a spring which rests in said groove and projects into the paddle box, and a revoluble paddle wheel which fits in the paddle box and in said outlet.



2. A bottle formed with a body, and a cylindrical outlet therefor with an annular shoulder at the bottom, combined with a cylinder which fits said outlet, spring catches which project below said cylinder and engage said shoulder, projections from one side of the cylinder to the axis thereof formed with a hemispherical depression and with a slanting lower wall in which is a groove, a spring in the groove which projects into said depression, and a revoluble paddle which closely fits said depression and said cylinder as described.

3. A bottle formed with a body, and a cylindrical outlet therefor with an annular shoulder at the bottom, combined with a cylinder which fits said outlet, spring catches which project below said cylinder and engage said shoulder, projections from one side of the cylinder to the axis thereof formed with a hemispherical depression and with a slanting lower wall in which is a groove, a spring in the groove which projects into said depression, and a plurality of metal shields proximate the top of said cylinder so perforated that no two perforations register, and a revoluble paddle which closely fits said depression and said cylinder as described.

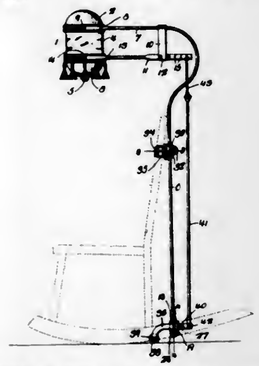
4. A bottle formed with a body, and a cylindrical outlet therefor with an annular shoulder at the bottom, combined with a cylinder which fits said outlet, elastic packing rings set into the outer wall of the cylinder, spring catches which project below said cylinder and engage said shoulder, projections from one side of the cylinder to the axis thereof formed with a hemispherical depression and with a slanting lower wall in which is a groove, a spring in the groove which projects into said depression, a plurality of metal shields proximate the top of said cylinder so perforated that no two perforations register, and a revoluble paddle which closely fits said depression and said cylinder as described.

5. The combination in a bottle, of a cylindrical outlet therefor, a hemispherical paddle box formed on one side thereof, a slanting outer wall for said paddle box in which is a groove, a spring which rests in said groove and projects into the paddle box, a ratchet groove opposite the paddle box in the wall of the outlet, and a paddle wheel revoluble in said paddle box and outlet formed of a plurality of angularly bent disks riveted together with rubber packing between and projecting therefrom.

[Claim 6 not printed in the Gazette.]

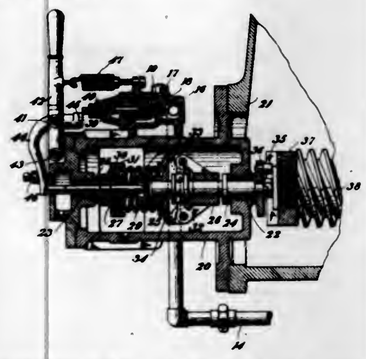
940,688. FAN ATTACHMENT FOR CHAIRS. LAWRENCE HILDRETH, Pine Grove, Ky. Filed May 14, 1909. Serial No. 495,913.

1. In combination with a fan having a movable element, a supporting standard for the fan, an operating arm for the movable element of the fan, carried by said standard, means to secure the standard to a rocking chair, said securing means including a longitudinally adjustable bar having means to engage and grip the chair rockers, an operating lever actuated by the motion of the chair and mounted on said bar and connections between said operating lever and said operating arm for the movable element of the fan.



2. In combination with a fan having a movable element, a supporting standard for the fan, an operating arm for the movable element of the fan, carried by said standard, means to secure the standard to a rocking chair, an operating lever actuated by the motion of the chair and mounted on said standard securing means and connections between said operating lever and the said operating arm of the movable element of the fan.

940,689. AUTOMATIC STOP FOR ELASTIC-FLUID TURBINES. FRANCIS HODGKINSON, Edgewood Park, Pa., assignor to The Westinghouse Machine Company, a Corporation of Pennsylvania. Filed Nov. 17, 1904. Serial No. 233,081.



1. In a device of the class described, the combination with a chamber having an inlet port and an outlet port, a cut-off valve, a pressure pipe in communication with the chamber through the inlet port and in communication with the casing of the cut-off valve to normally hold the cut-off valve unseated, a valve normally seated to close the outlet port in the chamber, a latch bearing against said valve to hold it seated against pressure in the pipe, an adjusting means for said latch, a speed-responsive device and means actuated by the speed-responsive device for tripping said latch to permit the pressure in the pipe to unseat the valve for the chamber and thereby relieve the pressure in the pipe to permit the cut-off valve to close.

2. In a device of the class described, a fluid supply line for motors, an emergency valve in the line, a fluid actuated emergency valve motor operatively connected to said emergency valve and normally holding said valve open, a speed-responsive device driven by the motor, and means whereby the motor may be driven at a speed less than a determined maximum without effecting a movement of the emergency valve, said last named means being actuated by the speed-responsive device to effect a quick closing movement of the emergency valve when the speed-responsive device indicates a speed of the motor above a maximum.

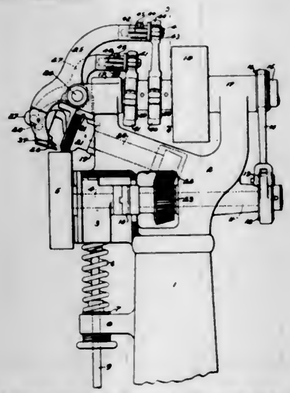
3. In combination, a fluid supply line for a motor, an emergency valve in the line, a pressure device for normally holding the emergency valve open, a speed-responsive device driven by the motor, and means actuated by the speed-responsive device for relieving pressure on the emergency valve to effect a closing movement thereof when the motor exceeds a determined maximum speed.

4. In combination, a fluid motor, a fluid supply line therefor, an emergency valve in the line, a fluid actuated valve motor operatively connected to said valve, a speed-responsive device driven by the fluid motor, an auxiliary valve controlling the delivery of motive fluid from said valve motor, adjustable means for seating the auxiliary valve to maintain through the agency of said valve motor said emergency valve open, and means actuated by said speed-responsive device for tripping said adjustable means to relieve pressure in the valve motor and thereby cause said emergency valve to be closed.

5. In combination, a pressure chamber adapted to communicate with a valve casing of an emergency valve, a port in said chamber adapted to communicate with the atmosphere, a valve for said port, means for normally keeping said valve seated to close the port in the chamber, a speed-responsive device, and means actuated by the speed-responsive device for moving the valve-closing means out of contact with said valve and thereby permitting the pressure in the chamber to unseat the valve to allow the pressure in said chamber to escape to the atmosphere so as to relieve the pressure on the emergency valve and cause said emergency valve to close.

[Claims 6 and 7 not printed in the Gazette.]

940,690. INSOLE-REINFORCING MACHINE. WILLIAM H. HOOPER, Lynn, Mass., assignor, by mesne assignments, to Thomas G. Plant, Boston, Mass. Filed Dec. 23, 1907, Serial No. 407,639. Renewed Apr. 14, 1909. Serial No. 489,848.



1. In a machine of the character described, the combination of a work supporting and feeding wheel, a tucking tool, means to move it in a plane diagonal to the surface of the work to tuck the material into the channel formed by a lip turned upward and toward the sole edge, a compressing wheel acting upon the sole edge outside the channel lip, a trimming knife, a stationary knife block associated therewith, and means for rotating the supporting and feeding wheel and the compression wheel.

2. In an insole reinforcing machine, the combination of a work supporting and feeding wheel, a tucking tool, means to move said tool in a plane diagonal to the surface of the insole to tuck reinforcing material into the channel formed by a lip turned upward and outward, a trimming knife disposed above the tucking tool in the vertical plane thereof, and means for reciprocating said knife, said tucking tool and trimming knife being simultaneously operative upon corresponding transverse portions of the reinforcing material.

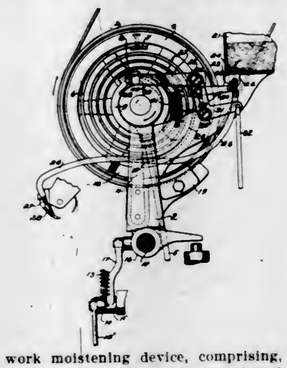
3. In an insole reinforcing machine, the combination of a work supporting and feeding wheel, means for operating the said wheel step-by-step, a tucking tool, means to move said tool in a plane diagonal to the surface of the insole to tuck reinforcing material into the channel formed by a lip turned upward and outward, a trimming knife disposed above the tucking tool in the vertical plane thereof, and means for reciprocating said knife, said tucking tool and trimming knife being operative upon corresponding transverse portions of the reinforcing material during the intervals between the stop movements.

4. In an insole reinforcing machine, the combination of a work supporting and feeding wheel, means for operating said wheel and feeding the work step-by-step, a tucking tool, means to move said tool in a plane diagonal to the surface of the insole to tuck reinforcing material into the channel formed by a lip turned upward and toward the sole edge, a trimming knife disposed above the tucking tool, a stationary knife block, and means for reciprocating the trimming knife, said tucking tool and trimming knife acting substantially simultaneously upon corresponding transverse portions of the reinforcing material during the intervals between step movements of the work.

5. In an insole reinforcing machine, the combination of work feeding means and operating devices therefor, a tucking tool, means for moving it in a plane diagonal to the surface of the sole to tuck the material into the channel formed by a lip turned upward and toward the sole edge, a trimming knife and its carrier, means for sliding said carrier, and a stationary knife block co-acting with the sliding knife, said tucking tool and trimming knife acting conjointly to tuck and trim the reinforcing material at the same transverse portion.

[Claims 6 to 11 not printed in the Gazette.]

940,691. CHANNEL-MOISTENING DEVICE FOR SEWING-MACHINES. WILLIAM H. HOOPER, Lynn, Mass., assignor, by mesne assignments, to Thomas G. Plant, Boston, Mass. Filed Dec. 23, 1907, Serial No. 407,682. Renewed Apr. 14, 1909. Serial No. 489,849.



1. A work moistening device, comprising, in combination, a source of liquid supply, a conduit leading therefrom to the work, means moved by the operator for rendering said device effective for the delivery of liquid to the work, and power means, including a shaft, operative when the shaft is given reverse movement for closing said conduit.

2. In a machine for treating leather, a shaft, and a work moistening device, comprising, in combination, a

source of liquid supply, a conduit leading therefrom to direct liquid to the work, a valve in said conduit, means controlled by the operator for opening said valve, and means operative upon reverse movement of said shaft for closing said valve.

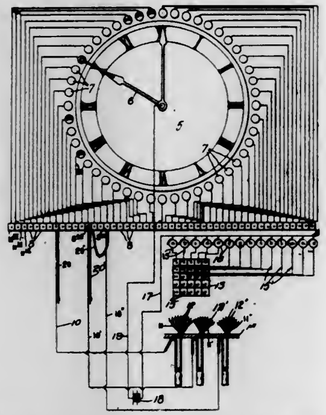
3. In a machine of the type described, an operating shaft, a moistening device having a valve, means connected therewith adapted by its movement to open and close said valve, and a cam operative on reverse movement of said shaft to actuate said means to close the valve.

4. In a machine of the type described, the combination of a shaft and operating means therefor, a channel guide provided with a passage, a moistening device having a supply conduit communicating with said passage, a valve controlling said conduit, means for moving the valve to open the conduit and means operative on reverse movement of the shaft for closing said valve.

5. In a machine for treating leather, a shaft, and operating means therefor, a tool driven from said shaft, a moistening device having a valve to control the supply of liquid, and a supply conduit leading to the work being treated, means arranged to open said valve independent of the machine starting devices, and means operative after the machine has been stopped and upon reverse movement of said shaft to close said valve.

[Claims 6 and 7 not printed in the Gazette.]

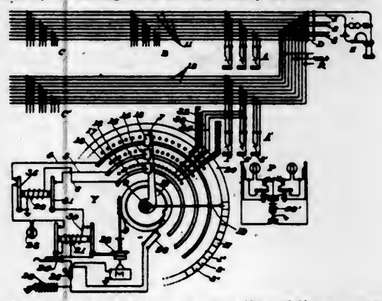
940,692. TIME-CONTROLLED ALARM MECHANISM. HILBERT W. HOWARD, Scranton, Pa. Filed Jan. 27, 1906. Serial No. 298,203.



In a system of the class described, the combination with a clock comprising a contact hand, and a series of contacts disposed for successive engagement by the hand, of a plug-plate in circuit with each of the contacts, a flexible conductor connected to each of said plug-plates and having a terminal plug adapted for engagement in any one of the other plug-plates of the series, a plug-board having a second series of plug-plates each corresponding to a location at which a signal is to be sounded, a signal connected with each of the last named plug-plates, a battery connected between all of the signals and the contact hand of the clock, and a flexible conductor connected with each of the first named plug-plates and having a series of terminal branches in electrical connection with the conductor, each of which branches is provided with a plug adapted to engage any one of the second series of plug-plates which are carried by the said plug-board.

940,693. TELEPHONE SYSTEM. DAVID S. HULFISH, Chicago, Ill., assignor to McMeen & Miller, Chicago, Ill., a Copartnership. Filed Dec. 28, 1906. Serial No. 349,854.

1. In a telephone system, a plurality of lines, manual means for connecting with said lines at a plurality of operator's positions, call-indicating devices at a plurality of operator's positions and having all of the lines accessible to each of the call-indicating devices, and means for causing the indicator of any one of said call-indicating devices to identify a calling line, substantially as described.



2. In a telephone system, a plurality of lines, means for connecting with said lines at a plurality of operator's positions, call-indicating devices at a plurality of operator's positions and having all of the said lines accessible to each of the said call-indicating devices, and means for identifying a calling line by any of said call-indicating devices not otherwise busy, substantially as described.

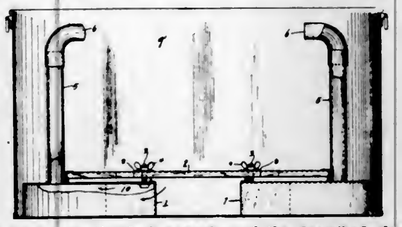
3. In a telephone system, a plurality of lines, means for connecting with said lines at a plurality of operator's positions, call-indicating devices at a plurality of operator's positions and having all of the said lines accessible to each of the said call-indicating devices, simultaneously calling lines not in number in excess of the number of said call-indicating devices being simultaneously identified by said call-indicating devices, substantially as described.

4. In a telephone system, a plurality of lines, manually operated jacks and switch plugs for connecting with said lines at a plurality of operator's positions, call-indicating devices at a plurality of operator's positions and each having access to all of said lines and collectively indicating and identifying all simultaneously calling lines when the number of simultaneously calling lines is not in excess of the number of call-indicating devices, substantially as described.

5. In a telephone system, a plurality of lines, manually operated means for connecting with said lines, a plurality of operator's positions, a call-seeking and line-identifying device at each of said operator's positions, said lines being terminated in a plurality of said call-seeking devices and each of said call-seeking devices having moving parts adapted to detect a calling line and to stop in registry with the calling line and to identify the calling line to the operator, substantially as described.

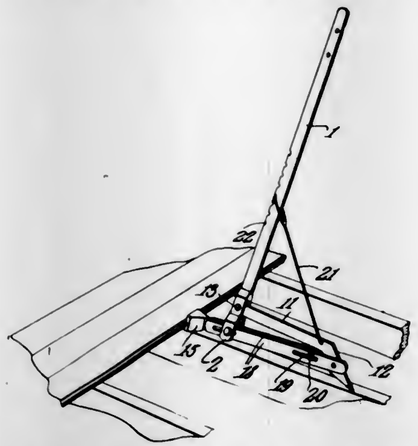
[Claims 6 to 12 not printed in the Gazette.]

940,694. AUTOMATIC STEAM-WASHER. ROBERT E. JACK, Milwaukee, Wis., assignor to Louis Plate, Milwaukee, Wis. Filed Apr. 26, 1909. Serial No. 492,322.



In an automatic clothes washer of the described class, the combination of a wash boiler, two chambers open at their lower sides and provided with inlet water passages, vertical water ducts connected with the interior of and supported on said chambers, an adjustable discharge elbow supported on the upper ends of said ducts, and a clothes supporting grate adjustably connected at its respective ends with said chambers.

940,695. FLOOR-JACK. AUGUST JUNKER, Holloway, Minn. Filed Aug. 13, 1908. Serial No. 448,445.



1. A device of the class described comprising a lever, a pronged arm pivotally connected thereto, said pivot constituting the fulcrum of the lever, a guide strip pivotally connected to said arm and supported by the lever, a jaw movable with the said lever, and means movable with the jaw and coöperating with the guide strip for guiding the jaw during the movement thereof.

2. A device of the class described comprising a lever, a pronged arm extending therefrom and pivotally connected thereto, said pivot constituting the fulcrum of the lever, a guide strip pivotally connected to the pronged arm, said strip being partly supported by and movably connected to the lever, a jaw, and means extending from the jaw and slidably mounted upon the guide strip for transmitting motion from the lever to the jaw.

3. A device of the class described comprising a lever, a pronged arm pivotally connected thereto, said pivot constituting the fulcrum of the lever, guide strips pivotally connected to the pronged arm and slidably engaged by the lever, a jaw movable with said lever and guiding devices movable with the jaw and slidably engaging the guide strips.

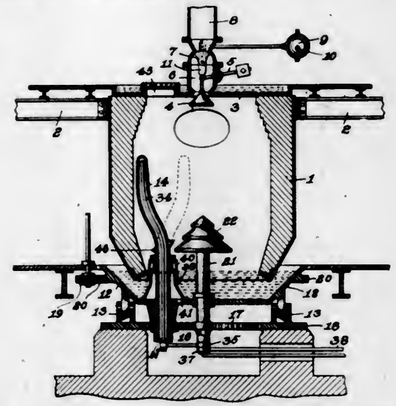
4. A device of the class described comprising a lever, a pronged arm pivotally connected thereto, said pivot constituting the fulcrum of the lever, guide strips pivotally connected to the pronged arm and slidably engaged by the lever, a jaw movable with said lever, guiding devices movable with the jaw and slidably engaging the guide strips, and coöperating means upon the pronged arm and lever for locking the lever and arm in a predetermined position.

5. In a device of the class described a lever, a pronged arm pivotally connected thereto, said pivot constituting the fulcrum of the lever, means upon the arm for adjustably engaging the lever to hold said lever at a predetermined angle to the arm, longitudinally slotted guide strips pivotally connected to the pronged arm, means upon the lever for slidably engaging said strips, a jaw, a stem extending therefrom and between the guide strips, and means extending from the stem and slidably mounted within the guide strips for guiding said stem during its movement, one of said means being attached to the lever.

940,696. GAS-PRODUCER. ROBERT B. KERNOHAN, Pittsburg, Pa. Filed Apr. 13, 1909. Serial No. 489,628.

1. A gas producer having in combination a body portion, a poker projecting upwardly into the body portion, means for moving one of said parts around the axis of the producer, and means for introducing air within the producer, the poker extending above the point of entrance of the air.

2. A gas producer having in combination a body portion, a poker projecting upwardly into the body of the producer, means for moving one of said parts around the axis of the producer, and means for shifting the portion of the poker within the producer in a direction at an angle to the circle described by the moving part.



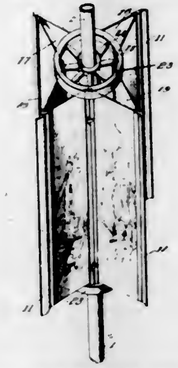
3. A gas producer having in combination a body portion, a poker projecting upwardly into the body of the producer, means for moving one of said parts around the axis of the producer, and means for causing a portion of the poker within the producer to move in the arc of a circle eccentric to the axis of the producer.

4. A gas producer having in combination a body portion, a bent poker projecting upwardly into the body of the producer, means for moving one of the parts around the axis of the producer and means for rotating the poker on the axis of the lower portion.

5. A gas producer having in combination a movable body portion, means for rotating said body portion, a bent poker projecting upwardly into the body portion and means for rotating the poker.

[Claims 6 and 7 not printed in the Gazette.]

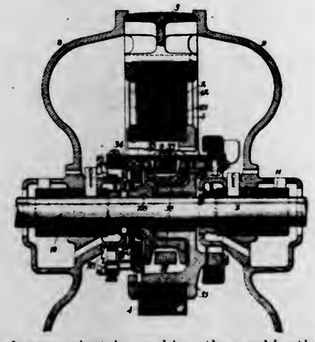
940,697. SIGN. RUDOLPH J. LACKNER, New York, N. Y. Filed July 16, 1908. Serial No. 443,847.



1. A sign of the class described comprising a vertically disposed tubular member, a plurality of wings rotatably disposed about said tubular member, a hinge mounted at one side of one of said wings, clasps disposed upon the opposite side of said wing, said wing adapted for swinging movement to admit of access to said tubular member and a lamp disposed upon said tubular member for lighting said wings.

2. A device of the class described, comprising a tubular member vertically disposed, shoulders formed in spaced relation upon said tubular member, lamps extended radially upon said tubular member intermediately thereof, sleeves rotatably disposed about said tubular member against said shoulders, rings supported upon said sleeves, a plurality of wings radially extended between said rings, one of said wings being adapted for displacement to gain access to said lamps and a bracket engaged with said tubular member for supporting the device.

940,698. DYNAMO-ELECTRIC MACHINE. BENJAMIN G. LAMME and RUSSELL S. FEICHT, Pittsburg, and GEORGE H. GARCELON, Wilkinsburg, Pa., assignors to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed Sept. 13, 1905. Serial No. 278,334.



1. In a dynamo electric machine, the combination with a primary core member, windings therefor having different time constants, a relatively rotatable secondary core member, a winding therefor and a resistance in circuit therewith, of an automatically operated means serving to cut one of the primary windings out of circuit and also to remove the resistance from the secondary circuit.

2. In a dynamo-electric machine, the combination with a primary core member, windings therefor having different time constants, a relatively rotatable secondary core member, a winding therefor and a resistance in circuit therewith, of automatically operated means serving to cut one of the primary windings out of circuit and also to remove the resistance from the secondary circuit, the operation of said means being dependent upon the speed of rotation of the machine.

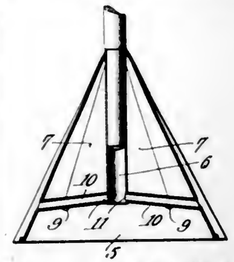
3. In a dynamo-electric machine, the combination with a primary core member, windings therefor having different time constants, a relatively rotatable secondary core member, a polyphase winding therefor and a resistance in each leg of said winding, of automatically operated means serving to cut one of the primary windings out of circuit and also to remove the resistance from the secondary circuit, the operation of said means being dependent upon the speed of rotation of the machine.

4. In a dynamo-electric machine, the combination with relatively rotatable primary and secondary core members, windings for the primary core member having different time constants, a winding for the secondary core member, a resistance in circuit therewith, and a shaft, of means operated by centrifugal force to cut one of the primary windings out of circuit and to remove the resistance from the secondary circuit, and means operated by centrifugal force to connect one of the members to the shaft when a certain speed of rotation is attained.

5. In a dynamo-electric machine, the combination with relatively rotatable primary and secondary core members, windings for the primary core member having different time constants, a winding for the secondary core member, a resistance in circuit therewith, and a shaft, of automatically operated means serving to cut one of the primary windings out of circuit and to remove the resistance from the secondary circuit, and an automatically operated means for connecting one of the members to the shaft, said means being operated in a predetermined sequence.

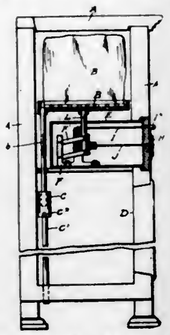
[Claims 6 to 17 not printed in the Gazette.]

940,699. CLOTHES-POUNDER. EMBRY W. LYNCH, College Park, Ga. Filed Nov. 14, 1908. Serial No. 462,660.



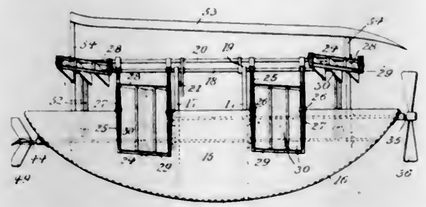
In a clothes pounder, a conical body, a tubular handle socket extending downwardly axially into the body, said socket being open at its lower end and having its said end terminating in a plane above the plane of the lower edge of the body, a plurality of partitions arranged within the body and extending radially from the tubular handle socket, the said partitions being secured at their inner edges through the said socket and at their outer edges to the wall of the body, the said partitions being of a height equal to the length of the said socket with their lower edges in a plane with the lower end of the socket, the said wall of the body being formed with an opening in a vertical plane with each partition and in a plane with the lower edge thereof, the said openings being unobstructed, a plurality of closed air pockets secured upon the outer surface of the wall of the body and opening at their lower ends in a plane with the lower edge of the said wall of the body, the said pockets tapering upwardly with their lateral edges spaced throughout the extent of the series, each of the openings in the wall of the body establishing communication between the interior of the body and one of the said closed air pockets, and tubes leading radially from the handle socket in a downward direction and opening through the said wall of the body between the opposed lateral edges of certain of the said closed air pockets whereby to establish communication between the exterior and interior of said body by way of the said handle socket through the lower open end thereof, the point of connection of each tube with the said handle socket being in a plane immediately above the lower end of the said socket, the tubes occurring each between a pair of the said partitions.

940,700. REFRIGERATOR. JOSEPH H. MANON, St. Joseph, Mo. Filed Nov. 30, 1908. Serial No. 465,269.



The combination with the frame of a refrigerator, of a platform, a scale inclosure below the same, duplicate supports having rigid connection with the bottom of the platform, supports rigidly fastened at the base of the scale inclosure, guides pivotally connected with said platform supports and with the supports on the base of the scale inclosure, a spiral spring engaging at its lower end with the base of the platform supports and at its upper end with the connecting part of the tops of said supports rigid on the bottom of the scale inclosure, an adjusting worm gear, a cross bar, a straight cog connected perpendicularly to said cross bar, a scale dial and hand on the outside of the refrigerator, a cog wheel, a rod connected with said cog wheel and said dial hand, a thumb screw outside the refrigerator and an adjustment rod connected with said worm gear and with said thumb screw, substantially as set forth and shown.

940,701. AIR-SHIP. HENRY MESINGER, New York, N. Y. Filed June 26, 1909. Serial No. 504,415.



1. An air ship provided with a longitudinal shaft, means for laterally moving said shaft relatively to the axis of the ship, two sets of wings journaled on said shaft and extending at opposite directions therefrom, and means for simultaneously oscillating opposed wings.

2. An air ship provided with a first longitudinal shaft, means for turning and locking said shaft, arms projecting from the shaft, a second longitudinal shaft carried by said arms, two sets of wings journaled on said second shaft and extending at opposite directions therefrom, and means for simultaneously oscillating opposed wings.

3. An air ship provided with a longitudinal shaft, means for laterally moving said shaft relatively to the axis of the ship, two sets of frames journaled on said shaft and extending at opposite directions therefrom, downwardly opening slats journaled in said frames, means for limiting the downward movement of said slats, and means for simultaneously oscillating opposed frames.

4. An air ship provided with wings composed of a frame, a series of slats, and squared knuckles for pivotally connecting the slats to the frame.

5. An air ship provided with a shaft having a series of cranks arranged in pairs, the members of which are set at right angles to each other, and with a series of wings also arranged in pairs, and means for connecting adjoining cranks to opposed wings.

[Claim 6 not printed in the Gazette.]

940,702. METHOD OF FLANGING PIPES. CHARLES D. MURDOCK, Philadelphia, Pa. Filed Nov. 4, 1908. Serial No. 461,085.

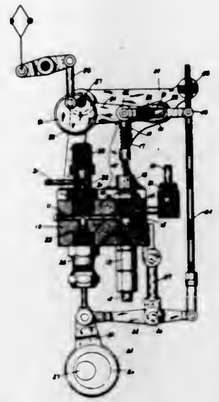


1. The method of flanging pipes which consists in securing a sleeve on the pipe, and then bending the pipe and sleeve to form the flange.

2. The method of flanging pipes which consists in shrinking a sleeve onto the pipe, and then bending the pipe and sleeve to form the flange.

3. The method of flanging pipes which consists in welding a sleeve onto the pipe, and then bending the pipe and sleeve to form the flange.

940,703. PUMP. NORMAN MCCARTY, Indianapolis, Ind., assignor to Atlas Engine Works, Indianapolis, Ind., a Corporation of Indiana. Filed June 14, 1909. Serial No. 502,042.



1. In a pump having a main chamber, a valved inlet passage, an outlet passage having an outwardly opening check-valve and an overflow passage, a displacing plunger associated with the pump chamber, a valve arranged in the outlet passage between the pump chamber and the outlet check-valve, means for opening and closing said valve, a valve arranged in the overflow passage, and means for holding said valve closed while the valve of the outlet passage is open during the displacing movement of the plunger.

2. In a pump having a main chamber, a valved inlet passage, an outlet passage having an outwardly opening check-valve and an overflow passage, a displacing plunger associated with the pump chamber, a valve arranged in the outlet passage between the pump chamber and the outlet check-valve, means for opening and closing said valve, means coöperating with said valve for varying the time of open condition of said valve during the displacing stroke of the plunger, a valve arranged in the overflow passage, and means for holding said valve closed while the valve of the outlet passage is open during the displacing movement of the plunger.

3. In a pump having a main chamber, a valved inlet passage, an outlet passage having an outwardly opening check-valve and an overflow passage, a displacing plunger associated with the pump chamber, a valve arranged in the outlet passage between the pump chamber and the outlet check-valve, means for opening and closing said valve, a valve arranged in the overflow passage, and a spring normally closing said valve, said spring exceeding in strength the discharge pressure through the discharge passage.

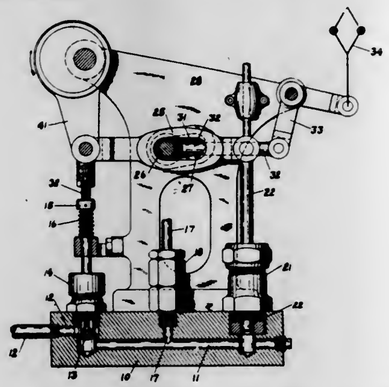
4. In a pump having a main chamber, a valved inlet passage, an outlet passage having an outwardly opening check-valve and an overflow passage, a displacing plunger associated with the pump chamber, a valve arranged in the outlet passage between the pump chamber and the outlet check-valve, means for opening and closing said valve, means coöperating with said valve for varying the time of open condition of said valve during the displacing stroke of the plunger, a valve arranged in the overflow passage,

and a spring normally closing said valve, said spring exceeding in strength the discharge pressnre through the discharge passage.

5. In a pump having a main chamber, a valved inlet passage, an outlet passage having an outwardly opening check-valve and an overflow passage, a displacing plunger associated with the pump chamber, a valve arranged in the outlet passage between the pump chamber and the outlet check-valve, a lever arranged to engage said valve to open the same, intermediate connections between said lever and the plunger to cause an opening of the valve during the displacing stroke of the plunger, intermediate connections between the said lever and plunger, a valve arranged in the overflow passage, and means for holding said valve closed while the valve in the discharge passage is open during the displacing movement of the plunger.

[Claims 6 and 7 not printed in the Gazette.]

940,704. PUMP. NORMAN MCCARTY, Indianapolis, Ind., assignor to Atlas Engine Works, Indianapolis, Ind., a Corporation of Indiana. Filed June 14, 1909. Serial No. 502,044.



1. In a pump comprising a main chamber having an inlet and an outlet, a valve arranged in said inlet, an ejecting plunger associated with the pump chamber, means for varying the ejecting stroke of the plunger between maximum and a minimum greater than zero, and means for holding the inlet valve open during a portion of the ejecting stroke of the plunger substantially equal to or less than the difference between its minimum ejecting stroke and zero.

2. In a pump comprising a main chamber having an inlet and an outlet, a valve arranged in said inlet, means for normally holding said valve closed, a plunger projectable into the pump chamber, means for varying the stroke of said plunger, and means for holding the valve open during a portion of the ejecting stroke of the plunger.

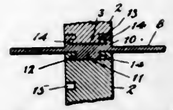
3. In a pump comprising a main chamber having an inlet and an outlet, a valve arranged in said inlet, a plunger projectable into the pump chamber, a lever connected with said plunger, means for varying the stroke of said lever to vary the stroke of the plunger, and means for engaging the inlet valve and holding same open during a portion of the ejecting stroke of the plunger.

4. In a pump comprising a main chamber having an inlet and an outlet, a valve arranged in said inlet, means for normally holding said valve closed, a plunger projectable into the pump chamber, a lever connected with said plunger, means for varying the stroke of said lever to vary the stroke of the plunger, and means for engaging the inlet valve and holding same open during a portion of the ejecting stroke of the plunger.

5. In a pump comprising a main chamber having an inlet and an outlet, a valve arranged in said inlet, a plunger projectable into the pump chamber, a lever connected with said plunger, a fulcrum for said lever movable relative thereto to vary its effect upon the plunger, means for shifting said fulcrum relative to the lever, and means for holding the said inlet valve open during a portion of the ejecting stroke of the plunger.

[Claim 6 not printed in the Gazette.]

940,705. EXTENSIBLE POST FOR LOOSE-LEAF BINDERS. JENNINGS S. MCCOMB, Dobbs Ferry, N. Y. Filed June 8, 1908. Serial No. 437,423.



1. A loose leaf binder pillar or post formed into a plurality of sections, each section having a male locking member and laterally extending means carried by the male locking member to coöperate with a female member carried by each section having eccentric means to coöperate with the male locking member of a complementary section, to bind the parts together upon a partial rotation of the complementary sections.

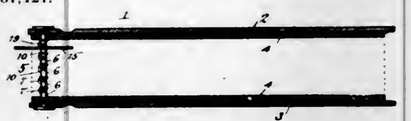
2. A loose leaf binder pillar or post comprising a substantially cylindrical body portion, a male locking member carried at one end of the section and provided with a laterally extending wing, a female locking member carried by the other end of the section provided with an eccentric recess to coöperate with a complementary male locking member to rigidly lock the sections together upon a partial rotation of the members.

3. A loose leaf binder pillar or post formed of a plurality of sections, a portion of each section being provided with an eccentric recess, and a laterally extending wing on another portion of each section.

4. A support to coöperate with an extensible pillar or post of a loose leaf binder said support being provided with a body portion provided at one end with an eccentric recess and with a laterally extending wing at the other end.

5. The combination of a plurality of units adapted to form an extensible pillar or post for a loose leaf binder, each unit provided at one end with an eccentric recess and at the other end with a laterally extending wing, a support having a body portion provided at one end with an eccentric recess to coöperate with a laterally extending wing on a unit of the pillar or post, and at the other end with a laterally extending wing to coöperate with an eccentric recess in another unit of the extensible pillar or post.

940,706. LOOSE-LEAF BINDER. JENNINGS S. MCCOMB, Dobbs Ferry, N. Y. Filed June 8, 1908. Serial No. 437,427.



1. An extensible post for loose leaf binders formed of a plurality of sections, each section provided with means for locking the sections together upon one complete revolution of the sections.

2. An extensible post for loose leaf binders formed of a plurality of sections, each section provided with means for locking the sections together upon one complete revolution of the sections and a support or disk provided with means to coöperate with the sections of the pillar or post.

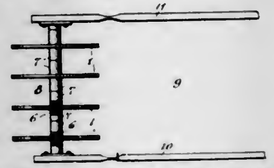
3. An extensible pillar or post for loose leaf binders provided with different detachable sections, each section provided with a screw thread and with a tongue to coöperate with the complementary screw thread.

4. An extensible pillar or post for loose leaf binders provided with different detachable sections, each section provided with a screw thread and with a tongue to coöperate with the complementary screw thread and a support or disk provided with similar tongues and screw threads to coöperate with tongues and screw threads upon the sections of the post.

5. A section for an extensible post or pillar for loose leaf binders having a body portion, a pin at one end of the body portion a tongue and socket at the other end of the body portion and a screw thread.

[Claims 6 and 7 not printed in the Gazette.]

940,707. SUPPORT FOR LOOSE-LEAF BINDERS. JENNINGS S. MCCOMB, Dobbs Ferry, N. Y. Filed Oct. 6, 1908. Serial No. 456,397.



1. A detachable support for leaves of a loose leaf binder provided with openings of less diameter than the diameter of the units of the extensible pillar or post and adapted to be inserted between the different units of any extensible pillar or post of a loose leaf binder and be held in its adjusted position by the units substantially against vertical movement on the pillar or post.

2. A detachable support to support the leaves of a loose leaf binder, provided with locking means to coöperate with the locking means between the different units of any detachable pillar or post said support being adapted to be held between any two units of the pillar or post.

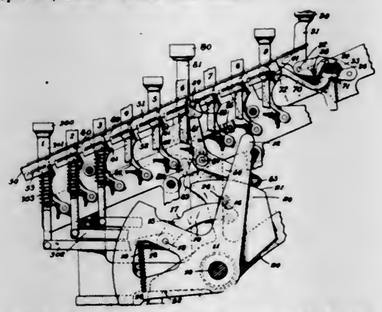
3. In loose leaf binders, a flat detachable support provided with fastening means to coöperate with the fastening means between the different units of any extensible pillar or post.

4. In loose leaf binders, an extensible pillar or post provided with interlocking screw threads, and a flat detachable support or disk provided with screw threads adapted to coöperate with the screw threads of the different units of the extensible pillar or post.

5. An article of manufacture comprising a flat support provided with the coöperating locking means to coöperate with locking means connecting the units of an extensible pillar or post.

[Claims 6 to 9 not printed in the Gazette.]

940,708. KEYBOARD-LOCKING MECHANISM FOR ADDING-MACHINES. CHARLES N. MCFARLAND, Kingston, Pa., assignor to The Adder Machine Company, Kingston, Pa., a Corporation of Pennsylvania. Filed Sept. 24, 1906. Serial No. 335,877.



1. In a calculating machine, comprising an actuating shaft and numeral keys arranged in denominational series having dependent stems, the combination of said keys having notches on their stems corresponding to their undepressed position with a series of lock bars, each one of which is adapted to engage the notches of all of the keys of the same ordinal in all of the denominational series and a coupling piece adapted to move all of said lock bars simultaneously.

2. In a calculating machine, comprising an actuating shaft and numeral keys arranged in denominational series having dependent stems, the combination of said keys having notches on their stems corresponding to their undepressed position with a series of lock bars, each one of which is adapted to engage the notches of all of the keys of the same ordinal in all of the denominational series, and a coupling piece adapted to move all of said lock bars simultaneously and means for automatically shifting said coupling piece at predetermined points in the actuation of the shaft.

3. In a calculating machine, comprising an actuating shaft and numeral keys arranged in denominational series having dependent stems, the combination of said keys having notches on their stems corresponding to their undepressed position with a series of lock bars, each one of which is adapted to engage the notches of all of the keys of the same ordinal in all of the denominational series, and a coupling piece adapted to move all of said lock bars simultaneously and means for automatically shifting said coupling piece at predetermined points in the actuation of the shaft and keeping it in its shifted position during a predetermined time in the actuation of the shaft.

4. In a calculating machine, comprising an actuating shaft and numeral keys arranged in denominational series having dependent stems, the combination of said keys having notches on their stems corresponding to their undepressed position with a series of lock bars, each one of which is adapted to engage the notches of all of the keys of the same ordinal in all of the denominational series, a coupling piece adapted to move all of said lock bars simultaneously and a lock lever connected to said coupling piece adapted to be operated by the actuating shaft.

5. In a calculating machine, comprising an actuating shaft and numeral keys arranged in denominational series having dependent stems, the combination of said keys having notches on their stems corresponding to their undepressed position with a series of lock bars, each one of which is adapted to engage the notches of the keys of the same ordinal in all of the denominational series, a coupling piece adapted to move all of said lock bars simultaneously and intermediate mechanism between it and the oscillating shaft whereby the oscillation of said shaft shifts the coupling piece.

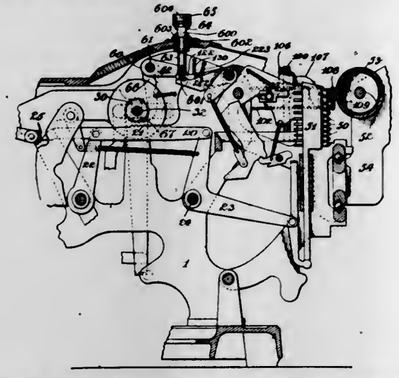
[Claims 6 to 20 not printed in the Gazette.]

940,709. ADDING-MACHINE. CHARLES N. MCFARLAND, Dorranceton, Pa., assignor to The Adder Machine Company, Kingston, Pa., a Corporation of Pennsylvania. Filed June 27, 1907. Serial No. 381,002.

1. In a machine of the class described, comprising a printing mechanism, numeral wheels, means for operating them, operative connections between said means and the printing mechanism, and means for rendering the numeral wheels inactive while the printing mechanism is actuated and simultaneously causing items to be printed during such inactivity of the numeral wheels in a distinguishing manner, means for causing other items to be printed in the same distinguishing manner independently of the ordinary functions of the printing mechanism.

2. In a machine of the class described, comprising a printing mechanism provided with an inking device, numeral wheels, means for operating them, operative connections between said means and the printing mechanism, and means for rendering the numeral wheels inactive while the printing mechanism is actuated and simultaneously causing items to be printed during such inactivity of the numeral wheels in a distinguishing manner, means for causing other items to be printed in the same distinguishing manner independently of the ordinary functions of the printing mechanism, comprising a supplemental key adapted to move the inking device of the printing mechanism.

3. In a machine of the class described, comprising an accumulating mechanism, an inking ribbon, means whereby its position may be varied and a plurality of optionally operable means whereby the positioning means may be actuated, one of said means being adapted at the same time automatically to interrupt the function of the accumulating mechanism.

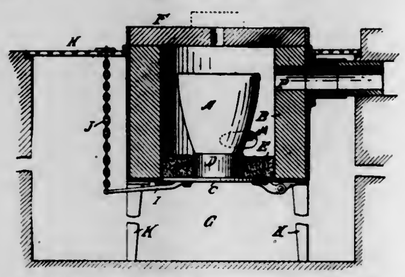


4. In a machine of the class described, comprising an accumulating mechanism, an inking ribbon, means whereby its position may be varied and a plurality of optionally operable means whereby the positioning means may be actuated, one of said means being adapted at the same time automatically to interrupt the function of the accumulating mechanism, and automatically to restore the inking ribbon to its original position when such interruption ceases.

5. In a machine of the class described, comprising an accumulating mechanism, an inking ribbon, means whereby its position may be varied, a plurality of optionally operable means whereby the positioning means may be actuated, one of said means being adapted at the same time automatically to interrupt the function of the accumulating mechanism and the other of said means being adapted to independently move said positioning means, and means for restoring the positioning means after such independent movement.

[Claims 6 to 8 not printed in the Gazette.]

940,710. METAL-MELTING HYDROCARBON-BURNING FURNACE. GARNET W. MCKEE, Chicago, Ill. Filed Jan. 31, 1908. Serial No. 413,520.

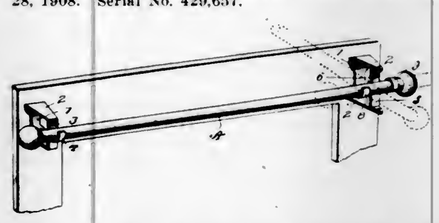


1. A metal-melting furnace comprising the combination with a masonry-lined pit of a cylindrical furnace chamber therein, legs supporting the chamber with its upper end substantially flush with the top of the pit lining, a trap door closing the lower end of the chamber, an arm extending therefrom, a grating over the pit, a chain attached to the arm adapted to detachably engage the grating as a support for the arm of the door, a crucible stand of less diameter than the chamber standing on the trap door, a filling of loose sand on the door in the annular space around the stand, and means for directing a blast flame around a crucible on the stand, near its bottom.

2. A metal melting furnace comprising the combination with a masonry-lined-pit of a cylindrical furnace chamber therein, legs supporting the chamber with its upper end substantially flush with the top of the pit lining, a trap door closing the lower end of the chamber, an arm extending therefrom, a grating over the pit, a chain attached to the arm adapted to detachably engage the grating as a support for the arm and door, a crucible stand of less diameter than the chamber standing on the trap door, a filling of loose sand on the door in the annular space around the stand, the pit lining having a tangentially disposed opening for a burner near the top of the crucible stand, and a pipe extending radially from the upper part of the chamber into a flue opening in the pit lining.

3. A metal-melting furnace comprising the combination with a masonry-lined pit of a cylindrical furnace chamber therein, legs supporting the chamber with its upper end substantially flush with the top of the pit lining, a trap door closing the lower end of the chamber, an arm extending therefrom, a grating over the pit, a chain attached to the arm adapted to detachably engage the grating as a support for the arm and door, a crucible stand of less diameter than the chamber standing on the trap door, a filling of loose sand on the door in the annular space around the stand, the pit lining having a tangentially disposed opening for a burner near the top of the crucible stand, a hydrocarbon blast burner in the tangential opening, and a pipe extending radially from the upper part of the chamber into a flue opening in the pit lining.

940,711. CURTAIN-POLE SUPPORT. IRA E. FELLS and ETTA N. MCKELVEY, East Liverpool, Ohio. Filed Apr. 28, 1908. Serial No. 429,657.



1. A curtain pole bracket embodying a base and a member having oppositely facing hooks carried by the base, said hooks having a common axis of curvature and being spaced apart in the direction of such axis.

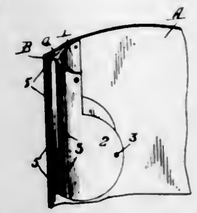
2. A curtain pole bracket comprising a base, a member rotatably supported from the base and provided with oppositely facing spaced hooks having a common axis of curvature perpendicular to the axis of the member.

3. A curtain pole bracket comprising a base, vertically spaced arms carried by the base, and a pivot member hingedly mounted between the arms so as to swing about a vertical axis, said pivot member being formed with oppositely facing hooks having a common axis of curvature, as and for the purpose set forth.

4. The combination with a window casing and a curtain pole, of a bracket comprising a base secured to the casing, vertically spaced arms carried by the base, a pivot member hingedly mounted between the arms, said pivot member being formed with oppositely facing hooks having a common axis of curvature and engaging one end of the curtain pole to pivotally connect the latter to the bracket, and a second bracket, secured to the casing and arranged to detachably support the other end of the curtain pole, as and for the purpose set forth.

5. A curtain pole bracket comprising a base, spaced arms carried by the base, and a pivot member mounted between the arms to rotate about its longitudinal axis and provided with oppositely facing spaced hooks having a common axis of curvature.

940,712. TROUSERS-CREASE RETAINER. HUGO A. NEUMANN, New York, N. Y. Filed Aug. 22, 1908. Serial No. 449,862.

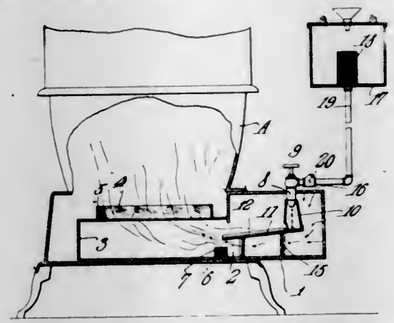


1. A trousers creasing device comprising a sheet of flexible material, having a plurality of spines arranged on one face thereof.

2. A trousers crease retaining device comprising a sheet of flexible resilient material, provided with a central V shaped portion having spines on its apex.

3. A trousers crease retaining device comprising a sheet of flexible resilient material having a thickened V shaped central portion terminating in spines and provided with attaching points on one side.

940,713. CRUDE-OIL BURNER. ERNEST L. NEWMAN, Parsons, Kans., assignor, by mesne assignments, of one-half to H. P. Frankeberger. Filed Feb. 23, 1909. Serial No. 479,309.



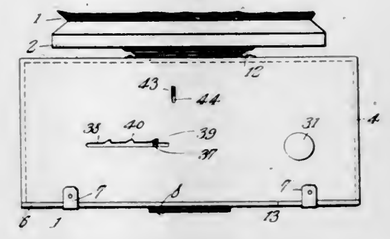
1. A hydro-carbon burner comprising a mixing box having air inlets, a fire box extending therefrom and communicating therewith, said fire box being insertible into a stove casing, there being an opening in the top of the fire box, said top constituting spreading means, an inclined spreading plate supported within the mixing box and having a recess and channels extending from the recess along diverging lines to the lower end of the plate, there being side flanges above the plate, a nozzle projecting into the mixing box and above and in vertical alinement with the recess, a hollow cone frustum surrounding the nozzle and the recess and having an outlet opening, and a receptacle within the fire box and below the discharge end of the spreading plate, said receptacle having a fibrous, non-inflammable filling.

2. A hydro-carbon burner comprising a mixing box and a fire box opening into each other, said fire box having an opening in the top thereof and an upstanding flange surrounding the same, an inclined spreading plate within and spaced from the mixing box, said plate having a recess in the upper portion thereof and channels extending from the recess to the lower end of the plate and along diverging lines, a nozzle above and in vertical alinement with the recess, a hollow cone frustum surrounding the nozzle and the recess and having a discharge opening, a receptacle upon the bottom of the fire box and below the lower end of the spreading plate, and an asbestos filling within the receptacle, said mixing box having an air inlet.

3. The combination with a stove casing having an opening, of a fire box insertible into the casing and through the opening, said box having an opening in the top thereof and a flange surrounding the opening, a mixing box at one end of the fire box and insertible into and disposed to close the opening in the stove casing, said mixing box having an air inlet, a spreading plate supported within the mixing box and inclined downwardly toward and projecting into the fire box, said spreading plate having a recess in the upper portion thereof and channels extending along diverging lines from the recess to the lower end of the plate, a nozzle for directing fuel into the recess, a hollow cone frustum surrounding the nozzle and recess and having an outlet opening, a receptacle for receiving fuel from the discharge ends of the channels, and a fibrous, non-combustible filling within the receptacle.

4. A hydro-carbon burner comprising a mixing-box having air inlets, a fire-box communicating therewith and extending therefrom, said fire-box having an opening in the top thereof, an inclined spreading plate supported within the mixing box and having downwardly diverging ribs thereon forming channels therebetween, there being a recess in the upper portion of said plate and communicating with all of the channels, an overflow receptacle disposed below the lower end of the spreading plate for the reception of liquid fuel, a nozzle, a hood for guarding the fuel during its passage from the nozzle to the recess in the spreading plate, a tank, and a pipe connection between the tank and nozzle.

940,714. PHOTOGRAPHIC SHUTTER. CHRISTIAN F. J. NISS, Chicago, Ill. Filed Oct. 19, 1908. Serial No. 458,415.



1. A photographic shutter having openings for the passage of light movable across the optical axis of the lens simultaneously in opposite directions, said openings being adjustable as to their effective size for the passage of light therethrough.

2. A photographic shutter having spaced openings for the passage of light movable across the lens simultaneously in opposite directions, said openings being adjustable simultaneously as to their effective size for the passage of light therethrough.

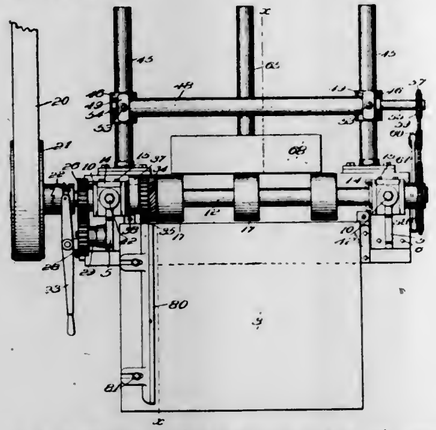
3. A photographic shutter having spaced openings for the passage of light separated in the direction of the optical axis of a lens and movable across said optical axis simultaneously in opposite directions, said shutter having two members adjustable one on the other to determine the size of the free openings through the shutter.

4. A photographic shutter having openings for the passage of light, one opening being movable across the optical axis of a lens in front of the latter and another opening being movable across the optical axis of the lens behind the latter, the movement of the openings across the optical axis of the lens being simultaneous and in opposite directions.

5. A photographic shutter having openings for the passage of light spaced apart in the direction of the optical axis of the photographic lens, and means for adjusting the effective size of the openings.

[Claims 6 to 17 not printed in the Gazette.]

940,715. TIN-PLATE-FINISHING MACHINE. EDWIN NORTON, New York, N. Y. Filed Aug. 1, 1906. Serial No. 328,693.



1. In a machine for finishing tinned plates, the combination with a suitable frame, of a main shaft and a parallel counter-shaft thereon, means to rotate the shafts in unison, sectional rollers on the shafts, a pair of collars journaled on the shafts and arranged in alinement, corresponding rotary cutters on the collars, and means to rotate the collars.

2. In a machine for finishing the list edges of tinned plates, the combination with a suitable frame, brackets on the frame, upper and lower bearings in the brackets, adjusting bolts in the lower bearing to adjust the position of the upper bearings, bolts and tension springs in the brackets engaging with the upper bearings, a main shaft journaled in the lower bearings, a counter-shaft journaled in the upper bearings, gears on said shafts, a pair of meshing spur gears meshing respectively with said shaft gears, means to rotate the main shaft, sectional feed rollers on the gears, collars journaled on the shafts near one end and maintained in longitudinal position between the bearings and the adjacent rollers on the shafts, circular cutters on the collars, meshing gears on the collars, and a belt pulley on one collar.

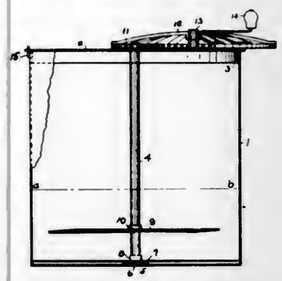
3. In a machine for finishing the list edges of tin plates, the combination with a supporting frame, of a main shaft, a parallel counter-shaft, feed rollers on the shafts to feed the plates, means to rotate the shafts in unison, rotary cutters journaled on the shafts, means to rotate the rotary cutters, a main table in front of the rollers and cutters, a supplementary small table behind the rollers and cutters, a pair of take-out rollers behind the small table, and means to operate the take-out rollers.

4. In a machine for finishing the list edges of tinned plates, the combination with a suitable frame, of shafts journaled thereon, feed rollers on the shafts to engage with the plates, a pair of rotating cutters journaled on the frame, means to rotate the feed rollers to force the plates through with their list edges between the cutters, means to rotate the cutters, a main table to receive the plates and guide them to the rollers, a laterally adjustable side gage on the table to regulate the width of the plate edge to be engaged by the cutters, said side gage being arranged on the table at the side corresponding to the position of the cutters, rearwardly extending horizontal posts on the frame, sliding bearings on said posts, vertically adjustable brackets in said bearings, a pair of take-out rollers journaled in said bearings, a rotating connection between said take-out rollers and the shafts, a central horizontal post on the frame, a sliding bearing on said post, a vertically adjustable bracket on said bearing and a small table on said bracket arranged intermediate of the feed rollers and the take-out rollers, substantially as described and shown.

5. In a machine for finishing or delisting the list edges of tin plates, the combination with a suitable frame, of parallel shafts thereon, feed-rollers on the shafts, means to rotate the shafts in unison, corresponding rotary cutters fitted to the shafts and means to rotate the cutters independently of the shafts.

[Claim 6 not printed in the Gazette.]

940,716. APPARATUS FOR TREATING BUTTER. CLARENCE M. NULF and GEORGE M. JACKSON, Frankton, Ind. Filed Mar. 19, 1909. Serial No. 484,527.



1. A device of the class described comprising a vessel, a cutting blade and a depressing blade revolubly supported therein, and means supported on the vessel for imparting motion to both blades.

2. A device of the class described comprising a vessel, a thin blade having a sharp cutting edge within the vessel, a depressing blade above the cutting blade, and means supported by the vessel for imparting a revoluble motion to both blades.

3. A device of the class described comprising a vessel, a shaft revolubly and vertically supported therein, a thin blade having a sharp cutting edge mounted on the shaft, a depressing blade supported on the shaft above the cutting blade, and means supported by the vessel and connected to the shaft for imparting a revoluble motion to the shaft and blades.

4. A device of the class described comprising a vessel, a revoluble shaft vertically supported therein, a cutting blade radially mounted on said shaft, a depressing blade radially supported on said shaft and having its lower face curved upwardly, and means supported on the vessel and connected to the shaft whereby a revoluble motion is imparted to the shaft and blades.

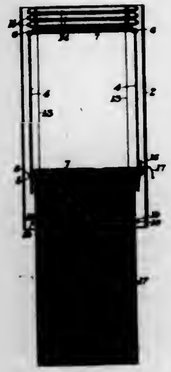
5. A device of the class described comprising a vessel, a shaft vertically disposed therein and removable therefrom, a plurality of cutting blades mounted adjacent to the lower extremity of the shaft and radiating therefrom, a plurality of depressing blades supported on the shaft at a point above the cutting blades and radiating from said shaft, said blades having their under surfaces slightly curved upwardly, a pinion on the upper extremity of the shaft, and means operatively connected to said pinion and supported on the vessel whereby said shaft and its blades are rotated within the vessel.

[Claims 6 to 8 not printed in the Gazette.]

940,717. TOWEL-CABINET. ROBERT T. PARISEN, Pittsburg, Pa. Filed Mar. 24, 1909. Serial No. 485,381.

1. A towel cabinet comprising a casing, a pair of arms or brackets secured within the upper portion of the casing, a spring roller journaled in said arms or brackets, other arms or brackets secured to the casing below the spring roller, a pair of vertical guide rods supported by the last named arms or brackets, a towel carrier arranged to slide freely on the guide rods, and a flexible connection between the towel carrier and the spring roller; substantially as described.

2. A towel cabinet comprising a casing, a pair of arms or brackets secured within the upper portion of the casing, a spring roller journaled in said arms or brackets, other arms or brackets secured to the casing below the spring roller, a pair of vertical guide rods supported by the last named arms or brackets, a towel carrier arranged to slide freely on the guide rods, a flexible connection between the towel carrier and the spring roller, and means for temporarily holding the towel carrier in its lowest position against the action of its spring roller; substantially as described.



3. A towel cabinet comprising a casing, a plurality of parallel horizontal arms or brackets secured within the upper portion of the casing, a plurality of spring rollers journaled in said arms or brackets in different vertical planes, a plurality of vertical guide rods arranged in pairs, one in front of another, a towel carrier arranged to slide freely on each pair of said rods, a flexible connection between each towel carrier and one of the spring rollers, and means for temporarily holding any one of the towel carriers in its lowest position against the action of its spring roller; substantially as described.

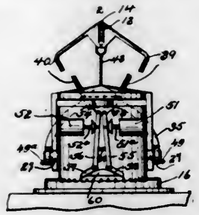
4. A towel cabinet comprising a casing, a plurality of parallel horizontal arms or brackets secured within the upper portion of the casing, a plurality of spring rollers journaled in said arms or brackets in different vertical planes, a plurality of vertical guide rods arranged in pairs, one in front of another, a towel carrier arranged to slide freely on each pair of said rods, a flexible connection between each towel carrier and one of the spring rollers, and means for temporarily holding any one of the towel carriers in its lowest position against the action of its spring roller, together with combined guide and stop members arranged transversely of the cabinet below the lowest position occupied by the towel carriers and arranged to engage in the loops of the towels on said carriers, said members and the carriers forming means for normally holding the towels stretched between them within the cabinet, under the action of the spring rollers; substantially as described.

5. In a towel cabinet, the combination with vertical guide rods, of a towel carrier arranged to slide vertically on said rods, said carrier consisting of a transverse bail-shaped bar having apertures at its ends for engagement with the guide rods, and a towel rod supported in the offset end portions of the bar, and capable of having one of its ends disengaged for the insertion and removal of a towel; substantially as described.

940,718. SELF-RESTORING TROLLEY. HOWARD H. PARKER, Cleveland, Ohio. Filed Nov. 23, 1908. Serial No. 464,171.

1. In combination with a trolley pole and trolley wheel, means operative by the jumping of the trolley wheel from a trolley wire for shifting the pole downward and other means operative by the jumping of the trolley wheel from a trolley wire for shifting the pole laterally until the trolley wheel again engages the wire.

2. In combination with a trolley pole and trolley wheel, motive devices operative by the jumping of the trolley wheel from a trolley wire for shifting the pole downwardly and laterally until the wheel is restored to the wire.



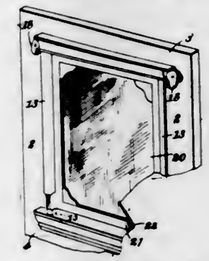
3. In combination with a trolley pole and trolley wheel, electro-magnetic motive devices operatively connected to said trolley pole and serving to shift said pole downward and laterally when the trolley wheel jumps a trolley wire.

4. In combination with a trolley pole and wheel, a plurality of electro-magnetic motive devices operatively connected to said pole, and means on said pole and serving to complete the circuit through two of said motive devices when engaged by the trolley wire, said motive devices serving to shift the pole downwardly and laterally.

5. In combination a trolley wheel, trolley pole having two insulated contact arms adapted to engage the trolley wire when the wheel jumps the wire, a motive device for lowering the pole, a pair of motive devices one for shifting the pole laterally in one direction, and the other for shifting the pole laterally in the opposite direction, one of said last named motive devices being connected to each of said contact arms of the trolley pole.

[Claims 6 to 8 not printed in the Gazette.]

940,719. COMBINATION-DOOR. ANSON L. PENWELL, Leland, Oreg. Filed Mar. 2, 1909. Serial No. 480,827.



1. The combination with a door having a panel-opening, of a removable panel adapted to be fitted into said opening, molding strips overlapping the panel and opposite edges of the opening and engaging another edge thereof at another end, another molding strip disposed at the remaining edge of the opening and overlapping the corresponding ends of the first named moldings to retain the same in such engagement, and means for detachably securing the last named molding to the door.

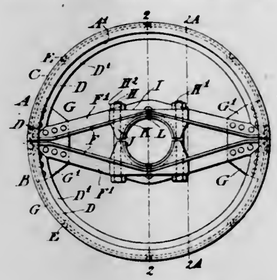
2. The combination with a door having a panel-opening, of a removable panel adapted to be fitted into said opening, molding strips overlapping the panel and opposite edges of the opening and engaging another edge thereof at another end, another molding strip disposed at the remaining edge of the opening and overlapping the corresponding ends of the first named moldings to retain the same in such engagement, and turn buttons connected to the door and designed to be moved into engagement with the last named molding.

3. The combination with a door having a panel-opening, of a removable panel adapted to be fitted into said opening, molding strips overlapping the panel and opposite edges of the opening and formed at their ends with tenons,

the opening being provided at another edge with mortises designed to receive corresponding tenons, another molding disposed at the remaining edge of the opening and overlapping the other tenons, and means for detachably securing the last named molding to the door.

4. The combination with a door having a panel-opening provided at its lower edge with a groove and at its other edges with an outstanding ledge or shoulder, of a removable panel adapted to be fitted into the said opening and received in the groove at the lower end thereof, molding strips overlapping the panel and side edges of the opening and engaging the lower edge thereof at one end, another molding disposed at the upper edge of the opening and overlapping the corresponding ends of the first named moldings to retain the same in such engagement and hold the panel against the ledge, and means for detachably securing the last named molding to the door.

940,720. SPLIT METAL PULLEY. ERWIN PHILIPS, Columbus, Ohio, assignor to Charles S. Davis, Philadelphia, Pa. Filed Jan. 5, 1909. Serial No. 470,784.



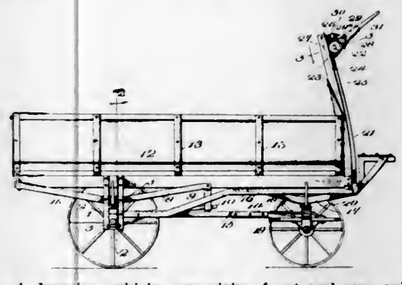
1. A metallic pulley formed in halves, each comprising a sheet metal rim segment, circumferential stiffening ribs connected to the segment and formed of flanged bars bent into arcs, with one flange of each rib bearing against the inner side of the segment and another flange extending transversely to the axis of the pulley, pulley arms formed of flanged bars, each having one flange extending transversely to the axis of the pulley, and gusset plates connecting the ends of the arms to the ends of the segment, each gusset plate bearing against and being secured to the transverse flanges of one pulley arm end and the corresponding stiffening rib end, some of the gusset plates being extended to overlap the pulley arms connected to the other rim segment from that to which those gusset plates are connected to limit the movement of one pulley rim segment relative to the other in a direction parallel to the axis of the pulley.

2. A metallic pulley formed in halves, each comprising a sheet metal rim segment, circumferential stiffening ribs connected to the segment and formed of flanged bars bent into arcs, with one flange of each rib bearing against the inner side of the segment and another flange extending transversely to the axis of the pulley, pulley arms formed of flanged bars, each having one flange extending transversely to the axis of the pulley and in the same plane with the transverse flange of one of said ribs, and gusset plates connecting the ends of each pulley arm to the ends of the corresponding rib, said gusset plates bearing against and being secured to the transverse flanges of the rib and pulley arm.

3. A metallic pulley formed of halves, each comprising a sheet metal rim segment, circumferential stiffening ribs connected to the segment and formed of flanged bars bent into arcs with one flange of each rib bearing against the inner side of the segment and another flange extending transversely to the axis of the pulley, and pulley arms formed of flanged bars, each having one flange extending transversely to the axis of the pulley and another flange extending parallel to the axis of the pulley, each pulley arm being bent into a flattened V, the apex of which points toward the crown of the rim segment to which it is connected, a spacer for each pulley arm having one side shaped to fit over the apex of, and bear against, the outer surface of that flange of the corresponding pulley arm which is parallel to the axis of the pulley, said spacer having its opposite side parallel to the plane of separation of the two pulley halves, and bolts extending transversely to said plane and passing through the spacers and the pulley arm flanges engaged by the spacers of an opposing pair of pulley arms for securing the two pulley havles together.

4. A metallic pulley formed of halves, each comprising a sheet metal rim segment, circumferential stiffening ribs connected to the segment and formed of flanged bars bent into arcs, with one flange of each rib bearing against the inner side of the segment and another flange extending transversely to the axis of the pulley, and pulley arms formed of flanged bars, each having one flange extending transversely to the axis of the pulley, each pulley arm being bent into a flattened V, the apex of which points toward the crown of the rim segment to which it is connected, and spacers for each pulley arm formed of a trough shaped metal part, the sides of which are shaped to fit over the apex of and bear against the side of that flange of the corresponding pulley arm which is parallel to the axis of the pulley and having its bottom extending parallel to the plane of separation of the two pulley halves, and bolts extending transversely to said plane and passing through the spacers and the pulley arm flanges engaged by them of an opposing pair of pulley arms for connecting the two pulley halves together.

940,721. DUMPING-VEHICLE. WILLIAM H. PHILLIPS, Fairmount, N. D. Filed Jan. 27, 1909. Serial No. 474,563.



1. A dumping vehicle, comprising front and rear axles, a main reach secured to the front axle and formed with a forked rear end, standards secured to the rear axle, a dumping rack supported upon said standards, a relatively short reach secured to said rack and axle and designed to be received in the forked end of the main reach, longitudinally extending beams secured to the rear end of the main reach and pivotally connected at their rear ends to said standards, and means carried by the forward ends of the rack and beams for raising the front end of the rack upon the rear axle as an axis.

2. A dumping vehicle, comprising front and rear axles, a main reach connected to the front axle and formed with a forked rear end, standards secured to the rear axle, a dumping rack supported by said standards, a relatively short reach connected to said dumping rack and to the rear axle and designed to be received in the forked rear end of the main reach, longitudinally extending beams pivotally connected at their ends to said standards, the main reach being secured to said beams near the rear ends of the latter and the beams being arranged to support the front end of the rack in the lowered position thereof.

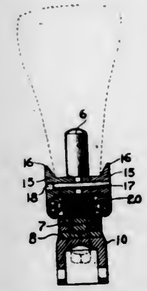
3. A dumping vehicle comprising front and rear axles, standards secured to the rear axle, a dumping rack supported by said standards, said dumping rack embodying longitudinally extending sills, a stirrup connected to said sills, a relatively short reach connected to the rear axle and supported at its forward end by said stirrup, beams pivotally connected at their rear ends to said standards and designed to support the forward end of the rack in the lowered position thereof, and a main reach connected to said beams and to the front axle.

4. A dumping vehicle comprising front and rear axles, standards embracing and clamped to the rear axle, a dumping rack supported by said standards, means for tilting said rack, a reach connecting the front and rear axles and a relatively short reach connected to the rear axle and to the dumping rack.

5. A dumping vehicle comprising front and rear axles, standards secured to the rear axle, a dumping rack supported by said standards, beams supported on the front axle and pivotally connected at their rear ends to the standards, a reach connected to the front axle and to the beams at the rear ends of the latter and means for tilting said rack.

[Claim 6 not printed in the Gazette.]

940,722. JACK FOR BOOT AND SHOE LASTS. THOMAS G. PLANT, Boston, Mass. Filed July 27, 1907, Serial No. 385,848. Renewed Apr. 14, 1909. Serial No. 489,887.



1. A jack provided with last supporting means, said means comprising members constructed and arranged to engage the top or crown of the last and mounted to slide transversely of said jack toward and from each other in automatically adjusting themselves to the last.

2. A jack comprising a head, last supporting members mounted to slide transversely on said head, and yielding means for restraining the sliding separation of said members.

3. A jack provided with last supporting means, said means comprising automatically adjusting members mounted to slide toward and from each other, and said members having provisions for engaging the sides of a last mounted on the jack.

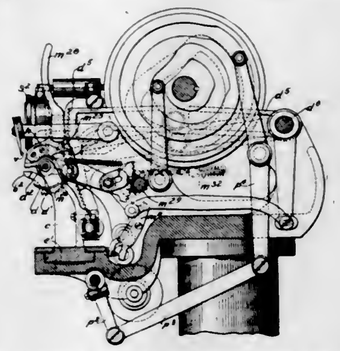
4. A jack comprising a head, and last supporting members constructed and arranged to permit them to slide toward and from each other in conforming themselves to the last, said members being mounted on said head and provided with flanges to engage the outer surface of the last supported on said jack.

5. A jack provided with last supporting means comprising members mounted to slide toward and from each other, means normally acting to force said members toward each other, said members being provided with upwardly projecting flanges having their sides, adjacent the last supported on the jack, inclined.

[Claims 6 to 19 not printed in the Gazette.]

940,723. CHANNELING DEVICE FOR SEWING-MACHINES. THOMAS G. PLANT, Boston, Mass. Filed July 27, 1907, Serial No. 385,849. Renewed Apr. 14, 1909. Serial No. 489,888.

1. In a sewing machine for sewing shoes, the combination of stitch forming mechanism, work feeding means to move the work in the line of feed, a work slitting device to slit the work for the reception of the stitches, and means to move the feeding means and slitting device together and with the work as it is fed and to return the feeding means and slitting device to initial position to cause the slitting device to slit the work on such return movement.



2. In a sewing machine for sewing shoes, the combination of a shaft, stitch forming mechanism operated therefrom, a feeding awl, a work slitting device to slit the work for the reception of the stitches, and means for moving the feeding awl and slitting device together and with the work as it is fed and to return the feeding awl and slitting device to initial position to cause the slitting device to slit the work on such return movement.

3. In a shoe sewing machine, the combination of stitch forming and awl feeding means, a presser-foot, an arm carrying a slitting device, said arm being engaged by the presser-foot, and connections between the awl feeding means and said arm to impart movement to the slitting device in the line of feed.

4. A sewing machine comprising stitch forming means combined with a feeding awl; a work slitting device connected therewith, and means to operate the same whereby said awl and slitting device advance with the work as the latter is fed and the slitting device slits the work as the awl is returned for a new feed.

5. A sewing machine comprising stitch forming means, an awl, means for moving the awl in the line of feed to advance the work and then return the awl to initial position, a work support, a presser foot opposed thereto, a work slitting device to slit the work for the reception of the stitches, and connections between the slitting device and awl feeding means to cause the slitting device to move with the awl and work as the latter is fed, and remain in the work and be returned by the awl feeding means to initial position to slit the work on such return movement.

[Claims 6 to 9 not printed in the Gazette.]

940,724. SEWING-MACHINE. THOMAS G. PLANT, Boston, Mass. Filed Apr. 17, 1907, Serial No. 368,618. Renewed Apr. 14, 1909. Serial No. 489,889.

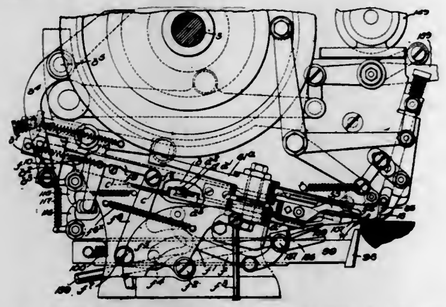
1. A sewing machine comprising in its construction a gage movable relative to the work, means to cause said gage to move forward to feel for the work, and a lock rendered effective by the gage finding the work to lock the gage in position.

2. A sewing machine comprising in its construction a gage movable relative to the work, yielding means to cause the gage to move forward to feel for the work, and means rendered effective by feeling contact of the gage with the work to lock the gage from further forward movement.

3. A sewing machine provided with a gage, means to move it toward and from the work, and locking means operable by contact of said gage with the work to lock the gage against movement.

4. A sewing machine provided with a gage, means to move it toward and from the work, and locking means dependent for its locking operation upon contact of said gage

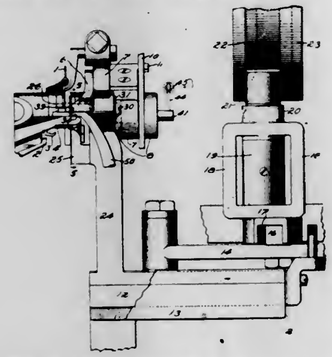
with the work to lock the gage against movement in a plurality of directions.



5. A sewing machine provided with a gage and a two-part support therefor, means to reciprocate said gage and its support, and means operated by relative movement between the two parts thereof to lock said gage in position.

[Claims 6 to 29 not printed in the Gazette.]

940,725. SHOE-SEWING MACHINE. THOMAS G. PLANT, Boston, Mass. Filed Mar. 14, 1908. Serial No. 421,108. Renewed Apr. 14, 1909. Serial No. 489,895.



1. A sewing machine comprising, in combination, stitch forming means, an awl, means to cause the awl to penetrate the work, an upper and a lower work slitting device disposed adjacent the plane of movement of said awl as it penetrates the work, means to move the awl and said slitting devices together in the line of feed and with the work as the latter is fed, and to return the awl and said slitting devices to initial position to cause the slitting devices to slit the work.

2. A sewing machine comprising, in combination, stitch forming means, work feeding means, upper and lower slitting devices to act upon the work in the production of stitch receiving slits, and means to cause said upper and lower slitting devices to move with the work in the line of feed and back to initial position to cut their respective slits during such backward movement.

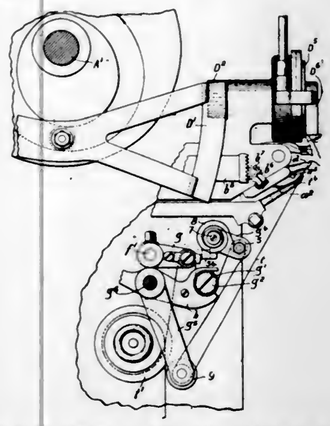
3. A sewing machine comprising, in combination, stitch forming means, work feeding means, upper and lower slitting devices to act upon the work in the production of stitch receiving slits, and connections between said slitting devices and feeding means to cause said upper and lower slitting devices to move with the work during feed movement, and relatively to the work on their contra-feed movement to cut their respective slits.

4. A sewing machine comprising, in combination, stitch forming means, awl feeding means, a work support, an upper and a lower work slitting device to act upon the work on the work support in the production of stitch receiving slits, and connections between the awl feeding means and said slitting devices to cause them to partake of the movements of the awl feeding means.

5. In a shoe sewing machine, the combination of stitch forming and awl feeding means, a work support, means to clamp and release the work upon the work support, upper and lower slitting devices to act upon the work in the production of stitch receiving slits, and means actuated by the awl feeding means to impart movement to the said upper and lower slitting devices in a direction opposite the feed while the work is clamped upon the work support to form their respective slits.

[Claims 6 to 10 not printed in the Gazette.]

940,726. LOCK-STITCH SEWING-MACHINE. THOMAS G. PLANT, Boston, Mass. Filed Apr. 15, 1908, Serial No. 427,234. Renewed Apr. 14, 1909. Serial No. 489,896.



1. In a shoe-sewing machine for making lock-stitches, the combination of stitch forming mechanism, including a shuttle and needle, means for oscillating the shuttle to pass the shuttle thread through the loop of needle thread and by said movement draw the shuttle thread taut, means for pulling upon the needle thread to set the stitch against the taut shuttle thread and simultaneously to draw from the shuttle the entire amount of shuttle thread to form the stich, said oscillating means returning the shuttle to its initial position with the shuttle thread slack.

2. In a shoe-sewing machine for making lock-stitches, the combination of stitch forming mechanism, including a shuttle and needle, a bobbin case eccentrically mounted in said shuttle, means to oscillate the shuttle through substantially equal arcs on each side of a line passing through the stitch forming point and center of the shuttle, and means for pulling upon the needle thread to draw from the shuttle the entire amount of shuttle thread needed to form and to set the stitch.

3. In a shoe-sewing machine for making lock-stitches, the combination of stitch forming mechanism including a shuttle and needle, said shuttle having a bobbin receiving recess eccentrically disposed therein, means to oscillate the shuttle to pass the shuttle thread through the needle loop and raise the shuttle thread a maximum distance from the work, means to pull upon the needle thread to set the stitch and draw from the shuttle the entire amount of shuttle thread to form the stitch, the return oscillation of the shuttle carrying the shuttle thread a less distance from the work than the loop casting oscillation.

4. In a shoe-sewing machine for making lock-stitches, the combination of stitch forming mechanism, including a shuttle, said shuttle having a bobbin receiving recess eccentrically disposed therein, a bobbin case having a shuttle thread delivery eye, means to restrain rotative movement of the bobbin case upon its axis, means to oscillate the shuttle to carry the shuttle thread through the loop of needle thread and continue said movement to raise the shuttle thread a maximum distance from the work, and means to pull upon the needle thread to set the stitch and draw from the shuttle the entire amount of shuttle thread to form the stitch the return oscillation of the shuttle carrying the shuttle thread no greater distance from the work than the loop engaging and casting oscillation.

940,727. FARE-BOX. JAMES QUINN, Montreal, Quebec, Canada. Filed Apr. 19, 1909. Serial No. 490,790.



1. The combination with a receptacle having an opening, of a plurality of teeth within the receptacle and fulcrumed at the sides of the opening with their points intersecting the said opening, and a spring resisting the movement of the teeth and located between the teeth and the side of the receptacle having the opening therein.

2. The combination with a receptacle having an opening, of a plurality of teeth disposed at opposite sides of the opening with their points intersecting the opening at the inner side thereof, means supporting the teeth in close proximity to the side of the receptacle having the opening therein, and a plurality of springs between the said means and the said side of the receptacle and bearing upon the butts of the teeth.

3. The combination with a receptacle having an opening, of a plurality of teeth within the receptacle at opposite sides of the opening and each having one end pointed and its opposite end or butt beveled, means pivotally supporting such teeth with their points intersecting the opening and a plurality of springs located between the said means and the side of the receptacle having the opening therein and bearing upon the beveled butts of the teeth.

4. The combination with a fare box having a slot for the introduction of the fare, of a plurality of teeth disposed at opposite sides of the slot with their points intersecting the opening at the inner side of the slot, means supporting the teeth in close proximity to the slotted side of the box, and a plurality of springs between the said means and the said slotted side of the box and bearing upon the butts of the teeth.

5. The combination with the slotted top of a fare box, of a plurality of teeth within the box at opposite sides of the slot and each having one end pointed and its opposite end or butt beveled, means pivotally supporting such teeth with their points intersecting the slot and a plurality of springs located between the said means and the top of the box and bearing upon the beveled butts of the teeth.

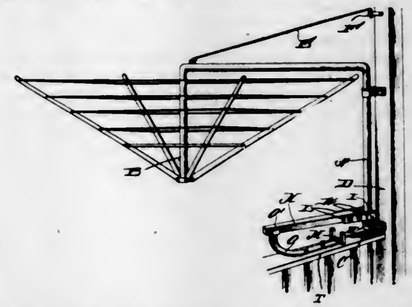
[Claims 6 and 7 not printed in the Gazette.]

940,728. SAW-HANGER. LADOVICE D. REECE, Des Moines, Iowa. Filed Jan. 25, 1908. Serial No. 412,676.



A saw hanger composed of a box having converging side walls, an end wall, a flange on each side wall, which flanges extend inwardly, and longitudinal converging flanges which extend upwardly from said flanges of the side walls, and a pair of rollers arranged in said box above the inner ends of said converging flanges, said rollers being loosely arranged in said box and being normally in frictional contact with each other and in contact with the respective converging walls of the box.

940,729. CLOTHES-REEL. ROBERT W. ROBINSON, Worcester, Mass. Filed Apr. 19, 1909. Serial No. 490,846.



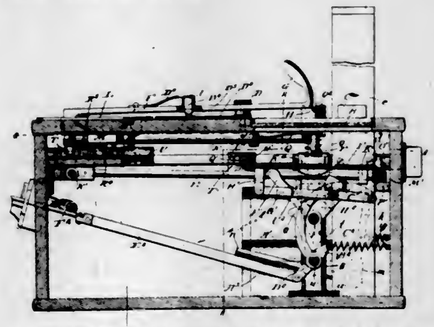
1. A clothes reel comprising a rotatable standard mounted in suitable bearings, antifriction wheels journaled upon said standard, means for supporting said wheels, a lever pivotally connected to said standard and affording means for rotating the latter, a stationary bar having a forked end adapted to be engaged by said lever to hold the latter and said standard in an adjusted position, and a swivel clevis-shaped member mounted upon said bar, as set forth.

2. A clothes reel comprising a rotatable standard mounted in suitable bearings, a bolt passing through said standard, antifriction wheels mounted upon said bolt, a disk mounted upon one of said bearings and upon which said wheels are adapted to rest, and a lever connected to said standard and adapted to rotate the same, as set forth.

3. A clothes reel comprising a rotatable standard mounted in suitable bearings, a bolt passing through said standard, antifriction wheels mounted upon said bolt, a disk mounted upon one of said bearings and upon which said wheels are adapted to rest, bars having apertures for the reception of said bolt upon which the wheels are mounted, and a lever secured to said bars, as set forth.

4. A clothes reel comprising a rotatable standard mounted in suitable bearings, a bolt passing through said standard, antifriction wheels mounted upon said bolt, a disk mounted upon one of said bearings and upon which said wheels are adapted to rest, bars having apertures for the reception of said bolt upon which the wheels are mounted, a lever secured to said bars, and a stationary forked bar adapted to be engaged by said lever, as set forth.

940,730. ENGRAVING OR DUPLICATING MACHINE. ALFRED W. ROOVERS, New York, N. Y. Filed July 8, 1904. Serial No. 215,743.



1. In an apparatus of the character specified, means for producing an inscription upon a surface, and a duplication thereof on a second surface, combined with means for mechanically presenting a clean surface to the inscribing means and likewise to the duplicating device.

2. In an apparatus of the character specified, the combination of means for producing an inscription; means for presenting a surface free of marks to be inscribed as often as the apparatus is operated; a duplicating device actuated by the inscribing means; and means for presenting a fresh surface to the duplicating device at each operation of the apparatus.

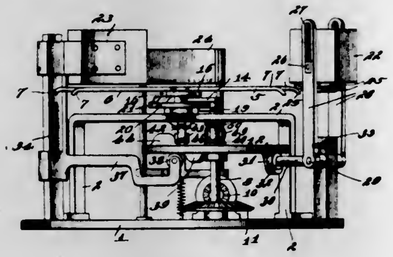
3. In an apparatus of the character specified, the combination of means for producing an inscription; means for presenting a surface free of marks to said means as often as an inscription is completed and the apparatus is operated; a duplicating device actuated by the inscribing means, said device acting upon a separate surface from the inscribing means; and mechanism for presenting a fresh surface to said duplicating device.

4. In an apparatus of the character specified, the combination of an inscribing device; a surface upon which said device may operate; means for erasing or cleaning said surface; a duplicating device actuated by the inscribing device; and means for automatically presenting a new surface to said duplicating device.

5. In an apparatus of the character specified, the combination of an inscribing device; a surface upon which said device may operate; means for shifting said surface beneath a cleaning or erasing device; a duplicating device actuated by the inscribing device; and means for presenting a new surface to the duplicating device.

[Claims 6 to 31 not printed in the Gazette.]

940,731. LABELING-MACHINE. EDWARD F. RORKE, Chicago, Ill. Filed Nov. 27, 1908. Serial No. 464,632.



3

1. In a labeling machine having a paste container, a label holder, a wiping apparatus adapted to affix a pasted label to the work, all circularly disposed, and a movable cradle adapted to hold the work, the combination of a rotatable arm adapted to move into the operative positions of said container, holder and apparatus, a rotatable disk, means intermediate the disk and the arm to rotate the arm, means for applying paste from the container to the arm, means intermediate the disk and the label holder for carrying a label in the holder into contact with the paste so applied, and means intermediate the disk and the cradle for moving the cradle to carry said label and the work into operative engagement with the wiping apparatus.

2. In a labeling machine, the combination of a paste container, a label holder, a wiping apparatus adapted to affix a pasted label to the work, a rotatable arm, a movable cradle adapted to hold the work, means for applying paste to the arm from the container, a rotatable cam-bearing disk, means intermediate the disk and the label holder to move by the rotation of the disk a label held in the holder into contact with the paste applied to the arm, and means intermediate the disk and the cradle to move by the rotation of the disk the cradle with the work and label into operative engagement with the wiping apparatus.

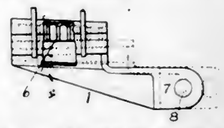
3. In a labeling machine, the combination of a rotatable arm and a paste container adapted to apply paste to that surface of the arm which lies in the plane of its rotation and having for such purpose a movement in the longitudinal direction of the arm.

4. In a labeling machine, the combination of three rotatable radial arms spaced at equal distances apart, a paste container having a movement toward and from the axis of the arms' rotation, a label holder, a wiping apparatus adapted to affix a pasted label to the work, said container, holder, and apparatus being circularly arranged at equal angular intervals, a movable cradle adapted to hold the work, means for rotating the arms and intermitting such rotation at the operative positions of the machine, means for moving the container to apply paste to the arms, means for carrying a label in the holder into contact with the paste so applied, and means for moving the cradle to carry said label and the work into operative engagement with the wiping apparatus.

5. In a labeling machine, the combination of a movable paste-container, a movable label-holder, a wiping apparatus adapted to affix a pasted label to the work, said container, holder and apparatus being circularly disposed, a movable cradle adapted to hold the work, a rotatable arm having two fingers, a rotatable cam-bearing disk, means intermediate the disk and the paste container adapted to move the same into operative engagement with the fingers, means intermediate the disk and the label-holder adapted to move a label held therein into operative engagement with the pasted fingers, and means intermediate the disk and the cradle to move the same and the work and said label into operative engagement with the wiping apparatus.

[Claims 6 and 7 not printed in the Gazette.]

940,732. CABLE-GRIP. JAMES F. SALLOWS, Lansing, Mich., assignor to Sallows Manufacturing Company, Lansing, Mich., a Corporation of Michigan. Filed Apr. 9, 1909. Serial No. 488,879.



1. In a cable grip, a drawing member and a gripping member, slidably connected to each other, each of said members being provided with a tapering cable groove, substantially as described.

2. In a cable grip, a drawing member and a gripping member, slidably connected to each other, each of said members being provided with a tapering cable groove, the taper in said groove extending in relatively opposite directions, substantially as described.

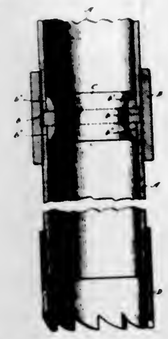
3. In a cable grip, a drawing member and a gripping member, slidably connected to each other, each of said members being provided with a tapering cable groove, the taper in said groove extending in relatively opposite directions, said groove in one of said members being provided with gripping ribs, substantially as described.

4. In a cable grip, a drawing member and a gripping member, slidably connected to each other, each of said members being provided with a tapering cable groove, the taper in said groove extending in relatively opposite directions, and said drawing member being provided with an extension adapted to connect with means for drawing, substantially as described.

5. In a cable grip, a drawing member and a gripping member, slidably connected to each other, each of said members being provided with a tapering cable groove, the taper in said groove extending in relatively opposite directions, said groove in one of said members being provided with gripping ribs, and said drawing member being provided with an extension adapted to connect with means for drawing, substantially as described.

940,733. TUBULAR DRILL-STEM FOR HYDRAULIC ROTARY DRILLING APPARATUS. LOUIS C. SANDS, Pittsburg, Pa. Filed Mar. 16, 1909. Serial No. 483,804.

1. A joint protector for tubular sectional drill stems, said protector being formed as a hollow body member provided with end portions having cylindrical external surfaces, and being adapted to be slidably supported within a tubular drill stem.

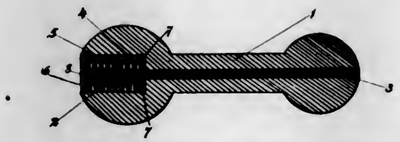


2. In a joint for tubular sectional drill stems, the combination with the tubular sections and coupling member therefor, of an included joint protector having a hollow body provided with end portions having cylindrical external surfaces, said protector slidably supported within the coupling member and tubular stem sections.

940,734. ELECTROLYTE FOR USE IN ELECTRIC BATTERIES. WALLACE J. L. SANDY, London, England. Filed Aug. 22, 1908. Serial No. 449,774.

An electrolyte produced by adding to 36 fluid ounces of a mixture containing 2 volumes sulfuric acid, 2 volumes of hydrochloric acid and 1 volume of water the following: 32 ounces of bichromate of sodium dissolved in 128 ounces of water and 6 fluid ounces of a saturated solution of caustic soda.

940,735. APPARATUS FOR DEVELOPING THE LUNGS. VICTOR J. SCHAEFFER and JAMES M. DEMPSEY, Chicago, Ill. Filed Dec. 11, 1908. Serial No. 467,122.



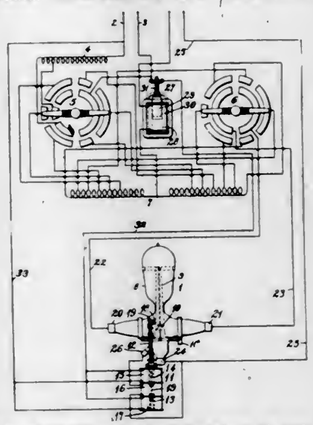
1. A device for exercising the lungs, comprising a body having a mouthpiece at one end, a contracted air passage extending into the body from said mouthpiece, an enlarged chamber at the inner end of said passage, a valve movably mounted in said chamber and adapted to control communication between said passage and chamber, a spring normally urging said valve toward its seat so as to resist the inward flow of air through said passage, and an air outlet from said chamber beyond said valve, said valve and chamber being arranged to permit the flow of air around said valve when it is clear of its seat.

2. A device for exercising the lungs, comprising a body shaped to form a mouthpiece at one end, a contracted bore extending inward of the body through said mouthpiece, an enlarged bore extending into the body from the opposite end and communicating with said first bore, a valve disk slidably mounted in said enlarged bore and adapted to close the inner end of said contracted bore, a closure for the outer end of said enlarged bore and having a contracted outlet opening therethrough, and a spring bearing between said closure and valve disk and adapted to normally urge said valve disk to its closed position, said valve disk being shaped so as to permit air to flow from said mouthpiece to said outlet when said valve is moved against the pressure of said spring.

3. A device for exercising the lungs, comprising a body shaped to form a mouthpiece at one end, a contracted bore extending inward of the body through said mouthpiece, an enlarged bore extending into the body from the opposite end and communicating with said first bore, a valve disk slidably mounted in said enlarged bore and adapted to close the inner end of said contracted bore, a closure for the outer end of said enlarged bore and having a contracted outlet opening therethrough, and a spring bearing between said closure and valve disk and adapted to normally urge said valve disk to its closed position, said valve disk having notches in its periphery adapted to permit the air to flow past said disk when moved against the pressure of said spring.

4. A device of the class described, comprising a body having an air passage extending through it from end to end and comprising contracted inlet and outlet apertures at opposite ends and an enlarged chamber between said apertures, a mouthpiece on said body at the inlet end, a valve seat at the inlet side of said chamber, a valve slidably mounted in said chamber at the outlet side of said seat, and a spring normally urging said valve toward said seat, said valve being adapted to permit air to flow from said inlet to said outlet when said valve is away from its seat.

940,736. VAPOR ELECTRICAL APPARATUS. HAROLD M. SCHEIBE, Wilkinsburg, Pa., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed Jan. 21, 1909. Serial No. 473,543.



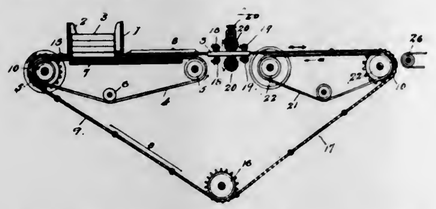
1. A starting or tilting magnet for vapor electric apparatus comprising an actuating coil or coils and an opposing coil which is effective when the apparatus is tilted.

2. A starting or tilting magnet for vapor electric apparatus comprising stationary and movable core members, an actuating coil encircling the core members and an opposing coil in inductive relation thereto which is short circuited when the apparatus is tilted.

3. In vapor electric apparatus, the combination with a fluid-containing bulb and a pivotally mounted supporting frame therefor, of a starting or tilting magnet for the bulb comprising a stationary core member, a movable core member operatively connected to the frame, actuating coils for the movable core member and an opposing coil in inductive relation thereto which is short circuited by the liquid in the bulb when the frame is tilted.

4. In vapor electric apparatus, the combination with a pivotally mounted supporting frame, and a rectifier bulb having alternating current terminals, a direct current terminal and an auxiliary terminal, of a starting or tilting magnet for the frame comprising stationary and movable core members, actuating coils therefor, and an opposing coil in inductive relation thereto, the respective terminals of the opposing coil being connected to the direct current terminal and to the auxiliary terminal of the rectifier.

940,737. FEEDING AND DUSTING DEVICE FOR COATING-MACHINES. MURRAY SCHENCK, Middletown, Ohio, assignor, by mesne assignments, to The Ceramic Machinery Company, Hamilton, Ohio. Filed May 10, 1907. Serial No. 372,885.



1. The combination of a cleaning device, means for feeding tiles to said device, a coating device, and means for conveying tiles from the cleaning device to the coating device.

2. In a machine of the class described, continuously moving means for removing tile singly from a group, for feeding the tile in a linear direction, and for brushing the tile during their feeding movement.

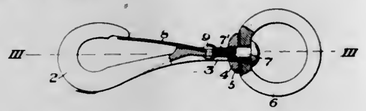
3. In a machine of the class described, means for removing tile singly from a group, feeding the tile continuously and positively in a linear direction, and brushing the tile during their feeding movement.

4. The combination of a receptacle for a stack of tile, a positive conveyer for moving tile, and a moving support for tile beneath the conveyer.

5. The combination of an open-bottomed receptacle for holding one or more stacks of horizontally arranged tile, a continuous conveyer for removing tile singly from the bottom of the stack or stacks, and a support for tile beneath the conveyer.

[Claims 6 to 53 not printed in the Gazette.]

940,738. SWIVEL SNAP-HOOK. WILLIAM A. SCHLEICHER, Cleveland, Ohio. Filed Oct. 7, 1907. Serial No. 396,131.



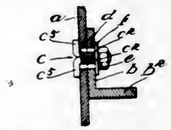
1. A hook having the rear end of its shank provided with a longitudinal socket having a lateral enlargement opening through a side of the shank, a loop, and a headed stud loosely piercing the loop and lying within the socket with a portion snugly fitting the enlargement thereof, substantially as described.

2. A hook having the rear end of its shank provided with a longitudinal socket having a lateral enlargement opening through opposite sides of the shank, a loop, and a headed stud loosely piercing the loop and lying within the socket with a portion snugly fitting the enlargement thereof, substantially as described.

3. A hook having the rear end of its shank provided with a longitudinal socket having an enlargement opening laterally through the shank at the hook side thereof, a loop, a headed stud loosely piercing the loop and entering the socket with a portion snugly fitting the enlargement thereof, a spring tongue lying across the lateral opening of the socket, and a fastening piercing the shank, the stud and the spring tongue, substantially as described.

4. A snap hook having the rear end of its shank terminating in a head provided with a flat rear face, the shank portion adjacent and in front of the head being flattened, there being a longitudinal socket extending through the rear end of the shank and having an enlargement in the flattened portion of the shank and opening laterally therethrough, a loop having a flat side, a headed stud loosely piercing the flat side of the loop and entering the socket with a portion snugly fitting the enlargement of the socket, a spring tongue covering the lateral opening of the socket, and a fastening piercing the tongue, the shank and the stud, substantially as described.

940,739. DIVIDED BOLT. ALEXANDER SCHLÜSSLER, New York, N. Y., assignor of one-half to Adolf Burger, New York, N. Y. Filed May 11, 1909. Serial No. 495,253.



1. The herein described fastening device comprising a threaded bolt divided longitudinally into two separate parts, said parts being provided in their adjacent faces, one with a longitudinal groove and the other with a longitudinal rib adapted to fit in said groove and a nut adapted to be screwed on to said bolt.

2. The herein described fastening device comprising a threaded bolt divided longitudinally into two separate parts, said parts being provided in their adjacent faces, one with a longitudinal groove and the other with a longitudinal rib adapted to fit in said groove and a nut adapted to be screwed on to said bolt, each part of the bolt being provided at one end with a laterally directed head member.

940,740. RAILROAD-TIE. FRANCIS SCHUMANN, Philadelphia, Pa., assignor of one-half to Frank Shuman, Philadelphia, Pa. Filed Feb. 26, 1909. Serial No. 480,098.



1. A railroad cross tie consisting of a reinforced concrete body provided near its end with metallic chairs for the rails, said chairs each consisting of a plurality of metal bars forming a grid above the concrete surface and having their ends extending downward and embedded in the concrete body.

2. A railroad cross tie consisting of a reinforced concrete body provided near its ends with metallic chairs for the rails said chairs each consisting of a plurality of metal bars forming a grid above the concrete surface and having their ends extending downward and embedded in the concrete body and the two chair portions connected by a longitudinal bar embedded in the concrete body except adjacent to the chair portions.

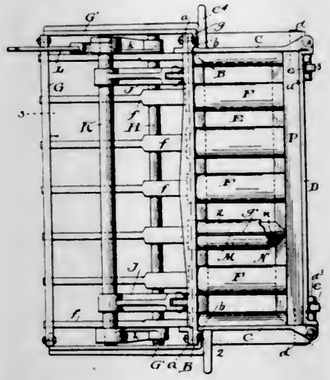
3. A railroad cross tie consisting of a reinforced concrete body provided near its ends with depressed portions above which are arranged metallic chairs for the rails said chairs each consisting of a plurality of metal bars forming a grid above and out of contact with the concrete surface and having their ends extending downward and embedded in the concrete body.

4. A railroad cross tie consisting of a reinforced concrete body provided near its ends with metallic chairs for the rails said chairs each consisting of a plurality of metal bars forming a grid above the concrete surface and having their ends extending downward and embedded in the concrete body and transverse rods embedded in the concrete body and supporting the metal bars forming the chairs.

5. A railroad cross tie consisting of a reinforced concrete body provided near its ends with metallic chairs for the rails said chairs each consisting of a plurality of metal bars forming a grid above the concrete surface and having their ends extending downward and embedded in the concrete body in combination with the rails resting upon the chairs, and clamping devices secured to the chairs for clamping the rails to the chairs.

[Claims 6 to 12 not printed in the Gazette.]

940,741. MACHINE FOR MAKING HOLLOW BUILDING-BLOCKS. HORATIO S. SCOTT and MONTIS L. DILGARD, Ashland, Ohio, assignors to C. W. Landis, Allen Thomas, and U. S. Shelly, Ashland, Ohio. Filed Mar. 12, 1906. Serial No. 305,478.



1. In a machine for molding building blocks, the combination of frame members having inwardly projecting lugs on their inside, a vertical back mold plate fixed to said frame members, a front mold frame hinged near its lower edge and ends upon said frame members and having inwardly projecting arms at its lower edge adapted to engage said lugs on said frame members, a bottom plate provided with projections engaged in the lower edge of said front plate, and end plates pivoted along their front edges to the ends of the front plate and engaging said bottom plate, and means for holding the several parts of the mold in their closed positions.

2. In a machine for molding building blocks, the combination of frame members, a vertical back mold-plate fixed thereto and having near its ends vertical forwardly projecting ribs, a front mold-plate pivoted near its lower edge to the frame members, a bottom plate movably supported along its front edge by said front plate, and end plates pivoted along their front edges to the ends of the front plate and adapted at their rear edges to engage inside of the said forwardly projecting ribs on the back plate and having on their lower edges inwardly projecting fingers adapted to engage beneath the bottom plate to support it near its rear edge.

3. In a machine for molding building blocks, the combination of frame members, a vertical back mold plate fixed thereto, a front mold plate pivoted near its lower edge to said frame members and having loops near its lower edge, a bottom plate having forwardly projecting fingers which enter said loops, end plates pivoted along their front edges to the ends of said front plate and having fingers adapted to pass beneath the bottom plate near its rear edge and thereby to support it, and means preventing the end plates from swinging out when the mold is closed.

4. In a machine for molding building blocks, the combination of frame members, with a knock down mold which includes a vertical back plate fixed to the frame members, a front mold plate pivoted along its lower edge to said frame members and having a downwardly extended arm which lies just inside of said frame members,—one of the frame members being provided with a lug adapted to be engaged by said arm and thereby limit the forward swinging movement of the front plate, a bottom plate loosely connected along its front edge with the front plate by means which permit a limited movement of said bottom plate relative to said front plate, end plates hinged along their front edge to the ends of the front plate, and means for holding the mold plates in their closed positions.

5. In a machine for molding building plates, the combination of frame members having series of holes laterally through their rear portion, a vertical back plate adapted to be adjustably bolted in position through said holes, front and bottom plates and end plates hinged along their front edges to the ends of the front plate and constructed at their top edges to affix extensions thereto and thus deepen the mold, and cores supported from said back frame and adjustable therewith in respect to the said frame members.

[Claims 6 to 10 not printed in the Gazette.]

940,742. WATER RETAINING AND CONVEYING ATTACHMENT FOR CABLE LIGHTNING-RODS. HARVEY SIMPSON, Burlington, Wis. Filed July 6, 1908. Serial No. 441,963.



1. The combination with a cable lightning rod, provided with a tubular grounding device, having an interior bushing, of a connecting device comprising a binding device engaging said bushing and arranged to press the cable forcibly against said bushing at a plurality of points.

2. The combination with a cable lightning rod, provided with a tubular grounding device, having an interior bushing, of a connecting device comprising a binding device engaging said bushing and arranged to press the cable forcibly against said bushing at a plurality of points, said binding device comprising a set screw having a pointed end adapted to spread the strands of the cable against the walls of the bushing.

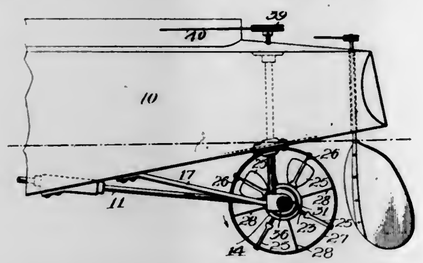
3. The combination with a cable lightning rod, provided wih a tubular grounding device, of a binding and connecting member engaged with the grounding device and arranged to spread the strands of the cable into contact with the grounding device at a plurality of points.

940,743. PROPELLER. OZRO P. SMITH, South Framingham, Mass., assignor to himself, and Walter Francis Blake, St. Louis, Mo. Filed Feb. 18, 1909. Serial No. 478,749.

1. In a propeller the combination of a rotary hub, a radial blade thereon, means for moving said blade radially as the hub rotates, and means for varying the point at which said radial motion takes place during the revolution of the hub.

2. A propelling apparatus comprising a rotatable wheel provided with movably mounted blades, means for moving said blades radially, means for swinging said blades on

radial axes, and means for varying the angular position at which the blades commence their swinging operation.



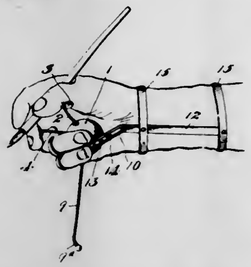
3. In a propelling apparatus, the combination of a rotatable wheel provided with movably mounted blades, means for moving said blades outwardly and inwardly, means for swinging said blades on axes transverse to the axis of rotation of the wheel, and means for varying the point at which the swinging operation takes place.

4. In a propeller, the combination of a rotary hub, a blade extending therefrom, means for turning or feathering the blade on a radial axis as the hub rotates, and means for varying the point at which said feathering motion takes place during the rotation of the hub.

5. In a propeller, the combination of a rotary hub, a blade extending radially therefrom, a cam for turning the blade on a radial axis as the hub rotates, and means for shifting the position of the cam independently of the rotation of the hub.

[Claims 6 to 12 not printed in the Gazette.]

940,744. DEVICE FOR TEACHING PENMANSHIP. SIDNEY R. SMITH, Gainesville, Tex. Filed June 2, 1908. Serial No. 436,261.



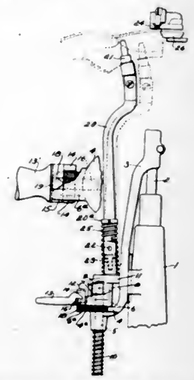
1. In a device of the character described, a ball adapted to be held in the hand, and longitudinally adjustable means carried by said ball for maintaining the fingers in proper position for writing, substantially as described.

2. In a device of the character described, a ball adapted to be held in the hand, adjustable means carried by said ball for maintaining the fingers in proper position for writing, and means carried by said ball for maintaining the hand in proper position for writing, substantially as described.

3. In a device of the character described, a ball adapted to be held in the hand, adjustable means carried by said ball for maintaining the fingers in proper position for writing, adjustable means carried by said ball for maintaining the hand in proper position for writing and means to secure the device to the wrist of the wearer.

4. In a device of the character described, a ball adapted to be held in the hand, adjustable means carried by said ball for maintaining the fingers in proper position for writing, adjustable means for maintaining the hand in proper position for writing and adjustable means for securing said device to the wrist of the wearer.

940,745. WORK-SUPPORT. WILLIAM C. STEWART, Lynn, Mass., assignor, by mesne assignments, to Thomas G. Plant, Boston, Mass. Filed Nov. 20, 1907, Serial No. 402,986. Renewed Apr. 14, 1909. Serial No. 489,845.



1. In a work support, a jack post mounted for universal movement of its last pin in a horizontal plane, and a yielding supporting member sustained by said jack post and constructed and arranged to flex laterally on movement of the jack post while maintaining said post normally in one position.

2. In a work support, a jack post joined for universal movement of its last pin in a horizontal plane, and a coiled spring surrounding the jack post at said joint.

3. A work support comprising a jack post jointed for universal movement of its last pin in a horizontal plane, a coiled spring surrounding the jointed portion of the jack post, and means to vary the tension of said spring.

4. In a work support, a sectional jack post, said sections being so connected as to permit universal movement of the last pin of said post in a horizontal plane, and means embracing said sections for normally maintaining the same in alinement while permitting relative lateral movement thereof within said means.

940,746. TELEPHONE SYSTEM. HENRY B. STONE, Providence, R. I. Filed Apr. 16, 1909. Serial No. 490,276.



1. In a signaling system, the combination with a circuit including an electro-responsive device and one of the windings of a transformer, of a transmitting circuit associated with said circuit and including the other winding of said transformer, said windings being conductively connected, a signaling device and source of energy associated with said transmitting circuit, and means for regulating the inductive effect between said windings.

2. In a telephone system, a receiving circuit including a receiver and one of the windings of a transformer, a transmitting circuit associated with said receiving circuit and including the other winding of said transformer, said windings being conductively connected, a transmitter and source of energy associated with said transmitting circuit, and means for regulating the inductive effect between said windings.

3. In a telephone system, a receiving circuit including a receiver and one of the windings of a transformer, a transmitting circuit associated with said receiving circuit and including the other winding of said transformer, said windings being conductively connected, a transmitter and

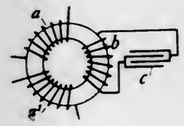
source of energy associated with said transmitting circuit, and a core for said windings adjustable with respect thereto.

4. In a telephone system, a receiving circuit including a receiver and one of the windings of a transformer, a transmitting circuit associated with said receiving circuit and including the other winding of said transformer, said windings being conductively connected, a transmitter and source of energy associated with said transmitting circuit, means for regulating the inductive effect between said windings, and a line circuit associated with said receiving and transmitting circuits.

5. In a telephone system, a receiving circuit including a receiver and one of the windings of a transformer, a transmitting circuit associated with said receiving circuit and including the other winding of said transformer, said windings being conductively connected, a transmitter and source of energy associated with said transmitting circuit, means for regulating the inductive effect between said windings, a closed circuit conductively connected with said transmitting and receiving circuits and a line circuit associated with said closed circuit.

[Claims 6 to 17 not printed in the Gazette.]

940,747. PHASE ADJUSTMENT. WILLIAM E. SUMPNER, Moseley, near Birmingham, England. Filed Dec. 4, 1907. Serial No. 405,007.



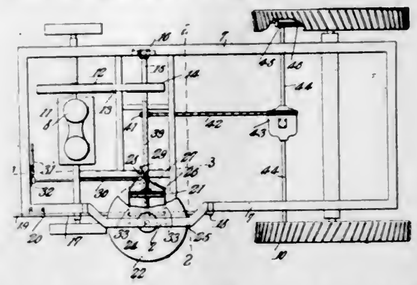
1. In means for correcting phase errors in electro-magnets and transformers used with alternating current measuring instruments, the combination with a core and an ordinary winding, of an auxiliary winding having the same magnetic circuit as the ordinary winding and a condenser connected in the circuit of the auxiliary winding, the capacity of the condenser and number of coils of the auxiliary winding being such that the ampere turns associated therewith correspond substantially to the total amount of magnetization required in the core.

2. In means for correcting phase errors in electro-magnets and transformers used with alternating current measuring instruments, the combination with a core and an ordinary winding, of an auxiliary winding having the same magnetic circuit as the ordinary winding and a condenser connected in the circuit of the auxiliary winding, the capacity of the condenser and number of coils of the auxiliary winding being such that the impedance of the auxiliary winding is substantially equal to that of the condenser.

3. In means for correcting phase errors in transformers used with alternating current measuring instruments, the combination with a core and ordinary primary and secondary windings, of an auxiliary winding having the same magnetic circuit as the ordinary windings and a condenser connected in the circuit of the auxiliary winding, the capacity of the said condenser and number of coils of the auxiliary winding being such that the ampere turns associated therewith correspond substantially to the total amount of magnetization required in the core.

4. In means for correcting phase errors in transformers used with alternating current measuring instruments, the combination with a core and ordinary primary and secondary windings, of an auxiliary winding having the same magnetic circuit as the ordinary windings and a condenser connected in the circuit of the auxiliary winding, the capacity of the said condenser and number of coils of the auxiliary winding is substantially equal to that of the condenser.

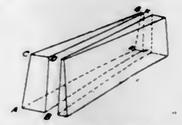
940,748. GEARING. ELMER E. SWARTHOUT, Evanston, Ill. Filed Feb. 24, 1909. Serial No. 479,770.



1. In a transmission gearing, a drive shaft pivotally supported at one of its ends, a lever supporting the other end of said shaft, means for holding the lever at adjustment, a friction wheel rotatable with and slidable lengthwise on said shaft, a driven shaft, a pair of friction disks on the driven shaft, between which disks the friction wheel works, a yoke connected to the friction wheel, and having guide arms supported by the aforesaid lever, and means for operating the yoke.

2. In a transmission gearing, a drive shaft pivotally supported at one of its ends, a lever supporting the other end of said shaft, means for holding the lever at adjustment, a friction wheel rotatable with and slidable lengthwise on said shaft, a driven shaft, a pair of friction disks on the driven shaft, between which disks the friction wheel works, a yoke provided with an eye, and connected to the friction wheel, and having guide arms supported by the aforesaid lever, a rock shaft, and an arm projecting from the rock shaft and passing through the eye of the yoke.

940,749. METHOD OF MANUFACTURING COMPOUND-TAPERED WEDGES. CHARLES E. SWEET, Wilkinsburg, Pa., assignor to The Westinghouse Machine Company, a Corporation of Pennsylvania. Filed May 11, 1907. Serial No. 373,044.



1. The method of manufacturing compound tapered wedges, which consists in providing a simple wedge-shaped blank, and cutting from the blank rectangular wedges on lines extending obliquely thereof.

2. The method of manufacturing compound tapered wedges, which consists in forming a wedge-shaped blank, whose thickness varies from one longitudinal edge to the other, and cutting therefrom a plurality of rectangular wedges on lines extending across the same.

3. The method of manufacturing compound tapered wedges, which consists in providing a wedge-shaped blank, and then cutting from the blank wedges extending obliquely thereof.

4. The method of manufacturing compound tapered wedges, which consists in forming a blank whose thickness varies from one longitudinal edge to the other, and cutting therefrom a plurality of wedges, the principal longitudinal axes of which extend obliquely across the same.

940,750. INDIVIDUAL HAIR-SPRING-STUD INDEX FOR WATCHES AND CLOCKS. CHARLES TESKE, Ray, N. D. Filed Apr. 9, 1909. Serial No. 488,843.

1. A hairspring stud index for time pieces, embodying a balance cock, a socket in the balance cock for receiving and accurately positioning the particular balance staff of

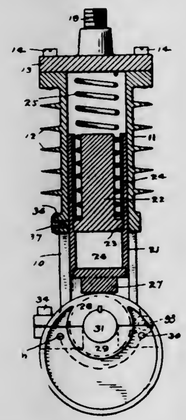
said cock, a socket in said cock for receiving and engaging the roller jewel of said cock, and an index on said cock for the hairspring stud.



2. A device of the character specified, embodying a balance cock, an index on the cock for the hairspring stud, and sockets in the balance cock respectively located for receiving and accurately positioning the balance staff and the roller jewel of the particular balance wheel of said cock in respect of said hairspring stud index.

3. A hairspring stud index for a time piece embodying a framing member of the time piece, a pair of sockets in the said member for receiving the balance staff and the roller jewel of such time piece and located for accurately positioning each in respect of the other, and means on the said member properly located in respect of said sockets for indicating the position of the hairspring stud of that time piece in respect of the staff and roller jewel thereof.

940,751. AIR-COMPRESSOR. WILLIAM R. THOMPSON, South Norwalk, Conn. Filed Jan. 30, 1909. Serial No. 475,206.

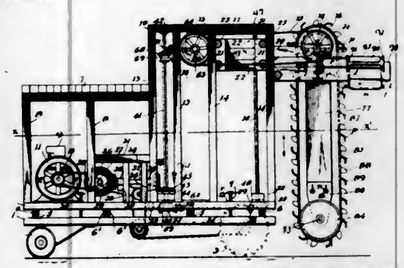


1. A compressor comprising a cylinder, a piston working therein and provided with a solid compressor member having an annular recess surrounding a central plug, a spring fitting within said recess and normally tending to project said piston from said cylinder, and means for forcing said compressor member practically to the end of the cylinder, said plug telescoping within said spring as the latter is compressed, the convolutions of the spring being arranged to come together when compressed, whereby the end of the piston presents a substantially solid surface.

2. A compressor comprising a cylinder, a removable end head therefor provided with inlet and outlet passages, valves for said passages, a piston working in said cylinder and provided with a solid compressor member having an annular recess surrounding a central plug, a spring fitting within said recess and normally tending to project said piston from said cylinder, and means for forcing said compressor member practically to the end of the cylinder, said plug telescoping within said spring as the latter is compressed, the convolutions of the spring being arranged to come together when compressed, whereby the end of the piston presents a substantially solid surface.

3. The combination with a cylinder and piston, of a spring for moving the piston in one direction, a cam for actuating the piston in the opposite direction, and means for moving and holding the piston out of position to be engaged by said cam, said means comprising a wedge movable to engage a portion of the piston, said wedge being mounted in position to enable its tip to engage a portion of the piston when the latter is actuated by the cam, whereby further movement of the wedge may positively force the piston out of position to be engaged by the cam.

940,752. EXCAVATOR. ALPHONSE TOUPIN, St. Agathe, Manitoba, Canada. Filed June 15, 1908. Serial No. 438,633.



1. In an excavator the combination with the supporting frame and the motor, of a vertically adjustable, horizontally extending frame carried by the former framework, and a series of buckets on a set of endless chains carried by the latter framework, as and for the purpose specified.

2. In an excavator the combination with a vertically disposed framework, and motor, of a horizontally disposed vertically adjustable frame; a set of beams pivotally supported from the frame; and excavating means carried by a set of endless chains mounted on said beams, as and for the purpose specified.

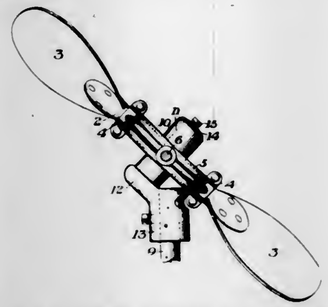
3. In an excavator, the combination with a vertically extending portable framework, and a motor, of a horizontally extending vertically adjustable frame carried by the framework; a cross shaft having ends overhanging the frame, and by which it is carried by its overhanging end a set of oppositely downwardly extending beams pivotally swung on the shaft; a cross shaft mounted in bearings at the lower end of the beams; a set of endless gear chains suitably mounted upon the said shafts; and buckets and forks arranged at intervals and secured alternately to the chains, as and for the purpose specified.

4. In an excavator the combination with a portable vertically extending framework and a motive power, of a horizontally extending vertically adjustable frame carried by and extending forwardly of the framework; means interconnecting the motor, with the frame whereby it may be adjusted; a cross shaft carried by the overhanging end of the frame; an opposing set of beams pivotally interconnected to the cross shaft; a shaft mounted in adjustable bearings secured to the ends of the beams; a set of gear wheels keyed on the upper shaft; a set of disk wheels secured to the lower shaft; a set of endless chains interconnected by spacing bars, such chains passing over the gear wheels and around the disk wheels; and alternately arranged buckets and forks secured to the spacing bars, as and for the purpose specified.

5. In an excavator the combination with a portable supporting platform; a forwardly disposed framework having an opposing set of vertical guideways formed thereon, and a motor, of a horizontally disposed frame operating in the guideways, such frame extending forwardly of the framework; and means interconnecting the motor with the frame whereby it may be operated in the guideways, as and for the purpose specified.

[Claims 6 to 14 not printed in the Gazette.]

940,753. MECHANICAL MOVEMENT. CLINTON A. TOWER, Cleveland, Ohio. Filed July 17, 1909. Serial No. 508,087.



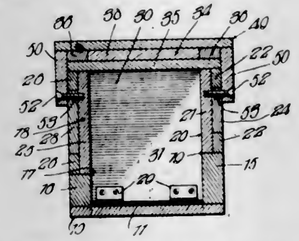
1. As a new mechanical movement, a rotary shaft having an angular projection, a stub shaft secured to the projection and extending at an angle to the main shaft, and a double-ended element having rotary engagement with the stub shaft and arranged to be oscillated and turned during its oscillations, substantially as described.

2. As a new mechanical movement, a double-ended element arranged to be oscillated in a common plane and turned or feathered during its movements, said element having rotary engagement with an angular shaft secured to a rotary shaft, substantially as described.

3. As a new mechanical movement, a pivoted oscillatory element having mounted therein a double-ended element, said double-ended element having rotary engagement with an angular shaft secured to a rotary shaft and arranged to be moved through a circular path, substantially as described.

4. As a new mechanical movement, a pivoted ring having bearings receiving a shank with propeller blades or similar devices at its ends, a rotary shaft having an angular projection, and a rotary connection between the angular projection and the central portion of the propeller shaft, substantially as described.

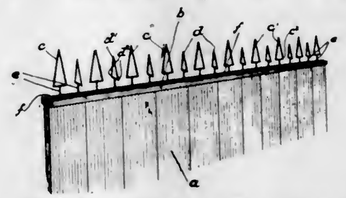
940,754. FOLDABLE SHIPPING-CRATE. THOMAS P. UMPHRIES, Cedartown, Ga. Filed June 13, 1908. Serial No. 438,366.



1. In a folding crate, a base, side and end sections foldable upon the base, a detachable top, threaded apertured washers embedded centrally in opposite ends of said top, one of said side sections containing threaded sockets adapted to register with said apertured washers when inwardly folded upon the other side section, screw fasteners engaging said washers and registering sockets to lock the crate in folded position and an auxiliary top adapted to receive the crate when folded and to fit over the top thereof when in a set up position.

2. In a folding crate, a base, side and end sections foldable upon the base, a detachable top, threaded apertured washers embedded centrally in opposite ends of said top, one of said side sections containing threaded sockets adapted to register with said apertured washers when inwardly folded upon the other side section, screw fasteners engaging said washers and registering sockets to lock the crate in folded position, an auxiliary top adapted to receive the crate when folded and to fit over the top thereof when in a set up position, and screw fasteners adapted to secure the auxiliary top in either of the latter positions on the crate.

940,755. CAT-GUARD. ZOE D. UNDERHILL, Bedford Station, N. Y. Filed Feb. 19, 1909. Serial No. 478,975.



1. A cat guard comprising spear-like members spaced apart, some of which have points extending respectively upwardly and longitudinally and others of which have points extending respectively upwardly and transversely, and posts on which the same are sustained.

2. A cat guard comprising triangular shaped members, each having three points formed by the three angles of the triangle, and posts by which the same are sustained in elevated position.

3. A cat guard comprising three-pointed guard members of isosceles triangular shape whose most acute angles project upwardly, and posts on which the same are respectively supported from the centers of their shortest sides.

4. A cat guard comprising two series of spear like members extending respectively longitudinally and transversely of the guard, the individual members of the two series being arranged alternately lengthwise of the guard and spaced apart.

5. A cat guard comprising two series of guard members pointing upwardly, the individual members of which are spaced apart longitudinally of the guard, and which extend respectively longitudinally and transversely, and posts, one for each member, on which the same are sustained.

[Claims 6 to 9 not printed in the Gazette.]

940,756. FEMALE URINAL. MABEL M. VAN VECHTEN, New York, N. Y. Filed June 3, 1908. Serial No. 436,366.



1. A female urinal relatively long and narrow and having in one side thereof a long inlet slot and also having internal guide-channels adjacent to the long edges of said slot, and also having an outlet opening.

2. A portable tubular female urinal having outlet openings at both ends and also having in one side a long inlet slot.

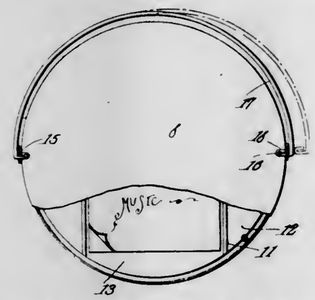
3. A portable tubular female urinal having an outlet opening at one end and also having in one side a long inlet slot with inturned rounded edges.

4. A portable tubular female urinal having an outlet opening at one end and also having in one side a long inlet slot the bounding edges of which curve depthwise of the slot.

5. A portable tubular female urinal having an outlet opening at one end and also having in one side a long inlet slot the bounding edges of which are curved lengthwise, crosswise and depthwise of the slot.

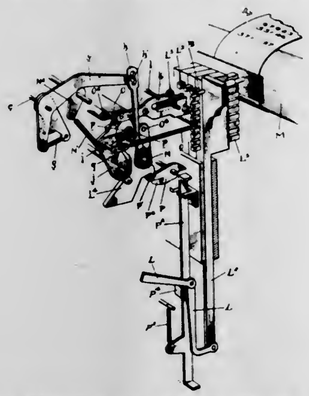
[Claims 6 to 10 not printed in the Gazette.]

940,757. PORTABLE HOLDER FOR FILMS AND ILLUSTRATED-SONG OUTFITS. EMANUEL E. WAGNER, Lamar, Mo. Filed Jan. 14, 1909. Serial No. 472,334.



In a device of the class described, a body, diametrically opposed ears extending from the body and having transverse slots, a closure upon the body and having an annular flange extending therearound and between the ears and body, a bail having inturned terminals slidably and revolubly mounted within the slots, and an enlarged end upon each terminal and removable through the slots only when the bail is in a predetermined relation to the closure, said ears and said terminals coöperating to limit the lateral movement of the terminals relative to the closure and to hold said terminals in contact with said closure, there being fastener receiving apertures in the enlarged ends of the terminals.

940,758. ADDING-MACHINE. CHARLES WALES, Cleveland, Ohio. Filed Feb. 21, 1906. Serial No. 302,200½.



1. In a machine of the character described, comprising accumulating, totalizing, clearing and printing mechanisms, means for automatically printing a special character with the printing of the first item after the machine has been cleared, comprising a type bar carrying such special character adapted to be reciprocated at the point of print, a special hammer adapted to actuate the same, means for charging the hammer with energy, a units hammer, a temporary coupling between it and the special hammer and means actuated from the clearing mechanism of the machine to move such temporary coupling into an operative position.

2. In a machine of the character described, comprising accumulating, totalizing, clearing and printing mechanisms, means for automatically printing a special character with the printing of the first item after the machine has been cleared, comprising a type bar carrying such special character adapted to be reciprocated at the point of print, a special hammer adapted to actuate the same, means for charging the hammer with energy, a units hammer, a temporary coupling between it and the special hammer and means actuated from the clearing mechanism of the machine to move such temporary coupling into an operative position and means for automatically retracting the special type bar away from the printing plane.

3. In a machine of the character described, comprising accumulating, totalizing, clearing and printing mechanism, means for automatically printing a special character with the printing of the first item after the machine has been cleared, comprising a type bar carrying such special character adapted to be reciprocated at the point of print, a special hammer adapted to actuate the same means for charging the hammer with energy, a units hammer, a temporary coupling between it and the special hammer and means actuated from the clearing mechanism of the machine to move such temporary coupling into an operative position and means for automatically retracting the special type bar away from the printing plane, including a sleeve in which it is adapted to move and a spring placed under tension when it is moved.

4. In a machine of the character described, comprising accumulating, totalizing, clearing and printing mechanisms, means for automatically printing a special character with the printing of the first item after the machine has been cleared, comprising a type bar, carrying such special character adapted to be reciprocated at the point of print, a units hammer and means for cocking it, a special hammer adapted to strike the special type bar, a coupling between the two hammers consisting of a fixed member on the units hammer and a movable member on the special hammer and means for bringing the movable member into position to coöperate with the fixed member actuated from the clearing mechanism of the machine.

5. In a machine of the character described, comprising accumulating, totalizing, clearing and printing mechanisms, means for automatically printing a special character with the printing of the first item after the machine has been cleared, comprising a type bar, carrying such special character adapted to be reciprocated at the point of print, a units hammer and means for cocking it, a special hammer adapted to strike the special type bar, a coupling between the two hammers consisting of a fixed member on the units hammer and a movable member on the special hammer and means for bringing the movable member into position to coöperate with the fixed member actuated from the clearing mechanism of the machine, and including a total key, a link adapted to move the movable member and intermediate mechanism between it and the total key.

[Claims 6 to 39 not printed in the Gazette.]

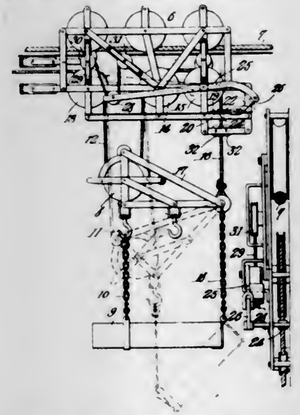
940,759. BINDING MEANS FOR CHAIRS. ARTHUR G. WALTER, Fremont, Ohio, assignor of one-half to B. M. Inman, Fremont, Ohio. Filed Sept. 8, 1908. Serial No. 452,062.

In a device of the class described, the combination of two bar members each having its outer end formed in hooked shape and one having its inner end portion provided with a plurality of longitudinally spaced openings, a lever pivoted at one end to the inner end of the other of said members and having a laterally-projecting headed lug intermediate its ends for fitting into any one of the openings in the other of said members whereby a pivotal movement of the lever relative to its attached member will



effect a relative contraction or expansion of the hooked ends of said members, substantially as described.

940,760. AUTOMATIC DUMPING DEVICE FOR ELEVATED CARRIERS. THOMAS O. WERNER, Bangor, Pa. Filed Mar. 3, 1909. Serial No. 481,028.



1. The combination of an elevated carrier, a fall rope and its block from which the load is suspended, the fall rope being also connected to the load, and means for locking that portion of the fall rope which is connected to the load.

2. The combination with an elevated carrier, a fall rope, and its block from which the load is suspended; of a connection between the fall rope and the load, and means operable from a distance for locking that portion of the fall rope which is between said connection and the block.

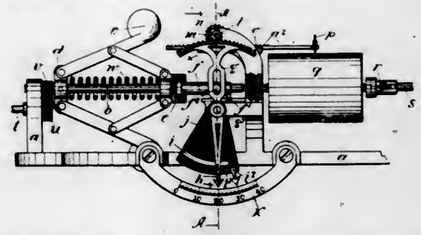
3. The combination with an elevated carrier, a fall rope, and its block from which the load is suspended; of a connection between the fall rope and the load, a clamp mounted on the carrier, and engageable with the fall rope between the aforesaid connection and the block, and means for operating the clamp.

4. The combination with an elevated carrier, a fall rope, and its block from which the load is suspended; of a connection between the fall rope and the load, a clamp mounted on the carrier, and engageable with the fall rope between the connection with the load and the block, a lever pivoted to the carrier, and operatively connected to the clamp, and means for operating the lever.

5. The combination with an elevated carrier, a fall rope, and its block from which the load is suspended; of a connection between the fall rope and the load, a pair of levers pivotally mounted on the carrier and having clamping jaws engageable with the fall rope at a point between its connection with the load and the block, a link connecting the levers at one end, an operating lever pivoted to the carrier, a link connecting said operating lever with one of the jaw levers and means for actuating the operating lever.

[Claim 6 not printed in the Gazette.]

940,761. INDICATING AND RECORDING DEVICE. JOHN T. WHALEN, Brooklyn, N. Y. Filed June 27, 1907. Serial No. 381,061.



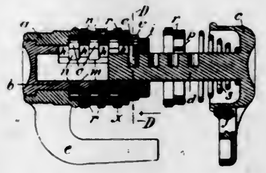
1. In combination with a speed recorder a switch comprising a pivotally mounted switch lever actuated by said recorder mechanism, an adjustable commutator insulated from said switch lever, a contact strip on said commutator contacting with said switch lever until a predetermined position of the switch lever has been reached, and another contact strip contacting with said switch lever only when the predetermined position has been reached.

2. In an indicating and regulating device, the combination of a governor, a gear-lever, a stylus, a switch-lever, means for communicating the motion of the governor to the gear-lever and switch-lever, and means for communicating the motion of the gear-lever to the stylus.

3. In an indicating and regulating device, the combination of a governor, a gear-lever, a switch-lever attached thereto, a stylus, means for communicating the motion of the governor to the gear-lever, and means for communicating the motion of the gear-lever to the stylus.

4. In an indicating and regulating device, the combination of a governor, a pivotally mounted gear-lever having a switch-lever attached thereto, a rack, a stylus attached to said rack, gearing intermediate said rack and gear-lever, and means for communicating the motion of said governor to said gear-lever.

940,762. PERMUTATION-PADLOCK. JOHN T. WHALEN, New York, N. Y., assignor, by mesne assignments, to The Whalen Company, Jersey City, N. J., a Corporation of New Jersey. Filed June 19, 1908. Serial No. 439,414.

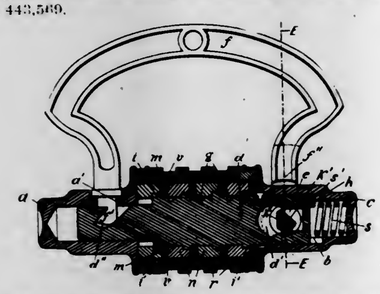


1. In a lock of the class described,—an apertured shank,—a locking bolt adapted to have wards removably attached thereto, movably retained by the said shank,—tumblers having radial openings and longitudinal recesses to engage the said wards, rotatably mounted on the said shank,—and permutating rings one of which is provided with a radial opening, rotatably and shiftably encircling and variably adjustably engaging the said tumblers,—the radial opening of one of the tumblers being adapted to register with the radial opening of its corresponding permutating ring permitting the passage of the wards successively therethrough.

2. In a lock of the class described,—an apertured shank,—a locking bolt adapted to have wards attached thereto, movably retained by the said shank,—tumblers having radial openings and longitudinal recesses to engage the said wards, rotatably mounted on the said shank,—and rabbeted permutating rings one of which is provided with a radial opening in the rabbeted portion thereof, rotatably and shiftably encircling and variably adjustably engaging the said tumblers,—the said radial opening in said permutating ring being adapted to register with the radial opening of its corresponding tumbler, whereby the said wards may be passed successively therethrough to permit the same to be attached to said locking bolt after the latter has been inserted into the said shank.

3. In a lock of the class described,—an end piece having an apertured shank,—a second end piece having a warded locking bolt, movably retained by the said shank,—tumblers having recesses to engage the said wards, rotatably mounted on the said shank,—and permutating rings encircling and adjustably engaging the said tumblers,—the said end pieces being hollow and adapted to overlap the terminal permutating rings when the lock is closed.

940,763. PERMUTATION-PADLOCK. JOHN T. WHALEN, New York, N. Y., assignor, by direct and mesne assignments, to The Whalen Company, Jersey City, N. J., a Corporation of New Jersey. Filed July 14, 1908. Serial No. 443,589.



1. In a permutation padlock a locking bolt and a shackle provided with a hinge pin having a cam shaped cross section engaging said locking bolt and adapted to move the same.

2. In a permutation padlock a locking bolt and a shackle provided with a hinge pin having a cam shaped cross section engaging said locking bolt and moving it longitudinally when rotated.

3. In a permutation padlock a locking bolt and a shackle provided with a hinge pin having a cam shaped cross section engaging said locking bolt and moving it longitudinally a greater or less distance according to the extent of rotation of the hinge pin.

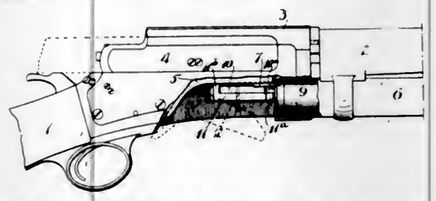
4. In a permutation padlock a locking bolt and a shackle having a hinge pin provided with a plurality of flat sides engaging said locking bolt and moving it longitudinally when rotated.

5. In a permutation padlock the combination of a plurality of permutating rings, a plurality of tumblers, a plurality of resilient pawls, each normally engaging a permutating ring and a tumbler and means for permitting relative movement of the permutating rings and resilient pawls.

[Claims 6 to 10 not printed in the Gazette.]

940,764. MAGAZINE CUT-OFF FOR REPEATING FIREARMS. JOHN H. WHEELER, New Haven, Conn., assignor to The Marlin Firearms Company, New Haven, Conn., a Corporation of Connecticut. Filed Apr. 14, 1908. Serial No. 426,938.

1. In a repeating firearm, a receiver, action mechanism therein, means for operating said action mechanism, a cartridge magazine, a two-part cut-off, a pivot in common to both parts, said cut-off being partially operated by one part of the action mechanism to partially release a cartridge from said magazine, and partially by the action operating means to fully release said partially released cartridge, both parts of said cut-off being mounted independently of the breech mechanism.



2. In a repeating firearm, a receiver, action mechanism therein, means for operating said action mechanism, a magazine, and a cut-off therefor comprising two parts mounted on an inner wall of said receiver, one part being operated by the action mechanism within the receiver, the other part being operated by the means for operating said action, both parts being mounted independently of the breech mechanism.

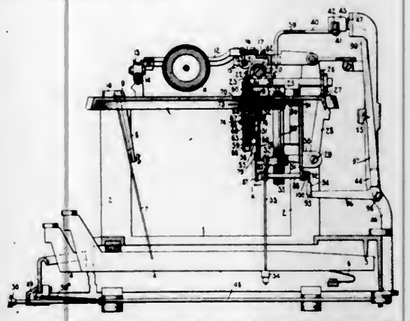
3. In a repeating firearm, a breech frame, a tubular magazine, a cut-off therefor, said cut-off including two independent stop abutments mounted on the said frame, one projecting slightly in advance of the other, means for mechanically actuating said cut-off when the breech mechanism is operated, and separate means for manually operating said cut-off independently of the operation of the gun to shift both stop abutments to free the cartridges in the magazine.

4. In a repeating firearm, a cut-off comprising two parts, a pivot in common to both, a stop abutment on each part one abutment being slightly in advance of the other, means for operating each of said parts independently and successively, and separate means for manually operating both of said parts simultaneously.

5. In a repeating firearm, a tubular magazine, a cut-off therefor comprising two parts, a stop shoulder on each of said parts, one of said shoulders being in advance of the other, means for mechanically operating each of said parts to withdraw said abutments successively, and separate means for manually operating both of said parts to simultaneously withdraw said abutments.

[Claims 6 to 9 not printed in the Gazette.]

940,765. TYPE-WRITING MACHINE. HERBERT R. WHITE, Lowell, Mass., assignor to Wyckoff, Seamans & Benedict, Ilion, N. Y., a Corporation of New York. Filed May 14, 1906. Serial No. 316,724.



1. In a typewriting machine, the combination with a power driven carriage and step-by-step feeding devices therefor, of a retarding apparatus normally disconnected from the carriage and arranged to be connected with the carriage to release it from said step-by-step feeding devices and to exert thereafter on said carriage, while the latter is being drawn in printing direction by the carriage power, a resistance which increases continuously during the run of the carriage whatever the distance through which the carriage travels.

2. In a typewriting machine, the combination with a power driven carriage and step-by-step feeding devices therefor, of a retarding apparatus normally disconnected from the carriage and arranged to be connected with the carriage to release it from its step-by-step feeding mechanism, said retarding apparatus comprising a spring which is operative to exert on said carriage, after the latter has been released from its step-by-step feeding mechanism and while it is being drawn in printing direction by the carriage power, a resistance which increases continuously until the arrest of the carriage and which acts until said apparatus is disengaged from the carriage.

3. In a typewriting machine, the combination with a power driven carriage and step-by-step feeding devices therefor, of a retarding apparatus normally disconnected from the carriage and arranged to be connected with the carriage to effect the release of said carriage from its step-by-step feeding mechanism, said retarding apparatus comprising a rotary device, a spring connected with said device, and a rotary connecting member arranged to be actuated by the carriage and to rotate said device while the carriage is released from its step-by-step feeding mechanism and is being drawn in printing direction by the carriage power, said spring being operative, during the rotation of said device, to exert a resistance on the carriage varying with the extent of the free run of the latter and which acts until said apparatus is disengaged from the carriage.

4. In a typewriting machine, the combination with a power driven carriage and step-by-step feeding mechanism therefor including a feed rack connected to the carriage, of a retarding apparatus normally disconnected from the carriage and arranged to be connected with the carriage to disconnect the feed rack from the other parts of the step-by-step feeding mechanism, said retarding apparatus comprising a spring controlled device arranged to be rotated by the feed rack and operative, while the carriage feed rack is disconnected and the carriage is being drawn in printing direction by the carriage power, to exert on said carriage a continuously increasing resistance and which acts until said apparatus is disengaged from the carriage.

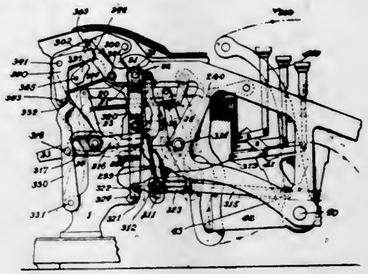
5. In a typewriting machine, the combination with a power driven carriage and step-by-step feeding devices therefor, of a retarding apparatus normally disconnected from the carriage and arranged to be connected with the carriage to release it from the step-by-step feeding device, said retarding apparatus comprising a spring which is operative to exert on said carriage, after the latter has been released from its step-by-step feeding devices and while it is being drawn in printing direction by the carriage power, a resistance which increases continuously during the run of the carriage, said retarding device also including means for varying the initial or normal tension of said spring.

[Claims 6 to 21 not printed in the Gazette.]

940,766. LOCK FOR NUMERAL-WHEELS FOR ADDING-MACHINES. NELSON WHITE, Detroit, Mich., assignor to The Adder Machine Company, Kingston, Pa., a Corporation of Pennsylvania. Filed Mar. 11, 1908. Serial No. 420,428.

1. In a machine of the class described, embodying a main shaft, racks actuated from said main shaft, numeral wheels adapted to be actuated by the racks but normally raised and disengaged therefrom during the forward stroke of the main shaft, means for automatically lowering the numeral wheels into engagement with the racks, a support for the numeral wheels in their raised position, an arm connected to and moving with said support, a latch adapted automatically to engage the arm and hold it against movement during a part of the movement of the main shaft and means adapted automatically to disengage said latch during another part of said movement of the main shaft.

2. In a machine of the class described, embodying a main shaft, racks actuated from said main shaft, numeral wheels adapted to be actuated by the racks but normally raised and disengaged therefrom during the forward stroke of the main shaft, means for automatically lowering the numeral wheels into engagement with the racks, a support for the numeral wheels in their raised positions, an arm connected to and moving with said support, a latch adapted automatically to engage the arm and hold it against movement during a part of the movement of the main shaft and means adapted automatically to disengage said latch during another part of said movement of the main shaft, comprising a member actuated from the main shaft.



3. In a machine of the class described, embodying numeral wheels, actuating racks adapted to engage therewith, a main shaft from which the racks are moved, a support for the numeral wheels, an arm connected to and moving with said support, a totalizing key by the depression of which the numeral wheels and actuating racks are permitted to engage during the forward actuation of the shaft, a latch adapted automatically to engage the arm and hold it during such engagement of the racks and wheels, and means adapted automatically to move the latch out of engagement with the arm controlled by the upward movement of the totalizing key.

4. In a machine of the class described, embodying numeral wheels, actuating racks adapted to engage therewith, a main shaft from which the racks are moved, a support for the numeral wheels, an arm connected to and moving with said support, a totalizing key by the depression of which the numeral wheels and actuating racks are permitted to engage during the forward actuation of the shaft, a latch adapted automatically to engage the arm and hold it during such engagement of the racks and wheels, and means adapted automatically to move the latch out of engagement with the arm controlled by the upward movement of the totalizing key, said means comprising a bell crank lever.

5. In a machine of the class described, embodying numeral wheels, actuating racks adapted to engage therewith a main shaft from which the racks are moved, a support for the numeral wheels, comprising a shaft on which they may turn, an arm connected to and moving with said support, a catch on the arm, a latch adapted to engage said catch to hold the arm against movement, means for moving the arm from the main shaft and means whereby the latch is simultaneously moved into engagement with the catch.

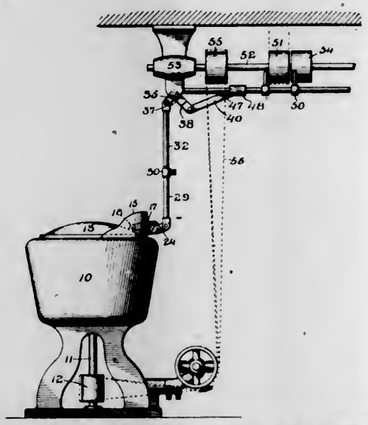
[Claims 6 to 34 not printed in the Gazette.]

940,767. POWER-CONTROLLER FOR MACHINES. HENRY S. WILCOX and WILLIAM BARTHOLOMEW, Chicago, Ill., assignors to Troy Laundry Machinery Company, Chicago, Ill., a Corporation of New York. Filed Sept. 17, 1909. Serial No. 518,258.

1. In a device of the class described, the combination with a power controlling mechanism, a movable cover member, a crank lever mounted adjacent said cover, a link pivoted to said cover and lever, a shifter lever connected to said power controlling mechanism, and a connection pivotally secured to said shifting and crank levers.

2. In a device of the class described, the combination with a power controlling mechanism, a movable cover member, a bell-crank lever mounted upon said device, a

link pivoted to said cover and lever, a shifter lever, a sliding belt shifter having a connection pivoted to said shifter lever, and a rod connecting said shifter and bell-crank levers.



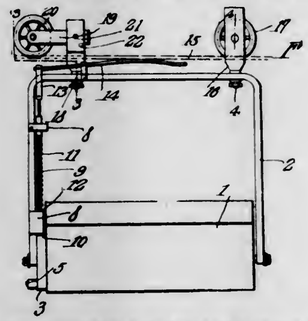
3. In a device of the class described, the combination with a power controlling mechanism, of a casing having an apertured wall at the rear of the top thereof, a movable cover member, a bell-crank lever disposed upon the casing at the rear of said wall, a link extending through said aperture and pivoted to the cover and crank, and a connection from said crank to the power controlling mechanism.

4. In a device of the class described, the combination with a power controlling mechanism, a movable cover member, a crank lever mounted adjacent said cover, a link pivoted to said cover and lever, a shifter lever connected to said power controlling mechanism, and an adjustable connection pivotally secured to said shifting and crank levers.

5. In a device of the class described, the combination with a power controlling mechanism, a movable cover member, a crank lever mounted adjacent said cover, a link pivoted to said cover and lever, a shifter lever connected to said power controlling mechanism, and adjustable rods pivotally secured to said shifting and crank levers.

[Claims 6 to 14 not printed in the Gazette.]

940,768. CARRIER. CLEMENS B. WILLENBORG, Dyersville, Iowa. Filed Apr. 12, 1909. Serial No. 489,417.



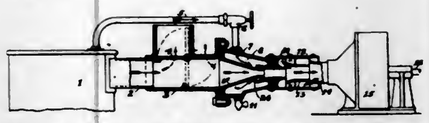
1. A carrier comprising a bucket and a bail, a supporting wheel located at one end of the bail, and being relatively fixed vertically with relation to the same and a supporting wheel located at the other end of the bail and being free for limited vertical movement with relation to the bail.

2. A carrier comprising a bucket and a bail, a caster wheel located at one end of the bail and being relatively fixed in a vertical direction with relation to the bail, a caster wheel located at the other end of the bail and having limited vertical swinging movement with relation to the bail.

3. A carrier comprising a bucket and a bail, a caster wheel located at one end of the bail and being relatively fixed vertically with relation to the same, a frame mounted for limited castered movement at the other end of the bail, an arm mounted for limited vertical swinging in the last said frame and a supporting wheel journaled for rotation in the said arm.

4. A carrier comprising a bail, a bucket pivotally mounted in the bail, a disk attached to the bucket, and having in its periphery a slot, a pin located upon the outer face of the disk and adapted to engage the side of the bail when the bucket assumes dumping position, and supporting wheels for the bail.

940,769. MOTIVE-POWER SYSTEM. ALFRED WILSTAM, Los Angeles, Cal. Filed Mar. 1, 1909. Serial No. 480,718.



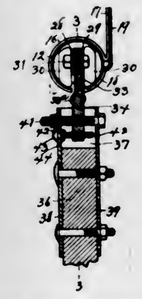
1. In a motive power system of the class described, the combination of a steam generator, a flue for conveying the gaseous products of combustion, and provided with a damper and a damper operating device, and having a flue gas discharge and an air inlet, a combined superheater and injector device connected to the flue, and said superheater having steam connection with the steam generator and means for discharging superheated steam into one or more nozzles of the injector, so as to create a flowing current of mixed flue gases and steam, an injector battery, exposed to the open air and consisting of a number of nozzles arranged in tandem of successively increasing capacities and adapted to inject atmospheric air into the path of the jet and expand the mixed aeriform fluid, and a turbine motor, into the intake of which said injector battery discharges for the purpose set forth substantially as described and shown.

2. In a motive power system of the class described, the combination of a steam generator, a flue, a flue nozzle and a superheater, said superheater consisting of an outer casing connected to a flanged portion of the flue nozzle and surrounding same, forming thereby a concentric space, constituting the superheater chamber, and having a steam supply connection, a drain and means for discharge into the injector device, for the purpose set forth substantially as described and shown.

3. In a motive power system of the class described, the combination of a steam generator, a flue, a superheater and an injector, said injector consisting of an inner steam nozzle having a central aperture terminating in an outwardly diverging suitable jet opening, and communicating through a central hollow hub with the superheater, and arms in said hub within the flue, and an outer steam nozzle whose internal areas gradually diminish from its inlet toward the middle, then gradually increase to its outlet, which nozzle is connected to the terminating end of the superheater casing, and a flue nozzle connected to the flue and having its terminating end projecting within the receiving end of the outer steam nozzle, for the purpose set forth substantially as described and shown.

4. In a motive power system of the class described, the combination of a steam generator provided with a combustion chamber, a flue for conducting the gaseous products of combustion, said flue having a funnel-shaped part terminating in a fine-nozzle, a steam superheater surrounding the terminating part of the flue whereby heat from the combustion gases in passing through the contracted end of the terminating flue conducts through the separating wall of the superheater into the superheater chamber, means for conducting steam from the steam generator to the superheater, one or more steam nozzles forming an injector battery, means for conducting steam from the superheater to said nozzle or nozzles, said nozzle or nozzles in combination with the flue-nozzle being so arranged that the issuing steam will act injectively on the combustion gases, and succeeding nozzles exposed to the open air, said succeeding nozzles consisting of a number of concentric ring-sections, all said nozzles being arranged in succession and being of successively increasing capacity so that each preceding one discharges into the one succeeding, for the purpose set forth substantially as described and shown.

940,770. TRACK AND HANGER FOR DOORS. AUGUST WULFF, Cedar Falls, Iowa, assignor to Wagner Manufacturing Company, Cedar Falls, Iowa, a Corporation of Iowa. Filed Jan. 22, 1909. Serial No. 474,172.



1. The combination with a series of hollow cylindrical track sections each formed with a longitudinal slot and notches at the ends of said slot, of a series of brackets for supporting the track sections, each bracket composed of separate hooks formed with integral straps adapted for conjunctive support, each hook partially embracing end portions of track sections and formed with inturned flanges entering said notches.

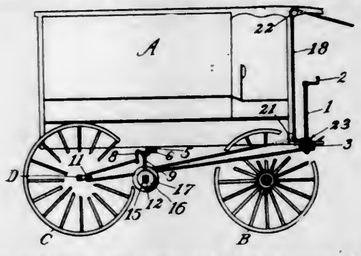
2. The combination with a series of hollow cylindrical track sections each formed with a longitudinal slot, of a series of brackets for supporting the track sections, each bracket composed of separate hooks formed with integral straps adapted for conjunctive support, each hook partially embracing a track section, and interlocking connections between said hooks and track sections.

3. The combination with a series of hollow cylindrical track sections each formed with a longitudinal slot, of a series of brackets for supporting the track sections, each bracket composed of separate hooks formed with integral straps adapted for conjunctive support, said hooks of different lengths, each hook partially embracing a track section, and interlocking connections between one of said hooks and track sections.

4. The combination with a series of hollow cylindrical track sections each formed with a longitudinal slot, of a series of brackets for supporting the track sections, each bracket formed with a straight strap and a hook offset to one side only of said strap and curved on an arc of the periphery of a track section, one of said hooks adapted to span more than one half the circumference of said track section, the other of said hooks on the same arc and of less length than the first hook, said straps adapted for parallel arrangement and conjunctive mounting to a suitable support, and interlocking connections between said hooks and track sections.

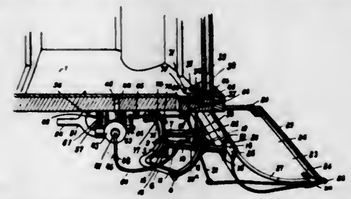
940,771. CHECKING ATTACHMENT FOR CARRIAGES AND WAGONS. WILLIAM F. YOUNG, Chicago, Ill. Filed Apr. 26, 1909. Serial No. 492,202.

In a vehicle check, the combination of the vehicle body, a crank shaft journaled therein, means to check movement thereof in one direction, an oscillatory supporting rod journaled beneath said body and provided with depending arms having journals at their lower ends, a shaft rotatably extending through said journals below said rod and having its ends projecting outwardly beyond the vehicle wheels and movable toward and away from said wheels by the oscillation of said rod, connections between said crank shaft and said supporting rod to oscillate the latter



upon the rotation of the former and cause rotation of said rotatable shaft, pulleys carried by the projecting ends of said rotatable shaft for engagement with the vehicle wheels upon the movement of said rod, a drum loosely mounted upon said shaft, a check rope leading from said drum, and a ratchet mechanism connecting said drum and shaft to wind said rope thereon when said shaft is rotated by the contact of its pulleys with the vehicle wheels.

940,772. CAR-FENDER. STEPHEN A. YOUNGBERG and JAMES B. PARNALL, Rosthern, Saskatchewan, Canada, assignors of one-third to Frederick J. Kletzer, Rosthern, Canada. Filed June 30, 1908. Serial No. 441,229.



1. In a car fender, the combination with the car body, of a double trackway pivotally supported laterally beneath said car body, a running gear traveling on said trackway, a fender supported by said running gear, and means for moving said running gear on said trackway.

2. In a car fender, the combination with the car body, of a double trackway pivotally and laterally supported beneath said car body, a carriage traveling on said trackway, a fender supported in its raised position by said carriage, means for moving said carriage on said trackway, and means for tripping said fender to its lower position.

3. In a car fender, the combination with the car body, of a trackway extending laterally beneath said car body and pivotally supported at each end thereof, a carriage running on said trackway, a fender supported by said carriage, means for moving said carriage to any desired position along said trackway, and means for retaining said carriage with said fender in said position.

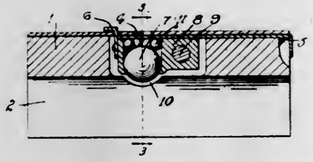
4. In a car fender, the combination with the car body, of a trackway pivotally supported in brackets secured to the under side of said car body toward each side thereof, a carriage running on said trackways, a fender supported by said carriage, means for supporting said fender in its raised position, and means for tripping said fender to its lowered position.

5. In a car fender, the combination with the car body, of a trackway pivotally supported in brackets secured to the under side of said car body at each side thereof, a carriage running on said trackways, a fender supported by said carriage, means for supporting said trackways with

said carriage and said fender in a raised position above the ground, and means for disengaging said supporting means and tripping said trackways with said carriage and said fender to their lower position.

[Claims 6 to 12 not printed in the Gazette.]

940,773. SCRAPER-SHARPENER. JOHN B. ACKERMANN, Grand Rapids, Mich. Filed Dec. 21, 1908. Serial No. 468,501.



1. A scraper sharpener, comprising a body having an open slot in one side to slidably receive a blade, and a ball mounted in the body and projecting within the slot.

2. A scraper sharpener, comprising a body having a slot therein to receive the blade to be sharpened, a ball projecting within the slot to engage said blade, and means for adjusting the ball transversely of the slot.

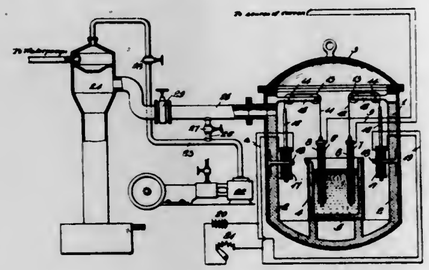
3. A scraper sharpener, comprising a body having a slot therein, a case adjustable transversely of the body, a ball in the case projecting below the same and into the slot, and means for adjusting the case transversely of the body.

4. A scraper sharpener, comprising a body having a slot therein, a ball-case adjustable transversely of the body, a ball freely rotative in the case projecting below the same and within the slot, and a screw arranged transversely of the body and adapted to adjust the case.

5. In a scraper sharpener, a body having a longitudinal slot, a ball case adjustable transversely of the slot, a ball in the case projecting below the same and into the slot, a series of smaller balls above the first named ball, and a slide above the case to open and close the same.

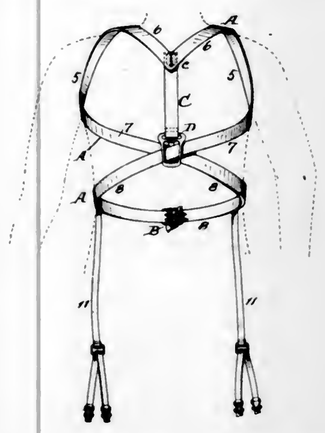
[Claim 6 not printed in the Gazette.]

940,774. APPARATUS FOR TREATING MOLTEN METALS. FRANCIS S. ADAMS, Leetonia, Ohio. Filed July 22, 1909. Serial No. 508,950.



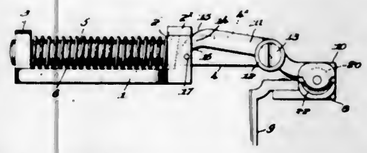
An apparatus for treating molten metal to eliminate the sulfur comprising a casing, a metal pot therein, means for creating a vacuum in the casing, a pair of electrodes in the pot, means for passing a current through the electrodes to heat the metal and electromagnetic means for raising or lowering the electrodes, said means comprising solenoids arranged in the casing, cores passing through the solenoids, flexible elements between the upper ends of the cores and the electrodes, a source of current for the solenoids and means for varying the current through the solenoids.

940,775. SHOULDER-BRACE. JOEL U. ADAMS, Cincinnati, Ohio. Filed Nov. 13, 1908. Serial No. 462,456.



A shoulder brace consisting of two straps connected to each other at an angle below the neck of the wearer, a tie-strap permanently connected at its upper end to the straps at their junction and a slotted fitting permanently connected to the lower end of this tie, the straps extending from their junction over the shoulders and down in front rearwardly to the slotted fitting which they adjustably engage and where they cross each other in opposite directions, the straps being continued from this fitting around the body to the front forming a belt and means to secure the ends of the straps to each other to close this belt.

940,776. LOOM-TEMPLE. NICHOLAS I. ALLEN, Everett, Mass., assignor to Draper Company, Hopedale, Mass., a Corporation of Maine. Filed Apr. 2, 1909. Serial No. 487,535.

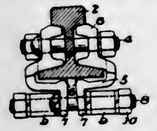


1. In a reciprocating loom temple, relatively-movable cloth-engaging members adapted to be moved forward bodily by the lay on the beat-up, and positively acting devices operating respectively, to separate said members and release the cloth on the beat-up and to thereafter positively act upon and close said members upon the cloth.

2. In a loom temple, a longitudinally movable shank, a fixed jaw member thereon and a coöperating jaw member pivotally mounted on the shank, to receive between them and hold the cloth, a cam connected with the pivotally mounted member, and having convex and concave faces, and separate stationary means to coöperate with said cam faces and effect, respectively, separation of the jaw members on the forward stroke of the shank and positive closure of said members on the return stroke of the shank.

3. In a loom temple, a stand having bearings, a shank longitudinally movable in said bearings and provided with a rigidly connected cloth-engaging member having a heel to be engaged and moved forward by the lay, a spring to project the shank rearwardly a cloth-engaging member pivoted on the shank and having an attached arm provided with a cam, and devices on the stand one device being arranged to coöperate with the cam and rock said arm positively on each stroke of the shank, to open the cloth-engaging members on the forward stroke of the shank and the other device acting to close them positively on the return stroke.

940,777. RAIL-JOINT. GEORGE H. BARBOUR, Pittsburg, Pa. Filed Mar. 27, 1909. Serial No. 486,258.



1. In a rail joint splice bars having members depending below the rail bases, said members being arranged out of contact with the edges and outer bottom surfaces of the rail bases and having an upward bearing member engaging with the rail bases at an intermediate point in the width thereof the adjacent edges of the opposing members beneath the rail bases being out of contact with each other and clamping means extending transversely beyond the end of the splice bar for forcing said bearing members upwardly against the rail bases; substantially as described.

2. In a rail joint, splice bars for the rails having depending flanges extending downwardly, inwardly and then upwardly and downwardly below the bases of the rails, and means for securing the upwardly projecting members in engagement with the rail bases, the downwardly extending members being out of engagement with each other; substantially as described.

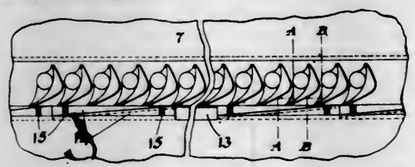
3. A splice bar for rails, having a depending flange extending downwardly and inwardly below the bases of the rails and having oppositely extending marginal ribs on said flange and means coöperating with the bottom rib to hold the opposite rib in engagement with the bottom surface of the rail bases; substantially as described.

4. A rail joint, having a splice bar with a downwardly and inwardly projecting flange, said flange having oppositely projecting rib portions on the edges thereof and means engaging with one of said ribs for drawing its opposite rib into engagement with the bottom surface of the bases of the rails; substantially as described.

5. A rail joint comprising splice bars having downwardly and inwardly extending flange portions, oppositely projecting marginal ribs on the end of said flange portions, and means on the lower end of said rib portions adapted to bring the opposing rib portions into engagement with the bottom surface of the rail bases; substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

940,778. BLADE-HOLDING MEANS. HENRY L. BARTON, Pittsburg, Pa., assignor to The Westinghouse Machine Company, a Corporation of Pennsylvania. Filed May 14, 1907. Serial No. 373,667. Renewed Apr. 20, 1908. Serial No. 428,146.



1. In combination with a turbine blade or vane holding element provided with a circumferential groove or channel, a turbine blade or vane base ring located in said channel, and complementary wedges located between said base ring and one wall of said channel.

2. In combination with a turbine blade or vane holding element provided with a circumferential groove or channel, a turbine blade or vane base ring located in said channel, and a plurality of wedges located between said base ring and one wall of said channel.

3. In combination with a turbine blade or vane holding element provided with a circumferential groove or channel, a turbine blade or vane base ring located in said channel, and double tapered wedges located between said base ring and one wall of said channel.

4. In combination with a turbine blade or vane holding element provided with a circumferential groove or channel, a turbine blade or vane base ring located in said channel, and compound wedges located between said base ring and one wall of said channel.

5. In combination with a turbine blade or vane holding element provided with a circumferential groove or channel, a turbine blade or vane base ring located in said channel, and a wedge located between said base ring and one wall of said channel.

[Claims 6 to 10 not printed in the Gazette.]

940,779. UNWOVEN REINFORCED FABRIC. EUGENE D. C. BAYNE and LAWRENCE A. SUBERS, Cleveland, Ohio. Filed Apr. 20, 1908. Serial No. 428,015.



1. A reinforced fabric made of a layer of parallel threads laid closely together and a superimposed layer of parallel threads arranged transversely to the threads of the first named layer, the threads of each layer being composed of united fibrous strands and a central reinforcing strand upon which said fibrous strands are wound, each of said strands having a coating thereon, of elastic, "non-fibrous" material, said coatings being adhesive to join the threads together, said threads when laid in said fabric separated by adhesive coatings adapted to join the threads together and sufficiently thick to maintain them out of contact with each other.

2. A reinforced fabric made of alternating layers of parallel wrapped threads, each thread comprising a group of united metallic and fibrous strands, and arranged longitudinally and transversely therein, the threads in one layer crossing the threads in alternate layers at an angle, each strand being coated with a flexible, non-fibrous material, and the fibrous strands wrapped around the metallic strand, and each thread when laid in the fabric separated from adjoining threads by a coating of vulcanizable material, said coatings being adhesive to join the strands to one another and to join the threads and layers together.

3. A reinforced fabric made of a layer of longitudinally extending threads and superimposed layers of alternately transversely and longitudinally extending threads, the threads in each layer comprising united metallic and fibrous strands, each strand having a coating thereon of non-fibrous material and the several threads being separated from each other by means of vulcanizable coatings, said coatings being adhesive to join the said strands together, and to join the threads together at the time the fabric is made, the said threads being united under pressure and maintained out of actual contact by said coatings.

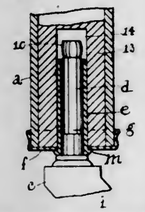
4. A reinforced cylindrical fabric comprising a layer of parallel spirally disposed threads, and a layer of longitudinally disposed threads, the threads of each layer comprising strands of fibrous material united together, each strand having a coating of non-fibrous vulcanizable material thereon, a similarly coated wire strand in some of the same threads about which said fibrous strands are wound, said threads separated from each other by adhesive coatings of vulcanizable material, the said coatings being of sufficient thickness to place said strands and threads out of actual contact with each other.

5. A reinforced fabric comprising coated threads adhering together, some of the threads composed of metallic coated strands and coated fibrous strands wrapped thereon, and some of the threads composed wholly of coated fibrous

strands adhering together, the said threads being laid in layers alternately longitudinal and transverse the said coatings being non-fibrous, elastic and vulcanizable.

[Claim 6 not printed in the Gazette.]

940,780. CASTER. GEORGE W. BENT, Hyde Park, Mass. Original application filed Mar. 30, 1905, Serial No. 252,837. Divided and this application filed Nov. 10, 1908. Serial No. 461,937.



1. A caster having upwardly extending resilient gripping arms or members, for frictionally bearing against the exterior of the leg and means for supporting its pintle within the leg.

2. A caster having upwardly extending resilient gripping arms or members for frictionally bearing against the exterior of a cylindrical leg and provided with inclined inner faces for coöperation with the leg.

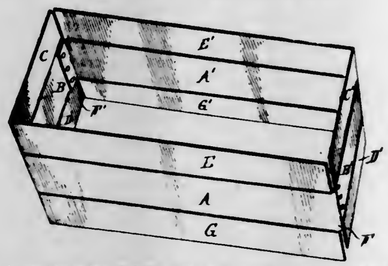
3. A caster having upwardly extending resilient gripping arms or members for frictionally bearing against the exterior of the leg, combined with bearings for the pintle adapted to be received and contained within the interior of the leg.

4. A caster having upwardly extending resilient gripping arms or members, for frictionally bearing against the exterior of the leg, combined with bearings for supporting the caster pintle inside of the leg and in which the pintle is detachably secured.

5. A caster having a leg-supporting disk secured in respect to the pintle and having upturned resilient members frictionally embracing the exterior of the leg and securing the disk thereto and a frame or socket for receiving the pintle within the leg.

[Claims 6 to 8 not printed in the Gazette.]

940,781. PAPER BOX. CHARLES S. BIRD, East Walpole, Mass. Filed May 25, 1908. Serial No. 434,872.

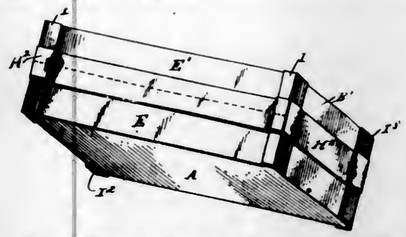


1. A rectangular folding paper box comprising end and side pieces having extension flaps having their combined width the same as the width of the side and end pieces, turned in extension flaps integral with the sides and bent in and secured to their adjacent end pieces, two binding strips, one provided to hold in position the turned in extensions from the sides to form the top of the box, and the other provided to hold in position the turned in extensions on the opposite side of the box to form the bottom of the box, substantially as described.

2. In a rectangular folding paper box, the combination of two rectangular side pieces and two rectangular end pieces, the respective end pieces and side pieces being integral with each other and the four being secured to each other, extension flaps adapted to fold inwardly at substantially right angles with said sides and said end pieces, binding strips adapted to hold in position the said extension flaps from the sides so as to form the top and bottom of the box respectively, substantially as described.

3. In a rectangular folding paper box the combination of the side piece A and end piece B integral with each other and the side piece A′ and the end piece B′ likewise integral with each other, the sides A and A′ having integral with themselves respectively the extension flaps E and G and E′ and G′, such extension flaps being one-half the width of the sides A, A′, end flaps F, F′, integral with A, and A′, adapted to be bent inwardly at substantially right angles and secured to the ends of the end pieces B′, B, respectively, two binding strips H, H′, adapted to secure and hold in position the extension flaps of the sides E, E′, G, G′, so as to form the top and bottom of the box respectively, substantially as described.

940,782. PAPER BOX. CHARLES S. BIRD, East Walpole, Mass. Original application filed May 13, 1909, Serial No. 495,668. Divided and this application filed June 4, 1909. Serial No. 500,116.



1. A rectangular folding paper box, comprising end and side pieces having extension flaps having their combined width substantially the same as the width of said side and end pieces, turned in extension flaps integral with the sides and bent in and secured to the adjacent end pieces, transverse binding strips secured to the corner edges of the box, and binding means extending longitudinally about the box, all of said strips being adapted to hold the extension flaps of the sides in position so as to form the top and bottom of the box, substantially as described.

2. In a rectangular folding paper box, the combination of two rectangular side pieces and two rectangular end pieces, one end piece and one side piece being integral with each other and the four being secured to each other, extension flaps adapted to fold inwardly at substantially right angles with said sides and said end pieces, transverse binding strips secured to the corner edges of the box, and binding means extending longitudinally about the box, all of said strips being adapted to hold the extension flaps of the sides in position so as to form the top and bottom of the box, substantially as described.

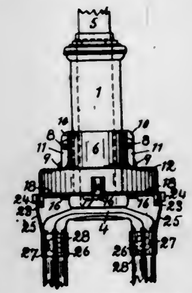
3. In a rectangular folding paper box, the combination of two rectangular side pieces and rectangular end pieces, all of said pieces being integral and secured to each other, extension flaps adapted to fold inwardly at substantially right angles with said sides and said end pieces, transverse binding strips secured to the corner edges of the box, and binding means extending longitudinally about the box, all of said strips being adapted to hold the extension flaps of the sides in position so as to form the top and bottom of the box, substantially as described.

4. A rectangular folding paper box, comprising end and side pieces having extension flaps having their combined width substantially the same as the width of said side and end pieces, turned in extension flaps integral with the sides and bent in and secured to their adjacent end pieces, four transverse binding strips secured along the four transverse edges of the top and bottom of the box, and binding means extending longitudinally about the box, all of said strips being adapted to hold the extension flaps of the sides in position so as to form the top and bottom of the box, substantially as described.

5. In a rectangular folding paper box, the combination of two rectangular side pieces and two rectangular end pieces, one end piece and one side piece being integral with each other and the four being secured to each other, extension flaps adapted to fold inwardly at substantially right angles with said sides and said end pieces, four transverse binding strips secured along the four transverse edges of the top and bottom of the box, and binding means extending longitudinally about the box, all of said strips being adapted to hold the extension flaps of the sides in position so as to form the top and bottom of the box, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

940,783. FRONT-FORK EQUALIZER. SETH J. BUCKLAND, Springfield, Mass. Filed Dec. 21, 1908. Serial No. 468,451.



1. An equalizer, of the class described, comprising a suitably mounted compressible and expansible segmental member, fixed abutments and stop members adapted to limit the outward movement of such segmental member at the ends, and movable abutments adapted to be moved one against one end of said segmental member inward from the adjacent fixed abutment and the other away from the other end of said segmental member outward from the adjacent fixed abutment to compress it between one of said fixed abutments and one of said movable abutments, said stop members intervening between the ends of the segmental member and on one hand the fixed abutment and on the other hand the movable abutment when such compression takes place.

2. An equalizer, of the class described, comprising a fixed member provided with abutments, a member arranged in rotary sliding relation to such fixed member and provided with abutments which are adapted to pass said first-mentioned abutments, segmental supporting means connected to the abutments on such rotary sliding member, stop members loosely mounted on such supporting means, such stop members being incapable of passing the abutments on said fixed member, and a compressible and expansible member on said supporting means between said stop members.

3. An equalizer, of the class described, comprising a fixed member provided with abutments, a member arranged in rotary sliding relation to such fixed member and provided with abutments which are adapted to pass said first-mentioned abutments, positive means to limit the movement of the rotary sliding member, segmental supporting means connected to the abutments on such rotary sliding member, stop members loosely mounted on such supporting means, such stop members being incapable of passing the abutments on said fixed member, and a compressible and expansible member on said supporting means between said stop members.

4. The combination, in an equalizer of the class described, with a suitable case provided with abutments, of a plate arranged in rotary sliding relation to such case and provided with abutments which are adapted to pass said first-mentioned abutments, a segmental support between the plate abutments, washers loosely mounted on such support and incapable of passing said case abutments, and a spiral-spring on said support between said washers.

5. The combination, in an equalizer of the class described, with a fixed part of a vehicle, a suitable case provided with abutments, and means to secure such case to such fixed part of a vehicle, of a plate arranged in rotary sliding relation to said case and provided with abutments which are adapted to pass said first-mentioned abutments, a curved support between the plate abutments, washers loosely mounted on such support and incapable of passing said case abutments, a spiral-spring on said support between said washers, a steering member on said vehicle, and suitable means for connecting said plate with said steering member.

[Claim 6 not printed in the Gazette.]

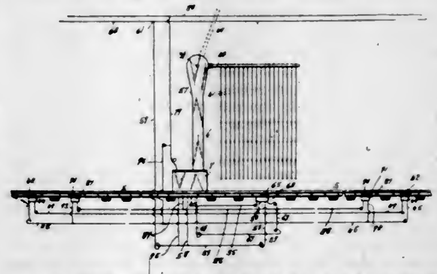
940,784. IRON MANUFACTURE. ROBERT B. CARNAHAN, Jr., Middletown, Ohio, assignor to The International Metal Products Company, Newark, N. J. Filed July 16, 1909. Serial No. 507,911.

The improved manufacture of rolling mill and bloomery ingots and foundry castings consisting of the following steps:—charging a high-powered basic open-hearth furnace with iron; employing therewith eliminating agents for carbon and manganese and sulfur and phosphorus; refining the charge in molten condition at such high and increasing heat and for such prolonged period that analysis by bath test shows that the sulfur, phosphorus, carbon, manganese and silicon are not over .14 per cent. when taken in the aggregate; and pouring the hot purified metal into molds, and treating the metal while in molten state with a deoxidizing and degasifying agent or agents to such extent that the product will contain not over .05 per cent. of oxygen and will contain at least 99.80 per cent of iron, substantially as set forth.

940,785. INGOT. ROBERT B. CARNAHAN, Jr., Middletown, Ohio, assignor to The International Metal Products Company, Newark, N. J. Filed July 16, 1909. Serial No. 508,037.

Improved rolling mill and bloomery ingots characterized by a deoxidized and degasified slagless body crystalline in structure and containing at least 99.80 per cent. of iron, and containing not over .14 per cent. of sulfur, phosphorus, carbon, manganese and silicon taken in the aggregate, and containing not over .95 per cent. of oxygen.

940,786. AUTOMATICALLY-OPERATED GATE FOR RAILWAY-CROSSINGS. WILLIAM J. COOK, Denver, Colo. Filed May 4, 1908. Serial No. 430,824.



1. In means for operating gates at railway crossings, the combination with a gate movably mounted, of an electric motor connected in operative relation with the gate, means arranged along the railway track and adapted to be operated by a passing train for closing the motor circuit, whereby the gate is lifted, means for locking the gate in the raised position, an electromagnet adapted to act on

the said locking means to release the same, a normally open circuit in which the electromagnet is located, means arranged along the track and adapted to be actuated by a passing train for closing the said circuit, a circuit make-and-break device located within the magnet circuit, and controlled independently of the track circuit-closing means, a second electromagnet arranged to act on said make-and-break device to throw the latter in the circuit-closing position when the second magnet is energized, and means arranged along the track and located in the rear of the first track circuit closing means, and adapted to be actuated by a moving train for closing the circuit of the second magnet before the track make-and-break device of the first named magnet is actuated.

2. The combination with a gate movably mounted, of a normally open electric circuit having a motor located within said circuit, means arranged along the track and adapted to be actuated by the wheel of a passing train for closing the motor circuit, whereby the gate is raised, means for locking the gate in the raised position, an electromagnet adapted to act on the said locking means to release the same, a normally open circuit in which the electromagnet is located, means arranged along the track and adapted to be actuated by a passing train for closing the said circuit, a circuit make-and-break device located within the magnet circuit, and controlled independently of the track circuit-closing means, a second electromagnet arranged to act upon the said make-and-break device to throw the latter into the circuit-closing position when the second magnet is energized, and means arranged along the track and located in the rear of the first named track circuit-closing means, and adapted to be actuated by a moving train for closing the circuit of the second magnet before the track make-and-break device of the first named magnet is actuated.
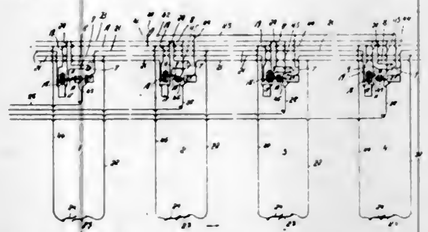
3. The combination with a gate movably mounted, of an electric circuit, means located within the circuit and connected in operative relation with the gate for operating the same, means arranged along the track to be actuated by a passing train for closing the circuit in which the operating means is located, means for locking the gate in the raised position, an electromagnet adapted to act on the said locking means to release the same, a normally open circuit in which the electromagnet is located, means arranged along the track and adapted to be actuated by a passing train for closing the said circuit, a circuit make-and-break device located within the magnet circuit, and controlled independently of the track circuit-closing means, a second electromagnet arranged to act upon the said make-and-break device to throw the latter into the circuit closing position when the second magnet is energized, and means arranged along the track and located in the rear of the first named track circuit-closing means, and adapted to be actuated by a moving train for closing the circuit of the second-magnet before the track make-and-break device of the first named magnet is actuated.

4. The combination with a gate movably mounted, of a normally open electric circuit, means located within the circuit for raising the gate, means arranged along the track and located in such proximity thereto as to be actuated by the wheel of a passing train for closing the circuit in which the gate-raising means is located, means for locking the gate in the raised position, an electromagnet adapted to act on the said locking means to release the same, a normally open circuit in which the electromagnet is located, means arranged along the track and adapted to be actuated by a passing train for closing the said circuit, a circuit make-and-break device located within the magnet circuit, and controlled independently of the track circuit-closing means, a second electromagnet arranged to act upon the said make-and-break device to throw the latter into the circuit-closing position when the second magnet is energized, and means arranged along the track and located in the rear of the first named track circuit-closing means, and adapted to be actuated by a moving train for closing the circuit of the second magnet before the track make-and-break device of the first named magnet is actuated.

5. The combination with a gate movably mounted, of a normally open electric circuit, gate operating means located within the circuit, means located along the track and adapted to be actuated by a passing train for closing the circuit, means operated by the movement of the gate for breaking the circuit when the gate has reached a predetermined limit of movement, means for locking the gate in the raised position, an electromagnet adapted to act on the said locking means to release the same, a normally open circuit in which the electromagnet is located, means arranged along the track and adapted to be actuated by a passing train for closing the said circuit, a circuit make-and-break device located within the magnet circuit, and controlled independently of the track circuit-closing means, a second electromagnet arranged to act upon the said make-and-break device to throw the latter into the circuit-closing position when the second magnet is energized, and means arranged along the track and located in the rear of the first named track circuit-closing means, and adapted to be actuated by a moving train for closing the circuit of the second magnet before the track make-and-break device of the first named magnet is actuated.

[Claims 6 to 12 not printed in the Gazette.]

940,787. RAILWAY SIGNALING APPARATUS. WILLIAM J. COOK, Denver, Colo. Filed Aug. 17, 1908. Serial No. 448,980.



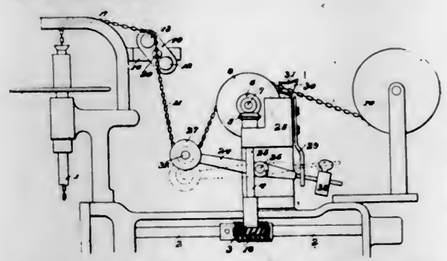
1. In railway signaling apparatus the combination of lighting stations arranged along the track, each station having a lamp, contacts located in the lamp circuit and normally separated, an electro-magnet which, when energized, brings the said contacts into engagement to close the lamp circuit, means for automatically locking the said contacts in the circuit-closing position, and an electromagnet for releasing the locking means, circuit make-and-break devices arranged along the track and acted upon by a passing train, to momentarily place the said devices in the circuit-closing position, and connections between the circuit make-and-break devices and the electro-magnets at the lighting stations, whereby as the track make-and-break devices are closed, the first named magnet is energized in one direction from the train and the lock releasing magnet energized in the opposite direction from the train, substantially as described.

2. Railway signaling apparatus, comprising lighting stations arranged along the track, each station including an electric lamp, electro-magnetic means for closing the lamp circuit, means for automatically locking the lamp circuit in the closed position, electro-magnetic means for releasing the locking mechanism, circuit make-and-break devices arranged along the track and adapted to be momentarily placed in the closed position by a passing train, and circuit connections between the track make-and-break devices and the electro-magnetic means of the lighting stations, whereby when any track circuit make-and-break device is closed, the electro-magnetic means for closing the lamp circuit is energized in one direction from the train, while the lock-releasing electro-magnetic means is energized in the opposite direction from any train, substantially as described.

3. Railway signaling apparatus comprising stations arranged along the track at suitable intervals, each station including an electric lamp, electromagnetic means for closing the lamp circuit, means for locking the lamp circuit in the closed position, electromagnetic means for releasing the locking mechanism, circuit make-and-break devices arranged along the track, each circuit make-and-break device being connected with the electric apparatus of two stations, whereby as the track circuit make-and-break device is closed the electromagnetic means for closing the lamp circuit is energized at one station, and the electromagnetic means for releasing the locking mechanism is energized at the other station, electric lamps lighted in the train despatcher's office, corresponding with the lamps lighted and extinguished at the stations along the track, and suitable circuit connections between the track circuit make-and-break device and the lamps in the despatcher's office, whereby as the lamps are lighted or extinguished at the stations, corresponding lamps in the train despatcher's office are also lighted and extinguished.

4. Railway signaling apparatus, comprising signal stations arranged along the track, each station including an electric signal, electro-magnetic means for closing the signal circuit, means for automatically locking the signal circuit in the closed position, electro-magnetic means for releasing the locking mechanism, circuit make-and-break devices arranged along the track and adapted to be momentarily placed in the closed positions by a passing train, and circuit connections between the track and make-and-break devices and the electromagnetic means of the signal stations, whereby when any track circuit make-and-break device is closed, the electro-magnetic means for closing the signal circuit is energized in one direction from the train, while the lock releasing electro-magnetic means is energized in the opposite direction from any train, substantially as described.

940,788. SEWING AND EMBROIDERING MACHINE. ROBERT CORNELY, Paris, France. Filed Apr. 21, 1909. Serial No. 491,333.



1. In a sewing and embroidering machine, the combination of a needle-bar, means for feeding material to said needle-bar, and gravity-actuated means for engaging said material to suspend the supply thereof to said feeding means when the absorption of material to the work falls below a predetermined amount.

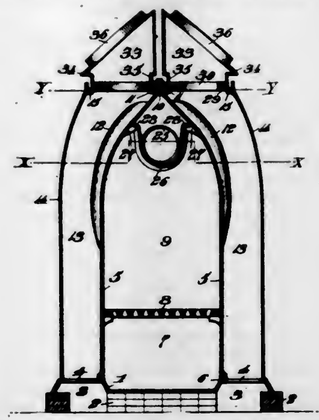
2. In a sewing and embroidering machine, the combination of a needle-bar, means for supplying material to said bar, a revoluble cylinder adapted for receiving one or more wraps of said material, and drawing the same from said supply and feeding the same to the needle-bar, and means responding to slack in the material between said needle-bar and cylinder for acting on the material to suspend the supply of the same to said feeding cylinder.

3. In sewing and embroidering machines, the combination of a needle-bar, means for supplying material to said bar, a revoluble cylinder drawing material from said supply means, and a stationary spiral guide concentric with said cylinder for preventing contact between the windings of the material on said cylinder.

4. In a sewing and embroidering machine, the combination of a hollow needle-bar, means for supplying material to said bar, a revoluble cylinder, having a spiral guide, drawing material from said supply and delivering same to said bar, a lever provided on one arm with a roller adapted to hold the material taut between the cylinder and needle-bar, and means engaging the opposite arm for controlling the supply of material to said feeding cylinder.

5. In a sewing and embroidering machine, the combination of a needle-bar, means for supplying material to said needle-bar, a revoluble cylinder drawing the material from said supply and delivering the same to said bar, a stationary spiral guide concentric with said cylinder for preventing contact between the windings of said material on said cylinder, a gravity-actuated tension member holding the material taut between said cylinder and needle-bar, and means actuated by said member for engaging said material to suspend the supply thereof to said feeding cylinder when the absorption of material by the work falls below a predetermined amount.

940,789. FURNACE. EARL V. COULSTON, Rock Island, Ill. Filed July 10, 1908. Serial No. 442,820.



1. In a device of the character described, a plurality of sections forming a combustion chamber, an outer wall secured to each of a number of said sections to form with said sections air passages, and the joints, formed by connecting the several sections, being exterior of the walls of said air passages.

2. In a device of the character described, a plurality of sections forming a combustion chamber, a number of said sections having side extensions integral therewith, outer walls secured to said extensions whereby air passages are formed between said sections and said outer walls, and the joints, formed by connecting the several sections, being exterior of the walls of said air passages.

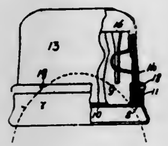
3. In a device of the character described, a base plate having apertures therein, a casing mounted in sections on said base plate, a plurality of sections interior of and secured individually to each section of said casing and forming therebetween air passages in alinement with said apertures, a top plate for each section having an opening therein and the joints, formed by connecting the several sections, being exterior of the walls of said air passages.

4. In a device of the character described, a plurality of sections forming a combustion chamber, an outer wall secured to each section, said sections and outer walls forming air passages, a top covering for each of said air passages provided with an opening leading into and connected with a hot air reservoir, the joints, formed by connecting the several sections, being exterior of the walls of said air passages and reservoir.

5. In a device of the character described, a plurality of sections forming a combustion chamber, a number of said sections having side extensions integral therewith, outer walls secured to said extensions whereby air passages are formed therebetween, top coverings having openings therein for said air passages, a separate hot air reservoir connected with each side series of top openings, the joints, formed by connecting the several sections, being exterior of the walls of said air passages and reservoirs.

[Claims 6 to 10 not printed in the Gazette.]

940,790. EGG-OPENER. THOMAS COWBURN, Brockworth, England. Filed June 14, 1909. Serial No. 501,982.



1. A new or improved egg opener comprising one or more cutters or scrapers supported by a carrier and adapted to be pressed with a yielding pressure against the egg and a guide to insure said cutters or scrapers moving in the same plane when the carrier is reciprocated for the purpose set forth.

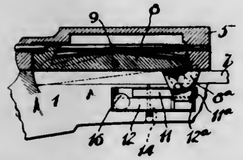
2. A new or improved egg opener comprising a carrier adapted to rotatably fit within or on a guide, cutters or scrapers having a yielding action mounted on said carrier and means whereby said cutters or scrapers may be pressed with a yielding pressure against the egg when the guide is placed on an egg.

3. An egg opener comprising in combination an annular guide member adapted to be placed and held upon the end portion of an egg, a cylindrical cutter-carrier rotatable upon said guide member, cutters movable radially mounted on the said carrier, and means for pressing the said cutters yieldingly against the egg.

4. An egg opener comprising in combination an annular guide member, a cylindrical cutter-carrier rotatable upon said guide member, a plurality of cutters having spring shanks mounted on the said carrier, and hand operable means for pressing the said cutters yieldingly against the egg and at the same time rotating the cutter-carrier, substantially as described.

5. In an egg opener comprising a rotatable cutter-carrier the combination of radially movable cutters mounted on the carrier and means for pressing the said cutters yieldingly against the egg.

940,791. MAGAZINE-FIREARM. HALE W. DE JARNATT, Centralia, Mo., assignor, by mesne assignments, to The Marlin Firearms Company, New Haven, Conn., a Corporation of Connecticut. Filed Apr. 4, 1906. Serial No. 309,896.



1. In a magazine gun, a frame, a magazine, a breech bolt, a locking bolt, dogs mounted in the frame to operate as cartridge stops, means for actuating the locking bolt whereby said locking bolt operates said dogs to permit the same to successively engage a cartridge as the same is being expelled from the magazine, one of said dogs projecting slightly ahead of the other and being arranged to engage the next succeeding cartridge in the magazine and prevent its discharge therefrom when the first mentioned cartridge has been entirely removed from said magazine.

2. In a magazine gun, a frame, a magazine, a breech bolt, a locking bolt, two cartridge stop dogs mounted in the frame, means for actuating the locking bolt whereby said bolt operates both of said dogs.
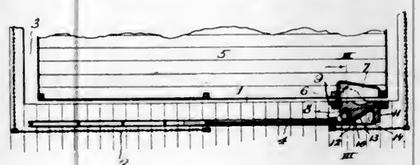
3. In a magazine gun, a frame, a magazine, a breech bolt, a locking bolt, two cartridge stop dogs mounted in the frame, means for actuating the locking bolt whereby said bolt operates both of said dogs, and a depending lug carried by the locking bolt and constituting a part thereof, said lug directly engaging said dogs in the act of operating the same.

4. A magazine gun comprising a frame having a locking bolt therein, dogs mounted in the frame, said dogs adapted to engage the cartridges in the magazine, and means for operating the locking bolt whereby it releases one of the dogs and engages the other in its movement thereby releasing a cartridge in the magazine, and the dog released by the bolt adapted to engage the next succeeding cartridge and retain it in the magazine.

5. A magazine gun comprising a frame, a locking bolt therein, dogs mounted in the frame, said dogs adapted to engage the cartridges in the magazine, and means for opening and closing the gun whereby the locking bolt is actuated releasing one of the dogs in its movement as the gun is opened and engaging the other dog, thereby releasing the cartridge from the magazine, and the first named dog adapted to engage the next succeeding cartridge, and upon the closing of the gun the locking bolt passes over the dogs releasing the last named dog and engaging the first named dog thereby releasing the cartridge which is engaged by the last named dog which has just been released by the locking bolt.

[Claims 6 to 10 not printed in the Gazette.]

940,792. AUTOMATIC SAFETY DEVICE FOR ELEVATORS. JAMES T. DEMPSEY, Kansas City, Kans., assignor of one-half to E. S. W. Drought, Kansas City, Mo. Filed June 24, 1909. Serial No. 504,068.

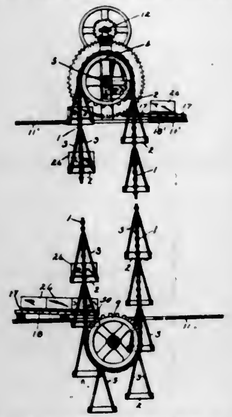


1. In combination, an elevator car provided with a pocket, a door for controlling the entrance to said car, a cam pivotally-mounted at the elevator landing for entering said pocket to lock the car, said cam having a curved face and an extension, and a device carried by the elevator door adapted to engage the curved face of the cam to throw the latter into the pocket when the door is opened, and engage the extension on the cam to throw the latter out of the pocket when the door is closed.

2. In combination, an elevator car, a door for controlling the entrance to said car, a cam pivotally-mounted at the elevator landing and provided with a curved or beveled face and an extension, and a cam-actuating device secured to the elevator door and embodying a curved or beveled face adapted to engage the curved or beveled face of the cam to throw the latter into engagement with the car to lock the same when the door is opened, and a transverse face adapted to engage the extension on the cam to disengage the same from the car when the door is closed.

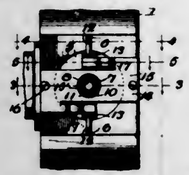
940,793. ENDLESS CARRIER. FREDERICK A. EMERICK, Oswego, N. Y., assignor to Great Bear Spring Company, Jersey City, N. J., a Corporation of New Jersey. Original application filed Nov. 9, 1905, Serial No. 286,469. Divided and this application filed Sept. 27, 1906. Serial No. 336,417.

In an endless carrier, the combination of pendulous trays having vertical openings extending respectively from opposite sides or edges of the tray across the line of suspension, inclined feed tracks inclined toward and extending into the path of the trays on their one side and entirely across the line of suspension of the trays but in line with the vertical openings extending from one edge or side thereof, said tracks being adapted to feed a line of objects in succession to said trays by gravity, a suitably fixed stop 50 secured to the end of the tracks for halting the objects in position to be picked up by the ascending trays and discharge or delivery tracks extending into the path of the trays on the opposite side but entirely across the line of suspension of the trays and in line with vertical openings



extending from the opposite side or edge of said trays, as and for the purpose described.

940,794. SOUND-BOX FOR SOUND RECORDING AND REPRODUCING MACHINES. JOHN C. ENGLISH, Camden, N. J., assignor to Victor Talking Machine Company, a Corporation of New Jersey. Filed May 16, 1906. Serial No. 317,054.



1. In a sound box for talking machines, a stylus bar, a stylus bar support provided with a flattened surface, journals on the ends of said support, and means pressing against said flattened surface and tending to force said surface away from the axis of oscillation of said bar for yieldingly holding said journals in position, and for applying tension to said stylus bar.

2. The combination with a sound box having grooves on one side thereof, a stylus bar, journals on which said stylus bar is mounted, resting in said grooves and a spring, connected at one end to said sound box, having its other end free to hold said journals within said grooves.

3. The combination with a sound box, a stylus bar and a stylus bar support by which said stylus bar is pivotally supported on said sound box, of a flat spring, rigidly connected at one end to said sound box and having its other end loosely pressing against said stylus bar support at a point spaced from the axis of oscillation of the said bar and in the direction from said axis toward which said spring is pressing as it acts upon said bar.

4. In a sound box for talking machines, a stylus bar, a stylus bar support provided with a flattened surface, journals on the ends of said support and a spring secured to said sound box and pressing against the flattened surface of said support at a point upon said flattened surface in the direction of the pressure of said spring against said flattened surface from the axis of oscillation of the said bar.

5. In a sound box for talking machines a stylus bar, a stylus bar support provided with flattened surfaces, journals on the end of said support, and oppositely extending flat springs having one end of each secured to said sound box and having their free ends pressing against said flattened surfaces.

[Claims 6 to 43 not printed in the Gazette.]

940,795. SOUND-BOX FOR TALKING-MACHINES. JOHN C. ENGLISH, Camden, N. J., assignor to Victor Talking Machine Company, a Corporation of New Jersey. Filed May 16, 1906. Serial No. 317,055.



1. In a sound reproducer, the combination with the diaphragm of a stylus bar mounted to oscillate upon a pivotal bearing, compressed spring for tensioning said bearing, the axis of said spring being substantially in a plane of the axis of oscillation of said bar and substantially coincident with the longitudinal axis of the stylus bar at its bearing.

2. In a sound reproducer, the combination with the diaphragm of a stylus bar mounted to oscillate upon pivotal bearings and a compressed spring for tensioning said bearings, the longitudinal axis of said spring being substantially coincident with the longitudinal axis of said bar, the said bar having a projection against which one end of the spring bears to hold the pivots upon their bearings.

3. In a sound box for talking machines, a stylus bar, trunnions mounted on said sound box upon which said stylus bar oscillates, a spring surrounding said stylus bar close to said trunnions and exerting a yielding pressure between said trunnions and said sound box tending to force said bar outwardly from said box.

4. In a sound box for talking machines, a stylus bar, trunnions bearing against said sound box and upon which said stylus bar oscillates, a spring comprising a collar surrounding said stylus bar, radial arms engaging said sound box, and means to exert a tension on said spring in the direction of the longitudinal axis of said stylus bar.

5. In a sound box for talking machines, a stylus bar, trunnions bearing against said sound box and upon which said stylus bar oscillates, a spring comprising a collar surrounding said stylus bar, radial arms engaging said sound box, and means also mounted on said stylus bar to exert a tension on said spring in the direction of the longitudinal axis of said stylus bar.

[Claims 6 to 19 not printed in the Gazette.]

940,796. SOUND-BOX FOR SOUND RECORDING AND REPRODUCING MACHINES. JOHN C. ENGLISH, Camden, N. J., assignor to Victor Talking Machine Company, a Corporation of New Jersey. Filed May 31, 1906. Serial No. 319,426.



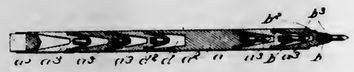
1. In a sound box, the combination with a stylus bar provided with a knife edge, of a mounting for said stylus bar, and a spring arm extending transversely of and bearing against said knife edge to hold said bar upon its mounting.

2. In a sound box, the combination with a casing having an aperture in one side thereof, of a stylus bar extending through said aperture and journaled upon the outside of said casing, and an apertured plate secured to the outside of said casing and surrounding said bar to hold said bar yieldingly in position, said plate being provided with a spring arm integral therewith and bearing against a knife edge provided therefor on said bar, and extending transversely of said knife edge.

3. In a sound box, the combination with a stylus bar, of a mounting therefor and an apertured plate surrounding said bar, said plate being provided with oppositely extending spring arms integral therewith and extending transversely of and contacting with knife edges provided on said stylus bar to hold said bar upon its mounting.

4. In a sound box, the combination with a casing provided with an aperture in one side thereof, of a stylus bar extending through said aperture, trunnions carried by said bar and mounted to oscillate in grooves provided therefor in the surface of the sound box casing, and a spring plate provided with an aperture through which said bar extends, said plate being secured to said casing and being provided with spring arms integral therewith and bearing against and extending transversely of knife edges provided therefor upon said trunnions to hold said bar yieldingly in position.

940,797. PENCIL. WILLIAM A. FRASER, New York, N. Y., assignor of one-half to Asher Kleinman, New York, N. Y. Filed Jan. 16, 1909. Serial No. 472,606.



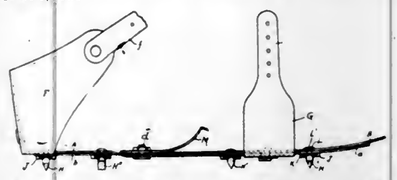
A lead or crayon pencil, composed of separate detachably connected parts, said parts comprising a cylindrical portion provided at one end with a reduced cylindrical threaded part having a pointed projection provided with a socket adapted to receive a pencil or crayon, and at the other end with a socket adapted to receive a corresponding pointed end of another part with a pencil or crayon therein, the end portion of said socket being cylindrical in form and provided with an internal thread which corresponds with the thread on the said threaded part.

940,798. ANVIL. GRANT E. FREEBORN, Belfast, N. Y. Filed Oct. 9, 1908. Serial No. 456,989.



An anvil comprising a base having a cylindrical receptacle rising upward therefrom and open at its upper end, a hollow column slidably mounted in said receptacle, an anvil carried upon and closing the upper end of the column, said receptacle containing a liquid for supporting the column with an air space within the column above the liquid, a valved inlet in the upper end of the column whereby air is admitted into said column, and co-acting means carried by the exterior of the receptacle and the column whereby the height of the anvil is regulated.

940,799. ANTISLIPPING ATTACHMENT. JOHN S. GAJEWSKI, Milwaukee, Wis. Filed Jan. 27, 1909. Serial No. 474,378.



1. In a device of the described class, the combination of two longitudinal members, each composed of thin material with portions over-lapping, clamping members adjustably securing the other members together, reinforcing bars extending transversely across the under surfaces of said longitudinal members and having their ends secured to one of said longitudinal members and their central portions offset sufficiently to receive a portion of the other longitudinal member, means for securing said longitudinal members to the foot of the wearer, and downwardly projecting prongs connected with the respective adjustable members.

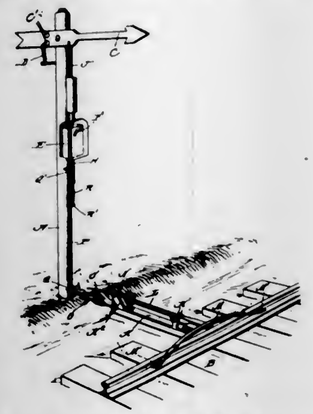
2. In a device of the described class, the combination of two longitudinal members, each composed of thin material with portions over-lapping, clamping members adjustably securing the other members together, reinforcing bars extending transversely across the under surfaces of said longitudinal members and having their ends secured to one of said longitudinal members and their central portions offset sufficiently to receive a portion of the other longitudinal member, means for securing said longitudinal members to the foot of the wearer, and downwardly projecting prongs connected with the respective adjustable members, said downwardly projecting prongs serving also to connect the reinforcing bars with such members.

3. In a device of the described class, the combination of two longitudinal members, each composed of thin material with portions over-lapping, clamping members adjustably securing the other members together, reinforcing bars extending transversely across the under surfaces of said longitudinal members and having their ends secured to one of said longitudinal members and their central portions offset sufficiently to receive a portion of the other longitudinal member, means for securing said longitudinal members to the foot of the wearer, and downwardly projecting prongs connected with the respective adjustable members, some of said prongs having pointed extremities and others having wedge shaped extremities.

4. In a device of the described class, the combination of two longitudinal members, each composed of thin material with portions over-lapping, clamping members adjustably securing the other members together, reinforcing bars extending transversely across the under surfaces of said longitudinal members and having their ends secured to one of said longitudinal members and their central portions offset sufficiently to receive a portion of the other longitudinal member, means for securing said longitudinal members to the foot of the wearer, and downwardly projecting prongs connected with the respective adjustable members, together with an instep reinforcing member connected with one of said clamping bolts and extending upwardly in a position to fit the arch of a boot or shoe.

5. In a device of the described class, the combination of two longitudinal members, each composed of thin material with portions over-lapping, clamping members adjustably securing the other members together, reinforcing bars extending transversely across the under surfaces of said longitudinal members and having their ends secured to one of said longitudinal members and their central portions offset sufficiently to receive a portion of the other longitudinal member, means for securing said longitudinal members to the foot of the wearer, and downwardly projecting prongs connected with the respective adjustable members, some of said prongs having pointed extremities and others having wedge shaped extremities turned in opposite directions.

940,800. RAILROAD-SIGNAL. LEMUEL E. GARNETT, Chanute, Kans., assignor of one-half to Johnathan L. Barnes, Chanute, Kans. Filed Aug. 14, 1908. Serial No. 448,594.



1. In a device of the kind described, the combination with a semaphore, of a clock mechanism, a piston provided with a rack portion for operating said clock mechanism and semaphore, a cable connected to said piston, a crank arm connected to said cable, a lever for operating said crank arm and a bowed spring arranged over the free end of said lever adapted to be compressed by the wheels of a train as it passes over the same.

2. In a device of the kind described, the combination with a semaphore, a clock mechanism, a piston provided with a rack portion engaging said clock mechanism, means for slidably connecting said piston to the semaphore, a spring for operating said piston and a cable connected to said piston operated by the passage of wheels over the track.

3. In a device of the kind described, the combination with a post carrying a semaphore, of a clock mechanism secured to the post provided with a fan governor, a piston provided with a rack portion meshing with said clock mechanism, said piston having a sliding connection with the semaphore, a spring for normally holding said semaphore in a raised position and means operated by the passage of a train over the track for operating said piston.

4. In a device of the kind described, the combination with a post adapted to be arranged alongside of a railroad track, of a semaphore pivotally mounted on said post, a clock mechanism carried by the post, a piston provided with a rack portion engaging said clock mechanism and provided with a head, a rod carried by the semaphore provided with a cylinder working over said head, a coil spring carried by the post connected to the lower end of said piston, a cable connected to the piston, and means arranged alongside of the rail for operating said cable by the passage of wheels over a track.

5. In a device of the kind described, the combination with a post adapted to be arranged alongside of a railroad track, a semaphore pivotally mounted on said post, a clock mechanism supported by the post, a piston rod provided with a rack portion engaging said clock mechanism, a piston head arranged on said piston rod, a rod carried by the semaphore provided with a cylinder arranged over said piston head, a cable connected to said piston rod for forcing said piston rod upwardly and means for operating said cable operated by the passage of wheels over the rails.

[Claims 6 to 14 not printed in the Gazette.]

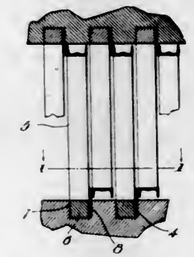
940,801. HAIR-PIN HOLDER. SOLOMON H. GOLDBERG, Chicago, Ill. Filed Mar. 1, 1909. Serial No. 480,559.

1. A hairpin holder resembling a human figure comprising an upper member having a head and shoulder portion, a pair of flexible cords, each composed of a plurality of loose strands, suspended from said upper member at either side of the head portion thereof and crossing each other, a belt uniting said crossed cords, and the ends of the latter extending below the belt flared to form a skirt portion.



2. In a hairpin holder, the combination with an upper member having a head and shoulder portion, of a pair of flexible cords each composed of a relatively large number of loose strands suspended from said shoulder portions and having their free ends extending substantially equal distances, a belt uniting the said cords and the ends of the latter beneath said belt flared to form a skirt portion.

940,802. ELASTIC-FLUID TURBINE. JONATHAN S. GREEN, Pittsburg, Pa., assignor to The Westinghouse Machine Company, a Corporation of Pennsylvania. Filed May 2, 1905, Serial No. 258,471. Renewed Apr. 20, 1908. Serial No. 428,141.



1. In combination with a blade holding element provided with a circumferentially extending or annular slot or channel, a guard or abutment piece the base of which lies within said slot or channel, a plurality of blades lying within said slot and separate caliking or spacing pieces alternating with said blades.

2. In an elastic fluid turbine, in combination with the annular rows of shrouded rotor blades, the roots of which are secured within slots or channels by means of separate caliking and spacing pieces, abutment pieces secured in said slots or channels and which project therefrom.

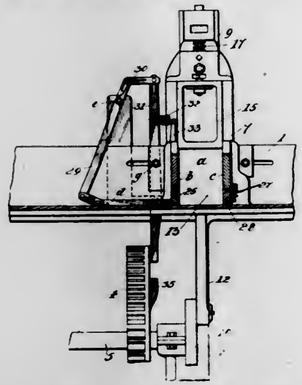
3. In combination with a blade holding element provided with a circumferentially-extending slot, an abutment piece, the base of which lies within said slot, a plurality of blades adjacent thereto and means for mounting said blades within said slot.

4. In combination with an annular row of turbine blades, a guard or abutment piece mounted on the discharge or exhaust side thereof.

5. In combination with an annular row of turbine blades, means for mounting said blades, and a guard or abutment piece mounted adjacent to the bases of said blades.

[Claims 6 to 14 not printed in the Gazette.]

940,803. TOBACCO-PRESS. CHARLES H. HAMMOND, Baltimore, Md., assignor to Lester-Adams Tobacco Press Company, a Corporation of Delaware. Filed May 27, 1909. Serial No. 498,692.



In a tobacco press, the mold thereof having a movable front wall or plate with means to effect its alternate motion toward and from the mold to close and open the same, and the mold having also an exit opening in one of its side plates, and a reciprocating plunger adapted to pass through the other side plate and into the mold, combined with a sliding door for the said lateral opening, means to produce a reciprocating movement of the said plunger, and independent actuating devices to effect the opening and closing of the sliding door, the said motion-producing appliances being arranged in such manner as to effect the closing of the lateral opening in advance of the forward or closing operation of the front plate, substantially as specified.

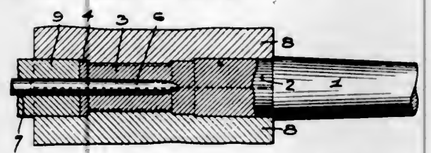
940,804. PIANO-BENCH. ANNA B. HANSON, Chicago, Ill. Filed Jan. 15, 1909. Serial No. 472,389.



1. A piano bench, comprising a base having a grooved frame, sliding frames mounted in the grooves of the base member, a stationary cross piece extending across the base frame, a crank handle mounted therein, a pinion carried by the crank handle, rack bars connected to the sliding frames and meshing with the opposite sides of the pinion, U-shaped members pivotally mounted on the base frame and the sliding frames respectively, one of the members being longer than the other and having its ends turned inwardly and reduced in diameter to fit in openings in the flattened ends of the other member to form toggles, rollers mounted on said inwardly turned ends of the members, and a seat member bearing on the rollers to be raised and lowered by the toggles when the crank handle is turned.

2. A piano bench, comprising a base having columns supporting a grooved rectangular frame, a seat member having a box like portion telescopingly mounted on the frame of the base, capitals for the columns carried by a box like portion of the seat member, sliding frames mounted in the grooves of the base frame, a stationary cross piece extending across the base frame between the sliding frames, a spring crank handle journaled in the cross piece, a pinion carried by the crank handle, rack bars connected to the sliding frames and meshing with opposite sides of the pinion, a guard plate extending over the rack bars and the pinion and secured to the stationary cross piece to keep the rack bars in mesh with the pinion, pairs of U-shaped members pivotally connected to the ends of the base frame and to the sliding frames respectively, one of said frames being longer than the other and having its ends bent inwardly and reduced in diameter to enter openings in the ends of the other U-shaped frame to constitute a toggle therewith, rollers mounted on said inwardly bent ends of the U-shaped members and bearing on the under side of the seat member, roller guides secured to the seat member and extending beneath the rollers, springs mounted on the seat member and adapted to engage the base frame when the seat member is in its lowermost position, a bottom plate extending across the base frame and inclosing the mechanism except the crank handle and provided with a series of openings around the crank handle, and a pin on the crank handle adapted to enter said openings for locking the seat member in its adjustments.

940,805. METHOD OF REWORKING WORN CAR-AXLES. JOHN M. HANSEN, Pittsburg, Pa. Filed June 13, 1908. Serial No. 438,419.



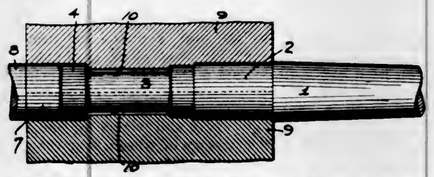
1. The method of forming and re-working car axles, consisting in forming the axle with finished journal and collar portions, and after wear heating and re-forging the journal portion so that after re-forging it will be at least as large as the original journal portion.

2. The method of utilizing worn car axles, consisting in heating the journal portion and confining the end collar and wheel bearing of the axle to maintain their original diameter, and subjecting the worn journal portion to pressure in a manner to enlarge said journal portion.

3. The method of utilizing worn car axles, consisting in heating the journal portion and confining the end collar and wheel bearing to hold them to their original diameter, and subjecting the worn journal portion to pressure exerted axially and thereby causing the metal to flow radially and enlarge said journal portion.

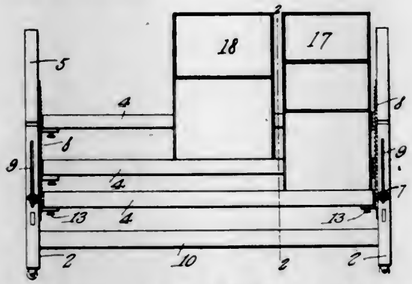
4. The method of utilizing worn car axles, consisting in heating the journal portion and confining the end collar and wheel bearing to hold them to their original diameter, and piercing the axle centrally, thereby causing the metal at the worn journal portion to flow radially and enlarge said worn journal portion.

940,806. METHOD OF REWORKING WORN CAR-AXLES. JOHN M. HANSEN, Pittsburg, Pa. Filed June 13, 1908. Serial No. 438,420.



The method of forming and re-working car axles, consisting in forming the axle with finished journal and collar portions, and after wear heating and re-forging the same so as to reduce the length of the end collar and so enlarge the journal portion that after re-forging it will be at least as large as the original journal portion.

940,807. FRUIT AND VEGETABLE DISPLAY RACK. CYRUS C. HART, Findlay, Ohio. Filed June 29, 1909. Serial No. 505,018.



1. In a device of the class described, a frame including upright posts provided with longitudinally disposed grooves and with longitudinally disposed slots communicating therewith; toothed racks carried by the posts; bars arranged for terminal reciprocation in the grooves; spring actuated catches carried by the bars and arranged to engage the racks; and clamping devices terminally mounted in the bars and arranged to engage the posts, and disposed in the slots.

2. In a device of the class described, a frame including upright corner posts; other posts supported by the ends of the frame intermediate the corner posts; toothed racks carried by the posts; bars connecting the posts at one end of the frame with those at the other end and arranged to reciprocate in said posts longitudinally thereof; and spring actuated catches carried by the bars and arranged to engage the racks.

3. In a display stand of the class described the combination with a substantially rectangular frame having an upright grooved support at each corner, one pair of said supports being smaller longitudinally than the other, of intermediate supports carried by each of the transverse members of said frame, having grooves cut therein, upwardly extending teeth on sides of said supports adjacent said grooves, tray supporting bars having at each longitudinal extremity a spring catch, adapted to be vertically adjustable in said groove and means for retaining the said bars therein.

4. In a display stand of the class described, the combination with a substantially rectangular frame, having an upright grooved support at each corner thereof, one pair of said supports being smaller longitudinally than the other, of intermediate upright grooved supports carried by a transverse member of said frame, an oblique spreader attached to the upper extremities of said uprights, upwardly extending teeth adjacent said grooves, said posts slotted opposite said grooves, tray supporting bars adapted to reciprocate in said grooves provided with a spring catch adapted to engage said teeth and having a set screw in said slots providing a double locking means, and means for retaining the bars in the grooves comprising a retaining plate secured over the same.

940,808. METHOD OF MAKING HALF-TONE PLATES. JOHN HARTNETT, Jr., West Arlington, Md., assignor to Hartnett Vulcograph Company of Baltimore City, Baltimore, Md., a Corporation of Maryland. Filed Mar. 5, 1907. Serial No. 360,640.

1. A method of making half-tone plates which consists in coating the plate with pure rubber containing a small percentage of material adapted to be rendered soluble by the action of light, exposing said plate to the action of light passing through a transparency of the object to be produced, and then dissolving out said material to render the coating porous, and finally etching the plate through the pores of the film with a suitable material.

2. A method of making half-tone plates which consists in coating a metal plate with a film of rubber containing a small percentage of asphaltum or coal tar, subjecting said film to the action of light passing through a transparency of the object to be reproduced, subjecting the film to an acetone bath to render the same porous, and finally subjecting the porous film to a suitable etching material.

3. A method of making half-tone plates which consists in coating a metal plate with a film of rubber containing a small percentage of asphaltum or coal tar, heating the plate to thoroughly dry the film, subjecting said film to the action of light passing through a transparency of the object to be reproduced, subjecting the film to an acetone bath to render the same porous, and finally subjecting the porous film to a suitable etching material.

940,809. METALLIC TIE AND RAIL-FASTENER. GUSTAV A. HASSEL, McKeesport, Pa., assignor to Pittsburgh Track Specialty Company, Pittsburg, Pa., a Corporation of Delaware. Filed Dec. 30, 1908. Serial No. 470,019.



1. A metallic-tie consisting of a cast-metal structure having a box-like rail supporting-member formed integral therewith, said member having a bearing for the base of a rail and two apertured upright-members spaced apart to straddle the base of a rail.

2. A metallic-tie consisting of a cast-metal structure having a box-like rail supporting-member formed integral therewith, said member having a bearing for the base of a rail and an apertured upright-member, and means for securing a rail to the supporting-member comprising a clamp-member projecting through the upright-member.

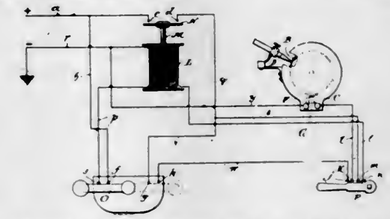
3. A metallic-tie having a box like rail supporting-member having a crowned upper plate and formed with an apertured upright, and a clamping-member projecting through the upright.

4. A metallic-tie having a rail supporting-member formed with an apertured upright, a clamping-member projecting through the upright, said clamping-member formed with a groove, and a key extending into the opening of the upright and having a portion thereof located in the groove of the clamping-member.

5. The combination with a rail, insulating-material surrounding a portion of the base of the rail, a shield for said material, of a metallic-tie having a box like rail supporting-member formed with an apertured upright, and a clamping-member projecting through the upright.

[Claims 6 to 10 not printed in the Gazette.]

940,810. COASTING-RECORD DEVICE. FRANK HEDLEY and JAMES S. DOYLE, New York, N. Y. Filed Jan. 18, 1909. Serial No. 472,842.



1. In a coasting record apparatus for cars, trains or the like, the combination with a motor controller, a brake controller, and recording mechanism of means controlled by the main motor controller and the brake controller for controlling said recording mechanism.

2. In a coasting record apparatus for cars, trains or the like, the combination with recording mechanism, a motor controller and a brake controller, of means controlled conjointly by said controllers for controlling the recording mechanism.

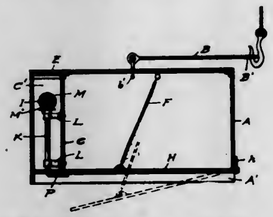
3. In a coasting record apparatus for cars, trains or the like, the combination with a brake controller and recording mechanism, of means for controlling the same, said controlling means rendered operative only when the motive power is shut off and the brakes released.

4. In a coasting record apparatus for cars, trains or the like, the combination with recording mechanism, electrical means for controlling the same and circuits therefor, of a car motor controller, and a brake controller, said motor and brake controllers arranged to control conjointly the circuits of said electrical means.

5. In a coasting record apparatus for cars, trains or the like, the combination with recording mechanism, a motor controller and a brake controller, of means for controlling said recording means, including a magnet coil, the circuits of said coil being controlled by both said motor and brake controllers.

[Claims 6 to 14 not printed in the Gazette.]

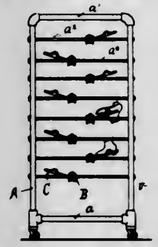
940,811. SHIFTABLE INSTANTANEOUS UNLOADING DEVICE. JEFFERSON HERKS, St. Joseph, Mo., assignor of one-half to Charles Wienshienk, St. Joseph, Mo. Filed Apr. 15, 1909. Serial No. 490,084.



1. In a shiftable instantaneous unloading device the combination of a box, a division wall forming an open top receptacle, and a front chamber in said box, side linings in said receptacle spaced from the sides of the box forming side chambers provided with closed tops, a horizontal crank shaft revoluble in said front chamber having sleeves and collars and a gear wheel rigid thereon, an upright shaft and a gear wheel rigid on the top thereof engaging the other gear wheel, a hinged lid to inclose said gearings, the adjustable floor of the receptacle and side chambers, spiral springs in said side chambers engaging with said floor and the top of said side chambers, a toe rigid on the bottom of said upright shaft and a key to engage with an end of the horizontal shaft and lock and unlock said hinged floor, substantially as described and shown.

2. The combination with a box, of an adjustable floor hinged on one side to the bottom of a side of the box, oppositely placed spiral springs having upper connection at the top of the box, and bottom connection with the adjustable floor, horizontal and upright revoluble shafts, the gear wheels thereon, a toe on the bottom of said upright shaft and a key by which to revolve said horizontal shaft rotating said toe back and forth beneath the free side of the floor, substantially as set forth and shown.

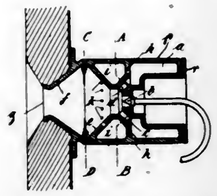
940,812. SHOE-RACK. SAMUEL HERMANN, Cincinnati, Ohio. Filed Apr. 27, 1908. Serial No. 429,523.



1. In a shoe support the combination of a cross-rod, a series of supports, each made of three loops, the side loops having enlarged ends for grasping the heels of shoes, and for forming with the central loop sockets for receiving the tops of inverted shoes, each support engaging the cross-rod.

2. A shoe rack consisting of a series of cross rods, a means of supporting the cross rods, a series of shoe supports engaging the cross rods, each support made of three loops, the side loops having enlarged ends for grasping the heels of the shoes and forming with the central loops sockets for receiving the tops of inverted shoes, the outer wires of each support being bent upwardly into lugs.

940,813. LIQUID-FUEL BURNER. AUGUST KOCH, Hanover-List, Germany. Filed Jan. 4, 1908. Serial No. 409,344.



1. In an apparatus of the character described a mixing chamber and a fuel nozzle adapted to inject fuel into said chamber, said chamber having two groups of apertures for leading the combustion air into it, one group of apertures located near the end of said chamber and near said nozzle, and adapted to lead one part of the combustion air into the chamber to form a whirl in one direction, the other group of apertures disposed in the wall of said chamber to lead the other part of combustion air into said chamber, in a direction substantially opposing the general direction of said whirl to produce strong eddy currents in said chamber, substantially on the line in which the fuel is injected.

2. In an apparatus of the character described a mixing chamber and a fuel nozzle adapted to inject fuel into said chamber, said chamber having two groups of apertures for leading the combustion air into it, one group of apertures located near the end of said chamber and near said nozzle, and adapted to lead one part of the combustion air into the chamber to form a whirl in one direction, the other group of apertures disposed in the wall of said chamber to lead the other part of combustion air into said chamber, in a direction substantially opposing the general direction of said whirl to produce strong eddy currents in said chamber, substantially on the line in which the fuel is injected, and means for regulating the size of said apertures.

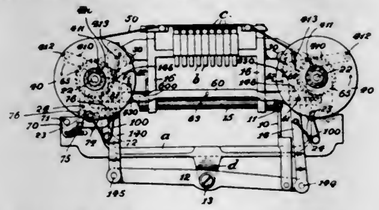
3. In an apparatus of the character described in combination with a burner casing, a mixing chamber within and near the mouth of said casing having a flaring opening at its inner end, a cup-shaped member within said casing forming an annular space therewith adapted to conduct compressed combustion air and having its inner end contracted and extending part way into the flaring end of said chamber with a space of suitable width between it and the chamber wall, vanes on said end of said member, forming in said space a plurality of spirally shaped apertures to conduct part of the combustion air, a fuel nozzle disposed in said cup-shaped member adapted to inject fuel into said mixing chamber, said chamber having a circularly disposed group of apertures in its wall inclined in their direction to lead the other part of said combustion air into the chamber substantially against said fuel nozzle to intersect the whirl through said spiral apertures for atomizing the fuel injected through said nozzle.

4. In an apparatus of the character described in combination with a burner casing, a mixing chamber within and near the mouth of said casing having a flaring opening at its inner end, a cup-shaped member within said casing forming an annular space therewith adapted to conduct compressed combustion air and having its inner end contracted and extending part way into the flaring end of said chamber with a space of suitable width between it and the

chamber wall, vanes on said end of said member forming in said space a plurality of spirally shaped apertures to conduct part of the combustion air, a fuel nozzle disposed in said cup-shaped member adapted to inject fuel into said mixing chamber, said chamber having a circularly disposed group of apertures in its wall inclined in their direction to lead the other part of said combustion air into the chamber substantially against said fuel nozzle to intersect the whirl through said spiral apertures for atomizing the fuel injected through said nozzle, and means for regulating the size of said apertures.

5. In an apparatus of the character described in combination with a burner casing, a mixing chamber within and near the mouth of said casing having a flaring opening at its inner end, a cup-shaped member within said casing forming an annular space therewith adapted to conduct compressed combustion air and having its inner end contracted and extending part way into the flaring end of said chamber with a space of suitable width between it and the chamber wall, vanes on said end of said member forming in said space a plurality of spirally shaped apertures to conduct part of the combustion air, a fuel nozzle disposed in said cup-shaped member adapted to inject fuel into said mixing chamber, said chamber having a circularly disposed group of apertures in its wall inclined in their direction to lead the other part of said combustion air into the chamber substantially against said fuel nozzle to intersect the whirl through said spiral apertures for atomizing the fuel injected through said nozzle; a ring on the outside of said mixing chamber adapted to close the apertures in the walls of said chamber, said ring connected to said cup-shaped member, said cup-shaped member adjustably threaded into said casing to increase or decrease when rotated the size of the air conducting apertures.

940,814. RIBBON FEEDING AND REVERSING MECHANISM FOR ADDING-MACHINES. HENRY KENTZLER, Kingston, Pa., assignor to The Adder Machine Company, Kingston, Pa., a Corporation of Pennsylvania. Filed June 18, 1908. Serial No. 439,106.



1. In an adding and printing machine, a ribbon moving mechanism comprising two spools, on one of which the ribbon is wound as it is unwound from the other, actuating pawls, one for each spool, a connection between the pawls, ratchet disks one on each spool adapted to be engaged by their respective pawls, a connection between the pawls, reversing levers, a connection between the reversing levers and means for moving this connection, comprising a rack bar pivoted thereto and toothed disks on each spool adapted to engage the rack bar.

2. In an adding and printing machine, a ribbon moving mechanism comprising two spools, on one of which the ribbon is wound as it is unwound from the other, actuating pawls, one for each spool, a connection between the pawls, ratchet disks one on each spool adapted to be engaged by their respective pawls, a connection between the pawls, reversing levers, a connection between the reversing levers and means for moving this connection, comprising a rack bar pivoted thereto and toothed disks on each spool adapted to engage the rack bar and a setting lever on each spool adapted to engage the rack bar when the ribbon on its spool is unwound.

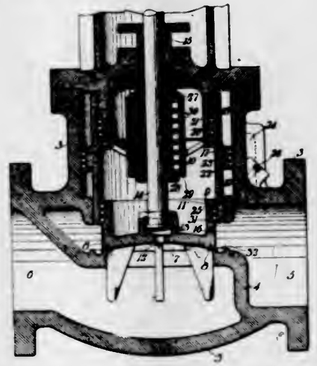
3. In an adding and printing machine, a ribbon moving mechanism comprising two spools, on one of which the ribbon is wound as it is unwound from the other, actuating pawls, one for each spool, a connection between the pawls, ratchet disks one on each spool adapted to be engaged by their respective pawls, a connection between the pawls, a second set of ratchet disks one on each spool but adapted to be moved in opposite directions only, a bar adapted to coöperate with said second set of disks, reversing levers, and a connection between the reversing levers.

4. In an adding and printing machine, a ribbon moving mechanism comprising two spools, on one of which the ribbon is wound as it is unwound from the other, actuating pawls, one for each spool, a connection between the pawls, ratchet disks one on each spool adapted to be engaged by their respective pawls, a connection between the pawls, a second set of ratchet disks one on each spool but adapted to be moved in opposite directions only, reversing levers, a connection between the reversing levers and means for moving this connector, comprising a rack bar pivoted thereto and adapted to engage each of the second set of ratchet disks alternately.

5. In an adding and printing machine, a ribbon moving mechanism comprising two spools, on one of which the ribbon is wound as it is unwound from the other, actuating pawls, one for each spool, a connection between the pawls, ratchet disks one on each spool adapted to be engaged by their respective pawls, a connection between the pawls, a second set of ratchet disks one on each spool but adapted to be moved in opposite directions only, reversing levers, a connection between the reversing levers and means for moving this connector, comprising a rack bar pivoted thereto and adapted to engage each of the second set of ratchet disks alternately and a setting lever on each spool adapted to engage the rack bar when the ribbon on its spool is unwound.

[Claims 6 to 11 not printed in the Gazette.]

940,815. CUT-OFF VALVE. JAMES L. MOORE, Edgewood Park, Pa., assignor to The Westinghouse Machine Company, a Corporation of Pennsylvania. Filed Feb. 24, 1905. Serial No. 247,119.



1. The combination with a valve casing, a throttle valve operating therein to control the flow of fluid through said casing, a cut-off valve surrounding said throttle valve and operating coaxially therewith to cut off the flow of fluid through said casing, a chamber exposed to fluid pressure whereby the said cut-off valve is balanced, and means for exhausting said chamber whereby the said cut-off valve is caused to close.

2. The combination of a valve casing, a throttle valve operating therein, a fluid actuated cut-off valve surrounding said throttle valve and operating coaxially therewith, a chamber, exposed to fluid pressure, whereby said cut-off valve is balanced, a spring for holding said cut-off valve normally open, and means for exhausting said chamber whereby said cut-off valve is closed against the pressure of said spring.

3. In combination in a valve casing, a manually operated throttle valve, a fluid-actuated cut-off valve within

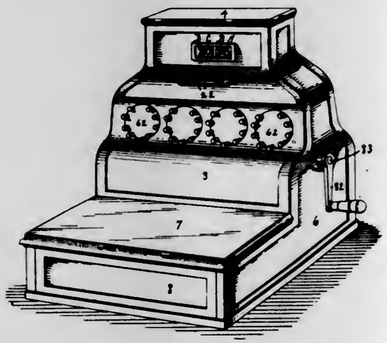
said casing and controlling the delivery of motive fluid past said throttle valve, a pressure chamber located within said casing, for balancing the fluid pressure on said cut-off valve and thereby maintaining it open, and means for exhausting the fluid from said chamber and thereby closing said cut-off valve.

4. In combination in a valve casing, a manually operated throttle valve, a fluid-actuated cut-off valve located within the casing and controlling the delivery of motive fluid past said throttle valve, pressure chambers exposed to fluid pressure within said casing for balancing said cut-off valve, means for maintaining said valve open and means for exhausting one of said chambers and thereby closing said valve in opposition to said opening means.

5. In combination in a valve casing, a manually operated throttle valve, a fluid-actuated cut-off valve located within said casing and controlling the delivery of motive fluid past said throttle valve, a pressure chamber exposed to the pressure within said casing, for maintaining said valve open, and means for exhausting said chamber and thereby closing said valve.

[Claims 6 to 14 not printed in the Gazette.]

940,816. CASH-REGISTER. WILLIAM J. MCKEE, Detroit, Mich., assignor to Imperial Cash Register Company, Detroit, Mich., a Corporation of Michigan. Filed Oct. 8, 1908. Serial No. 456,814.



1. In a cash register, the combination of a case, a series of cylinders mounted at the front of the case, each provided with nine longitudinal bores in a circle about the center and a longitudinal groove in the surface outside of each bore and connecting thereto by means of a slot, a stem mounted in each bore, a button on each stem, a lug on each stem to enter the slot to prevent the stem from turning, a finger mounted in each groove, a spring in engagement with each finger tending to swing the rear end of the finger inward, a plate mounted on each stem and adapted to be moved inwardly with the stem and held in said position by a finger, a registering mechanism, and an actuating mechanism, and a connector adapted to turn the registering mechanism when released by the plate on the stem.

2. In a cash register, the combination of a case, a series of cylinders mounted at the front of the case, each provided with nine longitudinal bores, selecting stems mounted in said bores, fingers carried by the cylinders and adapted to hold the stems in a depressed position, a register, an actuating mechanism for the same, and a connecting mechanism concentrically mounted with the cylinders which causes the actuating mechanism to operate the register when released by the depressed stem.

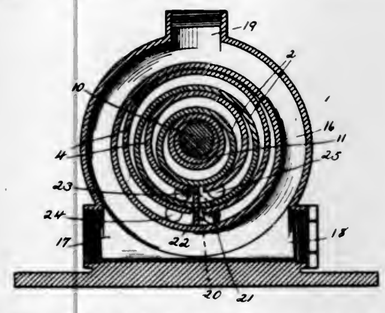
3. In a cash register, the combination of a case, a series of groups of selecting stems mounted at the front thereof, a connecting device for each group, an indicator, a register, and an actuating mechanism, each connector comprising a pawl normally inoperative and adapted to travel in a path which is intersected by the depressed stems of its groups, and a gear connected to the register and actuator which may be turned by said pawl.

4. In a cash register, the combination of groups of depressible keys, one group for each denomination, a registering wheel for each group of keys, a shaft for each group, operating connections between each shaft and its respective register wheel, a normally inoperative actuator mounted on each shaft, and a connecting mechanism for each actuator adapted to be released by any key in the group.

5. In a cash register, the combination of a case, depressible keys mounted thereon in groups of nine, a shaft for each group central thereto, an actuator normally freely revoluble thereon, a connector carried by the actuator in the path which may be intersected by any key of the group, and a register wheel connected to the shaft and actuated thereby a distance depending upon the position of the key depressed.

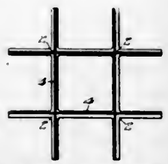
[Claims 6 to 17 not printed in the Gazette.]

940,817. PUMP. WILLIAM T. MCLEAN, HENRY C. LYONS, and CHARLES R. CLARK, Alexandria, Va. Filed Nov. 16, 1908. Serial No. 462,964.



A pump of the character described comprising a suitable shell or casing, stationary pistons and movable pistons therein, an eccentric for operating said movable pistons, a dividing wall or partition for said pistons, a port or passage leading from one stationary and one movable piston on one side of said dividing wall or partition to another stationary piston and movable piston on the opposite side of said stationary wall or partition.

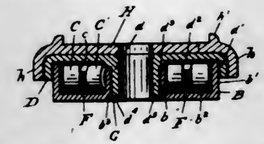
940,818. RAILWAY-RAIL STRUCTURE. EDGAR S. NETHERCUT, Evanston, Ill. Filed Apr. 5, 1909. Serial No. 488,090.



1. A railway rail structure comprising two rails which meet each other, the heads of the rails at the meeting point being thickened to elevate the tread surface at said point above the normal plane of the tread surface, and inclines connecting the elevated tread portion with the tread portions of normal height.

2. A railway rail structure comprising two rails which meet each other, the heads of the rails at the meeting point being thickened to elevate the tread surface at said point above the normal plane of the tread surface, and inclines connecting the elevated tread portion with the tread portions of normal height, each of said rails having a throatway therein, and the beds of said throatways being inclined upwardly toward the meeting point to a point below the elevated tread surface at the meeting point, the depth of said throatways at the meeting point being not greater than the depth of a car wheel flange.

940,819. ROLLER CENTER-BEARING. JOHN F. O'CONNOR, Chicago, Ill., assignor to W. H. Miner Company, Chicago, Ill., a Corporation of Illinois. Filed May 8, 1908. Serial No. 431,660.



1. In a center bearing, the combination of upper and lower center plates having flat parallel annular treads and telescoping annular rims and telescoping annular hubs, and two sets or series of short, radially arranged anti-friction cylindrical rollers peripherally contacting at their inner ends interposed between said center plates, and a loose separating ring interposed between said sets of anti-friction rollers, there being a greater number of rollers in one set than in the other, substantially as specified.

2. In a center bearing, the combination of upper and lower center plates having flat parallel annular treads and telescoping annular rims and telescoping annular hubs, and two sets or series of short, radially arranged anti-friction cylindrical rollers peripherally contacting at their inner ends interposed between said center plates, and a loose separating ring interposed between said sets of anti-friction rollers, said rollers having beveled end faces, there being a greater number of rollers in one set than in the other, substantially as specified.

3. In a center bearing, the combination of upper and lower center plates having flat parallel annular treads and telescoping annular rims and telescoping annular hubs, and two sets or series of short, radially arranged anti-friction cylindrical rollers peripherally contacting at their inner ends interposed between said center plates, and a loose separating ring interposed between said sets of anti-friction rollers, said rollers having beveled end faces, said separating ring coöperating with the inner and outer rims of the lower center plate to maintain the rollers in proper radial arrangement, there being a greater number of rollers in one set than in the other, substantially as specified.

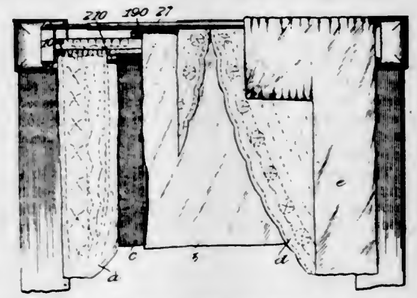
4. In a center bearing, the combination of upper and lower center plates having telescoping annular rims and telescoping annular hubs, and two sets or series of short, radially arranged anti-friction rollers interposed between said center plates, and a loose separating ring interposed between said sets of anti-friction rollers, said rollers having beveled end faces, said separating ring coöperating with the inner and outer rims of the lower center plate to maintain the rollers in proper radial arrangement, and a connecting ring secured to the inner hub of one of the center plates, substantially as specified.

5. The combination with a lower center plate having an annular hub and an annular rim, of an upper center plate having an annular hub and an annular rim, a connecting ring secured to the hub of the upper center plate at the end thereof, two sets of radially arranged trunnionless anti-friction short cylindrical rollers peripherally contacting at their inner ends interposed between said center plates, there being a greater number of rollers in one set than in the other, substantially as specified.

[Claims 6 to 8 not printed in the Gazette.]

940,820. COMBINATION CURTAIN-BRACKET. EDMUND D. PARKER, Bridgeport, Conn., assignor to The Bridgeport Metal Goods Manufacturing Company, Bridgeport, Conn., a Corporation of Connecticut. Filed Apr. 17, 1909. Serial No. 490,480.

1. The combination with a pair of mating curtain brackets having horizontal and vertical apertures in substantially the same plane, of rods mounted in the horizontal apertures, and vertically sliding locking members mounted in the vertical apertures, said locking members being connected together and forming a drapery bracket.



2. A curtain bracket comprising a body portion having legs and attaching feet, a wing and arms, the wing and arms having horizontal openings and the legs having vertical openings.

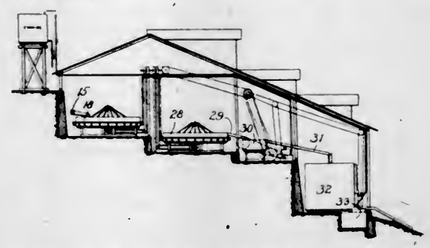
3. A curtain bracket comprising a sheet metal body having integral legs and attaching feet, a wing bent in the same direction as the feet but in a plane transverse thereto, and arms bent outwardly in the plane of the wing, the wing and arms having horizontal openings and the legs having vertical openings.

4. A curtain bracket comprising a body portion having legs and attaching feet, a wing and arms, the wing and arms having horizontal openings and the legs having vertical openings, the openings in the wing being in substantially the same plane as the vertical openings in the legs.

5. A curtain bracket comprising a sheet metal body portion having integral legs and attaching feet, a wing bent in the same direction as the legs but in a plane transverse thereto, upper and lower arms having recesses for shade rollers, the wing having a plurality of horizontal openings, and the legs having vertical openings in the plane of the openings in the wing.

[Claims 6 to 9 not printed in the Gazette.]

940,821. PROCESS OF TREATING ORES. JOHN R. PARKS, Spokane, Wash. Filed Nov. 23, 1906. Serial No. 344,777.



1. The process of treating ores, which consists in intermixing pulverized ore, cyanid of potassium and an electrolyte and simultaneously passing a current of air and a current of electricity through the mixture, passing such mixture through each of a series of electro-cyanid pans, and excluding any one of said pans from the series while the mixture continues to pass through the other pans.

2. The process of treating ores, which consists in intermixing pulverized ore with an electrolyte and passing the mixture through a series of electrolytic extraction pans in tandem, simultaneously subjecting the mixture to a current of electricity, and excluding any one of said pans from the series while the mixture continues to pass through the other pans.

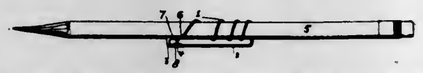
3. The process of treating ores, which consists in intermixing pulverized ore, cyanid of potassium, mercury and an electrolyte, agitating such mixture successively in each of the pans of a series in tandem arrangement, subjecting the mass while in the pans to an electric current, and excluding any one of said pans from the series while the mixture continues to pass through the other pans.

4. The process of treating ores, which consists in intermixing pulverized ore, cyanid of potassium, lime, salt and water, and subjecting the mixture to agitation in each of a series of electrolytic pans, passing compressed air through the mixture in each pan, and excluding any one of said pans from the series while the mixture continues to pass through the other pans.

5. The process of treating ores, which consists in intermixing pulverized ore with a sufficient quantity of liquid to make a mobile mixture, passing such mixture through a series of electrolytic pans in tandem, excluding any one of said pans from the series while the other pans continue with the operation.

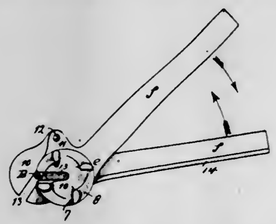
[Claims 6 and 7 not printed in the Gazette.]

940,822. PENCIL-HOLDER. WILLIAM E. PHILO, Stockton, Cal. Filed Apr. 18, 1906. Serial No. 312,343.



A device of the class described comprising a single piece of wire pointed at one end, and having a straightened portion at its opposite end, a catch for the pointed end secured to said straightened portion, the remainder of the wire between the pointed end and the straightened portion formed into a plurality of pencil receiving coils with the inner faces of the coils flattened whereby the flattened portion bears against the pencil, said straightened end normally positioned parallel to the axis of and within the plane of the radius of the coils, the end convolution of the coils adjacent the catch separated from the adjacent coil a greater distance than the remaining coils are separated from each other, the convolution adjacent such end convolution separated from the next succeeding coil a greater distance than the succeeding coils are separated from each other, whereby each of said two end convolutions lies at an angle to the axis of the coils different than the angle of each of the remaining coils.

940,823. TOOL FOR FORMING WIRE-JOINTS. ABRAHAM B. PROBASCO, Turtle Creek township, Warren county, Ohio. Filed Mar. 13, 1909. Serial No. 483,126.



1. A tool for forming a wire joint, consisting of a hub adapted to be seated upon a wire and having a handle whereby it may be rotated about this wire upon which it is seated, the hub being provided with laterally extending projections, each having a surface arranged substantially at right angles to the hub and adapted to engage the wire when moved against the same and an inclined surface which causes the projection to pass the wire without effect when moved in the opposite direction.

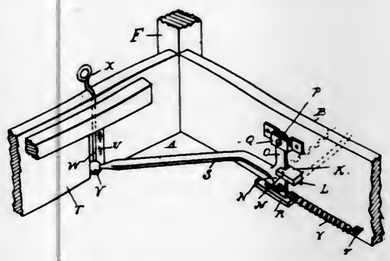
2. In a tool for connecting the ends of two wires, the combination of a hub having an opening to permit it to be seated upon one of the wires and provided with integral spaced wire-end engaging projections which in plurality extend substantially at right angles from both sides of it and parallel to the axis of the hub and a handle whereby the tool may be rotated about the wire.

3. A tool for forming a joint between two wire-ends, which is adapted to be seated upon a wire and consists of two parts, one shaped like the other and complementary thereto each containing a hub-section and a handle-section, a pivot whereby the two sections are side-wise connected to each other, and wire-end engaging projections extending laterally from the outer side of each hub-section.

4. A tool for forming a joint between two wire-ends, which consists of two complementary parts pivotally connected to each other and each consisting of a handle-section and a hub-section, which latter are each provided with wire-end engaging projections and with a radially disposed notch which extends to the center of the hub-section, the notch in one hub-section being arranged at a radius different from that in the other section, so that the outer part of the notch in one section is closed by overlapping parts of the other section.

5. A tool for forming a joint between two wire-ends, which is adapted to be seated upon a wire and consists of two complementary parts one of which is shaped like the other and each of which consists of a hub-section provided with wire-end engaging projections and with an integral handle-section, each of which latter has a flange on its outer edge, the flange of one handle-section being adapted to engage the edge of the other handle-section when the two parts of the tool are alined to overlap each other so as to form the handle complete, and an eccentrically located pivot whereby one part of the tool is sidewise connected to the other part.

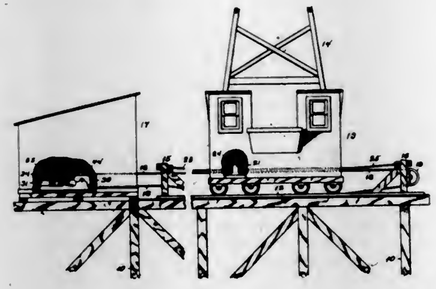
940,824. ADJUSTABLE CHAIR. ROBERT RAMSEY, Portland, Mich. Filed May 15, 1909. Serial No. 496,303.



In a chair, the combination with a seat section provided with a rear rail, of a back section pivotally connected to said seat section, an arm centrally secured to said back section and extending downwardly and rearwardly therefrom terminating in a forwardly-extending toothed segmental portion substantially concentric with the pivotal connection of said back section, and a detent member for engaging said toothed segment comprising a latch arm pivotally connected to the inner face of said rear rail, and an oblique arm extending from said latch arm to the side rail of said seat section, a spring for drawing said latch arm into engagement with said toothed segment, and a pull rod for raising said oblique arm to disengage the detent.

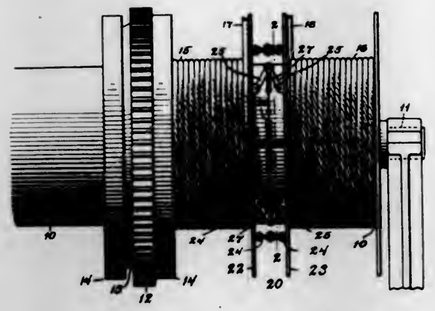
940,825. CABLE-RAILWAY. GEORGE F. ROUGHAN, Boston, Mass. Filed July 22, 1908. Serial No. 444,776.

1. The combination with a movable coal tower of a remote stationary winding drum, a cable operable by the drum for hauling the tower, means on the tower for gripping the cable, a motor for the drum, controlling mechanism for the motor, and means on the cable for actuating the controlling mechanism.



2. The combination with a movable coal tower of a movable cable, a stationary cable, and gripping means on the tower for gripping either of the cables.

940,826. MOVABLE FLANGE FOR HOISTING-DRUMS. GEORGE F. ROUGHAN, Boston, Mass. Filed July 22, 1908. Serial No. 444,777.



1. A drum, a pair of disks surrounding and axially movable thereon, means connecting said disks and normally tending to move one with relation to the other, and a rope connected to said drum arranged to engage one of said disks and to force the latter against the action of said means during the winding operation to automatically increase the winding space on said drum.

2. A drum having grooves in its perimeter parallel with the axis, a pair of disks loosely surrounding the drum and movable longitudinally thereon, internal lugs on said disks projecting into said grooves, and means connecting said disks and adapted to force them apart with yielding tension.

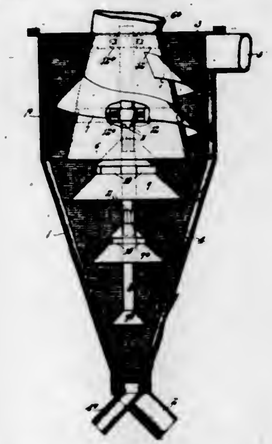
3. A drum, a pair of disks loosely surrounding its perimeter, toggle links connecting said disks one with the other, and springs connected to said toggle links in such a way as to exert their tension to move one disk relatively to the other.

4. A drum, a pair of disks loosely arranged thereon, an even number of pairs of toggle links connecting said disks one with the other, said pairs being arranged relatively in couples, and a plurality of helical springs each connecting the joint of one pair of links with the joint of the other pair in that couple of pairs.

5. A hoisting drum, a rope arranged thereon, a disk loosely fitted on said drum and arranged to be moved endwise of said drum by the action of the rope coil, and means for yieldingly holding said disk against said coil irrespective of the direction of travel of said rope.

[Claim 6 not printed in the Gazette.]

940,827. DUST COLLECTOR AND SEPARATOR. ASHLEY T. SHEWARD, St. Louis, Mo., assignor to Williams Patent Crusher & Pulverizer Company, St. Louis, Mo., a Corporation of Missouri. Filed May 18, 1908. Serial No. 433,492.



1. In a dust collector and separator, a casing, an air discharge pipe leading from the upper end thereof, a supply pipe for introducing the dust-laden air into the upper end of the casing, a screen arranged inside the casing for separating the dust from the air, a spirally disposed flange on the air discharge pipe for causing the air introduced into the casing to follow the whirling downward path close to the wall of the casing, a small pipe depending from the air outlet pipe, means within the air outlet pipe whereby said small pipe is adjusted vertically and a plurality of conical-shaped members carried by said small pipe.

2. An apparatus of the character described, comprising a casing having its upper end closed, a screening member arranged inside of said casing and spaced away therefrom, means for introducing a current of dust-laden air into the upper end of said casing, a hollow partition member arranged inside of said casing at approximately the center of same and provided with a discharge opening through which the air passes after the dust has been removed therefrom, and a downwardly projecting flange arranged spirally on the outer surface of said partition member for retarding the downward passage of the air and for deflecting the particles of dust onto said screening member, said flange being so formed that a space is produced between its outer edge and the inner surface of the screening member to permit the air to follow a downward path close to the sides of the casing; substantially as described.

3. An apparatus of the character described, comprising a casing provided at its upper end with a discharge opening and at its lower end with a discharge conduit, a feed pipe extending tangentially into said casing for introducing a current of dust-laden air into same, a plurality of superimposed hollow cone-shaped members arranged inside of said casing, the topmost member being provided with an opening that communicates with the discharge opening at the upper end of the casing, and means in said cone-shaped members for permitting air to pass upwardly through same; substantially as described.

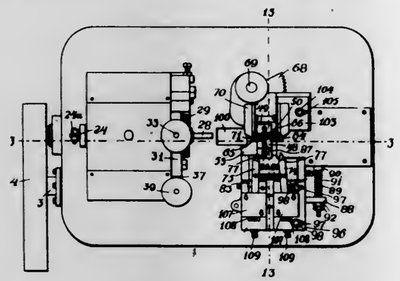
4. An apparatus of the character described, provided with a casing having its upper end closed, a screening member arranged inside of said casing, a feed pipe entering the upper end of said casing for introducing a current of dust-laden air into same, a hollow frustum of a cone arranged inside of said casing adjacent the top thereof and provided with a discharge opening, a vertically disposed pipe arranged inside of said casing, and a plurality of hollow conical-shaped devices mounted on said pipe, said pipe

and some of said devices being provided with air ducts; substantially as described.

5. An apparatus of the character described, comprising a casing having its upper end closed and provided with a lower contracted portion that communicates with a discharge pipe, a feed pipe extending into the upper end of said casing for introducing a current of dust-laden air into same, a screening member arranged inside of said casing and spaced away from the sides thereof, a plurality of hollow approximately conical-shaped members of different diameters arranged inside of said screening member one above the other, the topmost conical-shaped member being open at its upper end and the other cone-shaped members being so constructed that air can pass upwardly inside of same to said topmost member, and a discharge pipe communicating with said topmost member; substantially as described.

[Claims 6 to 12 not printed in the Gazette.]

940,828. MACHINE FOR MAKING COILED SPRINGS. FRANK H. SLEEPER, Coaticook, Quebec, Canada, assignor to Morgan Spring Company, Worcester, Mass., a Corporation of Massachusetts. Filed May 27, 1907. Serial No. 375,796.



1. The combination of a mandrel to receive a coiled spring, means for moving the spring from said mandrel to a hook-forming mechanism, means for holding said spring stationary in a predetermined position, and a hook-forming mechanism arranged to operate upon the spring while held in said position.

2. The combination of a mandrel to receive a coiled spring, means for gripping the spring, said gripping means arranged to move said spring longitudinally from said mandrel, means for arresting the movement of said spring in a predetermined position, and a hook-forming mechanism arranged to operate upon the spring while it is held in said position.

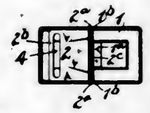
3. In a machine of the class described, the combination of means for coiling a spring from a continuous piece of wire, means for gripping the exterior of the spring, means for severing the spring from the wire, means for presenting the severed spring to a hook-forming mechanism, comprising reciprocating gripping jaws, and a pair of plates abutting the ends of the spring, and mechanism for forming a hook from the end coil of the wire.

4. In a machine of the class described, the combination of means for coiling a spring from a continuous piece of wire, means for gripping the exterior of the spring, means for severing the spring from the wire, means for presenting the spring to a hook-forming mechanism, means for forming a hook from the end coil of wire, and means for the automatic adjustment of the hook-forming mechanism according to the length of the spring.

5. The combination of a mandrel to receive a coiled spring, reciprocating gripping means for moving said spring from said mandrel and holding it before a hook-forming mechanism, and a hook-forming mechanism, with said mandrel arranged to force the spring from said gripping means upon its return movement.

[Claims 6 to 25 not printed in the Gazette.]

940,829. LEVER-BUCKLE. CLARENCE E. SMITH, New Britain, Conn., assignor to North & Judd Mfg. Company, New Britain, Conn., a Corporation of Connecticut. Filed Mar. 25, 1909. Serial No. 485,688.

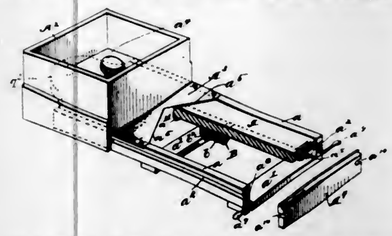


1. In a buckle of the cam lever type, a frame, a pivotally mounted cam lever having slits therein, and a yielding strap clamping tongue between said slits and substantially in line with the axis of rotation of said pivotally mounted cam lever.

2. In a buckle of the cam lever type, a frame having a strap clamping abutment, a lever having slits therein and pivoted to said frame, a yielding strap clamping portion between said slits coöperating with said abutment substantially as described.

3. In a buckle of the character described, a sheet metal cam lever having slits therein and having a yielding strap clamping portion between said slits.

940,830. VEGETABLE-CUTTER. JOSEF SPENKO, Collinwood, Ohio. Filed Mar. 25, 1908. Serial No. 423,096.

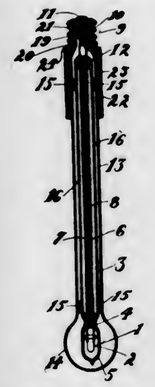


1. In a device of the character described, the combination of a frame including a cross-bar, a knife transversely inserted in the bed of said frame, the cutting edge of said knife comprising two inclined portions converging inwardly and forwardly, a removable bed-section contiguous to the cutting edge of said knife, said bed-section being vertically movable, a rotating member between the under face of said bed-section and an adjacent portion of said frame, means passing through said rotatable member for securing the same to said bed-section, said member being of different heights at different points about its periphery so as to support said bed-section at various elevations and having such periphery intersected by a series of notches, and a stop secured to the cross-bar and adapted to engage the notches in said rotatable member for locking the latter at different points about its axis.

2. In a device of the character described, the combination of a frame; a knife transversely inserted in the bed of said frame; a removably and vertically movable bed-section contiguous to the cutting edge of said knife being triangular in form at its upper end, a member rotatably secured on the under face of said bed-section and adapted to contact with an adjacent portion of said frame, the contacting face of said member being of general helical conformation, whereby it is adapted to support said bed-section at various elevations; and such helical face being intersected by a plurality of notches and means borne by such adjacent frame portion adapted to engage the notches on the helical face of the rotatable member at different points to lock the same against rotation.

3. In a device of the character described, the combination of a frame comprising side members and a bed including two sections, one of said bed-sections being fixedly held between said side members and the other being provided with laterally projecting pins adapted to fit in open pockets in said side members with either face directed upwardly; a detachable gate adapted to secure said last named bed-section in said frame; a knife transversely mounted along the inner edge of said fixed bed-section, said knife comprising two similarly inclined portions converging inwardly and forwardly from the edges of said bed so as to meet substantially on the center line of the same; a plurality of small knife blades longitudinally mounted along the adjacent triangularly formed edge of said movable bed-section, rotatable means optionally attachable to either face of said removable bed-section and adapted to be interposed between the under face of said section and an adjacent portion of said frame, whereby the elevation of the free end of said section may be varied, and means carried by a cross-bar of the frame for locking said rotatable means at different points against rotation.

940,831. ASEPTIC LAMP FOR DENTAL, MEDICAL, OR SURGICAL PURPOSES. DAVID STERN, Cincinnati, Ohio. Filed June 1, 1909. Serial No. 499,406.



1. An aseptic lamp for dental, medical or surgical purposes, comprising an inner member embracing an incandescent lamp provided with a tube, and an outer member comprising a bulb surrounding said lamp and a tube surrounding said first-named tube, said members being spaced apart, a releasable electric connection for a source of electric supply at the end of said tubes distanced from said lamp and bulb, and electric conductors passing through said inner tube connecting said releasable electric connection and the filament of said lamp, substantially as described.

2. An aseptic lamp for dental, medical or surgical purposes, comprising an inner member embracing an incandescent lamp and a tube connected therewith, an outer member embracing a bulb received about said lamp and a tube received about said first-named tube, said lamp and bulb being at one end of said tubes, a releasable electric connection for a source of electric energy at the other end of said tubes, electric conductors insulated from each other connecting said releasable connection and the filament of said lamp, and a supporting separator in said space between said tubes, substantially as described.

3. An aseptic lamp for dental, medical or surgical purposes, comprising an inner member embracing an incandescent lamp and a tube connected therewith, an outer member embracing a bulb received about said lamp and a tube received about said first-named tube, said lamp and bulb being at one end of said tubes, a releasable electric connection for a source of electric energy at the other end of said tubes, electric conductors insulated from each other connecting said releasable connection and the filaments of said lamp, there being a rarefied space between said inner member and said outer member, substantially as described.

4. An aseptic lamp for dental, medical or surgical purposes, comprising an inner incandescent lamp bulb and an outer member comprising a bulb within which said incandescent lamp bulb is received and a tube, said bulbs being spaced apart, a releasable electric connection for a source of electric supply at the outer end of said tube for distancing said releasable electrical connection substantially from said bulbs, and electric conductors within said tube connecting said releasable electric connection with the filament of said lamp, and the space between said bulbs and in said tube being rarefied for providing a heat-retarding agency between the wall of the cavity of the body into which said lamp is introduced and said inner incandescent lamp bulb, substantially as described.

940,832. EXTINGUISHER. AMMON D. SWOGER, Pittsburg, Pa. Filed May 27, 1909. Serial No. 498,656.



1. In a device of the character specified, the combination with a suitable staff, of two members provided with snuffing faces, a spring attached to one of said members to hold them normally separated, and means for bringing said members into snuffing contact.

2. In a device of the character specified, the combination with a suitable staff, of two snuffing members provided with flat faces substantially parallel when in contact, means for holding said members normally separated, and means for bringing said members into snuffing contact.

3. In a device of the character specified, the combination with a suitable staff, of two members provided with snuffing faces, one of said members being rigidly attached to the staff and the other pivoted thereto, a spring attached to said pivoted member to hold the faces normally separated, and means for bringing said members into snuffing contact.

4. In a device of the character specified, the combination with a suitable staff, of two members provided with snuffing faces, a spring attached to one of said members to hold them normally separated, and a wire extending along said staff to bring said members into snuffing contact.

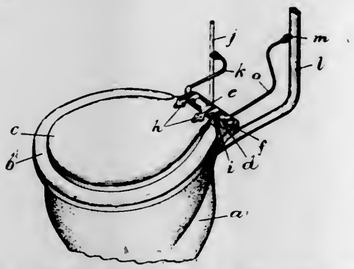
5. In a device of the character specified, the combination with a suitable staff, of two members provided with flat snuffing faces, one of said members being rigidly attached to the staff and the other pivoted thereto, a spring attached to said pivoted member to hold the faces normally separated, and means for bringing said members into snuffing contact.

[Claims 6 to 10 not printed in the Gazette.]

940,833. VENTILATING WATER-CLOSET. CECIL H. THOMPSON, Toronto, Ontario, Canada. Filed Jan. 23, 1909. Serial No. 473,926.

1. In a ventilating water closet, a valve casing, inlet and outlet passages in the said valve casing, hinge members pivotally connected to said valve casing, fastening

posts formed with said valve casing and fastening means for securing said valve casing to closet bowl, substantially as specified.



2. In a ventilating water closet, a valve casing, inlet and outlet passages in said valve casing, hinge members pivotally connected to said valve casing, a valve chamber formed in said valve casing, a piston valve contained within said valve chamber, a screw plug adapted to maintain said piston valve within said valve chamber, a lever arm pivotally connected to said piston valve, fastening posts formed with said valve casing, and means for securing said valve casing to closet bowl, substantially as specified.

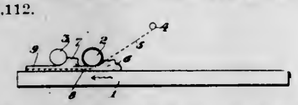
3. In a ventilating water closet, a valve casing, inlet and outlet passages in said valve casing, hinge members pivotally connected to said valve casing, a valve chamber formed in said valve casing, a piston valve within said valve chamber, an operating lever arm connected with said piston valve, fastening posts formed with said valve casing, said fastening posts adapted to secure said valve casing to closet bowl, substantially as specified.

4. In a ventilating water closet, a valve casing, hinge members connected to said valve casing, a valve chamber formed within said valve casing, inlet and outlet passages communicating with said valve chamber, a piston valve contained within said valve chamber, a removable screw plug in the bottom of said valve chamber, the end of said piston valve adapted to extend through an opening in said screw plug, an operating lever arm pivoted to said projected end of said piston valve, fastening posts formed with said valve casing, and fastening means for securing said fastening posts, and valve casing to said closet bowl, substantially as specified.

5. In a ventilating water closet, a valve casing, hinge members pivotally connected to said valve casing, a valve chamber formed in said valve casing, a piston valve contained within said valve chamber, a removable screw plug screwed into the bottom of said valve chamber, an operating lever arm pivoted to said piston valve, a helical compressible spring surrounding said piston valve within said valve chamber, inlet and outlet passages within said valve chamber, a feed water tubular connection coupled to said inlet passage, a tubular discharge connection to said outlet passage, a spray nozzle formed on the end of said tubular discharge connection, fastening posts formed with said valve casing, and means for securing said fastening posts to said closet bowl, substantially as specified.

[Claims 6 and 7 not printed in the Gazette.]

940,834. METHOD OF AND MACHINE FOR MAKING WIRE-GLASS. ROBERT A. B. WALSH, St. Louis, Mo., assignor to Mississippi Glass Company, St. Louis, Mo., a Corporation of Missouri. Filed May 22, 1907. Serial No. 375,112.



1. An apparatus of the character described comprising means for making a complete sheet of wire glass, in combination with means for finishing said sheet by welding a layer or coating of glass thereto before the first-mentioned sheet is entirely formed; substantially as described.

2. An apparatus of the character described comprising means for making a sheet of glass having wire buried beneath its surface, in combination with means for finishing said sheet by welding a layer or coating of glass thereto before the first-mentioned sheet is entirely formed, substantially as described.

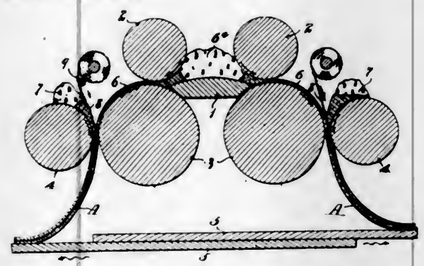
3. An apparatus of the character described comprising means for forming a sheet of glass and simultaneously forcing a wire mesh below one surface thereof, and means for spreading a mass of molten glass over said surface and smoothing it to form a finished sheet before the first-mentioned sheet is entirely formed, substantially as described.

4. An apparatus for making wire glass, the same comprising means for rolling a mass of molten glass into sheet form, means for forcing a wire mesh into one face of said sheet so that it is completely covered, and thereafter covering that face of said sheet in which the wire mesh is embedded with a layer of molten glass before the first-mentioned sheet is entirely formed, substantially as described.

5. An apparatus for making wire glass, the same comprising means for simultaneously rolling a plurality of masses of molten glass into layer form, forcing a wire mesh below the surface of one of said layers so that it is completely covered, and thereafter combining said layers into a single sheet, substantially as described.

[Claims 6 to 31 not printed in the Gazette.]

940,835. METHOD OF AND MACHINE FOR MAKING WIRE-GLASS. ROBERT A. B. WALSH, St. Louis, Mo., assignor to Mississippi Wire Glass Company, New York, N. Y., a Corporation of New Jersey. Filed Dec. 2, 1907. Serial No. 404,843.



1. The method of making wire glass, which consists in stretching out or elongating a mass of molten glass to form two independent layers covering one surface of each of said layers with a coating of molten glass, and interposing a piece of wire fabric between each of said layers and its coating of glass; substantially as described.

2. The method of making wire glass, which consists in rolling a mass of molten glass into two independent layers, arranging a piece of wire mesh or fabric upon each of said layers, and thereafter covering said wire fabric with a coating of glass; substantially as described.

3. The method of making wire glass, which consists in dumping a mass of molten glass onto a table, rolling each half of said mass in opposite directions to form two independent layers, passing said layers between horizontally disposed rolls, covering one face of each of said layers with a mass of molten glass, and arranging a piece of wire mesh between each of said layers and its covering of glass; substantially as described.

4. The method of making wire glass, which consists in dumping a mass of molten glass onto a table arranged between two pairs of rolls whereby said mass is rolled in opposite directions to form two independent layers, spreading a mass of molten glass over one face of each of said layers, and arranging a piece of wire fabric between each of said layers and the mass of molten glass applied thereto; substantially as described.

5. The method of making wire glass, which consists in rolling or stretching out a mass of molten glass into the form of two independent layers, feeding said layers into approximately vertical positions, arranging pieces of wire mesh upon one surface of each of said layers and forming independent layers from masses of molten glass and combining them with the layers first referred to so as to form two complete sheets of wired glass; substantially as described.

[Claims 6 to 15 not printed in the Gazette.]

940,836. METHOD OF AND MACHINE FOR MAKING WIRE-GLASS. ROBERT A. B. WALSH, St. Louis, Mo., assignor to Mississippi Glass Company, St. Louis, Mo., a Corporation of Missouri. Original application filed May 22, 1907, Serial No. 375,112. Divided and this application filed Dec. 2, 1907. Serial No. 404,844.



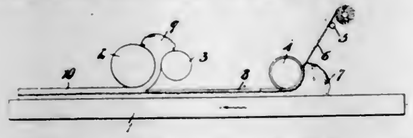
1. An apparatus of the character described comprising means for making a complete sheet of wire glass, in combination with means for finishing said sheet by welding a layer or coating of glass to the underneath surface thereof; substantially as described.

2. The method of making wire glass consisting in forming a complete sheet of wire glass and in finishing said sheet by welding a layer or coating of glass to the underneath surface thereof; substantially as described.

3. The method of making wire glass consisting in rolling a mass of molten glass into sheet form, forcing the wire mesh into the underneath surface of said sheet so that it is completely covered, and thereafter covering said underneath surface with a layer of molten glass; substantially as described.

4. The method of making wire glass which consists first in making a complete sheet of glass with wire buried beneath its surface, and finally applying a finishing layer to the uneven underneath surface of the first formed sheet while said first formed sheet is in a condition to readily weld with the finishing layer; substantially as described.

940,837. METHOD OF AND MACHINE FOR MAKING WIRE-GLASS. ROBERT A. B. WALSH, St. Louis, Mo. Filed Dec. 2, 1907. Serial No. 404,845.



1. An apparatus of the character described comprising means for forming a sheet of glass, means for then embedding wire therein, and means for forming another sheet or layer of glass and welding the same to said first formed sheet; substantially as described.

2. An apparatus for making wire glass, the same comprising means for rolling a plurality of masses of molten glass into layer form, forcing a wire mesh below the surface of one of said layers so that it is completely covered, and thereafter combining said layers into a single sheet; substantially as described.

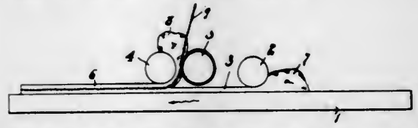
3. An apparatus of the character described comprising means for making a sheet of glass having wire buried beneath its surface, one surface of said sheet also having regularly spaced protrusions on its surface, and means for forming another sheet of glass and welding said other sheet of glass to the protrusion-bearing surface; substantially as described.

4. An apparatus of the character described comprising means for forming a sheet of glass, means for burying wire beneath the upper surface of said sheet, and means for forming another sheet or layer of glass and welding it to the uneven upper surface of said first formed sheet; substantially as described.

5. An apparatus of the character described comprising means for forming a sheet of glass and simultaneously forcing a wire mesh into the upper surface thereof so that it is completely covered, and means for forming a second sheet or layer of glass and welding it to the upper surface of the first formed sheet; substantially as described.

[Claims 6 to 12 not printed in the Gazette.]

940,838. METHOD OF AND MACHINE FOR MAKING WIRE-GLASS. ROBERT A. B. WALSH, St. Louis, Mo. Filed Dec. 2, 1907. Serial No. 404,846.



1. An apparatus of the character described, comprising means for forming a sheet of glass, means for burying wire beneath the under surface of said sheet, and means for forming another sheet or layer of glass and welding it to the uneven underneath surface of the sheet first referred to; substantially as described.

2. An apparatus of the character described, comprising means for forming a sheet of glass and simultaneously forcing a wire mesh through the underneath surface thereof so that it is completely covered, and means for forming a second sheet or layer of glass and welding it to the underneath surface of the sheet first referred to; substantially as described.

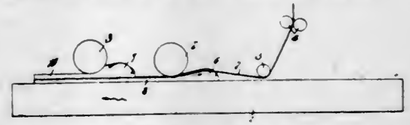
3. An apparatus of the character described, comprising means for forming a layer of glass and embedding a wire mesh through the underneath surface thereof so that it is completely covered, means for forming a second layer of glass, and means for combining said layers together; substantially as described.

4. An apparatus of the character described, comprising an embedding roller and coöperating means for forming a layer of glass and forcing a wire mesh through the underneath surface thereof so that it is completely covered, a pair of rolls for forming a second layer of glass, and means for welding said second layer to the underneath surface of the layer in which the wire mesh is embedded; substantially as described.

5. The method of making wire glass which consists in forming a mass of molten glass into a layer, forcing a wire mesh into the underneath surface of said layer so that it is completely covered, forming a separate mass of molten glass into a layer and combining said layers together; substantially as described.

[Claim 6 not printed in the Gazette.]

940,839. METHOD OF AND MACHINE FOR MAKING WIRE-GLASS. ROBERT A. B. WALSH, St. Louis, Mo., assignor to Mississippi Glass Company, St. Louis, Mo., a Corporation of Missouri. Original application filed May 22, 1907, Serial No. 375,112. Divided and this application filed Dec. 2, 1907. Serial No. 404,847.



1. An apparatus for forming wire glass, comprising means for forming a sheet or layer of glass, means for

drawing a wire mesh into said layer or sheet so that it is completely covered, and means for spreading a finishing coating or layer of glass over the first-formed sheet; substantially as described.

2. An apparatus for making wire glass, comprising means for rolling a sheet or layer of glass, tension devices for drawing a wire mesh into one surface of said sheet, and means for spreading a mass of molten glass over said surface to form a finishing coating for the sheet or layer; substantially as described.

3. An apparatus for making wire glass, comprising means for rolling a sheet or layer of glass, tension devices for causing a wire mesh to cut its way into said sheet so that it is completely embedded at the same time said sheet is being formed, and means for spreading a mass of molten glass over the surface of said sheet into which the wire mesh is drawn to form a finishing coating for said sheet; substantially as described.

4. An apparatus for making wire glass, comprising means for forming a layer or sheet of glass, tension devices for drawing the wire mesh into the upper surface of said sheet so that it is completely covered, and means for spreading a mass of molten glass over the upper surface of said sheet to form a finishing coating therefor; substantially as described.

5. The method of making wire glass, which consists in forming a mass of molten glass into a layer and drawing a wire mesh beneath one surface thereof so that it is completely covered, and thereafter covering that surface of the layer with a mass of molten glass to produce a finished sheet; substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

940,840. METHOD OF AND MACHINE FOR MAKING WIRE-GLASS. ROBERT A. B. WALSH, St. Louis, Mo. Filed Dec. 2, 1907. Serial No. 404,848.



1. An apparatus for making wire glass, comprising means for forming a mass of molten glass into a bottom layer, means for spreading a mass of molten glass over said bottom layer to form a finishing coating therefor, and means for drawing a wire mesh into the mass of molten glass which forms the finishing coating at the same time said mass is being spread over the bottom layer; substantially as described.

2. An apparatus for making wire glass, comprising means for forming a bottom layer or sheet, means for spreading a mass of molten glass over said sheet to form a finishing coating therefor, and tension devices for drawing a wire mesh into said mass as it is being spread over the bottom layer; substantially as described.

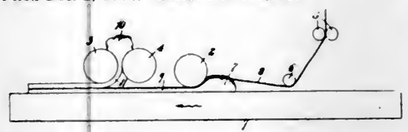
3. An apparatus for making wire glass, comprising means for rolling a mass of molten glass into a bottom layer or sheet, a roller for spreading a mass of molten glass over the upper surface of said sheet to form a finishing coating therefor, and tension rolls so disposed relatively to said roller that a wire mesh is caused to cut its way into said mass of molten glass as it is being spread over the bottom layer; substantially as described.

4. An apparatus of the character described, comprising a table, a roller arranged above said table and adapted to coöperate therewith to form a mass of molten glass into a bottom layer, a second roller arranged above the table at a distance equal to the thickness of the finished product for spreading a mass of molten glass over the bottom layer, and tension devices for drawing the wire mesh into the mass of molten glass which is spread over the bottom layer; substantially as described.

5. The method of making wire glass, which consists in forming a sheet or layer of glass, spreading a mass of molten glass over the upper surface of said sheet or layer, and drawing a wire mesh into said mass as it is being spread over the bottom layer; substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

940,841. METHOD OF AND MACHINE FOR MAKING WIRE-GLASS. ROBERT A. B. WALSH, St. Louis, Mo. Filed Dec. 2, 1907. Serial No. 404,849.



1. An apparatus for making wire glass, comprising means for forming a mass of molten glass into a layer or sheet, means for drawing a wire mesh into said sheet so that it is completely covered, and means for forming a second layer or sheet and combining it with the first-formed sheet in which the wire mesh is embedded; substantially as described.

2. An apparatus for making wire glass, comprising means for forming a sheet or layer of glass, tension devices for drawing the wire mesh into one surface of said sheet so that it is completely covered, and means for forming a second layer or sheet of glass and welding it to the uneven surface of the first-formed sheet into which the wire mesh was drawn; substantially as described.

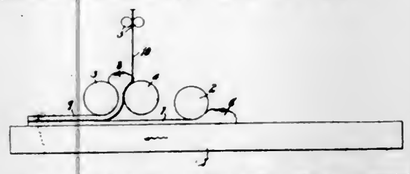
3. An apparatus for forming wire glass, comprising means for forming a sheet or layer of glass, tension devices for drawing a wire mesh into one surface of said sheet or layer simultaneously with the operation of forming said sheet, and means for forming a second sheet or layer of glass and welding it to the uneven surface of the first-formed sheet or layer into which the wire mesh is drawn; substantially as described.

4. An apparatus for making wire glass, comprising means for forming a sheet or layer of glass, tension devices for drawing a wire mesh into the upper surface of said sheet, and means for forming a second sheet or layer of glass and welding it to the upper surface of the sheet in which the wire mesh is embedded; substantially as described.

5. An apparatus for forming wire glass, comprising means for forming a sheet or layer of glass, tension devices for causing a wire mesh to cut its way into the upper surface of said sheet at the time it is being formed, means for forming a second sheet or layer of glass, and independent means for welding said second sheet to the upper surface of the sheet in which the wire mesh is embedded; substantially as described.

[Claims 6 to 12 not printed in the Gazette.]

940,842. METHOD OF AND MACHINE FOR MAKING WIRE-GLASS. ROBERT A. B. WALSH, St. Louis, Mo., assignor to Mississippi Glass Company, St. Louis, Mo., a Corporation of Missouri. Original application filed May 22, 1907, Serial No. 375,112. Divided and this application filed Dec. 2, 1907. Serial No. 404,850.



1. An apparatus for making wire glass, comprising means for forming a sheet or layer of glass, means for forming a second sheet or layer of glass, means for drawing a wire mesh into the underneath surface of said last-named sheet or layer, and means for combining said layers together; substantially as described.

2. An apparatus of the character described, comprising means for forming a sheet or layer of glass, tension devices for drawing the wire mesh into the underneath surface of said sheet, and means for forming a second sheet or layer of glass and welding it to the uneven underneath surface of the layer in which the wire mesh is embedded; substantially as described.

3. An apparatus for making wire glass, comprising means for forming a sheet or layer of glass, means for drawing a wire mesh into the underneath surface of said sheet simultaneously with the operation of forming it, means for forming a second sheet or layer of glass and welding it to the uneven underneath surface of the sheet in which the wire mesh is embedded; substantially as described.

4. An apparatus for making wire glass, comprising a table, a roller arranged above said table for spreading a mass of molten glass thereover to form a bottom layer or sheet, a pair of rollers arranged above the table for forming a second mass of molten glass into a top layer, and tension rolls so disposed relatively to said pair of rollers that a wire mesh is drawn into the underneath surface of the top layer at the same time said layer is being formed; substantially as described.

5. An apparatus of the character described, comprising means for rolling a mass of molten glass into a bottom layer or sheet, means for rolling a separate mass of molten glass into a top layer or sheet, tension devices for drawing a wire mesh into the underneath surface of said top layer so that it is completely embedded, and independent means for combining said layers together; substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

940,843. METHOD AND APPARATUS FOR MAKING WIRE-GLASS. ROBERT A. B. WALSH, St. Louis, Mo. Filed Dec. 2, 1907. Serial No. 404,851.



1. The method of making wire glass which consists in forming two layers of glass and arranging a piece of wire mesh between them, and thereafter covering one of said layers with a finishing layer of glass; substantially as described.

2. The method of making wire glass which consists in forming a sheet of glass from two layers of glass and a piece of wire mesh interposed between same, and thereafter covering one surface of said sheet with a finishing layer of glass; substantially as described.

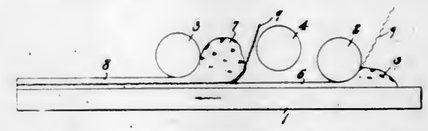
3. The method of making wire glass which consists in forming a layer of glass, spreading a mass of molten glass over said layer to form a second layer and simultaneously incorporating a piece of wire mesh in said second layer, and thereafter covering the top surface of said layer with a finishing layer of glass; substantially as described.

4. The method of making wire glass which consists in forming a layer of glass, progressively arranging a piece of wire mesh on the top face of said layer and spreading a mass of molten glass over same to form a second layer, and thereafter covering the top face of said second layer with a third layer of glass; substantially as described.

5. The method of making wire glass which consists in forming a layer of glass, dumping a mass of molten glass onto said layer, spreading a portion of said mass over the first layer to form a second layer, spreading the remaining portion of said mass over the second layer to form a third layer, and interposing a piece of wire mesh between two of said layers; substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

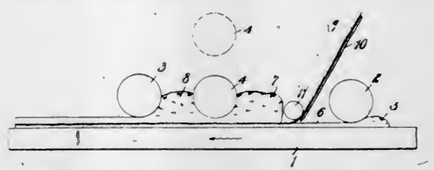
940,844. APPARATUS FOR MAKING WIRE-GLASS. ROBERT A. B. WALSH, St. Louis, Mo. Filed Dec. 2, 1907. Serial No. 404,852.



1. An apparatus for forming a sheet of wire glass comprising a table, a roller arranged above said table for forming a mass of molten glass into a bottom layer, a roller arranged above the table for spreading a mass of molten glass over said bottom layer, and a third roller arranged intermediate the rollers previously referred to for spreading the remaining portion of said second mass of molten glass over the second layer to form a finishing layer or coating for the sheet of glass; substantially as described.

2. An apparatus for forming a sheet of glass comprising a table, an adjustable roller arranged above the table for forming a mass of molten glass into a bottom layer, and a pair of rollers arranged above the table and so disposed that they will spread one portion of a mass of molten glass over the bottom layer to form a second layer when the table is moved in one direction and then spread the remaining portion of said mass over the second layer to form a finishing layer when the table is moved in the opposite direction; substantially as described.

940,845. METHOD AND APPARATUS FOR MAKING WIRE-GLASS. ROBERT A. B. WALSH, St. Louis, Mo. Filed Dec. 2, 1907. Serial No. 404,853.



1. The method of making wire glass, which consists in forming a layer of glass, dumping a batch of molten glass onto said layer, dividing into two portions and rolling them into separate superimposed layers, and arranging a wire mesh between two of the layers; substantially as described.

2. The method of making wire glass, which consists in forming a bottom layer of glass, dumping a batch of molten glass onto one end of said layer, separating said batch into a plurality of portions and forming said portions into independent layers, and embedding a wire mesh in one of said layers simultaneously with the operation of forming same; substantially as described.

3. The method of making wire glass, which consists in rolling a mass of molten glass into a bottom layer, dumping a batch of molten glass onto one end of said layer before it has been completed, dividing said batch into two portions and rolling them into separate superimposed layers, and simultaneously arranging a wire mesh between the bottom layer and the second layer; substantially as described.

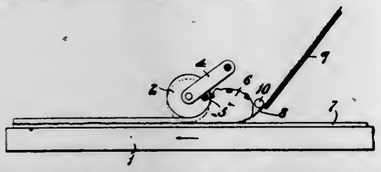
4. An apparatus for making wire glass, comprising means for forming a layer of glass, and means for dividing a batch of molten glass which has been dumped onto said layer into a number of portions and forming them into separate layers; substantially as described.

5. An apparatus for making wire glass, comprising means for forming a bottom layer of glass, and means for dividing a batch of molten glass into a plurality of portions and forming them into superimposed layers which are combined with the bottom layer, said means also op-

erating to arrange a wire mesh between the bottom layer and the layer which covers same; substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

940,846. METHOD AND APPARATUS FOR MAKING WIRE-GLASS. ROBERT A. B. WALSH, St. Louis, Mo. Filed Dec. 2, 1907. Serial No. 404,854.



1. The method of making wire glass, which consists in forming a single batch or mass of molten glass into three superimposed layers and arranging a wire mesh between the bottom layer and the second layer; substantially as described.

2. The method of making wire glass, which consists in forming a single batch of molten glass into a sheet consisting of two superimposed layers, arranging a wire mesh between said layers, and spreading the remaining portion of said molten mass over the top surface of said sheet to form a finishing coating therefor; substantially as described.

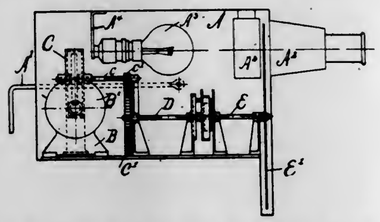
3. The method of making wire glass which consists in dumping a mass of molten glass onto a casting table, rolling a portion of said mass over the table to form a bottom layer, rolling a portion of said mass in the reverse direction over the bottom layer to form a second layer, arranging a wire mesh between said layers, and spreading the remaining portion of said mass over the second layer to form a finishing layer or coating for the sheet; substantially as described.

4. The method of making wire glass, which consists in forming a portion of a mass of molten glass into two superimposed layers and arranging a wire mesh between said layers simultaneously with the operation of forming one layer, and thereafter spreading the remaining portion of said mass of molten glass over the second layer to form a finishing coating therefor; substantially as described.

5. The method of making wire glass, which consists in dumping a mass of molten glass onto a casting table and rolling a portion of said mass into a bottom layer, rolling a portion of said mass in the reverse direction over the bottom layer to form a second layer and simultaneously arranging a wire mesh between said layers, and thereafter spreading the remaining portion of said mass over the second layer to form a finishing coating therefor; substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

940,847. ILLUMINATED SIGN. FREDERICK WARD, Chicago, Ill. Filed Jan. 7, 1909. Serial No. 471,101.



1. In an illuminated sign the combination of the objective with a disk shaped plate carrier mounted upon an intermittently revoluble shaft, a stationary cam, a ratchet wheel and revoluble cam, a driving shaft, and mechanism for automatically engaging and releasing said ratchet wheel to intermittently move said plate carrier, substantially as described.

2. In an illuminated sign the combination of the objective with a disk shaped plate carrier, an intermittently revoluble shaft, a ratchet wheel and revoluble cam mounted upon said shaft, a stationary cam, dogs carried by the aforesaid cams and adapted to alternately engage and release the aforesaid ratchet wheel to move the plate carrier from one exposure position to the next, substantially as described.

3. In an illuminated sign, the combination of the objective with the disk shaped plate carrier, plates, means for removably securing said plates in the disk and permitting them to be drawn radially therefrom, a shaft upon which said carrier is mounted, a driving shaft in alinement therewith, a stationary cam, a revoluble cam, a ratchet wheel, and means on said cams for intermittently engaging said ratchet wheel to revolve the disk carrying shaft, substantially as described.

4. In an illuminated sign, the combination of the objective with a disk shaped plate carrier, a shaft on which said carrier is mounted, a stationary cam, a cam mounted on the plate carrier shaft and in proximity to the stationary cam, a ratchet wheel, and means for intermittently revolving said wheel and the disk carrier, substantially as described.

5. In an illuminated sign, the combination of a casing, means for securing said casing to a stationary support, an objective, a disk shaped plate carrier, a uniformly rotative shaft, an intermittently rotative shaft, a stationary cam, a revoluble cam, a ratchet wheel, dogs alternately engaging and releasing said ratchet wheel whereby an intermittent motion is communicated to said plate carrier, substantially as described.

940,848. PROCESS OF PRESERVING EDIBLE SUBSTANCES. ARTHUR J. BALDWIN, East Orange, N. J., assignor to Baldwin-Lester Corporation, a Corporation of New York. Filed Mar. 15, 1909. Serial No. 483,629.

1. The improvement in preserving edible substances which consists in maintaining such substances under the pressure of a gas to destroy the living and inhibit the development of bacteria therein, and then eliminating the gas present in the substances to remove the foreign flavor acquired by the absorption or presence of said gas therein.

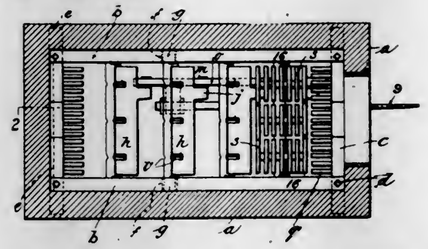
2. The improvement in preserving edible substances which consists in maintaining such substances under the pressure of carbon dioxid gas to destroy the living and inhibit the development of bacteria therein, and then eliminating the gas present in the substances to remove the foreign flavor acquired by the absorption or presence of said gas therein.

3. The improvement in preserving edible substances which consists in maintaining such substances under the pressure of a gas to destroy the living and inhibit the development of bacteria therein, and then subjecting the substances to a vacuum for removing the foreign flavor acquired by the absorption or presence of the gas, as set forth.

4. The improvement in the art of sterilizing and preserving milk, which consists in maintaining the milk under the pressure of carbon dioxid gas to destroy the living and inhibit the development of bacteria therein, and then subjecting the milk to a vacuum for removing the foreign flavor acquired by the absorption or presence of the gas, as set forth.

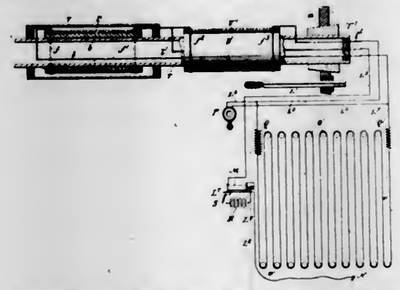
940,849. FURNACE-GRATE. WILLIAM H. BAUSH, Springfield, Mass., assignor to New England Roller Grate Company, Springfield, Mass., a Corporation. Filed Oct. 28, 1905. Serial No. 284,835.

1. In a shaking and dumping grate, a frame, a series of rocker-bars pivotally mounted therein and having depending portions below the pivot of the same, said rocker-bars being arrranged parallel to each other and inclined toward the front of the frame, each bar being provided with depressions r in the sides of the same, a series of individual grate-sections mounted on said bars and having slotted lugs for engaging the depressions in the bars, whereby the grate-sections are prevented from transverse displacement, and lugs on the ends of said sections for preventing the longitudinal displacement of the grate sections with relation to the rocker-bars, a depending arm on the frame, a broken gear thereon, a segmental gear also on the depending arm and meshing with the broken gear, a bar connecting the rocker-bars, a link connected to said bar and extending to and connected with the broken gear, means for rotating the segmental gear whereby the grate sections are placed so that their normal upper surfaces are inclined either toward or away from the front of the frame, as described.



2. A grate construction comprising a frame, rocker-bars hung therein, a connecting piece for said bars, a link for operating the bars, grate sections carried by the bars, an arm on the frame, a broken gear thereon, an arm connected to the broken gear and connected to the link, a segmental gear also mounted on the arm and meshing with the broken gear, a removable pin on the arm carrying said gears and in the path of the segmental gear whereby movement of the same in one direction is prevented, and means for effecting the rotation of the last mentioned gear whereby the grate sections are placed in shaking and dumping positions, as described.

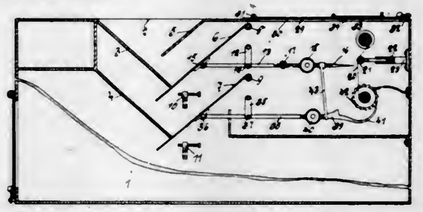
940,850. APPARATUS FOR TESTING FLUIDS. HOWARD B. BISHOP, New York, N. Y., assignor to General Chemical Company, New York, N. Y., a Corporation of New York. Original application filed Sept. 5, 1907, Serial No. 391,416. Divided and this application filed July 29, 1909. Serial No. 510,245.



1. An apparatus for testing gases, which comprises a carrier, a standard section and a test section supported on said carrier, each of the sections consisting of a tubular body with electrodes near the ends, a shell for inclosing the tubes and electrodes of the standard section, while the corresponding parts of the test section are exposed, and electrical apparatus, connected with said electrodes, for observing differences in conductivity between the standard section and the test section.

2. An apparatus for testing gases, which comprises a carrier, a standard section and a test section supported on said carrier, each of said sections being provided with electrodes, a shell for inclosing the standard section and its electrodes, while the test section and its electrodes are exposed and electrical apparatus connected with said electrodes for observing differences in conductivity between the standard section and the test section.

940,851. ARTICLE-COUNTER. ARTHUR BRETSCHNEIDER, Halle-on-the-Saale, Germany. Filed Feb. 3, 1909. Serial No. 475,845.



1. An article counter comprising in combination, a plurality of stationary guides, a plurality of movable guides engaging said stationary guides and arranged to be successively actuated by the articles to be counted, and means associated with movable guides for recording and indicating the count.

2. An article counter comprising in combination, a plurality of stationary guides, a plurality of movable guides arranged in underlapping relation with respect to said stationary guides and adapted to be successively actuated by the articles to be counted, and means actuated by the movable guides for recording the count.

3. An article counter comprising in combination, a plurality of downwardly inclined stationary guides, a plurality of downwardly inclined movable guides arranged in underlapping relation with respect to said stationary guides and adapted to be successively actuated by the articles to be counted, and means actuated by the movable guides for indicating the count.

4. An article counter comprising in combination, a plurality of stationary guides downwardly inclined, a receptacle to which said guides deliver, a plurality of downwardly inclined movable guides arranged in underlapping relation with respect to said stationary guides and adapted to be actuated by the articles to be counted, and means actuated by the movable guides for indicating and recording the count.

5. An article counter comprising in combination, a casing provided with an opening, downwardly inclined superposed stationary guides arranged in said opening to deliver into the casing, a stationary guide reversely arranged with respect to said superposed guides and delivering thereto, movable downwardly inclined guides arranged in said opening in underlapping relation with respect to said stationary guides and adapted to be actuated by the articles to be counted, and means actuated by said movable guides for recording and indicating the count.

[Claims 6 to 9 not printed in the Gazette.]

940,852. MILKING-MACHINE. JOHN J. BUKOLT, Stevens Point, Wis. Filed Dec. 21, 1908. Serial No. 468,544.

1. In a device of the class described, a milking machine, a manipulating handle extending therefrom, and a supporting fulcrum for the machine pivoted to the handle intermediate its length.

2. In a device of the class described, a milking machine, a supporting handle extending therefrom, and an adjustable supporting fulcrum pivoted to the handle intermediate its length.

3. In a device of the class described, a casing, rollers mounted therein, means for rotating said rollers whereby they will intermittently engage and press the teats against the casing, means for removably holding said rollers in the casing, means for limiting the movement of said holding means, adjustable means for normally forcing said holding means into engagement with the limiting means, and

means for disconnecting the operating means from the rollers.

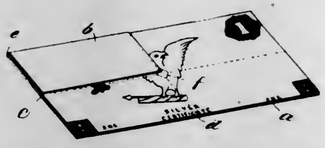


4. In a device of the class described, a casing, a shaft journaled in said casing, brackets carried by said shaft, teat engaging rollers carried by the brackets, means to operate said rollers whereby they will alternately engage and press the teats against the casing to positively force out the milk therein, means to disconnect said operating means from the rollers, and means carried by the casing which permits the removal of the rollers therefrom.

5. In a device of the class described, a casing, a shaft journaled therein, oppositely disposed rollers carried by the shaft, means for forcing said rollers into engagement with the teats whereby the latter are pressed against the casing, means to rotate said shaft, means for limiting said forcing means, means permitting the removal of the rollers from the casing and from said forcing means, and means to disengage said operating means from the shaft.

[Claim 6 not printed in the Gazette.]

940,853. WALLET. JAMES R. CARDWELL, Chicago, Ill. Filed Jan. 27, 1908. Serial No. 412,762.



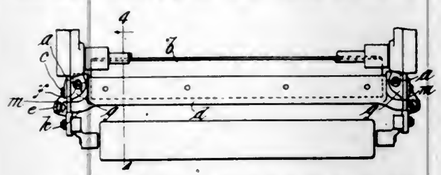
1. A wallet comprising a substantially flat sheet of suitable wallet material presenting a superficial area approximating that of a bank note and having creases extending longitudinally and transversely and dividing the sheet into substantially four equal parts, whereby paper money laid upon the sheet may be readily interfolded with the wallet, and a wing extending from the main sheet of the wallet adapted to be folded over the paper money, material of the sheet being removed where the lines of the creases intersect to permit the sheet readily to fold.

2. A wallet comprising a substantially flat sheet of suitable wallet material presenting a superficial area approximating that of a bank note and having creases extending longitudinally and transversely and dividing the sheet into substantially four equal parts, whereby paper money laid upon the sheet may be readily interfolded with the wallet, material of the sheet being removed where the lines of the creases intersect to permit the sheet readily to fold.

3. A wallet comprising a substantially flat sheet of suitable wallet material presenting a superficial area approximating that of a bank note, which sheet of material is creased longitudinally and transversely, whereby paper money laid upon the sheet may be readily interfolded with the wallet, and a wing extending from the main sheet of the wallet adapted to be folded over the paper money, material of the sheet being removed where the lines of the creases intersect to permit the sheet readily to fold.

4. A wallet comprising a substantially flat sheet of suitable wallet material presenting a superficial area approximating that of a bank note and foldable along longitudinal and transverse lines, material of the sheet being removed where the folding lines intersect to permit the sheet readily to fold along the transverse and longitudinal lines.

940,854. LAWN-MOWER. ADELBERT B. CASE, Springfield, Mass. Filed May 25, 1909. Serial No. 498,165.

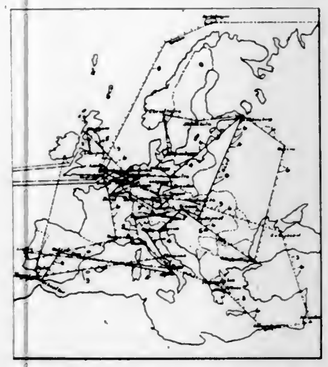


1. In a lawn mower, side frames provided with bearings, a knife-bar pivotally supported in the bearings in the side frames, and adjusting devices for the knife-bar located on opposite sides of each side frame, whereby the actuation of said devices will not effect the lateral displacement of said frames.

2. In a lawn mower, side frames provided with bearings therein, a knife-bar having a trunnion at each end seated in said bearings in the side frames, adjusting screws on opposite sides of each side frame and bearing on the knife-bar on either side of the axial center of said trunnions.

3. The combination with the side frames of a lawn mower, of a knife-bar pivotally supported therein, a part of said bar extending beneath the frame, and adjusting screws on the frame to bear on the knife-bar, one on the inside of the frame and one on the outside, and located respectively in front of and in the rear of the pivotal support of the bar.

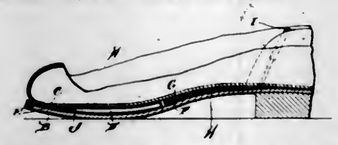
940,855. GAME APPARATUS. ALLEN B. CLEMENS, Columbus, Ohio. Filed June 14, 1909. Serial No. 501,936.



1. In a game apparatus, the combination with a board having on its face a geographical map, indicated stations and route lines on said map each intersecting a plurality of said stations, said lines showing equidistant divisions, of a pack of cards for each route line, the cards of each pack each bearing a number and the name of one of the stations on the corresponding route line and a movable marker for each route line adapted to be supported on said line at the stations and at the divisions thereof.

2. In a game apparatus, the combination with a board having on its face a geographical map, indicated stations and route lines on said map, said route lines each intersecting a plurality of said stations and showing equidistant divisions, of a pack of cards for each route line, the cards of each pack each bearing a number, the name of one of the stations on the corresponding route and printed information concerning said station or the country in which said station is located, and a movable marker for each route line adapted to be detachably fixed in connection with the board on a route line at the stations and at the divisions thereof.

940,856. SHOE. FRANK A. CRITZ, Jr., West Point, Miss. Filed Dec. 18, 1908. Serial No. 468,175.



The combination with a shoe provided with an air chamber between the inner and outer soles of a strip of leather having convex surfaces arranged between the inner and outer soles under the instep, a valve arranged within said strip, a tube connected to said valve having a felt tube connected to its end extending up between the lining of the shoe, a valve arranged within the inner sole adjacent the toe, and a pneumatic cushion arranged within the air chamber, said cushion being formed of a plurality of flexible tubes of different sizes.

940,857. LEATHER-EDGING TOOL. MARGARET CUMMS, Chicago, Ill., executrix of Frank F. Cumms, deceased. Filed Jan. 14, 1909. Serial No. 472,377.



1. In an edge trimmer of the character described, a blade having on its outer end a cutting edge, guide flanges formed on the opposite edges of the blade, a guide lug projecting beyond the end of the blade at one side of said cutting edge, and an adjustable gaging lever to co-act with said flange and guide lug.

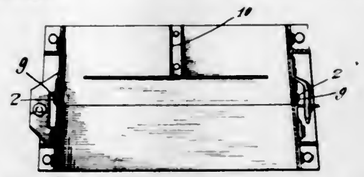
2. In an edge trimmer of the character described, a blade having formed on one end a cutting edge, a guide lug on one side of said edge, a guide lever having a right-angularly formed guide lug on its outer end, and a transversely slotted extension on its rear end, a pivot screw to pivotally connect said lever with the blade, and a set screw arranged in the slotted inner end of the lever to hold the same in its adjusted position on the blade.

3. In an edge trimmer of the character described, a blade having on its outer end a cutting edge, a guide flange and lug on one side of said edge, a guide lever having a right-angularly formed guide lug on its outer end, and a transversely slotted extension on its inner end, a pivot screw to pivotally connect said lever with the blade, a thumb nut on said screw adapted to clamp the lever into engagement with the blade, a set screw in the slotted inner end of the lever whereby the latter is held in its adjusted position, and a spring formed in the rear portion of the lever whereby the forward end thereof is disengaged from the outer end of the blade when said thumb nut is unscrewed.

940,858. FLASK. LOUIS W. DAMAN, Sackville, New Brunswick, Canada. Filed Jan. 9, 1909. Serial No. 471,406.

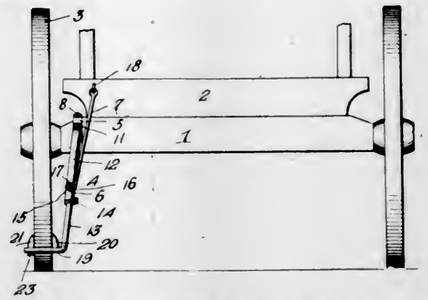
1. A flask of the character described, comprising a cope and a drag section, sand supporting plates slidably mounted on said cope section and adapted to be projected through the sides thereof, means for projecting said plates, semi-circular bars mounted in said cope section and adapted to be turned to position to support the sand as the cope section is removed, and connections between said bars and said plates for operating the same simultaneously.

2. A flask of the character described, comprising a cope and a drag section, sand supporting plates slidably mounted on said cope section and adapted to project therethrough to support sand within the cope section, tubular journals formed on the interior of said cope section, semi-circular bars mounted in said tubular journals and adapted to be rotated to such position as to support sand within the cope section and to allow sand from the cope section to pass into said tubular journals, and connections between said shafts and said plates for operating the same simultaneously.



3. A flask of the character described, comprising a cope and a drag section, sand supporting plates slidably mounted on said cope section and adapted to project therethrough to support sand within the cope section, tubular journals formed on the interior of said cope section, semi-circular bars mounted in said tubular journals and adapted to be rotated to such position as to support sand within the cope section and to allow sand from the cope section to pass into said tubular journals, connections between said shafts and said plates for operating the same simultaneously, and means for limiting the movement of said bars.

940,859. MUD-SCRAPER FOR WHEELS. JESSE O. DAVISON, Murray, Iowa. Filed May 29, 1909. Serial No. 499,110.



A mud scraper comprising a U-shaped clamp to receive an axle and formed at its closed end with an apertured lug, a tubular body member formed at one end with an enlarged bifurcated portion to receive said lug, a pivot uniting said bifurcated portion of the body to said lug, a second body member of right-angular shape having a long end slidable in the tubular portion of the first body member, the short end of said second member being longitudinally slotted, a set screw for retaining the body members in adjusted position, an eye bolt for attachment to a bolster, a link pivotally connected to the first body member and loosely engaged with said eye bolt, a fixed scraper blade upon the short end of the second body, and an adjustable scraper having a reduced shouldered end to slide in the slot in the short end of said second body member, a clamping screw passed through said slotted end of the second body member and into the reduced end of said adjustable scraper blade.

940,860. GAGE-GLASS. CHARLES L. DICKERSON, Clinton, Ill. Filed June 16, 1909. Serial No. 502,523.

1. A gage of the class described comprising a plurality of barrel-portions positioned zigzag with respect to the vertical axis of the gage, and arranged so that the top of

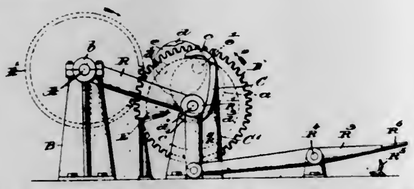
the inner portion of one barrel will be on the level with the bottom of the barrel just above.



2. A gage of the class described comprising a plurality of barrel-portions positioned in a staggered relation in reference to the vertical axis of the same.

3. A gage of the class described comprising a plurality of hollow barrel portions, transparent means positioned in each end of said barrel-portions, said barrel-portions positioned in staggered relation and having the top of the inner bore of one barrel-portion on a level with the bottom of the inner bore of the other barrel-portion for readily allowing the liquid contained therein to be viewed from either side thereof.

940,861. POWER-TRANSMITTING MECHANISM. CLARE H. DRAPER, Hopedale, Mass. Filed Dec. 29, 1908. Serial No. 469,874.



1. In power transmitting mechanism, a driving member, a driven member, a gear attached thereto, a second gear in continuous mesh therewith and shiftable into and out of axial alinement with the driving member, a crank on the latter, and a link pivotally connected with the crank, and also with the shiftable gear eccentric to its center, revolution of the crank acting through the link to positively rotate the shiftable gear when coaxial with the driving member and leaving the gear inert when its connection with the link is coaxial with the driving member.

2. In power transmitting mechanism, a driving member, a driven member, a plurality of gears in continuous mesh, one being attached to the driven member and another being shiftable into and out of coaxial alinement with the driving member, and a link pivotally connected with said member and the shiftable gear at equal distances from their axes of rotation, said gear being rotated by the driving member through said link when the gear and driving member are co-axial, the link revolving about its pivotal connection with the gear when said connection is alined with the driving member.

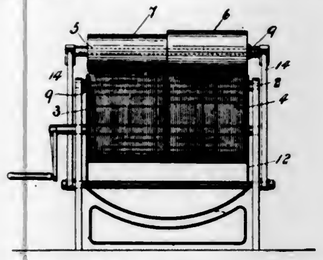
3. In power transmitting mechanism, a driving member, a driven member, a plurality of gears in continuous mesh, one being attached to the driven member and another being shiftable into and out of coaxial alinement with the driving member, and a link pivotally connected with said member and the shiftable gear at equal distances from their axes of rotation, said gear being rotated by the driving member through said link when the gear and driving member are coaxial, the link revolving about its pivotal connection with the gear when said connection is alined with the driving member, combined with a stop for said gear when in such latter position.

4. In power transmitting mechanism, a driving member, a driven member, a plurality of gears in continuous mesh, one being attached to the driven member and another being shiftable into and out of coaxial alinement with the driving member, and a link pivotally connected with said member and the shiftable gear at equal distances from their axes of rotation, said gear being rotated by the driving member through said link when the gear and driving member are coaxial, the link revolving about its pivotal connection with the gear when said connection is alined with the driving member, combined with a stop for said gear when in such latter position, and means to prevent shifting of the gear into axial alinement with the driving member except at a predetermined position of the link relatively to the shiftable gear.

5. In power transmitting mechanism, a driving member, a driven member, a plurality of gears in continuous mesh, one being attached to the driven member and another being shiftable into and out of co-axial alinement with the driving member, a rigid connection pivoted to the driving member and to the shiftable gear at equal distances from their axes of rotation, to effect rotation of the gear when the latter is in running position, and means to prevent shifting of said gear to stopping position except at a predetermined point of its angular movement.

[Claims 6 to 15 not printed in the Gazette.]

940,862. APPARATUS FOR CUTTING PAPER, &c. PERCY G. E. DANIEL, Clevedon, and CHARLES A. H. BULLOCK, London, England. Filed Aug. 19, 1908. Serial No. 449,268.
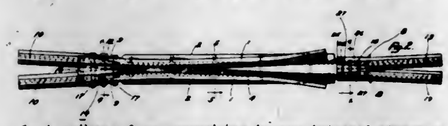


1. In cutting apparatus the combination with one pair of separately rotatable rollers each roller of the pair being of a different diameter, of a second pair of similar rotatable rollers capable of frictionally meshing with the first pair so that the inner end of the larger roller of the one pair overlaps and frictionally contacts with the inner end of the larger roller of the other pair to form a cutting edge, shafts for said rollers, and means for non-rotatively securing one roller of each pair to its shaft, substantially as specified.

2. In cutting apparatus the combination with a plurality of independently rotatable rollers of different diameters and fixed location, of a plurality of similar rotatable rollers of similarly different diameters arranged parallel with the rollers of fixed location the large rollers of the one series being capable of frictional contact with the smaller rollers of the other series so that the ends of the larger rollers of the one series partially overlap the opposing ends of the larger rollers of the other series to form dividing edges, shafts for said rollers, and means for non-rotatively securing one roller of each pair to its shaft, the companion roller of each pair being loosely mounted substantially as specified.

3. In cutting apparatus the combination with a non-rotatable spindle of rollers of two different diameters arranged to be capable of rotation side by side upon said spindle, the rollers of one diameter alternating with rollers of another diameter, a second non-rotatable spindle arranged parallel with the first spindle, a movable framework, carrying said second spindle, and a second series of rotatable rollers of two different diameters carried by this spindle the rollers of one diameter alternating with the rollers of the other diameter said frame-work being mounted to swing by gravity to bring its set of rollers into engagement with the companion set of rollers.

4. In cutting apparatus the combination with one pair of separately rotatable rollers each roller of the pair being of a different diameter and a second pair of similar rotatable rollers, of a movable framework carrying said second pair of rollers, by the movement of which framework the two pairs of rollers can be engaged by gravity substantially as specified.

940,863. RAILWAY-FROG. HENRY G. ELFBORG, Chicago, Ill. Filed Nov. 27, 1908. Serial No. 464,799.



1. A railway frog comprising in one integral structure, a base, a point, wing flanges, and beveled extensions of said flanges at one end and of said point at the other end.

2. A railway frog comprising in one integral structure, a base, a point, wing flanges, extensions of said wing flanges at one end and of said point at the other end, and lugs at the base of and spaced from said point extension.

3. A railway frog comprising in a single integral structure, a base, a point, and wing flanges, said wing flanges being extended at one end of the frog beyond the main body thereof, said extensions being tapered.

4. In combination, a railway frog comprising in a single integral structure, a base, a point, wing flanges, said wing flanges being extended at one end beyond the main body of the frog, and two track rails the ends of which are received between and lie against said extensions, the ends of said rails and extensions being tapered to form diagonal joints.

5. In combination, a railway frog comprising in a single integral structure, a base, a point, wing flanges, said wing flanges being extended at one end beyond the main body of the frog, two track rails the ends of which are received between and lie against extensions, the ends of said rails and extensions being tapered to form diagonal joints, a spacing wedge between the ends of said rails, and bolts passing through said extensions, rails and spacing wedge.

[Claims 6 to 8 not printed in the Gazette.]

940,864. RAILWAY-FROG. HENRY G. ELFBORG, Chicago, Ill. Filed Dec. 7, 1908. Serial No. 466,340.



1. A railway frog comprising in one integral structure, a body portion, a point, wing flanges, diverging extensions from the base of said point, and rails received between and secured to said extensions.

2. A railway frog comprising in one integral structure, a body portion, a point, wing flanges, and diverging extensions from the base of said point, said extensions being of reduced height adjacent their ends forming parts adapted to fit between the head and base of attached rails.

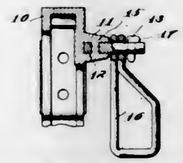
3. A railway frog comprising in a single integral structure, a body portion, wing flanges, a point, diverging extensions from the base of said point, and a support extending outwardly from said body portion beneath said extensions.

4. A railway frog comprising in one integral structure, a body portion, a point, wing flanges, extensions of said flanges at one end, and diverging extensions from the base of said point.

5. A railway frog comprising in one integral structure, a body portion, a point, wing flanges, extensions of said flanges at one end, and diverging extensions from the base of said point, said last named extensions being of reduced height adjacent their ends forming parts adapted to fit between the head and base of attached rails.

[Claims 6 to 10 not printed in the Gazette.]

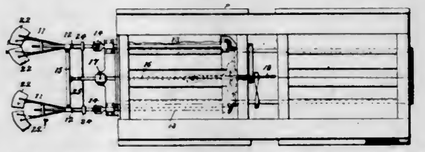
940,865. BRAKE-HANGER-PIN CONSTRUCTION FOR CAR-TRUCK SIDE FRAMES. GEORGE G. FLOYD, Granite City, Ill., assignor to American Steel Foundries, New York, N. Y., a Corporation of New Jersey. Original application filed Mar. 22, 1907, Serial No. 363,822. Divided and this application filed Apr. 12, 1909. Serial No. 489,316.



1. The combination of a cast-metal truck side-frame and a brake-hanger pin having an aperture near each end, one end of said pin being embedded in said side-frame and having a portion of the metal thereof in said aperture whereby said pin is firmly anchored in said frame, substantially as described.

2. The combination of a cast-metal truck side-frame and a brake-hanger pin having an aperture near each end, said apertures being equidistant from said ends, one end of said pin being embedded in said side-frame and having a portion of the metal thereof in one of said apertures whereby said pin is firmly anchored in said frame, substantially as described.

940,866. FLYING-MACHINE. ALBERT H. FRIEDEL, Baltimore, Md. Filed May 19, 1908. Serial No. 433,713.



1. A propeller having a resilient wing, and means for compressing said wing to reduce its effective resisting surface upon the return side of the propeller.

2. A propeller of the character set forth, comprising a wing adapted to contract and expand and to move radially, and means coöperating with said wing to effect both a compression and a radial movement thereof.

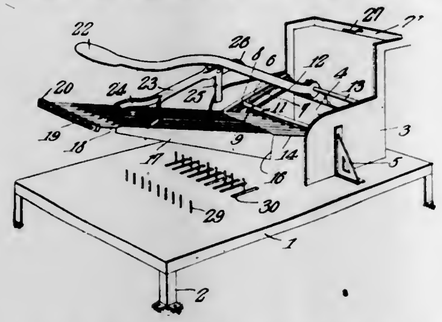
3. A propeller of the character set forth, comprising a wing mounted to move radially and comprising telescoping joints and made flexible so as to contract and expand.

4. In a propeller, the combination of a curved guide, a shaft located upon the hollow side of the guide, wings mounted upon said shaft to move radially and comprising flexible and telescoping portions.

5. In a flying machine, a propeller mounted to be moved up or down, or laterally, so as to drive the machine and steer the same and including propeller blades, means for changing the angle or inclination of the blades, and an operating lever independent of the blade adjusting means for moving said propeller to the required position, said operating lever embodying an adjustable handle section, and means for securing the latter in the required position.

[Claims 6 to 12 not printed in the Gazette.]

940,867. SLICING-MACHINE. SAMUEL L. GARNER, Tulsa, Okla. Filed Sept. 14, 1908. Serial No. 453,000.



1. The combination with a supporting structure; of a member slidably mounted thereon, a series of spaced, parallel blades pivotally connected to said member, an actuating lever, means for transmitting motion from the said lever to the blades, a stop device movable with the lever for engagement with one of the blades, and yielding means for holding the sliding member normally in predetermined position.

2. The combination with a supporting structure; of a slidably supported end plate having a longitudinal slot therein, a series of parallel, spaced blades, stems extending therefrom and adjustably mounted within the slotted end plate, means for adjustably connecting the blades at a point removed from said end plate, and means for actuating the blades simultaneously.

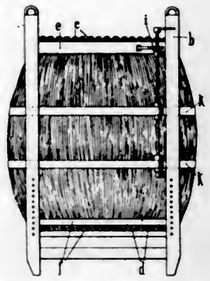
3. The combination with a supporting structure; of fixed gripping fingers thereon, oscillating gripping fingers coöperating therewith, yielding means for holding said oscillating fingers normally in a predetermined position, adjustably connected cutting blades movably supported above and disposed to move between the fingers, and elastic means operated by the movement of the blades in one direction for shifting the oscillating fingers out of normal position.

4. The combination with a supporting structure having a series of slots therein, and fixed clamping members disposed adjacent the slots; of a rock-bar, clamping fingers extending therefrom and through the slots, parallel cutting blades movably mounted upon the supporting structure, means for actuating the same, said blades being movable between the fingers and the fixed clamping members, and yielding means operated by said actuating means for shifting the fingers into clamping position.

5. In a device of the class described a supporting structure having a series of parallel slots therein, fixed spaced clamping members upstanding from said structure and adjacent the slots, a series of clamping fingers movably mounted within the slots and shiftable together, means for yieldingly holding said fingers normally in a predetermined position, a series of parallel cutting blades slidably and pivotally mounted upon the supporting structure and movable between the clamping fingers and the fixed clamping members, means for actuating said blades, and yielding means operated by said actuating means for shifting the fingers into clamping position during the cutting action of the blades.

940,868. APPARATUS FOR DYEING YARN. FRANZ GEISSLER, Kottbus, and BRUNO WAGNER, Görlitz, Germany. Filed Jan. 28, 1909. Serial No. 474,829.

1. An apparatus for dyeing yarn in strands, comprising: a vat; a frame adapted to removably fit within said vat and open at its two opposite sides to permit the liquor to flow through the frame; bands adapted to surround the contained yarn; means to adjust said bands to confine said yarn within said frame during the introduction of the latter in the vat; upper fixed supports, and lower adjustable supports carried by said frame; two series of bars over which the yarn is to be suspended, said bars being respectively supported by said upper fixed and said lower adjustable supports and at a distance apart corresponding to the length of the strands, and the said strands having sufficient longitudinal play, whereby as the liquor is circulated through the frame in the direction of the yarn strands, the yarn portions resting upon said bars are lifted and attacked by the dye liquor.

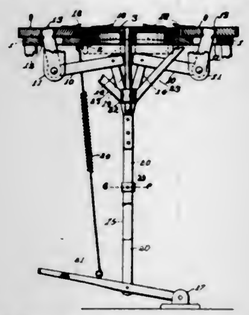


2. An apparatus for dyeing yarn in strands, comprising: a plurality of adjacent, communicating vats to contain a suitable dye liquor; liquor circulating means in the communication between said vats adapted to alternately circulate the liquor through the several vats; a plurality of removable supporting frames adapted to fit within the respective vats, and open at two opposite sides to allow the liquor to flow through same; bands adapted to surround the contained yarn, and means to adjust said bands to confine said yarn within said frames during the introduction of the latter in the respective vats; upper fixed supports, and lower adjustable supports carried by said frames; two series of bars over which the yarn is to be suspended, said bars being respectively supported by said upper fixed and said lower adjustable supports and at a distance apart corresponding to the length of the strands, and the said strands having sufficient longitudinal play whereby, as the liquor is circulated through the frames in the direction of the yarn strands, the yarn portions resting upon said bars are lifted and attacked by the dye liquor.

3. An apparatus for dyeing yarn in strands, comprising: communicating vats adapted to contain a suitable dye liquor; liquor circulating means in the communication between said vats adapted to alternately circulate the liquor through the several vats; removable supporting means adapted to fit within the respective vats, and open at two opposite sides to allow the liquor to flow through same; adjustable bands adapted to surround the contained yarn; two series of bars over which the yarn is adapted to be suspended, said bars being respectively supported in slots arranged one above another so as to enable the bars to be introduced in the boxes at a distance apart corresponding to the length of the strands, and the said strands having sufficient longitudinal play whereby, as the liquor is circulated through the frames or boxes in the direction of the yarn strands, the yarn portions resting upon said bars are lifted and attacked by the dye liquor.

940,869. HOOP SIZING AND CLAMPING DEVICE. LEWIS GIBBS, Canton, Ohio, assignor to The Gibbs Manufacturing Company, Canton, Ohio, a Corporation of Ohio. Filed Jan. 10, 1907. Serial No. 351,638.

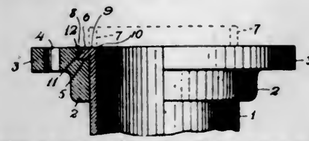
1. In a hoop sizing and clamping device the combination of a bed plate provided with guide ways, sizing blocks slidably mounted in the guide ways, the inner edges of said sizing blocks being curved to fit a hoop to be sized, a disk located intermediate the slidable sizing blocks, means for moving the disk at right angles to the movement of the sizing blocks, fingers having their free ends turned upwardly and secured to the slidable sizing blocks, the turned up ends of the fingers overhanging the edge of the slidable blocks, means for operating the slidable blocks, and means for independently operating the disk.



2. In a hoop sizing and clamping device, the combination of a bed provided with guide ways, a pair of slidable sizing blocks operating in the guide ways said sizing blocks being curved on their inner edges to substantially encircle a hoop, a disk operating in an opening formed in the bed and projecting above the latter in a plane with the upper faces of the slidable blocks, a crank lever for each slidable block a vertical rod connected to the disk, a treadle connection attached to the rod, and means for operating the crank levers to cause movement of the slidable blocks independent of the movement of the disk.

3. In a hoop sizing and clamping device, the combination of a bed plate provided with guide ways, a pair of slidable sizing blocks operating in the guide ways, and formed with seats, the inner ends of the sliding sizing blocks being curved to embrace a hoop, a disk operating in an opening formed in the bed plate, and normally projecting above the plane of the latter, a treadle connection attached to the disk, a spring for elevating the disk to normal position, bell crank levers, the ends of the bell crank levers fitting in the seats in the sliding blocks, and a treadle connection attached to the bell crank levers, for operating the said sliding blocks.

940,870. FLANGED PIPE. CHARLES GORDON, Hartford, Conn., assignor to Whitlock Coil Pipe Company, West Hartford, Conn., a Corporation of Connecticut. Filed Jan. 16, 1908. Serial No. 411,097.

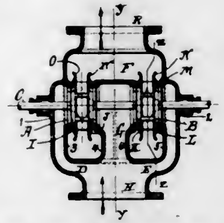


1. A pipe having a flanged collar applied to its outer surface, said collar having an interior annular recess open at the top, with the lower wall of said recess at right angles to the axis of the pipe and wider than the opening at the top of said recess, and with the end of the pipe upset to form an exterior flange arranged to contact with the walls of said recess.

2. A pipe having a flanged collar applied to its outer surface, said collar having an interior annular recess open at the top, with its lower wall at right angles to the axis of said pipe, with its outer wall provided with a groove below the top, and with the pipe upset to form an exterior flange arranged to contact with the walls of said recess.

940,871. MULTIPLE-IMPELLER PUMP. ALBERT E. GUY, Trenton, N. J., assignor to De Laval Steam Turbine Company, New York, N. Y., a Corporation of New Jersey. Filed Nov. 13, 1907. Serial No. 401,930.

1. A centrifugal pump comprising in combination a plurality of double suction impellers constructed to operate in parallel, a box having supply passages for said impellers, and having also a single discharge chamber inclosing all of said impellers, and unobstructed diffusers located between said impellers and discharge chamber and arranged to receive the discharge from said impellers radially and to deliver such discharge radially into said discharge chamber, said chamber having a free space outside of said diffusers into which the discharge from said diffusers may pass in a direction normal to the axes of the corresponding impellers, said box adapted to receive interchangeably impellers and diffusers of different design and different diameters to suit different conditions.



2. A centrifugal pump comprising in combination a shaft, a plurality of double suction impellers thereon, and a box having supply passages for said impellers and a single discharge chamber for said impellers and having, between said impellers and discharge chamber, unobstructed diffuser passages arranged to receive radial discharge from said impellers and to deliver such discharge radially into said discharge chamber, said chamber having a free space outside of said diffuser passages to receive such discharge and being adapted to receive interchangeably impellers and diffusers of different design and diameters to suit different conditions.

3. A centrifugal pump comprising in combination a rotary impeller, and a box having supply and discharge passages, and a diffuser interposed between the impeller and discharge passage comprising two rings each seated in a wall of said casing, each such ring and the corresponding portion of the wall having the one a groove and the other a rib fitted within said groove, whereby the rings are held in place, the space between said rings forming an annular diffuser passage receiving the discharge from the impeller and delivering same to the discharge passage.

4. A centrifugal pump comprising in combination a rotary impeller, and a casing having supply and discharge passages, and a diffuser interposed between the impeller and discharge passage comprising two rings each seated in a wall of said casing, each such ring and the corresponding portion of the wall having the one a groove and the other a rib fitted within said groove, whereby the rings are held in place, the space between said rings being unobstructed and constituting a diffuser passage.

940,872. PROCESS FOR CAUSING SELF-IGNITION IN EXPLOSIVE-ENGINES. ALLEN O. HANEY, Ligonier, Ind., assignor to Haney Gas Engine Company, Ligonier, Ind. Filed July 13, 1908. Serial No. 443,297.

1. The herein described process of producing self-ignition in explosive engines, by retaining a portion of the products of combustion at each exhaust thereof, then mixing a fresh charge of the explosive mixture with such residue in the explosion chamber, and then subjecting the same to a low compression in the piston chamber.

2. The process of producing self ignition in low compression explosive engines, which consists in commingling in the explosive chamber a portion of the products of the combustion therein with each successive charge of the working mixture after each exhaust, and then subjecting the mixture to a low compression in the said chamber.

3. The method or process of producing self-ignition in explosive engines which consists in energizing each incoming charge of the explosive mixture by mixing therewith in the combustion chamber a portion of the products of combustion, and then subjecting the same to a suitable compression.

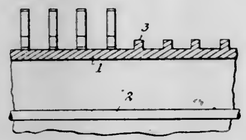
4. The process of producing self-ignition in explosive engines, consisting in commingling with each incoming charge of the explosive mixture, a proper quantity of the products of combustion after each exhaust thereof, and then subjecting the same to a compression in the explosion chamber.

940,873. TAPE-MEASURE. THEODORE W. HANRATH, Chicago, Ill. Filed Aug. 24, 1908. Serial No. 449,957.



A tape measure comprising a sheath consisting of a strip of fabric rubberized on one side only and folded double with the unrubberized surface outside, an insert consisting of a strip of sized linen within the sheath and marginal stitching running the length of the measure and penetrating the edges of both the sheath and the insert.

940,874. ELASTIC-FLUID TURBINE. PER J. HEDLUND, Jürla, Stockholm, Sweden. Filed Dec. 3, 1907. Serial No. 404,917.



1. A blade-carrying member for elastic fluid turbines adapted for holding a plurality of rows of buckets, said member provided with a plurality of integral circumferential ribs, each projecting beyond the main surface of the member, and each provided with a plurality of sockets, separate from one another, for receiving the bases of individual buckets, each such recess open at the side to receive its bucket from the side, whereby all of said buckets may be inserted from the sides of the ribs, each directly into its corresponding recess.

2. A rotor for elastic fluid turbines adapted for holding a plurality of rows of buckets, said rotor comprising a drum provided with a plurality of integral circumferential ribs, each projecting beyond the main surface of the drum, and each provided with a plurality of sockets, separate from one another, and each open at the side to receive a corresponding bucket, and a plurality of rows of buckets, each bucket having a base received individually in a corresponding socket.

3. A rotor for elastic fluid turbines adapted for holding a plurality of rows of buckets, said rotor comprising a drum provided with a plurality of integral circumferential ribs, each projecting beyond the main surface of the drum, and each provided with a plurality of sockets, separate from one another, and each open at the side and enlarged at the bottom, corresponding sockets of different ribs being in line and adapted to be formed by means moving with respect of the drum.

4. A turbine drum with a plurality of bucket rings made in one piece with the drum, each ring provided with recesses opening at each side of the ring and engaging buckets, each inserted from the side directly into its corresponding recess.

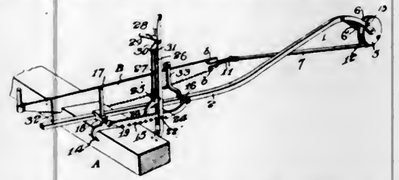
940,875. CLOTHES-LINE PROP. WILLIAM HETHERINGTON, Everest, Kans., assignor of one-fourth to W. C. Alexander, Everest, Kans., one-fourth to Charles Franklin Tector, Oskaloosa, Kans., and one-fourth to Giles Collins Dana, Everest, Kans. Filed Feb. 4, 1909. Serial No. 476,156.

A clothes-line prop comprising a standard, bearings on one end of said standard, a substantially U-shaped member journaled in said bearings, said member having its legs depending on either side of said standard and terminating



in line supporting hooks, and a cap covering the bearings and adapted to hold the same in place.

940,876. DRAG-SAW. FRANK HORNQUIST, Johnsonburg, Pa. Filed May 6, 1909. Serial No. 494,260.



1. In an operating attachment for drag saws, the combination of a bar having one end inclined upwardly and provided with a spring controlled flexible member, longitudinally spaced saw guides arranged on one side of said bar, log engaging clamps arranged on the other side of said bar, said bar being vertically adjustable relative to said clamps to provide for variation of the angle of the saw guides, and means for connecting said flexible member with the saw.

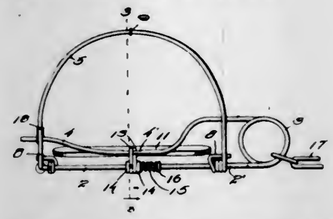
2. In an operating attachment for drag saws, the combination of a bar, means for yieldably supporting a saw arranged at one end of said bar, a ratchet bar pivotally connected at one end to one side of said first mentioned bar and provided at its free end with a fixed log engaging hook or jaw, a movable clamping jaw mounted on said ratchet bar and provided at one end with a claw or hook and at its other end with a hand grip, teeth arranged on opposite edges of said ratchet bar, a dog pivotally mounted on said movable jaw and adapted to engage the teeth on one edge of said ratchet bar, a pin for engaging the teeth on the other side of said bar, a bell crank lever pivoted near the hand grip end of said movable jaw, and an operating rod connecting said bell crank lever with said pawl.

3. In an operating attachment for drag saws, the combination of a bar, means for yieldably supporting a saw at one end of said bar, a ratchet bar pivotally connected at one end to one end of said first mentioned bar and having a downturned claw or hook at the free end thereof, teeth of different sizes on the opposite edges of said ratchet bar, the free end of said ratchet bar being provided on its upper edge with a lateral arm, a member on said first mentioned bar adjustably engaged with said arm, a movable jaw or claw lever straddling said ratchet bar and provided with a pin for engaging the teeth on one edge thereof and with a dog for engaging the teeth on

the other edge thereof to lock said lever in adjusted position, and means for disengaging said dog from said teeth when desired.

4. A drag saw operating mechanism comprising a log clamping member, a bar pivoted intermediately of its ends to the inner end of said clamping member, means adjustably connecting one end of said bar to the other end of said log clamping member, a saw guide mounted on said bar and a spring controlled flexible element having one end mounted on the free end of said bar, and means on its other end for engagement with a saw.

940,877. TRAP. CHARLEY JANKE, Meadow Grove, Nebr. Filed Apr. 21, 1909. Serial No. 491,214.



1. A trap of the class described comprising a spring member having one of its ends horizontally extended and vertically bowed, a coil formed by said spring member intermediate the ends thereof, a second bowed member secured to said spring member and disposed in parallel relation to the bowed portion thereof, the other end of said spring member being horizontally extended and having its end downwardly bent, said end being disposed between the bowed members, and trigger plates secured upon the horizontal portion of said spring member on either side thereof and adapted to maintain the free end of said member in parallel relation thereto, and means for supporting said trap in position.

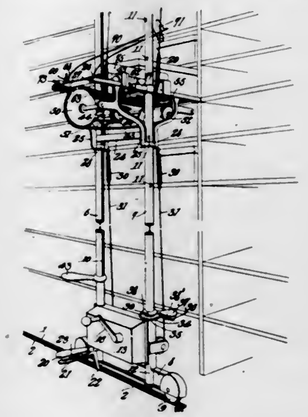
2. A trap of the character described comprising a spring member having one of its ends horizontally extended and upwardly bowed, a coil formed intermediate of the ends of said member, a second bowed member secured to said spring member in spaced parallel relation to the bowed portion thereof, a link connecting said bowed members, the other end of said spring member being horizontally disposed and downwardly bent to form a catch bar, said end projecting between said bowed members, said bar having a portion of its upper surface flattened, means for retaining said bar between said bowed members, supports disposed upon either side of said bowed members and having their ends projecting between said bowed members, trigger plates frictionally engaged upon the horizontal portion of said spring member and disposed within said support, hooked ends upon said trigger plates adapted to engage the flat portion of the spring bar and retain the same in parallel relation to the horizontal portion of said spring member, substantially as and for the purpose set forth.

3. A trap of the character described comprising a spring member coiled between its ends, one of said ends being horizontally and laterally extended, said lateral extension being formed into an upwardly extending bowed member having its end secured to the horizontal portion thereof, a second bow member secured to said spring member, means for holding said bow members in spaced parallel relation, said bowed members having their opposed faces provided with teeth, a wire secured to said spring member having its ends secured to said bowed members and adapted to engage with the toothed portion thereof, supports disposed from the horizontal portion of said spring member, trigger plates having wires secured to their opposed ends, said wires frictionally engaged by collars disposed upon said spring member, a coil spring disposed upon the horizontal portion of said member and adapted to maintain one of said collars in constant frictional engagement with the wires of said trigger plate, said wires having hooked upper ends, which are adapted to engage with the horizontally disposed end of said spring member, substantially as and for the purpose set forth.

4. A trap of the character described comprising a spring formed of a single length of steel wire coiled between its ends, the ends of said wire being disposed in parallel relation, one of said ends forming in effect a spring bar, wire supporting members secured to said spring members and projecting at right angles thereto, trigger plates provided with wire extensions, means for maintaining the trigger plates in frictional engagement upon said spring member, said wire having hooked upper ends engaging with the spring bar of said coiled spring, substantially as and for the purpose set forth.

5. In a trap, the combination with a U-shaped member having a bight portion, a reciprocable member integrally formed with the U-shaped member, means for forcing the reciprocable member toward the bight portion, and means for locking said members in engaged position against the bight portion.

940,878. BOX-HANDLING ATTACHMENT FOR SHELVES. JOHN R. JONES, Rome, and HERBERT W. NICHOLES, Atlanta, Ga. Filed Feb. 3, 1909. Serial No. 475,841.



1. In apparatus of the class described a revoluble guide standard, a carriage mounted for sliding movement thereon, a locking member carried by the carriage, and nonalining means upon the standard and shiftable successively in position to coöperate with said locking member to limit the movement of the carriage.

2. In apparatus of the class described a revoluble guide standard, a carriage mounted for sliding movement thereon, a locking member upon the carriage, non-alining means upon the standard at different elevations, and means for actuating the standard to position any one of said means in the path of the locking member to limit the movement of the carriage.

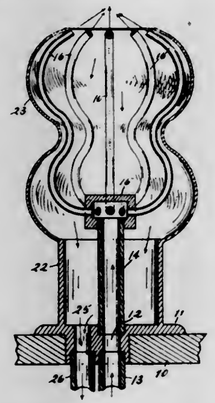
3. In apparatus of the class described a revoluble guide standard, a carriage mounted for sliding movement thereon, a locking member carried by said carriage, non-alining means upon the standard at different elevations for cooperating with said locking member to limit the movement of the carriage, and means for shifting said standard to bring said means into operative position.

4. In apparatus of the class described a revoluble guide standard, a carriage mounted for sliding movement thereon, a locking member upon the carriage, means upon the standard and at different elevations for coöperating with the locking member to limit the movement of the carriage, said means being disposed out of alinement, means for shifting the standard to bring any one of said means into operative position, and an indicator coöperating with said last mentioned shifting means.

5. In apparatus of the class described a revoluble guide standard having non-alining notches disposed at different elevations, a carriage mounted for sliding movement upon the standard, a locking member upon the carriage for automatically engaging any one of the notches, and means for rotating the standard to bring any one of said notches into the path of the locking member.

[Claims 6 to 18 not printed in the Gazette.]

940,879. WATER-FOUNTAIN. BENNETT KAMINSKY, Indianapolis, Ind., assignor of one-half to Julius M. Kaminsky, Indianapolis, Ind. Filed Feb. 4, 1909. Serial No. 475,997.



1. A drinking fountain including more than two water-discharging nozzles arranged facing each other so as to discharge the water therefrom at an upward inclination and to a single point, whereby a geyser-like jet of water will be thrown upwardly at the point where the streams of water meet.

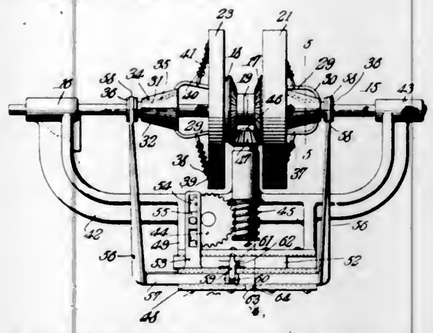
2. A drinking fountain including more than two nozzles disposed equidistant around a central point with the discharging ends inclined inwardly and upwardly so as to discharge the columns of water against each other at one point, substantially as set forth.

3. The combination of a stand, a water-supply tube extending upwardly therefrom, and more than two nozzles leading laterally from the sides of said tube at its upper end and extending upwardly around a central point with the discharge ends thereof facing each other and turned inwardly and upwardly, substantially as shown.

4. A drinking fountain including an upwardly extending water-supply tube, nozzles extending laterally from the side thereof and extending upwardly around a central point with the discharge portions leading upwardly and inwardly, a casing surrounding said tube and said nozzles and extending above the nozzles and open at the upper end so that streams of water may discharge from the nozzles through said opening and without touching said casing, and an outlet for waste water at the lower end of said casing.

940,880. POWER-TRANSMISSION MECHANISM. CHARLES KILROY, Cedar Rapids, Iowa. Filed Nov. 21, 1908. Serial No. 463,845.

1. In a mechanism of the class described, a shaft, clutch elements loosely mounted on the shaft, clutch elements mounted upon the shaft for rotation therewith and for co-operation with the first-mentioned elements, and means for alternately bringing the second-mentioned clutch elements into engagement with the corresponding first-mentioned elements, said means comprising a gear driven from one of the first-mentioned clutch elements, a sliding bar having a slotted extension, a pin upon the gear working in the slot in said extension, a reciprocatory frame having extensions operatively connected with second-mentioned clutch elements, and a pivoted latch carried by the frame and engageable with the bar whereby to connect the frame with the bar for reciprocation.



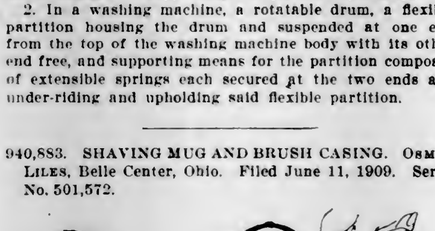
2. In mechanism of the class described, a shaft, clutch elements loosely mounted on the shaft, clutch elements mounted upon the shaft for rotation therewith, and for coöperation with the first-mentioned elements, and means for alternately bringing the second-mentioned clutch elements into engagement with the corresponding first-mentioned elements, said means comprising a sliding bar, gear connections between one of the first-mentioned clutch elements and the bar for reciprocating the bar, a reciprocatory frame having extensions operatively connected with the second-mentioned clutch elements, and a pivoted latch carried by the frame and engageable with the bar whereby to connect the frame with the bar for reciprocation.

3. In mechanism of the class described, a shaft, clutch elements loosely mounted upon the shaft, clutch elements mounted upon the shaft for rotation therewith and for co-operation with the first-mentioned elements, and means for alternately bringing the second-mentioned clutch elements into engagement with the corresponding first-mentioned elements, said means comprising a fixed support, a gear mounted to rotate upon the support, a sliding bar having an extension operatively connected with the gear, a reciprocatory frame mounted upon the support and having extensions operatively connected with the second-mentioned clutch elements, and a latch pivoted upon the reciprocatory frame and engageable with the bar whereby to connect the frame for reciprocation with the bar, said latch being engageable also with the support whereby to hold the frame against reciprocation.

4. In mechanism of the class described, a shaft, clutch elements loosely mounted on the shaft, clutch elements mounted upon the shaft for rotation therewith and for co-operation with the first-mentioned elements, and means for alternately bringing the second-mentioned clutch elements into engagement with the corresponding first-mentioned elements, said means comprising a fixed support, a gear mounted to rotate upon the support and driven from the first-mentioned clutch elements, a sliding bar having a slotted extension, a pin upon the gear working in the slot of said extension, spaced lugs upon the bar, a reciprocatory frame having extensions operatively connected with the second-mentioned clutch elements, spaced lugs upon the fixed support, and a latch pivoted upon the frame and engageable between the lugs upon the bar to connect the frame with the bar for reciprocation and engageable also between the lugs upon the support to hold the frame against reciprocation.

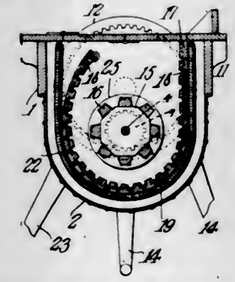
940,881. AUTOMATIC CIRCUIT-BREAKER. WILLIAM H. LAWRENCE and PHILIP TORCHIO, New York, N. Y. Filed Feb. 9, 1909. Serial No. 476,874.

1. In combination with a multiplicity of alternating current generators operating in parallel and equipped with an external reactance coil on each generator lead, an overload relay on each lead calibrated to operate at a current in excess of the maximum instantaneous short circuit current of each generator and its external reactance coil in series.



2. In combination with a multiplicity of alternating current generators operating in parallel and equipped with an external reactance coil on each generator lead, an overload relay on each lead calibrated to operate at a current in excess of the maximum instantaneous short circuit current of each generator and its external reactance coil in series and arranged to control automatically a circuit breaker.

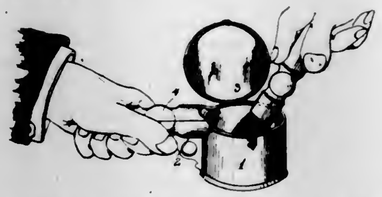
940,882. WASHING-MACHINE. TOM H. LEWIS and HENRY C. GRAVES, Stillwater, Okla. Filed Sept. 6, 1907. Serial No. 391,683.



1. In a washing machine a rotatable drum, a flexible partition composed of connected slats and arranged exterior to the drum and within the body of the machine, said flexible partition being connected at one end to and suspended from the top of the washing machine body and free at the other end, and extensible spring yokes suspended at both ends from the top of the machine, and under-riding and supporting the partition yieldingly.

2. In a washing machine, a rotatable drum, a flexible partition housing the drum and suspended at one end from the top of the washing machine body with its other end free, and supporting means for the partition composed of extensible springs each secured at the two ends and under-riding and upholding said flexible partition.

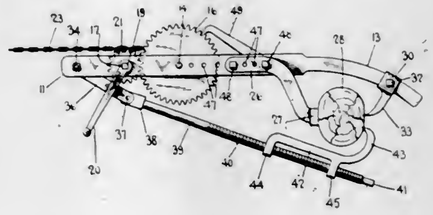
940,883. SHAVING MUG AND BRUSH CASING. OSMUN LILES, Belle Center, Ohio. Filed June 11, 1909. Serial No. 501,572.



1. A casing of the class described comprising a cylindrical body adapted to receive a shaving mug and a hollow lateral extension adapted to receive the lower portion of a brush handle, a hinged cover for the body of the casing, and a hinged upper section for said extension, the hinged upper section forming in conjunction with the hollow extension a handle which may be grasped by one hand while the brush is applied to the soap.

2. A shaving mug and a brush receptacle comprising a cylindrical body provided with a hollow lateral extension, the body being adapted to receive a shaving mug and the extension the lower portion of the brush, a hinged cover for the body of the casing, and a hinged upper section for the extension, said upper section being movable independently of the cover and when closed forming with the extension a handle which is adapted to be grasped by one hand while the brush is applied to the soap with the other hand.

940,884. WIRE-STRETCHER. MATT M. MARTY, McGregor, Iowa. Filed June 12, 1909. Serial No. 501,791.



1. A wire stretcher comprising a frame formed with spaced side members curved laterally at one end, spurs adjustably connected to said curved portions and adapted to engage a stationary structure from one side, a straining member mounted to swing from said frame members, a hooked member adapted to engage a stationary structure, means for adjustably coupling said hooked member to said straining member, stop members carried by said frame and adapted to engage a stationary structure at the side opposite to the hooks and spurs, and wire straining devices carried by said frame.

2. A wire stretcher comprising a frame formed with spaced side members curved laterally at one end, sleeves adjustably connected to said curved portions and provided with spurs adapted to engage a stationary structure from one side, a straining member mounted to swing from said frame members, a hooked member adapted to engage a stationary structure, means for adjustably coupling said booked member to said straining member, stop members carried by said frame and adapted to engage against a stationary structure at the side opposite to the hooks and spurs, and wire straining devices carried by said frame.

3. A wire stretcher comprising a frame formed with spaced side members curved laterally at one end, spurs adjustably connected to said curved portions and adapted to engage a stationary structure from one side, a straining member mounted to swing from said frame members and rotative relative thereto and threaded for a portion of its length, a bar having a threaded projection through which said threaded portion passes and provided with a terminal hook adapted to engage against a stationary structure, and wire straining devices carried by said frame.

4. A wire stretcher comprising a frame formed with spaced side members curved laterally at one end, spurs adjustably connected to said curved portions and adapted to engage a stationary structure from one side, two bars mounted to swing from said frame members and converging at their free ends, a swivel device swinging between said converging ends, a straining member rotatively engaging said swivel device and threaded for a portion of its length, a bar having a threaded projection through which said threaded portion passes and provided with a terminal hook adapted to engage against a stationary structure, and wire straining devices carried by said frame.

940,885. APPARATUS FOR SEPARATING THE CONSTITUENT ELEMENTS OF GASEOUS MIXTURES. EDOARDO MAZZA, Turin, Italy. Filed Apr. 18, 1906. Serial No. 312,505.



1. In a gas separating machine, a spiral conduit through which the gas mixture is passed to impart centrifugal action thereto, in combination with means to separately discharge the gases moving at different speeds.

2. In a gas separating machine, a spiral conduit through which the gas is passed to impart centrifugal action thereto and having an inlet at the center of the spiral, a closing wall at the outer end of the spiral conduit having ports adjacent the curved walls of the spiral and means to separately collect and carry off the gases issuing from said ports.

3. In a gas separating machine, a spiral separating conduit having an inlet at the center of the spiral, a closing wall at the outer end of the spiral having a port adjacent each of the curved walls of the spiral conduit, means secured to said wall between the ports and directed reversely into the path of the gas to be separated, and means to separately collect and carry off the gases issuing from the ports.

4. In a gas separating machine, a closed drum, spiral partition walls to divide the drum into spiral conduits, inlets at the center of the drum to said conduits, said drum having exhaust ports in its periphery at one end thereof adjacent one wall of each conduit and similar ports at the other end adjacent the other wall of the conduit, and a casing having a partition directed between the two sets of ports.

5. In a gas separator, a rotary drum closed at its ends, spiral partition walls to divide the drum into spiral conduits, inlets at the center of the drum in each end thereof to the respective conduits, the periphery of the drum provided with a port on one side of the center of the drum adjacent one spiral wall of each conduit and on the other side of the center of the drum adjacent the other spiral wall of the conduit and angularly displaced, a plate within each conduit longitudinally of the drum and between the angularly displaced ports, a casing into which the ports discharge and having a partition directed between the sets of ports in the drum, whereby each set will discharge into a separate compartment in said casing.

[Claims 6 and 7 not printed in the Gazette.]

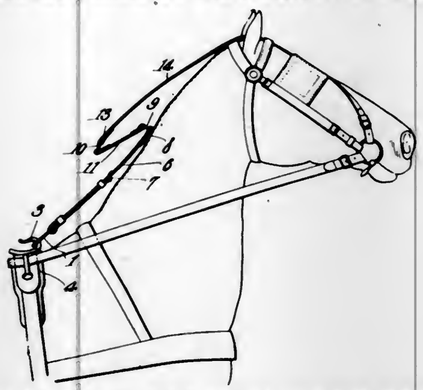
940,886. CHECKREIN. JOSEPH S. MIRGAN, Lancaster, Ohio. Filed Apr. 12, 1909. Serial No. 489,377.

1. A check rein comprising a hook engaging member, a strap pivotally connected thereto, a bridle engaging strap, an intermediate strap arranged to fold between the first mentioned straps, and link connections between the ends of the intermediate strap and the remaining straps.

2. A check rein consisting of a series of straps, connections between the straps, one of said straps being mounted to fold between the remaining straps, and a hook engaging tab pivotally connected to one of the straps.

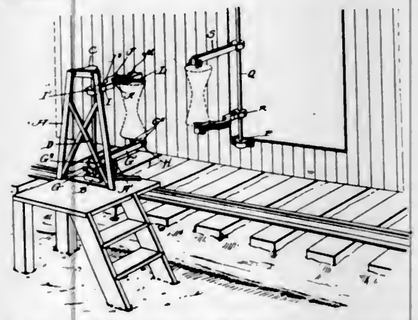
3. A check rein including a hook engaging tab, a flexible end strap pivotally engaging the same, a flexible bridle engaging strap, each of said straps having a loop at one end, links mounted within the loops, and a flexible non-elastic intermediate strap having terminal loops engaging said links, and said intermediate strap being disposed to fold between the remaining straps, during the movement of said straps toward each other.

4. A check-rein comprising a hook-engaging member, a strap pivotally connected thereto, a bridle-engaging strap, a non-elastic intermediate strap arranged to fold between



the first mentioned straps, and link connections between the ends of the intermediate strap and the remaining straps.

940,887. MAIL-BAG CATCHER AND DELIVERER. WILLIAM H. MOORE, ALBERT P. MOORE, and ARCHIBALD MOORE, Toledo, Ohio. Filed Mar. 13, 1909. Serial No. 483,301.



1. In a mail bag catcher and deliverer, the combination with a frame adapted to be arranged alongside of a track, of a spring actuated shaft carried by said frame provided with a catching and a holding arm, means for holding said shaft in position whereby said arms will extend laterally therefrom with respect to the frame, and duplicate arms carried by the shaft mounted on the car co-acting with said arms.

2. In a mail bag catcher and deliverer, the combination with a frame adapted to be arranged alongside of a track, of a spring actuated shaft carried by the frame, a catching and a holding arm mounted on said shaft, said catching arm being provided with a tripping and a locking finger, and means for locking said shaft so as to hold said arms at right angles to the frame.

3. A mail bag catcher and deliverer comprising a shaft, a spring surrounding one end of said shaft for operating the same, a pin carried by the shaft, a spring member co-acting with the said pin for normally holding said shaft in adjusted position, and a catching and a holding arm carried by said shaft for catching and holding a bag whereby the pin of the shaft will be thrown from under the spring member when the arm is swung by the force of the bag.

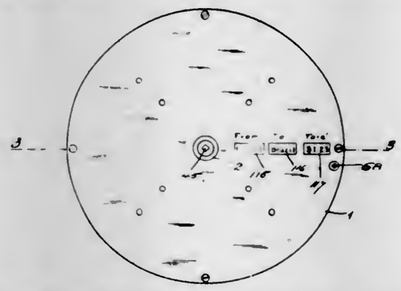
4. In a mail bag catcher and deliverer, the combination with a frame carrying a spring actuated shaft, a catching and a holding arm fixed on said shaft, said catching arm being provided with a tripping and a locking finger, and

means for holding said shaft against the tension of said spring whereby said arms will be held in position to catch and deliver a mail bag.

5. In a mail bag catcher and deliverer, the combination with a frame carrying a spring actuated shaft, a catching and a holding arm fixed on said shaft, said catching and holding arms co-acting with a catching and a holding arm carried by a spring actuated shaft mounted on the side of a car whereby a mail bag can be caught and delivered at the same time.

[Claims 6 to 15 not printed in the Gazette.]

940,888. INDICATING AND RECORDING DEVICE. FREDERICK A. MORGAN, Indianapolis, Ind., assignor to Morgan Fare Register Company, Indianapolis, Ind., a Corporation of Indiana. Filed Mar. 22, 1909. Serial No. 484,971.



1. In an indicating and recording device, the combination with a series of indicating disks, a series of disk carrying wheels by which said disks are carried, and a series of type printing wheels arranged in a row and situated back of said disk carrying wheels, of means for engaging one of each of the series of said disk carrying and type wheels whereby an indicator disk and a corresponding type wheel may be engaged to be simultaneously rotated to be set.

2. In an indicating and recording device, the combination with a series of concentric indicating disks, a series of disk-carrying wheels by which said disks are carried and a series of type printing wheels arranged in a row and situated back of and in a line with said disk carrying wheels and on the same axle center, of a key adapted to engage one of each of the series of disk carrying and type wheels, whereby an indicator disk and a corresponding type wheel may be engaged to be simultaneously rotated to be set.

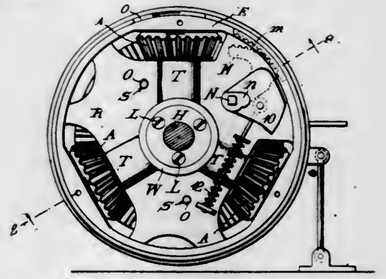
3. In an indicating and recording device, the combination with a series of concentric indicating disks situated in one plane, a series of disk-carrying wheels situated on the same axis of said indicating disks and back of the latter, a series of type printing wheels arranged in a row and situated back of and in line with said disk carrying wheels and on the same axial center, of a key adapted to engage one of each of the disk carrying and type wheels whereby an indicator disk and a corresponding type wheel may be engaged to be simultaneously rotated to be set.

4. In an indicating and recording device, the combination with a series of concentric station and fare indicating disks the faces of which are situated in one plane, a series of disk carrying wheels situated on the same axial center as said disks and back of the latter, means whereby a single indicating disk is connected to and carried by each of said disk carrying wheels, a series of type wheels arranged in a row and situated back of and on the same axial center as said disks and said disk carrying wheels, of a setting key adapted to engage one of each of said disk carrying and said type wheels whereby an indicating disk and a corresponding type wheel may be engaged simultaneously to be simultaneously rotated to be set.

5. In an indicating and recording device, the combination with a series of concentric station and fare indicating disks the faces of which are situated in one plane, a series of disk carrying wheels situated on the same axial center as said disks and back of the latter, means whereby a single indicating disk is connected to and carried by each of said disk carrying wheels, retaining springs engaging said disk carrying wheels whereby each is yieldingly retained in its set position, a series of type wheels arranged in a row and situated back of and on the same axial center as said disks and said disk carrying wheels, of a setting key adapted to engage one of each of said disk carrying and said type wheels whereby an indicating disk and a corresponding type wheel may be engaged simultaneously to be simultaneously rotated to be set.

[Claims 6 to 8 not printed in the Gazette.]

940,889. REVERSING-GEARING. THOMAS L. MCCASKILL, Albany, Ga. Filed May 3, 1909. Serial No. 493,639.



1. A reversing gearing comprising a main driving gear, a revolubly mounted brake cylinder, a brake band adapted to hold said cylinder against rotation, a series of power transmitting gears revolubly mounted in said brake cylinder, and operatively engaged with said driving gear, a driven or power transmitting gear operatively engaged with said pinions, a clutch connection between said driven gear and said brake cylinder, and means whereby said clutch mechanism is automatically operated to lock said driven gear and to release the same from engagement with said brake cylinder whereby the motion of said driving gear is imparted to said driven gear to turn the same with the driving gear or in a reverse direction thereto.

2. A reversing gearing comprising a main driving gear, a driving shaft, means to secure said driving gear to the driving shaft, a combined driven or power transmitting gear and clutch cylinder operatively connected with said driving gear, a revolubly mounted brake cylinder, a series of power transmitting pinions arranged between and operatively engaged with said driving and driven gears, a friction band arranged in said clutch cylinder, and means operated by the movement of said brake cylinder to engage said friction band with said clutch cylinder and to release the same therefrom whereby said driving and driven parts of the device are locked together and released to cause the driven or power transmitting gear to be turned in the direction of the driving gear or in a reverse direction thereto.

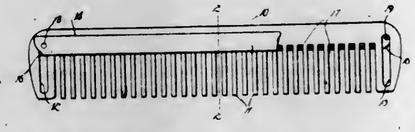
3. A reversing gearing comprising a main drive gear, having a revolubly mounted clutch cylinder and a power transmitting or driven gear formed thereon, a revolubly mounted brake cylinder, a brake band arranged around said cylinder, a series of power transmitting pinions carried by and revolubly mounted in said brake cylinder and adapted to operatively connect said driving and driven gears, a friction ring arranged in said clutch cylinder, an expanding mechanism engaged with said ring whereby the latter is expanded into frictional engagement with said clutch cylinder, a reversing ring on said brake cylinder, and means actuated by the said brake band and reversing ring to automatically control said expanding mechanism.

4. A reversing gearing comprising a main drive gear having a hub, a spindle secured in one end of said hub, a combined driven gear and clutch cylinder revolubly mounted on said spindle, a brake cylinder having an interiorly arranged web and hub, and revolubly mounted on the hubs of said driving and driven gears, said web having a series of radially disposed apertures, a brake band to control said brake cylinder, a series of power transmitting pinions revolubly mounted in the apertures of said web and adapted to operatively connect said driving and driven gears, an open friction ring arranged in said clutch cylinder having expanding jaws on the open ends thereof, means to connect said ring with said brake cylinder, an expanding cam arranged between the jaws of said friction ring, and means to operate said cam to force said ring into operative engagement with said combined driven gear and clutch cylinder whereby said gear is locked against independent revolution and caused to turn with said main drive gear.

5. A reversing gearing comprising a main drive gear, a revolubly mounted brake cylinder, a combined driven gear and clutch cylinder, a series of pinions arranged between said main drive gear and said driven gear, whereby they are operatively connected together, an expansible friction ring arranged in said clutch cylinder, means to connect said ring with said brake cylinder, a cam shaft carried by said brake cylinder, an expanding cam on one end of said shaft adapted to expand said friction ring into operative engagement with said clutch cylinder, a toothed segment mounted on said cam shaft, a reversing ring having arranged thereon a segmental rack to engage said toothed segment, a brake band to control said brake cylinder and reversing ring, and means arranged on said cam shaft to facilitate the operation thereof by said toothed segment and reversing ring.

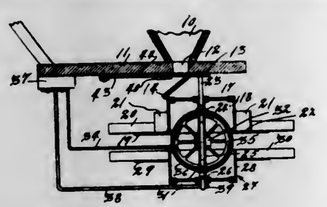
[Claims 6 and 7 not printed in the Gazette.]

940,890. ATTACHMENT FOR COMBS. FRANK N. PLAMONDON, Bordeaux, Wash. Filed Apr. 28, 1909. Serial No. 492,683.



The combination with a comb having guide slots at its ends, of a tooth cleaning attachment formed from a single sheet of metal bent into channel shape and with a plurality of apertures in the bottom of the channel corresponding to the teeth of the comb and through which said teeth pass, and pins of less diameter than the width of the slots and extending through the spaced sides of the channel shaped member and through the guide slots.

940,891. SEED-SOWER. SANFORD A. PLUMMER, West Newton, Ind. Filed Dec. 30, 1908. Serial No. 470,079.



1. In a machine of the class described, a grain board, superposed seed pans arranged in spaced relation to each other, each pan formed of a cup-shaped body having an annular flange at right angles to the side of the body, pinions fixed centrally to said pans, a driving gear enmeshing with said pinions to actuate the same in opposite directions, radially disposed vertical blades rising from said flanges, each blade extending from the body of said pan to a considerable distance beyond said flange, each flange containing openings each one-half the space between said blades, and a seed chute extending from the grain board to a distance beyond the body of the uppermost pan to deposit seed upon the flange thereof.

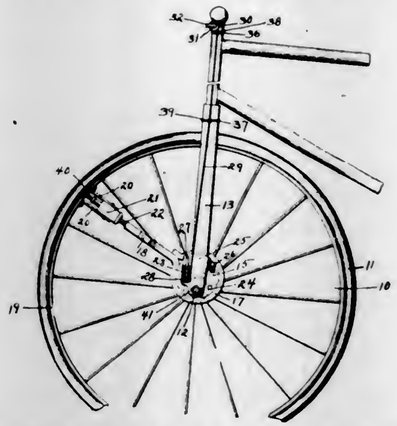
2. In a machine of the class described, a grain board, superposed seed pans arranged in spaced relation to each other, each pan formed of a cup-shaped body having an annular flange at right angles to the side of the body, pinions fixed centrally to said pans, a driving gear enmeshing with said pinions to actuate the same in opposite directions, radially disposed vertical blades rising from said flanges, each blade extending from the body of said pan to a considerable distance beyond said flange, each flange containing openings each one-half the space between said blades, a seed chute extending from the grain board to a distance beyond the body of the uppermost pan to deposit seed upon the flange thereof and a hopper on said grain board in communication with said chute.

3. In a machine of the class described, a grain board, superposed seed pans arranged in spaced relation to each other, each pan formed of a cup-shaped body having an annular flange at right angles to the side of the body, pinions fixed centrally to said pans, a driving gear enmeshing with said pinions to actuate the same in opposite directions, radially disposed vertical blades rising from said flanges, each blade extending from the body of said pan to a considerable distance beyond said flange, each flange containing openings each one-half the space between said blades, a seed chute extending from the grain board to a distance beyond the body of the uppermost pan to deposit seed upon the flange thereof, a hopper on said grain board in communication with said chute and a cut off means regulating the communication in the hopper and chute.

4. In a machine of the class described, a grain board, superposed seed pans arranged in spaced relation to each other, each pan formed of a cup-shaped body having an annular flange at right angles to the side of the body, pinions fixed centrally to said pans, a driving gear enmeshing with said pinions to actuate the same in opposite directions, radially disposed vertical blades rising from said flanges, each blade extending from the body of said pan to a considerable distance beyond said flange, each flange containing openings each one-half the space between said blades, a seed chute extending from the grain board to a distance beyond the body of the uppermost pan to deposit seed upon the flange thereof, a hopper on said grain board in communication with said chute, a cut off means regulating the communication in the hopper and chute and a manually operable turning crank actuating said driving gear.

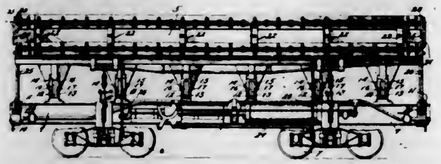
940,892. AUTOMATIC AIR-PUMP. ERB REED, Cookeville, Tenn., assignor to Shealie R. Reed, Cookeville, Tenn. Filed May 23, 1908. Serial No. 434,602.

A device of the class described comprising a wheel and a frame carried thereby, a curved plate secured upon the rim of the wheel, arms upwardly projected from said plate, a pump carried between the arms, a tube carried centrally by said plate, and connected at its outer extremity with the pump, a piston mounted in said pump extended centrally of said wheel, an arm pivotally secured upon the inner extremity of said piston, the inner extremity of said arm being curved circularly, an eccentric disposed upon the axle of said wheel and engaged within the curved portion of said arm, a plate detachably secured to the lower extremity of the frame in juxtaposition to said eccentric, a pawl formed of spring material positioned in the outer face of said plate adapted to extend inwardly and engage at times in a recess formed in the outer face of said extremity through said eye, a cord



connected with the pawl and means connected with the cord to operate said pawl.

940,893. DUMP-CAR. JAY B. RHODES, Kalamazoo, Mich., assignor to Western Wheeled Scraper Company, Aurora, Ill., a Corporation of Illinois. Filed May 15, 1908. Serial No. 433,038.



1. In a dump car, the combination of a truck, a car-body mounted to swing laterally on rocker bearings on said truck, crossed links for limiting the extent to which the car-body may be rocked on said bearings, one or more movable side gates for said car-body, and means for automatically actuating one or the other of said side gates when the car-body is rocked.

2. In a dump-car, the combination of a support having a transversely-disposed lower bearing, an upper segmental bearing coacting with said lower bearing, a car-body connected with said upper bearing and having one or more side gates, crossed links connecting said upper and lower bearings together and limiting the extent to which the car-body may be rocked, and means for automatically actuating one or the other of said side gates when the car-body is rocked.

3. In a dump car, the combination of a support, a transversely-disposed lower segmental bearing, an upper segmental bearing coacting with said lower bearing, a car-body connected with said upper bearing and having one or more side gates, means connecting said upper and lower bearings together and limiting the extent of their rocking movement, and means for automatically actuating one or the other of said side gates when the car-body is rocked.

4. In a dump-car, the combination of a support, a transversely-disposed lower segmental bearing, an upper segmental bearing coacting with said lower bearing, a car-body connected with said upper bearing and having one or more side gates, means connecting said upper and lower bearings together and limiting the extent of their rocking movement, the radius of the curve of one of said bearings being greater than that of the other, and means for automatically actuating one or the other of said side gates when the car-body is rocked.

5. In a dump car, the combination of a support, a transversely-disposed lower segmental bearing, an upper segmental bearing coacting with said lower bearing, a car-body connected with said upper bearing and having one or more side gates, means connecting said upper and lower bearings together and limiting the extent of their rocking movement, the radius of the curve of said lower bearing being greater than that of the upper bearing, and means for automatically actuating one or the other of said side gates when the car-body is rocked.

[Claims 6 and 7 not printed in the Gazette.]

940,894. OPTICAL CYSTOSCOPE SYSTEM. MORITZ VON ROHR, Jena, Germany, assignor to The Firm of Carl Zeiss, Jena, Germany. Filed July 12, 1909. Serial No. 507,200.



1. A cystoscope system comprising an entrance reflecting system, an objective lens, a plurality of inverting lenses, each reproducing a real image of the object in another real image, a plurality of collective lenses and an ocular.

2. A systoscope system comprising the following consecutive components: an entrance reflecting prism of the inverting ridge type, an objective lens, a collective lens near the place where the real image of the object is produced by the objective lens, an inverting lens, another collective lens near the place where the second real image of the object is produced by the inverting lens, another inverting lens and an ocular.

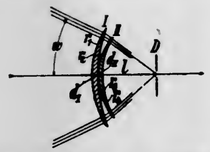
3. A cystoscope system consisting of the following consecutive components: an entrance reflecting prism of the inverting ridge type, a diaphragm, an objective lens, a combination of two collective lenses near the place where the real image of the object is produced by the objective lens, an achromatic inverting lens, a third collective lens near the place where the second real image of the object is produced by the inverting lens, another achromatic inverting lens and an ocular.

940,895. LENS SYSTEM. MORITZ VON ROHR, Jena, Germany, assignor to The Firm of Carl Zeiss, Jena, Germany. Filed July 15, 1909. Serial No. 507,770.

1. A collective lens system for visual use over a large field, consisting of two simple collective lenses placed closely together with a positive pair of facing surfaces, the hinder lens having a concave hinder surface.

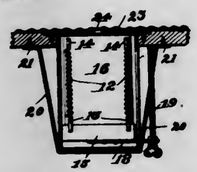
2. A collective lens system for visual use over a large field, consisting of two simple collective lenses placed closely together with a positive pair of facing surfaces, the hinder lens having a concave hinder surface and the system being astigmatically corrected for a narrow dia-

phragm lying about 3 cm. behind the vertex of the hindmost surface.



3. A collective lens system for visual use over a large field, consisting of two simple collective lenses placed closely together with a positive pair of facing surfaces, each lens having a concave hinder surface and the system being astigmatically corrected for a narrow diaphragm lying about 3 cm. behind the vertex of the hindmost surface.

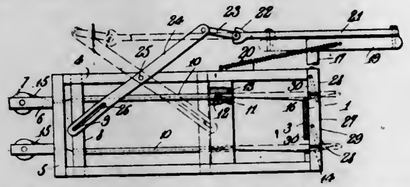
940,896. ATTACHMENT FOR WASHBOARDS. MICHAEL G. SARNO, New York, N. Y. Filed Feb. 16, 1909. Serial No. 478,293.



1. The combination with a rubbing-board of a casing attached thereto, said casing having projections and an elongated slot, a spring actuated follower in said casing, a plate carried by said follower and extending through said slot, and means mounted on the outer terminal of said plate and engaging the lower surface of the board for adjusting the tension of the springs and thereby limiting the movement of the follower with respect to said projections.

2. The combination with a rubbing-board, of a soap feeding attachment comprising a casing having an elongated slot and a plurality of projections, a spring-pressed follower mounted in said casing and designed to force the cake of soap against said projections, a plate carried by said follower and extending through said slot, and a thumb screw mounted on the outer terminal of said plate for engagement with the underneath portion of said rubbing-board.

940,897. BALE-WIRING MECHANISM. JOHN H. SAWYER, Lexington, Ky., assignor of one-half to John N. Marisey, Lexington, Ky. Filed May 26, 1909. Serial No. 498,396.



1. In combination with a baling-box having a reciprocating plunger a bale-wiring mechanism comprising means for securing the wire, a needle mounted for movement transversely of the baling-box, said needle having a pointed end and an eye in the vicinity thereof through which the wire is threaded, a reel carrying the wire, means for projecting the needle transversely across the baling box upon the retreat of the plunger, and means for retracting the needle upon the advance of the plunger, and locking means for holding the needle in retracted position.

2. In combination with a baling box having a reciprocating plunger, a bale-wiring mechanism comprising a needle mounted for movement transversely across the plunger, a wire reel, a wire located upon the reel and passing through an eye provided at the pointed end of the needle, means for securing the end of the wire, a latch-bar pivotally mounted at the side of the baling-box and lying in the path of movement of the needle, and adapted to engage the wire and hold the same from moving into the baling-box with the needle, a shaft journaled upon the baling-box and having a laterally disposed tappet adapted at times to enter the path of movement of the reciprocating plunger, a locking means adapted to engage the tappet and prevent turning of the same about the axis of the shaft, a laterally disposed arm carried by the shaft, a spring attached at one end to said arm and at its other end to the baling-box and being under tension with a tendency to hold the arm over the baling-box, a pitman pivotally connected with the arm, a link connected by a universal joint with the pitman, a lever fulcrumed to guides attached to the baling-box, said lever being operatively connected with the link, a needle-bar slidably mounted between the guides and operatively connected with the working end of the said lever.

940,898. PROCESS OF DETINNING TIN-PLATE BY MEANS OF CHLORIN. HANS VON SCHÜTZ, Wetzlar, Germany. Filed Nov. 4, 1908. Serial No. 461,081.

1. The process which consists in subjecting tin-bearing material to the action of chlorin gas, the gas being below normal temperatures.

2. The process which consists in placing the tin-bearing material in a closed chamber, producing a vacuum therein and allowing chlorin gas to expand from the condensed or liquefied state into such chamber.

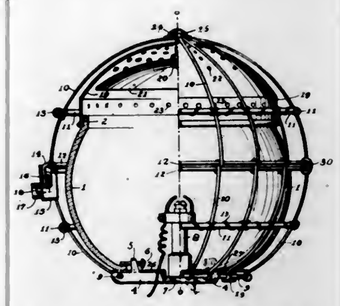
3. The process which consists in completely drying tin-bearing material and then subjecting it to the action of chlorin gas, the gas being below normal temperatures.

4. The process which consists in subjecting tin-bearing material to the action of chlorin cooled below normal temperature to remove the tin, and then heating the tin material.

5. The process which consists in placing tin-bearing material in a closed chamber, subjecting the material in said chamber to heat to dry the same, and then subjecting the material in said chamber to the action of chlorin cooled below normal temperature.

[Claims 6 to 9 not printed in the Gazette.]

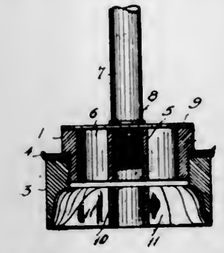
940,899. SAFETY-GLOBE AND GUARD. WILLIAM G. SHERRER, New York, N. Y., assignor to The Sales Department, E. P. Gleason Manufacturing Company, a Corporation of New York. Filed May 8, 1909. Serial No. 494,844.



1. In a safety device of the kind described, a glass globe, means for fastening said globe from the inside upon a holder adapted to receive the same, in combination with a divided wire guard provided with a lock attached to one section of said divided guard, and of a canopy and a reflector within said canopy.

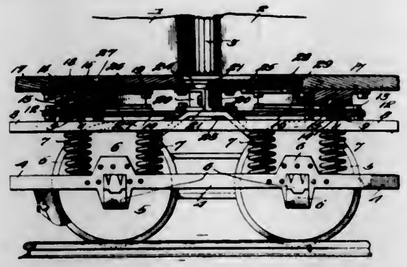
2. In a safety device, the combination of a glass globe, means for holding said globe from the inside upon a holder provided with holding means, of a divided guard having a base wire fastened to said holder, of a locking device for said wire guard, and of a combined canopy and reflector attached to the upper half of said divided guard.

940,900. PLUNGER HEAD OR SHAFT. JOHN E. SHUTT, Ganado, Tex. Filed Jan. 4, 1909. Serial No. 470,558.



In a device of the character described, the combination with a plunger rod, of a webbed ring member having a hub at center of web into which said rod is threaded, a webbed follower member threaded upon said ring member, having a central hub, through which the plunger rod may be extended, and the webs of which have a uniform deflection from the vertical, causing the screw-threads to lighten on the down stroke, a cup-leather interposed between said ring and follower member, and a valve superimposed upon said ring member.

940,901. CAR-TRUCK. WALTER H. SON, New York, N. Y., assignor to Mathilda Son, New York, N. Y. Filed Oct. 30, 1907. Serial No. 399,825.

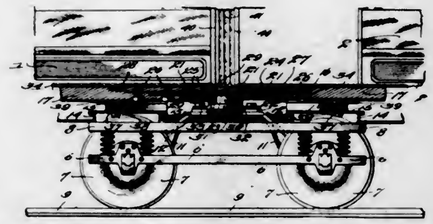


1. A device of the character described including a truck, a superstructure carried thereby, an auxiliary supporting foundation mounted thereon, a pivot, a bearing therefor, and a platform associated with said pivot adapted to form the floor of two separated car bodies, said platform being rigidly fastened to one of said car bodies and free to turn upon suitable supporting means in the other of said car bodies.

2. A device of the character described, comprising a truck, a superstructure mounted therein, an auxiliary superstructure associated therewith, a pivotal supporting means carried by said auxiliary superstructure, a pivotal shaft mounted in said pivotal supporting means and a platform carried by said pivotal shaft, adapted to engage the ends of adjoining car bodies rigidly mounted in one of said car bodies and free to turn in the other of said car bodies.

3. A device of the character described including a truck, a superstructure carried thereby, an auxiliary supporting foundation mounted thereon, pivotal means carried by said auxiliary supporting foundation, independent car bodies provided with independent compartments associated therewith, a bearing for said pivotal means mounted on the under body structure of each of said car bodies and said auxiliary supporting means, countersunk sockets mounted in the adjoining ends of said car bodies, a platform mounted on said pivotal means adapted to rest within said countersunk sockets and form a continuation of the floor of said car bodies, semi-circular guide rails carried by said truck, and guides mounted on each of said car bodies adapted to engage each of said guide rails on said truck.

940,902. CAR. WALTER H. SON, New York, N. Y., assignor to Mathilda Son, New York, N. Y. Filed Oct. 30, 1907. Serial No. 399,826.



1. A device of the character described including two separate car bodies, pivotally mounted trucks at each of the ends of said car bodies, a supporting truck at the central engaging ends of said car bodies, a bearing carried thereby, a bearing socket mounted in each of the engaging ends of said car bodies, a pivot adapted to turn within said bearing carried by said truck, a plate formed on said pivot adapted to rest within said bearing sockets, ball bearings mounted in said plate, and a platform rigidly fastened to one of said car bodies and free to turn on said ball bearings and in said bearing socket on the other of said car bodies.

2. A device of the character described including two separate car bodies, a telescoping vestibule between said car bodies, pivotally mounted trucks at each of the ends of said car bodies, a supporting truck at the central engaging ends of said car bodies, a bearing carried thereby, a bearing socket mounted in each of the engaging ends of said car bodies, a pivot adapted to turn within said bearing carried by said truck, a plate formed on said pivot adapted to rest within said bearing sockets, and a platform rigidly fastened to one of said car bodies and free to turn on the other of said car bodies.

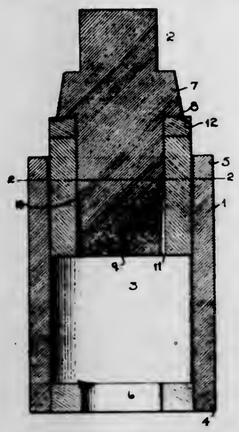
3. A device of the character described including a car body, supporting trucks therefor, an auxiliary platform pivotally mounted at one end thereof, means associated with said auxiliary platform adapted to engage an adjoining car body, a bed plate for said platform, and means formed in said adjoining car body adapted to permit said auxiliary platform to turn therein.

4. A device of the character described including a plurality of car bodies, supporting trucks at their engaging ends thereof, supporting trucks at their free ends, bearings mounted on said trucks, auxiliary platforms pivotally mounted on said bearings, supporting means for said auxiliary platforms in each of said car bodies rigidly mounted on one of said car bodies and free to turn around said pivotal point in the other of said car bodies.

940,903. WELDING-TOOL. WILLIAM A. SPARKS, St. Marys, W. Va. Filed Aug. 27, 1906. Serial No. 332,164.

In a forming device of the character described, comprising a die, having a ring fitted in the lower end thereof so as to provide an air passage, a mandrel having a head with an overhanging angular shoulder, a ring adapted to contact with the shoulder and extending laterally beyond said shoulder, the lower portion of the mandrel being con-

structed cylindrical and provided with a surrounding shoulder and having a reduced portion leading downwardly from the surrounding shoulder, substantially as specified.



940,904. SPRING-TIRE. RAPHAEL M. SPENCER, Edwall, Wash. Filed Feb. 15, 1909. Serial No. 478,029.

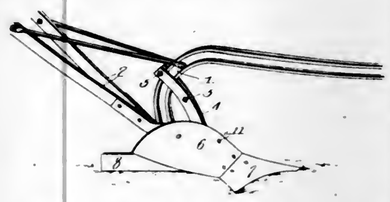


1. In combination with a vehicle wheel embodying a felly, a channel iron applied thereto, a tire seated on the channel iron and comprising a coiled body with the innermost portions of the coils thereof in contact with the channel iron, a band passing through the coils of the tire, fastenings connecting the band with the felly, and spacing means located between the band and the channel iron to prevent undue friction upon the coils of the tire.

2. In combination with a vehicle wheel embodying a felly, a channel iron applied thereto, a tire consisting of a coiled body, the innermost portions of the coils of which are seated on the channel iron, a band passing through the coils of the tire and having openings at intervals therein, fastenings at intervals on the felly and provided with heads interlocking with the band and adapted to pass through its openings, said fastenings being formed with shoulders at predetermined distance from the heads and located between the band and the channel iron to space the latter parts and prevent undue friction upon the coils of the tire when the fastenings are secured to the felly.

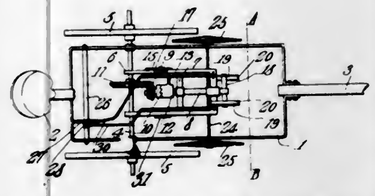
3. In combination with a vehicle wheel embodying a felly, a channel iron secured thereto, a tire consisting of a coiled body, the innermost portions of the coils of which are seated in the channel of the channel iron, a band passing through the coils and also having elongated openings at intervals therein, fastening bolts passing through the felly and having heads to pass through the openings of the band and interlock with the latter, said bolts being formed with grooves at opposite sides and spaced from the heads to form seats for certain coils of the tire, and also having oppositely projecting shoulders between the band and channel iron to space these parts and prevent undue friction on the portions of the coils of the tire that are received between said band and channel iron.

940,905. SWEEP-STOCK. JOSEPH STONE, Cameron, Tex. Filed Oct. 26, 1908. Serial No. 459,623.



The combination with a sweep stock having a curved and a foot portion, a sweep stock bar rigidly bolted to the foot portion at a point intermediate the ends of the bar, a foot piece formed of two parallel bars having a slight compound curve, said bars having their lower ends pivotally connected upon opposite sides of the forward end portion of the sweep stock bar, and extending obliquely across and upon opposite sides of the curved portion of the sweep stock, bolts connecting the said parallel bars in advance of and to the rear, respectively, of the curved portion of the sweep stock, the said bars being adjustable with respect to the sweep stock bar, and a turning plow provided with a landside, said turning plow being secured upon the sweep stock bar in advance of the parallel bars, and being also secured to said parallel bars at a point between the sweep stock bar and the bolt in advance of the curved portion of the sweep stock.

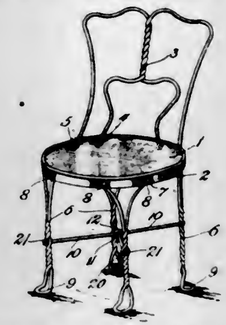
940,906. COTTON-CHOPPER. JOSEPH B. THOMPSON, Mount Calm, Tex., assignor of two-thirds to Alvin B. Thompson and Horace H. Thompson, Mount Calm, Tex. Filed May 4, 1909. Serial No. 493,906.



1. A machine of the class described, comprising a wheel supported main frame, an auxiliary frame pivotally mounted within the main frame, an arched axle fixedly connected to the front end portion of the auxiliary frame, supporting wheels mounted on said axle, said wheels being disposed beyond the sides of the main frame, a longitudinal shaft journaled upon the auxiliary frame and extending beyond the front end thereof, oppositely extending arms secured to the projecting end portion of said shaft and located between the front ends of the main and auxiliary frames, a chopping blade adjustably mounted upon the free end of each of the arms, means upon the main frame for swinging the auxiliary frame relative to the main frame, means for transmitting motion to the shaft from the supporting wheels of the main frame, and means for controlling the actuation of the shaft.

2. A machine of the class described comprising a wheel supported main frame, an auxiliary frame mounted for swinging movement therein, a longitudinal shaft journaled upon the auxiliary frame, means for transmitting motion thereto from the supporting wheels, said shaft projecting beyond the front end of the auxiliary frame, arms extending from the shaft and between the front ends of the two frames, each of said arms having a forked free end, a longitudinally slotted chopping blade movably mounted within each forked end and means extending through said end and the slot for holding the blade against movement within the fork.

940,907. CHAIR. CHARLES J. TRAVERS, Chicago, Ill. Filed Aug. 17, 1907. Serial No. 389,073.



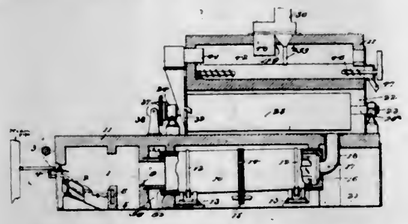
1. The combination with a chair, of a leg-brace comprising opposite angular brace-members the terminals of which are connected to the legs of the chair and the angles of which pass each other to combine and form an eye, the angle portion of each member being bent to form a shoulder against which the angle of the opposing member abuts, and a bolt passed through the eye.

2. The combination with a chair, of a leg-brace, comprising opposite angular brace-members, the terminals of which are connected to the chair-legs, and the angles of which interlock, pass each other and combine to form an eye, beyond which one terminal of each member is abruptly bent to form a shoulder against which the angle of the opposing member abuts, and a bolt passed through the eye.

3. The combination with a chair of the class described, the wires composing the legs of which are separated to form elongated openings, of a leg-brace composed of wire-rods, having their outer ends flattened to pass into said openings, the edges of the flattened portions being provided with notches designed to receive the wires of the chair-leg when the flattened ends of the braces are turned within said openings.

4. The combination with a chair of the class described, of a leg-brace for the same, comprising, a pair of wire brace-members of angular shape and at their angles bent to form a portion of an eye, said members interlocking and having their angles passed by each other, means for securing the terminals of the members to the chair-legs in a detachable manner, a bolt passed down through the eye, a flanged washer mounted on the bolt and having notches in its flange for receiving the terminals of the brace, and a nut on the lower end of the bolt.

940,908. DRIER. KASHO TSUJI, Takaoka, Ioyama, Japan. Filed Apr. 4, 1908, Serial No. 425,264. Renewed Oct. 19, 1909. Serial No. 523,431.



1. In a drier, a plurality of relatively rotating containers, each externally disposed in regard to every other, a settling chamber, means in the containers for advancing material, means for circulating the drying medium, a passage for the material and drying medium connecting each chamber to the next, a passage at one end of the containers leading to the settling chamber, and means adjacent the passage for removing drying medium from the drier.

2. In a drier, a plurality of relatively rotating containers, each externally placed in regard to every other, means for moving the material through the containers, including conveyer plates in one container distributed over a portion only of its longitudinal extent, means for conducting material and drying medium from one container to the next, and means for circulating the drying medium.

3. In a drier, a source of heat, a container one end of which is in communication with the heat source, raiser plates and conveyer plates near the other end of the container and means for rotating the container the inner surface of the container adjacent the heat source being plane.

4. In a drier, a source of heat, a rotating container in communication with the heat source, conveyers in the portion of the container remote from the source of heat, a portion of the container adjacent the heat source having a free surface over which the material may be distributed.

5. In a drier, a rotating container, a source of heat, raiser plates in the portion of the container remote from the heat source, conveyer plates intermediate the raiser plates, a portion of the container surface adjacent the heat source being free for the distribution of the material.

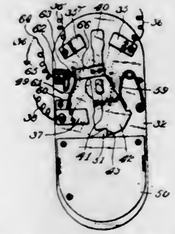
[Claims 6 and 7 not printed in the Gazette.]

940,909. SELF-FILLING FOUNTAIN-PEN. JOSEPH A. VOGELMANN, Brooklyn, N. Y. Filed Feb. 25, 1909. Serial No. 479,886.



A fountain pen comprising a tubular body having an enlarged chamber in one end thereof, a channeled pen holder closing the end of the body adjacent said chamber, a piston mounted for reciprocation in said body and having a plurality of passage ways therethrough, means to reciprocate said piston, and means carried by the reciprocating means for closing the passages in the piston during one movement thereof, said means adapted to lie within the chamber when inactive so as to permit the flow of ink therearound to the pen holder.

940,910. SAFETY ELECTRICAL CIRCUIT-BREAKER. WILLIAM F. WOCHER, ROBERT L. LEMON, and LOUIS H. MORTSOLF, Indianapolis, Ind. Filed Apr. 25, 1908. Serial No. 429,141.



1. A safety electrical circuit-breaker including an inclosing housing, two separate electrical conducting elements mounted in the housing, a grounded wire extending into the housing and provided therein with a contact-element, a movable conducting connector mounted in the housing and normally in connection with the two conducting elements to form a circuit, the connector being movable away from one of the two elements to break the circuit, means controlled by the conducting connector for automatically connecting one of the two conducting elements electrically with the grounded wire contact ele-

ment when the conducting connector is moved from one of the two conducting elements to break the circuit, and locking means in the housing automatically acting, when the circuit is broken and ground connection made, to prevent restoration of the circuit and maintain the ground connection.

2. A safety electrical circuit-breaker including an inclosing housing, a hollow shaft mounted rotatively in the housing and extending through the wall thereof, an inner shaft mounted rotatively in the hollow shaft and extending therethrough, a conducting element mounted in the housing, a conducting arm mounted on the inner shaft and spring-pressed normally in connection with the conducting element and movable therefrom by the inner shaft, a locking device mounted movably in the housing for holding the arm when moved away from the conducting element, means for controlling the locking device, two contact-plates mounted in the housing, a switch-blade connected to the hollow shaft and movable thereby to either one of the contact-plates, and means for electrically connecting the arm with the switch-blade.

3. A safety electrical circuit-breaker including a housing, two separate electrical conducting elements mounted in the housing, a movable conducting connector mounted in the housing and normally in connection with the two elements to form a circuit, the connector being movable away from one of the elements to break the circuit, means for moving the connector, a movable locking device mounted in the housing to engage and hold the connector when moved away from one of the elements, means for moving the locking device to the connector, means for retracting the locking device, a conducting ground-wire contact-element mounted in the housing, and means controlled by the movable conducting connector for automatically connecting one of the two conducting elements electrically with the ground-wire contact element when the locking device is holding the connector away from one of the conducting elements.

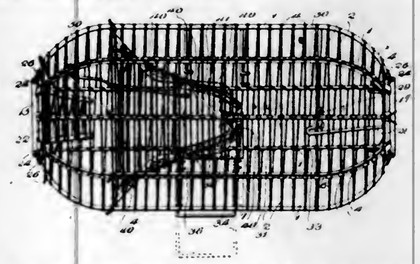
4. A safety electrical circuit-breaker including a housing, two electrical conducting elements mounted in the housing and hidden thereby, a conducting connector mounted inaccessibly in the housing and normally in connection with the two elements, the connector being movable away from one of the conducting elements and provided with an operating device extending accessibly through the housing wall, a spring to move the connector to connect the two elements, a lock-bolt mounted in the housing to engage and hold the connector when the connector is disconnected from one of the two elements, a spring normally pressing the lock-bolt to the connector, means for retracting the lock-bolt, a grounded wire provided with a contact-element, and a connecting device for connecting one of the two conducting elements with the contact-element of the grounded wire and controlled by the conducting connector during its movements.

5. A safety electrical circuit-breaker including a housing, two separate electrical conducting elements mounted in the housing, a conducting ground-wire contact-element mounted in the housing, a conducting connector mounted in the housing and normally in connection with the two conducting elements, the connector being movable away from one of the two elements, a connecting device mounted in the housing for connecting one of the two conducting elements electrically with the ground-wire contact-element, means on the conducting connector for controlling the connecting device, a movable locking device mounted in the housing and acting to hold the conducting connector away from one of the two conducting elements when moved therefrom, the locking device acting also to hold the connecting device when connecting one of the two conducting elements with the ground-wire contact-element, and means for moving the locking device.

[Claims 6 and 7 not printed in the Gazette.]

940,911. TRAP. WILLIAM W. WORCESTER, Canton, Ohio. Filed Apr. 28, 1908. Serial No. 429,653.

1. A rigid frame-work comprising a series of rigid sheet metal stay-bars, sheet metal rings at opposite ends of said rigid bars having annular grooves therein, wires securing the ends of the rigid sheet metal bars in the grooves of said rings, the whole forming a unitary rigid frame-work, and a covering of wire wrapped around said frame-work, said wire being secured to each of the stay-bars composing said frame-work.



2. A rigid frame-work comprising a series of rigid sheet metal stay-bars having their ends bent to point substantially at a common center, rings at opposite ends of said rigid bars, the sheet metal ends of said bars being secured to said rings and a covering consisting of a single wire wrapped around said rigid sheet metal frame-work, each convolution of the wire being secured to said frame-work.

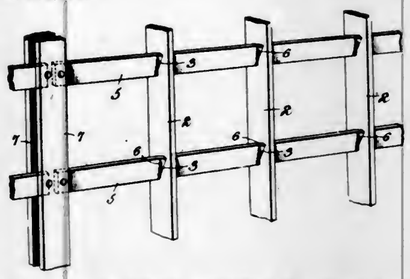
3. A rigid frame-work comprising a series of rigid stay-bars and rings secured to the ends thereof, said bars having recesses or notches therein, and a covering comprising wire secured in said recesses or notches.

4. A rigid frame-work comprising a series of rigid stay-bars having their ends bent to point substantially at a common center, rings at opposite ends of said rigid bars, the ends of said bars being secured to said rings, said bars having recesses or notches therein, and a covering consisting of wire secured in said recesses or notches.

5. A rigid frame-work comprising a series of rigid sheet metal stay-bars having their ends bent to point substantially at a common center, rings at opposite ends of said rigid sheet metal bars, the sheet metal ends of said bars being secured to said rings, said sheet metal bars having recesses or notches therein, and a covering consisting of a single wire wrapped around said rigid frame-work, said wire being located in said recesses or notches and each convolution of the wire being secured to said stay-bars.

[Claims 6 to 17 not printed in the Gazette.]

940,912. FORGE LOCKED GRATING. DAVID F. YOUNGBLOOD, San Antonio, Tex. Filed Feb. 9, 1909. Serial No. 476,908.



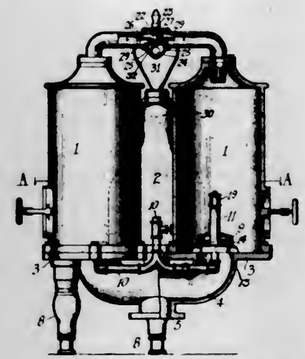
1. A prison cell grating comprising a plurality of vertical bars each having spaced slots extending therethrough from one side to the other and elongated longitudinally of the bars, the sides of the slots being disposed at an acute angle to the side edges of the bars, and a plurality of horizontal bars extending through the slots of the vertical bars and relatively thin and flat in cross section, the portions of the horizontal bars between the bars being twisted out of alinement with the slots to dispose the flat side faces of the horizontal bars parallel with the side edges of the vertical bars, there being abrupt shoulders formed by the twisting of the horizontal bars for engaging the opposite sides of the vertical bars to prevent lateral movement of the latter.

2. A structure having a series of vertical bars formed with spaced slots inclined to the longer axis of each of the bars all of substantially the same length as the width of the latter, a series of transverse bars passing through said inclined slots in the first-named series of bars and twisted between said bars to a degree equal to the inclination of the slots so as to bring said twisted portions of the second series of bars into a plane parallel with the longer axis of each of the first series of bars, the narrow edges of the said twisted portions being at the top and bottom of the transverse bars.

3. A structure having a series of vertical bars each formed with a series of slots inclined at an acute angle to the vertical axis of the bar, in combination with a series of horizontal bars inserted through said slots, said horizontal bars between the vertical bars being twisted out of alinement with the slots to throw the flat side faces into a plane parallel with the longer axis of the vertical bars, there being abrupt shoulders formed in the horizontal bars for engaging opposite sides of the vertical bars.

4. A prison cell grating comprising a frame formed of angle iron arranged to provide an inwardly-extending marginal flange, a plurality of vertical bars spaced apart and arranged with their flat faces opposed to each other and having their ends twisted to bear flat against the said marginal flange, means for securing the ends of the bars to the said flange, battens disposed parallel with the vertical bars with their ends bearing on opposite sides of the flange of the frame and rigidly secured thereto, said vertical bars having spaced slots elongated longitudinally of the bars and inclined at at angle to the axes thereof, the slots of the bars being disposed in alinement, horizontal bars extending through the alined slots and secured to the marginal flange of the frame and extending between the battens and rigidly secured thereto, said horizontal bars being of the same width as the vertical bars and the portions thereof disposed between adjacent vertical bars and between the outermost bars and frame and innermost bars and battens being twisted out of alinement with the slots and in parallelism with the side edges of the vertical bars.

940,913. VACUUM-PUMP. GUSTAVUS H. ZSCHECH, Berwyn, Ill. Filed Feb. 10, 1908. Serial No. 415,226.



1. In a vacuum pump, the combination of a pair of pumping chambers, a steam admission chest having a plane valve seat provided with two ports respectively communicating with said chambers, a valve slidable across said ports and adapted to reciprocate to alternately open said ports to their respective chambers, a by-pass in said chest at one side of said valve, and having opposite ends communicating with the respective pumping chambers and a piston carried by said valve and extending across said by-pass, whereby said valve will be shifted through the difference in pressure in the chambers.

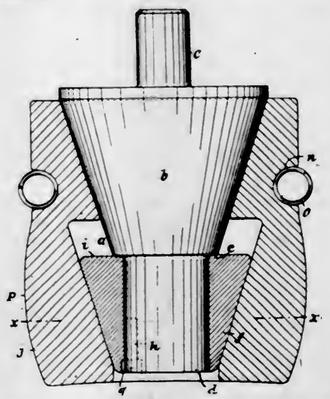
2. In a vacuum pump, the combination of a pair of pumping chambers, a steam admission chest having therein a plane valve seat, admission ports in said seat for admitting steam to the respective chambers, a slide valve adapted to control said ports and slidable on said seat for alternately opening said ports to the respective chambers, a passage communicating with said chambers and extending through said chest on the opposite side of said valve from said seat, and an expandible piston carried by said valve and extending across said passage, said chest having opposite removable side plates extending throughout the entire length of the travel of said valve and piston.

3. In a vacuum pump, the combination of a base, a valve seat thereon, a disk valve coacting with said seat and having a central aperture therethrough, a guide extending slidably through said aperture, and a standard removably mounted on said base at one side of said seat and rigidly supporting said guide, all being arranged to permit said valve to be readily removed through the removal of said standard from said base.

4. In a vacuum pump, the combination of a pumping chamber, a base therefor, an induction port in said base, a disk valve controlling said port and having a central aperture therethrough, a spider extending across said port and having an upwardly disposed stud, a standard removably mounted on said base near said seat and having thereon a stud located in alinement with the stud on said spider, and a tubular guide fitting the aperture in said valve and having its ends seated on said studs.

5. In a vacuum pump, the combination of a pumping chamber having a base, an induction port extending through said base and having a valve seat at its upper end, a disk valve co-acting with said seat and having an aperture therethrough, a guide for said valve extending through said aperture, a seat on said base for the lower end of said guide, a condensing-water inlet pipe arched over said valve seat and having thereon a seat fitting the upper end of said guide, said condensing water inlet pipe being detachable from said base and adapted to permit the ready removal of said valve and guide through the removal of said pipe.

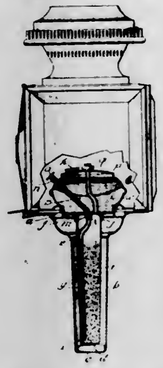
940,914. APPARATUS FOR FORMING HOLLOW SHEET-METAL BODIES. BENJAMIN ADRIANCE and AMOS CALLESON, Brooklyn, N. Y.; said Calleson assignor to said Adriance. Filed June 25, 1908. Serial No. 440,312.



The combination, in a bulging chuck, of a continuous series of radially movable expanding members, said series of members having downwardly tapering upper and lower inside face-portions and a shoulder between said upper and lower face-portions, an actuating member surrounded

by said expanding members and comprising a downwardly tapering truncated cone forming a shoulder at its lower end, a relatively reduced stem projecting from the lower end of said cone and another downwardly tapering truncated cone arranged on said stem and abutting against the second-named shoulder, said last-named cone having its upper end larger than the lower end of the first-named cone and adapted to engage the first-named shoulder, and a contracting means surrounding said series of expanding members, substantially as described.

940,915. VEHICLE-LAMP. FREDERICK C. AHRENS, Chicago, Ill. Filed June 11, 1909. Serial No. 501,523.



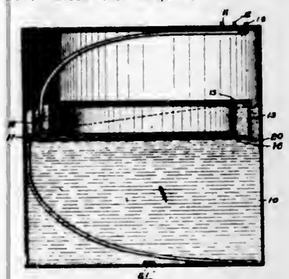
1. In a vehicle lamp the combination of a lamp casing having a candle socket, a calcium carbid tube fitting in said socket, a perforated water tube attached to the side of said calcium carbid tube and a combined water chamber and acetylene gas burner mounted on said calcium carbid tube, said burner opening into said carbid tube and said water chamber having extending through it a tube bearing an opening into the water chamber, an opening into said perforated water tube and a screw passing throughout its length to regulate the size of the opening into said perforated water tube, substantially as described.

2. In a vehicle lamp the combination of a lamp casing having a candle socket, a calcium carbid tube fitting in said socket, a perforated water tube attached to the side of said calcium carbid tube, bent away at its upper end from said calcium carbid tube and opening upward at the center of the mouth of said calcium carbid tube, and a combined water chamber and acetylene gas burner mounted on said calcium carbid tube, said burner opening into said carbid tube and said water chamber having extending through it a tube bearing an opening into the water chamber, an opening into said perforated water tube and a screw passing throughout its length to regulate the size of the opening into said perforated water tube, substantially as described.

3. In a vehicle lamp the combination of a lamp casing having a candle socket, a calcium carbid tube fitting in said socket and containing a closely fitting removable inner tube, a perforated water tube attached to said inner tube and a combined water chamber and acetylene gas burner mounted on said calcium carbid tube, said burner opening into said carbid tube and said water chamber having extending through it a tube bearing an opening into the water chamber, an opening into said perforated water tube and a screw passing throughout its length to regulate the size of the opening into said perforated water tube, substantially as described.

4. In a vehicle lamp the combination of a lamp casing having a candle socket, a calcium carbid tube fitting in said socket and containing a closely fitting removable inner tube, a perforated water tube attached to said inner tube, bent away at its upper end from said inner tube and opening upward at the center of the mouth of said calcium carbid tube, and a combined water chamber and acetylene gas burner mounted on said calcium carbid tube, said burner opening into said carbid tube and said water chamber having extending through it a tube bearing an opening into the water chamber, an opening into said perforated water tube and a screw passing throughout its length to regulate the size of the opening into said perforated water tube, substantially as described.

940,916. SUPPLY-TANK AND CARBURETER FOR GAS PLANTS. FRANCIS B. ALLDREDGE, Des Moines, Iowa, assignor to Mills B. Alldredge, Des Moines, Iowa. Filed Jan. 26, 1909. Serial No. 474,289.



1. A carbureter for gas plants comprising in combination a tank designed to contain gasolene; a receptacle designed to float on the surface of the gasolene; an air reservoir secured in said receptacle; a chamber between the receptacle and the reservoir, said chamber being provided with an outlet at each end and being inclined from its central portion to each outlet; means to admit gasolene to the shallow portion of said chamber; means to admit air to the shallow portion of said chamber, all arranged and combined substantially as shown and described.

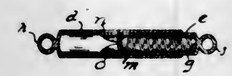
2. In a carbureter for gas plants a float, designed to rest upon the surface of the gasolene, comprising in combination a receptacle open at its top; an air reservoir secured within said receptacle; a chamber in said receptacle, said chamber being shallow in its central portion and inclined upwardly toward each of the outer ends; a flexible tube extending from the base of the tank to the shallow portion of the chamber; a flexible tube extending from the shallow portion of the chamber to a connection to the outside of the tank, substantially as shown and described.

3. In a carbureter for gas plants a float, designed to rest upon the surface of the gasolene; a covering for the major portion of said float; a chamber within said float, said chamber being open at both extremities and being inclined upwardly from its central portion to each of said extremities; means to admit gasolene to the central portion of said chamber; means to admit air to the central portion of said chamber, substantially as shown and described.

4. In a carbureter for gas plants comprising a tank, and a float to rest on the surface of the gasolene in the tank, a locking device to secure the float to the bottom of the tank, said locking device comprising members secured to the bottom of the tank and companion members secured to the float, all of said members being provided with orifices to receive wires; wires designed to be projected through the orifices in their respective locking members, and extending upwardly therefrom through pipes to the outer surface of the tank, substantially as shown and described.

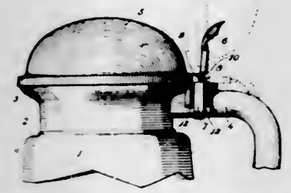
940,917. SEPARABLE FASTENER. STEAD A. ASQUITH, Waterloo, Iowa. Filed Aug. 12, 1908. Serial No. 448,231.

1. In combination, hollow receiving and received members, the received member being provided with oppositely-located longitudinal grooves each groove having two reversely-directed reëntering continuations, transversal engaging-means secured to the inner periphery of said receiving member, and adapted to slidably move within said grooves and be seated in two of their reversed continuations in the other member, and a spring within the bore of said received member adapted to engage and yieldably secure the said engaging-means in the continuations of said grooves, when said members are coactingly engaged.



2. In combination, hollow receiving and received members, the received member being provided with oppositely-located longitudinal grooves in its received end each of said grooves having oppositely-directed and reversed continuations at its inner end on either side of a medial angular projection reversely-directed, an angular reversely-directed projection between each pair of reversely-directed continuations, a rod secured transversely across the bore of said receiving member and adapted to pass within said grooves and their oppositely-placed continuations on one side of each of said medial angular projections when such members are coacting and partially rotated with respect to each other, and a coiled spring within the bore of said received member adapted to engage said rod when received within said grooves and their said continuations to yieldably secure it therein when said members are coactingly engaged.

940,918. MOLASSES-JUG AND OTHER HINGED-LID RECEPTACLE. CHARLES S. BARON, Tiffin, Ohio. Filed Jan. 18, 1909. Serial No. 472,952.



1. The combination with a receptacle, a lateral projection therefrom, and a lid, of a hinge connecting the lid and receptacle, said hinge comprising a strap about said projection, and a pintle uniting the ends of the strap, the straps being provided with lugs bent about the pintle to form a knuckle.

2. The combination with a receptacle, its lid, and a lateral projection on the receptacle, of a hinge comprising a strap provided with lugs bent about said projection so as to bring said lugs into juxtaposition, and a pintle assembled with and uniting said lugs bent to form a knuckle.

3. The combination with a receptacle, its lid, and a lateral projection on the receptacle, of a hinge comprising a strap provided with lugs bent about said projection so as to bring said lugs into juxtaposition, and a pintle-piece having a pintle about which said lugs are bent to form collectively a knuckle, and bends confining said lugs in their said juxtaposition.

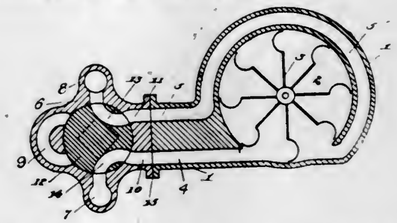
4. The combination with a receptacle, its lid, and a lateral projection on the receptacle, of a hinge comprising a strap provided with lugs bent about said projection so as to bring said lugs into juxtaposition, and a pintle-piece having a pintle about which said lugs are bent to form collectively a knuckle, and bends confining said lugs in their said juxtaposition, said bends forming legs in the pintle-piece for fastening the hinge to the lid.

940,919. CUSHION-TIRE. CHARLES O. BAUGHMAN, Akron, Ohio, assignor to W. J. Frank, Akron, Ohio. Filed Aug. 10, 1908. Serial No. 447,800.



A cushion tire for wheels comprising a circular attaching base, an annular central extension integral with the base, a plurality of rows of radial wells arranged in each side of the central extension, the wells in the inner row being of greater depth than the wells in the outer row and staggered with relation to the wells in the outer row, a fabric arranged over the extension, and an elastic tread strip secured to the fabric and protecting the same at all points.

940,920. BY-PASS. EDWIN BURHORN, Hoboken, N. J. Filed Nov. 6, 1908. Serial No. 461,334.



1. In a by-pass a hollow valve body containing in its walls fixed separate inlet and outlet passages for connection to a pipe line, and fixed separate supply and discharge passages for connection to an apparatus to be served, (as a meter); in combination with a movable valve seated in the hollow of said valve body and containing duct portions so arranged with relation to said passages that when the valve is in one position the flow will be in order through the inlet passage, the valve, the supply passage, the said apparatus, the discharge passage, the valve, and the outlet passage, and when the valve is in a second position the flow will be through the inlet passage, the valve, and the outlet passage, with the supply and discharge passages and said apparatus cut off; and a meter comprising a casing, and inlet and outlet passages (as 4 and 5), with said meter casing detachably secured directly to said valve body so that said meter inlet and outlet passages register respectively with said valve body supply and discharge passages.

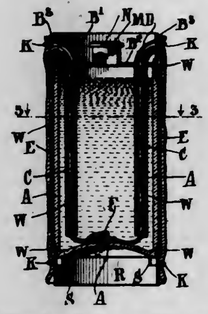
2. In a by-pass a hollow valve body containing in its walls fixed separate inlet and outlet passages for connection to a pipe line, and fixed separate supply and discharge passages for connection to an apparatus to be served, (as a meter); in combination with a movable valve seated in the hollow of said valve body and containing duct portions so arranged with relation to said passages that when the valve is in one position the flow will be in order through the inlet passage, the valve, the supply passage, the said apparatus, the discharge passage, the valve, and the outlet passage, and when the valve is in a second position the flow will be through the inlet passage, the valve, and the outlet passage, with the supply and discharge passages and said apparatus cut off; and an apparatus to be served having an inlet and outlet (as 4 and 5) with said apparatus detachably secured directly to said valve body so that said inlet and outlet register respectively with said valve body supply and discharge passages.

3. In a by-pass a hollow valve body having a by-way passage (as 9) and containing in its walls at six substantially equally spaced points 1st an inlet passage for con-

nection to a pipe line, 2nd a supply passage for connection to an apparatus to be served, 3rd a discharge passage for connection to said apparatus, 4th an outlet passage for connection to said pipe line, 5th an outlet from said by-way passage, and 6th an inlet thereto; in combination with a rotatable valve seated in the hollow of said body and containing two ducts so arranged that when in one position one duct connects said inlet passage and said supply passage, and the other duct said discharge passage and said outlet passage, whereby when the valve is reversed the inlet and outlet passages will be both connected to said by-way passage and the said apparatus will be cut off.

4. The combination of a by-pass valve and an apparatus (as a meter), the two being detachable and attachable and when attached being in direct contact with each other, the said apparatus being designed with a casing having inlet and outlet apertures in its wall, and a long interior passage within its casing wall for bringing said apertures close together on the casing wall, and the by-pass having supply and discharge passages corresponding in location with said inlet and outlet.

940,921. DISINFECTING APPARATUS. WILLIAM M. BYER, Jersey City, N. J. Filed Aug. 5, 1908. Serial No. 447,151.



1. A liquid-feeding apparatus, which comprises a reservoir having a liquid inlet; a pendent tube inside the reservoir but independent of the liquid-inlet; said tube having an open end near the bottom of the reservoir and an upper opening communicating exteriorly of the reservoir near the upper part thereof; said tube also being sealed from the liquid in the reservoir except at its lower open end; and a capillary feeding means inside said tube and extending from the liquid in the reservoir up through said tube and its upper opening to the exterior of the reservoir; said reservoir being normally sealed from the atmosphere except by way of said tube.

2. A liquid-feeding apparatus, which comprises a reservoir having a liquid-inlet; an absorption-evaporation member exteriorly surrounding a substantial portion of the reservoir; a pendent tube inside the reservoir but independent of the liquid-inlet; said tube having an open end near the bottom of the reservoir and an upper opening communicating exteriorly of the reservoir with an upper portion of said absorption-evaporation member; and a capillary feeding means inside said tube and extending from the liquid in the reservoir up through said tube and its upper opening to the evaporation member; said reservoir being normally sealed from the atmosphere except by way of said tube.

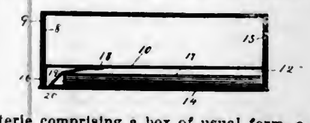
3. A liquid-feeding apparatus, which comprises a reservoir having a liquid-inlet; an evaporation member substantially surrounding said reservoir; a capillary feeding means extending from the interior of the reservoir to an upper part of said evaporation member; and a tube inside the reservoir but independent of said liquid-inlet, said tube being in communication with the outer atmosphere and containing said feeding means; said reservoir being normally sealed from the atmosphere except by way of said tube.

4. A liquid-feeding apparatus, which comprises a reservoir having a liquid-inlet; an evaporation member exterior to the reservoir; a tube inside the reservoir but independent of said liquid-inlet, said tube communicating exteriorly of the reservoir near the upper part thereof; said tube also being sealed from the liquid in the reservoir except at its lower open end; and a capillary feeding means inside said tube and extending from the liquid in the reservoir up through said tube and its upper opening to the exterior of the reservoir; said reservoir being normally sealed from the atmosphere except by way of said tube.

5. A liquid-feeding apparatus, which comprises a reservoir having a liquid-inlet; a casing for said reservoir, the casing having its lateral wall separated from the reservoir to provide a space for the reception of an evaporation member, and being in communication with outer atmosphere to permit evaporation of the liquid, and a tube inside the reservoir but independent of said liquid-inlet, said tube being in communication with the upper portion of the space between the reservoir and casing and containing a capillary feeding means contacting with an upper portion of the evaporation member; said reservoir being normally sealed from the atmosphere except by way of said tube.

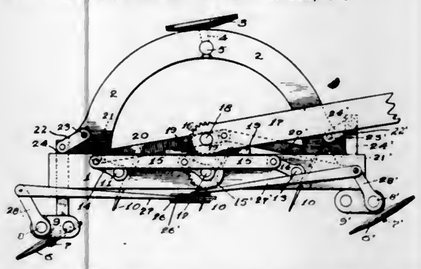
[Claims 6 to 20 not printed in the Gazette.]

940,922. BOX. ROBERT W. CARROLL, New Brighton, N. Y. Filed Feb. 23, 1909. Serial No. 479,361.



A papeterie comprising a box of usual form, a horizontal partition in said box, a drawer movable between the bottom of said box and said partition and a piece of thin flexible material of substantial width having one edge secured to the under side of said partition and its opposite edge secured to the rear part of said drawer, as herein set forth.

940,923. DISK HARROW. HANS CHRISTENSEN, Byron, Cal. Filed July 6, 1908. Serial No. 442,067.



1. A reversible gang disk harrow comprising a frame including a carrying beam, a plurality of disks provided with standards mounted for rotation in the carrying beam, a gage wheel arranged at each end of the carrying beam to support the frame, each gage wheel being provided with a standard mounted for rotary and lateral adjustment, a reversible draft-bar, connection between the draft-bar and the standards of the harrow disks for actuating the same to simultaneously adjust the position of the harrow disks, and means actuated by the reversal of the draft-bar to simultaneously adjust the lateral position of the gage wheels relative to the frame of the harrow.

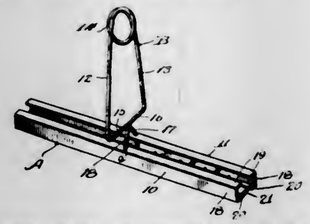
2. In a reversible gang disk harrow, a frame, a plurality of harrow disks provided with vertical standards journaled in said frame, gage-wheels supported in the ends of said frame and adjustable laterally thereof, a shiftable draft appliance, and means operable upon the shifting of the draft appliance for adjusting all of the harrow disks in unison and for shifting the gage-wheels laterally of the frame in opposite directions.

3. In a device of the character described, a frame, gage-wheels supports slidably mounted in the ends of said frame and extended transversely thereof, gage-wheels mounted in said supports, a pair of bell-crank levers fulcrumed on said frame, said levers each having one arm thereof pivotally connected to the gage-wheel supports, a reversible draft bar pivoted to the frame intermediate the gage-wheel supports, and links connecting said bar and the other arms of the bell crank levers.

4. In a reversible gang disk harrow comprising a frame including a straight beam, a plurality of disks provided with standards mounted for rotation in the said beam of the frame, crank-arms on said standards, a link connecting said crank-arms, a gear on one of the standards of the harrow disks, a reversible draft-bar pivoted to the frame, a gear head carried thereby for engagement with the gear of the disk standard to simultaneously operate the standards to position the disk harrows for the cutting of furrows on the travel of the harrow in either direction, gage wheels for supporting the frame, said gage wheels being provided with standards mounted for rotary and laterally adjustment, and connection between the draft-bar and the standards of the gage wheels for positioning the gage wheels laterally relative to the frame during the swinging movement of the said draft-bar.

5. In a device of the character described, a frame, a plurality of disks provided with vertical standards journaled in said frame, said standards being provided with cranks, a link connecting the crank arms of all of the disks, a draft bar pivoted to the frame and geared to one of the disk standards, a pair of gage-wheel supports slidably mounted in the ends of the frame and extended laterally in opposite directions, bell crank levers fulcrumed on the frame each having one arm thereof pivotally connected to the gage-wheel supports, and link pivotally connecting the draft bar and the other arms of said bell crank levers.

940,924. MEAT-HANGER. MILLAR J. CONDELL, HENRY C. BECK, and FREDERICK H. DANNENBERG, Chicago, Ill.; said Dannenberg assignor to said Condell and said Beck. Filed Dec. 7, 1908. Serial No. 466,249.



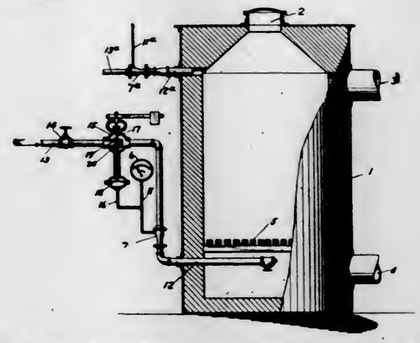
1. In a meat hanger, the combination of two jaws, each having a flange which extends toward the corresponding flange upon the opposite jaw; opposing gripping teeth formed upon said flanges, the teeth on one flange lying between the teeth on the opposite flange and being considerably longer than the teeth on said opposite flange, and a support for said jaws comprising arms which are secured to the jaws, and cross each other above the jaws and have a spring connection between their upper ends which is arranged to crowd the jaws toward each other.

2. In a meat hanger, the combination of two flanged channel shaped gripping jaws, gripping teeth upon one of the flanges of each jaw, the teeth upon one flange lying between the teeth upon the corresponding flange of the opposite jaw, and an arm extending up from each jaw, and crossing the other arm above the jaws, said arms joining each other at their upper ends in the form of a coiled spring whose tension is to crowd the jaws toward each other.

3. In a meat hanger, the combination of two channel shaped gripping jaws, the flanges of which are formed with integral, oppositely pointing, flat teeth, arms extending up therefrom and crossing each other, and a spring connection between said arms for crowding the jaws together.

4. In a meat hanger, the combination of two gripping jaws, having upper and lower flanges, one of said lower flanges having long gripping teeth and the opposing lower flange having short gripping teeth adapted for engagement with the object to be supported, an arm extending from each jaw and crossing the opposite arm at a point intermediate its ends, and a spring connection at the upper ends of the arms for crowding the jaws upon each other.

940,925. WATER-GAS APPARATUS. SAMUEL J. DICKEY, Philadelphia, Pa., assignor to The United Gas Improvement Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed July 16, 1908. Serial No. 443,892.



1. Means for definitely controlling the quantity and quality of the production of gas which means comprise the gas generating apparatus and its regulable steam connection and a meter tube interposed in said connection and provided with a gage whereby the attendant is enabled to introduce a definite volume of steam during the interval of each run, substantially as described.

2. Means for definitely controlling the quantity and quality of the production of gas which means comprise the gas generating apparatus, a steam connection thereto, a meter tube interposed in said connection and provided with a pressure gage, and an automatic pressure regulator interposed in said connection and responsive to pressure at the inlet of said tube whereby a definite volume of steam is introduced during the interval of each run, substantially as described.

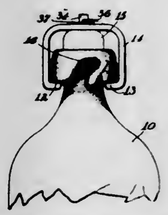
3. Means for controlling the quantity and quality of the production of gas which means comprise the combination of the gas generating apparatus, a fluid connection thereto, means operatively attached to said connection and adapted to exert pressure proportional to the volume of fluid per unit of time passing through it, and a regulator automatically responsive to the pressure of said means and adapted to increase and diminish the flow through said connection.

4. Means for controlling the quantity and quality of the production of gas which means comprise the combination of the gas generating apparatus, a fluid connection thereto, means interposed in said connection and adapted to indicate by pressure the volume of fluid per unit of time passing through it, and a regulator automatically responsive to the pressure of said means and adapted to increase and diminish the flow through said connection.

940,926. BOTTLE-STOPPER. WILLIAM E. GASTON, Waterbury, Conn. Filed May 24, 1909. Serial No. 497,880.

1. The combination of a bottle having at its mouth an enlarged portion provided at its lower face with a pair of inclined planes, a stopper, a bail carrying the stopper

and provided with inturned ends for engaging said planes for clamping the stopper to the mouth of the bottle, said enlarged portion being provided at each side with channels extending upwardly from said inclined planes, said channels at the upper portions adjacent the bottle mouth being extended laterally both in the same direction.



2. The combination of a bottle having at its mouth a thickened portion provided at its lower face with a pair of inclined planes, a stopper, a bail carrying the stopper and provided with engaging ends for said planes for clamping the stopper to the mouth of the bottle, said thickened portion being provided at each side with channels extending upwardly from said inclined planes, each of said channels at its upper portion being extended laterally, both said extensions being toward the same side, one of said lateral extensions approaching at its farther end more nearly toward the longitudinal axis of the bottle than at its other end, and the other of said channels being directed away from the said axis at its farther end.

3. The combination of a stopper, a bail carrying the stopper and provided with a pair of inwardly directed ends, a bottle provided at its mouth with faces for the engagement of such ends and at each side with channels extending from said faces toward the mouth of the bottle and also laterally, both toward the same side, and a mass of material disposed at the end of each of said lateral portions of the channels.

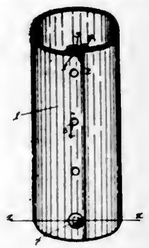
4. The combination with a bottle having faces directed away from the mouth thereof and disposed on inclined planes, and channels extending upwardly on opposite sides of the bottle from the beginning of the said inclined planes and extending laterally in the same direction, of a stopper, a member carrying the stopper and embodying a pair of side limbs and engaging devices for the said inclined faces, the relative proportion and location of the parts being such that the stopper can engage the side of the bottle between the mouth and said faces when the engaging devices are in the said lateral extensions of the channels.

5. The combination with a bottle having a pair of faces upon opposite sides directed away from the mouth opening of the bottle and disposed on inclined planes, and a channel extending upwardly at the lowest point of the inclined plane on each side, said channels both extending laterally in the same direction, of a stopper for the bottle, a bail carrying a stopper and embodying a pair of side limbs bent inwardly for engaging said inclined faces and for traversing said channels, the relative proportions and locations of the parts being such that the said limbs will hold the stopper against the side of the bottle adjacent to its mouth when the said inturned ends are in the said lateral portions of the channels.

[Claims 6 to 8 not printed in the Gazette.]

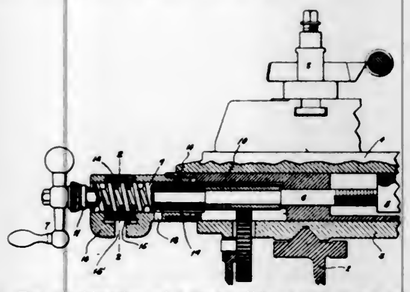
940,927. STOVEPIPE. WILLIAM W. GRAHAM, New Philadelphia, Ohio. Filed Mar. 21, 1908. Serial No. 422,513.

A stove pipe section provided with longitudinal seam edges, one of said edges folded back upon the inner surface of the section for a short distance and a second fold given to said edge, the said folded portions constituting the sides of a groove adapted to receive the opposite unfolded edge of the section, said folded portion provided with apertures, and said unfolded edge provided with outwardly pressed and drawn nibs adapted to register with the apertures and one end of the section provided with a rivet, said rivet entered through the registering aperture in the



folded portion of the section, substantially as and for the purpose specified.

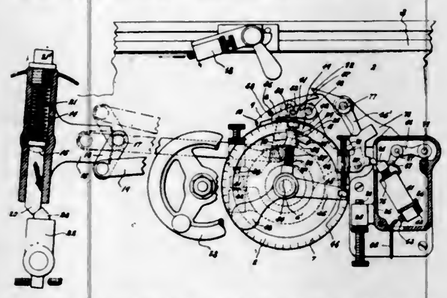
940,928. METAL-WORKING MACHINE. BENGT M. W. HANSON, Hartford, Conn., assignor to Pratt & Whitney Company, Hartford, Conn., a Corporation of New Jersey. Filed Dec. 23, 1908. Serial No. 468,949.



1. The combination of a cross slide, a nut and a feed-screw for adjusting said cross slide, a screw sleeved on said feed-screw, for reciprocating the latter, and a nut for moving the screw which is sleeved on said feed-screw in an endwise direction.

2. The combination of a cross slide, a nut connected with said cross slide, a feed-screw coöperative with said nut, a screw sleeved onto said feed-screw for reciprocating the latter, a boxing having a slot and a bore intersecting said slot to receive said sleeved screw, and a nut set into said slot and fitted to said sleeved screw.

940,929. FEEDING MECHANISM. BENGT M. W. HANSON, Hartford, Conn., assignor to Pratt & Whitney Company, Hartford, Conn., a Corporation of New Jersey. Filed Apr. 20, 1909. Serial No. 491,101.



1. The combination of ratchet-wheel mechanism, primary and secondary pawls for giving to said ratchet-wheel mechanism different degrees of movement, and a device progressively movable with the ratchet-wheel mechanism for throwing the primary pawl out of action.

2. The combination of ratchet-wheel mechanism, primary and secondary pawls for giving to the ratchet-wheel different degrees of movement, a device progressively movable with said ratchet-wheel mechanism, for throwing said primary pawl out of action said device being also manually settable, and means for preventing said device moving beyond the point at which it throws said primary pawl out of action.

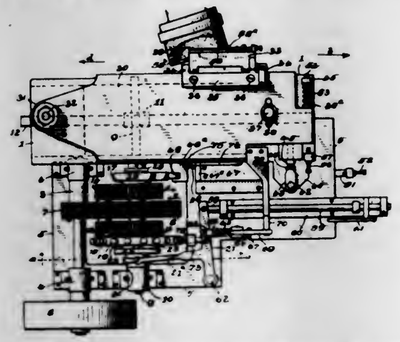
3. The combination of ratchet-wheel mechanism, primary and secondary pawls for giving to said ratchet-wheel mechanism different degrees of movement, a device progressively movable with said ratchet-wheel mechanism, for throwing the primary pawl out of action and also manually settable, and adjustable means for preventing said device from moving beyond the point at which it throws said primary pawl out of action.

4. The combination of ratchet-wheel mechanism, primary and secondary pawls for giving to the ratchet-wheel different degrees of movement, a device progressively movable with said ratchet-wheel mechanism, for throwing said primary pawl out of action and also manually settable, and a screw to prevent said device from moving beyond the point at which it throws the primary pawl out of action.

5. The combination of ratchet-wheel mechanism, primary and secondary pawls for giving to said ratchet-wheel mechanism different degrees of movement, a device progressively movable with said ratchet-wheel mechanism, for throwing said pawl out of action said device being also manually settable, stop-means for preventing said device moving beyond the point at which it throws said pawl out of action, and a movable support for said stop means.

[Claims 6 to 26 not printed in the Gazette.]

940,930. CUTLERY-GRINDING MACHINE. CHARLES L. JOY, New Haven, Conn. Filed Oct. 4, 1906. Serial No. 337,405.



1. In a machine of the character described, in combination, a reciprocating carriage, a support therefor, a laterally movable plate pivotally mounted on the upper surface of the carriage and carrying a knife holder, a grinding wheel, a continuously running shaft, a pinion mounted thereon, a carriage operating shaft, means for operatively connecting said shaft with said carriage, a continuously running gear on said shaft and meshing with the pinion of the driving shaft, and having clutch-pins, planet pinions carried by said gear and journaled on each side thereof, differential gears located on the carriage operating shaft and meshing with the planet pinions, one of said gears secured to said shaft, the other journaled thereon, a disk journaled on said carriage shaft, a sleeve slidably mounted on said shaft, said sleeve having clutch-pins projecting through said disk and the journaled differential gear and adapted to engage with the clutch-pins of the planet carrying gear, means for manually locking said disk, planet carrying gear and the journaled differential gear together so that they will rotate the carriage operating shaft and the other differential gear for a movement of the carriage in one direction for an accelerated speed, and means for automatically disconnecting the same and locking the disk against rotation for a reverse and slow travel of the carriage, for the purpose set forth.

2. In a machine of the character described, in combination, a reciprocating carriage, a support therefor, a laterally movable plate mounted upon the upper surface of the carriage and pivotally supported at one end of the carriage, and carrying a knife-holder, a grinding-wheel, a driving shaft; a pinion thereon, a carriage operating shaft and means for operatively connecting said shaft with the carriage, automatically reversing and speed reducing mechanism comprising a gear journaled on the carriage shaft; said gear meshing with the driving shaft pinion and carrying planet pinions, differential gears meshing with the planet pinions, one of said gears journaled on the carriage shaft, the other fixed thereto, a disk journaled on the carriage-shaft and provided with means by which it is held against rotation, a sleeve on the carriage shaft and carrying the clutch-pins operatively projecting through the disk and journaled differential gear and adapted to alternately engage with the planet pinion carriage gear, means for manually locking the disk and gears together so that they will rotate with the carriage shaft for an accelerated travel of the carriage in one direction, means for automatically disconnecting the same and locking the disk against rotation for a reverse and slow return travel of the carriage, actuating mechanism for automatically moving the plate toward the grinding wheel, means to effect a temporary stand-still of the carriage operating shaft just before the reverse travel of the carriage begins, and means for automatically returning the plate to its normal position, for the purpose set forth.

3. In a machine of the character described, in combination, a reciprocating carriage, a laterally movable plate mounted upon the upper surface of the carriage and pivotally supported thereon and carrying a knife-holder for supporting a knife, a grinding-wheel, a continuously running driving shaft, a pinion thereon, a carriage operating shaft, and means for connecting it with the carriage, speed reducing mechanism mounted on said carriage shaft and constructed as shown and described, means for manually locking said mechanism together to give an increased and idle travel to the carriage in one direction, means for automatically swinging the plate toward the grinding-wheel to bring the knife in contact therewith, and means for automatically unlocking the carriage shaft mechanism to impart a reverse and slow travel to the carriage during the grinding operation for the purpose set forth.

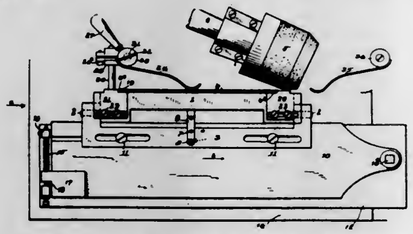
4. In a machine of the character described, in combination, the reciprocating carriage 1, a support therefor, laterally movable plate 30 pivotally supported thereon and carrying a knife-holder adapted to support a knife, a grinding-wheel, vertically operating rock shaft 42 mounted in the carriage, said shaft having arm 43, means for automatically actuating said shaft to swing the plate toward the grinding-wheel through the medium of its arm, and means for disengaging said arm and means for automatically returning said plate to its normal position away from the grinding-wheel, for the purpose set forth.

5. In a machine of the character described, in combination, a reciprocating carriage, a pivotally supported knife holder carrying plate mounted thereon, a grinding-wheel, a carriage operating shaft, speed acccelerated and automatically reversing and speed reducing mechanism mounted on said shaft, a continuously running driving shaft, means thereon for transmitting motion to the carriage shaft, means for manually locking the mechanism on the carriage shaft for an accelerated travel of the carriage in one direction and while the plate is in its normal position away from the grinding-wheel, means for automatically unlocking said mechanism and reversing the travel of the carriage at a reduced speed; means for automatically swinging the plate toward the grinding wheel, temporary means for preventing the reverse movement of

the carriage until after a knife is brought against the grinding-wheel, means for automatically checking the travel of the carriage after a knife has been ground, and means for automatically returning the plate to its normal position, for the purpose set forth.

[Claims 6 and 7 not printed in the Gazette.]

940,931. SKATE-RUNNER GRINDER. CHARLES L. JOY, New Haven, Conn. Filed Apr. 7, 1908. Serial No. 425,608.

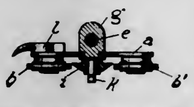


1. In a machine for grinding the sides of skate runners, a reciprocating carriage, a skate runner holder mounted thereon and having a bearing surface on which the runner is adapted to rock under the influence of the grinding wheel, so that said wheel will follow the curvature of the runner during the grinding operation, for the purpose set forth.

2. In a machine for grinding the sides of skate runners, a reciprocating carriage, a skate runner holder mounted thereon and having a straight bearing surface adapted to support the convex tread of the runner and on which surface the runner is adapted to rock under the influence of the grinding wheel, so that the said wheel will follow the curvature of the runner, a stop to limit the upward roll or movement of the runner while its opposite end is engaged by the wheel, a kicking post for the runner, for the purpose set forth.

3. In a machine for grinding the sides of skate runners having a longitudinally operating carriage, a skate runner holder thereon, said holder having a bearing surface for the convex tread of the runner and on which surface the runner is adapted to rock under the influence of the grinding wheel, so that said wheel will follow the curvature of the runner, a stop to limit the upward roll or movement of the runner while the wheel is engaged with its opposite end, adjustable end-pieces for the runner, one of which end-pieces serves as a kicking post for the runner, spring fingers adapted to contact with the side of the runner, for the purpose set forth.

940,932. CAN-OPENER. WILHELM G. KIRCHER, Solingen, Germany. Filed May 18, 1909. Serial No. 496,795.

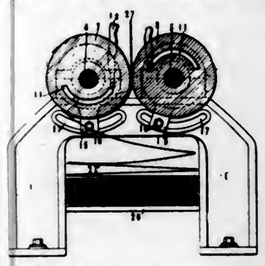


1. A can opener comprising a plate, a screw spindle journaled therein, a nut engaging said spindle, a circular cutter rotatably mounted on the nut, and a pair of guide rollers carried by the plate.

2. A can opener comprising a slotted plate having bent apertured ends, a screw spindle journaled therein, a nut on the spindle that engages the plate-slot, a pin on said nut, a circular cutter rotatable on said pin, and a pair of guide rollers carried by the plate.

3. A can opener comprising a plate, a screw spindle journaled therein, a nut engaging said spindle, a circular cutter rotatably mounted on the nut, a pair of guide rollers carried by the plate, and a knife secured to the plate in proximity to one of said rollers.

940,933. WEB-FOLDING MECHANISM. EUGEN KLEIN, Dresden, Germany, assignor to The Carter-Crume Co. (Limited), Niagara Falls, N. Y., a Corporation of Canada. Filed July 15, 1907. Serial No. 383,908.



1. In combination, a pair of revoluble cylinders adapted to receive a continuously fed web, and means for forcing a fluid in different directions through said cylinders, whereby said fluid alternately engages different portions of the web and deflects the same in different directions to superimpose them one upon another in zigzag form.

2. In combination, a pair of revoluble cylinders adapted to receive a continuously fed web, and means for directing air alternately inward and outward through the periphery of said cylinders, whereby successive portions of said web are deflected in opposite directions and the web folded in zigzag form.

3. In combination, a pair of rotatable cylinders adapted to receive a continuously fed web, and suction means operated through the periphery of said cylinders adapted alternately to hold different portions of said web in contact with the cylinders, and air pressure means acting through the periphery of said cylinders adapted alternately to force therefrom the portions of the web which have been held in contact by suction.

4. In combination, a pair of revoluble cylinders adapted to receive a continuously fed web, means coöperating with each cylinder adapted to suck a portion of the web into contact therewith at one point in its rotation, whereby the web is conducted by the cylinder to a given position, and means adapted when such position is reached to force compressed air against the web to disengage the same from the cylinder.

5. In combination, a pair of revoluble cylinders adapted to receive a continuously fed web, means coöperating with each cylinder adapted to suck a portion of the web into contact therewith at one point of its rotation, whereby the web through its contact with the cylinder is conducted thereby to a given position, and means adapted when such position is reached to force compressed air against the web to disengage the same therefrom, said cylinders operating alternately upon successive portions of the web and conducting said portions in opposite directions.

[Claims 6 to 16 not printed in the Gazette.]

940,934. DIPPING DEVICE FOR MATCH-MACHINES. OTTO H. LANDVATTER, Durlach, Germany, assignor to Badische Maschinenfabrik & Eisengiesserei vormals G. Sebold und Sebold & Neff, Durlach, Germany. Filed June 22, 1909. Serial No. 503,717.

1. In a dipping device for match-machines, the combination with a frame, of a vertically and horizontally guided table adapted to receive a layer of igniting material, means for raising and lowering said table, said frame being adapted to horizontally guide match-splint carriers over said table, so that in the highest position of the latter the ends of the splints can dip in the layer of igniting material, and means for moving said table in its highest position through a distance at the same speed as the match-splint carriers and for returning it in its lowest position.

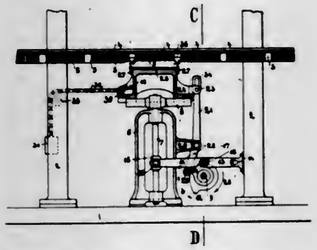
2. In a dipping device for match-machines, the combination with a frame, of two vertical rods longitudinally guided in said frame, means for raising and lowering said two vertical rods, two crossheads at the upper ends of said two vertical rods, a table horizontally guided on said two crossheads and adapted to receive a layer of igniting material, two parallel horizontal rails in said frame for guiding match-splint carriers over said table, so that in the highest position of the latter the ends of the splints can dip in the layer of igniting material, and means for moving said table in its highest position through a distance at the same speed as the match-splint carriers and for returning it in its lowest position.

3. In a dipping device for match-machines, the combination with a frame, of a horizontal shaft mounted in said frame to turn, two cams on said horizontal shaft, two vertical rods longitudinally guided in said frame, means controlled from said two cams for raising and lowering said two vertical rods, two crossheads at the upper ends of said two vertical rods, a table horizontally guided on said two crossheads and adapted to receive a layer of igniting material, two parallel horizontal rails in said frame for guiding match-splint carriers over said table, so that in the highest position of the latter the ends of the splints can dip in the layer of igniting material, two other cams on said horizontal shaft, means controlled from said two other cams for moving said table in its highest position through a distance at the same speed as the match-splint carriers and for returning it in its lowest position.

4. In a dipping device for match-machines, the combination with a frame, of a vertically and horizontally guided table adapted to receive a layer of igniting material, means for raising and lowering said table, two parallel horizontal rails in said frame for guiding match-splint carriers over said table, so that in the highest position of the latter the ends of the splints can dip in the layer of igniting material, means for feeding forward the match-splint carriers in said two rails, and means for moving said table in its highest position through a distance at the same speed as the match-splint carriers and for returning it in its lowest position.

5. In a dipping device for match-machines, the combination with a frame, of two vertical rods longitudinally guided in said frame, means for raising and lowering said two vertical rods, two crossheads at the upper ends of said two vertical rods, a table horizontally guided on said two crossheads and adapted to receive a layer of igniting material, two parallel horizontal rails in said frame for guiding match-splint carriers over said table, so that in the highest position of the latter the ends of the splints can dip in the layer of igniting material, means for feeding forward the match-splint carriers in said two rails, and means for moving said table in its highest position through a distance at the same speed as the match-splint carriers and for returning it in its lowest position.

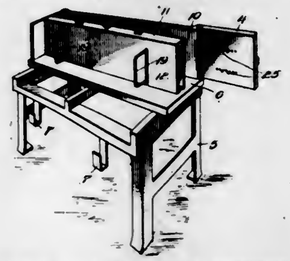
[Claims 6 to 8 not printed in the Gazette.]



940,935. CONCRETE-BLOCK MACHINE. LUDWIG B. LARSEN, Portland, Oreg. Filed Apr. 17, 1909. Serial No. 490,611.

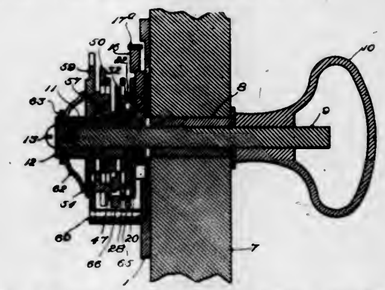
1. An apparatus for molding a bonded block comprising a mold section, a collapsible core, means for operating the core, a bond, and means slidably mounted in the core-operating means to engage and support the bond.

2. An apparatus for molding a bonded block comprising a mold section, a collapsible core, means including a head plate for operating the core, a bond and latches slidably mounted in the head plate and designed to engage and support the bond during the molding operation.



3. A collapsible core for molding apparatus including core sections, each formed with locking lugs arranged on their inner sides, means for operating the sections including a head plate, and angle plates secured to and depending from the head plate, said angle plates being arranged to operate between the core sections and each formed with angularly related grooves to receive the lugs on the core sections, and bond-supporting latches slidably mounted in the head plate and projected through openings formed in the angle plates.

940,936. PERMUTATION-LOCK. JOSEPH E. LE MYRE, Nashua, N. H., assignor, by mesne assignments, to Patent Sales Company, Kittery, Me., a Corporation of Maine. Filed Jan. 11, 1909. Serial No. 471,821.



1. In a permutation lock, in combination, a plurality of tumblers, means for locking them together to move in unison forward and backward without lost-motion or play relative to each other in either direction until the tumblers have been respectively set and left at rest, and means for unlocking a tumbler at the start of the movement by which it is set so that there shall be no perceptible release to indicate the point where such tumbler should be set.

2. In a permutation lock, in combination, a plurality of tumblers, means for locking them together to move in unison forward and backward without lost-motion or play relative to each other in either direction until the tumblers have been respectively set and left at rest, a fixed stop defining a dead starting point, and means for unlocking a tumbler at the start of the movement by which it is set so that there shall be no perceptible release to indicate the point where such tumbler should be set.

3. In a permutation lock, in combination, a plurality of tumblers, movable clutch-members for connecting said tumblers to move together backward and forward until the tumblers respectively have been set, and means for successively unclutching the tumblers to enable them to be left at rest in set position.

4. In a permutation lock, in combination, a plurality of tumblers, movable clutch-members connecting said tumblers to move together until the tumblers respectively

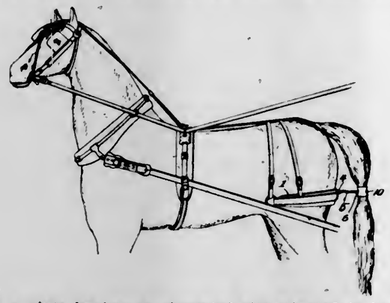
have been set, a fixed stop defining a dead starting point, and means for successively unclutching the tumblers to enable them to be left at rest in set position.

5. In a permutation lock, in combination, a plurality of tumblers, movable clutch-members combining the tumblers in a series moving together in unison forward and backward without lost-motion or play relative to each other until the tumblers respectively have been set, and means for successively unclutching the tumblers to enable them to be left at rest in set position.

[Claims 6 to 23 not printed in the Gazette.]

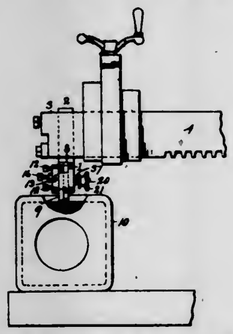
940,937. HORSE-TAIL TETHER. WILLIAM J. MASON, Daphne, Ala. Filed Mar. 10, 1908. Serial No. 420,243.

In a device for the purpose set forth, the combination



with a plate having an elongated slot adapted to be secured to the breeching strap of a harness, a snap hook provided with a resilient element connected with the slot of the plate, a tail engaging member connected with the resilient element, said engaging member comprising a pair of semi-cylindrical elements hingedly connected together and having their ends flared outwardly, one of said elements having its body portion provided with spaced slits and the tongue provided by the slits having its end bent inwardly to form a hook, and the opposite element having its body portion provided with spaced cut away portions adapted to be engaged by the said hook.

940,938. TOOL-HOLDER AND MEANS FOR SETTING THE TOOLS THEREIN. MATTHEW MORTON, Muskegon Heights, Mich. Filed May 28, 1908. Serial No. 435,552.



1. A tool holder comprising a head constructed with oppositely extending diagonal grooves crossing each other intermediate their ends and arranged in different planes to receive and hold tools.

2. A tool holder comprising a head constructed with oppositely extending diagonal grooves crossing each other intermediate their ends and arranged in different planes, and a longitudinal groove crossing the diagonal grooves at the point of their intersection.

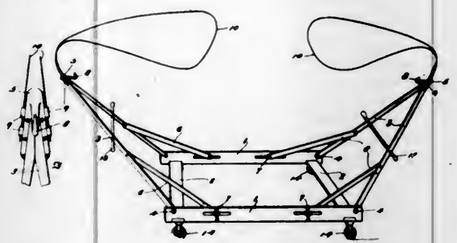
3. A tool holder comprising a head constructed with oppositely inclined diagonal grooves crossing each other intermediate their ends and arranged in different planes with the adjacent sides of the grooves in the same plane, whereby a tool in one groove will engage a tool in the other groove at the crossing point of said grooves.

4. A tool holder comprising a head constructed with oppositely inclined diagonal grooves crossing each other intermediate their ends and arranged in different planes with one groove cutting into the other at their point of crossing, and a longitudinal groove in the plane of the other grooves and crossing said diagonal grooves at their intersection; and means at the intersection of said grooves to engage and hold a tool in any one of the grooves.

5. A tool holder comprising a head constructed with two diagonally extended grooves on different planes to receive corresponding tools, a clamping plate, means to secure the plate upon the head, and means to hold the tools in place, said diagonally extended grooves arranged on different planes whereby the corresponding cutters will overlap the one upon the other.

[Claims 6 to 11 not printed in the Gazette.]

940,939. HAMMOCK-STAND. JAMES B. PATTERSON, Philadelphia, Pa. Filed Aug. 8, 1907. Serial No. 387,629.



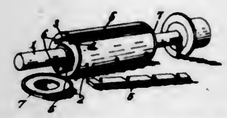
1. A hammock stand comprising a rectangular base consisting of interconnected side and end strips or pieces, pairs of supports pivotally attached to the corners of the frame and consisting of pieces having their upper portions arranged in proximity, caps receiving the upper portions of said support pieces and provided with suspension hooks, and tie braces connected with the supports and having slot and set screw connection with the side pieces of the frame, substantially as described.

2. In a hammock stand a base, a pair of supports pivoted to the base at its ends and having their upper ends in proximity, rollers or casters on the base, handle bars attached to the supports, and a V-shaped cap for connecting the ends of the supports, substantially as described.

3. A hammock stand comprising a base consisting of a rigid rectangular frame having its side pieces arranged vertically and its end pieces horizontally, supports arranged in pairs and the supports of each pair pivoted at one of their ends to the side pieces near the ends thereof and beveled at their other ends and arranged in proximity with each other, a V-shaped cap provided with a hook and applied over the beveled ends of the supports, and braces pivoted at one of their ends to an intermediate portion of the supports and having at their other ends slot-and-pin connection with the side pieces, substantially as described.

940,940. ROTARY CUTTER-HEAD. C OSCAR PORTER, Grand Rapids, Mich. Filed Aug. 14, 1909. Serial No. 512,843.

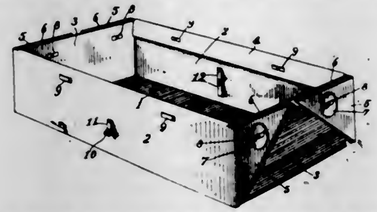
1. A cutter head, comprising a substantially cylindrical body having knife channels arranged chordal therein, radial openings to receive screw heads extending outward from the knife channels, said head also having chip breaker channels substantially radial whereby the chip breakers engage the knives near their outer edges and at an angle thereto, and screws in the radial openings extending through the knives and into the inner part of the head.



2. A cutter head, comprising a substantially cylindrical body having chordal knife channels and substantially radial chip breaker channels, said head also having radial openings extending through the portion outside the knife channels, screws in said openings to hold the knife, and circular cupped caps attached to the ends of the heads.

3. A cutter head, comprising a substantially cylindrical body having chordal knife channels cut therein and substantially radial chip breaker channels joining the knife channel at an angle near the surface of the body, radial openings extending outward from the knife channels, screws in said openings and extending through the knife channels into the body, knives, and chip breakers in said channels, the chip breakers engaging the knives at an angle and near the cutting surface thereof, and adjusting screws embedded in the body and engaging the rear surface of the knives.

940,941. FOLDING BOX. JOSEPH W. PUTNAM, Grand Rapids, Mich. Filed Apr. 12, 1909. Serial No. 489,251.



1. A folding box, comprising a side and end adapted to fold inward and to turn from horizontal to vertical position, a square integral connecting portion between the same foldable into two superposed right-angled triangles upon the outside of the end, the outer triangle having a portion severed therefrom to form a washer, and a staple extending through the washer, the inner triangle and the end and securing the same to each other.

2. A folding box, comprising a bottom, sides and ends foldable inward upon the bottom and adapted to turn to a position at right angles to the same, extensions upon the upper edges of the sides folded inward and secured with their free corners adapted to spring inward and engage the ends to automatically lock the same in vertical position, and means foldable upon the outside of the ends for adjustably connecting the ends and sides at their adjacent ends and supporting the ends against outward movement.

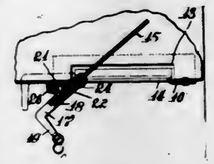
3. A folding box, comprising a bottom, integral sides and ends foldable inward upon the bottom and adapted to turn outward to a vertical position, a square integral portion at each corner folded into two right-angled triangles upon the outside of the box, one of said triangles being secured to the end of the box and supporting the same against outward movement when in vertical position, and extensions on the upper edges of the sides folded inward and adapted to engage the inner surface of the ends and hold them in vertical position.

4. A folding box, comprising a bottom, sides and ends adapted to fold inward upon the same and to turn upward to a vertical position, connecting corner portions between the sides and ends foldable into two superposed right-angled triangles upon the outside of the ends and supporting the same against outward movement, means for permanently securing the inner triangles to the ends, extensions on the upper edges of the sides and folded inward upon the same and also secured thereto and adapted at their ends to automatically engage the inner sides of the ends and hold the same in vertical position.

5. A folding box, comprising a bottom, ends and sides adapted to fold inward upon the same and also to turn to a vertical position, square connecting portions between the ends and sides at the respective corners of the box, said portions being foldable into two superposed right-angled triangles upon the outside of the ends, a portion of the outer triangle being severed therefrom, fastenings extending through said severed portion and the inner triangle and securing the same to the end, and extensions to the upper edges of the sides folded inward upon the same and adapted to engage and hold the ends in vertical position.

[Claim 6 not printed in the Gazette.]

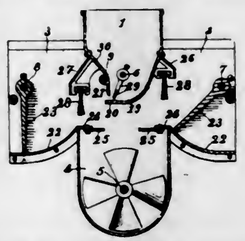
940,942. DAMPER FOR FURNACE OR STOVE PIPES. RICHARD ROUSE, Jr., Elizabeth, N. J., assignor to The Boynton Furnace Company, New York, N. Y., a Corporation of New York. Filed Aug. 25, 1908. Serial No. 450,248.



1. In draft-controlling apparatus, the combination with a door and a pipe, of a frame set into said pipe, a damper hinged in said frame and adapted to swing inwardly, a crank on said damper, said crank extending in the same plane therewith, then extending outwardly at a substantial angle thereto, and flexible means connecting said damper and said door whereby they may be opened and closed, one being opened when the other is closed, and vice versa.

2. In draft-controlling apparatus, the combination with a door and a pipe, of a frame set into said pipe, a damper hinged in said frame and adapted to swing inwardly, a crank on said damper, and extending in the same plane therewith, then extending outwardly at a substantial angle thereto, means on said crank for receiving a weight adapted to counterbalance the weight of said door, and flexible means connecting said damper and said door whereby they may be opened and closed simultaneously one being opened when the other is closed, and vice versa.

940,943. FEED-REGULATOR. GEORGE D. SCHEIFFLER, Jackson, Mich. Filed Feb. 23, 1909. Serial No. 479,428.



1. A feed regulator comprising a hopper having two end walls and one side wall, a stationary concave bottom spaced apart from the side wall at one side, a shaft in the axis of the concave bottom and spaced apart from the side wall, and a swinging wall forming the opposite wall of the hopper, said swinging wall being supported by the shaft and having its lower edge traversing close to the concave bottom.

2. A feed regulator comprising a hopper having two end walls and one side wall, a concave bottom spaced apart from the side wall at one side to form a discharge opening, a shaft in the axis of the bottom and journaled in the end walls, a swinging wall supported by the shaft and forming the opposite wall of the hopper and means for oscillating the shaft and the swinging wall.

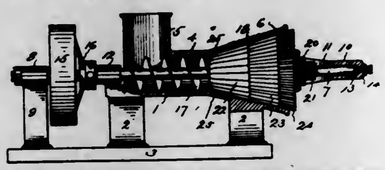
3. A feed regulator, comprising a hopper having a concave bottom and a horizontal extension to the same, a side opening above said extension, a swinging gate in said opening, means for adjusting the gate, a rock shaft in the axis of the bottom, and a bar attached to the shaft and oscillating close to the bottom of the hopper.

4. A feed regulator, comprising a hopper having a concave bottom and a horizontal extension at one side of the same, a rock shaft in the axis of the said bottom, a swinging wall to the hopper supported by the rock shaft at the upper edge and traversing the bottom at the lower edge, and a brush above the said extension and spaced apart therefrom.

5. A feed regulator, comprising a hopper having a concave bottom and a side opening, a horizontal extension beneath said opening, an adjustable member attached to said extension, a brush in the upper part of said opening and above the horizontal extension, a rock shaft in the axis of the bottom, and a swinging wall attached to the rock shaft at its upper edge and traversing the bottom at its lower edge.

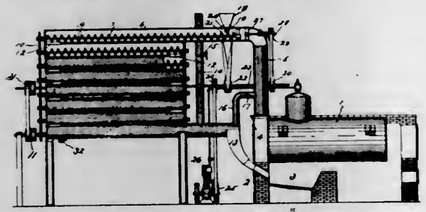
[Claims 6 and 7 not printed in the Gazette.]

940,944. MACHINE FOR CONDENSING PEAT. WILBUR L. SHEPARD, Elmwood, Conn., assignor of one-half to Horace J. Wickham, Manchester, Conn. Filed Jan. 4, 1909. Serial No. 470,580.



A machine having a casing with an inlet hopper at one end, a cylindrical intermediate section, and a tapering discharge section at the other end, a shaft extending through the casing, means for rotating the shaft, a feed worm mounted on the shaft below the hopper and in the cylindrical section of the casing, the diameter of said worm being approximately the same as the interior diameter of the said cylindrical section, a cone with cutting blades on its exterior splined on the shaft in the tapering section of the casing with its small end adjacent to the end of the feed worm, means turning on the shaft for adjusting the cone longitudinally thereof and independently of the feed worm, a yoke supporting the discharge end of the shaft, and an adjustable thrust bearing for the shaft arranged in the yoke.

940,945. FUEL-PRODUCER. WILBUR L. SHEPARD, Elmwood, and HORACE J. WICKHAM, Manchester, Conn. Filed May 3, 1909. Serial No. 493,519.



1. In combination with a furnace, communicating tubes, conveyers in said tubes, means for driving the conveyers, a connection between the smoke box of said furnace and the tubes, a connection between the fire box of said furnace and the tubes, a blower for producing a draft from the fire box through the tubes, means for admitting peat to the tubes, and means for discharging peat from the tubes into the fire box.

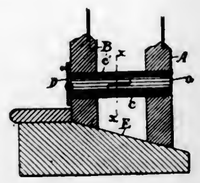
2. In combination with a furnace, parallel tubes with communications from one to the other at opposite ends, conveyers in said tubes, means for driving the conveyers, a connection between the smoke box of said furnace and the tubes, a connection between the fire box of said furnace and the tubes, a blower for producing a draft from the fire box through the tubes, means for admitting peat to the tubes, and means for discharging peat from the tubes into the fire box.

3. In combination with a furnace, parallel tubes that communicate with each other at opposite ends, conveyers in said tubes, means for driving the conveyers alternately in opposite directions, a connection between the smoke box of said furnace and the tubes, a connection between the fire box of said furnace and the tubes, a blower located in one tube, means for driving the blower and producing a draft from the fire box through the tubes, means for admitting peat to the tubes, and means for discharging peat from the tubes into the fire box.

4. In combination with a furnace, parallel tubes communicating with each other at opposite ends, conveyers in said tubes, means for driving the conveyers, a connection between the smoke box of said furnace and the tubes, a connection between the fire box of said furnace and the tubes, a blower arranged in the connection between the smoke box and the inlet to the tubes, means for rotating the blower, and means for admitting peat to the tubes and discharging it therefrom.

5. In combination with a furnace, parallel tubes communicating with each other at opposite ends, spiral conveyers in said tubes, gearing for driving the spiral conveyers, a connection between the smoke box of said furnace and the tubes, a connection between the fire box of said furnace and the tubes, a blower for producing a draft from the fire box through the tubes, and means for admitting peat to the tubes and discharging it therefrom.

940,946. CAR-WINDOW VENTILATOR. DAVID W. SNOW, Portland, Me. Filed Apr. 26, 1909. Serial No. 492,340.

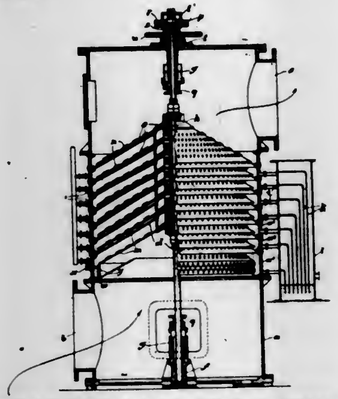


1. The herein described ventilator for double windows, consisting of a ventilating tube extending through the inner and outer windows, said tube being in two parts having a breakable interfitting jointure and capable of separating when the inner window is raised.

2. The herein described ventilator for double windows consisting of a tube extending through the inner and the outer windows said tube being made in two sections having adjacent abutting ends forming a vertically separable joint, a semicylindrical plate secured to the inner tube section and covering the upper portion of said joint and a like plate secured to the outer tube section covering the lower portion of said joint.

3. The herein described ventilator for double windows consisting of a tube extending through the inner and the outer windows, said tube being made in two sections having adjacent abutting ends forming a vertically separable joint, a semicylindrical plate secured to the inner tube section and covering the upper portion of said joint and a like plate secured to the outer tube section covering the lower portion of said joint, the edges of one of said semicylindrical plates overlapping and inclosing the edges of the other plate.

940,947. APPARATUS FOR SEPARATING PARTICLES OF LIQUID FROM GASES AND VAPORS. MORITZ STEGER, Bochum, Germany. Filed July 1, 1909. Serial No. 505,352.



1. A device of the character described, comprising a casing, a series of inclosed perforated movable plates, a series of intervening perforated fixed plates, and vanes projecting from the fixed plates.

2. A device of the character described, comprising a casing, a series of inclosed perforated movable plates, a series of intervening perforated fixed plates, and inclined integral vanes projecting from the fixed plates.

3. Apparatus for separating, from gases or vapors, particles of liquid such as tar, oil and the like, comprising a casing having inlet and eduction orifices, fixed perforated conical baffle plates in said casing and perforated rotary baffle plates fixed to vertical axle and alternating with said fixed plates, each of said fixed baffle plates being joined to the wall of the casing to form therewith an annular trough substantially as described.

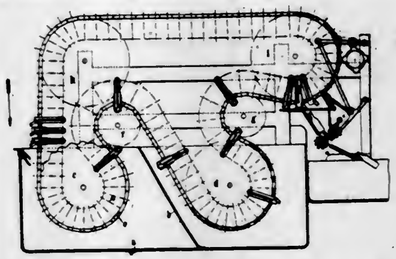
4. Apparatus for separating, from gases or vapors, particles of liquid such as tar, oil and the like, comprising a casing having inlet and eduction orifices, fixed perforated conical baffle plates in said casing, and perforated rotatory baffle plates fixed to vertical axle and alternating with said fixed plates each of said fixed baffle plates being joined to the wall of the casing to form therewith an annular trough and the annular trough being collectively in communication with a discharge receptacle, substantially as described.

5. Apparatus for separating, from gases or vapors, particles of liquid such as tar, oil and the like, comprising a casing having inlet and eduction orifices, fixed perforated baffle plates in said casing, and rotatory perforated baffle plates alternating with said fixed baffle plates, the distance between the fixed plates and rotatory plates being adjustable from outside the casing, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

940,948. MACHINE FOR CLEANSING BOTTLES AND SIMILAR VESSELS. LUCIEN STRASBURGER and LOUIS GRANGES, Paris, France. Filed Apr. 27, 1909. Serial No. 492,461.

1. In a machine for washing, injecting fluid into the interior of, and rinsing, bottles or similar receptacles with a mechanical conveyer passing through appropriate baths, a device for supporting the bottles or the like characterized by a thin cross piece (k) rigidly connected with or forming one of the elements of the conveyer and formed with holes for the passage of the bodies of the bottles, a relatively fixed support for supporting the necks of the bottles and a rocking support n for supporting the bottoms of the bottles for the purpose of dispensing with recesses and rendering the whole of the exterior of the bottles accessible for cleansing purpose.



2. In a machine for washing, injecting fluid into, and rinsing bottles or similar receptacles with a mechanical conveyer passing through appropriate baths a support constituted by tubes extending into and almost to the bottoms of the bottles and rigid with a collector or injection pipe (r) and supported by arms (j) for the purpose of utilizing these supports for injecting liquid inside the bottles during their passage through the baths and owing to the eddies caused in these baths as a result of this injection facilitating the washing of the outside of the bottles.

3. In a machine for washing, injecting fluid into, and rinsing bottles or similar receptacles with a mechanical conveyer passing through appropriate baths an injection distributer device characterized by the fact that between the receiver and the injection distributer a hemispherical cup is interposed, this cup being held upon the injection receiver by a resilient pressure, the device constituted by this cup and the receiver being applied resiliently in the injection distributer for the purpose of making a good joint between the injector member and the distributer in spite of any alteration of level which may occur.

4. In a machine for washing, injecting fluid into, and rinsing bottles or similar receptacles with a mechanical conveyer passing through appropriate baths an injection distributer device characterized by the combination with a wheel (u) formed with perforations (v) forming an injection distributer and moving opposite a cavity (1) formed in a fixed plate (x) held resiliently against the wheel and provided with an admission socket (2) and with a hemispherical cup (w) the spherical face of which is held resiliently against the open end of an injection collector (r), the plane face (10) of this cup being held against the wheel (u) by the resiliency of the supports (j) of the collector (r).

5. In a machine for washing, injecting fluid into and rinsing bottles or similar receptacles with a mechanical conveyer passing through appropriate baths, a device for supporting the receptacles characterized by a thin cross piece (k) rigidly connected with or forming one of the elements of the conveyer and formed with holes for the passage of the bodies of the bottles, a relatively fixed tubular support for supporting the necks of the bottles and a rocking support n for supporting the bottoms of the bottles, said relatively fixed tubular support carrying tubes extending into and almost to the bottom of the bottles and serving as an injection receiver for injecting liquid inside the bottles.

[Claims 6 to 10 not printed in the Gazette.]

940,949. OIL-BURNER. WALTER SUTTON, Sacramento, Cal. Filed Aug. 18, 1908. Serial No. 449,119.

1. An oil-burner comprising an outer pipe, an inner pipe spaced from the outer pipe and terminating short of the discharge end of the outer pipe, said inner pipe having an opening in its extremity and provided at intervals

in its length with holes laterally and forwardly inclined relatively to the longitudinal axis of the pipe, an oil supply connection to the outer pipe, a steam or air connection to the inner pipe, and a discharge tip fitted to the end of the onter pipe.

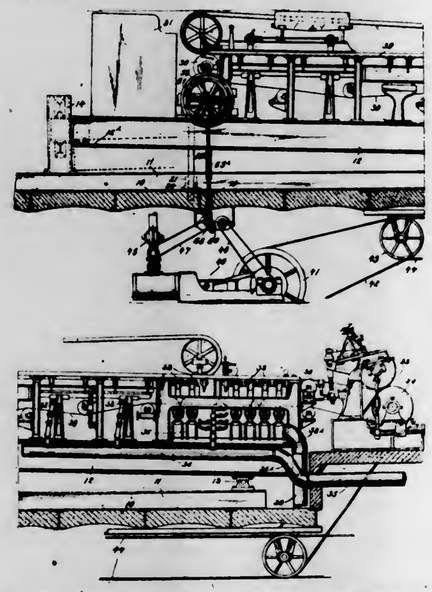


2. An oil-burner comprising an outer pipe, an inner pipe spaced from the outer pipe and terminating short of the discharge end of the outer pipe, said inner pipe having an opening in its extremity and provided at intervals in its length with holes laterally and forwardly inclined relatively to the longitudinal axis of the pipe, an oil-supply connection to the outer pipe, a steam or air connection to the inner pipe, and a discharge tip fitted to the end of the outer pipe, the discharge tip having a slot with a straight upper wall and a lower wall inclined relatively to the upper wall the space between the walls being unobstructed.

3. An oil-burner comprising an outer and inner pipe, said inner pipe having an opening in its extremity, and provided, at intervals in its length, with holes laterally and forwardly inclined relative to the longitudinal axis of the pipe; an oil-supply connection to the outer pipe; a steam or air connection to the inner pipe; and a discharge tip fitted to the end of the outer pipe, said tip having a burner slot with a straight upper wall and a lower wall inclined relative to the upper wall.

4. An oil burner comprising an outer and an inner pipe, the inner pipe having a slitted forward terminal, and a plurality of holes each spaced from one another longitudinally of the inner pipe and disposed to provide a helical course about the same and each of said holes sloping laterally and forwardly, and a discharge tip fitted to the outer pipe.

940,950. PAPER-MAKING MACHINE. JOSEPH H. WALLACE, New York, N. Y. Filed Mar. 9, 1908. Serial No. 419,846.



1. In a paper making machine, a complete Fourdrinier wire and its supports, a flow-box; a frame upon which said supports and flow-box are mounted, means for maintaining one end of the frame at an approximately fixed level, and means for raising and lowering the other end of said frame.

2. In a paper making machine, a complete Fourdrinier wire, supporting mechanism therefor, a frame upon which said supporting mechanism is mounted, a flow-box also mounted upon said frame; a pivotal support for the rear end of the frame, and an adjusting mechanism supporting the forward end of the frame and arranged to vary the height thereof.

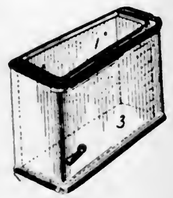
3. In a paper making machine, a Fourdrinier mechanism comprising a Fourdrinier wire and its supports, a suction device and showers; a frame upon which said Fourdrinier mechanism and its associated parts are mounted, a flow-box also mounted upon said frame; a hinge device supporting the rear end of the frame, a screw mechanism supporting the forward end of the frame and arranged to vary the height of the forward end of the frame, and flexible conductors connected with the suction device and showers.

4. In a paper making machine, a Fourdrinier mechanism, a frame supporting said mechanism, means for driving the machine, and mechanism for raising or lowering one end of the frame and at the same time increasing or decreasing the speed at which the machine is driven.

5. In a paper making machine, a Fourdrinier mechanism, a frame supporting said mechanism, means for driving the machine, associated mechanism for raising or lowering one end of the frame and for together or separately increasing or decreasing the speed at which the machine is driven.

[Claims 6 to 10 not printed in the Gazette.]

940,951. TANK FOR WATER-CLOSETS, &c. GEORGE H. BAILEY, Pittsburg, Pa. Filed Nov. 16, 1908. Serial No. 462,855.



1. A flushing or like tank composed of sheet metal having its front and end walls formed from a single sheet and the bottom and rear wall formed from another sheet bent to shape, said sheets being joined at the bottom and the rear vertical corners.

2. A flushing or like tank composed of metal having its front and end walls formed from a single sheet bent to shape and the rear wall and bottom formed from another sheet bent to shape, said sheets being welded together at the bottom and rear vertical corners.

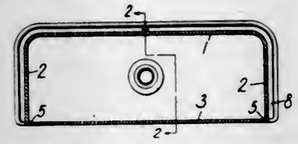
3. A flushing or like tank composed of metal having its front and end walls formed from a single sheet bent to shape and having the bottom and back welded to the sheets forming the front and end walls.

4. A flushing or like tank composed of sheet metal and having double front and end walls with an air space therebetween and having a single sheet rear wall and bottom united to the sheets forming the inner and outer front and end walls, the inner front and end walls being corrugated.

5. A flushing or like tank composed of sheet metal having double front and end walls with an air space therebetween and having a single rear wall and bottom welded to the sheets forming the inner and outer front and end walls.

[Claims 6 to 17 not printed in the Gazette.]

940,952. TANK FOR WATER-CLOSETS, &c. GEORGE H. BAILEY, Pittsburg, Pa. Filed Nov. 16, 1908. Serial No. 462,858.



1. A flushing tank composed of sheets of metal having its end and front walls and its bottom welded at the outer bottom corners and projecting outwardly at said corners to form a gutter at the lower edges of its walls, and a drainage connection from said gutter.

2. A flushing tank formed of sheet metal having its end and front walls and its bottom welded at the outer bottom corners and projecting outwardly to form a gutter at the lower edges of its walls, a flushing pipe connected to said tank, and a drainage passage from said gutter to said flushing pipe.

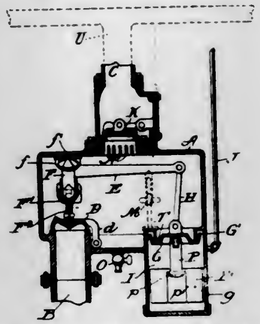
3. The combination of a flushing tank, a pan underneath said tank in position to receive the condensation from the walls thereof but not projecting beyond the sides and ends of said tank, an outlet pipe, and a drainage passage from said pan to said outlet pipe.

4. The combination of a flushing tank, a shallow pan underneath said tank in position to receive the condensation from the walls of the tank, an outlet pipe, a drainage passage from said pan to said outlet pipe, and a check valve in said passage.

5. The combination of a flushing tank provided at the bottom of its walls with a gutter, a pan underneath said tank, and a drainage passage from said gutter to said pan.

[Claims 6 and 7 not printed in the Gazette.]

940,953. FIRE-EXTINGUISHER VALVE. ALBERT BLAUVELT, Chicago, Ill. Filed May 2, 1902. Serial No. 105,697.



1. Automatic valve mechanism for sprinkler systems comprising a valve casing having communication with a water supply and with the sprinkler system, an inlet valve within the casing for governing said supply a valve governing the communication with the system, a toggle arranged within the casing but adapted when the toggle members are in alinement to hold said inlet valve closed, and an air trip valve independent of the aforesaid valves held in normal position by the pressure of the system and actuated by its gravity when such pressure is released; substantially as described.

2. In automatic valve mechanism for sprinkler systems, the combination with a suitable water inlet valve, and a valve governing communication with the system, of a toggle forming a straight strut when bearing upon the valve to close it, an operating arm positively connected to the toggle, and an air trip valve operatively connected to said arm independent of the aforesaid valves and held in normal position by the pressure of the system and actuated by its gravity when such pressure is released; substantially as described.

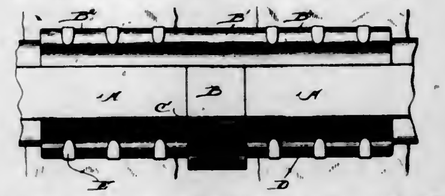
3. In automatic valve mechanism for sprinkler systems, the combination with a suitable water inlet valve, of a toggle forming a straight strut when bearing upon the valve to close it, an operating arm connected to the toggle, a trip-valve controlled by the air pressure of the system and a pivoted link between the trip-valve and said operating arm said link being pivoted to the trip valve and operating arm respectively; substantially as described.

4. A casing having a water inlet and a water outlet, a valve governing said inlet, a toggle bearing against the casing at one end and against the inlet valve at the other to hold it seated, and an air trip valve normally held seated against the force of gravity by the pressure of the system and positively connected with said toggle to flex the same when the pressure in the system is diminished and the valve falls.

5. A casing having a water inlet and a water outlet, a valve governing said inlet, a toggle comprising two members bearing against the casing at one end and against the inlet valve at the other to hold it seated, one of said toggle members having an arm rigidly secured thereto, and an air trip valve normally held seated against the force of gravity by the pressure of the system, and a link pivotally connected with said last mentioned valve and also pivotally connected with the arm upon the toggle, whereby said toggle is flexed when the pressure in the system is diminished and the valve falls.

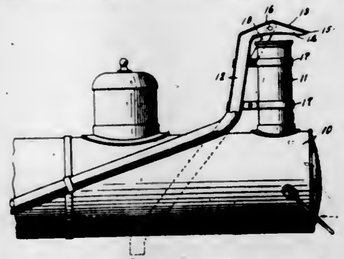
[Claims 6 to 18 not printed in the Gazette.]

940,954. RAIL CONNECTION. WILLIAM C. BOPP, Arcadia, Mo. Filed Sept. 30, 1907. Serial No. 395,228.



A rail connection comprising a short, thickened rail portion on one side, wings extending in opposite directions from said thickened portion, said wings being upwardly and inwardly curved on their outer faces and hollowed out on their inner faces and bearing against the under faces of the ball of adjacent rails, a chair carried by the short rail portion and a tie plate corresponding in cross section to the wings, said wings and tie plate forming oppositely inclined braces for the rail tread.

940,955. SPARK-ARRESTER. LEWIS A. COLEMAN, Norfolk, Va., assignor of one-third to E. D. Hobbs, Norfolk, Va. Filed July 17, 1909. Serial No. 508,191.



1. A device of the character described comprising a hood and a conduit communicating with the under side of said hood, said hood having downwardly and inwardly

turned edges terminating short of each other at the front end of said hood and leading into said conduit at the rear end of said hood, whereby the air has access to the said side edges and the products caught by said side edges are discharged into said conduit.

2. In combination, a moving generator, an outlet for the products of combustion from said generator, an oblong hood placed in juxtaposition to said outlet, and a conduit communicating with the under side of said hood, said hood comprising a plate having downwardly and inwardly turned side portions opening on the front end of the hood and leading at their rear ends into said conduit whereby the products caught in said side portions are swept into said conduit.

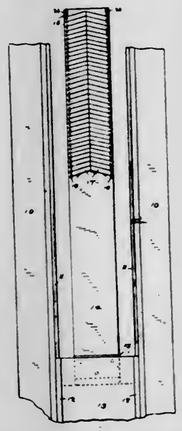
3. In combination, a moving generator, an outlet for the products of combustion from said generator, a conduit leading from a point above said outlet to a point of discharge, and a plate having downwardly and inwardly turned side edges extending from the top of said conduit and over said outlet in the path of the products of combustion issuing therefrom, said side edges terminating short of each other at the front end and leading into said conduit at the rear end of said plate.

4. In combination, a moving generator, an outlet for the products of combustion therefrom, a pointed deflector in juxtaposition to said outlet and having downwardly and inwardly turned edges, there being an opening between said edges at the front end of said deflector, and the pointed end of said deflector extending in the direction of movement of said generator, and a conduit communicating with the under side of said deflector for receiving products of combustion from said outlet.

5. In combination, an outlet for the products of combustion from a generator, a hood in juxtaposition to said outlet, said hood comprising a main body portion and depending trough-shaped portions on each side of said main body portion, each of said portions being tapered to the front end of the hood, and a conduit communicating with the hood at its rear end and on its under side.

[Claim 6 not printed in the Gazette.]

940,956. LIFTING-BOARD FOR DROP-HAMMERS. GEORGE W. CONKLIN, Shelton, Conn. Filed Jan. 7, 1909. Serial No. 471,133.



1. A lifting board of the character described, comprising a metallic skeleton having dove-tail grooves on opposite sides and non-metallic engaging strips having dove-tails engaging said grooves.

2. A lifting board of the character described, comprising a metallic skeleton having oblique dove-tail grooves on opposite sides and non-metallic engaging strips having dove-tails engaging said grooves.

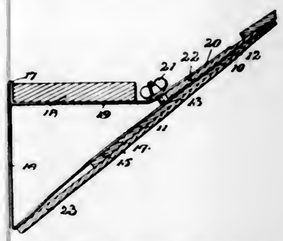
3. A lifting board of the character described, comprising a metallic skeleton having oblique dove-tail grooves on opposite sides, the grooves upon one side inclining from the edges upward to the center and the grooves on the opposite side inclining downward from the edges to the center and non-metallic engaging strips having dove-tails engaging said grooves.

4. A lifting board of the character described, comprising a metallic skeleton having dove-tail grooves on opposite sides, non-metallic engaging strips having dove-tails engaging said grooves and means for locking the engaging strips against displacement.

5. A lifting board of the character described, comprising a metallic skeleton having dove-tail grooves on opposite sides, non-metallic engaging strips having dove-tails engaging said grooves, retaining strips for locking the engaging strips against displacement and means for locking the retaining strips.

[Claims 6 and 7 not printed in the Gazette.]

940,957. SHINGLE-BRACKET. JOHN B. DEMARY, Plattsburg, N. Y. Filed Feb. 20, 1909. Serial No. 479,148.



1. A bracket as specified comprising a metallic strip so bent as to form an arm, a standard disposed at an acute angle to said arm at the lower end thereof, a flange formed at the upper end of said standard, a brace inwardly extended from the upper end of the standard and a clamping arm curved upwardly from the brace in parallel to said first arm, a bolt positioned in rigid relation to said first arm and loosely engaged through an aperture formed in said clamping arm, a winged-nut positioned in threaded engagement upon said bolt adapted for engagement against the upper face of said clamping arm and lugs projected upon the under faces of said arms.

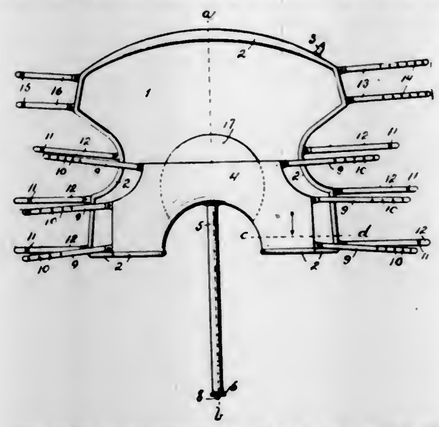
2. A bracket as specified comprising a metallic strip bent to form an arm for engagement upon a shingle roof, the upper extremity of said arm engaged beneath a shingle upon the roof, a standard vertically extended upon the lower end of said arm, a brace inwardly extended from the upper end of said standard, a flange formed vertically upon the upper end of said standard and a clamping arm curved upwardly from said brace in parallel with said first arm, lugs carried by said arms for engagement with the upper faces of the shingle of the roof and a clamping bolt secured to said arms for binding the same upon the opposite sides of the interposed shingle of the roof.

940,958. BED-PAD. JENNIE P. DUVAL, Kansas City, Mo. Filed July 15, 1908. Serial No. 443,641.

1. A bed pad comprising a body of flexible material impervious to water and having at one end an arcuate notch, a flap joined to the body the full extent of the notch and adapted to extend above and at each side of the notch to embrace the abdomen and legs of a person, the body having portions extending laterally from each side of the notch and which coöperate with the flap to embrace the legs of the person below the apex of the notch.

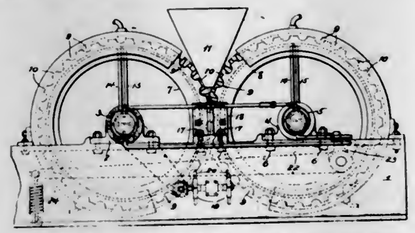
2. A bed pad comprising a body of flexible material impervious to water and having at one end an arcuate notch, a flap joined to the body the full extent of the notch and adapted to extend above and at each side of the notch to embrace the abdomen and legs of a person, the body

having portions extending laterally from each side of the notch and which coöperate with the flap to embrace the legs of the person below the apex of the notch, the body and flap having an inflatable portion which extends along the upper, side and lower edges of the body and along the



lower edges of the portions of the flap which encircle the legs, releasable means for securing together opposing portions of the body and flap where they embrace the legs, and a drainage tube which connects to the body at the apex of the arch.

940,959. BRIQUETING-MACHINE. FRANK H. ELSWORTH and CHARLES L. DOWELL, Anderson, Ind. Filed Mar. 20, 1906. Serial No. 307,093.

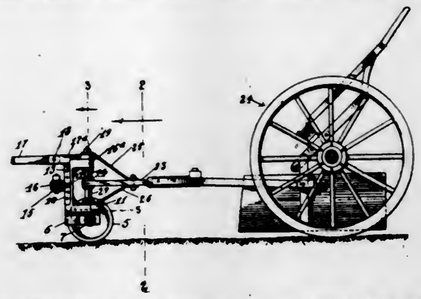


In a machine of the character described, the combination with two mold wheels having peripheral molds, of intermeshing gears driving said wheels, movable bearing boxes for one of said wheels and gears to compensate for an excess of material in the molds between the wheels, bell-crank-levers, each having its short arm bearing against a movable bearing box, and a spring connected with the long arms of said bell-crank-levers.

940,960. TONGUE-SUPPORT. WILLIAM C. D. EVANS, Whittier, Cal., assignor of one-half to W. S. Keen, Whittier, Cal. Filed Jan. 9, 1909. Serial No. 471,427.

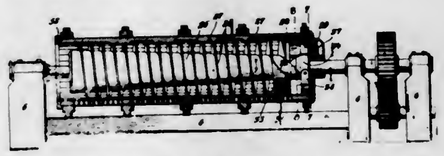
1. A pole support comprising an axle; wheels supporting the axle; a U-shaped draft frame pivotally connected to said axle and having the upper or free end thereof adapted to oscillate in the direction of the length of the axle; a pole connected to the top of said draft frame, said pole being pivotally connected to swing vertically near its connection to said frame; an implement tongue connected to said draft frame between the U arms and adapted to move horizontally; and means vertically adjustable secured to the draft frame opposite the implement tongue, whereby the draft animals may be hitched to the same.

2. A pole support comprising an axle; a base plate secured upon the top of said axle; said base plate having an upwardly projecting rib with an upper curved surface running at right angles to the length of the axle and having a longitudinal channel in said base plate and a transverse slot in the upper portion thereof; wheels supporting said axle; a U-shaped draft frame having a base plate with a groove in the bottom thereof adapted to fit upon



the base plate on the axle; a bolt connecting said base plate and draft frame; a guiding tongue therein secured upon the top of said draft frame, said tongue being pivotally connected to swing vertically; and an implement tongue having braces pivotally secured to said draft frame.

940,961. PRESS. JOHN C. FIDDYMENT, Lockport, Ill., assignor to Continuous Extracting Press Corporation, New York, N. Y., a Corporation of Virginia. Filed Nov. 30, 1908. Serial No. 465,154.



1. In an expressing press, a press chamber provided with a valved opening to allow for the escape of a portion of the compressed material for the purpose of relieving excessive pressure within the press chamber.

2. In an expressing press, a press chamber provided in the wall thereof with one or more pressure relief openings, each of which is controlled by a valve which operates automatically.

3. In an expressing press, a press chamber provided at intervals in its length with pressure relief openings, in combination with valve controlling said openings and adapted to be unseated by excessive pressure of the material within the press chamber.

4. In an expressing press, the combination with the wall of the press chamber, of means associated with said wall operating to relieve the excessive pressure of the material against said wall.

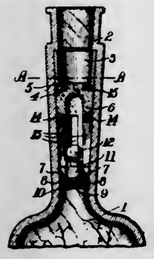
5. In an expressing press, a press chamber having an opening through the wall thereof, a pressure-relief valve controlling said opening, and means for regulating the degree of resistance of said valve.

[Claims 6 to 23 not printed in the Gazette.]

940,962. NON-REFILLABLE BOTTLE. LANGDON C. FOSTER, Fulton, N. Y. Filed Oct. 21, 1908. Serial No. 458,850.

1. A non-refillable bottle having an interior shoulder in the neck thereof, a plug adapted to be inserted into the neck of the bottle and having a ductile metal portion engaging said shoulder and having a member provided with an exterior spiral groove for the passage of liquid and having a valve seated within the grooved member and adapted to close the communication between the mouth

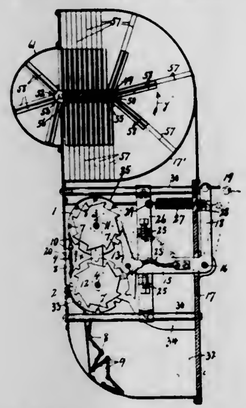
and body of the bottle and a compressible gasket on the exterior of the plug and bearing against the inner surface of the bottle, substantially as described.



2. A bottle provided with an interior shoulder, a plug having a metallic ductile cup-shaped member engaging said shoulder, and having an exit port in the bottom of said cup, said plug having below said cup member a tortuous exit passage leading to the port and to the interior of the plug and a compressible sealing gasket between the lower end of the plug and the bottle, and a valve in said plug, substantially as described.

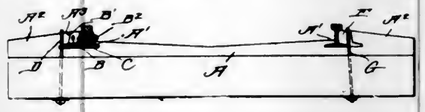
3. A bottle provided with an interior plug having a ductile metal cup-shaped locking member, a hollow valve cage member secured to said locking member and communicating with the interior of the body of the bottle, a valve seated in said cage member, said cage member having slots in its wall and tortuous exterior grooves leading from said slots, said locking member provided with ports registering with said grooves, and a sealing gasket on the lower end of the plug, substantially as described.

940,963. COMBINED STREET-INDICATOR AND ADVERTISING DEVICE. JAMES H. GOODIER, Utica, N. Y. Filed July 29, 1907. Serial No. 386,016.



In a street indicator, a casing having a sight opening, reels journaled within the casing in planes above and beneath said sight opening, gears for transmitting positive rotation from one reel to the other, each reel being provided at its ends with a pair of disks having notches in their peripheries spaced equidistant apart, an apron having laterally projecting studs or pins engaging in the notches in the reels as the latter are rotated, name plates detachably secured to the apron between the axes of adjacent studs, said apron having disconnected ends, separate pockets in the casing for receiving the separate ends of the apron, guide plates for deflecting the ends of the apron from the reels into their respective pockets, separate ratchet wheels, each secured to one of said reels, a bell crank lever fulcrumed on the case and having one arm extending in close proximity to the ratchet wheels, operating means attached to the other arm of the lever for moving the latter in one direction, a retracting spring for said lever, a double pawl pivoted to the lever arm nearest the ratchet wheels and having its opposite ends movable into and out of engagement with their respective ratchet wheels, manually operated means for shifting said pawl, yielding means for holding said pawl in its shifted position, and adjustable limiting stops at opposite sides of the lever arm nearest the ratchet wheels for limiting the movement of said lever and pawl carried thereby.

940,964. CLAMP AND RAIL-BRACE. JOHN J. GRIFFIN and AUGUSTUS W. MUTH, Sparks, Ga. Filed Feb. 2, 1909. Serial No. 475,613.

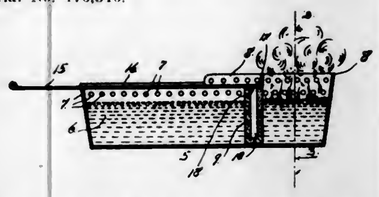


1. A clamp and rail brace comprising a sleeper bar provided with grooves having projecting tongues adapted to receive the rails, the outside tongues being provided with beveled faces and clamping members provided with beveled faces co-acting with said tongues adapted to engage said rails, and staples for securing said clamping members in position in said grooves.

2. A clamp and rail brace comprising a sleeper bar adapted to be arranged on a tie, said bar being provided with grooves having inwardly projecting tongues, two of said tongues being provided with beveled faces and the other two having straight faces adapted to engage the web of the rails, clamping members provided with beveled faces arranged in said grooves co-acting with the beveled faces of the tongues, and staples arranged over said clamping members extending into the tie for holding said clamping members and sleeper bar in position.

3. A rail brace and clamp comprising a sleeper bar having grooves to receive rails, clamping members arranged in said grooves engaging the outside of said rails, and staples arranged over said sleeper bar engaging said clamping members and extending into the tie for holding said sleeper bar and clamping members in position.

940,965. ORCHARD-HEATING DEVICE. JAMES L. HAMILTON, Grand Junction, Colo., assignor of one-fourth to W. R. Haines and one-fourth to Charles Van Hoosebeke, Grand Junction, Colo. Filed Jan. 2, 1909. Serial No. 470,546.



1. A heating device, for the purpose stated, comprising a receptacle for liquid fuel, a partition or bulk head located therein dividing the receptacle into two compartments, the said partition being adjustably mounted in the receptacle and arranged to permit the flow of fuel from one side of the partition to the other, for the purpose set forth.

2. A device of the class described, comprising a receptacle for liquid fuel, a partition or bulk head adjustable longitudinally therein and arranged to permit the flow of fuel from one side of the partition to the other, and a cover slidably mounted on the receptacle, for the purpose set forth.

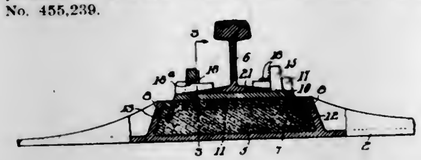
3. An orchard heater comprising a liquid fuel receptacle, an adjustable bulk head arranged to permit the flow of fuel from one side of the bulk head to the other, and a cover movably mounted on the receptacle.

4. A heater of the class described, comprising a liquid fuel receptacle, a partition separating the receptacle into two compartments and arranged to permit the flow of fuel from one side of the partition to the other, and a cover adjustably mounted on the receptacle, the latter being provided with perforations below the plane of the cover and above the level of the liquid fuel, substantially as described.

5. A heater of the class described, comprising a receptacle for liquid fuel, a cover adjustably mounted thereon, a partition dividing the receptacle into two compartments, one of which forms a combustion chamber, the partition being adjustable and arranged to permit the flow of fuel from one side thereof to the other, the walls of the portion of the receptacle forming the combustion chamber being somewhat higher and provided with perforations above the plane of the cover, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

940,966. METALLIC TIE AND RAIL-FASTENING. GUSTAV A. HASSEL, McKeesport, Pa., assignor to Pittsburgh Track Specialty Company, Pittsburg, Pa., a Corporation of Delaware. Filed Sept. 29, 1908. Serial No. 455,239.



1. The combination with a metallic-tie having a pocket, an insulating filling in the pocket, of a metallic tie-plate having an upwardly extending-member, a downwardly extending member projecting into the pocket and embedded in the filling, and a member engaging the upwardly extending member of the tie-plate for securing a rail thereto.

2. The combination with a metallic-tie formed with a recess, of a metallic tie-plate having a member projecting upwardly therefrom and a member projecting into the recess, means for securing the tie-plate to the tie, and means engaging the upwardly projecting member for securing a rail to the tie-plate.

3. The combination with a metallic-tie having a pocket, of a filling in the pocket, a tie-plate having an apertured upright-member, a downwardly extending member projecting into the pocket and embedded in the filling, and a clamp engaging the upright-member and the base of a rail.

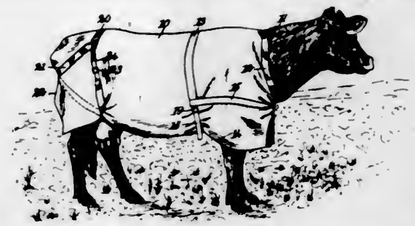
4. The combination with a metallic-tie having a recess, a filling in the recess, of a metallic-tie-plate having an apertured upright-member and a member projecting into the recess, and means for securing a rail to the tie-plate comprising a member projecting through the upright-member.

5. The combination with a metallic-tie having a recess, a filling in the recess, a metallic tie-plate having an apertured upright-member and a member projecting into the recess, and means for securing a rail to the tie-plate comprising a grooved clamp-member projecting through the upright-member and a key extending into the upright-member and having a portion located in the groove of the clamp-member.

[Claims 6 to 8 not printed in the Gazette.]

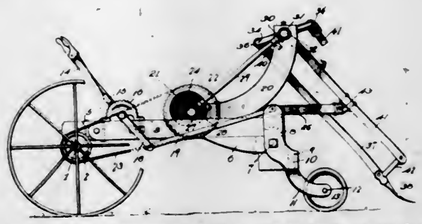
940,967. ANIMAL-COVER. CHARLES L. HASTINGS, Fond du Lac, Wis. Filed Jan. 27, 1909. Serial No. 474,425.

An animal cover, comprising a blanket having a short back-band extending transversely of said blanket, hip-bands secured at the terminals of said back-band and extending longitudinally of said blanket, said hip-bands being adapted to pass inside of the hind legs of the animal, said back band having tabs at the ends extending in the direction of the length of said back-band, each of said



hip-bands having a buckle for removably attaching to one of said tabs.

940,968. HAY-TEDDER. JOHN F. HERMANN, Moline, Ill. Filed Nov. 18, 1908. Serial No. 463,219.



1. A tedder comprising a frame, standards carried by one end of said frame, a crank shaft mounted in the upper ends of said standards, tedding forks swiveled to the cranks of said crank shaft, fork operating arms swiveled to said crank shaft and having a pivotal connection with said forks, and arms having a swiveled connection with said fork operating arms.

2. A tedder comprising a frame, standards carried by one end of said frame, a shaft journaled in the lower end of said standards, eccentrics mounted on said shaft, arms connected to said eccentrics, a crank shaft journaled in the upper ends of said standards, tedding arms mounted on the cranks of said crank shaft and carrying forks at their free ends, fork operating arms carried by said crank shaft and having their lower ends pivotally connected with said forks and their intermediate portions connected with the eccentrically mounted arms, and means for rotating both of said shafts to cause the eccentrically mounted arms to impart an outward and inward movement to the fork operating arms, and an upward and downward movement to said tedding arms and said fork operating arms in alternation.

3. A tedder comprising a frame, standards carried by one end of said frame, a shaft carried by the lower end of said standards, arms eccentrically connected with said shaft, a shaft carried by the upper end of said standard and provided with a plurality of cranks arranged in alternation, tedding arms loosely connected with said cranks, and provided with forks at their free ends, fork operating arms loosely connected with said shaft adjacent to each crank, a pivotal connection between said forks and said fork operating arms, and a pivotal connection between said eccentrically connected arms and said fork operating arms.

4. A tedder comprising a frame, standards carried by one end of said frame, a shaft journaled in the lower end of said standards, arms eccentrically connected with said shaft, a shaft journaled in the upper end of said standards and provided with a plurality of cranks corresponding in number with the arms carried by the first mentioned shaft, fork arms having a loose connection with said cranks, forks carried by said fork arms, fork operating arms loosely connected with said shaft adjacent to

each crank, a pivotal connection between said fork operating arms and the forks, and a pivotal connection between said fork operating arms and the eccentrically mounted arms.

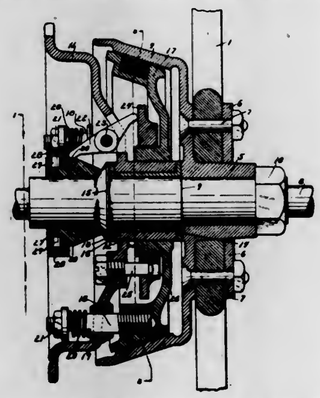
940,969. PAPER. PETER HINKEL, Chicago, Ill. Filed July 13, 1907. Serial No. 383,685.

1. A paper board or felt paper containing cotton fiber and as much oil as the cotton fiber can absorb.

2. A paper board or felt containing a percentage of oily cotton fiber such as removed from cotton seed hulls and other fiber treated with oil.

3. A composition of matter for the manufacture of paper comprising paper pulp mixed with fibers, oil added to the fibers, said fibers added after the neutralization of all alkalies.

940,970. CLUTCH. WILLIAM S. HOVEY and CHARLES B. STEBBINS, Three Rivers, Mich., assignors to Sheffield Car Company, Three Rivers, Mich. Original application filed May 1, 1909, Serial No. 493,373. Divided and this application filed Aug. 12, 1909. Serial No. 512,564.



1. The combination of a driven wheel; an axle; a conical driven clutch member secured to said driven wheel; a driving wheel mounted on said axle, the hub of said driving wheel projecting into said clutch member; a conical driving clutch member slidably arranged on the hub of said driving wheel; pins on said driving clutch member slidably arranged through said driving wheel; retracting springs for said driving clutch member arranged on said pins; actuating levers carried by said driving wheel; a cone-like lever-actuating cam mounted on said axle to engage said levers; means for actuating said cam; a member with which said levers are adapted to engage, threaded upon the hub of said driving clutch member; and a pin carried by said driving wheel for securing said member in its adjusted position.

2. The combination of a driven wheel; an axle; a conical driven clutch member secured to said driven wheel; a driving wheel mounted on said axle, the hub of said driving wheel projecting into said clutch member; a conical driving clutch member slidably arranged on the hub of said driving wheel; pins on said driving clutch member slidably arranged through said driving wheel; retracting springs for said driving clutch member arranged on said pins; actuating levers carried by said driving wheel; a cone-like lever-actuating cam mounted on said axle to engage said levers; means for actuating said cam; a member with which said levers are adapted to engage, threaded upon the hub of said driving clutch member; and a pin carried by said driving wheel for securing said member in its adjusted position.

3. The combination of a driven wheel; an axle; a driven clutch member secured to said driven wheel; a driving wheel mounted on said axle; an adjustably mounted driving clutch member; pins on said driving clutch member slidably arranged through said driving wheel; retracting springs for said driving clutch member arranged on said pins; actuating levers carried by said driving wheel; a lever actuating member mounted on said axle to engage said levers; means for actuating said cam; a member with which said levers are adapted to engage, threaded upon the hub of said driving clutch member; and a pin carried by said driving wheel for securing said member in its adjusted position.

4. The combination of a driven wheel; an axle; a driven clutch member secured to said driven wheel; a driving wheel mounted on said axle; an adjustably mounted driving clutch member; pins on said driving clutch member slidably arranged through said driving wheel; retracting springs for said driving clutch member arranged on said pins; actuating levers carried by said driving wheel; a lever actuating member mounted on said axle to engage said levers; means for actuating said lever actuating member; and a member with which said levers are adapted to engage, carried by said driving clutch member.

5. The combination of a driven wheel; an axle; a conical driven clutch member secured to said driven wheel; a driving wheel mounted on said axle, the hub of said driving wheel projecting into said clutch member; a conical driving clutch member slidably arranged on the hub of said driving wheel; actuating levers carried by said driving wheel; a cone-like lever-actuating cam mounted on said axle to engage said levers; means for actuating said cam; a member with which said levers are adapted to engage, threaded upon the hub of said driving clutch member; and a pin carried by said driving wheel for securing said member in its adjusted position.

[Claims 6 to 10 not printed in the Gazette.]

940,971. METHOD OF ROAD CONSTRUCTION AND REPAIR. SOLON G. HOWE, Detroit, Mich., assignor of one-fourth to William E. Lennane, one-fourth to John Lennane, and one-fourth to James Lennane, Detroit, Mich. Filed July 12, 1909. Serial No. 507,075.



1. Method of road construction which consists in leveling the road surface, placing on said leveled surface a course of relatively large anchor stones, or analogous material, filling the voids between said anchor stones to unite and bind them together, and placing upon said anchor stones a surfacing course consisting of a mixture of stone, sand and calcium chlorid.

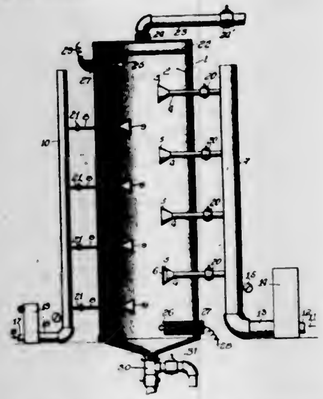
2. Method of road construction which consists in filling depressions and covering the surface of the road-bed with relatively large anchor stones, filling the voids between said stones with material capable of being compacted, covering said anchor stones with a layer of surfacing material comprising a mixture of stone, sand and granules of calcium chlorid, and rolling said layer of surfacing material to render the mass compact.

3. Method of road construction which consists in leveling the road-bed, placing upon the leveled surface a base of heavy material, and covering said base with a finishing course of plastic substance comprising a mixture of stone, sand and granules of calcium chlorid.

4. Method of road construction which consists in placing upon the road-bed a base of heavy material, and covering said base with a finishing course comprising a mixture of stone, sand and chemical granules having the property of absorbing and evaporating moisture.

940,972. PROCESS OF MAKING SALTS OF AMMONIA, ESPECIALLY SULFATE OF AMMONIA. OLIVER P. HURFORD, Chicago, Ill. Filed Dec. 12, 1908. Serial No. 467,125.

1. The process of producing sulfate of ammonia which consists in causing nitrogen gas and hydrogen gas to unite under the influence of electric discharges to form ammonia gas, and subjecting the ammonia gas as fast as it is formed to the action of sulfuric acid, whereby sulfate of ammonia is formed.



2. The process of producing sulfate of ammonia which consists in leading nitrogen gas and hydrogen gas into a closed receptacle, causing the mixed gases to unite in said receptacle under the influence of electric discharges to form ammonia gas, simultaneously introducing sulfuric acid into the receptacle, whereby the ammonia gas combines with the sulfuric acid to form sulfate of ammonia, and withdrawing the sulfate of ammonia thus formed.

3. The process of producing sulfate of ammonia which consists in causing nitrogen gas and hydrogen gas to unite under the influence of electric discharges to form ammonia gas in the presence of sulfuric acid which combines with the ammonia gas to form sulfate of ammonia.

4. The process of producing sulfate of ammonia which consists in causing nitrogen gas and hydrogen gas to unite under the influence of electric discharges to form ammonia gas, while causing a spray of sulfuric acid to pass through the receptacle, whereby the ammonia gas combines with the sulfuric acid to form sulfate of ammonia, and withdrawing the sulfate of ammonia from the receptacle.

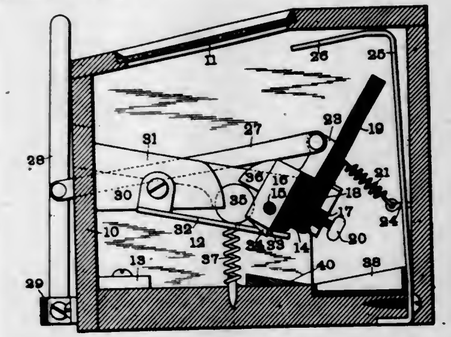
5. The process of producing sulfate of ammonia, which consists in leading nitrogen gas and hydrogen gas separately into a closed receptacle, approximately in the proportion of one volume of nitrogen to three volumes of hydrogen, causing the mixed gases to unite under the influence of electric discharges to form ammonia gas, while causing a spray of sulfuric acid to pass through the receptacle, whereby the ammonia gas combines with the sulfuric acid to form sulfate of ammonia and withdrawing the sulfate of ammonia from the receptacle.

[Claims 6 to 12 not printed in the Gazette.]

940,973. COIN-CONTROLLED APPARATUS. ARTHUR G. KENNEL, St. Louis, Mo., assignor to Kennel Machine Company, St. Louis, Mo., a Corporation of Missouri. Filed June 9, 1909. Serial No. 501,104.

1. In a coin controlled machine, the combination with the pivotally mounted member 14, provided with the detent 34 and lug 36, of the spring mounted locking member 32, arranged to support the coin in the path of the lug 36, provided with the offset 33, engaging the detent 34, and having a slot 39, for the passage of the coin, and means for operating the member 14.

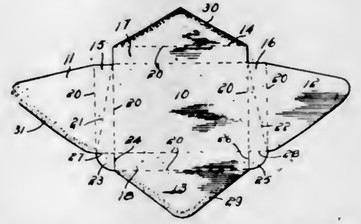
2. In a coin controlled machine, the combination with the casing 10, of the pivotally mounted member 14, provided with the detent 34, and lug 36, the spring mounted locking member 32, arranged to support the coin in the path of the lug 36, and provided with the offset 33 engaging the detent 34, and having the slot 39 for the passage of the coin, the link 27 pivoted to the member 14, and the lever 28 pivoted outside of the casing 10 and attached to the link 27.



3. In a coin controlled machine, the combination with the frame 12, provided with the integral extension 30, having the slot 31, of the member 14 pivoted to said frame 10 and provided with the detent 34 and lug 36, the spring locking member 32 mounted on the extension 30 to support the coin in the path of the lug 36, and provided with the offset 33 engaging the detent 34 and having the slot 39 for the passage of the coin and, means for operating the member 14.

4. In a coin controlled machine, the combination with the casing 10, of the frame 12, provided with the integral extension 30, having the coin slot 31, the member 14 pivoted to said frame 10 and provided with the detent 34 and lug 36, and the spring locking member 32 mounted on the extension 30 to support the coin in the path of the lug 36, the link 27 pivoted to the member 14, and the lever 28 pivoted outside of the casing 10 and attached to the link 27.

940,974. ENVELOP. CHARLEY B. KILBY, Crumpler, N. C. Filed Jan. 11, 1909. Serial No. 471,633.

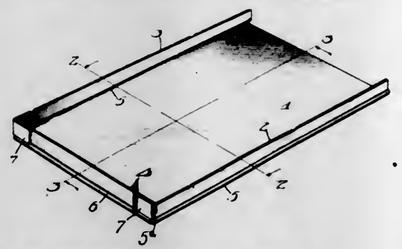


An envelop comprising a body having end flaps and with a back flap and a closure flap extending respectively from the side edges, the various flaps having intermediate portions between them and the body portion and defined therefrom by folding creases and with the intermediate portions between the end flaps and body each provided with a diagonal folding crease and a foldable tongue projecting from one end, whereby, an envelop having a flat form, a box-like, or a semibox-like form may be produced without structural change or disconnecting any of the parts.

940,975. PRINTER'S GALLEY. JAMES L. LEE, Pasadena, Cal. Filed Oct. 16, 1907. Serial No. 397,678.

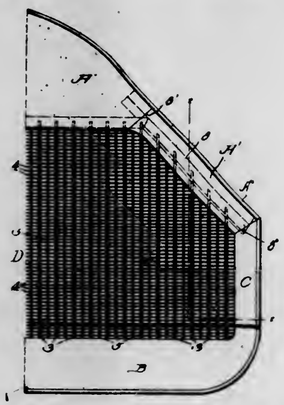
1. As a new and useful article of manufacture, a printer's galley comprising side and end walls, and a bottom formed integrally therewith of sheet metal, the adjacent corners of the walls of the galley being overlapped respectively in one direction and the longitudinal corners of the galley where the bottom conjoins with the walls

being beaded in an outward direction, the adjacent extremities of the beaded portions terminating short of each other to form openings at the corners of the galley.



2. As a new and useful article of manufacture, a printer's galley comprising side and end walls, and a bottom formed integrally therewith of sheet metal, the walls around the edges of the bottom being beaded outwardly, the adjacent extremities of the beaded portions terminating short of each other to form openings in the corners of the galley, and the adjacent corners of the walls being overlapped respectively in one direction, said overlaps being of a less depth than the total depth of the wall and the bead whereby the overlaps may not overlap the beads.

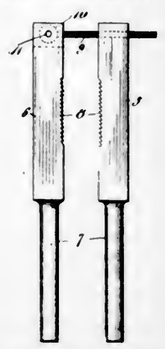
940,976. RADIATOR FOR AUTOMOBILES. JOSEPH E. LEWIS, Hartford, Conn., assignor to Bush Manufacturing Company, Hartford, Conn. Filed Feb. 25, 1909. Serial No. 480,002.



1. An automobile radiator comprising upper and lower water chambers and side members connecting said chambers, a heat radiating body, the upper water chamber having downwardly inclined extensions at opposite sides thereof, said extensions comprising a tube sheet connected with the radiating body and having upturned edge flanges, front and rear downwardly inclined side plates provided at their lower edges with upturned flanges recurved to receive the flanges of the tube sheet and to interlock therewith, the upper edges of said side plates being formed with lateral flanges interlocking with the top sheet of the upper water chamber, and facing plates inclined to correspond with the inclination of the extensions of the upper water chamber and so attached to the front and rear side plates before mentioned as to extend at the lower edges below said side pintes and to overlap the radiating body.

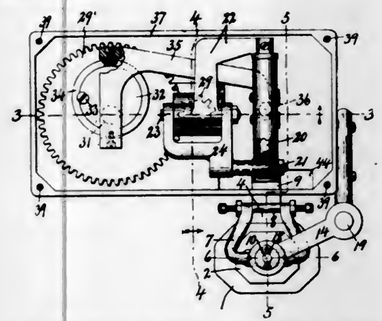
2. An automobile radiator comprising upper and lower water chambers and side members connecting said chambers, a heat radiating body, the upper water chamber having extensions at the opposite sides thereof extending diagonally downward, the front and rear walls of said extensions lapping by and behind the front and rear walls of the main portion of the top water chambers where they connect with said chambers at their upper extremities, and facing plates at front and rear covering the front and rear walls of the said diagonal extensions and having their outer surfaces flush with the outer surfaces of the front and rear walls of the main portion of the upper water chamber, and their lower edges extending below the lower edges of the front and rear walls of the diagonal side extensions of the upper water chamber, substantially as described.

940,977. WRENCH. WALTER P. LEWIS, Wauneta, Nebr. Filed Apr. 18, 1908. Serial No. 427,922.



A wrench comprising a pair of spaced longitudinal jaw-members comprising squared bars formed at one end into handles, a threaded stem directly connecting the opposite ends of said jaw-members, one of said members having a transverse threaded opening into which one end of said stem is directly screwed, and a pivotal connection between the opposite end of said stem and the other of said jaw-members, forming a stationary fulcrum for said members.

940,978. MACHINE FOR GRINDING THE SURFACES OF LENSES. ELI M. LONG, Geneva, N. Y., assignor to The Standard Optical Company, Geneva, N. Y., a Corporation of New York. Filed May 21, 1906. Serial No. 317,992.



1. In a machine for grinding the surfaces of lenses, an oscillatory frame and a rocking support therefor, the swinging axes of the frame and support intersecting each other at right angles, in combination with a driving shaft, means actuated by the shaft for rocking said support, additional means actuated by the same shaft for oscillating said frame upon its support, a lap and a lens holder coacting therewith to grind the lens, and means for transmitting motion from the oscillatory frame to the lens holder whereby the latter is moved in serpentine paths relatively to the lap.

2. In a machine for grinding the surfaces of lenses, a lap, a lens holder movable in two directions at substantially right angles to each other, and mechanism for actuating said lens holder comprising a driving shaft, and separate intermeshing gears driven by said shaft and having eccentrics of different throw whereby the lens holder is caused to move back and forth in serpentine paths.

3. In a machine for grinding the surfaces of lenses, a grinding element and a lens holding element, one of said elements being movable back and forth in serpentine paths across the other element, and mechanism for actuating the movable element including an oscillatory frame and a rocking support therefor, the swinging axes of said frame and support being disposed in the same horizontal planes at substantially right angles to each other.

4. In a machine for grinding the surfaces of lenses, a grinding element and a lens holding element, one of said elements being movable back and forth in serpentine paths across the other element, and mechanism for actuating the movable element including intermeshing gears and eccentric members thereon for changing its path of movement at the end of each stroke whereby said movable element is prevented from traveling twice in the same path.

5. In a machine for grinding the surfaces of lenses, a grinding element and a lens holding element, one of said elements being movable back and forth in different serpentine paths across the other element, and mechanism for actuating said movable element including an oscillatory frame and rocking support therefor having its swinging axis in a plane at substantially right angles to the swinging axis of the frame and two intermeshing gears, one of which is eccentrically connected to the rocking support and the other gear eccentrically connected to the swinging frame, the number of teeth of one gear being indivisible by that of the other gear whereby the movable element is caused to change its path of movement during each cycle of operation.

[Claims 6 to 12 not printed in the Gazette.]

940,979. AUTOMATIC SPEED-CONTROLLER. WILLIAM A. LOOMIS, Ilion, N. Y. Original application filed May 21, 1908, Serial No. 434,177. Divided and this application filed Nov. 24, 1908. Serial No. 464,300.



1. An automatic speed controller for vehicles comprising a brake operable to retard the movement of the vehicle, and a device governed in its movements automatically and according to the inclination of the vehicle and having means for transferring its movements directly to the brake for controlling the operation of the brake.

2. An automatic speed controller for vehicles comprising a brake wheel, a brake shoe, and means operable automatically according to the inclination of the vehicle and connected positively to said brake shoe for setting and releasing the brake shoe relatively to the brake wheel.

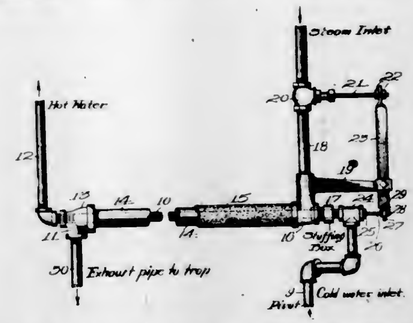
3. An automatic speed controller for vehicles comprising a tube pivoted to swing in a vertical plane on the vehicle, a body contained within and adapted to move toward either end of said tube according to the inclination of the carrier for causing a tilting movement of the tube, and means operable automatically by the swinging movements of said tube for retarding the movement of the vehicle.

4. An automatic speed controller for vehicles comprising a brake wheel, a tube pivoted to swing in a vertical plane on the vehicle and having a brake shoe attached thereto and adapted to coöperate with said brake wheel, and a body contained within and adapted to move longitudinally of said tube according to the inclination of the carrier for controlling the setting and releasing of the brake shoe.

5. An automatic speed controller for vehicles comprising a brake wheel, a tube pivoted to move in a vertical plane on the vehicle and provided with a brake shoe, and a body of mercury contained in said tube and adapted to occupy a position at either end thereof according to the inclination of the carrier for controlling the setting and releasing of the brake shoe.

[Claim 6 not printed in the Gazette.]

940,980. WATER-HEATER. GEORGE C. MADSEN, Worcester, Mass., assignor of one-half to Thomas T. Schouler, Worcester, Mass. Filed May 13, 1909. Serial No. 495,625.



1. In a water heating device, the combination of a water pipe, a steam pipe of larger diameter surrounding the water pipe, a fitting secured to the water pipe and having an enlargement for receiving one end of the steam pipe, a second fitting slidably mounted on the water pipe and having an enlargement for receiving the other end of the steam pipe, a steam inlet pipe connected with the last named fitting, a valve in said steam inlet pipe, and means connecting with the water pipe for automatically operating said valve when the water pipe expands or contracts.

2. In a water heating device, the combination of a water pipe, a steam pipe of larger diameter surrounding the water pipe, a fitting secured to the water pipe and having an enlargement for receiving one end of the steam pipe, a second fitting slidably mounted on the water pipe and having an enlargement for receiving the other end of the steam pipe, said water pipe extending beyond the last named fitting, a movable water inlet connected with said projecting end, a steam inlet pipe connected with the last named fitting, a valve in said steam inlet pipe, and means connecting with the projecting end of the water pipe for automatically operating said valve when the water pipe expands or contracts.

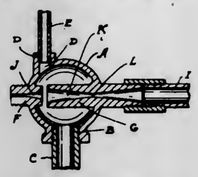
3. In a water heating device, the combination of a fixed fitting, a water pipe fixed to said fitting and projecting therefrom, a steam pipe fixed at one end to said fitting and surrounding the water pipe, a steam inlet pipe connected with the opposite end of said steam pipe, said steam pipe being slidably mounted on the water pipe at that end, the water pipe projecting through the end of the steam pipe, whereby the heat of the steam will cause the water pipe to expand and its projecting end to move, a valve in the steam inlet pipe, and means connected with the projecting end of the water pipe for automatically operating the valve.

4. In a device of the character described, the combination of a water pipe, a steam pipe surrounding the same for a certain distance and having one end stationary, the opposite end of the water pipe projecting from the steam pipe, and being movably connected thereto, the water pipe being of a material having a greater coefficient of expansion than the steam pipe, a steam inlet pipe, a valve therefor, a lever for operating said valve, and means on the projecting end of the water pipe for operating said lever as the water pipe expands and contracts.

5. In a water heating device, the combination of a brass or copper water pipe, an iron steam pipe of larger di-

ameter surrounding the water pipe for a certain distance and having one end stationary, the water pipe being fixed to the stationary end of the steam pipe and the other end of the water pipe being free to move with respect to the steam pipe, a stuffing box for connecting the end of the steam pipe with the movable end of the water pipe, a fitting in which said stuffing box fits, a steam inlet pipe entering said fitting, an arm mounted on said fitting, a valve in the steam inlet pipe, a lever pivoted on said arm and connected with the movable end of the water pipe and with the lever for operating said valve.

940,981. OIL-VAPORIZER. JAMES F. MALCOM, Bluffton, Ind., assignor of one-half to Allen L. Meeks, Montpelier, Ind. Filed May 10, 1909. Serial No. 495,122.



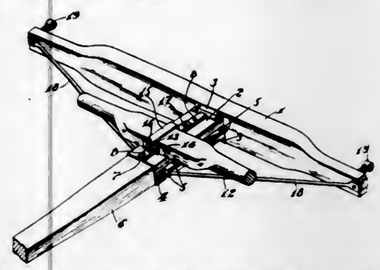
1. In a device of the kind described, the combination of a hollow chest, a conduit passed through the said chest and being divided transversely upon the interior of said chest to form an inlet conduit and an outlet conduit, the bore of said inlet conduit being flared to increased diameter at the inner end of said conduit, and the bore of the outlet conduit having a mouth of diameter larger than that of the inlet conduit, an oil inlet through the wall of said hollow chest at a point opposite the space between the interior ends of the inlet and outlet conduits, and an air inlet through the wall of said hollow chest at a location aside from said space between the ends of the aforesaid conduits.

2. In a device of the kind described, the combination of a hollow chest, a conduit passed through the said chest and being divided transversely upon the interior of said chest to form an inlet conduit and an outlet conduit, the bore of said inlet conduit being flared to increased diameter at the inner end of said conduit, and the bore of the outlet conduit being tapered to smaller diameter and then flared to increased diameter at the outer end of said outlet conduit, having a mouth of diameter larger than that of the inlet conduit, an oil inlet through the wall of said hollow chest at a point opposite the space between the interior ends of the inlet and outlet conduits, and an air inlet through the wall of said hollow chest at a location aside from said space between the ends of the aforesaid conduits.

3. A device of the kind described, comprising a globular chest having an inlet conduit and an outlet conduit formed integral with the opposite walls of said chest, the inner ends of said conduits being so disposed as to register with each other but there being an open space between them and aside from the center of said chest, the bore of said inlet conduit being flared to increased diameter at its inner end, and the bore of the outlet conduit having a mouth that is of diameter greater than that of the bore of the inlet conduit, and which said last named bore is tapered to smaller diameter and then flared to increased diameter toward the outer end thereof, an oil inlet through the wall of said chest at a point substantially opposite the open space between the inner ends of said conduits, and an air inlet through the wall of said chest at a point aside from the said open space, substantially as described.

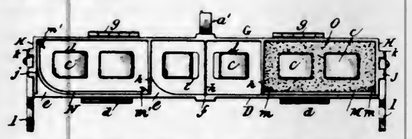
4. In a crude oil vaporizing apparatus for steam boilers, the combination of a hollow chest having an oil inlet and an air inlet therein, a conduit passed through the said chest and being divided transversely upon the interior of said chest to form an inlet conduit and an outlet conduit, the bore of said inlet conduit being flared to increased diameter at its inner end, and the bore of the outlet conduit having a mouth that is of diameter greater than that of the bore of the inlet conduit, and which last named bore is tapered to smaller diameter and then flared to increased diameter toward the outer end of said outlet conduit, a firing chamber, a pipe connected to the outer end of the outlet conduit and extended into the said firing chamber, a fire box, and a pipe leading from the fire box of the boiler into the air inlet, substantially as and for the purpose described.

940,982. POLE-ATTACHING MEANS FOR VEHICLES. JEREMIAH G. MALONEY, Scranton, Pa. Filed Feb. 23, 1909. Serial No. 479,527.



In a device of the character described, the combination with a reversible cross bar having thill eyes at its ends, a pole socket secured to the center of said cross bar and having a longitudinal offset portion, the latter made with a series of bolt openings, a double-tree, a plate secured to the double-tree and having a bolt receiving bearing or sleeve, a bolt having its head in the offset portion of the socket and projecting through said bearing or sleeve, a bar, a bolt securing the bar at its rear end to said socket, and the forward end of said bar having an opening to receive the first mentioned bolt, and nuts secured on both of said bolts.

940,983. MACHINE FOR MOLDING TILE-FACED BLOCKS. WILLIAM P. MEEKER, Maplewood, and MAHLON S. DRAKE, Newark, N. J. Filed Mar. 12, 1908. Serial No. 420,607.



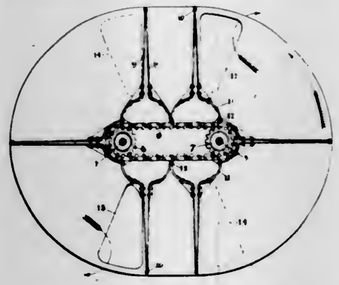
1. In a machine for molding tile-faced blocks, the combination of a bed having tapered cores thereupon, a vertically removable mold-bottom provided with core apertures therethrough, a front and a back provided with ends and with intermediate partitions tapered from above downward and hinged to the bed below the level of the mold-bottom and a lock for securing the front and back together.

2. In a machine for molding tile-faced blocks, the combination of a bed having tapered cores thereupon, a vertically removable mold-bottom provided with core apertures therethrough, a front and a back provided with ends and with intermediate partitions vertically and longitudinally tapered and hinged to the bed below the level of the mold-bottom and a lock for securing the front and back together.

3. In a machine for molding tile-faced blocks, the combination of a bed having tapered cores thereupon, a vertically removable mold-bottom provided with core apertures therethrough, a front and a back provided with ends beveled on their inner faces and with intermediate partitions and hinged to the bed below the level of the mold-bottom and a lock for securing the front and back together.

4. In a machine for molding tile-faced blocks, the combination of a bed having a detachable top provided with cores thereupon, a vertically removable mold-bottom provided with core apertures therethrough, a front provided with latch pins and a back provided with intermediate partitions tapered longitudinally and vertically and with ends beveled on their inner faces and provided on their outer faces with stop lugs and latches provided with extended handle ends and pivoted to said ends and adapted to engage with said latch pins, substantially as described.

940,984. BLOWER OR PUMP. FRANK J. MINER, Detroit, Mich., assignor to Miner Engineering Company, Detroit, Mich., a Corporation of Michigan. Filed May 2, 1908. Serial No. 430,433.



1. The combination with a housing having inlet and outlet ports, of a series of revoluble blades arranged within said housing to form a plurality of pockets successively communicating with said inlet and outlet ports, and means for rotating said blades differentially to expand and contract said pockets when respectively in communication with said inlet and outlet ports.

2. The combination with a casing having an intake and an exhaust port, blades therein articulated at their bases in an endless chain and adapted to form a series of pockets, and means for revolving the chain in the casing adapted to accelerate the motion of each blade as it sweeps the intake port and to retard it as it passes the exhaust port, whereby the chamber formed between each pair of blades is expanded as it is in communication with the intake port and contracted as it is in communication with the exhaust port.

3. The combination with a casing, a sprocket near each end thereof and a series of blades articulated in an endless chain whose links formed by the blade bases engage the sprockets, said casing having an intake port swept by each blade at the moment of its acceleration due to its angular velocity as it runs on to a sprocket, and an exhaust port swept by each blade at the moment of its retardation due to its change from angular to rectilinear motion as it leaves the sprocket.

4. The combination with a casing, of a pair of spaced revoluble members therein, an endless carrier surrounding and traversing said revoluble members, a series of blades mounted upon said carrier, each blade comprising a pair of plates hinged together at their outer ends and provided with divergent shanks at their inner ends, the latter being adapted to span said revoluble members as the blade passes therearound and being pivotally connected to said carrier.

5. The combination with a casing, of a pair of spaced revoluble members therein, an endless carrier surrounding and traversing said revoluble members, and a series of blades mounted upon said carrier each blade comprising a pair of plates hinged together at their outer ends and having divergent shanks at their inner ends adapted to span said revoluble members as the blades pass therearound, the shanks of adjacent blades being pivotally connected to each other and to the carrier.

[Claims 6 and 7 not printed in the Gazette.]

940,985. GUN-CLEANER. WILLIAM R. MOORE, East Orange, N. J. Filed Apr. 5, 1909. Serial No. 487,983.



1. A gun cleaning device, consisting of a spring shell adapted to fit the barrel of the gun, a cleaning medium upon the shell to remove the foul matter therefrom, a rod passing through the shell, and a support secured to the shell and having collars to receive and engage the ends of the rod.

2. A gun cleaning device, consisting of a cylindrical shell, a cleaning medium mounted on said shell for engaging the surface of the barrel to effect the cleaning thereof, a rod passing through the shell, and a support secured to the shell and having collars to receive and engage the ends of the rod.

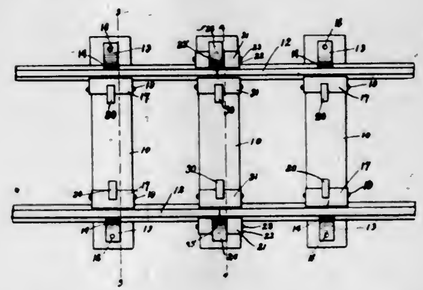
3. A gun cleaning device, consisting of a cylindrical spring shell open along one side to adapt said shell to fit the barrel of the gun, and a cleaning medium covering said shell, a rod passing through the shell, and a support secured to the shell and having collars to receive and engage the ends of the rod.

4. A gun cleaning device, consisting of a support adapted to be applied to a cleaning rod, a spring shell connected to said support, collars at each end of said support, a rod passing through said collars and having threaded engagement therewith, and a cleaning medium mounted on the shell.

5. A gun cleaning device, consisting of a rod having threaded ends, a support formed with threaded collars to fit upon and engage said threaded ends, a spring shell secured to the support, a cleaning medium upon the shell, and clamping means engaging the ends of the rod and securing the cleaning medium in proper position.

[Claim 6 not printed in the Gazette.]

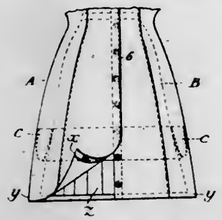
940,986. RAIL-FASTENER. FRANK PERSIC, Minonk, Ill., assignor of one-fourth to John Kastjack, Minonk, Ill. Filed May 17, 1909. Serial No. 496,350.



1. In combination, a tie having transverse dove tail seats therein forming edge flanges, adjoining rails supported in said seats, a securing plate mounted at the inside of the rails and secured to the tie, a plate mounted outside the rails and secured to the tie and having a brace block rising therefrom, and a connecting fish plate for the rails detachably connected to the last mentioned brace block.

2. In combination, a rail tie having dove tail seats therein, rails mounted within the seats, plates engaging the rails at opposite sides thereof and secured to the tie, brace means for the rails integral with the outer securing plate, and a fish plate connecting the meeting ends of the rails detachably united to the adjacent brace means.

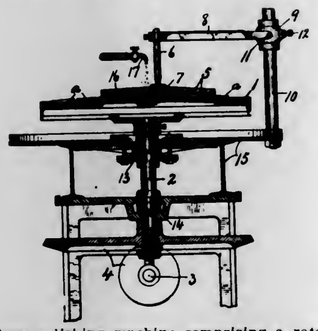
940,987. LADY'S GARMENT. ALMA W. POWELL, New York, N. Y. Filed Aug. 6, 1909. Serial No. 511,535.



1. The combination, substantially as hereinbefore specified, of a loose-fitting raincoat or like outer garment constructed to fold at or about a waist line and be draped around an underskirt when not in use, having a fastenable front opening extending from top to bottom and fastenable shoulder openings extending from the neck opening through the arms of the garment and provided with a supplemental strip extending around the lower portion of the garment inside, attached thereto at the upper edge of the strip and having attaching devices on the outer side of the strip near its lower edge, and with attaching devices on the inside of the outer garment at or about such waist line, and an underskirt provided externally at or about a knee line with attaching devices constructed and arranged to interact with those on said strip and at or about a hip line with attaching devices constructed and arranged to interact with said waist line attaching devices in attaching the draped outer garment to the underskirt.

2. The combination of a loose-fitting raincoat or like outer garment constructed to fold at or about a waist line and be draped around an underskirt when not in use, and having a fastenable front opening extending from top to bottom and fastenable shoulder openings extending from the neck opening through the arms of the garment, and provided with a supplemental strip extending around the lower portion of the garment inside, permanently attached thereto at the upper edge of the strip and having attaching devices on the outer side of the strip near its lower edge, and with attaching rings inside at front and back, and an underskirt provided externally at or about a knee line with attaching devices constructed and arranged to interact with those on said strip and at or about a hip line with hooks in front and behind constructed and arranged to interact with said rings in attaching the draped outer garment, substantially as hereinbefore specified.

940,988. LENS-POLISHING MACHINE. CLARENCE E. QUIMBY, Geneva, N. Y., assignor to The Standard Optical Company, Geneva, N. Y., a Corporation of New York. Filed Jan. 4, 1907. Serial No. 350,781.



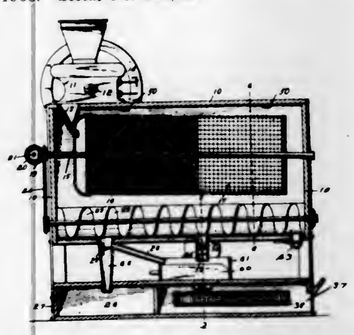
1. A lens polishing machine comprising a rotary form adapted to support a multiplicity of lenses, an adjustable arm overhanging the upper face of the form, a spindle carried by said arm and having a spherical lower end, and a rotary polishing disk having its upper face provided with a socket for the reception of said spherical end of the spindle whereby a ball and socket joint is provided between the spindle and the disk, said disk having its lower face in contact with the lenses on the form and rotated by said contact, said disk of greater diameter than the radius of the form.

2. A lens polishing machine comprising a rotary form adapted to support a multiplicity of lenses, an arm overhanging the upper face of the form, a spindle adjustably connected to said arm and having a spherical lower end and a rotary polishing disk having a socket in its upper face for the reception of said spherical end of the spindle whereby a ball and socket joint is provided between the spindle and the disk, said disk having its lower face in contact with said lenses and rotatable by said contact.

3. A lens polishing machine comprising a rotary form adapted to support a multiplicity of lenses, an arm overhanging the upper face of the form, a support for the arm, and a spindle carried by the arm and having a spherical lower end, and a rotary polishing disk having a socket in its upper face for the reception of said spherical end whereby a ball and socket connection is provided between the disk and the spindle, said disk having its lower face in contact with the lenses on the form and rotated by said contact.

4. A lens polishing machine comprising a rotary form adapted to support a multiplicity of lenses, the upper surface of said form conforming to the finished surface of the lenses which it is desired to produce, means for securing the lenses of the form, an adjustable arm overhanging the upper face of the form, a spindle carried by said arm, a rotary polishing disk having a central bearing, and loose connections between the lower end of the spindle and center of the disk whereby said disk is revoluble relatively to and separable from the spindle, said disk being of greater diameter than the radius of the form and having its lower face in contact with the lenses on the form and rotated by such contact.

940,989. COFFEE CLEANING AND GRADING MACHINE. ELVAH C. SMITH, Newton, Iowa. Filed Feb. 14, 1908. Serial No. 415,954.

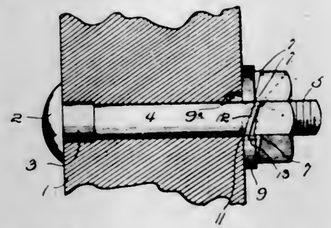


1. In a device of the class described, the combination of a casing, a rotary sieve within the casing, a screw conveyer below the rotary sieve, a screw conveyer casing, a spout leading from the screw conveyer casing at a point adjacent to the receiving end of the rotary sieve, a powdered coffee compartment to receive the discharge from said spout, a second spout leading from the screw conveyer casing below the center of the rotary screen, and a receptacle to receive the discharge from said spout, a suction fan, a casing for the suction fan, a pipe communicating between the latter spout and the fan casing, and a dust receptacle to receive the air and dust passed through the fan casing.

2. In a device of the class described, the combination of a frame or casing, a rotary screen consisting of a fine and coarse section within the frame or casing, means for discharging ground coffee into the rotary screen, a screw conveyer below the rotary screen, a spout arranged below the screw conveyer adjacent to the receiving end of the rotary screen, a powdered coffee receptacle to receive the discharge from said pipe, a second spout below the junction of the fine and coarse screen sections arranged to conduct material passed through the fine screen from the screw conveyer to the ground coffee receptacle, a pipe communicating with the latter spout, a suction fan, a fan casing communicating with said pipe, a dust receptacle having a screen covered opening therein and arranged to receive the discharge from the fan casing.

3. In a device of the class described, the combination of a frame or casing, a rotary screen consisting of a fine and a coarse section within the frame or casing, means for discharging ground coffee into the rotary screen, a screw conveyer below the rotary screen, a spout arranged below the screw conveyer adjacent to the receiving end of the rotary screen, a powdered coffee receptacle to receive the discharge from said pipe, a second spout below the junction of the fine and coarse screen sections arranged to conduct material passed through the first section of the screen from the screw conveyer to the ground coffee receptacle, a pipe communicating with the latter spout, a suction fan, a fan casing communicating with said pipe, a dust receptacle having a screen covered opening therein and arranged to receive the discharge from the fan casing, a spout communicating with the delivery end of the screw conveyer, an elevator communicating with said latter spout, a grinder arranged on top of the frame or casing, and means for discharging material from the elevator into the grinder.

940,990. NUT-LOCK. GEORGE L. SMITH, HENRY F. GRAVER, and JOHN J. WIEGAND, East Toledo, Ohio. Filed Mar. 11, 1909. Serial No. 482,641.



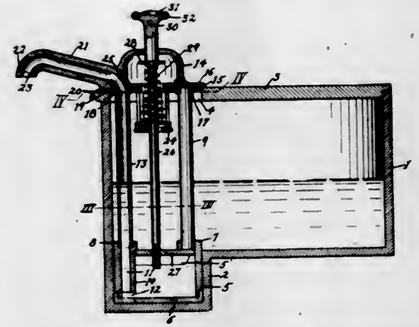
1. In a nut lock, the combination with a bolt, of a nut therefor provided with a radiating shouldered surface, and a transversely split washer carried by the bolt, one end of the washer being reduced to provide a spring pawl and abrupt shoulder for engagement with the shouldered surface of said nut, and a penetrating spur carried by the other end of said washer for engagement with the work.

2. In a nut lock, the combination with a bolt, of a nut therefor provided with a shouldered surface, and a split washer carried by the bolt one side of which has a reduced spring pawl and an abutment shoulder for engagement with the shoulders of the nut and the other side of said split washer being provided with a penetrating spur for engagement with the work.

940,991. SYRUP-PUMP FOR SODA-FOUNTAINS. HARRY L. SNEDIKER, Kansas City, Mo. Filed July 13, 1908. Serial No. 443,210.

1. A syrup pump comprising a plunger cup formed with recessed edges, with inwardly projecting back and front flanges and with a cylindrical member beneath the front flange leaving a conduit therebeneath, and having a removable cap for closing the bottom of the plunger cup, means for conducting the fluid from the cylindrical member, and a plunger formed with a slot at its front edge receiving the cylinder chamber and having a rod and adapted to be removed through the bottom of the plunger cup.

2. A syrup pump comprising a plunger cup formed with inwardly projecting back and front flanges, and with a cylinder member beneath the front flange, a plunger formed with a slot at its front edge receiving the cylinder member, and having a rod, a pump cap through which the plunger rod passes, having back and front sockets, and a nozzle, a standard fitting in the back flange and back socket and a tube fitted in the front flange and front socket.



3. A syrup pump comprising a plunger cup formed with inwardly projecting back and front flanges, and with a cylinder member beneath the front flange, a plunger formed with a slot at its front edge receiving the cylinder member, and having a rod, a pump cap through which the plunger rod passes, formed with a chamber and having back and front sockets, a nozzle, and an interior flange, a depending barrel connected with said interior flange, a collar mounted on the plunger rod within the chamber of the cap, a spring surrounding the plunger rod between the bottom of the barrel and the collar, a standard fitting in the back flange and back socket and a tube fitted in the front flange and front socket.

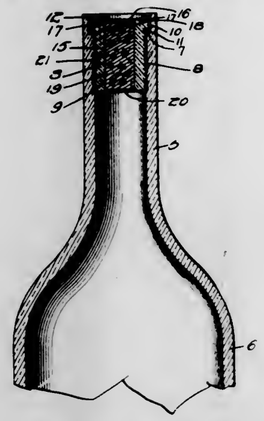
4. A syrup pump for soda fountains comprising a plunger cup, a cylinder member integral with and projecting from the cup side into the plunger chamber and having a slot at the bottom through which liquid may pass from the plunger chamber to the interior of said cylinder member, a plunger adapted for travel in said cup, and cut away to fit over the cylinder member, a pump cap and nozzle, a tube connected with said pump cap and cylinder member and forming communication between the cylinder and nozzle, a standard connecting said cap and plunger cup, and a rod adjustably connected with said plunger and adapted for actuation from the exterior of the pump cap.

940,992. NECKTIE. JOHN A. SODERSTROM, Chicago, Ill. Filed Mar. 23, 1908. Serial No. 422,606.



As an article of manufacture, a necktie provided with a collar encircling portion, and a flexible member adapted for insertion over the shank of a collar button, said flexible member being secured to the collar encircling portion of the tie at its ends and being free from the tie between said ends whereby the tie may be adjusted by sliding the flexible member over the shank of the collar button, the said flexible member being of sufficient length to permit the adjustment of the tie on collars of various sizes, and the points of securement of the ends of the flexible member being separated on the collar encircling portion of the tie a distance approximately equal to the length of the flexible member.

940,993. BOTTLE. PETER A. THORIN, Iron River, Mich. Filed July 6, 1908. Serial No. 442,073.



1. A device of the character described, comprising a bottle-neck having a differently diametered bore, with its upper end larger-diametered surface forming a shoulder some distance below the top edge of the bottle-neck, the less diametered surface of said neck being screw-threaded, a tubular closure having an annular enlargement at its upper end adapted to be seated into the extreme upper end of the neck and having oppositely facing shoulders perpendicular to the transverse section of the neck, with their upper edges sloping downwardly and away from each other, a compressible plug received by said tubular closure and having its upper end slightly below the corresponding end of the latter, and a refrangible integral closure in the bore of the first-noted closure and having a fracture-forming line defined therewith, said first-referred to closure also being screw-threaded for engagement with the screw-threaded surface of the neck-bore.

2. A device of the character described, comprising a bottle-neck having a differently diametered bore, with its upper end larger-diametered surface forming a shoulder some distance below the top edge of the bottle-neck, the less diametered surface of said bottle-neck being screw-threaded, a tubular closure having an annular enlargement at its upper end adapted to be seated into the extreme upper end of the neck and having oppositely facing shoulders perpendicular to the transverse section of the neck, with their upper edges sloping downwardly and away from each other, a cork-plug received by said tubular closure and having its upper end slightly below the corresponding end of the latter, a thin transparent closure integral with the first-noted closure and having a fracture-forming line defined therein, said first-referred to closure also being screw-threaded for engagement with the screw-threaded surface of the neck-bore.

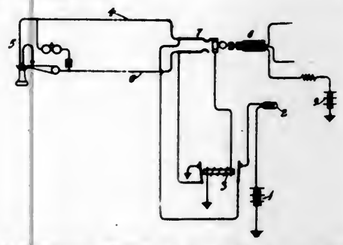
940,994. TELEPHONE SYSTEM. JOHN N. WALLACE, La Crosse, Wis., assignor to Vote-Berger Company, La Crosse, Wis. Filed Mar. 22, 1909. Serial No. 484,871.

1. In a telephone system, a line circuit containing a metallic filament lamp, and means for opening and closing said line circuit, substantially as described.

2. In a telephone system, a circuit containing a metallic filament lamp and means for opening and closing the circuit, said circuit having variant resistance values when closed, substantially as described.

3. In a telephone system, a battery; a metallic filament lamp; and a telephone line circuit in series therewith, substantially as described.

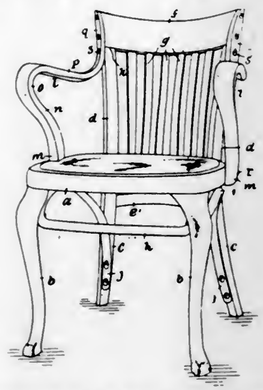
4. In a telephone system, a line signal comprising a metallic filament lamp connected directly between a source of potential and the switching devices of a line equipment, and included in a circuit with the line conductors, substantially as described.



5. In a telephone system, a line signal comprising a metallic filament lamp included directly in circuit with the line and sub-station equipment, substantially as described.

[Claims 6 to 12 not printed in the Gazette.]

940,995. ARM-CHAIR. EDWIN P. WANNER, New York, N. Y. Filed Nov. 2, 1908. Serial No. 460,718.

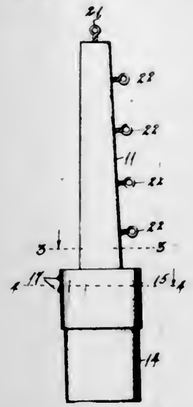


1. The combination of the seat, the front legs, the back legs, the back and bent arms each rigidly secured to the back and also to the seat forward of the back, each arm being bent from the seat first forwardly, then back in a curve, and then upwardly, the backwardly and upwardly extending portions of each arm being a continuously flattened part having the broad faces of the backwardly extending portion substantially horizontal and its upwardly extending portion twisted relatively to the rearwardly extending portion and also having the surface of said upwardly extending portion which forms a continuation of the under surface of said rearwardly extending portion lying in contact with the back, substantially as described.

2. The combination of the seat, the front legs, a unitary back and back leg structure secured to the seat and comprising parts forming the back legs and vertical back members and a cross-piece connecting said back members in the upper part thereof, and generally flat bent arms each rigidly secured to the seat forward of said back and back leg structure and against the ends of the cross-piece, each arm being bent from the seat first forwardly, then back in a curve and then upwardly and having its upwardly extending portion twisted relatively to the remainder thereof, substantially as described.

940,996. FENCE-POST, &c. HEYE J. WESSELS, German Valley, Ill. Filed May 6, 1908. Serial No. 431,291.

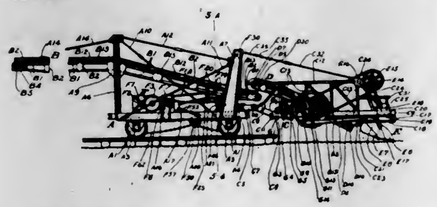
1. In a fence post, the combination with a concrete core and a larger concrete base, of a casing surrounding said core, said casing being provided with a portion having longitudinal slits thereon to hold in the base, the segments formed by the slit portions being outwardly rebent and inwardly bent, and a second casing surrounding the top of the base and connected to the rebent portions of the first mentioned casing.



2. In a fence post, the combination with a concrete core, and an enlarged concrete base, of a casing surrounding said core, a second casing surrounding the base, means to connect said casing, comprising a head and outwardly rebent end portions formed on the first mentioned casing and a reinforcing rod extending upward from said base through the base and core, said rod being double on its upper end and twisted to form a loop and hence extending downward again to the base.

3. In a fence post, the combination with a concrete core and an enlarged base, of a casing surrounding said core provided with a plurality of openings arranged in vertical series, a second casing surrounding said base, means to connect the first and second casing, comprising tongues formed at the lower end of the casing outward and upwardly bent and riveted to the base casing and a reinforcing rod provided with a series of twisted loops each projecting through one of the openings in the upper casing to form a fence wire attaching means.

940,997. SHOVELING-MACHINE. WILLIAM WHALEY, Knoxville, Tenn. Filed Mar. 16, 1908. Serial No. 421,480.



1. In a machine of the nature described, a scoop, two driving mechanisms, both engaging the scoop, one for forward and backward movement and the other for up and down movement, substantially as described.

2. In a machine of the nature described, a scoop, a conveyer behind said scoop, two driving mechanisms, both engaging the scoop, one for forward and backward movement and the other for up and down movement, substantially as described.

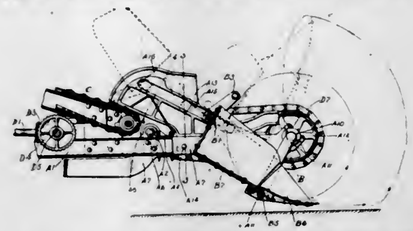
3. In a machine of the nature described, a scoop, driving mechanism for moving the scoop forward and rearward, and driving mechanism for moving the front portion of the scoop in an orbit for the taking of a load and discharging it, substantially as described.

4. In a machine of the nature described, a scoop, driving mechanism for moving the scoop forward and rearward, driving mechanism for moving the front portion of the scoop in an orbit for the taking of a load and discharging it, and mechanism for slowly moving the machine forward, substantially as described.

5. In a machine of the nature described, a scoop, driving mechanism for moving the scoop forward and rearward parallel to the length of the machine, and driving mechanism for moving the front portion of the scoop upward during the ending of the forward movement of the scoop and during approximately the first half of such rearward movement and moving the front portion of the scoop downward during the remainder of said rearward movement and during the beginning of the forward movement and then holding said front portion of the scoop at the same elevation until near the end of such forward movement, substantially as described.

[Claims 6 to 60 not printed in the Gazette.]

940,998. SHOVELING-MACHINE. WILLIAM WHALEY, Knoxville, Tenn. Filed Aug. 24, 1908. Serial No. 450,062. Renewed Sept. 7, 1909. Serial No. 516,539.



1. In a machine of the nature described, a shovel member hinged on a horizontal transverse axis, means for moving said member bodily rearward and forward, and cam mechanism for turning said member upon said axis during such rearward and forward movement.

2. In a machine of the nature described, a shovel member, a cam way on which said member may move bodily rearward and forward, and another cam way of proper form and in proper position to engage said shovel member for rearward and forward turning during its rearward and forward bodily movement.

3. In a machine of the nature described, a shovel comprising a forward section and a rear section, automatic mechanism for moving said shovel forward to take a load and then raising and inclining said shovel rearward, and cam mechanism for tilting said rear section for the discharge of the load.

4. In a machine of the nature described, a shovel comprising a forward section and a rear section, crank mechanism for imparting an orbital movement to the front of the shovel and mechanism for imparting to the rear portion of the shovel an approximately horizontal movement, and cam mechanism for tilting said rear section for the discharge of the load.

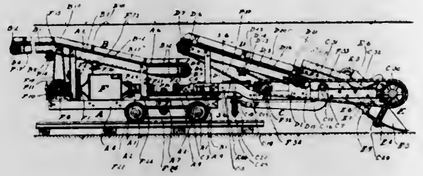
5. In a machine of the nature described, a shovel, crank mechanism for imparting an orbital movement to the front of the shovel, a cam for imparting to the rear portion of said shovel an approximately horizontal movement, and a cam for tilting said rear section for the discharge of the load.

[Claims 6 to 9 not printed in the Gazette.]

940,999. SHOVELING-MACHINE. WILLIAM WHALEY, Knoxville, Tenn. Filed July 1, 1907. Serial No. 381,624. Renewed Sept. 7, 1909. Serial No. 516,540.

1. In a machine of the nature described, a scoop, conducting mechanism behind said scoop, and mechanism for moving the scoop in an orbit which is upright and parallel to the length of the machine for the taking of a load and discharging it to said conducting mechanism substantially as described.

2. In a machine of the nature described, a scoop, conducting mechanism behind said scoop, mechanism for moving the scoop in an orbit which is upright and parallel to the length of the machine for the taking of a load and discharging it to said conducting mechanism, and mechanism for slowly moving the machine forward, substantially as described.



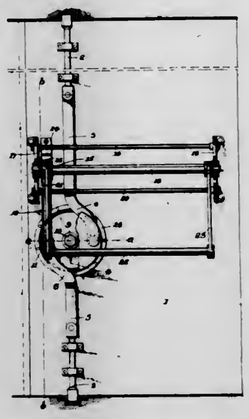
3. In a machine of the nature described, a scoop, a forked support for said scoop, conducting mechanism behind said scoop, and mechanism for moving the scoop in an orbit which is upright and parallel to the length of the machine for the taking of a load and discharging it to said conducting mechanism, substantially as described.

4. In a machine of the nature described, a scoop, a laterally movable support for said scoop, conducting mechanism behind said scoop, and mechanism for moving the scoop in an orbit which is upright and parallel to the length of the machine for the taking of a load and discharging it to said conducting mechanism, substantially as described.

5. In a machine of the nature described, a scoop, a laterally movable support for said scoop, conducting mechanism behind said scoop, mechanism for moving the scoop in an orbit which is upright and parallel to the length of the machine for the taking of a load and discharging it to said conducting mechanism, and mechanism for slowly moving the machine forward, substantially as described.

[Claims 6 to 35 not printed in the Gazette.]

941,000. FASTENING DEVICE FOR EMERGENCY-EXIT DOORS. ARCHIBALD C. WILLISON and JAMES B. WILLIAMS, Cumberland, Md. Filed Mar. 28, 1908. Serial No. 423,933.



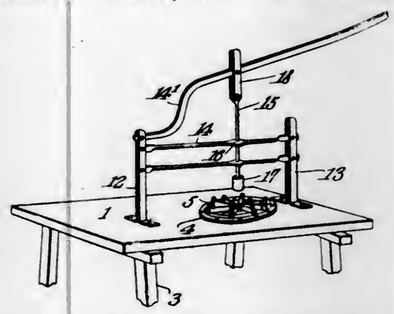
1. An actuating mechanism for door bolts, comprising in combination, a supporting member adapted to be secured to one face of the door; a rocker-shaft mounted therein; a bolt-operating mechanism secured to the door; and an elbow-lever mounted upon the shaft and movable therewith, the inner end of said elbow-lever being connected to the bolt-operating mechanism and the outer end of said lever extending downwardly and outwardly beyond the shaft, whereby upon the downward and inward movement of the outer end of said lever the bolts will be retracted.

2. An actuating mechanism for door bolts, comprising in combination, a pair of brackets or standards secured to one face of the door; a rocker-shaft carried thereby; a bolt-operating mechanism secured to the door; an elbow-lever secured to the shaft to move therewith, said elbow-lever being provided with a short arm and with a long arm, the short arm extending inwardly toward the door and standing normally in an approximately horizontal plane and the long arm extending downwardly and outwardly; a link pivotally connected to the inner end of the short arm and to the bolt-operating mechanism; a second arm secured to the opposite end of the shaft from that to which the elbow-lever is secured, said arm extending downwardly and outwardly from the shaft in substantially the same plane as that of the longer arm of the elbow-lever; and a rod connecting the longer arm of the elbow-lever and said last-named arm.

3. An actuating mechanism for door bolts, comprising in combination a pair of bolts; a rotatable wrist-plate; connections between said bolts and the wrist-plate; a pair of brackets secured to one face of the door; a shaft journaled in said brackets; an elbow-lever mounted upon said shaft to move therewith, said elbow-lever having a short arm which extends inwardly toward the door and normally lies in a horizontal plane; a link pivotally connected to one end of said arm and likewise connected to the wrist-plate; an arm secured to the opposite end of the shaft from that to which the elbow-lever is secured, said arm lying in substantially the same plane as the long, outwardly and downwardly extending arm of the elbow-lever; and a rod connected to the outer ends of said arms.

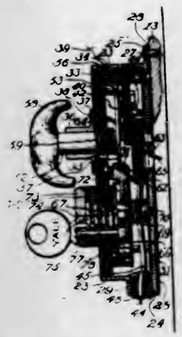
4. An actuating mechanism for door bolts, comprising in combination a pair of bolts; a wrist-plate mounted upon the door; a rod extending from each bolt to the wrist-plate and pivotally connected thereto; a pair of brackets secured to the door and extending outwardly therefrom; a shaft journaled in said brackets; an elbow-lever secured upon the shaft, said lever being provided with a short arm which extends inwardly toward the door and normally stands in a horizontal position when the bolts are protruded; a link pivotally connected to the inner end of said arm and likewise connected to the wrist-plate; a spring located in rear of the upper end of said link and serving to normally hold the inner end of the arm of the elbow-lever in a depressed or elevated position; an arm secured to the shaft at the opposite end from that to which the elbow-lever is secured, said arm extending downwardly and outwardly in substantial alinement with the downwardly-projecting long arm of the elbow-lever; and a rod secured to the lower ends of said arms.

941,001. POTATO-CUTTER. JAMES A. WISE, Daingerfield, Tex., assignor of one-half to R. N. Traylor, Daingerfield, Tex. Filed May 19, 1909. Serial No. 497,011.



A cutter comprising a support having an opening, an annular plate adapted to rest upon the support about the opening, bolts passing through the plate and having elongated closed end slots, blades passing through the slots in the bolts and being vertically disposed upon the upper surface of the plate, nuts screw threaded upon the bolts and clamping the blades against the plate, standards mounted upon the support and diametrically opposite each other with relation to the opening therein, bars connecting the standards together, a rod passing through the bars, a plunger attached to the lower end of the rod a lever fulcrumed to one of the standards and a link pivotally connecting the link with the upper end of the rod.

941,002. SAFETY ELECTRICAL-CIRCUIT BREAKER. WILLIAM F. WOCHER, ROBERT L. LEMON, and LOUIS H. MORTSOLF, Indianapolis, Ind. Filed Nov. 30, 1908. Serial No. 465,383.



1. An electrical circuit-breaker including an electrical current-conducting circuit, a movable electrical conducting connector for forming the normal circuit, and a movable locking device acting directly with the connector to ground the circuit and also to prevent restoration of the normal circuit when grounded.

2. An electrical circuit-breaker including two separate electrical conducting elements, a grounding connection, a movable conducting connector for the two conducting elements, and a retractable locking device acting to hold the connector when in contact therewith and acting also to ground the connector with the grounding connection.

3. An electrical circuit-breaker including two separate electrical conducting elements, a grounding connection, a movable conducting connector for connecting or disconnecting the two conducting elements, and a retractable locking device acting to hold the connector when in contact therewith and acting also to ground the connector with the grounding connection when the connector disconnects the two conducting elements.

4. An electrical circuit-breaker including two separate electrical conducting elements, a movable conducting connector for connecting or disconnecting the two conducting elements in or from an electrical circuit, a locking device acting to hold the connector when the connector is moved to disconnect the two conducting elements, and means including the locking device for grounding the circuit when the conducting elements are disconnected by the connector.

5. An electrical circuit-breaker including two separate electrical conducting elements, a conducting connector normally connecting the two elements and movable to break the circuit, and a movable locking device having a circuit-wire operatively connected therewith, the locking device acting to hold the connector when the circuit is broken thereby and acting also directly with the connector and the circuit wire to form ground connection when holding the connector.

[Claims 6 to 9 not printed in the Gazette.]

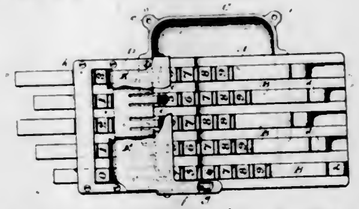
941,003. MECHANICAL MOVEMENT. GEORGE A. ANDERSON, Fargo, N. D. Filed Jan. 20, 1909. Serial No. 473,387.

1. The combination with a reciprocatory frame having an approximately elliptical seat formed with side notches located on its minor axis, of a rotary head working within said seat, provided with three points located equidistant from its axis and circumferentially spaced 120 degrees apart, the points of which head are arranged to move over the elliptical surface of said seat, and to engage in succession with the said side notches of said seat, whereby rotation of said head will reciprocate said frame or vice versa.



2. The combination with a reciprocatory frame having an approximately elliptical seat formed with side notches located on its minor axis, of a rotary head working within said seat, provided with three points located equidistant from its axis and circumferentially spaced 120 degrees apart, the points of which head are arranged to move over the elliptical surface of said seat, and to engage in succession with the said side notches of said seat, whereby rotation of said head will reciprocate said frame or vice versa, and which frame is made up of two detachably connected sections, divided on one of the axes of said elliptical seat.

941,004. CALCULATING IMPLEMENT. EDWARD J. BRANDT, Watertown, Wis., assignor to Brandt Cashier Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 24, 1906. Serial No. 307,787.



1. A portable calculating implement comprising a tablet provided with longitudinal guideways, a series of slides transversely indented at intervals longitudinally thereof and independently adjustable in the guideways beyond an end of the tablet to indicate arbitrary designations, and a plate in rigid connection with said tablet having spring-fingers each automatically engageable with indentations of a slide to hold the same extended at various adjustments thereof beyond said end of the aforesaid tablet.

2. A portable calculating implement comprising a tablet provided with longitudinal guideways open at one end, a series of slides transversely indented at intervals longitudinally thereof and independently adjustable in the guideways beyond the open ends of same to indicate arbitrary designations, and a single latch-plate in pivotal spring-controlled connection with the tablet for engagement with indentations of all the slides regardless of their adjustment.

3. A portable calculating implement comprising a tablet, slides in adjustable connection with the tablet to indicate arbitrary designations, a spring-plate fastened to said tablet and having fingers engaging the slides to stop the

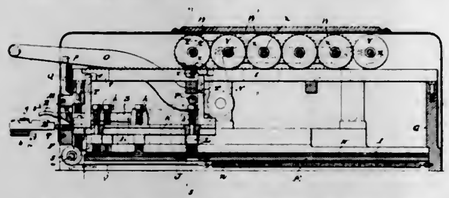
same in various adjustments thereof, and a latch-plate for said slides in pivotal connection with the aforesaid tablet and having a thumb-extension opposed to an arm of the spring-plate.

4. A portable calculating implement comprising a tablet provided with a sales-ticket back compartment, adjustable computing slides for designating the total money value of a sale, guideways for the slides, and means for holding each slide extended in adjusted position beyond an end of its guideway.

5. A portable calculating implement comprising a tablet provided with a back-receptacle and adjustable computing slides, said receptacle constituting a pocket for cash with which to pay the money value of a sale as designated by an adjustment of one or more of said slides out of normal position beyond an end of the tablet.

[Claim 6 not printed in the Gazette.]

941,005. DESIGNATING, RECORDING, AND REGISTERING MECHANISM. EDWARD J. BRANDT, Watertown, Wis., assignor to Brandt Cashier Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 24, 1906. Serial No. 307,788.



1. A machine comprising adjustable recording mechanisms; a detachable tablet provided with longitudinal guideways, and slides adjustable in the guideways to extend beyond an end of the tablet and determine the adjustment of the mechanisms aforesaid when engaged with said machine.

2. A machine comprising register mechanisms; a detachable tablet provided with longitudinal guideways, and slides adjustable in the guideways to extend beyond an end of the tablet and determine the operation of the mechanisms aforesaid when engaged with said machine.

3. A machine comprising adjustable recording mechanisms and registering mechanisms; a detachable tablet provided with longitudinal guideways, and slides adjustable in the guideways to extend beyond an end of the tablet and determine an adjustment of the recording mechanisms as well as the operation of the registering mechanisms when engaged with said machine.

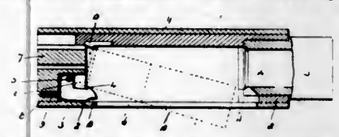
4. A detachable tablet provided with longitudinal guideways, slides adjustable in the guideways to extend beyond an end of the tablet and indicate money value, and a machine comprising adjustable indicating mechanisms each of which has its adjustment determined by an adjusted slide engaged with said machine, and means co operative with adjusted indicating mechanisms for recording values primarily indicated by means of said slides.

5. A detachable tablet provided with longitudinal guideways, slides adjustable in the guideways to extend beyond an end of the tablet as means for indicating money value in varying amounts, and a machine comprising intermittently coactive register-mechanisms in position to be operated by adjusted slides engaged from time to time with said machine, whereby a total of a plurality of values primarily indicated by means of said slides is obtained.

[Claims 6 to 18 not printed in the Gazette.]

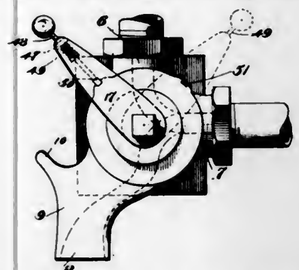
941,006. RECOILING-BARREL GUN. FRANK F. BURTON, Short Beach, Conn., assignor to Winchester Repeating Arms Co., New Haven, Conn., a Corporation. Filed Feb. 4, 1909. Serial No. 476,119.

In a recoiling-barrel shot-gun, the combination with a frame or receiver having a side ejection-opening, of a recoiling-barrel, a breech-block formed at the forward end of its side adjacent to the said opening with a recess, a single pivotal extractor horizontally arranged in the said recess and yielding to engage a rim-cartridge and formed upon its outer edge with an irregular surface acting as a cam for positively swinging the extractor inward upon the



rim of the shell to be extracted by the engagement of such surface with the inner face of that portion of the side wall of the receiver just at the rear end of the side-ejection opening.

941,007. LIQUID-VOLUME RECORDER. CHARLES I. CARRICO and BRYANT HAWKINS, Owensboro, Ky., assignors of three-fifths to said Carrico and two-fifths to said Hawkins. Filed Feb. 17, 1909. Serial No. 478,473.



1. The combination with a valve and a casing therefor, of a housing carried by said casing, a cam sleeve having a pair of projections and movable with said valve, a tape feed reel, a take-up reel, and means actuated by said projections for advancing the tape and recording thereon the actuations of the valve.

2. The combination of a valve movable in one direction only and a casing therefor, of a housing carried by said casing, a cam sleeve having a pair of projections and movable with said valve, a tape feed reel, a take-up reel, and means actuated by said projections for advancing the tape and recording thereon the actuations of the valve.

3. The combination with a valve and a casing therefor, of a housing carried by said casing, a cam sleeve having a pair of projections movable with said valve, a tape feed reel, a take-up reel having a peripherally toothed wheel, a punch, a bridge having a die for said punch, one of said projections being designed for engagement with the teeth of said wheel to cause the tape to advance and the other projection adapted to sequentially force the punch in contact with the paper for recording the actuations of the valve.

4. The combination with a valve and a casing therefor, of a detachable cam sleeve movable with said valve and having a pair of projections, a tape feed reel, a take-up reel, means actuated by said projections for advancing the tape and recording thereon the actuations of the valve.

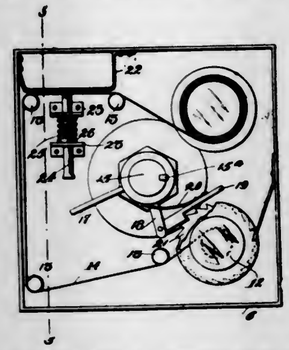
5. The combination with a valve and a casing therefor, of punching recorder mechanism, a handle for said valve, a spring pressed rod carried by said handle, said casing having depressions therein which are adapted to receive one terminal of said rod and thereby lock the handle with respect to the casing.

[Claims 6 to 8 not printed in the Gazette.]

941,008. LIQUID-VOLUME RECORDER. CHARLES I. CARRICO and BRYANT HAWKINS, Owensboro, Ky., assignors of three-fifths to said Carrico and two-fifths to said Hawkins. Filed Mar. 19, 1909. Serial No. 484,356.

1. The combination with an oscillatory valve and a casing therefor, of a tape feed reel, a take-up reel, a sleeve movable with said valve and having a pair of projections,

one of said projections having a pivoted spring pawl, and means actuated by said projections for advancing the tape and recording thereon the actuations of the valve.



2. The combination with an oscillatory valve and a casing therefor, of a tape feed reel, a take-up reel, means for recording the actuations of the valve on the tape, and means operated by said recording means for automatically returning the valve to normal position and simultaneously advancing the tape.

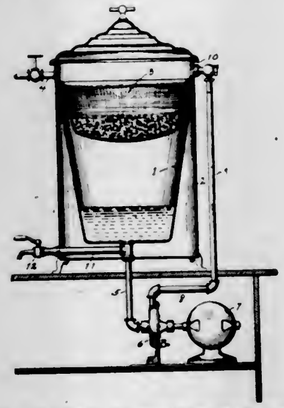
3. The combination with an oscillatory valve and a casing therefor, of a tape feed reel, a take-up reel, means for recording the actuations of the valve on the tape, and common means operated by said recording means for automatically returning the valve to normal position and simultaneously advancing the tape.

4. The combination with an oscillatory valve and a casing therefor, of a tape feed reel, a take-up reel, punch and die mechanism, and means adapted to operate said mechanism and record the actuations of the valve on the tape, said mechanism being designed to return the valve to its normal position and simultaneously advance the tape.

5. The combination with an oscillatory valve and a casing therefor, of a tape feed reel, a take-up reel, a spring controlled punch, a die, and means adapted to operate said punch and record the actuations of the valve on the tape, said punch being designed to return the valve to normal position and simultaneously advance the tape.

[Claims 6 and 7 not printed in the Gazette.]

941,009. APPARATUS FOR PREPARING INFUSIONS. FREDERIC A. CAUCHOIS, New York, N. Y. Filed Mar. 19, 1908. Serial No. 422,000.

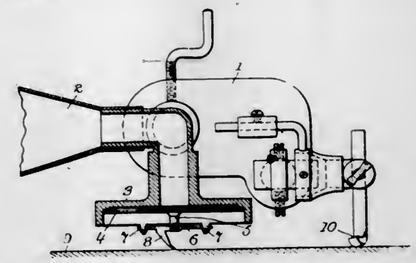


1. A coffee urn having an outlet in the bottom thereof, a connection from said outlet to the upper part of the urn, a centrifugal pump located in said connection below the level of the bottom of the urn, and an offtake for the fluid between the pump and the bottom of the urn.

2. A coffee urn having an outlet in the bottom thereof, a connection from said outlet to the top of the urn, and a centrifugal pump in said connection below the level of the bottom of the urn for lifting the fluid and sediment from the bottom to the top of the urn.

3. A coffee urn having an outlet in the bottom thereof, a connection from said outlet into which the sediment at the bottom of the urn may pass by gravity, said connection leading into the urn again at the upper part thereof, and a valveless pump in said connection below the level of the bottom of the urn for forcing the fluid and sediment through the connection.

941,010. PROCESS OF RECORDING SOUND. GEORGE K. CHENEY, New York, N. Y., assignor, by mesne assignments, to Victor Talking Machine Company, a Corporation of New Jersey. Filed Dec. 12, 1902. Serial No. 134,914.



1. The method of recording sound waves, which comprises vibrating a stylus by means of sound waves, impressing a sinuous groove in a record blank of displaceable material, by forcing by means of said stylus a depression therein having smoothed or ironed surfaces.

2. The method of recording sound waves, which comprises vibrating a stylus by means of sound waves, impressing a sinuous groove in a record blank of displaceable material, by forcing by means of said stylus said material upwardly and laterally under pressure which smooths or irons the surfaces of said groove.

3. The method of recording sound waves, which comprises vibrating the stylus by means of sound waves, impressing a sinuous groove in a record blank of displaceable material, by gradually increasing the depth of said groove by means of said stylus through downward and lateral pressure.

4. The method of recording sound waves, which comprises vibrating a stylus by means of sound waves, impressing a sinuous groove in a record blank of displaceable material by means of said stylus, the angle of the walls of said groove being acute, whereby the material of the tablet is displaced laterally and upwardly.

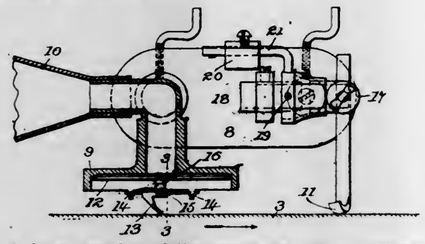
5. The method of recording sound waves, which comprises vibrating a stylus by means of sound waves, impressing an acute V-shaped sinuous groove in a tablet of displaceable material by means of said stylus, by displacing said material laterally and upwardly, and removing the material displaced above the normal surface of the tablet.

[Claims 6 to 16 not printed in the Gazette.]

941,011. APPARATUS FOR RECORDING SOUND. GEORGE K. CHENEY, New York, N. Y., assignor, by mesne assignments, to Victor Talking Machine Company, a Corporation of New Jersey. Filed Dec. 12, 1902. Serial No. 134,915.

1. In a sound recording apparatus, the combination with a record, of a recording tool having an end provided with plane converging surfaces and adapted to displace

the material of the record both laterally and upwardly in forming the record groove.



2. In a sound recording apparatus, the combination with a record, of a recording tool having an end terminating in lateral inclined surfaces, said surfaces being in the rear of the stock of the tool in relation to the movement of the record.

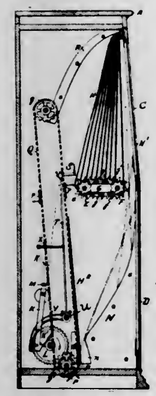
3. In a sound recording apparatus, the combination with a record, of a record tool having an impressing end which is V-shaped in cross section transversely to the direction of motion of the record material, said V-shaped end being adapted to gradually enter the record material in contradistinction to scraping or cutting said material.

4. In a sound recording apparatus, the combination with a record, of a recording tool having an impressing end which is V-shaped in cross section transversely to the direction of the motion of the record material, said V-shaped end portion forming an edge and laterally inclined sides adapted to impress a V-shaped groove in said material.

5. In a sound recording apparatus, the combination of a recording tool having an end terminating in lateral deflecting surfaces and a second tool for removing the material displaced by said recording tool.

[Claims 6 to 25 not printed in the Gazette.]

941,012. ADVERTISING DEVICE. CHARLES H. COLLINS, Albany, N. Y. Filed Nov. 25, 1907. Serial No. 403,651.



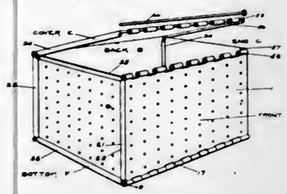
1. In an advertising display apparatus; a cabinet; a series of cards to be displayed; a means for raising said cards one by one; an endless traveling chain upon which the lower edges of each card in said series rest after they have been so raised, the upper edges of said cards being free and unattached; a means for pushing the first card of said series from said endless chain after it has been displayed and allowing it to fall; a means for guiding said card so that in its fall it shall assume substantially an upright position; a means for engaging the lower edge of said card when it has fallen and assumed an upright position for the purpose of raising it to the level of the upper side of said endless chain.

2. In an advertising display apparatus; a cabinet; a series of display cards; endless carrier chains upon which said cards are placed, whereby one by one said cards are brought to the front of the cabinet and permitted to fall; said cards being entirely free and disconnected; a means for guiding the fallen card from said endless chains into position to be raised; lifting mechanism consisting of traveling chains for raising said cards; projections on said lifting mechanism for engaging the lower edge of said fallen card; a means for causing said card to be moved from said lifting mechanism to said traveling chains.

3. In an advertisement display apparatus; a cabinet; a series of cards; endless chains; a series of projections thereon; said cards resting upon said chains and separated from each other by said projections; a shaft; sprocket wheels thereon engaging said endless chains; studs; sprocket wheels supported by said studs engaging said chains; a ratchet on the end of said shaft; a dog engaging said ratchet; a lever to which said dog is pivoted; a wedge shaped projection on said lever; a wheel; a cam thereon adapted to engage said wedge shaped projection on said lever; a means for rotating said wheel, substantially as described and for the purposes set forth.

4. In an advertisement display apparatus; a cabinet; a series of cards; endless chains upon which said cards rest; a means for imparting intermittent motion to said chains, whereby said cards are moved toward the front of the machine and the first card dropped out of the series by said movement; a means for raising said fallen card; an arm adapted to push said card from the raising means to the supporting chain; a rod to which said arm is attached; a shaft upon which said rod is mounted; a lever secured to said shaft; a wedge shaped projection on said lever; a wheel; a means for revolving said wheel; a pin on said wheel adapted to engage said wedge shaped projection during the revolution of the wheel, whereby said arm is moved against the card when raised to the position of the supporting chain, substantially as described.

941,013. FOLDING BOX OR SHIPPING-CASE. WILLIAM H. DOBLE, Quincy, and CARL M. WHEATON, Newton, Mass., assignors, by direct and mesne assignments, of three-fourths to Henrietta W. Doble, Quincy, Mass., and one-fourth to Pneumatic Scale Corporation Limited, Quincy, Mass., a Corporation of Maine. Filed Aug. 15, 1908. Serial No. 448,642.



1. A knock-down metallic box comprising a cover, bottom, front, back and two end walls, one of the end walls and the bottom being hinged to adjacent edges of the front wall, the other end wall and the cover being hinged to adjacent edges of the back wall, one edge of the bottom having a draw-hinge connection with the back wall, said draw-hinge connection consisting of a plurality of knuckles formed with longitudinal slits therein which project from one of said last two members, the other of said two members having a portion thereof formed as a pintle with a slotted neck which has a slidable connection with said knuckles when said two members are in the same plane with each other and the neck of the pintle is in alinement with the said slits, said knuckles and pintle interlocking by engagement of the knuckles with the slots of the neck to prevent disengagement when said two members are turned at an angle to each other.

2. A knock-down metallic box comprising a cover, bottom, front, back and two end walls, one of the end walls

and the bottom being hinged to adjacent edges of the front wall, the other end wall and the cover being hinged to adjacent edges of the back wall, one edge of the bottom having a draw hinge connection with the back wall, one of said last two members having slotted knuckles which project therefrom and the other of said two members having a portion thereof formed as a pintle which has a slidable connection with said knuckles thereby forming the draw hinge connection, other edges of said end walls being formed with curled spring lips and other edges of the top, bottom, front and back being formed with curled rolls with which said spring lips engage when the box is set up forming a locking connection of all the parts.

3. A knock-down metallic box having six walls, combined in sets of three each, one wall of one set having its edge formed with slotted hinge knuckles, the other set of members having one edge of one wall terminating in a slotted neck and a curled roll forming a pintle which is adapted to engage with the slotted knuckles of the other set, whereby the two sets may be hinged together, the contiguous edges which are free when the box is in a knock-down position being formed some with curled lips and the others with curled rolls which interlock with the curled lips when the box is set up.

4. A knock-down metallic box having a cover, bottom, two ends and two sides all pivotally connected together and adapted to be spread out in single layer when in the knocked down position and opened out, the edges which are free when in the knocked down position being adapted, when the box is set up, to interlock with each other, the six members being divided into two sets of three each, one set having on the edge of one of its members a series of hinge knuckles with longitudinal slits therein, the other set having on the edge of one of its members a slotted neck and a curled roll forming a hinge pin which is adapted to be engaged with the slotted knuckles of the other set by a sliding movement when the two sets are spread out and which will lock the two sets together when the said two members are turned at an angle to each other.

5. In a knock-down box formed of metallic plates, a wall plate having one of its edges formed with a curled roll with a series of slots, another wall plate having one of its edges formed with a series of curled tongues which are adapted to engage with the slots in the roll of said first plate and form a hinge connection therewith, the other edge of said second plate being formed with curled lips, the contiguous edges of the other wall plates which are to be connected with said second plate being formed with curled rolls with which said curled lips are adapted to be engaged when the box is set up.

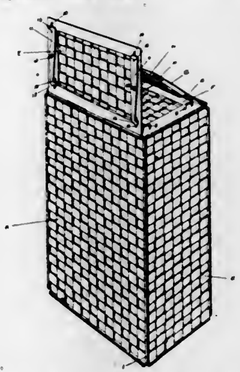
[Claims 6 to 15 not printed in the Gazette.]

941,014. KNOCKDOWN SHIPPING CASE OR BOX. WILLIAM H. DOBLE, Quincy, Mass., assignor, by direct and mesne assignments, of three-fourths to Henrietta W. Doble, Quincy, Mass., and one-fourth to Pneumatic Scale Corporation Limited, Quincy, Mass., a Corporation of Maine. Filed Dec. 24, 1908. Serial No. 469,040.

1. A knock-down shipping case or box having four plates which form four sides of the body of the box hinged together and having end closing flaps hinged to the ends of the side forming plates, the end closing flaps being each formed with a sunken panel embordered by a flange raised above the sunken panel, said sunken panels in the respective ends being so formed with relation to each other that when the box is set up and the end flaps are folded upon each other to close the end they will nest together.

2. A knock-down shipping case or box having four plates which form four sides of the body of the box hinged together and having end closing flaps hinged to the ends of the side forming plates, each end closing flap being formed with a sunken panel embordered by a flange raised above the sunken panel, said sunken panels having flaring walls connecting them with said flanges thereby making in the flaps depressions with flaring walls so constructed with relation to each other that when the box is set up and the end flaps are folded upon each other to close the end they will nest together.

3. A knock down shipping case or box made of plates which are corrugated both longitudinally and transversely, said box having four plates which form four sides of the body of the box hinged together and having end closing flaps hinged to the ends of said side forming plates, the corrugations in the end closing flaps being so constructed that when the box is set up and the end flaps closed the corrugations in the several flaps will nest together each with its next adjacent inner flap.

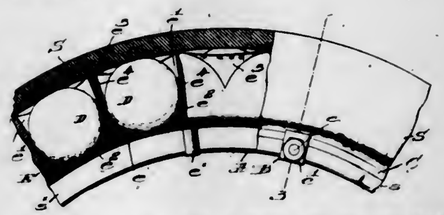


4. A knock down shipping case or box made of plates which are corrugated both longitudinally and transversely, said box having four plates which form four sides of the body of the box hinged together and having end closing flaps hinged to the ends of the side forming plates and the end closing flaps being formed with a sunken panel embordered by a flat flange, the sunken panel being formed with cross corrugations, transversely and longitudinally, forming pockets the pockets of the several flaps being so constructed that the pockets of each flap will nest with the pockets of the flaps onto which it is folded when the box is set up.

5. A box having end closing flaps adapted to be successively folded one upon another to close the ends, one of said end closing flaps being adapted to be innermost when folded and provided with staple eyes near opposite ends, the others of said end closing flaps being formed with slots through which when folded the eyes of said first folded end flaps are adapted to project outwardly, and a fastening bar pivoted intermediate its ends to the outermost flap, said bar having on its opposite arms hooks which are adapted to engage with the projecting eyes.

[Claims 6 and 7 not printed in the Gazette.]

941,015. RESILIENT TIRE FOR VEHICLES. GEORGE O. DRAPER, Hopedale, Mass. Filed Apr. 5, 1909. Serial No. 487,022.



1. The combination with a wheel rim provided with shoe-clamping means, and a shoe connected with the rim by said means, of a core for the shoe, comprising a holder and a series of inflated balls mounted therein, the normal cross-sectional area of the core being greater than that of the interior of the shoe, whereby the balls and adjacent portions of the holder are compressed by and within the shoe when the latter is acted upon by the clamping means.

2. The combination with a wheel rim provided with shoe-clamping means, and a shoe having annular lips at its inner circumference to be engaged by said means, of a core for the shoe, comprising a plurality of segmental holders, and a series of inflated balls mounted in each holder and exposed at the outer circumference thereof, the normal size of the balls being such that they are held under compression by the shoe when the latter is connected with the wheel rim by the clamping means.

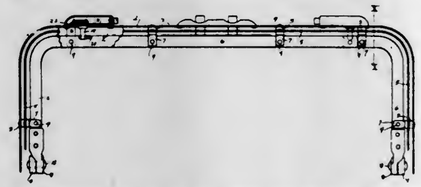
3. A wheel rim provided with shoe-attaching means, a shoe held on the wheel rim by said means, a flexible, cellular holder within the shoe, and inflated elastic balls mounted in the cells of the holder and held under pressure by the overlying shoe when the latter is attached to the wheel rim, said balls acting to support the shoe adjacent the tread portion thereof.

4. A shoe core for resilient tires, comprising a holder having a series of ball-receiving pockets open toward the tread side of the shoe, and resilient balls in the pockets to bear directly against the interior surface of the shoe when assembled therewith.

5. In a core for resilient tire shoes, a segmental ball-holder of molded rubber provided with a series of radial cells or pockets having their openings at the longitudinally convex side of the holder.

[Claims 6 to 10 not printed in the Gazette.]

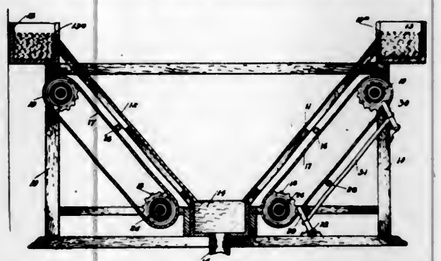
941,016. BAG-FASTENER. EDWARD S. ERICKSON, Milwaukee, Wis., assignor to Milwaukee Stamping Co., West Allis, Wis., Incorporated. Filed Mar. 13, 1909. Serial No. 483,158.



The combination with the respective ends of the overlapping frame members, of a stationary base plate, a movable plate slidably supported from said base plate, a transversely arranged locking pin connected with said slidable plate, a cap inclosing said stationary and slidable plates, a push bearing affixed to said slidable plate and projecting at one end through an aperture provided therefor in one end of said inclosing cap, a lug affixed to said stationary plate, a projection connected with said slidable plate and adapted to engage said lug, a spring connected at one end with said slidable plate and at its opposite end with said stationary base plate, and a hook rigidly connected with the interior member of said bag frame and adapted when the bag is closed to register with the fastening pin carried by said slidable plate, a lug carried by said interior frame member adapted as the bag is closed to contact with one side of said fastening pin, whereby the projection of said slidable plate is disengaged from the lug of said stationary plate and said fastening pin will be thrown by the recoil of said spring into locking engagement with said hook.

941,017. PULP-SCREENING MACHINE. JOHN F. FISHER, Hinckley, N. Y., assignor, by direct and mesne assignments, to Fischer Save-All Company, Hinckley, N. Y. Filed Oct. 7, 1908. Serial No. 456,522.

1. In a pulp screening device the combination of a frame, a flow box having a low side supported on the frame in an elevated position, a receiving trough mounted on the frame in a low position, a set of independent removable elongated screen frames with screens engaging at their lower ends with the upper edge of the trough and at their upper ends with the low side of the flow box and arranged at an angle of approximately forty-five degrees to a perpendicular, a spray pipe adapted to discharge against the under side of the screen and means for moving the spray pipe backward and forward adjacent to the under surface of the screen, substantially as set forth.



2. In a machine of the character described, the combination of screen members, each comprising a series of independent and separate removable screening members, each disposed in a frame in a tilted position, a trough having a spillway opening onto the screen members at the top thereof, a trough located below the ends of the screen members whereby to provide a clearance for the discharge from the screen members into the trough at a substantially lower level, a spray pipe located underneath the screen members and transverse thereof, and means for reciprocating the said spray pipe upward and downward whereby to aid the passage of material downward along the screen face, substantially as described.

3. In a device of the character described, the combination of a series of screen members disposed in oppositely disposed inclined frames, each of said screen members being independently removable from its frame, a feed trough with a spillway adjacent the top edge of each frame and adapted to discharge material onto the upper end of each screen in the several frames, a trough located between the frames and below the lower end of the several screens and separate from the screens, a spray pipe underneath the screens in each frame extended transverse the screens therein, and means for reciprocating each spray pipe upward and downward along the under face of the screens in each frame whereby to prevent lodgment of material on the said screens, substantially as described.

4. In a device of the character described, the combination of a spray pipe mounted on chain-carriers, means for rotating the carriers in either direction, and means for controlling said mechanism to reverse the direction of movement of the said spray pipe, substantially as described.

5. In a device of the character described, the combination of a plurality of screen frames, with means for discharging material thereto and receiving the discharge therefrom, of spray pipes mounted to travel in a reciprocating movement along the under side of the said frames, mechanism for reciprocating the said pipes under each of said frames, substantially as described.

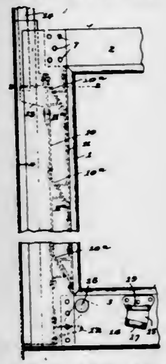
941,018. METAL-WINDOW CONSTRUCTION. GEORGE H. FORSYTH, Chicago, Ill. Filed Feb. 1, 1907. Serial No. 355,225.

1. The combination with a sash and a sash guide, of a sash balance, and means brought into action by the latter for adjusting the sash relatively to the guide both in the plane of the sash and in a direction transverse thereto.

2. The combination with a sash and a sash guide, of a sash balance, and means brought into action by the latter for automatically adjusting the sash relatively to the guide both in the plane of the sash and in a direction transverse thereto.

3. The combination with a sash and a sash guide, of a sash balance, and means contained within the sash and brought into action by the sash balance for adjusting the sash relatively to the guide.

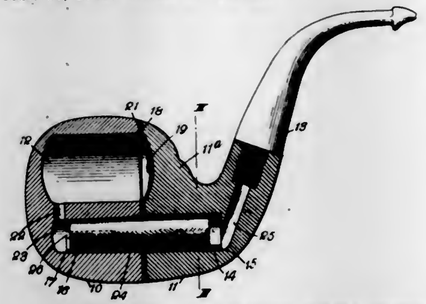
4. The combination with a sash having a hollow stile, and a sash guide, of a sash balance, and means contained within said hollow stile and brought into action by the sash balance for adjusting the sash relatively to the guide.



5. The combination with a sash and a sash guide, of a sash balance, and means brought into action by the latter for forcing the sash into intimate contact with a plurality of the walls of the guide.

[Claims 6 to 19 not printed in the Gazette.]

941,019. PIPE. JAMES A. IRVING, New York, N. Y. Filed Mar. 30, 1909. Serial No. 486,696.



1. A pipe comprising two relatively movable members, one of which is provided with an outlet opening and a tobacco chamber arranged in a substantially horizontal plane when in use to prevent the tobacco packing on the lighted part thereof, and the other member serving to close the tobacco chamber.

2. A pipe comprising two members pivotally held together, one of which is provided with a tobacco chamber arranged in a substantially horizontal plane and having air inlet and smoke outlet openings and the other part serving to close the tobacco chamber by a pivotal action only.

3. A pipe comprising a bowl member having a chamber for the tobacco and arranged in substantially a horizontal plane while in use, a relatively movable stem member adapted to close one end of the tobacco chamber, a sleeve having one end fixed in the stem member and forming a pivot for the bowl member about which the latter may be swung, said bowl member being provided with an outlet and with a collecting and retention chamber in advance of the sleeve, and a cartridge fitting within the pivoting sleeve along which the smoke must pass throughout the entire length thereof in passing through the stem member.

4. A pipe comprising a bowl member having a chamber for the tobacco, a stem member adapted to close the open end of the tobacco chamber, and a tubular device having one end fixed and held against movement in the stem member and forming a fixed pivot for the bowl member about which the latter may be swung.

5. A pipe comprising a bowl member having a chamber for the tobacco, a stem member adapted to close the open end of the tobacco chamber, a tubular device forming a passage for the smoke and having one end fixed in the stem member and forming a pivot for the bowl member about which the latter may be swung with a pivotal action only, said bowl member being provided with an outlet passage, and absorbing means fitting within the pivoting tubular device along which the smoke must pass in passing through the stem member.

[Claims 6 to 12 not printed in the Gazette.]

941,020. FUSE. FRANK G. JONES, Muskegon, Mich. Filed Mar. 11, 1908. Serial No. 420,367.

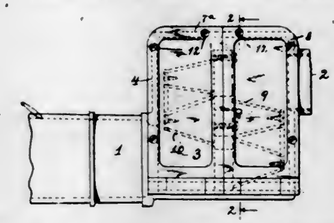


1. In a mounted fuse, a fuse support having an enlargement near the end thereof; a ferrule upon the end of said support and spun or crimped over the enlargement thereof; longitudinal channels through said support; and a fuse wire within said channels and connected to said ferrule, substantially as described.

2. A fuse wire support; ferrules upon the end of said support, said ferrules being internally threaded; shouldered binding post studs externally threaded and screwed into said ferrules; and a fuse wire within said support, the terminals of said fuse wire being connected to said ferrules, substantially as described.

3. In a strong current protector, a porcelain rod having a plurality of longitudinal holes therethrough, a fuse wire running serially back and forth through said longitudinal holes; metallic terminals for said fuse wire rigidly attached to the ends of said porcelain tube; and detachable terminal studs engaging said metallic fuse terminals.

941,021. OPTICAL INSTRUMENT. FREDERICK L. G. KOLLMORGEN, Montclair, N. J., assignor to Keuffel & Esser Company, Hoboken, N. J., a Corporation of New Jersey. Filed June 25, 1908. Serial No. 440,224.



1. An optical instrument comprising a tubular body, an offset prism container open on one side and two hinged supports each adapted to carry prism elements.

2. An optical instrument comprising a tubular body, an offset prism container open on one side and provided with a plurality of separately hinged supports forming inclosures each adapted to carry prism elements, whereby each of such prism elements may be swung out from and returned to the instrument without disturbing their relative position with respect to the other parts of the device.

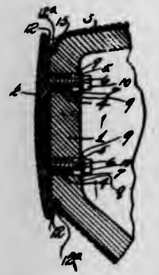
3. An optical instrument comprising a tubular body, an offset prism container open on one side and two hinged supports each adapted to carry prism elements in combination with means whereby the supports may be detachably secured to the container.

4. An optical instrument comprising a tubular body, an offset prism container open on one side and two hinged supports secured thereto, each adapted to carry prism elements, and each movable on their hinges relatively to each other to afford access to the opposed surfaces of the prisms.

5. An optical instrument comprising a tubular body, an offset prism container open on one side and two hinged supports secured thereto, each adapted to carry prism elements of identical size and each movable on their hinges relatively to each other to afford access to the opposed surfaces of the prisms.

[Claims 6 and 7 not printed in the Gazette.]

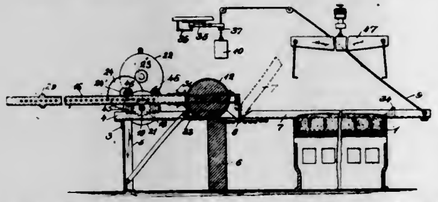
941,022. GARMENT-FORM. EDWARD LEVIN, New York, N. Y. Filed June 2, 1909. Serial No. 499,709.



1. In combination with a bust form, an arm-hole pattern, means adapted to secure said pattern to said form, the periphery of said pattern being rearwardly angularly disposed, whereby a recess between said form and said pattern is provided.

2. In combination with a bust form, an arm-hole pattern, adapted to be secured to the outer surface of said form, tap-bolts adapted to pass through said form from the inside thereof, and adapted to secure said pattern in position, and means adapted to prevent the removal of said bolts after the pattern has been secured in position.

941,023. SAND-RAMMING MACHINE. HARRY P. MACDONALD, Montclair, N. J., assignor to Snead & Company Iron Works, Jersey City, N. J., a Corporation of New Jersey. Filed Mar. 25, 1908. Serial No. 423,167.



1. A machine of the character described comprising a roller for ramming the sand, a frame along which said roller is adapted to travel, said frame comprising fixed and movable sections pivotally connected together and the latter adapted to rest upon the top of a flask, and means for raising and lowering said movable section out of and into position.

2. A machine of the character described comprising a roller for ramming sand, a motor and mechanism connecting the same with said roller to cause the latter to travel over the flask, and means for automatically reversing the direction of travel of the roller upon the completion of its forward movement or to stop the roller.

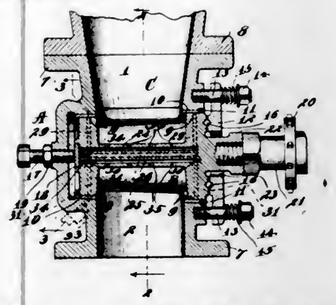
3. A machine of the character described comprising a roller for ramming sand, a motor and mechanism connecting the same with said roller to cause the latter to travel over a flask, means for automatically reversing the direction of travel of the roller upon the completion of its forward movement, and means for automatically stopping the roller upon reaching its initial position.

4. A machine of the character described comprising a roller for ramming the sand, a motor and a train of gears connected thereto, a rack connected to said roller and adapted to be actuated by said gears, and means on said rack adapted to effect the reversal of said motor or to stop it upon the completion of the forward movement of the roller.

5. A machine of the character described comprising a roller for ramming the sand, a motor and mechanism connecting the same with said roller to cause the latter to travel over a flask, a controller for said motor, means for automatically shifting the controller arm to reverse or stop position when the roller completes its forward movement, and means for automatically shifting the controller arm to stop position when the roller reaches its normal or initial position.

[Claims 6 to 9 not printed in the Gazette.]

941,024. ROTARY DISCHARGE-VALVE. OTTO MANTIUS, Chicago, Ill., assignor to Zaremba Company, Chicago, Ill., a Corporation of Maine. Filed Mar. 13, 1908. Serial No. 420,815.



1. In a valve, the combination of a valve casing provided with a passageway extending through the same and with a valve seat, said passageway comprising separate sections on opposite sides of said valve seat, a rotary valve member mounted in said valve seat provided with an opening or openings adapted to be brought into register with different sections of the passageway through said valve casing by rotation of said rotary valve member, said valve being provided with a passageway or passageways, comprising a section or sections formed in the valve casing, adapted to be connected with a source of supply of fluid under pressure and adapted to be brought into communication with the opening or openings in said rotary valve member by rotation thereof.

2. In a valve, the combination of a valve casing provided with a passageway extending through the same and with a valve seat, said passageway comprising separate sections on opposite sides of said valve seat, a rotary valve member mounted in said valve seat provided with an opening or openings adapted to be brought into register with different sections of the passageway through said valve casing by rotation of said rotary valve member, said valve being provided with a passageway or passageways, comprising a section or sections formed in the valve casing, adapted to be connected with vacuum producing means and adapted to be brought into communication with the opening or openings in said rotary valve member by rotation thereof.

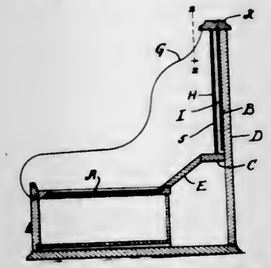
3. In a valve, the combination of a valve casing provided with a passageway extending through the same and with a valve seat, said passageway comprising separate sections on opposite sides of said valve seat, a rotary valve member mounted in said valve seat provided with an opening or openings adapted to be brought into register with different sections of the passageway through said valve casing by rotation of said rotary valve member, said valve being provided with passageways, comprising sections formed in the valve casing, adapted to be connected, respectively, with a source of supply of fluid under pressure and with vacuum producing means and adapted to be brought into communication with the opening or openings in said rotary valve member by rotation thereof.

4. In a rotary discharge valve of the type described, the combination of a valve casing provided with a passageway and with a valve seat, a valve plug provided with pockets in its perimeter rotatably mounted in said valve seat, and means for securing said valve plug in said valve seat, said valve plug being provided with passageways which communicate with the pockets therein adapted to be brought into communication with a port or ports adapted for connection with a source of supply of fluid under pressure by rotation of said valve plug.

5. In a rotary discharge valve of the type described, the combination of a valve casing provided with a passageway and with a valve seat, a valve plug provided with pockets in its perimeter rotatably mounted in said valve seat, and means for securing said valve plug in said valve seat, said valve plug being provided with passageways which communicate with the pockets therein adapted to be brought into communication with a port adapted for connection with vacuum producing means.

[Claims 6 and 7 not printed in the Gazette.]

941,025. CABINET FOR BILL-FILES. JOSEPH MILLER, Cleveland, Ohio. Filed Apr. 8, 1909. Serial No. 488,600.



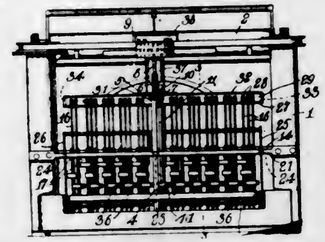
1. In a cabinet for a bill-file, a seat for a bill-file; a chamber arranged rearwardly of and extending above the said seat, which chamber has a transparent front wall; a lid for closing the said chamber at the upper end, and an index-holder connected to and removable with the lid and extending from the lid into the chamber.

2. In a cabinet for a bill-file, a seat for a bill-file; a back arranged rearwardly of and extending above the said seat; two upright laterally spaced slideways formed a suitable distance forwardly of the back and arranged at opposite sides respectively of the cabinet; a transparent slide engaging the said slideways and removable upwardly from the cabinet; a lid closing the upper end of the chamber, and an index-holder connected to and removable with the lid.

3. In a cabinet for a bill-file, a seat for a bill-file; a back arranged rearwardly of and extending above the said seat; two upright laterally spaced slideways formed a suitable distance forwardly of the back and arranged at opposite sides respectively of the cabinet; a transparent slide engaging the said slideways and removable upwardly from the cabinet; an index-holder arranged between the slide and the back, and a lid closing the upper end of the chamber, said lid bearing the index-holder.

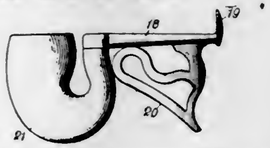
941,026. KEY-WHEEL TYPE-WRITER. JOSEPH W. MILLER, Sr., Harrisburg, Pa. Filed Dec. 14, 1908. Serial No. 467,402.

1. In a typewriter mechanism, a supporting frame, a cross rod rigidly mounted therein, a vertically disposed swinging bar mounted upon said cross rod, a rotatable key wheel mounted at the upper end of said bar, a gear on the key wheel shaft, a vertically disposed segment carrying bar mounted upon said cross rod and having a toothed segment at its upper end to engage said gear, said bar being adapted to rotate the key wheel shaft and to swing the key wheel into engagement with the platen, a series of vertically disposed levers mounted on said cross rod, a pinion on the key wheel shaft, and a horizontal sliding rack bar having teeth to engage the pinion and provided with means for engaging any one of the series of vertically disposed levers when actuated to stop the rotation of the key wheel at a point corresponding to the key lever which is depressed.



2. A typewriter mechanism comprising a frame, a cross rod extending across the frame, a vertically disposed swinging bar mounted thereon, a rotary key wheel mounted upon the upper end of said bar, a vertically disposed lever having a lateral pin mounted upon the cross rod near said swinging bar, a key lever pivoted in the frame in the rear of the cross rod with a portion thereof resting upon the pin of the vertically disposed lever, and a connection between the swinging bar and lever whereby the former is caused to swing inwardly and bring the key wheel against the platen when the vertically disposed lever is actuated by depressing the key lever.

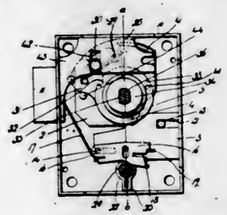
941,027. PIPE. LOUIS MORRIS, New York, N. Y. Filed Jan. 25, 1909. Serial No. 474,103.



1. A pipe stem having a bracket depending therefrom and curved to conform to the contour of the chin of the user.

2. The combination with a pipe stem having a mouthpiece provided with an upwardly projecting enlargement adapted to fit behind the upper gum, and a bracket depending from the stem, and conforming to the curvature of the chin.

941,028. COMBINATION-LOCK. JAMES J. MURPHY, Terryville, Conn., assignor to Eagle Lock Co., Terryville, Conn., a Corporation. Filed Mar. 22, 1909. Serial No. 485,027.



1. In a combination lock, the combination with the main-bolt thereof, of a carrier, combination-mechanism imposed upon the said carrier and coacting with the said bolt for operating the same, and a key-mechanism acting through the combination-mechanism for operating the main-bolt.

2. In a combination lock, the combination with the main-bolt thereof, of a carrier, combination mechanism

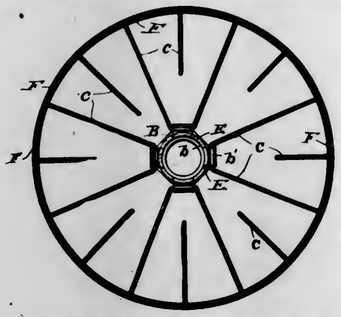
imposed upon the said carrier, and a key mechanism normally locking the carrier in a fixed position, and through it controlling the main bolt.

3. In a combination lock, the combination with the main bolt thereof, of an oscillating plate forming a carrier, combination mechanism imposed upon the said carrier and connected with the main bolt for the operation thereof, and a key mechanism including a key-bolt coacting with the said plate for operating the same and acting through the said carrier and combination mechanism to operate the main bolt.

4. In a combination lock, the combination with the main bolt thereof, of combination mechanism connected with the said bolt for operating the same, a carrier upon which the combination mechanism is imposed and connected therewith and operating therethrough for operating the said main bolt; a key-bolt coacting with the carrier for moving the same, and the combination mechanism imposed upon it, and key mechanism for the key bolt.

5. In a combination lock, the combination with a main bolt, of a tubular stud, wheel-tumblers mounted thereupon, a driving-wheel for the said wheel-tumblers, a dog coacting with the wheel-tumblers and driving-wheel, a swinging-plate mounted upon the said stud and carrying the said dog and connected with the said bolt, an oscillating-plate turning upon the said stud, an abutment carried by the said oscillating-plate and engaged by the said dog, means for turning the driving-wheel and hence the wheel-tumblers, a key-bolt coacting with the oscillating plate and normally holding it in a fixed position, and key-mechanism coacting with the key-bolt.

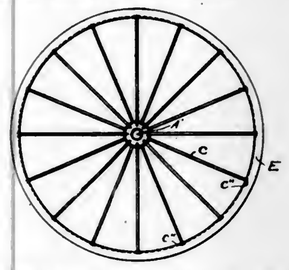
941,029. METAL WHEEL-HUB. JOHN W. MURRAY, Chicago, Ill., assignor to Knox Metal Wheel Company, Knox, Ind. Filed Nov. 18, 1907. Serial No. 402,657.



The combination of a felly, a tube, spokes respectively provided with bends, and combined tube and spoke engaging devices respectively arranged to engage with the tube and with the spokes between the bends therein, each of such spoke engaging devices comprising a central tubular portion arranged to fit within the end of the tube and provided with projections having, respectively, return bends arranged to bring the ends of such projections near to contact with the peripheral surface of the tubular portion and the sides in contact with the ends of the tube, and the ends of the spokes arranged to engage with the felly; substantially as described.

941,030. METAL WHEEL. JOHN W. MURRAY, Knox, Ind., assignor to Knox Metal Wheel Company, Knox, Ind. Filed Mar. 15, 1909. Serial No. 483,450.

1. The combination of spokes, a tube provided with projections adjacent to the ends thereof, a spoke retainer provided with apertures arranged to receive the ends of the spokes and provided with a central aperture having recesses corresponding with the tube and projections thereon, and an additional retainer having radial arms thereon and provided with a central aperture corresponding with the outside diameter of the tube and arranged to fit over the tube against the ends of the projections on the tube, the spokes arranged between the arms of the additional retainer and such arms bent to retain the first named retainer in position with the recesses in the central aperture thereof over the projections on the tube.



2. The combination of spokes, a tube provided with projections adjacent to the ends thereof, spoke retainers respectively provided with apertures arranged to receive the ends of corresponding spokes and provided with central apertures having recesses corresponding with the tube and projections thereon, such recesses arranged nearer to one of the spoke apertures than to the remainder thereof, and additional retainers having radial arms thereon and provided with central apertures corresponding with the outside diameter of the tube and arranged to fit over the tube, at the ends thereof and against the ends of the projections on the tube, the spokes arranged between the arms of the additional retainers and such arms bent to retain the first named retainers in position with the recesses in the central aperture thereof over the projections on the tube, and with the spokes at one end of the tube midway between the spokes at the other end of such tube.

941,031. COUPLING. GEORGE B. MCBEAN, Chicago, Ill. Filed June 1, 1909. Serial No. 499,537.



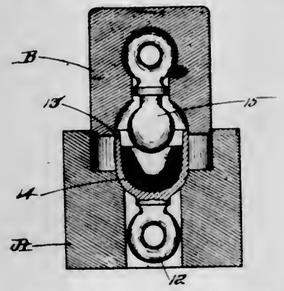
1. A coupling comprising a first member, the outer surface of which is screw threaded and is adapted to engage a correspondingly screw threaded hole or opening in one of the parts designed to be connected by said coupling with the end thereof projecting through the hole or opening in which said first coupling member is secured, a second coupling member provided with a screw threaded hole or opening adapted to engage the projecting end of said first coupling member, a third coupling member adapted for connection to the other part designed to be connected by said coupling, said first and second coupling members being provided with a socket formed partly in said second coupling member and partly in the end of said first coupling member to which said second coupling member is threaded, and a ball on said third coupling member secured in said socket, substantially as described.

2. A coupling comprising a first member, the outer surface of which is screw threaded, said screw threads comprising sections of different pitch, one of said screw threaded sections of said first coupling member being adapted for engagement with a correspondingly screw threaded opening in one of the parts designed to be connected by said coupling with the section thereof having threads of different pitch projecting through the hole or opening in which said first coupling member is secured, a second coupling member provided with a hole or opening adapted for engagement with said projecting end of said first coupling member, a third coupling member adapted for connection to the other part designed to be connected by said coupling, said first and second coupling members being provided with a socket formed partly in said second coupling member and partly in the end of said first coupling member to which said second coupling member is threaded, and a ball on said third coupling member secured in said socket, substantially as described.

3. A coupling comprising a first coupling member comprising sections of different diameters, the outer surfaces of which are screw threaded with threads of different pitch, the larger of said screw threaded sections being adapted for engagement with a correspondingly screw threaded hole in one of the parts designed to be connected by said coupling with the smaller section thereof projecting through the hole in which said larger section thereof is secured, a second coupling member provided with a screw threaded hole adapted for engagement with the smaller screw threaded section of said first coupling member, a third coupling member adapted for connection to the other part designed to be connected by the said coupling, said first and second coupling members being provided with a socket formed partly in said second coupling member and partly in the end of said first coupling member to which said second coupling member is threaded, and a ball on said third coupling member secured in said socket, substantially as described.

4. A coupling comprising a first member, the outer surface of which is screw threaded and is adapted to engage a correspondingly screw threaded hole in one of the parts designed to be connected by said coupling with one end thereof projecting through the hole in which said first coupling member is secured at one side of said connected member and with its opposite end exposed at the opposite side of said connected member, a second coupling member provided with a screw threaded hole or opening adapted to engage the projecting end of said first coupling member, a third coupling member adapted for connection to the other part designed to be connected by said coupling, said first and second coupling members being provided with a socket formed partly in said second coupling member and partly in the end of said first coupling member to which said second coupling member is threaded, and a ball on said third coupling member secured in said socket, substantially as described.

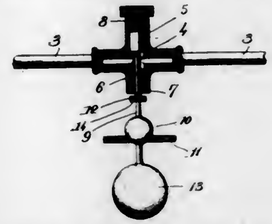
941,032. PROCESS OF MANUFACTURING INSULATORS. LOUIS MCCARTHY, Boston, Mass., assignor to The Macallen Company, Boston, Mass., a Corporation of Massachusetts. Filed Mar. 6, 1909. Serial No. 481,689.



1. The improved process of manufacturing insulators which comprises placing insulating material in plastic state between male and female members and then subjecting said female member to pressure sufficient to shape said female member while said insulating material is still in plastic state.

2. The improved process of manufacturing insulators which comprises placing insulating material in plastic state between male and female members and then subjecting said female member to pressure sufficient to shape said female member and simultaneously therewith mold said insulating material while said insulating material is still in plastic state.

941,033. VALVE-CONTROLLING DEVICE. EDWARD T. PARDEE, Boston, Mass. Filed May 8, 1907. Serial No. 372,584.



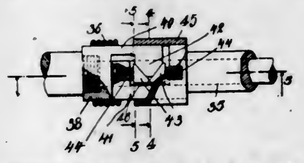
1. The combination with a gas conduit, a valve body connected thereto and a valve within the valve body, of a support adjacent the valve body, gravity-actuated means sustained by the support to maintain the valve open when the valve and support are in normal position, said gravity-actuated means being moved by gravity out of its operative position when the support and the valve are moved into abnormal position, whereby the valve is permitted to close, and automatically-operative means to close the valve when released by said gravity-actuated means.

2. The combination with a gas conduit and valve therein, of a strut to hold the valve open, gravity-actuated means to maintain the strut in operative position when the valve is in normal position and to cause said strut to be disengaged from the valve when the latter is turned sufficiently out of its normal position, and means to close the valve when released by the strut.

3. The combination with a gas conduit, of a spring-pressed valve for closing the conduit, means maintained in a given position by gravity and adapted to hold said valve open against the action of the spring when the valve has a certain position relative to said means and to release said valve thereby permitting the valve to close when the valve has another position relative to said means.

4. The combination with a gas conduit, of a spring-actuated valve for closing the same, a strut for holding said valve open against the action of the spring, a support for the strut, and a pendant weight associated with said strut and depending below said support whereby the weight keeps the strut in vertical position.

941,034. TRANSMISSION-GEARING. CLARK W. PARKER, Springfield, Mass., assignor to Lamb Knitting Machine Co., Chicopee Falls, Mass., a Corporation of Massachusetts. Filed Apr. 29, 1908. Serial No. 429,804.



1. In transmission gearing of the class described, the combination with two relatively rotatable elements having abutments arranged for co-engagement to limit the extent of said relative rotative movements, of a spring connecting the two said parts together in driving relation and under tension to hold the rear faces of the said abutments together, and shock absorbing means arranged to operate, as the opposite faces of the said abutments come together following relative rotative movements of the members against the resistance of the said spring.

2. In transmission gearing of the class described, the combination with two relatively rotatable driving elements provided with abutments adapted to co-engage and to limit the relative rotative movement of the said elements, one of the said elements being provided with a yielding spring pressed face, of a spring for connecting the two said elements together in driving relation, the spring being under tension to oppose the engagement of the one said abutment with the yielding face of the other.

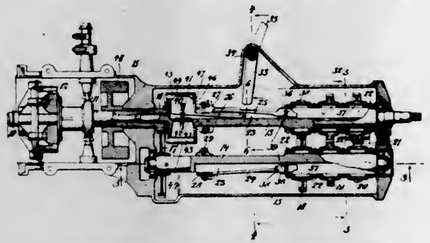
3. In transmission gearing of the character described, the combination with two relatively rotatable driving elements having abutments which are adapted to co-engage and thereby to limit the extent of the said rotative movements, one of the said abutments having an angular face and the other of the said abutments provided with a longitudinally movable spring pressed block adapted to be engaged by the said angular face, of a spring for connecting the two said elements together in driving relation, the said spring opposing the engagement of the said abutment with the said block.

4. In transmission gearing of the class described, the combination with two relatively rotatable driving elements, one of the said elements provided with a tooth having oppositely inclined faces and longitudinally movable spring pressed blocks carried by the other said element, adapted to be engaged by the said inclined faces, of a spring for connecting the two said elements together in driving relation, the tension of the said spring opposing the engaging of the said abutment with the spring pressed blocks.

5. In transmission gearing of the class described, the combination with a driving shaft, of a sleeve mounted thereon, an abutment carried by the said shaft, the said abutment having an angular face, and the said sleeve provided with an abutment having a face for co-engagement with the said sleeve, a spring for pressing the said face of the abutment longitudinally in a direction toward the face of the abutment upon the shaft, and a spring for connecting the said sleeve and shaft in driving relation.

[Claims 6 to 10 not printed in the Gazette.]

941,035. TRANSMISSION-GEARING. CLARK W. PARKER, Springfield, Mass., assignor to Lamb Knitting Machine Company, Chicopee Falls, Mass., a Corporation of Massachusetts. Filed Mar. 26, 1909. Serial No. 486,056.



1. In transmission gearing the combination with a driving shaft, an intermediate shaft and a driven shaft, of a clutch for connecting and disconnecting the said driving and intermediate shafts, change speed gearing between the intermediate shaft and the driven shaft, and a momentum member carried by the intermediate shaft, substantially as set forth.

2. In transmission gearing the combination with a driving shaft, an intermediate shaft and a driven shaft, all three in line with each other, and a clutch for connecting and disconnecting the driving and intermediate shafts, of a secondary shaft permanently connected to rotate at a lower speed with the said intermediate shaft, change speed gearing between the said driven and secondary shafts including means for connecting different gear wheels with the said shafts, and a momentum member carried by the said intermediate member whereby the intermediate member will continue to revolve after it has been disconnected through the said clutch from engagement with the driving shaft, to the extent sufficient to complete the connection of the proper gear wheel with the driven shaft under change speed conditions.

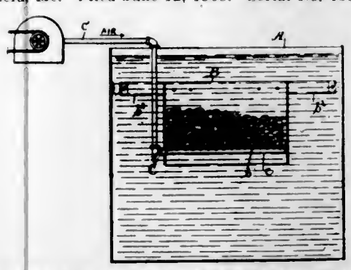
3. In transmission gearing the combination with a driving shaft, an intermediate shaft and a driven shaft, all arranged in line with each other, of a clutch arranged between the driving shaft and intermediate shaft, a secondary shaft parallel with the driven shaft, gearing permanently connecting the intermediate shaft and secondary shaft to rotate together, the secondary shaft rotating at a lower speed than the intermediate shaft, change speed gearing for connecting the two said shafts together at different speeds, sliding keys for connecting the said gears in different speed relations and also for connecting the driven shaft in direct driving relation with the intermediate shaft, and a momentum carried by the intermediate shaft to provide for subsequent rotation of the intermediate and secondary shafts after the intermediate shaft has been disengaged from the driving shaft, to insure the proper engagement of the keys with the said gears after their positions have been changed.

4. In transmission gearing of the class described the combination with a driving shaft, an intermediate shaft arranged to be driven thereby, a driven shaft, a secondary shaft, gearing permanently connecting the intermediate and secondary shafts to rotate together, the secondary shaft being arranged to rotate at a lower speed than the intermediate shaft, and change speed gearing, of sliding keys for connecting the said gearing in different relations with the said driven and secondary shafts, a key for connecting the driven shaft in direct driving relation with the intermediate shaft, means for operating the said keys, a clutch between the intermediate and driving shafts for disconnecting them while the said keys are being operated, and a momentum member carried by the said intermediate shaft for carrying on the rotation of the said intermediate and secondary shafts while the intermediate and driven shafts are disconnected and the said keys are being operated.

5. In transmission gearing the combination with a shaft to which power may be applied, a driven shaft in line therewith having a longitudinal groove or keyway therein and a secondary shaft geared to rotate with the said power shaft, of a sleeve upon the driven shaft, two radially movable keys pivoted to the said sleeve and extending in the keyway of the said shaft in opposite directions, a member carried by the first said shaft for direct engagement with one of the said keys when the sleeve is moved in one direction, gearing between the driven and secondary shafts including a gear wheel loosely mounted on the said driven shaft, the other of the said keys being adapted to engage the said gear wheel when the sleeve is moved in the other direction, and means for moving the sleeve longitudinally upon the shaft.

[Claim 6 not printed in the Gazette.]

941,036. CAUSTICIZING-TANK. EDWARD F. PARKER, Fairfield, Me. Filed June 12, 1908. Serial No. 438,072.



1. An apparatus for causticizing soda and other like solutions comprising a solution tank, an auxiliary reservoir in said tank, a perforate bottom for said reservoir, fluid introducing means directly beneath said bottom, and a depending flange forming a liquid seal for preventing the down-flow of said fluid.

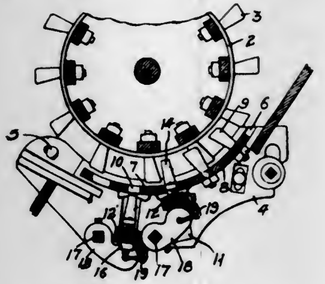
2. An apparatus for causticizing soda and other like solutions comprising a solution tank, an auxiliary reservoir in said tank, a pervious diaphragm located between the top and bottom of said reservoir, and fluid introducing means disposed within the lower chamber formed by said diaphragm.

3. An apparatus for causticizing soda and other like solutions comprising a solution tank, an auxiliary reservoir in said tank, a perforate bottom for said reservoir, a flange on said reservoir and concentric therewith, said flange extending below said bottom, and fluid introducing means within the chamber formed by said flange.

4. An apparatus for causticizing soda and other like solutions comprising a solution tank, an auxiliary reservoir in said tank and having its walls spaced from the walls of said solution tank, a perforated diaphragm above the bottom of said reservoir, a plurality of spray pipes for the introduction of a fluid arranged directly beneath and contiguous to the diaphragm, the walls of said reservoir extending below and surrounding said spray pipes.

5. An apparatus for causticizing soda and other like solutions comprising a solution tank, an auxiliary reservoir in said tank, a removable pervious bottom for said reservoir, fluid introducing means directly beneath said bottom, and a depending flange forming a liquid seal for preventing downward flow of said fluid.

941,037. CONCAVE FOR THRESHING-MACHINES. OTTO H. PASCHKE, Lynd, Minn. Filed June 30, 1908. Serial No. 441,223.



1. The combination, with a threshing cylinder, of a concave section having rows of holes therein at unequal distances from the edges of the concave section, said section being capable of reversal end for end, bars arranged below said section, teeth carried by said bars, means for raising said bars to project said teeth through the holes in said section, and said bars being sufficiently loose in their supports to allow said teeth to tilt and accommodate themselves to the different locations of the holes in said concave, substantially as described.

2. The combination, with a threshing cylinder, of end plates having curved grooves or ways therein, a concave adapted to slide in said grooves and having a series of holes therein, said end plates having vertical recesses therein communicating at their upper ends with said curved grooves, bars adapted to enter said curved grooves when said concave has been withdrawn and drop into the recesses in said end plates, a series of teeth carried by said bars and adapted to enter the holes in said concave, means for tilting said end plates to vary the position of said concave with respect to the cylinder, and independent means for raising and lowering said bars, substantially as described.

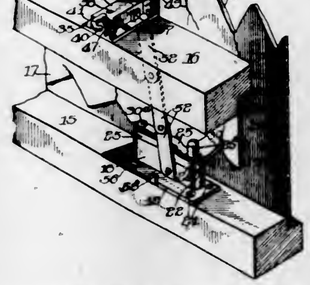
3. The combination, with a threshing cylinder, of a concave section having rows of holes therein, bars vertically movable in grooves provided below said section, teeth carried by said bars and adapted to enter the holes in said concave section, said section being reversible to alter the location of said holes and said bars rocking in said grooves to allow said teeth to accommodate themselves to the position of the holes, and means engaging said bars for raising and lowering them and said teeth.

4. The combination, with a threshing cylinder, of end plates having curved grooves or ways therein, a concave adapted to slide in said grooves and having a series of oblong holes, and a reversible bar provided beneath said concave and vertically slidable in vertical grooves provided in said end plates, and communicating with said curved grooves, a series of teeth mounted in said bar, and adapted to enter the holes in said concave, and means for raising and lowering said bar to project said teeth above said concave or withdraw them and said bar being removable from its ways upon the removal of said curved way, substantially as described.

5. The combination, with a threshing cylinder, of end plates having curved grooves or ways therein, a concave adapted to slide in said grooves and having a series of holes, said end plates having vertical recesses communicating at their upper ends with said curved grooves, bars adapted to enter said curved grooves when said concave has been withdrawn and drop into the recesses in said end plates, a series of teeth carried by said bars and adapted to enter the holes in said concave, means for tilting said end plates to vary the position of said concave with respect to the cylinder, shafts arranged beneath said bars, and arms mounted on said shafts and arranged to engage said bars to elevate them when said shafts are rocked, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

941,038. SASH-LOCK. OKE PEARSON and CARL E. LINDQUIST, Chicago, Ill. Filed Mar. 13, 1909. Serial No. 483,204.



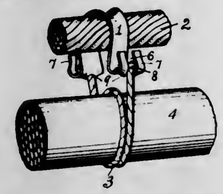
1. In a window sash-lock, the combination with a block secured to a sash-rail, of a lever pivoted to move horizontally on the upper surface of said block and having on its lower surface a transverse and beveled shoulder, a spring-actuated bolt located vertically on the lever near one of its ends, another block secured on another sash-rail and having a recess to receive a portion of said bolt, a horizontally disposed plate on the last-named block and having a curved edge to engage the shoulder on the lever, a spring-actuated bolt located in the last-named block and extended longitudinally therethrough, and a connection united at one of its ends to the first-named block and having at its other end means to engage the inner end of the locking-bolt on the other block.

2. In a window sash-lock, the combination with a block secured to a sash-rail, of a lever pivoted to move horizontally on the upper surface of said block and having on its lower surface a transverse and beveled shoulder, a spring-actuated bolt mounted vertically on said lever near its free end, another block secured on another sash-rail and having in its upper surface a recess to engage said spring-actuated bolt, a horizontally disposed plate on the last-named block and having a curved edge to engage the shoulder on the lever, a spring-actuated bolt located in the last-named block and extended longitudinally therethrough

and having at its outer end a hooked portion adapted to rest against the outer end of the block in which it is located, and a connection pivotally secured at one of its ends to the first-named block and having means at its other end to engage the inner end of the last-named locking-bolt.

3. In a window sash-lock, the combination with a block secured to a sash-rail and having on its lower portion a perimetral flange provided at one of its edges with an upward extension, a lever pivoted to move horizontally on the upper surface of said block and having on its lower surface a transverse and beveled shoulder, a spring-actuated bolt vertically located on the lever near its free end, another block secured on another sash-rail and having near one of its ends a recess to engage said bolt, a horizontally disposed plate on the last-named block and having a curved edge to engage the shoulder on the lever, said plate also having a downward extension located at a distance from the inner end of the block to which it is secured, a connection pivotally secured at one of its ends to the first-named block and provided near its other end with a hook and an opening, a spring-actuated bolt located in the last-named block to engage the said opening.

941,039. CABLE-HANGER. CHARLES L. PEIRCE, Jr., Chicago, Ill., assignor to The W. G. Nagel Electric Company, Toledo, Ohio, a Corporation of Ohio. Filed Sept. 13, 1906. Serial No. 334,381.



A cable-hanger comprising a messenger straddling member and a pliant suspender, the messenger straddling member being stamped from a flat sheet and bent upon itself to form an inverted U-shaped member and having its ends each bifurcated and the forks thus formed bent up contiguous to the depending legs of the member to form cooperating securing means for the ends of the suspender.

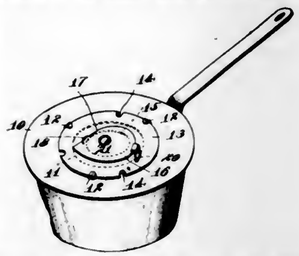
941,040. HINGE FOR TRAVELING-BAGS. WILLIAM J. PETRI, Milwaukee, Wis., assignor to The Milwaukee Stamping Co., West Allis, Wis., Incorporated. Filed June 21, 1909. Serial No. 503,325.



In a double hinge for traveling bags and the like, the combination of two opposing frame members, two foldable hinge members, a central connecting member, pivotal pins connecting said foldable hinge members with said central member, and contact bearings connected with and supported from said central member adapted to serve as stops to said foldable members and retain the same, when in contact therewith, at substantially right angles to said central connecting member.

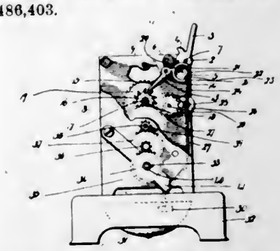
941,041. VENTILATED COOKING-VESSEL COVER. CHARLES S. PHILLIPS, Chicago, Ill. Filed June 30, 1908. Serial No. 441,123.

1. In a ventilated cooking-vessel cover, the combination of a main apertured cover, an intermediate cover detachably secured to said main cover and having an aperture smaller than and registering with the aperture of said main cover, a supplemental lid of substantially the same diameter as the aperture in said main cover, detachably hinged to said intermediate cover and adapted to open and close its aperture and means to maintain said supplemental lid elevated above said aperture to permit ventilation of the vessel and in such position as to prevent escape of the flying contents of the vessel, substantially as described.



2. In a ventilated cooking-vessel cover, the combination of a main apertured cover having a plurality of fingers, an intermediate apertured cover having its periphery notched, whereby said intermediate cover may be detachably held on said main cover by said fingers, the aperture of said intermediate cover registering with that of the main cover, a supplemental lid of substantially the same diameter as the aperture in said main cover, detachably hinged to said intermediate cover and adapted to open and close said aperture and means to hold said supplemental lid in elevated position above said aperture to permit ventilation of said vessel, substantially as described.

941,042. ALARM-CLOCK. WILSON E. PORTER, New Haven, Conn., assignor to New Haven Clock Co., New Haven, Conn., a Corporation. Filed Mar. 29, 1909. Serial No. 486,403.



1. In an alarm-clock convertible from an intermittent to a long alarm and vice versa, the combination with an alarm-wheel continuously rotated by the time-train, of an intermittent alarm-lever operated by the said wheel, and a combination long-alarm, intermittent-alarm, and cut-off lever co-acting directly with the said intermittent alarm-lever for causing the clock to sound an intermittent-alarm, or a long-alarm, or to cut-off the alarm altogether.

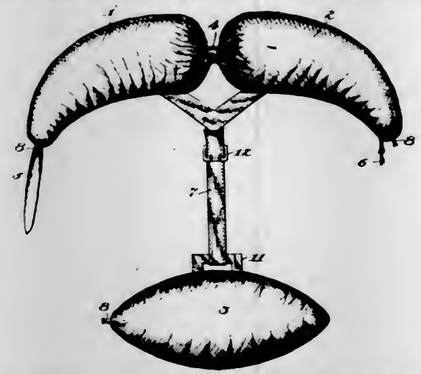
2. In an alarm-clock convertible from an intermittent alarm to a long alarm, and vice versa, the combination with an alarm wheel continuously rotated by the time-train, of an intermittent alarm lever coacting with the said wheel and provided with a yoke the arms of which terminate in fingers separated by a clearance space, an alarm-changing lever coacting with the intermittent alarm-lever for shifting the position thereof, and a stop-arm vibrated by the alarm-mechanism and coacting with the said fingers and the said clearance space in the sounding of an intermittent or a long alarm, and in cutting off the alarm altogether.

3. In an alarm-clock convertible from an intermittent to a long alarm and vice versa, the combination with an alarm-wheel continuously rotated by the time-train, of an intermittent alarm-lever operated by the said wheel, and a combination long-alarm, intermittent-alarm, and cut-off lever coacting directly with the said intermittent alarm lever and provided at its lower end with stops limiting its rocking movement in either direction.

4. In an alarm clock convertible from an intermittent alarm to a long alarm and vice versa, the combination with an alarm wheel continuously rotated by the time-train, of an intermittent alarm-lever coacting with the said wheel and provided with a yoke the arms of which terminate in fingers separated by a clearance space, an alarm-changing lever provided with an operating-pin engaging with the upper arm of the said yoke for shifting the position of the said alarm-changing lever, and a stop arm vibrated by the alarm mechanism and coacting with the said fingers and the said clearance space in the sounding of an intermittent alarm or a long alarm, and in cutting off the alarm altogether.

5. The combination of alarm mechanism and a forked lever to control the same, said lever being capable of occupying three positions, in two of which the two prongs will coöperate with a part of said alarm mechanism to stop the alarm, and in one position of said lever said part of the alarm will vibrate between said prongs and operate said alarm, and a manually operable part for positioning said lever.

941,043. HEAD AND BACK REST. ALMA W. POWELL, New York, N. Y. Filed May 4, 1909. Serial No. 493,852.



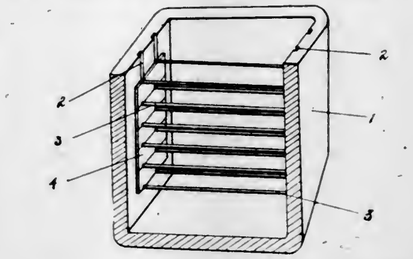
1. The combination, in a portable article of the air cushion type, of a pair of flexibly connected head-rest cushions each provided with an inflating and deflating nozzle, a flexible connection between said cushions at their rear ends and fastening means at their front ends, said cushions being elongated, curved, tapered and round ended in shape, and thus adapted to confine the bulk of the air to a sufficient extent within the rear ends of the cushions and to form a central depression at the back of the neck between said rear ends and a like depression beneath the chin between their adjoining smaller rounded ends.

2. In combination with a portable head rest, a subjacently supported back rest in the form of an air cushion tapering laterally from its middle to its ends and provided with an inflating and deflating nozzle.

3. The combination, in a portable article of the air cushion type, of a pair of head-rest cushions and a subjacent back-rest cushion, each provided with an inflating and deflating nozzle, a textile covering for said head-rest cushions forming a flexible connection between the cushions at the back of the neck, fastening means attached to the front ends of said covering for closing the head rest beneath the chin, a textile covering for said back-rest cushion, and a flexible connection between the three cushions.

4. A combined head rest and back rest including a pair of elongated head-rest cushions adapted to form central depressions at the back of the neck and beneath the chin and to form lateral as well as front and rear supports for the head, a subjacent back rest cushion, a flexible connection between said head-rest cushions at their rear ends, fastening means at their front ends, and a flexible and Y-shaped piece connecting the three cushions, substantially as hereinbefore specified.

941,044. SAGGAR. WILLIAM E. RIVERS, Old Bridge, N. J. Filed June 11, 1909. Serial No. 501,452.



1. The combination of a saggar having walls provided with vertical parallel grooves, the upper ends of which are opened at the top, with means for supporting articles to be fired, said means consisting of supporting members extending across the interior of the saggar, and detachably engaged in said grooves, and supporting and separating strips, provided with notches, in which the ends of said supporting members rest.

2. The combination of a saggar provided with grooved walls, with means for supporting articles to be fired, said means comprising supporting and separating members extending across the interior thereof, and having their ends terminate in said grooves, and strips supporting and separating the said supporting members.

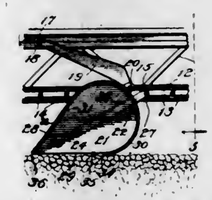
3. In a saggar, the combination of supporting members extending across the interior thereof; means for supporting and locking the ends of said supporting members from displacement, said means comprising notched separating strips, in the notches of which the ends of the supporting members are supported.

4. In a saggar, the combination of a plurality of supporting rods extending across the interior thereof; retaining means in said saggar for preventing lateral displacement of said rods, and means for separating and supporting the rods, said means comprising notched strips engaging and supporting their ends.

5. A saggar provided with a plurality of oppositely disposed grooves in its walls extending to the top; supporting members extending across the saggar and engaging said grooves; and supporting and separating members interposed between the first named supporting members.

[Claim 6 not printed in the Gazette.]

941,045. CONVEYER. HENRY B. SAUERMAN and JOHN A. SAUERMAN, Chicago, Ill. Filed Mar. 28, 1908. Serial No. 423,944.



1. The combination of a traveling flexible carrier, a support upon the carrier, a scoop pivotally mounted on said support and movable bodily toward and away from said carrier, and a swinging trip-device extending into the path of movement of the scoop and constructed and arranged to turn the latter to digging, loading and carrying position.

2. The combination of a traveling bucket, a support, and a depending swingingly-mounted trip-device pivoted to said support and constructed and arranged to engage with the bucket and turn it to digging, loading and carrying position while in engagement with the material being operated on, for the purpose set forth.

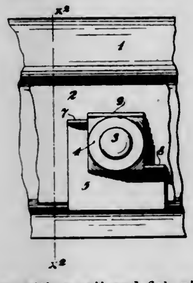
3. The combination of a traveling bucket, a support, and a depending swingingly-mounted trip-device pivoted to the support and having a cross-bar at which it is adapted to engage with the bucket to turn it to digging, loading and carrying position while in engagement with the material being operated on for the purpose set forth.

4. The combination with a traveling flexible carrier, of a support upon the carrier, a scoop pivotally mounted on the support and movable bodily toward and away from the carrier, a trip-engaging device on the scoop, and a swinging scoop-engaging-and-turning stop in the path of the scoop, for the purpose set forth.

5. The combination with a traveling flexible carrier, of a support upon the carrier, a scoop pivotally mounted on the support and movable bodily toward and away from the carrier, and a scoop-engaging-and-turning stop in the path of the scoop and constructed and arranged to be adjusted into different positions relative to the material to be scooped, for the purpose set forth.

[Claims 6 to 14 not printed in the Gazette.]

941,046. NUT-LOCK. CHARLES F. SAWYER, Minneapolis, Minn. Filed Aug. 17, 1907. Serial No. 388,987.



The combination with a rail and fish plate, of a nutted bolt securing the same together, and a nut lock comprising a metallic plate interposed between said nut and adjacent fish plate and having a bolt passage through which the bolt is passed, the said plate having a depending portion adapted to engage with one of the flanges of the rail to hold said plate against rotation, and a pair of locking lips for engaging diagonally opposite corners of said nut formed by cutting slits from the top toward the bottom of said plate on opposite sides of said bolt passage, and bending the two side portions of said plate at right angles at the termination of said slits and bending the upper intermediate portion of said plate so as to engage the upper surface of said nut, substantially as described.

941,047. ADHESIVE REPAIR DEVICE. WILBUR N. SHELTON, Boston, Mass. Filed Mar. 18, 1908. Serial No. 421,895.

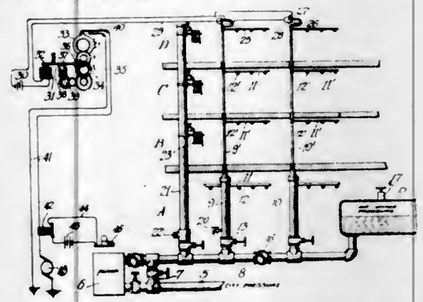


1. As an article of manufacture, a patch comprising in combination a fabric member fashioned to convex form and having an adhesive thereon to engage and become incorporated with material encircling a hole to be patched; and a filler adhering to the fashioned fabric member and also fashioned to the form thereof, said filler being adapted to fill out the hole in the material to be repaired.

2. An article of manufacture comprising in combination a fabric member fashioned to convex form and having its periphery of reduced thickness; a layer of adhesive material on a face of the fashioned member to unite the latter with material having a hole to be patched; and a filler of the same material as that to be patched, united to the fashioned member and itself fashioned to the form thereof, said filler being suitably proportioned and shaped to fill the hole in said material to be repaired.

3. An article of manufacture consisting of a patch member having a fabric body with a layer of adhesive thereon, and a filling member, smaller than said patch and united to the latter by the adhesive, the patch member covering the entire face of the filling member, leaving a margin of adhesive patch member for securing the article in position with the filling member filling a hole to be patched.

941,048. FIRE PROTECTION AND SIGNAL SYSTEM. JOHN E. SHEPHERD, Chicago, Ill. Filed Feb. 13, 1908. Serial No. 415,746.



1. A fire alarm signaling system comprising a piping equipment extending throughout an area to be protected connected with a source of fluid supply, and containing fluid normally under pressure, and providing heat-released fluid discharging means distributed throughout the protected area, of means for restricting the supply of fluid from the supply source to the discharge means below the volumetric discharge capacity of said discharging means, and a signaling device associated with the piping system beyond the restriction responsive to a drop of pressure therein.

2. In a fire protective system a source of water supply, a miniature piping system communicating therewith and containing fluid normally under pressure, said piping system providing discharge heads normally closed, arranged to open when heated, thereby to discharge the fluid under pressure, means for constantly restricting the water supply to the pipe to a volume below its discharge capacity, and signaling devices associated with said piping system responsive to a drop of pressure therein.

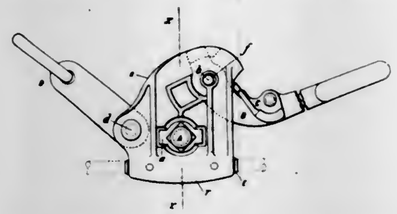
3. In a fire protective system, a source of water supply, a miniature piping system communicating therewith, and containing fluid normally under pressure, said piping system extending throughout the area to be protected providing miniature discharge heads, normally closed, arranged to open when heated, thereby to discharge fluid under pressure, means for restricting the fluid supply of said pipe to volume below the discharge capacity of one of said discharge heads, a pressure gage associated with said piping system responsive to pressure changes therein, an electric signal transmitter associated with the gage for control thereby, an energized signaling circuit for said transmitter, and signal responsive means in said circuit.

4. In a fire proctection system, a localized normal sprinkler equipment comprising a riser maintained under fluid pressure and branch pipes provided with sprinkler heads, local to the lower portions of the protected area, similar miniature sprinkler equipments having communication with said normal equipment sufficient to maintain pressure in the miniature equipment from the normal equipment, but insufficient to supply a fluid commensurate with the discharge capacity of the discharge heads of said miniature equipment, and a signaling device responsive to drop in pressure in said miniature equipment.

5. In a fire protection system, a localized normal sprinkler equipment, comprising a riser maintained under pressure, and branch pipes provided with sprinkler heads, local to the lower portions of the protected area, similar miniature sprinkler equipments connected with the normal equipment and a restricting part affording communication between the miniature and normal equipment insufficient to supply fluid to the miniature system commensurate with the discharge capacity of one of its discharge heads.

[Claim 6 not printed in the Gazette.]

941,049. HAULAGE-CLIP. JAMES W. SMALLMAN, Nuneaton, England. Filed Apr. 6, 1907. Serial No. 366,837.

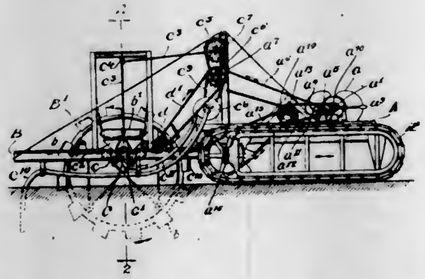


1. A haulage clip comprising a pair of rocking shells, a bolt connecting the shells, a lever acting between said shells and a spring that exerts substantially the whole of its force below the bolt, as described.

2. In a haulage clip, the combination, with a pair of rocking shells, a bolt connecting the shells and a lever acting between said shells, of a spring having hooks that enter recesses in the aforesaid shells, substantially as set forth.

3. In a haulage clip, the combination, with a pair of rocking shells, a bolt connecting the shells and a lever acting between said shells, of a single-coil spring having ends that lie opposite each other below the bolt and press against the aforesaid shells, keeping the jaws substantially parallel, as set forth.

941,050. DITCHING AND EARTH-DISTRIBUTING MECHANISM. JOHN W. SYKES, Chicago, Ill. Filed Mar. 2, 1908. Serial No. 418,791.



1. In a ditching-machine, the combination with traveling channel-cutting and earth-elevating mechanism, of spoils distributing mechanism carried therewith and operative to receive the earth from said first-named mechanism and spread the same over the land, thereby obviating the formation of spoils-banks adjacent the channel.

2. In a ditching-machine, the combination with traveling mechanism operative to cut a channel and deliver the earth laterally at a distance above the ground, of scattering mechanism carried therewith operative to receive the spoils from said first-named mechanism and spread the same over the land.

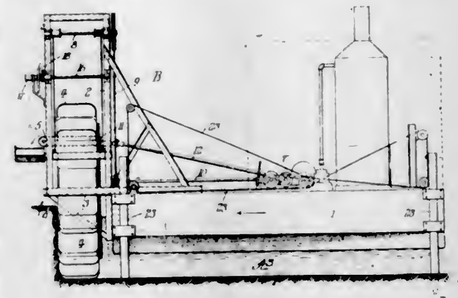
3. In a ditching-machine, the combination with traction mechanism, of channel-cutting and earth-elevating mechanism mounted to be carried thereby, and spoils distributing mechanism having means operative to vary automatically the distance of the deposition of the material from the channel, whereby the spoils will be spread over the land, for the purpose set forth.

4. In mechanism of the character set forth, the combination with means for cutting a channel in the earth and elevating the material, of hydraulic mechanism operative to distribute the spoils over the land.

5. In mechanism of the character set forth, the combination with means for cutting a channel in the earth and elevating the material, of hydraulic distributing mechanism, including a spout into which the material is deposited, and means for forcing water through said spout.

[Claims 6 to 12 not printed in the Gazette.]

941,051. DIKE-BUILDING APPARATUS AND PROCESS. JOHN W. SYKES, Chicago, Ill. Filed Mar. 30, 1908. Serial No. 424,057.



1. In apparatus for the purpose set forth, the combination with means for digging a ditch, of means for delivering the surface cuttings at a given distance from the ditch, and means for delivering the lower cuttings in a stream at a different distance from the ditch.

2. In apparatus for the purpose set forth, the combination with a boat, or scow, of a ditch-cutting and earth-elevating wheel supported at the front end of the scow and disposed in a transverse plane, a longitudinal conveyer operative to deliver the dirt in front of said wheel, and a transverse conveyer located in front of said wheel and serving to receive the dirt from said first-named conveyer and deposit the same at one side of the ditch.

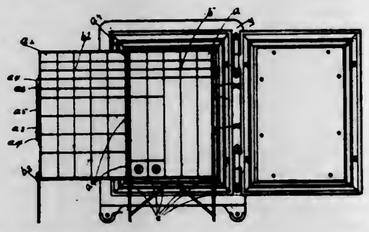
3. The method of forming a dike in marshy land, which consists in preparatorily cutting a channel through the loose surface soil, and then excavating dirt at one side of said channel and delivering the same in a stream into and over said preparatorily formed channel.

941,052. FOLDING AND SLIDING SAFE-CABINET. ISAAC J. WING, Lincoln, Nebr. Filed July 2, 1909. Serial No. 505,672.

1. In a folding and sliding safe cabinet, in combination, a safe, a cabinet, said cabinet being adapted to slide into and be partly withdrawn from the safe, said cabinet being made of sheet metal or other suitable material reinforced by suitable strips of heavier metal to give proper rigidity and being made rectangular in shape and being provided with means adapting the cabinet to slide freely into and be partly withdrawn from the safe and supported when so withdrawn and part of which said means are adaptable to fold up and snugly pack against the said cabinet inside the safe.

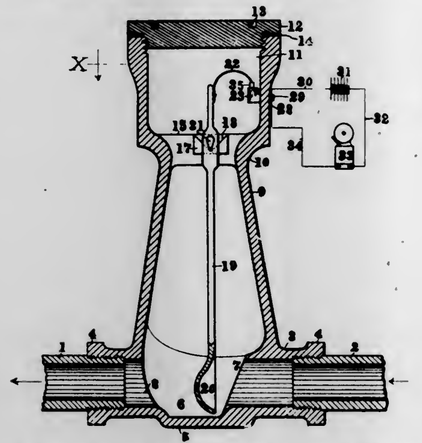
2. In a folding and sliding safe cabinet, in combina-

tion, an inner portion of a cabinet said inner portion being provided with a plurality of compartments formed by partitions within the same, an outer portion of a cabinet, said outer portion being provided with a plurality of compartments formed by partitions within same, hinged members which said members connect the two portions



of the cabinet and adapt the outer portion thereof to swing horizontally so as to open the compartments to access or to swing the outer compartments shut closing the cabinet, suitable means adapted to latching the two parts of said cabinet shut or unlatching them to open the cabinet.

941,053. ALARM FOR SPRINKLER SYSTEMS. MATTHEW G. YOUNG, Coventry township, Summit county, Ohio. Filed Feb. 23, 1909. Serial No. 479,584.



1. A device of the class described comprising a casing adapted to be positioned in an automatic sprinkler system so that the water flowing to the sprinkler heads will pass therethrough, a pendulum pivotally-mounted in said casing with the lower end thereof disposed in the path of the current of water passing through said casing, means carried by said casing for pivotally-supporting said pendulum and a circuit breaker carried by said pendulum adapted to close an electric alarm when said pendulum is oscillated.

2. A device of the class described comprising a casing provided with inlet and outlet openings positioned in an automatic sprinkler system so disposed that water passing to the sprinkler heads will pass through said casing, said casing provided with an upwardly-extending portion, a pendulum pivotally-mounted in said portion the lower end of which is disposed in the path of the current of water passing through said casing and a circuit breaker carried by said pendulum adapted to close an electric alarm circuit when said pendulum is oscillated by the movement of water in said pipe system.

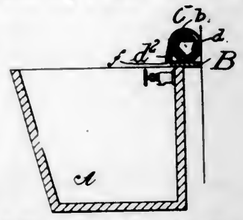
3. A device of the class described comprising a casing provided with inlet and outlet openings adapted to receive inlet and outlet pipes respectively, said casing provided with an upwardly-extending portion, a pendulum pivotally-mounted in said portion the lower end of which is adapted to be disposed in the path of the water passing through said casing and a circuit breaker carried by said pendulum adapted to close an electric alarm circuit when said pendulum is oscillated by the water passing through said casing.

4. A device of the class described comprising a casing provided with inlet and outlet openings adapted to receive inlet and outlet pipes respectively, said casing provided with an upwardly-extending portion, said upwardly-extending portion provided with a member for closing the upper end thereof and further provided with a horizontal diaphragm having a transverse slot therein, a pair of bearings mounted in said diaphragm on opposite sides of said slot, a pendulum mounted in said slot provided with laterally-extending arms arranged to be seated in said bearings, the lower end of said pendulum disposed in the path of the water passing through said casing and a circuit breaker adapted to close an electric alarm circuit when said pendulum is oscillated by the movement of water through said casing.

5. A device of the class described comprising a casing provided with inlet and outlet openings adapted to receive inlet and outlet pipes, respectively, said casing provided with an upwardly-extending portion provided with a horizontally-extending diaphragm having a transversely-extending slot therein, bearings in said diaphragm, a pendulum positioned in said slot provided with laterally-extending members mounted in said bearings, the lower end of said pendulum disposed in the path of the water passing through said casing and a circuit breaker mounted on said pendulum adapted to close an electric alarm circuit when said pendulum is oscillated by the water passing through said casing.

[Claims 6 to 9 not printed in the Gazette.]

941,054. WASHTUB-COVER. ARTHUR ADAMS, Springfield, Mass. Filed Aug. 2, 1909. Serial No. 510,710.



A cover for a set tub or tray consisting of a sheet of suitable flexible material and a plurality of parallel separated longitudinally extending strips secured to the upper side of the flexible sheet,—the so formed cover at its rear edge being secured to the rear of the top.

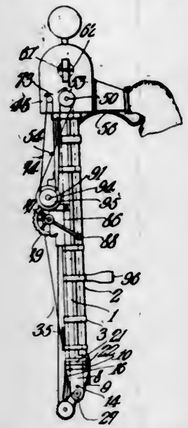
941,055. COTTON-PICKER. WILLIAM W. BAYS, Charlotte, N. C. Filed May 16, 1908. Serial No. 433,307.

1. A cotton picker comprising parallel troughs, an elevator belt moving in an orbit along the same, a sleeve slidably engaging one of the troughs and a cotton picking means mounted upon the sleeve.

2. A cotton picker comprising parallel troughs, an elevator belt moving in an orbit along the troughs, a sleeve slidably engaging the troughs, a foot mounted upon the sleeve, and having a fixed side wall and a hinged side wall, and a cotton picking means supported upon the side walls of the foot.

3. A cotton picker comprising parallel troughs, an elevator belt moving in an orbit along the troughs, a cotton picking means located at the end of the troughs, and a retarding means supported upon the troughs over the end of the elevator belt adjacent the picking means and spaced from the belt.

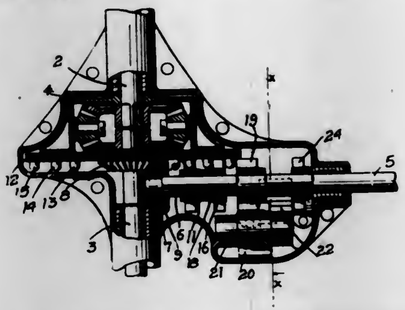
4. A cotton picker comprising parallel troughs, an elevator belt moving in an orbit longitudinally along the troughs, a cotton picking means located at the ends of the troughs, a retarding plate having a V-shaped opening located over that end of the belt adjacent the picking means.



5. A cotton picker comprising parallel troughs, an elevator belt moving in an orbit longitudinally along the troughs, a cotton picking means located at the ends of the troughs, a retarding plate having an elongated opening provided at its edges with teeth and being located over that end of the belt adjacent the picking means.

[Claims 6 to 15 not printed in the Gazette.]

941,056. TRANSMISSION-GEARING. ALBERT R. BEHNKE, St. Paul, Minn. Filed Apr. 9, 1909. Serial No. 488,793.



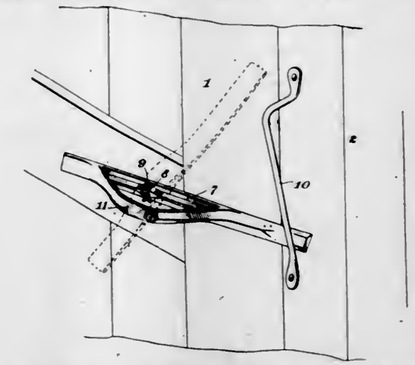
1. A transmission gearing, comprising a differential gear mechanism and shaft or axle sections connected therewith, a disk secured to said differential gear, a series of pins arranged in concentric circles in the face of said disk, a fixed gear centrally mounted with respect to said disk, a drive shaft parallel substantially with the plane of said disk, an idle gear thereon normally meshing with said fixed gear, and a series of pinions slidably mounted on said drive shaft, one of said pinions being adapted to engage said idle gear and temporarily lock it on said drive shaft, or move out of engagement with said idle gear and engage the pins of the inner circle on said disk, substantially as described.

2. A reversing mechanism for a transmission gearing, comprising in combination a differential gear mechanism, a disk connected therewith, a series of pins arranged in concentric circles in the face of said disk, a drive shaft, an idle pinion thereon, a second pinion also normally idle, two idle pinions journaled near said drive shaft and one of them normally meshing with the first-named drive shaft pinion, and means for simultaneously sliding said drive shaft pinions on said shaft to move one of them into engagement with one circle of pins on said disk, and the other drive shaft pinion into mesh with the second idle pinion, substantially as described.

3. In a transmission gearing, the combination, with a differential gear mechanism, of a disk secured thereto, and a series of pins concentrically mounted in the face of said disk, a drive shaft parallel with the plane of said disk, pinions slidably mounted on said drive shaft, one of said pinions being idle and the other turning with said shaft, means for moving said pinions lengthwise on said shaft and said other pinion into mesh with a circle of pins on said disk, and a normally idle driving connection between said pinions, whereby a reversal in the direction of movement of one pinion with respect to the movement of the other pinion will be obtained.

4. A transmission gearing, comprising a differential mechanism and a shaft connected therewith, a disk, a series of pins arranged in concentric circles in the face of said disk, a fixed gear centrally mounted with respect to said disk, a drive shaft parallel substantially with the plane of said disk, an idle gear thereon normally meshing the said fixed gear, a pinion slidably mounted on said drive shaft and adapted to engage said idle gear, and temporarily lock it on said drive shaft or to move out of engagement with said idle gear and engage the pins of one of the circles on said disk.

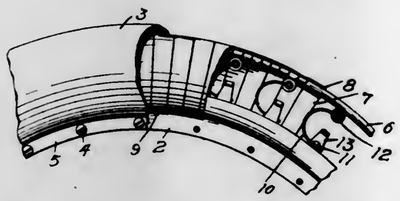
941,057. DOOR-FASTENER. ALMO BERDAN, Ortonville, Minn. Filed Feb. 8, 1909. Serial No. 476,714.



1. A door fastener comprising a spindle mounted in the door for reciprocatory rotation and projecting beyond opposite faces thereof, a latch bar detachably fixed to one end of the spindle to turn therewith, the opposite end of the spindle being bent to form a laterally disposed handle, a washer loosely mounted on the spindle and arranged at the face of the door adjacent to the handle, an expansion spring encircling the spindle and confined between the handle and the washer and tending to hold the latch bar frictionally against the corresponding face of the door, and a catch adapted for engagement with the latch bar.

2. A door latch embodying a spindle mounted in the door for reciprocatory rotation and projecting beyond the opposite faces thereof, a latch bar detachably fixed at an intermediate point to one end of the spindle to turn therewith, a bowed handle outstanding from the latch bar and extending longitudinally thereof, the terminals of said handle being joined to the latch bar on opposite sides of the point of fixture of the same to the spindle, a second handle carried at the other end of the spindle, a washer loosely mounted on the spindle and arranged at the face of the door adjacent to the last named handle, and an expansion spring encircling the spindle and confined between the washer and the second handle and tending to hold the latch bar frictionally against the corresponding face of the door.

941,058. WHEEL-TIRE. FRANK L. BERG, Owatonna, Minn. Filed Sept. 30, 1907. Serial No. 395,118.

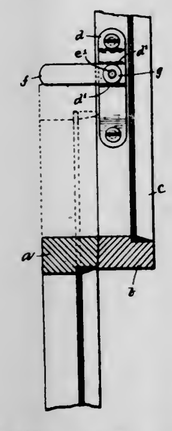


1. The combination, with a wheel rim, of a hoop encircling the same, a series of flat spring plates secured to said rim at one end and hinged at their opposite ends on said hoop, supplementary springs secured to said rim and having an anti-friction bearing on said hoop, and a covering inclosing said hoop and springs.

2. The combination, with a wheel rim, of a hoop encircling the same, means yieldingly connecting said hoop with said rim, supplementary springs secured to said rim and having an anti-friction bearing on said hoop, and spring devices interposed between the outer ends of said supplementary springs and said rim, substantially as described.

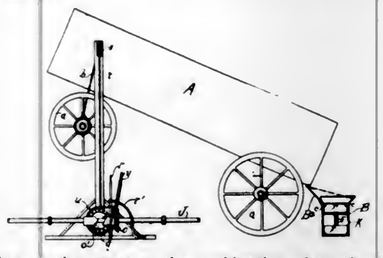
3. A wheel comprising a rim, a hoop circular in cross section encircling said rim and spaced therefrom, springs hinged on said hoop and arranged close together to form a continuous yielding surface around the wheel, said springs being secured to said rim, yielding means secured to said rim and having a bearing on said hoop, and a casing inclosing said hoop and springs.

941,059. SASH-LOCK. GEORGE M. BLANDFORD, Boston, Mass., assignor to Bates & Blandford, Boston, Mass., a Firm. Filed June 25, 1909. Serial No. 504,228.



The sash lock herein described consisting of a plate adapted to be attached to one of the uprights of the upper sash, having a pair of transversely arranged shoulders separated by a recess, a screw-threaded post secured to said plate and disposed in the recess thereof, between the shoulders, an arm loosely arranged on said post which is made of a width approximately equal to the distance between the shoulders, and a thumb-nut arranged on said post for holding the arm confined in the recess when extended at right angles to the plate yet permitting said arm to be moved into a position in parallel with the plate, substantially as described.

941,060. GRAIN-CONVEYER. GEORGE BYRNE and TRUE B. BYRNE, Akron, Iowa. Filed Apr. 19, 1909. Serial No. 490,885.

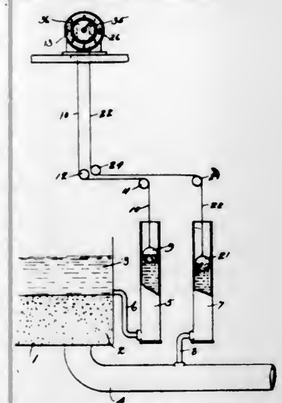


1. In a grain conveyer, the combination of an elevator adjustable to the rear end of a wagon, means for its operation, a carrier into which said elevator empties, shafts at the ends of the carrier operated by the elevator mechanism, sprocket wheels centrally secured to said shafts, a central endless chain carried by said sprocket wheels, conveyers secured to said chain and means for the side delivery of the grain from the carrier to the cribs or bins, substantially as described.

2. In a grain conveyer, the combination with an elevator and means for its operation, of a frame or body, shafts at each end of the frame adapted to be operated by the elevator mechanism, sprocket wheels centrally secured to said shafts, a central endless chain in said frame carried by said sprocket wheels, drags secured to said chain, the frame having openings on the sides thereof extending above and below the floor of the frame, and the floor opposite said openings slanting from the middle outwardly to the bottom of the openings, substantially as described.

3. In a grain conveyer, the combination of a carrier adjustable underneath the rear end of a wagon, drags in said carrier for conveying the grain and adapted to be operated by suitable means, means connected with the operating means for raising and lowering the forward end of the wagon, an elevator into which said carrier empties adapted to be operated by the carrier mechanism, an upper horizontal carrier into which the elevator empties having openings in the sides thereof extending above and below the floor of the carrier, the floor of the carrier slanting outwardly to the bottom of the openings, and drags in said carrier run by a central chain operated by the elevator mechanism, substantially as described.

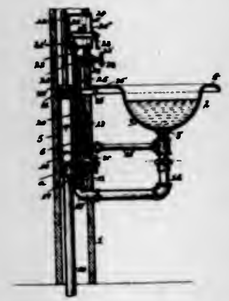
941,061. INDICATOR DEVICE FOR RESERVOIR-FILTERS. FREDERICK N. CONNET, Providence, R. I. Filed Jan. 10, 1907. Serial No. 351,681.



1. An apparatus of the character described, comprising two independent floats arranged to be moved by two different bodies of liquid, a graduated dial, an indicating hand adapted to be moved over the face of said dial, two gears, means for operatively connecting said gears to said floats, a pinion actuated by each gear to be rotated about the axis of said gear, and means whereby said axial movement of said pinion carries said hand to indicate the relative positions of said floats.

2. An apparatus of the character described comprising two independent floats arranged to be moved by two different bodies of liquid, a fixed graduated dial, an indicating hand adapted to be moved over the face of said dial, a center shaft on which said hand is mounted, two gears loosely mounted on said shaft, means for connecting said gears to said floats whereby each gear is operated independently, an arm fixed to said shaft, a pinion mounted on said arm and meshing with both of said gears, whereby the difference between the movement of said floats acting through said gears and pinion is indicated by the hand on the dial.

941,062. PLUMBING-TRAP. JOHN T. COSTELLO, Pittsburg, Pa. Filed Sept. 3, 1908. Serial No. 451,488.



1. The combination with a wash-stand or other hollow plumbing fixture having an opening therein, of a waste pipe connected to said opening, a supply pipe leading into said waste pipe, and a trap connected to the waste pipe for the discharge of the water from the fixture through said waste pipe, and having said supply pipe passing through said trap.

2. The combination with a wash-stand or other hollow plumbing fixture having an opening therein, of a waste pipe connected to said opening, a supply pipe leading into said waste pipe, a trap connected to the waste pipe for the discharge of the water from the fixture through said waste pipe, and means within said trap for opening and closing said waste pipe, and having said supply pipe passing through said trap.

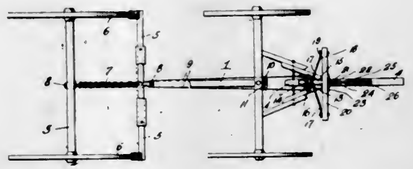
3. The combination with a wash-stand or other hollow plumbing fixture having an opening therein, of a waste pipe connected to said opening, a supply pipe leading into said waste pipe, a trap connected to the waste pipe for the discharge of the water from the fixture through said waste pipe, and a plug within said trap for opening and closing said waste pipe.

4. The combination with a wash-stand or other hollow plumbing fixture having an opening therein, of a waste pipe connected to said opening, a supply pipe connected to said waste pipe, a trap connected to said waste pipe for the discharge of the water from the fixture through said waste pipe, and a plug within said trap having a rod connected thereto and passing through said trap for operating said plug in opening and closing said waste pipe.

5. The combination with a wash-stand or other hollow plumbing fixture having an opening therein, of a waste pipe connected to said opening, a supply pipe connected to said waste pipe, a trap connected to said waste pipe for the discharge of the water from the fixture through said waste pipe, a plug within said trap having a rod connected thereto and passing through said trap for operating said plug in opening and closing said waste pipe, and means connected to said rod for raising and lowering the same and said plug.

[Claims 6 to 20 not printed in the Gazette.]

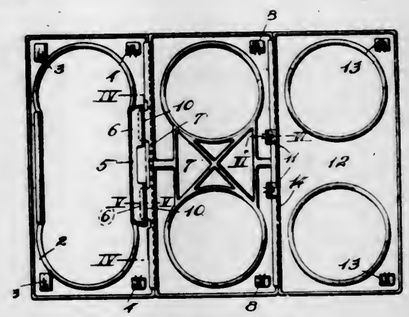
941,063. AUTOMATIC VEHICLE-BRAKE. CHARLES E. CRUMM, Anutt, Mo. Filed May 18, 1909. Serial No. 496,686.



1. The combination with the running gear of a vehicle, of a spring applied brake, a slidably arranged draft-tree having eyes at its ends, a pair of crossed levers pivoted intermediate their ends and having long arms to loosely engage said eyes, and connections between the short arms of said levers and the brake mechanism.

2. The combination with the running gear of a vehicle, of a spring applied brake, a slidably arranged draft-tree having eyes at its ends, a pair of crossed levers pivoted intermediate their ends and having long arms to loosely engage said eyes, a second pair of crossed levers pivoted intermediate their ends, links connecting the last mentioned levers to the short arms of the first mentioned levers, a flexible element connecting the brake mechanism with the other ends of the second mentioned levers, and guides for said element.

941,064. COOKING STOVE AND RANGE TOP. BERTRAM B. CULVER, St. Louis, Mo. Filed Apr. 15, 1909. Serial No. 489,969.

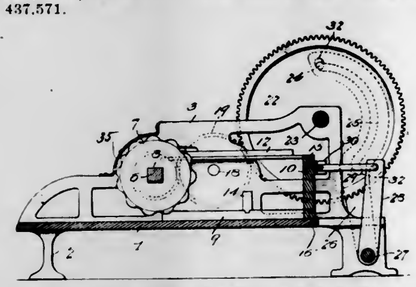


1. In a stove top, a top plate having a pocket member provided with a pocket located at the bottom of the plate, a second top plate having a flange at its bottom extending beneath an adjoining edge of the first mentioned top plate, and a tongue projection from said flange seated in the pocket in said pocket member.

2. In a stove top, a top plate having a pocket member provided with a pair of pockets located at the bottom of the plate, a second top plate having a flange at its bottom extending beneath an adjoining edge of the first mentioned top plate, and tongues projecting from said flange seated in the pockets in said pocket member.

3. The combination with a stove top plate, of a support beneath said stove top plate, comprising a post and a take-up member, having depending flanges and capping and detachably mounted on said post, and on which said stove top plate may rest when in its normal position.

941,065. BREAD-CUTTING MACHINE. MYRON J. FERREN, Washington, D. C. Filed June 9, 1908. Serial No. 437,571.



1. In a machine of the character described, the combination of a cutter shaft, a plurality of cutters mounted thereon to rotate therewith, but capable of free movement lengthwise of said shaft, and feed mechanism having means for maintaining the cutters in spaced relation.

2. In a machine of the character described, the combination of a cutter shaft, a plurality of cutters mounted thereon to rotate therewith, but capable of free movement lengthwise of said shaft, and reciprocating feed mechanism having means for maintaining the cutters in spaced relation.

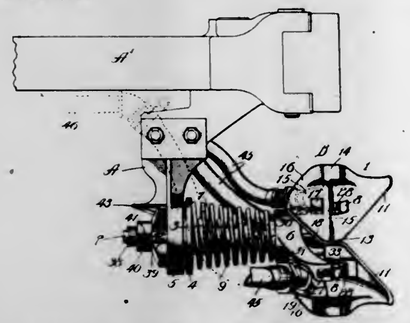
3. In a machine of the character described, the combination of a cutter shaft, a plurality of cutters mounted thereon to rotate therewith, but capable of free movement lengthwise of the shaft and feed mechanism having projecting parts extending between the cutters to maintain the same in spaced relation.

4. In a machine of the character described, the combination of a cutter shaft, a plurality of cutters mounted thereon to rotate therewith but capable of free movement lengthwise thereof and a reciprocatory feed carriage having parts projecting between the cutters to maintain the same in spaced relation.

5. In a machine of the character described, the combination of a cutter shaft, a plurality of cutters mounted thereon to rotate therewith but capable of free movement lengthwise of the shaft and a reciprocating feed carriage provided with upper and lower sets of fingers projecting between the cutters to maintain the same in spaced relation.

[Claims 6 to 9 not printed in the Gazette.]

941,066. COUPLING FOR TRAIN-PIPES, &c. JOSEPH E. FORSYTH, Chicago, Ill. Filed Oct. 15, 1908. Serial No. 457,833.



1. An automatic coupling for the purpose set forth, comprising a coupling-head of oval form having a transverse face and equipped with diagonally opposite forwardly diverging guide-prongs having inner concave surfaces at their bases, each guide-prong having a lateral shoulder lying in substantially the horizontal central plane of the coupling-head and a lateral shoulder lying in substantially the vertical central plane of the coupling-head, said coupling-head having convex surfaces located between the prong-bases and rearwardly diverging guide-surfaces forming a continuation of said convex surfaces of the coupling-head and conforming to the inner surfaces of the prongs of a companion coupling-head.

2. An automatic coupling for the purpose set forth, comprising an oval-form coupling-head having a transverse face and equipped with diagonally opposite forwardly diverging guide-prongs having inner concave surfaces at their base-portions, each of said guide-prongs having a lateral shoulder lying in substantially the horizontal central plane of the coupling-head and a lateral shoulder lying in substantially the vertical central plane of the coupling-head, said coupling-head having convex surfaces located between the prong-bases and rearwardly diverging guide-flanges having surfaces forming a continuation of said convex surfaces and conforming to the inner surfaces of the guide-prongs of a companion coupling-head.

3. An automatic coupling for the purpose set forth, comprising an oval-form coupling-head having a transverse face and equipped with diagonally opposite forwardly diverging guide-prongs having inner concave surfaces at their base-portions, each of said guide-prongs having a lateral shoulder lying in substantially the horizontal central plane of the coupling-head and a lateral shoulder lying in substantially the vertical central plane of the coupling-head and each guide-prong having an opening through the base-portion thereof, said coupling-head having convex surfaces lying between the prong-bases and rearwardly diverging flanges whose surfaces form continuations of said convex surfaces, each of said flanges having an opening therethrough, locking members mounted on said coupling-head and movable through the openings of said guide-prongs, and actuating means for said locking members.

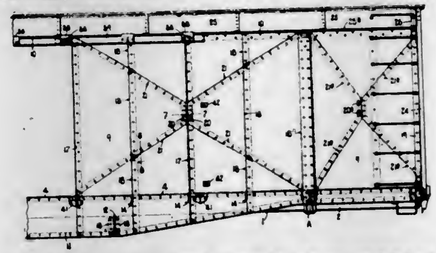
4. In an automatic coupling for the purpose set forth, the combination with the draw-bar of a car, of a bracket suspended therefrom, a coupling-head having a stem mounted to slide in said bracket, a spring confined between said bracket and said coupling head, said coupling-head being of oval form and equipped with diagonally opposite forwardly diverging guide-prongs having inner concave surfaces at their base-portions, each of said guide-prongs having a lateral shoulder lying in substantially the horizontal central plane of the coupling-head and a lateral shoulder lying in substantially the vertical central plane of the coupling-head, said coupling-head having convex surfaces lying between the prong-bases, the base-portion of each guide-prong being provided with an opening, locking members supported on said coupling-head and adapted to move in said openings, means slidable on said stem serving to actuate said locking members, and a spring confined between said last-named means and said bracket, for the purpose set forth.

5. The combination with a draw-bar of a car, of a bracket suspended therefrom, a prong-equipped coupling-head having a stem extending loosely through said bracket, a locking member mounted on said coupling head and adapted to engage a companion coupling-head, an actuating member for said locking member having a tubular stem extending through said bracket, springs surrounding said tubular stem having a bearing against said bracket, one of said springs having a gearing on said coupling-head and the other having a bearing on said actuating member, and stops connected with said stems in the rear of said bracket and limiting the forward movement of said coupling-head and said actuating member, for the purpose set forth.

[Claims 6 to 8 not printed in the Gazette.]

941,067. STEEL BOX-CAR. ROBERT E. FRAME, St. Louis, and CLEMENT G. HARRINGTON, Maplewood, Mo., assignors to American Car & Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed Jan. 31, 1908. Serial No. 413,641.

1. A car provided with a center sill which consists of a continuous member that terminates inside of the bolsters, and draft sills extending through the bolsters and connected to the end portions of said center sill member; substantially as described.



2. A car provided with a center sill which consists of a continuous member that terminates inside of the bolsters, and draft sills consisting of members spaced away from each other and having their inner ends bent into engagement with the center sill and secured thereto; substantially as described.

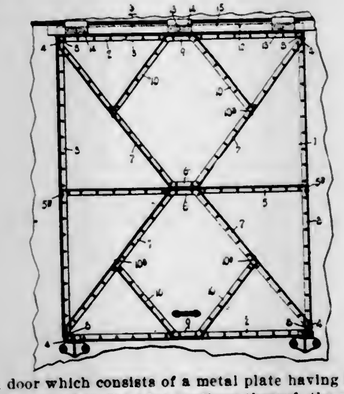
3. A car provided with a single flanged center sill member, and draft sill members of the same depth as the center sill member and embracing the end portions thereof, the inner ends of said draft sill members being reduced in depth so that they will telescope inside of the flanges of said center sill member; substantially as described.

4. A car provided with a flanged center sill member that terminates inside of the bolsters, and a pair of draft sill members extending through the bolsters and embracing the end portions of said center sill member, the flanges of said center sill member telescoping over the inner ends of the draft sill members; substantially as described.

5. A car provided with a flanged center sill member, and a pair of channel-shaped draft sill members extending through the bolster and embracing the end portion of the center sill member, the vertical webs of said draft sill members being bent out of their normal planes so that the flanges thereon will telescope inside of the flanges of the center sill member; substantially as described.

[Claims 6 to 44 not printed in the Gazette.]

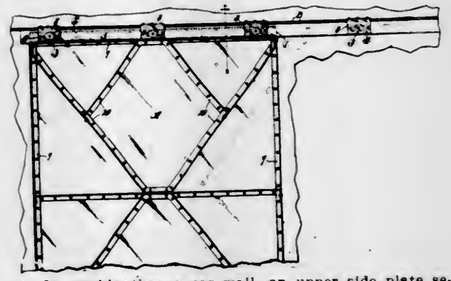
941,068. METALLIC DOOR. ROBERT E. FRAME, St. Louis, and CLEMENT G. HARRINGTON, Maplewood, Mo., assignors to American Car & Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Original application filed Jan. 31, 1908, Serial No. 413,641. Divided and this application filed Oct. 30, 1908. Serial No. 460,329.



1. A door which consists of a metal plate having flanged members secured to the edge portions thereof, the meeting ends of said flanged members being connected together, a flanged brace extending transversely of said door, and an approximately X-shaped brace consisting of two flanged members bent to form horizontally disposed portions which engage the transversely extending brace, and inclined portions diverging in opposite directions therefrom and secured at their outer ends to the flanged members on the edge portions of the plate.

2. A door consisting of a metal plate having flanged members secured to its edge portions, the meeting ends of said members being connected together, a brace extending transversely of said plate, an approximately X-shaped brace secured to the corner portions of the frame which said flanged members form, and auxiliary braces having inclined portions which extend oppositely to the inclined portions of the X-shaped brace and are secured thereto.

941,069. CAR-DOOR HANGER. ROBERT E. FRAME, St. Louis, and CLEMENT G. HARRINGTON, Maplewood, Mo., assignors to American Car & Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Original application filed Jan. 31, 1908, Serial No. 413,641. Divided and this application filed Oct. 30, 1908. Serial No. 460,330.



1. In combination, a car wall, an upper side plate secured thereto and provided with a laterally projecting flange, brackets arranged under said flange, means on said flange for supporting said brackets, rollers journaled in said brackets, a sliding car door, and a member projecting outwardly from the upper edge of said door and traveling on said rollers.

2. In combination, a car wall, an upper side plate secured thereto and provided with a laterally projecting flange, brackets arranged underneath said flange, rollers journaled in said brackets, a sliding car door, a member projecting outwardly from the upper edge of said door and traveling on said rollers, and a housing member connected to said side plate for carrying said brackets and protecting said rollers.

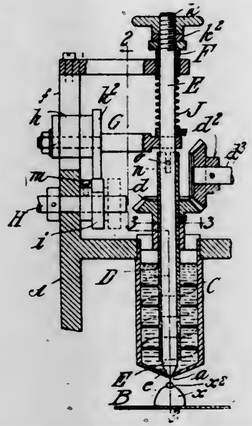
3. In combination, a supporting wall provided with a door opening, a sheet metal housing member arranged adjacent the upper edge of said opening and having a vertical wall whose lower edge is curved outwardly, brackets connected to the inner face of said wall, rollers mounted on said brackets, and a sliding door provided at its upper edge with a laterally projecting flange that travels on said rollers.

4. In combination, a car wall having a door opening and provided with an upper side plate or reinforcing member which consists of a metallic member that has a horizontally disposed flange or portion which projects laterally from said car wall, a sheet metal housing member connected to the horizontal flange of said reinforcing member and provided with a vertical wall whose lower edge is flared outwardly, rollers carried by devices that are connected to the vertical wall of said housing member, and a sliding door provided at its upper edge with a laterally flanged portion that rests upon and travels on said rollers.

5. In combination, a car wall provided adjacent its upper edge with a reinforcing member that has a laterally projecting flange, a housing member depending from said flange, stationary devices arranged inside of said housing, rollers journaled on said devices, and a sheet metal door provided at its upper edge with an integral laterally projecting flange that rests upon and travels on said rollers.

[Claims 6 to 9 not printed in the Gazette.]

941,070. CONFECTIONERY-MACHINE. OSCAR F. GRANLUND, Springfield, Mass. Filed May 12, 1909. Serial No. 495,560.



1. In an apparatus of the character described, the combination with a confectionery supporting, movable, carrier, of a receptacle for molten confectionery decorating material located above said carrier, having an outlet opening in the bottom thereof and a screw comprising double helical feeding blades axially located in said receptacle and in line with said outlet opening, and operative, because of the plural character of its helical feeding blades, to cause a discharging of the semi-liquid material from the receptacle down through said opening in a straight line.

2. In an apparatus of the character described, a receptacle for a confectionery decorating semi-liquid material having an opening centrally through its bottom, a sleeve concentrically and vertically within said receptacle having helical feeding blades, means for revolving said sleeve, and the blades carried thereby, a stem, located within said sleeve, having a tapered lower end operating as a valve for said outlet opening, and means for intermittently raising and lowering said stem.

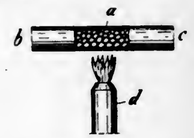
3. In an apparatus of the character described, the combination with a movable confectionery supporting carrier, of a receptacle for a confectionery decorating semi-liquid material having an outlet opening centrally through its bottom, a sleeve concentrically and vertically within said receptacle, terminating above said outlet opening and having a helical feeding blade, means for revolving said sleeve and the blade carried thereby, a stem located within and extending below the lower end of said sleeve, having a tapered lower end operating as a valve for said outlet opening, and means for intermittently raising and lowering said stem.

4. In an apparatus of the character described, the combination with a movable, confectionery supporting carrier, of a receptacle for containing a confectionery decorating semi-liquid material having an outlet opening centrally through its bottom, a sleeve concentrically and vertically within said receptacle terminating above said outlet opening and having helical feeding blades, means for revolving said bladed sleeve, a stem within and extending above and below said sleeve, having a tapered lower end operating as a valve for said outlet opening and having a transversely extending projection above the sleeve, a rotary cam coacting with said projection for intermittently raising the stem, and a spring reacting downwardly on said stem.

5. In an apparatus of the character described, the combination with a movable confectionery supporting carrier, a receptacle for a confectionery decorating semi-liquid material having an outlet opening centrally through its bottom, a sleeve concentrically and vertically within said receptacle, terminating above said outlet opening and having a helical feeding blade, means for revolving said sleeve and the blade carried thereby, a stem located within and extending below the lower end of said sleeve, having a tapered lower end operating as a valve for said outlet opening, means for intermittently raising and lowering said stem relatively to the sleeve, and means for connecting the stem and sleeve whereby the revoluble movement of the sleeve causes a like movement of the stem.

[Claims 6 to 8 not printed in the Gazette.]

941,071. PROCESS OF MAKING THORIUM SULFID. JOHANN L. HUBER, Niederschöneweide, near Berlin, Germany, assignor to The Firm of Kunheim u. Co., Niederschöneweide, near Berlin, Germany. Filed June 1, 1908. Serial No. 436,120.

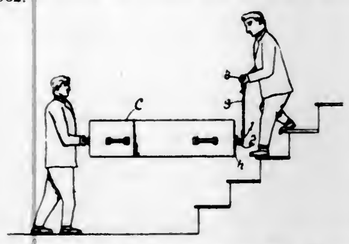


1. The process of making thorium sulfid which consists in causing sulfureted hydrogen to react on heated haloid of thorium in a solid state at temperatures below the sublimation temperature of haloid of thorium.

2. The process of making thorium sulfid which consists in causing sulfureted hydrogen to react on heated haloid of thorium in a solid state mixed with substances indifferent to haloid of thorium and sulfureted hydrogen below the sublimation temperature of haloid of thorium.

3. The process of making thorium sulfid which consists in causing sulfureted hydrogen to react on heated chlorid of thorium in a solid state mixed with chlorid of sodium below the sublimation temperature of chlorid of thorium.

941,072. UNDERTAKER'S LIFTING-STRAP. JOHN P. HUBER, St. Louis, Mo. Filed July 6, 1909. Serial No 506,062.

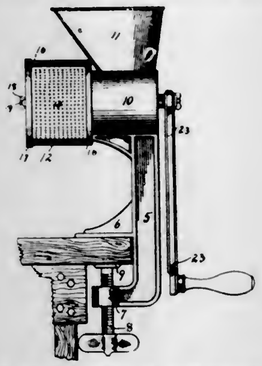


1. An undertaker's lifting strap comprising a plate provided with an open socket or saddle, a handle bar, a pair of straps diverging from and connecting the plate to the bar, and formations on the plate for maintaining the straps, in conjunction with the bar, in said diverging position.

2. An undertaker's lifting strap comprising a plate provided with an open socket or saddle, the plate being provided with a pair of downwardly and outwardly inclined slits, tongues bent from the bases of the slits against the body of the plate, straps looped through the slits and disposed at right angles to the bases of the slits, and a handle-bar coupled to the upper ends of the straps.

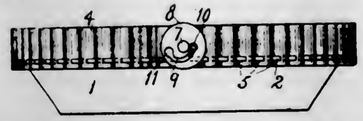
941,073. VEGETABLE-MASHER. BUNPACHI IITSUKA, San Diego, Cal. Filed June 29, 1909. Serial No. 505,062.

A device of the character described, comprising a supporting standard and a hollow member supported therefrom, said hollow member comprising a barrel and a casing, a hopper mounted in said barrel, a spiral conveyer working in said barrel beneath said hopper, means for rotating said spiral conveyer, a removable screen normally closing an opening formed in the wall of the casing, means for securing said screen in position, a plurality of blades secured to and rotating with the spiral conveyer, said blades lying entirely within said casing, said casing being of uniform dinmeter throughout its length, and said



blades being concavo-convex in cross section and presenting their convex faces in the direction of their rotation, and the outer edges of said blades being straight and lying close to the inner face of the casing and the screen throughout the length thereof.

941,074. PIE-PLATE ATTACHMENT. HENRY ISAACS, Greenfield, Mass. Filed Sept. 1, 1909. Serial No. 515,633.



1. As an improved article of manufacture, a pie-plate attachment comprising a corrugated guard or band having slots in the inner folds to receive the rim of a plate, and provided with fastening means for the ends of said guard or band.

2. As an improved article of manufacture, a pie-plate attachment comprising a corrugated guard or band having slots in the inner folds to receive the rim of a plate, and provided with means to contract said band and fasten it about said rim.

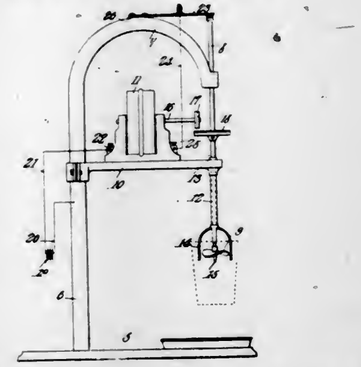
3. The combination, in a pie-plate attachment, with a plate provided with a substantially flat horizontal rim, of a corrugated guard or band slotted to receive said rim, and means to fasten said guard or band to said plate.

941,075. MIXING APPARATUS. DAVID B. JACKSON, Clarendon, Ark. Filed Feb. 17, 1909. Serial No. 478,450.

1. A mixing apparatus comprising a supporting frame, a longitudinally movable shaft mounted therein, a beater carried by the shaft, a motor and its drive shaft, and gearing between the beater and motor shafts, said gearing being normally disconnected.

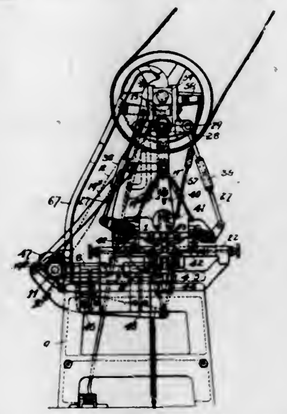
2. A mixing apparatus comprising a supporting frame, a longitudinally movable shaft mounted therein, a beater carried by the shaft, a friction disk on the shaft, a motor and its drive shaft, and a friction disk on the drive shaft engageable with the friction disk of the beater shaft, said disks being normally disconnected.

3. A mixing apparatus comprising a supporting frame, a longitudinally movable shaft mounted thereon, a beater carried by the shaft, an electric motor and its drive shaft, gearing between the beater and motor shafts, said gearing being normally disconnected, a contact spring mounted on the supporting frame in the path of the beater shaft, and an electric circuit adapted to be closed by the engagement of the beater shaft with the said contact spring.



4. A mixing apparatus comprising a supporting frame, a longitudinally movable shaft mounted therein, a beater carried by the shaft, an electric motor and its drive shaft, a normally open electric circuit to which the motor is connected, gearing between the beater and motor shafts, said gearing being normally disconnected, and means for simultaneously connecting said gearing, and closing the circuit.

941,076. CAN-BODY-FORMING MACHINE. WHITNEY W. JONES, Baltimore, Md. Filed Dec. 9, 1908. Serial No. 466,652.



1. In a machine of the class described, edging mechanism, including clamping means for the blanks having edging anvils, and edging tools, consisting of rollers, carriers for the rollers in which the said rollers are adapted to slide, and springs for pressing the rollers to their work, and means for operating the carriers to move the rollers transversely of the edges of the anvils, substantially as described.

2. In combination in a machine of the class described, edging tools, carriers pivotally supported and carrying said edging tools, anvils having inclined edges, and pivoted clamping arms pivoted coaxially with the carriers, with means for operating said clamping arms and said pivoted carriers, substantially as described.

3. In combination in a machine of the class described, anvils over which the edges of the blanks are bent, edging tools, pivotally supported carriers for the said edging tools, clamps pivotally supported and mounted coaxially with

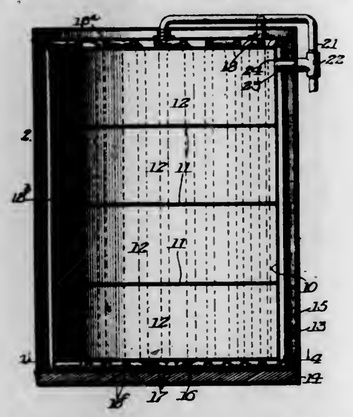
the tool carriers, and means for operating the tool carriers and clamps, substantially as described.

4. In combination in a machine of the class described, blank edging mechanism, including anvils, edging tools consisting of rollers, a pair of arms for each of the rollers, each of said arms having a guideway for the edging tools and a spring for pressing the tool to its work, means for operating the carriers, and clamping means for the blanks pivoted coaxially with the edging tool carriers, substantially as described.

5. In combination in a machine of the class described, a table, a pair of standards adjustably mounted on the said table, each of said standards carrying anvils over which the edges of the blanks are bent, edging tool carriers pivotally mounted on the said standards, and clamps pivotally mounted on the said standards coaxially with the edging tools, with means for operating the carriers and clamps, substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

941,077. COOLING-BOX. HENRY J. KUCK, Chicago, Ill. Filed Sept. 14, 1908. Serial No. 452,848.



1. In a cooling-box, the combination with an inner receptacle, of a jacket surrounding the same and spaced therefrom, a pipe for the circulation of a cooling agent disposed between the walls, tops and bottoms of the receptacle and jacket and having its discharging end located at the bottom of the receptacle, an outlet pipe communicating with the upper portion of the space between the inner receptacle and jacket and extended downwardly at the exterior of the latter, a pipe section communicating at one of its ends with the upper portion of the inner receptacle and at its other end with the outlet pipe, and a downwardly inclined deflector located in the outlet pipe above the juncture of the pipe section therewith.

2. In a cooling-box, the combination with an inner receptacle, of a jacket surrounding the same and spaced therefrom, a pipe for the circulation of a cooling agent disposed in ranges or coils between the walls, tops and bottoms of the receptacle and jacket and having its discharging end located at the bottom of the receptacle, an outlet pipe communicating with the upper portion of the space between the inner receptacle and jacket and extended downwardly at the exterior of the latter and having communication in its downward portion with the upper part of the inner receptacle, and a downwardly inclined deflector located in the outlet pipe.

3. In a cooling-box, the combination with an inner receptacle, of a jacket surrounding the same and spaced therefrom, a pipe for the circulation of a cooling agent disposed between the receptacle and jacket and having its discharging end located at about the center of the bottom of the receptacle, an outlet pipe communicating with the upper portion of the space between the inner receptacle and jacket and extended downwardly of the exterior of the latter, a T-coupling mounted on the depending portion of the outlet pipe and having a downwardly inclined deflector, and a pipe section communicating at one of its ends with said coupling below said deflector and at its other end with the upper portion of the inner receptacle.

941,078. REINFORCED-CONCRETE PILE FOR PIER AND FOUNDATION CONSTRUCTION. CASSIUS E. LAMBURTH, San Francisco, Cal. Filed Oct. 22, 1908. Serial No. 458,967.



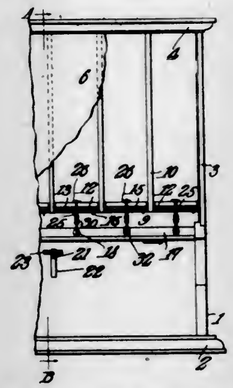
1. A concrete pile having an axial opening through it, lengthwise extending reinforcing rods embedded in the body of the concrete between said central opening and the outer wall of the pile, a metal tube embedded in the concrete interior to said rods and forming the wall of said axial opening, and two cylinders of wire fabric embedded in the body of concrete and passing around the exterior of the rods, the fabric cylinders engaging alternate rods whereby one cylinder is arranged within the other and the sides of one cylinder are diagonal to the sides of the other cylinder.

2. In a hollow reinforced concrete pile comprising a body of concrete having a central opening extending from end to end, metal reinforcing members arranged longitudinally of the pile and wire fabric cylinders surrounding said members, a base plate upon which the lower end of the pile rests, said base plate having a downwardly extending flange with reinforcing ribs at intervals forming seats for the reinforcing members, certain of said members extending through said ribs, and means for fastening the ends of said members to the base plate.

3. In a hollow reinforced concrete pile comprising a body of concrete having a central opening extending from end to end, metal reinforcing members arranged longitudinally of the pile and wire fabric cylinders surrounding said members, a base plate upon which the lower end of the pile rests, said base plate having a downwardly extending flange with reinforcing ribs at intervals forming seats for the reinforcing members, certain of said members extending through said ribs, means for fastening the ends of said members to the base plate, and a cap plate of metal fitting on top of the pile and having a central opening to register with the opening through the pile and adapted to admit a filling of concrete to close the central opening of said pile, said cap plate having an inside flange adapted to enter the top of the central opening of the pile.

941,079. VENDING-MACHINE. WILLIAM H. LARAWAY, Grand Rapids, Mich. Filed Apr. 20, 1909. Serial No. 491,020.

1. In a vending machine, an article delivery means, a coin receiving member, a rod carried by the article delivery means and extending through the coin receiving member in the path of a coin, and normally constrained in a direction to be engaged by the edge of a coin when the latter is in the coin receiving member and is engaging the said member by a part of its edge remote from that engaging the rod, and an actuating member in the path of which the rod is moved against its normal tendency by an inserted coin.



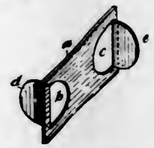
2. In a vending machine, an article delivery means, a coin receiving member, another member above the coin receiving member and provided with a coin slot in alinement with the coin receiving member, another member pivotally carried below the coin receiving member and provided with a slot or recess for the passage of a coin, a pendent rod carried by the article delivery means and extending through the coin slot, the coin receiving member, and the recess in the pivoted member below the coin receiving member, said rod having the lower end bent away from the path of a coin entering through the coin slot, and means for constraining the rod to a position in the path of an inserted coin and out of the path of the pivoted member below the coin receiving member.

3. In a vending machine, an article delivery means, a member provided with a coin receiving slot, a looped member below the coin receiving slot and having one end inclined, a pivoted member below the looped member and having a recess or passage for a coin therethrough, a pendent rod carried by the article delivery means and having its lower end bent in a direction away from the inclined portion of the looped member, and a spring tending to move the rod into the path of the coin introduced through the coin slot.

4. In a vending machine, an article delivery means spring constrained to normal position, a pendent rod carried by said article delivery means and held in normal position thereby, said rod having the lower end bent to one side, a member provided with coin receiving slots through which slots the rod extends, a looped coin receiving member below the coin-receiving slot and having one end inclined downward toward the rod, a slotted member through which the rod extends, and into engagement with which the rod is adapted to be moved by an inserted coin, and a spring tending to move the rod in a direction toward the inclined wall of the coin receiving member and to hold the lower end of the rod out of the path of the pivoted member.

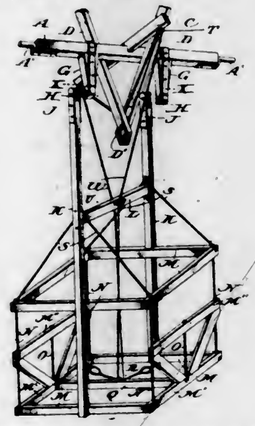
941,080. BOND FOR TWO-MEMBERED CONCRETE BUILDING-BLOCKS. LUDWIG B. LARSEN, Portland, Oreg. Filed Feb. 17, 1908. Serial No. 416,406.

1. The combination with a building block comprising two members arranged in spaced relation, of a bond connecting said members, said bond comprising a metallic strip formed near each end with an aperture, the material cut from the strip to form the aperture being integral with the strip along one edge and being bent at right angles to the strip to form flanges, the strip being embedded in the block members at right angles to the adjacent faces thereof with flanges extending longitudinally of and wholly embedded in the members, the ends of the strip being embedded in the members so as to expose a portion of each aperture beyond the inner face of the member, whereby to provide an unbroken face section of each member for a height corresponding approximately to the width of the aperture to avoid weakening the member at the point of application of the strip.



2. The combination with a corner block including two members having connected right angled sections, the corresponding sections of each member being arranged in spaced parallel relation, of a bond for the members including a right-angled strip formed with apertures adjacent each end and adjacent and on each side of the angle, the material cut from the strip being integral therewith along one edge to form flanges, the strip being embedded in the members with the flanges adjacent the angle of the strip embedded in one member and the flanges adjacent the ends of the strip embedded in the other member, the respective portions of the strip embedded in the members being arranged to expose a portion of each aperture beyond the inner face of said member, whereby to provide an unbroken face section of each member corresponding approximately to the width of the aperture.

941,081. SWING. EDWIN V. LEWIS, Fresno, Cal. Filed July 6, 1909. Serial No. 506,334.



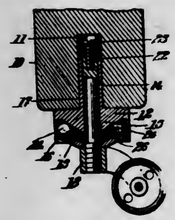
1. The combination of an upright frame for a swing supporting on its top a shaft A, which works in a bearing at either end thereof, such shaft having short rock arms G G extending downward to which rock arms the long arms of the swing are hinged, said shaft having attached at right angles a lever C extending equidistant on either side of shaft A said upright frame having a V shaped support D fastened to the top thereof on a perpendicular plane to lever C with the vertex downward, with propelling ropes fastened to the vertex of said V and passing through pulleys at ends of lever C, and to the floor of the cage of the swing, all substantialy as described.

2. A floor of a swing cage consisting of slats cut with uniform notches near the ends thereof, having a cross strip directly under such notches, said slats being put a uniform distance apart, in combination with a seat having four posts the bottom ends of which fit snugly into such notches, said posts being braced by strips running between

the front posts and between the rear posts at the bottom thereof, said strips cut to fit snugly between the slats comprising the floor, and by strips running from the front posts to the rear posts, fastened sufficiently above the bottoms of such posts so when said posts stand on the cross-strip under the floor slats, said strip will rest on the top of the slats, all substantially as described.

3. In a swing, a cage constructed with the upright arms of the swing K K, to the bottom of which is notched a rectangular frame to support the floor, being a plane at right angles with said arms K K, and on a parallel plane with said floor and a short distance above it a frame of similar outside dimensions to said floor frame being notched to said arms K K, said cage being further strengthened by two V shaped braces having the vortex resting on the center of the upper side of the outside floor beams which are not contiguous to arms K K, the upper end of such V braces extending to a perpendicular line connecting the corners of such cage the upper end of such V braces being capped with a strip of the same length as the floor beam on which such V braces rest, the whole being fastened together with long bolts running perpendicularly from each corner of the floor frame through the upper extensions of said V shaped braces, and through an end of the strip capping said V braces, thence through a corresponding corner of the top frame and through an eye in a rod, which rod runs from them obliquely to an arm of the swing where a cross piece L is attached, and, further by a bolt running through the middle of the strip capping the V brace, thence through the vortex of said V brace and through the floor beam on which such V brace rests.

941,082. SELF-ADJUSTING CASTER. THOMAS C. LUCE, Dalton, Mass., assignor to Luce Manufacturing Company, Dalton, Mass., a Corporation of Massachusetts. Filed Apr. 9, 1909. Serial No. 488,836.



1. A self-locking support comprising two members having opposing faces which are inclined at different angles to form a tapering space between them, one of said members being movable relatively to the other to vary the width of said space, and a rolling member in said space free to move in the direction in which said space tapers.

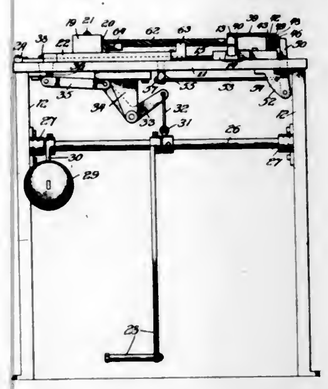
2. A self-locking support comprising two disks facing each other and having their faces at different angles to a plane transverse to the axis of the disks, and rolling members free to move in any direction between said faces.

3. A self-locking support comprising two disks facing each other and having their faces at different angles to a plane transverse to the axis of the disks, and rolling members free to move in any direction between said faces, means being provided for holding said rolling members spaced apart.

4. An automatic length adjuster for the purposes described, comprising a pair of concentrically mounted and relatively rotatable disks having a concavo-convex space between them, said space varying from the center outward, and rolling members mounted in said space and free to move toward and from the center.

5. A self-locking support comprising a pair of disks having their opposing faces formed to inclose a concavo-convex space which tapers radially, one of said disks being movable to widen or contract said space, and balls mounted in said space and free to move around the space or toward and from the center thereof.

941,083. CANDLE-END-FORMING MACHINE. CHARLES B. MANBECK, Whiting, Ind., assignor to Standard Oil Company, Whiting, Ind., a Corporation of Indiana. Filed May 17, 1909. Serial No. 496,594.



1. In a candle-end-forming machine, the combination with a bed, of a mold consisting of a stationary socket-member and a pair of coöperating movable mold members, and means for actuating said members and forcing a candle-end into said mold, for the purpose set forth.

2. In a candle-end-forming machine, the combination with a bed, of a mold consisting of a stationary socket-member provided with a movable plunger and coöperating movable mold members, and means for actuating said movable members, for the purpose set forth.

3. In a candle-end-forming machine, the combination with a bed, of a mold provided with coöperating movable members, a slide-plate having cam-connections with said members, and means for reciprocating said plate to actuate said members, for the purpose set forth.

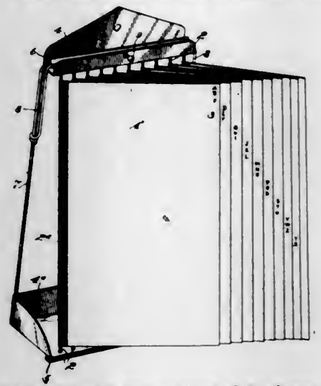
4. In a candle-end-forming machine, the combination with a bed, of a mold provided with coöperating movable members, a slide-plate having cam-connections with said members and provided with candle-supporting means, and means for reciprocating said plate, for the purpose set forth.

5. In a candle-end-forming machine, the combination with a bed, of a mold consisting of a socket and a pair of movable members coöperating therewith, a slide-plate having cam-connections with said movable members and provided with candle-supporting means including a socket for the candle-tip, and means for reciprocating said plate, for the purpose set forth.

[Claims 6 to 8 not printed in the Gazette.]

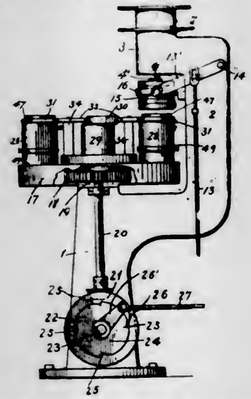
941,084. LOOSE-LEAF BOOK. LOUIS E. MARSH, San Francisco, Cal., assignor to Louis E. Marsh Company, San Francisco, Cal., a Corporation of California. Filed Jan. 24, 1908. Serial No. 412,509.

In a device of the character described, having in combination a frame comprising upper and lower members, said members provided with perforations and the lower member having its front edge turned backwardly beneath the main portion, leaves having pintles in line with their inner angles, the pintles at the upper ends of the leaves adapted to enter the perforations in the upper member of the frame, and the pintles at the lower ends of the leaves adapted to enter the perforations in the lower member of said frame, and to seat upon the back-turned edge thereof, a plate extending along above the upper ends of the upper pintles and adapted to form a stop therefor, means whereby the plate may be shifted out of the vertical plane of the upper pintles, elastic arms extending downwardly over each end of said plate, and vertical supporting members



between the upper and lower members of the frame and to which the elastic arms are secured.

941,085. MACHINE FOR MAKING PAPER RECEPTACLES. CHARLES MARTHINSON, Washington, D. C. Filed July 29, 1909. Serial No. 510,284.



1. In a machine of the class described, a revoluble table, a mandrel on the table for supporting the body of a receptacle, a resilient clamp for securing said body to said mandrel, a cam for contracting said clamp, and a revoluble head for forming a lock-joint between the end of the body of the receptacle and a closure.

2. In a machine of the class described, a revoluble table, a mandrel on the table, a resilient clamping-band, a pivoted lever to which said band is connected, a cam for operating said lever, a connection at the opposite end of said band, and a revoluble head for engaging the end of the body of a receptacle and a closure.

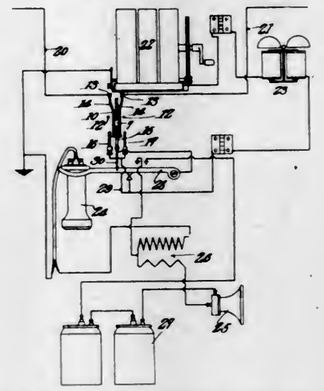
3. In a machine of the class described, a revoluble table, a mandrel on the table, a resilient clamping-band, a pivoted lever, a link between said band and said lever, a cam for operating the lever, a connection at the opposite end of said band, and a revoluble head for engaging the end of the body of a receptacle and the flange on a closure.

4. In a machine of the class described, a mandrel, a resilient clamping-band, a pivoted lever, a link between said band and said lever, a cam for operating the lever, a pivoted lever at the opposite end of said band, means for adjusting the latter to vary the effective length of the band, and a revoluble head for engaging the end of the body of a receptacle and the flange on a closure.

5. In a machine of the class described, an intermittently revoluble table, a plurality of mandrels equidistantly arranged thereon and each provided with an annular rabbet at its upper end, a clamping-band, means for operating said band, means for adjusting the length of the band, and a head revoluble and reciprocally mounted and adapted to register with each mandrel in the revolution of the table.

[Claim 6 not printed in the Gazette.]

941,086. TELEPHONE ATTACHMENT. CHARLES B. MITCHELL, Franklin, Tex., assignor of one-fourth to Hammet B. Hurt and one-fourth to James W. McCrary, Franklin, Tex. Filed Feb. 19, 1909. Serial No. 478,841.



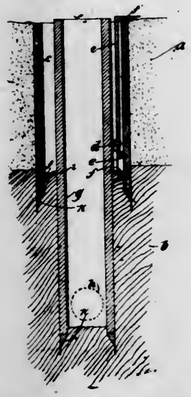
1. An attachment for telephones comprising two conducting strips adapted to be connected to the two sides of a divided line and to constitute the terminals thereof, a contact common to and normally bridging said strips and adapted to be electrically connected to the speaking circuit, other contacts individual to the strips and adapted to be both electrically connected to the same side of the signal in the signal circuit, and means for moving either strip from the common contact into engagement with its individual contact.

2. An attachment for telephones comprising two conducting strips adapted to be connected each to the end of a divided line and constituting the terminals thereof, a contact common to said strips and adapted to be connected to a telephone hook, other contacts individual to the strips and adapted to be both connected to the signal circuit, and means for moving either strip from the common contact into engagement with its individual contact comprising a cam member intermediate of said spring strips and means for rotating said cam member.

3. An attachment for telephones comprising two conducting spring strips adapted to be connected to the ends of a divided line to constitute the terminals thereof, a contact common to said strips and adapted to be connected to a telephone hook, other contacts individual to the strips and adapted to be both connected to the signal circuit, means for moving either strip from the common contact into engagement with its individual contact comprising a cam member intermediate of said spring strips and means for rotating said cam member, and a connection from the telephone hook to the means for rotating the cam member.

4. An attachment for telephones comprising a suitable support, spring strips therein fast thereto at one end and free at the other end, a contact stud between and in the path of both strips at their free ends, other contact studs on opposite sides of the first named contact stud and each in the path of one only of the spring strips, and a cam member intermediate of the spring strips and adapted to move either spring strip but not both at once to contact with the studs on either side of the central stud.

941,087. SHAFT. GEORGE R. MOORE, Chicago, Ill. Filed Nov. 30, 1907. Serial No. 404,587.

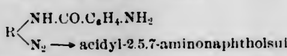


1. A supplemental shaft sunk to non-water bearing soil, a main shaft sunk through the bore of the supplemental shaft into the non-water bearing soil, water trapping space intervening between the two shafts, and a gutter in the non-water bearing soil having a brink adjacent to the outer surface of the main shaft to permit of the accumulation of a limited quantity of water.

2. A supplemental shaft sunk to non-water bearing soil, a main shaft sunk through the bore of the supplemental shaft into the non-water bearing soil, water trapping space intervening between the two shafts, mechanism for removing the water from the water trapping space, and a gutter in the non-water bearing soil having a brink adjacent to the outer surface of the main shaft to permit of the accumulation of a limited quantity of water.

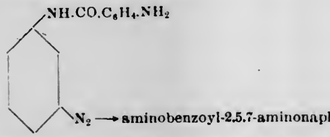
941,088. AZO DYE AND PROCESS OF MAKING SAME. CARL O. MÜLLER, Höchst-on-the-Main, Germany, assignor to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany, a Corporation of Germany. Filed Mar. 1, 1909. Serial No. 480,651.

1. The herein described process for manufacturing red dyestuffs of the general formula:



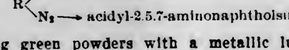
wherein "R" means an aryl residue,—by combining diazotized mono-nitrobenzoylated diamins with acidylated 2.5.7-aminonaphtholsulfonic acids and reducing the nitro-group.

2. The herein described process for manufacturing red dyestuffs of the formula:



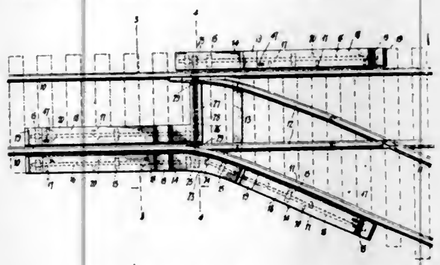
by combining mono-nitrobenzoylated metaphenylenediamin with nitroarylacidyl-2.5.7-aminonaphtholsulfonic acids and reducing the nitro-group.

3. As new products, the dyestuffs of the general formula:



being green powders with a metallic luster, which are soluble in hot water with a red color, dyeing cotton red tints and giving, when treated with beta-naphthol, red dyeings.

941,089. RAILWAY-SWITCH. DAVID C. MCCALIB, El Paso, Tex. Filed May 20, 1909. Serial No. 497,214.



1. In a railroad switch, switch points, a shaft supported for rotation adjacent the switch points, a cover extending over said shaft and normally held in a raised position, an arm projecting laterally from said shaft, a presser element attached to said cover and adapted to contact with and rotate said arm and shaft, an operative connection between said shaft and the switch points, and a rolling stock supported mechanism to depress said cover.

2. In a railroad switch mechanism, switch points, a casing adjacent said switch points, a shaft supported for rotation in said casing, a cover extending over said casing and normally held in raised position thereon, an arm projecting laterally from said shaft, a presser element attached to said cover and adapted to contact with the arm and rotate said shaft, an operative connection between said shaft and the switch points, and a rolling stock supported mechanism to depress said cover.

3. In a railroad switch mechanism, switch points, a casing adjacent said switch points, a shaft supported for rotation in said casing, a cover having downwardly inclined ends held over said casing normally in raised position, an arm projecting laterally from said shaft, a presser element attached to said cover and adapted to contact with the arm and rotate said shaft, an operative connection between said shaft and the switch points, and a rolling stock supported mechanism to depress said cover.

4. In a railroad switch mechanism, switch points, a casing mounted adjacent said switch points, a shaft supported for rotation in said casing, a cover for said casing normally held in a raised position, springs in said casing pressing against said cover to force the same upward, a presser element attached to said cover, an arm projecting laterally from said shaft and adapted to be engaged by the presser element, an operative connection between said shaft and the switch points, and a rolling stock supported mechanism to depress said cover.

5. In a railroad switch mechanism, switch points, a shaft supported for rotation adjacent the switch points, a cover extending over said shaft and normally held in a raised position, springs arranged to hold said cover raised, an arm projecting laterally from the shaft, a bar projecting downward from the cover, a roller carried on the lower end of said bar and adapted to contact with the arm and rotate said shaft, an operative connection between said shaft and the switch points, and a rolling stock supported mechanism to depress said cover.

[Claims 6 to 14 not printed in the Gazette.]

941,090. APPARATUS FOR APPLYING WATER-POWER. FREDERICK T. NEWBERY, San Francisco, Cal. Filed June 20, 1908. Serial No. 439,504.

1. In an apparatus for obtaining a water power and water supply from elevated lakes or bodies of water, on the opposite side of the water shed from that on which the proposed power station is situated, said apparatus comprising a primary pump at the source of supply adapted to force the water upward over the intervening summit, and thence down to a power station at a lower level than the source on the opposite side therefrom, an electric generator at the power station and actuated by the initial flow of water, means for conducting the electric fluid back to the primary station, an electric pump at the station actuated by said current and adapted to pump an increased volume of water from the supply to the power station, and an electric generator of greater power than the first-named generator actuated by the increased flow of water.

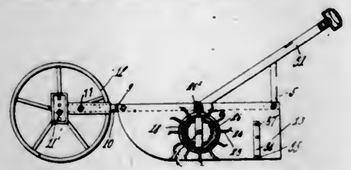
2. In an apparatus for obtaining a water power and



water supply from elevated lakes or bodies of water, on the opposite side of the water shed from that on which the proposed power station is situated, said apparatus comprising a primary pump adapted to force a relatively small supply of water upward over the intervening summit and thence down to a power station at a lower level than the source and on the opposite side therefrom, a turbine and connected generator at the power station actuated by the initial flow of water, means for conducting an electric current from the generator back to the source of supply, an electric motor and connected pump at the source of supply actuated by said current and adapted to pump an increased volume of water up over the summit and thence down to the power station at the opposite side therefrom, and a generator of increased energy at the power station actuated by the increased flow of water delivered by the second-named pump.

3. An apparatus for obtaining a water power and water supply from elevated lakes or bodies of water, on the opposite side of the water shed from that on which the proposed power station is situated, said apparatus having in combination a primary pump at the source of supply adapted to force a small volume of water up over the summit and down to the power station on the opposite side therefrom, means for generating an electric current by power derived from said flow of water, means for conducting the electric current thus generated back to the source of water supply, a pumping mechanism at the source of supply of greater capacity than the first-named pump actuated by said electric current and adapted to force an increased volume of water over the summit to the power station on the opposite side therefrom, and a generator of increased energy at the power station actuated by said increased volume of water.

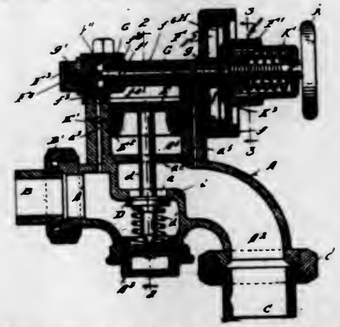
941,091. WEEDER. FRANCIS M. NEWLAND, Alger, Ohio. Filed June 4, 1909. Serial No. 500,071.



1. In a weeder, the combination with a supporting frame and a shaft having its ends secured to the opposite sides of the frame; of a hollow cylindrical roller encircling said shaft having oppositely arranged guides on its inner faces and located at its opposite ends, and a pair of substantially U shaped supporting plates, insertible into said guides, said plates having central openings for the reception of the shaft.

2. In a weeder, the combination with a supporting frame and a roller journaled between the opposite sides of the frame; of a pair of collars encircling the opposite ends of the roller and having lugs on their upper ends fixedly secured to the sides of the frame, said collars serving to prevent the entrance of weeds between the ends of the roller and sides of the frame.

941,092. STEAM OR OTHER FLUID PRESSURE REGULATOR. WILLIAM H. O'CONNOR, Newark, N. J. Filed Mar. 25, 1908. Serial No. 423,205.



1. A fluid pressure regulator comprising a main shell or body having its inlet and delivery arranged at right angles to each other, in combination with a main valve and piston and an auxiliary valve acted upon by the steam pressure at both ends thereof, a diaphragm, pressure regulating spring and adjusting screw, said main valve and piston being at right angles to the auxiliary valve, substantially as specified.

2. A fluid pressure regulator comprising a main shell or body having its inlet and delivery arranged at right angles to each other, in combination with a main valve and hanging piston and an auxiliary valve acted upon by the steam pressure at both ends thereof, a diaphragm, and pressure regulating spring and adjusting screw, substantially as specified.

3. A fluid pressure regulator comprising a main shell or body having its inlet and delivery arranged at right angles to each other, in combination with a main valve and piston, and an auxiliary valve acted upon by the steam pressure at both ends thereof, a diaphragm, pressure regulating spring and adjusting screw, and means for admitting fluid pressure to each end of the auxiliary valve to balance the same, substantially as specified.

4. A fluid pressure regulator comprising a main shell or body having its inlet and delivery arranged at right angles to each other, in combination with a main valve and piston, and an auxiliary valve acted upon by the steam pressure at both ends thereof, a diaphragm, pressure regulating spring and adjusting screw, said piston being of an inverted cup shape and resting on the upper end of the stem of the main valve, substantially as specified.

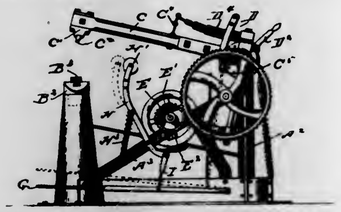
5. In a fluid pressure regulator, the combination with a main shell or body having an inlet chamber and an outlet chamber, a piston chamber and a main valve seat, of a main valve, a spring therefor, a main valve stem, a piston resting on said main valve stem, an auxiliary valve and auxiliary valve shell having a valve chamber communicating with the inlet chamber of the main shell and with the piston chamber, and provided with a diaphragm and diaphragm chamber in communication with the outlet chamber of the main shell, said auxiliary valve shell having a connecting port to balance the pressure on the auxiliary valve, substantially as specified.

[Claims 6 to 10 not printed in the Gazette.]

941,093. POWER-HAMMER. JOHN L. PAINTER, Bellevue, Ohio. Filed Aug. 5, 1905. Serial No. 272,845.

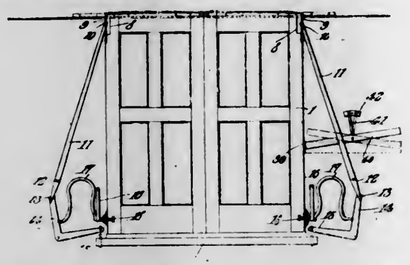
1. In a power hammer, the combination with a frame, of a shaft mounted in the frame provided with an eccen-

tric, strips mounted on said eccentric carrying a helve, a lever mounted on the eccentric between said strips, means for adjusting said eccentric, a spring secured to the upper end of said lever having its free end connected to the helve, a power shaft and means for operating the lever from the power shaft.



2. In a power hammer, the combination with a frame, of an eccentric shaft mounted in the upper end of said frame, a helve mounted on said eccentric, means for adjusting said eccentric, a lever mounted on said eccentric carrying a spring connected to said helve, a power shaft, and means connected to said power shaft for operating the lever.

941,094. DOOR. JAMES H. PEARSON, Westplains, Mo., assignor of one-half to William S. Morgan, Westplains, Mo. Filed Mar. 29, 1909. Serial No. 486,446.



1. The combination with a sliding door, of a lever fulcrumed adjacent and at one side of the path of the door, means for connecting the door and one end of the lever, a bell crank lever movably engaging the other end of said lever, a pivotally mounted bearing plate, a spring interposed between said plate and one arm of the bell crank lever, means for adjusting the plate to regulate the tension of the spring, depressible floor sections, means for transmitting motion from said sections to the bell crank lever to actuate the lever and the door.

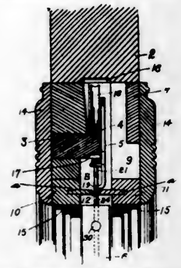
2. The combination with a sliding door, of a lever movably connected thereto, a bell crank lever engaging and arranged to actuate the first mentioned lever, a depressible floor section for actuating the bell crank lever, a pivotally supported plate, a spring interposed between said plate and bell crank lever and constituting means for holding the levers and floor sections in predetermined positions, and means adjacent the door for adjusting the plate to increase or diminish the stress of the spring.

941,095. DOOR-HANGER. ELMER C. PITCHER, San Francisco, Cal. Filed Dec. 27, 1905. Serial No. 293,482.

1. A door hanger comprising a track member and a door member and means on said members for coupling them together, said means adapted to permit the uncoupling of said members by movement of the members relative to each other.

2. A door hanger including a track member and a door member, and means on said members for coupling them together, said means adapted to permit the uncoupling of the members by movement of one of the members relative to the other member in planes at right angles to each other.

3. A door hanger comprising a track member and a door member and means on said members for coupling them together, said members being adapted to extend in a vertical plane when coupled together, and said means adapted to permit the uncoupling of said members by movement of one of the members at an angle from the perpendicular and a longitudinal movement of said member.

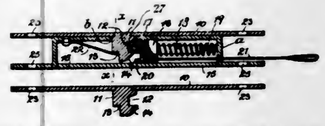


4. A door hanger including a track member adapted to be supported for a vertical swinging and horizontal sliding movement, and a door member, and means on said members for coupling them together, said means adapted to permit the uncoupling of the members by a vertical swinging and a horizontal sliding movement of the track member relative to the door member.

5. A door hanger including a track member and a door member and means on said members for coupling them together, said means adapted to permit the uncoupling thereof by movement of one of the members relative to the other, said members being adapted to be normally held interlocked by the weight of a door connected with the hanger.

[Claims 6 to 11 not printed in the Gazette.]

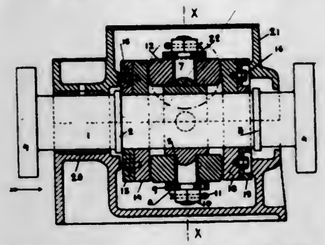
941,096. CLASP-FASTENER. MAX PUGATSKY, HYMAN WILKENFELD, and SAMUEL MANNES, New York, N. Y. Filed Feb. 15, 1909. Serial No. 478,031.



1. In a fastener of the class described, a plate, a catch secured in the said plate and provided with a recess in one side thereof and a notch at the extremity of the other side thereof, a casing having an aperture therein adapted to receive the said catch, a latch within the said casing and provided with a projection adapted to enter the said recess in the said catch, a spring bearing at one end against the said latch and at the other end against the said casing and adapted to maintain the said latch in position, means secured in the said latch and passing through a portion of the said casing and by which the said latch may be moved against the action of the said spring and a second spring secured within the said casing and adapted to bear against the surface of the said notch in the said catch to positively separate the same from the said latch when the said projection of the latter is withdrawn from the recess in the catch.

2. In a fastener of the class described, a plate, a catch secured in the said plate and provided with a recess in one side thereof and a notch at the extremity of the other side thereof, a casing having an aperture therein adapted to receive the said catch, a latch within the said casing and provided with a nose adapted to enter the said recess in the said catch, a spring bearing at one end against the said latch and at the other against the end of the said casing and adapted to maintain the said latch in position, a string secured to the said latch passing through the end of the casing and by which the said latch may be moved against the action of the said spring, and a second spring secured at one end within the said casing and adapted to bear at the other end against the surface of the said notch in the said catch to positively separate the same from the latch when the nose of the latch is withdrawn from the recess in the catch.

941,097. THRUST-BEARING. GUSTAF RENNERFELT, New York, N. Y. Filed Oct. 19, 1908. Serial No. 458,404.



1. In a thrust bearing the combination of a hub, a plurality of studs extending from the hub, a roller having a spherical face mounted on each stud, and two disks in contact with the faces of the roller, one of said disks being beveled.

2. In a thrust bearing the combination of a hub, four studs extending from the hub, a roller mounted on each stud, a disk in contact with the faces of the rollers, another disk in contact with the faces of the rollers, and a plate, said latter disk and said plate being formed in halves bolted together with overlapping joints.

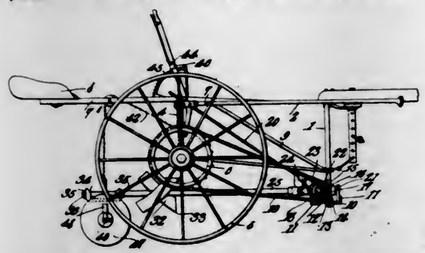
3. In a thrust bearing the combination of a hub, a plurality of studs extending from the hub, a roller mounted on each stud, two disks in contact with the rollers, and a plate, one of said disks and the plate being formed in halves bolted together with overlapping joints, and the abutting edges of the halves of said disk being rounded so as to relieve them from pressure by the rollers.

4. In a thrust bearing the combination of a shaft, a hub mounted thereon, said hub having a hole in its side for admitting oil, a plurality of studs extending from the hub, a roller having a spherical face mounted on each stud, two disks in contact with the faces of the rollers, and a casing arranged to contain oil surrounding the rollers and the disks.

5. In a thrust bearing the combination of a hub, a plurality of studs extending from the hub, a washer fastened to the end of each stud, a roller mounted on each stud between the hub and the washer, two disks in contact with the faces of the rollers, and a casing arranged to contain oil surrounding the rollers and the disks, the washers being perforated for admitting oil between the rollers and the washers.

[Claims 6 to 12 not printed in the Gazette.]

941,098. COTTON-CHOPPER. GORDON W. RICE, Champaign, Ill. Filed Mar. 24, 1909. Serial No. 485,495.



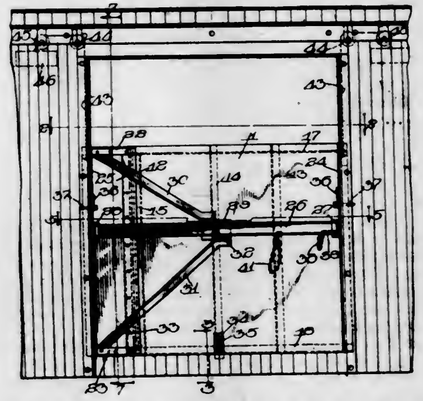
1. In a cotton chopper a shaft journaled for rotation, chopping blades carried by the shaft, a cross-arm pivotally connected with the shaft, spindles attached to the cross-arm, disks mounted upon the spindles, and stirrups also mounted upon the spindles.

2. In a cotton chopper a shaft journaled for rotation, chopping blades carried thereby, a cross-arm pivotally connected with the shaft, spindles carried by the cross-arm, means for raising and lowering the said shaft, disks journaled upon the spindles, and stirrups mounted upon the spindles.

3. In a cotton chopper a shaft journaled for rotation, chopping blades carried by the shaft, a cross-arm pivotally connected with the shaft, spindles having shanks adjustably connected with said cross-arm, disks journaled upon the spindles, and stirrups mounted upon the spindles.

4. In combination with a wheel-mounted frame, a cotton chopper frame attached thereto, a stub shaft journaled for rotation upon the chopper frame, means operatively connecting the said shaft with one of the supporting wheels of the main frame, a chopper shaft, a universal joint connecting the chopper shaft with the stub shaft, chopping-blades carried by the chopper shaft, and steering devices attached to the rear end of the chopper shaft by which a lateral movement may be imparted to the said shaft.

941,099. GRAIN-CAR DOOR. HERBERT W. RICHARDS, Oak Park, Ill. Filed Oct. 17, 1908. Serial No. 458,297.



1. A grain-car door having secured on its inner face adjacent to its upper edge an angle iron arranged with its horizontally disposed flange below the said upper edge of the door to support the central portion of the door at its upper edge and to form a support for a board or auxiliary door.

2. The combination with a grain-car door comprising two sections arranged edge to edge and hinged together, of a locking bar, a support to which said locking bar is pivoted, said support being located opposite one of said door sections and carried by and rigid with the other of said sections, a flexible connection between said bar and that one of the door sections opposite the said support to which the bar is pivoted, and a pocket on the face of each door section adapted to receive one of the ends of said bar.

3. In a grain car door, two sections arranged edge to edge and hinged together, a locking bar, a support to which said locking bar is pivotally connected, said support being carried by and rigid with one of said sections and extending opposite the other section, said support extending into the plane of the pivotal path of movement of said bar, and pockets adapted to receive the ends of said bars.

4. The combination with a grain car door comprising two sections arranged edge to edge and hinged together, of diagonal braces rigidly secured to one door section and extending opposite the other of said sections, a support secured to the free ends of said braces, a locking bar piv-

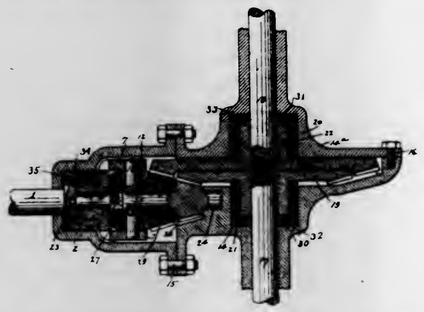
otally carried by said support, and pockets adapted to receive the ends of said bar.

5. The combination with a grain car door comprising two sections arranged edge to edge and hinged together, of diagonal braces rigidly secured to one door section and extending opposite the other of said sections, a support secured to the free ends of said braces, a locking bar pivotally carried by said support, said bar being positioned relative to its support and said braces to cause said parts to be in approximate vertical alinement, and pockets adapted to receive the ends of said bar.

[Claims 6 to 8 not printed in the Gazette.]

941,100. [WITHDRAWN.]

941,101. DIFFERENTIAL MECHANISM. DAVID E. ROSS, Brookston, Ind., assignor to Ross Gear and Tool Company, La Fayette, Ind., a Corporation of Indiana. Filed Apr. 24, 1905. Serial No. 257,255.



1. The combination of a power or drive shaft, driven gears, a shaft intermediate said power or drive shaft and said driven gears, driving gears on said intermediate shaft, and differential mechanism comprising compensating gears mounted on said intermediate shaft, said compensating gears being driven by said power or drive shaft, substantially as specified.

2. The combination of a power or drive shaft, driven gears, a shaft intermediate said power or drive shaft and said driven gears, and differential mechanism comprising compensating gears mounted on said intermediate shaft and connected to and driven by said power or drive shaft, substantially as specified.

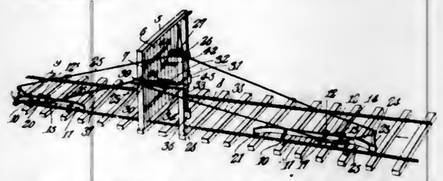
3. The combination of a power or drive shaft, driven gears, a shaft intermediate said power or drive shaft and said driven gears, driving gears on said intermediate shaft, and differential mechanism comprising compensating gears mounted on said intermediate shaft, said compensating gears being revolved orbitally at the same speed as the power or driving shaft, substantially as specified.

4. The combination of a power or drive shaft, driven members, a casing for said driven members, a shaft intermediate of said power or drive shaft and said driven members, said intermediate shaft being supported in alinement with said power or drive shaft, compensating mechanism on said intermediate shaft driven by said power or drive shaft, driving members on said intermediate shaft and operating said driven members, substantially as specified.

5. The combination of a power or drive shaft, driven members, a shaft intermediate said power or drive shaft and said members and in alinement with said power or drive shaft, driving members on said intermediate shaft, a casing for said driven members having a bearing therein for said intermediate shaft, and a cap inclosing said intermediate shaft and removably fitted to said casing, substantially as specified.

[Claims 6 to 24 not printed in the Gazette.]

941,102. MINE-DOOR-OPERATING DEVICE. JOHN M. SAUSSER, Osnaburg, Ohio. Filed Sept. 8, 1908. Serial No. 451,986.



1. The combination with a track, of a door forming a barrier for the track, a guide disposed near the door and having its intermediate portion disposed substantially parallel with the track and its opposite ends curved laterally in a direction away from said track, a carriage slidably mounted on the guide and operatively connected with the door, said carriage being actuated by a passing car to effect the opening of said door.

2. The combination with a track, of a door forming a barrier for the track, guides disposed on opposite sides of the door and having their intermediate portions disposed substantially parallel with the track and their terminals curved laterally in a direction away from said track, carriages slidably mounted on the guides, a flexible medium forming a connection between the carriages and door, said carriages being actuated by a passing car to effect the opening and closing of the door.

3. The combination with a track, of a door forming a barrier for the track, guides disposed on opposite sides of the door, carriages slidably mounted on the guides and operatively connected with the door for moving the latter to open position, means for locking the door in open position, one of said carriages being actuated by a passing car to release the locking means, and means for returning the door to closed position.

4. The combination with a track, of a door forming a barrier for the track, guides disposed on opposite sides of the door, carriages slidably mounted on the guides and operatively connected with the door, one of said carriages being operable by a passing train to effect the opening movement of the door, means for locking the door in open position, the other carriage being operable by the car to release the locking means, thereby to permit the door to return to closed position.

5. The combination with a track, of a door forming a barrier for the track, guides disposed on opposite sides of the door and provided with curved terminals, carriages slidably mounted on the guides, means for locking the door in open position, a flexible connection between each carriage and door, a connection between each carriage and the locking means, one of said carriages being actuated by a passing car to effect the opening movement of the door and the other carriage being actuated by the car to release the locking means, thereby to permit the door to return to closed position.

[Claims 6 to 15 not printed in the Gazette.]

941,103. FLAT FILM-PACK. JOCHANN G. SCHNEIDER, Würzburg, Germany. Filed Dec. 3, 1908. Serial No. 465,893.

1. In a flat film pack, consisting in combination of an alternately folded film carrying band, narrow strips for attaching films to said carrier band, a semi-circular pad on the lower transverse wall of the pack, a hooked edge for said pad, an intermediate wall in said pack, a cutting device on said wall adapted to separate the films from said carrier band and store them in said pack substantially as specified.

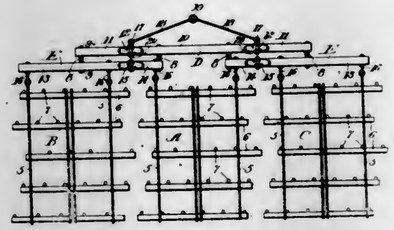
2. In a flat film pack consisting in combination of an alternately folded film carrier band, narrow strips to attach films to said carrier band, a semi-circular pad on the lower transverse wall of the pack, two flat blades in said pack having the cutting edges converging and facing each other, and adapted to separate the films from the carrier band substantially as specified.

3. In a flat film pack consisting in combination of a film carrier band, an intermediate wall in said pack, two flat blades having the cutting edges converging and facing each other, on said intermediate wall, a means to move



said band into such engagement with said cutting edges as to separate the films therefrom and store them in said pack and means for holding said carrier band to the front of said pack substantially as specified.

941,104. HARROW-EVENER. JOHN E. SCOTT, Hillsdale, Ill. Filed May 5, 1909. Serial No. 494,129.



1. A draft-bar comprising a central section and two end members hingedly connected therewith; a pair of hitching bars each composed of two hingedly connected members, one of which is flexibly connected with an end-member of the draft-bar, and the two remaining sections being flexibly connected with the central member of the draft-bar; a harrow section connected flexibly with the two hitching-bar sections that are connected with the central section of the draft-bar; and harrow sections flexibly connected with the hitching bar sections that are connected with the end-members of the draft-bar.

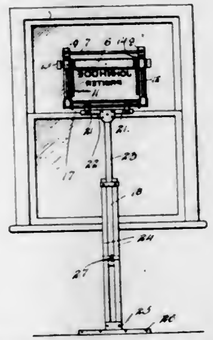
2. In a sectional harrow, an evener comprising a draft-bar composed of a central section and two end-members hingedly connected therewith; a pair of hitching bars each composed of an inner member and an outer member hingedly connected therewith, the inner members of the hitching bars being flexibly connected with the central member of the draft-bar and the outer members of the hitching bars being flexibly connected with the end members of the draft-bar; a harrow section flexibly connected with the inner members of the hitching bars, and harrow sections connected, one with each outer member of the hitching bars; the hinges in the hitching bars being disposed in longitudinal alinement with the hinges in the draft-bar, and the pintles of the latter hinges being provided with eyes at their forward ends.

941,105. GARMENT-SUPPORTER. WILLIAM A. SEIBEL, Montera, Wash. Filed Nov. 30, 1908. Serial No. 465,432.



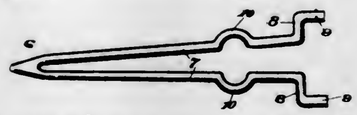
A garment supporter comprising a body having off-set end portions formed with elongated narrow openings, the walls of said openings at their inner end portions being beveled, said body being formed with a large central opening communicating with said first named openings.

941,106. PRINTING-MACHINE. WILLIAM L. SLOANE and JAMES S. OWSLEY, Owensboro, Ky. Filed Mar. 23, 1909. Serial No. 485,255.



In an apparatus of the character described, a form, a roller for receiving an impression from the form, a frame for supporting the roller, means for causing the roller to rotate when moved from one side of the frame to the other, means for causing positive co-action between the roller and its rotating means to prevent sliding action, and means for supporting the frame against a surface for permitting the roller to be moved thereagainst.

941,107. BRAKE-SHOE KEY. CHARLES N. SMITH, St. Thomas, Ontario, Canada. Filed Mar. 6, 1909. Serial No. 481,851.



1. A brake shoe key of the character described, comprising a wedge-shaped member provided with spring arms each having a shoulder adapted to limit the insertion of the key, and a shoulder adapted to prevent accidental removal of the same.

2. A brake shoe key of the character described, comprising a wedge-shaped member provided with spring arms each having a shoulder adapted to limit the insertion of the key, and a second shoulder adapted to prevent accidental removal of the same.

3. A brake shoe key of the character described, comprising a wedge-shaped member having arms each provided with a shoulder adapted to prevent accidental removal of the key, and a second shoulder adapted to limit the insertion of the key, and a finger grip by which the arms may be drawn together to allow insertion.

941,108. PASSENGER-CONTROLLED REGISTER FOR STREET-CARS. OTTO SPECKENBACH, New York, N. Y., assignor of one-half to Adolph Siegrist, New York, N. Y. Filed Feb. 3, 1909. Serial No. 475,729.



1. In a passenger-controlled register for cars, the combination of the upper and lower movable steps, fulcrumed levers actuated by the depression of said steps respectively, two intermediate passenger-controlled apparatus mechanically connected with and operated by said levers, and counters mechanically operated by the intermediate passenger-controlled apparatus.

2. In a passenger-controlled register for cars, the combination of the upper and lower movable steps of the car, two fulcrumed and weighted levers respectively connected with said steps and actuated by the depression of the steps, two intermediate passenger-controlled apparatus mechanically connected with said levers, counters mechanically connected with and actuated by the intermediate passenger-controlled apparatus, and means for returning the operating parts into normal position after the actuation of the fulcrumed levers by the depression of the movable steps.

3. In a passenger-controlled register for cars, the combination of the upper and lower movable steps, two fulcrumed and weighted levers actuated by the depressions of the movable steps, two intermediate passenger-controlled apparatus connected with said levers, and comprising each a clutch-operated guard device, a rock-shaft, means for rocking the same, a pawl and ratchet mechanism operated by said rock-shaft, means for shifting the rock-shaft for moving the pawl into or out of engagement with the ratchet-wheel, a counter, means for connecting the ratchet-wheel with the counter, and a releasing device for the guard device for returning all the operating parts into normal position after the actuation of the levers by the successive depressions of the steps of the car.

4. In a passenger-controlled register for cars, the combination of the upper and lower movable steps, fulcrumed actuating levers, connected with and actuated by the depression of the movable steps, two intermediate passenger-controlled apparatus comprising each a clutch-operated guard device, a releasing device for said guard device, a pawl and ratchet mechanism, rock-shafts for alternately releasing and actuating said pawl and ratchet mechanism, means connecting the levers and rock-shafts for actuating the rock-shafts, a shifting mechanism for said rock-shaft, a counter for each apparatus, and an intermediate mechanism between the ratchet-wheel and the counter for operating the latter.

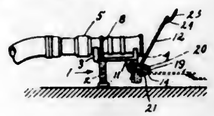
5. In a passenger-controlled register for cars, the combination of the upper and lower movable steps, two fulcrumed actuating levers operated by the depression of the steps, three pivot-straps, a bracket-arm and a pusher-rod connected with each actuating lever, rock-shafts operated by the first pair of pivot-straps, clutch-operating elbow-levers operated by the second pair of pivot-straps, locking guard devices operated by the elbow-levers of the clutch-members and released by the pusher-rods, shifting mechanisms for the rock-shafts operated by the pairs of bracket-arms and third set of pivot-straps, pawl and ratchet mechanisms operated by the rock-shafts, two counters, and intermediate mechanism between the ratchet-wheels and the counters for operating the latter.

[Claims 6 to 15 not printed in the Gazette.]

941,109. COMBINATION NOZZLE-SUPPORT AND SPRAYING DEVICE. EMIL SUTHERLAND, Hollywood, Cal. Filed July 23, 1908. Serial No. 444,918.

1. A nozzle support provided with a spraying plate adjustable from spraying position to a position for supporting the nozzle.

2. A nozzle support provided with a spraying plate adjustable from spraying position to a position for supporting the nozzle, said plate having spurs joined angularly thereto and adapted to enter the soil when the plate is in position for supporting the nozzle.



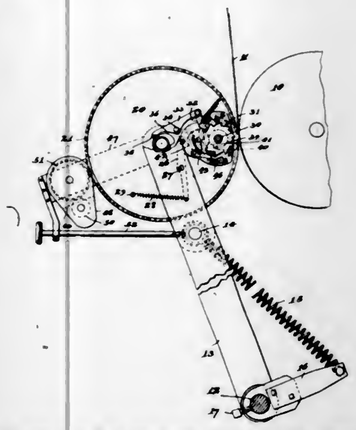
3. A nozzle support comprising a standard having legs and an apertured upper portion provided with seats adapted to receive a nozzle, and a spring retainer passing upwardly through the top of said standard and adapted to spring down upon the nozzle to hold the same onto said seats.

4. A nozzle support comprising a standard having legs and an apertured upper portion provided with seats adapted to receive a nozzle, and a spring retainer passing upwardly through the top of said standard and adapted to spring down upon the nozzle to hold the same onto said seats, said spring retainer being attached to one of said legs.

5. A nozzle support comprising a standard having upwardly extending lugs, said lugs being provided on their upper ends with notches forming seats deepening from each side toward the center, and a spring retainer having a hooked upper portion adapted to hook over a nozzle to hold the same onto said seats.

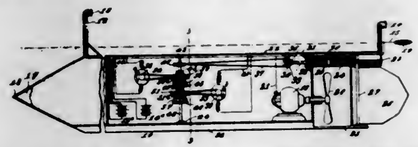
[Claim 6 not printed in the Gazette.]

941,110. CLOTH MEASURER AND MARKER. CHARLES J. SYKES, Chicago, Ill. Filed Oct. 23, 1908. Serial No. 459,126.



In a device of the character described, the combination of a swinging supporting frame, a rotary wheel of unit length circumference mounted in said frame, the periphery of said wheel being adapted to bear against the traveling cloth and be rotated thereby, a spring acting on said frame yieldingly pressing said wheel against said cloth, a slidable combined counter and marker mounted on said wheel so as to print a numeral on the cloth at the completion of each revolution of said wheel, a spring acting on said marker tending to shift the same outwardly of said wheel, a ratchet connected to said combined counter and marker, a pawl coöperating with said ratchet, a stationary cam co-acting with said pawl and adapted to actuate said combined counter and marker during each revolution of said wheel to change the numeral next to be printed one unit, whereby the units of length of one bolt of cloth will be consecutively numbered, and an inking device on said frame coöperating with said counter and marker to supply a printing fluid to the same, substantially as described.

941,111. TORPEDO. JOHANN TASTO, Treynor, Iowa. Filed June 10, 1909. Serial No. 501,422.

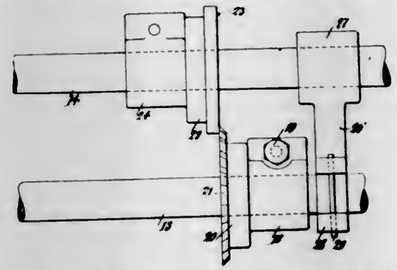


1. In a self-propelled torpedo, the combination with the casing, of propelling mechanism therefor including a motor and a screw, the motor being within the casing, and a portion of the casing being extended rearwardly forming a chamber over the screw, a rudder shaft extending into and journaled in said chamber, a rudder mounted on said shaft, a train of gears within said chamber to operate said rudder shaft, independently operated motors within the casing to operate said rudder through said train of gears in either of two directions, and electrical connections to said motors.

2. In a self-propelled torpedo, the combination of a casing having rearward extensions, a rudder journaled in said extensions, a pair of independently controllable motors within the casing, a shaft, gearing connecting the shaft with the rudder, a pair of loose pulleys mounted on said shaft, said pulleys being adapted to be operated from the respective motors in opposite directions, means whereby either of said pulleys may rotate said shaft when driven by its motor, and means whereby such operation of the shaft will render the opposite pulley inoperative.

3. In a self-propelled torpedo, the combination of a casing, a rudder connected to the casing, a pair of independently controllable motors within the casing, a vertical power shaft journaled in the casing, connections between said shaft and the rudder, said connections including a worm and worm wheel, a pair of stationary supports mounted in said casing, a pair of blocks having spirally arranged sockets, those of one block being directed oppositely from those in the other block, a pair of pulleys loosely and slidably mounted on said shaft and having teeth to coöperate with the respective stationary blocks, driving connections between the several motors and said loose pulleys, substantially as set forth.

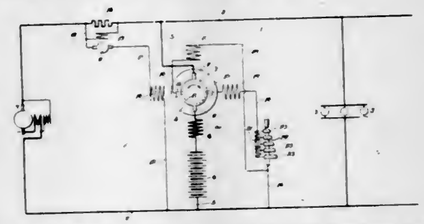
941,112. WEB-CUTTING MECHANISM FOR CANE-LOOMS. JOSEPH TILP, Hoboken, N. J., assignor to H. C. Meyer, Jr., Harburg, Germany, a Corporation of Germany. Filed Feb. 23, 1909. Serial No. 479,625.



1. In a cutting mechanism, the combination of a pair of parallel shafts having intermeshing gears, a plurality of cutting disks separately, longitudinally, adjustably mounted on each of said shafts and adapted to coöperate with each other, a connection having an eye forming a bearing fitting about one of said shafts and having a U-shaped hook adapted to fit over the other shaft, and a pin passing through the ends of the U-shaped hook for holding the shaft in the hook.

2. In a cutting mechanism, the combination of a pair of parallel shafts having intermeshing gears, a plurality of cutting disks separately, longitudinally, adjustably mounted on each of said shafts and coöperating with each other, a connection having an eye at one end forming a bearing and fitting about one of said shafts, the other end of said connection being provided with a U-shaped hook in which the other shaft is engaged, the ends of the arms of said hook being provided with alined perforations, and a pin passing through said perforations and holding said hook on the shaft.

941,113. ELECTRICAL SYSTEM OF DISTRIBUTION. WILLIAM A. TURBAYNE, Lancaster, N. Y., assignor to Gould Coupler Company, a Corporation of New York. Filed Feb. 13, 1909. Serial No. 477,651.



1. A dynamo-electric machine having an armature core structure provided with two sets of windings, one set being motor windings and the other set being generator windings, and independent field windings operatively arranged with respect to each of said sets.

2. A dynamo-electric machine provided with two sets of field windings, and an armature core having windings operatively arranged with respect to one set of field windings for driving the machine and operatively arranged with the other set of field windings for generating an electromotive force.

3. A dynamo-electric machine provided with two sets of field windings, and an armature core structure having one set of armature windings operatively arranged with respect to one set of field windings for driving the machine, and one set of armature windings operatively arranged with respect to the other set of field windings for generating an electromotive force in the machine.

4. A dynamo-electric machine having two independent sets of armature windings on the same core structure, sets of brushes for said windings electrically displaced from each other and field windings for said machine so connected that one set of said armature windings acts to drive the machine and the other set acts to generate an electromotive force.

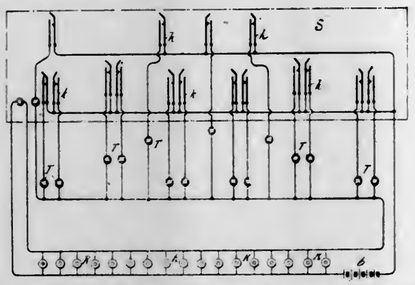
5. A dynamo-electric machine having two independent sets of armature windings on the same core structure, sets of brushes for said windings electrically displaced from each other and two independent sets of field windings for said machine also electrically displaced with respect to one another and so connected and arranged that one set of field windings and one set of armature windings act to drive the machine and the other set of field windings and set of armature windings act to generate an electromotive force in the machine.

[Claims 6 to 31 not printed in the Gazette.]

941,114. TELEPHONIC SYSTEM FOR AUDITORIUMS. KELLEY M. TURNER, New York, N. Y. Filed June 1, 1908. Serial No. 435,878.

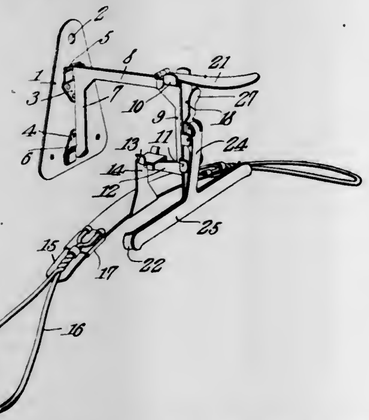
1. A telephone system comprising a plurality of transmitters distributed at fixed points with reference to each other throughout a given area, a plurality of receivers connected in a single circuit, and a switching station located in a position which commands a view of the entire

area, said switching station provided with manually operated means for connecting any one or more of said transmitters with the circuit containing the receivers, substantially as described.



2. A telephone system comprising a plurality of transmitters distributed at fixed points with reference to each other throughout a given area, a plurality of receivers distributed throughout said area and connected in a single circuit, and a switching station located in a position which commands a view of the entire area, said switching station provided with manually operated means for connecting any one or more of said transmitters with the circuit containing the receivers, substantially as described.

941,115. COMBINATION GARMENT-HANGER. ARTHUR A. VANDERFORD, Peru, Nebr. Filed May 8, 1909. Serial No. 494,793.

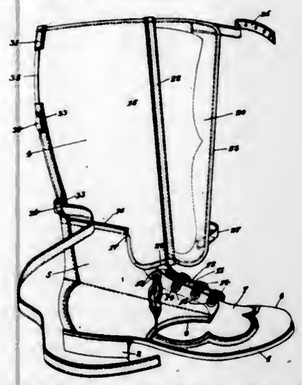


1. The combination of a supporting frame, a hanger resting against the front end of the frame, and provided at its upper end with an overhanging arm resting upon the upper side of the frame, and a finger hinged to the end of said overhanging arm and adapted to project beyond the end of the frame.

2. The combination of a frame having an arm provided with upstanding lugs on its sides, and a hanger having an arm adapted to rest upon the said arm of the frame and pass between the upstanding lugs thereon, and provided at its end with depending lugs adapted to pass on opposite sides of the frame arm and engage the upstanding lugs on the same.

3. The combination of a frame having a horizontal and a vertical arm, lugs projecting from each of said arms at the opposite sides of the same, a hanger resting against the said vertical arm between the lugs thereon, and an overhanging arm at the upper end of the hanger resting upon the horizontal arm of the frame between the lugs thereon and provided at its extremity with lugs adapted to pass on opposite sides of the horizontal arm of the frame and engage the lugs on the same.

941,116. BOOT. GRIFFIN WATKINS, Washington, Mo., assignor to Roberts, Johnson & Rand Shoe Company, St. Louis, Mo., a Corporation of Missouri. Filed Aug. 30, 1909. Serial No. 515,126.



1. A boot having a one-piece side, a one-piece quarter sewn along the back edge to said side and extending to a line above the ankle, a two-piece flap sewn to the back edge of said side above said quarter, said flap being sewn along a portion of the bottom edge thereof to the inner side of a portion of the top edge of said quarter, a slit in said top edge through which the remaining lower portion of said flap protrudes, said remaining lower portion extending downwardly from said slit and adapted to arch the instep and cover the remaining portion of said top edge of said quarter, and means for securing the loose portion of said flap to said side.

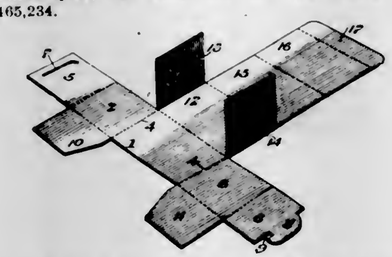
2. A boot having a one-piece side, a one-piece quarter sewn thereto, a two-piece flap sewn to said side and to the inner side of a portion of said quarter, the lower portion of said flap extending outwardly through a slit in said quarter and adapted to arch the instep, means for securing said quarter and said side together over the instep, and means for securing the loose portion of said flap to said side.

3. A boot having a one-piece side, a one-piece quarter sewn thereto, a two-piece flap sewn to said side and to the inner side of a portion of the upper edge of said quarter, means for securing said quarter and said side together over the instep, the lower portion of said flap extending outwardly through a slit in said upper edge and adapted to arch said instep and cover the remaining upper portion of said quarter and a portion of said securing means, and means for securing the loose portion of said flap to said side.

4. In a boot, the combination of a quarter having a slit in the upper edge thereof, a flap secured to the inner side of said quarter along the top edge thereof extending from the back seam to the edge of said slit, the remaining lower portion of said flap extending through said slit and downwardly therefrom covering the remaining upper portion of said quarter in front of said slit and adapted to arch the instep, a one-piece side secured to the back edges of said quarter and said flap, a stiffening member secured along the back seam between said side and said flap, and means for securing the loose portion of said flap to said side.

5. In a boot, the combination of a quarter having a slit in the upper edge thereof, a flap sewn to the inner side of said quarter along the top edge thereof extending from said slit to the back edge of said quarter, the remaining lower portion of said flap being adapted to extend through said slit and downwardly therefrom covering the remaining upper portion of said quarter in front of said slit and to arch the instep, a one-piece side sewn along the back edge to said quarter and said flap, a lace adapted to secure said quarter and said side together over the instep and to be partly covered by said lower portion of said flap, a strip adapted to cover the entire back seam, a whale-bone secured underneath said strip and extending from the top of said seam to the top of said quarter, a pair of buckles secured to the top portion of said side, a strap secured to the top part of the loose portion of said flap and adapted to be held by one of said buckles, a strap secured to the bottom part of said loose portion and adapted to be wound around the leg part of said boot and to be held by the other of said buckles, and a plurality of slits in said strip through which said last-mentioned strap is passed.

941,117. KNOCKDOWN BOX. LOUIS WEGLEIN, Jr., Philadelphia, Pa. Filed Nov. 30, 1908. Serial No. 465,234.



1. In a box, a back, a front piece, end pieces extending rearwardly from said front piece and rear pieces extending inwardly from said end pieces against said back, thus doubling the back of the box and strengthening the same thereat said rear pieces being provided with means for locking them on the back of the box.

2. A box composed of a front piece, end pieces on the sides thereof, rear pieces on the end pieces, a bottom piece on said front piece, a back piece rising from said bottom piece, said rear pieces being adapted to fold against said back piece and provided with means for interlocking purposes said means being located on the back of the box, flaps rising from the bottom piece, a top piece continuous of said back piece, and flaps on the end pieces projecting therefrom in a direction opposite to said bottom piece.

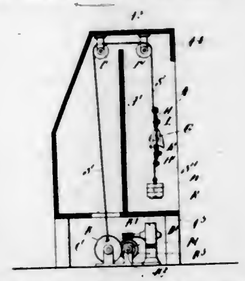
3. In a box, a bottom, flaps rising from the sides thereof, a front piece with end pieces extending rearwardly therefrom and covering said flaps, thus doubling the ends of the box and strengthening the same thereat, and rear pieces extending inwardly from said end pieces against said back, thus doubling the back of the box and strengthening the same thereat said rear pieces having means of interlocking, the same being on the rear of the back.

941,118. EXHIBITING APPARATUS. CHARLES D. WHITTREDGE, Saugus, Mass., assignor to Wm. Filene's Sons Company, Boston, Mass., a Corporation of Massachusetts. Filed Oct. 18, 1909. Serial No. 523,315.

1. In a contrivance for exhibiting articles the combination of holders adapted to seize the article to be exhibited, a weight attached to one holder, hoisting devices attached to the other and means for imparting reciprocal movement to the hoisting devices.

2. In a contrivance for exhibiting articles the combination of holders adapted to seize the article to be exhibited, a weight attached to one holder, hoisting devices attached to the other, means for imparting reciprocal movement to the hoisting devices and a rest to support the weight at the end of each double reciprocation of the hoisting devices.

3. In a contrivance for exhibiting articles the combination of holders, adapted to seize the article to be exhibited, a weight attached to one holder, a hoisting strap attached to the other, a crank to which the other end of the strap is attached, and means to rotate the crank.

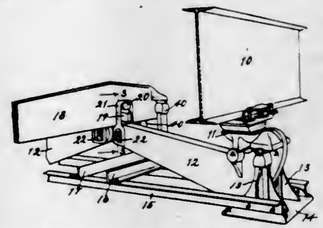


4. In a contrivance for exhibiting articles, the combination of holders adapted to seize the article to be exhibited, a weight attached to one holder, a hoisting strap attached to the other, a crank to which the other end of the strap is attached, means to rotate the crank and a rest to support the weight at the end of each double reciprocation of the hoisting devices.

5. In a contrivance for exhibiting articles, a casing, a partition therein forming a front and a back chamber, said partition provided with an opening at or near the top connecting said two chambers, a hoisting strap passing through said opening and extending downward on each side of said partition, means connected with one end of said strap for imparting reciprocal movement thereto, a holder connected with the other end of said strap, and a weighted holder, said holders adapted to seize the article to be exhibited.

[Claim 6 not printed in the Gazette.]

941,119. PLATFORM-SCALE. MARLON H. WINSLOW, Terre Haute, Ind. Filed Dec. 24, 1908. Serial No. 469,112.

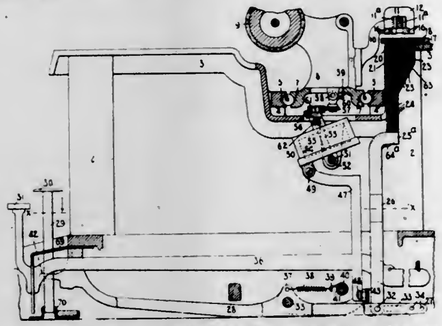


A platform scale including a pair of beams, a loop suspended from one beam with the lower ends astride the lower beam and stirrup shaped with the lower part of each stirrup horizontal and the upper surfaces of said parts convex, bearing blocks in said stirrups with the surfaces straight in one direction and concave transversely, so as to rock laterally and tapering upwardly with slightly concaved tops, and pivots projecting from said lower beam with the lower parts of the pivots tapering downwardly and resting upon said bearing blocks.

941,120. TYPE-WRITING MACHINE. OSCAR WOODWARD, Montclair, N. J., assignor to Remington Typewriter Company, Ilion, N. Y., a Corporation of New York. Filed Oct. 26, 1908. Serial No. 459,592.

1. In a typewriting machine, the combination of a carriage; and column determining mechanism comprising a series of independently operable levers having keys in the keyboard of the machine and in the rear of the printing keys, and a plurality of independently operable column selecting stops controlled by said levers, said column selecting stops having their contact surfaces in a single plane transverse to the direction of travel of the carriage.

2. In a typewriting machine, the combination of a carriage; and column determining mechanism comprising a series of independently operable levers having keys in the keyboard of the machine, and a plurality of independently operable column selecting stops controlled by said levers, each of said selecting stops being formed as a part of an upwardly movable strip or bar pivoted at its lower end to and moved bodily upward by the associated lever, said column selecting stops having their contact surfaces in a single plane transverse to the direction of travel of the carriage.



3. In a typewriting machine, the combination of a carriage; and column determining mechanism comprising a series of independently operable levers of the first order having keys in the keyboard of the machine, and a plurality of independently operable column selecting stops pivoted directly to and controlled by said levers, said column selecting stops having their contact surfaces in a single plane transverse to the direction of travel of the carriage.

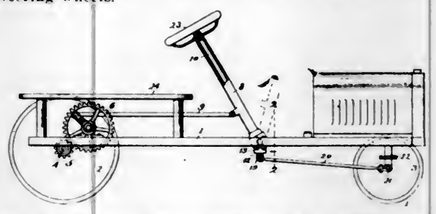
4. In a typewriting machine, the combination of a carriage; and column determining mechanism comprising a series of independently operable levers having keys in the keyboard of the machine, and a plurality of independently operable column selecting members each of which comprises a strip of metal bent so that the opposite end portions thereof are in planes at substantially right angles to each other but extend longitudinally in the same general direction, one end of each strip forming a column selecting stop presented edgewise for contact, said column selecting stops having their contact surfaces in a single plane transverse to the direction of the travel of the carriage.

5. In a typewriting machine, the combination of a carriage; and column determining mechanism comprising a series of independently operable levers of the first order having keys in the keyboard of the machine, and a plurality of independently operable column selecting members pivoted directly to and movable bodily by said key levers, each of said members comprising a strip of metal bent so that the opposite ends thereof are in planes at substantially right angles to each other, one end of each strip forming a column selecting stop presented edgewise for contact, said column selecting stops having their contact surfaces in a single plane transverse to the direction of the travel of the carriage.

[Claims 6 to 22 not printed in the Gazette.]

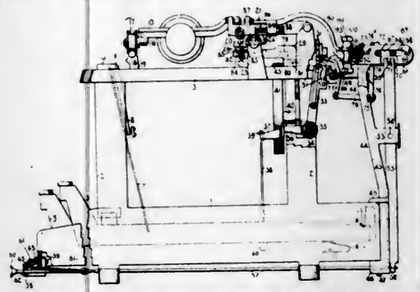
941,121. VELOCIPEDE. GEORGE C. WORTHINGTON, Elyria, Ohio, assignor to The Worthington Company, Elyria, Ohio, a Corporation of Ohio. Filed Mar. 16, 1907. Serial No. 362,590.

1. In a velocipede the combination of a frame which includes two longitudinal side bars, driving wheels mounted in bearings secured to said frame, steering wheels, a tubular operating lever, blocks secured to the side frame members, pins screwing through the side frame members and through said blocks and serving as pivots for said operating lever, mechanism transmitting motion from said lever to the driving wheels, a two-part steering shaft, a cross bar fixed to the frame members and serving as the bearing for the lower member of said steering shaft, the upper member of said steering shaft being rotatively mounted in said operating lever and projecting from the upper end thereof, a steering wheel secured on the upper end of said member and preventing its downward movement in said operating lever, a universal joint connection between the two members of the steering shaft, and means transmitting motion from the lower section of the steering shaft to the steering wheels.



2. In a velocipede, the combination of a frame which includes two longitudinal side bars, driving wheels mounted in bearings secured to said frame, steering wheels, a tubular operating lever projecting between the side members of the frame and pivotally connected therewith, mechanism transmitting motion from said lever to the driving wheels, a two part steering shaft, a cross bar fixed to the frame members and serving as the bearing for the lower member of said steering shaft, the upper member of said steering shaft being rotatively mounted in said operating lever and projecting from the upper end thereof, a steering device secured to the upper end of said member, a universal joint connection between the two members of the steering shaft, the axes of said universal joint being in the same plane with the axis of the pivotal support for the operating lever, and means transmitting motion from the lower section of the steering shaft to the steering wheels.

941,122. TYPE-WRITING MACHINE. CLIO B. YAW, New York, N. Y., assignor to Wyckoff, Seamans & Benedict, Ilion, N. Y., a Corporation of New York. Filed Mar. 17, 1906. Serial No. 306,538.



1. In a typewriting machine and in a tabulating mechanism, the combination of a carriage; step-by-step feeding mechanism therefor; a column stop support; a set of independently adjustable column stops having contact surfaces projecting to the same extent from said stop support; and a plurality of coöperating stops, said column stop and said coöperating stops being variously arranged so that each of said last recited stops is coöperative only with certain of said column stops and serves by such coöperation to arrest the carriage, after it has been released from its step-by-step feeding mechanism, in predetermined columnar fields, any intermediate fields being skipped or passed.

2. In a typewriting machine and in a tabulating mechanism, the combination of a carriage; step-by-step feeding mechanism therefor; a set of independently adjustable column stops; and a plurality of coöperating stops having equal and unvarying extents of movement, said column stops and said coöperating stops being variously arranged so that each of said last recited stops is coöperative only with certain of said column stops to arrest the carriage, after it has been released from its step-by-step feeding mechanism, in predetermined columnar fields, any intermediate fields being skipped or passed.

3. In a typewriting machine and in a tabulating mechanism, the combination of a carriage; step-by-step feeding mechanism therefor; a set of independently adjustable column stops; and a plurality of coöperating stops, the ends of which normally lie in substantially the same plane and are projective from said plane unvarying and equal extents, said column stops and said coöperating stops being variously arranged so that each of said coöperating stops is brought to position to coöperate with certain only of said column stops to arrest the carriage after it has been released from its step-by-step feeding mechanism, in predetermined columnar fields, any intermediate fields being skipped or passed.

4. In a typewriting machine and in a tabulating mechanism, the combination of a carriage; step-by-step feeding mechanism therefor; a column stop support; a set of independently adjustable column stops thereon, said column stops having contact surfaces projecting to the same extent from said stop support; and a plurality of coöperating stops, the ends of which normally lie in substantially the same plane and are projective from said plane unvarying and equal extents, said column stops and said coöperating stops being variously arranged whereby said coöperating stops are brought to position to coöperate with certain only of said column stops to arrest the carriage, after it has been released from its step-by-step feeding mechanism, in predetermined columnar fields, any intermediate fields being skipped or passed.

5. In a typewriting machine and in a tabulating mechanism, the combination of a carriage; step-by-step feeding mechanism therefor; a set of independently adjustable column stops having contact faces that move in different paths; and a plurality of stops coöperative with said column stops when the carriage is released from its step-by-step feeding mechanism, the contact face of each of said last recited stops being coöperative with certain only of said column stops and being movable into coöperative position without intersecting the path of the contact face of any other of the column stops.

[Claims 6 to 37 not printed in the Gazette.]

941,123. EMBROIDERING-MACHINE. ROBERT ZAHN, Plauen, Germany. Filed Mar. 15, 1906. Serial No. 306,246.



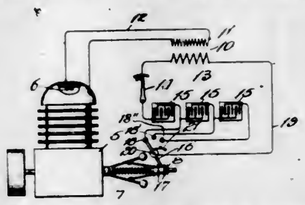
1. An embroidering machine roller formed of a sheet of metal bent upon itself to form a cylinder, said sheet being provided with a plurality of alternately disposed cloth receiving portions and reinforcing portions, said reinforcing portions being recessed with respect to said receiving portions, the free margins of said sheet being joined to make the roller uniform in cross section.

2. A cloth roller for embroidering machines consisting of a sheet of metal bent upon itself to form a cylinder, the metal being provided with a plurality of longitudinally disposed V-shaped stiffening ribs projecting inwardly from the periphery of the cylinder, said ribs being spaced apart from each other to form intervening cloth receiving surfaces of relatively increased width with respect to said ribs.

3. A cloth roller for embroidering machines consisting of a sheet of metal bent upon itself to form a cylinder, the metal being provided with a plurality of longitudinally disposed V-shaped stiffening ribs projecting inwardly from the periphery of the cylinder, said ribs being spaced apart from each other to form intervening peripheral cloth supporting surfaces of relatively greater width than the ribs, the meeting margins of said sheet of metal being joined in overlapping relation and together forming one of the cloth supporting surfaces.

4. A cloth roller for embroidering machines consisting of a sheet of metal bent upon itself to form a cylinder, the metal being provided with a plurality of longitudinally disposed V-shaped stiffening ribs projecting inwardly from the periphery of the cylinder, said ribs being spaced apart from each other to form intervening peripheral cloth supporting surfaces of relatively greater width than said ribs, the meeting margins of said sheet of metal being joined in overlapping relation and together forming one of said cloth supporting surfaces, one of said meeting margins being reduced in width with respect to the other surfaces and recessed with respect to the greatest diameter of the cylinder, the other margin being of less width than the other surfaces, said margins when joined forming a cloth supporting surface equal in width to the remaining cloth supporting surfaces thereby providing a uniform periphery.

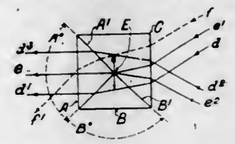
941,124. IGNITION SYSTEM FOR INTERNAL-COMBUSTION ENGINES. CHARLES B. ASKEW, Chicago, Ill. Filed Nov. 14, 1907. Serial No. 402,064.



1. In an ignition system for internal combustion engines, the combination with an engine providing sparking appliances, of a suitable circuit breaker therefor, a plurality of battery cells connected in series relation with each other, and means comprising a switch and a governor, responsive to the speed of the engine for varying the number of cells in circuit to increase or decrease the electromotive-force of the ignition current with the increase or decrease in speed of the engine.

2. The combination with an internal combustion engine providing ignition devices, an electric circuit, an electric battery comprising a series of cells adapted for connection in the circuit, and means for varying the current consistent with variations in speed of the engine, comprising a snap switch and an engine-controlled governor for operating said switch in either direction to include a greater or less number of cells in circuit.

941,125. SINGLE-OBSERVER RANGE FINDER. ARCHIBALD BARR and WILLIAM STROUD, Anniesland, Glasgow, Scotland. Filed Dec. 29, 1908. Serial No. 469,817.



1. A separating device consisting of a combination of prismatic pieces of glass of different refractive indices forming a compound block comprising a separating edge situated in the interior of the block, for the purposes set forth.

2. A separating device consisting of a combination of prismatic pieces of glass of two different refractive indices forming a compound block comprising a separating edge situated in the interior of the block, for the purposes set forth.

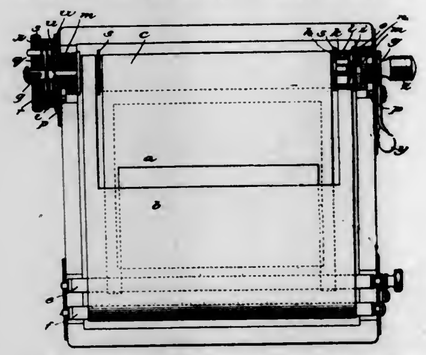
3. A separating device consisting of a combination of three prismatic pieces of glass of two different refractive indices forming a compound block comprising a separating edge situated in the interior of the block, for the purposes set forth.

4. A separating device consisting of three prismatic pieces of glass having flat faces at their surfaces of contact comprising a separating edge, lying in a plane in which the partial images may be formed, situated in the interior of the device, for the purposes set forth.

5. An eyepiece prism system in combination with prismatic pieces of glass constituting a compound block comprising a separating device having its separating edge situated in the interior of the block, for the purposes set forth.

[Claims 6 and 7 not printed in the Gazette.]

941,126. ROLLER-BLIND FOR PHOTOGRAPHIC CAMERAS. ERNST BRAUBURGER, Friedenau, near Berlin, Germany, assignor to The Firm of Optische Anstalt C. P. Goerz Aktiengesellschaft, Friedenau, near Berlin, Germany. Filed Jan. 28, 1907. Serial No. 354,567.



1. In a photographic shutter the combination with two curtains adapted to be moved as well independently of each other as jointly and adapted to form a slit, of supporting rotatable rollers for said curtains and means adapted to successively interrupt the movement of the two curtains, said curtain movement controlling means comprising at least for one curtain rotatable clutch-members and an abutment, the clutch-members interpositioned between a curtain supporting roller and said abutment and individually capable of idle rotation through certain angles.

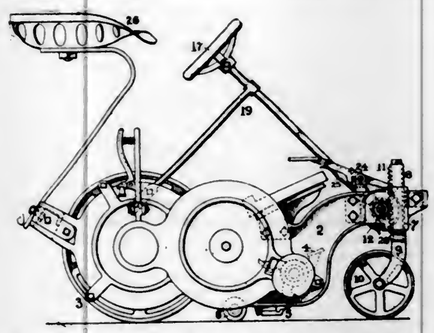
2. In a photographic shutter the combination with two curtains adapted to be moved as well independently of each other as jointly and adapted to form a slit of supporting rotatable rollers for said curtains, rotatable clutch-members and abutments, one set of clutch-members interpositioned between each curtain-supporting roller and one of said abutments, the clutch-members of each set individually capable of idle rotation through certain angles.

3. In a photographic shutter the combination with two curtains adapted to be moved as well independently of each other as jointly and adapted to form a slit of supporting rotatable rollers for said curtains, a set of co-axial rotatable clutch-members and an abutment, the clutch-members interpositioned between a curtain-supporting roller and said abutment and individually capable of idle rotation through certain angles.

4. In a photographic shutter the combination with two curtains adapted to be moved as well independently of each other as jointly and adapted to form a slit of supporting rotatable rollers for said curtains, two sets of rotatable clutch-members arranged co-axially to each other and abutments, each set of said clutch-members interpositioned between one of the two curtain-supporting rollers and an abutment and the clutch-members of the two sets individually capable of idle rotation through certain angles.

5. In a photographic shutter the combination with two curtains adapted to be moved as well independently of each other as jointly and adapted to form a slit of supporting rotatable rollers for said curtains and means adapted to successively interrupt the movement of the two curtains, said curtain movement controlling means comprising at least for one curtain rotatable clutch-members and an adjustable abutment, the clutch-members interpositioned between a curtain-supporting roller and said abutment and individually capable of idle rotation through certain angles.

941,127. POWER LAWN-MOWER. WILLIAM P. M. BRAUN, Philadelphia, Pa., assignor to John F. Braun and William P. M. Braun, Copartners, trading as John Braun & Sons, Philadelphia, Pa. Filed July 7, 1908. Serial No. 442,385.

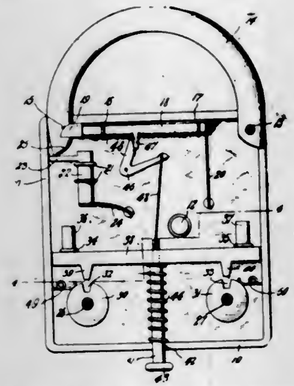


1. The combination of a lawn mower having one end of its main frame supported upon driving wheels, with a supporting wheel at the other end of the main frame, a bearing in which the supporting wheel is journaled, a vertically adjustable box in which the bearing is journaled upon an upright axis and said box being provided with a rack and made adjustable in the main frame, a pinion journaled on the main frame engaging the rack of the box, a driver's seat, an oblique hand operated shaft extending toward the driver's seat, bevel gearing between the shaft and the pinion whereby the rotation of the shaft will raise and lower the main frame upon the box, and locking devices for locking the pinion in a plurality of positions against the rotation in its adjusted positions.

2. The combination of a lawn mower having one end of its main frame supported upon driving wheels, with a supporting wheel at the other end of the main frame, a bearing in which the supporting wheel is journaled, a vertically adjustable box in which the bearing is journaled upon an upright axis and said box being provided with a rack and made adjustable in the main frame, a pinion journaled on the main frame engaging the rack of the box, a driver's seat, an oblique hand operated shaft extending toward the driver's seat and journaled in a fixed oblique bearing, bevel gearing between the shaft and the pinion whereby the rotation of the shaft will raise and lower the main frame upon the box, and locking devices for locking the pinion against rotation in its adjusted positions consisting of a disk secured so as to rotate with the pinion and having a plurality of notches or detents at intervals on its circumference, and a pawl hinged to the main frame and engaging the notches of the disk.

3. A lawn mower main frame having one end supported upon driving wheels, combined with a supporting wheel, a bearing for the supporting wheel having freedom of rotation about a vertical axis, a vertically adjustable box guided in the main frame and in which the bearing is journaled, a transverse shaft carried by the main frame, means secured to the transverse shaft connecting with the box for adjusting the end of the main frame vertically with respect to the box, rotary hand operated means having a hand wheel for rotating the transverse shaft, and locking devices for locking the shaft in a plurality of positions of adjustment consisting of a notched disk secured to the transverse shaft and a locking pawl having a treadle portion at a lower elevation than the hand wheel, whereby the end of the main frame may be adjusted and held at various elevations for changing the position of the cutters with respect to the ground and holding it in such positions.

941,128. COMBINATION-PADLOCK. DUFFY L. CAMPBELL, Rosemary, N. C. Filed Feb. 8, 1909. Serial No. 476,747.



1. In a combination padlock, spaced guides, a bar having pins slidably engaging said guides and with a plurality of projecting studs, a plurality of disks mounted for rotation, each disk being provided with a peripheral notch adapted to receive one of said studs when the disks are arranged in predetermined positions, a rod spring supported and engaging said bar and maintaining the same yieldably against said guides, a shackle mounted to swing at one end, a slidable bolt adapted to engage the free end of said shackle, connecting means between said slidable bolt and the rod, and means for rotating said disks.

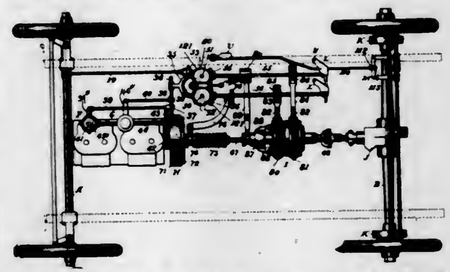
2. In a combination padlock, an inclosing casing having a detachable cover, spaced guides within said casing a bar having pins slidably engaging said guides and provided with spaced studs, a plurality of disks mounted for rotation upon said cover, each disk being provided with a peripheral notch adapted to receive one of said studs when the disks are arranged in predetermined positions, a shackle mounted to swing at one end upon said casing, a bolt arranged to slide within said casing and adapted to engage the free end of said shackle, connecting means between said slidable bolt and the bar, means for rotating said disks, and means for actuating said bar and the bolt connected therewith.

3. In a combination padlock, an inclosing casing having a detachable cover, spaced guides within said casing, a bar having pins arranged to slide within said guides and having spaced studs, stub shafts mounted for rotation through said cover, a disk carried by each stub shaft and each provided with a peripheral notch adapted to receive one of said studs when the disks are arranged in predetermined positions, a shackle mounted to swing at one end upon said casing, a bolt arranged to slide within said casing and adapted to be engaged by the free end of said shackle, connecting means between said slidable bolt and the bar, radially arranged graduations upon said cover, a turning knob upon each of said stub shafts, radial fingers associated with each of said shafts, and means for adjusting said fingers and knobs relative to said stub shafts.

4. In a combination padlock, an inclosing casing having a detachable cover, guides spaced apart within said casing and intermediate the ends, a bar having lateral pins slidably engaging through said intermediate guides and having spaced studs, stub shafts carried by said cover, disks carried by said shafts and each provided with a radial notch adapted to receive one of said studs when the disks are arranged in predetermined positions, a shackle mounted to swing at one end, keepers spaced apart within said casing near the shackle, a bolt slidable through said keepers and adapted to engage the shackle, means for actuating said bolt, connecting means between said bar and bolt actuating means, means for rotating said disks, and means for actuating said bar and the bolt connected therewith.

5. In a combination padlock, an inclosing casing having a detachable cover, guides spaced apart within said casing and intermediate the ends, a bar having lateral pins slidably engaging through said intermediate guides and having spaced studs, stub shafts carried by said cover disks carried by said shafts and each provided with a radial notch adapted to receive one of said studs when the disks are arranged in predetermined positions, a shackle mounted to swing at one end, keepers spaced apart within said casing near the shackle, a bolt slidable through said keepers and adapted to engage the shackle, means for actuating said bolt, connecting means between said bar and bolt actuating means, a rod connected to said bar and extending through said casing, and a spring operating to maintain said bar yieldably in its inward position.

941,129. MOTOR-VEHICLE. JAMES A. CHARTER, Chicago, Ill. Filed May 3, 1907. Serial No. 371,668.



1. The combination in a motor vehicle and with the steering gear, of the steering shaft, a cam collar thereon, a shaft mounted on the steering shaft provided with a handle at the upper end and at the lower end with a cam engaging the collar for shifting said collar longitudinally of the shaft, timing and carbureting means and regulating devices therefor, and connections between the said collar and said devices.

2. The combination of the hollow steering shaft, timer, carbureter and regulating devices therefor, a sliding collar on the shaft connected with said devices, a controller at the head of the shaft, shaft sections 23, 25 intermediate the controller and the collar, a spring between said sections, and means for raising and lowering the lower shaft section and collar independently of the upper shaft section.

3. The combination in a motor vehicle and with a steering gear, of a hollow steering shaft, a collar thereon, means for sliding the collar on the said shaft including connections within the said shaft, a timer, a carbureter and regulating means therefor, a rock-shaft provided with a plurality of arms, connections between one of the arms and the timer, connections between another arm and the carbureter regulating means, the third arm being forked to engage the sliding collar, as set forth.

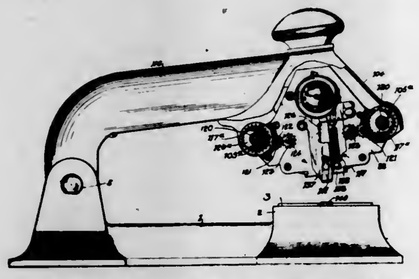
4. The combination with a vehicle of a motor, driving shaft, engine shaft and clutch device and speed changing gears and steering gear, and two parallel rock shafts, and connections between the latter and the clutch device and speed changing gear, and means whereby the movement of either shaft is prevented after that of the other is begun.

5. The combination in a motor vehicle, of a motor,

driving shaft, engine shaft, clutch device and speed changing gear and steering gear, two parallel rock shafts and connections between the same and the speed changing gear and clutch device, a steering post and hand operated shafts upon said post connected to rock the rock shafts, contiguous disks with flattened sides upon said hand operated shafts, and a dog swinging between said disks and proportioned to prevent the movement of either hand operated shaft after that of the other is begun.

[Claims 6 to 14 not printed in the Gazette.]

941,130. RIBBON-FEED MECHANISM. CHARLES M. CROOK, Chicago, Ill. Filed Mar. 12, 1908. Serial No. 420,698.



1. In a reversing ribbon-feed device, the combination of ribbon reels, a driven train of wheels for driving one or the other of said ribbon reels to feed the ribbon from one reel to the other, and reversing mechanism for causing said train of wheels to transfer its driving motion from one reel to the other, said reversing mechanism comprising an actuating member arranged to bear against the roll of ribbon upon one of the reels so as to be moved thereby as the diameter of the roll of ribbon changes.

2. In a reversing ribbon-feed device, the combination of ribbon reels, a pivoted member, a driven train of wheels carried by said pivoted member for rotating one or the other of the reels to feed the ribbon from said reel to the other, and shifting and locking mechanism for throwing said pivoted member and thus connecting said train with one or the other of the reels, said shifting and locking mechanism comprising an actuating member arranged to bear against the roll of ribbon on one of the reels so as to be moved thereby as the diameter of the roll of ribbon changes.

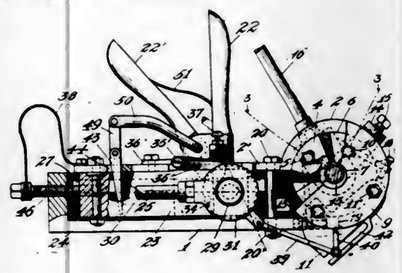
3. In a reversing ribbon-feed device, the combination of ribbon reels, a reversing lever for each of said reels, means tending to move one end of each of said levers toward the corresponding reel, a pivoted plate mechanism carried by said plate for rotating the reels to feed the ribbon from one reel to the other, and shifting mechanism for throwing said plate and thus connecting said rotating mechanism with one or the other of the reels, said shifting mechanism having means adapted for engagement with the other ends of said levers, whereby the reversal of the direction of ribbon-feed is made dependent on increase in the bulk of the ribbon upon one of the reels.

4. In a reversing ribbon-feed device, a pair of reels having each a driving gear connected therewith, a pivoted member carrying upon opposite sides of its pivot gears revolving in opposite directions, and ribbon actuated shifting means for moving said pivoted member about its pivot to cause one or the other of the gears carried thereby to engage the corresponding reel-driving gear.

5. In a reversing ribbon-feed device, the combination of reels upon which the ribbon winds and between which it passes, a gear connected with each of said reels, a pivoted member, driving means carried by said pivoted member and arranged for engagement with one or the other of said first-named gears, and reversing levers adjacent said reels adapted to engage the ribbon on said reels and adapted to move said pivoted member one way or the other about its pivot, whereby connection is established between said driving means and one or the other of said reel-gears, the moving of said levers being effected by change in the relative diameters of the rolls of ribbon upon the respective reels.

[Claims 6 to 19 not printed in the Gazette.]

941,131. SAW SWAGING AND SHAPING DEVICE. THEODORE W. CROSS, Everett, Wash. Filed Mar. 24, 1908. Serial No. 423,017.



1. In a device of the class described, a carrier, an anvil mounted thereon, a rotatable swaging die supported on said carrier for coöperation with the anvil, means for actuating said die, means for adjusting the die with respect to the anvil to vary the swaging action of these parts, and means permitting of adjustment of the anvil substantially in the arc of a circle generated about the axis of the die as a center.

2. In a device for operating on saw teeth, a housing formed with an opening through which the teeth of a saw are adapted to be projected, a wedge shaped member supported for movement in the plane of the opening for holding the saw in position, means for varying the lateral wedging action of the wedge member, and means to force said wedge shaped member into the opening.

3. In combination with an anvil, means for supporting the same, a swaging die supported for rotation, and the means to rotate the same, a member for clamping the saw against said first means supported for vertically swinging and for sliding laterally toward and from the saw, said member having an inclined outer face, and relatively fixed means disposed to be engaged by the inclined face of said member, whereby as said member is swung upwardly it will also be moved in a lateral direction.

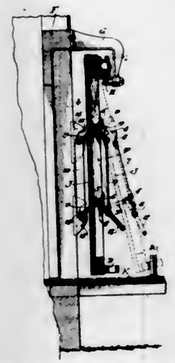
4. In an apparatus of the character described, a housing open at one side, a carrier in said housing provided with an anvil, a swaging die in said housing, means for operating said swaging die, a plate extending over the open side of said housing, said housing having its lower portion formed with an opening for reception of the saw teeth, a member having its outer face inclined, a pin by which said member is pivotally supported on said plate, said pin being slidably supported in said plate, a spring tending to draw said pin in an outward direction, and means to swing said member.

5. The combination of a supporting frame, saw tooth swaging mechanism carried thereby, means for clamping the frame to a saw, tooth shaping mechanism mounted on the frame, and means connecting said clamping means with the shaping mechanism to operate the clamping means to clamp the frame to the saw on operation of the shaping device, and preliminary to actuation of the swaging mechanism.

[Claims 6 to 11 not printed in the Gazette.]

941,132. DOOR-OPERATING MECHANISM. ELBARTUS D. CURTIS, Chicago, Ill. Filed Aug. 12, 1908. Serial No. 448,081.

1. The combination with a structure having a doorway and having a track extending across said doorway, of a door provided with rollers mounted in fixed relation thereto and normally disengaged from the track, and means mounted upon the door whereby said door may be shifted outwardly and inwardly to place said rollers upon or remove them from said track.



2. The combination with a structure having a doorway, of a track parallel with the structure, a door, track rollers carried by said door and normally disengaged from, but engageable with the track, and means mounted on the door and engageable with the structure for shifting the door outwardly from the doorway onto the track or inwardly from the track back to the doorway.

3. The combination with a structure having a doorway and having a track extending across said doorway and having sockets or bearings adjacent said doorway, of a door provided with rollers or supports normally disengaged from said track and means mounted upon the door and adapted to engage said sockets or bearings whereby said door may be lifted and moved outwardly to place said rollers upon said track and remove them therefrom to shift the door to closed position.

4. The combination with a structure having a doorway and having a track extending across said doorway and having sockets or bearings adjacent said doorway, of a door provided with rollers or supports normally disengaged from said track, crank-arms mounted upon said door and adapted to engage said sockets or bearings and means whereby said crank-arms may be turned to cause them to lift and move outward the door in order to place its rollers upon the track.

5. The combination with a structure having a doorway and having a track extending across said doorway and having sockets or bearings adjacent said doorway, of a door provided with rollers or supports normally disengaged from said track, a rock shaft mounted upon said door and provided with crank-arms at its ends adapted to enter and engage said sockets or bearings and means whereby said rock shaft may be turned to cause the door to be lifted and moved outward to place its rollers upon the track or to return the door to closed position.

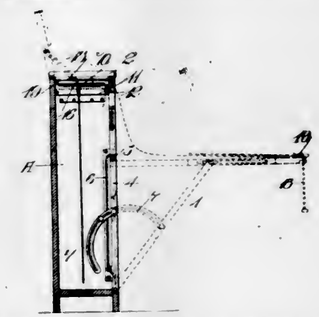
[Claims 6 to 12 not printed in the Gazette.]

941,133. FILING-CABINET. JOSEPH DANNHEISER, San Francisco, Cal. Filed Dec. 4, 1908. Serial No. 465,927.

1. In a filing cabinet, the combination of a box having a front panel, with means for turning this panel from a vertical to a horizontal position, filing devices supported in the upper portion of the cabinet, and means carried by the panel engageable with one of said filing devices to withdraw the same from the cabinet and spread it on the table.

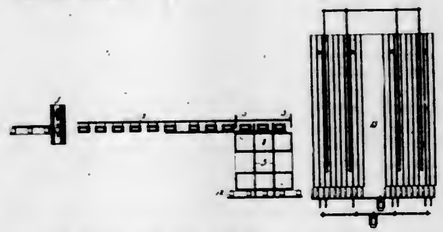
2. A filing cabinet comprising a box having a movable front and top, filing devices supported in the upper portion of the cabinet, said filing devices including rods having file-holding means, means for supporting the ends of the rods in the cabinet, other means for supporting the ends of any rod at an elevated position from the other rods, and means carried by the movable front of the box for withdrawing the file of an elevated rod.

3. A filing cabinet comprising a box having a movable front and top, filing devices supported in the upper portion of the cabinet, said filing devices including rods having file-holding means, means for supporting the ends of the rods in the cabinet, and spring catches in the cabinet and above said means for supporting the rods and normally extending over the ends of said rods and interposed in the path thereof, and on which catches a rod may be supported in elevated position.



4. A filing cabinet comprising a box having a movable front and top, filing devices supported in the upper portion of the cabinet, said filing devices including rods having file-holding means, means for supporting the ends of the rods in the cabinet, spring catches in the cabinet and above said means for supporting the rods and normally extending over the ends of said rods and interposed in the path thereof, and on which catches a rod may be supported in elevated position, the front of said box comprising a panel turnable from a vertical to a horizontal position, and means carried by this panel for engaging an elevated rod and withdrawing it from the box when the panel is opened out.

941,134. TREATMENT OF STEEL RAILS. FRED H. DANIELS, Worcester, Mass. Filed Nov. 21, 1907. Serial No. 403,141.



1. The herein described method of treating steel rails to increase the resistance thereof to wear and shocks, which consists in cooling the heated rail rapidly, and thereby imparting to the metal a fine crystalline structure; reheating the rail and then cooling the same gradually, to eliminate internal strain; and cold-rolling the rail to elongate and flatten the crystals of the metal.

2. The herein described method of treating steel rails to increase the resistance thereof to wear and shocks, which consists in cooling the heated rail rapidly by subjecting the same to a liquid cooling medium, to impart a fine crystalline structure to the metal; reheating the rail and then cooling the same gradually to eliminate internal strains; and cold-rolling the rail to elongate and flatten the crystals of the metal.

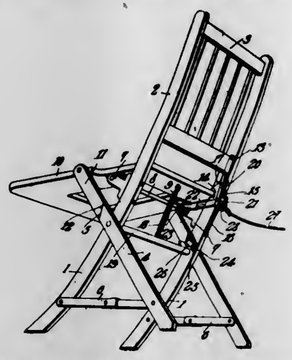
3. The herein described method of treating steel rails to increase the resistance thereof to wear and shocks, which consists in rapidly cooling the rail from red heat and thereby imparting a fine crystalline structure to the metal; reheating the rail to a temperature of approxi-

mately 900° F. and then cooling the same gradually to eliminate internal strains; and cold-rolling the rail to elongate and flatten the crystals of the metal.

4. The herein described method of treating steel rails to increase the resistance thereof to wear and shocks, which consists in subjecting the red hot rail to a liquid cooling medium, to cool the rail rapidly and impart a fine crystalline structure to the metal; reheating the rail to a temperature of approximately 900° F. and then gradually cooling the rail on a hot bed, to eliminate internal strains; and passing the cooled rail through rolls to elongate and flatten the crystals of the metal.

5. The herein described method of treating steel rails to increase the resistance thereof to wear and shocks, which consists in rapidly cooling the heated rail and thereby imparting a fine crystalline structure to the metal; reheating the rail and then cooling the same gradually, to eliminate internal strains; and flattening and elongating the crystals of the metal exterior parts of the rail.

941,135. TRICK-CHAIR. ERASTUS DE MOULIN, Greenville, Ill. Filed Oct. 21, 1908. Serial No. 458,848.



1. A chair comprising a supporting structure, a seat pivotally mounted thereon, a spring-controlled locking device normally engaging the seat to hold it against movement relative to the structure, means for actuating the locking device to release the seat, and yielding means for holding the seat normally in operative position.

2. A chair comprising a supporting structure, a seat pivotally mounted thereon, a detonator-holder also mounted thereon, a spring-actuated striker coöperating therewith, means for holding the seat and striker against movement, and an operating device connected to said means for shifting it to simultaneously release the seat and striker.

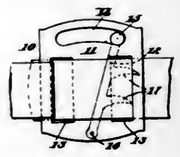
3. A chair comprising a supporting structure, a seat pivotally mounted thereon, yielding means for holding the seat normally in operative position, a detonator-holder mounted on said structure, a spring-actuated striker coöperating therewith, a seat-locking device pivotally mounted, a striker-engaging device carried thereby, and means for shifting the locking means to simultaneously release the seat and striker.

4. A chair including a tiltable seat normally held in operative position, a detonator holder mounted thereon, a spring-actuated striker coöperating therewith, and means for simultaneously releasing the seat and the striker.

941,136. BUCKLE FOR WAIST-BELTS. JOHN A. DUBOIS, Besançon, France. Filed Aug. 22, 1908. Serial No. 449,880.

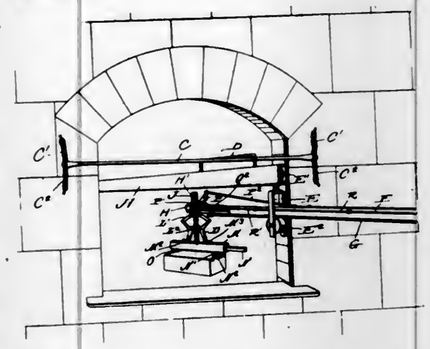
1. In a buckle, the combination of a frame provided with vertical slots for the belt, and with a substantially horizontal slot at the upper portion of the buckle, and a clamping tongue pivoted at the lower portion of the buckle and having a head traveling in the horizontal slot.

2. A buckle for waist-belts, comprising a body or frame having a substantially horizontal slot in its upper portion and a pair of vertical slots to receive the ends of the belt, a clamping tongue pivoted at its lower end and movable between said vertical slots, teeth carried by said tongue to clamp the fabric in one of said vertical slots, and a head on the upper end of said tongue and movable in said horizontal slot.



3. In a buckle, the combination of opposing side-plates provided with vertical slots for the belt, and with a slot at the upper portion of the buckle, and a clamping tongue located between the side-plates and pivoted at the lower portion of the buckle, said tongue being manipulated by grasping the same through said last-named slot.

941,137. BRICKLAYING-MACHINE. MICHELE FALCONE, Cokedale, Colo. Filed Dec. 15, 1908. Serial No. 467,646.



1. In a brick laying machine the combination with a handle, of a grapple mounted on one end of said handle comprising levers, a supporting bar carried by said levers and jaws carried by said supporting bar operated by said levers.

2. In a brick laying machine the combination with a trolley supported handle, of a grapple mounted on one end of said handle comprising levers, a supporting bar carried by said levers, a fixed jaw and a movable jaw carried by said supporting bar, said movable jaw being operated by said levers.

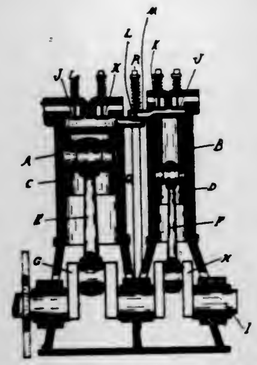
3. In a brick laying machine the combination with a trolley supported handle, of a pair of levers carried by one end of the handle, a supporting bar carried by said levers provided with a fixed and a movable jaw and means for operating said levers so as to operate the movable jaw.

4. In a brick laying machine, the combination with a trolley supported handle, of a grapple mounted on one end of the handle comprising a supporting shaft carrying levers, a supporting bar carried by said levers, a fixed jaw and a movable jaw carried by said supporting bar, and means for operating said supporting shaft.

5. In a brick laying machine, the combination with supporting rods, of a track adjustably mounted on said supporting rods, a trolley mounted in said track, a handle carried by the trolley, means for locking said handle with respect to the trolley, and a grapple carried by an end of the handle.

[Claims 6 to 15 not printed in the Gazette.]

941,138. INTERNAL-COMBUSTION ENGINE. RICHARD L. FROST, Jackson, Mich., assignor of one-fourth to Willard C. Lyman, Jackson, Mich., and one-eighth to George T. Homeier, Flint, Mich. Filed Apr. 16, 1908. Serial No. 427,497.



1. In an internal combustion engine, a plurality of cylinders, having a connecting passage between the explosion chambers thereof, means for compressing the coöperating and separately nonignitible elements of the combustible mixture separately in different cylinders to a degree of compression sufficient to cause automatic ignition upon the commingling of said elements, a valve for closing said connecting passage during the separate compression of the elements and timed mechanism for opening said valve to effect commingling and ignition.

2. In an internal combustion engine, a plurality of cylinders having means of communication one with another, means for compressing the coöperating and separately nonignitible elements of the combustible mixture separately in different cylinders, and for finally ejecting the contents of one cylinder into the other, and means for cutting off communication between said cylinders during the compression of said elements and for establishing free communication therebetween during the combustion of the mixture whereby power is developed in both cylinders.

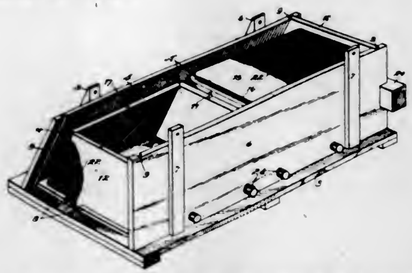
3. In an internal combustion engine, a plurality of cylinders of different capacities having means of communication with each other, means for compressing air in the larger cylinder and a separately nonignitible gaseous fuel in the smaller cylinder and means for cutting off communication between said cylinders during compression of the coöperating elements, for finally placing said cylinders in communication to permit the ejection of the compressed gas into the compressed air cylinder, and for maintaining free communication between said cylinders during the combustion of the gases whereby power is developed in each.

4. In an internal combustion engine, a plurality of cylinders of different capacities in which the air and gaseous fuel are separately compressed, the larger of said cylinders being provided with a clearance space for the compressed charge and the smaller cylinder having its clearance reduced to the minimum, pistons in said cylinders, the piston for the larger cylinder being in advance of the piston for the smaller cylinder, and timed means for cutting off communication between said cylinders during the compression of the coöperating elements, adapted to place said cylinders into communication in advance of the completion of the stroke of the piston in the smaller cylinder whereby the gaseous charge compressed therein is ejected and forced into the larger cylinder and for maintaining free communication between said cylinders during the combustion of the gases.

5. In an internal combustion engine, a plurality of cylinders having means of communication one with another, means for compressing the coöperative and separately nonignitible elements of the combustible mixture separately in different cylinders, and for finally ejecting the contents of one cylinder into the other, a valve controlling communication between said cylinders and timed mechanism for operating said valve to cut off communication between said cylinders during the compression of said elements and to establish free communication therebetween during the combustion of the mixture whereby power is developed in both cylinders.

[Claims 6 and 7 not printed in the Gazette.]

941,139. MOLD FOR CEMENT WASHTUBS. THEODORE V. GALASSÉ, San Francisco, Cal. Filed Mar. 10, 1909. Serial No. 482,560.



1. A mold for tubs and the like comprising a bottom panel having a rectangular ledge on its upper surface, a sectional core-box with removable sides, ends and top resting on said bottom panel and supported within said ledge, side and end panels supported on said bottom panel and on the outside of said ledge and spaced from the core-box, and bars having notches in the end adapted to fit the projecting ends of the outside side panels for locking said outside panels rigidly together.

2. A mold for tubs and the like comprising a bottom panel having a rectangular ledge on its upper surface, a sectional core-box with removable sides, ends and top resting on said bottom panel and supported within said ledge, side and end panels supported on said bottom panel and on the outside of said ledge and spaced from the core-box, and means for locking said outside panels rigidly together, said last-named means comprising clamp-bars having wedge notches fitting the projecting ends of said outside side panels.

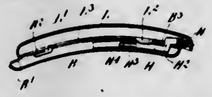
3. A mold for plastic hollow articles of trapezoidal shape comprising a bottom panel, on the upper surface of which is a surrounding ledge, a core-box supported inside the ledge, removable side panels supported on said bottom panel and on the outside of said ledge and spaced from the core-box, a removable fabric covering of cheese-cloth or the like placed over the core-box, and means for locking the side panels of the mold together.

4. In a mold, the combination of a bottom panel having a continuous ledge on its upper side, a removable core-box supported on said panel within said ledge, said core-box comprising side, end and top panels, said side and end panels abutting loosely against each other and said side and end panels carrying pins on their upper side fitting perforations in said top panel whereby the core-box is held together in the space within said surrounding ledge, and said mold having removable, sectional side and end panels parallel with the sides and ends of the core-box.

5. A mold comprising a bottom panel, a removable, sectional core-box supported on said panel, said core-box comprising side and end panels and a top panel, means on the said bottom panel of the mold engaging the bottom edges of the side and end panels of the core-box, and means on the upper edges of said side and end panels of the core-box interlocking with the top panel or cover of the core-box and coöperating with said means on the base panel to hold the core-box together in assembled position, and said mold having sectional removable side and end panels spaced from the core-box, with means for locking the side and end panels of the mold together.

[Claim 6 not printed in the Gazette.]

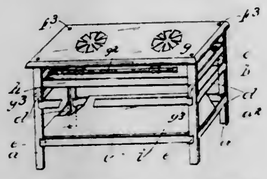
941,140. BOX. DAVID H. GLOVER, Taunton, Mass., assignor to Reed & Barton Corporation, Taunton, Mass., a Corporation of Massachusetts. Filed May 27, 1909. Serial No. 498,608.



1. In a box, the combination of a lid, a hinge pivoted to the lid, arms on said hinge, a box body having pin-and-slot connection with said arms, and a catch to hold the lid to the body, releasable by a sliding movement of the body relatively to the hinge-arms.

2. In a box, the combination of a lid, a hinge pivoted to the lid, arms on said hinge, a box body having pin-and-slot connection with said arms, a spring to force open the lid, and a catch to hold the lid to the body, releasable by a sliding movement of the body relatively to the hinge-arms.

941,141. GAS-STOVE FRAME. FREDERICK GRAFF, Jr., Middle Village, N. Y. Filed Jan. 25, 1909. Serial No. 474,012.



1. A support for gas stoves comprising a frame composed of channel posts, parallel front and back members and parallel end members, said posts being provided in the side portions thereof with apertures, and the end portions of said front, back and end members being passed through said apertures and formed into links or eyes whereby said frame may be folded compactly together.

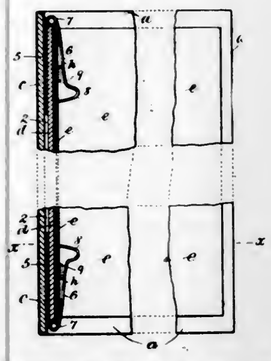
2. A support for gas stoves comprising a frame composed of channel iron posts, parallel front and back members and parallel end members, said posts being provided in the side portions thereof with apertures, and the end portions of said front, back and end members being passed through said apertures and formed into links or eyes whereby said frame may be folded compactly together, the tops of said posts being adapted to serve as supports for the stove, and said frame being provided below the top thereof with supports for a drip pan.

3. A frame or support for gas stoves composed of corner posts or legs, parallel top and bottom side members connected with said posts or legs and parallel top and bottom end members connected with said posts or legs, the connection of said side and end members with said posts or legs being such as to permit said parts to be folded together, the stove being adapted to rest on the tops of the posts or legs and to be secured thereto, a plate or board adapted to rest on the bottom side and end members and to form a brace for the frame, and a drip pan, and means for supporting the same within the frame and between the top portions of the posts or legs.

941,142. BINDER. ALFRED C. HAFELY, New York, N. Y. Filed Apr. 14, 1909. Serial No. 489,858.

1. In a binder the combination with the covers and back, of a strip of suitable material having interior end apertures and running lengthwise of the back and secured to the inner surface thereof in the capacity of a holdfast, and spring wire clips with prong ends which bear substantially at right angles to the back of the binder and adapted for simultaneous connection therewith and with the back of a magazine or similar publication between the leaves thereof.

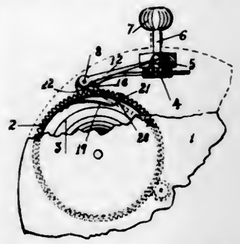
2. The combination with the covers and back of a binder and a strip of suitable material running lengthwise of the back and secured to the inner surface thereof and having interior end apertures, of spring wire clips each having substantially parallel parts, a bend connecting the same and a hook-shaped part at one free end with a prong or point adapted to be passed between the leaves of a magazine or pamphlet for engagement therewith of the prong, which bears substantially at right angles to the back of the binder, and the opposite parallel part adapted to be simultaneously connected with said strip at an aperture thereof.



3. In a binder, the combination with the covers and back, of a stiffening strip of suitable material formed cellular at the respective ends and running lengthwise of the back and secured to the inner surface thereof in the capacity of a hold-fast, and spring wire clips each comprising substantially parallel members 5 6, a connecting bend 7, and a hook-shaped part 8 with a pronged end which bears substantially at right angles to the back of the binder, the same being adapted for simultaneous connection with the back of a magazine or similar publication between the leaves thereof and with the cellular ends of the stiffening strip.

4. The combination with a support for a magazine or similar publication, of a spring wire clip having substantially parallel parts connected by a bend, the one adapted to engage the support and the other the magazine or publication by passing in between the leaves, and the said latter part having a hook-shaped part at the free end with a prong or point to engage the bound edge of the magazine bearing substantially at right angles to the back of the binder and so becoming temporarily connected thereto.

941,143. WINDING-INDICATOR. JOHN C. HAWKINS, Springfield, Ill. Filed May 3, 1909. Serial No. 493,593.



1. In a winding indicator, the combination of a revoluble spring barrel, a main spring within said spring barrel unwinding to rotate the spring barrel, a spring mounted within the spring barrel and having a finger adapted to project outwardly through the wall of the spring barrel and acted upon by the un-winding main spring, an oscillative shaft provided with a pin adapted to be engaged by the finger of said last named spring and a pointer fixed on said shaft.

2. In a winding-indicator, the combination of a revoluble spring barrel, a main spring un-winding to rotate said spring barrel, a finger spring within the spring barrel compressible by contact with the un-winding main spring to project the finger of said finger-spring, and a pointer connected to be operated by the projecting finger of said finger spring.

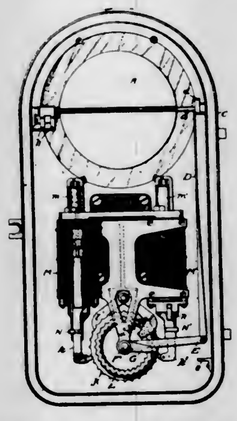
3. In a winding-indicator, the combination of an oscillative shaft, a pointer connected with said shaft, a rack bar connected to oscillate said shaft, a pin fixed on said shaft, and a revoluble spring barrel equipped with a projectile finger adapted to engage said pin on said shaft to partially rotate the shaft; said pinion and rack bar being so arranged that longitudinal movement of the rack bar in one direction will rotate said pinion and contrariwise the rotation of said pinion will move said rack bar in the opposite direction.

4. In a winding-indicator, the combination of a revoluble spring barrel equipped with a projectile finger, a shaft adapted to be partially rotated by said projectile finger, a pointer connected with said shaft and means determining the extent of rotation of said shaft.

5. In a winding-indicator, the combination of an oscillative shaft, a pointer connected with said shaft, a revoluble spring barrel, a finger on said spring barrel acting to turn said shaft in one direction, and stem winding mechanism connected to turn said shaft in the opposite direction.

[Claims 6 and 7 not printed in the Gazette.]

941,144. SIGNAL. LAURENCE A. HAWKINS, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Dec. 29, 1908. Serial No. 469,768.



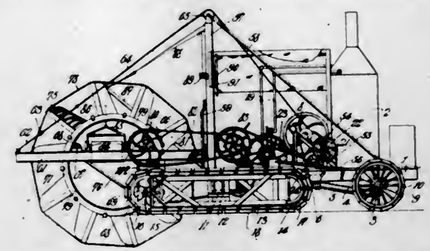
1. In combination, a differential gear, a signal controlled by one member of said gear, a pair of electromagnets, and operative connections between the other two members of said gear and the two magnets respectively.

2. In combination, a differential gear, a signal controlled by one member of said gear, a pair of electromagnets, and operative connections between the other two members of said gear and the two magnets respectively, comprising step-by-step devices whereby one of said members is moved one step when either of said magnets is energized.

3. In combination, a differential gear, a signal controlled by one member of said gear, a ratchet-wheel carried by each of the other members of said gear, a pair of electromagnets, and a pair of pawls actuated by the electromagnets respectively and actuating the ratchets respectively.

4. In combination, a differential gear, a signal controlled by one member of said gear, a ratchet-wheel carried by each of the other members of said gear, a pair of electro-magnets, a pair of pawls actuated by the electromagnets respectively and actuating the ratchets respectively, and means carried by each ratchet for limiting its movement to a predetermined amount when its actuating magnet is energized.

941,145. DITCHING-MACHINE. JAMES B. HILL, Findlay, Ohio. Filed July 17, 1908. Serial No. 444,015.



1. In a ditching machine, a ditching wheel having radial buckets each composed of a radially disposed cutting rim and a basket receptacle for the excavated material, formed of strips fast at one end to the cutting rim, and at the other end lying approximately parallel and connected to a cross strip at the discharge end of the bucket.

2. In a ditching machine, a ditching wheel having radially disposed cutting buckets all inter-connected at the ends most distant from the axis of rotation of the wheels.

3. In a ditching machine, a ditching wheel provided with buckets having radial cutting members all interconnected at their outer ends, and basket receptacles for the excavated material comprising separated strips all connected at one end to the cutting members of the bucket, and at the other end to a common cross member at the discharge end of the bucket.

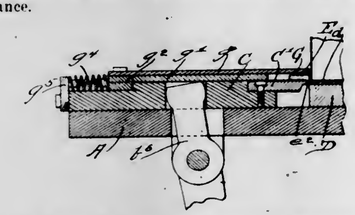
4. In a ditching machine, a ditching wheel comprised of two spaced annular members, spacing bars connecting said members, cutters connected to the outer spacing bars and projecting laterally beyond the outer face of the annular members, and ditching buckets extending radially from the annular members, each bucket being composed of a cutting member extending radially from the annular members, and a basket for the reception of the excavated material composed of spaced strips each connected at one end to the cutting member of the bucket and at the other end to a common connecting member extending between the inner ends of the cutting member at the discharge end of the bucket, all the buckets being interconnected at their outer ends.

5. A ditching machine comprising a suitable vehicle, power means thereon, steering wheels having broad polygonal peripheries, broad elongated endless traction aprons in line with the steering wheels and operatively connected to the prime mover of the vehicle, a ditching wheel pivotally supported on the vehicle and having its pivot support adjustable in a vertical plane, said ditching wheel having radially extended buckets interconnected at their outer ends and provided with basket receptacles for the excavated material, an adjustable conveyer extending into the ditching wheel and carried by the ditching wheel support, means for adjusting the ditching wheel in a vertical plane about its pivot support, and means for coupling the ditching wheel, or the traction aprons, or both to the prime mover of the vehicle at will.

941,146. SQUEEZER. WILLIAM M. HOLLOWAY, Chicago, Ill. Filed Feb. 27, 1908. Serial No. 418,054.

1. In a device of the class described squeezer jaws, a centering guide for the heads supported thereon and adapt-

ed to engage the head flanges and body forming jaws movable with the squeezer jaws a predetermined distance and adapted to yield relatively thereof after moving said distance.



2. In a device of the class described squeezer jaws, body centering jaws and a head centering guide between the squeezer jaws and centering jaws.

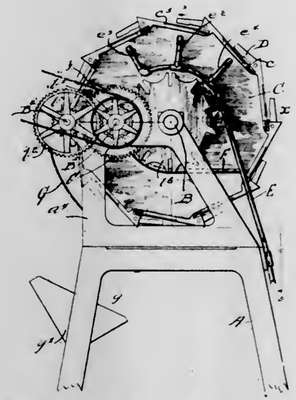
3. In a machine of the class described, a squeezer block, an annular centering guide for the heads in which the heads accurately fit and which positions the heads accurately on the block, and body centering jaws movable above the head centering guide.

4. In a machine of the class described a squeezer block, reciprocating squeezer jaws, a movable head centering guide resting on the squeezer jaws adapted to position the head accurately relatively to the block and jaws and means secured to the centering guide adapted to guide said centering guide when moving.

5. In a machine of the class described a squeezer block, reciprocating squeezer jaws surrounding the same, a reciprocating head centering guide surrounding the block and extending partly below the jaws, an inclined part on said guide adapted to be engaged by the jaws to reciprocate the guide out of the path of the jaws just as the jaws engage the head flanges, and means guiding the reciprocating centering guide adapting said guide to assume normal position by gravity.

[Claims 6 to 18 not printed in the Gazette.]

941,147. SOLDERING-MACHINE. WILLIAM M. HOLLOWAY, Chicago, Ill. Filed June 15, 1908. Serial No. 438,461.



1. A soldering machine embracing a rotative carrying wheel having a peripheral rim thereon affording apertured faces adapted to receive the articles to be soldered, a clamping jaw thereupon adapted to rigidly engage the articles to be soldered thereon, one or more burners arranged to direct the heat thereof against the articles to be soldered through the apertures in said faces and one or more cooling nozzles adapted to direct a cooling blast against said articles at a further stage in the rotation of the wheel.

2. A soldering machine embracing a rotative carrying wheel, a lateral rim thereon affording apertured faces, a clamping jaw pivoted on the rim adjacent each apertured face and adapted to rigidly engage the articles to be soldered thereon, one or more burners arranged to direct the heat thereof through said aperture and against the articles to be soldered, one or more cooling nozzles adapted to direct a cooling blast against said articles at a further stage in the rotation of the wheel and cams for actuating the clamping jaws.

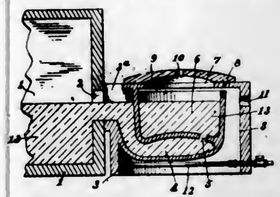
3. A soldering machine embracing a rotative carrying wheel, a laterally extended rim at the periphery thereof and having flattened faces thereon adapted to receive the articles to be soldered, the metal at the flattened parts being thin, a clamping jaw pivoted at each flat face to rigidly engage the articles to be soldered in position, one or more burners arranged to direct the heat thereof against the articles to be soldered through a suitable aperture central in each face, one or more cooling nozzles adapted to direct a cooling blast against said articles at a further stage in the rotation of the wheel and adjustable cams for actuating the jaws.

4. A soldering machine embracing rotative carrying wheels having a peripheral rim thereon affording thin flat, centrally apertured faces adapted to receive articles to be soldered, a clamping jaw pivoted on the carrying wheels and adapted to rigidly engage thereon the articles to be soldered, one or more burners arranged to direct the heat thereof through said apertures against the articles to be soldered, one or more cooling nozzles adapted to direct a cooling blast through said apertures at a further stage in the rotation of the wheel, means for adjusting the carrying wheels to suit the varying lengths of the blanks and an adjustable cam for actuating the jaws in engaging and releasing.

5. A soldering machine embracing a duplicate pair of rotative carrying wheels each having an outwardly directed, peripheral rim thereon affording flat faces adapted to receive the blank, clamping jaws having recesses to receive the article to be soldered to the blank, and adapted to rigidly engage the articles to be soldered in position, one or more burners arranged to direct the heat thereof against the articles to be soldered through a suitable aperture in the rims, one or more cooling nozzles adapted to direct a cooling blast against said articles at a further stage in the rotation of the wheel, means for adjusting the wheels to or from each other and means for adjusting the burners and nozzle to correspond.

[Claims 6 to 22 not printed in the Gazette.]

941,148. DEVICE FOR FORMING GLASS CYLINDERS. FERDINAND J. HOUZE, Grand Rapids, Mich., assignor of two-thirds to John H. Houze and Noel Houze, Grand Rapids, Mich. Filed Aug. 3, 1908. Serial No. 446,623.



1. A device for forming glass cylinders, comprising a melting tank, a pot near the same and communicating therewith by a side opening and a passage extending downward at the side of the pot next the tank and thence beneath the pot whereby the pot is heated at one side only by the tank and incoming glass, said pot being also provided with one or more bottom openings to admit the glass to that part only of the pot which is not so heated, whereby the heat is rendered more uniform throughout the glass in the pot.

2. A device for forming glass cylinders, comprising a melting tank having a side opening, a jacket having a side opening to receive the melted glass, and also having a top provided with a central opening and series of small openings concentric therewith, an inner pot having a downward and horizontally extended passage to receive the glass, and openings in the upper wall of said passage to permit the glass to pass into said pot, and means for applying heat to the inner pot.

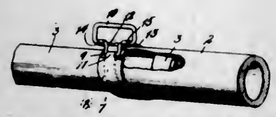
3. In a device for forming glass cylinders, the combination of a melting tank having a lateral opening, a cylindrical case having an opening to receive the glass, an inner pot in said case having a downward and horizontally extended passage beneath the same and also having openings in the upper wall of said passage to permit the glass to pass therethrough, and a top to said case having a circular central opening and a series of small openings concentric therewith, a cover adapted to close the openings in said top and having a central opening, the cover also being spaced apart from the top of the inner pot.

941,149. DENTAL PLATE. DAVID D. HYMAN, Philadelphia, Pa. Filed Mar. 16, 1908. Serial No. 421,448.



As an improved article of manufacture, a dental plate formed of hard rubber and having within the confines thereof an upwardly extending wall forming a suction cavity, said wall having an inwardly extending overhang forming around the wall a pocket, said plate being formed with a second wall extending upwardly from the upper face of the plate outside of the first-named wall and forming therewith a space between said walls, said cavity and space being unobstructed, whereby the plate is provided with increased suction surface.

941,150. HOSE AND PIPE COUPLING. SVEN M. JOHNSON, Chicago, Ill. Filed July 20, 1907. Serial No. 384,817.

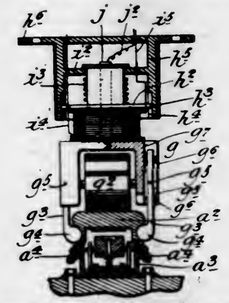


The combination with a contractible tube and an interior pipe, of a plain metal strip having a single tongue 8 at one end and a pair of tongues 12 and 13 at the opposite end, a plain wire loop formed into a hinge portion 9 to be engaged by the tongue 8 and inward bends 16 and 17 to be engaged by the tongues 12 and 13, said single tongue 8 being loosely bent over said hinge portion 9 and thus adjustable over said hinge portion 9 to vary the operative length of the band, said loosely bent over tongue 8 being held by frictional engagement between said metal strip and said tube when said coupling is clamped upon said tube.

941,151. THIRD-RAIL ELECTRIC-RAILWAY SYSTEM. CHARLES KOZESNIK, New York, N. Y. Original application filed Oct. 30, 1906, Serial No. 341,251. Divided and this application filed Apr. 18, 1908. Serial No. 427,789.

1. In an electric railway system, a contact shoe comprising a frame, an electro-magnet movably mounted in said frame, a yoke associated with said electro-magnet, a roller mounted in said yoke and adapted to bear against the surface of a rail, arms pivotally connected to said yoke and adapted at their free ends to contact with the sides of the rail, and means for maintaining the said free ends of the said arms in contact with the sides of the rail.

2. In an electric railway system, a contact shoe comprising a frame, an electro-magnet movably mounted in said frame, means for exerting a pressure on said electro-magnet, tending to move the same away from the said frame, a yoke associated with said electro-magnet, a roller mounted in said yoke and adapted to bear against the surface of a rail, arms pivotally connected to said yoke and adapted at their free ends to contact with the sides of the rail, and means for maintaining the said free ends of the said arms in contact with the sides of the rail.



3. In an electric railway system, a contact shoe comprising a frame, an electro-magnet, a plate to which the said magnet is secured, said plate being movable within the said frame, a spring for exerting pressure on said plate and magnet, tending to move the same away from the said frame, a yoke connected to the said magnet, a roller mounted in the said yoke adapted to bear against the surface of a rail, arms pivotally mounted in the said yoke and adapted at their free ends to contact with the sides of the rail, and means for maintaining the said free ends of the said arms in contact with the sides of the rail.

4. In an electric railway system, a contact shoe comprising a frame, an electro-magnet, a plate to which the said magnet is secured, said plate being movable within the said frame, a spring for exerting pressure on said plate and magnet, tending to move the same away from the said frame, a yoke connected to the said magnet, a roller mounted in the said yoke adapted to bear against the surface of a rail, arms pivotally connected to the said yoke, contact heads connected with the said arms at one end thereof and adapted to contact with the sides of a rail, and springs associated with the other ends of the said arms and adapted to move the said arms so as to maintain the said contact heads thereof in contact with the sides of the rail.

941,152. VAT DYE AND PROCESS OF MAKING SAME. HERMANN KRAFT, Basel, Switzerland, assignor to Society of Chemical Industry in Basle, Basel, Switzerland. Filed Apr. 1, 1909. Serial No. 487,275.

1. The described process for the manufacture of halogenized vat-dyestuffs of the thio-indigo series, which consists in condensing 1 mol. of a halogen substituted isatin derivative of the naphthalene series with 1 mol. of 3-oxy-1-thionaphthene.

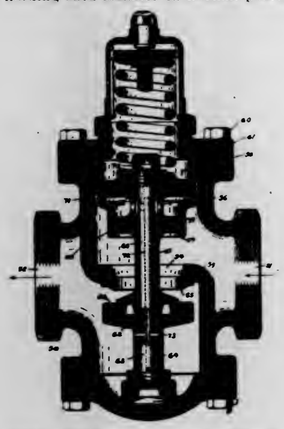
2. The described process for the manufacture of halogenized vat-dyestuffs of the thio-indigo series, which consists in condensing 1 mol. of a brominated naphthisatin with 1 mol. of 3-oxy-1-thionaphthene.

3. As new products, the described halogenized vat dyestuffs, derived from a halogenated naphthisatin and 3-oxy-1-thionaphthene, and constituting in dry state brownish-red powders soluble in concentrated sulfuric acid with a green to greenish blue color, soluble in hot nitrobenzene with a cherry-red to red-violet coloration and yielding by their treatment with alkaline reducing agents vats dyeing cotton brownish-violet and gray-violet to violet-black shades fast to washing, light and chlorin.

941,153. PRESSURE-REGULATOR. WILLIAM F. KRICHBAUM, Newark, N. J., assignor to Foster Engineering Company, a Corporation of New Jersey. Filed Apr. 19, 1909. Serial No. 490,764.

1. In a pressure regulator, the combination of a valve casing providing a flow passage with a valve seat, a bal-

ance-piston cylinder above said valve seat and an enlarged chamber above said cylinder, said chamber being in communication with the delivery end of said flow-passage, a recessed valve for said seat having a stem projecting into said cylinder and chamber, a valve disk in said recess, a sleeve having at its lower end a flange to engage said disk and a projection extending through the disk, an upper sleeve having a lower end engaging the upper end of the lower sleeve in the said balance-piston cylinder, a nut adapted to screw onto the stem against said upper sleeve in the said enlarged chamber, a washer held between the adjacent ends of said sleeves and forming a piston in the cylinder, a member held between said nut and upper sleeve imperviously closing the said chamber and permitting movement of its said holding parts, and means holding said member in normal position.



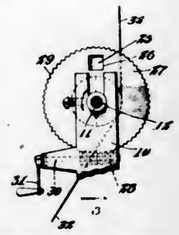
2. In a pressure regulator, the combination of a valve casing providing a flow passage with a valve seat, a balance-piston cylinder above said valve seat and an enlarged chamber above said cylinder, said chamber being in communication with the delivery end of said flow passage, a valve having a disk for said seat and a stem projecting into said cylinder and chamber, a sleeve on said stem above said disk, an upper sleeve above said lower sleeve, a nut adapted to screw onto the stem against said upper sleeve in the said enlarged chamber, a washer held between the adjacent ends of said sleeves and forming a piston in the balance-piston cylinder, a member held between said nut and upper sleeve imperviously closing the enlarged chamber and permitting movement of its said holding parts, and means holding said member in normal position.

3. The combination with a casing providing a flow passage with a valve seat, of a valve having a stem and an annular radial seat around said stem, an annular valve disk in said seat providing a space between itself and the said stem, a sleeve on said stem extending through said annular disk into engagement with the floor of its said seat and having an annular flange engaging the top of the disk, and means for holding said sleeve in fixed position with respect to said stem.

4. In a pressure regulator, the combination of a valve casing providing a flow passage and an upper extension, a liner removably inserted in said upper extension and providing upper and lower cylinders of different diameters, a valve for said valve seat having a stem extending from the delivery side of the valve into said cylinders, a sleeve on the valve stem having its opposite ends in the said upper and lower cylinders respectively and a lateral aperture intermediate said ends, the said stem having a duct leading from below the valve to said lateral aperture of the sleeve, a nut holding said sleeve on the stem, a member held by said nut on the sleeve forming a piston in the upper cylinder, and means holding said piston yieldingly in position.

5. In a pressure regulator, the combination with a casing providing a flow passage with a valve seat, a cylinder above said valve seat and an upper chamber, a plug in said casing opposite said valve seat, a valve for said valve seat having a stem extending from the delivery side of the valve into said cylinder and chamber, said stem being adapted below the valve and next said plug to receive turning means, a sleeve on the valve seat above said valve, an upper sleeve having its lower end engaging the upper end of said lower sleeve in the balance-piston chamber, a washer held between the adjacent ends of said sleeves and forming a piston in said cylinder, a nut adapted to screw onto the stem against the upper sleeve, a member held between said nut and upper sleeve imperviously closing the enlarged chamber and permitting movement of its holding parts, and means holding said member in normal position.

941,154. POWER-TRANSMITTING APPARATUS. REMI A. LA POINTE, Riverside, Cal. Filed Oct. 4, 1907. Serial No. 395,814.



1. In a device of the class described, a frame; a revoluble shaft mounted in said frame; a revoluble drum; resilient connecting means between said shaft and said drum; and means operated by said shaft to hold said drum from rotation during intermittent periods in the rotation of said shaft.

2. In a device of the class described, a frame; a shaft rotatably mounted in said frame; a sprocket drum loosely mounted on said shaft; spring connecting means between said shaft and said drum; and means operated by said shaft to hold said drum from rotation during intermittent periods in the rotation of said shaft.

3. In a device of the class described, a frame; a shaft journaled in said frame; a drum loosely mounted on said shaft; a spiral spring having one end secured to said shaft and the other end secured to said drum; stops on said drum; a lug slidably mounted in said frame and adapted to engage with said stops and thereby to prevent the rotation of said drum; and a cam on said shaft adapted to alternately move said lug into and out of engagement with said stops.

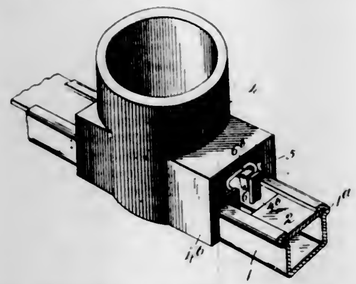
4. A device of the class described comprising a revoluble shaft; a rotating member; resilient connecting means between said shaft and said member; and cam actuated means operated by said shaft to intermittently stop said member from rotation.

5. A device of the class described comprising a frame; a shaft journaled in said frame; a drum loosely mounted on said shaft; a spring having one end secured to said shaft and the other end secured to said drum; stops on said drum; a lug movably mounted on said frame; and means operated by said shaft to move said lug into and out of engagement with said stops.

941,155. CLEANSING COMPOUND. JAMES A. LESTER, Interlaken, N. Y. Filed Aug. 15, 1908. Serial No. 448,704.

The herein described cleansing compound consisting of mineral oil lubricating distillate and wood alcohol, mixed together in the proportions of four parts of oil to one part of alcohol, substantially as described.

941,156. RECEPTACLE OR THE LIKE FOR CONDUITS. GEORGE A. LUTZ, Plainfield, and CLARENCE C. SIBLEY, Perth Amboy, N. J. Original application filed Oct. 26, 1905, Serial No. 284,559. Divided and this application filed Mar. 5, 1909. Serial No. 481,412.



1. The combination of a conduit, with a fitting thereon provided with a locking piece having independently movable portions to engage opposite parts of the conduit.

2. The combination of a conduit, with a fitting thereon provided with a spring-like piece engaging opposite parts of the conduit to hold the fitting thereto.

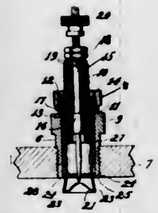
3. The combination of a conduit, with a fitting provided with a spring-like locking piece having extended portions engaging the conduit.

4. The combination of a conduit, with a fitting provided with a recess, and a locking piece removably held in the recess and having extended portions engaging the conduit.

5. The combination of a conduit, with a fitting provided with a recess and a spring-like locking piece located in said recess and having extended portions engaging the conduit.

[Claims 6 to 12 not printed in the Gazette.]

941,157. SPARK-PLUG. CHARLES A. MARTIN, Racine, Wis. Filed Mar. 21, 1908. Serial No. 422,380.



1. In a spark plug, the combination of an outer casing adapted to be screwed into the cylinder wall of an engine, the inner end of said casing provided with an inwardly extending ledge or flange, said ledge or flange provided with recesses, an insulating tube extending inwardly into the casing to a desired extent, a guard or deflector, the end thereof being in the form of an outwardly extending cone and having the apex thereof pointing toward the casing and apertured, the said end provided with arms extending toward the casing, the ends of the arms being bent outwardly to form lateral projections which are adapted to be passed through the recesses of the ledge or flange of the casing and to thereby detachably engage above said ledge or flange, and an electrical conductor extending through the insulating tube, and having its inner end in close proximity to the aperture.

2. In a spark plug, the combination of an outer casing adapted to be screwed into the cylinder wall of an engine, the inner end of said casing provided with an inwardly extending ledge or flange, said ledge or flange provided with recesses, an insulating tube extending inwardly into the casing to a desired extent, said tube formed with an enlargement between its ends to provide outer and inner shoulders thereon, a guard or deflector, the end thereof being in the form of an outwardly extending cone, with a spark orifice at the apex of the cone, and said end provided with arms extending toward the casing, the ends of the arms being bent to form lateral projections which are adapted to be passed through the recesses of the ledge or flange of the casing and to be thereby detachably engaged beyond said ledge or flange, a sleeve within the casing, the outer end of said sleeve being in engagement with the inner shoulder of the insulating tube, and the inner end of said sleeve engaging against the lateral projections at the ends of the arms of the guard, a nut turned on to the outer end of the casing said nut provided with an opening through which the insulating tube passes, and said nut adapted to be turned down against the outer shoulder of the insulating tube, and an electrical conductor extending through the insulating tube and having its inner end in close proximity to the spark orifice.

3. In a spark plug, the combination of an outer casing adapted to be screwed into the cylinder wall of an engine, an insulating tube extending inwardly into the casing to a desired extent, a removable open sided guard or deflector held between the inner end of the casing and the insulating tube, and the end thereof being in the form of an outwardly extending cone having the apex thereof pointing toward the casing and forming a spark terminal, with a spark orifice at the apex of the cone, and an electrical conductor extending through the insulating tube and having its inner end in close proximity to the spark orifice of the guard and forming the other spark terminal.

4. A guard or deflector for a spark plug, having an open side and an end piece and provided with attaching projections, the end piece being in the form of an outwardly extending cone having the apex thereof pointing toward the plug and being planed or cut off to form both a spark orifice and a spark terminal having a thin bordering edge.

941,158. SUBSTITUTE FOR SOAP FOR WASHING, CLEANING, AND BLEACHING PURPOSES. PAUL MAUSOLFF, Frankfort-on-the-Main, Germany, assignor to Roessler and Hasslacher Chemical Co., New York, N. Y., a Corporation of New York. Filed Jan. 18, 1908. Serial No. 411,528.

1. A substitute for soap for washing, cleaning and bleaching purposes consisting of a mixture of a harmless peroxidized compound and soluble inorganic alkaline material.

2. A substitute for soap for washing, cleaning and bleaching purposes consisting of a mixture of a harmless peroxidized compound and alkaline material comprising borax.

3. A substitute for soap for washing, cleaning and bleaching purposes consisting of a mixture of a harmless peroxidized compound, soda and borax.

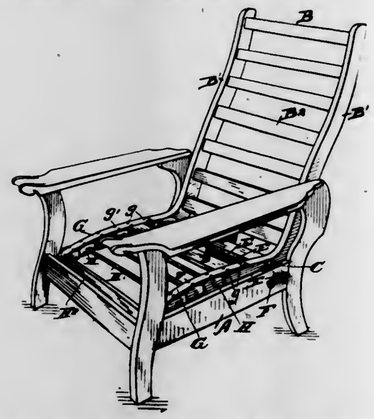
4. A substitute for soap for washing, cleaning and bleaching purposes consisting of a mixture of sodium perborate and alkaline material comprising borax.

5. A substitute for soap for washing, cleaning and bleaching purposes consisting of a mixture of sodium perborate, soda and borax.

941,159. SOLUBLE STARCH. ALBERT E. MILITZ, Leverkusen, near Cologne, Germany, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed Jan. 29, 1908. Serial No. 413,284.

The new acetylated starch obtained from starch and acetic acid, which is a white, amorphous powder, insoluble in cold water, but dissolving in hot water to a limpid, adhesive liquid, which can be kept for weeks without losing its adhesive properties, insoluble in hot or cold acetic acid glacial, giving with iodin solution a violet color, and which is not reconverted into the original starch by the action of alkali, substantially as hereinbefore described.

941,160. CHAIR. EMIL H. MILNER, Stockbridge, Mich. Filed Mar. 26, 1909. Serial No. 485,883.



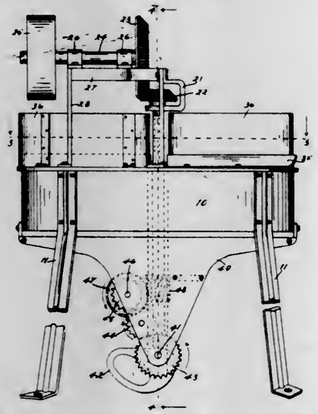
1. In a chair, a frame, a tilting back portion having continuous side members pivoted to the frame, a seat formed of a plurality of cross-members, and spring bands secured to the back portion and to each of the several cross-members of the seat portion, whereby the latter are flexibly connected together and to the back portion.

2. In a chair, a frame, a tilting back portion having continuous side members pivoted to the frame, means for locking the back in a fixed position, a seat formed of a plurality of cross-members, and spring bands secured to the back portion and to each of the several cross-members of the seat portion, whereby the latter are flexibly connected together and to the back portion.

3. In a chair, a frame, an L-shaped tilting back, a seat formed of a plurality of members wedge-shaped in cross section, and spring bands secured to the back and to each of the several wedge-shaped members of the seat portion.

4. In a chair, a frame, a tilting back, a seat portion formed of a plurality of blocks, rods connecting said blocks in pairs, a pair of flexible bands secured to the blocks and to the tilting back, and means for locking said back in a fixed position.

941,161. VEGETABLE-CUTTER. JEREMIAH MOREAU, Indianapolis, Ind., assignor of one-third to John G. Cornet and one-third to Louis H. Ferger, Indianapolis, Ind. Filed Dec. 4, 1908. Serial No. 465,972.



1. A vegetable cutter including a cylindrical casing, a rotary cutter mounted concentrically therein, a stationary vegetable holding plate in a plane parallel with said rotary cutter, means for feeding said rotary cutter as the cutting operation proceeds, and a partition plate extending radially of said rotary cutter and movable therewith as said cutter is given its feeding movement and with its edge near said rotary cutter and with the side thereof adjacent said vegetable holding plate.

2. A vegetable cutter including a vertically disposed shaft mounted concentrically therein and longitudinally movable, a horizontally disposed cutting disk mounted on said shaft in said casing so as to serve as a bottom for said casing upon which vegetables may be placed to be cut, a partition plate mounted on said shaft above said rotary disk so as to be non-rotary but vertically movable with said shaft, vegetable holding plates held stationary and parallel with said cutting disk and diagonally opposite each other adjacent said partition plate, and means for giving said shaft a gradual vertical movement as the cutting operation proceeds.

3. A vegetable cutter including a cylindrical casing, a rotary cutter mounted concentrically therein, a non-rotative partition plate above said rotary cutter, and vertically movable therewith, a stationary vegetable holding plate over a portion of said rotary cutter, a hopper above and with its lower end opening over another portion of said rotary plate and means for giving the cutter a vertical feeding movement.

4. A vegetable cutter including a cylindrical casing, a vertically disposed rotary cutter mounted concentrically therein, a non-rotative partition plate above said rotary cutter and vertically movable therewith, which extends diametrically of the cylinder casing to form a chamber on either side thereof, oppositely arranged vegetable holding plates on said casing, each covering about one-fourth of the rotary cutter, oppositely located hoppers mounted on said casing between said vegetable holding plates, and means for giving the cutter a vertical feeding movement substantially as set forth.

5. A vegetable cutter including a cylindrical casing, a vertically movable shaft mounted concentrically within said casing, means for driving the shaft, a horizontal cutter secured on said shaft that is vertically movable therewith, a non-rotative partition plate in the casing over the cutter that is vertically movable with the cutter, and means driven by said shaft for vertically moving it as it is operated.

[Claims 6 and 7 not printed in the Gazette.]

941,162. PRINTING-PRESS. AUGUST J. MOTTLAU, New York, N. Y., assignor to The Press Feeder Company, a Corporation of New York. Filed Oct. 8, 1907. Serial No. 396,412.



1. In a printing press, a support for a plurality of blanks, devices for moving each of said blanks successively in different directions, at an angle to each other, in the plane of said blank, devices for detaching said moved blank from the mass thereof and devices for delivering said detached blank to the printing means.

2. In a printing press, a support for a plurality of blanks, rotary devices for moving one of said blanks in one direction, rotary devices for moving said blank at an angle thereto; devices for detaching said moved blank from the mass thereof and devices for delivering said detached blank to the printing mechanism.

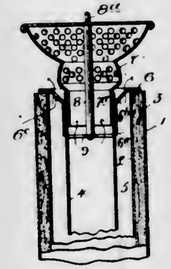
3. In a printing press, a support for a plurality of blanks, rollers provided with oppositely arranged teeth for moving one of said blanks in different directions, devices for detaching said moved blank from the mass thereof and devices for delivering said detached blank to the printing mechanism.

4. In a printing press, a support for a plurality of blanks, a plurality of sets of rollers for moving one of said blanks in different directions, said rollers being intermittent in their operation and said sets being operative at different times, devices for detaching said moved blank from the mass thereof and devices for delivering said detached blank to the printing mechanism.

5. In a printing press, a support for a plurality of blanks, a plurality of sets of rollers, provided with oppositely arranged teeth, for moving one of said blanks, the teeth on one set of said rollers being at an angle to the teeth on the other set thereof, devices for detaching said moved blank from the mass thereof and devices for delivering said detached blank to the printing means.

[Claims 6 to 41 not printed in the Gazette.]

941,163. LAMP-BURNER. STEPHEN B. MORSS, Rahway, N. J. Filed June 3, 1909. Serial No. 499,906.



1. A central draft burner provided with an air passage between the central air tube and the inner wick tube, and a gas generator located at the upper part of said passage and having a flange extending from the central air tube over to and upon the wick completely covering said passage, said flange having one or more openings to permit the flow of air from said passage and also the gas generated at the upper inner portion of the wick.

2. A central draft burner provided with an air passage between the central air tube and the inner wick tube, and a gas generator located at the upper part of said passage and having a flange extending from the central air tube over to and upon the wick completely covering said passage, said flange having one or more openings to permit the flow of air from said passage and also the gas generated at the upper inner portion of the wick, and a perforated air distributer communicating with the central air passage.

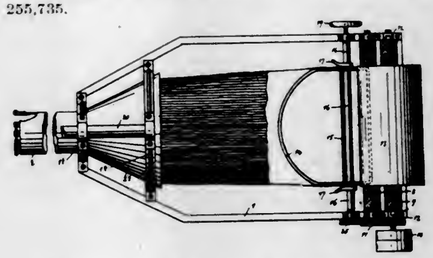
3. A central draft burner comprising inner and outer wick tubes adapted to receive a wick therebetween, and an inner air supply tube at a distance from the inner wick tube providing a passage therebetween, a gas generator comprising a flange extending from the inner air supply tube over to and upon the wick completely covering said passage, said flange being provided with one or more openings communicating with the upper portion of said passage to permit the flow of air from said passage and also the gas generated at the upper inner portion of the wick, and means for guiding said generator as it is raised and lowered by the wick.

4. A central draft burner comprising inner and outer wick tubes adapted to receive a wick therebetween, and an inner supply tube at a distance from the inner wick tube providing a passage therebetween, a gas generator comprising a flange extending from the inner air supply tube over to and upon the wick completely covering said passage, said flange being provided with one or more openings communicating with the upper portion of said passage, to permit the flow of air from said passage and also the gas generated at the upper inner portion of the wick, means for guiding said generator as it is raised and lowered by the wick, and a perforated air distributer communicating with the inner tube and extending above said generator.

5. A lamp burner comprising inner and outer wick tubes adapted to receive a wick therebetween, a tube within the inner wick tube at a distance therefrom providing a passage therebetween, a distributer upon the inner tube, a rod connected with the inner tube and connected with the distributer to prevent the latter from rising, and a gas generator extending from the inner air supply tube over to and upon the wick completely covering said passage, said flange having one or more openings within the flange communicating with the upper portion of said passage to permit the flow of air from said passage and also the gas generated at the upper inner portion of the wick, said generator being adapted to be raised and lowered by the wick.

[Claim 6 not printed in the Gazette.]

941,164. MACHINE FOR TURNING AND WINDING TUBULAR FABRICS. THOMAS H. MURPHY, Utica, N. Y., assignor to Johnston Novelty & Mill Specialty Co., Utica, N. Y. Filed Apr. 15, 1905. Serial No. 255,735.



1. The combination, in a turning and winding machine for tubular fabrics of a frame, drawing and winding rollers mounted in the frame, upper and lower stripping rollers arranged adjacent to the drawing and winding rollers, a floating spreader having a pair of holdback rollers, a turning tube supported at the end adjacent to the rollers in the frame, and projecting away from the frame in a line substantially at right angles with the rollers, in a free end adapted to receive tubular fabric on the outside and deliver it through the tube to the rolls, the end of the tube adjacent to the rolls being arranged with reference thereto to afford a space for the spreader, substantially as set forth.

2. In a turning and winding machine, the combination with a frame, of a turning tube supported by said frame, drawing and winding rollers, upper and lower stripping rollers, and a floating spreader having a pair of holdback rollers coöperating with said stripping rollers.

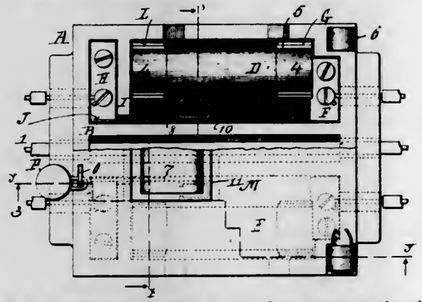
3. In a turning and winding machine, the combination with a frame, of a turning tube supported by said frame, a drawing and winding roller, upper and lower stripping rollers, a floating spreader extending between said stripping rollers and having its end adjacent said drawing and winding roller, and a pair of holdback rollers on said spreader coöperating with said stripping rollers.

4. In a turning and winding machine, the combination with a frame, of a turning tube supported by said frame, upper and lower stripping rollers, and a floating spreader having a pair of holdback rollers coöperating with said stripping rollers.

941,165. ELECTRIC CUT-OUT. THOMAS E. MURRAY, New York, N. Y. Filed June 18, 1909. Serial No. 502,879.

1. In an electric cut-out, a box, fuse supports therein, one of said supports being connected to a circuit terminal, a fuse removably secured in said supports, and a re-

movable circuit closing plug constructed to enter between the other support and a circuit terminal and in contact with said last named support.



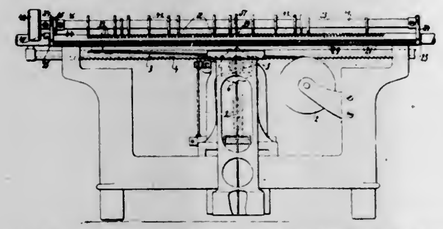
2. In an electric cut-out, a box, fuse supports therein, one of said supports being connected to a circuit terminal, a fuse removably secured in said supports, means operating within said box for making and breaking circuit between the other fuse support and the opposite circuit terminal, and a device on the exterior of said box for locking said means in adjusted position.

3. In an electric cut-out, a box of insulating material, two pairs of metal clip arms therein, one pair of said arms being connected to a circuit terminal, a fuse removably disposed in said arms, a contact plate connected to the other circuit terminal, and a removable circuit closing plug constructed to enter between said contact plate and one member of the other pair of clip arms.

4. In an electric cut-out, a box, fuse supports therein, one of said supports being connected to a circuit terminal, a fuse removably secured in said supports, a removable plug for making and breaking circuit between the other fuse support and the opposite circuit terminal, and a hinged cover having an opening receiving and engaging with said plug.

5. In an electric cut-out, a box, fuse supports therein, one of said supports being connected to a circuit terminal, a fuse removably secured in said supports, a removable plug of insulating material, and a plate of conducting material extending over one edge and opposite sides of said plug; the said plate on said plug closing circuit between said fuse support and circuit terminal upon the insertion of the plug between said parts.

941,166. TYPE-WRITING MACHINE. JOHN C. MCLAUGHLIN, Jersey City, N. J., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of New Jersey. Filed May 26, 1908. Serial No. 435,161.



1. A tabulating mechanism for a typewriter carriage, including a series of column stops mounted at intervals each of one or more letter-spaces, each stop being supported for movement into and out of working position independently of the others, and means to move different sets of column stops simultaneously into working positions, including a shaft extending along the column stop series, and collars secured at intervals upon said shaft, said collars provided with diversified cams to move the column stops.

2. A tabulating apparatus or mechanism for a typewriter carriage, including a rack having notches at letter-space intervals, a set of plates having column stops formed thereon, said plates constructed to be set either into adjacent notches or at greater intervals in said rack, each plate being movable in its notch into and out of working position independently of the others, a rotatable shaft extending along said rack, and collars secured upon said shaft, means being provided to space the collars at intervals to correspond with the spacing of the column-stop plates, and diversified cams being provided upon said collars to move the column-stop plates into working positions.

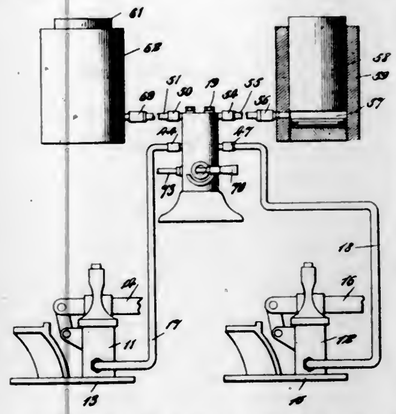
3. A tabulating apparatus or mechanism for a typewriter carriage, including a rack device having notches at letter-space intervals, a set of plates having column stops formed thereon, said plates constructed to be set into said rack either in adjacent notches or at greater intervals, each plate being movable in its notch into and out of working position independently of the others, a rotatable shaft extending along said rack and having openings at letter-space intervals, and collars mounted upon said shaft and having means to engage said openings and also having diversified cams to move the column-stop plates, one collar for each column-stop plate.

4. A tabulating mechanism for a typewriter or other carriage, including a series of column stops, a rack for the stops, the stops being insertible in any selected notches in the rack, a movable shaft or bar extending along the rack, and diversified cams operable by said shaft to move different sets of column-stops, the cams adjustable independently of one another along said shaft.

5. A tabulating mechanism for a typewriter or other carriage, including a series of column stops, a rack for the stops, the stops being insertible in any selected notches in the rack, a movable shaft or bar extending along the rack, and diversified cams mounted upon said shaft to move different sets of column-stops, the cams adjustable independently of one another along said shaft; and means being provided to retain the cams at positions upon the bar to correspond with the positions to which the column stops are adjustable.

[Claims 6 to 49 not printed in the Gazette.]

941,167. HYDRAULIC PRESSURE GENERATING, CONTROLLING, AND APPLYING DEVICE. JAMES W. NELSON, New York, N. Y. Filed Dec. 19, 1908. Serial No. 468,344.



1. In combination, a plurality of separate pressure generating means, means apart therefrom for applying the generated pressures, and requisite valves all located in an individually-movable member and downwardly seating therein.

2. In combination, a plurality of separate pressure generating means, means apart therefrom for applying the generated pressures, and requisite valves all located in an individually-movable member and downwardly seating therein, and means for retaining said member in a proper vertical position during operation.

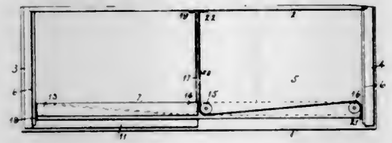
3. In combination, a plurality of separate pressure generating means, means apart therefrom for applying the generated pressures, and requisite valves all located in an individually-movable member and downwardly seating therein, and means for rendering one or more of said valves inoperative.

4. In combination, a plurality of separate pressure generating means, means apart therefrom for applying the generated pressures, and requisite valves all located in an individually-movable member and downwardly seating therein, means for rendering one or more of said valves inoperative, and means for retaining said member in a proper vertical position during operation.

5. In combination, a plurality of separate pressure generating means, means apart therefrom for applying the generated pressures, and requisite valves all located in an individually-movable member and downwardly seating therein, said member being provided with means for unseating one or more of said valves and with means for insuring vertical operation of said valves during use of the device.

[Claims 6 to 19 not printed in the Gazette.]

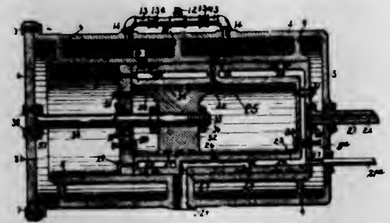
941,168. BOOKCASE. LOUIS NELSON, Rockford, Ill. Filed Jan. 23, 1909. Serial No. 473,931.



1. The combination of a case, guide-ways in the ends of the case, a bar having its ends movable in the guide-ways, a door pivotally connected to the bar, rollers supported by the bar, and flexible connections passing around the rollers and secured to the case.

2. The combination of a case, guide-ways in the ends of the case, a bar having its ends movable in the guide-ways, a door pivotally connected to the bar, four rollers supported by the bar, one near each end thereof and two near its center, flexible connections passing between the inner rollers and around the end rollers and having their ends connected to the sides of the case near their front edges, and their other ends connected to the back of the case.

941,169. GAS-ENGINE. REYNOLD G. NELSON and VICTOR E. NELSON, Joliet, Ill. Filed Jan. 25, 1907. Serial No. 353,994.



1. An internal combustion engine, including an external shell inclosing a cylinder open at each end, an internal slidable cylinder, a water jacket arranged in said slidable cylinder an immobile piston within said slidable cylinder dividing the interior into two chambers, inlet pipes and valves for transmitting the motive fluid into said chambers, and means for igniting the motive fluid alternately in said chambers.

2. An internal combustion engine, including an external shell, an open-ended cylinder suspended from the side wall of said shell, an annular partition connecting said shell and cylinder, a closed cylinder adapted to slide within said open-ended cylinder and dividing the interior of the external shell into two compression chambers, a fixed piston in the internal closed cylinder dividing the latter into two explosion chambers, inlet pipes and passages provided with suitable valves arranged to transmit the motive fluid into the said compression chambers, and the explosion chambers, and means for igniting the motive fluid alternately in the said explosion chambers.

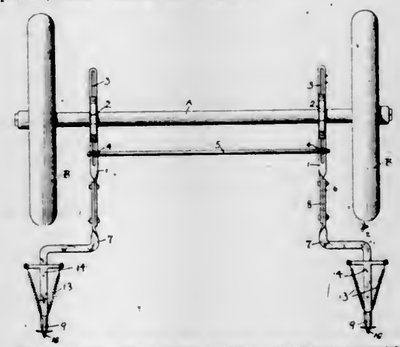
3. An internal combustion engine, including a casing composed of an external shell and an internal open-ended cylinder, a closed cylinder adapted to reciprocate in said open-ended cylinder, a piston for said closed cylinder, a piston rod for said piston passing through one head of said closed cylinder and secured to said external shell, a water jacket for said closed cylinder, supply pipes for said water jacket passing through said casing, inlet conduits and valves for introducing the motive fluid into said shell and the closed cylinder, means for igniting the motive fluid in the closed cylinder, and exhaust passages for the burned gases.

4. An internal combustion engine, including an external shell inclosing a cylinder open at each end, a median partition connecting the external shell and inclosed cylinder an internal movable cylinder adapted to reciprocate in said open end cylinder and dividing the interior of said shell into two compression chambers, a fixed piston head dividing the interior of the movable cylinder into two explosion chambers, said piston head being secured to one head of the inclosing shell by a rod passing through a stuffing box in one head of the movable cylinder, a water jacket for said movable cylinder supplied through a conduit secured to said movable cylinder and passing through a stuffing box in one head of the inclosing shell, inlet and exhaust conduits and valves for controlling the flow of the motive fluid through the chambers, and electric means for igniting the explosive charge alternately in the said explosive chambers.

5. An internal combustion engine, including an external shell, an internal slidable cylinder, a tubular slideway for said internal cylinder, a piston rod secured to said cylinder and projecting through a stuffing box in said external shell, a water jacket for said internal cylinder supplied by a plurality of conduits slidable in stuffing boxes in said external shell, a piston head fixed to the said shell and dividing the interior of said cylinder into two chambers, inlet and exhaust valves and ducts for controlling the flow of the motive fluid, and means for igniting said fluid in the said chambers.

[Claims 6 to 8 not printed in the Gazette.]

941,170. GUARD OR FENDER FOR VEHICLE-WHEELS. JAMES O. ROBERTS, Granger, Tex. Filed Apr. 13, 1909. Serial No. 489,697.



1. In a guard or fender for vehicle wheels, the combination with a fender, of arms connected thereto, hinges piv-

otally connected to the arms and guards pivotally connected to the hinges capable of an oscillating movement longitudinally and laterally of the arms.

2. In a guard or fender for vehicle wheels, the combination with a vehicle body, of arms connected thereto, rods made in sections, the sections having a hinged connection therebetween, said rods having a pivotal and oscillating connection with the arms, and shoes on the rods.

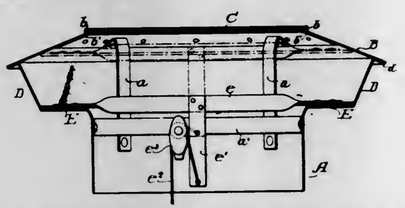
3. In a guard or fender for vehicle wheels, the combination with a vehicle body, of an axle, bars movably mounted upon the axle, a guide bar connected to the bars for limiting the movement of the bars, arms connected to the bars, and spring controlled guards connected to the arms.

4. In a guard or fender for vehicle wheels, the combination with a vehicle body, of an axle, bars movably connected to the axle, a guide bar adjustably connected to the bars for regulating the movement of the bars, arms connected to the bars, spring controlled guards having a pivotal and oscillating connection with the arms.

5. In a guard or fender for vehicle wheels, the combination with a vehicle body, of an axle, bars mounted upon the axle capable of horizontal movement thereon, arms connected to the bars, and rods carrying shoes pivotally mounted on the arms.

[Claim 6 not printed in the Gazette.]

941,171. VENTILATOR. JAMES M. ROSE, Philadelphia, Pa., assignor to Merchant & Evans Co., Camden, N. J., a Corporation of New Jersey. Filed Aug. 19, 1908. Serial No. 449,325.



1. A ventilator having a bottom section and a top structure supported thereby so as to form an annular outlet for the ventilator, with an annular valve extending outwardly from the upper end of the bottom section, and capable of controlling the flow of air to said outlet, said valve being placed to be held by gravity in a closed position.

2. A ventilator consisting of a bottom section, a top section and a side section, said parts being arranged to provide an annular outlet for the ventilator, with an annular valve formed to simultaneously engage the side and bottom sections, in order to cut off the flow of air through the ventilator, and means for moving said valve to open same.

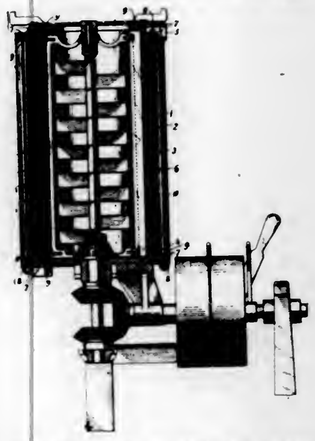
3. The combination in a ventilator of a bottom section, a top section having a transparent portion, a side section extending around the bottom section so as to provide an annular outlet for the ventilator, with a substantially flat annular member movable to permit or cut off flow of gas through said outlet and normally tending to move to its closed position under the action of gravity.

4. The combination in a ventilator of a bottom section, a conical top section having a central opening, a body of glass mounted in said opening, a side section surrounding the bottom section so as to provide an annular outlet, and a flat annular sheet extending between said side section and the bottom section, with means for raising said sheet at will, to open the outlet.

5. The combination in a ventilator of a top section, a bottom section and a side section, said side section extending around the bottom section so as to form an annular outlet, with a flat annular member extending between the side section and the bottom section, and means for controlling the position of said annular member to open or close the ventilator.

[Claim 6 not printed in the Gazette.]

941,172. ICE-CREAM MACHINERY. REUBEN R. ROW, Jersey City, N. J., assignor to The Griscom-Spencer Company, New York, N. Y., a Corporation of New Jersey. Filed Feb. 19, 1909. Serial No. 478,960.



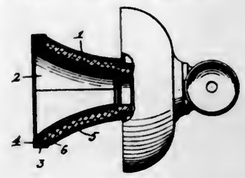
1. An ice cream freezer provided with a chamber about the same for the circulation of a freezing fluid, said chamber being formed by two concentric cylinders the ends of which are received in grooves of the heads and rest against gaskets, the gaskets being protected by cement, substantially as set forth.

2. In an ice cream freezer, the combination of the heads, the cylindrical chamber walls, and the gaskets against which the ends of the walls rest, the security of the joint being reinforced and the rubber protected by a layer of cement placed over the latter, substantially as set forth.

3. In an ice cream freezer, the combination of the chamber walls 1 and 2, the heads 4 and 5 provided with grooves, and the gaskets 7 protected by cement, substantially as set forth.

4. In an ice cream freezer, a joint between the cylinder and the head consisting of a compressed rubber gasket protected by a layer of marine glue, substantially as set forth.

941,173. ANTISEPTIC MOUTHPIECE FOR TELEPHONES. GEORGE ROWLANDS, Schenectady, N. Y., assignor of one-half to Walter S. Wood, Schenectady, N. Y. Filed June 1, 1909. Serial No. 499,519.



1. A telephone mouth-piece having a hygroscopic guard applied thereto.

2. A telephone mouth-piece having a lining impregnated with a hygroscopic substance.

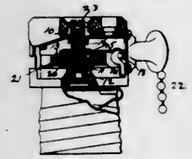
3. A telephone mouth-piece provided with a guard carrying an antiseptic solution containing a hygroscopic substance.

4. A telephone mouth-piece having a lining of bibulous material treated with glycerin.

5. A telephone mouth-piece having a lining of bibulous paper carrying a hygroscopic substance, and an annular cover applied to said mouth-piece for holding said lining in place.

[Claim 6 not printed in the Gazette.]

941,174. INCANDESCENT-LAMP SOCKET. FRANK W. SLADY, Bridgeport, Conn., assignor to The Bryant Electric Company, Bridgeport, Conn., a Corporation of Connecticut. Filed May 24, 1909. Serial No. 498,034.



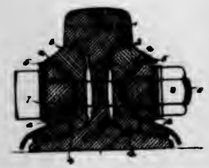
1. In a lamp socket, upper and lower insulating buttons and a switch mechanism interposed between the same, comprising a rotary insulating block, a switch member carried on one side thereof, a switch operating mechanism on the other side of said block and a spindle of insulating material on which the oscillating member of the ratchet is mounted.

2. In a lamp socket, a chain rail having a bail catch with angled slot adapted to receive a link, as and for the purpose described.

3. In a lamp socket, upper and lower insulating buttons, and a switch mechanism interposed between the same, said mechanism having a rotary insulating member, a contact member carried on one side thereof, and a switch operating mechanism on the other side thereof together with a spindle of insulating material on which said rotary member is journaled.

4. In a lamp socket, upper and lower insulating buttons, a spindle of insulating material extending between said buttons, together with a rotary switch member and operating mechanism therefor mounted on said spindle.

941,175. INSULATED RAIL-JOINT. GEORGE W. WHITEMAN, Philadelphia, Pa., assignor to Christian J. Buck, Gallitzin, Pa. Filed Mar. 2, 1909. Serial No. 480,942.



1. In an insulated rail joint, the combination with the meeting ends of rails, continuous splice-bars, and discontinuous filler members, of insulation disposed between said filler bars and splice-bars and having a curved shape, the walls of the filler bars and splice-bars being recessed and curved to receive such insulation between them and the curves of the filler-bars, splice-bars and insulation being substantially semi-circular in cross section.

2. In an insulated rail joint, the combination with the meeting ends of rails, continuous splice-bars, and discontinuous filler members, of insulation disposed between said filler bars and splice-bars and having a curved shape, the walls of the filler bars and splice-bars being recessed and curved to receive such insulation between them and the curves of the filler-bars, splice-bars and insulation being substantially semi-circular in cross section, such construction providing the greatest amount of bearing surface with the least material.

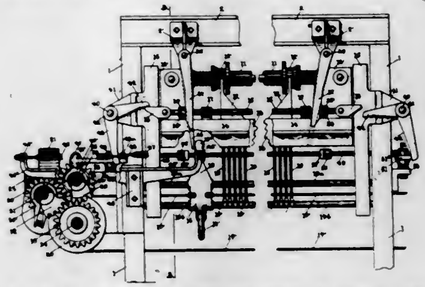
3. In an insulated rail joint, the combination with the meeting ends of rails, continuous splice-bars, and discontinuous filler members disposed between said splice-bars and rail ends, of continuous sheets of insulation disposed between said filler bars and splice-bars and having a curved shape, the walls of the filler bars being concaved and the splice-bars being convexly curved to receive said sheets of insulation between them and the curves of the filler-bars, splice-bars and insulation being substantially semi-circular in cross section.

4. In an insulated rail joint, the combination with the meeting ends of rails, continuous splice-bars, and discontinuous filler members disposed between said splice-bars and rail ends and having feet or flanges overlying the flange of the rail, of continuous sheets of insulation disposed between said filler bars and splice-bars and having a curved shape, the walls of the filler members being concaved and the splice-bars being convexly curved to receive said sheets of insulation between them and the curves of the filler-bars, splice-bars and insulation being substantially semi-circular in cross section, and the feet of the filler members being disposed a slight distance from the flange of the rail.

5. The combination, in an insulated rail joint, of the meeting ends of the rails, discontinuous filler members having concaved side walls paralleling the rail ends, sheet insulation covering the surface of such concaved walls and extending between the outer ends of the filler members and bridging the latter, splice-bars having convexly curved walls fitting against said insulation and holding the latter to the filler members the curves of the filler-bars, splice-bars and insulation being substantially semi-circular in cross section, and means for holding the splice-bars, insulation, and filler members to the rail ends.

[Claims 6 and 7 not printed in the Gazette.]

941,176. LOOM FOR MAKING TUFTED FABRICS. FRED A. WHITMORE, Philadelphia, Pa., assignor to Crompton & Knowles Loom Works, a Corporation of Massachusetts. Filed July 10, 1908. Serial No. 442,824.



1. In a loom of the class described, a needle frame carrying a series of needles and having a vertical reciprocating movement, a fur or chenille weft carrier, gearing, and clutch mechanism, and mechanism carried on the needle frame, and connections, intermediate said mechanism on the needle frame and said clutch mechanism, to move the fur carrier, and connections, intermediate the fur carrier and said clutch mechanism, to stop the movement of the fur carrier.

2. In a loom of the class described, a needle frame carrying a series of needles and having a vertical reciprocating movement, a rod carried on said needle frame and having a longitudinal movement, said rod having a pivotally mounted trip or latch at each end, connections intermediate said rod and the fur or chenille weft carrier, and said chenille weft carrier, adapted to have a reciprocating movement, and to move said rod longitudinally at each end of the movement of said chenille weft carrier, through said intermediate connections.

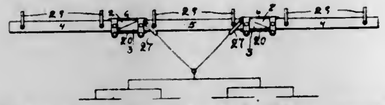
3. In a loom of the class described, a needle frame carrying a series of needles and having a vertical reciprocating movement, a rod carried on said frame and having a longitudinal movement, said rod having a pivotally mounted trip or latch at each end, a lever to engage and move said rod longitudinally, a second lever connected with said first mentioned lever and adapted to be engaged by the fur or chenille weft carrier, and said fur or chenille weft carrier having a traverse movement.

4. In a loom of the class described, a needle frame carrying a series of needles and having a vertical reciprocating movement, a rod carried on said needle frame and

having a longitudinal movement, said rod having a pivotally mounted trip or latch at each end, a lever to engage and move said rod longitudinally, a second lever connected with said first mentioned lever, and adapted to be engaged by the fur or chenille weft carrier, and said fur or chenille weft carrier having a transverse movement, gearing mechanism for moving the chenille weft carrier, clutch mechanism for putting into operation the gearing mechanism to move the fur carrier in one direction, and then in the opposite direction, connections intermediate said clutch mechanism and the trip or latch on each end of said longitudinally moving rod.

5. In a loom of the class described, a needle frame carrying a series of needles and having a vertical reciprocating movement, a rod carried on said needle frame and having a longitudinal movement, said rod having a pivotally mounted trip or latch at each end, a lever to engage and move said rod longitudinally, a second lever connected with said first mentioned lever and adapted to be engaged by the fur or chenille weft carrier, and said fur or chenille weft carrier having a traverse movement, gearing mechanism for moving the chenille weft carrier, clutch mechanism for putting into operation the gearing mechanism to move the fur carrier in one direction, and then in the opposite direction, connections intermediate said clutch mechanism and the trip or latch on each end of said longitudinally moving rod, and a second longitudinally moving rod adapted to be moved by the chenille weft carrier, to put the clutch mechanism into its intermediate or inoperative position.

941,177. SEPARABLE SECTIONAL DRAFT-BEAM FOR HARROWS. WILLIAM WILSON, Blair, Nebr. Filed May 11, 1909. Serial No. 495,239.



1. A separable sectional harrow draft-beam comprising beam-sections obliquely pointed at adjoining ends to form diagonal scarf-joints, one section having a stirrup at the base of its oblique end, and an arm at its point end overlapping the adjoining beam-section, a hook at the point of the oblique end of said adjoining section to engage said stirrup and means to releasably fasten said overlapping arm to said adjoining beam-section.

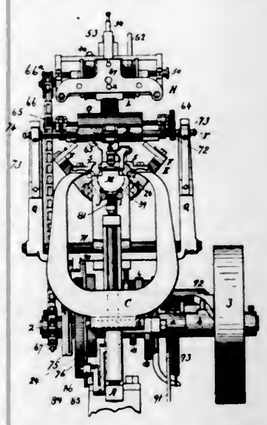
2. A harrow draft-beam of separable sections comprising beam-sections scarf-jointed end to end, a reinforcing-strap fastened to the edge of one section athwart the joint, a pair of arms on said strap disposed from opposite edges of said strap across the opposite sides of the adjoining scarf-ends of said sections, a reinforcing-bar disposed oppositely to said reinforcing strap and fastened to the edge of the opposite section athwart the joint and the projecting ends of said arms perforated to receive a removable locking-pin to form a stirrup to engage said reinforcing-bar.

3. A separable coupling for sectional harrow draft-beams, comprising a reinforcing-strap fastened to the back edge of the joint end of a section, arms on said reinforcing-strap said arms disposed across to embrace the end of said section and perforated to receive a cross-bolt to form a stirrup at the opposite edge, arms on said reinforcing-strap disposed across to embrace the end of an adjoining section, a reinforcing-bar fastened to the front edge of said adjoining section and having a hook at one end to engage said stirrup and having a seat, and a removable lock-pin adapted to be disposed through perforations in the arms embracing said adjoining section and engage said seat.

4. A separable coupling attachment for severed draft-beams for harrows, comprising a base-bar adapted to be fastened to one edge of said beam, a seat-bar adapted to be fastened to the opposite edge, a pair of parallelly disposed arms on said base-bar perforated at their ends to receive a lock-bolt to form a stirrup to embrace said beam and seat-bar.

5. A separable coupling attachment for severed draft-beams for harrows, comprising a base-bar adapted to be fastened to one edge of said severed beam, a pair of arms at one end of said base-bar connected at their outer ends by a catch-bolt to form a stirrup, a pair of arms at the opposite end of said base-bar connected at their outer ends by a removable locking-bolt to form a stirrup, a hook and seat-bar adapted to be fastened to the opposite edge of said beam and having a hook at one end to engage said catch-bolt and a seat at the opposite end to receive said locking-bolt.

941,178. LABELING-MACHINE. FRANK O. WOODLAND, Worcester, Mass. Filed Mar. 10, 1904. Serial No. 197,485.



1. In a labeling machine, in combination substantially as described, the bottle-supporting rest, a stationary overhanging label-holder, pickers that move in a direct alinement therewith to and from the bottom of said label-holder, for taking and presenting the label at a position above the rest, means for carrying and operating said pickers, means for applying glue to the picker faces, a label-gripping device, a pair of wipers mounted on wiper-arms independently supported on a vertically moving carrier-slide, means for effecting and controlling opposite lateral movements of said wipers, and means for reciprocating the wiper-carrier-slide.

2. A bottle-labeling machine comprising a bottle-rest, directly reciprocating pickers; reciprocating laterally rocking wipers, and a non-moving bottom-delivery label-holder, said parts severally disposed for action in alinement with the direction of movement of the pickers, a glue-box and glue delivery roll, and a transfer-roll that moves from said delivery roll transversely across the vertical path of the pickers.

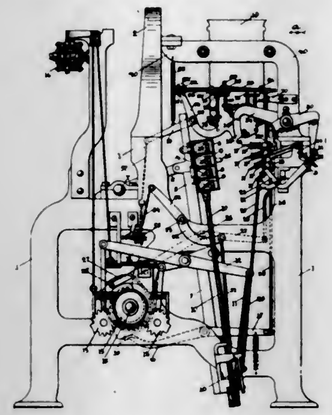
3. In a labeling machine, the combination, substantially as described, of the frame provided with the upright front guide-rod, a reciprocating bifurcated picker-carrier movable on said front guide, pickers detachably secured to the arms of said carrier with their faces approximately perpendicular to the line of the carrier movement, a stationary overhead label-holder, a stationary bottle-rest, an operating shaft, and means actuated from said shaft for moving the picker-carrier up and down the guide rod, to bring the pickers into conjunction with the label-holder.

4. In a labeling machine, the combination, of the stationary bottle-rest, vertically reciprocating picker-carrier having arms, pickers fixed on said arms, independently operating oscillating wiper-arms, wipers carried thereon, means for controlling said wiper arms, means for spreading glue upon the pickers, and a stationary overhead label-holder in line with the picker movement.

5. In a labeling machine, in combination, means for supporting and delivering labels, a stationary bottle rest, an oscillating finger having means for gripping a label against the bottle surface, a reciprocating picker-carrier movable to and from the label delivery, picker devices secured upon said carrier and each comprising an axis member having an attaching head and provided with recollable rocking or tiltable glue-applying faces that receive the labels, and means for supplying glue to said faces.

[Claims 6 to 72 not printed in the Gazette.]

941,179. WEFT-REPLENISHING LOOM. HORACE WYMAN and JOSEPH T. CYR, Worcester, Mass., assignors to Crompton & Knowles Loom Works, a Corporation of Massachusetts. Filed Feb. 1, 1906. Serial No. 298,939.



1. In a weft replenishing loom, a stationary magazine having a plurality of compartments or guide-ways for the heads and the tips of bobbins or filling carriers, and open ways in the magazine at the tip ends of the bobbins or filling carriers, for the passage of the filling, said ways having guiding surfaces for the filling and extending from the top of the magazine to a common discharging position under the transferrer.

2. In a weft replenishing loom, a stationary magazine for superposed filling carriers, having vertically extending guide-ways for the heads and tips of bobbins or filling carriers, and guiding surfaces for the filling threads from said carriers, open ways at the ends of the tips of the bobbins or filling carriers, and extending from the top to the bottom of the magazine, and a filling thread holder for the ends of the filling, so located as to have a suitable tension on the filling being threaded into the shuttle.

3. In a weft replenishing loom, a stationary magazine having a plurality of guide-ways for the heads and tips of filling carriers, and open ways at the ends of the tips of the filling carriers, having guiding surfaces for the filling through said open ways, which extend from the top of the magazine to one discharging position under the transferrer.

4. In a weft replenishing loom, a magazine, having two or more compartments or guide-ways for filling carriers, and rigidly secured in a fixed position, and said compartments open at their upper ends to receive the filling carriers, and open at their lower ends to discharge the filling carriers into a chute or guide-way and said chute or guide-way leading to a discharge opening below the transferrer of the transferring mechanism.

5. In a weft replenishing loom, the combination with a stationary magazine, having two or more compartments for filling carriers, and a discharging end common to all the compartments, of mechanism for each compartment, to retain the filling carriers in each compartment, and to release the lowest filling carrier in a compartment to allow its passage to the discharging end of the magazine, and to retain in said compartment the other filling carriers.

[Claims 6 to 19 not printed in the Gazette.]

941,180. BRIDGING-BLOCK FOR DYNAMO-ELECTRIC MACHINES. FREDERICK W. YOUNG, East Orange, N. J., assignor to Crocker-Wheeler Company, Ampere, N. J., a Corporation of New Jersey. Filed June 2, 1909. Serial No. 499,696.



1. The combination with a dynamo-electric machine element having coil-containing slots, of windings located in the slots, and elongated slot-closing bridging-blocks, each of which is provided with a forked end, substantially as described.

2. The combination with a dynamo-electric machine element having coil-containing slots, of windings located in the slots, and elongated slot-closing bridging-blocks, each of which is provided with a series of longitudinal grooves, one of the grooves extending to the end of the block and forming a forked end, substantially as described.

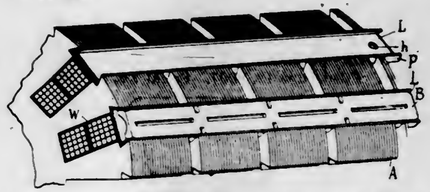
3. As an article of manufacture, an elongated slot-closing bridging-block provided with a forked end, substantially as described.

4. As an article of manufacture, an elongated slot-closing bridging-block provided with a series of longitudinal grooves, one of the grooves extending to the end of the block and forming a forked end, substantially as described.

5. As an article of manufacture, an elongated slot-closing bridging-block provided with a series of longitudinal grooves, the sides of the block being spread opposite each groove, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

941,181. LINING FOR SLOTS OF DYNAMO-ELECTRIC-MACHINE ELEMENTS. FREDERICK W. YOUNG, East Orange, and EDWARD HEITMANN, Montclair, N. J., assignors to Crocker-Wheeler Company, Ampere, N. J., a Corporation of New Jersey. Filed June 5, 1909. Serial No. 500,284.



1. The combination with a dynamo-electric machine element having coil-containing slots, of windings located in the slots, slot-closing bridging-blocks of magnetic material located in the slots, and metallic linings interposed between the walls of the slots and the bridging-blocks, the linings being insulated from the slot walls, substantially as described.

2. The combination with a dynamo-electric machine element having coil-containing slots, of windings located in the slots, slot-closing bridging-blocks of magnetic material located in the slots, and metallic linings provided with coatings of paper interposed between the walls of the slots and the bridging-blocks, the paper adjoining the slot walls, substantially as described.

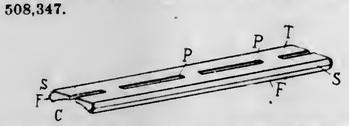
3. The combination with a dynamo-electric machine element having coil-containing slots, of windings located in the slots, slot-closing bridging-blocks of magnetic material located in the slots, and externally insulated metallic troughs interposed between the walls of the slots and the bridging-blocks, substantially as described.

4. As an article of manufacture, an exteriorly insulated metallic trough of high electrical resistance the sides of which are inclined toward each other whereby it is constructed to serve as a lining interposed between the walls of a coil-containing slot of a dynamo-electric machine element and a slot-closing bridging-block, substantially as described.

5. As an article of manufacture, a metallic trough of high electrical resistance provided exteriorly with a coat-

ing of paper the sides of which are inclined toward each other whereby it is constructed to serve as a lining interposed between the walls of a coil-containing slot of a dynamo-electric machine element and a slot-closing bridging-block, substantially as described.

941,182. BRIDGING-BLOCK FOR DYNAMO-ELECTRIC MACHINES. FREDERICK W. YOUNG, East Orange, N. J., assignor to Crocker-Wheeler Company, Ampere, N. J., a Corporation of New Jersey. Filed July 19, 1909. Serial No. 508,347.



1. As an article of manufacture, a slot-closing bridging-block consisting of a sheet metal trough and an iron core cast therein, substantially as described.

2. As an article of manufacture, a slot-closing bridging-block consisting of a sheet metal trough and an iron core cast therein, the trough and core being constructed to interlock, substantially as described.

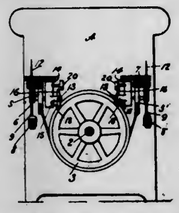
3. As an article of manufacture, a slot-closing bridging-block consisting of a sheet metal trough and an iron core cast therein, the edges of the trough being inclined toward each other for interlocking said parts, substantially as described.

4. As an article of manufacture, a slot-closing bridging-block, consisting of a sheet metal trough and an iron core cast therein, the edges of the block being parallel and joined by a thin web, substantially as described.

5. As an article of manufacture, a slot-closing bridging-block, consisting of a sheet metal trough and an iron core cast therein, the edges of the block being parallel and joined by a thin slotted web, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

941,183. TENSION-REGULATING DEVICE FOR SPINDLE-BANDS. JOSEPH S. BERARD, Fall River, Mass. Filed June 12, 1907. Serial No. 378,562.



1. In a spindle driving device, the combination with a frame, of spindles, a driving band or rope, shafts journaled in the frame, tighteners mounted on the shafts and adapted to engage the band, whereby the band is caused to engage the spindles for revolving them and means on the shafts adapted to engage the tighteners for moving them simultaneously out of contact with the driving band.

2. In a spindle driving device, the combination with a frame, of spindles, whirls mounted on the spindles, a drive rope adapted to engage the whirls, shafts journaled in the frame, tighteners mounted on the shafts and adapted to engage the rope causing the spindles to be rotated, levers on the shafts adapted to engage the tighteners for moving them simultaneously out of contact with the rope.

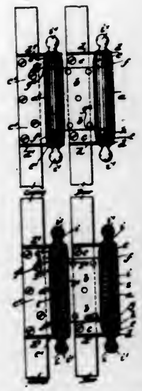
3. In a spindle driving device, the combination with a frame, of spindles, whirls mounted on the spindles, a drive rope adapted to engage the whirls, shafts journaled in the frame, tighteners mounted on the shafts and adapted to engage the rope causing the spindles to be rotated, levers mounted on the shafts, lugs on the tighteners, and means for rotating the shafts for causing the levers to engage the lugs for moving the tighteners simultaneously out of contact with the rope.

941,184. NON-REFILLABLE BOTTLE. JOHN BERG, Chicago, Ill. Filed Feb. 13, 1909. Serial No. 477,580.



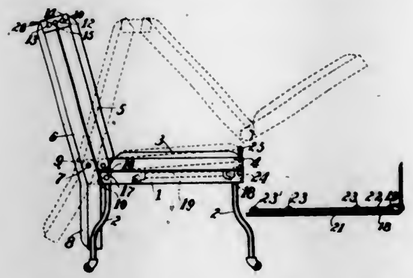
In combination with a bottle having a tubular upwardly projecting internally threaded boss on its top, the top being formed with an opening in the space defined by the boss so as to form a shoulder in conjunction with the latter, an annular valve seat seated on said shoulder and having its central portion pressed outwardly and formed with a central opening, a valve member composed of a ring-like part seated on top of said valve seat and a circular central part which is connected to the ring-like part by an integral part of each, said central part seating on the outwardly pressed part of the valve seat, a hollow cap having its bottom seating on the top face of said central part of the valve, and means for rigidly connecting said hollow cap and said central part of the valve, and an externally threaded neck portion which engages said boss and seats on the ring-like part of the valve.

941,185. DOUBLE-ACTING SPRING-HINGE. EMIL BOMMER, New York, N. Y. Filed Dec. 1, 1908. Serial No. 465,571.



A double-acting spring-hinge comprising in its construction two spring-barrels, a web connecting the barrels, flanges on the spring-barrels having perforated ears, pintle-sockets applied to said ears, two fixed spring-holders located at the lower and upper portions of the respective spring-barrels, loose washers interposed between said spring-holders and the pintle-sockets adjacent thereto, two adjustable tension-collars provided with interior spring-holding lugs and located diagonally opposite to each other and being interposed between the upper and lower ends of the respective spring-barrels and the pintle-sockets, pintles passing centrally through the spring-barrels, and springs interposed between the lugs of the fixed spring-holders and the lugs of the adjustable tension-collars in said spring-barrels and coiled respectively in opposite direction to each other.

941,186. CONVERTIBLE CHAIR-COUCH. MAX BROWN, Chicago, Ill., assignor of one-half to Morris Olshan, Chicago, Ill. Filed Sept. 12, 1908. Serial No. 452,733.



1. The combination of a supporting frame, a seat section supported thereon, a back section hinged to said seat section, an extension hinged to said back section and to said frame, all arranged to be folded for use as a seat and extended for use as a bed, said seat section and frame being shaped to rest one above the other when in their folded position and said seat section being mounted to permit it to be lifted relatively of the frame when in folded position, and co-acting shoulders on said seat section and frame for securing the sections in their folded position, said shoulders being located so as to be released from engagement with each other through the lifting of said seat section.

2. The combination of a supporting frame, a seat section supported thereon, a back section hinged to said seat section, an extension hinged to said frame and to said back section, said parts being adapted to be folded for use as a seat or horizontally extended for use as a bed, a folding leg for supporting said seat section when said parts are horizontally extended, and means operated by said leg for locking said seat and back sections against relative movement.

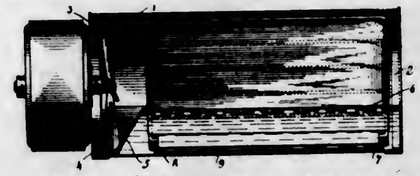
3. The combination of a supporting frame, a seat section supported thereon, a back section hinged to said seat section, an extension hinged to said back section and to said frame, all arranged to be folded for use as a seat and extended for use as a bed, lugs on said seat section, legs pivoted to said lugs for supporting said seat section when said parts are horizontally extended, said lugs being adapted to engage with said frame for securing said parts against movement when in their folded position.

4. The combination of a supporting frame, a seat section supported thereon, a back section hinged to said seat section, an extension hinged to said back section and to said frame, all arranged to be folded for use as a seat and extended for use as a bed, said seat section and frame being shaped to rest one above the other with flush outer edges when in their folded position, and co-acting shoulders on said seat section and frame for securing the same against relative lateral and endwise shifting when in their folded position.

5. The combination of a supporting frame, a seat section adapted to be supported thereby, a back section hinged to said seat section, an extension hinged to said back section and extending downwardly at the rear thereof and being also hinged to said supporting frame, said sections and extension being adapted to be extended in substantial horizontal alinement, a hinged part adapted to support said seat section when in its extended position and foldable against the seat section when the parts are in their folded position, and means for securing said parts in their extended position.

[Claim 6 not printed in the Gazette.]

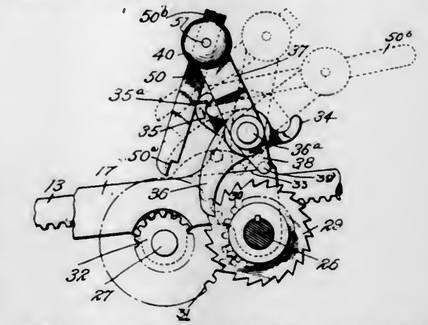
941,187. HUMIDIFIER. STERLING H. BUNNELL, New York, N. Y., assignor to The Griscom-Spencer Company, New York, N. Y., a Corporation of New Jersey. Filed Mar. 29, 1909. Serial No. 486,593.



1. In a humidifier, the combination of a casing provided with an opening for the passage of air and a removable fabric-supporting frame, the same being collapsible so that it may be introduced into or taken from the casing through the air-exit opening, substantially as set forth.

2. In a humidifier, the combination of a cylindrical casing provided with an opening for the passage of air, and a collapsible frame suitable when collapsed to be introduced through said opening, said frame being made up of a number of pairs of pivoted members graded in size and thus adapted, when the frame is expanded, to rest against the interior of the casing, substantially as set forth.

941,188. RATCHET-RELEASING MECHANISM. CHARLES O. L. CARDELL, Pearl River, N. Y., assignor to Talbot C. Dexter, Pearl River, N. Y. Filed Aug. 7, 1907. Serial No. 387,399.



1. The combination, with a ratchet, a pawl normally engaging said ratchet, and stops; of a controlling lever arranged to directly engage said pawl and disengage it from said ratchet, and locking means carried upon said controlling lever for engaging one of said stops and retaining the controlling lever in position against the other stop to hold said pawl disengaged from said ratchet.

2. The combination, with a ratchet, a pawl normally engaging said ratchet, and stops; of a controlling lever arranged to directly engage said pawl and disengage it from said ratchet, and a locking dog carried upon said controlling lever for engaging one of said stops and retaining the controlling lever in position against the other stop to hold said pawl disengaged from said ratchet.

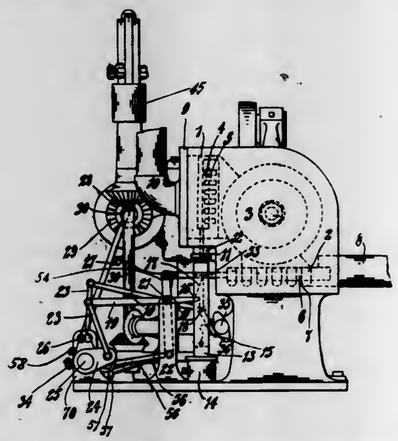
3. The combination, with a ratchet, a pawl normally engaging said ratchet, and stops; of a controlling lever oscillating upon the same axis with said pawl and arranged to directly engage said pawl and disengage it from said ratchet, and locking means carried upon said controlling lever for engaging one of said stops and retaining the controlling lever in position against the other stop to hold said pawl disengaged from said ratchet.

4. The combination of a ratchet wheel, a pawl mounted in operative relation to said ratchet wheel, a controlling arm or lever adapted to engage said pawl and move it out of engagement with said ratchet wheel, limiting stops for said controlling arm or lever, a locking dog pivotally mounted upon said arm or lever and adapted to engage one of said stops.

5. The combination of a ratchet wheel, a pawl mounted in operative relation thereto, a controlling arm or lever adapted to engage said pawl and move it away from the ratchet wheel, a locking dog or lever mounted upon said controlling arm or lever and formed with an operating handle, and rigid stops for said controlling arm or lever, with one of which said locking dog or lever engages to hold said pawl disengaged from said ratchet.

[Claims 6 and 7 not printed in the Gazette.]

941,189. VALVE-GEAR. ADOLPH CHUBB and CHARLES R. MULLEN, Cincinnati, Ohio. Filed July 22, 1908. Serial No. 444,864.



1. In a valve gear, the combination with a slidable valve provided with a valve stem, of a lever having one end adapted to engage to raise the valve stem, an oscillating shaft, a crank on said shaft, a rod connecting the crank on the oscillating shaft to the other end of the lever, the lever being fulcrumed between its ends, and means for oscillating the shaft, the crank at one limit of the oscillation of the shaft being substantially in line with a rod connecting it to the lever, a trip connected to the valve stem forming means for engagement between the lever and the valve stem, a continuously rotating shaft to actuate the trip, and means for varying the position of the continuously rotating shaft relative to that of the oscillating shaft, substantially as and for the purposes set forth.

2. In a valve gear, the combination with a slidable valve provided with a valve stem, of a lever having one end adapted to engage to raise the valve stem, an oscillating shaft, a crank on the oscillating shaft, a rod pivotally connecting the crank to the other end of the lever, the lever being fulcrumed between its ends, and the crank at one limit of its oscillation being substantially in line with the rod connecting it to the lever, a second crank on the oscillating shaft, a wheel adapted to rotate in unison with the rotation of the crank shaft of the engine, a pin in the wheel disposed away from the center of the wheel, a pitman pivotally connecting the pin with the second crank on the crank shaft, a trip connected to the valve stem and adapted to form means of engagement between the lever and the valve stem, a continuously rotating shaft, a wiper mounted on the continuously rotating shaft to rotate therewith and to actuate the trip, and means for varying the position of the continuously rotating shaft relative to that of the oscillating shaft, substantially as and for the purposes herein set forth.

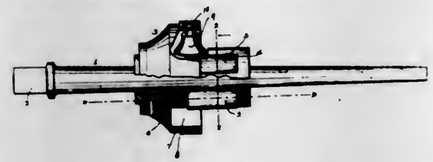
3. In a valve-gear, the combination with a slidable valve, of a trip connected to said valve, actuating means for the valve, a continuously rotating shaft, a wiper on the continuously rotating shaft adapted to rotate therewith and to actuate the trip, a governor shaft adapted to rotate in unison with the continuously rotating shaft, a governor having a hub adapted to rotate in unison with the operation of the actuating means for the valve, and mechanism forming part of the governor and forming operative connection between the hub of the governor and the governor shaft adapted to be actuated by centrifugal force on the rotation of the hub of the governor in unison with the operation of the valve actuating means whereby the position of the wiper is varied relative to that of the valve actuating means, and means for regulating the mechanism of the governor, whereby the action of the centrifugal force is varied to control the variation of the position of the wiper, substantially as and for the purposes herein set forth.

4. In a valve-gear, the combination with a slidable valve, a trip connected to said valve, of a continuously rotating wiper for actuating the trip, a shaft adapted to transmit motion to the wiper, a governor shaft, a gear loosely mounted thereon and rotated in unison with the crank shaft of the engine, a hub forming part of the governor rigidly secured to the gear loosely mounted on the governor shaft, mechanism forming part of the governor and forming operative connection between the hub of the governor and governor shaft, adapted to be actuated by centrifugal force to vary the position of the governor shaft relative to that of the hub of the governor, operative connection between the governor shaft and the continuously rotating wiper, whereby the wiper rotates in unison with the governor shaft, a lever having one end adapted to engage with the trip connected to the valve to operate the valve, an oscillating shaft, a crank on the oscillating shaft, a rod pivotally connecting the crank with the other end of the lever, the lever being fulcrumed between its ends, a second crank on the oscillating shaft, a wheel adapted to rotate in unison with the rotation of the crank shaft of the engine and with the rotation of the hub of the governor, a pin in the wheel disposed away from the center of the wheel, and a pitman pivotally connecting the pin with the second crank on the crank shaft, whereby the valve is actuated in unison with the rotation of the crank shaft of the engine and whereby the trip is actuated by the wiper and its operation due to the action of the wiper may be varied by the action of the governor automatically during the operation of the engine, substantially as and for the purposes herein set forth.

5. In a valve-gear, the combination with a slidable valve located adjacent to the interior of the cylinder of the engine, and a miter gear on the crank shaft of the engine, a shaft at right angles to the crank shaft of the engine out of line with the valve, a miter gear on said shaft in mesh with the miter gear on the crank shaft of the engine, a vertical governor shaft, a miter gear on the governor shaft and a second miter gear on the shaft which is at right angles to the crank shaft of the engine in mesh with the miter gear on the governor shaft, variable operative connection between the governor shaft and the miter gear thereon, adapted to be actuated by centrifugal force, a continuously rotating shaft parallel to the axis of the cylinder and adjacent to the slidable valve, a second miter gear on the governor shaft adapted to rotate therewith, a miter gear in mesh with the second miter gear on the governor shaft with its axis inclined to the axis of the cylinder of the engine, a universal joint operatively connecting the miter gear which has its axis inclined to the axis of the cylinder to the continuously rotating shaft, whereby continuous rotation is transmitted from the miter gear on the crank shaft of the engine out of line with the slidable valve to the continuously rotating shaft adjacent to the slidable valve, a trip connected to the valve, actuating means for the valve, and a wiper on the continuously rotating shaft for actuating the trip, the position of the wiper relative to the valve actuating means being adapted to be varied by the action of the variable operative connection between the governor shaft and the miter gear thereon, substantially as and for the purposes herein set forth.

[Claims 6 to 12 not printed in the Gazette.]

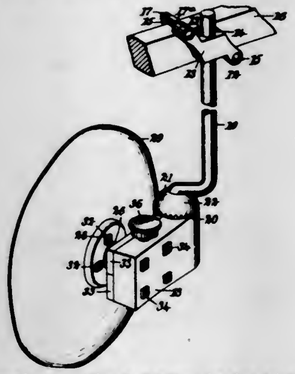
941,190. FLUE EXPANDER AND BEADER. JOSEPH L. DIDIER, Knoxville, Tenn. Filed Mar. 22, 1909. Serial No. 485,099.



1. In a device of the nature described, the combination of a tapering mandrel, a tubular body surrounding said mandrel and having oblique slots, expansion rollers located in said slots and bearing upon said mandrel and projecting outside of said slots, and beading rollers located transversely to the mandrel axis whereby the expansion rollers in their operation simultaneously feed the beading rollers to their work.

2. In a device of the nature described, the combination of a tapering mandrel, a tubular body surrounding said mandrel and having oblique slots and a rim, expansion rollers located in said slots and bearing upon said mandrel and projecting outside of said slots, and beading rollers located between said rim and said body whereby the expansion rollers in their operation simultaneously feed the beading rollers to their work.

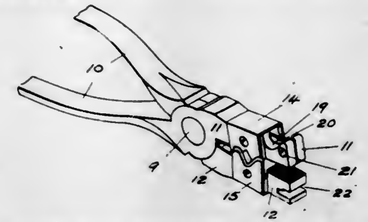
941,191. JOURNAL FOR AGRICULTURAL IMPLEMENTS. ARCHIE C. DITMAR, Davenport, Wash. Filed Nov. 10, 1908. Serial No. 461,874.



1. A journal comprising a bracket having at one end a vertical opening to receive a supporting shank and provided with a lateral spindle projecting from one side adjacent to its other end and in said side with a recess surrounding the spindle, a hub mounted to revolve on the spindle and adapted to carry a part revoluble with the hub, said hub having a flanged inner end in the recess of the bracket, and keepers detachably secured upon the recessed side of the bracket and extending over the said recess.

2. A journal, comprising a bracket having a vertical opening at one end to receive a supporting shank and provided with a lateral spindle projecting from one side adjacent to its other end, a recess in said side and surrounding the spindle, and a vertical opening leading from its upper face into said recess, a hub mounted to revolve on the spindle and adapted to carry a part revoluble therewith, said hub having a flange at its end fitting in the recess of the bracket, keepers on the recessed side of the bracket and extending over the said recess, bolts passing through the keepers and bracket, and a lubricant cup secured in the opening of the bracket leading to the recess.

941,192. WIRE-SKINNING PLIERS. GILBERT W. GOODRIDGE, Bridgeport, Conn. Filed July 29, 1909. Serial No. 510,280.



1. A pair of wire-skinning pliers, provided with shearing cutters for cutting the insulating covering of wires transversely and a slitting cutter to slit the said covering longitudinally, said slitting cutter having a tubular hub, and the plier jaw being transversely slotted to receive it, in combination with a bolt passing through said hollow hub and securing one of the shearing cutters, substantially as described.

2. A pair of wire-skinning pliers, provided with shearing cutters, each consisting of a strip of spring metal to embrace a jaw of the pliers and with the sides of the cutter normally spaced apart more than the width of the jaw, in combination with a transverse securing bolt to draw said sides of the cutter up to the sides of the jaw, as and for the purpose described.

3. A pair of wire skinning pliers, having on a part of its outer face a recess and a scraping cutter set therein with its cutting edge outward but below the surface of the tool, as and for the purpose described.

4. A pair of wire skinning pliers, having in the end of one of its jaws an open wire-receiving slot of two widths, the wider part being at the open end of the slot and the narrower at the back thereof, whereby the bared ends of different sizes of wires may be received and bent into loops, as described.

941,193. SELF-SUPPORTING STOCKING. GEORGE GRAHAM, New York, N. Y. Filed Aug. 12, 1908. Serial No. 448,141.



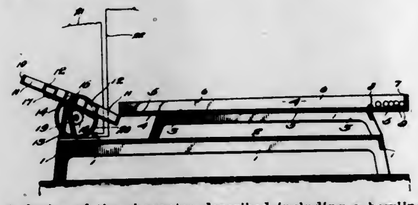
1. A stocking having a band connected to the body of the stocking at diametrically opposite points and normally lying substantially parallel to the upper edge of the body of the stocking, a portion of said band intermediate said points being extendible upwardly to grip the leg of the wearer and constitute stocking-supporting members.

2. A stocking having an annular band connected to the body of the stocking by a plurality of connecting portions, said band normally lying in a single plane at substantially right angles to the general direction of the length of the stocking, the portions of said band intermediate said connecting portions being movable upwardly to each

lie in a separate plane at an angle to the first-mentioned plane.

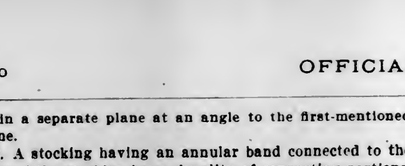
3. A stocking having an annular band connected to the body of the stocking by a plurality of connecting portions, and a second annular band connected to the first-mentioned band by a plurality of connecting portions, the last-mentioned connecting portions being secured to the first-mentioned band intermediate the first-mentioned connecting portions.

941,194. GAME APPARATUS. BENJAMIN HAMILTON, New York, N. Y. Filed June 5, 1907. Serial No. 377,347.



A device of the character described including a bowling table, a rotatable compartmented wheel provided with a plurality of ball receiving sections and mounted at an angle to the horizontal plane of said table, the delivery end of said table being positioned so as to deliver balls rolled thereon into said receiving sections, a numerical disk associated with said wheel, and means for revolving said wheel.

941,195. CAMPING-WAGON. DANIEL L. HARDIN, Hoyt, Kans. Filed Oct. 26, 1908. Serial No. 459,512.



1. The combination with a wagon-bed, of a frame mounted thereon, a pair of longitudinally foldable beds supported on the frame at each side of the wagon-bed, hinges for each bed secured to the frame, and a cross bed longitudinally foldable and loosely mounted on the frame.

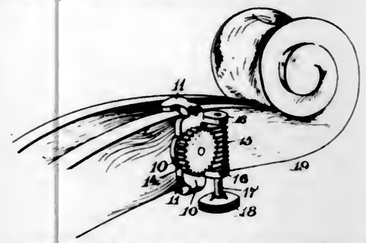
2. The combination with a wagon-bed, of a frame mounted thereon having a lateral extension on each side of the wagon-bed, a pair of longitudinally foldable beds supported on the frame at each side of the wagon, hinges for each bed secured to the frame, one part of each bed when laid out flat being supportable on one of said extensions, an extension to each side of the frame erected above each bed and extending out approximately to said bed-supporting extensions, a canvas covering for said frame above the wagon-bed and above said beds, said covering being supported on said second-named extensions and forming a wall at the outer limit of the respective beds, and another canvas covering over said first-named covering and spaced apart therefrom and adapted to be extended to the ground.

3. The combination of a wagon-bed, a frame mounted thereon, a pair of longitudinally foldable beds supported at each side of the wagon-bed, a canvas-supporting frame erected thereover, lateral canvas-supporting wings hinged to each side of the first-named frame, and a canvas covering therefor of sufficient length to be extended to the ground.

4. The combination of a wagon-bed, a frame mounted thereon, a pair of longitudinally foldable beds supported at each side of the wagon-bed, a canvas-supporting frame erected on said first-named frame, a lateral canvas-supporting wing hinged to each side of said first-named frame, an inside canvas covering extending over said supporting frame and wings and having a wall at each side adjacent to the respective beds, and an outside canvas covering therefor spaced apart from the inside covering and of sufficient length to extend to the ground.

5. The combination with a wagon-bed, of a frame mounted thereon, a canvas-supporting frame erected on said first-named frame, a lateral extensible canvas-supporting frame at each side of the said first-named frame, an inside canvas covering over said frames its ends forming walls inclosing the sides of said frames, and an outside canvas covering of a length adapted to be extended to the ground.

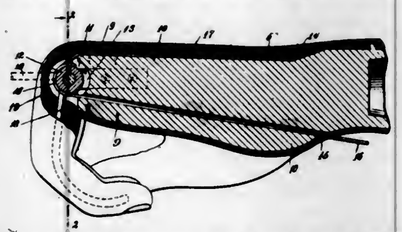
941,196. VIOLIN-KEY. HENRY HARMER, Newark, N. J. Filed Apr. 7, 1909. Serial No. 488,445.



1. A detachable key for stringed instruments comprising a plate having fingers projecting from its top and bottom edge, the fingers projecting in the same direction, a pin projecting from the plate between the fingers and in the same direction, a worm-gear on the end of the pin, a worm engaging the worm-gear, and a finger-piece on the worm for operating it.

2. A detachable key for stringed instruments comprising a plate having integral fingers projecting from its top and bottom edges, the fingers being slightly curved toward each other and projecting from the plate in the same direction, bearings integral with the plate and projecting from the front thereof, a worm mounted between the bearings, a finger piece to operate the worm, a worm-gear on the face of the plate and in mesh with the worm, and a pin secured to the worm-gear and projecting through and beyond the plate between the fingers.

941,197. ARTIFICIAL HAND. WILLIAM A. HENNESSEY, Ashland, Wis., assignor of one-half to Frank Gauthier, Ashland, Wis. Filed May 25, 1909. Serial No. 498,214.



1. An artificial hand, comprising a rigid core adapted to receive the molded form of the human hand, a cylinder mounted in the forward end of said core, finger mountings rigidly secured in said cylinder, a resilient member to rotate the said cylinder to a position wherein the finger mountings are extended, a strap-like member extended through the said core and attached to the said cylinder to rotate the same to close the fingers toward the palm of the hand, and a locking member adapted to hold the said cylinder in a position wherein the finger mountings are closed toward the palm of the hand.

2. An artificial hand, comprising a rigid core adapted to receive the molded form of the human hand, a cylinder mounted in the forward end of said core, finger mountings rigidly secured in said cylinder, a resilient member to rotate the said cylinder to a position wherein the finger mountings are extended, a strap-like member extended through the said core and attached to the said cylinder to rotate the same to close the fingers toward the palm of the hand, a member having slots to hold and guide the said finger mountings, and locking devices disposed in said slots and adapted to retain the said finger mountings in various prearranged positions.

3. An artificial hand, comprising a rigid core adapted to receive the molded form of the human hand, a cylinder mounted in the forward end of said core, finger mountings rigidly secured in said cylinder, a resilient member to rotate the said cylinder to a position wherein the finger mountings are extended, a strap-like member extended through the said core and attached to the said cylinder to rotate the same to close the fingers toward the palm of the hand, and a locking member having slots to guide the said finger mountings the said slots having lateral extensions adapted to hold the said finger mountings in fixed position when inserted therein.

4. An artificial hand, comprising finger mounts pivotally secured upon the hand, and guide members for said mounts having laterally extended recesses adapted to receive said mounts to hold the same in fixed position.

941,198. BINDER FOR LOOSE LEAVES. MAX VON HERTZBERG, Chicago, Ill. Filed June 24, 1909. Serial No. 504,037.

1. A loose-leaf binder comprising a back-cover; posts on said back-cover; a front-cover removably attached to said posts and a removable back, there being elastic members on said back adapted to engage said posts.

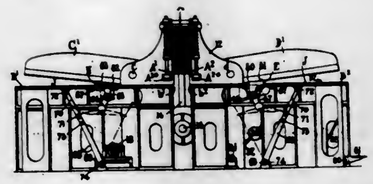
2. A loose-leaf binder comprising a hollow back-cover; posts on said back-cover; a front-cover removably attached to said posts, a removable back, there being elastic members on said back adapted to engage said posts, and an apron adapted to cover the said removable back, said apron being in part located in the hollow back-cover; elastic means on said apron adapted to return said apron to its normal position, and means on said apron adapted to engage said post.

3. A loose-leaf binder, comprising a back-cover, said back-cover being constructed of a bottom-board, an intermediary board having excisions as described, and a top-board; a front-cover; a flexible apron, said apron being partly located in the space between the bottom and top boards in said back-cover; elastics secured to the end of the apron within the back-cover with one end, and to the bottom board of the back-cover with their other end, and means for connecting the apron with the front-cover whereby the apron serves as a flexible back for the binder.

4. In a loose-leaf binder, a back-cover; a bar on said back-cover and flexibly connected therewith; posts removably secured to said bar, said posts comprising a screw-threaded post-stud, a sleeve over said post-studs, a tubular, internally screw-threaded member engaging the screw-threaded post-stud, said internally screw-threaded member having a laterally projecting collar at its upper end, an externally screw-threaded shank on the upper end of said internally screw-threaded member, and a thumb-nut upon said shank; a series of leaves upon said posts, and a front-cover, said front-cover having a bar adapted to engage said posts and retained thereon by said thumb-nuts, said bar being flexibly connected to said front-cover.

5. In a loose-leaf binder, a back-cover; a front-cover; a series of interposed leaves; a separate back for said binder, said back consisting of two pieces flexibly connected together at their inner faces by elastic tapes and adapted to be separated to fit said back to binders of various thicknesses; means for removably connecting said back to said covers, said parts of the back being returned to their normal position when released from said covers by said elastic tapes.

941,199. MACHINE FOR SHEARING METAL SHEETS. GODFREY B. JOHNSON, London, England. Filed Dec. 30, 1908. Serial No. 470,017.



1. A machine for shearing metal sheets to rectangular form without the necessity of turning over or sluing around the work between successive stages of the shearing operation, comprising a double-edged main knife adapted to coact simultaneously with both members of a pair of bed-cutters forming the opposed lateral edges of a pair of tables disposed in one horizontal plane at opposite sides of said knife; two pairs of auxiliary knives each situated at one end of the main knife, the members of each pair being arranged on opposite sides of and at right angles to the main knife so as to be adapted to coact with bed-cutters forming the corresponding end edges of the respective tables; and stops adapted to serve as guides for the work on the tables, disposed in rows parallel to the main knife and at distances therefrom and from the auxiliary knives corresponding to various widths and lengths of sheet to be produced, substantially as set forth.

2. In a machine for shearing metal sheets to rectangular form without the necessity of turning over or sluing around the work between successive stages of the shearing operation, the combination of a double-edged main knife adapted to co-act simultaneously with both members of a pair of bed cutters forming the opposed lateral edges of a pair of tables disposed in a horizontal plane at opposite ends of said knife, two pairs of auxiliary knives each situated at one end of the main knife, the members of each pair being arranged on opposite sides of and at right angles to the main knife so as to be adapted to co-act with bed cutters forming the corresponding end edges of the respective tables, stops adapted to serve as guides for the work on the tables, said stops being disposed in rows parallel to the main knife and at a distance therefrom and from the auxiliary knives corresponding to various widths and lengths of the sheet to be produced, and means whereby the rows of stops may be brought alternately above the table.

3. In a machine for shearing metal sheets to rectangular form without the necessity of turning over or sluing around the work between successive stages of the shearing operation, the combination of a double-edged main knife adapted to co-act simultaneously with both members of a pair of bed cutters forming the opposed lateral edges of a pair of tables disposed in one horizontal plane at opposite ends of said knife, two pairs of auxiliary knives each situated at one end of the main knife the members of each pair being arranged on opposite sides of and at right angles to the main knife so as to be adapted to co-act with bed cutters forming the corresponding end edges

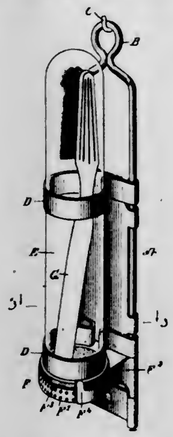
of the respective tables, stops adapted to serve as guides for the work on the tables, disposed in rows parallel to the main knife and at distances therefrom and from the auxiliary knives corresponding to various widths and lengths of sheet to be produced, and means for enabling each row of stops to be alternately brought above the table, said means comprising a sway bar wherein said stops rest, a rock-shaft secured to said sway-bar, a lever fast on said rock-shaft, a rod coupled to said lever, and a treadle lever attached to said rod, substantially as set forth.

4. In a machine for shearing metal sheets to rectangular form without the necessity of turning over or sluing around the work between successive stages of the shearing operation, the combination of a double-edged main knife adapted to co-act simultaneously with both members of a pair of bed cutters forming the opposed lateral edges of a pair of tables disposed in one horizontal plane at opposite ends of said knife, and means for enabling said double-edged main knife to be arrested when at the highest point in its stroke, said means comprising at each end of said knife, a gudgeon attached to said knife, a connecting rod coupled to said gudgeon, a crank coupled to said connecting rod, a crank-shaft attached to said crank, a spur wheel adapted to turn loosely on said shaft, a female member of a single-toothed dog clutch forming part of and attached to said spur wheel, a male member of said single toothed dog-clutch adapted to engage said female part, said male member of said single-toothed dog-clutch splined upon said shaft, said male member of said single-toothed dog-clutch engaged by a fork, said fork attached to a fulcrumed lever, said fulcrumed lever controlled by a helical cam, a rocking shaft connected to said cam, a hand lever attached to said rocking shaft, a counter-weight attached to said hand lever, substantially as set forth.

5. In a machine of the character described, the combination with a table, of knives arranged at three edges of the table and coacting with said edges, means for operating said knives, and stops adapted to serve as guides for the work on the table, said stops being at a distance from the knives corresponding to the various widths and lengths of the sheet to be produced.

[Claim 6 not printed in the Gazette.]

941,200. ANTISEPTIC TOOTH-BRUSH HOLDER. WILLIAM D. JONES, New York, N. Y., assignor to Antiseptic Holder Company, New York, N. Y., a Corporation of New York. Filed Jan. 27, 1909. Serial No. 474,544.



1. An antiseptic tooth brush holder provided with a glass tube closed at the top and open at the lower end, means for supporting the said tube in upright position, and a closure mounted to swing in the said support and adapted to close the said lower open end of the said tube.

2. An antiseptic tooth brush holder, comprising a frame having clamping bands, a glass tube engaged by the said clamping bands to hold the glass tube in an upright position, the glass tube being closed at the top and open at the bottom, and a closure for the said open glass tube end and having a perforate cup provided with an arm mounted to swing on the said frame, and an absorbent material in the said cup and on which is adapted to rest the lower open end of the said glass tube, the said absorbent material being adapted to receive, absorb and evaporate an antiseptic liquid, the generated antiseptic vapors rising in the said glass tube.

941,201. TENSION DEVICE FOR WARP-BEAMS. GOTTLIEB KELLER, New York, N. Y. Filed Aug. 23, 1907, Serial No. 389,822. Renewed Sept. 15, 1909. Serial No. 517,919.



1. In a loom, the combination, with a warp beam, of a band encompassing said beam and frictionally engaging the same, said band having separated ends, an adjustable member connecting said ends whereby said ends are limited in moving apart, means for flexibly connecting one of said ends to a support, and a stop unconnected with said band and adapted to be engaged by one of said ends to limit its movement in one direction.

2. In a loom, the combination with a warp beam, of a band encompassing said beam and frictionally engaging the same, said band having the ends separated and laterally disposed, a member removably connecting said ends, means for adjusting said member to vary the tension of said band, said member serving to limit said ends against movement away from one another, means for resiliently connecting one of said ends to a support, and a fixed stop independent of said band, and adapted to be engaged by said end resiliently secured to the support, to limit the movement in one direction of the same.

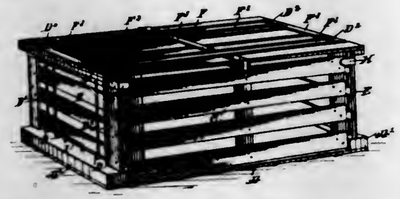
3. In a loom, the combination of a warp beam having a shaft and a drum on said shaft, with a band passed about said drum and having laterally disposed ends and blocks between said band and said drum, a bolt adapted to secure said ends one to the other, a spring secured to a fixed support and removably mounted at one of said ends of said band, and a cam lever connected with the said bolt for releasing the band quickly.

4. In a loom, the combination, with a warp beam having a shaft, and a drum on said shaft, of a band encompassing said drum and having laterally disposed and separated ends, spaced members secured to said band and frictionally engaging said durm, a bolt secured to one of said ends and having an adjustable engagement with the other of said ends, a spring secured to a fixed support and removably mounted at one of said ends of said band, and a stop rod adapted to limit the movement of one of said ends in one direction.

941,202. FOLDING CRATE. FRANK L. MARY, Chehalis, Wash. Filed Jan. 27, 1909. Serial No. 474,359.

1. A folding crate or like receptacle, comprising a bottom having end sills, sides hinged to the sides of the said bottom to fold inward upon the bottom, ends hinged to the said sills and adapted to fold inward upon the said folded sides, loops on the said ends and projecting beyond the top edges thereof, and a cover slidingly engaged by the said loops to move the cover toward or from the said bottom on swinging the ends downward or upward.

2. A folding crate or like receptacle, comprising a bottom having end sills, sides hinged to the sides of the said bottom to fold inward upon the bottom, ends hinged to the said sills and adapted to fold inward upon the said folded sides, the hinge members on the said ends terminating in loops projecting beyond the top edges of the said ends, the loops being bent outward, and a cover slidingly engaged by the said loops, to move the cover toward or from the said bottom on swinging the ends downward or upward.



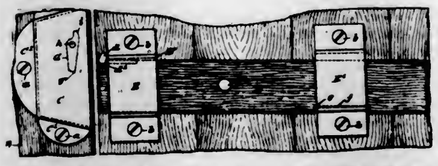
3. A folding crate or like receptacle, comprising a bottom having end sills, sides hinged to the sides of the said bottom to fold inward upon the bottom, ends hinged to the said sills and adapted to fold inward upon the said folded sides, the hinge members on the said ends terminating in loops projecting beyond the top edges of the said ends, the loops being bent outward, a cover slidingly engaged by the said loops, to move the cover toward or from the said bottom on swinging the ends downward or upward, the said cover having a removable gate, and staples on the said sills for receiving the said gate.

4. A folding crate or like receptacle, comprising a bottom having end sills, sides hinged to the sides of the said bottom to fold inward upon the bottom, ends hinged to the said sills and adapted to fold inward upon the said folded sides, the hinge members on the said ends terminating in loops projecting beyond the top edges of the said ends, the loops being bent outward, a cover slidingly engaged by the said loops to move the cover toward or from the said bottom on swinging the ends downward or upward, the said cover having a removable gate provided with notches, a spring pressing the gate laterally, and staples on the said sills for receiving the said gate and engaging the notches thereof.

5. A folding crate or like receptacle, comprising a bottom, sides hinged to the sides of the said bottom to fold inward thereupon, said bottom having end sills, ends hinged to the sills to fold inward upon the folded sides, the ends having outwardly bent loops and the cover having longitudinal slats slidable through the loops, whereby to move the cover parallel toward or from the said bottom, when the ends are folded.

[Claim 6 not printed in the Gazette.]

941,203. GATE AND DOOR FASTENER. FRED J. S. MIELY, Gunnison, Colo. Filed Jan. 29, 1909. Serial No. 475,018.



1. In a device of the character described, the slide bar movable endwise in a plurality of slotted posts, said bar having a ribbed latch plate thereon, and one post having a latch dog that is pivoted in its slot and adapted to interlock with the ribbed latch plate, said slide bar being divided into two sections that are hinged together for lateral flexure of the bar.

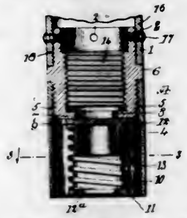
2. In a device of the character described, a slide bar provided at one end with a ribbed latch plate, on the upper edge thereof, a socket for receiving the slide bar, and a latch dog pivoted within the socket, said dog having one end shaped to fit the rib, and the other provided with a thumb piece manipulating the same.

941,204. WELL-TUBING AND MEANS FOR CONNECTING SECTIONS THEREOF. GUSTAVUS A. PITTMAN, Deweese, Nebr. Filed Aug. 15, 1908. Serial No. 448,682.



In combination, a plurality of tubes placed end to end, each of said tubes being provided at its end with oppositely arranged projecting lugs, the end face of the lug registering with the end of the pipe the lugs at the abutting ends registering with each other, and a clamping band encircling the tube and provided with openings through which project the lugs, said band having its ends flanged and provided with registering perforations, and bolts traversing the perforations for clamping the band on the tubes.

941,205. SELF-CLOSING BOTTOM FOR WELL-STRAINERS. JESSE A. POLLARD, Oakland, Miss. Filed Feb. 26, 1909. Serial No. 480,181.



1. A strainer bottom, comprising an upper member adapted to be secured to a strainer, a lower member connected to said upper member and having a countersunk base, and a valve supported on said base and engaging said upper member.

2. A strainer bottom comprising an upper member adapted to be secured to a strainer, a lower member having a screw-threaded engagement with said upper member and having a countersunk base, and a valve supported on said base and engaging said upper member.

3. A strainer bottom, comprising an upper member adapted to be secured to a strainer, a lower member connected to said upper member and having a countersunk perforated base, and a valve supported on said base and engaging said upper member.

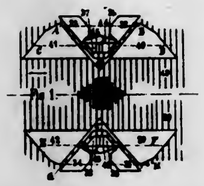
4. A strainer bottom, comprising an upper member adapted to be secured to a strainer, a lower member connected to said upper member and having a countersunk

base, a spring resting on said base, and a valve normally pressed by said spring, into engagement with said upper member.

5. A strainer bottom, comprising an upper member adapted to be secured to a strainer, a lower member connected to said upper member and having a countersunk perforated base, a spring resting on said base, and a valve normally pressed by said spring, into engagement with said upper member.

[Claims 6 to 12 not printed in the Gazette.]

941,206. NEEDLE-CAM FOR STRAIGHT INDEPENDENT-NEEDLE KNITTING-MACHINES. BRUNO POPP, Couvet, Switzerland, assignor to Edouard Dubied & Cie., Couvet, Switzerland. Filed Apr. 22, 1908. Serial No. 428,657.



1. In needle cams for straight independent needle knitting machines, the combination of lower needle lifters 31, 32, 33, 34, upper needle lifters 35, 36, 37 38, needle depressors 39, 40, 41, 42 and safety guards 47, 48 relatively arranged to form upper and lower needle channels and tongues 43, 44, 45, 46 situated between the aforesaid lower and upper needle lifters as and for the purposes hereinbefore set forth.

2. In needle cams for straight independent needle knitting machines the combination of lower needle lifters having curved surfaces upon the undersides thereof, upper needle lifters, needle depressors and safety guards relatively arranged to form upper and lower needle channels, a needle cam plate having openings for said upper and lower needle lifters, means adapted to simultaneously lower the said upper and lower needle lifters into said openings in the needle cam plate, and tongues situated between the said upper and lower needle lifters adapted to move into the places of the said upper needle lifters—when the latter are in the lowered position—and rest against the said safety guards with a view to closing the upper needle channels as and for the purposes set forth.

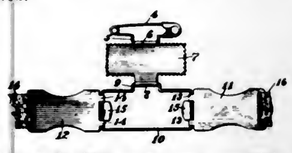
3. In a needle cam for a straight independent needle knitting machine the combination of a needle cam plate, a wing hinged thereon, a lower needle lifter carried by said wing, an upper needle lifter resting on the wing, a tongue situated between the upper and the lower needle lifters, and means for moving said tongue into the position vacated by the upper needle lifter when the latter is moved into the inoperative position for the purpose hereinbefore set forth.

4. In a needle cam for a straight independent needle knitting machine, having a needle cam plate and a wing hinged thereon, said wing carrying a lower needle lifter, the combination of a spring for normally returning the wing and lifter thereon to the operative position, a pin on said wing, and a slide having an inclined surface adapted to engage said pin for the purpose of moving the wing and the lifter thereon with the inoperative position, for the purpose hereinbefore set forth.

5. In a needle cam for a straight, independent needle knitting machine, having upper and lower needle lifters and needle depressors relatively arranged to form upper and lower needle channels and tongues for shutting the upper needle changes when required the combination of a slide having cam surfaces, slides connected by pins with the aforesaid tongues, and other pins on said tongue slides adapted to engage the aforesaid cam surfaces, for the purpose hereinbefore set forth.

[Claim 6 not printed in the Gazette.]

941,207. WAIST AND SKIRT SUPPORTER. ALBERT M. PRESTON, Broxton, Ga. Filed Apr. 26, 1909. Serial No. 492,303.

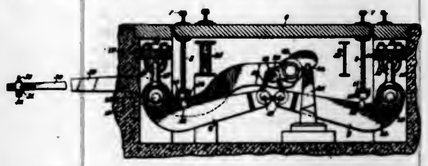


1. A waist and skirt supporter, comprising a plate member adapted to be secured to the waist and to underlie the skirt, a link member adapted to infold the said plate and skirt and cover the same, and belt securing members mounted on the said link member, having extensions adapted to protrude under the said plate when in operative position.

2. A waist and skirt supporter, comprising a plate member having a fastening device mounted thereon adapted to be secured to the waist, said plate having serrated edges, a link member adapted to infold said plate, and belt holding members mounted on the said link member, having extensions adapted to protrude under the said plate when in operative position.

3. A waist and skirt supporter, comprising a plate member, having a safety pin hingedly attached thereto, a link member hingedly attached to said plate on the side opposite the said pin, said link being adapted to infold the said plate, and belt holding members mounted on the said link, having extensions adapted to protrude under the said plate when in operative position.

941,208. SCALE. CHARLES M. STURGIS, Birmingham, Ala. Filed May 18, 1909. Serial No. 496,801.



1. A scale, comprising a platform mounted on vertically-extended members having in the lower edge thereof pivot seats, an expansible series of levers forming knife-edge supports for the said extended members, a series of rocking members suitably connected with the long arm of the said levers, a series of rigid connecting members extended between and rigidly secured to the said rocking members, a scale beam rigidly connected to one of said connecting members, and suitable stationary rests for the pivots of said levers and rocking members.

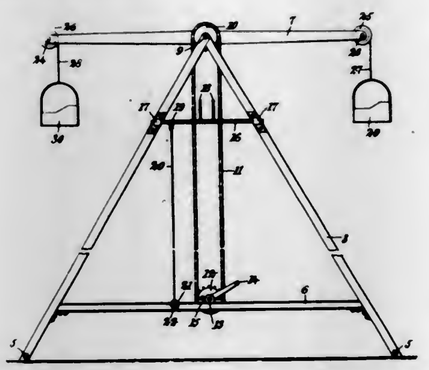
2. A scale, comprising a platform, a plurality of carrying levers arranged in pairs to approximate the ends of their long arms, a supporting mechanism for the long arms of said levers, embodying a series of rocking members connected by a series of short shaft sections connected to form a rigid member, and connecting members adapted to engage the ends of said levers and said rocking members.

3. A scale, comprising a platform, a series of carrying levers arranged in pairs to approximate the ends of their long arms and adapted to carry the said platform, a supporting mechanism for the long arms of said levers, embodying a plurality of rocking members separably connected by a series of short pipe sections and rigidly secured thereto, a scale beam rigidly mounted on one of said members, provided to carry a weight adjustably located on said beam, and a link-like connecting member for connecting the ends of the long arms of said levers and said rocking members.

4. A scale, comprising a pit, a platform, a plurality of carrying levers arranged in pairs the members whereof are oppositely disposed to approximate the ends of the long arm thereof and adapted to support the said platform, said levers being supported at the fixed ends by the pit structure, a rocking shaft composed of a series of short pipe sections having annular end flanges, a series of duplicate rocking members having pivot arms extended laterally therefrom to form a supporting pivot and hanger for said levers, said rocking member having annular flanges adapted to abut the said annular flanges on said pipe sections, a series of fixed pivot standards mounted at desired intervals in said pit to support said rocking members, a beam scale rigidly connected to one of said pipe sections, and link-like members for connecting the said rocking members and levers.

5. A scale, comprising a platform, a plurality of carrying levers arranged in pairs to approximate the ends of their long arms and adapted to carry the said platform, a shaft-like member constructed of short sections of tubing having annular flanges and tubing of variable length having similar flanges adapted to be rigidly secured to the said short sections through said flanges, said short sections having pivotal mountings and arms extended to connect with the long arms of said levers, a link-like connecting member for said arms and said levers, a beam scale rigidly connected with said shaft-like member and adapted to carry a weight adjustably secured thereon, and stationary rests to fulcrum the said shaft-like member and said levers.

941,209. VERTICAL ROUNDABOUT. WILLIAM A. SULLIVAN, New York, N. Y. Filed Nov. 18, 1908. Serial No. 463,203.

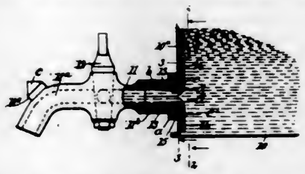


1. The combination of a fixed frame, a revoluble frame mounted thereupon and adapted to support the weight of passengers, a rocking shaft provided with arms for obstructing movements of said revoluble frame, and means controllable at will for turning said rocking shaft into a predetermined position for the purpose of bringing said arms into the path of travel of said revoluble frame.

2. The combination of a fixed frame, a revoluble frame journaled thereupon, carriages connected with said revoluble frame and adapted to carry passengers, means controllable by the weight of said passengers for turning said revoluble frame, and mechanism for disconnecting said means so as to allow said revoluble frame and the moving parts associated therewith to run because of their momentum.

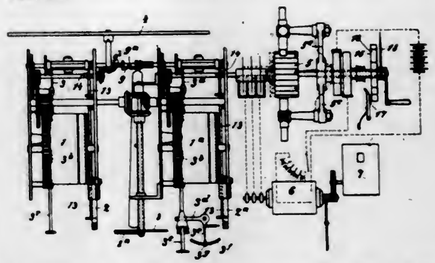
3. The combination of a fixed frame, a revoluble frame journaled thereupon, carriages connected with said revoluble frame and adapted to turn said frame by their own weight and the weight of the passengers carried, and ratchet mechanism controllable automatically by the weight of said carriages and said passengers for stopping the application of power to said revoluble frame, thereby allowing said revoluble frame and movable parts associated therewith to continue running from their own momentum.

941,210. FAUCET. THOMAS O. THOMPSON, Zacapa, Guatemala. Filed July 25, 1908. Serial No. 445,374.



A faucet comprising a body having its one end internally threaded and provided with an external lateral annular flange, a sectional nipple having a threaded portion for engaging the internal threads of the body and laterally extending clamping fingers, said nipple having a reduced neck forming a shoulder between the neck and the threaded portion, a packing ring encircling the neck and resting against the shoulder and the flange of the body, and a punch on the faucet whose diameter is equal to the diameter of the neck of the nipple and adapted for making an opening in the container for receiving the nipple.

941,211. APPARATUS FOR PRODUCING AUDIBLE MOVING PICTURES, PIECES OF MUSIC, AND OTHER PERFORMANCES. FRANZ E. THORMEYER, Hamburg, Germany. Filed Mar. 1, 1909. Serial No. 480,710.



1. Apparatus for securing synchronous working of two apparatus for producing performances, comprising a driving means for each apparatus, a special independent driving device adapted to control the working of one apparatus and also adapted to be brought into connection with the driving members of the other apparatus.

2. Apparatus for securing synchronous working of two or more apparatus for producing performances, comprising a driving means for each apparatus, a special driving device adapted to control the driving means of one apparatus and also adapted to be brought in connection with the driving member of another apparatus and to be released therefrom, and indicating means in connection with said driving means to enable the running of the apparatus to be watched.

3. Apparatus for securing synchronous working of two or more apparatus for producing performances, comprising a driving means for each apparatus, a special driving device and an indicating device actuated by the driving device of one apparatus and by the said special driving device, the latter adapted to run synchronously with said driving means of one apparatus, and moreover adapted to control the driving device of another apparatus of performance.

4. Apparatus for securing synchronous working of two or more apparatus for producing performances, comprising a driving means for each apparatus, a special driving device adapted to control the working of the driving means of said apparatus, and a coupling between said special driving device and the driving device for another apparatus of performance, the coupling adapted to be thrown into and out of gear.

5. Apparatus for securing synchronous working of two or more apparatus for producing performances, comprising a driving means for each apparatus, a special driving device adapted to control the working of the driving means of one of said apparatus, a coupling between the special driving device and the driving device for another apparatus of performance, the coupling adapted to be thrown out of gear and into gear, and a yielding member in the coupling.

[Claims 6 to 8 not printed in the Gazette.]

941,212. ARTIST'S WET-CANVAS CARRIER. RUEL P. TOLMAN, Berkeley, Cal. Filed May 25, 1909. Serial No. 498,340.



1. A holder for wet canvases comprising a U shaped clip adapted to embrace the edges of two canvases to prevent them from falling apart, the base of the said U shaped clip being formed with a spacer member for projecting between the canvases to hold them out of contact with each other.

2. A holder for canvases comprising a clip adapted to be fitted to the edges thereof and formed of a strip of spring material, the intermediate portion of the clip being crimped to provide a spacer member for projecting between the canvases to hold the same out of contact with each other.

3. A holder for canvases comprising a U shaped clip adapted to be fitted to the edges thereof, the base of the clip being formed with a spacer member for projecting between the canvases to hold them out of contact, and the arms of the clip being provided with means for engaging the frames of the canvases.

4. A holder for canvases comprising a U shaped clip adapted to be fitted to the edges thereof, the base of the clip being constructed with a spacer member for projecting between the canvases to hold them out of contact with each other, and extensions adjustably applied to the arms of the clip and constructed to engage the frames of the canvases.

5. A holder for canvases comprising a U shaped clip adapted to be fitted to the edges thereof, the base of the clip being constructed with a spacer member for projecting between the canvases to hold them out of contact with each other, extensions adjustably applied to the arms of the U shaped clip and having a pin and slot connection therewith, the said extensions being provided with means for engaging the frames of the canvases, and means for locking the extensions in an adjusted position.

[Claims 6 and 7 not printed in the Gazete.]

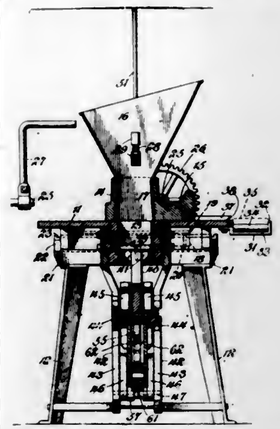
941,213. CANDELABRUM. OTTO H. VAN GUELPEN, New York, N. Y. Filed Feb. 18, 1908. Serial No. 416,446.

1. A candelabrum comprising a leaf having a pair of lugs with alining openings, a second leaf having a knuckle disposed between said lugs and having an opening alining therewith, a pintle passing through said alining openings, a candle-holder attached at the upper ends of said leaves, said leaves having links pivotally attached thereto, means for clamping said links, and other links parallel with said first links and pivotally attached to said wings.

2. A candelabrum comprising a leaf having a pair of lugs with openings therein, a second leaf having a knuckle passing between said lugs having an opening alining with said first openings and having a recess receiving one of said lugs, a pintle passing downwardly through said lugs and said knuckle, a candle-holder carried by said pintle, said leaves having links pivotally attached thereto, means for clamping said links to said leaves, and other links pivotally attached to said leaves and parallel with said first links.



941,214. MOLDING-MACHINE. ERASTUS H. VAN NATTA, Belleville, Kans. Filed Jan. 30, 1907. Serial No. 354,850.



1. In a molding machine of the character described, the combination with a mold, of feeding means movable to and from a position over the mold, a rack supported alongside the mold, a gear wheel journaled on the feeding means and meshing with the rack, and means for rotating the gear wheel to thereby cause said movement of the feeding means.

2. In a molding machine of the character described, the combination with a mold, of feeding means movable to and from a position over the mold, racks supported along opposite sides of the mold, a shaft journaled on the feeding means, gear wheels carried by the shaft and meshing with the racks, and means for rotating the shaft.

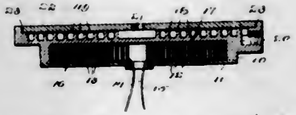
3. In a molding machine of the character described, the combination with a table having a mold, of a carriage slidably mounted on the table and interlocked therewith, a feeding hopper mounted on the carriage, racks secured to the opposite sides of the table, a shaft journaled on the carriage, gear wheels fixed to the shaft and meshing with the racks, and an operating crank secured to the shaft.

4. In a molding machine of the character described, the combination with a mold, of feeding means movable to and from a position over the mold, racks supported along opposite sides of the mold and having teeth with bottomless spaces between them, a shaft journaled on the feeding means, gear wheels fixed to the shaft and meshing with the racks, and means for rotating the shaft.

5. In a molding machine of the character described, the combination with a mold, of feeding means movable to and from a position over the mold, an agitator movably mounted on the feeding means, and common means for moving the feeding means and operating the agitator.

[Claims 6 to 31 not printed in the Gazette.]

941,215. WATER-HEATER. GEORGE H. WADE, Atlanta, Ga. Filed Sept. 2, 1908. Serial No. 451,320½.



1. In a heater, a casing provided with a spiral groove terminating at the center and periphery, means to admit water to one end of such groove and discharge it from the opposite end, and means to apply heat to the spiral convolutions.

2. In a water heater, recesses separated by a dividing partition, a spiral passage formed in contact with the partition upon one side and terminating at the center and periphery, and a heating element in contact with the partition upon the opposite side.

3. In a water heater, a substantially circular casing provided with chambers upon opposite sides, one of such chambers being provided with a spiral passage terminating at the center and periphery, a heating element disposed within the other chamber, and means to admit and discharge water from opposite ends of the spiral passage.

4. In a water heater, a substantially circular casing member provided with a circular chamber upon one side, and a circular chamber upon the opposite side, such chambers being separated by a partition, a spiral rib formed in one chamber producing a spiral passage-way leading from the periphery to the center, means to admit water at one end of the passage and discharge it from the opposite end, and means to heat the opposite chamber.

5. In a water heater, a substantially circular casing provided with opposed chambers separated by a partition wall, a spiral rib formed in one chamber producing a spiral passage-way having an outlet at the periphery at one end and at the center at the opposite end, a resistance coil disposed within the opposite chamber, and means to connect the resistance coil with the source of electrical energy.

[Claim 6 not printed in the Gazette.]

941,216. TROLLEY-POLE CATCHER. JOHN H. WALKER, Lexington, Ky. Filed Dec. 4, 1908. Serial No. 465,946.



1. The combination of a turn table, a bar extending therefrom approximately parallel with the top of the car, a trolley pole pivoted to the turn table, a connection between the said bar and trolley pole and composed of a rack section and a rod section, a carrier frame sliding along the rack section and having a sliding connection with the rod, a spring controlling said sliding connection, a dog in the carrier frame and movable into and out of engagement with the rack, a link connection between the said dog and the rod, parallel links pivoted at one end to the dog and at their other ends to the carrier frame, a brake pivoted to the carrier frame and intermediate devices between the brake and the rod, substantially as set forth.

2. In a trolley pole catcher, the combination of a rack bar, a rod movable longitudinally parallel with the rack bar, a carrier frame slidable along the rack bar and a dog carried by the said frame and connected with the rod and movable thereby into engagement with the rack bar, and means resisting such movement under normal conditions, substantially as set forth.

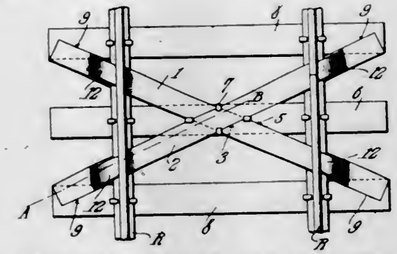
3. The combination in a trolley pole catcher, of a rack, a carrier frame slidable along the rack, a dog in the carrier frame and parallel links connecting the dog with the carrier frame and pivoted to both said parts whereby to operate substantially as described, and a rod connected with the swinging dog, substantially as set forth.

4. The combination with the rack, of a carrier frame slidable along the same, a dog in the carrier frame and movable into and out of engagement with the rack, a brake lever in the carrier frame, a brake rod connected with the dog and having a limited sliding movement in the carrier frame, a spring resisting said movement, and a spring interposed between the brake rod and the said sliding rod, substantially as set forth.

5. The combination with a rack bar and a carrier frame sliding along the same, of a dog carried by said frame and movable into and out of engagement with the rack, a pivoted brake lever having a shoe or portion movable into engagement with the rack, means for operating the dog, and a yielding connection between said dog operating means and the brake lever, substantially as set forth.

[Claims 6 to 18 not printed in the Gazette.]

941,217. TIE AND BRACE FOR RAILWAY-RAILS. HARRY O. WERT, Bloomsburg, Pa. Filed June 9, 1909. Serial No. 501,087.



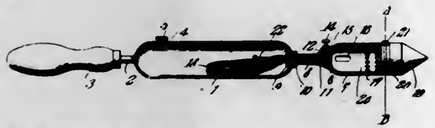
1. A combined tie and brace for track rails, consisting of crossed interlocking members having transversely grooved end portions, corresponding faces of said members being in the same plane, the grooves of the corresponding ends being arranged in alinement, and a rail brace upstanding from each end portion of each member and adjacent the groove therein for contact with the outer face of the head of the rail seated within the groove, the opposite wall of each groove being undercut for the reception of the inner base flange of a rail.

2. The combination with a recessed tie and rails secured upon the tie, of cross members interlocking at an intermediate point and seated and secured within the recess in the tie, said members having transverse grooves in their end portions in which the rails are detachably seated, the inner walls of the grooves being undercut for engagement with the inner base flanges of the rails, and braces upstanding from the end portions of the members and contacting with the outer faces of the heads of the rails seated within the grooves.

941,218. AUTOMATIC SOLDERING-TOOL. BENJAMIN F. WHITE, Newark, N. J. Filed May 17, 1909. Serial No. 496,358.

1. In a device of the class described, a burner; a reservoir assembled with the burner; a wick carried by the

burner; a wick rod disposed at one end in the reservoir; a plate assembled with the other end of the wick rod, and transversely depressed to form a seat; a lashing disposed in the seat and arranged to assemble the wick with the plate.

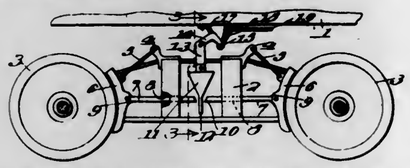


2. A device of the class described comprising a tubular burner provided with an axial bore terminating within the burner, there being an opening in the burner intersecting the bore between its ends, and a combustion orifice leading from the opening to the combustion chamber of the burner; a wick located in the bore and arranged to be advanced to extend upon either side of the opening; means located in the opening for uncovering and closing the combustion orifice; and a reservoir assembled with the burner and communicating with the bore thereof.

3. A device of the class described comprising a tubular burner provided with a neck having an axial bore terminating adjacent the burner proper, the neck being provided with an opening piercing the wall of the neck and intersecting the bore between its ends, there being a combustion orifice leading from the intermediate portion of the opening into the interior of the burner; a wick located in the bore and extended upon either side of the opening; a needle valve operable from the exterior of the device, located in the opening and arranged to uncover and to close the combustion orifice and to engage the wick; and a reservoir assembled with the neck.

4. A device of the class described comprising a tubular burner provided with a neck having an axial bore terminating adjacent the burner proper, the neck being provided with an opening piercing the wall of the neck and intersecting the bore between its ends, there being a combustion orifice leading from the intermediate portion of the opening into the interior of the burner; a wick located in the bore and extended upon either side of the opening; means located in the opening and operable from the exterior of the device, for uncovering and closing the combustion orifice, said means being arranged to engage the wick; and a reservoir assembled with the neck.

941,219. BRAKE-OPERATING MECHANISM FOR CARS. CHARLES A. WILLIAMSON, Jersey City, N. J. Filed May 10, 1909. Serial No. 494,975.

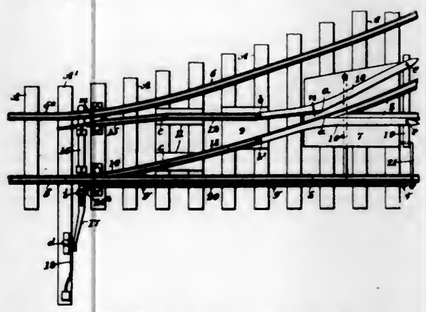


1. In a brake operating mechanism for cars the combination with the transoms of a car truck of brake shoes loosely supported on said transoms, operating plunger rods slidably mounted in said transoms and pivotally connected at their outer ends with said brake shoes, said plunger rods having beveled inner ends, a wedge block adapted to be engaged with and disengaged from the beveled ends of said plunger rods, said block having a reduced extension on its lower end to facilitate the insertion of the block between the rod ends and means for actuating said block to engage and disengage it from said rods.

2. A vehicle brake operating brake mechanism, comprising brake shoes, links to loosely support said shoes in position to engage the car wheels, slidably mounted plunger rods connected at their outer ends with said brake shoes, means whereby said rods are supported in operative position, wedge blocks arranged between the inner ends of said plunger rods, a rock shaft, operating cranks arranged on said shaft and connected to said blocks to force the same between the inner ends of said plunger rods and to retract the same from engagement therewith, and means whereby said rock shaft is operated.

3. In a brake operating mechanism for cars, the combination with the transoms of the car truck of brake shoes loosely supported in position on said transoms, operating bars or plunger rods slidably mounted in said transoms and pivotally connected at their outer ends with said brake shoes, said plunger rods having beveled inner ends, wedge blocks adapted to be engaged with and disengaged from said plunger rods, said wedge blocks having reduced extensions on their lower ends to project between the inner ends of the plunger rods, supporting and operating plates connected to the upper ends of said wedge blocks, a rock shaft, operating cranks fixedly mounted on said rock shaft, and engaged with said supporting and operating plates, and means whereby said rock shaft is actuated to operate said wedge blocks, and thereby apply and release the brake shoes.

941,220. RAILROAD SWITCH. GEORGE D. WORLEY, Texarkana, Ark., assignor of one-half to Jefferson D. Clark, Texarkana, Ark. Filed May 29, 1909. Serial No. 499,155.



1. A railroad switch, embodying a fixed tongue, two wing rails pivoted at like ends on a support and extending at each side of the fixed tongue, a shifting bar connecting the other ends of said wing rails, and a rock shaft connected with the shifting bar for simultaneously rocking the wing rails so as to alternately close a gap at one side of the tongue and open a gap at the opposite side thereof.

2. A railroad switch, embodying a straight main track rail, a curved side track rail, a fixed tongue disposed between said track rails, two wing rails bent laterally and oppositely at obtuse angles and pivoted on a support at like ends, said wing rails being positioned at each side of the fixed tongue, a shifting bar connecting the other ends of said wing rails, a fixed main track section spaced from and parallel with the other main track rail, a fixed side track section spaced from and parallel with the other side track rail, said track rail sections being respectively alined with the wing rails, two switch points tapered at like ends, and pivoted at their opposite ends near to the corresponding ends of the fixed track sections, a shifting rod connecting the tapered ends of the switch points, a shaft mounted to rock and provided with crank arms, and connections between the said crank arms and the said shifting bar and shifting rod.

3. In a railroad switch of the character described, the combination with a supported switch tongue, two wing rails pivoted at like ends and disposed at the respective sides of the switch tongue, and two switch points pivoted at like ends and tapered at their opposite ends, of a rock shaft, means for supporting said shaft rockably, a crank arm on each end of the rock shaft, a shifting bar connected to the diverged ends of the wing rails, a link bar connecting the crank arm with an end of the shifting bar, a shifting rod connected to the tapered ends of the switch points, the remaining crank arm being loosely connected with an end of the shifting rod, a rockable lever, and a connecting bar extended between the shifting bar and the lever and pivoted by one end on said lever.

4. A railroad switch, embodying a fixed tongue, two wing rails pivoted at like ends and extending at each side of the fixed tongue, a shifting bar connecting the other ends of said wing rails, two fixed track members that aline with respective wing rails, two switch points pivoted at the ends adjacent to the ends of the fixed track members, a shifting rod connected to the other ends of said switch points, and a rock shaft connected with the said shifting bar and the said shifting rod.

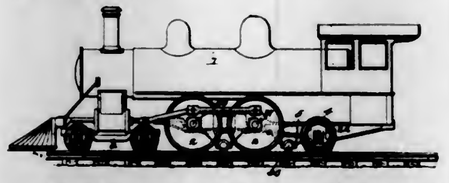
5. A railroad switch, embodying a straight main track, a curved intersecting side track rail, a fixed tongue disposed between an outer main track rail and an outer side track rail, two wing rails bent laterally and pivoted at like ends on a support and positioned at each side of the fixed tongue, a shifting bar connecting the other ends of said wing rails, a fixed main track section, and a fixed side track section respectively alined with the wing rails, two switch points pivoted by like ends adjacent to the corresponding ends of the fixed track sections, a rod connecting the other ends of said switch points, and a rock shaft connected with the said shifting bar and the said rod.

[Claims 6 to 11 not printed in the Gazette.]

941,221. DRY YEAST COMPOUND. JOHN E. YOST, Arkansas City, Kans. Filed Feb. 5, 1909. Serial No. 476,312. (Specimens.)

The product herein described, consisting of vegetable pith, and a yeast compound, said vegetable pith being in the form of small particles and said yeast compound being coated superficially upon said particles.

941,222. RAILROAD SAFETY APPLIANCE. JAMES T. ANDREW, Montgomery, Ala. Filed Feb. 19, 1909. Serial No. 478,802.



1. In a safety railroad appliance, the combination of a truck provided with axles and wheels thereon, sleeves surrounding said axles and provided with downwardly projecting hangers, horizontal parallel shafts fixed in said hangers, a roller revolubly mounted on the end of each of said shafts, and safety wheels carried on said axles outside of said main wheels, said safety wheels being of smaller diameter than the main wheels, substantially as described.

2. In a railroad safety appliance, the combination of a truck provided with axles and wheels thereon, sleeves surrounding said axles and secured to said truck, said sleeves being provided with downwardly projecting hangers, and said axles being provided with safety wheels mounted outside of said main wheels on said axles and of smaller diameter than said main wheels, horizontal parallel shafts journaled in said hangers, and a flanged roller revolubly mounted on the end of each of said shafts, substantially as described.

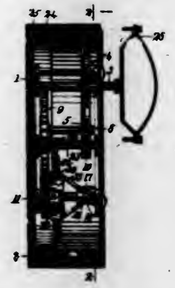
3. In a safety railroad appliance, the combination of a truck provided with equalizer beams, with axles, and with supporting wheels, of two-part sleeves surrounding said axles, said sleeves being fastened together and the upper sleeve being fastened to the equalizer beams, the lower part of said sleeves being provided with downwardly projecting hangers, braces connected to said hangers and the corresponding equalizer beams, safety wheels mounted on said axles outside of said supporting wheels, parallel horizontal shafts fixed in said hangers, and a flanged roller on each of the outer ends of each of said shafts, and revolubly mounted thereon, substantially as described.

4. In a railroad safety appliance, the combination of a truck provided with the usual equalizer beams, journal box, axles, and supporting wheels, two-part sleeves surrounding each of said axles, the parts of said sleeves being secured together, and the upper sleeve having a projecting portion passing over the corresponding equalizer beams and fastened thereto, and the lower part of said sleeves being provided with downwardly projecting, triangular hangers, braces running from each of said hangers to the corresponding equalizer beams and attached thereto, parallel horizontal shafts supported in the lower corners of said hangers, each of said shafts being provided with a groove in its outer end, and a flanged roller mounted on each of the outer ends of each of said shafts and provided with a pin entering the groove in said shaft, substantially as described.

5. In a railroad safety appliance, the combination of the main frame of a locomotive, hangers bolted thereto and projecting downwardly, each terminating at its lower end in a fork, a shaft fixed in the forks of oppositely located hangers, and two rollers on each end of said shaft and revolubly mounted thereon, the outer roller being plain and the inner roller being flanged, substantially as described.

[Claim 6 not printed in the Gazette.]

941,223. SPEEDOMETER. HARRY C. BERRY, Toledo, Ohio. Filed Dec. 15, 1908. Serial No. 467,682.

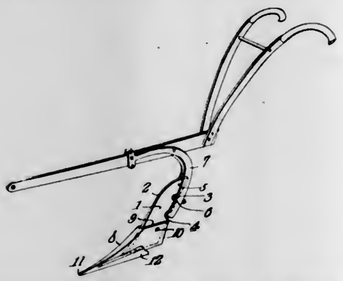


1. In a speedometer an annular casing, a frame secured thereto, a central shaft journaled in the frame, an indicator wheel secured to the central shaft, the indicator wheel being disposed in close proximity to the inner side of the annular casing, a second shaft journaled in the frame, a governor mounted for rotating on the second shaft, a collar slidably mounted on the second shaft, the movement of which is controlled by the governor, a third shaft, a lever secured thereto, which is adapted to be operated by the collar, a second lever secured to the third shaft, a drum on the first shaft, a tape wound on the drum and connected to the second lever, and means to rotate the second shaft.

2. In a speedometer an annular casing, a frame secured thereto, a central shaft journaled in the frame, an indicator wheel secured to the central shaft and disposed around the frame in close proximity to the inner side of the annular casing, there being an opening in the periphery of the annular casing to exhibit a surface of the indicator wheel, a second shaft journaled in the frame, a governor mounted for rotating on the second shaft, a collar slidably mounted on the second shaft, the movement of which is controlled by the governor, a third shaft, a lever secured thereto, which is adapted to be operated by the collar, a second lever secured at the third shaft, a drum on the central shaft, a tape wound on the drum and connected to the second lever, and means to rotate the second shaft.

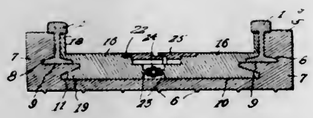
3. In a speedometer an annular casing, a frame secured thereto, a central shaft journaled in the frame, an indicator wheel secured to the central shaft and disposed around the frame in close proximity to the inner side of the annular casing, there being an opening in the periphery of the annular casing to exhibit a surface of the indicator wheel a second shaft journaled in the frame, a governor mounted for rotating on the second shaft, a collar slidably mounted on the second shaft, the movement of which is controlled by the governor, a third shaft, a lever secured thereto, which is adapted to be operated by the collar, a second lever secured at the third shaft, a drum on the central shaft, a tape wound on the drum and connected to the second lever, means to rotate the second shaft, a fourth shaft adapted to operate the last named means, the fourth shaft being journaled in the frame at one side of the center of gravity of the speedometer, and means for connecting the fourth shaft with a revolving piece of machinery.

941,224. PLOW. BENJAMIN T. BETHUNE, Milledgeville, Ga. Filed Feb. 19, 1909. Serial No. 478,847.



In combination with a plow having a standard with spaced sides, a plate having in its rear edge a notch for the reception of the lower portion of the standard, said plate also having in its rear edge a recess with an enlarged inner end, a pin passing transversely through the plate and having end portions projecting beyond the planes of the sides of the plate and adapted to bear against the front edges of the sides of the standards, a detachable bolt having a head adapted to rest in the enlarged portion of the recess, said bolt adapted to pass through the space between the sides of the standard, means for securing the bolt to the standard and a share detachably mounted upon the lower portion of the plate.

941,225. CROSS-TIE AND RAIL-FASTENER. ALBERT BIROCHIK, Glenwhite, Pa. Filed July 10, 1909. Serial No. 506,962.



1. In a device of the character described, the combination of a tie body having undercut enlargements to receive the outer base flanges of the track rails, the intermediate portion of the top of the body having a longitudinal recess terminating in undercut portions or seats, the sides of said body being also formed with longitudinal recesses terminating in seats, the last mentioned recesses having notched outwardly extending flanges in their upper portions intermediate their ends, rail clamping members having undercut outer ends to receive the inner base flanges of the track rails, said members having body portions to enter the recess in the top of the body, said body portions having their outer ends terminating in tongues to enter the seats at the ends of said recess in the top of the body, the inner ends of said body portions of the members being reduced and terminating in screw threaded stems, the stems of the two members being oppositely threaded, said clamping members being also formed with depending side flanges to enter the recesses in the sides of the body, said depending flanges having their outer ends formed with projecting tongues to enter the seats at the ends of the side recesses in the tie body, a turn buckle upon the screw threaded stems, and a cover plate arranged over the intermediate portion of the tie body and the recessed inner ends of said clamping members, said cover plate having depending side flanges to enter the side recesses in the tie body and also having inwardly projecting lugs to enter the notches of the flanges in said side recesses of the tie body, substantially as described.

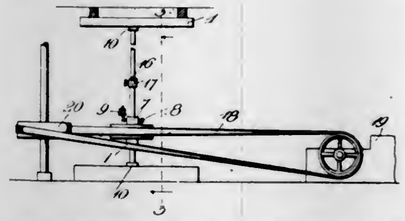
2. In a device of the character described, the combination of a tie body having at its ends under cut enlargements to engage the outer sides of track rails and receive the outer base flanges thereof, the intermediate portion of the top of the tie body having a longitudinally extending recess terminating in under cut portions or seats, the sides of said body being also formed with longitudinal recesses terminating in seats, the last mentioned recesses having notched outwardly extending flanges in their upper portions intermediate their ends, rail clamping members having under cut outer ends to engage the inner sides of track rails and receive the inner base flanges thereof, said members having body portions to enter the recesses in the top of the tie body, said body portions of the members having their outer ends terminating in tongues to enter the seats at the ends of said recesses in the top of the tie body, said clamping members being also formed with depending side flanges to enter the recesses in the sides of the tie body, said depending flanges having their outer ends formed with projecting tongues to enter the seats at the ends of the side recesses in the tie body, an adjusting means arranged between the inner ends of the rail clamping members and in said tie body, and a cover plate arranged over the intermediate portion of the tie body and formed with depending side flanges to enter the side recesses in the tie body, said flanges of the cover plate having inwardly projecting lugs to enter the notches of the flanges in said side recesses of the tie body.

3. In a device of the character described, the combination of a tie body having at its ends under cut enlargements to engage the outer sides of track rails and receive the outer base flanges thereof, the intermediate portion of the top of the tie body having a longitudinally extending recess terminating in under cut portions or seats, the sides of said body being also formed with longitudinal recesses terminating in seats, rail clamping members having under cut outer ends to receive the inner base flanges of the track rails, said members having body portions to enter the recess in the top of the tie body, said body portions of the members having their outer ends terminating in tongues to enter the seats at the ends of said recess in the top of the tie body, said clamping members being also formed with depending side flanges to enter the recesses in the sides of the tie body, said depending flanges having their outer ends formed with projecting tongues to enter the seats at the ends of the side recesses in the tie body, and adjusting means arranged in the tie body between the inner ends of said clamping members.

941,226. BELT-TIGHTENER. DANIEL R. BLAKESLEE, Van Buren, Ind., and HENRY W. BLAKESLEE, Nowata, Okla. Filed June 21, 1909. Serial No. 503,516.

1. In a belt tightener, a pair of guide tracks, rack bars arranged in said tracks, a tightening shaft, means on said shaft to engage said rack bars, whereby the shaft is held in its adjusted position to tighten the belt, means to turn said shaft to bring the rack engaging elements thereon into successive engagement with the teeth of the rack, and a belt engaging pulley loosely mounted on the shaft.

2. In a belt tightener, a pair of guide tracks having arranged thereon stop flanges, rack bars arranged in said tracks, said bars having formed therein a series of notches, a belt tightening shaft, rack engaging pins arranged on the opposite ends of the shaft to engage the notches in said rack bars, whereby said shaft is held in adjusted position in said tracks, collars arranged on said shaft, lugs formed on said collars and adapted to hold said shaft in position, a supporting roller revolubly mounted between the rack engaging pins at the lower ends of said shaft, said roller being adapted to travel in said lower track, a belt engaging pulley loosely mounted on said shaft, pulley retaining collars secured to the shaft to hold the pulley in place, and an operating handle secured to the shaft, whereby the latter may be turned to successively bring the pins thereon into engagement with the notches of the rack.



3. In a belt tightener, a pair of guide tracks, rack bars arranged therein, a belt tightening shaft, pins on opposite ends of said shaft to engage the teeth of the racks, whereby said shaft is held in adjusted position in said tracks, means to turn said shaft to bring the rack engaging pins into successive engagement with the teeth of the rack, and a belt engaging pulley loosely mounted on said shaft.

4. In a belt tightener, a pair of guide tracks having arranged thereon stop flanges, rack bars arranged in said tracks, a belt tightening shaft, pins on opposite ends of said shaft to engage the teeth of the rack bars, whereby said shaft is held in adjusted position in said tracks, and means at opposite ends of said shafts to engage the stop flanges of the guide tracks and hold the shaft in adjusted position.

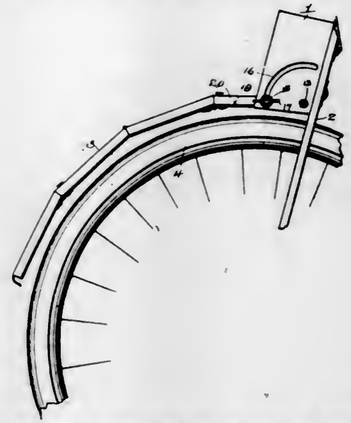
5. In a belt tightener, a pair of guide tracks having longitudinal stop flanges, rack bars arranged in said tracks, a belt tightening shaft, pins on opposite ends of said shaft to engage the teeth of the rack bars, and collars at opposite ends of said shaft, having lugs to engage the stop flanges of the racks to hold said shaft in adjusted position in the tracks.

941,227. AUTOMATIC SWITCH. ELMER F. BURR, Chicago, Ill. Filed July 29, 1909. Serial No. 510,193.



An automatically operated switch comprising, in combination with the ties and main rails of a railway and the pivotal switch point, a horizontally disposed rock shaft mounted in suitable bearings underneath the ties, connections between the rock shaft and switch point, a plate fixed to said rock shaft and having slots therein, vertically disposed rods having sliding pivotal connections with said slots and mounted in suitable bearings upon the ties, depressing plates pivotally connected to the upper ends of said rods and normally inclined with their free ends slightly curved and resting upon the ties, as shown and described.

941,228. MUD-GUARD. WALTER J. CHISHOLM, Houston, Tex. Filed June 8, 1909. Serial No. 500,825.



1. In a device of the character described, a housing, a guard proper pivotally connected to said housing, and means for clamping said guard proper in said housing when said guard proper is not in use.

2. In a device of the character described, a housing, a folding guard proper, means for holding the parts of said folding guard proper in an extended position, and means for holding said guard proper at any desired angle in respect to said housing.

3. In a device of the character described, a housing, a folding guard pivotally connected with said housing, said folding guard being formed in a plurality of sections, catches for holding said sections in an extended position, and a bodily movable bolt engaging said housing for varying the angle of said guard in relation to said housing.

4. In a device of the character described, a housing formed with a plurality of slots therein, a folding guard proper pivotally mounted to said housing, a bolt passing through said housing and adapted to move in said slots, said bolt being pivotally connected with said guard proper, and means for clamping said bolt to said housing at any point along said slot for varying the angle of said guard in respect to said housing.

5. In a device of the character described, a housing, a folding guard proper adapted to be folded in said housing when not in use, and a fender for preventing foreign matter from entering said housing when said guard proper is in use.

[Claim 6 not printed in the Gazette.]

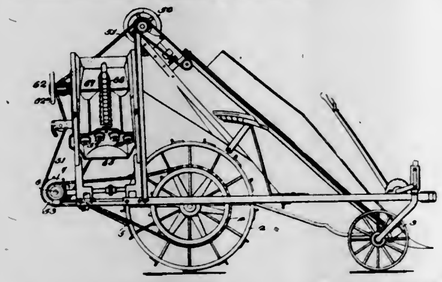
941,229. HUSKING-MACHINE. WILLIAM CLOUSER, Dana, Ind. Original application filed Jan. 4, 1908, Serial No. 409,322. Divided and this application filed Oct. 6, 1908. Serial No. 456,387.

1. The combination with co-acting husking rolls, spaced oscillating pans disposed at the opposite ends of the husking rolls and mounted for oscillation in different planes, one of said pans being adapted to receive the corn to be husked and the other loose grains, and means for transmitting motion from one pan to the other.

2. The combination with a pair of coöperating husking rolls, spaced pans disposed at the opposite ends of the husking rolls and mounted for oscillation in different planes, a feeder arranged between the husking rolls and secured to one of said pans, and means for transmitting motion from one pan to the other.

3. The combination with pairs of husking rolls, adjacent rolls being in a higher plane than the outer rolls, pans dis-

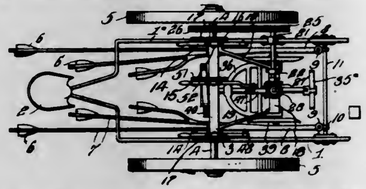
posed at the opposite ends of the husking rolls and mounted for oscillation in different planes, a feeder arranged opposite to and directly above the space formed between said higher husking rolls and secured to one of said pans, means for oscillating the feeder carrying pan, and a connection between the feeder carrying pan and the other pan for simultaneously operating both pans.



4. The combination with pairs of coöperating husking rolls, adjacent rolls being in a higher plane than the outer rolls, oscillating pans disposed at the opposite ends of the husking rolls, and a feeder arranged opposite to and directly above the space formed between the said higher husking rolls and movable with one of said pans, said feeder comprising a toothed bar arranged to reciprocate between the husking rolls.

5. In combination, coöperating husking rolls, pans located at the upper end of the husking rolls to receive the ears of corn to be husked, a toothed feeding bar connected with said pan and arranged to operate over the husking rolls, means for imparting a reciprocating movement to said pan, a second pan disposed at the lower end of the husking rolls, and means for transmitting motion from one pan to the other.

941,230. COTTON-CHOPPER. WILLIAM A. CROW, Cement, Okla. Filed Sept. 23, 1908. Serial No. 454,393.

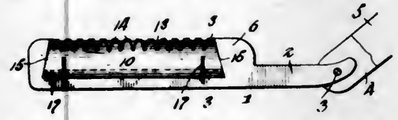


1. A cotton chopping device comprising a split band having its ends spaced apart and offset at reverse oblique angles to each other, said ends having their extremities and opposite side edges beveled to form reverse cutters, a sleeve provided with a securing device for fastening the band upon a rotating shaft, threaded stems upon the sleeve and sides of the band, and turn buckles connecting said stems to support said band from the sleeve and to expand and contract the band.

2. A chopping device comprising a split band having its ends offset out of alinement and formed to provide cutting surfaces for action in opposite directions of revolution of said device, means for detachably and reversibly mounting the band upon a supporting shaft, and means associated with said supporting means to contact and expand the band.

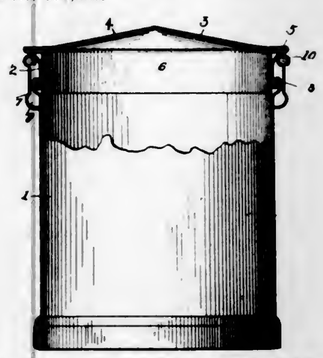
3. A cotton chopping attachment for cultivators comprising a supporting frame having bracket arms at its upper end for attachment to the main frame of the cultivator, a bracket slidably mounted on the lower portion of said supporting frame, a bar slidably mounted on said supporting frame above said bracket, an arm connecting the bar and bracket, adjusting means connected with said arm, a horizontal shaft journaled on the bracket, a gear upon the horizontal shaft, a gear journaled on the bar and meshing with said gear on the horizontal shaft, a hollow gear journaled on the upper portion of the supporting frame and having an angular bore, a vertical shaft connected with the gear on the bar and slidable through the bore of the gear on the upper portion of the frame, means for transmitting motion to the latter-named gear, and a rotary chopper mounted on said horizontal shaft.

941,231. SAFETY-RAZOR. FRANK CUPELLI, Point Marion, Pa. Filed May 25, 1909. Serial No. 498,141.



A razor comprising a receptacle having a member pivotally connected thereto provided with a cutaway portion arranged to form adjacent to the ends of the member inclined walls, a guard having inclined walls for frictionally engaging the inclined walls of the member and arranged for engagement with the walls so as to hold the guard against sliding movement in an outward direction, blades at the sides of the guard provided with inclined end walls for engaging the inclined walls of the member, and blade retaining means carried by the member adapted to engage the blades and to hold them against the sides of the said guard.

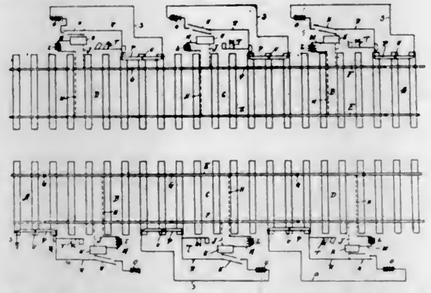
941,232. MILK-CAN. GEORGE H. DAMROW and EDWARD C. DAMROW, Fond du Lac, Wis. Filed June 19, 1909. Serial No. 503,140.



A can of the class described comprising a hollow metal body having a member of non-corrosive metal secured thereto at its upper end, a cover having a depending member of non-corrosive metal adapted to be frictionally engaged with the member carried by the can body, and an annular guard secured to the can and surrounding the member at the upper end of the can, said guard having its walls spaced from the walls of the first named member.

941,233. AUTOMATIC SAFETY APPLIANCE FOR RAILWAYS. WILLIAM G. DARING, Pittsburg, Pa., assignor of one-third to Charles B. Henry and one-third to Samuel D. Daniels, Pittsburg, Pa. Filed Apr. 27, 1909. Serial No. 492,473.

1. In an electric safety signal syatem for railways, the combination with normally open circuits, the closing of one adapted to close the other, and a contact block in connection with the last mentioned circuit, of a tender equipment, said equipment embodying an electrically released valve for releasing air from the brake cylinder of a train and setting the brakes thereof, a depending contact shoe adapted to engage said block to actuate said valve, said valve comprising a valve body adapted to connect with a brake cylinder, a flap valve in said valve body for controlling the release of air from the brake cylinder, a superimposed cylinder supported by said valve body, a normally elevated weight within said cylinder, an electro-magnet supported by said cylinder and in circuit with said shoe and adapted to release said weight when energized, and means supported by said valve and actuated by said weight to release said flap valve and the air from said brake cylinder.



2. In an electric safety signal system for railways, the combination with normally open circuits, the closing of one adapted to close the other, and a contact block in connection with the last mentioned circuit, of a tender equipment, said equipment embodying an electrically released valve for releasing air from the brake cylinder of a train and setting the brakes thereof, a depending contact shoe adapted to engage said block to actuate said valve, said valve comprising a valve body adapted to connect with a brake cylinder, a flap valve in said valve body for controlling the release of air from the brake cylinder, a superimposed cylinder supported by said valve body, a normally elevated weight within said cylinder, an electro-magnet supported by said cylinder and in circuit with said shoe and adapted to release said weight when energized, means supported by said valve and actuated by said weight to release said flap valve and the air from said brake cylinder, and means in connection with said valve for conveying exhaust air from the brake cylinder to the superimposed cylinder for restoring said weight to its normal position.

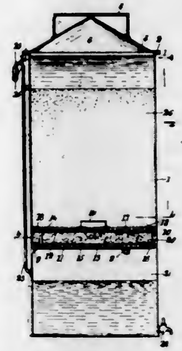
3. In an electric safety signal system for railways, the combination with a track circuit, of a tender equipment, said equipment embodying an electrically released valve adapted to be actuated by said track circuit for releasing air from the brake cylinder of a train to set the brakes thereof, said valve comprising a valve body, a flap valve located in said valve body for controlling the exhaust of air from the brake cylinder, a cylinder carried by said valve body, a weight normally located in the upper end of said cylinder, a latch adapted to normally support said weight in an elevated position, means carried by said cylinder and actuated by the track circuit for releasing said weight, means actuated by said weight for releasing said flap valve and allowing air to exhaust from the brake cylinder, and means in connection with said valve body for utilizing the exhaust air of the brake cylinder for restoring said weight to its normal position.

4. In a safety appliance for railways, the combination with a track circuit, of a valve adapted to be released by said circuit for setting the air brakes of a train, said valve comprising a valve body, a valve in said body for controlling the exhaust of air from the brake cylinder of a train, a cylinder supported by said valve body, means normally retained in the upper end of said cylinder and adapted to be released by the track circuit for moving said flap valve and releasing air from the brake cylinder, and means in connection with said valve body and said cylinder for utilizing exhaust air from the brake cylinder for restoring the first mentioned means to its normal position.

5. In a safety appliance for railways, the combination with a track circuit, of an electrically released valve, said valve comprising a body, a flap valve for controlling the air from a brake cylinder, an elevated weight adapted to be released by the track circuit for moving said flap valve, means in connection with said valve for utilizing the exhaust of air from the brake cylinder for restoring said weight to its normal position.

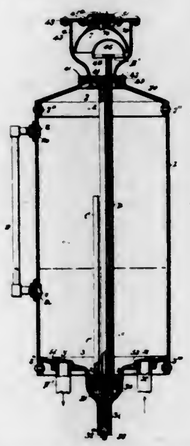
[Claims 6 to 8 not printed in the Gazette.]

941,234. SYRUP-PERCOLATOR. FRANK DE CLERCQ, New York, N. Y. Filed Feb. 25, 1909. Serial No. 479,860.



A percolator having a body with a filter bottom therein, a substantially air-tight cover for said body, the portion of said body beneath said filter bottom constituting a syrup chamber, a faucet for draining said syrup chamber, and an air vent having a check valve disposed near the upper end of said body opening communication between the atmosphere and said syrup chamber.

941,235. EXPANSION-TANK WITH LIQUID-RELIEF. HARRY A. R. DIETRICH, South Bethlehem, Pa. Filed July 14, 1908. Serial No. 443,532.



1. A relief device of the class described, comprising a pair of tubes in communication with each other at their lower ends, a mercury container into which the tubes dip to seal them from each other, a liquid and air holding tank in communication with one of the said tubes and with the mercury container and means for admitting fluid under pressure to the tank the bottom of said tank forming said mercury container.

2. In a water heating system, the combination with the water circulating means; of a tank having an inlet and an outlet and a mercury pot at a point below the inlet and outlet, a relief pipe that dips into the mercury pot

and extends above the tank, an air exhausting pipe that extends outside the tank, another air exhausting pipe that extends up into the tank, the lower ends of the two exhausting pipes dipping into the mercury pot and in communication when the fluid pressure on the mercury forces the same below its lower ends.

3. In a relief mechanism of the character described, a tank having a pendent mercury pot at one end, an inlet and an outlet for the circulating water above the pot, and internal guard lips surrounding the said inlet and outlet.

4. A pressure and relief attachment for hot water systems, including a tank having a dished bottom merging with a depending liquid seal holding well projected beneath the dished portion of the bottom of the tank and in communication with the interior of the tank, said tank having an air chamber above the liquid seal holding well.

5. A relief device to be used in water pressure systems, comprising a closed tank having an inlet and an outlet for the fluid under pressure, and a pot at the lower end for holding a sealing liquid, a chamber having a blow off outlet above the said tank, a pair of tubes whose lower ends are in communication and extended down into the sealing pot, one of the said tubes extending up and discharging into the chamber above the tank, the other having its upper end in communication with the air space in the tank, and a return pipe from the chamber above the tank that extends down through the tank into the sealing pot.

[Claims 6 to 12 not printed in the Gazette.]

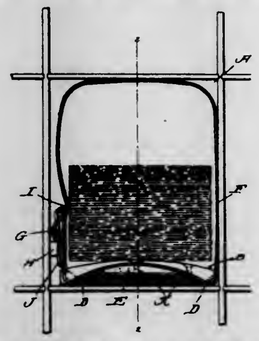
941,236. CUP. MARY DISHMAN, Bowling Green, Ky. Filed Oct. 23, 1908. Serial No. 459,267.



1. In combination, a cup having a rim pendent from its bottom, a keeper secured to the bottom, and a spring clamp comprising an attaching member, adapted to be fitted to said keeper, and a jaw, the latter adapted to act jointly with said keeper and the pendent rim of the cup.

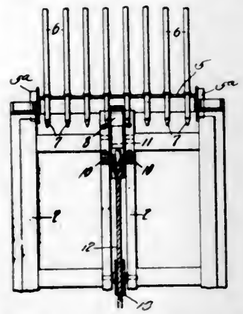
2. In combination, a cup having a rim pendent from its bottom, a centrally disposed keeper attached to the bottom of the cup and spaced at one end from the rim, and a spring clamp comprising a jaw and an attaching member, the latter inserted within said keeper and prevented from displacement by having a part confined between the end of the keeper and the said pendent rim.

941,237. MAIL-PACKAGE. BOYD L. DOTSON, Greenwood, W. Va. Filed July 26, 1909. Serial No. 509,497.



A package comprising a body having recesses in its under side and at its ends and also having a transverse central groove in its under side, and notches in opposite edges and in communication with said groove and further having an upper side slightly convex in cross-section, a strap extending through the transverse groove of the body and having an apertured end portion, a buckle connected with the strap and arranged at the outer side of the said apertured end portion, and rivets permanently connecting the body and the strap together.

941,238. HAY-STACKER. FRANCIS M. ERWIN, Kinsley, Kans. Filed Feb. 8, 1909. Serial No. 476,584.



1. A device of the kind described comprising a longitudinally slotted inclined frame, a hay receiving carriage movable along said frame, a U-shaped guide strip carried by the carriage and traveling in said slot, a cable attached to said strip, and a roller in alinement with the upper end of the slot, the cable and guide strip working upon said roller, as and for the purpose set forth.

2. A device of the kind described comprising a base, uprights at one end of the base, inclined beams supported by the base and the uprights, said beams forming respectively a trackway and a guideway, a wheeled carriage traveling upon the trackway a U-shaped guide bracket, the bow portion of which is secured to the under side of the carriage, the strip traveling in the guideway, a cable attached to the rear end of the strip, and a roller arranged at the upper end of the guideway, the cable and guide strip working upon said roller.

3. A device of the kind described comprising an inclined frame forming a trackway, portions of said frame being spaced apart to form a guideway, a beam arranged transversely to the inclined frame, oppositely arranged sets of teeth carried by said beam, a U-shaped guide strip secured to the under side of the beam and traveling in the guideway, a cable connected to said strip, and a roller arranged at the upper end of the guideway, the cable and strip working upon said roller.

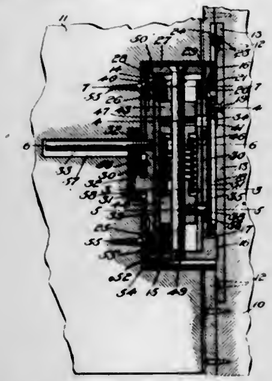
941,239. DOUBLE-ACTING HINGE. JOHN A. FISCHER, Memphis, Tenn. Filed Dec. 12, 1908. Serial No. 467,316.

1. In a hinge the combination with relatively fixed and movable members, of an interposed actuating spring, and means including a lever for operatively connecting said members and spring, substantially as described.

2. In a hinge the combination with relatively fixed and movable members, of an interposed actuating spring, a tubular pintle surrounding said spring, and locking mechanism for said pintle including a lever adapted to operatively connect said hinge members spring and pintle, substantially as described.

3. In a hinge the combination with relatively fixed and movable members, of an interposed actuating spring, a tubular pintle surrounding said spring, a dog for locking said pintle against rotation to operatively connect said hinge members spring and pintle, and a lever for actuating said dog, substantially as described.

4. In a hinge the combination with relatively fixed and movable members, the latter provided with transverse slots near opposite ends thereof, a tubular pintle contained within said movable hinge member also transversely slotted, spring holders within said pintle, an actuating spring connecting said holders, pins projecting from said holders through the transverse slots aforesaid, and a lever for operatively connecting said fixed and movable members, substantially as described.



5. In a hinge the combination with relatively fixed and movable members substantially cylindrical in form, of a tubular pintle contained within the members aforesaid, spring holders and an interposed actuating spring within said pintle, a pin projecting radially from each of said holders to engage and rotate with the movable hinge member, and means for connecting and disconnecting said pintle with a fixed support including a locking device and a hand operated lever to move said device into and out of engagement with said pintle, substantially as described.

[Claims 6 to 15 not printed in the Gazette.]

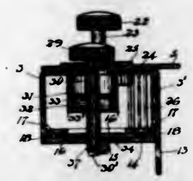
941,240. PENHOLDER ATTACHMENT. JAMES J. FITZGERALD, Pittsburg, Pa. Filed June 25, 1909. Serial No. 504,316.



1. The combination with a pen-holder having the upper end thereof reduced, of a split sleeve adapted to fit upon the reduced end of said holder, upwardly extending parallel holders carried by said sleeve, resilient gripping arms carried by the forward and rear edges of said holders, the gripping arms at the rear edge of said holders being semi-cylindrical in form to grip the sides of a sand rubber, the gripping arms at the forward edge of said holders providing a socket to receive a knife blade having the rear edge thereof provided with a strap, substantially as described.

2. An attachment for pen-holders, comprising a sleeve, upwardly extending holders carried thereby and having the front and rear edges thereof provided with resilient gripping arms, the arms at the rear edges of said holders being adapted to hold a sand rubber, and a reversible knife blade adapted to be held by the arms at the front edges of said holders.

941,241. COMBINATION-LOCK. WILLIAM FOX, Winnipeg, Manitoba, Canada. Filed Aug. 20, 1908. Serial No. 449,565.



1. In a device of the class described, the combination with a set of opposing plates adapted to be closed together, and a depressible laterally extending locking bar carried by one plate and designed to enter an opening in the opposing plate, of a slidable plate designed to engage with the locking bar and to lock the opposing plates together, means whereby the sliding plate may be brought to a predetermined position, and a plunger rod adapted to be depressed when the plate has reached such predetermined position to disengage the locking bar from the sliding plate, as and for the purpose specified.

2. In a device of the class described, the combination with a set of opposing plates adapted to be closed together, and a depressible laterally extending locking bar carried by one plate and designed to enter an opening in the other plate, of a sliding plate designed to engage with the locking bar to lock the opposing plates together, a rotatable plate carried by the sliding plate and having openings therein, means whereby the sliding plate may be moved to a predetermined position, means for turning the rotatable plate to a predetermined position, such latter means being further designed to engage with the locking bar when the slidable and rotatable plates are in their predetermined positions, as and for the purpose specified.

3. In a device of the class described, the combination with a set of opposing plates adapted to be closed together, and a depressible laterally extending locking bar carried by one plate and designed to enter an opening carried by the other plate, of a sliding plate designed to engage with the locking bar to lock the opposing plates together, a rotatable plate carried by the sliding plate and having openings therein, means whereby the sliding plate may be moved to a predetermined position, a depressible plunger rod having its lower end designed to pass into one of the openings in the rotatable plate whereby the plate may be rotated to a predetermined position, such rod being adapted when both of such plates are in their predetermined positions to pass, when depressed, into and through the other of the openings and into engagement with the locking bar, as and for the purpose specified.

4. In a device of the class described, the combination with a set of opposing plates adapted to be closed together, and a depressible laterally extending locking bar carried by one plate and designed to enter an opening in the opposite plate, of a sliding plate designed to engage with the locking bar to lock the opposing plates together, a rotatable plate carried by the sliding plate and having openings therein, a rotatable rod controlling the position of the sliding plate, a depressible plunger rod having its lower end adapted to fit into one of the aforesaid openings whereby the rotatable plate may be turned, such rod being further adapted in a certain position of the rotatable and the sliding plates to pass into and through the other of the openings and when depressed to engage with the locking bar, as and for the purpose specified.

5. In a device of the class described, the combination with a set of opposing plates of a channel bar form adapted to be closed together, and a depressible laterally extending locking bar carried by one plate and designed to

enter an opening carried by the other plate, of an incasing plate disposed between the downwardly extending arms of the latter plate, said opening entering beneath the incasing plate, a slidable T-plate carried by the incasing plate and having its arm passing into and through a longitudinal slot in such latter plate, such arm engaging with the locking bar, a circular plate having openings therein carried by the slidable plate, a rotatable rod entering the casing and designed to control the motion of the sliding plate, a rotatable depressible plunger rod entering the casing and designed, when depressed, to have its lower end enter one of the openings in the circular plate whereby such plate may be turned, such rod being adapted also to pass into and through the other of the openings and into engagement with the locking bar, as and for the purpose specified.

[Claims 6 to 9 not printed in the Gazette.]

941,242. BELT-BUCKLE. ANDREW M. GARDNER, Nashville, Tenn., assignor of one-half to Benjamin C. Woodward, Nashville, Tenn. Filed May 22, 1909. Serial No. 497,629.

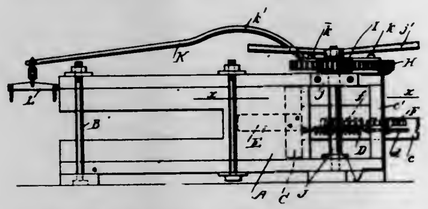


1. The combination of a front plate, and a buckle member hinged to said plate, to swing to and from the same, means to hold said member in closed position against the plate, a clasp for one end of a belt, said clasp having separate parts attached respectively to the plate and said member and arranged to hold the end of the belt when the member is closed against the plate, and a clasp carried by said member for the other end of the belt.

2. The combination of a front plate, a hinge member fixed to the back thereof near one end and having a projecting edge, a frame provided with loops at opposite ends to receive the ends of a belt or the like, one loop being pivotally connected to said member and arranged to swing to closed position and to thereby clamp the belt end against said edge, a pivoted clasp member mounted on the other loop and constructed to grip the end of the belt therein, and means to hold the frame closed against the front plate.

3. The combination of a front plate having a spring clip on the back thereof, a buckle frame hinged at one end to the back of the plate and having clasps at opposite ends to engage the ends of a belt or the like, the clasp at the free end having a turning clamping part which is engaged and held closed by the clip when the frame is swung to closed position against the plate.

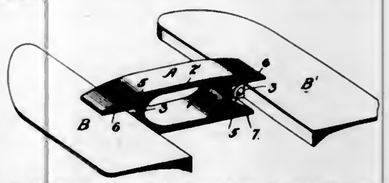
941,243. HAY-PRESS. HAZELIUS B. GASKIN, Blountstown, Fla. Filed Dec. 26, 1908. Serial No. 469,334.



1. In a press, the combination, with a press-chamber, of a plunger slidable therein and provided with a toothed rack-bar, a vertical shaft journaled at one side of the press, a toothed segment secured on the said shaft and engaging with the said rack-bar, a toothed wheel also secured on the said shaft, a vertical shaft journaled at the other side of the press and provided at its top with a handle for revolving it, and a pinion secured on the last said shaft and gearing into the said wheel.

2. In a press, the combination, with a press-chamber, of a plunger slidable therein and provided with a toothed rack-bar, a vertical shaft journaled at one side of the press, a toothed segment secured on the said shaft and engaging with the said rack-bar, a toothed wheel also secured on the said shaft, a vertical shaft journaled at the other side of the press and provided at its top with a handle for revolving it, a pole secured to the said wheel and provided with a curved portion for clearing the said handle, and a draft-attachment connected to the free end portion of the said pole.

941,244. SWIMMING APPLIANCE. WILLIAM A. GLAZIER, Etowah, Tenn. Filed June 15, 1909. Serial No. 502,246.

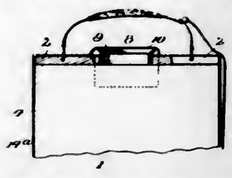


1. A swimming device comprising a handle provided with an opening through which may be passed the hand, having a cross piece to be grasped, below the opening, a pair of wings pivoted to the ends of the handle, and means to limit the extent to which the wings may be moved about their pivots, substantially as set forth.

2. A swimming device comprising a handle to be grasped by the swimmer, having its ends recessed, and formed with stops or lugs on either side of the recesses, and wings pivoted in the recesses between the said lugs, the latter serving to limit the extent to which the wings may open and close, substantially as set forth.

3. A swimming device consisting of a handle having a central opening through which the hand may be passed, the bars above and below the opening being extended at either end of the handle to form lugs, and wings pivoted between the said lugs, substantially as set forth.

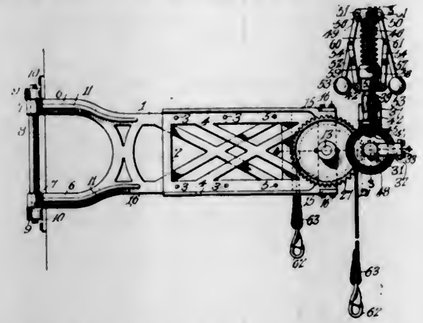
941,245. WATER-BAG. FRANK A. GORDON, Nogales, Ariz. Filed Feb. 8, 1909. Serial No. 476,693.



A bag of the character described comprising a body portion having its side walls folded and secured at their edges and provided with a filling opening, a stay around which said side walls are folded, said stay being provided with an opening registering with the opening in said body portion, a funnel adapted to fit within the stay opening, a hood secured to the bag and arranged to form a closure for said funnel and filling opening, a valve controlled outlet for the bag, and carrying means secured to said stay.

941,246. FIRE-ESCAPE. CHARLES E. GREEN and THOMAS C. BRASKET, Anderson, Ind., assignors of one-third to George W. Hoppes, Anderson, Ind. Filed Nov. 19, 1908. Serial No. 463,439.

1. A fire escape including a horizontally swinging frame provided at its inner end with upper and lower horizontal arms and composed of extensible inner and outer sections, one of the sections being provided at its upper and lower edges with horizontal guide flanges receiving the other section, fastening devices located between the flanges and piercing the sections, a spool or drum mounted on the outer section of the frame, a rope or cable wound around the spool or drum, and a governor for controlling the rotary movement of the said spool or drum.



2. A fire escape including a horizontally swinging frame hinged at one end and having a horizontal arm at its other end, said frame being also provided with a vertical arm extending upward from the horizontal arm, a transverse shaft journaled on the frame, a spool or drum mounted on the transverse shaft, and a substantially U-shaped supporting member secured to the frame and provided with a bearing receiving the transverse shaft, a substantially L-shaped horizontally disposed supporting member secured to the horizontal arm, a counter shaft journaled in the horizontal arm and in the L-shaped supporting member, gearing connecting the said shafts, a bracket secured to the vertical arm, a governor carried by the bracket, and gearing connecting the governor with the counter shaft.

3. A fire escape including a horizontally swinging frame, a spool or drum, a flexible connection arranged on the spool or drum, a bracket carried by the frame and extending laterally therefrom and provided with a collar, a vertical sleeve mounted in the collar, a governor located above the bracket and provided with a shaft journaled in the sleeve, and gearing for connecting the lower end of the shaft with the spool or drum.

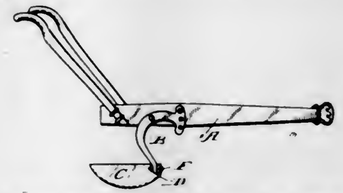
4. A fire escape including a frame, a spool or drum, a flexible connection arranged on the spool or drum, a vertical sleeve, a governor including a shaft journaled in the sleeve, a friction member mounted on the sleeve and connected with the governor, and a spring actuated friction member slidably interlocked with the sleeve and coöperating with the said friction member, and gearing for connecting the governor shaft with the spool or drum.

5. A fire escape including a frame, a spool or drum, a flexible connection arranged thereon, a vertical sleeve having a slot, pivoted governor arms equipped with weights and connected with the shaft, upper and lower friction members arranged on the sleeve, links connecting the lower friction member with the said arms, a spring engaging the upper friction member, and means carried by the upper friction member and extending into the slot of the sleeve for interlocking the said upper member with the sleeve to prevent rotary movement.

941,247. POTATO-VINE CUTTER. GEORGE P. GREGORY, Blackshear, Ga. Filed May 29, 1907. Serial No. 376,333.

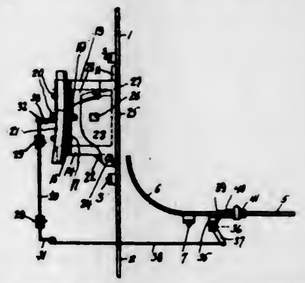
1. A vine-cutter comprising two oppositely disposed blades and a transverse member adapted to connect said blades in relative cutting position on a plow-stock, said blades being connected to the plow-stock near its rear end to support the stock and being formed with substantially arc-shaped cutting-edges, whereby a draw-cut and rocking-motion may be imparted.

2. A vine-cutter comprising oppositely disposed and connected cutter-blades adapted to be mounted on a plow-stock, said cutter-blades connected to the stock near its rear to support the stock and comprising substantially segmental disks, having their peripheries provided with cutting edges.



3. A vine-cutter comprising a pair of cutter-blades mounted on a plow-stock near its rear end to support the same and to ride one on each side of a row or ridge, said cutter-blades comprising substantially segmental disks sharpened along their peripheries and extending rearwardly from their point of support and parallel to the line of draft, whereby a straight draw-cut may be imparted to each side of the row.

941,248. MEAT-CONVEYER. WILLIAM A. GUENTHER, Pittsburg, Pa. Filed Sept. 8, 1909. Serial No. 516,771.



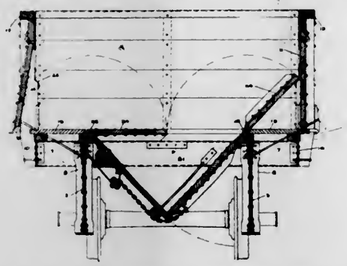
1. In an overhead conveyer, the combination with a main track, a side track, and a switch controlling the passage of a carrier from the side track to the main track, of a bearing carried by the side track and offset therefrom, a shaft mounted for partial rotation in the bearing, said shaft extending above the side track and provided on its upper end with a crank, connections between said crank and the switch for rocking the shaft as the switch is moved, and a chuck block carried by the shaft and movable therewith into position on the side track, or to one side thereof according to the direction of rotation of the shaft.

2. In an overhead conveyer, the combination with a main track, a side track, and a switch controlling the passage of a carrier from the side track to the main track, of a bearing carried by the side track and offset therefrom, a shaft mounted for partial rotation in the bearing, said shaft extending above the side track and provided on its upper end with a crank, connecting rods between the crank and the switch for imparting partial rotary movement to the shaft as the switch is actuated, a laterally-extending hanger carried by said shaft, and a chuck block suspended from said hanger, said chuck block and hanger movable with the shaft whereby the chuck block is moved into position onto the side track or to one side thereof according to the direction of the movement imparted to the shaft.

941,249. RAILWAY-CAR. HARRY S. HART, Chicago, Ill., assignor to Rodger Ballast Car Company, a Corporation of Maine. Filed Dec. 14, 1907. Serial No. 406,416.

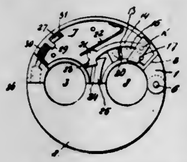
1. In a car, an underframe comprising body bolsters, a pair of longitudinal trussed sills extending between said

bolsters at points intermediate the center of the car and the sides thereof, said pair of longitudinal sills constituting the sole means of transmitting the weight from the central part of the car to the bolsters, a hopper between said longitudinal sills, and cantalivers secured to and extending outwardly from said longitudinal sills to support the side portions of the car.



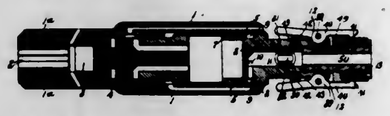
2. In a car, body bolsters, longitudinal sills connecting said bolsters at points intermediate the center and sides of the car, cantalivers secured to and extending outward from said longitudinal sills, side stakes mounted upon said cantalivers, and tie rods extending from said side stakes to said longitudinal sills.

941,250. LOCK. JOSEPH HERNICZ, South Bend, Ind. Filed July 6, 1909. Serial No. 505,976.



A lock of the type described, comprising two semi-circular members pivotally connected together, said members having the confronting edges thereof provided with recesses forming two circular openings, a pivot in one of said members, a spring pressed latch mounted on said pivot, a keeper carried by the other of said members and adapted to be engaged by said latch, a key actuated member mounted on said pivot and located adjacent to said latch for moving said latch out of engagement with said keeper, a spring pressed member carried by one of said members and adapted to engage the other of said members for opening said members when said keeper is released by said latch.

941,251. ROCK-DRILL. HERMAN J. HIBSCHLE, Victor, Colo., assignor to The MacCormack Drill and Manufacturing Company, Cripple Creek, Colo., Incorporated. Original application filed Aug. 10, 1908, Serial No. 447,695. Divided and this application filed Dec. 26, 1908. Serial No. 469,311.



1. In a rock drill, a piston having a main body portion provided with an internal piston chamber, a reciprocating hammer piston operatable therein, said main body portion having a working agent passage to said piston and an exhaust passage from said piston, said piston casing also including a chuck holding end and a striking plug held in said chuck holding end to receive the impacts of the piston, a back head plug threaded into the main body portion of the casing and having a central passage terminating in a radial port to communicate with the air inlet passage of the main body portion of the casing, a cut-off valve in said central passage of the back head plug, a hollow feed piston rod connected with said back head plug, a feed piston casing into which said feed piston rod projects, said piston rod terminating in a feed piston head, said feed piston rod having radial ports adjacent to said head and in communication with the interior of the rod, means for admitting working agent into the feed piston casing to automatically force the feed piston in one direction to feed the drill forward, said feed piston head having a longitudinal bore of relatively small diameter, and a radial bore registering therewith.

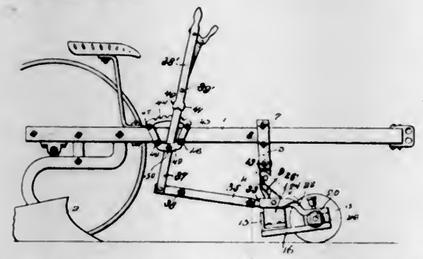
2. In a rock drill, a piston having a main body portion provided with an internal piston chamber, a reciprocating hammer piston operatable therein, said main body portion having a working agent passage to said piston and an exhaust passage from said piston, said piston casing also including a chuck holding end and a striking plug held in said chuck holding end to receive the impacts of the piston, a back head plug threaded into the main body portion of the casing and having a central passage terminating in a radial port to communicate with the air inlet passage of the main body portion of the casing, a cut-off valve in said central passage of the back head plug, a hollow feed piston rod connected with said back head plug, a feed piston casing into which said feed piston rod projects, said piston rod terminating in a feed piston head, said feed piston rod having radial ports adjacent to said head and in communication with the interior of the rod, means for admitting working agent into the feed piston casing to automatically force the feed piston in one direction to feed the drill forward, said feed piston head having a longitudinal bore of relatively small diameter and a radial bore registering therewith, said means for admitting working agent into the feed piston casing adapted to be closed off by the feed piston when it reaches the limit of its stroke in one direction.

3. In a rock drill, a piston having a main body portion provided with an internal piston chamber, a reciprocating hammer operable therein, said main body portion having a working agent passage to said piston and an exhaust passage from said piston, said piston casing also including a chuck holding end and a striking plug held in said chuck holding end to receive the impacts of the piston, a back head plug threaded into the main body portion of the casing and having a central passage terminating in a radial port to communicate with the air inlet passage of the main body portion of the casing, a cut-off valve in said central passage of the back head plug, a hollow feed piston rod connected with said back head plug, a feed piston casing into which said feed piston rod projects, said piston rod terminating in a feed piston head, said feed piston rod having radial ports adjacent to said head and in communication with the interior of the rod, means for admitting working agent into the feed piston casing to automatically force the feed piston in one direction to feed the drill forward, said feed piston head having a longitudinal bore of relatively small diameter and a radial bore registering therewith, means carried by the back plug to coöperatively engage the feed casing to lock the feed piston from operation, said last named means comprising lugs carried by the back head plug, latch members pivoted to said lugs, said feed piston casing having a shoulder to be engaged by said latches at times.

4. In a rock drill the combination with the drilling engine having a back head plug through which working agent is supplied to the engine; a hollow feed piston rod connected with the back head plug, a feed piston casing into which said feed piston rod projects, said piston rod terminating in a feed piston head, said feed piston rod having radial ports adjacent to said head and in communication with the interior of the rod, means for admitting working agent into the feed piston casing in front of the head, means for permitting passage of the working agent through the head and to the rear thereof to force the feed piston in one direction to feed the drill forward, said piston head having a radial bore registering with said passage, said working agent admitting means comprising a coupling member secured to the feed piston casing and having a port in communication therewith, and said feed piston adapted to close said port when in one position.

5. In a rock drill the combination with the drilling engine, of a hollow feed piston connected with said drilling engine to pass the working agent there into, a feed piston casing into which said feed piston rod projects, said piston rod terminating in a feed piston head, said feed piston rod having radial ports adjacent to said head and in communication with the interior of the rod, means for admitting working agent into the feed piston casing to automatically force the feed piston in one direction to feed the drill forward, said feed piston head having a longitudinal bore and a radial bore registering therewith, said means for admitting working agent into the feed piston casing adapted to be closed off by the feed piston when it reaches the limit of its stroke in one direction.

941,252. COLTER ATTACHMENT FOR PLOWS. CORRIE HIGHTOWER, Huntsville, Ill., assigner of one-half to Martin L. Ryan, Rushville, Ill. Filed Nov. 18, 1907. Serial No. 402,762.



1. In a plow attachment, a colter carrying frame adjustably suspended, a series of colters revolubly mounted in said frame, a shaft for supporting said colters journaled to said frame, journal boxes for said shaft, and a series of arms projecting against the lower side of said journal boxes.

2. In a plow attachment, a plurality of revolving disks, an axle therefor, end bars supporting said axle, a cross bar uniting said end bars, arms connected with said cross bar, a plurality of brackets movably mounted upon the frame of said plow and connected with said arms, a plurality of braces connecting said arms and said axle, rearwardly extending bars movably connected with said cross bar, an operating lever pivotally connected to said rearwardly extending bars.

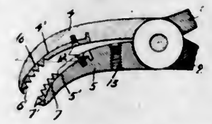
3. In a plow attachment, a centrally positioned axle, a plurality of revolving disks mounted upon said axle, a frame work comprising end and cross bars rigidly supporting said axle, lubricating means for said axle, upwardly extending connections, a plurality of brackets movably mounted upon the plow frame, pivotal connections between the said brackets and said upwardly extending connections, and a rearwardly located lever mounted upon the plow frame provided with means for adjustably swinging said disks into and out of operative position.

941,253. MEASURING DEVICE. JOHN HOOD, Boston, Mass. Filed July 20, 1909. Serial No. 508,670.



In a measuring device, a cylindrical receptacle provided with graduations and having a screw-threaded bore, a piston exteriorly screw-threaded to engage the bore of the receptacle, a cup at the outer end of the piston communicating through the latter with the interior of the receptacle, and a pointer on said piston to register with the graduations on the receptacle as the piston is rotated to force the contents of the receptacle through the communication through the piston into the cup.

941,254. LASTING-PINCERS. WALDO HUCK, Cauthron, Ark., assignor of one-third to Alfred W. Huck and one-third to Chett McDonald, Kansas City, Mo. Filed July 17, 1908. Serial No. 443,989.



1. A lasting pincer comprising a jaw member provided with an outwardly flaring longitudinal plate socket having a fan shaped end, and an outwardly flaring longitudinal tooth plate having a fan shaped end and seated in the plate socket in said jaw member.

2. A lasting pincer comprising a jaw member having an outwardly flaring longitudinal plate socket and undercut flanges overhanging a portion of said plate socket, and a separate outwardly flaring longitudinal plate member seated in said plate socket and provided with a portion of its body inset beneath said undercut flanges.

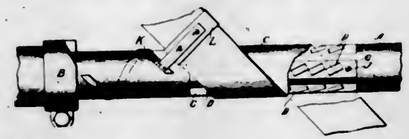
3. A lasting pincer comprising a jaw member having an outwardly flaring longitudinal plate socket having a fan shaped end, and the sides of which are concaved beneath a portion of the jaw body, and a separate outwardly flaring longitudinal plate member having a fan shaped end and seated in said plate socket and provided with flanges projecting into the concaved jaw portions, for the purpose set forth.

4. A lasting pincer comprising a jaw member having an outwardly flaring longitudinal plate socket, and recessed flanges on said jaw member overhanging said plate socket at its longitudinal center, and a separate outwardly flaring longitudinal plate member seated in said plate socket and having beveled flanges projecting beneath the jaw flanges, substantially as and for the purpose set forth.

5. A lasting pincer comprising a jaw member having a plate socket provided with an end groove, and a separate plate member adapted to seat in said socket and provided with an end flange adapted for projection into said socket groove.

[Claims 6 and 7 not printed in the Gazette.]

941,255. APPARATUS FOR MAKING SPIRALLY-WOUND TUBES. CHARLES F. JENKINS, Washington, D. C., assignor, by mesne assignments, to Single Service Package Corporation of America, a Corporation of New Jersey. Filed June 24, 1908. Serial No. 440,175.



1. In a machine for making spirally wound tubes, the combination with a mandrel having a belt-receiving segment which is provided with rollers projecting slightly outside its general surface, of a tube forming belt passing obliquely around said segment.

2. A mandrel, for use in making paper tubes, provided at various points around its lateral surface with a series of rollers, mounted in the mandrel to project slightly from said surface and to rotate in planes transverse to the mandrel axis.

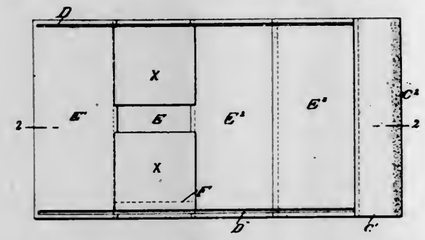
3. A mandrel provided with a plurality of relatively small rollers mounted in the mandrel to project slightly from its surface and to rotate upon their own axes in planes oblique to the axis of the mandrel.

4. A mandrel provided with a plurality of approximately parallel rollers mounted in the mandrel, oblique to its axis, to project slightly beyond its general surface, all points in the outermost surface element of each roller being at approximately the same distance from the axis of the mandrel.

5. The combination with a mandrel and a tube forming belt passing obliquely around the same, of a stock-strip guide, and means whereby the belt in moving longitudinally with respect to the mandrel automatically causes a corresponding movement of said guide.

[Claim 6 not printed in the Gazette.]

941,256. FOLDING BOX. CHARLES F. JENKINS, Washington, D. C. Filed Jan. 26, 1909. Serial No. 474,217.



1. A paper box consisting of a side wall member adapted to fold along parallel transverse lines to form a box body and a securing flap, and provided upon its inner face near each of two opposite margins with a groove perpendicular to its folding lines, and end members each hinged at one side to the wall member between consecutive folding lines to swing into and out of the adjacent groove.

2. A box consisting of a side wall of four foldably connected sections, each transversely grooved near its end to receive end walls, of two end walls, each hinged to one of said sections alongside one of its grooves in position to fold flat upon the same and to swing upon an axis parallel to the groove into and out of its groove.

3. A paper box consisting of a side wall member made up of a sheet having substantially uniform parallel corrugations with plane sheets cemented to both faces with one plane sheet projecting at a side parallel to the corrugations to form a gummed flap, said member being grooved near its ends upon the side of the non-projecting sheet, and end members each hinged on one side to the side wall member to swing into and out of the adjacent groove.

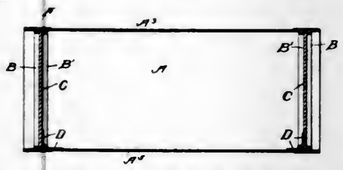
4. A paper box structure, adapted to lie flat, or to be folded into closed box form, consisting of a rectangular corrugated sheet faced with plane paper and grooved across the corrugations, near each end, and two end plates each hinged at one side to said sheet alongside the corresponding groove to swing upon an axis parallel thereto into and out of the same, substantially as set forth.

5. A box structure, having its body made up of a corrugated sheet faced with plane paper and grooved near each end, across the corrugations, to receive end pieces, of two end plates hinged at one side to said body in position to swing into and out of the adjacent groove; one of the non-grooved sides of the body being provided with a projecting gummed flap.

[Claim 6 not printed in the Gazette.]

941,257. FOLDING BOX. CHARLES F. JENKINS, Washington, D. C. Filed Jan. 26, 1909. Serial No. 474,218.

1. A folding box body consisting of a paper sheet weakened along parallel bending lines and having near each margin transverse to said lines two slightly separated, parallel embossed ribs adapted to receive and hold, between them, box end pieces, when the sheet is folded to box form.

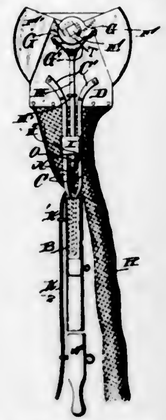


2. A folding box having a body sheet weakened along parallel folding lines between the parts destined to form the several sides and a gummed terminal sealing flap, and provided with two sets of pressed-up ribs transverse to said lines and at a short distance from the corresponding margins of the sheet, two box ends each secured to one of said sides alongside one set of said ribs, to lie flat upon the side and to swing into the space between the ribs of that set, and external bands secured to the sheets, extending from end to end of the same, and spanning, respectively, the space occupied, upon the opposite face of the sheet, by the set of ribs and intervening channel, substantially as set forth.

3. A folding box body consisting of a single paper sheet weakened along parallel bending lines and embossed to form near each margin transverse to said lines two parallel end-retaining ribs each notched at the folding lines, substantially as set forth.

4. A box body sheet having on one face near each of two opposite margins an end-receiving channel and upon the corresponding parts of its opposite face permanently attached bands transversely bridging the entire channel formation, substantially as set forth.

941,258. FRUIT-PICKER. JOHN R. JOHNSON, Louisville, Ky. Filed May 13, 1909. Serial No. 495,786.



1. A fruit picker comprising a shell, open at its top and bottom wires secured to the opposite sides of said shell, a handle to which said wires are fastened, jaws pivotally mounted upon said shell, rods fastened to said jaws, guide means upon the shell and wires for said rods, a bail-shaped member connecting the ends of said rods, a wire holding said rods parallel to each other, and a cord secured to said member.

2. A fruit picker comprising a shell with open top and bottom, a bag secured thereto, spring-actuated jaws pivotally mounted upon the opposite sides of said shell, each jaw having integral arms, rods upon the opposite sides of the shell, each rod connected to an arm of each jaw, wires which are bent upon themselves and fastened at their ends to said shell, a handle to which said wires are

means for applying power through said motion-producing means for moving the slides and the rolls toward and from the saw.

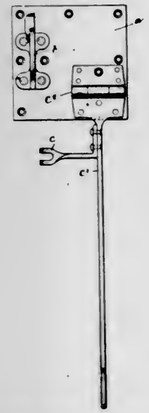
3. In a band-saw resawing machine, the combination of a bed; a band-saw; a supporting frame extending outwardly from the bed to one side of the saw; a pair of slides mounted in the upper portion of the frame; a second pair of slides mounted in the lower portion of the frame; vertically-disposed feed rolls having their bearings in the oppositely-arranged upper and lower slides; motion-producing means engaging both the upper and lower slides of each pair of rolls, in substantially the plane of movement of the slides, said motion-producing means serving to cause said slides to move in unison; means for moving said slides toward and from the saw-line; means for holding the slides in their adjusted positions; and means acting through said motion-producing means for urging the rolls against the lumber.

4. In a band-saw resawing machine, the combination of a bed; a supporting frame extending outwardly from the bed to one side of the saw; a pair of slides mounted in the upper portion of the frame; a pair of slides mounted in the lower portion of the frame; vertically-disposed guide-rolls carried by the oppositely-arranged slides; motion-producing means engaging both the upper and lower slides of each pair of rolls in substantially the plane of movement of the slides, said motion-producing means serving to cause the slides to move in unison; means for moving the slides toward and from the saw; means for holding them in their adjusted positions; and means acting through the motion-producing means aforesaid serving to hold the rolls with a yielding pressure against the lumber.

5. In a band-saw resawing machine, the combination of a bed; a saw; a frame extending outwardly from the bed; a pair of slides mounted in the upper portion of the frame; a pair of slides mounted in the lower portion of the frame; rolls carried by the oppositely-disposed upper and lower slides; motion producing means engaging both the upper and lower slides of each pair of rolls, in substantially the plane of movement of the slides, said motion-producing means serving to cause said slides to move in unison; means for adjusting said slides; means for fixedly holding one set of rolls in their adjusted positions; and means acting through said motion-producing means for urging the other set of rolls toward the fixed rolls.

[Claims 6 to 21 not printed in the Gazette.]

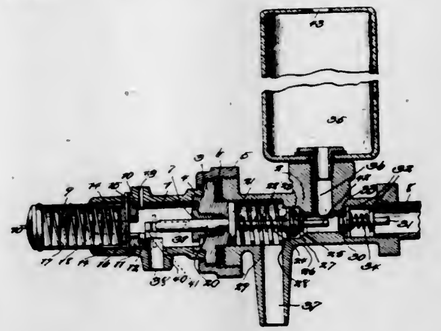
941,759. SINEW-EXTRACTOR. GEORGE A. CONGDON, West Somerville, Mass. Filed July 17, 1909. Serial No. 508,177.



1. A sinew extractor consisting of a base, a forwardly extended foot-holder attached thereto having a forked end portion, a hand-lever pivoted at its upper end to said base, below and at one side of said foot-holder, which is movable on its pivot from a vertical to a horizontal position, and a claw extended laterally from said lever at a point intermediate its length on that side adjacent the foot-holder, which engages the leg below the foot-holder when the hand-lever is raised to a horizontal position and operates to separate the leg from the foot and extract the sinew as the hand-lever is returned to vertical position, substantially as described.

2. A sinew extractor consisting of a base, a forwardly extended foot-holder attached thereto having a forked end portion, the adjacent faces of the fingers of said end portion being beveled, a hand-lever pivoted at its upper end to said base, below and at one side of said foot-holder, which is movable on its pivot from a vertical to a horizontal position, and a claw extended laterally from said lever at a point intermediate its length on that side adjacent the foot-holder which engages the leg below the foot-holder when the hand-lever is raised to a horizontal position and operates to separate the leg from the foot and extract the sinew as the hand-lever is returned to vertical position, substantially as described.

941,760. LIQUID-VENDING DEVICE. HENRY G. CORDLEY, Glen Ridge, N. J. Filed May 18, 1907. Serial No. 374,397.



1. In a liquid vending device, a reciprocating member; operating means therefor; a normally open valve carried by said reciprocating member; a seat for said valve; a second normally closed valve and seat therefor; a supply conduit leading to said second valve; a discharge conduit leading from said first valve; a conduit connecting said valves; a conduit leading from said last mentioned conduit; a measuring glass with which said last mentioned conduit communicates; and means carried by said reciprocating member adapted to operate said second valve after said first mentioned valve has been seated.

2. In a liquid dispensing device, a reciprocating member; a second reciprocating member in alinement therewith and adapted to be operated by said first mentioned reciprocating member; an abutment upon said second member; a spring engaging said abutment; a stem carried by said second member; a valve carried by said stem and free to move thereon; a second valve in line with and adapted to be engaged by the end of said stem; a measuring vessel; a supply conduit leading from a source of liquid supply past said second valve and to said measuring vessel; and a discharge conduit leading from said measuring vessel past said first mentioned valve.

3. In a liquid vending device, a casing comprising two main sections and an interposed connecting section; means for securing said sections together; a reciprocating member located in one of said sections; a second reciprocating member in alinement with said first reciprocating member and adapted to be operated thereby, and extending through said connecting section and into said second section; an abutment carried by said second reciprocating member and located in said second section; a spring within said second section and in engagement with said

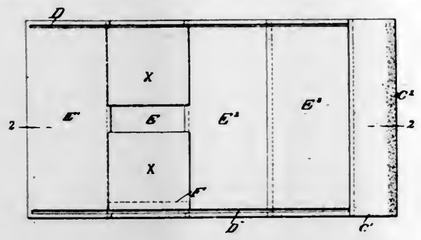
3. A mandrel provided with a plurality of relatively small rollers mounted in the mandrel to project slightly from its surface and to rotate upon their own axes in planes oblique to the axis of the mandrel.

4. A mandrel provided with a plurality of approximately parallel rollers mounted in the mandrel, oblique to its axis, to project slightly beyond its general surface, all points in the outermost surface element of each roller being at approximately the same distance from the axis of the mandrel.

5. The combination with a mandrel and a tube forming belt passing obliquely around the same, of a stock-strip guide, and means whereby the belt in moving longitudinally with respect to the mandrel automatically causes a corresponding movement of said guide.

[Claim 6 not printed in the Gazette.]

941,256. FOLDING BOX. CHARLES F. JENKINS, Washington, D. C. Filed Jan. 26, 1909. Serial No. 474,217.



1. A paper box consisting of a side wall member adapted to fold along parallel transverse lines to form a box body and a securing flap, and provided upon its inner face near each of two opposite margins with a groove perpendicular to its folding lines, and end members each hinged at one side to the wall member between consecutive folding lines to swing into and out of the adjacent groove.

2. A box consisting of a side wall of four foldably connected sections, each transversely grooved near its end to receive end walls, of two end walls, each hinged to one of said sections alongside one of its grooves in position to fold flat upon the same and to swing upon an axis parallel to the groove into and out of its groove.

3. A paper box consisting of a side wall member made up of a sheet having substantially uniform parallel corrugations with plane sheets cemented to both faces with one plane sheet projecting at a side parallel to the corrugations to form a gummed flap, said member being grooved near its ends upon the side of the non-projecting sheet, and end members each hinged on one side to the side wall member to swing into and out of the adjacent groove.

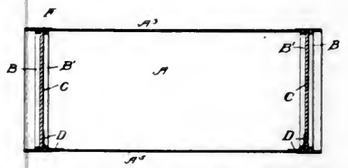
4. A paper box structure, adapted to lie flat, or to be folded into closed box form, consisting of a rectangular corrugated sheet faced with plane paper and grooved across the corrugations, near each end, and two end plates each hinged at one side to said sheet alongside the corresponding groove to swing upon an axis parallel thereto into and out of the same, substantially as set forth.

5. A box structure, having its body made up of a corrugated sheet faced with plane paper and grooved near each end, across the corrugations, to receive end pieces, of two end plates hinged at one side to said body in position to swing into and out of the adjacent groove; one of the non-grooved sides of the body being provided with a projecting gummed flap.

[Claim 6 not printed in the Gazette.]

941,257. FOLDING BOX. CHARLES F. JENKINS, Washington, D. C. Filed Jan. 26, 1909. Serial No. 474,218.

1. A folding box body consisting of a paper sheet weakened along parallel bending lines and having near each margin transverse to said lines two slightly separated, parallel embossed ribs adapted to receive and hold, between them, box end pieces, when the sheet is folded to box form.

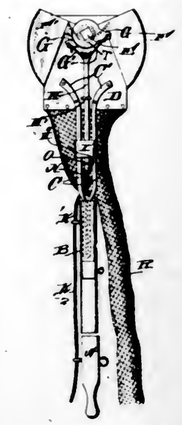


2. A folding box having a body sheet weakened along parallel folding lines between the parts destined to form the several sides and a gummed terminal sealing flap, and provided with two sets of pressed-up ribs transverse to said lines and at a short distance from the corresponding margins of the sheet, two box ends each secured to one of said sides alongside one set of said ribs, to lie flat upon the side and to swing into the space between the ribs of that set, and external bands secured to the sheets, extending from end to end of the same, and spanning, respectively, the space occupied, upon the opposite face of the sheet, by the set of ribs and intervening channel, substantially as set forth.

3. A folding box body consisting of a single paper sheet weakened along parallel bending lines and embossed to form near each margin transverse to said lines two parallel end-retaining ribs each notched at the folding lines, substantially as set forth.

4. A box body sheet having on one face near each of two opposite margins an end-receiving channel and upon the corresponding parts of its opposite face permanently attached bands transversely bridging the entire channel formation, substantially as set forth.

941,258. FRUIT-PICKER. JOHN R. JOHNSON, Louisville, Ky. Filed May 13, 1909. Serial No. 495,786.

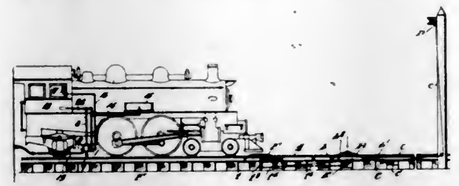


1. A fruit picker comprising a shell, open at its top and bottom wires secured to the opposite sides of said shell, a handle to which said wires are fastened, jaws pivotally mounted upon said shell, rods fastened to said jaws, guide means upon the shell and wires for said rods, a bail-shaped member connecting the ends of said rods, a wire holding said rods parallel to each other, and a cord secured to said member.

2. A fruit picker comprising a shell with open top and bottom, a bag secured thereto, spring-actuated jaws pivotally mounted upon the opposite sides of said shell, each jaw having integral arms, rods upon the opposite sides of the shell, each rod connected to an arm of each jaw, wires which are bent upon themselves and fastened at their ends to said shell, a handle to which said wires are fastened and between which wires said rods have a longitudinal play, a bail-shaped member connected to said rods, a cord secured to said member, and means for preventing the rods from drawing together as the latter are moved longitudinally by pulling upon said cord.

3. A fruit picker comprising an open ended shell, a bag secured thereto, jaws pivotally mounted upon the opposite sides of the shell, a spring adapted to throw said jaws so that the rear edges thereof will contact with the walls of the shell to limit their movements, wires secured to opposite sides of the shell and spaced apart, a handle secured to said wires, rods connected to said jaws and having a sliding movement intermediate said wires, a bail-shaped member connecting said rods, a cord secured to said member, and means for holding said rods parallel.

941,259. COMBINED SIGNAL AND AIR-BRAKE. ALBERT M. JONES, Hagerstown, Md., assignor of one-fourth to George C. Snyder and one-fourth to Otho M. Snyder, Hagerstown, Md. Filed Feb. 10, 1909. Serial No. 477,070.



1. In a train controlling means, a casing connected to the train pipe and to the main air reservoir, a signal, a piston in said casing having a downwardly projecting tappet and means arranged on the track for engaging said tappet to cause the opening of the train pipe and the connection of the signal with said main air reservoir.

2. In a train controlling means, a casing connected to the train pipe and to the main air reservoir, a whistle, a piston provided with ducts in said casing having a downwardly projecting rod constituting a tappet, means arranged on the track for engaging said tappet to force said piston upwardly into position to cause the opening of the train pipe and the connection of the whistle with said main air reservoir.

3. In a train controlling means, a whistle, a main casing connected to the main air reservoir, an auxiliary casing communicating with said main casing and with the train pipe, a valve in said auxiliary casing, a piston provided with ducts in said main casing, a tappet connected to said piston, and means arranged on the track for engaging said tappet to force said piston upwardly to bring one of said ducts into communication with the main air reservoir and the whistle and the other of said ducts into communication with the interior of the auxiliary casing and the atmosphere, thereby permitting the train pipe valve to open.

4. In a train controlling means, a whistle, a main casing communicating with the main air reservoir, a piston disposed in said main casing provided with an annular channel and having ducts, an auxiliary casing communicating with said main casing and with a train pipe, a piston in said auxiliary casing, a train pipe valve actuated thereby, a tappet arranged to force said piston upwardly to bring one of said ducts into position for relieving the pressure on the train pipe valve, thereby causing the opening of the same and the other duct into position for establishing communication between the main air reservoir and the whistle, thereby causing the sounding of the latter, and means on the track for engaging said tappet.

5. In a train controlling means, a whistle, a main casing, a piston located therein provided with a central annular channel and having ducts, a pipe leading from said casing to the main air reservoir, a second pipe leading from the casing to the whistle, an auxiliary casing communicating with the interior of said main casing, a piston disposed in said auxiliary casing, a valve attached thereto arranged to control the pressure in the train pipe, a tappet secured to said channeled piston and arranged when actuated to cause one of said ducts to establish communication between the interior of the auxiliary casing and the atmosphere, thereby relieving the pressure on the train pipe valve and causing the latter to open, and the other of said ducts to establish communication between the main air reservoir and the whistle to cause the sounding of the latter.

[Claims 6 and 7 not printed in the Gazette.]

941,260. LOCK FOR FIREARMS. THOMAS KÖFLER, Ober-Ferlach, Austria-Hungary, assignor to Josef Tambour, Nanterre, near Paris, France. Filed Jan. 15, 1908. Serial No. 410,960.



1. In hammer locks for fire-arms, in combination, a pivoted hammer having half and full-cock notches in its edge, a movable spring-pressed sear having a beak to engage in said notches during the movement of said hammer and means carried by said hammer to disengage said sear from the full-cock notch when the said hammer is moved to overcocked position, said means having operation to hold said sear away from the full-cock notch during the movement of the latter past the sear upon the restoration of the hammer to inactive position.

2. In hammer locks for fire arms, in combination, a pivoted hammer having half and full-cock notches in its edge, a movable spring-pressed sear having a beak to engage in said notches during the movement of said hammer, said sear having a recess in its edge terminating near the beak, a lever pivoted upon said hammer and having a projecting end portion movable in the recesss and formed to engage the beak and to move the same away from the full-cock notch when the hammer is moved to overcocked position and means for restricting the pivotal play of the lever in either direction.

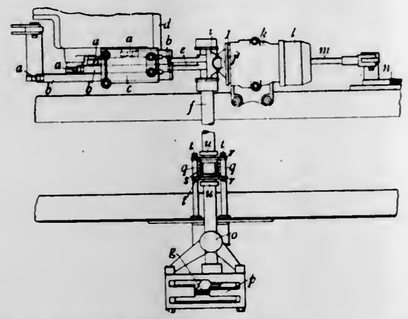
3. In hammer locks for fire arms, in combination, a pivotal hammer having a recess in one side thereof and having half and full cock notches in its edge, a movable spring-pressed sear having a beak to engage in said notches during the movement of said hammer, said sear having a recess in its edge terminating near the beak and a lever pivoted in the recess of the hammer and having its pivotal movement limited by the side walls of the recess in said hammer, said lever having a projecting end portion movable in the recess in the sear and which engages the beak to move the same away from the full-cock notch when the hammer is moved to overcocked position and which maintains said beak in such relation during the passage of the full-cock notch thereby when the said hammer is being restored to normal inactive position.

4. In hammer locks for firearms, a movably mounted hammer having means for effecting a half and full cock operation, a spring-actuated sear having a portion to engage said means during movement of the hammer, and means carried by the hammer to disengage the sear from a full cock position when the said hammer is moved to overcocked position and also operating to hold said sear away from the full-cock effecting means when the hammer is restored to inactive position.

941,261. GEAR-ACTUATING MECHANISM FOR MOTOR-VEHICLES. GEORGE H. LANCHESTER, Birmingham, England. Filed Apr. 9, 1909. Serial No. 488,961.

1. In actuating mechanism for motor vehicle change speed gears controlled by clutches, the combination comprising a clutch actuating lever, a thrust rod arranged in conjunction with said lever, a hand controlled transmission piece, and a spring pedal device adapted to operate the thrust rod through the medium of the transmission piece, substantially as described.

2. In actuating mechanism for motor vehicle change speed gears controlled by clutches, the combination comprising clutch actuating levers, thrust rods arranged in conjunction with said levers, hand controlled selecting and transmission pieces, and a spring pedal device adapted to operate the thrust rods through the medium of the transmission pieces, substantially as described.



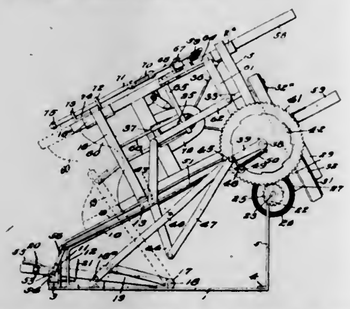
3. In actuating mechanism for motor vehicle change speed gears controlled by clutches, the combination comprising clutch actuating levers, thrust rods arranged in conjunction with said levers, hand controlled oscillatory selecting and transmission pieces, and a spring pedal device adapted to operate the thrust rods through the medium of the transmission pieces, substantially as described.

4. In actuating mechanism for motor vehicle change speed gears controlled by clutches, the combination comprising clutch actuating levers, hand controlled oscillatory cam shaped and notched selecting and transmission pieces, thrust rods arranged in conjunction with the said levers and formed with ends capable of being engaged by the said notched transmission pieces, and a spring pedal device adapted to operate the thrust rods through the medium of the transmission pieces, substantially as described.

5. In actuating mechanism for motor vehicle change speed gears controlled by clutches, the combination comprising clutch actuating levers, thrust rods arranged in conjunction with said levers, a hand controlled oscillatory and laterally movable selecting and transmission piece, and a spring pedal device adapted to operate the thrust rods through the medium of the transmission piece, substantially as described.

[Claims 6 to 12 not printed in the Gazette.]

941,262. MACHINE FOR SPLITTING AND CORE-SLICING CABBAGES. LOUIS LECHELER, Chicago, Ill. Filed Apr. 10, 1909. Serial No. 489,125.



1. In a machine of the character described, the combination of means to receive and advance a cabbage, a blade arranged in the path of movement of the cabbage to split the same, and means against which the split portions are advanced, to slice the core thereof.

2. In a machine of the character described, the combination of means to receive and advance a cabbage, a blade arranged in the path of movement of the cabbage to split the same, and a rotating cutting wheel against which the split portions are advanced to slice the core thereof.

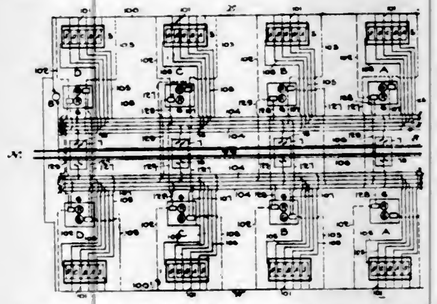
3. In a machine of the character described, the combination of a splitting blade and a rotating core slicing wheel, and means to advance a cabbage successively against the same to split, and slice the core thereof.

4. In a machine of the character described, the combination of means to receive and advance a cabbage, a blade arranged in the path of movement of the cabbage to split the same, means to clamp the split portions, and means against which said split portions are advanced, to slice the core thereof.

5. In a machine of the character described, the combination of means to receive and advance a cabbage, a blade arranged in the path of movement of the cabbage to split the same, means to clamp the split portions, and a rotating cutting wheel against which the split portions are advanced, to slice the core thereof.

[Claims 6 to 12 not printed in the Gazette.]

941,263. RAILWAY SIGNALING SYSTEM. THOMAS MAC. DOUGAL and JAMES M. CHAMBERS, Boulder, Colo., assignors to The Teletopograph Signal Company, Boulder, Colo., a Corporation of Colorado. Filed June 16, 1908. Serial No. 438,852.



1. In a railway signaling system, the combination with a circuit closer, of an electro-magnet in the circuit controlled thereby, an indicatory element operatively associated with the armature of the magnet, so as to display a signal when the latter is energized, and non-electric means coöperative with the armature of the said magnet to retract the said signal.

2. In a railway signaling system, the combination with a circuit closer, of an electro-magnet in the circuit controlled thereby, a resilient member connected to move in unison with the armature thereof, a signal device including a lever whose short arm projects in the path of the said member, and a stationary contact placed to be simultaneously engaged by the said member to close an independent electric circuit.

3. In a railway signaling system, the combination with a series of circuit closers placed successively along a railway and adapted to be actuated by a passing train, of an element comprising a corresponding succession of indicatory units, separately located in circuits controlled by the respective circuit closers, and adapted to separately display a signal when the respective circuit closer is actuated, and means associated with each two successive units whereby the actuation of one will be automatically transposed into a retraction of the signal in the next preceding one.

4. In a railway signaling system, the combination with a series of circuit closers placed successively along a railway, of an element comprising a corresponding succession of units each composed of an electro magnet located in a circuit with the respective circuit closer, and a signaling device adapted to be actuated by the attractive properties of the said magnet, and means associated with each two succeeding units whereby the action of the magnet in one will be transposed into a retractive movement of the signaling device in the next preceding one.

5. In a railway signaling system, the combination with a series of circuit closers placed successively along a railway, of an element comprising a corresponding succession of units each composed of an electro magnet located in a circuit with the respective circuit closer, a member connected to move in unison with the armature of the magnet and an oscillatory signal arm adapted to be actuated by the movement of the said member, and levers arranged to simultaneously engage the actuative member in one unit and the oscillatory arm in the next preceding one whereby the movement of the said member toward the magnet, is transposed into a retractive movement of the said arm.

[Claims 6 to 17 not printed in the Gazette.]

941,264. RAIL-FASTENING DEVICE. HENRY M. MASON and FRED OHE, Oakland, Cal. Filed May 7, 1909. Serial No. 494,603.



1. Rail-locking means comprising a gage-maintaining member of a permanent length to extend between the rails and having portions to coöperate with the outer sides of the respective rails, wedges arranged at the outer sides of the rails and means to coöperate with the inner sides of the rails and actuated by said wedges to lock the latter to said member.

2. Rail-locking means comprising a gage-maintaining member adapted to extend transversely between the rails and having a pair of permanently spaced devices at its opposite ends to coöperate with the outer sides of the respective rails, a pair of wedges at the outer sides of the rails and means extending inwardly beneath and arranged to coöperate with the inner sides of the rails under the action of said wedges to lock them to said member.

3. Rail-locking means comprising a gage-maintaining member adapted to extend between the rails and having upwardly and inwardly turned hook portions at its ends to coöperate with the outer sides of the respective rails, means adapted to coöperate with the inner sides of the rails to lock them to said member and wedges arranged at the outer sides of the rails and operating between said hook portions and said rail engaging means.

4. Rail-locking means comprising a member having a permanently fixed portion to coöperate with the outer side of a rail, a relatively movable member having a portion to coöperate with the inner side of a rail, and means interposed between said members and arranged at the outer sides of the rails for operating them relatively to lock the rail.

5. Rail-locking means comprising a member having a relatively fixed portion to engage the outer side of a rail, a relatively movable member having a portion to coöperate with the inner side of a rail and provided with a hook-shaped outer end, and means arranged on the outer side of the rail and coöperating with said members to lock the rail between them.

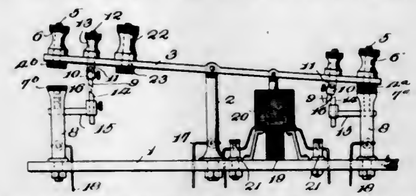
[Claims 6 to 9 not printed in the Gazette.]

941,265. EGG-COOKER. DAVID H. MOORE, Bakersfield, Cal. Filed Feb. 13, 1909. Serial No. 477,614.



In a device of the character described, the combination of a boiler provided on two of its opposite sides with regularly spaced-apart, inwardly-projecting, vertically-arranged supporting and deflecting ribs, and a plurality of substantially V-shaped, perforated trays adapted to be retained in spaced relation by said ribs, and being provided with flanged upper edges adapted to be seated upon the ends of said ribs.

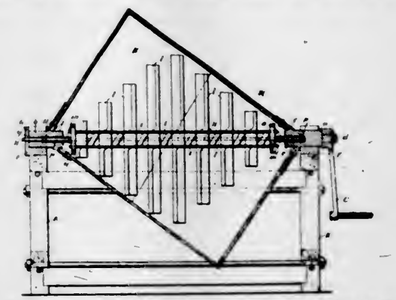
941,266. ELECTRIC SWITCH. WATERS A. MORSE, Westport, N. Y. Filed Dec. 28, 1908. Serial No. 469,612.



1. In an electric switch, the combination of a switch lever formed of spaced bars, a movable primary contact formed with a threaded stem which is passed between the spaced bars and capped by a nut, a head formed with a threaded stem which is passed between the spaced bars of the lever and capped by a nut, a swinging carbon contact carried by the head, a post, a fixed primary contact carried by the post, and a fixed carbon contact carried by the post, the fixed carbon contact being designed to engage the movable carbon contact before the fixed primary contact engages the movable primary contact, the movable carbon contact swinging laterally to one side so as not to interfere with the action of the lever.

2. A switch as specified comprising a base, a standard centrally mounted on said base, a lever intermediately fulcrumed on said standard, posts carried on the opposite ends of said base, coöperating contacts carried by said posts and the opposite ends of said lever for closing a circuit, arms inwardly extended from said posts adjacent the upper ends thereof, carbon contacts carried by said arms, carbon contacts pivotally mounted on said lever at the opposite ends thereof for coöperation with said first carbon contacts, an armature pivotally disposed at one end of said lever, and a solenoid mounted on said base to receive said armature to operate said lever upon the closing of an independent circuit through the same.

941,267. MIXING-MACHINE. WILLIAM MCRAE, Eastman, Ga. Filed June 15, 1909. Serial No. 502,227.



1. A mixing or agitating machine, comprising a rectangular box provided at two diagonally opposite corners with journals, journal boxes in which said journals are received, means for rotating the box, one of said journal boxes having an upright outer wall provided with a square opening, a square shaft within said box, passing through one of said journals into said square opening, and a series of stationary paddles mounted on said shaft within said box.

2. A mixing or agitating machine, comprising a rectangular box, castings secured to two diagonally opposite

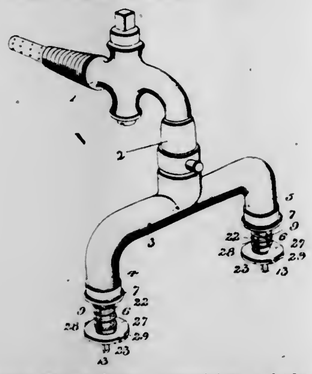
corner regions of said box and having outward projecting journal portions, journal boxes in which said journal portions are received, a fixed shaft disposed within said box on the diagonal between said two corner regions, a series of stationary paddles carried by said shaft, end plates bearing against the ends of such series of paddles, bolts adapted to draw said plates together, and cylindrical projections extending outward from said end plates into said castings and constituting inner bearings, said fixed shaft passing through said cylindrical projections.

3. A mixing or agitating machine, comprising a rectangular box mounted for rotation about one of its diagonals as an axis, a shaft disposed within said box on said diagonal, a series of stationary paddles carried by said shaft, and means for drawing the paddles together and holding them rigidly in position.

4. A mixing or agitating machine, comprising a rectangular box mounted for rotation about one of its diagonals as an axis, a shaft disposed within said box on said diagonal, a series of stationary paddles carried by said shaft transversely thereof, said paddles increasing in length from the end paddles to the middle paddles of the series, and means for drawing the paddles together and holding them rigidly in position.

5. A mixing or agitating machine, comprising a rectangular box provided at two diagonally opposite corners with journals, journal boxes in which said journals are mounted, a fixed shaft disposed within said box on the diagonal between said corners, paddles secured on said shaft, end plates bearing against the end paddles, means for drawing said end plates toward each other, and projections on the end plates extending into the said journals, the said shaft passing through said projections.

941,268. BOTTLE-FILLING FAUCET. DAVID D. NOLLEY, Wilson, N. C., assignor of one-third to Jacob C. Hales and one-third to Josua B. Farmer, Wilson, N. C. Filed Dec. 28, 1908. Serial No. 469,678.



1. A bottle filling faucet comprising a body portion having a passage therethrough, a spring-seated valve normally closing said passage, a guide carried by the valve and constructed and arranged to regulate the flow of the liquid through the valve, and means operated by the bottle for unseating said valve.

2. A bottle filling faucet comprising a body portion having a passage therethrough, a spring seated valve normally closing said passage, two washers carried by the valve and having notched outer edges and serving as a guide for the valve and adapted to be rotated upon each other to regulate the size of the notches for regulating the flow of liquid therethrough, and means operated by the bottle for unseating said valve.

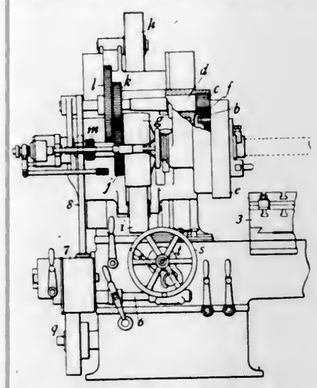
3. A bottle filling faucet comprising a body portion having a passage therethrough, a valve within said body portion, a tube extending from said body portion and closed by the valve, a valve-stem connected to the valve and extending through the tube and turned upwardly within a longitudinal groove in the outer face of the tube, said tube having a notch communicating with the groove, a sleeve vertically movable upon the tube and connected to the valve-stem, a flange carried by the sleeve for engagement with the bottle for operating the valve, a coil spring surrounding the tube between the sleeve and the body portion and normally holding the sleeve in its downward position with the valve closed, an oscillating member carried by the sleeve, a tongue rigidly carried by the oscillating member and traveling in the vertical groove and adapted to enter the notch to hold the sleeve in its upward position against the tension of the spring.

4. A bottle filling faucet comprising a cap having internal screw-threads, and having a valve seat, a downwardly-depending tubular member carried by the cap and in communication with the cap, said tube having a vertical groove in its outer face, a valve within the cap and closing the communication with the tube, a valve stem connected to the valve and extending downwardly through the tube and turned upwardly within said groove, a sleeve surrounding the tube and secured to the stem within the groove, a flange carried by the tube, and a coil spring surrounding the tube between the cap and the flange, the tube having a notch communicating with the groove, and an oscillating lock carried by the sleeve and traveling in the groove and adapted to enter the notch for locking the sleeve in an upward position against the tension of the spring.

5. The combination with a faucet having an externally-threaded lower end, of a cap screwed upon the faucet and having a valve seat, a depending tubular member carried by the cap and in communication therewith, said tube having a vertical groove in its outer face, a valve stem extending through the tube, a removable valve carried by the stem and resting upon the seat, the lower end of the valve stem turned upwardly within the groove, a sleeve surrounding the tube and secured to the valve stem, a flange carried by the upper end of the sleeve, a coiled spring surrounding the tube between the cap and the flange, the tube having a notch communicating with the groove, and an oscillating lock carried by the sleeve and traveling in the groove and adapted to enter the notch for locking the sleeve in an upward position against the tension of the spring.

[Claims 6 to 8 not printed in the Gazette.]

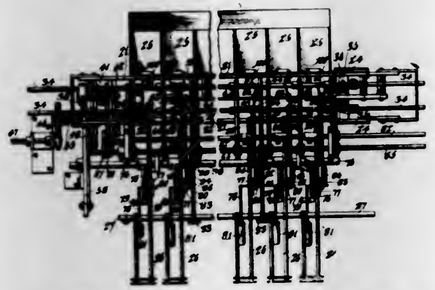
941,269. MACHINE FOR MILLING, FACING, AND OTHER METAL-CUTTING OPERATIONS. WILLIAM A. PEARN and FRANK PEARN, West Gorton, Manchester, England. Filed June 20, 1908. Serial No. 439,602.



1. In machines for milling and other metal cutting operations, the combination with a mandrel and a vertically movable headstock supporting said mandrel, of a toothed wheel secured to the operative end of said mandrel, a tool holder in direct engagement with said toothed wheel, means for detachably securing the said tool holder to the toothed wheel, reduction gear engageing the toothed wheel, a belt pulley, and means for driving the mandrel from the pulley both directly through the said reduction gear and toothed wheel, as set forth.

2. In machines for milling and other metal cutting operations, the combination consisting of a mandrel, a vertically movable head-stock supporting the said mandrel, a toothed wheel secured to the operative end of said mandrel, a tool holder in direct engagement with said toothed wheel, means for detachably securing the said tool holder to the toothed wheel, reduction gear engaging the toothed wheel, a belt pulley, means for driving the mandrel from the said pulley both directly and through the said reduction gear and toothed wheel, a work table, and means for moving the said table relatively to the said tool holder, as set forth.

941,270. SORTING-MACHINE. ARCHIBALD PICKEN, Norfolk, Va. Filed May 28, 1908. Serial No. 435,563.



1. In sorting mechanism of the character set forth, the combination with a passageway for the articles to be sorted, of a series of mechanisms for expelling the different articles out of said passageway at different points along the same, and means tending to operate each and every mechanism and controlled by the arrival of the proper article into association with each expelling mechanism designed to expel that article.

2. In sorting mechanism of the character set forth, the combination with a passageway for the articles to be sorted, of a series of independently or simultaneously movable expelling devices for ejecting the articles from said passageway, said expelling devices being arranged along the said passageway.

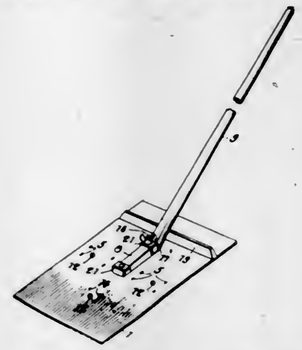
3. In sorting mechanism of the character set forth, the combination with a passageway for the articles being sorted, means for carrying the articles along said passageway by a step-by-step movement, of a series of movable expelling devices before which the articles are successively presented, and operating means automatically thrown into engagement with the said devices by the arrival of the proper article into association with the proper expelling device.

4. In sorting mechanism of the character set forth, the combination with a passageway for articles to be sorted, of a series of receivers for the different articles located at one side of such passageway, a series of devices for expelling the different articles transversely, of the passageway, each into its proper receiver, and a mechanism automatically connected with one or more of the said devices and governed by the arrival of the proper article or articles into association with the expelling mechanism designed to expel said article or articles.

5. In sorting mechanism of the character set forth, the combination with a passageway for the articles to be sorted, of receivers for the articles located at one side of the passageway, an expelling device for each receiver movable transversely across the passageway to push said articles out of the passageway and into said receivers and a mechanism arranged to operate one or more expelling devices at a time.

[Claims 6 to 83 not printed in the Gazette.]

941,271. SNOW-SHOVEL. GEORGE C. PORT, Ebensburg, Pa. Filed Mar. 11, 1909. Serial No. 482,854.



1. An article of the class described, comprising a rectangular blade having beveled edges, and provided with a transverse reinforce at its center, and with a central opening, and with other openings arranged at right angles to each other and at equal distances from the central opening, and in the transverse and the longitudinal axis of the blade, a handle portion and a shank portion arranged at an angle to the handle portion, said shank portion having openings therethrough adapted to register with the central opening and with one of the other openings, a rivet traversing the central opening and the registering opening of the shank, a bolt for passing through the other opening of the shank and one of the other openings of the blade, a wing nut engaging the bolt, a transverse strip secured to the handle and engaging the blade when the wing nut is screwed down, and a reinforcing washer for the openings of the blade in the longitudinal axis.

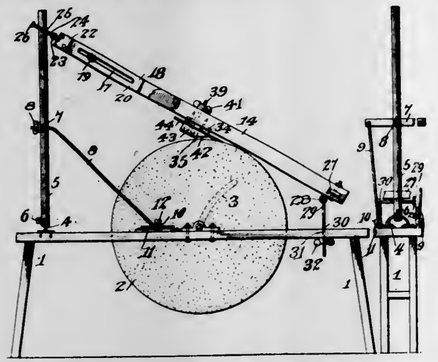
2. An article of the class described, comprising a rectangular blade having its edges beveled, a handle consisting of a handle portion and a shank arranged at an angle to the handle portion, a pivotal connection between the shank and the blade at the center thereof, said shank being provided with a series of openings arranged at angles of 45° with respect to each other and at equal distances from the point of pivotal connection of the handle with the blade and in the longitudinal and transverse axis of the blade, said shank having an opening adapted to register with said other openings, a bolt traversing the registering openings for securing the parts together, and a transverse strip secured to the handle and engaging the blade near the edge thereof for the purpose set forth.

941,272. TOOL-HOLDER. WILLIAM J. POWELL, Coffeyville, Kans. Filed Jan. 23, 1909. Serial No. 473,888.

1. In an apparatus of the class described, a frame, grinding means journaled on said frame, a standard adjustably mounted on said frame, an adjustable brace connected to said standard, an adjustable tool-support, said tool support being adjustably mounted on said standard, a tool-holder carried by said tool-support, and a U-shaped member connected to the lower end of said tool-support, said U-shaped member being adapted to hold the tool-support in adjusted positions.

2. In an apparatus of the class described, a frame, grinding means journaled on said frame, a standard adjustably mounted on said frame, a cross-piece mounted on said standard, braces connected to said cross-piece, said braces being adjustably mounted on bearings, a tool-sup-

port adjustably mounted on said standard, a tool-holder carried by said tool-support, and means for holding said tool support in adjusted positions.



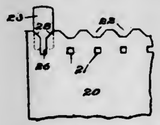
3. In an apparatus of the class described, a frame, a transversely arranged curved bearing mounted on said frame, a standard adjustably mounted on said curved bearing, and a tool support mounted on said standard.

4. In an apparatus of the class described, a frame, a laterally adjustable standard, a longitudinally adjustable brace for said standard, and a tool support mounted on said standard.

5. In an apparatus of the class described, a frame, an adjustable standard mounted thereon, a longitudinal guide mounted on said frame, a brace adjustably mounted on said longitudinal guide and connected to said standard, and a tool support mounted on said standard.

[Claims 6 to 10 not printed in the Gazette.]

941,273. CARD ATTACHMENT. JOSEPH E. RALPH, Newark, N. J. Filed Apr. 4, 1907, Serial No. 366,409. Renewed Apr. 23, 1909. Serial No. 491,850.



1. In a device of the class described, a plate, means provided upon the plate for engaging an opening, and means carried by the plate and spaced from and movable relative to the engaging means.

2. In a device of the class described, a card provided with spaced openings adjacent its edge, and a supporting member provided with means for engaging an opening, and with means for engaging the edge of the card.

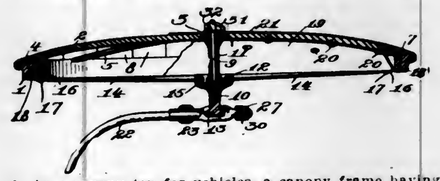
3. In a device of the class described, the combination with a card having spaced openings formed adjacent one edge, of a supporting member provided with means for engaging one of the spaced openings, and means movable relative to the engaging means and adapted to engage one side of the card.

4. In a device of the class described, the combination with a card having spaced openings adjacent one edge, of a plate provided with means for engaging one of the openings, and to position the plate upon one side of the card, and means off-set from the plate adapted and positioned to engage the opposite side of the card.

5. In a device of the class described, the combination with a card having spaced openings formed adjacent one edge, of a plate provided with means for engaging one of the spaced openings, and means off-set from and movable relative to the plate, and positioned to engage the opposite side of the card.

[Claims 6 to 9 not printed in the Gazette.]

941,274. CANOPY-TOP FOR VEHICLES. JOHN REID, Childress, Tex. Filed Oct. 28, 1908. Serial No. 459,918.

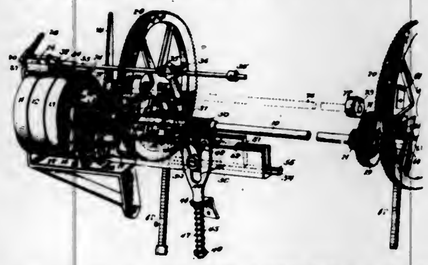


1. In a canopy top for vehicles, a canopy frame having a coupling member, a supporting standard, a pair of counterpart clamping members, each having a pair of recesses, the recesses of one member registering with the corresponding recesses of the other member, the standard projecting into one pair of recesses and the coupling member projecting into the other pair of recesses, a clamping ring surrounding the inner ends of the members, a screw threaded through the ring and engaging the adjacent member, and a clamping nut surrounding the outer ends of the members.

2. In a canopy top for vehicles, in combination, a rim, a supporting frame secured to the rim and comprising intersecting frame members, a coupling member carried by said frame at the point of intersection of its members, tie rods secured to the rim and means for securing the ends of said tie rods for axial adjustment to said coupling member.

3. In a canopy top for vehicles, in combination, a rim, a supporting frame secured to the rim and comprising intersecting frame members, a stem passed through said frame at the point of intersection of its members, a coupling member provided on the lower end of the stem, a spacing sleeve surrounding the stem between the coupling member and the frame and tie rods connecting the rim and the coupling member.

941,275. REVERSING MECHANISM. JOHN C. ROSS, Butte, Mont. Filed Feb. 19, 1909. Serial No. 478,829.



1. In a reversing mechanism, a main shaft, direct and reverse driving pulleys mounted thereon, a belt, a belt shifting device coöperating with said belt, means carried by said shaft to automatically operate said device, and means for disconnecting said shifting device.

2. In a reversing mechanism, a main shaft, direct and reverse driving pulleys mounted thereon, a belt, a belt shifting device coöperating with said belt, means carried by said shaft to automatically operate said device, means for disconnecting said shifting device, an independent operating shaft, and means operated by the disconnecting means for throwing said independent shaft into gear with the driving shaft as the shifting device is disconnected therefrom.

3. In a reversing mechanism, a main shaft, direct and reverse driving pulleys mounted thereon, a belt, a belt shifting device coöperating with said belt, a lever connected with said shifting device, and a slide bar driven from said shaft and having projections at opposite ends adapted to contact with said lever.

4. In a reversing mechanism, a main shaft, direct and reverse driving pulleys mounted thereon, a belt, a belt shifting device coöperating with said belt, a lever connected with said shifting device, a slide bar driven from said shaft and having projections at opposite ends adapted to contact with said lever, and a spring actuated plate engaging the lever for retaining said lever under tension in its shifted position.

5. In a reversing mechanism, a main shaft, direct and reverse driving pulleys mounted thereon, a belt, a belt shifting device coöperating with said belt, a lever connected with said shifting device, a slide bar driven from said shaft and having projections at opposite ends adapted to contact with said lever, and a tension plate having oppositely inclined faces adapted to engage said lever.

[Claims 6 to 23 not printed in the Gazette.]

941,276. ELECTRICAL RECEPTACLE. FRANK J. RUSSELL, New York, N. Y. Filed Sept. 25, 1908. Serial No. 454,763.



1. In an electrical receptacle, the body having a plug receiving socket, and a wire plug holder having a single spiral holding loop.

2. In an electrical receptacle, the body, and a plug holder consisting of a single length of spring wire provided with a single spiral holding loop or convolution.

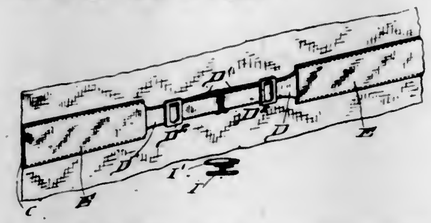
3. In an electrical receptacle, the body, the line wire terminals, and a plug holder consisting of a single length of spring wire supported from one of said terminals and bent to provide a single spiral holding loop.

4. In an electrical receptacle, the body, the line wire terminals, and a plug holder consisting of a single spiral wire loop having terminal supporting legs connected with one of the line wire terminals.

5. In an electrical receptacle, the body, the line wire terminals, and a plug holder consisting of a single spiral wire loop having terminal supporting legs disposed at substantially right angles to the loop and connected with one of the line wire terminals.

[Claims 6 to 10 not printed in the Gazette.]

941,277. MEANS FOR ADJUSTING VESTS, TROUSERS, &c. FRANK M. SCHMIDT, Washington, D. C. Filed June 2, 1909. Serial No. 499,652.

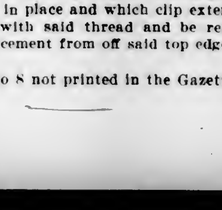


1. Tension straps for vests, trousers, etc., comprising side pieces adapted to be fastened to the lining of a garment, elastic straps secured to said side pieces, non-elastic pieces fastened to the elastic straps, a cover upon the inside of the garment for the side pieces and elastic straps with an opening to allow the non-elastic strap to move freely back and forth, a plate having a shank portion adapted to pass through the garment intermediate said straps and having hinged wings, clasps attached to said non-elastic straps and adapted to engage said wings.

2. Tension straps for vests, trousers, etc., comprising side pieces adapted to be fastened to the lining of a garment, elastic straps secured to said side pieces, non-elastic pieces fastened to the elastic straps, a cover upon the inside of the garment for the side pieces and elastic straps with an opening to allow the non-elastic strap to move freely back and forth, a plate having a shank portion adapted to pass through the garment intermediate said straps and having spring-actuated hinged wings, one of which is slotted, clasps fastened one to each of said non-elastic straps and each having a tongue adapted to engage a slot in one of said wings.

3. Tension straps for vests, trousers, etc., comprising side pieces adapted to be fastened to the lining of a garment, elastic straps secured to said side pieces, non-elastic pieces fastened to the elastic straps, a cover upon the inside of the garment for the side pieces and elastic straps with an opening to allow the non-elastic strap to move freely back and forth, a plate having a shank portion adapted to pass through the garment intermediate said straps and having spring-actuated hinged wings, one of which is slotted, each of said non-elastic straps being bent to form an adjustable loop, a clasp secured to each loop and provided with a tongue adapted to engage a slot in one of said hinged wings.

941,278. PASTE POT OR JAR. CHARLES A. SCHMIDT, Boston, Mass., assignor to The Carter's Ink Company, Boston, Mass., a Corporation of Massachusetts. Filed May 4, 1908. Serial No. 430,734.



1. The combination with a pot or jar, of a receptacle within the body of the jar, and a clip caught over the top edge of the body of the jar and extended in part to engage said receptacle for holding it in place which clip extends in part also to coöperate with a portion of the body of the jar to be positively retained thereby as against displacement off said edge to the body of the jar.

2. The combination with a pot or jar having a protuberance thereon, of a receptacle within the body of the jar, and a clip caught over the top edge of the body of the jar and extending in part to engage said receptacle for holding it in place and which clip extends in part also to coöperate with said protuberance and be retained by it as against displacement off the edge to the body of the jar.
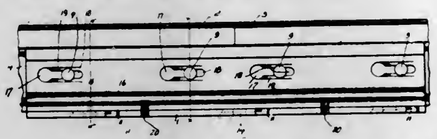
3. The combination with a pot or jar having a slot cut in the top edge of the body of the jar, of an auxiliary receptacle located within said body, and a clip caught over the top edge of the body of the jar at the point of said slot and fitting therein, said clip extending down inside the body of the jar to engage said receptacle for holding it in place and which clip also extends down on the outside of said body of the jar to coöperate with a portion of said body and be retained by it as against displacement off said edge.

4. The combination with a pot or jar, of an auxiliary receptacle located within the body of the jar, and a clip caught over the top edge of the body of said pot or jar to bear in part against the outside thereof and provided also with a shoulder yieldingly bearing against the inside of the body of said pot or jar at the top thereof by which said clip may become fixed to said body of the pot or jar and which clip also is provided with means whereby it may engage with said receptacle and hold the same in place.

5. The combination with a pot or jar having a thread thereon, of an auxiliary receptacle located within the body of the jar, and a clip caught over the top edge of the body of the jar and extending in part to engage said receptacle for holding it in place and which clip extends in part also to coöperate with said thread and be retained by it as against displacement from off said top edge of the body of the jar.

[Claims 6 to 8 not printed in the Gazette.]

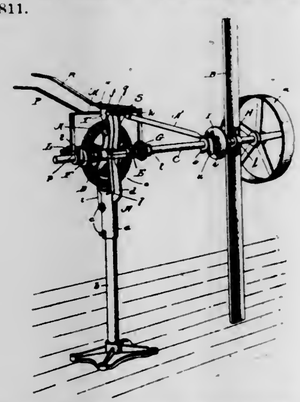
941,279. RAIL-JOINT. JOSEF SCHUSHEY, Pittsburg, Pa. Filed Sept. 30, 1909. Serial No. 520,387.



1. In a rail joint, the combination with rails having the webs thereof provided with transverse openings, of a base plate for supporting said rails, a splice bar carried by said base plate and bracing said rails, pins carried by said splice bar and extending through the openings of said rails, heads carried by the outer ends of said pins, a splice bar detachably mounted upon said base plate for bracing said rails, depending pins carried by the lower edge of said splice bar, said base plate having bayonet shaped slots formed therein to receive the pins of said splice bar, said splice bar having openings to receive the pins of the first mentioned splice bar, said splice bars having slots formed therein communicating with said openings and providing inclined gripping surfaces for the heads of the first mentioned pins, said base plate having spike notches formed therein, said detachable splice bar having spike notches formed therein, adapted to register with the spike notches of said base plate when said splice bar is shifted to lock the pins of the first mentioned splice bar in engagement with the last mentioned splice bar.

2. In a rail joint, the combination with rails having the webs thereof provided with openings, of a base plate supporting said rails, an integral splice bar carried by said base plate for bracing said rails, pins carried by said integral splice bar and extending through the openings of said rails, a detachable splice bar adapted to brace said rails and provided with openings to receive the pins of said integral splice bar, said base plate having bayonet shaped slots formed therein, depending pins carried by the lower edge of said detachable splice bar and adapted to engage in said bayonet shaped slots, and means in connection with the pins of said integral splice bar for locking said detachable bars in engagement with said rails.

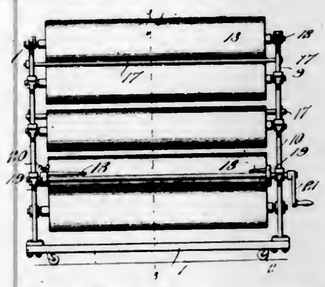
941,280. POWER-TRANSMISSION APPARATUS. DAVID E. SELDERS, Van Orin, Ill. Filed May 4, 1909. Serial No. 493,811.



1. In an apparatus for the purpose described, the combination of a main frame having upwardly extending portions of different heights separated by a space and also having a head on the upper end of said higher portion provided with a platform and a horizontal slot disposed in a plane below the platform, a shaft journaled in the main frame at one side of the said space, a shaft journaled in the main frame, at the opposite side of said space, and disposed at a right angle to the first named shaft, a gear arranged in the said space and at the inner end of the second named shaft, movable means on the first-named shaft adapted to alternately rotate said gear in opposite directions, a yoke connecting and movable with said movable means, and a hand lever connected with said yoke and extending through the horizontal slot in the frame head and pivoted to the under side of the platform on said head.

2. In an apparatus for the purpose described, the combination of a main frame having upwardly extending portions of different heights separated by a space and also having a journaled box at an intermediate point in the height of the higher portion and a head on the upper end of said higher portion and provided with a platform and a horizontal slot disposed in a plane below the platform, and further having on the upper end of the lower portion a journal box disposed at a right angle to the first-named box, a shaft journaled in the first-named box, clutch members fixed to the shaft and disposed at opposite sides of the first named box, gears loosely mounted on and movable lengthwise of the shaft and having clutch members complementary to those fixed to the shaft, a yoke connected and movable with said gears, a shaft journaled in the second-named box of the main frame and having a gear at its inner end disposed in the said space of the main frame and adapted to coöperate with the said gears on the first named shaft, and a hand lever pivoted to the platform of the higher frame portion and movable in the slot of said portion and connected to the yoke.

941,281. RACK FOR ROLLS OF MERCHANDISE. CHRISTIAN J. SIMONSON, Caron, Saskatchewan, Canada. Filed Apr. 14, 1908. Serial No. 427,082.

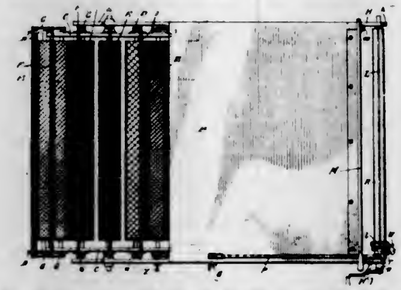


A rack for the purpose set forth comprising a base mounted on casters, end frames extending upward therefrom and secured thereto, tie bolts connecting the upper portion of the end frames, each end frame embodying parallel standards, arched and annular cross bars connecting said standards, the standards and cross bars being provided with bearing slots to receive rows of merchandise, a reeling-off roller removably journaled in oppositely arranged bearing slots, collars mounted on said shaft and provided with inwardly extending clamp fingers, one of said collars being movable, and an operating crank on said roller.

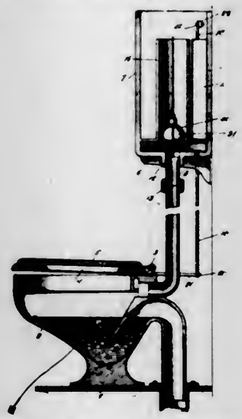
941,282. DEVICE FOR HOLDING WIRE SCREEN. WILLIAM A. SMITSON and ALLEN GERMAN, Elwood, Ind. Filed Mar. 15, 1909. Serial No. 483,519.

1. In a wire screen holder, a frame, means mounted on said frame for holding a series of screen coils, a plate carried by said frame, a cutting knife pivotally mounted at one end of said plate, a screen roller carried by said frame on a level with said plate, the cutter knife being between said coil holding means and said screen roller, means for attaching the screen to the screen roller, a tape-measure roll mounted on the side of said plate, a tape-measure, a collar on said screen roller shaft for winding up said tape-measure, a sliding arm adapted to connect said collar to said screen roller and means for turning said screen roller.

2. In a wire-screen holder, a frame, means for holding a series of coils, a plate carried by the frame, a screen roll carried by said frame near one end of said plate, a cutter knife pivotally mounted at one end of said plate between said coil holding means and said screen roller, a bar pivotally attached to said screen roller for attaching the end of a coil to the screen roller, a loose collar on the screen roller shaft, a sliding arm carried by said roller and arranged to engage the loose collar for causing the rotation of the latter, a tape-measure roll, a tape-measure, and means for securing the end of the tape-measure to said collar.



941,283. FLUSHING APPARATUS FOR WATER-CLOSET BOWLS OR HOPPERS. WILLIAM E. SNAMAN, Pittsburg, Pa. Filed Nov. 3, 1908. Serial No. 460,897.



1. In a flushing apparatus, the combination with a bowl having a hinged seat, of a tank communicating with said bowl by a down pipe, said tank having a horizontal partition formed therein adjacent to the bottom thereof and providing a bypath adapted to normally communicate with said bowl, a housing carried by said partition, said partition having a water inlet opening formed therein, a casing arranged within said tank, a rod extending downwardly through said casing and adapted to be actuated by a lowering movement of said seat, a weighted lever pivotally mounted in said tank and connecting with said rod, a transverse shaft journaled in said tank, a cross arm carried by said shaft and having an extension adapted to be engaged by said lever, a cage suspended from one end of said cross arm within said housing, a spherical float arranged within said cage and adapted to close the communication between said bowl and said bypath, a cage suspended from the opposite end of said cross arm, a movable spherical float arranged within said cage and adapted to close the inlet opening of said partition, and a lever pivotally mounted in said tank and extending outside thereof for moving said cross arm independently of the first mentioned lever and the rod connecting therewith.

2. In a flushing apparatus, the combination with a bowl having a hinged seat, of a tank communicating with said bowl, a horizontal partition arranged in said tank and providing a bypath adapted to communicate with said bowl, a housing carried by said partition, said partition having an inlet opening formed therein establishing communication between said tank and said bypath, a lever pivotally mounted in said tank and adapted to be actuated by a movement of said seat, a cross arm fulcrumed within said tank and having an extension for engaging said lever, a cage suspended from one end of said cross arm within said housing, a spherical float arranged within said cage for controlling the communication between said bypath and said bowl, an oblong cage suspended from the opposite end of said cross arm, a movable spherical float arranged within said cage for controlling the communication between said tank and said bypath, and a lever pivotally mounted within said tank and extending outside thereof for moving said cross arm independently of the seat action of said bowl.

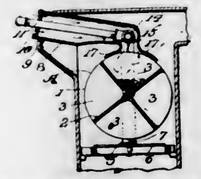
3. In a flushing apparatus, the combination with a bowl having a hinged seat, of a tank communicating with said bowl, a horizontal partition arranged in said tank and providing a bypath adapted to communicate with said bowl, a housing carried by said partition, said partition having an inlet opening formed therein establishing communication between said tank and said bypath, a lever pivotally mounted in said tank and adapted to be actuated by a movement of said seat, a cross arm fulcrumed within said tank and having an extension for engaging said lever, a cage suspended from one end of said cross arm within said housing, a spherical float arranged within said cage for controlling the communication between said bypath and said bowl, an oblong cage suspended from the opposite end of said cross arm, and a movable spherical float arranged within said cage for controlling the communication between said tank and said bypath.

4. In a flushing apparatus, the combination with a bowl having a hinged seat, of a tank communicating therewith, a horizontal partition arranged in said tank and providing a bypath, a confined spherical float for controlling the communication between said bypath and said bowl, a movable spherical float for controlling the communication between said tank and said bypath, a fulcrumed cross arm for alternately moving said floats, and a leverage mechanism actuated by the seat of said bowl for moving said cross arm.

5. The combination with a bowl having a seat action for controlling the admission of water to said bowl, of a tank, said tank having a bypath formed therein adapted to communicate with said bowl, spherical floats for controlling the communication between said bypath and said bowl, and the said bypath and said tank, means for limiting the movement of said floats, and a leverage mechanism actuated by the seat action of said bowl for alternately moving said float to first establish communication between said bypath and said tank and then establish communication between said bypath and bowl, whereby water can pass from said tank directly to said bowl.

[Claims 6 to 8 not printed in the Gazette.]

941,284. CRUDE-OIL BURNER. FREDERICK D. STALFORD, Frederick, Okla. Filed Sept. 7, 1909. Serial No. 516,340.



1. A burner of the character described, comprising a revoluble body portion provided with a plurality of pockets,

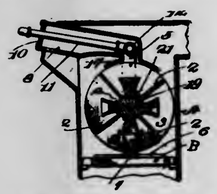
a supporting frame adapted to rest on the grate of a stove and in which the revoluble body portion is mounted, a supply pipe for fuel including a cross arm supported in said frame work and formed with a plurality of downwardly facing orifices, and an air induction hood mounted on said supply pipe and formed at one end with air inlet openings.

2. A burner of the character described, comprising a frame work, a body portion mounted in said frame work and formed with a trough, a fuel supply pipe supported in the frame work and formed with a plurality of downwardly facing orifices, and an air induction hood formed with air inlet openings and supported at one end on the supply pipe and formed with downwardly and outwardly flared flanges adapted to extend over said trough.

3. A burner of the character described, comprising a frame embodying vertically disposed standards, a revoluble body portion provided with a plurality of troughs or pockets, a shaft by which it is journaled in said standards, and a supply pipe including a cross arm supported in said standards above said shaft.

4. A burner of the character described, comprising a framework, a body portion mounted in said framework and formed with a trough, a supply pipe for fuel including a cross arm supported in said framework above the body portion, and an air induction hood supported at one end above said cross arm and having an opposite tapered end through which the supply pipe extends, and on which the tapered end of the hood is supported, the last named end of the hood being formed with damper controlled air inlet openings.

941,285. CRUDE-OIL BURNER. FREDERICK D. STALFORD, Frederick, Okla. Filed Sept. 10, 1909. Serial No. 517,085.



1. A burner of the character described including a supply pipe with dripping orifices, a revoluble member having a plurality of troughs mounted beneath the supply pipe, and a longitudinally extending series of separate receptacles mounted in each trough and adapted to be brought into registry with said orifices.

2. A burner of the character described including a supply pipe with dripping orifices and a revoluble body portion mounted underneath said pipe and including a plurality of troughs, any one of which may be brought into registry with said pipe, and a plurality of separate oil receiving receptacles arranged in each trough, so as to be in registry with the orifices when the trough is in registry with the pipe.

3. A burner of the character described comprising a framework, a body mounted in said framework and formed with a trough, a fuel supply pipe supported in the framework and having a plurality of downwardly opening orifices, an air induction hood formed with an air inlet opening at one end and formed with downwardly and outwardly flared flanges extending over said trough, and a plurality of fuel receiving receptacles supported in the trough immediately beneath said orifices.

4. A burner of the character described comprising a framework, a revoluble body portion mounted in the framework, a plurality of troughs arranged on the body portion, a fuel supply pipe supported in the framework immediately above the body portion and formed with a plurality of downwardly opening orifices, an air induction hood formed with an air inlet opening at one end and having at the other end downwardly and outwardly flared flanges adapted to extend partly over one of said troughs when in registry therewith, and a plurality of separate oil receiving receptacles mounted in each trough in position to register with said orifices.

5. A burner of the character described comprising a supply pipe formed with dripping orifices and a revoluble body portion mounted beneath said supply pipe and including a plurality of troughs, any one of which may be brought into registry with said supply pipe, a series of sockets formed in each trough, and a series of separate fuel receptacles smaller than the trough, each receptacle being adapted to engage with one of said sockets, said receptacles being supported thereby in registry with the orifices in the supply pipe when the trough is brought into position beneath said pipe.

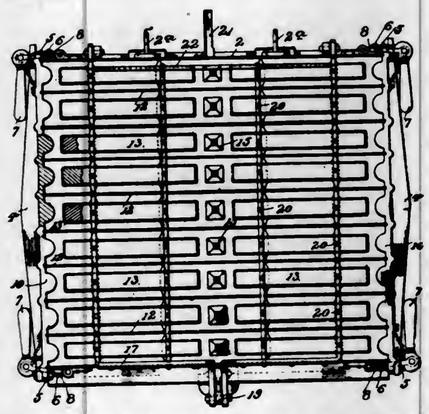
[Claims 6 and 7 not printed in the Gazette.]

941,286. MEANS FOR ATTACHING SHAFTS TO SPADES OR OTHER TOOLS. ERIK C. M. W. STJERNSTEDT, Stockholm, Sweden. Filed Apr. 20, 1909. Serial No. 491,172.



In the herein described means for attaching the shaft to spades or other tools, the combination of a ring, a bored head on the said ring, having a groove therein, a nut rotatably mounted on the said head and having a circular flange engaging the groove in the head, and a screw passing through the hole in the head and engaging with the nut for the purpose set forth.

941,287. MOLDING APPARATUS. JOHN D. SULLIVAN, Salt Lake City, Utah. Filed May 4, 1908. Serial No. 430,805.



1. A molding apparatus for forming a series of molded blocks comprising a base, two corresponding side walls, one of which is rigidly mounted on the base, two corresponding end walls hinged to said base, a series of spaced-apart partitions secured by opposite walls, cores located between and spaced apart from said partitions, a frame extending over the apparatus, and capable of being removed therefrom, said frame carrying means for detachably engaging and holding said cores in place during the molding operations, means for locking said frame, and means for locking the end walls and the side walls together, and means for limiting the outward movements of said end walls when freed of said locking means.

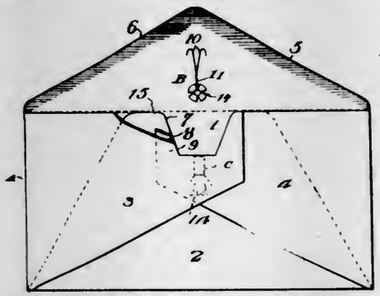
2. A molding apparatus comprising a base, opposite side walls, one of which is fixedly secured to said base, two hinged end walls, means for locking said end walls and side walls together, cores designed to be located on said base within said walls, a retaining frame pivotally secured at one end to said fixed side wall, and designed to extend over the top of the apparatus, means for holding the free end of said frame at the opposite side wall, and means carried by said frame for engaging the cores.

3. A molding apparatus comprising a base, corresponding side walls, and corresponding end walls, a series of spaced-apart partitions engaging at their ends the inner faces of said end walls, cores located in the compartments formed by said partitions, means for binding said walls together, a retaining frame pivoted at one end to one of the walls and extended over the top of the apparatus, means carried by said frame for engaging and holding the cores, and means for detachably locking the free end of such frame.

4. A molding apparatus comprising a base having corresponding side walls, one of which is fixedly secured thereto, two corresponding end walls, a series of spaced-apart partitions paralleling the side walls and supported by said end walls, cores located between said partitions, a retaining frame hinged to the fixedly held side wall and carrying pins for engaging said cores, and means for locking the free end of said frame, such means comprising a link and a cam lever to which the link is secured, such cam lever acting on a fixed part of the apparatus.

5. A molding apparatus comprising a base, opposite side walls, means for fixedly holding one of the side walls to said base, end walls hinged to said base, a series of spaced-apart partitions paralleling said side walls and supported by said end walls, means for locking the side walls and the end walls together, means for limiting the outward movements of the end walls, cores located between said partitions, a retaining frame pivoted to the fixedly-held side wall and having means for engaging said cores, means for locking the free end of said frame, and supports for the latter when in its open position.

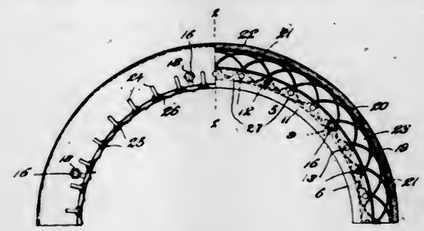
941,288. SAFETY-ENVELOP. PETER A. THORIN, Iron River, Mich., assignor of one-third to Patrick O'Brien, Iron River, Mich., and one-sixth to Edward W. Hopkins, Commonwealth, Wis. Filed Feb. 3, 1909. Serial No. 475,864.



In combination with an envelop comprising a front, a back, and a sealing flap, a fastening comprising complemental parts, the one consisting of a flattened tube open at both ends and attached to the inner side of the back, and the other part consisting of a single piece of wire doubled upon itself and having an eye at the fold and having the members intertwisted for a short distance and having their free ends forming spring arms and terminating in hooks which are adapted to pass through said flattened tube and engage therewith.

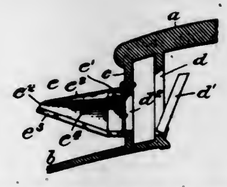
941,289. TIRE. ALBERT T. TIZARD, Durango, Colo. Filed July 24, 1908. Serial No. 445,225.

The combination with a vehicle rim provided with a fixed annular flange at one side and a removable annular flange at the other side, of an annular series of rollers journaled at their ends in said flanges and disposed in spaced relation to the inner surface of the rim, a casing provided with an annular tread portion disposed in spaced relation to the rollers and provided with parallel spaced side walls having their inner extremities disposed outwardly of the flanges of the rim, members carried by the walls of the casing and provided at their inner ends with pivotally mounted rings, a retaining cord laced through said rings to hold the casing to the rim, a metallic



lining secured upon the inner side of the tread portion of the casing and comprising a series of sections secured to said tread portion and having their side edges terminating at points adjacent to the outer ends of the side walls of the casing, and an annular series of springs arranged parallel to each other and corrugated to provide inwardly directed curved portions engaged with the rim and disposed beneath the rollers, and outwardly directed curved portions engaged with the metallic lining for the casing.

941,290. VENTILATOR FOR RAILWAY-CARS. JOHN E. WARD, New York, N. Y., assignor to Ward Equipment Company, New York, N. Y., a Corporation of New York. Filed May 20, 1909. Serial No. 497,193.



1. A ventilating hood for railway cars substantially triangular in cross section and tapering from its base to its outer end and having a substantially flat top and an opening in its underside between the converging side walls and having also a substantially vertical depending flange about said opening.

2. A ventilating hood for railway cars tapering from its base to its outer end and having a substantially flat top and an opening in its underside between the converging side walls.

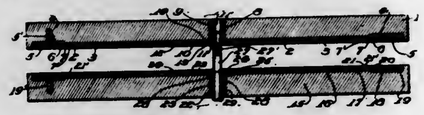
3. A ventilating hood for railway cars tapering from its base to its outer end and having an opening in its underside between the converging side walls and having also ribs or flanges on its outer side walls to direct the air downward and across said opening.

4. A ventilating hood for railway cars substantially triangular in cross section and tapering from its base to its outer end and having a substantially flat top and an opening in its underside between the converging side walls and having on its side walls downwardly and outwardly directed ribs or flanges.

5. A ventilating hood for railway cars tapering from its base to its outer end and having an opening in its underside between the converging side walls and having also an opening in its outer end.

[Claims 6 and 7 not printed in the Gazette.]

941,291. APPARATUS FOR MAKING SOUND-RECORDS FOR TALKING-MACHINES. CLARENCE S. WICKES, Camden, N. J., assignor to Victor Talking Machine Company, a Corporation of New Jersey. Filed Jan. 29, 1908. Serial No. 413,287.



1. In an apparatus for forming records, a pressing plate, a matrix having a depression, a label-depressing plate seated in said depression and projecting above the surface of the matrix.

2. In an apparatus for forming records, a pressing plate, a matrix having a circular depression, a label-depressing plate fitted within said depression, and projecting above the surface of the matrix.

3. In an apparatus for forming records, a pressing plate, a matrix having a central depression in the face thereof, a label-depressing plate fitted in said depression and projecting above the surface of the matrix, and an edge forming member overlying the outer edge of said matrix.

4. In an apparatus for forming records, a pressing plate, a matrix seated on said plate, and an edge forming member surrounding said matrix and overlying the outer edge of said matrix.

5. In an apparatus for forming records, a pressing plate, a matrix having a depression, a label-depressing plate fitted within said depression and projecting above the surface of said matrix, and means to secure said label-depressing plate to said pressing plate.

[Claims 6 to 75 not printed in the Gazette.]

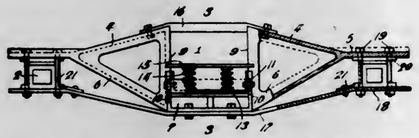
941,292. SELF-CLEANING RAKE. FREDERICK W. WIEMAN, Lawrence, Kans. Filed May 14, 1909. Serial No. 495,865.



1. A self-cleaning rake comprising a rake head, a perforated cleaner plate pivotally mounted upon the head, a connecting rod pivoted to the cleaner, a spring surrounding the handle, said connecting rod bearing against the spring, and a sliding sleeve for operating the cleaning plate, said sleeve encircling the spring.

2. A self-cleaning rake comprising a cleaner plate provided with perforations through which the rake teeth project, said cleaner being pivoted to the rake head, a connecting rod pivoted to the cleaner, and a sliding sleeve mounted on the handle and inclosing a spiral spring for moving the connecting rod in one direction.

941,293. CAR-TRUCK. CHARLES W. WODZNSKI, Menominee, Mich. Filed Apr. 14, 1908. Serial No. 427,004.

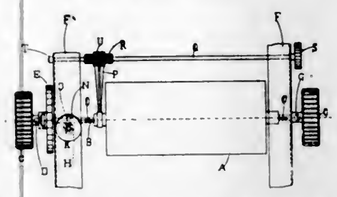


1. In a car truck frame of the "diamond" shape having its arch bars and saddle plate constructed of a single casting, an elevated shelf between the bolster columns and projecting rearwardly of the trusses, ears upon the bolster columns, a spring seat box for the shelf and engaging the ears of the bolster columns, spaced lugs upon the box engaging each side of the bolster column, springs for the box, a bolster plate for the springs, a bolster, and a compression bar connecting the opening between the bolster columns.

2. In a car truck frame of the "diamond" shape, trusses having a connecting saddle plate integrally formed, an integrally formed shelf above the saddle plate and connecting the bolster columns of the trusses, ears upon the bolster columns having perforations, a spring seat box having lugs adapted to engage the sides of the bolster columns upon the shelf, the boxes being provided with openings alining with the openings of the ears and adapted for engagement of the retaining elements, projections upon the floor of the box, helical springs upon the box engaging the projections, a bolster plate upon the spring, a bolster upon the plate, and a compression bar having openings near its ends alining with openings provided by the upper arch bars of the trusses and adapted for the reception of the retaining elements.

3. The combination with a car truck frame of the "diamond" shape having a spring bolster seat and extending ends, of a pedestal tie bar connected with the saddle plate of the frame and extending from each side thereof, brace members provided with spaced arms, adapted to contact the extensions of the frame, axle boxes provided with lugs adapted to engage between the arms of the brace members, and means for securing the axle boxes between the extensions of the frames and the tie bar.

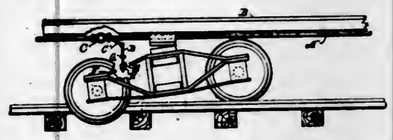
941,294. ADJUSTING APPLIANCE FOR TYPE-WRITING MACHINES. CAREY S. ALVERSON, San Diego, Cal. Filed Dec. 2, 1907. Serial No. 404,654.



1. In a typewriter, the combination, with the carriage, of the platen carrying shaft, the platen splined on said shaft, another shaft arranged parallel to the platen and having a screw threaded portion, an arm mounted on said screw threaded portion of said shaft and having its end forked and engaging a groove in a sleeve on said platen, and means to rotate said second shaft for the purpose of moving said platen longitudinally on said carriage.

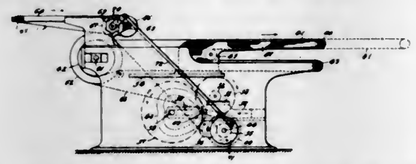
2. In a typewriter, the combination, with the carriage, of the platen carrying shaft, the platen splined on said shaft, another shaft arranged parallel to the platen and having a screw threaded portion, an arm mounted on said screw threaded portion of said shaft and having its end forked and engaging a groove in a sleeve on said platen, means to rotate said second shaft for the purpose of moving said platen longitudinally on said carriage, and means to revolve said platen for the purpose of fractional line spacing.

941,295. SAFETY AIR-BRAKE APPLIANCE. THOMAS W. ASH, Sherman, Tex. Filed Sept. 14, 1909. Serial No. 517,754.



In a safety air brake appliance for cars, an auxiliary air-valve attached to the train line of a car, a perforated transverse bar secured to the top frame of a car truck, a vertical rod extending through the perforation, the upper end being connected to the valve-lever and the lower end threaded and provided with an adjusting nut above and beneath the transverse bar substantially as described.

941,296. MACHINE FOR TREATING DOUGH AND LIKE MATERIALS. GEORGE S. BAKER, London, England. Filed June 19, 1909. Serial No. 503,069.



1. In a machine for treating dough and like materials the combination of an endless feed conveyer, driven means for imparting remittent reciprocating movement to said conveyer, means for imparting an independent forward movement to said conveyer whereby divided masses of material are fed over its forward end during its return stroke, a separate endless web adapted to convey masses of material in spaced relation to said conveyer and means for imparting an intermittent forward movement to said web.

2. In a machine for treating dough and like materials the combination of a dividing apparatus, a proving apparatus, an endless feed conveyer intermediate the dividing and proving apparatus, means for feeding the divided masses of material from the dividing apparatus to said conveyer, means for imparting reciprocating movement to the conveyer and means for imparting an independent forward movement to said conveyer whereby the divided masses of material are fed over the forward end thereof into the proving apparatus during the return stroke of the reciprocating movement of said conveyer.

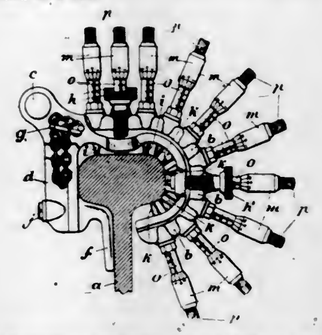
3. In a machine for treating dough and like materials the combination of a dividing apparatus, a molding apparatus, means for feeding the divided masses of material from the dividing apparatus to the molding apparatus, a proving apparatus, an endless feed conveyer intermediate the molding and proving apparatus, means for feeding the divided and molded masses of material from the molding apparatus to the feed conveyer, means for imparting reciprocating movement to the conveyer and means for imparting an independent forward movement to said conveyer whereby the divided masses of material are fed over the forward end thereof into the proving apparatus during the return stroke of the reciprocating movement of said conveyer.

4. A machine of the character described having an endless feed conveyer, driven means for imparting remittent reciprocatory movement to said conveyer, the movements so imparted alternating first in one direction and then in a reverse direction, and means for imparting an independent uni-directional movement to said conveyer throughout the remittent reciprocatory movement thereof whereby divided masses of material supplied upon the conveyer are successively fed over its forward end during the return stroke of its reciprocatory movement.

941,297. INSTRUMENT FOR MEASURING THE CROSS-SECTION OF RAILS, &c. RICHARD BARTHELMES, Zella St. Blasii, Germany. Filed Nov. 16, 1908. Serial No. 462,880.

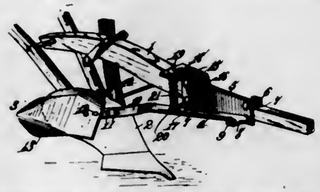
1. An instrument for measuring the wear of rails comprising a bracket having a swinging arm, an adjustable shoe on said arm and fastening screws for securing said bracket firmly on the head of a rail, and a plurality of measuring devices, mounted on said bracket and arranged to be moved into contact with the head of the rail.

2. An instrument for measuring the wear of rails comprising a bracket having approximately the contour of a rail head and adapted to surround the same, clamping screws on said bracket for securing the instrument to the rail head only, a swinging arm pivoted on one end of said bracket and arranged to bear against one side of the rail head, an adjustable shoe on said arm capable of being moved against the under side of the rail head and a plurality of micrometric measuring screws mounted on said bracket in position to be moved independently into contact with the head of a rail.



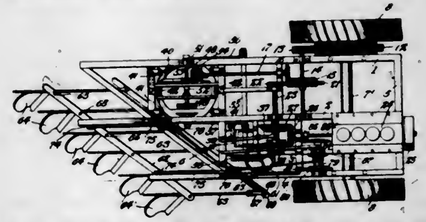
3. An instrument for measuring the wear of rails comprising a bracket adapted to surround a rail head, clamping screws for securing the instrument thereto, a number of micrometric measuring screws mounted in said bracket, some of which are arranged perpendicular to the top of the rail head and others radially thereto, a sleeve for each screw provided with division lines, an arm pivoted on said bracket and adapted to be temporarily fixed thereto to bear against the side of a rail head, and a shoe on said arm fitted to the under side of said rail head and the web of the rail.

941,298. WEED-TURNING ATTACHMENT FOR PLOWS. THOMAS J. BAXTER, Bobbin, Tex. Filed Apr. 3, 1909. Serial No. 487,658.



In a weed turning attachment for plows, the combination with a plow beam and a plow blade, of a plate arranged at one side of the beam, clamping plates at the other side of the beam, bolts connecting the clamping plates and the first named plate and providing for the adjustment of the latter axially of the beam, a bolt projecting laterally from the front end of the plate, a pair of laterally projecting flanges at the rear end of the plate, an arm pivoted on the bolt and projecting rearwardly between the flanges, a weed turning blade secured at the rear end of the arm, a bolt passed through the flanges and through the arm, and a spring bearing against the arm.

941,299. MOTOR-PLOW. WILLIAM T. BENNETT, Goldfield, Nev. Filed June 17, 1908. Serial No. 438,978.



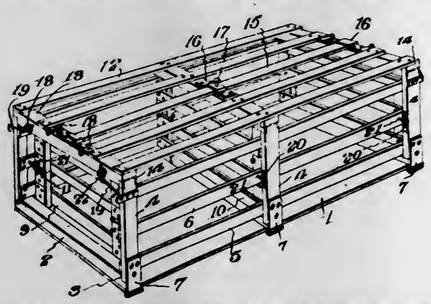
1. In a machine of the class specified, a main frame, a sectional main shaft, traction wheels mounted on the

sections of said shaft, differential gearing connecting the shaft sections, a motor geared to the differential gearing, an annular oscillatory steering frame, a combined steering and traction wheel the shaft of which is carried by said annular frame, a tumbling shaft geared to the motor, a gear wheel on one section of the tumbling shaft, and driving means interposed between the motor and the tumbling shaft and between the tumbling shaft and said steering wheel for imparting rotary motion to the steering wheel while permitting the steering frame and steering wheel to be turned.

2. In a machine of the class specified, a main frame comprising a rear cross bar set obliquely to the line of draft, a sectional main shaft, forwardly arranged traction wheels mounted on the sections of said shaft, differential gearing connecting the shaft sections, a motor geared to the differential gearing, an annular oscillatory steering frame located back of the forward traction wheels and to one side of the center line of draft and in front of the rear oblique cross bar, a combined steering and traction wheel the shaft of which is carried by said annular frame, a tumbling shaft geared to the motor, a gear wheel on one section of the tumbling shaft, and driving means interposed between the motor and the tumbling shaft and between the tumbling shaft and said steering wheel for imparting rotary motion to the steering wheel while permitting the steering frame and steering wheel to be turned.

3. In a machine of the class specified, a machine frame embodying an oblique rear end bar, traction wheels at the front of the frame, a single combined steering and traction wheel located in rear of the aforesaid traction wheels and at the rear angle of the frame, a motor mounted on the machine frame, and differential gearing common to both the front traction wheels and rear steering and traction wheel, whereby each of said wheels is driven at a speed proportionate to the extent of its travel.

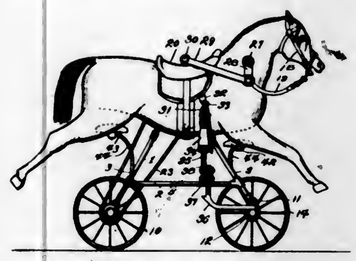
941,300. POULTRY-COOP. ARTHUR M. BENZING, Keystone, Iowa. Filed Dec. 8, 1908. Serial No. 466,537.



1. In a folding coop, a base having its ends and center provided with transverse slots, the upper edge of each being cut away to provide abutment portions, end members and a center member hingedly connected with the transverse strips, the center and the end members being each constructed of a pair of sections hingedly connected together, said members having spaced upright strips adapted to engage the abutment portions of the transverse strips of the base, said upright strips being provided with hinges connecting the same with the bottom of the base, hook members upon the end upright strips hingedly connected with the ends and with the partition of the coop, pockets upon the ends of the transverse strips of the top adapted to engage the uprights of the sides, and spaced eyes upon the outer strips of the top adapted to be engaged by the hooks of the sides to sustain the coop in both its set up and knocked down position.

2. In a folding coop, a base having transverse strips provided with pockets upon their ends, end members hingedly connected with the strips, said end members being each constructed of a pair of sections hingedly connected together, the connecting hinges of the sections being provided with extending pintles, side members having uprights engaging the pockets of the bottom strips, said uprights being hingedly connected with the bottom of the coop, eyes upon the uprights adapted to be engaged by the projecting pintles of the end hinges, hooks upon the uprights, a top provided with transverse end strips having pockets adapted to be engaged by the uprights of the sides, the end members of the coop being hingedly connected with transverse strips of the top members, and eyes upon the transverse strips adapted to be engaged by the hooks of the uprights of the sides to sustain the coop in its set up or in its knocked down position.

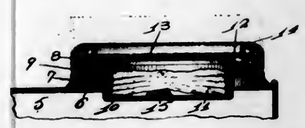
941,301. AUTO-HORSE. CHRISTINA E. BIRKY, Alvin, Ill. Filed Apr. 21, 1909. Serial No. 491,302.



1. A vehicle of the character described comprising a wheeled frame having driving and steering axles, an animal figure mounted to rock upon the frame, gearing for operating said driving axle, stirrups flexibly supported by the figure, arms projecting from the steering axle, and adjustable connections between said stirrups and said arms.

2. A vehicle of the character described comprising a wheeled supporting frame having driving and steering axles, a shaft upon the upper portion of the frame, an animal figure pivotally mounted to rock upon said shaft, sprocket gearing between the shaft and the driving axle, a drive shaft journaled upon the figure, sprocket gearing between said shaft and the first named shaft, cranks upon the ends of said drive shaft, and a handle connected with both cranks and extending over the figure for rocking said cranks in unison.

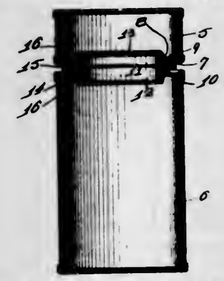
941,302. STOPPER. ORLAND A. BORDEN, St. Louis, Mo. Filed Jan. 18, 1909. Serial No. 473,011.



A container having an opening; an outwardly projecting flange surrounding said opening; a cap-casing secured upon said flange, having an inwardly projecting capledge and crimped inwardly at its mouth; a recessed cap seated in said ledge; a coupon-disk seated over said recessed cap, and sealed in place by the crimp at the mouth of the cap-casing, substantially as described.

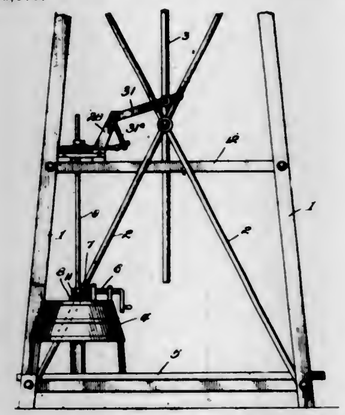
941,303. CONTAINER. ORLAND A. BORDEN, St. Louis, Mo. Filed Jan. 18, 1909. Serial No. 473,012.

The improved container comprising two receptacles provided with openings registering with each other when said receptacles are placed top to top; a closure adapted to serve as a common seal to both receptacles when placed top to top, and consisting of two flanged sections having their flanges secured together; and two gaskets mounted



on the opposite sides of said closure, substantially as described.

941,304. WASHING-MACHINE ATTACHMENT. SAMUEL BOWMAN, Chicago, Ill. Filed Oct. 16, 1908. Serial No. 458,079.

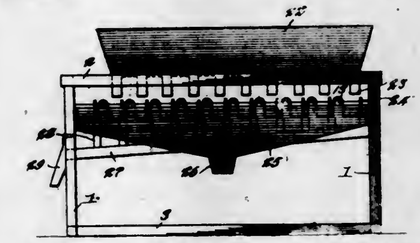


1. A washing machine attachment comprising a base plate, a toothed sector mounted on said base plate, a pinion mounted on the base plate and meshing with said sector, a main shaft of a washing machine, a connecting rod adapted to be interchangeably connected to said sector or pinion, and means including a two-armed lever for rotating said sector, a reciprocating rod, said lever being connected to said rod.

2. An attachment for washing machines comprising a base plate, a toothed sector mounted on said base plate, a pinion in mesh with said sector, a connecting rod adapted to be interchangeably connected to said sector or pinion a main shaft of a washing machine to which said connecting rod is attached, a reciprocating rod, a two-armed lever adjustably connected to said rod, a standard, said lever being pivoted to said standard and provided with a depending arm, a ball-socket adjustably mounted on said arm, a ball-socket mounted on said sector, and a connecting rod having ball ends connected to the ball sockets.

3. In an attachment for washing machines, a base plate, a toothed sector mounted to rotate thereon, a pinion in mesh with said sector, a connecting rod adapted to be interchangeably connected to said sector or pinion, a shaft to which said connecting rod is attached, means for holding said connecting rod in fixed relation to said sector or pinion, a reciprocating rod, a standard, a two-armed lever pivoted to said standard and adjustably connected to said reciprocating rod, an arm depending from said lever, a ball-socket adjustably mounted on said arm, a ball-socket connected to said sector, and a connecting rod provided with balls at the opposite ends seated in said sockets.

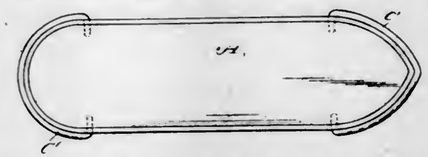
941,305. BEAN-SEPARATOR. FREDERICK C. BRITT, Middleport, N. Y. Filed Feb. 13, 1909. Serial No. 477,627.



1. A machine of the class described, comprising a laterally inclined endless carrier belt, picking rolls extending transversely across said belt and correspondingly inclined from end to end, check bars arranged at one side of the picking rolls and extending parallel thereto, a series of supporting rolls extending parallel to the picking rolls and arranged beneath the picking rolls and between the top and bottom runs of the belt, and means for simultaneously driving the belt and picking rolls at a substantially equal surface speed.

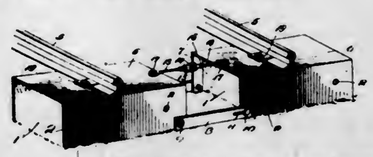
2. A machine of the class described, comprising a laterally inclined endless carrier belt, a series of inclined picking rolls extending transversely across the belt and in parallel relation thereto, check rails extending across the belt and arranged close to the belt and parallel to the picking rolls, a corresponding series of supporting rolls extending parallel to the picking rolls and arranged beneath the same and between the top and bottom runs of the belt, means for simultaneously driving the belt and picking rolls at a substantially equal surface speed, a receiving trough arranged to receive the good product from the lower edge of the belt, and a refuse gutter having upstanding nozzles intersecting the receiving trough and adapted to receive the defective beans and refuse directed thereto by the check bars.

941,306. BRUSH-WARE. JOHN A. BURNSIDE, Dunedin, New Zealand. Filed Feb. 7, 1907. Serial No. 356,218.



The combination with a brush stock, of elastic fender means applied to the opposite ends thereof and projecting over portions of the side edges, the ends of the fender means being inserted in the said side edges.

941,307. RAIL-TIE. CLARK CARRELL, Newman, Ill. Filed June 15, 1909. Serial No. 502,284.

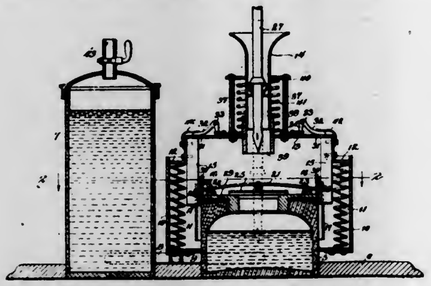


1. A rail tie comprising concrete blocks, metal housings fitted over the blocks and secured thereto by bolts, connecting rods attached to the sections and provided with a turn buckle for adjusting them one toward the other, lock nuts on the connecting rods for securing the turn buckle in adjusted position, and bars connected to opposite

sides of the sections, said bars being slotted at one end to permit them to slide upon one section during the adjustment of the sections.

2. A rail tie comprising concrete blocks, metal housings fitted over the blocks and secured thereto by bolts, bars connected to the housings, said bars each being slotted at one end and connected through the slots to the housing by means of studs, connecting rods attached to the sections and provided with a turn buckle for adjusting said housings toward and from one another, and lock nuts on the connecting rods for holding the turn buckle in adjusted position.

941,308. INKSTAND. HANS R. CHRISTIANS, Brooklyn, N. Y. Filed Feb. 19, 1908. Serial No. 416,713.



1. In an inkstand, the combination with an ink well, of a vertically moving frame, springs beneath same, a cover for the mouth of the well, levers carrying the cover and adapted to be rocked and slid, and means connected with the frame for rocking and sliding the levers to remove the cover from the mouth of the well.

2. In an inkstand, the combination with an ink well, of a cover, a cross bar with levers at its ends, sliding fulcrums for the levers, a vertically moving frame, springs beneath same, means on the frame for tipping the levers and sliding their fulcrums, guide rods, a vertically moving receptacle for the pen normally locked by the guide rods and means below the vertically moving frame for turning the guide rods to release the receptacle.

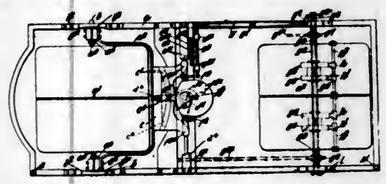
3. In an inkstand, the combination with an inkwell, of a cover, pivoted levers carrying the cover and connected by a cross bar, a vertically moving frame with cammed slots to receive the ends of the levers, a receptacle for the pen carried by the moving frame and having an independent movement, splined guide rods for the receptacle, bell crank levers adapted to turn the rods and pins on the well to impinge the bell crank levers and cause them to turn the guide rods so that the splines will not interfere with the movement of the receptacle.

4. In an inkstand, the combination with an inkwell, of a cover, levers on sliding pivots and connected by a cross bar, a link between the cross bar and the cover, a vertically moving frame with cam slots carrying the ends of the levers to tip and slide them, springs beneath the frame, a pen receptacle normally held above the moving frame, splined rods playing in openings in and guiding the receptacle and normally holding the same in its elevated position, vertical pins on the inkwell, bell crank levers on the moving frame adapted to be operated by the pins and a lever on each splined rod and operated by one of the bell crank levers.

941,309. AGRICULTURAL MACHINE FOR ROLLING, MOWING, AND OTHER SIMILAR OPERATIONS. GEORGE H. COLT, West Hampstead, England. Filed Jan. 28, 1909. Serial No. 474,787.

1. In a machine for performing rolling, mowing, and similar agricultural operations the combination with a source of power of means for causing the machine to automatically traverse a lawn or plot of land of any area in a zig-zag path.

2. In a machine for performing rolling, mowing and similar agricultural operations the combination of a source of power and means for causing the machine to automatically traverse a lawn or plot of land of any area in a zig-zag path in more than one direction.



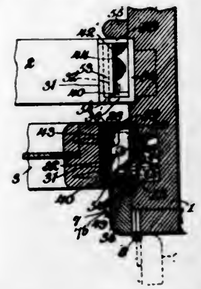
3. In a machine for automatically performing agricultural operations, the combination of a source of power means for transmitting said power to impart motion to the machine, and means for causing the said machine to deviate so as to traverse a zig-zag path.

4. In a machine for automatically performing agricultural operations, the combination of a source of power means for transmitting said power to impart motion to the machine, means for causing the said machine to deviate so as to traverse a zig-zag path, and means for effecting the reversal of the direction of movement.

5. In a machine for automatically performing agricultural operations, the combination of a source of power, means for transmitting said power to impart motion to the machine, means for causing the said machine to deviate so as to traverse a zig-zag path, means for effecting the reversal of the direction of movement when said deviation takes place, and means for causing the direction of said deviation to be reversed for causing the machine to retraverse the ground.

[Claims 6 and 7 not printed in the Gazette.]

941,310. WINDOW. JOHN COONEY, New York, N. Y., assignor, by direct and mesne assignments, to Safety Window Company, New York, N. Y., a Corporation of New York. Filed Aug. 11, 1908. Serial No. 447,975.



1. In a device of the class described, the combination of a frame member, a cord member, a dog pivoted at a point between its ends to the cord member and having one end arranged to engage the frame member, and a sash member interlocked with and movable horizontally into and out of engagement with the cord member and provided with means for engaging the dog at the other end thereof to automatically operate the same.

2. In a device of the class described, the combination of a frame member, a cord member, a dog pivoted at a point between its ends to the cord member and having one end arranged to engage the frame member, and a sash member provided with a fixed projecting portion for directly engaging the cord member and supporting the sash thereon and movable horizontally into and out of such engagement, said sash member being also provided with means for engaging the dog at the other end thereof for automatically operating the same.

3. In a device of the class described, the combination with a window frame, a sash movable into and out of the window frame, and a weight having a sash cord, of a frame member secured to the window frame, a sash member mounted on the sash, a cord member connected with the sash cord and directly engaged with the sash member, and a locking device pivoted at an intermediate point to the cord member and provided at one end with means for engaging the frame member and having means at its other end arranged to be engaged by the sash member, whereby the locking device is operated.

4. In a device of the class described, the combination of a frame member consisting of a plate having a vertical flange at its outer edge, a sash member, a cord member located between the said members and slidable on the frame member along the inner face of the said vertical flange and directly engaged by the sash member for supporting the sash on the cord member, the latter being movable horizontally out of such engagement, and locking mechanism operated by the horizontal movement of the sash member for connecting the cord member with the frame member and for disconnecting it therefrom.

5. In a window of the class described, the combination of a fixed member provided with a slot, a cord member, a locking device movably mounted on the cord member and arranged to extend through the slot from one face of the frame member and provided with means for engaging the opposite face of the same, and means for detachably connecting the cord member with a sash.

[Claims 6 to 15 not printed in the Gazette.]

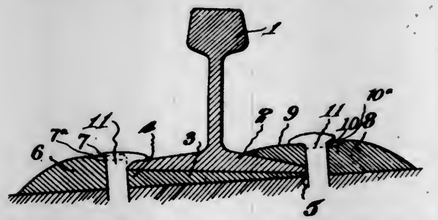
941,311. TOY. ALFRED H. COTTON, Rawene, Hokianda, New Zealand. Filed June 15, 1908. Serial No. 438,671.



1. In a trundle toy, a wheel, a handle pivoted at the center of the wheel, a pair of pivotally connected links one of which is pivoted eccentrically to the wheel and the other of which is pivoted to the handle, and a second pair of pivotally connected links, one of which is pivoted to the link of the first named pair which is pivoted to the handle and the other of which is also pivoted to the handle.

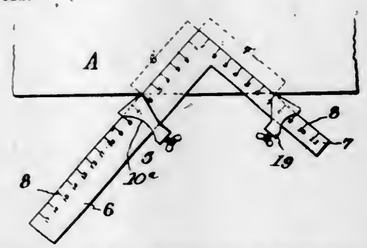
2. In a trundle toy, the combination with a wheel and a handle pivoted at the center of the wheel, of a link pivoted to the handle, a sound-producing cylinder pivoted eccentrically to the wheel, an element slidable in the cylinder for causing the sound-producing operation and pivoted to the link, and a second link pivoted to the first named link and pivoted also to the wheel.

941,312. RAIL-CURVE SEAT. JOHN E. DOUGHERTY, Missoula, Mont. Filed Feb. 3, 1909. Serial No. 475,880.



The herein described rail curve seat comprising an inclined bearing portion for the base flange of the rail, a flange extending over the inclined bearing portion to engage the upper surface of the base flange of the rail, said flange having bolt holes provided with recesses around their outer portions, said rail seat having an integral thickened portion opposite the flange, said thickened portion having a bolt hole extending through the same and provided with a recess for the head of the bolt.

941,313. SQUARE. SAMUEL B. EASLEY and ORUS J. EASLEY, Defiance, Ohio. Filed Aug. 7, 1908. Serial No. 447,453.



The combination with a square having graduated arms, of a gage slidably mounted on each arm and comprising spaced parallel walls straddling the arm, end walls connecting the said spaced walls, the upper end wall being of wedge form with its outer face beveled uniformly from one end to an edge at its angle of intersection with its opposite end, said edge being adapted to register with the graduations on the arm, and a set screw carried by the lower end wall adapted to be engaged with the instrument to hold the gage in its adjusted position, said parallel walls of said gage having their edges at one side provided with plane upper and lower faces and intermediate arcuate concavities, and having their edges at the other side provided with plane upper and lower faces and beveled intermediate portions, said concavities and beveled side edges being arranged to expose the graduations upon the arm of the instrument at both sides of the gage and with which the ends of the wedge shaped top wall are in register.

941,314. VALVE. JOSHUA C. EVANS, Youngstown, Ohio. Filed Apr. 24, 1909. Serial No. 491,981.



1. In combination, a stem, a nut secured to the stem, and a wear block carried by the nut.

2. In combination, a stem provided with a conical head, a nut provided with a bore receiving the stem, and with a tapered bore, and a key inserted between the head and the wall of said tapered bore.

3. In combination, a stem provided with a conical head, a nut provided with an inner bore receiving the stem and with an outer bore and with a tapered intermediate bore, a key inserted between the head and the wall of said tapered bore, and a wear block inserted in the outer bore.

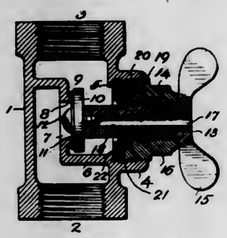
4. In combination, a stem provided with a head, a nut provided with an inner bore receiving the stem, said nut being provided with an outer bore larger than the inner bore and with an intermediate bore, and a key inserted between the head and the wall of said intermediate bore.

941,315. LAMP-BURNER. FRANK E. FENDER, Lincoln, Nebr. Filed Apr. 23, 1909. Serial No. 491,748.



A lamp burner comprising a base having a wick tube, a perforated air supply plate around the wick tube and having downward and outwardly inclined deflecting portions, a gallery having its central portion open and provided with a tubular downwardly extending perforated curtain in which the upper portion of the base and the lower portion of the air supply plate are disposed, said curtain being open at its upper and lower ends and being spaced from the base and the air supply plate, and a dome on the said gallery.

941,316. COMPRESSION-COCK. CHARLES S. FRISHMUTH, Philadelphia, Pa. Filed July 31, 1908. Serial No. 446,275.

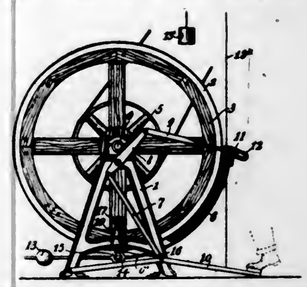


1. A quick-action compression cock, having a shell, a valve-seat therein, a valve-disk coöperating with said seat, a valve-stem having a quick-pitch screwthread, a cap having a complemental screwthread engaged by the threaded stem whereby said stem is capable of a rotary reciprocating motion in the shell and cap, said cap recessed at its inner end to receive packing, and a combined fibrous and metallic packing surrounding the valve-stem and interposed between the stem and cap and shell above the valve-disk, said valve-stem having a longitudinal bore opening outside of the valve shell and transverse inlets intersecting the longitudinal bore and arranged with relation to the packing so that upon unseating the valve-disk said transverse inlets will pass into the packing and be closed, and upon seating the valve-disk they will pass out of the packing and be opened to permit the drainage of the valve.

2. A quick-action compression cock, having a valve-seat, a valve-disk coöperating therewith, a valve-stem having a quick-pitch screwthread, a similarly screwthreaded cap in which said stem is mounted and is capable of a rotary reciprocating motion to open and close the valve and its drain ports quickly and in effect simultaneously, said stem perforated longitudinally and transversely so as to drain the valve, said cap recessed internally and provided with a packing surrounding the valve-stem, a metallic washer placed next to the cap and packing, and a fibrous washer arranged to coöperate with the metallic washer and valve-disk to make a tight joint with the back of the valve-disk when the valve is open.

3. A quick-action compression cock, having a valve-seat, a valve-disk coöperating therewith, a valve-stem having a quick-pitch screwthread, a similarly screwthreaded cap in which said stem is mounted and its capable of a rotary reciprocating motion to open and close the valve and its drain ports quickly and in effect simultaneously, said stem perforated longitudinally and transversely so as to drain the valve, said cap recessed internally and provided with a packing surrounding the valve-stem, a metallic washer placed next to the cap and packing, and a fibrous washer placed next to the metallic washer and out of contact with the stem.

941,317. MACHINE FOR THE TREATMENT OF SKINS AND THE LIKE. FRIEDRICH A. GEIPEL, Fleissen, Austria-Hungary. Filed Oct. 13, 1908. Serial No. 457,517.

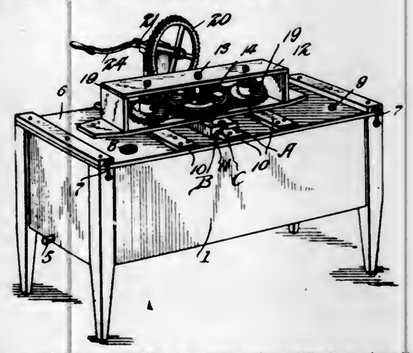


1. A machine for treating skins and the like comprising a rotating drum, a table of a curvature corresponding to that of the drum, means for yieldingly hinging one end of the table adjacent the bottom of the drum, and means engaging the other end of the table for pressing the table against the drum.

2. A machine for treating skins comprising a rotating drum, a table of a curvature corresponding to that of the drum, means for supporting one end of the table adjacent the bottom of the drum, brackets secured to the other end of the table and having slots therein extending at an angle to the table, a rod supported in said slots so as to have movement toward and from the table, a pedal, and links connecting said pedal with the rod whereby the rod is first caused to move toward the table and then move the table toward the drum.

3. A machine for treating skins comprising a drum formed of segments, a covering for the drum, and means for stretching the covering on the drum segments comprising pairs of rails adapted to clamp the ends of the covering between them, said rails being located on the underside of the segments, tension rods carrying the pairs of rails, and a turn buckle connecting the inner ends of the rods together.

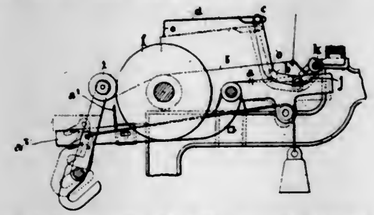
941,318. CchurN. FRANK A. GRANT, Staceyville, Me. Filed June 19, 1908. Serial No. 439,381.



1. A churn comprising a rectangular casing, a plurality of vertical dasher shafts removably mounted upon the bottom of the said casing, a cover mounted upon the casing and provided with a series of dasher shaft-receiving passages, a plurality of cleats mounted upon the cover, a housing having a bar adapted for sliding engagement with one of the cleats upon said cover, means upon the cleat for holding the bar and the housing respectively against rotation, and gear-actuated stub shafts carried by the housing and adapted for detachable engagement with the said dasher shafts.

2. A churn comprising a hollow casing having a removable cover, a plurality of vertical dasher shafts removably mounted in said casing and provided with upwardly extending end portions extended through the cover, a plurality of cleats upon the cover, a housing supported upon the cleats, a grooved bar upon the housing adapted for sliding engagement with one of the cleats, said bar having a slot formed therein, a pin extending upwardly from one of the cleats and adapted for engagement in the slot formed in the bar to hold the said bar against sliding movement, a latch member connecting the housing with the said cover, and a plurality of driven stub shafts carried by the housing and provided with lower extremities adapted for detachable engagement with the upper end portions of the dasher shafts.

941,319. YARN OR THREAD WINDING, DOUBLING, GASSING, AND LIKE MACHINE. JOSEPH HIGGINSON, Jr., and HUBERT ARUNDEL, Stockport, England. Filed Feb. 28, 1908. Serial No. 418,372.



1. In yarn or thread winding, doubling, gassing and like machines, the combination with a drum having a yarn guiding slit therein of a guide rod supported externally to the said drum and capable of entering said slit and of guiding the yarn thereinto during the rotation of the drum, substantially as set forth.

2. In yarn or thread winding, doubling, gassing and like machines, in combination, a drum having a yarn guiding slit therein, a guide rod, a pivotally mounted bracket carrying said rod and means whereby the rod is caused to enter and leave the aforesaid slit for the insertion of the yarn in the latter, substantially as set forth.

3. In yarn or thread winding, doubling, gassing and like machines, in combination, a drum having a yarn guiding slit therein, a cheese driven by said drum, a guide rod, a pivotally mounted bracket carrying said rod, and means causing said guide rod to project into said slit for the insertion of the yarn therein and to leave said slit after the cheese has been brought into contact with said drum, substantially as set forth.

4. In yarn or thread winding, doubling, gassing and like machines, in combination, a drum having a yarn guiding slit therein, a cheese driven by said drum, a guide rod, a pivotally mounted bracket carrying said rod, a stop for engagement by said bracket and means for causing said guide rod to enter said slit in the split drum for the insertion of the yarn in the slit, and then to leave the slit, substantially as set forth.

5. In yarn or thread winding, doubling, gassing and like machines, in combination, a drum having a yarn guiding slit therein, a cheese driven by said drum, a spring guide rod, a pivotally mounted bracket carrying said rod, an adjustable stop for engagement by said bracket, and means for causing said guide rod to enter said slit in the split drum for the insertion of the yarn in the slit, and then to leave the slit, substantially as set forth.

[Claim 6 not printed in the Gazette.]

941,320. HALOGENATED NAPHTHANTHRAQUINON AND PROCESS OF MAKING SAME. MAX ISLER, Mannheim, and ARTHUR LÜTTRINGHAUS and HEINRICH VON DIESBACH, Ludwigshafen-on-the-Rhine, Germany, assignors to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany, a Corporation of Germany. Filed June 22, 1909. Serial No. 503,636.

1. The process of producing halogenated derivatives of naphthanthraquinon by condensing together a phthalic anhydrid body and a naphthalene body, one at least of which is halogenated, and then heating with concentrated sulfuric acid the halogenated naphthoyl-benzoic acid obtained.

2. The process of producing 2-chlor-naphthanthraquinon by condensing together beta-chlor-phthalic anhydrid and naphthalene and then heating with concentrated sulfuric acid the 2-naphthoyl-4-chlor-benzoic acid obtained.

3. As new articles of manufacture halogenated derivatives of naphthanthraquinon, which consists when dry of yellow powders, are insoluble in water, in dilute acids and in alkalies, which dissolve in concentrated sulfuric acid with a red-brown to green color, and which dissolve in alkaline hydrosulfite yielding brown-red to red vats which dye cotton yellow shades.

4. As a new article of manufacture 2-chlor-naphthanthraquinon which consists when dry of a yellow powder, has a constitution corresponding to the formula $C_{18}H_9O_2Cl$, melts at about from 206° to 208° C., is insoluble in water, in dilute acids and alkalies, which dissolves in concentrated sulfuric acid with a greenish brown color, and which dissolves in alkaline hydrosulfite yielding a brown-red vat which dyes cotton yellow shades.

941,321. STOVE. JOHN M. JOHNSON and GUY W. NOBLE, Belleville, Kans. Filed June 26, 1908. Serial No. 440,486.



1. A stove of the class described including a bottom constituting a burner, an outer shell secured to the said bottom and forming a combustion chamber, a stove top to which the outer shell is secured, an inner shell secured to and depending from the top of the stove and spaced from the outer shell and terminating short of the said bottom, a vertical draft pipe located within the inner shell and communicating at its upper end with the outside air and provided at a point intermediate of its ends with horizontal branch pipes piercing the inner and outer shells and spanning the combustion chamber, and a smoke pipe connected with the stove at the top of the intervening space between the inner and outer shells.

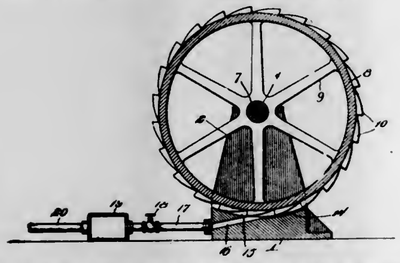
2. A stove of the class described including a bottom constituting a burner, an outer shell secured to the said bottom and forming a combustion chamber, a stove top to which the outer shell is secured, an inner shell secured to and depending from the top of the stove and spaced from the outer shell and terminating short of the said bottom, a vertical draft pipe located within the inner shell and communicating at its upper end with the outside air and provided at a point intermediate of its ends with horizontal branch pipes piercing the inner and outer shells

and spanning the combustion chamber, said draft pipe being secured to the stove top and the latter being provided between the vertical draft pipe and the inner shell with clean-out openings, covers for the said openings, and a smoke pipe connected with the stove and communicating with the intervening space between the inner and outer shells at the top thereof.

3. A stove of the class described including a solid casting forming a burner and constituting the bottom of the stove and provided with a central upwardly extending tapered portion and having a groove surrounding the same, an outer shell secured to the said casting and forming a combustion chamber, a stove top to which the outer shell is secured, an inner shell secured to and depending from the stove top and spaced from the outer shell and terminating short of the said casting, a vertical draft pipe located within the inner shell and communicating at the top with the outside air and secured to and depending from the stove top, the latter being also provided between the draft pipe and the inner shell with clean-out openings, covers for the said openings, a smoke pipe connected with the stove and communicating with the top of the intervening space between the inner and outer shells, and a fuel supply pipe extending through the draft pipe and located above the central tapered portion of the casting.

4. A stove of the class described including a solid casting forming a burner and constituting the sole bottom of the stove and provided with a central upwardly extending inclined projection and having a groove surrounding the same and forming an outer inclined wall, a stove top, an outer shell secured to the casting beyond the groove by an air tight connection and also to the stove top, an inner shell open at the bottom and secured to and depending from the stove top and spaced from the outer shell and terminating short of the said casting, and a central vertically disposed draft pipe located within the inner shell and depending from the top of the stove and terminating short of the tapered projection, said draft pipe having lateral branches provided with dampers, which branches pierce the inner and outer shells and span the combustion chamber.

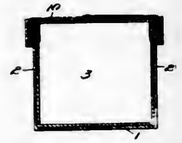
941,322. STEAM-TURBINE. MICHAEL KELLER, Eureka, Utah. Filed June 15, 1909. Serial No. 502,293.



1. A turbine embodying a fixed surface having a curved face provided with steam channels and communicating passages, the latter opening through said curved face, and also provided with tangential steam ducts intersecting said channels, valved conductors communicating with the ducts, and a rotor provided with vanes adapted to travel through said passages and to receive the impact from the jets of steam issuing from the ducts.

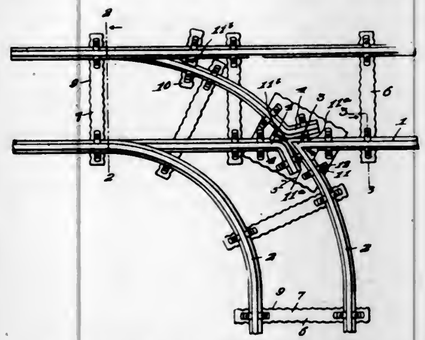
2. A turbine embodying a fixed surface having a curved face provided with steam channels and communicating passages, the latter opening through said curved face, and also provided with tangential steam ducts intersecting said channels, valved conductors communicating with the ducts, a rotor provided in its periphery with pockets inclined in its direction of rotation, and vanes secured to the periphery of the rotor to travel through said passages and receive the impact from the jets of steam issuing from the ducts, said vanes being formed with cavities inclined correspondingly to and communicating with said pockets.

941,323. BOX. ALBERT E. KLINGENBERG, Granite City, Ill. Filed Apr. 24, 1909. Serial No. 491,970.



A receptacle having a wire frame embedded in the walls thereof, a closure for the receptacle, flexible closure-engaging strips carried by the side walls of the said receptacle and adapted to be secured to each other to hold the closure against displacement, said metallic strips having portions extending through the wire strands forming the said metallic frame and provided with inner portions which are bent around the upper edge portions of the side walls of the said receptacle, and flanges carried by the closure adapted to house the attached ends of the said flexible strips.

941,324. TRACK STRUCTURE. CYRENIUS W. KUTZ, Humbert, Pa. Filed Apr. 29, 1909. Serial No. 492,956.



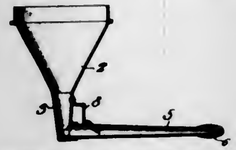
1. The combination of a cross tie, a rail thereon, adjustable fastenings carried by the tie and two-part clips on said fastenings, the lower parts of the clips being adapted to engage the edges of the base flanges of the rail, and the upper parts being adapted to engage the upper faces of the base flanges of the rail, said upper parts being also retractable when the fastenings are loosened to permit of the removal of the rail from the tie without the removal of the clips therefrom.

2. The combination of a rail supporting plate formed from metal and having a flat top provided with an aperture and also having integrally formed zigzag shaped angular flanges projecting downwardly and outwardly from the edges of said top and adapted to enter the ground to anchor the flat top upon the surface of the same, a non-rotatable fastening in the aperture of said plate and having a threaded upper end, track rails having base flanges resting upon said plate, a two-part clip arranged on said fastening, the lower part of the clip being engaged with the edge of the base flange of the rail and the upper part of the clip being formed with a longitudinal slot to receive said fastening and being adapted to rest upon the upper face of the base flange of the rail and a nut upon the upper threaded end of said fastening.

3. The combination of a plate, converging rails arranged on said plate, means on the plate to engage the outer base flanges of the rails, a fastening projecting upwardly from the plate between the rails, a two-part clip arranged on the fastening, the lower part of the clip being engaged with the edges of the inner base flanges of the rails and the upper clip part being angular in shape to engage the upper faces of the inner base flanges of the rails, said upper clip part being also formed with a longitudinal slot, whereby it may be retracted on said fastening when the latter is loosened.

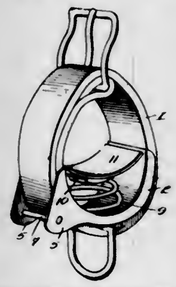
4. The combination of a rail-supporting plate formed from metal and having a flat top provided with apertures having flat walls, said plate also having integrally formed zigzag shaped flanges projecting downwardly and outwardly from the edges of said top and adapted to enter the ground to anchor the flat top upon the surface of the same, bolts having threaded upper ends and also ends formed with heads and shoulders, the latter being arranged in said flat walled apertures, track rails having base flanges resting upon said plate, two-part clips arranged on said bolts and having their lower parts engaged with the edges of the base flanges of the rail, and the upper parts of said clips being engaged with the upper faces of the base flanges of the rail, and clamping nuts upon the projected threaded ends of said bolts.

941,325. VETERINARY INSTRUMENT. EDWARD G. LAWTON, Bermuda, La. Filed Feb. 6, 1909. Serial No. 476,449.



A veterinary instrument of the class described comprising a receptacle of funnel form, said receptacle having a depending tubular portion provided with a right angularly extending neck, a tapering tube connected at one end with the said neck and provided at its opposite end with a removable tip of elastic material, and a brace member connecting the receptacle with the said tube.

941,326. SHAFT-TUG ATTACHMENT. ALBERT LITTMAN and WILLIAM J. LACKIE, Cleveland, Ohio. Filed Aug. 11, 1909. Serial No. 512,454.

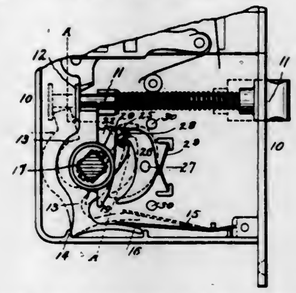


An attachment for shaft tugs comprising a body member of a curved formation having its longitudinal edges offset and provided with ears, a securing element for the ears, a bearing plate for the body, and a resilient connection between the bearing plate and the body.

941,327. AUTOMATIC KNOB-OPERATED DOOR-LOCK. GUY C. MANNING, Portland, Oreg. Filed Nov. 17, 1908. Serial No. 463,062.

1. In a lock, the combination of the bolt, a knob shank composed of independently movable sections, a bolt operating device for each shank section, and a latch for one of the shank sections operable by the other.

2. In a lock, the combination of the bolt, a knob shank composed of independently movable sections, a bolt operating device for each shank section, a latch for one of the shank sections operable by the other, said latch being movable into either of two positions and means on the latch-operating section alternately acting on the latch by the reverse rotation of said section to move the latch into one or the other of its said two positions.



3. In a lock, the combination of a bolt, a knob shank composed of independently movable sections, a two-armed lever on one of the sections having a locking notch, a pawl movable into and out of engagement with said locking notch, and means on the other section adapted to engage said pawl to move it either into or out of engagement with said locking notch.

4. In a lock, the combination of the bolt, a knob shank composed of independently movable sections, a bolt operating device for each shank section, a latch for one of the shank sections operable by the other, said latch being movable into either of two positions, and means to yieldingly hold it in each of said positions.

5. In a lock, the combination of the bolt, a knob shank composed of independently movable sections, a two-armed bolt-operating device for each shank section, a pawl adapted for latching engagement with one arm of one of said devices and operable by both arms of the other device.

[Claims 6 and 7 not printed in the Gazette.]

941,328. ENVELOP. JOHAN MAZALIN, Passaic, N. J. Filed Aug. 2, 1909. Serial No. 510,938.



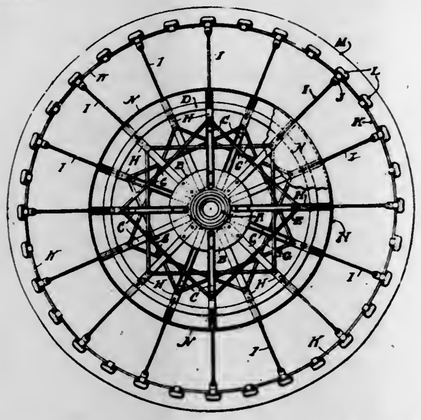
1. In an envelop fastener, the combination with an envelop having end flaps, a bottom flap, and a top flap, of a stirrup adapted to straddle the ends of said bottom and end flaps, a pin carried by said stirrup and having a spear shaped head, a socket member carried by said top flap and adapted to receive the spear shaped head of said pin, said socket member comprising a plate having a central opening, prongs carried by said plate and adapted to hold the same in engagement with said flap, and a hollow button carried by said flap to provide a socket for the head of said pin.

2. In an envelop fastener, the combination with an envelop having end flaps, a bottom flap and a top flap, a stirrup adapted to straddle the ends of said bottom and end flaps, a staple for securing said stirrup to said flaps, a pin carried by said stirrup, a spear shaped head carried by said pin, and a socket member carried by said top flap and adapted to receive the spear shaped head of said pin.

941,329. SPRING-WHEEL. ARTHUR R. MISKIN, Idaho Falls, Idaho. Filed July 3, 1908. Serial No. 441,726.

1. The improved spring wheel comprising a hub, an elastic rim, a series of radial spokes attached thereto, a series of radial guides rigidly connected with the hub and serving as guides for the inner ends of the spokes, and

bars connecting the ends of spokes which are at right angles to each other with each other, substantially as described.



2. The improved spring wheel comprising a hub, an elastic rim, radial spokes attached thereto, a series of bars radiating from the hub and corresponding with the spokes in number and position, devices with which the inner ends of the spokes are connected and which slide on such bars, rods having a jointed connection with said devices and arranged in the form of a parallelogram which is normally rectangular, but which becomes oblique when subjected to pressure, substantially as described.

3. The improved spring wheel comprising a hub, an elastic rim, radial spokes having a pivotal connection with the rim, radial guide bars rigidly connected with the hub and corresponding with the spokes in number and position, blocks adapted to slide in said guide bars and connected with the spokes, and a series of bars connecting the blocks in sets of four, and forming normally a rectangular parallelogram which becomes oblique when the wheel sustains a load or meets an obstruction, as shown and described.

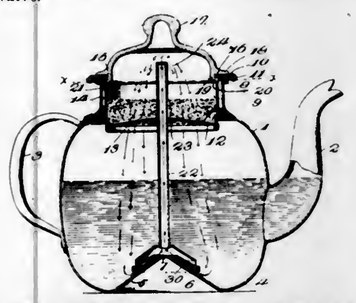
4. In a spring wheel of the type indicated, the combination with the hub and annular flanges secured thereto, of grooved bars rigidly attached to said flanges and arranged in radial position, a ring attached to their outer ends whereby they are rigidly connected, blocks adapted to slide in said bars, rods connecting the blocks in series of four and forming a rectangular parallelogram, spokes connected with the said blocks, and an elastic rim to which the outer ends of the spokes are pivotally attached, as shown and described.

5. In a wheel of the type indicated, the combination with the hub and bars rigidly connected therewith and provided with lateral grooves, of blocks provided with antifriction rollers which are adapted to run in the grooves of said bars, bars connecting the blocks in series of four and arranged to form normally a rectangular parallelogram, an elastic rim, and spokes connecting it with the aforesaid blocks, as and for the purpose specified.

941,330. COFFEE-PERCOLATOR. GEORGE E. MITTINGER, Jr., New Castle, Pa. Filed Aug. 3, 1908. Serial No. 446,724.

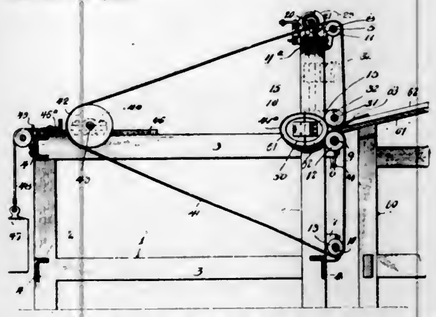
1. A coffee percolator, comprising a receptacle having an upwardly extending cone-shaped bottom, a basket supported within the receptacle, a tube extending downwardly through the basket, a cone-shaped pocket carried by the lower end of the tube and the lower wall of the pocket being conical and of an angle differing from the angle of said bottom and said wall having a central opening directly below the tube and into which the apex of the cone-shaped bottom extends, and said wall having a series of openings surrounding the central opening.

2. A coffee percolator, comprising a receptacle having an upwardly extending cone-shaped bottom, a basket supported within the receptacle, a tube extending downwardly through the basket, a cone-shaped pocket carried by the lower end of the tube and the lower wall of the pocket being conical and of an angle differing from the angle of said bottom, and said wall having a central opening directly below the tube and into which the apex of the cone-shaped bottom extends, and said wall having a series of openings surrounding the central opening, and a circular conical valve within the pocket and resting upon the conical bottom wall of the pocket and having a central opening whereby the series of openings are normally closed by the valve.



3. A coffee percolator comprising a receptacle having an upwardly extending cone-shaped bottom, a basket within the upper end of the receptacle, a tube extending downwardly through the basket adjacent the cone-shaped bottom, a cone-shaped pocket carried by the lower end of the tube and of an angle differing from the angle of said bottom, the lower wall having a cut-away central portion directly below the tube and into which the apex of the cone-shaped bottom extends, the lower wall of the cone-shaped pocket having a series of openings therein and a circular valve within the pocket and normally closing said openings.

941,331. MACHINE FOR MAKING PICTURE-FRAMES. JACOB MUELLER, Chicago, Ill., assignor to Mueller Brothers Art and Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 2, 1907. Serial No. 404,828.



1. In a device of the class described, the combination with a frame having two vertical side members, of a wholly independent mandrel, wrapping means including a movable belt running between said side members and having a loop extending partially around the mandrel and forming the sole support therefor, two pulleys for maintaining the loop upon the mandrel, and means for adjusting said pulleys toward or away from each other to such a range as to permit the insertion of the mandrel between the pulleys into the loop of the belt.

2. In a device of the class described, the combination of a mandrel, a wrapping belt having a loop extending around said mandrel, pulleys between which the belt is passed to form the loop, suitably guided bearing blocks for one of said pulleys, and means for raising and lowering said bearing blocks in unison.

3. In a device of the class described, the combination of a mandrel, a wrapping belt having a loop extending around the mandrel, pulleys between which the belt is threaded to form the loop, suitably guided bearing blocks for one of said pulleys, screws threaded in said bearing blocks, pinions mounted upon said screws, a cross shaft, pinions mounted upon said cross shaft and meshing with said first named pinions and means for rotating said cross shaft in either direction.

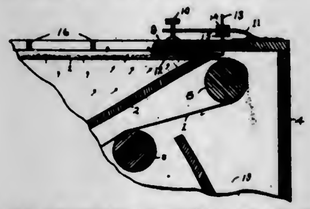
941,332. RAIL FASTENER AND BOND. CHARLES D. MCAFEE, Burgettstown, Pa. Filed Mar. 12, 1909. Serial No. 482,882.



1. In a rail fastener and bond, the combination with the confronting ends of two rails, splice bars bracing said rails, bolts extending through said splice bars and said rails, said bolts having longitudinal grooves formed therein, and nuts adapted to screw upon said bolts, of split washers mounted upon said bolts, a yoke mounted in the grooves of the outer-most bolts and adapted to have the ends thereof extend upwardly between the split ends of the outer-most washers and bent over to engage the outer-most nuts upon said bolts, and bars mounted in the grooves of the other of said bolts and adapted to extend upwardly between the split ends of the washers of said bolt and bent over into engagement with the nuts of said bolts, substantially as described.

2. In a rail fastener and bond, the combination with rails, splice bars bracing the confronting ends of said rails, bolts extending through said splice bars and rails, said bolts having grooves formed therein, nuts adapted to screw upon said bolts, of split washers mounted upon said bolts, and a yoke, said yoke having the ends thereof mounted in the grooves of said bolts and extending upwardly between the split ends of said washers and bent to engage the nuts screwed upon said bolts, substantially as described.

941,333. ORE-CONCENTRATOR. CHARLES L. MCKESSON and ORVILLE S. BLACK, Colorado Springs, Colo. Filed Dec. 7, 1907. Serial No. 405,596.



1. An ore concentrator comprising an air chamber, a belt having its upper run arranged over the same, a gate member arranged in the path of the delivery of said air current, an actuated shaft for effecting the intermittent vertical movement of said gate, and means for limiting the drop of said gate.

2. An ore concentrator comprising an air chamber, a belt having its upper run extending over the same, means for delivering an air current into said chamber, a gate member arranged in the path of the delivery of said air current, a pulley-actuated shaft having a lateral arm adapted to engage a corresponding upper end extension of said gate and means for limiting the drop of said gate.

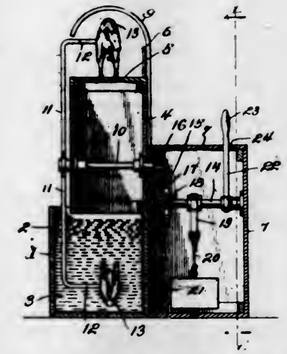
3. An ore concentrator comprising an air chamber, a belt having its upper run passing over said chamber, a gate member arranged in the path of the delivery of said air current and having a collar for limiting its drop, and a pulley-actuated shaft having a lateral extension or arm adapted to engage a corresponding upper end extension of said gate.

4. An ore concentrator comprising an air chamber, a belt having its upper run passing over said chamber, means for delivering an air current into said chamber, a gate member arranged in the path of the delivery of said air current, said gate being equipped with an adjustable collar for limiting the drop of said gate and for varying such dropping action, a shaft having a lateral extension or arm adapted to engage a corresponding upper end extension of said gate, and means for actuating said shaft.

5. An ore concentrator comprising an air chamber, means for delivering an air current into the chamber, a belt having its upper run passing over said chamber, a hinged or pivoted member having a hinged supplemental member underlying the first noted member and means for the adjustment of said supplemental member relatively to said belt near the delivery end of the latter.

[Claims 6 and 7 not printed in the Gazette.]

941,334. AMUSEMENT DEVICE. WILLIAM J. MCLEAN, Everett, Mass. Filed Feb. 19, 1909. Serial No. 478,834.



1. An amusement apparatus including a water tank, a platform arranged above the center of the tank, a shield between the rear of the tank and rear of the platform, a figure revolubly mounted for a downward movement from the platform to the tank and an upward movement from the tank to the platform, and means for operating said figure.

2. An amusement apparatus including a water tank, a platform arranged above the center of the tank, a shield forming a passageway between the rear portion of the tank and rear portion of the platform, a revoluble carrier, a figure supported by the carrier and movable downwardly and forwardly from the platform to the tank and upwardly and forwardly from the tank to the platform through said passageway, and means for operating the carrier.

3. An amusement device including a water tank, a platform supported above the tank, a rotary carrier provided with oppositely arranged figures movable over the platform and through the tank, and means for operating said carrier to successively carry the figures from the platform to the tank and vice versa.

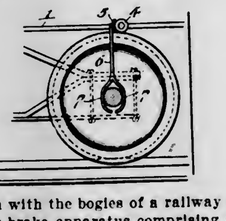
4. An amusement device comprising a water tank, a platform arranged above the tank, a figure movable from said platform in an orbit through the water in the tank, an operating device automatically movable in one direction, and pawl and ratchet gearing between said figure and the operation device.

5. An amusement device comprising a water tank, a platform arranged above the tank, a rotary carrier, oppositely disposed figures mounted upon the carrier for movement over the platform and through the tank, gear-

ing for operating the carrier, an operating device for actuating the gearing and clutch mechanism for permitting movement of said operating device independently of the gearing in one direction and to connect the operating device and gearing for simultaneous movement in the reverse direction.

[Claim 6 not printed in the Gazette.]

941,335. EMERGENCY-BRAKE. WILLIAM F. NORTON and HARRY N. REID, Sedalia, Mo. Filed Jan. 27, 1909. Serial No. 474,503.



In combination with the bogies of a railway train truck, an emergency air brake apparatus comprising a train pipe having laterally extending branch pipes projecting from opposite sides thereof above the axles, normally closed valves at the oufer ends of said branch pipes, said valves having crank levers, and links connecting the said levers to the axles, said links being disposed near the ends of the axles and at the inner sides of the wheels, each of said links having its lower end provided with downwardly extending arms on opposite sides of an axle forming in effect a slot or elongated opening to admit of slight vertical play of the axle, the lower ends of said arms being inturned under the axle and disconnected from each other.

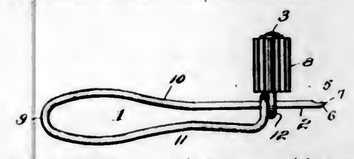
941,336. TELEPHONE-CABINET. CHARLES E. OXFORD, Fayetteville, Ark. Filed Jan. 29, 1909. Serial No. 474,942.



1. A cabinet of the class described comprising a housing having a hinged closure at the front, said housing having an open back portion, hangers extending into the housing from said open back portion and located adjacent to the sides of the said housing, electrical connections for said hangers, and electrically connected contact pieces carried by the housing at the sides thereof adapted to frictionally engage portions of the said hangers and provided with lateral pins adapted for locking engagement with said hangers.

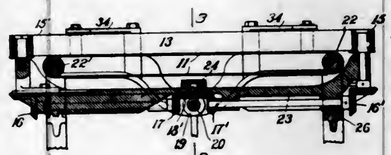
2. A cabinet comprising a housing having a hinged closure at the front thereof, said housing having an open back portion, a backboard for closing the open back portion of the housing, electrically connected hangers extending from the backboard, said hangers each having a shank portion engaged with the backboard and provided with a horizontally disposed shoulder and an upwardly extending finger disposed in spaced relation to the backboard, and contact members secured to the sides of the said housing adapted to frictionally engage the said hangers and provided with horizontally disposed pins adapted to rest upon the shoulders of said hangers.

941,337. PIE-TRIMMER. ARTHUR J. PERRON, Lowell, Mass. Filed Dec. 23, 1908. Serial No. 468,962.



The hereindescribed pie trimmer comprising a rod doubled to form a handle the sides of which are spaced apart, one end of the rod extending in a right line with the handle, projecting forwardly therefrom and terminating in a downwardly bent portion beveled and sharpened to form a cutting edge, the other end of the rod being bent at right angles, provided with coils extending around the first-mentioned end portion and terminating in an arm extending at right angles to the first-mentioned end portion and handle and a roller mounted on said right-angled arm.

941,338. FORMING-MACHINE FOR DOUGH. GUNTHER H. PETAL, Boston, Mass. Filed June 29, 1908. Serial No. 440,821.



1. Apparatus of the class described, comprising the combination of elements having three coöperating molding surfaces, one forming a support for material and the other two engaging the material on opposite sides and moving diversely.

2. Apparatus of the class described, comprising the combination of elements having three coöperating molding surfaces, two being approximately parallel and the third forming an intervening moving support for material, the two moving diversely and engaging such material.

3. Apparatus of the class described, comprising the combination of elements having three coöperating molding surfaces, one forming a moving support for material, and the other two engaging opposite sides of material thereon; there being means to move all three at diverse speeds.

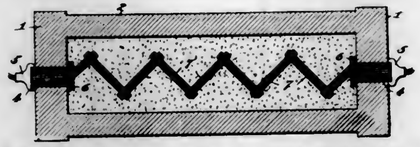
4. Apparatus of the class described, comprising a combination of elements, having three diversely moving molding surfaces, each adapted to engage and draw the surface of a mass of material lying between them, all being adapted to act thereon simultaneously, and one of them being also a carrying surface.

5. Apparatus of the class described, comprising a combination of elements having three diversely moving molding surfaces, adapted to engage simultaneously a mass of material between them, one of them being adapted to support the material during the operation.

[Claims 6 to 10 not printed in the Gazette.]

941,339. PROCESS OF PRODUCING SILICON CARBID. FRANK J. TONE, Niagara Falls, N. Y. Filed June 14, 1907. Serial No. 379,034.

1. The process of producing silicon carbid, which consists in embedding in a charge of silicious and carbonaceous materials a resistance-conductor consisting of a linear series of separate shaped resistance-pieces of predetermined cross-section and resistance arranged in direct electrical contact, and passing an electric current through said conductor.



2. The process of producing silicon carbid, which consists in embedding in a charge of silicious and carbonaceous materials a resistance-conductor consisting of a series of separate shaped resistance-pieces of predetermined cross-section and resistance arranged longitudinally in direct electrical contact and supported by the charge, and passing an electric current through said conductor.

3. The process of producing silicon carbid, which consists in embedding in a charge of silicious and carbonaceous materials a resistance-conductor consisting of a series of separate shaped resistance-pieces of predetermined cross-section and resistance loosely and directly connected and so arranged as to maintain contact notwithstanding lateral movement of the conductor, and passing an electric current through said conductor.

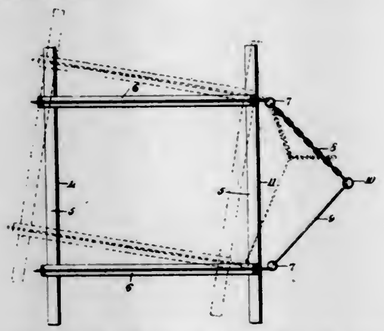
4. The process of producing silicon carbid, which consists in embedding in a charge of silicious and carbonaceous materials a resistance-conductor consisting of a series of separate shaped resistance-pieces of predetermined cross-section and resistance loosely and directly connected, supported by the charge, and arranged to maintain contact notwithstanding movement of the charge, and passing an electric current through said conductor.

5. The process of producing silicon carbid, which consists in embedding in a charge of silicious and carbonaceous materials a resistance-conductor consisting of a series of separate shaped resistance-pieces arranged longitudinally in direct electrical contact and disposed in a circuitous line between the terminals of the furnace, and passing an electric current through said conductor.

[Claims 6 to 8 not printed in the Gazette.]

941,340. DRAG. JOHN BLADHOLM and AXEL BLADHOLM, Marshall, Minn. Filed Jan. 6, 1909. Serial No. 470,952.

1. In a drag, the combination of front and rear channel-iron scrapers, and T-iron tie-bars rigidly connecting the scrapers together.



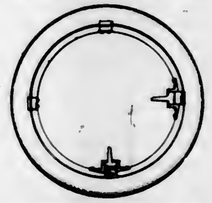
2. In a drag, the combination of front and rear channel-iron scrapers, T-iron tie-bars rigidly connecting the scrapers together, and angle-iron shoes detachably connected to the scrapers.

3. In a drag, the combination of front and rear channel-iron scrapers, with the flanges thereof turned rearwardly, and T-iron tie-bars having downwardly-turned front and rear ends, respectively attached to the upright portions of the scrapers.

4. In a drag, the combination of scrapers, T-iron tie-bars rigidly connecting the scrapers together, and a hitching device having members respectively connected to the flanges of the tie-bars, with one of said members having means for detachably connecting it at points along the length of the other member.

5. In a drag, the combination of scrapers spaced apart and rigidly connected together, and a draft device having members respectively connected to the scrapers at separate points, with one of the members having means for detachably connecting it at different points along the other member, whereby the effective length of the said other member is varied for the purpose described.

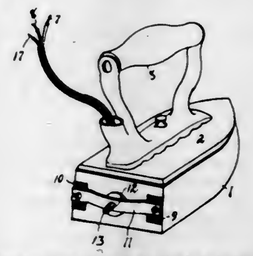
941,341. SPARE-RIM HOLDER. BENJAMIN B. BRADLEY, Detroit, Mich., assignor to Isadore C. Freud, Detroit, Mich. Filed Oct. 8, 1908. Serial No. 456,763.



1. As a means for securing an auxiliary or spare wheel to a vehicle wheel, in combination with the rim of the spare wheel, a pair of abutments fixed thereto, a clamp member having a hooked terminal, adapted to engage over the edge of the main wheel rim, engaging with its body portion against that portion of the rim of the spare wheel intermediate said abutments, an eccentric member pivotally supported between said abutments and adapted to be forced into engagement with said hook member and to thereby hold it firmly against said wheel rim, and an adjusting screw engaging through a portion of said clamp member and against said eccentric member, whereby the latter may be firmly held in position against said clamp member, substantially as described.

2. In combination with the rim of a spare wheel, a cam member pivotally supported thereby, a loose hook adapted to engage between the cam and the rim, said hook being provided with a terminal bill for engaging the rim of the main wheel, its body portion being adapted to be forced by said cam firmly against the adjacent face of the spare wheel rim and to thereby press its terminal bill against the inner face of the rim of the main wheel, and a screw passing through the opposite end of the hook member from the terminal bill and engaging against the cam member, whereby it is held from unintended release from its clamping position, substantially as described.

941,342. ELECTRICAL SAD-IRON. WILLIAM A. BRAUN, Port Wayne, Ind., assignor of one-half to Fremont L. Jones, Fort Wayne, Ind. Filed Jan. 20, 1908. Serial No. 411,573.



1. In a device of the class described, a hollow iron base; an electrical heating member therein; an insulated con-

tact terminal having a point exposed exterior of the iron, and electrical connection with the heating member; an expanding member having its ends attached in connection with the iron and having normal contact with said terminal; and line conductors, one having connection with the heating member, and the other with the expanding member the said expanding member forming a part of the electrical circuit for energizing the heating member, said expanding member being adapted to be actuated by heat emanating from the heating member.

2. In a device of the class described, a hollow iron base; a heating member therein; an insulated terminal having a contact point and electrical connection with the heating member; an expanding member consisting of a curved plate with an adjusting screw therein, the said plate having its ends in fixed connection with the iron base but insulated therefrom and normally having connection by means of its screw with said terminal; two line conductors, one connected with the heating member and the other with the expanding member; and a condenser, one side of which has connection with the expanding member, and the other side with the terminal the said expanding member forming a part of the electrical member, said expanding member being adapted to be actuated by heat emanating from the heating member.

3. In a device of the class described, a hollow iron base; an electrical heating member therein; an insulated terminal having a contact point and electrical connection with the heating member; an expanding member in connection with the base and having normally a contact with said terminal; and line conductors, one having connection with the heating member, and the other with the expanding member, the said conductors, heating member, terminal and expanding member each forming a part of the electrical circuit for energizing the heating member, said expanding member being adapted to move from contact with the terminal when the base becomes heated above its normal working temperature by heat emanating from the heating member.

4. In a device of the class described, a hollow iron base; a heating member therein; an insulated terminal extending through the wall of the base and having electrical connection with the heating member; an expanding member external of the base consisting of a curved plate with its ends secured to the base and having contact with the terminal when the base is at its normal working temperature; and two line conductors, one connected with the heating member and the other with the expanding member, the latter being adapted to move from contact with the terminal, when the base is above its normal working temperature said expanding member forming a part of the electrical circuit for energizing the heating member, said expanding member being adapted to be actuated by heat emanating from the heating member.

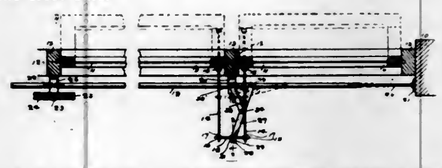
5. In apparatus of the class described, a hollow iron base; an electrical heating member therein; an expanding member attached to the iron and having a movable electrical contact in connection with the heating member; and suitable electrical conductors, one in connection with the heating member and the other with the expanding member, each forming a part of the electrical circuit for energizing the heating member, said expanding member being adapted to be actuated by heat emanating from the heating member.

[Claim 6 not printed in the Gazette.]

941,343. SASH-OPERATING MECHANISM. STEPHEN E. CIBULAS, Bridgeport, Conn. Filed Oct. 14, 1909. Serial No. 522,585.

1. Sash operating mechanism comprising operating rods pivoted to the sashes, cross bars connecting operating rods pivoted to contiguous sashes, a longitudinally movable operating shaft and operating links pivoted to the cross bars and to the operating shaft.

2. Sash operating mechanism comprising operating rods pivoted to the sashes, cross bars connecting operating rods pivoted to contiguous sashes, a longitudinally movable operating shaft, operating links pivoted to the cross bars and to the operating shaft and links pivoted to the mid-length of the operating links and to fixed supports in alinement with the pivotal points of the operating links to the cross bars.



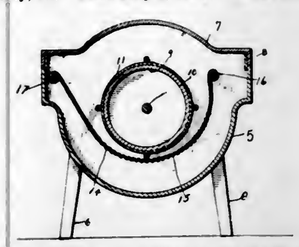
3. Sash operating mechanism comprising operating rods pivoted to the sashes, cross bars connecting operating rods pivoted to contiguous sashes, a longitudinally movable operating shaft, guides for said shaft, operating links pivoted to the cross bars and to the operating shaft, and links pivoted to the mid-length of the operating links and to the guides.

4. Sash operating mechanism comprising operating rods pivoted to the sashes, cross bars connecting operating rods pivoted to contiguous sashes, a longitudinally movable operating shaft, operating links pivoted to the operating shaft, brackets mounted to oscillate on the cross bars to which the other ends of the operating links are pivoted, and links pivoted to the mid-length of the operating links and to fixed supports in alinement with the pivotal points of the operating links to the brackets.

5. Sash operating mechanism comprising operating rods pivoted to the sashes, cross bars carrying guides through which the operating rods pass and to which they are adjustably connected, a longitudinally movable operating shaft, operating links pivoted to the operating rod and to the cross bars at their mid-length and links pivoted to the mid-length of the operating links and to fixed supports in alinement with the pivotal points of the operating links to the cross bars.

[Claims 6 to 8 not printed in the Gazette.]

941,344. WASHING-MACHINE. WILLIAM E. DEVORE, Gibson City, Ill. Filed May 6, 1909. Serial No. 494,310.



A washing machine comprising a casing having a removable cover forming a water tight closure therefor, a rotatable scrubber journaled centrally in said casing and having adjustable bail clamps mounted therein, a rod disposed at one side of the scrubber and supported transversely in said casing, a rotatable shaft journaled in the casing transversely thereof and disposed at the opposite side of the scrubber in the plane of said rod, a flexible washboard connected to the rod and shaft, a crank fixed to one end of the shaft exteriorly of the casing, a retractile spring connected to the free end of the crank and adapted to tension the washboard, and means for rotating the scrubber.

941,345. SHOE-POLISHING MACHINE. FRANK HUMPHREVILLE, Lancaster, Pa., assignor to Edwin Humphreville, Lancaster, Pa. Filed Oct. 31, 1908. Serial No. 460,533.

1. In shoe brushing mechanism, an endless hair track, and foot rest tracks parallel to a part thereof, in combination with brushes arranged to act on shoes passing along said foot rest tracks, foot-rests for such shoes and mechanism for moving the chair and foot-rests forward into contact with said brushes and beyond the same.



2. In shoe-brushing mechanism, a pair of side brushes and means for automatically rotating them, in combination with a foot-rest and mechanism for moving forward the wearer said foot rest and the shoe supported thereby, thus causing said shoe to pass between said brushes substantially as set forth.

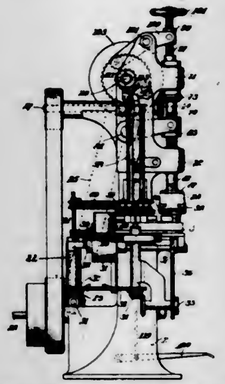
3. In shoe brushing mechanism, a pair of side brushes and their shafts, said shafts being provided with universal joints and having a limited lateral play toward and from each other, in combination with means for yieldingly drawing said brushes together, means for rotating said shafts, foot rests and a seat and means for moving said foot rests and seat forward, said foot rests in such operation passing between said brushes substantially as set forth.

4. In shoe brushing mechanism, a pair of side brushes and their shafts J, in combination with shafts M and joints connecting said shafts, means for rotating the shafts thus connected, sliding plates provided with bearings for the shafts carrying the brushes and fixed plates provided with slots which receive these shafts and are of sufficient width to permit their lateral play, said fixed plates and sliding plates having stud and slot connections adapted to such play and also allowing the play of the brushes toward or from each other substantially as set forth.

5. In shoe brushing mechanism, a top brush and its shaft, in combination with means for turning them and connections permitting said shaft and brush to move out of the path of the shoe, a foot-rest for the latter and means for moving forward both the foot-rest and the wearer of the shoe, in order to bring the upper of the shoe against and under said brush substantially as set forth.

[Claims 6 to 17 not printed in the Gazette.]

941,346. CAN-HEADING MACHINE. LOUIS C. KRUMMEL, Clinton, Conn. Filed Nov. 14, 1908. Serial No. 462,629.



1. In an apparatus for closing cans, the combination with a central post, a stationary table supported by said post, a plurality of operating stations arranged concentrically about and supported by said posts and intermittently operated means for moving the cans on said stationary table from one operating station to another.

2. In an apparatus for closing cans, the combination with a central post, a stationary table supported by said post, a plurality of operating stations arranged concentrically about and supported by said posts, intermittently operated means for moving the cans on said stationary table from one operating station to another, and means for holding the cans still during the operation at each station.

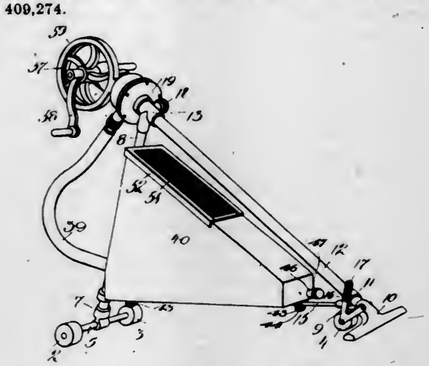
3. In an apparatus for closing cans, the combination with a central post, a stationary table supported by said post, a plurality of operating stations arranged concentrically about and supported by said posts, intermittently operated means for moving the cans on said stationary table from one operating station to another, and means for feeding the cans one by one to said means for moving the cans on the stationary table.

4. In an apparatus for closing cans, the combination with a central post, a stationary table supported by said post, a plurality of operating stations arranged concentrically about and supported by said post, intermittently operated feeding means for moving the cans on said stationary table from one station to another, a continuously operated conveyer belt for delivering cans to said feeding mechanism, and spacing arms controlling the feed of the cans from the conveyer belt to the intermittently operated feeding mechanism.

5. In an apparatus for closing cans, the combination with a central post, a plurality of operating stations arranged concentrically about and supported by said post, a stationary table supported by said post on which the cans rest during each of said operations, a feeding mechanism supported by and moving concentrically about said post for moving said cans on said table, and means for intermittently operating said feeding mechanism, and for holding said feeding mechanism stationary during the operation at each station.

[Claims 6 to 42 not printed in the Gazette.]

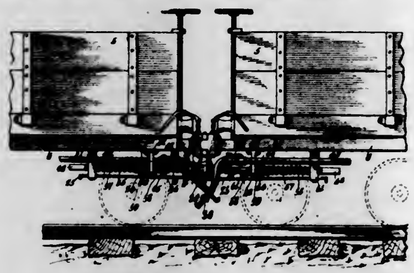
941,347. PNEUMATIC SWEEPER. SOLOMON MARKSTEIN, New York, N. Y., assignor, by mesne assignments, to Manufacturers Outlet Co., New York, N. Y., a Corporation of New York. Filed Jan. 4, 1908. Serial No. 409,274.



1. In a device of the class described, a nozzle, a pipe leading therefrom, a blower at the upper end of said pipe, a bar extending downwardly at an angle to the said pipe and connected therewith, a rod connecting the lower ends of said pipe and bar, a flexible pipe connected to the blower casing, and a filter mounted between the first-mentioned pipe, the rod and the bar and into which the end of said flexible pipe discharges.

2. In a device of the class described, a nozzle, an inclined pipe leading therefrom, a bar supporting the upper end of said pipe, a blower mounted upon and connected with the upper end of said pipe, a rod connecting the lower end of said pipe with the lower end of said bar, a filter mounted on said rod and bar in the space inclosed by said pipe, rod and bar, and a pipe connected with the casing of the blower and emptying into said filter.

941,348. AUTOMATIC AIR-BRAKE COUPLING. WILLIAM E. CAMPBELL and HOWARD T. INGHRAM, Fairfield, Iowa. Filed Oct. 28, 1908. Serial No. 459,894.



1. In an automatic air-brake coupling, the combination of a pair of correlative members, a depending bracket having a pivoted hanger arranged medially thereof, a transverse yieldable support, a bar connected to said members and movable in a horizontal plane with respect to said hanger, and in a vertical plane relative to said support, a flanged collar mounted on said bar, a coil spring encircling said bar intermediate the hanger and the collar, and a pair of brace rods connected to the latter for securing an adjustment of the tension of said spring.

2. In an automatic air-brake coupling, the combination of a pair of correlative members, a pivoted hanger, a pair of spring arms having a connecting rod, and a bar secured to said members and mounted in said hanger for movement in a horizontal plane and resting upon said rod for movement in a vertical plane.

3. In an automatic air-brake coupling, the combination with a carriage, of a male and a female member movable rectilinearly relative to each other, an angle pipe carried by said female member, the upper portion thereof constituting a valve casing, a spring pressed valve mounted in said casing and having a concave fluid deflecting surface, the lower part of said angle pipe having connection with any suitable source of fluid supply, and means operated by the meeting and receding of the male member with respect to the female member for opening and closing said valve.

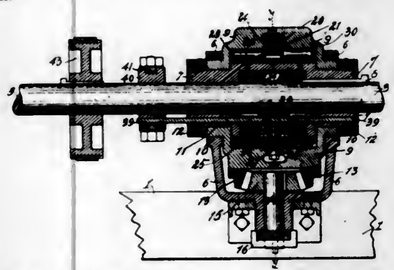
4. In an automatic air-brake coupling, the combination with a carriage having movement in either a horizontal or vertical plane, of a male and a female member, said male member having a recess, a pair of ears formed on said female member, a shaft journaled in said ears and having an integrally formed latch for locking engagment with the recess of said male member, and means for operating said shaft.

5. In an automatic air-brake coupling, the combination with a carriage having movement in either a horizontal or vertical plane, of a male member and a female member, said male member having a recess, a pair of ears formed on said female member, a shaft journaled in said ears and having an integrally formed latch for locking engagement with the recess of said male member, a spring encircling said shaft and bearing against said latch, and means for operating said shaft.

[Claims 6 to 8 not printed in the Gazette.]

941,349. CLUTCH. FRANCIS P. HUYCK, Toledo, Ohio. Filed May 7, 1908. Serial No. 431,308.

1. In a device of the described character, a shaft, two concentric members upon the shaft, one of the members being secured to and revoluble with the shaft, the other member being revoluble independently of the shaft, a series of rolls interposed between the opposed faces of said two concentric members, a frame for governing the position of said rolls, said opposed faces having convergent portions which limit the travel of the rolls in both directions, shifting means and means carried by the frame coöperating with said shifting means whereby said rolls are moved to either end of said convergent portions, said last-named means and said shifting means constituting a locking means for positively maintaining said frame in shifted position.



2. In a device of the described character, a shaft, a sleeve secured to and revoluble with the shaft, an outer sleeve revoluble independently of the shaft, a driving mechanism for the outer sleeve, a series of rolls interposed between the two sleeves, a frame for governing the position of said rolls, tracks for said rolls upon one sleeve, which tracks at both extremities approach the opposed surface of the other member sufficiently to prevent the passage of the rolls therebetween, shifting means, and means carried by the frame whereby said rolls are moved to either end of said convergent portions, said last-named means and said shifting means constituting a locking means for positively maintaining said frame in shifted position.

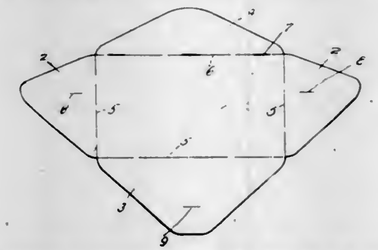
3. In a device of the described character, a shaft, a sleeve secured to and revoluble with the shaft, another sleeve concentric with said first mentioned sleeve and revoluble thereon independently of the shaft, said outer sleeve being diametrically divided into two parts, a segmental beveled gear for each of said two parts, a beveled pinion engaged with said two gears and arranged to actuate the gears simultaneously in opposite directions, a lever for the pinion, two parallel series of rolls interposed between the inner and outer sleeves,—there being one series of rolls for each outer sleeve-part,—a frame capable of oscillation for determining the position of said rolls, a track for each of said rollers eccentric to the axis of the shaft, shifting means and means carried by the frame coöperating with said shifting means to oscillate said frame into locked position at the end of its shifting movement.

4. In a device of the described character, a shaft, a sleeve secured to and revoluble with the shaft, another sleeve concentric with said first mentioned sleeve and revoluble thereon independently of the shaft, said outer sleeve being diametrically divided into two parts, a segmental beveled gear for each of said two parts, a beveled pinion engaged with said two gears and arranged to simultaneously actuate the gears in opposite directions, a lever for the pinion, two parallel series of rolls interposed between the inner and outer sleeves,—there being one series of rolls for each outer sleeve-part,—a track for each of said rolls eccentric to the axis of the shaft, and means for shifting said series to either extremity of the tracks and maintaining the same in shifted and locked position.

5. In a device of the described character, a ringlike revolubly mounted frame or housing having a cam-race disposed diagonally to the plane of such frame; a cam-roller in the race, a lever, a rod connecting the roller and lever,—the arrangement being such that the swing of the lever imparts to the frame an axial movement,—a series of rolls carried by said frame, a shaft, a sleeve on the shaft, another sleeve concentric with the shaft, there being between said two sleeves an annular space in which the rolls are disposed, the adjacent surfaces of said two sleeves having convergent portions which limit the movement of the rolls in both directions, said cam-race being of a form to coact with said cam-roller in maintaining the rollers in shifted position.

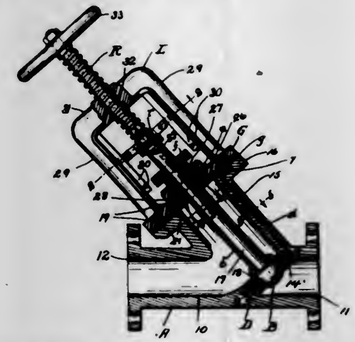
[Claims 6 to 15 not printed in the Gazette.]

941,350. ENVELOP. FRIEND M. LEISURE, Templeton, Pa. Filed Sept. 3, 1909. Serial No. 516,067.



An envelop comprising a body, end flaps carried thereby and adapted to fold upon said body, said end flaps being provided with slits, a bottom flap adapted to fold upon said end flaps, said bottom flap being provided with a slit, a top flap adapted to fold upon said end flaps and said bottom flap, said top flap at the folding line thereof being provided with a plurality of slits adapted to coöperate with the first mentioned slits, straps adapted to have their ends bent and retained in said envelop by the contents thereof, said straps adapted to extend through the slits of the top flap into the slits of the end and bottom flaps, and said straps having the ends thereof gummed to adhere to the inner sides of said end and bottom flaps, substantially as described.

941,351. VALVE DEVICE FOR CORROSIVE LIQUIDS. WILLIAM H. SMITH, Cleveland, Ohio, assignor of one-half to Michael F. Barrett, East Cleveland, Ohio. Filed Mar. 5, 1909. Serial No. 481,451.



1. In a valve-device for corrosive liquids, a valve-casing having a non-corrodible cast-metal body which is provided interiorly with a passageway extending through the valve-casing and has an annular flaring valve-seat forming a portion of the surrounding wall of the said passageway, said valve-seat being reinforced by a hard metal frame which is in the form of a ring cast in the non-corrodible metal of the valve-seat-forming portion of the body and wholly unexposed to the said passageway, which ring surrounds the valve-seat and has an internal surface which flares in the direction in which the valve-seat flares, said ring at the diametrically smaller end of its said internal surfaces being as small diametrically as the diametrically larger end of the flaring valve-seat, and a suitably supported endwise movable valve controlling continuity in the said passageway and arranged and beveled to render it capable of seating against the flaring valve-seat.

2. In a valve-device for corrosive liquids, a valve-casing having a non-corrodible cast-metal body which is provided interiorly with a passageway extending through the valve-casing and has an annular flaring valve-seat forming a portion of the surrounding wall of the said passageway, said valve-seat being reinforced by a hard metal frame which is in the form of a ring cast in the non-corrodible metal of the valve-seat-forming portion of the body and wholly unexposed to the said passageway, which ring has a flaring internal surface substantially parallel with and arranged in suitable proximity and concentric relative to and surrounding the valve-seat, and a suitably supported endwise movable valve controlling continuity in the said passageway and arranged and beveled to render it capable of seating against the flaring valve-seat, and the aforesaid ring at the diametrically smaller end of its internal surface being as small diametrically as the diametrically larger end of the flaring valve-seat.

3. In a valve-device for corrosive liquids, a valve-casing having a non-corrodible cast metal body which is provided interiorly with a passageway extending through the body and has an outwardly projecting tubular neck, said body having a valve-seat which faces in the direction in which the said neck projects from the said body and surrounds the said passageway; a valve controlling the said passageway and arranged to seat against the valve-seat, said valve having a stem arranged centrally of and extending through and a suitable distance beyond the outer end of the said neck, and a suitably applied cap arranged to close the outer end of the neck and provided with means for forming a fluid-tight joint around the valve-stem, said cap having a hard metal body-portion which is provided in its inner and neck-facing side with recesses which have undercut walls and are occupied by correspondingly shaped members formed on and projecting from the inner side of a non-corrodible metal facing which forms the inner side of the cap.

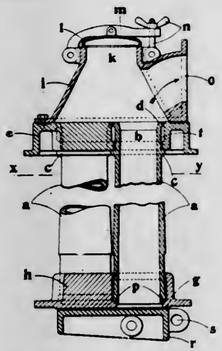
4. In a valve-device for corrosive liquids, a valve-casing having a non-corrodible cast metal body which is provided interiorly with a passageway extending through the body and has an outwardly projecting tubular neck, said body having a valve-seat which faces in the direction in which the neck projects from the body; a valve controlling the said passageway and arranged to seat against the valve-seat, said valve having a stem arranged centrally of and extending through and a suitable distance beyond the outer end of the neck, and a suitably applied cap arranged to close the outer end of the neck around the valve-stem and having a hard metal body-portion which is faced at its inner side with non-corrodible metal and provided centrally with a bore for the valve-stem, said bore having its outer portion enlarged diametrically and having the surrounding wall of its said enlarged portion provided with an annular recess; a non-corrodible metal lining cast onto the walls of the said bore including the walls of the said recess; and the non-corrodible lining of the walls of the said enlarged portion of the bore forming the walls of a packing-receiving chamber; packing within the said chamber, and means for compressing the packing to form a fluid-tight joint around the valve-stem.

5. In a valve-device for corrosive liquids, a valve-casing having a non-corrodible body which is provided interiorly with a passage-way extending through the body and has an outwardly projecting tubular neck, said body having a valve-seat which faces in the direction in which the neck projects from the body; an endwise movable valve controlling the said passage-way and arranged to seat against the valve-seat, said valve having a stem arranged centrally of and extending through and beyond the outer end of the neck and provided at its outer end and externally with an annular recess; a cap arranged to close the outer end of the neck and having means for forming a fluid-tight joint around the valve-stem, said cap being provided at its outer side with a yoke which is rigid with the cap, said yoke having end members arranged at opposite sides respectively of and substantially parallel with the valve-stem and a central member arranged a suitable distance outwardly from the cap and provided with a screw-threaded hole extending therethrough and arranged in line endwise with the valve-stem; a correspondingly threaded screw engaging and extending through the said hole and provided at its inner end and externally with an annular

recess; a coupling having members engaging the recesses in the screw and valve-stem and thereby establishing operative connection between the valve-stem and the screw, and means for preventing turning of the coupling with the screw.

[Claim 6 not printed in the Gazette.]

941,352. DISTILLATION OF BITUMINOUS COAL OR SIMILAR CARBONACEOUS SUBSTANCES. THOMAS PARKER, Ironbridge, England. Filed May 3, 1909. Serial No. 493,685.



1. An apparatus of the class described, comprising a plurality of tapered tubes, a top fitting having a series of openings therein adapted to receive the upper ends of the tubes, a hopper carried by the upper fitting and common to all of the tubes, said hopper having a gas outlet therein, a bottom fitting having a series of openings therein adapted to receive the lower ends of the tubes, and a hinged cover plate common to all the tubes for closing the lower ends thereof.

2. A device of the class described comprising an upper fitting having a plurality of openings therein, and a lower fitting having a plurality of openings therein, a series of tubes having their upper and lower ends held in the openings, the upper end of each tube having an annular shoulder *d* at its upper end and a laterally extending flange *c* spaced from said shoulder, said flange engaging the underside of the top fitting, and the lower end of each tube having a conical face *p* and said bottom fitting having a corresponding face adapted to engage therewith.

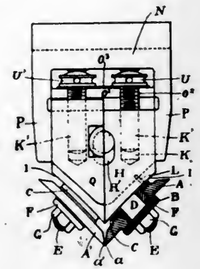
3. Apparatus for the partial destructive distillation of bituminous coal or similar carbonaceous substance comprising a unit battery of tubes with common top and bottom fittings for the simultaneous discharge of the vapors and gases through a common outlet and for the simultaneous charging and discharging respectively of the number of retort tubes comprised in the unit battery substantially as described.

REISSUES.

13,043. GROOVING-MACHINE. ADOLPH KLEIN, New York, N. Y., assignor to Mitred Box Company, New York, N. Y., a Corporation of New York. Filed July 23, 1909. Serial No. 509,242. Original No. 861,735, dated July 30, 1907, Serial No. 362,684.

1. A grooving machine comprising three sets of feed-rolls for passing a sheet of paste-board, or the like, through the machine, a grooving device located between the first and second sets of feed-rolls and a grooving device located between the second and third sets of feed-rolls.

2. A grooving machine comprising three sets of feed-rolls for passing a sheet of paste-board, or the like, through the machine, a device located between the first and second sets of feed-rolls for forming a groove in said sheet, and a device located between the second and third sets of feed-rolls for forming a second groove, parallel with the first, in said sheet, in combination with means for cutting entirely through said sheet and splitting the same along a line parallel with both grooves aforesaid.



3. A grooving machine comprising means for feeding a sheet of paste-board, or the like, through the machine, devices for forming parallel grooves in said sheets, means for cutting entirely through said sheet and splitting the same along a line parallel with both grooves aforesaid, and means for thereafter removing the material from the said grooves of the sheet split as aforesaid.

4. In a grooving machine, a grooving device comprising a circular knife, a movable eccentric bushing with which said knife is rotatably connected, and means for adjusting said bushing as desired, in combination with a rotatable circular knife whose cutting edge is disposed toward the cutting edge of the knife first named.

5. In a grooving machine, a grooving device comprising a pair of rotatable circular knives having their cutting edges disposed toward one another, blocks carrying said knives, means for adjusting the arrangement of each knife upon the block which carries it, and means for adjusting each block separately.

6. In a grooving machine, a grooving device comprising a block having a projecting pin and a series of openings around said pin, an eccentric bushing fitting said pin and provided with an opening to be brought into register with any of the first mentioned openings, and a circular knife rotatably carried by said bushing.

7. In a grooving machine, an eccentric bushing, means for adjusting the position of the bushing around an axis, and a circular knife mounted on and rotatable around the bushing.

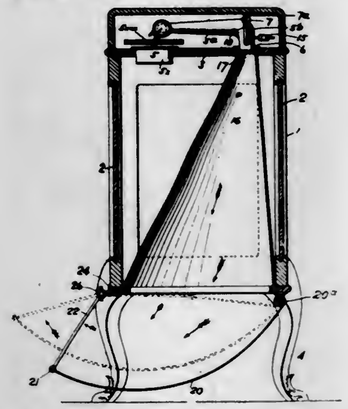
8. In a grooving machine, a grooving device comprising a block, means for adjusting said block, and a circular knife carried by said block and rotatable about an axis which is eccentrically adjustable relatively to the latter.

9. In a grooving machine, a grooving device comprising a block having a projecting pin, an eccentric bushing adjustably fitting said pin, and a circular knife rotatably carried by said bushing.

10. In a grooving machine, a grooving device comprising a pair of rotatable circular knives having their cutting edges disposed toward one another, and one of said knives being disposed in advance of the other, in combination with a fixed support beneath the knives for the material to be grooved, and feeding means for moving the material over said fixed support and in contact with said knives.

11. In a grooving machine, a grooving device comprising a pair of rotatable circular knives having their cutting edges disposed toward one another, in combination with a fixed support for the material to be grooved and located beneath the cutting edges, disposed as aforesaid, of the knives, and feeding means for moving the material over the fixed support and in contact with the knives.

13,044. COMBINED STAND AND HORN FOR TALKING-MACHINES. HENRY C. MILLER, Waterford, N. Y., assignor, by mesne assignments, to Victor Talking Machine Company, Camden, N. J., a Corporation of New Jersey. Divided and this application for reissue filed Apr. 27, 1909. Serial No. 492,481. Original No. 793,013, dated June 20, 1905, Serial No. 235,722, filed Dec. 6, 1904.



1. In a talking machine, the combination with a record, of a coöperating reproducer, a horizontal stationary amplifier connected with the reproducer, and means for preventing extraneous vibration of the amplifier.

2. In a talking machine, the combination with a record, of a coöperating traveling reproducer, an amplifier connected with the reproducer, and an inclosure below the record within which is horizontally positioned the major portion of the amplifier.

3. In a talking machine, the combination with a record operating in a fixed position of a coöperating traveling reproducer, an amplifier connected with the reproducer and an inclosure supporting the major portion of the amplifier in a fixed horizontal position, and preventing extraneous vibration of said amplifier.

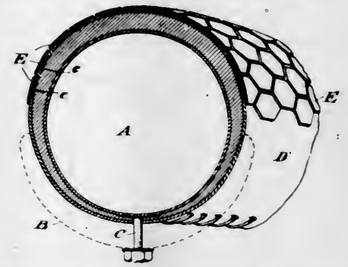
4. In a talking machine, the combination with a record, of a reproducer, means for producing a relative movement of said record and reproducer whereby sound is reproduced, an amplifier connected with the reproducer and shaped to cause travel of the sound waves through two substantially parallel planes, one of said planes lying above the record and the other below, and means for preventing extraneous vibrations of the amplifier.

5. In a talking machine, the combination with a record, of a reproducer, means for producing a relative movement of said record and reproducer whereby sound is reproduced, and an amplifier connected with the reproducer and shaped to cause travel of the sound waves through two substantially parallel planes, one of said planes lying above the record and the other below.

13,045. PROTECTOR FOR RUBBER TIRES. HERBERT R. PALMER, Cleveland, Ohio, assignor, by mesne assignments, to Frederick E. McEwen. Filed Jan. 6, 1905. Serial No. 239,908. Original No. 717,263, dated Dec. 30, 1902, Serial No. 110,510.

1. A protecting-covering for a vehicle-tire consisting of a flexible backing carrying flat-headed rivets whose heads are on the outer side of the backing and are in staggered position and nearly abut but do not overlap, and whose shanks extend through the backing and are upset on the inner side thereof, substantially as described.

2. A protecting-covering for a vehicle-tire consisting of a flexible backing carrying a series of rivets whose heads are on the outer side of the backing and consist of plane-surfaced plates bounded on straight lines, the plates being staggered in position but having their edges nearly abutting but not overlapping, substantially as described.



3. A protecting-covering for a vehicle-tire consisting of a flexible backing carrying numerous rivets whose heads are on the outer side of the backing and consist of plates and whose shanks are tubular and are upset on the inner side of the backing, substantially as described.

4. A protecting-covering for a vehicle-tire consisting of an outer tube of fabric carrying numerous flat headed rivets the heads of which are on the outer side of the fabric tube, the shanks of said rivets being upset on the inner side thereof, the rivets being placed in staggered position and the heads nearly abutting at their edges but not overlapping, substantially as described.

5. A protecting-covering for a vehicle-tire consisting of a flexible backing carrying numerous rivets whose heads are regular hexagons and whose shanks are tubular, the rivets being placed in staggered position with the heads on the outer side of the backing nearly abutting but not overlapping and the shanks being upset on the inner side of the backing, substantially as described.

6. As a new article of manufacture, a protector for rubber tires composed of flexible material separate from said tire and having means for securing said flexible material in fixed relation to a tire, the wearing surface of said flexible material being composed of plane surfaced heads of metallic rivets, the shanks of said rivets being secured individually to the flexible material.

7. As a new article of manufacture, a protector for rubber tires composed of flexible material faced with rubber and made separate from the tire, means for securing the flexible material in fixed relation to the tire, and a wearing surface composed of flat headed rivets fastened individually to the flexible material, said heads of the rivets being disposed in close relation to each other but not overlapping.

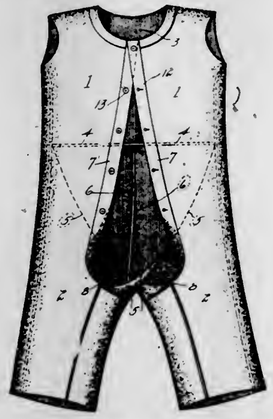
8. As a new article of manufacture, a protector for rubber tires consisting of flexible material adapted to be applied to an ordinary tire, said flexible material having metallic rivets with flat-heads secured thereto, the flat-heads of the rivets being on the outer surface of the flexible material, and means for securing said protector to a tire.

9. As a new article of manufacture, a protector for rubber tires consisting of flexible material adapted to be applied to an ordinary tire, said flexible material having metallic rivets with flat-heads secured thereto, the flat-heads of the rivets being in staggered relation to each other and disposed on the outer surface of the flexible material, and means for securing said protector to a tire.

13,046. UNION SUIT. JAMES E. RICHARDS, Dayton, Ohio, assignor to Dayton Clothing Manufacturing Company, a Firm. Filed Oct. 1, 1909. Serial No. 520,595. Original No. 899,187, dated Sept. 22, 1908, Serial No. 435,950.

As a new article of manufacture, a union suit comprising pants and body portions, and two crotch flaps united at their upper edges to the back portion of the garment by a transverse seam, and to the body and leg portions of the garment by longitudinal seams, said flap portions

overlapping each other and forming a pocket in the crotch of the garment, two straight front seam strips united to the front of the body and pants portions of the garment along the straight and curved edges of said body and pants portions, the portions of said straight seam strips which are united to the curved edges of the garment being ex-



tended to join the lower ends of the crotch flaps and adapted to coöperate with the crotch flaps in forming the crotch pocket, said crotch pocket being maintained in a closed position owing to the straight seam strips being united at their lower ends to the curved edges of the pants portions of the garment, substantially as described.

DESIGNS.

40,365. TEA-CUP. FLORENCE BAXTER, Passaic, N. J. Filed Aug. 31, 1909. Serial No. 515,548. Term of patent 3½ years.



The ornamental design for a tea-cup as shown.

40,366. TEAPOT OR SIMILAR ARTICLE. WILLIAM C. CODMAN, Providence, R. I., assignor to Gorham Manufacturing Company, Providence, R. I., a Corporation of Rhode Island. Filed Sept. 11, 1909. Serial No. 517,346. Term of patent 14 years.



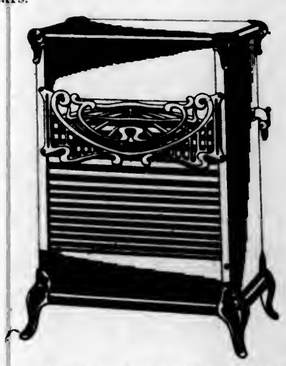
The ornamental design for a tea pot or similar article, as shown.

40,367. DISH OR SIMILAR ARTICLE. WILLIAM DE GOEY, Providence, R. I. Filed Aug. 30, 1909. Serial No. 515,372. Term of patent 3½ years.



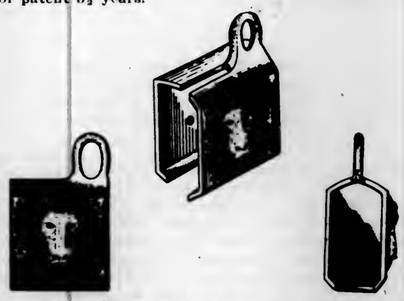
The ornamental design for a dish or a similar article, as shown.

40,368. GAS-STOVE. FRANK U. LONG and MORTIMER L. PACKER, Columbus, Ohio, assignors to The Ohio State Stove Company, Columbus, Ohio, a Corporation of Ohio. Filed July 1, 1909. Serial No. 505,525. Term of patent 7 years.



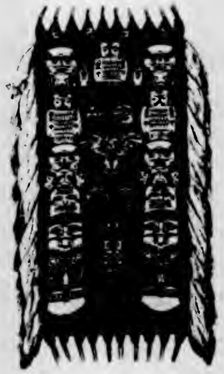
The ornamental design for a gas stove, as shown.

40,369. CAP FOR HAMMOCK SPREADER ENDS. WILLIAM J. MCBRIDE, Philadelphia, Pa., assignor to Hoffman-Corr Manufacturing Company, Philadelphia, Pa. Filed Aug. 31, 1909. Serial No. 515,546. Term of patent 3½ years.



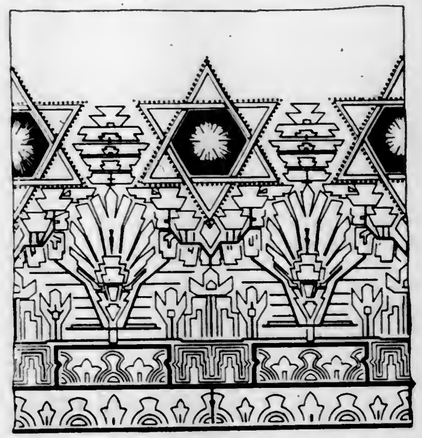
The ornamental design for a cap for hammock spreader ends, as shown.

40,370. HAMMOCK. DANIEL W. SHOYER, New York, N. Y. Filed Sept. 30, 1909. Serial No. 520,427. Term of patent 7 years.



The ornamental design for a hammock as shown.

40,371. MANTEL-COVER. JACOB AIZENMAN, New York, N. Y. Filed Sept. 25, 1909. Serial No. 519,646. Term of patent 3½ years.



The ornamental design for a mantel-cover, as shown.

TRADE-MARKS

PUBLISHED NOVEMBER 23, 1909.

The following trade-marks have been adjudged entitled to registration under the act of February 20, 1905, and are published in compliance with section 6 of said act. Said section provides:

"Any person who believes he would be damaged by the registration of a mark may oppose the same by filing notice of opposition, stating the grounds therefor, in the Patent Office within thirty days after the publication of the mark sought to be registered, which said notice of opposition shall be verified by the person filing the same before one of the officers mentioned in section two of this act. If no notice of opposition is filed within said time the Commissioner shall issue a certificate of registration therefor, as hereinafter provided for."

Marks which are stated to have been "Used ten years" are registrable under the last proviso of section 5 of said act, which is as follows:

"And provided further, That nothing herein shall prevent the registration of any mark used by the applicant or his predecessors, or by those from whom title to the mark is derived, in commerce with foreign nations or among the several States, or with Indian tribes, which was in actual and exclusive use as a trade-mark of the applicant or his predecessors from whom he derived title for ten years next preceding the passage or this act."

Section 14 of said act provides for the following fee:

"On filing notice of opposition to the registration of a trade-mark, ten dollars."

Ser. No. 18,738. (CLASS 37. PAPER AND STATIONERY.) EAGLE PENCIL COMPANY, New York, N. Y. Filed Apr. 12, 1906.



Particular description of goods.—Lead-Pencils.

Ser. No. 24,077. (CLASS 48. MALT EXTRACTS AND LIQUORS.) BARTHOLOMAY BREWERY COMPANY, Rochester, N. Y. Filed Dec. 17, 1906.



Particular description of goods.—Beer.

Ser. No. 32,977. (CLASS 29. BROOMS, BRUSHES, AND DUSTERS.) THE JOSEPH LAY COMPANY, Ridgeville, Ind. Filed Feb. 24, 1908. Used ten years.



Consists of a black band applied to the extreme upper end of the body portion of the broom.

Particular description of goods.—Brooms.

Ser. No. 34,689. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) F. WIDLAR & Co., Cleveland, Ohio. Filed May 11, 1908.



Particular description of goods.—Blended Coffee, Tea, and Mustard Compound.

Ser. No. 37,854. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BARTON & GUESTIER, Bordeaux, France. Filed Oct. 7, 1908.



Particular description of goods.—Olive-Oil.

Ser. No. 37,855. (CLASS 47. WINES, EXCEPT MEDICATED.) BARTON & GUESTIER, Bordeaux, France. Filed Oct. 7, 1908.



Particular description of goods.—Claret and White Wines.

Ser. No. 38,013. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SOCIETE ANONYME DES PLAQUES & PAPIERS PHOTOGRAPHIQUES, A. LUMIERE & SES FILS, Lyons, France; Burlington, Vt., and New York, N. Y. Filed Oct. 14, 1908.

DIANOL

Particular description of goods.—Photographic Developer.

Ser. No. 38,318. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) WALTER E. TUCKER, New York, N. Y. Filed Oct. 28, 1908.

NRG

Particular description of goods.—Electrical Ignition Apparatus and Spark-Plugs.

Ser. No. 39,793. (CLASS 15. OILS AND GREASES.) L. SONNEBORN SONS, INC., New York, N. Y. Filed Jan. 8, 1909.

X=L=O

Particular description of goods.—Lubricating-Oils and Lubricating-Greases and Lubricating-Pastes.

Ser. No. 40,938. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) RAYMOND C. BRAINARD, New York, N. Y. Filed Mar. 5, 1909.

MARA THON

Particular description of goods.—Playing-Cards.

Ser. No. 41,598. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) FAIRBANKS, MORSE & COMPANY, Chicago, Ill. Filed Apr. 5, 1909.

JACK JUNIOR

Particular description of goods.—Explosion-Engines.

Ser. No. 41,924. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) J. A. HINDS & CO INCORPORATED, Rochester, N. Y. Filed Apr. 22, 1909.

CORONA

Particular description of goods.—Wheat-Flour.

Ser. No. 42,425. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) FAIRCHILD BROS. & FOSTER, New York, N. Y. Filed May 14, 1909.

ANEMATOSE

Particular description of goods.—A Nutrient Especially Prepared for Alimentation of the Colon.

Ser. No. 42,712. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) THE PARAFFINE PAINT CO, San Francisco, Cal. Filed May 27, 1909.

PABCO

Particular description of goods.—Liquid Paints, Varnishes, and Paint Compounds for Preservative Purposes.

Ser. No. 42,955. (CLASS 28. JEWELRY AND PRECIOUS-METAL WARE.) ONEIDA COMMUNITY LIMITED. Oneida, N. Y. Filed June 10, 1909.

RELIANCE

Particular description of goods.—Silver-Plated Flat Ware, Hollow Ware, and Tableware.

Ser. No. 43,199. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SHARP & DOHME, Baltimore, Md. Filed June 23, 1909. Used ten years.

ERGOTOLE

Particular description of goods.—A Liquid Concentrated Preparation of Ergot.

Ser. No. 43,214. (CLASS 39. CLOTHING.) ENGEL-CONE SHOE COMPANY, Boston, Mass. Filed June 23, 1909.

E-C

Particular description of goods.—Shoes of Leather, Rubber, Canvas, and Buckskin.

Ser. No. 43,253. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SOUTH BEND REMEDY COMPANY, South Bend, Ind. Filed June 25, 1909. Used ten years.

MAGNOLIA BLOSSOM TRADE MARK

Particular description of goods.—A Medicinal Remedy for Female Diseases.

Ser. No. 43,292. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE KROGER GROCERY & BAKING CO., Cincinnati, Ohio. Filed June 26, 1909.

COUNTRY CLUB

Particular description of goods.—Tomato Catsup, Crackers, Macaroni, Chilli Sauce, and Sugar-Cured Meats, and Mince-Meat, Apple-Butter, and Maple-Syrup.

Ser. No. 43,343. (CLASS 48. MALT EXTRACTS AND LIQUORS.) WILLIAM C. BEUTEL, New York, N. Y. Filed June 30, 1909.

„Perle"

Particular description of goods.—Imported Beers.

Ser. No. 43,456. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CASTLE BROTHERS, San Francisco, Cal. Filed July 10, 1909.

LAUREL

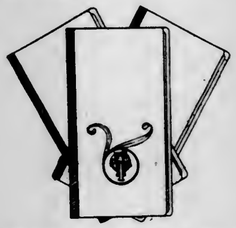
Particular description of goods.—Dried Fruits and Raisins.

Ser. No. 43,466. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) JONATHAN P. GROSVENOR, Worcester, Mass. Filed July 12, 1909.

QUOITO

Particular description of goods.—Game-Boards.

Ser. No. 43,567. (CLASS 37. PAPER AND STATIONERY.) EDUCATIONAL TABLET CO., Benton Harbor, Mich. Filed July 16, 1909.



Particular description of goods.—Writing-Tablets, Composition-Books, Blank Books, and Writing-Paper.

Ser. No. 43,653. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) EARL S. SLOAN, Boston, Mass. Filed July 20, 1909. Used ten years.



The portrait being that of the applicant.

Particular description of goods.—Liniment, Horse-Liniment, Chill, Fever, Pink-Eye, and Distemper Remedy, Colic Remedy, Paste Blister, Worm and Tonic Powders, Wart Remedy, and Gall Remedy.

Ser. No. 43,657. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) MCKESSON & ROBBINS, New York, N. Y. Filed July 20, 1909.



Particular description of goods.—Chamois-Skins.

Ser. No. 43,769. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NEW ULM FEED & CEREAL MILL COMPANY, New Ulm, Minn. Filed July 24, 1909.



Particular description of goods.—Buckwheat-Flour, Rye-Flour, Rye-Meal, Rye-Graham, Wheat-Graham, Whole-Wheat Flour, and Cornmeal.

Ser. No. 43,801. (CLASS 39. CLOTHING.) F. P. KIRKENDALL & Co., Omaha, Nebr. Filed July 23, 1909.



Particular description of goods.—Men's, Women's, Children's Boots, Shoes, Slippers, and Overshoes Made of Leather, Rubber, Cloth, Cloth and Leather, or Cloth and Rubber.

Ser. No. 43,875. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) CHARLES URBAN, London, England. Filed July 29, 1909.



Particular description of goods.—Kinematographic Apparatus and Photographic Films Bearing Finished Pictures in Natural Colors for Use with Kinematographic Apparatus.

Ser. No. 43,878. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NATIONAL COFFEE CO., Fort Worth, Tex. Filed July 29, 1909.



Particular description of goods.—Coffee and Tea.

Ser. No. 43,893. (CLASS 37. PAPER AND STATIONERY.) J. W. BUTLER PAPER COMPANY, Chicago, Ill. Filed July 30, 1909.



Particular description of goods.—Writing-Paper.

Ser. No. 43,932. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) NOURILEAN REMEDY COMPANY, Chicago, Ill. Filed Aug. 2, 1909.



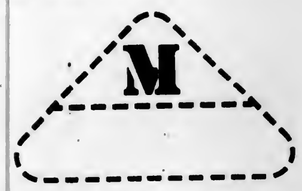
Particular description of goods.—A Remedy for Diseases of the Bowels and Stomach.

Ser. No. 44,058. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) SWOPE & MANGOLD, INC., Dallas, Tex. Filed Aug. 10, 1909. Used ten years.

SHERLEY

Particular description of goods.—Straight Whisky.

Ser. No. 44,101. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) MASSASOIT M'F'G. CO., Fall River, Mass. Filed Aug. 12, 1909.



Particular description of goods.—Cotton Waste.

Ser. No. 44,283. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) RANDOLPH BRANDT, New York, N. Y. Filed Aug. 21, 1909.

ZENA

Particular description of goods.—Machinery Packings.

Ser. No. 44,363. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) STEINWENDER-STOFFREGEN COFFEE CO., St. Louis, Mo. Filed Aug. 26, 1909.

Pathfinder

Particular description of goods.—Roasted Coffee.

Ser. No. 44,380. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ALPHONSE L. PASQUIER, New York, N. Y. Filed Aug. 27, 1909.

PASQUIERINE

Particular description of goods.—A Remedy for Rheumatisms of All Kinds and Eliminator of Uric Acid.

Ser. No. 44,434. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HERBERT PFEIFER MEYER, New Orleans, La. Filed Aug. 30, 1909.

BOAZ



Particular description of goods.—An Antiseptic Refrigerant for External and Internal Use.

Ser. No. 44,517. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE OHIO GROCERY AND BAKING COMPANY, Columbus, Ohio. Filed Sept. 2, 1909.

CRESS-DALE

Particular description of goods.—Butter and Eggs.

Ser. No. 44,679. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) THE STANLEY WORKS, New Britain, Conn. Filed Sept. 14, 1909.

838

Particular description of goods.—Steel Hinges.

Ser. No. 44,682. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) AMERICAN PIN CO., Waterbury, Conn. Filed Sept. 14, 1909.

EUREKA

Particular description of goods.—Hooks and Eyes.

Ser. No. 44,686. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) LEWIS CONLEY, Alice, Ky. Filed Sept. 14, 1909.



Which is a portrait of myself.

Particular description of goods.—Imitation Maple-Sugar.

Ser. No. 44,756. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FRANK X. LECHNER, Chicago, Ill. Filed Sept. 18, 1909.



Particular description of goods.—An Insect-Exterminator.

Ser. No. 44,757. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) THEO H. GARY CO., New York, N. Y. Filed Sept. 18, 1909.

FLORINE

Particular description of goods.—Hair-Nets.

Ser. No. 44,766. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CHAS. LACEY PLUMB, Cranford, N. J., and New York, N. Y. Filed Sept. 18, 1909.

DREADNAUGHT

Particular description of goods.—Wheat-Flour.

Ser. No. 44,768. (CLASS 37. PAPER AND STATIONERY.) RICHARD BEST, New York, N. Y. Filed Sept. 18, 1909.

TOURMALINE

Particular description of goods.—Pencils.

Ser. No. 44,772. (CLASS 39. CLOTHING.) HARRISON & SIEGEL, New York, N. Y. Filed Sept. 18, 1909.

Co-Legian

Particular description of goods.—Ladies' and Misses' Cloaks and Outer Suits.

Ser. No. 44,782. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) RUDOLPH STAUDT, Fredericksburg, Tex. Filed Sept. 20, 1909.

S

Being printed in red.

Particular description of goods.—A Salve.

Ser. No. 44,816. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) PACIFIC COAST SYRUP CO., San Francisco, Cal. Filed Sept. 20, 1909.



Particular description of goods.—Refiners' and Corn Syrup.

Ser. No. 44,834. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE S. P. POND COMPANY, Keokuk, Iowa. Filed Sept. 21, 1909.

S.P.P.

Particular description of goods.—Eggs.

Ser. No. 44,843. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) JOSEPH W. SCHLOSS & Co., New York, N. Y. Filed Sept. 21, 1909.

I-V

Particular description of goods.—Supporters for Ladies' Collars, Made of Celluloid, Rubber, or other Analogous Flexible Materials.

Ser. No. 44,864. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) L. & E. STIRN, New York, N. Y. Filed Sept. 22, 1909.



Particular description of goods.—Malines.

Ser. No. 44,925. (CLASS 39. CLOTHING.) BEASLEY SHOE CO INC., Lynchburg, Va. Filed Sept. 23, 1909.



Particular description of goods.—Leather Boots and Shoes.

Ser. No. 44,938. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) BAY STATE OPTICAL COMPANY, Attleboro, Mass. Filed Sept. 24, 1909.

Defiance

Particular description of goods.—Eyeglasses and Their Mountings and Parts.

Ser. No. 44,962. (CLASS 37. PAPER AND STATIONERY.) E. E. LLOYD PAPER CO., Chicago, Ill. Filed Sept. 25, 1909.

REALTY

Particular description of goods.—Writing-Paper.

Ser. No. 44,978. (CLASS 39. CLOTHING.) CHARLES H. PHILLIPS, Winthrop Highlands, Mass. Filed Sept. 27, 1909.

Laprey

Being the word "Laprey."

Particular description of goods.—Leather and Cloth Gloves.

Ser. No. 44,982. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CHEMISCHE FABRIK AUF ACTIEN (VORM. E. SCHERING), Berlin, Germany. Filed Sept. 27, 1909.

Duratol

Particular description of goods.—Photographic Developing Substances.

Ser. No. 44,992. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) THE HIRST-BUTLER ELECTRICAL MACHINE CO., Reynoldsville, Pa. Filed Sept. 28, 1909.

THE LITTLEGIANT

Particular description of goods.—Electric Mining-Machines.

Ser. No. 45,055. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) AMERICAN FIBRE MATTING COMPANY, Lawrence, Mass., and New York, N. Y. Filed Oct. 1, 1909.



Particular description of goods.—Rugs, Art-Squares, Mattings, Wall-Coverings, Box-Covers, and Furniture-Covers, Made Wholly or in Part of Woven Goods, in Which Fiber, Wool, Cotton, and Jute May be Employed.

Ser. No. 45,150. (CLASS 15. OILS AND GREASES.) THE EMERY PNEUMATIC LUBRICATOR CO., St. Louis, Mo. Filed Oct. 5, 1909.

E

Particular description of goods.—Lubricants in Stick or Paste or Semifluid Form.

Ser. No. 45,274. (CLASS 28. JEWELRY AND PRECIOUS-METAL WARE.) L. HELLER & SON, New York, N. Y. Filed Oct. 12, 1909.

Hope

Particular description of goods.—Sapphires.

TRADE-MARKS

REGISTERED NOVEMBER 23, 1909.

75,833. LEATHER GLOVES. JACOB ADLER & Co., New York, N. Y.
Filed June 22, 1909. Serial No. 43,173. PUBLISHED SEPTEMBER 21, 1909.

75,834. PETTICOATS. WILLIAM HENRY ALLEN, Detroit, Mich.
Filed July 12, 1909. Serial No. 43,488. PUBLISHED SEPTEMBER 21, 1909.

75,835. KNIT UNDERWEAR. ATHENS KNITTING COMPANY, Athens, N. Y.
Filed July 27, 1909. Serial No. 43,818. PUBLISHED SEPTEMBER 21, 1909.

75,836. CANNED SALMON AND DRIED SALT CODFISH. AUSTIN, NICHOLS & Co., New York, N. Y.
Filed July 2, 1909. Serial No. 43,371. PUBLISHED SEPTEMBER 21, 1909.

75,837. HAIR-DYE. CHARLES WALTER BLACKBURN, Petaluma, Cal.
Filed May 12, 1909. Serial No. 42,379. PUBLISHED SEPTEMBER 21, 1909.

75,838. YOUTHS' OUTER SUITS. CORINTH WOOLEN MILLS, St. Louis, Mo.
Filed July 19, 1909. Serial No. 43,629. PUBLISHED SEPTEMBER 21, 1909.

75,839. COUCHES AND BEDS. THE D. T. OWEN CO., East Cleveland, Ohio.
Filed July 19, 1909. Serial No. 43,631. PUBLISHED SEPTEMBER 21, 1909.

75,840. CEMENT (CALCAREOUS) FOR MAKING ARTIFICIAL MILLSTONES. H. BRUCE DRESSER, Liverpool, England.
Filed August 15, 1905. Serial No. 11,675. PUBLISHED SEPTEMBER 21, 1909.

75,841. WATERPROOFING COATING. F. O. PIERCE CO., New York, N. Y.
Filed July 1, 1909. Serial No. 43,359. PUBLISHED SEPTEMBER 21, 1909.

75,842. WHEAT-STARCH USED FOR LAUNDRY PURPOSES. FRANK RICHARDS LAUNDRY SUPPLY CO., New York, N. Y.
Filed December 19, 1908. Serial No. 39,441. PUBLISHED SEPTEMBER 21, 1909.

75,843. CORN-STARCH USED FOR LAUNDRY PURPOSES. FRANK RICHARDS LAUNDRY SUPPLY CO., New York, N. Y.
Filed December 19, 1908. Serial No. 39,442. PUBLISHED SEPTEMBER 21, 1909.

75,844. BUTTONHOLE-GIMP. JOSEPH FRIEDMAN, New York, N. Y.
Filed July 24, 1909. Serial No. 43,761. PUBLISHED SEPTEMBER 21, 1909.

75,845. [WITHDRAWN.]

75,846. COUTILS, BATISTES, SATINS, TRICOT, RIBBONS, PLUSH, AND WEBBINGS. ERNEST DE GRANDMONT, New York, N. Y.
Filed November 27, 1908. Serial No. 38,908. PUBLISHED SEPTEMBER 21, 1909.

75,847. GRANULATED LAXATIVE PHARMACEUTICAL PRODUCT. LUCIEN GRAUX, Paris, France.
Filed July 12, 1909. Serial No. 43,464. PUBLISHED SEPTEMBER 21, 1909.

75,848. MEN'S AND YOUNG MEN'S OUTER SUITS AND OVERCOATS AND TROUSERS. JACOB GREENBERG & SON, New York, N. Y.
Filed July 13, 1909. Serial No. 43,505. PUBLISHED SEPTEMBER 21, 1909.

75,849. STRAIGHT WHISKY. I. HECHT & BRO., Havre de Grace, Md.
Filed May 4, 1909. Serial No. 42,218. PUBLISHED SEPTEMBER 21, 1909.

75,850. COMBINED BRUSHES AND COMBS FOR TINTING THE HAIR. EDITH GERRY HELM, New York, N. Y.
Filed March 30, 1909. Serial No. 41,482. PUBLISHED SEPTEMBER 21, 1909.

75,851. REMEDY FOR INDIGESTION. THOMAS J. HENNESSY, Oakland, Cal.
Filed July 21, 1909. Serial No. 43,664. PUBLISHED SEPTEMBER 21, 1909.

75,852. LEATHER BOOTS AND SHOES. THE HENRY C. WERNER CO, Columbus, Ohio.
Filed June 26, 1909. Serial No. 43,290. PUBLISHED SEPTEMBER 21, 1909.

75,853. BAKING-POWDER. FREDERIC EDGAR BRADFORD DARLING, Albany, N. Y.
Filed October 22, 1908. Serial No. 38,190. PUBLISHED SEPTEMBER 21, 1909.

75,854. LADIES' AND CHILDREN'S UNDERSKIRTS, NIGHTGOWNS, AND DRESSING-SACKS. K. A. FEORE & Co., New York, N. Y.
Filed July 12, 1909. Serial No. 43,478. PUBLISHED SEPTEMBER 21, 1909.

75,855. BOOTS, SHOES, AND SLIPPERS OF LEATHER, RUBBER, AND CANVAS. JAMES A. BANISTER COMPANY, Newark, N. J.
Filed July 17, 1909. Serial No. 43,592. PUBLISHED SEPTEMBER 21, 1909.

75,856. SEALING-MACHINES AND TAPE-MOISTENERS. JAMES D. MCLAURIN CO. INC., New York, N. Y.
Filed June 10, 1909. Serial No. 42,953. PUBLISHED SEPTEMBER 21, 1909.

75,857. SPUN-SILK YARNS AND NOILS. KANEGAFUCHI SPINNING COMPANY, LIMITED, Kobé, Japan.
Filed November 7, 1908. Serial No. 38,520. PUBLISHED SEPTEMBER 21, 1909.

75,858. BRANDY. B. KASPROWICZ, Gnesen, Germany.
Filed February 11, 1909. Serial No. 40,495. PUBLISHED SEPTEMBER 21, 1909.

75,859. FRUIT BRANDY. B. KASPROWICZ, Gnesen, Germany.
Filed February 11, 1909. Serial No. 40,497. PUBLISHED SEPTEMBER 21, 1909.

75,860. BRANDY. B. KASPROWICZ, Gnesen, Germany.
Filed February 11, 1909. Serial No. 40,498. PUBLISHED SEPTEMBER 21, 1909.

75,861. BRANDY. B. KASPROWICZ, Gnesen, Germany.
Filed February 11, 1909. Serial No. 40,499. PUBLISHED SEPTEMBER 21, 1909.

75,862. SUSPENDERS. KNOTHE BROTHERS, New York, N. Y.
Filed June 12, 1909. Serial No. 42,983. PUBLISHED SEPTEMBER 21, 1909.

75,863. PHOTOGRAPHIC-PRINTING PLATES. BENJAMIN S. KRUPP, Saginaw, Mich.
Filed June 4, 1909. Serial No. 42,834. PUBLISHED SEPTEMBER 21, 1909.

75,864. JARS. L. A. BECKER COMPANY, Jersey City, N. J., and Chicago, Ill.
Filed July 19, 1909. Serial No. 43,630. PUBLISHED SEPTEMBER 21, 1909.

75,865. MEDICINES USED FOR INHALANTS. ISADORE E. LEVI, Erie, Pa.
Filed May 3, 1909. Serial No. 42,189. PUBLISHED SEPTEMBER 21, 1909.

75,866. CREAM DENTIFRICE. MAPHIS CHEMICAL COMPANY, INC., Strasburg, Va.
Filed June 9, 1909. Serial No. 42,913. PUBLISHED SEPTEMBER 21, 1909.

75,867. WHEAT-FLOUR. MAUSER MILL COMPANY, Laurys Station, Pa.
Filed December 20, 1907. Serial No. 31,857. PUBLISHED SEPTEMBER 21, 1909.

75,868. CIGAR-MOLDS. THE MILLER, DUBRUL & PETERS MFG. CO., Cincinnati, Ohio.
Filed June 26, 1909. Serial No. 43,288. PUBLISHED SEPTEMBER 21, 1909.

75,869. CIGAR-MOLDS. THE MILLER, DUBRUL & PETERS MFG. CO., Cincinnati, Ohio.
Filed June 26, 1909. Serial No. 43,289. PUBLISHED SEPTEMBER 21, 1909.

75,870. PREPARED TAPIOCA. MINUTE TAPIOCA COMPANY, Orange, Mass.
Filed June 12, 1909. Serial No. 42,991. PUBLISHED SEPTEMBER 21, 1909.

75,871. CREAM-CHEESE. MONROE CHEESE COMPANY, Monroe, N. Y.
Filed May 19, 1909. Serial No. 42,514. PUBLISHED SEPTEMBER 21, 1909.

75,872. PHOTOGRAPHIC CAMERAS AND ATTACHMENTS. MULTISCOPE AND FILM COMPANY, Burlington, Wis.
Filed July 17, 1909. Serial No. 43,594. PUBLISHED SEPTEMBER 21, 1909.

75,873. CERTAIN FANCY GOODS. NASER, KATEN & NAHASS, New York, N. Y.
Filed March 10, 1909. Serial No. 41,064. PUBLISHED SEPTEMBER 21, 1909.

75,874. COMPOUND OF ROASTED COFFEE AND CHICORY. NEW ORLEANS COFFEE CO., LTD., New Orleans, La.
Filed June 16, 1909. Serial No. 43,042. PUBLISHED SEPTEMBER 21, 1909.

75,875. BALATA BELTING. NEW YORK LEATHER BELTING CO., New York, N. Y.
Filed July 10, 1909. Serial No. 43,445. PUBLISHED SEPTEMBER 21, 1909.

75,876. COFFEE. O'NEILL-ADAMS CO., New York, N. Y.
Filed July 10, 1909. Serial No. 43,449. PUBLISHED SEPTEMBER 21, 1909.

75,877. GRINDING-MACHINES. PIKE MANUFACTURING COMPANY, Pike and Littleton, N. H.; Evansville, Vermont; Orleans, Ind.; Hot Springs, Ark., and New York, N. Y.
Filed July 28, 1909. Serial No. 43,853. PUBLISHED SEPTEMBER 21, 1909.

75,878. UNION SUITS, DRAWERS, AND UNDERSHIRTS. REGENT SHIRT COMPANY, New York, N. Y.
Filed July 12, 1909. Serial No. 43,476. PUBLISHED SEPTEMBER 21, 1909.

75,879. HOSIERY. RICHMOND HOSIERY MILLS, Chattanooga, Tenn., and Rossville, Ga.
Filed June 21, 1909. Serial No. 43,168. PUBLISHED SEPTEMBER 21, 1909.

75,880. STEEL RANGES, COOKING AND HEATING STOVES. J. C. SHANKS CO., Denver, Colo.
Filed July 23, 1909. Serial No. 43,698. PUBLISHED SEPTEMBER 21, 1909.

75,881. ANTISEPTIC POWDER. SHARP & DOHME, Baltimore, Md.
Filed June 23, 1909. Serial No. 43,202. PUBLISHED SEPTEMBER 21, 1909.

75,882. LINIMENT FOR EXTERNAL USE ON LIVE STOCK. C. SLUTZ & COMPANY, Bethlehem township, Stark county, Ohio.
Filed July 22, 1909. Serial No. 43,686. PUBLISHED SEPTEMBER 21, 1909.

75,883. CANNED FRUITS AND CANNED VEGETABLES. SUNLIT FRUIT COMPANY, West Berkeley, Cal.
Filed May 26, 1909. Serial No. 42,684. PUBLISHED SEPTEMBER 21, 1909.

75,884. MEDICINES. THEO. NOEL COMPANY, Chicago, Ill.
Filed July 12, 1909. Serial No. 43,460. PUBLISHED SEPTEMBER 21, 1909.

75,885. CERTAIN TEXTILES. TRIPPE, BARKER & COMPANY, New York, N. Y.
Filed June 25, 1909. Serial No. 43,268. PUBLISHED SEPTEMBER 21, 1909.

75,886. CANNED SALMON. UNION FISHERMEN'S CO-OP. PACK'G CO., Astoria, Oreg.
Filed June 3, 1909. Serial No. 42,809. PUBLISHED SEPTEMBER 21, 1909.

75,887. CRACKERS, BISCUITS, CAKE, COOKIES, AND BREAD. WARD-MACKEY CO., Pittsburg, Pa.
Filed June 7, 1909. Serial No. 42,878. PUBLISHED SEPTEMBER 21, 1909.

75,888. SHOE-LACING HOOKS AND STUDS. THE AGATINE SHOE-HOOK AND EYELET COMPANY, Newark, N. J.
Filed January 9, 1909. Serial No. 39,806. PUBLISHED APRIL 27, 1909.

75,889. DRIED BREWER'S GRAIN. ATLANTIC EXPORT COMPANY, New York, N. Y.
Filed November 30, 1906. Serial No. 23,675. PUBLISHED MAY 12, 1908.

75,890. COTTON SHIRTINGS. DAN RIVER POWER & MFG. CO., Danville, Va.
Filed June 10, 1909. Serial No. 42,947. PUBLISHED AUGUST 17, 1909.

75,891. WHEAT-FLOUR. EDWARDSVILLE MILLING COMPANY, Edwardsville, Ill.
Filed January 29, 1909. Serial No. 40,227. PUBLISHED SEPTEMBER 14, 1909.

75,892. ELECTRIC PORTABLES, ELECTROLIERS, AND ELECTRIC LAMPS. GEO. BORGFELDT & CO., New York, N. Y.
Filed March 23, 1909. Serial No. 41,348. PUBLISHED JULY 13, 1909.

75,893. PERFUMERY. SAL. HUDES, New York, N. Y.
Filed August 19, 1907. Serial No. 29,474. PUBLISHED SEPTEMBER 21, 1909.

75,894. MOUTH-WASHES AND LIQUID DENTIFRICES. FRITZ KLEINSORGEN, Elberfeld, Germany.
Filed February 28, 1906. Serial No. 17,399. PUBLISHED AUGUST 24, 1909.

75,895. CERTAIN MUSICAL INSTRUMENTS. LUDWIG HUPFELD AKTIEN-GES., Leipzig, Germany.
Filed June 3, 1909. Serial No. 42,805. PUBLISHED SEPTEMBER 7, 1909.

75,896. SUSPENDERS, NECKTIES, GARTERS, AND BELTS. GEORGE W. SEAY, Atlanta, Ga.
Filed September 17, 1908. Serial No. 37,447. PUBLISHED MARCH 16, 1909.

75,897. PRESSED GLASSWARE. A. H. HEISEY & CO. INC., Newark, Ohio.
Filed June 5, 1909. Serial No. 42,842. PUBLISHED SEPTEMBER 21, 1909.

75,898. SOAP. BURCKHARDT & COMPANY, Cincinnati, Ohio.
Filed August 9, 1909. Serial No. 44,042. PUBLISHED SEPTEMBER 21, 1909.

75,899. WHISKY, RUM, GIN, BRANDY, AND ROCK AND RYE. CUSHING MEDICAL SUPPLY CO, Dover, Del., and Boston, Mass.
Filed May 14, 1909. Serial No. 42,419. PUBLISHED SEPTEMBER 21, 1909.

75,900. NON-ALCOHOLIC CARBONATED BEVERAGE. THE EBLING COMPANY, New York, N. Y.
Filed June 1, 1909. Serial No. 42,769. PUBLISHED SEPTEMBER 21, 1909.

75,901. CERTAIN FOODS. EMIL FLEISCHL & SON, New York, N. Y.
Filed May 13, 1909. Serial No. 42,392. PUBLISHED SEPTEMBER 21, 1909.

75,902. ENAMELED AND PATENT LEATHER. G. C. Y. LEATHER COMPANY, Philadelphia, Pa.
Filed August 4, 1909. Serial No. 43,963. PUBLISHED SEPTEMBER 21, 1909.

75,903. LAGER-BEER. J. & R. TENNENT LIMITED, Glasgow, Scotland.
Filed March 13, 1909. Serial No. 41,169. PUBLISHED SEPTEMBER 21, 1909.

75,904. BOOTS, SHOES, AND SLIPPERS OF LEATHER, RUBBER, AND CANVAS. JAMES A. BANISTER COMPANY, Newark, N. J.
Filed July 17, 1909. Serial No. 43,593. PUBLISHED SEPTEMBER 21, 1909.

75,905. SOAP. ROBERT A. JEWETT, Boston, Mass.
Filed July 13, 1909. Serial No. 43,491. PUBLISHED SEPTEMBER 21, 1909.

75,906. VARNISHES. KEYSTONE VARNISH COMPANY, Brooklyn, N. Y.
Filed July 16, 1909. Serial No. 43,576. PUBLISHED SEPTEMBER 21, 1909.

75,907. REMEDY FOR CERTAIN DISEASES. A. RENKERT & Co., Memphis, Tenn.
Filed July 13, 1909. Serial No. 43,495. PUBLISHED SEPTEMBER 21, 1909.

75,908. COAL. RODEN COAL COMPANY, Birmingham, Ala.
Filed April 6, 1909. Serial No. 41,629. PUBLISHED SEPTEMBER 21, 1909.

75,909. LAGER-BEER. SCHMULBACH BREWING COMPANY, Wheeling, W. Va.
Filed October 31, 1908. Serial No. 38,416. PUBLISHED SEPTEMBER 21, 1909.

75,910. FRENCH OLIVE-OIL. THE SCUDDERS-GALE GROCER CO., St. Louis, Mo.
Filed May 24, 1909. Serial No. 42,638. PUBLISHED SEPTEMBER 21, 1909.

75,911. DIAPER-CLOTH. ALBERT D. SMITH, New York, N. Y.
Filed June 11, 1909. Serial No. 42,959. PUBLISHED SEPTEMBER 21, 1909.

75,912. LEATHER SHOES. ASHE, NOYES & SMALL COMPANY, Auburn, Me.
Filed February 8, 1909. Serial No. 40,420. PUBLISHED APRIL 20, 1909.

75,913. PIANOS. BOARDMAN & GRAY, Albany, N. Y.
Filed July 17, 1909. Serial No. 43,613. PUBLISHED AUGUST 31, 1909.

75,914. TEXTILE COLLARS AND CUFFS. HUTCHINSON, PIERCE & CO., New York, N. Y.
Filed February 20, 1906. Serial No. 17,198. PUBLISHED APRIL 13, 1909.

75,915. ALFALFA AND GRAIN DAIRY AND STOCK FOOD. SHAWNEE MILLING CO., Shawnee, Okla.
Filed June 29, 1908. Serial No. 35,836. PUBLISHED APRIL 27, 1909.

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

COMMISSIONER'S DECISIONS.

OHLSEN *v.* HARMER.

Decided July 13, 1909.

1. INTERFERENCE—ORIGINALITY—FIDUCIARY RELATION BETWEEN PARTIES.

When O. was admittedly the inventor of all the features of the invention save one and H. obtained his knowledge of these features from O. and the testimony was not clear as to whether the other feature was an improvement suggested by H. or by a third party, *Held* that O. was entitled to an award of priority in either event, inasmuch as a partnership relation was shown to exist between O. and H. at the time the invention in issue was made.

2. SAME—SAME—CIRCUMSTANCES AND CONDUCT.

In cases where the question is on the originality rather than priority of invention the surrounding circumstances and conduct of the parties are entitled to great weight.

APPEAL from Examiners-in-Chief.

VALVE.

Mr. Charles A. Brown for Ohlsen.

Mr. G. F. De Wein for Harmer.

BILLINGS, *First Assistant Commissioner:*

This is an appeal by Harmer from the decision of the Examiners-in-Chief reversing the decision of the Examiner of Interferences and awarding priority of adoption in favor of Ohlsen.

The issue consists of the two following counts:

1. The combination with a valve-seat provided with ports, of a valve member resting against said seat, said seat being provided with guides to restrain the movement of said valve member, said valve member being provided with guides disposed at an angle with respect to the guides upon said valve-seat, a stem provided with a pin eccentric to the axis thereof, a block adapted to move between the guides on said valve member, said block being provided with an aperture adapted to receive said pin.

2. The combination with a valve-seat provided with ports, of a rectangular valve member adapted to control said ports, guides for compelling said valve member to move in a right line, a valve-stem provided with a pin disposed eccentrically to the axis of said stem, a rectangular block provided with an aperture adapted to receive said pin, said valve member being provided with guides disposed at right angles with respect to the guides on the valve-seat, said guides being adapted to restrain the movement of said block to a right line.

The senior party, Harmer, has a patent, No. 844,307, issued February 12, 1907, on an application filed December 17, 1906. Ohlsen's application was filed April 11, 1907. Only the party Ohlsen took testimony. The invention in controversy is a controlling-valve for an air-brake system and embodies certain improvements on the Chesire valve of Patent No. 762,025, issued June 7, 1904.

The Examiner of Interferences awarded priority of invention in favor of Harmer on the ground that Ohlsen had failed to discharge the burden of proof placed upon him by reason of the fact that Harmer has a patent granted before Ohlsen filed his application. The Examiners-in-Chief reversed the decision of the Examiner of Interferences and awarded priority in favor of Ohlsen on the ground that he first had knowledge of the main plan of the invention and suggested the main improvements in the Chesire valve to Harmer. Concerning the following state of facts there appears to be no dispute. In the year 1904 and for some time thereafter both Ohlsen and Harmer were employees of the National Electric Company and its successor, the National Brake & Electric Company, the assignee of the Ohlsen application. At that time this company was manufacturing the Chesire valve, and Ohlsen, who was an expert in this line, constructed a model of a valve in which he endeavored to remedy certain defects that he had detected in the Chesire construction. After completing the model he showed it to Harmer and sought to secure his services in promoting the invention. Harmer was impressed with the advantages of the valve, and a partnership arrangement was entered into by which Harmer was to pay part of the expense of making a commercial valve and was to endeavor to secure its adoption by some manufacturing concern. Drawings and patterns were made of the Ohlsen valve and an order given to one Braun for the construction of two valves. During the process of their manufacture it was decided to substitute a cross-head for the pin-and-slot connection of the Ohlsen model for actuating the sliding valve. One of the two valves which had been ordered was accordingly constructed with a cross-head, while the other valve embodied the pin-and-slot connection. The officers of the National Electric Company decided that this valve was an improvement upon the Chesire valve and adopted it as their commercial value. They took an assignment from Harmer and Ohlsen, whom they understood to be joint inventors, paying each the sum of ninety-five dollars. An application for a patent in the name of Harmer and Ohlsen as joint inventors was prepared in the fall of 1906; but Harmer, who had in the meantime entered the employ of the Allis-Chalmers Company, declined to execute said application. Shortly afterward Harmer filed his appli-

cation as sole inventor, and a patent issued thereon to the Allis-Chalmers Company as assignee on January 24, 1907. Upon learning of this the officers of the National Brake & Electric Company, after investigation, decided that Ohlsen was the real inventor of the valve, and an application was accordingly filed in the name of Ohlsen as the sole inventor. This application was executed by Ohlsen and assigned to the National Brake & Electric Company. Subsequently Ohlsen also entered the employ of the Allis-Chalmers Company.

It is admitted in the brief filed by Harmer that Ohlsen alone is the inventor of the pin-and-slot form of valve, which embodied many improvements over the Chesire valve, such as having the stem central in the casing, dispensing with the ring at the ground joint, lessening the eccentricity, the substitution of an eccentric-pin for the shoe-shaped end portion on the stem, and the extension of the lugs entirely across the slide to form parallel ways for the eccentric-pin and the adjustable connection of the ways to compensate for the wear. As heretofore stated, one of the two specimen valves was constructed with a cross-head or rectangular block provided with an aperture which received the eccentric-pin, while in the other form the eccentric-pin moved between parallel ways or shoulders formed upon the valve. The purpose of the cross-head was to reduce the wear incident to the other form of construction, and each count of the issue embodies as an element said cross-head or block.

The decision of the Examiner of Interferences turned upon the question of who was the first to suggest said cross-head, and he held that the testimony fails to establish that Ohlsen, upon whom rests the burden of proof, was the inventor thereof. The Examiners-in-Chief, on the other hand, held that the block or cross-head, while an essential feature of the issue, is not for the purpose of this case regarded as of great importance and that since the testimony shows that Ohlsen made the other and main improvements on the Chesire valve he was entitled to the award of priority.

It is admitted by Harmer that all the improvements except the block or cross-head were originated by Ohlsen; but he contends that the cross-head is an essential element of the issue and that Ohlsen testified that it was the suggestion of another.

Concerning the suggestion of the cross-head Ohlsen testified as follows:

X-Q. 1344. Were any valves built according to the drawings made by your son, under your direction, that is, the drawings made under your direction?
A. Mr. Harmer and I had two of them valves made, of which one was changed while the valves were in process of making.
X-Q. 1345. How was one of them changed?
A. In one of them a cross-head or auxiliary slide was put in, and the adjustable parallels done away with.
X-Q. 1346. Why was one of them changed?
A. Talking the matter over with some boys in the shop, one of them, if I ain't mistaken, it was Harry Maker, thought we would do better putting a cross-head in place of the adjustable parallels. That's why one of them was changed with the block or cross-head.

Ohlsen repeatedly testified that Harmer did not mention the block or cross-head until after Maker suggested it. (RD. Q. 1930, 1931, 1970, 2003.)

The extent of this suggestion and the work done by Ohlsen in carrying it out appear from the following testimony of Ohlsen:

RD. Q. 2000. Was there anything said about how the cross-head should be arranged?
A. No.
RD. Q. 2001. Did you say anything about it?
A. No, not that I can think of.
RD. Q. 2002. But you figured out in your mind just how you would arrange and construct it?
A. Yes.

* * * * * * * *

RD. Q. 2023. Now, just how much of a mention was made about a cross-head?
A. As close as I can think of, it was said, "don't you people think you would do better if you put a cross-head in that valve;" that's about all that was said about it.
RD. Q. 2024. Do you recall who said it?
A. It was Mr. Maker that said it; I guess it was Mr. Maker that said it.
RD. Q. 2025. Then was Mr. Maker one of the boys among whom that so-called shop discussion took place?
A. Yes, he was one of them.
RD. Q. 2026. Did he say where or how it should be put in?
A. No sir, nothing said about it.
RD. Q. 2027. But in your own mind you studied it out as to how the cross-head should be arranged and constructed to properly work together with the other parts of the valve that Mr. Braun was then making?
A. Yes.

* * * * * * * *

RD. Q. 1940. Had you made any sketches of how the parts would look with the cross-head put in?
A. No.
RD. Q. 1941. Well, then, how did Mr. Braun know just how to make that cross-head?
A. The cross-head I made myself.
RD. Q. 1942. When?
A. In December, 1904.

As stated above, no testimony was taken on behalf of Harmer; but he was called on as a witness by Ohlsen's assignee. It does not appear, however, that he was examined upon the matter of the origin of the cross-head construction.

Whether the first suggestion of the desirability of the cross-head came from Harmer or from Maker, it is thought that under the circumstances presented and for the purposes of this case it must inure to the benefit of Ohlsen. Admittedly Ohlsen originated the most of the improvements and was the main worker and expert in the art. If the suggestion of the cross-head came from Maker, the testimony shows that Ohlsen was in possession of the invention before any date that Harmer had it. If Harmer suggested this feature to Ohlsen, the testimony shows that Ohlsen worked it out and embodied the feature in the valve. A fiduciary relationship existed between Harmer and Ohlsen, due to the partnership arrangement whereby Harmer was to assist in promoting the invention. Under such circumstances it appears to be well settled that if the suggestion of a single feature of the improvements comes from one partner the principal inventor is entitled to the benefit of the suggestion.

In the case of *Jackson* v. *Summerfield* (1904, C. D., 403) it was held:

It is very clear from this contract that Jackson was to make the inventions and secure the patents and that he and Summerfield were to share equally in the benefits. It was clearly not a mere license, as contended by Summerfield. It was a partnership arrangement for their mutual benefit, and it was clearly not contemplated that Summerfield should secure a patent as a result of the work under the contract, and thereby exclude Jackson from all benefit.

In the case of *Kirkegaard and Jebsen* v. *Ries* (125 O. G., 1700; 1906, C. D., 485) it is stated:

Kirkegaard admits discussing with Ries the structure of his bottle-stopper disclosed in his patent, but denies that Ries made any suggestions to him relative to the structure of the stopper in issue except as to the narrow slot. In regard to this feature it is shown by Kirkegaard that he had in his possession prior to his conversation with Ries a patent to one Harris in which a cam-lever having a narrow double-acting slot is disclosed. It is of little consequence whether Kirkegaard and Jebsen obtained a suggestion as to the form of the operating-slot from Ries or from the Harris patent, as this feature is only one element of the structure embodied in the combination defined by the issue. Furthermore, Ries on cross-examination (X-Q. 271–337 and 351) admits that Kirkegaard independently followed his own ideas as to the mechanical details and acted in the capacity of a subsequent inventor.

In the case of *Gedge* v. *Cromwell* (98 O. G., 486; 19 App. D. C., 192) the Court of Appeals of the District of Columbia said:

The rule is that one, who, by way of partnership, or contract, or in any other, empowers another person to make experiments upon his own conception for the purpose of perfecting it in its details, is entitled to the ownership of such improvements in the conception as may be suggested by such other person. And we do not understand that the exceedingly liberal policy of the Patent Office in the allowance of independent patents for minute improvements is to be regarded as contravening this rule. Independent inventors may not come within the scope of the rule.

It clearly appears that this is a case of originality rather than priority of invention. In such cases the surrounding circumstances and conduct of the parties is entitled to great weight. The conduct of Harmer throughout is inconsistent with his claims of inventorship. Tell, the vice-president and general manager of the National Brake & Electric Company, testified that at the time he interrogated Ohlsen the latter stated that Harmer had nothing whatever to do with the actual invention of the valve. (Q. 58, X-Q. 161.) Tell further testified that during the several talks he had with Harmer the latter never claimed that he was the inventor or that Ohlsen was not the inventor, although he had abundant opportunity to do so. (RD. Q. 195, 202.)

No error is found in the decision of the Examiners-in-Chief, and it is affirmed.

WEINTRAUB v. HEWITT.

Decided July 22, 1909.

INTERFERENCE—PRIORITY—RIGHT TO MAKE THE CLAIMS.

Where the claim in issue specifies separate sources of current connected to a plurality of electrodes of a mercury-vapor device and H. shows separate phases of a polyphase generator connected to the respective electrodes, *Held* that he has a right to make this claim, (citing *Westinghouse Electric Mfg. Co.* v. *The New England Granite Co.*, 110 Fed. Rep., 753.)

APPEAL from Examiners-in-Chief.

OPERATING VAPOR ELECTRIC LAMPS FROM AN ALTERNATING-CURRENT SOURCE.

Mr. Albert G. Davis for Weintraub.

Mr. Charles A. Terry and *Messrs. Duell, Warfield & Duell* for Hewitt.

MOORE, *Commissioner:*

This is an appeal by Weintraub from the decision of the Examiners-in-Chief affirming the decision of the Examiner of Interferences awarding priority to Hewitt on the following issue:

The combination of an hermetically-sealed inclosing chamber, a gas or vapor path therein, a plurality of positive electrodes and a common negative electrode, each of the positive electrodes being connected with a separate source of current.

The invention in issue and the structures of the respective parties are described as follows in the decision of the Examiners-in-Chief:

The invention involved in this interference is an apparatus adapted for use either as a lamp or as a rectifier for alternating currents. In order that such a device may be effective it has been found essential that the negative electrode be continually excited by the passage of a current and that if this current ceases for any reason the lamp is extinguished. There can be no question that both parties show such apparatus in which this condition of continuous excitation of the negative electrode is maintained, but the devices are specifically different. Each instrument contains a plurality of anodes and a single cathode, the latter coacting with each of the anodes. Weintraub has a source of alternating current connected between one anode and the cathode which furnishes the main current and an additional source of current, which is direct or continuous, connecting the other anode to the cathode, so that whatever the condition of the source of alternating current a direct current is constantly maintained. Hewitt on the other hand has each of his anodes connected to an individual or distinct coil of a polyphase generator of alternating current, the currents supplied to the several anodes being so related in phase that the impulses overlap; that is to say, conjointly they continually supply current to keep up the excitation of the cathode.

The date of conception alleged in Weintraub's preliminary statement is subsequent to Hewitt's filing date; but it is contended on behalf of Weintraub that priority should be awarded him for the reason that Hewitt is not entitled to make the claim corresponding to the issue. This contention is based on the ground that Hewitt does not disclose a separate source of current for each of the positive electrodes.

Each of Hewitt's positive electrodes is connected with one of the coils of a polyphase generator, and Weintraub contends that these coils are not separate sources of current. The claim corresponding to the count was first made by Hewitt in a later application than the one involved in this interference and was afterward transferred to the earlier application and was suggested to Weintraub for purposes of interference. It appears that in this later application Hewitt discloses not only the form shown in the present application, but a form corresponding to that of Weintraub, in which a direct current connecting one of the positive electrodes with the negative electrode was used for the purpose of keeping the lamp or rectifier alive.

When the claims were first made, the Examiner then in charge of the case held that this claim was for a different species from certain other claims, which did not call for separate sources of current for each of the electrodes. This view, however, was not taken by the Examiner in charge of the case at the time that the claim was presented in the present application. On a motion to dissolve based on the ground that Hewitt had no right to make this claim he held that the claim could be made by Hewitt, and in his decision made the following statement:

It is thought that Hewitt clearly has a right to make the claims involved in counts 1 and 2. Weintraub uses a single-phase current and has a separate positive electrode and common negative electrode connected in a battery-circuit, while Hewitt has his separate positive electrodes connected with the different parts of a polyphase generator. The same broad result is accomplished by both constructions, viz., a separate current traversing the rectifier to the negative electrode during the operation of what may be termed the main current. It is thought in this broad sense, and especially in view of the decision of the court of appeals on the Tesla polyphase patents, that Hewitt's sources of current are separate within the usual meaning given to that word in the art of electricity, and that he has a right to make the claims corresponding to counts 1 and 2 in the application involved in this interference.

The Examiners-in-Chief, after stating the grounds of Weintraub's contention, said:

There is no art before us which leads to the conclusion that the count in the interpretation contended for by Hewitt would be unpatentable. Weintraub, however, points out the advantage in his construction that if the main current for any reason failed and was then reëstablished the operation of the device would be immediately renewed, whereas in Hewitt's device if the current through one of the anodes were interrupted from any cause the action of the lamp would be stopped even though the interrupted current were renewed. This difference of action is not questioned but, as it appears to us, it depends not on the fact that the source of secondary current in the Weintraub device is separate in a fuller sense than in the Hewitt device but by reason of the character of the subsidiary current in that it is continuous. To make this point more clear, it is obvious that if a source of alternating current were substituted for the direct generator of Weintraub his lamp or rectifier would be open to the same objection which he has raised to that of Hewitt. It is true that Hewitt's sources of current form part of a single machine, to wit: a polyphase generator, but each coil is as much a source of separate current as though it were separately mounted either on the same shaft or on a shaft driven by a different motor, and the device would operate in the same way so long as the necessary phase relations were maintained. The issue is not concerned with separation in a bodily sense but only as regards the function of the sources.

This holding is believed to be right. It is argued on behalf of Weintraub that the decision in the Tesla case referred to by the Primary Examiner is no authority for holding that the coils of Hewitt's polyphase generator are "separate" sources, for the reason that in this decision reference was made to the following clause contained in one of the patents involved:

By "independent" I do not mean to imply that the circuits are necessarily isolated from one another, for in some instances there might be electrical connections between them to regulate or modify the action of the motor without necessarily producing a new or different action.

Both the circuit court and the circuit court of appeals referred to this clause of the patent, and in the decision of the latter (*Westinghouse Electric Mfg. Co.* v. *The New England Granite Co.*, 110 Fed. Rep., 753) the following statement is made with reference thereto:

The meaning of the clause is that independent circuits are not necessarily circuits isolated from each other and that electrical connections are permitted, if they do not interfere with the electrical independency of the circuits—

but the court made this further statement:

It is an evident fact that the defendant's circuits are operatively independent, and that, as the word "independent" is used by electricians, they are electrically independent. The word was used, as it was wont to be used by electricians, to mean independent in an electrical sense.

The connections of the circuits there referred to were the same as the connections in the Hewitt device—namely, the circuits leading from a polyphase generator. It is clear that in the same sense in which the court held those circuits to be electrically independent the sources of current in Hewitt's device are electrically separate, and this is all that is called for by the issue. For this reason it must be held that Hewitt had a right to make the claim in issue and that priority was properly awarded to him.

The decision of the Examiners-in-Chief is affirmed.

EX PARTE MEYER.

Decided October 13, 1909.

AMENDMENT—ADMISSION OF CLAIMS AFTER FINAL REJECTION—RULE 68 CONSTRUED.

Claims admitted after final rejection under that part of Rule 68 requiring a "showing duly verified, of good and sufficient reasons why they were not earlier presented," are for consideration by the Primary Examiner and not for the purpose of appeal only.

ON PETITION.

BALLOT-BOX.

Mr. E. W. Bradford for the applicant.

BILLINGS, *Acting Commissioner:*

This is a petition for the reopening of this case after final rejection, with the admission of a single claim filed in lieu of two claims which were under final rejection.

The record shows that all the claims were originally rejected; but upon reconsideration of the application the Examiner allowed three of the claims and finally rejected two claims. The applicant then canceled the two finally-rejected claims and submitted a single claim in lieu thereof. The Examiner refused to admit this claim without a showing of good and sufficient reasons why it was not earlier presented. This showing was made and accepted by the Primary Examiner; but the claim was admitted for the purpose of appeal, and not for consideration by the Examiner.

Under the provisions of Rule 68 claims submitted after an application is under final rejection may be entered, first, without showing, when they are presented in place of those rejected "in better form for consideration on appeal," and, second, "upon a showing duly verified of good and sufficient reasons why they were not earlier presented."

When admitted upon a showing such as that above indicated, they are not entered for consideration on appeal, but for the purpose of consideration by the Primary Examiner prior to appeal. In this case the showing was required, and I agree with the Examiner that it is sufficient to justify the late presentation of the claim. Under these circumstances it was error to admit the claim merely for the purpose of appeal. It should be considered and acted upon by the Primary Examiner.

The petition is granted.

C. E. SEARS & CO. *v.* A. & R. LOGGIE.

Decided November 8, 1909.

TRADE-MARKS—OPPOSITION—PRACTICE.

Where, after pleadings had been filed in an opposition proceeding, jurisdiction was restored to the Examiner of Trade-Marks for the purpose of refusing registration in view of a registered trade-mark and no action was taken by the applicant for more than a year after the letter of the Examiner of Trade-Marks refusing such registration, *Held* that on motion by the opposer the Examiner of Interferences should issue an order that the applicant show cause why the opposition should not be sustained.

ON PETITION.

TRADE-MARK FOR CANNED FRUITS AND VEGETABLES.

Messrs. Stewart & Stewart for C. E. Sears & Co.

Mr. A. P. Greeley for A. & R. Loggie.

TENNANT, *Assistant Commissioner:*

This is a petition by C. E. Sears & Co. that proceedings in the above-entitled case be resumed, or that an interference be declared involving the trade-mark application of A. & R. Loggie with said C. E. Sears & Co., or that the final judgment be entered in favor of C. E. Sears & Co.

It appears that the trade-mark of A. & R. Loggie was published in the OFFICIAL GAZETTE of February 4, 1908; that on March 4, 1908, C. E. Sears & Co. filed an opposition against the registration of said mark. Answer to the notice of opposition was duly filed by the applicant and replication filed by the opposer. Times were then set by the Examiner of Interferences for the taking of testimony in the case. On March 11, 1908, the Examiner of Trade-Marks requested jurisdiction of the application for the purpose of refusing registration in view of a certain registered trade-mark. Jurisdiction was given to the Examiner for this purpose, and on March 13, 1908, a formal letter written in the application of A. & R. Loggie refusing registration of the mark claimed in view of such references. In view of this action of the Examiner the taking of testimony in the case was suspended.

More than one year has elapsed since the date of the letter of the Examiner of Trade-Marks refusing registration of the applicant's mark in view of the reference cited, and no responsive action has been taken by the applicant. In order that the opposition proceeding may be concluded, in view of these circumstances the Examiner of Interferences is directed to reinstate the opposition proceedings and to order the applicant, A. & R. Loggie, to show cause within a reasonable period why the opposition should not be sustained and judgment rendered that said applicant is not entitled to register its trade-mark.

ADJUDICATED PATENTS.

The Coffield reissue patent, No. 12,719, (original No. 806,779,) for a water-motor, *Held* valid and infringed on a motion for a preliminary injunction. *Coffield Motor Washer Co.* v. *A. D. Howe Co.*, (C. C.,) 172 Fed. Rep., 668.

The Fowler patent, No. 609,800, for a radiator, construed and *Held* not infringed. *Fowler & Wolfe Mfg. Co.* v. *National Radiator Co.*, (C. C. A.,) 172 Fed. Rep., 661.

The Peller patent, No. 847,811, for a suspender-buckle, *Held* not anticipated, valid, and infringed. *Waterbury Buckle Co.* v. *Aston*, (C. C.,) 172 Fed. Rep., 672.

Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., November 17, 1909.

Edward M. Wilcox and William Jay Hopkins, their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Orville Simpson, of 1956 West Sixth street, Cincinnati, Ohio, for registration of a trade-mark and a trade-mark registered to Edward M. Wilcox and William Jay Hopkins, of Whitewater, Wis., and the notice of said declaration sent by the Patent Office by registered mail to the said Edward M. Wilcox and William Jay Hopkins having been returned undelivered, notice is hereby given to said Edward M. Wilcox and William Jay Hopkins, their assigns or legal representatives, that if they or any of them desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents in order that the notice of declaration heretofore sent by and returned to the Office may be forwarded to them.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall be entered at the expiration of the period of publication, the interference will be proceeded with as in case of default.

EDWARD B. MOORE, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., November 12, 1909.

Harry H. Schuster, his assigns or legal representatives, take notice:

An interference having been declared by this Office between an application for patent filed by Charles H. J. Dilg and Jonathan O. Fowler and a patent granted to Harry H. Schuster and David Maier as joint inventors, and the notice of said declaration sent by registered mail by the Patent Office to said Harry H. Schuster, one of the joint patentees, having been returned by the Post-Office Department, notice is hereby given to said Harry H. Schuster, his assigns or legal representatives, that if they or any of them desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents in order that the notice of declaration heretofore sent by and returned to the Office may be forwarded to them.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall be entered at the expiration of the period of publication, the interference will be proceeded with as in case of default.

EDWARD B. MOORE, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., November 10, 1909.

Johannes Dönitz, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Reginald A. Fessenden, of Brant Rock, Mass., for patent on an electrical measuring instrument and the patent granted to Johannes Dönitz, of Berlin, Germany, on June 21, 1904, No. 763,164, and the notice of said declaration sent by the Patent Office by registered mail to the said Johannes Dönitz having been returned undelivered, notice is hereby given to the said Johannes Dönitz, his assigns or legal representatives, that if they or any of them desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents in order that the notice of declaration heretofore sent by and returned to the Office may be forwarded to them.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall be entered at the expiration of the period of publication, the interference will be proceeded with as in case of default.

EDWARD B. MOORE, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., November 4, 1909.

The Wolff Chemical Company, its assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Edna S. Frisbie, of Crystal Lake, Ill., for registration of a trade-mark and a trade-mark registered to The Wolff Chemical Company, of 145 North Fourth street, Philadelphia, Pa., and the notice of said declaration sent by the Patent Office by registered mail to The Wolff Chemical Company having been delivered to Leatherford Company and said Leatherford Company having failed to comply with the requirement of the Office letter of September 11, 1909, to either call attention to an assignment from The Wolff Chemical Company of record in the Office prior to the declaration of the interference or to file an application for registration, notice is hereby given The Wolff Chemical Company, its assigns or legal representatives, that if they or any of them desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents in order that the notice of declaration may be sent to them.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall be entered at the expiration of the period of publication, the interference will be proceeded with as in case of default.

EDWARD B. MOORE, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 30, 1909.

Crystal Tablet Company, its assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The Crystalene Mfg. Company, of 3100 Archwood avenue, Cleveland, Ohio, for registra-

tion of a trade-mark and trade-marks registered to William McGlaughlin, of Sharpsburg, Pa., and the Crystal Tablet Company, of Rochester, N. Y., and the notice of said declaration sent by registered mail to the said Crystal Tablet Company having been returned undelivered, notice is hereby given to the said Crystal Tablet Company, its assigns or legal representatives, that if they or any of them desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall have been entered at the expiration of the period of publication, the interference will proceed as in case of default.

C. C. BILLINGS. *Acting Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 30, 1909.

William McGlaughlin, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The Crystalene Mfg. Company, of 3100 Archwood avenue, Cleveland, Ohio, for registration of a trade-mark and trade-marks registered to William McGlaughlin, of Sharpsburg, Pa., and the Crystal Tablet Company, of Rochester, N. Y., and the notice of said declaration sent by registered mail to the said William McGlaughlin having been returned undelivered, notice is hereby given to the said William McGlaughlin, his assigns or legal representatives, that if they or any of them desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall have been entered at the expiration of the period of publication, the interference will proceed as in case of default.

C. C. BILLINGS, *Acting Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 23, 1909.

George W. Prangle, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of G. H. Mullen, of Guyandotte, W. Va., for registration of a trade-mark and trade-marks registered to George W. Prangle, of 555 Broadway, Council Bluffs, Iowa, and James K. Neagley, of Wilkes-Barre, Pa., and the notice of said declaration sent by the Patent Office by registered mail to the said George W. Prangle having been delivered to Mrs. G. W. Prangle, and the attorney of record for said George W. Prangle having advised the Office that said Prangle is deceased and that his widow does not desire to take further account of this matter, notice is hereby given to the said George W. Prangle, his assigns or legal representatives, that if they or any of them desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents in order that the notice of declaration of this interference may be forwarded to them.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall be entered at the expiration of the period of publication, the interference will be proceeded with as in case of default.

C. C. BILLINGS, *Acting Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 23, 1909.

James K. Neagley, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of G. H. Mullen, of Guyandotte, W. Va., for registration of a trade-mark and trade-marks registered to George W. Prangle, of 555 Broadway, Council Bluffs, Iowa, and James K. Neagley, of Wilkes-Barre, Pa., and the notice of said declaration sent by the Patent Office by registered mail to the said James K. Neagley having been returned by the Post-Office Department, notice is hereby given to the said James K. Neagley, his assigns or legal representatives, that if they or any of them desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents in order that the notice of declaration heretofore sent by and returned to the Office may be forwarded to them.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall be entered at the expiration of the period of publication, the interference will proceed as in case of default.

C. C. BILLINGS, *Acting Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 11, 1909.

George D. Nichols, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Ella A. Silloway, of No. 1 West Thirty-fourth street, New York, N. Y., for registration of a trade-mark and two trade-marks registered to George D. Nichols, of 378 Canal street, New York, N. Y., and the notice of said declaration sent by the Patent Office by registered mail to the said George D. Nichols having been returned by the Post-Office Department, notice is hereby given to said George D. Nichols, his assigns or legal representatives, that if they or any of them desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents in order that the notice of declaration heretofore sent by and returned to the Office may be forwarded to them.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall be entered at the expiration of the period of publication, the interference will be proceeded with as in case of default.

C. C. BILLINGS, *Acting Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 9, 1909.

Frederick H. Hammer, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of C. E. Sears & Company, of Circleville, Ohio, for registration of a trade-mark and trade-marks registered to Frederick H. Hammer, of 215 Davis street, San Francisco, Cal.; Jane M. McMurray, of Frederick, Md., and Augustus W. Kriete, of Dunnsville, Va., respectively, and the notice of said declaration sent by the Patent Office by registered mail to the said Frederick H. Hammer having been delivered to Hammer & Company, who are not of record in connection with the registration of Frederick H. Hammer, and no record evidence that Hammer & Company are the successors to the trade-mark rights of Frederick H. Hammer having been filed, and the time allowed by the Office for filing such evidence having passed, the situation in this case is practically the same as in those cases where the post-office is unable to deliver the notice of interference to the registrant, and notice is therefore hereby given to said Frederick H. Hammer, his assigns or legal representatives, that if they or any of them desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents in order that the notice of declaration of the interference may be sent to them.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall be entered at the expiration of the period of publication, the interference will be proceeded with as in case of default.

C. C. BILLINGS, *Acting Commissioner.*

THE
OFFICIAL GAZETTE
OF THE
United States Patent Office.

[BY AUTHORITY OF CONGRESS.]

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ISSUE OF NOVEMBER 30, 1909.

Patents	692	No. 941,353 to No. 942,044, inclusive.
Designs	11	No. 40,372 to No. 40,382, inclusive.
Trade-Marks	68	No. 75,916 to No. 75,983, inclusive.
Labels	1	No. 15,070.
Reissues	1	No. 13,047.
Total	773	

TO CITIZENS OF THE UNITED STATES.

States.	Patents and Designs.	Trade-Marks and Labels.	States.	Patents and Designs.	Trade-Marks and Labels.
Alabama		2	Ohio	46	5
Arkansas	1		Oklahoma	6	
California	31	9	Oregon	6	
Colorado	10		Pennsylvania	89	5
Connecticut	20	1	Rhode Island	6	1
Delaware	2		South Carolina	1	
Florida	1		South Dakota	4	2
Georgia	1	1	Tennessee	10	
Idaho	4		Texas	5	1
Illinois	48	4	Utah	1	
Indiana	11		Vermont	3	
Iowa	10		Virginia	8	
Kansas	6		Washington	7	
Kentucky	4	1	West Virginia	3	
Louisiana	5		Wisconsin	16	
Maine	2	1	Wyoming		
Maryland	5	2			
Massachusetts	51	2	Alaska, District of		
Michigan	31	4	Arizona Territory		
Minnesota	11	3	District of Columbia	5	
Mississippi	1		Hawaii Territory		
Missouri	13		New Mexico Ter'y		
Montana	3		Panama		
Nebraska	7	1	Philippine Islands		
Nevada			U. S. Army		
New Hampshire	3		U. S. Navy		
New Jersey	33	3			
New York	104	14	Total to citizens of the United States	640	62
North Carolina	3				
North Dakota	3				

TO CITIZENS OF FOREIGN COUNTRIES.

Countries.	Patents and Designs.	Trade-Marks.	Countries.	Patents and Designs.	Trade-Marks.
Argentina			Netherlands	2	
Austria-Hungary	3		Newfoundland		
Belgium	2		New South Wales	1	
Brazil		1	New Zealand	1	
British West Indies			Norway		
Canada	5		Persia		
Cape Colony			Queensland		
Chile			Russia		
China			Scotland		
Costa Rica			South Australia		
Cuba			Spain		
Denmark			Sweden	2	
Ecuador			Switzerland		1
England	19		Tasmania		
France	8	1	Transvaal, South Africa		
Germany	17	3	Victoria	2	
Haiti			Western Australia		
Ireland					
Italy	1	1	Total to citizens of foreign countries	63	7
Japan					
Mexico					

Changes in Classification.

(ORDER No. 1,829.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., November 11, 1909.

The following changes in the classification of inventions are hereby directed, to take effect immediately:

In Division II, class 131, Tobacco, establish subclass—

61. Cigar banding.

In Division IX, class 182, Sewerage, abolish subclass—

6. Mechanical treatment,

the patents therein having been transferred to appropriate subclasses in classes 182, Sewerage: 71, Fertilizers, and 210, Water Purification.

In Division XXVI, class 172, Electricity, Motive Power, establish subclass—

285. Electromagnetic guns.

This subclass is limited to apparatus adapted by magnetic attraction or repulsion acting directly upon a projectile to propel and discharge said projectile.

(Note.—Search for devices of this character in class 191, ELECTRICITY, ELECTRIC RAILWAYS, subclass 24, Electric locomotives, motor part along track.)

In Division XXXIV, class 105, Railway Rolling Stock, establish subclasses—

Cars—

265. Automatic door locks,
Vestibule—
266. Curtain releasers.

In Division XXXIX, class 137, Water Distribution, abolish subclass—

Mains and pipes—

74. Fish-guards,

the patents therein having been transferred to class 210, Water Purification, subclass 16, Filters, strainers.

EDWARD B. MOORE,
Commissioner.

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business November 23, 1909.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended.	No. of applications awaiting action.
313	1. Fences; Harrows and Diggers; Plows; Seeders and Planters; Trees, Plants, and Flowers.	Sept. 21	Oct. 18	425
128	2. Aeronautics; Bee Culture; Dairy; Label-Affixers; Paper Files and Binders; Pneumatic Despatch; Pneumatics; Presses; Store-Service; Tobacco.	July 1	Aug. 5	794
175	3. Annealing and Tempering; Coating with Metal; Electrochemistry; Metal-Founding; Metallurgy; Shaping Fluid Metal.	Oct. 18	Nov. 10	151
232	4. Bridges; Conveyers; Cranes and Derricks; Excavating; Hoisting; Hydraulic Engineering; Loading and Unloading; Metallic Building Structures.	Aug. 5	Oct. 11	719
167	5. Bookbinding; Harvesters; Jewelry; Music.	Aug. 19	Sept. 10	543
318	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Medicines; Preserving; Sugar and Salt.	Sept. 20	Oct. 1	386
312	7. Educational Appliances; Clutches; Games and Toys; Mechanical Motors; Nut and Bolt Locks; Optics; Velocipedes.	Oct. 1	Oct. 14	460
131	8. Beds; Chairs; Furniture; Kitchen and Table Articles; Store Furniture.	Aug. 7	Oct. 20	442
142	9. Air and Gas Pumps; Fire-Extinguishers; Hydraulic Motors; Pumps; Sewerage; Wind-Wheels.	July 10	Oct. 25	466
332	10. Carriages and Wagons.....	Sept. 18	Oct. 4	593
154	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus.	Oct. 2	Oct. 6	333
324	12. Elevators; Journal-Boxes, Pulleys, and Shafting; Lubrication; Machine Elements.	Oct. 7	Oct. 9	540
329	13. Arms, Projectiles, and Explosive Charges, Making; Metal-Working, Etc.	Aug. 2	Oct. 25	463
307	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Metal-Ornamenting; Sheet-Metal Ware, Making; Tools; Wire-Working.	Aug. 2	Oct. 26	461
308	15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Sheets and Fabrics; Liquid Coating Compositions; Paper-Making; Plastic Block and Earthenware Apparatus; Plastic Compositions; Plastics.	Sept. 9	Nov. 10	581
109	16. Telegraphy; Telephony.....	July 12	Sept. 29	307
303	17. Linotyping; Matrix-Making; Paper Manufactures; Printing.	Sept. 4	Oct. 15	236
327	18. Injectors and Ejectors; Steam and Vacuum Pumps; Steam-Boilers; Steam-Engines; Steam-Engine Valves.	Aug. 31	Aug. 31	350
236	19. Dampers, Automatic; Furnaces; Heat-Distributing Systems; Stoves and Furnaces.	Oct. 5	Sept. 25	332
179	20. Artificial Limbs; Builders' Hardware; Dentistry; Locks and Latches; Safes; Undertaking.	Oct. 6	Sept. 23	263
112	21. Brakes and Gins; Carding; Cloth-Finishing; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving.	Aug. 5	Oct. 18	476
249	22. Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Firearms; Marine Propulsion; Ordnance; Railway-Rails and Joints; Railway-Ties and Fasteners; Ships.	Sept. 11	Oct. 2	282
379	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Time-Controlling Mechanism.	Sept. 7	Oct. 9	391

Applications Under Examination—Continued.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended.	No. of applications awaiting action.
144	24. Apparel; Apparel Apparatus; Electricity, Medical and Surgical; Sewing-Machines; Surgery.	Oct. 9	Oct. 25	429
312	25. Butchering; Mills; Threshing; Vegetable Cutters and Crushers.	Oct. 26	Nov. 1	250
106	26. Electric Heating and Rheostats; Electric Railways; Electricity, Generation; Motive Power.	June 15	Sept. 28	683
372	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus.	Oct. 11	Oct. 9	372
382	28. Internal-Combustion Engines; Miscellaneous Heat-Engine Plants.	Oct. 1	Oct. 1	435
147	29. Coopering; Fire-Escapes; Ladders; Roofs; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking-Tools.	Aug. 14	Oct. 1	529
152	30. Fluid-Pressure Regulators; Illuminating-Burners; Liquid and Gaseous Fuel Burners; Type-Writing Machines.	Oct. 2	Nov. 5	228
172	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue; Water Purification.	Sept. 20	Oct. 15	250
278	32. Carbonating Beverages; Dispensing Beverages; Dispensing-Cans; Fine Arts; Packaging Liquids; Refrigeration.	Sept. 24	Oct. 25	229
164	33. Cutlery; Domestic Cooking Vessels; Electric Signaling; Masonry and Concrete Structures; Paving; Tents, Canopies, Umbrellas, and Canes.	Aug. 30	Oct. 2	486
304	34. Railways; Railway-Brakes; Railway Rolling-Stock.	Oct. 7	Nov. 8	153
244	35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Garment-Supporters; Toilet.	Sept. 22	Oct. 25	760
264	36. Curtains, Shades, and Screens; Drafting; Driers; Engraving; Measuring Instruments; Photography.	Aug. 11	Aug. 21	804
107	37. Electric Lighting; Electricity, Conductors; Electricity, General Applications.	Aug. 10	Sept. 4	698
378	38. Artesian and Oil Wells; Bottles and Jars; Care of Live Stock; Fishing and Trapping; Stationery; Stone-Working.	July 15	Oct. 14	853
321	39. Baths and Closets; Water Distribution.	July 9	Oct. 4	649
280	40. Baggage; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Lighting-Fixtures; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	July 1	Oct. 15	698
125	41. Railway Draft Appliances; Resilient Tires and Wheels.	July 9	Oct. 8	627
279	42. Railway Signaling; Signals....	July 19	Oct. 25	219

Oldest new case, June 15; oldest amended, Aug. 5.

Total number of applications awaiting action..... 19,346

161	TRADE-MARKS AND DESIGNS:			
	Trade-Marks.....	Oct. 25	Nov. 16	529
	Designs.....	Oct. 27	Nov. 13	92

Notice.

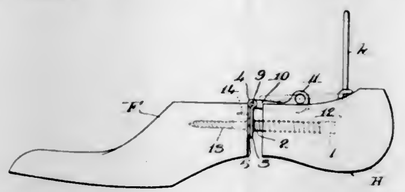
Decision leaflets of the OFFICIAL GAZETTE are sold as a separate publication—

Single numbers..... 5 cents
Subscription per year..... $2.00

PATENTS

GRANTED NOVEMBER 30, 1909.

941,353. SHOE TREE OR FORM. WILLIAM H. BAYNARD, Boston, Mass., assignor to A. E. Little & Company, Lynn, Mass., a Firm. Filed Aug. 9, 1909. Serial No. 511,875.



1. A shoe-tree or form comprising a fore part and a heel part, a pivotal connection between them, means to vary the effective length of the tree by relative rotation of the fore and heel parts, and a locking device to prevent such rotative movement and thereby maintain the fore and heel parts in longitudinal adjustment while permitting swinging movement of one relatively to the other.

2. A shoe-tree or form comprising a fore part and a heel part, a transverse pivotal connection between them, means to vary the effective length of the tree by axial rotation of one of its parts relatively to said connection, and means to lock said part from such axial rotation and maintain the longitudinal adjustment of the tree.

3. A shoe-tree or form comprising a fore part and a heel part, a pivotal connection fixedly attached to one and having a longitudinally adjustable connection with the other of said parts, to vary the effective length of the tree, and means to positively lock such latter part of the tree and the pivotal connection in adjusted relation.

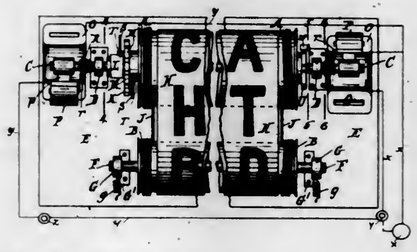
4. A shoe-tree or form comprising a fore part and a heel part, a transverse hinged connection between them, fixedly attached to one of said parts, the other part having a longitudinal, threaded hole therein, a threaded spindle fixedly secured to the hinged connection and adapted to screw into said hole, whereby rotation of one part of the tree relatively to the other part will vary the effective length of the tree, and means to lock the parts from relative rotation.

5. A shoe-tree or form comprising a fore part and a heel part, a hinge connection therebetween comprising a member fixedly secured to one of said parts, a pivotally connected member having a threaded spindle rigidly extended therefrom, and a swinging, locking arm fulcrumed on the pivot of the hinge connection, the other part of the tree having a longitudinal, threaded hole in its face and a longitudinal locking seat in its top, to receive the locking arm, the spindle being adapted to screw into the threaded hole.

[Claims 6 and 7 not printed in the Gazette.]

941,354. INDICATOR. ALFRED J. BORDER, Wellington, New Zealand, assignor of one-half to Lucy Maude Coventry, Wellington, New Zealand. Filed May 10, 1906. Serial No. 316,080.

1. In indicators of the class herein described comprising a drum to be intermittently rotated in either direction, a spindle upon which the drum is loosely mounted, a pair of pawls upon the outer end of such arm extending in opposite directions to each other, a toothed wheel at one end of the drum, and with the periphery of which the pawls engage, a pair of metal core pieces of arc form secured to the spindle and extending outward therefrom in opposite directions, a pair of electrical solenoids of correspondingly arc form into which the respective core pieces enter and are adapted to be drawn and means whereby the solenoids may be separately energized as required, substantially as specified.



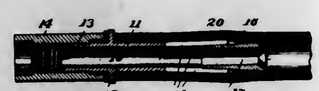
2. In indicators of the class herein described comprising a drum to be intermittently rotated in either direction, a spindle upon which the drum is loosely mounted, an arm secured to the spindle, a pair of pawls upon the outer end of such arm extending in opposite directions to each other, a toothed wheel at one end of the drum, and with the periphery of which the pawls engage, a pair of metal core pieces of arc form secured to the spindle and extending outward therefrom in opposite directions, a pair of electrical solenoids of correspondingly arc form into which the respective core pieces enter and are adapted to be drawn and means whereby the solenoids may be separately energized as required, substantially as specified.

3. In indicators of the class herein described, comprising a drum to be intermittently rotated in either direction, a spindle upon which the drum is loosely mounted, a pair of electrical solenoids of arc form and provided with means for electrically energizing either of them at will, a pair of metal core pieces secured to the spindle and adapted to enter the respective solenoids and to be drawn therein when such are energized, springs adapted to be placed in tension when the spindle is rotated in either direction so as to return it to its normal position when released, and means whereby the rotatory movement given the spindle, may be imparted to the drum mounted upon it, substantially as herein specified.

4. In indicators of the class herein described comprising a drum to be intermittently rotated in either direction, a toothed wheel at one end of the drum, a spindle passing loosely through the drum, an arm secured to the spindle, a pair of pawls pivoted upon the outer end of such arm extending in opposite directions from each other, and kept normally in engagement with the peripheral face of the toothed wheel, a pair of plates of semi-circular form arranged one on each side of the toothed wheel and curving in opposite directions to each other, and the outside edges of which plates are arranged to lie in the same plane as the periphery of the toothed wheel, a projection upon the edge of each plate projecting beyond the plane of the teeth on such wheel, a pin projecting laterally from each pawl and resting upon the edge of the respective plate, and means whereby the arm carrying the pawls may be given a partial rotatory movement in either direction, substantially as specified.

5. In indicators of the class herein described, a spindle, a drum loosely mounted thereon, means to partially rotate said spindle and intermittently revolve the drum, a pair of arms loosely mounted upon the spindle, a pair of springs wound upon the spindle in opposite directions to each other and each having one end secured to the spindle, and its other end secured to one of said arms and bars connected with the spindle and adapted to engage with said arms upon movement of the spindle in one direction only, substantially as herein specified.

941,355. EXPANSION-COUPLING FOR HOSE. HOMER C. BOSTIAN, Milton, Pa., assignor of one-third to Benjamin Budd Cannon and one-third to J. Edward Hastings and Penn G. Hastings, Milton, Pa. Filed Mar. 26, 1909. Serial No. 485,962.



1. A pipe coupling comprising an expansible shank adapted to be inserted in the pipe, and means forming a part of the coupling to expand said shank.

2. A pipe coupling comprising a hollow expansible shank, and means located within the shank and forming a part of the coupling to expand the same.

3. A pipe coupling comprising a hollow expansible shank having on its inside surface a tapered portion, and a plug coöperating with said tapered portion to expand the shank.

4. A pipe coupling comprising a hollow expansible shank having on its inside surface a tapered portion, and a conical plug coöperating with the tapered portion to expand the shank.

5. A pipe coupling comprising a hollow expansible shank interiorly threaded, and means engaging the threads to expand the shank.

[Claims 6 to 12 not printed in the Gazette.]

941,356. BOX OR CONTAINER. JOHN F. BYRNE, Battle Creek, Mich. Filed Aug. 9, 1909. Serial No. 511,941.

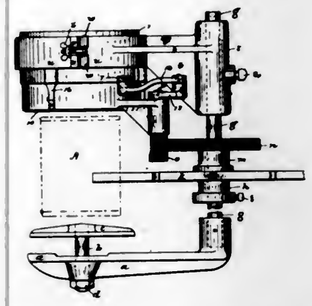


1. A box having side wall portions provided with extensions or flaps adapted to form the top and bottom of the box, said side wall portions and flaps being formed of a blank comprising outer and inner layers of paper and a layer of burlap disposed between them, said layers of paper and burlap being cemented together, said blank being crushed along the folding lines thereof, whereby said inner and outer layers are rendered flexible and coacting with said interposed layer form flexible connections for the several parts of the blank.

2. A container or box blank comprising two layers of paper, and a layer of burlap disposed between them, said layers of paper and burlap being cemented together, said blank being crushed along the folding lines thereof, whereby said layers of paper are rendered flexible and coact with said interposed layer of burlap to form flexible connections for the several parts of the blank.

3. A box blank comprising outer and inner layers of paper and a layer of burlap disposed between them, said layers of burlap and paper being cemented together, said blank being crushed inwardly and offset along the folding lines thereof, whereby said inner and outer layers of paper, coacting with said interposed layer of burlap, form flexible connections for the several parts of the blank.

941,357. CAN-CAP DROPPER. ELMER M. COBB, South Portland, Me., assignor to Edward M. Lang, Jr., Portland, Me. Filed Feb. 23, 1907. Serial No. 358,844.



1. The combination of means for supporting a column of objects to be fed one at a time, devices for separating the lowest object in said column from the rest, means for movably supporting said separated object, mechanism for moving the parts of said supporting means away from each other, and thereby allowing said separated object to drop through said means at a predetermined time and traveling means for operating said mechanism, substantially as described.

2. The combination of means for supporting a column of objects and feeding them one at a time, and means for carrying articles which set in motion the said feeding mechanism, said supporting and feeding mechanism including means for supporting a column of objects to be fed one at a time, means for separating the lowest object in said column from the rest of the column, movable devices for supporting said separated object, and means for operating said movable devices at the proper time, allowing the separated object to fall, substantially as described.

3. The combination of means for supporting a column of objects and feeding them one at a time, and a movable carrier adapted to carry articles which set in motion the feeding devices, said feeding devices including means for separating the lowest one of said column of objects from said column, movable supports or wings for holding said separated object, and means for separating said movable supports or wings, thereby allowing the separated object to drop at the proper time, substantially as described.

4. The combination of means for supporting a column of caps and for feeding them one at a time, and an endless carrier for carrying cans which set in motion said feeding devices, said feeding devices including means for separating the lowest cap from the column, a plurality of movable valves or wings for supporting the separated cap, and means for moving said valves at the proper time allowing the separated cap to drop, substantially as described.

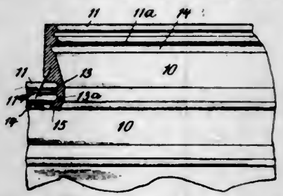
5. The combination of a carrier whereby cans or other objects may be advanced at intervals, two or more valves located above said carrier, means whereby a cap or other object may be held until over the desired portion of said can or other object and means operated by the advance of a can whereby said valves may be opened automatically to permit said cap or other object to drop upon the desired portion of said can or other object and then closed, substantially as described.

[Claims 6 to 12 not printed in the Gazette.]

941,358. SIDING. IRA S. CONOVER, North Tarrytown, N. Y. Filed Oct. 9, 1908. Serial No. 456,872.

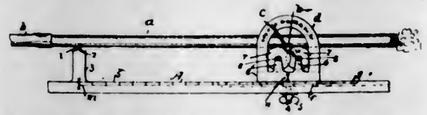
Siding composed of strips each provided with a pair of parallel longitudinal ribs or beads 11—11ª projecting from the front face near one edge of the strip, the said ribs being spaced apart, and with a portion 14 recessed below the face of the strip in proximity to the rib or bead 11ª, the said strip being further provided at the rear thereof, near

the diagonally opposite edge, with an undercut portion having recesses for receiving the said ribs of an adjacently



disposed strip, and an overhanging rib 15 for entering the recess 14 therein.

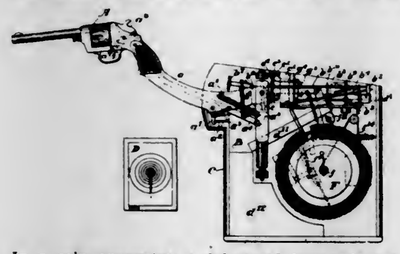
941,359. MEASURING APPARATUS. GEORGE A. COWEN, Boston, Mass. Filed Jan. 11, 1909. Serial No. 471,569.



1. A device to indicate the coefficient of linear expansion of a metal rod, said device comprising two supports both of which have exposed upper surfaces with which the rod may be operatively engaged by laying it on said supports, one of the supporting surfaces being fixed and adapted to engage one portion of the rod to hold it against longitudinal movement, the other supporting surface being movable to be actuated by frictional engagement with another portion of the rod and having an indicator operatively connected therewith.

2. A device to indicate the coefficient of linear expansion of a metal rod, said device comprising two supports both of which have exposed upper surfaces with which the rod may be operatively engaged by laying it on said supports, one of the supporting surfaces comprising a fixed standard having a sharp edge to engage one portion of the rod to hold it against longitudinal movement, the other supporting surface comprising a plurality of rotatably mounted disks and an axle provided with a pointer and resting on said disks, and a scale to coöperate with said pointer.

941,360. COIN-CONTROLLED TARGET-PRACTICE APPARATUS. HENRY H. CUMMINGS, Malden, Mass., assignor to Sub-Target Gun Company, Saco, Me., a Corporation of Maine. Filed Aug. 10, 1903. Serial No. 168,907.



1. In a coin apparatus, a fulcrumed lever adapted to receive an inserted coin and to be oscillated thereby, means for normally holding it in coin receiving position, a vibratory member, a pivoted locking device normally acting to prevent movement thereof, and a connection between the same and said lever, the latter being actuated by the movement of said lever to operate said locking device for locking or unlocking said vibratory member.

2. In a coin controlled apparatus, a pivoted lever having a coin receiving means at one end and a counterbalance at the other, the latter normally operating to hold the former in coin receiving position, a reciprocatory member, an actutator therefor and normally in engagement therewith, an oscillatory locking device normally operating to hold the latter in inoperative position and a link connecting said locking member and said coin receiving lever and for transmitting motion of the latter to the former.

3. In a coin controlled apparatus, a casing having a coin passage, a pivoted counterbalance lever adapted to receive and carry a coin at one end and having a counterbalance at the other for normally holding the coin receiving end in position to receive a coin from said passage, a fulcrum pin on which said lever is mounted, a pin on said lever below its fulcrum and a spring secured to the casing at one end and inserted loosely through the said pins, and an operating member connected with the lower pin and movable therewith, said spring coöperating with said counterbalance in returning the lever to its normal coin receiving position.

4. In a coin controlled apparatus, a casing having a coin passage, a pivoted counterbalance lever adapted to receive and carry a coin at one end and having a counterbalance at the other for normally holding the coin receiving end in position to receive a coin from said passage, a fulcrum pin on which said lever is mounted, a pin on said lever below its fulcrum and a spring secured to the casing at one end and inserted loosely through the said pins, and means for adjusting the casing end of said spring, the latter coöperating with said counterbalance in returning the lever to its normal coin receiving position.

5. The combination with a pivoted coin or check-receiving lever, counter-balancing means for one end thereof tending to turn the coin-receiving portion to a coin-receiving position, means interposing a resistance to movement of said lever to a fully depressed position when a coin or check is deposited therein to permit a partial depression thereof only, an independently movable latching device adapted to be moved by said lever on its movement to a partly depressed position, and means subsequently to move said lever to a fully depressed position.

[Claims 6 to 9 not printed in the Gazette.]

941,361. COMPOSITION FOR DRESSING TEXTILE STOCK. EMMANUEL DATH, Newton, Mass. Filed Apr. 7, 1909. Serial No. 488,469.

1. A composition of materials comprising soap, oil and glycerin in approximately equal parts, and water in quantity greater than the total of soap, oil and glycerin, the whole forming a liquid suitable for dressing textile stock.

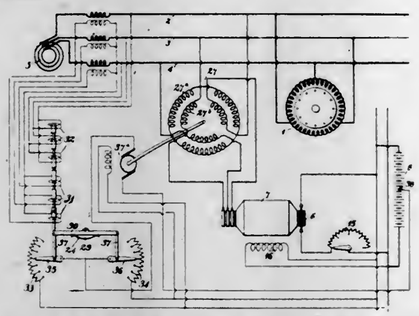
2. The process of making a composition comprising the boiling of soap with a quantity of water exceeding the soap; the slow addition of oil and of glycerin to the liquor while hot; cooling; the addition of a trifling quantity of ammonia; and the addition of water till the total of water exceeds the total of other ingredients; all additions being accompanied by thorough mixing of the liquor, and mixing and addition of water being continued until the liquor is free from thick parts and suitable for dressing textile stock.

3. The process of making a composition comprising the use of ingredients in approximately the following proportions, viz., hard soap, ten per cent.; olive oil, fifteen per cent.; glycerin, ten per cent.; ammonia, two per cent.; water, sixty-three per cent.; by boiling the soap in half the water until dissolved; mixing the oil and the glycerin slowly into the liquor; cooling; mixing into the liquor the remainder of the water at a lukewarm temperature; adding the ammonia by drops; the mixing being continued until the liquor is free from thick parts, and the whole forming a liquid suitable for dressing textile stock.

941,362. SYSTEM OF ELECTRICAL DISTRIBUTION. RICHARD J. DEARBORN, Wilkinsburg, Pa., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed Dec. 3, 1906. Serial No. 346,071.

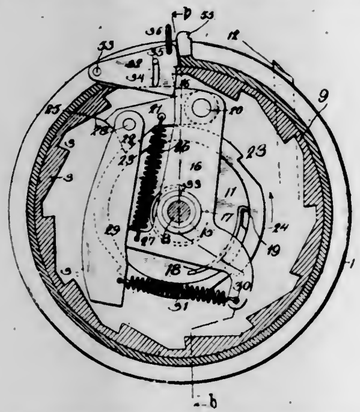
1. In a system of distribution, the combination with a polyphase alternating current circuit, a rotary converter

and a storage battery connected thereto, of a voltage regulator connected to the circuit and to the rotary converter, an operating motor for varying the ratio of transformation in the regulator, and means dependent upon the mean current variations in the several conductors of said circuit above and below a predetermined amount for actuating the motor in its forward or in its reverse direction.



2. In a system of distribution, the combination with a polyphase alternating current circuit, a rotary converter a storage battery connected to the direct current terminals of the rotary converter and a voltage regulator interposed between the circuit and the alternating current terminals of the rotary converter, of an electric motor for operating the regulator and a resistance-regulator dependent upon the mean current variations of the circuit above and below a predetermined value for controlling the motor.

941,363. TROLLEY-CATCHER. CHARLES I. EARLL, New York, N. Y. Filed Sept. 30, 1903. Serial No. 175,123.



1. In a trolley catcher the combination with a rotatable drum adapted to receive the trolley rope and automatic means for checking the rotation of said drum, of means for manually rendering said automatic means inoperative whereby said drum may be quickly rotated without being automatically checked.

2. In a trolley retriever the combination with three relatively movable members, one constituting a drum another a normally stationary member and another an intermediate member, and a power spring having one end attached to the intermediate member and the other end to one of the other of said members, of means for releasing said normally stationary member to permit it to rotate.

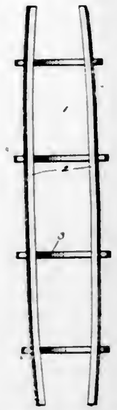
3. In a trolley retriever the combination with three relatively movable members, one constituting a drum, another a normally stationary member rotatably mounted and another an intermediate member, and a power spring having one end attached to the intermediate member and the other end to one of the other of said members, means for holding said stationary member against rotating and means for releasing said normally stationary member to permit it to rotate under the action of the power spring to free the drum from the action of said power spring.

4. In a trolley-retriever, the combination with a winding drum, of a spring normally under stress, having its one end in fixed and its other end in releasable engagement with said drum, means for freeing said releasable end from said drum and engaging it with a stationary member and means for freeing said releasable end from said stationary member.

5. In a trolley-retriever, the combination with a winding drum, of a spring normally under stress, means for causing said spring to act upon said drum to wind a trolley-rope thereon and means for releasing said spring from stress independent of said drum.

[Claims 6 to 31 not printed in the Gazette.]

941,364. CONVEYER. FRANK EBERHART, New York, N. Y. Filed Jan. 21, 1909. Serial No. 473,555.



1. A conveyer comprising two skids constructed of T-iron, a series of braces connecting the same, said braces being arranged at intervals, said skids diverging from both ends toward the center and being provided with a dip, substantially as described.

2. A conveyer comprising two skids constructed of T-iron, a series of braces connecting the same, said braces being arranged at intervals, said skids diverging from both ends toward the center.

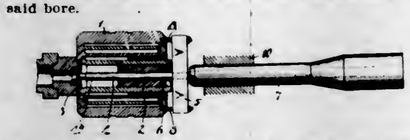
3. A conveyer comprising two skids, a series of braces or supports connecting the same, said skids diverging toward the center from both ends.

4. A conveyer comprising two skids, means for bracing and supporting the same, said skids diverging from both ends toward the center.

5. A conveyer comprising a runway to receive an article to be conveyed, the supporting surfaces of said runway diverging from both ends of the conveyer toward the center thereof.

941,365. MEANS FOR EXTRUDING HOLLOW BODIES. ADELBERT P. HINE, Waterbury, Conn., assignor to Coe Brass Manufacturing Company, Waterbury, Conn., a Corporation of Connecticut. Filed Jan. 9, 1909. Serial No. 471,415. Renewed Oct. 4, 1909. Serial No. 520,971.

1. In a machine for producing hollow tubular bodies, a container having a bore therein, a die carried by said container in line with said bore, a mandrel, means for holding said mandrel in said container, a dummy or follower slidably fitting said mandrel and the wall of said bore, and a plunger arranged to engage the rear of said dummy or follower to force said dummy forwardly on said mandrel and in said bore.



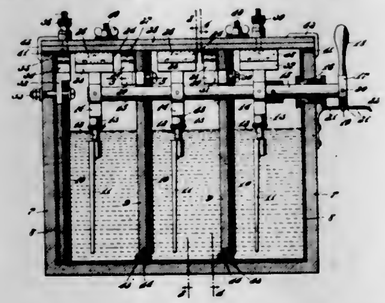
2. In a machine of the character described, a container having a bore therethrough, a die arranged in line with said bore, a mandrel, a bracket for holding the same within said bore and arranged to coöperate with said die, a dummy slidably fitting said mandrel and the wall of said bore, and a power driven plunger movable independently of said mandrel and bracket, and arranged to engage and force said dummy forwardly.

3. In a machine of the character described, a container having a bore therein, a die in line with said bore at the outlet end thereof, a power driven plunger, a mandrel independent thereof and arranged to coöperate with said die, a bracket for holding said mandrel against longitudinal movement and in coöperative relation with said die, and a dummy or follower having a sliding fit on said mandrel and within said bore, said plunger coöperating with said follower for the purpose described.

4. In a machine of the character described, a container having a bore of uniform cross-sectional size, a die at the outlet end of said bore having a passage of suitable outline, a mandrel having a forward removable end of a suitable cross-sectional outline adapted to coöperate with said die, means for holding said mandrel in coöperative relation with said die, a power driven plunger independent of said mandrel, a follower having a sliding fit upon said mandrel and a sliding fit with the wall of said bore, and arranged to be moved forwardly by said plunger.

5. In a machine for extruding hollow bodies, a container having a bore therein, a die carried by said container in line with said bore, a mandrel arranged to coöperate with the die, and means for holding said mandrel in coöperative relative relation thereto, a dummy or follower slidable within the container and upon the mandrel and operating as a closure for the space around said mandrel within the die, and means to force said dummy or follower toward the die, independently of the mandrel.

941,366. PRIMARY BATTERY. CHARLES E. HITE, Burlington, N. J. Filed Apr. 15, 1907. Serial No. 368,194.



1. In a primary battery, the combination of a receptacle provided with a hard rubber lining, said lining provided with a plurality of parallel channels on three sides of the receptacle, a plurality of partitions loosely seated in said channels, and a sealing material for sealing said partitions in said channels.

2. In a primary battery, the combination of a receptacle divided into a number of compartments by vertical parallel partitions of high electrical resistance, a hard rubber rod passing through said compartments and extending outside of the receptacle through a stuffing box, a plurality of soluble plates constituting electrodes supported by said rod, and means for rotating the rod to move the electrode into and out of the electrolyte as desired.

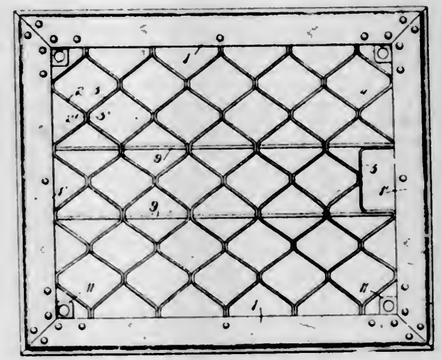
3. In a primary battery, the combination of a receptacle divided into a number of compartments by vertical parallel partitions of high electrical resistance, a pair of electrodes in each receptacle, a longitudinally movable rod of non-conducting material projecting through said compartments and extending to the exterior of the receptacle, one of each pair of said electrodes supported by said rod, means for moving said rod longitudinally to bring the pairs of electrodes nearer together or farther apart as desired, and means for securing said rod in different positions of adjustment.

4. In a primary battery containing a plurality of positive electrodes tapering toward their lower ends, electrode-supporting members having threaded ends, threaded thimbles for securing the electrodes thereto and flexible gaskets interposed between the thimbles and the electrode-supporting members.

5. A primary battery, comprising a receptacle containing a plurality of electrodes, a removable lid for said receptacle carrying upon its under side springs provided with aluminum terminals for making electrical connection between the several electrodes and between the terminal electrodes and the binding posts.

[Claims 6 and 7 not printed in the Gazette.]

941,367. REGISTER OR VENTILATOR. EDWARD D. HOUSE, New Britain, Conn., assignor to The Hart & Cooley Company, New Britain, Conn., a Corporation of Connecticut. Filed Feb. 15, 1906. Serial No. 301,133.

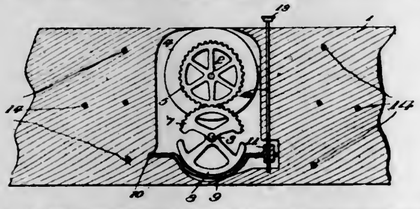


1. A register or ventilator comprising a broad flat frame, flanges depending therefrom, strips arranged on edges secured to two of said flanges and having openings between them forming air passages, and reinforcing bars or beams secured to the other flanges and running entirely underneath and supporting said strips.

2. A register or ventilator comprising a broad relatively flat frame portion, flanges riveted thereto and depending therefrom, strips set on edge and secured in said flanges upon opposite sides of said frame and having openings between them forming air passages, and reinforcing bars or beams secured to opposite flanges and running at right angles to said strips and entirely underneath but supporting the same.

3. A register or ventilator comprising four relatively flat frame members, plates riveted to the corners of said frame members uniting the same and forming attaching members, flanges depending from said frame members, strips arranged on edge and having openings between them forming air passages, and longitudinal means for supporting the central portions of said strips from the under side.

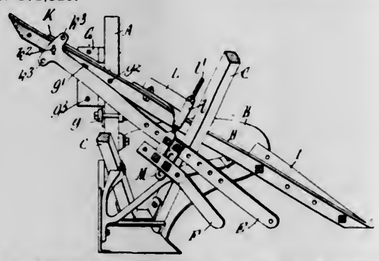
941,368. LEVEL. MICHAEL ICHTERTZ, Pescadero, Cal. Filed Jan. 27, 1909. Serial No. 474,500.



1. A level comprising a stock having a chamber formed centrally thereof and an opening in the upper edge of the same communicating with the chamber, a shaft transversely disposed in the upper end of the chamber of said stock, a cylindrical dial mounted on said shaft, a gear-wheel disposed at one end of the shaft, an arbor transversely positioned in the lower end of the chamber and said stock in vertical alinement with said shaft, a segment disposed on said arbor and meshed with said gear-wheel, and a pendent weight carried by said arbor adapted to normally hang in a vertical position irrespective of the angle of said stock to indicate upon said dial the angle of said stock.

2. A level comprising a chambered stock, a shaft transversely disposed in the upper end of the chamber, a dial carried by said shaft, a gear-wheel disposed on said shaft for rotating said dial, an arbor disposed in the lower end of the chamber in vertical alinement with said shaft, a segment carried by said arbor and meshed with said gear-wheel, an arcuate weight depending from said arbor to actuate said dial, a strip pivotally carried by said stock at the lower end of said chamber and having an arcuate portion to conform to the curvature of said weight, a boss disposed upon the free extremity of said strip having internal threads and a rod upwardly extended through said stock, said rod being disposed in threaded engagement with said boss for forcing said strip against said weight.

941,369. SPREADING ATTACHMENT FOR PLOWS. HAVEMEYER M. JACK, Tuscarora Indian Reservation, Niagara county, N. Y. Filed Jan. 21, 1909. Serial No. 473,520.



1. A furrow spreading and leveling attachment for plows, comprising a plurality of arms which are secured to the plow and extend in rear of the mold board obliquely to the direction of the furrow and at an inclination to the horizontal, with their ends lying in substantially the same horizontal plane and arranged one in advance of the other and at different distances from the furrow, substantially as set forth.

2. A furrow spreading and leveling attachment for plows, comprising a plurality of arms which are secured to the plow and extend in rear of the mold board obliquely to the direction of the furrow and at an inclination to the horizontal, with their ends lying in substantially the same horizontal plane, said attachment being adjustable as a unit to different positions upon the plow and said arms being separately and independently adjustable relative to each other to different inclinations to the horizontal, substantially as set forth.

3. The combination with the plow, of an attachment comprising a plurality of arms which extend in the rear of the mold board obliquely and at an inclination, means for securing one of said arms to the plow which permit endwise and angular adjustment of said arm upon the plow, the other arms of the attachment being secured to and supported by said arm, substantially as set forth.

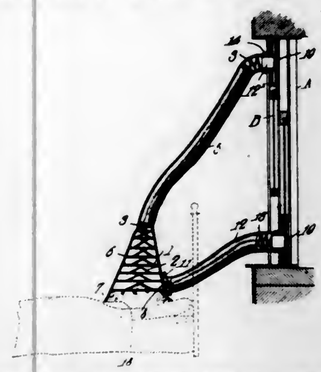
4. The combination with the plow, of an attachment comprising a plurality of arms which extend in the rear of the mold board obliquely and at an inclination, means for securing one of said arms to the plow which permit endwise and angular adjustment of said arm upon the plow, and means for connecting the other arms of the attachment to said first mentioned arm which permit endwise and angular adjustment of said arms relative to the said first mentioned arm, substantially as set forth.

5. The combination with the plow, of an attachment comprising a plurality of arms which extend in the rear of the mold board obliquely and at an inclination, means for pivotally connecting one of said arms to the plow, means for changing the elevation of the free end of said arm, and means for securing the other arms to said first mentioned arm and for adjusting them relative to said arm, substantially as set forth.

[Claim 6 not printed in the Gazette.]

941,370. FRESH-AIR CONVEYER. EMORY E. LAMB, Pulaski, Va. Filed May 4, 1908. Serial No. 430,775.

1. Apparatus of the character described comprising a hood, an outlet tube extending therefrom, and an inlet tube detachably connected to the hood, each tube and the hood comprising a frame and a removable casing.



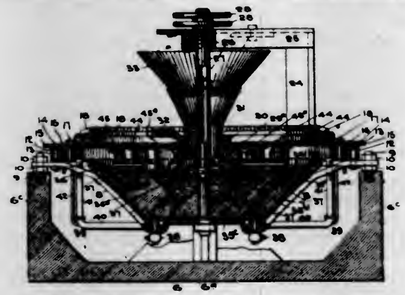
2. Apparatus of the character described comprising a hood, an outlet tube extending upwardly therefrom, an inlet tube detachably connected to the lower portion thereof, each tube and the hood comprising a flexible skeleton frame, and a covering therefor.

3. Apparatus of the character described comprising a hood, an inlet tube extending from the lower portion thereof, an outlet tube extending from the upper portion thereof, each tube and the hood consisting of spaced elastic rings, elastic connecting links between the rings, and a removable fabric casing.

4. Apparatus of the character described comprising a hood, inlet and outlet tubes extending therefrom each tube and the hood consisting of a spring skeleton frame and a casing removably mounted upon the frame, a thimble detachably secured within one end of each tube, and an apertured panel for the reception of each thimble.

5. Apparatus of the character described comprising a hood, flexible inlet and outlet tubes extending therefrom each tube consisting of spaced rings, spring connections therebetween, and a removable fabric casing surrounding the rings and connections, a thimble extending into one end of each tube, means for detachably securing each tube to its thimble, and an extensible panel having apertures for the reception of the respective thimbles.

941,371. AMALGAMATOR. MERRIT F. LANSDALE, Denver, Colo., assignor of one-half to Hiram G. Fowler, Denver, Colo. Filed Nov. 21, 1907. Serial No. 403,213.



1. In an amalgamator, a mercury receptacle having an outlet in its bottom portion and a substantially horizontal surface intermediate its upper edge and its bottom, the said surface being composed of a plurality of annular riffles and having openings intermediate the latter, in communication with the said outlet.

2. In an amalgamator, a mercury receptacle having an outlet in its bottom portion, a filling occupying the said receptacle in engagement with its sides, its upper surface extending below the upper edge thereof, the said filling having a plurality of channels leading from the said surface to the said outlet.

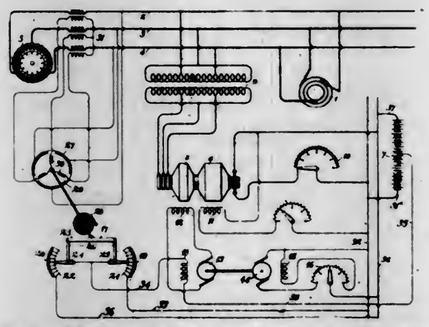
3. In an amalgamator, a mercury receptacle having an outlet in its bottom portion, a filling occupying the said receptacle, its upper surface extending below the edge thereof, the said filling comprising a conical core, and a surrounding portion, the engaging surfaces of which have downwardly ranging grooves.

4. In an amalgamator, a mercury receptacle having an outlet in its bottom portion, a filling occupying the said receptacle its upper surface extending below the edge thereof, the said filling comprising a conical core and a plurality of adjoining annuli, diamond shaped in cross section, the engaging surfaces of the said core and the said annuli having downwardly ranging grooves.

5. An amalgamator comprising in combination, a mercury receptacle, and a revoluble element having coöperative members respectively adapted to simultaneously size and stir matter disposed upon the surface of fluid contained in the said receptacle and to remove the upper portion of the said matter to the circumferential edge of the receptacle.

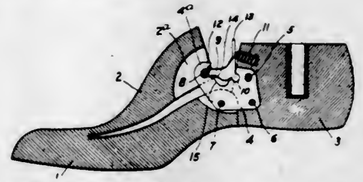
[Claims 6 to 12 not printed in the Gazette.]

941,372. SYSTEM OF ELECTRICAL DISTRIBUTION. PAUL M. LINCOLN, Pittsburg, Pa., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed Dec. 3, 1906. Serial No. 346,076.



The combination with an alternating current circuit, a rotary converter, a storage battery connected thereto, and a booster generator interposed between the circuit and the rotary converter, of a field magnet winding for the booster generator, an exciter generator therefor, a field magnet winding for the exciter, reversing means for said winding comprising two similar resistances connected to opposite ends of the storage battery, means for connecting the field magnet winding between a neutral point of the battery and intermediate points in the said resistances, and an operating motor for simultaneously varying the points of connections to the resistances in opposite directions, and current and voltage windings for the motor that are energized from the alternating current circuit.

941,373. LAST. HENRY F. LOEWER, Rochester, N. Y. Filed Apr. 23, 1909. Serial No. 491,779.



1. In a last, a heel block and a fore part hinged together, the fore part having a tilting instep block thereon provided with a vertical groove, a vertical plate attached to the heel block and having a portion extending into said groove, a pin passing transversely across said instep block, and a latch pivoted on said plate for engaging said pin and holding the last in the lasting position.

2. In a last, a heel block and a fore part hinged together, the fore part having a tilting instep block thereon provided with a vertical groove, a vertical plate attached to the heel block and having a portion extending into said groove and an abutment piece, a pin passing transversely across said instep block, and a latch pivoted on said plate for engaging said pin and holding it against the abutment piece when the last is in the lasting position.

3. In a last, a heel block and a fore part hinged together, the fore part having a tilting instep block thereon provided with a vertical groove, a vertical plate attached to the heel block and having a portion extending into said groove and a hooked abutment piece, a pin passing transversely across said instep block, and a latch pivoted on said plate for engaging said pin and holding it in the hooked abutment piece when the last is in the lasting position.

4. In a last, a heel block and a fore part hinged together, the fore part having a tilting instep block thereon provided with a vertical groove, a vertical plate attached to the heel block and having a portion extending into said groove and an abutment piece, a pin passing transversely across said instep block and over said plate, and a latch pivoted on said plate and extending over the pin for operating the instep block and for engaging the pin and holding the last in the lasting position.

5. In a last, a heel block and a fore part hinged together, the forepart having a tilting instep block thereon provided with a vertical groove, a vertical plate attached to the heel block and having a portion extending into said groove and a hooked abutment piece, a pin passing transversely across said instep block and over said plate, and a latch pivoted on said plate for operating the instep block and for engaging the pin and holding it in the hooked abutment piece when the last is in the lasting position.

941,374. FOLDING BABY-CARRIAGE. ANTHONY W. LOSHBOUGH, Sturgis, Mich., assignor to The Sturgis Steel Go-Cart Company, Sturgis, Mich. Filed Nov. 5, 1907. Serial No. 400,782.

1. The combination with the running gear frame, of a seat; wheels; wheel supports; a handle pivotally connected to said frame; levers pivoted on said frame, said levers being connected to said wheel supports whereby

said wheel supports are erected or collapsed; a pair of links for connecting said levers to said handle, said links being adapted to serve as side bars for said seat; a pair of upwardly-projecting brackets on said running gear frame; a pivot pin and a segment-engaging pin on each of said brackets; segment plates having slots therein adapted to receive said pivot pins and segments adapted to engage the said segment-engaging pins, whereby said plates are adjustably secured to said brackets; top bows arranged to embrace the said side bars of said seat, a pair of said bows being pivoted to said plates and provided with projecting arms at their lower ends adapted to engage the said brackets when the bows are collapsed for lifting the segments out of engaging position; and means for holding said bows in their extended position, said handle being adapted to fold between said brackets and said top bows when the structure is collapsed.



2. The combination with the running gear frame, of a seat; wheels; wheel supports; a handle pivotally connected to said frame; levers pivoted on said frame, said levers being connected to said wheel supports whereby said wheel supports are erected or collapsed; a pair of links for connecting said levers to said handle, said links being adapted to serve as side bars for said seat; a pair of upwardly-projecting brackets on said running gear frame; a pivot pin and a segment-engaging pin on each of said brackets; segment plates having slots therein adapted to receive said pivot pins and segments adapted to engage the said segment-engaging pins, whereby said plates are adjustably secured to said brackets; top bows, a pair of said bows being pivoted to said plates and provided with projecting arms at their lower ends adapted to engage the said brackets when the bows are collapsed for lifting the segments out of engaging position; and means for holding said bows in their extended position.

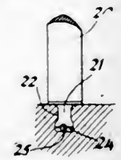
3. The combination with the running gear frame, of a seat; a handle pivotally connected to said frame; a pair of upwardly-projecting brackets on said running gear frame; a pivot pin and a segment-engaging pin on each of said brackets; segment plates having slots therein adapted to receive said pivot pins and segments adapted to engage the said segment-engaging pins, whereby said plates are adjustably secured to said brackets; top bows, a pair of said bows being pivoted to said plates and provided with projecting arms at their lower ends adapted to engage the said brackets when the bows are collapsed for lifting the segments out of engaging position; and means for holding said bows in their extended position, said handle being adapted to fold between said brackets and said top bows when the structure is collapsed.

4. The combination with the running gear frame, of a seat; a handle pivotally connected to said frame; a pair of upwardly-projecting brackets on said running gear frame; a pivot pin and a segment-engaging pin on each of said brackets; segment plates having slots therein adapted to receive said pivot pins and segments adapted to engage the said segment-engaging pins, whereby said plates are adjustably secured to said brackets; top bows, a pair of said bows being pivoted to said plates and provided with projecting arms at their lower ends adapted to engage the said brackets when the bows are collapsed for lifting the segments out of engaging position; and means for holding said bows in their extended position.

5. The combination with the running gear frame, of a seat; wheels; wheel supports; a handle pivotally connected to said frame; levers pivoted on said frame, said levers being connected to said wheel supports whereby said wheel supports are erected or collapsed; a pair of links for connecting said levers to said handle, said links being adapted to serve as side bars for said seat; a pair of upwardly-projecting brackets on said running gear frame; segment plates adjustably secured to said brackets; top bows arranged to embrace the said side bars of said seat, a pair of said bows being pivoted to said plates and provided with projecting arms at their lower ends adapted to engage the said brackets when the bows are collapsed for lifting the segments out of engaging position, said handle being adapted to fold between said brackets and said top bows when the structure is collapsed.

[Claims 6 to 27 not printed in the Gazette.]

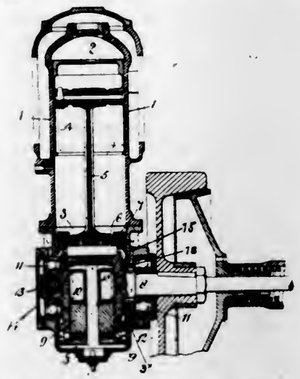
941,375. TURBINE-BLADE. HENRY S. LOUD, New York, N. Y., and JOSEPH PANTER, Stretford, Manchester, England, assignors to The Westinghouse Machine Company, a Corporation of Pennsylvania. Filed Apr. 20, 1907. Serial No. 369,283.



1. In an elastic fluid turbine, a blade holding element, a hole provided in said element, blades provided with slotted mounting portions and means, located within said hole, for distorting the mounting portion of said blade to grip the walls of said hole, whereby the blades are secured to said holding element.

2. In combination in an elastic fluid turbine, a blade holding element, a hole provided in said element, blades provided with slotted mounting portions and means, located within said hole and coöperating with said slotted portion, to secure said blade to said element.

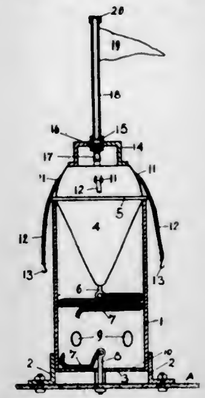
941,376. INTERNAL-COMBUSTION ENGINE. RALPH LUCAS, Blackheath, England, assignor to Valveless Limited, London, England. Filed May 21, 1909. Serial No. 497,538.



1. In an engine having a closed crank chamber the combination of the chamber, a crank shaft entering the chamber, a disk fixed to the crank shaft, a bearing ring surrounding the crank shaft and fixed to the wall of the chamber and a spring tending to force the crank shaft endwise and press the disk upon it against the bearing ring.

2. In an engine having a closed crank chamber the combination of the chamber, a crank shaft entering the chamber, a disk fixed to the crank shaft, a bearing ring surrounding the crank shaft and fixed to the wall of the chamber, a spring tending to force the crank shaft endwise and press the disk upon it against the bearing ring, an opening into the crank chamber at the end of the crank shaft and a cap closing the opening and forming an abutment for the spring.

941,377. AUTOMATIC LOCATING-BUOY. JAMES N. MARCOU and JOSEPH C. ST. PETER, Bay City, Mich. Filed Oct. 17, 1908. Serial No. 458,306.



1. An indicator of the class described comprising a buoy, a suitable support therefor, a cage mounted on the buoy, a hub carried by the cage, a support received in one end of the hub, a signal depending from the support and inclosed within the cage, a hollow flag staff, the lower end of which is received in the hub, and a removable closure for the upper end of the staff.

2. A locating buoy for sunken vessels, comprising a metallic receptacle open at its upper end, legs for supporting the closed bottom of the receptacle above the deck surface the receptacle being apertured to permit the water to drain off and to admit water to the bottom of the receptacle, an eye bolt extending through the bottom of the raised receptacle and into the deck to connect the receptacle to the deck, a buoy seated in the open upper end of the receptacle, and a cable connecting the buoy to the fastening means.

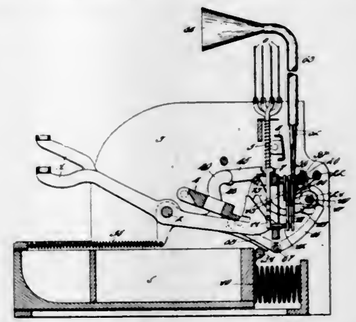
941,378. CASH-REGISTER. WILLIAM H. MUZZY, Dayton, Ohio, assignor, by mesne assignments, to The National Cash Register Company, Dayton, Ohio, a Corporation of Ohio, (incorporated in 1906.) Filed June 8, 1905. Serial No. 264,238.

1. In a cash register, the combination with a series of keys, of a series of indicators operated by said keys, a phonographic mechanism, and means differently operated by the different indicators and controlling the movements of the phonographic mechanism.

2. In a cash register, the combination with a series of keys divided into banks, of a phonographic mechanism for each bank, a reproducer for each bank, and means controlled by the keys for bringing the reproducers successively into coöperative relation with their phonographic mechanisms.

3. In a cash register, the combination with a registering mechanism of a series of keys for actuating said registering mechanism, a phonographic mechanism controlled thereby, and aligning devices for said mechanism also controlled by the keys.

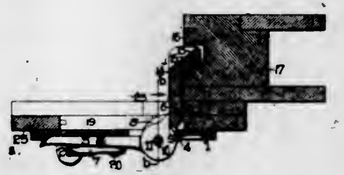
4. In a cash register, the combination with a registering mechanism of a series of keys for actuating said registering mechanism, a phonographic mechanism, a motor for the same, and means for winding up the motor by the keys.



5. In a cash register, the combination with a series of keys, of a phonographic mechanism controlled thereby, a cash-drawer, a motor for the phonographic mechanism, and means for winding the motor controlled both by the keys and by the cash-drawer.

[Claims 6 to 48 not printed in the Gazette.]

941,379. SLIDING-DOOR FASTENER. JOSEPH MCALLISTER, CHARLES G. ANDERSON, and BERT H. HAWKINS, Buffalo, N. Y. Filed Feb. 6, 1908. Serial No. 414,535.



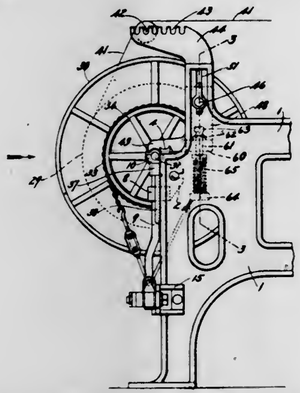
1. The combination with a car having an opening and a door adapted to close said opening, of a lock mechanism including a plate attached to the car door, a hasp pivoted to the plate and having a shoulder, a locking member against which the shoulder of the hasp is adapted to contact and provided with a wedge shaped end, and a complementary wedge socket in the door post.

2. A locking device for cars or the like comprising a plate, a hasp pivoted to said plate and having a shoulder, a pivotal locking member adapted to be engaged by the shoulder of the hasp and provided with a wedge shaped outer end, and a complementary wedge socket in the door post adapted to coact with the pivotal locking member to force the door against the side of the car.

3. The combination with a door post having a socket plate therein, one side of which is beveled, of a lock having a pivotal locking member provided with a projection adapted to fit in the socket plate and having a corresponding beveled side, a hasp provided with a shoulder adapted to engage the pivotal locking member and means for maintaining the hasp in locking position.

4. The combination with a door post having a socket plate therein, of a door, a plate attached to the door and provided with lugs, a hasp pivoted to the lugs on the plate and having a slot, a locking member also pivoted to the lugs on the plate and actuated in its movement into locking position with the socket plate by the movement of the hasp, an eye lug on the plate adapted to register with the slot in the hasp, and a hook member pivoted to the hasp and adapted to engage the eye ing, substantially as described.

941,380. LET-OFF MECHANISM FOR LOOMS. JONAS NORTHROP, Hopedale, Mass., assignor to William F. Draper, Hopedale, Mass. Filed May 5, 1909. Serial No. 494,171.



1. In a loom, the combination of a warp beam, a friction let-off governed by the weight of the warp beam effective thereon, means acting under warp tension to maintain the weight of the warp beam effective on the friction let-off under variation of warp tension, and balancing devices for said means.

2. In a loom, the combination of a warp beam, a friction let-off governed by the weight of the warp beam effective thereon, a guide over which the warp threads pass from the warp beam, means connected to said guide and acting under warp tension to maintain the weight of the warp beam effective on the friction let-off under variations of warp tension, and yielding supporting devices for said means.

3. In a loom, the combination of a warp beam, a friction let-off depending for the degree of its effective action upon the weight of the warp beam, means reacting under tension of the warp threads for preventing decrease in effective weight of the warp beam upon the friction let-off due to warp tension, and a yielding support for said means.

4. In a loom, the combination of a warp beam, movable bearings therefor, a friction device connected to said movable bearings to govern the let-off by the weight of the warp beam, means controlled by the tension of the warp threads for preventing movement of said bearings due to warp tension, and a yielding support for said means acting under the varying tension of the warp threads to move said means.

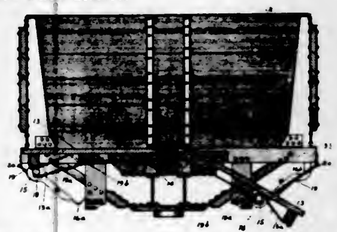
5. In a loom, the combination of a warp beam, movable bearings therefor, a friction device connected to said bearings to govern the let-off by the weight of the warp beam, and a yieldingly mounted thin place preventer acting under warp tension to maintain the weight of the warp beam effective on the friction let-off under varying conditions of warp tension.

[Claims 6 and 7 not printed in the Gazette.]

941,381. DUMP-CAR. SPENCER OTIS, Chicago, Ill., assignor to National Dump Car Company, Chicago, Ill., a Corporation of Maine. Filed Aug. 13, 1907. Serial No. 388,290.

1. In door-controlling mechanism including a shaft on a track, a carriage borne by the shaft mounted to slide on the track, said carriage being provided with mechanism for preventing the shaft from movement in one direction, and means for disengaging said mechanism when desired.

2. In door-controlling mechanism including a shaft on a track, a carriage borne by the shaft mounted to slide on the track, said carriage being provided with mechanism for preventing the shaft from movement in one direction, and means for holding said mechanism in a disengaged position when desired.



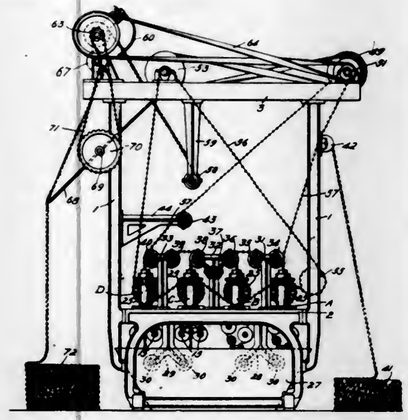
3. In door-controlling mechanism including a shaft on a track, a plate rotatably mounted on the shaft, and guides on the plate engaging the track.

4. In door-controlling mechanism, a shaft bearing a ratchet, a crank bearing a reversible pawl, mechanism for preventing rotation of the shaft in one direction, and means for throwing said mechanism into inoperative relation.

5. In door-controlling mechanism, a shaft bearing a ratchet, a crank bearing a reversible pawl, mechanism for preventing rotation of the shaft in one direction, and means for automatically throwing said mechanism into inoperative position.

[Claims 6 to 29 not printed in the Gazette.]

941,382. TEXTILE-CONDITIONING APPARATUS. ISAAC E. PALMER, Middletown, Conn. Filed Feb. 23, 1909. Serial No. 479,499.



1. Textile conditioning apparatus comprising in combination a vat, one or more vertically arranged wringers supported thereover and including rotary tubes and squeeze rolls carried thereby, and means to direct the material passing through said wringer or wringers into the said vat.

2. Textile conditioning apparatus comprising in combination a frame, a plurality of vertically arranged wringers supported thereby and including rotary tubes and squeeze rolls carried thereby, and means for directing the material through said wringers in succession.

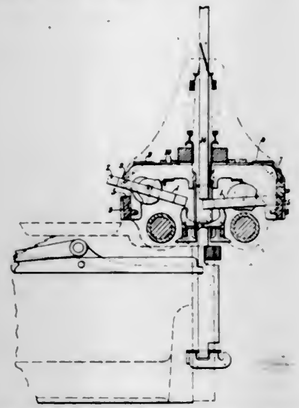
3. Textile conditioning apparatus comprising in combination a plurality of wringers and supporting means therefor, each wringer including a tube and squeeze rolls carried thereby, means to rotate said wringers, means to pass textile material through a treatment path including a plurality of said wringers, and means to redirect the material through one or more of said wringers.

4. Textile conditioning apparatus comprising in combination a plurality of wringers and supporting means therefor, each wringer including a tube and squeeze rolls carried thereby, means to rotate said wringers, and means to pass different portions of the material simultaneously through one or more of said wringers.

5. Textile conditioning apparatus comprising in combination a plurality of wringers and supporting means therefor, each wringer including a tube and squeeze rolls carried thereby, means to rotate said wringers, means to pass textile material through a treatment path including all of said wringers and means to return the treated material through a part or all of said wringers while a succeeding portion of the textile material is passing through said treatment path.

[Claims 6 to 23 not printed in the Gazette.]

941,383. KEYBOARD MECHANISM OF TYPOGRAPHIC MACHINES. HERBERT PEARCE, Broadheath, Altrincham, England, assignor to Linotype and Machinery Limited, London, England, a Company. Filed Sept. 14, 1907. Serial No. 392,867.



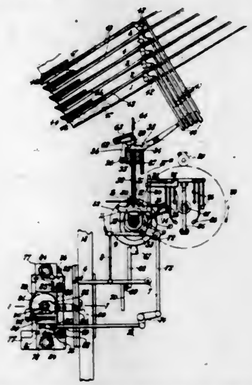
1. In the keyboard mechanism of a typographic machine the combination with cam carriages adapted to be released by the operation of the key levers, of an axle for each cam carriage independent of the axle of any other of such cam carriages and about the axis of which first named axle the said carriage is adapted to turn, a bearing for each axle, and retaining means adapted to prevent the escape of an axle from its bearing.

2. In the keyboard mechanism of a typographic machine the combination with cam carriages adapted to be released by the operation of the key levers and an axle for each cam carriage independent of the axle of any other of such cam carriages and about the axis of which first named axle the said carriage is adapted to turn, of a plate having slots or grooves adapted to receive the axles of the cam carriages, and a cap adapted to prevent the escape of said axles from said slots or grooves.

3. In the keyboard mechanism of a typographic machine the combination with cam carriages adapted to be released by the operation of the key levers, an axle for each cam carriage independent of the axle of any other of such cam carriages and a plate having slots or grooves adapted to receive the axles of the cam carriages, of a removable cap plate adapted to retain the axles in the said slots or grooves.

4. In the keyboard mechanism of a typographic machine the combination of cam carriages adapted to be released by the operation of the key levers, an axle for each cam carriage independent of the axle of any other of such cam carriages and about the axis of which first named axle the said carriage is adapted to turn, a plate having slots or grooves adapted to receive the axles of the cam carriages, webs or partitions separating adjacent slots or grooves from each other, and retaining means adapted to prevent the escape of said axles from said slots or grooves.

941,384. TYPOGRAPHICAL COMPOSING AND CASTING MACHINE. HERBERT PEARCE and JOHN E. BILLINGTON, Broadheath, England. Filed June 26, 1909. Serial No. 504,586.



1. In a typographical composing and casting machine having a plurality of magazines, a plurality of molds of relatively different body dimensions corresponding with the matrices of respective magazines, mold selective mechanism, trimming knives, and an adjustment in connection with said knives for positioning them to correspond with the dimensions of said molds; selective keys corresponding with said magazines, operative connections between said keys and the controlling devices of respective magazines, operative connection between said keys and said mold selective mechanism, and operative connection between said keys and said knife adjustment adapted to control the latter in consonance with the selection from said magazines and said molds.

2. In a typographical composing and casting machine having a plurality of magazines, trimming knives, and an adjustment in connection with said knives for positioning them to correspond with the dimensions of the matrices in different magazines; selective keys corresponding with said magazines, operative connections between said keys and the controlling devices of respective magazines, and operative connection between said keys and said knife adjustment adapted to control the latter in consonance with the selection from said magazines.

3. In a typographical composing and casting machine having a plurality of magazines, and selective keys corresponding with said magazines; a closure for each magazine mouth, lever and link mechanism controlling each of said closures, locking means normally operative upon said mechanism to retain each of said closures before the mouth of its respective magazine, releasing means in operative connection with said selective keys adapted to release said locking means upon the depression of the appropriate key, automatic means operative upon said closures to remove them from the mouths of respective magazines when the corresponding key is depressed, and positive returning means in operative connection with said keys adapted to return to the closed position any closure which may be open upon the initial portion of the movement of a selective key taking place.

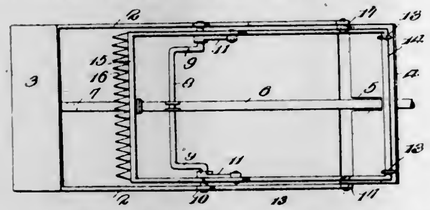
4. In a typographical composing and casting machine comprising a mold carrier, a plurality of molds of relatively different body dimensions on said carrier, and selective keys any one of which is operative to bring an appropriate mold to operative position; trimming knives, an adjustment for said knives, operative connection between said keys and said adjustment adapted to reset said knives at a maximum distance apart upon the operation of a key, and means in connection with each mold adapted to be brought into operative connection with said adjustment for setting said knives in a position corresponding with the dimensions of the selected mold.

5. In a typographical composing and casting machine

having a plurality of magazines, a plurality of molds, selective keys and operative connections between said keys and the controlling devices of said magazines; mold selective mechanism in operative connection with said keys, and trimming knife adjusting mechanism also in operative connection with said keys and adapted to automatically adjust the spacing of said knives to suit the selected mold dimensions.

[Claims 6 to 8 not printed in the Gazette.]

941,385. COKE-DRAG. SOLOMON RICHTER, Martin, Pa. Filed Mar. 29, 1909. Serial No. 486,471.



1. A drag of the character described, comprising side pieces, a pivoted jaw, a longitudinally shiftable operating rod, a crank upon the forward end of the operating rod, and links attached one to either end of the crank and connected to the jaw.

2. A drag of the character described, comprising side pieces and a front scraper attached to the side pieces, a longitudinally shiftable operating rod, a crank connected to the forward end of the operating rod and having upwardly extending arms, links pivoted to the arms, and a jaw carried by the said links.

3. A drag of the character described, comprising side pieces, an end piece pivoted to the rear ends of the side pieces, a front scraper attached to the forward ends of the side pieces, a longitudinally shiftable operating rod, a crank connected to the operating rod and having upwardly extending arms, and a jaw having rearwardly extending link rods pivoted to the rear end piece of the scraper and to the upwardly extending crank arms.

4. A drag of the character described having a frame provided with a front scraper, a movable jaw coacting therewith, an operating rod longitudinally shiftable with relation to the front scraper and frame, and a connecting member between the operating rod and the movable jaw, said connecting member being pivoted at its middle to the frame, whereby upon a rearward draft upon the operating rod the connecting member shall be rotated to throw the jaw forward and downward against the front scraper, and upon a forward movement of the operating rod the connecting member shall be rotated to lift the jaw from the scraper.

5. A drag of the character described, including a front scraper having a rearwardly extending post, a longitudinally shiftable operating rod adapted to abut against said post, a crank mounted on the operating rod, and a jaw pivotally connected to said crank to be moved into engagement with the scraper when the operating rod is drawn rearward.

[Claims 6 to 9 not printed in the Gazette.]

941,386. VEHICLE-POLE. CHARLES B. SCHLEICHER, Brady, Nebr. Filed Feb. 20, 1909. Serial No. 479,278.



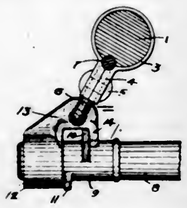
1. In a vehicle-pole, a tongue of wood, a plurality of metal reinforcing-rods bedded longitudinally in the sides thereof, the rods on opposite sides being connected with each other across the end of the tongue, and bands arranged at intervals around the tongue and rods.

2. In a vehicle-pole, a tongue of wood having a plurality of grooves extending longitudinally in the sides thereof and extending radially across the end thereof, metal rods laid in said grooves, the rods on opposite sides of the tongue being connected across the end thereof, means for securing the opposite ends of the rods to the body of the tongue, and bands disposed at intervals around the tongue and rods.

3. In a vehicle-pole, a tongue of wood having grooves extending longitudinally in the opposite sides thereof, metal rods laid in said grooves, the said rods being connected with each other at one end and with the body of the tongue at the other end, and bands around the tongue arranged intermediate the ends of the rods for holding the same in the grooves.

4. In a vehicle-pole, a tongue having a plurality of grooves formed therein and extending longitudinally thereof, the said grooves being extended radially across the end of the tongue, metal rods arranged in said grooves, the rods on opposite sides extending across the end of the tongue through the radial grooves therein, a ferrule disposed over said end of the tongue and the rods, means for securing the opposite ends of the rods to the tongue, and metal bands disposed around the tongue and rods at positions thereon intermediate the ends of the rods to hold the rods within the grooves in the tongue.

941,387. NECK-YOKE. CHARLES B. SCHLEICHER, Brady, Nebr. Filed Mar. 30, 1909. Serial No. 486,811.



1. The combination with a neck-yoke and tongue, of a connector body flexibly connected with the yoke, a thimble secured on the tongue, flanges arranged on opposite sides of the thimble and in spaced longitudinal relation to each other, the connector body having a portion adapted to encircle the thimble and engage the front face of one of the flanges, a portion extending over the other flange, and a lip engaging the rearward face of the other flange.

2. The combination with a neck-yoke and a body adapted for releasable connection with a tongue-thimble, said body having an eye formed therein; of an oval link divided at one end and passed through said eye to form a flexible connection therewith, a band encircling the yoke at the center thereof, the end portions of the band being turned outwardly and having U-shaped grooves therein adapting the same to fit over and inclose the divided end of the oval link, and a single rivet connecting said end portions of the band to clamp the same upon the link.

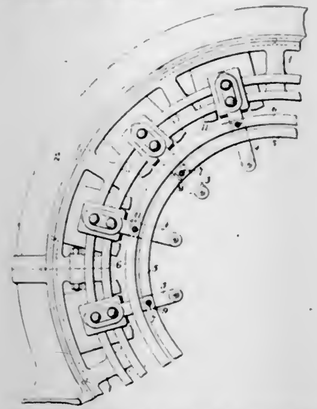
3. The combination with a neck-yoke and tongue, of a link held in fixed relation to the yoke, a body having an eye connecting with said link, a thimble carried by the tongue, flanges arranged on opposite sides of said thimble and in spaced longitudinal relation to each other, the body connected with the link having a portion adapted to encircle the thimble and engage one of the flanges thereon, and a portion adapted for engagement with the opposite face of the other flange, the arrangement being such that by alternate rotation and longitudinal movement of the body upon the thimble the said parts may be connected and disconnected.

4. The combination with a neck-yoke and a body adapted for releasable connection with a tongue-thimble, of a band flexibly connected with said body, the said band encircling the central part of the yoke and having a transverse groove in the inner face thereof, and a rod extending

longitudinally of the yoke and partly embedded in a groove therein, the said rod extending into the groove in the band for the purpose described.

5. The combination with a neck-yoke and end-thimbles thereon, of a band encircling the central part of the yoke, and a rod extending longitudinally of the yoke, the said rod being partly embedded in a groove in one side of the yoke and passing under the central band thereon, the said rod and band having interengaging portions whereby the rod is held into the groove and the band is prevented from turning relatively to the rod, and the ends of the rod being hooked around the ends of the yoke under the thimbles thereon.

941,388. CROSS CONNECTIONS FOR DYNAMO-ELECTRIC MACHINES. ROBERT SIEGFRIED, Pittsburg, Pa., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed Oct. 3, 1905. Serial No. 281,202.



1. In a dynamo-electric machine, the combination with a plurality of radially adjustable brush holder brackets, of cross-connections therefor comprising conducting ring segments having end slots.

2. In a dynamo-electric machine, the combination with a plurality of radially adjustable brush holder brackets, of cross-connections comprising conducting ring segments which are adjustably connected to said brackets.

3. In a dynamo-electric machine, the combination with a plurality of radially adjustable and inwardly projecting brush holder brackets, of cross-connections comprising a pair of segmental conducting rings which are attached to groups of alternate brackets.

4. In a dynamo-electric machine, the combination with a plurality of radially adjustable, inwardly projecting brush holder brackets, of cross-connecting means therefor comprising a pair of segmental conducting rings which are attached to groups of alternate brackets.

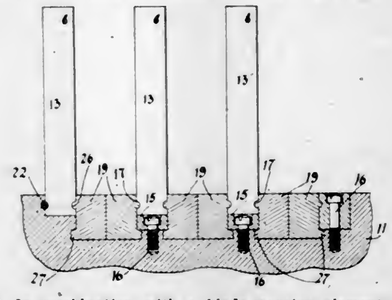
5. In a dynamo-electric machine, the combination with a plurality of radially disposed and adjustably mounted brush holder brackets, of a pair of cross-connecting segmental rings clamped to said brackets and circumferentially adjustable thereon to permit of radial adjustment of said brackets.

[Claims 6 to 14 not printed in the Gazette.]

941,389. TURBINE-BLADING. JOHN E. SNYDER, Swissvale, Pa., assignor to The Westinghouse Machine Company, a Corporation of Pennsylvania. Filed May 16, 1908. Serial No. 432,249.

1. In combination with a blade-carrying element provided with a slot, a plurality of rows of blades mounted in said slot, blade-mounting rings for securing said blades in place and locking strips secured to said blade-carrying element for locking said blade-mounting strips in place.

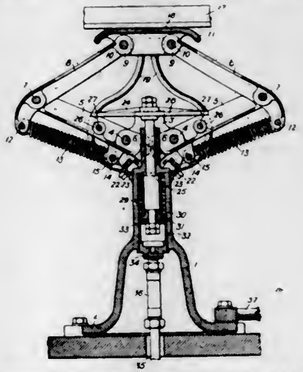
2. In combination with a blade-carrying element provided with a slot, a plurality of rows of blades mounted in said slot, intermediate spacing pieces located between adjacent blades of each row, blade-mounting rings located between adjacent rows of blades for securing said blades in place and locking strips secured to said blade carrying element for locking said blade-mounting rings in place.



3. In combination with a blade-carrying element provided with a slot, a plurality of rows of blades mounted within said slot, segmental blade-mounting rings located between adjacent rows of blades for securing said blades in place and a locking strip supporting a row of blades and adapted to secure said blade-mounting rings in place.

4. In combination with a blade-carrying element provided with a slot, a plurality of rows of blades in said slot and having notched edges, blade-mounting rings having ribs to engage the notches for positively securing said blades in said slots and locking strips for positively securing said rings to said blade-carrying element.

941,390. UNDERRUNNING CURRENT-COLLECTOR. SAMUEL B. STEWART, Jr., Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Nov. 23, 1904. Serial No. 233,956.



1. In a current collector for electric railways, the combination of a contact shoe of a length to make extended contact and having oppositely projecting side arms, and means to yieldingly support said shoe in parallel planes.

2. In a current collector for electric railways, the combination of a contact member, pantographic levers supporting said contact member, and a retractor arranged to engage the lowermost levers and move said contact out of operative position.

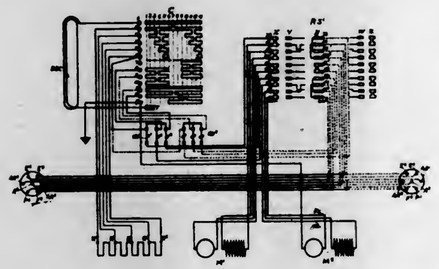
3. In a current collector for electric railways, the combination of a base, an underrunning contact supported on said base, springs for holding said contact in elevated position, a retractor mounted on said base for drawing said contact out of operative position, and means actuated by fluid pressure for restoring said retractor to inoperative position.

4. In a current collector for electric railways, the combination of a contact member, spring-pressed levers for holding said member in elevated position, a retractor normally biased to move said contact into inoperative position, and fluid-pressure means for opposing the biasing force of said retractor.

5. In a current collector for electric railways, the combination of a contact member, spring-pressed means for supporting said member in elevated position, a retractor provided with a spring to depress said contact member, and a fluid motor for controlling said retractor.

[Claims 6 and 7 not printed in the Gazette.]

941,391. ELECTRIC CAR-CONTROLLING SYSTEM. ARTHUR B. STITZER, Philadelphia, Pa. Continuation of application Serial No. 493,132, filed Apr. 30, 1909. This application filed Aug. 2, 1909. Serial No. 510,875.



1. In an electric railway system, the combination with a controller and the motor or motors, of a circuit coupling, connections from the controller connections to the circuit coupling, connections to the motors, and means either to connect the controller connections with both the motor connections and the circuit coupling, or to connect the motor connections with the circuit coupling, thereby permitting both the motors of said car and the motors of another car coupled thereto to be regulated by the controller of the first car, or the motors of the first car to be regulated by the controller of the second car.

2. In an electric railway system, the combination with a controller and the motor or motors, of a group of terminal contacts, connections from the controller, connections to the several terminal contacts of the group, connections to the motors, and means either to connect the controller connections with both the motor connections and the terminal contact connections or to connect the motor connections with the terminal contact connections.

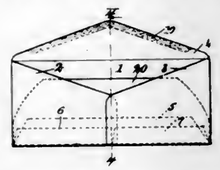
3. In an electric railway system, the combination with a controller and the motor or motors, of a circuit coupling, connections from the controller, connections from the circuit coupling, connections to the motor or motors, and a switch adapted to connect both the controller connections and the circuit coupling connections with the motor or motors, said switch including means permitting current received either from the controller or from the circuit coupling to pass in either direction through the motor or motors.

4. In an electric railway system, the combination with a controller and the motor or motors, of a set of terminal contacts, and a switch and conductors adapted to connect both the controller and the terminal contacts with the motor or motors, said switch including means permitting current received either from the controller or from the terminal contacts to be reversed in the motor or motors.

5. In an electric railway system, the combination with a controller and the motor or motors, of a circuit coupling, and means either to connect with said controller the motors and circuit coupling in parallel with each other, or to connect the circuit coupling with the motors independently of the controller.

[Claims 6 to 28 not printed in the Gazette.]

941,392. ENVELOP. LEWIS C. VAN RIPER, New York, N. Y. Filed Jan. 28, 1909. Serial No. 474,693.



1. An envelop, comprising a front portion, a back portion formed of flaps carried by the front portion, and a separate facing strip, two of said flaps and said facing strip being secured together to form a pocket in said back portion between said flaps and said facing strip, and open along one edge of the envelop to removably receive another of said flaps, the remaining flap being gummed and adapted to be secured to the remainder of the back portion after an inclosure has been placed within the envelop.

2. An envelop, comprising a front portion, top, bottom and end flaps, all formed integral therewith, and a separate facing strip, two of said flaps being secured to said facing strip to form a pocket therewith open along one edge of the envelop, one of the remaining flaps being normally received within said pocket and concealed from view both from the interior and the exterior of the envelop and removable from said pocket for inspection purposes, and the other flap being secured in position to close the envelop after the insertion of inclosures.

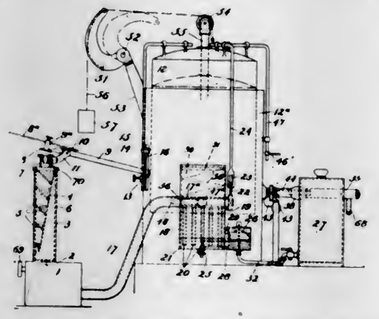
3. An envelop having a front portion, an ungummed flap on one of its edges, a gummed flap on one of its edges and end flaps, all made integrally from one piece of material, in combination with a separate piece of material attached to the end flaps and forming therewith the back portion of said envelop and a pocket in said back portion within which is received said ungummed flap in the course of manufacture, said envelop having an opening left in one edge thereof through which an inclosure may be placed within the envelop without removing said ungummed flap from said pocket, said opening being closed by said gummed flap after the insertion of the inclosure.

4. An envelop having a front portion, four flaps integral therewith, and a separate piece of material forming with two of said flaps the back portion of the envelop and presenting a pocket within said back portion open along one edge of the envelop for removably receiving a third one of said flaps in the course of manufacture of the envelop, said first-mentioned flaps each having an extension along one edge thereof folded back upon the body of the flap to form a reinforcement at the open edge of the pocket, and the envelop having an opening in one edge thereof closed by the fourth flap after the insertion of inclosures.

5. An envelop having a front portion, end flaps integral therewith and each of a length slightly greater than one-half the length of the front portion, and each having one edge thereof disposed adjacent one edge of the front portion when said end flaps are folded toward each other, a separate piece of material interposed between said end flaps and said front portion, and gummed to both of said end flaps along the length of the envelop, but unattached to the end flaps along the above-mentioned edges of the latter, so as to leave a pocket between said separate piece and said end flaps, an ungummed inspection flap integral with said front portion and normally disposed within said pocket, and a gummed flap integral with said front portion and adapted to be secured to said end flaps after the insertion of inclosures.

941,393. CARBURETER. ALFRED H. WARMSLEY, Ilford, England. Filed July 5, 1907. Serial No. 382,383.

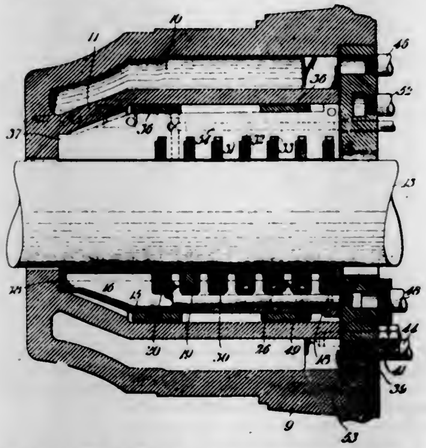
1. The combination, with a gas-holder having a movable portion, a carbureter, and a blower for forcing air through the carbureter into the gas-holder, said blower being provided with an air-inlet having a valve-seat; of a pivoted lever provided with a disk-valve for controlling the said air-inlet, means for balancing the said lever and valve so that the valve is held up by gravity when moved to a prearranged distance from its seat and so that the valve is drawn against the valve-seat by the pressure of the atmosphere when moved to a prearranged extent toward its seat, and operating devices connecting the said lever with the movable portion of the gas-holder so that the movements of the said valve are initiated by the gas-holder.



2. The combination, with a gas-holder provided with a slidable portion, of a carbureting chamber connected to the said gas-holder, an air-inlet pipe extending longitudinally in the said chamber and provided with a series of branch pipes which depend from it into the fluid in the lower part of the said chamber, a tubular valve mounted in the said inlet pipe and provided with a slot which controls the passage of air through the said branch pipes, and means for operating the said valve from the slidable portion of the said gas holder.

3. In apparatus of the kind set forth the combination of the balanced suction valve for opening and closing the inlet of air to the blower, the rotary valve in the main air pipe for opening and closing the main air supply pipe, and means for operating the said valves by the movements of the gas bell or holder, substantially as described and shown.

941,394. PISTON-ROD PACKING. ARTHUR J. WEST, Pittsburg, Pa., assignor to The Westinghouse Machine Company, a Corporation of Pennsylvania. Filed May 25, 1905. Serial No. 262,215.



1. In a rod packing, a water cooled gland box, a plurality of compound packing rings in combination with a ring casing comprising a sleeve portion provided with a plurality of recesses adapted to contain said packing rings each of which comprises an outer ring divided into segments, provided on one side with a right-angled recess, an inner ring divided into segments fitting the recess of the outer ring, an annular spring under tension on the segments of the outer ring.

2. In a rod packing, the combination of a gland box, a ring casing provided with a plurality of cavities and a plurality of compound packing rings, each of which comprises an outer ring divided into segments provided on one side with a right-angled recess, an inner ring divided into segments fitting the recesses of the outer ring, an annular spring under tension on the segments of said outer ring, and means for lubricating the interior faces of said packing rings.

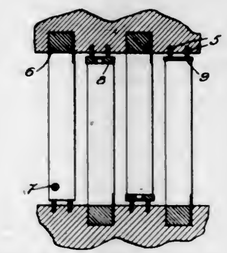
3. A rod packing, comprising a ring casing consisting of a sleeve portion provided with a plurality of annular recesses, a cooling chamber surrounding said sleeve portion and a shell portion inclosing said chamber and formed integrally with said sleeve portion.

4. In combination with a rod, a rod packing comprising a ring casing surrounding said rod and provided with a plurality of recesses, a plurality of compound packing rings contained in said recesses, each of which comprises an outer ring divided into segments, provided on one side with a right angled recess, an inner ring divided into segments fitting the recesses of the outer ring, an annular spring under tension on the segments of said outer ring for yieldingly forcing the parts of said compound ring in contact with said rod.

5. In a rod packing, a ring casing consisting of a sleeve portion provided with a plurality of annular recesses, a cooling chamber surrounding said sleeve portion, and a shell portion inclosing said chamber and formed integrally with said sleeve portion, in combination with a plurality of compound packing rings located in said recesses, and rigid fire rings adapted to be contained within the recesses at one end of said casing.

[Claims 6 to 11 not printed in the Gazette.]

941,395. ELASTIC-FLUID TURBINE. GEORGE WESTINGHOUSE, Pittsburg, Pa., assignor to The Westinghouse Machine Company, a Corporation of Pennsylvania. Filed May 2, 1905. Serial No. 258,485.



1. In an elastic fluid turbine, in combination with the annular rows of alternate moving blades and stationary vanes, renewable wearing strips arranged in annular rows in line with said blades and vanes.

2. In an elastic fluid turbine, in combination with the annular rows of alternate moving blades and stationary vanes, renewable clearance determining strips rigidly held in line with said blades and vanes.

3. In an elastic fluid turbine, in combination with the annular rows of alternate moving blades and stationary vanes, renewable wearing strips arranged in annular rows in line with said vanes and blades and formed from softer metal than the blades or vanes.

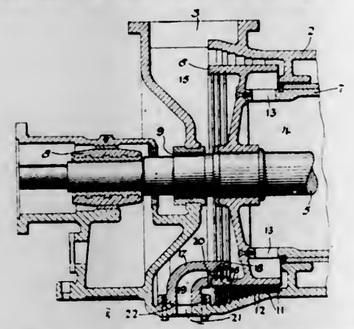
4. In an elastic fluid turbine, annular rows of rotor blades and renewable clearance determining rings secured to the stator in line with said rows.

5. In an elastic fluid turbine, in combination with alternate annular rows of shrouded moving blades and

stationary vanes, one or more renewable wearing strips arranged in annular rows in line with said rows of blades and vanes.

[Claims 6 to 21 not printed in the Gazette.]

941,396. MARINE TURBINE. GEORGE WESTINGHOUSE, Pittsburg, Pa. Filed Apr. 13, 1906, Serial No. 311,517. Renewed Apr. 20, 1908. Serial No. 428,144.



1. In an elastic fluid turbine, a stationary casing, a rotor inclosed within said casing, a plurality of rows of radially-extending blades mounted on the outer face of said rotor, annular rows of inwardly-extending radial vanes mounted on the inner face of said casing and coöperating with said blades, a fluid admission port for delivering fluid to said outwardly-extending blades, an exhaust port and an exhaust chamber communicating therewith and receiving fluid from said blades, a plurality of annular rows of inwardly-extending radial blades mounted on the inner face of said rotor and located within said chamber, a bracket located on said casing within said chamber and provided with a fluid passage, a discharge nozzle communicating with said passage and a plurality of vanes arranged to coöperate with said reversing blades and a fluid admission port provided in said casing and communicating with the fluid passage of said bracket.

2. In combination with the low pressure drum or section of an ahead turbine, an astern turbine of the impulse type, the moving blades of which are mounted within the drum of the ahead turbine and the intermediate guide vanes and nozzles of which are carried by a segmental bracket secured to the casing.

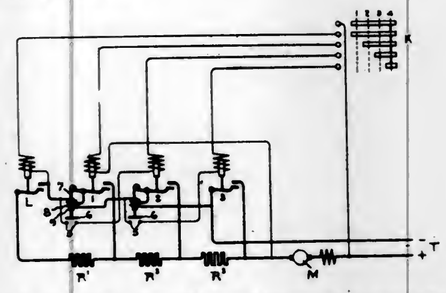
3. In combination with the low pressure drum or section of an ahead turbine, an astern turbine of the impulse type, the moving blades of which are mounted within the drum of the ahead turbine and the intermediate guide vanes and nozzles of which are carried by a bracket movable axially and radially outward into place and secured to the casing.

4. In combination with the low pressure drum or section of an ahead turbine, an astern turbine of the impulse type, the moving blades of which are mounted within the drum of the ahead turbine and the intermediate guide vanes and nozzles of which are carried by a bracket extending partially around the inner circumference of the drum and secured to the casing.

941,397. MOTOR-CONTROL SYSTEM. HAROLD E. WHITE, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed June 23, 1909. Serial No. 503,834.

1. In a motor control system, a motor to be controlled, a plurality of contactors intended for operation in succession to increase step-by-step the voltage applied to the motor in starting, means for connecting the actuating coil of the first contactor in shunt to the motor, and auxiliary switches coöperating with said contactors and arranged to control the energization of the actuating coil of the succeeding contactor.

2. In a motor control system, a motor to be controlled, a plurality of contactors intended for operation in succession to increase step-by-step the voltage applied to the motor in starting, and means for controlling the energization of the actuating coils of said contactors comprising control circuits for connecting the actuating coil of the first contactor in shunt to the motor and the actuating coils of the succeeding contactors to a source of current, and auxiliary switches coöperating with certain of said contactors arranged to control the operation of a succeeding contactor.



3. In a motor control system, a motor to be controlled, a plurality of contactors intended for operation in succession to increase step-by-step the voltage applied to the motor in starting, means for connecting the actuating coil of the first contactor in shunt to the motor, auxiliary switches coöperating with said contactors each arranged to control the operation of a succeeding contactor, and means responsive to the current in the motor circuit for controlling the closing of said auxiliary switches.

4. In a motor control system, a motor to be controlled, a plurality of contactors intended for operation in succession to increase step-by-step the voltage applied to the motor in starting, a control circuit for the first contactor for connecting the actuating coil of the same in shunt to the motor, auxiliary switches coöperating with certain of said contactors each arranged to control the operation of a succeeding contactor, a connection between each of said contactors and its auxiliary switch whereby when the former is open the latter is positively held open and when the former is closed the latter is permitted to close, and means responsive to current in the motor circuit for controlling the closing of said auxiliary switches.

5. In a control system, a motor to be controlled, a plurality of contactors intended for operation in succession to increase step-by-step the voltage applied to the motor, a master switch for controlling the energization of the actuating coils of said contactors, a control circuit whereby said master switch connects the actuating coil of the first contactor in shunt to the motor, control circuits whereby said master switch connects the actuating coils of the succeeding contactors to a source of current, auxiliary switches coöperating with certain of said contactors each arranged to control the control circuit to the actuating coil of the succeeding contactor, a connection between each of said contactors and its auxiliary switch whereby when the former is open the latter is positively held open and when the former is closed the latter is permitted to close, and means responsive to current in the motor circuit for controlling the closing of said auxiliary switches.

941,398. DOOR FOR COKE OVENS. WILLARD O. WHITE, Republic, Pa. Filed July 14, 1909. Serial No. 507,542.

1. A door including a frame, and superposed separately removable substantially parallel, inclined tiers of refractory material carried by the frame.

2. A door including a frame, and separately removable substantially parallel inclined tiers of refractory material upon the frame, each tier lapping the next adjoining tier thereabove.

3. A door including a frame, and separately removable inclined tiers of refractory material constituting a covering for one face of the frame, each tier lapping an adjoining tier.



4. A door including a frame, superposed supporting members detachably connected to the frame, and a tier of refractory material carried by each of the supporting members, each tier concealing the supporting member of an adjoining tier.

5. A door including a frame, supporting members detachably connected thereto, and a series of fire-bricks carried by each of said members, the bricks of one series concealing the supporting member of an adjoining series.

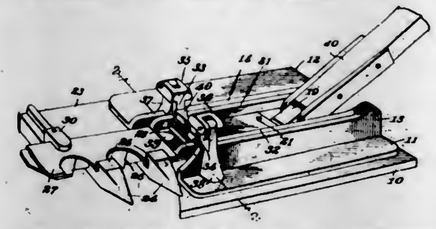
[Claims 6 to 15 not printed in the Gazette.]

941,399. PROCESS OF DYEING WOOL. HOMER WINSLOW, Providence, R. I., assignor to Cassella Color Company, New York, N. Y. Filed Dec. 19, 1908. Serial No. 468,347.

1. The process of dyeing animal fibers which consists in preparing a solution of an acid chrome dye, salts of chromic acid, and salts of alkaline earths, entering the goods to be dyed into the solution, and boiling the liquor until the color is fixed upon the fiber.

2. The process of dyeing animal fibers which consists in preparing a solution of an acid chrome dye, salts of chromic acid, and salts of magnesium, entering the goods to be dyed into the solution, and boiling the liquor until the color is fixed upon the fiber.

941,400. CUTTER-BAR. ELI J. WOLFROM, Salida, Colo. Filed Mar. 29, 1909. Serial No. 486,456.



1. In a device as specified, a body portion, guides formed on said body portion, a shoe reciprocally disposed on said guides, a slidable cutter mounted on said guides and detachably secured to said shoe, a fixed cutter engaged over said slidable cutter and a yoke pivotally mounted in parallel relation to said guides for engagement with said cutters to retain the same in their relative positions.

2. A device as specified comprising a body portion, guides formed on said body portion, a shoe reciprocally mounted on said guides, a slidable cutter detachably secured to said shoe, a fixed cutter carried by said body portion, a yoke pivotally mounted in parallel relation to said guides and adapted for engagement with each of said cutters to retain the same in their relative positions and means carried by said body portion for locking said yoke from detachment from said cutters.

3. A device as specified, comprising a base, plates oppositely disposed on said base, flanges upwardly extending from said plates, guides inwardly and oppositely extended in parallel relation from said flanges, a support carried by said base between said guides, a shoe reciprocally disposed on said guides, supports depended from said shoe for engagement with said supports on said base, a slidable cutter mounted on said guides and engaged with said shoe, a fixed cutter mounted on said slidable cutter, a yoke pivotally mounted between the rear extremities of said flanges and adapted to extend forwardly between the same to engage said fixed cutter to retain the same in rigid position, pawls mounted on said base over said yoke and means carried by said pawls and said flanges for locking said yoke in a fixed position.

4. A device as specified comprising a body portion, guides formed on said body portion, a slidable cutter mounted on said guides, a shoe reciprocally disposed on said guides, studs upwardly extended from said shoe and adapted to be secured to the inner extremity of said slidable cutter, a fixed cutter engaged loosely upon the upper face of said slidable cutter and means carried by said body portion for retaining said fixed cutter in rigid relation to said body portion.

5. A device as specified comprising a body portion, a slidable cutter mounted upon said body portion and adapted for reciprocation thereon, a fixed cutter engaged upon the upper face of said slidable cutter and means carried by said body portion for detachably retaining the said fixed cutter from reciprocation with said slidable cutter.

[Claims 6 to 8 not printed in the Gazette.]

941,401. WAX-LIKE PRODUCT OBTAINED FROM SUGAR-CANE. ABRAHAM WYNBERG, Amsterdam, Netherlands. Filed Feb. 3, 1908. Serial No. 414,012.

1. The herein described product consisting of a composition of a waxlike compound and of a fatlike compound obtained by the treatment of the residues of the sugar-cane manufacture, the waxlike compounds having a melting point of 60–91° C., acid number 4–10, saponification number 6–14, acetyl number 77–95, and the fatlike compounds having a melting point of 35-55, acid number 10–40, saponification number 120–242, iodin number 49–68, acetyl number 15–47.

2. The herein described product consisting of a waxlike compound, obtained by treatment of the residues of sugar-cane manufacture, having a melting point of from 50–75° C., acid number 8–12, saponification number 40.7–81.2, iodin number 12–15, acetyl number 75–80 and having a degree of hardness less than the natural wax found in sugar cane.

3. The herein described product obtained from the residues of sugar-cane manufacture consisting of a wax-like compound having a melting point of 60–91° C., acid number 4–10, saponification number 6–14, acetyl number 77–95.

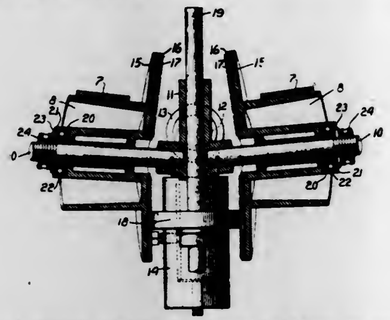
4. The herein described product obtained from the residues of sugar-cane manufacture consisting of a fatlike compound having a melting point of 35–55, acid number 10–40, saponification number 120–242, iodin number 49–68, acetyl number 15–47.

941,402. FRICTION TRANSMISSION MECHANISM. JOHN BECKER, Hyde Park, Mass., assignor to Becker Milling Machine Company, Portland, Me., a Corporation of Maine. Filed Nov. 9, 1908. Serial No. 461,704.

1. A friction transmission device comprising, in combination, a plurality of frictionally engaging elements one of which is provided with a face containing concentric, surface sections of friction material.

2. A friction transmission device containing, in combination, a plurality of frictionally engaging elements, one of which is provided with a face containing along a radius

thereof surface sections of friction material at different distances from its axis of rotation.



3. A friction transmission device containing in combination a plurality of frictionally engaging elements, one of which is provided with a frictional engaging surface containing concentric ring-like areas of friction material.

4. A friction transmission device comprising, in combination, a plurality of frictionally engaging elements, one of which is provided with a face containing surface sections of friction material, sections whereof are at different distances radially from the axis of rotation and in the general direction of their length extend around said axis.

5. A friction transmission device containing, in combination, a plurality of frictional engaging elements, one of which is provided with sections having frictional surfaces and locking means to retain said sections in position.

[Claims 6 to 22 not printed in the Gazette.]

941,403. COMPOSITE PEN. JOSEPH F. BETZLER, Akron, Ohio. Filed Mar. 24, 1909. Serial No. 485,386.



1. In combination in a pen, an elastic vulcanized body portion, and a loop of flat metallic wire having a ratio of less elasticity than said body portion, said wire having greater thickness than width in cross sections and lying on its edge, the extremities of said wire being brought together to form the points of said pen, and said loop embedded in and vulcanized in said elastic body portion.

2. In combination in a pen, a vulcanite body portion having a longitudinal slit, and a loop of flat wire embedded in said vulcanite body and vulcanized on edge therein, and encircling said slit, the extremities of said loop brought together at the outer extremity of said slit.

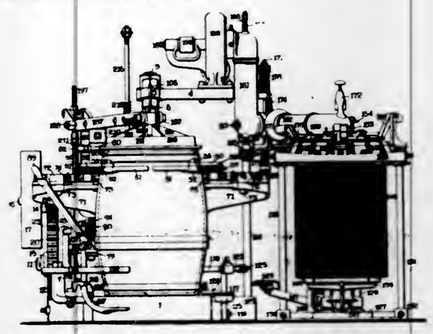
3. In combination in a composite pen, a vulcanite body portion and a flat looped wire vulcanized therein on edge, said wire having a ratio of less elasticity than said body portion, the extremities of said wire being brought together and projecting beyond said body portion and hardened points for the ends of said loops of wire.

4. A pen body composed of a material having a high ratio of elasticity and provided with a longitudinal slit, in combination with a flat metal wire loop having a less ratio of elasticity and vulcanized into said vulcanized body portion, the said wire encircling said slit on its edge and projecting at its ends which are closely approximated together and adapted to form nib points.

5. In a pen, a slitted body portion of vulcanite and a flat wire member embedded on edge in said body on each side of said slit, said wire members being pointed and extending beyond the point of said vulcanite body.

941,404. BARREL-MAKING MACHINE. EDWIN F. BEUGLER, Buffalo, N. Y., assignor to Edward B. Holmes, Buffalo, N. Y. Filed May 25, 1905. Serial No. 262,188.

1. In a barrel making machine, means for depositing a head in place in a barrel, a stave compressing mechanism, a plurality of independent hoop driving mechanisms, one of which is pivoted to move vertically to drive the end hoops and another of which is pivotally mounted to move horizontally to embrace the barrel and also move vertically to drive the bilge hoops.



2. In a barrel making machine, a frame, a main shaft journaled in said frame, a driving shaft journaled in said frame and geared to the main shaft, stave compressing mechanism, end hoop driving mechanism pivoted to move vertically and adapted to be operated from the driving shaft, and separate bilge driving mechanism driven from the main shaft, independently of the end hoop driving mechanism, substantially as set forth.

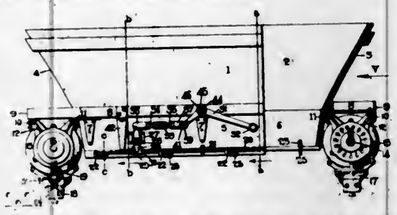
3. In a barrel making machine, a frame, a driving shaft journaled in said frame and carrying a roller, a swinging bracket mounted in said frame, a shaft journaled in said bracket and also carrying a roller, a hoop driving mechanism including a driving ring, and an arm to which said ring is pivoted and a friction strip attached to the arm and extending between the two rollers, substantially as set forth.

4. In a barrel making machine, a frame, a plurality of shafts rotatably mounted on said frame and each carrying a roller, a hoop driving mechanism including a driving ring, and an arm to which said ring is pivoted and a friction strip attached to the arm and extending between the rollers of the shafts, substantially as set forth.

5. In a barrel making machine, a frame, an end hoop driving mechanism including an arm pivoted at one extremity to the frame, a driving ring pivotally mounted at the opposite end of said arm and friction means for vertically moving said arm.

[Claims 6 to 21 not printed in the Gazette.]

941,405. CAR FOR TRANSPORTING ORE OR OTHER MATERIAL. WILLIAM C. CARR, Buffalo, N. Y. Filed Dec. 11, 1908. Serial No. 466,999.



1. In a car of the class described, a car body having a hinged bottom composed of two sections and means for locking said sections in closed position comprising a locking bar slidably mounted on one section and having a series of hooks and metal strips attached to the other section and having loops in which the hooks of the locking bar engage.

2. In a car of the class described, a car body having a hinged bottom composed of two sections and means for locking said sections in closed position including a locking bar and mechanism for retracting said locking bar consisting of a double crank operatively connected to the locking bar, and a bell crank operatively connected to the double crank.

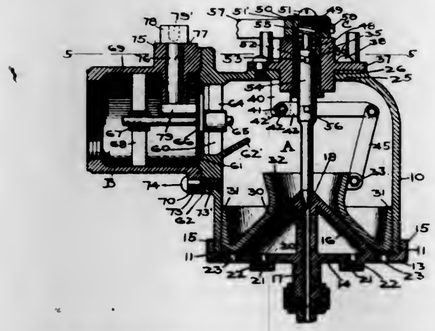
3. In a car of the class described, a car body having a hinged bottom composed of two sections and means for locking said sections in closed position including a locking bar and mechanism for retracting said locking bar consisting of a double crank operatively connected to the locking bar, a bell crank, and a connection between the double crank and bell crank and universally jointed to each crank.

4. A car having a body provided with a hinged sectional bottom, mechanism for locking said sections together, and a system of universally connected cranks for retracting said locking mechanism.

5. A car having a body provided with a hinged sectional bottom, mechanism for locking said sections together, and a system of universally connected cranks for retracting said locking mechanism, one of which is supported from a stationary part of the car and another of which is supported from one of the hinged sections of the bottom.

[Claims 6 to 12 not printed in the Gazette.]

941,406. CARBURETER. JULIUS H. COOPER, Rochester, N. Y. Filed Mar. 27, 1908. Serial No. 423,697.



1. A carbureter of the class described comprising a wall portion forming a mixing chamber, said chamber having an outlet, a conical base carried by the wall portion, a fuel passage communicating with said chamber through the apex of said conical base, said base having a peripheral series of air inlets therethrough, a piston engaged slidably in the chamber, and having a conical recess in its base arranged to engage closely with said conical base, said piston being arranged to close said air inlets when so engaged, said piston having an upwardly flared opening concentrically therethrough, a needle valve seated upon the apex of said base, means for operating said valve to admit fuel to the chamber, operative connections between said piston and the needle to raise the piston for the admission of air in fixed ratio with respect to the quantity of fuel entering the chamber, and means for adjusting the connections between the needle and piston to vary the said ratio.

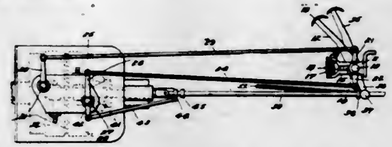
2. A carbureter of the class described comprising a wall portion forming a mixing chamber, said chamber having an outlet opening through said wall, a base carried thereby having a conical extension projecting into the said chamber, said base having a series of air openings peripherally of said conical extension, a piston engaged slidably within the chamber and having a conical recess therein arranged to engage over said conical extension of the base, said piston having an opening concentrically thereof to allow passage of air therethrough when in raised position, a valve engaged over the opening of said fuel passage, means for operating said valve and said piston simultaneously to admit air and fuel in fixed ratio to said chamber, and means for adjusting said ratio between air and fuel entering the chamber.

3. In a carbureter having a mixing chamber, the combination with a conical floor having a concentric peripheral air inlet, and a central reduced fuel inlet at the apex of the floor, of a piston valve comprising an annular member having a conical recess therein adapted to engage closely over the conical floor, and having an enlarged outwardly flared opening extending upwardly therethrough, a vertical needle valve seated in the opening through the conical floor, and adjustable connections between the needle valve and the piston for coöperation to admit air and fuel in a predetermined ratio.

4. A carbureter having a needle valve, a separate slidable air valve, adjustable connections coengaged with the air valve and needle valve to regulate the relative movement of the two valves, a mechanical means for operating the valves, said means comprising a sleeve revolubly engaged around said needle valve and having a peripheral slot therein extending diagonally with relation to the axis of the sleeve and having a longitudinal extension at one end, a lateral pin carried by the needle and engaged slidably in the slot, for longitudinal movement of the needle upon rotation of said sleeve, means for rotating the sleeve, and a spring engaged outwardly of the needle valve to yieldably resist operation thereof, said needle valve being adapted to be automatically governed by the movement of the air valve when the sleeve is rotated to bring the pin into alinement with the longitudinal extension of the slot.

5. A carbureter including an air inlet valve, a fuel valve, each of said valves being slidable, a lever pivoted variably adjacent to one of said valves, said lever being variably engaged with said last named valve intermediately of its length, and a link connection between the outer end of said lever and the other valve.

941,407. TRANSMISSION-CONTROLLER. CLAUDE E. COX, Indianapolis, Ind. Filed June 10, 1908. Serial No. 437,639.



1. A controller for automobiles comprising a lever adapted to be moved in either direction from a medial position, means connected to said lever for connection with two speed controlling members of a transmission mechanism to alternately operate said two members by opposite movement of the lever, and means for normally yieldingly holding said lever in medial position, said means comprising a stationary abutment, a pair of fingers engaging said abutment on opposite sides thereof, means for yieldingly holding said fingers in engagement with the abutment, and a member connected to the lever and lying between said fingers for the purpose set forth.

2. A controller for automobiles comprising a lever adapted to be moved in either direction from a medial position, a pair of members connected to said lever for connection with two speed controlling members of a transmission mechanism to alternately operate said two members by opposite movement of the lever, and means for normally yieldingly holding said lever in medial position, said means comprising a stationary abutment, a pair of fingers engaging said abutment on opposite sides thereof, means for yieldingly holding said fingers in engagement with the abutment, and a member connected to the lever and lying between said fingers for the purpose set forth.

3. A controller for automobiles comprising a lever movable in opposite directions from a medial position, a fixed abutment, a pair of arms lying upon opposite sides of said abutment, a spring connecting the free ends of said arms and yieldingly holding said arms in engagement with the.

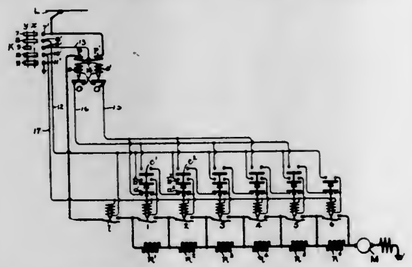
abutment, a finger connected to the lever and projected between said arms, and intermediate connections between said lever and the transmission mechanism.

4. A controller for automobiles comprising a lever movable in opposite directions from a medial position, a fixed abutment, a pair of arms lying upon opposite sides of said abutment, a spring connecting the free ends of said arms and yieldingly holding said arms in engagement with the abutment, a finger connected to the lever and projected between said arms, a pair of arms connected to said lever and extending in opposite directions from the axis, a pair of links connected to said lever, one adapted to be connected to a forward speed control of the transmission, and the other adapted to be connected to the reverse control of the transmission mechanism.

5. A controller for automobiles comprising a lever adapted to be moved in either direction from a medial position, means connected to said lever and adapted for connection with two speed controlling members of a transmission mechanism to alternately operate said two members by opposite movement of the lever, and means for normally yieldingly holding said lever in medial position, said means comprising a stationary abutment, a pair of fingers engaging said abutment on opposite sides thereof, means for yieldingly holding said fingers in engagement with the abutment, a member connected to the lever and lying between said fingers for the purpose set forth, a second lever movable in opposite directions from a medial position, a member adapted to connection between said lever and a forward speed control of the transmission mechanism, a member adapted to connection between said lever and a brake, and intermediate connections between the two levers preventing forward-speed-position of the second lever in forward-speed-position of the first lever.

[Claims 6 to 14 not printed in the Gazette.]

941,408. CONTROL OF ELECTRICALLY-OPERATED SWITCHES. ARCHIBALD S. CUBITT, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed May 7, 1908. Serial No. 431,442.



1. In combination, a plurality of electrically controlled switches, a plurality of actuating circuits connected successively to successive switches, and means normally closing contacts in all of the actuating circuits and controlled by current through any actuating circuit for temporarily interrupting the succeeding actuating circuit.

2. In combination, a plurality of electrically controlled switches, a plurality of actuating circuits connected successively to successive switches, means controlled by current through any actuating circuit for temporarily interrupting the succeeding actuating circuit, and means controlled by the several switches for connecting the succeeding switch to its actuating circuit.

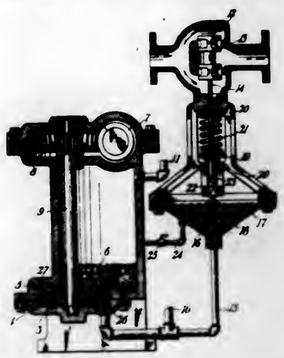
3. In combination, a plurality of electrically controlled switches, a plurality of actuating circuits connected successively to successive switches, means controlled by current through any actuating circuit for temporarily interrupting the succeeding actuating circuit, and means operated by each switch in closing for opening its actuating circuit.

4. In combination, a plurality of electrically controlled switches, a plurality of actuating circuits connected successively to successive switches, an auxiliary switch closed by each switch except the last in closing for completing the actuating circuit for the succeeding switch, and means operated by current through any actuating circuit for temporarily interrupting the actuating circuit for the succeeding switch before said auxiliary switch of the preceding switch has closed.

5. In combination, a plurality of electrically controlled switches, a plurality of actuating circuits connected successively to successive switches, an auxiliary switch controlled by each of said first named switches for controlling the actuating circuit for that switch, an auxiliary switch closed by each switch except the last in closing for completing the actuating circuit for the succeeding switch, and means operated by current through any actuating circuit for temporarily opening contacts in the actuating circuit for the succeeding switch before the auxiliary switch in that circuit operated by the preceding switch has closed.

[Claims 6 to 17 not printed in the Gazette.]

941,409. ELASTIC-FLUID TURBINE. RAYMOND N. EHRHART, Pittsburg, Pa., assignor to The Westinghouse Machine Company, a Corporation of Pennsylvania. Filed Mar. 9, 1905. Serial No. 249,277.



1. In a governing device, a pump, a driving member in connection therewith, instrumentalities actuated by said pump for regulating the speed of said driving member, and means for periodically varying the effective effort of said pump whereby said instrumentalities are caused to pulsate in performing their functions.

2. In a governing device, a pump, a driving member connected therewith, a hydraulic system subsidiary to said pump and operated thereby, instrumentalities auxiliary to said hydraulic system for regulating the speed of said driving member, and means for varying the effective effort of said pump and thereby causing variations of pressure in said hydraulic system and a consequent pulsating of said instrumentalities.

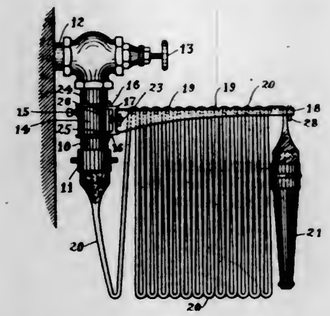
3. In a governing device, a driving member, a pump connected therewith, a hydraulic pressure chamber auxiliary to said pump, a diaphragm in conjunction with said chamber and instrumentalities in contact therewith and actuated thereby for regulating the speed of the said driving member, and means dependent on the pump for causing regular variations in pressure in the said chamber and a consequent pulsating or vibrating of the said diaphragm in performing its functions.

4. In a governing device, a driving member, a pump connected therewith, a hydraulic pressure chamber auxiliary to said pump, a diaphragm in conjunction with said chamber, instrumentalities in contact therewith and actuated thereby for regulating the speed of said driving member, and means for varying the effective effort of said pump and thereby causing periodic variations of pressure within said chamber and a consequent pulsating of said diaphragm in performing its functions.

5. In an elastic fluid turbine, a governing device comprising a supply passage for said turbine, a valve in said supply passage for controlling the flow of motive fluid therethrough, a controlling device for said valve comprising a centrifugal pump means actuated by said pump for operating said valve to vary the supply of motive fluid to the turbine in accordance with the speed of the turbine, and means for varying the effective effort of said pump whereby the said valve is caused to pulsate.

[Claims 6 to 15 not printed in the Gazette.]

941,410. HOSE-RACK. GEORGE F. D. TRASK, Orange, N. J. Filed July 16, 1909. Serial No. 507,945.

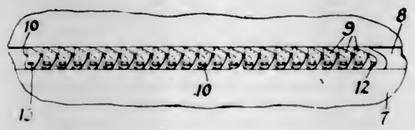


1. A hose rack comprising in combination a supporting collar, a base having two points for attachment at its opposite sides, a hose support projecting from said base and means adaptable to either of the two points of support on the base for pivotally attaching said base to said collar, substantially as described.

2. A hose rack comprising in combination a supporting collar having perforated ears close to the collar, a movable portion provided with perforations adapted to register with the perforations in the collar and a supporting pin adapted to fit the registering perforations on either side of the collar, substantially as described.

3. A hose rack comprising in combination a supporting collar provided with perforated ears close to the collar, means for securing the collar to a standard, a base having perforations adapted to register with the first named perforations, a pin adapted to fit the registering perforations on either side of the collar at will, horizontal supporting arms projecting from said base and transverse pins pivoted each to one of said arms, substantially as described.

941,411. TURBINE-BLADE-HOLDING MEANS. CHRISTIAN GILSON, Pittsburg, Pa., assignor to The Westinghouse Machine Company, a Corporation of Pennsylvania. Filed May 7, 1908. Serial No. 431,440.



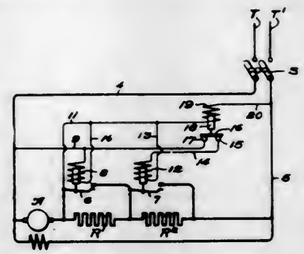
1. In combination with the blade holding element of a turbine, a plurality of blades secured thereto and means, comprising a longitudinally extending projection and a tip formed integrally on each blade, for securing the outer or free ends of the blades together.

2. In combination with the blade holding element of a turbine, a plurality of blades secured thereto, a longitudinally extending projection and a tip formed on the outer end of each blade whereby the outer or free ends of the blades are secured together by securing the projection of one blade to the end of the next adjacent blade by riveting over said tip.

3. A turbine blade comprising a body portion having at one end a laterally projecting lip provided with a hole and a lug adjacent to said lip.

4. A turbine blade comprising a body portion provided with a flexible extension having a hole and means on the blade for engagement with a hole in the extension of an adjacent blade.

941,412. MOTOR-STARTER. MAX R. HANNA, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Sept. 12, 1907. Serial No. 392,423.



1. In a motor control system, a motor to be controlled, a plurality of switches intended for operation in succession to increase step-by-step the voltage applied to the motor in starting, means for rendering the first switch responsive to the counter electromotive force of the motor, and means for rendering the last switch responsive to the current in the motor circuit.

2. In a motor control system, a motor to be controlled, a plurality of electrically controlled switches intended for operation in succession to increase step-by-step the voltage applied to the motor in starting, means for connecting the actuating coil of the first switch in shunt to the motor, and means responsive to the current in the motor circuit for controlling the energization of the actuating coil of the last switch.

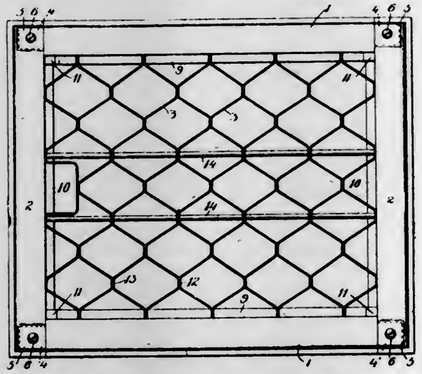
3. In a motor control system, a motor to be controlled, a starting resistance in the motor circuit, a plurality of electrically controlled switches intended for operation in succession to short circuit said resistance section by section, means for connecting the actuating coil of the first switch in shunt to the motor, and a relay having its actuating coil connected across a portion of said resistance arranged to control the circuit through the actuating coil of the last switch whereby the same will be prevented from closing while the current in the motor circuit exceeds a certain value.

4. In combination, a source of current, a motor connected thereto, a starting resistance for said motor, an electro-magnetic switch having its actuating coil connected across the armature of said motor for cutting out said resistance, and a relay having its actuating coil connected across said resistance and its contacts arranged to interrupt the circuit through the actuating coil of the electro-magnetic switch while the counter electro-motive force of the motor is more than a certain amount below the potential at the source.

5. In combination, a source of current supply, a motor connected thereto, a starting resistance for said motor, a plurality of electro-magnetic switches having their actuating coils connected across the armature of said motor and arranged to operate successively as the counter electromotive force of the motor increases, and a relay arranged to interrupt the circuit through the actuating coil of the last switch while the counter electromotive force is more than a certain amount below the potential at the source.

[Claims 6 and 7 not printed in the Gazette.]

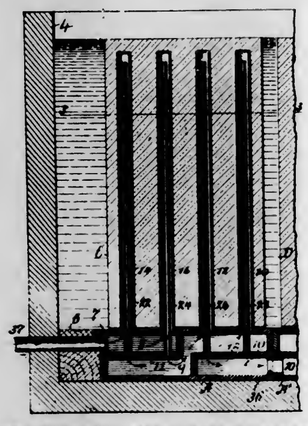
941,413. REGISTER OR VENTILATOR. HOWARD S. HART, New Britain, Conn., assignor to The Hart & Cooley Company, New Britain, Conn., a Corporation of Connecticut. Filed Feb. 15, 1906. Serial No. 301,134.



1. A register or ventilator comprising four frame members secured together at the corners, each frame member having an integral depending wall and an integral inturned flange, a grill formed of a plurality of strips arranged on edge and supported by said flanges, and means for reinforcing the central portion of said body strips.

2. A register or ventilator comprising a relatively broad and shallow rectangular frame, having two of its sides formed with integral depending walls and inturned flanges, and a grill supported directly on said flanges and composed of relatively thin strips of sheet metal arranged on edge forming openings between the strips.

941,414. ICE-MAKING APPARATUS. DAVID J. HAVENSTRITE, Newark, N. J. Filed Jan. 10, 1908. Serial No. 410,076.

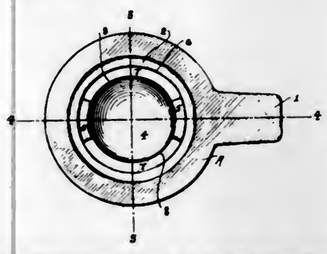


1. In an apparatus for making plate ice, a tank having a substantially level floor, parallel tubes located at a distance from the vertical walls of said tank closed at their upper ends having substantially smooth external peripheries extending vertically upward from said floor of said tank and connected below said floor, and partitions in said tubes: whereby liquid circulation may be caused in said tubes and an ice cake formed upon said tubes free at its sides from the vertical walls of said tank.

2. In an apparatus for making plate ice, a tank having a substantially level floor, a header having its upper surface horizontal forming part of said floor, parallel tubes located at a distance from the vertical walls of said tank closed at their upper ends having substantially smooth external peripheries extending vertically upward from said header, and partitions in said tubes and header: whereby liquid circulation may be caused in said tubes and header and an ice cake formed upon said tubes and upon the upper surface of said header free at its sides from the vertical walls of said tank.

3. In an apparatus for making plate ice, a tank having a substantially level floor, a plurality of parallel headers having their upper surfaces forming part of said floor, spacing blocks between said headers forming the remainder of said floor, a series of parallel tubes located at a distance from the vertical walls of said tank closed at their upper ends having substantially smooth external peripheries extending vertically upward from said headers, and partitions in said tubes and headers: whereby liquid circulation may be caused in said tubes and headers and an ice cake formed upon the upper surface of each header and the tubes thereon, the said ice cakes being free from one another and each ice cake being free from the vertical walls of said tank.

941,415. EGG-SEPARATOR. HOWARD H. HEATHERINGTON and CORWIN O. LONG, Bellaire, Ohio. Filed Mar. 9, 1909. Serial No. 482,233.



An egg separator comprising an annular body having an inclined lower face and an inclined upper face, said faces converging toward the center of said body, a cup having a sharpened upper edge spaced from and located on the interior of said body so that said edge lies approximately flush with the lower end of the upper inclined face of said body, and a pair of arms secured to said cup and body and extending across the space therebetween.

941,416. PRIMARY ELECTRIC CELL OR BATTERY. ALBRECHT HEIL, Frankfort-on-the-Main, Germany. Filed Apr. 6, 1909. Serial No. 488,275.

1. A primary cell of the kind described containing in combination with the electrodes and the electrolyte of a depolarizer consisting of sulfate of mercury, finely divided carbon and free mercuric oxid, substantially as and for the purpose set forth.

2. A primary cell of the kind described comprising in combination with the electrodes and electrolyte a depolarizer containing sulfate of mercury, finely divided carbon and free mercuric oxid, substantially as and for the purpose set forth.

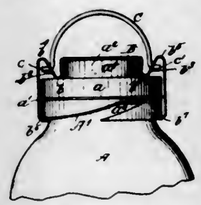
3. A primary cell of the kind described comprising in combination with the electrodes an electrolyte formed of sulfate of magnesium and sulfate of potassium and a depolarizer consisting of sulfate of mercury, finely divided carbon and free mercuric oxid, substantially as and for the purpose set forth.

4. A primary cell of the kind described comprising in combination with the electrodes an electrolyte formed of sulfate of magnesium and sulfate of potassium and a depolarizer containing sulfate of mercury, finely divided carbon and free mercuric oxid substantially as and for the purpose set forth.

5. A primary cell of the kind described comprising in combination with the electrodes and the electrolyte of a depolarizer consisting of sulfate of mercury, finely divided carbon, free mercuric oxid and peroxid of manganese, substantially as and for the purpose set forth.

[Claims 6 to 8 not printed in the Gazette.]

941,417. JAR-CLOSURE. GEORGE HENDERSON, Dorchester, Mass. Filed Feb. 13, 1909. Serial No. 477,634.



1. In a device of the character specified the combination of a jar, slanting shoulders thereon, a cover, and a revoluble spring clamp adapted to engage said shoulders and, upon the revolution thereof, to bear upon said cover with both lateral and downward pressure.

2. In a device of the character specified the combination of a jar, slanting shoulders thereon, a cover provided with an extension part a narrow surface about the base of said extension part, and a spring clamp adapted to engage said shoulders and to fit over said extension part and to bear downwardly upon said surface upon the tightening of said spring clamp by the revolution thereof.

3. In a device of the character specified the combination of a jar, slanting shoulders thereon, a cover provided with an extension part, a revoluble spring clamp adapted to engage said shoulders and fit over said extension part and to grip the same laterally upon the tightening of said spring clamp by the revolution thereof.

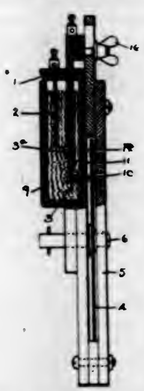
4. In a device of the character specified the combination of a cover provided with an extension part, a clamp adapted to fit over said extension part and along the sides thereof said clamp bearing flexible members forming spring-pressure elements rising on opposite sides of said extension part to a height not exceeding the height of that part of said clamp which fits over said extension part.

5. The combination of a jar, slanting shoulders on the neck thereof, a cover to said jar provided with an extension part, a narrow surface about the base of said extension part, an upwardly extending surface on said extension part, a revoluble clamp adapted to fit across the top of said extension part and down along the upwardly extending surface of said extension part on either side thereof, flexible members forming spring pressure elements on said clamp rising on opposite sides of said extension parts to a height not exceeding the height of that part of said clamp which fits over said extension part, gripping members on said clamp adapted to engage said slanting shoulders and upon the revolution of said clamp to draw the same down upon said cover in a manner whereby it may firmly engage both said narrow surface about the base of said extension part and said upwardly extending surface on said extension part.

941,418. SLIP-INDICATOR. GEORGE A. JOHNSTONE, Revere, Mass., assignor to General Electric Company, a Corporation of New York. Filed Apr. 30, 1908. Serial No. 430,072.

1. In a visual slip indicator for induction motors, the combination with a source of light which varies in intensity in synchronism with an alternating current circuit, of means for exposing said source of light at intervals varying in frequency with the speed of an induction motor connected to the alternating current circuit.

2. In a visual slip indicator for induction motors, the combination with a source of light which varies in intensity in synchronism with an alternating current circuit, of a movable shutter actuated by an induction motor connected to the alternating current circuit and arranged to momentarily expose said source of light at intervals varying in frequency with the speed of the motor.



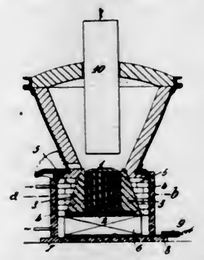
3. In a visual slip indicator for an induction motor, the combination with a source of light which varies in intensity in synchronism with an alternating current circuit, of a rotary shutter driven in synchronism with an induction motor connected to the alternating current circuit, said shutter having an opening for intermittently exposing said source of light.

4. In a visual slip indicator for induction motors, the combination with a source of light which varies in intensity in synchronism with an alternating current circuit, of means for making during one revolution of an induction motor connected to an alternating current circuit a series of exposures of said source of light, said exposures being proportional in number to the number of poles of the motor.

5. In a visual slip indicator for induction motors, the combination with a source of light which varies in intensity in synchronism with an alternating current circuit, of a shutter moved at a rate dependent on the speed of an induction motor connected to an alternating current circuit, said shutter having openings arranged in lines equal in number to the various numbers of pairs of poles used in induction motors, the number of openings in each line being proportional to a different number of poles, and means for varying the relation of said source of light to said lines of openings in said shutter to make during one revolution of the motor a series of exposures of said source of light, said exposures being proportional in number to the number of poles of said motor.

[Claims 6 to 10 not printed in the Gazette.]

941,419. ELECTRIC FURNACE. CHARLES A. KELLER, Paris, France. Filed Nov. 4, 1908. Serial No. 460,987.



1. In an electric furnace a hearth serving as electrode and comprising a metal plate, a plurality of metallic elements in connection with said metal plate and projecting therefrom, a refractory body in the interspaces between

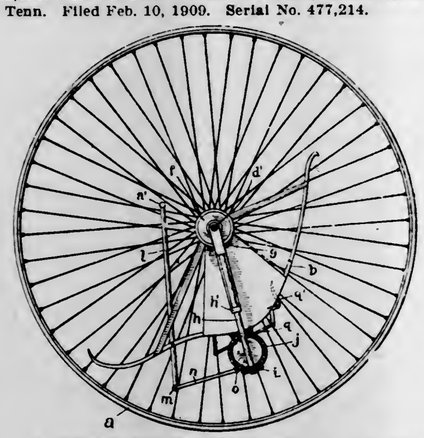
said metal elements and surrounding the same, and a second refractory body inclosing said first named refractory body.

2. In an electric furnace a hearth serving as electrode and comprising a metal plate, a plurality of metallic elements in connection with said plate and projecting therefrom, a refractory body in the interspace between said elements and surrounding the same, said refractory body increasing in conductivity with increasing temperature, and a second refractory body inclosing said first named refractory body.

3. In an electric furnace a hearth serving as electrode and comprising a metal plate, a plurality of metallic elements in connection with said plate and projecting therefrom toward the furnace chamber, a refractory body filling the interspaces between said elements, a second refractory body inclosing said first named refractory body and a metal frame surrounding said second refractory body.

4. In an electric furnace a hearth serving as electrode and comprising a metal plate, a plurality of elements in connection with said plate and projecting therefrom toward the interior of the furnace, a refractory body filling the interspace between said elements and containing minerals from the group of the rare earths, a second refractory body surrounding said first named one, a metal frame inclosing the hearth and a plurality of cooling pipes surrounding said metal frame.

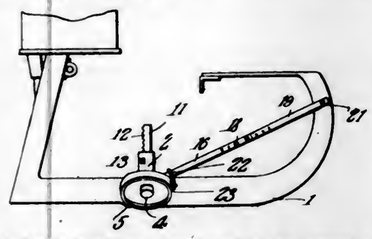
941,420. HAND-CAR. JOHN D. KERR, Murfreesboro, Tenn. Filed Feb. 10, 1909. Serial No. 477,214.



1. A railroad hand car, having twin carrying wheels provided with short alined axle sections solidly connected thereto, a seat fitting between and suspended from said axle sections, bevel gears fast upon said axle sections, upright shafts at the sides, having upper gear engagement with said bevel gears and lower bevel gears, a horizontal shaft having rotary bearings below the seat, and carrying bevel gears in mesh with the lower gears of the upright shaft, and an operating lever having fulcrum connection with said seat and driving connection with said horizontal shaft.

2. A railroad hand car, having twin carrying wheels and short alined axle sections fast thereto, a seat fitting between said axle sections and having lateral bosses in which said axle sections have rotary bearings, bevel gears fast upon said axle sections, lateral brackets hung from the axle sections and connected to said seat, upright shafts at the sides having rotary bearings in said lateral brackets, upper gear engagement with said bevel gears and lower bevel gears, a horizontal shaft having rotary bearings below said seat, and carrying bevel gears in mesh with the lower gears of the upright shafts, and operating levers having fulcrum connection with the seat and driving connection with said horizontal shaft.

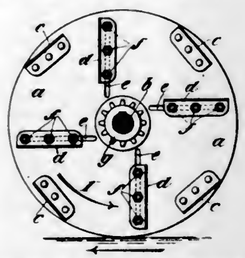
941,421. PLANTER-SHOE TRUCK. WIRT N. KILBY and SAMUEL W. KERR, Lancaster, Wis. Filed Aug. 23, 1909. Serial No. 514,238.



1. A planter shoe truck comprising an axle having downwardly and inwardly disposed end portions, and spindle extremities pitched at an angle to each other, ground wheels journaled upon the spindle extremities of the axle, a standard adjustably mounted upon the axle and having means for attachment with the planter shoe, and a draft means for connecting the axle with the planter shoe.

2. A planter shoe truck comprising an axle, ground wheels journaled thereon, said axle having an opening provided at one side with a recess, a standard located in the opening of the axle and having a dentate web located in the recess of the opening, means carried by the standard for attachment with the planter shoe, a bolt passing transversely through portions of the axle and adapted to extend through the spaces of the teeth of said web, and a draft means for connecting the axle with the planter shoe.

941,422. CULTIVATING-MACHINE. KARL KOSZEGI, Baja, and EMIL SZÉCHENYI, Vajszka, Austria-Hungary. Filed Mar. 29, 1909. Serial No. 486,577.



An attachment for soil cultivating machines for turning soil and stubble and disintegrating deep soil comprising a thin disk, uniformly distributed hoes on said disk and approximately radial adjustable blades on said disk, as and for the purpose specified.

941,423. PROCESS OF MAKING PREVENTIVE AND CURATIVE LYMPH. SIMON KRAFFT, Munich, Germany. Filed June 22, 1908. Serial No. 439,841.

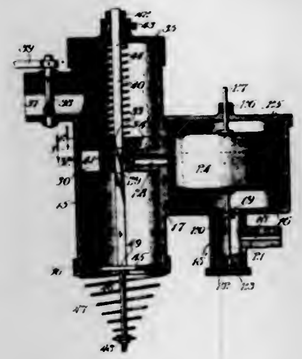
1. The herein described process for the manufacture of lymphs for preventive and curative purposes, which consists in preparing a culture of a bacteria group, adding thereto a metal and after the reaction is complete, separating the metal from the resulting product, thereby obtaining the curative lymph.

2. The herein described process for the manufacture of lymphs for preventive and curative purposes, which consists in preparing a culture of bacteria of the swine-plague and hog-cholera group, adding thereto a heavy metal the soluble compounds of which do not injure the animal organism, and after the reaction is complete, separating the metal from the resulting product, thereby obtaining the curative lymph.

3. The herein described process for the manufacture of lymphs for preventive and curative purposes, which consists in preparing a culture in nutritive gelatin of bacteria of the hog-cholera or swine-plague group, adding thereto a heavy metal, allowing the mixture to act for about fifteen hours in an incubating vessel, allowing to settle and separating the metal from the resulting product, thereby obtaining the curative lymph, substantially as described.

4. The herein described process for the production of lymphs for preventive and curative purposes, which consists in adding bacteria of the swine plague or hog cholera group, to nutritive gelatin, allowing the mixture to act for two days at a temperature of about 25° C., adding thereto pure zinc in a suitable state of division, allowing the mixture to act for 15 hours at a temperature of about 22° C., meanwhile agitating the mixture, then adding glycerin and carbolic acid to the mixture, allowing the liquid to settle, and then finally filtering the liquid, the metal being separated from the culture liquid thereby obtaining the curative lymph, substantially as described.

941,424. CARBURETER. CLARENCE G. LEONARD, Savannah, N. Y. Filed Jan. 12, 1909. Serial No. 471,887.



1. In a carbureter, an air conduit, a gasolene conduit opening by a series of small holes into said air conduit, and a flat rotatable plate over the said holes, means responsive to the degree of suction in the air conduit, and an operating connection from said means to said plate to control the latter.

2. In a carbureter, an air conduit, a gasolene conduit opening into said air conduit by a series of small holes, a flat rotatable plate over the holes, a suction valve across the said air conduit, and a mechanical connection between the said valve and plate constructed and arranged so that the displacement of the valve will open or close the holes in succession.

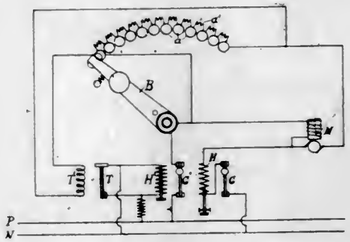
3. In a carbureter, an air conduit, a gasolene conduit opening into said air conduit by an outlet extended so as to have the general shape of an arc of a circumference, a rotatable plate over said outlet, means responsive to the degree of suction in the air conduit, and an operating connection from said means to said plate to control the latter.

4. In a carbureter, an air conduit, a gasolene conduit opening into the air conduit by an outlet extended so as to have the general shape of an arc of a circumference, a rotatable plate over the said outlet, a suction valve across the said air conduit, and a mechanical connection from the valve to the plate constructed and arranged to rotate the plate as the said valve is displaced.

5. In a carbureter, an air conduit, a gasolene conduit opening therein by an outlet extended so as to have the general shape of an arc of a circumference, a rotatable plate over said outlet, a suction valve across the air conduit, a twisted stem engaging the said valve and plate whereby a displacement of the valve will rotate the plate.

[Claims 6 to 16 not printed in the Gazette.]

941,425. ELECTRIC-CIRCUIT CONTROLLER. HARRY W. LEONARD, Bronxville, N. Y. Original application filed Nov. 30, 1901, Serial No. 84,188. Divided and this application filed Apr. 6, 1906. Serial No. 310,199.



1. The combination with a motor starting rheostat, of a circuit breaker, means for automatically inserting resistance of said rheostat independently of the movement of said circuit breaker, and means for causing the automatic opening of said circuit breaker if the starting resistance is left in circuit a predetermined length of time.

2. The combination with a motor armature resistance, of means for opening the circuit outside the resistance, and a device for automatically controlling said means, said device being responsive to current flow through said resistance for a predetermined time interval independently of any change in the ohmic resistance of said motor armature resistance.

3. The combination with a motor controlling resistance, a switch for protecting the main circuit, an electro-responsive winding for affecting said switch upon the occurrence of no voltage, an electro-responsive winding for affecting said switch upon the occurrence of over-load current independently of said first-named winding, and a time limit device for affecting said switch if said resistance is left in circuit a predetermined length of time.

4. The combination of a motor controlling resistance, a switch for opening the main circuit outside said resistance, a no-voltage electromagnetic winding energized independently of any current through the motor windings for controlling the opening of said switch, an overload electromagnetic winding for controlling the opening of said switch, and means dependent upon the length of time said resistance is in circuit for deenergizing said no-voltage winding.

5. The combination of a rheostat having a plurality of steps of resistance and a movable element by the movement of which any desired number of steps are cut in and out of circuit, a no-voltage magnet for holding said element in its restrained position, a quick-acting switch for opening the main circuit, and means dependent upon the length of time said resistance is in circuit for automatically effecting the opening of said switch.

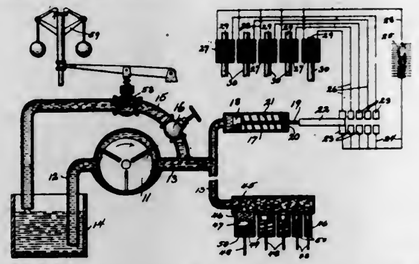
[Claims 6 to 38 not printed in the Gazette.]

941,426. TURBINE-CONTROLLER. WILLIAM A. LOUDON, Chicago, Ill., assignor to General Electric Company, a Corporation of New York. Filed Feb. 4, 1904. Serial No. 192,047.

1. In a controlling device, a pump, a reservoir, a valve in a by-pass between the outlet of the pump and the reservoir, and means whereby a series of valves are operated successively by either the increase or decrease of pressure produced by the pump.

2. In a controlling device, a pump provided with an inlet and an outlet, a by-pass connecting said outlet and said inlet, a valve in said by-pass controlled by a governor, and means whereby a series of valves are operated successively by either the increase or decrease of pressure produced by the pump, said means comprising pistons connected to said valves and subjected to the pressure of said pump.

3. In a controlling device, a constantly driven pump, and means whereby a series of valves are operated successively by either the increase or decrease of pressure produced by the pump.

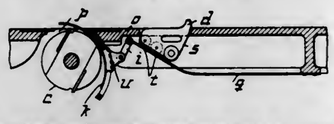


4. In a turbine controlling device, a series of pistons subjected to a pressure created by the turbine, each of said pistons being of a different area, and means for yieldingly holding said pistons against said pressure.

5. In a controlling device, a liquid pump provided with an inlet and an outlet, a by-pass connecting said inlet and outlet, a regulating valve in said by-pass, a series of cylinders connected with said outlet, pistons provided in said cylinders, springs provided to normally move said pistons against said liquid pump pressure, rods connecting said pistons to a series of valves, and means whereby said valves are successively operated by either the increase or decrease of pressure created by said pump.

[Claims 6 to 10 not printed in the Gazette.]

941,427. PROTECTING ARRANGEMENT FOR ROTARY TOOLS. PER G. C. LUNDBERG, Wernamo, Sweden. Filed Jan. 8, 1909. Serial No. 471,340.



1. In rotary tool protecting apparatus, a curved guard, guides for said guard, a spring fixed at one end, connected at its other end to said guard and tending to move it into its operative position, and means adapted to be actuated by work under treatment for moving said guard into an inoperative position, said means being free of connection with but serving to slidingly engage said spring.

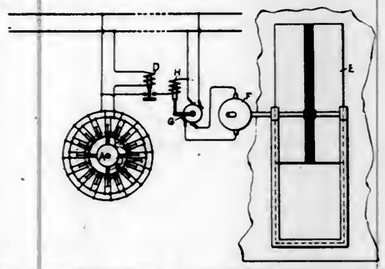
2. In rotary tool protecting apparatus, a curved guard, guides for said guard, a blade spring fixed at one end, connected at its other end to said guard, and constantly tending to move said guard into its operative position, and means arranged to be actuated by work under treatment and free of connection with and serving to slidingly engage and move said spring in a direction to move said guard into its inoperative position.

3. In rotary tool protecting apparatus, a curved guard, guides for said guard, a blade spring fixed at one end, linked at its other end to said guard, and constantly tending to move said guard into its operative position, and a pivoted member arranged to be actuated by work under treatment and free of connection with and serving to move said spring in a direction to slidingly engage and move said guard into its inoperative position.

941,428. AUTOMATIC CONTROL OF WATER-TIGHT DOORS. WILBUR L. MERRILL, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Oct. 15, 1906. Serial No. 338,897.

1. In combination with a water-tight door or hatch on board ship, operating means for said door or hatch arranged to close the same, and controlling means therefor operated by a sudden variation of motion of the ship.

2. In combination with a water-tight door or hatch on board ship, a motor for operating said door or hatch to close the same, an electric controlling circuit therefor, and a circuit-closing device in said circuit operated by a sudden variation of motion of the ship.



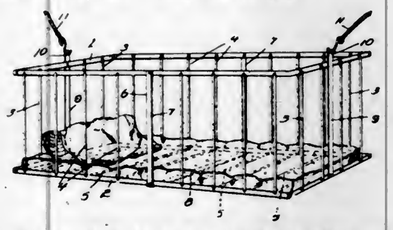
3. In combination with a water-tight door or hatch on board ship, a movable device possessing high inertia, means for holding said device fixed during ordinary movements of the ship but permitting movement of said device during sudden variation of motion of the ship, and means operated by the movement of said device for closing said door.

4. In combination with a water-tight door or hatch on board ship, a movable device possessing high inertia, means for holding said device fixed during ordinary movements of the ship, switch contacts arranged to be operated by the movement of said device, an electro-magnet in circuit with said contacts, and means controlled by said electro-magnet for closing said door.

5. In combination with a water-tight door or hatch on board ship, power-operated mechanism for closing said door, a movable device possessing high inertia, means for holding said device fixed during ordinary movements of the ship, switch contacts arranged to be operated by the movement of said device, an electro-magnet in circuit with said contacts, and operative connections between said magnet and said power-operated mechanism.

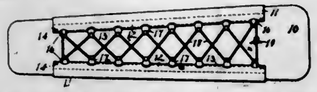
[Claims 6 to 8 not printed in the Gazette.]

941,429. CRIB. JOSEPH B. STALTER, Pittsford, N. Y. Filed Dec. 23, 1908. Serial No. 468,979.



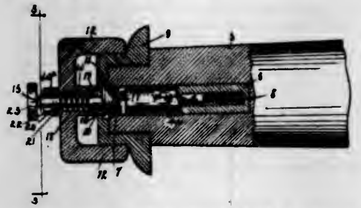
A crib comprising an upper rectangular frame portion formed from a single piece of strap metal, a corresponding lower rectangular frame portion also formed from a single piece of strap metal, said frame portions presenting flat side and end rails, the side rails of the lower frame portion being provided with openings, rods connecting the end rails of the frame portions, rods connecting the side rails of the frame portions, cross rods forming the bottom of the crib and integral with the lower ends of the latter named rods, said rods being passed at their points of union through the openings in the side rails of the lower frame portion, U-shaped strap metal braces centrally connecting the side rails of the frame portions and extending transversely beneath the lower frame portion, and strap metal long braces centrally secured to the end rails of the frame portions and having their upper ends projected above the top frame portion and provided with openings to form hangers for connection with suspension devices.

941,430. COVER FOR IRONING-BOARDS. EDWARD STONE, Chicago, Ill. Filed Aug. 22, 1907. Serial No. 389,616.



Means for covering ironing boards, comprising a cloth adapted to be placed around a board and having hems along its margins and notches in the edges of said hems, rods removably arranged in said hems, hooks mounted on said rods at said notches and means removably engaging said hooks and adapted to draw said cloth tightly over said board.

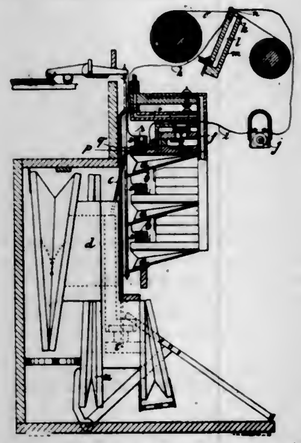
941,431. WRENCH. CHRISTOPHER C. SWANSON, Laporte, Ind., assignor of one-half to William Conry, Laporte, Ind. Filed Feb. 27, 1909. Serial No. 480,474.



1. A wrench comprising gripping jaws, a central boss and suitable handle integrally formed, in combination with a latch yieldably and partially rotatable in said boss, said latch having a rectangular head terminating in a conical end, and means for manually operating the same.

2. A wrench comprising a suitable handle and gripping jaws, in combination with a latch member having a flanged and conical head and a grasping portion, a coiled spring adapted to yieldingly support said latch and maintain the latter in operative position, and means for limiting the rotation of said latch, substantially in the manner and for the purpose set forth.

941,432. ELECTROPNEUMATIC PIANO-PLAYER. ARTHUR R. TRIST, St. Albans, England, assignor to Trist Piano Player Limited, London, England. Filed Nov. 10, 1906. Serial No. 342,891.



In an automatic piano player, a tracker, sources of air supply at different pressures, a pneumatic note actuating mechanism adapted to be actuated normally at one pressure of air, in combination with a perforated music record sheet having circuit-closing arrangements carried thereby, and an electric control device fitted to each orifice on the tracker, and to each note actuating mechanism and adapted to give a supply for air at another pressure to the pneumatic note-actuating mechanism when the electric circuit of the electric control device is completed by the music sheet, substantially as described.

941,433. MUSIC-RECORD SHEET FOR AUTOMATIC PIANO-PLAYING MECHANISM AND THE LIKE. ARTHUR R. TRIST, St. Albans, England, assignor to Trist Piano Player Limited, London, England. Original application filed Nov. 10, 1906, Serial No. 342,891. Divided and this application filed Dec. 11, 1907. Serial No. 406,032.



A record music sheet for pneumatic piano playing apparatus having a non-conducting layer perforated with all the note perforations in combination with a conducting layer having through perforations for selected notes arranged at the end of the note perforations of the non-conducting layer adapted to control the striking of the selected notes in distinction to the other notes initially operated by the non-perforated conducting layer.

941,434. HAIR-TONIC. CONSTAS TSOBONES, Minneapolis, Minn. Filed Apr. 24, 1909. Serial No. 492,037.

A hair tonic consisting of corrosive sublimate, quinin sulfate, chloral hydrate, tincture of rhatany, nitric acid, alcohol and water in the proportions stated.

941,435. INDUCTION-FURNACE. MAGNUS UNGER, Pittsfield, Mass., assignor to General Electric Company, a Corporation of New York. Filed May 6, 1908. Serial No. 431,138.

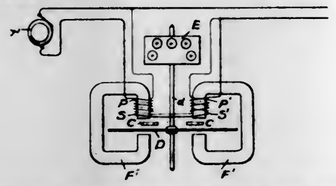


1. In an induction furnace, the combination of a plurality of magnetic cores, windings upon said cores, and a plurality of annular furnace chambers surrounding said cores and communicating with a shallow central chamber.

2. In an induction furnace, the combination of a plurality of magnetic cores, independent primary windings upon said cores, and a central treating chamber surrounded by narrow segmental annular chambers opening into said central chamber and in inductive relation with said primary windings.

3. The combination of a plurality of magnetic cores forming closed magnetic circuits, independent primary windings upon each of said cores, a single source of energy for said windings, and a plurality of intercommunicating charges in inductive relation to said magnetic circuits.

941,436. ELECTRIC METER. FREDERICK M. VOGEL, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed Sept. 14, 1904. Serial No. 224,361.



1. In a meter for alternating currents, a rotatable conducting member, potential windings arranged to produce normally equal fluxes threading said member at two places, two similar short-circuited conductors arranged to be energized by said fluxes and displaced therefrom symmetrically but oppositely, and series windings completely surrounding the magnetic paths for the potential fluxes and arranged to oppose the potential flux at one place and assist it at the other.

2. In a meter for alternating currents, a rotatable conducting member, potential windings arranged to produce normally equal fluxes threading said member at two places, two similar short-circuited conductors arranged to be energized by said fluxes and displaced therefrom symmetrically but oppositely, and series windings completely surrounding the magnetic paths for the potential fluxes and arranged to vary the relative strength of the fluxes threading said conductors.

3. In an alternating-current meter, a rotatable conducting member, potential windings, series windings completely surrounding the magnetic paths of the fluxes produced by the potential winding and arranged to produce with the potential windings joint fluxes threading said member at two places, said windings opposing each other at one place and assisting each other at the other place, and two similar short-circuited conductors arranged to be energized by said fluxes respectively and displaced symmetrically but oppositely therefrom.

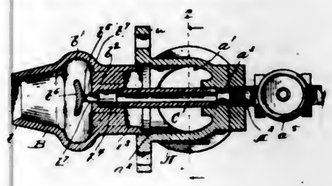
4. In an alternating-current meter, a rotatable conducting member, two independent magnetic circuits threading said member, potential windings, series windings completely surrounding the magnetic paths of the fluxes produced by the potential windings and arranged to assist the potential winding in energizing one of said circuits and to oppose the potential winding in energizing the other circuit, and two similar short-circuited conductors adjacent to said rotatable member and symmetrically but oppositely displaced from the axes of said magnetic circuits.

5. In an alternating-current meter, a rotatable conducting member, two magnetic circuits threading said member, potential windings, series windings completely surrounding the magnetic paths of the fluxes produced by the potential windings and arranged to assist the potential winding in energizing one of said circuits and to oppose the potential winding in energizing the other circuit, and short-circuited conductors adjacent to said rotatable member and oppositely displaced from the axes of said magnetic circuits.

[Claims 6 to 9 not printed in the Gazette.]

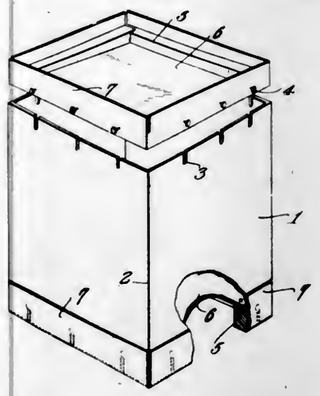
941,437. GAS-BURNER. JACOB WEINTZ, Cleveland, Ohio. Filed Sept. 11, 1907. Serial No. 392,299.

1. In a gas-burner, the combination of a chamber provided with angularly related inlet and outlet openings for the passage of air therethrough and with a smaller opening alined with such outlet opening for the gas supply, a mixer of general tubular form with an annular enlargement intermediate between its ends, said mixer consisting of a single casting and including an interior, longitudinally disposed core spaced from the outer walls of the mixer, said core extending to a point adjacent to such enlargement and provided with an axial bore extending the entire length of the core, a gas supply pipe threaded in the rear end of such bore and in the smaller opening in said chamber, whereby said mixer is secured in place, and deflecting means at the front end of said core adapted to direct the gas radially as it enters the mixer.



2. In a gas-burner, the combination of a chamber provided with angularly related inlet and outlet openings for the passage of air therethrough and with a smaller opening alined with such outlet opening for the gas supply, of a mixer of general tubular form with an annular enlargement intermediate between its ends, said mixer consisting of a single casting and including an interior longitudinally disposed core spaced from the outer walls of the mixer, said core extending to a point adjacent to such enlargement and provided with an axial bore extending the entire length of the core, a transverse rib formed upon the front end of said core, the sides of said rib being intersected by such bore, a gas supply pipe connected to the rear end of the core, and a concavo-convex deflecting plate mounted upon said rib so as to be supported within such enlarged portion of the mixer, the convex face of said deflecting plate being disposed toward said core, to direct the gas radially as it enters the mixer.

941,438. SHIPPING-BOX. MARK B. CLAFF, Randolph, Mass. Filed Mar. 30, 1909. Serial No. 486,663.

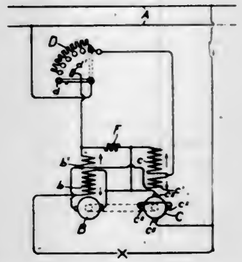


1. A receptacle comprising a foldable body having slots in the ends of the walls thereof, heads insertible into the ends of the body, projections thereon and insertible into the slots, and sealing means carried by the heads.

2. A receptacle comprising a foldable body having slots extending into the ends thereof, heads insertible into the ends of the body, securing means extending from the heads and insertible into the slots, and flexible sealing strips upon the heads and foldable upon the body.

3. A receptacle comprising a foldable one-piece body having slots extending into the ends thereof, and a head insertible into each end of the body, said head comprising a frame, a closure thereon, and headed projections extending from the frame and insertible into the slots, and flexible sealing strips upon the head and foldable on to the body.

941,439. MOTOR-GENERATOR SET. WILMOT A. DANIELSON, Des Moines, Iowa, assignor to General Electric Company, a Corporation of New York. Filed Aug. 18, 1908. Serial No. 447,527.



1. In combination with a constant potential supply circuit, a motor generator set having the armatures connected in series across said circuit, the generator having a set of brushes short-circuiting the armature on a line displaced approximately ninety electrical degrees from the line of field magnetization and a second set of brushes, through which the armature is connected in circuit, displaced approximately ninety electrical degrees from the first set, and a load circuit of variable resistance connected across the generator armature, said generator having a main field winding in shunt to the motor armature and an auxiliary opposing winding in series with the motor armature.

2. In combination with a constant potential supply circuit; a motor generator set having the armatures connected in series across said circuit, the generator having a set of brushes short-circuiting the armature on a line displaced approximately ninety electrical degrees from the line of field magnetization and a second set of brushes, through which the armature is connected in circuit, displaced approximately ninety electrical degrees from the first set, and a load circuit of variable resistance connected across the generator armature, said motor having a field winding in series with said load circuit.

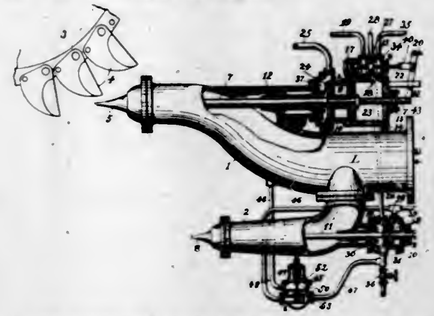
3. In combination with a constant potential supply circuit, a motor generator set having the armatures connected in series across said circuit, the generator having a set of brushes short-circuiting the armature on a line displaced approximately ninety electrical degrees from the line of field magnetization and a second set of brushes, through which the armature is connected in circuit, displaced approximately ninety electrical degrees from the first set, and a load circuit of variable resistance connected across the generator armature, said motor having a field winding in series with said load circuit, and said generator having a field winding in shunt to the motor armature.

4. In combination with a constant potential supply circuit, a motor generator set having the armatures connected in series across said circuit, the generator having a set of brushes short-circuiting the armature on a line displaced approximately ninety electrical degrees from the line of field magnetization and a second set of brushes, through which the armature is connected in circuit, displaced approximately ninety electrical degrees from the first set, and a load circuit of variable resistance connected across the generator armature, said motor having a field winding in series with said load circuit, and said generator having a field winding in shunt to the motor armature, and an auxiliary opposing winding in series with the motor armature.

5. In combination with a constant potential supply circuit, a motor generator set having the armatures connected in series across said circuit, the generator having a set of brushes short-circuiting the armature on a line displaced approximately ninety electrical degrees from the line of field magnetization and a second set of brushes, through which the armature is connected in circuit, displaced approximately ninety electrical degrees from the first set, and a load circuit of variable resistance connected across the generator armature, said motor having a field winding in series with said load circuit, and an auxiliary opposing winding in shunt to its armature.

[Claims 6 to 10 not printed in the Gazette.]

941,440. REGULATING-NOZZLE. WILLIAM A. DOBLE, San Francisco, Cal., assignor to May E. Doble. Filed Apr. 29, 1904. Serial No. 205,606.



1. The combination in an impact hydraulic motor and with an impact wheel, nozzle and main valve, of a compensating device having a discharge port and valve, and means including a motor and connections constructed and arranged to cause the valve of the said device to be shifted to open its port only on an undue increase of speed of the apparatus or if the nozzle valve suddenly approaches its closed position, substantially as set forth.

2. The combination in an impact hydraulic motor and with an impact wheel, nozzle and its valve, of a compensating device having a discharge port communicating with the nozzle and means adapted to be operated from a speed governor constructed and arranged to cause the valve of the said device to be shifted to open its port only on an undue increase of speed of the apparatus or if the nozzle valve suddenly approaches its closed position, substantially as set forth.

3. In an impact motor, a casing provided with a nozzle and an independent discharge port, an impact wheel, arranged outside of the casing to receive a jet from the nozzle, valves controlling the discharge of fluid from the casing through the nozzle and port, and means constructed and arranged to cause the said port to be opened only when the nozzle valve moves beyond a predetermined speed and limit in closing, substantially as set forth.

4. The combination in an impact hydraulic motor and with an impact wheel, nozzle and its valve, of a compensating device having a discharge port and valve, means adapted to be operated from a speed governor constructed and arranged to cause the valve of the said device to be shifted to open its port as the nozzle valve suddenly approaches its closed position, and a relief device connected to open the discharge from the nozzle casing on a sudden increase of pressure with the nozzle valve in any position, substantially as set forth.

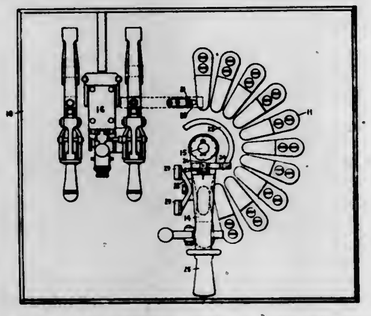
5. In an impact motor, a casing provided with a nozzle, a discharge port, and valves therefor controlling the flow from the casing, an impact wheel arranged outside the casing to receive the jet from the nozzle, means to actuate the nozzle valve, and means constructed and arranged to cause the valve controlling the discharge port to be shifted to open said port only when the nozzle valve suddenly approaches its closing position, substantially as set forth.

[Claims 6 to 36 not printed in the Gazette.]

941,441. RHEOSTAT. GEORGE H. DORGELOH, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed June 10, 1908. Serial No. 437,753.

1. A controlling device for electric motors comprising a starting resistance, an unbiased controlling arm there-

for, a switch in connection therewith for short-circuiting the arm when the latter reaches running position, and a latch for holding the switch firmly closed.



2. A controlling device for electric motors comprising a starting resistance, an unbiased controlling arm therefor, an automatic circuit-breaker controlled by said arm, a switch in connection with the arm for short-circuiting the same when it reaches running position, and a latch for controlling the circuit-breaker and holding the switch firmly closed.

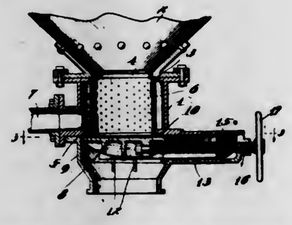
3. A controlling device for electric motors comprising a starting resistance, an unbiased controlling arm therefor, a yielding switch having one member connected to said arm for short-circuiting the latter when it reaches running position, and a latch for holding the switch member firmly in contact.

4. A controlling device for electric motors comprising a starting resistance, an unbiased controlling arm therefor, an automatic circuit-breaker having an underload coil controlled by said arm, a switch in connection with the arm for short-circuiting the same when it reaches running position, and a latch for controlling the underload coil and holding the switch firmly closed.

5. A controlling device for electric motors comprising a starting resistance, an unbiased controlling arm therefor, an automatic circuit-breaker controlled by said arm, means for preventing the closing of the circuit-breaker until the arm is moved to starting position, a switch in connection with the arm for short-circuiting the same when it reaches running position, and a latch for controlling the circuit-breaker and holding the switch firmly closed.

[Claim 6 not printed in the Gazette.]

941,442. VALVE FOR STEEP-TANKS. JOHN F. DORNFELD, Chicago, Ill. Filed Feb. 1, 1908. Serial No. 413,755.



1. In a valve, in combination, a structure having a valve opening therein and a seat surrounding said opening; a valve member for closing said opening; means for moving said member in a line substantially at right angles with the axis of said opening; rails for slidably supporting said valve member; shouldered lugs on which said rails rest; bolts for securing said rails upon said lugs; and rollers mounted on said bolts, onto which rollers said valve member is arranged to ride.

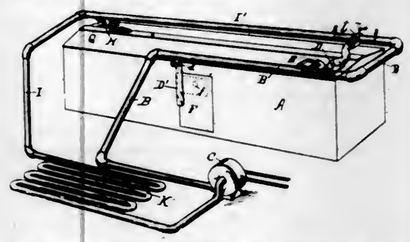
2. In a valve, in combination, a structure having a valve opening therein; a packing ring surrounding said opening; a valve member arranged to be seated on said packing ring; means for moving said member in a line substantially at right angles with the axis of said opening; rails upon which said valve member is slidably supported; shouldered lugs for supporting said rails; bolts for securing said rails on said lugs; and rollers mounted on said bolts, said valve member being notched in opposite sides, each of said notches having an inclined wall arranged to ride up on one of said rollers.

3. In a valve, in combination, a structure having a valve opening therein and a seat surrounding said opening; a valve member for closing said opening said valve having an inclined surface thereon; means for moving said member in a line substantially at right angles with the axis of said opening; rails upon which said valve member is slidably mounted; and a roller interposed between a rail and the wall of the structure, said roller engaging the inclined surface to seat the valve member.

4. In a valve, the combination with a casing or shell having a valve opening therein; rails carried by and adjacent to the wall of said shell; a valve member having inclined portions; and members interposed between the rails and sides of the shell, said members being adapted to engage the inclined portions of the valve member to cause it to move against the edge of the opening.

5. The combination with a casing containing a vertical cylindrical strainer and having an outlet at one side and a valve opening and valve seat at its lower end, of a casing secured to the lower end of the first mentioned casing, a valve horizontally slidable in the second mentioned casing into and out of operative relation to said valve opening, a screw mounted in one end of the second mentioned casing and rotatably connected with said valve, and means in the second mentioned casing arranged for engagement by said valve for raising the latter into contact with the valve seat.

941,443. SYSTEM OF PRECOOLING FRUIT-CARS OR THE LIKE. ARTHUR FAGET, San Francisco, Cal. Filed Jan. 19, 1909. Serial No. 473,056.



1. In a precooling apparatus, the combination of the air intake pipe, the pipes extending laterally therefrom, and the series of discharge ports in the lateral pipes discharging in a horizontal plane.

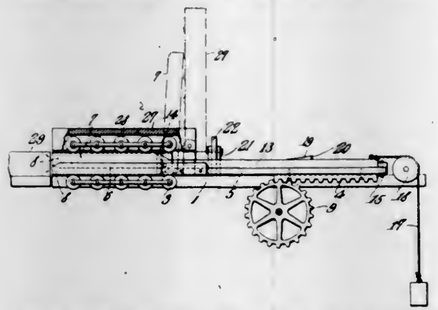
2. In a precooling apparatus, the combination of the air intake pipe, the pipes extending laterally therefrom, and the series of discharge ports in the lateral pipes discharging in a horizontal plane, and constructed of gradually increasing dimension.

3. In a precooling apparatus, the combination of the air intake pipe, the pipes extending laterally therefrom, and the series of discharge ports in the lateral pipes discharging in a horizontal plane, and inclined toward the middle.

4. In a precooling apparatus, the combination of the feed opening, the expanding chamber, into which the feed opening discharges the intake leading from the expanding chamber, and the discharge openings fed from the intake.

5. In a precooling apparatus, the combination of the false door adapted to fit a doorway of a car or other opening, an air intake extending from said false door, and suitable discharging means supplied by said intake.

941,444. PACKING-MACHINE. JOE FASSINO, McAlester, Okla. Filed Apr. 27, 1909. Serial No. 492,579.



1. In a machine for packing commodities, a receptacle formed of two members hinged together, a plunger adapted to move through said receptacle, means for moving the receptacle and plunger simultaneously in one direction, and means for moving the said receptacle and plunger separately in the other direction.

2. In a machine for packing commodities, a receptacle, a plunger adapted to move through said receptacle, means for moving the receptacle and plunger simultaneously in one direction, and means for moving the said receptacle and plunger separately in the other direction.

3. In a machine for packing commodities, a receptacle, a plunger adapted to move through said receptacle and constrained to move in one direction, means for moving both the receptacle and plunger simultaneously in a direction against the constraining means for the plunger, means for moving the receptacle in the other direction independent of the plunger, and means for holding the plunger against its restraining means and for releasing it to said restraining means.

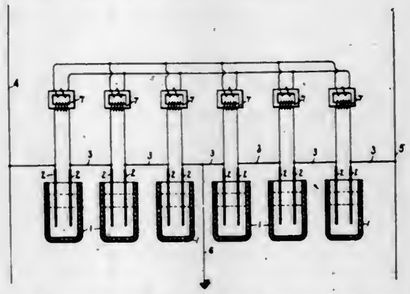
4. In a machine for packing commodities, a receptacle formed of two members hinged together at one end, one member being adapted to be moved on its hinge away from the other member and both members being movable in the direction of their lengths, a plunger housed in the said receptacle and adapted to move lengthwise thereof, means for moving the receptacle and plunger simultaneously in one direction, means for moving both the plunger and receptacle separately in the other direction, and a latch member for holding the plunger against movement under its constraining means and for releasing it to the action of the said constraining means.

5. In a machine for packing commodities, a receptacle formed of a trough-shaped member and another member hinged thereto at one end and both members adapted to move in the direction of their lengths, means for holding the cover member to the other member of the receptacle, guiding means for directing the desired commodity into the lower member of the receptacle when the hinged member is moved out of the path of said commodity, means for moving the receptacle longitudinally in both directions, a plunger housed in said receptacle, means for constraining the plunger to movement in one direction, means for causing the movement of the plunger with the receptacle in a direction against the constraining means for the plunger, and a latch member for holding the plunger at one limit of its movement in one direction and for releasing the plunger to the action of its constraining means.

941,445. ALUMINUM CELL REACTANCE. JOHN J. FRANK, Pittsfield, Mass., assignor to General Electric Company, a Corporation of New York. Filed Feb. 2, 1909. Serial No. 475,580.

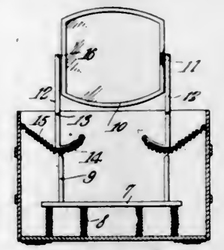
1. The combination of a plurality of aluminum condenser cells, an inductive coil connected across each of said cells, separate coils each in inductive relation with one of said coils, and a common electrical circuit for the latter set of separate coils.

2. The combination of a plurality of aluminum condenser cells connected in series, and a plurality of transformers each having one winding connected across one of said cells and another winding connected in multiple with a winding of each of the other transformers.



3. The combination of aluminum condenser cells, a transformer for each of said cells, having a primary winding connected across the electrodes of its corresponding cell, a secondary winding for each of said transformers, and a common multiple connection for all of the secondary windings.

941,446. TRUNK. WILLIAM T. FULLER, Suffolk, Va. Filed May 14, 1909. Serial No. 495,920.



1. A device of the class described including a body, a mirror slidably and removably mounted therein, mirror supports movably connected to and shiftable into position above the body, and elastic means for clamping the supports upon the elevated mirror.

2. A device of the class described including a body, mirror supports movably connected to and constituting closures for a portion of the body, a mirror within the body and movable between and into engagement with said supports, and mirror cushioning means within the body.

3. A device of the class described including a body having a compartment, oppositely disposed closures for said compartment, yielding means for holding the closures normally in position, a structure slidably and removably mounted within the compartment, said closures constituting means for yieldingly bearing against and supporting the structure above the body.

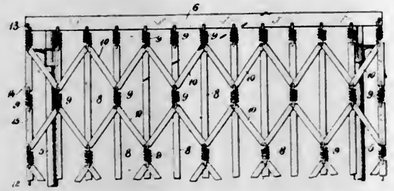
4. A device of the class described including a body having a compartment, closures for said compartment, yielding means for holding said closures normally in predetermined positions, a structure slidably and removably mounted within the compartment and movable into position between and in engagement with the closures when elevated, and a resilient support for the said structure when within the compartment.

5. A device of the class described including a body having a compartment therein, a yielding support within the compartment, a structure slidably mounted within the compartment and normally bearing upon the support, oppositely disposed supports constituting closures for the compartment, yielding means for controlling the move-

ment of said supports, and means carried by the supports for engaging and holding the slidable structure when elevated above the body.

[Claim 6 not printed in the Gazette.]

941,447. SPRING FABRIC. HENRY E. GATES, Newark, N. J. Filed Mar. 11, 1909. Serial No. 482,702.



1. The combination with a plurality of rows of longitudinally disposed connecting links, the said links being arranged in staggered relation to each other in adjacent rows, and springs connecting the links of each row together, of diagonal links which connect the opposite ends of the adjacent longitudinal links in contiguous rows together.

2. The combination with a plurality of rows of longitudinally disposed connecting links, the said links being arranged in staggered relation to each other in adjacent rows, and springs connecting the links of each row together, of diagonal links which connect the opposite ends of the adjacent longitudinal links in contiguous rows together, the said diagonal links forming acute angles with the longitudinal links which they connect.

3. The combination with a plurality of rows of longitudinally disposed connecting links, the said links being arranged in staggered relation to each other in adjacent rows, and springs connecting the links of each row together, of a plurality of horizontal rows of diagonal links which connect the opposite ends of the adjacent longitudinal links in contiguous rows together, the diagonal links of the said horizontal rows being rigidly connected together.

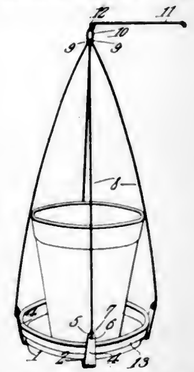
4. The combination with a plurality of rows of longitudinally disposed connecting links, the said links being arranged in staggered relation to each other in adjacent rows, and springs connecting the links of each row together, of a plurality of horizontal rows of diagonal links which connect the opposite ends of the adjacent longitudinal links in contiguous rows together, the diagonal links of the said horizontal rows being formed of a single integral strip.

941,448. FLOWER-POT HOLDER. ARTHUR HAGLUND, Lawrence, Kans. Filed Aug. 2, 1909. Serial No. 510,795.

1. In a flower pot hanger, a pair of relatively movable bars pivotally connected intermediate their ends, a plurality of rods secured to the terminals of said movable bars, a ring suspending said rods, and a securing member connected at one end to said ring and terminating at the other in an eye for securing the device in operative position.

2. In a flower pot hanger, a pair of relatively movable bars pivotally connected together intermediate the ends and terminating at each end in upstanding projections, a plurality of resilient rods secured to said upstanding projections, a suspension ring loosely engaging said rods, and a securing member having an eye disposed at one end for engagement with said ring, and an eye at the opposite end for securing the device in operative position.

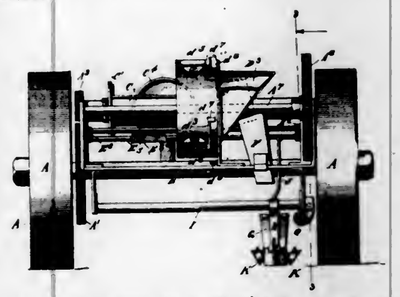
3. In a flower pot hanger, a pair of relatively movable bars pivotally connected together intermediate their ends, each of said bars terminating at its opposite ends in upwardly and outwardly inclined lugs, a plurality of resilient rods terminating at their lower ends in eyes for engagement with said lugs, a suspension ring connecting said rods, and a securing member having at one end an eye for engagement with said ring and at the other an eye for securing the device in operative position.



4. In a flower pot hanger, a pair of relatively movable cross bars pivotally connected together intermediate their ends, the end portions of each of said bars being upturned and provided with openings adjacent the upper end edges, a pair of resilient rods each terminating in eyes for engagement with the openings in the upturned end portions of said cross bars, a ring loosely engaging the resilient rods at their central portions, and a securing member having at one end an eye for engagement with said ring and at the other end an eye for securing the device in operative position.

5. In a flower pot hanger, a pair of cross bars having relatively horizontal movements, a pivot pin connecting the cross bars together intermediate their ends, each of said cross bars being turned up at its opposite ends to provide upstanding lugs adapted to retain a flower pot seated on said cross bars, said upturned ends being provided with openings adjacent their upper edges, a pair of resilient rods having terminal and intermediate eyes, the terminal eyes being engaged through the openings in the upturned ends of said cross bars, a ring loosely engaging said intermediate eyes whereby to connect the rods together, and a securing member having at one end an eye for engagement with said ring and at the other an eye for securing the device in operative position.

941,449. POTATO-PLANTER. WILLIAM A. HALL, Sr., Pardeeville, Wis. Filed Mar. 28, 1907. Serial No. 365,117.



1. A dropping device for potatoes and the like, consisting of a hollow revolving wheel and one or more potato engaging devices consisting of a swinging arm with a spur on its end adapted to enter the wheel and having a internally projecting lug and a rocking axis with spiral spring both arranged parallel to the axis of the wheel, and a stationary side plate for the wheel bearing upper and lower cams arranged to act alternately upon the lugs of the potato engaging devices to cause them to move back and forth into the wheel.

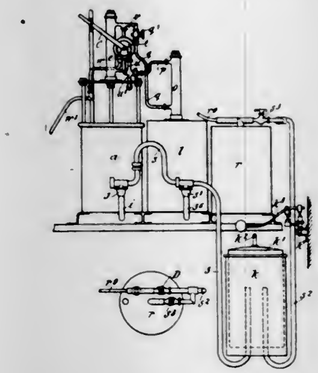
2. A dropping device for potatoes and the like, consisting of a hollow revolving wheel with means for selecting a potato at the bottom and dropping it at the top, a stationary chute entering the wheel and a movable valve bottom to the said chute having a deflector arranged to form a temporary passageway between the upper part of the chute and the bottom of the wheel when the valve bottom is opened.

3. The combination with the potato dropping wheel, and its discharge chute with movable valve bottom and chute deflector; of a restoring device for said valve bottom and chute deflector consisting of a tappet arm acting upon the said deflector and valve bottom, a rock shaft rigidly connected to the tappet arm and means for rocking the shaft.

4. In a planting device, the combination with the seed dropping and planting devices; of a rock shaft for actuating these parts having rigid arms and a rod connecting the outer ends of said arms and a rotary shaft with cams acting upon the said rod to rock the shaft in one direction and a spring for rocking it in the other direction.

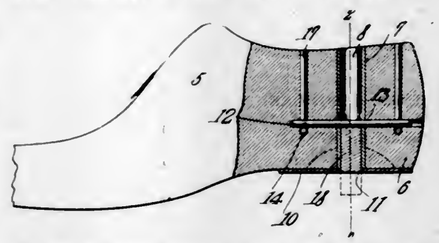
5. In a planting device, the combination with the seed dropping devices; of a subjacent boat-shaped plow having an open bottom and a receiving box on top of it, an adjustable shelf at the bottom of said receiving box and means for connecting said shelf with the driving mechanism to positively tip the shelf at intervals.

941,450. AIR PUMPING OR FORCING MECHANISM. HORACE HARSANT, Penge, London, England, assignor to Ernest George Mitchell, London, England. Filed Apr. 18, 1908. Serial No. 427,873.



In air pumping mechanism the combination of an air bell, an air drum in which the air bell works, an air storage tank connected to said drum, a cylinder, a piston working in the same, a rod connecting said piston to and actuating the air bell, fixed metal disks formed with holes and slots, fixed leather washers formed with similar holes and slots for the passage of the water through pipes to and from each end of the cylinder, a rotating metal disk having two holes formed in the same communicating with the holes and slots in the said disks and washers, a central spindle upon which the rotating disk is mounted, the said disks, washers and spindle forming a valve for feeding water to and permitting of its escape from the cylinder, a lever mounted on said spindle, a rod connected to said lever, a piston connected to said rod, a tube carried by the air bell and in which the piston works, springs acting upon each side of the piston, a rod carried by the air bell and a spring catch pivoted to a frame above the air bell and upon which the said rod acts for permitting of the upward and downward movement of the rod connected to the lever mounted on the spindle of the valve disk for causing the rotation of the latter, substantially as described.

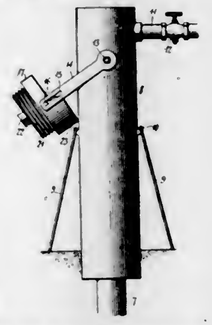
941,451. SHOE-LAST. ARTHUR C. HAYDEN, Montello, Mass. Filed May 10, 1909. Serial No. 494,990.



1. In a shoe last, a thimble seated in the heel of the last and opening through the top and bottom sides thereof, pins passed transversely through the last upon opposite sides of said thimble, and a pin passed through the thimble and having a bearing against the first mentioned pins.

2. In a shoe last, a thimble seated in the heel of the last and opening through the top and bottom sides thereof, pins passed transversely through the last, a securing pin passed through the thimble, and supporting the first mentioned pin, and pins driven inward into the last through the top sides thereof and bearing at their inner ends against the securing pin.

941,452. CAPPING DEVICE FOR OIL-WELLS. FRANCES M. HENNING, Doxey, Okla. Filed Jan. 31, 1908. Serial No. 413,600.



1. The combination with the outlet tube of an oil well internally threaded at the outer end, of arms swinging from the tube, an internally threaded collar movably coupled to said swinging supports, and a threaded plug engaging the threaded collar and adapted to engage the threaded portion of the tube when rotated.

2. The combination with the outlet tube of an oil well internally threaded at the outer end, of arms swinging from the tube and provided with oppositely disposed guide slots, an internally threaded collar having lugs engaging in said guide slots, and a threaded plug engaging the threaded collar and adapted to engage the threaded portion of the tube when rotated.

3. The combination with the outlet tube of an oil well, of arms pivoted to the tube, a collar loosely carried by the arms, and a plug threaded through the collar and adapted for threaded reception in the end of the tube, the arms being movable to bring the plug into insertible position with respect to the tube.

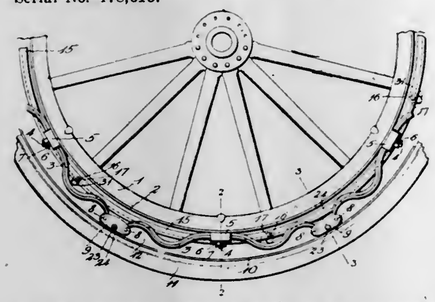
4. The combination with the outlet tube of an oil well, of arms pivoted to the tube, a collar supported between

the outer ends of the arms, and a threaded plug threaded through the collar and adapted for threaded reception in the end of the tube.

5. The combination with the outlet tube of an oil well internally threaded at the outer end, of arms swinging from the tube, a threaded plug engaging the threaded portion of the tube, a threaded collar engaging the threaded plug and provided with a depending flange engaging over the tube, and means for slidably coupling said collar to said swinging arms.

[Claim 6 not printed in the Gazette.]

941,453. CUSHIONED WHEEL FOR VEHICLES. WILLIAM J. HIGMAN, Denver, Colo. Filed Feb. 18, 1909. Serial No. 478,615.



1. The combination with a wheel, of a plurality of curved springs secured to the periphery of the wheel, midway of their lengths, and means for connecting the ends of the adjoining springs; a band around said springs in contact with the said connecting means; a tire on the band; ring plates having annular clenching grooves by which the tire is secured to the band, and which partially inclose the springs; ring plates secured to the wheel tire, which overlap the first ring plates, and means for holding them in parallel relation; rings overlapping the outer edges of said plates, and bolts which pass through said rings, and the first-mentioned ring plates to secure them against lateral movement.

2. The combination with a wheel, having a tire of greater width than its felly; of a plurality of curved springs secured to said wheel around said tire, midway of their ends; pairs of blocks between the ends of the adjoining springs and bolts connecting said blocks at opposite ends, to which the ends of the springs are secured; a band surrounding said springs and in contact with the said blocks; a tire on said band; circular clenching plates which clamp the tire to the band and partially inclose the springs, and means for securing them together and in parallel relation; circular plates having annular grooves which overlie the extended edges of the wheel tire, which plates overlap the clenching plates and means for holding them together and in parallel relation; grooved rings surrounding the outer edges of said plates, and held by the securing means of the clenching plates; a water-proof packing medium in the grooves of said rings, in contact with the adjacent plates; and a packing medium between each pair of said plates.

3. The combination with a wheel, having a tire which projects on each side beyond its felly, of a band surrounding said tire of greater diameter than the tire; circular ring plates secured upon the opposite edges of said band, of less width than the space between the band and tire; circular ring plates, which overlap the first plates, and are provided with annular hooked edges, which engage the extended edges of the wheel tire, and means including bolts for holding each pair of ring plates against lateral movement and in parallel order; a plurality of curved springs secured midway of their ends around the wheel tire; connecting devices between the ends of the adjoining springs, a central bearing bolt for supporting each connecting device, and a resilient tire upon said band.

4. The combination with a wheel having a tire of greater width than the felly, of a plurality of curved springs secured around said tire midway of their lengths; connecting devices between the ends of the adjoining springs, a band encircling said springs; a resilient tire on said band; ring plates having annular hooked outer edges, adapted to engage the tire and band, and of less width than the space between the band and wheel tire; ring plates having hooked inner edges which engage the projecting edges of the wheel tire, and which overlap the first ring plate; said plates also being of less width than the space between the band and wheel tire; rings of slightly greater diameter than the wheel tire, which lie on either side of the springs and against the first mentioned plates; sleeves between said rings which hold them in parallel order; bolts which pass through said sleeves and the outside ring plates and washers on said bolts between the rings and the said plates; spacing sleeves between the inner plates; bolts passing through said plates and sleeves; ring plates surrounding the outer edges of the outside plates, through which the latter bolts also pass; a water-proof packing medium between said latter plates and the adjacent plates; and a packing medium between said inner and outer plates.

941,454. PROCESS OF BRIQUETING COAL. CHARLES E. HITE, Burlington, N. J. Filed Mar. 26, 1909. Serial No. 485,901.

1. The process of making an emulsion binder, which consists in mixing with water a glutinous or amylaceous substance such as flour, heating the same until the starch granules have burst, adding thereto a suitable quantity of oil and agitating the mixture, thereby forming an emulsion.

2. The process of making an emulsion binder, which consists in mixing with water a glutinous or amylaceous substance such as flour, heating the same until the starch granules have burst, adding thereto a suitable quantity of fixed oil such as linseed oil, or fatty acids, or crude petroleum, stirring the mixture until an emulsion is formed, and adding thereto a suitable paste preservative.

3. The process of using flour paste as the emulsifying medium, or emulsifier, for forming emulsions of oils, fatty acids or the crude petroleum.

4. The process of briqueting pulverized or fine coal by mixing therewith a binder in the form of an oil emulsion, composed of flour paste and oil, fatty acids or crude petroleum, and subjecting the mixture to pressure.

5. The process of briqueting fine coal, which consists in mixing the same with an oil emulsion binder, composed of flour paste and linseed oil or other fixed oil, to which is added calcium chlorid or other suitable preservative, and submitting the mixture to pressure.

[Claims 6 and 7 not printed in the Gazette.]

941,455. SAW. ROBERT HOE, Jr., New York, N. Y. Filed Dec. 10, 1907. Serial No. 405,853.



1. In an inserted tooth saw, the combination with a blade having a series of sockets, each socket having a back bearing wall and a shorter front wall, of a series of teeth fitting in said sockets, each tooth being in bearing contact with the front and back wall of the socket, each tooth and the part of the blade opposite the tooth being provided with arc-shaped recesses, the ares being struck from the same center and together forming a circular locking opening the circumference of which is somewhat more than half a circle, said opening being in open communication with the throat room for the tooth, a series of circular rotatable spring locking devices lying in said openings, and means for positively retaining the locking devices in their locking position.

2. In an inserted tooth saw, the combination with a blade having a series of sockets, each socket having a back bearing wall and a shorter front wall, of a series of teeth fitting in said sockets, each tooth being in bearing contact with the front and back wall of the socket, each tooth and the part of the blade opposite the tooth being provided with arc-shaped recesses, the arcs being struck from the same center and together forming a circular locking opening the circumference of which is somewhat more than half a circle, said opening being in open communication with the throat room for the tooth, and a series of circular rotatable spring locking devices in said openings, each locking device and the opening in which it lies being provided with an interlocking projection and a retaining notch.

3 In an inserted tooth saw, the combination with a blade having a socket therein, of a tooth lying in the socket, the tooth and blade being provided with arc-shaped recesses struck from the same center which face each other to provide a locking opening which is somewhat more than half a circle, said opening being in open communication with the throat room of the tooth, and a rotatable spring locking member of general circular outline lying in said opening, said member having a reëntrant curve whereby it may be inserted into the locking opening, each locking device and the opening in which it lies being provided with an interlocking projection and a retaining notch.

941,456. DYNAMO-ELECTRIC MACHINE. FRED B. HOWELL, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Aug. 30, 1907. Serial No. 390,754.



1. In combination with the field pole of a dynamo electric machine provided with tips, of a field coil, and a field coil support comprising a raised portion and a flanged portion, said raised portion fitting over a portion of the field pole and said flanged portion holding said coil against said pole tips.

2. In combination with the field pole of a dynamo electric machine provided with tips, of a field coil, and a field coil support comprising a raised portion and a flanged portion extending around said raised portion, said raised portion fitting over a portion of the field pole and said flanged portion holding said coil against said pole tips.

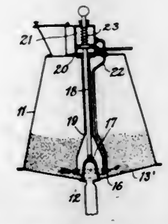
3. As an article of manufacture, a field coil support having a crown-shaped portion 7 and a flanged portion 13, said flanged portion having upturned edges, substantially as described.

4. In a dynamo-electric machine, a field coil, a part of a pole provided with tips, a frame, a part of the pole integral with the frame, a field coil suppport comprising a raised portion fitting over said latter part of the pole and a flanged portion holding the coil against said pole tips.

5. In a dynamo-electric machine, a field coil, a part of a pole provided with tips, a frame, a part of the pole integral with the frame, a field coil support comprising a raised portion fitting over said latter part of the pole and a flanged portion holding the coil against said pole tips, said flanged portion having upturned edges, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

941,457. LOCOMOTIVE TRACK-SANDER. HENRI L. LAMBERT, Rouen, France. Filed Sept. 23, 1908. Serial No. 454,473.



1. A locomotive sander comprising a sand receptacle having a sand-discharge outlet and a bottom-wall sloping downwardly toward said outlet, in combination with a source of water under pressure, a pipe to conduct said water to the sand receptacle, and a discharge nozzle for said water pipe located substantially in the lowest part of said receptacle, adjacent to the sand outlet and adapted to be directly embedded in the sand, said nozzle having one or more jet-openings for the discharge of the water at considerable velocity into the lower end of the sand-column to undermine the latter and cause an outflow of sand and water through the said outlet.

2. A locomotive sander comprising a sand receptacle having a downwardly-convergent bottom, terminating in a sand-discharge outlet, and having an unobstructed sand-containing space adapted to retain the upper portion of the sand-column in its natural condition, in combination with a source of water under pressure and a water pipe leading therefrom and terminating in a discharge-nozzle directly exposed to the sand in the lowermost part of the sand receptacle, immediately adjacent to said sand outlet.

3. A locomotive track-sander comprising a sand receptacle having a sand-discharge outlet in its lower portion, a valve controlling said outlet, means for discharging water into the sand, and means whereby the admission of said water is caused to open said valve.

4. A locomotive track-sander comprising a sand-receptacle having a sand-discharge outlet in its lower portion, a water-delivery pipe discharging within the sand-box adjacent to said outlet, a moving structure including a sand-valve controlling said outlet and a motor piston connected with said sand-valve, said structure adapted to act as a water-valve, and a cylinder containing said piston and having water inlet and outlet so arranged that the admission of water to the cylinder causes said moving structure to open the sand-valve and admit the water to said water-delivery pipe.

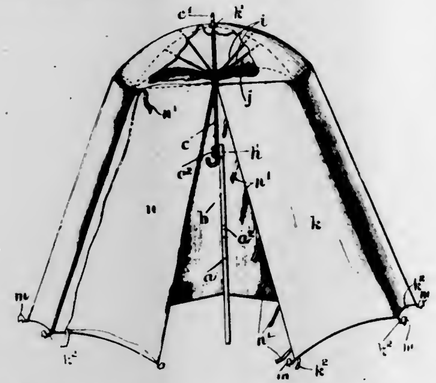
941,458. PORTABLE TENT. ALICE F. LEACH, Boston, Mass. Filed July 14, 1908. Serial No. 443,431.

1. In a portable tent, the combination with a center pole comprising a plurality of sections and means whereby said sections may be separably connected, a collapsible umbrella frame carried by the uppermost section, and a waterproof covering therefor, of a tent cover having a top portion adapted to fit over and conform to said frame and its covering, and side portions attached to, and pendent from, said top portion.

2. In a portable tent, the combination with a center pole comprising a plurality of sections and means whereby said sections may be separably connected, a collapsible umbrella frame carried by the uppermost section, the end of said section, or the umbrella tip, projecting beyond said frame, and a waterproof covering on said frame, of a tent cover having a top portion having an opening therein adapted to receive said projecting end, or tip, and being adapted to fit over and conform to said frame and its covering, and side portions attached to, and pendent from, said top portion.

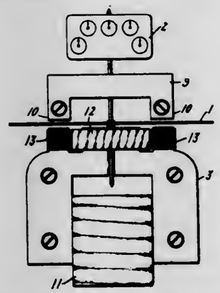
3. In a portable tent, the combination with a center pole comprising a plurality of sections, means whereby said sections may be separably connected, a plurality of

jaws carried by the uppermost of said sections, clamping means whereby said jaws may be closed or released to be opened, and an umbrella section comprising a stick or handle adapted to be engaged by said jaws, a collapsible frame carried thereby and a waterproof covering on said frame, said stick or handle having its end or tip projecting outwardly beyond said frame of a tent cover having a top portion adapted to fit over and conform to, said frame and its covering, and side portions attached to, and pendent from said top portion.



4. In a portable tent, the combination with a center pole comprising a plurality of sections, means whereby said sections may be separably connected, a plurality of jaws carried by the uppermost of said sections, clamping means whereby said jaws may be closed or released to be opened, and an umbrella section comprising a stick or handle adapted to be engaged by said jaws, a collapsible frame carried thereby, and a waterproof covering on said frame, said stick or handle having its end or tip projecting outwardly beyond said frame of a tent cover having a top portion adapted to fit over, and conform to, said frame and its covering, side portions attached to, and pendent from, said top portion, loops attached to the bottom of said pendent sides, adapted to engage ground pegs, and a closure flap, said top portion having a central reinforced opening therethrough adapted to receive said projecting end or umbrella tip.

941,459. ELECTRIC METER. PETER C. MORGANTHALER, Fort Wayne, Ind., assignor to Fort Wayne Electric Works, a Corporation of New York. Filed May 22, 1909. Serial No. 497,663.



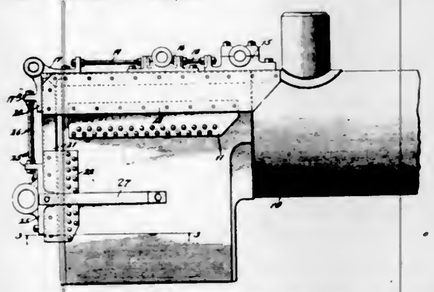
1. In an alternating-current meter, a U-shaped core having double poles, a potential coil carried thereby, a series coil surrounding the inner poles of the core, and lagging coils surrounding the outer poles of the core.

2. In an alternating-current meter, a U-shaped core having double poles with an air-gap between the inner poles, a potential coil energizing the core, a series coil surrounding the inner poles, a coil on each of the outer poles, and a C-shaped magnetic member having its ends in operative relation with the outer poles.

3. In an alternating-current meter, a revoluble armature, a U-shaped core in operative relation therewith having double poles with an air-gap between the inner poles, a potential coil energizing the core, a series coil surrounding the inner poles, coils connected in series surrounding the outer poles, means for altering the lagging effect produced by the coils with varying frequencies, and a C-shaped member having its ends in operative relation with the armature and the outer poles of the U-shaped core.

4. In an alternating-current meter, a revoluble armature, a U-shaped core in operative relation therewith having double poles with an air-gap between the inner poles, a potential coil energizing the core, a series coil surrounding the inner poles, a resistance, coils connected in series surrounding the outer poles, connections for connecting the coils across a portion of the potential coil or in series with the resistance, and a C-shaped member in operative relation with the armature and the outer poles of the U-shaped core.

941,460. ENGINE-SETTING FOR HORIZONTAL BOILERS. GEORGE W. MORRIS, Racine, Wis. Filed May 1, 1908. Serial No. 430,385.



1. The combination with a horizontal boiler, of a supporting-bed secured thereon at opposite sides of and over said boiler, and a plurality of bearing blocks secured to each bed, the bearing blocks on each bed being connected together, and one of said bearing blocks having a downwardly-extending arm that lies opposite the end of the boiler.

2. The combination with a horizontal boiler, of a supporting-bed secured thereon at opposite sides of and over said boiler, a plurality of bearing blocks secured to each bed, said bearing blocks being provided with brackets, tie-rods passing through said brackets, and tightening nuts on said tie-rods.

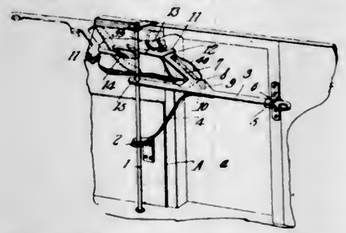
3. The combination with a horizontal boiler, of a supporting-bed comprising a plate at each side of and secured to the boiler, two angle-irons secured to the top of the boiler at opposite sides of the longitudinal center of the boiler, and a channel-iron secured between each plate and angle-iron.

4. The combination with a horizontal boiler, of a supporting bed comprising a plate at each side of and secured to the boiler, two angle-irons secured to the top of the boiler at opposite sides of the longitudinal center of the boiler, and a horizontally-disposed strip connecting each plate and angle-iron.

5. The combination with a traction-engine boiler, of a supporting-bed secured thereon at opposite sides of and over said boiler, vertically-arranged irons secured to and in rear of said boiler, blocks resting upon said bed and each having a downward extension that bears against one of said vertically-arranged irons, a block secured to each of said vertically-arranged irons and having formed therewith an axle bearing, and means for connecting each of said last-named blocks with one of said first-named blocks.

[Claim 6 not printed in the Gazette.]

941,461. APPARATUS FOR EFFECTING THE INTERCHANGE OF MAIL, EXPRESS, AND TRAIN ORDERS, DESPATCHES, &c. NELS J. NELSON, Red Wing, Minn. Filed July 28, 1909. Serial No. 510,101.



1. In apparatus of the class described, the combination with a structure having a door opening and a pivot rod within said structure and adjacent the opening, of a crane pivotally and slidably mounted on the rod, said crane including a main strip, a brace extending therefrom, said brace and strip engaging the rod, an arm extending from the strip and a hooked finger upon the arm, said arm and finger being movable through the door opening and into position at one side thereof.

2. Apparatus of the class described including a structure having a door opening, a pivot rod within the structure and adjacent the opening, and a crane slidably and pivotally mounted upon the rod, said crane including a main strip, a brace extending therefrom, said strip and brace engaging the rod, an arm extending from the strip, an engaging finger extending therefrom, means upon the structure for supporting the crane at a predetermined elevation, and a keeper for engagement by the main strip of the crane.

3. The combination with a crane, an arm thereon and a holding projection upon the arm, of a carrier having one end movable into engagement with said projection, means for supporting the other end of the carrier from the arm, and a breakable tie for attaching the holder to the carrier.

4. The combination with a crane including an arm and a depending engaging device upon the arm, of a carrier including a strip having one end movable into engagement with said device, coöperating means upon the arm and strip for supporting the other end of said strip relative to the arm, and a loop detachably connected to one end of the strip.

5. The combination with a crane including an arm and a depending engaging device upon the arm, of a carrier including a strip having one end movable into engagement with said device, coöperating means upon the arm and strip for supporting the other end of said strip relative to the arm, and a flexible loop having terminals detachably connected to said end of the strip.

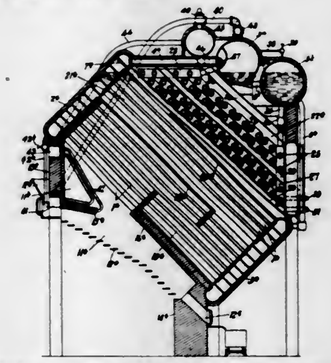
[Claims 6 to 13 not printed in the Gazette.]

941,462. STEAM-GENERATOR. JOHN C. PARKES, Philadelphia, Pa. Filed Dec. 20, 1906. Serial No. 348,722.

1. A steam generator having a water circuit, and a second circuit connected with said first circuit, said second circuit having the flow of water therethrough restricted and a chamber therein to which steam is carried from said first circuit and from which water is carried back to said first circuit.

2. A steam generator having a water circuit comprising a bank of inclined tubes with headers connecting their respective ends and a restricted auxiliary circuit connected therewith, in combination with means for applying the primary action of the heating gases to the upper ends of the lower tubes, means for directing said heating gases from the upper ends downwardly along said lower tubes, and means for directing said heating gases from the lower ends of the lower tubes upwardly along the upper tubes.

3. A steam generator having a water circuit comprising a bank of inclined tubes with headers, a restricted steam and water circuit comprising a chamber connected with said headers, and baffling for directing the heating gases downwardly along the lower tubes and upwardly along the upper tubes, said baffling forming passes of which the lower is larger than the upper.

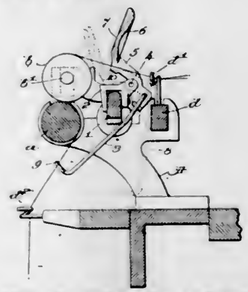


4. A steam generator having a water circuit comprising a bank of inclined tubes with headers connecting their respective ends in combination with a steam and water circuit comprising a drum, a passage leading from the upper header to said drum, a passage leading from said drum to the lower header and an automatic valve for preventing reverse flow from said last named passage through said drum.

5. A steam generator having a main circuit comprising a bank of inclined tubes, and headers respectively connecting corresponding ends of said tubes, in combination with an auxiliary circuit comprising a pair of communicating chambers, means for preventing reverse flow from the lower to the upper chamber, a passage connecting the upper header with the upper chamber and a passage connecting the lower chamber with the lower header.

[Claims 6 to 15 not printed in the Gazette.]

941,463. TWISTER STOP-MOTION. ALONZO E. RHOADES, Hopedale, Mass., assignor to Draper Company, Hopedale, Mass., a Corporation of Maine. Filed June 21, 1909. Serial No. 503,264.



1. In a twister stop-motion, top and bottom rolls, a guide for a plurality of threads passing thereto, a deflector between said guide and the rolls and movable in parallelism with the normal thread path, and a connected leg provided with a guide-eye through which the threads pass after leaving the rolls, intact threads acting through the leg to maintain the deflector inoperative, release of the leg by breakage of a thread permitting movement of the deflector in the direction of travel of and to engage the threads passing to the top roll and move them axially thereof and off of said roll.

2. In a twister stop-motion, top and bottom rolls, a guide for a plurality of threads passing thereto, a swinging deflector having a cam edge, a connected leg engaged by the threads as they pass from the rolls and maintaining

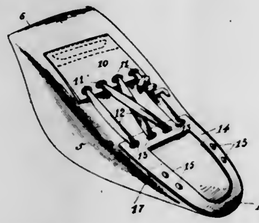
the deflector inoperative, and a fulcrum for said deflector, parallel to the axes of the rolls, breakage of a thread acting through the leg to permit descent of the deflector, the cam edge thereof engaging the threads passing to the top roll and moving them laterally off the end thereof to stop the feed.

3. In a twister stop-motion, top and bottom rolls, a guide for a plurality of threads passing thereto, a deflector pivoted behind the rolls to swing parallel to the normal thread path and having a cam edge, and means acted upon by intact threads as they leave the rolls to maintain said deflector inoperative, breakage of a thread acting through said means to release the deflector, the cam edge thereof engaging the threads as they pass to the top roll and moving them laterally off the end thereof.

4. In a twister stop-motion, top and bottom rolls, a deflector having a convex side edge and pivotally mounted back of the rolls, and a leg connected with a deflector and engaged by the thread after leaving the rolls, to maintain the convex edge of the deflector normally above the path of the thread passing to the top roll, release of the leg by breakage of a thread permitting the deflector to move its convex edge into and across the path of the thread passing to the top roll, to thereby move such thread laterally off the roll to stop the feed.

5. In a twister stop-motion, top and bottom rolls, a gravity actuated deflector movable in parallelism with the normal path of the thread and adapted to engage and move laterally off the end of the top roll a thread passing thereto, and means acted upon by the thread when intact after leaving the rolls to maintain the deflector normally out of engagement with the thread passing to the top roll.

941,464. ARCH AND HEEL SUPPORT. MILO E. RICE, Los Angeles, Cal. Filed Aug. 19, 1907. Serial No. 389,138.



1. A removable flexible body piece conforming to the instep arch; and non-metallic, flexible, adjusting means secured to the body piece near the ends thereof, said adjusting means passing longitudinally the body piece from near one end to near the other end thereof, whereby the arch may be raised or lowered as desired.

2. A body piece conforming to the instep arch; a thong strip secured to said body piece on the under side thereof near the front end, said thong strip having eyelet holes therein; a heel plate secured to said body near the rear end thereof, said heel plate having eyelet holes therein; and a lacing thong in said eyelet holes.

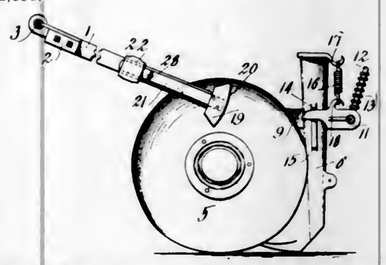
3. A body piece conforming to the instep arch; a thong strip secured to said body piece said thong strip having eyelet holes therein; a heel plate having the central portion thereof cut out secured to said body piece near the rear end thereof; said heel plate having eyelet holes at the forward end thereof and having the rear end thereof bent downwardly; and a lacing thong in said eyelet holes.

4. As an improved article of manufacture a removable arch support for boots and shoes formed of suitable material shaped to conform to the foot at the heel and arch; said support having a transverse row of eyelet holes near the front and another transverse row of eyelet holes near the back thereof; and a lacing thong in said eyelet holes alternately passing through the holes at the front and back.

5. As an improved article of manufacture a removable arch support for boots and shoes formed of suitable material shaped to conform to the foot at the heel and arch; a lacing thong adjustably secured to the front and rear of said support and means for imparting resiliency to the rear portion of said support.

[Claims 6 and 7 not printed in the Gazette.]

941,465. AGRICULTURAL MACHINE. LUTHER E. ROBY, Peoria, Ill. Filed Mar. 23, 1908. Serial No. 422,855.



1. In a device of the character described, the combination of a pivoted drag-bar, a disk carried by the said bar, a block slidably adjustable on the said bar, a scraping-blade adapted to have contact with the said disk, and connecting means between the scraping-blade and the block aforesaid.

2. In a device of the character described, the combination of a support, a disk carried by the said support, a block slidably adjustable on the said support, a scraping-blade adapted to have contact with the said disk, connecting means between the scraping-blade and the block aforesaid, and means carried by the block for locking the connecting means between the scraping-blade and the said block against longitudinal displacement.

3. In a device of the character described, the combination of a support, a disk carried by the said support, a block slidably connected with the support, a scraping-blade adapted to have contact with the said disk, a spring-blade to which the scraping-blade is attached, said spring-blade adapted to be secured within the said block and adjacent to the said support.

4. In a device of the character described, the combination of a support, a disk carried by the support, a block slidably connected with the support and means for securing the block in adjusted positions, a scraping-blade adapted to have contact with the said disk, a spring-blade to which the scraping-blade is attached, said spring-blade adapted to be secured within the said block and adjacent to the said support.

5. In a device of the character described, the combination of a support, a disk carried by the support, a block slidably connected with the support, and means for securing the block in adjusted positions, a scraping-blade adapted to have contact with the said disk, a bar to which the scraping-blade is attached, the said bar secured to the support by means of the block aforesaid, and having a perforation, and a pin on the said block adapted to engage the perforation in said bar.

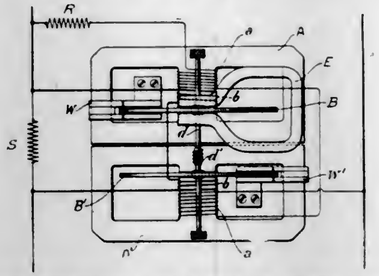
[Claims 6 to 9 not printed in the Gazette.]

941,466. RESERVOIR-PEN. WILLIAM W. SANFORD, Newark, N. J., assignor to Sanford & Bennett Company, New York, N. Y., a Corporation of New York. Filed Mar. 26, 1909. Serial No. 485,945.



The combination in a reservoir pen, of an air tube provided with a spiral integral thread constituting a spring, a needle supported by said tube, and a plug with minute bore in said tube adjacent to the opening between the coils of said spiral, substantially as described.

941,467. ALTERNATING-CURRENT APPARATUS. WILLIAM STANLEY, Great Barrington, Mass., assignor to General Electric Company, a Corporation of New York. Filed Nov. 23, 1905. Serial No. 288,643.



1. The combination of an alternating current electromagnet, a secondary element in inductive relation thereto, and a member of low magnetic reluctance adjacent to the secondary element and in torque-producing relation thereto, said member forming a magnetic circuit closed outside the secondary element.

2. The combination of an alternating current electromagnet, a secondary element in inductive relation thereto, and a member of low magnetic reluctance adjacent to the secondary element, and at one side of said magnet and in torque-producing relation thereto, said member forming a magnetic circuit closed outside the secondary element.

3. The combination of an alternating current electromagnet, a secondary element in inductive relation thereto, and a member of low magnetic reluctance embracing said secondary element and in torque-producing relation thereto, said member forming a closed magnetic circuit outside said secondary element.

4. The combination of an alternating current electromagnet, a secondary element in inductive relation thereto, and means for providing a closed magnetic path outside the secondary element for a part of the magnetic circuit of the flux produced by the secondary currents.

5. In a wattmeter, the combination of a rotating system, electro-magnets in inductive relation thereto, wound so as to produce fluxes proportional to the vector sum and vector difference of magnetizing forces proportional to the potential and volume of current in the work-circuit, so disposed that each magnet is independent of the other so far as torque-producing relations are concerned, and low magnetic reluctance members adjacent to the system in torque-producing relation thereto and forming closed magnetic circuits around the system.

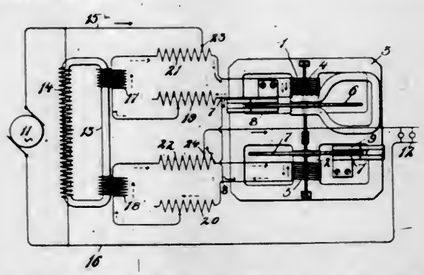
[Claims 6 and 7 not printed in the Gazette.]

941,468. ELECTRIC METER. WILLIAM STANLEY, Great Barrington, Mass., assignor to General Electric Company, a Corporation of New York. Filed Mar. 19, 1906. Serial No. 306,728.

1. In an alternating current watt-meter, the combination of two torque producing devices producing opposing torques, each having a single energizing winding in series with a source of current proportional to the current to be measured and shunted by a source of current proportional to the electromotive force to be measured.

2. In an alternating current watt-meter, the combination of two torque producing devices producing opposing torques, each having a single energizing winding in series with a source of current proportional to the current to be measured and shunted by a transformer secondary to whose primary is applied an electromotive force proportional to the electromotive force to be measured.

3. In an alternating current watt-meter, the combination of two torque producing devices producing opposing torques, each having a single energizing winding in series with a source of current proportional to the current to be measured and shunted by a source of current proportional to the electromotive force to be measured, and resistances in one of said shunts.

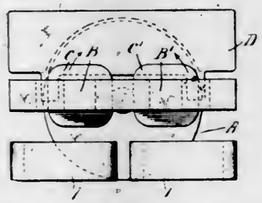


4. In an alternating current watt-meter, the combination of two torque producing devices producing opposing torques, each having a single energizing winding in series with a source of current proportional to the current to be measured and shunted by a source of current proportional to the electromotive force to be measured, the circuits formed by the windings and their respective shunts having equal time constants.

5. In an alternating current watt-meter, the combination of two torque producing devices producing opposing torques, each having a single energizing winding in series with a source of current proportional to the current to be measured and shunted by a source of current proportional to the electromotive force to be measured, and means for equalizing the time constants of the circuits formed by the windings and their respective shunts.

[Claim 6 not printed in the Gazette.]

941,469. ALTERNATING-CURRENT METER. WILLIAM STANLY, Great Barrington, Mass., assignor to General Electric Company, a Corporation of New York. Filed Mar. 21, 1906. Serial No. 307,174.



1. In an alternate current meter, two independent inductors, a secondary element common to said inductors and inductively acted upon thereby, and means for eliminating torque produced by the mutual reactive effects of said inductors and for establishing opposing torques.

2. In an alternate current meter, two independent inductors, a common secondary element acted upon inductively by said inductors, and an armature for causing said inductors to produce a resultant torque proportional to the energy of the circuit to be measured by the difference of value of their fluxes.

3. In an alternate current meter, a movable element, means for producing two fields acting inductively upon the common movable element, and means for eliminating the torque due to the phase difference of said fields and establishing opposing torques and thereby producing resultant torque proportional to the energy of the current to be measured.

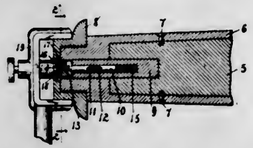
4. In an alternate current meter, electro-magnets wound so as to produce fluxes proportional to the vector sum and vector difference of magnetizing forces proportional to

the potential and volume of current to be measured, a common disk acted upon by the electromagnets, and an armature for causing currents induced in said element to establish opposing torques.

5. In a meter, a magnetic structure composed of three magnetic circuits, coils surrounding two of said circuits wound so as to produce fluxes proportional to the vector sum and vector difference of magnetizing forces proportional to the potential and the volume of current to be measured, and primary and secondary windings surrounding the third circuit.

[Claim 6 not printed in the Gazette.]

941,470. HUB-ATTACHING DEVICE. CHRISTOPHER C. SWANSON, Laporte, Ind., assignor of one-half to William Conry, Laporte, Ind. Filed Feb. 27, 1909. Serial No. 480,475.



1. In combination with a spindle and a nut adapted to be screwed thereon, said spindle having an axial bore and said nut having a rectangular central opening, a plug seated in the bore of the spindle and having a recessed head, a bolt yieldingly and non-rotatably mounted in the bore of said plug and having a rectangular head adapted to normally engage the recessed head of the plug and the opening in said nut substantially in the manner and for the purpose set forth.

2. In a hub-attaching device, in combination with a spindle having an axial bore therein, a plug seated in said bore and having an axial bore therein, a bolt yieldingly and non-rotatably mounted in said plug, said bolt having a recessed head, and a nut adapted to be screwed on said spindle, and having an opening adapted to be engaged by the head of the bolt, substantially in the manner and for the purpose set forth.

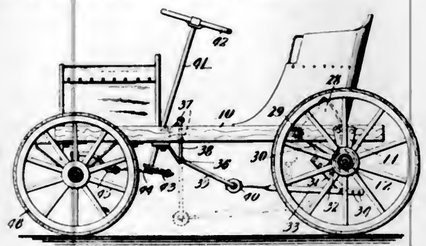
3. In a hub-attaching device, in combination with a spindle having an axial bore therein, a plug seated in said bore and having an axial bore therein, a nut adapted to be screwed on said spindle and having an opening therein, a slotted bolt yieldingly mounted in the bore of said plug, and a pin passing through said plug and slot, said bolt having a conical recess in its head and the latter adapted to engage the opening in the nut.

4. In combination with a spindle and a nut adapted to threadably engage said spindle, the latter having a longitudinal bore therein, a plate secured to said nut and having an opening therein, a plug seated in the bore of the axle, said plug having a longitudinal recess therein, a bolt yieldingly and non-rotatably mounted in said recess, said bolt having a head adapted to engage the opening in said plate, substantially in the manner and for the purpose set forth.

941,471. FOOT-PROPELLED VEHICLE. NAPOLEON R. THIBERT, Worcester, Mass., assignor to Alfred Thomas and Matthew J. Whittall, Worcester, Mass. Filed Sept. 16, 1907. Serial No. 393,206.

1. In a foot-propelled vehicle, the combination with the driving axle, of a disk fixed thereon, a pawl on the disk, a ratchet wheel having notches with which said pawl is adapted to engage, said pawl having a flat side, a flat spring supported by the disk to engage the flat side of the pawl and to hold it yieldingly against the notches, said ratchet wheel having gear teeth, a segmental gear hung to swing in mesh with said gear teeth to turn the ratchet wheel, and means for oscillating the segmental gear.

2. In a foot-propelled vehicle, the combination with the driving axle, of a disk fixed thereon, a pawl on the disk, a ratchet wheel having notches with which said pawl is adapted to engage, said pawl having a flat side, a flat spring supported by the disk to engage the flat side of the pawl and to hold it yieldingly against the notches, said ratchet wheel having gear teeth, a segmental gear hung to swing in mesh with said gear teeth to turn the ratchet wheel, and means for oscillating the segmental gear, said means comprising a link pivotally connected with said segmental gear, a second link pivotally connected with the opposite end of the first link and pivotally supported, and a pedal connected with said links at the point at which they are pivotally connected.



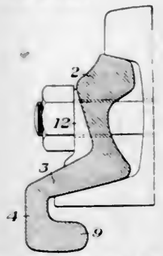
3. In a foot-propelled vehicle, the combination with a driving axle, of a pair of disks fixed thereon, each disk having a sector-shaped notch cut therein provided with a flat side, a shaft journaled in said disks adjacent to said notches, a pair of pawls mounted on said shaft, a spring mounted on the flat surface of each of said notches and adapted to engage the pawls to hold them yieldingly in a certain position, a pair of ratchet wheels having notches, each surrounding one of said disks in such a position that the pawls engage them, said ratchet wheels having gear teeth on the outside thereof, a pair of segmental gears meshing with the gear teeth on said ratchet wheels, and a pedal connected with each segmental gear for operating the same.

4. In a foot-propelled vehicle, the combination with a frame, of a rear axle rotatably mounted thereon, a pair of disks fixed to said axle, pawls supported by said disks, a pair of ratchet wheels rotatably mounted on said disks, and having notches with which said pawls are adapted to engage, whereby the rotation of the ratchet wheels will rotate the disks and shaft, a pair of pawls fixed to the outside surfaces of said disks and extending beyond the inner edges of said ratchet wheels to hold them in position, a ring fixed with respect to said disks between them and bearing on the inner edges of the ratchet wheels, said ratchet wheels being provided with external gear-teeth, a stud mounted on the frame of said vehicle, a pair of ties connecting said stud with said shaft, a pair of gear segments mounted to oscillate on said stud and meshing with said gear teeth on the ratchet wheels, springs for normally holding said gear segments in one extreme position, and pedals connected with said segments for moving them in the other direction.

5. In a foot-propelled vehicle, the combination of the frame, a driving shaft rotatably mounted thereon, a ratchet mechanism for operating said driving shaft, a segmental gear oscillatably supported by the frame and adapted to drive said ratchet mechanism, an arm extending from one end of said segmental gear, a spring connected with said arm, a link adapted to be pivotally connected with the end of the arm in adjusted positions, a U-shaped link pivotally depending from the frame, the first named link being pivoted to the bend of said U-shaped link, and a pedal mounted on said bend for operating the ratchet mechanism.

941,472. SPLICE-BAR FOR RAIL-JOINTS. WILLIAM P. THOMSON and SAMUEL G. THOMSON, Philadelphia, Pa., assignors to Thomson-Thomson Company, Philadelphia, Pa., a Partnership. Filed July 20, 1907. Serial No. 384,800.

1. A splice bar for rails having a flat face to fit the top of the rail base for the greater portion of its width, said bar arranged to stand free from the web of the rail and having an upper member with a downwardly and inwardly slanting bolting face, the upper portion of said member being enlarged to form a head.



2. A splice bar for rails having a flat face to fit the top of the rail base for a greater portion of its width, said bar arranged to stand free from the web of the rail and having a bolting member with a downwardly and inwardly inclined outer face and bolt holes passing through said face, and a portion of its inner face inclined downwardly and outwardly to a point below a horizontal plane through the top of the bolt holes.

3. In a rail joint, a splice bar clamped to the rail above the rail base only by bolts and nuts said bar being arranged to stand free from the web of the rail, and having a flange extending freely below the rail base, and also an upper member with part of its outer face inclined downwardly and inwardly, said inclined portion lying entirely outside of the rail head and extending below a horizontal plane at the top of the nuts, the upper portion of said member being enlarged to form a head, substantially as described.

4. A rail joint having a splice bar fitting the top of the rail base for a greater part of its width, said bar having its upper portion enlarged into a head and having a downwardly and inwardly inclined bolting web, with bolt holes through said web, and a portion of its inner face inclined downwardly and outwardly to a point below a horizontal plane through the top of the bolt holes, said bar standing free from the web of the rail and constituting in itself one side of the joint, and bolts extending horizontally through the splice bar.

5. A rail joint having a splice bar with a head and a foot joined by a web portion, the outer face of which is inclined downwardly and inwardly, said foot portion having a flat face fitting the upper surface of the rail base for the greater part of its width, said splice bar standing free from the web of the rail, and bolts extending horizontally through the splice bar.

[Claims 6 to 16 not printed in the Gazette.]

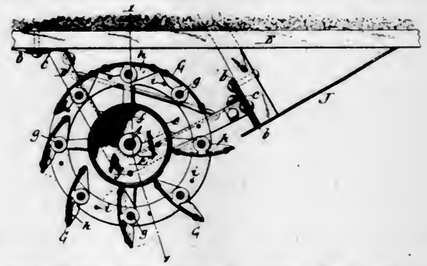
941,473. RAIL-JOINT. MONS THORSON, Sanders, Mont. Filed Jan. 8, 1909. Serial No. 471,261.



In a rail joint, two rails having overlapping beveled ends provided with integral reduced extensions having beveled edges adapted to contact with the head and foot portions of the opposed rail section; fish plates adapted to engage the rail ends and having flanges extending horizontally to meet under the rail, the said flanges being provided with alternate intermeshing teeth and notches on their meeting edges; and bolts passing through said fish plates and rail ends, substantially as described.

941,474. WATER-WHEEL. WILLIAM VAN SCOTER, Buffalo, N. Y. Filed May 6, 1907. Serial No. 372,274.

A water wheel comprising a horizontally rotatable frame, an annular row of curved blades each of which is pivoted vertically on said frame and adapted when closed to be arranged concentrically relatively to the axis of the drum and to meet adjacent blades edge to edge, the pivot of each blade being on its concave side and midway between its vertical edges and in front or outside of a line



connecting said edges, stops for limiting the opening and closing of the blades, and a deflector whereby the water is directed toward that side of the wheel on which the blades open.

941,475. LATHE. LARS H. VOLD, Westville, N. J., assignor to William Sellers & Company, Incorporated, Philadelphia, Pa., a Corporation of Pennsylvania. Filed June 9, 1909. Serial No. 501,095.

1. In a lathe, the combination with the lathe head, of a rotating part including the driver for the work, a centering spindle movable relatively to the rotating part in the direction of its axis of rotation, manually operated means adapted to advance said spindle, an elastic medium interposed between said spindle-advancing means and the spindle and adapted, during resistance of the spindle to forward movement, to be compressed to allow said spindle-advancing means to positively abut against said spindle.

2. In a lathe, the combination with the lathe head, of a rotating part including the driver for the work, a centering spindle movable relatively to the rotating part in the direction of its axis of rotation, manually operated means, adjustable relatively to the lathe in the direction of its axis, adapted to advance said spindle, an elastic medium interposed between said spindle-advancing means and the spindle, and adapted, during resistance of the spindle to forward movement, to be compressed to allow said spindle-advancing means to positively abut against said spindle, and a locking device adapted to hold said spindle-advancing means in its adjusted position.

3. In a lathe, the combination with the lathe head, of a rotating part thereon including the driver for the work, a centering spindle movable relatively to the rotating part in the direction of its axis, an elastic medium, and a screw shaft and a nut thereon one of which is held from longitudinal movement relatively to the lathe head and between the other of which and the spindle said elastic medium is confined.

4. In a lathe, the combination with the lathe head, of a rotating part thereon comprising a sleeve and the face plate, a centering spindle within the sleeve and movable longitudinally relatively thereto, an elastic medium within the sleeve, and a screw shaft and a nut thereon, one of which is held from longitudinal movement relatively to the sleeve, and between the other of which and the spindle said elastic medium is confined.

5. In a lathe, the combination with the lathe head, of a rotating part thereon including the work-driver, a rotatable centering spindle movable relatively to said rotating part in the direction of its axis, a rotatable screw shaft held from longitudinal movement, a nut on said shaft, and an elastic medium, adapted to force said spindle forwardly, confined between the nut and the spindle.

[Claims 6 and 7 not printed in the Gazette.]

941,476. TACK-LIFTER. ROBERT B. WAKELEY, Philadelphia, Pa. Filed Nov. 11, 1908. Serial No. 462,098.



1. A tack lifter having a shank formed with a wedge-shaped, forked tack-engaging end, an angular guard plate pivoted to the upper face of said lifter, and a spring coiled around the pivot of said guard plate, the ends of said spring engaging with the upper face of the lifter shank and the inner face of the upper portion of the guard plate, said guard and said shank having grooves to receive the ends of said spring.

2. A tack lifter, having a shank, the lower end of the same being sharp, wedge-shaped and forked to form a tack engaging portion, ears projecting upwardly from said shank, an angular guard plate, ears depending from said guard plate, said ears on the guard plate and shank having alined openings, a pivot pin in said openings, and a spring coiled around said pin and bearing at its ends against said shank and guard plate.

941,477. METHOD OF TREATING ARMOR-PLATE. SAMUEL S. WALES, Munhall, Pa., assignor to Carnegie Steel Company, Pittsburg, Pa., a Corporation of New Jersey. Filed July 13, 1907. Serial No. 383,688.

1. The method of making armor or ballistic steel plates, consisting in producing a steel plate, heating the plate to a temperature above 875 degrees C., and suddenly cooling it to between 350 degrees C. and 100 degrees C., and then annealing the plate; substantially as described.

2. The method of making armor or ballistic steel plates, consisting in producing a steel plate, heating the plate to a temperature above 875 degrees C., suddenly cooling it, again heating it to above 875 degrees C., and again cooling it, and then annealing the plate; substantially as described.

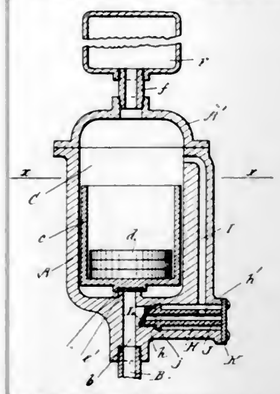
3. The method of making armor or ballistic steel plates, consisting in producing a steel plate, heating the plate to a temperature above 875 degrees C., and suddenly cooling it to between 350 degrees C. and 50 degrees C., and then subjecting the plate to two or more annealing operations; substantially as described.

4. The method of making armor or ballistic steel plates, consisting in producing a steel plate, heating the plate to a temperature above 875 degrees C., and suddenly cooling it to between 350 and 100 degrees C., then annealing the plate, then heating it to above 875 degrees C., and suddenly cooling it to blackness, and again annealing the plate; substantially as described.

5. The method of making armor or ballistic steel plates, consisting in producing a steel plate containing vanadium, heating the plate to a temperature above 875 degrees C., and suddenly cooling it to between 350 and 50 degrees C., and then annealing the plate; substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

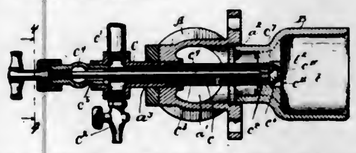
941,478. SAFETY-VALVE. JOHN C. WATSON, Terre Haute, Ind. Filed Feb. 11, 1909. Serial No. 477,417.



1. The combination, with a valve-casing provided with an outlet and an inlet-passage, and a main valve which normally closes the said inlet-passage, said valve-casing having also a by-pass valve-chamber and a by-pass passage which connect the said inlet-passage with the said outlet; of a tubular valve-support having a lateral hole which connects its interior with the said by-pass passage, and a by-pass valve pivoted to the said valve-support and normally closing one end of it, said valve-support and valve being adapted to be slid into and secured within the said valve-chamber.

2. The combination, with a valve-casing provided with an outlet at its upper part and an inlet-passage at its lower part, said valve-casing having also a by-pass valve-chamber connected to the said inlet-passage and provided with a shoulder, and having also a by-pass passage between the said valve-chamber and the upper part of the casing; of a main valve which normally closes the said inlet-passage, a tubular valve-support provided with an opening which connects it with the said by-pass passage and having also a projection which bears against the said shoulder, a cover which holds the said valve-support in place, and a by-pass valve carried by the said valve support and arranged to open automatically to permit the flow of water into the inlet-passage.

941,479. OIL-BURNER. JACOB WEINTZ, Cleveland, Ohio, assignor to The Strong, Carlisle & Hammond Company, Cleveland, Ohio, a Corporation of Ohio. Filed Sept. 27, 1907. Serial No. 394,786.

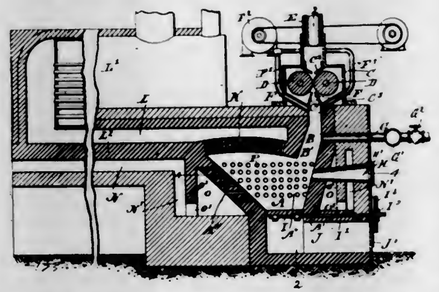


1. In a burner of the character described, the combination of a main air supply pipe; a chamber directly connected with said air supply pipe; a mixer of general tubular form loosely fitting in said chamber, said mixer terminating in a cup-shaped nozzle and being provided with a spider having a central aperture; and an atomizer extending axially within said mixer, said atomizer comprising an inner oil supply pipe provided with a jet discharge, and an outer air supply pipe surrounding said oil supply pipe, the respective ends of said air supply pipe being fitted in the rear wall of said chamber and in the central aperture of said mixer spider, thereby retaining said parts in place.

2. In a burner of the character described, the combination of a main air supply pipe; a chamber directly connected with said air supply pipe; a mixer of general tubular form loosely fitting in said chamber, said mixer terminating in a cup-shaped nozzle and being provided with a spider having a central aperture; and an atomizer extending axially within said mixer, said atomizer comprising an inner oil supply pipe provided with a jet discharge, and an outer air supply pipe surrounding said oil supply pipe and projecting beyond the discharge end of the same, the respective ends of said air supply pipe being fitted in the rear wall of said chamber and in the central aperture of said mixer spider, thereby retaining said parts in place, and such projecting portion of said air supply pipe being drawn together to form a small chamber in front of such jet discharge and having an opening in line therewith.

3. In a burner of the character described, the combination of a main air supply pipe; a chamber directly connected with said air supply pipe; a mixer of general tubular form loosely fitting in said chamber, said mixer terminating in a cup-shaped nozzle and being provided with a spider having a central aperture, and an atomizer extending axially within said mixer, said atomizer comprising an outer air supply pipe fitted in the rear wall of said chamber and in the central aperture of said mixer spider, thereby retaining said parts in place, an oil supply pipe of smaller diameter mounted within said air supply pipe and terminating short of the discharge end of the same so as to leave the latter project therebeyond, a plug, having a central opening forming a jet, inserted in the discharge end of said oil supply pipe, and a needle valve axially disposed within said oil supply pipe and adapted to control the aperture in said plug, the portion of said air supply pipe that projects beyond said oil supply pipe being drawn together to form in front of the aperture in said plug a chamber having inwardly curved walls and an opening in line with such aperture.

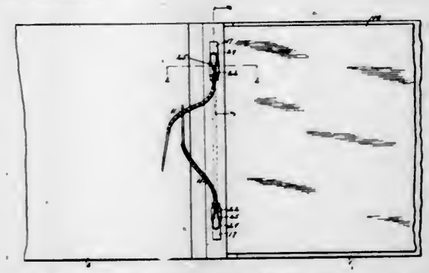
941,480. FURNACE. LEE WHITTAKER, Butler, Pa. Filed July 31, 1908. Serial No. 446,269.



1. In a furnace, a fire box having inwardly and downwardly inclined side walls, a perforated arch substantially covering said fire box, a fuel and air mixing chamber arranged at one side of said arch and opening into said fire box, means for feeding fuel through said mixing chamber into said fire box and means for injecting cool air into said mixing chamber and mixing the same with the fuel in sufficient quantities to maintain the fuel in the mixing chamber below the ignition point, substantially as described.

2. In a furnace a fire box defined by inwardly and downwardly extending walls, said walls being perforated, a perforated arch substantially covering said fire box, a flue extending from above said arch, an outer wall spaced from said fire box walls forming an air space surrounding said fire box and substantially co-extensive in height therewith, an apron depending in said air space from the upper edge of said walls dividing said space into inner and outer air chambers, an air passage extending parallel with said flue and discharging into said outer air chamber, and said chambers being in communication beneath the lower edge of said apron, substantially as described.

941,481. BINDER. GEORGE P. WIGGINTON, Kalamazoo, Mich., assignor to Kalamazoo Loose Leaf Binder Company, Kalamazoo, Mich. Filed Oct. 23, 1908. Serial No. 459,194.



1. In a binder, the combination of a binding member; a binding cord; and a fastening device for said binding cord, comprising a slide way arranged on said binding member, said slide way having a hole therethrough for the binding cord, a longitudinal groove therein, and flange-like edges, a cord-engaging pin projecting upwardly in said groove, a cord-engaging slide having its edges turned inwardly to engage the edges of said way, and projecting finger pieces on said slide.

2. In a binder, the combination of a binding member; a binding cord; and a fastening device for said binding cord, comprising a slide way arranged on said binding member, said slide way having a hole therethrough for the binding cord, a longitudinal groove therein and flange-like edges, a cord-engaging pin projecting upwardly in said groove, and a cord-engaging slide having its edges turned inwardly to engage the edges of said way.

3. In a binder, the combination of a binding member; a binding cord; and a fastening device for said binding cord, comprising a slide way arranged on said binding member, said slide way having a hole therethrough for the binding cord and a longitudinal groove therein, a cord-engaging pin projecting upwardly in said groove, and a slide arranged on said way, said slide being inclined rearwardly and being provided with a spring cord-engaging portion at its rear end.

4. In a binder, the combination of a binding member; a binding cord; and a fastening device for said binding cord, comprising a slide way arranged on said binding member, said slide way having a hole therethrough for the binding cord, and a slide arranged on said way, said slide being inclined rearwardly and being provided with a spring cord-engaging portion at its rear end.

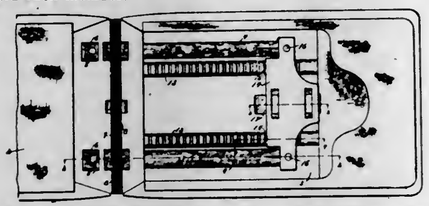
5. In a binder, the combination of a binding member; a binding cord; and a fastening device for said binding cord, comprising a slide way arranged on said binding member, said slide way having a hole therethrough for the binding cord and a longitudinal groove therein, a cord-engaging pin projecting upwardly in said groove, and a slide arranged on said way, said slide being provided with a spring cord-engaging portion.

[Claims 6 to 15 not printed in the Gazette.]

941,482. BINDER. GEORGE P. WIGGINTON and FRANK W. HODGES, Kalamazoo, Mich., assignors to Kalamazoo Loose Leaf Binder Company, Kalamazoo, Mich. Filed July 28, 1909. Serial No. 510,104.

1. In a structure of the class described, the combination with the cover, chambered on its inner side, of a bind-

ing cord; a slotted rack member arranged in the said cover chamber; a securing member for said binding cord having a downwardly offset engaging portion on its inner edge, adapted to be engaged in the slots of said rack member, said cord securing member being free from said rack member when its engaging portion is disengaged therefrom; and a lock member slidably mounted on said cord securing member, said lock member being adapted, when in one position, to project inwardly from said cord securing member into engagement with the cover, thereby retaining said cord securing member in engagement with said rack member.



2. In a structure of the class described, the combination with the cover, of a binding cord; a slotted rack member; a securing member for said binding cord having a downwardly offset engaging portion on its inner edge, adapted to be engaged in the slots of said rack member, said coru securing member being free from said rack member when its engaging portion is disengaged therefrom; and a lock member slidably mounted on said cord securing member, said lock member being adapted, when in one position, to project inwardly from said cord securing member into engagement with the cover, thereby retaining said cord securing member in engagement with said rack member.

3. In a structure of the class described, the combination with the cover, of a binding cord; a slotted rack member carried by said cover; a securing member for said binding cord having a downwardly offset engaging portion on its inner edge, adapted to be engaged in the slots of said rack member, said cord securing member being free from said rack member when its engaging portion is disengaged therefrom; and a lock member adjustably mounted on said cord securing member, said lock member being adapted when in one position, to prevent the rack disengaging movement of said cord securing member.

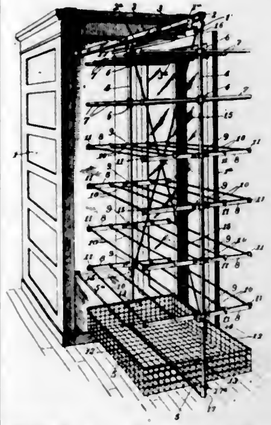
4. In a structure of the class described, the combination with the cover, of a binding cord; a slotted rack member carried by said cover; a securing member for said binding cord having an engaging portion, adapted to be engaged in the slots of said rack member, said cord securing member being free from said rack member when its engaging portion is disengaged therefrom; and a lock member adjustably mounted on said cord securing member, said lock member being adapted, when in one position, to prevent the rack disengaging movement of said cord securing member.

5. In a structure of the class described, the combination with the cover, of a binding cord; a slotted rack member carried by said cover; a securing member for said binding cord having a downwardly offset engaging portion on its inner edge, adapted to be engaged in the slot of said rack member, said cord securing member being free from said rack member when its engaging portion is disengaged therefrom; and a lock member adapted to prevent the rack disengaging movement of said cord securing member.

[Claims 6 to 22 not printed in the Gazette.]

941,483. INCLOSED DISPLAY-RACK. WILLIAM K. WILLIAMS, Grand Rapids, Mich., assignor to Grand Rapids Show Case Company, Grand Rapids, Mich., a Corporation of Michigan. Filed June 17, 1909. Serial No. 502,652.

1. The combination of a case, an extensible slide in the top of the case, a frame carried by the slide and adjusted thereby to be wholly outside of the case or to be wholly within the same, a slide beneath the frame and movably attached to the case, and rollers on the slide engaging opposite sides of the lower member of the frame to guide the same.



2. The combination of a case, an extensible slide in the top of the case, a frame carried by the slide and adjusted thereby wholly within the case or wholly outside of the same, said frame also having a tubular lower member, a slide movably attached to the bottom of the case and located below the frame, rollers on the slide engaging opposite sides of the lower member of the frame, and a rod attached at one end to the case and slidable within the tubular lower member of the frame at the other end.

3. A display rack, comprising a frame composed of two horizontal and two vertical members, angle sockets detachably connecting said members at their adjacent ends, sleeves on the vertical members provided with sockets, horizontal members supported in the sockets, sleeves on said horizontal members, and oppositely projecting arms carried by the respective sleeves.

4. A display rack, comprising an upper horizontal member, a lower horizontal member, two vertical members connecting the upper and lower members, angular sockets connecting the ends of said members, sleeves on the vertical members, each sleeve having a socket and oppositely projecting pins, a horizontal member supported in said sockets, sleeves on said horizontal member and having oppositely projecting pins, and oppositely projecting arms on the respective pins.

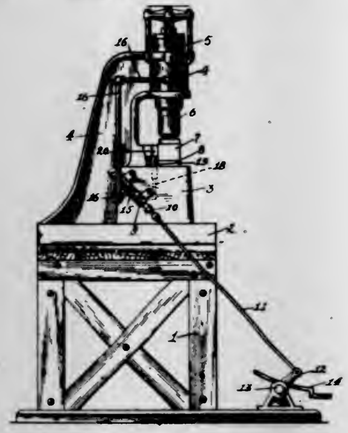
5. A display rack, comprising a rectangular frame having horizontal and vertical members, oppositely projecting arms overlapping at their adjacent ends and secured to each other and also provided with concave portions in said overlapping ends to engage the vertical frame members, and parallel rods supported by the arms.

[Claims 6 to 11 not printed in the Gazette.]

941,484. COAL-PUNCHER-SHARPENING MACHINE. JOHN B. WORD and WILLIAM W. WORD, San Francisco, Cal., assignors to Word Bros., San Francisco, Cal., a Corporation of California. Filed Feb. 20, 1909. Serial No. 479,230.

1. In a coal-puncher sharpening-machine, the combination of an anvil-die formed with flat side planes and an intervening raised shoulder, and a hammer-die formed with a groove in its lower surface to play over the raised shoulder of the anvil-die, the lower surface of said hammer-die having at its front portion, on each side of the groove, upwardly converging planes which intersect the planes of the bottom and front of the die and the side walls of its groove.

2. In a coal-puncher sharpening machine, the combination of an anvil-die having a central raised shoulder, and a hammer-die having in its lower surface a groove to play over the raised shoulder of the anvil-die, the upper wall of said groove having at its forward end forwardly diverging, upwardly converging planes.



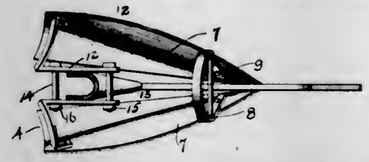
3. In a coal-puncher sharpening machine, the combination of an anvil-die having a central raised shoulder, and a hammer-die having in its lower surface a groove to play over the raised shoulder of the anvil-die, the upper wall of said groove having at its forward end forwardly diverging, upwardly converging planes, said hammer-die having a recess in its front above said planes.

4. In a coal-puncher sharpening machine, the combination of an anvil-die formed with flat side planes and an intervening raised shoulder, and a hammer-die formed with a groove in its lower surface to play over the shoulder of the anvil-die, the lower surface of said hammer-die having at its front on each side of its groove upwardly converging planes which intersect the planes of the bottom and front of the die and the side walls of the groove, the upper wall of said groove having at its forward end forwardly diverging, upwardly converging planes.

5. In a coal-puncher sharpening machine, the combination of an anvil-die formed with flat side planes and an intervening raised shoulder, and a hammer-die formed with a groove in its lower surface to play over the shoulder of the anvil-die, the lower surface of said hammer-die having at its front on each side of its groove upwardly converging planes which intersect the planes of the bottom and front of the die and the side walls of the groove, the upper wall of said groove having at its forward end forwardly diverging, upwardly converging planes, said hammer-die having a recess in its front above said last-named planes.

[Claims 6 and 7 not printed in the Gazette.]

941,485. CORN-PLANTER. ADOLPH J. ANDERSON, Houston, Minn. Filed June 14, 1909. Serial No. 502,011.



1. In a corn planter, the combination with a furrow opener and its standard, of a shoe having a yielding engagement with the furrow opener and a spring engagement with the standard.

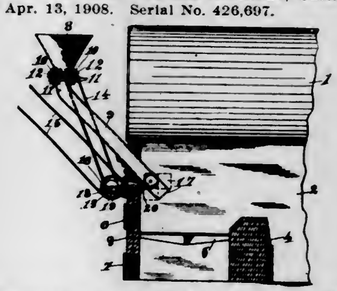
2. In a planter, the combination with a furrow opener and its standard of a shoe comprising two complemental members held in yielding engagement with the furrow opener and with said standard.

3. In a planter, the combination with a furrow opener and its standard and a shoe comprising two complemental smoothing members located on opposite sides of the opener and having a frictional engagement therewith and a spring engagement with the said standard.

4. In a planter, the combination of a furrow opener and a standard therefor, a shoe comprising two complemental members having a flat bottom and upstanding side wings, said members being located on opposite sides of the opener and having a yielding engagement with the same and a spring engagement with the standard.

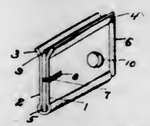
5. In a planter, a furrow opener carrying a standard, a shoe comprising two complemental smoothing members provided with flat bottoms and upstanding sides, the said members tapering rearwardly, a strap connecting the forward ends of said members and adapted to hold the same in frictional engagement with the opener, and an upstanding strap having a connection with the rear end of each of said members and a detachable but rigid engagement with the standard.

941,486. STOKER. GEORGE ANDERSEN, Chicago, Ill. Filed Apr. 13, 1908. Serial No. 426,697.



In a device of the class described, a furnace having the usual walls and grate, in combination with a fuel hopper and a fuel chute, means for feeding the fuel to said chute in measured quantities, an oscillatory nozzle of greater diameter than the end of said chute and pivotally mounted over the same for distributing the fuel over said grate, a rotary shaft arranged in front of said furnace and substantially parallel with the front wall thereof, a crank disk on said shaft, a pitman connecting said crank disk and said nozzle and sprocket gearing connecting said shaft with said fuel feeding means, substantially as described.

941,487. MATCH-SCRATCHER. GEORGE A. BARNES, New Haven, Conn. Filed Apr. 25, 1908. Serial No. 429,147.



1. In a device of the character described; a trough shaped guideway having sides which flare outwardly from the bottom thereof and away from each other with a knife edge therein projecting slightly above the said bottom.

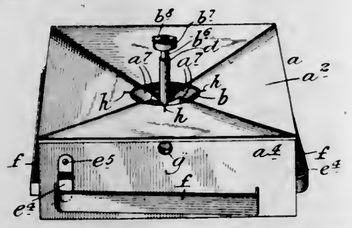
2. In a device of the character described, the combination with a body member having oppositely disposed portions which flare outwardly and form a trough therebetween; and a member connected with said body member having a knife edge upon one side thereof arranged and held so that said knife edge projects into said trough.

3. In a device of the character described, the combination with a body member having two parallel sides which are connected at one end and flare outwardly at their free ends forming a trough therebetween; and a member having a knife edge upon one side thereof mounted between the sides of said body member so that said knife edge projects into said trough.

4. In a device of the character described, the combination with a body member having a trough therein; of a member slidably mounted in said body member having a knife edge upon one side thereof which projects into said trough; and means for limiting the sliding movement of said latter member, comprising an offset lug thereon operative within a groove in said body member.

5. In a device of the character described, the combination with a body member formed of a single piece of metal and having two parallel sides 1 and 2 turned outwardly at their free ends to form the sides 3 and 4 of a trough; of a member 5 between said sides having a knife edge 9 thereon which projects into said trough.

941,488. GAME APPARATUS. WILLIAM B. BECKLEY, Stamford, Conn. Filed Aug. 10, 1908. Serial No. 447,703.



1. In a game apparatus for playing games of cards by means of balls which represent the cards, a casing provided with a hopper-shaped top having a central opening, receptacles at the sides of said casing, a receiver placed in said casing below said opening, radially arranged passages extending from the sides of the box inwardly beneath the top thereof and adapted to discharge into said receiver, a vertically movable spring supported device for closing the discharge of said passages into said receiver, radially arranged tubes communicating with the bottom of said receiver and with the receptacles at the sides of the casing, and means for shuffling the balls in said receiver and discharging said balls into said radially arranged tubes and for closing the inner ends of said tubes.

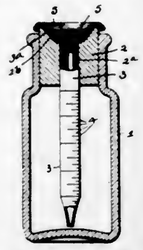
2. In a game apparatus for playing games of cards by means of balls which represent the cards, a casing provided with a hopper-shaped top having a central opening, receptacles at the sides of said casing, a receiver placed in said casing below said opening, radially arranged passages extending from the sides of the box inwardly beneath the top thereof and adapted to discharge into said receiver, a vertically movable spring supported device for closing the discharge of said passages into said receiver, radially arranged tubes communicating with the bottom of said receiver and with the receptacles at the sides of the casing, and means for shuffling the balls in said receiver and discharging said balls into said radially arranged tubes and for closing the inner ends of said tubes, the outer ends of said tubes being also provided with movable closure devices.

3. In a game apparatus for playing games of cards by means of balls which represent the cards, a casing provided with a hopper-shaped top open at the center, a receiver placed centrally in said casing beneath the opening in the top, radial passages extending inwardly and downwardly from the top side portions of said casing beneath the top and adapted to communicate at their inner ends with said receiver, means for closing the communication between said passages and the receiver, receptacles connected with the outer side portions of the casing, radially arranged and downwardly inclined tubes communicating with said receiver, and with said receptacle, means for shuffling the balls in said receiver and discharging them into said tubes and for closing the inner ends of said tubes, and means for closing the outer ends of said tubes.

4. In a game apparatus for playing different games of cards by means of balls which represent the cards, a casing provided with a hopper-shaped top open at the center, receptacles connected with the outer sides of the casing, a receiver placed in the central portion of the casing beneath the top, radially arranged passages extending from the outer sides of the casing inwardly and downwardly beneath the top and adapted to communicate with said receiver, a shuffling device placed in the bottom of the receiver and provided with a rod which extends vertically through the opening in the top of the casing, a vertically movable spring supported sleeve mounted on said rod and provided at its lower end with a disk adapted to close the communication between said receiver and said passages, and radially and downwardly inclined tubes communicating with said receiver and with the receptacles at the sides of the casing and provided at their outer ends with closure devices, the shuffling device being also provided with means for closing the inner ends of said tubes.

5. In a game apparatus for playing games of cards by means of balls which represent the cards, a casing, receptacles connected with the sides of said casing, a receiver placed centrally in said casing and opening upwardly, radially arranged tubes communicating with the bottom portion of said receiver and with said receptacles, a shuffling device placed in said receiver and adapted to close the inner ends of said tubes, means for closing the outer end of said tubes, and means whereby the balls may be deposited in said receiver.

941,489. MEDICINE-DISPENSER. FRANK M. BEVERLY, Marion, Ohio. Filed Apr. 24, 1909. Serial No. 491,977.



1. In a medicine dispenser, the combination with a liquid holding receptacle, and a detachable cork therefor, of an open-end tube extending through said cork, a flexible cap adapted to be detachably connected with the upper end of said tube, said cap having a central stopper projection which when the cap is inverted is adapted to close the upper end of said tube.

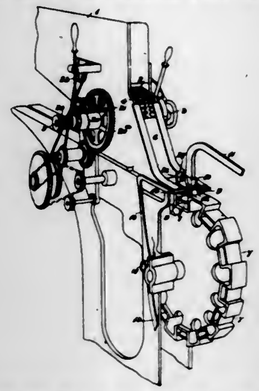
2. In a medicine dispenser, the combination with a bottle, a cork in the upper end of said bottle, an open end tube extending through said cork and having a flaring mouth formed therewith, of a flexible cap having its edge portion adapted to detachably engage the mouth of said tube, said cap having a central closure projection as described.

941,490. MACHINE FOR PACKETING CIGARETTES, &c. EDWARD L. BRACY, Scotland Neck, N. C. Filed Aug. 20, 1908. Serial No. 449,467.

1. A machine for packing cigarettes comprising a mold wheel, means for feeding the cigarettes to a position above a mold in said wheel, a plunger for forcing the cigarettes down into the mold, and a reciprocating lever having adjustable stops thereon for varying the number of cigarettes in each layer.

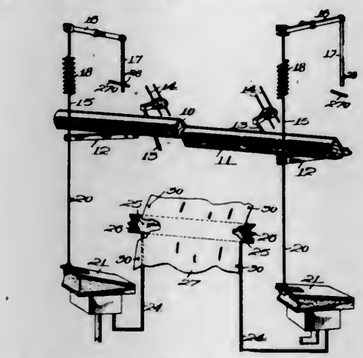
2. In a machine for packeting cigarettes and the like, a feeding hopper 1, a grooved drum 2, an inclined guideway 6, a mold-wheel 8, a plunger 10 and clutch devices, in combination with a slotted pad 25, movable stops 12 on a lever 13, means for imparting a reciprocating movement to the said lever, and means for intermittently disengaging the said clutch devices, substantially as described.

3. A machine for packing cigarettes comprising a mold wheel, an inclined guide way for feeding the cigarettes in position above a mold in said wheel, a plunger for forcing the cigarettes into the mold, a flange on said plunger for preventing the feed of the cigarettes while the mold is in



its lowered position, and a reciprocating lever having adjustable stops thereon for varying the number of cigarettes in each successive layer.

941,491. NOTE-ACCENTING DEVICE FOR MUSICAL INSTRUMENTS. THEODORE P. BROWN, Worcester, Mass., assignor to Simplex Piano Player Co., Worcester, Mass., a Corporation of Massachusetts. Filed Apr. 24, 1909. Serial No. 491,958.



1. In a musical instrument, the combination with the hammers, a movable hammer rest rail, of yielding means positively connected with the rest rail for holding said rest rail in position to shorten the stroke of the hammers, and pneumatic means controlled from the tracker for moving the rest rail back to increase the length of the stroke.

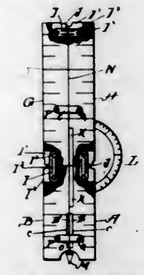
2. In a musical instrument, the combination with the hammers, strings, and a movable hammer rest rail, of manually operated means for moving said rest rail toward the strings to shorten the stroke and holding it in that position, said means having a yielding connection, and a pneumatic for positively moving the rest rail back to lengthen the stroke.

3. In a musical instrument, the combination of a movable hammer rest rail, a link connected therewith and having a spring therein, a lever connected with said link beyond the spring, and means connected with the lever for holding the link and rest rail in elevated position.

4. In a musical instrument, the combination of a movable hammer rest rail, a link connected therewith and having a spring therein, a lever connected with said link beyond the spring, means connected with the lever for holding the link and rest rail in elevated position, and a pneumatic connected with the rest rail and adapted to pull it down in opposition to the spring when the pneumatic is collapsed.

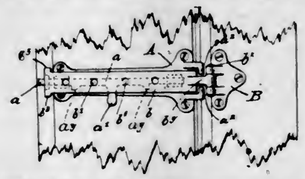
5. In a musical instrument, the combination of a movable hammer rest rail, means positively connected with the rest-rail for yieldingly holding it up in position to shorten the stroke, and a pneumatic positively connected with the rest-rail and adapted to depress it when the pneumatic is collapsed.

941,492. RULE. PATRICK F. BURNS, Nisbet, Pa. Filed Sept. 19, 1908. Serial No. 453,881.



In a rule of the character described, short and long strips having suitable openings formed therein, hinge plates for joining said strips together movably secured in a number of these openings, springs, formed with the hinge plates, the center portion of each spring bulging downward until it rests against one side of the openings in which the hinge plates are secured, the end strips having other openings formed therein the ends of which form diagonals to the sides of the strips, turn plates adapted to fit in said openings, nails or screws for pivoting said turn plates in place, slides dove-tailed in the abutting ends of a number of the strips, a protractor one end of which is secured to one of the strips, catches pivoted to a number of the strips, pins attached to a number of the other strips with which the catch is adapted to engage for holding the strips together, a plumb bob, and a cord for securing the plumb bob to one of the hinge plates, as shown and described.

941,493. DOOR-CHECK. COURTLAND L. BUTLER, Pittsburg, Pa., assignor to Lorenzo O. Hillyard, Dubuque, Iowa. Filed May 10, 1909. Serial No. 494,979.



1. The combination of a swinging member on the door frame, and a bolt on the door having both of its ends operative to lock said swinging member.

2. The combination of a laterally swinging member on the door frame, and a sliding bolt on the door arranged to lock the swinging member when the latter is placed over and alongside said bolt when the door is closed and also when said member is swung laterally and the door opened.

3. The combination of a laterally swinging locking lever on the door frame provided with a longitudinal series of perforations and an end perforation, and a horizontally sliding member on the door which locks the latter in closed position by engaging in said end perforation and which locks the door in open position by engaging in any of the other perforations.

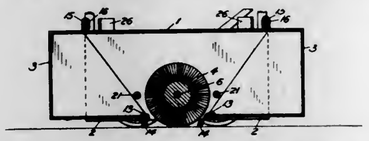
4. The combination of a laterally swinging lever on the door frame having a perforated lateral flange at its free

end, and a sliding bolt on the door which engages at one end in the perforation in said flange when said lever is placed over said bolt, the opposite end of the bolt being operative to engage said lever at intermediate points and thereby lock the door in open position.

5. The combination of a door and door frame, a laterally swinging device on one of said members, and a sliding device on the other member operative to engage and lock said swinging device with both ends and at different points in the length of said device.

[Claims 6 to 10 not printed in the Gazette.]

941,494. SWEEPING APPARATUS. JOHN CABLE, Seattle, Wash. Filed Sept. 2, 1908. Serial No. 451,394.



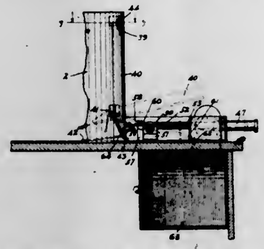
1. A sweeping machine comprising a casing, supporting wheels therefor, a brush supported for rotation in said casing and connected to receive power from said supporting wheels, pans removably supported in the end portions of said casing arranged to receive the sweepings from said brush, and depending flexible guards on the inner edge portions of the bottom walls of said pans.

2. A sweeping machine comprising a casing, supporting wheels therefor, a brush supported for rotation in said casing and connected to receive power from said supporting wheels, pans removably supported in the end portions of said casing arranged to receive the sweepings from said brush, depending flexible guards on the inner edge portions of the bottom walls of said pans, and weights on said flexible guards.

3. A sweeping machine comprising a casing, supporting wheels for said casing, a brush, said brush being formed in sections arranged end to end, means supporting said brush sections for independent rotation, a guard plate arranged between said brush sections to prevent the bristles of one brush section catching in those of the other, and independent means for transmitting power from said supporting wheels to each of said brush sections.

4. A sweeping machine comprising a casing, pans removably supported in the end portions thereof, a brush rotatably mounted in said casing between said pans, said casing being formed on its top with upwardly projecting flanges, catches on said pans adapted to engage over the flanges of said casing, supporting wheels, means for transmitting power from said wheels to said brush, a handle pivotally connected to said casing, and means for supporting said handle in relatively reversely inclined positions.

941,495. FOOD-VENDING MACHINE. ISAC O. CARLSON, Chicago, Ill. Filed Mar. 3, 1909. Serial No. 481,171.



1. In a device of the class described, a cylindrical casing having a dispensing opening therein and a closure for said opening, in combination with a rotary container mounted in said casing, said container being formed into a plurality of compartments adapted to register one at a time with said opening, means on said container for maintaining said closure in closed position except when either of said compartments is in register with said opening and also adapted to close the same when said container is rotated, substantially as described.

2. In a device of the class described, a cylindrical casing having a dispensing opening and a closure for said opening, in combination with a rotary container mounted in said casing and divided into a plurality of compartments, said compartments being adapted to register one at a time with said opening, rollers mounted on said container and adapted to engage said closure to maintain the same in closed position except when either of said compartments is in register with said opening and means on said closure adapted to be engaged by said rollers when said container is rotated to close said closure, substantially as described.

3. A device of the class described, comprising a cylindrical casing open at its upper side, a container rotatably mounted in said casing, radial vertically disposed partitions provided in said container dividing the same into a plurality of compartments, mirrors provided upon either of the surfaces of each of said partitions, the upper wall of said container being provided with slots registering with said compartments, transparent plates closing said slots, an admission opening and a dispensing opening formed in said casing adapted to communicate with said compartments, a closure for said dispensing opening, means for opening said closure, and means whereby the rotation of said container will effect the closing of said closure, substantially as described.

4. In a device of the class described, the combination, of a casing, a container rotatably mounted in said casing, said container being formed into a plurality of compartments, admission and dispensing openings being provided in said casing, said compartments being adapted to be brought to individually register with said openings, a hinged closure for said dispensing opening, means for holding said closure in closing position, a plunger adapted to be depressed to cause the opening of said closure, and means provided upon said casing adapted upon the rotation of the latter to cause the closing of said closure, substantially as described.

5. In a device of the class described, the combination of a casing, a container rotatably mounted therein, said container being formed into a plurality of compartments at the periphery of said container, a dispensing opening provided in said casing adapted to separately register with each of said compartments, a hinged closure for said opening, means for normally holding said closure in closing position, a plunger adapted to be depressed to cause the opening of said closure, and rollers provided at the base of said container adapted upon the rotation of the latter to engage and cause the closing of said closure, substantially as described.

[Claim 6 not printed in the Gazette.]

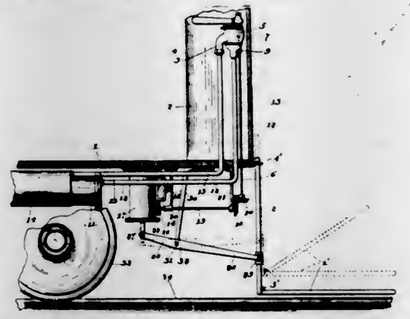
941,496. SMOKE-CONSUMING ATTACHMENT FOR FURNACES. WALTER P. CHOITZ, Chicago, Ill. Filed May 17, 1909. Serial No. 496,616.



1. In a device of the class described, the combination with a furnace of a support secured over the fire door thereof and a finger slidably mounted on said support and adapted to be inserted between the door and the door frame to keep the door ajar, substantially as described.

2. In a device of the class described, the combination of a rod having inwardly bent and flattened ends secured over a furnace door, and a finger having an eye bent over said rod and adapted to be inserted between the door and door frame, substantially as described.

941,497. AIR-ACTUATED STREET-CAR FENDER. JOHN M. CLANCY, Chicago, Ill. Filed Dec. 21, 1908. Serial No. 468,504.



1. In apparatus of the character described, in combination with an air-brake engineer's valve in a car body, a vertically disposed rod rigidly connected to the valve stem of said valve and adapted to rotate therewith, a horizontally disposed shaft journaled in hangers or brackets secured to the car body, a bevel-gear secured with said rod and adapted to mesh with and to drive a bevel-gear secured to said shaft, a cylinder in communication with an air reservoir, a slide valve adapted to control the admission of air to said cylinder, an eccentric on said shaft adapted to actuate the slide valve rod, a piston in said cylinder, and means connected with said cylinder for operating a car fender arranged in front of the car body, substantially as shown and specified.

2. In apparatus of the character described, in combination with a car body equipped with an air-brake system, a vertically disposed rod having a squared portion at its upper extremity adapted to fit snugly in a recess formed in the valve stem of the engineer's valve, a horizontally disposed shaft journaled in hangers or brackets provided therefor and secured to the car body, a bevel-gear connection between said rod and said shaft, an eccentric secured to one extremity of said shaft adapted to operate a slide valve provided in connection with a cylinder, an air supply pipe for the slide valve chamber, a piston in said cylinder in connection with an oscillating lever pivoted to the car fender and adapted to elevate the same when acted upon by air pressure, and said rod being connected to said valve stem in such a manner that when the brakes are released the car fender will be in its highest position, substantially as shown and specified.

3. In apparatus of the character described, a car body and a bracket or hanger secured thereto and depending therefrom, an oscillating lever provided with a perforated portion adapted to engage a portion of said hanger, a vertically-movable car fender pivoted to and adapted to be operated by said lever, a cylinder and piston disposed beneath the car body, the piston rod being pivoted to said lever, a compressed air supply, means for admitting air to said cylinder for actuating said piston in order to raise said fenders, and means for exhausting said cylinder in order that said fender may fall by means of its own gravity, substantially as shown and specified.

941,498. COMPOSITION OF MATTER FOR THE FINISHING-COAT ON WAINSCOTING, WALLS, AND THE LIKE. GEORGE CLAPHAM, Hamilton, Ontario, Canada. Filed Jan. 13, 1909. Serial No. 472,056.

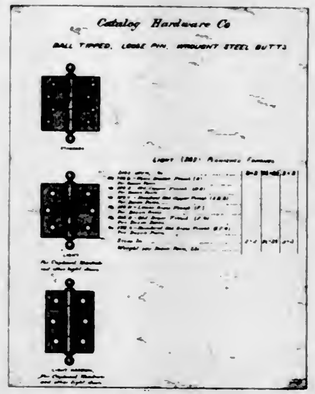
1. The herein described composition of matter, consisting of black foundry dust, plaster of paris, Portland cement, marble dust, dry or lamp black, retarder, lime putty and water, substantially as described and for the purpose specified.

2. The herein described composition of matter, consisting of black foundry dust, plaster of paris, Portland cement, dry or lamp black, retarder, lime putty and water, substantially as described and for the purpose specified.

3. A composition consisting of black foundry dust, plaster of paris and lime putty.

4. A composition consisting of black foundry dust, plaster of paris, cement, dry or lamp black and lime putty.

941,499. SYSTEM OF CATALOGUING. RICHARD T. CLOSE, Duluth, Minn. Filed July 21, 1906. Serial No. 327,133.

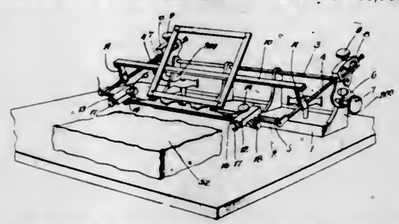


1. A catalogue for merchandise or the like comprising a book made up of pages each bearing a numerical designation, and a list of articles of merchandise, each of said articles bearing the numerical designation of the page on which the list appears, and an additional arbitrary character.

2. A catalogue for merchandise or the like comprising a book made up of pages each bearing a numerical designation, and a list of articles of merchandise, each article of said list bearing the numerical designation of the page on which the list appears, and a suffix consisting of a letter of the alphabet.

3. A catalogue for merchandise or the like, comprising a book made up of consecutively numbered pages, each of said pages bearing a list of articles of merchandise, each article of said list bearing the numerical designation of the page upon which the list appears, and a supplemental designation consisting of a letter of the alphabet, successive letters being applied to successive articles in the list.

941,500. FILM-FRAME APPARATUS. BENJAMIN DAY, Summit, N. J. Filed Mar. 2, 1909. Serial No. 480,964.



1. An apparatus for utilizing printing films, comprising a base, a pair of independent carriages carried by said base, a bracket pivotally connected to each of said car-

riages and means carried by said bracket for securing film frames of different sizes thereto.

2. An apparatus for utilizing printing films comprising a base, a pair of independent carriages carried by the base, a pivotal connector on each carriage, a bracket pivotally connected to each of said connectors and means carried by said bracket for securing film frames of different sizes thereto.

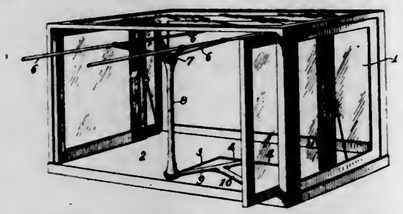
3. An apparatus for utilizing printing films, comprising a base, a pair of independent carriages carried by the base, a pivotal connector on each carriage, a bracket pivotally connected to each of said connectors, a fixed jaw and a movable jaw carried by the bracket, said jaws having an open throat and adapted to receive and clamp film frames of different sizes between them.

4. An apparatus for utilizing printing films, comprising a base, a pair of carriages carried by said base, means for adjusting said carriages toward and from each other, a bracket pivotally connected to each of said carriages and means carried by said bracket for securing film frames of different sizes thereto.

5. An apparatus for utilizing printing films, comprising a base, a pair of carriages carried by the base, means for adjusting said carriages toward and from each other, a pivotal connector on each carriage, a bracket pivotally connected to each of said connectors and means carried by said bracket for securing film frames of different sizes thereto.

[Claims 6 to 33 not printed in the Gazette.]

941,501. MOVABLE GARMENT-SUPPORT. LEON G. DODGE, Grand Rapids, Mich., assignor to Grand Rapids Show Case Company, Grand Rapids, Mich., a Corporation of Michigan. Filed Apr. 26, 1909. Serial No. 492,140.



1. A device of the class described, comprising a floor having T-slots therein, a carriage movable on the floor above the slots, studs on the carriage and traversing the slots, rollers carried on the studs and engaging the walls of the slots, a column mounted on the carriage, and a garment support mounted on the column.

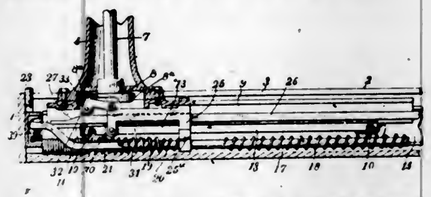
2. A device of the class described, comprising a floor having T-slots joined at right angles and a diagonal T-slot midway between said slots, a carriage supported at three points above the slots, studs in the carriage and traversing the respective slots, rollers on the studs engaging the walls of the slots, a column mounted on the carriage, and a rotary garment support mounted on the column.

3. A device of the class described, comprising a case having a floor provided with a slot extending from near the center of the case to the front of the case, a slot extending from the rear of the first named slot and at right angles thereto and a diagonal slot midway between the said slots, a T-shaped carriage having its ends movable above the respective slots, studs on the carriage traversing the respective slots, a column mounted on the carriage above the first named slot, and a rotative garment support mounted on the column.

4. A device of the class described, comprising a case having a floor provided with a T-slot extending from the front to near the middle thereof, a second T-slot extending from the rear of the first slot and at right angles thereto and a diagonal T-slot extending midway between the said slots and spaced apart therefrom, a T-shaped carriage having its ends slidable above the respective slots, T-shaped studs on the respective arms of the carriage and traversing the respective slots, a column mounted on the carriage above the first named slot, and a rotative garment support mounted on the column.

5. A device of the class described, comprising a case, an arm horizontally disposed in the case, means for guiding one end of the arm transversely of the case from the front toward the rear thereof, a column rigidly supported on said end, a garment support on said column, means for guiding the other end of the arm longitudinally of the case, a lateral arm on the first named arm, and means for guiding the lateral arm diagonally of the case.

941,502. MOVABLE GARMENT-SUPPORT. LEON G. DODGE, WILLIAM FREEMAN, and ANTHONY VANDERVELD, Grand Rapids, Mich., assignors to Grand Rapids Show Case Company, Grand Rapids, Mich., a Corporation of Michigan. Filed July 3, 1909. Serial No. 505,815.



1. A garment support comprising a movable column, a rotative garment support carried by the column, a recessed head rigidly connected to said support and rotative therewith, a latch to engage the recess of the head, and means to engage and disengage the latch operated by movement of the column.

2. A garment support, comprising a hollow column, a garment supporting member rotatively mounted on the column, a shaft fixed in the said member and rotative in the column, a recessed head fixed on the shaft, and a latch to engage the recess in the head and hold the same from turning.

3. A garment support, comprising a rotative garment supporting member, a column supporting said member, a carriage on which the column is mounted, a shaft attached to said member and rotative in the column, a head fixed on the shaft and having recesses, and a latch mounted on the carriage and engaging the recesses to hold the said member from turning.

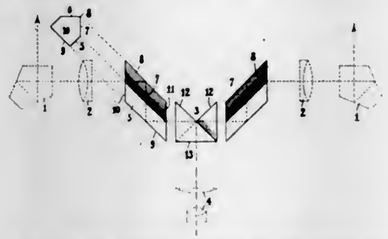
4. A garment support, comprising a column, a spider rotative on the column, parallel bars spaced apart and supported by the spider, a shaft fixed in the spider and rotative in the column, a head having recesses at opposite sides and fixed on the shaft, and a latch to alternately engage the recesses, whereby the bars may be reversed and held in each position.

5. A garment support, comprising a column, a spider rotative on the column, parallel bars supported by the spider and spaced apart, a ball bearing between the column and the spider, a shaft fixed in the spider and rotative in the axis of the column, a bushing in the column, a collar on the shaft and below the bushing, a ball bearing between the collar and bushing, and releasable means for holding the spider at intervals from turning on the column.

[Claims 6 to 17 not printed in the Gazette.]

941,503. OPTICAL DISTANCE-MEASURING INSTRUMENT. FRIEDRICH DUBENHORST, Steglitz, near Berlin, Germany, assignor to The Firm of Optische Anstalt C. P. Goerz Aktiengesellschaft, Friedenau, near Berlin, Germany. Filed Apr. 7, 1908. Serial No. 425,639.

1. In an optical distance-measuring instrument a pair of object-glasses and one ocular, the axis of the ocular substantially parallel to the plane of the triangle of observation, means adapted to emit the rays entering through said two object-glasses through said one ocular, so as to form upright images without lateral reversion, said means comprising an even number of not less than four reflecting surfaces in the path of the rays coming through each object glass, at least one of said reflecting surfaces in each set of reflectors coöperating with the two object glasses, crossing at least one reflector of the other set without intersection, the crossing reflectors being arranged in front of the ocular.



2. In an optical distance-measuring instrument a pair of object-glasses and one ocular, the axis of the ocular substantially parallel to the plane of the triangle of observation, a pair of pentaprisms, each coöperating with one of said object-glasses, an image-uniting body including two elements in the form of right-triangular prisms, the reflecting surfaces of said prisms opposite the right-angles crossing each other.

3. In an optical distance-measuring instrument a pair of object-glasses and one ocular, the axis of the ocular substantially parallel to the plane of the triangle of observation, a pair of pentaprisms arranged so as to offer surfaces to the entering rays which are inclined with relation to each other and each of same coöperating with one of said object-glasses, an image-uniting body including two elements in the form of right-triangular prisms, the reflecting surfaces of said prisms opposite the right-angles crossing each other.

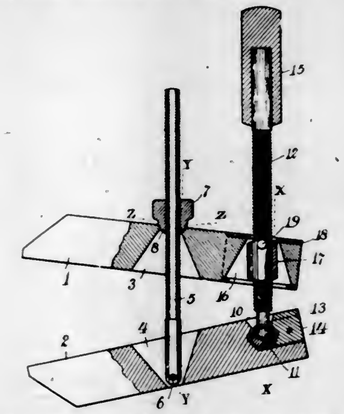
4. In an optical distance-measuring instrument a pair of object-glasses and one ocular, the axis of the ocular substantially parallel to the plane of the triangle of observation, a pair of pentaprisms, each coöperating with one of said object-glasses, an image-uniting body including two elements in the form of right triangular prisms, the reflecting surfaces of said prisms opposite the right-angles crossing each other, a further prism on each side of said uniting-body inserted in the path of the rays coming from said pentaprisms and object-glasses and provided with a di-hedron surface and a further reflecting surface opposite said di-hedron and parallel to the edge of the di-hedron and substantially perpendicular to the plane of the triangle of observation.

941,504. CLAMP. DAVID A. DUCHARME, Fitchburg, Mass. Filed Oct. 19, 1908. Serial No. 458,397.

1. The combination of a pair of clamping jaws, a screw for pressing their butts apart, a screw pivoted at its end in an intermediate point of one jaw, and a nut turning on the last-named screw exterior to the other jaw and having a half-round nose, the jaw with which said nose contacts being correspondingly recessed to receive it.

2. The combination of a pair of clamping jaws, a screw having an operating handle for pressing their butts apart, a screw pivoted at its end in an intermediate point of one jaw, and a nut turning on the last-named screw exterior to the other jaw, the first-named screw having its extremity abutting in the same jaw as that in which the last-named screw is pivoted, and having its operating handle exterior to the other jaw and hence at the same side as the said nut.

3. The combination of a pair of clamping jaws, a screw for pressing their butts apart, a screw pivoted at its end in an intermediate point of one jaw, and a nut turning on the last-named screw exterior to the other jaw and having a half-round nose, the first-named screw and also the last-named one being adapted to swing relative to the jaws in a plane coinciding with the latter.

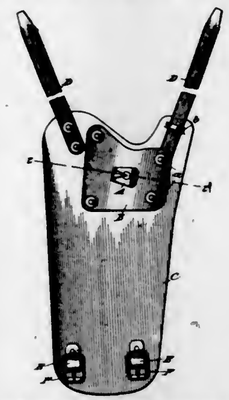


4. The combination of a pair of clamping jaws, a screw having an operating handle for pressing their butts apart, a screw pivoted at its end in an intermediate point of one jaw, and a nut turning on the last-named screw exterior to the other jaw and having a half-round nose, both screws being adapted to swing relative to the jaws in a plane coincident with the latter, and both said nut and the operating handle of the first-named screw being at the same side of the jaws.

5. The combination of a pair of clamping jaws, a screw for pressing together their operative ends, a screw for pressing apart the butts of said jaws and terminally seated in one of said jaws, and the butt of the other jaw being slotted, a nut in said slot for the last-named screw, and a ferrule surrounding the said slotted jaw-butt; said nut having a pair of trunnions at one end thereof close to one face of said ferrule, both said face and the one opposite thereto being suitably slotted for receiving the screw, and the ends of said nut being cylindrical to fit against the inner surfaces of said ferrule beside said slots.

[Claim 6 not printed in the Gazette.]

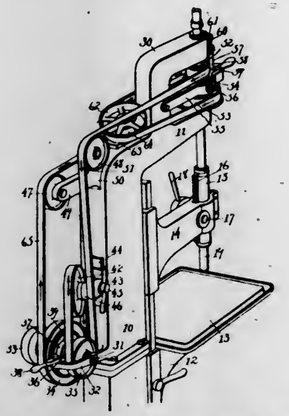
941,505. CORN-HUSKING IMPLEMENT. SPENCER B. DYKES, Esbon, Kans. Filed Dec. 28, 1908. Serial No. 469,713.



In a corn-husking device, the combination of a flexible body portion adapted for the attachment to the hand and having at one end an inset portion conforming to the

shape of the thumb, a base plate secured to the body portion, said plate being convex to conform to the palm of the hand and having an inset corresponding to the inset in the body portion and slightly spaced therefrom, an outstanding V-shaped holding spur secured to said base plate and extending substantially parallel therewith at its outer portion, connecting straps and attaching means provided at opposite ends of the body portion; said straps being adapted to pass on opposite sides of the thumb.

941,506. CHANGE-SPEED MECHANISM. CHARLES B. ELMORE, Hartford, Conn., assignor to Samuel E. Elmore, Hartford, Conn. Filed Nov. 17, 1906. Serial No. 343,861.



1. A driving shaft, means for rotating it, a driven shaft, a plural number of devices for receiving a flexible connection said devices being operatively mounted with respect to one of said shafts, a device for receiving the flexible connection and operatively mounted with respect to the other shaft, the flexible connection between said devices and engaging all of the devices on a single shaft, and means for guiding the connection to allow it unrestricted travel in the same direction on all of said devices.

2. A driving shaft, means for rotating it, a driven shaft, a plural number of devices for receiving a flexible connection said devices being operatively supported with respect to the driven shaft, means for receiving a flexible connection loosely mounted on the driving shaft, the flexible connection between said devices, and means for guiding said connection to allow it unrestricted travel in the same direction on all of said devices.

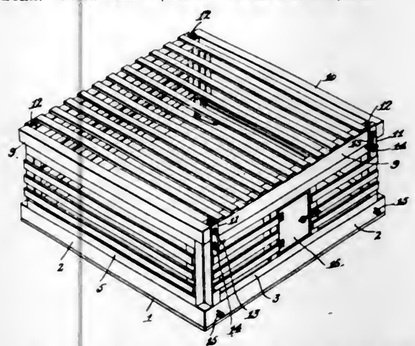
3. A driving shaft, means for rotating it, a driven shaft, a plural number of devices for receiving a flexible connection said devices being operatively mounted with respect to one of said shafts, a device for receiving a flexible connection operatively mounted with respect to the other shaft, the flexible connection between said devices, and a guide to allow said connection unrestricted travel in the same direction about all of said devices.

4. A driving shaft, means for rotating it, a driven shaft, a plural number of devices for receiving a flexible connection said devices being operatively supported with respect to one of said shafts and including a device mounted to rotate independently thereof, a device for receiving a flexible connection operatively mounted with respect to the other shaft, the flexible connection between said devices, and means to guide said connection with unrestricted movement in a direct line to all of said devices to rotate them all in the same direction.

5. A driving shaft, means for rotating it, a driven shaft, loosely mounted devices for receiving a flexible connection operatively supported with respect to one of said shafts, means for securing a device to rotate with its shaft, means for receiving a flexible connection operatively mounted with respect to the other shaft, the flexible connection between said devices and engaging each device appurtenant to a single shaft, and means for guiding said connection with unrestricted movement and in a direct line to travel in the same direction on all of said devices.

[Claims 6 to 37 not printed in the Gazette.]

941,507. POULTRY-COOP. JOSEPH A. EMERT, Jellico, Tenn. Filed Jan. 30, 1909. Serial No. 475,134.



1. In a knock down poultry coop, a tray shaped base, a removable top having depending sides all around, and hinged side walls of equal height, two oppositely disposed side walls adapted when the device is in knock down position to lie within and fill said tray shaped base, the other two side walls lying within and filling the tray shaped top.

2. In a knock down poultry coop, a tray shaped base, a removable top having depending sides all around, and hinged side walls of equal height, two oppositely disposed side walls adapted when the device is in knock down position to lie within and fill the tray-shaped base, the other two-side walls lying within and filling the tray shaped top, the said base and top lying in contact with each other with their outer faces flush to form a complete closure.

941,508. CUSHION-TIRE FOR VEHICLES. EDWARD E. EUCHENHOFER, Dayton, Ohio. Filed Nov. 19, 1908. Serial No. 463,446.



1. A tire having a circumferentially arranged series of independent cavities, and means contained within each of said cavities and formed integral with the walls thereof for reinforcing said walls.

2. A tire having a circumferentially arranged series of independent cavities, and ribs extending inwardly from the side walls of each of said cavities.

3. A tire having a circumferentially arranged series of cavities, and ribs extending from the opposite side walls and from the inner wall of each of said cavities and having their adjacent ends joined, thereby forming a practically continuous rib.

4. A tire having a circumferentially arranged series of cavities, and ribs extending from the four side walls of each of said cavities.

5. A tire having a series of independent radially arranged cavities in the inner circumferential wall thereof, and radially arranged reinforcing ribs extending from the walls of said cavities.

[Claims 6 to 10 not printed in the Gazette.]

941,509. COIN-COLLECTOR. ALMON M. FARNSWORTH, Camden, N. Y. Filed Mar. 21, 1908. Serial No. 422,402.



1. A coin-holding device consisting of a back strip of comparatively stiff material and of a given width, a top strip of relatively pliable material and of lesser width secured at longitudinal spaced points thereon, clips inclosing the narrow strip and fastened through the wide one securing the strips as stated, thereby providing regularly arranged spaces to receive coin of given denominations between the two strips and between the points at which the several prongs of the clips pass through the back strip, the said clips being placed to graduate the spaces according to the size of the coins, as desired, substantially as described.

2. A coin carrier consisting of a strip of comparatively stiff material slightly wider than the diameter of the coin, a strip of slightly less width than the diameter of the coin and of yielding and pliable material secured thereto in such position that each side of the former strip extends on each side an equal distance beyond the edge of the latter, a plurality of fasteners passing across the narrow strip and securing it to the former, the two end fasteners being placed at a distance inward from the end of the latter strip and the intermediate fasteners being at points in the intermediate space dividing the space relative to the size of given coins, the pliable strip normally lying upon the stiff one but yielding therefrom for the insertion of a coin between the two, substantially as described.

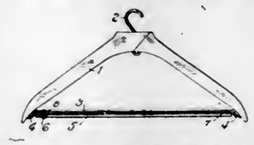
3. A coin-collector consisting of a base strip and a strip of yielding material mounted thereon, said mounting being effected by means crossing the same at regular intervals graduated to the size of the coin for which the collector is designed, the said mounting allowing for yield of said strip lengthwise through the said crossing means, to receive and hold the coins, substantially as described.

4. A device of the character described consisting of two strips secured each to the other at certain definite points, clips transverse the strips yieldingly holding the upper strip and secured to the lower one in given positions whereby a series of spaces is provided between the strips and between the clips of a length to receive in each a coin of a given denomination, substantially as described.

5. A device of the character described having a stiff back strip of a given width and a narrower and limber strip superposed thereon and secured thereto at fixed intervals, the back strip having a cutout with a curved edge adjacent the superposed strip, the said cutout having inwardly diverging sides under the upper strip and extending from the ends of the arc of said curved portion, at a point at the edge of the superposed strip, whereby the edge of the coin is received in the said curved cutout and carried by contact with the conveying sides into position between the strips, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

941,510. GARMENT-HANGER. WILLIAM F. FREEMAN, Grand Rapids, Mich., assignor to Grand Rapids Show Case Company, Grand Rapids, Mich., a Corporation of Michigan. Filed Dec. 18, 1908. Serial No. 468,177.



1. A garment hanger comprising downwardly extended diverging arms, a brace bar connecting said arms and attached thereto, downwardly projecting members fixed in the brace bar near its respective ends, and a supporting bar having a limited pivotal connection at one end to one member and detachably supported by the other member at the other end.

2. A garment hanger, comprising downwardly extended diverging arms, a brace bar connecting the said arms and attached thereto, a T head fixed in the brace bar a semi-cylindrical supporting bar having an opening to receive the T head and supported at one end thereby and having a limited downward movement at the other end, and means for detachably connecting said other end to the brace bar.

3. A garment hanger, comprising downwardly extended and diverging arms, a brace bar connecting said arms and attached thereto, a supporting bar beneath the brace bar, a T-head connecting said bars, said head being fixed in one bar and having an oscillating movement in the other bar, and a knob fixed in one bar and detachably engaging a lateral recess in the other bar.

4. A garment hanger, comprising downwardly extended and diverging arms, a flat brace bar connecting the said arms and attached thereto, a semi-cylindrical supporting bar beneath the brace bar and having a slot near one end and a lateral recess near the other end, a T-head fixed in the brace bar and extending through the slot in the supporting bar and also having a limited oscillating movement therein, and a knob fixed in the brace bar and detachably engaging the lateral recess in the supporting bar.

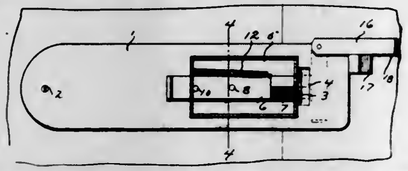
5. A garment hanger, comprising downwardly extended diverging arms, a flat brace bar connecting said arms and attached thereto, a semi-cylindrical supporting bar beneath the brace bar and having a longitudinal slot near one end and a lateral recess near the other end, a T-head fixed in the brace bar and inserted in said slot and also having arms unequally spaced from said bar, and a knob fixed in the brace bar and detachably engaging the said lateral recess.

[Claim 6 not printed in the Gazette.]

941,511. HASP-LOCK. ASA J. FRENCH, Huron, S. D. Filed May 14, 1909. Serial No. 496,010.

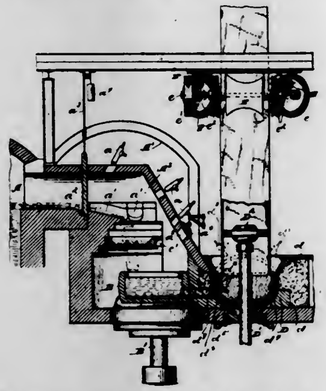
1. A hasp lock comprising a shank having an opening in one end thereof adapted to receive a staple, a lock casing secured upon said shank adjacent to said opening, a locking bolt mounted in said casing and extending from either end thereof, one end of said bolt being upwardly turned and the other end thereof being provided with an enlargement adapted to be received in said staple, lugs integrally formed with said bolt, one of said lugs being adapted to engage with said casing to limit the rearward movement of said bolt, a spring secured to the top of said cas-

ing and adapted to engage with the other of said lugs to retain said bolt in its locked position, and a key adapted to release said spring from engagement with said lug.



2. A hasp lock comprising a flat shank having an opening on one end thereof adapted to receive a staple, a lock casing secured upon said shank adjacent to said opening, a locking bolt mounted in said casing and projecting from either end thereof, an enlargement formed upon one end of said bolt, means upon the other end of said bolt for forcing the enlarged end thereof into engagement with said staple, lugs formed on said locking bolt, one of said lugs being adapted to limit the rearward movement of the same, a leaf spring secured to the top of said casing and adapted to engage with the other of said lugs to retain the same in its locked position, a key opening in said casing, an opening in said shank in alinement with said key opening, a retractile spring secured to said locking bolt and to said casing and adapted to retract the same when said leaf spring is removed from contact with said lug.

941,512. METHOD OF AND MEANS FOR MANUFACTURE OF WINDOW-GLASS. ROBERT L. FRINK, Cleveland, Ohio. Filed Sept. 25, 1907. Serial No. 394,459.



1. The method of manufacturing colored, or cathedral, glass, which consists in separately maintaining in molten state bodies of the several ingredient metals, and then mingling such metals apart from the working vessel.

2. The method of manufacturing colored, or cathedral, glass, which consists in separately maintaining in molten state bodies of the several ingredient metals, mingling such metals apart from the working vessel, and then conducting such metals in a combined stream to such working vessel.

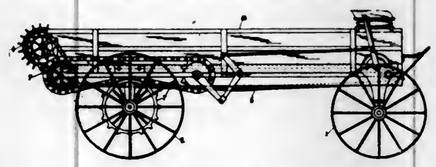
3. The method of manufacturing colored, or cathedral, glass, which consists in separately maintaining in molten state bodies of the several ingredient metals, withdrawing measured quantities of the metals from such bodies and mingling the same apart from the working vessel, and then conducting such metals in a combined stream to such working vessel.

4. The method of manufacturing colored, or cathedral, glass, which consists in intermittently pouring measured quantities of the several ingredient metals into a mixing vessel apart from the working vessel.

5. The method of manufacturing colored, or cathedral, glass, which consists in intermittently pouring measured quantities of the several ingredient metals into a mixing vessel apart from the working vessel, and then conducting such metals in a combined stream from such mixing to such working vessel.

[Claims 6 to 29 not printed in the Gazette.]

941,513. MANURE-SPREADER. DUDLEY GARST, Waterloo, Iowa. Filed May 19, 1909. Serial No. 496,875.



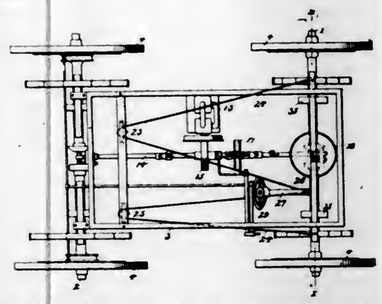
1. A manure spreader comprising a box tapering from the closed end to the discharge end, means for forcing the contents of the box uniformly from the closed to the discharge end, and distributing it therefrom, and running gear supporting the box and operating the forcing and distributing means.

2. A manure spreader comprising a box having a closed end and a discharge end toward which the box tapers laterally throughout its length, traction bearing wheels for the box, and a conveyer driven thereby adapted to force the box contents from the closed to the discharge end.

3. A manure spreader comprising traction bearing wheels, a box horizontally disposed thereon and provided with sides converging from the closed end to the discharge end, an endless conveyer traversing the bottom of the box from the closed to the discharge end, and operating connections between the conveyer and the traction wheels.

4. A manure spreader comprising traction bearing wheels, a box maintained thereon tapering laterally from its closed end to its discharge end, distributing means at the discharge end, and a conveyer adapted to force the contents of the box toward the distributing means and driven by the traction wheels.

941,514. FOUR-WHEEL POSITIVE DRIVE. OSCAR A. GOODRICH, Sioux City, Iowa, assignor of five-eighths to John N. Warren and one-eighth to Fowler A. Seaman, Sioux City, Iowa. Filed July 11, 1908. Serial No. 443,051.



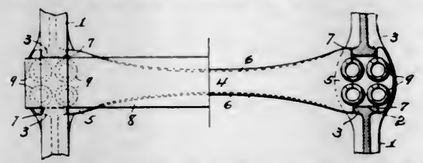
1. In vehicle running gear, the combination of an axle mounted to turn about a vertical axis, wheels mounted upon the arms of the axle, hollow axles mounted upon end portions of the main axle and having connection at their outer ends with the wheels, a longitudinally disposed power shaft having a joint in vertical alinement with the axis about which the axle turns, gearing between the hollow axles and the end portion of the power shaft forward of its joint, the parts being disposed to positively drive the hollow axles and yet admit of the main axle turning easily about the vertical axis, and a support for the main axle in line with its axis and adapted to hold the main axle from rotating.

2. In a vehicle running gear, the combination of a main axle, wheels mounted upon the arms thereof, hollow axles mounted upon end portions of the main axle and having connection with the said wheels, bearings for the hollow axles, a brace connecting said bearings, a post connected at its upper end to the main axle and connected at its lower end to said brace, a power shaft, and gearing between the power shaft and hollow axles to positively drive them in the same direction.

3. In vehicle running gear the combination of a main axle, wheels mounted upon the arms thereof, hollow axles mounted upon end portions of the main axle, clutches secured to the outer ends of the hollow axles, and embodying radially disposed channeled portions adapted to engage the spokes of the wheels, a power shaft, and a driving connection between said power shaft and said hollow axles.

4. In vehicle running gear, a main axle arranged to turn about a vertical axis, wheels mounted upon the arms of said axle, hollow axles mounted upon end portions of said main axle and having connection with said wheels, bearings for the hollow axles intermediate the ends thereof, a brace rod connected to said bearings, a post secured to and depending from the main axle at the axis thereof, a connection between the lower end of said post and the brace rod, a power shaft, and a gearing connection between the power shaft and hollow axles.

941,515. CAR-TRUCK. CHARLES B. GOODSPEED, Chicago, Ill. Filed Aug. 12, 1909. Serial No. 512,534.



1. A spring plank for car trucks comprising a flat plate having depending integral ribs at its side edges between its ends and provided at the opposite sides of its ends with notches adapted to receive the truck columns.

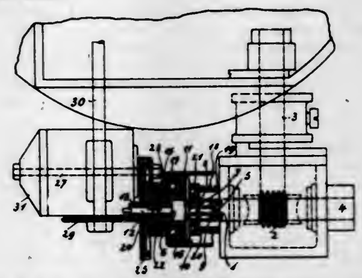
2. A spring plank for a car truck, comprising a metal plate having head portions at its ends provided in diametrically opposite edges with notches, having its side edges between said head portions curved inwardly and provided with strengthening ribs.

3. The combination with the side frames of a car truck, said side frames having bolster openings with vertical side walls or columns, of a spring plank flat on top having notches in diametrically opposite edges of its end portions, said notches receiving the side walls or columns of the bolster openings in the side frames of the truck, and strengthening ribs at the respective edges of said spring plank between the notched end portions thereof.

941,516. GOVERNOR FOR SPEED-INDICATORS. ALEXANDER GROSSMANN, Dresden, Germany. Filed June 27, 1908. Serial No. 440,653.

1. In a speed indicator the combination with a shaft, a non-uniformly rotating driving member, a friction clutch interposed between said driving member and shaft, and having driving and driven elements a self braking centrifugal governor, and means for resiliently gearing the driven element of the clutch to said governor, said governor including means whereby uniform rotation is imparted to the aforesaid shaft.

2. In a speed indicator the combination with a shaft, a non-uniformly rotating driving member, a friction clutch comprising driving and driven elements interposed between said driving member and shaft, means comprising beveled pins and beveled coacting surfaces whereby the driven clutch element is actuated by rotation of the driving element in one direction only, a self braking centrifugal governor, and means for resiliently gearing the driven element of the clutch to said governor, said governor including means whereby uniform rotation is imparted to the aforesaid shaft.



3. In a speed indicator the combination with a shaft, a non-uniformly rotating driving-member, a friction clutch and gearing interposed between said driving member and shaft, said clutch comprising driving and driven elements, a self braking centrifugal governor, a sleeve carried by the driven clutch element, gearing interposed between the clutch and governor, and a spring connecting said sleeve and one element of said gearing, said governor including means, whereby uniform rotation is imparted to the aforesaid gearing for actuating said shaft.

4. In a speed indicator the combination with a shaft, a non-uniformly rotating driving member, a friction clutch comprising driving and driven elements, gearing interposed between said driving member and shaft for actuating the latter, means whereby the driven clutch element is actuated by rotation of the driving element in one direction only, a self braking centrifugal governor comprising a horizontal spindle and weights carried thereby, and means for resiliently gearing the driven element of the clutch to said governor spindle, said governor including means whereby uniform rotation is imparted to the aforesaid gearing for actuating said shaft.

5. In a speed indicator the combination with a shaft, a non-uniformly rotating driving-member, a friction clutch comprising driving and driven elements, gearing interposed between said driving member and shaft for actuating the latter, a self braking centrifugal governor comprising a horizontal spindle and weights carried thereby, and means for resiliently gearing the driven clutch element to the governor spindle, said governor including means comprising a stationary friction disk and a movable friction disk operated by the governor weights to coact with said stationary disk whereby uniform rotation is imparted to the aforesaid gearing for actuating said shaft.

[Claim 6 not printed in the Gazette.]

941,517. MOTOR-VEHICLE CONSTRUCTION. EMIL GRUENFELDT, Cleveland, Ohio, assignor to The Baker Motor Vehicle Company, Cleveland, Ohio, a Corporation of Ohio. Filed Jan. 23, 1908. Serial No. 412,235.



1. In a motor vehicle construction, the combination of a vehicle frame mounted upon springs; a fixed axle member upon which said springs are mounted; a motor connected with the live member of the axle, and yieldingly supported upon said frame; and means rigidly secured to said fixed axle member and loosely connected with said motor.

2. In a motor vehicle construction, the combination of a vehicle frame mounted upon springs; an axle comprising a fixed and a live member; a motor and housing therefor yieldingly supported by said frame; and means rigidly secured to the fixed axle member, said motor housing resting loosely upon said rigidly secured means.

3. In a motor vehicle construction, the combination of a vehicle frame; a fixed axle member; an arm fixed to said axle member; a motor; yielding means supported by said frame and engaging said motor; said arm being interposed between said motor and yielding means; and additional yielding means interposed between said motor and said frame.

4. In a motor vehicle construction, the combination of a vehicle frame; an axle comprising a fixed and a live member; a motor and housing therefor, the latter provided with two laterally and oppositely disposed lugs; two arms rigidly secured to the fixed axle member, said lugs resting upon said arms; bolts suspended from the frame and passing through said lugs and arms; and springs mounted upon said bolts upon opposite sides of said lugs and arms respectively, the outer ends of said springs being in contact with fixed abutments.

941,518. COMBINED PENCIL HOLDER AND SHARPENER. CONRAD H. HAASE, New Orleans, La., assignor of one-fourth to William H. Wood, Dallas, Tex. Filed May 23, 1908. Serial No. 434,686.



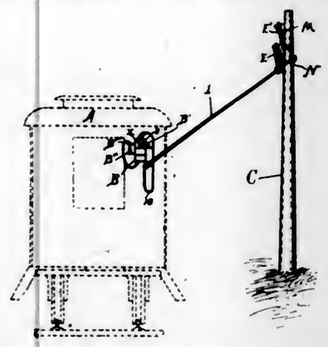
1. A pencil-sharpener comprising a tubular casing receiving the pencil, a sleeve rotatably mounted on the casing and projecting from one end thereof, the projecting end of the sleeve having interior screw-threads engageable with the pencil, and pencil-sharpening means carried by the sleeve.

2. A pencil-sharpener comprising a tubular casing receiving the pencil, a rotary sharpener carried by the casing and having a conical end projecting therefrom to inclose the end of the pencil, interior projecting cutters on said conical end, a sleeve rotatable on the casing, and having threads engaging the pencil for projecting the point of the pencil from the sharpener and for retracting the same thereinto, and means for preventing the sleeve from traveling.

3. A pencil-sharpener comprising a tubular casing receiving the pencil, a sleeve rotatably mounted on the casing and projecting from one end thereof, the projecting end of the sleeve having interior screw-threads engageable with the pencil, and a pencil-sharpener comprising a tube mounted on the sleeve to rotate therewith, and having a cone-shaped end to receive the pencil point and provided with inwardly projecting cutters.

4. A pencil-sharpener comprising a tubular casing receiving the pencil, a sleeve rotatably mounted on the casing and projecting from one end thereof, the projecting end of the sleeve having interior screw-threads engageable with the pencil, tongues projecting from the sleeve, and a pencil sharpener comprising a tube mounted on the sleeve and having a slit to receive the tongues, said tube having a cone-shaped end to receive the pencil and provided with inwardly projecting cutters.

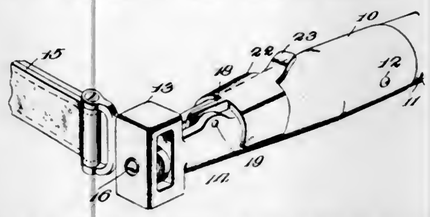
941,519. INTERMEDIATE TELEPHONE-CONNECTOR. CHARLES A. HEARN and WILLIAM H. FEDDEJOHANN, Decatur, Ind. Filed Aug. 27, 1908. Serial No. 450,435.



1. An intermediate telephone connector comprising a pole, a pair of hooks projecting laterally from said pole, said hooks being oppositely directed and in alinement longitudinally of the pole, wires connected to said hooks and leading therefrom to an end of the pole, means for insulating said hooks and wires from each other, and means for connecting the terminals of said wires to a telephone.

2. An intermediate telephone connector comprising a pole, a pair of hooks projecting laterally from said pole, said hooks being oppositely directed and in alinement longitudinally of the pole, the stems of said hooks passing through the pole and projecting beyond the opposite side of the pole, means engaging the projected ends of the stems for holding the hooks against displacement, wires connected to the stems of said hooks within the pole and leading therefrom to an end of the pole, means for insulating said wires and hooks from each other, and means for connecting the terminals of said wires to a telephone.

941,520. TRACE-HOOK. ADDISON P. HOARD, Alcester, S. D. Filed Mar. 16, 1909. Serial No. 483,770.

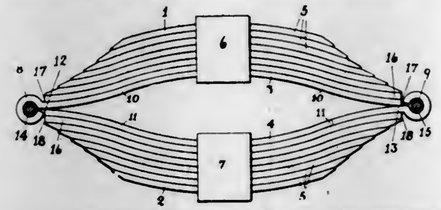


1. A trace fastener including a bolt having an opening formed intermediately and vertically therethrough, beveled faces oppositely formed in the opening, a lever disposed adjacent said bolt and extended into the opening, and a lug formed on said lever for engagement through the opening, said lug being adapted for engagement against said beveled faces to lock said bolt in a closed and open position.

2. In a trace fastener, the combination of a body portion, a lever pivotally mounted in said body portion, a bolt slidably disposed in said body portion, said bolt having an opening formed intermediately therein, oppositely beveled faces formed on said bolt within the opening, a lug formed on said lever and engaged in said opening, and a receiving member formed upon the outer end of said body portion for the reception of the outer end of said bolt, said lug being adapted for engagement with said faces to bind said bolt in an open and closed position.

3. A trace fastener including a body portion having an opening formed in the upper side thereof, a bolt slidably disposed in said body portion and having an opening formed therethrough for registration with the opening in the said body portion, a lever pivotally mounted in said body portion and extended through the openings, beveled faces oppositely formed in said bolt in the opening, and a lug carried by said lever for alternate engagement with said faces to lock said bolt in an open and closed position.

941,521. ELLIPTIC SPRING. HARRY JEFFREY, Louisville, Ky. Filed July 12, 1909. Serial No. 507,064.



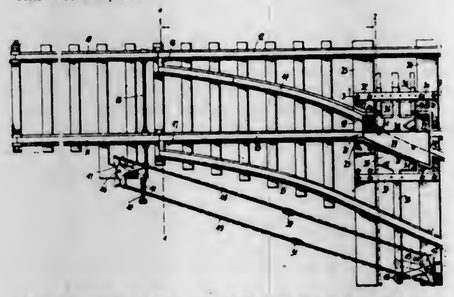
1. In an elliptic spring, having adjacent interconnecting leaves provided with an eye at each end, the eyes of opposite corresponding leaves mutually half-and-halved together laterally, said leaves joined together by a pin adapted to hold them together laterally only, when the spring is under stress, said eyes being of larger diameter than said pin and said pin being of smaller diameter than said eyes, said leaves bearing against each other intermediate said eyes and the middle of the spring, in such a manner that said leaves in operation bear against each other with a rolling contact.

2. In an elliptic spring, the adjacent fundamental leaves formed at their opposite ends with an ogee curve, the ogee curved portions being oppositely disposed so as to bear against each other in operation with a rolling contact.

3. In an elliptic spring, adjacent fundamental leaves, provided with eyes which are mutually laterally half-and-halved together and secured together by means of pins which act laterally only, said eyes being free to move vertically in opposite directions mutually, and said leaves bearing in operation with a rolling contact.

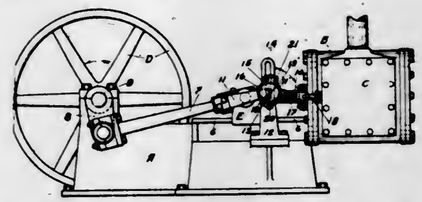
4. In a full elliptic spring, adjacent fundamental leaves secured together mutually in vertical alinement, adapted to bear against each other in operation with free rolling contact and nearer the middle of the spring as the stress is increased, so that the stiffness of the spring is increased as the pressure thereon is increased.

941,522. RAILWAY-SWITCH DEVICE. GEORGE R. JOHNSON, Chelmsford, Mass. Filed June 12, 1909. Serial No. 501,844.



The combination with the rails of a main and side track spaced apart at their crossing points, of bearing plates supporting the confronting terminals of the rails and with bearing faces between the rails, supporting ties spaced apart and extending beneath said plates, a bridging body supported upon said bearing faces and slidable thereon, tie bars secured transversely of said supporting ties and engaging against said bearing plates at their ends, provided with transverse bearings, a carrier plate extending beneath said bridging body and to which the bridging body is secured and provided with guide members extending beneath said tie bars and through the bearings thereof, and means for actuating said bridging body.

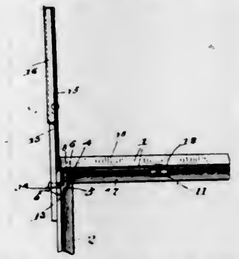
941,523. VALVE-GEAR FOR ENGINES. THEODORE JOLMA, Portland, Oreg. Filed Dec. 21, 1908. Serial No. 468,557.



1. A valve-gear for engines having mechanism comprising a cross-head E mounted on a slide 6 and pivotally connected with a piston rod 10 and a pitman 7, an arm 11 having one free end, its opposite end being fixedly secured to the pitman 7, said arm extending from the cross-head end of the pitman beyond its pivot center in the cross-head, the arm 11 also having on its free end at right angles thereto a pin 11' which extends through a slotted cam 14 in sliding engagement therewith, also a slotted cam 14 having one free end, and secured at its opposite end upon the end of a shaft 13 which is provided with a rigid eccentric mounted at one side of and transversely to the traveling plane of the said pitman, substantially as described.

2. In a valve-gear for engines, the combination with a pitman pivoted to a cross-head and extending beyond its pivot on said cross-head to the side thereof remote from its shaft connection, of an arm mounted on a valve operating shaft whose axis is transverse to the plane of motion of said pitman, and an element carried by the extended portion of said pitman which is in sliding engagement with said arm, substantially as described.

941,524. GAS-STOVE STAND. WILLIAM F. KREMSER, Chicago, Ill. Filed Mar. 19, 1909. Serial No. 484,372.



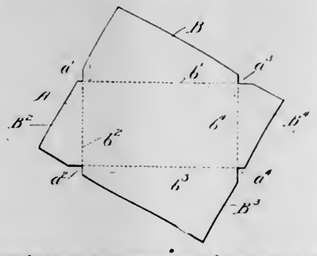
1. In a gas stove stand, a rectangular stand top having rear and end flanges extending upwardly therefrom and disposed at right angles thereto, a front apron integral with and inclined upwardly from the main portion of said top, longitudinal angle iron members disposed under said top adjacent the front and rear edges thereof and secured thereto, corner plates riveted to the ends of said longitudinal members at the ends thereof, and leg frames pivoted to said corner plates, each of said frames comprising

two legs having a transverse connecting member riveted thereto and a top transverse member integral therewith, substantially as and for the purpose specified.

2. In a gas stove stand, a stand top having side and rear upwardly extending flanges integral therewith, front and rear legs pivotally connected to said stand top and adapted to fold parallel therewith, standards riveted to said rear legs, a back plate having loops secured thereto adapted to engage said standards for holding said back plate in a vertical position, and a reinforcing wire edge on the top and ends of said plate, said back plate being disposed in the front of said rear flange, substantially as and for the purposes specified.

3. In a gas stove stand, a top having a centrally and longitudinally disposed member secured thereto on the lower side thereof, spring hooks integral with said member and disposed at the ends thereof, longitudinal members secured to said top adjacent the front and rear edges thereof, leg frames pivoted to said last named members comprising top transverse members, and rivet heads secured to said transverse members, said hooks being adapted to engage said rivet heads for holding said leg frames in the vertical or open position, substantially as and for the purposes specified.

941,525. ENVELOP. RALPH LANDENBERGER, Chicago, Ill. Filed May 16, 1907. Serial No. 373,943.

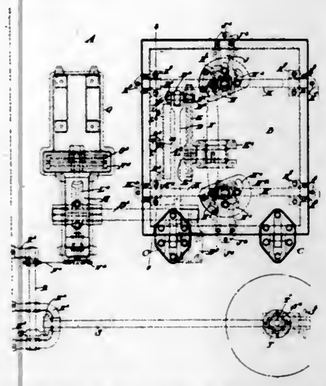


A rectangular envelop comprising a continuous side and a side consisting of four triangular flaps the apex of each of which is a right angle, the opposite flaps of each pair being symmetrical and the triangles of one pair being larger than those of the other pair, said envelop being formed from a rectangular sheet of paper having a notch in each of its edges, the bases of said notches lying at the corners of an inscribed rectangle of the size of the completed envelop, one of the diagonals of said rectangle being parallel to and midway between two of the edges of said rectangular sheet.

941,526. HATCH-COVER AND OPERATING MEANS THEREFOR. LUTHER D. LOVEKIN and PHILIP M. YOUNG, Philadelphia, and HUGO KRAPP, Reading, Pa. Filed Aug. 31, 1906, Serial No. 332,868. Renewed Oct. 12, 1909. Serial No. 522,330.

1. In combination, a door member hinged to turn about an axis, an operating member hinged to turn about an axis out of line with the hinged axis of the door, one of said members being provided with an under-cut passage and the other with a portion for entering said passage, means for turning said operating member about its axis to engage the door and move it out of its closed position, said passage and portion being arranged so that such movement causes the portion to enter said passage whereby the two members are operatively connected together, and the arm is maintained close to the door member while the door is out of the closed position.

2. In combination, a frame, a door member hinged thereto to turn about an axis, an operating member also hinged to the frame to turn about an axis out of line with the hinge axis of the door, means for moving said operating member against the door to move the latter out of its closed position and means for operatively connecting said members together when the door is out of its closed position, comprising an under-cut guideway provided in one of said members and a projection carried by the other of said members, and moved into said guideway by the relative movement of the members occurring when the door member is moved out of the closed position by the operating member.



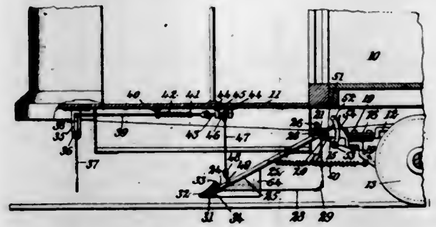
3. In combination, a door frame, a door hinged to one side of said frame, a door operating arm hinged to the other side of said frame, mechanism for locking the door in its closed position, a connection between said mechanism and said arm, means for moving the arm away from the door when the latter is in its closed position to lock the door in place, and for moving the arm in the opposite direction to unlock the door and for continuing said movement to open the door and means for preventing separation of the arm and door when the latter is out of the closed position, comprising a guide secured to the door and having an undercut guideway in it and a projection carried by the arm and moved into said undercut guideway by the relative movements between the arm and door as the latter is moved out of the closed position.

4. In combination, a door frame, a door hinged to one side of said frame, a door operating arm hinged to the other side of said frame, said arm being movable toward and away from the door when the latter is in its closed position and against the door to move the door out of its closed position, locking mechanism actuated by the movement of the member toward and away from the door in the locking and unlocking directions respectively, and means preventing motion of the arm toward and away from the door when the latter is out of the closed position, comprising an under-cut guide carried by the door and a projection carried by the arm arranged to move under said guide as the arm moves the door out of the closed position.

5. In combination, a door frame, a door hinged thereto to open at one side of the frame, an operating arm pivotally supported at the opposite side of the frame on an axis parallel to but laterally displaced from the hinge axis of the door, a lock actuating lever hinged to the door, a sliding connection between said arm and said lever, said arm being movable toward and away from the door when the latter is in the closed position to actuate the locking lever in its unlocking and locking directions respectively and against the door to move the latter out of its closed position, and means for preventing separation between the arm and the door when the latter is out of its closed position, comprising an overhanging guide carried by the door and a projection carried by the arm, said projection being free of the guide when the door is in its closed position but being carried into said guide as the door is moved out of the closed position by the sliding movement of the door and the arm, due to the lateral displacement of their axes.

[Claims 6 to 11 not printed in the Gazette.]

941,527. FENDER FOR STREET-CARS. ANTON L. MAZZANOVICH, New York, N. Y. Filed Oct. 7, 1908. Serial No. 456,535.



1. In a fender, a frame having cross-bars, and independent strips connecting said cross-bars and exceeding in length the distance between said bars, each of said strips consisting of single, flat, flexibly connected lengths.

2. In a fender, a frame having cross bars, side bars, and flexible independent strips each consisting of a plurality of lengths and having an eyelet connecting said lengths, said strips having the ends secured respectively to said cross bars and exceeding in length the distance between said cross bars.

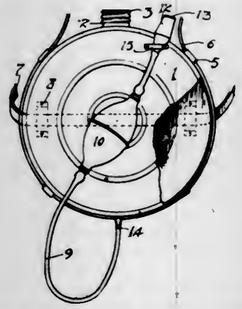
3. In a fender, a frame having a cross-bar at the front, and a movable shoe in front of said bar and having a part projecting above the same whereby said bar limits the movement of said shoe.

4. In a fender, a frame having at the front a cross-bar, and in front of said cross-bar a member substantially parallel thereto, a shoe being movably mounted upon said member and having a part projecting rearwardly and upwardly beyond said bar, whereby said bar serves to limit the movement of said shoe.

5. In combination, a frame having side bars, a member stretched between said side bars, and a shoe pivoted upon said member, said frame having a cross bar forming a support for said shoe, said shoe having a part projecting above the plane of said frame and having a limited movement.

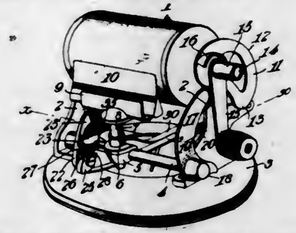
[Claims 6 to 13 not printed in the Gazette.]

941,528. PORTABLE SPRAYER. ABIJAH B. MORGAN, San Francisco, Cal. Filed Aug. 28, 1908. Serial No. 450,623.



The combination of a flat cylindrical receptacle having supply and discharge openings at opposite parts of its cylindrical surface, means for closing the supply opening, loops on said cylindrical surface, a strap therethrough for suspending the receptacle from the body of the wearer, loops on one of the flat surfaces of the receptacle, a strap therethrough for securing it around the body of the wearer, a hand pump, a spraying nozzle, rubber tubing connecting said discharge opening, hand pump and nozzle, and a hook on the other flat surface, adjacent to said supply opening, and adapted to engage said nozzle to support the same when not in use.

941,529. DEVICE FOR SHARPENING RAZORS AND RAZOR-BLADES. FREDERICK MYERS, New York, N. Y. Filed Aug. 2, 1909. Serial No. 510,909.



1. A device of the character described, comprising a sharpening roller, and means for moving a razor blade into and out of contact with said roller, and rotating it in a horizontal plane into reversed position.

2. In a device of the character described, a swiveled razor blade support, and means for rotating it to bring the razor blade into reversed position.

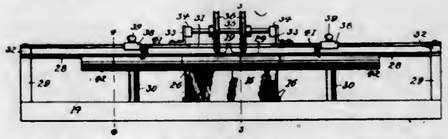
3. A device of the character described, comprising a sharpening roller, means for moving a razor blade into and out of contact with the roller, and holding it for an interval of time in contact with the roller, and means for swinging said blade in a horizontal plane into reversed position.

4. A device for sharpening razors including sharpening means revoluble in a vertical plane, a blade holder, and means for rotating said holder and blade in a horizontal plane to reverse the position of the blade.

5. In a device of the character described, a sharpening roller, a blade holder mounted in a swiveled support and means for moving said holder to and away from said roller, and rotating said holder in its support to reverse the position of the razor.

[Claims 6 to 13 not printed in the Gazette.]

941,530. MACHINE FOR APPLYING PASTE TO CARD-BOARD, &c. JOHN MCKIBBIN, New York, N. Y. Filed Apr. 2, 1909. Serial No. 487,545.



1. A device of the character described comprising a paste font, a pair of paste rollers journaled therein, a cover for the font having an opening that accommodates said rollers, a pair of top plates flanking the font flush with said cover, a rear rail extending over the top plates, forwardly projecting arms secured to the rear rail, a shaft journaled in said arms, grooved rollers mounted on said shaft, a pair of front rails extending over the top plates, and gages adjustably mounted on said front rails.

2. A device of the character described comprising a paste font, a pair of rollers journaled therein, a cover for the font having an opening that accommodates said rollers, a pair of top plates flanking the font flush with said cover, a rail extending over the top plates, a pair of arms secured to the rail, a shaft journaled in said arms, and grooved pressure rollers mounted on said shaft.

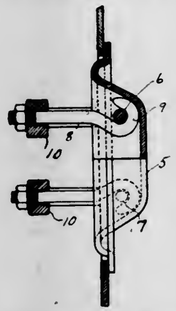
3. A device of the character described comprising a paste font, a pair of paste rollers journaled therein, a cover for the font having an opening that accommodates said rollers, a pair of top plates flanking the font flush with said cover, a rail extending over the top plates, forwardly projecting arms secured to the rail, a shaft journaled in said arms, grooved pressure rollers mounted on said shaft, a pair of rails disposed in front of the aforesaid rail, and gages suspended from said pair of rails and adjustable longitudinally thereof toward and away from the font.

4. A device of the character described comprising a paste font, a pair of paste rollers journaled therein, a cover having an opening that accommodates said rollers, a pair of top plates, a rail extending over the top plates, arms secured to said rail, a shaft journaled in said arms, grooved rollers mounted on said shaft for coöperation with the paste rollers, a pair of front rails also extending over the top plates, the cover having a recess beneath the first mentioned rail, and gages slidably mounted upon said pair of front rails and extending beneath the first mentioned rail and said pair of rails and adjustable longitudinally of the pair of rails toward and away from said cover.

5. In a device of the character described, a base, pins in the base, a font positioned between said pins, a pair of paste rollers journaled in the font, a cover for the font having an opening that accommodates said rollers, a rear rail, arms secured to the rail, a shaft journaled in said arms, pressure rollers mounted on said shaft for coöperation with the paste rollers, a pair of front rails, and gages adjustably mounted on said front rails.

[Claim 6 not printed in the Gazette.]

941,531. MANHOLE COVER-PLATE. EDWARD OLDMAN, Buffalo, N. Y., assignor to Farrar & Trefts, Buffalo, N. Y., Partners. Filed Jan. 15, 1909. Serial No. 472,425.



1. A man hole cover comprising a plate provided with a longitudinally extending reinforcing means, stay pins rigidly secured to said plate so as to laterally reinforce said plate and means for engaging said pins and securing said plate in place.

2. A man or hand hole cover comprising a plate provided with an integrally formed reinforcing ridge and stay pins extending transversely of said ridge and riveted to said plate.

3. A man or hand hole cover plate comprising a pressed steel plate provided with a longitudinally extending reinforcing ridge pressed into the plate and a stay pin extending transversely of the ridge and rigidly secured to the plate.

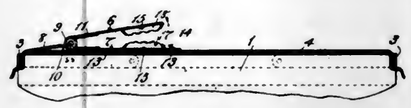
4. A man or hand hole cover plate for boilers comprising a pressed steel plate provided with a longitudinally extending depression and stay pins extending transversely of said depression and rigidly secured to the plate.

5. A man or hand hole cover comprising a pressed steel plate provided with a longitudinally extending reinforcing ridge pressed into said plate, and stay pins secured into tapped holes provided in the legs of said ridge for reinforcing said plate and for engaging retaining hooks for holding said plate in place.

[Claim 6 not printed in the Gazette.]

941,532. EMBOSSING APPLIANCE. LOUIS H. OAR, New York, N. Y. Filed July 26, 1909. Serial No. 509,696.

1. An embossing device embracing yieldingly interconnected parts provided each with alining guide-ways and male and female die parts conforming to the guide-ways and adapted to be inserted into and withdrawn therefrom, one of said interconnected parts being provided with means for securing the device as a whole in fixed relation to the work it is to perform.



2. An embossing device embracing yieldingly interconnected parts and male and female die parts; means for detachably securing said die parts to said interconnected parts; means for locking said die parts in accurate operative relation with each other, and additional means for securing the entire device in fixed relation to the work it is to perform.

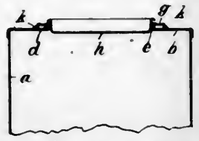
3. An embossing device embracing a two-part holding appliance and male and female die parts therefor; means for detachably securing said die parts to the holding appliance, and locking means for each die part; said locking means of each die part having a definite or fixed relation to the corresponding holding part such that the two die parts may be reversed in operative relation as a whole and thereby adapted to emboss at either the top or bottom of the material being operated upon.

4. An embossing device embracing a two-part sheet metal holding appliance provided with hinges secured together about a hollow hinge pin; means for holding the parts in separated relation, and a two-part embossing die secured to the adjacent faces of the holding appliance; together with means for securing the holding appliance in fixed relation to the work the die parts are to perform.

5. A die holding appliance for a two-part embossing die embracing two hinged parts provided with means for yieldingly holding them apart or away from each other, each part having guide-ways for one of the die parts, and means for fixedly securing the die parts in definite locked relation to each other; together with means for securing the appliance as a whole in definite or fixed relation to the work the die parts are to perform.

[Claims 6 to 8 not printed in the Gazette.]

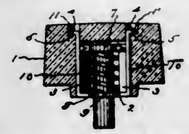
941,533. CAN-CLOSING DEVICE. JULES H. PELLETIER, Maspeth, N. Y. Filed July 2, 1908. Serial No. 441,572.



1. The combination, with a can having a top-plate *b* permanently secured upon the can and provided with a neck having a cylindrical flange *d* projecting outwardly from such top with the flat plate of the top extended to such flange, of a reinforcing collar having a cylindrical flange *e* fitted tightly into contact with the cylindrical flange *d*, thus doubling its thickness, with the periphery of the reinforcing collar soldered to the top of the can, and a taper-closing cap adapted to crowd within the reinforced neck and having a lifting flange *j* to lift the cap from the neck.

2. The combination, with a can having a top-plate *b* permanently secured upon the can and provided with a neck having a cylindrical flange *d* projecting outwardly from such top with the flat plate of the top extended to such flange, of a reinforcing collar having an annular seat *g* with the cylindrical flange *e* fitted tightly into contact with the cylindrical flange *d* thus doubling its thickness, and having the flange *f* upon its periphery soldered to the can top, and the cap *h* having smooth tapering sides *i* to crowd within the neck and a lifting flange *j* to lift the cap from the neck.

941,534. ELECTRIC-SWITCH HANDLE. JOHANN G. PETERSON, Hartford, Conn., assignor to The Arrow Electric Company, Hartford, Conn., a Corporation of Connecticut. Filed June 15, 1909. Serial No. 502,247.

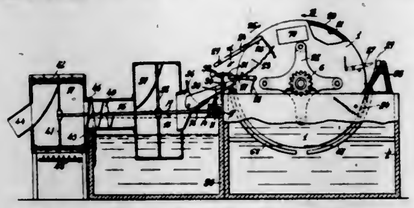


1. A switch handle having a socket that extends from the inner face but partly through the handle and openings that extend from the recess to the outer face of the handle, a yoke located in said socket and having its ends extending into and bent over in the openings in the outer face of the handle, a headed stem movable in the socket and extending through the yoke, and a spring thrusting between the head of the stem and the yoke.

2. A switch handle having a body of insulating material with a socket extending from the inner face into the body and openings through the outer face of the body to the socket, a headed stem movable in the socket, and a yoke located in the socket and having its outer ends bent over in the openings in the outer face of the body.

3. A switch handle having a body of insulating material, said body having a socket opening from the inner surface, grooves on each side of said socket opening through the outer face and recesses in the outer face, a stem with a head movable in the socket and extending into grooves, a yoke occupying the end of the socket and having its prongs occupying the said grooves and their outer ends bent over in the recesses in the outer face of the handle, and a spring arranged between the yoke and the head of the stem.

941,535. ELECTROPLATING APPARATUS. LOUIS POTTHOFF, Flushing, N. Y. Filed Feb. 2, 1909. Serial No. 475,603.



1. An apparatus for plating articles, comprising in combination tumbling means having automatic means for discharging articles therefrom, means including washing means for subsequent treatment provided with means for progressing articles through the same, and in operative relation to said tumbling means to receive articles discharged therefrom, and a single means for controlling at will said automatic discharging means and said progressing means.

2. An apparatus for plating articles, comprising in combination tumbling means immersed in a solution tank, said tumbling means being provided with automatic discharging means, means including washing means for subsequent treatment provided with automatic means for progressing articles through the same, and in operative relation to said tumbling means to receive articles discharged therefrom, and a single means for controlling at will said automatic discharging means and said automatic progressing means.

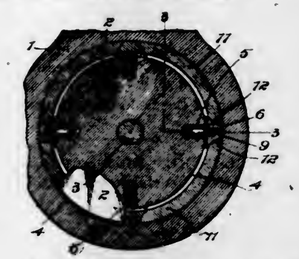
3. An apparatus for plating articles, comprising in combination tumbling means immersed in a solution tank, said tumbling means being provided with automatic discharging means, means including washing means for subsequent treatment provided with automatic means for progressing articles through the same, and in operative relation to said tumbling means to receive articles discharged therefrom, and a single means for alternatively actuating said automatic discharging means and said automatic progressing means.

4. An apparatus for plating articles, comprising a movable tumbling means adapted to immerse articles in a plating solution, washing means provided with a shaft for moving the same, movable means for subsequent treatment mounted upon said shaft, and automatic progressing means disposed in said washing and subsequent treatment means.

5. An apparatus for plating articles, comprising a movable tumbling means adapted to immerse articles in a plating solution, said tumbling means being provided with automatic discharging means, means for moving said tumbling means, driven means actuated by said moving means in a plurality of directions, means for washing operated by said driven means, and automatic progressing means disposed in said washing means.

[Claims 6 to 23 not printed in the Gazette.]

941,536. PISTON-PACKING RING. THOMAS H. RENAUD, St. Louis, Mo., assignor of one-third to William Bawden and one-third to Edward L. Adreon, Jr., St. Louis, Mo. Filed Apr. 3, 1908. Serial No. 425,039.



1. The combination with a piston head having a continuous groove formed therein, of a pair of semi-circular packing rings seated in said groove, the inner edges of which are spaced apart from the bottom wall of said groove, the ends of each ring being inclined inwardly from its outer edge, a pair of wedge blocks seated in said groove between the ends of said semi-circular rings, which wedge blocks entirely separate said semi-circular rings from the outer edge of said blocks, completing the arcs of the circle between said rings, and a spring positioned beneath each of said wedge blocks for forcing the wedge blocks and the ring positioned between said wedge blocks outwardly.

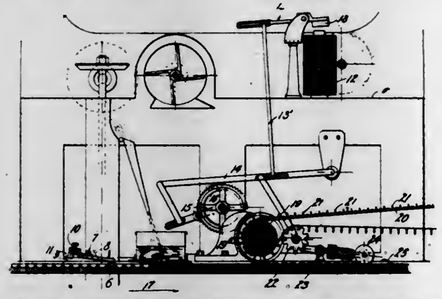
2. A piston rod packing, comprising a pair of semi-circular members, the ends of which semi-circular members are beveled inwardly from their outer edges, wedge-shaped blocks arranged between the ends of said semi-circular rings and completely separating said rings and the outer face of said blocks completing the circle between the ends of said rings, and a spring positioned beneath each wedge block for forcing the wedge block and the ring positioned between the wedge blocks outwardly.

941,537. MACHINE FOR THE MANUFACTURE OF CHOCOLATE CONFECTIONS. ALFRED H. SAVY, Paris, France. Filed Mar. 7, 1907. Serial No. 361,191.

1. A mold filling machine for chocolate and the like comprising the following instrumentalities in combination: a receptacle for suitable fluid paste, depositing devices to fill a series of molds moving past said devices, and mechanism to elevate the paste from the receptacle to the depositing devices, a shaking table, and a refrigerating table, and means to move the molds successively past the depositing device and over the shaking table to the refrigerating table, together with means located beyond the latter to receive and empty the molds.

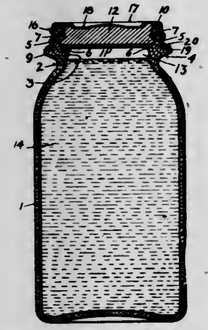
2. In a mold filling machine for chocolates and the like, a receptacle for paste, and means to deposit the paste in the molds, said receptacle and depositor being located in

a suitably heated chamber; refrigerating means and mold emptying devices, and a suitable conveyer extending from said heated chamber to the refrigerating means and mold emptying devices and a conveyer extending from the latter to said heated chamber.



3. In a mold filling machine for chocolates and the like, a receptacle for paste, and means to deposit the paste in the molds, said receptacle and depositor being located in a suitably heated chamber; refrigerating means and mold emptying devices, and a suitable conveyer extending from said heated chamber to the refrigerating means and mold emptying devices, and a conveyer extending from the latter to said heated chamber, together with scraping devices located in the path of the mold bearing upon the edges of the latter.

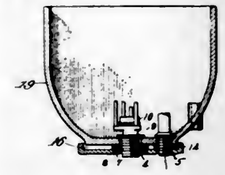
941,538. JAR-CLOSURE. JOHN SCHIES, Anderson, Ind. Filed Aug. 23, 1909. Serial No. 514,216.



1. A glass jar having a mouth comprising an annular lip formed with an annular groove on its inner face and a protruding thread and outer annular ledge on its outer face, the said inner annular groove formed with an inwardly extending annular ledge and an upper wall, the inner face of said inwardly extending annular ledge being of less diameter than the diameter of the inner face of said upper wall of said groove, and the said outer protruding thread being located on said lip between the said outer ledge and the outer end of said lip, substantially as described.

2. In combination, a glass jar having a mouth comprising an annular lip formed with an annular groove on its inner face and an outer protruding thread and outer annular ledge on its outer face, the said inner annular groove formed with an inwardly extending annular ledge and an upper wall, the inner face of said inwardly extending annular ledge being of less diameter than the diameter of the inner face of said upper wall of said groove, and the said outer protruding thread being located about the outer face of said lip between the said outer ledge and the outer end of said lip, a flexible disk of greater diameter than said diameter of the inner face of said upper wall arranged to be flexed past said upper wall and received in said groove upon said inner ledge, a cushion-ring received upon said outer ledge, a body of sealing material received in hot state upon said flexible disk between said disk and the outer end of said lip for having exhaust-vents formed therein by expansion of the air between said disk and the contents of said jar, and a screw-top received about said outer thread and having a depending portion received within said lip for contacting said sealing-material and spreading the same for closing said exhaust-vents, and said screw-top provided with an annular foot arranged to press upon said cushion-ring by screwing said top about said outer thread, substantially as described.

941,539. WATER-CLOSET AND TANK. JOSEPH W. SHARP, Jr., Philadelphia, Pa. Filed Oct. 21, 1908. Serial No. 458,802.



1. The combination with a closet bowl, of a raised tank support at the rear thereof of extended area to receive a tank, a tank resting on said support, and concealed tank and bowl fittings and connections between the parts.

2. The combination with a closet bowl having a tank seat at its rear of extended area to receive a tank and provided with passages, of a tank having a flush fit on said seat, and tank and bowl fittings and connections concealed between the parts.

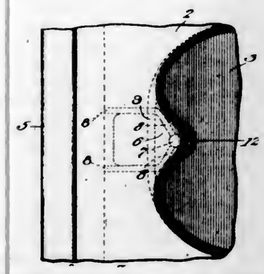
3. The combination with a closet bowl having a tank seat at its rear provided with passages, of a tank having a flush fit on said seat and provided with projecting fittings which enter said bowl passages, and means for forming a concealed and sealed joint between said connections between the bowl and tank.

4. The combination with a closet bowl having a tank seat at its rear provided with a passage, of a tank, a valve in said tank having a projecting connection to enter said bowl passage, a valve nut, and a sealing seat around said bowl passage to receive said nut.

5. The combination with a closet bowl having a tank seat at its rear provided with a passage, of a tank, a valve in said tank having a projecting connection to enter said bowl passage, a valve nut having a depending flange, and a sealing seat around said bowl passage to receive said flange.

[Claims 6 to 13 not printed in the Gazette.]

941,540. WASHBASIN. JOSEPH W. SHARP, Jr., Philadelphia, Pa. Filed Oct. 23, 1908. Serial No. 459,179.



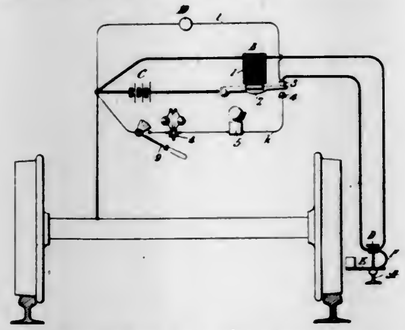
1. An integral one-piece basin having an overhanging inlet-nozzle projecting into the bowl area, water passages

formed in the ware leading to said nozzle, and an overflow outlet lying immediately below said overhanging inlet-nozzle.

2. An integral one-piece basin having an overhanging inlet-nozzle projecting into the bowl area, water passages formed in the ware leading to said nozzle, an overflow outlet lying immediately below said overhanging inlet-nozzle, and a waste trap depending from said basin, all of said waste trap and its connections lying within the marginal area of said basin.

3. An integral one-piece basin having a flat unobstructed top-plate, a bowl depending therefrom, a delivery nozzle projecting into the bowl area from said top-plate in the same plane therewith and provided with water passages formed in the ware, and a waste trap in rear of said bowl inset from the back-slab of the top plate and lying wholly within the marginal area of the basin.

941,541. CAB-SIGNAL CIRCUIT. PAUL J. SIMMEN, Los Angeles, Cal. Original application filed June 19, 1908, Serial No. 439,334. Divided and this application filed Dec. 15, 1908. Serial No. 467,618.



1. In a signal system for a vehicle moving on a trackway, a signal on the vehicle and a current source, a normally closed circuit on the vehicle including the signal and current source, means for intermittently interrupting said circuit in the passage of the vehicle on its trackway, means for maintaining the circuit broken when once so interrupted regardless of any condition or change of conditions on the vehicle, and means in the trackway for again closing said circuit, whereby the signal in the vehicle is self-restoring when normal running conditions are restored on the trackway.

2. In a signal system having a vehicle moving on a trackway and having intermittently interrupted normally electrified contacts along the trackway, a shoe on the vehicle adapted to be displaced by said contacts, a switch on the vehicle opened by such displacement, a magnet on the vehicle having an armature with a front stop, a current source, and a normally closed self-restoring signal circuit including said magnet, said switch, said armature, said front stop and said current source, and having branch connections to said shoe and to ground in permanent connection on opposite sides of said magnet, respectively, whereby said magnet is automatically self-restoring to its normal condition attracting said armature whenever said shoe passes an electrified contact.

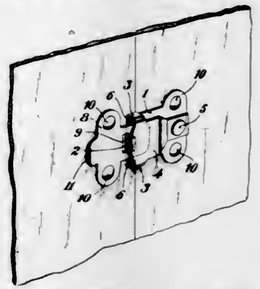
3. In a signal system having a vehicle moving on a trackway and having intermittently interrupted contacts along the trackway, a shoe on the vehicle adapted to be displaced by said contacts, a switch opened by such displacement, a magnet on the vehicle having an armature with a front stop, a current source on the vehicle, and a normally closed self-restoring signal circuit exclusively including said magnet, said switch, said armature, said front stop and said current source and having branch connections to said shoe and to ground in permanent connection with said circuit and adapted to include said magnet in a branch circuit through ground and one of said contacts, said branch circuit being exclusive of said switch.

4. In a signal system for a vehicle moving on a trackway, a signal on the vehicle, means along the trackway for setting said signal at danger, an alarm on the vehicle, and a circuit altered into alarm actuating condition by movement of said signal to danger, said circuit being non-alarm actuating when the vehicle is not in motion.

5. In a signal system for a vehicle moving on a trackway, a signal on the vehicle, means in the trackway for setting said signal at danger, an alarm on the vehicle, means for actuating said alarm when said signal is at danger, and means for rendering said alarm inoperative when the vehicle is not in motion.

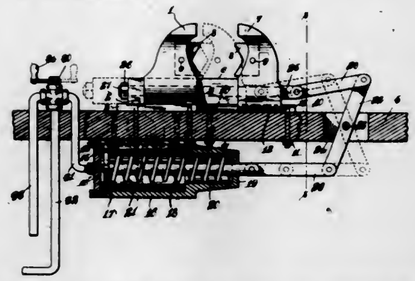
[Claims 6 and 7 not printed in the Gazette.]

941,542. FASTENER. JOHN A. SIMPSON, Somerville, Mass. Filed Feb. 5, 1908. Serial No. 414,317.



A separable fastener, having, in combination, a base plate provided with a projection, a leaf spring secured to the base plate and extending over the projection to form a guard, and a tongue provided with an opening to receive the projection arranged to slide between the projection and the spring, said plate and spring being provided with ears coöperating to limit the movement of the spring away from the plate.

941,543. FLUID-ACTUATED VISE. JOHN SISTEK and JAMES SPINKA, Chicago, Ill. Filed Apr. 14, 1909. Serial No. 489,939.

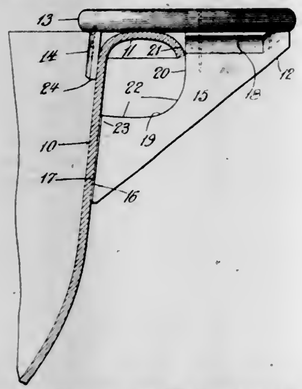


1. In a vise of the class described, the combination of a fixed jaw, a coacting movable jaw having a rectangular shank slidable in said fixed jaw, a guide plate for said movable jaw in dove-tailed connection with the base thereof, a power cylinder mounted beneath said jaws having its axis disposed parallel with the line of movement of said movable jaw, a piston and piston rod carried by said cylinder, a rocker arm mounted for oscillation in the vertical plane including the axis of said power cylinder, links connecting the extremities of said rocker arm with said movable jaw and said piston rod, whereby simultaneous movement of said jaw and said piston is effected, a pipe leading from one extremity of said power cylinder, a fluid supply pipe and an exhaust pipe, a three-way valve

connecting said pipes whereby communication may be established between said first named pipe and either said supply pipe or said exhaust pipe, and a compression spring provided in said cylinder in engagement with said piston for normally holding said movable jaw in opened position, substantially as described.

2. In a vise of the class described, the combination of a fixed jaw, a coacting movable jaw having a rectangular shank slidable in said fixed jaw, a guide plate for said movable jaw in dove-tailed connection with the base thereof, a power cylinder mounted beneath said jaws having its axis disposed parallel with the line of movement of said movable jaw, the said cylinder being composed of a larger chamber constituting a piston chamber and a smaller chamber constituting a guide and socket for a compression spring, a piston and piston rod carried by said cylinder, a rocker arm mounted for oscillation in the vertical plane including the axis of said power cylinder, links connecting extremities of said rocker arm with said movable jaw and said piston rod, whereby simultaneous movement of said jaw and said piston is effected, a pipe leading from one extremity of said power cylinder, a fluid supply pipe and an exhaust pipe, a three-way valve connecting said pipes whereby communication may be established between said first-named pipe and either said supply pipe or said exhaust pipe, and a compression spring provided in said cylinder in engagement with said piston and resting in said socket for normally holding said movable jaw in opened position, substantially as described.

941,544. BATH-TUB SEAT. JOHN A. SKOGSBERG, Chicago, Ill. Filed Mar. 1, 1909. Serial No. 480,657.

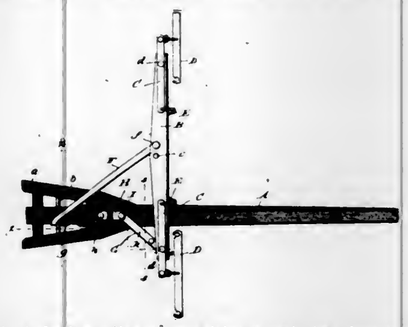


1. A bath tub seat comprising a seat adapted to rest upon the flange or roll of a bath tub, a cleat secured at the forward edge of the seat and adapted to engage with the inner face of the side of the bath tub and a downwardly extending recessed brace having a portion engaging with the flange or roll of the tub and a portion extending underneath said flange or roll, said recess being arranged to receive the flange or roll of the bath tub, and the cleat and brace being adapted to removably secure the seat upon the tub.

2. A bath tub seat, comprising a seat arranged to rest upon the upper flange or roll of a bath tub, a flat cleat rigidly secured at the forward edge of the seat and arranged to bear upon the inner face of the side of the tub, a downwardly extending brace rigidly secured at the rear of the seat and having a bearing face adapted to bear upon the outer edge of the flange or roll, and a face adapted to bear upon the outer face of the side of the tub and below the cleat, said brace having a recessed portion for receiving the flange or roll of the tub and shaped to permit the seat to be secured in place upon the tub or removed therefrom.

3. A bath tub seat comprising a horizontal flat seat adapted to rest upon the flange or roll of a bath tub, a downwardly extending cleat rigid with said seat and adapted to engage with the inner wall of the side of the bath tub, a downwardly extending brace rigidly secured to the seat and having a padded bearing face adapted to bear against the outer face of the side of the bath tub, and formed with a recess for receiving the flange or roll of the tub, one wall of said recess and the wall of the cleat being arranged to snugly confine the flange or roll of the tub between them.

941,545. DRAFT APPLIANCE. FRANKLIN M. SMILEY, Goshen, Ind. Filed Apr. 9, 1909. Serial No. 488,845.

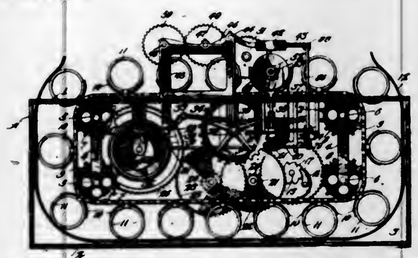


1. A draft appliance comprising a main bar, levers carried on the end portions thereof, a draft bar pivotally connected with the main bar and provided with a hook, a pin carried by the main bar and arranged adjacent one end thereof, and a second draft bar made up of members pivotally connected together and adapted to be detachably connected with a tongue and having notches in the inner edges of their forward arms, which notches when registered receive the said pin of the main bar and hold the said draft bar to the main bar.

2. The combination in a draft appliance, of a main bar, a pin carried thereby, and a draft bar comprising pivotally connected members having rear arms adapted to be detachably connected with a tongue or other device and also having notches in the inner edges of their forward arms; said notches when registered and retained in such position by the connection of the members to a tongue or other device, being adapted to receive the pin of the main bar and prevent disconnection of the draft bar therefrom.

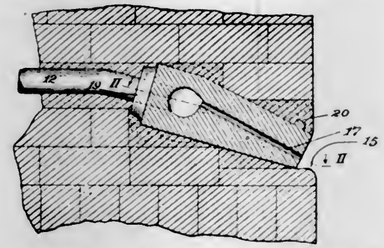
3. The combination in a draft appliance, of a main bar equipped with a pin, and a draft bar comprising members pivoted together and adapted to swing one with respect to the other; the said members being adapted to be detachably connected to a tongue or the like, and being provided with means whereby they are held to the pin during the said connection and may be swung one on the other and disengaged from the pin when detached from the tongue or other device.

941,546. ATTACHMENT FOR PHONOGRAPHS. HARRY A. SMITH, Columbus, Ohio. Filed July 10, 1908. Serial No. 442,906.



A phonographic machine comprising a casing, a reproducer, means for propelling said reproducer along the surface of the record, an endless series of records, means for imparting intermittent movement to said series of records operating to successively arrest the movement of the records in reproducing position, a reproducer feed screw, a return screw, and a lever forming an extension of the reproducer arm, and being fulcrumed between the reproducer and said screws, said lever extending to one side of the feed screw and to the opposite side of the return screw and being provided with nut segments respectively adapted to engage said screw one at a time.

941,547. SMOKE-PREVENTIVE APPARATUS. ISAAC M. SULLIVAN, Springfield, Ohio. Filed May 22, 1908. Serial No. 434,237.



1. In smoke preventive apparatus for furnaces, the combination with the furnace wall, of an injector head embedded in the masonry thereof with but one of its sides or faces exposed to the combustion chamber and formed of coextensive body and lip portions having the same thickness, said body portion containing a longitudinal bore forming a distributing channel and said lip portion containing a series of jet passages in communication with said channel and each of greater length than the diameter of said channel.

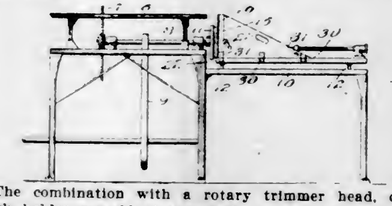
2. In smoke preventive apparatus for furnaces, the combination with the furnace wall, of a cast-iron injector head embedded in the masonry thereof with but one of its sides or faces exposed to the combustion chamber and formed of coextensive body and lip portions, said body portion containing a longitudinal distributing channel and said lip portion being bored with a series of jet-passages extending from said exposed face to said channel, the dimensions of the said lip portion being sufficient to provide walls to said jet-passages of greater thickness than the diameters of said passages.

3. In smoke preventive apparatus for furnaces, the combination with the furnace wall, of an injector head embedded in the masonry thereof with one of its faces exposed to the fire-box and set back of the inner surface of the wall thereof, said head comprising a body portion containing a longitudinal distributing channel and an integral lip portion containing jet passages extending from said channel to the said exposed face, the dimensions of said lip portion providing walls to said jet passages of greater thickness from end to end than the diameter thereof.

941,548. ROAD AND STREET CONSTRUCTION. JOSEPH H. AMIES, Philadelphia, Pa., assignor to The Amies Asphalt Company, Philadelphia, Pa., a Corporation of South Dakota. Filed Jan. 30, 1909. Serial No. 475,221.

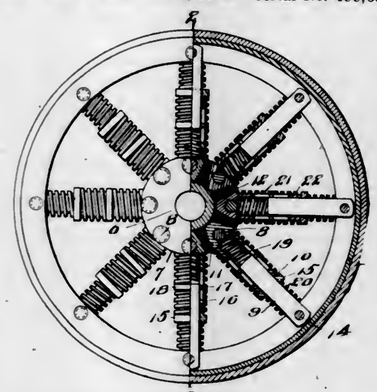
The herein described process of road construction which consists in providing a suitable foundation, applying thereto a liquid asphalt, placing thereupon a layer of substantially the herein described composition, spreading thereupon a course of broken stone and compressing same with respect to said composition, placing thereupon a second layer of said composition and compressing same with respect to the aforesaid course of stone, then spreading thereover a second course of broken stone and compressing same, then again and again repeating the operation of laying layers of composition and stone and compressing same and finally bringing the last layer of said composition to a face, substantially as and for the purpose set forth.

941,549. TRIMMER FOR STEREOTYPES. CHARLES W. BAEDER, Memphis, Tenn. Filed Nov. 30, 1908. Serial No. 465,202.



The combination with a rotary trimmer head, of a work holder movable transversely across the same and having a face plate standing edgewise perpendicular to the axis of the head and provided with a longitudinal slot, and a clamp comprising two members supported on the face plate, for holding the work thereon, one member being movable and having a lug projecting into the slot, and a screw engaging the lug for operating said movable member.

941,550. SPRING-WHEEL. CHARLES W. BAEDER, Memphis, Tenn. Filed June 2, 1909. Serial No. 499,650.



1. The combination with a rim and hub, of spokes pivotally connected thereto, comprising slotted tubes having shoulders at the outer ends thereof, plungers working in said tubes, rings on the tubes connected through the slots to the plungers, and springs coiled around the tubes between the rings and the shoulders and between the rings and the inner ends of the tubes.

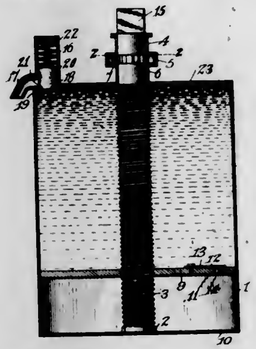
2. The combination with a rim and hub, of spokes therebetween, each spoke comprising a slotted tube pivoted at its inner end to the hub, a plunger pivoted at its outer end to the rim and extending into the tube and having a cross pin projecting through the slots, a ring carried by the pin on the outside of the tube, and springs coiled around the tube between the ring and opposite ends of the tube.

941,551. NON-REFILLABLE BOTTLE. ERNEST B. BARNER, Newberg, Oreg. Filed Apr. 3, 1909. Serial No. 487,735.

1. A device of the character described comprising a body portion, provided with a central screw and a plunger traveling thereon, said body provided with a neck portion, a ratchet carried by said central screw, said neck provided with a bulged portion, a pawl positioned in said bulged portion and adapted to engage said ratchet for preventing the rotation of said screw in one direction, said body provided with an outlet opening, and means carried by said body and adapted to normally close said outlet opening.

2. A device of the character described comprising a receptacle, a threaded shaft positioned therein and a fol-

lower adapted to travel thereon, a ratchet carried by said shaft, said receptacle provided with a neck and said neck provided with a bulged portion, a pawl positioned in said bulged portion, said pawl being formed of resilient material, a lug formed in said bulged portion and engaging said resilient pawl for normally holding the same in engagement with said ratchet for preventing the rotation of said shaft in one direction.



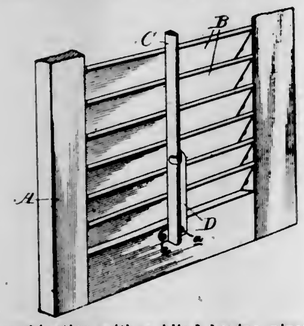
3. A receptacle of the class described comprising a body portion, a threaded shaft in said body portion and a plunger positioned between said plunger provided with an aperture formed therein constituting an inlet opening and a spring pressed closure carried by said plunger and adapted to normally close said opening.

4. A receptacle of the class described comprising a body, a central screw positioned therein, a follower adapted to travel thereon, a casing formed upon the top of said receptacle and provided with a discharge nozzle, said receptacle provided with an aperture formed therein and communicating with said casing and means carried by said casing for normally closing said aperture, and preventing the flow of liquid therethrough.

5. A receptacle of the class described comprising a body, a threaded shaft positioned therein, a follower adapted to travel thereon, a ratchet carried by said shaft, a spring pawl carried by said body and adapted to engage said ratchet for holding the shaft against rotation in one direction, an integral extension formed upon said body and engaging said pawl for normally holding the same in engagement with the ratchet, said body provided with an outlet opening formed therein, and means coöperating with said opening and adapted to normally close the same.

[Claim 6 not printed in the Gazette.]

941,552. BLIND-STOP. HEUGH L. BEADLE, Hartford, Conn. Filed Dec. 14, 1908. Serial No. 467,478.



1. The combination with a blind having pivoted slats and a rod connecting the same, of a spring-holder for said rod said holder consisting of a piece of flat spring metal having its lower end secured and its upper end free and extended in a plane substantially at right angles to the length of the rod and extending over the back of the rod.

2. The combination with a blind having movable slats and a feathering-bar connecting the same in series, of a spring member having a laterally-extended free end to pass across the back of the rod, said rod and the free end of the spring having interengaging toothed surfaces.

941,553. PROCESS OF PRODUCING LOW-CARBON, LOW-SILICON TITANIUM ALLOYS. FREDERICK M. BECKET, Niagara Falls, N. Y., assignor to Electro Metallurgical Company, a Corporation of West Virginia. Filed June 12, 1907. Serial No. 378,580.

1. The process of producing low-silicon titanium alloys, which consists in producing a high-silicon titanium alloy and oxidizing out the contained silicon.

2. The process of producing low-silicon titanium alloys, which consists in producing a high-silicon titanium alloy and oxidizing out the contained silicon by an oxid of the alloyed metal.

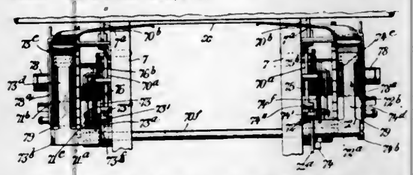
3. The process of producing low-silicon ferro-titanium, which consists in producing high-silicon ferro-titanium and oxidizing out the contained silicon by means of iron oxid.

4. The process of producing low-carbon, low-silicon, ferro-titanium, which consists in producing high-silicon ferro-titanium by smelting a mixture of oxids of titanium and silicon, carbon and a source of iron, and oxidizing out the contained silicon.

5. The process of producing low-carbon, low-silicon, ferro-titanium, which consists in producing high-silicon ferro-titanium by smelting a mixture of oxids of titanium and silicon, carbon and a source of iron, and oxidizing out the contained silicon by means of iron oxid.

[Claim 6 not printed in the Gazette.]

941,554. AUTOMATIC INK-RIBBON-REVERSING MECHANISM. RUSSELL E. BENNER, Detroit, Mich., assignor to Burroughs Adding Machine Company, Detroit, Mich., a Corporation of Michigan. Filed Apr. 6, 1908. Serial No. 425,471.



1. In apparatus of the character described, the combination of ribbon spools and ratchets, pawls for alternately operating the latter, a reciprocating pawl-carrier, means movably mounted thereon for disengaging one pawl from its ratchet while engaging the other pawl with its ratchet, and means controlled by the ribbon for causing said pawl-shifting means to move relatively to the pawl-carrier through movement of the latter which retracts the active pawl.

2. In apparatus of the character described, the combination of ribbon spools and ratchets, pawls alternately operating the latter, a reciprocating pawl-carrier having a rock rod, pawl shifters secured to the latter, and means controlled by the ribbon for actuating said rod in retraction of the carrier.

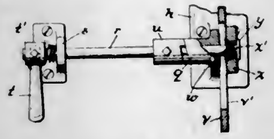
3. In apparatus of the character described, the combination of ribbon spools and ratchets, pawls for alternately operating the latter, a reciprocating pawl-carrier having a rock rod on which the pawls are loosely mounted, extending in opposite directions, arms secured to said rod and adapted to engage the pawls respectively to disengage them from the ratchets, springs connecting said arms with the pawls, and means controlled by the ribbon for actuating the rock rod through movement of the carrier which retracts the active pawl.

4. In apparatus of the character described, the combination of ribbon spools and ratchets, pawls for alternately operating the latter, a reciprocating pawl-carrier having a rock rod on which the pawls are loosely mounted extending in opposite directions, arms secured to said rod and adapted to engage the pawls respectively to disengage them from the ratchets, springs connecting said arms with the pawls, and movable ribbon-controlled abutment pieces for said arms respectively, either adapted upon exhaustion of ribbon from the associated spool to enter the path of the associated arm to cause actuation of the rock rod through movement of the pawl-carrier which retracts the active pawl.

5. In apparatus of the character described, the combination of ribbon spools and ratchets, pawls for alternately operating the latter, a reciprocating pawl-carrier having a rock rod on which the pawls are loosely mounted extending in opposite directions, arms secured to said rod and adapted to engage the pawls respectively to disengage them from the ratchets, springs connecting said arms with the pawls, and swinging abutment pieces for said arms respectively movable into and out of the paths of movement of said arms under control of the ribbon.

[Claims 6 to 16 not printed in the Gazette.]

941,555. CHAIR. LOUIS BERZON and HARRIS GOLDBERG, Philadelphia, Pa. Filed Aug. 25, 1909. Serial No. 514,478.



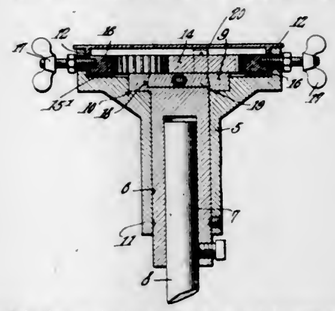
1. In a chair, the combination with the relatively fixed chair body, of members movable with relation thereto, a slotted lever included in said movable elements, a turnable and slidable shaft extending through the slot of said lever, a locking plate on the shaft, a spring tending to slide the shaft in one direction and release the locking plate, a spring normally holding the shaft shifted in the other direction, and manual means adapted, against the opposition of the second spring, to turn said shaft to permit the first spring to slide said shaft and release the locking plate.

2. In a chair, the combination with the relatively fixed chair body, of members movable with relation thereto, a slotted lever included in said movable elements, a turnable and slidable shaft extending through the slot of said lever, a locking plate on the shaft, a spring tending to slide the shaft in one direction and release the locking plate, mutually engaging cams on the chair body and shaft respectively adapted, when said shaft is turned in one direction, to force the shaft outward against the action of said spring and engage the locking-plate and lever, a second spring normally turning and holding said shaft in the last-named direction, and means to turn the shaft in opposition to the second spring and permit the first spring to actuate the shaft to release the locking plate.

3. In a chair, the combination with the relatively fixed chair body, of members movable with relation thereto, a shaft bearing secured to the body, a shaft turnable and slidable in said bearing, a sleeve secured to the shaft and engaging said bearing, said sleeve and bearing having opposing cam surfaces whereby when the shaft is turned in one direction or the other it will either be forced outward or permitted to move inward, a handle on the shaft, a slotted lever included in said movable members and engaging the shaft, a locking plate loose on the shaft, a stop on the shaft adapted to force said locking plate against said lever when the shaft is forced outward, and a spring adapted, when the shaft is turned by said handle to permit the shaft to move inward, to so actuate said shaft and thereby release the locking plate.

4. In a chair, the combination with the relatively fixed chair body, of members movable with relation thereto, a shaft bearing secured to the body, a shaft turnable and slidable in said bearing, a sleeve secured to the shaft and engaging said bearing, said sleeve and bearing having opposing cam surfaces whereby when the shaft is turned in one direction or the other it will either be forced outward or permitted to move inward, a handle on the shaft, a spring engaging said shaft and adapted to turn or hold the shaft in position to cause said bearing to force the shaft outward, a slotted lever included in said movable members and engaging said shaft, a locking plate loose on said shaft, a stop on the shaft adapted to force said locking plate against said lever when the shaft is moved outward, a disk on the shaft, and a spring surrounding said shaft and confined against said disk and adapted, when said shaft is turned by said handle, to force said shaft inward and release said locking plate.

941,556. SPARK-TIMER FOR INTERNAL-COMBUSTION GAS-ENGINES. OMAR L. BRAINARD, Sacramento, Cal. Filed Jan. 20, 1909. Serial No. 473,288.

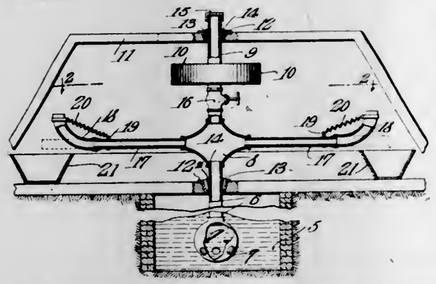


1. A spark timing device comprising a stationary member having a seating recess, an internal gear on said member concentric with said recess and provided with a plurality of insulated segments, a movable member having a head journaled in the seating recess and having a diametrical groove in its head, a slide seated in said groove and engaging the walls of the same, a pin at one end of the slide disposed parallel with the axis of the member, a spur gear rotatably mounted on said pin and meshing with the internal gear on the stationary member, and means between the slide and the end of the slot for holding the slide normally projected to maintain the gears in mesh.

2. A spark timing device including relatively stationary and movable members, one of which is formed with a seating recess constituting a bearing and provided with an internal gear having a series of insulated segments constituting contacts, the other member being provided with an enlarged head journaled in said seating recess having a transverse slot formed therein, a slide mounted in said slot and provided with a pin, a block forming a closure for one end of the slot and conforming to and adapted to bear against the wall of the seating recess, a spur gear mounted for rotation on the pin, and means interposed between the block and slide for yieldably supporting the spur gear in engagement with the teeth on the internal gear.

3. A spark timing device including relatively stationary and movable members one of which is provided with a seating recess, an internal gear carried by the stationary member and provided with one or more toothed segments constituting contacts, a movable member having an enlarged head journaled in said seating recess and provided with a transverse slot, a slide arranged within said slot and provided with a pin, a spur gear mounted for rotation on said pin and adapted to engage the teeth on the internal gear, said spur gear being disposed eccentrically with respect to the longitudinal axis of the movable member, a stop forming a closure for one end of the slot and conforming to and bearing against the interior wall of the seating recess, and a spring interposed between the stop and slide for normally and yieldably supporting the spur gear in engagement with the teeth on the internal gear.

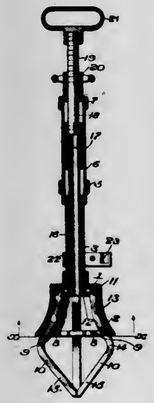
941,557. CENTRIFUGAL PUMP. DELAVAN V. BURRELL, Rocky Ford, Colo. Filed May 6, 1909. Serial No. 494,263.



1. A centrifugal pump comprising a suction pipe, radial discharge pipes connected thereto, means for rotating the discharge pipes, flexible discharge nozzles connected to the discharge pipes, means for bringing the nozzles into erect position when the pump is out of action, a priming pipe connected to the suction pipe, and extending above the plane of the outlet ends of the nozzles when in erect position, and a valve in the priming pipe in the same horizontal plane as said outlet ends.

2. A centrifugal pump comprising a suction pipe, radial discharge pipes connected thereto, means for rotating the discharge pipes, flexible discharge nozzles connected to the discharge pipes, a yielding connection between the discharge pipes and the outlet ends of the nozzles for holding said nozzles in erect position when the pump is out of action, a priming pipe connected to the suction pipe, and extending above the plane of the outlet ends of the nozzles when in erect position, and a valve in the priming pipe in the same horizontal plane as said outlet ends.

941,558. EXTENSION-HOPPER AND SOIL-PIPE CLEANER. WILLIAM H. CLOAK, Philadelphia, Pa. Filed May 21, 1908. Serial No. 434,108.



1. In a device of the character described, a body having curved walls, a tube, a rod, a carrier thereon, and within the body, and jaws pivoted to the carrier and having curved upper portions to conform to said curved walls and movably connected with the body, the free ends of said jaws disposed, when distended, in a vertical position.

2. In a device of the character described, a body having a curved wall, a carrier movably supported within said body, jaws independently pivotally connected with said carrier, the free ends of said jaws disposed, when distended, in a vertical position, and inclined guides on said body within which said jaws move, the upper portions of said jaws being curved to conform to the curved wall of said body.

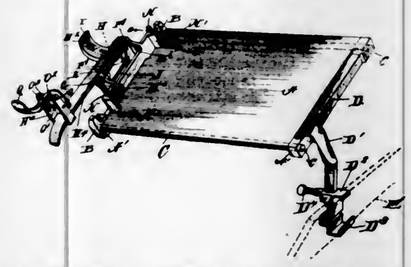
3. In a device of the character described, a body having a curved wall, a carrier movably supported within said body, jaws independently pivotally connected with said carrier, the free ends of said jaws disposed, when distended, in a vertical position, inclined guides on said body within which said jaws move, the upper portions of said jaws being curved to conform to the curved wall of said body, and means for operating said jaws.

4. In a device of the character described, a body having a curved wall, a carrier movably supported within said body, jaws independently pivotally connected with said carrier and each having a curved portion to correspond to the curvature of the walls, the free ends of said jaws disposed, when distended, in a vertical position, inclined guides on said body within which said jaws move, and means for operating said carrier and jaws.

5. In a device of the character described, a body having a curved wall, a carrier movably supported within said body, jaws pivotally connected with said carrier and each having a curved portion to correspond to the curvature of the walls and being provided with free ends, which, when distended, are disposed in a vertical position, guides on said body within which said jaws move, and means for operating said carrier and jaws.

[Claims 6 to 15 not printed in the Gazette.]

941,559. BILL-HOLDER. IVAR H. P. COLLEEN, Brooklyn, N. Y. Filed Jan. 28, 1908, Serial No. 413,010. Renewed Mar. 24, 1909. Serial No. 485,507.



1. A bill holder comprising a frame having a laterally projecting plate, a spring-pressed clamping jaw mounted thereon having an extension upon the shank portion thereof, spring-actuated pins mounted upon said jaw adapted to contact with the face of said plate, a clamping member mounted upon said extension of the jaw, as set forth.

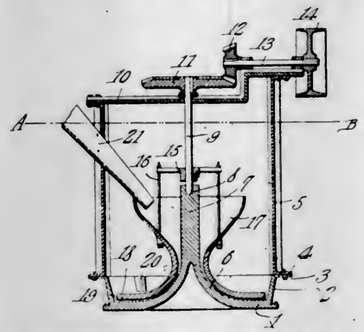
2. A bill holder comprising a plate having angled ends having openings therein, means for supporting said plate, castings secured to the angled ends of said plate, one of said castings having laterally extending lugs passing through said openings in one of the angled ends of the plate, integral arms projecting from the casting having said laterally projecting lugs, a spring-pressed clamping jaw mounted upon said arms, spring-pressed pins carried by said jaw, the shank portion of said jaw having an extension, and a clamping member mounted upon said extension, as set forth.

3. A bill holder comprising a plate having angled ends which have openings therein, means for supporting said plate, castings secured to the angled ends of said plate, one of said castings having laterally extending lugs passing through said openings in one of the angled ends of the plate, integral arms projecting from the casting having said laterally projecting lugs, a spring-pressed clamping jaw mounted upon said arms, spring-pressed pins carried by said jaw, the shank portion of said jaw having an extension, integral lugs projecting from said extension at right angles thereto, a pin carried by the lugs of said extension, and a spring-pressed clamping member mounted upon said pin, as set forth.

4. A bill holder comprising a plate having flanged ends, one of which flanges is recessed, castings secured to said flanges, said casting and flanges having registering apertures, one of said castings provided with an integral shank supporting arm, lugs projecting from the other casting and extending through said recesses, rods passing through said registering apertures in said flanges and castings, the casting having said lugs being provided with integral arms spaced apart, a pin carried by said arms, a jaw pivotally mounted upon said pin and provided with an extension upon the shank portion thereof, a spring adapted to bear against an integral portion of said jaw, a spring-pressed pin carried by the jaw, and a clamping member mounted upon said extension of the jaw, as set forth.

5. A bill holder comprising a plate having flanged ends, one of which flanges is recessed, castings secured to said flanges, said flanged ends and castings having registering apertures, one of said castings provided with an integral shank supporting arm, lugs projecting from the other casting and extending through said recesses, rods passing through registering apertures in said flanges and castings, the casting having said lugs being provided with integral arms spaced apart, a pin carried by said arms, a jaw pivotally mounted upon said pin, a spring adapted to bear against an integral portion of said jaw, a spring-pressed pin carried by the jaw, said jaw having an extension, the outer end of which is downwardly curved, arms projecting from said extension, a pin carried by the arms of the extension, and a spring-actuated clamping member mounted upon the arms of the extension, as set forth.

941,560. AMALGAMATOR. HERBERT A. CORLISS, Grants Pass, Oreg. Filed July 21, 1909. Serial No. 508,778.



1. An amalgamator including a bowl having a central conical projection, a disk revoluble about said projection, said disk and the bottom of the bowl constituting grinding members, there being an annular compartment surrounding the disk and constituting a mercury receptacle, and means coöperating with the upper end of the projection for supporting the disk at a desired distance from the projection.

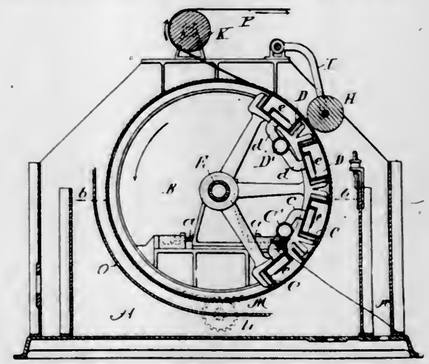
2. A machine of the class described including a bowl having an upstanding centrally disposed, upwardly tapered portion, a grinding member revolubly mounted upon said portion and having a feed hopper movable therewith, a drive member bearing against and supported by the upper end of the tapered portion, and an adjustable connection between said member and said hopper, said member and tapered portion coöperating to support the grinding member at a desired distance from the tapered portion.

3. A machine of the class described comprising a bowl having a centrally disposed, upstanding and upwardly tapered portion, a grinding portion revolubly mounted upon said portion above the bottom of the bowl, a shaft journaled at one end and supported by said portion, a hopper integral with said grinding member, arms radiating from the shaft and adjustable connections between the arms and the hopper portion.

4. A machine of the class described including a bowl, having an upwardly tapered, relatively fixed grinding member integral with the bowl, a revoluble grinding member coöperated with said fixed member, a shaft journaled within said tapered portion of the fixed member, a feed hopper integral with the revoluble grinding member, and adjustable connections between the shaft and the hopper.

5. An amalgamator including a bowl having a central conical projection extending above the bowl and constituting the bottom thereof, a disk surrounding and conforming with the contour of the lower portion of the projection, said disk having a central hopper opening thereinto, a drive shaft bearing downward upon the projection and adjustable connections between said shaft and the hopper, said shaft and projection coöperating to support the disk at a desired distance from the projection, there being a mercury containing compartment between the bowl and the periphery of the disk and an outlet within the bowl and above the periphery of the disk.

941,561. APPARATUS FOR MAKING PAPER. WILLIAM H. DECKER, Syracuse, N. Y., assignor to The Solvay Process Company, Syracuse, N. Y., a Corporation of New York. Filed July 9, 1908. Serial No. 442,665.



1. In a paper making apparatus, the combination with a pulp containing tank, of a rotary cylinder provided with a perforated surface, and supported in such position that a portion of the perforated surface is below the level of the pulp in said tank, a suction box located within the cylinder, a support for said suction box located substantially axially with respect to the cylinder, supporting means for the cylinder independent of the support for the suction box, supporting devices connected with said suction box and rotatably engaging said support, means for securing said supporting devices adjustably to said support, and a suction pipe connected to said suction box independent of its support.

2. In a paper making apparatus, the combination with a pulp containing tank, of a rotary cylinder provided with a perforated surface, and supported in such position that a portion of the perforated surface is below the level of the pulp in said tank, a suction box located within the cylinder, a support for said suction box located substantially axially with respect to the cylinder, supporting means for the cylinder independent of the support for the suction box, supporting devices connected with said suction box and rotatably engaging said support, means for securing said supporting devices adjustably to said support and means for adjusting said suction box support laterally to adjust the suction box toward and from the inner surface of the cylinder.

3. In a paper making apparatus, the combination with a pulp containing tank, of a rotary cylinder provided with a perforated surface, supporting devices for said cylinder holding it partly above and partly below the normal pulp level in said tank, and constructed to permit the rotation

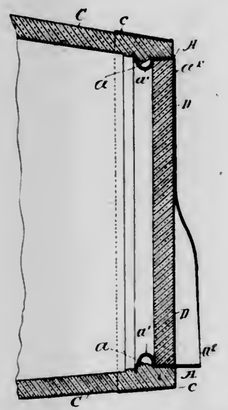
of said cylinder, suction boxes within the cylinder, certain of said boxes being located above and certain of said boxes being located below the normal pulp level, supports for said suction boxes arranged substantially axially with respect to the cylinder but independent of the supporting devices therefor, connections from said suction boxes, rotatably engaging said support, and adjusting devices for securing said boxes in different positions in the cylinder with respect to the pulp level, a suction pipe connected to the boxes above the pulp level, and a separate suction pipe connected with the boxes below the pulp level.

4. In a paper making apparatus, the combination with a pulp containing tank, of a rotary cylinder provided with a perforated surface, supporting devices for said cylinder holding it partly above and partly below the normal pulp level in said tank, and constructed to permit the rotation of said cylinder, suction boxes within the cylinder, certain of said boxes being located above and certain of said boxes being located below the normal pulp level, supports for said suction boxes arranged substantially axially with respect to the cylinder but independent of the supporting devices therefor, connections from said suction boxes rotatably engaging said support, and adjusting devices for securing said boxes in different positions in the cylinder with respect to the pulp level, a suction pipe connected to the boxes above the pulp level, and a separate suction pipe connected with the boxes below the pulp level and means for adjusting said suction box support laterally to adjust the suction boxes toward and from the inner surface of the cylinder.

5. In a paper making machine, the combination with a pulp containing tank, of a rotary cylinder provided with a perforated surface, supported above said tank in such position that a portion of its surface extends below the pulp level of said tank, a shaft extending longitudinally through said cylinder and supported independently thereof, suction boxes secured to said shaft, and engaging the inner face of said cylinder, and means for moving said shaft toward and from the inner surface of the cylinder.

[Claims 6 to 10 not printed in the Gazette.]

941,562. MEANS FOR HOLDING BARREL-HEADS IN PLACE. WILLIAM H. DECKER, Syracuse, N. Y., assignor to The Solvay Process Company, Syracuse, N. Y., a Corporation of New York. Filed Mar. 15, 1909. Serial No. 483,640.



1. As a means of securing heads in barrels, a metal band in engagement with the interior surface of the barrel, and presenting a seat for the inner surface of the head, and having the outer edge thereof turned down upon the outer surface of the head, substantially as set forth.

2. The hereinbefore described means of securing in place the heads of paper pulp barrels which consists of a grooved and ribbed band into engagement with which the barrel body is forced in the process of construction while in a plastic state, and which is adapted to be turned down upon the exterior of the barrel head, substantially as set forth.

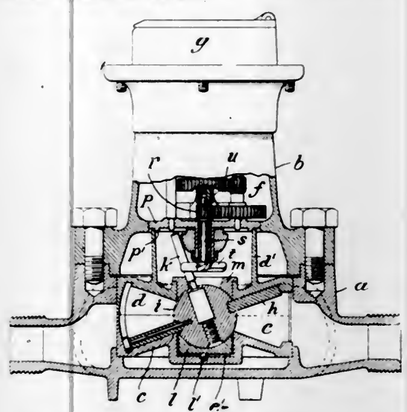
3. As a means for securing heads in barrel bodies, a metal band having a circumferential groove in engagement with the inner surface of the barrel body, a projection providing a seat for the inner surface of the barrel head, and a portion projecting beyond the end of the barrel body, and adapted to be turned down upon the head, substantially as set forth.

4. As a means of securing barrel heads in place, a metal band provided with a groove engaged with the interior of the barrel and a corresponding rib presenting a seat for the head, and having its inner edge embedded in the inner face of the barrel body, substantially as set forth.

5. As a means of securing barrel heads in place, a metal band presenting a seat for the head on the interior of the barrel, and having its outer edge bent over so as to meet the outer surface of the head at an angle thereto, substantially as set forth.

[Claims 6 to 8 not printed in the Gazette.]

941,563. WATER-METER. HENRY I. DILTS, New York, N. Y., assignor to Neptune Meter Company, New York, N. Y., a Corporation of New Jersey. Filed Mar. 13, 1909. Serial No. 483,217.



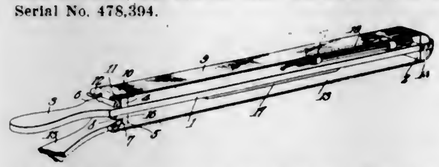
1. In an oscillating disk meter, the combination with the disk and the disk ball, of a disk casing formed with a step, a ball seat formed independently of the casing and freely rotatable in said step, and means to impart a slow rotary movement to said ball seat during the operation of the meter.

2. In an oscillating disk meter, the combination with the disk and the disk ball, of a disk casing formed with a step, a ball seat formed independently of the casing and freely rotatable in said step, an arm moved by the disk at each oscillation thereof and a pawl actuated by said arm and engaging the ball seat to impart a step by step movement thereto during the operation of the meter.

3. In an oscillating disk meter, the combination of a main casing, a disk casing, an oscillating disk having a disk spindle, a gear train, a plate supporting the gear train and a driving spindle having its driving arms formed with inclined surfaces like propeller blades to lift the spindle during the rotation thereof.

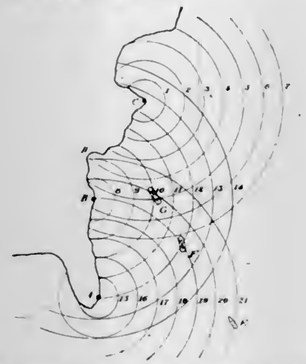
4. In a meter, the combination of a gear train including a driving spindle having its members mounted to rotate about vertical axes, one of said members having arms formed with inclined surfaces to lift such member during the rotation thereof and prevent wear, a supporting plate for the gear train, and means actuated by the movement of the liquid through the meter to rotate such member.

941,564. DEVICE FOR SHARPENING RAZORS. WILLIAM H. DUNN, San Antonio, Tex. Filed Feb. 17, 1909. Serial No. 478,394.



A razor strop comprising a body, a handle at one end thereof, a head upon the other end of the body, a transversely extending rib upon the body adjacent the handle, a flange extending from one face of the rib and curved in the direction of the body, said flange constituting a retaining device, a strap secured at one end to the head and having a reinforced flap at its other end, a loop extending through the flap and engaged and retained by the flange on the rib, and a finger piece extending from said loop and through an opening within the flap, said finger piece normally overhanging the handle.

941,565. METHOD FOR DETERMINING POSITIONS OF VESSELS. REGINALD A. FESSENDEN, Washington, D. C., assignor to The National Electric Signaling Company, Pittsburg, Pa., a Corporation of New Jersey. Filed Dec. 14, 1904. Serial No. 236,861. Renewed Mar. 18, 1907. Serial No. 363,106.



1. In the art of determining the position of vessels, the method described which consists in emitting signals of predetermined character from several stations of known position, receiving the same on the ship, producing signals of a definite predetermined character on the ship and comparing them with the signals from the stations of known position.

2. In the art of determining the position of vessels, the method described, which consists in sending signals of predetermined character from several stations of known position, receiving said signals on the vessel and measuring and comparing them with each other to fix the relative locations of the sending stations.

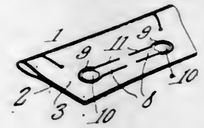
3. In the art of determining the position of vessels, the method described, which consists in sending from several stations of known position electromagnetic waves of predetermined character, receiving such signals on the vessel, producing and receiving similar signals of predetermined and definitely known character on the vessel, and comparing them with the signals received from outside.

4. In the art of determining the position of vessels relative to stations of known position, the method which consists in emitting from said stations predetermined signals differing in character for each of the several stations, receiving said signals on the vessel, and measuring and comparing their characteristics with each other, substantially as described.

5. In the art of determining the position of vessels, the method described, which consists in sending from a station of known position a signal of predetermined character, receiving the same on the vessel, and comparing its character as received with other standard signals of definitely known and predetermined character produced and received on the vessel.

[Claims 6 to 8 not printed in the Gazette]

941,566. RAZOR-BLADE CLAMP. ALLISON H. FLEMING, Fairmont, W. Va., assignor to Fleming Sales Co., Fairmont, W. Va., a Corporation of West Virginia. Filed Sept. 7, 1909. Serial No. 516,380.



1. A safety razor blade holder for carrying the blade during stropping, having opposed members adapted to grasp the razor blade, one of said members being provided with bosses or projections extending toward the other member and yieldable independently of the member carrying them.

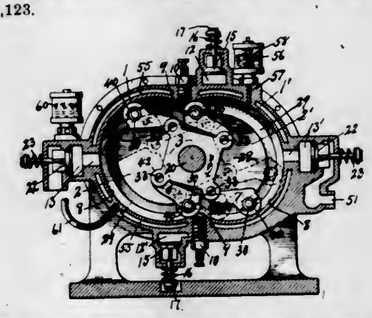
2. A safety razor blade holder for carrying the blade during stropping, having opposed members adapted to grasp the razor blade, one of said members being provided with spring fingers having at their free ends bosses or projections directed toward the other member and spaced to enter perforations in perforated types of safety razor blades.

3. A holder for safety razor blades during stropping having opposed members adapted to grasp the razor blade, one of said members having formed therein elastic fingers terminating in projections or bosses directed toward the other member.

4. A holder for safety razor blades during stropping having opposed members adapted to grasp the razor blade, one of said members having formed therein alined elastic fingers with their free ends remote one from the other and terminating in projections or bosses directed toward the other member.

5. A sheet metal holder for safety razor blades during stropping comprising a single piece of sheet metal bent on itself to form opposed blade grasping members, one of which members has spring fingers formed therein with their free ends remote one from the other and terminating in struck up portions or projections extending toward the other member.

941,567. ROTARY COMBUSTION-ENGINE. FRANK FLEMING, Rome, N. Y. Filed Apr. 30, 1908. Serial No. 430,123.



1. In a rotary internal combustion engine, a rotary piston, trailer wings hinged to the piston, a cylinder having merging piston chambers eccentric to the piston and each having an inlet port and an exhaust port, self closing

valves for said ports, means to open said valves, igniting devices, and curved bearings also eccentric to the piston for engaging and moving the wings to and from said piston.

2. In a rotary internal combustion engine, a rotary piston, a cylinder having merging piston chambers and curved inner bearing faces eccentric to the piston, each chamber having an inlet port and an exhaust port, self closing valves for said ports, means for opening said valves, spark plugs in opposite sides of the cylinder, trailer wings hinged to the piston, and means for holding said wings in contact with said bearing faces as the piston is rotated and for rocking the wings toward the piston as they approach the spark plug.

3. In a rotary internal combustion engine, a rotary piston, trailer wings hinged to the piston, a cylinder having merging piston chambers and curved inner bearing faces eccentric to the piston, each chamber having an inlet port and an exhaust port, self closing valves for said ports, means for opening said valves at regular intervals, means for holding the trailing ends of the wings in contact with said bearings and for moving them toward and from the piston as the latter is rotated, and igniting devices in the cylinder located where the chambers merge.

4. In a rotary internal combustion engine, a rotary piston, trailer wings hinged to the piston, a cylinder having merging piston chambers and curved bearings eccentric to the piston, each chamber having an inlet port and an exhaust port, the piston being located at the junction of said chambers, separate self-closing valves for said ports, means to hold the wings against said bearings as the piston is rotated, whereby the wings are rocked to and from the piston, means for opening each pair of inlet valves and each pair of exhaust valves at regular but at different intervals during the rotation of the piston, and separate igniting devices in opposite sides of the cylinder.

5. In a rotary internal combustion engine, a rotary piston, trailer wings hinged one in advance of the other to and around said piston, a cylinder having merging piston chambers eccentric to the piston and in which the piston and wings rotate, each cylinder having an inlet port and an exhaust port, self closing valves for said ports, opposite spark plugs at the junction of the chambers, means for successively moving the wings toward the piston as they approach the spark plugs, means for opening the exhaust valves while each wing is passing the exhaust port and means for opening the inlet valves just after each wing has passed the exhaust port.

[Claims 6 to 12 not printed in the Gazette.]

941,568. COMBINED DRILL AND STAY-BOLT CUTTER. FRANK FLEMING, Rome, N. Y. Filed May 7, 1908. Serial No. 431,404.

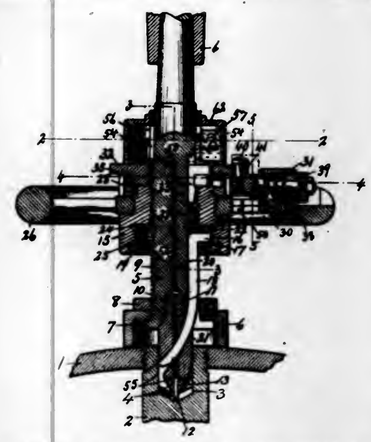
1. In a machine for cutting stay bolts, a rotary spindle having a drill, said spindle and drill having registering lengthwise slots, the slot in the drill extending through one side thereof, a cutter movable lengthwise in said slots, and means for moving the cutter.

2. In a machine for cutting stay bolts, a rotary spindle, a drill removably secured to the spindle, said spindle and drill having registering lengthwise slots, the slot in the drill extending through one side thereof, a cutter movable lengthwise in the slots and keying the drill to the spindle, and means for moving the cutter endwise.

3. In a machine for cutting stay bolts, a rotary spindle having a lengthwise slot in one side, a drill screwed to the spindle and having a lengthwise slot extending transversely therethrough and registered with the first named slot, a cutter in said slots, and means for moving the cutter endwise.

4. In a machine for cutting stay bolts, a rotary drill spindle, and a chambered member surrounding a portion of the spindle and provided with an air chamber and an oil chamber, said spindle having a lengthwise passage alternately communicating with said chambers as the spindle is rotated.

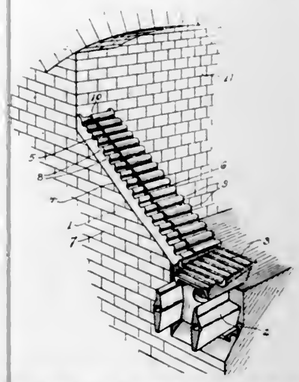
5. In a machine for cutting stay bolts, a rotary threaded spindle having a lengthwise groove, a drill secured to the spindle and having a transverse slot therethrough registered with said groove, a cutter in said groove and slot, a nut rotatable on the threaded portion of the spindle



and rotatable independently thereof, and means actuated by the nut for moving the cutter endwise.

[Claims 6 to 13 not printed in the Gazette.]

941,569. PROTECTING-CAP FOR FURNACE BRIDGE-WALLS. JOHN R. FORTUNE, Detroit, Mich., assignor to Murphy Iron Works, Detroit, Mich., a Corporation of Michigan. Filed Mar. 18, 1909. Serial No. 484,311.



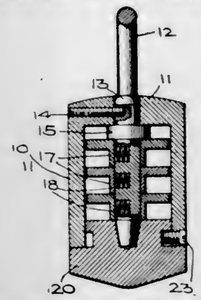
1. A protecting cap for furnace bridge walls consisting of a plate formed with a longitudinal air channel at its lower side and a second plate with a longitudinal air channel at its lower side and overlapping the first plate at one edge and adjustable thereon to vary the width of the cap.

2. A protecting cap for furnace bridge walls consisting of a plate having downwardly extending flanges at each edge to form a longitudinal channel at the lower side of the said plate, a second plate having a downwardly extending flange at one edge and overlapping the first plate at its opposite edge and adjustable thereon.

3. A protecting cap for furnace bridge walls consisting of a plate formed with transverse ribs, a second plate formed with concavo-convex ribs to fit over the ribs of the first plate and adjustable thereon to vary the width of the cap.

4. In a smoke consuming furnace, the combination with an inclined bridge wall, a side wall at the end of the bridge wall, a grate bearer supported at one end upon the bridge wall, and a grate-bearer shield over the bearer at the lower end of the bridge wall; of a protecting cap for the bridge wall comprising a top plate and downwardly extending flanges to form a longitudinal air passage between the top of the bridge wall and the plate, the upper ends of the flanges being adapted to engage the side wall of the furnace and the plate between said flanges being cut away to form an opening for the escape of the air from said passage, adjacent to said side wall, and the lower end of the top plate being adapted to engage one edge of the shield.

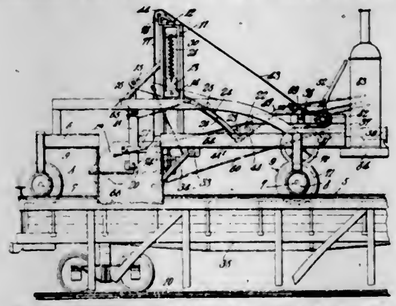
941,570. LOCK. NOAH T. FOSTER and BERTHA M. DREESKA, Chester, Ill. Filed Feb. 11, 1909. Serial No. 477,340.



1. In a device of the class described, the combination of a cylinder, a cover integrally formed therewith, a pintle depended from said cover centrally in the said cylinder, a plurality of tumblers rotatably disposed upon said pintle, studs projected from said tumblers for engagement with one another, a disk rotatably mounted in the lower end of said cylinder, a stud carried by said disk for engagement with the stud of the adjacent tumbler, springs embedded in the side of the said pintle for engagement with the tumblers to frictionally retain the tumblers in position, and a shackle having serrated ends for engagement through the cover and through the slots formed in the edges of the tumblers.

2. A device of the class described comprising a cylinder, a pintle centrally disposed in said cylinder, a plurality of tumblers mounted about said pintle, springs carried by said pintle for engagement with said tumblers, a disk mounted in the lower end of said cylinder, studs carried by said tumblers and said disk for imparting rotation between the same and a shackle having serrated extremities inserted in said cylinder for engagement with said tumblers.

941,571. LOADING AND UNLOADING DEVICE. THOMAS FULLBRIGHT, Muskogee, Okla., assignor of one-half to Clarence B. Bryant and one-half to Myrtle L. Bryant, Muskogee, Okla. Filed Dec. 17, 1908. Serial No. 468,027.



1. The combination of a carriage, yieldable supports on said carriage, vibratory suspension arms pivoted to said supports, a shovel suspended from said arms, means for holding said arms normally elevated, means to release said holding means and lower the said arms, and means to raise and dump the shovel.

2. The combination of a carriage, yieldably supported vibratory suspension arms on the carriage, links depending from said arms, a cross-bar connecting said links, a shovel swiveled to said cross-bar, means for holding the arms normally elevated, means to release said holding means and lower the said arms, and means to raise said arms and dump the shovel.

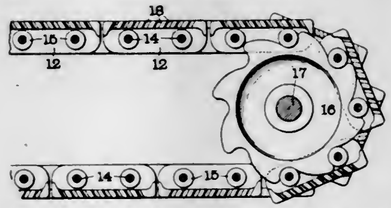
3. In unloading mechanism, a track, a carriage mounted for travel on the track, a frame forming a part of the carriage and provided with guides, bearing blocks slidably mounted in the guides, suspension arms carried by the bearing blocks, a shovel depending from the suspension arms, springs secured to the bearing blocks and frame, respectively, means for tilting the shovel, and means for elevating and dumping said shovel.

4. In unloading mechanism, a track, a carriage mounted for travel on the track, a frame forming a part of the carriage and provided with guides, bearing blocks mounted for sliding movement in the guides, suspension arms pivotally mounted on the bearing blocks, a scoop depending from the suspension arms, means for yieldably supporting the bearing blocks within the guides, means for tilting the shovel when the latter is in lowered position, means for elevating the shovel, means for turning the shovel at right angles to the longitudinal plane of the carriage, and means for dumping the shovel.

5. In unloading mechanism, a track, a carriage mounted for travel on the track and provided with a chute, a vertical frame forming a part of the carriage, bearing blocks yieldably supported on the frame, suspension arms pivotally mounted on the bearing blocks, a shovel depending from the suspension arms, an oscillating bar, segmental guides secured to the oscillating bar and embracing the pivotal axis of the suspension bars, a rock shaft connecting the suspension arms and slidably mounted between the segmental guides, means operatively connected with the rock shaft for lowering the shovel, means for tilting the shovel when in lowered position, and means for elevating and dumping said shovel.

[Claims 6 to 15 not printed in the Gazette.]

941,572. FURNACE-GRATE. FREDERICK GIRTANNER, St. Louis, Mo., assignor to Laclede-Christy Clay Products Company, St. Louis, Mo., a Corporation of Missouri. Filed Nov. 20, 1908. Serial No. 463,524.



1. In a furnace grate, the combination with a plurality of rows of links, said links being arranged to allow the passage of a greater volume of air at the center of the grate than at the sides, of means for driving said links to feed the fuel.

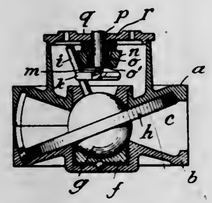
2. In a furnace grate, the combination with a plurality of rows of links, of distance pieces separating said rows of links, said distance pieces being wider at the center of the grate than at the sides, and means for driving said links to feed the fuel.

3. In a furnace grate, the combination with a plurality of rows of links, of pivot rods passing laterally through said links, cylindrical distance pieces independent of said links and surrounding said rods and separating said links, said distance pieces being of different lengths to regulate the volume of air passing between said links, and driving

wheels coöperating with said distance pieces to drive said links to feed the fuel.

4. In a furnace grate, the combination with a plurality of rows of links, of pivot rods passing laterally through said links, the links of the outer rows being provided with stops to limit the movement of said pivot rods, and means for driving said links to feed the fuel.

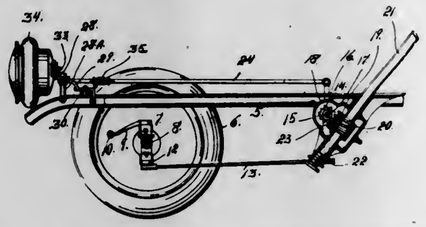
941,573. METER. WILLIAM L. GUMPRECHT, New York, N. Y., assignor to Neptune Meter Company, New York, N. Y., a Corporation of New Jersey. Filed Apr. 3, 1909. Serial No. 487,728.



1. In an oscillating or nutating disk meter, the combination with the disk casing, disk, disk spindle and register driving spindle provided with an arm to be engaged by the disk spindle, of an annular guiding head for coöperation with the disk spindle, an annular spherical seat upon which said guiding head is movably supported and a spring holding the guide yieldingly upon its seat.

2. In an oscillating or nutating disk meter, the combination of the register driving spindle provided with an arm adapted to be engaged by the disk spindle, an annular guiding head for coöperation with the disk spindle, a seat upon which the guiding head is movably supported and a spring holding the guide yieldingly upon its seat.

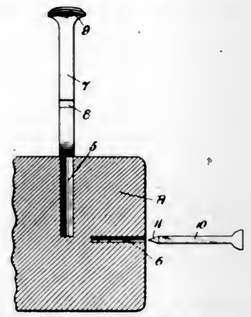
941,574. PILOT-LIGHT-SHIFTING ATTACHMENT FOR VEHICLES. ERNEST E. HAMPTON and CICERO G. SMITH, Palisade, Colo. Filed Sept. 11, 1907. Serial No. 392,314.



1. In an automobile or similar vehicle, the combination of a steering rod, a worm-wheel on said rod, a gear in connection with said worm-wheel, connections comprising a lever and shaft therebetween and the wheels for changing the angular position of the latter, a plurality of lamps, a rotatable upright on which each lamp is mounted, connections between said lamps, an arm fixed to one of said uprights, and connections between said worm-wheel and arm, comprising a rod and a lever on said shaft to which the rod is connected, whereby said lamps are moved angularly concurrently with the angular movement of the wheels.

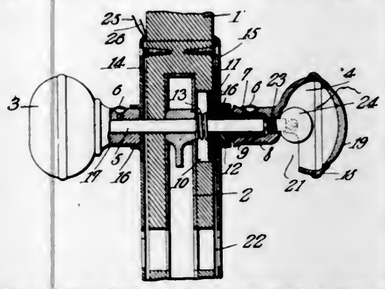
2. In an automobile or similar vehicle, the combination of the steering wheels, a plurality of lamps, a steering rod, a worm-wheel on said rod, a pair of rods, one extending to the steering wheels and the other to the lamps, and upwardly and downwardly extending arms forming operating means for said rods and operating means between the said arms and the worm, substantially as described.

941,575. RAIL-FASTENING DEVICE. JULES E. HANIQUE, Oroville, Cal. Filed Feb. 25, 1909. Serial No. 479,914.



In a rail fastening device of the character described, the combination with a tie provided with an opening therein, at right angles thereto, and with a second opening extending therein at right angles to said first named opening, a headed fastening spike of greater length and diameter than, and adapted for insertion into, the first named opening, whereby to guide the said spike into the tie, and provided with a notch transversely thereof, and a locking spike of greater length and diameter than, and adapted for insertion within said second tie opening, whereby to guide the said spike, as it is driven into the tie, and provided with a pointed inner end to engage said fastening spike notch to guide the same within said notch to interlocking engagement with the said fastening spike, substantially as described.

941,576. ILLUMINATING DEVICE FOR KEYHOLES. JOHN D. HARDIN and JOHN B. DE SAUSSURE, Chattanooga, Tenn. Filed Oct. 2, 1908. Serial No. 455,838.



1. In a device of the character described, a door knob having a light transmitting portion and movable in the direction of the length of the knob spindle, means interior to the knob for producing light and means controlled by the longitudinal movement of the knob for controlling said light producing means.

2. In a device of the character described, a door knob capable of longitudinal movement, a charged electric circuit, circuit terminals controlled by the longitudinal movement of the knob, and an electric lamp interior to the knob, the said knob having a passage therethrough for the escape of light.

3. In a device of the character described, a door knob having a passage therethrough on the side toward the door and capable of longitudinal movement with relation to the door, a spring for maintaining the knob in its outermost position, circuit terminals controlled by the knob and closed when the knob is moved to its innermost position, and an electric lamp housed in the knob and included in the electric circuit.

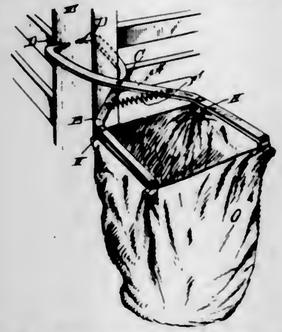
4. In a device of the character described, a knob spindle movable longitudinally, door knobs secured thereto and one of the knobs being insulated from the spindle and provided with an opening on the side toward the door, an electric circuit including the knob spindle and having a circuit terminal adjacent to the insulated knob, a spring for maintaining the knob spindle in a position to hold the circuit terminals apart, and an electric lamp housed in the insulated knob.

5. In a device of the character described, a knob spindle capable of longitudinal movement, knobs thereon, one of the knobs being insulated from the spindle and provided with an opening toward the door and with an outer light transmitting member removable from the main portion of the knob, a spring for maintaining the knob spindle in one direction of its movement, electric circuit terminals adapted to be brought together when the knob spindle is moved in the other direction of its movement and against the action of the spring, and an electric lamp housed in the insulated knob.

941,577. ARTIFICIAL FUEL. ROBERT W. HOWELL, Kirkwood, Mo. Filed June 6, 1908. Serial No. 437,421.

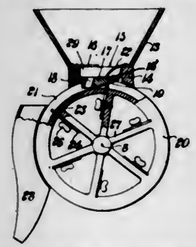
An artificial fuel comprising corn stalks, wood and vegetable matter, cords, oil and tar, united into fagots as set forth for the purposes stated.

941,578. BAG-HOLDING DEVICE. HENRY IHME, Leonard, N. D. Filed Sept. 15, 1909. Serial No. 517,944.



A bag holding device comprising bars which are pivoted together and provided with spurred ends adapted to engage an object to support said bars, the arms of said bars having spurs at their ends outwardly turned to engage over the edge of a bag and hold it open, a spring connecting said bars and adapted to hold the spurred ends of the bars frictionally against the object upon which it is supported.

941,579. SEED-PLANTER. WILLIAM N. JAY, Moscow, Idaho, assignor of one-half to Wesley M. Hatfield, Moscow, Idaho. Filed Apr. 27, 1909. Serial No. 492,570.



1. The combination with a receptacle having an outlet; of an apertured valve within the outlet, a rotatable element normally supporting the valve and closing the aperture, and means for lifting the valve from the rotatable element at predetermined intervals.

2. The combination with a receptacle having an outlet; of an apertured valve within the outlet, a rotatable element movable beneath and normally supporting the valve and closing the aperture, and means movable with said element for lifting the valve therefrom at predetermined intervals.

3. The combination with a receptacle having an outlet; of an apertured valve within the outlet, a feeding wheel rotatably mounted thereunder and having a peripheral groove constituting a seat for the valve, and means for lifting the valve from its seat at predetermined intervals.

4. The combination with a receptacle having an outlet; of an apertured valve within the outlet, a feeding wheel rotatably mounted thereunder and having a peripheral groove constituting a seat for the valve, and means adjustably connected to the wheel for lifting the valve from its seat at predetermined intervals.

5. The combination with a receptacle having an outlet, and a valve within the outlet; of a rotatable element below and normally supporting the valve, and means rotatable with said element for raising the valve at predetermined intervals.

[Claims 6 to 16 not printed in the Gazette.]

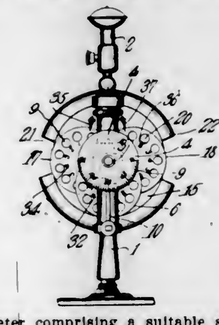
941,580. RAILROAD-RAIL. STANLEY W. LYMAN, Roberts, Mont. Filed Mar. 5, 1909. Serial No. 481,417.



1. A sectional rail including a base member made up of two sections, a tread portion arranged to fit between and be engaged by said sections, one of the base sections being formed to entirely underlie and support the tread portion, both of said base sections being formed with coöperating interlocking portions below the tread portion, and a chair plate underlying and clamping the sections together.

2. A sectional rail including a base member made up of two sections, a tread portion arranged to fit between and be engaged by said sections, one of the base sections being formed to entirely underlie and support the tread portion, both of said base sections being formed with coöperating interlocking portions below the tread portion, and a chair plate underlying and clamping the sections together, the lower surface of said chair plate being inclined in two distinct reversely disposed planes.

941,581. OPTOMETER. JOSEPH H. MARTIN, Roanoke, Va. Filed July 18, 1907. Serial No. 384,407.

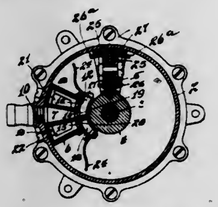


1. An optometer comprising a suitable stand, a sight tube journaled in the stand, a graduated adjusting disk at one end of the tube, a disk eccentrically mounted on the other end of said sight tube and carrying optical testing means, said last named disk being rotatable to carry

the optical testing means into alinement with the sight tube and also having orbital movement about the axis of rotation of the tube, a fixed septum carried by the stand and provided with an eye piece in line with the sight tube, and lens carrying disks on the septum on each side of the eye piece and each rotatable about an axis carried by the septum to bring the lenses into the optical axis of the sight tube, and indices carried by the septum in operative relation to the lens carrying disk thereon.

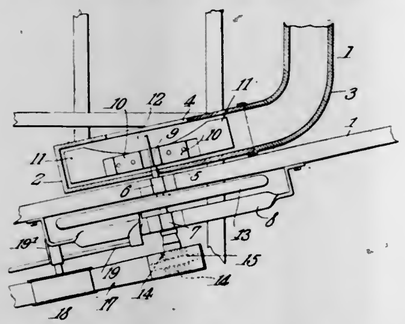
2. An optometer comprising a suitable stand, optical testing means carried thereby, parallel arms carried by the stem and projecting from one side thereof, said arms having scale indications thereon, a slide on the arms having a support for testing means, and pointers on the slide, one pointer being arranged for one arm and the other pointer for the other arm.

941,582. FLUID-MOTOR. ANTON MILL, Cincinnati, Ohio, assignor to Carrie Mill, Cincinnati, Ohio. Filed Sept. 21, 1908. Serial No. 454,049.



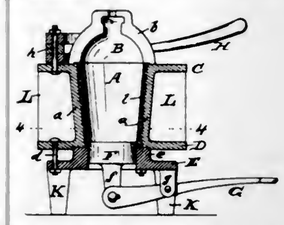
In a fluid motor, a cylinder and concentric work shaft, a stationary segmental member comprising inlet and outlet chambers and ports located at the outer periphery of the cylinder, a slide-valve controlling said ports located between the work shaft and the inner end of said segmental stationary member, springs attached to the outer ends of said valves and extending in the path of piston movement, an oscillating piston member fixed to the work shaft, and extensions on the opposite sides of the piston adapted to contact the springs at its opposite ends of movement to reverse the flow of the fluid, substantially as described.

941,583. PNEUMATIC STACKER. PETER MILLER, Minto, N. D. Filed Jan. 16, 1909. Serial No. 472,691.



In a pneumatic stacker, a casing having an inlet and an outlet, said inlet being disposed adjacent the center of one face of the casing, a bracket below the casing, a shaft journaled within the bracket and casing, fan blades radiating from the shaft within the casing, a fly wheel secured to the shaft and between the casing and bracket, a pulley loosely mounted upon the shaft below the bracket, ratchet wheels secured to the shaft adjacent opposite sides of the pulley, pawls carried by the pulley and engaging the ratchets to rotate the shaft in one direction with the pulley.

941,584. CONSTRUCTION OF GLASS-MOLDS. FRANK M. MCKERNAN, Cincinnati, Ohio, assignor of one-half to James E. Stacey, Cincinnati, Ohio. Filed May 21, 1908. Serial No. 434,043.



1. In a glass-mold, the combination of a base having legs and provided with a circular opening which is surrounded by an upwardly projecting boss, a lower mold-body substantially cylindrical and recessed in its lower end to fit upon the boss of this base upon which it is seated, flanges extending laterally from lower and upper ends of this mold-body and radially disposed, heat-dissipating and strengthening ribs projecting from the outside of this mold-body and extending vertically between the flanges thereof, a complementary upper mold-body consisting of two vertically divided sections fitted to seat upon the upper end of the lower mold-body, and each provided with hinge-lugs and with a handle for manual manipulation in a lateral direction to open and close this upper mold-body, bolts seated in both flanges of the lower mold-body and between the vertical ribs thereof, there being one in the upper flange serving as a pivot whereby by means of their hinge-lugs the sections of the upper mold-body are hinged to each other and pivotally connected to the lower mold-body, and a number of them whereby this latter mold-body is connected to the base, a plunger slidably fitted to the opening in this latter and a pivotally supported lever connected to the underside of this plunger and extending outwardly for manual operation to move the plunger from the opening in the base into the lower part of the lower mold-body and back again.

2. For a glass-mold, a one piece cast-metal mold-body of substantially cylindrical shape which has its wall of limited thickness and chilled on its inner-side to provide and maintain a smooth glass-molding surface, the outside being provided with air-cooled heat-dissipating projections to carry the heat away from the chilled inner surface to prevent cracking of the same.

941,585. METHOD OF PRODUCING INSULATING BODIES. VALENTIN A. NOODT, Hamburg, and GEORG GÖTTSCHE, Altona, Germany; said Göttsche assignor to said Noodt. Filed Mar. 19, 1908. Serial No. 422,168.

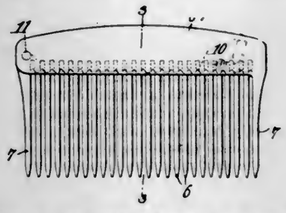
The method of producing a body for cold and heat insulating purposes, which consists in preparing a liquid binding medium, adding thereto sufficient foliated charcoal to take up the liquid, stirring the mass only until the foliated charcoal assumes a splinter formation, and then compressing the mass thus formed sufficiently to produce a porous body.

941,586. COMB. MARGUERETTE E. PURDY, Ridgefield Park, N. J. Filed Oct. 13, 1908. Serial No. 457,585.

1. A device of the class described including integral main and auxiliary comb sections, the teeth on the auxiliary comb section being extended upwardly and arranged to mesh with the teeth on the main comb section.

2. A device of the class described including main and auxiliary comb sections one of which is yieldably supported on the other and provided with upwardly projecting teeth, and means for locking said comb sections in engagement with each other.

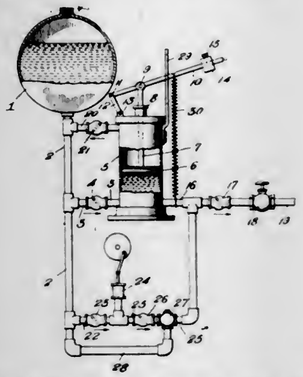
3. A device of the class described including a main comb having an auxiliary comb formed integral therewith and extended longitudinally of the main comb at the upper end of the latter, the teeth on the auxiliary comb being extended upwardly from the lower longitudinal edge thereof, and means for locking said combs in engagement with each other.



4. A device of the class described including a main comb, an auxiliary comb formed integral therewith and having one end thereof normally and yieldably supported in spaced relation to the main comb, the teeth on the auxiliary comb being extended upwardly and arranged to intermesh with the teeth of the main comb, and an enlarged head formed on the free end of the auxiliary comb and adapted to enter a corresponding socket formed in the adjacent end of the main comb.

5. A device of the class described including a main comb, an auxiliary comb formed integral therewith and having its central portion bowed outwardly and its lower longitudinal edge provided with a plurality of spaced upwardly extending teeth adapted to intermesh with the teeth on the main comb when the auxiliary comb is moved to closed position, and means for locking the main and auxiliary combs in closed position.

941,587. FUEL-FEEDING APPARATUS. REGINALD PUTNAM, Corcoran, Cal. Filed Mar. 25, 1909. Serial No. 485,565.



1. In an apparatus of the character described, the combination with a tank for containing liquid of a cylinder located below the level of the tank, a downwardly pressed piston in the cylinder, a pipe leading from the tank to the cylinder below the piston having a check valve opening toward the cylinder, a delivery pipe leading from the cylinder below the piston, having an outwardly opening check valve and a pipe leading from the cylinder above the piston to the tank and having a check valve opening toward the tank.

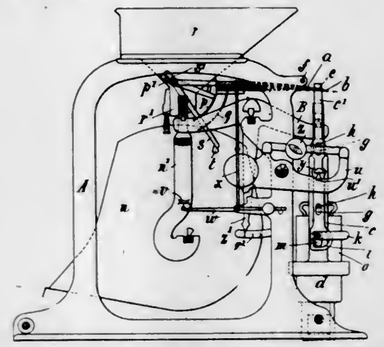
2. In an apparatus of the character described, the combination with a tank for containing liquid, of a cylinder located below the level of the tank, a downwardly pressed piston in the cylinder, a pipe leading from the tank to the cylinder below the piston having a check valve opening toward the cylinder, a delivery pipe leading from the cylinder below the piston, having an outwardly opening check valve, a pipe shunting the cylinder and leading from the cylinder to the delivery pipe, a check valve in the shunting pipe closing toward the tank, and a pump in the shunting pipe between the check valve and the delivery pipe.

3. In an apparatus of the character described, the combination of a tank for containing liquid, a delivery pipe below the level of the tank, a pipe leading downward from the tank, a pipe leading thence to a pump, check valves in the pipe on both sides of the pump one opening toward the pump and the other away from it, a safety valve between the pump and the delivery pipe and a pipe leading from the safety valve back to the pipe leading to the tank and shunting the pump.

4. An apparatus of the character described, comprising a tank for containing liquid, a cylinder below the tank, a piston in the cylinder, means for exerting downward pressure on the piston, a pipe leading from the tank to the cylinder below the piston, a forwardly opening check valve in said pipe, a pipe leading from the tank to the cylinder above the piston, a rearwardly opening check valve in the last mentioned pipe, a delivery pipe leading from the cylinder below the piston, a forwardly opening check valve in said delivery pipe, a controlling valve in said delivery pipe, the pipe 22 having one end connected to the first mentioned pipe and its other end connected to the delivery pipe, a force pump in communication with the pipe 22, forwardly opening check valves in the pipe 22 on opposite sides of said pump, a safety valve in the pump discharge end of the pipe 22, and the shunt pipe 28 extending from said safety valve to the first mentioned pipe.

5. An apparatus of the character described comprising a tank for containing liquid, a cylinder below the tank, a pipe with a forward opening check valve, leading from the tank to the cylinder, a piston in the cylinder, a delivery pipe leading from the cylinder with a forwardly opening check valve, and a cut-off valve, a pivoted lever pivotally connected with the piston rod, a slidable weight on the lever, a spring drawing downwardly upon the lever, and a pipe leading from the upper part of the cylinder to the tank, having a check valve opening toward the tank.

941,588. AUTOMATIC WEIGHING-SCALE. MICHAEL E. REISERT, Hennef-on-the-Sieg, Germany, assignor to Hennefer Maschinenfabrik C. Reuther & Reisert, M. B. H., Hennef-on-the-Sieg, Germany. Filed Sept. 9, 1908. Serial No. 452,267.



1. An automatic weighing scale comprising two cut-off valves and a flat spring adapted to initiate the movement of the scale until one valve, which partly cuts off the material, is closed.

2. An automatic weighing scale comprising two cut-off valves, a flat spring composed of lamels varying in length adapted to initiate the movement of the scale until one valve, which partly cuts off the material, is closed.

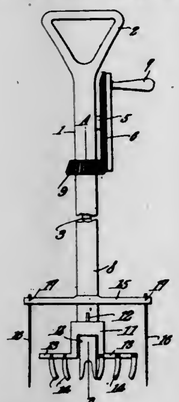
3. An automatic weighing scale comprising two cut-off valves, a flat spring attached to the scale frame, a movable bar, and a projection on the latter adapted to be engaged by the free end of the spring.

4. An automatic weighing scale comprising two cut-off valves, a flat spring attached to the scale frame, a movable bar, a weight hanger, a movable bar connected with the hanger, and a projection on the movable bar adapted to be engaged by the free end of the spring.

5. An automatic weighing scale comprising two cut-off valves, a flat spring attached to the scale frame, a weight hanger, and a releasable projection connected with the hanger, adapted to be engaged by the free end of the spring.

[Claims 6 to 8 not printed in the Gazette.]

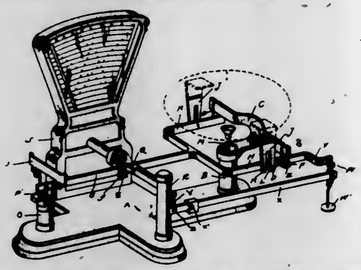
941,589. CULTIVATOR. GEORGE M. ROPER, Hickman, Ky. Filed Apr. 29, 1909. Serial No. 492,978.



1. A hand cultivator comprising a non rotatable stem, a handle at one end thereof, a tubular member mounted for rotation on the stem, said member bearing at one end against the handle, tilling devices carried by said member, and a fender screwed upon one end of the stem and constituting means for holding the tubular member against displacement on said stem, said fender being interposed between the tilling devices.

2. A hand cultivator comprising a non-rotatable stem, a handle at one end thereof, cultivating devices mounted for rotation upon the stem, one end of the stem being screw threaded and projecting between said devices, and a fender screwed upon the threaded end of the stem and located between the cultivating devices, said fender cooperating to hold the devices against movement longitudinally of the stem in one direction.

941,590. SCALE. WALTER F. STIMPSON, Detroit, Mich. Filed Aug. 24, 1903. Serial No. 170,653.



1. In a scale, the combination with a beam bifurcated to form separate fulcrum pivots, one of the furcations being relatively longer than the other and an auxiliary beam secured at one end to said elongated furcation and at the other to a stationary member of the scale.

2. In a scale, the combination with a beam, of a variable resistance and indicator associated therewith intermediate its ends, a platform supported upon said beam intermediate its fulcrum and said variable resistance, said beam having an offset extension, a counterpoise secured to said offset extension upon the opposite side of the fulcrum of the beam, and a detachable weight for engagement with the counterpoise.

3. A scale comprising a base, a horizontally-extending beam fulcrumed thereon, a variable resistance for said beam, a platform support on and above said beam, an indicator operatively connected with said beam and located at the rear of said base, and a poise beam operatively connected to the first mentioned beam, and located at the front of said base.

4. In a scale, the combination with a beam bifurcated to form separate fulcrum pivots, one of the furcations being relatively longer than the other, an auxiliary beam supported at one end by said longer furcation, and a link supporting the opposite end thereof secured to a stationary member of the scale.

5. A scale comprising a base, a beam fulcrumed thereon, a variable resistance for said beam, a platform support on and above said beam, an indicator operatively connected with said beam and located at the rear of said base, a poise beam operatively connected to the first mentioned beam and located at the front of said base, and a counterpoise connected to said poise beam.

[Claims 6 to 20 not printed in the Gazette.]

941,591. SHEET-METAL SUPPORTING-ARM. BURTON W. SWEET, Cleveland, Ohio, assignor to Harry Z. Sands, Cleveland, Ohio. Filed Mar. 18, 1907. Serial No. 362,874.



1. In a telephone support, the combination with an integral sheet metal member, bent to afford two engaging ears, a pivotal socket and a tapped abutment, of an adjustable hook and an adjusting screw associated therewith engaging the tapped abutment, substantially as set forth.

2. In a telephone support, the combination with an integral sheet metal member, comprising two diverging arms terminating in retaining hooks, an intermediate socket member, and a reinforced tapped abutment, of a brace rigidly uniting said arms, an adjustable hook, and an adjusting screw, engaging said hook and entering the tapped abutment, substantially as set forth.

3. In a device of the class described, the combination with pivoted arm-sections, of an integral washer and cord support positioned adjacent to the pivotal mounting; said washer affording retaining means for the pivoted sections and being provided with an opening for the conducting cord, whereby the latter is retained in place with respect to the arm, substantially as set forth.

4. In a telephone supporting arm, the combination with an attaching bracket, of a plurality of pivoted sections, forming an extensible arm; each of said sections comprising a strap metal member doubled upon itself to afford terminal sockets and a reinforced body portion riveted together, and a sheet metal telephone support carried at the outer end of said arm, comprising divergent hooked arms, an integral socket, and an opposing adjustable hook, substantially as set forth.

5. In a telephone supporting arm, the combination with a plurality of pivoted arm sections; each formed of strap metal doubled upon itself to afford terminal socket members, and a reinforced body portion, pivot posts uniting and attaching said sections, a sheet metal bracket pivotally carrying the inner end of said arm, and a sheet metal telephone support, comprising divergent hooked arms an integral socket, an opposing hook, and an adjusting screw therefor, substantially as set forth.

941,592. SHUTTER-RELEASING DEVICE. HUGH A. TIERNEY, Newport, R. I., assignor of one-half to John J. Egan, Newport, R. I. Filed Sept. 2, 1909. Serial No. 515,827.



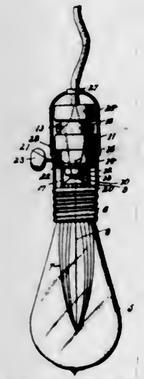
1. A shutter releasing device consisting of a supporting member adapted to be attached to the shutter, a releasing member slidingly secured to said supporting member, said releasing member including adjustable sections and means for holding said sections in adjusted positions.

2. A shutter releasing device consisting of a supporting plate, spaced bearings carried by said supporting plate, a releasing member sliding in said bearings, said releasing member having a thumb piece at one end and a hook at the other end adapted to engage the catch or hook of the shutter said releasing member also including adjustable sections and means for holding the said sections in adjusted position.

3. A shutter releasing device consisting of a supporting plate adapted to be attached to the shutter, spaced supporting bearings carried by said plate, a sleeve sliding in said bearings, a rod adjustably secured in said sleeve, and a hook carried by said rod and adapted to engage a hook on the shutter.

4. A shutter releasing device consisting of a supporting plate adapted to be secured to the shutter, spaced bearings carried by the supporting plate, a sleeve sliding in said bearings, a thumb piece secured to said sleeve, a rod adjustably secured in said sleeve, and a hook formed on the end of said rod and adapted to engage the hook on the shutter for releasing the same.

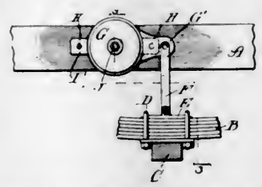
941,593. INCANDESCENT LAMP. ROSS D. TIFFANY, Bellingham, Wash. Filed Aug. 27, 1908. Serial No. 450,484.



1. A socket for incandescent lamps which have a multiplicity of filaments, comprising a casing, an insulating element rotatably held in said casing, a central contact, a conductor plate on the end of said insulating element provided with gear engaging means, an arcuate flange on said plate to form a multiple contact, a gear in said socket engaging the means on the plate to rotate said plate and element, means exterior of the socket to rotate the gear, and conductor wires connected to said plate and the central contact of the socket.

2. The combination with an incandescent lamp having a plurality of filaments, a wire connected to each of said filaments, and a base provided with a centrally disposed contact connected to said wire and a contact point for and connected to each of said filaments; of a socket, an insulating element rotatably held in said socket, a central contact forming connection with the central contact of the lamp, a conductor plate on the end of said insulating element, an arcuate flange on said conductor plate, means to rotate said conductor plate, and conductor wires connected to said plate and the central contact of the socket.

941,594. SHOCK-ABSORBER. HARRY C. TURNER, Los Angeles, Cal. Filed Jan. 23, 1906, Serial No. 297,457. Renewed Apr. 3, 1909. Serial No. 487,767.



1. An anti-vibration device for vehicles, comprising a plurality of outer friction disks, a hub connecting said disks, means for rigidly attaching said hub to a part of the vehicle movable relatively to the other part, an inner friction disk, friction material between the opposed faces of said outer disks and said inner disk and pivotal non-flexible means for connecting said inner disk to the other part of the vehicle, means whereby said connecting means will be moved freely in one direction by the movement of its connected part of the vehicle and will cause said friction disks to operate when moved in the other direction.

2. An anti-vibration device for vehicles comprising a pair of oppositely disposed outer friction disks, a hub non-rotatably connecting said disks, and secured to a part of the vehicle movable relatively to the other, a pair of inner friction disks mounted to revolve upon said hub, friction material between said outer and inner disks, a recessed annulus connecting said inner disks, a locking ring surrounding said annulus and friction rollers in the recesses in said annulus whereby said locking ring may freely revolve in one direction, but will cause said friction disks to operate when moved in the opposite direction, means for adjusting the pressure of said outer and inner disks upon said friction material, and compensating means for maintaining said pressure, a rigid arm fixed to said locking ring and pivotally attached to a second arm which is pivotally secured to the other part of the vehicle.

3. In a shock absorber, the combination with a frame having a hub, a bolt having its head confined within the hub and its threaded end protruding therethrough, a spring surrounding the bolt and housed within the hub, an outer shell, a ratchet wheel within said shell, a track secured to the shell, disks confined within the shell, a friction ring slidably connected with the hub, a ring mounted on the bolt adapted to bear on the friction ring, and a nut on the bolt to be screwed against the ring whereby to regulate the frictional contact between the washers.

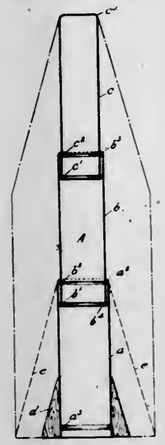
4. A shock absorber comprising a frame I, a shell G, an adjusting bolt J extending centrally through the hub I'' of the frame and through the shell, a spiral spring encircling said bolt and adapted to bear against the head of the bolt and the hub of the frame, an adjusting nut M on said bolt and adapted to adjust the pressure between the frame and the shell, a ratchet wheel Q revolubly mounted on the hub of the frame and having on either side thereof leather clutch washers.

5. In a device to prevent the re-bound of a car, comprising a frame secured to the body of the car and carrying therein ratchet mechanism workably connected with the running gear thereof, a shell covering said device and adapted to move toward or from the frame of the device, leather clutch pads mounted in said device and having a frictional engagement on one side with the frame of the device and on the other side with a ratchet frame and means to hold the frame and the ratchet into adjustable frictional engagement comprising a bolt having a head on one end and screw threaded on the other end, an adjusting

nut on the screw threaded end thereof, a spiral spring disposed on said bolt between the head thereof and the frame of the device.

[Claims 6 and 7 not printed in the Gazette.]

941,595. BOBBIN-HOLDER. SIMON W. WARDWELL, Providence, R. I., assignor to Supreme Knitting Bobbin Company, Portland, Me., a Corporation of Maine. Filed Oct. 23, 1908. Serial No. 459,265.



1. In a holder for bobbins, the combination of a plurality of tube-sections arranged to telescope, one within another, with means to limit the movement of the sections in relation to each other to prevent their separation.

2. In a holder for bobbins, the combination of a sectional, telescopic tube with means to limit the movement of the sections in relation to each other to prevent their separation and a butt secured to one of the sections.

3. In a holder for bobbins, the combination with a plurality of tube-sections of graduated diameters arranged to telescope, one within another, and a frusto-conical butt on the section of largest diameter.

4. In a bobbin holder, the combination with a tube formed in sections adapted to telescope, one within another, of a butt secured to the section of largest diameter, and means to limit the movement of each section in relation to the next section.

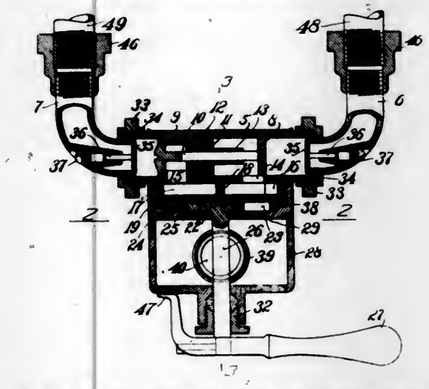
5. In a bobbin holder, the combination of a plurality of tube sections of graduated diameters arranged to slide, one with another, with means to limit the movement of the sections in relation to each other, so that when the sections are telescoped each succeeding section will project slightly beyond the end of its adjacent section.

[Claims 6 to 9 not printed in the Gazette.]

941,596. AUTOMATIC ANTISCALDING AND MIXING VALVE. FREDERICK L. WHITE, Cambridge, Mass. Filed Oct. 12, 1908. Serial No. 457,292.

1. In a mixing faucet, a valve chamber, a mixing chamber, passageways between the chambers, a partition between the inner wall of the valve chamber and the wall of the mixing chamber, a disk between the partition and the wall of the mixing chamber and provided with openings, a cross partition between the partition and the inner wall of the valve chamber and means for moving the disk to allow the passageways between the valve chamber and the mixing chamber to register the desired amount.

2. In an automatic anti-scalding and mixing valve, a valve chamber, a valve adapted to be closed by the pressure of the hot water and to shut off the hot water when the pressure of cold water in the valve is greatly reduced, a mixing chamber, a partition between the inner wall of the valve chamber and the wall of the mixing chamber, a disk between the partition and the wall of the mixing chamber, a handle, and the wall of the chambers, partition and disk being provided with passageways registering with each other when the handle is turned.



3. In an automatic anti-scalding and mixing valve, a valve casing, a parting wall separating the interior of the casing into two chambers, a valve stem extending through the wall, a valve in each chamber attached to the stem and one of the valves adapted to be pushed by pressure of liquid inward toward the wall and to simultaneously open the other valve, a mixing chamber, a partition between the inner wall of the valve chamber and the inner wall of the mixing chamber, a disk between the partition and the inner wall of the mixing chamber, means for turning the disk and the casing, partition, disk and wall of the mixing chamber being provided with passageways adapted to partly or wholly register with each other when the disk is turned.

4. In an automatic anti-scalding and mixing valve, a valve casing, diametrically opposite union ells at each end of the casing provided with openings in their sides, valves at and carried by the inner ends of the ells, and screw studs within the openings in the ells and attached to the valves.

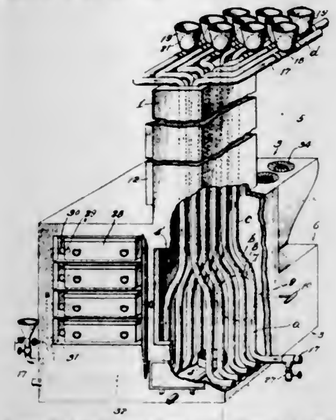
5. In an automatic anti-scalding and mixing valve, a valve casing, a mixing chamber, a partition between the inner wall of the valve casing and the inner wall of the mixing chamber, a cross-partition between the partition and the inner wall of the valve casing, and a revoluble disk between the partition and mixing chamber and provided with a throttler for throttling one of the liquids as it passes from the valve casing into the mixing chamber.

[Claims 6 and 7 not printed in the Gazette.]

941,597. HOT-WATER HOUSE-HEATER. MARGARET A. WILCOX, Los Angeles, Cal. Filed Oct. 14, 1907. Serial No. 397,438.

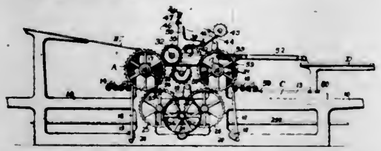
1. In a house-heating apparatus, the combination with a fire-box and flue, of a burner, a plurality of continuous individual water-circulating tubes, each being independent of the other and complete in itself and adapted for circulation of water, said tubes being bent inwardly at their lower ends to slant over the burner within the fire-box and extending upwardly through the fire-box and thence vertically above the burner, through the flue, and bent to extend laterally outside the flue and carrying upon their upper bent portions funnels attached thereto and provided with valve-openings, and spherical weights reposing in said funnels and movably engaging said valve-openings to close the same.

2. A house-heating apparatus comprising a flue, a fire-box at the bottom of the flue, a tube extending through the flue from bottom to top and extending thence in the form of a loop to form an individual circulating system, said tube reëntering the fire-box at the bottom and being positioned within the fire-box to receive heat, said tube being provided at its uppermost portion with a funnel, and a spherical weight seated in the funnel to allow escape of steam pressure from the tube.



3. A house-heating apparatus comprising a flue, a fire box at the bottom of the flue, a plurality of tubes extending through the flue from bottom to top and each being bent above the flue and extending thence in the form of a loop having a downward inclination at all points and each being continuous to form an individual circulating system, said tube reëntering the fire-box at the bottom and being bent within the fire-box so as to provide a chamber between the tubes in the fire-box, and a fluid fuel burner in the space between said bent tubes, the same being arranged to direct a flame against said tubes and up through the flue, each of said tubes being provided at its uppermost portion with a funnel and a ball seated in each funnel to allow escape of steam pressure from its individual tube, said funnel being arranged to allow the ball to roll to one side instead of being bodily lifted.

941,598. COMBINED PERFECTING OR TWO-COLOR PRINTING-MACHINE. HENRY A. W. WOOD, New York, N. Y., assignor to Campbell Printing Press & Mfg. Co., New York, N. Y., a Corporation of New York. Filed Nov. 15, 1901. Serial No. 82,434. Renewed Mar. 26, 1907. Serial No. 364,648.



1. The combination in a printing machine, of two impression cylinders, a reciprocating bed for presenting flat forms thereto, and means arranged in said machine so that the sheets may be presented by said cylinders to the printing means, to be either twice printed on the same side, or perfected.

2. The combination in a printing machine, of two impression cylinders, a reciprocating bed coöperating therewith, and means arranged in said machine so that the sheets may be presented by said cylinders to forms carried by said bed, to be either twice printed on the same side, or perfected.

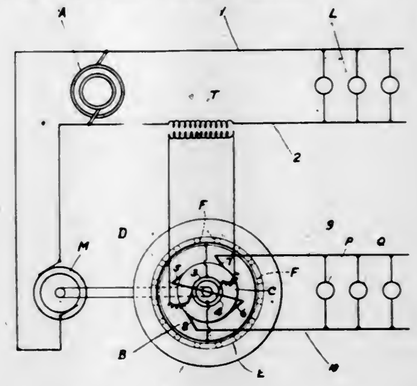
3. The combination in a printing machine, of two impression cylinders, a reciprocating bed for presenting flat forms thereto, and means arranged in said machine so that the sheets may be carried from one of said cylinders to the other, so that the sheets will be a second time printed on the same side, or perfected.

4. The combination in a printing machine, of two impression cylinders, a reciprocating bed coöperating therewith, gearing whereby one of said cylinders may be rotated in either direction, and carrier-mechanism arranged between said cylinders so that sheets may be twice printed on the same side, or perfected.

5. The combination in a printing machine, of two two-revolution impression cylinders, a reciprocating bed cooperating therewith, and intermediate transfer mechanism arranged between the two cylinders so that sheets may be twice printed on the same side, or perfected.

[Claims 6 to 21 not printed in the Gazette.]

941,599. MEANS FOR RECTIFYING SINGLE-PHASE CURRENTS. JOSEPH L. WOODBRIDGE, Philadelphia, Pa. Filed May 4, 1908. Serial No. 430,839.



1. In combination, an armature with appropriate windings and commutator, a squirrel cage structure of conducting material surrounding the armature, means for transmitting alternating current through the armature windings, two sets of electrically displaced brushes bearing upon the commutator, whereof each set is interconnected by an independent electrical circuit, and means for producing relative rotation of armature and brushes in synchronism with the alternating current.

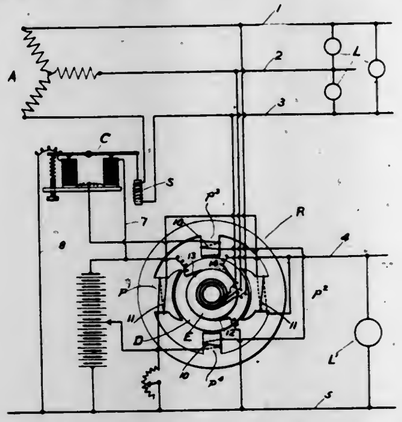
2. In combination, an alternating current circuit, an armature with its appropriate windings and commutating provisions, means for producing in the armature a single phase alternating field responsive to the current in the circuit, means for neutralizing one of the two revolving components of said field, means including a set of electrically interconnected brushes for producing a secondary field responsive to the unneutralized component of the first, means including a second set of electrically interconnected brushes for permitting a flow of direct current responsive to the secondary field, and means for producing relative rotation of armature and brushes in synchronism with the alternating current in the circuit.

3. In combination, an alternating current circuit, an armature with its appropriate windings and commutator, a stationary field structure and a stationary conducting circuit of low resistance surrounding the armature, means for supplying alternating current to the armature winding from the circuit, a synchronous motor mechanically connected to the armature and electrically connected to the circuit, two sets of electrically displaced brushes bearing on the commutator, a conducting circuit connecting the brushes of one set, and means for utilizing the current from the other set.

941,600. SYSTEM OF ELECTRICAL DISTRIBUTION. JOSEPH L. WOODBRIDGE, Philadelphia, Pa. Filed May 18, 1908. Serial No. 433,497.

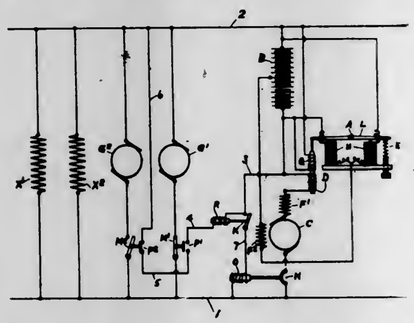
1. In combination an armature provided with alternating current terminals and a commutator, a field frame for

the armature provided with principal and auxiliary poles, means for applying a constant excitation to the principal poles, means for applying a variable excitation to the auxiliary poles, and brushes bearing on the commutator whereof some make contact at points whose potential difference is determined by the flux in the principal poles, while others make contact at points whose potential difference is determined by the total flux in both the principal and the auxiliary poles.



2. An alternating current circuit and its source, a direct current circuit, a storage battery, an armature operatively connected to the alternating current circuit, a field frame for the armature provided with principal and auxiliary poles, means for applying a constant excitation to the principal poles, means responsive to the electrical condition of the alternating current circuit for applying a variable excitation to the auxiliary poles, brushes bearing on the commutator, whereof some make contact at points whose potential difference is determined by the flux in the principal poles and are connected to the direct current circuit, while others make contact at points whose potential difference is determined by the total flux in both the principal and the auxiliary poles and are connected to the storage battery.

941,601. SYSTEM OF ELECTRICAL DISTRIBUTION. JOSEPH L. WOODBRIDGE, Philadelphia, Pa. Filed Apr. 14, 1909. Serial No. 489,876.



1. In combination, an electric circuit, a storage battery and its booster connected thereto, and means responsive to the charge and discharge of the battery and adapted to excite the booster to oppose said charge and discharge.

2. In combination an electric circuit, a storage battery and its booster connected thereto, means responsive to the charge and discharge of the battery and adapted to excite the booster to oppose said charge and discharge, and means for short-circuiting the booster.

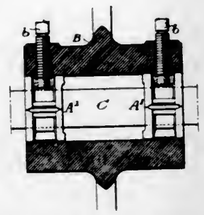
3. In combination, an electric circuit and its source, a storage battery and its booster connected across the circuit, means responsive to the charge and discharge of the battery and adapted to excite the booster to oppose said charge and discharge, and means adapted to short-circuit the booster when the current from the source is interrupted.

4. In combination an electric circuit and its source, a storage battery and its booster connected thereto, means responsive to the battery charge and discharge and adapted to excite the booster to oppose said charge and discharge, and means adapted to short-circuit the booster upon an interruption of the connection from the source to the circuit.

5. In combination an electric circuit, a plurality of generators, suitable switches for connecting the generators to the circuit, a storage battery and its booster connected across the circuit, means responsive to the battery charge and discharge and adapted to excite the booster to oppose said charge and discharge, a switch and appropriate connections for short-circuiting the booster, and means for closing said switch when all the generator switches are open.

[Claims 6 to 9 not printed in the Gazette.]

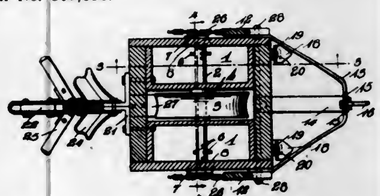
941,602. BUSHING FOR PULLEYS, GEARS, AND THE LIKE. HARRY G. WOLF, Chambersburg, Pa., assignor to The Wolf Company, Chambersburg, Pa., a Corporation of Pennsylvania. Filed Nov. 3, 1908. Serial No. 460,878.



1. A bushing consisting of two cylindrical sections with an easily breakable lug or lugs integrally connecting them.

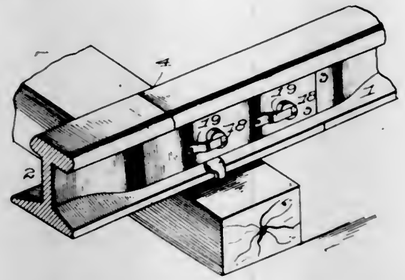
2. A bushing consisting of a plurality of cylindrical parts connected together by relatively thin and easily broken bridges, each of said parts consisting of semi-cylindrical sections also connected to each other by relatively thin and easily broken bridges.

941,603. FERTILIZER-DISTRIBUTER. GILBERT E. ALPHIN, Mount Olive, N. C. Filed July 22, 1909. Serial No. 509,036.



In a fertilizer distributer, a pair of hoppers having formed in their side walls rearwardly opening passages laterally movable, cover plates operable to open and close said passages, operating levers connected to said plates, said levers having curved rearwardly projecting upper ends, spring locking plates secured to the outer sides of the hoppers, said plates having formed therein a series of locking apertures, a stud arranged on each of said levers and adapted to be engaged with the apertures in said locking plates whereby said levers are held in their adjusted positions to hold the cover plates opened or closed, a supporting shaft revolubly mounted on said hoppers, a supporting wheel loosely mounted on said shaft, a set screw to secure said wheel to the shaft, a series of spirally disposed agitating fingers arranged on said shaft in said hoppers whereby the fertilizer is fed through the discharge passages therein, furrow openers secured to said hoppers and adapted to open furrows to receive the fertilizer discharged through the hoppers, chains secured to the hoppers and adapted to drag over the ground and cover the fertilizer discharged in said furrows, and a cultivating plow arranged at the rear end of the distributer.

941,604. RAILROAD-JOINT. GEORGE W. AMOS, St. Charles, Mo., assignor of one-half to William Blumhof, Wentzville, Mo. Filed May 24, 1909. Serial No. 497,867.



1. In a rail joint, the combination of two rail ends, one being provided with a longitudinal recess having beveled ends and vertically arranged side bars, the other being provided with an overhanging portion carrying a pendent lug provided with beveled ends and side recesses, whereby said lug may have an interlocking nested engagement with said recess.

2. In a rail joint, the combination of two meeting rails, the end of one rail being provided with a longitudinal recess, and the end of the other rail adapted to overhang said recess, a lug carried by the overhanging portion of the rail and adapted for interlocking nested engagement with said recess, fastening bolts passing through the lug and recess, locking nuts for said bolts, and plates carried by opposite sides of one of the rails for engagement with said nuts and bolts to prevent the same rotating in one direction.

3. In a rail joint, the combination with the ends of two rails adapted for interlocking nested engagement, of locking bolts for holding said ends in rigid relation, said bolts being provided with grooved heads, spring plates carried by one of the rails for engagement with the grooves of the bolts to prevent rotation of the same to an unlocked position, nuts for said bolts, and spring plates carried by one of said rails and provided with an abutment head for contact with said nuts to prevent turning of the same to an unlocked position.

941,605. PACKING MATERIAL. LEO H. BAEKELAND, Yonkers, N. Y. Filed Feb. 1, 1909. Serial No. 475,522.

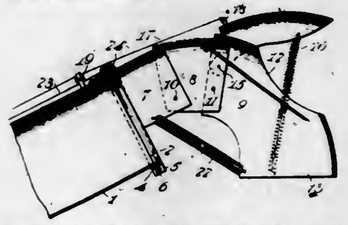
1. A packing material containing an insoluble and infusible condensation product of phenol and formaldehyde.

2. A packing material comprising a body coated or impregnated with phenol and formaldehyde or a reaction product thereof.

3. A packing material comprising a fibrous body coated or impregnated with an insoluble and infusible condensation product of phenol and formaldehyde.

4. A packing material comprising a body coated or impregnated with phenol and formaldehyde or a reaction product thereof, and a lubricant.

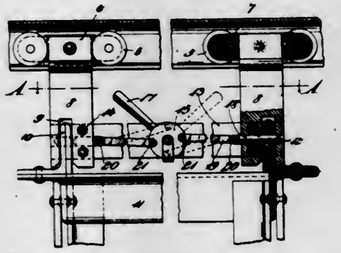
941,606. PNEUMATIC STRAW-STACKER. GEORGE H. BATHRICK, Battle Creek, Mich., assignor to Nichols and Shepard Company, Battle Creek, Mich. Filed Mar. 29, 1909. Serial No. 486,342.



1. In a pneumatic stacker, a downwardly curved hood at the discharge end of the stacker chute comprising overlapping pivotally connected sections one of said pivoted sections being formed with a blast outlet aperture, a manually-operated shutter controlling said aperture, and straw deflecting fingers extending across said aperture and carried by one of the pivoted sections of the hood.

2. In a pneumatic stacker, a downwardly curved hood at the discharge end of the stacker chute comprising overlapping pivotally connected sections one of said pivoted sections being formed with a blast outlet aperture, a shutter for said aperture carried by one of the pivoted sections, means carried by one of said pivoted sections for deflecting the straw while permitting the blast to pass through said aperture, and manually-operated means for folding the hood.

941,607. HOLDER FOR LIQUID-COATING MACHINES. REME A. BEAUSEJOUR, New York, N. Y., assignor to Standard Varnish Works, New York, N. Y., a Corporation of New York. Filed Mar. 30, 1909. Serial No. 486,789.



1. In a liquid coating machine, an article holder, supporting mechanism therefor, and a double lock for securing the article holder to the supporting mechanism, the said lock having its fastening elements in a line longitudinal with respect to the supporting mechanism.

2. In a liquid coating machine, an article holder, supporting mechanism therefor, and means for securing the article holder to the supporting mechanism having a multiple point support on the said supporting mechanism in a line longitudinal with respect thereto.

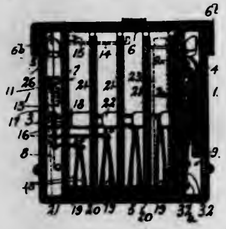
3. In a liquid coating machine, an article holder, supporting mechanism therefor, a double lock for securing the article holder to the supporting mechanism, and a single device for operating the double lock.

4. In a liquid coating machine, an article holder, supporting mechanism therefor, a plurality of arms depending from said supporting mechanism in a line longitudinal with respect thereto, and locks carried by said arms for securing the article holder to them.

5. In a liquid coating machine, an article holder, supporting mechanism therefor, a plurality of arms depending from said supporting mechanism in a line longitudinal with respect thereto, and a double lock carried by said arms for securing the article holder to them.

[Claims 6 to 16 not printed in the Gazette.]

941,608. INSTRUMENT AND MEDICINE CASE. CHARLES B. BENSON, Tippecanoe City, Ohio. Filed Feb. 26, 1909. Serial No. 480,103.



1. In a medicine case comprising a receptacle consisting of front, end and back walls, a bottom and longitudinal partitions connecting the end walls and spaced apart to form a plurality of longitudinal chambers, hinged sides for said receptacle to close the side chambers thereof, and means for holding said sides when open in a horizontal position in a plane above said bottom, and a lid for the whole.

2. In a medicine case comprising a receptacle consisting of front, end and back walls, a bottom and longitudinal partitions connecting the end walls and spaced apart to form a plurality of longitudinal chambers, hinged sides for said receptacle to close the side chambers thereof, means for holding said sides when open in a horizontal position and in a horizontal plane above the bottom of said receptacle, a lid for the whole, and suitable racks disposed in the side chambers.

3. In a medicine case comprising a receptacle consisting of front, end and back walls, a bottom and longitudinal partitions connecting the end walls and spaced apart to form a plurality of longitudinal chambers, hinged sides for said receptacle to close the side chambers thereof, means for holding said sides when open in a horizontal position, a lid for the whole, a series of vial holding racks in one of said compartments, and means in another of said compartments and connecting with said racks for projecting the same partly out of the receptacle.

4. In a medicine case comprising a receptacle consisting of front, end and back walls, a bottom and longitudinal partitions connecting the end walls, and spaced apart to form a plurality of longitudinal chambers, hinged sides for said receptacle to close the side chambers thereof, means for holding said sides open when in a horizontal position, a lid for the whole, said lid having depending flanges to engage said hinged sides when closed to hold them in their closed position.

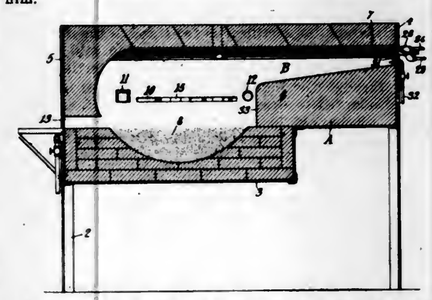
5. In a medicine case comprising a receptacle consisting of front, end and back walls, a bottom and longitudinal partitions connecting the end walls, and spaced apart to form a plurality of longitudinal chambers, hinged sides for said receptacle to close the side chambers thereof, means for holding said sides when open in a horizontal position, a lid for the whole, said lid having depending flanges to engage said hinged sides when closed to hold them in their closed position, and another means for holding one of said hinged sides closed independently of the lid.

[Claims 6 to 14 not printed in the Gazette.]

941,609. HEATING AND MELTING FURNACE. WILLIAM N. BEST, New York, N. Y., assignor to John H. Best and Ezra Best, Quincy, Ill. Filed July 29, 1905. Serial No. 271,855.

1. In a furnace of the class described, a laterally flaring combustion chamber, a fuel vaporizing jet, adapted to deliver a film of vapor filling the entire width of said chamber, and an air blast jet underneath said vapor jet, adapted to deliver a blast of air in substantially the same direction as said vapor jet.

2. A furnace of the class described, having a substantially horizontally disposed arch, a vertically curved rear wall, a depressed charging chamber having curved walls, a combustion chamber having its bottom and side walls flaring, a burner adapted to deliver the vaporized fuel in a sheet or film filling the width of the combustion chamber, and an air jet underneath said burner adapted to deliver an air blast, substantially parallel with said vapor film.



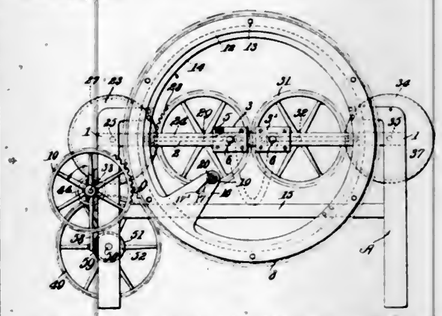
3. A furnace of the class described having a substantially elliptically shaped charging chamber with a vertically curved wall, a combustion chamber leading to said receptacle having laterally and downwardly flaring walls, means for delivering an air blast into said combustion chamber and means for delivering a film of vapor into said chamber between said air blast and the arch of the chamber, and filling the space between its side walls.

4. In combination, a fan-shaped combustion chamber, a burner adapted to deliver a flame of like form thereinto, and means for delivering a blast of combustion supporting air under said flame.

5. The combination, with a laterally flared combustion chamber, of a fuel vaporizing jet adapted to deliver a fan-shaped film of vapor into said chamber, and an air jet adapted to deliver a blast of combustion supporting air underneath said vapor film.

[Claims 6 to 9 not printed in the Gazette.]

941,610. CANDY-PULLING MACHINE. HENRY S. BREWINGTON, Baltimore, Md., assignor of one-half to Richard B. Tippett, Baltimore, Md. Filed May 7, 1908. Serial No. 431,302.



1. In a candy-pulling machine, candy-pulling means, comprising candy-pulling members constructed and arranged to approach and recede from each other, means for lapping the candy around said candy-pulling means, and mechanism for alternately operating the pulling and lapping means.

2. In a candy-pulling machine, candy-pulling means, comprising a pair of arms constructed and arranged to approach and recede from each other, means for lapping the candy around said candy-pulling means, and mechanism for alternately operating the pulling and lapping means.

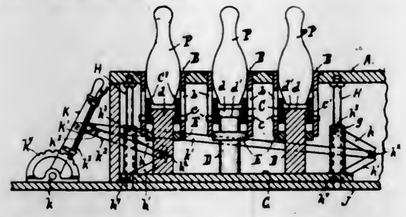
3. In a candy-pulling machine, candy-pulling means, means for lapping the candy around said candy-pulling means, and comprising a movable arm, and mechanism for alternately operating the pulling and lapping means.

4. In a candy-pulling machine, candy-pulling means, means for lapping the candy around said candy-pulling means, and comprising an arm describing an annular path of travel around said candy-pulling means, and mechanism for alternately operating the pulling and lapping means.

5. In a candy-pulling machine, candy-pulling means, comprising a pair of arms adapted to approach and recede from each other, means for lapping the candy around said candy-pulling means, and comprising a movable arm, and mechanism for alternately operating the pulling and lapping means.

[Claims 6 to 24 not printed in the Gazette.]

941,611. BOWLING-ALLEY PIN-SETTING MECHANISM. LEO A. BRIGEL, Cincinnati, Ohio. Filed Feb. 1, 1909. Serial No. 475,438.



1. In a mechanism of the character indicated, a series of sleeves stationarily supported with their upper ends flush with the alley floor and adapted to receive the lower ends of the pins, a series of vertically movable collars located within said sleeves and adapted in their lower position to support said pins by engagement with the sides of said pins above their bottoms, and vertically movable plungers located within said collars and adapted in their elevated position to support said collars in their elevated position with the upper faces of said collars and plungers flush with the alley floor, and to lift and support the pins upon said plungers.

2. In a mechanism of the character indicated, a series of sleeves stationarily supported with their upper ends flush with the alley floor and adapted to receive the lower ends of the pins, a series of collars located within said sleeves and having limited vertical movement relative to said sleeves, said collars being adapted in their lower position to support and center said pins by engagement with the side walls of said pins, a series of vertically movable plungers located within said collars, said plungers being out of engagement with said pins in their lower position, and adapted in their upward movement to engage and lift said pins and said collars so that the top of said collars and the bottom of said pins come to a position flush with the alley floor, and means for raising and lowering said plungers.

3. In a mechanism of the character indicated, a series of sleeves stationarily supported with their upper ends flush with the alley floor and adapted to receive the lower ends of the pins, a series of vertically movable collars located within said sleeves and adapted in their lower position to support said pins by engagement with the sides of said pins above their bottoms, interengaging members carried by said sleeves and collars to limit the movements of said collars, and vertically movable plungers located within said collars and adapted in their elevated position to support said collars in their elevated position with the upper faces of said collars and plungers flush with the alley floor, and to lift and support the pins upon said plungers.

4. In a mechanism of the character indicated, a series of sleeves stationarily supported with their upper ends flush with the alley floor and adapted to receive the lower ends of the pins, a series of collars located within said sleeves and having limited vertical movement relative to said sleeves, said collars being adapted in their lower position to support and center said pins by engagement with the side walls of said pins, a series of vertically movable plungers located within said collars, interengaging members carried by said collars and plungers to raise and lower said collars in unison with the movements of said plungers, said plungers being out of engagement with the pins in their lower position, and adapted in their upward movement to engage and lift said pins and said collars so that the top of said collars and the bottom of said pins come to a position flush with the alley floor, and means for raising and lowering said plungers.

5. In a mechanism of the character indicated, a series of sleeves stationarily supported with their upper ends flush with the alley floor and adapted to receive the lower ends of the pins, a series of movable collars located within said sleeves and adapted in their lower position to support said pins by engagement with the side walls of said pins, a series of vertically movable plungers located within said collars and adapted in their elevated position to support said collars in their elevated position with the upper faces of said collars and plungers flush with the alley floor, and to lift and support said pins centrally upon said plungers, and mechanism adapted to raise and lower said several plungers in unison.

[Claim 6 not printed in the Gazette.]

941,612. DENTAL-ENGINE-HANDPIECE SWIVEL. ARTHUR W. BROWNE, Prince Bay, N. Y., assignor to The S. S. White Dental Mfg. Co., Philadelphia, Pa., a Corporation of Pennsylvania. Filed Mar. 23, 1909. Serial No. 485,229.



1. In a dental engine handpiece the combination of the handpiece casing, the handpiece spindle, the flexible cable connected to said spindle for transmitting rotary motion thereto, the non-rotating flexible sheath surrounding said flexible cable, a two part swivel connection between said non-rotating flexible sheath and said handpiece casing to permit the latter to be rotated relatively to the former, and a device forming part of said swivel connection for restricting the rotation of said casing relatively to said sheath.

2. In a dental engine handpiece the combination of the handpiece casing, the handpiece spindle, the flexible cable connected to said spindle for transmitting rotary motion thereto, the non-rotating flexible sheath surrounding said flexible cable, a two part swivel connection between said non-rotating flexible sheath and said handpiece casing to permit the latter to be rotated relatively to the former, and a friction device for applying friction to said swivel connection for restricting the rotation of said casing relatively to said sheath.

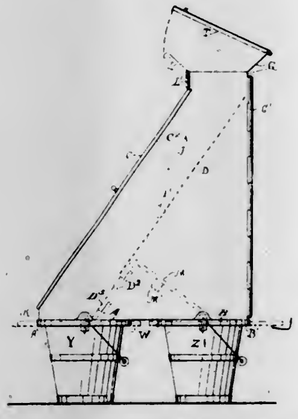
3. In a dental engine handpiece the combination of the handpiece casing, the handpiece spindle, the flexible cable connected to said spindle for transmitting rotary motion thereto, the non-rotating flexible sheath surrounding said flexible cable, a two-part swivel connection between said non-rotating flexible sheath and said handpiece casing to permit the latter to be rotated relatively to the former, and a combined friction and positive stop device for restricting rotation of said casing by applying friction to said swivel connection and also by providing a positive stop therefor.

4. In a dental engine handpiece the combination of the handpiece casing, the handpiece spindle, the flexible cable connected to said spindle for transmitting rotary motion thereto, the non-rotating flexible sheath surrounding said flexible cable, a two part swivel connection between said non-rotating flexible sheath and said handpiece casing to permit the latter to be rotated relatively to the former, and a spring device for restricting rotation of said casing by applying friction to said swivel connection and also by providing a positive stop therefor.

5. In a dental engine handpiece the combination of the handpiece casing, the handpiece spindle, the flexible cable

connected to said spindle for transmitting rotary motion thereto, the non-rotating flexible sheath surrounding said flexible cable, a two part swivel connection between said non-rotating flexible sheath and said handpiece casing to permit the latter to be rotated relatively to the former, a coiled spring surrounding said swivel connection, one end of said spring being secured to one section of said swivel connection and the opposite end of said spring being connected to the other section of said connection, and a sleeve secured to one section and enveloping both sections, the coiled spring being confined between the inner surface of said sleeve and the outer surface of said swivel connection.

941,613. ASH-SIFTER. JAMES S. BROWN, New York, N. Y. Filed Aug. 6, 1908. Serial No. 447,200.



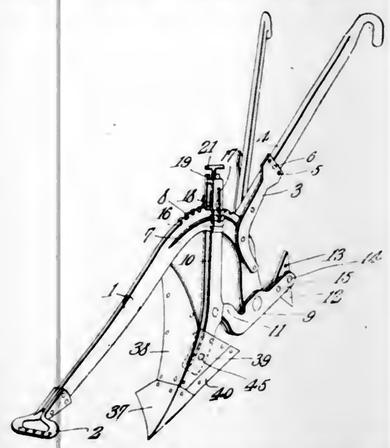
1. In a construction of the character described, the back, front, sides and door formed of flexible material joined by hinges allowing it to be folded in an approximately flat condition for stowage, having a screen hinged to one of the sides along an inclined line with the parts assisting to support each other when unfolded for use, and having a joint between the free edge of the door and the adjacent side partially folded so that the door is held in the locked condition by elasticity without requiring other fastening.

2. In a folding ash-sifter, the upright sides and back hinged together, a screen hinged to one of the sides along an inclined line and a door hinged to the front, in combination with an internal plate hinged to one of the sides, adapted when positioned for use to perform the triple functions of receiving and guiding the falling ashes, stiffening the structure against racking strains and supporting the screen.

3. In a folding ash-sifter, the several upright parts permanently hinged, one side and the back hinged on both edges, and the other side hinged on one edge, with the other edge prepared to engage and liberate at will, a screen hinged to one of the sides along an inclined line, an inclined door hinged to one side and formed to engage by the other edge with the other side so as to make a convenient fastening therewith, and swing as a door, in combination with each other and with two partially revoluble disks with their apertures all arranged to serve as herein specified.

4. In an ash-sifter having a back, front, two sides, and a door, the two disks in the base apertured as shown adapted to match tightly on ordinary buckets for use, and to be partially rotated on hinges on the one side for stowage, a screen hinged to one of the sides along an inclined line, in combination with two larger disks, eccentrically apertured, one surrounding each of the smaller disks, adapted to serve with larger vessels as herein specified.

941,614. PLOW. EDWARD M. BUCKHANNAN, Sulphur Springs, Tex. Filed Nov. 2, 1908. Serial No. 460,721.



1. A plow comprising a curved beam having arcuate ribs upon its sides, a runner pivotally connected with the rear end of the beam, a standard pivotally connected with the forward end of the runner and having at its upper portion, corrugations adapted to receive the ribs upon the beam to permit the standard to be adjusted transversely of the beam and a securing device for fixing the standard with relation to the beam.

2. A plow comprising a curved beam having arcuate ribs, a runner pivotally attached to the rear end of the beam, a standard pivoted to the forward end of the runner and having at its upper portion corrugations adapted to receive the ribs upon the beam, said standard also being provided near its upper end with an elongated slot, a bolt passing transversely through the slot and adapted to engage the beam and means carried by the standard for forcing said bolt into engagement with the beam.

3. A plow comprising a curved beam having arcuate ribs at its sides, a runner pivotally attached to the rear end of the beam, a standard pivotally connected with the forward end of the runner and having at its upper portion corrugations adapted to receive the ribs upon the beam said standard also having an elongated slot at its upper portion, a bolt passing transversely through said slot and adapted to engage the upper edge of the beam and a set screw mounted upon the standard and adapted to engage said bolt and force the same against the edge of the beam.

941,615. FOLDING UMBRELLA. JOSEPH CASALE, New York, N. Y., assignor to Casale Pocket Umbrella Company, New York, N. Y., a Corporation of New York. Filed Jan. 9, 1909. Serial No. 471,397.

1. In a folding umbrella, a stick, a runner on the stick, ribs pivoted to the stick, each rib being made up of sections foldable one upon the other, braces, each of which comprises parallel and slightly separated members, pivoted to the runner and between which members of the ribs are foldable.

2. In a folding umbrella, a stick, a runner on the stick, ribs pivoted to the stick, each rib being made up of inner and outer sections foldable one upon the other, braces each comprising parallel and separated members having their ends secured to the runner and to a rib, the inner section of a rib being straddled by the members of a brace when folded.

3. In a folding umbrella, the combination of the stick and runner thereon, of inner rib sections pivoted to the stick, clips on the outer end of the rib sections, said clips being pivoted to the outer rib sections in a way to permit the outer ends of the outer sections to overlap the inner

rib sections, and braces pivoted to the inner ends of the outer rib sections and to the runner, each of said braces comprising two separated members adapted to straddle a portion of rib when folded.

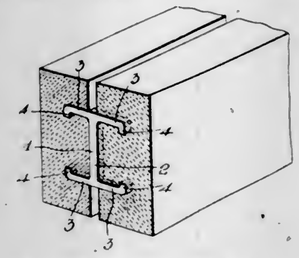


4. The combination with the stick and runner, of ribs each made of sections, the inner sections being pivoted to the stick, strengthening tongues in the inner ends of the outer rib sections, said tongues having lugs projecting through the backs of the said outer rib sections, a pivotal connection between the said lugs and the inner rib sections, and a runner pivoted to the inner ends of the outer rib sections and also to the runner.

5. The combination with the stick and runner, of the ribs pivoted to the stick, each rib being made up of overlapping sections, clips secured to the outer ends of the inner rib sections, said clips having guides which straddle the inner ends of the outer rib sections and have their lower side edges doubled over the edge of the inner sections of the ribs, and the outer ends of the clips being also pivoted to the outer rib sections, and braces pivoted to the inner ends of the outer rib sections and also to the runner.

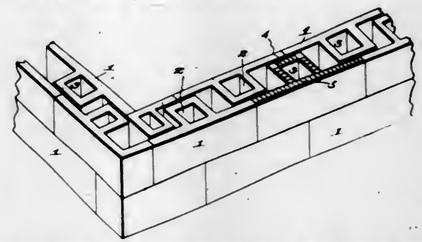
[Claims 6 to 8 not printed in the Gazette.]

941,616. METAL TIE FOR CONCRETE CONSTRUCTIONS. ELMER CHAPMAN, Ariel, Pa. Filed Feb. 9, 1909. Serial No. 476,988.



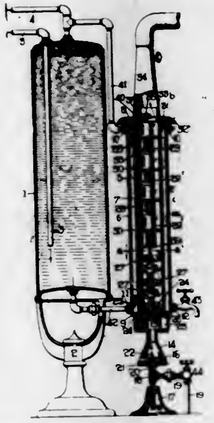
A flat metal tie of uniform thickness adapted to reinforce and hold two concrete members in spaced relation to provide an air space therebetween, said tie comprising a central body portion provided at opposite ends and edges with laterally spaced tie arms provided at their outer terminals with inwardly extending retaining lugs, the tie being designed to fit in position with the opposite side edges of its body portion fitting against the inner or meeting faces of the concrete members and its arms extending into the members.

941,617. BUILDING-BLOCK. ELMER CHAPMAN, Ariel, Pa. Filed Feb. 24, 1908, Serial No. 417,406. Renewed July 22, 1909. Serial No. 509,064.



A building block comprising a face slab provided with an integral laterally extending approximately U-shaped portion, a corrugated metallic damp-proof strip positioned upon the upper edge of the slab and having a downwardly extending retaining flange to engage the inner face of the slab, and an approximately U-shaped damp-proof strip of corrugated metal positioned on the upper edge of the U-shaped portion of the slab and having flanges at both edges to embrace opposite sides of said U-shaped portion, the ends of the U-shaped strip abutting against the flange of the first mentioned strip and said flanges serving to securely hold the strips upon the upper edge of the block and to keep moisture rising on the face of the block out of contact with the mortar between the upper faces of the strips and the lower face of the blocks resting upon the mortar.

941,618. WATER-HEATER. HENRY R. CHURCHILL, Buffalo, N. Y. Filed July 17, 1908. Serial No. 443,957.



1. In a water heater, two concentric tubes separated sufficiently to leave an annular water space and the inner tube being open throughout to constitute the fire tube, a burner beneath the tubes and skeleton deflecting elements within the inner tube, each having a central body and radial arms extending from said body and located at equal distances apart, one of said deflecting elements being horizontal with its arms extending horizontally, and another being vertical with its arms extending diagonally and serving as supports for the horizontally arranged deflecting element.

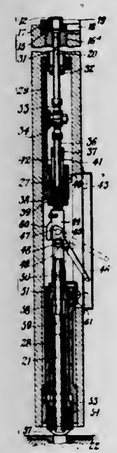
2. In a water heater, two concentric tubes separated sufficiently to leave an annular water space, a burner beneath the tubes, a series of skeleton deflecting elements within the inner tube having a central body and radial arms, some of said skeleton elements being arranged horizontally with their arms extending horizontally and others being arranged vertically with their arms extending diag-

onally and serving as supports for the horizontally arranged deflecting elements and tubular deflecting elements within the inner tube above the skeleton deflecting elements.

3. In a water heater, two concentric tubes separated sufficiently to leave an annular water space, a burner beneath the tubes and a series of skeleton deflecting elements within the inner tube having a central body and radial arms, some of said skeleton elements being arranged horizontally with their arms extending horizontally and others being arranged vertically with their arms extending diagonally and serving as supports for the horizontally arranged deflecting elements.

4. In a water heater, two concentric tubes separated sufficiently to leave an annular water space, a burner beneath the tubes, a series of skeleton deflecting elements within the inner tube having a central body and radial arms, some of said skeleton elements being arranged horizontally with their arms extending horizontally and others being arranged vertically with their arms extending diagonally and serving as supports for the horizontally arranged deflecting elements and a tubular deflecting element arranged vertically within the inner tube and smaller in circumference than said inner tube, said tubular deflecting element being located above the skeleton deflecting elements and having closed ends and an intermedate annular outer flange which extends in proximity to the inner surface of the wall of the inner tube and being provided with side openings in the walls above and below the flange.

941,619. REVOLVING DOOR. FREDERICK CLYMER, Belmar, and JULIUS DEGEN, Trenton, N. J., assignors to United Revolving Door Company, Trenton, N. J., a Corporation of New Jersey. Filed Sept. 20, 1907. Serial No. 393,780.



1. The combination of a revolving door, upper and lower sliding bolts at the axis thereof, operating mechanism common to said bolts to actuate the same, and means for lifting the door, actuated by the same mechanism, as set forth.

2. The combination of a revolving door, upper and lower sliding bolts at the axis of the door, means for lifting the door, and an operating lever operatively connected with said bolts and said lifting means to actuate the same, as set forth.

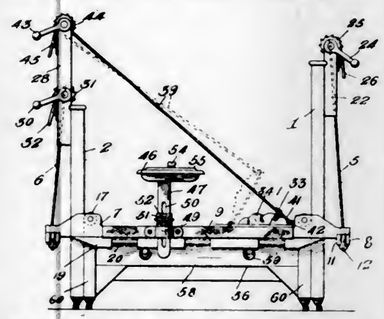
3. The combination of a housing, a revolving door therein adapted to be collapsed to the side of the housing, pivot-devices connecting the door to the roof of the housing and adapted to be disengaged to permit the collapse of the door, means for locking the said pivot devices against disengagement, a roller support for the door during its movement to the side of the door, and actuating mechanism common to said locking means and said support to unlock the pivot devices and throw the support into operation, as set forth.

4. The combination of a revolving door, upper pivot-devices therefor, adapted to be disengaged by an operation involving lateral movement of the door, a locking bolt normally locking said pivot-devices against disengagement, a support for the door during such lateral movement, and actuating mechanism common to said locking bolt and said support, to retract the former and to throw the latter into operation, as set forth.

5. The combination of a revolving door, upper pivot-devices therefor, adapted to be disengaged by an operation involving lateral movement of the door, a bolt normally locking said pivot devices against disengagement, a bolt constituting the lower pivot for the door and adapted to be retracted to permit the lateral movement of the door, a roller-support for the door during such lateral movement, and manually actuated means for retracting said bolts and for throwing said support into operation, as set forth.

[Claims 6 to 24 not printed in the Gazette.]

941,620. INVALID-BED. JAMES H. COMER, Comers Rock, Va. Filed Mar. 5, 1909. Serial No. 481,279.



1. The combination of a bedstead having head and foot pieces, brackets attached to the head and foot pieces at the upper corners of the same, winding drums journaled in said brackets and having crank handles and pawl and ratchet devices for preventing retrograde rotation, a vertically movable carrying frame having side bars to receive the head and foot pieces of the bedstead between them and connecting bars between the side bars and disposed outside of said head and foot pieces of the bedstead, transverse rollers journaled between the side bars of the carrying frame and adapted to engage the opposing inner faces of the head and foot pieces of the bedstead, a sheet stretched between the side bars of the carrying frame and supporting and adjusting cables attached at their lower ends to the connecting bars of the stretching frame and at their upper ends to said drums.

2. The combination of a bedstead having head and foot pieces and two side bars, one of the latter being lower than the other, guides upon said head and foot pieces, a mattress carrying frame slidably engaged with said guides and having at the side adjacent to the lower side bar of the bedstead a side piece provided with depending supporting legs, a frame carrying a stretched sheet, and vertically slidable on the head and foot pieces of the bedstead and means carried by the head and foot pieces of the bedstead for raising and lowering said sheet carrying frame.

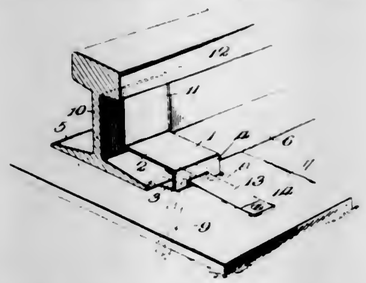
3. The combination of a bedstead having upright head and foot pieces, a vertically movable carrying frame comprising side bars and connecting end bars, said side and end bars being adapted to receive the head and foot pieces of the bedstead between them, the side bars being formed adjacent their ends with opposing sockets, and the end bars being formed at their ends with longitudinal slots, clamping bolts extending vertically through the side bars and the slots in said end bars, a sheet stretched across the intermediate portions of the side bars, stretching rods arranged between the side bars and adjacent the end bars, said stretching rods being formed with oppositely screw threaded ends and adapted to have said ends project into the opposing sockets in said side bars, nuts engaged with the threaded ends of said stretching rods and bearing against the inner faces of the side bars, whereby the latter will be moved apart to stretch the sheet connecting them when said stretching rods are rotated in one direction and means upon the upper portions of the head and foot pieces of the bedstead for raising and lowering said frame.

4. The combination with a bedstead having upright head and foot pieces, a sheet carrying frame vertically slidable on said head and foot pieces and including end bars and side bars, the latter being adjustable toward and from each other to stretch the sheet on said frame, a swinging back rest consisting of side bars hinged at their lower ends to the side bars of the frame, a connecting longitudinal bar pivoted at its ends to said side bars of the back rest, whereby the latter will adapt itself to the adjustment of the side bars of the frame, a cushion on the longitudinal bar and side bars of the back rest, means carried by the head and foot pieces of the bedstead for adjusting said frame and independent means for adjusting said back rest.

5. The combination with a bedstead having upright head and foot pieces, a sheet carrying frame vertically slidable on said head and foot pieces and including end bars and side bars, the latter being adjustable toward and from each other to stretch the sheet on said frame, a swinging back rest consisting of side bars hinged at their lower ends to the side bars of the frame, a connecting longitudinal bar pivoted at its ends to said side bars of the back rest, whereby the latter will adapt itself to the adjustment of the side bars of the frame, a cushion on the longitudinal bar and side bars of the back rest, means carried by the head and foot pieces of the bedstead for adjusting said frame, upright brackets on the foot piece, a winding drum journaled in said brackets and having a crank handle and a pawl and ratchet device for preventing retrograde rotation, eyes upon the side bars of the back rest, and a cable attached to said winding drums and having hooks at its ends to engage said eyes.

[Claims 6 to 8 not printed in the Gazette.]

941,621. SPIKE-HOLDER. HERBERT O. CRIPPEN, Louisville, Ky. Filed Feb. 23, 1909. Serial No. 479,463.



1. A spike holder embodying a spring member extending over the base flange of the rail and yieldable downwardly to bear forcibly against the head of the spike, and means for holding said member under stress.

2. As a new article of manufacture, a spike holder constructed of spring metal and consisting of a clip embodying spaced members, one of said members being slotted, and a tension plate disposed angularly at the extremity of the other member and extending away from the slotted member, for the purpose specified.

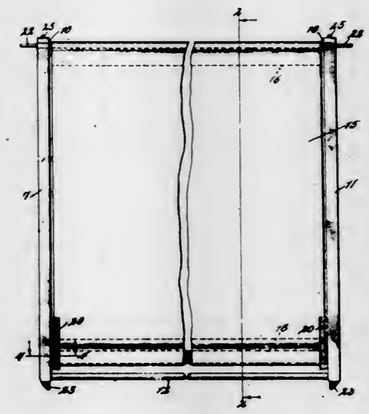
3. As a new article of manufacture, a spike holder comprising a clip consisting of spaced members and a plate connecting the same and formed with an outstanding attaching ear, one of the members being slotted, and a tension plate angularly disposed at the extremity of the other member and extending away from the slotted member, for the purpose specified.

4. A spike holder adapted to have one of its opposite ends take under the rail base and its other end engage the head of the rail, and arranged intermediate of its ends to extend over the head of the spike.

5. A spike holder comprising a clip adapted to embrace the base flange of the rail and extend over the head of the spike, and means carried by the clip for engaging the head of the rail.

[Claims 6 to 13 not printed in the Gazette.]

941,622. FRAME FOR DISPLAY SHEETS OR CURTAINS. LYMAN C. DAVIDSON, Chicago, Ill., assignor to Big 4 Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Oct. 19, 1908. Serial No. 458,565.



1. A device of the class described comprising a top member, two side members attached thereto, a display sheet, means for securing the display sheet to the top member and means for connecting the display sheet to the side members in such a way that it is movable longitudinally thereof.

2. A device of the class described comprising a top member, two side members attached thereto, a display sheet, means for securing the display sheet to the top member, a weight upon the display sheet, and means for connecting the display sheet to the side members in such a way that it is movable longitudinally thereof.

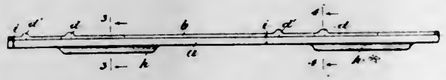
3. A device of the class described comprising a top member, two grooved side members attached thereto, a display sheet, means for securing the display sheet to the top member, means on the side edges of the curtain slidable longitudinally of the side members in the grooves therein.

4. A device of the class described comprising a top member, two side members having longitudinal slots therein attached to the top member, a curtain attached to the top member, a weight on the curtain below the top member of the frame, having ends slidable in the slots in the side members for the purposes set forth.

5. A display frame comprising side and top members provided with means for securing it in a display machine, a curtain secured at its upper end to the upper portion of the frame, a weight secured to the lower portion of the curtain and means slidably securing the weight to the side members of the frame.

[Claim 6 not printed in the Gazette.]

941,623. MANUFACTURE OF SLIDE-PLATES FOR RAILWAY-SWITCHES. ROBERT J. DAVIDSON, Hillburn, N. Y., assignor to Standard Equipment Company, Mahwah, N. J., a Corporation of New Jersey. Filed July 13, 1909. Serial No. 507,313.



1. The method of forming slide plates for railway switches which consists in forming a continuous plate with a riser and shoulders at intervals on the upper side, cutting the plate transversely to form separate slide plates, with a riser and shoulder on each plate, and cutting out the riser adjacent to the shoulder to form a rail seat.

2. The method of forming slide plates for railway switches which consists in forming a continuous plate with a riser and shoulders at intervals on the upper side and strengthening ribs at intervals on the under side, cutting the plate transversely to form separate slide plates with a riser, shoulder and strengthening rib on each plate, and cutting out the riser adjacent to the shoulder to form a rail seat.

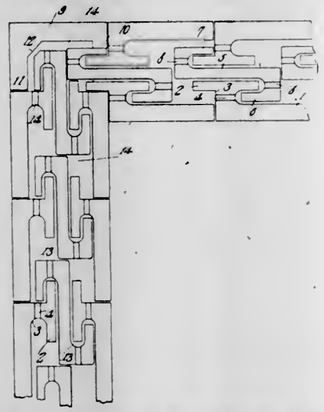
3. A continuous plate formed on one side with a riser and with shoulders at intervals higher than the riser and adapted to be cut transversely to form separate slide plates.

4. A continuous plate having on one side a continuous riser and shoulders at intervals higher than the riser and adapted to be cut transversely to form separate slide plates.

5. A continuous plate having on one side a riser and shoulders at intervals and on the other side a strengthening rib, and adapted to be cut to form separate slide plates with a riser, shoulder and strengthening rib on each.

[Claims 6 to 11 not printed in the Gazette.]

941,624. CEMENT BLOCK FOR WALL STRUCTURE. WILLIAM L. DAVIDSON, Kearney, Nebr. Filed Mar. 8, 1909. Serial No. 482,042.

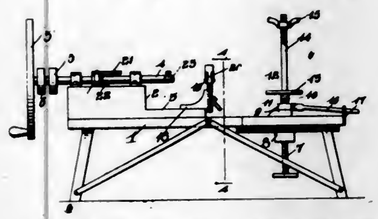


1. A block for wall construction comprising a rectangular body portion provided at one end with a T-shaped locking lug, one terminal of the head of said lug projecting beyond the end of the body portion.

2. A wall composed of middle, side and corner blocks, the middle and side blocks being provided with lugs that interlock and with horizontal ventilating channels in the necks of the said lugs, and the corner blocks being provided with a spacing lug disposed parallel with one member of the block and adapted to bear against the side of a middle block, all of the parts being out of contact to provide vertical ventilating channels.

3. A wall composed of corner, side and middle blocks, the side blocks being each provided at one end with a T-shaped lug, the middle blocks being each provided at the opposite ends on opposite sides with lugs interlocking with the T-shaped lugs on the inner and outer side blocks, and the corner blocks having longer and shorter members having their ends bearing against the ends of the adjacent side blocks and provided on the inner faces of their longer members with spacing lugs bearing against the side of the adjacent middle block.

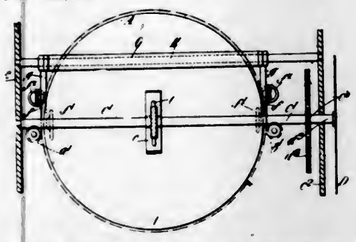
941,625. TENON-FORMING MACHINE FOR WHEEL-SPOKES. EDWARD DAVIS and ELMER E. DAVIS, Sugargrove, Pa. Filed Feb. 9, 1909. Serial No. 477,012.



1. In a tenon forming machine, a supporting frame, a slotted guide arranged at one end thereof, a wheel supporting block, a brace pivoted to said block and extending through the guide plate to hold the former against rotation, means to adjust said block vertically, a wheel supporting rod provided at its lower end with a horizontal hub supporting flange and at its upper end with an exterior thread pivoted to the upper end of said supporting block, a hub clamping nut screwing on the upper end of said rod, a tool carrying shaft and an adjustable spoke holding device interposed between the wheel holding rod and said shaft to receive the end of the spoke to be tenoned.

2. A device of the class described comprising a supporting frame, a support at one end thereof, a wheel supporting block, an adjusting rod screwing through said support against said block, a wheel supporting rod pivoted to said supporting block a horizontal flange at the lower end of said rod, a hub clamping member screwing on the upper end of said rod, means to hold the wheel supporting block against rotation, a tool carrying member, an operating shaft, a vertically adjustable spoke holding device between the wheel holding device and the tool carrying device, and an operating shaft to receive the end of the spoke to be operated on.

941,626. RANGE-KEEPER FOR GUNS. ARTHUR T. DAWSON, Westminster, London, and JAMES HORNE, Barrow-in-Furness, England, assignors to Vickers Sons & Maxim, Limited, London, England. Filed Nov. 20, 1908. Serial No. 463,734.



1. In a range keeper for guns, the combination of a traveling pointer, a pair of disks adapted to be positively rotated at a constant speed and in opposite directions, a friction roller situated between and driven by said disks and capable of adjustment across the faces of said disks,

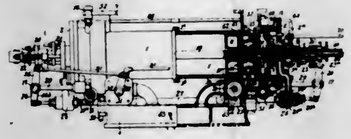
means whereby said friction roller actuates said pointer and means whereby said disks are kept in contact with the roller.

2. In a range keeper for guns, the combination of a traveling pointer, a pair of disks adapted to be positively rotated at a constant speed and in opposite directions, a friction roller situated between and driven by said disks and capable of adjustment across the faces of said disks, means whereby said friction roller actuates said pointer and means whereby said disks are kept in resilient contact with the roller.

3. In a range keeper for guns, the combination of a traveling pointer, a pair of disks adapted to be rotated at a constant speed, a friction roller situated between and driven by said disks and capable of adjustment across the faces of said disks, means whereby said friction roller actuates said pointer and a pair of spring controlled hinged members adapted to press said disks toward each other.

4. In a range keeper for guns, the combination of a traveling pointer, a pair of disks adapted to be rotated at a constant speed and to be moved toward each other, a friction roller situated between and driven by said disks and capable of adjustment across the faces of said disks, means whereby said friction roller actuates said pointer, a pair of spring controlled hinged members, arms on said hinged members and rollers mounted at the free ends of said arms and adapted to bear against the outer faces of the disks under the influence of the spring controlled hinged members.

941,627. AIR-COMPRESSOR OR PUMP. JOHN DELBRIDGE, Windsor, Victoria, Australia. Filed Dec. 29, 1906. Serial No. 349,966.



1. In an air compressor, a cylinder having a stepped chamber at each end thereof, a movable water end fitted in each stepped chamber and furnished with nozzles connected by passages to the interior of the water end, means for moving the water ends for controlling the entrance and exit of fluid to the compressor, and means for delivering water to the interior of the water ends whereby water in a fine spray is introduced into the cylinder through the nozzles to reduce the temperature of the air during compression, substantially as described.

2. In an air compressor, a cylinder having a chamber at each end thereof, a movable water end in each chamber furnished with nozzles connected to the interior of water end, means for moving the water ends to control the entrance and exit of fluid to the compressor, and means for introducing water to the interior of said ends whereby water is injected in a fine spray to reduce the temperature of the air during compression, and a combined air delivery cock and water discharge cock for admitting air to the compressor and discharging water therefrom substantially as described.

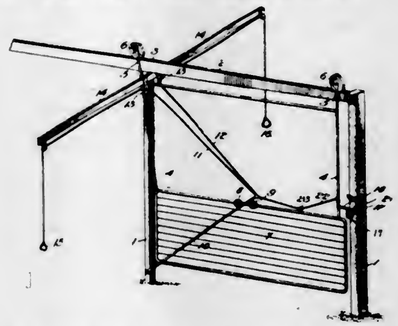
3. In an air compressor, a cylinder, a piston and rod therein, said cylinder having an enlarged stepped chamber at each end thereof, a movable water end cushioned on air under pressure in said chambers, said water end having nozzles on its inner face through which water is sprayed to the cylinder, and the stepped parts of said water end and its chamber forming a water balancing chamber having inlet and outlet passages, said cylinder having at each end at its bottom part an air and water port and at its upper part an air outlet port, substantially as described.

4. In an air compressor having movable water-ends the combination therewith of a cylindrical valve arranged one at each end of the cylinder and provided with ports connected with the compressor, an air supply connected with said ports and a water discharge cistern, also connected with said ports, and levers and rods controlled by the stroke of compressor for operating said valves, substantially as described.

5. In an air compressor, a piston and rod, a hollow movable water-end having a front nozzle plate and a stepped chamber, a water supply tube attached to said end and passing out of the compressor about the piston rod, said tube having ports in it, a water supply valve connected with said ports and means for so governing said valve as to admit a supply of water at every stroke of the piston, substantially as described.

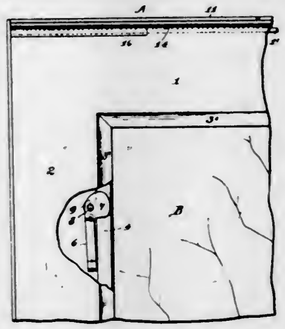
[Claims 6 to 10 not printed in the Gazette.]

941,628. SLIDING GATE. FRED H. DOERING, Salida, Colo. Filed June 11, 1909. Serial No. 501,573.



In a sliding gate, a supporting track, a gate slidably mounted on said track, guide rollers arranged on said gate, a pivoted operating lever arranged between said guide rollers, operating cords connected to the upper end of said lever, a cord supporting cross arm, guide pulleys arranged on said arm to hold said cords in operative position, whereby the gate may be opened or closed from either side.

941,629. METAL WINDOW-SASH. FRANK E. DUERING, Syracuse, N. Y., assignor of one-third to George F. Young, Syracuse, N. Y. Filed Aug. 12, 1908. Serial No. 448,102.



1. The combination with a window-sash composed of sheet metal and formed with a pair of outwardly extending flanges adapted to embrace the marginal portion of the pane, of cams attached to the flanges for clamping the pane therebetween.

2. The combination with a window-sash composed of sheet metal and formed with flanged portions adapted to embrace the margin of the pane, of cam-levers detachably connected to said flanged portions for clamping the pane therebetween.

3. The combination with a hollow sheet metal window-sash formed with a pair of parallel outwardly projecting

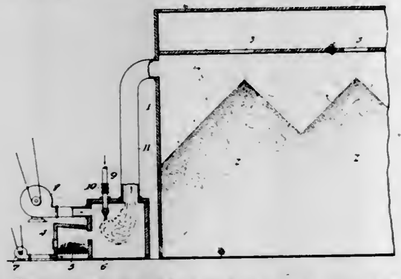
internal flanges embracing the margin of the pane and with hooks on the edges of said flanges arranged in pairs, of cam-levers fulcrumed on the pairs of hooks and engaging said flanges for clamping the pane as set forth.

4. The combination with a window-sash composed of two metal frames placed face to face and provided with flanged portions for embracing the margin of the pane, of clamping means pivotally connected to the said flanged portions as and for the purpose set forth.

5. A window-sash comprising two separable rectangular metal frames placed face to face with an intervening space to produce hollow rails and stiles and formed with outwardly extending flanges at their inner edge portions, said flanges being disposed parallel to embrace the margin of the pane, and levers combined with said flanges and provided with cam surfaces operative for clamping the flanges to the pane as set forth.

[Claim 6 not printed in the Gazette.]

941,630. PROCESS AND APPARATUS FOR ARTIFICIALLY AGING OR SEASONING PORTLAND CEMENT. THOMAS A. EDISON, Llewellyn Park, Orange, N. J., assignor to Edison Portland Cement Company, Stewartsville, N. J., a Corporation of New Jersey. Filed Apr. 2, 1907. Serial No. 365,908.



1. The process of artificially aging or seasoning Portland cement which consists in mixing atmospheric air, water vapor and products of combustion, and subjecting a body of the cement to the action of the hot mixture, substantially as set forth.

2. The process of artificially aging or seasoning Portland cement which consists in subjecting a body of cement to the action of heated air substantially saturated with water vapor the temperature of which is in excess of 100° F., substantially as set forth.

3. The process of artificially aging or seasoning Portland cement which consists in subjecting a body of cement to the action of heated gases comprising a mixture of atmospheric air, water vapor and products of combustion, the temperature of which is in excess of 100° F.

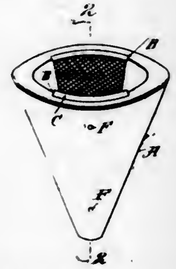
4. Apparatus for aging or seasoning cement, comprising in combination a suitable stock house or receptacle in which cement is stored, a mixing chamber, connections between the mixing chamber and the stock house and means for directing into the mixing chamber separate currents of atmospheric air and hot products of combustion, substantially as set forth.

5. Apparatus for aging or seasoning cement, comprising in combination a suitable stock house or receptacle in which the cement is stored, a mixing chamber, connections between the mixing chamber and the stock house, means for directing into the mixing chamber separate currents of atmospheric air and hot products of combustion, and means for regulating said currents, substantially as set forth.

[Claims 6 and 7 not printed in the Gazette.]

941,631. PENCIL-SHARPENER. RICHARD F. GEORGE, Brooklyn, N. Y. Filed June 19, 1908. Serial No. 439,327.

1. In a pencil sharpener a conical holder having cutting tools, said tools having a coarse grained cutting surface at one end, said coarse grained cutting surface merging gradually into a fine grained cutting surface at the other end.



2. In a pencil sharpener, a conical holder open at both ends, in combination with cutting tools arranged on the interior thereof, said tools having concaved cutting surfaces.

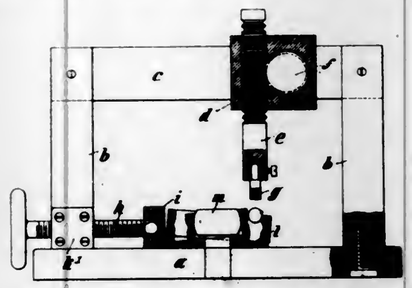
3. In a pencil sharpener, a conical holder open at both ends, in combination with cutting tools arranged on the interior thereof, said tools being longitudinally wedge-shaped and transversely concaved on their cutting surfaces.

4. In a pencil sharpener, a conical holder, in combination with cutting tools arranged on the interior thereof, said tools being longitudinally wedge-shaped and having coarse grained cutting surfaces at their larger ends and merging gradually into fine grained cutting surfaces at their smaller ends.

5. In a pencil sharpener, a conical holder, in combination with cutting tools arranged on the interior thereof and having concaved cutting surfaces, said cutting surfaces projecting or extending inwardly from the inner surface of the holder and including a coarse grained portion merging gradually into a fine grained portion toward the smaller end of the conical holder.

[Claim 6 not printed in the Gazette.]

941,632. MEANS FOR INTRODUCING BALLS INTO BALL-BEARINGS. ERNST GESCHKE, Tegel, near Berlin, Germany. Filed July 29, 1908. Serial No. 446,004.

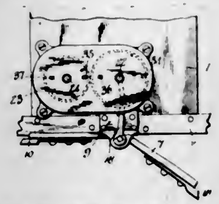


1. A device for inserting balls in ball bearings comprising means for holding the rings of the bearing in relatively tilted position, a frame for holding such means, and a screw device connected with said frame for placing a lateral pressure on the outer ring.

2. A device for inserting balls in ball bearings comprising means for holding the rings of the bearing in relatively tilted positions, and a plunger adapted to press a ball between such rings.

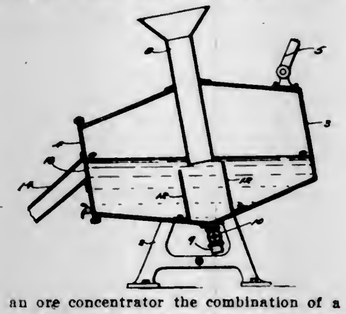
3. A device for inserting balls in ball bearings comprising means for holding the rings of the bearing in relatively tilted positions, a plunger adapted to press a ball between such rings, and means for adjusting the plunger radially of the bearing.

941,633. AUTOMATIC GRAIN-WEIGHER. LOYD S. GODFREY, Binger, Okla. Filed Nov. 10, 1908. Serial No. 461,990.



In a device of the character described, the combination with a receiving chamber, having a partition dividing the same into compartments, and a base therefor, having swinging movement upon a central shaft below said partition, of a tally to register movement of said base, and operating levers, connecting said tally and said base, extending from the shafts thereof, and pivotally united at their contiguous ends, one of said levers being provided with means engaging the periphery of the tally, substantially as described.

941,634. ORE SEPARATING OR CONCENTRATING APPARATUS. GEORGE F. GODLEY, Philadelphia, Pa. Filed Aug. 25, 1909. Serial No. 514,639.



1. In an ore concentrator the combination of a receptacle mounted to rock upon a transverse axis, a centrally and vertically arranged feed hopper carried by the receptacle top and extended within the receptacle, valved concentrates discharge means carried by the receptacle bottom in alinement with said hopper, apertured baffle plates arranged in parallelism with the receptacle axis upon opposite sides of said discharge means, a waste discharge element at one end of the receptacle and means for rocking said receptacle.

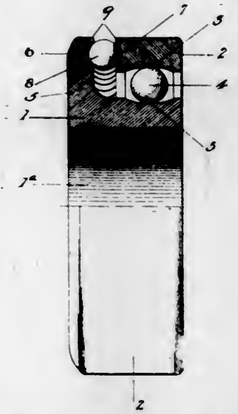
2. In an ore concentrator the combination of a longitudinally arranged generally barrel-shaped drum mounted to rock upon a transverse axis, means for rocking said drum from end to end, a centrally and vertically arranged feed hopper carried by the top of said drum and extended therein, valved concentrates discharge means in alinement with said hopper carried by the bottom of said drum, laterally arranged apertured baffle plates projecting upwardly from the bottom of said drum and arranged in parallelism with the drum axis upon opposite sides of said discharge means and a discharge spout carried by one end of said drum for removing the waste products, substantially as described.

941,635. PROCESS FOR GLAZING TILE, BRICK, OR THE LIKE. FREDERICK E. GOLDSMITH, Hamilton, Ohio, assignor to The Ceramic Machinery Company, Hamilton, Ohio. Filed May 10, 1907. Serial No. 372,903.

1. The process of glazing ceramic objects, consisting in applying fusible coating material to a surface of the object, the coating decreasing in thickness toward the edges of the object, and thereafter fusing the coating material.

2. The process of glazing ceramic objects consisting in applying to one surface of the object a fusible coating material, the material being beveled inwardly from the edges of the object, and thereafter fusing the coating material so that the object is glazed on the coated side, the glaze uniformly covering the surface of the object without overrunning the edges.

941,636. ROLLER-BEARING. HENRY HESS, Philadelphia, Pa. Filed Feb. 21, 1907. Serial No. 358,639.



1. The combination of an inner and an outer bearing ring having two opposite ball races of curved cross-section arranged to bear a radial load, and two other opposite races arranged to bear a thrust load, and balls in each set of races; and each bearing ring having a radial filling opening entering its thrust race at a depth less than that of the race.

2. A self-contained, combined radial and thrust ball-bearing, consisting of a bearing ring, a flanged bearing ring, said rings having two opposite races of curved cross-section for carrying a radial load and two other opposite races of curved cross-section of which one is formed in the flange of the flanged ring, for carrying a thrust load; the thrust races having relatively shallow filling openings communicating with them for the insertion of balls, and balls in each of the pairs of races.

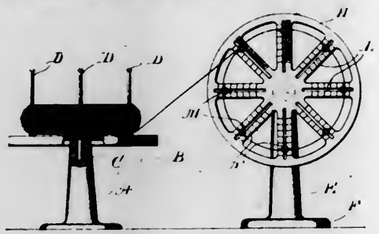
3. The combination of two bearing rings having races of curved cross-section and balls therein constituting a radial bearing, said rings also having other races of curved cross-section and balls therein constituting a thrust bearing, one of the rings being provided with a filling opening communicating with its race belonging to the thrust bearing for inserting the balls.

4. A self-contained combined radial and thrust bearing comprising two rings, one of which is provided with a flange, the rings having two opposite races of curved cross-section, balls in said races, the races and balls constituting a radial bearing, yieldable separators interposed between said balls, the rings having two other opposite races of curved cross-section, and balls in the races last mentioned, said last races and balls constituting a thrust bearing, the rings having filling openings entering the thrust races, and shallower than the treads of the races, by means of which the thrust balls may be inserted and retained in the races.

5. A self-contained combined radial and thrust bearing comprising two rings, one of which is provided with a flange, the rings having two opposite races of curved cross-section, balls in said races, the races and balls constituting a radial bearing, yieldable separators interposed between said balls, the rings on each side of the radial races being formed with unbroken lips which provide a space between them less than the diameter of the balls, the rings having two other opposite races of curved cross-section,

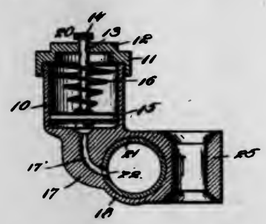
and balls in the races last-mentioned, said last races and balls constituting a thrust bearing, the rings having filling openings, entering the thrust races but shallower than the treads of the races, by means of which the thrust balls may be inserted and retained in the races.

941,637. HAT-FRAME-WIRE-MEASURING APPARATUS. WINTHROP M. JAMESON, Cambridge, Mass. Filed Feb. 6, 1908. Serial No. 414,494.



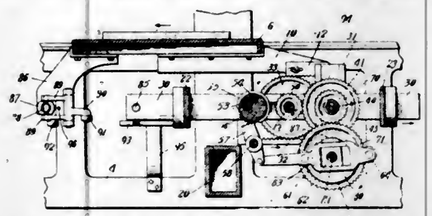
In an apparatus of the class described, a support, a rotary reel mounted thereon to rotate in a horizontal plane, adjustable means on said reel whereby the coil of wire may be firmly held while being unwound, a second support adjacent said first mentioned support, a rotary measuring disk mounted in said support to rotate in a plane transverse to that of the reel to receive the wire therefrom in straight and unkinked condition, said disk being provided with radial slots, posts extending perpendicular to said disk from said slots, means whereby said posts may be adjusted and locked in position in said slots, said disk also being provided with graduations for defining the position of said posts so that each turn of wire about said posts shall be of substantially equal and predetermined length.

941,638. PITMAN-BOX. CHARLEY M. JENNINGS, Salina, Kans., assignor of one-fourth to Salina Foundry and Manufacturing Company, Salina, Kans. Filed Dec. 31, 1908. Serial No. 470,202.



The herein described pitman box having in combination, an exteriorly threaded cylindrical oil cup, a centrally positioned curved laterally extending rib continued from the bottom thereof, a tubular bearing box formed at the end of said rim the axis of which is held at right angles to said cup the bore of said box being located below and adjacent to the bottom of said cup said box having an extending lip, a channel being formed within said rib extending from the bottom of said cup and entering through said box, a bushing within said box having a circumscribing stop flange with a seat engaged by said lip, said bushing having a longitudinally positioned slot registering with said channel, a cylindrical securing hub cast integral with said box of a length equal to the outside diameter of said box the bore of said hub extending at right angles to said box and parallel to the axis of said cup, a perforated cap carried by said cup, a piston within said cup, a stem carried by said piston projecting through the perforation in said cap, and a spring upon said stem working against said cap, as and for the purpose set forth.

941,639. MECHANICAL MOVEMENT. ROBERT T. JOHNSTON, Plainfield, N. J., assignor to The Campbell Printing Press & Manufacturing Company, New York, N. Y., a Corporation of New York. Filed Jan. 27, 1904, Serial No. 190,812. Renewed Apr. 5, 1909. Serial No. 488,068.



1. The combination of a reciprocating bed or member, a main driving mechanism therefor, a revolving wrist-pin, means for making a direct connection therefrom for reversing the bed at one end of its movement, and means for making a change motion geared connection therefrom for reversing the bed at the other end of its movement.

2. The combination of a reciprocating bed or member, racks carried thereby, a two-revolution pinion alternately engaging said racks to form a main driving mechanism for the bed, a revolving wrist-pin making two revolutions for each cycle, means for making a direct connection from said wrist-pin for reversing the bed at one end of its movement, and means for making a change motion geared connection from said wrist-pin for reversing the bed at the other end of its movement.

3. The combination of a reciprocating bed or member, a main driving mechanism therefor, a reversing mechanism periodically connected to the bed to directly reverse the motion thereof at one end of its stroke, and an oscillating gear forming a change-motion connection for reversing the motion of the bed at the other end of the stroke.

4. The combination of a reciprocating bed or member, a main driving mechanism therefor, and two separate reversing mechanisms, one comprising an independently moving member periodically connected to the bed to reverse the movement thereof at one end of its stroke, and the other comprising a crank-actuated oscillating gear for reversing the bed at the other end of its stroke.

5. The combination of the reciprocating bed or member, a main driving mechanism therefor, a positively actuated reversing member periodically connected with the bed to reverse its motion at one end of its stroke, and an oscillating gear through which the reversing member is periodically connected to the bed to reverse its movement at the other end of its stroke.

[Claims 6 to 9 not printed in the Gazette.]

941,640. GUN-SUPPORT. CHARLES O. LAWSON, Middleton, Idaho. Filed Mar. 30, 1909. Serial No. 486,837.



1. In a device of the class described, a supporting plate formed to fit the body at a point just below the shoulder, and provided at opposite ends with hook portions, upper and lower body straps to hold said plate in position, the former having links to engage the hook portions of the latter, and a longitudinally adjustable arm rest or support pivoted to the supporting plate in position to swing toward and from the same.

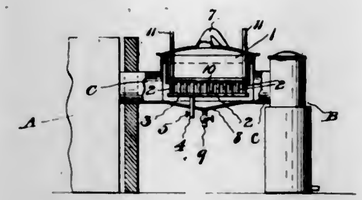
2. In a device of the class described, a supporting plate formed to fit the body at a point just below the shoulder and provided at opposite ends with hook portions, upper and lower body straps to hold said plate in position, the former having links to engage the hook portions of the latter and a longitudinally adjustable arm rest or support pivoted to the supporting plate in position to swing toward and from the same with means for holding the arm rest at different elevations.

3. A device of the class described comprising a supporting plate formed to fit the body at a point just below the shoulder and provided at opposite ends with outwardly bent hook portions, upper and lower body straps to secure the supporting plate to the body, each of said straps comprising front and back sections provided with links to engage the hook portions of the supporting plate, buckles for adjusting the strap sections, a connecting hook secured to the free end of the front section of the upper strap, a shoulder strap secured at one end to the back section of the upper strap and provided at its free end with a link to receive said connecting hook and an adjustable arm rest or support pivoted to the supporting plate.

4. In a device of the class described, a supporting plate formed to fit the body at a point just below the shoulder, an arm rest comprising an inner section pivoted to the supporting plate in position to swing toward and from the same, an intermediate tubular section screwed on the outer end of said inner section, a supporting rod mounted for longitudinal adjustment in said tubular section, an arm rest or support connected to the outer end of said rod and means formed in the supporting plate and on said inner pivoted section for holding the arm rest at different elevations.

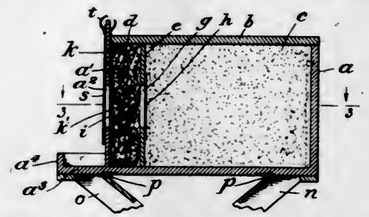
5. In a device of the class described, a supporting plate formed with an arcuate series of spaced apertures, means for attaching said plate to the body at a point just below the shoulder, an arm rest or support comprising an inner section having a downwardly bent intermediate portion pivoted to the supporting plate and adapted to swing toward and from the latter, an extensible supporting rod connected with said inner section, an arm rest connected to the outer end of said rod and a lateral pin formed at the downwardly bent portion of the inner section and adapted to enter any one of the series of apertures formed in said supporting plate whereby the arm rest or support may be held at different elevations.

941,641. APPARATUS FOR DISTILLING WOOD-ALCOHOL AND OTHER PRODUCTS. BENTON R. LYSTER and MORTON J. LYSTER, Whitefield, N. H. Filed Mar. 25, 1909. Serial No. 485,657.



In combination with the oven, condenser, and neck of a wood-distilling apparatus, a still mounted in the neck of the apparatus and having a plurality of tubes secured in its bottom and extending downwardly therefrom to hold the contents of the still, the ends of said tubes being connected by pipes, a draw-off tube connected with said pipes, the neck provided with a depression under said still to catch the heavy oils precipitated by the cooling of the vapors in contacting with the still, and a nozzle tapped into said depression to draw off its contents, substantially as shown and described.

941,642. SAND-BOX FOR RIFLE PRACTICE. HIRAM P. MAXIM, Hartford, Conn., assignor to Maxim Silent Firearms Company, New York, N. Y., a Corporation of New Jersey. Filed Jan. 7, 1909. Serial No. 471,085.



1. A sand box for rifle target practice, comprising a box or casing, a partition therein forming a compartment for sand and another compartment in front thereof and a mass of fibrous material disposed in the forward compartment.

2. A sand box for rifle target practice, comprising a box or casing and a partition dividing the same into compartments for the reception of sand and fibrous material respectively.

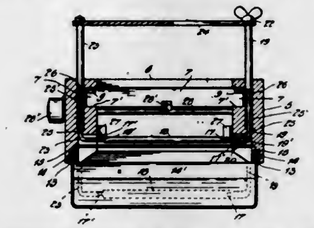
3. A sand box for rifle target practice, comprising a box or casing forming a receptacle for sand and having an opening in its front wall, a cover for said opening and a mass of fibrous material interposed between the sand and the front wall.

4. A sand box for rifle target practice, comprising a box or casing and a removable partition dividing the box or casing into compartments for sand and fibrous material respectively, said partition having an opening and a cover therefor.

5. A sand box for rifle target practice, comprising a box or casing forming a receptacle for sand and a mass of fibrous material interposed between the sand and the front of the box or casing, the box or casing having a lip projecting from its lower front end for the reception of such sand as may work through the fibrous material.

[Claim 6 not printed in the Gazette.]

941,643. NEGATIVE-DEVELOPER. JOHN S. MILLER, Bergville, Minn. Filed Oct. 12, 1907. Serial No. 397,053.



1. A developer comprising the combination with a plate-holder and a tray for containing a developing solution, of a frame arranged to be placed upon the tray so as to prevent the passage of light therebetween, said frame being provided in proximity to its top with a receptacle for the holder, a rack arranged for vertical movement and also adapted to be distended laterally, means to accomplish such vertical movement of the rack, and means to effect the distention thereof.

2. A developer comprising the combination with a plate-holder and a tray for containing a developing solution, of a frame arranged to be placed upon the tray so as to prevent the passage of light therebetween, said frame being provided in proximity to its top with a receptacle for the holder, a shutter removably connected with the frame in proximity to the lower edge of the same, a rack arranged for vertical movements and also adapted to be distended laterally, means to accomplish such vertical movements of the rack, and means to effect the distention thereof.

3. The combination with a frame provided in proximity to its top with a receptacle for a plate-holder, a rack arranged for reciprocation so as to be moved into the frame or exteriorly and below the bottom edge thereof, means connected with the rack whereby such movements may be accomplished, means whereby one side of the rack may be moved in a lateral direction toward or away from the other side, and means whereby a plate within the holder therefor may be disengaged from the holder so as to be deposited upon the rack.

4. The combination with a frame provided in proximity to its top with a receptacle for a plate-holder and a groove at the bottom to receive the edge of a tray, a removable shutter in proximity to the lower edge of the frame, a rack arranged for reciprocation so as to be moved into the frame or exteriorly and below the bottom edge thereof, means connected with the rack whereby such movements may be accomplished, and means whereby a plate within the holder therefor may be disengaged from the holder and deposited upon the rack.

5. The combination with a frame provided in proximity to its top with a receptacle for a plate-holder, and a groove at the bottom of said frame to receive the edge of a tray, a rack arranged for reciprocation so as to be moved into the frame or exteriorly and below the bottom edge thereof, means connected with the rack whereby such movements may be accomplished, means whereby one side of the rack may be moved in a lateral direction toward or away from the other side, and means whereby the plate within the holder therefor may be disengaged from the holder so as to be deposited upon the rack.

[Claim 6 not printed in the Gazette.]

941,644. PLANT-PULLING IMPLEMENT. WILLIAM H. MILLER, Bridgewater, Va. Filed Mar. 16, 1909. Serial No. 483,806.



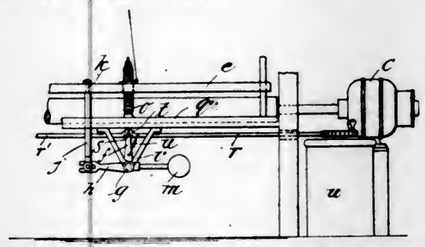
1. In a plant pulling implement, a handle bar having a jaw, a jaw movable with relation thereto, the movable jaw having an extension beyond the pivot, a link pivotally connected to the extension, an operating rod pivotally connected to the link, and an arm pivoted on the handle bar and having its outer end pivotally connected to the link.

2. In a plant pulling implement, a handle bar having a jaw, a jaw movable with relation thereto, the movable jaw having an extension beyond the pivot, a link pivotally connected to the extension, an operating rod pivotally connected to the link, an arm pivoted on the handle bar and having its outer end pivotally connected to the link, a handle on the handle bar, means for permitting the adjustment of the operating rod on the link, and means for permitting movement of the handle on the handle bar whereby the parts may be adjusted and the said rod and handle are maintained in the same relative position to each other.

3. In a plant pulling implement, a handle bar having a jaw, a jaw movable with relation thereto, the movable jaw having an extension beyond the pivot, a link pivotally connected to the extension, an operating rod pivotally connected to the link, an arm pivoted on the handle bar and having its outer end pivotally connected to the link, a handle on the handle bar, means for permitting the adjustment of the operating rod on the link, means for permitting movement of the handle on the handle bar whereby the parts may be adjusted and the said rod and handle are maintained in the same relative position to each other, and a thrust rod slidable with relation to the handle bar.

4. In a plant pulling implement, a handle bar having a jaw, a jaw pivoted with relation thereto, said jaw having an extension, a link pivoted to the extension, an operating rod pivoted to the link, an arm swingingly mounted with relation to the handle bar, and means for connecting the outer end of said arm to the link, the said arm acting to control the link.

941,645. SPEED-CHANGING DEVICE FOR SPINNING-MACHINES. FREDERICK H. MCDEVITT, Easthampton, Mass., and ALBERT WALTON, Charlotte, N. C., assignors of one-third to George A. Ayer, Easthampton, Mass. Filed Aug. 5, 1908, Serial No. 447,035. Renewed Sept. 30, 1909. Serial No. 520,378.



1. As an improvement in means for varying the rate of rotation of the drum-shaft of a spinning machine in proportion as the diameter of the bobbin increases or builds up in diameter during the winding process, said means including a suitable electric motor directly connected to the drum-shaft, a controller-box for varying the flow of current to said motor, and connecting means between the ring-rail of the spinning machine for operating the controller.

2. In combination with the drum-shaft of a spinning machine, an electric motor connected to said shaft, an electric current controller for said motor, and ratchet means on the controller for operating said controller from the ring-rail of the spinning machine, whereby the speed of the motor may be varied as the diameter of the bobbin increases or builds up.

3. In combination with the drum-shaft and ring-rail of a spinning machine, an electric motor for driving said shaft, a controller for varying the flow of current in said motor, a rod operable from the ring-rail of the machine and provided with means for operating said controller, said means including a pawl and ratchet mechanism, whereby as the spindle or bobbin increases in diameter the speed of rotation of said spindle will increase in direct proportion thereto.

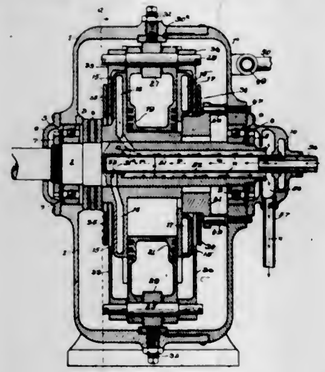
4. A spinning machine provided with an electric motor for driving the drum-shaft of said machine, a controller for the motor for cutting out resistance in the motor circuit, and means for operating the controller from a moving part of the machine as the diameter of the cop builds up, whereby the speed of the motor may be varied, as described.

5. In combination with the drum-shaft of a spinning machine, an electric motor connected thereto, a controller box for varying the resistance in the motor circuit, said box being provided with a ratchet-wheel, a rod having a pawl for operating the ratchet, said rod and pawl being yieldingly connected to the ring-rail of the machine, whereby the speed of the motor may be varied as the cop or bobbin increases in diameter, and whereby the rod may be detached from the ring-rail when an undue strain is placed thereon, as described.

941,646. AIR-COMPRESSOR. VIGGO OLSEN and FRITZ SCHRODER, Bridgeport, Conn. Filed Jan. 25, 1907. Serial No. 353,979.

1. In an air compressor, a casing, a rotatable driving shaft journaled eccentrically therewith, a plurality of opposed cylinders having air ports and mounted thereon, pistons for said cylinders, yokes connecting each pair of opposed pistons, means for actuating said pistons, a non-rotatable valve embracing the shaft and registering with the vertical face of the cylinder construction, springs back of said valve, said valve having an elongated air inlet port with which the cylinder ports alternately register to draw air into the cylinder, and an oppositely located elongated air outlet recess and exhaust port, for the purpose set forth.

2. In an air compressor, a casing, a rotatable driving shaft journaled eccentrically therewith, a plurality of opposed cylinders having air ports and mounted thereon, pistons for said cylinders, yokes connecting each pair of opposed pistons, a non-rotatable valve embracing the shaft and registering with the vertical face of the cylinders, studs having threaded portions adjustably mounted in the casing, the projecting ends of said studs supporting the valve, springs to maintain the contact between said valve and cylinders, for the purpose set forth.



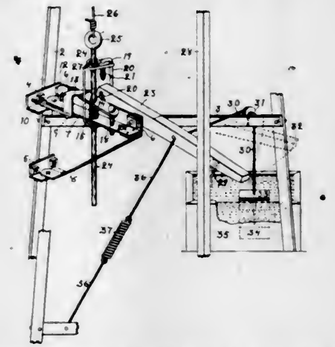
3. In an air compressor, a casing, a driving shaft, a plurality of piston carrying cylinders mounted thereon, a water jacket having chambers surrounding the cylinders, the shaft having a chamber in one end with an outlet port opening into the water jacket chambers, cap 10 secured to the casing and having discharge chamber 56 and an outlet port leading therefrom, water inlet tube 52 smaller than the shaft chamber and anchored in the end wall thereof and having an inlet port opening into the jacket chambers, said tube projecting outside the shaft chamber and through the cap chamber with its outer end anchored in the cap, smaller water inlet tube 54 anchored in the cap and projecting within the tube 52, all arranged and combined so that water entering said tubes will pass into the jacket chambers and from thence to the shaft chamber and discharge in the cap chamber, for the purpose set forth.

4. In an air compressor, the combination with an eccentrically rotatable driving shaft, a group of opposed cylinders and their pistons mounted thereon, of a casing inclosing said shaft and cylinders, said casing having a centrally located groove around its inner wall and located in the rotary path of the cylinders, a semi-circular ring secured in said groove, means on the pistons to engage the ring so that not less than two of the pistons will always be in contact with the ring, the end of said ring slightly tapered to form an easy entrance for the pistons, for the purpose set forth.

941,647. AUTOMATIC WINDMILL-REGULATOR. CARL C. PETERSON, Sheridan township, Washington county, Nebr. Filed May 4, 1909. Serial No. 493,921.

1. A windmill regulator comprising a horizontally-swinging support, a vertically-movable pawl-rod guided by said support, a check-pawl, a vertically-oscillating lever pivoted on said support, a connecting-rod pivoted to said lever, an actuating-pawl mounted on said connecting-rod, a lug on the vertically-reciprocating pump-rod, means tending to normally swing said support to bring said lever into the path of said lug, and a float connected to swing said support to carry said lever away from the path of said lug when the water supply is depleted.

2. A windmill regulator comprising a horizontally-swinging bracket, a vertically-movable pawl-rod guided by said bracket, a check-pawl on said bracket, a vertically-oscillating lever fulcrumed on said bracket, a connecting-rod pivoted to said lever, an actuating-pawl mounted on said connecting-rod, a pallet journaled on the bracket to engage said check-pawl, a connecting-rod pivotally connected to said pallet and to the stationary support carrying said swinging bracket to actuate said pallet when the bracket swings.



3. A windmill regulator comprising a horizontal support, a vertically-movable pawl-rod disposed through said support, a vertically-reciprocating actuating-pawl above said support, a pawl-trip having a lower loop disposed around said pawl-rod below said support and a top loop disposed around said pawl-rod above said actuating-pawl to arrest the ascent of said pawl to trip it out of clutch with said pawl-rod.

4. A windmill regulator comprising a longitudinally-reciprocable pawl-rod, a check-pawl to engage said pawl-rod, an oscillating lever, a longitudinally-reciprocable pump-rod, a lug on the pump-rod to engage and actuate said lever in one direction only, a connecting-rod pivoted on said lever, an actuating-pawl mounted on said connecting-rod to engage said pawl-rod, and an enlargement on said pawl-rod to engage said actuating-pawl and retain said lever beyond the reach of movement of said lug.

5. A windmill regulator comprising a support having a perforation, a plate hinged to said support and having a perforation, a longitudinally-reciprocable pawl-rod disposed through said perforations, an annularly shouldered or rabbeted washer loosely mounted on said pawl-rod between said support and said plate, and a coil spring disposed around said pawl-rod and having one end seated in said rabbet.

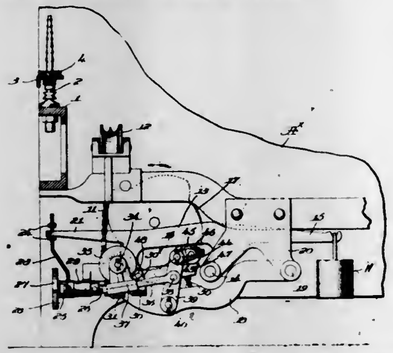
[Claim 6 not printed in the Gazette.]

941,648. TRAVERSE-MOTION FOR YARN-SPINNING APPARATUS. ALONZO E. RHOADES, Hopedale, Mass., assignor to Draper Company, Hopedale, Mass., a Corporation of Maine. Filed Oct. 8, 1908. Serial No. 456,716.

1. In apparatus of the class described, a builder-motion including a member having a constant stroke and a member having a variable stroke, a reciprocating ring-rail, a connection between it and the builder-motion, and means coöperating with the said members of the builder-motion to act through said connection and effect reciprocation of the ring-rail with a gradually increasing traverse and gradually decreasing gain to a predetermined point, and thereafter to continue automatically the reciprocation of the ring-rail with a uniform traverse and gain.

2. In apparatus of the class described, a builder-motion including a member having a constant stroke and a member having a variable stroke, a reciprocating ring-rail, a single connection between it and the second-named member of the builder-motion, means whereby the first-named member acts through the second-named member to effect, through said single connection, reciprocation of the ring-rail with a gradually increasing traverse to a predetermined maximum, and thereafter to continue automatically the reciprocation of the ring-rail with a uniform traverse,

and an instrumentality to impart the gain to the traverse, gradually decreasing from maximum to minimum during the period of gradually increasing traverse.



3. In apparatus of the class described, a compound builder-motion including two oscillating and differentially movable members, an actuator to oscillate one of said members with a constant stroke, means to vary the differential movement of said members and thereby gradually increase the stroke of the variable member from minimum to a predetermined maximum, a reciprocating ring-rail, a connection between it and said latter member to effect reciprocation of the ring-rail with a gradually increasing traverse to the maximum, and an instrumentality governed by the differential movement of said members to vary the gain inversely to the variation of the traverse.

4. In apparatus of the class described, a compound builder-motion including two oscillating and differentially movable members, an actuator to oscillate one of said members with a constant stroke, means on the other member to cause a gradual increase in the stroke thereof from minimum to maximum, a reciprocating ring-rail operatively connected with said member, whereby the ring-rail is first reciprocated with a gradually increasing traverse and thereafter with a uniform traverse, and an instrumentality also carried by said variably-oscillating member to gradually and automatically diminish the gain from maximum to minimum during the period of gradually increasing traverse.

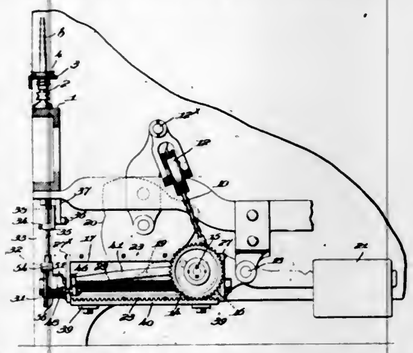
5. In apparatus of the class described, a compound builder-motion including two oscillating and differentially movable members, an actuator to oscillate one of said members with a constant stroke, means to vary the differential movement of said members and thereby gradually increase the stroke of the variable member from minimum to a predetermined maximum, a reciprocating ring-rail, a connection between it and said latter member to effect reciprocation of the ring-rail with a gradually increasing traverse to the maximum, and an instrumentality, including a pawl and ratchet actuated and governed by the differential movement of said oscillating members, to gradually diminish the gain of the traverse during the period of gradually increasing traverse.

[Claims 6 to 30 not printed in the Gazette.]

941,649. TRAVERSE-MOTION FOR YARN-SPINNING APPARATUS. ALONZO E. RHOADES, Hopedale, Mass., assignor to Draper Company, Hopedale, Mass., a Corporation of Maine. Filed Feb. 13, 1909. Serial No. 477,532.

1. In apparatus of the class described, a builder-arm having a constant stroke, a reciprocating ring-rail, a connection between it and the builder-arm, and controlling means acting through such connection to effect reciprocation of the ring-rail with a gradually increasing traverse and to gradually decrease the gain, said controlling means being mounted on the builder-arm and including a member movable longitudinally thereof.

2. In apparatus of the class described, an oscillating builder-arm having a constant stroke, a winding-drum carried by and movable longitudinally of the builder-arm, a reciprocating ring-rail, a connection between it and the drum, to effect the reciprocation of the rail by or through oscillation of the builder-arm, means to move said drum gradually away from the fulcrum of said builder-arm to thereby gradually increase the traverse, and means to effect rotation of the drum by a series of angular movements gradually decreasing in amplitude, to thereby control and gradually decrease the gain of the traverse.



3. In apparatus of the class described, a reciprocating ring-rail, an oscillating builder-arm having a constant stroke, a winding-drum, means to move it bodily step-by-step along the builder-arm away from the fulcrum thereof, to gradually increase the traverse of the ring-rail, means to effect an angular movement of the drum at each bodily advance thereof proportional to the length of the bodily advance, a connection between the drum and the ring-rail, and an instrumentality to cause the bodily advances of the drum to decrease in length gradually from the beginning of the winding, whereby the angular movements of the drum are gradually decreased and the gain of the traverse is controlled and correspondingly diminished from the beginning of the winding.

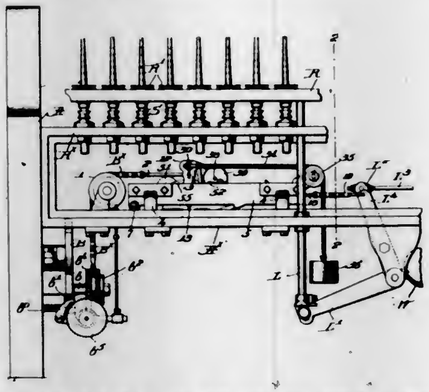
4. In apparatus of the class described, in combination, an oscillating arm, a reciprocating ring-rail, means to control its reciprocation to effect a winding of yarn upon a yarn-receiver with a traverse gradually increasing from the beginning to the end of the winding, and means to start the winding with the maximum gain and to decrease the gain gradually thereafter until the winding is completed, one of said means including a member movable longitudinally of said arm and the other of said means including a member coöperating with the first-named member and having imparted to it thereby a swinging movement on the arm, the coöperation of said members causing the operation of one means to effect the operation of the other means.

5. In apparatus of the class described, a builder-arm having a constant stroke, means carried by the builder-arm and controlled by oscillation thereof to effect automatically the winding of yarn upon a yarn-receiver with a traverse gradually increasing until the winding is completed, and means to start the winding with the maximum gain and gradually and automatically decrease the gain until the winding is completed.

[Claims 6 to 22 not printed in the Gazette.]

941,650. TRAVERSE-MOTION FOR YARN-SPINNING APPARATUS. ALONZO E. RHOADES, Hopedale, Mass., assignor to Draper Company, Hopedale, Mass., a Corporation of Maine. Filed May 8, 1909. Serial No. 494,783.

1. In apparatus of the class described, means to effect the winding of yarn upon a yarn-receiver with a short traverse, other and primarily inoperative means movable thereafter to complete automatically the winding with a long traverse, a builder-motion to actuate both said means and impart gain to the traverse, and an instrumentality acting only in connection with the second-named means to prevent movement thereof until the winding with the short traverse is completed.



2. In apparatus of the class described, means to effect the winding of yarn upon a yarn-receiver with a short traverse, other and primarily inoperative means movable thereafter to complete automatically the winding with a long traverse, a builder-motion to actuate both said means and impart gain to the traverse, said first-named means mounted on said second-named means and movable with and also relatively to the same, an instrumentality acting only in connection with the second-named means to prevent movement thereof until the winding with the short traverse is completed, and a device to lock said two means from relative movement when the second-named means is free to move and effect winding with the long traverse.

3. In apparatus of the class described, means to effect the winding of yarn upon a yarn-receiver with a short traverse, other and primarily inoperative means movable thereafter to complete automatically the winding with a long traverse, a builder-motion to actuate both said means and impart gain to the traverse, an instrumentality acting only in connection with the second-named means to prevent movement thereof until the winding with the short traverse is completed, and a device actuated by operative movement of the first-named means when effecting short traverse to render inoperative automatically the said instrumentality when the winding with such short traverse is completed.

4. In apparatus of the class described, means to effect the winding of yarn upon a yarn-receiver with a short traverse, other and primarily inoperative means movable thereafter to complete automatically the winding with a long traverse, a builder-motion to actuate both said means and impart gain to the traverse, a stationary support on which the second-named means is slidably mounted, a locking shoulder on the support, and a latch pivotally mounted on the said second-named means to engage the shoulder and prevent movement of such means on its support until winding with the short traverse is completed.

5. In apparatus of the class described, a builder-motion, a reciprocating ring-rail, a carriage, a traverse-shifter fulcrumed thereon and connected with the ring-rail, to reciprocate the latter with a short traverse when said traverse-shifter is rocked, a single connector between the builder-motion and the traverse-shifter, means on the latter to coöperate with the carriage and prevent rocking movement of the traverse-shifter after a primary winding of yarn has been laid upon a yarn-receiver with the short traverse, means to lock the carriage from movement during such primary winding, and an instrumentality to cause release of the carriage and locking of the traverse-shifter, automatically, when the primary winding is completed, whereby the carriage and traverse-shifter thereafter move as a unit with a long traverse to lay a secondary winding of yarn upon the yarn-receiver.

[Claims 6 to 18 not printed in the Gazette.]

941,651. BOTTLE-CLOSURE. JOSEPH RICHARDS and HENRIK AHNFELDT, Butte, Mont. Filed Apr. 5, 1909. Serial No. 487,955.

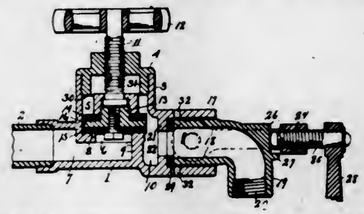


1. A bottle closure comprising a pivoted cover having an apertured extension, means for securing said cover to a bottle mouth, said means being provided with an apertured extension spaced from said cover extension, an operating member mounted to slide in said extensions and a coiled push spring arranged on said member between said extensions to hold said cover yieldably in closed position, said member being operable to open said cover against the tension of said spring.

2. A bottle closure comprising a pivoted cover having an apertured lateral extension, means for securing said cover to a bottle mouth, said means having an apertured lateral extension spaced vertically from said cover extension, an operating member mounted to slide in said extensions and a coiled push spring arranged on said member between said extensions to hold said cover yieldably in closed position, said member being operable to open said cover against the tension of said spring.

3. A bottle closure comprising a spring metal band constructed to engage a bottle neck, a cover member hinged to said band and having a laterally extended apertured arm arranged at its pivotal connection with said band, an apertured lug extending laterally from said band and spaced from and in position to register with said cover arm, an operating rod slidably mounted in said apertured lug and arm, and having an offset portion intermediately of its ends and a coiled spring arranged on said rod between said lug and arm.

941,652. AIR-HOSE COUPLING. FREDERICK W. ROCK, Detroit, Mich., assignor of one-half to Edward A. Field, Detroit, Mich. Filed July 9, 1908. Serial No. 442,689.



1. In an air hose coupling, the combination of a socket member having a controlling valve therein, a coupling el-

bow adapted to be connected with an air hose and having a tubular part adapted to enter the socket of said socket member, a washer within said socket adapted to be engaged by the tubular end of said elbow, means for clamping the coupling elbow to the socket member and forcing its tubular end against said washer, one of the coupling parts having a vent aperture which communicates with the air passage through said parts only when the tubular part of the coupling elbow is out of forcible engagement with said washer

2. In an air hose coupling, the combination of a socket member having a controlling valve therein, a washer at the inner terminal of the socket of said member, a coupling elbow adapted to be connected with an air hose and having a tubular part adapted to make connection with the socket member to establish a continuity of the air passage way through said parts and to bear against the washer in the socket of said member, means for clamping the coupling parts together, and a vent opening in the socket member between said washer and the outer end of said socket to prevent forcible ejection of the coupling elbow upon the release of said clamping means.

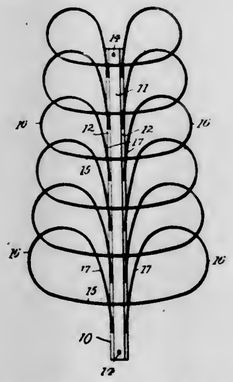
3. In an air hose coupling, the combination of a socket member having a controlling valve therein, a washer in said socket, a coupling elbow adapted to be connected with an air hose and having a tubular part adapted to make connection with the socket member to establish a continuity of the air passage way through said parts and to bear against the washer in said socket, a yoke pivoted to the socket member and adapted to embrace the elbow member, and a screw carried by said yoke adapted to engage the elbow member.

4. In an air hose coupling, the combination of a coupling member having a controlling valve therein and provided with a socket, the wall of said socket having a vent opening therethrough, a second coupling member adapted for attachment to an air hose and having a part for entrance into the socket of the first mentioned member, and means for detachably clamping the coupling members together.

5. In an air hose coupling, the combination of a coupling member having a controlling valve therein, and having a socket provided with a vent opening through the wall thereof, a washer within said socket, a coupling member adapted for attachment to an air hose and having a tubular part for entrance into said socket, a yoke pivoted to the first mentioned coupling member and adapted to embrace the coupling member adapted for connection with an air hose, and a screw carried by said yoke to engage the last mentioned coupling member.

[Claim 6 not printed in the Gazette.]

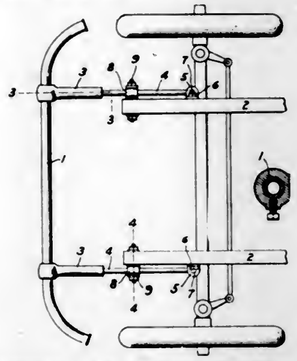
941,653. FOLDABLE KITCHEN-RACK. ROBERT ROTHENGATTER, New York, N. Y. Filed Sept. 20, 1909. Serial No. 518,614.



1. A foldable kitchen rack comprising a stem, and a series of clasps composed of a rear transverse arm, a pair of end loops, a pair of upright front arms, a pair of heels extending from the front arms, and pintles on said heels that pivotally engage the stem.

2. In a foldable kitchen rack, a stem having a longitudinal rib, and flanges flanking said rib, combined with a series of clasps pivoted to the rib and having heels adapted to engage the flanges.

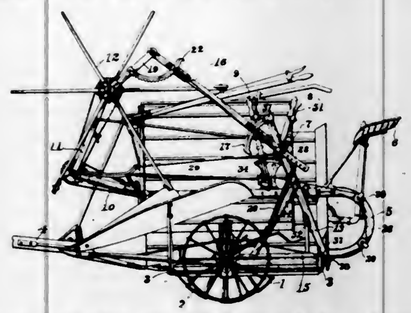
941,654. AUTOMOBILE BUFFER-BAR. JAMES H. SAGER, Rochester, N. Y., assignor to J. H. Sager Company, Rochester, N. Y., a Corporation of New York. Filed Oct. 18, 1909. Serial No. 523,367.



1. In automobile buffer-bars, the combination with a cross-rail to receive the shock, of similar, separated sleeves attached thereto and projecting at right angles therefrom; rods adapted to slide within said sleeves, respectively; springs interposed between said rods and cross-rail; means for attaching said rods to the automobile frame; and means adjustable at right angles to said rods for bracing said rods horizontally and vertically; substantially as shown and described.

2. In automobile buffer-bars, the combination with a cross-rail to receive the shock, of similar, separated sleeves attached thereto and projecting at right angles therefrom; rods adapted to slide within said sleeves, respectively, whose outer ends are turned at right angles; springs interposed between said rods and cross-rail; means for attaching said rods to the automobile frame; and brackets 5, 5, adapted to receive the upturned ends of said rods, respectively, and to be attached to the automobile frame; substantially as shown and described.

941,655. HARVESTER-REEL SUPPORT. JESSE A. SCANLAND, Peoria, Ill., assignor to Acme Harvesting Machine Company, Peoria, Ill., a Corporation of New Jersey. Filed Aug. 24, 1906. Serial No. 331,824.



1. In a harvester, the combination of a reel, a support therefor, and means for adjusting said support through the intermediacy of said reel.

2. In a harvester, the combination of a reel, a flexible support therefor, and means for adjusting said support through the intermediacy of said reel.

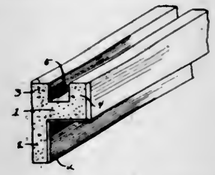
3. In a harvester, the combination of a reel, a support therefor formed of two or more articulating members, and means for adjusting said support through the intermediacy of said reel.

4. In a harvester, the combination of a reel, a support for the inner end thereof, means for adjusting said support, a support for the outer end of said reel formed of two or more articulating members, means for holding said members relatively rigid, and means also for releasing the same at will.

5. In a harvester, the combination of a reel, a support for each end formed of two or more articulating members, means for holding said members relatively rigid, and means also for releasing the same at will.

[Claims 6 to 8 not printed in the Gazette.]

941,656. BUILDING BLOCK AND WALL. FRANK J. SCHUSTER, Theresa, Wis. Filed Mar. 12, 1908. Serial No. 420,580.



1. An artificial building block, comprising a horizontally extending portion equal in width to the width of the block and having two side flanges extending in one direction and one side flange extending in the other direction, said last mentioned flange and one of the two flanges having their outer surfaces in the same plane with one side margin of the horizontal portion and forming the outer surface of the block.

2. An artificial building block, comprising a horizontally extending portion equal in width to the width of the block and having at one margin upwardly and downwardly extending flanges having their outer surfaces in the same plane as the margin of the block, one of said flanges being twice the length of the other and said horizontally extending portion having at the other margin a projecting flange on the same side and parallel with the shorter of the two first mentioned flanges.

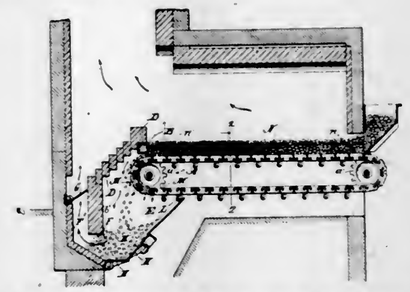
3. A building wall composed of a series of chair-shaped blocks, each having an intermediate portion provided with a single flange extending in one direction, and two parallel flanges extending in the other direction and arranged in the wall to form a series of horizontally extending air spaces between the flanges.

4. A building wall composed of a series of chair-shaped blocks, each having an intermediate portion provided with a single flange extending in one direction, and two parallel flanges extending in the other direction and arranged in the wall to form a series of horizontally extending air spaces between the flanges, some of said blocks being offset from the others and arranged to interlock therewith.

5. A building wall composed of a series of chair-shaped blocks, each having an intermediate portion provided with a single flange extending in one direction and two parallel flanges extending in the other direction, and arranged in the wall to form a series of horizontally extending air spaces between the flanges, together with an intermediate connecting block adapted to interlock with adjacent columns of the first mentioned blocks.

941,657. FURNACE. MINOTT W. SEWALL, Roselle, N. J., assignor to The Babcock & Wilcox Company, Bayonne, N. J., a Corporation of New Jersey. Filed June 1, 1908. Serial No. 436,080.

1. A furnace comprising a main combustion chamber, a secondary combustion chamber arranged to receive the unconsumed fuel from the former, the furnace being provided with an independent flue for the gases from the secondary combustion chamber.



2. A furnace comprising a main combustion chamber, a secondary combustion chamber arranged to receive the unconsumed fuel from the former, and a wall separating the two chambers and spaced from the furnace wall, to form an independent flue for the gases from the secondary combustion chamber.

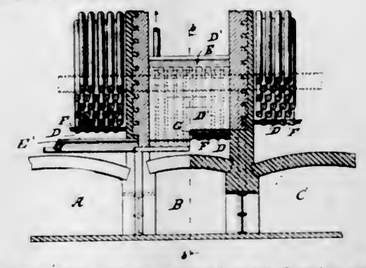
3. A furnace comprising a main combustion chamber, a secondary combustion chamber arranged to receive the unconsumed fuel from the former, a wall separating the two chambers and spaced from the furnace wall to form an independent flue for the gases from the secondary combustion chamber, and a damper in said flue.

4. A furnace comprising a main combustion chamber a secondary combustion chamber arranged below and receiving the unconsumed fuel from the main chamber, a wall separating the two chambers and spaced from the furnace wall to form an independent flue for the gases from the secondary combustion chamber whereby a downdraft of air from the main supply is provided for said secondary chamber.

5. A furnace comprising a main combustion chamber, a secondary combustion chamber, a chain grate for feeding fuel through the former and discharging it into the latter chamber, a bottom wall for said secondary chamber extended upward and forward into close proximity to the lower roof of the chain grate, and a wall separating the two chambers and spaced from the furnace wall to form an independent flue for the gases from the secondary combustion chamber.

[Claims 6 to 8 not printed in the Gazette.]

941,658. FURNACE. MINOTT W. SEWALL, Roselle, N. J., assignor to The Babcock & Wilcox Company, Bayonne, N. J., a Corporation of New Jersey. Filed Oct. 1, 1908. Serial No. 455,767.



1. A plurality of boilers spaced apart forming passageways therebetween, furnaces for said boilers, the grate surface of said furnaces extending over the floor space between contiguous boilers, and means for separating contiguous furnaces.

2. A plurality of boilers spaced apart forming passageways therebetween, furnaces for said boilers, the grate surface of said furnaces extending over the floor space be-

tween contiguous boilers and the floors of said passageways constituting portions of the furnace roofs, and means for separating contiguous furnaces.

3. A plurality of boilers spaced apart forming passageways therebetween, furnaces for said boilers, the grate surface of said furnaces extending over the floor space between contiguous boilers and the floors of said passageways constituting portions of the furnace roofs, dusting doors in the side walls of the boilers above said roofs, and means for separating contiguous furnaces.

4. A boiler furnace comprising a suitable casing, a lateral extension for said casing, a roof for said extension, and dusting doors in the side of said casing above said roof.

5. A boiler furnace comprising a suitable casing, a lateral extension for said casing, a roof for said extension composed of circular water tubes and refractory material, and dusting doors in the side wall of said casing above said roof.

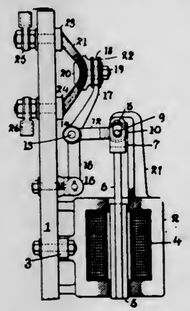
[Claims 6 to 10 not printed in the Gazette.]

941,659. ELASTIC CONNECTING-STRAP. JOHN J. SHEA, Hartford, Conn., assignor to The Hartford Rubber Works Company, a Corporation of Connecticut. Filed July 3, 1908. Serial No. 441,753.



A connecting strap consisting of a rubber strip having an elastic middle portion and end portions reinforced by layers of fabric of varying lengths.

941,660. ELECTRIC SWITCH. FRANK W. SMITH, New York, N. Y. Filed Feb. 25, 1909. Serial No. 480,044.



1. In an electric switch, a pivoted circuit closing switch arm, a fixed guide bar, a link pivoted at one end to said arm and bearing at its other end on said bar, and means for moving said link along said bar.

2. In an electric switch, a pivoted circuit closing switch arm, a fixed guide bar, a link pivoted at one end to said arm and bearing at its other end on said bar, means for moving said link along said bar, and means for limiting the movement of said link.

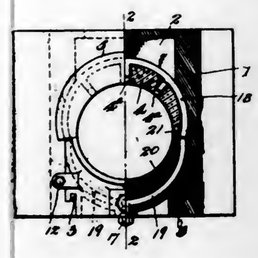
3. In an electric switch, a pivoted circuit closing switch arm, a fixed guide bar, a link pivoted at one end to said arm and bearing at its other end on said bar, and electromagnetic means for moving said link along said bar.

4. In an electric switch, a pivoted circuit closing switch arm, a fixed guide bar, a link pivoted at one end to said arm and bearing at its other end on said bar, means for moving said link along said bar, and electromagnetic means connected to the last named end of said link for moving said end along said bar.

5. In an electric switch, a pivoted circuit closing switch arm, a link pivoted to said arm, a vertical bar for guiding said link and receiving the thrust thereof, a solenoid, and a vertically moving core for said solenoid connected at its end to said link.

[Claims 6 to 10 not printed in the Gazette.]

941,661. JOURNAL-BOX. LUTHER K. SMITH, Moberly, Mo. Filed May 6, 1909. Serial No. 494,338.



1. A journal box, comprising a body portion provided with an inverted U-shaped opening, a brass arranged in the upper portion of said inverted U-shaped opening, said brass being provided with an outwardly extending flange at one end thereof adapted to engage the outer side of said body portion, whereby the inward longitudinal movement of said brass is prevented when the same is arranged in its operative position, said brass being further provided with longitudinal edges inclined downwardly toward the inner side of said body portion, a cellar block adapted to be inserted in said inverted U-shaped opening after the insertion of said brass therein, said cellar block having portions adapted to coöperate with corresponding portions arranged upon said body portion, whereby said cellar block may be moved longitudinally into said body portion, said cellar block being provided with longitudinal edges inclined downwardly toward the inner side of said body portion, and arranged in engagement with said inclined edges of said brass, means for preventing the longitudinal movement of said cellar block toward the inner side of said body portion when the said cellar block is arranged in its operative position, and means for preventing the outward movement of said cellar block from its operative position, substantially as described.

2. A journal box, comprising a body portion provided with an inverted U-shaped opening, a brass arranged in the upper portion of said inverted U-shaped opening, said brass being provided with an outwardly extending flange adapted to engage the outer side of said body portion, whereby the inward longitudinal movement of said brass is prevented when the same is arranged in its operative position, said brass being further provided with longitudinal edges inclined downwardly toward the inner side of said body portion and beveled transversely, a cellar block adapted to be inserted into said inverted U-shaped opening after the insertion of said brass therein, said cellar block being adapted to be inserted within said inverted U-shaped opening by a longitudinal movement of the same, said cellar block being provided with longitudinal edges inclined downwardly toward the inner side of said body portion, said last named longitudinal edges being beveled transversely and arranged in engagement with the longitudinal edges of said brass, means for preventing the longitudinal movement of said cellar block toward the inner side of said body portion when said cellar block is arranged in its operative position, means for preventing the outward movement of said cellar block from its operative position, whereby said brass and said cellar block are locked together and prevented from having relative movement with relation to each other, substantially as described.

941,662. FIREARM. SAMUEL B. SMITH, Willow Springs, Ill. Filed Sept. 13, 1907. Serial No. 392,773.



1. In a firearm, in combination, a bullet magazine; a powder magazine; a percussion-ball magazine; separate means for bringing a bullet, a powder charge and a percussion ball into firing position; and a rod reciprocable lengthwise of the firearm and operatively connected with all of said means.

2. In a firearm, in combination, a bullet magazine; a powder magazine; a percussion-ball magazine; a bullet lifter; a firing chamber; a powder dipper; and means for transferring the powder from said dipper to said firing chamber and for placing a percussion ball in firing position.

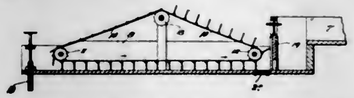
3. In a firearm, in combination, a bullet magazine; a powder magazine; a percussion-ball magazine; a firing chamber; means for placing a bullet in firing position; a powder dipper; and a plunger adapted to transfer powder from said dipper to said firing chamber, said plunger being adapted to carry a percussion ball.

4. In a firearm, in combination, a firing chamber; means for placing a bullet in firing position; means for transferring powder from said powder magazine to said firing chamber, comprising a plunger adapted to carry a percussion ball; and a firing pin traveling with said plunger.

5. In a firearm, in combination, a bullet magazine; a powder magazine; a percussion-ball magazine; a reciprocable action rod; a bullet lifter arranged to be reciprocated by said rod; a powder dipper arranged to be rotated by said rod; and a plunger arranged to be reciprocated by said rod.

[Claims 6 to 13 not printed in the Gazette.]

941,663. HYDRAULIC SEPARATOR. WALTER F. SMITH, Philadelphia, Pa. Filed Mar. 14, 1905. Serial No. 250,007.

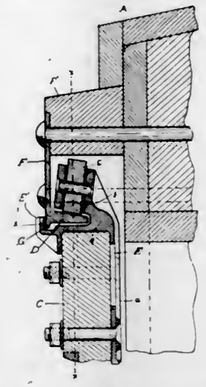


In a hydraulic separator, the combination of a flume or sluice box and a series of movable riffles and agitators of which each extends entirely across the width of the box and comprises a solid lower part which operates as a riffle and a grate-like upper part which acts as an agitator, substantially as described.

941,664. DOOR-HANGER. WILLIAM D. THOMPSON, Detroit, Mich., assignor to Hutchins Car Roofing Company, Detroit, Mich., a Corporation of Michigan. Filed Oct. 5, 1907. Serial No. 396,030.

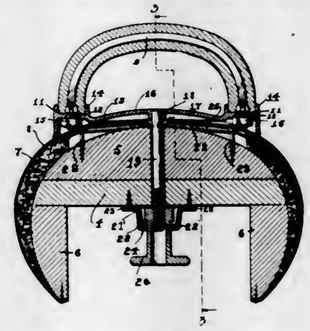
1. The combination with a car having a door opening formed therein, of a door therefor, a track above the door extending longitudinally of the car and provided with a guard flange, and hangers upon the door carrying rollers engaging the track, each hanger comprising a casting consisting of a vertical retaining section secured to the inner side of the door near its top, a roller-supporting arm, a transverse section extending across the door top, and a trough-shaped section upon the outer side of the door adapted to receive and engage the guard flange.

2. The combination with a car having a door opening, of a door therefor, a combined track and guard for the door consisting of a single-piece bar fashioned to form a downwardly extending supporting section spaced from and secured to the car above the door, an inwardly extending section forming the track proper, and a depending section extending outside of and below the upper edge of the door, and hanger mechanism upon the door engaging the track section.



3. The combination with a car provided with a door opening, of a longitudinal housing above the opening formed with a downwardly and inwardly inclined bottom flange constituting a track, a door below the housing, hanger mechanism upon the door extending upwardly within the housing and engaging the track section, said housing having a guard flange depending therefrom and extending outside of and below the upper edge of the door, and a wear member upon the door engaging the outer face of the housing.

941,665. GYMNASIUM-HORSE. ALBERT J. THORNLEY, Pawtucket, R. I., assignor to Narragansett Machine Company, Pawtucket, R. I., a Corporation of Rhode Island. Filed Mar. 31, 1909. Serial No. 487,029.



1. In a gymnasium horse, in combination with the body, a shoe on the body formed with a longitudinal recess, a curved handle, threaded extensions carried by the handle ends, a connecting member to which said threaded extensions are secured, a rib on said member received in said shoe recess, and means extending through said shoe and member to secure said parts to the body.

2. In a gymnasium horse, in combination with the body, a shoe secured thereto, a handle of curved form, a connecting member secured to the handle ends, a bolt engaging said member and passed through said body, and a nut on said bolt whereby said connecting member may be drawn into engagement with said shoe.

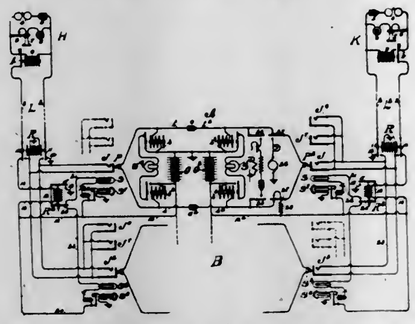
3. In a gymnasium horse, in combination with the body, a curved handle, a connecting member secured to the handle ends, and means centrally secured to said member whereby the same is secured to the body.

4. In a gymnasium horse, in combination with the body, a curved handle, a recessed shoe on the body, a connecting member secured to the handle ends, means carried by said member to project in said recess of the shoe, and a single bolt secured centrally of the length of said member to secure same to said body.

5. In a gymnasium horse, in combination with the body, a shoe secured to said body and formed with a longitudinal recess, a curved handle formed of two recessed sections, a core engaging in said recesses of said sections, and provided with shoulders and threaded extensions, a connecting member on the top face of which said shoulders and the handle ends seat, said extensions projecting through openings provided therefor in said connecting member, nuts on said extensions abutting the under face of said connecting member, a rib on said connecting member which extends in said recess of the shoe, a bolt secured to said connecting member central of the length thereof and extending through said body, a hand nut on the lower end of said bolt abutting the under face of the body, a shoulder on the nut and a two part bearing sleeve secured to said body and inclosing the upper part of said nut whereby said sleeve may engage the nut shoulder to permit downward movement of the nut.

[Claims 6 to 10 not printed in the Gazette.]

941,666. TELEPHONE SYSTEM. HARRY G. WEBSTER, Chicago, Ill., assignor to Kellogg Switchboard and Supply Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 19, 1902. Serial No. 135,891.



1. In a telephone system, the combination with a telephone line, of three or more signals therefor at the central office, a source of current therefor at the central office, electro-magnets at the substation having different resistances, means associated therewith for closing the circuit of said source so as to form paths of different resistances through said electro-magnets, and means for causing signals to selectively respond to the currents through said electro-magnets and remain actuated until said electro-magnets are de-energized, substantially as described.

2. In a telephone system, the combination with a telephone line, of a condenser in the line to prevent the passage of direct current therethrough, a magnet at the substation, two armatures therefor each normally out of the range of its magnetic field, means for bringing either or both of said armatures within the range of the magnetic field and simultaneously closing the circuit through the electro-magnet whereby it is energized to attract and hold either or both of said armatures, and signaling means at the central office differently controlled by the different conditions of said armatures, substantially as described.

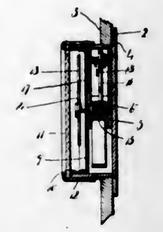
3. In a telephone system, the combination with a telephone line, of an electro-magnet at the substation, two switches associated with said magnet, means for maintaining either or both of said switches actuated by current flowing in the line, signals at the central office, and means for selectively operating said signals by each of the said actuations of the switches, and a cut-off relay for the line actuated when connection is established therewith to momentarily open a line circuit and thereby break the circuit through said electro-magnet and release either or both switches then depressed and extinguish the signal then displayed, substantially as described.

4. In a telephone system, the combination with a telephone line, of an electro-magnet at the substation, switches associated with said electro-magnet; signals for said line at the central office selectively operated by the actuation of one or more of said switches, means for maintaining one or more of said switches actuated by current flowing through said magnet and a cut-off relay for the line actuated when connection is established therewith at the central office to momentarily open a line circuit and thereby break the circuit through said electro-magnet, simultaneously effacing the signal and releasing any or all switches then depressed, substantially as described.

5. In a telephone system, the combination with a telephone line, of a condenser in the line to prevent the passage of direct current therethrough, line signals therefor located upon the different sections of a divided central switchboard, a source of direct current associated therewith at the central office, switches at the substation adapted to be operated singly or in pairs to complete the circuit of said source to selectively operate said signals, a magnet in the path of said current to lock the switches in actuated position and means for rendering said signals inoperative when a connection is established with the line and for unlocking said switches, substantially as described.

[Claims 6 to 14 not printed in the Gazette.]

941,667. OVEN-THERMOMETER. LEROY S. WHITE, Waterbury, Conn. Filed June 26, 1909. Serial No. 504,475.



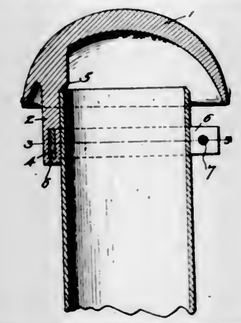
1. In an oven thermometer, the combination with a cup the external side walls of which are threaded, of a flange adapted to be secured to the inner face of an oven door and formed with a threaded opening corresponding to the diameter of said cup which is adapted to be turned into it, an expansible strip mounted in the case and a pointer operated thereby.

2. In an oven thermometer, the combination with a plate or flange having a threaded opening, of a cup externally threaded at its inner end, a three-armed yoke frictionally held in said cup, a pointer mounted in said yoke, an expansible strip connected with the yoke and with the pointer, said yoke formed with outwardly projecting lugs, and a dial having notches for engagement with said lug, and means for holding the dial in position.

941,668. VENT-CAP. JOHN R. WILLIAMS, Milwaukee, Wis. Filed Apr. 26, 1909. Serial No. 492,203.

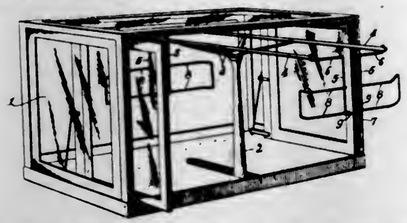
1. In a vent cap, a slotted lug formed thereon and adapted to project therefrom in position to engage the pipe to which the cap is applied, an offset or projection formed on said lug to engage the top of the pipe and thereby support the cap at proper position above the top of the pipe, and means adapted to be engaged with the slot in said lug and with said pipe to secure the cap to the pipe.

2. In a vent cap, a supporting lug projecting therefrom in position to engage the pipe to which the cap is applied, said lug having formed therein a transversely disposed slot or passage, a clamping band arranged in said passage and adapted to engage said pipe, and means to draw the



ends of the band together and into tight engagement with the pipe.

941,669. GUARD FOR ROTARY GARMENT-SUPPORTS. SAMUEL D. YOUNG, Grand Rapids, Mich., assignor to Grand Rapids Show Case Company, Grand Rapids, Mich., a Corporation of Michigan. Filed May 18, 1909. Serial No. 496,770.



1. In combination with a garment support, a retaining member extending below the end of said support and pivoted to swing on a vertical axis and away from in front of the garments, and means for holding said retainer in contact with the garments to limit the movement of the same.

2. In combination with a rod adapted to support garments, an arm attached to the end of the rod and extending horizontally therefrom and thence downward, a retainer pivoted to said arm and adapted to limit the movement of garments hung on said rod, and means for adjusting and holding said retainer.

3. In combination with a rod adapted to support garments and movable within a case, an arm fixed to the end of the rod extending horizontally and laterally therefrom, and thence downward, and thence again horizontally, a retainer pivotally mounted on the downward extending member of the rod and having a downward extension recessed to engage the lower horizontal member, whereby the retainer is adjustably held to engage the garments hung on the rod, or released to swing outward and release the same.

4. The combination of a case, parallel horizontally disposed rods spaced apart and rotative in the case, a U-shaped member having oppositely extended ends secured to the ends of the rods and a connecting horizontal lower portion and vertical side portions, retainers pivoted on said side portions and oppositely extending to engage garments hung on the rods, each retainer also having an inward extension at its lower end provided with recesses adapted to engage the connecting member and also vertically movable to release said engagement and permit the retainer to swing outward.

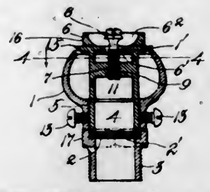
5. The combination of a case, a column movable in the case from near the center to near the front thereof, a spider rotative on the column, parallel arms mounted on the spider and spaced apart, inwardly and downwardly extended U-shaped members attached to the respective ends of the rods, retainers pivoted on said members and adapted to swing beneath the ends of the respective rods to engage clothing hung thereon, and to swing outward to release the same, and means for holding said retainers in adjusted position to contact the clothing.

[Claim 6 not printed in the Gazette.]

941,670. METHOD OF PRINTING IN COLORS. JAMES R. BROWN, New York, N. Y., assignor of forty-two and one-half hundredths to Charles R. Campbell and forty-two and one-half hundredths to Philip F. Kobbé, Jr., New York, N. Y. Filed Apr. 22, 1908. Serial No. 428,519.

The method of making multi-colored prints bearing definite predetermined designs, which consists in preparing a sheet of stock with pigments of different colors occupying visually distinct areas thereupon and then working a definite predetermined design upon the prepared stock by means of a reverse plate having openings, applying with the unbroken surface of said plate a single color to two or more of the separately colored areas of the stock, so that a design is produced upon said separately colored areas of the stock corresponding to the openings in the plate, and having a definite predetermined position on the sheet.

941,671. SPRINKLER. JAMES W. CAMPBELL, Providence, R. I. Filed Feb. 17, 1908. Serial No. 416,189.

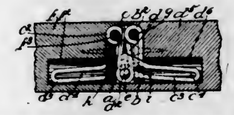


1. A device of the class described comprising a spherically formed shell having an inlet at one end and an outlet at the other end, a plug passing through said shell and having a longitudinal bore of the same diameter as the inlet, and means for adjusting said plug in alinement with said inlet.

2. A device of the class described comprising a spherically formed shell having an inlet at one end and an outlet at the other end, a plug passing through said shell and having a longitudinal bore of the same diameter as the inlet, and means for adjusting said plug in alinement with said inlet, said plug having a head at its upper end and an external flange adapted to cover the outlet end of said shell.

3. A device of the class described comprising a spherically formed shell having an inlet at one end and an outlet at the other end, a tubular plug passing through said shell and adjustable therethrough in alinement with the inlet thereof, said plug having a cup shaped head at its upper end and an external flange adapted to cover the outlet end of said shell, an auxiliary outlet through said cup shaped head, and means to close said auxiliary outlet.

941,672. INVISIBLE HINGE. HARRY R. CANFIELD, New York, N. Y., assignor, by mesne assignments, to Freda Soss, New York, N. Y. Filed Mar. 31, 1909. Serial No. 487,009.



1. A hinge composed of two main plates or leaves and supplemental plates hinged thereto and to each other, said

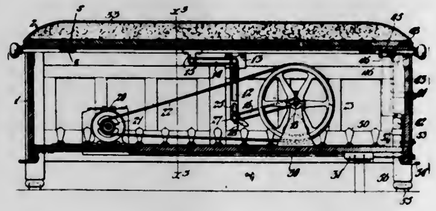
supplemental plates being provided with arms which enter transverse recesses in the main hinge plates or leaves and which are provided with longitudinal slots, and said main hinge plates or leaves being provided with stationary pins which pass through said slots.

2. A hinge composed of two main plates or leaves provided at one edge with knuckles, supplemental plates provided at one edge with knuckles, said main plates or leaves and said supplemental plates being connected by pintles passing through said knuckles, and said supplemental plates being also provided at their opposite edges with knuckles and being connected by a pintle passing therethrough, said main plates or leaves being provided with transverse recesses, and said supplemental plates with arms movable in said recesses and provided with longitudinal slots, and said main plates or leaves being provided with stationary pins which pass through said slots.

3. A hinge composed of two main plates or leaves and supplemental plates hinged thereto and to each other, said supplemental plates being provided with arms which enter transverse recesses in the main hinge plates or leaves and which are provided with longitudinal slots, said main hinge plates or leaves being provided with stationary pins which pass through said slots, and a spring device for holding the parts of the hinge in a closed position.

4. A door provided with a hinge composed of two main plates or leaves and supplemental plates hinged thereto and to each other, said supplemental plates being provided with arms which enter transverse recesses in the main hinge plates or leaves and which are provided with longitudinal slots, and said main hinge plates or leaves being provided with stationary pins which pass through said slots, said main plates or leaves being secured in the door frame and door, and said door frame and door being provided with recesses adapted to receive the movable parts of the hinge, and a spring connected with the hinge for holding the door in a closed position.

941,673. ELECTROVIBRATORY COUCH. WALTER A. CHURCH, Los Angeles, Cal., assignor to Electro-Vibrating Couch Company, Los Angeles, Cal., a Corporation of California. Filed Dec. 21, 1908. Serial No. 468,677.

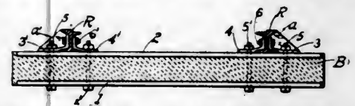


1. A vibratory couch comprising a bottom member, a top member mounted to reciprocate horizontally on said bottom member, a motor, and a crank operated thereby and connected to the top member to impart thereto a smooth vibratory horizontal motion.

2. A vibratory couch comprising a bottom member, a top member mounted to reciprocate horizontally on said bottom member, a motor, a crank device connected thereto and to said top member to impart to the top member a smooth horizontal vibratory motion, and means for adjustment of the length of stroke of the crank device.

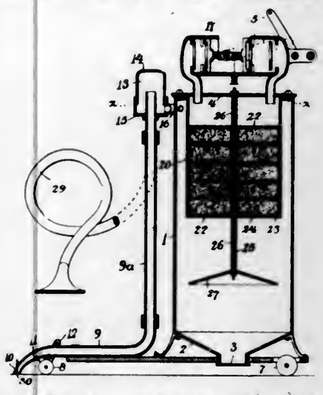
3. A vibratory couch comprising a bottom member, a top member mounted to reciprocate horizontally on said bottom member, a motor, and a crank operated thereby and connected to the top member to impart thereto a smooth vibratory horizontal motion, in combination with a hand grip bar extending horizontally on each side of the top member and attached to the top member, said hand grip bars being of conducting material, and adapted for use as electrodes.

941,674. TRACK CONSTRUCTION. HENRY EHMAN, St. Louis, Mo. Filed Sept. 7, 1909. Serial No. 516,400.



A track comprising a concrete bed extending the length and width of the track, top and bottom transverse reinforcing plates embedded therein and flush with the opposite faces of the bed, rails resting on the upper series of plates and on the concrete bed between the plates, outer clamping shoes engaging the web and outer flange of the rail, and the top plate beyond the rail, and having a rib extending from the outer edge of the outer rail-tread to the lower end of the shoe, an inner shoe engaging the web and inner flange of the rail, and securing bolts passed through the shoes, plates and concrete bed, and a second series of bolts connecting the shoes to the rail web, substantially as set forth.

941,675. VACUUM-CLEANER. IRA L. GREEN, Ludlow, Vt. Filed Mar. 11, 1908. Serial No. 420,386.



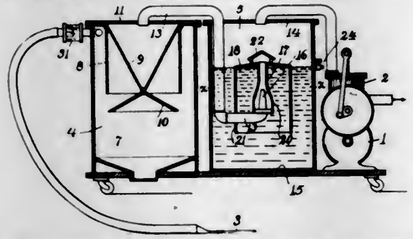
1. A dust collector, comprising an intake, a cylindrical tank connected near its top with said intake, an annular partition depending from the top of said tank, a plurality of foraminous shelves located in said partition, fibrous material packed between said shelves, a conical deflector located intermediately of said partition and the bottom of the tank, and means for producing a current of air through said intake into said tank and from the latter through its top.

2. A dust collector, comprising an intake, a cylindrical tank connected near its top with said intake, an annular partition depending from the top of said tank, a plurality of foraminous shelves located within said partition but not attached thereto, means supporting said shelves from the said top, and bags of fibrous material packed between said shelves, and means for producing a current of air through said intake into said tank and from the latter through the said top.

3. In a vacuum cleaner, the combination with a tank having its air inlet through its side wall, and its air outlet through the top, of an inclosing partition depending from the top-edge of said tank, a removable top for the tank, a rod depending from said top, a plurality of foraminous shelves penetrated by said rod, and sections of tubing surrounding said rod and separating said shelves.

941,676. VACUUM-CLEANER. IRA L. GREEN, Ludlow, Vt. Filed Jan. 26, 1909. Serial No. 474,320.

1. The combination with a suction producing means, of a water tank having a vertically discharging nozzle below the surface of the water in said tank, a sleeve loosely surrounding said nozzle and terminating at its upper end just above the surface of such water, and a cap located a short distance above said upper end.



2. The combination with a suction producing means, of a water tank having a nozzle therein receiving the air current, a sleeve concentric with said nozzle communicating with the water within the tank at one end and terminating at its opposite end in a radially extended flange.

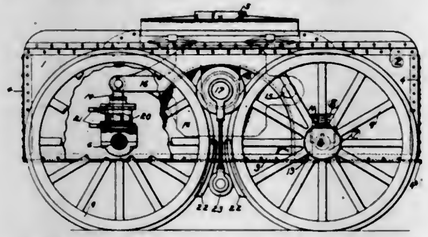
3. The combination with a suction producing means, of a water tank having an upwardly opening nozzle receiving the air current, a sleeve surrounding said nozzle and opening at its lower end to the water in the tank, a flange extending outward from the upper end of said sleeve, and a cap located a short distance above the upper end of said sleeve.

4. The combination with a suction producing means, of a water tank having an upwardly opening nozzle receiving the air current, a sleeve surrounding said nozzle and communicating at its lower end with the water in said tank, a flange extending outward from the upper end of said sleeve, a cap fixed above said end, and an annular apron depending from the periphery of said flange.

5. The combination with a suction producing means, of a water tank having an upwardly opening nozzle centrally located within it and receiving the air current, a sleeve surrounding said nozzle and communicating below the nozzle with the water within the tank, a slightly sloping flange extending outward from the upper end of said sleeve, an annular apron depending from the periphery of said flange, a cap fixed a short distance above the upper end of said sleeve, and means for insuring the water level within the tank approximately at the level of the outer edge of said flange.

[Claim 6 not printed in the Gazette.]

941,677. POWER-TRUCK. JOHN B. HEVERLING, St. Louis, Mo. Filed Feb. 23, 1909. Serial No. 479,481.



1. In a power truck, the combination with traction wheels, of a driving element designed to frictionally engage said traction wheels, and means movable with said driving element for applying braking power to said driving wheels.

2. In a power truck, the combination with traction wheels, of a driving element designed to simultaneously engage a pair of driving wheels, brakes mounted between said wheels and means movable with the friction element for applying said brakes.

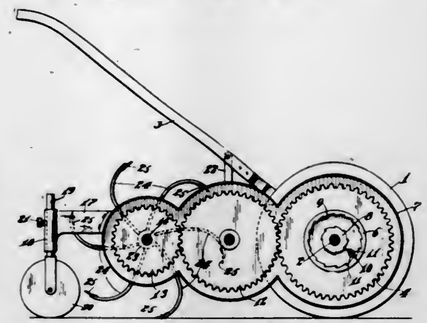
3. In a power truck, the combination with traction wheels, a driving element arranged between and designed to frictionally engage said traction wheels, a pivotally supported frame on which said friction element is mounted, and means for moving said frame on its pivot whereby said frictional driving element is thrown into, and out of engagement with said driving wheels.

4. In a power truck, the combination with driving wheels, of a friction element coöperating therewith, a pivotally mounted frame on which said friction element is arranged, and fluid actuated means for moving said frame and its carried frictional element.

5. In a power truck, the combination with traction wheels, of a driving element coöperating therewith, a pivotally mounted frame on which said driving element is arranged, fluid actuated means for moving said frame and its driving element, brakes for said traction wheels and means carried by said frame for coöperating with said brakes.

[Claims 6 to 11 not printed in the Gazette.]

941,678. CULTIVATOR. JOHN HOBSON, Jr., Wayne, Pa. Filed Feb. 24, 1909. Serial No. 479,734.



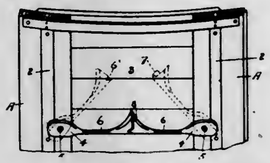
1. In a cultivator, the combination with traction wheels, of a shaft supported in said wheels, a handle connected with said shaft, a chain of gearing driven by said shaft, a casing inclosing said chain of gearing, a driven shaft connecting the said chain of gearing, toothed cultivators secured on said driven shaft at opposite sides of the casing, a caster wheel having vertically adjustable connection with said casing, and means connecting said casing with said handle, whereby when said handle is pressed downward, downward pressure will be applied to said cultivators.

2. In a cultivator, the combination with traction wheels, of a shaft supported in said wheels, a handle connected with said shaft, a drive gear loose on said shaft, ratchet means connecting said gear and one of said wheels, a driven gear, a shaft secured in said driven gear, an idle gear connecting said driven gear with said first mentioned or drive gear, and gangs of cultivator teeth secured on said last mentioned shaft at opposite sides of said driven gear, and a casing inclosing all of said gears, a bracket secured to the rear end of said casing, a caster wheel mounted in said bracket, and means for adjusting said caster wheel vertically.

3. In a cultivator, the combination with a manually propelled pair of traction wheels, a shaft supported in said wheels, a gear loose on said shaft, ratchet means connecting said gear with one of said traction wheels, a driven gear, an idle gear connecting said first mentioned gear with the driven gear, a shaft secured in said driven gear and projecting out beyond the same at both sides, and having screw threaded ends, gangs of cultivator teeth having hubs keyed to said last mentioned shaft at opposite sides of the driven gear, other gangs of cultivator teeth having internally screw threaded hubs screwed on the threaded ends of said shaft, and nuts secured on the said shafts against said hubs.

4. In a cultivator, the combination with traction wheels, of a shaft supported in said wheels, a handle connected with said shaft, a drive gear loose on said shaft, ratchet means connecting said gear and one of said wheels, a driven gear, a shaft secured in said driven gear, an idle gear connecting said driven gear with said first mentioned or drive gear, gangs of cultivator teeth secured on said last mentioned shaft at opposite sides of said driven gear, a casing inclosing all of said gears, a bracket secured to the rear end of said casing, a caster wheel mounted in said bracket, and means for adjusting said caster wheel vertically, handles connecting said first mentioned shaft and projecting upwardly and rearwardly therefrom, and a link connecting said handle with said casing.

941,679. INTERLOCKING LEVER FOR SILO-DOORS. WILLIAM A. HOLNAGEL, Saginaw, Mich. Filed Apr. 5, 1909. Serial No. 487,992.



1. The combination with a suitable structure and a door therefor, of a pair of levers pivotally secured to the door, and means for preventing the depression of the inner ends of the levers past a predetermined point, irrespective of the engagement of the outer ends of the levers with the structure.

2. The combination with a suitable structure and a door therefor, of a pair of levers pivotally secured to the door, and means carried by the inner ends of the levers for preventing the depression of the levers past a predetermined point.

3. The combination with a suitable structure and a door therefor, of a pair of levers pivotally secured to the door, and coacting intermeshing means carried by the inner ends of the levers for preventing the depression of the levers past a predetermined point.

4. The combination with a suitable structure having an opening therein and a door for closing the opening, of a pair of oppositely located levers pivoted intermediate their ends to the door, the outer ends of the levers adapted to engage the structure, the inner ends of the levers adapted to abut each other when the levers are in horizontal position.

5. The combination with a suitable structure having an opening therein and a door for closing the opening, of a pair of oppositely located levers pivoted intermediate their ends to the door, the outer ends of the levers adapted to engage the structure, the inner ends of the levers adapted to abut each other when the levers are in horizontal position, the inner end of one lever carrying a projection receivable in a recess in the opposite lever to releasably lock the levers in substantially horizontal position.

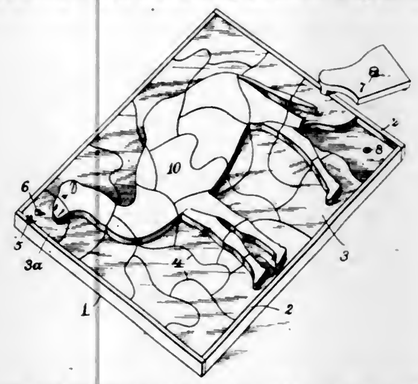
[Claims 6 to 8 not printed in the Gazette.]

941,680. RAISED PUZZLE FOR THE BLIND. MARY A. HOUGHTON, Boston, Mass. Filed June 5, 1909. Serial No. 500,369.

1. A puzzle for the blind comprising a flatly extended body having its upper surface formed with configurations adapted to be determined by touch, said body being cut into indiscriminate sections bearing no relation to said configurations.

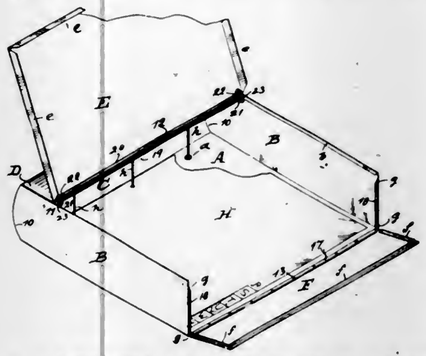
2. A puzzle comprising a board formed with a characteristic outline, and a second board larger in outline and affixed to and supporting the first-named board; both boards being cut into indiscriminate sections and substantially all the sections of the lower board extending beyond those of the upper.

3. A puzzle comprising a shallow tray having raised edges, a board loosely fitting between such edges upon the bottom or floor of the tray, a second board having a characteristic outline affixed to the upper surface of the first-named board, both boards being sawed into irregular sec-



tions, and substantially all the sections of the lower board extending beyond those of the upper, a projecting peg fixed to one corner of the first-named board, and another peg affixed to a corresponding corner of said tray's edges.

941,681. FILE-BOX. CHRISTIAN KECK, Crescent Springs, Ky., and ALEXANDER DOM, Hartwell, Ohio, assignors to said Christian Keck, said Alexander Dom, and Harry H. Hyams, Cincinnati, Ohio. Filed Dec. 19, 1907. Serial No. 407,211.



1. In a sheet-metal file-box, the combination of a body-portion, a lid and a flap, both hingedly attached to the former, the flap being flat and stiffened at its free edges by having the metal doubled thereat and by being provided with an inwardly projecting ridge arranged parallel to these edges and spaced therefrom.

2. A sheet-metal file-box comprising a bottom, top, three sides and a flap which constitutes the fourth side, spaced hinge-barrel-section provided on the free edge of the bottom and on one of the longitudinal edges of the flap, all of which barrel-sections are adapted to aline when both edges are placed in position against each other, and a hinge-pin adapted to pass through all these barrel-sections when alined, and extending beyond them at each end of the hinge, where its projecting ends are bent up on the free edges of the adjacent sides of the box and connected to them.

3. A file-box consisting of a sheet-metal inclosure partly open, and a sheet-metal lid for this open part, hinge-barrels provided, one on one edge of the lid and one on a corresponding edge of the inclosure and a hinge-pin in each barrel, said pins being continuous at the ends of the barrels, extending from one into the other and are provided with braces at the ends of the barrels where said pins are turned from one barrel into the other arranged transversely to them and adapted to bear against adjacent surfaces of the hinged parts.

4. A sheet-metal file-box comprising a bottom, a top, three sides and a flap which is hingedly connected to the free edge of the bottom and forms the fourth side, the flap being provided with inwardly projecting ridges parallel to its ends and spaced therefrom so that, when closed, said ridges on the flap pass in behind the edges of the adjacent sides of the box and brace them.

5. A file-box of sheet-metal adapted to receive matter for filing and provided on the outside of its back with label-holding means consisting of parallel parts of the metal of the back, which, this latter having been cut accordingly and at the cut-edges shaped and bent for the purpose constitute these label-holding means which are adapted to engage the label at parallel edges, the label being held, when in position, between these means and between the back of the box.

[Claim 6 not printed in the Gazette.]

941,682. ADJUSTABLE BRACKET. JOHN KNAPE, Grand Rapids, Mich. Filed Feb. 9, 1909. Serial No. 476,900.

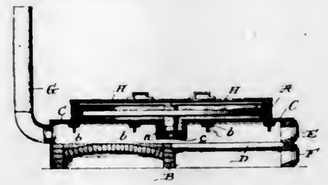
1. An adjustable bracket, comprising a channel bar provided with keyhole slots having downwardly converging sides, an arm having an opening near the upper corner, a bolt extending into said opening and projecting from the arm, said bolt also having a neck wedge-shaped in cross section to engage the converging sides of a slot, and a hook near the lower part of the arm having converging sides to fit the converging sides of a slot.

2. An adjustable bracket, comprising a channel bar having keyhole slots, an arm consisting of a plate having an opening near its upper corner and a slot extending from said opening to receive a bolt, side strips secured to said arm and swaged opposite said slot to receive the bolt, hooks on said strips opposite the lower corner of said arm, and a bolt in said arm projecting within said opening and provided with a nut also within the opening.

3. An adjustable bracket, comprising a channel bar having a series of keyhole slots provided with downwardly converging sides, an arm having an opening near its upper corner and a slot extending from said opening to receive the bolt, a bolt having a neck wedge-shaped in cross section inserted in the arm and having a nut within said opening, side strips formed to fit the wedge-shaped neck of the bolt and secured to the end of the arm, and hooks on the side strips opposite the lower corner of the arm having inclined opposite sides to engage the converging sides of a keyhole slot.

4. An adjustable bracket, comprising a channel bar having a series of keyhole slots with downwardly converging sides, an arm having a flat end adapted to adjustably engage the face of the channel bar and also having an opening near its upper corner and a slot extending from said opening to receive the bolt, a bolt in said slot having a neck wedge-shaped in cross section and a nut within said opening, strips secured to the arm and swaged to fit the neck of the bolt and embrace the same, and hooks on said strips near the lower corner of the arm, said hooks being inclined at the side toward the arm and also inclined at opposite sides to engage the converging sides of a keyhole slot.

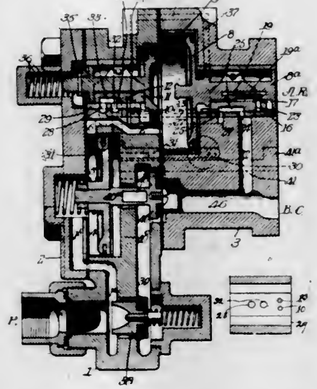
941,683. APPARATUS FOR TREATING WOODEN WHEELS. JOHN J. LIPE, Witt, Ill. Filed Apr. 22, 1909. Serial No. 491,584.



1. In an apparatus for treating wheels, a tank or vessel having a well or pocket *a* in the central portion of its bottom, said well being provided with a raised support c at such elevation as shall cause the felly and spokes of the wheel to be raised somewhat above the bottom of the tank, and the end of the hub to be held away from the bottom of the well or pocket; and a base or support for said tank, containing a fire chamber and grate.

2. The herein described apparatus for treating wheels, comprising tank or vessel A provided with well or pocket *a* and with raised plate c in said well; base B provided with a fire chamber, a grate D, and doors E and F above and below the grate; a stack or chimney G; and cover plates H for the tank or vessel.

941,684. FLUID-PRESSURE BRAKE. WILLIAM P. A. MACFARLANE, Chicago, Ill., assignor to Richard Fitzgerald, Chicago, Ill. Filed May 10, 1909. Serial No. 494,954.



1. In a device for actuating fluid pressure brakes, a main valve arranged to admit air pressure from the auxiliary reservoir to the brake cylinder and to release the air pressure from the brake cylinder, in combination with a retarding valve coöperating with the main valve to control said release of pressure and the feed to the auxiliary reservoir and arranged, upon a sudden increase of the train line pressure, to produce a slow recharge of the auxiliary reservoir and, on a slow increase of train line pressure, to permit a quick release of air from the brake cylinder and a quick recharge of the auxiliary reservoir.

2. In a device for actuating fluid pressure brakes, a main valve arranged to admit air pressure from the auxiliary reservoir to the brake cylinder and to release the air pressure from the brake cylinder, in combination with a retarding valve coöperating with the main valve to control said release of pressure and the feed to the auxiliary reservoir and arranged, upon a sudden increase of the train line pressure, to produce a slow recharge of the aux-

iliary reservoir and, on a slow increase of train line pressure, to permit a quick release of air from the brake cylinder and a quick recharge of the auxiliary reservoir, and a graduating valve arranged to control the venting of train line pressure to the brake cylinder in service applications of the brakes.

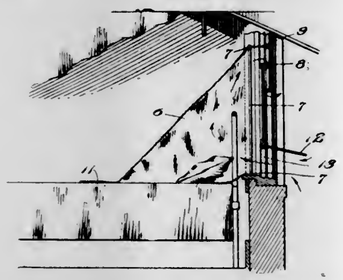
3. In a device for actuating fluid pressure brakes, a main valve arranged to admit air pressure from the auxiliary reservoir to the brake cylinder and to release the air pressure from the brake cylinder, in combination with a retarding valve coöperating with the main valve to control said release of pressure and the feed to the auxiliary reservoir, and arranged, when moved from normal position, to restrict said feed and release, and a movable abutment subject to the fluctuations in the train line pressure and adapted to be moved thereby when the train line pressure is increased suddenly.

4. In a device for actuating fluid pressure brakes, a main valve arranged to admit air pressure from the auxiliary reservoir to the brake cylinder and to release the air pressure from the brake cylinder, in combination with a retarding valve coöperating with the main valve to control said release of pressure and the feed to the auxiliary reservoir and arranged, when moved from normal position, to restrict said feed and release, a movable abutment subject to the fluctuations in the train line pressure and adapted to be moved thereby when the train pressure is increased suddenly, and a spring of a predetermined tension acting on one side of said abutment against the train line pressure on the other side.

5. In a device for actuating fluid pressure brakes, a main valve arranged to admit air pressure from the auxiliary reservoir to the brake cylinder and to release the air pressure from the brake cylinder, in combination with a retarding valve coöperating with the main valve to control said release of pressure and the feed to the auxiliary reservoir and arranged, when moved from normal position, to restrict said feed and release, a movable abutment subject to the fluctuations in the train line pressure and adapted to be moved thereby when the train pressure is increased suddenly, and a spring of a predetermined tension action on one side of said abutment against the train line pressure on the other side, said abutment being exposed to auxiliary reservoir pressure on the spring side and acting in conjunction with such spring.

[Claims 6 to 20 not printed in the Gazette.]

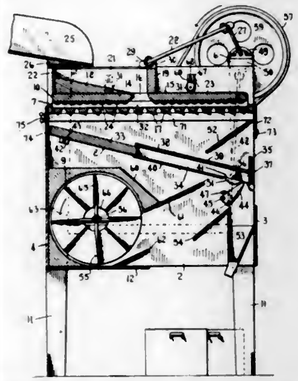
941,685. VENTILATING-CANOPY. JAMES N. MOODY, South Boston, Va. Filed Feb. 5, 1909. Serial No. 476,262.



1. The combination with a window having upper and lower sashes, of a canopy adapted to fit over the head of a bed placed adjacent to the window, said canopy fitting at its top against the upper sash at a distance above the top of the lower sash, to allow the latter to be raised.

2. A canopy for the purpose stated, comprising a frame adapted to fit in a window casing, a hood fastened to said frame and projecting on one side thereof to inclose the head of a bed, and a flap projecting from the top bar of the frame, on the other side, substantially as described.

941,686. PEANUT-SHELLING MACHINE. ROBERT M. NEWLAND, Seaford, Del. Filed Jan. 31, 1908. Serial No. 413,662.



1. In a shelling machine, the combination of a horizontal grate; a rubber movable across the grate-bars and comprising front and rear members arranged in spaced relation to each other; a pivotally-mounted screen disposed beneath the grate; and means for rocking said screen upon its pivot.

2. In a shelling machine, the combination of a horizontal grate, a rubber movable across the grate-bars and comprising front and rear members arranged in spaced relation to each other; a chute carried by the rear member of the rubber for directing the material to be shelled into the space between said members; a horizontally-pivoted screen disposed beneath the grate; and means for rocking said screen upon its pivot.

3. In a shelling machine, the combination of a horizontal grate; a rubber movable across the grate-bars and comprising front and rear members arranged in spaced relation to each other; a chute carried by the rear member of the rubber for directing the material to be shelled into the space between said members; an upstanding shoulder formed upon one of said members; a drive shaft; a driving connection between said shaft and shoulder, for reciprocating said rubber; a horizontally-pivoted screen disposed beneath the grate; and means for rocking said screen upon its pivot.

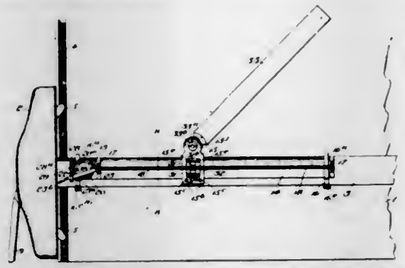
4. In a shelling machine, the combination of a frame; a grate disposed therewithin; a reciprocatory rubber movable across the grate-bars and including a slotted body portion and a hopper mounted thereon; rollers carried by the frame and adapted to bear upon the upper face of said body portion at the longitudinal edges thereof, to hold the rubber against displacement during its movements; and a screen disposed beneath the grate.

5. In a shelling machine, the combination of a frame; a grate disposed therewithin; a rubber movable across the grate-bars; and a downwardly-inclined screening member disposed beneath the grate, said member comprising a solid upper section provided with longitudinal extensions adapted to form side rails, a rib connecting said rails, a screening fabric secured to the upper faces of said rib and rails, and a solid plate secured to the lower faces of said rails, said plate terminating short of said rib, to provide a feed opening.

[Claims 6 and 7 not printed in the Gazette.]

941,687. DRAWING INSTRUMENT. CLARENCE C. PAGE, Portland, Oreg., assignor of one-half to Robert Tucker, Portland, Oreg. Filed June 3, 1909. Serial No. 499,926.

1. In a drafting appliance, the combination with a tee square having a head and blade, of a plurality of levers pivotally mounted on said head and projecting outwardly therefrom, resilient means for normally maintaining said levers in one position, and devices including a slide movably mounted on said head for rotating said levers to energize said resilient means.



2. In a drafting appliance, the combination with a tee square having a head and blade, of levers pivotally mounted upon said head on opposite sides of said blade, each of said levers having an outer end portion which extends transversely of the plane of operation of the lever, springs acting upon said levers, and means for rotating said levers to energize said springs.

3. In a drafting appliance, the combination with a tee square having a blade and a head provided with a guiding face, of oppositely disposed bell crank levers pivotally mounted upon said head, the shorter arms of said levers extending beyond the guiding face of said head, springs acting upon the longer arms of said levers, a longitudinally movable slide mounted upon said head and engaging said levers, and a releasing lever pivoted on said head and engaging said slide to afford means for moving said slide against the pressure of said springs.

4. In a drafting appliance, the combination with a tee square having a blade and a head provided with a guiding face, of bell crank levers pivotally mounted upon said head on opposite sides of said blade, one arm of each of said levers projecting beyond the guiding face of said head; leaf springs acting upon said levers, a slide movably mounted upon said head and interposed between said levers, and means for actuating said slide to energize said springs and rotate said levers.

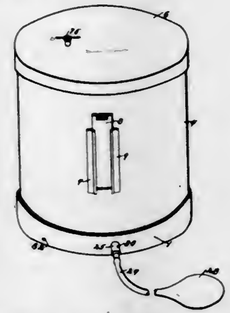
5. In a drafting appliance, the combination with a tee square having a blade and a head provided with a guiding face, of bell crank levers pivotally mounted upon said head on opposite sides of said blade, the shorter arm of each of said levers having an outer end portion extending transversely of the plane of operation of the lever and the longer arms of said levers extending toward each other, a slide movable on said head and engaging the longer arms of said levers, said slide being provided with a hook, of springs bearing upon the longer arms of said levers, and a lever pivotally mounted upon said head and engaging the hook of said slide.

[Claims 6 to 11 not printed in the Gazette.]

941,688. CAMERA. IRA O. PERRING, Kalamazoo, Mich. Filed Jan. 11, 1909. Serial No. 471,644.

1. The combination with a base; a casing having a shutter opening therein revolubly mounted on said base; a driving spring for said casing connected thereto and to said base; a shutter; a shutter opening spring; a shutter actuating lever pivoted on said casing; a stop for said lever arranged on said base whereby said lever is adapted to hold said casing in its set position and to close said shutter against the tension of its said opening spring; means for tripping said stop; a lens box; delivery and receiving film rollers; driving means for the receiving film roller; a feed roller mounted on said casing; a pressure roller adapted to coact with said feed roller; a gear carried by said base; a gear connecting said feed roller with said gear on said base; adjustable bearings for said pressure roller; means for shifting said bearings; and a locking dog for said receiving film roller driving means arranged to be actuated by said pressure roller shifting means.

2. The combination with a base; a casing having a shutter opening therein revolubly mounted on said base; a driving spring for said casing connected thereto and to said base; a shutter; a shutter opening spring; a shutter actuating lever pivoted on said casing; a stop for said lever arranged on said base whereby said lever is adapted to hold said casing in its set position and to close said shutter against the tension of its said opening spring; means for tripping said stop; a lens box; delivery and receiving film rollers; driving means for the receiving film roller; a feed roller mounted on said casing; a pressure roller adapted to coact with said feed roller; a gear carried by said base; and a gear connecting said feed roller with said gear on said base.



3. The combination with a base, of a casing having a shutter opening therein revolubly mounted on said base; a driving spring for said casing connected thereto and to said base; a shutter; a shutter opening spring; a shutter actuating lever pivoted on said casing; a stop for said lever arranged on said base whereby said lever is adapted to hold said casing in its set position and to close said shutter against the tension of its said opening spring; means for tripping said stop; a lens box; delivery and receiving film rollers; and driving means for the receiving film roller.

4. The combination with a base, of a casing having a shutter opening therein revolubly mounted in said base; a driving spring for said casing connected thereto and to said base; a shutter; a shutter opening spring; a shutter actuating lever pivoted on said casing; a stop for said lever arranged on said base whereby said lever is adapted to hold said casing in its set position and to close said shutter against the tension of its said opening spring; and means for tripping said stop.

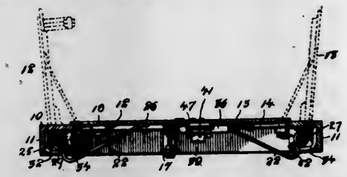
5. The combination with a base having a central bearing post and a peripheral way; a casing having a shutter opening therein mounted to revolve on said post and way; a driving spring for said casing connected thereto and to said base; a shutter; a shutter opening spring; a shutter actuating lever pivoted on said casing; a stop for said lever arranged on said base whereby said lever is adapted to hold said casing in its set position and to close said shutter against the tension of its said opening spring; means for tripping said stop; a lens box; delivery and receiving film rollers; driving means for the receiving film roller; a feed roller mounted on said casing; a pressure roller adapted to coact with said feed roller; a gear carried by said base; a gear connecting said feed roller with said gear on said base; adjustable bearings for said pressure roller; means for shifting said bearings; and a locking dog for said receiving film roller driving means arranged to be actuated by said pressure roller shifting means.

[Claims 6 to 35 not printed in the Gazette.]

941,689. LATCH-BOLT FOR DOORS. JOSEPH R. POTTS, Mechanicsburg, Pa. Filed Mar. 2, 1909. Serial No. 480,822.

1. A frame, a door pivoted thereto, a bail for said door, a latch bolt for said door and a sliding latch plate connected

to said bail and bolt for unlatching movement in the upward movement of said bail.



2. A frame, a door pivoted thereto, a bail for said door, a sliding latch bolt, a sliding latch plate adapted to operate said bolt and carried by said bail, and means for securing said plate in latching position.

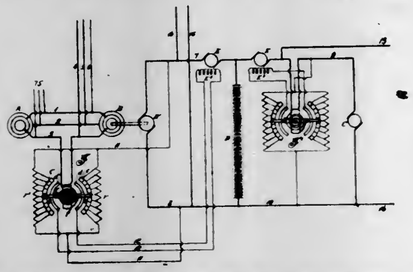
3. A frame, a door pivoted thereto, a bail for said door, a sliding latch bolt, a latch plate adapted to operate said bolt and carried by said bail, an angular locking plate extended from said latch plate, and a staple adapted to pass through said locking plate.

4. A frame, a door pivoted thereto, a bail for said door, a sliding latch bolt, a latch plate adapted to operate said bolt and carried by said bail, an angular locking plate extending from said latch plate, a staple adapted to pass through said locking plate, and a pivotal connection between said lifting bail and latch plate.

5. A frame, a door pivoted thereto, a bail for said door, a sliding latch bolt, a latch plate adapted to operate said bolt and carried by said bail, an angular locking plate extended from said latch plate, a staple adapted to pass through said locking plate, a pivotal connection between said lifting bail and latch plate, a lock well carried by the upper surface of the door, and a lock applied to said staple to secure said latch plate in position.

[Claims 6 to 9 not printed in the Gazette.]

941,690. ELECTRICAL SYSTEM OF DISTRIBUTION. WALTER E. WINSHIP, New York, N. Y., assignor to Gould Storage Battery Company, a Corporation of New York. Filed Mar. 11, 1905. Serial No. 249,534.



1. The combination of alternating and direct current circuits having an appropriate converter operatively connected between them, a battery operatively arranged in respect to the direct-current circuit, and means adapted to cause the battery to charge and discharge and operatively arranged to respond to variations of load on either circuit, substantially as described.

2. The combination of alternating and direct current generators, circuits therefrom having an appropriate converter operatively connected between them, a battery operatively arranged in respect to the direct-current circuit, and means adapted to cause the battery to charge and discharge and operatively arranged to respond to variations of current on each generator.

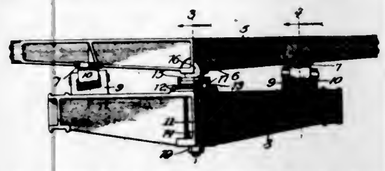
3. The combination of alternating and direct current circuits having an appropriate converter operatively connected between them, a battery and boosting apparatus operatively arranged with respect to the direct-current circuit, and regulating means for the booster apparatus responsive to variations of the load on either circuit.

4. The combination of alternating and direct current generators, circuits therefrom having an appropriate converter operatively connected between them, a battery and boosting apparatus operatively arranged with respect to the direct current circuit, and regulating means for the booster apparatus responsive to variations of the load on either circuit.

5. The combination of alternating and direct current circuits having an appropriate converter operatively connected between them, a battery operatively arranged in respect to the direct-current circuit, and means adapted to cause the battery to charge and discharge either through the converter or in the direct current circuit and operatively arranged to respond to variations of load on either circuit.

[Claims 6 to 63 not printed in the Gazette.]

941,691. CAR-BOLSTER. CHARLES H. ANDERSON, Seattle, Wash. Filed July 7, 1909. Serial No. 506,333.



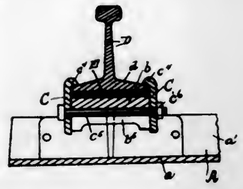
1. In combination, a car-body bolster having a spherical socket in its under side, a truck-bolster, a king-bolt on the truck-bolster having a spherical head to fit said socket and an annular shoulder below said head, a grooved annular bearing plate below said shoulder, a grooved center plate on the truck-bolster, and balls interposed between said plates.

2. In combination, a car-body bolster, a truck-bolster, a king-bolt journaled in the truck-bolster, and a ball-and-socket bearing connection between the king-bolt and body-bolster.

3. In combination, a car-body bolster, a truck-bolster, a king-bolt and ball-bearing therefor on the truck-bolster, and a ball-and-socket bearing connection between the king-bolt and body-bolster.

4. In combination, a car-body bolster, a truck-bolster, a ball-and-socket bearing connection between the said bolsters, one bolster having bearing surfaces on opposite sides of said ball-and-socket connection, and rollers on the other bolster forming stops to engage said surfaces in the rocking of the car-body.

941,692. RAILWAY-RAIL-LOCKING MECHANISM. EDMUND J. ANTHONY, Brookview, N. Y. Filed Mar. 24, 1909. Serial No. 485,463.



1. The combination with supporting-means for a railway-rail, of railway-rail clamping-members vertically disposed at opposite ends of said supporting-means, and comprising, each, a body portion having radially-projecting arms of differing lengths, any one of said arms being adapted to bear against the base of the rail.

2. The combination with supporting-means for a railway-rail, of railway-rail clamping-members vertically disposed at opposite ends of said supporting-means, and comprising, each, a body portion having radially-projecting arms of differing lengths, any one of said arms being adapted to bear against the base of the rail, and means common to both said clamping-members for uniting said members against movement.

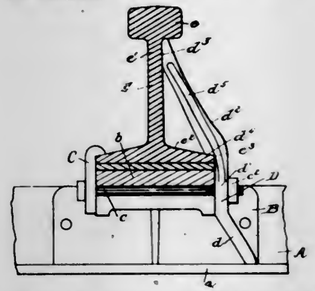
3. A railway-rail clamping-member comprising a body-portion having a plurality of radially-projecting arms of differing lengths, any one of said arms being adapted to bear upon the base of a railway-rail, each arm being formed, at the upper end, with a flange bent at an angle to the plane of said arm.

4. A railway-rail clamping-member comprising an apertured body portion having a plurality of radially-projecting arms of differing lengths, any one of said arms being adapted to bear against the base of a railway-rail, each arm being formed, at the upper end, with a flange bent at an angle to the plane of said arm, and means passing through said aperture to lock said clamping-member against movement.

5. A pair of duplicate railway-rail clamping-members, each comprising a body-portion having a plurality of radially-projecting arms of differing lengths, any one of said arms being adapted to bear against the base of a railway-rail; and means common to both said clamping-members for removably uniting said pair of clamping-members.

[Claims 6 to 11 not printed in the Gazette.]

941,693. RAIL-BRACE FOR RAILWAYS. EDMUND J. ANTHONY, Brookview, N. Y. Filed Mar. 24, 1909. Serial No. 485,464.



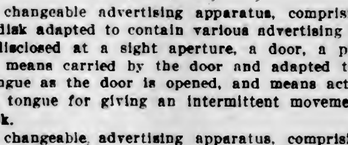
1. A railway-rail brace, comprising an inclined leg adapted to be disposed on top of the base of a metallic tie, a vertical portion adapted to be disposed against the side of the bottom flange of the railway-rail, an inclined arm extending from the top of said vertical portion and terminating beneath the top flange of the railway-rail and adapted to bear against the web of the rail, wings extending longitudinally of said arm and projecting from the two sides thereof and bearing against the bottom flange of the rail, and means for holding the rail-brace to the rail, against movement.

2. A railway-rail brace, comprising an inclined leg adapted to be disposed on top of the base of a metallic tie, a vertical portion adapted to be disposed against the side of the bottom flange of the railway-rail, an inclined arm extending from the top of said vertical portion and terminating beneath the top flange of the railway-rail and adapted to bear against the web of the rail, wings extending longitudinally of said arm and projecting from the two sides thereof and bearing against the bottom flange of the rail, and a bolt, carrying a nut, passing through said brace to hold the same to the rail.

941,694. FAUCET FOR CHEESE APPARATUS. JOHN BRENAIKE, Hustisford, Wis. Original application filed Aug. 4, 1908, Serial No. 446,906. Divided and this application filed Dec. 12, 1908. Serial No. 467,235.

1. In a faucet, a casing having a rectangular recess therein and a valve seat at the end of said recess, a body in the recess of the casing pivoted near the end of the casing remote from the valve seat, said body having its end at the valve-seat open, a valve movable therein, and means for holding the valve on the valve seat.

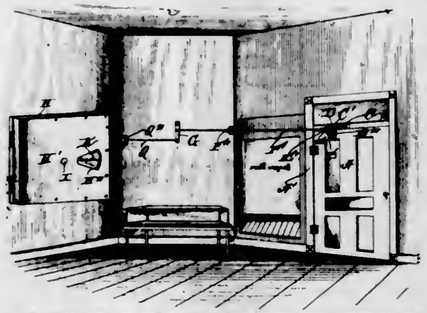
2. In a faucet, a casing having a rectangular recess therein and a valve seat at one end of the recess, a body in the recess of the casing pivoted near the end of the casing remote from the valve seat, the body having a recess opening through the end of the body remote from the pivot and a valve therein adapted to engage the valve seat.



3. A faucet having a casing with a recess, a body swingingly mounted in the recess, handles secured to the body and adapted to frictionally engage the outer walls of the casing, a valve in the body, means for yieldingly holding the valve in engagement with its seat.

4. A faucet comprising a casing having a hollowed out portion, a valve seat in said casing, a pin passing through the walls of said casing, a body in said casing pivoted on said pin, a rod pivoted to said pin and extending longitudinally of said body, a spring on said rod, and a valve carried by said body, said spring adapted to force said valve into contact with the valve seat.

941,695. CHANGEABLE SIGN FOR ADVERTISING PURPOSES, &c. CLINTON D. CHADBOURNE and WILBUR R. SIMPSON, Wyoming, Ill. Filed June 10, 1909. Serial No. 501,417.



1. A changeable advertising apparatus, comprising a rotary disk adapted to contain various advertising cards to be disclosed at a sight aperture, a door, a pivotal tongue, means carried by the door and adapted to tilt said tongue as the door is opened, and means actuated by said tongue for giving an intermittent movement to said disk.

2. A changeable advertising apparatus, comprising a rotary disk adapted to contain various advertising cards to be disclosed at a sight aperture, a door, a spring-pressed bolt mounted upon said door, a pivotal tongue adapted to be actuated by said bolt as the door is opened, and means actuated by said tongue and adapted to impart an intermittent movement to said disk.

3. A changeable advertising apparatus, comprising a rotary disk adapted to contain various advertising cards to be disclosed at a sight aperture, a door, a spring-pressed bolt mounted upon said door, a hinged tongue mounted adjacent to the door and behind which said bolt normally rests, a projection upon said tongue, and means connected thereto for actuating and imparting an intermittent movement to said disk.

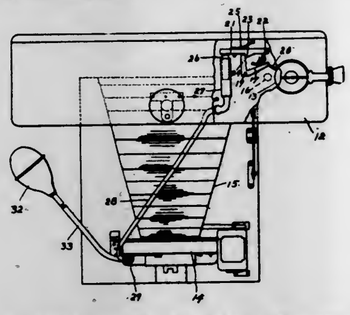
4. A changeable advertising apparatus, comprising a rotary disk adapted to contain various advertising cards to be disclosed at a sight aperture, a door, a spring-pressed beveled ended bolt mounted upon said door, a hinged tongue mounted adjacent to the door and behind which said bolt normally rests, said tongue having a

beveled projection thereon designed to retract the bolt as the latter passes by said projection, and means connected to said tongue for imparting an intermittent movement to the disk as the door is opened.

5. A changeable advertising device, comprising a rotary disk adapted to contain advertising cards to be displayed through a sight aperture, a wheel having a series of scallops in the circumference thereof and adapted to rotate with said disk, a movable shell and guide therefor, a pivotal finger upon said shell adapted to contact with said scalloped wheel to impart an intermittent rotary movement thereto, means carried by the shell for limiting the rotary movement of the wheel, and means actuated by a door for moving said shell in one direction.

[Claims 6 to 10 not printed in the Gazette.]

941,696. CAMERA. HARRISON W. CONNER, Boston, Mass., assignor, by mesne assignments, to Susan Gertrude Conner, Reading, Mass. Filed May 29, 1909. Serial No. 499,159.



1. A camera, comprising a case, a film-feeding spool journaled therein, the case being provided with a sight opening adjacent to the spool, a movable indicator within the case normally held in a projected position and visible through the sight opening, means operated by the rotation of the spool for retracting the indicator to a concealed position, a detent within the case adapted to automatically engage said indicator and hold it in its retracted position, a shutter, and means for simultaneously operating the shutter to expose the film, and tripping said detent to release the indicator and permit its return to its exposed position.

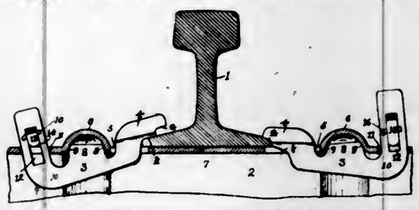
2. A camera, comprising a case, a film-feeding spool journaled therein, the case being provided with a sight opening adjacent to the spool, a movable indicator within the case normally held in a projected position and visible through the sight opening, means operated by the rotation of the spool for retracting the indicator to a concealed position, a detent within the case adapted to automatically engage said indicator and hold it in its retracted position, a tripping device engaged with the detent, a shutter, and shutter-operating means having provisions for simultaneously operating the shutter and the tripping device, to cause the exposure of the film and the return of the indicator to its exposed position.

3. In a camera comprising an extensible case a part of which contains the film-holding and feeding mechanism, and another part the lens and the shutter, one of said parts being movable relatively to the other, a movable indicator within the film-containing portion of the case, and normally held in a projected position and visible through a sight opening in said portion, means operated by the adjustment of the film for retracting the indicator to a concealed position, a detent within the film-containing portion of the case adapted to automatically engage said indicator and hold it in its retracted position, a tripping member engaged with said detent, a shutter, shutter-operating means carried by the lens-containing portion of the case, and flexible means for communicating motion from the shutter-operating means to the tripping member.

4. In a camera comprising an extensible case a part of which contains the film-holding and feeding mechanism, and another part the lens and the shutter, one of said parts being movable relatively to the other, a movable indicator within the film-containing portion of the case, and normally held in a projected position and visible through a sight opening in said portion, means operated by the adjustment of the film for retracting the indicator to a concealed position, a detent within the film-containing portion of the case adapted to automatically engage said indicator and hold it in its retracted position, a tripping member engaged with said detent and formed as a piston, a cylinder in which said piston is movable, pneumatically controlled shutter-operating means carried by the lens-containing portion of the case, and a flexible tube extending from the shutter-operating means to the said cylinder.

5. A camera comprising a case having a sight opening, a film-feeding spool journaled in the case, a movable spring-pressed indicator normally held by its spring in a projected position and visible through said opening, means operated by the rotation of the spool for retracting the indicator to a concealed position, means for locking the indicator in its concealed position, a shutter, mechanism for actuating the same, and means operated by the shutter-actuating mechanism for releasing or unlocking the indicator and permitting its return to its exposed position.

941,697. RAIL-FASTENER. GEORGE M. CÔTÉ, Pittsburg, Pa. Filed Feb. 15, 1909. Serial No. 477,988.

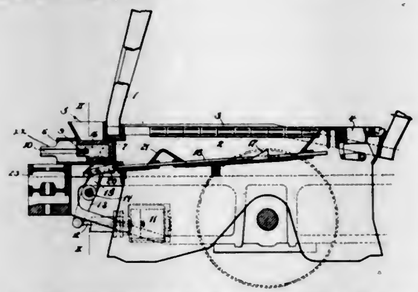


1. A fastener intended to secure a rail to a tie consisting of a head adapted to engage the rail, a body adapted to extend through an aperture in the tie, a projection on the upper surface of said body adapted to be seated in a recess in the tie and hold said body out of contact with the under surface of the tie top whereby a center of oscillation is formed for said fastener, an arm integral with said body and extending upwardly through a second aperture in the tie, and a wedge member adapted to be seated in a slot in said arm and bear against the top of the tie, substantially as described.

2. A fastener intended to secure a rail to a tie consisting of a head adapted to engage the rail, a body adapted to extend through an aperture in the tie, a rounded projection on the upper surface of said body adapted to be seated in a corresponding recess in the tie and hold said body out of contact with the under surface of the tie top whereby a center of oscillation is formed for said fastener, an arm integral with said body and extending upwardly through a second aperture in the tie, and a wedge member adapted to be seated in a slot in said arm and bear against the top of the tie, substantially as described.

3. A fastener intended to secure a rail to a tie consisting of a head adapted to engage the rail, a body adapted to extend through an aperture in the tie, a rounded projection on the upper surface of said body adapted to be seated in a corresponding recess in the tie and hold said body out of contact with the under surface of the tie top whereby a center of oscillation is formed for said fastener, an arm integral with said body and extending upwardly through a second aperture in the tie, and a wedge member adapted to be seated in a slot in said arm and having a rounded surface adapted to bear against the top of the tie, substantially as described.

941,698. MECHANICAL STOKER FOR LOCOMOTIVES. DAVID F. CRAWFORD, Pittsburg, Pa. Filed Oct. 3, 1908. Serial No. 456,087.

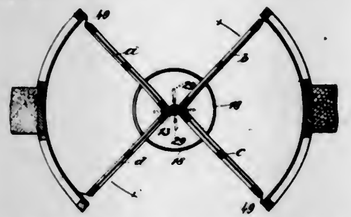


1. The combination of a locomotive furnace, an underfeed trough extending into the furnace, a feed cylinder located at the rear of the trough and provided in its sides with guide slots, guide members extending rearwardly from the opposite sides of the cylinder and provided with slots forming continuations of the first guide slots, a feed piston in the cylinder, a cross-head secured to the piston fitting the guide slots, crank arms secured to the cross-head on opposite sides of the cylinder, and means for oscillating the crank arms.

2. The combination of a locomotive furnace, an underfeed trough extending into the furnace, a feed cylinder located at the rear of the trough and provided in its sides with guide slots, a feed piston in the cylinder, a cross-head secured to the rear portion of the piston and extending through the slots, a transverse shaft provided with crank arms on opposite sides of the cylinder with their upper ends in front of the cross-head, connecting links extending from the cross-head to the ends of the cranks, an operating crank arm located adjacent the end of the transverse shaft and a motor connected to such last crank arm for oscillating it.

3. The combination of a locomotive furnace, an underfeed trough extending into the furnace, a feed cylinder located at the rear of the trough and provided in its sides with guide slots, a piston mounted in the cylinder, a cross-head fitting the slots, a transverse shaft beneath the cylinder, an operating motor located at the side of the fire-box and having connections with the shaft for oscillating it, and a crank at the side of the cylinder and having operative connection with the cross-head and with the shaft.

941,699. REVOLVING DOOR. CORNELIS J. CRUYFF, Amsterdam, Netherlands. Filed Jan. 19, 1909. Serial No. 473,119.



1. In a revolving door the combination of an axle, a plurality of wings turnably attached to the latter, means to lock the said wings in their crosswise position, a truck slidably disposed in the door casing, the said wings being suspended on the said truck, means to secure the latter in its normal position, means to release the said locking means for said wings and the said securing means for said truck, and a spring adapted to place the said wings, when unlocked, parallel to each other, substantially as and for the purpose set forth.

2. In a revolving door the combination of a vertically arranged axle adapted to be lifted, a plurality of wings loosely attached to the latter, means to lock the said wings in their crosswise position, a truck laterally shiftable in the door casing, the said wings being suspended on said truck, means to secure the latter in its normal position, means to release the said locking means for said wings and said truck and adapted to be operated by lifting of the said axle, means to lift the said axle, and a spring acting on said wings and adapted to place the latter, when unlocked, parallel to each other, substantially as and for the purpose set forth.

3. In a revolving door the combination of hollow axle, two double wings fixed to the latter, a truck laterally shiftable in the door casing, means to secure the said truck in its normal position, the said hollow axle being turnably suspended in the said truck, a horizontal ring rigidly connected with one of the said double wings, locking levers disposed in the other double wing and adapted to couple the latter with the said ring, a vertically shiftable rod in the said hollow axle and adapted to release the said locking levers and the said securing means for the said truck, means to lift the said vertical rod, and a spring acting on said double wings and adapted to place the said double wings, when unlocked, parallel to each other, substantially as and for the purpose set forth.

4. In a revolving door the combination of a hollow axle, two double wings attached to said hollow axle, one of said double wings fixed to said axle, the second double wing being turnably connected with the first said double wing, a truck slidably disposed in the door casing, said hollow axle being turnably suspended in the said truck, means to secure the said truck in its normal position, a horizontal ring rigidly connected with one of the said double wings, locking levers disposed in the other double wing and adapted to engage into notches in the said ring, a vertically shiftable rod in the said hollow axle, a socket bearing for the lower end of the said rod, a collar rigidly fixed on the said rod, a yoke loosely arranged on the latter and resting on the said collar, links connecting the said yoke with the said locking levers, toothed means adapted to lift the said vertical rod, the latter being adapted to disengage the said securing means for the said truck, and a spiral spring acting on the said two double wings and adapted to place the latter parallel to each other, substantially as and for the purpose set forth.

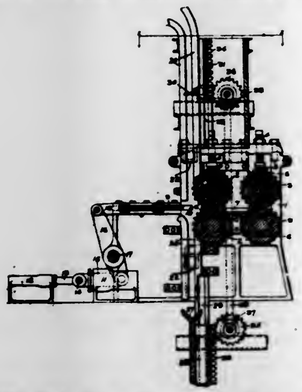
5. In a revolving door the combination of a hollow axle, two double wings attached to said hollow axle, one of said double wings fixed to said axle, the second double wing being turnably connected with the first said double wing, a truck slidably disposed in the door casing, said hollow axle being turnably suspended in the said truck, means to secure the said truck in its normal position, a horizontal ring rigidly connected with one of the said double wings, said ring having linked parts adapted to fold downward, when the said double wings are being placed parallel to each other, locking bolts slidable in the said foldable ring and adapted for normally locking the latter in its normal position, means to withdraw the said locking bolts from the locking position, when the said double wings are being returned to the crosswise position, locking levers disposed in the other double wing and adapted to engage into notches in the said foldable ring, a vertically shiftable rod in the said hollow axle, a socket bearing for the lower end of said rod, a collar rigidly fixed on the said rod, a yoke loosely arranged on the latter and resting on the said collar, links connecting the said yoke with the said locking levers, toothed means adapted to lift the said vertical rod, the latter being adapted to disengage the said securing means for the said truck, and a spiral spring acting on the said two double wings and adapted to place the latter parallel to each other, substantially as and for the purpose set forth.

[Claims 6 to 10 not printed in the Gazette.]

941,700. DOUBLING APPARATUS. PERCY E. DONNER, Pittsburg, Pa. Filed Feb. 21, 1906. Serial No. 302,273.

1. In sheet metal doubling apparatus, the combination of a pair of doubling rollers arranged horizontally and one above the other, spaced sheet guides arranged vertically in front of said rollers, a support for the lower end

of the sheet, a pusher blade mounted to move horizontally, and mechanism for moving said blade to force the intermediate part of the sheet between the doubling rollers.



2. In sheet metal doubling apparatus, the combination of two pairs of doubling rollers arranged in tandem with their axes horizontal and one roller of each pair above the other, spaced sheet guides arranged vertically in front of said rollers, a support for the lower end of the sheet, a pusher blade mounted to move horizontally, and mechanism for moving said pusher blade to force the intermediate part of the sheet between the doubling rollers.

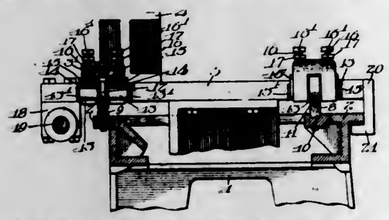
3. In sheet metal doubling apparatus, the combination of a pair of doubling rollers arranged horizontally and one above the other, spaced sheet guides arranged vertically in front of said rollers, a support for the lower ends of the sheets, means for matching the side edges of the sheets, a pusher blade mounted to move horizontally, and mechanism for moving said pusher blade to force the intermediate part of the sheets between the doubling rollers.

4. In sheet metal doubling apparatus, the combination of a pair of doubling rollers arranged horizontally and one above the other, spaced sheet guides arranged vertically in front of said rollers, stops for engaging the top and bottom ends of the sheet, mechanism for moving said top and bottom stops toward and from each other, a pusher blade mounted to move horizontally, and mechanism for moving said pusher blade to force the intermediate part of the sheet between the doubling rollers.

5. In doubling apparatus, the combination of a pair of doubling rollers arranged horizontally and one above the other, guides in front of said rollers for holding the sheet vertically, movable side stops for contacting with the side edges of the sheet, a vertically movable support for the lower end of the sheet, a pusher blade mounted to move horizontally, and mechanism for moving said pusher blade to force the intermediate part of the sheet between the doubling rollers..

[Claim 6 not printed in the Gazette.]

941,701. LATHE. CARL D. FISCHER, Jr., Wapakoneta, Ohio. Filed Sept. 12, 1907. Serial No. 392,485.



In a lathe, the combination with a pair of track ways, of a carriage, a track wheel located at each corner of said carriage, each of said track wheels comprising a central body portion and a journal portion projecting from each side thereof, independent bearing blocks, one bearing upon each of said journal portions, said bearing blocks being vertically movable in the carriage and vertical adjusting screws threaded into the carriage and bearing upon said blocks, there being one of said screws for each of said blocks, said screws serving either to move the frame vertically with relation to the bearing blocks, or to adjust the track wheels angularly with relation to the carriage.

941,702. BUCKLE. LESLIE H. FISHEL, New York, N. Y., assignor to Henry W. Fishel and Theodore H. Fishel, New York, N. Y., Copartners trading as Fishel, Nessler & Company. Filed Aug. 6, 1908. Serial No. 447,231.



1. A belt buckle comprising a forwardly-bowed open frame provided at one end with a rearwardly-projecting belt-engagement stud, and with a belt-gripping bar, said bar being movably mounted in the rear of the frame near the opposite end from the stud and operating, when secured to one end of the belt and subjected to tension thereby to move toward the back of the frame so as to grip the other end of the belt.

2. In combination with a belt having a perforated end, a buckle comprising a forwardly-bowed open frame provided at one end with a stud engaging one of the perforations in the belt, and a gripping bar pivotally mounted to the rear of the frame near the opposite end from the stud and secured to the end of the belt, the gripping bar being arranged to swing toward the back of the frame when subjected to the tension of the belt so as to grip the perforated end of the belt between the bar and the back of the frame.

3. A belt buckle comprising a forwardly bowed frame of a general rectangular form with an open center and with backwardly-projecting ears on its side members near one end member, means at the back of one end of the frame for securing the belt adjustably, and a U-shaped gripping bar having the ends of its side members pivotally connected with said ears, so that the middle portion of the bar may coöperate with said end member to grip the tab end of the belt.

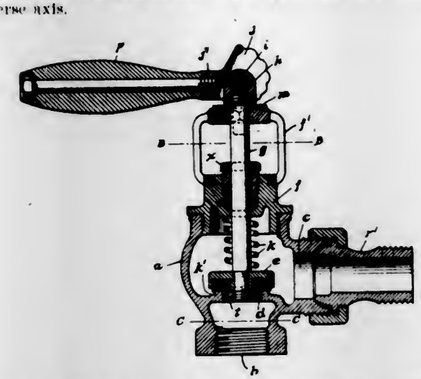
4. A belt buckle comprising a frame of a general rectangular form with an open center and with backwardly-projecting ears on its side members near one end member, a rearwardly-projecting stud at one end of the frame for securing the belt adjustably, and a U-shaped gripping bar having the ends of its side members pivotally connected with said ears so that the middle portion of the bar may coöperate with said end member, the pivotal points being located in front of a straight line connecting the rear of the extremities of the frame to cause the gripping bar to be pressed forwardly against the tab of the belt.

941,703. VALVE MECHANISM FOR HEATING APPARATUS. JAMES L. FITTS, Merchantville, N. J., assignor to Warren, Webster & Company, a Corporation of New Jersey. Filed Mar. 13, 1907. Serial No. 362,087.

1. A valve device for steam heating apparatus, consisting of a valve-body having a thoroughfare, a valve-piece to control said thoroughfare, a valve-stem for operating said valve-piece extending through the top of the valve-body, and a bifurcated cam having its cam faces acting on a part of the valve-body and arranged to maintain variable positions in its cam surface, the upper end of the valve-stem being pivoted to said cam between its bifurcations on a transverse axis.

2. A valve device for steam heating apparatus, consisting of a valve-body having a thoroughfare, a valve-piece

to control said thoroughfare, a yoke carried by the top of said valve-body, a valve-stem for operating said valve-piece extending through the top of the valve-body and yoke, and a bifurcated cam having its cam faces acting on the yoke and arranged to maintain variable positions in its cam surface, the upper end of the valve-stem being pivoted to said cam between its bifurcations on a transverse axis.



3. A valve-device for steam heating apparatus consisting of a valve-body having a thoroughfare, a valve-piece to control said thoroughfare, a valve-stem for operating said valve-piece extending through the top of the valve-body, and an involute cam pivotally connected with the upper end of said stem on a transverse axis and having its cam face bearing on a portion of the valve-body and provided with a series of notches *n*, said bearing portion being provided with a projection *o* adapted to engage the notches *n* and maintain the cam in adjusted position.

4. In a valve for steam heating systems, the combination of a valve body having a thoroughfare, a valve-piece to control said thoroughfare, a valve stem for operating said valve-piece extending through the body, a cam pivotally connected with the upper end of said stem, said stem and cam being free to rotate, a washer adapted to engage said cam and rotate with it interposed between the cam and valve body, and a spring acting on said stem and valve-piece against the cam.

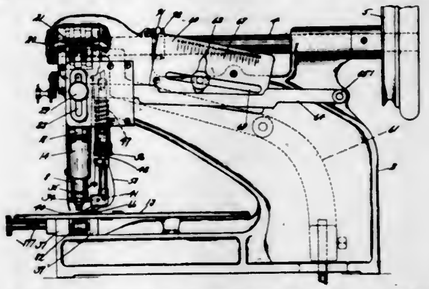
5. In a valve for steam heating systems, the combination of a valve body having a thoroughfare, a valve-piece to control said thoroughfare, a valve stem for operating said valve-piece extending through the body, a rotary washer on the upper part of the valve body embracing said stem and provided with a rib, and an involute cam pivotally connected with the upper end of said stem on a transverse axis and having a notched cam face bearing upon said washer and engaging the rib thereof, and a spring acting on said stem and valve-piece against the cam.

941,704. PERFORATING-MACHINE. LOUIS W. G. FLYNT, Rochester, N. Y., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Jan. 31, 1905. Serial No. 243,504.

1. In a machine of the class described, a punch, means for actuating said punch to form successive perforations in stock, a presser foot having a contact face shaped to engage a small portion of the stock only at a point in alinement with the perforations being formed therein and arranged to facilitate turning of the stock about itself, and means for feeding the stock.

2. In a machine of the class described, a punch, means for forcing said punch into stock, means for moving the punch laterally to feed the stock, a presser foot for engaging the stock at a point in the plane of lateral movement of the punch, and means for moving said presser foot out of the path of movement of said punch.

3. In a machine of the class described, a punch, means for actuating said punch to form successive perforations in stock, means for moving said punch laterally to feed the stock, and a presser foot for engaging the stock at a point in alinement with the perforations being formed therein and approximately midway between the extreme positions occupied by the punch in its lateral movements.

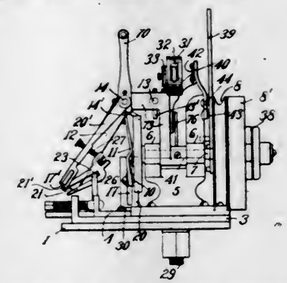


4. In a machine of the class described, a punch, means for forcing said punch into stock, means for moving said punch laterally to feed the stock, a presser foot having a contact face shaped to engage a small portion of the stock at a point in alinement with the perforations being formed therein, and arranged to facilitate turning of the stock about itself, and mechanism for actuating the presser foot to engage the stock intermittently only at a point in alinement with said perforations.

5. In a machine of the class described, a punch, means for forcing it into stock, means for moving said punch laterally to feed the stock, a presser foot for engaging the stock at a point in the plane of lateral movement of the punch, and automatic means for moving said presser foot into and out of operative position relatively to the stock and out of the path of lateral movement of said punch.

[Claims 6 to 37 not printed in the Gazette.]

941,705. SAW. ANDERS P. FRIDSTROM, Everett, Mass. Filed Aug. 7, 1908. Serial No. 447,348.



1. A saw and feeding means therefor operated by gravity, in combination with a rack moving with the saw, a dog stationarily supported, pivotally mounted, adapted to engage the rack and balanced so that it is normally disengaged, and a cord extending therefrom to the forward part of the machine and arranged to pull the dog into engagement with the rack.

2. A saw blade and a frame supporting it, pivotally mounted and feeding by gravity, in combination with a rod tending to balance them on the pivot and a weight movable to varying distances on the rod thereby varying the balancing force; and a second rod adapted to move the weight on the first rod, there being a series of notches in the second rod adapted to engage the top of a stationary element, whereby said second rod and the weight may be latched in various positions.

3. In a saw, the combination of a frame adapted to hold the saw blade, two parallel bars forming ways, there being bearings of said frame thereon, means to disconnect

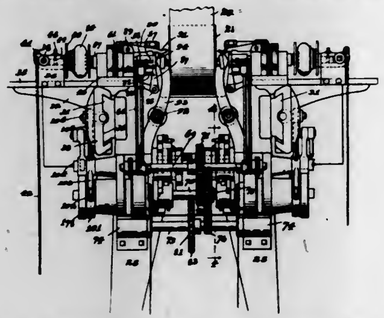
the frame from one of said bars, whereby the frame may swing about the axis of the other bar and be set at an inclination to its position when bearing on both.

4. In a saw, the combination of a frame adapted to hold the saw blade, a way on which the frame travels, and meaps to impart endwise reciprocating travel to the frame; a way adapted to support and guide the frame so traveling; and means to maintain the frame at varied angles to the vertical plane of said way.

5. In a saw, the combination of a frame adapted to hold the saw blade, a bar forming a way on which the said frame travels, a stationary guide bearing against the frame at a distance from the vertical plane of said way, whereby the inclination of said frame is determined.

[Claims 6 to 18 not printed in the Gazette.]

941,706. BEDSTEAD-MOUNT-BUFFING MACHINE. JOHN F. GAIL, Kenosha, Wis., assignor to The Simmons Manufacturing Company, Kenosha, Wis., a Corporation of Wisconsin. Filed Dec. 22, 1908. Serial No. 468,757.



1. In a machine of the character described, the combination of a buffer, a support for the piece to be buffed movable to shift said piece into and out of the field of action of said buffer, a movable member controlling the actuation of said support, means to move said member to cause said piece to be acted upon by said buffer and to be shifted away therefrom, and a governing means to interrupt the movement of said member for a predetermined period of time during which said piece is acted upon by said buffer, the piece being moved away from the buffer during the completion of the movement of said member after the expiration of said predetermined period of time, substantially as described.

2. In a machine of the character described, the combination of a buffer, a support for the piece to be buffed movable to shift said piece into and out of the field of action of said buffer, a rotatable member controlling the actuation of said support, means to rotate said member to cause said piece to be acted upon by said buffer and to be shifted away therefrom, a governing means to interrupt the rotation of said member for a predetermined period of time during which said piece is acted upon by said buffer, and means to adjust said governing means to vary said period, the piece being moved away from the buffer during the completion of the rotation of said member after the expiration of said predetermined period of time, substantially as described.

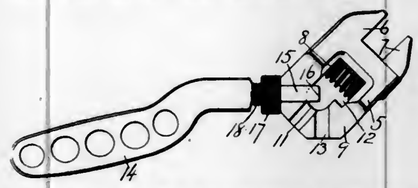
3. In a machine of the character described, the combination of a buffer, a support for the piece to be buffed movable to shift said piece into and out of the field of action of said buffer, a movable member controlling the actuation of said support, means to move said member to cause said piece to be acted upon by said buffer, and a step by step actuated governing means to interrupt the movement of said member for a predetermined period of time during which said piece is acted upon by said buffer, the piece being moved away from the buffer during the completion of the movement of said member after the expiration of said predetermined period of time, substantially as described.

4. In a machine of the character described, the combination of a buffer-wheel, a support for the piece to be buffed movable to bring said piece into and out of the field of action of said buffer wheel, and means controlling the actuation of said support including a rotary shaft, a member equipped with means governing the movement of said support, a clutch between said shaft and member, a clutch-controlling means adapted when in normal position to cause the unclutching of said member and shaft and when displaced to permit the clutch to operatively connect them, means to unclutch said member from said shaft after a definite extent of rotation of said member sufficient to bring said piece against said buffer-wheel, and governing means adapted to act on said unclutching means after a predetermined period of action of said buffer-wheel on said piece to permit reclutching of said member to said shaft, whereby to complete the rotation of said member during which movement said piece is moved away from said buffer-wheel, the unclutching at the end of the rotation of said member being accomplished by said clutch-controlling means, substantially as described.

5. In a machine of the character described, the combination of a buffer-wheel, a support for the piece to be buffed movable to bring said piece into and out of the field of action of said buffer wheel, and means controlling the actuation of said support including a rotary shaft, a member equipped with means governing the movement of said support, a clutch between said shaft and member, a clutch-controlling means adapted when in normal position to cause the unclutching of said member and shaft and when displaced to permit the clutch to operatively connect them, means to unclutch said member from said shaft after a definite extent of rotation of said member sufficient to bring said piece against said buffer-wheel, a clutch-governing means adapted to act on said unclutching means after a predetermined period of action of said buffer-wheel on said piece to permit the reclutching of said member to said shaft whereby to complete the rotation of said member during which said piece is moved away from said buffer-wheel, the unclutching at the end of the rotation of said member being accomplished by said clutch-controlling means, and means movable simultaneously with the rotation of said shaft adapted to operate said clutch-governing means, substantially as described.

[Claims 6 to 28 not printed in the Gazette.]

941,707. WRENCH. HENRY M. GAINES, Glastonbury, Conn. Filed Jan. 21, 1909. Serial No. 473,523.



1. A wrench comprising a body portion provided with a pair of jaws and a heel, said heel formed with an inner and an outer edge, said inner edge being beveled, said heel having beveled outer corners and further having in one face a plurality of grooves angularly disposed with respect to each other and extending from the outer edge to the inner edge of the heel, a handle terminating in a threaded extension provided at its outer end with a hook beveled to engage said beveled edge, the shank of said hook adapted to be seated in one of said grooves and a nut mounted upon said handle and adapted to engage the outer edge of the heel for maintaining the hook in engagement with the inner edge of the heel whereby the handle is coupled to the heel.

2. A wrench including a body portion having a pair of jaws and further having a heel formed with an inner and an outer edge, one of said edges being beveled, said heel further provided with a groove in one face extending from the outer to the inner edge, a handle having a hook beveled to engage said beveled edge, the shank of said hook seated in said groove, and a nut mounted upon the handle and adapted to engage the other edge of the heel whereby the handle is coupled to the heel.

3. A wrench including a body portion having a fixed and a movable jaw and further having a heel formed with an inner and an outer edge, one of said edges being beveled, said heel having a groove in one face thereof extending from the inner to the outer edge, a handle having a hook and a shoulder, one of which is beveled to engage said beveled edge, the shank of said hook being seated in said groove, and a nut mounted upon the handle and adapted to engage the heel whereby the heel is coupled thereto.

4. A wrench including a body portion having a pair of jaws and further having a heel formed with an inner and an outer edge, one of said edges being beveled, said heel further provided with a plurality of grooves in one face thereof, said grooves angularly disposed with respect to each other and extending from edge to edge of the heel, a handle having a hook beveled to engage said beveled edge, the shank of said hook adapted to be seated in one of said grooves, and a nut mounted upon the handle adapted to engage the heel whereby the handle is coupled thereto.

5. A wrench including a body portion having a fixed and a movable jaw and further having an opening and a recessed heel whereby said heel is provided with an inner and an outer edge, an adjusting means for the movable jaw, said opening permitting access to said adjustable means, said heel having its inner edge beveled and further having one face provided with a groove, a handle having a hook beveled to engage said beveled edge, the shank of said hook being seated in said groove, and a nut mounted upon the handle and adapted to engage the other edge of the heel whereby the handle is coupled to the body portion.

941,708. GAS-BURNER. BERNARD A. GEURINK, East Cleveland, Ohio, assignor to The Trenkamp Stove & Manufacturing Company, Cleveland, Ohio, a Corporation of Ohio. Filed June 10, 1909. Serial No. 501,226.



1. A burner of the character described, comprising a plurality of non-communicating sections and independent fuel supplies for the respective sections, said sections including adjacently disposed portions, whereby one section may be lighted from another, substantially as described.

2. A burner of the character described, comprising a plurality of parallel non-communicating sections and independent fuel supplies for the respective sections, said sections being provided with adjacently disposed transverse branches, whereby one section may be lighted from another, substantially as described.

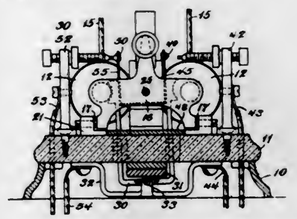
3. A burner of the character described, comprising a plurality of parallel sections and independent fuel supplies for the respective sections, said sections being provided with adjacently disposed branches extending from one section to another but not communicating therewith, whereby one section may be lighted from another, substantially as described.

4. A burner of the character described, comprising a plurality of non-communicating sections and fuel supplies therefor, respectively, said sections including contiguously disposed portions, whereby either or all of said sections may be lighted at substantially the same point, substantially as described.

5. A burner of the character described, comprising a plurality of non-communicating sections and independent fuel supplies for the respective sections, said sections including branches terminating at substantially the same point, whereby either or all of said sections may be lighted at such point, substantially as described.

[Claims 6 to 12 not printed in the Gazette.]

941,709. RELAY. THOMAS W. GLEESON, Boston, Mass. Filed Jan. 29, 1908. Serial No. 413,243.



1. The combination with an electromagnetic relay having a pair of normally neutral operative poles whose polarity, when established, is opposed one to the other, and a neutral armature arranged so as to be actuated by said poles, of a polarized armature having a pair of constant like poles each in coöperative relation with one of said electromagnetic poles, and so arranged that magnetic attraction between one couple of adjacent poles tends to move the polarized armature in the same direction as does repulsion between the other couple of adjacent poles, and vice versa when the polarity of the electromagnetic poles is reversed.

2. The combination with an electromagnetic relay of an armature having a pair of similar and constant magnetic poles movable in unison and arranged so that each is adapted to coöperate with one of two opposite poles of the electromagnet, two independent stationary terminals, and means carried by the armature for closing a circuit through either of said terminals.

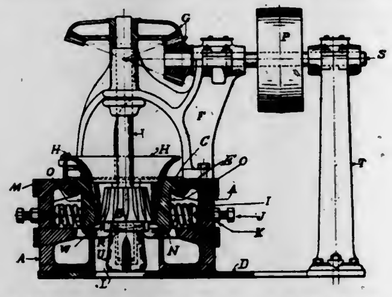
3. An electromagnetic relay having a pair of poles, windings arranged to effect opposite magnetic polarity in said poles, the said polarity being reversible with the polarity of the energizing current, and a relay armature adapted to be actuated by said poles, in combination with a supplemental armature having a pair of poles each arranged to coöperate with a pole of the electromagnet, a permanent magnet arranged so as to induce constant and like polarity in the poles of the independent armature, whereby one pole thereof is attracted by its coöperative electromagnetic pole while the other is repelled by the other electromagnetic pole, and vice versa when the energizing current is reversed, two independent terminals, and means carried by the polar armature for closing a circuit through either of said terminals.

4. The combination with an electromagnet, of a magnetically inductive armature having pole pieces adapted to cooperate with the electromagnet, a permanent magnet arranged so that one pole lies adjacent said armature, and the other pole relatively distant therefrom, and a soft iron member arranged between the electromagnet and said distant pole, substantially as set forth.

941,710. FLEXIBLE CRUSHING-MACHINE. HARVEY E. GREGG, Newport, Del. Filed Jan. 25, 1909. Serial No. 474,131.

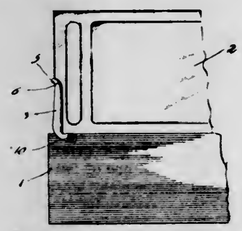
In a crushing machine, the combination of a hollow cylindrical body, a shaft arranged vertically therein, a step bearing for the lower end of the shaft and arranged in said body, said step bearing having a cylindrical upper end, an annular series of segmental cheek pieces mounted for swinging movement in the body above said bearing, a cone-shaped crushing member to co-act with said cheek pieces fixed to the shaft above said step bearing, an annular flange formed integral with the bottom of said cone-shaped crushing member and depending therefrom to receive the cylindrical upper end of the step bearing, said depending flange being formed upon its inner wall with

inwardly projecting radial ribs to provide vanes which create a current of air when the shaft is rotated and direct



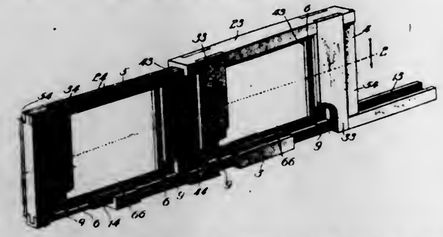
dust away from the upper end of the step bearing, and means for rotating said shaft.

941,711. BRACE FOR DASHBOARDS. FINE H. HOSAY, Gallatin, Tenn. Filed Mar. 30, 1909. Serial No. 486,785.



A brace for dash boards comprising a body portion having a longitudinal groove in one side to fit the bead at the side of the dash board, an outwardly curved upper end provided with a hook to inclose said bead, and an inwardly extending lug formed at the lower end of the brace provided with a slot to admit a bolt for adjustably securing the brace to the body of the vehicle.

941,712. STEREOPTICON-SLIDE CARRIER. PHILO R. HOY, Chicago, Ill., assignor to McIntosh Stereopticon Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 21, 1908. Serial No. 453,920.



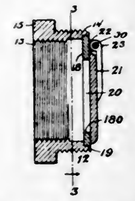
1. In a slide-carrier, the combination with a movable member having slide-display openings provided with lateral channels, of raised slide-seats in the lower ends of said channels forming stops for slides of smaller size, for the purpose set forth.

2. In a slide-carrier, the combination with a stationary member, of a movable member having slide-display openings provided with lateral channels adapted to overlap and retain slides of varying width, and raised slide-seats in the lower ends of said channels forming stops for slides of smaller size, for the purpose set forth.

3. In a slide-carrier, the combination with a movable member having slide-display openings provided with lateral channels, of strips secured in the lower ends of said channels and forming seats and stops, respectively, for slides of larger and smaller size, for the purpose set forth.

4. In a slide-carrier, the combination with a stationary member, of a movable member having slide-display openings provided with lateral channels adapted to overlap and retain slides of varying width, and slide-seating stops consisting of strips secured in the lower ends of said channels, for the purpose set forth.

941,713. COMBINED REDUCING-BUSHING AND CHECK-VALVE. WILLIAM S. JACOBS, Malden, Mass., assignor of one-half to Charles C. Clapp, Malden, Mass. Filed Jan. 28, 1909. Serial No. 474,774.



1. As an article of manufacture, a reducing bushing having larger and smaller concentric screw-threaded portions, an external enlargement formed to engage a wrench, an inwardly projecting flange located within the diameter of the larger threaded portion and forming a hinge support and a part of a valve-seat, and a clapper valve formed as a disk cut away at one side and connected with the flange by a hinge located between the cut-away portion of the valve and the periphery of the bushing and supported by the flange, the bushing being provided with a valve seat, a part of which is formed by the outer side of the flange, said seat surrounding the passage through the bushing.

2. As an article of manufacture, a reducing bushing having larger and smaller concentric screw-threaded portions, an external enlargement formed to engage a wrench, an annular face plate fitted in an annular recess formed in the end of the larger screw-threaded portion and composed of a flange portion 18 and an extension 180, and a clapper valve formed as a disk cut away at one side and connected with the said flange portion by a hinge located between the cut-away portion of the valve and the periphery of the bushing and supported by the flange portion, the outer side of said face plate forming a valve seat which surrounds the passage through the bushing.

941,714. SUPPORT FOR PIPE-HANGERS. ROBERT A. JENCKES, Providence, R. I., assignor to General Fire Extinguisher Company, New York, N. Y., a Corporation of New York. Filed Mar. 5, 1906. Serial No. 304,211.



1. An anchor or support adapted to be embedded in plastic material comprising a body-portion and a neck-portion, said neck-portion being provided with spacing ribs or projections, substantially as described.

2. An anchor or support adapted to be embedded in plastic material comprising a body-portion provided with flanges with intermediate webs or ribs connecting said flanges, and a neck-portion provided with spacing ribs or projections, substantially as described.

3. An anchor or support adapted to be embedded in plastic material comprising a frusto-conical body-portion provided with flanges and with intermediate webs or ribs connecting said flanges, and a neck portion provided with spacing ribs or projections, substantially as described.

941,715. TOILET-PAPER PACKAGE. GEORGE T. JOHNSON, Melrose, Mass. Filed Jan. 4, 1909. Serial No. 470,689.

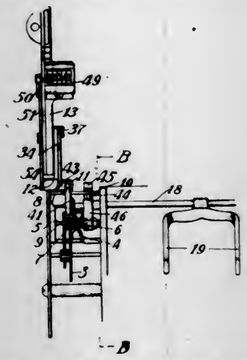


1. A package of toilet-paper composed of a number of sheets assembled together and having applied to each of the opposite end-portions of the assembled sheets at points offset with respect to the middle of the width of the package a holding device or wire adapted for connection with an engaging or retaining hook in a cabinet or fixture.

2. A package of toilet-paper composed of a number of sheets assembled together and having applied to each of the opposite end-portions of the assembled sheets a holding-device or wire adapted for connection with an engaging or retaining hook in a cabinet or fixture, with that which is applied to one end-portion located at the corner of the latter, and that which is applied to the other end-portion located at an intermediate point nearer the middle of the width of such end-portion.

3. A package of toilet-paper composed of a number of sheets assembled together and bent or folded upon a transverse line so that the opposite end-portions are together, and having applied to each of the opposite end-portions of the assembled sheets a holding-device or wire adapted for connection with an engaging or retaining hook in a cabinet or fixture, with that which is applied to one end-portion located at the corner of the latter, and that which is applied to the other end-portion located at an intermediate point nearer the middle of the width of such end-portion.

941,716. CHECK-CONTROLLED MECHANISM. FREDERICK C. KAINER, South Haven, Mich., assignor, by mesne assignments, to Pope Automatic Merchandizing Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 17, 1909. Serial No. 483,901.



1. In a check controlled mechanism, the combination of a machine, a motor for operating said machine, a controlling element normally urged into position for stopping said motor and adapted through the presence of a coin to be shifted into position for starting said motor, a coin chute for delivering coins to said element, and a coin selector comprising a counterbalanced lever having an arm extending across the path of coins delivered by said chute, said arm having therein an aperture adapted to permit the passage of coins of certain size and to intercept the passage of coins of larger size, and said lever being adapted to swing under the weight of coins of such larger size and deliver such larger coins to said controlling element.

2. In a device of the class described, the combination of a motor, a controlling element arranged for starting and stopping said motor, being normally urged into position for stopping the motor and being adapted through the presence of a coin in a certain position to start said motor, means operated by said motor for discharging a coin from engagement with said controlling element, and a detent pivotally mounted adjacent to said element and having a part extending into the path of said coin discharging means and adapted to be pushed thereby into engagement with said element for holding the same in its operating position after the discharge of the check.

3. In a device of the class described, the combination of a motor, a controlling element arranged for starting and stopping said motor, being normally urged into position for stopping the motor and being adapted through the presence of a coin in a certain position to start said motor, means operated by said motor for discharging a coin from engagement with said controlling element, a detent pivotally mounted adjacent to said element and having a part extending into the path of said coin discharging means and adapted to be pushed thereby into engagement with said element for holding the same in its operating position after the discharge of the check, a machine operated by said motor, and means controlled by a certain operation of said machine for automatically releasing said element from said detent.

4. In a check controlled apparatus, the combination of a machine, a controlling element movable between positions for starting and stopping said machine, being normally urged into position for stopping the machine and adapted through engagement with a check to be urged into position for starting the machine, a check discharging device movable across said controlling element for discharging checks therefrom, and a dog pivotally mounted on said device and adapted to engage said controlling element and hold the same in its starting position after the discharge of a check therefrom and until said discharging device returns to a certain initial position, said dog being normally urged to a certain normal position and being adapted to swing on its pivot in case of interference with said controlling element.

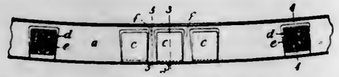
5. In a device of the class described, the combination of a motor, a controlling element arranged for starting and stopping said motor, being normally urged into position for starting the motor and being adapted through the presence of a coin in a certain position to start said motor, means operated by said motor for discharging a coin from engagement with said controlling element, a detent pivotally mounted adjacent to said element and having a part extending into the path of said coin discharging means and adapted to be pushed thereby into engagement with said element for holding the same in its operating position after the discharge of the check, and means comprised by said discharging device and adapted to prevent said controlling element from returning to position for stopping the motor until said device has been returned to a certain initial position.

[Claims 6 to 10 not printed in the Gazette.]

941,717. SWEAT-BAND FOR HATS AND OTHER HEAD-COVERINGS. JOHN W. KOLSCH, London, England. Filed Sept. 4, 1908. Serial No. 451,726.

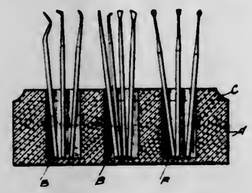
1. A sweat band for hats, providing wedge shaped cushions of rubber sponge, between the hat and the head of the wearer, said wedge shaped cushions being vertically disposed, with the thin ends of the same adjacent to the brim of the hat and the sides thereof extending from the thin edge in a continuous straight line.

2. A sweat band for hats comprising a band of suitable material, in which are formed wedge shaped pockets, and wedge shaped cushions of rubber sponge inserted in said pockets, with the thin end of the wedge adjacent to the brim of the hat.



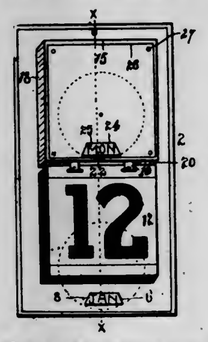
3. A sweat band for hats comprising a band of suitable material in which are formed wedge shaped pockets, portions of the inner faces of said pockets being removed and wedge shaped cushions of rubber sponge adapted to be inserted in said pockets.

941,718. DENTISTRY. MARY R. KOONS, York, Pa. Filed May 21, 1908. Serial No. 434,091.



A dental bur and instrument holder with a flange adapted to receive a cover composed of a single block of glass or vitreous material flat on its lower side and furnished with pockets in its upper side to contain dental burs and instruments, all as and for purpose described.

941,719. CALENDAR. ELMER C. MAHON, Dubuque, Iowa, assignor of one-half to Andrew J. McDade, Dubuque, Iowa. Filed Feb. 6, 1909. Serial No. 476,567.

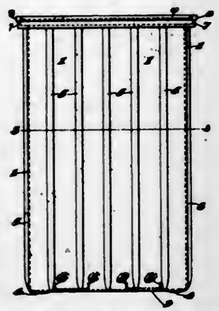


1. In a calendar, a base plate, a box cover hinged to said base plate and provided with an opening for the days of the week, a circular plate with the days of the week printed thereon pivoted to the cover, staples secured at one end in the base plate beneath the cover and the other end secured in the base plate outside of the cover, and cards pivoted on the staples having thereon numbers designating the days of the month and adapted to be turned on said staples down against the base plate or turned up under the cover and when turned up to be concealed from view.

2. In a calendar, a base plate provided with an opening near its lower end, a circular plate on the edge of which is affixed the names of the months pivoted in the base plate and when said plate is rotated on its pivot will expose the name of the months one at a time in said opening and conceal from view the balance of the months, staples secured in the base plate near its longitudinal center, a box cover hinged to the base plate and provided with an opening, a plate having thereon the names of the days of the week pivoted to the cover and adapted to expose one day of the week in the opening in the cover, and cards secured to the staples on which are fixed the days of the month and adapted to be turned on the staples down against the base of the calendar or up under the cover, and when turned up be concealed from view.

3. In a calendar, a base plate formed of two members each of different material and provided with an opening through the front member near its lower end, a box cover provided with an opening and hinged to said front member, a plate secured to the outside of said cover, a circular plate pivoted to the under side of the cover, staples secured in the base plate beneath the cover and projecting outside of the cover, cards pivoted upon the staples and adapted to be turned up out of view under the cover, and a circular plate pivoted between the two members composing the base plate and adapted when rotated to expose the names of the months one after the other in the opening in the front member of the base plate.

941,720. LINING FOR STORAGE-BATTERY JARS. ALBERT J. MEIER, Glendale, Mo. Filed Nov. 6, 1908. Serial No. 461,280.



1. A lead lining for storage battery jars composed of side walls, a bottom, a series of ribs on each of said side walls arranged in spaced relation and extending the length thereof, a rim carried by the side walls formed with an outwardly projecting L-shaped part and a partially overlapping L-shaped flange surrounding said L-shaped part, all of said recited elements being formed in a single integral piece.

2. A lead lining for storage battery jars composed of side walls, a bottom, a series of ribs on each side wall extending parallel thereto and lengthwise thereof, and a continuous L-shaped member at the tops of the side walls acting as a transverse strengthening element.

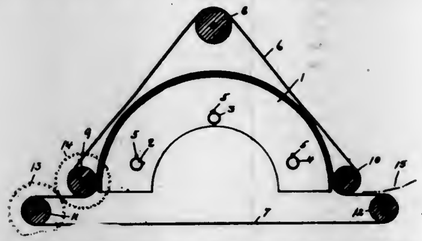
3. A lead lining for storage battery jars composed of side walls, a bottom, a plurality of vertical strengthening ribs carried by each side wall, and a series of transverse overlapping L-shaped strengthening members at the tops of the side walls surrounding the latter.

4. A lead lining for storage battery jars composed of side walls, a bottom, a plurality of lengthwise strengthening ribs carried by each side wall, a plurality of transverse overlapping L-shaped strengthening members at the top of said side walls, and a plurality of channel members on the inner face of said bottom, all of said parts being formed in one integral piece.

941,721. APPARATUS FOR DRYING SHEET MATERIAL. CHARLES E. MOSS, Boston, Mass. Filed Aug. 12, 1908. Serial No. 448,174.

1. An apparatus of the character described, comprising a pair of belts, guide rolls about which said belts extend, arranged so that a stretch of one belt is in contact with a stretch of the other, a stationary convex surface over which the contacting stretches of said belts are led, and in contact with said belts slide and means for heating said convex surface.

2. An apparatus of the character described, consisting of a stationary convex surface, means for heating the same, guide rolls adjacent each end of said surface, a guide roll above said surface, an endless belt passing around said guide rolls with one of its stretches thereby caused to travel over the convex surface, a second belt arranged between said first belt and the said surface, and guide rolls therefor arranged to extend said second belt beyond the first belt at each end of the apparatus.



3. An apparatus of the character described, consisting of a convex shell held stationary, heating means inside said shell for heating the outer surface thereof, two endless belts, and guide rolls arranged to hold stretches of both belts in contact with each other against the convex surface of the shell, so that material to be dried may be grasped between such stretches and carried about the shell, the temperature of said shell being kept at so low a point as to prevent burning of the belts or material to be dried.

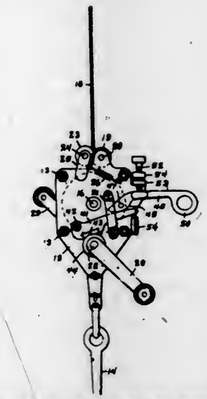
4. An apparatus of the character described, consisting of a stationary, convex, semi-cylindrical shell, means for heating the same, and for maintaining the temperature thereof below the destructive point, guide rolls closely adjacent the opposite sides of the shell, a second set of rolls adjacent the said first rolls, a belt passing around said second rolls, and the shell, and guided by the first roll so as closely to embrace the shell, and a second belt passing around the first guide rolls and over that part of the first belt which embraces the shell, said belts being adapted to hold the material to be dried between them and carry it around the heated shell.

5. An apparatus of the character described, consisting of a stationary, convex shell, means for heating the same, endless traveling conveyer belts, and guide rolls over which second belts are passed arranged to bring stretches of the several belts together at each side of the shell, the belts diverging from one another beyond the shell at each side, whereby the material to be dried may be introduced between the belts at one side of the shell, grasped and carried by the belts about the shell, and released at the opposite side thereof.

941,722. HOISTING APPLIANCE. IRA C. MOULTON, Boston, Mass., assignor, by mesne assignments, to Simplex Self-Hoisting Machine Company, Boston, Mass., a Corporation of Massachusetts. Filed June 15, 1908. Serial No. 438,499.

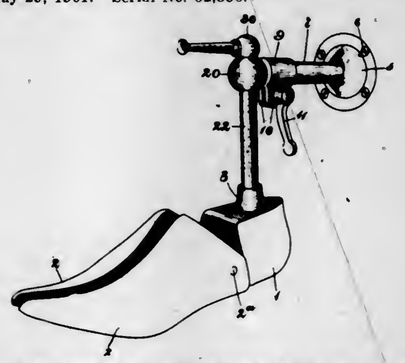
1. An appliance of the character stated comprising a frame, a drum journaled in bearings therein, a suspending rope engaged with the drum, mechanism carried by the frame for rotating the drum, a traveler engaging the rope above the drum and movable lengthwise of the latter, and a roll mounted to engage the traveler and to move laterally therewith, means being provided for yieldingly holding said roll against the rope to exert tension on the latter and hold it in engagement with the traveler.

2. An appliance of the character stated comprising a frame, a drum journaled in bearings therein, a suspending rope engaged with the drum, mechanism carried by the frame for rotating the drum, a traveler engaging the rope above the drum and movable lengthwise of the latter, means for yieldingly resisting the movement of the traveler toward the end of the drum to prevent the separation of the convolutions of the rope on the end portions of the drum, and a yieldingly mounted roll engaging the traveler and movable laterally therewith to hold the rope in engagement with the traveler and to exert tension on said rope.



3. An appliance of the character stated comprising a frame, a drum journaled in bearings therein, a suspending rope engaged with the drum, mechanism carried by the frame for rotating the drum, a guide above and adjacent to the drum and substantially parallel with its axis, a traveler composed of a grooved idle pulley engaged with the rope and movable on the guide, springs supported by the guide at opposite sides of the traveler and adapted to be compressed by movements of the latter, a roll mounted to move toward and from said traveler and movable laterally therewith, and spring mechanism for holding said roll in contact with the rope to hold said rope in engagement with the traveler and to exert tension on said rope.

941,723. HOLDER FOR BOOT AND SHOE FORMS. THOMAS F. MCGANN, Somerville, Mass., assignor, by mesne assignments, to O. A. Miller Treeing Machine Company, Portland, Me., a Corporation of Maine. Filed May 29, 1901. Serial No. 62,356.



1. In an apparatus of the class specified, a support, an arm carried by said support, a clamp for rigidly securing the said arm to said support, a shell carried by said arm, slotted at its free end and adapted to receive upon said free end the socket of a shoe form and to permit pivotal movement of said form on said slotted end, a spindle arranged in said shell and provided with means for expanding the free end of said shell, whereby said form may be rigidly locked in any desired position of adjustment about said shell.

2. In an apparatus of the class described, a support, an arm carried by said support and adapted to be adjusted

about said support as an axis, a shell carried by said arm slotted at its free end and arranged in a plane substantially perpendicular to the axis of said arm, a spindle arranged in said shell and provided with a member for expanding the slotted end of said shell and means to force positively said spindle longitudinally of the shell to expand said slotted end.

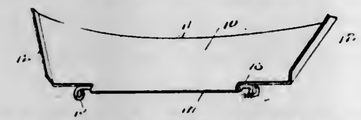
3. In an apparatus of the character specified, a socket-member carried by the heel of a shoe form, a shell arranged to be inserted therein and adapted to permit pivotal movement of the form on the shell, an arm formed with an expanding member arranged in said shell to expand the latter against said socket member, means for supporting the said arm adapted to permit its adjustment around said means as a center and means for clamping the arm in adjusted position.

4. In an apparatus of the class specified, a support, an expansible shell sustained thereby and adapted to be inserted in the pin hole of a shoe form or last, a spindle, and means to move said spindle longitudinally in said shell, the spindle being provided with inclined faces located at successive points longitudinally of said spindle arranged to engage the interior face of the shell whereby the shell will be expanded by movement of its sides in substantially parallel lines.

5. A holder for a shoe form or the like, comprising a support, a stem adjustably clamped in stationary position upon said support and constructed to enter a socket in the form and to support said form pivotally, and means extending within the stem for locking said form upon said stem.

[Claims 6 to 9 not printed in the Gazette.]

941,724. TURPENTINE-CUP. EDWIN A. MCKOY, New Orleans, La. Filed July 10, 1907. Serial No. 383,087.



1. In a device of the class described, an apron comprising a body portion, a wire secured upon the under side of the apron and extending longitudinally thereof, and downwardly extending hooks formed upon the opposite ends of the wire.

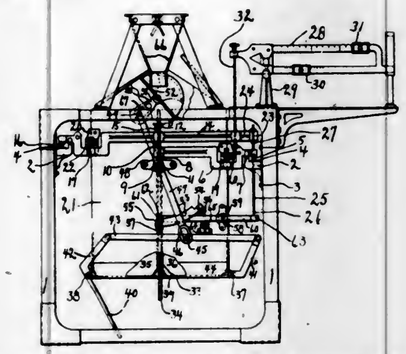
2. In a device of the class described, an apron comprising a body portion, a wire extending longitudinally of the apron, and embraced by a portion thereof, and hooks formed upon the ends of the wire.

3. In a device of the class described, an apron comprising a body portion, a wire extending longitudinally of the apron along its lower longitudinal edge and embraced by a rolled portion of the lower edge of the apron, and hooks formed upon the opposite ends of the wire and extending downwardly from the apron.

941,725. WEIGHING-SCALE. ANDREW H. NEUREUTHER, Peru, Ill. Filed July 1, 1909. Serial No. 505,487.

1. In an automatic weighing scale comprising a supporting frame, weighing and graduated levers, a weighing hopper supported on the weighing levers, said hopper being divided into two compartments by means of a central partition, doors journaled on said compartments for controlling the discharging of same, mechanism for connecting said doors so that they open and close alternately, deflecting means immediately above said central partition, a lever journaled on the hopper connecting said door mechanism and said deflecting means, a segment on said lever having two notches, a trip lever pivotally connected to the weighing hopper, a roll journaled on said trip lever which roll alternately engages said notches, a rod projecting from the weighing lever which engages said trip lever disengaging its roll from the notch of said segment when a compartment has received the pre-determined weight of material.

2. In an automatic weighing scale, a supporting frame, weighing and graduated levers, a weighing hopper supported on the weighing levers, said hopper being divided into two compartments by means of a central partition, a door journaled on each of said compartments for controlling the discharging of same, mechanism connecting said doors so that they open and close alternately, deflecting means immediately above said central partition, a lever journaled on the hopper connecting said door mechanism and said deflecting means, a segment on said lever having two notches, adjusting means in said notches, a trip lever pivotally connected to the weighing hopper, a roll journaled on said trip lever which roll alternately engages said notches, a rod adjustably connected to and projecting from the weighing lever which strikes said trip lever disengaging its roll from a notch on said segment, and means adjacent to said trip lever for regulating the position thereof, substantially as shown and described.

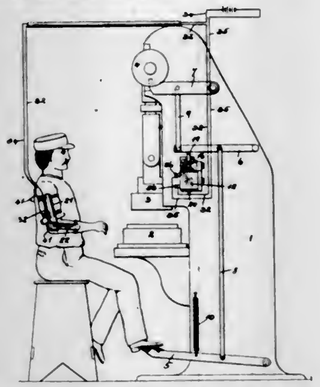


3. In an automatic weighing scale, a supporting frame, weighing and graduated levers mounted thereon, a two compartment weighing hopper supported on the weighing levers, a door hinged to the bottom of each compartment, mechanism connecting said doors so that they alternately open and close, deflecting means located immediately above said compartments, a lever pivotally mounted on said hopper and operatively connected with the door mechanism and the deflecting means, a segment rigidly mounted on said lever, notches formed in said segment, a trip lever pivotally mounted on the hopper a roll journaled on said trip lever said roll alternately engaging said notches, and a rod projecting from one of the weighing levers which actuates the trip lever when a pre-determined weight of material is in one compartment of the hopper, substantially as shown and described.

4. In an automatic weighing scale, a supporting frame, weighing and graduated levers mounted thereon, a two compartment weighing hopper supported on the weighing levers, a door hinged to the bottom of each compartment, mechanism connecting said doors so that they alternately open and close, deflecting means located immediately above said compartments, a lever pivotally mounted on said hopper and operatively connected with the door mechanism and the deflecting means, notches formed on said lever, adjusting means in said notches, a trip lever pivotally mounted on the hopper, a roll journaled on said trip lever, said roll alternately engaging said notches, and a rod adjustably connected with one of the weighing levers which actuates the trip lever when a pre-determined weight of material is in the hopper.

941,726. SAFETY TRIP DEVICE FOR POWER-OPERATED MACHINES. CHARLES F. PFALZGRAF, Baltimore, Md. Filed Oct. 15, 1907. Serial No. 397,502.

1. A safety device for machinery comprising a clutch mechanism, a lock device to prevent the operation of the clutch mechanism and means including devices for attachment to and be carried by the arms of the operator for releasing the lock device.



2. A safety device for machinery comprising a treadle mechanism to start the machine; a lock device for said treadle mechanism, and means for attachment to and to be carried by the arms of the operator for releasing the lock device.

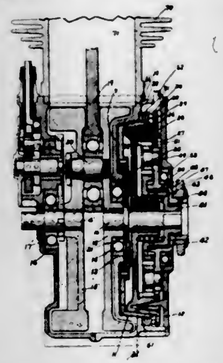
3. A safety device for machinery comprising a mechanism to start the machine, a lock device for said mechanism, an electrical device for operating said lock, and actuating means for engaging the operator's arms and in electric connection with the said electrical device.

4. A safety device for machinery comprising a mechanism to start the machine, an electrically-operated lock for said mechanism, and pivoted clamping means for attachment to the arms of the operator and in circuit with the lock operating device for establishing and breaking the circuit.

5. A safety device for machinery comprising a mechanism to start the machine, a lock device for said mechanism including an electrically-operated member, two clamping members for attachment to the arms of the operator and each member forming a part of and in circuit with the electrically-operated member of the lock.

[Claims 6 to 10 not printed in the Gazette.]

941,727. CHANGE-SPEED GEARING. FRANK D. POUCH, Newcastle, Ind. Filed Jan. 28, 1909. Serial No. 474,658.



1. The combination of a shaft, a friction member carried thereby, a friction drum journaled upon said shaft and provided with two friction surfaces one adapted to coöperate with the said friction member and the other adapted to coöperate with a fixed friction member, said fixed friction member, a spring for normally urging said friction drum in one direction, means for shifting said friction drum in opposition to its spring, a series of gear teeth carried by said friction drum, a gear carried by the shaft, a driven member, and a planetary gear carried by said driven member and connecting the shaft gear and the friction-drum gear teeth.

2. The combination of a shaft, a friction member carried thereby, a friction drum journaled upon said shaft and provided with two friction surfaces one adapted to coöperate with the said friction member and the other adapted to coöperate with a fixed friction member, the said fixed friction member, means for shifting said friction drum, a series of gear teeth carried by said friction drum, a gear carried by the shaft, a driven member, and a planetary gear carried by said driven member and connecting the shaft gear and the friction-drum gear teeth.

3. The combination of a shaft, a cup-shaped friction member carried by said shaft, a friction drum nested within said cup-shaped friction member and journaled upon the shaft, a stationary friction member nested within the friction drum, said friction drum having a recessed friction surface to coöperate with said stationary friction member, means for axially shifting the friction drum, a gear carried by the shaft and nested within the friction drum, a series of internal gear teeth formed within the friction drum, planetary gears connecting said last mentioned gear teeth and the shaft gear, and a driven gear journaled concentric with the shaft and carrying said planetary pinions, substantially as and for the purpose set forth.

4. The combination of a shaft, an inclosing casing having a pocket recess within which said shaft is journaled, a cup-shaped friction member carried by said shaft and nested within the pocket of the casing, a friction drum nested within said friction member and journaled upon the shaft, a cover member for the pocket of the casing, a stationary friction member carried by said cover member and nested within the friction drum, said drum having a recessed friction surface to coöperate with said stationary friction member, means for axially shifting the friction drum, a gear carried by the shaft and nested within the friction drum, a series of internal gear teeth formed within the friction drum, planetary gears connecting said last mentioned gear teeth and the shaft gear, and a driven gear journaled concentric with the shaft and carrying said planetary pinions, and a bearing member arranged between said driven gear and the cover member, substantially as and for the purpose set forth.

5. The combination of a shaft, an inclosing casing having a pocket recess within which said shaft is journaled, a cup-shaped friction member carried by said shaft and nested within the pocket of the casing, a friction drum nested within said cup-shaped friction member and journaled upon the shaft, a cover member for the pocket of the casing, a stationary friction member carried by said cover member and nested within the friction drum, said friction drum having a recessed friction surface to coöperate with said stationary friction member, a spring normally urging the friction drum in one direction, means for axially shifting the friction drum against the action of said spring, a gear carried by the shaft and nested within the friction drum, a series of internal gear teeth formed within the friction drum, planetary gears connecting said last mentioned gear teeth and the shaft gear, and a driven gear journaled concentric with the shaft and carrying said planetary pinions, and a bearing member arranged between said driven gear and the cover member, substantially as and for the purpose set forth.

941,728. CUE. RICHARD J. PREAST, New York, N. Y. Filed May 3, 1907. Serial No. 371,658.

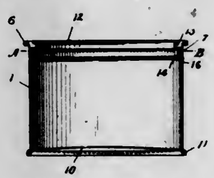
1. A billiard cue comprising a tapered body portion having a smooth continuous exterior surface, said cue being formed of a series of superposed flat parallel strips, the outermost strips on diametrically opposite portions of the cue at the tapered ends of the same being shorter

than the middle strips and the prolonged ends of the middle strips being reduced, rings surrounding the said reduced portion and bearing against the ends of the outermost strips and a tip cap having a central socket, said cap fitting over the reduced portion of the central strips and bearing at its end against said rings.



2. A billiard cue comprising a tapered body portion having a smooth continuous exterior surface, the body of said cue being formed of a series of superposed flat parallel strips, the outermost strips on diametrically opposite portions of the cue at the tapered end thereof being shorter than the middle strips and the prolonged ends of the middle strips being reduced, rings surrounding the reduced portion of the middle strips and bearing against the ends of the outer strips, a tip cap surrounding the reduced ends of the inner strips and bearing against the ends of the outer strips, the innermost strips at the butt end of the cue being shorter than the outermost strips at that end to produce a centrally disposed weight receiving chamber, a core having one end thereof projecting within the weight receiving chamber and its opposite end extending longitudinally beyond said butt, a tubular handle surrounding the extended end of the core, and spacing rings interposed between the inner end of the handle and the adjacent ends on the concentric strips surrounding the core.

941,729. SELF-SEALING CAN. JOHN F. ROSS, Toronto, Ontario, Canada, assignor of one-third to William Edwin Ross, one-third to Percy Forster Ross, and one-third to Charles Fred Van Horne, Toronto, Canada. Filed Aug. 4, 1908. Serial No. 446,954.



1. In a self sealing can, a body having a portion thereof adjacent to the top compressed and surface-finished so that all irregularities are smoothed out, said surface-finished portion forming a continuous, unbroken and regular surface on said inner wall, and a cover having its flange portion compressed and surface-finished with all irregularities smoothed out and forming a continuous, unbroken and regular surface adapted to register with the surface finished portion of said body and form an air and liquid tight joint therewith.

2. In a self sealing can, a body portion having an annular belt bulging slightly inwardly, and arranged adjacent to the top said belt having its inner surface free from irregularities, and forming a continuous unbroken surface around the inner wall of said body portion and a cover having the outer surface of its flange portion free from irregularities and forming a continuous unbroken surface adapted to contact with the unbroken surface of said belt in the body portion.

3. In a self sealing can, a body portion formed with an external lock seam and having an annular belt adjacent to the top bulging slightly inwardly and a narrow bridge extending from the outer surface of said lock seam and merging into the contour of the can and forming a recess in the inner wall of the can in circumferential alinement with said annular belt, a filling of solder in said recess raised above the inner surface of said body and completing said annular belt, and a cover having the outer wall of its flange burnished and forming an unbroken surface adapted to contact with the surface of said annular belt in the body portion.

4. In a self sealing can, a body portion formed with an external lock seam reinforced at a point adjacent to the top and having an annular belt bulging slightly inwardly and in alinement with said reinforcement, a filling of solder closing said seam at the reinforced point and raised above the inner surface of the can and completing the said annular belt, said annular belt having its inner surface burnished and all irregularities removed therefrom and a cover having a flange with a burnished outer surface contacting with the continuous burnished belt in the body portion.

5. In a self sealing can, a body portion having a flexible bottom and an inwardly bulging annular belt forming a continuous smooth and regular surface around the said body portion arranged adjacent to the top thereof, and a cover having a flange with a smooth regular outer surface adapted to contact with the said smooth regular inwardly bulging surface in the body portion.

[Claims 6 and 7 not printed in the Gazette.]

941,730. PIANO TUNING-PIN. FRANK SACK and FRANK A. TYLEA, St. Mary, Nebr. Filed Sept. 15, 1908. Serial No. 453,108.



1. A tubular tuning pin for pianos, comprising a head and a main shank for receiving the string together with a supplemental or penetrating end, said end being longitudinally slotted to provide expansible portions, means for expanding said expansible portions, and means at the head of the pin for operating said expanding means.

2. A tubular tuning pin for pianos, having a key receiving head, having an annular collar with a string receiving aperture, a main shank portion that receives the string, a supplemental or penetrating shank portion, the latter being longitudinally slotted and an expander within the pin bore for engaging with the expanding or slotted end of the pin, said expander projecting through the head of the pin.

3. A tuning pin for pianos, comprising a tubular member having a head and a string receiving or main shank portion, and a supplemental shank portion, the latter being of less diameter than the main shank portion and being longitudinally slotted to form expansible members, and a means adjustable within the pin for expanding the slotted end of the pin.

4. A tubular piano tuning pin having a head portion formed with a collar having an aperture, a main shank portion for winding the string, said shank portion being externally screw threaded, a supplemental shank portion at the end of the threaded portion of less diameter than the threaded portion, said supplemental shank portion being slitted at the end, the bore of the supplemental shank portion being of less diameter than that of the main shank portion and a screw plunger operable in the bore, having its penetrating end formed to engage the bore portion in the slitted end of the pin.

5. As a new article, a piano tuning pin comprising a tubular member having a key receiving head portion, the bore of said portion being threaded, a main shank on which the string is wound, said main shank having an externally threaded surface, a main shank or penetrating end, of less diameter than the main shank, said penetrating end being longitudinally slitted, the bore in said supplemental shank stopping short of the outer end and having a conical termination, combined with a screw plunger pin having a threaded neck to engage the threaded portion of the bore, a conical end for engaging the conical termination of the bore, and a screw head, the slotted or penetrating end of the pin having longitudinally extended grooves as set forth.

[Claims 6 to 9 not printed in the Gazette.]

941,731. INTERNAL-COMBUSTION ROCK-DRILL. LEWIS L. SCOTT, Joplin, Mo. Filed July 30, 1908. Serial No. 446,156.



1. A motor drill comprising a pair of opposed two-cycle explosive engines including pistons mutually connected, a crank shaft connected with one piston, a drill rod connected with the other piston, and means for rotating the drill rod, said drill rod projecting from the corresponding engine, and the remaining movable parts of the motor drill being entirely inclosed within the cylinders thereof.

2. A motor drill comprising a pair of opposed two-cycle explosive engines having their pistons mutually connected, the interior of the cylinder of each engine being divided into a mixing chamber and an explosion chamber, said engines being arranged with the explosion chamber ends of their cylinders toward each other, and a drill rod connected with one of said pistons and passing through the mixing chamber of the corresponding cylinder and thence outwardly thereof.

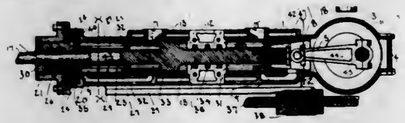
3. A motor drill comprising a pair of opposed two-cycle explosive engines arranged in alinement with each other and having their pistons mutually connected, the interior of the cylinder of each engine being divided into a mixing chamber and an explosion chamber, the explosion chambers of the engines confronting each other, and a drill rod connected with one of said pistons and passing through the mixing chamber of the corresponding cylinder and thence outwardly thereof.

4. A motor drill comprising a pair of opposed explosive engines arranged in alinement with each other and having their pistons mutually connected, the interior of the cylinder of each engine being divided into a mixing chamber and an explosive chamber, the explosion chambers of the engines confronting each other, a drill rod connected with the piston of one engine and extending exteriorly of the cylinder thereof, and means actuated by the reciprocation of the drill rod and located entirely within said cylinder, for intermittently rotating the drill rod.

5. A motor drill comprising a pair of opposed explosive engines arranged in alinement with each other and having their pistons mutually connected, the interior of the cylinder of each engine being divided into a mixing chamber and an explosive chamber, the explosion chambers of the engines confronting each other, a drill rod connected with the piston of one engine and extending exteriorly of the cylinder thereof, and means actuated by the reciprocation of the drill rod and located entirely within the mixing chamber of said cylinder, for intermittently rotating the drill rod.

[Claims 6 and 7 not printed in the Gazette.]

941,732. INTERNAL-COMBUSTION ROCK-DRILL. LEWIS L. SCOTT, Joplin, Mo. Filed Nov. 2, 1908. Serial No. 460,732.



1. In an internal combustion rock drilling engine, a pair of spaced cylinders, a guide head connecting said cylinders, a piston slidable within the interior of each cylinder and dividing the same into mixing and explosion chambers; said explosion chambers being located proximal to said guide head; a piston rod slidable within said guide head and connected at opposite ends to said pistons; a crank shaft, a connecting rod connected to said crank shaft, and yieldingly connected to the adjacent piston, and a rock cutting drill bit arranged in striking relation to the other piston.

2. In an internal combustion rock drilling engine, a pair of spaced cylinders, a guide head connecting said cylinders, a piston slidable within the interior of each cylinder and dividing the same into mixing and explosion chambers, said explosion chambers being located proximal to said guide head; a piston rod slidable within said guide head and connected at opposite ends to said pistons; a crank shaft, a connecting rod connected to said crank shaft and yieldingly connected to the adjacent piston, for independent movement with respect thereto, and a rock cutting drill bit arranged in striking relation to the other piston.

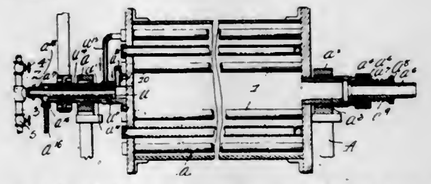
3. In an internal combustion rock drilling engine, a pair of spaced cylinders, a guide head connecting said cylinders, a piston slidable within the interior of each cylinder and dividing the same into mixing and explosion chambers; the explosion chambers being located proximal to said guide head; a piston rod slidable within said guide head and connected at opposite ends to said pistons; a crank shaft, a connecting rod connecting said crank shaft and connected to said connecting rod, and upper piston; cushioning devices carried by the upper piston and a rock cutting drill bit arranged in striking relation to the other piston.

4. A motor drill comprising a pair of opposed explosive engines arranged in alinement with each other and having their pistons mutually connected, the upper piston being formed with a socket and with longitudinal slots communicating therewith; a crank shaft, a connecting rod, connected to said shaft, formed with an eye at its lower end, a transversely disposed pin carried in the eye of said rod having its ends arranged for sliding movement in said longitudinal slots, whereby an independent movement of said shaft is permitted; means for limiting such movement in both directions and a rock cutting drill bit arranged in striking relation to the lower piston.

5. A motor drill comprising a pair of opposed explosive engines arranged in alinement with each other and having their pistons mutually connected, the interior of the cylinder of each engine being divided into a mixing and an explosion chamber, the explosion chambers of the engines confronting each other; the upper piston being formed with a socket and with longitudinal slots communicating therewith; a crank shaft, a connecting rod connected to said shaft, formed with an eye at its lower end, a transversely disposed pin carried in the eye of said rod having its ends arranged for sliding movement in said longitudinal slots whereby an independent movement of said shaft is permitted; yielding means for limiting such movement in one direction, and means for limiting such movement in the opposite direction, and a rock cutting drill bit arranged in striking relation to the lower piston.

[Claim 6 not printed in the Gazette.]

941,733. REFRIGERATING APPARATUS. WILLIAM W. SEAY, San Francisco, Cal. Filed June 12, 1906, Serial No. 321,405. Renewed Nov. 13, 1907. Serial No. 401,988.



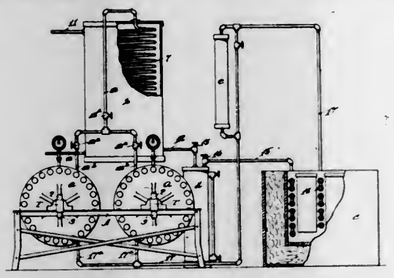
1. In a refrigerator system, the combination with a condenser and refrigerator, of a combined generator and absorber, a solid absorbent contained therein and adapted to liquefy to form a solution when combined with an anhydrous vapor, a container or conductor for heating and cooling means for attemperating said absorber, an opening

into the absorber for the refrigerant, and means for reversing the position of the generator and absorber to expose fresh surface of the absorbent material.

2. In a refrigerating system of the class described, a rotatable tank for the refrigerant, a hollow trunnion at one end for the passage of said refrigerant, a coil within said tank, a hollow trunnion at the opposite end, and means for introducing a heating and a cooling medium through said hollow trunnion into said coil, substantially as described.

3. In a refrigerating system of the class described, a rotatable tank or drum for the refrigerant, means for rotating said tank, a hollow trunnion for said tank, at one end through which the refrigerant passes, a coil within said tank, a trunnion at the opposite end having an inner passage communicating with one end of said coil and an outer passage connected to the other end, means for introducing a heating or cooling medium into one of said passages, and a waste pipe connected to the other passage, substantially as described.

941,734. PROCESS OF REFRIGERATION. WILLIAM W. SEAY, San Francisco, Cal. Filed Jan. 4, 1909. Serial No. 470,562.

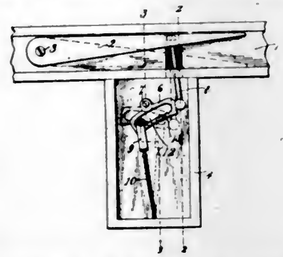


1. In the art of refrigeration, the process of combining the expanded refrigerant gas after refrigeration with two bodies of a solid absorbent contained in separate tanks, a liquid solution being formed, heating and volatilizing a portion of the refrigerant from the solution under compression in the first tank and delivering the gas into a condenser, the other tank being under relatively low temperature and low pressure, then shutting off communication between the first tank and the condenser, opening communication between the two tanks, heating and volatilizing substantially the residue of the refrigerant from the solution in the first tank into the second tank and absorbing it into the solution previously formed there, then absorbing another charge of expanded refrigerant gas in the first tank under reduced temperature, heating and volatilizing off a portion of the refrigerant gas from the second tank into the condenser, and then heating and volatilizing the residue of refrigerant from the solution in the second tank into the solution formed in the first tank, substantially as described.

2. In the art of refrigeration, the process of combining expanded refrigerant gas with a solid absorbent in two tanks a liquid solution being formed, heating and volatilizing the refrigerant from the solution in one tank, first into a condenser and then into the companion tank, while under low pressure, and then reversing the steps, whereby the residue of refrigerant in the solution in each tank after the first volatilizing period is reabsorbed into the solution of its companion tank, substantially as described.

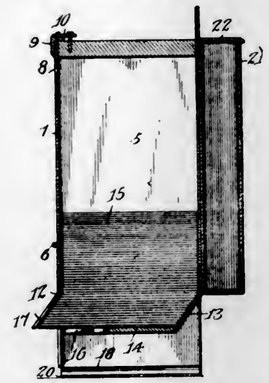
3. In the art of refrigeration, the process of volatilizing the refrigerant from a liquid solution with a solid absorbent in one tank under raised temperature while absorbing expanded refrigerant gas into solution in a second tank under reduced temperature, the first portion of the gas volatilized from the solution being alternately delivered from said tanks into a condenser, and the residue of the charge from each tank being alternately delivered into the other tank and reabsorbed there with the solution formed by the chemical and the expanded gas from the refrigerator, substantially as described.

941,735. SWITCH-POINT LOCK. JAMES M. SHAUL, Lansing, Mich. Filed Oct. 15, 1908. Serial No. 457,887.



The hereindescribed switch point lock comprising, in combination, a track rail, a pivoted switch point, a casing extending laterally from said rail and having a removable top, a vertical pivot stud secured in the bottom of the casing, an oscillatory link having an elongated opening with one of its walls beveled in opposite directions, the opposite side of said link being formed with an integral pivot lug arranged on said pivot stud, a link connecting one end of said oscillatory link to said switch point, a U-shaped member to travel longitudinally of said link and adapted to receive the same, the closed end of said member being formed with an apertured lug, a journal pin arranged in the other end of said member and extending through the elongated opening in the oscillatory link, an anti-friction roller arranged on said journal pin and having its periphery of V-shape in cross section to receive the beveled wall of the opening in the oscillatory link, an adjusting screw arranged in a threaded opening in the end wall of the casing and having an apertured end and a coil spring having its ends hooked into the apertured end of the screw and the apertured lug on said U-shaped member.

941,736. ENVELOP-CABINET. HAMPTON K. SMITH, Union, S. C. Filed Feb. 5, 1909. Serial No. 476,219.

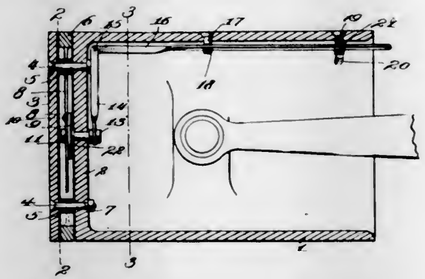


1. A letter cabinet comprising a chute, provided with a door, the opposite sides of said chute being extended beyond the bottom, means carried by the top and extended portions of said chute for facilitating the arrangement of a plurality of the cabinets in stacked relation, and locking means common to the door and the superimposed cabinet.

2. A cabinet comprising a box having the transverse ends of its top grooved and the inner surface of the sides also transversely grooved adjacent to their lower ends, a door hinged to the lower portion of said box and provided with a kerf communicating with the interior thereof, and an angle plate carried by the free edge of said door and adapted to engage with the grooves in the lower portion of a cabinet whereby a plurality of cabinets may be held in stacked condition.

3. A cabinet provided with a delivery chute, a door for the same, and a locking plate carried by the cabinet for holding the door closed and also serving to retain a similar cabinet in a stacked position upon the first-mentioned cabinet.

941,737. PISTON-HEAD FOR ENGINES. ASHTON STARKE, Richmond, Va. Filed Apr. 21, 1909. Serial No. 491,306.



1. The combination with a piston-head and its packing, of a spring operatively connected with the packing for holding it under tension, said spring being located outside of the piston-head to the rear of the packing and the piston-head to remove it from the influence of heat at the working face of the piston.

2. The combination with a piston-head and its packing, of a spring operatively connected with the packing for holding it under tension, said spring being located within the piston outside of and back of the piston-head.

3. The combination with a piston-head and its packing, of a spring operatively connected with the packing for holding it under tension, said spring being located on the opposite face of the piston-head to that on which the packing is located.

4. The combination with a piston-head and its packing, of a spring operatively connected with the packing for holding it under tension, and means for regulating the tension of said spring and effecting the adjustment of the packing, said spring and adjusting means being located outside of and back of the piston-head.

5. The combination with a piston-head and its packing, of means operatively connected with the packing for effecting its adjustment, said means being located to the rear of the piston-head for adjustive manipulation without dismantling the parts.

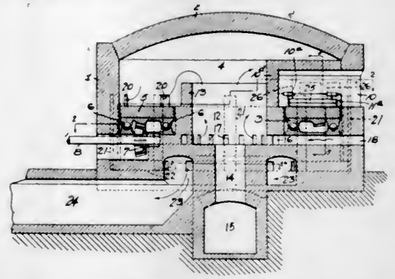
[Claims 6 to 11 not printed in the Gazette.]

941,738. PLATE-BAR-HEATING FURNACE. LAWRENCE C. STEELE, Vandergrift, Pa. Filed Feb. 8, 1909. Serial No. 476,784.

1. A heating furnace comprising a circular chamber, an air and gas inlet through the center of the floor of said chamber, a rotating annular hearth in said chamber, and a series of outlet openings at the periphery of the furnace chamber.

2. A heating furnace for plate bars comprising a circular chamber, an endless traveling hearth therein, a radially arranged vestibule through which the said hearth travels, and doors separating said vestibule from said furnace chamber.

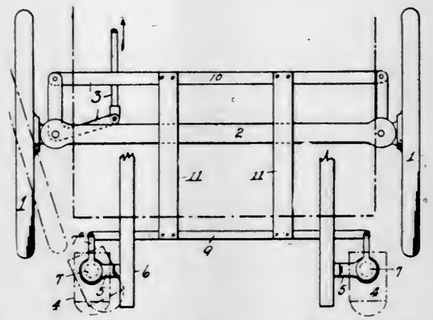
3. A heating furnace for plate bars, comprising a circular chamber, an endless traveling hearth therein, a radially arranged vestibule through which the hearth travels, and automatically operating doors separating said vestibule from said furnace chamber.



4. A heating furnace for plate bars, comprising a circular chamber, an endless traveling hearth therein, a radially arranged vestibule through which said hearth travels, and swinging doors separating said vestibule from said furnace chamber.

5. A heating furnace comprising a heating chamber, a traveling conveyer therein, a vestibule through which said conveyer travels, a door separating said vestibule from said heating chamber, and an escape flue formed in the walls of said vestibule adjacent to said door.

941,739. OPERATING DEVICE FOR VEHICLE-LAMPS. JOHN P. STEIN, Reading, Pa. Filed Mar. 29, 1909. Serial No. 486,349.



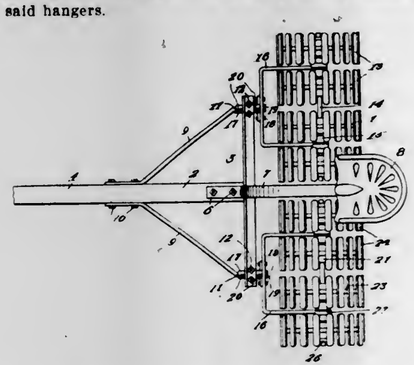
In an operating device for vehicle lamps, the combination of a steering apparatus comprising in its make up a transverse rod, with two rotatably mounted lamps, brackets on which said lamps are supported, oscillating holders in which said lamps are mounted, a rearwardly extending arm formed on each of said holders, a second transverse rod pivotally connected at both of its ends to the ends of the rearwardly extending holder arms, and a pair of stringers rigidly secured to said second transverse rod and to the transverse rod of the steering apparatus, so that both said rods will move exactly the same distance when the steering apparatus is operated.

941,740. CLOD-CRUSHER. CHARLES G. STELZER, Polk, Ohio. Filed June 8, 1909. Serial No. 500,952.

1. In an implement of the character described, the combination of a main frame having a transverse beam, forwardly and rearwardly extending pivots connected to and crossing said beam, hangers having bifurcated portions to receive said beam between them and to engage

and oscillate on said pivots, rearwardly extending U-shaped frames connected to said hangers and earth-working devices carried by said frames.

2. In an implement of the character described, the combination of a tongue, a transverse beam secured thereto, diagonal braces connected at their forward ends to the tongue and having their rear ends provided with parallel rearwardly extending pivot portions secured to and crossing said beam, hangers having spaced pivot ears to receive and oscillate on said pivots and to receive said beam between them, and earth working devices connected to said hangers.



3. In an implement of the character described, the combination of a tongue, a transverse beam secured thereto, diagonal braces connected at their forward ends to the tongue and having their rear ends provided with parallel rearwardly extending pivot portions secured to and crossing said beam, hangers having spaced pivot ears to receive and oscillate on said pivots and to receive said beam between them, rearwardly extending U-shaped frames connected to said hangers, bearings upon the arms of said U-shaped frames, shafts in said bearings and pulverizing wheels upon said shafts.

941,741. JEWELRY-BOX. JOHN R. SUNDEE, Buffalo, N. Y., assignor to Empire Jewelry Case Company, Buffalo, N. Y., a Corporation of New York. Filed Feb. 15, 1909. Serial No. 477,861.

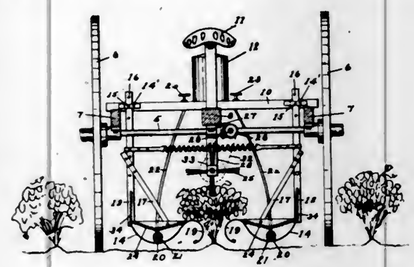


1. The combination of the box-body, the cover, a catch adapted to engage the cover, a slide carrying the catch and resting on the bottom of the box-body, a spring acting upon said slide, and a housing covering the slide and forming a guide and protector therefor.

2. The combination of the box-body, the cover, a catch adapted to engage the cover, a slide carrying the catch and resting on the bottom of the box-body, a spring acting upon said slide, and a housing covering the slide and having slotted flanges which rest upon the bottom of the box body, said bottom having integral lips which pass through the slots of said flanges and are bent down upon the same.

3. The combination of the box-body, the cover, a catch adapted to engage the cover, a slide carrying the catch and arranged on the bottom of the box-body, and a bow-spring attached at its ends to the slide and said bottom and arranged substantially parallel with the latter.

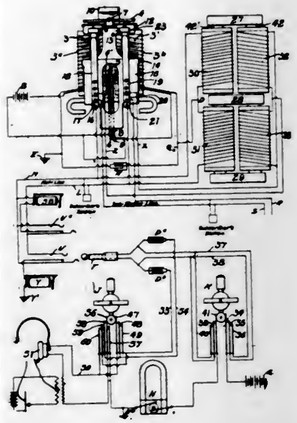
941,742. INSECT-DESTROYER. ALEXANDER SWAINSON, Spokane, Wash. Filed Mar. 9, 1909. Serial No. 482,319.



1. In an insect destroyer, a wheeled supporting frame, a wheel-driven rotary agitator carried thereby, pans located below the agitator on opposite sides thereof, burners in the pans, and screens over the pans above the burners, said screens being inclined in the direction of the burners.

2. In an insect destroyer, a wheeled supporting frame, a wheel-driven rotary agitator carried thereby, pans located below the agitator on opposite sides thereof, burners in the pans, and screens over the burners, said screens being downwardly inclined from opposite edges of the pans in the direction of the burners, and the latter being located beneath the lowest portions of the screens.

941,743. TELEPHONE-LINE SELECTIVE SWITCH DEVICE. JOHN H. SWANSON, Baldwin, Wis., assignor of one-fourth to T. F. Robinson, St. Paul, Minn. Filed Feb. 21, 1907. Serial No. 358,534.



1. The combination, with a central station lines, of a polarized relay having primary and secondary windings, said primary windings being in circuit with said central lines, a normally open local circuit having a suitable source of electrical energy and connected with said secondary windings, means whereby said local circuit will be closed when said relay is energized by the passage of a current through said primary windings, sub-station lines, and means whereby the closing of said local circuit will close the circuit between the said central and sub-station lines and maintain such circuit after said local circuit is opened, substantially as described.

2. The combination, with a central station lines, of a polarized relay having primary and secondary windings, said primary windings being of greater resistance than said secondary windings and in circuit with said central station lines, a normally open local circuit connected with said secondary windings, means whereby said local circuit will be closed when said relay is energized, substation lines, means whereby the closing of said local circuit will establish a circuit between said central and sub-station lines, and said means maintaining such circuit after said local circuit is opened and until an alternating current is passed through said primary windings.

3. The combination, with a central station lines, of a polarized relay having primary and secondary windings, said primary windings being in circuit with said central station lines, a normally open local circuit connected with said secondary windings a primary armature arranged to be attracted when a current is passed through said primary windings, means actuated by the movement of said primary armature for closing said local circuit, a secondary armature normally unaffected by the passing of a current through said primary windings but attracted when said current is augmented by the closing of the circuit through said secondary windings, sub-station lines, and means actuated by the movement of said secondary armature for establishing a connection between said central station lines and said sub-station lines, and said secondary armature being adapted to deprive said primary armature of magnetic influence whereby upon the attraction of said secondary armature said primary armature will return to its normal position and said local circuit will be opened without effecting the connection between said main lines and said sub-station lines, substantially as described.

4. The combination, with a central station lines, of a polarized relay having primary and secondary windings, said primary windings being in circuit with said central station lines, a normally open local circuit connected with said secondary windings, a soft iron armature arranged to be attracted when a current is passed through said primary windings and having means, when attracted, for closing said local circuit, a steel armature normally unaffected by the passage of a current through said primary windings but attracted when a current is passed through said secondary windings by the closing of said local circuit, sub-station lines, and means controlled by the movement of said steel armature for establishing a connection between said central station lines and said sub-station lines, and said steel armature being adapted to deprive the said soft iron armature of its magnetic influence and allow it to return to its normal position and open said local circuit, and said steel armature remaining in its attracted position until released by the passage of an alternating current through said primary windings, substantially as described.

5. In a polarized relay having primary and secondary windings, a soft iron armature normally attracted by the passage of a current through said primary windings, a steel armature unaffected normally by the passage of a current through said primary windings, a local circuit connected with said secondary windings and closed by the movement of said soft iron armature, the passage of a current through said secondary windings augmenting the magnetism of said relay sufficiently to attract said steel armature, and said steel armature depriving, when attracted, said soft iron armature of its magnetic influence, whereby when said steel armature is attracted, said soft iron armature will be released and will return to its normal position and open said local circuit, substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

941,744. PARTING FOUNDATION FOR WIGS. PRINCE E. TATTOON, Revere, Mass. Filed May 8, 1909. Serial No. 494,881.

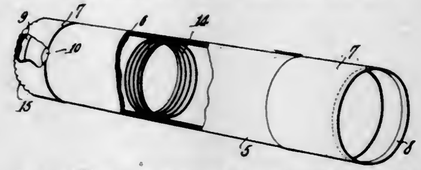
1. The improved parting foundation for a wig having a relatively small indentation in the front edge of the parting foundation at the point where the line of the parting intercepts the front edge of the foundation.

2. The improved parting foundation for a wig, the said foundation being made of lace having a selvage edge at



the front indented at the parting, said indentation terminating in a point between two meshes of the lace.

941,745. TUBE. HARRY I. VAN NOSTRAND, Tekamah, Nebr. Filed Nov. 25, 1908. Serial No. 464,353.



1. A mailing tube including a body consisting of a plurality of plies of sheet material, a longitudinally corrugated reinforcing tube extending continuously from one end to the other of the body and between two of the plies, and a centrally disposed circumferentially corrugated tubular reinforce within the body.

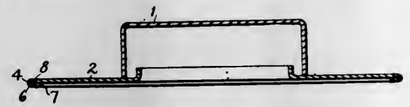
2. A mailing tube comprising a non-flexible body consisting of plies of sheet material, a longitudinally corrugated reinforcing tube interposed between two of the plies and extending continuously from one end to the other of the body, a flexible reinforcing tube secured to the outer face of each end of the body and foldable over said end and into the body, each of said flexible tubes having an end fold constituting an annular shoulder, and a closure insertible into the inwardly extended flexible tube and against said shoulder.

3. A mailing tube comprising a non-flexible body portion, a flexible tube secured thereon and extending beyond each end of the body portion, said tube having a reinforced outer edge, and said tube being foldable into the body portion, said reinforces constituting an interior annular shoulder when the flexible tube is seated within the body portion, and a closure insertible into said inturned flexible tube and against the shoulder, there being a finger-receiving opening within the closure.

4. A mailing tube comprising a body consisting of plies of sheet material, said body being non-flexible, and a longitudinally corrugated reinforcing tube interposed between two of the plies and extending continuously from one end to the other of the body, said body having an interior annular closure retaining shoulder adjacent one end.

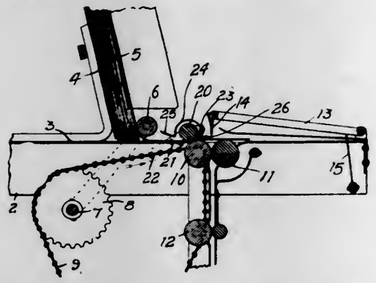
5. A mailing tube comprising a body consisting of a plurality of plies of sheet material, a non-flexible, longitudinally corrugated reinforcing tube interposed between two of the plies and extending continuously from one end to the other of the body, a circumferentially corrugated reinforcing band within the body and bearing on the inner surface thereof, there being an interior annular closure retaining shoulder within the body and adjacent one end.

941,746. FELT HAT. ELISHA L. WALES, Monson, Mass., assignor to Heimann & Lichten, New York, N. Y., a Corporation of New York. Filed Feb. 6, 1908. Serial No. 414,470.



A welt edge felt hat having a channel in the brim adjacent the outer edge, the brim being of like thickness both sides of the channel, a stiffener in the channel, the portion of the brim outside the channel being folded over the stiffener and fastened, substantially as shown.

941,747. FOLDING-MACHINE. ELMER D. WALLACE, Minneapolis, Minn., assignor, by mesne assignments, to Adams Letter Folding Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 8, 1908. Serial No. 425,870.



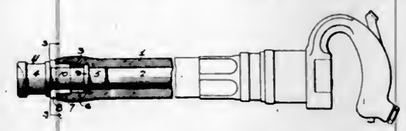
1. The combination, with a feed table and means for feeding sheets of paper thereon, of initial folding rollers arranged side by side in a horizontal plane, a scoring knife operating above said rollers, a compression roller arranged to contact with one of said folding rollers, arms mounted above said folding rollers and over-hanging said compression roller and depending to a point near said table and having upwardly inclined ends that are adapted to engage the forward edge of the paper and direct it downwardly under said compression roller.

2. The combination, with a feed table and means for feeding sheets of paper thereon, of initial folding rollers, a scoring knife operating above the same, arms pivoted on said table, a transverse bar connecting said arms above said folding rollers, a compression roller mounted in said arms and adapted to bear on one of said folding rollers, plates mounted on said bar and extending over said compression roller and having upwardly turned ends in the path of the sheets of paper on the receiving side of said roller, and guide plates secured to said bar and arranged to hold the sheets downward on the delivery side of said compression roller.

3. The combination, with a feed table and means for feeding sheets of paper thereon, of initial folding rollers mounted side by side on a level substantially with the top of said table, a knife suspended above said rollers and adapted to engage a sheet of paper and bend the same and force it down into said rollers, a compression roller mounted above said table and adapted to bear on one of said folding rollers and in the rear of the axis thereof, said compression roller and the folding roller in contact therewith serving to direct the forward ends of the sheets upwardly, and means on the discharge side of said compression roller and overhanging said folding roller for directing the end of the sheet downwardly and forwardly, said means including a transverse bar, and guide plates secured to said bar and projecting rearwardly over said roller.

4. The combination, with a feed table and means for feeding sheets of paper thereon, of initial folding rollers arranged side by side in a horizontal plane below the top of said feed table, a scoring knife supported above said rollers and adapted to move down between the same, a compression roller arranged above and slightly in the rear of the center of one of said folding rollers and in contact therewith, a transverse bar on the delivery side of said compression roller, and guide plates carried by said bar and having downwardly turned edges adapted to engage the forward edge of the paper, substantially as described.

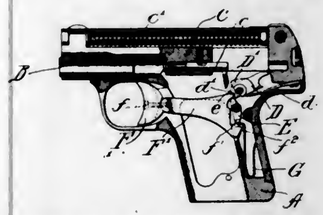
941,748. PNEUMATIC TOOL. ROBERT H. WALLACE, New Brighton, Pa., assignor of one-third to F. J. Lucius, Bellevue, Pa., and one-third to William F. Seefeldt, Beaver Falls, Pa. Filed Oct. 8, 1908. Serial No. 456,824.



1. The combination with a pneumatic tool having a barrel and a piston mounted therein, of a snap having an enlarged head portion, a shank portion and a collar formed integral thereon and fitting within the barrel, and a partible bushing adapted to screw into the end of the barrel and around the shank portion of the snap to retain the snap therein.

2. The combination of a pneumatic tool having a barrel and a piston mounted therein, and having a spring clip secured at the end of the barrel, of a snap having a collar fitting within the barrel, and a bushing screwing within the end of the barrel and confining the snap therein through said collar, and having a locking seat to receive such spring.

941,749. AUTOMATIC PISTOL. RUSSELL WILES, Chicago, Ill., assignor to Charles Ph. Clement, Liege, Belgium. Filed June 9, 1909. Serial No. 501,160.

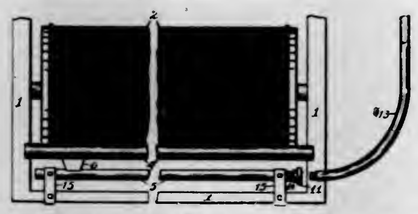


1. The combination, in an automatic pistol having a magazine in the handle, a sear behind the magazine, and firing mechanism in position to be engaged by the sear, of a trigger having a finger-piece in front of the magazine and an operating member extending beside the magazine into position to engage the sear, said trigger being capable of bodily longitudinal movement and a limited oscillatory movement, and means for bodily oscillating the trigger after its longitudinal movement.

2. The combination, in an automatic pistol having a magazine in the handle, of a sear behind the magazine and firing mechanism arranged to be engaged by the sear and release, a trigger having a finger-piece in front of the magazine and an operating member extending to one side of the magazine, the trigger being arranged to slide bodily longitudinally of the weapon and in such movement to move the sear to release the firing-mechanism, and means for bodily oscillating the trigger to release the sear after such longitudinal movement.

3. The combination, in an automatic pistol having a magazine in the handle, of a sear and hammer to the rear of the magazine, and a trigger having a finger-piece in front of the magazine and an operating portion extending beside the magazine, said trigger having a portion to engage the sear to release the same from the hammer, and the hammer and trigger having coöperating portions whereby when the hammer descends, the trigger will be bodily oscillated to release it from the sear.

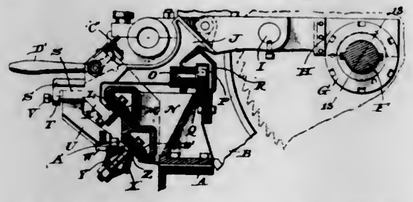
941,750. PAPER-MAKING-MACHINE-CLEANSING DEVICE. ALFRED T. WYANT, Neenah, Wis. Filed Feb. 1, 1909. Serial No. 475,532.



1. In a wire cleansing device for a paper making machine, a source of supply for steam, hot water, or air, under pressure, a slotted pipe arranged across the paper making machine frame, near to, and parallel with the wire to be cleaned, a tubular inclosure arranged to slide within said pipe, a nozzle extending outward from said tubular inclosure through the slot in said pipe, and being directed toward the wire to be cleaned, an aperture from said tubular inclosure through said nozzle for delivering a jet upon the wire to be cleaned in the form of a thin sheet, a hose connecting the source of supply of the cleansing agent and said tubular inclosure, and a valve for controlling the flow of the cleansing agent through said tubular inclosure and nozzle to the wire to be cleaned.

2. As a means of directing a jet of steam, liquid, or air, under pressure, upon parts of a paper making machine mechanism, an inclosure arranged transversely of said machine, a slot through one side of said inclosure longitudinally thereof, and an inclosure carrying the jet forming force arranged to be slid back and forth within said first named inclosure along said slot for delivering said jet forming force to the mechanism desired.

941,751. GANG-EDGER. ULRICH ANDERSON, Fond du Lac, Wis., assignor to Giddings & Lewis Manufacturing Company, Fond du Lac, Wis., a Corporation of Wisconsin. Filed Jan. 29, 1907. Serial No. 354,762.



1. In a gang-edger, the combination of a saw-arbor; a saw-supporting collar mounted thereon; a slide; an arm extending inwardly from the slide and engaging the saw-collar; a roller carried by the inner portion of the slide; a track secured to the frame of the machine in line with said roller; an arm extending downwardly from the slide; antifriction rolls supported by said arm and movable upon tracks formed upon the frame of the machine said tracks and rolls interlocking; a second arm extending outwardly and laterally from said slide; and antifriction rolls carried by the outer end of said arm, said rolls moving upon tracks formed upon the frame of the machine the rolls and tracks interlocking, substantially as and for the purpose described.

2. In a gang-edger, the combination of a saw-arbor; a saw-supporting collar mounted thereon; a slide; an arm extending inwardly from the slide and engaging the saw-arbor; an arm extending downwardly from the slide; a pair of Λ-shaped rolls carried by said arm, said rolls working in suitable guides or ways formed in the frame; a second arm extending laterally from the slide, the outer end of the arm lying in a plane below that of the first-named arm; a pair of Λ-shaped rolls adjustably secured upon the end of said second arm; and guides or ways formed in the frame of the machine for receiving said rolls.

3. In a gang-edger, the combination of a saw-arbor; a saw-supporting collar mounted thereon; a slide; an arm extending inwardly from said slide and engaging the collar; a roller carried by the slide at the inner portion thereof; a track mounted upon the frame of the machine in line with the roller; a short arm extending downwardly from the outer portion of the slide; a pair of Λ-shaped rolls carried by said arm, the rolls having an interlocking connection with suitable ways or guides formed upon the frame of the machine; a second arm extending laterally and downwardly from the slide; and a pair of Λ-shaped rolls carried at the outer end of said arm, the rolls making interlocking connection with suitable ways or guides formed in the frame of the machine.

4. In a gang-edger, the combination of a saw-arbor; a saw-supporting collar mounted thereon; a slide; an arm extending inward from said slide and serving to shift the collar and its saw; a roller carried by the slide at the inner portion thereof; a track upon which said roller rests; an arm extending downwardly and inwardly from the slide; a pair of Λ-shaped rolls mounted upon an axle extending upward and inward from said arm, the rolls having an interlocking connection with ways or guides formed in the frame of the machine; a second arm secured to the slide, said arm extending downwardly and inwardly; a bracket secured to the lower end of said arm; a bolt mounted in said bracket so that it may be shifted laterally; and a pair of Λ-shaped rolls mounted upon the upper end of said bolt, the rolls making interlocking connection with grooves or ways formed in the frame of the machine.

5. In a gang-edger, the combination of a saw-arbor; a saw-supporting collar mounted thereon; a slide; an arm extending from the slide and serving to shift the collar and its saw; a roller mounted upon the inner portion of the slide; a track carried by the frame of the machine and upon which the roller rests; a cover or shield extending over said roller and serving to prevent the accumulation of dust and the like upon the track; an arm extending downwardly from the slide; and antifriction rolls carried by said arm, the rolls bearing upon ways or channels formed in the frame of the machine, the frame overlying the rolls and serving to exclude dust or the like therefrom.

[Claims 6 to 9 not printed in the Gazette.]

941,752. ATTACHMENT FOR PROJECTION APPARATUS. WALTER J. ASHLEY, Oak Park, Ill. Filed Apr. 28, 1909. Serial No. 492,618.

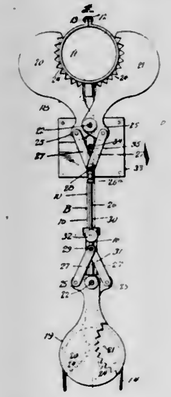
1. In a device of the class described, the combination with two connected shutters, of a motor having a limited amount of movement for actuating said shutters and means for setting said motor in motion.

2. In a device of the class described, the combination with two oscillatable shutters and connecting means arranged to actuate said shutters simultaneously to open one and close the other, a motor for operating said actuating means and mechanism for setting said motor in motion.

3. In a device of the class described, the combination with two oscillatable shutters, a reciprocable rod and connections between said rod and shutters, of a motor for actuating said shutters and means for setting said motor in motion.

4. In a device of the class described, the combination with two shutters, of a motor for actuating said shutters and a controlling mechanism for setting said motor in motion.

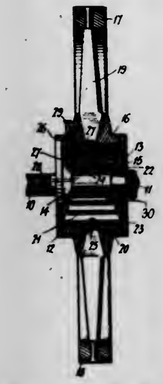
5. In a device of the class described, the combination with two shutters, of a motor for operating said shutters, and mechanism for controlling said motor having means



located at some distance away from the motor for setting said controlling means in operation.

[Claims 6 to 20 not printed in the Gazette.]

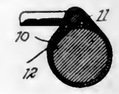
941,753. WHEEL. FREDERICK E. BERTRAND and GEORGE PORTSCHE, Lincoln, Nebr. Filed Oct. 19, 1908. Serial No. 458,535.



In a device of the class described, a wheel comprising a hollow hub, a rim, and a plurality of connecting spokes, spaced disks between which said hub is located, each of said disks having an inwardly directed annular conical projection, an axle extending through said disks, a sleeve surrounding said axle between said disks, and a coiled spring smallest at the inner whirl and connected by said smaller inner whirl to the sleeve between the conical projections and by the outer whirls to the hub, and against whose edges said conical projections bear.

941,754. FASTENER FOR SPRINGS. FREDERICK BOWEN, New York, N. Y. Filed Mar. 11, 1909. Serial No. 482,699.

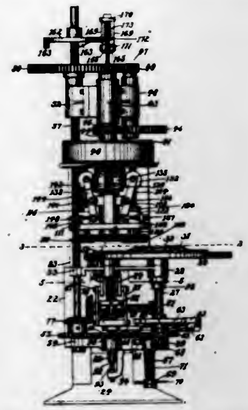
1. A fastener for springs comprising a body portion forming a seat adapted to snugly hold a portion of the spring to be secured, a tongue struck out from said body portion and adapted to coöperate therewith in engaging the strip to which the spring is to be fastened, and a finger integral with said body portion adapted to encircle the strip and inclose the tongue.



2. A fastener for springs comprising a body portion bent and curved into a seat for the spring to be retained, and adapted to prevent rocking motion of the spring relatively thereto, a tongue struck out from said body portion and coöperating with the body portion to engage the strip to which the spring is to be secured, and a finger integral with said body portion adapted to encircle the strip outside of said tongue, and have its end passed into the perforation formed in striking out the tongue.

3. A fastener for springs comprising a body portion forming a seat adapted to receive and retain the spring against rocking motion therein, a tongue struck out from said body portion, the corners of said body portion and the end of said tongue being turned inward to form gripping corners for preventing the fastener from slipping on the strip, and a finger integral with said body portion adapted to be passed around the strip outside of said tongue and pass into the perforation left in the body portion in striking out the tongue.

941,755. CAN-HEADING MACHINE. JULIUS BRENZINGER, Mount Vernon, N. Y., assignor to Sanitary Can Machinery Company, Ellsworth, Me., a Corporation of Maine. Continuation of abandoned application Serial No. 330,528, filed Aug. 14, 1906. This application filed Feb. 20, 1907. Serial No. 358,344.



1. In a can-heading machine, the combination, with a non-circular chuck, of a seaming roller, and means for revolving said seaming roller in a circular orbit around and in continuous coöperative relation to said chuck.

2. In a can-heading machine, the combination, with a stationary non-circular chuck, of a seaming roller, and means for revolving said seaming roller in a circular orbit around and in continuously uniform coöperative relation to said chuck.

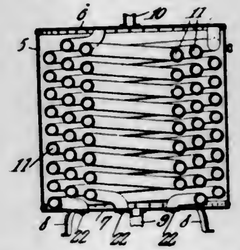
3. In a can-heading machine, the combination, with a stationary non-circular chuck, of a non-circular seaming-roller, and means for revolving said seaming-roller around said chuck in continuous coöperative relation thereto.

4. In a can-heading machine, the combination, with a stationary non-circular chuck, of a complementally non-circular seaming-roller, and means for revolving said seaming-roller around said chuck in continuous coöperative relation thereto.

5. In a can-heading machine, the combination, with a stationary non-circular chuck, of a non-circular seaming-roller, and means for revolving said seaming-roller around said chuck in continuously uniform coöperative relation thereto.

[Claims 6 to 35 not printed in the Gazette.]

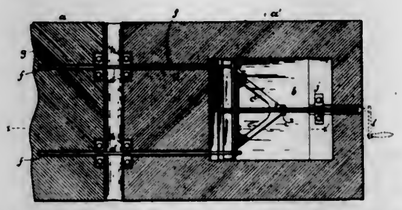
941,756. AIR-HEATER. GEORGE L. BRYANT, Victor, Colo. Filed Feb. 26, 1909. Serial No. 480,118.



1. An air heater comprising a closed casing adapted to contain a heating medium, and having an inlet and an outlet for such medium, a series of concentrically coiled, and independent air-conducting pipes mounted in the casing, said pipes having independent inlet ends opening to the atmosphere at one end of the casing, and independent discharge ends opening to the atmosphere at the opposite end of the casing, and valves for each of said pipes at the inlet ends thereof, whereby the flow of air through each of said pipes is controlled.

2. An air heater comprising a closed casing adapted to contain a heating medium, and having an inlet for said medium at one end, and an outlet therefor at the opposite end, said inlet and outlet being in alinement, a series of concentrically coiled, and independent air-conducting pipes mounted in the casing, and also arranged concentrically with respect to the aforesaid inlet and outlet, said pipes having independent inlet ends opening to the atmosphere at that end of the casing through which the heating medium enters, and said pipes having independent discharge ends opening to the atmosphere at that end of the casing from which the heating medium is discharged, and valves for each of said pipes at the inlet ends thereof, whereby the flow of air through each of said pipes is controlled.

941,757. LOOSE-LEAF LEDGER. HARRY F. BUSHONG, Portland, Oreg., assignor, by mesne assignments, to Kalamazoo Loose Leaf Binder Company, a Corporation. Filed Mar. 21, 1903. Serial No. 148,994.



1. A temporary binder, comprising two covers, the binding edges of which are made with recesses *v*, to accommodate the binding margins of the leaves, bound between the covers; binding cords *d*, connecting the covers, and means for tightening and loosening again said binding cords, substantially as described.

2. In a temporary binder, the combination of covers, one of which is provided with a pocket; a back strip, one of the ends of which is arranged to telescope into said pocket, the other being connected to the other cover; binding cords connecting the said covers; and means for tightening and loosening said binding cords, for the purpose specified.

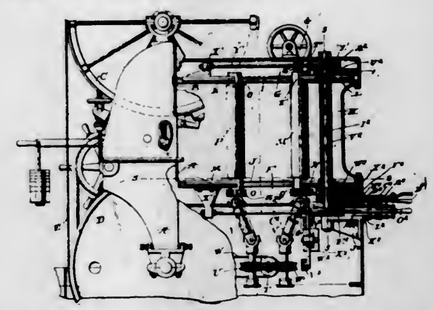
3. A separate leaf book, comprising two cover sections a pocket *n* on the exterior of one of such cover sections, a back strip one end of which telescopes in said pocket and the other end thereof being fastened to the other cover section, an elastic band connecting the telescoping end of the back strip to the cover section and by which band the back strip is constrained and adjusted relatively with the opening and closing of the book, binding cords connecting the two cover sections and means for tightening and loosening again such binding cords.

4. A separate leaf book, comprising two cover sections, a pocket *n* on the exterior of one of such cover sections, a back strip one end of which telescopes in said pocket and the other end thereof being fastened to the other cover section, an elastic band connecting the telescoping end of the back strip to the cover section and by which band the back strip is constrained and adjusted relatively with the opening and closing of the book, binding cords connecting the two cover sections, an adjustable bar to which the ends of the binding cords are fastened, and means for adjusting said bar to tighten and loosen again said binding cords.

5. A separate leaf book, comprising two cover sections, pockets *n* on the exterior of each cover section, a back strip the ends of which telescope in said pockets, bands connecting the telescoping ends of the back strips to the cover sections and by which the back strip is constrained and adjusted relatively with the opening and closing of the book, binding cords connecting the two cover sections, and means for tightening and loosening again such binding cords.

[Claims 6 to 16 not printed in the Gazette.]

941,758. BAND-SAW RESAWING-MACHINE. CHARLES E. CLEVELAND, Fond du Lac, Wis. Filed Dec. 19, 1906. Serial No. 348,651.



1. In a band-saw resawing machine, the combination of a bed; a band-saw supported thereby; a supporting frame extending outwardly from the bed; feed rolls mounted upon each side of the saw; slides for said rolls mounted in the frame and supporting the rolls at both top and bottom; motion-producing means engaging both the upper and lower slides of each pair of rolls in substantially the plane of movement of the slides, for causing the slides to move in unison; and means for applying pressure to the rolls through such motion-producing means.

2. In a band-saw resawing machine, the combination of a bed; a band-saw carried thereby; a supporting frame extending outwardly from the bed to one side of the saw; a pair of slides mounted in the upper portion of said frame; a second pair of slides mounted in the lower portion of the frame; vertically-arranged feed-rolls having their bearings in the oppositely-disposed upper and lower slides; motion-producing means engaging both the upper and lower slides of each pair of rolls in substantially the plane of movement of the slides, said motion-producing means serving to cause the slides to move in unison; and

means for applying power through said motion-producing means for moving the slides and the rolls toward and from the saw.

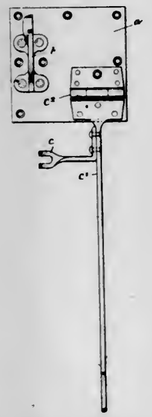
3. In a band-saw resawing machine, the combination of a bed; a band-saw; a supporting frame extending outwardly from the bed to one side of the saw; a pair of slides mounted in the upper portion of the frame; a second pair of slides mounted in the lower portion of the frame; vertically-disposed feed rolls having their bearings in the oppositely-arranged upper and lower slides; motion-producing means engaging both the upper and lower slides of each pair of rolls, in substantially the plane of movement of the slides, said motion-producing means serving to cause said slides to move in unison; means for moving said slides toward and from the saw-line; means for holding the slides in their adjusted positions; and means acting through said motion-producing means for urging the rolls against the lumber.

4. In a band-saw resawing machine, the combination of a bed; a supporting frame extending outwardly from the bed to one side of the saw; a pair of slides mounted in the upper portion of the frame; a pair of slides mounted in the lower portion of the frame; vertically-disposed guide-rolls carried by the oppositely-arranged slides; motion-producing means engaging both the upper and lower slides of each pair of rolls in substantially the plane of movement of the slides, said motion-producing means serving to cause the slides to move in unison; means for moving the slides toward and from the saw; means for holding them in their adjusted positions; and means acting through the motion-producing means aforesaid serving to hold the rolls with a yielding pressure against the lumber.

5. In a band-saw resawing machine, the combination of a bed; a saw; a frame extending outwardly from the bed; a pair of slides mounted in the upper portion of the frame; a pair of slides mounted in the lower portion of the frame; rolls carried by the oppositely-disposed upper and lower slides; motion producing means engaging both the upper and lower slides of each pair of rolls, in substantially the plane of movement of the slides, said motion-producing means serving to cause said slides to move in unison; means for adjusting said slides; means for fixedly holding one set of rolls in their adjusted positions; and means acting through said motion-producing means for urging the other set of rolls toward the fixed rolls.

[Claims 6 to 21 not printed in the Gazette.]

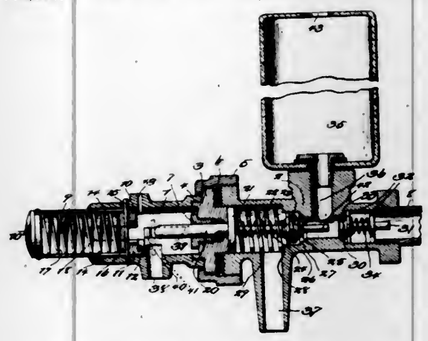
941,759. SINEW-EXTRACTOR. GEORGE A. CONGDON, West Somerville, Mass. Filed July 17, 1909. Serial No. 508,177.



1. A sinew extractor consisting of a base, a forwardly extended foot-holder attached thereto having a forked end portion, a hand-lever pivoted at its upper end to said base, below and at one side of said foot-holder, which is movable on its pivot from a vertical to a horizontal position, and a claw extended laterally from said lever at a point intermediate its length on that side adjacent the foot-holder, which engages the leg below the foot-holder when the hand-lever is raised to a horizontal position and operates to separate the leg from the foot and extract the sinew as the hand-lever is returned to vertical position, substantially as described.

2. A sinew extractor consisting of a base, a forwardly extended foot-holder attached thereto having a forked end portion, the adjacent faces of the fingers of said end portion being beveled, a hand-lever pivoted at its upper end to said base, below and at one side of said foot-holder, which is movable on its pivot from a vertical to a horizontal position, and a claw extended laterally from said lever at a point intermediate its length on that side adjacent the foot-holder which engages the leg below the foot-holder when the hand-lever is raised to a horizontal position and operates to separate the leg from the foot and extract the sinew as the hand-lever is returned to vertical position, substantially as described.

941,760. LIQUID-VENDING DEVICE. HENRY G. CORDLEY, Glen Ridge, N. J. Filed May 18, 1907. Serial No. 374,397.



1. In a liquid vending device, a reciprocating member; operating means therefor; a normally open valve carried by said reciprocating member; a seat for said valve; a second normally closed valve and seat therefor; a supply conduit leading to said second valve; a discharge conduit leading from said first valve; a conduit connecting said valves; a conduit leading from said last mentioned conduit; a measuring glass with which said last mentioned conduit communicates; and means carried by said reciprocating member adapted to operate said second valve after said first mentioned valve has been seated.

2. In a liquid dispensing device, a reciprocating member; a second reciprocating member in alinement therewith and adapted to be operated by said first mentioned reciprocating member; an abutment upon said second member; a spring engaging said abutment; a stem carried by said second member; a valve carried by said stem and free to move thereon; a second valve in line with and adapted to be engaged by the end of said stem; a measuring vessel; a supply conduit leading from a source of liquid supply past said second valve and to said measuring vessel; and a discharge conduit leading from said measuring vessel past said first mentioned valve.

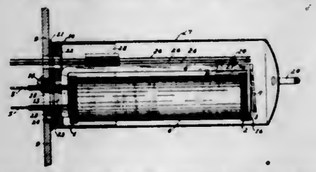
3. In a liquid vending device, a casing comprising two main sections and an interposed connecting section; means for securing said sections together; a reciprocating member located in one of said sections; a second reciprocating member in alinement with said first reciprocating member and adapted to be operated thereby, and extending through said connecting section and into said second section; an abutment carried by said second reciprocating member and located in said second section; a spring within said second section and in engagement with said abutment; supply and discharge conduits in said second section and leading respectively from a source of liquid supply to a measuring vessel, and from the measuring vessel to the exterior of the device; a stem projecting from said second reciprocating member; a normally open valve carried by and free to move upon said stem, and adapted to control said discharge conduit; and a second normally closed valve adapted to control said supply conduit, and to be engaged by the end of said projection.

4. In a liquid vending device, a reciprocating member; a second reciprocating member in position to be operated by said first mentioned member; an abutment upon said second member, a spring engaging said abutment and opposing the movement of said member; a measuring vessel; a supply conduit leading from a source of liquid supply to the said measuring vessel; a discharge conduit leading from said measuring vessel; a projecting stem carried by said second reciprocating member; a normally open discharge valve carried by and free to move upon said stem; a shoulder upon said stem; a spring surrounding said stem and adapted to press said valve against said shoulder; and a normally closed supply valve in position to be engaged and opened by the end of said projecting stem.

5. In a liquid vending device, a receptacle wherein a constant level of liquid is maintained; a measuring vessel extending above the level of the liquid in said receptacle; a supply conduit extending from said receptacle to said measuring vessel; a discharge conduit extending from said measuring vessel; valves for controlling the flow of liquid through said conduits; and mechanism for operating said valves.

[Claims 6 and 7 not printed in the Gazette.]

941,761. RELAY. ELMER R. CORWIN and CHARLES A. BALS, Chicago, Ill., assignors to Corwin Telephone Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 21, 1908. Serial No. 454,059.



1. A relay of the character described comprising a U-shaped magnetizable structure, a coil for magnetizing said magnetizable structure, an armature pivoted between the ends of said U-shaped structure so as to be removable with the coil, and adapted to be operated toward both limbs of said U-shaped structure when the latter is energized, to close the magnetic circuit, and switching mechanism arranged to be operated by the armature.

2. A relay of the character described comprising a core and a return magnetizable bar, the said core being removable, means for magnetizing the core and bar, an armature pivoted between the said core and bar and having two limbs arranged so that when one limb is attracted to the core the other limb is moved toward the said bar, the armature being pivoted so as to be removable with the core, and switching mechanism arranged to be operated by the armature.

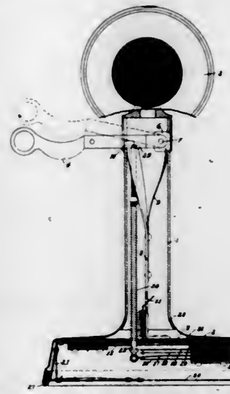
3. A relay comprising a core and a return magnetizable bar, a coil for magnetizing said core and bar, the coil and core being removable, an armature having two limbs forming an angle, said armature being pivoted near one end of said core and bar and between same so as to be removable with the coil and core and whereby when said core and bar are magnetized one limb of the armature is attracted to the end of the core while the other limb thereof is attracted to the said bar near one end thereof, and switching mechanism arranged to be operated by the armature.

4. A relay comprising a spool and a coil wound thereon, a magnetizable bar carrying the spool and extending substantially parallel therewith, a plate secured to one end of the spool, an armature having two limbs forming an angle and pivoted between said limbs by the said plate apart from the said bar, so that one limb of the armature is attracted toward the end of the spool and the other limb is attracted toward the said bar when the relay is energized, and switching mechanism arranged to be operated by the armature.

5. A relay comprising a spool having a coil thereon, a return magnetizable bar, an armature, switching mechanism arranged to be operated by the armature, a mounting plate for the relay, means for mounting the relay as a whole to the mounting plate, and means at the relay mounting whereby the spool and coil thereon may be removed from the said return bar and the said switching mechanism without dismounting the said bar and switching mechanism.

[Claims 6 to 11 not printed in the Gazette.]

941,762. DESK-TELEPHONE. ELMER R. CORWIN and CHARLES A. BALS, Chicago, Ill., assignors to Corwin Telephone Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 26, 1908. Serial No. 469,205.



1. A telephone of the character described comprising an outer base portion having a vertical standard carried thereby and secured thereto, an inner base portion adapted to be placed into the outer base portion, a vertical member attached to the inner base portion and extending up into the said standard, and means for locking the said vertical member to the standard to hold the inner base portion in place, the said vertical member and inner base portion being removable as a unit from the standard and outer base portion.

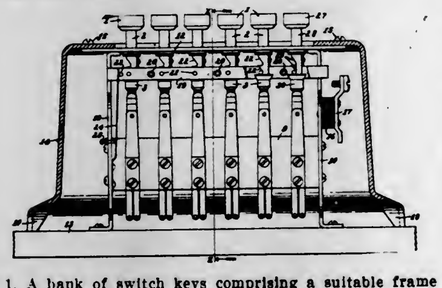
2. A telephone of the character described comprising an outer base portion having a vertical standard carried thereby and secured thereto, an inner base portion adapted to be placed into the outer base portion, a vertical member attached to the inner base portion and extending up into the said standard, a receiver hook carried by the said standard, a pair of lugs on the said vertical member adapted to fit into an opening in the said standard on opposite sides of the receiver hook, and a spring member attached to the said vertical member and acting to force the said lugs into the opening in the said standard whereby the said vertical member and inner base portion are locked in position, the said vertical member and inner base portion being removable as a unit from the said standard and outer base portion.

3. A telephone of the character described comprising an outer base portion and a vertical standard carried thereby and secured thereto, an inner base portion adapted to fit into the outer base portion, a vertical member secured to the inner base portion and extending up into the said standard, means for locking the said vertical member to the said standard whereby the inner base portion is held in place, a plate removably secured within the inner base portion and carrying switch contact members, a receiver hook carried by the said standard, a rod extending up through the said standard into engagement with the receiver hook and adapted for controlling the said switch contact members, and a spring member acting on the said

rod against any weight on the receiver hook whereby the latter is raised when empty, the said vertical member serving as a guide to properly guide the upper end of the said rod into engagement with the receiver hook when the telephone is being assembled, the said vertical member and the inner base portion being removable as a unit from the said standard and outer base portion.

4. A telephone of the character described comprising an outer base portion having a vertical standard carried thereby, an inner base portion adapted to be placed into the outer base portion, a vertical member attached to the inner base portion and extending up into the said standard, means for locking the said vertical member to the standard to hold the inner base portion in place, the said vertical member and inner base portion being removable as a unit from the standard and outer base portion, and a cushion member placed between the edges of the said base portions and removable with the inner base portion, the latter normally holding the cushion member in place.

941,763. BANK OF LOCKING SWITCH-KEYS. ELMER R. CORWIN and CHARLES A. BALS, Chicago, Ill., assignors to Corwin Telephone Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 29, 1909. Serial No. 474,968.



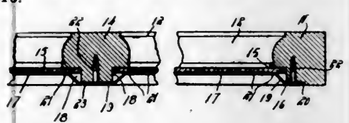
1. A bank of switch keys comprising a suitable frame and a plurality of push-button switches, adapted to be mounted to a suitable base, a distributing strip having terminals thereon carried by the said frame whereby conductors leading from the said switches may be connected with external conductors leading to the bank of keys, and a removable casing carried by the bank of keys and attached thereto, the said casing inclosing the said switches and distributing strip and having an opening therethrough for accommodating the external conductors leading to the distributing strip.

2. A band of switch keys having a plurality of plungers and switches adapted to be operated thereby, means for locking some of the plungers in depressed position, means associated with at least one of the plungers whereby the depression thereof from normal position releases any of the other keys which may have been locked in depressed position, before the plunger which is being depressed switches its switch contacts, at least one of the plungers being constructed so that it switches its switch contacts before causing the release of any of the other plungers which may have been locked in depressed position.

3. A bank of locking switch keys comprising a plurality of plungers and switches adapted to be operated thereby, means for locking the various keys in depressed position, means associated with each of the plungers whereby the depression thereof releases any of the other plungers which may have been locked in depressed position, some of the plungers being constructed so as to cause the release of the other plungers, when depressed, before switching their switch contacts, and at least one of the plungers being constructed so as to switch its switch contacts, when depressed, before causing the release of the other plungers.

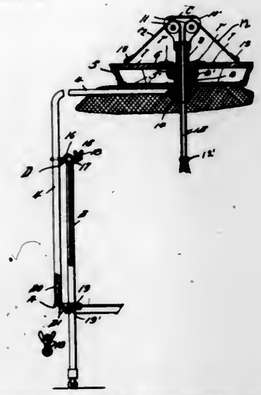
4. A bank of switch keys having a plurality of plungers and switches adapted to be operated thereby, means for locking some of the plungers in depressed position, means whereby the depression of at least one of the plungers causes the release of the other plungers which may have been locked in depressed position, and means associated with at least one of the plungers whereby the depression thereof from normal position switches its switch contacts before causing the release of any of the other plungers which may have been locked in depressed position.

941,764. WINDOW-PANE FASTENER. DAVID D. CROUSE, Gage, Okla. Filed July 28, 1909. Serial No. 510,016.



The combination with a window sash having an inner glass receiving rabbet of a depth greater than the thickness of the glass and an outer supplemental rabbet extending from the inner rabbet, a pane of glass supported in the outer rabbet, a resilient strip angular transversely and arranged with one portion in the outer rabbet and its other portion against the glass, the intermediate portion of the strip being spaced from the bottom of the outer rabbet, and means applied to said intermediate portion for securing said strip to the sash, whereby constant pressure is applied to the glass and the strip adapted to glass of varying thicknesses.

941,765. CANOPY-FRAME HAVING DOORS. WILLIAM S. DAVIDSON, Nashville, Tenn. Filed Mar. 2, 1908. Serial No. 418,754.



1. The combination in a canopy frame having doors with means for operating them from beneath the canopy, a flanged socket tube, having a socket adapted to fit over the end of a tube, a flange suitable for furnishing a seat for a bearing, a tube affording means to allow cords to freely pass through the tube and over pulleys, substantially as described.

2. The combination in a canopy frame having doors with means for operating them from beneath the canopy, the doors being automatically closed by spring hinges, a flanged socket tube, having a socket adapted to fit over and hold the end of a tube, a flange suitable for furnishing a seat for a bearing; a tube affording means to allow cords to freely pass through the tube, a socket pulley case, the socket being adapted to freely fit over and around tube 9, the pulley case containing pulleys, the said pulleys being so located that the cords passing over them will pass down through the tube to beneath the canopy frame, substantially as described.

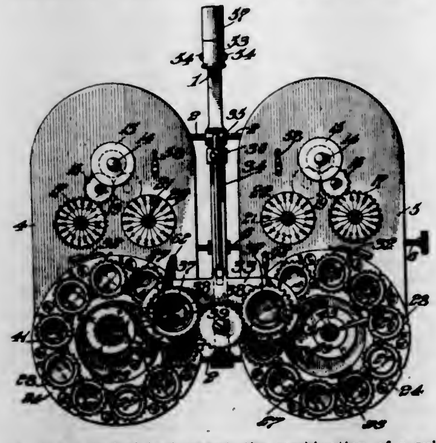
3. The combination in a canopy frame having doors with means for operating them from beneath the canopy, and spring hinges adapted to automatically close the doors, a socket pulley case containing a socket adapted to fit over the end of a tube, the pulley case containing pulleys, the pulley case having closed sides and top with opened edges, thereby allowing cords to pass over the pulleys, the sides of the case answering as guides to prevent the cords from getting off of the pulleys, and the said pulleys so located that the cord passing over them will freely pass down through the tube to beneath the canopy frame, substantially as described.

4. The combination in a canopy frame having doors with means for operating them from beneath the canopy, the doors being automatically closed by spring hinges, and opened by cords having one end fastened to the free ends of the doors, the said cords passing over pulleys down through a tube and being conveniently reached from beneath the canopy frame, substantially as described.

5. The combination in a canopy frame having doors with means for operating them from beneath the canopy, spring hinges which automatically close the doors, a flanged collar bearing B fastened to the cross section of a canopy frame and furnishing means for seating the frame on a support adapted to hold the frame in position to be used, substantially as described.

[Claim 6 not printed in the Gazette.]

941,766. OPTOMETER. HENRY L. DE ZENG, Maple Shade, N. J. Filed Dec. 29, 1908. Serial No. 469,783.



1. In an optical instrument, the combination of a suitable support, a phorometer, and a series of spherical lenses, the said spherical lenses being mounted to be brought routinely into visual alinement with the said phorometer.

2. In an optical instrument, the combination of a suitable support, a phorometer and a series of cylindrical lenses, the said cylindrical lenses being mounted to be brought routinely into visual alinement with the lenses of the said phorometer.

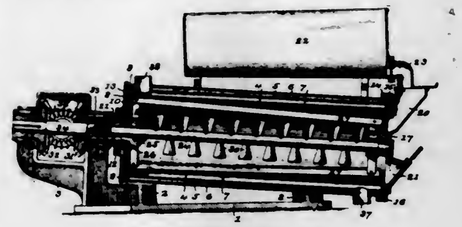
3. In an optical instrument, the combination of a suitable support, a phorometer, a series of spherical lenses and a series of cylindrical lenses, the said spherical lenses and the said cylindrical lenses being mounted to be brought routinely into visual alinement with the lenses of said phorometer.

4. In an optical instrument, the combination of a suitable support, a double rotary prism and a series of spherical lenses, the said spherical lenses being mounted to be brought routinely into visual alinement with the lenses of the double rotary prism.

5. In an optical instrument, the combination of a suitable support, a double rotary prism and a series of cylindrical lenses, the said cylindrical lenses being mounted to be brought routinely into visual alinement with the lenses of the said double rotary prism.

[Claims 6 to 21 not printed in the Gazette.]

941,767. FREEZER. GEORGE F. DICKSON, Chicago, Ill., assignor to Confectioners and Bakers Supply Co., Chicago, Ill., a Corporation of Illinois. Filed Mar. 14, 1908. Serial No. 421,205.



1. The combination in a freezer, of an inner closed casing constituting a freezing chamber and carrying a series of partitions on its outer surface, an outer casing fitting over said inner casing and its partitions to form a brine chamber and provided with a head at one end, and means for detachably connecting said casings together, the same comprising a central neck on the inner casing head projecting through a central end orifice in the outer casing, and a fastening means engaging said central neck, in a manner which permits of ready longitudinal separation of the casings in cleaning out the brine chamber, substantially as set forth.

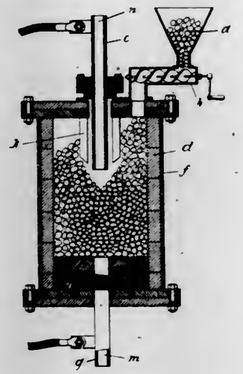
2. The combination in a freezer, of an inner closed casing constituting a freezing chamber and carrying a series of partitions on its outer surface, an outer casing fitting over said inner casing and its partitions to form a brine chamber and provided with a head at one end, and means for detachably connecting said casings together in a manner which permits of ready longitudinal separation of the casings in cleaning out the brine chamber, the same comprising a central neck on the inner casing head projecting through a central orifice in the outer casing head and screw threaded, and a holding nut engaging said screw threaded neck, substantially as set forth.

3. The combination in a freezer, of an inner closed cylindrical casing constituting a freezing chamber and carrying a series of radial partitions on its periphery, an outer casing fitting over said inner casing and partitions to form a brine chamber and provided with a head at one end, and means for detachably connecting said casings together in a manner which permits of ready longitudinal separation of the casings in cleaning out the brine chamber, the same comprising a central neck on the inner casing head projecting through a central orifice in the outer casing head and screw-threaded, and a holding nut engaging said screw-threaded neck, substantially as set forth.

4. The combination in a freezer, of an inner casing constituting a freezing chamber and having a fixed head at one end and a removable head at the other end and a series of partitions on its outer surface, an outer casing fitting over said inner casing and partitions to form a brine chamber and provided with an end head having a central neck, and means engaging said neck for detachably connecting said casings together in a manner which permits of ready longitudinal separation of the casings in cleaning out the brine chamber, substantially as set forth.

5. The combination in a freezer, of an inner casing constituting a freezing chamber and having a fixed head at one end and a removable head at the other end and a series of partitions on its outer surface, an outer casing fitting over said inner casing and partitions to form a brine chamber and provided with a head, and means for detachably connecting said casing together in a manner which permits of ready longitudinal separation of the casings in cleaning out the brine chamber, the same comprising a central neck on the inner casing head projecting through a central orifice in the outer casing head and screw-threaded for the reception of a holding nut, substantially as set forth.

941,768. ELECTRIC FURNACE FOR GAS REACTIONS. OTTO DIEFFENBACH and WILHELM MOLDENHAUER, Darmstadt, Germany. Filed Aug. 25, 1908. Serial No. 450,200.



1. An electric arc furnace for producing gas-reactions, including two electrodes in said furnace, one of said electrodes being composed of a charge of fragmentary carbon, and means for supplying gas to the arc through said carbon, substantially as described.

2. An electric arc furnace for producing gas-reactions, including two electrodes in said furnace, one of said electrodes consisting of a charge of fragmentary carbon and the other electrode consisting of a tube substantially as described.

3. An electric arc furnace for producing gas-reactions, including an upper and a lower electrode in said furnace, said lower electrode being composed of a charge of fragmentary carbon, and means for supplying gas to the arc through said carbon substantially as described.

4. An electric arc furnace for producing gas-reactions, including an upper and a lower electrode in said furnace, said lower electrode being composed of a charge of fragmentary carbon and a tubular electrical terminal for the said lower electrode substantially as described.

5. An electric arc furnace for producing gas-reactions, including an upper and a lower electrode in said furnace, said lower electrode being composed of a charge of fragmentary carbon, and said upper electrode consisting of a tube of carbon substantially as described.

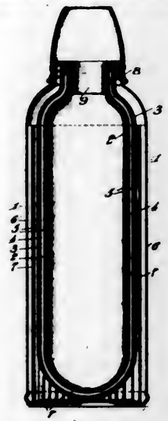
[Claims 6 to 9 not printed in the Gazette.]

941,769. PROTECTOR FOR THE NECKS OF BOTTLES. VICTOR DURAND, Jr., Vineland, N. J., assignor, by mesne assignments, to Caloris Manufacturing Company, a Corporation of Delaware. Filed Mar. 7, 1908. Serial No. 419,760.

1. In a device of the character described, receptacles suitably connected and having a vacuum therebetween, and a casing for said receptacles inclosing the same and provided with a guard or protector extending within the neck of the inner receptacle.

2. In a device of the character described, a plurality of receptacles suitably connected and having a vacuum therebetween, a casing for said receptacles, means between the outer receptacle and said casing for holding the parts in proper position, and a rigid protector carried by the casing and projecting within the neck of the inner receptacle and closing at the top the space between the casing and the outer receptacle.

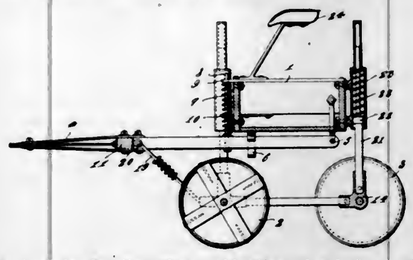
3. In a device of the character described, a plurality of receptacles suitably connected together and having a vacuum therebetween, a casing for said receptacles, means for holding the receptacles in proper position within said casing, and a guard or protector integral with said casing and projecting within the neck of said receptacles and serving as additional means for holding said receptacles in proper position within said casing.



4. In a device of the character described, a plurality of receptacles suitably connected together and having a vacuum therebetween, a casing for said receptacles, and means at the upper end of said casing forming a closure for the upper end thereof, and provided with a protector projecting within the neck of the inner receptacle and aiding in holding said receptacles in proper position within the casing.

5. In a device of the character described, a plurality of receptacles suitably connected together and having a vacuum therebetween, a casing for said receptacles, and means at the upper end of said casing forming a closure for the upper end thereof and resting upon the upper end of the portion connecting said receptacles, and provided with a protector projecting within the neck of the inner receptacle and aiding in holding said receptacles in proper position within the casing.

941,770. LAND-ROLLER. ERIC ENGLUND, El Campo, Tex. Filed July 19, 1909. Serial No. 508,431.



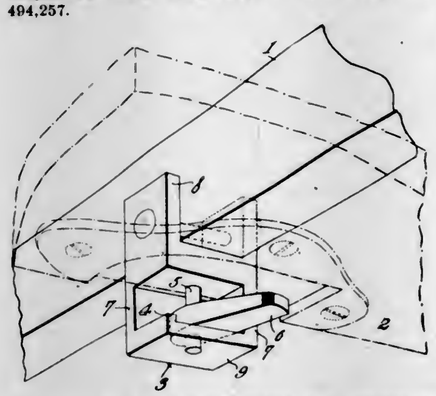
1. In a land roller, the combination of a body, a plurality of rollers supporting said body, draft means comprising a central tongue pivotally connected at its rear end to the rear portion of the body and projecting forwardly therefrom, a spring connected with the body and with the tongue and arranged in front of said body for normally holding the tongue in a predetermined position relative thereto, a frame arranged beneath the body and on which the rollers are mounted, a transverse beam connected with the tongue and arranged in advance of the body, and a plurality of draft rods connected at their front ends with the beam and at their rear ends with said frame.

2. In a land roller, the combination of a body, a plurality of rollers supporting said body, draft means comprising a central tongue pivotally connected at its rear

end to the rear portion of the body and projecting forwardly therefrom, a spring connected with the body and with the tongue and arranged in front of said body for normally holding the tongue in a predetermined position relative thereto, a frame arranged beneath the body and on which the rollers are mounted, a transverse beam connected with the tongue and arranged in advance of the body, the aforesaid frame comprising a plurality of flexibly related members allowing certain independent movement of the rollers, and draft rods pivotally connected at their front with the said draft beam and connected at their rear ends with the front portion of the frame.

3. In a land roller, the combination of a body, a frame arranged below said body and consisting of side bars having couplings at the front and rear ends and provided with bearings, transverse axles mounted in the bearings of the couplings, transverse plates pivotally connected at opposite ends with the side bars of the frame, rollers mounted on the axles, standards projecting upwardly from the couplings of said frame, and means yieldingly connecting said standards to the body to permit certain independent movement of the rollers with reference to one another.

941,771. DOOR-FASTENER. BRAMAN B. FAIRMAN, Maquoketa, Iowa. Filed May 6, 1909. Serial No. 494,257.



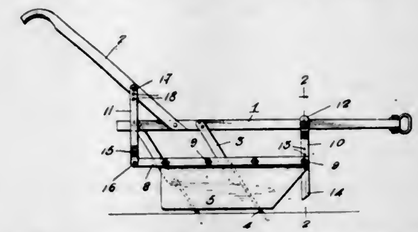
1. A catch for a vertically swinging door, comprising a housing open at the front and provided with a detent; an upright pivot member mounted in the housing; a tongue terminally mounted on the pivot member and arranged to protrude from the front of the housing, and to engage the detent in protruding position; the tongue being liftable vertically to clear the detent, and being rotatable laterally upon the pivot member, out of protrusion from the front of the housing.

2. A catch for a vertically swinging door, comprising a housing open at the front, and provided with a detent; a pivot member mounted in the housing; a tongue terminally mounted on the pivot member and arranged to protrude from the front of the housing, and to engage the detent in protruding position; the tongue being liftable vertically to clear the detent, and being rotatable laterally upon the pivot member out of protrusion from the front of the housing; the housing being provided at its upper extremity with upstanding, spaced, support-engaging arms.

3. A catch for a vertically swinging door comprising a housing open at the front and side and provided with a detent; a pivot member mounted in the housing; a tongue terminally mounted on the pivot member and arranged to protrude from the front of the housing, and to engage the detent in said protruding position; the tongue being liftable vertically to clear the detent, and being rotatable laterally upon the pivot member out of protrusion from the front of the housing into protrusion from the side thereof.

4. A catch for a vertically swinging door comprising a housing provided with a detent; a pivot member mounted in the housing; a tongue terminally mounted on the pivot member and arranged to protrude from the housing, and to engage the detent in protruding position; the tongue being liftable vertically to clear the detent, and being rotatable laterally on the pivot member out of protrusion from the housing; the tongue being receivable by the walls of the housing upon either side of the detent, to limit the rotary movement of the tongue.

941,772. FENDER FOR DOUBLE-SHOVEL PLOWS. KYLE B. FARIS and JOSEPH D. WALKER, Whitesburg, Tenn. Filed Jan. 16, 1909. Serial No. 472,693.



1. The combination with a plow or the like, of a fender, the front end of the fender being inclined downwardly and rearwardly, and front and rear hangers for pivotally suspending the fender, the front hanger having its lower end depending to provide a guard arranged in front of the inclined or beveled end of the fender.

2. The combination with a plow or the like, of a fender, front and rear hanger straps, means for pivotally mounting the front hanger strap to the plow, an adjustable connection between the fender and said front hanger, the lower end of the latter being adapted to project in front of the forward end of the fender to serve as a guard for the latter, a pivot connection between the rear hanger and the fender and a pivotal connection between the rear hanger and the plow.

3. The combination with a plow or the like, of a fender consisting of a metal plate with a downwardly and rearwardly inclined front end, and a longitudinal reinforcing bar at the upper edge of the fender plate, a front hanger strap adjustably pivoted intermediate its ends to said reinforcing bar, the lower end of the hanger strap being adapted to project in front of the lower end of the fender plate to serve as a guard, a rear hanger strap pivoted to the rear end of the reinforcing bar and means for pivotally mounting the upper ends of the hanger straps upon the plow.

941,773. PROCESS OF MAKING A NEUTRAL SODIUM SALT OF LACTALBUMIN. ERNST FISCHER, Gronau, near Elze, and PETER BERGELL, Berlin, Germany. Original application filed Apr. 25, 1908, Serial No. 429,129. Divided and this application filed Oct. 22, 1908. Serial No. 459,039.

1. The process of producing a neutral alkali salt of lactalbumin, consisting in dissolving dried, fat free lactalbumin in an excess of an aqueous solution of fixed alkali, precipitating the lactalbumin by means of an acid, separating the precipitate from the liquid, washing the freshly precipitated lactalbumin with water, removing the water, reducing and suspending the precipitate in alcohol, adding gradually a concentrated, aqueous solution of fixed alkali containing a chemically equivalent quantity of same, allowing the lactalbumin and alkali to combine and removing the neutral alcohol solution.

2. The process of producing a neutral alkali salt of lactalbumin, consisting in dissolving dried, fat free lactalbumin in an excess of a solution of fixed alkali, neutralizing the solution, precipitating the lactalbumin by means of an

acid, separating the precipitate from the liquid, washing the freshly precipitated lactalbumin with water, freeing it from the water, suspending it in alcohol, adding a concentrated aqueous solution of fixed alkali containing a chemically equivalent quantity for binding the lactalbumin, removing the alcohol solution when it is neutral by pressure, removing the traces adhering to the compound by ether and allowing the ether to evaporate.

3. The process of producing a neutral sodium salt of lactalbumin, consisting in dissolving dried, fat free lactalbumin in an excess of a solution of sodium hydroxid, precipitating the lactalbumin with hydrochloric acid, separating the precipitate, washing it with water, freeing it from the water, suspending it in alcohol, adding a concentrated aqueous solution of sodium hydroxid containing a chemically equivalent quantity for binding the lactalbumin and removing the alcohol when neutral.

4. The process of producing a nuetral sodium salt of lactalbumin, consisting in dissolving and reprecipitating the lactalbumin, separating the freshly precipitated lactalbumin from the liquid and washing it with water, freeing it from water, suspending it in alcohol, adding a concentrated aqueous solution of sodium hydroxid containing a chemically equivalent quantity for binding the lactalbumin, and removing the alcohol when neutral.

5. The process of producing a neutral sodium salt of lactalbumin, consisting in washing the freshly precipitated lactalbumin with water, freeing it from the water, suspending it in alcohol, adding a concentrated aqueous solution of sodium hydroxid containing a chemically equivalent quantity for binding the lactalbumin and removing the alcohol when neutral.

941,774. INDEX-PLATE FOR CALCULATING-MACHINES. JULIUS GRABER, New York, N. Y. Filed July 30, 1909. Serial No. 510,412.



1. In a calculating machine, a slidable index plate provided with a series of windows, and a series of bosses depending from the bottom of said plate around said windows.

2. In a calculating machine, a slidable index plate provided with a series of windows, and a series of circular bosses depending from the bottom of said plate around said windows and having flaring inner walls.

3. In a calculating machine, a slidable index plate provided with a series of windows, a series of bosses depending from the bottom of said plate around said windows, and a circumferential rim extending around the plate.

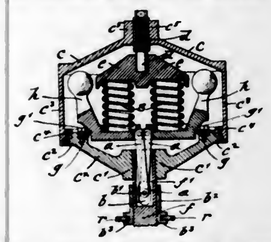
4. In a calculating machine, a slidable index plate provided with a series of windows, a series of bosses depending from the bottom of said plate around said windows, a rail spaced from the lower side of the plate and having triangular projections, and dials journaled in said projections.

5. In a calculating machine, a slidable index plate provided with a series of windows, a series of bosses depending from the bottom of said plate around said windows, a front flange also depending from the plate, stepped projections integral with said flange, and a slide engaging said projections.

[Claims 6 to 8 not printed in the Gazette.]

941,775. FLY-BALL GOVERNOR. MAX HAEBERLEIN, New York, N. Y., assignor of one-half to The Pelton Water Wheel Co., San Francisco, Cal., a Corporation of California. Filed Feb. 1, 1909. Serial No. 475,386.

1. A fly-ball governor comprising a rotatable spindle, a sleeve sliding on the same, fly-ball levers provided with weights at their upper ends, a casing or shell inclosing the fly-ball levers, fulcra at diametrically-opposite points on the base of said casing or shell, a cap-plate supported in the upper part of the casing, separate counter-balancing springs interposed between the lower arms of the fly-ball levers and the cap-plate, and means connecting the fly-ball levers with the movable sleeve on the spindle.



2. A fly-ball governor comprising a rotatable spindle having a bored out upper end, a sleeve sliding on said spindle, a casing or shell attached to the spindle, fulcra at diametrically opposite points on the base of said casing or shell, fly-ball levers swinging on said fulcra and rotating with the spindle and shell, a cap-plate supported in the upper part of said casing or shell, separate counterbalancing springs interposed between the lower arms of the fly-ball levers and the cap-plate and pivot-links extending into the bored out end of the spindle and connecting the lower arms of the fly-ball levers with the movable sleeve on the spindle.

3. A fly-ball governor comprising a rotatable spindle carrying a casing, a sleeve movable on the spindle, oppositely disposed fulcra in said casing, angular fly-ball levers swinging on said fulcra, a cap-plate supported in the upper part of the casing, separate counterbalancing-springs interposed between the cap-plate and the inner ends of the fly-ball levers, and means connecting the fly-ball levers with the sleeve movable on the spindle.

4. A fly-ball governor comprising a rotatable spindle, a sleeve slidable thereon, angular fly-ball levers having weights at their upper ends and circular recesses on the upper face of their inner ends, a casing supported on said spindle and carrying fulcra on which the fly-ball levers are pivoted, a cap-plate supported in the upper part of said casing and having circular recesses in its lower face, counterbalancing-springs interposed between the recesses of the cap-plate and the recesses of the fly-ball levers, and means for connecting the fly-ball levers with the movable sleeve on the spindle.

5. A fly-ball governor comprising a rotatable spindle, a sleeve slidable on the spindle, angular fly-ball levers provided with weights at their upper ends and with circular recesses at their inner ends, a casing or shell inclosing the fly-ball levers and secured to the rotatable spindle, a fulcra at oppositely disposed points on the base of the casing, a cap-plate supported in the upper part of the casing and having a pair of circular recesses in the lower face thereof, counterbalancing-springs interposed between said levers and said cap-plate with their ends seated in the circular recesses of the same, and means connecting the fly-ball levers with the sleeve movable on the spindle.

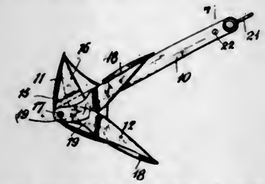
[Claim 6 not printed in the Gazette.]

941,776. ANCHOR. MILAN W. HALL, Brooklyn, N. Y. Filed Mar. 1, 1909. Serial No. 480,714.

1. An anchor comprising a shank, a mushroom head and a pivoted fluke, the palm of the said fluke being arranged, when in its operative position, to lie in the line, and to form a substantial continuation, of the mushroom head.

2. An anchor comprising a shank, a mushroom head and a plurality of pivoted flukes, the palms of the said flukes being arranged, when in their operative positions, to lie in the line, and to form a substantial continuation, of the mushroom head.

3. An anchor comprising a shank, a mushroom head and a plurality of independent pivoted flukes, the palms of the said flukes being arranged, when in their operative positions, to lie in the line, and to form a substantial continuation, of the mushroom head.

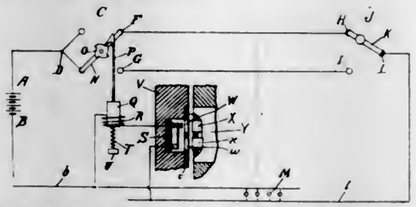


4. An anchor comprising a shank, a mushroom head of substantially elliptical form, and a fluke pivotally connected to swing in a path substantially in the line of the minor axis of the mushroom head, the palm of the said fluke being arranged, when in its operative position, to lie in the line, and to form a substantial continuation, of the mushroom head.

5. An anchor comprising a shank, a mushroom head of substantially elliptical form and a plurality of flukes pivotally connected to swing in a path substantially in the line of the minor axis of the mushroom head, the palms of the said flukes being arranged, when in their operative positions, to lie in the line, and to form a substantial continuation, of the mushroom head.

[Claims 6 to 15 not printed in the Gazette.]

941,777. MEANS FOR CONTROLLING ELECTRIC CIRCUITS. GERALD W. HART, West Hartford, Conn., assignor to The Hart Manufacturing Company, Hartford, Conn., a Corporation of New Jersey. Filed Apr. 5, 1909. Serial No. 487,930.



1. In an electric system, the combination of two three-point switches, a source of current and a translating device controlled thereby, circuit connections between said switches, said source of current and said translating device; an electro-magnetic device operatively connected to one of said switches, a local circuit for said electro-magnetic device in shunt to said translating device, and a local circuit controller in said local circuit.

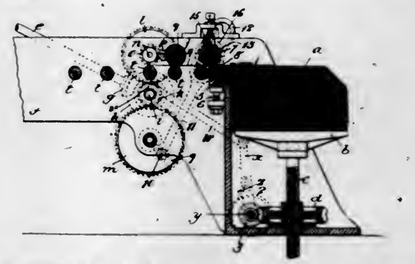
2. In an electric system, the combination of two three-point switches, a source of current and a translating device controlled thereby, circuit connections between said switches, said source of current and said translating device; an electro-magnetic device operatively connected to one of said switches, a local circuit for said electro-magnetic device in shunt to said translating device, a local circuit controller in said local circuit, a door jamb in which said local circuit is located and a lock having a bolt adapted, when thrown, to actuate said local circuit controller to close said local circuit.

3. In an electric circuit, the combination of two three-point switches, the three points of each switch being electrically connected to corresponding points of the other switch, a source of current connected between and in series with points on the two switches respectively, a translating device also connected between and in series with points on the two switches respectively, a solenoid operatively connected to one of said switches, said solenoid having its winding locally connected in parallel with the translating device, and a local circuit closer for said solenoid.

4. In an electric circuit, the combination of two three-point switches, the three points of each switch being electrically connected to corresponding points of the other switch, a source of current connected between and in series with two points on the two switches respectively, a translating device connected between said source and one of said two points on the two switches respectively, and in series with said source of current and said two points; a solenoid operatively connected to one of said switches, said solenoid having its winding locally connected in parallel with the translating device, and a local circuit closer for said solenoid.

5. In an electric circuit, two three-point switches, the three points of each switch being electrically connected to corresponding points of the other switch, a source of current connected between and in series with points on the two switches respectively, a translating device also connected between and in series with points on the two switches respectively, a solenoid operatively connected to one of said switches, said solenoid having its winding connected in parallel with the translating device, a local circuit closer for said solenoid, a door jamb in which said local circuit controller is located, and a lock having a bolt adapted when thrown to actuate said local circuit controller to close the local solenoid circuit.

941,778. SHEET-FEEDING APPARATUS FOR PRINTING-PRESSES. CASPAR HERMANN, Leipzig-Kl. Zschocher, Germany. Filed Nov. 20, 1908. Serial No. 463,580.



In a printing press, the combination with a paper sheet pile table, means for automatically and intermittently raising the table, feeding rollers in position to act against the top sheet of the paper pile on the table and a shaft to which the feeding rollers are fastened, of an oblique ledge provided with an upper sharp edge in position to be touched by the sheets in the upper part of the pile, the upper edge of said ledge being situated below the feeding rollers and nearly coinciding with the line in which the rollers contact with the sheets, vertically adjustable bearings for the feeding rollers to adjust them to suit the thickness of the paper and set screws serving both as supports for the oblique ledge and for adjusting the ledge, substantially as and for the purpose specified.

941,779. OAR-RACK. ERNEST G. HODGKINS, Boston, Mass. Filed Jan. 27, 1908. Serial No. 412,734.

1. An oar rack comprising a yoke having a recess, a movable bar adapted to close said recess, and means for holding a rowlock in alinement with the recess in said yoke.

2. An oar rack comprising a yoke having a recess, a movable bar to close said recess, and a socket in alinement with said recess.

3. An oar rack comprising an L shaped plate, an inverted yoke at substantially right angles to the surface of said plate, said yoke having a plurality of U shaped recesses, a movable bar adapted to close said recesses and to be locked in closed position, and a plurality of sockets adapted to receive rowlocks, and so located that when the rowlocks are in said sockets and an oar is placed in the recess nearest to said sockets the oar will rest in said rowlocks.

4. In an oar rack the combination of an L shaped plate, a yoke at substantially right angles to the surface thereof

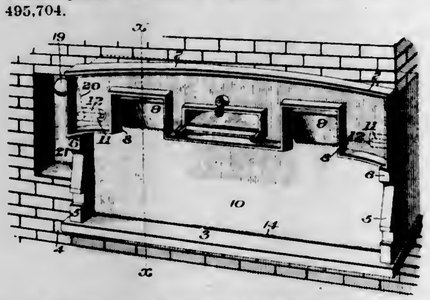
and attached to one arm of said plate, said yoke having a plurality of U shaped recesses, a movable bar for closing said recesses and adapted to be locked in closed position and a plurality of sockets in the other arm of said L shaped plate, said sockets being adapted to receive rowlocks and being so located that when said rowlocks are inserted in said sockets said rowlocks will be in alinement with one of the recesses of said yoke.



5. An oar rack comprising an L shaped plate one of the arms of said plate having a yoke with a plurality of recesses adapted to receive oars the other arm having a plurality of sockets adapted to receive rowlocks, said recesses and sockets being so arranged that when the rowlocks are in said sockets and an oar is placed in the recess adjacent thereto said oar will lie in said recess and said rowlocks, and a movable bar for closing said recesses and adapted to be locked in closed position.

[Claims 6 to 10 not printed in the Gazette.]

941,780. DOOR FOR BAKE-OVENS. JOHN M. HOEPFL, Philadelphia, Pa. Filed May 13, 1909. Serial No. 495,704.



1. In a bake oven, a casing having a side thereof open and provided with a plurality of communicating openings, a door suitably fulcrumed and adapted to close said open side, a plurality of counterbalances carried by said door and adapted to pass through said plurality of openings, and means for protecting said counterbalances from the heat of the oven.

2. In a bake oven, a casing having an open side, a front plate on the open side and having an opening therein, a guard plate extending downwardly from the top of the casing and then forwardly toward said front plate thereby forming a chamber, a door fulcrumed in the side of the casing for closing the open side, a counterbalance carried by said door and located within said chamber, and an operating lever for said door.

3. In a bake oven, a casing having an open side, a pivoted door, and a counterbalance in line with the door, and a door-supporting plate having a recess in which said counterbalance is located.

4. In a bake oven, a casing having an open side and a door-supporting plate with recess, a pivoted door, a counterbalance in line with the door and located in said recess, and a weighted arm secured to one of the journals of the door.

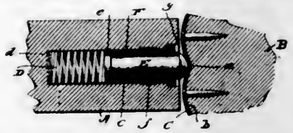
941,781. CONTAINING-CAN. WILLIAM H. HOYT, San Francisco, Cal., assignor to J. A. Folger & Co., San Francisco, Cal., a Corporation of California. Filed Nov. 16, 1908. Serial No. 462,844.



1. The combination with the containing can, of a top having a central opening and cover therefor, an interior continuous film composed of a ductile sheet and a reinforcement therefor, said film registering with the cover opening, and means to secure the periphery of the film to the can top, said means including the extension and double seam of the film and can top simultaneously upon the can.

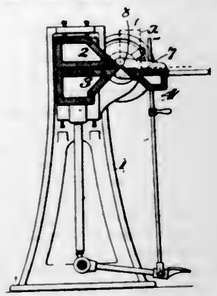
2. The combination with a can, a top therefor having a central opening, and a cover adapted to close said opening, of a continuous sealing sheet composed of a ductile metal and reinforcement therefor, the edges of the top and of the sealing sheet being extended beyond the sides of the can and double-seamed together and to a corresponding portion of the upper edge of the can.

941,782. DOOR-CHECK. RICHARD W. HUBBARD, Ashtabula, Ohio. Filed Mar. 19, 1909. Serial No. 484,443



In means for the purpose described, the combination with a door and its casing, of a keeper carried by the one and having a seat, and a member for coöperating with the keeper, carried by the other; the said member comprising a coiled spring arranged in a socket in such other, an exteriorly-threaded sleeve secured by its thread in the socket and having a kerf in its outer end, and a plunger disposed in the sleeve and normally protruding beyond the outer end thereof and having an enlargement interposed between the outer end of the spring and the inner end of the sleeve.

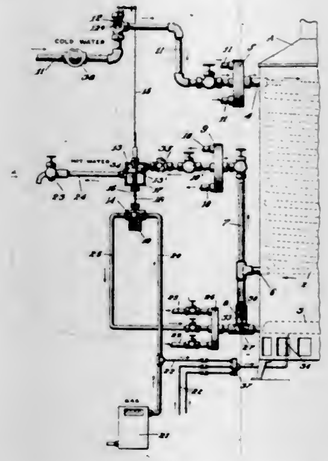
941,783. CORNICE-BRAKE. GEORGE C. KEENE, Cincinnati, Ohio. Filed June 24, 1908. Serial No. 440,117.



In a cornice-brake, a pair of suitably mounted clamping-jaws, a swinging bending-apron journaled in axial relation

to the mouth and bending-edge of said clamping-jaws and having a depressed or sunken plane face made along its front side in alinement with or in the same unbroken perpendicular line or plane as the said bending-edge of the clamping-jaws and a forwardly-extended bending-edge along the upper bending portion of said apron.

941,784. WATER-HEATING SYSTEM. BRYANT B. KINKADE, Berkeley, Cal. Filed Mar. 27, 1909. Serial No. 486,261.



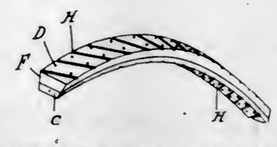
1. A water-heater comprising a heating coil, and a burner for the coil, a single water supply manifold for the coil, and a single hot water discharge manifold therefor, a plurality of supply and of distributing pipes connected respectively with said manifolds, a valve in each of said supply and distributing pipes, said valves connected in pairs whereby a valve in one distributing pipe may be operated when the water is drawn from said pipe synchronously with a corresponding valve in one of said supply pipes, a fuel pipe for the burner, a manifold connecting with said fuel pipe, and a plurality of individual gas supply pipes, and means for operating one of said gas valves synchronously with a corresponding pair of the aforesaid valves in said supply and distributing pipes, and a thermostat interposed in the hot water passage between the heater and the hot water manifold, and connections between said thermostat and the fuel supply pipe between the burner and its manifold whereby a single thermostat serves for the entire system.

2. In a water heater, a heating coil with a supply pipe and a hot water discharge pipe, a burner with a fuel supply pipe, a manifold fitting and connected with each of said pipes, a thermostat interposed in the hot water connection between the coil and the discharge pipe manifold, and valve mechanism in the fuel supply pipe between the burner and its manifold, a plurality of independent pipes delivering into the supply pipe manifold, and a plurality of hot water distributing pipes connected with the hot water discharge pipe manifold, a plurality of gas supply pipes connected with the fuel supply manifold, valves by which each of said individual connecting pipes are controlled, and connecting mechanism between the corresponding valves of said individual inlet, distributing, and gas supply pipes for the withdrawal of water from any one of said individual distributing pipes whereby only the valve of a corresponding inlet pipe and a gas supply pipe will be opened, and said thermostat serving for the whole system.

941,785. PROCESS OF PRODUCING A MINERAL-OIL EMULSION. SAMUEL KNOPF, Vienna, Austria-Hungary. Filed Feb. 6, 1907. Serial No. 356,006.

Process for producing a mineral oil emulsion consisting in the mixing of 40 parts of oleic acid with about 20 parts of alcohol and 8 parts of 50% potash lye and then adding to the mixture 100 parts to 200 parts of mineral oil and then adding to this mixture 50% of water for the purpose of obtaining a solid ointment like product, substantially as described.

941,786. DRIVE-BELT. AUGUST G. KOLBE, Detroit, Mich., assignor to Detroit Oak Belting Company, Detroit, Mich., a Corporation of Michigan. Filed Jan. 9, 1909. Serial No. 471,457.



1. A drive belt having a transversely scored outer face.

2. A drive belt having a transversely scored outer face and friction drive surfaces upon its opposite sides or edges.

3. A drive belt formed of a plurality of plies of leather secured to each other, the outer ply being transversely scored on its outer face.

4. A drive belt comprising a plurality of plies of leather cemented to each other, the opposite edges of said plies forming friction drive surfaces and the outer face of an external ply being transversely scored, and metallic auxiliary securing means for the plies intermediate the scores.

5. A drive belt composed of a plurality of plies of leather secured to each other with the flesh sides of the leather in contact, the outer face of an external ply being transversely scored.

[Claims 6 to 10 not printed in the Gazette.]

941,787. GARMENT-SUPPORTER. SAMUEL KOPS, New York, N. Y., assignor to Kops Bros., New York, N. Y., a Firm. Filed Mar. 12, 1908. Serial No. 420,700.



1. In a garment supporter and in combination with one of the engaging members thereof, of a co-acting engaging member and a tubular fabric strip receiving and surrounding the latter member and forming a cushion between the engaging surfaces of said parts.

2. In a garment supporter and in combination with one of the engaging members thereof, of a co-acting engaging member and a tubular fabric strip receiving and surrounding the latter member and forming a cushion between the engaging surfaces of said parts, and by which tubular fabric strip the said engaging members are supported and suspended for the performance of their function.

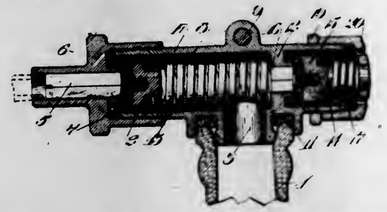
3. In a garment supporter and in combination, a tubular fabric strip, engaging members adapted to connect with the garment to be supported, one of which is passed within the tubular fabric strip and is entirely covered thereby, and the other co-acting member connected to said tubular fabric strip and supported therefrom and said fabric strip secured to the garment supporter devices whereby one of the securing members is entirely surrounded or covered by the fabric strip which comes between the same and the other engaging member.

4. A garment supporter comprising a tongue member having a loop, a jaw member adapted to receive the tongue member, a tubular fabric strip into which the jaw member is passed and which entirely covers the jaw member, said fabric strip passing through a slot of the slotted plate and

engaging the loop of the tongue member, with the free ends of the tubular fabric member secured by a line of sewing to other parts of the said fabric strip.

5. A garment supporter comprising a jaw member and a tongue member having a loop, a tubular fabric strip into which the jaw member is placed at about the central portion, with the fabric strip folded over at the back of the jaw member and the parts connected by a line of sewing 7, with one end of the free end of the fabric strip left longer than the other end, the free ends of the fabric strip passing through a slot of the garment supporter devices and the longer of the free ends of said fabric strip passed through the loop of the tongue engaging member and the free ends overlapped between the outer parts of the fabric strip, and the parts connected by a line of sewing 6.

941,788. BOTTLE-STOPPER. DEWIS LANDAU, San Francisco, Cal. Filed Oct. 30, 1908. Serial No. 460,184.



1. The combination with a bottle, of a stopper member hingedly connected therewith, said stopper member having communicating ports therein, one of said ports forming an inlet and the other of said ports forming an outlet, said stopper having a seating portion around the outlet to receive the mouth of the bottle, a spring-actuated valve in the inlet, and said stopper having an automatic relief valve.

2. The combination with a bottle, of a stopper member therefor, means for securing the stopper member in operative position on the bottle, said stopper member having a passageway communicating with the interior of the bottle, a normally closed valve in said passageway, which valve is operated by fluid pressure external to the bottle, said stopper member having another passageway communicating with the interior of the bottle, and a normally closed valve in said second mentioned passageway which is operated by fluid pressure interiorly of the bottle.

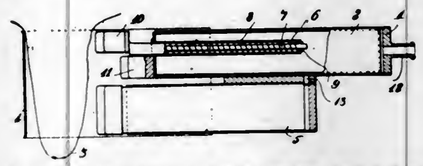
3. The combination with a bottle, of a stopper member therefor, said stopper member comprising a valve casing divided into two valve chambers, and a spring-actuated valve in each chamber, said valve chambers communicating with the interior of the bottle, one of said valves operated by fluid pressure external to the bottle and the other of said valves operated by fluid pressure within the bottle.

4. The combination with a bottle, of a stopper member therefor, said stopper member comprising a valve casing divided into two valve chambers, a spring-actuated valve in each chamber, said valve chambers communicating with the interior of the bottle, one of said valves operated by fluid pressure external to the bottle and the other of said valves operated by fluid pressure within the bottle, and means for regulating the tension of said last-named valve.

941,789. MILKING-MACHINE. KNUT I. LINDSTRÖM, Nykvarn, Sweden. Filed Aug. 5, 1909. Serial No. 511,303.

1. In milking machines, a teat receiver, a duplex plunger casing, a hollow plunger adapted to be actuated by pressure, a secondary plunger adapted to be driven by power received from the casing of the plunger first mentioned after said plunger has been impelled forward, in combination with a pad on the end of one plunger and two pads on the end of the other plunger and means for introducing pressure into said duplex casing.

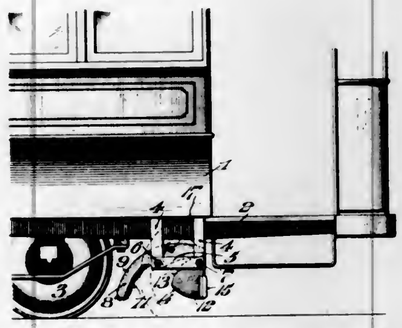
2. In milking machines, a plunger casing and teat receiver, in combination with a plunger driven by pressure, a pad, a rod on which said pad is mounted, a spring fitting around said rod, a casing in said plunger for said spring and another pad arranged underneath and a little behind the first mentioned pad.



3. In milking machines, a teat receiver and a duplex plunger casing, in combination with two pressure actuated plungers arranged one above the other, the upper one being slightly in advance of the lower one, a pad on the end of the lower plunger, a fixed pad on the end of the upper plunger, a spring held pad mounted in the upper plunger above and a little in advance of said fixed pad, and means for introducing pressure into said duplex casing to actuate the plungers.

4. In milking machines, in combination, a cylindrical teat receiver, a duplex plunger casing, two pressure actuated plungers provided with pads said pads being so mounted on said plungers that they will engage in succession from top to bottom with the teat, said pads being so formed that the part which engages the teat corresponds in form to the part of the interior of the teat receiver against which the pads operate.

941,790. FENDER OR TROLLEY-WHEEL GUARD. JOHN A. MACMAHON, Philadelphia, Pa. Filed Dec. 23, 1908. Serial No. 468,897.



1. A fender comprising a guard pivotally mounted on a vehicle, a trip independently operable adjacent said guard and means on said trip to engage said guard during a movement of said trip.

2. A fender comprising a guard pivotally mounted on a vehicle, means to maintain said guard in inoperative position, a trip independently operable adjacent said guard and means on said trip to engage said guard during a movement of said trip.

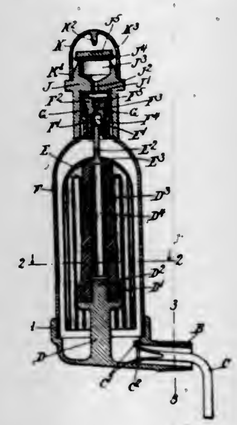
3. A fender comprising a guard movably mounted on a vehicle, a counterweight to maintain said guard in inoperative position, a trip independently operable adjacent said guard, and means on said trip to engage said guard during a movement of said trip.

4. A fender comprising a guard movably mounted on a vehicle, a trip adjacent thereto, a cam surface on said trip to engage said guard and a second cam surface on said trip acting as a lock for said guard when said trip engages an obstruction.

5. A fender comprising a guard having a cam face thereon, a trip pivoted adjacent thereto, and a plurality of cam faces on said trip adapted to cooperate with said guard cam face to shift said guard to operative position and lock the same.

[Claim 6 not printed in the Gazette.]

941,791. AUTOMATIC AIR-VALVE. JAMES P. MARSH, Chicago, Ill. Filed July 9, 1908. Serial No. 442,749.



1. An automatic air valve for radiators comprising a case containing a chamber with a relief aperture at the upper end, a water discharging aperture at the lower end, an expansion piece and a vertically fluted float with a valve thereon in the chamber and adapted to control such relief aperture.

2. An automatic air valve for radiators comprising a case containing a chamber with a relief aperture at the upper end, a water discharging aperture at the lower end, an expansion piece and a vertically fluted float with a valve thereon in the chamber adapted to control such relief aperture and a drainage rod in the water discharging aperture.

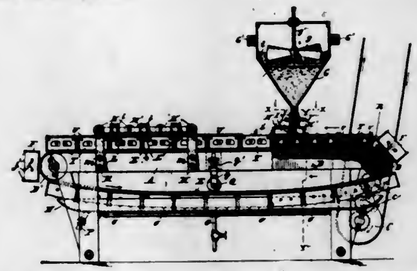
3. An automatic air valve for radiators comprising a case containing a chamber with a relief aperture at the upper end, a water discharging aperture at the lower end, an expansion piece and a vertically fluted float with a valve thereon in the chamber adapted to control such relief aperture and a drainage rod in the water discharging aperture of a cross section other than circular.

4. An automatic air valve for radiators comprising a case containing a chamber with a relief aperture at the upper end, a discharge passage way leading thence to the open air and having at some place along its length a relatively large cross section, a cap including such cross section, a disk valve lying upon such cross sectional opening, a disk weight on the valve, a water discharging aperture at the lower end of the chamber, an expansion piece, and a vertically fluted float with a valve thereon in the chamber to control such relief valve.

5. An automatic air valve for radiators comprising a case containing a chamber with a relief aperture at the upper end, a discharge passage way leading thence to the open air and having at some place along its length a relatively large cross section, a cap including such cross section, a disk valve lying upon such cross sectional opening, a disk weight on the valve, a water discharging aperture at the lower end of the chamber, an expansion piece, a vertically fluted float with a valve thereon in the chamber to control such relief valve, and a drainage rod in the water discharging aperture of a cross section other than circular.

[Claim 6 not printed in the Gazette.]

941,792. BLOCK-TILING MACHINE. WILLIAM P. MEEKER, Maplewood, N. J. Filed Jan. 31, 1908. Serial No. 413,566.



1. In a block-tiling machine, the combination with a traveling carrier of a series of block holders each having an open side and top which remain unclosed during the operation of the machine, such block holders being arranged in pairs back to back.

2. In a block-tiling machine, the combination with a traveling carrier of a block holder having an open side and top and tile-guide projections consisting of raised points upon its upper edges.

3. In a block-tiling machine, the combination with a frame of belt-carrying rollers, a belt carried thereby and provided with a series of block holders permanently open upon their sides and tops and set in pairs back to back, a pair of curved guides past which the open sides of such block holders are carried, an angular cement distributer with its apex in the direction in which the belt is moving, series of vertically adjustable rollers and laterally adjustable rollers past which the open tops and sides of said block holders are carried, substantially as described.

4. In a block-tiling machine, the combination with a frame of belt-carrying rollers, a belt carried thereby and provided with a series of block holders permanently open upon their sides and tops and having projecting points upon their upper edges and set in pairs back to back, a pair of curved guides past which the open sides of such block holders are carried, an angular cement distributer with its apex in the direction in which the belt is moving, series of vertically adjustable rollers and laterally adjustable rollers past which the open tops and sides of said block holders are carried, substantially as described.

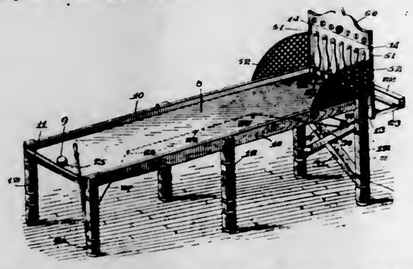
5. In a block-tiling machine, the combination with a frame of belt-carrying rollers, a belt carried thereby and provided with a series of block holders permanently open upon their sides and tops and having projecting points upon their upper edges and set in pairs back to back, a pair of curved guides past which the open sides of such block holders are carried, an angular cement distributer with its apex in the direction in which the belt is moving, series of vertically adjustable rollers and laterally adjustable rollers past which the open tops and sides of said block holders are carried, said belt having a wide margin extending out from the open sides of said block holders, substantially as described.

941,793. GAME APPARATUS. ALFRED DE MEURISSE, Philadelphia, Pa. Filed Jan. 27, 1909. Serial No. 474,373.

1. The combination of a table and pins extending above the table and having their lower ends pivotally connected thereto, said pins resting normally in a position extending angularly forward of their pivots, and being rearwardly movable to a knocked down position by a forward impact of the ball.

2. The combination of a table and pins extending above the table and having their lower ends pivotally connected thereto, said pins resting normally in a vertically inclined position extending forwardly of their pivots and being

rearwardly movable to a knocked down position by a forward impact of the ball, resilient means to receive said pins in the knocked down position, and means for raising said pins to normal position.



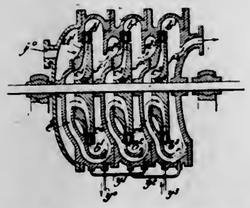
3. The combination of a table and a series of pins extending above the table, a transversely-disposed board to which said pins near their lower ends are hingedly connected, said pins resting normally in a vertically-inclined position extending forwardly of their pivots, a series of independent plungers for each pin passing through apertures in said board, and adapted to be actuated in a rearward direction by an impact of the ball delivered in a direction forward of the pin, and to be restored to normal operative position by restoring the pin to normal position.

4. The combination of a table and pins extending above the table and having their lower ends pivotally connected thereto, said pins resting normally in a position extending forwardly of their pivots and being rearwardly movable to a knocked down position, independently movable plungers arranged to act upon said pins and to be acted upon by a ball rolled over said table, and cushion pads adjacent said plungers.

5. The combination of a table having an end wall projecting above the top thereof, a plunger extending through an opening in the end wall and having a head on each end thereof, the distance between the heads of the plunger being greater than the thickness of the wall through which the plunger extends, and a movable pin extending above the table and resting normally against the rearward end of the plunger.

[Claims 6 to 12 not printed in the Gazette.]

941,794. COMPOUND TURBINE. GUSTAV MEYERSBERG, Berlin, Germany. Filed Sept. 21, 1908. Serial No. 454,039.

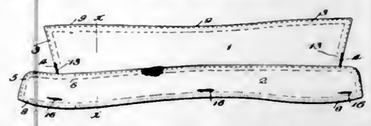


1. The method of operating machines of the type in which a mixture of a gaseous medium and a liquid medium is so employed that energy is transferred from one medium to the other in passages in which pressure changes, according to which the operation is effected in stages, the mixing ratio of the driving gas and liquid being different in the several stages.

2. The method of operating machines of the type in which a mixture of a gaseous medium and a liquid medium is so employed that energy is transferred from one medium to the other in passages in which the pressure changes, according to which the operation is effected in stages, the mixing ratio of the driving gas and liquid being different in the several stages, and the liquid in each stage is caused to flow in a separate cycle.

3. The method of operating machines of the type in which a mixture of a gaseous medium and a liquid medium is so employed that energy is transferred from one medium to the other in passages in which pressure changes, according to which the operation is effected in stages the mixing ratio of the driving gas and liquid being different in the several stages, a portion of the liquid being delivered from the circulating cycle of one stage into that of another stage.

941,795. COLLAR. HENRY C. MILLER, Waterford, N. Y. Filed Nov. 19, 1907. Serial No. 402,853.



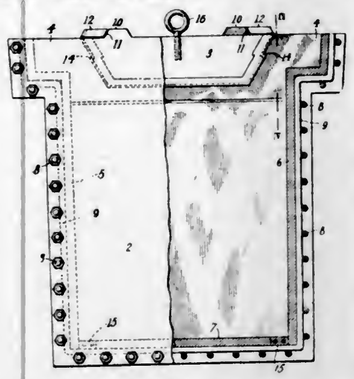
1. A collar comprising a plurality of plies connected to provide infolding edges, and adapted to be folded along a longitudinal line and the edges being cut away in part upon one side of the longitudinal line of fold, and means for reinforcing the collar edge adjacent the cut away portions.

2. A collar comprising a plurality of plies of textile fabric connected to provide infolding edges and adapted to be folded along a longitudinal line, and said infolding edges being cut away in part upon one side of the longitudinal line of fold, and stitches reinforcing the collar edge adjacent the cut away portions.

3. A collar comprising a plurality of plies infolded on the edges and sewed together, all of the infolds being cut away on the longitudinal line of fold, and over stitches close together and touching each other passing around the cut away edges to prevent the same raveling, said stitches being in direction of the folds on the edge of the collar above the longitudinal line of fold.

4. A collar comprising a plurality of plies connected to provide infolding edges and having a line of fold, the folded edges being cut away in part upon one side of the line of fold, and means for reinforcing the collar edge adjacent the cut away portions.

941,796. ANODE-MOLD. JOHN F. MILLER, Trail, British Columbia, Canada, assignor of one-half to Walter H. Aldridge, Trail, British Columbia, Canada. Filed Nov. 10, 1906. Serial No. 342,790.



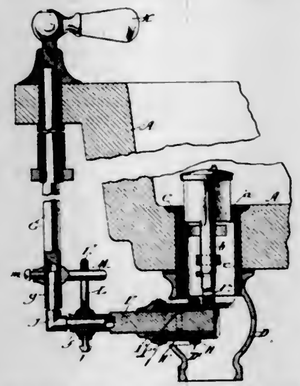
1. A mold for casting anodes, comprising in combination, a pair of spaced side members or plates, and a drawing member positioned in the top of the mold and provided with means for positive engagement with the molten metal in the mold, whereby when the metal is solidified the casting can be drawn out of the mold by means of the said drawing member, as set forth.

2. A mold for casting anodes, comprising in combination, a pair of side members or plates separated by a rib extending around the sides and bottom of the mold and spaced from the edges thereof, a strip of yielding material outside of the rib, and a series of clamping devices engaging the side plates or members outside of the said rib and binding the plates firmly together, as set forth.

3. A mold for casting anodes, comprising in combination, a mold having an open top, and a drawing member supported in the top of the mold and provided with shoulders on its ends to be engaged by the molten metal, whereby when the metal is solidified the casting can be drawn out of the mold by means of the said drawing member, as set forth.

4. A mold for casting anodes, comprising in combination, a mold having an open top and having spaced lugs on its top, and a drawing member extending into the open top of the mold and constructed so as to be positively engaged by the molten metal therein and provided with lugs adapted to engage the lugs on the top of the mold to accurately position the said drawing member, as set forth.

941,797. MECHANISM FOR OPERATING THE OUTLET-VALVES OF WASHBASINS, BATH-TUBS, OR OTHER RECEPTACLES. JOHN MILLER, Chicago, Ill., assignor to James B. Clow & Sons, Chicago, Ill., a Corporation of Illinois. Filed July 20, 1908. Serial No. 444,431.



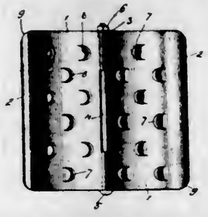
1. In a device of the class described, the combination of a valve-rod comprising two members located at right-angles to each other, a rigid elbow interposed between said members and having two arms disposed at right-angles to each other, the arms of said elbow and the valve-rod members being slip-jointed together, longitudinally, the extent of the engaging surfaces of the slip-jointed parts being ample to afford lateral support to the valve-rod members, and means for transmitting movement from one to the other of said members.

2. In a device of the class described, the combination of a valve-rod comprising two members located at right-angles to each other, and with their extremities in proximity to each other, a rigid elbow interposed between said members and having two arms disposed at right-angles to each other, the arms of said elbow and the valve-rod members being slip-jointed together, longitudinally, the extent of the engaging surfaces of the slip-jointed parts being ample to afford lateral support to the valve-rod members, and means for transmitting movement from one to the other of said members.

3. In a device of the class described, the combination of a valve-rod comprising two members located at right-angles to each other, with their extremities in proximity to each other, each member having a socket in its extremity, a rigid elbow interposed between said members and having two arms which occupy said sockets, respectively, the engaging surfaces of said sockets and arms being of sufficient longitudinal extent to afford lateral support to the valve-rod members, and means for transmitting movement from one to the other of said members.

4. In a device of the class described, the combination of a valve, a valve-rod comprising two members located at right-angles to each other, a rigid elbow having two arms located at right-angles to each other said members and arms having socketed engagement with each other, arms projecting from the valve-rod members at right-angles thereto and engaging each other at right-angles, each of said arms having a polygonal eye and each of said valve-rod members having a polygonal portion occupying said eyes, respectively, and set screws for preventing the eyes from longitudinal displacement upon the valve-rod members.

941,798. CORN-SHELLER. WILLIAM J. MOORE, East Pittsburg, Pa. Filed July 2, 1909. Serial No. 505,635.



1. A corn sheller comprising two semi-cylindrical sections having longitudinal flared edges, a longitudinal bolt pivotally connecting the opposite edges of said sections, and a plurality of staggeredly arranged inwardly extending semi-cylindrical projections struck from each of said sections.

2. A corn sheller comprising a pair of curved sections hinged together at one side and each having the marginal portion of its other side flaring, each of said sections furthermore provided with inwardly-extending semi-cylindrical projections struck from their respective section, the projections upon one section extending toward the projections of the other section.

3. A corn sheller comprising a pair of curved sections hinged together at one side and each having the marginal portion of its other side flaring, each of said sections furthermore provided with inwardly-extending semi-cylindrical projections struck from their respective section, the projections upon one section extending toward the projections of the other section, said projections of each section arranged in longitudinally-extending rows, with the projections of one row arranged staggeredly with respect to the projection of the other row.

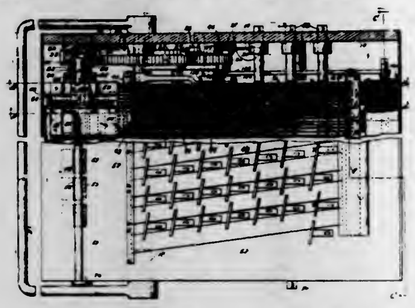
941,799. MANUFACTURE OF ALUMINA. GILBERT MCCULLOCH, East St. Louis, Ill., assignor to Aluminum Company of America, Niagara Falls, N. Y., a Corporation of Pennsylvania. Filed Apr. 30, 1909. Serial No. 493,076.

1. In the process of manufacture of alumina by the alkaline process wherein the alumina is precipitated from a solution of sodium aluminate by CO_2 gas, the improvement which consists in arresting the precipitation after a large proportion of the alumina has been precipitated from the solution, whereby a large proportion of the contained silica is retained in the solution.

2. In the process of manufacture of alumina by the alkaline process wherein the alumina is precipitated from a solution of sodium aluminate by CO_2 gas, the improvement which consists in arresting the precipitation after a large proportion of the alumina has been precipitated from the solution whereby a large proportion of the contained silica is retained in the solution, and withdrawing the liquor containing the residual silica and alumina and using it as a basis for dissolving other alumina from bauxite.

3. In the process of manufacture of alumina by the alkaline process wherein the alumina is precipitated from a solution of sodium aluminate by CO_2 gas, the improvement which consists in arresting the precipitation after a large proportion of the alumina has been precipitated from the solution and before the precipitation of a considerable proportion of the contained silica and thereafter drawing off the solution and completing the precipitation of the alumina by additions of CO_2 gas.

941,800. VOTING-MACHINE. JOHN H. MCELROY, Chicago, Ill. Filed June 9, 1904. Serial No. 211,765.



1. In a voting machine, the combination with the candidate registers, of the longitudinally-movable candidate-keys arranged in party columns, and having the inclined faces, substantially as and for the purpose described.

2. In a voting machine, the combination with the candidate registers, of the longitudinally-movable candidate-keys arranged in party columns and movable through a definite distance and having the inclined faces, the inclination of the faces being equal to the amount of the movement, substantially as and for the purpose described.

3. In a voting machine, the combination with the candidate registers, of the longitudinally-movable candidate-keys arranged in party columns and having the inclined faces, substantially as and for the purpose described, terminating immediately adjacent the corresponding parts of the next candidate keys in the same party column.

4. In a voting machine, the combination with the candidate registers, of the longitudinally-movable candidate keys arranged in party columns and consisting of the portion moving lengthwise, and the portion extending at right agles thereto and inclined at an acute angle to the line of movement.

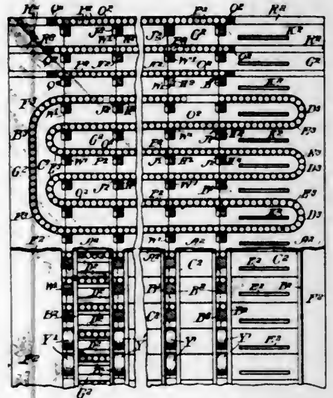
5. In a voting machine, the combination with the sliding key plates arranged in office groups, and consisting of register controlling plates each provided with a key, and an irregular ballot plate carrying an apertured cover, of a series of interlocking or key stop members at one end of the group of plates, and a paper roll arranged at the other end, and means for re-setting the key plates and operating the paper roll.

[Claims 6 to 24 not printed in the Gazette.]

941,801. INTERLOCKING MECHANISM FOR VOTING-MACHINES. JOHN H. MCELROY, Chicago, Ill. Original application filed Mar. 12, 1900, Serial No. 8,568. Divided and this application filed Jan. 22, 1906. Serial No. 297,134.

1. In a voting machine, the combination with plural series of keys, of interlocking members detached therefrom but operating therewith to limit the number of keys that may be simultaneously operated, a resetting member for each series of keys, and means for operating said resetting members *seriatim* to return said keys.

2. In a voting machine, the combination with plural series of keys arranged in party rows, of interlocking members entirely detached therefrom but operating therewith to limit the number of keys that may be operated in any party group, a resetting member for each row, comprising a movable bar coöperating directly with said keys, and means for operating said bars *seriatim* to return said keys.



3. In a device of the class described, the combination with plural series of keys, of interlocking members entirely detached therefrom, but coöperating therewith to limit the number that may be simultaneously operated, a resetting member for each series, and means for operating said resetting members *seriatim* to return said keys, said means comprising a shaft having a number of cams arranged thereon in different angular positions, each cam being adapted to coöperate with the resetting member for one series.

4. In a device of the class described, the combination with a channel or way having a limited capacity, of a series of uniform interlocking members adapted to occupy and to be moved into and out of said channel, and a series of keys adapted to be moved from inoperative to operative positions and thereby force interlocking members into said channel additional to those therein when the keys are in inoperative position.

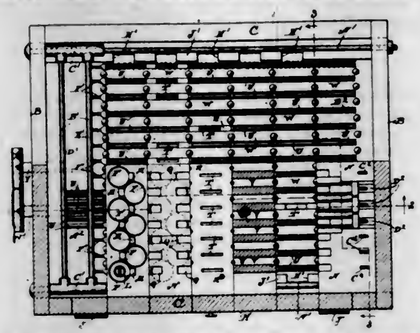
5. In a device of the class described, the combination with a channel or way having a limited capacity, of a series of uniform interlocking members adapted to occupy and to be moved into and out of said channel, and a series of keys adapted to be moved from inoperative to operative position and thereby force interlocking members ries of keys adapted to be moved from inoperative to inoperative position and thereby withdraw the same number of interlocking members from said channel additional to those therein when the keys are in inoperative position.

[Claims 6 to 28 not printed in the Gazette.]

941,802. VOTING-MACHINE. JOHN H. MCELROY, Chicago, Ill. Filed June 8, 1899. Serial No. 719,758.

1. In a machine of the class described, the combination of a series of voting mechanisms, arranged in party columns and office rows, with plural series of interlocking blocks sliding freely in office rows and serving to prevent the actuation of said voting mechanisms for more than one candidate in a row, and a member contacting directly therewith for moving all of said blocks simultaneously, if desired, to render operable all the voting mechanisms in any one party column desired, said member being movable transversely of the machine so that it may engage any party column.

2. In a machine of the class described, the combination of a series of voting mechanisms arranged in party columns and office rows, with plural series of interlocking blocks sliding freely in the office rows and serving to prevent the actuation of said voting mechanisms for more than one candidate in an office row, and a member contacting directly therewith for moving all of said blocks simultaneously, if desired, in either direction to render operable all the voting mechanisms in any one party column desired, said member being movable transversely of the machine so that it may engage any party column.



3. In a machine of the class described, the combination of a series of voting mechanisms arranged in party columns and office rows, with plural series of interlocking blocks sliding in said office rows and serving to prevent the actuation of said voting mechanisms for more than one candidate in a row, and mechanism for moving all of said blocks simultaneously, if desired, to render operable all the voting mechanisms in any one party column desired, said mechanism comprising a bar extending across the machine, together with ways upon which said bar slides, and fingers on said bar adapted to engage the ends of the blocks.

4. In a machine of the class described, the combination of a series of voting mechanisms arranged in party columns and office rows, with plural series of interlocking blocks sliding in said office rows and serving to prevent the actuation of said voting mechanisms for more than one candidate in a row, and mechanism for moving all of said blocks simultaneously, if desired, to render operable all the voting mechanisms in any one party column desired, said mechanism comprising a bar extending across the machine, together with ways upon which said bar slides, and fingers on said bar which can be turned to point in either direction and adapted to engage the ends of the blocks.

5. In a machine of the class described, the combination of a multi-candidate group of voting mechanisms arranged in intersecting party columns and office rows, with a series of interlocking members movable along the office rows to limit the number of votes to be cast in the group, and a series of channels in which said members are confined, said channels having space for a limited number of said members and connected so as to permit the passage of the members from one channel to another, but without any possibility of removal therefrom.

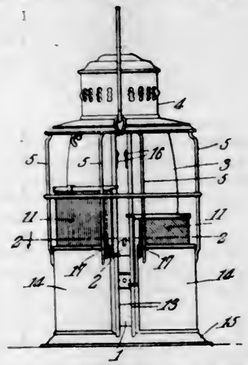
[Claims 6 to 12 not printed in the Gazette.]

941,803. SIGNAL-LANTERN. JAMES J. MCINTYRE, Ironton, Ohio, assignor of one-half to Frank F. Eisele, Ironton, Ohio. Filed Mar. 9, 1909. Serial No. 482,361.

1. The combination with a lantern, of a pair of approximately semi-circular lenses, each arranged to reciprocate vertically upon the exterior of the lantern independently of the other, and means for holding the lenses in raised or lowered position.

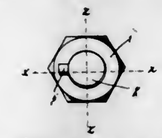
2. The combination with a lantern, of two pairs of guides disposed upon the exterior of the lantern, lens carriers slidably mounted upon the guides, colored lenses carried by the carriers, means for holding the carriers in raised or lowered position, and means substantially surrounding the lantern and rigidly assembled therewith for concealing the lenses from view, and also for protecting them against injury.

3. The combination with a lantern comprising an oil font and a cap, of two pairs of guides secured at their terminals to the oil font and to the cap, lens carriers slidably mounted upon the guides, colored lenses carried by the carriers, means for holding the carriers in raised or lowered position, and shields rigidly supported by the base of the oil font and being of a height somewhat greater than that of the lenses, whereby to conceal the same from view and also to protect them against injury.



4. The combination with a lantern, of upright guides terminally assembled with the lantern upon the exterior thereof; a pair of lenses each arranged to extend halfway around the lantern and individually slidable upon the guides, and means for holding the lenses in a raised or a lowered position.

941,804. NUT-LOCK. KOLOMAN NAGYVATHY and BELA NAGYVATHY, Johnstown, Pa. Filed July 27, 1909. Serial No. 509,907.

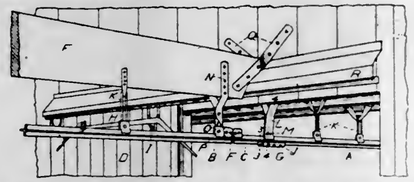


In a nut lock, the combination with a bolt, of a nut adapted to screw thereon and provided with V-shaped threads, said nut having the wall of its opening provided with a longitudinally extending rectangular groove of a length as to extend from the inner face of the nut to a point removed from the outer face thereof, the edges of the groove intercepting the threads of the nut, and a locking member substantially rectangular in cross-section shiftably mounted in the groove of the nut, and of a length less than the length of the groove, said locking member provided with transversely extending V-shaped teeth adapted to register with the threads of the nut, each of the teeth of said locking member being inwardly beveled at one end, the bevel extending from the base to the apex whereby the apex of each of the threads will be of less length than the width of said member, the sides of said member extending in parallelism with respect to the side walls of the groove and the beveled ends of the teeth providing means to allow of the nut to be easily screwed upon the bolt, said locking member when said nut lock is in operative position adapted to mutilate the threads of the bolt.

941,805. OVERHEAD TRACK. ALBERT H. NELLER, Fairfield, Iowa. Filed Sept. 27, 1909. Serial No. 519,791.

1. The combination of two sections of overhead track having an opening between them, a sliding door adapted to pass through the opening, a piece of track flexibly secured to one of said sections, and adapted to close the opening

so a carrier will pass thereover, and means carried by the door to move said piece of track so the door may pass through the opening.



2. The combination of two sections of overhead track having an opening between them, a sliding door adapted to pass through the opening, a piece of track hinged to one of said sections, and adapted to close the opening so a carrier will pass thereover, and means carried by the door to lift said piece of track so the door may pass through the opening.

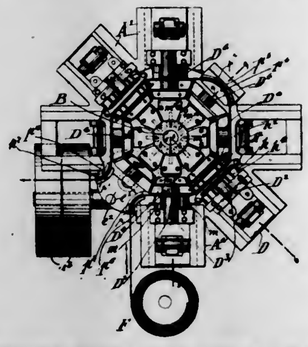
3. The combination of two sections of overhead track having an opening between them, a sliding door adapted to pass through the opening, a piece of track hinged to one of said sections and adapted to close the opening so a carrier will pass thereover, and a bar carried by the door to lift said piece of track and permit the door to pass through the opening.

4. The combination of two sections of overhead track having an opening between them, a sliding door adapted to pass through the opening, a piece of track hinged to one of said sections and adapted to close the opening so a carrier will pass thereover, and a bar carried by the door and having its adjacent end downwardly inclined so as to run under and lift said piece of track and permit the door to pass through the opening.

5. The combination of two sections of overhead track having an opening between them, a sliding door adapted to pass through the opening, a piece of track hinged to one of said sections and adapted to close the opening so a carrier will pass thereover, and a bar carried hy the door and having both of its ends downwardly inclined so as to run under and lift said piece of track at either edge of the door.

[Claims 6 to 12 not printed in the Gazette.]

941,806. SHEET-METAL-WORKING PRESS. EDWIN NORTON, New York, N. Y., and LOUIS C. KRUMMEL, Clinton, Conn. Filed Apr. 6, 1905. Serial No. 254,184.



1. A sheet-metal working press, having a pedestal, dies horizontally reciprocatory circularly arranged on the pedestal, a carrier horizontally rotatable, a plurality of dies, arranged concentrically circular to the circularly arranged pedestal dies, and adapted to coöperate therewith, and means for actuating the dies.

2. A sheet-metal working press, having a pedestal, dies horizontally reciprocatory circularly arranged on the pedestal, a carrier horizontally rotatable, a plurality of dies arranged concentrically circular to the circularly arranged pedestal dies, and adapted to be brought horizontally in alinement with the horizontally reciprocatory dies, and means for actuating the dies.
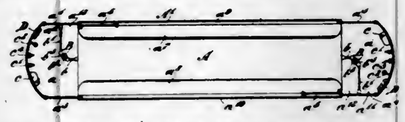
3. A sheet-metal working press, having a pedestal, dies horizontally reciprocatory circularly arranged on the pedestal, a carrier horizontally rotatable, dies on the same arranged concentrically circular to the circularly arranged pedestal dies, and adapted to be brought horizontally in alinement with the dies on the pedestal and adapted to be engaged thereby, and means for actuating the dies on the carrier and pedestal for operating on material arranged between the dies.

4. A sheet-metal working press comprising horizontal stationary reciprocating dies circularly arranged, a carrier horizontally rotatable, dies on the same arranged concentrically circular to the circularly arranged pedestal dies, and separate means for horizontally alining the dies on the carrier with the respective stationary reciprocating dies.

5. A sheet-metal working press, comprising horizontal, stationary reciprocating dies circularly arranged, a carrier horizontally rotatable, dies on the same arranged concentrically circular to the circularly arranged pedestal dies, and adapted to be brought successively in horizontal alinement with the stationary dies, means for locking said dies in position when in horizontal alinement with each other, and means for actuating the dies when in locked position.

[Claims 6 to 49 not printed in the Gazette.]

941,807. PASSENGER RAILWAY-CAR. LEWIS E. PADEN, Philadelphia, Pa., assignor to Pay-Within-Car Company, Wilmington, Del., a Corporation of Delaware. Filed Apr. 2, 1909. Serial No. 487,453.



1. A passenger car having an end vestibule, means to divide the vestibule into an entrance-way and an exitway, a door for normally closing both ways adapted to be operated by a motorman, a fare receiving device detachably connected with the means dividing the vestibule into the said entrance-way and exitway and mechanical means located in the vestibule for supplying tickets and making change, substantially as and for the purposes described.

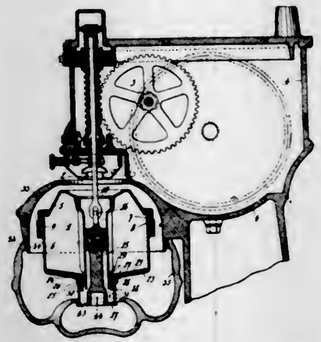
2. A passenger car having an end vestibule, means to divide said vestibule into an entrance and exitways, a door for normally closing both ways and adapted to be operated by a motorman, a fare receiving device forming part of the means dividing said vestibule into the said entrance and exitways and mechanical operating ticket and change making means located adjacent to said entranceway in said vestibule, substantially as and for the purposes described.

941,808. CORD TERMINAL. FRANK PARSONS, Boston, Mass. Filed Apr. 9, 1909. Serial No. 488,807.



A cord-terminal comprising a flat body of spring material provided with an unslotted cupped-cap, a flat body 2 of spring material provided with a slot 2' underlying said cap, said slot having substantially the shape of the rear portion 8 of said body 2 and the front edges of each of said bodies being reversely beveled to provide an entrance for the plug with which the terminal is to be used, and means near the rearward end of the terminal securing said bodies together so that the cap and slotted body form a housing which may be snapped over the head of a plug and secured thereto by the elasticity of said bodies.

941,809. DRUM FOR CENTRIFUGAL CREAM-SEPARATORS. JULES PERSOONS and ALPHONSE PERSOONS, Thildonck, Belgium. Original application filed Feb. 16, 1905, Serial No. 287,598. Divided and this application filed Feb. 6, 1907. Serial No. 356,000.



1. A drum for cream separators comprising a cover, a drum body, a central tube connected to said cover, the said central tube being provided with circular portions having longitudinal openings and with internal projections, a screw threaded portion connected to the said internal projections, a bolt engaging with said screw threaded portion and providing a connection between the drum body and the cover, and a false bottom provided with stamped ribs holding the false bottom at a distance from the bottom of the false body.

2. A drum for cream separators comprising a cover, a drum body, a central tube integral with the cover, the said tube being provided with circular portions having longitudinal openings and with internal projections, a screw threaded portion connected with the internal projections of the central tube, a bolt engaging the said screw threaded portion, and a false bottom placed in the drum body, the said false bottom being provided with stamped ribs and with a tubular extension forming an annular passage with the drum body.

3. A drum for cream separators comprising a drum body, a cover, a tube depending from said cover into said drum body, and a locking member separate from the drum body and extending upwardly with respect to the bottom thereof, said locking member engaging tightly with said bottom and having detachable threaded connection with said depending tube.

4. A drum for cream separators comprising a drum body, a cover, a tube depending from said cover and provided with an internal thread, and a locking member separate from the drum body and having a flanged lower end adapted to engage with the bottom thereof, said member being threaded and screwed into the internal thread of said central tube, whereby the flanged end of the locking member is drawn tightly against the bottom by the threaded connection between the locking member and the tube.

5. A drum for cream separators comprising a drum body, a cover therefor, a tube depending from the cover, said tube being provided with longitudinal grooves in its external surface and with longitudinal slots intermediate said grooves, and means coöperating with said tube for locking said cover on the drum body.

[Claims 6 to 12 not printed in the Gazette.]

941,810. METHOD OF MAKING INSULATING-COVERINGS FOR ELECTRIC CONDUCTORS. WILLIAM A. PHILLIPS and FREDERICK HUTCHINS, London, England. Filed June 8, 1908. Serial No. 437,354.

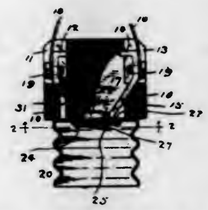
1. The herein described method of making an insulating covering for electric conductors, which consists in mixing gilsonite and castor oil in the approximate proportions of two parts by weight of gilsonite to three parts of castor oil, heating the mixture until it is reduced by about 15% of its weight, allowing it to cool and mixing it with a hydrocarbon in such proportion as to give a specific gravity of approximately .840 at 38° C., substantially as set forth.

2. The herein described method of making an insulating covering for electric conductors, which consists in mixing gilsonite and castor oil in the approximate proportions of two parts by weight of gilsonite to three parts of castor oil, heating the mixture and forcing air through it until it is reduced by about 15% of its weight, allowing it to cool and mixing it with a hydrocarbon in such proportion as to give a specific gravity of approximately .840 at 38° C., substantially as described.

3. The herein described method of making an insulating covering for electric conductors, which consists in mixing approximately equal parts of gilsonite, castor oil and linseed oil, heating the mixture until it is reduced by about 15% of its weight, allowing it to cool and mixing it with a hydrocarbon in such proportion as to give a specific gravity of approximately .840 at 38° C., substantially as set forth.

4. The herein described method of making an insulating covering for electric conductors, which consists in mixing approximately equal parts of gilsonite, castor oil and linseed oil, heating the mixture and forcing air through it until it is reduced by about 15% of its weight, allowing it to cool and mixing it with a hydrocarbon in such proportion as to give a specific gravity of approximately .840 at 38° C., substantially as set forth.

941,811. KEYLESS SOCKET. CLARENCE D. PLATT, Bridgeport, Conn. Filed Oct. 22, 1908. Serial No. 459,058.



1. An insulating body having one of its ends formed with side recesses extending to the end surface, and having an internal recess extending from its other end to one of the side recesses.

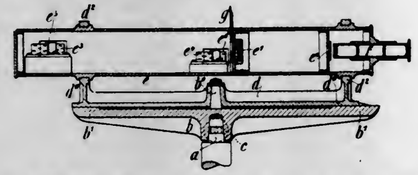
2. An insulating body having one of its ends formed with side recesses extending to the end surface, and having an internal recess extending from its other end to one of the side recesses, and having walls of the body material between the side recesses and the opposite end of the body, and formed with screw holes passing through the body for the purpose specified.

3. The combination with a screw shell having its base provided with a hole and with shoulders, of insulating washers engaging said shoulders and having holes in alinement with the hole of the screw shell, contacts above and below said washers, and a rivet connecting said contacts and passing through said holes, an annular space being formed between said rivet and the edge of the hole in the screw shell.

4. The combination with a screw shell having its base provided with a hole and with shoulders, of insulating washers engaging said shoulders and having holes in alinement with the hole of the screw shell, a contact bearing against one washer, a head bearing against the other

washer and having an arm and a terminal, and a rivet connecting said head and contact and passing through the holes of the shell and washers, an annular space being formed between said rivet and the edge of the hole in the screw shell.

941,812. TELEMETER FOR TWO SUCCESSIVE OBSERVATIONS. CARL PULFRICH, Jena, Germany, assignor to The Firm of Carl Zeiss, Jena, Germany. Filed Oct. 13, 1908. Serial No. 457,488.



1. A telemeter for two successive observations, consisting of a horizontally rotatable base, a carrier pivotally mounted on the base so as to be horizontally rotatable relatively to it, a micrometrical device for measuring the latter rotation and a telescopic system in which two telescopes are combined so that at least the ocular is common to both, this system being mounted with the two sighting lines parallel to each other in different vertical planes and together rotatable in their vertical planes.

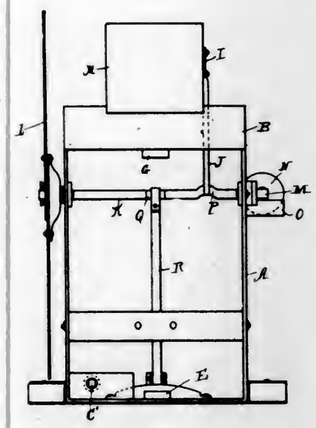
2. A telemeter for two successive observations, consisting of a horizontally rotatable base, a carrier pivotally mounted on the base so as to be horizontally rotatable relatively to it, a micrometrical device for measuring the latter rotation and a telescopic system in which two telescopes are combined, this system being mounted with the two sighting lines parallel to each other in different vertical planes and together rotatable in their vertical planes and comprising one ocular, one sighting mark, one objective, a prism system mounted in front of the objective and adapted to utilize the objective for both sighting lines and means for successively making the two telescopes operative.

3. A telemeter for two successive observations, consisting of a horizontally rotatable base, a carrier pivotally mounted on the base so as to be horizontally rotatable relatively to it, micrometrical device for measuring the latter rotation and a telescopic system in which two telescopes are combined, this system being mounted with the two sighting lines parallel to each other in different vertical planes and together rotatable in their vertical planes and comprising one ocular, one sighting mark, one objective, a prism system mounted in front of the objective and adapted to utilize the objective for both sighting lines, of the prisms of which system that immediately before the objective is movable.

941,813. SWITCH-STAND. CHARLES RAITER, Breckenridge, Minn. Filed Apr. 28, 1909. Serial No. 492,707.

1. In a switch stand, a casing, a door, a lamp holder mounted on the top of the casing having two openings therein, a target spindle having off sets mounted in the casing, targets secured to one end of said spindle, a weight arm secured to the opposite end of said spindle, a weight mounted on the end of said weight arm, a lever loosely pivoted within the casing, one end of which is attached to one of the off sets in the spindle, a link connected to the opposite end of said lever, said link passing through the casing, a connector secured to the outer end of said link and the switch point, and means for locking the mechanism in one of its positions.

2. In a switch stand, a casing, a door, a lamp holder mounted on the top of the casing having two openings therein, a target spindle having off sets mounted in the casing, targets secured to one end of said spindle, a weight arm secured to the opposite end of said spindle, a weight mounted on the end of said weight arm, a lever loosely pivoted within the casing, one end of which is attached to one of the off sets in the spindle, a link connected to the opposite end of said lever, said link passing through the casing, a connector secured to the outer end of said link and the switch point, a locking plate having an angular face and provided with an opening secured to the connector, a locking lever, and means for operating said locking lever.

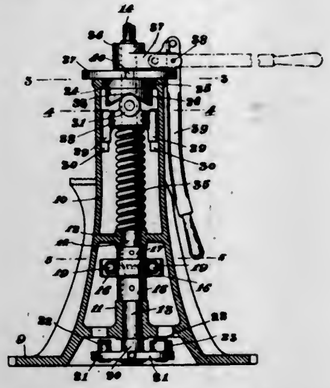


3. In a switch stand, a casing, a door, a lamp holder mounted on the top of the casing having two openings therein, a target spindle having off sets mounted in the casing, targets secured to one end of said spindle, a weight arm secured to the opposite end of said spindle, a weight mounted on the end of said weight arm, a lever loosely pivoted within the casing, one end of which is attached to one of the off sets in the spindle, a link connected to the opposite end of said lever, said link passing through the casing, a connector secured to the outer end of said link and the switch point, a locking plate having an angular face and provided with an opening secured to the connector, a locking lever, a rod passing through the casing and the door thereof to which the locking lever is adjustably secured, and a handle for partially revolving said rod.

4. In a switch stand, a casing, a door, a lamp holder mounted on the top of the casing having two openings therein, a target spindle having off sets mounted in the casing, targets secured to one end of said spindle, a weight arm secured to the opposite end of said spindle, a weight mounted on the end of said weight arm, a lever loosely pivoted within the casing, one end of which is attached to one of the off sets in the spindle, a link connected to the opposite end of said lever, said link passing through the casing, a connector secured to the outer end of said link and the switch point, a locking plate having an angular face and provided with an opening secured to the connector, a locking lever, a rod passing through the casing and the door thereof, to which the locking lever is adjustably secured, a handle for partially revolving said rod, a blind slidably secured over one of the openings of the lamp holder, and a rod, one end of which is attached to said blind, the opposite end to one of the off sets in the target spindle.

941,814. SWITCH-STAND. CHARLES W. REINOEHL, Steelton, and CHARLES W. LONG, Fort Hunter, Pa. Filed July 17, 1909. Serial No. 508,092.

1. In a railroad switch-operating mechanism, the combination with the main rail and the switch rail movable to and from a normal position, of a support adjacent thereto, a switch-operating part connected to the switch rail, a spring, and means for causing said spring to exert one degree of pressure against said part when the switch rail is in a normal position and another degree of pressure against said part when the switch rail is moved to a position away from said normal position.



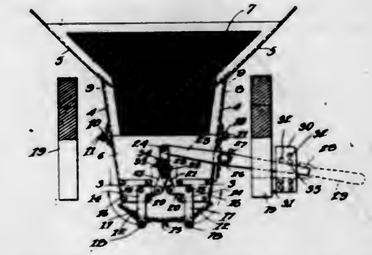
2. In a railroad switch-operating mechanism, the combination with the main rail and the switch rail movable to and from a normal position, of a support adjacent thereto; a member having two cam faces; a member coacting with said cam faces; a spring pressing one of said members into engagement with the other member; and connections between one of said members and the switch rail, said cam faces being arranged on different angles with respect to the second named member and positioned to engage the latter and move said switch rail in one direction to a normal position.

3. In a railroad switch-operating mechanism, the combination with the main rail and the switch rail movable to and from a normal position, of a support adjacent thereto; a member provided with a socket and a cam face, one side wall of said socket forming a cam face extending from the first named cam face at an angle with respect thereto; a member coacting with said cam faces; a spring pressing one of said members into engagement with the other member; and connections between one of said members and the switch rail, said cam faces being positioned to engage the second named member and move said switch rail in one direction to a normal position and the second named member into engagement with said socket.

4. In a railroad switch-operating mechanism, the combination with the main rail and the switch rail movable to and from a normal position, of a support adjacent thereto; a rotatable member; a second member supported against rotation by the first named member; one of said members having two cam faces coacting with the other member; a spring pressing one of said members into engagement with the other member; and connections between one of said members and the switch rail, said cam faces being arranged on different angles with respect to the member engaged thereby and positioned to engage the latter and move said switch rail in one direction to a normal position.

5. In a railroad switch-operating mechanism, the combination with the main rail and the switch rail movable to and from a normal position, of a support adjacent thereto; a rotatable member; a second member supported against rotation by the first named member; one of said members being provided with a socket and a cam face, one side wall of said socket forming a cam face extending from the first named cam face at an angle with respect thereto, said cam faces coacting with the other member; a spring pressing one of said members into engagement with the other member; and connections between one of said members and the switch rail, said cam faces being positioned in respect to the member engaged thereby to engage the latter and move said switch in one direction to a normal position and the member engaging said cam faces into engagement with said socket.

941,815. LOCOMOTIVE ASH-PAN. FREDERIC L. ROBERTS, Washington, D. C. Filed Feb. 17, 1909. Serial No. 478,416.



1. In a structure of the character set forth, the combination with a receptacle having opposite side walls and a bottom discharge opening, of coacting closure leaves for said opening, upwardly and outwardly swinging supports for the leaves pivoted to said leaves between their side edges and permitting the free pivotal movements of the leaves thereon, and means connected to the supports for swinging the same outwardly and upwardly and permitting the leaves to swing thereon to positions alongside the side walls.

2. In a structure of the character set forth, the combination with a receptacle having opposite side walls and a bottom discharge opening, of coacting closure leaves for said opening, pivotally mounted bell cranks having depending arms to which the leaves are pivotally connected between their side edges and on which said leaves can freely swing, and an actuating device connected to the other arms of the bell cranks for simultaneously swinging the depending arms outwardly and upwardly to carry the closure leaves in corresponding directions and permitting such leaves to swing on their pivots to positions alongside the side walls.

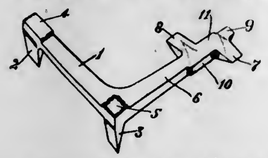
3. In a structure of the class described, the combination with a receptacle having opposite side walls and a lower discharge opening, of coacting closure leaves for said opening, bell cranks having instanding arms and depending arms, the latter being pivotally connected to the leaves between their side edges, and constituting supporting means therefor, said depending arms moving the leaves outwardly and upwardly when the bell cranks are operated, and the leaves swinging freely on their pivots to positions alongside the side walls when the bell cranks are operated, an actuating arm, a link pivoted to the actuating arm, other links pivoted to the first mentioned link and to the instanding arms of the bell cranks, said latter links extending above the pivotal connection with the first mentioned link, and an abutment pin carried by the said first mentioned link and extending between the upstanding ends of the said links.

4. In a structure of the class described, the combination with an ash pan having end walls and an open bottom, each end wall having its lower edge formed of angularly disposed portions, oppositely, outwardly and upwardly movable closure leaves, each comprising angularly disposed portions at rest against the angularly disposed edges of the end walls and close the bottom of the ash pan, and means mounted adjacent to the end walls and pivoted to the leaves at the juncture of their angularly disposed portions for supporting the leaves and swinging them outwardly and upwardly.

941,816. BENCH-DOG. EDMUND A. SCHADE, New Britain, Conn., assignor to Stanley Rule & Level Company, New Britain, Conn., a Corporation of Connecticut. Filed Aug. 12, 1908. Serial No. 448,101.

1. A bench dog comprising arms arranged at an angle to each other, a plurality of holding prongs attached thereto, and a plurality of stock holding wedges on one of said arms, including a wedge at the extremity thereof.

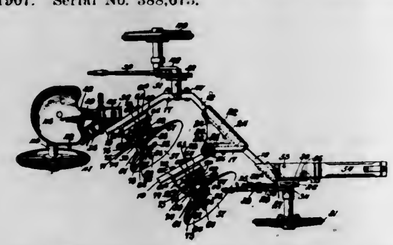
2. A bench dog comprising arms arranged at an angle to each other, a plurality of holding prongs formed upon one arm thereof and a plurality of stock holding wedges formed upon the extremity of the other arm and comprising a wedge located in line with said arm, a wedge on the inner side and a wedge on the outer side of said arm.



3. A bench dog comprising arms arranged at an angle to each other, a holding prong near the extremity of one arm thereof, a second holding prong at the junction of said arms and a plurality of stock holding wedges formed upon the other arm thereof comprising a wedge located in line with said arm, a wedge on the inner side and a wedge on the outer side of said arm and raised driving abutments formed upon the body portion opposite said holding prongs.

4. A bench dog comprising arms arranged at an angle to each other, a plurality of holding prongs attached thereto and a plurality of stock holding wedges on one of said arms including a wedge on the inner side and a wedge on the outer side thereof.

941,817. DISK PLOW. EDWARD H. SHOLAR and WALTER W. PACE, Chattanooga, Tenn., assignors to The Volunteer Disc Plow Co., Chattanooga, Tenn. Filed Aug. 15, 1907. Serial No. 388,673.



1. In a disk plow, the combination with a supporting bracket having a lug, of a disk carrying standard rotatably mounted on the bracket and having an arm, and an adjusting bolt longitudinally adjustable in the lug, the arm of the standard being adjustable upon the bolt longitudinally of said bolt.

2. In a disk plow, the combination with a supporting bracket having an upstanding lug, of a disk carrying standard rotatably mounted on the bracket and projecting above the same, an outstanding arm carried by the upper end of the standard and located over the bracket, an adjusting bolt slidable longitudinally through the lug, the arm of the standard being slidable longitudinally upon the bolt, and nuts mounted on the bolt and engaging opposite sides of both the lug and the arm.

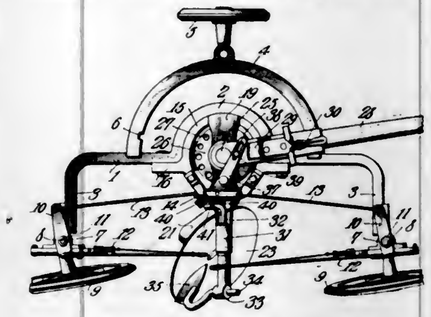
3. In a disk plow, the combination with a beam having a portion disposed at an inclination to the line of draft, of a disk supporting bracket formed of independently movable sections mounted on said portion and having its sections relatively adjustable in a direction transverse to said beam to change the vertical inclination of the disk, means for securing the bracket sections against relative movement and in differently adjusted positions, a depending disk standard mounted in the bracket for adjustment around its own axis, said standard being vertically adjustable with the bracket, means for holding the standard in its adjusted position, and a plowing disk carried by the lower end of the standard, the axis of said disk being at right-angles to the axis of the standard.

4. In a disk plow, the combination with a beam having a portion disposed at an inclination to the line of draft, of a disk supporting bracket mounted on said portion and having a swinging adjustment in a direction transversely thereof and in a substantially vertical plane to change the vertical inclination of the disk, means connecting the beam and bracket for securing the said bracket against movement and in different positions, a disk standard rotatably mounted on the bracket and adjustable therewith, a disk carried by the lower end of the standard, and means separate from the bracket securing means and connecting the bracket and standard and located upon the upper side of the bracket for holding the standard against rotary movement and in different positions.

5. A disk plow including a beam having a portion disposed at an inclination to the line of draft, a bracket section having a swinging adjustment transversely of the beam, means for securing the bracket section in adjusted position, a disk carrying standard rotatably mounted on the bracket section and swinging therewith in a substantially vertical plane, said standard having an arm, and a bolt engaging the arm and bracket section and holding the standard in adjusted position.

[Claims 6 to 24 not printed in the Gazette.]

941,818. REVERSIBLE DISK PLOW. EDWARD H. SHOLAR, Chattanooga, Tenn., assignor to Volunteer Disc Plow Company, Chattanooga, Tenn., a Corporation of Tennessee. Filed Mar. 3, 1008. Serial No. 419,014.



1. A plow including a support, a journaled disk operative in reversed positions in the line of draft of the plow and movable at its axis in an anticlinal path in the act of reversal.

2. A plow including a support, a journaled disk operative in reversed positions and movable at its axis in an anticlinal path with its work-facing surface toward the ground in the act of reversal.

3. A plow including a support, a disk operative in reversed positions and movable at its center in an anticlinal path in the act of reversal, and a draft appliance movable to reverse the disk.

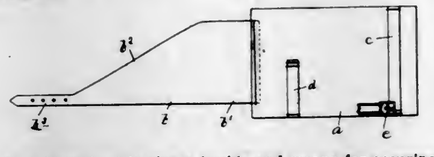
4. A plow including a support, a disk operative in reversed positions and movable at its center in an anticlinal path with its work-facing surface toward the ground in the act of reversal, and a draft appliance movable to reverse the disk.

5. A plow including a support, a disk operative in reversed positions and movable out of the ground in the act of reversal, said disk being also movable at its center in an anticlinal path in the act of reversal, and a draft appliance movable to reverse the disk.

[Claims 6 to 12 not printed in the Gazette.]

941,819. HORSE-BOOT. RICHARD H. SMITH, Hamilton, Mass. Filed Apr. 29, 1909. Serial No. 493,016.

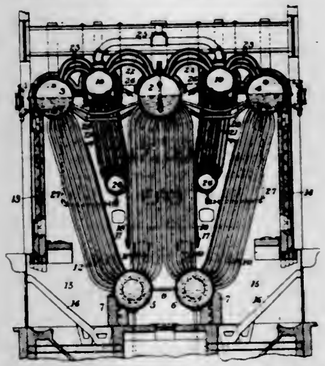
1. A horse-boot having a buckle and means for securing the same to the boot at one side edge portion and adjacent the lower end thereof, and a strap extending from the opposite edge portion of the boot with its lower edge adjacent the level of the upper edge of the buckle-securing means, so that, when the boot is in position, the lower edge of the strap, as it extends from the boot, will be supported by the buckle-securing means, said strap having a buckle-engaging end portion, at its lower edge, adapted to be connected to the buckle, substantially as described.



2. A horse-boot having a buckle and means for securing the same to the boot at one side edge portion and adjacent the lower end thereof, and a strap extending from the opposite edge portion of the boot with its lower edge adjacent the level of the upper edge of the buckle-securing means, so that, when the boot is in position, the lower edge of the strap, will be supported by the buckle-securing means, said strap having a buckle-engaging end portion, at its lower edge extending obliquely downward to enter and be connected to the buckle, substantially as described.

3. A horse boot having a strap connected to one side edge portion thereof, said strap, at its connected end, being of a width less than that of the boot and tapering at its upper edge toward its lower edge and extending approximately parallel to said edge to provide a relatively narrow buckle-engaging portion, a loop on the boot adapted to receive the strap to hold the same in position adjacent its connected ends, and a buckle mounted on the lower end of the boot adjacent and below the point at which the lower edge of the strap is held when in said loop, said strap being connected to the boot at a slightly oblique angle to cause the same to wind spirally about the boot, substantially as described.

941,820. WATER-TUBE BOILER. JAMES P. SNEDDON, Barberton, Ohio, assignor to The Babcock & Wilcox Company, New York, N. Y., a Corporation of New Jersey. Filed Feb. 25, 1907. Serial No. 359,156.



1. A vertical water tube boiler having firing openings at opposite ends, a pair of mud drums adjacent the firing openings, bridge walls protecting said mud drums, a central and a pair of outer steam drums having a common water level, outer banks of tubes connecting the mud drums to the outer steam drums, a double bank of tubes connecting the mud drums to the central steam drum, baffles arranged between the banks of tubes and serving to direct the products of combustion from both ends toward the double bank of tubes and the central steam drum, superheaters arranged between the outer and double banks of tubes, and circulating connections between the superheaters and the steam drums, substantially as described.

2. A vertical water tube boiler having firing openings at both ends, steam drums having a common water level, mud drums arranged adjacent the firing openings, banks of tubes forming circulating connections between the several drums, and baffles arranged to direct the products of combustion toward the central portion of the boiler, substantially as described.

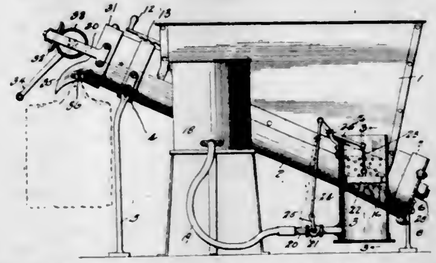
3. A vertical water tube boiler having opposite furnaces, mud drums arranged adjacent the firing openings of said furnaces and in communication with each other, a plurality of steam drums having a common water level, outer banks of tubes connecting the mud drums with the outermost steam drums, a duplex bank of tubes forming a connection between both mud drums and the central steam drum, baffles for directing the products of combustion to an intermingling point at the center of the boiler, and circulating connections between the several steam drums, substantially as described.

4. A vertical water tube boiler having firing openings in both ends, a pair of mud drums arranged adjacent the firing opening and in communication with each other, refractory material protecting said mud drums, a series of steam drums, outer inclined banks of tubes forming a circulating connection between the mud drums and the outermost steam drums, a duplex bank of tubes connecting the mud drums with the central steam drum, circulating connections between the several steam drums, superheaters arranged between the several banks of tubes and in direct line of the path of the products of combustion, and baffles arranged to direct the gases from both ends of the boiler toward a common central intermingling point, substantially as described.

5. In a vertical water tube boiler, a pair of furnaces arranged at the opposite ends of the boiler, a pair of mud drums adjacent the furnaces, a series of steam drums having a common water level, outer inclined banks of tubes connecting the mud drums with the outermost steam drums, a duplex bank of tubes connecting the mud drums with the central steam drum, steam connections between the several steam drums, superheaters arranged between the banks of tubes, and baffles arranged to direct the products of combustion toward a common intermingling point at the central point of the boiler, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

941,821. APPARATUS FOR TREATING GRAIN. EPHRAIM SORENSON, Emmett, Idaho. Filed Mar. 3, 1909. Serial No. 481,181.



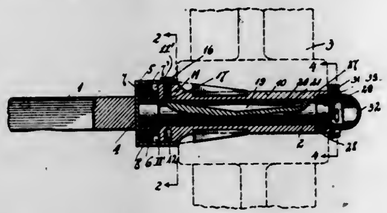
1. The combination of a grain hopper, a sharply inclined receptacle, a cylindrical cleansing agent container formed thereon, and having a common wall with the receptacle and hopper, a supply tank therefor, means automatically regulating the flow between the tank and container, means for instantly checking or adjusting the flow of grain from the hopper into the receptacle, a combined mixer and conveyer supported in said receptacle, means for rotating said conveyer, and a discharge spout bearing bag attaching means formed on the upper end of the receptacle.

2. In a device of the character described, the combination with a cylindrical chamber, of a collar secured to the upper end thereof, brackets secured to the collar,

a beveled gear wheel rotatably secured to one of said brackets, a shaft bearing a conveyer mounted in the cylinder and having a gear wheel on its upper end intermeshing with the gear wheel on the bracket, said shaft having its upper end journaled in the brackets, a vertically disposed cylindrical tank having a portion of its side cut away, said side terminating in flanges secured to the side of the chamber, the wall of the chamber also forming a wall for the tank and having perforations therein affording communication between the chamber and tank, means for automatically regulating the amount of treating agent in the tank and thus the amount passing through the perforations into the chamber, and means for introducing and regulating the flow of grain into the chamber, the conveyer serving to mix the treating agent and the grain contained in the chamber.

3. In a device of the character described, the combination with a cylindrical chamber, of a collar secured to the upper end thereof, brackets secured to the collar, a beveled gear wheel rotatably secured to one of said brackets, a shaft bearing a conveyer mounted in the cylinder and having a gear wheel on its upper end intermeshing with the gear wheel on the bracket, said shaft having its upper end journaled in the brackets, a vertically disposed cylindrical tank having a portion of its side cut away, said side terminating in flanges secured to the side of the chamber, the wall of the chamber also forming a wall for the tank and having perforations therein affording communication between the chamber and tank, means for automatically regulating the amount of treating agent in the tank and thus the amount passing through the perforations into the chamber, means for introducing and regulating the flow of grain into the chamber, a downwardly projecting lip formed on the collar, and bag securing means carried by the lip, the conveyer serving to mix the treating agent and grain in the chamber and convey them to the top of the chamber.

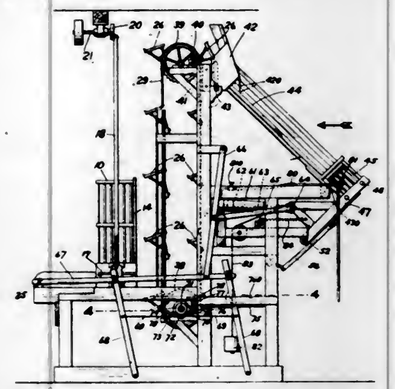
941,822. MEANS FOR ATTACHING AXLE-BOXES. ERNST J. SPÄHR, New York, N. Y., assignor of one-half to Otto Semler and Emil Bohrmann, New York, N. Y. Filed Nov. 2, 1908. Serial No. 460,730.



The combination with an axle, of a cup secured thereto and provided with an opening in one of its walls, a bearing member rotatively secured in said cup and formed with spaced recesses, an axle box rotatively mounted on said axle and provided with an annular groove near its inner end and extending into said cup, projections on said axle box adapted to project into the spaced recesses to couple the bearing member and the axle box together, and a hinged locking member having a portion arranged to project through the opening of the cup into the annular recess of the axle box to prevent axial movement of the latter.

941,823. SHELL-FEEDING MACHINE. HOWARD A. STILLWELL, Woodbury, N. J., assignor to The E. I. du Pont de Nemours Powder Company, Wilmington, Del., a Corporation of New Jersey. Filed Mar. 19, 1908. Serial No. 422,180.

1. In a shell-feeding machine, in combination, a feed-box, a shuttle feeder, means to eject the shells from the feed box, means to convey them to the shuttle feeder, and means to move the shuttle feeder into and out of operative relation with said conveying means and to discharge the shells.



2. In a shell feeding machine, in combination, a feed-box, ejectors adapted to eject the shells from the feed-box, traveling carriers adapted to receive the shells so ejected, a shell-holder, and a conveyer adapted to receive the shells from the carriers and convey them to the shell-holder.

3. In a shell feeding machine, in combination, a feed-box, ejectors adapted to eject the shells from the feed box, traveling carriers adapted to receive the shells so ejected, a shuttle feeder, a conveyer adapted to receive the shells from the carriers and convey them to the shuttle feeder, and means to move the shuttle feeder into and out of operative relation with the conveyer and to discharge the shells.

4. In a shell feeding machine, in combination, a feed-box, means therein for arranging the shells in tiers, ejectors adapted to eject the shells from the feed-box, one tier at a time, vertically traveling carriers upon which the shells are discharged from the feed box, an inclined conveyer to which the shells are discharged from the carrier, a shuttle feeder to which the shells are conveyed by the conveyer, and means to move the shuttle-feeder into and out of operative relation with the conveyer and to discharge the shells.

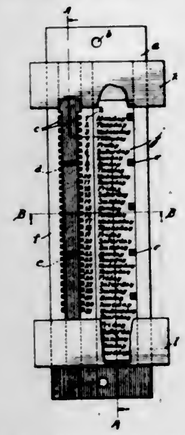
5. In a shell feeding machine, in combination, a feed box, means for arranging the shells therein in vertical rows and horizontal tiers, and ejectors, one for each vertical row, adapted to eject the shells from the feed box one tier at a time.

[Claims 6 to 32 not printed in the Gazette.]

941,824. INDICATING COIN-HOLDER FOR TELEPHONE-USERS. ELIJAH F. STONE, Chicago, Ill. Filed Jan. 14, 1909. Serial No. 472,180.

1. In a device for the purposes described, the combination with a base adapted to be supported in a vertical position and having a column of token holder recesses therein, each adapted to hold a single coin or token by its edge in a horizontal position so that it can be withdrawn at any time without disturbing the others, of an index associated therewith consisting of consecutive arranged numerals for each recess together with the days of the week associated with said numerals.

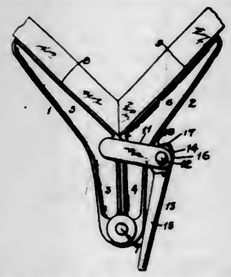
2. In a device for the purpose described, the combination with a base, of a plurality of token holders thereon each adapted to hold coins or tokens to a fixed amount representing the number to be used during a fractional period, the combined capacity of the token holders representing an amount to be paid at each collection covering a unit period, and an index associated therewith consisting of a stationary member carrying numerals for the days of the month with a numeral corresponding to each holder, and a movable member carrying the days of the week repeated a plurality of times and adjustable relative to the days of the month.



3. In a device for the purpose described, the combination with a base, of a pair of recessed strips associated therewith having their recesses opposed to receive coins or tokens, each pair of recesses adapted to hold coins or tokens to a fixed amount representing the number to be used during a fractional period, the combined capacity of the recesses representing an amount to be paid at each collection covering a unit period, said strips being provided with numerals for the days of the month corresponding to each pair of opposed recesses, and a member movable adjacent the numerals and having marked thereon the days of the week.

4. In a device for the purpose described, the combination with a base, of a pair of recessed strips associated therewith having their recesses opposed to receive coins or tokens, each pair of recesses adapted to hold coins or tokens to a fixed amount representing the number to be used during a fractional period, the combined capacity of the recesses representing an amount to be paid at each collection covering a unit period, said strips being provided with numerals for the days of the month corresponding to each pair of opposed recesses, and a member movable adjacent the numerals and having marked thereon the days of the week, and means for retaining said member in any position of adjustment.

941,825. MITER-CLAMP. JAMES L TAYLOR, Bloomfield, N. J. Filed Oct. 3, 1907. Serial No. 395,794.



1. In a miter clamp, the combination of two angular members hinged together at their lower ends and having diverging upper portions adapted to receive between themselves the work, a stop on one of said members providing an edge projecting in alinement with the work-engaging face of said member past the line of the work-engaging face of the other member extended, and means for clamping said members together.

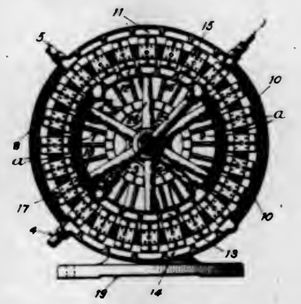
2. In a miter clamp, the combination of two members having lower portions hinged together at one end and upper portions diverging from the other ends of said lower hinged portions to receive between themselves the work, said upper portions providing rigid straight edges each in one integral piece adapted to contact with the work and one extending past the other so as to form a closed angle, and means for clamping said members together.

3. In a miter clamp, the combination of two members having lower portions hinged together at one end and upper portions diverging from the other ends of said lower hinged portions to receive between themselves the work, arms on one of said members at the union of its upper and lower portions, the other member lying between said arms and the edges of the arms next the upper portion of their member extending past the adjacent edge of the other member in alinement with the work-engaging face of the said member carrying the arms, and means for clamping said members together.

4. In a miter clamp, the combination of two members having lower portions hinged together at one end and upper portions diverging from the other ends of said lower hinged portions to receive between themselves the work, arms on one of said members at the union of its upper and lower portions, the other member lying between said arms and the edges of the arms next the upper portion of their member extending past the adjacent edge of the other member in alinement with the work-engaging face of the said member carrying the arms and being extended past the said other member, a cam-lever fulcrumed between the ends of said arms outside the said member they inclose, the member carrying said arms having a spring socket or seat between said arms, and a spiral spring projecting from said socket against the other member and being inclosed by said arms.

5. In a miter clamp, the combination of angular members hinged together at one end and adapted at their other ends to receive the work, arms projecting from one of said members near its angle across and beyond the other member, a locking lever fulcrumed between said arms and having a cam head to engage the second member, one of said members having in its edge next the other member a socket located between said arms, and a spiral spring in said socket inclosed and protected by said arms and adapted to normally force said members apart.

941,826. THERMO-ELECTRIC GENERATION. JOHN D. TAYLOR, Pittsburg, Pa. Filed Mar. 27, 1907, Serial No. 364,771. Renewed Jan. 18, 1909. Serial No. 472,996.



1. The herein described method of thermo-electric generation, which consists in periodically reversing the current through each thermo-electric junction to thereby alternately raise and lower the temperature of the junction to its upper and lower limits, and alternately supplying heat to and extracting heat from the junction after

each current reversal to maintain the temperature effected by the current prior to the reversal; substantially as described.

2. The herein described method of thermo-electric generation, which consists in periodically reversing the current through each thermo-electric junction to thereby alternately raise and lower the temperature of the junction to its upper and lower limits, and alternately supplying heat to and extracting heat from the junction after each current reversal to maintain the temperature effected by the current prior to the reversal, one junction of each element being cooled while its other junction is being heated; substantially as described.

3. The method of thermo-electric generation, which consists in controlling the current generated by the thermo-electric elements to cause it to alternately flow in opposite directions through the junctions of said elements to thereby alternately liberate and absorb heat, and maintaining, intermediate the current reversals, substantially the temperature produced at the junctions by the action of the current prior to the reversal; substantially as described.

4. The method of thermo-electric generation, which consists in controlling the current generated by the thermo-electric elements to alternately flow in opposite directions through the junctions of the elements to thereby alternately liberate and absorb heat, and alternately applying external heat to and abstracting heat from the junctions to maintain temporarily the junctions at substantially the temperatures produced by the current; substantially as described.

5. The herein described method of thermo-electric generation, which consists in first heating a thermo-electric junction by causing the current to flow therethrough in a direction to liberate heat and raise the temperature of the junction to its upper limit, then reversing the direction of flow of current to cause it to absorb heat from the junction, and replacing the heat so absorbed by external heat to maintain the junction at a substantially constant temperature, then causing the absorption of heat by the current to reduce the temperature of the junction to its lower limit, and finally again reversing the current flow and cooling the junction to maintain its lower temperature, these operations being repeated in a recurring cycle; substantially as described.

[Claims 6 to 21 not printed in the Gazette.]

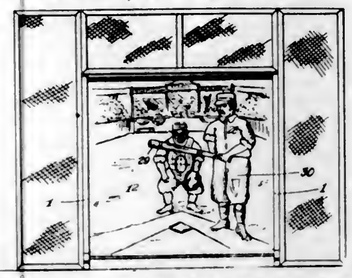
941,827. MOTOR MORE ESPECIALLY APPLICABLE FOR DRIVING BARGES, WHERRIES, FLATBOATS, AND THE LIKE. GABRIEL TROUCHE, Puteaux, France. Filed Aug. 24, 1905. Serial No. 275,662.



A driving device for vessels consisting of a propeller and propeller shaft and a motor mounted on a vertical pivot from which two fork pronga extend rearwardly, whose ends support the motor on a horizontal pivot to permit both vertical and lateral adjustment of the device, the horizontal pivot being arranged behind the vertical pivot for the purpose of reducing the angle between the propeller shaft and the water level, substantially as described.

941,828. AMUSEMENT APPARATUS. JOSEPH A. VOLLER and LEO VOLLER, Etna, Pa. Filed May 3, 1909. Serial No. 493,707.

1. In an amusement apparatus, a back-stop, said back-stop having an opening formed therein, a plate hinged to the rear side of said back-stop and having a button extending into said opening, a body hinged upon the front side of said back-stop, an arm carried by said body and extending rearwardly through said back-stop, a latch carried by said body and protruding through said back-stop, a spring held lever for normally engaging said latch, means actuated by a movement of said plate for moving said lever and releasing the latch of said body, and means connecting with the arm of said body for swinging said body outwardly when released by said lever.



2. An amusement apparatus, a back-stop, a movable plate connected to said back-stop and adapted to be moved when struck, a body hinged to said back-stop and adapted to swing outwardly from said back-stop, a latch carried by said body, a lever carried by said back-stop for engaging said latch and normally holding said body against said back-stop, and means actuated by a movement of said plate for moving said lever to release said body.

3. In an amusement apparatus, the combination with an annunciator, an electrical switch controlling the operation of said annunciator, and a back-stop, of a hinged plate carried by the back-stop and normally maintained in a vertical position, a body hinged to the front of the back-stop, a retaining means for normally maintaining the said body against the front of the back-stop, means connected with said plate and adapted to be actuated when the plate is shifted for releasing said retaining means, means connected with said body for actuating the same forwardly of the back-stop when said retaining means is released, and means operated by said actuating means for swinging the switch to cause the operation of the annunciator.

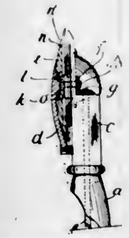
4. In an amusement apparatus comprising a back-stop, a hinged plate carried by the back-stop and adapted to be shifted in one direction when struck by an object, a body movably connected to the front of said back-stop, a latch carried by said body, a lever carried by the back-stop and engaging said latch for maintaining the body in engagement with the front of the back-stop, means connected with the lever and with the plate and adapted to be operated on the movement of the plate in one direction to actuate the lever to release the latch, and means connected to the back-stop and to the body for swinging the body forwardly of the back-stop when said latch is released.

5. In an amusement apparatus comprising a back-stop, a hinged plate carried by the back-stop and adapted to be shifted in one direction when struck by an object, a body movably connected to the front of said back-stop, a latch carried by said body, a lever carried by the back-stop and engaging said latch for maintaining the body in engagement with the front of the back-stop, means connected with the lever and with the plate and adapted to be operated on the movement of the plate in one direction to actuate the lever to release the latch, means connected to the back-stop and to the body for swinging the body forwardly of the back-stop when said latch is released, and means connected to the last mentioned means for restoring the body to normal position, and means for automatically restoring the plate to normal position.

[Claim 6 not printed in the Gazette.]

941,829. SKINNING AND CUTTING TOOL. CHARLES E. WALLDER, Hawthorn, and HARRY M. ASHTON, Coburg, Victoria, Australia. Filed July 12, 1909. Serial No. 507,113.

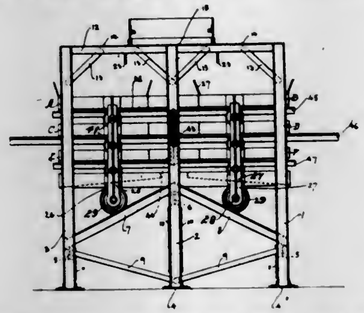
1. In a skinning and cutting tool and in combination, a handle, a head-piece, a holding-device, means for mounting said holding-device in the said head-piece, means for revolving the said holding-device, a series of cutting instruments adjustably secured in said holding-device, an outer guard-plate revolubly mounted exteriorly of the said holding-device, and a front-plate comprising a bearing for the said outer guard-plate to revolve upon.



2. In a skinning and cutting tool and in combination, a handle, a shafting adapted to revolve within the said handle, a head-piece secured to the said handle, a spindle journaled in said head-piece, beveled pinions adapted to mesh with one another and mounted respectively on the said shafting and said spindle, a holding-device mounted on said spindle, a series of knives adjustably secured to said holding device, an outer guard-plate provided at its periphery with serrations and a front-plate comprising a bearing upon which the said guard-plate is revoluble.

3. In a skinning and cutting tool and in combination, a handle, a shafting adapted to revolve within the said handle, a head piece secured to the said handle, a spindle journaled in said head-piece, beveled pinions adapted to mesh with one another and mounted respectively on the said shafting and said spindle, a holding-device mounted on said spindle, a series of circular knives circularly arranged on said holding-device, screws by which the said circular knives are secured in position and by means of which the same are capable of being adjusted, an outer guard plate provided at its periphery with serrations, and a front plate comprising a bearing upon which the said guard plate is revoluble.

941,830. MIXING-MACHINE. OSCAR H. WECKESSER, Ross township, Allegheny county, Pa. Filed Mar. 26, 1909. Serial No. 485,916.



1. In a concrete mixer, a plurality of superposed tiltable material-receiving trays adapted to communicate with each other, a shiftable carriage for and connected to said trays and shifted by the weight of the material, said trays sliding in unison with the carriage, and tiltable bottom closures for the trays tilted by the weight of the load and adapted when tilted to change the relative position thereof with respect to the trays.

2. In a concrete mixer, a plurality of superposed tiltable material-receiving trays provided with pockets adapted to communicate with each other, a shiftable carriage for and connected to said trays and shifted by the weight of the material, said trays sliding with said carriage, and a tiltable element tilted by the weight of the load and provided with pocket closures whereby when said element is tilted the relative position of the pocket closures with respect to the trays will be changed.

3. In a concrete mixer, a tilting head provided with bottom plates shiftable with the head, tiltable material-receiving trays provided with pockets adapted to be closed by said plates, said head when tilted changing the relative position of the bottom plates with respect to the trays, whereby the pockets of the upper tray will be shifted clear of their respective bottom plates and the material discharged in the pockets of a lower tray, and a shiftable carriage for and connected to said trays and shifted by the weight of the material whereby a sliding movement is imparted to the trays so that the relative position with the bottom plates with respect to the trays will be changed.

4. In a concrete mixing machine, a plurality of tiltable material-receiving trays, each provided with a plurality of pockets, closures for the pockets of the trays, and means whereby said trays are tilted at an inclination and shifted in the direction of their length for moving the pockets of one tray clear of the closure therefor so that the material of said tray will be discharged into the pockets of an adjacent tray.

5. A machine of the type described comprising superposed tilted trays, each having an open bottom, and a tilting head provided with plates for closing the bottoms of certain of said trays when these latter are tilted.

[Claims 6 to 27 not printed in the Gazette.]

941,831. TOOL FOR JEWEL-SETTERS. FRANK C. WIDMANN, Cleveland, Ohio. Filed Aug. 5, 1908. Serial No. 447,153.



1. In a tool of the character described, the combination with a tubular member, of clamping jaws pivoted to said member, a second member mounted for longitudinal movement within the tubular member, means on the second member and on the jaws for swinging the latter as the said second member is moved back and forth within the tubular member whereby the jaws are moved to grasp and release the edge of a disk, a support for a disk, and means for moving the support against the back of the disk to brace the latter during the operation of setting a jewel.

2. In a tool of the character described, the combination with a tubular member that is threaded on its interior, of clamping jaws pivoted to said member, a second member screw threaded within the tubular member, means on the second member and on the jaws for swinging the latter as the said second member is turned within the tubular member whereby the jaws are adapted to grasp the edge of a disk, a support for the disk, and means for moving the support against the back of the disk to brace the latter during the operation of setting a jewel.

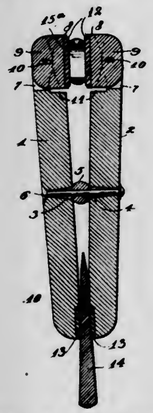
3. In a tool of the character described, the combination with a tubular member, of clamping jaws pivoted to said member, the ends of said jaws being notched in order to receive the edge of a disk which is to be clamped between the jaws, said jaws being also provided with a series of teeth adjacent their pivots, said teeth forming a gear segment, a second tubular member screw threaded within the first tubular member, said second member having a series of ridges engaging with the teeth on the said jaws whereby by screwing back and forth the second tubular member the said jaws are opened or closed, and means carried by the second tubular member for supporting the back of a disk during the operation of setting a jewel therein.

4. The combination with a tubular member, of a plurality of clamping jaws pivoted to said member, said jaws being adapted to grasp the edge of a disk, means longitudinally movable within the said tubular member, connections between said means and the clamping jaws whereby the latter are opened and closed as the said means is moved back and forth, a center post extending through the said means, a support carried by the said center post, and means for pressing said support against the back of the disk in order to brace the latter during the operation of setting a jewel therein.

5. In a tool of the character described, the combination with a tubular member, of a series of gripping jaws pivoted thereto, said jaws being adapted to grasp the edge of a disk, a second tubular member screw-threaded within the first tubular member and adapted to be screwed back and forth therein, means on the second tubular member for engaging with the clamping jaws for turning the latter so as to clamp the disk, a center post screw threaded within the second tubular member and adapted to be screwed back and forth therein, and a support carried by the said center post and that is adapted to be forced by the latter against the back of the disk to brace the same during the operation of setting a jewel in the disk.

[Claims 6 to 10 not printed in the Gazette.]

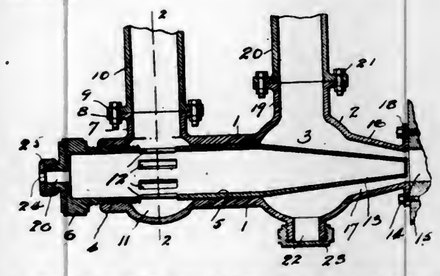
941,832. RING-CLAMP. FRANK C. WIDMANN, Cleveland, Ohio. Filed Aug. 5, 1908. Serial No. 447,154.



1. In a ring clamp, a pair of bars that are pivotally secured together at a point substantially midway their ends, one end of said bars being slotted, a gripping jaw for each of said bars, each of said jaws comprising a disk portion and a tongue at the rear of said portion, said tongues extending into the slots in the bars and the tongues being provided with elongated apertures, pins projecting through the bars and through the elongated apertures in the tongues, the adjacent surfaces of the jaws and the bars being convexed in order that the jaws may turn freely upon their pivots, frictional material carried by the adjacent faces of the jaws and means for forcing said jaws toward each other, for the purpose specified.

2. In a ring clamp, a pair of bars that are pivotally secured together at a point substantially midway their ends, one end of said bars being slotted, a gripping jaw for each of said bars, each of said jaws comprising a disk portion and a tongue at the rear of said portion, said tongues extending into the slots in the bars and the tongues being provided with elongated apertures, pins projecting through the bars and through the elongated apertures in the tongues, the adjacent surfaces of the jaws and the bars being convexed in order that the jaws may turn freely upon their pivots, frictional material carried by the adjacent faces of the jaws, and a wedge that is adapted to be inserted between the ends of the bars opposite the jaws for forcing said jaws toward each other, for the purpose specified.

941,833. INJECTOR-TWYER. GEORGE A. WILLIAMS, Salt Lake City, Utah. Filed Nov. 12, 1908. Serial No. 462,327.



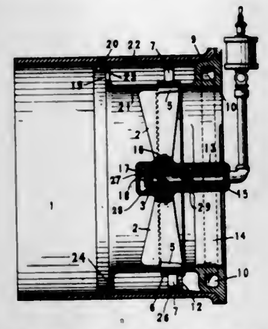
1. The combination with an outer casing having a short tapered end terminating in a flange, a globular chamber in the casing adjacent to the tapered end, a small globular chamber at the other end of the casing, a blast pipe in communication with the small chamber, a suction pipe in communication with the large globular chamber, means on said chamber providing connections for a second suction pipe, an inner casing having threaded engagement at one end with the outer casing, a long tapered nozzle formed on the other end of the inner casing, ports affording communication between the blast pipe and the inner casing, and integral adjusting means on the casing having means therein permitting the operator to look into the casing when the device is in operation.

2. The combination with an interiorly threaded open ended outer casing formed with a globular chamber and tapering end, a suction pipe in communication with said chamber, of an inner exteriorly threaded tube having integral adjusting means formed with means permitting a view of the inside of the tube at all times, said tube being formed with a tapering nozzle in the tapering end of the outer casing and ports at the rear of the nozzle, and an annular chamber in the outer casing surrounding said ports and connected with a blast pipe, the adjustment of said inner tube serving to vary the passage from the casing to the furnace.

941,834. FAN. LEVI J. WING, New York, N. Y. Filed Feb. 10, 1909. Serial No. 477,109.

1. A fan comprising in combination, a casing, a stationary shaft supported in said casing, a member rotatable on said shaft provided with vanes and buckets, nozzles in active relation to the buckets, a stationary part on the shaft, and a cap on the inner end of the rotatable member adapted for engagement with the said stationary part for taking up the thrust created by the vanes.

2. In a fan, the combination with a casing, an expansion chamber within said casing, vanes rotatably mounted in the casing, buckets carried by the vanes and received in the expansion chamber, and means for causing a jet or jets of impelling fluid to impinge upon the buckets aforesaid, there being exhaust ports provided in the expansion chamber, whereby the impelling fluid after impinging upon the buckets will mingle with the air current produced by the vanes.



3. In a fan, the combination with a casing, an expansion chamber within said casing, vanes rotatably mounted in the casing, buckets carried by the vanes and received in the expansion chamber, a member applied to the casing and having an annular steam chamber therein, and nozzles carried by said member for directing the impelling fluid against the buckets aforesaid.

4. A fan comprising in combination a casing, a ring member applied thereto having an annular steam chamber, means for conducting the steam or impelling fluid to said steam chamber, a shaft supported by the said ring member, vanes rotatably mounted on said shaft, buckets carried by said vanes, an annular member carried by the casing forming in combination with the walls of the casing, an exhaust or expansion chamber within which the buckets revolve, exhaust ports in the said chamber, and nozzles on the ring member in communication with the steam chamber therein for conveying the impelling fluid to the buckets.

5. A fan comprising in combination a casing, a ring member applied thereto having an annular steam chamber, means for conducting the steam or impelling fluid to said steam chamber, a shaft mounted in the casing, vanes rotatably mounted on said shaft, buckets carried by said vanes, an annular member carried by the casing forming in combination with the walls of the casing, an exhaust or expansion chamber within which the buckets revolve, exhaust ports in the said chamber, nozzles on the ring member in communication with the steam chamber therein for conveying the impelling fluid to the buckets, and cooperating parts carried by the shaft and the vanes respectively, and constituting a thrust bearing to receive the thrust of the vanes while the fan is in operation.

[Claims 6 to 14 not printed in the Gazette.]

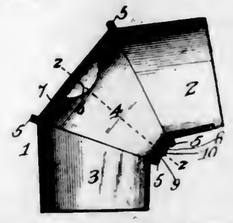
941,835. ALUMINUM-SOLDER. JOHN WIRGOVITS, New York, N. Y., assignor, by direct and mesne assignments, of one-third to Henry Heller and one-third to Glenn M. Smith, New York, N. Y. Filed Apr. 3, 1909. Serial No. 487,607.

1. An alloy for soldering aluminum, the same composed of over sixty per cent. tin, less than thirty per cent. zinc, and a small per cent. of copper.

2. An aluminum solder composed of tin, copper and zinc, the tin and zinc being in the proportion of substantially three and one-half to one, and that of the zinc and copper being substantially ten to one.

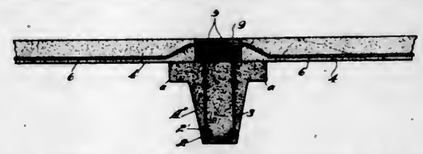
941,836. STOVEPIPE-ELBOW. DETLEF WITT, Sheffield, Iowa. Filed Dec. 11, 1908. Serial No. 467,047.

1. The combination of an elbow including tubular end sections, and a tapered intermediate section provided at the front with a clean-out aperture and connected at its edges with the end sections by exterior annular joints or rims, a collar consisting of a separate piece completely encircling the exterior of the intermediate section of the elbow and forming a cover for the clean-out aperture and tapered to conform to the configuration of the intermediate section, said collar having its side edges fitted against the projecting rims or joints, and fastening means connected with the terminals of the collar and securing the same to the elbow.



2. The combination of an elbow including tubular end sections, and a tapered intermediate section provided at the front with a clean-out aperture and connected at its edges with the end sections by exterior annular joints or rims, a collar consisting of a separate piece completely encircling the exterior of the intermediate section of the elbow and forming a cover for the clean-out aperture and tapered to conform to the configuration of the intermediate section, said collar having its side edges fitted against the projecting rims or joints, the terminals of the cover being overlapped and one of the terminals having a slot, a catch secured to the other terminal of the collar and provided with a locking tongue engaging with the slot and securing the terminals in their overlapped relation.

941,837. CONCRETE BUILDING CONSTRUCTION. RAY V. WOODS, San Francisco, Cal., assignor of one-half to The Woodruff Company, San Francisco, Cal., a Corporation of California. Filed July 12, 1907. Serial No. 383,434. Renewed Oct. 2, 1909. Serial No. 520,682.

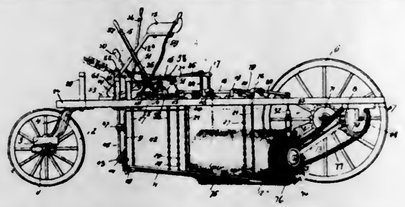


In a building construction, the combination of a concrete girder having longitudinal tension-rods extending through the lower portion thereof, said rods being spaced apart, shear-bars of substantially rectangular form having their major axis at right-angles to the major axis of the girder and having their upper ends normally projecting above the top surface of said girder, said girder having lateral flanges at its upper end, slab-sections having their adjacent ends separated from each other and supported upon the flanged end of the girder, the upper ends of said shear-bars entering the space between the adjacent ends of the slab-sections, tension-rods extending longitudinally through the slab-sections and projecting beyond the corresponding ends of the slabs and projecting into the plane of the shear-bars, tie-rods above the girder and extending parallel therewith and through the upper portion of the shear-bars and engaged by the projecting ends of the slab tension-rods, and a filling in the space between the adjacent ends of the slabs and embedding the upper ends of the shear-bars, the upper tie-rods, and the projecting ends of the slab tie-rods.

941,838. STREET-SWEEPER. JOSEPH F. WURZER and JOHN G. HARTMAN, Millvale, Pa. Filed Apr. 24, 1908. Serial No. 428,985.

1. A street sweeper comprising a front truck, a rear truck, a platform supported by said trucks, a depending plate constituting a forward wall carried by said platform, a frame hinged to the lower edge of said wall, gates suspended from said platform and adapted to rest upon said

frame, hinged depending doors carried by the side edges of said platform, latches carried by said forward wall for locking said doors in a closed position, said plate, doors and gates constituting a receptacle for sweepings, a rotary brush arranged in operative relation with respect to said receptacle, means located upon said platform for elevating said frame, means located upon said platform for elevating the confronting edges of said gates, means located upon said platform for releasing the said latches, and means located upon said platform for elevating said doors.



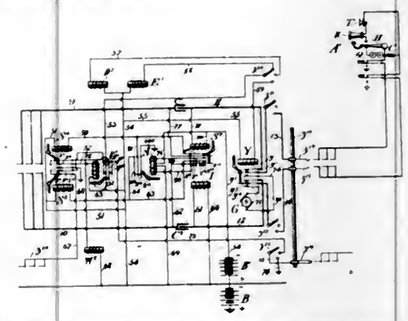
2. A street sweeper comprising a portable platform, a receptacle constituting a dirt collector arranged beneath said platform, said receptacle comprising a forward wall, a movable frame hinged thereto, gates arranged upon said frame, depending doors movably supported by the edges of said platform, a rotary brush diagonally disposed below said platform for sweeping dirt upon said gates, operating means for the brush, means carried by said forward wall for maintaining said doors in a closed position, means arranged upon said platform for elevating said brush, means arranged upon said platform for elevating said doors, and means arranged upon said platform for elevating said gates.

3. A street sweeper comprising trucks, a platform carried thereby, a receptacle constituting a dirt collector located beneath said platform and embodying a movable frame, movable gates carried thereby and movable doors hinged to the platform, a rotary brush located below the platform and actuated from one of said trucks for sweeping dirt into the collector, means supported by the platform for elevating said brush, means supported by the platform for elevating said frame, means supported by the platform for elevating said gates and means supported by the platform for elevating said doors.

4. A sweeping machine comprising a portable platform, a receptacle constituting a dirt collector located below said platform and embodying a forward wall carried by the platform, a movable frame hinged to said wall, movable gates located on the frame, movable doors hinged to the platform, and means for locking the doors in closed position, a rotatable brush arranged in operative relation with respect to said collector adapted to sweep dirt therein, means supported by the platform for releasing the latches for the doors, means supported by the platform for elevating the doors, means supported by the platform for elevating the gates, means supported by the platform for elevating the frame, and means supported by the platform for elevating the brush.

941,839. TELEPHONE-EXCHANGE SYSTEM. CHARLES L. ZAHM, Los Angeles, Cal., assignor of one-fourth to Edward E. Clement, Washington, D. C. Filed Sept. 19, 1905. Serial No. 279,124.

1. In a telephone exchange system, a subscriber's line, selector switches controlled thereby to connect with other lines, a connector switch controlled through said selector switches, a pair of bridged magnets with a bridged battery in the calling end of said connector switch, a differential relay in the answering end of the same switch, a pair of operating relays also in the answering end of the switch bridged with a grounded battery between them, and connections such that when the magnets in the calling end of the switch respond to the act of the called subscriber in answering, they will disconnect the operating relays from the switch trunk wires and place them under the control of the differential relay, at the same time connecting the differential relay to the trunk wires, substantially as described.



2. In a telephone exchange system, a subscriber's line and a connector switch controlled thereby to connect the line to other lines, operating magnets in said switch normally bridged and grounded through an operating battery from an intermediate point of the bridge, means at the subscriber's station to ground one or the other side of line to operate said magnets, a pair of condensers dividing the answering from the calling end of the switch circuit, a pair of bridged controlling magnets across the calling end of the circuit with a source of current between them, means at the called subscriber's station to determine the flow of current from said source in his line, a bridging magnet with a source of current for the answering end of the circuit but normally disconnected therefrom, and means operated by the said controlling magnets in responding to current in the called line, to disconnect the operating magnets from the circuit and place them under the control of the bridging magnet, and to connect the bridging magnet across the switch circuit, substantially as described.

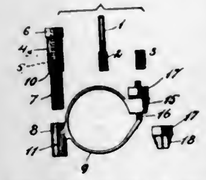
3. In a telephone exchange system, a subscriber's line and a connector switch controlled thereby having its circuit divided into answering and calling portions by suitable condensers, a pair of controlling relays for the switch normally bridged and connected from a point between their windings to a grounded main battery, means at the subscriber's station to ground one or the other side of his line in calling, a relay and a bridged battery connected across the calling end of the switch circuit, and a relay and bridged battery connections for the answering end of the circuit but normally disabled, the relay for the answering end being so wound as to be inoperative on current from the bridged battery for talking purposes, together with means whereby the relay of the calling end will become energized in completing a connection and will disable the controlling relay connections to the line, placing said relays under control of the answering bridged relay, and the latter under control of the line and calling subscriber, substantially as described.

4. In an automatic telephone exchange system, a subscriber's metallic circuit and a connector switch controlled thereover, means at the subscriber's station for grounding one side or the other of the line, controlling magnets in the connector connected to the two sides of line and a grounded battery, means for disconnecting the same from the line in completing a connection with another line, and a magnet and a bridged battery thereby connected across the calling line, said magnet normally irresponsive to current from said bridged battery when the line is free from grounds but becoming responsive when the same is grounded to operate the controlling magnets and release the switch mechanism, substantially as described.

5. In an automatic telephone exchange system a connector switch having a metallic circuit divided by condensers into answering and calling ends, a pair of operating magnets normally bridged across the answering end and acting separately to set the switch but jointly to release and restore it, a grounded battery connected to and between said magnets and means at each subscriber's station to ground one or the other side of the line in calling, a relay and bridged battery across the calling end of the circuit, and a normally disconnected control relay for the answering end of the same, with means whereby the relay on the calling end will be actuated in completing a connection between lines to disable the line control of the operating magnets and transfer the same to the control of the control relay, placing the latter under the control of the line together with a bridged battery for supplying talking current thereto, substantially as described.

[Claims 6 to 12 not printed in the Gazette.]

941,840. TOOTH-REGULATING DEVICE. JULIUS ADERER, New York, N. Y. Filed Sept. 29, 1908. Serial No. 455,235.



1. In a tooth regulating device the combination with an anchor member, and means for securing the same to a tooth, of an interiorly screw threaded sleeve rotatably carried thereby, and a wire having at its end a screw thread raised above the normal surface of the wire and mating with the said interior screw thread.

2. The combination with a sleeve having an interior screw thread, of a wire delivery member provided with a screw thread having its base located outwardly of the normal surface of the wire and extending longitudinally a distance less than the length of the sleeve.

3. In a tooth regulating device, the combination with a delivery member having a short length of screw thread elevated above the normal surface of the said member, of an adjustment sleeve long relative to the length of said screw thread, internally threaded for engaging the thread of the delivery member and having a thrust shoulder, and an anchor member for supporting the adjustment sleeve and having a shoulder for receiving the thrust of the shoulder thereon.

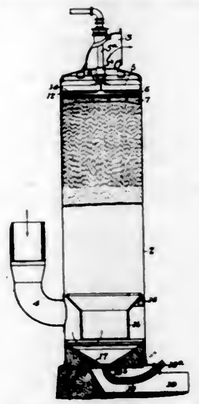
4. In a tooth regulating device, the combination with a smooth delivery member, of an externally screw threaded sleeve having a fit with the delivery member, an adjustment sleeve having internal threads for engaging the external threads of the first named sleeve, and an anchor member for supporting the adjustment sleeve and receiving the thrust therefrom.

941,841. APPARATUS FOR CLEANING GASES. WILLIAM AHLEN, Duquesne, and HERMAN C. SIEBERT, Braddock, Pa. Filed Apr. 7, 1909. Serial No. 488,476.

1. In apparatus for cleaning gases, a cleaning chamber having a horizontally extending arm adaptable to a vertical axis and means for supplying fluid to the arm, said arm having a longitudinally slotted opening through which the fluid is discharged and having means for varying the width of said slot at different points of its length; substantially as described.

2. In apparatus for cleaning gases, a cleaning chamber having rotary arms extending horizontally in opposite directions, about their axes of rotation, means for rotating said arms, and means for supplying fluid to the arms, said arms having longitudinally slotted openings through which fluid is discharged and having means for varying the width of the slotted openings at different points in their length; substantially as described.

3. In apparatus for cleaning gases, a cleaning chamber having a horizontally extending hollow arm, means for rotating said arm, and means for supplying fluid to the arm, said arm having a longitudinally slotted opening through which fluid is discharged, and means on the arm arranged to vary the width of said slotted opening at different points in its length; substantially as described.

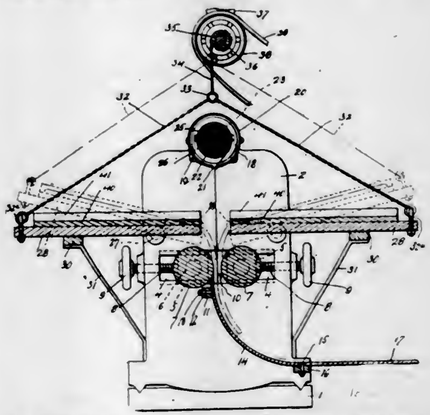


4. In apparatus for cleaning gases, a cleaning chamber having a hollow horizontally extending arm therein, means for rotating said arm, means for supplying fluid to the arm said arm having a longitudinally extending slotted opening through which fluid is discharged and a deflector arranged to divert the flow of liquid issuing from said slot; substantially as described.

5. In apparatus for cleaning gases, a cleaning chamber having a horizontally extending arm therein, means for rotating said arm, and means for supplying fluid to the arm, said arm having a partition therein terminating short of its ends and arranged to cause fluid to flow from the center to its ends and then from its end toward the center of its length; substantially as described.

[Claim 6 not printed in the Gazette.]

941,842. MACHINE FOR MAKING WIRE-GLASS. JOHN I. ABBOGAST, Pittsburg, Pa., assignor of one-half to Henry L. Collins, Pittsburg, Pa. Filed June 28, 1909. Serial No. 504,711.



1. A machine of the type described, comprising revoluble rolls, means for suspending a movable piece of wire gauze between said rolls, and tiltable stands for feeding pliable sheets of glass between said rolls to sandwich the wire gauze.

2. A machine of the type described, comprising revoluble rolls, means for feeding a piece of wire gauze between said rolls, tiltable stands for feeding pliable sheets of glass

between said rolls whereby the plates are caused to cohere together through the meshes of the wire gauze, and means for simultaneously tilting the stands.

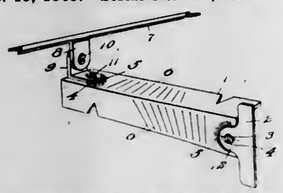
3. A machine for making wire glass, comprising housings, adjustable revoluble rolls supported by said housings, a drum supported by said housings for feeding wire gauze between said rolls, and tiltable stands trunnioned between said housings for feeding pliable sheets of glass between said rolls.

4. A machine for making wire glass, comprising housings, adjustable revoluble rolls supported by said housings, a drum supported by said housings for feeding wire gauze between said rolls, tiltable stands trunnioned between said housings for feeding pliable sheets of glass between said rolls, and means arranged above said housings for tilting said stands.

5. A machine for making wire glass, comprising revoluble rolls, a drum arranged above said rolls and adapted to feed wire gauze between said rolls, and tiltable stands adapted to feed pliable sheets of glass between said rolls and cause the same to adhere to the wire gauze.

[Claims 6 to 12 not printed in the Gazette.]

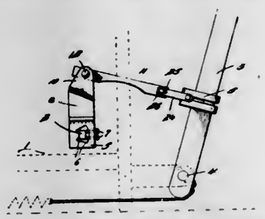
941,843. GAGE. RICHARD ATKINSON, Cleveland, Ohio. Filed Feb. 19, 1909. Serial No. 478,808.



1. A gage comprising a box square, a straight edge at one end thereof, connections between said straight edge and one flange of the square whereby to permit of movement of the former in a plane parallel to that of the latter, a straight edge at the opposite end of the square, and upon the opposite flange thereof, of greater proportions than the first named straight edge, and connections between said last named straight edge and its respective flange whereby to permit of movement of the former in planes parallel, and perpendicular, to the latter.

2. A gage comprising a box square, a straight edge provided with an intermediate angularly bent ear, an angle bracket having one portion thereof pivotally connected to one flange of the box square, and a pivotal connection between the other portion of said angle bracket and the ear of said straight edge, whereby the latter may swing in planes parallel and perpendicular to the said flange.

941,844. PICKING-MOTION FOR LOOMS. WILLIAM H. AYER, Claremont, N. H. Filed Apr. 28, 1908. Serial No. 429,711.

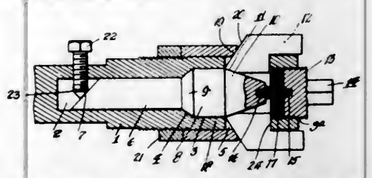


1. A picker arm having an irregular opening therein to pass over the picker shaft, a bearing point extending inward from the opening in the picker arm, and means bearing upon the shaft at opposite points from the bearing point for adjusting the relative position of the picker arm.

2. A picker arm having an opening therein to receive the picker shaft and a curved bearing point projecting inward to engage the shaft, set screws passed inward through the opposite side of the arm and bearing upon the shaft to rock the arm upon the bearing point for adjusting the inclination of the arm, and a wrist pin carried by the arm for connection to a sweep connection.

3. A picking motion consisting of a picker arm having an opening to receive the rock shaft and a bearing point extending inward in said opening and bearing upon the shaft, set screws engaging the shaft opposite the bearing point for adjusting the angle of the picker arm on the shaft, a wrist pin carried by the picker arm, a sweep stick having one end engaged on the wrist pin, a lug strap engaged on the picker stick, stops for adjustably holding the lug in position upon the stick, links connected to said lug strap and adjustably connected to the other end of said sweep stick.

941,845. TOOL-SUPPORT FOR TOOLS OR TOOL-HOLDERS. GROVER C. BARNES, Portvue, Pa. Filed Nov. 3, 1908. Serial No. 460,857.



1. A tool support comprising a body, said body having a bore formed therein, said body having radially disposed slots formed therein communicating with said bore, an adjusting member movably mounted in the bore of said body and having a rear beveled end, means mounted in said body for engaging the rear beveled end of said member, a tapering bearing carried by the forward end of said member and adapted to engage tools mounted in the openings of said body, a plug threaded in the forward end of said bore, a spring interposed between said plug and the tapering bearing of said member, a sleeve loosely mounted upon said body for engaging the rear beveled edges of the tools, and means for holding said sleeve in engagement with the tools.

2. A tool support comprising a body, said body having radially disposed slots formed therein adapted to receive tools, an adjusting member movably mounted in said bore and having a rear beveled end, means mounted in said body and adapted to engage the beveled end of said member, a tapering bearing carried by the forward end of said member for engaging the inner beveled edges of tools, a plug threaded in the forward end of said bore, a spring interposed between said plug and the tapering bearing of said member, and means carried by said body for engaging tools and locking tools in engagement with said tapering bearing.

3. A tool support comprising a body, said body having openings formed therein, elements extending into said openings, an adjusting member movably mounted in said body for engaging said elements and moving said elements outwardly, a plug carried by said body, a spring interposed between said plug and said member for moving said member and allowing said elements to recede into said openings, and means for holding the adjusting member against longitudinal movement in a direction opposite to that to which the spring acts.

4. A tool support comprising a body, said body having openings formed therein, an adjusting member located in said body, elements extending into said openings for engaging said member, a plug carried by said body, a yieldable means interposed between said plug and said member for moving said member rearwardly to allow said elements to recede into said openings, and means carried by said body for moving said member and forcing said elements outwardly from said body.

5. A tool support comprising a body portion provided with openings, an adjusting element arranged within said body, elements extending through said openings and engaging said member, means for closing one end of said body, means interposed between said closing means and said member for moving said member rearwardly to allow of said elements to recede into said openings, and means for holding the adjusting member against longitudinal movement in an opposite direction.

[Claim 6 not printed in the Gazette.]

941,846. STEAM-TRAP. JOHN W. BARTON, Cleveland, Ohio. Filed Nov. 21, 1908. Serial No. 463,815.



1. A steam trap having an inlet and an outlet, an expansion tube connected to the inlet at one end, a valve cooperating with the other end of the tube, said valve having an opening through the same, which permits restricted flow through the trap from the inlet to the outlet when the valve is closed.

2. A steam trap having an expansion tube with a valve seat piece at the end thereof, and a valve stem and removable disk thereon, coöperating with said seat, the disk having an opening therethrough, to permit restricted flow through the trap when the valve is closed.

3. A steam trap having an inlet and an outlet, an expansion tube forming the sole passage through the trap, from the inlet to the outlet, a valve coöperating with the tube, and means to permit restricted flow through the tube when the valve is closed.

4. A steam trap having an outer casing, an inner expansion tube, and an intermediate tube spaced between the said tube and casing, said intermediate tube being closed at its ends, around the expansion tube.

5. A steam trap having an outer casing, in which a vacuum may be drawn, an inner expansion tube, and an intermediate expansible tube inclosing and spaced from the inner tube, said space being closed at its ends, forming a dead air space between the two tubes, the coefficient of expansion of the intermediate tube being greater than that of the inner tube.

[Claim 6 not printed in the Gazette.]

941,847. STEAM-TRAP. JOHN W. BARTON, Cleveland, Ohio. Original application filed Nov. 21, 1908, Serial No. 463,815. Divided and this application filed Mar. 13, 1909. Serial No. 483,175.



1. A steam trap having inner and outer expansible tubes, and a valve carried by the outer tube and coöperating with the inner tube to open or close the same, the coefficient of expansion of the inner tube being greater than that of the outer tube, and the length and coefficient of expansion of the outer tube being in a proportion to the area of the valve opening proper to allow escape of condensation in the presence of a partial vacuum or otherwise.

2. A steam trap having inner and outer expansible tubes, a valve casing and valve carried by the outer tube, and a valve seat carried by the inner tube, the coefficient of expansion of the inner tube being greater than that of the outer tube, and the length and coefficient of expansion of the outer tube being in a proportion to the outlet area of the valve seat proper to allow escape of condensation in the presence of a partial vacuum or otherwise.

3. A steam trap having inner and outer expansible tubes, and a valve coöperating with the inner tube and opened or closed by variations in the length thereof, the length and coefficient of expansion of the outer tube being proper to compensate for the decrease in effective discharge pressure due to the failure of vacuum in the trap discharge by causing a corresponding increase in the discharge area between the valve and the inner tube when the valve is open.

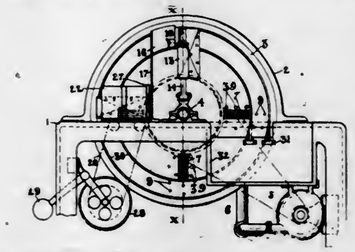
4. A steam trap having inner and outer expansible tubes, and a valve carried by the outer tube and coöperating with the inner tube to open or close the latter, the length of the outer tube corresponding to the formula

$$L = \frac{q}{CTc'\pi d\sqrt{2g}}\left(\frac{l}{\sqrt{h}} - \frac{l}{\sqrt{h.\,vac.}}\right)$$

as specified.

5. A steam trap for vacuum heating systems having an outer expansion tube and an inner expansion tube whose coefficient of expansion is greater than that of the outer tube, the space between said tubes being always in communication with the discharge outlet from the trap, and a valve means connected to said outer tube which acts to control the area of discharge through said inner tube according to its expansion and contraction relative thereto, the length and coefficient of expansion of said outer tube bearing such a relation to the dimensions of the valve mechanism that the amount discharged from the trap will not be affected by cessation of the vacuum in the discharge outlet.

941,848. LETTER-CANCELING MACHINE. LOUIS BLESSING, MERRITT L. ATEN, and GEORGE H. POIRIER, Jackson, Mich.; said Aten assignor of one-half of his right to Julian J. Bennett, Jackson, Mich. Filed Mar. 27, 1909. Serial No. 486,098.



1. A letter canceling machine comprising a rotatable member provided with stamping plates, pneumatic means for holding letters against the plates, a presser roll normally contacting with the member adapted to force letters against the plates, and pneumatically operated means for lifting the pressure roll away from the plates when the latter are uncovered.

2. A letter canceling machine comprising a rotatable disk, stamping plates thereon, means for advancing a stack of letters toward the disk, pneumatic means for drawing a letter from the stack and holding it against a stamping plate, a presser roll normally contacting with the face of the disk adapted to force letters against the plates, and pneumatically operated means adapted to automatically lift the pressure roll out of the path of an uncovered plate.

3. A letter canceling machine comprising a drum, a rotatable disk forming one head thereof, stamping plates in the outer face of the disk surrounded by apertures through the disk, a carrier adapted to advance a stack of letters toward the face of the disk in substantially parallel relation thereto, a presser roll in yielding contact with the disk and plates, and means for exhausting air from the drum.

4. A letter canceling machine comprising a drum, a rotatable disk forming one head thereof, stamping plates in the outer face of the disk surrounded by apertures through the disk, a carrier adapted to advance a stack of letters

toward the face of the disk in substantially parallel relation thereto, means for uncovering the apertures around each block simultaneously as said block is in register with the delivery end of the carrier, a presser roll in yielding contact with the disk and plates, and means for exhausting air from the drum.

5. A letter canceling machine comprising a drum, a rotatable disk forming one head thereof, stamping plates in the outer face of the disk surrounded by apertures through the disk, a carrier adapted to advance a stack of letters toward the face of the disk in substantially parallel relation thereto, a presser roll in yielding contact with the disk and plates, a lifter plate vibratably supported adjacent the presser roll in close proximity to the disk and adapted to underrun and lift the roll when drawn against the disk by inflow of air through the apertures, and means for exhausting air from the drum.

[Claims 6 to 13 not printed in the Gazette.]

941,849. GREASE OR LUBRICANT CUP. GEORGE W. BOWEN, Auburn, N. Y. Filed May 24, 1909. Serial No. 497,856.



1. A lubricant cup comprising a base having a hollow stem member and an element provided with a head and an axial hollow nipple extending into the hollow stem member and secured thereto, and a cap engaging the periphery of the head of said element, substantially as and for the purpose described.

2. A lubricant cup comprising a base having a hollow stem member and an element provided with a head having a threaded periphery and an axial hollow nipple extending into the hollow stem member and secured thereto, and an internally-threaded cap turning on the periphery of the head of said element, substantially as and for the purpose specified.

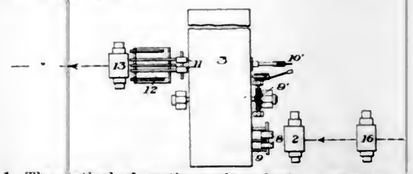
3. A lubricant cup comprising a base having a hollow stem member internally threaded at its upper end and an element provided with a head having a threaded periphery and with an axial, externally-threaded hollow nipple fitting into the threaded portion of the stem member, and an internally-threaded cap turning on the periphery of the head of said element, substantially as and for the purpose set forth.

4. A lubricant cup comprising a base having a hollow stem member formed with an outwardly-extending flange at its upper end, an element provided with a head arranged above the flange of the stem member, and with an axial hollow nipple extending into the hollow stem member and secured thereto and a packing disk interposed between the flange of the stem member and the head of said element, and a cap engaging the periphery of the head of said element and the edge of said disk, substantially as and for the purpose described.

5. A lubricant cup comprising a base having a hollow stem member formed with an outwardly-extending flange at its upper end, an element provided with a peripherally-threaded head arranged above the flange of the stem member, and with an axial hollow nipple extending into the hollow stem member and secured thereto and a packing disk interposed between the flange of the stem member and the head of said element, and an internally-threaded cap turning on the head of said element and engaging the edge of the packing disk, substantially as and for the purpose specified.

[Claims 6 to 10 not printed in the Gazette.]

941,850. METHOD OF MANUFACTURING METAL SHEETS. CHARLES W. BRAY, Pittsburg, Pa., assignor to American Sheet & Tin Plate Company, Pittsburg, Pa., a Corporation of New Jersey. Filed Oct. 12, 1907. Serial No. 397,134.



1. The method of continuously reducing metal bars into sheets, consisting in passing the heated bars singly and successively through roughing rolls, then continuously feeding them away from the roughing rolls, and reheating said plates during such transit, then matching the plates, and then feeding all of the matched packs through the same path and rerolling them during their passage through such path; substantially as described.

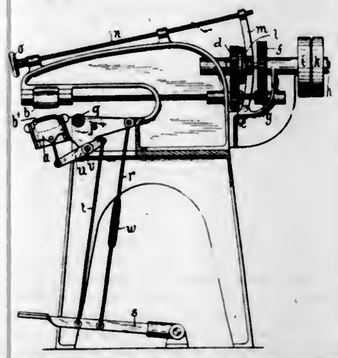
2. The method of continuously reducing metal bars into sheets, consisting in passing the heated bars singly and successively through roughing rolls, then continuously feeding them away from the roughing rolls, and reheating said plates during such transit, then feeding all of the plates forwardly in the same path, and matching and rerolling them during their passage through such path; substantially as described.

3. The method of continuously reducing metal bars into sheets, consisting in passing the heated bars singly and successively through successive sets of roughing rolls, then continuously feeding them away from the roughing rolls, and reheating said plates during such transit, then matching the plates, and then feeding all of the matched packs through the same path and finish-rolling them during their passage through such path; substantially as described.

4. The method of continuously reducing metal bars into sheets, consisting in passing the bars singly and successively through roughing rolls, then continuously feeding all of the successive plates through the same path, reheating the said plates by the same heating means during such passage, and then matching and rerolling the matched packs; substantially as described.

5. The method of reducing metal bars into sheets, consisting in rolling them singly and successively in roughing rolls, then feeding them into one end of a heating furnace, carrying them through the furnace, feeding them out at the other end of the furnace, and then matching and rerolling the reheated matched packs; substantially as described.

941,851. LEATHER-STAKING MACHINE. AUGUST C. BRILL, Oberursel, Germany. Filed June 10, 1909. Serial No. 501,353.



1. In a leather staking machine, the combination of a blade, feeding means on each side of said blade capable of moving the leather independently of each other, the feeding means behind the blade being driven faster than those in front of said blade.

2. In a leather staking machine, the combination of an adjustable blade and feeding means on each side of said blade capable of moving the leather independently of each other, the feeding means behind the blade being driven faster than those in front of said blade.

3. In a leather staking machine, the combination of a blade with one pair of feed rolls in front of said blade and another pair of feed rolls behind said blade, the pair behind the blade being driven faster than those in front.

4. In a leather staking machine, the combination of an adjustable blade, with one pair of feed rolls in front of said blade and another pair of feed rolls behind said blade, the pair behind the blade being driven faster than those in front.

5. In a leather staking machine, the combination of a blade, a pair of rollers in front of said blade, a pair of rollers behind said blade, a rocking lever in which the lower roller of each pair is mounted, and means for actuating said rocking lever to alter the distance between the upper and lower roller of each pair.

[Claims 6 to 16 not printed in the Gazette.]

941,852. APPARATUS FOR FIRING EXPLOSIVES IN WELLS. LUKE H. BROADWATER, Findlay, Ohio, assignor to The E. I. du Pont de Nemours Powder Company, Wilmington, Del., a Corporation of New Jersey. Filed Dec. 30, 1908. Serial No. 470,099.

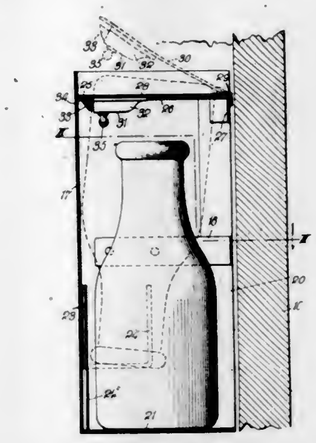


1. The combination with a generator and a primer, of firing wires leading from the generator to the primer, a switch for controlling said circuit, and an ammeter in said circuit, an electrically controlled severing device in circuit with the firing wires beyond the ammeter.

2. The combination with a generator and a primer, of firing wires leading from the generator to the primer, a switch for controlling said circuit, an ammeter in said circuit, an electrically controlled severing device in circuit with the firing wires beyond the ammeter, a normally closed circuit from the generator, and a volt meter in said normally closed circuit.

941,853. MILK-BOTTLE RECEPTACLE. ALBERT G. BRODHEAD, New York, N. Y., assignor of one-half to Dennis J. Delaney, New York, N. Y. Filed May 12, 1909. Serial No. 495,453.

1. In a receptacle of the character described, the combination with a door and jamb, of a holding device attached to the jamb, a casing adapted to be held by said holding device having an open side adapted to be closed by the door, said casing having an open top, a hinged member adapted to close the top of the receptacle, and means arranged within the casing and adapted to maintain a milk bottle within the casing in position to retain said hinged member out of closing engagement with the top of the casing, substantially as described.



2. A receptacle of the character described, comprising a casing, a movable member adapted to close the top of the casing, means arranged within the casing and adapted to hold a milk bottle within the casing in a manner to retain said movable member out of closing position, and means on said movable member for locking the same on the removal of the bottle from its holding means, substantially as described.

3. In a receptacle of the character described, the combination with a door and jamb, of a holding device attached to the jamb, a casing adapted to be held by said holding device having an open side adapted to be closed by the door, said casing having an open top, a hinged member adapted to close the top of the receptacle, means arranged within the casing in position to retain said hinged member out of closing engagement with the top of the casing and means on said hinged member for locking the same when the bottle is removed, substantially as described.

4. A receptacle of the character described, comprising a casing having an open side adapted to be attached to a support convenient to a door to have its open side closed by the door, said casing having an open top, a hinged member adapted to close the top of the receptacle to hold the bottle within the receptacle against removal except when the door is opened, and means arranged within the casing and adapted to maintain an empty bottle within the casing in position to retain said hinged member out of closing engagement with the top of the casing until the bottle is removed, substantially as described.

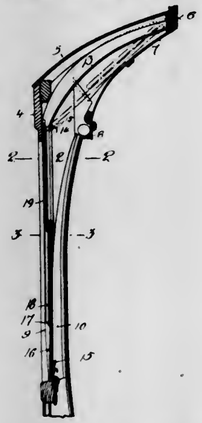
5. A receptacle of the character described, comprising a casing having an open side adapted to be attached to a support convenient to a door to have its open side closed by the door, said casing having an open top, a hinged member adapted to close the top of the receptacle to hold the bottle within the receptacle against removal except when the door is opened, and a pivotally held device within the casing adapted to maintain an empty bottle within the casing in position to retain said hinged member out of closing engagement with the top of the casing until the bottle is removed, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

941,854. MANUFACTURE OF PLATES AND SHEETS. DAVID S. BROOKMAN, Wellsville, Ohio, assignor to American Sheet & Tin Plate Company, Pittsburg, Pa., a Corporation of New Jersey. Filed Mar. 20, 1909. Serial No. 484,793.

In the manufacture of plates or sheets, the method which consists in annealing the plates, subjecting them to the oxidizing action of steam while they are cooling, then cold rolling them, then annealing and allowing them to partially cool out of contact with the air, then passing them in a partially cooled condition between finishing rolls, and finally cold rolling, substantially as described.

941,855. CAR. EZRA S. BUCKNAM, Philadelphia, Pa., assignor to The J. G. Brill Co., Philadelphia, Pa. Filed Aug. 12, 1908. Serial No. 448,086.



1. In a device of the class described, a pair of stanchions, each of which is provided with a pintle-way, upper and lower sashes adapted to slide between said stanchions, means permitting the upper sash to be lowered while the lower sash is being raised, means for causing the lower sash to either raise or lower the upper sash so that both may be moved together upwardly or downwardly, and pivotally mounted means for automatically causing the upper sash to assume its proper position when the lower sash is down.

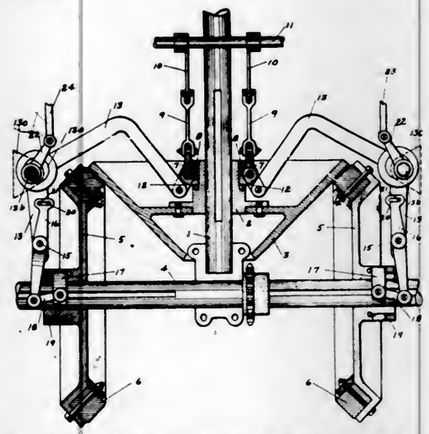
2. In a device of the class described, a pair of stanchions each of which is provided with a pintle-way, upper and lower sashes adapted to slide between said stanchions, means for permitting the upper sash to be lowered while the lower sash is being raised, means for causing the lower sash to either raise or lower the upper sash so that both may be moved together upwardly or downwardly, means for allowing the lower sash to continue its movement alone after the upper sash is closed, and pivotally mounted means for automatically forcing the sashes together when the lower sash is closed.

3. In a device of the class described, a pair of stanchions each of which is provided with a pintle-way, upper and lower sashes adapted to slide between said stanchions, means for permitting the upper sash to be lowered while the lower sash is being raised, means for causing the lower sash to either raise or lower the upper sash so that both may be moved together upwardly or downwardly, means for allowing the lower sash to continue its movement alone after the upper sash is closed, and a pivotally mounted slide on the lower sash for forcing the sashes together when both are closed.

4. In a car of the class described, a window having stanchions at either side, an upper and a lower sash adapted to slide between said stanchions, the lower sash being provided with a stop and a slideway, the upper sash being mounted in said slideway and engageable with said stop, means whereby the upper and lower sash are moved downward together until the upper sash is in closed position and allowing the lower sash to continue its movement alone and rocking means carried by the lower sash for automatically forcing the sashes together when the lower sash reaches its closed position.

5. In a car of the class described, a window having stanchions at either side, an upper and a lower sash adapted to slide between said stanchions, the lower sash being provided with a stop and a slideway, the upper sash being mounted in said slideway and engageable with said stop, means whereby the upper and lower sash are moved downward together until the upper sash is in closed position and allowing the lower sash to continue its movement alone, and pivotally mounted means on the lower sash for forcing the sashes together when the lower sash reaches its closed position.

941,856. FRICTION-GEARING. GEORGE H. CHISHOLM, Sutter Creek, Cal. Filed Feb. 11, 1909. Serial No. 477,350.



1. A friction gearing comprising a driving shaft and a driven shaft, a cone slidable on said driving shaft, two cones slidable on said driven shaft, and means movable with said first named cone, whereby when said cone is moved, said second named cones will both be simultaneously moved toward each other.

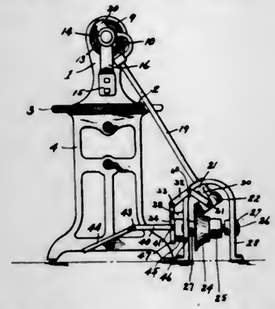
2. A friction gearing comprising a driving shaft and a driven shaft, a cone movable on said driving shaft, two cones movable on said driven shaft spaced on each side of said first named cone, and bell cranks linked to said first named cones and to said second named cones.

3. A friction gearing comprising a driving shaft and a driven shaft, a cone movable on said driving shaft two cones movable on said driven shaft spaced on each side of said first named cone, bell cranks linked to said first named cone and to second named cones, and means connected with said bell cranks to operate them to move said last named cones independently of any movements of said first named cone.

941,857. POWER-TRANSMITTER FOR SEWING-MACHINES. ALEXANDER B. COHN, Philadelphia, Pa. Filed June 29, 1906. Serial No. 324,010.

1. In a power transmitter, comprising driving, driven and transmitting means, a driven shaft a collar and a gear mounted thereon, a transmitter shaft and a gear mounted thereon, a rocker provided with bearings for the transmitter shaft and with a support for the gear mounted thereon, a driving shaft and a disk mounted thereon, and a pedestal with bearings for the driving shaft.

2. In a power transmitter, comprising driving, driven and transmitting means, a driven shaft, a gear fixedly mounted thereon, a transmitter shaft provided with a slot, a gear, provided with a key to be slidingly guided on the shaft and to prevent it from turning about the shaft, mounted thereon, a pivoted rocker provided with bearings for the transmitter shaft and with a support for the gear mounted thereon, a disk mounted on the transmitter shaft, a driving shaft and a disk mounted thereon, a pedestal provided with bearings for said shaft and with a support for a pivoted means to bring the circumferential surface of the disk on the transmitter shaft in frictional contact with the circumferential surface of the disk on the driving shaft, and a means supported by the pedestal to prevent said frictional contact from becoming excessive.



3. In a power transmitter, comprising horizontally mounted driven means, horizontal driving means mounted at right angles to the driven means, rotatable transmitting means mounted vertically between the driving and driven means, pivoted means and a means to operate the pivoted means to cause rotation in the transmitting means, in combination with a means to operate the pivoted means for preventing rotation in the transmitting means.

4. A power transmitter for sewing machine, comprising the combination of driving and driven means mounted at right angles, with transmitting means mounted between the driving and driven means, to receive motion from the driving means and to transmit motion to the driven means, pivoted means rockingly supporting the receiving end and rocking means slidingly supporting the transmitting end, means to cause the driven means to rotate with the transmitting means, and means operated by foot pressure to cause the transmission of motion from the driving to the transmitting means in combination with a means to prevent said transmission when said pressure is removed.

941,858. HEAT-RETAINER. FRED H. DANIELS, Worcester, Mass. Filed Jan. 21, 1909. Serial No. 473,482.



1. A heat retainer for metal shapes, comprising a furnace, a support of refractory material to receive the shapes one above another in the same vertical plane, means to feed the shapes to the support, and means to withdraw the shapes from the support, substantially as described.

2. A heat retainer for metal shapes comprising a furnace, a support of refractory material to receive the shapes one above another, openings through the sides of one of the furnace walls at the ends thereof for access to said shapes, means to feed the shapes to the support, and means to withdraw the shapes from the support; substantially as described.

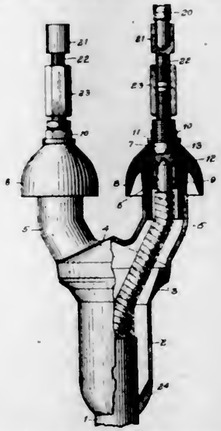
3. A heat retainer for metal shapes, comprising a furnace, a plurality of longitudinal supports of refractory material in different horizontal planes extending through the furnace, adjustable means for feeding the shapes successively to one end of the supports, and adjustable means for successively withdrawing the shapes from the other end of the supports; substantially as described.

4. A heat retainer for metal shapes, comprising a furnace, a plurality of longitudinal supports of refractory material extending through the furnace, openings through the sides of one of the furnace walls at the ends thereof for access to said flats, means for feeding the shapes successively to one end of the supports, and means for successively withdrawing the shapes from the other end of the supports; substantially as described.

5. A heat retainer for metal shapes, comprising a furnace, a plurality of trough shaped longitudinal supports one above another of refractory material extending through the furnace, means for feeding the shapes successively to one end of the supports, and means for successively withdrawing the shapes from the other end of the supports; substantially as described.

[Claims 6 to 15 not printed in the Gazette.]

941,859. TERMINAL FOR ELECTRIC CABLES. CHARLES W. DAVIS, Edgeworth, Pa., assignor to Standard Underground Cable Company, Pittsburg, Pa., a Corporation of Pennsylvania. Filed Aug. 3, 1908. Serial No. 446,620.



1. In a terminal structure for an electric cable, an annular insulator, a lead-out adapted to be secured to a conducting core of the cable and extending through the insulator, the lead-out and insulator being provided with abutting portions and means external of the insulator for drawing such portions into contact whereby the insulator and lead-out may be locked together after the latter has been secured to the conductor of the cable.

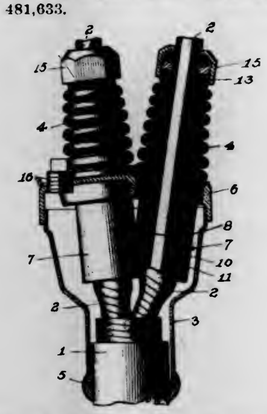
2. In a terminal structure for an electric cable, the combination of a head adapted to be secured at one end to the sheath of the cable and provided at its opposite end with a plurality of nipples, annular insulators connected to the nipples, lead-outs adapted to be connected to the cores of the cable and extending through the insulators, the lead-outs and insulators being provided with abutting portions and means for drawing such portions into engagement and thereby locking the lead-outs in the insulators.

3. In a terminal structure for electric cables, the combination of a shell, an annular insulator detachably connected to the shell, a lead-out extending through the insulator and adapted to be connected to the conducting core of the cable the insulator and lead-out being provided with shoulders arranged to bear against each other and removable means for holding said shoulders in contact.

4. In a terminal structure for electric cables the combination of a shell, an annular insulator detachably connected to the shell and provided with an internal shoulder or abutment, a lead out extended through the insulator and provided with shoulders so spaced that when one shoulder bears on the shoulder in the insulator, the other

shoulder will be flush with the end of the insulator, a washer bearing on the end of the insulator and the shoulder flush therewith and means engaging the lead-out and pressing said washer to its seat.

941,860. TERMINAL FOR ELECTRICAL CABLES. CHARLES W. DAVIS, Edgeworth, Pa. Filed Mar. 6, 1909. Serial No. 481,633.



1. In a terminal structure for a multiple-core electrical cable, a casing provided with an orifice adapted to receive and to be united upon the surface of a cable introduced therein, and provided also with a plurality of oppositely disposed orifices arranged with their individual axes converging to said first named orifice, together with annular insulators filling the last named orifices and provided with prolongations extending inwardly through said casing toward the orifice therein first named, substantially as described.

2. In a terminal structure for an electrical cable, the combination of a casing and an insulator, said insulator consisting of a perforate cylindrical body provided externally with means for attachment in an orifice in the wall of said casing and of a perforate terminal extension, the perforation of the extension being of greater diameter than the perforation of the body portion of said insulator, substantially as described.

3. A terminal structure for an electrical cable, including a casing and an insulator carried in the wall of such casing, said insulator being perforated by a bore larger at one end than the other, a portion of the surface of the bore being arranged obliquely to the axis thereof, substantially as described.

4. A terminal structure for an electrical cable including a casing and a perforate insulator carried in an orifice in the wall of said casing, the surface of the bore of said perforate insulator being rough, substantially as described.

5. A terminal structure for an electrical cable including a casing and a perforate insulator carried in an orifice in the wall of said casing, said insulator being prolonged inwardly and the outer surface of said inward prolongation being rough, substantially as described.

[Claim 6 not printed in the Gazette.]

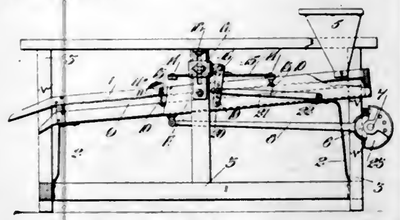
941,861. MANUFACTURE OF PLATES AND SHEETS. STEWART A. DAVIS, Pittsburg, Pa., assignor to American Sheet & Tin Plate Company, Pittsburg, Pa., a Corporation of New Jersey. Filed Mar. 15, 1909. Serial No. 483,438.

1. The herein described method of treating metal plates or sheets, which consists in annealing them, and submitting them to the action of steam while they are cooling, then cold rolling them, then again annealing, and then roll finishing, substantially as described.

2. The herein described method of treating metal plates or sheets, which consists in annealing them and submitting them to the action of steam while they are cooling, then cold rolling them, then again annealing, and finally rolling them before they have cooled, substantially as described.

3. The herein described method of treating metal plates or sheets, which consists in annealing them, then submitting them while cooling to an oxidizing atmosphere containing steam, then cold rolling them, then again annealing and allowing them to partially cool in the annealing box, and finally roll-finishing the partially cooled plates or sheets, substantially as described.

941,862. VIBRATING SHAKER-SCREEN. LOYD C. DIBERT, San Francisco, Cal. Filed Nov. 5, 1908. Serial No. 461,194.



1. The combination of a suitably supported shaking screen, means for shaking the screen, means for giving the screen a vibrating motion normal to the line of reciprocation of said screen, said vibrating means comprising a vertically adjustable horizontally disposed rock shaft, vertically slotted hangers in which the ends of said shaft are mounted, an anvil on the screen, a tappet carried by the rock shaft, and connections between one end of the rock shaft and the screen whereby the screen oscillates the tappet on the reciprocation of the screen.

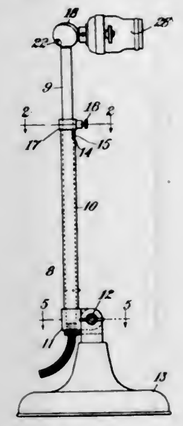
2. The combination of a shaking screen, means for shaking the screen, a tappet member supported independent of the screen, vertically slotted hangers and a horizontal rock shaft adjustably mounted therein and carrying said tappet member, an anvil member on the screen, said anvil movable into and out of the range of action of said tappet member on the reciprocation of the screen, and connections between the screen and the tappet member for operating the latter directly from the screen.

3. The combination of a suitably supported shaking screen and means for shaking the screen, means acting normal to the line of reciprocation of the screen to vibrate the latter, said vibrating means comprising a rockable tappet member, means whereby said member may be adjusted toward and from the screen, an anvil on the screen adapted to be forcibly struck by said tappet member, an arm having one end fixed to the rockable member, and a link having one end fixed to the free end of the arm and having the other end connected directly to the shaking screen, for oscillating the tappet member synchronously with the reciprocations of the screen, and means for varying the force of the blow delivered by said tappet member on said anvil member.

4. The combination of a suitably mounted shaker, means for reciprocating the shaker, a screen supported in the shaker and movable therewith, a pair of anvil members carried by the screen, a rock shaft supported independent of the shaker and disposed between the anvil members, vertically slotted hangers in which the ends of said rock shaft are mounted, means whereby the shaft may be adjusted vertically, tappet members on said rock shaft, connections between the rock shaft and the shaker, said connections including an arm fixed to the end of the rock shaft and extending downwardly, and a link having one end connected to the lower free end of said arm and having the other end connected to said shaker, and means for varying the stroke of the tappets.

5. The combination of a suitably supported shaking screen, means for shaking the screen, a vertically adjustable rock shaft supported independent of the screen, means for effecting the vertical adjustment of said rock shaft, a crank arm connected with the rock shaft and an adjustable link connection between the crank arm and the screen, tappet members on the rock shaft, and corresponding anvil members on the screen.

941,863. ADJUSTABLE SUPPORT FOR ELECTRIC LAMPS. LEONARD ERIKSON, Malden, Mass. Filed Jan. 16, 1909. Serial No. 472,645.



1. In an adjustable support for electric lamps, a joint consisting of a hollow sphere formed of two hemispheres rotatably mounted on each other, each of said hemispheres provided with means whereby they may be attached, respectively, to a suitable support and a lamp, and means located inside said sphere to limit the angle through which said hemispheres may be rotated relatively to each other.

2. In an adjustable support for electric lamps, a joint consisting of a hollow sphere formed of two hemispheres rotatably mounted on each other, a pin connecting said hemispheres together, the median axial line of said pin intersecting the plane which bisects said sphere, at right angles thereto and in the center of said sphere, a hollow screw-threaded projection on each of said hemispheres located eccentrically with relation to said median axial line, and a projection inside one of said hemispheres adapted to engage another projection inside the other of said hemispheres, whereby the angle through which said hemispheres may be rotated relatively to each other is determined.

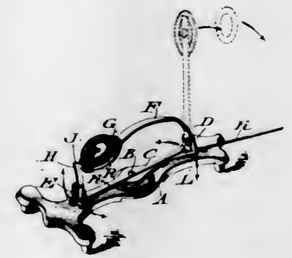
3. An adjustable support for electric lamps having, in combination, a joint consisting of a hollow sphere formed of two hemispheres rotatably mounted on each other, a lamp socket having screw-threaded engagement with one of said hemispheres, a hollow standard having screw-threaded engagement with the other of said hemispheres, the bisecting plane of said sphere being at an angle to the median axial lines of said socket and of said standard, and a check-nut interposed between said standard and sphere, whereby said sphere may be locked in different positions relatively to said standard.

4. An adjustable support for electric lamps having, in combination, a joint consisting of a hollow sphere formed of two hemispheres rotatably mounted on each other, a lamp socket having screw-threaded engagement with one of said hemispheres, a hollow standard in two parts, one of said parts having screw-threaded engagement with the other of said hemispheres, the bisecting plane of said sphere being at an angle to the median axial lines of said socket and of said standard, one of said standard parts rotatable on the other, and means to lock said standard parts together.

5. An adjustable support for electric lamps having, in combination, a joint consisting of a hollow sphere formed of two hemispheres rotatably mounted on each other, a lamp socket having screw-threaded engagement with one of said hemispheres, a hollow standard in two parts, one of said parts having screw-threaded engagement with the other of said hemispheres, the bisecting plane of said sphere being at an angle to the median axial lines of said socket and of said standard, one of said standard parts split to form a tongue therein, a collar surrounding said split portion, and a screw in said collar, the end of which is adapted to bear against said tongue and force the same against the other part of said standard, whereby the said standard parts may be clamped together.

[Claims 6 to 8 not printed in the Gazette.]

941,864. TOY AND GAME TRAP-SHOOTER. CLARENCE A. EVANS, Chester, Pa. Filed Mar. 17, 1909. Serial No. 483,958.



1. A head formed with an annular recess forming a bed for the seating of a projectile, a resilient carrier therefor, a support for said carrier, a catch member, said carrier being adapted to be flexed and said head being adapted to be primarily controlled by said catch member in the flexed condition of the carrier, an arm pivotally mounted on said support, means independent of the axis of rotation constructed to adjust said arm and trip said catch member.

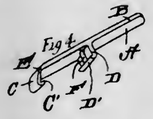
2. A base member, a resilient carrier mounted thereon, a head having an annular recess forming a bed for the seating of a ring, a pivotally mounted catch on the base member for direct engagement with the outer edge of said head, and means directly connected with said catch for operating the same.

3. A head, a carrier therefor of inherent resiliency adapted to be flexed, a support, an arm pivotally mounted on said support and having at one end a vertical lug to which said carrier is attached, a lug rising from the other end of said arm, a catch pivotally mounted on the last-named lug and having a nose adapted for direct engagement with said head, and a cord connected with said catch for operating the same to release the carrier and to rotate said arm.

4. In a device of the character stated, a head having a circular recess in its face, a resilient carrier for said head, means directly engaging said head for controlling the same in the flexed condition of the carrier, a rotatable member carrying said carrier and controlling means, and means directly connected with the controlling means and independent of the axis of rotation of said rotatable means for adjusting the position of said rotatable means and for positively actuating the controlling means to disengage the carrier.

5. In a device of the character stated, a catch-carrying arm pivotally mounted for rotation and having a cord guide, a catch pivotally mounted on said arm, and an operative cord passed through said guide independent of the axis of rotation of said arm and common to the catch and arm and constructed to move said arm on its pivot and to positively actuate the catch.

941,865. DEVICE FOR REMOVING BOTTLE-CAPS. CHARLES F. FORSYTH, Washington, D. C., and FRANCIS C. WALLACE, Drummond, Md. Filed Oct. 9, 1909. Serial No. 521,965.



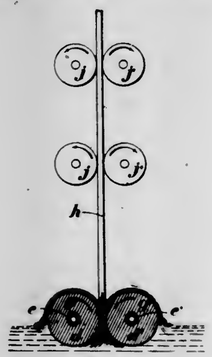
1. A device for removing bottle caps, the same being adapted to engage and be permanently locked to a bottle cap, substantially as shown and described and for the purpose specified.

2. A device for removing bottle caps, the same being adapted to engage a bottle cap and be automatically locked thereto, substantially as shown and described and for the purpose specified.

3. A bottle cap remover comprising in a single element a body portion, depending arms provided at their free lower ends with inwardly disposed hooks and having upon the inner face of one of the arms a hook adapted to engage a depression upon the periphery of the cap, substantially as shown and described and for the purpose specified.

4. A bottle cap remover comprising a body portion, depending arms having inwardly extended hook portions to engage the lower edge of a bottle cap, a lug or extension upon one of the arms to engage a depression in the periphery of the cap, and a handle for removing the cap, substantially as shown and described and for the purpose specified.

941,866. METHOD OF AND APPARATUS FOR DRAWING CONTINUOUS SHEETS OF GLASS. EMILE FOURCAULT, Lodelinsart, Belgium. Filed May 15, 1905. Serial No. 260,571.



1. In an apparatus for drawing a continuous sheet of glass, the combination of rollers for supplying glass at the basis of the sheet to be drawn, the rollers being dipped into the molten glass, a float having an opening therethrough in which the rollers are disposed, and means for operating the rollers.

2. In an apparatus for drawing sheet glass, the combination of a receptacle for molten glass, a float disposed in the receptacle and having an opening therethrough, and revolving means carried by the float and held in the opening of the latter.

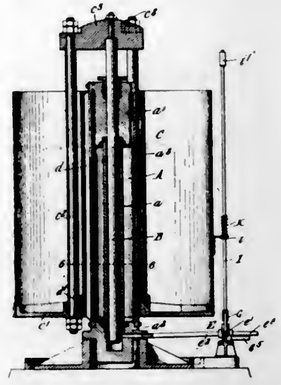
3. In an apparatus for drawing sheet glass, the combination with a receptacle for molten glass, a float depressed into the receptacle and into the molten glass therein and having an opening therein, and a pair of rollers held by the float and disposed longitudinally with respect to the latter.

4. An apparatus for drawing sheet glass, comprising a receptacle for the molten glass, a bait for drawing the glass in sheet form therefrom, and revolving means extending approximately throughout the width of the sheet drawn and from between which the sheet is drawn.

5. In an apparatus for drawing sheet glass, the combination with a receptacle for the molten glass, a bait for drawing the glass in sheet form therefrom, and revolving devices approximately of the length of the width of the sheet to be drawn and from between which the sheet is drawn.

[Claims 6 to 23 not printed in the Gazette.]

941,867. HYDRAULIC ACCUMULATOR. ALFRED W. FRENCH, Piqua, Ohio. Filed Apr. 23, 1908. Serial No. 428,858.



1. The combination of an accumulator having a part moved by the liquid pressure, a supply passage connecting the accumulator with a source of supply, a by-pass passage connecting with said supply passage between the source of supply and the accumulator, a relief valve for opening and closing said by-pass passage, and an operating device for said valve which has a lost motion connection with said relief valve which allows a limited movement of the operating device independently of the valve in both the valve opening and valve closing movements of the operating device, and connections between the movable part of the accumulator and said valve operating device which allows a predetermined movement of the movable part of the accumulator before it actuates said valve operating device, substantially as set forth.

2. The combination of an accumulator having a part moved by liquid pressure, a supply passage connecting the accumulator with a source of supply, a by-pass passage connecting the said supply passage between the source of supply and the accumulator, a relief valve for opening and closing said by-pass passage, an operating device for said valve which has a lost motion connection with said relief valve which allows a limited movement of the operating device independently of the valve, and connections between the movable part of the accumulator and said valve operating device which allows a predetermined movement of the movable part of the accumulator before it actuates said valve operating device, and a check valve between the accumulator and said by-pass passage for preventing the escape of liquid from the accumulator through said by-pass passage, substantially as set forth.

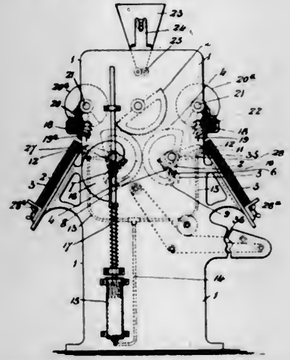
3. The combination of an accumulator having a part moved by the liquid pressure, a supply passage for said accumulator, a by-pass passage connecting with said supply passage, a relief valve for opening and closing said by-pass passage, an operating lever for said valve which is actuated by the movable part of said accumulator and has a loose connection with said relief valve which allows a predetermined movement of the lever independently of the valve, and a spring which acts on said valve independently of said lever in a direction to open said by-pass passage, substantially as set forth.

4. The combination of an accumulator having a part moved by the liquid pressure, a supply passage for said accumulator, a by-pass passage connecting with said supply passage, a reciprocating relief valve for opening and closing said by-pass passage, an operating lever for said valve which is actuated by the movable part of said accumulator and has a slotted connection with said relief valve which allows a predetermined movement of the lever independently of the valve, and a spring which acts on said relief valve independently of said lever in a direction to open said by-pass, substantially as set forth.

5. The combination of an accumulator having a part moved by the liquid pressure, a relief valve casing having a supply passage for the accumulator and a by-pass passage connecting therewith, a reciprocating valve controlling said by-pass passage having a stem projecting out of said casing, a spring acting on said valve stem in a direction to move said valve to open said by-pass passage, and an operating lever for said valve which is actuated by the movable part of the accumulator and has a slotted connection with said valve stem which allows a predetermined movement of the lever independently of the valve, substantially as set forth.

[Claim 6 not printed in the Gazette.]

941,868. MACHINERY FOR SEPARATING, FEEDING, AND CEMENTING SHEETS OF PAPER TOGETHER. WALTER FAICKEN, South Woodford, England. Filed Jan. 26, 1909. Serial No. 474,347.



1. In a machine of the class described, the combination of a pair of oppositely-located supports, each adapted to receive a pile of sheets; synchronously-operated mechanisms located between said supports and adjacent the same, for withdrawing a sheet from each pile and for feeding said sheets simultaneously toward and into contact with each other; and means for applying an adhesive to one of said sheets during its feed movement.

2. In a machine of the class described, the combination of a pair of oppositely-located supports, each adapted to receive a pile of sheets; a rotatable member located adjacent each support and provided with a gripper; means for rotating said members in unison to withdraw a sheet from both piles simultaneously, and for feeding said sheets toward and between said members in contact with each other; and means for applying an adhesive to one of said sheets during its feed movement.

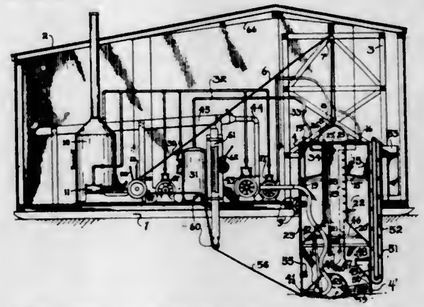
3. In a machine of the class described, the combination of a pair of oppositely-located supports, each adapted to receive a pile of sheets; a suction member located adjacent each support and adapted to engage one of the sheets thereon; means for creating a suction in said members simultaneously; and mechanism located adjacent each support for simultaneously withdrawing from the piles the sheets engaged by said members, and for feeding said sheets toward each other.

4. In a machine of the class described, the combination of a pair of oppositely-located supports, each adapted to receive a pile of sheets; a suction member located adjacent each support and adapted to engage one of the sheets thereon; means for creating a suction in said members simultaneously; mechanism located adjacent each support for simultaneously withdrawing the sheets engaged by said members, and for feeding said sheets toward and into contact with each other; and means for applying an adhesive to one of said sheets.

5. In a machine of the class described, the combination of a pair of oppositely-located supports, each adapted to receive a pile of sheets; a suction member located adjacent each support and adapted to engage one of the sheets thereon; means for creating a suction in said members simultaneously; and a pair of synchronously-rotating members located adjacent said supports for withdrawing from the piles the sheets engaged by said members, and for feeding said sheets toward each other.

[Claims 6 to 10 not printed in the Gazette.]

941,869. CAISSON-DREDGER. RAYMOND A. GARDNER, Los Angeles, Cal. Filed Apr. 5, 1909. Serial No. 488,106.



1. The combination of a floating structure and a caisson vertically movable in relation thereto, of a guide means on the floating structure consisting of equalizing frames pivoted to the floating structure and carrying rollers engaging with the caisson.

2. In a caisson dredger, the combination with a floating structure, the caisson movable vertically with relation thereto and provided with a working chamber, boulder removing means consisting of a grapple rope, means for traction thereof, and means on said floating structure for guiding the grapple cable to bring the line of tension in proper horizontal plane relatively to the top of the boulder, said means being adjustable vertically.

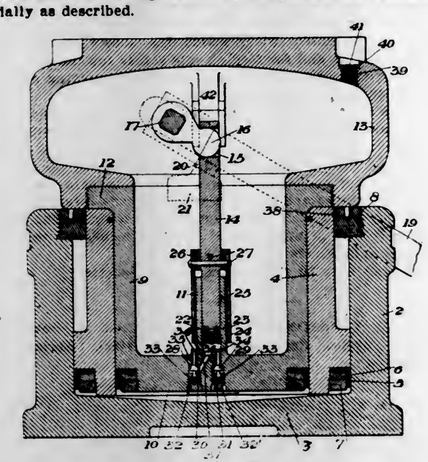
941,870. HYDRAULIC JACK. EMIL A. GATHMANN, Bethlehem, Pa., assignor to Bethlehem Steel Company, South Bethlehem, Pa., a Corporation of Pennsylvania. Filed July 27, 1908. Serial No. 445,467.

1. In a hydraulic jack, a cylinder, a hollow ram piston working therein and provided with an integral bottom, a pump cylinder integral with and rising from said bottom, and a ram head secured to the piston, the joint between the head and piston being the only joint in the piston, substantially as described.

2. In a hydraulic jack, a cylinder having an integral bottom, a forged hollow ram piston working therein and having a bottom integral with the body of the piston and a pump cylinder integral with and rising from the bottom providing an annular space between the pump cylinder and the ram piston, and a ram head secured to the upper part of the piston, substantially as described.

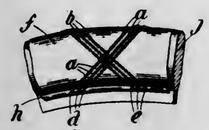
3. In a hydraulic jack, a cylinder having an integral bottom, a hollow ram piston working therein and having a bottom integral with the body of the piston and a pump cylinder integral with and rising from the bottom, there being an annular space between the pump cylinder and the ram piston, a ram head secured to the piston, a pump

cylinder valve, a plunger rod for the pump cylinder, and an annular valve trip carried by the plunger rod, substantially as described.



4. A hollow ram for hydraulic jacks, consisting of a single forging having an integral bottom and a pump cylinder integral with and rising from the bottom, said pump cylinder being of smaller diameter than the inner wall of the ram, providing an annular space between them, substantially as described.

941,871. PNEUMATIC TIRE. CLAUDE M. GAUTIER, Putney, London, England. Filed June 25, 1908. Serial No. 440,292.



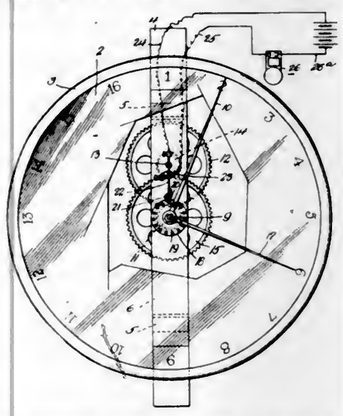
1. In a tire cover the combination of a plurality of transverse strands or threads, a bead at each edge, and hooks upon the ends of the strands shaped to the contour of the beads obtaining on that side remote from the air chamber and embracing the beads, the hooks of one strand being independent of the hooks of the other strands, substantially as set forth.

2. In a tire cover the combination of a plurality of transverse strands or threads disposed in two layers, each strand arranged to form the upper layer on one side of the tread and the lower layer on the other side, and hooks upon the ends of the strands shaped to the contour of the beads obtaining on that side remote from the air chamber and embracing the beads, substantially as set forth.

3. A tire, comprising a lining, a series of strands extending obliquely across the lining with their ends secured to the edges of the lining, and another series of strands extending obliquely across the lining at substantially right angles to the first-mentioned series with the ends of the strands secured to the edges of the lining, each strand extending across the outer side of another strand at one side of the lining and lying between a strand and the lining at the opposite side of the latter, substantially as described.

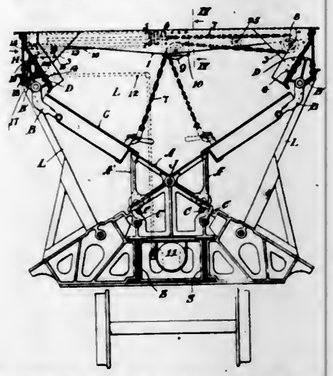
4. A tire cover comprising a lining, a series of strands extending obliquely across the lining with their ends connected to the edges of the lining and another series of strands extending obliquely across the lining at substantially right angles to the first mentioned series and connected to the edges of the lining, the strands of one series lying external of the other series at one side of the lining and beneath the other series at the opposite side of the lining.

941,872. INDICATOR. HARRY E. GOLDEN, Dunbar, Pa. Filed Feb. 6, 1909. Serial No. 476,403.



In an indicator, a casing, a shaft therein, a hoisting shaft, means connecting the two shafts, a sleeve on the first shaft, a hand on the sleeve, a hand on the first shaft, means actuated by the first shaft for driving the sleeve and its hand at a lower speed than said first shaft, a disk on the sleeve, a pin on the disk, a stationary pawl actuated by the pin, a contact arm actuated by the pawl, a fixed contact engageable by the contact arm, wires connected with the contact arm and the fixed contact and an alarm connected to the wires.

941,873. VALVE-REPLACING APPARATUS. EDWARD W. GOODWIN, Bensonhurst, N. Y., assignor to Goodwin Car Company, New York, N. Y., a Corporation of Illinois. Filed Aug. 10, 1907. Serial No. 387,979.



1. The combination in a dumping car having a cargo receptacle provided with gravity dumping valves, of a valve replacing means comprising a cylinder and piston mounted upon a retaining wall of the cargo receptacle, a chain connected to said piston adapted for attachment to a valve, a cross member spanning said cargo receptacle and a sheave for said chain supported at the center of said cross-member.

2. In a dumping car having a cargo receptacle provided with dumping valves, the combination of a plate member secured adjacent to one of the walls of the cargo receptacle and forming a housing therewith, a cylinder and piston within said housing, a sheave centrally supported above said dumping valves and a chain on said sheave operated by said cylinder and piston and adapted for attachment to the said dumping valves.

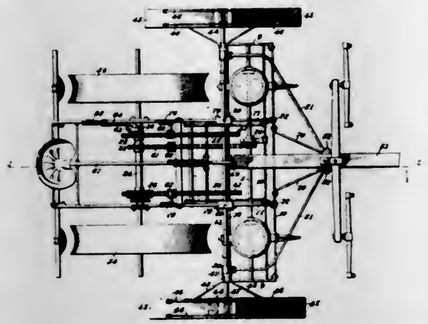
3. In a dumping car having a cargo receptacle and dumping valves, the combination with one of the bulkheads of said receptacle, of a cross-brace parallel thereto, a cylinder and piston confined between said parts, and a flexible member connected with said piston adapted for attachment to a dumping valve for replacing the same in closed position.

4. In a dumping car having a cargo receptacle and dumping valves therefor, the combination with one of the bulkheads, of a cross-member forming therewith a transverse housing, a cylinder and piston secured at one end of said housing, a sheave at the other end thereof, a central sheave and a flexible member connected to said piston, trained over said sheaves and adapted for attachment to a dumping valve.

5. In a dumping car having inclined side floors and dumping valves, the combinations with one or more valve-replacing cylinders and pistons therefor provided with means for connection to said valves, means for supplying fluid pressure to said cylinders and a controlling shaft for such pressure supply located beneath said inclined side floors and having operating means at the end of the car.

[Claims 6 to 12 not printed in the Gazette.]

941,874. CORN-PLANTER. GROVER M. GORMAN, Anamosa, Iowa. Filed June 9, 1909. Serial No. 501,025.



A corn planter, comprising a carrying frame mounted on an axle having carrying wheels, upon one of which the said axle is fixedly mounted; a runner frame pivotally supported on said carrying frame; a planting mechanism mounted on said runner frame embodying a shaft disposed in parallel relation to said axle; a marking mechanism supported on said runner frame, embodying a driving shaft mounted in said runner frame and disposed in parallel relation to said axle; marker wheels consisting of a plurality of flat, blade-like extensions fixedly mounted on said driving shaft and disposed to be inserted in the ground at intervals corresponding to the dropping of the planting mechanism and in line therewith; an elongated sleeve rotatably mounted on said axle covering the median portion and extended to each side thereof; a clutch member fixedly mounted on the one end of said sleeve; a ratchet member fixedly mounted on the opposite end of said sleeve; two sprocket wheels of equal diameter mounted fixedly on said sleeve; two sprocket wheels fixedly mounted upon the said shaft of said marking mechanism, said sprocket wheels being suitably related to the sprocket wheels on said sleeve to produce a desired rotative relation of the shaft to the sleeve; endless sprocket chains connecting the said sprocket wheels on said shaft and said sleeve; a clutch member slidably mounted on said axle disposed to engage said clutch member fixedly attached to said sleeve; a pawl mechanism rotatively mounted on said axle to engage said ratchet; and a lever pivotally mounted on said axle connected with said pawl mechanism and embodying means for rocking said lever in adjusted position.

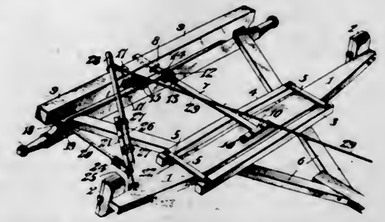
941,875. WEAR-STRIP AND RETAINER FOR SECURING COVERINGS TO THE FRAMES OF CAR-SEATS. FRED H. HENRY, Philadelphia, Pa., assignor to John A. Brill, Philadelphia, Pa. Filed Dec. 4, 1906. Serial No. 346,251.



1. The combination in a car seat, of a frame having a groove in its under side, a cover underlapping the frame and extending into the groove, a metallic channel wear strip, the channel portion of the wear strip entering the groove and confining the covering to the frame, said wear strip having an extended flange on each side overlapping the covering and the frame beyond the channel, and a headed retaining means driven through the base of the channel section into the frame of the seat, substantially as described.

2. The combination in a car seat, of a frame having a groove in its underside, a covering underlapping the frame and extending into the groove, a metallic channel wear strip, the channel portion of the wear strip entering the groove and confining the covering to the frame, said strip having a flange extending to the edge of the seat, and a lip on the flange projecting upward and protecting the covering at the edge of the seat, and a headed retaining means driven through the base of the channel section, substantially as described.

941,876. VEHICLE-BRAKE. WILLIAM T. HINSHAW, Valley Station, Ky. Filed Dec. 18, 1908. Serial No. 468,195.



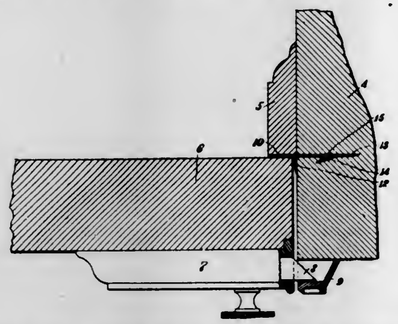
In a vehicle brake, the combination with a running gear provided in its rear bolster with a guide opening, of a guide frame secured to and extending across the rear bounds, a brake beam slidable in the guide frame, a longitudinal bar passing through the guide opening of the rear bolster and having its front end rigidly secured to the brake beam, a horizontal transverse lever fulcrumed between its ends on the running gear and connected at its inner end with the longitudinal bar, a support secured to the brake beam and extending rearwardly from the same at one side of the vehicle, a lever fulcrumed at its lower end to the support, and means located at an intermediate point between the ends of the lever for connecting the latter with the outer arm of the transverse lever.

941,877. SAFETY-GUARD FOR LOCKS AND LATCHES. GEORGE E. HOSCH, New York, N. Y. Filed July 2, 1909. Serial No. 505,640.

1. A device of the character described, comprising a plate of sheet metal provided with a tongue and also provided with ears projecting in a direction lateral to the general direction of said tongue, said ears being slightly rounded and provided with sharp edges to be driven slightly into a soft material.

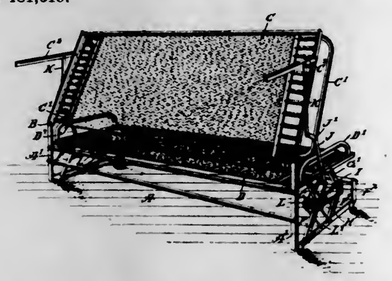
2. A device of the character described, comprising a plate of sheet material provided with a tongue having a

sharp edge, said plate being further provided with ears extending laterally from it, said tongue having a beard integral with it and inclining slightly away from the



general plane occupied by it for the purpose of preventing the too easy extraction of said tongue from a material into which it may be driven.

941,878. CONVERTIBLE COUCH AND BED. LEWIS B. JEFFCOTT, New York, N. Y. Filed Mar. 6, 1909. Serial No. 481,615.



1. A convertible couch and bed comprising a frame, a bed section pivoted thereon, a second bed section, and a raising and lowering mechanism connected with the said frame and the said second bed section for raising and lowering the same, the said bed sections when in extended position ranging one alongside the other to form a double bed, and when in folded position being one above the other and spaced apart to accommodate the bed clothes between them, the bed sections having end rails one resting on the other when the bed sections are in folded position.

2. A convertible couch and bed comprising a frame open at one side, a bed section mounted in the frame to raise and lower and provided with end rails, a second bed section pivoted to the frame and provided with end rails resting on the end rails of the first named section when the sections are in folded position, and means for raising and lowering the said section from the pivoted section.

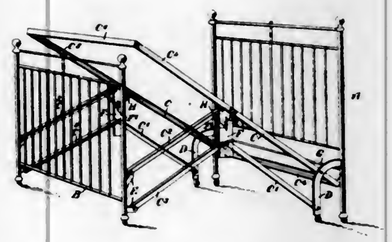
3. A convertible couch and bed comprising a frame, a bed section pivoted thereon, a second bed section, a raising and lowering mechanism connected with the said frame and the said second bed section for raising and lowering the same, the said bed sections when in extended position ranging one alongside the other to form a double bed, and when in folded position being one above the other and spaced apart to accommodate the bed clothes between them, the bed sections having end rails, one resting on the other when the bed sections are in folded position, levers connecting the said mechanism with the end rail of the pivoted bed section, folding legs on the said pivoted bed section, and links connecting the folding legs with the said levers.

4. A convertible couch and bed comprising a frame, a bed section in the frame, raising and lowering mechanism for said section, a second section pivoted to the frame and adapted to fold upon the first section or to extend alongside of said section to form a double bed, said pivoted section being provided with hinged legs, and means connecting the pivoted section and its legs with the raising and lowering mechanism, whereby the legs of the pivoted section will be folded or opened and the section in the frame raised or lowered according as the pivoted section is extended or folded.

5. A convertible couch and bed comprising a frame, a bed section in the frame, a raising and lowering mechanism for the section, a second bed section pivoted to the frame and adapted to fold upon the first section or extend alongside of the same to form a double bed, said pivoted section being provided with pivoted legs, means for operating the raising and lowering mechanism from the pivoted bed section, and a connection between the legs and the said means, whereby the legs will be operated thereby.

[Claims 6 and 7 not printed in the Gazette.]

941,879. FOLDING BED. LEWIS B. JEFFCOTT, New York, N. Y. Filed May 3, 1909. Serial No. 493,486.



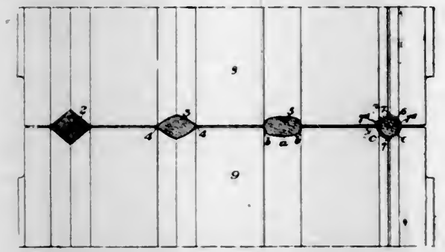
1. A folding bed consisting of a head and a foot, side rails consisting of upper and lower bars connecting the head and the foot, said bars being divided at their centers, an intermediate leg at the center of the bars, and to which the adjacent ends of said bars are pivoted, the ends of the sections of the upper bar at one end of the bed being connected adjacent to said end, and provided with a lateral support for the purpose specified, said bars being also connected at the other end and extended for the purpose specified.

2. A folding bed consisting of a head and a foot, side rails consisting of upper and lower bars connecting the head and the foot, said bars being divided at their centers, an intermediate leg at the center of the bars, and to which the adjacent ends of said bars are pivoted, the ends of the sections of the upper bar at one end of the bed being connected adjacent to said end, and provided with a lateral support for the purpose specified, said bars being also connected at the other end and extended for the purpose specified, said intermediate legs being longitudinally slotted, a pivot pin slidable in the slot, and braces pivoted to the pivot pin and to the respective sections.

3. A folding bed consisting of a head and foot, an intermediate leg at each side of the bed, sectional side rails connecting the intermediate leg with the head and the foot, each of said side rails consisting of upper and lower bars, the upper bars on one side of the intermediate legs being extended beyond the said leg to the opposite end of the bed and connected for the purpose specified.

4. A folding bed consisting of a head and a foot, an intermediate leg at each side of the bed, sectional bars connecting the legs with the head and the foot, and corresponding sections on each side of the bed being extended at one end for the purpose specified.

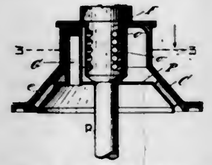
941,880. METHOD OF ROLLING RIBBED BARS. THOMAS W. JENKS, Avalon, Pa. Filed Apr. 25, 1907. Serial No. 370,210.



1. The method of rolling ribbed bars consisting in rolling a plain generally rectangular bar between suitable passes to provide an elongated cross section having terminal ribs and rounded end portions, and then reducing the bar by forcing the rounded end portions toward each other and forming supplemental longitudinal ribs between the first named ribs, substantially as described.

2. The method of rolling ribbed bars consisting in rolling a plain generally rectangular bar between suitable passes to provide an elongated cross section having terminal ribs and rounded end portions, and then reducing the bar by forcing the rounded end portions toward each other and forming supplemental longitudinal ribs between the first named ribs, and forming cross ribs connecting said longitudinal ribs, substantially as described.

941,881. CENTRIFUGAL CREAM-SEPARATOR. PERLEY L. KIMBALL, Bellows Falls, Vt., assignor to Vermont Farm Machine Company, Bellows Falls, Vt., a Corporation of Vermont. Filed Mar. 12, 1909. Serial No. 482,984.

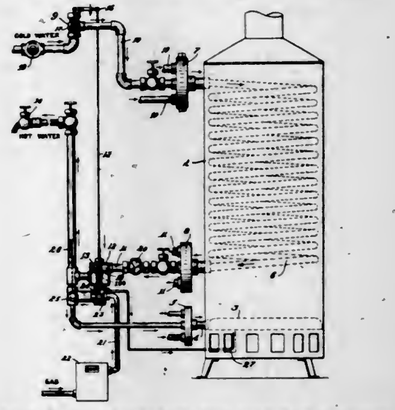


1. In a centrifugal cream separator, provided with an axially located cylindrical chamber in the upper part of the apparatus for the reception of the whole milk, milk outlets from the chamber extending through the walls thereof obliquely from its interior to its exterior surface in a direction opposite to that in which the separator is intended to revolve when in operation, and free unobstructed flow passages for the liquid within and without the walls of the chamber beyond the said milk outlets.

2. In a centrifugal cream separator, provided with an axially located cylindrical chamber in the upper part of the apparatus within the limits of the cover, for the reception of the whole milk, a plurality of milk outlets from said chamber extending through its walls obliquely from the interior to the exterior surface thereof in a direction opposite to that in which the separator is intended to revolve when in operation, and a chamber in the upper part of the cover which surrounds the cylindrical chamber and receives the milk which flows therefrom.

3. In a centrifugal cream separator, provided with a clamping rod extending down through and engaging the cover of the apparatus and being attached to the bottom of the bowl, a feed chamber at the upper part of the apparatus in the end of the clamping rod, a plurality of milk outlets from such chamber extending through its walls obliquely from the interior to the exterior surface thereof in a direction opposite to that in which the bowl is revolved when in operation, and a chamber in the upper part of the cover which surrounds said feed chamber and receives the milk which flows therefrom.

941,882. WATER-HEATER. BRYANT B. KINKADE, Berkeley, Cal. Filed Jan. 28, 1909. Serial No. 474,794.



1. A water heating apparatus, said apparatus including a single heater and a burner therefor, independent water inlet and coacting outlet pipes connecting with said heater, fuel supply pipes corresponding with each water inlet and discharge pipe, and mechanism permitting a flow of fluid through a particular one of the inlet pipes leading to the common heater when water is drawn from a particular one of the outlet pipes.

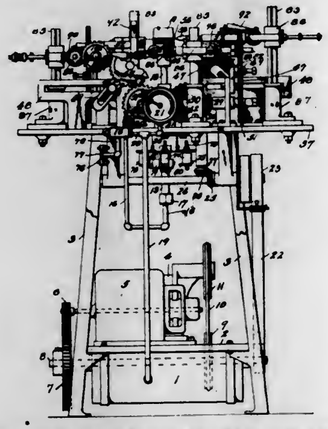
2. A water heating apparatus, said apparatus including a single heater and a burner therefor, independent water inlet and coacting outlet pipes connecting with the heater, fuel supply pipes corresponding with each water inlet and discharge pipe, and mechanism controlled by the opening of any discharge pipe for causing a flow of fluid to a particular one of the inlet pipes leading to the common heater, said mechanism automatically opening the corresponding gas supply passage to the burner.

3. A water heating apparatus, said apparatus including a single heater and a burner therefor, independent water inlet and co-acting outlet pipes, connecting with the heater, fuel supply pipes corresponding with each water inlet and discharge pipe, mechanism controlled by the opening of any particular water discharge faucet for permitting a flow of fluid through a particular one of the inlet pipes leading to the common heater, and connections actuated by the opening of said pipes, whereby fuel is admitted to the burner from the co-related fuel supply pipe.

4. In a water heating system the combination with a single heating coil and a burner therefor, of an independent series of water inlet and outlet pipes, means through which either series may be connected with the coil, a valve controlling each inlet, a cylinder and a plunger movable therein in the path of each discharge, connections between said inlet valves and co-acting plungers, gas supply pipes corresponding with each set of water pipes, means for connecting either gas pipe with the burner, valves controlling the flow of gas in each pipe, connections between each water controlling valve and plunger and its co-acting gas valve, thermostats subject to the action of the hot water flowing through either pipe when its faucet is opened, and connections therewith to a gas regulating valve.

5. In a water heating apparatus, a single heater and burner, a plurality of water supply and discharge pipes, chambers through which either pair of pipes may be connected with the heating coil, gas supply pipes corresponding with each water pipe system, a thermotsat in each system by which the co-acting gas valve is opened or closed, a valve controlling the water inlet, a piston in the path of the hot water outlet and actuated by the opening or closing of its faucet connection between said piston and the co-acting gas control, and connections between the water inlet and discharge valves, said valves having pressure balancing openings made in them.

941,883. GLASS-ETCHING MACHINE. ALBERT B. KNIGHT, Fairmont, W. Va. Filed May 6, 1909. Serial No. 494,358.



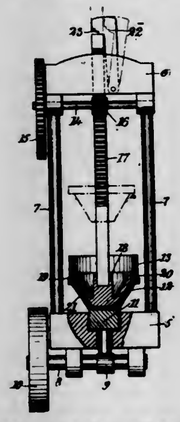
1. The combination in an etching device comprising an oscillatory carrier and incising points, of an extension on the carrier suitably supported, a cam lever on said extension, and a suitably actuated cam for rocking said lever to oscillate the incising points.

2. The combination in an etching device comprising an oscillatory carrier and incising points, of an extension on the carrier suitably supported, a cam lever on said extension, and a suitably actuated adjustable cam for rocking said lever to oscillate the incising points.

3. The combination with a carrier and its incising points and an extension on the carrier, a cam lever on said extension, a rotary shaft having an angular extension, a slotted cam block on said extension, and means for rotating said shaft to oscillate the incising points as described.

4. The combination with an etching device having a tubular extension and a shaft therein, a rocker arm on the extension, a rotary shaft having an angular extension, a slotted cam block adjustable on the extension and engaging the rocker arm, and means for rotating the second shaft to oscillate the etching device.

941,884. PULP-SHAPING MACHINE. ALBERT KOMP, New York, N. Y. Filed May 20, 1908. Serial No. 433,803.



1. In a machine for shaping pulp articles, a die having a piston head provided with a piston ring, and a thin flexible cover for the die having projecting ears adapted to be frictionally engaged between the piston head and ring.

2. In a machine for shaping pulp articles, the combination of two dies between which the article is formed, means for moving one die toward the other, and means for locking the other die successively closer to the first mentioned die after each movement thereof.

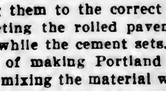
3. In a machine for shaping pulp articles, the combination of two dies between which the article is formed, means for repeatedly moving one die toward the other, and an arm having a stepped end for locking the other die successively closer to the first mentioned die after each movement thereof.

4. In a machine for shaping pulp articles, the combination of two dies between which the article is formed, means for reciprocating one of said dies, and means for locking the other die closer to the first mentioned die after each reciprocation thereof.

5. In a machine for shaping pulp articles, the combination of two dies, a reciprocating member carrying one of said dies, and a device for engaging said member and locking the die carried thereby in positions successively closer to the other die after each application of pressure to the article.

[Claims 6 and 7 not printed in the Gazette.]

941,885. DOOR-STOP. WILLIAM LA BAW, Asbury Park, N. J. Filed May 12, 1909. Serial No. 495,539.



In combination with a door, a wedge-shaped stop pivotally secured to the floor at its thinner end, said thinner end being located directly under said door near the outer corner thereof when the door is in a predetermined open position, whereby said stop can be moved into either an operative or an inoperative position without coming in contact with said door.

941,886. PROCESS OF LAYING CONCRETE PAVEMENTS. FRANKLIN S. LAMSON, Washington, D. C., assignor to Cosmos Construction Company, Inc., Washington, D. C., a Corporation of the District of Columbia. Original application filed Aug. 14, 1902, Serial No. 119,673. Divided and this application filed June 25, 1903, Serial No. 163,043. Renewed Mar. 6, 1907. Serial No. 360,884.

1. The process of Portland concrete pavement construction which consists in mixing the material with its temperature at about 39° to 32° F., giving the plastic mass concrete forms of varied figure—such as curb-forms, gutter-forms and main-pavement forms, and emplacing them while fresh in a pavement construction.

2. The process of Portland concrete pavement construction which consists in mixing the material with its temperature at about 39° to 32° F., giving the plastic mass concrete forms of varied figure, emplacing them while fresh in a pavement construction, and by rolling pressure bringing them to correct contour.

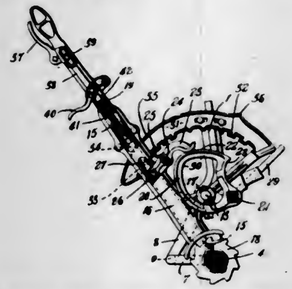
3. The process of making Portland concrete pavement which consists in mixing the material with its temperature at about 39° to 32° F., giving the plastic mass concrete forms of regular size, laying them while fresh upon a prepared bed, and rolling them to the correct contour while still fresh.

4. The process of making Portland concrete pavement which consists in mixing the material with its temperature at about 39° to 32° F., giving the plastic mass concrete forms of regular size, laying them while fresh upon a prepared bed, rolling them to the correct contour while still fresh, and blanketing the rolled pavement with non-conducting material while the cement sets.

5. The process of making Portland concrete pavement which consists in mixing the material with its temperature at about 39° to 32° F., giving the plastic mass concrete forms of regular size, laying them while fresh on a prepared bed, rolling them to the correct contour while still fresh, and subsequently applying to the rolled pavement additional pressure during the period of the setting of the cement, to impart additional density and hardness to the pavement.

[Claims 6 to 9 not printed in the Gazette.]

941,887. SULKY-PLOW. WILLIAM H. LEE, Syracuse, N. Y., assignor to Syracuse Chilled Plow Company, Syracuse, N. Y., a Corporation of New York. Filed July 23, 1909. Serial No. 509,093.



1. In a sulky plow, a frame, ground wheels supporting the frame, an earth-turning element connected to the frame, means for raising the earth-turning element comprising a clutch member shiftable into and out of connection with one of the ground wheels and being normally out of connection therewith, and means for shifting the clutch member into connection with one of the ground wheels to cause the first-mentioned means to raise the earth-turning element, the second-mentioned means including an engaging part associated with the clutch member, a movable cam supported by the frame and coacting with the engaging part, the cam being movable relatively to the frame and the engaging part for actuating the engaging part to move the clutch member into connection with said one of the ground wheels, and the engaging part being movable relatively to the cam and coacting therewith during said raising of the earth-turning element, and an operating element connected to the cam, substantially as and for the purpose described.

2. In a sulky plow, a frame, ground wheels supporting the frame, an earth-turning element connected to the frame, means for raising the earth-turning element comprising a movable part connected to the frame, and a clutch member carried by said part and shiftable into and out of connection with one of the ground wheels and being normally out of connection therewith, and means for shifting the clutch member into connection with one of the ground wheels to cause the first-mentioned means to raise the earth-turning element, the second-mentioned means including a power transmitting lever pivoted to said movable part and connected to the clutch-member, a cam pivoted to the frame and coacting with said lever, the cam being movable about its pivot relatively to the frame and the power transmitting lever for actuating said lever to move the clutch member into connection with said one of the ground wheels, and the power transmitting lever being movable on its pivot relatively to the cam and coacting therewith during said raising of the earth-turning element, and an operating element connected to the cam, substantially as and for the purpose specified.

3. In a sulky plow, a frame, ground wheels supporting the frame, an earth-turning element connected to the frame, means for raising the earth-turning element comprising a movable part connected to the frame, and a clutch member carried by said part and shiftable into and out of connection with one of the ground wheels and being normally out of connection therewith, and means for shifting the clutch member into connection with one of the ground wheels to cause the first-mentioned means to raise the earth-turning element, the second-mentioned means including a power transmitting lever pivoted between its ends to said movable part, and having one arm thereof connected to the clutch member, a cam pivoted to the frame and having an eccentric surface coacting with the other arm of the lever, the cam being movable about its pivot relatively to the frame and the power transmitting lever for causing the eccentric surface of the cam to actuate said lever to move the clutch member into connection with one of the ground wheels, and the power transmitting lever being movable on its pivot relatively to the cam and sliding along the eccentric surface thereof during said raising of the earth-turning element, and an operating element connected to the cam, substantially as and for the purpose set forth.

4. In a sulky plow, an axle having a spindle and two crank portions, a ground wheel loosely mounted on the spindle, a frame carried by one crank portion of the axle, an earth-turning element having a beam connected to the other crank portion of the axle, means for raising the earth-turning element comprising a lever mounted on the spindle and pivoted to the frame, a clutch member carried by the lever and shiftable into and out of connection with the ground wheel and being normally out of connection therewith, and means for shifting the clutch member into connection with the ground wheel including a power-transmitting part carried by the lever and connected to the clutch member, a cam pivoted to the frame and having an eccentric surface slidably coacting with the power-transmitting part during the raising of the earth-turning element and an operating element connected to the cam, substantially as and for the purpose specified.

5. In a sulky plow, an axle having a spindle and two crank portions, a ground wheel loosely mounted on the spindle, a frame carried by one crank portion of the axle said crank portion being provided with engaging means, an earth-turning element having a beam connected to the other crank portion of the axle, means for raising the earth-turning element comprising a lever mounted on the spindle and pivoted to the frame, a clutch member carried by the lever and shiftable into and out of connection with the ground wheel and being normally out of connection therewith, and means for shifting the clutch member into connection with the ground wheel including a power-transmitting part carried by the lever and connected to the clutch member, a cam pivoted to the frame and having an eccentric surface slidably coacting with the power-transmitting part during the raising of the earth-turning element and an operating element connected to the cam, said cam having an opening for receiving the engaging means on the crank portion of the axle carrying the frame, opposite walls of said opening being movable into engagement with said engaging means to limit the movement of the cam by the operating element, substantially as and for the purpose set forth.

[Claims 6 to 9 not printed in the Gazette.]

941,888. ANTISEPTIC. ARTHUR LIEBRECHT, Frankfort-on-the-Main, Germany, assignor to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany, a Corporation of Germany. Filed Aug. 6, 1908. Serial No. 447,298.

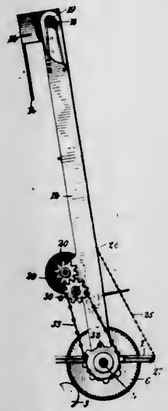
1. Process for manufacturing new antiseptics which consists in heating mono-chloro-m-cresol of the constitution $C_6H_3 : CH_3 : OH : Cl = 1 : 3 : 6$ with soap solutions.

2. As new products, the highly concentrated soap solutions of the above mentioned mono-chloro-m-cresol, being a clear slightly colored liquid which can be mixed with water in any proportion and affords clear solutions with water in the proportions usually employed for antiseptic purposes.

941,889. PAPER-FEED FOR TYPE-WRITERS. ESTON S. MANSFIELD, Atlanta, Ga. Filed Nov. 24, 1908. Serial No. 464,278.

1. A typewriter having a platen roller and a frame supporting said roller, in combination with an open rectangular feed frame supported on said first frame and

extending upwardly therefrom, said feed frame having a transverse keeper bar at the upper end thereof, adapted to support the upper end of a pad of sheets, a pressure frame pivotally supported on said feed frame near the upper portion thereof and adapted to engage the lower part of the pad of sheets, a feed roller mounted in said feed frame near the lower portion thereof, springs forcing said presser frame against said pad and toward said feed roller, a foot bar mounted in said feed frame adapted to support the lower edges of the sheets of paper held in said feed frame, and means for rotating said feed roller.

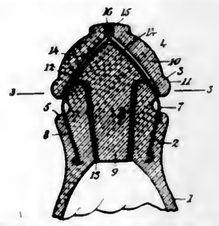


2. A typewriter having a platen roller and a frame supporting said roller, said platen roller having a shaft with projecting extremities, a sprocket wheel mounted on said shaft, a feed frame having arms pivotally mounted on said shaft extending upwardly and inclining rearwardly, a feed roller mounted in said feed frame, a foot bar disposed adjacent to said feed roller, a presser frame pivotally mounted in the upper part of said feed frame and adapted to press a pad of sheets against said feed roller, a sprocket chain passing over said sprocket wheel, means for driving said feed roller from said sprocket chain, and means for limiting the rearward movement of said feed frame.

3. A typewriter having a platen roller and a frame supporting the same, said platen roller having a shaft with projecting extremities, a feed frame having arms pivotally mounted on said shaft, said feed frame extending upwardly and inclining rearwardly, a chain connecting said feed frame with the forward part of said platen frame and limiting the rearward movement of said feed frame, a transverse feed roller mounted in said feed frame above said platen roller, a presser roller pivotally mounted on said feed frame and adapted to press the lower portion of a pad of sheets against said feed roller, a foot bar adjacent to said feed roller adapted to support the lower edge of said pad, a sprocket wheel mounted on said shaft and rotating with said platen roller, a sprocket wheel mounted on said feed frame adjacent to said feed roller, a pinion rigid with said last sprocket wheel, a pinion rigid with said feed roller meshing with said first pinion, and a sprocket chain connecting said sprocket wheels, the direction of rotation of said platen roller being such as to produce a tension in the side of said sprocket chain remote from said first chain whereby the feeding movement tends to maintain said feed frame in equilibrium.

941,890. TELLTALE-BOTTLE. ALBERT MIDBO and GUSTAV GULBRANDSON, New York, N. Y. Filed Feb. 17, 1909. Serial No. 478,367.

1. A receptacle having a mouth, a stopper closing said mouth, having a pocket opening out upon the face thereof and having branches leading downwardly from said pocket, and filaments secured in the wall of said receptacle and extending upwardly in said branches, said filaments being united by a twist formed in said pocket and substantially filling the same, said twist being disposed below the face of said stopper at said pocket.

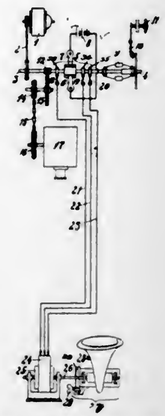


2. A receptacle having a mouth with a depression formed at the side thereof, a stopper closing said mouth, having a pocket opening out upon the face thereof, said pocket having branches extending downwardly within said stopper, and filaments embedded in the wall of said receptacle, exposed at said depression and passing upwardly in said branches, said filaments being interlocked in said pocket.

3. A receptacle having a mouth and an annular groove thereabout, a stopper forming a closure for said mouth, having branches extending upwardly within the same and uniting to form a pocket opening out on the face of said stopper, and filaments embedded in said receptacle, disposed across said annular groove and passing upwardly in said branches, said filaments forming a twist disposed within said pocket substantially filling said pocket.

4. A receptacle having a mouth, a stopper closing said mouth, having a pocket opening out upon the face thereof and having branches leading downwardly from said pocket, and filaments embedded in the wall of said receptacle, passing upwardly in said branches, said filaments having an exposed portion between said stopper and said receptacle adapted to be cut before removing the stopper, said filaments being united by a twist formed in said pocket and substantially filling the same, said twist being disposed below the face of said stopper at said pocket.

941,891. SYNCHRONIZING APPARATUS. PIETRO PIERINI, Rome, Italy. Filed May 16, 1908. Serial No 433,206.



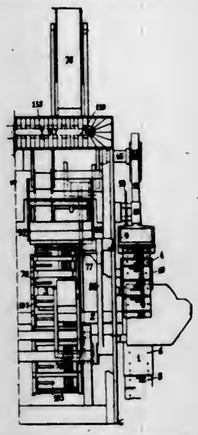
1. The combination with a kinematograph and a talking machine, of apparatus for effecting their synchronous operation comprising separate motors for the kinematograph, and for the talking machine, a transmission device for said kinematograph and automatic means controlled by the movement of the transmission device of said kinematograph for controlling the speed of the talking machine.

2. The combination with a kinematograph and a talking machine, of apparatus for effecting their synchronous operation comprising separate motors for the kinematograph and for the talking machine, a transmission device for said kinematograph and an electro-magnetic brake for said talking machine, said brake being controlled by the movement of the transmission device of said kinematograph.

3. The combination with a kinematograph and a talking machine, of apparatus for effecting their synchronous operation comprising separate motors for the kinematograph and for the talking machine, a transmission device for said kinematograph, a current distributer carried by said transmission device and an electro-magnetic brake controlled by said current distributer for checking the speed of the talking machine.

4. In an apparatus for synchronizing the operation of a kinematograph and a talking machine, a motor for said kinematograph, a transmission shaft and distributer, and a centrifugal brake on said transmission shaft, a motor for said talking machine, an electro-magnetic brake for retarding the movement of the talking machine motor, and an electrical connection between said electro-magnetic brake and said distributer whereby the brake is controlled by the distributer.

941,892. APPARATUS FOR THE CONTROL AND THE REGISTRATION OF THE OPERATIONS PERFORMED BY DISTRIBUTING-MACHINES. GEORGES I. F. SOULAGE, Paris, France, assignor to Société Universelle des Appareils Controleurs, Paris, France. Filed June 19, 1906. Serial No. 322,390.



1. In a device of the class described, the combination with the printing mechanism comprising an endless chain of impression blocks, each block bearing a ticket form and a check form, of means for supporting a strip of cardboard above the ticket form, means for supporting a strip of paper above the check form, an impression table above the strips, a device for totaling the amounts of the tickets sold, comprising a plurality of number wheels, a plurality of vertically movable plates corresponding in number to the number of the number wheels, a connection between the plates and the number wheels whereby the upward movement of said plates will rotate the number wheels, each of said plates having the upper end thereof provided with a plurality of steps or gradations corresponding in number to the digits, an endless chain comprising a plurality of hinged links, each of said links being provided with a plurality of slots of different lengths, the different lengths corresponding to the respective distances between the bases of the steps and the fronts of the plates, each of said links having slots corresponding in number to the number of digits in the price of a ticket and corresponding in length to that width of plate representing such digit, means for moving the chains in unison whereby to simultaneously place the impression block to be printed in position for making an impression, and the link corresponding thereto in position above the stepped plates, a grid above the link having an opening therein corresponding to the position of the stepped plates, and means for simultaneously operating the impression table to move the cardboard strip and the paper strip against the impression block and to operate the grid to move the link whereby to operate the plates.

2. In a device of the class described, the combination with the printing mechanism, comprising an endless chain of impression blocks, and means for supporting a strip of cardboard above the blocks, of a device for totaling the amounts of the tickets printed, comprising a plurality of number wheels, a plurality of vertically movable plates corresponding in number to the number of the number wheels, a connection between the plates and the number wheels whereby the upward movement of said plates will rotate the number wheels, each of said plates having the upper end thereof provided with a plurality of steps or gradations corresponding in number to the digits, an endless chain comprising a plurality of hinged links each of said links being provided with a plurality of slots of different lengths the different lengths corresponding to the respective distances between the bases of the steps and the front of the plates, each of said links having slots corresponding in number to the number of digits in the price of a ticket and corresponding in length to that width of plate representing such digit, means for moving the chains in unison, whereby to simultaneously place the impression block of the ticket to be printed in position for making an impression and the link corresponding thereto in position above the stepped plates, means for moving the link downwardly whereby to move the plates, and means for simultaneously moving the cardboard strip against the impression block and operating the link moving means.

3. In a device of the class described, the combination with the printing mechanism comprising an endless chain of impression blocks each bearing a ticket form, of a device for totaling the amounts of the tickets printed comprising a plurality of number wheels, a plurality of vertically movable plates corresponding in number to the number of the number wheels, a connection between the plates and the number wheels whereby the upward movement of said plates will rotate the number wheels, each of said plates having the upper end thereof provided with a plurality of steps or gradations corresponding in number to the digits, an endless chain comprising a plurality of hinged links, each of said links being provided with a plurality of slots of different lengths, the different lengths corresponding to the respective distances between the bases of the steps and the fronts of the plates, each of said links having slots corresponding in number to the number of the digits in the price of a ticket and corresponding in length to that width of plate representing said digits, means for moving the chains in unison whereby to simultaneously place the impression block of the ticket to be printed in position for making an impression and the link corresponding thereto in position above the stepped plates, means for moving the link downwardly whereby to move the plates, and means for simultaneously making the impression and operating the link moving means.

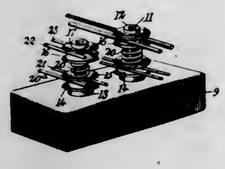
4. In a device of the class described, the combination with the printing mechanism comprising an endless chain of impression blocks each provided with a ticket form, of a plurality of number wheels, and means for operating the number wheels comprising a plurality of vertically movable plates corresponding in number to the number of the number wheels, each of said plates having the upper end thereof provided with a plurality of steps or gradations corresponding in number to the digits, a connection between the individual plates and the individual number wheels, an endless chain comprising a plurality of hinged links each of said links being provided with a

plurality of slots of different lengths the different lengths corresponding to the distances between the bases of the steps and the fronts of the plates, each of said links having slots corresponding in number to the number of digits in the price of a ticket and corresponding in length to that width of plate representing said digit, means for moving the chains in unison whereby to simultaneously place the impression block of the ticket to be printed in position for making an impression and the link corresponding thereto in position above the plates, and means for simultaneously depressing the link and making the impression.

5. The combination with the ticket printing mechanism, of a device for totaling the amounts of the tickets printed, comprising a plurality of number wheels, a plurality of vertically movable plates corresponding in number to the number of the number wheels, a connection between the plates and the number wheels whereby the upward movement of said plates will rotate the number wheels, each of said plates having the upper end thereof provided with a plurality of steps or gradations corresponding in number to the digits, an endless chain comprising a plurality of hinged links each of said links being provided with a plurality of slots of different lengths, the different lengths corresponding to the respective distances between the bases of the steps and the fronts of the plates, each of said links corresponding in number to the number of the digits in the price of a ticket and corresponding in length to that width of the plate representing said digit, means for moving the chain whereby to place the link in position above the stepped plates, and means for simultaneously depressing the links and operating the printing mechanism.

[Claims 6 to 10 not printed in the Gazette.]

941,893. BINDING-POST. LOUIS STEINBERGER, New York, N. Y. Filed Apr. 2, 1909. Serial No. 487,398.



1. A binding post, comprising a stem, clamping plates encircling the same, means for preventing the easy removal of said clamping plates from said stem, and a spring for pressing said clamping plates apart in the general direction of said stem.

2. A binding post, comprising a body portion provided with a flange, and further provided with a portion for connecting said body portion with a base, said stem being further provided at its end opposite said flange with another flange, clamping plates disposed intermediate said flanges, and a spring member disposed intermediate said clamping plates.

3. A binding post, comprising a pair of movable clamping plates having their edges cupped in opposite directions to facilitate the entrance of a wire intermediate said clamping plates, and means for pressing one of said clamping plates toward the other.

4. A binding post, comprising a pair of movable clamping plates, a stem threaded through said clamping plates, and a spring disposed intermediate said clamping plates for forcing the same in opposite directions.

5. A binding post, comprising a stem provided with a flange, a movable clamping plate encircling said stem and disposed adjacent to said flange which forms a limiting stop therefor, a second movable clamping plate, and means for forcing said second clamping plate toward said first-mentioned clamping plate by spring tension.

[Claims 6 to 17 not printed in the Gazette.]

941,894. FRAME. LLEWELLYN B. STETSON, Bellevue, Wash. Filed Feb. 20, 1909. Serial No. 479,234.



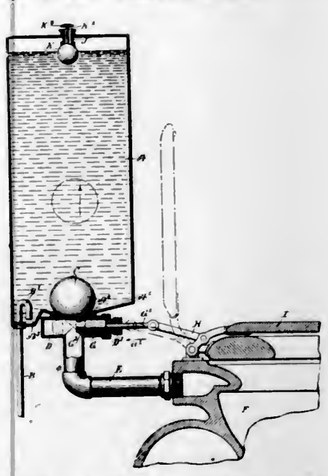
1. A device of the class described, comprising a plurality of uprights adapted to be driven into the ground, each upright having arms pivotally and adjustably secured thereto, means for holding said arms extended, and further means for supporting the branches of a vine.

2. A device of the class described, comprising uprights, arms pivotally and adjustably secured to said uprights, flexible means for holding said arms extended, each arm having a plurality of studs arranged thereon, and supports connecting the arms of adjacent uprights, said supports being held in place by means of said studs.

3. A device of the class described, comprising an upright having a longitudinal series of openings, a plurality of arms, each provided with an opening adapted to register with the opening of the other arm and with one of the openings of the series, a pin for traversing the registering openings, and a jointed link connecting the free end of each arm with the top of the standard.

4. A device of the class described, comprising an upright having a longitudinal series of openings, a plurality of arms, each provided with an opening adapted to register with the opening of the other arm and with one of the openings of the series, a pin for traversing the registering openings, and a jointed link connecting the free end of each arm with the top of the standard, said arms being provided at spaced intervals on their upper edges with studs for the purpose set forth.

941,895. TANK. EDWIN E. STRAW, Marshfield, Oreg. Filed Apr. 2, 1909. Serial No. 487,418.

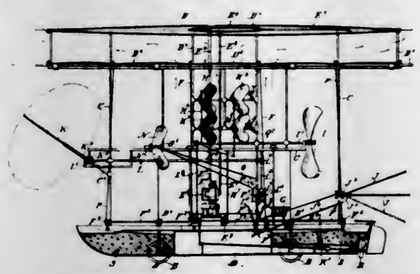


1. A flushing or filling tank, comprising a closed receptacle connected with a water supply and provided in its bottom with a valve seat, a float valve within the said vessel and adapted to seat itself on the said valve seat at the time the vessel is empty, a valve casing underneath the said valve seat and intersecting the same to allow the said float valve to extend into the valve casing, and a shiftable valve mounted to slide in the said valve casing and having a tapering end adapted to engage the said float valve and lift it off its seat.

2. A flushing or filling tank, comprising a closed receptacle connected with a water supply and provided in its bottom with a valve seat, a float valve within the said vessel and adapted to seat itself on the said valve seat at the time the vessel is empty, a valve casing underneath the said valve seat and intersecting the same to allow the said float valve to extend into the valve casing, a shiftable valve mounted to slide in the said valve casing and having a tapering end adapted to engage the said float valve and lift it off its seat, and a connection between the said shiftable valve and the cover for a water closet, to actuate the said shiftable valve on opening and closing the said cover.

3. A flushing or filling tank comprising a closed receptacle connected with a water supply and provided in its bottom with a valve seat, a float valve within the vessel and coöperating with the seat, a transversely movable valve beneath the seat and adapted to close the opening through the valve seat, said valve having a tapering end for engaging and unseating the float valve.

941,896. AERIAL VESSEL. JACOB SUTER, Jersey City, N. J. Filed Nov. 27, 1908. Serial No. 464,688.



1. An aerial vessel, comprising a body, a frame-work rising from the said body, spaced aeroplanes supported on the said frame-work one above the other, the lower one having a central opening, a motor on the said body, and inclined wings mounted to swing on the said frame-work below the opening in the said lower aeroplanes, the wings being actuated by the said motor.

2. An aerial vessel, comprising a body, a frame-work rising from the said body, spaced aeroplanes supported on the said frame-work one above the other, the lower one having a central opening and the upper one being inflatable, a motor on the said body, wings mounted to swing on the said frame-work below the opening in the said lower aeroplane, means for operating the wings from the said motor, a heating chamber in the said upper aeroplane, and a pipe connecting the exhaust of the said motor with the said heating chamber.

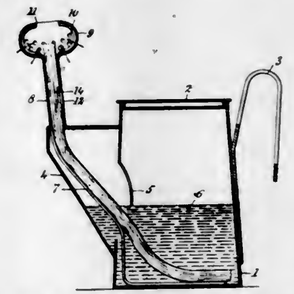
3. An aerial vessel, comprising a body, a frame-work rising from the said body, spaced aeroplanes supported on the said frame-work one above the other, the lower one having a central opening, a motor on the said body, wings mounted to swing on the said frame-work below the opening in the said lower aeroplane, and a propeller wheel mounted on the rear of the said frame-work and driven from the said motor for propelling the vehicle.

4. An aerial vessel, comprising a body, a frame-work rising from the said body, spaced aeroplanes supported on the said frame-work one above the other, the lower one having a central opening, a motor on the said body, wings mounted to swing on the said frame-work below the opening in the said lower aeroplane, a propeller wheel mounted on the rear of the said frame-work and driven from the said motor for propelling the vehicle, and manually-controlled up and down swinging rudders on the rear of the frame-work for directing the aerial vessel up or down.

5. An aerial vessel, comprising a body, a frame-work rising from the said body, spaced aeroplanes supported on the said frame-work one above the other, the lower one having a central opening, a motor on the said body, wings mounted to swing on the said frame-work below the opening in the said lower aeroplane, a propeller wheel mounted on the rear of the frame-work and driven from the said motor for propelling the vehicle, and a manually-controlled disk rudder held turnable on the front of the said frame-work.

[Claims 6 to 15 not printed in the Gazette.]

941,897. MINER'S LAMP. JOHN VAN LIEW and ADLETIA M. VAN LIEW, Houghton, Mich. Filed Mar. 31, 1909. Serial No. 487,032.



1. A lamp having a metal wick tube, and a combustion chamber at the upper end thereof, said wick tube being oblong in cross section, and said combustion chamber being substantially cylindrical in form and extending transversely of said tube with its ends adjacent the opposite edges of the tube, the opposite curved sides of said combustion chamber being spaced apart along their upper edges to leave a flame outlet, and formed integral with the opposite sides of said wick tube at their lower edges, said combustion chamber having stiffening corrugations extending upwardly over said curved sides and having a plurality of air inlet openings in the lower portions of said ends and curved sides.

2. A lamp having a sheet metal wick tube, and a combustion chamber at the upper end thereof, said wick tube being oblong in cross section, and said combustion chamber being substantially cylindrical in form and extending transversely of said tube with its ends adjacent opposite edges of the tube, the opposite curved sides of said combustion chamber being spaced apart along their upper edges to leave a flame outlet and being carried solely by said tube, said combustion chamber having stiffening corrugations extending upwardly over said curved sides and having a plurality of air inlet openings in the lower portions of said ends and curved sides.

3. A lamp of the class described, comprising a body for the fuel and provided with supporting means, a spout communicating with the body and having a reduced wick tube extending upwardly therefrom, and provided with openings on one face thereof for the purpose set forth, a support for the wick extending from the outer side of the inner end of the wick tube into the body of the lamp, the free end of said wick tube having a substantially cylindrical combustion chamber arranged with its axis transversely of the tube, and provided on its upper side with a longitudinal opening, the said chamber having openings at the sides and ends thereof.

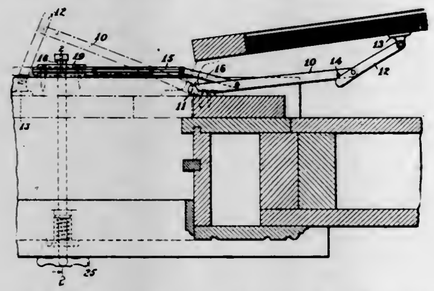
4. A lamp of the class described comprising a body for the fuel, a spout communicating with the body and having a reduced wick tube extending upward therefrom, and a support for the wick integral with the tube and extending into the body of the lamp, said tube being provided at its free end with a combustion chamber, whose walls are integral with the wick tube for the purpose specified.

941,898. CLOTHES-LINE HANGER. GEORGE T. VAN RIPER, Freeport, N. Y. Filed Aug. 4, 1908. Serial No. 446,881.



A clothes line hanger comprising a shaft having a plurality of angular necks formed thereupon of greater dimension than the body of said shaft, a plurality of collars mounted respectively upon said necks having angular openings causing said collars to rotate with said shaft when seated on said necks, said collars being adapted to permit the rotation of said shaft therethrough when displaced from said necks, and a plurality of clothes lines attached to said collars and adapted to rotate thereupon.

941,899. SHUTTER-OPERATOR. AUGUST WEBER, Long Branch, N. J. Filed Apr. 21, 1909. Serial No. 491,272.



1. A shutter operator having a longitudinally-movable rack bar adapted to be secured to a window sill, a lever pivoted to the window sill, a link connecting said rack bar and said lever, a link connecting said lever and the outer surface of said shutter, and means for moving said rack bar longitudinally.

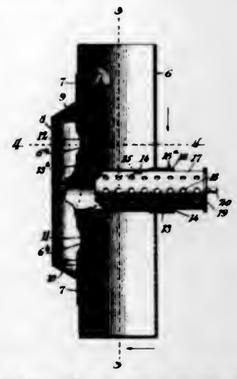
2. A shutter operator having a longitudinally-movable rack bar adapted to be secured to a window sill, a lever pivoted to the window sill adjacent the hinge of the shutter and extending outwardly adjacent the outer surface of said shutter, a link connecting said rack bar and said lever, means for connecting the outer surface of the shutter and said lever, and means for moving said rack bar longitudinally.

3. A shutter operator having a longitudinally-movable rack bar adapted to be secured to a window sill substantially parallel to the plane of the window, a lever pivoted to the window sill and extending outwardly adjacent the outer surface of the shutter, connections between said rack bar and said lever, connections between said lever and said shutter, and a pinion in engagement with said rack bar for moving the latter longitudinally.

941,900. COMBINED VENTILATOR AND SMOKE-CONSUMER. JAMES WOOD, Noroton, Conn. Filed Oct. 21, 1908. Serial No. 458,797.

1. The combination of a smoke pipe of substantially cylindrical form, a smoke box having a concave surface fitting upon said smoke pipe, said smoke pipe and said smoke box having openings in registry with each other for the purpose of passing smoke from said smoke pipe through said smoke box, a tube mounted upon said smoke box and extending diametrically through said smoke pipe, and means controllable at will for regulating a draft of air through said tube and into said smoke box.

2. The combination of a smoke pipe, a smoke box mounted thereupon and adapted to convey smoke from one part of said smoke pipe to another part thereof, a tube connected with said smoke box and extending through said smoke pipe at a point intermediate said parts thereof, a second tube mounted telescopically in relation to said first-mentioned tube, and a third tube mounted telescopically in relation to said first-mentioned tube and said second-mentioned tube, said third mentioned tube being provided with perforations and movable by hand relatively to the other tubes for the purpose of controlling the supply of air into said smoke box.



3. The combination of a smoke pipe, a tube extending therethrough and provided with openings for facilitating the passage of air and gases directly through said smoke pipe, a tube mounted telescopically within said first-mentioned tube for the purpose of controlling the amount of air and gases passing through said smoke pipe, and a perforated tube mounted within said second-mentioned tube and movable relatively to the same for the purpose of controlling the inflow of air into said second-mentioned tube.

4. The combination of a smoke pipe, a tube extending therethrough and provided with openings for facilitating the passage of air and gases within said smoke pipe, and throat plates mounted within said smoke pipe and extending toward said tube in order to guide said smoke and gases into said openings.

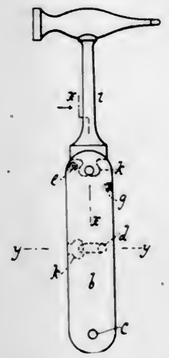
5. The combination of a smoke pipe, a smoke box connected with said smoke pipe at a pluralty of points, for the purpose of conveying the smoke from one part of said smoke pipe to another part thereof, a tube extending through said smoke pipe, a second tube telescopically fitting said first-mentioned tube and communicating with said smoke box, and also communicating with the open air, and means for securing said second-mentioned tube rigidly in relation to said first-mentioned tube.

[Claims 6 and 7 not printed in the Gazette.]

941,901. TOOL-HANDLE. EDWARD ZINN, Brooklyn, N. Y. Filed Apr. 20, 1909. Serial No. 491,111.

1. A tool handle comprising a pair of sections pivoted together at one end to permit a swinging movement thereof toward and from each other, and provided intermediate their ends with a pin-and-slot connection to limit their outward movement, one of said sections being formed with a seat arranged to receive the tang of a tool, said seat being covered by the other section when the said sections are closed together.

2. The combination, with a tool handle comprising a pair of sections pivoted together at one end for swinging movement toward and from each other in parallel planes, and provided intermediate their ends with a pin-and-slot connection to limit their outward movement, one of said sections having a seat formed in its inner face, which seat is covered by the other section when said sections are closed together; of a tool having a tang adapted to fit in said seat, said tool being separable bodily from said handle.



3. A tool handle comprising a pair of sections pivoted together at one end for swinging toward and from each other in parallel planes, one of said sections being provided upon its inner face with a tang-receiving seat and with a transverse slot, and a pin secured to the inner face of the other section and arranged to work in said slot, to limit the movement of said sections away from each other.

4. A tool handle comprising a pair of sections pivoted together at one end for swinging movement toward and from each other in parallel planes, one of said sections being provided upon its inner face with a tang-receiving seat which is open when said sections are moved away from each other and covered when said sections are closed together, each section having at its free end a seat and a stud arranged on opposite sides thereof and adapted for engagement with the stud and seat of the other section, to hold said sections in closed position.

5. A tool handle comprising a pair of sections pivoted together at one end for swinging movement across each other, one of said sections being provided upon its inner face with a tang-receiving seat which is open when said sections are moved away from each other and covered when said sections are closed together, a connection between said sections intermediate the ends thereof for limiting their movement away from each other, and an additional connection located at the other ends of said sections for limiting the inward movement thereof.

[Claim 6 not printed in the Gazette.]

941,902. AMUSEMENT DEVICE. ROBERT H. ALEXANDER, Paterson, N. J. Filed May 19, 1909. Serial No. 496,907.

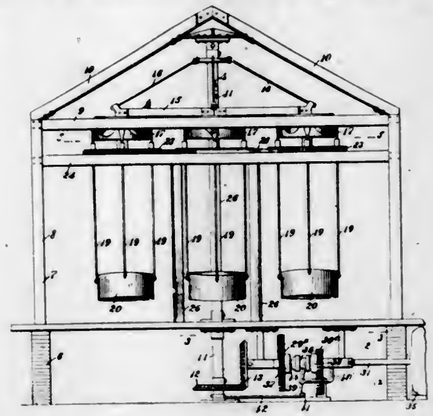
1. In an amusement device, the combination with a support, of a suspended passenger carriage, mechanical means adapted to move said carriage in an orbit, and mechanism adapted to transmit a rotary rocking motion to said carriage.

2. In an amusement device, the combination with a support, of a carriage, mechanical means adapted to cause a motion of said carriage in an orbit, and mechanism adapted to automatically reverse said motion.

3. In an amusement device, the combination with a support, of a carriage, mechanical means adapted to cause a motion of said carriage in an orbit, mechanism adapted to automatically reverse said motion, and means adapted to rotate said carriage about its own axis.

4. In an amusement device, the combination with a support, of a suspended passenger carriage, mechanical means adapted to rotate said carriage about its own axis in one direction, mechanical means adapted to automatically rotate said carriage in the opposite direction, and means adapted to rock said carriage.

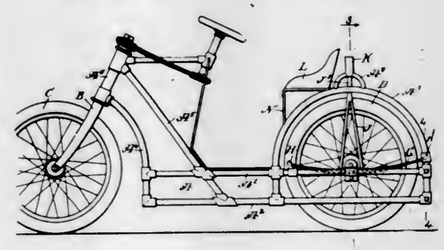
5. In an amusement device, the combination with a support, of a suspended passenger carriage, mechanism



adapted to rotate said carriage in an orbit, and mechanical means adapted to gyrate said carriage.

[Claims 6 to 19 not printed in the Gazette.]

941,903. MOTOR-CYCLE. JOHN E. ALLEN, Trenton, N. J. Filed Sept. 23, 1908. Serial No. 454,330.



1. A motor cycle provided with a frame, a rear wheel, longitudinally-extending semi-elliptical springs secured at their ends to the said frame, clips at the middle of the said springs for connection with the axle of the said rear wheel, and a rear fork having its members connected with the said clips the frame having a bearing with which the shank of the fork engages.

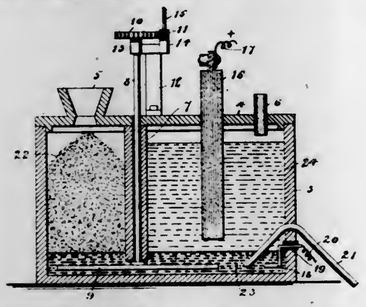
2. A motor cycle provided with a frame, a rear wheel, longitudinally-extending semi-elliptical springs secured at their ends to the said frame, clips at the middle of the said springs for connection with the axle of the said rear wheel, and a rear fork having its members connected with the said clips, the frame having a bearing with which the shank of the fork engages, the said clips having a sliding engagement with the said frame.

3. A motor cycle provided with a frame, a rear wheel, longitudinally-extending semi-elliptical springs secured at their ends to the said frame, clips at the middle of the said springs for connection with the axle of the said rear wheel, and a rear fork having its members connected with the said clips, the frame having a bearing with which the shank of the fork engages, the said clips fitting, with their outer faces, sliding against the inner faces of the bearings on the sides of the frame.

4. A motor cycle frame, comprising sides, each formed of a pair of longitudinally-extending side bars located one above the other, and an arched bar having its terminals secured to the said longitudinal bars of the corresponding

side bars, cross bars connecting the said longitudinal bars and the said arched bars with each other, a steering head, lower braces, and upper braces, the said braces connecting the said side bars with the said steering head.

941,904. PROCESS FOR TREATING CERTAIN ORES. HERBERT S. AUERBACH, New York, N. Y. Filed Sept. 6, 1906. Serial No. 333,415.



1. The method herein described of reducing an ore soluble in fused lead, which consists in forming a body of fused lead, resting a fused electrolyte upon said body of fused lead, adding directly to said body of fused lead an ore soluble therein, meanwhile preventing the direct contact of said ore with said fused electrolyte, and finally passing an electric current through both said fused electrolyte and said body of fused lead, said body of fused lead serving as a cathode.

2. The method herein described of reducing ores soluble in fused lead, which consists in forming a body of metal, supplying thereto the ore to be treated, forming an electrolyte above said body of metal and out of contact with said ore, connecting such ore as the cathode and reducing the ore by the passage of an electric current through said body of metal and through said electrolyte.

3. The method herein described of reducing certain ores herein named, which consists in forming a body of molten lead, resting upon said body of molten lead a fused haloid salt, adding to said body of fused lead an ore soluble therein, meanwhile preventing direct contact between said ore and said fused haloid salt, and finally sending an electric current through said fused haloid salt and said body of fused lead.

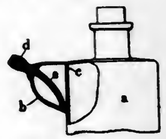
4. The method herein described of reducing galena, which consists in forming a body of fused lead covered by a fused electrolyte, bringing said galena directly into contact with said fused lead while preventing direct contact between said galena and said fused electrolyte, and finally passing an electric current through said electrolyte and through said body of fused lead, said body of fused lead serving as a cathode.

5. The method herein described of reducing galena, which consists in forming a body of fused lead, covering a part of said body of fused lead with a bath of fused haloid salt, leaving another part of said body of fused lead protected from said haloid salt, and bringing said part of said body of fused lead unprotected into engagement with said galena, and finally passing an electric current through said bath of fused haloid salt and said body of fused lead.

941,905. LIQUID-TIGHT DOSING DEVICE. EDOUARD M. BAJON, Paris, France. Filed May 4, 1909. Serial No. 493,862.

1. A dosing device for administering liquid medicines having a disagreeable odor, comprising an auxiliary chamber in communication by its upper part with the upper part of the bottle containing the medicine, a suction tube extending as far as the bottom of this auxiliary dosing chamber.

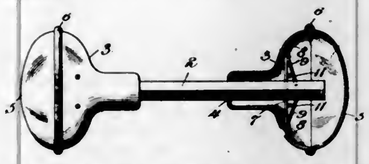
2. A liquid tight dosing device comprising an auxiliary dosing chamber having two tubular sockets, one of these tubular sockets being engaged in the neck of the bottle containing the medicine, a suction tube engaged in the other tubular socket and extending as far as the bottom of the auxiliary dosing chamber.



3. A liquid tight dosing device comprising an auxiliary dosing chamber having two tubular sockets, one of these tubular sockets being engaged in the neck of the bottle containing the medicine, a suction tube engaged in the other tubular socket and extending as far as the bottom of the auxiliary dosing chamber, a bottle having a neck placed eccentrically outside the body of the bottle in such a manner that its orifice should be above the level of the liquid when the bottle is held in a horizontal position.

4. A liquid tight dosing device comprising an auxiliary dosing chamber in communication by its upper part with the upper part of the bottle containing the medicine, a suction tube extending as far as the bottom of this auxiliary dosing chamber, an india rubber tube on the outer end of this suction tube.

941,906. DOOR-KNOB FASTENER. FRANK E. BEARDSLEY, Traverse City, Mich. Filed Nov. 18, 1908. Serial No. 463,215.



1. A hollow door knob having a plate attached transversely across its interior formed with a spindle opening in its middle and with an integral spring tongue centrally and outwardly projecting and adapted to engage with said spindle to prevent the withdrawal thereof.

2. A hollow sheet metal door knob having a spindle opening in one side and having a plate of sheet metal attached to the interior of the knob and crossing the same transversely, said plate having a central opening for the passage of the spindle in alinement with the spindle opening in the knob, and opposed resilient tongues struck up from the plate, said tongues, when closed, centrally projecting beyond the edges of the opening in the plate and adapted to be forced outward by a door spindle inserted into the knob in one direction but to grip said door spindle upon a retractile movement thereof.

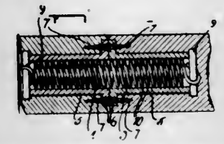
3. A hollow door knob having in its interior a transverse metal plate provided with a central many-sided opening and opposed resilient tongues struck up from the plate, said tongues projecting centrally and outwardly and having each a spindle engaging notch in its outer end adapted to engage on both sides of a spindle inserted through said knob and the central opening of the plate to prevent the withdrawal of the knob from said spindle.

4. A hollow door knob having in its interior opposed spring tongues adapted to engage with a door knob spindle to prevent the withdrawal of the knob from the spindle, said knob having openings in its side opposite to said tongues to permit the insertion of an instrument to engage with and raise said tongues from engagement with the spindle.

5. A hollow door knob shell having a spindle opening and a transverse plate crossing the interior of the shell in line with the spindle opening, said plate having opposed centrally and outwardly projecting integral tongues adapted to engage with a spindle to prevent its withdrawal, the door knob shell being provided with a pair of perforations in one side, each of the perforations being in alinement with one of the tongues to permit the introduction of an instrument to raise the tongues from engagement with the door spindle.

[Claims 6 to 12 not printed in the Gazette.]

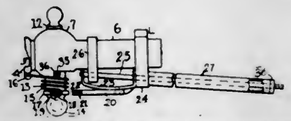
941,907. DOOR-CLOSER. WERNER W. BJORLING, Dumont, N. J. Filed Mar. 25, 1909. Serial No. 485,774.



1. The combination with a door and door frame, of mortises in the opposed edges of said door and frame, tubular casings secured in said mortises, said casings being formed with rectangular flanges upon one end thereof, and opposed recesses formed in the ends of said casings, transversely extending pins seated in said recesses, and a retractile spring disposed within said casing having its end removably secured to said pin.

2. A door closer comprising oppositely disposed tubular casings provided on one of their ends with rectangular flanges, the greater portions of said casings being bifurcated, the bifurcated ends of said casings having oppositely disposed recesses therein a retractile spring disposed within said casings and pins seated in said recesses and having the ends of the spring engaged therewith.

941,908. GAS-STOVE. STEPHEN H. BLODGETT, South Lincoln, Mass. Filed Mar. 14, 1908. Serial No. 421,155.

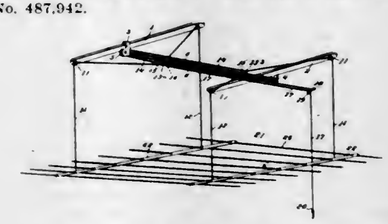


1. The combination with a gas stove provided with a burner having gas outlets and a gas inlet pipe provided with gas outlets, of a valve fitting provided with a gas inlet and with a gas outlet pipe, a support for said fitting secured to the gas stove and coöperating with the mouth of the burner inlet pipe, a rotatable valve in said fitting, a device rotatable with said valve in one direction, a spring to rotate said device in the opposite direction, a lug or projection on said device, a detent strip or bar provided with fingers coöperating with said lug or projection, a longitudinally movable rod connected with said detent strip or bar at one end and having its free end extended above the said burner, a sleeve encircling said rod, a fixed abutment against which one end of the said sleeve bears, and a device on said rod with which the other end of said sleeve coöperates to effect longitudinal movement of said rod in one direction by the expansive movement of said sleeve, substantially as described.

2. The combination with a gas stove provided with a burner having gas outlets and a gas inlet pipe provided with gas outlets, of a valve fitting provided with a gas inlet and with a gas outlet coöperating with the inlet pipe of said burner, a rotatable valve in said fitting, a device rotatable in one direction with said valve and in the opposite direction independently thereof, a spring to rotate said device, a detent to hold said device stationary against the action of said spring, and a thermostat operatively connected with said detent and extended into the heating zone of the burner inlet pipe and said burner, substantially as described.

3. The combination with a gas stove provided with a gas burner, of a valve controlling the supply of gas to said burner, a device rotatable with said valve in one direction, a detent coöperating with said device to hold it stationary while permitting the said valve to be rotated in the opposite direction, a longitudinally movable rod connected with said detent, a sleeve on said rod, an abutment for one end of said sleeve, and a device on said rod with which the other end of said sleeve coöperates to effect movement of said rod, said sleeve being exposed to the heat of the said burner, substantially as described.

941,909. SUSPENDED CLOTHES-RACK. BIANEY B. BOSWORTH, New York, N. Y. Filed Apr. 5, 1909. Serial No. 487,942.



1. In a device of the class described, in combination, a rack, a plurality of cords supporting said rack, a plurality of pulleys guiding said cords, said cords being connected to form junction points, means for advancing said junction points with respect to each other, and means for guiding said junction points in a substantially straight line so as to maintain said rack in a substantially horizontal plane.

2. In a device of the class described, in combination, a rack, a plurality of pendent cords supporting said rack, guide pulleys about which said cords pass respectively, said cords being connected to form junction points, a guide, members attached to said cords adjacent to said junction points and running on said guide, and means for advancing said junction points with respect to each other.

3. In a device of the class described, in combination, a guide having a bracket adapted to be attached to the ceiling, a sheave held in said bracket, a rack, cords supporting said rack, guide pulleys about which said cords pass, said cords being connected in pairs to form junction points, rings running on said guide and connected with said junction points to guide the same, an equalizer cord connecting said junction points passing around said sheave and giving said junction points an equal travel, and means for advancing said junction points with respect to each other.

4. In a device of the class described, in combination, a pair of oppositely disposed cleats, a pair of guide rods extended between said cleats, rings running on said guide rods, cords connected with said rings, guide pulleys attached to said cleats and through which said cords are pendent, a rack attached to said cords, and means for advancing said rings to raise said rack.

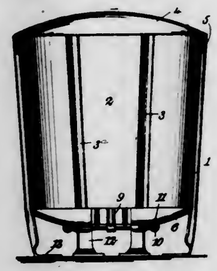
5. In a device of the class described, in combination, a pair of oppositely disposed cleats adapted to be attached to the ceiling and having pulleys attached thereto, a sheave bracket attached to one of said cleats, an anchor bracket attached to the other of said cleats, guide rods extending between said brackets, rings running on said guide rods, cords connected to said rings and passing over said pulleys and pendent therefrom, a rack supported on said cords, a sheave carried in said sheave bracket, and an equalizer cord connecting said rings and passing around said sheave.

[Claim 6 not printed in the Gazette.]

941,910. HEATER. GEORGE W. BOWMAN and JESSE A. BECRAFT, Palisades, Colo. Filed Nov. 30, 1908. Serial No. 465,380.

1. A heater formed of sheet metal having a body presenting a plurality of side faces having integral tongues projecting radially inwardly from the lower edges thereof,

in combination with a ring connecting said tongues and cooperating therewith to prevent the depression of said tongues and forming with said tongues a bottom for said heater.



2. A heater formed of sheet metal having a body presenting a plurality of side faces, said side faces having tongues integral therewith projecting inwardly from the lower edge thereof toward the center of said body and forming a bottom for said body, the material of said body between said tongues being extended downwardly and forming legs supporting said body, the edges of said tongues being bent to form channels decreasing in width toward the center of said heater.

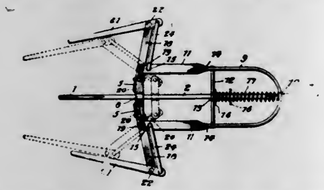
3. A heater formed of sheet metal and comprising an integral body portion formed with a plurality of sides, reinforcing ribs at the edges between said sides, and tongues projecting inwardly from the lower edges of said sides forming a bottom for said body, said reinforcing ribs being extended below said bottom and forming legs supporting said body.

4. A heater formed of sheet metal and comprising an integral body portion formed with a plurality of sides, semi-tubular reinforcing ribs formed at the edges between said sides, tongues formed integral with said sides and projecting inwardly from the lower edges thereof, a ring connecting said tongues, and legs supporting said body.

5. A heater formed of sheet metal and comprising an integral body portion formed with a plurality of sides having tongues projecting inwardly from the lower edges thereof, said tongues having ears struck from the material thereof, in combination with a ring engaged by said ears and connecting said tongues to form a bottom for said body.

[Claims 6 and 7 not printed in the Gazette.]

941,911. ARTIFICIAL BAIT. MARIE A. BURTHE, University, Va. Filed July 14, 1909. Serial No. 507,514.



1. A device of the character specified, comprising a shank having at one end a hook and at the other an eye, oppositely extending lugs on each side of the shank intermediate the eye and the hook, a frame slidable longitudinally on the shank, said frame comprising a yoke whose body portion has an opening through which passes the shank and arms extending alongside the shank, said body being arranged with its widest dimensions transverse the shank to form a vane for the purpose specified, a cross bar connecting the arms intermediate their ends, and provided with an opening through which passes the shank, a pin traversing the shank above the cross bar, a spring encircling the shank between the pin and the body of the yoke, a lever pivoted intermediate its ends, and nearer to one end than the other on the end of each arm, the short end of said lever being longitudinally slotted, the adjacent lug on the shank having a pin extending through the slot, an arm pivoted intermediate its ends to the outer end of said lever, a link connecting one end of each arm with the adjacent arm of the yoke, and a covering for the device shaped to simulate the body of an animal.

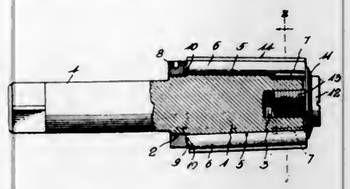
2. A device of the character specified, comprising a shank having at one end a hook and at the other an eye, oppositely extending lugs on each side of the shank intermediate the eye and the hook, a frame slidable longitudinally on the shank, a spring normally retaining the frame adjacent to the eye, said frame having a vane transverse to the shank for the purpose specified, a lever pivoted intermediate its ends to the frame on each side of the shank, the inner end of the lever being slotted, a pin connected with the shank and engaging the slot, an arm pivoted intermediate its ends to each lever, and a link connecting one end of said lever with the frame.

3. In a device of the character specified, a shank having at one end a hook and at the other an eye, a spring supported frame slidable on the shank the frame being provided with a vane for the purpose specified, a lever pivoted at each side of the frame, a lost motion connection between one end of the lever and the shank, an arm pivoted to the other end of said lever, and a link connecting one end of each lever with the frame.

4. In a device of the character specified, a shank provided with a hook and with means for attaching a line, a spring supported frame slidable on the shank, a lever pivoted intermediate its ends, to each side of the frame, and by one end to the shank, an arm pivoted intermediate its ends to the other end of the lever, and a link connecting one end of each arm with the frame.

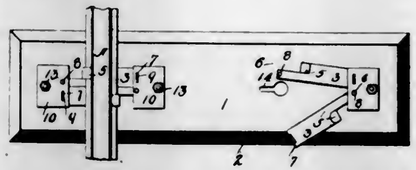
5. In a device of the character specified, a shank provided with a hook and with means for attaching a line, a spring supported frame slidable on the shank, a lever on each side of the shank and pivoted by one end thereto, a connection between the frame and the lever for swinging the same when the frame is moved, an arm pivoted to the end of each lever, and means for constraining each arm to move substantially parallel with the frame.

941,912. REAMER. ALBERT E. CHURCH, New Britain, Conn. Filed Oct. 1, 1908. Serial No. 455,658.



A reamer of the character described, comprising a tapering body portion having undercut grooves and longitudinal pin receiving recesses in the outer ends of the walls of its grooves, said body portion being also formed with an exterior thread at its inner end and with a centrally threaded socket in its opposite end, cylindrical cutting members seated in the grooves of the reamer body, said members having extensions at their inner ends and longitudinal recesses at their opposite ends to register with the recesses in the grooves of the reamed body, an annulus screwing on the inner end of the body portion and having a recess to receive the extensions of the cutting members, key pins insertible in the registering recesses of the body portion, and cutting members to key the latter in position, and an adjustable retainer having a threaded stem to screw into the socket of the body portion and a flat body having a smooth inner surface to fit against the outer ends of the cutting members and key pins.

941,913. RAIL-TIE. WILLIAM CHURCHILL and MURT L. O'NEIL, Janesville, Wis. Filed Apr. 19, 1909. Serial No. 490,892.



1. In a rail tie, elongated clamping plates arranged side by side in pairs longitudinally of the tie and having hooks thereon and upwardly extending tongues, and clamping members secured to the tie and engaging the tongues.

2. In a rail tie, clamping plates having cut away portions bent to form hooks and upwardly extending tongues on their ends, and clamping members secured to the tie and engaging the tongues on the plates, the cut away portions permitting the plates to be swung to one side in fastening the rails.

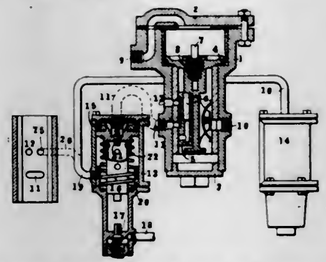
3. In a rail tie, clamping plates having hooks thereon and upwardly extending tongues, and inverted U-shaped clamping members having holes to receive said tongues and secured to the tie.

4. In a rail tie, clamping plates having hooks thereon and upwardly extending tongues, inverted U-shaped clamping members having holes to receive said tongues, said clamping members having tongues, the tie provided with slots to receive the tongues on the clamping members, and means secured to the tie to hold the clamping members in position.

5. In a rail tie, elongated clamping plates arranged side by side in pairs longitudinally of the tie and having hooks thereon and upwardly extending tongues, clamping members secured to the tie and engaging the tongues on the plates, and a cushion of fibrous material between the tie and plates and held in position by the clamping members.

[Claims 6 and 7 not printed in the Gazette.]

941,914. FLUID-PRESSURE-BRAKE APPARATUS. MURRAY CORRINGTON, New York, N. Y. Filed June 26, 1906. Serial No. 323,432.



1. In a fluid pressure brake system, the combination of a triple valve having a piston, a main valve with lost motion and a secondary valve operated by said piston, and a passage for releasing brakes controlled by both said valves, which may be closed while the piston is moved to one limit of its traverse by increasing train pipe pressure and then opened when the secondary valve makes a partial movement in the opposite direction.

2. In a fluid pressure brake system, the combination of a triple valve having a piston, a main valve with lost motion and a secondary valve operated by said piston, a passage for releasing brakes so controlled by both valves that the passage may be closed while the piston is actuated by admitting train pipe pressure and opened when the piston and secondary valve make a partial movement in the opposite direction, and means for causing said partial movement.

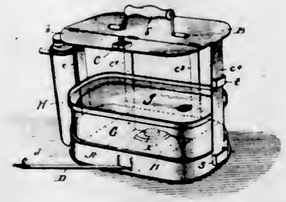
3. In a fluid pressure brake system, the combination of a triple valve having a piston, a main valve with lost motion and a secondary valve operated by said piston, a passage for releasing brakes so controlled by both valves that it may be closed while the train pipe pressure exceeds the auxiliary reservoir pressure and opened as said pressures equalize and means operated by the triple piston for admitting pressure into the auxiliary reservoir from a source independent of the train pipe.

4. In a fluid pressure brake system, the combination of a triple valve device having a piston and two valves operated thereby, two cylinders, one of which receives pressure admitted through the triple valve device, a valve operated by the piston of said cylinder for admitting pressure into the second cylinder and means controlled by the triple valve device for releasing pressure from both cylinders through both valves of the triple valve device.

5. In a fluid pressure brake system, the combination, with a triple valve having a piston capable of occupying three positions, one of which is intermediate the other two, a main and a secondary valve operated thereby, a passage controlled by both valves for releasing brakes, which is open while the piston occupies its intermediate position and a spring for moving the piston and secondary valve from one extreme to said intermediate position.

[Claims 6 and 7 not printed in the Gazette.]

941,915. DINNER-PAIL. WILLIAM A. EDWARDS, Pine Bluff, Ark. Filed Nov. 23, 1908. Serial No. 463,975.



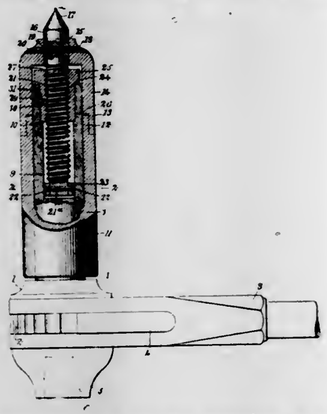
1. In a dinner pail, a base, a top, a pair of uprights connecting one side of said base and top, a separate upright connecting each end of the base with the top, a hinged lid secured to said top, a locking member pivotally secured to said base on the opposite side from the first named uprights and means for securing said locking member to said hinged lid.

2. In a dinner pail, a base portion, a lamp disposed in said base portion, a plurality of nested pans supported on said base above said lamp, a top, a pair of uprights connecting one side of said base and top, a separate upright connecting each end of the base with the top, a hinged lid secured to said top, a centrally disposed locking member pivotally secured to said base on the opposite side from the first named uprights and a lock carried by said hinged lid and adapted to engage said locking member to secure the latter in position.

941,916. RATCHET-DRILL. GUY W. FIGG, Los Angeles, Cal., assignor of one-half to Francis P. Duncklee, Los Angeles, Cal. Filed Nov. 21, 1908. Serial No. 463,754.

A ratchet drill comprising a hollow shank having an opening for receiving a drill, means for intermittently rotating the shank, the outer end of the shank being screw threaded, a nut engaging the threaded portion of the shank, a set screw for securing the nut to the shank, a feed screw threaded through the nut and having its outer end provided with a point, a cap inclosing the outer end of the shank and provided with an opening through which extends the point, said cap and point being provided with

registering openings, and a pin passing through the openings for detachably connecting the cap with the point,



and a sleeve having a threaded connection with the cap and inclosing the shank.

941,917. GAS-ESCAPE. HOMER H. FULTON, Oroville, Cal. Filed May 25, 1909. Serial No. 498,212.

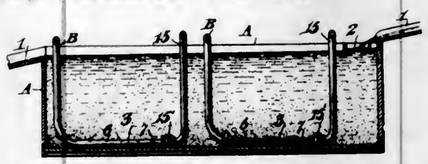


1. A window stopper comprising plates having overlapping inner ends adjustably secured together, each plate having the outer end portion thereof bent at approximately right-angles to the plane of the stopper and bent upon itself to provide flanges at both the inner and outer side of the plate to fit in the window sash ways.

2. A window stopper comprising plates having overlapping inner end portions adjustably secured together, each plate having its upper and lower edge turned from the other plate to form flanges, with the upper and lower flange of opposite plates inclining downwardly and outwardly and the other flanges of the plates arranged at approximately right-angles to the plane of the stopper.

941,918. SLIME-FEEDING DEVICE FOR CONCENTRATORS. JOSEPH B. GREEN, Wallace, Idaho, assignor of one-fourth to Harvey A. Houston and one-fourth to Henry Lieb, Wallace, Idaho. Filed June 2, 1909. Serial No. 499,631.

1. The combination of a settling tank of V-shaped cross section having an inlet at one end and an outlet at the other end, with a slime-discharging siphon having the lower end of its suction limb provided with an inlet section extending longitudinally along the bottom of the tank in the direction of flow of the slime-containing liquid in the latter and extending through the region of settled slime, said inlet section having a plurality of apertures through which slime is drawn into the siphon.



2. The combination of a settling tank, with a siphon having an outlet portion disposed exterior to the tank and having an inlet portion extending longitudinally of and within the tank at the bottom, said inlet portion having a plurality of longitudinally spaced suction apertures.

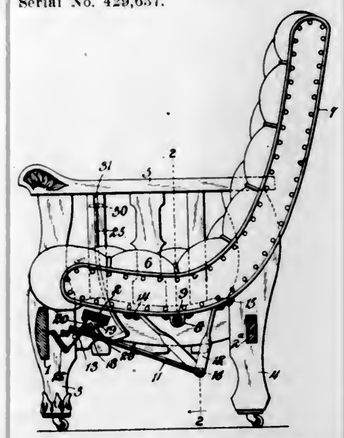
3. The combination of a settling tank, an apertured pipe extending longitudinally thereof and within the region of settled slime, a siphon connected with one end of the pipe for drawing slime through the latter, a water supply conduit connected with the pipe at the end thereof opposite from the siphon, means for controlling the water supply, and means for controlling the siphon whereby the latter can be started or flushed out or the settlings in the tank maintained in an agitated state while the siphon is idle.

4. The combination of a settling tank, a siphonic slime-discharging means having its inlet arranged within the region of settled slime in the tank, a valve controlled water supplying device connected with the inlet end of the siphon for discharging water entirely through the latter, and a valve for closing the outlet end of the siphon for discharging water into the tank through the inlet of the siphon for preventing settling of the slime over said inlet when the siphon is idle.

5. The combination of a settling tank, a pipe arranged within and extending along the bottom thereof and having a plurality of longitudinally-spaced apertures, risers on the ends of the pipe, one riser forming a siphon, a water supply pipe connected with the other riser, and a valve controlling the supply of water from the last-mentioned pipe.

[Claims 6 to 9 not printed in the Gazette.]

941,919. CHAIR. CLARENCE L. GREILICK, Traverse City, Mich., assignor to Traverse City Chair Co., Traverse City, Mich., a Corporation of Michigan. Filed Apr. 28, 1908. Serial No. 429,637.



1. A chair including a supporting frame, a pivoted adjustable member having a seat, a substantially V-shaped bracket depending from the rear portion of the seat of the said member and straddling the pivot thereof, a rod pivoted to the bracket and extending to the front portion of the supporting frame, a clutch engaging the front portion of the rod, and operating mechanism for releasing the rod.

2. A chair including a supporting frame, an adjustable member having a seat pivoted at a point intermediate of its ends to the supporting frame, a bracket rigidly connected with the seat and extending to a point below, the plane of the pivot, a straight connecting rod located below the pivot of the seat and pivotally connected at its rear end with the bracket and extending longitudinally of the chair to the front portion thereof, a clutch arranged at the front of the chair and supporting the free end of the rod, and operating mechanism located at the side of the chair in advance of the pivot and connected with the clutch.

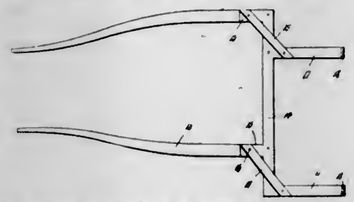
3. A chair including a supporting frame, an adjustable member having a seat pivoted at a point intermediate of its ends to the supporting frame, a bracket rigidly connected with the seat and extending to a point below the pivot and in rear of the vertical plane of the same, a rod pivoted at its rear end to the bracket and extending longitudinally of the chair to the front portion thereof, a depending oscillatory clutch pivoted at the top and arranged to engage the front portion of the rod to lock the adjustable member, a coiled spring connected with the clutch below the pivot and with the supporting frame, and means for operating the clutch.

4. A chair comprising a supporting frame, an adjustable member pivoted to the supporting frame, a longitudinal rod located below the adjustable member and connected with the latter, an oscillatory clutch member carrying means for receiving the front portion of the connecting rod, means for holding the clutch member in engagement with the rod, and operating mechanism for oscillating the clutch member to release the rod, said operating mechanism including a transverse rock shaft having an arm for oscillating the clutch member, and an operating rod connected with the rock shaft and located at one side of the chair.

5. A chair comprising a supporting frame, an adjustable member pivoted to the supporting frame, a longitudinal rod located below the adjustable member and connected with the rear portion thereof, an oscillatory clutch member carrying means for receiving the front portion of the rod, means for holding the clutch member in engagement with the rod, and operating mechanism including a transverse rock shaft provided with inner and outer arms, the inner arm being arranged to oscillate the clutch member to release the rod, and an operating rod connected with the outer arm of the rock shaft and extending upwardly therefrom.

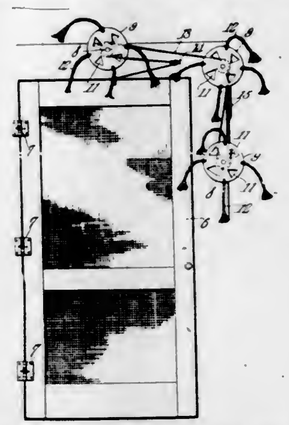
[Claims 6 to 11 not printed in the Gazette.]

941,920. DRAFT DEVICE. CHARLES P. HANSEN, Evan, Minn. Filed Apr. 9, 1908. Serial No. 426,088.



A draft device comprising a cross bar, thill bows secured to the cross bar, thills secured to the cross bar out of alinement with respect to the bows, a strengthening frame comprising a cross bar which extends beneath and is secured to the underside of the first mentioned cross bar, forward extensions formed integral with the cross bar of the strengthening frame and secured to the underside of the thills at their rear end, rearward extensions formed integral with said cross bar of the strengthening frame and secured to the underside of the bows, said rearward extensions having at their lower ends thill eyes, and a diagonal brace connected at one end to each of the rearward extensions behind the cross bar of the strengthening frame and at the other end each being connected to the respective forward extension of the strengthening frame.

941,921. FAN ATTACHMENT FOR DOORS. JUDSON N. HATCHER, Jasper, Mo. Filed June 1, 1909. Serial No. 499,332.



1. The combination with a door and its frame, of rotatable disks arranged about the edge of the door, connection between the door and the frame to rotate said disks upon opening or closing of the door, and streamers carried by the disks.

2. The combination with a door and its frame, of rotatable disks arranged about the edge of the door, connection between the door and the frame to rotate said disks upon opening or closing of the door, and streamers carried by the disks and having frayed ends.

3. The combination with a door and its frame, of rotatable fan disks arranged about the edge of the door, connection between the door and the frame to rotate said disks upon opening or closing of the door, and streamers carried by the disks.

4. The combination with a door and its frame, of rotatable disks arranged about the edge of the door, each of said disks having stamped therefrom a fan blade, connections between the door and the frame to rotate said disks upon opening or closing of the door, and streamers carried by the disks.

5. The combination with a door and its frame, of rotatable concavo-convex disks arranged about the edge of the door, and having fan blades struck up therefrom and projecting from the convex face thereof, connection between the door and the frame to rotate said disks upon opening or closing of the door, and streamers carried by the disks.

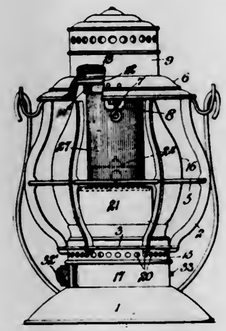
[Claim 6 not printed in the Gazette.]

941,922. LANTERN. OLIVER R. HENSON, Springfield, Ohio. Filed Nov. 3, 1908. Serial No. 460,910.

1. In a signal lantern, a lamp reservoir, a burner carried thereon, a chimney surrounding the burner, a cap supported above the burner, a vertically shiftable cylindrical screen, means for shifting said screen upward to surround the burner, and an annular bearing socket resiliently supported in the cap and having an outwardly and downwardly flanged lower edge against which the upper end of the screen is adapted to fit and be supported when the screen is in its uppermost position.

2. In a signal lantern, a base, a lamp reservoir and burner carried thereon, a chimney surrounding the burner, a cap, an annular supporting ring carried within the cap and normally bearing against the upper end of the chim-

ney, a spring within the cap forcing said supporting ring downward, a vertically shiftable cylindrical screen within the chimney and surrounding the oil reservoir, means for shifting the said screen upward to surround the burner, and an annular bearing socket mounted within the annular chimney-supporting ring and supported therefrom and having an outwardly and downwardly flanged lower edge in to which the upper end of said screen is adapted to fit and be supported when the screen is in its uppermost position.



3. In a signal lantern, the combination of a frame including a cap, a spring-pressed seating element therein, a chimney engaged by the element, and a screen within the chimney also engaged by the element.

4. In a signal lantern, a hollow base, a chimney supported on said base, an oil reservoir having a burner at its upper end supported on the base, a vertically shiftable colored screen surrounding the oil reservoir, an annular carrier therefor surrounding the reservoir, longitudinally shiftable means for operating said carrier, extending down into the hollow base and adapted to be folded up within the base transversely of the direction of movement of the carrier when said operating means is in its lowermost position, to lock the screen in its lowered position, a slot and pin connection between the said means and carrier to lock and unlock the said means by movement transverse to that of the said carrier.

5. In a signal lantern, a hollow base, a chimney supported on the base, an oil reservoir having a burner at its upper end supported upon the base, a vertically shiftable colored screen surrounding the oil reservoir, an annular carrier therefor surrounding the reservoir, a spring acting to force the carrier upward, and a lever adapted to draw the carrier downward against the force of said spring and to fold up within the hollow base.

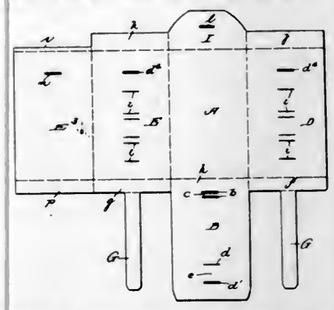
[Claims 6 to 18 not printed in the Gazette.]

941,923. BOAT. CHARLES HOFFMAN, Baltimore, Md. Filed Mar. 19, 1909. Serial No. 484,471.



In combination with a boat having its hull provided, at points forward of amidships, with inwardly extended recesses, two auxiliary screw propellers, located each in one of said recesses, each of said propellers having duplex spirals extending the full length thereof and concaved radially on their forward faces and concaved transversely on their rearward faces, the overhanging portions of the spirals being of hood-like formation, each propeller being of gradually increasing width from its ends to the center thereof.

941,924. ENVELOP. PHILIP FORSCHLER, New Orleans, La. Filed June 21, 1909. Serial No. 503,482.



1. An envelop formed of a piece of suitable material and comprising a body, an end flap, side flaps arranged between said end flap and the body and having slits, and a tongue extending from one end of one side flap and through the slits of the side flaps and also through the end flap.

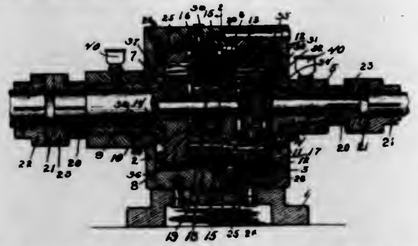
2. An envelop formed of a piece of suitable material and comprising a body, an end flap provided with a keeper-strap, an opposite end or closure flap having an aperture, side flaps arranged between the first-named end flap and the body and having slits and also having registered apertures adapted to be registered with the aperture in the second-named end or closure flap, and a tongue extending from one end of one side flap and passed through the keeper-strap of the first-named end flap and also through the slits in the side flaps and adapted to be passed inwardly through the registered apertures in the closure flap and side flaps and to be secured within the envelop.

3. An envelop formed of a piece of suitable material and comprising a body, an end flap provided with a keeper-strap and also provided with a slit and an aperture, an opposite end or closure flap having an aperture adapted to be registered with that of the first named end flap, side flaps arranged at the inner side of the first-named end flap and having slits and also having registered apertures in the end flaps, a supplemental side flap carried by one of the side flaps and disposed between the same and the body and having an aperture registered with those of the side flaps and end flaps, tongues extending from the ends of the side flaps and passed through the keeper-strap of the first-named end flap and also through the slits in the side flaps and then out through the slit in said end flap and adapted to be passed inwardly through the registered apertures in the end and side flaps and supplemental side flap, and a fastener secured within the envelop and adapted when pressed to engage and hold the said tongue.

4. An envelop formed of a piece of suitable material and comprising a body, a lower end flap, an upper end or closure flap having an aperture, side flaps arranged between the lower end flap and the body and having slits and registered apertures and also having lower end portions *f* and *g* folded between the lower end flap and the outer of the side flaps, and further having upper end portions *j* and *k* adapted to be folded between the upper end or closure flap and the outer of the side flaps, and a tongue extending from the lower end portion of one side flap and through the slits of the side flaps and also through the lower end flap, and adapted to be passed inwardly through the registered apertures in the closure flap and side flaps and to be secured within the envelop.

941,925. SPEED-CHANGING DEVICE. DAVID O. JAMES, Chicago, Ill. Filed Apr. 20, 1909. Serial No. 491,108.

1. The combination with an oil containing gear casing, of shafts extending into the casing upon opposite sides, oil-splashing gearing within the casing and connecting the shafts, and disks mounted on the shafts, respectively within the casing and provided with annular lateral flanges extending toward the wall through which the corresponding shaft enters, said casing being provided with annular divergent flanges surrounding the entering shafts and projecting against the corresponding disks.



2. The combination with an oil containing casing provided with a bearing for an entering shaft and with an internal annular divergent flange surrounding the place of the shaft, of a shaft working in said bearing, oil splashing gearing within the casing and connected with the shaft, and a plate mounted upon the shaft in proximity to the flange and itself provided with a flange projecting over the flange first mentioned.

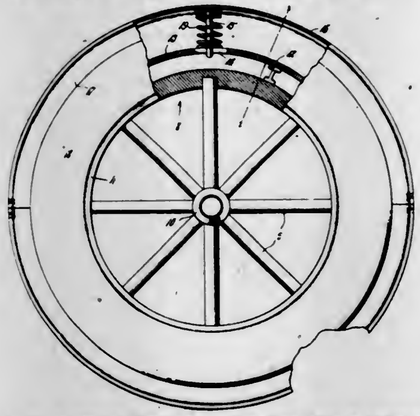
3. The combination with an oil containing casing, of distinct shafts entering the casing, oil splashing gearing connecting the shafts within the casing, and disks borne by the shafts respectively and each provided with an annular lateral flange projecting toward the adjacent side of the casing, each of said sides of the casing being provided with an annular divergent flange projecting toward the corresponding disk within its flange.

4. The combination with an oil containing casing having an internal annular plane faced flange forming externally an acute angle with the plane of the casing wall, of a shaft entering the casing within said flange and perpendicularly to the plane of its face, a plate borne by the shaft, in contact with said face, and itself provided with an annular flange projecting over the flange of less diameter borne by the casing wall.

5. The combination with a separable oil containing casing, of a shaft bearing projecting inward from the wall of the casing and forming an annular divergent flange, a shaft mounted in said bearing, a disk fixed to the shaft in close proximity to the end of said bearing and provided with a lateral annular flange projecting over the bearing flange.

[Claim 6 not printed in the Gazette.]

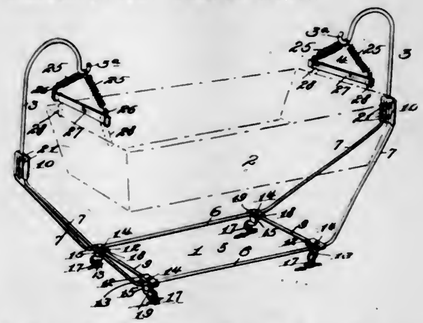
941,926. SPRING-TIRE. WATSON L. JOHNS, Soquel, Cal. Filed Oct. 15, 1908. Serial No. 457,923.



1. In a vehicle tire the combination with a U-shaped wheel rim, of a plurality of props projecting at intervals from the said rim, an annulus supported by said props and containing elongated openings arranged at equi-distant intervals throughout the same, an inverted U-shaped tire section interfitting said wheel rim, pins projecting inwardly from the tire section and engaging the openings, and expansion means interposed between the said annulus and tire section.

2. In a vehicle tire the combination with a U-shaped wheel rim, of a plurality of props projecting at intervals from the said rim, an annulus supported by said props and containing openings arranged at equi-distant intervals throughout the same, an inverted U-shaped tire section interfitting said wheel rim, expansion means interposed between the said annulus and tire section, and means projecting inwardly from the tire section and engaging the openings in the rim.

941,927. CRADLE. CHARLES H. JOHNSON, Detroit, Mich., assignor to W. Lawson Lindsley, Detroit, Mich. Filed Jan. 27, 1909. Serial No. 474,537.



1. In cradle structures of the type set forth, in combination, a frame including a pair of rods, a basket, means for suspending said basket from said frame, transverse stay bars for said rods and clamp means connecting said stay bars and said rods and each comprising upper and lower plates having angularly disposed grooves, the grooves of one plate registering with the corresponding grooves of the other plate, and a screw connecting said plates, one pair of registering grooves serving to receive an end of said stay bar and the grooves of the other pair surrounding one of the rods.

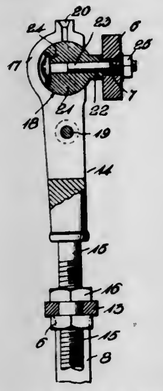
2. In a cradle structure of the type set forth, the combination with a frame including a pair of bars having vertically disposed end portions, goose-neck hangers and means connecting the hangers and the end portions of the bars and comprising a clamp device having a central opening to receive the shanks of the hangers and having side openings closed at their upper ends and receiving the end portions of the bars, a basket and means for suspending the basket from the hanger.

941,928. UNIVERSAL-JOINT CONNECTION. JEAN B. JOURDAIN and LOUIS DEXTRAZE, New Bedford, Mass. Filed Jan. 7, 1909. Serial No. 471,167.

1. The combination with a sliding member of a rod screw threaded at one end and provided at its other end with a socketed head, a ball operable in the socket of said head and having a laterally extending tubular arm provided with oppositely disposed flattened exterior faces, the flat faces of said arm being adapted to engage the sides of the slot in said sliding member to prevent turning of the member relatively to the arm, a bolt extending through said ball, tubular arm and slotted member and provided on its free end with a securing nut.

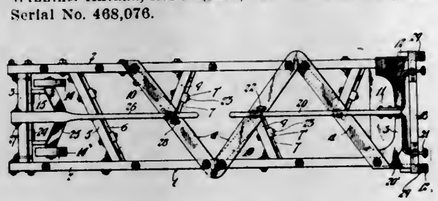
2. The combination of a rod provided at one end with means for detachable connection to a member to be connected and provided at its other end with a longitudinally separable head having a ball socket therein with an opening through one wall thereof, a ball operable in said

socket and having a laterally extending tubular arm or sleeve, said ball having an angular bore extending therethrough and communicating with said sleeve and a bolt



extending through said bore and sleeve and projecting beyond the latter, said sleeve having oppositely disposed flattened exterior faces.

941,929. ROAD AND LAND LEVELING MACHINE. WILLIAM KAISER, Los Angeles, Cal. Filed Dec. 17, 1908. Serial No. 468,076.

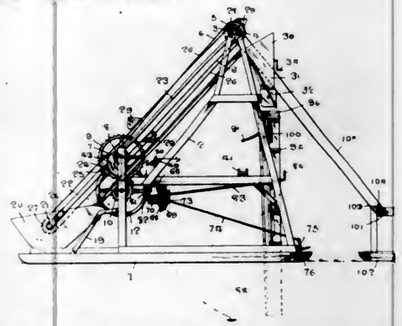


1. A leveling machine comprising a main frame, a cutting scraper near the forward end of said frame extending across the frame, spreading scraper means extending across the frame at the rear of the cutting scraper, a wheel frame at each end of the main frame and movably connected to the main frame, wheels carried by each wheel frame, means for shifting the position of the wheel frame at each end relatively to the main frame to raise or lower the main frame, and means for retaining the shifting means to hold the main frame in raised position.

2. A leveling machine comprising a main frame, leveling scrapers carried thereby, supporting wheels movable relatively to the frame and means for raising or lowering the frame relatively to the supporting wheels to support the scrapers and frame on the wheels or to allow the scrapers to rest on the ground, said means comprising at each end of the machine a frame mounted to slide vertically on the main frame and carrying the said wheels, a lever pivoted on the main frame and connected to the wheel frame and extending toward the midlength of the main frame, and means near the midlength of the main frame for retaining said lever in position to raise the main frame on the said wheels.

3. A leveling machine comprising a frame, a cutting scraper near the forward end of the frame extending directly across the frame, a spreading scraper near the rear end of the frame extending obliquely across the frame, a plurality of intermediate scrapers extending alternately from the sides of the frame obliquely rearward to the middle of the frame, wheels on which the frame is mounted, a wheel-carrying frame at each end of the frame of the machine and movably connected to the machine frame, and means for shifting the position of the wheel frame at each end, relatively to the machine frame.

941,930. MOLDING-MACHINE. WILLIAM F. KERLIN, Rockfield, and EDWARD W. BOWEN, Delphi, Ind. Filed May 12, 1908. Serial No. 432,456. Renewed Aug. 25, 1909. Serial No. 514,605.



1. In a molding apparatus, the combination of a frame, rods pivoted thereto, molds carried by the rods, means for oscillating the molds, bell levers carried by the frame, one end of the bell levers being provided with hooks to engage the rods to hold the same against oscillation, eccentrics arranged adjacent the opposite ends of the bell levers to contact therewith to force the hooks from the rods, and means for rotating the eccentrics.

2. In a molding apparatus, the combination of a frame, rods pivoted thereto, molds carried by the rods, means for oscillating the molds, bell levers carried by the frame, one end of the bell levers being provided with hooks to engage the rods to hold the same against oscillation, eccentrics arranged adjacent the opposite ends of the bell levers to contact therewith to force the hooks from the rods, means for rotating the eccentrics, and a contraction spring secured at one end to each of the bell levers adjacent the hook, the opposite end of the spring being secured to the frame, said spring being arranged to normally hold the hook in engagement with a rod.

3. In a molding apparatus, the combination of a frame, rods pivoted thereto, molds carried by the rods, guide-plates between which said rods extend, rods projecting upwardly from the guide-plates, a buffer loosely engaging the last mentioned rods and springs carried by the last mentioned rods above the buffer contacting with the buffer.

4. In a molding apparatus, the combination of a frame, rods pivoted thereto intermediate their lengths, molds carried by one end of the rods, latches engaging the molds to hold said molds in certain positions, bell levers carried by the frame and rods connecting the bell levers and the latches whereby the latches may be caused to become disengaged from the molds.

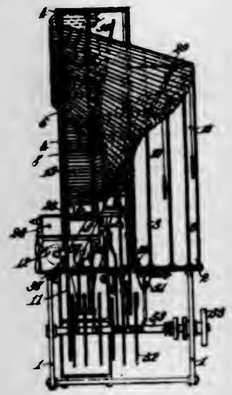
941,931. TYPE SETTING AND CASTING MACHINE. OTTO KOSKE, Erfurt, Germany. Filed June 12, 1907. Serial No. 378,561.



1. In a type-setting- and casting-machine, the combination of a rail, matrices adapted to ride upon said rail, an adjustable rack carrying said rail, a standard adapted to form a guide-way for said rack, a lever hinged to said standard, another lever hinged to said first lever, a slide connected with the free end of the said first lever, and being adapted to be moved parallel to the said rail, and means for causing the said rack to move the said slide to and fro, substantially and for the purpose as described.

2. In a type-setting- and casting-machine, the combination of a rail, matrices adapted to ride upon said rail, means for raising the rail together with the matrices, a lever adapted to support said rail in its raised position, a bar so arranged as to be adapted to push said lever aside so as thereby to free the said rail from the said lever, and means for actuating said bar, substantially and for the purpose as described.

941,932. TYPE SETTING AND CASTING MACHINE. OTTO KOSKE, Erfurt, Germany. Filed May 18, 1908. Serial No. 433,551.



1. In a type setting and casting machine, the combination with a base plate, of a plurality of uprights arranged circularly thereon, a plurality of vertical supports arranged in pairs in two parallel planes on said base plate, and a plurality of guide wires attached at one end to one pair of said vertical supports, conducted around one or more of said uprights in the form of a spiral, and attached at the other end to the other pair of said vertical supports at a distance from the former end equal to the pitch of the spiral.

2. In a type setting and casting machine, the combination with a base plate, of a plurality of uprights arranged circularly thereon, a plurality of vertical supports arranged in pairs in two parallel planes on said base plate, a plurality of guide wires attached at one end to one pair of said vertical supports, conducted around one or more of said uprights in the form of a spiral, and attached at the other end to the other pair of said vertical supports at a distance from the former end equal to the pitch of the spiral, and a carriage slidable vertically between said supports and having a plurality of rails corresponding to said guide wires.

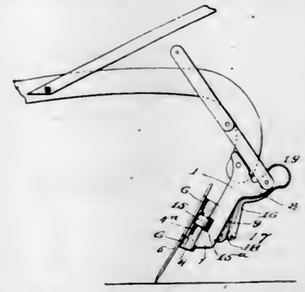
3. In a type setting and casting machine, the combination with a base plate, of a plurality of uprights arranged circularly thereon, a plurality of vertical supports arranged in pairs in two parallel planes on said base plate, and a plurality of guide wires attached at one end to one pair of said vertical supports, conducted in groups to the right and to the left around one or more of said uprights in the form of a spiral, and attached at the other end to the other pair of said vertical supports at a distance from the former end equal to the pitch of the spiral.

4. In a type setting and casting machine, the combination with a base plate, of a plurality of uprights arranged circularly thereon, a plurality of vertical supports arranged in pairs in two parallel planes on said base plate, and a plurality of guide wires attached at one end to one pair of said vertical supports, conducted in two groups to the right and to the left and then in smaller groups around one or more of said uprights in the form of a spiral, and attached at the other end to the other pair of said vertical supports at a distance from the former end equal to the pitch of the spiral, the first smaller group on each side bending around the first uprights, the second smaller group on each side bending around the second upright, and so on, to the inside of the circle of uprights.

5. In a type setting and casting machine, in combination with a matrix bar, a wire, a rod attached thereto, a second rod slidable on the former rod, and said matrix bar connected with said second rod.

[Claims 6 to 11 not printed in the Gazette.]

941,933. AUTOMATIC DEVICE FOR ATTACHING AND RELEASING PLOW-POINTS. CHARLES E. LOGAN and ALLEN R. BARNETT, Mill Grove, Mo. Filed Aug. 6, 1909. Serial No. 511,573.



1. In a hand device for automatically attaching and releasing plow-points, a stirrup in which such point is adjustable vertically and laterally, a hand lever having cams and pivoted to the stirrup, and a spring against which the cams work for operating the stirrup.

2. In an automatic device for attaching and releasing plow-points, a stirrup for adjustably clamping such points, a spring through which a portion of the stirrup extends, and a hand lever having cams engaging the spring and pivoted to the stirrup portion.

3. In a device of the character described, a stirrup for adjustably clamping a plow-point in operative position, a hand lever having cams and pivoted to an extension of the stirrup, and a plate spring having said extension extending therethrough and engaged by the cams for operating the stirrup.

4. In a device of the character described, a stirrup for adjustably clamping a plow-point in operative position, a hand lever having cams and pivoted to an extension of the stirrup, a plate spring having said extension extending therethrough and engaged by the cams for operating the stirrup, and means for locking the said lever.

5. In a device of the character described, a stirrup comprising an open ring and a stem projecting from the ring, a plate spring through which the stem projects, and a cam lever pivoted to the projecting end of the stem and cooperating with the spring for operating the stirrup.

[Claim 6 not printed in the Gazette.]

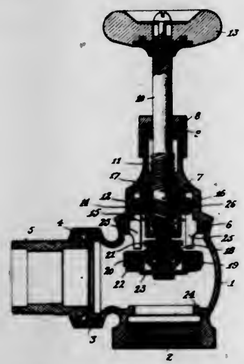
941,934. VALVE. WILLIAM C. MARSH, Dunkirk, N. Y. Filed Feb. 20, 1909. Serial No. 479,109.

1. A valve, embodying a casing, a stem rotatable in said casing, oppositely disposed seats in said casing, and two disk holders formed separately from each other and from said stem and connected to each other, said disk holders carrying disks for engaging said seats and adapted to be moved longitudinally by the rotation of said stem.

2. A valve, embodying a casing, a stem bodily movable in said casing through a screw threaded engagement therewith, oppositely disposed seats in said casing, and two disk holders formed separately from each other and from said stem and connected to each other, said disk holders carrying disks for engaging said seats and being together carried by said stem.

3. A valve, embodying a casing, a stem bodily movable in said casing through a screw threaded engagement therewith, oppositely disposed seats in said casing, and two disk holders formed separately from each other and from said stem and connected to each other, said disk holders

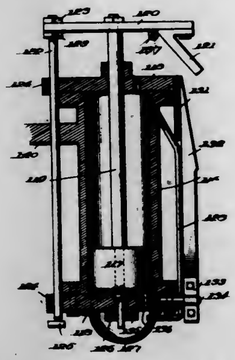
carrying disks for engaging said valve seats and being together carried by said stem and movable therewith without rotation.



4. A valve, embodying a casing, a stem bodily movable in said casing through a screw threaded engagement therewith, oppositely disposed seats in said casing, and two disk holders formed separately from each other and from said stem and having a universal rocking connection with each other, said disk holders carrying disks for said valve seats and being together carried by said stem.

5. A valve, embodying a casing, a stem bodily movable in said casing through a screw threaded engagement therewith, oppositely disposed seats in said casing, two disk holders formed separately from each other and from said stem and connected with each other, said disk holders carrying disks for said seats and being together carried by said stem, and means for moving said disk holders, when moved by said stem, at a speed greater than that of said stem.

941,935. GLASS-MOLDING MACHINE. WILLIAM J. MILLER, Coffeyville, Kans. Filed Feb. 17, 1909. Serial No. 478,407.



1. In a machine of the class described, a mold, a forming plunger for coöperating with the mold, fluid operated means for moving the former into and out of the mold, a valve for controlling said means, and a means for varying the duration of the stay of the plunger in the mold, said means comprising a cylinder, a piston therein, a reservoir for fluid communicating with the lower end of the cylinder, a check valve in the communication, means whereby the upward movement of the plunger will lift the piston and permit the fluid to enter the cylinder, an outlet for the fluid, means for restricting the outlet, means outside of the cylinder for indicating the extent of the restriction, and means in connection with the piston for operating the valve when the piston is in its lowest position.

2. In a machine of the class described, a mold, a forming plunger for coöperating with the mold, fluid operated means for moving the former into and out of the mold, a valve for controlling said means, and a means for varying the duration of the stay of the plunger in the mold, said means comprising a cylinder, a piston therein, a reservoir for fluid communicating with the lower end of the cylinder, a check valve in the communication, means whereby the upward movement of the plunger will lift the piston and permit the fluid to enter therein, an outlet for the fluid, means for restricting the outlet, and means in connection with the piston for operating the valve when the piston is in its lowest position.

3. In a machine of the class described, a mold, a forming plunger for coöperating therewith, fluid operated means for moving the plunger into and out of the mold, a valve for operating said means, and means for varying the duration of the stay of the plunger in the mold, comprising a cylinder, a piston therein, means connected with the piston for engagement by the plunger on its upward movement to move the piston therewith, said plunger being freely movable by gravity in a downward direction, means for restricting the movement of the plunger in a downward direction and means whereby the piston will operate the valve at the conclusion of its movement in the downward direction.

4. In a machine of the class described, a mold, a forming plunger for coöperating therewith, fluid operated means for moving the plunger into and out of the mold, a valve for operating said means, and means for varying the duration of the stay of the plunger in the mold, said means comprising a piston, normally freely movable in a downward direction, a fluid check for restraining said downward movement, means for adjusting the check whereby to vary the speed of the piston, means in connection with the piston for engagement by the plunger to move said piston in an upward direction and means in connection with the piston for operating the valve when in its lowermost position.

5. In a machine of the class described, a mold, a forming plunger for coöperating therewith, fluid operated means for moving the plunger into and out of the mold, a valve for operating said means, and means for varying the duration of the stay of the plunger in the mold, said means comprising a piston normally freely movable in a downward direction, a fluid check for restraining said downward movement, means in connection with the piston for engagement by the plunger to move said piston in an upward direction, and means in connection with the piston for operating the valve when in its lowermost position.

941,936. RULE. GIUSEPPE A. MONGELLI, Philadelphia, Pa. Filed Apr. 13, 1906. Serial No. 311,507.



1. A rule provided with a line of reference and having a zero line placed at a distance from said reference line equal to the standard measurement of waist front balance, and two series of arbitrary graduations laid off in opposite directions from the zero line.

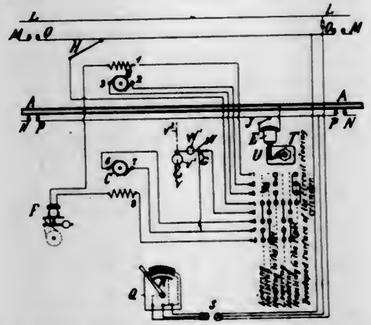
2. A rule provided with a line of reference and having a zero line placed at a distance from said reference line equal to the standard measurement of waist suppression, and two series of arbitrary graduations laid off in opposite directions from the zero line.

941,937. TIE AND RAIL-FASTENER. ALEXANDER M. MOYLAN, Century, Fla. Filed Mar. 23, 1909. Serial No. 485,202.



A tie as specified comprising a plate having slots longitudinally formed in the opposite ends thereof, said plate adapted to support rails disposed over the slots therein, clamps positioned in pairs through the slots and engaged against the rails, a rest having beveled upper faces for engagement with the under edges of said clamps, said rest adapted to admit of the downward movement of said clamps upon the disposition of weights upon the rails.

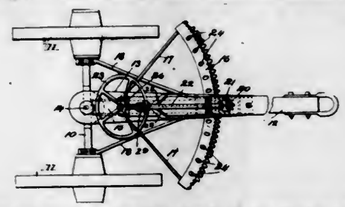
941,938. TELPHERAGE SYSTEM. HERMANN MÜLLER, Leipzig, Germany. Filed Feb. 7, 1906. Serial No. 300,004.



In a circuit closing arrangement for electrically driven suspended railway cars, the combination of a carriage provided with a carriage motor, and with hoisting gear, a main current conductor L—L, a working conductor M—M for the carriage motor with insulated sections where movements are to be carried out, an auxiliary conductor P—P for the insulated section fed from the main conductor L—L, a magnet E in the carriage supplied with current from the auxiliary conductor, a ratchet wheel and pawl T—U actuated thereby, a cylindrical circuit closer D connected therewith, and a starting box Q together with contacts for connection with said starting box placed at suitable points in the main supply line, substantially as and for the purpose described.

941,939. HITCHING AND STEERING DEVICE. LEMUEL B. MCALPINE, Marathon, N. Y., assignor to Climax Road Machine Co., Marathon, N. Y., a Corporation of New York. Filed Apr. 24, 1909. Serial No. 492,010.

A device of the class described, a wheeled axle, a strut extending forwardly from the axle, and disposed perpendicular to the center thereof, inclined braces running from the axle adjacent its ends to the strut adjacent its forward end, a segment carried rigidly by the forward end of the strut, and disposed in front of the wheels, inclined braces running from the opposite ends of the segment rearwardly and connected rigidly with the strut, a pole pivoted centrally upon the axle and extending forwardly above the segment, a pinion vertically journaled in the pole and engaging the segment, an inclined steering rod extending above the pole, a universal joint connecting the



steering rod and the vertical shaft of the pinion, a brace positioned as a bearing for the steering rod, a spring-pressed detent carried by the pole in position for engagement with and to lock the pole relative to the segment, a lever pivoted upon the brace which carries the steering rod, and a link connecting the lever and detent.

941,940. REVOLVING SAFE. JAMES S. MCCORMICK, West Millgrove, Ohio; Sarah Yates administratrix of said McCormick, deceased. Filed Oct. 7, 1908. Serial No. 456,589.



1. The combination with a revoluble safe, of a stationary casing inclosing same, a revoluble shield surrounding the casing and means connecting the shield and safe.

2. The combination with a cylindrical stationary casing of a cylindrical safe rotatably mounted within the casing, the casing having a cut out portion through which the door of the safe can swing, and operating means connected to the safe and extending through the stationary casing permitting rotation of the safe to bring the safe door into and out of alinement with the opening in the casing.

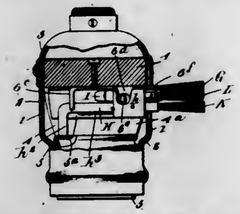
3. The combination with a cylindrical, stationary casing cut out on one side and circumferentially slotted on the opposite side, a shield revoluble with respect to the casing, of a safe revolubly mounted in said casing, and a rod working in said slot and connecting the shield and casing.

4. The combination with a cylindrical stationary casing, having an outwardly projecting, grooved base, said casing being cut out on one side and slotted on the opposite side, of a cylindrical safe revolubly mounted within the casing, a top plate having an annular groove on its under surface, a cylindrical shield adapted to rotate in the grooves of the base and the top plate, said shield being cut out on one side, and a rod secured at one end to the safe and extending through the slot of the casing and through the wall of the shield.

941,941. SWITCH FOR INCANDESCENT-LAMP SOCKETS. WILL A. MCDONALD, Grampian, Pa. Filed Feb. 26, 1909. Serial No. 480,160.

1. A switch for incandescent lamp sockets, comprising a frame having a stationary handle and two movable handles, means for completing the electric circuit by forcing one of said movable handles toward said stationary handle and for breaking the circuit by forcing the other of said movable handles toward the stationary handle, each of said movable handles being forced away from the stationary handle by the movement of the other handle.

2. A switch for incandescent sockets comprising a frame provided with a stationary handle and a pair of laterally movable handles, and means adapted for completing the electric circuit when one of said movable handles is forced toward the stationary handle by a pinching action and for breaking the circuit when the stationary handle and the other of said movable handles are forced together.



3. A switch for incandescent sockets comprising a stationary frame provided with a projecting handle, a pair of levers pivotally mounted in said frame at right angles to each other and provided with handles on their projecting ends, one of said levers constituting a contact member and arranged to be locked in its operative position by a movement of the other lever.

4. A switch for incandescent sockets, comprising a stationary frame member provided with an extending handle, a pair of levers pivoted within said frame, the pivotal axes of said levers being at right angles to each other, one of said levers having a bent end portion constituting a contact member, actuating springs for said levers, said springs being arranged to cause a movement of either of said levers into the path of the other lever when the latter is moved, thereby locking the same in its shifted position.

5. A switch for incandescent sockets, comprising a frame having a projecting handle and a downwardly projecting arm constituting a guide member, a lever pivoted within said frame and having a bent end adapted for movement between said arm and the main frame, a second lever pivoted within said frame at right angles to the first-named lever, each of said levers being actuated by springs, handles for said levers, the above parts being so arranged that when one of the lever handles is forced toward the stationary handle the other lever springs into the path and locks the first-named lever in its shifted position.

941,942. GYVE. FREDRICK C. NAGLE, Keithville, La. Filed Aug. 4, 1909. Serial No. 511,113.



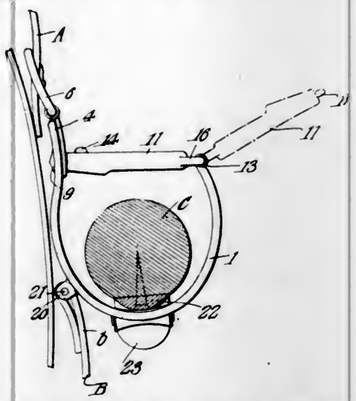
1. A gyve comprising a waist belt, a hip section attached to the belt, an ankle section pivotally connected to the hip section, an ankle band attached to the ankle section and a locking device at the pivotal connection between the hip and ankle sections adapted to permit limited swinging movement of the ankle section with relation to the hip section and adapted to automatically lock upon accelerated swinging movement of the ankle section with relation to the hip section.

2. In a gyve, a hip section, an ankle section, means for securing the said sections respectively to the upper and lower leg portions of a wearer, a locking device located at the pivotal connection between the hip and ankle sections and adapted to permit limited swinging movement of the ankle section with relation to the hip section and to automatically lock when the swinging movement of the ankle section with relation to the hip section is accelerated.

3. A gyve comprising a waist belt, a hip section attached to the belt, an ankle section pivotally connected to the hip section, a leg band carried by the hip section, leg and ankle bands carried by the ankle section, and a locking device located at the pivotal connection between the hip and ankle sections and adapted to permit limited swing of the ankle section with relation to the hip section and to automatically lock when the swing of the ankle section is accelerated.

4. In combination with a gyve having a waist belt and hip and ankle sections pivotally connected together and a locking device at the pivotal connection between the hip and ankle sections, a lock mounted upon the belt, an arm attachment having bands adapted to surround the arm of a wearer and comprising a bar having a shank extremity adapted to project beyond the elbow of the wearer and being provided with teeth, said shank section of the bar adapted to engage the lock upon the belt of the gyve.

941,943. THILL TUG OR CARRIER. WILLIAM H. NOGGLE, Lancaster, Ohio. Filed Mar. 1, 1909. Serial No. 480,639.

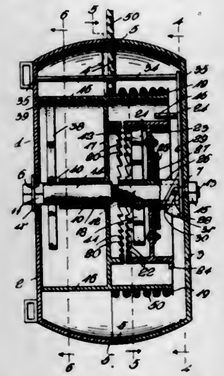


A thill tug consisting of a sheet metal U-shaped body portion having reinforcing marginal ribs, one end of said body portion being extended above the other end thereof and both of said ends having integral terminal eyes, there being parallel ears struck from the bottom portion of the body and an aperture within one side of the body, a metallic cap secured upon the body and extending over the aperture, there being a U-shaped rib upon the body and extending partly around the aperture, a tubular retaining bar having an eye at one end pivotally mounted within one of the eyes on the body, a spring-pressed locking bolt movably mounted within the bar, said rib constituting means for guiding the projecting end of the bolt into the aperture, and strap engaging means pivotally mounted in the other eye on the body, a thill-supporting roller journaled within the ears, and strap-engaging means extending from the body between the ears and the cap.

941,944. TROLLEY-RETRIEVER. CHARLES PALM, Aurora, Ill. Filed Sept. 22, 1908. Serial No. 454,186.

1. In a trolley retriever, a housing, a shaft extending through the walls of the housing and secured therein, a drum rotatably mounted on the shaft, a rotary clutch mounted on the shaft and arranged to engage the drum, a sliding plate for operating the clutch and means for operating the sliding plate having connections with a trolley.

2. In a trolley retriever the combination of a spring actuated drum for initially controlling the trolley pole manipulating line, a spring rotatable clutch member, a vertically movable member connected to move said clutch member into engagement with said drum when operated in one direction, and a line guide engaged with said vertically movable member and having a head arranged at an oblique angle and provided with an aperture for the passage of the line therethrough and operable by an upward movement of the line to raise said member and move the clutch member into engagement with the drum.



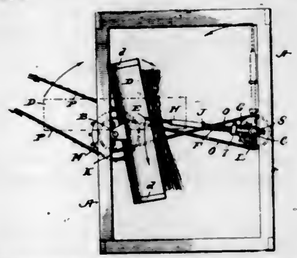
3. In a trolley retriever, the combination of a housing, a shaft mounted in said housing, a drum rotatably mounted on said shaft, a sleeve slidably mounted on said shaft and provided with a laterally extending annular shoulder or flange, a projection extending laterally from said sleeve, a clutch rotatably mounted on said flange and adapted to be moved by said sleeve into engagement with the drum, a movable plate for engaging said sleeve, an arm extending laterally from said plate and having an obliquely arranged slot for engagement with said lateral projection on the sleeve, a rope guide pivotally mounted in the housing and connected with said plate, a spring connected with said drum and with said shaft, and a spring connected with the clutch and arranged to exert its tension on the drum when the clutch is engaged with said drum.

4. In a trolley retriever, the combination of a housing, a shaft mounted against rotation within the walls of said housing, a drum rotatably mounted on said shaft and provided with clutch teeth, a longitudinally movable sleeve mounted against rotation on said shaft and provided with a plurality of laterally extending lugs or projections, a clutch member supported by said sleeve and mounted to rotate relatively thereto, teeth on said clutch member adapted to engage the clutch teeth of the drum, a plate movable vertically in said housing and provided with arms having oblique slots arranged to engage the lugs of said sleeve for moving the clutch into and out of engagement with the clutch of the drum, a spring for controlling the movement of said drum, a spring for controlling the movement of the clutch and adapted to exert its tension on the drum when said clutch engages therewith, and a rope guide pivotally mounted on the housing and adapted to raise said plate.

5. In a trolley retriever, the combination of a housing, a shaft extending through said housing and mounted against rotation in the walls thereof, a drum rotatably mounted on said shaft and provided with clutch teeth, a sleeve mounted to slide on said shaft and held against rotation relatively thereto, an annular flange extending laterally from said sleeve, a clutch member rotatably mounted on said flange and provided with teeth for engaging the teeth of the drum, radially extending teeth arranged on the periphery of said clutch member, a vertically movable plate provided with a laterally extending stud for engagement with the radial teeth of said clutch member to hold it against rotation, means carried by said plate for engaging said sleeve to move the clutch member into and out of engagement with the drum, and a rope guide pivotally mounted on the housing and adapted to raise said plate.

[Claim 6 not printed in the Gazette.]

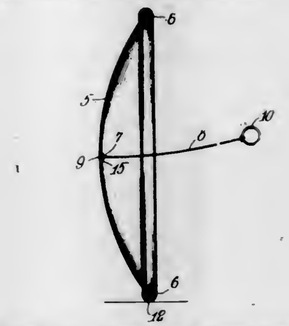
941,945. SELF-BINDER ATTACHMENT. EDWIN PENNINGTON, Westhope, N. D. Filed Oct. 26, 1908. Serial No. 459,483.



1. An attachment for self binders comprising a frame, a pair of shafts mounted in said frame, a trough mounted on one of said shafts, a spring-actuated arm secured to the other of said shafts and arranged to coöperate with said trough, and means for driving said shafts in opposite directions.

2. An attachment for self binders comprising a frame, a pair of horizontal shafts journaled in said frame, sprocket wheels on said shafts, and a crossed sprocket chain driving said shafts in opposite directions, a trough mounted on the end of one of said shafts, a spring-actuated curved arm mounted for revolution on the other of said shafts, and means for adjusting the angular position of said arm with respect to said trough.

941,946. ROLLING TOY. OSCAR PRION, Milford, Mich. Filed May 18, 1908. Serial No. 433,495.



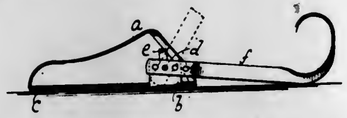
1. A rolling toy consisting of a dished plate of circular form, made of sheet metal and provided at its peripheral edge with an integral turned-over portion or roll forming a hollow tubular flange or tire extending around, and offset to one side of the edge of the plate in combination with a guiding string loosely connected with the plate centrally thereof and fragments of hard material placed within the hollow, tubular flange or tire.

2. A rolling toy consisting of a dished plate of circular form, made of sheet metal and provided at its peripheral edge with an integral turned-over portion or roll forming a hollow tubular flange or tire extending around, and offset to one side of the edge of the plate; said plate being provided with a central aperture surrounded by a depression or pocket formed in the convex side of the plate; in combination with a guiding string extending through the aperture and having an obstruction seated in the pocket; and fragments of hard material placed loosely within the hollow tubular flange or tire.

941,947. SHOE-TREE. THOMAS G. REDINGTON, New York, N. Y. Filed June 29, 1909. Serial No. 504,968.

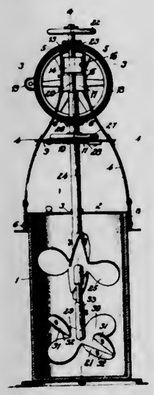
1. A shoe tree constructed of a piece of material formed into instep and foot shape and having its meeting edge

bent into shape to form a flat bottom, lip portions at the bottom in advance of the rear end portion, a spring and hinge pin supported by the lip portions, and a handle pivoted between the lips and adapted to be sustained by the rear end portion, one of said lips being slitted to support one end of the spring and the lips and handle being perforated to receive the hinge pin supported by the spring.



2. A shoe tree constructed of a piece of sheet like material formed into instep and foot shape and having its meeting edge bent into shape to form a flat bottom with closed rear end portions, lip portions in advance of the rear end portion, and a handle pivoted between the lips and adapted to be sustained by the rear end portion, said bottom portion having an opening in advance of the rear portion to allow the forwardly projecting portion of the handle to enter for the handle to swing up into grasping position to manipulate the tree.

941,948. CHURN. DAVID REES, Joplin, Mo. Filed July 29, 1909. Serial No. 510,167.



1. In a churn the combination of a churn body, a ball shaped supporting member pivotally connected at its free ends to said body and having slots opening through said ends and extending longitudinally of said member, laterally projecting studs mounted on the churn body for engagement by said slots to support said ball shaped member in upright position, latch members for engaging said studs to lock said member in upright position, a shaft rotatably mounted in said member, coöperating shaft driving elements carried by said shaft and frame respectively and a dasher mounted on said shaft and operable within said churn body.

2. In combination with a churn body, a shaft rotatably mounted therein, a dasher mounted on said shaft and having blades arranged at an oblique angle to the shaft, one of said blades having its opposite edges bent upwardly and downwardly respectively.

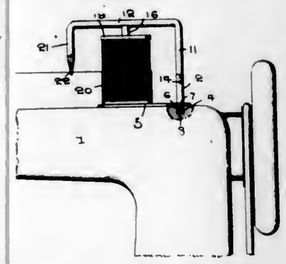
3. A churn dasher comprising blades arranged approximately in the form of a Maltese cross and having their corners rounded and a sleeve extending centrally through said dasher and secured thereto at an oblique angle.

4. A churn dasher comprising blades arranged approximately in the form of a Maltese cross and having their corners rounded and a sleeve extending centrally through said dasher and secured thereto at an oblique angle, two of said diametrically opposite blades having their side edges bent upwardly and downwardly in opposite directions.

5. A churn dasher comprising a plate having a sleeve extending therethrough at an oblique angle thereto.

[Claim 6 not printed in the Gazette.]

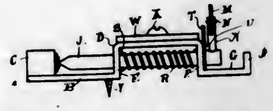
941,949. SPOOL AND TWINE HOLDING DEVICE. HERRMAN REICHERTER, Cameron, W. Va. Filed July 19, 1909. Serial No. 508,324.



1. In a holding device, the combination with a post and means to attach the post to an object, said post having a slot adjacent its upper end and a shoulder above said slot; of a frame having a depending arm, said arm having a tongue at its lower end and a shoulder adapted to coöperate with the shoulder on the post, means to mount the tongue in said slot, a mandrel depending from said frame and of less length than the distance between the frame and the object to which the frame is secured, and a guide arm depending from said frame, said guide arm having an eye in its lower end.

2. In a holding device, the combination with a post, a bearing plate, said post having a slot adjacent its upper end and a shoulder above the slot, and means to attach said bearing plate and post to an object; of a frame having a depending arm, said arm terminating in a tongue at its lower end, said arm also having a shoulder adapted to coöperate with the shoulder on the post, means to pivotally secure the tongue in said slot, said shoulder and tongue limiting the swinging movement of the frame, a mandrel secured to said frame and a guide arm integral with said frame and having an eye at its lower end.

941,950. AUTOMATIC ALARM. WILLIAM H. REIFF, Philadelphia, Pa., assignor to David J. Potter, Philadelphia, Pa. Filed Feb. 10, 1909. Serial No. 477,113.



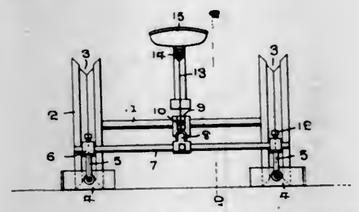
1. In an automatic alarm, a frame so bent as to form a base, a housing, the sides of which have openings formed therein, an auxiliary base and a lug having a virtually V-shaped notch formed therein, a cartridge holder mounted on the base, a firing pin passing through the openings in the sides of the housing, a pin passing through the firing pin within the housing, a spiral spring entwined about the firing pin within the housing, one end of which rests against one side of the housing, the other end against the pin passing through said firing pin, an arm secured to the firing pin having a slot formed therein, said arm adapted to engage with the lug for holding the firing pin in a retracted position, a pin spanning said slot, a trigger pivoted upon said pin and having a finger on its inner end, another pin passing through the arm in proximity to the lower extremity of the slot with which the finger is adapted to engage, and means for securing the alarm to a door jamb.

2. In a device of the character described, the combination with a frame so bent as to form a base, a housing an auxiliary base and a lug, a cartridge holder, a spring actuated firing pin, of an arm secured to the firing pin having a slot formed therein, a trigger movably mounted within said slot, and means for limiting the pivotal movement of said trigger in one direction.

3. In a device of the character described, the combination with a frame so bent as to form a base, a housing, an auxiliary base and a lug, of a firing pin slidably mounted in the ends of said housing, a laterally extending arm mounted on said firing pin adapted to be engaged with said lug, said arm having a slot formed therein, a trigger having a finger formed at its inner end mounted within said slot, a pin passing through the arm in proximity to the lower extremity of the slot with which the finger is adapted to engage, and a spring contained in the housing and tending normally to maintain said plunger in close relation to the cartridge chamber.

4. In a device of the character described, the combination with a frame so bent as to form a base, a housing, an auxiliary base and a lug, a cartridge holder mounted on said base, of a spring actuated firing pin, an arm on said firing pin adapted to engage the lug, a safety plate loosely mounted upon said firing pin between the housing and the arm, and an extension having a curved notch with which the arm is adapted to register for preventing the contact of the firing pin with the cartridge.

941,951. ATTACHMENT FOR PLANTERS. WALTER C. REYNOLDS, Polo, Ill. Filed Mar. 23, 1909. Serial No. 485,302.



1. A device of the character described comprising a pivoted bar, a transverse rod centrally connected to one end of said pivoted bar, shanks sleeved and held upon said rod near its ends, and covering means attached to the lower ends of said shanks.

2. A device of the character described, comprising a pivoted bar, means for effecting the adjustment of said bar, a rod centrally connected to said bar at one end, covering means, shank members connected to said covering means at their lower ends, and having sleeve-connection with said rod near its ends, said sleeve-connection being provided with adjusting means engaging said rod.

3. A device of the character described, comprising a bifurcated pivoted bar, means for effecting adjustment of said pivoted bar, a rod received by a sleeve at one end of said bar, about at its center, covering means, shanks connected to said covering means at their lower ends, said shanks having sleeves at their upper ends, said sleeves being provided with adjusting means adapted to engage said rod.

4. A device of the character described, comprising a bifurcated pivoted bar, means for the retention of said bifurcated bar in effective position, means for the vertical adjustment of said bar, a rod having sleeve and adjusting screw connection about centrally with said bar, covering means, shanks connected to said covering means at their lower ends, said shanks having sleeve and adjusting means of connection with said rod, and resilient means for aiding the retention of said bar in operative position.

941,952. SECURING NOTCHES TO STICKS OF UMBRELLAS AND PARASOLS. JOHN B. RIEHL, Philadelphia, Pa., assignor to American Specialty Manufacturing Company, Dover, Del., a Corporation of Delaware. Filed Apr. 16, 1908. Serial No. 427,445.



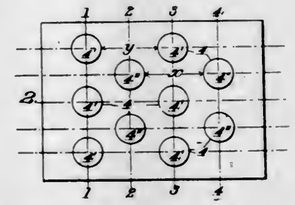
1. The combination of a metallic umbrella stick of closed tubular form with a notch secured thereto by interlocking and unbroken indentations in the notch and stick.

2. The combination of a metallic umbrella stick of closed tubular form with a notch secured thereto by a series of equidistantly disposed, interlocking and unbroken indentations in the notch and stick.

3. The mode herein described of securing a notch to a metal umbrella stick of closed tubular form, said mode consisting in first clamping the notch to the stick at various points throughout its circumference, and then indenting the metal of the notch between said clamped portions thereof.

4. The mode herein described of securing a notch to a metal umbrella stick of closed tubular form, said mode consisting in first clamping the notch to the stick at various points throughout its circumference, and then indenting the metal of the notch and stick between said clamped portions thereof.

941,953. DIE-CUTTING MACHINE. DANIEL P. ROBINSON, Baltimore, Md., assignor to Continental Can Company, Baltimore, Md., a Corporation of New Jersey. Filed May 28, 1909. Serial No. 499,033.



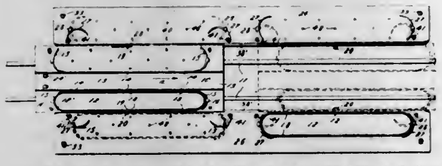
1. A die-cutting machine for cutting a plurality of disks from a sheet of metal or other material, including a gang of dies arranged in parallel rows with the dies in adjacent rows symmetrically staggered relative to one another, and the dies in the outer rows extending in one direction staggered relative to the dies in the opposite outer parallel row, the distance between the cutting edges of the dies in the rows extending in one direction, being spaced slightly greater than twice the diameter of a die and the distance between the cutting edge of the dies in the rows extending at right angles to said first named rows being slightly less than the diameter of a die.

2. A die-cutting machine for cutting a plurality of disks from sheet metal including a gang of dies arranged in an even number of parallel rows in one direction, and in any number of parallel rows in a direction at right angles thereto, the dies in adjacent rows being staggered relative to one another, the distance between the cutting edges of the dies in the rows extending in one direction, being slightly greater than twice the diameter of the dies, and the distance between the cutting edges of the dies in the rows extending at right angles to the first named rows, being slightly less than the diameter of the dies, whereby a sheet of metal may be presented to said gang of dies and cut, reversed end for end and again cut, moved sidewise and again cut, so that the entire sheet may be cut in three

operations, cutting therefrom a staggered arrangement of disks and cutting in each operation an equal number of disks.

3. A die cutting machine for cutting a plurality of disks from a sheet of metal or other material, including a gang of dies arranged with the centers of any three dies located at the angles of a substantially equilateral triangle, and the distance between the cutting edges of the dies being such that a disk may be cut in a subsequent operation of the same diameter as the dies, from the material left after an operation by said three dies, and only sufficient waste material left between the opening formed by said disk and the openings formed by said dies to hold the material together, the dies at one extreme side of said gang being staggered relative to the dies at the opposite extreme side whereby a sheet of metal may be presented to said gang of dies and cut, reversed end for end, and again cut, moved sidewise and again cut, so that the entire sheet may be cut in three operations, cutting therefrom a staggered arrangement of disks and cutting in each operation, an equal number of disks.

941,954. MEANS FOR TRANSFERRING PASSENGERS TO AND FROM MOVING TRAINS. JOHN ROSS, Terry, S. D., assignor of one-eighth to John Gustafson and one-eighth to Victor Jacobson, Terry, S. D. Filed Sept. 21, 1909. Serial No. 518,829.



1. In a device for transferring passengers to and from moving cars, the combination with a car and stationary platform, of a pair of yokes pivotally mounted upon the car, a receptacle receivable between said yokes, means extending through the bottom of the car for determining the position of said yokes, means including a lever for operating said supporting means, means to cause said lever to be projected outwardly beyond the edge of the car in a horizontal direction, and means mounted upon the platform to cause said lever to be operated, causing the operation of said yokes.

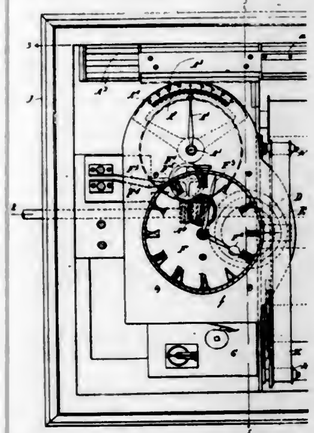
2. In a device of the character set forth, the combination of a car, a pair of shafts extending upwardly through the bottom thereof, a pair of yokes connected to said shaft, a pair of cranks connected to the shafts below the bottom of the car, a slide movably mounted on the bottom of the car between said cranks, means operable from above the bottom of the car to cause the movement of said slide, a lever pivoted on said slide and adapted to be projected thereby beyond the outer edge of the car, and connections between said cranks and said lever, whereby movement of the lever will cause simultaneous operation of the cranks and yokes.

3. The combination of a car having a longitudinal lateral dove-tailed groove, a platform having a tongue adapted to be received by said groove, a receptacle, and means connected to the car and platform for transferring the receptacle to and from the car and platform, substantially as set forth.

4. The combination of a car having a projection rigidly connected thereto, a platform, a pair of yokes mounted above the surface of said platform, supporting means for said yokes extending downwardly through the platform, operating means for said yokes including a lever adapted to be struck by the aforesaid projection on the car, and means to control the position of said lever so as to determine whether or not it shall be struck by said projection.

5. The combination of a car, a platform, a receptacle transferable between the car and platform, a pair of yokes on the platform to engage the ends of the receptacle, supporting and operating means for said yokes connected to the bottom of the platform and including a pair of bell cranks and a lever provided with projections lying normally between certain pairs of said bell cranks, said lever being adapted to be struck by a projection on the car, and means to control the position of said bell cranks and lever so as to determine whether or not the lever shall be struck by said projection.

941,955. MECHANISM FOR INDICATING AND RECORDING THE MOVEMENTS OF SHIPS' HELMS. FREDERIC M. RUSSELL and ALFRED J. JUNG, London, England. Filed May 28, 1909. Serial No. 498,967.



1. In an apparatus for indicating and recording the movements of a ship's helm, the combination of record strip feeding mechanism, a clockwork mechanism having time printing devices, an inking ribbon, a stylus mechanism operatively connecting the stylus with the helm, to cause it to move therewith, mechanism controlled by the clock for bringing the record strip and the time printing devices into printing contact at regular intervals and a motor for continuously moving the record strip feeding mechanism.

2. In an apparatus for indicating and recording the movements of a ship's helm, the combination with a clock having time printing devices one for hours, and one for minutes, of a stylus means positively connecting the stylus with the ship's helm, to move with it, a motor for continuously moving a record strip, a hammer, an electromagnet, controlling the hammer and a make and break mechanism controlled by the clock for periodically bringing the record strip and printing devices into printing contact.

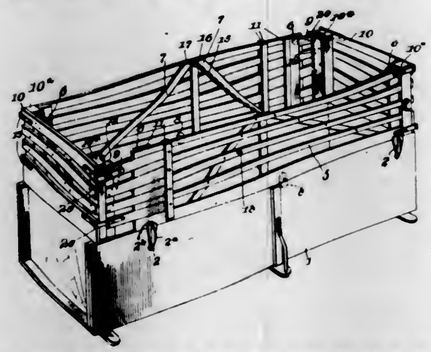
3. In an apparatus for indicating and recording the movements in direction, extent, and time of a ship's helm, the combination of a clock having time printing devices, two feed rollers for a record strip, a motor for continuously driving the feed rolls, a stylus, an arm carrying the stylus, a rack on the arm, a quadrant gearing with the rack and positively connected to the ship's steering gear to move the stylus in the same relation as the ship's helm, and means controlled by the clock for periodically bringing the time printing devices and the record strip into printing contact.

4. In an apparatus for indicating and recording the movements, in direction extent and time of a ship's helm, the combination with a clock having time printing devices, and a hammer, of an electromagnet, controlling the hammer, a circuit closer controlled by the clock for periodically causing the hammer to bring a record strip into printing contact with the printing devices, feed rolls geared together for the record strip, means whereby the rolls can move relatively to one another while in gear, a motor for the feed rolls, a stylus adapted to bear on the record strip and means positively connecting the stylus with the ship's helm.

5. In an apparatus for indicating and recording the movements in direction, extent and time of a ship's helm, the combination of a clock, time printing hour and minute devices driven from the clock, a levered hammer, an electromagnet connected with the hammer lever an electric circuit for the magnet a circuit closer, mechanism driven by the clock to periodically force the hammer against a record strip and the record strip against the printing devices, a stylus, an arm carrying the stylus, a rack on the arm, guides for the rack a quadrant gearing with the rack, mechanism positively connecting the quadrant with the ship's helm, to move in the same relation as it, feed roll for the record strip, a second feed roll for the strip, a pivoted frame carrying the second roll, gearing connecting the two rolls and a motor driving one of the rolls continuously.

[Claims 6 to 12 not printed in the Gazette.]

941,956. SIDE-BOARD ATTACHMENT FOR WAGONS. ALEXANDER SANDERS and CLARENCE M. REBMAN, Okemah, Okla. Filed Feb. 24, 1909. Serial No. 479,701.



1. The combination of a wagon body, swinging side boards applied to the upper edges of the wagon body and adapted either to be swung upwardly into an operative position or downwardly into the interior of the wagon body, an extension mounted upon each of the side boards, and an end gate hinged upon each of the extensions and provided with means for engaging the opposite side board.

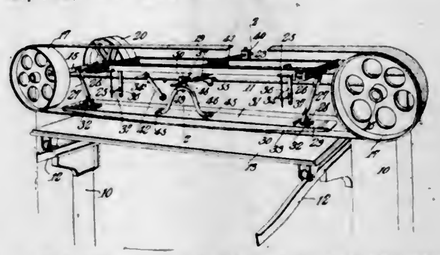
2. The combination of a wagon body, clamps detachably applied to the sides of the wagon body, side boards hinged upon the clamps and having a length less than the length of the wagon body so that they can either be swung upwardly into an operative position or downwardly into the interior of the wagon body, an extension upon each of the side boards, and an end gate hinged to each of the extensions, the said end gates being provided with means for engaging the opposite side boards.

3. The combination of a wagon body, U-shaped clamping members applied to the upper edges of the wagon body, the said clamping members being each formed with a reinforcing rib and with wings upon the reinforcing rib, and swinging side boards carried by the clamps and adapted either to be swung upwardly into an operative position or downwardly into the interior of the wagon body, the before mentioned wings of the clamps engaging the said side boards when in an operative position to prevent them from being forced outwardly beyond the wagon body.

4. The combination of a wagon body, swinging side boards mounted upon opposite sides of the wagon body so as to be either swung upwardly into an operative position or downwardly into the interior of the wagon body, an extension upon each of the side boards, an end gate hinged upon each of the extensions and formed at its swinging end with a batten which is rabbeted for engagement with the opposite side board, and means for holding the end gates in engagement with the side boards.

5. The combination of a wagon body, clamps detachably applied to the upper edges of the wagon body, arms hinged to the clamps, side boards applied to the arms and having a length less than that of the wagon body, the said side boards being designed either to be swung upwardly into an operative position or downwardly into the interior of the wagon body, a longitudinal extension for each of the side boards, an end gate hinged to each of the extensions and provided at its swinging end with a rabbeted batten adapted to engage the corresponding end of the opposite side board, and means for holding the end gates in engagement with the side boards.

941,957. SANDING, ABRADING, OR POLISHING MACHINE. FRIDOLIN SCHIMMEL, Faribault, Minn. Filed Sept. 15, 1908. Serial No. 453,109.



1. In a machine of the class described, a stationary frame, a rocking frame pivoted thereto, links hung from the rocking frame, and a rocker carried by the links and pivotally connected thereto, the connections of the links to the rocker being closer together than the pivot connections of the links to the rocking frame.

2. In a machine of the class described, a rocker, and links supporting the same, said links being pivotally supported above the rocker at a point more remote than the connections of said links with the rocker.

3. In a machine of the class described, a rocker and links supporting the same, said links being pivotally supported above the rocker at points more remote than the connections of said links with the rocker, an intermediate support for the rocker, and a manually operable lever connected to said intermediate support.

4. In a machine of the class described, a rocker and pivoted non-parallel links attached to the said rocker and having their pivot supports located in the vicinity of the ends of the rocker.

5. In a machine of the class described, a rocker and pivoted non-parallel links attached to said rocker and having their pivot supports separated by a greater distance than the length of the links.

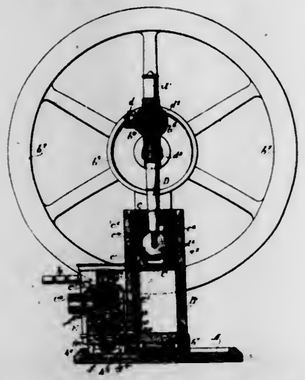
[Claims 6 to 10 not printed in the Gazette.]

941,958. PUMP. ADOLPH W. SCHRAMM, Riverton, N. J., assignor to Electro Dental Manufacturing Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Sept. 5, 1907. Serial No. 391,449.

1. The combination in a pump of a main casting having a cylinder, a piston operative in the cylinder, a main shaft extending through said casting and operatively connected to the piston, said casting being provided with a slot or slots extending into the shaft bearing, and having means for drawing together those portions defined by the opposite faces of the slot or slots, substantially as described.

2. The combination in a pump, of a cylinder, a piston, means for driving said piston, two valve casings communicating with each other, one casing communicating with the cylinder, and the other having means for connection to a reservoir, a cage interposed between the two casings,

a second cage in the second casing, a valve in each casing, and a spring confined between each cage and its valve, substantially as described.



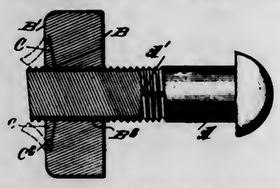
3. The combination in a pump, of a cylinder, a piston, means for driving said piston, two valve casings connected to each other, one of said casings also connecting with the cylinder, and the other having means for connection to a reservoir, a structure interposed between said casings, and a valve in each casing, said structure having an opening and serving as a seat for one of the valves, with means for holding the valves to their seats, substantially as described.

4. The combination in a pump of a cylinder, a piston, means for driving said piston, two valve casings communicating with each other, one casing communicating with the cylinder, and the other having means for connection to a reservoir, a cage interposed between the two casings, a second cage in the second casing, and a valve in each casing.

5. The combination of a cylinder, a piston therefor, means for driving the piston, two valve casings, one casing being detachably connected to the cylinder and communicating therewith, a cage mounted between the two casings, a second cage mounted in the second casing, a yoke piece holding said cages and casings together, with valves in the cages, there being an inlet to the first casing, an outlet to the second casing and a passage connecting said casings, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

941,959. NUT-LOCK. WALTER W. SENN, Munson Station, Pa. Filed Apr. 10, 1909. Serial No. 489,120.



1. In a nut lock the combination of a bolt having longitudinal grooves crossing its threads, a nut having a bore to receive said bolt and provided in its outer face with a series of integral tongues or spurs formed from the body of the nut and tapering from their outer to their inner ends with their opposite sides converging toward the inner ends or points of the sides and made of a maximum thickness at their inner pointed ends and gradually reducing in thickness thence toward their outer ends where they unite with the body of the nut, the spurs being seated when in locked position in corresponding recesses in the outer face of the nut, and the said nut being provided in its said outer face with lateral slots communicating with said recesses and adapted to receive punches or other suitable instruments by which the tongues or spurs may be readjusted to normal position, substantially as set forth.

2. A nut having a bolt opening and provided in its outer face with a series of integral tongues formed from the body of the nut and tapering from their outer to their inner ends with their opposite sides converging toward the inner ends or points of the sides and made of maximum thickness at their inner pointed ends and gradually reducing in thickness toward their outer ends where they unite with the body of the nut, the tongues being seated when in locked position in corresponding recesses in the outer face of the nut, and the said nut being provided in its said outer face with lateral slots communicating with said recesses and adapted to receive a punch or other suitable instrument by which the tongues may be readjusted to normal position.

3. A nut having a bolt opening provided in its outer face with a series of integral tongues or spurs formed from the body thereof and tapering from their outer to their inner ends and seated when in locked position in recesses in the face of said nut, said nut being provided in its said face with lateral slots communicating with the recesses and adapted to receive a punch or other suitable instrument by which the tongues may be readjusted.

4. A nut having a bolt hole and provided on its outer face with tongues, and with recesses receiving the tongues whereby the tongues may be pressed when in locked position into the recesses with their outer faces flush with the face of the nut, the body of said nut being slotted alongside the tongues to facilitate the readjustment of the tongues, substantially as set forth.

941,960. KINEMATOGRAPH APPARATUS FOR THE PRODUCTION OF COLORED PICTURES. GEORGE A. SMITH, Southwick, Brighton, England. Filed June 11, 1907. Serial No. 378,446.

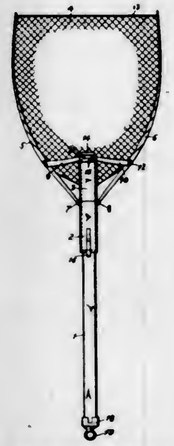


1. A kinematograph apparatus for producing images in substantially their natural colors, comprising two color screens of independent colors, means for alternately interposing said screens in the production of successive images whereby succeeding images take the colors of said screens alternately, in combination with a coöperating film having twice the number of images of an ordinary black and white kinematograph film, the images on said film alternating in color values, said color values in screen and film being such as to present to the eye in the blending of each two successive images a kinematographic series in substantially its natural colors.

2. A kinematograph apparatus for producing images in substantially their natural colors, comprising two independent screens of red and green color values respectively and means for alternating the same in the production of successive images, in combination with a coöperating film having twice the number of images of an ordinary black and white kinematograph film, the images on said film having alternate red and green color values, said color values in screens and film being such as to present to the eye in the blending of each two successive images a kinematographic series in substantially its natural colors.

3. A kinematographic apparatus for producing images in substantially their natural colors, comprising two independent color screens of red and green color values respectively and means for alternating the same in the production of successive images, in combination with a cooperating panchromatic film having twice the number of images of an ordinary black and white kinematographic film, the images on said film having alternate red and green color values, said color values in screens and film being such as to present to the eye in the blending of each two successive images a kinematographic series in substantially its natural colors

941,961. LANDING NET-FRAME. FREDERICK M. SPIEGLE, New York, N. Y. Filed Apr. 26, 1909. Serial No. 492,342.

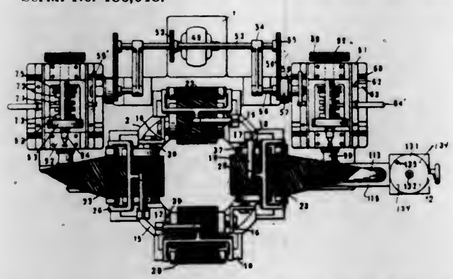


1. A landing net frame comprising a handle, two sleeves slidable thereon, a stop at each end of the handle, a pair of arms hinged to the inner sliding sleeve, a link pivotally connecting each arm to the outer sliding sleeve and a cord connecting the outer ends of the arms, the proportions of the parts being such that the arms are somewhat bowed when distended but lie against the handle throughout substantially their entire lengths when shut up.

2. A landing net comprising, a handle, a pair of sleeves slidable thereon, a stop at each end of the handle, a pair of arms hinged to the inner sleeve, a link pivotally connecting each arm to the outer sleeve, said outer sleeve abutting against the stop at the outer end of the handle and said inner sleeve abutting against said outer sleeve when the arms are distended.

3. A landing net comprising, a handle, a pair of sleeves slidable thereon, stops therefor, a pair of arms hinged to the inner sleeve, links connecting the arms to the outer sleeve and a catch for holding the inner sleeve when the arms are distended.

941,962. PNEUMATIC-TIRE-SHOE-MANUFACTURING MACHINE. WILL C. STATE, Akron, Ohio, assignor to Frank A. Seiberling, Akron, Ohio. Filed Mar. 26, 1909. Serial No. 486,043.



1. An open tire-shoe making machine comprising the combination of a power-driven ring-core, and a pair of stock-rolls for carrying strips of sheeted fabric having their threads at alternate angles for alternate application to the core, substantially as described.

2. An open tire-shoe making machine comprising the combination of a power-driven ring-core, a transversely movable support, and a pair of stock-rolls for carrying strips of sheeted fabric having their threads at alternate angles mounted on the support for alternate juxtaposition to the ring-core, substantially as described.

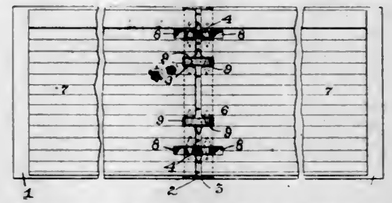
3. An open tire-shoe making machine comprising the combination of a power-driven ring-core, a rotary support, and a pair of stock-rolls for carrying strips of sheeted fabric having their threads at alternate angles, mounted on the support for alternate juxtaposition to the core, substantially as described.

4. An open tire-shoe making machine comprising the combination of a sheet-fabric supply, a power-driven ring-core, a radially moving support laterally spring-pressed toward the core, and a spinning-roll mounted on the support for passing radially along the sides of the tire-shoe to shape the sheeted fabric on the core, substantially as described.

5. An open tire-shoe making machine comprising the combination of a sheet-fabric supply, a power-driven ring-core, a radially moving support laterally spring-pressed toward the core, and a spinning-roll mounted on the support at a receding angle to the plane of the core for passing radially along the sides of the tire-shoe to shape the sheeted fabric on the core, substantially as described.

[Claims 6 to 26 not printed in the Gazette.]

941,963. LOOSE-LEAF HOLDER. EDWIN E. TAIT, Bradford, Pa. Filed Aug. 12, 1909. Serial No. 512,560.



1. In combination with a suitable cover, means for detachably securing loose leaves therein, with means for guiding the leaves laterally and vertically when inserting or removing the same, and means for holding the leaves firm when in writing position, substantially as described.

2. In combination with a suitable cover, double-hooked members having their ends in yielding contact for the insertion or removal of loose leaf members, with means for guiding said leaves during said operations, substantially as described.

3. In combination a back plate, resilient members carried thereby and having inwardly turned rounded ends yieldingly held in contact, and leaves having eyes engaged by said members, substantially as described.

4. In combination a back plate, resilient members carried thereby having inwardly turned abutting ends, guide members carried by the back, and leaves having eyes for engaging the resilient members and notches for receiving the guide members, substantially as described.

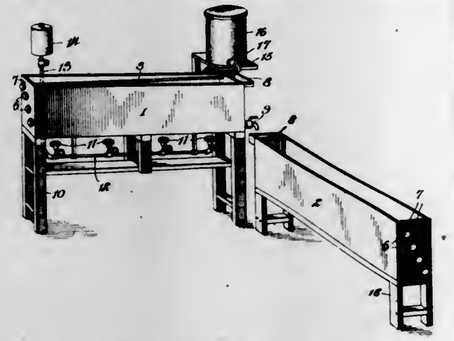
5. In combination a back plate, retaining members carried thereby having ends turned inwardly toward each other, spacing members between said retaining members, and leaves having eyes to be engaged by said retaining members and notched edges to receive the guiding members, substantially as described.

[Claim 6 not printed in the Gazette.]

941,964. MILK PASTEURIZER AND COOLER. WALTER R. THATCHER, Oskaloosa, Iowa. Filed May 25, 1909. Serial No. 498,210.

1. An apparatus of the class described including a casing provided with straight circulating tubes extending entirely through the casing and having communicating terminals arranged in pairs, individual caps detachably mounted on the exterior of the casing and surrounding each pair of terminals and coöperating with the tubes to form a single continuous passage and when removed exposing both tubes of each pair.

2. An apparatus of the class described including a casing provided with straight circulating tubes having communicating terminals arranged in pairs and piercing the casing, collars arranged exteriorly of the casing and surrounding the terminals of the said tubes and provided with inner attaching portions secured to the casing, said collars being threaded, and screw caps removably fitted on the collars and adapted when detached to expose both tubes of each pair.



3. An apparatus of the class described including a casing provided with oppositely inclined circulating tubes arranged at different elevations and having their terminals located adjacent to each other and piercing the opposite walls of the casing and projecting exteriorly of the same, collars projecting exteriorly of the casing and receiving the said terminals of the tubes, caps removably fitted on the collars and forming closures for the same and when removed exposing each of the tubes, said caps coöperating with the tubes to form a single continuous passage for the milk, a receptacle connected with the upper end of the upper inclined tube at the inlet of the said passage, and means connected with the lower end of the bottom inclined tube for controlling the flow of milk through the said passage.

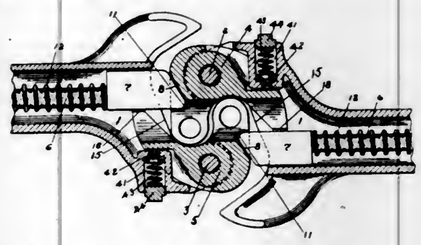
4. An apparatus of the class described including an oblong casing, an obliquely arranged series of circulating tubes oppositely inclined and located at different elevations and in different vertical planes and having contiguous terminals piercing the end walls of the casing and projecting exteriorly of the latter, and removable closures receiving each pair of contiguous terminals, said closures coöperating with the tubes to form a single continuous passage for the milk and when removed exposing both tubes of each pair.

5. An apparatus of the class described including upper and lower casings, located in different planes, one end of one of the casings being arranged adjacent to one end of the other casing and each provided with a series of oppositely inclined circulating tubes arranged at different elevations, receptacles communicating with the upper ends of the upper tubes of both pairs, means connected with the lower ends of the lower tubes for controlling the flow of milk through the same, the said means at the lower tube of the upper casing being arranged to discharge into the receptacle of the lower casing, and one or more burners arranged beneath the upper casing for heating the contents thereof.

941,965. CAR-COUPLING. CHARLES H. TOMLINSON, Mansfield, Ohio. Filed May 4, 1908. Serial No. 430,647.

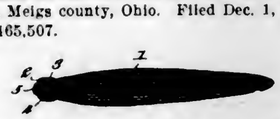
1. In a car coupler of the "Janney" type comprising a hollow draw-head, a knuckle having an elongated recess formed in the outer face thereof pivotally secured to the draw-head, a spring-held locking bar slidably mounted in the draw-head with one end normally extending beyond the face thereof, and an uncoupling device for retracting the locking-bar against the pressure of the spring.

2. The combination of two car-couplers of the "Janney" type comprising two hollow draw-heads having sliding spring-held locking bars mounted therein with their ends projecting beyond the chamber of the draw-heads, knuckles pivotally secured to said draw-heads having elongated recesses and so located as to be in direct alinement with the extremities of the locking-bars to permit the locking-bars to enter the recesses of the opposing or coöperating knuckles respectively when the knuckles are in coupled position and to permit some vertical movement but limit excessive vertical movement of the couplers, and an uncoupling device for retracting the locking-bar against the pressure of the spring.



3. In a car-coupler of the "Janney" type, the combination of a recessed knuckle and a longitudinally sliding springheld locking device projecting beyond the forward contour line of the coupler which is adapted to enter the recess of an opposed knuckle to prevent excessive vertical displacement and buckling effect when coupled to another of its own type, and an uncoupling device for retracting the locking-bar against the pressure of the spring.

941,966. SELF-LIGHTING CIGAR. DON G. VALE, Salem township, Meigs county, Ohio. Filed Dec. 1, 1908. Serial No. 465,507.



As an article of manufacture, a self-lighting cigar embodying a cigar body of tobacco, an inner layer of adhesive material containing saltpeter and applied to the end of the body in such manner as to seal said end and also impregnate the same and form a supporting filler therefor, an outer layer or cap applied upon the inner layer and around the impregnated and filled end portion of the cigar and composed of charcoal, saltpeter and a binder therefor, and a tip of match compound applied to said outer layer or cap.

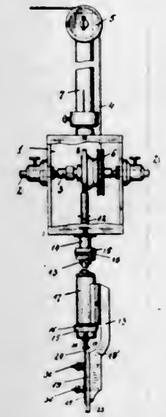
941,967. CUTTING-TOOL FOR APPLIQUÉ-WORK. WILLIAM VOGEL, New York, N. Y., assignor to Betty Vogel, New York, N. Y. Filed May 27, 1907, Serial No. 376,019. Renewed Feb. 8, 1908. Serial No. 416,389.

1. In an appliqué cutting tool, a dirigible reciprocating blade for cutting out portions of appliqué work, a coöperating shearing member for said blade, and guiding means adapted to lie between the foundation ground work and the appliqué work to engage a stitched pattern for guiding the progress of said dirigible blade.

2. In tools for cutting fabric, power driven cutting means for cutting out portions of appliqué work, and means for preventing the cutting of the foundation ground work, said means comprising a foot projecting across and below the path of the cutting edge of said cutting means and arranged to overlie said foundation ground work.

3. In tools for cutting fabric, power driven cutting means for cutting out portions of appliqué work, and means for preventing the cutting of the foundation ground work and providing a guide for engaging a stitched pattern to direct the progressive movement of said cutting means over the appliqué work.

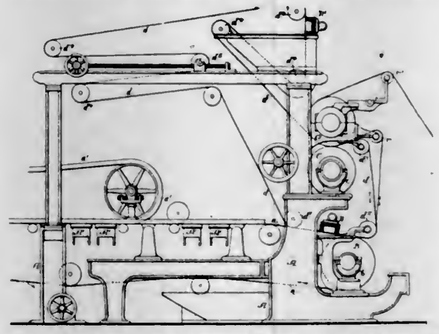
4. In tools for cutting fabric, a reciprocating means for cutting out portions of appliqué work; means for preventing the cutting of the foundation ground work, said means comprising a foot projecting across and below the path of the cutting edge of said cutting means and arranged to overlie said foundation ground work; a power driven shaft for driving said reciprocating cutting means; and a swivel connection between said shaft and said reciprocating cutting means to facilitate the guiding of said cutting means.



5. In an appliqué cutting tool, a power driven reciprocating member; a cutting blade operated thereby and having an up and down movement; a mounting for said blade permitting the free rotation of said blade about the axis of said reciprocating member; an upwardly directed part provided on said mounting for coöperating with the cutting edge of said blade; and a part on said mounting providing a guiding edge for following a pattern to direct the progress of the cutting blade relatively to the fabric.

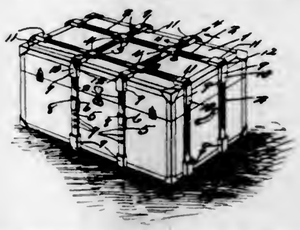
[Claims 6 to 11 not printed in the Gazette.]

941,968. PAPER-MAKING MACHINE. JOSEPH A. WHITE, Philadelphia, Pa., assignor to The Moore and White Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed June 7, 1909. Serial No. 500,631.



The combination in a paper making machine of a frame, a couch roll at the rear end of the frame, a making screen adapted to pass around the couch roll, a suction box mounted on the upper side of the screen before it passes around the couch roll and by which the paper is lifted off the screen, an endless belt mounted above the screen and adapted to pass under the suction box, press rolls between which the paper and the felt pass, guides for directing the paper from the couch roll to the press roll, the surface of the paper that was in contact with the making screen being brought into contact with the bare press roll, whereby the screen marks are obliterated.

941,969. TRUNK-HARNESS. AUSTIN D. WILLIAMS, Roseville, Cal. Filed May 8, 1909. Serial No. 494,919.



In a trunk harness, the combination of a plurality of straps crossing at points forming junctions, holders for said junctions, protectors comprising hinged members carried by the straps and designed to engage the corners of a trunk in order to relieve excessive wear upon the straps.

941,970. AUTO-PROPELLER. ELMER E. WILSON, Scottsville, Kans. Filed Aug. 19, 1909. Serial No. 513,607.



1. In an automobile propeller, a pivoted frame having a propelling wheel, means for transmitting motion thereto, an inverted Y-shaped frame having a connection with the pivoted frame and provided with a movable fulcrum, and means for manipulating the inverted Y-shaped frame in order to raise the pivoted frame.

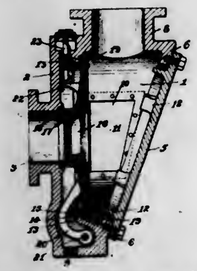
2. In an automobile propeller, a pivoted frame having a propelling wheel, means for holding the pivoted frame downwardly to cause the propelling wheel to contact yieldably with the ground, means for transmitting power to the propelling wheel, an inverted Y-shaped frame having a connection with the pivoted frame and provided with a movable fulcrum, and means for manipulating the inverted Y-shaped frame in order to raise the pivoted frame.

3. In an automobile propeller, a swiveled frame having a propelling wheel, means for regulating swiveled action of the frame, means for holding the swiveled frame downwardly to cause the propelling wheel to contact yieldably with the ground, means for transmitting power to the propelling wheel, an inverted Y-shaped frame having a connection with the swiveled frame and provided with a movable fulcrum, and means for manipulating the inverted Y-shaped frame in order to raise the swiveled frame.

4. In an automobile propeller, a swiveled frame having a propelling wheel, means for regulating swiveled action of the frame, means for holding the swiveled frame downwardly to cause the propelling wheel to contact yieldably with the ground, means for transmitting power to the propelling wheel, an inverted Y-shaped frame having a connection with the swiveled frame, an inverted U-shaped pivoted member forming a fulcrum for the inverted Y-shaped frame, and means for manipulating the inverted Y-shaped frame in order to raise the swiveled frame.

5. In an automobile propeller a swiveled frame having a propelling wheel, means for transmitting power thereto, an inverted Y-shaped frame having a connection with the swiveled frame, an inverted U-shaped member forming a movable fulcrum for the Y-shaped frame, and means for manipulating the Y-shaped frame in order to raise the swiveled frame.

941,971. DRY-PIPE VALVE. HIRAM G. BAKER, Montreal, Quebec, Canada. Filed Oct. 16, 1908. Serial No. 458,102.



1. In a dry pipe valve for sprinkler systems, a valve chamber converging from its upper end at the outside of a vertical outlet opening to the lower end and having a perpendicular front wall and an inlet opening centrally arranged in said front wall, a plurality of valve seats arranged in said chamber and a valve having corresponding surfaces meeting said seats and supported in a perpendicular position by an extension therefrom, said extension being pivoted at the lower end of said chamber and said valve being adapted to fall by gravity or the rush of water through said inlet opening to the slanting rear wall of said valve chamber and to remain in said open position and form a deflecting surface for the rush of water through said inlet opening to said outlet opening and normally to be held in its closed perpendicular position by air pressure thereabehind.

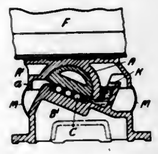
2. In a dry pipe valve for sprinkler systems, a valve chamber converging from the outer sides of a vertical outlet opening at the top thereof to a drip chamber at the bottom thereof and having a perpendicular front wall and an inlet opening centrally arranged in said front wall and lugs to the inside of said perpendicular front wall extending downwardly from the upper wall and upwardly from the drip chamber wall, a valve seat secured in said lugs, a valve seat secured around said inlet opening, and a valve having a central finished face engaging said seat around said inlet opening, a suitable extension surface engaging the said inner seat and an arm supporting the valve in a perpendicular position during its engagement with said seats, said arm being pivotally secured in said drip chamber and said valve being adapted to fall from its perpendicular position to the slanting rear wall of said chamber and form a deflecting surface for the rush of water to the outlet opening and to normally be held to its closed position by air pressure.

3. In a dry pipe valve for sprinkler systems, a valve chamber formed with a perpendicular front side and a sloping rear side, said sides converging toward the lower end, an outlet through the top thereof and an inlet centrally arranged in said perpendicular front, a valve seat suitably secured and surrounding said inlet opening, a valve seat of larger diameter than the aforesaid seat arranged within said casing in projecting parts of the top and bottom, a valve having a central surface finished face meeting the aforesaid inlet seat, and a resilient attachment meeting the inner seat, an arm hinged within said casing at the lower end thereof and secured to said valve and permitting said valve to fall to said sloping side on the release of air pressure from therebehind on the inrush of the water through the inlet to the outlet, said valve deflecting said water toward outlet in the flow thereof, and automatic means for preventing the accidental closing of said valve following its release by the lessening of the pressure of air.

4. In a dry pipe valve for sprinkler systems, a valve chamber having a suitable hand hole in the front side thereof, water ingress and egress openings and valve seats, a valve closing said ingress openings, a gate slidably arranged over said hand hole at the front side, and hydraulic means for closing said gate and retaining it in its closed position.

5. In a dry pipe valve for sprinkler systems, a valve chamber having a suitable hand hole in the front side thereof, water ingress and egress openings and valve seats, a valve closing said ingress openings, a gate slidably arranged over said hand hole at the front side, a cylinder suitably connected to the water supply outside of said valve, a piston in said cylinder forming a valve in its lower position in said cylinder, and a rod extending from said piston to said gate.

941,972. ROLLER-BEARING FOR TROUGH-CONVEYERS, &c. HARRY BENTLEY, Whitehaven, England. Filed July 11, 1908. Serial No. 443,133.



In a machine of the character referred to, the combination with a reciprocating part provided with inclined bearings movable with said part, of a support provided with inclined raceways, anti-friction rolling devices interposed between said inclined bearings and raceways, the bearing members on said reciprocating part having semicircular self-adjusting fittings socketed in said reciprocating part and engaging said rolling devices.

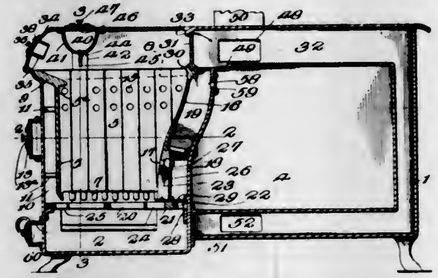
941,973. CLUTCH. GEORGE W. BRUBAKER, Jr., Loudonville, Ohio. Filed Mar. 16, 1909. Serial No. 483,728.



In a clutch, coöperating clutch members, one of said members comprising a collar having a web portion, the other member comprising a ratchet and being disposed against one end of the collar of the first mentioned member, the said web of the first mentioned member being formed with a lateral lug, a pawl pivoted upon the web and engaging at one end with the ratchet and having its other end at the other side of the pivot projecting above the lug upon the web, a spring interposed between the lug and the last mentioned end of the pawl and tending to hold the first mentioned end of the pawl in engagement with the ratchet, and a cam pivoted upon the web directly above the spring engaged end of the pawl and movable to position to disengage the other end of the pawl from the ratchet and to hold the same so disengaged.

941,974. STOVE. EDWIN R. CAHOONE, Summit, N. J. Filed Apr. 3, 1909. Serial No. 487,774.

1. In a stove, the combination with a casing, a fire pot spaced from the casing to provide passages, the passages on the sides and front being closed at the upper ends and open at the bottoms, and communicating with the fire pot, an oven spaced from the top, rear and bottom of the casing and the rear of the fire pot, the space at the rear of the fire pot communicating with the bottom of said fire pot, and the space at the top and rear and bottom of the oven forming an inner draft flue which communicates with the fire pot and the space in rear of the latter, an ash pit below and communicating with the passages and fire pot, means for admitting air to the ash pit; an exit flue having an extension formed with an opening which communicates with the ash pit, the exit flue communicating with the inner draft flue at a point above the fire pot, a damper controlling the opening above the fire pot, a damper at the junction of the inner draft flue, and the passage at the rear of the fire pot to control the escape of the products of combustion, and a damper controlling the opening between the ash pit and extension.



2. In a stove the combination with a casing, a fire pot spaced from the casing to form passages said passages on the front and sides of the fire pot communicating with the latter at the bottom and are closed at their upper ends, the passage at the rear of the fire pot communicating with the bottom of the latter and an inner draft flue, an ash pit, an inner draft flue formed in part by the casing and communicating with the top of the fire pot, an exit flue communicating with the ash pit and with the inner draft flue, a door adjacent the draft flue, means for introducing a regulated supply of air through the door, an air heating chamber adjacent the door and above the fire pot, said air heating chamber having openings to introduce streams of air toward the door, ducts communicating with the ash pit and the air heating chamber, said ducts directing air from the ash pit to the chamber, means for introducing air to the ash pit, means for introducing air to the passage adjacent the front of the fire pot, and a damper above the fire pot for regulating the passage of the products of combustion from the inner draft flue to the exit flue.

3. In a stove, the combination with a casing, an ash pit, an exit flue, a fire pot spaced from the casing to form air heating passages, said fire pot having openings to afford communication between the passages and the interior of the fire pot, an air heating chamber located above the fire pot and formed with exit openings, ducts communicating with the ash pit and the air heating chamber to supply air to the latter, a swinging shield suspended from the air heating chamber, means for introducing air to the fire pot in front of the air heating chamber, means for causing the products of combustion to pass down through the fuel, to the exit flue, or upwardly through the fuel to the exit flue.

4. In a stove, the combination with a casing, formed with an opening below the fire pot, a fire pot spaced from the casing to provide passages around the fire pot, said passages communicating with the fire pot at their lower ends, the passage formed in the rear of the fire pot being open at the top, an ash pit below and communicating with the passages and fire pot, means for admitting air to the ash pit, an inner draft flue formed in part by the casing and communicating with the top of the fire pot, a damper above the fire pot, said damper being positioned to cut off communication of the inner draft flue, and the fire pot, or the top of the passage back of the fire pot from said inner draft flue, an exit flue communicating with the inner draft flue above the fire pot by an opening formed in the casing, a damper controlling said opening, and a damper coöperating with the opening in the casing below the fire pot to control the exit of the products of combustion to the exit flue.

5. In a stove, the combination with a casing, an oven, spaced from the casing to form an inner draft flue, a fire pot spaced from the oven to form a passageway the lower end of the fire pot which is spaced from the oven having a plurality of spaced apart fingers, the spaces between the fingers forming openings between the fire pot and the passageway, the inner draft flue communicating with the fire pot and the passageway, a damper for directing the products of combustion from the fire pot to the inner draft flue or downwardly through the openings at the bottom of the fire pot into the passageway to the inner draft flue, means for introducing air to the bottom of the fire pot adjacent the openings leading into the passageway, and means for introducing streams of heated air to the sides of the fire pot.

[Claims 6 to 11 not printed in the Gazette.]

941,975. PRODUCTION OF DOUBLE-FACED SOUND-RECORDS. FRANK L. CAPPS, Bridgeport, Conn., assignor to American Graphophone Company, Bridgeport, Conn., a Corporation of West Virginia. Filed Aug. 6, 1908. Serial No. 447,281.

1. The herein-described process of producing double-faced records, which consists, first, in heating two record-matrices; second, placing each matrix face upward within the recess of a die; third, placing a label face downward upon the center of each matrix; fourth, placing face downward upon each matrix and label a sheet having a surface of high-grade record-material; fifth, placing upon the back of one of said sheets a mass of thermo-plastic material; sixth, reversing the other die with its contents and locating the same upon top of the thermo-plastic material; and, seventh, inserting the parts thus assembled into a press and applying pressure.

2. The herein-described process of producing double-faced sound-records, which consists of applying face downward upon each of two heated record-matrices a label and a sheet surfaced with high-grade material, next bringing the same together with a mass of inferior record-material interposed, and finally applying pressure.

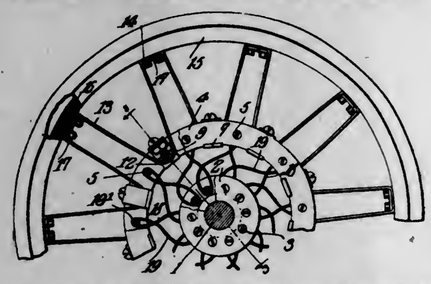
3. The herein-described process of producing double-faced records, which consists of applying face downward upon each of two record-matrices a label and a sheet surface with high-grade material, next bringing the same together with a mass of inferior record-material interposed, and subjecting the same to heat and pressure.

4. The process of producing double-faced sound-records, which consists of sprinkling upon disks of paper a dry finely powdered material rich in shellac, causing the same to adhere to the paper by heat, heating record-matrices, placing the same face uppermost in suitable dies, placing a label face downward centrally upon each of two matrices so positioned, then placing face downward upon each of the same the coated paper disk aforesaid, then placing upon the back of one of said disks a mass of thermo-plastic material, inverting the other of said dies with its contents and placing it upon top of said mass, and finally subjecting the parts so assembled to pressure.

5. The process of producing double-faced sound-records, which consists, first, in placing a sheet of paper within the recess of each of two cold dies; second, heating two record-matrices; third, placing each of them face upward upon the sheet of paper within the said recess; fourth, placing a label face downward upon the center of each matrix; fifth, placing face downward upon each matrix a label and a sheet having a surface of high-grade record-material; sixth, placing upon the back of one of said sheets a mass of thermo-plastic material; seventh, reversing the other die with its contents and locating the same upon top of the said thermo-plastic material; and, eighth, inserting the parts thus assembled into a press and applying pressure.

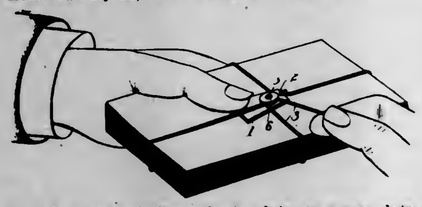
[Claim 6 not printed in the Gazette.]

941,976. VEHICLE-WHEEL. HORACE O. CLARK, New York, N. Y. Filed July 15, 1908. Serial No. 443,711.



In a wheel the combination with a rim, a hub, and an intermediate rim; of spokes interposed between and secured to the rims, and parallel annular series of springs interposed between and secured to the hub and intermediate rim, the points of connection of each spring of one series being disposed on the same radius of the wheel and the points of connection of each spring of the other series being disposed in different radii.

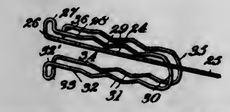
941,977. FASTENER. CHARLES A. CONRARD, Washington, D. C. Filed Aug. 15, 1907, Serial No. 388,630. Renewed July 21, 1909. Serial No. 508,739.



1. A fastener including a lower plate, an upper plate, a rivet passing through said upper and lower plates, said rivet fitting closely the opening in the upper plate and fitting loosely the opening in the lower plate, whereby said upper plate may be tilted relatively to the lower plate and moved away from the same a limited distance.

2. A fastener including a lower plate, an upper plate, and a rivet passing through said upper and lower plates, said rivet fitting loosely the opening in the lower plate, whereby said upper plate may be tilted relatively to the lower plate, and said lower plate being provided with an extending portion which may be grasped to hold the fastener while tying a package.

941,978. STAPLE FOR FENCE-POSTS. JAY DARLING, Williamsport, Ind. Filed Aug. 4, 1909. Serial No. 511,244.



1. A staple comprising a single wire bent to provide a plurality of lengths disposed in parallel relation, oppositely disposed anchoring members formed adjacent to one end of said lengths, and an eye formed adjacent to the opposite end of said lengths.

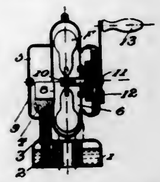
2. A staple comprising a single wire bent to provide a plurality of lengths disposed in parallel relation, said parallel lengths being crimped throughout their length, oppositely disposed anchoring members formed adjacent to one end of said lengths and an eye formed adjacent to the opposite end of said lengths.

941,979. ATTACHMENT FOR ELECTRIC APPLIANCES. HARRY W. DENHARD, San Francisco, Cal., assignor to George B. Katzenstein, Jr., San Francisco, Cal. Filed Aug. 7, 1908. Serial No. 447,451.



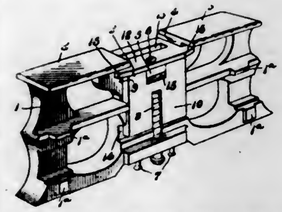
In combination with a twin conductor, a ring or eyelet secured at the point where the individual conductors diverge or separate from the twin, a retaining band in rear of the ring, the ring being secured in place by the individual conductors, substantially as described.

941,980. APPARATUS FOR DRYING HAIR AND FURS. EDMOND DESLOT, Paris, France, assignor to Société Lecaron Fils, Paris, France. Filed Jan. 18, 1909. Serial No. 473,030.



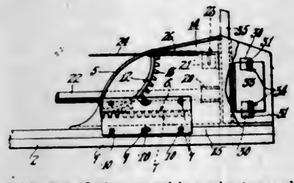
A portable apparatus of the character described, comprising a base in the form of a receptacle for a liquid-fuel, a central compartment above said base and a rotary fan mounted therein, a compartment to one side of said central compartment, communicating with said central compartment, the fuel receptacle and the outer atmosphere, and a burner located therein, another compartment on the other side of said central compartment for the fan driving mechanism, and driving means for said fan.

941,981. SAW JOINTER AND GAGE. CLAYBORN C. DU BOSE, Merryville, La. Filed May 23, 1908. Serial No. 434,527.



A gage as specified comprising a frame having a recess formed in one side thereof, a flange formed along the upper edge of said frame having an intermediate interrupted portion, a gage plate mounted in the recess in said frame, set-screws disposed through the lower edge of said frame and engaged against the lower edge of said gage plate to adjustably support the same, a head formed on said gage plate and extended laterally therefrom through the interrupted portion, said gage plate having a recess formed through the upper end thereof beneath said head, a lug projected outwardly from said frame in alinement with the interrupted portion and extended into the recess in said gage plate, and a set-screw carried by said head and extended into the recess in said gage plate to engage through said lug to retain said gage plate in adjusted position.

941,982. FOLDING BED. JAMES H. EDMONDS, Los Angeles, Cal. Filed Sept. 22, 1908. Serial No. 454,270.



1. In a folding bed, intermeshing pivot members, each member provided with a smooth contacting surface and with intermeshing means, said contacting surfaces engaging with each other for supporting the bed and providing a rolling contact, and the intermeshing means engaging with each other to prevent slipping of the smooth contacting surfaces when the bed is actuated.

2. In a folding bed, two pivot members, each provided with serrations and having a smooth surface parallel with such serrations, said smooth surfaces being arranged to provide a rolling contact to support the bed.

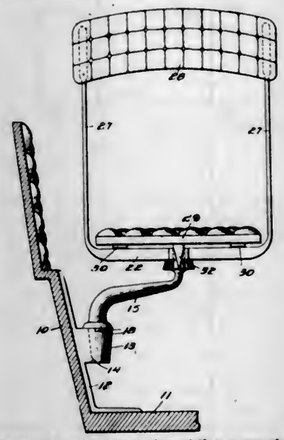
3. In a folding bed, two pivot members, each provided with a smooth faced flange and with intermeshing teeth lying along such smooth surface, one of said members being in the form of a straight rack and the other curved into the form of a segment and adapted to roll upon said rack.

4. In a folding bed, two pivot members provided with smooth engaging surfaces and with intermeshing teeth, one of said members being in the form of a rack and provided with perforated flanges for holding it in position, one of said perforations in each flange being elongated longitudinally of the rack to permit of longitudinal adjustment, and the other perforations being circular to prevent longitudinal movement after the fasteners have been passed therethrough.

5. In a folding bed, pivot members provided with smooth contacting faces and with intermeshing teeth, one of said members being in the form of a rack and the other in the form of a segment, said segmental member being provided on the side opposite its teeth and contacting surface with a straight flange projecting laterally for securing it in position.

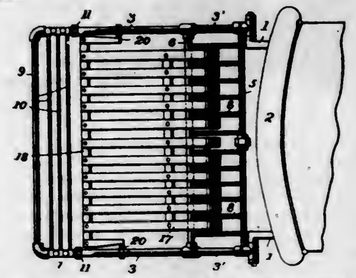
[Claims 6 to 14 not printed in the Gazette.]

941,983. VEHICLE-SEAT. FRANK J. ELSNER, Racine, Wis. Filed June 30, 1908. Serial No. 441,070.



A supplemental seat for automobiles comprising in combination, a supporting bracket having a vertical socket, a seat-supporting arm having a vertical pintle at one end slidably fitted and journaled in said socket and having means to interlock therewith to prevent the arm from turning, an upwardly extending stud at the other end of said arm, a collar at the base of said stud having the periphery thereof notched, a hinged seat embodying a bottom cross bar having a central opening receiving said stud whereby the seat may be turned around said stud as a center, and a locking finger on the seat bottom adapted to engage any one of the notches of said collar when the seat is lowered.

941,984. STREET-CAR FENDER. GEORGE J. FLEISSNER, Washington, Pa. Filed July 7, 1909. Serial No. 506,313.



1. A car fender comprising a main frame adapted to be secured to the front of a car, a guard-frame pivotally secured thereto, and a rocking carrier-frame pivoted to said guard-frame by means of angular pivot-bars and maintained in normal position by the weight of the guard-frame.

2. A car fender comprising a main frame adapted to be secured to the front of a car, a guard-frame pivotally secured thereto, a rocking carrier-frame having at its lower end rearwardly projecting bars pivotally connected with said guard-frame and being yieldingly maintained in normal position by the weight of the guard-frame, and means upon the upper end of the carrier-frame for engaging a portion of the main frame when the parts have been moved into the "retaining" position.

3. A car fender comprising a main frame adapted to be secured to the front of a car, a guard-frame pivoted thereto, a carrier-frame having at its lower end angular bars pivotally connected to said guard-frame, and means for maintaining the parts of the fender in normal position when pressure is exerted upon the guard-frame but permitting the parts to assume the "retaining" position when pressure is exerted upon the carrier-frame.

4. A car fender comprising a main frame adapted to be secured to the front of a car, a guard-frame pivoted thereto, a carrier-frame having connected at its lower end rearwardly projecting bars pivotally connected with the guard-frame and supported at its upper end upon the main frame, means for maintaining the parts of the fender normally in fixed relation and upon pressure exerted upon the guard-frame, but permitting the lower end of the carrier-frame to move downwardly and rearwardly when pressure is exerted thereon.

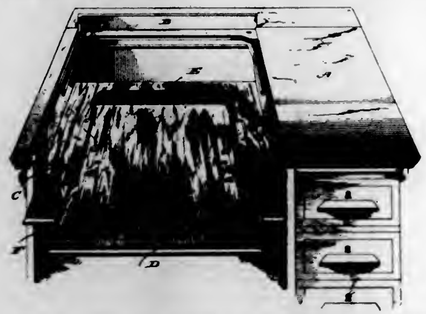
5. A car fender comprising a main frame, a guard- or fending-frame, a carrier-frame, rearwardly projecting pintle bars connecting said fending-frame and said carrier-frame to cause the upward movement of the former upon the downward movement of the latter, and a locking device to retain the parts in the latter position.

[Claims 6 to 9 not printed in the Gazette.]

941,985. TYPE-WRITER CABINET. MICHAEL FOLEY, Herkimer, N. Y. Filed July 18, 1904. Serial No. 217,076.

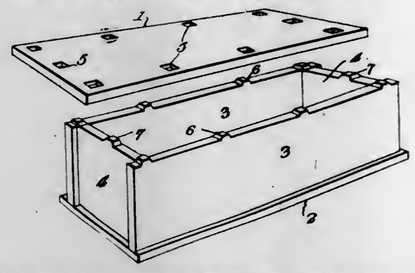
1. In a typewriter cabinet, the combination of a platform having an opening therein formed by cutting a base board therefrom, a suitable support arranged below the

said opening, and the said base board slidably arranged in the opening and on the support and normally occupying its original position in the platform, whereby it matches the same in grain and shade.



2. In a typewriter cabinet, the combination of a platform having an opening therein formed by cutting a base board therefrom, a panel support fastened to the underside of the platform and resting below said opening throughout the area thereof, the said base board slidably arranged in the opening and on the support and normally occupying its original position in the platform, whereby it matches the same in grain and shade, and means with which the platform is provided, whereby the base board is guided and held against tilting.

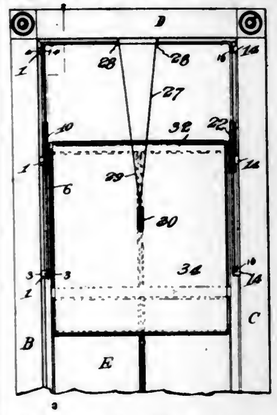
941,986. GRAVE-VAULT. STILES FRY, Westerville, Ohio. Filed Mar. 18, 1908. Serial No. 421,909.



A grave vault comprising separable sides and ends and top and bottom, the top and the bottom being each provided with spaced depressions having beveled walls adjacent their inner edges, the sides having their top and bottom edges provided with spaced projections having their walls beveled and their ends adjacent their inner faces provided with beveled depressions, the end members having their top and bottom edges each provided with a central projection and their side edges each provided with a plurality of beveled projections, the side projections being adapted to engage the recesses provided within the side members of the vault, the central projection adapted to engage within the central depressions of the top and bottom to aline with the end projections upon the sides, the bottom projection of the sides engaging the depressions upon the bottom slab, and the depressions of the top slab adapted to engage the projections of the sides and ends.

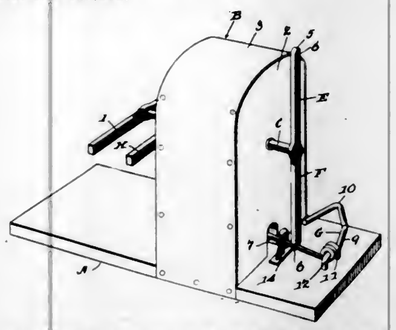
941,987. WINDOW-SHADE HANGER. BENJAMIN F. GINDLESPERGER, Garrett, Pa. Filed Apr. 16, 1909. Serial No. 490,257.

In a device of the character described, a window frame provided at one side with spaced rails, a vertically sliding shade supporting bracket disposed between the rails and provided with rail engaging rollers, vertically disposed spaced rails at the other side of the said frame, a shade supporting element disposed between the last named rails and provided at its sides with rail receiving grooves, the said first named rails being connected to each other at their upper extremities by an offset portion having a depression formed therein, the second named rails being connected to each other at their upper extremities by a portion having a depression formed therein, guides carried by



the frame and disposed in line with the depressions formed in the connecting portions of the said rails, a flexible connection having end portions engaged with the said vertically sliding bracket and with the said element, said connection being slidably engaged in the depressions and in the said guides respectively and provided with an intermediate depending looped portion, and a counter-balancing weight carried by the said looped portion.

941,988. ANIMAL-TRAP. JOHN M. GUNN, Girard, Ill., assignor of one-fourth to John R. Burris and one-fourth to Fred O. Burris, Girard, Ill. Filed Dec. 18, 1908. Serial No. 468,202.



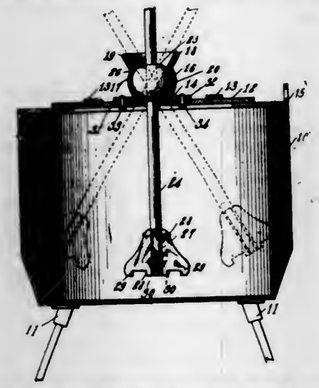
1. An animal trap comprising parallel striking and removing levers, a setting lever movable therewith, a bait-holding device normally in the path of the setting lever and means for automatically rotating all of the levers when the setting lever is released, to move the striking and removing levers simultaneously against an animal, and means operated by the setting lever while in motion for returning the bait-holding device into the path of the setting lever.

2. An animal trap comprising a striking lever, a setting lever revoluble therewith, a bait-holding device normally in the path of the setting lever, means for automatically rotating the levers upon the release of the setting lever from the bait-holding device, and means operated by the setting lever during the movement thereof for returning the bait-holding device into the path of the setting lever.

3. An animal trap comprising a base, an upright on said base having an animal passage in its lower end, a spring

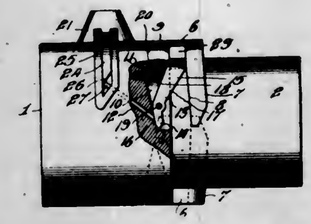
carried by said upright, a main shaft connected with said spring, a plurality of oppositely extending striking levers and removing levers which are parallel with each other, the striking levers being disposed in front of the upright closely adjacent thereto, a plurality of oppositely extending setting levers in rear of said upright, disposed at a right angle with respect to the striking and removing levers, and a releasing and tripping device comprising a forwardly extending bait-holding arm and an upwardly extending second arm having a cam portion at its upper end, said bait-holding arm and second arm being integral with each other and formed with a curled pivot point, a staple engaging said curled pivot point and a guiding device straddling the forward end of the bait-holding arm which projects into the animal passage of the upright.

941,989. WASHING-MACHINE. MARTIN M. HANSON, Elliott, Ill. Filed May 6, 1909. Serial No. 494,337.



A device of the class described comprising a socket having a spherical interior and adapted to be arranged over an aperture in a clothes receptacle, a globular member movably mounted within said socket, said globular member having a central bore and with notches communicating with the same, a rod slidable through the bore of said globular member, pins carried by said rod and detachably engaging in said notches, and clothes engaging members carried by said rod.

941,990. FIRE-HOSE COUPLING. HENRY J. HICKEY, Tomahawk, Wis. Filed Feb. 6, 1909. Serial No. 476,431.

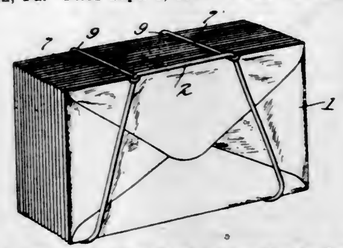


1. A hose coupler comprising a male member having lateral locking lugs, a female member provided with hooks to interlock with said lugs through a relative rotary movement of said members, said female member also being provided with recesses in line with the hooks and guide passages leading to said recesses, spring projected pivotally mounted dogs arranged within said recesses and having operating ends disposed in line with said guide passages, releasing stems slidably mounted in said guide passages to engage the operating ends of the dogs, by which the latter may be retracted, arms mounted upon the female member for actuating said stems, and means for simultaneously operating said arms.

2. A hose coupler comprising a male member having lateral locking lugs, a female member provided with hooks to interlock with said lugs through a relative rotary movement of said members, said female member also being provided with recesses in line with the hooks, inclined guide passages leading to said recesses, and guide channels communicating with said passages, spring projected dogs pivotally mounted within said recesses, stems slidably mounted in the guide passages to engage and retract the dogs, arms mounted in the channels and having beveled ends to engage and project the stems, and a plunger for operating said arms.

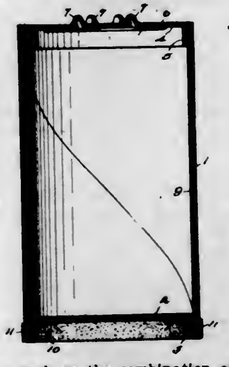
3. A hose coupler comprising a male member having lateral locking lugs, and a female member provided with hooks to interlock with said lugs through a relative rotary movement of said members, said female member being also provided with spring actuated automatic dogs pivotally mounted therein to retain the lugs within the hooks, releasing stems slidably mounted to engage and retract the dogs, arms for actuating said stems, and an operating device for moving the arms.

941,991. PACKAGE-TIE. GEORGE L. HINDMAN, Worthington, Pa. Filed Sept. 3, 1908. Serial No. 451,595.



The herein described package tie consisting of a single strand of resilient wire and provided with a cross bar, supporting members diverging from said cross bar and curved at their lower ends, converging bars extending upward from said curved portions, and resilient arms projecting at right angles to said bars and extending normally away from said supporting members in a plane parallel to the cross bar and provided with outwardly extending hooks at their terminal ends to engage said supporting members immediately under the cross bar.

941,992. PAPER RECEPTACLE. CHARLES F. JENKINS, Washington, D. C., assignor to Single Service Package Corporation of America, a Corporation of New Jersey. Filed Apr. 8, 1909. Serial No. 488,753.



1. In a paper package the combination of a body, and an end closure for the same provided with hollow teats

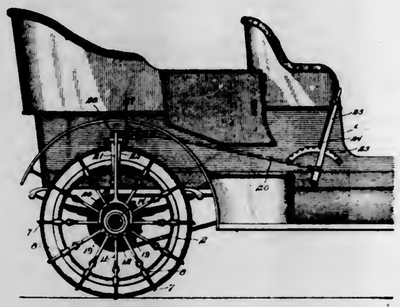
adapted to be cut off to form sifting openings, substantially as described.

2. In a paper package the combination of a body and an end closure provided with a flange secured to the inside of said body, and said flange provided with teats adapted to be cut off to form sifting openings, substantially as described.

3. In a paper package the combination of a spirally wound body portion; an inverted cup shaped bottom closure; and an inverted cup shaped top closure provided with hollow teats adapted to be cut off to form sifting openings, substantially as described.

4. In a paper package the combination of a body portion; a flanged disk flush with and closing the top of said body portion with its flange inside said body portion, and provided with hollow teats adapted to be cut off to form sifting openings; a similar disk closing the bottom of said body portion; and water repellent material surrounding said body portion, substantially as described.

941,993. ANTISLIPPING-TREAD ATTACHMENT FOR MOTOR-VEHICLES. MICHAEL JENSCO, Butler, Pa. Filed Nov. 13, 1908. Serial No. 462,476.

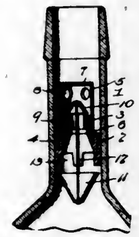


1. In a motor vehicle, the combination with the vehicle body, and the rear axle thereof, of wheels carried by said axle, guides upon the rim portions of the wheels, sleeves slidably mounted on the hubs of the wheels, gripping spurs radially movable in said guides and operatively connected to said sleeves for projection and retraction by reverse movements thereof, pivoted operating levers connected with the sleeves, reversely arranged bell crank levers connected with said operating levers, a link connecting the bell crank levers, and a main operating connection coupled to one of said bell crank levers.

2. The combination with a vehicle body and one of its wheels, of guides upon the outer side of the rim portion of the wheel, an outward extension upon the hub of the wheel, a collar slidably mounted upon said extension, gripping spurs slidably mounted in said guides, links connecting the collar with the spurs, an angular bracket supported by the body and extending outward therefrom and downward on the outer side of the wheel, a lever pivoted to said bracket and to the collar, and a bell crank for operating said lever.

941,994. NON-REFILLABLE BOTTLE. ALBERT G. H. JENSSEN and ROBERT C. WEITZEL, Toledo, Ohio. Filed Sept. 17, 1908. Serial No. 453,473.

1. In a non-refillable bottle, the combination, with a cork member adapted to be placed in the neck of the bottle and having a passage therethrough, said cork member being reduced at its outer end, of a cage fitted over said reduced portion, said cage being closed at its outer end but provided with openings in its side walls, means carried by said cage for securely fastening it to said cork member, a valve in said cage adapted to cover the passage in the cork member, a weight arranged at the inner end of the cork member, and flexible connection between said weight and valve extending through the passage in said cork member.



2. In a non-refillable bottle, the combination, with a cork member adapted to be placed in the neck of the bottle and having a passage therethrough, said cork member being reduced at its outer end, of a cage fitted over said reduced portion, said cage being closed at its outer end but provided with openings in its side walls, said cage having inwardly projecting spurs engaging said cork member for the purpose specified, a valve in said cage adapted to cover the passage in the cork member, a weight arranged at the inner end of the cork member, and flexible connection between said weight and valve extending through the passage in said cork member.

3. In a non-refillable bottle, the combination, with a cork member adapted to be placed in the neck of a bottle and having a passage therethrough, said cork member being reduced at its outer end, of a cage fitted over said reduced portion, said cage being closed at its outer end but provided with openings in its side walls, a valve in said cage adapted to cover the passage in the cork member, a weight arranged at the inner end of the cork member, and flexible connection between said weight and valve extending through the passage in said cork member and through a passage in said valve, said flexible connection being secured to said valve by a knot tied in the former which engages the latter and prevents said flexible connection from passing through the passage in said valve, said knot being housed in a dished portion at the extremity of the passage in said valve.

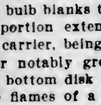
4. In a non-refillable bottle, the combination, with a cork member adapted to be placed in the neck of a bottle and having a passage therethrough, said cork member being reduced at its outer end, of a cage fitted over said reduced portion, said cage being closed at its outer end but provided with openings in its side walls, a rigid tube arranged in the outer end of said passage and projecting beyond the outer end of the cork member, a conical valve of rigid unyielding material arranged in said cage adapted to cover said tube, a weight arranged at the inner end of the cork member and flexible connection between said weight and valve extending through the passage in said cork member.

5. In a non-refillable bottle, the combination, with a cork member adapted to be placed in the neck of a bottle and having a passage therethrough, said cork member being reduced at its outer end, of a cage fitted over said reduced portion, said cage being closed at its outer end but provided with openings in its side walls, a rigid tube arranged in the outer end of said passage and projecting beyond the outer end of the cork member, a conical valve of rigid unyielding material arranged in said cage adapted to cover said tube, a weight shaped like an inverted cone arranged at the inner end of the cork member, and flexible connection between said weight and valve extending through said passage.

[Claims 6 and 7 not printed in the Gazette.]

941,995. TWINE-CUTTER. JAMES H. KEATING, Lismore, Minn. Filed Jan. 15, 1909. Serial No. 472,523.

1. A twine cutter comprising an annular band, a web projecting from one edge thereof, a blade projecting from the web and having a plurality of sharpened edges, and a resilient section adapted for removable insertion between said band and blade.



2. A twine cutter comprising an annular band, a web projecting from one edge thereof, a blade secured to the outer end of the web and projecting in a plane concentric with the band, the opposite ends of said blade being sharpened, and a resilient section adapted to frictionally engage between the blade and band adjacent either of the cutting edges of the blade.

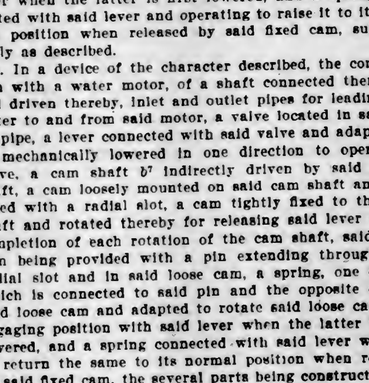
3. A twine cutter consisting of a finger ring, a blade secured thereto and having duplicate cutting edges, and a resilient section adapted to be frictionally held between the ring and blade, said section being movable to permit its arrangement adjacent either cutting edge at will to prevent the use of said edge for cutting purposes.

941,996. PROCESS OF SEALING FILAMENT-CARRIERS INTO BULBS OF ELECTRIC INCANDESCENT LAMPS. JOHANN KREMENEZKY, Vienna, Austria-Hungary. Filed Sept. 17, 1908. Serial No. 453,499.

A process for sealing the filament carrier into the bulb of electric incandescence lamps consisting in introducing the filament carrier with the filaments mounted thereon into the bulb body of bulb blanks through the neck portion thereof, such neck portion extending below the bottom disk of the filament carrier, being cylindrical, and having an internal diameter notably greater than the external diameter of the said bottom disk of the said filament carrier; in causing the flames of a blow pipe apparatus to act on the neck portion of the bulb blank opposite the bottom disk of the said filament carrier, whereby the said neck portion is contracted and fused onto the said bottom disk and in finally causing the part of the neck portion below such bottom disk to separate by gravity, substantially as and for the purpose described.

941,997. DEVICE FOR FLUSHING BASINS. EDMOND KUHN, East Orange, N. J., assignor, by direct and mesne assignments, to Kuhn Specialties Company, East Orange, N. J., a Corporation of New Jersey. Filed Aug. 15, 1908. Serial No. 448,665.

1. In a device of the character described, the combination with a water motor, of a shaft secured thereto and driven thereby, inlet and outlet pipes for conveying the water to and from the same, a valve located in said inlet pipe, a lever connected with and operating said valve to open and close the same, a cam shaft b^7 indirectly driven by said motor shaft, a cam tightly fixed to the cam shaft and rotated thereby for releasing said lever at the completion of each rotation of the cam shaft, a cam loosely mounted on said cam shaft and adapted to engage said pin when the lever is first lowered, and a spring connected with said lever whereby to return the latter to its normal position upon being released by said fixed cam, substantially as described.

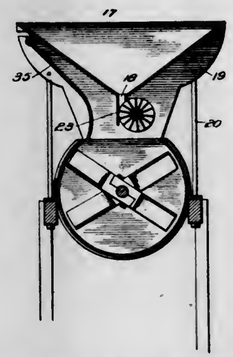


2. In a device of the character described, the combination with a water motor, of a shaft connected therewith and driven thereby, inlet and outlet pipes for leading the water to and from said motor, a valve located in said inlet pipe, a lever connected with said valve and operating when lowered to open said valve, and when raised to close the same, and provided with a pin, a cam shaft b^7 indirectly rotated by said motor shaft, a cam tightly fixed to said cam shaft for releasing the lever at the completion of each rotation of the cam shaft, a cam loosely mounted on said cam shaft and adapted to engage said pin when the lever is first lowered, and a spring connected with said lever and adapted to raise the same to its normal position and close said valve when released by said fixed cam, substantially as described.

3. In a device of the character described, the combination with a water motor, of a shaft connected therewith and driven thereby, inlet and outlet pipes for leading the water to and from said motor, a valve located in said inlet pipe, a lever connected with said valve and adapted to be mechanically lowered in one direction to open said valve, a cam shaft b^7 indirectly driven by said motor shaft, a cam tightly fixed to the cam shaft and rotated thereby for releasing said lever at the completion of each rotation of the cam shaft, a cam loosely mounted on said cam shaft, a spring connecting said cams and adapted to rotate said loose cam into engaging position with said lever when the latter is first lowered, and a spring connected with said lever and operating to raise it to its normal position when released by said fixed cam, substantially as described.

4. In a device of the character described, the combination with a water motor, of a shaft connected therewith and driven thereby, inlet and outlet pipes for leading the water to and from said motor, a valve located in said inlet pipe, a lever connected with said valve and adapted to be mechanically lowered in one direction to open said valve, a cam shaft b^7 indirectly driven by said motor shaft, a cam loosely mounted on said cam shaft and provided with a radial slot, a cam tightly fixed to the cam shaft and rotated thereby for releasing said lever at the completion of each rotation of the cam shaft, said tight cam being provided with a pin extending through said radial slot and in said loose cam, a spring, one end of which is connected to said pin and the opposite end to said loose cam and adapted to rotate said loose cam into engaging position with said lever when the latter is first lowered, and a spring connected with said lever whereby to return the same to its normal position when released by said fixed cam, the several parts being constructed and arranged to operate substantially as described.

941,998. CONCRETE-MIXING MACHINE. RAPHAEL G. LEVERICH, Berrien Springs, Mich. Filed Dec. 18, 1908. Serial No. 468,182.



1. In a concrete mixing machine, the combination with a mixing chamber, and a cement chamber positioned above the mixing chamber, said cement chamber having an outlet connecting with the mixing chamber, a measuring cylinder comprising a plurality of longitudinally extending pockets normally closing the mouth, a swinging apron connected with the cement chamber and positioned directly above the mixing chamber, and mechanism connected with the apron for imparting intermittent revoluble motion to the measuring cylinder as the apron is swung inwardly when contacted by rubble fed to the mixing chamber.

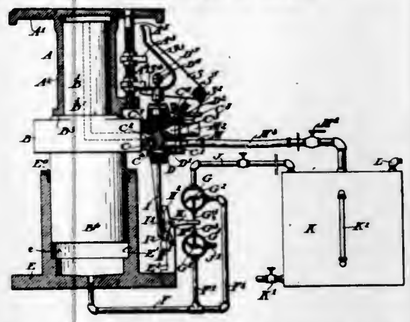
2. The combination with a mixing cylinder having an open top and an outlet, of a cement chamber positioned above and adjacent one of the ends of the mixing chamber, said cement chamber being provided with a hopper having an outlet mouth positioned directly above the mixing chamber, a measuring cylinder provided with a plurality of longitudinally extending pockets communicating with and normally closing the mouth of the hopper, said measuring cylinder being provided with trunnions extending through the sides of the chamber, a ratchet upon one of these trunnions, a link provided with a pawl engaging the ratchet wheel upon the trunnion, an apron trunnioned within the sides of the cement chamber and having its lower end terminating at the open mouth of the mixing chamber, an arm secured to one of the trunnions of the apron and an adjustable connection between this arm and the link connected with the trunnion of the measuring cylinder.

3. In a mixer of the character described, the combination with a mixing chamber having a hopper member and a body member provided with an open top and an outlet mouth, a shaft extending longitudinally of the mixing chamber, an apron hingedly connected with the said chamber, a measuring cylinder below the cement chamber and communicating with the mixing chamber, means provided upon the apron and connected with the mixing chamber to intermittently revolve the measuring cylinder when the apron is contacted with, and a plurality of mixing arms upon the shaft adapted to mix and to push the mixed material through the open mouth of the mixing chamber.

941,999. MOLDING-MACHINE. WILFRED LEWIS, Philadelphia, Pa., assignor to The Tabor Manufacturing Company, Camden, N. J., a Corporation of New Jersey. Filed July 3, 1909. Serial No. 505,850.

1. In a jar molding machine, a movable mold support, a movable anvil, and means for moving said anvil and mold support each toward the other with such velocities that the anvil has a substantial momentum opposite in direction to the momentum of the mold support at the instant of impact.

2. In a jar molding machine, the combination with an anvil, of a mold support which is alternately lifted off and allowed to drop back on to the anvil, and means for giving the anvil an upward movement when the mold support is dropped such that the anvil has a substantial momentum in the opposite direction to the momentum of the mold support at the instant of impact.



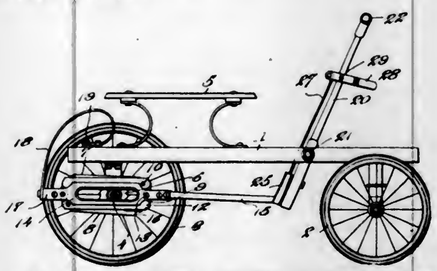
3. In a jar molding machine, the combination with a relatively movable mold support and anvil, of means providing a resilient support for the anvil adapted to give the anvil a movement toward the mold support while the latter is moving toward the anvil such that the anvil has a substantial momentum opposite in direction to the momentum of the mold suport at the instant of impact.

4. In a jar molding machine, the combination with a stationary base member, a movable anvil member, one of said members having a cylinder and the other a piston working in said cylinder, a mold support, means for alternately lifting the mold support off the anvil and allowing it to drop back into engagement with the anvil, and means for maintaining a cushion of compressed air in said cylinder tending to move the anvil upward when the weight of the mold support and its load is taken off the anvil.

5. In a jar molding machine, the combination with a stationary base member, a movable anvil member, one of said members having a cylinder and the other a piston working in said cylinder, a mold support, means for alternately lifting the mold support off the anvil and allowing it to drop back into engagement with the anvil, and means actuated by said anvil on its changes in position relative to the base member for admitting air under pressure to said cylinder to check further downward movement of said anvil after the latter moves down to a certain level.

[Claims 6 to 11 not printed in the Gazette]

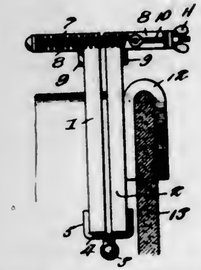
942,000. MEANS FOR PROPELLING VEHICLES. JOHN C. LEYDORF, Perrysburg, Ohio. Filed Feb. 16, 1909. Serial No. 478,259.



1. Means for propelling vehicles comprising a truck frame, carrying wheels therefor, certain of which constitute the driving wheels, a rotary axle on which the driving wheels are mounted, a toothed wheel fast on said axle, a slide movable transversely of the axle, oppositely arranged pivoted rack members movable with the slide and adapted to alternately engage said toothed wheel, a hand actuated operating lever fulcrumed on the truck frame, a transmission rod connecting the slide with the operating lever, and a flexible support interposed between the truck frame and the slide.

2. Means for propelling vehicles comprising a truck frame, carrying wheels therefor certain of which constitute driving wheels, a driving axle on which the driving wheels are mounted, a toothed wheel fast on said axle, a reciprocatory slide having means for engaging said toothed wheel to impart rotary movement thereto, a hand actuated operating lever fulcrumed on the truck frame, a transmission rod connecting said slide with the operating lever, a pivot at the end of the transmission rod, a guide on the operating lever having a guide-way for said pivot, and means on the operating lever for shifting said pivot toward and away from the fulcrum.

942,001. CLOTHES-WRINGER. ANNIE LOVETT, Philadelphia, Pa. Filed Nov. 4, 1908. Serial No. 461,041.



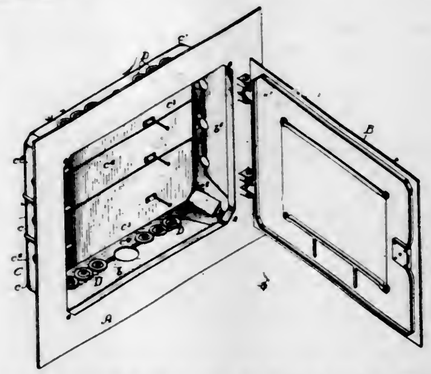
A clothes wringer comprising a relatively stationary rectangular presser member, a relatively movable rectangular presser member, hinges secured to the lower edges of the presser members, when in closed position the presser members are retained in parallel relation by the hinges, brackets secured to the relatively stationary presser member, bracket arms secured to and extending laterally from the relatively stationary presser member, contractile springs each secured at one end to one of the bracket arms, bracket arms secured to and extending laterally from the relatively stationary presser member, bolts secured to the free ends of the springs and passing freely through the bracket arms secured to the relatively stationary presser member, nuts mounted upon the bolts and engaging the bracket arms secured to the relatively stationary presser member, the springs yieldingly retaining the presser members in closed position.

942,002. WALL-CABINET FOR ELECTRICAL APPARATUS. ERNEST R. LE MANQUAIS, Bellemead, N. J., assignor to Le Manquais Electrical Manufacturing Company, Bellemead, N. J., a Corporation of New Jersey. Filed May 11, 1907. Serial No. 373,123.

1. A box having a side portion partly formed of a plurality of independently removable sections, a plate shaped to co-act with said sections to complete said side portion, the adjacent edges of the removable sections and of said plate being respectively provided with a recess or recesses, each recess of the plate registering with a recess of one of the sections to form an opening, and a flanged bushing or bushings mounted in said recess or recesses.

2. The combination of a box having a removable face plate, with a removable section formed to complete one of the sides of the box and confined between the body thereof and said face plate, said section being independent of the face plate and of the other sides of the box, and the adjacent edges of the section and of the body of the box being respectively provided with registering recesses to provide an opening or openings.

3. A box consisting of two end sections and an intermediate section between the same, the side portions of said sections being cut away and each of said cut away portions being replaced by a removable plate, there being a recess or recesses formed in the adjacent edges of said plate and said side portions each recess of the plate registering with a recess on the side portion substantially as described.



4. A box consisting of two end sections and an intermediate section between the same, the side portions of said sections being cut away and each of said cut away portions being replaced by a removable plate, there being a recess or recesses formed in the adjacent edges of the said plate and said side portion, each recess of the plate registering with a recess of the side portion with a face plate for the box and a flanged bushing in each of the openings formed by the said recesses, substantially as described.

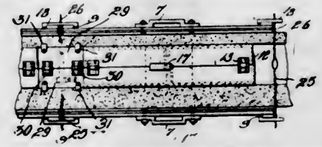
942,003. FINGER-PAD. JOSEPH G. MARSH, Manchester, N. H. Filed Apr. 2, 1909. Serial No. 487,435.



1. A pad of the class described comprising an elastic body having a ventilating passage at its tip end, said body having ventilating passages formed in its body portion and provided upon its interior surface with a plurality of longitudinally extending grooves.

2. A finger pad of the class described comprising an elastic body having a ventilating passage at its tip end, said body having passages formed in its body portion and provided upon its interior surface with a plurality of grooves, said body having an angularly corrugated exterior surface, and a reinforcing bead at the inner end of said body, said bead having a portion extending partly into the finger receiving portion of said pad.

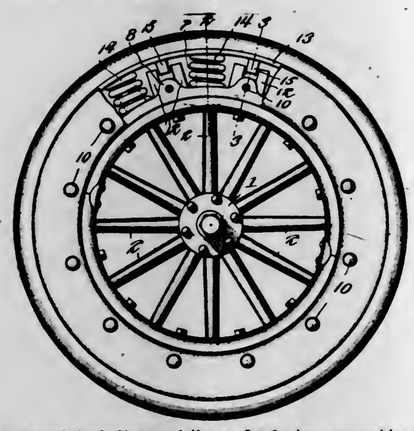
942,004. MOLD FOR CONCRETE WALLS. DOUGLAS A. MARSHALL, Spokane, Wash., assignor to C. F. Pence and C. G. Pence, Spokane, Wash. Filed Apr. 2, 1906. Serial No. 309,317.



Molding apparatus for hollow concrete walls embodying outer mold sections, a collapsible core, a collapsible parti-

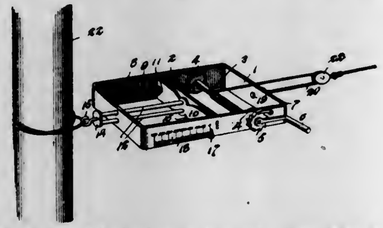
tion shelf comprising jointed plate members having projections or shoulders to engage the inner faces of the opposite sides of the wall, a keeper on one of said plate sections, and a latch bar on the other plate section adapted to be engaged by said keeper and to project across the joint between the plate sections, substantially as described.

942,005. WHEEL. JOHN W. MEYER, Freeport, Ill. Filed Oct. 13, 1908. Serial No. 457,513.



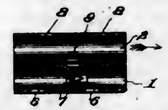
A wheel including a felly, a fixed rim removably secured thereto and including a rim plate bearing on the felly and an edge plate projecting outwardly from one edge of the rim plate, studs carried by the rim plate, a cover plate removably secured to the fixed rim and projecting from said rim plate in parallel relation to the edge plate, a movable rim arranged between the cover plate and edge plate, springs engaging the studs and bearing against the movable rim, lugs carried by the edge plate and by the cover plate, said lugs being arranged in opposing pairs, the lugs of each pair being in spaced relation and having their inner edges spaced from the similar edges of the opposing pair, and guide lugs carried by the movable rim to fit between the respective lugs of each pair of said opposing pairs.

942,006. WIRE-STRETCHER. JOHN MOREHEAD, New Plymouth, Ohio. Filed Apr. 7, 1909. Serial No. 488,397.



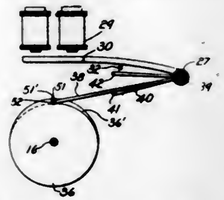
The herein described wire stretcher comprising a rectangular frame, a winding drum journaled transversely of said frame near one end thereof, said winding drum comprising a shaft, a ratchet wheel on the shaft outside the frame, a crank mounted on the end of said shaft, and a pawl for engaging said ratchet wheel, a cross bar connected centrally to the frame, a sliding frame comprising a second cross bar, rods extending through said second cross bar, springs surrounding said rods and bearing at one end against said frame, a pointer connected to said second cross bar and extending underneath the frame, a graduated scale on said frame, pull rods extending through said frame, and a rope or cable connected to said drum at one end and at the other end to said frame, said cable passing around a pulley.

942,007. BAG-TIE. WILLIAM H. MORRILL, Bangor, Me., assignor of one-half to Herbert D. Walton, Bangor, Me. Filed Apr. 3, 1908. Serial No. 424,962.



The herein described bag tie comprising a clasp consisting of two barrels arranged side by side in parallel relation, said barrels being open upon one side and connected together by a flat integral web to provide a finger hold in using the clasp, the outer edges of said barrels being curved outwardly to permit the ready entrance of the cord or rope, one of said barrels having a plurality of prongs projecting from the inner side of the outer wall of the barrel, said prongs extending toward one end of said barrel, a plurality of prongs in said barrel projecting toward the opposite end of said barrel, a rope or cord permanently secured to said last mentioned barrel against movement in either direction and the other barrel having a plurality of prongs projecting inward from the body portion thereof, said prongs all extending toward one end of said barrel to permit the adjustment of the free end of the cord or rope.

942,008. EXHIBITING APPARATUS. SAMUEL B. MOSCOVITZ, New York, N. Y. Filed Sept. 20, 1906. Serial No. 335,412.



1. In combination, an exhibiting strip; a feed roll for shifting said strip a measured distance; a motor for driving said feed roll; a source of energy for said motor; means for connecting said source of energy with said motor to cause the same to operate; means for causing said source to be automatically disconnected from said motor before said strip has been shifted said measured distance, whereby the momentum of the moving parts completes the shifting of the strip; and a stop for positively checking said shifting when said strip has been shifted said measured distance.

2. In combination, an exhibiting strip; a feed roll for shifting said strip a measured distance; a motor for driving said feed roll; a source of energy for said motor; means for connecting said source of energy with said motor to cause the same to operate; means for causing said source to be automatically disconnected from said motor before said strip has been shifted said measured distance, whereby the momentum of the moving parts completes the shifting of the strip; and means for positively checking the feeding of said strip when it has been fed said measured distance.

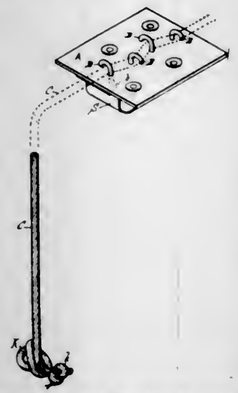
3. In combination, an exhibiting strip; a motor; means connected with said motor for shifting said strip a measured distance; a source of electric energy for said motor; a normally open circuit closer in circuit with said source and motor; an electro-magnetic device for closing said circuit closer; means independent from said electro-magnetic device for holding said circuit closer closed but automatically operable to effect the opening thereof before the motor has completely shifted said exhibiting strip the measured distance, whereby momentum completes the shifting of the strip; and means for positively checking the feeding of said strip when it has been fed said measured distance.

4. In combination, an exhibiting strip; a motor; means connected with said motor for shifting said strip a measured distance; a source of electric energy for said motor; a normally open circuit closer in circuit with said source and motor; an electro-magnetic device for closing said circuit closer; means independent from said electro-magnetic device for holding said circuit closer closed but automatically operable to effect the opening thereof before the motor has completely shifted said exhibiting strip the measured distance, whereby momentum completes the shifting of the strip, and means for adjusting said circuit closer whereby the time of its automatic opening may be varied.

5. In exhibiting apparatus, an exhibiting strip adapted to be moved and to come to rest alternately; movable means mechanically connected with said strip; a source of energy for imparting momentum to said movable means; provisions whereby momentum alone effects an appreciable movement of the indicating strip; and means for positively checking the continued movement of said strip.

[Claims 6 to 12 not printed in the Gazette.]

942,009. LIFE-SAVING APPARATUS. MAX A. MUELLER, Brooklyn, N. Y. Filed Feb. 17, 1909. Serial No. 478,442.



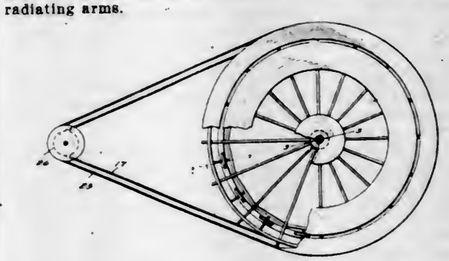
1. A friction device for the purpose described, comprising a flexible support and engaging members secured zigzag thereto, said support being adapted to be held in the hand and brought into frictional engagement with a rope interlaced with said engaging members, by the pressure of the hand, substantially as described.

2. A friction device, comprising a flexible support and oppositely faced hooks secured zigzag thereto, said support being adapted to be secured on the hand and by the compression of the latter to frictionally engage between said support and said hooks, a rope interlaced with the latter, substantially as described.

3. A safety device for the purpose described, comprising a flexible support and engaging members secured zigzag thereto, said support being adapted to be held in the hand, in combination with a rope adapted to be interlaced with said engaging members and brought into frictional engagement with said engaging members by the pressure of the hand, said rope being provided near its lower end with a check knot, substantially as described.

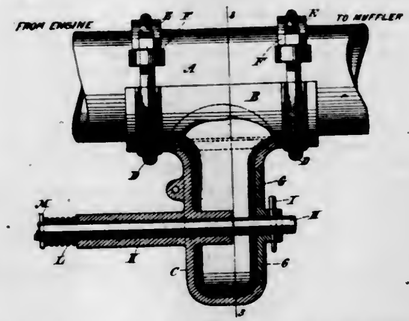
942,010. MERRY-GO-ROUND. NICHOLIS M. POWELL and JAMES L. MILLER, Fairfield, Ill. Filed June 15, 1909. Serial No. 502,401.

1. A post, radiating arms upon the post, a platform rigidly secured upon the arms, brace members between the radiating arms, bearings upon the brace members, a shaft for the bearings, a wheel upon the shaft, a track for the wheel, a rail upon the radiating arms, said rail having its outer face concaved, a second platform, a concaved ring upon the second platform, wheels upon the second platform engaging the rail of the radiating arms, an operating shaft, a pair of grooved pulleys of different sizes upon the operating shaft, an endless cable for each of the pulleys, one of said cables engaging the grooved ring of the secondary platform, and the other cable engaging the concaved face of the track provided upon the radiating arms.



2. A central post, a ring having a flange upon the post, an L-shaped circular member upon the offset portion of the ring, said L-shaped member being provided with a plurality of radiating arms, a platform secured to the radiating arms, spaced bracing members between the radiating arms, said members being each provided with bearings, a shaft for the bearings, a wheel upon the shaft, a circular track for the wheel, a circular rail upon the outer brace members and the radiating arms, said rail having its outer face concaved, a secondary platform, said secondary platform having a grooved ring extending around its outer face, wheels carried by said secondary platform and adapted to engage with the rail, an operating shaft, means for rotating the shaft, a grooved pulley rigidly secured to the shaft, a cable for this pulley engaging the concaved rail of the merry go round, a collar upon the shaft, a second grooved pulley of a different diameter from the first pulley removably positioned on the shaft and resting upon the offset portion thereof, the wheel of this pulley having one of its faces provided with an inclined bore, a clutch member of a frusto conical formation slidably mounted upon the shaft, and a lever connected with the clutch member to force the clutch into or out of engagement with the pocket of the pulley.

942,011. MUFFLER-CUT-OUT FOR EXPLOSIVE-ENGINES. LOUIS RAFFALOVICH, New York; N. Y., assignor to The S. B. R. Specialty Company, a Corporation of New York. Filed Jan. 18, 1908. Serial No. 411,467.



1. The combination of an explosive engine exhaust pipe provided with a discharge opening on one side, a muffler connected with said pipe, a muffler cut-out disposed on said exhaust pipe opposite said discharge opening between the engine and the muffler and comprising an exhaust chamber of larger area than said exhaust pipe and provided with an exhaust opening of approximately the same area as said exhaust pipe, a valve for closing said open-

ing, a spring for seating said valve, and means for opening said valve against the tension of said spring.

2. The combination of an explosive engine exhaust pipe provided with a discharge opening, a muffler on said exhaust pipe, and a muffler cut-out disposed on said exhaust pipe opposite said discharge opening between the engine and the muffler and comprising an exhaust chamber of larger area than said exhaust pipe and provided with an exhaust opening of approximately the same area as said exhaust pipe, a valve for closing said exhaust opening arranged to open inward from its seat, a spring for seating said valve, and means for opening said valve against the tension of said spring.

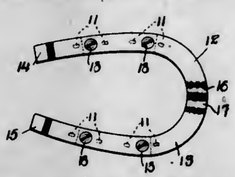
3. The combination of an explosive engine exhaust pipe provided with a discharge opening, a muffler on said exhaust pipe, and a muffler cut-out disposed on said exhaust pipe opposite said discharge opening between the engine and the muffler and comprising a longitudinal segment adapted to fit against the side of said discharge pipe, and having an opening adapted to register with the side openings in said pipe, and an exhaust chamber dependent from said segment, one wall of said chamber having an exhaust opening and the other wall thereof having a fixed sleeve opposite said opening, a valve spindle adapted to slide in said sleeve, a valve on said spindle adapted to close said exhaust opening, a spring for seating said valve, and means for opening said valve against the tension of said spring.

4. As an article of manufacture a muffler cut-out adapted for attachment to the exhaust pipe of an explosive engine, said muffler cut-out comprising an exhaust chamber provided with an exhaust opening on one side and a fixed sleeve on the other side opposite said opening, a valve stem slidable in said sleeve, a valve attached to said stem and adapted to close said exhaust openings, and a spring for seating said valve, said chamber having a segmental flange adapted to fit such exhaust pipe.

5. As an article of manufacture a muffler cut-out adapted for attachment to the exhaust pipe of an explosive engine, said muffler cut-out comprising an exhaust chamber provided with an exhaust opening on one side and a fixed sleeve on the other side opposite said opening, a valve for closing said exhaust opening secured to said stem and opening inwardly into said chamber.

[Claims 6 to 12 not printed in the Gazette.]

942,012. HORSESHOE. THOMAS L. RANDALL, Centerville, Mo., assignor of one-half to T. J. Dobin, Centerville, Mo. Filed June 4, 1909. Serial No. 500,105.

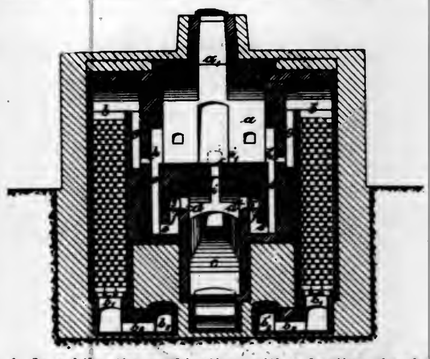


1. A horse shoe comprising a body member reduced in thickness at the heel and toe portions, two bearing members reduced in thickness at the ends and each corresponding in outline to one-half of the body, said bearing members each having a heel calk and a half toe calk, and means for detachably securing said bearing members to the body.

2. A horse shoe comprising a body member reduced in thickness at the heel and toe portions, two bearing members reduced in thickness at the ends and each corresponding in outline to one-half the body and meeting beneath the toe portion of the same, said bearing members each having a heel calk at its rear end and half calks at its forward meeting end and combined to constitute the toe calk of the shoe, and means for detachably securing said bearing members to the body.

3. A horse shoe comprising a body member reduced in thickness at the heel and toe portions, two bearing members reduced in thickness at the ends, and each corresponding in outline to one-half of the body and each of said bearing members having a heel calk and a half toe calk, means for detachably securing said bearing members to the body, and yieldable filler members between the reduced portions of the body member and the bearing members.

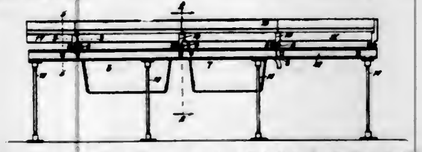
942,013. GAS-KILN. ERNST SCHMATOLLA, London, England. Filed Sept. 16, 1908. Serial No. 453,242.



1. In a kiln, the combination, with a heating chamber, of a generator under the same, and heat accumulators arranged laterally of said generator, extending from a point level with the upper end of the heating chamber to near the level of the hearth of the generator, opening into said heating chamber and into the open air, and adapted to be connected with said generator, said heating chamber, generator and heat accumulators forming one single block of masonry, said heating chamber running out upward in the center into a shaft which can be maintained filled with material to be burned, for the purpose of enabling new material to be charged when the old material cakes together, and of preventing combustion gases from passing under the arch from one end of the chamber to the other.

2. In a kiln, the combination, with a heating chamber, of a generator under and adapted to be connected through central flues with said heating chamber, slides adapted to close said central flues, and heat accumulators arranged laterally of said generator, extending from a point level with the upper end of the heating chamber to near the level of the hearth of the generator, opening into said heating chamber and into the open air, said generator being adapted to be connected through lateral flues with said accumulators and with said heating chamber, dampers for closing the latter flues, said generator communicating with the outer air through flues arranged over the latter dampers, said heating chamber, generator and heat accumulators forming one single block of masonry, and said heating chamber running out upward in the center into a shaft which can be maintained filled with material to be burned, for the purpose of enabling new material to be charged when the old material cakes together, and of preventing combustion gases from passing under the arch from one end of the chamber to the other.

942,014. BAR-FIXTURE. FREDRICK G. SCHNEIDER and WILLIAM C. L. ZIEHN, Chicago, Ill.; said Ziehn assignor to said Schneider. Filed Oct. 28, 1908. Serial No. 459,961.



1. A bar fixture comprising separate interchangeable sections, each section interlocking with its adjacent section, longitudinal supports for maintaining the interchangeable sections in desired elevation, lugs formed at the corners of the interchangeable sections for engaging the longitudinal supports, and supporting legs for the longitudinal supports, substantially as described.

2. A bar fixture of sectional formation, the various sections comprising rinsing and cooling tanks and work boards, each of the sections having lugs adjacent their side walls and having lap joints for permitting the respective sections to be permanently locked together when the lugs are bolted, longitudinal channel irons for supporting the apparatus in proper position, tie rods spaced between the channel irons, and supporting legs for the channel irons, substantially as described.

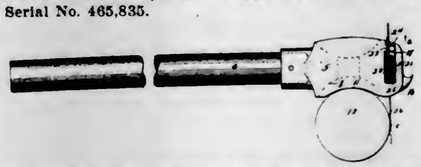
942,015. SYRINGE. JOHN W. SHORT, Geneva, N. Y. Filed Sept. 24, 1909. Serial No. 519,381.



1. A syringe of the character described, comprising an outer inlet tube, a removable outlet tube provided with a bulbous-shaped end and having a shoulder arranged within said inlet tube, a removable skeleton washer arranged within said inlet tube and engaging said shoulder of said outlet tube, and said inlet tube being provided with an enlarged end spaced away from said bulbous-shaped portion, for producing a globular spray, substantially as described.

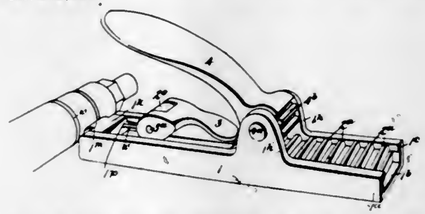
2. A syringe of the character described, comprising an outer inlet tube provided with an enlarged portion having an enlarged bore, an enlarged cap screw-threaded upon said inlet tube, a supply tube arranged upon said cap for communication with said inlet tube, an outlet tube arranged within said inlet tube and provided with a bulbous-shaped portion for arrangement within said enlarged bore of said inlet tube, a skeleton washer arranged within said inlet tube and adapted to center and adjust said outlet tube, a discharge tube arranged upon said cap and projecting within the same and said outlet tube having one end screw-threaded within said discharge tube, substantially as described.

942,016. WIRE AND WIRE-FABRIC STRETCHER. ROBERT W. SIBLEY, Boston, Mass. Filed Dec. 3, 1908. Serial No. 465,835.



A wire stretcher comprising a handle and a head having a curved, post engaging face, the front end of said head being slotted for the reception of a wire strand and to thereby form a pair of forwardly projecting shoulders, there being openings formed in said shoulders, a pair of rolls having roughened peripheries mounted in said openings, one of said rolls being concentrically mounted and the other of said rolls being eccentrically mounted, a manually operable member carried by the eccentrically mounted roll and which projects outwardly beyond the opening of the shoulder in which said roll is mounted, and a spring engaging said member and normally tending to throw the eccentrically mounted roll toward the concentrically mounted roll.

942,017. WIRE-WORKING IMPLEMENT. CLARK J. SMITH, Ottumwa, Iowa, assignor to The Hardsocg Wonder Drill Co., Incorporated, Ottumwa, Iowa. Original application filed Oct. 27, 1908, Serial No. 459,773. Divided and this application filed Jan. 20, 1909. Serial No. 473,331.



1. In a wire working implement, a main frame and a carriage slidable therein together with means for reciprocating the carriage and a wire clamp carried by the carriage, said main frame having a saddle portion at one end to engage the wire and form an abutment therefor and having apertures to permit passage of the ends of the wire to be engaged by the clamp.

2. A wire working implement comprising a main frame, a carriage slidable therein and having a rack surface, a lever pivoted in the main frame and having a gear segment to coöperate with said rack surface, a clamping member mounted on one end of the carriage, said carriage having grooves adjacent to said clamping member to receive the ends of a wire, said main frame having apertures to permit passage of the ends of said wire, all being arranged so that as the carriage is reciprocated in one direction the wire will be drawn taut.

3. A wire working implement comprising a main frame, a carriage slidable therein and having a rack surface, a lever pivoted in the main frame and having a gear segment to coöperate with said rack surface, a clamping member mounted on one end of the carriage, said carriage having grooves adjacent to said clamping member to receive the ends of a wire, said main frame having apertures to permit passage of the ends of said wire, all being arranged so that as the carriage is reciprocated in one direction the wire will be drawn taut, and an anvil formed on said main frame adjacent to said apertures and having a saddle portion to receive a part of said wire.

942,018. REINFORCED-CONCRETE PILE. THOMAS STEDHAM, Victoria, British Columbia, Canada. Filed Feb. 9, 1909. Serial No. 476,993.

1. In a reinforced concrete pile, the combination with a pointed metal shoe, of upwardly projecting members secured thereto and having bent over ends, rods butting into a recess in the upper surface of the shoe and extending continuously throughout the length of the pile to a short distance from the top, rectangular spacer frames having crossed corner portions into which said rods engage to preserve the rods at the desired distance apart, wire ties for holding the rods to the spacer frames and a concrete body inclosing said frame, said ties and said rods.

2. In a reinforced concrete pile the combination with a pointed metal shoe, of upwardly projecting members secured therein the upper ends of which members are bent over to afford a hold in the concrete, rods butting into a

recess in the upper surface of the shoe and extending continuously throughout the length of the pile to a short distance from the top, square spacer frames having crossed corners at intervals that will preserve the rods at the desired distance apart, wire ties holding the rods against the spacer frames and a body of cement inclosing the rods and spacers and having an interrupted core extending from a short distance from the bottom to a similar distance from the top of the pile.

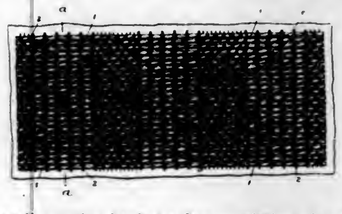


3. In a reinforced concrete pile, the combination with a pointed metal shoe having upwardly projecting members affording a hold of the concrete, rods butting into a recess in the upper surface of the shoe and extending continuously throughout the length of the pile to a short distance from the top, spacer frames at intervals apart maintaining the several rods at the desired distance from one another, spacers between each pair of rods in the intervals between the spacer frames, wire ties for holding the rods to the frames and spacers, supplementary longitudinal rods secured to the inside of the spacer frames throughout the mid-portion of the pile length and secured by wire to the spacer frames, diagonal rods extending a short distance from the top between each pair of rods and secured to the wire ties of the same, and a body of concrete entirely inclosing the metal framework and having an interrupted core of sheet metal at the center.

4. In a reinforced concrete pile, the combination with a pointed metal shoe having upwardly projecting members affording a hold in the concrete, main rods butting into a recess in the upper surface of the shoe and extending continuously throughout the length of the pile to a short distance from the top, spacer frames at intervals apart for maintaining the several main rods at the desired distance from one another, said spacer frames having inner corners, supplemental rods held within said inner corners parallel to said main rods, wire ties at intervals between the spacer frames for holding said main rods against the frames, and a body of concrete entirely inclosing the aforesaid parts, excepting the shoe.

5. In a reinforced concrete pile the combination with a pointed metal shoe having upwardly projecting members affording a hold in the concrete, main rods butting into a recess in the upper surface of the shoe and extending continuously throughout the length of the pile to a short distance from the top, spacer frames at intervals apart for maintaining the several rods at the desired distance from one another, said spacer frames having outer corners to receive said rods and having inner corners, supplemental rods held with said inner corners parallel to said main rods, wire ties for holding said rods against said frames, a body of concrete entirely inclosing the aforesaid parts, excepting the shoe, and an interrupted tubular metallic core held within the center of the concrete.

942,019. WALL-COVERING. WILLIAM M. STEVENSON, Indian Orchard, Mass., assignor to Hodges Fiber Carpet Company, Indian Orchard, Mass., a Corporation of Maine. Filed Nov. 10, 1908. Serial No. 461,969.



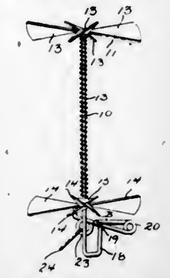
1. A wall covering having a face consisting of a woven fabric with paper weft threads and a paper backing to which said woven face fabric is pasted or cemented.

2. A wall covering having a face consisting of a woven fabric with paper weft threads and a paper backing to which said woven face fabric is pasted or cemented, said paper backing being impervious to moisture.

3. A wall covering consisting of a woven face fabric of open mesh and having paper weft threads, and a paper backing to which said woven fabric is pasted or cemented and which is visible through the meshes of said face fabric.

4. A wall covering consisting of a paper backing and a woven face fabric having substantially flat weft threads of paper, the flat inner faces of said paper weft threads being pasted or cemented to the paper backing.

942,020. TOY FLYING-MACHINE. JOSHUA STOMBERG, Port Wing, Wis. Filed Apr. 21, 1909. Serial No. 491,290.



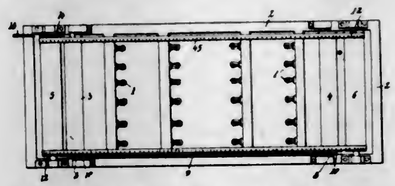
1. A toy of the class described, comprising a shaft, a propeller secured to one end thereof, a second propeller engaged revolubly upon the shaft, resilient means connecting the propellers, a ratchet portion on the second named propeller, said shaft having one extremity bent to engage resiliently against the ratchet portion to hold the second named propeller against rotation at times, and means for holding the shaft out of such engagement at times.

2. In a device of the class described, a propeller stamped from sheet material, a concentric series of ratchet teeth stamped therein, a shaft engaged revolubly therethrough, a second propeller carried rigidly at one end of the shaft spaced from the first propeller, and a resilient member secured to the propellers, one end of the shaft being bent inwardly to engage the ratchet teeth at times, and means for holding the shaft out of engagement with the ratchet teeth at other times.

3. A toy of the class described comprising a shaft, a propeller rigidly secured to one end thereof, said propeller being stamped integrally from sheet material, a second similar propeller engaged revolubly upon the shaft, a helical spring connecting the propellers, a ratchet portion carried by the second propeller, said shaft having one extremity extended through the last named propeller and turned inwardly, its extremity being disposed resiliently against the ratchet portion to hold the second propeller against rotation at times, and means for holding the extremity of the shaft out of such engagement at times.

4. A toy of the class described comprising a wire shaft, a propeller secured to one end thereof, a second propeller revolubly engaged inwardly of the first, a resilient member secured to the two propellers, ratchet portions carried on the outer face of the second propeller, the adjacent end of the shaft being extended through the propeller and turned backwardly to a point a spaced distance from the propeller to form a handle portion, the end portion being bent outwardly and thence inwardly to form a trigger, its extremity being turned upwardly to engage the ratchet portion upon the adjacent propeller, the outwardly turned portion of the wire having a projection formed therein adapted to engage over the trigger at times to hold it out of engagement with the ratchet portion, and means for withdrawing said trigger from engaged position.

942,021. ADVERTISING APPARATUS. ANTON WEISMANN, Berlin, Germany. Filed Aug. 24, 1908. Serial No. 450,090.



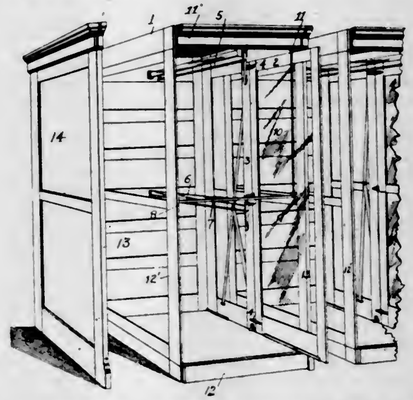
1. In a device of the class described, the combination with a frame, of a shaft mounted in said frame to turn, a gear wheel loose on said shaft, means for driving said gear wheel at a constant speed, two opposite bevel wheels loose on said shaft and one of them connected with said gear wheel, a pin on the frame, a third bevel wheel mounted to turn on said pin and meshing with said two bevel wheels, a clutch coupling longitudinally movable on said shaft and prevented from turning, it being adapted to engage either of said two opposite bevel wheels, means operated by said gear wheel for periodically shifting said clutch coupling from one extreme position to the other one and vice versa, two spaced rollers, an advertising sheet fastened on said two rollers, two guiding rollers adapted to engage said advertising sheet for winding it off one and on the other of said two rollers, and means for operating one of the said guiding rollers from said shaft.

2. In a device of the class described, the combination with a frame, of a shaft mounted in said frame to turn, a gear wheel loose on said shaft, means for driving said gear wheel at a constant speed, a disk loose on said shaft and having a cut, two opposite bevel wheels loose on said shaft and one of them rigidly connected with said disk, two like pinions loose on said shaft and one of them connected with said gear wheel and the other with said disk, a pin on the frame, a third bevel wheel mounted to turn on said pin and meshing with said two bevel wheels, a clutch coupling longitudinally movable on said shaft and prevented from turning, it being adapted to engage either of said two opposite bevel wheels for driving said shaft in either direction, a second shaft mounted in said frame to turn, a second gear wheel on said second shaft and being cut out so that it permanently meshes with the pinion connected with said gear wheel and periodically meshes with the other pinion, a segment in the cut-out portion of said second gear wheel and adapted to engage in the cut of said disk for preventing it from turning, a catch disk fastened on said second shaft, a third shaft mounted in said frame to turn, a star wheel fastened on said third shaft and so controlled from said catch disk that it is periodically fed forward and stopped, a third disk fastened on said third shaft, a two-armed lever rocking on said frame and adapted to be controlled from said third disk for once on every revolution shifting said clutch coupling from one extreme position to the other one or vice versa, an advertising sheet, and means for operating the said sheet from the first named shaft.

3. In a device of the class described, a frame, a shaft mounted in the frame and driven at a constant speed, a second shaft mounted in the frame, a gear wheel loose on the second shaft, means for operating said gear wheel from the first shaft, two bevel wheels loose on the second shaft, one of them being connected with the gear wheel, a third bevel wheel mounted in the frame and meshing with the said two bevel wheels, a clutch coupling longitudinally movable on the second shaft and adapted to engage either of the two opposite bevel wheels, means operated by said gear wheel for periodically shifting the clutch coupling, two spaced rollers, an advertising sheet carried by said rollers, means for operating the advertising sheet from said second shaft, an illuminating device, and means controlled by the clutch coupling operating means for periodically lighting the illuminating device.

4. In a device of the class described, a frame, a shaft mounted in the frame and driven at a constant speed, a second shaft mounted in the frame, a gear wheel loose on the second shaft, means for operating said gear wheel from the first shaft, two opposite bevel wheels loose on the second shaft, one of them being connected with the said gear wheel, a third bevel wheel mounted in the frame and meshing with the said two bevel wheels, a clutch coupling movable on the second shaft and adapted to engage either of the two opposite bevel wheels, means operated by said gear wheel for periodically shifting the clutch coupling, two spaced rollers, an advertising sheet carried by said rollers, guiding rollers over which the advertising sheet passes, means for operating one of the guiding rollers from the second shaft, an illuminating device, and means controlled by the clutch coupling operating means for periodically lighting the illuminating device.

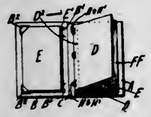
942,022. DISPLAY-CABINET. LYMAN W. WELCH, Grand Rapids, Mich. Filed Jan. 16, 1909. Serial No. 472,713.



1. In combination in a cabinet composed of sections, a vertical strip on one section and a vertical strip on the adjacent section, the latter strip having a recess in its side face with a front portion overlapping the front edge of the strip of the first named section, substantially as described.

2. In combination with a cabinet having a door and having a strip at its front corner, an adjacent member or side having a pilaster carried thereby at its front partly receiving the strip on the cabinet, but leaving a portion exposed to serve as a stop for the door, substantially as described.

942,023. MANIFOLDING COPYING-BOOK. CHARLES G. C. WHYTE, Marrickville, Sydney, and ARTHUR RAU, St. Peters, Sydney, New South Wales, Australia; said Rau assignor to said Whyte. Filed July 8, 1908. Serial No. 442,558.



1. A manifolding book consisting of two covers and a flexible back and a packet of paper fastened to one of said covers by means of eyes which pass through said packet and hooks fastened to said cover and engaging said eyes.

2. In combination with a pair of book covers and their connecting back a series of staples attached to one of said covers, a detachable packet of leaves of paper and a series of staples engaging said packet, the staples of one set being provided with eyes and the staples of the other set being provided with hooks, which removably engage said eyes, substantially as set forth.
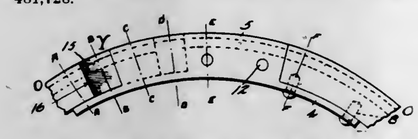
3. In a manifolding book, a suitable cover, a packet of paper in combination with means for fastening the same to one leaf of said cover said means passing through said packet and provided with eyes and hooks attached to said leaf of said cover said eyes engaging said hooks.

4. In a manifolding book, consisting of a cover, a packet of transparent paper, another packet of paper consisting of transparent and non-transparent paper, and a flexible back joining said covers, said last mentioned packet being provided with eyes having necks, and staples extending from said necks, said staples passing through and clenching on the other side of said packet, and hooks provided with necks and passing through and clenching on the other side of the said last mentioned cover; said eyes engaging said hooks.

5. A manifolding book consisting of a cover, a packet of paper attached to one leaf thereof, means for attaching said packet to the said leaf, said means consisting of eyes secured to the said packet and hooks attached to the said cover, and a flexible back for the said book.

[Claims 6 to 8 not printed in the Gazette.]

942,024. LAP-JOINT FOR PACKINGS. JOHN T. WILSON, Jersey Shore, Pa. Filed Mar. 6, 1909. Serial No. 481,728.



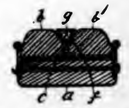
1. A lap joint for a packing comprising two ends 1 and 2 of a packing, and a joint plate having a bottom plate and a side plate united, the side surfaces only of the ends 1 and 2 being recessed to receive the side plate, and said joint plate secured to one of the said ends.

2. A lap joint for a packing comprising two ends 1 and 2 of a packing, and a joint plate having a bottom plate and a side plate united, the side surfaces of the ends 1 and 2 being recessed to receive the side plate, and said joint plate secured to one of the said ends; the end 17 of the bottom plate projecting beyond the side plate, and frictionally engaging the under surface of end 2, in substance as set forth.

3. A lap joint for a packing comprising two ends 1 and 2 of a packing, and a joint plate having a bottom plate and a side plate one surface of which is beveled or inclined and said plates united, the side surfaces of the ends 1 and 2 being recessed and provided with beveled or inclined surfaces, and said joint plate secured to one of the said ends; the end 17 of the bottom plate projecting beyond the side plate and frictionally engaging the under surface of end 2, in substance as set forth.

4. A lap joint for a packing comprising two ends 1 and 2 of a packing, and a joint plate having a bottom plate and a side plate united said bottom plate having its ends extended beyond each end of the side plate, the side surfaces of the ends 1 and 2 being recessed to receive the side plate, and said joint plate secured to one of the said ends and so the bottom plate will lie in frictional contact with the inner surfaces of the said two ends.

942,025. MOTOR-CAR WHEEL. GEORGE B. WINTER, London, England. Filed Oct. 22, 1906. Serial No. 340,101.

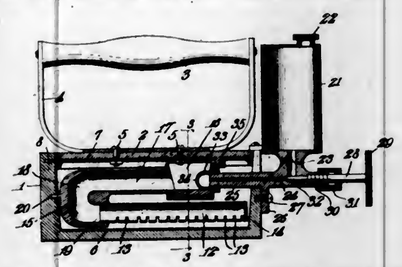


1. In a wheel, the combination of a wheel rim and a wearing surface, said wearing surface extending outwardly some distance beyond said rim and being substantially flat, the outer edges of said wearing surface being made of rubber and the central part being a metal ring having sharp edges or corners, said metal ring being located within said wearing surface with its outer surface practically on a level with the rubber part of said surface, whereby, when the vehicle turns, the rubber on the outside of said wearing surface will yield and permit one of the sharp edges of the metal ring to contact with the road, thereby preventing skidding, substantially as described.

2. The combination of a tire rim, side rings secured thereto, two parallel rubber treads separated by a narrow space, held between said rings and extending outwardly a considerable distance beyond said rings, a metal ring angular in cross section, held between said treads, the outer part of the rubber treads and the metal ring forming a substantially flat wearing surface, substantially as described.

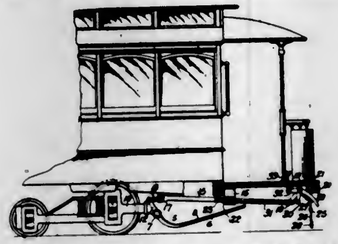
3. The combination of a tire, two parallel rubber treads secured thereto and extending outwardly some distance beyond the tire and separated by a narrow space, a metal ring angular in cross section, held in said space and in the sides of the rubber treads, the said ring and treads forming a substantially flat wearing surface, and a soft metal trough-shaped ring secured to said metal ring, whereby skidding is prevented, substantially as described.

942,026. SAD-IRON. CHARLES W. WODZNSKI, Milwaukee, Wis. Filed Dec. 30, 1908. Serial No. 469,995.



The herein described sad iron comprising a hollow body portion provided with perforations to admit air to the interior thereof, a hydro-carbon burner within the sad iron, said burner having a U-shaped fuel passage, a starting pan connected to said burner, a fuel reservoir outside the iron, a tube connected to said reservoir and provided with a restricted feed passage, a duct leading from the reservoir to said passage, and a needle valve at the outer end of the tube, said sad iron being lined at the top and bottom with asbestos.

942,027. CAR-FENDER. JAMES D. WRIGHT, Brooklyn, N. Y., assignor of one-half to Lemuel S. Clark, Brooklyn, N. Y. Filed June 19, 1909. Serial No. 503,136.



1. In a car fender, the combination with a car truck, of a fender carried thereby, a rod with teeth above the fender, a longitudinally moving bar operating in the teeth and against the rod, means for locking the bar and means for releasing the bar.

2. In a car fender, the combination with a car truck, of a fender hinged thereto, a curved rod at upper part of the fender, a bar with teeth and engaging the curved rod to retain the fender in its elevated position, a pawl carried by a rod engaging the teeth to lock the bar and automatic means for releasing the pawl.

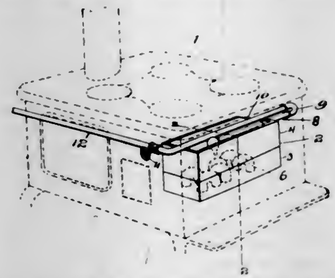
3. In a car fender, the combination with a car truck, of a hinged fender, a rod concentric with the pivot of the truck and connected with the fender, a longitudinally moving bar with teeth and having a fork in one end to engage the concentric rod, a pawl engaging the teeth, an arm connected with the pawl by a rod, and means for automatically operating the arm to disengage the pawl.

4. In a car fender, the combination with a car truck, of a fender hinged to same, a bar connected with the fender to hold it up and having teeth, a pawl engaging the teeth, a pivoted arm connected with the pawl, a pivoted frame adapted to be struck by an object ahead of the car and move the arm.

5. In a car fender, the combination with a car truck, of forwardly extending arms, a pivoted frame, a fender and cross rods hinged to the truck, a reciprocating bar beneath the car adapted to hold the fender in its elevated position, a pawl locking the bar, an arm connected with the pawl by a rod and locked by the pivoted frame and means for elevating the fender.

[Claim 6 not printed in the Gazette.]

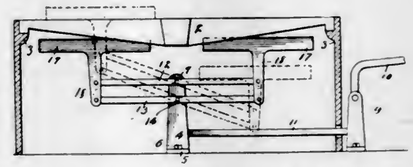
942,028. OIL-BURNER. JOSIAH N. YOUNG, Dallas, Tex., assignor of four-fifths to Sheppard Williams King, Dallas, Tex. Filed July 26, 1909. Serial No. 509,610.



1. In an oil burner, the combination with a housing open at the top and adapted to be positioned in the fire chamber of the stove, a plurality of pipes mounted in the bottom of said housing and extending to the exterior thereof and open to the ash pit of the stove for permitting air to pass from said ash pit into the pipes, a semi-circular pipe secured to the top of each of said first mentioned pipes, whereby the air passing through said first mentioned pipes will be directed downward against the bottom of the housing, the upper part of said semi-circular pipes being below the upper edge of said housing, a nozzle positioned substantially central in said housing for discharging oil and vapor into the housing, a pipe extending from said nozzle and bent upon itself for passing transversely across the natural air draft of the stove and slightly above one edge of the housing, whereby flame passing from said housing will contact with said pipe for heating oil passing therethrough, and means for regulating the amount of oil passing through said pipe.

2. In a device of the character described, the combination with a stove, of a housing positioned in the fire chamber thereof, a plurality of tubes bent over at the top and communicating with the exterior of the housing above the ash pit of said stove so that air may travel from the ash pit to the bottom of the interior of the housing and from there through the natural draft of the stove, a nozzle for distributing oil to the interior of said housing, a pipe extending across the vertical draft of the stove for supplying oil to said nozzle, and means for controlling the flow of oil through said pipe.

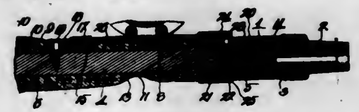
942,029. SHAKER FOR FIRE-GRATES. ADOLPH T. ZUECH and GUSTAV H. DIEMER, Trinidad, Colo. Filed Apr. 2, 1909. Serial No. 487,504.



1. In combination with grate bars of a furnace, a rock shaft mounted below the grate bars, rocker bars having their central portions connected to said rock shaft, rocker bars parallel with the first mentioned rocker bars and having their pivots disposed centrally thereof and mounted below the rock shaft, and pivot devices connecting the ends of the said rocker bars, and shaker elements mounted on said pivot devices for vertical movement so that the shaker elements at opposite ends of the rocker bars move simultaneously in reverse directions, said shaker elements being disposed for operation in the spaces between the grate bars, and means to actuate said rock shaft to impart motion to said rocker bars and shaker elements.

2. In a shaking mechanism of the class described comprising supporting standards, a rock shaft mounted thereon and having a rock arm, parallel rocker bars some connected to the rock shaft and others pivotally connected to said standards, shaker elements having depending arms, rods connecting the parallel rocker bars and connected to the depending arms of the shaker elements to support and actuate the latter, and a lever connected to the rock arm of the rock shaft to actuate said rock shaft, said rocker bars and shaker elements.

942,030. FISHING-ROD. WILL A. AUSTIN, Kansas City, Mo. Filed Jan. 27, 1909, Serial No. 474,397. Renewed Oct. 1, 1909. Serial No. 520,596.



1. A fishing rod handle provided with a sleeve having a rearwardly-projecting extension, and a grip provided with an extension projecting forwardly to the rear end of the sleeve and underlying the extension thereof.

2. A fishing rod handle provided with a sleeve having a rearwardly-projecting extension, and a grip provided with an extension projecting forwardly to the rear end of the sleeve and underlying the extension thereof; said grip extension having an external transversely-extending groove.

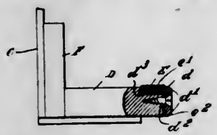
3. A fishing rod handle, comprising a core, provided with a diametrically-reduced portion, a sleeve fitting on said core and provided with an extension overlying and spaced from the reduced portion of the core, a tubular grip fitting on the reduced portion of the core and bearing at its front end against the non-reduced portion thereof, and forming a seat for the extension of the sleeve, and means for fastening the sleeve and grip to the core.

4. A fishing rod handle, comprising a core, provided with a diametrically-reduced portion, a sleeve fitting on said core and provided with an extension overlying and spaced from the reduced portion of the core, a tubular grip fitting on the reduced portion of the core and bearing at its front end against the non-reduced portion thereof, and forming a seat for the extension of the sleeve, means for fastening the sleeve and grip to the core, a forwardly opening pocket at the rear end of the extension of the sleeve, and a slidable collar upon the sleeve and adjustable toward and from said pocket.

5. A fishing rod handle, comprising a core provided with a diametrically-reduced portion a sleeve fitting on said core and provided with an extension overlying and spaced from the reduced portion of the core, a tubular grip fitting on the reduced portion of the core and bearing at its front end against the non-reduced portion thereof, and forming a seat for the extension of the sleeve, means for fastening the sleeve and grip to the core, a forwardly opening pocket at the rear end of the extension of the sleeve, a longitudinally adjustable clamp-plate carried by the sleeve, and a collar adjustable upon the sleeve and over the clamp-plate toward and from the said pocket.

[Claim 6 not printed in the Gazette.]

942,031. SAFETY DEVICE FOR TREADS OF STEPS. AUGUSTIN I. DAVIS, Lowell, Mass., assignor to American Mason Safety Tread Company, Saco, Me., a Corporation of Maine. Filed Feb. 18, 1909. Serial No. 478,567.



1. A metal plate or strip provided with a groove for the reception of anti-slipping material and adapted to be secured to a step or running-board and to be retained in place by a metallic guard-strip.

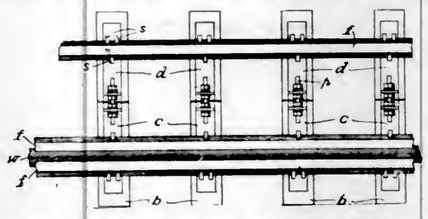
2. A metal plate or strip provided with a groove for the reception of anti-slipping material and provided with a flange adapted to be secured to a step or running-board and to be retained in place by a metallic guard-strip.

3. The combination of a tread rabbeted at its outer edge and a plate or strip adapted to fit said rabbet and having an attaching flange, said plate or strip having a groove containing anti-slipping material, and a guard between which and the outer edge of said tread said flange is held.

942,032. RAILWAY AND RAIL-SUPPORT THEREFOR. WILLIAM L. DE REMER, Chicago, Ill. Filed Mar. 4, 1907. Serial No. 360,382.

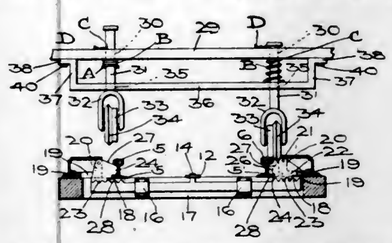
1. A rail-supporting plate formed in two sections having overlapping end portions each provided with an oblique slot extending across and at an angle to the slot in the adjacent overlapping portion, a bolt mounted in such slots and provided with a nut for securing the sections of the plate together, and means for securing the plate to a tie.

2. A rail-supporting plate formed in two sections having perforated overlapping end portions, a bolt extending through the perforated overlapping end portions, an adjusting screw extending longitudinally of the plate and



forming a connection between the respective sections thereof, and means for securing the plate to a tie.

942,033. AUTOMATIC SWITCH. JOSE MA GODOY, San Antonio, Tex. Filed Dec. 21, 1908. Serial No. 468,500.



1. In a switch mechanism, the combination with parallel rails, of a shift rod mounted for movement transversely of the rails, a movable switch member, connections between the shift rod and switch member for movement of the latter, said shift rod having upwardly directed rack teeth at its ends, segments pivoted in position to engage the rack teeth and arranged for movement to shift the shift rod, said rails being located in position to receive the segments thereagainst to limit their movement in one direction and means arranged for engagement of the segments to move them upon their pivots.

2. In a switch operating mechanism, the combination with a shift rod having upwardly directed rack teeth at its ends, of segments pivoted in position for engagement of the rack teeth, said segments being movable upon their pivots to shift the shift rod, and means for moving the segments.

3. In a switch mechanism, the combination with parallel rails, of a transverse tie located beneath the rails, brackets carried by the tie, a shift rod slidably mounted in the brackets for movement transversely of the rails, said shift rod extending outwardly beyond the rails at its ends and having upwardly directed rack teeth at its upwardly extending portion, longitudinal members located outwardly of the rails and in parallel relation thereto, said members being cut at points above the shift rod, upwardly extending brackets carried by the members at opposite sides of their cuts, segments pivoted between the brackets and engaging the rack teeth for the shift rod, said segments being movable upon their pivots to move the shift rods, said segments having straight edges disposed in position for engagement of the webs of the rails for limitation of the movement of the segments, said rails being cut for the reception of the segments, operating members for the mechanism, said members including wheels arranged for engagement of the rails and having flanges extending downwardly over the outer faces of the rails for engagement of the segments to move said segments upon their pivots, a movable switch member and connections between the switch member and the shift rod for simultaneous movement thereof.

4. In a switch mechanism, the combination with main track rails and switch rails, of means for shifting the switch rails, a car upon the rails, a vertically movable member carried by the car, means arranged for actuation

by the vertically movable member for operating the switch moving means and blocks located adjacent to the rails for engagement of the vertically movable member to raise said member into position for engagement of the operating means.

5. In a switch operating mechanism, the combination with a shift rod, of a segment pivoted for movement in a vertical plane and engaging the shift rod for movement of said rod when the segment is moved, a vertically movable member arranged for engagement of the segment to move said segment, a spring arranged to hold the vertically movable member with its segment-engaging portions below the upward limit of movement of the segment, and a slanted block located adjacent to the segment in position to receive the vertically movable member thereagainst for movement of said member against the action of the spring.

942,034. TOOL-HOLDER. CHRISTIAN GRUNDER, Pittsburg, Pa. Filed Apr. 22, 1909. Serial No. 491,479.



1. A tool-holder, comprising an angle plate, a plurality of partitions carried thereby and providing vertical compartments, said angle plates having openings formed therein alining with said compartments, a support carried by said angle plate and having depending ends, said support having openings formed therein alining with the openings of said angle plate, an apertured plate secured to said angle plate, a plurality of gripping members suspended from the upper edge of said apertured plate and extending into the compartments, a spring holder connected to said apertured plate, coil springs arranged within said holder and extending through said apertured plate to bear against said gripping members, a bar secured to said angle plate and to said support, and a handle frame connected to said bar and to said angle plate, substantially as described.

2. A tool-holder comprising an angle plate having openings formed therein, a support connected to said angle plate and having depending ends, said support having openings formed therein alining with the first mentioned openings, an apertured plate connected to said angle plate, a plurality of gripping members suspended from the upper edge of said apertured plate, a spring holder carried by said apertured plate, springs arranged within said holder and extending through said apertured plate to bear against said members, and a handle frame connecting with said angle plate.

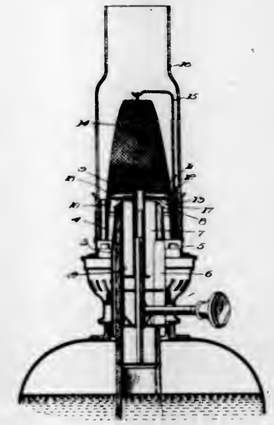
3. A tool-holder comprising an angle plate having the horizontal flange thereof provided with a plurality of openings, an apertured plate connecting with said angle plate, a plurality of gripping members suspended from the upper edge of said apertured plate and in the path of the openings of said angle plate, springs extending through said apertured plate for holding said gripping members normally in engagement with said angle plate, a handle frame connecting with said angle plate, and means for supporting said angle plate at an elevation relative to a piece of work.

4. A tool-holder comprising an angle plate having the horizontal flange thereof provided with a plurality of openings, an apertured plate connecting with said angle plate, a plurality of gripping members suspended from the upper edge of said apertured plate and in the path of the openings of said angle plate, springs extending through said apertured plate for holding said gripping members normally in engagement with said angle plate, and means for supporting said angle plate at an elevation relative to a piece of work.

5. A tool-holder comprising an angle plate having openings formed therein, an apertured plate connected to said angle plate, gripping members suspended from the upper edge of said apertured plate, means in connection with said apertured plate for normally holding said gripping members in engagement with said angle plate, and means for supporting said angle plate at an elevation relative to a piece of work.

[Claims 6 to 16 not printed in the Gazette.]

942,035. INCANDESCENT WICK-BURNER. JOSEPH HERZOG, Philadelphia, Pa., assignor to Augustus S. Houghton, Greenwich, Conn., and Glenn S. Williamson, New York, N. Y. Filed Jan. 2, 1909. Serial No. 470,390.



1. In an incandescent wick burner the combination of the outer wall of the wick tube with an outwardly flaring top, and a hollow burner head located thereabove and having a perforated annular deck therein and an inwardly projecting top above said annular deck; substantially as described.

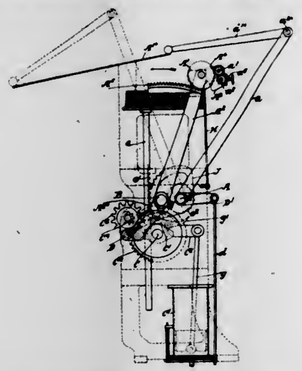
2. An incandescent wick burner having a spreader located above the wick, and a hollow burner head having on its inner surface a perforated deck, said deck being arranged in line with the under surface of the spreader; substantially as described.

3. In an incandescent wick burner a hollow burner head having a plurality of air chambers, each of the said chambers having a perforated bottom and an inward curved top and with the inner sides thereof open to the flame; substantially as described.

942,036. AUTOMATIC SHEET-FEEDER FOR PRINTING AND FOLDING MACHINES AND THE LIKE. HARRY HOLLINGS, Otley, England. Filed June 26, 1909. Serial No. 504,632.

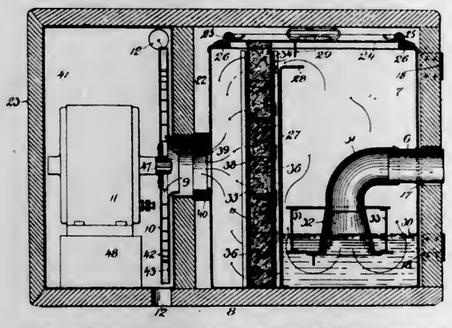
1. In a sheet feeding machine, the combination with a suitable frame having a shaft journaled therein, of a pair of rocking arms mounted on said shaft, a sheet delivering device carried by said arms, a second shaft journaled in the frame, a pair of rocking arms mounted on said second shaft, a suction device mounted on said second pair of arms and adapted to coöperate with the delivering device and feed the sheets thereto, a table for supporting the sheets to be fed, a rack bar on said table, a toothed quadrant mounted on said first-named shaft and engaging with the rack, a spring on the first-named shaft adapted to normally tension the quadrant and elevate the table to position the pile of sheets to be fed, means for stopping the upward pressing of the table, when the topmost sheet of the pile has been engaged by said suction device, and gearing connections between the said shafts.

2. In a sheet feeding machine, the combination with a suitable frame having a shaft journaled therein, of a pair of rocking arms mounted on said shaft, a sheet delivery device comprising a laterally disposed shaft having rollers carried by said rocking arms, a table on the frame on which said rollers are adapted to travel, a second shaft journaled in the frame, a pair of rocking arms mounted thereon, a suction device mounted on said second pair of arms and adapted to coöperate with the delivering device and feed the sheets thereto, a third shaft mounted in the



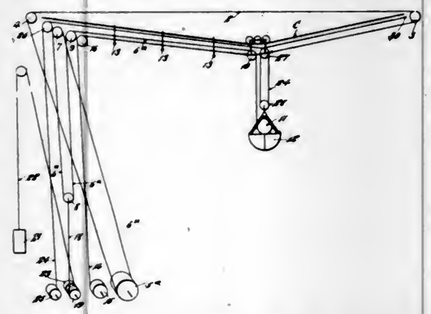
frame, a pump actuated through the medium of the third shaft and adapted to effect suction in the suction device, means for breaking the suction therein, a table for supporting the sheets to be fed, resilient means mounted on the first shaft and connected thereto and adapted to intermittently elevate said table by the rotation of said shaft and position the pile of sheets to be fed, means for limiting the upward movement of said table, and gearing connections between the several shafts.

942,037. PNEUMATIC CLEANER. SOLOMON MARKSTEIN, New York, N. Y., assignor, by mesne assignments, to Manufacturers Outlet Co., New York, N. Y., a Corporation of New York. Filed Nov. 19, 1908. Serial No. 463,424.



In a machine of the class described, a filter composed of a vessel having openings at its front and rear and an opening in its top, a cover for closing said opening, bails and a packing adjacent to said cover and a partition extending near said cover and provided with a horizontally disposed flange and a vertically disposed flange on said cover adjacent to said last mentioned flange, a pipe with an elbow extending from said forward opening to near the bottom of said filter, means for supporting the same and a frame with a packing held therein adjacent to said partition.

942,038. CABLEWAY. THOMAS S. MILLER, South Orange, N. J. Filed Feb. 28, 1908. Serial No. 418,205.



1. In a cableway, in combination, the main cable suspended in a curve between two supports, the load carriage traveling thereon, an outhaul rope, a carriage suspension rope, a hoisting rope running at the same speed but in the opposite direction to the outhaul rope and means whereby a loop is pulled in said hoisting rope to hoist the load.

2. In a cableway, in combination, the main cable suspended in a curve between two supports, the load carriage traveling thereon, an outhaul rope, a carriage suspension rope, a hoisting rope running at the same speed but in the opposite direction to the outhaul rope and means whereby a loop is pulled in said hoisting rope to hoist the load, a reversible motor whereby said outhaul, hoisting and carriage-suspension ropes are driven and another reversible motor actuating said loop pull.

3. In a cableway, in combination, a main cable suspended in a curve between two supports, a load carriage traveling thereon, an outhaul rope, a hoisting rope and a carriage-suspension-rope coöperating in controlling the carriage movement and independent means whereby a loop is pulled in said hoisting rope to hoist the load.

4. In a cableway, in combination, a main cable suspended in a curve between two supports, a load carriage traveling thereon, an outhaul rope, a hoisting rope and a carriage-suspension-rope coöperating in controlling the carriage movement and independent means whereby a loop is pulled in said rope to hoist the load and a counterpoise for the load receptacle connected with said loop pull.

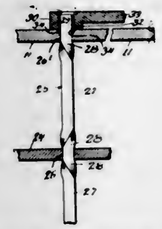
5. In a cableway, in combination, a main cable suspended in a curve between two supports, a load carriage traveling thereon, a dumping bucket, a bucket-closing-rope, a hoisting rope and a carriage-suspension-rope cooperating in controlling the carriage movement and independent means whereby a loop is pulled in bucket-closing-rope to hoist the load, a friction drum and a rope connecting the same with the load receptacle support to hold the same during the dumping operation.

[Claims 6 to 10 not printed in the Gazette.]

942,039. GRATING, SCREEN, SCREEN-DOOR CONSTRUCTION, AND THE LIKE. EDWARD MCCLURE. Chicago, Ill., assignor of one-half to Franklin P. Smith, Chicago, Ill. Filed Dec. 24, 1908. Serial No. 469,143.

1. The combination of longitudinal members having non-circular perforations therein, the perforations in the outer members being countersunk upon the outer face of said members, and transverse members extending through said perforations and fitting therein, said transverse members having twisted portions adapted to form shoulders which abut against the longitudinal members, and having twisted terminal ends within the countersunk portions of the perforations adapted to form heads that are seated therein.

2. A joint for intersecting members, comprising one member which contains a countersunk perforation, and a member extending through said perforation and having a twisted terminal end seated in the flaring portion of the countersunk perforation.



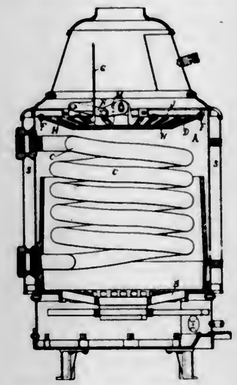
3. A joint for intersecting members, comprising a member having a countersunk perforation, and a shouldered member extending through said perforation, and having a twist in its terminal end adapted to form a head which engages with the flaring wall of the countersunk portion of the perforation, said head being flush with the outer face of the first named member.

4. A joint, comprising one member having a countersunk, non-circular perforation, and a second member extending through said perforation and fitting therein, said second named member having a twisted portion adapted to form a shoulder abutting against one side of the first named member, and having a twist in its terminal end adapted to form a head which engages with the flaring wall of the countersunk part of the perforation.

5. A joint, comprising a member having a countersunk square opening, and a member of square cross section fitting in said opening in the first mentioned member, said second named member having a shoulder abutting against one face of the first named member, and having a twist in its terminal end adapted to form a head which engages with the flaring wall of the opening.

[Claims 6 and 7 not printed in the Gazette.]

942,040. CAR-HEATER. JAMES F. MCELROY, Albany, N. Y., assignor to Consolidated Car-Heating Company, Albany, N. Y. Filed July 5, 1904. Serial No. 215,267.



1. A heater; a diaphragm provided with a central and radial openings secured in said heater; a damper plate provided with a central and radial openings adjustably secured to said diaphragm; a door hinged to said plate adapted to close said central openings; a lever secured to said plate; a means for attaching said lever to said door so arranged that by a movement of said lever to the right or left the radial openings in said diaphragm may be closed or opened and a rotary movement of said lever will open or close said door and lock the same in either its opened or its closed position, substantially as described.

2. A heater; a diaphragm secured therein, said diaphragm provided with radial openings and a central opening through which fuel may be furnished to the heater; a damper plate provided with radial openings adapted to register with the radial openings in the said diaphragm, and also provided with a central opening for the admission of fuel; a door arranged to close said central opening in said plate and diaphragm; a lever secured to said plate by the movement of which in a horizontal plane the radial openings in said plate and diaphragm may be caused to register or the openings in said diaphragm closed; a rotary movement of said lever opening or closing said door, substantially as described.

3. A heater; a diaphragm provided with radial openings therein and a central opening; a damper plate adjustably secured to said diaphragm, provided with openings adapted to register with those in the diaphragm; a door hinged to said plate adapted to cover the central opening in the plate and diaphragm; an operating lever; lugs on said plate in which said lever is mounted; a lever secured to said door; a lever secured to the end of said operating lever; a connecting bar connecting and forming a toggle joint with the lever secured to said door with the lever on the end of the operating lever, said operating lever and its coacting mechanism adapted to operate the damper plate and also the door, all substantially as described.

942,041. MERRY-GO-ROUND. CHARLES W. OTT, Pittsburg, Kans., assignor to The Ott Circle Swing Mfg. Co., Girard, Kans., a Corporation of Kansas. Filed May 26, 1908. Serial No. 435,132.



1. A merry-go-round comprising an upright, an extensible and contractible frame capable of rotary movement about the same, supports for the frame pivotally mounted on the upper end of the upright and depending therefrom, seats at the outer ends of said frame, and means for moving said frame.

2. A merry-go-round comprising an upright, a ratchet-wheel secured on the upright and having an upwardly extending hub provided with a segmental cavity in its upper end, a collar journaled on said hub, a lever secured to and extending from the collar, a pawl moving with the lever and the collar and engaging the ratchet wheel, a swing-frame provided with a central pivot-head engaging the cavity in the hub of the ratchet-wheel and having a seat at its outer end, and a handle-equipped cable extending from the lever to the seat.

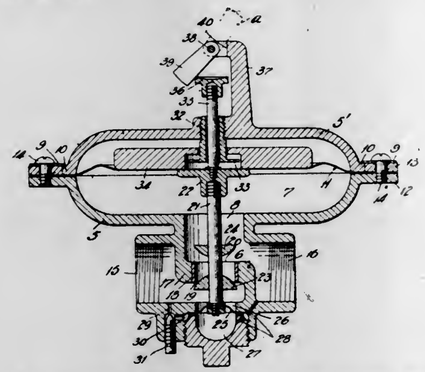
3. A merry-go-round, comprising an upright suitably supported, a frame consisting of a main section pivotally suspended from the upright and capable of rotary movement, a pair of sections slidably carried by the main section and provided with seats at their outer ends, and an extensible and contractible truss-brace connecting the main and slidable sections, a ratchet wheel rigid with the upright, a lever bearing a journaled relation to the upright and ratchet wheel, a pawl carried by the lever and engaging the ratchet wheel, and a retractile spring connected to the lever and tending to swing the same in such direction as to cause the pawl to slip inoperatively over the teeth of the ratchet wheel.

4. A merry-go-round, comprising an upright, a frame pivotally suspended from the upright and rotatable about the same and provided with slidable sections movable toward and from the upright and equipped with seats at their outer ends, an adjustable truss-brace connecting the frame and its sections, means adapted to be pulled upon by one of the occupants to impart rotation to said frame, and means for causing the said rotating means to travel in the same direction as said frame as soon as the pulling strain is released.

5. A merry-go-round, comprising an upright, a ratchet wheel rigid with the upright, a lever bearing a journaled relation with said upright and ratchet wheel and provided with a pawl engaging the latter, a frame pivotally suspended from the upright and rotatable about the same and provided with slidable sections movable toward and from the upright and equipped with seats at their outer ends, an adjustable truss-brace connecting the frame and its sections, means connected to said lever and adapted to be pulled upon by one of the occupants to impart rotation to said frame, and a retractile spring connecting the lever with the truss-brace for causing the lever to rotate in the same direction as said frame as soon as the pulling strain on the former is relaxed, to dispose the pawl in engagement with a different tooth of the ratchet wheel to form a fulcrum in the next pulling operation.

[Claims 6 to 8 not printed in the Gazette.]

942,042. FLUID-PRESSURE REGULATOR. BENJAMIN H. PETLEY, Seattle, Wash. Filed Apr. 20, 1909. Serial No. 491,148.



1. The combination of a containing case provided with a valve-chamber having inlet and outlet openings and a partition therebetween which is provided with an opening extending through the partition and having valve-seats at its upper and lower ends, a valve for each of said seats, a chamber communicatively connected with the valve chamber from the outlet side of said partition, a diaphragm extending transversely across the second named chamber, and a stem connected to the diaphragm and with both of said valves, said containing case being provided with a by-pass making continuous connection between the inlet and outlet sides of the partition.

2. The combination of a containing case provided with a valve-chamber having inlet and outlet openings and a partition therebetween which is provided with an opening extending through the partition and having valve-seats at its upper and lower ends, a valve for each of said seats, a by-pass affording continuous communication between the inlet and outlet sides of said partition, a chamber superposed with respect to said valve-chamber and communicatively connected with the latter from both the inlet and the outlet sides of said partition, a diaphragm extending transversely across the second named chamber, a stem connecting the diaphragm directly with both of said valves for corresponding movements, a chair extending downwardly from said cover, and a weight arranged to be supported by said chair and likewise for engagement by said diaphragm.

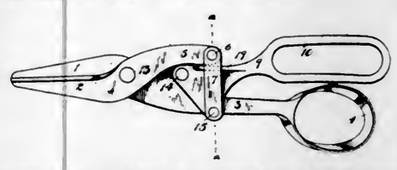
3. The combination of a containing case provided with a valve-chamber having inlet and outlet openings and a partition therebetween and provided with an opening extending through the partition and having valve-seats at its upper and lower ends, said containing case being provided with a by-pass making connection between the inlet and outlet sides of the partition, a valve for each of said seats, a chamber superposed with respect to said valve-chamber and communicatively connected with the latter from the outlet side of the partition, a diaphragm extending transversely across the second named chamber, a stem operatively connecting the diaphragm with both of said valves, a rod extending through the cover, an adjustable head upon the rod, and the dog arranged to engage said head when the rod is in its lowermost position.

4. The combination of a containing case provided with a valve-chamber having inlet and outlet openings and a partition therebetween and provided with an opening extending through the partition and having valve-seats at its upper and lower ends, a valve for each of said seats, a chamber superposed with respect to said valve-chamber and communicatively connected with the latter, a cover for the second named chamber, a diaphragm extending transversely across the second named chamber, and between the casing and said cover, means for securing the cover to the casing so that the cover is removable without disturbing the securement of said diaphragm, and a stem operatively connecting the diaphragm with both of said valves.

5. The combination of a containing case provided with a valve chamber having inlet and outlet openings and a partition therebetween and provided with an opening extending through the partition and having valve-seats at its upper and lower ends, a valve for each of said seats, a chamber superposed with respect to said valve-chamber and communicatively connected with the latter from the outlet side of said partition, a diaphragm extending transversely across the second named chamber, a stem operatively connecting the diaphragm with both of said valves, and another diaphragm operatively connected with said stem and arranged to be exposed to fluid pressures which prevail at the inlet and outlet sides of the partition.

[Claims 6 to 10 not printed in the Gazette.]

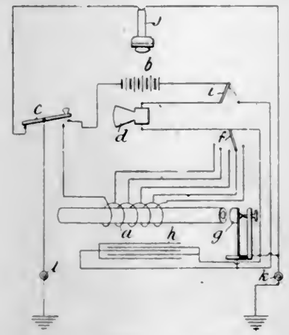
942,043. SHEARS. JOHN R. SEARIGHT, Detroit, Mich., assignor to The Detroit Shear Company, Detroit, Mich. Filed July 16, 1909. Serial No. 507,893.



A shearing tool, having in combination a main blade, a shearing blade pivoted thereto, an auxiliary lever provided with a hand ring, pivoted at its end to the main blade, and a pair of link members pivoted at one end of each on the opposing faces of that portion of the shearing blade remote from its cutting portion, and at the other end of each on the sides of the auxiliary lever, at a point so located thereon with respect to its point of pivoting to the main blade that the axial line passing through the two pivots on the main blade is traversed thereby when the implement is opened and closed, said pair of link members serving to equalize and distribute between the two faces of the shearing blade the strain incident to the operation of the shearing members upon an interposed sheet of metal, substantially as described.

942,044. WIRELESS TELEPHONY AND TELEGRAPHY. ALEXANDER W. SHARMAN, Clapham, London, England. Filed July 16, 1909. Serial No. 507,972.

1. The method of transmitting wireless intelligence which consists in joining the positive and negative poles of a source of low tension current, and the two ends of a self induction coil each to the earth through a plurality of pairs of earth contacts; in suitably adjusting the resistance of said coil to the rest of the circuit; and in suddenly reducing the low tension current flowing through said coil, thereby, when said current is at its minimum, impressing on said pairs of earth contacts a maximum voltage from the induced direct current through said coil; substantially as described.



2. The method of transmitting wireless signals which consists in suddenly reducing a low tension current passing through a self induction coil, thereby inducing in said coil a direct current of high electromotive force; in causing said induced current to be conducted to earth through a plurality of widely separated earth contacts; and in simultaneously preventing said low tension current from passing to the earth; substantially as described.

3. In an apparatus for sending wireless intelligence the combination of a source of low tension current; a self induction coil connected therewith; means to suddenly reduce the current passing through said coil and thereby produce a direct current of high tension in said coil when said first mentioned current is at its minimum; means to adjust the resistance and self inductance of said coil to correspond with other portions of the circuit; and a plurality of pairs of widely separated earth contacts joined to each other and to said coil; substantially as described.

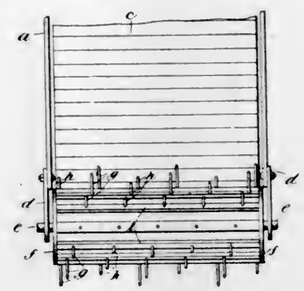
4. In an apparatus for sending telegraphic and telephonic wireless signals, the combination of a source of low tension current; a self induction coil adapted to be placed in circuit therewith; a telephonic transmitter in circuit with said coil and said source; a telegraphic interrupter adapted to be placed in circuit with said source and said coil; a signal key adapted to suddenly break the circuit through said coil; and ground connections for each end of said coil; substantially as described.

5. In an apparatus for sending and receiving telephonic and telegraphic signals the combination of two ground connections, each consisting of a plurality of widely separated conductors joined together; a receiver normally in circuit with said connections; a battery; a self induction coil; a signal key adapted to break connection between said receiver and one of said ground connections, and to make circuit between said battery, said ground connection and one end of said coil; a microphone transmitter; a switch adapted to join the other end of said coil to said transmitter and to the other ground connection; a telegraphic interrupter; and a second switch adapted to join at will either said transmitter or said interrupter to said battery; substantially as described.

REISSUES.

13,047. MANURE-SPREADER. EDGAR C. LITCHFIELD and DUDLEY GARST, Waterloo, Iowa, assignors to The Litchfield Manufacturing Company, Waterloo, Iowa. Filed Apr. 15, 1908. Serial No. 427,285. Original No. 872,000, dated Nov. 26, 1907, Serial No. 321,169.

1. In a manure spreader, the combination with means for positively moving the mass to be spread to the discharge point, of a beater drum located closely adjacent to the discharge end of said means, said drum provided with a plurality of series of disintegrating and distributing teeth of varying lengths, teeth of each series being distributed at intervals across the entire width of the drum.



2. In a manure spreader, the combination with means for positively moving the mass to be spread to the discharge point, of a beater drum located closely adjacent to the discharge end of said means, said drum provided with a plurality of series of disintegrating and distributing teeth, the teeth of each series differing in length from the teeth of the other series, teeth of each series being distributed at intervals around and along the entire circumferential surface of the drum.

3. In a manure spreader, the combination with a movable apron for conveying the mass, of a beater drum located adjacent to the discharge end of said apron, said drum provided with a plurality of series of disintegrating and distributing teeth, the teeth of one series varying in length from that of the other series, teeth of each series being distributed at intervals around and along the entire circumferential surface of the drum, and the teeth of one series alternating with the teeth of another series.

4. In a manure spreader, a rotating beater drum, a plurality of series of disintegrating and distributing teeth carried by said drum, the teeth of each series differing in length from the teeth of the other series, teeth of each series being distributed along and about the entire circumferential surface of the drum, and the teeth of each series being intermingled with the teeth of the other series.

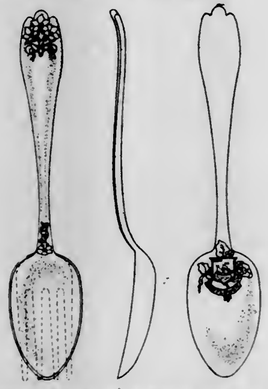
5. In a manure spreader, a rotating beater drum provided with a plurality of series of disintegrating and distributing pin teeth located and intermingled over the entire cylindrical surface, the teeth of each series differing in length from the remaining teeth.

6. In a manure spreader, the combination of a movable apron, a beater-drum rotatably supported at one end thereof, and long and short distributing teeth alternately and spirally arranged upon the exterior periphery of said beater-drum.

7. In a manure spreader, the combination with means for moving the mass to be spread to the discharge point, of a beater drum located at said discharge point, said drum having distributed and intermingled along and about its peripheral surface a plurality of series of teeth of varying lengths, the arrangement being such that the number of paths described by the teeth upon rotation of the drum is greater than the number of such teeth lying upon one side of the axis of rotation in any plane containing the axis of rotation.

DESIGNS.

40,372. SPOON, FORK, OR SIMILAR ARTICLE. GEORGE P. TILTON, Newburyport, Mass., assignor to Towle Manufacturing Company, Newburyport, Mass., a Corporation of Massachusetts. Filed Aug. 30, 1909. Serial No. 515,370. Term of patent 14 years.



The ornamental design for a spoon, fork, or similar article, as shown and described.

40,373. CLOCK-CASE. FREDERICK J. VAN CISE and WILLIAM C. VAN CISE, Mayville, N. Y. Filed July 3, 1909. Serial No. 505,939. Term of patent 3½ years.



The ornamental design for a clock case, as shown.

40,374. DRINKING-CUP. EMORY B. SOWERS, Columbus, Ohio. Filed Feb. 26, 1909. Serial No. 480,292. Term of patent 14 years.



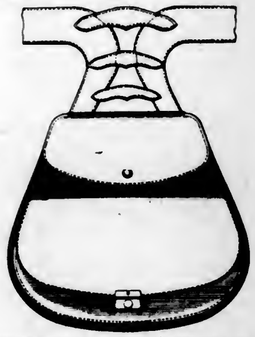
The ornamental design for a drinking cup as shown.

40,375. DISH. SAMUEL HENTSCHY, New Kensington, Pa. Filed Sept. 30, 1909. Serial No. 520,428. Term of patent 7 years.



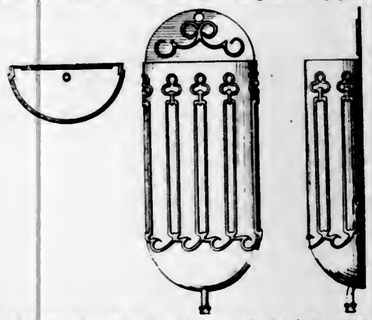
The ornamental design for a dish, as shown.

40,376. CHATELAINE-BAG. JULIUS LAMBERT, Hoboken, N. J. Filed Oct. 6, 1909. Serial No. 521,427. Term of patent 7 years.



The ornamental design for a chatelaine bag, as shown.

40,377. RESERVOIR FOR FOUNTAIN-SYRINGES. DAVID W. KEITH, Plankinton, S. D. Filed Sept. 11, 1909. Serial No. 517,720. Term of patent 3½ years.



The ornamental design for a fountain syringe reservoir as shown.

40,378. ARTIFICIAL-LIGHT SHADE. KRAFT BOOTH, Philadelphia, Pa., assignor to Gillinder & Sons, Inc., Philadelphia, Pa., a Corporation of Pennsylvania. Filed Oct. 13, 1909. Serial No. 522,498. Term of patent 14 years.



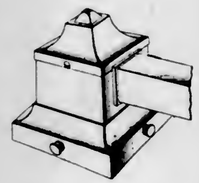
The ornamental design for artificial light shade as shown.

40,379. LAMP-SHADE. WILLIAM JOHN GRAY, Jeannette, Pa. Filed Aug. 12, 1909. Serial No. 512,624. Term of patent 3½ years.



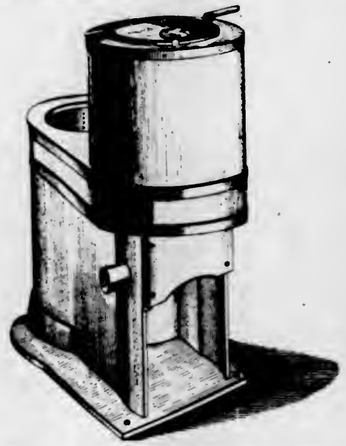
The ornamental design for a lamp shade, as shown.

40,380. ELECTRIC-LAMP SOCKET. REUBEN B. BENJAMIN, Chicago, Ill., assignor to Benjamin Electric Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 5, 1908. Serial No. 466,189. Term of patent 7 years.



The ornamental design for an electric lamp socket, substantially as shown.

40,381. ICE-CREAM-FREEZER CASING. STERLING HAIGHT BUNNELL, New York, N. Y., assignor to The Griscom-Spencer Company, New York, N. Y., a Corporation of New Jersey. Filed Mar. 29, 1909. Serial No. 486,627. Term of patent 7 years.



The ornamental design for an ice cream freezer casing, as shown.

40,382. STOVE. FRANK U. LONG and MORTIMER L. PACKER, Columbus, Ohio, assignors to The Ohio State Stove Company, Columbus, Ohio, a Corporation of Ohio. Filed July 1, 1909. Serial No. 505,524. Term of patent 7 years.



The ornamental design for a stove, as shown.

TRADE-MARKS

PUBLISHED NOVEMBER 30, 1909.

The following trade-marks have been adjudged entitled to registration under the act of February 20, 1905, and are published in compliance with section 6 of said act. Said section provides:

"Any person who believes he would be damaged by the registration of a mark may oppose the same by filing notice of opposition, stating the grounds therefor, in the Patent Office within thirty days after the publication of the mark sought to be registered, which said notice of opposition shall be verified by the person filing the same before one of the officers mentioned in section two of this act. If no notice of opposition is filed within said time the Commissioner shall issue a certificate of registration therefor, as hereinafter provided for."

Marks which are stated to have been "Used ten years" are registrable under the last proviso of section 5 of said act, which is as follows:

"And provided further, That nothing herein shall prevent the registration of any mark used by the applicant or his predecessors, or by those from whom title to the mark is derived, in commerce with foreign nations or among the several States, or with Indian tribes, which was in actual and exclusive use as a trade-mark of the applicant or his predecessors from whom he derived title for ten years next preceding the passage of this act."

Section 14 of said act provides for the following fee:

"On filing notice of opposition to the registration of a trade-mark, ten dollars."

Ser. No. 131. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) E. E. DOWNHAM CO, Alexandria, Va. Filed Apr. 1, 1905 Used ten years.



Particular description of goods.—Straight Rye Whisky.

Ser. No. 8,055. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) J. S. SMITH, DRUCE & CO. LTD., London, England. Filed June 13, 1905. Used ten years.



No claim is made to the words "J. S. Smith-Druce & Co. Phœnix Distillery, London, Finest Old Tom Gin. Established over a Century" or to the device of the phœnix separately.

Particular description of goods.—Tom Gin.

Ser. No. 22,554. (CLASS 2. RECEPTACLES.) UNITED SHOE MACHINERY COMPANY, Paterson, N. J., and Boston, Mass. Filed Oct. 6, 1906.



Particular description of goods.—Dispensing-Cans and Cement-Pots.

Ser. No. 32,425. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MEYER BROTHERS DRUG COMPANY, St. Louis, Mo. Filed Jan. 25, 1908. Used ten years.



The cross is printed in red.

Particular description of goods.—French Olive-Oil.

Ser. No. 35,726. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) THE MILLVILLE MANUFACTURING COMPANY, Philadelphia, Pa. Filed June 24, 1908.



Particular description of goods.—Cotton Piece Goods.

Ser. No. 35,864. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) FOLEY BROS. & KELLY, St. Paul, Minn. Filed June 30, 1908.

Minnesota Club

Particular description of goods.—Canned Fruits, Canned Vegetables, Canned Oysters, Canned Shrimp, Canned Salmon-Steak, Canned Lobster, Preserved Fruits, Canned Clam-Chowder, Canned Beans with Pork, Sauer-Kraut, and Roasted Coffee.

Ser. No. 36,526. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) GEORGE S. MORRIS & SONS, Baltimore, Md. Filed Aug. 7, 1908.

DRUID

Particular description of goods.—An Externally-Applied Remedy for Rheumatism, Gout, and Lumbago.

Ser. No. 37,626. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) FRANZ HARTMANN SINALCO AKTIENGESELLSCHAFT, Detmold, Germany. Filed Sept. 26, 1908.

Particular description of goods.—Aerated Non-Alcoholic Fruit Beverages.

Ser. No. 38,700. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) J. T. CLAY & SONS, LIMITED, Rastrick, England. Filed Nov. 16, 1908.



Particular description of goods.—Cloths and Stuffs of Wool, Worsted, or Hair.

Ser. No. 39,199. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) H. BRONNLEY & CO., LTD., London, England. Filed Dec. 9, 1908.

VIOTTO

Particular description of goods.—Perfumes, Face-Powders, Face-Cream.

Ser. No. 39,735. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CAMPBELL HOLTON & CO., Bloomington, Ill. Filed Jan. 6, 1909.

CAMEL

Particular description of goods.—Canned Peaches, Canned Sweet Potatoes, Canned Tomatoes, Canned Baked Beans, Canned Rhubarb, Canned Spinach, a Blend of Cane and Maple Syrups, Canned Salmon, Macaroni, Rolled Oats, Tapioca, Sago, Canned Sardines, Raisins, Pepper, Cloves, Rice, Olive-Oil, Extract of Vanilla, Mince-Meat, Pickles, Catsup, Olives, Apple-Jelly, Cake-Flour, Corn-Flour, Cornmeal, Buckwheat, Wheat-Flour, Mustard, Preserves, Barley, Canned Chipped Beef.

Ser. No. 39,972. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) JOHN GILES & SONS, LIMITED, Bedminster, Bristol, England. Filed Jan. 18, 1909.



Particular description of goods.—Boot-Protectors of Metal, Sold Separately—That is to Say, Independently of Boots Complete.

Ser. No. 40,032. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) THE W. S. TYLER COMPANY, Cleveland, Ohio. Filed Jan. 20, 1909.

Draftac

Particular description of goods.—Wire Screens for Use as Spark-Arresters.

Ser. No. 40,941. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) FELTEN & GUILLEAUME-LAHMEYERWERKE ACTIEN-GESELLSCHAFT, Mülheim-on-the-Rhine, Germany. Filed Mar. 5, 1909.



No exclusive right being claimed to the words "Fils D'Acier Fondu Pour Pianos Qualité Garantie;" "Patent Steel Music Wire Warranted Perfect;" "Claviersaiten; Garantirt Aus Vorzüglichstem Patent Gusstahldraht; Carlswerk; Mülheim A/Rh."

Particular description of goods.—Wire Strings for Musical Instruments, (Commonly Called "Music-Wire.")

Ser. No. 41,032. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) ARNOLD OTTO MEYER, Hamburg, Germany. Filed Mar. 9, 1909.



Particular description of goods.—Shirtings, Cambrics, Drills, Checked and Striped Cotton Fabrics, White and Colored Cotton Prints, Cotton Velvets, Cotton Merino, Satin, and Batiste, and Knitted Cotton Piece Goods.

Ser. No. 41,071. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) PRATT-LOW PRESERVING COMPANY, Santa Clara, Cal. Filed Mar. 10, 1909.



Particular description of goods.—Canned Fruits and Canned Vegetables.

Ser. No. 41,170. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NAVE-MCCORD MERCANTILE CO., St. Joseph, Mo. Filed Mar. 13, 1909.

PONY EXPRESS

Particular description of goods.—Roasted Coffee, Canned Vegetables, Canned Fruit, Dried Fruit, Canned Hominy, and Canned Sauer-Kraut.

Ser. No. 41,350. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) WILLIAM H. COLE & CO., LIMITED, London, England. Filed Mar. 23, 1909.



Particular description of goods.—Hair-Pins.

Ser. No. 41,745. (CLASS 27. HOROLOGICAL INSTRUMENTS.) THE WESTERN CLOCK MFG. CO, La Salle, Ill. Filed Apr. 12, 1909.



Particular description of goods.—Clocks and Watches.

Ser. No. 41,754. (CLASS 39. CLOTHING.) AMERICAN SUN BONNET COMPANY, Lathrop, Mo. Filed Apr. 13, 1909.



Particular description of goods.—Sunbonnets, Doll-Bonnets, Aprons, and Petticoats.

Ser. No. 42,177. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) SAMUEL QUINCY BASS, Milford, Ohio. Filed May 1, 1909.

BASSITE

Particular description of goods.—An Alloy of Which the Principal Ingredients are Copper and Zinc.

Ser. No. 42,361. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THOS H DALLETT COMPANY, Philadelphia, Pa. Filed May 11, 1909.

HAND FACER

Particular description of goods.—Pneumatic Tools.

Ser. No. 42,435. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WELLMAN, PECK & COMPANY, San Francisco, Cal. Filed May 15, 1909.



Particular description of goods.—Canned Fruits, Vegetables, Salmon, Oysters, Crab, Lobster, Shrimps, and Clams; Prepared Table-Sauces; Coffee; Tea; Pickles; Food-Flavoring Extracts; Spices; Prepared Mustard; Olives and Chutney.

Ser. No. 42,685. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SUNLIT FRUIT COMPANY, West Berkeley, Cal. Filed May 26, 1909.

CALIFORNIA CLUB

Particular description of goods.—Canned Fruits, Canned Vegetables, and Canned Berries.

Ser. No. 42,715. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HALSTEAD & COMPANY, Jersey City, N. J. Filed May 27, 1909.

VESUVIO

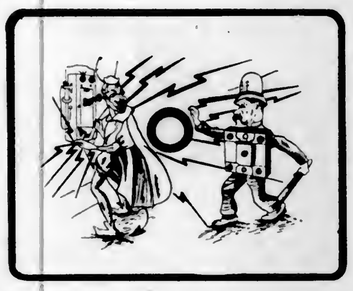
Particular description of goods.—A Compound Composed of Beef-Fat and Cotton-Seed Oil.

Ser. No. 43,062. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) GUSTAVUS C. STREET, Houston, Tex. Filed June 17, 1909.

SS

Particular description of goods.—Milk and Cream.

Ser. No. 43,154. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) THE SUMTER TELEPHONE MANUFACTURING CO., Sumter, S. C. Filed June 21, 1909.



Particular description of goods.—Lightning-Arresters.

Ser. No. 43,318. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) KAUTSCHUKGESELLSCHAFT SCHÖN & CO., Harburg-on-the-Elbe, Germany. Filed June 29, 1909.

Penghulu

Particular description of goods.—Rubber, Gutta-Percha, and Balata.

Ser. No. 43,328. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FRANCOIS FUES, New York, N. Y. Filed June 30, 1909.



Particular description of goods.—Perfumes, Toilet Water, Oriental Water, Toilet Cream, Cold-Cream, Face-Cream, Skin-Enamel, Hair-Tonic, Scalp-Water, Hair-Lotion, Skin-Lotion, Toilet Powder, Talcum Powder, Face-Powder, Hand-Powder, Sachet-Powder, Liquid Dentifrices, Tooth-Powder, Massage Liquid, Ointments, and Liniments.

Ser. No. 43,330. (CLASS 12. CONSTRUCTION MATERIALS.) DITTLINGER LIME COMPANY, New Braunfels, Tex. Filed June 30, 1909.

SNOW DRIFT

Particular description of goods.—Hydrated Lime.

Ser. No. 43,500. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) AUSTIN, NICHOLS & CO., New York, N. Y. Filed July 13, 1909.

SCOTTISH CHIEF

Particular description of goods.—Canned Asparagus, Asparagus-Tips, Lima-Beans, Stringless Beans, Wax-Beans, Corn, Succotash, Peas, Tomatoes, Apricots, Cherries, Peaches, Pears, Plums, and Rhubarb, and Smoked Meat in Glass Jars.

Ser. No. 43,510. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) INDEPENDENT COAL & COKE CO., Salt Lake City, Utah. Filed July 14, 1909. Used ten years.



Particular description of goods.—Coal and Coke.

Ser. No. 43,611. (CLASS 39. CLOTHING.) THE GEO. DE WALD COMPANY, Fort Wayne, Ind. Filed July 17, 1909.

Champion

Particular description of goods.—Overalls, Jackets, Work-Shirts, Dress-Shirts, Knee-Pants, Work-Coats, Leather Gloves, Cotton Gloves, Leather Mitts, Cotton Mitts, Coats, Vests, and Trousers, Undershirts, Drawers, Union Suits, Infants' Wrappers, Hosiery, and Collars Made of Textile Material.

Ser. No. 43,773. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) ROLF-MARTIN COMPANY, Fort Wayne, Ind. Filed July 24, 1909.

RMO AR CO

Particular description of goods.—Gas Water-Heaters, Plumbers' Furnaces, Plumbers' Furnace-Repairs, and Plumbers' Torches.

Ser. No. 43,803. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BADISCHE ANILIN & SODA FABRIK, Ludwigshafen-on-the-Rhine, Germany. Filed July 27, 1909.

Ludigol

Particular description of goods.—Chemicals to be Used When Bucking or Scouring Dyed Textile Material.

Ser. No. 43,981. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NORTON & CURD COFFEE CO., Louisville, Ky. Filed Aug. 5, 1909.

EVENING CUP

Particular description of goods.—Blended Coffee.

Ser. No. 44,046. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) GEO. H. BISHOP & CO., Lawrenceburg, Ind. Filed Aug. 9, 1909.



Particular description of goods.—Saws, Trowels, Corn-Knives, Cane-Knives, Mincing-Knives, Meat-Cleavers, and Cabinet-Scrapers.

Ser. No. 44,301. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) ALLEN B. CLEMENS, Columbus, Ohio. Filed Aug. 23, 1909.

SWEETHEARTS

Particular description of goods.—A Card Game.

Ser. No. 44,333. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) JOSEPH GANS, New York, N. Y. Filed Aug. 24, 1909.

BLOSSOM



Particular description of goods.—A Compounded Rye Whisky.

Ser. No. 44,344. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NORTON & CURD COFFEE CO., Louisville, Ky. Filed Aug. 25, 1909.

SINCERITY

Particular description of goods.—Blended Coffee, Tea, Molasses, and Spices.

Ser. No. 44,378. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ECKMAN MF'G. CO., Philadelphia, Pa. Filed Aug. 27, 1909. Used ten years.

ECKMAN'S ALTERATIVE

Particular description of goods.—A Remedy for Asthma, Hay-Fever, Catarrh of the Stomach and Bowels, and All Diseases of the Throat and Lungs.

Ser. No. 44,406. (CLASS 38. PRINTS AND PUBLICATIONS.) ROBERT S. KENNEDY, New York, N. Y. Filed Aug. 28, 1909.

ADVERTISING RESULTS

Particular description of goods.—A Monthly Magazine.

Ser. No. 44,419. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) W. H. STOKES MILLING Co., Watertown, S. D. Filed Aug. 30, 1909.



Particular description of goods.—Wheat-Flour.

Ser. No. 44,420. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) W. H. STOKES MILLING Co., Watertown, S. D. Filed Aug. 30, 1909.

POINTER

Particular description of goods.—Wheat-Flour.

Ser. No. 44,421. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) W. H. STOKES MILLING Co., Watertown, S. D. Filed Aug. 30, 1909.



Particular description of goods.—Wheat-Flour.

Ser. No. 44,482. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SEE & COMPANY, Chicago, Ill. Filed Sept. 1, 1909.

RED



Particular description of goods.—Canned Fruits, Vegetables, Fish, Succotash, and Pumpkin.

Ser. No. 44,506. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) RUGE BROS. CANNING COMPANY, Englewood, N. J.; Apalachicola and Cedar Key, Fla., and Baltimore, Md. Filed Sept. 2, 1909.

ALLIGATOR



Particular description of goods.—Canned Oysters.

Ser. No. 44,507. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) RUGE BROS. CANNING COMPANY, Englewood, N. J.; Apalachicola and Cedar Key, Fla., and Baltimore, Md. Filed Sept. 2, 1909.

CROCODILE



Particular description of goods.—Canned Oysters.

Ser. No. 44,508. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) RUGE BROS. CANNING COMPANY, Englewood, N. J.; Apalachicola and Cedar Key, Fla., and Baltimore, Md. Filed Sept. 2, 1909.

FRANKLIN



The portrait being that of Benjamin Franklin.
Particular description of goods.—Canned Oysters.

Ser. No. 44,510. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) RUGE BROS. CANNING COMPANY, Englewood, N. J.; Apalachicola and Cedar Key, Fla., and Baltimore, Md. Filed Sept. 2, 1909.

PEACOCK



Particular description of goods.—Canned Oysters.

Ser. No. 44,513. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) RUGE BROS. CANNING COMPANY, Englewood, N. J.; Apalachicola and Cedar Key, Fla., and Baltimore, Md. Filed Sept. 2, 1909.

TURKEY



Particular description of goods.—Canned Oysters.

Ser. No. 44,536. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) JOHN E. HURST & COMPANY, Baltimore, Md. Filed Sept. 4, 1909.



Particular description of goods.—Bureau-Scarfs; Embroideries; Centerpieces; Doilies; Belts for Personal Wear; Corset-Steels; Suspenders; Shoulder-Braces; Garters; Garment-Supporters; Shoestrings; Silk, Linen, and Mercerized-Cotton Shoe-Laces; Toilet and Safety Pins; Hand and Crochet Needles; Hooks and Eyes; Hair-Rolls; Hair-Puffs; Hair-Curlers; Curling-Irons; Combs; Hair-Pins; Buttons; Braid; Tapes and Bindings; Dress-Shields; Collar-Foundations; Corset-Laces; Men's Mufflers; Necktles; Scarfs; Four-in-Hand Ties; Bow-Ties; Ladies' Bows; Ties; Stocks; Jabots, and Ruffs.

Ser. No. 44,626. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) THE HOLBROOK MFG CO., New York, N. Y. Filed Sept. 10, 1909.

HOLBRITE

Particular description of goods.—Scouring-Soap and Cleaning-Powder Used for Detergent and Polishing Purposes.

Ser. No. 44,737. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOHN H. WINSTANLEY, Philadelphia, Pa. Filed Sept. 17, 1909.

R-G-DYD

Particular description of goods.—An Antiseptic Consisting of Suspended Silver Iodid.

Ser. No. 44,804. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HAWAIIAN CANNERY COMPANY LIMITED, Honolulu, Hawaii. Filed Sept. 20, 1909.

Mountain

Particular description of goods.—Canned Pineapple.

Ser. No. 44,821. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) MAJESTIC BOTTLING Co., San Francisco, Cal. Filed Sept. 20, 1909.



Particular description of goods.—Distilled Water, Spring-Water, Natural and Artificial Mineral Water, and Carbonated Flavored Tonic Beverages.

Ser. No. 44,850. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) AKIN-ERSKINE MILLING Co., Evansville, Ind. Filed Sept. 21, 1909.

BEACON

Particular description of goods.—Wheat-Flour.

Ser. No. 44,869. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ZANTE CITRUS ASSOCIATION, Porterville, Cal. Filed Sept. 23, 1909.

Hiawatha

Particular description of goods.—Oranges, Lemons, and Grape-Fruit.

Ser. No. 44,870. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ZANTE CITRUS ASSOCIATION, Porterville, Cal. Filed Sept. 23, 1909.

DIAMONTAS

Particular description of goods.—Oranges, Lemons, and Grape-Fruit.

Ser. No. 44,877. (CLASS 2. RECEPTACLES.) LOUIS ETTLINGER & SONS, New York, N. Y. Filed Sept. 23, 1909.

L.E. & SONS

Particular description of goods.—Jewelry-Boxes.

Ser. No. 44,891. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ONTARIO-CUCAMONGA FRUIT EXCHANGE, Upland, Cal. Filed Sept. 23, 1909.



Particular description of goods.—Oranges, Lemons, and Grape-Fruit.

Ser. No. 44,894. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ONTARIO-CUCAMONGA FRUIT EXCHANGE, Upland, Cal. Filed Sept. 23, 1909.



Particular description of goods.—Oranges, Lemons, and Grape-Fruit.

Ser. No. 44,903. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) EDWARDSVILLE MILLING COMPANY, Edwardsville, Ill. Filed Sept. 23, 1909.

COPO

Particular description of goods.—Wheat-Flour.

Ser. No. 44,013. (CLASS 5. ADHESIVES.) JEWELL BELTING COMPANY, Hartford, Conn. Filed Sept. 23, 1909.



Particular description of goods.—Waterproof Adhesive Cement.

Ser. No. 44,919. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HENRY MAILLARD, New York, N. Y. Filed Sept. 23, 1909.



Particular description of goods.—Chocolate.

Ser. No. 44,929. (CLASS 48. MALT EXTRACTS AND LIQUORS.) FRANK T. MORRISSEY, Lowell, Mass. Filed Sept. 24, 1909.



Particular description of goods.—Ale.

Ser. No. 44,947. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WILLIAM J. BAUMGARTEN, Detroit, Mich. Filed Sept. 25, 1909. Used ten years.



The portrait shown is a fanciful one.
Particular description of goods.—Specific Pills.

Ser. No. 44,977. (CLASS 37. PAPER AND STATIONERY.) NATIONAL PENCIL COMPANY, Atlanta, Ga. Filed Sept. 27, 1909.

NORTH POLE

Particular description of goods.—Pencils.

Ser. No. 44,983. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOHNSON & JOHNSON, New Brunswick, N. J. Filed Sept. 27, 1909. Used ten years.



Particular description of goods.—Medicinal Plasters.

Ser. No. 45,005. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) GRATON & KNIGHT MFG. CO., Worcester, Mass. Filed Sept. 29, 1909.



Particular description of goods.—Leather for Boots and Shoes.

Ser. No. 45,016. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE GEO. BLOME & SON CO., Baltimore, Md. Filed Sept. 30, 1909.



Particular description of goods.—Candy.

Ser. No. 45,023. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) FREEMAN SARDOU, Topeka, Kans. Filed Sept. 30, 1909.

RAILSPLITTER

Particular description of goods.—Canned Fruits and Vegetables.

Ser. No. 45,039. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CHARLES E. CHAPMAN, Fullerton, Cal. Filed Sept. 30, 1909.

OLD MISSION

Particular description of goods.—Oranges, Lemons, and Walnuts.

Ser. No. 45,041. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ALBERT E. TEICHERT, Denver, Colo. Filed Sept. 30, 1909.

BINGO

Particular description of goods.—Urinary Antiseptic Tablets.

Ser. No. 45,154. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) LOUIS M. TAYLOR, Waterloo, Iowa. Filed Oct. 6, 1909.

Avitagene

Particular description of goods.—A Remedy for Diseases of Fowls and Chicken-Cholera.

Ser. No. 45,185. (CLASS 9. EXPLOSIVES, FIREARMS, EQUIPMENTS, AND PROJECTILES.) BURTON POWDER COMPANY, Pittsburg, Pa. Filed Oct. 7, 1909.

MINE-ITE

Particular description of goods.—Safety-Powder.

Ser. No. 45,316. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) BOSTON BELTING COMPANY, Boston, Mass. Filed Oct. 14, 1909.

ROXBRO

Particular description of goods.—Rubber Hose.

Ser. No. 45,337. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) JAMES BASIL, Newark, N. J. Filed Oct. 15, 1909.

EUREKA JB

Particular description of goods.—Razor-Strops and Dressings Therefor.

Ser. No. 45,383. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) A. J. LINDEMANN & HOVERSON CO., Milwaukee, Wis. Filed Oct. 18, 1909.

ALCAZAR

Particular description of goods.—Stoves and Ranges.

TRADE-MARKS

REGISTERED NOVEMBER 30, 1909.

75,916. WHEAT-FLOUR. ABERDEEN MILL COMPANY, Aberdeen, S. D.
Filed July 17, 1909. Serial No. 43,597. PUBLISHED SEPTEMBER 28, 1909.

75,917. WHEAT-FLOUR. ABERDEEN MILL COMPANY, Aberdeen, S. D.
Filed July 24, 1909. Serial No. 43,748. PUBLISHED SEPTEMBER 28, 1909.

75,918. ITALIAN OLIVE-OIL. AUSTIN, NICHOLS & CO., New York, N. Y.
Filed July 12, 1909. Serial No. 43,486. PUBLISHED SEPTEMBER 28, 1909.

75,919. BLENDED COFFEE. AUSTIN, NICHOLS & CO., New York, N. Y.
Filed July 15, 1909. Serial No. 43,553. PUBLISHED SEPTEMBER 28, 1909.

75,920. ORANGES, GRAPE-FRUIT, TANGERINES, AND LEMONS. AZUSA FOOT-HILL CITRUS ASSOCIATION, Azusa, Cal.
Filed July 17, 1909. Serial No. 43,614. PUBLISHED SEPTEMBER 28, 1909.

75,921. ORANGES, GRAPE-FRUIT, TANGERINES, AND LEMONS. AZUSA FOOT-HILL CITRUS ASSOCIATION, Azusa, Cal.
Filed July 17, 1909. Serial No. 43,615. PUBLISHED SEPTEMBER 28, 1909.

75,922. AUTOMATIC NUMBERING-MACHINES. BATES MANUFACTURING COMPANY, West Orange, N. J.
Filed July 31, 1909. Serial No. 43,917. PUBLISHED SEPTEMBER 28, 1909.

75,923. DRESSED POULTRY. BEATRICE POULTRY & COLD STORAGE CO., Beatrice, Nebr.
Filed July 27, 1909. Serial No. 43,809. PUBLISHED SEPTEMBER 28, 1909.

75,924. INCANDESCENT GAS-MANTLES. BLOCK LIGHT COMPANY, New York and Brooklyn, N. Y.
Filed June 18, 1909. Serial No. 43,085. PUBLISHED SEPTEMBER 28, 1909.

75,925. WHEAT-FLOUR. WILLIAM F. BRET, Philadelphia, Pa.
Filed July 24, 1909. Serial No. 43,747. PUBLISHED SEPTEMBER 28, 1909.

75,926. CERTAIN FOODS. CHARLES E. BROWN & CO., Springfield, Mass.
Filed September 19, 1908. Serial No. 37,486. PUBLISHED SEPTEMBER 28, 1909.

75,927. MOTION-PICTURE FILMS. CENTAUR FILM CO., New York, N. Y.
Filed August 6, 1909. Serial No. 43,996. PUBLISHED SEPTEMBER 28, 1909.

75,928. CANNED FRUITS. CENTRAL CALIFORNIA CANNERIES, San Francisco, Cal.
Filed July 23, 1909. Serial No. 43,727. PUBLISHED SEPTEMBER 28, 1909.

75,929. CANNED FRUITS. CENTRAL CALIFORNIA CANNERIES, San Francisco, Cal.
Filed July 23, 1909. Serial No. 43,730. PUBLISHED SEPTEMBER 28, 1909.

75,930. CANNED FRUITS. CENTRAL CALIFORNIA CANNERIES, San Francisco, Cal.
Filed July 23, 1909. Serial No. 43,733. PUBLISHED SEPTEMBER 28, 1909.

75,931. CANNED FRUITS AND CANNED VEGETABLES. CENTRAL CALIFORNIA CANNERIES, San Francisco, Cal.
Filed July 23, 1909. Serial No. 43,734. PUBLISHED SEPTEMBER 28, 1909.

75,932. VARNISHES, PRIMERS, AND READY-MIXED PAINTS. CHICAGO VARNISH CO., Chicago, Ill.
Filed June 9, 1909. Serial No. 42,911. PUBLISHED SEPTEMBER 28, 1909.

75,933. CERTAIN CLOTHING. DALLET AND WEYL, New York, N. Y.
Filed June 26, 1909. Serial No. 43,278. PUBLISHED SEPTEMBER 28, 1909.

75,934. WAGONS. FLORENCE WAGON WORKS, Florence, Ala.
Filed August 16, 1909. Serial No. 44,179. PUBLISHED SEPTEMBER 28, 1909.

75,935. WAGONS. FLORENCE WAGON WORKS, Florence, Ala.
Filed August 16, 1909. Serial No. 44,180. PUBLISHED SEPTEMBER 28, 1909.

75,936. DISTILLATE OF MALT AND RYE WITH FRUIT-JUICES. THE GEO. BIELER SONS CO., Cincinnati, Ohio.
Filed January 28, 1909. Serial No. 40,200. PUBLISHED SEPTEMBER 28, 1909.

75,937. OLIVE SALAD AND CORN-STARCH. GRIGGS, COOPER & CO., St. Paul, Minn.
Filed July 28, 1909. Serial No. 43,857. PUBLISHED SEPTEMBER 28, 1909.

75,938. TYPE-WRITER RIBBON AND CARBON-PAPER. THE HOW COMPANY, Oldtown, Me.
Filed July 23, 1909. Serial No. 43,702. PUBLISHED SEPTEMBER 28, 1909.

75,939. BLENDED COFFEE. THE J. M. BOUR COMPANY, Toledo, Ohio.
Filed March 31, 1909. Serial No. 41,505. PUBLISHED SEPTEMBER 28, 1909.

75,940. BOYS' KNEE-PANTS AND DOUBLE-BREASTED OUTER SUITS. THE JOS. KLEIN COMPANY, New York, N. Y.
Filed June 30, 1909. Serial No. 43,326. PUBLISHED SEPTEMBER 28, 1909.

75,941. COFFEE. NATIONAL COFFEE CO., Fort Worth, Tex.
Filed July 29, 1909. Serial No. 43,877. PUBLISHED SEPTEMBER 28, 1909.

75,942. CERTAIN FOODS. NATIONAL GROCER COMPANY, Detroit, Mich.
Filed May 14, 1909. Serial No. 42,421. PUBLISHED SEPTEMBER 28, 1909.

75,943. MEN'S AND BOYS' LEATHER BOOTS AND SHOES. NORTHERN SHOE CO., Duluth, Minn.
Filed August 18, 1909. Serial No. 44,211. PUBLISHED SEPTEMBER 28, 1909.

75,944. INFANTS' AND CHILDREN'S LEATHER SHOES. NORTHERN SHOE CO., Duluth, Minn.
Filed August 18, 1909. Serial No. 44,212. PUBLISHED SEPTEMBER 28, 1909.

75,945. COLLARS, CUFFS, AND SHIRT-FRONTS. THE PARSONS & PARSONS COMPANY, Cleveland, Ohio.
Filed August 7, 1909. Serial No. 44,016. PUBLISHED SEPTEMBER 28, 1909.

75,946. BUTTER. SCHEER, GRANDI & CO., San Francisco, Cal.
Filed July 23, 1909. Serial No. 43,735. PUBLISHED SEPTEMBER 28, 1909.

75,947. CANNED VEGETABLES. THE SEARS & NICHOLS COMPANY, Chillicothe and Frankfort, Ohio.
Filed June 14, 1909. Serial No. 43,007. PUBLISHED SEPTEMBER 28, 1909

75,948. SENSITIVE PLATES AND FILMS FOR COLOR PHOTOGRAPHY. SOCIÉTÉ ANONYME DES PLAQUES ET PAPIERS PHOTOGRAPHIQUES A LUMIÈRE ET SES FILS, Lyon, France.
Filed October 24, 1908. Serial No. 38,224. PUBLISHED SEPTEMBER 28, 1909.

75,949. WHEAT-FLOUR. DAVID STOTT, Detroit, Mich.
Filed March 31, 1909. Serial No. 41,519. PUBLISHED SEPTEMBER 28, 1909.

75,950. CERTAIN CLOTHING. WEBER AND HEILBRONER, New York, N. Y.
Filed April 12, 1909. Serial No. 41,734. PUBLISHED SEPTEMBER 28, 1909.

75,951. REMEDY FOR GONORRHEA. AKTIENGESELLSCHAFT VORMALS B. SIEGFRIED, Zofingen, Switzerland.
Filed July 9, 1909. Serial No. 43,439. PUBLISHED SEPTEMBER 28, 1909.

75,952. CERTAIN SPECIALLY-PREPARED WHITE CHIANTI WINE. LODOVICO E PIERO ANTINORI, Florence, Italy.
Filed February 18, 1908. Serial No. 32,835. PUBLISHED SEPTEMBER 28, 1909.

75,953. FACE AND SCALP LOTIONS. CHARLES M. ATHEY, Baltimore, Md.
Filed August 6, 1909. Serial No. 44,004. PUBLISHED SEPTEMBER 28, 1909.

75,954. TOILET POWDERS AND BATH-POWDERS. BATCHELLER IMPORTING CO., New York, N. Y.
Filed July 24, 1909. Serial No. 43,764. PUBLISHED SEPTEMBER 28, 1909.

75,955. PROPRIETARY MEDICINE. CLIFFORD P. BOWIE, Berkeley, Cal.
Filed February 17, 1909. Serial No. 40,589. PUBLISHED SEPTEMBER 28, 1909.

75,956. CIGARS. ALBERT BREITUNG, Chicago, Ill.
Filed July 15, 1909. Serial No. 43,535. PUBLISHED SEPTEMBER 28, 1909.

75,957. DRY-POWDER FIRE-EXTINGUISHING COMPOUND. SAMUEL BUTZ, Easton, Pa.
Filed August 9, 1909. Serial No. 44,045. PUBLISHED SEPTEMBER 28, 1909.

75,958. CERTAIN FOODS. CALIFORNIA FRUIT CANNERS ASSOCIATION, San Francisco, Cal.
Filed December 15, 1908. Serial No. 39,317. PUBLISHED MARCH 9, 1909.

75,959. VALVES AND VALVE-FITTINGS. CONSOLIDATED ENGINEERING CO., Chicago, Ill.
Filed December 3, 1908. Serial No. 39,077. PUBLISHED FEBRUARY 2, 1909.

75,960. MOUTH-WASH. EDWIN CUDLIPP, New York, N. Y.
Filed July 1, 1909. Serial No. 43,358. PUBLISHED SEPTEMBER 28, 1909.

75,961. SASH-LOCKS. LAWRENCE R. EDDY, Elizabeth, N. J.
Filed July 27, 1909. Serial No. 43,808. PUBLISHED SEPTEMBER 28, 1909.

75,962. DENATURED ALCOHOL. THE HAMMOND DISTILLING CO., Hammond, Ind., and Chicago, Ill.
Filed July 2, 1909. Serial No. 43,373. PUBLISHED SEPTEMBER 28, 1909.

75,963. LEATHER BELTING. JEWELL BELTING COMPANY, Hartford, Conn.
Filed July 17, 1909. Serial No. 43,599. PUBLISHED SEPTEMBER 28, 1909.

75,964. BITTERS. W. KOERNER & CO., Cunnersdorf, near Hirschberg, Germany.
Filed May 22, 1909. Serial No. 42,617. PUBLISHED SEPTEMBER 28, 1909.

75,965. INHALERS. ISADORE E. LEVI, Erie, Pa.
Filed May 3, 1909. Serial No. 42,190. PUBLISHED SEPTEMBER 28, 1909.

75,966. SKINS AND FURS. RICHARD LINDNER, Leipzig, Germany.
Filed May 13, 1909. Serial No. 42,396. PUBLISHED SEPTEMBER 28, 1909.

75,967. LINIMENT FOR EXTERNAL USE. THOMAS E. MCMANUS, Schenectady, N. Y.
Filed August 9, 1909. Serial No. 44,037. PUBLISHED SEPTEMBER 28, 1909.

75,968. BATHING-SALT. MT. CLEMENS MINERAL SPRINGS WATER CO., Mount Clemens, Mich.
Filed June 11, 1909. Serial No. 42,962. PUBLISHED SEPTEMBER 28, 1909.

75,969. HYDRAULIC CEMENT. NEW CASTLE PORTLAND CEMENT CO., New Castle, Pa.
Filed June 18, 1909. Serial No. 43,090. PUBLISHED SEPTEMBER 28, 1909.

75,970. LUBRICATING-GREASE. THE PHILA. GREASE MFG. CO., Philadelphia, Pa.
Filed May 21, 1909. Serial No. 42,592. PUBLISHED JULY 20, 1909.

75,971. COTTON PIECE GOODS. PROVIDENCE DYEING BLEACHING AND CALENDERING COMPANY, Providence, R. I.
Filed August 10, 1909. Serial No. 44,071. PUBLISHED SEPTEMBER 28, 1909.

75,972. SACCHARIN. SACCHARIN-FABRIK AKTIEN-GESELLSCHAFT VORM. FAHLBERG, LIST & CO., Salbke-Westerhüsen, Germany.
Filed May 20, 1909. Serial No. 42,533. PUBLISHED SEPTEMBER 28, 1909.

75,973. HEADACHE REMEDY. SELERY-SODA COMPANY, New York, N. Y.
Filed August 14, 1909. Serial No. 44,141. PUBLISHED SEPTEMBER 28, 1909.

75,974. REMEDY FOR COUGHS AND COLDS. SHARP & DOHME, Baltimore, Md.
Filed June 23, 1909. Serial No. 43,203. PUBLISHED SEPTEMBER 28, 1909.

75,975. WALL-PLASTER. TOMKINS BROTHERS, Newark, N. J.
Filed July 7, 1909. Serial No. 43,414. PUBLISHED SEPTEMBER 28, 1909.

75,976. OILS, GREASES, AND WAXES. VACUUM OIL COMPANY, Rochester, N. Y.
Filed January 28, 1909. Serial No. 40,170. PUBLISHED APRIL 20, 1909.

75,977. OILS, GREASES, AND WAXES. VACUUM OIL COMPANY, Rochester, N. Y.
Filed January 28, 1909. Serial No. 40,171. PUBLISHED APRIL 20, 1909.

75,978. REMEDY FOR CHRONIC COUGH AND CONSUMPTION. JOSEPH B. WOOD, Franklin, Ga.
Filed May 8, 1909. Serial No. 42,316. PUBLISHED SEPTEMBER 28, 1909.

75,979. CIGARS. DANNEMANN & CA., S. Felix, Brazil.
Filed May 18, 1908. Serial No. 34,834. PUBLISHED SEPTEMBER 28, 1909.

75,980. REMEDIES FOR CERTAIN DISEASES. THE E. E. SUTHERLAND MEDICINE CO, Paducah, Ky.
Filed May 29, 1905. Serial No. 7,054. PUBLISHED OCTOBER 20, 1908.

75,981. ARSENATE OF LEAD. THE GRASSELLI CHEMICAL COMPANY, Cleveland, Ohio.
Filed December 9, 1908. Serial No. 39,188. PUBLISHED MARCH 16, 1909.

75,982. PREPARATIONS CONTAINING OXYGEN. MORGENSTERN & COMPANY, New York, N. Y.
Filed June 9, 1909. Serial No. 42,929. PUBLISHED AUGUST 31, 1909.

75,983. OINTMENTS, GERMICIDES, LINIMENTS, AND HAIR-TONICS. ROCKWOOD CHEMICAL COMPANY, Boston, Mass.
Filed November 12, 1908. Serial No. 38,606. PUBLISHED SEPTEMBER 21, 1909.

LABELS

REGISTERED NOVEMBER 30, 1909.

15,070.—*Title:* "MAPL-FLOUR." (For Pancake-Flour.) HYGIENIC FOOD CO., Battle Creek, Mich. Filed August 13, 1908.

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

COMMISSIONER'S DECISIONS.

BAETZ *v.* KUKKUCK.

Decided January 13, 1909.

1. INTERFERENCE—MOTION TO DISSOLVE—TRANSMISSION.
   A motion to dissolve, alleging no interference in fact on account of the meaning which it is contended should be given a certain term, is too indefinite to be transmitted where this term does not occur in all the counts and it is not stated to which of the counts the motion is intended to apply.

2. SAME—SAME—SAME.
   An allegation in a motion to dissolve that the opposing party has no right to make the claims "since the issue covers an invention not contemplated nor disclosed by him in the original specification (Rule 70)" *Held* not a sufficiently definite statement of the reasons upon which the motion is based and transmission of the motion properly refused.

3. SAME—SAME—SAME.
   A motion to dissolve on the ground of the lack of right of the opposing party to make the claims was properly refused transmission where the motion did not specifically state what elements of the claims were not shown.

APPEAL on motion.

FEED MECHANISM FOR DRYING APPARATUS.

Mr. Emil Starek for Baetz.

Messrs. Howson & Howson for Kukkuck.

MOORE, *Commissioner:*

This is an appeal by Baetz from a decision of the Examiner of Interferences refusing to transmit a motion to dissolve.

The motion to dissolve is based on four grounds—namely, first, that there is no interference in fact; second, that the senior party has no right to make the claims; third, irregularity in declaring the interference, and, fourth, that the claims are not patentable to Kukkuck. The Examiner of Interferences denied the motion as to all grounds, for the reasons, as to the first and second grounds, that the motion was not sufficiently definite; as to the third ground, that the irregularity alleged was substantially the same as that urged on the motion to shift the burden of proof, which was decided at the same time as the motion to transmit, and as to the fourth ground, that the reasons were not stated with sufficient definiteness and, furthermore, related apparently to the same facts urged in support of the first and second grounds.

A careful reading of the motion and the briefs filed in behalf thereof before the Examiner of Interferences and on the present appeal discloses no error in his decision. With respect to the first ground, the reasons given in support thereof appear to relate to the use in the claims of the word "confined," which it is contended must be interpreted in the light of a prior patent to Baetz, No. 845,843. As pointed out by the Examiner of Interferences, this term does not appear in counts 6 to 10, inclusive, and the motion is not sufficiently definite because it does not state to which of the counts it is intended to apply.

The reason given in support of the second ground is as follows:

> Kukkuck had no right to make the claims involved in interference since the issue covers an invention not contemplated by him nor disclosed by him in the original specification (Rule 70).

This is clearly not a sufficiently definite statement of the reasons upon which this ground of the motion is based. If by the parenthetical inclusion of Rule 70 it was intended to imply that new matter had been placed in the Kukkuck application and his claims corresponding to the issue were based thereon, it should have been clearly stated of what that new matter consisted.

As to the third ground, the alleged irregularity, so far as the reasons given therefor in the motion are concerned, relates wholly to the relation between the Kukkuck application and the earlier Baetz patent—that is, to the question of shifting the burden of proof. This question was raised on a motion to shift the burden of proof, which was decided at the same time as the motion to transmit.

The reason given in support of the fourth ground is as follows:

> Kukkuck having laid no foundation for the claims and no construction to support them they are not patentable to him.

This is clearly a statement that Kukkuck has no right to make the claims. In other words, it is the same as the second ground, and for the reasons given above it should have been specifically pointed out on what Kukkuck's lack of right to make the claims was based, or, in other words, those elements of the claims which were not readable on the Kukkuck device should have been specifically stated.

The decision of the Examiner of Interferences is affirmed.

LOTTERHAND *v.* CORNWALL.

Decided November 5, 1909.

1. INTERFERENCE — PRELIMINARY STATEMENT — APPLICATION FILED BY AN ADMINISTRATOR — STATEMENT MAY BE MADE BY ASSIGNEE OF ENTIRE INTEREST.

Where an application was filed by the administrator of an inventor and the entire interest therein assigned, it is not necessary that the preliminary statement be made by the "applicant," but it may be made by the assignee.

2. SAME—SAME—RULE 131 CONSTRUED.

Rule 131 relates only to the assignee of an undivided interest, and it is not necessary that the assignee of the entire interest file a motion such as provided for in that rule in order to be allowed to file a preliminary statement.

3. SAME—MOTION TO DISSOLVE—RENEWED MOTION—APPEAL.

Where transmission of a motion to dissolve is refused and an amended motion is filed, appeal from the decision refusing to transmit the original motion is abandoned.

4. SAME—MOTION TO DISSOLVE—TRANSMISSION—INFORMALITY.

A motion to dissolve, alleging informality because the claims in issue are for incomplete combinations when read on the opposing party's disclosure, was properly refused transmission, since this question is one relating to the merits.

5. SAME—SAME—SAME—APPLICATION OF REFERENCES.

A motion to dissolve on the ground of non-patentability of the counts of the issue should be refused transmission unless the patents relied upon are specifically named and applied.

APPEAL on motion.

ADDING-MACHINE.

Mr. Wm. R. Baird and *Mr. Shipley Brashears* for Lotterhand. (*Mr. Stephen J. Cox* of counsel.)

Mr. F. R. Cornwall pro se.

BILLINGS, *First Assistant Commissioner:*

This case comes up on appeals by Lotterhand from decisions of the Examiner of Interferences on motions to strike out the preliminary statement of Cornwall and to transmit a motion to dissolve.

A motion having both these objects in view was filed by Lotterhand on August 28, 1909, and was denied by the Examiner of Interferences in a decision rendered September 9, 1909. On the day the limit of appeal was to expire Lotterhand filed an appeal from this decision and also two renewal motions, seeking the same relief as the original motion. These motions were filed in separate papers and made to differ in some other respects from the original motion, with a view to overcoming defects pointed out in the previous decision of the Examiner of Interferences. On September 29, 1909, the Examiner of Interferences rendered decisions denying each of the renewal motions, and on October 6 appeals from these decisions were filed.

By bringing the renewal motions before the Examiner of Interferences Lotterhand, in effect, abandoned his appeal on the first motion (*William* v. *Webster* v. *Sprague*, 148 O. G., 280.) The appeal from the decision on the original motion is therefore dismissed. The appeals based on the renewal motions will be considered.

With regard to the motion to strike out Cornwall's preliminary statement it is contended in behalf of Lotterhand that Cornwall himself should have made the statement instead of Hopkins—the representative of the assignee—because the rules require that the "applicant" make the statement, and, further, that the statement is defective because it does not show the source of the information and belief upon which the assignee founds the allegations in the statement.

Rule 110, providing for preliminary statements, states that "Each *party* to the interference will be required to file," etc., not that the "applicant" shall file it. It is of record in the oath accompanying Cornwall's application that the inventor himself is dead and that Cornwall files the application as administrator. Under these circumstances it is not to be assumed that because he is the applicant he had any special knowledge of the time or manner in which the invention was completed. The assignee of the entire interest in this case is quite as likely to be apprised of the facts necessary to the preliminary statement as is the administrator of the estate of the deceased inventor. It appears, further, in the record of the application that the assignee has intervened and appointed an attorney of his own selection. (Rules 5 and 20.) It is deemed entirely proper that the assignee of the entire interest should make the preliminary statement in this case, and, further, that the facts appear so fully in the record that no additional showing is required. A separate motion such as provided for by Rule 131 is unnecessary where the assignee holds the entire interest, as in the present instance. (*Hastings* v. *Gallagher*, 93 O. G., 189.)

The Examiner of Interferences committed no error in denying the motion to strike out the preliminary statement executed by an officer of the assignee company which was filed in behalf of Cornwall.

Lotterhand's renewal motion to dissolve, which was refused transmission, sets forth four grounds, (numbered I, II, III, and III^a,) all of which were found informal by the Examiner of Interferences.

The first ground alleges that there was informality in the declaration because the claims are for incomplete combinations when read on Cornwall's disclosure and because the claims—

when read in the light of the two specifications and drawings are vague and indefinite.

The question of the incompleteness of the claims in Cornwall's application is one of merits. As pointed out by the Examiner of Interferences, this question cannot be raised under the allegation of "informality in the declaration." On the question of indefiniteness several expressions are pointed out which are claimed to be indefinite "in view of Cornwall's drawings and specification." The expressions indicated, however, are obviously not vague in themselves. It seems likely, from the qualifying expressions, "in the light of the two specifications" and "in view of Cornwall's drawings and specification," used by Lotterhand, that he thinks the elements mentioned in these expressions are not well identified in the disclosure of one or, perhaps, both cases. It is very clear that this ground of the motion is vague and indefinite. It was properly refused transmission.

The second ground of the motion is that the claims are unpatentable to Cornwall because—

• • • lacking in invention considered separately and in the light of the prior art as evidenced by patents cited against the respective applications of the parties and other patents known to the Examiner and the parties hereto.

This ground is so obviously indefinite as to need no comment. It is well settled that where patents are relied upon they must be named specifically and applied. (*Brown* v. *Inwood and Lavenberg*, 130 O. G., 978; *Phillips* v. *Scott*, 130 O. G., 1312.)

The third ground alleges that Cornwall has no right to make the claims because his device is inoperative. Eleven elements are pointed out by reference-numerals, which it is stated are "so constructed, mounted, and arranged" that it is impossible to perform any function with them. This amounts merely to a restatement that the specified parts are inoperative. The defects due to which the device is inoperative, if they exist, are matters which could and should have been clearly pointed out. This ground is therefore indefinite.

Ground III^a is hardly intelligible. It seems to be a restatement of ground III, inasmuch as it relates to inoperativeness. In any event it is clearly too indefinite to be transmitted.

The decision of the Examiner of Interferences is affirmed.

THE WARREN PAINT CO. *v.* REEVE & CO. *v.* DAVIDSON & KNOWLES CO.

Decided November 10, 1909.

TRADE-MARKS—"WOOD-FILLERS" AND "WHITE LEAD"—GOODS OF THE SAME DESCRIPTIVE PROPERTIES.

Wood-fillers and white lead are goods of the same descriptive properties within the meaning of the Trade-Mark Act of February 20, 1905.

ON APPEAL.

TRADE-MARK FOR WHITE LEAD.

Messrs. Bates, Fouts & Hull for The Warren Paint Co.

Messrs. Smith & Denison for Reeve & Co.

Messrs. Wise & Lichtenstein for Davidson & Knowles Co.

TENNANT, *Assistant Commissioner:*

This is an appeal from the decision of the Examiner of Trade-Marks refusing to dissolve this interference.

The trade-marks in controversy comprise in common the words "White Seal," and this interference is declared between the application of The Warren Paint Co. for the registration of this mark for white lead, registration No. 29,324 by Reeve & Co. of the same mark for "wood-fillers," and the registration of Davidson & Knowles Co. for white-lead paint. The motion for dissolution was brought by Reeve & Co. and is based on the ground that "wood-fillers" are goods of different descriptive properties from white lead or white-lead paint, and it is asserted that in view of the fact that Reeve & Co. specifically disclaimed the use of this trade-mark in connection with paints the Patent Office is estopped from declaring an interference between this registration and the registration of Davidson & Knowles Co. and the application of The Warren Paint Co.

In this proceeding the only question to be determined is the right of registration of the applicant, The Warren Paint Co. No question is raised as to the interference between the registration of Davidson & Knowles Co. and the application of The Warren Paint Co. The only question before me is whether the mark of Reeve & Co. used on fillers is used upon merchandise of the same descriptive properties as white lead claimed by the applicant, The Warren Paint Co. Fillers are composed of several ingredients, among which white lead is in many instances not the least, as will be seen upon reference to the following patents: Tully, February 8, 1870, No. 99,610; Miller, May 13, 1873, No. 138,914; Sharp, August 5, 1873, No. 141,518; Wilber, January 27, 1885, No. 311,401; Klie, September 1, 1885, No. 324,415; Phillips, November 8, 1898, No. 614,024.

In view of this fact I am of the opinion that the merchandise of Reeve & Co. and of the applicant necessarily have the same general characteristics within the ruling of the Court of Appeals of the District of Columbia in the case of *Phoenix Paint & Varnish Co.* v. *John T. Lewis & Bros. Co.*, (139 O. G., 990; 32 App. D. C., 285,) in which the court said:

We think two trade-marks may be said to be appropriated to merchandise of the same descriptive properties in the sense meant by the statute when the general and essential characteristics of the goods are the same. To rule that the goods must be identical would defeat the purpose of the statute and destroy the value of trade-marks. The test is whether there is such a sameness in the distinguishing characteristics of the goods as to be likely to mislead the general public. If there is, only one mark should be registered.

It is therefore held that the decision of the Examiner of Trade-Marks refusing to dissolve this interference was right. It is accordingly affirmed.

CALIFORNIA CANNERIES COMPANY *v.* KOTHE, WELLS AND BAUER COMPANY.

Decided November 13, 1909.

TRADE-MARKS—OPPOSITION—JURISDICTION OF THE EXAMINER OF INTERFERENCES.

The jurisdiction of deciding all questions raised on opposition proceedings, including that of the similarity of the marks of the applicant and the opposer, is vested in the Examiner of Interferences.

ON PETITION.

TRADE-MARK FOR FLAVORING EXTRACTS USED AS FOODS AND INGREDIENTS OF FOODS.

Messrs. Mason, Fenwick & Lawrence for California Canneries Company.

Mr. Elwin M. Hulse and *Messrs. Steuart & Steuart* for Kothe, Wells & Bauer Company.

TENNANT, *Assistant Commissioner:*

This is a petition by Kothe, Wells and Bauer Company that this opposition be referred to the Examiner of Trade-Marks for the purpose of determining whether or not there is an interference in fact between the trade-marks claimed by the respective parties. It is asserted that in view of certain demurrers which were sustained in part against the notice of opposition as originally filed the only grounds of opposition which now remain to be

determined are whether the marks are so nearly identical as to cause confusion in trade and whether the opposer was the first to adopt and use a mark of that character, and it is urged that the former should be decided by the Examiner of Trade-Marks.

It is noted that during the progress of this proceeding three demurrers have been filed by the applicant and that following the decision of the Examiner overruling the last demurrer in part the applicant filed an answer to the notice of opposition, and the replication of the opposer has also been filed. It is therefore obvious that the applicant has exhausted its rights under the present practice of the Office. This petition must be treated, therefore, as a request for the exercise of the supervisory authority of the Commissioner.

It is urged that when the identity of trade-marks in an opposition proceeding is raised by demurrer the question should be determined in the first instance by the Examiner of Trade-Marks in analogy to interference practice. This contention is believed to be without force. The statute provides for an opposition proceeding as an independent remedy from interference. Interference proceedings are declared by the Office to enable the parties to present testimony upon which the Office may base an adjudication as to the title of the marks, and as stated in the *Robert Smith Ale Brewing Company* v. *Beadleston & Woerz*, (119 O. G., 341:)

A motion for dissolution of an interference before the taking of testimony is in effect a request for reconsideration of the action declaring the interference. Since the Examiner of Trade-Marks declared the interference he is the one who should give reconsideration in the light of argument by both parties.

Opposition proceedings are, however, instituted not by the Office, but by the opposer himself, and it is believed that the jurisdiction of deciding all questions raised on opposition proceedings is by the statute vested in the Examiner of Interferences as the tribunal of original jurisdiction.

The Court of Appeals of the District of Columbia has recognized his authority to decide questions of the character presented in the present case. (*Battle Creek Sanitarium Company, Limited*, v. *Fuller*, 134 O. G., 1299; 30 App. D. C., 411; *The Hall's Safe Company* v. *Herring-Hall-Marvin Safe Company*, 135 O. G., 1804; 31 App. D. C., 498.)

In view of the facts above stated I find no reason for exercising the supervisory authority of the Commissioner in this matter.

The petition is accordingly denied.

DECISIONS OF THE U. S. COURTS.

U. S. Circuit Court—District of New Jersey.

THE OLD LEXINGTON CLUB DISTILLERY COMPANY *v.* KENTUCKY DISTILLERIES AND WAREHOUSE COMPANY.

Decided November 1, 1909.

TRADE-MARKS—SUIT UNDER SECTION 4915, REVISED STATUTES—DEMURRER.

In a suit under section 4915, Revised Statutes, to obtain the registration of the words "Old Lexington Club" as a trade-mark a demurrer was filed alleging that the mark is invalid. *Held* that the invalidity of the mark is not obvious and that the demurrer should be overruled.

Messrs. Alexander & Green and *Mr. Charles C. Deming* for the demurrant.

Mr. John M. Coit for the complainant.

CROSS, *J.:*

This matter is before the court upon a demurrer to the bill of complaint, which is founded upon section 4915 of the Revised Statutes, and section 9 of the Trade-Mark Act, of February 20, 1905.

Briefly stated the bill shows that on or about the 29th of May, 1905, the complainant applied to the Commissioner of Patents for registration of the mark "Old Lexington Club;" that notice of opposition was filed thereto by the defendant herein, to which answer was duly made by the complainant; that upon such issue the Examiner of Interferences found in favor of the complainant, and adjudged that it was entitled to register the mark in question; that such decision was appealed from to the Commissioner of Patents, who affirmed the decision of the Examiner; that thereupon appeal was taken to the Court of Appeals of the District of Columbia, which reversed the decision of the Commissioner and determined that the complainant was not entitled to the registration of said mark.

Thereupon this proceeding was instituted under section 4915 of the Revised Statutes, which provides in part as follows:

Whenever a patent is refused, either by the Commissioner of Patents or by the Supreme Court of the District of Columbia, upon appeal from the Commissioner, the applicant may have remedy by bill in equity.

The word "patent" as used in the above statute, has been held by the Supreme Court to apply to trade-marks. (*Frasch* v. *Moore*, 211 U. S., 1; *Atkins* v. *Moore*, 212 U. S., 285.) A number of causes of demurrer were assigned, of which however, the following only were argued.

1. That the alleged trade-mark is invalid because it is geographical.
2. That the alleged trade-mark is invalid because it is descriptive.
3. That the alleged trade-mark is invalid because it resembles too closely the trade-mark of another.
4. That the alleged trade-mark is invalid because it consists merely of the name of a corporation.
5. That the alleged trade-mark is invalid because it does not indicate ownership and origin.

A careful reading of the opinion of the Court of Appeals of the District of Columbia, shows that its conclusions were, to a considerable degree, if not entirely based upon the evidence before it, and it is clear to my mind that the matters involved in this suit, cannot, with a proper regard to the rights of the parties, be adjudicated upon demurrer. It is impossible to say at this time that no evidence that could be adduced might not change any conclusions thus reached, and where such is the case a demurrer should be overruled. The invalidity of the mark in question is not upon its face obvious; the most that can be said is, that it is doubtful. Turning briefly to the causes of demurrer, it may be said as to the first, that an objection that a trade-mark

is invalid because, consisting of a geographical name cannot be considered on demurrer. (*Jewish Colonization Association et al.* v. *Solomon and Germanski*, 125 Fed., 994.) And particularly is this so where, as in this case, it is alleged in the bill and admitted by the demurrer, that the words "Old Lexington Club," have been recognized for a long period, by the trade and the purchasing public as an arbitrary mark identifying the origin and ownership of the goods upon which they appear, and that the complainant is entitled to the sole use thereof. The second ground of demurrer is likewise a proposition which cannot in the absence of evidence, and in view of the allegations of the bill, be adjudicated in favor of the demurrant. The mark, may, or may not be descriptive in fact, but the bill alleges that it is not, and the demurrer admits that it is not. As to the third ground, that is a matter which clearly must be set up by way of answer and established by proof. As to the fourth ground, it is sufficient at this time, to say that upon the face of the bill the alleged trade-mark does not clearly appear to consist merely in the name of a corporation. Furthermore, the mark accepting the allegations of the bill, was in use by the complainant and its predecessors in title, long before the complainant was incorporated, while of the last ground, it may be said that it is simply a denial of a fact alleged in the bill.

Any intimation as to the ultimate merits of this controversy, has been carefully avoided. The only attempt has been to show that its merits can only be safely adjudicated here, as they were in the court of appeals, after all available light has been thrown upon the matter, by evidence.

The demurrer will be overruled, and the defendant allowed thirty days in which to answer.

Modified Order Relating to Executors and Administrators.

(ORDER No. 1,827.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 22, 1909.

Order No. 1,792, dated January 20, 1909, published in volume 138 of the OFFICIAL GAZETTE, page 970, is modified by directing that whenever the right of applying for and obtaining a patent for an invention devolves upon an executor or administrator of a deceased inventor, or when the executor or administrator intervenes in the prosecution of an application, the proof of authority of such executor or administrator referred to in said order shall in all cases be recorded in the assignment records of this Office. A reference to this record should be placed in each application involved. This order will apply also to cases arising under section 4896, Revised Statutes.

(Signed) C. C. BILLINGS,
Acting Commissioner.

Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., November 23, 1909.

Tourist Cycle Company, its assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Melvin J. Foyer, of Toledo, Ohio, for registration of a trade-mark and trade-marks registered to the Tourist Cycle Company, of Syracuse, N. Y., and George R. Bidwell Cycle Company, of New York, N. Y., respectively, and the notice of said declaration sent by the Patent Office by registered mail to the said Tourist Cycle Company having been delivered to Roy Porter as agent for E. C. Stearns, and neither of these names appearing of record in the Tourist Cycle Company's registration, and no evidence having been furnished, within a time allowed by the Office for that purpose, that E. C. Stearns and Roy Porter are authorized to accept service for this company, notice is hereby given that if the said Tourist Cycle Company, its assigns or legal representatives, desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents in order that the notice of declaration heretofore sent by and returned to the Office may be forwarded to them.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall be entered at the expiration of the period of publication, the interference will be proceeded with as in case of default.

EDWARD B. MOORE, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., November 22, 1909.

Percy Warren Noble, his assigns or legal representatives, take notice:

An interference having been declared by this Office between a patent granted to Percy Warren Noble, of New York, N. Y., on March 24, 1908, No. 883,146, application for which was filed November 23, 1907, No. 403,493, for bearing for supporting radiators in automobile-frames, and applications for patents filed by James E. Woodbridge, of Bridgehampton, N. Y., and Giovanni Enrico, of Turin, Italy, respectively, and the notice of said declaration sent by the Patent Office by registered mail to the said Percy Warren Noble at New York, N. Y., having been returned by the Post-Office Department, notice is hereby given to the said Percy Warren Noble, his assigns or legal representatives, that if they or any of them desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents in order that the notice of declaration heretofore sent by and returned to the Office may be forwarded to them.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall be entered at the expiration of the period of publication, the interference will be proceeded with as in case of default.

E. B. MOORE, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., November 17, 1909.

Edward M. Wilcox and William Jay Hopkins, their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Orville Simpson, of 1956 West Sixth street, Cincinnati, Ohio, for registration of a trade-mark and a trade-mark registered to Edward M. Wilcox and William Jay Hopkins, of Whitewater, Wis., and the notice of said declaration sent by the Patent Office by registered mail to the said Edward M. Wilcox and William Jay Hopkins having been returned undelivered, notice is hereby given to said Edward M. Wilcox and William Jay Hopkins, their assigns or legal representatives, that if they or any of them desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents in order that the notice of declaration heretofore sent by and returned to the Office may be forwarded to them.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall be entered at the expiration of the period of publication, the interference will be proceeded with as in case of default.

EDWARD B. MOORE, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., November 12, 1909.

Harry H. Schuster, his assigns or legal representatives, take notice:

An interference having been declared by this Office between an application for patent filed by Charles H. J. Dilg and Jonathan O. Fowler and a patent granted to Harry H. Schuster and David Maier as joint inventors, and the notice of said declaration sent by registered mail by the Patent Office to said Harry H. Schuster, one of the joint patentees, having been returned by the Post-Office Department, notice is hereby given to said Harry H. Schuster, his assigns or legal representatives, that if they or any of them desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents in order that the notice of declaration heretofore sent by and returned to the Office may be forwarded to them.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall be entered at the expiration of the period of publication, the interference will be proceeded with as in case of default.

EDWARD B. MOORE, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., November 10, 1909.

Johannes Dönitz, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Reginald A. Fessenden, of Brant Rock, Mass., for patent on an electrical measuring instrument and the patent granted to Johannes Dönitz, of Berlin, Germany, on June 21, 1904, No. 763,164, and the notice of said declaration sent by the Patent Office by registered mail to the said Johannes Dönitz having been returned undelivered, notice is hereby given to the said Johannes Dönitz, his assigns or legal representatives, that if they or any of them desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents in order that the notice of declaration heretofore sent by and returned to the Office may be forwarded to them.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall be entered at the expiration of the period of publication, the interference will be proceeded with as in case of default.

EDWARD B. MOORE, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., November 4, 1909.

The Wolff Chemical Company, its assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Edna S. Frisbie, of Crystal Lake, Ill., for registration of a trade-mark and a trade-mark registered to The Wolff Chemical Company, of 145 North Fourth street, Philadelphia, Pa., and the notice of said declaration sent by the Patent Office by registered mail to The Wolff Chemical Company having been delivered to Leatherford Company and said Leatherford Company having failed to comply with the requirement of the Office letter of September 11, 1909, to either call attention to an assignment from The Wolff Chemical Company of record in the Office prior to the declaration of the interference or to file an application for registration, notice is hereby given The Wolff Chemical Company, its assigns or legal representatives, that if they or any of them desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents in order that the notice of declaration may be sent to them.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall be entered at the expiration of the period of publication, the interference will be proceeded with as in case of default.

EDWARD B. MOORE, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 30, 1909.

William McGlaughlin, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The Crystalene Mfg. Company, of 3100 Archwood avenue, Cleveland, Ohio, for registration of a trade-mark and trade-marks registered to William McGlaughlin, of Sharpsburg, Pa., and the Crystal Tablet Company, of Rochester, N. Y., and the notice of said declaration sent by registered mail to the said William McGlaughlin having been returned undelivered, notice is hereby given to the said William McGlaughlin, his assigns or legal representatives, that if they or any of them desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall have been entered at the expiration of the period of publication, the interference will proceed as in case of default.

C. C. BILLINGS, *Acting Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 30, 1909.

Crystal Tablet Company, its assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The Crystalene Mfg. Company, of 3100 Archwood avenue, Cleveland, Ohio, for registration of a trade-mark and trade-marks registered to William McGlaughlin, of Sharpsburg, Pa., and the Crystal Tablet Company, of Rochester, N. Y., and the notice of said declaration sent by registered mail to the said Crystal Tablet Company having been returned undelivered, notice is hereby given to the said Crystal Tablet Company, its assigns or legal representatives, that if they or any of them desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall have been entered at the expiration of the period of publication, the interference will proceed as in case of default.

C. C. BILLINGS, *Acting Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 28, 1909.

James K. Neagley, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of G. H. Mullen, of Guyandotte, W. Va., for registration of a trade-mark and trade-marks registered to George W. Prangle, of 555 Broadway, Council Bluffs, Iowa, and James K. Neagley, of Wilkes-Barre, Pa., and the notice of said declaration sent by the Patent Office by registered mail to the said James K. Neagley having been returned by the Post-Office Department, notice is hereby given to the said James K. Neagley, his assigns or legal representatives, that if they or any of them desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents in order that the notice of declaration heretofore sent by and returned to the Office may be forwarded to them.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall be entered at the expiration of the period of publication, the interference will be proceeded with as in case of default.

C. C. BILLINGS, *Acting Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 28, 1909.

George W. Prangle, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of G. H. Mullen, of Guyandotte, W. Va., for registration of a trade-mark and trade-marks registered to George W. Prangle, of 555 Broadway, Council Bluffs, Iowa, and James K. Neagley, of Wilkes-Barre, Pa., and the notice of said declaration sent by the Patent Office by registered mail to the said George W. Prangle having been delivered to Mrs. G. W. Prangle, and the attorney of record for said George W. Prangle having advised the Office that said Prangle is deceased and that his widow does not desire to take further account of this matter, notice is hereby given to the said George W. Prangle, his assigns or legal representatives, that if they or any of them desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents in order that the notice of declaration of this interference may be forwarded to them.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall be entered at the expiration of the period of publication, the interference will be proceeded with as in case of default.

C. C. BILLINGS, *Acting Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 28, 1909.

J. A. Meierdiercks and Sons, their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of L. Pickert Fish Company, of Boston, Mass., for registration of a trade-mark and a trade-mark registered to Yzermans & Company, of Vlaardingen, Netherlands, and also a trade-mark registered to J. A. Meierdiercks and Sons, of 710 Water street and 36 Harrison street, New York, N. Y., and the notice of said declaration sent by the Patent Office by registered mail to the said J. A. Meierdiercks and Sons having been returned by the Post-Office Department, notice is hereby given to the said J. A. Meierdiercks and Sons, their assigns or legal representatives, that if they or any of them desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents in order that the notice of declaration heretofore sent by and returned to the Office may be forwarded to them.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall be entered at the expiration of the period of publication, the interference will be proceeded with as in case of default.

C. C. BILLINGS, *Acting Commissioner.*

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TO THE

DECISIONS OF THE COMMISSIONER OF PATENTS AND THE UNITED STATES COURTS.

NOVEMBER, 1909.

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DIGEST

OF THE

DECISIONS OF THE COMMISSIONER OF PATENTS AND THE UNITED STATES COURTS.

NOVEMBER, 1909.

[Decisions of the Court of Appeals of the District of Columbia are indicated by a star (*) and of the United States Circuit Courts by the letter ‡.]

ABANDONED APPLICATIONS.

ACCESS TO GRANTED.

Where suit is brought on a patent the record of which shows that one of the claims thereof was allowed in a prior application belonging to the same assignee and was transferred to the application on which the patent was granted, *Held* that the defendants are entitled to inspect and obtain copies of said prior application. [*In re* Marvin Estate Company, 571.

ABANDONMENT OF INVENTION.

INTERFERENCE—PRIORITY.

In an interference between D. and B. & S. involving a species different from that involved in the present interference it was held that D. had forfeited his rights in favor of B. & S. *Held* that the testimony in the earlier interference has no bearing on the question of abandonment of the invention in issue in the present interference. [Von Recklinghausen *v.* Dempster, 277.

ACCESS TO ABANDONED APPLICATIONS.

(See Abandoned Applications.)

ADMINISTRATOR.

(See Preliminary Statement, 1.)

AGGREGATION.

(See Patentability, 2.)

ALLEGATIONS.

(See Motion to Dissolve Interference, 3, 4, 7.)

AMENDMENT.

ADMISSION OF CLAIMS AFTER FINAL REJECTION—RULE 68 CONSTRUED.

Claims admitted after final rejection under that part of Rule 68 requiring a "showing duly verified, of good and sufficient reasons why they were not earlier presented," are for consideration by the Primary Examiner and not for the purpose of appeal only. [*Ex parte* Meyer, 1088.

APPEAL.

(See Amendment; Interference, 3.)

PRESENTATION OF NEW CLAIMS.

The practice of submitting new claims for the original consideration of the Commissioner on appeal not approved. [*Ex parte* Sears, 279.

APPLICANTS.

(See Preliminary Statement, 1.)

APPLICATIONS.

(See Abandonment of Invention; Abandoned Applications; Divisional Applications; Preliminary Statement, 1.)

ASSIGNEES.

(See Abandoned Applications; Preliminary Statement.)

CLAIMS.

(See Abandoned Applications; Amendment; Appeal; Divisional Applications; Interference, 1.)

COMBINATION—USE OF TERM "MEANS."

Where the invention claimed is a combination, *Held* that the term "means," followed by a statement of function, is properly readable on a structure in which such means consists of more than one element. [Lacroix *v.* Tyberg, 831.

COMBINATION.

(See Claims; Motion to Dissolve Interference, 7.)

COMMISSIONER OF PATENTS.

(See Appeal; Interference, 3.)

CONSTRUCTION OF RULES.

(See Amendment; Interference, 2; Motion to Dissolve Interference, 4; Preliminary Statement, 2.)

CONSTRUCTION OF TRADE-MARK STATUTES.

(See Trade-Marks, 4, 5, 7, 9.)

CONTEMPORANEOUS USE OF MARK.

(See Trade-Marks, 5.)

COPIES OF ABANDONED APPLICATIONS.

(See Abandoned Applications.)

DATE OF FILING APPLICATION.

(See Divisional Applications.)

DEMURRER.

(See Trade-Marks, 9.)

DISCLOSURE OF INVENTION.

(See Interference, 1.)

DISMISSAL OF APPEAL.

(See Interference, 2.)

DIVISIONAL APPLICATIONS.

INTERFERENCE—PRIORITY—ENTITLED TO DATE OF ORIGINAL AS CONSTRUCTIVE REDUCTION TO PRACTICE.

Where an application involved in interference is a division of an earlier application which had not been abandoned or forfeited at the time such divisional application was filed, *Held* that the applicant is entitled to a constructive reduction to practice as of the date of the earlier application, even though this earlier application contained no claim to the invention in issue, (citing *McBerly* v. *Cook*, 90 O. G., 2295; *Phillips* v. *Sensenich*, 134 O. G., 1808, and *Lotz* v. *Kenny*, 135 O. G., 1801.)

[Von Recklinghausen *v.* Dempster, 277.

DUPLICATION OF PARTS.

(See Patentability, 1.)

EXAMINER OF INTERFERENCES.

(See Trade-Marks, 6.)

FINAL REJECTION OF CLAIMS.

(See Amendment.)

FIRST AND ORIGINAL INVENTOR.

(See Interference, 4, 5.)

FORMER DECISIONS CITED.

(See Divisional Applications; Interference, 6.)

FORMER DECISIONS OVERRULED.

(See Trade-Marks, 3.)

FRAUD.

(See Trade-Marks, 5.)

FUNCTION.

(See Claims.)

GOODS OF THE SAME DESCRIPTIVE PROPERTIES.

(See Trade-Marks, 3, 4, 5, 7.)

INDEFINITENESS.

(See Motion to Dissolve Interference, 3, 4, 5.)

INTERFERENCE.

(See Abandoned Applications; Abandonment of Invention; Divisional Applications; Motion to Dissolve Interference; Preliminary Statement; Specifications; Trade-Marks. 1, 6, 8.)

1. PRIORITY—RIGHT TO MAKE THE CLAIMS—DIFFERENCE IN DISCLOSURE.

Where the terms of the claims in issue are found to apply aptly to the structure of a party to the interference who has copied them from the patent of the other party, *Held* he has a right to make the claims even though his disclosure embodies an element the use of which it was the expressed purpose of the patentee to render unnecessary by the structure particularly referred to in the claims.

[Pratt *v.* de Ferranti and Hamilton, 569.

2. MOTION TO AMEND UNDER RULE 109—APPEAL.

A motion to dissolve the interference and a motion to amend under Rule 109 were transmitted to the Primary Examiner, who granted the former, but denied the latter. *Held* that the fact that appeal was not taken from the decision on the motion to dissolve constitutes no ground for the dismissal of the appeal from the decision on the motion to amend.

[Hammond and Donahue *v.* Colley *v.* Norris, 573.

3. APPEAL ON PRIORITY—PATENTABILITY OF THE ISSUE—SUPERVISORY AUTHORITY OF THE COMMISSIONER.

The question of the counts of the issue having different meanings and of their non-patentability will be considered on appeal on priority only under such extraordinary circumstances as will warrant the exercise of the supervisory authority of the Commissioner. [Lacroix *v.* Tyberg, 831.

4. ORIGINALITY—FIDUCIARY RELATION BETWEEN PARTIES.

When O. was admittedly the inventor of all the features of the invention save one and H. obtained his knowledge of these features from O. and the testimony was not clear as to whether the other feature was an improvement suggested by H. or by a third party, *Held* that O. was entitled to an award of priority in either event, inasmuch as a partnership relation was shown to exist between O. and H. at the time the invention in issue was made. [Ohlsen *v.* Harmer, 1065.

5. SAME—CIRCUMSTANCES AND CONDUCT.

In cases where the question is on the originality rather than priority of invention the surrounding circumstances and conduct of the parties are entitled to great weight. [Id.

6. PRIORITY—RIGHT TO MAKE THE CLAIMS.

Where the claim in issue specifies separate sources of current connected to a plurality of electrodes of a mercury-vapor device and H. shows separate phases of a polyphase generator connected to the respective electrodes, *Held* that he has a right to make this claim, (citing *Westinghouse Electric Mfg. Co.* v. *The New England Granite Co.*, 110 Fed. Rep., 753.)

[Weintraub *v.* Hewitt, 1067.

INVENTION.

(See Patentability.)

JURISDICTION OF THE EXAMINER OF INTERFERENCES.

(See Trade-Marks, 6, 8.)

JURISDICTION OF THE EXAMINER OF TRADE-MARKS.

(See Trade-Marks, 6.)

LICENSES.

(See Public Use and Sale.)

MACHINE.

(See Public Use and Sale.)

MERITS OF THE CASE.

(See Motion to Dissolve Interference, 7.)

MOTION TO AMEND AN APPLICATION.

(See Interference, 2.)

MOTION TO DISSOLVE INTERFERENCE.

(See Interference, 2.)

1. INTERFERENCE—RENEWAL MOTIONS—APPEAL—PIECEMEAL ACTION.

Where a motion to dissolve embodying two grounds is denied transmission as to both, *Held* that the grounds may not be separately prosecuted, one by direct appeal and the other by renewal motion and subsequent appeal.

[Williams *v.* Webster *v.* Sprague, 280.

2. SAME—SAME—SAME.

The bringing of a renewal motion waives the right of appeal from the decision on the original motion. [Id.

3. SAME—TRANSMISSION.

A motion to dissolve, alleging no interference in fact on account of the meaning which it is contended should be given a certain term, is too indefinite to be transmitted where this term does not occur in all the counts and it is not stated to which of the counts the motion is intended to apply. [Baetz *v.* Kukkuck, 1343.

4. SAME—SAME.

An allegation in a motion to dissolve that the opposing party has no right to make the claims "since the issue covers an invention not contemplated nor disclosed by him in the original specification (Rule 70)" *Held* not a sufficiently definite statement of the reasons upon which the motion is based and transmission of the motion properly refused. [Id.

5. SAME—SAME.

A motion to dissolve on the ground of the lack of right of the opposing party to make the claims was properly refused transmission where the motion did not specifically state what elements of the claims were not shown. [Id.

6. SAME—RENEWED MOTION—APPEAL.

Where transmission of a motion to dissolve is refused and an amended motion is filed, appeal from the decision refusing to transmit the original motion is abandoned.

[Lotterhand *v.* Cornwall, 1344.

7. SAME—TRANSMISSION—INFORMALITY.

A motion to dissolve, alleging informality because the claims in issue are for incomplete combinations when read on the opposing party's disclosure, was properly refused transmission, since this question is one relating to the merits. [Id.

8. SAME—SAME—APPLICATION OF REFERENCES.

A motion to dissolve on the ground of non-patentability of the counts of the issue should be refused transmission unless the patents relied upon are specifically named and applied. [Id.

NEW CLAIMS.

(See Appeal.)

OPPOSITION TO REGISTRATION.

(See Trade-Marks, 1, 2, 6, 8.)

PARTNERSHIP.

(See Interference, 4.)

PATENTABILITY.

(See Interference, 3; Motion to Dissolve Interference, 8.)

1. INVENTION—DUPLICATION OF PARTS.

The provision of two cranes in a boring machine for the purpose of enabling the new work to be hoisted to position simultaneously with the removal of the completed piece, *Held* to amount to a patentable improvement where the prior art shows only one crane. [*Ex parte* Sears, 279.

2. SAME—AGGREGATION.

Where two mechanisms for performing successive operations upon a piece of work are both old in the art, the assembling of these mechanisms upon a unitary support in such manner that the operator may transmit the work from one to the other without changing his position at the machine *Held* not to involve invention. [*Ex parte* Smith, 831.

PIECEMEAL PROSECUTION OF MOTIONS.

(See Motion to Dissolve Interference, 1, 2.)

PRELIMINARY STATEMENT.

1. INTERFERENCE—APPLICATION FILED BY AN ADMINISTRATOR—STATEMENT MAY BE MADE BY ASSIGNEE OF ENTIRE INTEREST.

Where an application was filed by the administrator of an inventor and the entire interest therein assigned, it is not necessary that the preliminary statement be made by the "applicant," but it may be made by the assignee.

[Lotterhand *v.* Cornwall, 1344.

2. SAME—SAME—RULE 131 CONSTRUED.

Rule 131 relates only to the assignee of an undivided interest, and it is not necessary that the assignee of the entire interest file a motion such as provided for in that rule in order to be allowed to file a preliminary statement. [Id.

PRIORITY OF ADOPTION AND USE.

(See Trade-Marks, 1, 2.)

PRIORITY OF INVENTION.

(See Abandonment of Invention; Divisional Applications; Interference, 1, 3, 4, 5, 6.)

PUBLIC USE AND SALE.

LICENSE—TEST.

The fact that a license was taken out to make cigars on the premises where a cigar-making machine was being tested and that some of the cigars made were actually sold *Held* not to establish a public use of the machine where it appeared that the place where such tests were made was a machine-shop and not a cigar factory, the license being taken out in order to be able to make actual tests with tobacco, and that the machine was operated primarily for the purpose of developing imperfections in the machine and that many minor changes were made therein.

[Lacroix *v.* Tyberg, 831.

REDUCTION TO PRACTICE.

(See Divisional Applications.)

REFERENCES.

(See Motion to Dissolve Interference, 8.)

REGISTRABILITY.

(See Trade-Marks, 1, 2, 5, 6.)

RENEWED MOTIONS.

(See Motion to Dissolve Interference, 1, 2, 6.)

RIGHT OF APPEAL.

(See Motion to Dissolve Interference, 2, 6.)

RIGHT TO MAKE CLAIMS.

(See Interference, 1, 6; Motion to Dissolve Interference, 4, 5.)

SIMILARITY OF MARK.

(See Trade-Marks, 2.)

SPECIFICATIONS.

DIFFERENCE IN TERMINOLOGY.

Where the interference involves a structure creating a "main" and a "leakage" flux, it is immaterial for the purposes of the interference that the flux described as the "main flux" by one party is called the "leakage-flux" by the other, and vice versa, in their respective specifications.

[Pratt *v.* de Ferranti and Hamilton, 569.

STATE OF THE ART.

(See Patentability,)

SUITS UNDER SECTION 4915, REVISED STATUTES.

(See Trade-Marks, 9.)

SUPERVISORY AUTHORITY OF THE COMMISSIONER OF PATENTS.

(See Interference, 3.)

TEN-YEARS CLAUSE.

(See Trade-Marks, 5.)

TERMINOLOGY.

(See Claims; Motion to Dissolve Interference, 3, 5; Specifications.)

TESTIMONY.

(See Abandonment of Invention.)

TESTS.

(See Public Use and Sale.)

TRADE-MARKS.

1. OPPOSITION—OPPOSER'S RIGHT TO REGISTRATION IMMATERIAL.

Where in an opposition proceeding it appears that the opposer adopted its mark prior to the date of adoption by the applicant of his mark, the question of the registrability of opposer's mark is immaterial, the sole question to be considered being that of the similarity of the marks.

[*Lang *v.* Green River Distilling Company, 280.

2. SAME—SIMILAR MARKS—"GREEN RIBBON," "GREEN RIVER."
Held that registration of the words "Green Ribbon" as a trade-mark for whisky was properly refused in view of the prior use of the words "Green River" on the same class of goods, as the similarity of the marks is such as to be likely to cause confusion in the mind of the public. [*Id.

3. WHISKY AND GIN—GOODS OF THE SAME DESCRIPTIVE PROPERTIES.
Whisky and gin are goods of the same descriptive properties, (the decision in *Vanden Bergh & Company* v. *Belmont Distillery Co.*, 107 O. G., 2235, overruled.)
[P. J. Bowlin Liquor Company v. J. and J. Eager Company, 571.

4. GOODS OF SAME DESCRIPTIVE PROPERTIES — WHISKY, "STRAIGHT," "BLEND," AND "COMPOUND."
"Straight" whisky, "blended" whisky, and "compound" whisky are goods of the same descriptive properties within the meaning of the Trade-Mark Act.
[*In re* Wright & Taylor, 834.

5. TEN-YEARS CLAUSE—CONTEMPORANEOUS USE—FRAUDULENCY THEREOF.
A mark cannot be registered under the ten-years clause of section 5 of the Trade-Mark Act of February 20, 1905, when substantially the same mark was used by others on goods of the same descriptive properties during the ten-year period, even though such use was fraudulent or deceptive. [*Id.

6. OPPOSITION—PRACTICE.
Where, after pleadings had been filed in an opposition proceeding, jurisdiction was restored to the Examiner of Trade-Marks for the purpose of refusing registration in view of a registered trade-mark and no action was taken by the applicant for more than a year after the letter of the Examiner of Trade-Marks refusing such registration, *Held* that on motion by the opposer the Examiner of Interferences should issue an order that the applicant show cause why the opposition should not be sustained.
[C. E. Sears & Co. v. A. & R. Loggie, 1088.

7. "WOOD-FILLERS" AND "WHITE LEAD"—GOODS OF THE SAME DESCRIPTIVE PROPERTIES.
Wood-fillers and white lead are goods of the same descriptive properties within the meaning of the Trade-Mark Act of February 20, 1905.
[The Warren Paint Co. v. Reeve & Co. v. Davidson & Knowles Co., 1345.

8. OPPOSITION—JURISDICTION OF THE EXAMINER OF INTERFERENCES.
The jurisdiction of deciding all questions raised on opposition proceedings, including that of the similarity of the marks of the applicant and the opposer, is vested in the Examiner of Interferences.
[California Canneries Company v. Kothe, Wells and Baner Company, 1345.

9. SUIT UNDER SECTION 4915, REVISED STATUTES—DEMURRER.
In a suit under section 4915, Revised Statutes, to obtain the registration of the words "Old Lexington Club" as a trade-mark a demurrer was filed alleging that the mark is invalid. *Held* that the invalidity of the mark is not obvious and that the demurrer should be overruled.
[The Old Lexington Club Distillery Company v. Kentucky Distilleries and Warehouse Company, 1346.

TRANSMISSION OF MOTIONS.

(See Interference, 2: Motion to Dissolve Interference.)

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ALPHABETICAL LIST OF PATENTEES

TO WHOM

PATENTS WERE ISSUED DURING THE MONTH OF NOVEMBER, 1909.

[Abbreviations: "Sp."—Monthly Volume of Specifications; "Gaz."—Official Gazette.]

A. H. Light Engineering Company. (See Light, A. H., assignor.)
Aberle, E., West Nutley, N. J. Computing-table. No. 938,737; Nov. 2; Sp. p. 620; Gaz. vol. 148; p. 98.
Acetylene Apparatus Manufacturing Co. (See Zander, J., assignor.)
Acker, J. J. (See Bundy and Acker.)
Ackerman, C. F., assignor, by mesne assignments, of one-half to D. S. Hawkins, Cleveland, Ohio. Composition of matter. No. 939,938; Nov. 9; Sp. p. 3273; Gaz. vol. 148; p. 540.
Ackerman, W., assignor to United States Graphotype Company, New York, N. Y. Type casting and composing machine. No. 940,377; Nov. 16; Sp. p. 4311; Gaz. vol. 148; p. 722.
Ackermann, J. B., Grand Rapids, Mich. Scraper-sharpener. No. 940,773; Nov. 23; Sp. p. 5181; Gaz. vol. 148; p. 880.
Ackermann, W., Berlin, Germany. Flux for use in soldering. No. 940,111; Nov. 16; Sp. p. 3696; Gaz. vol. 148; p. 630.
Acme Harvesting Machine Company. (See Scanland, J. A., assignor.)
Acme Match Company. (See Swett, W. R., assignor.)
Acme White Lead and Color Works. (See Heinz, J., assignor.)
Actien Gesellschaft für Anilin Fabrikation. (See Altschul, J., assignor.)
Adams, A., Springfield, Mass. Washtub-cover. No. 941,054; Nov. 23; Sp. p. 5760; Gaz. vol. 148; p. 972.
Adams, E. M. and G. L., Owego, N. Y. Dinner-pail. No. 940,571; Nov. 16; Sp. p. 4727; Gaz. vol. 148; p. 787.
Adams, F. S., Leetonia, Ohio. Apparatus for treating molten metals. No. 940,774; Nov. 23; Sp. p. 5182; Gaz. vol. 148; p. 880.
Adams, G. L. (See Adams, E. M. and G. L.)
Adams, J. T. (See Watkins, J. W., assignor.)
Adams, J. U., Cincinnati, Ohio. Shoulder-brace. No. 940,775; Nov. 23; Sp. p. 5183; Gaz. vol. 148; p. 880.
Adams, L. T. (See Reynolds, D. A., assignor.)
Adams Letter Folding Machine Company. (See Wallace, E. D., assignor.)
Adder Machine Company. (See Künitzler, H., assignor.)
Adder Machine Company. (See McFarland, C. N., assignor.)
Adder Machine Company. (See White, N., assignor.)
Aderer, J., New York, N. Y. Tooth-regulating device. No. 941,840; Nov. 30; Sp. p. 7477; Gaz. vol. 148; p. 1257.
Adreon, E. L., Jr., *et al.* (See Renaud, T. H., assignor.)
Adriance, B., Brooklyn, N. Y. Heading sheet-metal cans. No. 939,197; Nov. 9; Sp. p. 1613; Gaz. vol. 148; p. 285.
Adriance, B., and A. Calleson, Brooklyn, N. Y.; said Calleson assignor to said Adriance. Apparatus for forming hollow sheet-metal bodies. No. 940,914; Nov. 23; Sp. p. 5460; Gaz. vol. 148; p. 925.
Agner, R. C., Burlington, Wis. Lubricator. No. 940,572; Nov. 16; Sp. p. 4728; Gaz. vol. 148; p. 787.
Ahlen, W., Duquesne, and H. C. Siebert, Braddock, Pa. Apparatus for cleaning gases. No. 941,841; Nov. 30; Sp. p. 7479; Gaz. vo 148; p. 1257.
Ahlstedt, E. E., and A. L. Bowman, New York, N. Y. Brush. No. 939,181; Nov. 2; Sp. p. 1566; Gaz. vol. 148; p. 254.
Ahnfeldt, H. (See Richards and Ahnfeldt.)
Ahrens, F. C., Chicago, Ill. Vehicle-lamp. No. 940,915; Nov. 23; Sp. p. 5462; Gaz. vol. 148; p. 926.
Aitken, T. G., Deming, N. Mex. Barber-chair attachment. No. 938,937; Nov. 2; Sp. p. 1070; Gaz. vol. 148; p. 170.
Ake, A. A., Bellevue, Ohio. Lifting-truck. No. 939,783; Nov. 9; Sp. p. 2947; Gaz. vol. 148; p. 485.
Aktiebolaget Separator. (See Ericsson, A. J., assignor.)
Albrecht, C. A., Baltimore, Md. Matrix for linotype and other type-casting machines. No. 938,938; Nov. 2; Sp. p. 1071; Gaz. vol. 148; p. 170.
Aldrich, E., Emporia, Kans. Dish-washing apparatus. No. 938,622; Nov. 2; Sp. p. 399; Gaz. vol. 148; p. 60.
Aldridge, W. H. (See Miller, J. F., assignor.)
Alexander, R. E., and M. J. Knickerbocker, Endicott, N. Y. Holder and index for phonograph-records. No. 938,809; Nov. 2; Sp. p. 773; Gaz. vol. 148; p. 124.
Alexander, R. H., Paterson, N. J. Amusement device. No. 941,902; Nov. 30; Sp. p. 7597; Gaz. vol. 148; p. 1279.
Alexander, W. C., *et al.* (See Hetherington, W., assignor.)
Alexanderson, E. F. W., Schenectady, N. Y., assignor to General Electric Company. Motor-control system. No. 940,112; Nov. 16; Sp. p. 3697; Gaz. vol. 148; p. 630.
Alger, M. W., and C. L. Jacobson, Benton Harbor, Mich. Gripper for printing-presses. No. 940,491; Nov. 16; Sp. p. 4546; Gaz. vol. 148; p. 760.
Alldredge, F. B., assignor to M. B. Alldredge, Des Moines, Iowa. Supply-tank and carbureter for gas plants. No. 940,916; Nov. 23; Sp. p. 5463; Gaz. vol. 148; p. 926.
Alldredge, M. B. (See Alldredge, F. B., assignor.)
Allen, A. S., Brookline, Mass. Sheet-feeding apparatus. No. 939,182; Nov. 2; Sp. p. 1567; Gaz. vol. 148; p. 254.
Allen, C. C., Kansas City, Mo. Liquid-measurer. No. 939,198; Nov. 9; Sp. p. 1614; Gaz. vol. 148; p. 285.
Allen, F. R., assignor to United States Floor Surfacing Machine Company, Providence, R. I. Surfacing-machine. No. 939,373; Nov. 9; Sp. p. 2072; Gaz. vol. 148; p. 345.
Allen, J. E., Trenton, N. J. Motor-cycle. No. 941,903; Nov. 30; Sp. p. 7590; Gaz. vol. 148; p. 1279.
Allen, N. I., Everett, assignor to Draper Company, Hopedale, Mass. Loom-temple. No. 940,776; Nov. 23; Sp. p. 5185; Gaz. vol. 148; p. 880.
Allen, W. (See Konigsberg and Allen.)
Allerton, F. M., assignor of one-third to O. R. Allerton, Benton Harbor, Mich., and one-third to W. E. Allerton, Chicago, Ill. Lifting-jack. No. 939,374; Nov. 9; Sp. p. 2076; Gaz. vol. 148; p. 346.
Allerton, O. R., *et al.* (See Allerton, F. M., assignor.)
Allerton, W. E., *et al.* (See Allerton, F. M., assignor.)
Allis-Chalmers Company. (See Bassett, N. C., assignor.)
Allis-Chalmers Company *et al.* (See Behrend, B. A., assignor.)
Allis-Chalmers Company. (See Blümel, B., assignor.)
Allis-Chalmers Company. (See Tomlinson, R. D., assignor.)
Allman, D. W., Toronto, Ontario, Canada. Water-heater. No. 938,623; Nov. 2; Sp. p. 400; Gaz. vol. 148; p. 60.
Alphin, G. E., Mount Olive, N. C. Fertilizer-distributer. No. 941,603; Nov. 30; Sp. p. 6941; Gaz. vol. 148; p. 1174.
Altschul, J., assignor to Actien Gesellschaft für Anilin Fabrikation, Berlin, Germany. New mercury salt of para-aminophenylarsinic acid No. 938,939; Nov. 2; Sp. p. 1072; Gaz. vol. 148; p. 170.
Aluminum Company of America. (See McCulloch, G., assignor.)
Alverson, C. S., San Diego, Cal. Adjusting appliance for type-writing machines. No. 941,294; Nov. 23; Sp. p. 6289; Gaz. vol. 148; p. 1052.
Amble, O. A., Grand Forks, N. D. Threshing-machine. No. 938,624; Nov. 2; Sp. p. 406; Gaz. vol. 148; p. 61.
American Brake Shoe & Foundry Company. (See Nichols, W. G., assignor.)
American Calking Machine Company. (See Childs, E. N., assignor.)
American Can Company. (See Weber, Eberhart, and Swangren, assignors.)
American Can Company. (See Xavier, J., assignor.)
American Car & Foundry Company. (See Ames, J. H., assignor.)

American Car & Foundry Company. (See Frame and Harrington, assignors.)
American Circular Loom Company. (See Lutz, G. A., assignor.)
American Commerce & Specialty Co. (See Strauss, E. H., assignor.)
American Concrete Piling Company. (See Welsh, L. E., assignor.)
American Cyanamid Company. (See Peacock, S., assignor.)
American Electric Telephone Co. (See Brofos, E. A., assignor.)
American Forged Nut Company. (See Long, F. R. and C. E., assignors.)
American Gas Light Company. (See Maas, J., assignor.)
American Gasaccumulator Company. (See Dalén, G. assignor.)
American Graphophone Company. (See Capps, F. L., assignor.)
American Locomotive Company. (See Gray, B. D., assignor.)
American Mahogany Company. (See Hall, W. A., assignor.)
American Mason Safety Tread Company. (See Davis, A. L., assignor.)
American Sheet & Tin Plate Company. (See Bray, C. W., assignor.)
American Sheet & Tin Plate Company. (See Brookman, D. S., assignor.)
American Sheet & Tin Plate Company. (See Davis, S. A., assignor.)
American Snuff Company. (See Thom, J. C., assignor.)
American Specialty Manufacturing Company. (See Riehl, J. B., assignor.)
American Steel Foundries. (See Floyd, G. G., assignor.)
American Telephone and Telegraph Company. (See Athearn, W. E., assignor.)
American Telephone and Telegraph Company. (See Barrett, J. A., assignor.)
American Telephone and Telegraph Company. (See Christensen, W., assignor.)
American Tobacco Company. (See Tucker, B. W., assignor.)
American Tool & Machine Company. (See Goddard, G. N., assignor.)
American Typographic Corporation. (See Richards, F. H., assignor.)
Ames, J. H., Oak Park, assignor to American Car & Foundry Company, Chicago, Ill. Die-stripper. No. 938,940; Nov. 2; Sp. p. 1073; Gaz. vol. 148; p. 170.
Ames Asphalt Company. (See Ames, J. H., assignor.)
Ames, J. H., assignor to Ames Asphalt Company, Philadelphia, Pa. Road and street construction. No. 941,548; Nov. 30; Sp. p. 6833; Gaz. vol. 148; p. 1157.
Amlie, P. W., Binford, N. D. Animal-poke. No. 940,573; Nov. 16; Sp. p. 4729; Gaz. vol. 148; p. 787.
Amos, G. W., St. Charles, assignor of one-half to W. Blumhof, Wentzville, Mo. Railway-joint. No. 941,604; Nov. 30; Sp. p. 6943; Gaz. vol. 148; p. 1175.
Amphion Piano Player Company. (See Doman, L. B., assignor.)
Amundson, T. J., Chicago, Ill. Printer's quoin. No. 940,113; Nov. 16; Sp. p. 3701; Gaz. vol. 148; p. 630.
Andersen, G., Chicago, Ill. Stoker. No. 941,486; Nov. 30; Sp. p. 6713; Gaz. vol. 148; p. 1137.
Anderson, A., Benkelman, Nebr. Fire-escape. No. 938,625; Nov. 2; Sp. p. 408; Gaz. vol. 148; p. 61.
Anderson, A. J., Houston, Minn. Corn-planter. No. 941,485; Nov. 30; Sp. p. 6711; Gaz. vol. 148; p. 1137.
Anderson, C. A., Salina, and W. Hagstrom, Lindsborg, assignors, by direct and mesne assignments, of two-thirds to Anderson Electric and Manufacturing Company, McPherson, and one-third to Hagstrom Brothers Manufacturing Company, Lindsborg, Kans. Telephone-exchange. No. 938,943; Nov. 2; Sp. p. 1077; Gaz. vol. 148; p. 171.
Anderson, C. A., Salina, and W. Hagstrom, Lindsborg, assignors to Anderson Electric and Manufacturing Company, McPherson, and Hagstrom Brothers Manufacturing Company, Lindsborg, Kans. Calling device for telephone-exchanges. No. 938,944; Nov. 2; Sp. p. 1082; Gaz. vol. 148; p. 172.
Anderson, C. G. (See McAllister, Anderson, and Hawkins.)
Anderson, C. H., Seattle, Wash. Car-bolster. No. 941,691; Nov. 30; Sp. p. 7136; Gaz. vol. 148; p. 1204.
Anderson, C. R., Bellevue, Pa. Coal-auger. No. 938,941; Nov. 2; Sp. p. 1075; Gaz. vol. 148; p. 171.
Anderson, C. R., Bellevue, Pa. Lamp-holding attachment for miners' caps. No. 938,942; Nov. 2; Sp. p. 1076; Gaz. vol. 148; p. 171.
Anderson Electric and Manufacturing Company *et al.* (See Anderson and Hagstrom, assignors.)
Anderson, F. W., Middletown, N. Y. Folding table. No. 940,963; Nov. 16; Sp. p. 3333; Gaz. vol. 148; p. 577.
Anderson, G. A., Fargo, N. D. Mechanical movement. No. 941,003; Nov. 23; Sp. p. 5652; Gaz. vol. 148; p. 955.
Anderson, J., assignor of one-third to E. S. Patterson and one-third to C. A. Sweet, Chicago, Ill. Flashlight. No. 938,945; Nov. 2; Sp. p. 1087; Gaz. vol. 148; p. 172.
Anderson, J. C., Highland Park, Ill. Proportional meter. No. 940,114; Nov. 16; Sp. p. 3702; Gaz. vol. 148; p. 631.
Anderson, O., Velva, N. D. Tag-holder. No. 938,946; Nov. 2; Sp. p. 1089; Gaz. vol. 148; p. 173.
Anderson, O., Cleveland, Ohio. Permutation-lock. No. 939,887; Nov. 9; Sp. p. 3154; Gaz. vol. 148; p. 520.
Anderson, U., assignor to Giddings & Lewis Manufacturing Company, Fond du Lac, Wis. Gang-edger. No. 941,751; Nov. 30; Sp. p. 7262; Gaz. vol. 148; p. 1225.
Andres, L. W. and M., Scranton, Pa. Filter. No. 938,947; Nov. 2; Sp. p. 1091; Gaz. vol. 148; p. 173.
Andres, M. (See Andres, L. W. and M.)
Andrew, J. T., Montgomery, Ala. Railway safety appliance. No. 941,222; Nov. 23; Sp. p. 6138; Gaz. vol. 148; p. 1029.
Andrews, F. H. (See Armington, O. H., assignor.)
Andrews, J. E., La Crosse, Kans. Fire-escape. No. 939,375; Nov. 9; Sp. p. 2077; Gaz. vol. 148; p. 346.
Andrews, P. L., *et al.* (See Brown, E. L., assignor.)
Angell, C. W., Lima, Ohio. Portable mirror. No. 940,115; Nov. 16; Sp. p. 3705; Gaz. vol. 148; p. 631.
Anthony, E. J., Brookview, N. Y. Railway-rail-locking mechanism. No. 941,692; Nov. 30; Sp. p. 7137; Gaz. vol. 148; p. 1204.
Anthony, E. J., Brookview, N. Y. Rail-brace for railways. No. 941,693; Nov. 30; Sp. p. 7139; Gaz. vol. 148; p. 1205.
Anthony, E. W., Brookline, Mass. Stove. No. 938,543; Nov. 2; Sp. p. 236; Gaz. vol. 148; p. 34.
Anthony, M. O. (See Garretson and Anthony.)
Antiseptic Holder Company. (See Jones, W. D., assignor.)
Applegate, F. C., Philadelphia, Pa., assignor, by mesne assignments, to Royal Phone & Phonogram Co., Boston, Mass. Making phonograms. No. 939,119; Nov. 2; Sp. p. 1421; Gaz. vol. 148; p. 231.
Applegate, F. C., Philadelphia, Pa., assignor, by mesne assignments, to Royal Phone & Phonogram Co., Boston, Mass. Phonogram. No. 939,120; Nov. 2; Sp. p. 1422; Gaz. vol. 148; p. 232.
Applegate, S. W., South Bend, Ind. Aeroplane. No. 939,651; Nov. 9; Sp. p. 2661; Gaz. vol. 148; p. 440.
Appleton, W. M., Weston-super-Mare, England. Internal-combustion engine. No. 939,376; Nov. 9; Sp. p. 2079; Gaz. vol. 148; p. 346.
Arbogast, J. I., assignor of one-half to H. L. Collins, Pittsburg, Pa. Machine for making wire-glass. No. 941,842; Nov. 30; Sp. p. 7481; Gaz. vol. 148; p. 1257.
Archer, J. T., Champaign, assignor of one-half to F. M. Foltz, Urbana, Ill. Trolley-harp. No. 940,574; Nov. 16; Sp. p. 4730; Gaz. vol. 148; p. 787.
Armington, O. H., Cumberland, assignor to F. H. Andrews, Providence, R. I. Combination lantern and heater. No. 939,377; Nov. 9; Sp. p. 2080; Gaz. vol. 148; p. 347.
Armstead, J. D., and S. Kelley, Jonestown, Miss. Cotton-chopper. No. 938,626; Nov. 2; Sp. p. 410; Gaz. vol. 148; p. 62.
Armstrong, G. A., Youngstown, Ohio. Check-stamping mechanism for computing-machines. No. 938,455; Nov. 2; Sp. p. 1; Gaz. vol. 148; p. 3.
Armstrong, L. D., Dallas, Tex. Metallic flue. No. 939,652; Nov. 9; Sp. p. 2663; Gaz. vol. 148; p. 440.
Arnaud, L. C., Forcalquier, Basses-Alpes, France. Frictional gearing. No. 939,653; Nov. 9; Sp. p. 2664; Gaz. vol. 148; p. 440.
Arneson, E., Myrtle Point, Oreg. Pruning-shears. No. 938,627; Nov. 2; Sp. p. 411; Gaz. vol. 148; p. 62.
Arnold, E., Karlsruhe, Germany, and J. L. La Cour, Vesteras, Sweden. Arrangement for regulation of speed of compensated single-phase motors. No. 940,492; Nov. 16; Sp. p. 4548; Gaz. vol. 148; p. 760.
Arnold, H., Newmarket, Ontario, Canada. Seeding-machine. No. 939,964; Nov. 16; Sp. p. 3334; Gaz. vol. 148; p. 577.
Arnold, W. S., San Francisco, Cal. Cuff-holder. No. 940,225; Nov. 16; Sp. p. 3941; Gaz. vol. 148; p. 670.
Aronson, S., assignor of one-third to L. Ehrlich, New York, N. Y. Type-writer. No. 939,965; Nov. 16; Sp. p. 3335; Gaz. vol. 148; p. 577.
Arrow Electric Company. (See Peterson, J. G., assignor.)
Arundel, H. (See Higginson and Arundel.)
Ash, T. W., Sherman, Tex. Safety air-brake appliance. No. 941,295; Nov. 23; Sp. p. 6290; Gaz. vol. 148; p. 1052.
Ashcroft Manufacturing Company. (See Blanchard and Crocker, assignors.)
Ashley, W. J., Oak Park, Ill. Attachment for projection apparatus. No. 941,752; Nov. 30; Sp. p. 7266; Gaz. vol. 148; p. 1225.
Ashton, H. M. (See Walker and Ashton.)
Ashton, O., Lawrence, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Machine for applying plastic or adhesive material. No. 940,419; Nov. 16; Sp. p. 4398; Gaz. vol. 148; p. 736.
Askegren, C. M., Pensacola, Fla. Car-ventilator. No. 939,784; Nov. 9; Sp. p. 2949; Gaz. vol. 148; p. 486.
Askew, C. B., Chicago, Ill. Ignition system for internal-combustion engines. No. 941,124; Nov. 23; Sp. p. 5917; Gaz. vol. 148; p. 995.
Askins, J. D., *et al.* (See Curtis, T. F., assignor.)
Asquith, S. A. Waterloo, Iowa. Separable fastener. No. 940,917; Nov. 23; Sp. p. 5465; Gaz. vol. 148; p. 926.
Astor, J. J., New York, N. Y. Vibratory disintegrator for gas-producers. No. 940,493; Nov. 16; Sp. p. 4550; Gaz. vol. 148; p. 761.

Aten, M. L. (See Blessing, Aten, and Poirier.)
Athearn, W. E., New York, N. Y., assignor to American Telephone and Telegraph Company. Nullifying inductive disturbances. No. 940,654; Nov. 23; Sp. p. 4897; Gaz. vol. 148; p. 839.
Athearn, W. E., New York, N. Y., assignor to American Telephone and Telegraph Company. Electrical conducting system. No. 940,655; Nov. 23; Sp. p. 4900; Gaz. vol. 148; p. 839.
Athey, U. S. G., St. Louis, Mo. Reinforced-concrete floor construction. No. 940,296; Nov. 16; Sp. p. 4095; Gaz. vol. 148; p. 694.
Atkins, W., assignor of two-thirds to A. W. MacRae, St. John, New Brunswick, Canada. Nut-lock. No. 939,654; Nov. 9; Sp. p. 2666; Gaz. vol. 148; p. 441.
Atkinson, F. S. (See Blodgett and Atkinson.)
Atkinson, J. B. (See Atkinson, O., assignor.)
Atkinson, O., assignor of one-half to J. B. Atkinson, Adrian, Mo. Draft appliance. No. 939,378; Nov. 9; Sp. p. 2081; Gaz. vol. 148; p. 347.
Atkinson, R., Cleveland, Ohio. Gage. No. 941,843; Nov. 30; Sp. p. 7485; Gaz. vol. 148; p. 1258.
Atkinson, T. N., St. Margarets-on-Thames, England, assignor of one-half to O. List, St. Petersburg, Russia. Point-operating mechanism for tramways. No. 939,939; Nov. 9; Sp. p. 3274; Gaz. vol. 148; p. 540.
Atlantic Drier Company. (See Shepard, H. W., assignor.)
Atlas Engine Works. (See McCarty, N., assignor.)
Atlas Engine Works. (See Withem, W., assignor.)
Attaway, E., Morrow, La. Insect-catcher. No. 940,116; Nov. 16; Sp. p. 3706; Gaz. vol. 148; p. 631.
Attridge, J. H. (See Weidel, H. F., assignor.)
Aubeuf, F. H., Oneida, N. Y. Automobile-headlight bracket and mechanism for turning same. No. 938,456; Nov. 2; Sp. p. 7; Gaz. vol. 148; p. 3.
Aubey, J. A., Hammond, Ind. Gaging attachment for ice-cream molds. No. 938,628; Nov. 2; Sp. p. 413; Gaz. vol. 148; p. 62.
Auerbach, H. S., New York, N. Y. Treating certain ores. No. 941,904; Nov. 30; Sp. p. 7601; Gaz. vol. 148; p. 1280.
Auger, J., assignor of one-half to T. Bacon, Marenisco, Mich. Door-fastener. No. 939,785; Nov. 9; Sp. p. 2950; Gaz. vol. 148; p. 486.
Aune, A., Waltham, Mass. Watch. No. 940,117; Nov. 16; Sp. p. 3709; Gaz. vol. 148; p. 632.
Austin, F. C. (See Bunnell, M. G., assignor.)
Austin, W. A., Kansas City, Mo. Line-guide for fishing-reels. No. 938,948; Nov. 2; Sp. p. 1092; Gaz. vol. 148; p. 173.
Austin, W. A., Kansas City, Mo. Fishing-rod. No. 942,030; Nov. 30; Sp. p. 7831; Gaz. vol. 148; p. 1319.
Austin, W. L., assignor to Burnham, Williams & Company, Philadelphia, Pa. Forward truck for locomotives. No. 940,494; Nov. 16; Sp. p. 4552; Gaz. vol. 148; p. 761.
Auth, J., and H. Kettler, Covington, Ky. Wagon-brake. No. 938,810; Nov. 2; Sp. p. 774; Gaz. vol. 148; p. 125.
Automatic Refrigerating Company. (See Carpenter, E., assignor.)
Automatic Roll Paper Printer Manufacturing Company. (See Pine, G. V. A., assignor.)
Avis, B. D., Jr., Wallace, W. Va. Electric process for making pictures. No. 940,495; Nov. 16; Sp. p. 4553; Gaz. vol. 148; p. 762.
Ayer, G. A. (See McDevitt and Walton, assignors.)
Ayer, W. H., Claremont, N. H. Picking-motion for looms. No. 941,844; Nov. 30; Sp. p. 7486; Gaz. vol. 148; p. 1258.
Ayers, W. H., and C. A. Dorr, Lyndhurst, N. J. Trimming-knife. No. 940,420; Nov. 16; Sp. p. 4405; Gaz. vol. 148; p. 736.
Aylsworth, J. W., East Orange, assignor to New Jersey Patent Company, West Orange, N. J. Apparatus for making duplicate phonograph-records. No. 940,631; Nov. 16; Sp. p. 4843; Gaz. vol. 148; p. 806.
B. A. Ballou & Company. (See Morehouse, E. W., assignor.)
Babcock & Wilcox Company. (See Sewall, M. W., assignor.)
Babcock & Wilcox Company. (See Sneddon, J. P., assignor.)
Bachelder, H. W., Schenectady, N. Y. Hoisting apparatus. No. 939,955; Nov. 9; Sp. p. 3309; Gaz. vol. 148; p. 546.
Bachman, W. S., assignor to C. L. Stryker, Williamsport, Pa. Cuff-holder. No. 939,464; Nov. 9; Sp. p. 2266; Gaz. vol. 148; p. 375.
Backus, H. N., Detroit, Mich. Shipping-crate. No. 939,582; Nov. 9; Sp. p. 2510; Gaz. vol. 148; p. 415.
Bacon, T. (See Auger, J., assignor.)
Badger, G. L., Quincy, Mass. Pneumatic surfacing-machine. No. 940,297; Nov. 16; Sp. p. 4096; Gaz. vol. 148; p. 694.
Badische Anilin & Soda Fabrik. (See Isler, Lüttringhaus, and Diesbach, assignors.)
Badische Maschinenfabrik & Eisengiesserei vormals G. Sebold und Sebold & Neff. (See Landvatter, O. H., assignor.)
Baeder, C. W., Memphis, Tenn. Trimmer for stereotypes. No. 941,549; Nov. 30; Sp. p. 6835; Gaz. vol. 148; p. 1157.
Baeder, C. W., Memphis, Tenn. Spring-wheel. No. 941,550; Nov. 30; Sp. p. 6836; Gaz. vol. 148; p. 1157.
Baekeland, L. H., Yonkers, N. Y. Molding articles. No. 939,966; Nov. 16; Sp. p. 3339; Gaz. vol. 148; p. 578.
Baekeland, L. H., Yonkers, N. Y. Packing material. No. 941,605; Nov. 30; Sp. p. 6944; Gaz. vol. 148; p. 1175.
Bailey, C. F., *et al.* (See Hubmann, J., assignor.)
Bailey, G. H., Pittsburg, Pa. Tank for water-closets, &c. No. 940,951; Nov. 23; Sp. p. 5542; Gaz. vol. 148; p. 938.
Bailey, G. H., Pittsburg, Pa. Tank for water-closets, &c. No. 940,952; Nov. 23; Sp. p. 5545; Gaz. vol. 148; p. 939.
Bain, R. C., Chicago, Ill. Folding leg for trunks. No. 940,421; Nov. 16; Sp. p. 4406; Gaz. vol. 148; p. 737.
Baird, T. W., *et al.* (See Dettelbach and Powell, assignors.)
Bajde, J., near Laibach, Austria-Hungary, assignor to Firm of L. Hupfeld Aktiengesellschaft, Leipzig, Germany. Piano-violin. No. 939,786; Nov. 9; Sp. p. 2951; Gaz. vol. 148; p. 486.
Bajon, E. M., Paris, France. Liquid-tight dosing device. No. 941,905; Nov. 30; Sp. p. 7602; Gaz. vol. 148; p. 1280.
Baker, A. E., Wabash, Ind. Combined cabinet and display-rack. No. 939,199; Nov. 9; Sp. p. 1616; Gaz. vol. 148; p. 285.
Baker, F. R. (See Smith, A. J., assignor.)
Baker, G. S., London, England. Machine for treating dough and like materials. No. 941,296; Nov. 23; Sp. p. 6291; Gaz. vol. 148; p. 1053.
Baker, H. G., Montreal, Quebec, Canada. Dry-pipe valve. No. 941,971; Nov. 30; Sp. p. 7729; Gaz. vol. 148; p. 1302.
Baker, J. H., Philadelphia, Pa. Box. No. 938,811; Nov. 2; Sp. p. 776; Gaz. vol. 148; p. 125.
Baker Motor Vehicle Company. (See Gruenfeldt, E., assignor.)
Baker, W. W. (See Palmer and Baker.)
Baldwin, A. J., East Orange, N. J., assignor to Baldwin-Lester Corporation. Preserving edible substances. No. 940,848; Nov. 23; Sp. p. 5333; Gaz. vol. 148; p. 904.
Baldwin-Lester Corporation. (See Baldwin, A. J., assignor.)
Balgle, F. J., Kaukauna, Wis. Egg cabinet and testing attachment. No. 938,629; Nov. 2; Sp. p. 414; Gaz. vol. 148; p. 62.
Ball, F. J., New York, N. Y. Combined oil and grease gun. No. 939,465; Nov. 9; Sp. p. 2267; Gaz. vol. 148; p. 376.
Ball, J. F., Estep, assignor of one-half to V. Greene, Greenview, W. Va. Wire-stretcher. No. 939,787; Nov. 9; Sp. p. 2955; Gaz. vol. 148; p. 486.
Ball, W., Echuca, Victoria, Australia. Hypodermic syringe. No. 938,544; Nov. 2; Sp. p. 238; Gaz. vol. 148; p. 34.
Ballard, G. L., assignor to Wildman Mfg. Co., Norristown, Pa. Take-up mechanism for knitting-machines. No. 940,656; Nov. 23; Sp. p. 4904; Gaz. vol. 148; p. 840.
Ballman, W. E., Detroit, Mich. Dust-pan. No. 940,422; Nov. 16; Sp. p. 4407; Gaz. vol. 148; p. 737.
Bals, C. A. (See Corwin and Bals.)
Bambauer, E., Volta, Cal. Punching-machine. No. 940,575; Nov. 16; Sp. p. 4732; Gaz. vol. 148; p. 788.
Bane, J. O., Waseca, Minn. Counterbalancing device for pumps. No. 939,967; Nov. 16; Sp. p. 3341; Gaz. vol. 148; p. 578.
Banker's Dust-Proof Time Lock Company. (See Benham, E. M., assignor.)
Barbour, G. H., Pittsburg, Pa. Rail-joint. No. 940,777; Nov. 23; Sp. p. 5186; Gaz. vol. 148; p. 881.
Barbrake, J. A., Canton, Ohio, assignor to Seng Company, Chicago, Ill. Extension-table lock. No. 939,379; Nov. 9; Sp. p. 2083; Gaz. vol. 148; p. 347.
Barclay, J. C., Montclair, N. J. Wire-stretcher. No. 940,423; Nov. 16; Sp. p. 4408; Gaz. vol. 148; p. 737.
Barclay, J. C., Montclair, N. J. Wire-stretcher. No. 940,424; Nov. 16; Sp. p. 4409; Gaz. vol. 148; p. 737.
Barger, J. A. (See Smith, H., assignor.)
Barker, A. (See Barker, J., A., and J. P.)
Barker, J., A., and J. P., Philadelphia, Pa. Head-rest. No. 939,655; Nov. 9; Sp. p. 2667; Gaz. vol. 148; p. 441.
Barker, J. F., assignor to Gilbert & Barker Manufacturing Company, Springfield, Mass. Liquid-elevator feed-wheel. No. 939,380; Nov. 9; Sp. p. 2085; Gaz. vol. 148; p. 348.
Barker, J. P. (See Barker, J., A., and J. P.)
Barner, E. B., Newberg, Oreg. Non-refillable bottle. No. 941,551; Nov. 30; Sp. p. 6837; Gaz. vol. 148; p. 1157.
Barnes, E., Lovilla, Iowa. Hay-stacker. No. 940,657; Nov. 23; Sp. p. 4906; Gaz. vol. 148; p. 840.
Barnes, G. A., New Haven, Conn. Match-scratcher. No. 941,487; Nov. 30; Sp. p. 6714; Gaz. vol. 148; p. 1137.
Barnes, G. C., Portvue, Pa. Tool-support for tools or tool-holders. No. 941,845; Nov. 30; Sp. p. 7487; Gaz. vol. 148; p. 1258.
Barnes, G. M., Mill Valley, assignor to C. G. Young, Berkeley, Cal. Frame for landing-nets. No. 939,381; Nov. 9; Sp. p. 2086; Gaz. vol. 148; p. 348.
Barnes, H. J., Gunter, Tex. Obstetrical device. No. 940,576; Nov. 16; Sp. p. 4735; Gaz. vol. 148; p. 788.
Barnes, J. L. (See Garnett, L. E., assignor.)
Barnett, A. R. (See Logan and Barnett.)
Barnett, A. R., and E. PicKel, assignors to J. B. Godfrey, trustee, Portland, Oreg. Device for adjusting window-shades. No. 940,226; Nov. 16; Sp. p. 3942; Gaz. vol. 148; p. 670.
Barnett, O. R. (See Scott, J. M., assignor.)

Barney, E. E., assignor to Monarch Typewriter Company, Syracuse, N. Y. Type-writing machine. No. 939,583; Nov. 9; Sp. p. 2512; Gaz. vol. 148; p. 415.
Baron, C. S., Tiffin, Ohio. Molasses-jug and other hinged-lid receptacle. No. 940,918; Nov. 23; Sp. p. 5467; Gaz. vol. 148; p. 927.
Barr, A., and W. Stroud, Anniesland, Glasgow, Scotland. Scale for range-finders. No. 940,425; Nov. 16; Sp. p. 4411; Gaz. vol. 148; p. 738.
Barr, A., and W. Stroud, Anniesland, Glasgow, Scotland. Single-observer range-finder. No. 941,125; Nov. 23; Sp. p. 5918; Gaz. vol. 148; p. 995.
Barrett, J. A., New York, N. Y., assignor to American Telephone and Telegraph Company. System for nullifying inductive disturbances. No. 940,658; Nov. 23; Sp. p. 4908; Gaz. vol. 148; p. 840.
Barrett, M. F. (See Smith, W. H., assignor.)
Barrett, T., assignor of one-half to J. Richards, Maywood, Ill. Straightway valve. No. 940,577; Nov. 16; Sp. p. 4736; Gaz. vol. 148; p. 789.
Barry, T. D. (See Smith and Hadsell, assignors.)
Barry, W., Oswego, N. Y. Mail-marking machine. No. 940,496; Nov. 16; Sp. p. 4556; Gaz. vol. 148; p. 762.
Barstow, E. O., assignor to Dow Chemical Company, Midland, Mich. Manufacturing benzoate. No. 939,584; Nov. 9; Sp. p. 2516; Gaz. vol. 148; p. 415.
Barstow, E. O., assignor to Dow Chemical Company, Midland, Mich. Manufacturing benzoate. No. 939,940; Nov. 9; Sp. p. 3277; Gaz. vol. 148; p. 541.
Barstow, E. O., assignor to Dow Chemical Company, Midland, Mich. Manufacturing benzoate. No. 939,941; Nov. 9; Sp. p. 3280; Gaz. vol. 148; p. 541.
Bartel, W. P., Waltham, Mass., assignor to Judson L. Thomson M'fg. Co. Rivet. No. 938,812; Nov. 2; Sp. p. 776; Gaz. vol. 148; p. 125.
Bartels, C., assignor to Mosler Safe Company, Hamilton, Ohio. Safe-door cam. No. 938,545; Nov. 2; Sp. p. 239; Gaz. vol. 148; p. 35.
Bartels, C. and O., Schwaan, Germany. Flexible ruler for drawing curves. No. 940,118; Nov. 16; Sp. p. 3711; Gaz. vol. 148; p. 632.
Bartels, O. (See Bartels, C. and O.)
Barthelmes, R., Zella St. Blasii, Germany. Instrument for measuring the cross-section of rails, &c. No. 941,297; Nov. 23; Sp. p. 6295; Gaz. vol. 148; p. 1053.
Bartholomew, W. (See Wilcox and Bartholomew.)
Bartholomew, W., Chicago, Ill., assignor to Troy Laundry Machinery Company, Limited, Troy, N. Y. Treadle mechanism. No. 940,659; Nov. 23; Sp. p. 4911; Gaz. vol. 148; p. 841.
Bartholomew, W., Chicago, Ill., assignor to Troy Laundry Machinery Company, Limited, Troy, N. Y. Ironing-press. No. 940,660; Nov. 23; Sp. p. 4914; Gaz. vol. 148; p. 841.
Bartholomew, W., assignor to Troy Laundry Machinery Company, Ltd., Chicago, Ill. Combined dry-room conveyer. No. 940,661; Nov. 23; Sp. p. 4920; Gaz. vol. 148; p. 841.
Bartholomew, W., assignor to Troy Laundry Machinery Company, Ltd., Chicago, Ill. Centrifugal extractor. No. 940,662; Nov. 23; Sp. p. 4921; Gaz. vol. 148; p. 842.
Bartholomew, W., assignor to Troy Laundry Machinery Company, Ltd., Chicago, Ill. Bearing for sterilizing-washers. No. 940,663; Nov. 23; Sp. p. 4925; Gaz. vol. 148; p. 842.
Bartok, P., Pittsburg, Pa. Wrench. No. 939,788; Nov. 9; Sp. p. 2957; Gaz. vol. 148; p. 487.
Barton, H. L., Pittsburg, Pa., assignor to Westinghouse Machine Company. Blade-holding means. No. 940,778; Nov. 23; Sp. p. 5188; Gaz. vol. 148; p. 881.
Barton, J. W., Cleveland, Ohio. Steam-trap. No. 941,846; Nov. 30; Sp. p. 7489; Gaz. vol. 148; p. 1259.
Barton, J. W., Cleveland, Ohio. Steam-trap. No. 941,847; Nov. 30; Sp. p. 7490; Gaz. vol. 148; p. 1259.
Bartow, T. J. (See Pricer and Bartow.)
Bassett, N. C., assignor to Allis-Chalmers Company, Milwaukee, Wis. Governor. No. 939,656; Nov. 9; Sp. p. 2669; Gaz. vol. 148; p. 441.
Bates & Blandford. (See Blandford, G. M., assignor.)
Bathrick, G. H., assignor to Nichols and Shepard Company, Battle Creek, Mich. Pneumatic straw-stacker. No. 941,606; Nov. 30; Sp. p. 6945; Gaz. vol. 148; p. 1175.
Batt, F., North Tonawanda, N. Y. Fare-recorder. No. 939,789; Nov. 9; Sp. p. 2959; Gaz. vol. 148; p. 487.
Battery Company. (See Gugler, J. H., assignor.)
Bauer, F., West Orange, N. J. Hat-dyeing apparatus. No. 938,738; Nov. 2; Sp. p. 622; Gaz. vol. 148; p. 98.
Baughman, C. O., assignor to W. J. Frank, Akron, Ohio. Cushion-tire. No. 940,919; Nov. 23; Sp. p. 5468; Gaz. vol. 148; p. 927.
Baur, A. J., Erie, Pa. Shears. No. 938,630; Nov. 2; Sp. p. 416; Gaz. vol. 148; p. 63.
Baush, W. H., assignor to New England Roller Grate Company, Springfield, Mass. Furnace-grate. No. 940,849; Nov. 23; Sp. p. 5334; Gaz. vol. 148; p. 904.
Bawden, W., *et al.* (See Renaud, T. H., assignor.)
Baxter, T. J., Bobbin, Tex. Weed-turning attachment for plows. No. 941,298; Nov. 23; Sp. p. 6297; Gaz. vol. 148; p. 1053.
Bay State Optical Company. (See Clulee, S. J., assignor.)
Bayless, P. A., and C. F. Redman, Oklahoma, Okla. Egg-separator. No. 940,119; Nov. 16; Sp. p. 3712; Gaz. vol. 148; p. 632.
Baynard, W. H., Boston, assignor to A. E. Little & Company, Lynn, Mass. Shoe tree or form. No. 941,353; Nov. 30; Sp. p. 6411; Gaz. vol. 148; p. 1093.
Bayne, E. D. C., and L. A. Subers, Cleveland, Ohio. Unwoven reinforced fabric. No. 940,779; Nov. 23; Sp. p. 5190; Gaz. vol. 148; p. 881.
Bays, W. W., Charlotte, N. C. Cotton-picker. No. 941,055; Nov. 23; Sp. p. 5761; Gaz. vol. 148; p. 972.
Beach, A. B. (See Purple, Beach, and Trout.)
Beadle, H. L., Hartford, Conn. Blind-stop. No. 941,552; Nov. 30; Sp. p. 6838; Gaz. vol. 148; p. 1158.
Bean, W. Z., West Medford, Mass. Automatic stamp moistener and affixer. No. 940,497; Nov. 16; Sp. p. 4567; Gaz. vol. 148; p. 762.
Beard, S. D., Shelton, Conn. Automatic burette. No. 939,382; Nov. 9; Sp. p. 2087; Gaz. vol. 148; p. 348.
Beardsley, F. E., Traverse City, Mich. Door-knob fastener. No. 941,906; Nov. 30; Sp. p. 7604; Gaz. vol. 148; p. 1280.
Beatty, J. F., Morton, Pa. Pocket match-safe. No. 939,657; Nov. 9; Sp. p. 2671; Gaz. vol. 148; p. 442.
Beausejour, R. A., assignor to Standard Varnish Works, New York, N. Y. Holder for liquid-coating machines. No. 941,607; Nov. 30; Sp. p. 6947; Gaz. vol. 148; p. 1175.
Bebin, N. C., London, England, assignor to C. C. Wiener, Philadelphia, Pa. Shade for electric lamps. No. 940,649; Nov. 16; Sp. p. 4881; Gaz. vol. 148; p. 812.
Beck, H. C. (See Condell, Beck, and Dannenberg.)
Becker, J., Hyde Park, Mass., assignor to Becker Milling Machine Company, Portland, Me. Friction transmission mechanism. No. 941,402; Nov. 30; Sp. p. 6532; Gaz. vol. 148; p. 1109.
Becker, M. B., Chicago, Ill. Amusement device. No. 940,664; Nov. 23; Sp. p. 4926; Gaz. vol. 148; p. 843.
Becker Milling Machine Company. (See Becker, J., assignor.)
Becket, F. M., Niagara Falls, assignor to Electro Metallurgical Company, New York, N. Y. Treating iron or steel. No. 940,665; Nov. 23; Sp. p. 4928; Gaz. vol. 148; p. 843.
Becket, F. M., Niagara Falls, N. Y., assignor to Electro Metallurgical Company. Producing low-carbon, low-silicon titanium alloys. No. 941,553; Nov. 30; Sp. p. 6839; Gaz. vol. 148; p. 1158.
Beckley, W. B., Stamford, Conn. Game apparatus. No. 941,488; Nov. 30; Sp. p. 6715; Gaz. vol. 148; p. 1138.
Beckman, B. T., Lowell, Ind. Concrete-tile mold. No. 939,968; Nov. 16; Sp. p. 3343; Gaz. vol. 148; p. 578.
Becraft, J. A. (See Bowman and Becraft.)
Bedford, A. J., Melbourne, Victoria, Australia. Automatic lighting and extinguishing device. No. 939,790; Nov. 9; Sp. p. 2966; Gaz. vol. 148; p. 488.
Bee, F. X., Philadelphia, Pa. Automatic telephone pay-station. No. 938,949; Nov. 2; Sp. p. 1093; Gaz. vol. 148; p. 173.
Beech-Nut Packing Company *et al.* (See Lorenz, W. A., assignor.)
Beecher, E. C., Norwalk, Ohio. Umbrella-frame. No. 938,950; Nov. 2; Sp. p. 1096; Gaz. vol. 148; p. 174.
Beetham, T. J., Newark, N. J., assignor to Tea Tray Company of Newark, N. J. Horn-crane. No. 938,739; Nov. 2; Sp. p. 723; Gaz. vol. 148; p. 99.
Behnke, A. R., St. Paul, Minn. Transmission-gearing. No. 941,056; Nov. 23; Sp. p. 5766; Gaz. vol. 148; p. 973.
Behrend, B. A., Norwood, Ohio, assignor to Allis-Chalmers Company and Bullock Electric Manufacturing Company. Dynamo-electric machine. No. 940,632; Nov. 16; Sp. p. 4846; Gaz. vol. 148; p. 806.
Bell, F. D., Glen Ridge, N. J. Hypodermic syringe. No. 938,951; Nov. 2; Sp. p. 1097; Gaz. vol. 148; p. 174.
Bell, F. M. (See Carpenter, S. H., assignor.)
Bellows, B. F., Cleveland, Ohio. Telegraph-transmitter. No. 939,383; Nov. 9; Sp. p. 2089; Gaz. vol. 148; p. 349.
Benas, B., New York, N. Y., assignor of one-half to O. Castillo, Hoboken, N. J. Interlocking building-block. No. 940,227; Nov. 16; Sp. p. 3943; Gaz. vol. 148; p. 670.
Benda, H. R., New York, N. Y. Thread-cutting clip. No. 940,228; Nov. 16; Sp. p. 3944; Gaz. vol. 148; p. 671.
Bender, W. H., Brooklyn, N. Y. Bed-covering. No. 939,585; Nov. 9; Sp. p. 2520; Gaz. vol. 148; p. 416.
Benham, E. M., assignor to Banker's Dust-Proof Time Lock Company, Cincinnati, Ohio. Time-lock. No. 939,384; Nov. 9; Sp. p. 2091; Gaz. vol. 148; p. 349.
Benjamin Electric Manufacturing Company. (See Benjamin, R. B., assignor.)
Benjamin, R. B., assignor to Benjamin Electric Manufacturing Company, Chicago, Ill. Wireless cluster. No. 938,631; Nov. 2; Sp. p. 417; Gaz. vol. 148; p. 63.
Benjamin, R. B., assignor to Benjamin Electric Manufacturing Company, Chicago, Ill. Cluster lamp-socket. No. 938,632; Nov. 2; Sp. p. 420; Gaz. vol. 148; p. 64.

Benner, R. E., assignor to Burroughs Adding Machine Company, Detroit, Mich. Automatic ink-ribbon-reversing mechanism. No. 941,554; Nov. 30; Sp. p. 6840; Gaz. vol. 148; p. 1158.
Bennett, J. J. (See Blessing, Aten, and Poirier, assignors.)
Bennett, J. J., Pittsfield, Mass. Trolley-head. No. 939,658; Nov. 9; Sp. p. 2672; Gaz. vol. 148; p. 442.
Bennett, W. E., Portsmouth, N. H., assignor to Morley Button Manufacturing Company, Boston, Mass. Machine for setting fasteners. No. 939,200; Nov. 9; Sp. p. 1618; Gaz. vol. 148; p. 286.
Bennett, W. T., Goldfield, Nev. Motor-plow. No. 941,299; Nov. 23; Sp. p. 6298; Gaz. vol. 148; p. 1053.
Benson, A. D., New York, N. Y., and J. F. Harris, Hoboken, N. J. Razor-sharpening device. No. 940,298; Nov. 16; Sp. p. 4108; Gaz. vol. 148; p. 694.
Benson, C. B., Tippecanoe City, Ohio. Instrument and medicine case. No. 941,608; Nov. 30; Sp. p. 6949; Gaz. vol. 148; p. 1176.
Benson, G. V., Chicago, Ill. Internal-combustion engine. No. 938,633; Nov. 2; Sp. p. 421; Gaz. vol. 148; p. 64.
Bent, G. W., Hyde Park, Mass. Caster. No. 940,780; Nov. 23; Sp. p. 5193; Gaz. vol. 148; p. 882.
Bente, F. H. (See Hoffer, Whitesell, and Bente.)
Bentley, H., Whitehaven, England. Roller-bearing for trough-conveyers, &c. No. 941,972; Nov. 30; Sp. p. 7731; Gaz. vol. 148; p. 1302.
Bentley & Jackson. (See Simpson, A. E., assignor.)
Benzing, A. M., Keystone, Iowa. Poultry-coop. No. 941,300; Nov. 23; Sp. p. 6301; Gaz. vol. 148; p. 1054.
Berard, J. S., Fall River, Mass. Tension-regulating device for spindle-bands. No. 941,183; Nov. 23; Sp. p. 6056; Gaz. vol. 148; p. 1016.
Berdan, A., Ortonville, Minn. Door-fastener. No. 941,057; Nov. 23; Sp. p. 5767; Gaz. vol. 148; p. 973.
Berend, O. J., Milwaukee, Wis. Safety device for railways. No. 939,201; Nov. 9; Sp. p. 1621; Gaz. vol. 148; p. 286.
Berg, L. J., assignor to Metallic Sheathing Company, Chicago, Ill. Transom-ratchet. No. 938,952; Nov. 2; Sp. p. 1099; Gaz. vol. 148; p. 175.
Berg, F. L., Owatonna, Minn. Wheel-tire. No. 941,058; Nov. 23; Sp. p. 5769; Gaz. vol. 148; p. 974.
Berg, F. O., Spokane, Wash. Awning-fixture. No. 940,120; Nov. 16; Sp. p. 3715; Gaz. vol. 148; p. 633.
Berg, J., Chicago, Ill. Non-refillable bottle. No. 941,184; Nov. 23; Sp. p. 6057; Gaz. vol. 148; p. 1016.
Berg, L. J. (See Dunbar and Berg.)
Bergell, P. (See Fischer and Bergell.)
Bergman, S. R., Lynn, Mass., assignor to General Electric Company. Protective device for electric circuits. No. 940,578; Nov. 16; Sp. p. 4739; Gaz. vol. 148; p. 789.
Bergström, A. E. T. (See Nässén and Bergström.)
Berliner, E. (See Berliner, J., assignor.)
Berliner, J., Hanover, Germany, assignor to E. Berliner, Washington, D. C. Superheater for use in connection with vulcanizers and other apparatus. No. 939,956; Nov. 9; Sp. p. 3311; Gaz. vol. 148; p. 546.
Bernhard, R., Milwaukee, Wis., assignor to Power and Mining Machinery Company, Jersey City, N. J. Crusher-head. No. 938,546; Nov. 2; Sp. p. 240; Gaz. vol. 148; p. 35.
Bernhard, R., Milwaukee, Wis., assignor to Power and Mining Machinery Company, Jersey City, N. J. Crusher-head. No. 938,953; Nov. 2; Sp. p. 1101; Gaz. vol. 148; p. 175.
Berry, H. C., Toledo, Ohio. Speedometer. No. 941,223; Nov. 23; Sp. p. 6140; Gaz. vol. 148; p. 1029.
Bertin, I., New York, N. Y. Machine for making paper dishes. No. 939,888; Nov. 9; Sp. p. 3156; Gaz. vol. 148; p. 521.
Bertrand, F. E., and G. Portsche, Lincoln, Nebr. Wheel. No. 941,753; Nov. 30; Sp. p. 7269; Gaz. vol. 148; p. 1226.
Berzon, L., and H. Goldberg, Philadelphia, Pa. Chair. No. 941,555; Nov. 30; Sp. p. 6845; Gaz. vol. 148; p. 1159.
Bessemer Gas Engine Company. (See Fithian and Murray, assignors.)
Bessette, H. O., Woonsocket, R. I. Drip-receiver. No. 939,202; Nov. 9; Sp. p. 1623; Gaz. vol. 148; p. 287.
Best, E., *et al.* (See Best, W. N., assignor.)
Best, J. H., *et al.* (See Best, W. N., assignor.)
Best, W. (See Cauffman and Best.)
Best, W. N., New York, N. Y., assignor to J. H. and E. Best, Quincy, Ill. Heating and melting furnace. No. 941,609; Nov. 30; Sp. p. 6954; Gaz. vol. 148; p. 1176.
Bethlehem Steel Company. (See Gathmann, E. A., assignor.)
Bethune, B. T., Milledgeville, Ga. Plow. No. 941,224; Nov. 23; Sp. p. 6141; Gaz. vol. 148; p. 1030.
Betts, A. G., Troy, N. Y. Metallurgical process. No. 938,634; Nov. 2; Sp. p. 423; Gaz. vol. 148; p. 65.
Betzler, J. F., Akron, Ohio. Composite pen. No. 941,403; Nov. 30; Sp. p. 6536; Gaz. vol. 148; p. 1110.
Beugler, E. F., assignor to E. B. Holmes, Buffalo, N. Y. Barrel-making machine. No. 941,404; Nov. 30; Sp. p. 6537; Gaz. vol. 148; p. 1110.
Bevan, A., Providence, R. I. Grinding and polishing roll. No. 938,547; Nov. 2; Sp. p. 242; Gaz. vol. 148; p. 36.
Beverly, F. M., Marion, Ohio. Medicine-dispenser. No. 941,489; Nov. 30; Sp. p. 6718; Gaz. vol. 148; p. 1138.
Bevington, E. L., Chicago, Ill. Cuff. No. 939,203; Nov. 9; Sp. p. 1624; Gaz. vol. 148; p. 287.
Bevington, E. L., Chicago, Ill. Collar. No. 939,204; Nov. 9; Sp. p. 1626; Gaz. vol. 148; p. 287.
Bevins, R. E. (See Faulkner, J. B., assignor.)
Bezer, H., Newark, N. J. Railway traffic-controlling system. No. 939,659; Nov. 9; Sp. p. 2673; Gaz. vol. 148; p. 443.
Bickle, H. J., and M. McMillan, Gladstone, assignors of one-fourth to C. W. McMillan, Westbourne, and one-fourth to C. H. Kenny, Winnipeg, Manitoba, Canada. Grain-car door. No. 939,660; Nov. 9; Sp. p. 2690; Gaz. vol. 148; p. 443.
Bienenzucht, A., New York, N. Y. Buckle. No. 940,498; Nov. 16; Sp. p. 4570; Gaz. vol. 148; p. 763.
Bierend, J. F., Los Angeles, Cal. Show-case. No. 940,299; Nov. 16; Sp. p. 4109; Gaz. vol. 148; p. 695.
Bierley, H. A., Portsmouth, Ohio. Washboard. No. 940,499; Nov. 16; Sp. p. 4571; Gaz. vol. 148; p. 763.
Big 4 Manufacturing Company. (See Davidson, L. C., assignor.)
Bigger, J. T., Owensboro, Ky. Incandescent electric light. No. 939,909; Nov. 16; Sp. p. 3344; Gaz. vol. 148; p. 578.
Billings, A. J. (See Billings, J. W., assignor.)
Billings, J. W., assignor of one-half to A. J. Billings, Beatrice, Nebr. Egg-tester. No. 939,205; Nov. 9; Sp. p. 1627; Gaz. vol. 148; p. 287.
Billington, J. E. (See Pearce and Billington.)
Bingaman, H., and J. A. Miller, Harding, S. D. Scraper. No. 940,666; Nov. 23; Sp. p. 4929; Gaz. vol. 148; p. 843.
Bingham, G. W., New York, N. Y. Spangle cutting and attaching machine. No. 940,229; Nov. 16; Sp. p. 3945; Gaz. vol. 148; p. 671.
Bird, C. S., East Walpole, Mass. Paper box. No. 940,667; Nov. 23; Sp. p. 4930; Gaz. vol. 148; p. 843.
Bird, C. S., East Walpole, Mass. Paper box. No. 940,781; Nov. 23; Sp. p. 5194; Gaz. vol. 148; p. 882.
Bird, C. S., East Walpole, Mass. Paper box. No. 940,782; Nov. 23; Sp. p. 5196; Gaz. vol. 148; p. 882.
Birky, C. E., Alvin, Ill. Auto-horse. No. 941,301; Nov. 23; Sp. p. 6303; Gaz. vol. 148; p. 1054.
Birochik, A., Glenwhite, Pa. Cross-tie and rail-fastener. No. 941,225; Nov. 23; Sp. p. 6142; Gaz. vol. 148; p. 1030.
Bishop, H. B., assignor to General Chemical Company, New York, N. Y. Apparatus for testing fluids. No. 940,850; Nov. 23; Sp. p. 5337; Gaz. vol. 148; p. 905.
Bissen, P., Stacyville, Iowa. Neck-yoke attachment. No. 940,230; Nov. 16; Sp. p. 3947; Gaz. vol. 148; p. 671.
Bittrich, M., Stettin, Germany. Measuring feed device for retorts and the like. No. 938,934; Nov. 2; Sp. p. 1103; Gaz. vol. 148; p. 176.
Bjorling, W. W., Dumont, N. J. Door-closer. No. 941,907; Nov. 30; Sp. p. 7607; Gaz. vol. 148; p. 1281.
Black, O. S. (See McKesson and Black.)
Blackman, A. E., Mount Vernon, N. Y. Panel-board. No. 938,635; Nov. 2; Sp. p. 426; Gaz. vol. 148; p. 65.
Blackmore, H. S., Mount Vernon, N. Y. Generating electricity. No. 939,183; Nov. 2; Sp. p. 1568; Gaz. vol. 148; p. 254.
Bladholm, A. (See Bladholm, J. and A.)
Bladholm, J. and A., Marshall, Minn. Drag. No. 941,340; Nov. 23; Sp. p. 6365; Gaz. vol. 148; p. 1065.
Blake, W. F. (See Smith, O. P., assignor.)
Blakeslee, D. R., Van Buren, Ind., and H. W. Blakeslee, Nowata, Okla. Belt-tightener. No. 941,226; Nov. 23; Sp. p. 6145; Gaz. vol. 148; p. 1030.
Blakeslee, H. W. (See Blakeslee, D. R. and H. W.)
Blanchard, F. C., and E. B. Crocker, assignors to Ashcroft Manufacturing Company, Bridgeport, Conn. Frame for gage-movements. No. 940,379; Nov. 16; Sp. p. 4318; Gaz. vol. 148; p. 723.
Blanchard, G. N. (See Levy and Blanchard.)
Blandford, G. M., assignor to Bates & Blandford, Boston, Mass. Sash-lock. No. 941,059; Nov. 23; Sp. p. 5770; Gaz. vol. 148; p. 974.
Blaszczyk, J., New York, N. Y. Key. No. 939,184; Nov. 2; Sp. p. 1572; Gaz. vol. 148; p. 255.
Blau, H., Augsburg, Germany. Carriage-lamp. No. 939,385; Nov. 9; Sp. p. 2094; Gaz. vol. 148; p. 349.
Blauvelt, A., Chicago, Ill. Fire-extinguisher valve. No. 940,953; Nov. 23; Sp. p. 5546; Gaz. vol. 148; p. 939.
Bleashack, J. K., Bloomer, Wis. Potato digging and gathering machine. No. 940,121; Nov. 16; Sp. p. 3716; Gaz. vol. 148; p. 633.
Blessing, L., Jackson, Mich. Wire-twisting machine. No. 940,231; Nov. 16; Sp. p. 3948; Gaz. vol. 148; p. 671.
Blessing, L., M. L. Aten, and G. H. Poirier; said Aten assignor of one-half to J. J. Bennett, Jackson, Mich. Letter-canceling machine. No. 941,848; Nov. 30; Sp. p. 7493; Gaz. vol. 148; p. 1259.
Blight, A. E., Tottenville, N. Y. Roller. No. 939,206; Nov. 9; Sp. p. 1628; Gaz. vol. 148; p. 288.
Block Light Company. (See Kaufmann, O., assignor.)
Blodgett, A. D., Newton, and F. S. Atkinson, Brookline, assignors to Blodgett Clock Company, Boston, Mass. Self-winding mechanism. No. 939,791; Nov. 9; Sp. p. 2969; Gaz. vol. 148; p. 488.
Blodgett Clock Company. (See Blodgett and Atkinson, assignors.)
Blodgett, S. H., South Lincoln, Mass. Gas-stove. No. 941,908; Nov. 30; Sp. p. 7608; Gaz. vol. 148; p. 1281.
Blodgett, W. K., Cambridge Mass. Seal-lock. No. 938,813; Nov. 2; Sp. p. 778; Gaz. vol. 148; p. 125.

Bloomer, C. T., Newark, N. Y. Folding egg-box. No. 939,661; Nov. 9; Sp. p. 2693; Gaz. vol. 148; p. 444.
Blow, C. H., Grandville, Cal., assignor to United States Pick Company. Pick. No. 938,955; Nov. 2; Sp. p. 1105; Gaz. vol. 148; p. 176.
Bluemel, C. W., *et al.* (See Shill, P. R., assignor.)
Bluemel, E. A., *et al.* (See Shill, P. R., assignor.)
Bluemel, F. H., *et al.* (See Shill, P. R., assignor.)
Blümel, B., assignor to Allis-Chalmers Company, Milwaukee, Wis. Regulating-valve. No. 939,792; Nov. 9; Sp. p. 2973; Gaz. vol. 148; p. 489.
Blumhof, W. (See Amos, G. W., assignor.)
Board, I. D., assignor of one-half to D. E. Shipley, Cecilian, Ky. Wrench. No. 938,956; Nov. 2; Sp. p. 1106; Gaz. vol. 148; p. 176.
Bogue, L. L., East Orwell, Ohio. Cooling system. No. 938,814; Nov. 2; Sp. p. 783; Gaz. vol. 148; p. 126.
Bohrmann, E., *et al.* (See Spähr, E. J., assignor.)
Bohyer, J., Bloomington, Ill. Saw-jointer. No. 938,957; Nov. 2; Sp. p. 1107; Gaz. vol. 148; p. 176.
Boiens, H. W., Port Washington, Wis. Chair-iron. No. 940,232; Nov. 16; Sp. p. 3949; Gaz. vol. 148; p. 672.
Boies Friction Fastener Company. (See Boies, W. H., assignor.)
Boies, W. H., assignor to Boies Friction Fastener Company, Newark, N. J. Tool for detaching carpet-fasteners. No. 939,207; Nov. 9; Sp. p. 1629; Gaz. vol. 148; p. 288.
Bommer, E., New York, N. Y. Double-acting spring-hinge. No. 941,185; Nov. 23; Sp. p. 6058; Gaz. vol. 148; p. 1016.
Bond, R. T., Coalgate, Okla. Bench-clamp. No. 938,457; Nov. 2; Sp. p. 8; Gaz. vol. 148; p. 4.
Bonneck, G., *et al.* (See Hassel, R., assignor.)
Bonzano, M. F., Philadelphia, Pa., assignor to Penn Railroad Tie Company, Camden, N. J. Metallic tie. No. 940,500; Nov. 16; Sp. p. 4572; Gaz. vol. 148; p. 763.
Bonzano, M. F., Philadelphia, Pa., assignor to Penn Railroad Tie Company, Camden, N. J. Brace for rail-supporting means of metallic ties. No. 940,579; Nov. 16; Sp. p. 4742; Gaz. vol. 148; p. 789.
Bopp, W. C., Arcadia, Mo. Rail connection. No. 940,954; Nov. 23; Sp. p. 5550; Gaz. vol. 148; p. 939.
Borden, O. A., St. Louis, Mo. Stopper. No. 941,302; Nov. 23; Sp. p. 6304; Gaz. vol. 148; p. 1054.
Borden, O. A., St. Louis, Mo. Container. No. 941,303; Nov. 23; Sp. p. 6305; Gaz. vol. 148; p. 1054.
Border, A. J., assignor of one-half to L. M. Coventry, Wellington, New Zealand. Indicator. No. 941,354; Nov. 30; Sp. p. 6412; Gaz. vol. 148; p. 1093.
Borgström, A. H., Hangö, Russia. Apparatus for the continuous manufacture of butter. No. 938,815; Nov. 2; Sp. p. 785; Gaz. vol. 148; p. 126.
Borindum Extraction Company. (See Luckenbach, R., assignor.)
Borland, B., Chicago, Ill. Lock. No. 940,300; Nov. 16; Sp. p. 4111; Gaz. vol. 148; p. 695.
Borrowdale, J. M., and J. Strain, Chicago, Ill. Refrigerator-car. No. 938,958; Nov. 2; Sp. p. 1108; Gaz. vol. 148; p. 177.
Boss, M. P., San Francisco, Cal. Stamp-mortar. No. 939,208; Nov. 9; Sp. p. 1631; Gaz. vol. 148; p. 288.
Bossi, J. A., Wyalusing, Wis. Mail delivering and receiving device. No. 939,793; Nov. 9; Sp. p. 2976; Gaz. vol. 148; p. 489.
Bostian, H. C., assignor of one-third to B. B. Cannon and one-third to J. E. and P. G. Hastings, Milton, Pa. Expansion-coupling for hose. No. 941,355; Nov. 30; Sp. p. 6416; Gaz. vol. 148; p. 1094.
Bosworth, B. B., New York, N. Y. Suspended clothes-rack. No. 941,909; Nov. 30; Sp. p. 7610; Gaz. vol. 148; p. 1281.
Bothwell, F. A., East Genoa, N. Y. Baling-press. No. 939,466; Nov. 9; Sp. p. 2268; Gaz. vol. 148; p. 376.
Bottiers Machinery Manufacturing Company. (See Strasburger, F. C. H., assignor.)
Boulton, C. W., assignor of one-half to J. F. Shields, Waltham, Mass. Curtain-rod leader. No. 940,668; Nov. 23; Sp. p. 4932; Gaz. vol. 148; p. 843.
Bourgeois, A. (See Hawkins and Bourgeois.)
Bourgeois, M. A., Lizy-sur-Ourcq, France. Apparatus for pressing parts of large dimensions from metal plates. No. 938,816; Nov. 2; Sp. p. 787; Gaz. vol. 148; p. 126.
Bowen, E. W. (See Kerlin and Bowen.)
Bowen, F., New York, N. Y. Fastener for springs. No. 941,754; Nov. 30; Sp. p. 7271; Gaz. vol. 148; p. 1226.
Bowen, G. W., Auburn, N. Y. Grease or lubricant cup. No. 941,849; Nov. 30; Sp. p. 7496; Gaz. vol. 148; p. 1260.
Bowers, D. E., *et al.* (See Graham, E., assignor.)
Bowers, G. W., Somerville, Mass., assignor, by mesne assignments, to Hammel, Riglander & Co., New York, N. Y. Watch-movement holder. No. 938,817; Nov. 2; Sp. p. 789; Gaz. vol. 148; p. 127.
Bowers, G. W., Somerville, Mass., assignor, by mesne assignments, to Hammel, Riglander & Co., New York, N. Y. Mainspring-winder. No. 938,818; Nov. 2; Sp. p. 790; Gaz. vol. 148; p. 127.
Bowers, G. W., Somerville, Mass., assignor, by mesne assignments, to Hammel, Riglander & Co., New York, N. Y. Roller-replacing tool for watchmakers. No. 938,819; Nov. 2; Sp. p. 792; Gaz. vol. 148; p. 128.
Bowie, N. M., *et al.* (See Curtis, T. F., assignor.)
Bowker, W., Boston, Mass. Machinery for manufacturing textile fabrics. No. 939,467; Nov. 9; Sp. p. 2269; Gaz. vol. 148; p. 376.
Bowman, A. L. (See Ahlstedt and Bowman.)
Bowman, G. W., and J. A. Becraft, Palisades, Colo. Heater. No. 941,910; Nov. 30; Sp. p. 7612; Gaz. vol. 148; p. 1281.
Bowman, J. B., Los Angeles, Cal. Toy. No. 939,586; Nov. 9; Sp. p. 2522; Gaz. vol. 148; p. 416.
Bowman, R. C., West Austintown, Ohio. Harrow. No. 940,501; Nov. 16; Sp. p. 4574; Gaz. vol. 148; p. 764.
Bowman, S., Chicago, Ill. Washing-machine attachment. No. 941,304; Nov. 23; Sp. p. 6306; Gaz. vol. 148; p. 1055.
Boyce, E. D., New York, N. Y. Forming-dies. No. 939,468; Nov. 9; Sp. p. 2276; Gaz. vol. 148; p. 377.
Boyd, J., Bothwell, assignor of one-half to D. Phillips and J. Scott & Sons, Limited, Dundee, Scotland. Mechanism for guiding and applying tension to spindle-driving bands. No. 940,502; Nov. 16; Sp. p. 4575; Gaz. vol. 148; p. 764.
Boyd, J. M., Fond du Lac, Wis. Hay-sling. No. 939,469; Nov. 9; Sp. p. 2278; Gaz. vol. 148; p. 377.
Boyer, O., Spencerville, Ohio. Combined hay rake and loader. No. 938,959; Nov. 2; Sp. p. 1109; Gaz. vol. 148; p. 177.
Boykin, W. W., assignor of one-half to A. B. Cameron, Elm City, N. C. Hay-press. No. 940,669; Nov. 23; Sp. p. 4933; Gaz. vol. 148; p. 844.
Boynton Furnace Company. (See Rouse, R., Jr., assignor.)
Braaten, C. A., Brooklyn, N. Y. Liquid-fuel burner. No. 939,121; Nov. 2; Sp. p. 1423; Gaz. vol. 148; p. 232.
Brabson, F., *et al.* (See Wilcox, H., assignor.)
Brach, L. S., New York, N. Y., assignor, by mesne assignments, to United States Lock-Nut Company. Nut-lock. No. 940,503; Nov. 16; Sp. p. 4576; Gaz. vol. 148; p. 764.
Bracy, E. L., Scotland Neck, N. C. Machine for packeting cigarettes, &c. No. 941,490; Nov. 30; Sp. p. 6719; Gaz. vol. 148; p. 1138.
Bradford, Q. Q., Paiolo Valley, Honolulu, Hawaii. Knife for tapping rubber-trees. No. 940,670; Nov. 23; Sp. p. 4935; Gaz. vol. 148; p. 844.
Bradford, T. B., Monongahela, Pa. Metallic tie. No. 939,794; Nov. 9; Sp. p. 2980; Gaz. vol. 148; p. 490.
Bradley, B. B., assignor to I. C. Freud, Detroit, Mich. Spare-rim holder. No. 941,341; Nov. 23; Sp. p. 6366; Gaz. vol. 148; p. 1065.
Brady, J. H., Kansas City, Mo. Thermostat. No. 938,548; Nov. 2; Sp. p. 244; Gaz. vol. 148; p. 36.
Brainard, O. L., Sacramento, Cal. Spark-timer for internal-combustion gas-engines. No. 941,556; Nov. 30; Sp. p. 6846; Gaz. vol. 148. p. 1159.
Brand, A. W., Boise, Idaho. Anchor rail-clamp. No. 938,549; Nov. 2; Sp. p. 247; Gaz. vol. 148; p. 37.
Brandau, G. F., Utica, N. Y. Folding car-step. No. 939,970; Nov. 16; Sp. p. 3345; Gaz. vol. 148; p. 579.
Brandt Cashier Company. (See Brandt, E. J., assignor.)
Brandt, E. J., Watertown, Wis., assignor to Brandt Cashier Company, Chicago, Ill. Calculating implement. No. 941,004; Nov. 23; Sp. p. 5653; Gaz. vol. 148; p. 955.
Brandt, E. J., Watertown, Wis., assignor to Brandt Cashier Company, Chicago, Ill. Designating, recording, and registering mechanism. No. 941,005; Nov. 23; Sp. p. 5654; Gaz. vol. 148; p. 956.
Brasket, T. C. (See Green and Brasket.)
Brauburger, E., assignor to Optische Anstalt C. P. Goerz Aktiengesellschaft, Friedenau, near Berlin, Germany. Roller-blind for photographic cameras. No. 941,126; Nov. 23; Sp. p. 5920; Gaz. vol. 148; p. 996.
Brauchli, J., Hampton, assignor to Old Dominion Specialty Manufacturing Company, Newport News, Va. Display-holder. No. 939,942; Nov. 9; Sp. p. 3284; Gaz. vol. 148; p. 541.
Braun, L. F. (See Olson, J. A., assignor.)
Braun & Sons, J. (See Braun, W. P. M., assignor.)
Braun, W. A., assignor of one-half to F. L. Jones, Fort Wayne, Ind. Electrical sad-iron. No. 941,342; Nov. 23; Sp. p. 6367; Gaz. vol. 148; p. 1065.
Braun, W. P. M., assignor to J. Braun & Sons, Philadelphia, Pa. Power lawn-mower. No. 941,127; Nov. 23; Sp. p. 5922; Gaz. vol. 148; p. 996.
Bray, C. W., assignor to American Sheet & Tin Plate Company, Pittsburg, Pa. Manufacturing metal sheets. No. 941,850; Nov. 30; Sp. p. 7498; Gaz. vol. 148; p. 1260.
Bray & Kates. (See Bray, R., assignor.)
Bray, R., assignor to Bray & Kates, Arlington Heights, Ill. Milk-can neck and making the same. No. 938,960; Nov. 2; Sp. p. 1111; Gaz. vol. 148; p. 177.
Brayton, G. B., Boston, Mass. Photographer's range-finder. No. 940,504; Nov. 16; Sp. p. 4580; Gaz. vol. 148; p. 764.
Breister, W. W., *et al.* (See Burns, H. B., assignor.)
Brennan, T., New York, N. Y. Feed-bag. No. 939,971; Nov. 16; Sp. p. 3347; Gaz. vol. 148; p. 579.

Brenner, T. A., Reedsville, Wis. Knockdown box. No. 940,122; Nov. 16; Sp. p. 3718; Gaz. vol. 148; p. 633.
Bronsike, J., Hustisford, Wis. Faucet for cheese apparatus. No. 941,694; Nov. 30; Sp. p. 7140; Gaz. vol. 148; p. 1205.
Brent, C., Brandon, Manitoba, Canada. Feed-water regulator. No. 939,859; Nov. 9; Sp. p. 3163; Gaz. vol. 148; p. 521.
Brenzinger, J., assignor to Max Ams Machine Company, Mount Vernon, N. Y. Vacuum-sealing machine for containers. No. 940,123; Nov. 16; Sp. p. 3720; Gaz. vol. 148; p. 634.
Brenzinger, J., Mount Vernon, N. Y., assignor to Sanitary Can Machinery Company, Ellsworth, Me. Can-heading machine. No. 941,755; Nov. 30; Sp. p. 7272; Gaz. vol. 148; p. 1226.
Bretschneider, A., Halle-on-the-Saale, Germany. Article-counter. No. 940,851; Nov. 23; Sp. p. 5339; Gaz. vol. 148; p. 905.
Brewer, C., New York, N. Y. Receptacle for baby-cloths. No. 938,961; Nov. 2; Sp. p. 1113; Gaz. vol. 148; p. 178.
Brewington, H. S., assignor of one-half to D. F. Mallory, Baltimore, Md. Automatic machine for attaching postage-stamps. No. 938,820; Nov. 2; Sp. p. 793; Gaz. vol. 148; p. 128.
Brewington, H. S., assignor of one-half to R. B. Tippett, Baltimore, Md. Candy-pulling machine. No. 941,610; Nov. 30; Sp. p. 6954; Gaz. vol. 148; p. 1176.
Bricken, J., assignor of one-third to H. Marks, Chicago, Ill., and one-third to R. Marks, Des Moines, Iowa. Calculating-machine. No. 938,550; Nov. 2; Sp. p. 248; Gaz. vol. 148; p. 37.
Bridgeport Metal Goods Manufacturing Company. (See Parker, E. D., assignor.)
Bridges, D. M., *et al.* (See Sebree, W. T., assignor.)
Brigel, L. A., Cincinnati, Ohio. Bowling-alley pin-setting mechanism. No. 941,611; Nov. 30; Sp. p. 6958; Gaz. vol. 148; p. 1177.
Brill, A. C., Oberursel, Germany. Leather-staking machine. No. 941,851; Nov. 30; Sp. p. 7499; Gaz. vol. 148; p. 1260.
Brill, J. A. (See Henry, F. H., assignor.)
Bristol Company. (See Bristol, W. H., assignor.)
Bristol, W. H., Waterbury, Conn. Speed indicating or recording device. No. 939,209; Nov. 9; Sp. p. 1634; Gaz. vol. 148; p. 288.
Bristol, W. H., assignor to Bristol Company, Waterbury, Conn. Radius-averaging instrument. No. 938,962; Nov. 2; Sp. p. 1114; Gaz. vol. 148; p. 178.
Britt, F. C., Middleport, N. Y. Bean-separator. No. 941,305; Nov. 23; Sp. p. 6307; Gaz. vol. 148; p. 1055.
Brittain, T. H., Prairie View, Tex. Level. No. 940,671; Nov. 23; Sp. p. 4937; Gaz. vol. 148; p. 844.
Broadwater, L. H., Findlay, Ohio, assignor to E. I. du Pont de Nemours Powder Company, Wilmington, Del. Apparatus for firing explosives in wells. No. 941,852; Nov. 30; Sp. p. 7501; Gaz. vol. 148; p. 1261.
Brockhausen, C. E., Chicago, Ill. Concrete construction. No. 938,458; Nov. 2; Sp. p. 10; Gaz. vol. 148; p. 4.
Brockman, C. T. (See Brockman, J. H., assignor.)
Brockman, J. H., assignor of one-half to C. T. Brockman, Mason, Tex. Reversible and adjustable heel-sweep. No. 938,963; Nov. 2; Sp. p. 1115; Gaz. vol. 148; p. 178.
Broders, E. F. (See Frambach, M. J., assignor.)
Brodhead, A. G., assignor of one-half to D. J. Delaney, New York, N. Y. Milk-bottle receptacle. No. 941,853; Nov. 30; Sp. p. 7503; Gaz. vol. 148; p. 1261.
Brodton, A. L., assignor of one-half to E. and E. G. Tacon, Mobile, Ala. Catamenial garment. No. 939,943; Nov. 9; Sp. p. 3286; Gaz. vol. 148; p. 542.
Brofos, E. A., assignor to American Electric Telephone Co., Chicago, Ill. Electromagnetic device. No. 938,740; Nov. 2; Sp. p. 625; Gaz. vol. 148; p. 99.
Brookman, D. S., Wellsville, Ohio, assignor to American Sheet & Tin Plate Company, Pittsburg, Pa. Manufacture of plates and sheets. No. 941,854; Nov. 30; Sp. p. 7505; Gaz. vol. 148; p. 1262.
Brooks, E. J., East Orange, N. J. Box-seal. No. 940,505; Nov. 16; Sp. p. 4582; Gaz. vol. 148; p. 765.
Broomell, A. P., York, Pa. Submarine mine. No. 940,506; Nov. 16; Sp. p. 4584; Gaz. vol. 148; p. 765.
Broski, J. W., *et al.* (See Davis, C. B., assignor.)
Broughton, C. W., Carlton, Ill. Mail-pouch-delivery apparatus. No. 938,821; Nov. 2; Sp. p. 797; Gaz. vol. 148; p. 128.
Brown, A. E., and J. M. Roberts, Crayne, Ky. Combination door-lock. No. 939,210; Nov. 9; Sp. p. 1635; Gaz. vol. 148; p. 289.
Brown, A. G., assignor to Union Fibre Company, Winona, Minn. Refrigerator-car. No. 940,124; Nov. 16; Sp. p. 3722; Gaz. vol. 148; p. 634.
Brown, A. T., Syracuse, N. Y. Type-writing machine. No. 939,587; Nov. 9; Sp. p. 2523; Gaz. vol. 148; p. 416.
Brown, E. L., Cleveland, assignor of one-third to P. L. Andrews, Toledo, and one-third to C. Eisle, Cleveland, Ohio. Air-hose coupling. No. 939,211; Nov. 9; Sp. p. 1638; Gaz. vol. 148; p. 289.
Brown, F. H., Philadelphia, Pa. Fluid-pressure regulator. No. 939,470; Nov. 9; Sp. p. 2281; Gaz. vol. 148; p. 377.
Brown, J. R., assignor of forty-two and one-half hundredths to C. R. Campbell and forty-two and one-half hundredths to P. F. Kobbé, Jr., New York, N. Y. Printing in colors. No. 941,670; Nov. 30; Sp. p. 7084; Gaz. vol. 148; p. 1197.
Brown, J. S., New York, N. Y. Ash-sifter. No. 941,613; Nov. 30; Sp. p. 6963; Gaz. vol. 148; p. 1178.
Brown, L. E., assignor to Farrington Manufacturing Company, Boston, Mass. Jewelry-box. No. 938,964; Nov. 2; Sp. p. 1117; Gaz. vol. 148; p. 179.
Brown, L. K., Asotin, Wash. Front-wheel drive for traction-vehicles. No. 939,972; Nov. 16; Sp. p. 3348; Gaz. vol. 148; p. 579.
Brown, M., assignor of one-half to M. Olshan, Chicago, Ill. Convertible chair-couch. No. 941,186; Nov. 23; Sp. p. 6060; Gaz. vol. 148; p. 1017.
Brown, T. P., assignor to Simplex Piano Player Company, Worcester, Mass. Pedal and panel mechanism. No. 939,386; Nov. 9; Sp. p. 2095; Gaz. vol. 148; p. 350.
Brown, T. P., assignor to Simplex Piano Player Co., Worcester, Mass. Tracker mechanism for musical instruments. No. 939,387; Nov. 9; Sp. p. 2097; Gaz. vol. 148; p. 350.
Brown, T. P., assignor to Simplex Piano Player Co., Worcester, Mass. Note-accenting device for musical instruments. No. 941,491; Nov. 30; Sp. p. 6721; Gaz. vol. 148; p. 1139.
Browne, A. W., Prince Bay, N. Y., assignor to S. S. White Dental Mfg. Co., Philadelphia, Pa. Dental-engine-handpiece swivel. No. 941,612; Nov. 30; Sp. p. 6960; Gaz. vol. 148; p. 1177.
Browne, R. S., Alameda, Cal. Filter. No. 938,636; Nov. 2; Sp. p. 427; Gaz. vol. 148; p. 65.
Brubaker, G. W., Jr., Loudonville, Ohio. Clutch. No. 941,973; Nov. 30; Sp. p. 7732; Gaz. vol. 148; p. 1302.
Brubaker, L. F., assignor of one-half to M. J. Conroy, Cambridge, Ohio. End-gate for mine-cars. No. 939,944; Nov. 9; Sp. p. 3288; Gaz. vol. 148; p. 542.
Bruflat, M., Los Angeles, Cal. Reclining rocking-chair. No. 940,233; Nov. 16; Sp. p. 3951; Gaz. vol. 148; p. 672.
Brunnschweiler, J., Hauptwil, Switzerland. Embroidering-machine. No. 939,471; Nov. 9; Sp. p. 2284; Gaz. vol. 148; p. 378.
Brush, F. F., Detroit, Mich. Block-signaling system. No. 939,973; Nov. 16; Sp. p. 3349; Gaz. vol. 148; p. 579.
Brush, F. F., Detroit, Mich. Railway signaling apparatus. No. 939,974; Nov. 16; Sp. p. 3356; Gaz. vol. 148; p. 580.
Bryan, W. H., Baltimore, Md. Bottle-lock. No. 940,125; Nov. 16; Sp. p. 3724; Gaz. vol. 148; p. 635.
Bryant, C. B., *et al.* (See Fullbright, T., assignor.)
Bryant, G. L., Victor, Colo. Air-heater. No. 941,756; Nov. 30; Sp. p. 7280; Gaz. vol. 148; p. 1227.
Bryant Electric Company. (See Goodridge, G. W., assignor.)
Bryant Electric Company. (See Slady, F. W., assignor.)
Bryant, H. H. (See Bryant, J. M. and H. H.)
Bryant, J. M., Benwood, W. Va., and H. H. Bryant, Bellaire, Ohio, assignors of one-third to W. W. Gray, Benwood, and C. E. Gray, Moundsville, W. Va. Bracket or support for curtain-shade rollers. No. 940,507; Nov. 16; Sp. p. 4588; Gaz. vol. 148; p. 765.
Bryant, M. L., *et al.* (See Fullbright, T., assignor.)
Bubar, B. C., Blaine, Me. Collar-supporter. No. 939,388; Nov. 9; Sp. p. 2099; Gaz. vol. 148; p. 350.
Bubb, E. F., Chicago, Ill. Automatic switch. No. 941,227; Nov. 23; Sp. p. 6146; Gaz. vol. 148; p. 1031.
Buch, A. J., Portsmouth, Ohio. Shoe-last. No. 939,212; Nov. 9; Sp. p. 1640; Gaz. vol. 148; p. 290.
Buchan, J. W., assignor of one-third to W. L. Taylor, Eastman, Ga. Combined steering and driving axle. No. 939,795; Nov. 9; Sp. p. 2981; Gaz. vol. 148; p. 490.
Buchhop, F., New York, N. Y., assignor to Meyrowitz Manufacturing Company. Lens-grinding machine. No. 938,459; Nov. 2; Sp. p. 12; Gaz. vol. 148; p. 4.
Buchhop, F., New York, N. Y., assignor to Meyrowitz Manufacturing Company. Lens-grinding machine. No. 939,975; Nov. 16; Sp. p. 3358; Gaz. vol. 148; p. 580.
Buchi, R., Chicago, Ill. Apple-peeling machine. No. 938,822; Nov. 2; Sp. p. 801; Gaz. vol. 148; p. 129.
Buck, C. J. (See Whiteman, G. W., assignor.)
Buck, C. U., Wellsboro, assignor to Buck Explosive Company, Coudersport, Pa. Explosive. No. 940,580; Nov. 16; Sp. p. 4743; Gaz. vol. 148; p. 790.
Buck Explosive Company. (See Buck, C. U., assignor.)
Buckham, G. T. (See Dawson and Buckham.)
Buckhannan, E. M., Sulphur Springs, Tex. Plow. No. 941,614; Nov. 30; Sp. p. 6965; Gaz. vol. 148; p. 1178.
Buckingham, F. H., assignor to Standard Computing Scale Company, Limited, Detroit, Mich. Scale. No. 939,213; Nov. 9; Sp. p. 1642; Gaz. vol. 148; p. 290.
Buckland, S. J., Springfield, Mass. Front-fork equalizer. No. 940,783; Nov. 23; Sp. p. 5198; Gaz. vol. 148; p. 883.
Bucknam, E. S., assignor to J. G. Brill Co., Philadelphia, Pa. Car. No. 941,855; Nov. 30; Sp. p. 7506; Gaz. vol. 148; p. 1262.
Budd, E. G., and J. A. Wollé, assignors to Hale-Kilburn Metal Company, Philadelphia, Pa. Seat-frame. No. 939,389; Nov. 9; Sp. p. 2100; Gaz. vol. 148; p. 351.

Buddle, G. T., Chicago, Ill. Door-hanger. No. 938,823; Nov. 2; Sp. p. 804; Gaz. vol. 148; p. 129.
Buffalo Steam Roller Company. (See Todd and Farquhar, assignors.)
Buffat, C. A., Knoxville, Tenn. Glazier's point. No. 939,796; Nov. 9; Sp. p. 2983; Gaz. vol. 148; p. 491.
Bukolt, J. J., Stevens Point, Wis. Milking-machine. No. 940,852; Nov. 23; Sp. p. 5341; Gaz. vol. 148; p. 905.
Bulin, A., St. Paul, Minn. Attachment for bath-tubs. No. 939,797; Nov. 9; Sp. p. 2984; Gaz. vol. 148; p. 491.
Bullman, J. A., *et al.* (See Pink, S. J., assignor.)
Bullock, C. A. H. (See Daniel and Bullock.)
Bullock Electric Manufacturing Company *et al.* (See Behrend, B. A., assignor.)
Bullock Electric Manufacturing Company. (See Knight, E. R., assignor.)
Bullock, H. E., *et al.* (See Houghton, O. C., assignor.)
Bullock, J. E., *et al.* (See Houghton, O. C., assignor.)
Bumpass, C. L., Bumpass, Va. Poultry-coop. No. 939,798; Nov. 9; Sp. p. 2985; Gaz. vol. 148; p. 491.
Bundy, C. L., Jersey City, N. J., and J. J. Acker, Horton, Kans., assignors to Transom Draft Gear Company, St. Louis, Mo. Draw-bar and yoke attachment for draft-gears. No. 939,390; Nov. 9; Sp. p. 2101; Gaz. vol. 148; p. 351.
Bunnell, M. G., assignor to F. C. Austin, Chicago, Ill. Drainage-excavator. No. 940,126; Nov. 16; Sp. p. 3727; Gaz. vol. 148; p. 635.
Bunnell, S. H., assignor to Griscom-Spencer Company, New York, N. Y. Humidifier. No. 941,187; Nov. 23; Sp. p. 6092; Gaz. vol. 148; p. 1017.
Burger, A. (See Schlüssler, A., assignor.)
Burhorn, E., Hoboken, N. J. By-pass. No. 940,920; Nov. 23; Sp. p. 5469; Gaz. vol. 148; p. 927.
Burke, A. V., Greeley Center, Nebr. Draft-equalizer. No. 938,637; Nov. 2; Sp. p. 429; Gaz. vol. 148; p. 66.
Burleson, A. R., Webster City, Iowa. Foldable metal egg-case. No. 940,234; Nov. 16; Sp. p. 3953; Gaz. vol. 148; p. 673.
Burnham, Williams & Company. (See Austin, W. L., assignor.)
Burns, H. B., assignor of one-eighth to W. W. Breister and one-fourth to C. Eberhart, Fond du Lac, Wis. Fruit-jar. No. 940,581; Nov. 16; Sp. p. 4745; Gaz. vol. 148; p. 790.
Burns, M. F., assignor to Robert N. Bassett Company, Shelton, Conn. Combined buckle and clasp. No. 939,122; Nov. 2; Sp. p. 1425; Gaz. vol. 148; p. 232.
Burns, P. F., Nisbet, Pa. Rule. No. 941,492; Nov. 30; Sp. p. 6722; Gaz. vol. 148; p. 1139.
Burns, W. H., Naperville, Ill. Preserving eggs. No. 938,965; Nov. 2; Sp. p. 1118; Gaz. vol. 148; p. 179.
Burnside, J. A., Dunedin, New Zealand. Brush-ware. No. 941,306; Nov. 23; Sp. p. 6309; Gaz. vol. 148; p. 1055.
Burrell, D. V., Rocky Ford, Colo. Centrifugal pump. No. 941,557; Nov. 30; Sp. p. 6848; Gaz. vol. 148; p. 1160.
Burris, F. O., *et al.* (See Gunn, J. M., assignor.)
Burris, J. R., *et al.* (See Gunn, J. M., assignor.)
Burroughs Adding Machine Company. (See Benner, R. E., assignor.)
Burroughs Adding Machine Company. (See McBerty, F. R., assignor.)
Burrowes, F. M., assignor to E. T. Burrowes Company, Portland, Me. Folding chair. No. 940,582; Nov. 16; Sp. p. 4746; Gaz. vol. 148; p. 790.
Burthe, M. A., University, Va. Artificial bait. No. 941,911; Nov. 30; Sp. p. 7613; Gaz. vol. 148; p. 1282.
Burton, A., Whitesboro, Tex. Liquid-fuel-lighting system. No. 939,799; Nov. 9; Sp. p. 2986; Gaz. vol. 148; p. 491.
Burton, F. F., Short Beach, assignor to Winchester Repeating Arms Co., New Haven, Conn. Recoiling-barrel gun. No. 941,006; Nov. 23; Sp. p. 5659; Gaz. vol. 148; p. 956.
Burwell, E. S., Madison, Wis. Horse-blanket. No. 939,662; Nov. 9; Sp. p. 2695; Gaz. vol. 148; p. 444.
Busch, D. A., Rainier, Oreg. Grab or draft hook. No. 938,551; Nov. 2; Sp. p. 256; Gaz. vol. 148; p. 37.
Bush Manufacturing Company. (See Lewis, J. E., assignor.)
Bushong, H. F., assignor to Kalamazoo Loose Leaf Binder Company, Kalamazoo, Mich. Temporary binder or loose-sheet holder. No. 940,508; Nov. 16; Sp. p. 4580; Gaz. vol. 148; p. 766.
Bushong, H. F., Portland, Oreg., assignor, by mesne assignments, to Kalamazoo Loose Leaf Binder Company. Loose-leaf ledger. No. 941,757; Nov. 30; Sp. p. 7290; Gaz. vol. 148; p. 1227.
Butcher, S. S. (See Hamby and Butcher.)
Butler, C. F., Marshall, Mich. Grate. No. 939,945; Nov. 9; Sp. p. 3289; Gaz. vol. 148; p. 542.
Butler, C. L., Pittsburg, Pa., assignor to L. O. Hillyard, Dubuque, Iowa. Door-check. No. 941,493; Nov. 30; Sp. p. 6724; Gaz. vol. 148; p. 1139.
Butler, W. F., Indianapolis, Ind., assignor to Sanitary Can Company, New York, N. Y. Machine for applying cement to can-caps. No. 938,460; Nov. 2; Sp. p. 15; Gaz. vol. 148; p. 5.
Bux, J. R., Philadelphia, Pa. Hair waver or curler. No. 938,552; Nov. 2; Sp. p. 257; Gaz. vol. 148; p. 37.
Byer, W. M., Jersey City, N. J. Disinfecting apparatus. No. 940,921; Nov. 23; Sp. p. 5471; Gaz. vol. 148; p. 928.
Byers, J. J., Cameron, Mo., assignor to National Malleable Castings Company, Chicago, Ill. Truck-bolster. No. 939,946; Nov. 9; Sp. p. 3290; Gaz. vol. 148; p. 542.
Bynum, A., Strathcona, Alberta, Canada. Rail-joint. No. 940,633; Nov. 16; Sp. p. 4847; Gaz. vol. 148; p. 807.
Byrne, G. and T. B., Akron, Iowa. Grain-conveyer. No. 941,060; Nov. 23; Sp. p. 5771; Gaz. vol. 148; p. 974.
Byrne, J. F., Battle Creek, Mich. Box or container. No. 941,356; Nov. 30; Sp. p. 6417; Gaz. vol. 148; p. 1094.
Byrne, T. B. (See Byrne, G. and T. B.)
Byrnes, J. R., Hutchinson, Kans. Windmill-power saver. No. 938,966; Nov. 2; Sp. p. 1119; Gaz. vol. 148; p. 179.
C. T. Carnahan Manufacturing Co. (See Carnahan and Murphy, assignors.)
Cable, J., Seattle, Wash. Sweeping apparatus. No. 941,494; Nov. 30; Sp. p. 6726; Gaz. vol. 148; p. 1140.
Cahoon, C. B., New York, N. Y. Catamenial bandage. No. 938,967; Nov. 2; Sp. p. 1120; Gaz. vol. 148; p. 179.
Cahoone, E. R., Summit, N. J. Stove. No. 941,974; Nov. 30; Sp. p. 7733; Gaz. vol. 148; p. 1302.
Cahûc, L., Neumarkt, Germany. Priming charge for mines. No. 938,553; Nov. 2; Sp. p. 257; Gaz. vol. 148; p. 38.
Caldwell, A. C., Sacramento, Cal. Sanitary washable case for comfortables. No. 938,968; Nov. 2; Sp. p. 1121; Gaz. vol. 148; p. 179.
Caldwell, J. W., Toronto, Ontario, Canada. Ladder. No. 938,638; Nov. 2; Sp. p. 430; Gaz. vol. 148; p. 66.
Caldwell, J. W., Coolamon, New South Wales, Australia. Auger-bit. No. 940,426; Nov. 16; Sp. p. 4412; Gaz. vol. 148; p. 738.
Callanan, W. A., *et al.* (See Maitland, J. L., assignor.)
Calleson, A. (See Adriance and Calleson.)
Caloris Manufacturing Company. (See Durand, V., Jr., assignor.)
Cameron, A. B. (See Boykin, W. W., assignor.)
Cameron, A. H., Knox township, Columbiana county, Ohio. Pulley-clutch. No. 939,663; Nov. 9; Sp. p. 2696; Gaz. vol. 148; p. 444.
Camerron, D., Edinburgh, Scotland. Fountain-pen nib. No. 940,509; Nov. 16; Sp. p. 4503; Gaz. vol. 148; p. 766.
Campbell, C. E., Detroit, Mich. Machine for clipping envelops. No. 938,741; Nov. 2; Sp. p. 627; Gaz. vol. 148; p. 99.
Campbell, C. R., *et al.* (See Brown, J. R., assignor.)
Campbell, D. L., Rosemary, N. C. Combination-padlock. No. 941,128; Nov. 23; Sp. p. 5924; Gaz. vol. 148; p. 997.
Campbell, E. N., Council Bluffs, Iowa. Float-valve for water-tanks. No. 940,127; Nov. 16; Sp. p. 3732; Gaz. vol. 148; p. 635.
Campbell, J. W., Providence, R. I. Sprinkler. No. 941,671; Nov. 30; Sp. p. 7085; Gaz. vol. 148; p. 1197.
Campbell Printing Press & Manufacturing Company. (See Johnston, R. T., assignor.)
Campbell Printing Press & Mfg. Co. (See Wood, H. A. W., assignor.)
Campbell, R. C. (See North, R., assignor.)
Campbell, R. H. (See Read and Campbell.)
Campbell, W. E., and H. T. Ingham, Fairfield, Iowa. Automatic air-brake coupling. No. 941,348; Nov. 23; Sp. p. 6387; Gaz. vol. 148; p. 1068.
Cane, W. E., assignor to W. J. Murray, Toronto, Ontario, Canada. Ball-bearing. No. 939,391; Nov. 9; Sp. p. 2102; Gaz. vol. 148; p. 351.
Canfield, H. R., assignor, by mesne assignments, to F. Soss, New York, N.Y. Invisible hinge. No. 941,672; Nov. 30; Sp. p. 7086; Gaz. vol. 148; p. 1197.
Cannon, B. B., *et al.* (See Bostian, H. C., assignor.)
Cantara, G. T., Biddeford, Me. Combination tool-vise and sharpening-gage. No. 938,969; Nov. 2; Sp. p. 1122; Gaz. vol. 148; p. 180.
Capers, J. T., Montgomery, Ala. Apparatus for handling acid phosphate and the like. No. 940,583; Nov. 16; Sp. p. 4748; Gaz. vol. 148; p. 790.
Capps, F. L., assignor to American Graphophone Company, Bridgeport, Conn. Production of double-faced sound-records. No. 941,975; Nov. 30; Sp. p. 7737; Gaz. vol. 148; p. 1303
Carborundum Company. (See Tone, F. J., assignor.)
Cardell, C. O. L., assignor to T. C. Dexter, Pearl River, N. Y. Ratchet-releasing mechanism. No. 941,188; Nov. 23; Sp. p. 6063; Gaz. vol. 148; p. 1017.
Cardwell, J. R., Chicago, Ill. Wallet. No. 940,853; Nov. 23; Sp. p. 5343; Gaz. vol. 148; p. 906.
Carlborg, O., assignor to Goodson Electric and Manufacturing Company, Providence, R. I. Combination lathe-tool. No. 940,301; Nov. 16; Sp. p. 4123; Gaz. vol. 148; p. 695.
Carlson, C. H., Iron Mountain, Mich. Butter and lard cutter. No. 938,970; Nov. 2; Sp. p. 1123; Gaz. vol. 148; p. 180.
Carlson, E. W. (See Kennedy, Carlson, and Jeffes.)
Carlson, I. O., Chicago, Ill. Food-vending machine. No. 941,495; Nov. 30; Sp. p. 6727; Gaz. vol. 148; p. 1140.

Carnahan, C. T., and J. Murphy, assignors to C. T. Carnahan Manufacturing Co., Denver, Colo. Water attachment for pneumatic hammers. No. 940,510; Nov. 16; Sp. p. 4595; Gaz. vol. 148; p. 766.
Carnahan, R. B., Jr., Middletown, Ohio, assignor to International Metal Products Company, Newark, N. J. Iron manufacture. No. 940,784; Nov. 23; Sp. p. 5201; Gaz. vol. 148; p. 883.
Carnahan, R. B., Jr., Middletown, Ohio, assignor to International Metal Products Company, Newark, N. J. Ingot. No. 940,785; Nov. 23; Sp. p. 5202; Gaz. vol. 148; p. 883.
Carnegie Steel Company. (See Wales, S. S., assignor.)
Carpenter, E., Newton, Mass., assignor to Automatic Refrigerating Company, Hartford, Conn. Refrigerating-counter. No. 938,554; Nov. 2; Sp. p. 259; Gaz. vol. 148; p. 38.
Carpenter, S. H., assignor to F. M. Bell, Morrillton, Ark. Plow-sweep. No. 938,639; Nov. 2; Sp. p. 432; Gaz vol. 148; p. 66.
Carpenter, W. H., Bristol, Conn., assignor of one-half to A. L. Haasis, Brooklyn, N. Y. Cover for tanks used in skimming sullage from crucibles into water. No. 938,555; Nov. 2; Sp. p. 261; Gaz. vol. 148; p. 38.
Carr, J. and W., Syracuse, N. Y., assignors to Henry G. Thompson & Son Company, New Haven, Conn. Lathe-tool holder. No. 939,976; Nov. 16; Sp. p. 3360; Gaz. vol. 148; p. 581.
Carr, L., Oakland, Cal. Cooking utensil. No. 940,672; Nov. 23; Sp. p. 4938; Gaz. vol. 148; p. 844.
Carr, W. (See Carr, J. and W.)
Carr, W. C., Buffalo, N. Y. Car for transporting ore or other material. No. 941,405; Nov. 30; Sp. p. 6548; Gaz. vol. 148; p. 1110.
Carrell, C., Newman, Ill. Rail-tie. No. 941,307; Nov. 23; Sp. p. 6310; Gaz. vol. 148; p. 1055.
Carrick, J. T., assignor of one-half to B. S. Pattison, Johannesburg, Transvaal. Treatment of copper or copper-nickel mattes. No. 939,947; Nov. 9; Sp. p. 3291; Gaz. vol. 148; p. 543.
Carrico, C. L., and B. Hawkins, Owensboro, Ky., assignors of three-fifths to said Carrico and two-fifths to said Hawkins. Liquid-volume recorder. No. 941,007; Nov. 23; Sp. p. 5660; Gaz. vol. 148; p. 956.
Carrico, C. L., and B. Hawkins, Owensboro, Ky., assignors of three-fifths to said Carrico and two-fifths to said Hawkins. Liquid-volume recorder. No. 941,008; Nov. 23; Sp. p. 5663; Gaz. vol. 148; p. 956.
Carroll, J. (See Kendrick and Carroll.)
Carroll, R. W., New Brighton, N. Y. Box. No. 940,922; Nov. 23; Sp. p. 5475; Gaz. vol. 148; p. 928.
Carson, W. E., Riverton, Va. Cementitious composition and making the same. No. 939,977; Nov. 16; Sp. p. 3363; Gaz. vol. 148; p. 581.
Carter-Crume Co. (See Klein, E., assignor.)
Carter, E. G., Omaha, Nebr. Hay-stacker. No. 938,461; Nov. 2; Sp. p. 18; Gaz. vol. 148; p. 5
Carter, R. A., Pittsburg, Pa. Bending-machine. No. 938,556; Nov. 2; Sp. p. 263; Gaz. vol. 148; p. 39.
Carter, S. L., Tonieville, Ky. Press. No. 938,462; Nov. 2; Sp. p. 20; Gaz. vol. 148; p. 5.
Carter, S. R., New York, N. Y. Lino-slug-trimming machine. No. 939,800; Nov. 9; Sp. p. 2988; Gaz. vol. 148; p. 492.
Carter's Ink Company. (See Schmitt, C. A., assignor.)
Casale, J., assignor to Casale Pocket Umbrella Company, New York, N. Y. Folding umbrella. No. 941,615; Nov. 30; Sp. p. 6967; Gaz. vol. 148; p. 1178.
Casale Pocket Umbrella Company. (See Casale, J., assignor.)
Case, A. B., Springfield, Mass. Lawn-mower. No. 940,854; Nov. 23; Sp. p. 5344; Gaz. vol. 148; p. 906.
Case, F. E., Schenectady, N. Y., assignor to General Electric Company. Motor-vehicle. No. 940,511; Nov. 16; Sp. p. 4597; Gaz. vol. 148; p. 767.
Casey, A., assignor to Goulds Manufacturing Company, Seneca Falls, N. Y. Casting apparatus. No. 940,302; Nov. 16; Sp. p. 4125, Gaz. vol. 148; p. 696.
Casner, C. H., Hepburnville, Pa. Road-scraper. No. 939,664; Nov. 9; Sp. p. 2700; Gaz. vol. 148; p. 445.
Casner, C. H., Williamsport, Pa. Road-scraper. No. 939,665; Nov. 9; Sp. p. 2701; Gaz. vol. 148; p. 446.
Cassella Color Company. (See Winslow, H., assignor.)
Castillo, O. (See Benas, B., assignor.)
Caswell, A. E. (See Caswell, W. B., assignor.)
Caswell, W. B., assignor of one-half to A. E. Caswell, Newport, R. I. Adjustable shade-hanger. No. 940,380; Nov. 16; Sp. p. 4320; Gaz. vol. 148; p. 723.
Cauchois, F. A., New York, N. Y. Apparatus for preparing infusions. No. 941,009; Nov. 23; Sp. p. 5665; Gaz. vol. 148; p. 957.
Cauffman, R. M., and W. Best, Centerville, Mich.; said Best assignor to said Cauffman. Bottle-closure. No. 938,971; Nov. 2; Sp. p. 1126; Gaz. vol. 148; p. 181.
Caya, H. (See Leith, J., assignor.)
Ceeder, F. E. (See Doane and Ceeder.)
Central Tool Company. (See Jaques, F. O., Jr., assignor.)
Ceramic Machinery Company. (See Goldsmith, F. E., assignor.)
Ceramic Machinery Company. (See Schenck, M., assignor.)
Chadbourne, C. D., and W. R. Simpson, Wyoming, Ill. Changeable sign for advertising purposes, &c. No. 941,695; Nov. 30; Sp. p. 7141; Gaz. vol. 148; p. 1205
Chambers, A. R., Somerville, Mass. Protector for blow-off pipes. No. 940,427; Nov. 16; Sp. p. 4415; Gaz. vol. 148; p. 738.
Chambers, C., Jr., Overbrook, Pa. Dough-mixing machine. No. 939,392; Nov. 9; Sp. p. 2103; Gaz. vol. 148; p. 351.
Chambers, J. M. (See Dougal and Chambers.)
Chambliss, A. J., Xenia, Ohio. Rail-tie. No. 939,801; Nov. 9; Sp. p. 2990; Gaz. vol. 148; p. 492.
Champ, J. H., Cleveland, Ohio. Bottling-machine. No. 939,214; Nov. 9; Sp. p. 1644; Gaz. vol. 148; p. 290.
Champ, J. H., Cleveland, Ohio. Bottling-machine. No. 939,978; Nov. 16; Sp. p. 3366; Gaz. vol. 148; p. 581.
Champion Safety Lock Company. (See Larkin and Woody, assignors.)
Chanon, W. J., Dawson, Yukon Territory, Canada. Navigation apparatus. No. 938,972; Nov. 2; Sp. p. 1127; Gaz. vol. 148; p. 181.
Chandler, J., Toledo, Ohio. Replenishing device. No. 938,557; Nov. 2; Sp. p. 264; Gaz. vol. 148; p. 39.
Chapin, W. D., New York, N. Y. Blade-sharpening device. No. 939,216; Nov. 9; Sp. p. 1650; Gaz. vol. 148; p. 291.
Chapman, E., Ariel, Pa. Metal tie for concrete constructions. No. 941,616; Nov. 30; Sp. p. 6969; Gaz. vol. 148; p. 1179.
Chapman, E., Ariel, Pa. Building-block. No. 941,617; Nov. 30; Sp. p. 6970; Gaz. vol. 148; p. 1179.
Chapman Electric Neutralizer Company. (See Chapman, W. H., assignor.)
Chapman, G. F., Linton, Ind. Screw-threading implement. No. 938,973; Nov. 2; Sp. p. 1130; Gaz. vol. 148; p. 181.
Chapman, I., assignor of one-half to P. E. Knudsen, Eckelson, N. D. Pot and kettle cover. No. 939,802; Nov. 9; Sp. p. 2991; Gaz. vol. 148; p. 492.
Chapman, W. H., Portland, Me. Means for neutralizing static electricity. No. 940,431; Nov. 16; Sp. p. 4425; Gaz. vol. 148; p. 740.
Chapman, W. H., assignor to Chapman Electric Neutralizer Company, Portland, Me. Apparatus for neutralizing electricity in moving material. No. 940,428; Nov. 16; Sp. p. 4418; Gaz. vol. 148; p. 739.
Chapman, W. H., assignor to Chapman Electric Neutralizer Company, Portland, Me. Neutralizing static electricity. No. 940,429; Nov. 16; Sp. p. 4431; Gaz. vol. 148; p. 739.
Chapman, W. H., assignor to Chapman Electric Neutralizer Company, Portland, Me. Process and apparatus for neutralizing static electricity. No. 940,430; Nov. 16; Sp. p. 4423; Gaz. vol. 148; p. 740.
Charles Bond Company. (See Grundy, J. R., assignor.)
Charles, S. L., Neillsville, Wis. Automobile sleigh attachment. No. 939,666; Nov. 9; Sp. p. 2703; Gaz. vol. 148; p. 446.
Charter, J. A., Chicago, Ill. Motor-vehicle. No. 941,129; Nov. 23; Sp. p. 5926; Gaz. vol. 148; p. 997.
Chartier, A. N., Brookline, Mass. Thread-cop. No. 939,667; Nov. 9; Sp. p. 2705; Gaz. vol. 148; p. 446.
Chase, H. E. (See Lathrop and Chase.)
Cheney, G. K., New York, N. Y., assignor, by mesne assignments, to Victor Talking Machine Company. Recording sound. No. 941,010; Nov. 23; Sp. p. 5666; Gaz. vol. 148; p. 957.
Cheney, G. K., New York, N. Y., assignor, by mesne assignments, to Victor Talking Machine Company. Apparatus for recording sound. No. 941,011; Nov. 23; Sp. p. 5669; Gaz. vol. 148; p. 957.
Chenoweth, A. N., Waterbury, Conn. Telephone-line-testing system. No. 938,974; Nov. 2; Sp. p. 1131; Gaz. vol. 148; p. 182.
Chernack, A. E., assignor to Chernack Braider Company, Boston, Mass. Braiding-machine. No. 939,216; Nov. 9; Sp. p. 1651; Gaz. vol. 148; p. 291.
Chernack Braider Company. (See Chernack, A. E., assignor.)
Chesney, J., Paulsboro, N. J., assignor to E. I. du Pont de Nemours Powder Company, Wilmington, Del. Machine for making paper shells. No. 939,948; Nov. 9; Sp. p. 3292; Gaz. vol. 148; p. 543.
Chicago Railway Equipment Company. (See Robischung, H. B., assignor.)
Chicago Railway Equipment Company. (See Williams, C. H., Jr., assignor.)
Childs, E. N., assignor to American Calking Machine Company, Perry, Iowa. Horseshoe-calk former. No. 940,235; Nov. 16; Sp. p. 3954; Gaz. vol. 148; p. 673.
Childs, G. W., Seeleyville, Ind. Closure for powder-cans. No. 940,128; Nov. 16; Sp. p. 3733; Gaz. vol. 148; p. 635.
Chisholm, G. H., Sutter Creek, Cal. Friction-gearing. No. 941,856; Nov. 30; Sp. p. 7508; Gaz. vol. 148; p. 1262.
Chisholm, W. J., Houston, Tex. Mud-guard. No. 941,228; Nov. 23; Sp. p. 6147; Gaz. vol. 148; p. 1031.
Choltz, W. P., Chicago, Ill. Smoke-consuming attachment for furnaces. No. 941,496; Nov. 30; Sp. p. 6730; Gaz. vol. 148; p. 1140
Choltus, J. E., and H. Jeannesson, Paris, France. Stove. No. 939,890; Nov. 9; Sp. p. 3165; Gaz. vol. 148; p. 522.
Chott, E. L., assignor of one-half to H. J. Chott, Chicago, Ill. Dental instrument. No. 938,640; Nov. 2; Sp. p. 432; Gaz. vol. 148; p. 66.

Chott, H. J. (See Chott, E. L., assignor.)
Christensen, C., assignor to David Bradley Manufacturing Company, Bradley, Ill. Plow. No. 938,975; Nov. 2; Sp. p. 1135; Gaz. vol. 148; p. 182.
Christensen, C. J., New York, N. Y. Device for lowering life-boats. No. 940,512; Nov. 16; Sp. p. 4596; Gaz. vol. 148; p. 767.
Christensen, H., Byron, Cal. Disk harrow. No. 940,923; Nov. 23; Sp. p. 5476; Gaz. vol. 148; p. 928.
Christensen, N. A., Milwaukee, Wis. Compound air-compressor. No. 938,742; Nov. 2; Sp. p. 629; Gaz. vol. 148; p. 100.
Christensen, W., Belmont, assignor to American Telephone and Telegraph Company, Boston, Mass. Telephone-key and means for actuating the same. No. 940,673; Nov. 23; Sp. p. 4939; Gaz. vol. 148; p. 845.
Christians, H. R., Brooklyn, N. Y. Inkstand. No. 941,308; Nov. 23; Sp. p. 6311; Gaz. vol. 148; p. 1056.
Christiansen, C., Gelsenkirchen, Germany. Pneumatic tool. No. 939,803; Nov. 9; Sp. p. 2992; Gaz. vol. 148; p. 492.
Christy, J. F., Sheridan, Pa. Testing-plug for sewer-traps. No. 939,804; Nov. 9; Sp. p. 2994; Gaz. vol. 148; p. 493.
Christy, T. W., New York, N. Y. Flushing apparatus. No. 939,123; Nov. 2; Sp. p. 1427; Gaz. vol. 148; p. 232.
Chubb, A., and C. R. Mullen, Cincinnati, Ohio. Valve-gear. No. 941,189; Nov. 23; Sp. p. 6065; Gaz. vol. 148; p. 1018.
Church, A. E., New Britain, Conn. Reamer. No. 941,912; Nov. 30; Sp. p. 7615; Gaz. vol. 148; p. 1282.
Church, J., New York, N. Y. Barber's account-check. No. 939,979; Nov. 16; Sp. p. 3377; Gaz. vol. 148; p. 582.
Church, W. A., assignor to Electro-Vibrating Couch Company, Los Angeles, Cal. Electrovibratory couch. No. 941,673; Nov. 30; Sp. p. 7088; Gaz. vol. 148; p. 1198.
Churchill, H. R., Buffalo, N. Y. Water-heater. No. 941,618; Nov. 30; Sp. p. 6971; Gaz. vol. 148; p. 1179.
Churchill, W., and M. L. O'Neil, Janesville, Wis. Rail-tie. No. 941,913; Nov. 30; Sp. p. 7616; Gaz. vol. 148; p. 1283.
Chute, H. O., Cleveland, Ohio. Making acetates. No. 939,980; Nov. 16; Sp. p. 3379; Gaz. vol. 148; p. 582.
Cibulas, S. E., Bridgeport, Conn. Sash-operating mechanism. No. 941,343; Nov. 23; Sp. p. 6368; Gaz. vol. 148; p. 1066.
Cincinnati Butchers Supply Company. (See Lawson, J. F., assignor.)
Claff, M. B., Randolph, Mass. Shipping-box. No. 941,438; Nov. 30; Sp. p. 6610; Gaz. vol. 148; p. 1120.
Clancy, J. M., Chicago, Ill. Air-actuated street-car fender. No. 941,497; Nov. 30; Sp. p. 6731; Gaz. vol. 148; p. 1141.
Clapham, G., Hamilton, Ontario, Canada. Composition of matter for the finishing coat on wainscoting, walls, and the like. No. 941,498; Nov. 30; Sp. p. 6732; Gaz. vol. 148; p. 1141.
Clapp, C. C. (See Jacobs, W. S., assignor.)
Clark, A., Macon, Ga. Banking-machine. No. 939,472; Nov. 9; Sp. p. 2286; Gaz. vol. 148; p. 378.
Clark, C., Boissevain, Manitoba, Canada. Trap. No. 938,743; Nov. 2; Sp. p. 632; Gaz. vol. 148; p. 100.
Clark, C. H., Crafton, Pa. Dump-car. No. 938,976; Nov. 2; Sp. p. 1138; Gaz. vol. 148; p. 182.
Clark, C. H., Columbus, Ohio. Machine for punching holes in metal plates. No. 939,185; Nov. 2; Sp. p. 1573; Gaz. vol. 148; p. 255.
Clark, C. H., Crafton, Pa. Dump-car. No. 939,588; Nov. 9; Sp. p. 2529; Gaz. vol. 148; p. 417.
Clark, C. M. (See Shallenberger, C. S., assignor.)
Clark, C. R. (See McLean, Lyons, and Clark.)
Clark, H. O., New York, N. Y. Vehicle-wheel. No. 941,976; Nov. 30; Sp. p. 7739; Gaz. vol. 148; p. 1304.
Clark, J. C., Atlanta, Ga. Pulverizing-mill. No. 940,129; Nov. 16; Sp. p. 3734; Gaz. vol. 148; p. 636.
Clark, J. C., Atlanta, Ga. Grinding-mill. No. 940,513; Nov. 16; Sp. p. 4599; Gaz. vol. 148; p. 767.
Clark, J. D. (See Worley, G. D., assignor.)
Clark, L. S. (See Wright, J. D., assignor.)
Clark, R. W., assignor of one-half to himself and one-half to A. G. Kantmann, Nashville, Tenn. Locomotive ash-pan. No. 938,824; Nov. 2; Sp. p. 805; Gaz. vol. 148; p. 130.
Clark, W. S. (See Leighton, H., assignor.)
Clarke, A. F., Butler, Pa. Ignition device for explosive-engines. No. 939,805; Nov. 9; Sp. p. 2996; Gaz. vol. 148; p. 493.
Clarke, W. J., and S. A. Stream, El Reno, Okla.; said Stream assignor of one-half of his right to said Clarke. Grass-cutting attachment for cars. No. 940,514; Nov. 16; Sp. p. 4602; Gaz. vol. 148; p. 768.
Clauss, F., and L. Lewisson, Berlin, Germany. Filling, storing, and discharging inflammable liquids. No. 938,977; Nov. 2; Sp. p. 1144; Gaz. vol. 148; p. 183.
Claussen, E. E., Hartford, Conn. Paper-bag machine. No. 940,515; Nov. 16; Sp. p. 4605; Gaz. vol. 148; p. 768.
Clay, F. W. H., Pittsburg, Pa. Bottle-closure. No. 938,825; Nov. 2; Sp. p. 809; Gaz. vol. 148; p. 130.
Clemens, A. B., Columbus, Ohio. Game apparatus. No. 940,855; Nov. 23; Sp. p. 5340; Gaz. vol. 148; p. 906.
Clement, C. P. (See Wiles, R., assignor.)
Clement, E. E. (See Zahm, C. L., assignor.)
Clement, E. E., Washington, D. C., assignor to North Electric Company, Cleveland, Ohio. Selective apparatus for systems of communication. No. 939,186; Nov. 2; Sp. p. 1577; Gaz. vol. 148; p. 255.
Clement, E. E., Washington, D. C., assignor to North Electric Company, Cleveland, Ohio. Selection in systems of communication. No. 939,187; Nov. 2; Sp. p. 1580; Gaz. vol. 148; p. 256.
Clement, E. E., Washington, D. C., assignor to North Electric Company, Cleveland, Ohio. Selection in systems of communication. No. 939,188; Nov. 2; Sp. p. 1582; Gaz. vol. 148; p. 256.
Clement, S. L. (See Ewel and Clement.)
Cleveland, C. E., Fond du Lac, Wis. Band-saw resawing-machine. No. 941,758; Nov. 30; Sp. p. 7284; Gaz. vol. 148; p. 1227.
Cleveland Collet and Machine Company. (See Schultis, C. F., assignor.)
Clifford, W. S., New York, N. Y. Nosing for curb-corners. No. 940,432; Nov. 16; Sp. p. 4428; Gaz. vol. 148; p. 740.
Climax Road Machine Co. (See McAlpine, L. B., assignor.)
Clippinger, A. B. and M. A., Kansas City, Mo. Hay-stacker. No. 939,393; Nov. 9; Sp. p. 2110; Gaz. vol. 148; p. 352.
Clippinger, M. A. (See Clippinger, A. B. and M. A.)
Cloak, W. H., Philadelphia, Pa. Extension-hopper and soil-pipe cleaner. No. 941,558; Nov. 30; Sp. p. 6849; Gaz. vol. 148; p. 1160.
Close, R. T., Duluth, Minn. System of cataloguing. No. 941,499; Nov. 30; Sp. p. 6733; Gaz. vol. 148; p. 1141.
Clouse, N. W., Newton, Iowa. Screen-wire cabinet and measuring-table. No. 940,236; Nov. 16; Sp. p. 3959; Gaz. vol. 148; p. 673.
Clouser, W., Dana, Ind. Husking-machine. No. 941,229; Nov. 23; Sp. p. 6149; Gaz. vol. 148; p. 1031.
Clulee, S. J., Attleboro, Mass., assignor to Bay State Optical Company, Saco, Me. Eyeglass-mounting. No. 938,744; Nov. 2; Sp. p. 633; Gaz. vol. 148; p. 100.
Clulee, S. J., Attleboro, Mass., assignor to Bay State Optical Company. Eyeglasses. No. 939,698; Nov. 9; Sp. p. 2707; Gaz. vol. 148; p. 447.
Clymer, F., Belmar, and J. Degen, assignors to United Revolving Door Company, Trenton, N. J. Revolving door. No. 941,619; Nov. 30; Sp. p. 6973; Gaz. vol. 148; p. 1180.
Coates, F., Springfield, Mass. Box-labeling machine. No. 940,674; Nov. 23; Sp. p. 4943; Gaz. vol. 148; p. 845.
Cobb, E. M., South Portland, assignor to E. M. Lang, Jr., Portland, Me. Can-cap dropper. No. 941,357; Nov. 30; Sp. p. 6419; Gaz. vol. 148; p. 1094.
Cobedash, W. F., Salem, Ohio. Gas-burner. No. 938,745; Nov. 2; Sp. p. 636; Gaz. vol. 148; p. 101.
Coburn, E. B., Worcester, Mass. Cutting-machine for pastry. No. 939,981; Nov. 16; Sp. p. 3382; Gaz. vol. 148; p. 582.
Coe Brass Manufacturing Company. (See Hine, A. P., assignor.)
Coe, E. D., executor. (See Coe, W. H.)
Coe, S. L. W. (See Werden, H. T., assignor.)
Coe, W. H., deceased, Providence, R. I.; E. D. Coe, executrix. Package-roll of metallic leaf. No. 939,189; Nov. 2; Sp. p. 1585; Gaz. vol. 148; p. 256.
Cogan, J. E., Cleveland, Ohio. Phorometer. No. 938,463; Nov. 2; Sp. p. 21; Gaz. vol. 148; p. 6.
Coggeshall, J. W. (See Tillotson, M., assignor.)
Cogswell, G. W., and W. H. MacCrone, Rochester, N. Y. Horseshoe. No. 939,473; Nov. 9; Sp. p. 2288; Gaz. vol. 148; p. 379.
Cohan, A., New York, N. Y. Buckle. No. 939,394; Nov. 9; Sp. p. 2112; Gaz. vol. 148; p. 352.
Cohn, A. B., Philadelphia, Pa. Power-transmitter for sewing-machines. No. 941,857; Nov. 30; Sp. p. 7509; Gaz. vol. 148; p. 1262.
Colbert, S. B., assignor of one-half to S. J. Douthitt, Pierce City, Mo. Mail-bag deliverer. No. 939,806; Nov. 9; Sp. p. 3000; Gaz. vol. 148; p. 494.
Colburn, I. W., assignor to Colburn Machine Glass Company, Franklin, Pa. Device for maintaining the width of sheets of glass being drawn. No. 940,675; Nov. 23; Sp. p. 4954; Gaz. vol. 148; p. 846.
Colburn Machine Glass Company. (See Colburn, I. W., assignor.)
Cole, A. J., Minneapolis, Minn. Explosive-engine. No. 939,669; Nov. 9; Sp. p. 2708; Gaz. vol. 148; p. 447.
Cole, O. K. (See Meyers, P. P., assignor.)
Coleman, J. T. (See Johnson, C. A., assignor.)
Coleman, L. A., assignor of one-third to E. D. Hobbs, Norfolk, Va. Spark-arrester. No. 940,955; Nov. 23; Sp. p. 5551; Gaz. vol. 148; p. 930.
Colleen, I. H. P., Brooklyn, N. Y. Copy-holder. No. 938,978; Nov. 2; Sp. p. 1145; Gaz. vol. 148; p. 183.
Colleen, I. H. P., Brooklyn, N. Y. Bill-holder. No. 941,559; Nov. 30; Sp. p. 6852; Gaz. vol. 148; p. 1160.
Collett, J. C., and A. C. Jackson, assignors to Foglesong Machine Company, Dayton, Ohio. Horse-collar machine. No. 939,218; Nov. 9; Sp. p. 1655; Gaz. vol. 148; p. 292.
Collins, C. H., Albany, N. Y. Advertising device. No. 941,012; Nov. 23; Sp. p. 5671; Gaz. vol. 148; p. 958.
Collins, D. N., Colorado Springs, Colo. Scale extension. No. 940,130; Nov. 16; Sp. p. 3735; Gaz. vol. 148; p. 636.
Collins, H. L. (See Arbogast, J. I., assignor.)
Collins, W., Hanford, Cal. Seal. No. 938,979; Nov. 2; Sp. p. 1148; Gaz. vol. 148; p. 183.

Collins, W. E., assignor to J. B. Rice Seed Company, Cambridge, N. Y. Packing and display receptacle. No. 939,807; Nov. 9; Sp. p. 3002; Gaz. vol. 148; p. 494.
Collyer, W. C. (See Parker and Collyer.)
Colt, G. H., West Hampstead, England. Agricultural machine for rolling, mowing, and other similar operations. No. 941,309; Nov. 23; Sp. p. 6312; Gaz. vol. 148; p. 1056.
Colvin, C. R. (See Colvin, F. R. and C. R.)
Colvin, F. R., and C. R., Lansing, Mich. Tire-protector. No. 939,474; Nov. 9; Sp. p. 2290; Gaz. vol. 148; p. 379.
Colwitz, C., Shiocton, Wis. Machine for molding concrete blocks. No. 940,131; Nov. 16; Sp. p. 3737; Gaz. vol. 148; p. 637.
Comer, J. H., Comers Rock, Va. Invalid-bed. No. 941,620; Nov. 30; Sp. p. 6978; Gaz. vol. 148; p. 1180.
Compagnie Generale De Phonographes Cinematographes et Apparells de Precision. (See Ivatts, E. A., assignor.)
Comtograph Company. (See Wetmore, C. P., assignor.)
Conboy, F. J., Auburn, N. Y. Composition of matter. No. 939,982; Nov. 16; Sp. p. 3383; Gaz. vol. 148; p. 583.
Condell, M. J., H. C. Beck, and F. H. Dannenberg, Chicago, Ill.; said Dannenberg assignor to said Condell and said Beck. Meat-hanger. No. 940,924; Nov. 23; Sp. p. 5477; Gaz. vol. 148; p. 929.
Conekin, D., St. Petersburg, assignor of one-half to P. A. Larche, Tampa, Fla. Safety-razor-blade holder. No. 940,516; Nov. 16; Sp. p. 4609; Gaz. vol. 148; p. 769.
Confectioners and Bakers Supply Co. (See Dickson, G. F., assignor.)
Congdon, G. A., West Somerville, Mass. Sinew-extractor. No. 941,759; Nov. 30; Sp. p. 7291; Gaz. vol. 148; p. 1228.
Conger, C. P., New York, N. Y. Toast-rack. No. 940,303; Nov. 16; Sp. p. 4128; Gaz. vol. 148; p. 696.
Conklin, G. W., Shelton, Conn. Lifting-board for drop-hammers. No. 940,956; Nov. 23; Sp. p. 5552; Gaz. vol. 148; p. 940.
Conley, E. V., 2d, Kearney, N. J. Automatic bleeder for air-brake systems. No. 940,676; Nov. 23; Sp. p. 4958; Gaz. vol. 148; p. 846.
Conner, H. W., Boston, assignor, by mesne assignments, to S. G. Conner, Reading, Mass. Camera. No. 941,696; Nov. 30; Sp. p. 7144; Gaz. vol. 148; p. 1206.
Conner, L. H., Altus, Okla. Press. No. 939,475; Nov. 9; Sp. p. 2291; Gaz. vol. 148; p. 379.
Conner, S. G. (See Conner, H. W., assignor.)
Connet, F. N., Providence, R. I. Indicator device for reservoir-filters. No. 941,061; Nov. 23; Sp. p. 5772; Gaz. vol. 148; p. 974.
Conover, I. S., North Tarrytown, N. Y. Siding. No. 941,358; Nov. 30; Sp. p. 6422; Gaz. vol. 148; p. 1094.
Conrad, L., Philadelphia, Pa. Strop for razor-blades. No. 939,219; Nov. 9; Sp. p. 1657; Gaz. vol. 148; p. 292.
Conrard, C. A., Washington, D. C. Fastener. No. 941,977; Nov. 30; Sp. p. 7740; Gaz. vol. 148; p. 1304.
Conroy, M. J. (See Brubaker, L. F., assignor.)
Conry, W. (See Swanson, C. C., assignor.)
Consolidated Car-Heating Company. (See McElroy, J. F., assignor.)
Continental Can Company. (See Robinson, D. P., assignor.)
Continental Investment Company. (See Hartenstein, H. L., assignor.)
Continuous Extracting Press Corporation. (See Fiddyment, J. C., assignor.)
Cook, E. (See Martin, W. H., assignor.)
Cook, E., Kalamazoo, Mich. Lifting-jack. No. 940,433; Nov. 16; Sp. p. 4429; Gaz. vol. 148; p. 740.
Cook, F. A., Elkader, Iowa. Attachment to corn-planters. No. 939,983; Nov. 16; Sp. p. 3384; Gaz. vol. 148; p. 583.
Cook, F. B. (See Hewitt and Nolen, assignors.)
Cook, F. B. (See Nolen, J. G., assignor.)
Cook, H. F., Lake Mills, Iowa. Window-shade and lace-curtain support. No. 939,808; Nov. 9; Sp. p. 3004; Gaz. vol. 148; p. 494.
Cook, W. J., Denver, Colo. Electric railway signaling apparatus. No. 939,984; Nov. 16; Sp. p. 3385; Gaz. vol. 148; p. 583.
Cook, W. J., Denver, Colo. Automatically-operated gate for railway-crossings. No. 940,786; Nov. 23; Sp. p. 5203; Gaz. vol. 148; p. 883.
Cook, W. J., Denver, Colo. Railway signaling apparatus. No. 940,787; Nov. 23; Sp. p. 5210; Gaz. vol. 148; p. 884.
Cooney, J., assignor to Safety Window Company, New York, N. Y. Window. No. 941,310; Nov. 23; Sp. p. 6319; Gaz. vol. 148; p. 1056.
Cooper Hewitt Electric Company. (See Hewitt, P. C., assignor.)
Cooper, J. H., Rochester, N. Y. Carburetor. No. 941,406; Nov. 30; Sp. p. 6550; Gaz. vol. 148; p. 1111.
Cooper, S. C., Nunda, N. Y. Scale. No. 939,809; Nov. 9; Sp. p. 3005; Gaz. vol. 148; p. 495.
Cooperstock, J., New York, N. Y. Train interlocker and cross-bridge. No. 938,980; Nov. 2; Sp. p. 1149; Gaz. vol. 148; p. 183.
Copp, B. F., Las Cruces, N. Mex. Dental inlay-holder. No. 939,476; Nov. 9; Sp. p. 2293; Gaz. vol. 148; p. 380.
Corbett, W. H., Portland, Oreg. Hoisting or logging device. No. 939,670; Nov. 9; Sp. p. 2710; Gaz. vol. 148; p. 447.
Cordley, H. G., Glenridge, N. J. Liquid-vending device. No. 941,760; Nov. 30; Sp. p. 7292; Gaz. vol. 148; p. 1228.
Corliss, H. A., Grants Pass, Oreg. Amalgamator. No. 941,560; Nov. 30; Sp. p. 6854; Gaz. vol. 148; p. 1161.
Cornell, F. E., New York, N. Y. Paper box for packing paints, &c. No. 938,981; Nov. 2; Sp. p. 1151; Gaz. vol. 148; p. 184.
Cornelison, J. H., St. Louis, Mo. Window-screen. No. 938,641; Nov. 2; Sp. p. 434; Gaz. vol. 148; p. 67.
Cornely, R., Paris, France. Sewing and embroidering machine. No. 940,788; Nov. 23; Sp. p. 5213; Gaz. vol. 148; p. 885.
Cornet, J. G., *et al.* (See Moreau, J., assignor.)
Cornford, W. H., Mornington, Victoria, Australia. Toy cannon. No. 938,982; Nov. 2; Sp. p. 1153; Gaz. vol. 148; p. 184.
Corrington, M., New York, N. Y. Fluid-pressure-brake apparatus. No. 941,914; Nov. 30; Sp. p. 7618; Gaz. vol. 148; p. 1283.
Corry Castor Co. (See Humphrey, E. H., assignor.)
Corwin, E. R., and C. A. Bals, assignors to Corwin Telephone Manufacturing Company, Chicago, Ill. Relay. No. 941,761; Nov. 30; Sp. p. 7295; Gaz. vol. 148; p. 1229.
Corwin, E. R., and C. A. Bals, assignors to Corwin Telephone Manufacturing Company, Chicago, Ill. Desk-telephone. No. 941,762; Nov. 30; Sp. p. 7296; Gaz. vol. 148; p. 1229.
Corwin, E. R., and C. A. Bals, assignors to Corwin Telephone Manufacturing Company, Chicago, Ill. Bank of locking switch-keys. No. 941,763; Nov. 30; Sp. p. 7300; Gaz. vol. 148; p. 1230.
Corwin Telephone Manufacturing Company. (See Corwin and Bals, assignors.)
Cosmos Construction Company. (See Lamson, F. S., assignor.)
Costello, J. T., Pittsburg, Pa. Plumbing-trap. No. 941,062; Nov. 23; Sp. p. 5774; Gaz. vol. 148; p. 975.
Côté, G. M., Pittsburg, Pa. Rail-fastener. No. 941,697; Nov. 30; Sp. p. 7147; Gaz. vol. 148; p. 1206.
Côté, G. M., assignor to Standard Steel Tie Company, Pittsburg, Pa. Rail-support. No. 939,477; Nov. 9; Sp. p. 2294; Gaz. vol. 148; p. 380.
Cotton, A. H., Rawene, Hokianga, New Zealand. Toy. No. 941,311; Nov. 23; Sp. p. 6323; Gaz. vol. 148; p. 1057.
Cotton Harvester Company. (See Patterson, W. A., assignor.)
Coulston, E. V., Rock Island, Ill. Furnace. No. 940,789; Nov. 23; Sp. p. 5215; Gaz. vol. 148; p. 885.
Coultas, C. G., Murrayville, Ill. Hog-gambrel. No. 940,434; Nov. 16; Sp. p. 4431; Gaz. vol. 148; p. 741.
Cousins, A. B. (See Howard and Cousins.)
Coventry, L. M. (See Border, A. J., assignor.)
Covey, N. S. (See Humphrey, E. H., assignor.)
Cowburn, T., Brockworth, England. Egg-opener. No. 940,790; Nov. 23; Sp. p. 5218; Gaz. vol. 148; p. 886.
Cowen, G. A., Boston, Mass. Measuring apparatus. No. 941,359; Nov. 30; Sp. p. 6423; Gaz. vol. 148; p. 1095.
Cowles, E. P., Lansing, Mich. Variable-speed-transmission gear. No. 939,589; Nov. 9; Sp. p. 2533; Gaz. vol. 148; p. 417.
Cowper-Coles, S. O., Westminster, London, England. Manufacture of cement. No. 939,217; Nov. 9; Sp. p. 1653; Gaz. vol. 148; p. 291.
Cox, C. E., Indianapolis, Ind. Transmission-controller. No. 941,407; Nov. 30; Sp. p. 6553; Gaz. vol. 148; p. 1111.
Cox, R. J., Chaney, Okla. Penholder. No. 939,810; Nov. 9; Sp. p. 3007; Gaz. vol. 148; p. 495.
Crabtree, J. R., Garrett, Okla. Gun. No. 938,983; Nov. 2; Sp. p. 1155; Gaz. vol. 148; p. 184.
Craig, D., Melrose, Mass., assignor to David Craig Company. Stool for water-closets. No. 940,435; Nov. 16; Sp. p. 4432; Gaz. vol. 148; p. 741.
Cramer, E. F., Satsop, Wash. Refrigerator. No. 939,591; Nov. 9; Sp. p. 3166; Gaz. vol. 148; p. 522.
Crane, C. F., New York, N. Y. Air-tight fire-pail. No. 939,220; Nov. 9; Sp. p. 1658; Gaz. vol. 148; p. 292.
Crawford, A. G., Newcastle, Pa. Tool for applying bridles to piano-actions. No. 938,826; Nov. 2; Sp. p. 811; Gaz. vol. 148; p. 130.
Crawford, D. F., Pittsburg, Pa. Mechanical stoker for locomotives. No. 941,698; Nov. 30; Sp. p. 7148; Gaz. vol. 148; p. 1207.
Crawford, H. H., El Paso, Tex. Harness. No. 939,985; Nov. 16; Sp. p. 3388; Gaz. vol. 148; p. 584.
Crawford, V. T., Olio, Miss. Window-shade-roller bracket. No. 938,642; Nov. 2; Sp. p. 436; Gaz. vol. 148; p. 67.
Creasey, S. E., Portland, Me. Fly-book. No. 940,132; Nov. 16; Sp. p. 3739; Gaz. vol. 148; p. 637.
Creech, J. S. (See Ellis, Purvis, and Creech.)
Crider, G. M., Marion, Ky. Type-writer desk or table-top. No. 938,464; Nov. 2; Sp. p. 24; Gaz. vol. 148; p. 6.
Crippen, H. O., Louisville, Ky. Spike-holder. No. 941,621; Nov. 30; Sp. p. 6981; Gaz. vol. 148; p. 1181.
Critz, F. A., Jr., West Point, Miss. Shoe. No. 940,856; Nov. 23; Sp. p. 5348; Gaz. vol. 148; p. 907.
Crocker, E. B. (See Blanchard and Crocker.)
Crocker-Wheeler Company. (See Young, F. W., assignor.)
Crocker-Wheeler Company. (See Young and Heitmann, assignors.)
Crockett, D., Birmingham, Ala. Door-stop. No. 940,436; Nov. 16; Sp. p. 4436; Gaz. vol. 148; p. 742.
Crompton & Knowles Loom Works. (See Hutchins, G. F., assignor.)
Crompton & Knowles Loom Works. (See McGuiness, B. F., assignor.)
Crompton & Knowles Loom Works. (See Regan, J., assignor.)
Crompton & Knowles Loom Works. (See Ryon, E. H., assignor.)
Crompton & Knowles Loom Works. (See Whitmore, F. A., assignor.)

Crompton & Knowles Loom Works. (See Wyman, H., assignor.)
Crompton & Knowles Loom Works. (See Wyman and Cyr, assignors.)
Crook, C. M., Chicago, Ill. Ribbon-feed mechanism. No. 941,130; Nov. 23; Sp. p. 5931; Gaz. vol. 148; p. 998.
Crooke, A. (See Crooke, W. and A.)
Crooke, W., Millom, and A. Crooke, Frodingham, England. Apparatus for charging blast-furnaces. No. 939,671; Nov. 9; Sp. p. 2711; Gaz. vol. 148; p. 447.
Crosby, E. W., Sheffield, Ala. Vehicle-body. No. 939,478; Nov. 9; Sp. p. 2296; Gaz. vol. 148; p. 380.
Cross, J. E. (See Daly, J. R., assignor.)
Cross, T. W., Everett, Wash. Saw swaging and shaping device. No. 941,131; Nov. 23; Sp. p. 5934; Gaz. vol. 148; p. 998.
Crouch, H. D., Montreal, Quebec, Canada, assignor to Western Electric Company, Chicago, Ill. Annunciator-case. No. 939,672; Nov. 9; Sp. p. 2712; Gaz. vol. 148; p. 448.
Crouse, D. D., Gage, Okla. Window-pane fastener. No. 941,764; Nov. 30; Sp. p. 7302; Gaz. vol. 148; p. 1230.
Crouse-Hinds Company. (See Hinds, J. L., assignor.)
Crow, W. A., Cement, Okla. Cotton-chopper. No. 941,230; Nov. 23; Sp. p. 6151; Gaz. vol. 148; p. 1032.
Crum, J. A. (See Wyman, W. F., assignor.)
Crumm, C. E., Anutt, Mo. Automatic vehicle-brake. No. 941,063; Nov. 23; Sp. p. 5778; Gaz. vol. 148; p. 975.
Cruÿff, C. J., Amsterdam, Netherlands. Revolving door. No. 941,699; Nov. 30; Sp. p. 7150; Gaz. vol. 148; p. 1207.
Cubitt, A. S., Schenectady, N. Y., assignor to General Electric Company. Control of electrically-operated switches. No. 941,408; Nov. 30; Sp. p. 6556; Gaz. vol. 148; p. 1112.
Cudworth, H. N. (See Norton, Spence, and Cudworth.)
Culbertson, G. A., Chicago, Ill. Clothes-line support. No. 939,811; Nov. 9; Sp. p. 3008; Gaz. vol. 148; p. 495.
Culver, B. B., St. Louis, Mo. Cooking stove and range top. No. 941,064; Nov. 23; Sp. p. 5779; Gaz. vol. 148; p. 975.
Cummings, A. (See Weingarden and Cummings.)
Cummings, H. H., Malden, Mass., assignor to Sub-Target Gun Company, Saco, Me. Coin-controlled target-practice apparatus. No. 941,360; Nov. 30; Sp. p. 6424; Gaz. vol. 148; p. 1095.
Cummings, M. W., and J. F. Jordan, Olyphant, Pa. Card-case or pocket-book. No. 939,673; Nov. 9; Sp. p. 2713; Gaz. vol. 148; p. 448.
Cumms, F. F., deceased; M. Cumms, executrix, Chicago, Ill. Leather-edging tool. No. 940,857; Nov. 23; Sp. p. 5349; Gaz. vol. 148; p. 907.
Cumms, M., executrix. (See Cumms, F. F.)
Cunniff, J. V., and C. Rafferty, Fall River, Mass. Loom-shuttle. No. 939,892; Nov. 9; Sp. p. 3169; Gaz. vol. 148; p. 523.
Cunningham, A. C., Norfolk, Va. Steel car-axle and making the same. No. 938,827; Nov. 2; Sp. p. 412; Gaz. vol. 148; p. 130.
Cupelli, F., Point Marion, Pa. Safety-razor. No. 941,231; Nov. 23; Sp. p. 6153; Gaz. vol. 148; p. 1032.
Currey, C. F., assignor to Kansas Voting Machine Company, Topeka, Kans. Voting-machine construction. No. 938,643; Nov. 2; Sp. p. 437; Gaz. vol. 148; p. 67.
Currey, C. F., assignor to Kansas Voting Machine Company, Topeka, Kans. Counter construction for voting-machines. No. 939,674; Nov. 9; Sp. p. 2715; Gaz. vol. 148; p. 448.
Curry, G. W., Brooklyn, assignor to Good Manufacturing Company, New York, N. Y. Pipe-coupling. No 938,984; Nov. 2; Sp. p. 1156; Gaz. vol. 148; p. 184.
Curtis, E. A., Decatur, Ill. Car-truck. No. 940,133; Nov. 16; Sp. p. 3740; Gaz. vol. 148; p. 637.
Curtis, E. D., Chicago, Ill. Door-operating mechanism. No. 941,132; Nov. 23; Sp. p. 5938; Gaz. vol. 148; p. 998.
Curtis, T. F., Pineville, assignor of one-third to J. D. Askins and one-third to N. M. Bowie, Louisville, Ky. Mail-bag catching and delivering apparatus. No. 938,985; Nov. 2; Sp. p. 1157; Gaz. vol. 148; p. 185.
Curtis, W. M., Vancouver, British Columbia, Canada. Oil-can cutter and tapping valve. No. 938,644; Nov. 2; Sp. p. 438; Gaz. vol. 148; p. 68.
Curtiss, E., assignor of one-fourth to M. L. Matheson, one-fourth to E. Matheson, and one-fourth to A. De Noble, Virginia, Minn. Fly-screen. No. 939,395; Nov. 9; Sp. p. 2113; Gaz. vol. 148; p. 353.
Curtiss, G. E. (See Smith and Curtiss.)
Cushman, A. L., Concord, N. H. Dynamo-electric machine. No. 938,558; Nov. 2; Sp. p. 266; Gaz. vol. 148; p. 39.
Cutter Electrical and Manufacturing Company. (See Scott, W. M., assignor.)
Cuyler, E. S., near Tacoma, Wash. Timber-felling machine. No. 938,559; Nov. 2; Sp. p. 268; Gaz. vol. 148; p. 40.
Cyr, J. T. (See Wyman and Cyr.)
Dalén, G., Stockholm, Sweden, assignor, by mesne assignments, to American Gasaccumulator Company. Automatically opening and closing valves. No. 939,986; Nov. 16; Sp. p. 3390; Gaz. vol. 148; p. 584.
Daley, J. A., assignor to Olmstead-Quaboag Corset Company, West Brookfield, Mass. Corset. No. 939,893; Nov. 9; Sp. p. 3170; Gaz. vol. 148; p. 523.
Dalitz, H., Cleveland, Ohio. Touring-map carrier for automobiles. No. 938,828; Nov. 2; Sp. p. 816; Gaz. vol. 148; p. 131.
Daly, J. M., Chicago, Ill. Computing-machine. No. 939,221; Nov. 9; Sp. p. 1659; Gaz. vol. 148; p. 293.
Daly, J. M., Chicago, Ill. Tonnage-equating machine. No. 939,222; Nov. 9; Sp. p. 1671; Gaz. vol. 148; p. 293.
Daly, J. M., Chicago, Ill. Computing-machine. No. 939,479; Nov. 9; Sp. p. 2297; Gaz. vol. 148; p. 380.
Daly, J. R., New Orleans, La., assignor to J. E. Cross, Baltimore, Md. Automatic oiling device for gas-meter diaphragms. No. 939,675; Nov. 9; Sp. p. 2717; Gaz. vol. 148; p. 449.
Daly, J. R., New Orleans, La., assignor to J. E. Cross, Baltimore, Md. Automatic oiling device for gas-meter diaphragms. No. 940,304; Nov. 16; Sp. p. 4129; Gaz. vol. 148; p. 696.
Daman, L. W., Sackville, New Brunswick, Canada. Flask. No. 940,858; Nov. 23; Sp. p. 5351; Gaz. vol. 148; p. 907.
Damey, J. (See Lathrop, F. H., assignor.)
Damrow, E. C. (See Damrow, G. H. and E. C.)
Damrow, G. H. and E. C., Fond du Lac, Wis. Milk-can. No. 941,232; Nov. 23; Sp. p. 6154; Gaz. vol. 148; p. 1032.
Dana, G. C., *et al.* (See Hetherington, W., assignor.)
Dandridge, E. P., Philadelphia, Pa. Elevating and lowering apparatus. No. 938,986; Nov. 2; Sp. p. 1160; Gaz. vol. 148; p. 185.
Danforth, C. W., and N. Jones, Sharon, Pa. Electrolytically removing iron-oxid scale. No. 939,223; Nov. 9; Sp. p. 1685; Gaz. vol. 148; p. 293.
Danforth, C. W., and N. Jones, Sharon, Pa. Electrolytically removing iron-oxid scale. No. 939,224; Nov. 9; Sp. p. 1687; Gaz. vol. 148; p. 294.
Daniel, P. G. E., Clevedon, and C. A. H. Bullock, London, England. Apparatus for cutting paper, &c. No. 940,862; Nov. 23; Sp. p. 5359; Gaz. vol. 148; p. 908.
Daniels, F. H., Worcester, Mass. Treatment of steel rails. No. 941,134; Nov. 23; Sp. p. 5943; Gaz. vol. 148; p. 999.
Daniels, F. H., Worcester, Mass. Heat-retainer. No. 941,858; Nov. 30; Sp. p. 7511; Gaz. vol. 148; p. 1263.
Daniels, S. D., *et al.* (See Daring, W. G., assignor.)
Daniels, W. A., assignor to National Waterproof Film Company, Chicago, Ill. Web-coating machine. No. 939,396; Nov. 9; Sp. p. 2115; Gaz. vol. 148; p. 353.
Danielson, W. A., Des Moines, Iowa, assignor to General Electric Company. Motor-generator set. No. 941,439; Nov. 30; Sp. p. 6611; Gaz. vol 148; p. 1121.
Dannenberg, F. H. (See Condell, Beck, and Dannenberg.)
Dannheiser, J., San Francisco, Cal. Filing-cabinet. No. 941,133; Nov. 23; Sp. p. 5941; Gaz. vol. 148; p. 999.
Dargent, C., New York, N. Y. Coupling for floats. No. 939,397; Nov. 9; Sp. p. 2118; Gaz. vol. 148; p. 353.
Daring, W. G., assignor of one-third to C. B. Henry and one-third to S. D. Daniels, Pittsburg, Pa. Automatic safety appliance for railways. No. 941,233; Nov. 23; Sp. p. 6155; Gaz. vol. 148; p. 1032.
Darling, J., Williamsport, Ind. Staple for fence-posts. No. 941,978; Nov. 30; Sp. p. 7741; Gaz. vol. 148; p. 1304.
Dath, E., Newton, Mass. Composition for dressing textile stock. No. 941,361; Nov. 30; Sp. p. 6429; Gaz. vol. 148; p. 1095.
David Bradley Manufacturing Company. (See Christensen, C., assignor.)
David Craig Company. (See Craig, D., assignor.)
Davidson, L. C., assignor to Big 4 Manufacturing Company, Chicago, Ill. Frame for display sheets or curtains. No. 941,622; Nov. 30; Sp. p. 6983; Gaz. vol. 148; p. 1181.
Davidson, R. J., Hillburn, N. Y., assignor to Standard Equipment Company, Mahwah, N. J. Manufacture of slide-plates for railway-switches. No. 941,623; Nov. 30; Sp. p. 6985; Gaz. vol. 148; p. 1182.
Davidson Rubber Company. (See Upton, H. J., assignor.)
Davidson, S. C., Belfast, Ireland. Apparatus for drying tea, grain, or other substances. No. 940,237; Nov. 16; Sp. p. 3960; Gaz. vol. 148; p. 674.
Davidson, W. L., Kearney, Nebr. Cement block for wall structure. No. 941,624; Nov. 30; Sp. p. 6987; Gaz. vol. 148; p. 1182.
Davidson, W. S., Nashville, Tenn. Canopy-frame having doors. No. 941,765; Nov. 30; Sp. p. 7303; Gaz. vol. 148; p. 1230.
Davies, H. P., Scranton, Pa. Nut-lock. No. 939,124; Nov. 2; Sp. p. 1430; Gaz. vol. 148; p. 233.
Davies, W. P., Cincinnati, Ohio. Wheel. No. 940,584; Nov. 16; Sp. p. 4750; Gaz. vol. 148; p. 791.
Davis, A., East Orange, N. J. Acetylene generating apparatus. No. 940,437; Nov. 16; Sp. p. 4437; Gaz. vol. 148; p. 742.
Davis, A. I., Lowell, Mass., assignor to American Mason Safety Tread Company, Saco, Me. Safety device for treads of steps. No. 942,031; Nov. 30; Sp. p. 7833; Gaz. vol. 148; p. 1320.
Davis, C. B., Manchester, Va., assignor of one-half to F. Hall, Ridgefield, N. J., and one-sixteenth to J. W. Broski, Richmond Va. Paper box. No. 940,634; Nov. 16; Sp. p. 4848; Gaz. vol. 148; p. 807.

Davis, C. S. (See Philips, E., assignor.)
Davis, C. W., Edgeworth, Pa. Terminal for electrical cables. No. 941,860; Nov. 30; Sp. p. 7514; Gaz. vol. 148; p. 1264.
Davis, C. W., Edgeworth, assignor to Standard Underground Cable Company, Pittsburg, Pa. Terminal for electric cables. No. 941,859; Nov. 30; Sp. p. 7513; Gaz. vol. 148; p. 1263.
Davis, E. and E. E., Sugargrove, Pa. Tenon-forming machine for wheel-spokes. No. 941,625; Nov. 30; Sp. p. 6988; Gaz. vol. 148; p. 1182.
Davis, E. E. (See Davis, E. and E. E.)
Davis, H. C., Philadelphia, Pa. Ship. No. 938,645; Nov. 2; Sp. p. 439; Gaz. vol. 148; p. 68.
Davis, L. D., Erie, Pa. Forming metallic tubes. No. 938,646; Nov. 2; Sp. p. 440; Gaz. vol. 148; p. 68.
Davis, O. C., Brockton, Mass. Making soles for boots and shoes. No. 938,829; Nov. 2; Sp. p. 817; Gaz. vol. 148; p. 131.
Davis, O. H., Buffalo, N. Y. Concrete-block machine. No. 939,225; Nov. 9; Sp. p. 1683; Gaz. vol. 148; p. 294.
Davis, S. A., assignor to American Sheet & Tin Plate Company, Pittsburg, Pa. Manufacture of plates and sheets. No. 941,861; Nov. 30; Sp. p. 7517; Gaz. vol. 148; p. 1264.
Davis, S. E., Minneapolis, Minn. Disk drill. No. 939,812; Nov. 9; Sp. p. 3008; Gaz. vol. 148; p. 495.
Davis Sewing Machine Company. (See Lester, H. B., assignor.)
Davis, T., New York, N. Y. Beer-faucet. No. 940,438; Nov. 16; Sp. p. 4440; Gaz. vol. 148; p. 742.
Davison, J. O., Murray, Iowa. Mud-scraper for wheels. No. 940,859; Nov. 23; Sp. p. 5352; Gaz. vol. 148; p. 907.
Davison, W. H., *et al.* (See MacDonald, C. W., assignor.)
Dawley, C. A., New York, N. Y. Valve. No. 939,987; Nov. 16; Sp. p. 3393; Gaz. vol. 148; p. 585.
Dawson, A. T., and G. T. Buckham, London, assignors to Vickers Sons & Maxim Limited, Westminster, England. Electrical apparatus for transmitting and receiving signals. No. 938,830; Nov. 2; Sp. p. 819; Gaz. vol. 148; p. 131.
Dawson, A. T., Westminster, London, and J. Horne, Barrow-in-Furness, assignors to Vickers Sons & Maxim Limited, London, England. Ammunition-hoisting apparatus for heavy ordnance. No. 938,560; Nov. 2; Sp. p. 269; Gaz. vol. 148; p. 40.
Dawson, A. T., Westminster, and J. Horne, Barrow-in-Furness, assignors to Vickers Sons & Maxim, Limited, London, England. Range-keeper for guns. No. 941,626; Nov. 30; Sp. p. 6989; Gaz. vol. 148; p. 1182.
Day, B., Summit, N. J. Film-frame apparatus. No. 941,500; Nov. 30; Sp. p. 6736; Gaz. vol. 148; p. 1141.
Dayton Clothing Manufacturing Company. (See Richards, J. E., assignor.) (Reissue.)
De Clercq, F., New York, N. Y. Syrup-percolator. No. 941,234; Nov. 23; Sp. p. 6159; Gaz. vol. 148; p. 1033.
De Jarnatt, H. W., Centralia, Mo., assignor, by mesne assignments, to Marlin Firearms Company, New Haven, Conn. Magazine-firearm. No. 940,791; Nov. 23; Sp. p. 5219; Gaz. vol. 148; p. 886.
De Kay, C. W., Byron, N. Y. Plow attachment. No. 938,647; Nov. 2; Sp. p. 442; Gaz. vol. 148; p. 68.
De Laval Steam Turbine Company. (See Guy, A. E., assignor.)
De Loss, H. H. (See Ford, H. H., assignor.)
De Meurisse, A., Philadelphia, Pa. Game apparatus. No. 941,793; Nov. 30; Sp. p. 7353; Gaz. vol. 148; p. 1239.
De Moulin, E., Greenville, Ill. Trick-chair. No. 941,135; Nov. 23; Sp. p. 5944; Gaz. vol. 148; p. 1000.
De Noble, A., *et al.* (See Curtiss, E., assignor.)
De Remer, W. L., Chicago, Ill. Railway and rail-support therefor. No. 942,032; Nov. 30; Sp. p. 7834; Gaz. vol. 148; p. 1320.
De Vilbiss Manufacturing Company. (See De Vilbiss, T. A., assignor.)
De Vilbiss, T. A., assignor to De Vilbiss Manufacturing Company, Toledo, Ohio. Atomizer. No. 938,648; Nov. 2; Sp. p. 443; Gaz. vol. 148; p. 69.
De Voe, A. H., Elizabeth, N. J., assignor to Singer Manufacturing Company. Work-holder for sewing-machines. No. 939,894; Nov. 9; Sp. p. 3171; Gaz. vol. 148; p. 523.
De Zeng, H. L., Manle Shade, N. J. Optometer. No. 941,766; Nov. 30; Sp. p. 7305; Gaz. vol. 148; p. 1231.
Deacon, G. B., London, Ontario, Canada. Clothes-drier. No. 939,398; Nov. 9; Sp. p. 2120; Gaz. vol. 148; p. 353.
Dean, E., *et al.* (See Hubmann, J., assignor.)
Dean Electric Company. (See Dean, W. W., assignor.) (Reissue.)
Dean, W. H. (See McCoy, M. H., assignor.)
Dean, W. W., Elyria, Ohio, assignor to Dean Electric Company. Telephone-transmitter. (Reissue.) No. 13,035; Nov. 2; Sp. p. 1608; Gaz. vol. 148; p. 262.
Deane, J. B., New York, N. Y. Band-cutter. No. 938,831; Nov. 2; Sp. p. 825; Gaz. vol. 148; p. 132.
Dearborn, R. J., Wilkinsburg, Pa., assignor to Westinghouse Electric & Manufacturing Company. System of electrical distribution. No. 941,362; Nov. 30; Sp. p. 6430; Gaz. vol. 148; p. 1095.
Decker, F. W., assignor of one-third to A. Fendig, Brunswick, Ga. Combined fertilizer-distributer and planter. No. 940,517; Nov. 16; Sp. p. 4609; Gaz. vol. 148; p. 769.
Decker, W. H., assignor to Solvay Process Company, Syracuse, N. Y. Apparatus for making paper. No. 941,561; Nov. 30; Sp. p. 6855; Gaz. vol. 148; p. 1161.
Decker, W. H., assignor to Solvay Process Company, Syracuse, N. Y. Means for holding barrel-heads in place. No. 941,562; Nov. 30; Sp. p. 6858; Gaz. vol. 148; p. 1162.
Dedrick, N. (See Schuette and Dedrick.)
Defiance Pressed Steel Company. (See Klenk and Fink, assignors.) (Reissue.)
Degan, J., Roxbury, Mass. Adjustable picture-hanger. No. 939,226; Nov. 9; Sp. p. 1690; Gaz. vol. 148; p. 294.
Degen, J. (See Clymer and Degen.)
Deggim, J. C., Cleveland, Ohio. Sash-lock. No. 939,480; Nov. 9; Sp. p. 2300; Gaz. vol. 148; p. 381.
Deinet, J., assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Vat coloring-matter. No. 938,618; Nov. 2; Sp. p. 395; Gaz. vol. 148; p. 59.
Deinet, J., assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Vat coloring-matter. No. 938,619; Nov. 2; Sp. p. 395; Gaz. vol. 148; p. 59.
Delaney, D. J. (See Brodhead, A. G., assignor.)
Delbridge, J., Windsor, Victoria, Australia. Air compressor or pump. No. 941,627; Nov. 30; Sp. p. 6991; Gaz. vol. 148; p. 1183.
Dellwik-Fleischer, Wassergas Gesellschaft m. b. H. (See Dicke and Klinkmann, assignors.)
Demary, J. B., Plattsburg, N. Y. Shingle-bracket. No. 940,957; Nov. 23; Sp. p. 5554; Gaz. vol. 148; p. 940.
Dempsey, J. M. (See Schaeffer and Dempsey.)
Dempsey, J. T., Kansas City, Kans., assignor of one-half to E. S. W. Drought, Kansas City, Mo. Automatic safety device for elevators. No. 940,792; Nov. 23; Sp. p. 5222; Gaz. vol. 148; p. 886.
Denhard, H. W., assignor to G. B. Katzenstein, Jr., San Francisco, Cal. Attachment for electric appliances. No. 941,979; Nov. 30; Sp. p. 7742; Gaz. vol. 148; p. 1304.
Dennis, A. A., assignor to Veneer Machinery Company, Grand Rapids, Mich. Gluing veneers. (Reissue.) No. 13,034; Nov. 2; Sp. p. 1605; Gaz. vol. 148; p. 261.
Dennis, D. D., Pecos, Tex. Water-wheel. No. 940,677; Nov. 23; Sp. p. 4960; Gaz. vol. 148; p. 846.
Dennison, W. U., Youngstown, Ohio. Apparatus for shaping rolls. No. 939,590; Nov. 9; Sp. p. 2543; Gaz. vol. 148; p. 417.
Deport, J. A., Paris, France. Gun-carriage for field ordnance. No. 939,399; Nov. 9; Sp. p. 2122; Gaz. vol. 148; p. 354.
Deschamps, O., Moosup, Conn. Coal-stove attachment. No. 940,238; Nov. 16; Sp. p. 3962; Gaz. vol. 148; p. 674.
Desiot, E., assignor to Société Lecaron Fils, Paris, France. Apparatus for drying hair and furs. No. 941,980; Nov. 30; Sp. p. 7743; Gaz. vol. 148; p. 1304.
Detroit Oak Belting Company. (See Kolbe, A. G., assignor.)
Detroit Shear Company. (See Searight, J. R., assignor.)
Dettelbach, E., and E. W. B. Powell, assignors of one-third to A. Nisbet and one-third to T. W. Baird, Denver, Colo. Vehicle-wheel. No 939,190; Nov. 2; Sp. p. 1586; Gaz. vol. 148; p. 256.
Deutsche Gasglühlicht Actien Gesellschaft (Auergesellschaft). (See Remané, H., assignor.)
Devarco, P., Newark, N. J. Siphon-bottle. No. 938,746; Nov. 2; Sp. p. 637; Gaz. vol. 148; p. 101.
Devine, J. F., administrator. (See Zschech, G. H.)
Devore, W. E., Gibson City, Ill. Washing-machine. No. 941,344; Nov. 23; Sp. p. 6371; Gaz. vol. 148; p. 1066.
Dexter, T. C. (See Cardell, C. O. L., assignor.)
Dextraze, L. (See Jourdain and Dextraze.)
Dibert, L. C., San Francisco, Cal. Vibrating shaker-screen. No. 941,862; Nov. 30; Sp. p. 7518; Gaz. vol. 148; p. 1264.
Dicke, H., Frankfort-on-the-Main, and E. Klinkmann, Zawodzie, near Kattowitz, assignors to Dellwik-Fleischer, Wassergas Gesellschaft m. b. H., Frankfort-on-the-Main, Germany. Apparatus for welding tubes. No. 939,591; Nov. 9; Sp. p. 2545; Gaz. vol. 148; p. 418.
Dickerson, C. L., Clinton, Ill. Gage-glass. No. 940,860; Nov. 23; Sp. p. 5353; Gaz. vol. 148; p. 907.
Dickey, S. J., assignor to United Gas Improvement Company, Philadelphia, Pa. Water-gas apparatus. No. 940,925; Nov. 23; Sp. p. 5479; Gaz. vol. 148; p. 929.
Dickson, E. A., assignor of one-half to E. W. Hurlbut, Denver, Colo. Carbureter. No. 939,481; Nov. 9; Sp. p. 2302; Gaz. vol. 148; p. 381
Dickson, G. F., assignor to Confectioners and Bakers Supply Co., Chicago, Ill. Freezer. No. 941,767; Nov. 30; Sp. p. 7309; Gaz. vol. 148; p. 1231.
Didier, J. L., Knoxville, Tenn. Flue expander and beader. No. 941,190; Nov. 23; Sp. p. 6071; Gaz. vol. 148; p. 1019.
Diebel, W., Philadelphia, Pa. Safety-razor. No. 939,400; Nov. 9; Sp. p. 2123; Gaz. vol. 148; p. 354.
Dieffenbach, O., and W. Moldenhauer, Darmstadt, Germany. Electric furnace for gas reactions. No. 941,768; Nov. 30; Sp. p. 7312; Gaz. vol. 148; p. 1232.

Dienl, C. W., New York, N. Y. Dredge. No. 939,227; Nov. 9; Sp. p. 1691; Gaz. vol. 148; p. 294.
Diehl, F., Elizabeth, N. J., assignor to Diehl Manufacturing Company. Controller for electric motors. No. 938,649; Nov. 2; Sp. p. 445; Gaz. vol. 148; p. 69.
Diehl Manufacturing Company. (See Diehl, F., assignor.)
Diehl Manufacturing Company. (See Miller, H. S., assignor.)
Diemer, G. H. (See Zuech and Diemer.)
Diesbach, H. von. (See Isler, Luttringhaus, and Diesbach.)
Dietrich, H. A. R., South Bethlehem, Pa. Expansion-tank with liquid-relief. No. 941,235; Nov. 23; Sp. p. 6160; Gaz. vol. 148; p. 1033.
Dikkers, G. J. O. D., Lonneker, near Ilengelo, Netherlands. Stop or like valve. No. 940,239; Nov. 16; Sp. p. 3964; Gaz. vol. 148; p. 674.
Dilgard, M. L. (See Scott and Dilgard.)
Dilts, H. I., assignor to Neptune Meter Company, New York, N. Y. Water-meter. No. 941,563; Nov. 30; Sp. p. 6860; Gaz. vol. 148; p. 1162.
Dishman, M., Bowling Green, Ky. Cup. No. 941,236; Nov. 23; Sp. p. 6164; Gaz. vol. 148; p. 1034.
Dismuke, W. H. (See Morton and Dismuke.)
Ditmar, A. C., Davenport, Wash. Journal for agricultural implements. No. 941,191; Nov. 23; Sp. p. 6073; Gaz. vol. 148; p. 1019.
Dixon, T. B., New York, N. Y. Telegraph system and apparatus. No. 939,401; Nov. 9; Sp. p. 2125; Gaz. vol. 148; p. 354.
Dixon, Z., Chicago, Ill. Barrel head and hoop fastener. No. 938,650; Nov. 2; Sp. p. 450; Gaz. vol. 148; p. 70.
Doane, F. C., and F. E. Ceeder, assignors of one-third to W. A. MacKenzie, Spokane, Wash. Automatic pipe-coupling. No. 940,678; Nov. 23; Sp. p. 4962; Gaz. vol. 148; p. 846.
Dobbs, C., Haskell, N. J., assignor to Laflin and Rand Powder Company, New York, N. Y. Powder-cutting machine. No. 939,895; Nov. 9; Sp. p. 3173; Gaz. vol. 148; p. 524.
Dobin, T. J. (See Randall, T. L., assignor.)
Doble, H. W., *et al.* (See Doble, W. H., assignor.)
Doble, H. W., *et al.* (See Doble and Wheaton, assignors.)
Doble, M. E. (See Doble, W. A., assignor.)
Doble, W. A., San Francisco, Cal., assignor to M. E. Doble. Regulating-nozzle. No. 941,440; Nov. 30; Sp. p. 6614; Gaz. vol. 148; p. 1121.
Doble, W. H., assignor of three-fourths to H. W. Doble and one-fourth to Pneumatic Scale Corporation Limited, Quincy, Mass. Knock-down shipping-case or box. No. 941,014; Nov. 23; Sp. p. 5679; Gaz. vol. 148; p. 959.
Doble, W. H., Quincy, and C. M. Wheaton, Newton, assignors of three-fourths to H. W. Doble and one-fourth to Pneumatic Scale Corporation Limited, Quincy, Mass. Folding box or shipping-case. No. 941,013; Nov. 23; Sp. p. 5674; Gaz. vol. 148; p. 958.
Dobry, J., St. Paul, Nebr. Hog-trap. No. 939,228; Nov. 9; Sp. p. 1694; Gaz. vol. 148; p. 294.
Dod, G. E., Maryborough, Queensland, Australia. Internal-combustion gas-turbine. No. 939,229; Nov. 9; Sp. p. 1700; Gaz. vol. 148; p. 295.
Dodge, L. G., assignor to Grand Rapids Show Case Company, Grand Rapids, Mich. Movable garment-support. No. 941,501; Nov. 30; Sp. p. 6742; Gaz. vol. 148; p. 1142.
Dodge, L. G., W. Freeman, and A. Vanderveld, assignors to Grand Rapids Show Case Company, Grand Rapids, Mich. Movable garment-support. No. 941,502; Nov. 30; Sp. p. 6743; Gaz. vol. 148; p. 1142.
Dodge, P. T., Washington, D. C., assignor to Mergenthaler Linotype Company. Producing matrices. No. 939,988; Nov. 16; Sp. p. 3398; Gaz. vol. 148; p. 585.
Doering, F. H., Salida, Colo. Sliding gate. No. 940,134; Nov. 16; Sp. p. 3741; Gaz. vol. 148; p. 638.
Doering, F. H., Salida, Colo. Sliding gate. No. 941,628; Nov. 30; Sp. p. 6995; Gaz. vol. 148; p. 1183.
Doerr, C. J., assignor of one-third to W. R. Hulbert and one-third to G. M. Siegrist, Erie, Pa. Regulator for air-brakes. No. 939,896; Nov. 9; Sp. p. 3176; Gaz. vol. 148; p. 524.
Doherty, H. L., New York, N. Y. Burning lime and apparatus therefor. No. 938,987; Nov. 2; Sp. p. 1162; Gaz. vol. 148; p. 185.
Dolph, O. W., Cincinnati, Ohio. Measuring instrument. No. 940,459; Nov. 16; Sp. p. 4441; Gaz. vol. 148; p. 743.
Dom, A. (See Keck and Dom.)
Doman, L. B., assignor to Amphion Piano Player Company, Elbridge, N. Y. Guide mechanism for traveling sheets. No. 939,897; Nov. 9; Sp. p. 3178; Gaz. vol. 148; p. 525.
Donner, P. E., Pittsburg, Pa. Doubling apparatus. No. 941,700; Nov. 30; Sp. p. 7154; Gaz. vol. 148; p. 1207.
Donohoe, T., Avella, Pa. Car-wheel and mounting. No. 938,988; Nov. 2; Sp. p. 1163; Gaz. vol. 148; p. 186.
Dor-Delattre, E., Liege, Belgium. Obtaining intimate mixtures. No. 939,989; Nov. 16; Sp. p. 3399; Gaz. vol. 148; p. 585.
Dorgeloh, G. H., Schenectady, N. Y., assignor to General Electric Company. Rheostat. No. 941,441; Nov. 30; Sp. p. 6621; Gaz. vol. 148; p. 1121.
Dornan, T. B., Philadelphia, Pa. Woven fabric. No. 939,230; Nov. 9; Sp. p. 1701; Gaz. vol. 148; p. 295.
Dornfeld, J. F., Chicago, Ill. Valve for steep-tanks. No. 941,442; Nov. 30; Sp. p. 6623; Gaz. vol. 148; p. 1122.
Dorr, C. A. (See Ayers and Dorr.)
Doswald, T., Triest, Austria-Hungary. Sharpening and honing device for razors. No. 939,402; Nov. 9; Sp. p. 2138; Gaz. vol. 148; p. 355.
Dotson, B. L., Greenwood, W. Va. Mail-package. No. 941,237; Nov. 23; Sp. p. 6165; Gaz. vol. 148; p. 1034.
Dotter, W. H., and R. S. Hays, assignors to Frog, Switch & Manufacturing Company, Carlisle, Pa. Reversible frog. No. 940,440; Nov. 16; Sp. p. 4442; Gaz. vol. 148; p. 743.
Dotter, W. H., and R. S. Hays, assignors to Frog, Switch & Manufacturing Company, Carlisle, Pa. Hard-center frog. No. 940,441; Nov. 16; Sp. p. 4445; Gaz. vol. 148; p. 743.
Dougal, T. M., and J. M. Chambers, assignors to Teletopograph Signal Company, Boulder, Colo. Railway signaling system. No. 941,263; Nov. 23; Sp. p. 6210; Gaz. vol. 148; p. 1042.
Dougherty, J. E., Missoula, Mont. Rail-curve seat. No. 941,312; Nov. 23; Sp. p. 6324; Gaz. vol. 148; p. 1057.
Doughty, L. C., Onley, Va. Transplanting implement. No. 938,651; Nov. 2; Sp. p. 450; Gaz. vol. 148; p. 70.
Douglass, N. B., Seattle, Wash. Wall or cabinet bed. No. 939,482; Nov. 9; Sp. p. 2304; Gaz. vol. 148; p. 381.
Douthitt, S. J. (See Colbert, S. B., assignor.)
Dow Chemical Company. (See Barstow, E. O., assignor.)
Dowell, C. L. (See Elsworth and Dowell.)
Downey, W. J. C., South Perth, Western Australia, Australia. Sight for firearms. No. 939,813; Nov. 9; Sp. p. 3010; Gaz. vol. 148; p. 496.
Doyle, J. S. (See Hedley and Doyle.)
Dozier, W. W., West Nashville, Tenn. Folding chair. No. 938,832; Nov. 2; Sp. p. 826; Gaz. vol. 148; p. 132.
Drake, M. S. (See Meeker and Drake.)
Draper, C. H., Hopedale, Mass. Power-transmitting mechanism. No. 940,861; Nov. 23; Sp. p. 5354; Gaz. vol. 148; p. 908.
Draper Company. (See Allen, N. I., assignor.)
Draper Company. (See Rhoades, A. E., assignor.)
Draper Company. (See Stone, M. L., assignor.)
Draper, G. O., Hopedale, Mass. Resilient tire for vehicles. No. 941,015; Nov. 23; Sp. p. 5681; Gaz. vol. 148; p. 959.
Draper, W. F. (See Northrop, J., assignor.)
Drennan, G. T., Biloxi, Miss. Stocking. No. 940,585; Nov. 16; Sp. p. 4751; Gaz. vol. 148; p. 791.
Dreska, B. M. (See Foster and Dreska.)
Drew, S., Rochester, N. Y. Floor-scraping machine. No. 938,652; Nov. 2; Sp. p. 451; Gaz. vol. 148; p. 70.
Droll, A. (See Hardy and Droll.)
Drought, E. S. W. (See Dempsey, J. T., assignor.)
Du Bose, C. C., Merryville, La. Saw jointer and gage. No. 941,981; Nov. 30; Sp. p. 7744; Gaz. vol. 148; p. 1304.
Du Bose, R. S., Odessa, Fla. Railway-rail joint. No. 939,814; Nov. 9; Sp. p. 3012; Gaz. vol. 148; p. 496.
Dubenhorst, F., Steglitz, assignor to Optische Anstalt C. P. Goerz Aktiengesellschaft, Friedenau, near Berlin, Germany. Optical distance-measuring instrument. No. 941,503; Nov. 30; Sp. p. 6746; Gaz. vol. 148; p. 1142.
Dubied & Cie., E. (See Popp, B., assignor.)
Dubois, J. A., Besançon, France. Buckle for waist-belts. No. 941,136; Nov. 23; Sp. p. 5946; Gaz. vol. 148; p. 1000.
Ducharme, D. A., Fitchburg, Mass. Clamp. No. 941,504; Nov. 30; Sp. p. 6747; Gaz. vol. 148; p. 1143.
Ducharme, J. Z., Alcide, N. D. Sled. No. 939,231; Nov. 9; Sp. p. 1704; Gaz. vol. 148; p. 295.
Dudley, J. M., Bessemer, Ala. Reinforcing-bar for concrete. No. 939,403; Nov. 9; Sp. p. 2139; Gaz. vol. 148; p. 355.
Duerden, S., assignor of one-half to Strachan & Henshaw, Limited, Bristol, England. Paper-bag-making machinery. No. 938,653; Nov. 2; Sp. p. 456; Gaz. vol. 148; p. 71.
Duering, F. E., assignor of one-third to G. F. Young, Syracuse, N. Y. Metal window-sash. No. 941,629; Nov. 30; Sp. p. 6996; Gaz. vol. 148; p. 1183.
Dumond, C. B., Waterbury, Conn. Curtain-bracket. No. 939,815; Nov. 9; Sp. p. 3013; Gaz. vol. 148; p. 496.
Dumond, F. J., and D. W. Hall, Rose, Kans. Scraper. No. 939,404; Nov. 9; Sp. p. 2141; Gaz. vol. 148; p. 355.
Dunbar, H. F., Turners Falls, Mass. Plating-machine. No. 939,990; Nov. 16; Sp. p. 3401; Gaz. vol. 148; p. 585.
Dunbar, T., and L. J. Berg, Chicago, Ill., assignors to Metallic Sheathing Company. Car construction. No. 940,378; Nov. 16; Sp. p. 4315; Gaz. vol. 148; p. 723.
Duncan, C. J., Windber, Pa. Water-motor. No. 938,989; Nov. 2; Sp. p. 1169; Gaz. vol. 148; p. 186.
Dunckiee, F. P. (See Figg, G. W., assignor.)
Dunn, J. W., and H. J. Randall, Alger, Mich. Saw-tooth. No. 940,518; Nov. 16; Sp. p. 4611; Gaz. vol. 148; p. 769.
Dunn, W. H., San Antonio, Tex. Device for sharpening razors. No. 941,564; Nov. 30; Sp. p. 6862; Gaz. vol. 148; p. 1163.

Durand, V., Jr., Vineland, N. J., assignor, by mesne assignments, to Caloris Manufacturing Company. Protector for the necks of bottles. No. 941,769; Nov. 30; Sp. p. 7314; Gaz. vol. 148; p. 1232.
Duryea, C. E., Reading, Pa. Instantaneous water-heater. No. 940,240; Nov. 16; Sp. p. 3965; Gaz. vol. 148; p. 675.
Dutcher, F., Versailles, Pa. Railway-torpedo. No. 938,465; Nov. 2; Sp. p. 26; Gaz. vol. 148; p. 6.
Duval, J. P., Kansas City, Mo. Bed-pad. No. 940,958; Nov. 23; Sp. p. 5555; Gaz. vol. 148; p. 940.
Dwiggins Wire Fence Company. (See Swank, L., assignor.)
Dyches, J. W., Forney, Tex. Writing instrument. No. 938,654; Nov. 2; Sp. p. 459; Gaz. vol. 148; p. 71.
Dykes, S. B., Esbon, Kans. Corn-husking implement. No. 941,505; Nov. 30; Sp. p. 6749; Gaz. vol. 148; p. 1143.
Dysart, B. W., Los Angeles, Cal. Air-ship. No. 939,483; Nov. 9; Sp. p. 2305; Gaz. vol. 148; p. 382.
E. H. Huenefeld Company. (See Schmidt, F., assignor.)
E. I. du Pont de Nemours Powder Company. (See Broadwater, L. H., assignor.)
E. I. du Pont de Nemours Powder Company. (See Chesney, J., assignor.)
E. I. du Pont de Nemours Powder Company. (See Stillwell, H. A., assignor.)
E. I. du Pont de Nemours Powder Company. (See Woodbury, C. A., assignor.)
E. T. Burrowes Company. (See Burrowes, F. M., assignor.)
Eagle Lock Co. (See Murphy, J. J., assignor.)
Earll, C. I., New York, N. Y. Trolley-catcher. No. 941,363; Nov. 30; Sp. p. 6432; Gaz. vol. 148; p. 1096.
Easley, O. J. (See Easley, S. B. and O. J.)
Easley, S. B. and O. J., Defiance, Ohio. Square. No. 941,313; Nov. 23; Sp. p. 6325; Gaz. vol. 148; p. 1057.
East, F. F., Baltimore, Md. Shipping-package. No. 939,232; Nov. 9; Sp. p. 1706; Gaz. vol. 148; p. 296.
Eastman, C. J., Los Angeles, Cal. Cable traction apparatus. No. 938,655; Nov. 2; Sp. p. 462; Gaz. vol. 148; p. 71.
Eastman, E. H., Hot Springs, Ark. Surgical applicator. No. 940,519; Nov. 16; Sp. p. 4612; Gaz. vol. 148; p. 769.
Eastman, J. B., Smethport, Pa. Twine take-up. No. 939,233; Nov. 9; Sp. p. 1707; Gaz. vol. 148; p. 296.
Eastman Kodak Co. (See Kroedel, R., assignor.)
Eastwood, A. C., Cleveland, Ohio. System of control for electric motors. No. 940,241; Nov. 16; Sp. p. 3967; Gaz. vol. 148; p. 675.
Eastwood, E. E., Piper City, Ill. Detachable spur for vehicle-wheels. No. 938,990; Nov. 2; Sp. p. 1171; Gaz. vol. 148; p. 187.
Eaton, A. L., deceased, New York, N. Y.; C. S. Eaton, executrix. Rivet. No. 940,442; Nov. 16; Sp. p. 4449; Gaz. vol. 148; p. 744.
Eaton, C. S., executrix. (See Eaton, A. L.)
Eaton, C. S., New York, N. Y. Belt-fastener. No. 940,443; Nov. 16; Sp. p. 4451; Gaz. vol. 148; p. 744.
Eaton, W. H., Clay Center, Kans. Petroleum-burner. No. 940,305; Nov. 16; Sp. p. 4131; Gaz. vol. 148; p. 697.
Eba, B., North Warren, Pa. Bone-black kiln. No. 940,520; Nov. 16; Sp. p. 4613; Gaz. vol. 148; p. 770.
Eberhart, C., *et al.* (See Burns, H. B., assignor.)
Eberhart, F. (See Weber, Eberhart, and Swangren.)
Eberhart, F., New York, N. Y. Conveyer. No. 941,364; Nov. 30; Sp. p. 6438; Gaz. vol. 148; p. 1096.
Echols, G. H., Springfield, W. Va. Ice-creeper for horseshoes. No. 940,381; Nov. 16; Sp. p. 4322; Gaz. vol. 148; p. 724.
Eckhardt, H., Pittsburg, Pa. Lock. No. 938,991; Nov. 2; Sp. p. 1172; Gaz. vol. 148; p. 187.
Eckland, C., Stockton, Cal. Oil-burner. No. 939,816; Nov. 9; Sp. p. 3015; Gaz. vol. 148; p. 497.
Ecklif, C. C., Grand Haven, Mich. Water-circulator for boilers. No. 939,991; Nov. 16; Sp. p. 3403; Gaz. vol. 148; p. 586.
Edgarton, G. M., assignor to George M. Edgarton Co., Inc., Boston, Mass. Suspenders. No. 939,898; Nov. 9; Sp. p. 3181; Gaz. vol. 148; p. 525.
Edison Portland Cement Company. (See Edison, T. A., assignor.)
Edison Storage Battery Company. (See Edison, T. A., assignor.)
Edison, T. A., Llewellyn Park, Orange, N. J. Cement-kiln. No. 939,817; Nov. 9; Sp. p. 3016; Gaz. vol. 148; p. 497.
Edison, T. A., Llewellyn Park, Orange, N. J. Phonographic recording and reproducing machine. No. 939,992; Nov. 16; Sp. p. 3405; Gaz. vol. 148; p. 586.
Edison, T. A., Llewellyn Park, Orange, assignor to Edison Storage Battery Company, West Orange, N. J. Electrode element for storage batteries. No. 940,635; Nov. 16; Sp. p. 4850; Gaz. vol. 148; p. 807.
Edison, T. A., Llewellyn Park, Orange, assignor to Edison Portland Cement Company, Stewartsville, N. J. Process and apparatus for artificially aging or seasoning Portland cement. No. 941,630; Nov. 30; Sp. p. 6998; Gaz. vol. 148; p. 1184.
Edman, J., assignor of one-half to M. L. Hundeby, Minneapolis, Minn. Device for cleaning the outside of windows. No. 940,135; Nov. 16; Sp. p. 3743; Gaz. vol. 148; p. 638.
Edmonds, J. H., Los Angeles, Cal. Folding bed. No. 941,982; Nov. 30; Sp. p. 7745; Gaz. vol. 148; p. 1305.
Edmondson, J., Blossburg, Ala. Folding umbrella. No. 938,833; Nov. 2; Sp. p. 828; Gaz. vol. 148; p. 133.
Edson, F. C., Le Roy, N. Y. Folding crate. No. 939,484; Nov. 9; Sp. p. 2307; Gaz. vol. 148; p. 382.
Edward Manogue Co (See Lewis, G. A., assignor.)
Edwards & Company. (See Lüngen, A., assignor.)
Edwards, W. A., Pine Bluff, Ark. Dinner-pail. No. 941,915; Nov. 30; Sp. p. 7621; Gaz. vol. 148; p. 1283.
Edwin B. Stimpson Company. (See Stimpson, E. B., assignor.)
Eells, I. E., and E. N. McKelvey, East Liverpool, Ohio. Curtain-pole support. No. 940,711; Nov. 23; Sp. p. 5026; Gaz. vol. 148; p. 858.
Egan, J. J. (See Tierney, H. A., assignor.)
Egnér, C. E., Stockholm, and J. G. Holmström, Saltsjö-Storängen, Sweden. Telephone-transmitter. No. 938,992; Nov. 2; Sp. p. 1175; Gaz. vol. 148; p. 187.
Ehman, H., St. Louis, Mo Track construction. No. 941,674; Nov. 30; Sp. p. 7090; Gaz. vol. 148; p. 1198.
Ehrhart, R. N., Pittsburg, Pa., assignor to Westinghouse Machine Company. Elastic-fluid turbine. No. 941,409; Nov. 30; Sp. p. 6561; Gaz. vol. 148; p. 1112.
Ehrlich, L. (See Aronson, S., assignor.)
Elbel, F. G., Lancaster, Pa. Switch-operating mechanism for cars. No. 940,136; Nov. 16; Sp. p. 3744; Gaz. vol. 148; p. 638.
Elchhorn, A. and J., Philadelphia, Pa. Display-box. No. 939,234; Nov. 9; Sp. p. 1708; Gaz. vol. 148; p. 296.
Elchhorn, J. (See Elchhorn, A. and J.)
Eldson, T. H., Elkin, N. C. Canning apparatus. No. 939,485; Nov. 9; Sp. p. 2309; Gaz. vol. 148; p. 382.
Elnbigler, R., New York, N. Y. Visual-signal apparatus. No. 940,444; Nov. 16; Sp. p. 4453; Gaz. vol. 148; p. 744.
Eisele, F. F. (See McIntyre, J. J., assignor.)
Eisenbraun, E., Tripp, S. D. Attachment for post-hole augers. No. 939,235; Nov. 9; Sp. p. 1709; Gaz. vol. 148; p. 297.
Elsle, C., *et al.* (See Brown, E. L., assignor.)
Elder, W. J., assignor of one-half to B. Elkins, Wilkinsburg, Pa. Radiator. No. 940,445; Nov. 16; Sp. p. 4456; Gaz. vol. 148; p. 745.
Electric Compositor Company. (See Reynolds, H. A., assignor.)
Electric Metallurgical Company. (See Seward, G. O., assignor.)
Electric and Ordnance Accessories Company Limited. (See Jacobsen, O. B., assignor.)
Electrical Manufacturing Company. (See Meter and Rideout, assignors.)
Electro Dental Manufacturing Company. (See Schramm, A. W., assignor.)
Electro-Magnetic Tool Company. (See Rowe, G. H., assignor.)
Electro Metallurgical Company. (See Becket, F. M., assignor.)
Electro-Vibrating Couch Company. (See Church, W. A., assignor.)
Elfborg, H. G., Chicago, Ill. Railway-frog. No. 940,863; Nov. 23; Sp. p. 5361; Gaz. vol. 148; p. 909.
Elfborg, H. G., Chicago, Ill. Railway-frog. No. 940,864; Nov. 23; Sp. p. 5363; Gaz. vol. 148; p. 909.
Elfstrom, P., Hemmington, Minn. Trap. No. 939,818; Nov. 9; Sp. p. 3018; Gaz. vol. 148; p. 497.
Elkins, A. F., assignor of two-thirds to F. L. McCauley, Ironton, Ohio. Safety device for round tables. No. 938,561; Nov. 2; Sp. p. 273; Gaz. vol. 148; p. 40.
Elkins, B. (See Elder, W. J., assignor.)
Elliott, E. M. (See Johndrow, C. F., assignor.)
Ellis, A., Augusta, Ga. Cushion-wheel. No. 938,834; Nov. 2; Sp. p. 829; Gaz. vol. 148; p. 133.
Ellis, T., Tacoma, G. H. Purvis, Seattle, and J. S. Creech, Raymond, Wash. Automatic track-inspector. No. 938,993; Nov. 2; Sp. p. 1176; Gaz. vol. 148; p. 188.
Ellis, W. T., Weston, Ohio. Gage-wheel for corn-planters. No. 940,382; Nov. 16; Sp. p. 4324; Gaz. vol. 148; p. 724.
Elmore, C. B., assignor to S. E. Elmore, Hartford, Conn. Change-speed mechanism. No. 941,506; Nov. 30; Sp. p. 6749; Gaz. vol. 148; p. 1144.
Elmore, S. E. (See Elmore, C. B., assignor.)
Elsner, A. W., St. Louis, Mo. Pencil-point sharpener. No. 938,835; Nov. 2; Sp. p. 830; Gaz. vol. 148; p. 133.
Elsner, F. J., Racine, Wis. Vehicle-seat. No. 941,983; Nov. 30; Sp. p. 7748; Gaz. vol. 148; p. 1305.
Elsworth, F. H., and C. L. Dowell, Anderson, Ind. Briqueting-machine. No. 940,959; Nov. 23; Sp. p. 5556; Gaz. vol. 148; p. 941.
Emal, F. J., and C. P. Horn, Pickrell, Nebr. Cement-block machine. No. 939,236; Nov. 9; Sp. p. 1710; Gaz. vol. 148; p. 297.
Emerick, F. A., Oswego, N. Y., assignor to Great Bear Spring Company, Jersey City, N. J. Endless carrier. No. 940,793; Nov. 23; Sp. p. 5223; Gaz. vol. 148; p. 886.
Emerson Typewriter Company. (See Sargent, M. B., assignor.)
Emert, J. A., Jellico, Tenn. Poultry-coop. No. 941,507; Nov. 30; Sp. p. 6756; Gaz. vol. 148; p. 1144.
Emery, A. H., Stamford, Conn. Regulating initial strains in rolling structural material. No. 939,676; Nov. 9; Sp. p. 2719; Gaz. vol. 148; p. 449.

Emery, S. W., Big Run, Pa. Locomotive-headlight. No. 940,446; Nov. 16; Sp. p. 4457; Gaz. vol. 148; p. 745.
Emmert, S. L. (See Jones, C. A., assignor.)
Empire Jewelry Case Company. (See Sundee, J. R., assignor.)
Endicott, G. A., Sedalia, Mo. Wire-stretching appliance. No. 940,521; Nov. 16; Sp. p. 4617; Gaz. vol. 148; p. 770.
Engi, G., and H. Kappeler, assignors to Society of Chemical Industry in Basle, Basel, Switzerland. Brown vat dye and making same. No. 940,586; Nov. 16; Sp. p. 4752; Gaz. vol. 148; p. 791.
English, J. C., Camden, N. J., assignor to Victor Talking Machine Company. Sound-box for sound recording and reproducing machines. No. 940,794; Nov. 23; Sp. p. 5225; Gaz. vol. 148; p. 887.
English, J. C., Camden, N. J., assignor to Victor Talking Machine Company. Sound-box for talking-machines. No. 940,795; Nov. 23; Sp. p. 5229; Gaz. vol. 148; p. 887.
English, J. C., Camden, N. J., assignor to Victor Talking Machine Company. Sound-box for sound recording and reproducing machines. No. 940,796; Nov. 23; Sp. p. 5231; Gaz. vol. 148; p. 887.
English, N., Detroit, Mich. Steam-trap. No. 939,677; Nov. 9; Sp. p. 2720; Gaz. vol. 148; p. 450.
Englund, A. H., Philadelphia, Pa., assignor to Pay-Within Car Company, Wilmington, Del. Pay-within passenger railway-car. No. 939,899; Nov. 9; Sp. p. 3183; Gaz. vol. 148; p. 525.
Englund, E., El Campo, Tex. Land-roller. No. 941,770; Nov. 30; Sp. p. 7316; Gaz. vol. 148; p. 1232.
Enrico, G., Turin, Italy, assignor, by mesne assignments, to F. I. A. T., Poughkeepsie township, N. Y. Radiator suspension for motor-cars. No. 939,961; Nov. 9; Sp. p. 3321; Gaz. vol. 148; p. 548.
Eppenstein, O., assignor to Firm of C. Zeiss, Jena, Germany. Coincidence-telemeter. No. 940,137; Nov. 16; Sp. p. 3746; Gaz. vol. 148; p. 639.
Erickson, E. S., Milwaukee, assignor to Milwaukee Stamping Co., West Allis, Wis. Bag-fastener. No. 941,016; Nov. 23; Sp. p. 5984; Gaz. vol. 148; p. 960.
Ericson, O. E. V., Gottenborg, Sweden. Oil-gas cooking-stove. No. 938,747; Nov. 2; Sp. p. 640; Gaz. vol. 148; p. 102.
Ericsson, A. J., Stocksund, Sweden. Machine for grinding solid bodies. No. 938,466; Nov. 2; Sp. p. 27; Gaz. vol. 148; p. 7.
Ericsson, A. J., Stocksund, Stockholm, assignor to Aktiebolaget Separator, Stockholm, Sweden. Continuous centrifugal straining apparatus. No. 939,993; Nov. 16; Sp. p. 3406; Gaz. vol 148; p. 587.
Erie City Manufacturing Company. (See Hutchinson, C. M., assignor.)
Erikson, J., and G. R. Wikander, New York, N. Y. Miter-gage. No. 939,405; Nov. 9; Sp. p. 2142; Gaz. vol. 148; p. 355.
Erikson, L., Malden, Mass. Adjustable support for electric lamps. No. 941,863; Nov. 30; Sp. p. 7520; Gaz. vol. 148; p. 1265.
Erixon, J. N., Concord, Ill. Mold. No. 939,819; Nov. 9; Sp. p. 3019; Gaz. vol. 148; p. 497.
Erwin, F. M., Kinsley, Kans. Hay-stacker. No. 941,238; Nov. 23; Sp. p. 6196; Gaz. vol. 148; p. 1034.
Erwin, G., Philadelphia, Pa. Shutter fastener or bower. No. 938,748; Nov. 2; Sp. p. 642; Gaz. vol. 148; p. 102.
Estis, W. B., Coffeeville, assignor of one-fourth to M. A. Tharp and one-fourth to J. Tharp, Cunningham, Ala. Agricultural implement. No. 939,820; Nov. 9; Sp. p. 3020; Gaz. vol. 148; p. 498.
Etsler, G. A., Standish, Mich. Car-fender. No. 938,994; Nov. 2; Sp. p. 1179; Gaz. vol. 148; p. 188.
Euchenhofer, E. E., Dayton, Ohio. Cushion-tire for vehicles. No. 941,708; Nov. 30; Sp. p. 6757; Gaz. vol. 148; p. 1144.
Evans, C. A., Chester, Pa. Toy and game trap-shooter. No. 941,864; Nov. 30; Sp. p. 7522; Gaz. vol. 148; p. 1265.
Evans, H. O., Philadelphia, Pa. Holder for machine-tools. No. 938,995; Nov. 2; Sp. p. 1182; Gaz. vol. 148; p. 188.
Evans, H. O., Philadelphia, Pa. Automatic chuck. No. 938,996; Nov. 2; Sp. p. 1183; Gaz. vol. 148; p. 189.
Evans, H. O., Philadelphia, Pa. Automatic reversing mechanism. No. 938,997; Nov. 2; Sp. p. 1185; Gaz. vol. 148; p. 189.
Evans, J. C., Youngstown, Ohio. Valve. No. 941,314; Nov. 23; Sp. p. 6326; Gaz. vol. 148; p. 1057.
Evans, P., Philadelphia, Pa. Friction-clutch. No. 940,679; Nov. 23; Sp. p. 4964; Gaz. vol. 148; p. 847.
Evans, W. C. D., assignor of one-half to W. S. Keen, Whittier, Cal. Tongue-support. No. 940,960; Nov. 23; Sp. p. 5557; Gaz. vol. 148; p. 941.
Evans, W. R., San Francisco, Cal. Hat-holder. No. 938,998; Nov. 2; Sp. p. 1186; Gaz. vol. 148; p. 189.
Ewel, E., Grand Island, and S. L. Clement, North Loup, Nebr. Wagon-dump. No. 940,447; Nov. 16; Sp. p. 4459; Gaz. vol. 148; p. 745.
Excelsior Supply Company. (See Hoffer, Whitesell, and Bente, assignors.)
Eyquem, M., Paris, France. Spark-plug for internal-combustion engines. No. 940,448; Nov. 16; Sp. p. 4464; Gaz. vol. 148; p. 746.
F. H. Sadler Company. (See Sadler, L. E., assignor.)
F. I. A. T. (See Enrico, G., assignor.)
Fagan, L. E., Minneapolis, Minn. Rotary blower. No. 940,587; Nov. 16; Sp. p. 4753; Gaz. vol. 148; p. 792.
Faget, A., San Francisco, Cal. System of precooling fruit-cars or the like. No. 941,443; Nov. 30; Sp. p. 6624; Gaz. vol. 148; p. 1122.
Fairbanks Company. (See Romig, R. W., assignor.)
Fairman, B. B., Maquoketa, Iowa. Door-fastener. No. 941,771; Nov. 30; Sp. p. 7317; Gaz. vol. 148; p. 1233.
Falasca, J., Yonkers, N. Y. Faucet. No. 940,522; Nov. 16; Sp. p. 4619; Gaz. vol. 148; p. 770.
Falcone, M., Cokedale, Colo. Bricklaying-machine. No. 941,137; Nov. 23; Sp. p. 5947; Gaz. vol. 148; p. 1000.
Falls, J. M., and L. P. Williams, Louisville, Ky., assignors to Louisville Filler Company. Bottle-filling machine. No. 940,138; Nov. 16; Sp. p. 3748; Gaz. vol. 148; p. 639.
Farbenfabriken vorm. Friedr. Bayer & Co. (See Deinet, J., assignor.)
Farbenfabriken vorm. Friedr. Bayer & Co. (See Fischer, P., assignor.)
Farbenfabriken vorm. Friedr. Bayer & Co. (See Militz, A. E., assignor.)
Farbenfabriken vorm. Friedr. Bayer & Co. (See Ott, P., assignor.)
Farbenfabriken vorm. Friedr. Bayer & Co. (See Thomaschewski, P., assignor.)
Farbwerke vorm. Meister, Lucius & Brüning. (See Liebrecht, A., assignor.)
Farbwerke vorm. Meister, Lucius & Brüning. (See Müller, C. O., assignor.)
Faris, K. B., and J. D. Walker, Whitesburg, Tenn. Fender for double-shovel plows. No. 941,772; Nov. 30; Sp. p. 7319; Gaz. vol. 148; p. 1233.
Farmer, J. B., *et al.* (See Nolley, D. D., assignor.)
Farmilo, G. H., Schenectady, N. Y. Fence-lock. No. 940,680; Nov. 23; Sp. p. 4967; Gaz. vol. 148; p. 847.
Farnsworth, A. M., Camden, N. Y. Coin-collector. No. 941,509; Nov. 30; Sp. p. 6759; Gaz. vol. 148; p. 1145.
Farnworth, R. (See Hollas, Farnworth, and Jackson.)
Farquhar, D. (See Todd and Farquhar.)
Farquhar, J. F. M., Boston, Mass. Sash-bar construction for skylights in greenhouses. No. 939,592; Nov. 9; Sp. p. 2547; Gaz. vol. 148; p. 418.
Farrar & Trefts. (See Oldman, E., assignor.)
Farrell, J. S., and J. S. Lewis, Pittsburg, Pa. Folding car-seat. No. 939,593; Nov. 9; Sp. p. 2548; Gaz. vol. 148; p. 418.
Farrell, J. T., Houston, Tex. Derailer. No. 940,139; Nov. 16; Sp. p. 3752; Gaz. vol. 148; p. 639.
Farrington, F. H., Louisville, Ky. Car heating and ventilating apparatus. No. 940,636; Nov. 16; Sp. p. 4851; Gaz. vol. 148; p. 808.
Farrington Manufacturing Company. (See Brown, L. E., assignor.)
Fassino, J., McAlester, Okla. Packing-machine. No. 941,444; Nov. 30; Sp. p. 6626; Gaz. vol. 148; p. 1123.
Faulkner, J. H., Holt, assignor of one-half to R. E. Bevins, Kansas City, Mo. Gate-operating attachment. No. 940,306; Nov. 16; Sp. p. 4132; Gaz. vol. 148; p. 697.
Fawkes, G. R., Waterloo, Iowa. Telephone-call-recording device. No. 940,140; Nov. 16; Sp. p. 3753; Gaz. vol. 148; p. 639.
Fealy, N. E., Washington, D. C. Desk. No. 939,125; Nov. 2; Sp. p. 1431; Gaz. vol. 148; p. 233.
Fechner, R., *et al.* (See Prendergast, W. H., assignor.)
Feddejohann, W. A. (See Hearn and Feddejohann.)
Feicht, R. S. (See Lamme, Feicht, and Garcelon.)
Feightner, L. E., assignor to Lima Locomotive & Machine Company, Lima, Ohio. Superheater for locomotive-boilers. No. 939,237; Nov. 9; Sp. p. 1712; Gaz. vol. 148; p. 297.
Feibel, J., New York, N. Y., assignor to Union Typewriter Company, Jersey City, N. J. Type-writing machine. No. 938,562; Nov. 2; Sp. p. 274; Gaz. vol. 148; p. 41.
Feld, W., Honningen-on-the-Rhine, Germany. Gas-washer. No. 940,103; Nov. 16; Sp. p. 3681; Gaz. vol. 148; p. 627.
Felix, A. A., New York, N. Y. Tie-holder. No. 939,678; Nov. 9; Sp. p. 2722; Gaz. vol. 148; p. 450.
Felsing, S. D., Crookston, Minn. Pneumatic straw-stacker. (Reissue.) No. 13,039; Nov. 16; Sp. p. 4888; Gaz. vol. 148; p. 814.
Feltbousen, J. H., York, Pa. Turbine. No. 939,821; Nov. 9; Sp. p. 3022; Gaz. vol. 148; p. 498.
Felton, R. A., Birmingham, England. Railway-coach. No. 940,383; Nov. 16; Sp. p. 4325; Gaz. vol. 148; p. 724.
Fender, F. E., Lincoln, Nebr. Lamp-burner. No. 941,315; Nov. 23; Sp. p. 6327; Gaz. vol. 148; p. 1058.
Fendig, A. (See Decker, F. W., assignor.)
Ferger, L. H., *et al.* (See Moreau, J., assignor.)
Ferguson, E., Washington, D. C. Non-refillable bottle. No. 939,238; Nov. 9; Sp. p. 1716; Gaz. vol. 148; p. 298.
Ferguson, G. A., and A. B. Hay, Owen Sound, Ontario, Canada. Necktie-holder. No. 938,749; Nov. 2; Sp. p. 643; Gaz. vol. 148; p. 102.
Ferguson, J. T., Hickory, Miss. Combination wire-stretcher. No. 938,563; Nov. 2; Sp. p. 284; Gaz. vol. 148; p. 41.
Ferla, J., New York, N. Y. Apparatus for manufacture of composition board. No. 940,449; Nov. 16; Sp. p. 4465; Gaz. vol. 148; p. 746.
Ferlà, J., St. George, N. Y., assignor of one-fourth to C. L. Parmelee, Orange, N. J. Manufacturing composition boards. No. 940,450; Nov 16; Sp. p. 4468; Gaz. vol. 148; p. 746.

Ferrall, J. J., and E. Mackay, New York, N. Y., assignors to National Biscuit Company. Box-seal. No. 940,242; Nov. 16; Sp. p. 3972; Gaz. vol. 148; p. 676.
Ferrel, Z. A., Oskaloosa, Iowa. Acetylene-gas generator. No. 940,384; Nov. 16; Sp. p. 4328; Gaz. vol. 148; p. 725.
Ferren, M. J., Washington, D. C. Bread-cutting machine. No. 941,065; Nov. 23; Sp. p. 5781; Gaz. vol. 148; p. 976.
Ferris, W. D., Sterling, Ill. Door-hanger. No. 940,307; Nov. 16; Sp. p. 4134; Gaz. vol. 148; p. 697.
Ferry, F. S., Philadelphia, Pa., assignor to Halsey J. Tibbals Chemical Manufacturing Company. Packing and display case. No. 940,451; Nov. 16; Sp. p. 4470; Gaz. vol. 148; p. 747.
Fesenmyer, A. H., Donora, Pa. Knife for cutting oil-cloth. No. 940,308; Nov. 16; Sp. p. 4137; Gaz. vol. 148; p. 698.
Fessenden, R. A., Washington, D. C. Means for cleaning guns. No. 938,836; Nov. 2; Sp. p. 831; Gaz. vol. 148; p. 133.
Fessenden, R. A., Washington, D. C., assignor to National Electric Signaling Company, Pittsburg, Pa. Determining positions of vessels. No. 941,565; Nov. 30; Sp. p. 6803; Gaz. vol. 148; p. 1163.
Fey, J. B., Columbus, Ohio. Massage and air-compressing machine. No. 939,822; Nov. 9; Sp. p. 3025; Gaz. vol. 148; p. 498.
Fiddyment, J. C., Lockport, Ill., assignor to Continuous Extracting Press Corporation, New York, N. Y. Press. No. 940,961; Nov. 23; Sp. p. 5558; Gaz. vol. 148; p. 941.
Field, E. A. (See Rock, F. W., assignor.)
Fielding, W. E., Paterson, N. J. Car-track-sanding device. No. 938,837; Nov. 2; Sp. p. 833; Gaz. vol. 148; p. 134.
Fierke, J. F., Dundee, assignor to Illinois Iron & Bolt Company, Carpentersville, Ill. Truck. No. 939,406; Nov. 9; Sp. p. 2144; Gaz. vol. 148; p. 356.
Figg, G. W., assignor of one-half to F. P. Duncklee, Los Angeles, Cal. Ratchet-drill. No. 941,916; Nov. 30; Sp. p. 7622; Gaz. vol. 148; p. 1283.
Fillmore, E. R., Medford, Mass., assignor to D. E. Knowlton, Buffalo, N. Y. Desiccating-machine. No. 939,126; Nov. 2; Sp. p. 1434; Gaz. vol. 148; p. 234.
Fink, J. F. (See Klenk and Fink.) (Reissue.)
Finley, A. P., Sherman, Tex. Railway-rail joint. No. 938,467; Nov. 2; Sp. p. 29; Gaz. vol. 148; p. 7.
Fischer, C. D., Jr., Wapakoneta, Ohio. Lathe. No. 941,701; Nov. 30; Sp. p. 7156; Gaz. vol. 148; p. 1208.
Fischer, E., Gronau, near Elze, and P. Bergell, Berlin, Germany. Making a neutral sodium salt of lactalbumin. No. 941,773; Nov. 30; Sp. p. 7320; Gaz. vol. 148; p. 1233.
Fischer, J. A., Memphis, Tenn. Double-acting hinge. No. 941,239; Nov. 23; Sp. p. 6167; Gaz. vol. 148; p. 1034.
Fischer, P., assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Vat dye. No. 938,565; Nov. 2; Sp. p. 287; Gaz. vol. 148; p. 42.
Fischer, P., assignor to Farbenfabriken vorm Friedr. Bayer & Co., Elberfeld, Germany. Yellow dye. No. 938,566; Nov. 2; Sp. p. 288; Gaz. vol. 148; p. 42.
Fischer Save-All Company. (See Fisher, J. F., assignor.)
Fish, F. O., Winchester, Mass. Violin. No. 939,486; Nov. 9; Sp. p. 2310; Gaz. vol. 148; p. 383.
Fish, M. T., Ithaca, N. Y. Loss-preventing device. No. 939,487; Nov. 9; Sp. p. 2312; Gaz. vol. 148; p. 383.
Fishel, L. H., New York, N. Y., assignor to Fishel, Nessler & Company. Buckle. No. 941,702; Nov. 30; Sp. p. 7157; Gaz. vol. 148; p. 1208.
Fishel, Nessler & Company. (See Fishel, L. H., assignor.)
Fisher, A., Jackson, Miss. Sawing-machine. No. 939,488; Nov. 9; Sp. p. 2313; Gaz. vol. 148; p. 383.
Fisher, J., Sac City, Iowa. Woven-wire-fence clamp. No. 938,564; Nov. 2; Sp. p. 285; Gaz. vol. 148; p. 41.
Fisher, J. F., assignor to Fischer Save-All Company, Hinckley, N. Y. Pulp-screening machine. No. 941,017; Nov. 23; Sp. p. 5686; Gaz. vol. 148; p. 960.
Fisk, C., Spokane, Wash. Miner's candlestick. No. 938,838; Nov. 2; Sp. p. 834; Gaz. vol. 148; p. 134.
Fisk, C. D. B., and D. R. Smith, Boston, Mass. Car-fender. No. 940,588; Nov. 16; Sp. p. 4756; Gaz. vol. 148; p. 792.
Fisk, C. F., Allentown, N. J. Vehicle-tire. No. 938,999; Nov. 2; Sp. p. 1187; Gaz. vol. 148; p. 190.
Fisk, W. C., and J. A. Seely, New York, N. Y. Canceling-machine for tickets. No. 940,452; Nov. 16; Sp. p. 4472; Gaz. vol. 148; p. 747.
Fisk, W. C., and J. A. Seely, New York, N. Y. Canceling-machine for tickets. No. 940,681; Nov. 23; Sp. p. 4968; Gaz. vol. 148; p. 848.
Fiske, G. W., *et al.* (See Geiger, C. E., assignor.)
Fiske, H. T., East Cleveland, Ohio. Railway-rail joint. No. 939,239; Nov. 9; Sp. p. 1717; Gaz. vol. 148; p. 298.
Fithian, E. J., and H. D. Murray, assignors to Bessemer Gas Engine Company, Grove City, Pa. Apparatus for drilling and operating wells. No. 940,589; Nov. 16; Sp. p. 4758; Gaz. vol. 148; p. 792.
Fitts, J. L., Merchantville, N. J., assignor to Warren Webster & Company. Valve. No. 939,823; Nov. 9; Sp. p. 3028; Gaz. vol. 148; p. 499.
Fitts, J. L., Merchantville, N. J., assignor to Warren, Webster & Company. Valve mechanism for heating apparatus. No. 941,703; Nov. 30; Sp. p. 7159; Gaz. vol. 148; p. 1208.
Fitzgerald, J. J. (See McFarland, L., assignor.)
Fitzgerald, J. J., Pittsburg, Pa. Penholder attachment. No. 941,240; Nov. 23; Sp. p. 6171; Gaz. vol. 148; p. 1035.
Fitzgerald, R. (See Macfarlane, W. P. A., assignor.)
Flanagan, C. E., assignor of one-half to I. M. Scott, Steubenville, Ohio. Telemeter-rod. No. 939,489; Nov. 9; Sp. p. 2314; Gaz. vol. 148; p. 383.
Flatow, L. (See Heimann and Flatow.)
Fleischaker, N., Joplin, Mo. Shade-roller fixture. No. 939,994; Nov. 16; Sp. p. 3408; Gaz. vol. 148; p. 587.
Fleissner, G. J., Washington, Pa. Street-car fender. No. 941,984; Nov. 30; Sp. p. 7749; Gaz. vol. 148; p. 1305.
Fleming, A. H., assignor to Fleming Sales Co., Fairmont, W. Va. Razor-blade clamp. No. 941,566; Nov. 30; Sp. p. 6866; Gaz. vol. 148; p. 1163.
Fleming, F., Rome, N. Y. Rotary combustion-engine. No. 941,567; Nov. 30; Sp. p. 6868; Gaz. vol. 148; p. 1163.
Fleming, F., Rome, N. Y. Combined drill and stay-bolt cutter. No. 941,568; Nov. 30; Sp. p. 6872; Gaz. vol. 148; p. 1164.
Fleming Sales Co. (See Fleming, A. H., assignor.)
Fletcher, J. (See Pink and Fletcher.)
Fletcher, J. R., assignor to P. & F. Corbin, New Britain, Conn. Swivel knob-spindle. No. 939,191; Nov. 2; Sp. p. 1587; Gaz. vol. 148; p. 257.
Flexible Steel Lacing Company. (See Purple, Beach, and Trout, assignors.)
Flexible Steel Lacing Company. (See Purple, G. E., assignor.)
Florsheim, L. S., *et al.* (See Florsheim, S. E., assignor.)
Florsheim, N. S., *et al.* (See Florsheim, S. E., assignor.)
Florsheim, S., *et al.* (See Florsheim, S. E., assignor.)
Florsheim, S. E., assignor of one-fourth to S. Florsheim, one-fourth to L. S. Florsheim, and one-fourth to N. S. Florsheim, Chicago, Ill. Corset-clamp. No. 938,567; Nov. 2; Sp. p. 289; Gaz. vol. 148; p. 42.
Floyd, G. G., Granite City, Ill., assignor to American Steel Foundries, New York, N. Y. Brake-hanger-pin construction for car-truck side frames. No. 940,865; Nov. 23; Sp. p. 5306; Gaz. vol. 148; p. 909.
Flynn, P., Philadelphia, Pa. Attachment for plows. No. 938,839; Nov. 2; Sp. p. 835; Gaz. vol. 148; p. 134.
Flynt, L. W. G., Rochester, N. Y., assignor to United Shoe Machinery Company, Paterson, N. J. Perforating-machine. No. 941,704; Nov. 30; Sp. p. 7161; Gaz. vol. 148; p. 1209.
Fogarty, D., Ottawa, Ontario, Canada. Dust-separating tank. No. 940,141; Nov. 16; Sp. p. 3756; Gaz. vol. 148; p. 640.
Fogarty, D., Ottawa, Ontario, Canada. Separating-tank for vacuum cleaning apparatus. No. 940,142; Nov. 16; Sp. p. 3758; Gaz. vol. 148; p. 640.
Foglesong Machine Company. (See Collett and Jackson, assignors.)
Folco, J., Tacoma, Wash. Fluid-pressure valve. No. 940,385; Nov. 16; Sp. p. 4331; Gaz. vol. 148; p. 725.
Foley, M., Herkimer, N. Y. Type-writer cabinet. No. 941,965; Nov. 30; Sp. p. 7752; Gaz. vol. 148; p. 1305.
Foltz, F. M. (See Archer, J. T., assignor.)
Foltz, W. E., Detroit, Mich. Valve-stem lubricator and packing. No. 940,143; Nov. 16; Sp. p. 3758; Gaz. vol. 148; p. 641.
Fondren, T. R., Lancaster, Tex. Check-valve for locomotive-boilers and the like. No. 940,453; Nov. 16; Sp. p. 4473; Gaz. vol. 148; p. 747.
Font, V., Habana, Cuba. Building structure. No. 939,000; Nov. 2; Sp. p. 1185; Gaz. vol. 148; p. 190.
Forbes, C. E., and A. Singer, assignors to Webster and Perks Tool Company, Springfield, Ohio. Folding table. No. 939,824; Nov. 9; Sp. p. 3030; Gaz. vol. 148; p. 499.
Ford, H. H., assignor of one-half to H. H. De Loss, Bridgeport, Conn. Means for attaching demountable rims. No. 940,243; Nov. 16; Sp. p. 3973; Gaz. vol. 148; p. 676.
Forschler, P., New Orleans, La. Envelop. No. 941,924; Nov. 30; Sp. p. 7637; Gaz. vol. 148; p. 1286.
Forster, G. R., Fithian, Ill. Current-collector. No. 939,995; Nov. 16; Sp. p. 3409; Gaz. vol. 148; p. 587.
Forster, H. J., Chicago, Ill. Ratchet and drill extension. No. 939,900; Nov. 9; Sp. p. 3184; Gaz. vol. 148; p. 526.
Forster, P. M. (See Forster, W. J. and P. M.)
Forster, W. J. and P. M., Berkeley, Cal. Plumbing joint-fitting and attachment. No. 939,001; Nov. 2; Sp. p. 1190; Gaz. vol. 148; p. 190.
Forsyth Brothers Company. (See Forsyth, H. H., assignor.)
Forsyth, C. F., Washington, D. C., and F. C. Wallace, Drummond, Md. Device for removing bottle-caps. No. 941,865; Nov. 30; Sp. p. 7524; Gaz. vol. 148; p. 1266.
Forsyth, G. H., Chicago, Ill. Metal-window construction. No. 941,018; Nov. 23; Sp. p. 5688; Gaz. vol. 148; p. 960.
Forsyth, H. H., assignor, by mesne assignments, to Forsyth Brothers Company, Chicago, Ill. Metal sash. No. 939,407; Nov. 9; Sp. p. 2146; Gaz. vol. 148; p. 356.

Forsyth, J. E., Chicago Ill. Coupling for train-pipes, &c. No. 941,066; Nov. 23; Sp. p. 5783; Gaz. vol. 148; p. 976.
Fort Wayne Electric Works. (See Morganthaler, P. C., assignor.)
Fortune, J. R., Detroit, Mich. Furnace fire-door. No. 939,996; Nov. 16; Sp. p. 3410; Gaz. vol. 148; p. 588.
Fortune, J. R., Detroit, Mich. Furnace. No. 939,997; Nov. 16; Sp. p. 3412; Gaz. vol. 148; p. 588.
Fortune, J. R., assignor to Murphy Iron Works, Detroit, Mich. Protecting-cap for furnace bridge-walls. No. 941,569; Nov. 30; Sp. p. 6877; Gaz. vol. 148; p. 1164.
Foss, B. F., Fairfield, Me. Trolley-head. No. 940,309; Nov. 16; Sp. p. 4138; Gaz. vol. 148; p. 698.
Foster, E. H., and J. Primrose, New York, N. Y. Steam-superheater. No. 938,568; Nov. 2; Sp. p. 290; Gaz. vol. 148; p. 42.
Foster Engineering Company. (See Krichbaum, W. F., assignor.)
Foster, G. W., Lowell, Mass. Yarn-clearer or slub-catcher. No. 939,490; Nov. 9; Sp. p. 2316; Gaz. vol. 148; p. 384.
Foster, H., Wolcott, Ind. Storm-front for wagons. No. 939,998; Nov. 16; Sp. p. 3416; Gaz. vol. 148; p. 588.
Foster, J. A., Helskell, Tenn. Railway-frog. No. 940,523; Nov. 16; Sp. p. 4621; Gaz. vol. 148; p. 770.
Foster, L. C., Fulton, N. Y. Non-refillable bottle. No. 940,962; Nov. 23; Sp. p. 5563; Gaz. vol. 148; p. 941.
Foster, N. T., and B. M. Dreska, Chester, Ill. Lock. No. 941,570; Nov. 30; Sp. p. 6879; Gaz. vol. 148; p. 1165.
Foster, S. C., Nashville, Tenn. Wrench. No. 940,524; Nov. 16; Sp. p. 4622; Gaz. vol. 148; p. 771.
Fourcault, E., Lodelinsart, Belgium. Method of and apparatus for drawing continuous sheets of glass. No. 941,866; Nov. 30; Sp. p. 7525; Gaz. vol. 148; p. 1266.
Fowler, C. V., Los Angeles, Cal. Screw-jack. No. 938,840; Nov. 2; Sp. p. 836; Gaz. vol 148; p. 134.
Fowler, E. P., New York, N. Y. Breast-pump. No. 940,454; Nov. 16; Sp. p. 4475; Gaz. vol. 148; p. 748.
Fowler, H. G. (See Lansdale, M. F., assignor.)
Fox, C. K. (See Webster, H. A., assignor.)
Fox, W., Winnipeg, Manitoba, Canada. Combination-lock. No. 941,241; Nov. 23; Sp. p. 6172; Gaz. vol. 148; p. 1035.
Frambach, M. J., assignor of one-half to E. F. Broders, Hartley, Iowa. Antislipping attachment for tires. No. 939,491; Nov. 9; Sp. p. 2317; Gaz. vol. 148; p. 384.
Frame, R. E., St. Louis, and C. G. Harrington, Maplewood, assignors to American Car & Foundry Company, St. Louis, Mo. Steel box-car. No. 941,067; Nov. 23; Sp. p. 5787; Gaz. vol. 148; p. 976.
Frame, R. E., St. Louis, and C. G. Harrington, Maplewood, assignors to American Car & Foundry Company, St. Louis, Mo. Metallic door. No. 941,068; Nov. 23; Sp. p. 5793; Gaz. vol. 148; p. 977.
Frame, R. E., St. Louis, and C. G. Harrington, Maplewood, assignors to American Car & Foundry Company, St. Louis, Mo. Car-door hanger. No. 941,069; Nov. 23; Sp. p. 5794; Gaz. vol. 148; p. 977.
Frank, E., assignor to Frank Tea & Spice Company, Cincinnati, Ohio. Spice-box. No. 939,825; Nov. 9; Sp. p. 3033; Gaz. vol. 148; p. 500.
Frank, J. J., Pittsfield, Mass., assignor to General Electric Company. Aluminum cell reactance. No. 941,445; Nov. 30; Sp. p. 6628; Gaz. vol. 148; p. 1123.
Frank Tea & Spice Company. (See Frank, E., assignor.)
Frank, W. J. (See Baughman, C. O., assignor.)
Frankeberger, H. P. (See Newman, E. L., assignor.)
Franklin, M., Grand Junction, Colo. Ship-propelling device. No. 938,750; Nov. 2; Sp. p. 644; Gaz. vol. 148; p. 103.
Franklin Rubber Company. (See Small and Shelton, assignors.)
Franzheim, C. M., assignor to C. W. Franzheim, Wheeling, W. Va. Flushing-tank. No. 938,468; Nov. 2; Sp. p. 29; Gaz. vol. 148; p. 7.
Franzheim, C. W. (See Franzheim, C. M., assignor.)
Fraser, J., and C. Jumeaux, Auckland, assignors of one-third to S. E. Fraser, Waihi, New Zealand. Apparatus for recording deviations in the course of a vessel. No. 939,999; Nov. 16; Sp. p. 3417; Gaz. vol. 148; p. 589.
Fraser, S. E. (See Fraser and Jumeaux, assignors.)
Fraser, W. A., assignor of one-half to A. Kleinman, New York, N. Y. Pencil. No. 940,797; Nov. 23; Sp. p. 5233; Gaz. vol. 148; p. 888.
Fred Medart Manufacturing Company. (See Medart, F., assignor.)
Freeborn, G. E., Belfast, N. Y. Anvil. No. 940,798; Nov. 23; Sp. p. 5234; Gaz. vol. 148; p. 888.
Freeman, W. (See Dodge, Freeman, and Vanderveld.)
Freeman, W. F., assignor to Grand Rapids Show Case Company, Grand Rapids, Mich. Garment-hanger. No. 941,510; Nov. 30; Sp. p. 6761; Gaz. vol. 148; p. 1145.
Freese, E. L., New York, N. Y. Apparatus for felling trees. (Reissue.) No. 13,040; Nov. 16; Sp. p. 4890; Gaz. vol. 148; p. 814.
French, A. J., Huron, S. D. Hasp-lock. No. 941,511; Nov. 30; Sp. p. 6762; Gaz. vol. 148; p. 1145.
French, A. W., Piqua, Ohio. Machine for forming oil-cakes. No. 939,492; Nov. 9; Sp. p. 2319; Gaz. vol. 148; p. 384.
French, A. W., Plqua, Ohio. Hydraulic accumulator. No. 941,807; Nov. 30; Sp. p. 7528; Gaz. vol. 148; p. 1266.
French, C. O., Kansas City, Mo. Lock for grain-doors of box-cars. No. 938,469; Nov. 2; Sp. p. 31; Gaz. vol. 148; p. 7.
Freud, I. C. (See Bradley, B. B., assignor.)
Freud, I. C., Detroit, Mich. Key for locks. No. 939,679; Nov. 9; Sp. p. 2724; Gaz. vol. 148; p. 450.
Freuler, D., Chattanooga, Tenn. Horseshoe-bending machine. No. 939,901; Nov. 9; Sp. p. 3186; Gaz. vol. 148; p. 526.
Frey, C. N., assignor to J. M. Robinson Manufacturing Company, Cincinnati, Ohio. Curving-machine for sheet material. No. 938,751; Nov. 2; Sp. p. 646; Gaz. vol. 148; p. 103.
Frick, O., Saltsjöbaden, Sweden. Working metals, ores, and the like. No. 938,752; Nov. 2; Sp. p. 648; Gaz. vol. 148; p. 103.
Fricker, W., South Woodford, England. Machinery for separating, feeding, and cementing sheets of paper together. No. 940,868; Nov. 30; Sp. p. 7531; Gaz. vol. 148; p. 1267.
Frickey, E. H. (See Williams and Frickey.)
Frickey, E. H., assignor to Williams Patent Crusher & Pulverizer Company, St. Louis, Mo. Dust collector and separator. No. 938,656; Nov. 2; Sp. p. 471; Gaz. vol. 148; p. 72.
Frickey, E. H., assignor to Williams Patent Crusher & Pulverizer Company, St. Louis, Mo. Separator. No. 938,657; Nov. 2; Sp. p. 474; Gaz. vol. 148; p. 72.
Fridstroin, A. P., Everett, Mass. Saw. No. 941,705; Nov. 30; Sp. p. 7168; Gaz. vol. 148; p. 1209.
Friedel, A. H., Baltimore, Md. Flying-machine. No. 940,866; Nov. 23; Sp. p. 5368; Gaz. vol. 148; p. 909.
Friedenthal, H., Nicolassee, near Wannsee, Germany. Heat-transmitter. No. 940,244; Nov. 16; Sp. p. 3975; Gaz. vol. 148; p. 676.
Friedrich, C. A., New York, N. Y. Garment-presser. No. 939,408; Nov. 9; Sp. p. 2149; Gaz. vol. 148; p. 356.
Frink, G. M., Arcadia, Cal. Doubletree. No. 939,002; Nov. 2; Sp. p. 1191; Gaz. vol. 148; p. 191.
Frink, R. L., Cleveland, Ohio. Method of and means for manufacture of window-glass. No. 941,512; Nov. 30; Sp. p. 6764; Gaz. vol. 148; p. 1146.
Frishmuth, C. S., Philadelphia, Pa. Compression-cock. No. 941,316; Nov. 23; Sp. p. 6328; Gaz. vol. 148; p. 1058.
Fritchman, E. B., Humansville, Mo. Road grader and drag. No. 939,003; Nov. 2; Sp. p. 1193; Gaz. vol. 148; p. 191.
Friz, A. A., St. Louis, Mo. Combined nut and wrench. No. 940,000; Nov. 16; Sp. p. 3419; Gaz. vol. 148; p. 589.
Frog, Switch & Manufacturing Company. (See Dotter and Hays, assignors.)
Frost, E. J., Nottingham, assignor of one-half to W. Jolte, Cleveland, Ohio. Rail-joint. No. 939,240; Nov. 9; Sp. p. 1720; Gaz. vol. 148; p. 298.
Frost, R. L., assignor of one-fourth to W. C. Lyman, Jackson, and one-eighth to G. T. Homeier, Flint, Mich. Internal-combustion engine. No. 941,138; Nov. 23; Sp. p. 5950; Gaz. vol. 148; p. 1001.
Frost, W. J., Kenosha, Wis. Ball-cock. No. 938,470; Nov. 2; Sp. p. 33; Gaz. vol. 148; p. 8.
Frowen, G., Pleasant Unity, Pa. Journal-box. No. 938,841; Nov. 2; Sp. p. 838; Gaz. vol. 148; p. 135.
Fry, S., Westerville, Ohio. Grave-vault. No. 941,886; Nov. 30; Sp. p. 7753; Gaz. vol. 148; p. 1306.
Fulbright, T., assignor of one-half to C. B. Bryant and one-half to M. L. Bryant, Muskogee, Okla. Loading and unloading device. No. 941,571; Nov. 30; Sp. p. 6880; Gaz. vol. 148; p. 1165.
Fuller, A. (See Hering and Fuller.)
Fuller, E. (See Schlapbach, F. H., assignor.)
Fuller Engineering Company. (See Matcham, C. A., assignor.)
Fuller, W. T., Suffolk, Va. Trunk. No. 941,446; Nov. 30; Sp. p. 6629; Gaz. vol. 148; p. 1123.
Fulper, G. W. and W. H., assignors to Fulper Pottery Company, Flemington, N. J. Apparatus for cooling and dispensing liquids. No. 939,594; Nov. 9; Sp. p. 2552; Gaz. vol. 148; p. 418.
Fulper Pottery Company. (See Fulper, G. W. and W. H., assignors.)
Fulper, W. H. (See Fulper, G. W. and W. H.)
Fulton, H. H., Oroville, Cal. Gas-escape. No. 941,917; Nov. 30; Sp. p. 7623; Gaz. vol. 148; p. 1284.
Fulton, J. S. S. (See Merkel, W. B., assignor.)
Furmidge, S., assignor to Supplementary Spiral Spring Company, St. Louis, Mo. Means for preventing rebound in vehicles. No. 938,753; Nov. 2; Sp. p. 650; Gaz. vol. 148; p. 104.
Fussey, L. (See Wolsey and Fussey.)
Gage, W. W., *et al.* (See Wilcox, H., assignor.)
Gall, C. H., Kenosha, Wis. Couch fabric. No. 938,569; Nov. 2; Sp. p. 292; Gaz. vol. 148; p. 43.
Gall, J. F., assignor to Simmons Manufacturing Company, Kenosha, Wis. Bedstead-mount-buffing machine. No. 941,706; Nov. 30; Sp. p. 7173; Gaz. vol. 148; p. 1210.
Gaines, H. M., Glastonbury, Conn. Wrench. No. 941,707; Nov. 30; Sp. p. 7183; Gaz. vol. 148; p. 1210.
Gajewski, J. S., Milwaukee, Wis. Antislipping attachment. No. 940,799; Nov. 23; Sp. p. 5235; Gaz. vol. 148; p. 888.

Galassé, T. V., San Francisco, Cal. Mold for cement washtubs. No. 941,139; Nov. 23; Sp. p. 5952; Gaz. vol. 148; p. 1001.
Gale, H. E., and E. E. Krengel, Twin Falls, Idaho. Sage-brush and weed cutter. No. 939,595; Nov. 9; Sp. p. 2554; Gaz. vol. 148; p. 419.
Gallon Metallic Vault Company. (See Myers and Poister, assignors.)
Gallery, C. (See Shepard, H. E., assignor.)
Galloway, E. C., Butlerville, Ark. Fertilizer-distributer. No. 940,455; Nov. 16; Sp. p. 4477; Gaz. vol. 148; p. 748.
Gambier, E. V., trustee. (See Terrell, E., assignor.)
Gambino, N., Palermo, Italy. Automatic relief-valve. No. 938,570; Nov. 2; Sp. p. 295; Gaz. vol. 148; p. 43.
Garcelon, G. H. (See Lamme, Feicht, and Garcelon.)
Gard, W. E., South Orange, N. J. Lamp-burner. No. 938,754; Nov. 2; Sp. p. 652; Gaz. vol. 148; p. 104.
Gardner, A. M., assignor of one-half to B. C. Woodward, Nashville, Tenn. Belt-buckle. No. 941,242; Nov. 23; Sp. p. 6175; Gaz. vol. 148; p. 1036.
Gardner, C. R., Aurora, Ind. Folding bed. No. 939,241; Nov. 9; Sp. p. 1721; Gaz. vol. 148; p. 299.
Gardner, L. A., Oakland, Cal. Cuff-button. No. 939,680; Nov. 9; Sp. p. 2725; Gaz. vol. 148; p. 450.
Gardner, R. A., Los Angeles, Cal. Caisson-dredger. No. 941,869; Nov. 30; Sp. p. 7533; Gaz. vol. 148; p. 1267.
Garner, S. L., Tulsa, Okla. Sliding-machine. No. 940,867; Nov. 23; Sp. p. 5370; Gaz. vol. 148; p. 910.
Garnett, L. E., assignor of one-half to J. L. Barnes, Chanute, Kans. Railway-signal. No. 940,800; Nov. 23; Sp. p. 5237; Gaz. vol. 148; p. 889.
Garnier, L., Clermont-Ferrand, France. Vehicle-wheel. No. 939,681; Nov. 9; Sp. p. 2726; Gaz. vol. 148; p. 450.
Garretson-Anthony Company. (See Garretson and Anthony, assignors.)
Garretson, D. L., New York, N. Y., and M. O. Anthony, Englewood, N. J., assignors to Garretson-Anthony Company. Electromagnetic relay. No. 939,409; Nov. 9; Sp. p. 2151; Gaz. vol. 148; p. 357.
Garrison, L. B., Artesia, N. Mex. Race-strap. No. 939,902; Nov. 9; Sp. p. 3189; Gaz. vol. 148; p. 526.
Garst, D., Waterloo, Iowa. Manure-spreader. No. 941,513; Nov. 30; Sp. p. 6769; Gaz. vol. 148; p. 1146.
Garton, W. R., Brooklyn, N. Y. Grounding device or terminal for line-wires. No. 938,471; Nov. 2; Sp. p. 35; Gaz. vol. 148; p. 8.
Gaskin, H. B., Blountstown, Fla. Hay-press. No. 941,243; Nov. 23; Sp. p. 6177; Gaz. vol. 148; p. 1036.
Gaston, W. E., Waterbury, Conn. Bottle-stopper. No. 940,926; Nov. 23; Sp. p. 5481; Gaz. vol. 148; p. 929.
Gates, I. E., Newark, N. J. Spring fabric. No. 941,447; Nov. 30; Sp. p. 6631; Gaz. vol. 148; p. 1124.
Gates, J. W., Los Angeles, Cal. Spring-fork for wheeled vehicles. No. 940,245; Nov. 16; Sp. p. 3976; Gaz. vol. 148; p. 676.
Gathmann, E., Bethlehem, Pa., assignor to Gathmann Engineering Company, New York, N. Y. Ingot-mold. No. 940,386; Nov. 16; Sp. p. 4333; Gaz. vol. 148; p. 726.
Gathmann, E. A., Bethlehem, assignor to Bethlehem Steel Company, South Bethlehem Pa. Hydraulic jack. No. 941,870; Nov. 30; Sp. p. 7535; Gaz. vol. 148; p. 1267.
Gathmann Engineering Company. (See Gathmann, E., assignor.)
Gauthier, F. (See Hennessey, W. A., assignor.)
Gautier, C. M., Putney, London, England. Pneumatic tire. No. 941,871; Nov. 30; Sp. p. 7537; Gaz. vol. 148; p. 1268.
Gay, C. M., Los Angeles, Cal. Refrigerating apparatus. No. 940,590; Nov. 16; Sp. p. 4759; Gaz. vol. 148; p. 793.
Gayle, G. W., Gem Kans. Wagon. No. 940,456; Nov. 16; Sp. p. 4479; Gaz. vol. 148; p. 748.
Gaynor, J., New York, N. Y. Display apparatus. No. 938,571; Nov. 2; Sp. p. 295; Gaz. vol. 148; p. 43.
Gearhart, J. E., Clearfield, Pa. Match-safe. No. 940,387; Nov. 16; Sp. p. 4335; Gaz. vol. 148; p. 726.
Gehrman, J. C., Frances, Wash. Raker gage and jointer. No. 938,472; Nov. 2; Sp. p. 37; Gaz. vol. 148; p. 9.
Geiger, C. E., assignor of one-third to himself, one-third to W. E. Koop, and one-third to G. W. Fiske, Louisville, Ky. Drier. No. 940,144; Nov. 16; Sp. p. 3760; Gaz. vol. 148; p. 641.
Geipel, F. A., Fleissen, Austria-Hungary. Machine for the treatment of skins and the like. No. 941,317; Nov. 23; Sp. p. 6330; Gaz. vol. 148; p. 1058.
Geissinger, H. G., West Orange, N. J., assignor to Geissinger Regulator Company. Thermostat. No. 939,957; Nov. 9; Sp. p. 3312; Gaz. vol. 148; p. 546.
Geissinger Regulator Company. (See Geissinger, H. G., assignor.)
Geissler, F., Kottbus, and B. Wagner, Görlitz, Germany. Apparatus for dyeing yarn. No. 940,868; Nov. 23; Sp. p. 5373; Gaz. vol. 148; p. 910.
Gelbaugh, W. H., Tacoma, Wash. Hinging-gage. No. 940,001; Nov. 16; Sp. p. 34 1; Gaz. vol. 148; p. 589.
General Chemical Company. (See Bishop, H. B., assignor.)
General Chemical Company. (See Herreshoff, J. B. F., assignor.)
General Electric Company. (See Alexanderson, E. F. W., assignor.)
General Electric Company. (See Bergman, S. R., assignor.)
General Electric Company. (See Cubitt, A. S., assignor.)
General Electric Company. (See Danielson, W. A., assignor.)
General Electric Company. (See Dorgeloh, G. H., assignor.)
General Electric Company. (See Frank, J. J., assignor.)
General Electric Company. (See Hanna, M. R., assignor.)
General Electric Company. (See Hawkins, L. A., assignor.)
General Electric Company. (See Heath, H. E., assignor.)
General Electric Company. (See Howell, F. B., assignor.)
General Electric Company. (See Johnstone, G. A., assignor.)
General Electric Company. (See Knight, C. D., assignor.)
General Electric Company. (See Loudon, W. A., assignor.)
General Electric Company. (See Macklntosh, F., assignor.)
General Electric Company. (See Merrill, W. L., assignor.)
General Electric Company. (See Paine, S. B., assignor.)
General Electric Company. (See Peterson, C. F., assignor.)
General Electric Company. (See Stanley, W., assignor.)
General Electric Company. (See Steinmetz, C. P., assignor.)
General Electric Company. (See Stewart, S. B., Jr., assignor.)
General Electric Company. (See Unger, M., assignor.)
General Electric Company. (See Vogel, F. M., assignor.)
General Electric Company. (See White, H. E., assignor.)
General Fire Extinguisher Company. (See Jenckes, R. A., assignor.)
George M. Edgarton Co. (See Edgarton, G. M., assignor.)
George, R. F., Brooklyn, N. Y. Pencil-sharpener. No. 941,631; Nov. 30; Sp. p. 7000; Gaz. vol. 148; p. 1184.
Gerard Development Company. (See Taylor, E., assignor.)
Gerhardt, C. C., New York, N. Y. Pipe or hose cleaning device. No. 940,457; Nov. 16; Sp. p. 4481; Gaz. vol. 148; p. 749.
German, A. (See Smitson and German.)
Germany, W. T., Bogue Chitto, Miss. Lacing-needle. No. 940,682; Nov. 23; Sp. p. 4970; Gaz. vol. 148; p. 848.
Gerrard, T. H., assignor of one-half to E. A. Michon, Troy, N. Y. Clutch. No. 940,002; Nov. 16; Sp. p. 3422; Gaz. vol. 148; p. 590.
Gerster, S. W., Gerster, Mo. Milking vessel. No. 938,658; Nov. 2; Sp. p. 477; Gaz. vol. 148; p. 73.
Geschke, E., Tegel, near Berlin, Germany. Means for introducing balls into ball-bearings. No. 941,632; Nov. 30; Sp. p. 7001; Gaz. vol. 148; p. 1184.
Gesellschaft für Tabakveredelung m. b. H. (See Montag, G., assignor.)
Gething, W. B., Cape Town, Cape Colony. Drinking-fountain for birds, fowls, and animals. No. 939,493; Nov. 9; Sp. p. 2320; Gaz. vol. 148; p. 385.
Geurink, B. A., East Cleveland, assignor to Trenkamp Stove & Manufacturing Company, Cleveland, Ohio. Gas-burner. No. 939,242; Nov. 9; Sp. p. 1723; Gaz. vol. 148; p. 299.
Geurink, B. A., East Cleveland, assignor to Trenkamp Stove & Manufacturing Company, Cleveland, Ohio. Bake-oven. No. 939,410; Nov. 9; Sp. p. 2154; Gaz. vol. 148; p. 357.
Geurink, B. A., East Cleveland, assignor to Trenkamp Stove & Manufacturing Company, Cleveland, Ohio. Gas-burner. No. 941,708; Nov. 30; Sp. p. 7184; Gaz. vol. 148; p. 1211.
Genze, L., Trith St. Léger, France. Mechanical charging apparatus for blast-furnaces. No. 938,572; Nov. 2; Sp. p. 297; Gaz. vol. 148; p. 44.
Gibbs, L., assignor to Gibbs Manufacturing Company, Canton, Ohio. Hoop sizing and clamping device. No. 940,869; Nov. 23; Sp. p. 5375; Gaz. vol. 148; p. 910.
Gibbs Manufacturing Company. (See Gibbs, L., assignor.)
Gibson, G. H., Montclair, N. J., assignor to J. S. L. Wharton, W. S. Hallowell, and J. C. Jones, Philadelphia, Pa. Feed-water heater. No. 938,573; Nov. 2; Sp. p. 299; Gaz. vol. 148; p. 44.
Gibson, J. B., Webb City, Mo. Conveyer-bucket. No. 939,243; Nov. 9; Sp. p. 1724; Gaz. vol. 148; p. 299.
Gibson, S., assignor to W. Gibson, Edray, W. Va. Wire-clamp. No. 938,842; Nov. 2; Sp. p. 839; Gaz. vol. 148; p. 135.
Gibson, W. (See Gibson, S., assignor.)
Giddings, F. M., assignor of one-fourth to G. W. Palmer and one-fourth to C. A. Westring, Galesburg, Ill. Copy-holder. No. 940,003; Nov. 16; Sp. p. 3423; Gaz. vol. 148; p. 590.

Giddings & Lewis Manufacturing Company. (See Anderson, U., assignor.)
Giffin, A. A., Springfield, Mass. Musical building-blocks. No. 939,127; Nov. 2; Sp. p. 1441; Gaz. vol. 148; p. 234.
Gilbert & Barker Manufacturing Company. (See Barker, J. F., assignor.)
Gilbert, H. J., assignor to William B. Mershon and Company, Saginaw, Mich. Resawing-machine. No. 939,903; Nov. 9; Sp. p. 3190; Gaz. vol. 148; p. 527.
Gill, T., Follansbee, W. Va. Means for hanging doors, screens, &c. No. 939,004; Nov. 2; Sp. p. 1194; Gaz. vol. 148; p. 191.
Gillies, J. (See McPhee and Gillies.)
Gillies, J., New York, N. Y. Stone-saw. No. 938,473; Nov. 2; Sp. p. 38; Gaz. vol. 148; p. 9.
Gilman, J. H., assignor to King & Hamilton Company, Ottawa, Ill. Lifting apparatus. No. 938,755; Nov. 2; Sp. p. 656; Gaz. vol. 148; p. 104.
Gilson, C., Pittsburg, Pa., assignor to Westinghouse Machine Company. Turbine-blade-holding means. No. 941,411; Nov. 30; Sp. p. 6565; Gaz. vol. 148; p. 1113.
Gindiesperger, B. F., Garrett, Pa. Window-shade hanger. No. 941,987; Nov. 30; Sp. p. 7754; Gaz. vol. 148; p. 1306.
Ginn, B. F., Lenox, Iowa. Tire-armor. No. 940,591; Nov. 16; Sp. p. 4761; Gaz. vol. 148; p. 793.
Giraud, E., Paris, France. Safety device for overhead electric conductors. No. 940,525; Nov. 16; Sp. p. 4623; Gaz. vol. 148; p. 771.
Girtanner, F., assignor to Laclede-Christy Clay Products Company, St. Louis, Mo. Furnace-grate. No. 941,572; Nov. 30; Sp. p. 6885; Gaz. vol. 148; p. 1165.
Glaser, E. (See Kaiser, C. A., assignor.)
Glasner, A. H., *et al.* (See Sieben, H., assignor.)
Glass, P. R., Quincy, Mass., assignor, by mesne assignments, to Manufacturers Machine Company, Montclair, N. J. Automatic clench-nailer. No. 938,474; Nov. 2; Sp. p. 40; Gaz. vol. 148; p. 9.
Glazier, W. A., Etowah, Tenn. Swimming appliance. No. 941,244; Nov. 23; Sp. p. 6178; Gaz. vol. 148; p. 1036.
Gleason, H. M., Philadelphia, Pa. Projectile. No. 939,682; Nov. 9; Sp. p. 2727; Gaz. vol. 148; p. 451.
Gleeson, T. W., Boston, Mass. Relay. No. 941,709; Nov. 30; Sp. p. 7186; Gaz. vol. 148; p. 1211.
Globe Ticket Company. (See Osman, R. C., assignor.)
Glover, D. H., assignor to Reed & Barton Corporation, Taunton, Mass. Box. No. 941,140; Nov. 23; Sp. p. 5955; Gaz. vol. 148; p. 1002.
Gminer, C., Waupaca, Wis. Silo. No. 939,826; Nov. 9; Sp. p. 3034; Gaz. vol. 148; p. 500.
Goddard, G. M., assignor of one-third to G. C. Thrall and one-third to Rutland Machine & Automobile Company, Rutland, Vt. Telegraph-transmitter. No. 939,683; Nov. 9; Sp. p. 2728; Gaz. vol. 148; p. 451.
Goddard, G. N., Newton, assignor to American Tool & Machine Company, Boston, Mass. Centrifugal machine. No. 939,904; Nov. 9; Sp. p. 3201; Gaz. vol. 148; p. 527.
Goddu, L., Winchester, Mass., assignor to Goddu Sewing Machine Co., Portland, Me. Sole-sewing machine. No. 940,637; Nov. 16; Sp. p. 4852; Gaz. vol. 148; p. 808.
Goddu Sewing Machine Co. (See Goddu, L., assignor.)
Godfrey, J. B., trustee. (See Barnett and PicKel, assignors.)
Godfrey, L. S., Binger, Okla. Automatic grain-weigher. No. 941,633; Nov. 30; Sp. p. 7003; Gaz. vol. 148; p. 1185.
Godley, G. F., Philadelphia, Pa. Ore separating or concentrating apparatus. No. 941,634; Nov. 30; Sp. p. 7004; Gaz. vol. 148; p. 1185.
Goedeke, F. W., Evansville, Ind. Corner-iron for baskets, boxes, &c. No. 939,005; Nov. 2; Sp. p. 1196; Gaz. vol. 148; p. 191.
Goethel, A. C., Milwaukee, Wis. Transom-lifter. No. 938,475; Nov. 2; Sp. p. 46; Gaz. vol. 148; p. 10.
Goettling, G. M. W., Brookline, Mass. Storage battery. No. 939,006; Nov. 2; Sp. p. 1197; Gaz. vol. 148; p. 192.
Goff, F. C., Denver, Colo. Air-valve. No. 939,196; Nov. 2; Sp. p. 1596; Gaz. vol. 148; p. 258.
Goldberg, H. (See Berzon and Goldberg.)
Goldberg, S. H., Chicago, Ill. Hair-pin holder. No. 940,801; Nov. 23; Sp. p. 5240; Gaz. vol. 148; p. 889.
Golden, D. J., Randolph, Mass. Sporting-shoe. No. 938,843; Nov. 2; Sp. p. 841; Gaz. vol. 148; p. 135.
Golden, H. E., Dunbar, Pa. Indicator. No. 941,572. Nov. 30; Sp. p. 7538; Gaz. vol. 148; p. 1268.
Goldschmidt Detinning Company. (See Goldschmidt, H., assignor.) (Reissue.)
Goldschmidt, H., Essen-on-the-Ruhr, Germany, assignor, by mesne assignments, to Goldschmidt Detinning Company, Jersey City, N. J. Preparing tinned sheet-iron boxes, &c., for detinning. (Reissue.) No. 13,042; Nov. 16; Sp. p. 4893; Gaz. vol. 148; p. 815.
Goldschmidt, H., and O. Weil, assignors to T. Goldschmidt, Essen-on-the-Ruhr, Germany. Manufacturing calcium-silicon alloys, &c. No. 938,758; Nov. 2; Sp. p. 665; Gaz. vol. 148; p. 106.
Goldschmidt, T. (See Goldschmidt and Weil, assignors.)
Goldsmith, F. E., Middletown, assignor, by mesne assignments, to Ceramic Machinery Company, Hamilton, Ohio. Agitator. No. 939,905; Nov. 9; Sp. p. 3202; Gaz. vol. 148; p. 528.
Goldsmith, F. E., assignor to Ceramic Machinery Company, Hamilton, Ohio. Glazing tile, brick, or the like. No. 941,635; Nov. 30; Sp. p. 7005; Gaz. vol. 148; p. 1185.
Goldsmith, F. H., Kansas City, Mo. Automatically-closing valve. No. 938,574; Nov. 2; Sp. p. 302; Gaz. vol. 148; p. 45.
Gonia, G. B., Revere, Mass. Bowling-alley-surfacing machine. No. 940,004; Nov. 16; Sp. p. 3425; Gaz. vol. 148; p. 590.
Good Manufacturing Company. (See Curry, G. W., assignor.)
Goodchild, J. (See Goodchild, W., assignor.)
Goodchild, W., assignor to J. Goodchild, New York, N. Y. Fire-alarm. No. 939,128; Nov. 2; Sp. p. 1442; Gaz. vol. 148; p. 234.
Goodier, J. H., Utica, N. Y. Combined street-indicator and advertising device. No. 940,963; Nov. 23; Sp. p. 5564; Gaz. vol. 148; p. 942.
Gooding, C. S., Brookline, and S. E. Taft, South Framingham, Mass.; said Taft assignor to said Gooding. Machine for randing and cutting in the shanks of shoes. No. 939,007; Nov. 2; Sp. p. 1199; Gaz. vol. 148; p. 192.
Goodman, P., New York, N. Y. Gas-main stopper. No. 940,458; Nov. 16; Sp. p. 4481; Gaz. vol. 148; p. 749.
Goodrich, O. A., assignor of five-eighths to J. N. Warren and one-eighth to F. A. Seaman, Sioux City, Iowa. Four-wheel positive drive. No. 941,514; Nov. 30; Sp. p. 6770; Gaz. vol. 148; p. 1146.
Goodridge, G. W., Bridgeport, Conn. Wire-skinning pliers. No. 941,192; Nov. 23; Sp. p. 6075; Gaz. vol. 148; p. 1019.
Goodridge, G. W., assignor to Bryant Electric Company, Bridgeport, Conn. Electrical receptacle. No. 940,526; Nov. 16; Sp. p. 4625; Gaz. vol. 148; p. 771.
Goodson Electric and Manufacturing Company. (See Carlborg, O., assignor.)
Goodspeed, C. B., Chicago, Ill. Car-truck. No. 941,515; Nov. 30; Sp. p. 6773; Gaz. vol. 148; p. 1147.
Goodwin, C. N., Washington, D. C. Cotton-harvester. No. 939,008; Nov. 2; Sp. p. 1205; Gaz. vol. 148; p. 192.
Goodwin Car Company. (See Goodwin, E. W., assignor.)
Goodwin, E. W., Bensonhurst, assignor to Goodwin Car Company, New York, N. Y. Valve-replacing apparatus. No. 941,873; Nov. 30; Sp. p. 7540; Gaz. vol. 148; p. 1268.
Goppman, L., Pittsburg, Pa. Solder for aluminum. No. 939,494; Nov. 9; Sp. p. 2322; Gaz. vol. 148; p. 385.
Gordon, C., Hartford, assignor to Whitlock Coil Pipe Company, West Hartford, Conn. Flanged pipe. No. 940,870; Nov. 23; Sp. p. 5377; Gaz. vol. 148; p. 911.
Gordon, F. A., Nogales, Ariz. Water-bag. No. 941,245; Nov. 23; Sp. p. 6178; Gaz. vol. 148; p. 1036.
Gorman, G. M., Anamora, Iowa. Corn-planter. No. 941,874; Nov. 30; Sp. p. 7542; Gaz. vol. 148; p. 1269.
Gorman, J. H., Salisbury, N. C. Setting device for watches. No. 939,009; Nov. 2; Sp. p. 1210; Gaz. vol. 148; p. 193.
Gorton, W. F., assignor to Ontario Silver Company, Muncie, Ind. Die-holder for drop-hammers. No. 940,005; Nov. 16; Sp. p. 3428; Gaz. vol. 148; p. 591.
Goss Printing Press Company. (See Schroeder, H. C., assignor.)
Goss Printing Press Company. (See Walser, J. J., assignor.)
Gottlieb, C. J. A., Aarhus, Denmark. Condenser. No. 938,476; Nov. 2; Sp. p. 47; Gaz. vol. 148; p. 10.
Gottschalk, F., New York, N. Y. Device for impressing seals on papers. No. 938,756; Nov. 2; Sp. p. 662; Gaz. vol. 148; p. 105.
Gottschalk, F., New York, N. Y. Device for impressing seals on papers. No. 938,757; Nov. 2; Sp. p. 663; Gaz. vol. 148; p. 105.
Gottschalk, F. T., Dresden, Germany. Driving and brake clutch. No. 939,411; Nov. 9; Sp. p. 2156; Gaz. vol. 148; p. 358.
Göttsche, G. (See Noodt and Göttsche.)
Gould Coupler Company. (See Turbayne, W. A., assignor.)
Gould & Eberhardt. (See Zimmermann, W. F., assignor.)
Gould Storage Battery Company. (See Hubbard, A. S., assignor.)
Gould Storage Battery Company. (See Winship, W. E., assignor.)
Goulds Manufacturing Company. (See Casey, A., assignor.)
Gourlay, J. S., Eastwood, N. Y. Mechanism for operating swinging windows. No. 939,412; Nov. 9; Sp. p. 2157; Gaz. vol. 148; p. 358.
Govers, F. X., Owego, N. Y. Desiccating milk. No. 939,495; Nov. 9; Sp. p. 2323; Gaz. vol. 148; p. 385.
Graber, J., New York, N. Y. Index-plate for calculating-machines. No. 941,774; Nov. 30; Sp. p. 7322; Gaz. vol. 148; p. 1234.
Graetz, M., Berlin, Germany. Gas-regulator. No. 939,684; Nov. 9; Sp. p. 2734; Gaz. vol. 148; p. 451.
Graff, F., Jr., Middle Village, N. Y. Gas-stove frame. No. 941,141; Nov. 23; Sp. p. 5956; Gaz. vol. 148; p. 1002.
Graham, E., Hazel Dell, assignor of one-third to H. E. Warfel and one-third to D. E. Bowers, Hidalgo, Ill. Safety-clip for swingletrees. No. 940,388; Nov. 16; Sp. p. 4339; Gaz. vol. 148; p. 726.
Graham, G., New York, N. Y. Self-supporting stocking. No. 941,193; Nov. 23; Sp. p. 6076; Gaz. vol. 148; p. 1019.
Graham, G. M., assignor to G. A. E. Kohler, Chicago, Ill. Reinforced-concrete partition. No. 938,659; Nov. 2; Sp. p. 478; Gaz. vol. 148; p. 73.

Graham, G. M., assignor to G. A. E. Kohler, Chicago, Ill. Erecting reinforced concrete structures. No. 938,660; Nov. 2; Sp. p. 479; Gaz. vol. 148; p. 73.
Graham, G. M., assignor to G. A. E. Kohler, Chicago, Ill. Reinforcing-frame for concrete structures. No. 938,661; Nov. 2; Sp. p. 481; Gaz. vol. 148; p. 74.
Graham, G. M., assignor to G. A. E. Kohler, Chicago, Ill. Reinforced concrete structure. No. 938,662; Nov. 2; Sp. p. 482; Gaz. vol. 148; p. 74.
Graham, H. R., Jr., Paico, Kans. Toy. No. 938,844; Nov. 2; Sp. p. 842; Gaz. vol. 148; p. 135.
Graham, J. L., Reynoldsville, Pa., assignor to Wickes Brothers, Saginaw, Mich. Friction-gearing. No. 940,006; Nov. 16; Sp. p. 3429; Gaz. vol. 148; p. 591.
Graham, W. W., New Philadelphia, Ohio. Stovepipe. No. 940,927; Nov. 23; Sp. p. 5484; Gaz. vol. 148; p. 930.
Grain Belt Car Specialty Company. (See Posson, E., assignor.)
Granbery, J. H., East Orange, N. J. Stadia-rod. No. 940,007; Nov. 16; Sp. p. 3431; Gaz. vol. 148; p. 592.
Grand Rapids Show Case Company. (See Dodge, L. G., assignor.)
Grand Rapids Show Case Company. (See Dodge, Freeman, and Vanderveld, assignors.)
Grand Rapids Show Case Company. (See Freeman, W. F., assignor.)
Grand Rapids Show Case Company. (See Williams, W. K., assignor.)
Grand Rapids Show Case Company. (See Young, S. D., assignor.)
Granges, L. (See Strasburger and Granges.)
Granlund, O. F., Springfield, Mass. Confectionery-machine. No. 941,070; Nov. 23; Sp. p. 5796; Gaz. vol. 148; p. 978.
Grant, F. A., Staceyville, Me. Churn. No. 941,318; Nov. 23; Sp. p. 6331; Gaz. vol. 148; p. 1058.
Grant, H. E., Pittsburg, Pa. Storage gasolene apparatus. No. 939,596; Nov. 9; Sp. p. 2555; Gaz. vol. 148; p. 419.
Grant, O. B., Davenport, Iowa. Reraller. No. 938,845; Nov. 2; Sp. p. 845; Gaz. vol. 148; p. 136.
Grant, W. A., East Orange, N. J., assignor to Royal Solvent Company. Apparatus for making soap. No. 939,906; Nov. 9; Sp. p. 3204; Gaz. vol. 148; p. 528.
Graver, H. F. (See Smith, Graver, and Wiegand.)
Graves, H. C. (See Lewis and Graves.)
Gray, B. D., Providence, R. I., assignor to American Locomotive Company, New York, N. Y. Motor-vehicle. No. 940,145; Nov. 16; Sp. p. 3764; Gaz. vol. 148; p. 641.
Gray, C. E., *et al.* (See Bryant, J. M. and H. H., assignors.)
Gray, E. F. (See Lee and Gray.)
Gray, W. W., *et al.* (See Bryant, J. M. and H. H., assignors.)
Graybill, J. E., York, Pa. Fuse-holder. No. 938,477; Nov. 2; Sp. p. 48; Gaz. vol. 148; p. 10.
Great Bear Spring Company. (See Emerick, F. A., assignor.)
Green, C. E., and T. C. Brasket, assignors of one-third to G. W. Hoppes, Anderson, Ind. Fire-escape. No. 941,246; Nov. 23; Sp. p. 6179; Gaz. vol. 148; p. 1036.
Green, I. L., Ludlow, Vt. Vacuum-cleaner. No. 941,675; Nov. 30; Sp. p. 7091; Gaz. vol. 148; p. 1198.
Green, I. L., Ludlow, Vt. Vacuum-cleaner. No. 941,676; Nov. 30; Sp. p. 7092; Gaz. vol. 148; p. 1198.
Green, J. B., assignor of one-fourth to H. A. Houston and one-fourth to H. Lieb, Wallace, Idaho. Slime-feeding device for concentrators. No. 941,918; Nov. 30; Sp. p. 7624; Gaz. vol. 148; p. 1284.
Green, J. S., Pittsburg, Pa., assignor to Westinghouse Machine Company. Elastic-fluid turbine. No. 940,802; Nov. 23; Sp. p. 5241; Gaz. vol. 148; p. 889.
Green, J. W., Portland, assignor of one-half to J. G. Pelton, Arleta, Oreg. Drilling-machine. No. 939,907; Nov. 9; Sp. p. 3206; Gaz. vol. 148; p. 528.
Greenan, H. A., Richmond, assignor to National Water Main Cleaning Company, New York, N. Y. Device for passing cables through pipe-lines. (Reissue.) No. 13,032; Nov. 2; Sp. p. 1599; Gaz. vol. 148; p. 259.
Greene, G., Arlington, N. J. Weeder. No. 938,759; Nov. 2; Sp. p. 666; Gaz. vol. 148; p. 106.
Greene, V. (See Ball, J. F., assignor.)
Greenfield, C. E., Syracuse, N. Y. Street-indicating device. No. 938,478; Nov. 2; Sp. p. 53; Gaz. vol. 148; p. 11.
Greenfield, E. T., Klamesha, N. Y. Tubing. No. 938,575; Nov. 2; Sp. p. 304; Gaz. vol. 148; p. 45.
Greenfield, E. T., Klamesha, N. Y. Apparatus for making spiral tubing. No. 939,244; Nov. 9; Sp. p. 1725; Gaz. vol. 148; p. 299.
Greenfield, E. T., Klamesha, assignor to Greenfield Paper Bottle Company, New York, N. Y. Bottle. No. 940,310; Nov. 16; Sp. p. 4139; Gaz. vol. 148; p. 668.
Greenfield Paper Bottle Company. (See Greenfield, E. T., assignor.)
Greenlaw Manufacturing Co. (See Greenlaw, W. A., assignor.)
Greenlaw, W. A., Melrose Highlands, assignor to Greenlaw Manufacturing Co., Boston, Mass. Flexible pipe-joint. No. 939,908; Nov. 9; Sp. p. 3208; Gaz. vol. 148; p. 529.
Greenleaf, A., *et al.*, executors. (See Mergenthaler, O.)
Greenwald, J. O., Milwaukee, Wis. Credit system. No. 939,245; Nov. 9; Sp. p. 1726; Gaz. vol. 148; p. 300.
Gregory, G. P., Blackshear, Ga. Potato-vine cutter. No. 941,247; Nov. 23; Sp. p. 6182; Gaz. vol. 148; p. 1037.
Gregg, H. E., Newport, Del. Flexible crushing-machine. No. 941,710; Nov. 30; Sp. p. 7188; Gaz. vol. 148; p. 1211.
Greilick, C. L., assignor to Traverse City Chair Co., Traverse City, Mich. Adjustable foot-rest for Morris chairs. No. 939,827; Nov. 9; Sp. p. 3035; Gaz. vol. 148; p. 500.
Greilick, C. L., assignor to Traverse City Chair Co., Traverse City, Mich. Chair. No. 941,919; Nov. 30; Sp. p. 7627; Gaz. vol. 148; p. 1284.
Grieve, T., Perth Amboy, N. J. Feed-water purifier. No. 939,010; Nov. 2; Sp. p. 1212; Gaz. vol. 148; p. 193.
Griffin, J. J., and A. W. Muth, Sparks, Ga. Clamp and rail-brace. No. 940,964; Nov. 23; Sp. p. 5567; Gaz. vol. 148; p. 942.
Griffiths, G. H., Cleveland, Ohio. Paper receptacle. No. 940,592; Nov. 16; Sp. p. 4762; Gaz. vol. 148; p. 793.
Griscom-Spencer Company. (See Bunnell, S. H., assignor.)
Griscom-Spencer Company. (See Row, R. R., assignor.)
Grobes, H. H., Jersey City, N. J. Pneumatic hammer. No. 939,828; Nov. 9; Sp. p. 3038; Gaz. vol. 148; p. 501.
Grogan, R., and C. Henson, Canton, N. C. Log-conveyer. No. 939,011; Nov. 2; Sp. p. 1214; Gaz. vol. 148; p. 194.
Grohmann, C. L., assignor to Pratt & Whitney Company, Hartford, Conn. Head-adjusting mechanism. No. 938,479; Nov. 2; Sp. p. 56; Gaz. vol. 148; p. 11.
Gröndal Kjellin Company. (See Röchling and Rodenhauser, assignors.)
Groom, M. W., San Jose, Cal. Apparatus for cooling fruits. No. 939,685; Nov. 9; Sp. p. 2735; Gaz. vol. 148; p. 452.
Grossmann, A., Dresden, Germany. Governor for speed-indicators. No. 941,516; Nov. 30; Sp. p. 6773; Gaz. vol. 148; p. 1147.
Grotenrath, F., Milwaukee, Wis. Grain cleaner and separator. No. 938,576; Nov. 2; Sp. p. 306; Gaz. vol. 148; p. 45.
Grover, G. B., assignor to W. J. Young Machinery Company, Lynn, Mass. Heel-compressing machine. No. 939,686; Nov. 9; Sp. p. 2736; Gaz. vol. 148; p. 452.
Grover, W. B., Philadelphia, Pa. Penholder. No. 938,760; Nov. 2; Sp. p. 667; Gaz. vol. 148; p. 106.
Gruenfeldt, E., assignor to Baker Motor Vehicle Company, Cleveland, Ohio. Motor-vehicle construction. No. 941,517; Nov. 30; Sp. p. 6775; Gaz. vol. 148; p. 1147.
Gruer, F. H., Oakland, Cal. Tool. No. 939,496; Nov. 9; Sp. p. 2325; Gaz. vol. 148; p. 386.
Grunder, C., Pittsburg, Pa. Tool-holder. No. 942,034; Nov. 30; Sp. p. 7837; Gaz. vol. 148; p. 1321.
Grundy, J. R., assignor to Charles Bond Company, Philadelphia, Pa. Insulating shaft-coupling. No. 939,829; Nov. 9; Sp. p. 3040; Gaz. vol. 148; p. 501.
Grünthal, S., Munich, Germany. Ash-tray. No. 939,909; Nov. 9; Sp. p. 3210; Gaz. vol. 148; p. 529.
Guenther, W. A., Pittsburg, Pa. Meat-conveyer. No. 941,248; Nov. 23; Sp. p. 6183; Gaz. vol. 148; p. 1037.
Guertin, V., Montreal, Quebec, Canada. Mailing-tube. No. 940,146; Nov. 16; Sp. p. 3766; Gaz. vol. 148; p. 642.
Gugler, J. H., Milwaukee, Wis. Combined primary and secondary battery system. No. 940,006; Nov. 16; Sp. p. 3434; Gaz. vol. 148; p. 592.
Gugler, J. H., Minneapolis, Minn., assignor to Battery Company. Battery-contact. No. 938,663; Nov. 2; Sp. p. 484; Gaz. vol. 148; p. 74.
Gulbrandson, G. (See Midbo and Gulbrandson.)
Gull, R., St. Louis, Mo. Bottling beer. No. 938,577; Nov. 2; Sp. p. 309; Gaz. vol. 148; p. 46.
Gull, R., St. Louis, Mo. Machine for bottling beer. No. 938,578; Nov. 2; Sp. p. 313; Gaz. vol. 148; p. 46.
Gulline, H. L., Granby, Quebec, Canada. Folding box. No. 940,009; Nov. 16; Sp. p. 3435; Gaz. vol. 148; p. 593.
Gulline, H. L., Granby, Quebec, Canada. Folding box. No. 940,010; Nov. 16; Sp. p. 3436; Gaz. vol. 148; p. 593.
Gumprecht, W. L., assignor to Neptune Meter Company, New York, N. Y. Meter. No. 941,573; Nov. 30; Sp. p. 6886; Gaz. vol. 148; p. 1166.
Gundel, J., Boston, Mass. Infant's band. No. 939,012; Nov. 2; Sp. p. 1216; Gaz. vol. 148; p. 194.
Gunn, A. G., Coffeyville, Kans. Self-feeding marker. No. 938,846; Nov. 2; Sp. p. 849; Gaz. vol. 148; p. 136.
Gunn, J. M., assignor of one-fourth to J. R. Burris and one-fourth to F. O. Burris, Girard, Ill. Animal-trap. No. 941,988; Nov. 30; Sp. p. 7756; Gaz. vol. 148; p. 1306.
Gussenhoven, W., Chicago, Ill. Beater for hog-scraping machines. No. 938,761; Nov. 2; Sp. p. 668; Gaz. vol. 148; p. 106.
Gustafson, J., *et al.* (See Ross, J., assignor.)
Gutenkunst, W., Milwaukee, Wis. Trip mechanism and reaction-stop for litter-carriers. No. 938,579; Nov. 2; Sp. p. 320; Gaz. vol. 148; p. 47.
Gutenkunst, W., Milwaukee, Wis. Clamping mechanism for litter-supporting cables. No. 938,847; Nov. 2; Sp. p. 850; Gaz. vol. 148; p. 137.
Guthat, A. W., Milwaukee, Wis. Scaffold-bracket. No. 940,459; Nov. 16; Sp. p. 4483; Gaz. vol. 148; p. 749.

Guy, A. E., Trenton, N. J., assignor to De Laval Steam Turbine Company, New York, N. Y. Multiple-impeller pump. No. 940,871; Nov. 23; Sp. p. 5378; Gaz. vol. 148; p. 911.
H. C. Meyer, Jr. (See Tilp, J., assignor.)
H. D. Smith and Company. (See Thomson, W. S., assignor.)
H. D. Smith and Company. (See Ward, W. S., assignor.)
H. L. Judd Company. (See Lathrop and Chase, assignors.)
Haase, C. H., New Orleans, La., assignor of one-fourth to W. H. Wood, Dallas, Tex. Combined pencil holder and sharpener. No. 941,518; Nov. 30; Sp. p. 6777; Gaz. vol. 148; p. 1148.
Haasis, A. L. (See Carpenter, W. H., assignor.)
Habekost, R., Squirrel, Idaho. Whip-socket. No. 939,246; Nov. 9; Sp. p. 1730; Gaz. vol. 148; p. 300.
Haber, M. J., Chicago, Ill. Sad-iron. No. 938,762; Nov. 2; Sp. p. 670; Gaz. vol. 148; p. 107.
Hadcock, M. A., Stevens Point, Wis. Pipe and cleaner therefor. No. 939,247; Nov. 9; Sp. p. 1731; Gaz. vol. 148; p. 301.
Haddock, D. V., St. Petersburg, Fla. Cuspidor. No. 939,013; Nov. 2; Sp. p. 1218; Gaz. vol. 148; p. 194.
Hadka, J., Chicago, Ill. Cleaner. No. 939,248; Nov. 9; Sp. p. 1732; Gaz. vol. 148; p. 301.
Hadley, A. W., and H. M. Smith, Monroe township, Morgan county, Ind. Road-grader. No. 940,389; Nov. 16; Sp. p. 4339; Gaz. vol. 148; p. 726.
Hadsell, D. H. (See Smith and Hadsell.)
Haeberlein, M., New York, N. Y., assignor of one-half to Pelton Water Wheel Co., San Francisco, Cal. Fly ball-governor. No. 941,775; Nov. 30; Sp. p. 7323; Gaz. vol. 148; p. 1234.
Haenke, H. O. (See Haenke, R. A. and H. O.)
Haenke, R. A. and H. O., Mount Pleasant, Mich. Bean-chute. No. 939,830; Nov. 9; Sp. p. 3401; Gaz. vol. 148; p. 501.
Hafely, A. C., New York, N. Y. Binder. No. 941,142; Nov. 23; Sp. p. 5957; Gaz. vol. 148; p. 1002.
Hafemeister, W. C., assignor to Van Dorn Electric and Manufacturing Company, Cleveland, Ohio. Combination switch and blow-out. No. 940,311; Nov. 16; Sp. p. 4142; Gaz. vol. 148; p. 699.
Hageman, R. F., New Madison, Ohio. Car-mover. No. 939,249; Nov. 9; Sp. p. 1733; Gaz. vol. 148; p. 301.
Hagerstrom, J. A., Brooklyn, assignor to Victor Typewriter Company, New York, N. Y. Type-writing machine. No. 938,480; Nov. 2; Sp. p. 59; Gaz. vol. 148; p. 11.
Hagerty, J. C., Santa Cruz, Cal. Rotary engine. No. 940,246; Nov. 16; Sp. p. 3979; Gaz. vol. 148; p. 677.
Haggard, W. W., Winchester, Ky. Milk-bottle washer. No. 940,011; Nov. 16; Sp. p. 3439; Gaz. vol. 148; p. 593.
Haglund, A., Lawrence, Kans. Flower-pot holder. No. 941,448; Nov. 30; Sp. p. 6633; Gaz. vol. 148; p. 1124.
Hagstrom Brothers Manufacturing Company *et al.* (See Anderson and Hagstrom, assignors.)
Hagstrom, W. (See Anderson and Hagstrom.)
Haines, W. R., *et al.* (See Hamilton, J. L., assignor.)
Hale, F. M., London, England. Explosive grenade. No. 940,527; Nov. 16; Sp. p. 4025; Gaz. vol. 148; p. 771.
Hale-Kilburn Metal Company. (See Budd and Wollé, assignors.)
Hales, J. C., *et al.* (See Nolley, D. D., assignor.)
Hall, D. W. (See Dimmond and Hall.)
Hall, F., *et al.* (See Davis, C. B., assignor.)
Hall, G. L., assignor to National Railway Materials Company, New York, N. Y. Guard-rail clamp. No. 938,848; Nov. 2; Sp. p. 851; Gaz. vol. 148; p. 137.
Hall, J. L., East Worcester, N. Y. Folding crate. No. 939,250; Nov. 9; Sp. p. 1735; Gaz. vol. 148; p. 301.
Hall, M. W., Brooklyn, N. Y. Anchor. No. 941,776; Nov. 30; Sp. p. 7325; Gaz. vol. 148; p. 1234.
Hall, T., assignor to Ridgway Dynamo & Engine Company, Ridgway, Pa. Piston. No. 938,481; Nov. 2; Sp. p. 65; Gaz. vol. 148; p. 12.
Hall, T. M. (See Harper, G. A., assignor.)
Hall, W. A., Sr., Pardeeville, Wis. Potato-planting machine. No. 940,147; Nov. 16; Sp. p. 3767; Gaz. vol. 148; p. 642.
Hall, W. A., Sr., Pardeeville, Wis. Potato-planter. No. 941,449; Nov. 30; Sp. p. 6634; Gaz. vol. 148; p. 1124.
Hall, W. A., New York, N. Y., assignor to American Mahogany Company. Coloring wood. No. 939,014; Nov. 2; Sp. p. 1219; Gaz. vol. 148; p. 194.
Hall, W. A., New York, N. Y., assignor to American Mahogany Company. Coloring wood. No. 939,015; Nov. 2; Sp. p. 1220; Gaz. vol. 148; p. 195.
Hall, W. A., New York, N. Y., assignor to American Mahogany Company. Coloring and graining wood. No. 939,016; Nov. 2; Sp. p. 1222; Gaz. vol. 148; p. 195.
Hallenbeck, G. B. (See Miller and Hallenbeck.)
Hallenberg, A., Fargo, N. D. Hand mixing-receptacle. No. 939,017; Nov. 2; Sp. p. 1223; Gaz. vol. 148; p. 195.
Haller, J. F., Sheridanville, Pa. Filling-machine. No. 938,482; Nov. 2; Sp. p. 66; Gaz. vol. 148; p. 12.
Hallett, E. N., Canton, Pa. Trousers-stretcher. No. 939,831; Nov. 9; Sp. p. 3042; Gaz. vol. 148; p. 502.
Hallowell, W. S., *et al.* (See Gibson, G. H., assignor.)
Halsey J. Tibbals Chemical Manufacturing Company. (See Ferry, F. S., assignor.)
Hamblin, F. H., Worcester, Mass. Kitchen utensil. No. 939,251; Nov. 9; Sp. p. 1737; Gaz. vol. 148; p. 302.
Hamby, J. A., and S. S. Butcher, Columbus, Ga. Locomotive-headlight. No. 939,832; Nov. 9; Sp. p. 3044; Gaz. vol. 148; p. 502.
Hames, J. C., Goldfield, Nev. Assaying composition. No. 938,849; Nov. 2; Sp. p. 854; Gaz. vol. 148; p. 137.
Hames, J. C., Goldfield, Nev. Assaying for silver. No. 939,413; Nov. 9; Sp. p. 2158; Gaz. vol. 148; p. 358.
Hamilton, B., New York, N. Y. Game apparatus. No. 941,194; Nov. 23; Sp. p. 6077; Gaz. vol. 148; p. 1020.
Hamilton, F., Providence, R. I. Eyeglasses. No. 940,683; Nov. 23; Sp. p. 4971; Gaz. vol. 148; p. 848.
Hamilton, J. L., assignor of one-fourth to W. R. Haines and one-fourth to C. Van Hoosebeke, Grand Junction, Colo. Orchard-heating device. No. 940,965; Nov. 23; Sp. p. 5508; Gaz. vol. 148; p. 942.
Hamilton, R. F., New York, N. Y. Automatic slack-adjuster for brakes. No. 939,018; Nov. 2; Sp. p. 1225; Gaz. vol. 148; p. 195.
Hammel, Riglander & Co. (See Bowers, G. W., assignor.)
Hammett, J. W., Eureka, W. Va. Filter. No. 939,497; Nov. 9; Sp. p. 2327; Gaz. vol. 148; p. 386.
Hammond, C. H., Baltimore, Md., assignor to Lester-Adams Tobacco Press Company. Tobacco-press. No. 940,803; Nov. 23; Sp. p. 5242; Gaz. vol. 148; p. 890.
Hammond, G., Chicago, Ill. Hoisting apparatus. No. 940,148; Nov. 16; Sp. p. 3768; Gaz. vol. 148; p. 642.
Hammond, R. M., Dellvale, Kans. Liquid-fuel burner. No. 940,149; Nov. 16; Sp. p. 3769; Gaz. vol. 148; p. 643.
Hammond, T. A., Passaic, N. J. Connector. No. 940,012; Nov. 16; Sp. p. 3439; Gaz. vol. 148; p. 594.
Hampton, E. E., and C. G. Smith, Palisades, Colo. Pilot-light-shifting attachment for vehicles. No. 941,574; Nov. 30; Sp. p. 6887; Gaz. vol. 148; p. 1166.
Handy, F. D. (See Welds, O. D., assignor.)
Haney, A. O., assignor to Haney Gas Engine Company, Ligonier, Ind. Causing self-ignition in explosive-engines. No. 940,872; Nov. 23; Sp. p. 5379; Gaz. vol. 148; p. 911.
Haney Gas Engine Company. (See Haney, A. O., assignor.)
Hanique, J. E., Oroville, Cal. Rail-fastening device. No. 941,575; Nov. 30; Sp. p. 6888; Gaz. vol. 148; p. 1166.
Hanlon, D., Spokane, Wash. Boiler. No. 940,684; Nov. 23; Sp. p. 4972; Gaz. vol. 148; p. 849.
Hanlon, D., Spokane, Wash. Water-heater. No. 940,685; Nov. 23; Sp. p. 4974; Gaz. vol. 148; p. 849.
Hanna, F. W., Defiance, Iowa, assignor of one-half to J. H. Root, Port Byron, N. Y. Self-registering water-meter. No. 938,850; Nov. 2; Sp. p. 855; Gaz. vol. 148; p. 137.
Hanna, J. G., Austin, Tex. Automatic match-box. No. 939,252; Nov. 9; Sp. p. 1739; Gaz. vol. 148; p. 302.
Hanna, M. R., Schenectady, N. Y., assignor to General Electric Company. Motor-starter. No. 941,412; Nov. 30; Sp. p. 6566; Gaz. vol. 148; p. 1113.
Hanrath, T. W., Chicago, Ill. Tape-measure. No. 940,873; Nov. 23; Sp. p. 5380; Gaz. vol. 148; p. 912.
Hansen, C. P., Evan, Minn. Draft device. No. 941,920; Nov. 30; Sp. p. 7630; Gaz. vol. 148; p. 1285.
Hansen, J. M., Pittsburg, Pa. Reworking worn car-axles. No. 940,805; Nov. 23; Sp. p. 5246; Gaz. vol. 148; p. 890.
Hansen, J. M., Pittsburg, Pa. Reworking worn car-axles. No. 940,806; Nov. 23; Sp. p. 5247; Gaz. vol. 148; p. 890.
Hanson, A. B., Chicago, Ill. Piano-bench. No. 940,804; Nov. 23; Sp. p. 5244; Gaz. vol. 148; p. 890.
Hanson, B. M. W., assignor to Pratt & Whitney Company, Hartford, Conn. Stop for carriages of metal-working machines. No. 938,483; Nov. 2; Sp. p. 69; Gaz. vol. 148; p. 13.
Hanson, B. M. W., assignor to Pratt & Whitney Company, Hartford, Conn. Taper-roughing tool. No. 938,484; Nov. 2; Sp. p. 71; Gaz. vol. 148; p. 13.
Hanson, B. M. W., assignor to Pratt & Whitney Company, Hartford, Conn. Clutch-actuating mechanism. No. 939,192; Nov. 2; Sp. p. 1588; Gaz. vol. 148; p. 257.
Hanson, B. M. W., assignor to Pratt & Whitney Company, Hartford, Conn. Metal-working machine. No. 940,928; Nov. 23; Sp. p. 5485; Gaz. vol. 148; p. 930.
Hanson, B. M. W., assignor to Pratt & Whitney Company, Hartford, Conn. Feeding mechanism. No. 940,929; Nov. 23; Sp. p. 5487; Gaz. vol. 148; p. 930.
Hanson, J., Auburn, Mass. Automatic pumping system. No. 940,312; Nov. 16; Sp. p. 4145; Gaz. vol. 148; p. 699.
Hanson, M. M., Elliott, Ill. Washing-machine. No. 941,989; Nov. 30; Sp. p. 7758; Gaz. vol. 148; p. 1307.
Hardin, D. L., Hoyt, Kans. Camping-wagon. No. 941,195; Nov. 23; Sp. p. 6078; Gaz. vol. 148; p. 1020.

Hardin, J. D., and J. B. de Saussure, Chattanooga, Tenn. Illuminating device for keyholes. No. 941,576; Nov. 30; Sp. p. 6889; Gaz. vol. 148; p. 1166.
Harding, W. H., Philadelphia, and C. M. Saeger, Allentown, Pa. Fuel-feeder. No. 940,313; Nov. 16; Sp. p. 4148; Gaz. vol. 148; p. 700.
Hardman, G. H., New Bedford, assignor of one-half to W. L. Parker, Lowell, Mass. Coating device. No. 940,593; Nov. 16; Sp. p. 4763; Gaz. vol. 148; p. 794.
Hardsoog Wonder Drill Co. (See Smith, C. J., assignor.)
Hardy, F., assignor to R. E. Haynes, trustee, Columbia, Tenn. Device for emptying the magazines of repeating shotguns. No. 938,851; Nov. 2; Sp. p. 856; Gaz. vol. 148; p. 138.
Hardy, T., Jr., and A. Droll, Troy, Ill. Car-axle lubricator. No. 938,852; Nov. 2; Sp. p. 857; Gaz. vol. 148; p. 138.
Hardy, T. B., *et al.* (See Noland, W. H., assignor.)
Haring, J. C., Jersey City, N. J., assignor to E. Todd & Co., New York, N. Y. Polypoint pencil. No. 940,247; Nov. 16; Sp. p. 3981; Gaz. vol. 148; p. 677.
Harling, F., Shenandoah, Iowa. Punch. No. 938,580; Nov. 2; Sp. p. 321; Gaz. vol. 148; p. 47.
Harlow, W. C., Brooklyn, N. Y. Built-up article. No. 939,833; Nov. 9; Sp. p. 3046; Gaz. vol. 148; p. 503.
Harmer, H., Newark, N. J. Violin-key. No. 941,196; Nov. 23; Sp. p. 6080; Gaz. vol. 148; p. 1020.
Harper, G. A., assignor of one-half to T. M. Hall, Shreveport, La. Dental tooth-clamp. No. 939,834; Nov. 9; Sp. p. 3048; Gaz. vol. 148; p. 503.
Harriman, E. H. (See McKeen, W. R., Jr., assignor.)
Harrington, C. G. (See Frame and Harrington.)
Harris, I. F., Forreston, Tex. Cotton-chopper. No. 939,253; Nov. 9; Sp. p. 1740; Gaz. vol. 148; p. 303.
Harris, J. A., *et al.* (See Johnson, G. F., assignor.)
Harris, J. F. (See Benson and Harris.)
Harris Tire & Rubber Co. (See Harris, W. D., assignor.)
Harris, W. D., assignor to Harris Tire & Rubber Co., Philadelphia, Pa. Tire. No. 940,528; Nov. 16; Sp. p. 4628; Gaz. vol. 148; p. 772.
Harrison, A. C., Grand Rapids, Ohio. Fence-clamp. No. 939,835; Nov. 9; Sp. p. 3049; Gaz. vol. 148; p. 503.
Harrison, W. H. (See Lapp and Harrison.)
Harsant, H., Penge, assignor to E. G. Mitchell, London, England. Air pumping or forcing mechanism. No. 941,450; Nov. 30; Sp. p. 6637; Gaz. vol. 148; p. 1125.
Hart, C. C., Findlay, Ohio. Fruit and vegetable display rack. No. 940,807; Nov. 23; Sp. p. 5249; Gaz. vol. 148; p. 891.
Hart & Cooley Company. (See Hart, H. S., assignor.)
Hart & Cooley Company. (See House, E. D., assignor.)
Hart, G. W., West Hartford, assignor to Hart Manufacturing Company, Hartford, Conn. Electric switch. No. 938,664; Nov. 2; Sp. p. 485; Gaz. vol. 148; p. 75.
Hart, G. W., West Hartford, assignor to Hart Manufacturing Company, Hartford, Conn. Mechanical movement. No. 939,193; Nov. 2; Sp. p. 1592; Gaz. vol. 148; p. 257.
Hart, G. W., West Hartford, assignor to Hart Manufacturing Company, Hartford, Conn. Means for controlling electric circuits. No. 941,777; Nov. 30; Sp. p. 7328; Gaz. vol. 148; p. 1235.
Hart, H. S., Chicago, Ill., assignor to Rodger Ballast Car Company. Railway-car. No. 941,249; Nov. 23; Sp. p. 6185; Gaz. vol. 148; p. 1037.
Hart, H. S., assignor to Hart & Cooley Company, New Britain, Conn. Register or ventilator. No. 941,413; Nov. 30; Sp. p. 6569; Gaz. vol. 148; p. 1114.
Hart Manufacturing Company. (See Hart, G. W., assignor.)
Hart Manufacturing Company. (See Leppert, H. E., assignor.)
Hartenstein, H. L., Constantine, Mich., assignor, by mesne assignments, to Continental Investment Company, Duluth, Minn. Carbid and manufacturing same. No. 938,581; Nov. 2; Sp. p. 323; Gaz. vol. 148; p. 47.
Hartford Machine Screw Company. (See Pearson and Seward, assignors.)
Hartford Rubber Works Company. (See Shea, J. J., assignor.)
Hartman, J. G. (See Wurzer and Hartman.)
Hartnett, J., Jr., West Arlington, assignor to Hartnett Vulcograph Company of Baltimore City, Baltimore, Md. Making half-tone plates. No. 940,808; Nov. 23; Sp. p. 5250; Gaz. vol. 148; p. 891.
Hartnett Vulcograph Company of Baltimore City. (See Hartnett, J., Jr., assignor.)
Harton, P. D., Philadelphia, Pa. Cake-coating machine. No. 939,836; Nov. 9; Sp. p. 3050; Gaz. vol. 148; p. 504.
Hartwell, D. B., Roseworth, Idaho. Combined shovel and hoe. No. 939,019; Nov. 2; Sp. p. 1227; Gaz. vol. 148; p. 196.
Hasbrouck, R., Flushing, N. Y. Souvenir post-card. No. 938,763; Nov. 2; Sp. p. 672; Gaz. vol. 148; p. 107.
Hasel, R., assignor of one-third to G. Bonneck and one-third to H. Hotz, New York, N. Y. Safety-envelop. No. 939,949; Nov. 9; Sp. p. 3295; Gaz. vol. 148; p. 543.
Haskell, F. H., Boston, Mass. Safety twine-cutter. No. 939,129; Nov. 2; Sp. p. 1444; Gaz. vol. 148; p. 235.
Haskins, M. V. (See Martin and Haskins.)
Haskins, M. V. (See Wheeler, Haskins, and Wheeler.)
Hassel, G. A., McKeesport, assignor to Pittsburgh Track Specialty Company, Pittsburg, Pa. Metallic tie and rail-fastener. No. 940,809; Nov. 23; Sp. p. 5255; Gaz. vol. 148; p. 891.
Hassel, G. A., McKeesport, assignor to Pittsburgh Track Specialty Company, Pittsburg, Pa. Metallic tie and rail-fastening. No. 940,966; Nov. 23; Sp. p. 5571; Gaz. vol. 148; p. 943.
Hassler, R. H., Indianapolis, Ind. Magneto-generator. No. 939,910; Nov. 9; Sp. p. 3210; Gaz. vol. 148; p. 529.
Hastings, C. L., Fond du Lac, Wis. Animal-cover. No. 940,967; Nov. 23; Sp. p. 5572; Gaz. vol. 148; p. 943.
Hastings, J. E., *et al.* (See Bostian, H. C., assignor.)
Hatcher, J. N., Jasper, Mo. Fan attachment for doors. No. 941,921; Nov. 30; Sp. p. 7631; Gaz. vol. 148; p. 1285.
Hatfield, W. M. (See Jay, W. N., assignor.)
Hauer, E. E., assignor to Lagonda Manufacturing Company, Springfield, Ohio. Rotary motor. No. 940,150; Nov. 16; Sp. p. 3771; Gaz. vol. 148; p. 643.
Havenstrite, D. J., Newark, N. J. Apparatus for making ice. No. 938,853; Nov. 2; Sp. p. 859; Gaz. vol. 148; p. 139.
Havenstrite, D. J., Newark, N. J. Apparatus for harvesting and cutting plate-ice. No. 940,013; Nov. 16; Sp. p. 3440; Gaz. vol. 148; p. 594.
Havenstrite, D. J., Newark, N. J. Ice-making apparatus. No. 941,414; Nov. 30; Sp. p. 6570; Gaz. vol. 148; p. 1114.
Hawes, F. B., Lowell, Mass. Suspender-check. No. 939,687; Nov. 9; Sp. p. 2741; Gaz. vol. 148; p. 452.
Hawkins, B. (See Carrico and Hawkins.)
Hawkins, B. H. (See McAllister, Anderson, and Hawkins.)
Hawkins, C. J., Larned, Kans. Rack. No. 938,854; Nov. 2; Sp. p. 861; Gaz. vol. 148; p. 139.
Hawkins, D. S. (See Ackerman, C. F., assignor.)
Hawkins, F. H., and A. Bourgeois, Lynn, Mass., assignors to United Shoe Machinery Company, Paterson, N. J. Inseam-trimming machine. No. 939,498; Nov. 9; Sp. p. 2329; Gaz. vol. 148; p. 386.
Hawkins, J. C., Springfield, Ill. Winding-indicator. No. 941,143; Nov. 23; Sp. p. 5959; Gaz. vol. 148; p. 1002.
Hawkins, L. A., Schenectady, N. Y., assignor to General Electric Company. Signal. No. 941,144; Nov. 23; Sp. p. 5961; Gaz. vol. 148; p. 1003.
Hay, A. B. (See Ferguson and Hay.)
Hayden, A. C., Montello, Mass. Shoe-last. No. 941,451; Nov. 30; Sp. p. 6639; Gaz. vol. 148; p. 1125.
Hayden, W. S., Pueblo, Colo. Grass-cutting device. No. 939,837; Nov. 9; Sp. p. 3055; Gaz. vol. 148; p. 504.
Hayes, G. G., Glenwood Springs, Colo. Cushion-tire. No. 940,460; Nov. 16; Sp. p. 4484; Gaz. vol. 148; p. 749.
Hayes, J. H., Onaway, Mich. Self-propelled sleigh. No. 939,194; Nov. 2; Sp. p. 1593; Gaz. vol. 148; p. 258.
Hayne, E., Bisbee, Ariz. Inflating device for tires. No. 939,020; Nov. 2; Sp. p. 1230; Gaz. vol. 148; p. 196.
Haynes, R. E., trustee. (See Hardy, F., assignor.)
Hays, R. S. (See Dotter and Hays.)
Hazelrigg, A. E., *et al.* (See Lee, H. V., O. S., and C. F., assignors.)
Hazen, H. L., Edgewater, N. J. Dumping-wagon. No. 939,130; Nov. 2; Sp. p. 1446; Gaz. vol. 148; p. 235.
Hearn, C. A., and W. H. Feddejohann, Decatur, Ind. Intermediate telephone-connector. No. 941,519; Nov. 30; Sp. p. 6778; Gaz. vol. 148; p. 1148.
Heath, H. E., Lynn, Mass., assignor to General Electric Company. Resistance unit. No. 940,151; Nov. 16; Sp. p. 3773; Gaz. vol. 148; p. 643.
Heathcote, J. W., Heatherlee, Cape Colony. Cream-separating apparatus. No. 940,686; Nov. 23; Sp. p. 4976; Gaz. vol. 148; p. 849.
Heatherington, H. H., and C. O. Long, Bellaire, Ohio. Egg-separator. No. 941,415; Nov. 30; Sp. p. 6572; Gaz. vol. 148; p. 1114.
Heberling, J., Rochester, N. Y. Dumping-wagon. No. 939,414; Nov. 9; Sp. p. 2159; Gaz. vol. 148; p. 358.
Hedley, F., and J. S. Doyle, New York, N. Y. Coasting-record device. No. 940,810; Nov. 23; Sp. p. 5252; Gaz. vol. 148; p. 891.
Hedlund, P. J., Järla, Stockholm, Sweden. Elastic-fluid turbine. No. 940,874; Nov. 23; Sp. p. 5381; Gaz. vol. 148; p. 912.
Hedrick, H. J., Lacon, Ill. Mail-crane. No. 940,152; Nov. 16; Sp. p. 3774; Gaz. vol. 148; p. 643.
Heil, A., Frankfort-on-the-Main, Germany. Primary electric cell or battery. No. 941,416; Nov. 30; Sp. p. 6572; Gaz. vol. 148; p. 1114.
Heim, A., Connersville, Ind. Flower-supporter. No. 940,153; Nov. 16; Sp. p. 3777; Gaz. vol. 148; p. 644.
Heimann, A., and L. Flatow, New York, N. Y. Pump. No. 939,911; Nov. 9; Sp. p. 3213; Gaz. vol. 148; p. 530.

Heimann & Lichten. (See Wales, E. L., assignor.)
Heindel, O. J., Kansas City, Mo. Gas or oil burner. No. 939,415; Nov. 9; Sp. p. 2162; Gaz. vol. 148; p. 359.
Heinley, J. O., Hutchinson, Kans. Pocket pencil-holder. No. 938,764; Nov. 2; Sp. p. 673; Gaz. vol. 148; p. 107.
Heinz, J., Detroit, assignor to Acme White Lead and Color Works, Hamtramck, Mich. Wheel-painting machine. No. 939,416; Nov. 9; Sp. p. 2163; Gaz. vol. 148; p. 359.
Heitmann, E. (See Young and Heitmann.)
Helfrich, P., Orleans, Nebr. Wringer-clamp. No. 938,855; Nov. 2; Sp. p. 862; Gaz. vol. 148; p. 139.
Heller, H., *et al.* (See Wirgovits, J., assignor.)
Heller, I., assignor to Wolf, Sayer & Heller, Chicago, Ill. Meat-slicing machine. No. 939,417; Nov. 9; Sp. p. 2164; Gaz. vol. 148; p. 359.
Helms, R., assignor to San Telmo Cigar Mfg. Company, Detroit, Mich. Cigar end or tuck forming machine. No. 940,248; Nov. 16; Sp. p. 3983; Gaz. vol. 148; p. 678.
Helwig, A., Detroit, Mich. Spark-plug. No. 940,594; Nov. 16; Sp. p. 4765; Gaz. vol. 148; p. 794.
Hemmingsen, C. J. (See Henrichsen and Hemmingsen.)
Henderson, A. C., Buffalo, N. Y. Bust-pad. No. 938,856; Nov. 2; Sp. p. 864; Gaz. vol. 148; p. 139.
Henderson, C. O., Dayton, Ohio, assignor of one-third to W. A. Pickens, Indianapolis, Ind. Vehicle-tire. No. 940,014; Nov. 16; Sp. p. 3443; Gaz. vol. 148; p. 594.
Henderson, G., Dorchester, Mass. Jar-closure. No. 941,417; Nov. 30; Sp. p. 6574; Gaz. vol. 148; p. 1115.
Hendricks, T. J., Rome, Ga. Valve. No. 939,499; Nov. 9; Sp. p. 2331; Gaz. vol. 148; p. 387.
Hendrix, J. D., Atlanta, Ga. Liquid-cooler. No. 939,021; Nov. 2; Sp. p. 1232; Gaz. vol. 148; p. 197.
Henery, G., Zanesville, Ohio. Toy. No. 939,022; Nov. 2; Sp. p. 1234; Gaz. vol. 148; p. 197.
Henig, L. F., Philadelphia, Pa. Poultry-hanger. No. 938,765; Nov. 2; Sp. p. 675; Gaz. vol. 148; p. 108.
Henkel, G., Canal Dover, Ohio. Cut-off for water-spouts. No. 938,665; Nov. 2; Sp. p. 487; Gaz. vol. 148; p. 75.
Henley, J. W., Jackson, Miss. Combined window curtain and shade hanger. No. 938,485; Nov. 2; Sp. p. 72; Gaz. vol. 148; p. 13.
Hennefer Maschinenfabrik C. Reuther & Reisert, M. B. H. (See Reisert, M. E., assignor.)
Hennessey, W. A., assignor of one-half to F. Gauthier, Ashland, Wis. Artificial hand. No. 941,197; Nov. 23; Sp. p. 6081; Gaz. vol. 148; p. 1020.
Henning, F. M., Doxey, Okla. Capping device for oil-wells. No. 941,452; Nov. 30; Sp. p. 6641; Gaz. vol. 148; p. 1125.
Henrichsen, J., and C. J. Hemmingsen, Copenhagen, Denmark. Milking appliance. No. 938,857; Nov. 2; Sp. p. 865; Gaz. vol. 148; p. 140.
Henricks Novelty Company. (See Kenney, E. T., assignor.)
Henry, A. L. (See Vickers and Henry.)
Henry, C. B., *et al.* (See Daring, W. G., assignor.)
Henry, F. H., assignor to J. A. Brill, Philadelphia, Pa. Wear-strip and retainer for securing coverings to the frames of car-seats. No. 941,875; Nov. 30; Sp. p. 7545; Gaz. vol. 148; p. 1269.
Henry G. Thompson & Son Company. (See Carr, J. and W., assignors.)
Henry R. Worthington. (See Scheurmann, W., assignor.)
Hensel, S. T., Denver, Colo. Simple-syrup percolator. No. 939,131; Nov. 2; Sp. p. 1447; Gaz. vol. 148; p. 235.
Hensler, G., Remington, Ind. Eaves-trough. No. 939,838; Nov. 9; Sp. p. 3055; Gaz. vol. 148; p. 504.
Henson, C. (See Grogan and Henson.)
Henson, O. R., Springfield, Ohio. Lantern. No. 941,922; Nov. 30; Sp. p. 7632; Gaz. vol. 148; p. 1285.
Herbert, F. W., Pelham, N. H., assignor of one-half to T. J. Kennedy, Lowell, Mass. Non-refillable bottle. No. 940,687; Nov. 23; Sp. p. 4977; Gaz. vol. 148; p. 849.
Herby, J., Jamestown, N. Y. Fifth-wheel. No. 939,254; Nov. 9; Sp. p. 1742; Gaz. vol. 148; p. 303.
Herd, C. E., Middlesboro, Ky. Trick lung-tester. No. 939,023; Nov. 2; Sp. p. 1235; Gaz. vol. 148; p. 197.
Herks, J., assignor of one-half to C. Wienshienk, St. Joseph, Mo. Shiftable instantaneous unloading device. No. 940,811; Nov. 23; Sp. p. 5256; Gaz. vol. 148; p. 892.
Hermann, C., Leipzig-Kl. Zschocher, Germany. Sheet-feeding apparatus for printing-presses. No. 941,778; Nov. 30; Sp. p. 7330; Gaz. vol. 148; p. 1235.
Hermann, J. F., Moline, Ill. Hay-tedder. No. 940,968; Nov. 23; Sp. p. 5573; Gaz. vol. 148; p. 943.
Hermann, S., Cincinnati, Ohio. Shoe-rack. No. 940,812; Nov. 23; Sp. p. 5257; Gaz. vol. 148; p. 892.
Hernicz, J., South Bend, Ind. Lock. No. 941,250; Nov. 23; Sp. p. 6186; Gaz. vol. 148; p. 1038.
Herold, E., Brooklyn, N. Y. Brake. No. 940,461; Nov. 16; Sp. p. 4486; Gaz. vol. 148; p. 750.
Herreshoff, C., Bridgeport, Conn., assignor to Herreshoff Motor Company, Detroit, Mich. Gas or gasolene engine construction. No. 940,650; Nov. 16; Sp. p. 4882; Gaz. vol. 148; p. 812.
Herreshoff, J. B. F., assignor to General Chemical Company, New York, N. Y. Purification of burner-gases. No. 940,595; Nov. 16; Sp. p. 4766; Gaz. vol. 148; p. 794.
Herreshoff, J. B. F., assignor to General Chemical Company, New York, N. Y. Apparatus for purifying burner-gases. No. 940,596; Nov. 16; Sp. p. 4768; Gaz. vol. 148; p. 794.
Herreshoff Motor Company. (See Herreshoff, C., assignor.)
Hershberger, J. H., Wilkes-Barre, Pa. Horseshoe. No. 938,858; Nov. 2; Sp. p. 867; Gaz. vol. 148; p. 140.
Hershey, W. B. C., Columbus, Ohio. Detachable floor for vehicle-bodies. No. 940,154; Nov. 16; Sp. p. 3778; Gaz. vol. 148; p. 644.
Hertzberg, M. (See McMasters, A. H., assignor.)
Hertzberg, M. von, Chicago, Ill. Binder for loose leaves. No. 941,198; Nov. 23; Sp. p. 6083; Gaz. vol. 148; p. 1021.
Herzog, J., Philadelphia, Pa., assignor to A. S. Houghton, Greenwich, Conn., and G. S. Williamson, New York, N. Y. Incandescent wick-burner. No. 942,035; Nov. 30; Sp. p. 7841; Gaz. vol. 148; p. 1321.
Hess, H., Philadelphia, Pa. Roller-bearing. No. 941,636; Nov. 30; Sp. p. 7006; Gaz. vol. 148; p. 1185.
Hesser, O., Cannstatt, Germany. Paper-bag machine. No. 938,486; Nov. 2; Sp. p. 74; Gaz. vol. 148; p. 13.
Hetherington, W., assignor of one-fourth to W. C. Alexander, Everest, one-fourth to C. F. Teetor, Oskaloosa, and one-fourth to G. C. Dana, Everest, Kans. Clothes-line prop. No. 940,875; Nov. 23; Sp. p. 5383; Gaz. vol. 148; p. 912.
Heulings, W. H. (See Maloosay, F. X., assignor.)
Heulings, W. H., Jr. (See Smith, W. M., assignor.)
Heverling, J. B., St. Louis, Mo. Power-truck. No. 941,677; Nov. 30; Sp. p. 7094; Gaz. vol. 148; p. 1199.
Hewitt, J. E., League City, Tex. Wagon-brake. No. 940,249; Nov. 16; Sp. p. 3985; Gaz. vol. 148; p. 678.
Hewitt, P. C., assignor to Cooper Hewitt Electric Company, New York, N. Y. Gas or vapor electric lamp. No. 939,912; Nov. 9; Sp. p. 3216; Gaz. vol. 148; p. 530.
Hewitt, R. B., and J. G. Nolen; said Nolen assignor of one-half to F. B. Cook, Chicago, Ill. Automatic fire-extinguisher and signaling system. No. 938,859; Nov. 2; Sp. p. 867; Gaz. vol. 148; p. 140.
Heys, J. J., Lynn, Mass., assignor, by mesne assignments, to Manufacturers Machine Company, Montclair, N. J. Buffing-machine. No. 940,015; Nov. 16; Sp. p. 3443; Gaz. vol. 148; p. 594.
Hibschle, H. J., Victor, assignor to MacCormack Drill and Manufacturing Company, Cripple Creek, Colo. Rock-drill. No. 941,251; Nov. 23; Sp. p. 6187; Gaz. vol. 148; p. 1038.
Hick, H. J., Alliance, Ohio. Feed device for saw and like machines. No. 940,016; Nov. 16; Sp. p. 3445; Gaz. vol. 148; p. 595.
Hickey, H. J., Tomahawk, Wis. Fire-hose coupling. No. 941,990; Nov. 30; Sp. p. 7759; Gaz. vol. 148; p. 1307.
Hicks, G. C., Jr., assignor to P. H. & F. M. Roots Company, Connersville, Ind. Muffler. No. 938,860; Nov. 2; Sp. p. 880; Gaz. vol. 148; p. 141.
Hicks, J. W., Goldsboro, N. C. Air-brake system. No. 940,314; Nov. 16; Sp. p. 4150; Gaz. vol. 148; p. 700.
Hiering, C., and A. Fuller, assignors to J. E. Mergott Company, Newark, N. J. Purse or bag frame. No. 939,255; Nov. 9; Sp. p. 1744; Gaz. vol. 148; p. 303.
Hiering, C., and A. Fuller, assignors to J. E. Mergott Company, Newark, N. J. Bag-fastener. No. 939,256; Nov. 9; Sp. p. 1745; Gaz. vol. 148; p. 304.
Hiering, C., and A. Fuller, assignors to J. E. Mergott Company, Newark, N. J. Bag-fastener. No. 939,257; Nov. 9; Sp. p. 1748; Gaz. vol. 148; p. 304.
Hiering, C., and A. Fuller, assignors to J. E. Mergott Company, Newark, N. J. Bag-frame catch. No. 939,913; Nov. 9; Sp. p. 3218; Gaz. vol. 148; p. 530.
Hiestand, W. H., Chicago, Ill. Target-trap. No. 938,861; Nov. 2; Sp. p. 882; Gaz. vol. 148; p. 141.
Higgins, J. W., Somerville, Mass. Clamping device. No. 938,862; Nov. 2; Sp. p. 883; Gaz. vol. 148; p. 141.
Higginson, J., Jr., and H. Arundel, Stockport, England. Yarn or thread winding, doubling, gassing, and like machine. No. 941,319; Nov. 23; Sp. p. 6332; Gaz. vol. 148; p. 1059.
Highland Falls Manufacturing Company. (See Whitney, W. C., assignor.)
Hightower, C., Huntsville, assignor of one-half to M. L. Ryan, Rushville, Ill. Colter attachment for plows. No. 941,252; Nov. 23; Sp. p. 6190; Gaz. vol. 148; p. 1039.
Higman, W. J., Denver, Colo. Cushioned wheel for vehicles. No. 941,453; Nov. 30; Sp. p. 6642; Gaz. vol. 148; p. 1126.
Hildebrandt, C., Dusseldorf, Germany. Machine for cutting, beveling splitting, and grooving leather. No. 940,390; Nov. 16; Sp. p. 4342; Gaz. vol. 148; p. 737.
Hildreth, L., Pine Grove, Ky. Fan attachment for chairs. No. 940,688; Nov. 23; Sp. p. 4979; Gaz. vol. 148; p. 850.
Hill, H. J., Jersey City, N. J. Mail-delivering appliance for railway-trains. No. 939,688; Nov. 9; Sp. p. 2742; Gaz. vol. 148; p. 453.
Hill, J. B., Findlay, Ohio. Ditching-machine. No. 941,145; Nov. 23; Sp. p. 5963; Gaz. vol. 148; p. 1003.

Hillyard, L. O. (See Butler, C. L., assignor.)
Hilton, J. N., Dayton, Ohio. Sash-holder. No. 939,500; Nov. 9; Sp. p. 2332; Gaz. vol. 148; p. 387.
Himes, T. P., Edgewood, R. I. Tape. No. 939,839; Nov. 9; Sp. p. 3057; Gaz. vol. 148; p. 504.
Hindman, G. L., Worthington, Pa. Package-tie. No. 941,991; Nov. 30; Sp. p. 7760; Gaz. vol. 148; p. 1307.
Hinds, J. L., assignor to Crouse-Hinds Company, Syracuse, N. Y. Coupling for electric conductors. No. 939,501; Nov. 9; Sp. p. 2333; Gaz. vol. 148; p. 387.
Hinds, J. L., assignor to Crouse-Hinds Company, Syracuse, N. Y. Coupling for electric conductors. No. 939,689; Nov. 9; Sp. p. 2746; Gaz. vol. 148; p. 453.
Hine, A. P., assignor to Coe Brass Manufacturing Company, Waterbury, Conn. Means for extruding hollow bodies. No. 941,365; Nov. 30; Sp. p. 6440; Gaz. vol. 148; p. 1096.
Hinkel, P., Chicago, Ill. Paper. No. 940,969; Nov. 23; Sp. p. 5575; Gaz. vol. 148; p. 944.
Hinners, W. H. (See Reenstierna, G. L., assignor.)
Hinshaw, W. T., Valley Station, Ky. Vehicle-brake. No. 941,876; Nov. 30; Sp. p. 7546; Gaz. vol. 148; p. 1269.
Hintze, A. F., deceased, Chicago, Ill.; E. L. Hintze, administratrix. Gearing for meters. No. 940,638; Nov. 16; Sp. p. 4857; Gaz. vol. 148; p. 808.
Hintze, E. L., administratrix. (See Hintze, A. F.)
Hire, H. E., Mark Center, Ohio. Game. No. 939,024; Nov. 2; Sp. p. 1236; Gaz. vol. 148; p. 198.
Hirschhorn, Firm of J. (See Schmidt, E., assignor.)
Hirth, C. A., Cannstatt-Stuttgart, Germany. Ball-grinding machine. No. 939,502; Nov. 9; Sp. p. 2334; Gaz. vol. 148; p. 387.
Hisey, I. K., and R. M. Wardle, Carlton, Oreg. Water-filter. No. 939,418; Nov. 9; Sp. p. 2168; Gaz. vol. 148; p. 360.
Hite, C. E., Burlington, N. J. Primary battery. No. 941,366; Nov. 30; Sp. p. 6441; Gaz. vol. 148; p. 1097.
Hite, C. E., Burlington, N. J. Briqueting coal. No. 941,454; Nov. 30; Sp. p. 6645; Gaz. vol. 148; p. 1126.
Hitzert, J., Onaway, Mich. Rail-fastening. No. 939,419; Nov. 9; Sp. p. 2170; Gaz. vol. 148; p. 360.
Hoard, A. P., Alcester, S. D. Trace-hook. No. 941,520; Nov. 30; Sp. p. 6780; Gaz. vol. 148; p. 1148.
Hobbs, E. D. (See Coleman, L. A., assignor.)
Hobson, J., Jr., Wayne, Pa. Cultivator. No. 941,678; Nov. 30; Sp. p. 7096; Gaz. vol. 148; p. 1199.
Hoch, F. S., Chicago, Ill. Combined pocket-book and savings-bank. No. 940,315; Nov. 16; Sp. p. 4152; Gaz. vol. 148; p. 700.
Hodges, F. F., Kalamazoo, Mich. Hame and trace connection. No. 939,420; Nov. 9; Sp. p. 2171; Gaz. vol. 148; p. 361.
Hodges, F. W. (See Wigginton and Hodges.)
Hodges Fiber Carpet Company. (See Stevenson, W. M., assignor.)
Hodgkins, E. G., Boston, Mass. Oar-rack. No. 941,779; Nov. 30; Sp. p. 7331; Gaz. vol. 148; p. 1235.
Hodgkinson, F., Edgewood Park, Pa., assignor to Westinghouse Machine Company. Automatic stop for elastic-fluid turbines. No. 940,689; Nov. 23; Sp. p. 4981; Gaz. vol. 148; p. 850.
Hodgson, J., Carlisle, England. Motor-car wind-screen. No. 940,529; Nov. 16; Sp. p. 4628; Gaz. vol. 148; p. 772.
Hoe, R., Jr., New York, N. Y. Saw. No. 941,455; Nov. 30; Sp. p. 6647; Gaz. vol. 148; p. 1126.
Hoepfl, J. M., Philadelphia, Pa. Door for bake-ovens. No. 941,780; Nov. 30; Sp. p. 7333; Gaz. vol. 148; p. 1236.
Hoerle, F., Plainville, Conn. Electric switch. No. 939,258; Nov. 9; Sp. p. 1749; Gaz. vol. 148; p. 304.
Hoerr, L. A., St. Louis, Mo. Angle-cock holder for railway-cars. No. 939,421; Nov. 9; Sp. p. 2172; Gaz. vol. 148; p. 361.
Hoff, C., assignor of one-half to B. Sicking, Cincinnati, Ohio. Umbrella-rib socket. No. 938,863; Nov. 2; Sp. p. 884; Gaz. vol. 148; p. 142.
Hoff, C., assignor of one-half to B. Sicking, Cincinnati, Ohio. Pritch. No. 940,597; Nov. 16; Sp. p. 4770; Gaz. vol. 148; p. 795.
Hoffeld, H. R., *et al.* (See Maier, W., assignor.)
Hoffer, F. C., W. H. Whitesell, and F. H. Bente, Los Angeles, Cal., assignors to Excelsior Supply Company, Chicago, Ill. Stand for motor-cycles and bicycles. No. 940,250; Nov. 16; Sp. p. 3987; Gaz. vol. 148; p. 678.
Hoffman, A. J., Syracuse, N. Y. Steam clothes-press. No. 939,025; Nov. 2; Sp. p. 1239; Gaz. vol. 148; p. 198.
Hoffman, C., Baltimore, Md. Boat. No. 941,923; Nov. 30; Sp. p. 7636; Gaz. vol. 148; p. 1286.
Hoffman, F. I. (See Vandervell and Hoffman.)
Hoffman, M. H., assignor of one-half to A. Simon, Chicago, Ill. Popcorn-popper. No. 938,666; Nov. 2; Sp. p. 492; Gaz. vol. 148; p. 76.
Hofmeyer, G. A., Undercliff, N. J. Waste-chute. No. 939,690; Nov. 9; Sp. p. 2747; Gaz. vol. 148; p. 453.
Hofmeyer, G. A., Undercliff, N. J. Waste-chute. No. 939,691; Nov. 9; Sp. p. 2749; Gaz. vol. 148; p. 454.
Hofstatter, W. J., Toledo, Ohio. Fluid-pressure combination-lock. No. 938,487; Nov. 2; Sp. p. 87; Gaz. vol. 148; p. 14.
Holden, G., Merchantville, N. J., assignor to Merritt & Company. Shelving. No. 940,017; Nov. 16; Sp. p. 3448; Gaz. vol. 148; p. 595.
Holder, F. M., Oxford, La. Ink-eraser. No. 938,667; Nov. 2; Sp. p. 493; Gaz. vol. 148; p. 76.
Hollas, W., R. Farnworth, and T. Jackson, Bolton, England. Beating-up mechanism of looms for weaving. No. 939,503; Nov. 9; Sp. p. 2336; Gaz. vol. 148; p. 387.
Hollings, H., Otley, England. Automatic sheet-feeder for printing and folding machines and the like. No. 942,036; Nov. 30; Sp. p. 7842; Gaz. vol. 148; p. 1321.
Holloway, W. M., Chicago, Ill. Squeezer. No. 941,146; Nov. 23; Sp. p. 5966; Gaz. vol. 148; p. 1003.
Holloway, W. M., Chicago, Ill. Soldering-machine. No. 941,147; Nov. 23; Sp. p. 5969; Gaz. vol. 148; p. 1004.
Holman, F. E., assignor of one-half to J. E. Innis, Silverton, Oreg. Phonograph. No. 939,692; Nov. 9; Sp. p. 2752; Gaz. vol. 148; p. 454.
Holmes, E. B. (See Bougier, E. F., assignor.)
Holmes, W. D., New Bloomfield, Pa. Knife and fork scourer. No. 940,018; Nov. 16; Sp. p. 3449; Gaz. vol. 148; p. 596.
Holmström, J. G. (See Egnér and Holmström.)
Holnagel, W. A., Saginaw, Mich. Interlocking lever for silo-doors. No. 941,679; Nov. 30; Sp. p. 7098; Gaz. vol. 148; p. 1200.
Holsman, I., Portland, Oreg. Souvenir locket-spoon. No. 939,840; Nov. 9; Sp. p. 3058; Gaz. vol. 148; p. 505.
Holt, W. O., assignor to Livermore & Knight Company, Providence, R. I. Advertising-card. No. 940,316; Nov. 16; Sp. p. 4154; Gaz. vol. 148; p. 701.
Holtzmann, J., Baltimore, Md. Instrument for handling semiplastic substances. No. 939,693; Nov. 9; Sp. p. 2753; Gaz. vol. 148; p. 454.
Homeier, G. T., *et al.* (See Frost, R. L., assignor.)
Homire, L. W., Louisville, Ky. Moistening device. No. 940,598; Nov. 16; Sp. p. 4772; Gaz. vol. 148; p. 795.
Honiss, W. H., *et al.* (See Lorenz, W. A., assignor.)
Hood, J., Boston, Mass. Measuring device. No. 941,253; Nov. 23; Sp. p. 6193; Gaz. vol. 148; p. 1039.
Hooper, W. H., Lynn, assignor, by mesne assignments, to T. G. Plant, Boston, Mass. Channel-lip-turning machine. No. 940,019; Nov. 16; Sp. p. 3451; Gaz. vol. 148; p. 596.
Hooper, W. H., Lynn, assignor, by mesne assignments, to T. G. Plant, Boston, Mass. Lip-turning machine. No. 940,020; Nov. 16; Sp. p. 3454; Gaz. vol. 148; p. 596.
Hooper, W. H., Lynn, assignor, by mesne assignments, to T. G. Plant, Boston, Mass. Insole-reinforcing machine. No. 940,690; Nov. 23; Sp. p. 4984; Gaz. vol. 148; p. 851.
Hooper, W. H., Lynn, assignor, by mesne assignments, to T. G. Plant, Boston, Mass. Channel-moistening device for sewing-machines. No. 940,691; Nov. 23; Sp. p. 4987; Gaz. vol. 148; p. 851.
Hopkins, E. F., Chicago, Ill. Wire-stretcher. No. 938,488; Nov. 2; Sp. p. 91; Gaz. vol. 148; p. 14.
Hopkins, E. W., *et al.* (See Thorin, P. A., assignor.)
Hopper, W., Jefferson, Iowa. Windmill-tower. No. 939,504; Nov. 9; Sp. p. 2338; Gaz. vol. 148; p. 388.
Hoppes, G. W. (See Green and Brasket, assignors.)
Horn, C. P. (See Emal and Horn.)
Horne, A. D., Glasgow, Scotland. Thermostatic valve. No. 940,155; Nov. 16; Sp. p. 3779; Gaz. vol. 148; p. 644.
Horne, J. (See Dawson and Horne.)
Hornquist, F., Johnsonburg, Pa. Drag-saw. No. 940,876; Nov. 23; Sp. p. 5384; Gaz. vol. 148; p. 912.
Hosay, F. H., Gallatin, Tenn. Brace for dashboards. No. 941,711; Nov. 30; Sp. p. 7189; Gaz. vol. 148; p. 1212.
Hosch, G. E., New York, N. Y. Safety-guard for locks and latches. No. 941,877; Nov. 30; Sp. p. 7547; Gaz. vol. 148; p. 1269.
Hoskins, W., La Grange, Ill. Sizing composition. No. 940,317; Nov. 16; Sp. p. 4156; Gaz. vol. 148; p. 701.
Horton Manufacturing Company. (See Van Wormer, A., assignor.)
Hotchkiss, F. H., Shelton, Conn. Die. No. 939,505; Nov. 9; Sp. p. 2340; Gaz. vol. 148; p. 388.
Hotz, H., *et al.* (See Hasel, R., assignor.)
Houghton, A. S., *et al.* (See Herzog, J., assignor.)
Houghton, C. W., Dubuque, Iowa. Headlight-cover. No. 940,156; Nov. 16; Sp. p. 3780; Gaz. vol. 148; p. 645.
Houghton, M. A., Boston, Mass. Raised puzzle for the blind. No. 941,680; Nov. 30; Sp. p. 7099; Gaz. vol. 148; p. 1200.
Houghton, O. C., assignor to H. E. and J. E. Bullock, Chicago, Ill. Cotton gathering and gleaning machine. No. 938,864; Nov. 2; Sp. p. 885; Gaz. vol. 148; p. 142.
Houghton, W., Bath, Me. Indicator. No. 939,422; Nov. 9; Sp. p. 2173; Gaz. vol. 148; p. 361.
House, E. D., assignor to Hart & Cooley Company, New Britain, Conn. Register or ventilator. No. 941,367; Nov. 30; Sp. p. 6444; Gaz. vol. 148; p. 1097.
House, M. M. (See Payne and House.)
Houston, H. A., *et al.* (See Green, J. B., assignor.)
Houze, F. J., assignor of two-thirds to J. H. and N. Houze, Grand Rapids, Mich. Device for forming glass cylinders. No. 941,148; Nov. 23; Sp. p. 5974; Gaz. vol. 148; p. 1004.
Houze, J. H., *et al.* (See Houze, F. J., assignor.)

Houze, N., *et al.* (See Houze, F. J., assignor.)
Hovey, W. S., assignor to Sheffield Car Company, Three Rivers, Mich. Transmission-gear. No. 939,914; Nov. 9; Sp. p. 3219; Gaz. vol. 148; p. 530.
Hovey, W. S., and C. B. Stebbins, assignors to Sheffield Car Company, Three Rivers, Mich. Clutch. No. 940,970; Nov. 23; Sp. p. 5576; Gaz. vol. 148; p. 944.
Hovey, W. S., and M. H. Rix, assignors to Sheffield Car Company, Three Rivers, Mich. Railway motor-car. No. 938,582; Nov. 2; Sp. p. 326; Gaz. vol. 148; p. 48.
Hovey, W. S., and M. H. Rix, assignors to Sheffield Car Company, Three Rivers, Mich. Motor hand-car. No. 939,423; Nov. 9; Sp. p. 2176; Gaz. vol. 148; p. 362.
Howard, C. H., assignor to Locomotive Tender Frame Company, St. Louis, Mo. Locomotive-tender frame. No. 940,157; Nov. 16; Sp. p. 3782; Gaz. vol. 148; p. 645.
Howard, H. W., Scranton, Pa. Time-controlled alarm mechanism. No. 940,692; Nov. 23; Sp. p. 4989; Gaz. vol. 148; p. 852.
Howard, J. T., South Bend, Ind. Mail-delivering apparatus. No. 939,259; Nov. 9; Sp. p. 1751; Gaz. vol. 148; p. 305.
Howard, W. F., West Ealing, and A. B. Cousins, Abingdon-on-Thames, England. Luminous electric heater. No. 940,021; Nov. 16; Sp. p. 3457; Gaz. vol. 148; p. 597.
Howe, S. G., assignor of one-fourth to W. E. Lennane, one-fourth to J. Lennane, and one-fourth to J. Lennane, Detroit, Mich. Road construction and repair. No. 940,971; Nov. 23; Sp. p. 5578; Gaz. vol. 148; p. 944.
Howell, F. B., Schenectady, N. Y., assignor to General Electric Company. Dynamo-electric machine. No. 941,456; Nov. 30; Sp. p. 6648; Gaz. vol. 148; p. 1127.
Howell, R. W., Kirkwood, Mo. Artificial fuel. No. 941,577; Nov. 30; Sp. p. 6892; Gaz. vol. 148; p. 1167.
Howland, W. L., Cedar Rapids, Iowa. Knockdown box. No. 939,026; Nov. 2; Sp. p. 1243; Gaz. vol. 148; p. 199.
Hoy, P. R., assignor to McIntosh Stereopticon Company, Chicago, Ill. Stereopticon-slide carrier. No. 941,712; Nov. 30; Sp. p. 7190; Gaz. vol. 148; p. 1212.
Hoyt, A. H., Penacook, N. H. Electric measuring instrument. No. 940,318; Nov. 16; Sp. p. 4157; Gaz. vol. 148; p. 701.
Hoyt, A. H., Penacook, N. H. Electric measuring instrument. No. 940,319; Nov. 16; Sp. p. 4158; Gaz. vol. 148; p. 702.
Hoyt, W. H., assignor to J. A. Folger & Co., San Francisco, Cal. Containing-can. No. 941,781; Nov. 30; Sp. p. 7334; Gaz. vol. 148; p. 1236.
Hren, J., Brooklyn, N. Y. Automatic paper-feeder. No. 939,260; Nov. 9; Sp. p. 1753; Gaz. vol. 148; p. 305.
Hubbard, A. S., Belleville, N. J., assignor to Gould Storage Battery Company. Electrical system of distribution. No. 938,865; Nov. 2; Sp. p. 907; Gaz. vol. 148; p. 142.
Hubbard, R. W., Ashtabula, Ohio. Bolt-case. No. 939,694; Nov. 9; Sp. p. 2755; Gaz. vol. 148; p. 455.
Hubbard, R. W., Ashtabula, Ohio. Door-check. No. 941,782; Nov. 30; Sp. p. 7335; Gaz. vol. 148; p. 1236.
Huber, J. L., assignor to Kunheim u. Co., Niederschöneweide, near Berlin, Germany. Making thorium sulfid. No. 941,071; Nov. 23; Sp. p. 5799; Gaz. vol. 148; p. 978.
Huber, J. P., St. Louis, Mo. Undertaker's lifting-strap. No. 941,072; Nov. 23; Sp. p. 5800; Gaz. vol. 148; p. 978.
Hubert, E., Budapest, Austria-Hungary. Machine for straining, mashing, grating, and chopping. No. 938,766; Nov. 2; Sp. p. 675; Gaz vol. 148; p. 108.
Hubert, L. A., Troyes, France. Gang-plow. No. 939,132; Nov. 2; Sp. p. 1450; Gaz. vol. 148; p. 236.
Hubmann, J., Tacoma, assignor of one-third to E. Dean and one-sixth to C. F. Bailey, Seattle, Wash. Water-motor. No. 939,506; Nov. 9; Sp. p. 2342; Gaz. vol. 148; p. 389.
Hübscher, T., Weehawken Heights, N. J. Vehicle-wheel. No. 939,695; Nov. 9; Sp. p. 2756; Gaz. vol. 148; p. 455.
Huck, A. W., *et al.* (See Huck, W., assignor.)
Huck, W., Cauthron, Ark., assignor of one-third to A. W. Huck and one-third to C. McDonald, Kansas City, Mo. Lasting-pincers. No. 941,254; Nov. 23; Sp. p. 6193; Gaz. vol. 148; p. 1039.
Huestis, T. B., Bristol, R. I. Combination-tool. No. 938,583; Nov. 2; Sp. p. 330; Gaz. vol. 148; p. 48.
Huff, A. J. (See Schultz, H. O., assignor.)
Huff Electrostatic Separator Company. (See Wentworth, H. A., assignor.)
Hughes, T., East Somerville, assignor, by mesne assignments, of one-half to C. J. Walsh, Cambridge, Mass. Adjustable arch-supporter. No. 940,022; Nov. 16; Sp. p. 3458; Gaz. vol. 148; p. 597.
Hulbert, W. R., *et al.* (See Doerr, C. J., assignor.)
Hulfish, D. S., assignor to McMeen & Miller, Chicago, Ill. Telephone system. No. 940,693; Nov. 23; Sp. p. 4991; Gaz. vol. 148; p. 852.
Hulit, J. A., assignor, by mesne assignments, to Hulit Transmitter Company, Topeka, Kans. Telegraph sending-machine. No. 939,507; Nov. 9; Sp. p. 2343; Gaz. vol. 148; p. 389.
Hulit Transmitter Company. (See Hulit, J. A., assignor.)
Hull, J. E., Rodamers, W. Va. Sack-holder. No. 939,508; Nov. 9; Sp. p. 2348; Gaz. vol. 148; p. 389.
Humphreville, E. (See Humphreville, F., assignor.)
Humphreville, F., assignor to E. Humphreville, Lancaster, Pa. Shoe-polishing machine. No. 941,345; Nov. 23; Sp. p. 6372; Gaz. vol. 148; p. 1066.
Humphrey, A. H., New York, N. Y. Lamp-globe. No. 940,530; Nov. 16; Sp. p. 4629; Gaz. vol. 148; p. 772.
Humphrey, E. H., assignor to Corry Castor Co., Corry, Pa. Furniture-caster. No. 938,866; Nov. 2; Sp. p. 910; Gaz. vol. 148; p. 143.
Humphrey, E. H., assignor to Corry Castor Co., Corry, Pa. Caster. No. 938,867; Nov. 2; Sp. p. 912; Gaz. vol. 148; p. 143.
Humphrey, E. H., North Clymer, N. Y., assignor of one-half to N. S. Covey, Corry, Pa. Pencil-sharpener. No. 939,133; Nov. 2; Sp. p. 1451; Gaz. vol. 148; p. 236.
Humphrey, J., Boston, Mass. Making artificial teeth. No. 940,599; Nov. 16; Sp. p. 4773; Gaz. vol. 148; p. 795.
Humphries, G. E., Wellington, New Zealand. Scaffolding. (Reissue.) No. 13,036; Nov. 9; Sp. p. 3322; Gaz. vol. 148; p. 548.
Humphries, G. E., Wellington, New Zealand. Scaffolding. (Reissue.) No. 13,037; Nov. 9; Sp. p. 3325; Gaz. vol. 148; p. 549.
Humphries, J. P., Kidderminster, England. Loom for weaving tufted pile fabrics. No. 940,531; Nov. 16; Sp. p. 4630; Gaz. vol. 148; p. 773.
Hundeby, M. L. (See Edman, J., assignor.)
Hunt, C. A., Newburgh, N. Y. Sash-fastener. No. 938,584; Nov. 2; Sp. p. 331; Gaz. vol. 148; p. 49.
Hunter, F. B., Memphis, Tenn. Compound faucet. No. 938,868; Nov. 2; Sp. p. 913; Gaz. vol. 148; p. 144.
Hunter Fan & Motor Company. (See Locke, N. A., assignor.)
Hunter, L. B., Greensburg, Ind. Joint for metal roofing. No. 938,869; Nov. 2; Sp. p. 915; Gaz. vol. 148; p. 144.
Huntington, J., Philadelphia, Pa. Railway-rail. No. 940,320; Nov. 16; Sp. p. 4159; Gaz. vol. 148; p. 702.
Hupfeld Aktiengesellschaft, Firm of L. (See Bajde, J., assignor.)
Hurford, O. P., Chicago, Ill. Making salts of ammonia, especially sulfate of ammonia. No. 940,972; Nov. 23; Sp. p. 5580; Gaz. vol. 148; p. 944.
Hurlbut, E. W. (See Dickson, E. A., assignor.)
Hurst, F. S., Los Angeles, Cal. Beam-compass. No. 939,597; Nov. 9; Sp. p. 2556; Gaz. vol. 148; p. 419.
Hurt, H. B., *et al.* (See Mitchell, C. B., assignor.)
Huston, L. G., Carey, Ohio. Wire-splicer. No. 939,509; Nov. 9; Sp. p. 2350; Gaz. vol. 148; p. 390.
Hutchins Car Roofing Company. (See Thompson, W. D., assignor.)
Hutchins, F. (See Phillips and Hutchins.)
Hutchins, G. F., Worcester, Mass., assignor to Crompton & Knowles Loom Works. Filling-detector mechanism for looms. No. 939,696; Nov. 9; Sp. p. 2757; Gaz. vol. 148; p. 455.
Hutchinson, C. M., Girard, assignor to Erie City Manufacturing Company, Erie, Pa. Cabinet. No. 940,023; Nov. 16; Sp. p. 3459; Gaz. vol. 148; p. 597.
Huyek, F. P., Toledo, Ohio. Clutch. No. 941,349; Nov. 23; Sp. p. 6389; Gaz. vol. 148; p. 1068.
Hyams, H. H., *et al.* (See Keck and Dorn, assignors.)
Hyman, D. D., Philadelphia, Pa. Dental plate. No. 941,149; Nov. 23; Sp. p. 5975; Gaz. vol. 148; p. 1005.
Hymans, F., Pittsburg, Pa. Hydraulic packing. No. 938,870; Nov. 2; Sp. p. 915; Gaz. vol. 148; p. 144.
Ichtertz, M., Pescadero, Cal. Level. No. 941,368; Nov. 30; Sp. p. 6445; Gaz. vol. 148; p. 1068.
Ideal Filter Company. (See Miller, H. G., assignor.)
Ihme, H., Leonard, N. D. Bag-holding device. No. 941,578; Nov. 30; Sp. p. 6892; Gaz. vol. 148; p. 1167.
Ihrig, L. G., Tacoma, Wash. Sofa-bed. No. 940,321; Nov. 16; Sp. p. 4161; Gaz. vol. 148; p. 702.
Iitsuka, B., San Diego, Cal. Vegetable-masher. No. 941,073; Nov. 23; Sp. p. 5801; Gaz. vol. 148; p. 978.
Ikonograph Company of America. (See Lagergren, J. E., assignor.)
Ilg, C. C., assignor of one-half to F. Nagy, New York, N. Y. Safety-crank. No. 939,027; Nov. 2; Sp. p. 1244; Gaz. vol. 148; p. 199.
Illinois Iron & Bolt Company. (See Fierke, J. F., assignor.)
Imperial Brass Manufacturing Company. (See Schoff, H. W., assignor.)
Imperial Cash Register Company. (See McKee, W. J., assignor.)
Imperial Stopper Company. (See Kirkegaard, G., assignor.)
Incandescent Oil Lamp Company. (See Jahnke, A. A., assignor.)
Indiana Concrete Form Co. (See Wiest, J. H., assignor.)
Ingersoll, R. H. (See Sherman, L. P., assignor.)
Ingham, H. T. (See Campbell and Ingham.)
Ingold, C. F. (See Keyser and Ingold.)

Ingram, O. L., Walla Walla, Wash., assignor to Union Typewriter Company, Jersey City, N. J. Type-writing machine. No. 940,322; Nov. 16; Sp. p. 4162; Gaz. vol. 148; p. 702.
Inman, B. M. (See Walter, A. G., assignor.)
Innis, J. E. (See Holman, F. E., assignor.)
International Continuous Filter Press Company. (See Wheelwright, C. S., assignor.)
International Harvester Company. (See Sharp, C. S., assignor.)
International Metal Products Company. (See Carnahan, R. B., Jr., assignor.)
International Vending Machine Company. (See Schmitt, E. D., assignor.)
Irving, J. A., New York, N. Y. Pipe. No. 941,019; Nov. 23; Sp. p. 5692; Gaz. vol. 148; p. 961.
Irving, J. E., Sault Ste. Marie, Ontario, Canada. Tobacco-pipe. No. 939,134; Nov. 2; Sp. p. 1453; Gaz. vol. 148; p. 236.
Isaacs, H., Greenfield, Mass. Pie-plate attachment. No. 941,074; Nov. 23; Sp. p. 5802; Gaz. vol. 148; p. 979.
Isler, M., Mannheim, A. Lüttringhaus, and H. von Diesbach, assignors to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany. Halogenated naphthanthraquinon and making same. No. 941,320; Nov. 23; Sp. p. 6333; Gaz. vol. 148; p. 1059.
Ivatts, E. A., assignor to Compagnie Generale De Phonographes Cinematographes et Appareils de Precision, Paris, France. Kinematograph and like instrument. No. 939,135; Nov. 2; Sp. p. 1454; Gaz. vol. 148; p. 237.
J. Stevens Arms & Tool Company. (See Lewis, G. S., assignor.)
J. A. Folger & Co. (See Hoyt, W. H., assignor.)
J. B. Rice Seed Company. (See Collins, W. E., assignor.)
J. E. Mergott Company. (See Hering and Fuller, assignors.)
J. G. Brill Co. (See Bucknam, E. S., assignor.)
J. H. Sager Company. (See Sager, J. H., assignor.)
J. M. Robinson Manufacturing Company. (See Frey, C. N., assignor.)
Jack, H. M., Tuscarora Indian Reservation, Niagara county, N. Y. Spreading attachment for plows. No. 941,369; Nov. 30; Sp. p. 6446; Gaz. vol. 148; p. 1068.
Jack, R. E., assignor to L. Plate, Milwaukee, Wis. Automatic steam-washer. No. 940,694; Nov. 23; Sp. p. 4995; Gaz. vol. 148; p. 852.
Jackson, A. C. (See Collett and Jackson.)
Jackson, A. V. and W. H., Pinole, Cal. Chair attachment. No. 939,841; Nov. 9; Sp. p. 3059; Gaz. vol. 148; p. 505.
Jackson, D. B., Clarendon, Ark. Mixing apparatus. No. 941,075; Nov. 23; Sp. p. 5803; Gaz. vol. 148; p. 979.
Jackson, G. M. (See Nulf and Jackson.)
Jackson, G. W., Chicago, Ill. Bulkhead for tunnels and the like. No. 940,323; Nov. 16; Sp. p. 4169; Gaz. vol. 148; p. 703.
Jackson, J. W., Uhrichsville, Ohio. Automatic train-line coupling. No. 938,585; Nov. 2; Sp. p. 332; Gaz. vol. 148; p. 49.
Jackson, R. S., Malvern, Ark. Saw-swage. No. 940,024; Nov. 16; Sp. p. 3460; Gaz. vol. 148; p. 598.
Jackson, S. S., assignor to Stafford Company, Readville, Mass. Differential filling-supply-gaging device for looms. No. 940,600; Nov. 16; Sp. p. 4774; Gaz. vol. 148; p. 795.
Jackson, T. (See Hollas, Farnworth, and Jackson.)
Jackson, W. H. (See Jackson, A. V. and W. H.)
Jacobs, B. F., Independence, assignor of one-fourth to H. G. Wilson, Kansas City, Mo. Boat-propelling mechanism. No. 939,028; Nov. 2; Sp. p. 1246; Gaz. vol. 148; p. 199.
Jacobs, W., New Orleans, La. Comb. No. 940,532; Nov. 16; Sp. p. 4633; Gaz. vol. 148; p. 773.
Jacobs, W. S., assignor of one-half to C. C. Clapp, Malden, Mass. Combined reducing-bushing and check-valve. No. 941,713; Nov. 30; Sp. p. 7191; Gaz. vol. 148; p. 1212.
Jacobsen, O. B., Aston, near Birmingham, assignor of one-half to Electric and Ordnance Accessories Company Limited, Birmingham, England. Blade of centrifugal fans. No. 939,136; Nov. 2; Sp. p. 1455; Gaz. vol. 148; p. 237.
Jacobson, C. L. (See Alger and Jacobson.)
Jacobson, V., *et al.* (See Ross, J., assignor.)
Jacques, A., Attleboro, Mass. Pendant. No. 939,510; Nov. 9; Sp. p. 2351; Gaz. vol. 148; p. 390.
Jahnke, A. A., San Francisco, Cal. Fire-escape. No. 940,601; Nov. 16; Sp. p. 4778; Gaz. vol. 148; p. 796.
Jahnke, A. A., assignor, by mesne assignments, to Incandescent Oil Lamp Company, San Francisco, Cal. Incandescent-lamp burner. No. 939,137; Nov. 2; Sp. p. 1457; Gaz. vol. 148; p. 237.
James B. Clow & Sons. (See Miller, J., assignor.)
James, D., Coffeyville, Kans. Oil-cup for planes. No. 940,324; Nov. 16; Sp. p. 4171; Gaz. vol. 148; p. 703.
James, D. O., Chicago, Ill. Speed-changing device. No. 941,925; Nov. 30; Sp. p. 7639; Gaz. vol. 148; p. 1286.
James, E., assignor to James Manufacturing Company, Cleveland, Ohio. Method of and apparatus for interiorly coating tubes. No. 938,489; Nov. 2; Sp. p. 92; Gaz. vol. 148; p. 15.
James, J. L., May, Okla. Safety-stirrup. No. 939,697; Nov. 9; Sp. p. 2762; Gaz. vol. 148; p. 455.
James, J. R., Ridley Park, Pa. Rail-bending tool. No. 940,325; Nov. 16; Sp. p. 4173; Gaz. vol. 148; p. 704.
James Manufacturing Company. (See James, E., assignor.)
James, W. C., Los Angeles, Cal. Folding wall-bed. No. 938,668; Nov. 2; Sp. p. 493; Gaz. vol. 148; p. 76.
Jameson, W. M., Cambridge, Mass. Flat-frame-wire-measuring apparatus. No. 941,637; Nov. 30; Sp. p. 7008; Gaz. vol. 148; p. 1186.
Jancey, L., Paris, France. Labial protecting means for drinking glasses, bowls, cups, spoons, and the like. No. 939,698; Nov. 9; Sp. p. 2763; Gaz. vol. 148; p. 456.
Janke, C., Meadow Grove, Nebr. Trap. No. 940,877; Nov. 23; Sp. p. 5386; Gaz. vol. 148; p. 913.
Jaques, F. O., Jr., Cranston, R. I., assignor to Central Tool Company. Machine for contouring crown-matrices. No. 939,261; Nov. 9; Sp. p. 1755; Gaz. vol. 148; p. 305.
Jay, R., assignor to Leipziger Maschinenbau-Gesellschaft m. b. H., Leipzig, Germany. Riveting-machine. No. 940,533; Nov. 16; Sp. p. 4634; Gaz. vol. 148; p. 773.
Jay, W. N., assignor of one-half to W. M. Hatfield, Moscow, Idaho. Seed-planter. No. 941,579; Nov. 30; Sp. p. 6893; Gaz. vol. 148; p. 1167.
Jeannesson, H. (See Cholitus and Jeannesson.)
Jeffcott, L. B., New York, N. Y. Convertible couch and bed. No. 941,878; Nov. 30; Sp. p. 7548; Gaz. vol. 148; p. 1270.
Jeffcott, L. B., New York, N. Y. Folding bed. No. 941,879; Nov. 30; Sp. p. 7550; Gaz. vol. 148; p. 1270.
Jeffes, N. C. (See Kennedy, Carlson, and Jeffes.)
Jeffrey, H., Louisville, Ky. Elliptic spring. No. 941,521; Nov. 30; Sp. p. 6781; Gaz. vol. 148; p. 1149.
Jenckes, R. A., Providence, R. I., assignor to General Fire Extinguisher Company, New York, N. Y. Support for pipe-hangers. No. 941,714; Nov. 30; Sp. p. 7193; Gaz. vol. 148; p. 1212.
Jenkins, C. F., Washington, D. C. Folding box. No. 941,256; Nov. 23; Sp. p. 6196; Gaz. vol. 148; p. 1040.
Jenkins, C. F., Washington, D. C. Folding box. No. 941,257; Nov. 23; Sp. p. 6198; Gaz. vol. 148; p. 1040.
Jenkins, C. F., Washington, D. C., assignor, by mesne assignments, to Single Service Package Corporation of America. Apparatus for making spirally-wound tubes. No. 941,255; Nov. 23; Sp. p. 6195; Gaz. vol. 148; p. 1039.
Jenkins, C. F., Washington, D. C., assignor to Single Service Package Corporation of America. Paper receptacle. No. 941,992; Nov. 30; Sp. p. 7761; Gaz. vol. 148; p. 1307.
Jenks, T. W., Avalon, Pa. Reinforcing-bar. No. 939,962; Nov. 9; Sp. p. 3322; Gaz. vol. 148; p. 548.
Jenks, T. W., Avalon, Pa. Rolling ribbed bars. No. 941,880; Nov. 30; Sp. p. 7552; Gaz. vol. 148; p. 1271.
Jenks, W. S., Los Angeles, Cal. Oil-burner. No. 939,029; Nov. 2; Sp. p. 1249; Gaz. vol. 148; p. 200.
Jennings, C. M., assignor of one-fourth to Salina Foundry and Manufacturing Company, Salina, Kans. Pitman-box. No. 941,638; Nov. 30; Sp. p. 7009; Gaz. vol. 148; p. 1186.
Jensco, M., Butler, Pa. Antislipping-tread attachment for motor-vehicles. No. 941,993; Nov. 30; Sp. p. 7762; Gaz. vol. 148; p. 1308.
Jensen, J. C., Yorktown, Kans. Chain-manipulating tool. No. 939,511; Nov. 9; Sp. p. 2352; Gaz. vol. 148; p. 390.
Jenssen, A. G. H., and R. C. Weitzel, Toledo, Ohio. Non-refillable bottle. No. 941,994; Nov. 30; Sp. p. 7764; Gaz. vol. 148; p. 1308.
Jepperson, J., Salt Lake City, Utah. Separable fastener for boots and shoes. No. 940,462; Nov. 16; Sp. p. 4487; Gaz. vol. 148; p. 750.
Jeschke, E., assignor to Jeschke Manufacturing Company, Bellevue, Ohio. Machine for digging ditches. No. 939,598; Nov. 9; Sp. p. 2558; Gaz. vol. 148; p. 420.
Jeschke Manufacturing Company. (See Jeschke, E., assignor.)
Jett, J. F., *et al.* (See Sebree, W. T., assignor.)
Johannesen, F., Erie, Pa., assignor to Mergenthaler Linotype Company. Linotype-machine. No. 939,262; Nov. 9; Sp. p. 1759; Gaz. vol. 148; p. 306.
John Kroder & Henry Reubel Company. (See Maass, C. H., assignor.)
Johndrow, C. F., assignor of one-half to E. N. Elliott, Auburn, N. Y. Rail-sanding device. No. 940,025; Nov. 16; Sp. p. 3462; Gaz. vol. 148; p. 598.
Johns, S. J. (See Seller, P., assignor.)
Johns, W. L., Soquel, Cal. Spring-tire. No. 941,926; Nov. 30; Sp. p. 7641; Gaz. vol. 148; p. 1287.
Johnson, A., North Bend, Oreg. Show-case. No. 940,251; Nov. 16; Sp. p. 3988; Gaz. vol. 148; p. 679.
Johnson, A. F. and H. C., Forest, Idaho. Feeder for threshing-machines. No. 940,026; Nov. 16; Sp. p. 3465; Gaz. vol. 148; p. 599.
Johnson, A. M., Early, Iowa. Regulator for gas-stoves. No. 940,391; Nov. 16; Sp. p. 4343; Gaz. vol. 148; p. 727.
Johnson, C. A., assignor of one-fifth to J. T. Coleman, Tolar, N. Mex. Self-closing gas-burner. No. 939,263; Nov. 9; Sp. p. 1763; Gaz. vol. 148; p. 306.
Johnson, C. H., Petaluma, Cal. Seal attachment for locks. No. 939,699; Nov. 9; Sp. p. 2764; Gaz. vol. 148; p. 456.

Johnson, C. H., assignor to W. L. Lindsley, Detroit, Mich. Cradle. No. 941,927; Nov. 30; Sp. p. 7642; Gaz. vol. 148; p. 1287.
Johnson, C. P., Eureka, Kans. Yielding buggy-top support. No. 940,158; Nov. 16; Sp. p. 3783; Gaz. vol. 148; p. 645.
Johnson, F. A., Salisbury, Mass. Rotary carrier. No. 939,700; Nov. 9; Sp. p. 2765; Gaz. vol. 148; p. 456.
Johnson, F. I. (See Quigley, S., assignor.)
Johnson, G. B., London, England. Machine for shearing metal sheets. No. 941,199; Nov. 23; Sp. p. 6085; Gaz. vol. 148; p. 1021.
Johnson, G. F., assignor to M. W. Turner and J. A. Harris, Thomson, Ga. Vending-machine. No. 938,767; Nov. 2; Sp. p. 678; Gaz. vol. 148; p. 106.
Johnson, G. R., Chelmsford, Mass. Railway-switch device. No. 941,522; Nov. 30; Sp. p. 6782; Gaz. vol. 148; p. 1149.
Johnson, G. T., Melrose, Mass. Toilet-paper package. No. 941,715; Nov. 30; Sp. p. 7194; Gaz. vol. 148; p. 1213.
Johnson, H. C. (See Johnson, A. F. and H. C.)
Johnson, J. C., Randalia, Iowa. Gasolene-engine. No. 940,027; Nov. 16; Sp. p. 3467; Gaz. vol. 148; p. 599.
Johnson, J. M., and G. W. Noble, Belleville, Kans. Stove. No. 941,321; Nov. 23; Sp. p. 6335; Gaz. vol. 148; p. 1059.
Johnson, J. R., Louisville, Ky. Fruit-picker. No. 941,258; Nov. 23; Sp. p. 6199; Gaz. vol. 148; p. 1040.
Johnson, J. W., Custer, Okla. Car-brake. No. 939,701; Nov. 9; Sp. p. 2768; Gaz. vol. 148; p. 457.
Johnson, S. M., Chicago, Ill. Hose and pipe coupling. No. 941,150; Nov. 23; Sp. p. 5926; Gaz. vol. 148; p. 1005.
Johnson, V., Aspen, Colo. Vegetable-slicer. No. 940,252; Nov. 16; Sp. p. 3991; Gaz. vol. 148; p. 679.
Johnson, W. E., assignor to Rock Island Plow Company, Rock Island, Ill. Cultivator. No. 940,159; Nov. 16; Sp. p. 3784; Gaz. vol. 148; p. 645.
Johnson, W. E., assignor to Rock Island Plow Company, Rock Island, Ill. Guarded-end steel-lever harrow. No. 940,160; Nov. 16; Sp. p. 3790; Gaz. vol. 148; p. 646.
Johnson, W. H., Des Moines, Iowa. Gearing device for washing-machines. No. 940,253; Nov. 16; Sp. p. 3992; Gaz. vol. 148; p. 679.
Johnston Novelty & Mill Specialty Co. (See Murphy, T. H., assignor.)
Johnston, R. T., Plainfield, N. J., assignor to Campbell Printing Press & Manufacturing Company, New York, N. Y. Mechanical movement. No. 941,639; Nov. 30; Sp. p. 7010; Gaz. vol. 148; p. 1186.
Johnstone, G. A., Revere, Mass., assignor to General Electric Company. Slip-indicator. No. 941,418; Nov. 30; Sp. p. 6576; Gaz. vol. 148; p. 1115.
Jolte, W. (See Frost, E. J., assignor.)
Joller, X. J., St. Paul, Minn. Folding umbrella. No. 939,842; Nov. 9; Sp. p. 3061; Gaz. vol. 148; p. 505.
Joima, T., Portland, Oreg. Valve-gear for engines. No. 941,523; Nov. 30; Sp. p. 6784; Gaz. vol. 148; p. 1149.
Jones, A. M., assignor of one-fourth to G. C. Snyder and one-fourth to O. M. Snyder, Hagerstown, Md. Combined signal and air-brake. No. 941,259; Nov. 23; Sp. p. 6200; Gaz. vol. 148; p. 1041.
Jones, C. A., assignor of one-half to S. L. Emmert, Broadwater, Mo. Carriage-operating mechanism for sawmills. No. 939,264; Nov. 9; Sp. p. 1767; Gaz. vol. 148; p. 307.
Jones, F. G., Muskegon, Mich. Fuse. No. 941,020; Nov. 23; Sp. p. 5695; Gaz. vol. 148; p. 961.
Jones, F. L. (See Braun, W. A., assignor.)
Jones, I. N., assignor to J. C. Vandenbroek, Defiance, Ohio. Forming sheet-metal bodies. No. 939,702; Nov. 9; Sp. p. 2770; Gaz. vol. 148; p. 457.
Jones, J. A., Logansport, Ind. Eraser-cleaning machine. No. 940,254; Nov. 16; Sp. p. 3994; Gaz. vol. 148; p. 680.
Jones, J. C., *et al.* (See Gibson, G. H., assignor.)
Jones, J. R., Rome, and H. W. Nichols, Atlanta, Ga. Box-handling attachment for shelves. No. 940,878; Nov. 23; Sp. p. 5388; Gaz. vol. 148; p. 913.
Jones & Laughlin Steel Company. (See Rendleman, N., assignor.)
Jones, N. (See Danforth and Jones.)
Jones, R. V., Seattle, Wash. Starting and separating gate. No. 939,703; Nov. 9; Sp. p. 2771; Gaz. vol. 148; p. 457.
Jones, W. A., Denton, Tex. Combined churn and ice-cream freezer. No. 939,512; Nov. 9; Sp. p. 2353; Gaz. vol. 148; p. 390.
Jones, W. D., assignor to Antiseptic Holder Company, New York, N. Y. Antiseptic tooth-brush holder. No. 941,200; Nov. 23; Sp. p. 6092; Gaz. vol. 148; p. 1022.
Jones, W. W., Baltimore, Md. Can-body-forming machine. No. 941,076; Nov. 23; Sp. p. 5804; Gaz. vol. 148; p. 979.
Jordan, J. F. (See Cummings and Jordan.)
Joslin, A. D., Chicago, Ill. Hand-stamp. No. 939,513; Nov. 9; Sp. p. 2356; Gaz. vol. 148; p. 391.
Jourdain, J. B., and L. Dextraze, New Bedford, Mass. Universal-joint connection. No. 941,928; Nov. 30; Sp. p. 7644; Gaz. vol. 148; p. 1287.
Joy, C. L., New Haven, Conn. Cutlery-grinding machine. No. 940,930; Nov. 23; Sp. p. 5495; Gaz. vol. 148; p. 931.
Joy, C. L., New Haven, Conn. Skate-runner grinder. No. 940,931; Nov. 23; Sp. p. 5498; Gaz. vol. 148; p. 932.
Judson L. Thomson Manufacturing Company. (See Leach, J. N., assignor.)
Julich, H. H., Mount Hope, Wis. Plow. No. 939,704; Nov. 9; Sp. p. 2774; Gaz. vol. 148; p. 458.
Julius, G. A. (See Stacy and Julius.)
Jumeaux, C. (See Fraser and Jumeaux.)
Jung, A. J. (See Russell and Jung.)
Junker, A., Holloway, Minn. Floor-jack. No. 940,695; Nov. 23; Sp. p. 4996; Gaz. vol. 148; p. 853.
Just, A. L., *et al.*, executors. (See Just, J. A.)
Just, J. A., deceased, Syracuse, N. Y.; A. L. Just and B. Stolz, executors. Utilizing dried milk. No. 939,138; Nov. 2; Sp. p. 1458; Gaz. vol. 148; p. 237.
Just, J. A., deceased, Syracuse, N. Y.; A. L. Just and B. Stolz, executors. Fibrous desiccated milk. No. 939,139; Nov. 2; Sp. p. 1462; Gaz. vol. 148; p. 238.
Kahne, C. C. (See Myers and Kahne.)
Kalner, F. C., South Haven, Mich., assignor, by mesne assignments, to Pope Automatic Merchandizing Company, Chicago, Ill. Check-controlled mechanism. No. 941,716; Nov. 30; Sp. p. 7196; Gaz. vol. 148; p. 1213.
Kaiser, C. A., New York, assignor of one-half to E. Glaser, Brooklyn, N. Y. Turbine. No. 939,514; Nov. 9; Sp. p. 2360; Gaz. vol. 148; p. 391.
Kaiser, W., Los Angeles, Cal. Road and land leveling machine. No. 941,929; Nov. 30; Sp. p. 7645; Gaz. vol. 148; p. 1288.
Kalamazoo Loose Leaf Binder Company. (See Bushong, H. F., assignor.)
Kalamazoo Loose Leaf Binder Company. (See Wigginton, G. P., assignor.)
Kalamazoo Loose Leaf Binder Company. (See Wigginton and Hodges, assignors.)
Kaminsky, B., assignor of one-half to J. M. Kaminsky, Indianapolis, Ind. Water-fountain. No. 940,879; Nov. 23; Sp. p. 5393; Gaz. vol. 148; p. 914.
Kaminsky, J. M. (See Kaminsky, B., assignor.)
Kansas Voting Machine Company. (See Currey, C. F., assignor.)
Kantmann, A. G. (See Clark, R. W., assignor.)
Kappeler, H. (See Engl and Kappeler.)
Kaspar, J. F., Prague, Nebr. Bridge. No. 940,326; Nov. 16; Sp. p. 4174; Gaz. vol. 148; p. 704.
Kastjack, J. (See Persic, F., assignor.)
Katz, L. (See Ordóñez and Katz.)
Katzenstein, G. B., Jr. (See Denhard, H. W., assignor.)
Kaufmann, O., assignor to Block Light Company, New York, N. Y. Incandescent mantle. No. 940,639; Nov. 16; Sp. p. 4860; Gaz. vol. 148; p. 809.
Kay, J. R., New York, N. Y. Mold. No. 940,463; Nov. 16; Sp. p. 4488; Gaz. vol. 148; p. 750.
Keating, J. H., Lismore, Minn. Twine-cutter. No. 941,995; Nov. 30; Sp. p. 7766; Gaz. vol. 148; p. 1308.
Keck, C., Crescent Springs, Ky., and A. Dom, Hartwell, assignors to said Keck and Dom, and H. H. Hyams, Cincinnati, Ohio. File-box. No. 941,681; Nov. 30; Sp. p. 7100; Gaz. vol. 148; p. 1200.
Keely, J. F., Chicago, Ill. Self-locking relay. No. 938,588; Nov. 2; Sp. p. 335; Gaz. vol. 148; p. 49.
Keen, M., Philadelphia, Pa. Sound-box for talking-machines. No. 940,161; Nov. 16; Sp. p. 3792; Gaz. vol. 148; p. 646.
Keen, W. S. (See Evans, W. C. D., assignor.)
Keene, G. C., Cincinnati, Ohio. Cornice-brake. No. 941,783; Nov. 30; Sp. p. 7337; Gaz. vol. 148; p. 1236.
Kehoe, W. J., Washington, D. C. Stenographic machine. No. 940,255; Nov. 16; Sp. p. 3996; Gaz. vol. 148; p. 680.
Keizur, M. L., Baker City, assignor to Standard Fender Company, Portland, Oreg. Car-fender. No. 939,915; Nov. 9; Sp. p. 3222; Gaz. vol. 148; p. 531.
Keller, C. A., Paris, France. Electric furnace. No. 941,419; Nov. 30; Sp. p. 6578; Gaz. vol. 148; p. 1115.
Keller, G., New York, N. Y. Tension device for warp-beams. No. 941,201; Nov. 23; Sp. p. 6093; Gaz. vol. 148; p. 1022.
Keller, J. R., assignor of one-half to T. S. Spivey, Cincinnati, Ohio. Heat-operated display device. No. 939,705; Nov. 9; Sp. p. 2776; Gaz. vol. 148; p. 458.
Keller, M., Eureka, Utah. Steam-turbine. No. 941,322; Nov. 23; Sp. p. 6337; Gaz. vol. 148; p. 1060.
Keller Manufacturing Company. (See Wiedemann and Templin, assignors.)
Kelley, S. (See Armstead and Kelley.)
Kellner, L., New York, N. Y. Two-pole snap-switch. No. 939,599; Nov. 9; Sp. p. 2560; Gaz. vol. 148; p. 420.
Kellner, W., Langerfeld, near Barmen, Germany. Machine for coating pasteboard with paper and the like. No. 938,586; Nov. 2; Sp. p. 334; Gaz. vol. 148; p. 49.

Kellogg Switchboard and Supply Company. (See Webster, H. G., assignor.)
Kelly, F., Evansville, Ind. Bottless rail-joint. No. 938,587; Nov. 2; Sp. p. 334; Gaz. vol. 148; p. 49.
Kelly, W. M. (See Thomson and Kelly.)
Kendrick, A. C., Williamsburg, Kans. Type-writer attachment. No. 939,265; Nov. 9; Sp. p. 1769; Gaz. vol. 148; p. 307.
Kendrick, G. I., and J. Carroll, Pittsfield, Ill. Gate-hinge structure. No. 939,706; Nov. 9; Sp. p. 2777; Gaz. vol. 148; p. 458.
Kennedy, C. W., E. W. Carlson, and N. C. Jeffes, Schenectady, N. Y. Chest-expansion-measuring device. No. 940,256; Nov. 16; Sp. p. 3999; Gaz. vol. 148; p. 680.
Kennedy, H. N., Chicago, Ill. Drill-chuck. No. 938,589; Nov. 2; Sp. p. 337; Gaz. vol. 148; p. 50.
Kennedy, J. W., Lewis, Kans. Carrier for thresher-feeders. No. 938,871; Nov. 2; Sp. p. 917; Gaz. vol. 148; p. 144.
Kennedy, L. F., Minneapolis, Minn. Gun-stock. No. 939,707; Nov. 9; Sp. p. 2778; Gaz. vol. 148; p. 459.
Kennedy, T. J. (See Herbert, F. W., assignor.)
Kennel, A. G., assignor to Kennel Machine Company, St. Louis, Mo. Coin-controlled apparatus. No. 940,973; Nov. 23; Sp. p. 5584; Gaz. vol. 148; p. 945.
Kennel Machine Company. (See Kennel, A. G., assignor.)
Kenney, E. T., assignor to Henricks Novelty Company, Indianapolis, Ind. Electric generator. No. 940,392; Nov. 16; Sp. p. 4345; Gaz. vol. 148; p. 727.
Kenny, C. H., *et al.* (See Bickle and McMillan, assignors.)
Kenny, P. T., New York, N. Y. Metal molding. No. 938,768; Nov. 2; Sp. p. 681; Gaz. vol. 148; p. 109.
Kent, H. A., Bound's Green, and H. G. Lacell, Finchley assignors to Silica Syndicate Limited, London, England. Mercury and other vapor electric lamp. No. 939,708; Nov. 9; Sp. p. 2780; Gaz. vol. 148; p. 459.
Kephart, T., Sinnamahoning, Pa. Sash holder and lock. No. 939,709; Nov. 9; Sp. p. 2781; Gaz. vol. 148; p. 459.
Kerlin, W. F., Rockfield, and E. W. Bowen, Delphi, Ind. Molding-machine. No. 941,930; Nov. 30; Sp. p. 7647; Gaz. vol. 148; p. 1288.
Kerndl, A. B., assignor of one-half to F. C. D. Treichel, Milwaukee, Wis. Hand-truck. No. 939,600; Nov. 9; Sp. p. 2563; Gaz. vol. 148; p. 421.
Kernohan, R. B., Pittsburg, Pa. Gas-producer. No. 940,696; Nov. 23; Sp. p. 4997; Gaz. vol. 148; p. 853.
Kerr, C. V., Rutherford, N. J. Elastic-fluid engine. No. 940,162; Nov. 16; Sp. p. 3794; Gaz. vol. 148; p. 646.
Kerr, C. V., Wellsville, N. Y. Centrifugal pump. No. 940,257; Nov. 16; Sp. p. 4001; Gaz. vol. 148; p. 681.
Kerr, J. D., Murfreesboro, Tenn. Hand-car. No. 941,420; Nov. 30; Sp. p. 6579; Gaz. vol. 148; p. 1116.
Kerr, S. W. (See Kilby and Kerr.)
Kerst, E. B., Philadelphia, Pa. Section-liner. No. 938,769; Nov. 2; Sp. p. 683; Gaz. vol. 148; p. 109.
Keske, E. H., Hoboken, N. J. Vaginal syringe. No. 939,266; Nov. 9; Sp. p. 1771; Gaz. vol. 148; p. 307.
Kestner Evaporator Company. (See Parker, J., assignor.)
Kettering, C. F., assignor to National Cash Register Company, Dayton, Ohio. Store-service credit-system apparatus. No. 939,267; Nov. 9; Sp. p. 1772; Gaz. vol. 148; p. 308.
Kettler, H. (See Auth and Kettler.)
Keuffel & Esser Company. (See Kollmorgen, F. L. G., assignor.)
Keyser, B., and C. F. Ingold, Hartville, Ohio. Hand-truck. No. 938,872; Nov. 2; Sp. p. 918; Gaz. vol. 148; p. 145.
Keystone Type Foundry. (See Orchard, A. S., assignor.)
Kiel, H. J., Wheeling, W. Va. Valve of the globe type. No. 940,163; Nov. 16; Sp. p. 3798; Gaz. vol. 148; p. 647.
Kiely, F., Los Angeles, Cal. Baking-powder tester. No. 940,258; Nov. 16; Sp. p. 4004; Gaz. vol. 148; p. 681.
Kieren, C., Appleton, Wis. Machine for making twine. No. 939,268; Nov. 9; Sp. p. 1780; Gaz. vol. 148; p. 308.
Kietzer, F. J. (See Youngberg and Parnall, assignors.)
Kilby, C. B., Crumpler, N. C. Envelop. No. 940,974; Nov. 23; Sp. p. 5585; Gaz. vol. 148; p. 945.
Kilby, W. N., and S. W. Kerr, Lancaster, Wis. Planter-shoe truck. No. 941,421; Nov. 30; Sp. p. 6580; Gaz. vol. 148; p. 1116.
Killeen, T. J., Portland, Oreg. Car-fender. No. 940,464; Nov. 16; Sp. p. 4491; Gaz. vol. 148; p. 751.
Killian, A. T., assignor to National Anti-Friction Roller-Bearing Company, Buffalo, N. Y. Thrust-bearing. No. 939,269; Nov. 9; Sp. p. 1786; Gaz. vol. 148; p. 309.
Kilroy, A. S., Great Falls, Mont. Educational device. No. 939,515; Nov. 9; Sp. p. 2364; Gaz. vol. 148; p. 392.
Kilroy, C., Cedar Rapids, Iowa. Power-transmission mechanism. No. 940,880; Nov. 23; Sp. p. 5394; Gaz. vol. 148; p. 914.
Kimball, F. G., Whittier, Cal. Air lift-pump. No. 939,270; Nov. 9; Sp. p. 1788; Gaz. vol. 148; p. 309.
Kimball, P. L., assignor to Vermont Farm Machine Company, Bellows Falls, Vt. Centrifugal cream-separator. No. 941,881; Nov. 30; Sp. p. 7553; Gaz. vol. 148; p. 1271.
King, C. D., Brooklyn, N. Y. Diamond-fold-forming mechanism for paper-bag machines. No. 940,534; Nov. 16; Sp. p. 4635; Gaz. vol. 148; p. 773.
King, C. W., Birmingham, Ala. Molding-machine. No. 939,030; Nov. 2; Sp. p. 1250; Gaz. vol. 148; p. 201.
King, H. M., Hattiesburg, Miss. Match holder or safe. No. 939,710; Nov. 9; Sp. p. 2782; Gaz. vol. 148; p. 459.
King & Hamilton Company. (See Gilman, J. H., assignor.)
King, M. M., assignor of one-half to M. Speer, Albany, N. Y. Box. No. 938,590; Nov. 2; Sp. p. 338; Gaz. vol. 148; p. 50.
King, S. W. (See Young, J. N., assignor.)
Kingsley, G., New York, N. Y. Water-tube boiler. No. 939,031; Nov. 2; Sp. p. 1253; Gaz. vol. 148; p. 201.
Kinkade, B. B., Berkeley, Cal. Water-heating system. No. 941,784; Nov. 30; Sp. p. 7338; Gaz. vol. 148; p. 1237.
Kinkade, B. B., Berkeley, Cal. Water-heater. No. 941,882; Nov. 30; Sp. p. 7554; Gaz. vol. 148; p. 1271.
Kintner, A. E., Painesville, Ohio. Traction-increasing device. No. 938,490; Nov. 2; Sp. p. 96; Gaz. vol. 148; p. 15.
Kirby, J., Leeds, England, assignor to W. Ross, Troy, N. Y. Centrifugal fan, pump, and the like. No. 939,140; Nov. 2; Sp. p. 1464; Gaz. vol. 148; p. 238.
Kircher, W. G., Solingen, Germany. Can-opener. No. 940,932; Nov. 23; Sp. p. 5500; Gaz. vol. 148; p. 932.
Kirkegaard, G., New York, N. Y., assignor to Imperial Stopper Company. Bottle-capping machine. No. 939,141; Nov. 2; Sp. p. 1468; Gaz. vol. 148; p. 238.
Kirkland, A. T. (See Reed, G. B., assignor.)
Kirsch, C. W., assignor to Kirsch Manufacturing Company, Three Rivers, Mich. Stair-carpet fastener. No. 939,601; Nov. 9; Sp. p. 2564; Gaz. vol. 148; p. 421.
Kirsch, O., Akron, Ohio. Vehicle-wheel rim. No. 940,602; Nov. 16; Sp. p. 4780; Gaz. vol. 148; p. 796.
Kirsch Manufacturing Company. (See Kirsch, C. W., assignor.)
Klausman, E. (See Wolfgram and Klausman.)
Kleber, W., Halle-on-the-Saale, assignor of one half to B. Päschke, Treptow, near Berlin, Germany. Lathe and drilling chuck. No. 938,873; Nov. 2; Sp. p. 921; Gaz. vol. 148; p. 145.
Klein, A., assignor to Mitred Box Company, New York, N. Y. Grooving-machine. (Reissue.) No. 13,043; Nov. 23; Sp. p. 6401; Gaz. vol. 148; p. 1070.
Klein, E., Dresden, Germany, assignor to Carter-Crume Co. (Limited), Niagara Falls, N. Y. Web-folding mechanism. No. 940,933; Nov. 23; Sp. p. 5501; Gaz. vol. 148; p. 932.
Klein, J., assignor of one-half to E. Stern, New York, N. Y. Waste-ferrule. No. 939,711; Nov. 9; Sp. p. 2785; Gaz. vol. 148; p. 460.
Kleine, J. W. (See Sirr and Kleine.)
Kleinert, R. S., New York, N. Y. Dress-shield. No. 939,712; Nov. 9; Sp. p. 2786; Gaz. vol. 148; p. 460.
Kleinman, A. (See Fraser, W. A., assignor.)
Klenk, G., and J. F. Fink, Defiance, Ohio, assignors, by mesne assignments, to Defiance Pressed Steel Company. Metal box. (Reissue.) No. 13,038; Nov. 9; Sp. p. 3327; Gaz. vol. 148; p. 550.
Klenke, F. H., Ashton, Ill. Disk-sharpener. No. 939,713; Nov. 9; Sp. p. 2787; Gaz. vol. 148; p. 460.
Klingenberg, A. E., Granite City, Ill. Box. No. 941,323; Nov. 23; Sp. p. 6338; Gaz. vol. 148; p. 1060.
Klink, A., Buffalo, N. Y. Toy. No. 938,874; Nov. 2; Sp. p. 922; Gaz. vol. 148; p. 145.
Klinkmann, E. (See Dicke and Klinkmann.)
Klum, B., Medford, Oreg. Advertising hat-rack. No. 938,591; Nov. 2; Sp. p. 339; Gaz. vol. 148; p. 50.
Knape, J., Grand Rapids, Mich. Adjustable bracket. No. 941,682; Nov. 30; Sp. p. 7103; Gaz. vol. 148; p. 1201.
Knapp, W. H., assignor of one-half to W. H. McKenzie, Fresno, Cal. Raisin-seeding machine. No. 940,327; Nov. 16; Sp. p. 4176; Gaz. vol. 148; p. 704.
Knauf, P. W., assignor to Schutte and Koerting Company, Philadelphia, Pa. Valve. No. 938,491; Nov. 2; Sp. p. 101; Gaz. vol. 148; p. 15.
Knebel, R., Rockville, Conn. Dressing-machine reel. No. 940,603; Nov. 16; Sp. p. 4782; Gaz. vol. 148; p. 796.
Knecht, V. E., Cincinnati, Ohio. Molding-machine. No. 939,032; Nov. 2; Sp. p. 1255; Gaz. vol. 148; p. 202.
Kneen, J., Oakland, Cal. Valve for water-closet-disinfecting devices. No. 939,424; Nov. 9; Sp. p. 2179; Gaz. vol. 148; p. 362.
Kneisley, R. M., Carrollton, Mo. Clothes-line reel and tightener. No. 939,033; Nov. 2; Sp. p. 1260; Gaz. vol. 148; p. 202.
Knickerbocker, M. J. (See Alexander and Knickerbocker.)
Knight, A. B., Fairmont, W. Va. Glass-etching machine. No. 941,883; Nov. 30; Sp. p. 7556; Gaz. vol. 148; p. 1272.
Knight, C. D., Schenectady, N. Y., assignor to General Electric Company. Motor-controlling device. No. 940,164; Nov. 16; Sp. p. 3799; Gaz. vol. 148; p. 647.
Knight, E. R., Norwood, Ohio, assignor to Bullock Electric Manufacturing Company. Brush-holder. No. 940,393; Nov. 16; Sp. p. 4346; Gaz. vol. 148; p. 728.
Knoblock, G. A., South Bend, Ind. Seeder. No. 938,492; Nov. 2; Sp. p. 103; Gaz. vol. 148; p. 16.

Knoblock, O. M., South Bend, Ind. Electric switch. No. 940,328; Nov. 16; Sp. p. 4177; Gaz. vol. 148; p. 705.
Knopf, S., Vienna, Austria-Hungary. Producing a mineral-oil emulsion. No. 941,785; Nov. 30; Sp. p. 7340; Gaz. vol. 148; p. 1237.
Knowlton, D. E. (See Fillmore, E. R., assignor.)
Knox Metal Wheel Company. (See Murray, J. W., assignor.)
Knudsen, P. E. (See Chapman, I., assignor.)
Kobbe, P. F., Jr. (See Brown, J. R., assignor.)
Kobert, F. P., New York, N. Y. Railway-spike. No. 938,875; Nov. 2; Sp. p. 924; Gaz. vol. 148; p. 146.
Koch, A., Hanover-List, Germany. Liquid-fuel burner. No. 940,813; Nov. 23; Sp. p. 5258; Gaz. vol. 148; p. 892.
Koch, F., Bellevue, assignor to Pressed Steel Car Company, Pittsburg, Pa. Bolster construction for car-underframes. No. 938,770; Nov. 2; Sp. p. 684; Gaz. vol. 148; p. 110.
Koch, W. E., Whitehall, N. Y. Fish-hook. No. 940,465; Nov. 16; Sp. p. 4494; Gaz. vol. 148; p. 751.
Koehler, W., Spielerville, Ark. Reversible plow. No. 939,271; Nov. 9; Sp. p. 1789; Gaz. vol. 148; p. 309.
Koelsch, F., deceased, Scranton, Pa.; M. Koelsch, administratrix. Rotary punching-machine. No. 939,958; Nov. 9; Sp. p. 3316; Gaz. vol. 148; p. 547.
Koelsch, M., administratrix. (See Koelsch, F.)
Koenig, C. J., Alton, Ill. Mechanism for producing hollow glassware. No. 940,165; Nov. 16; Sp. p. 3802; Gaz. vol. 148; p. 648.
Köller, T., Ober-Ferlach, Austria-Hungary, assignor to J. Tambour, Nanterre, near Paris, France. Lock for firearms. No. 941,260; Nov. 23; Sp. p. 6203; Gaz. vol. 148; p. 1041.
Kohler, G. A. E. (See Graham, G. M., assignor.)
Kohn, H. C. (See Trantner, N. W., assignor.)
Kolb, J. W., Fairfax, Okla. Surgical instrument. No. 939,034; Nov. 2; Sp. p. 1261; Gaz. vol. 148; p. 202.
Kolb, J. W., Medicine Lodge, Kans. Surgical instrument. No. 939,035; Nov. 2; Sp. p. 1262; Gaz. vol. 148; p. 202.
Kolbe, A. G., assignor to Detroit Oak Belting Company, Detroit, Mich. Drive-belt. No. 941,780; Nov. 30; Sp. p. 7341; Gaz. vol. 148; p. 1237.
Kollmorgen, F. L. G., Montclair, assignor to Keuffel & Esser Company, Hoboken, N. J. Optical instrument. No. 941,021; Nov. 23; Sp. p. 5696; Gaz. vol. 148; p. 961.
Kolsch, J. W., London, England. Sweat-band for hats and other head-coverings. No. 941,717, Nov. 30; Sp. p. 7200; Gaz. vol. 148; p. 1213.
Komp, A., New York, N. Y. Pulp-shaping machine. No. 941,884; Nov. 30; Sp. p. 7530; Gaz. vol. 148; p. 1272.
König, A., assignor to Firm of C. Zeiss, Jena, Germany. Separating-prism-telemeter. No. 940,166; Nov. 16; Sp. p. 3816; Gaz. vol. 148; p. 648.
Konigsberg, C. S., and W. Allen, Oakland, Cal. Self-heating flat-iron. No. 940,466; Nov. 16; Sp. p. 4495; Gaz. vol. 148; p. 751.
Koons, M. R., York, Pa. Dentistry. No. 941,718; Nov. 30; Sp. p. 7201; Gaz. vol. 148; p. 1214.
Koop, W. E., *et al.* (See Geiger, C. E., assignor.)
Koopmans, S. H., *et al.* (See Maier, W., assignor.)
Koper, W. F., assignor of one-half to F. Marzluff, Chillicothe, Ohio. Hose-coupling. No. 939,036; Nov. 2; Sp. p. 1263; Gaz. vol. 148; p. 203.
Kops Bros. (See Kops, S., assignor.)
Kops, S., assignor to Kops Bros., New York, N. Y. Garment-supporter. No. 941,787; Nov. 30; Sp. p. 7342; Gaz. vol. 148; p. 1237.
Korach, L. L., Chicago, Ill. Fan. No. 939,916; Nov. 9; Sp. p. 3230; Gaz. vol. 148; p. 532.
Korbel, M., Kingston, Pa. Burglar-alarm. No. 940,535; Nov. 16; Sp. p. 4643; Gaz. vol. 148; p. 774.
Körting Gebrüder Actiengesellschaft. (See Lüring, W., assignor.)
Koske, O., Erfurt, Germany. Type setting and casting machine. No. 941,931; Nov. 30; Sp. p. 7651; Gaz. vol. 148; p. 1288.
Koske, O., Erfurt, Germany. Type setting and casting machine. No. 941,932; Nov. 30; Sp. p. 7652; Gaz. vol. 148; p. 1289.
Koszegi, K., Baja, and E. Szechenyi, Vajszka, Austria-Hungary. Cultivating-machine. No. 941,422; Nov. 30; Sp. p. 6582; Gaz. vol. 148; p. 1116.
Kowarsky, G., Riga, Russia. Manufacturing metal wheels. No. 939,714; Nov. 9; Sp. p. 2789; Gaz. vol. 148; p. 461.
Kozesnik, C., New York, N. Y. Third-rail electric-railway system. No. 940,028; Nov. 16; Sp. p. 3468; Gaz. vol. 148; p. 599
Kozesnik, C., New York, N. Y. Third-rail electric-railway system. No. 941,151; Nov. 23; Sp. p. 5978; Gaz. vol. 148; p. 1005.
Kraak, E., Fremont, Ohio. Beet-blocker. No. 939,715; Nov. 9; Sp. p. 2791; Gaz. vol. 148; p. 461.
Krafft, S., Munich, Germany. Making preventive and curative lymph. No. 941,423; Nov. 30; Sp. p. 6583; Gaz. vol. 148; p. 1116.
Kraft, H., assignor to Society of Chemical Industry in Basle, Basel, Switzerland. Vat dye and making same. No. 941,152; Nov. 23; Sp. p. 5979; Gaz. vol. 148; p. 1005.
Kramer, A. A., Kansas City, Kans. Stock and poultry fountain. No. 940,259; Nov. 16; Sp. p. 4005; Gaz. vol. 148; p. 682.
Krapp, H. (See Lovekin and Young, assignors.)
Kreil, O., Charlottenburg, assignor to Siemens-Schuckert-Werke G. m. b. H., Berlin, Germany. Optical instrument for determining the direction of travel of air-ships and the like. No. 940,329; Nov. 16; Sp. p. 4178; Gaz. vol. 148; p. 705.
Kremenezky, J., Vienna, Austria-Hungary. Sealing the filament-carriers into bulbs of electric incandescent lamps. No. 941,996; Nov. 30; Sp. p. 7767; Gaz. vol. 148; p. 1309.
Krengel, E. E. (See Gale and Krengel.)
Krentler-Arnold Hinge Last Company. (See Pym, C. F., assignor.)
Krentler-Arnold Hinge Last Company. (See Shainsey, F. J., Sr., assignor.)
Krentler Bros. Co. (See Pym, C. F., assignor.)
Kress, F. J., Pittsburg, Pa. Box or case. No. 939,272; Nov. 9; Sp. p. 1791; Gaz. vol. 148; p. 310.
Krichbaum, W. F., Newark, N. J., assignor to Foster Engineering Company. Pressure-regulator. No. 941,153; Nov. 23; Sp. p. 5980; Gaz. vol. 148; p. 1005.
Krieger, A. W., assignor of one-half to R. H. Meek, Avis, Pa. Window-frame. No. 940,029; Nov. 16; Sp. p. 3471; Gaz. vol. 148; p. 600.
Krimminger, J. B. (See McKnight, F. W., assignor.)
Kroedel, R., assignor to Eastman Kodak Co., Rochester, N. Y. Plate-holder. No. 940,030; Nov. 16; Sp. p. 3472; Gaz. vol. 148; p. 600.
Krohn, A., *et al.* (See Munsill, J. L., assignor.)
Krohn, G. A., Coarsegold, Cal. Vehicle-tire and tightening means therefor. No. 939,037; Nov. 2; Sp. p. 1264; Gaz. vol. 148; p. 203.
Krohn, J. C., *et al.* (See Munsill, J. L., assignor.)
Krotz, A. S., assignor to Sears, Roebuck & Company, Chicago, Ill. Automobile-engine. No. 940,031; Nov. 16; Sp. p. 3476; Gaz. vol. 148; p. 600.
Krummel, L. C. (See Norton and Krummel.)
Krummel, L. C., Clinton, Conn. Automatic feeding mechanism for presses. No. 938,876; Nov. 2; Sp. p. 925; Gaz. vol. 148; p. 146.
Krummel, L. C., Clinton, Conn. Can-heading machine. No. 941,346; Nov. 23; Sp. p. 6376; Gaz. vol. 148; p. 1067.
Krumsee, W. F., Chicago, Ill. Gas-stove stand. No. 941,524; Nov. 30; Sp. p. 6785; Gaz. vol. 148; p. 1149.
Kuck, H. J., Chicago, Ill. Cooling-box. No. 941,077; Nov. 23; Sp. p. 5808; Gaz. vol. 148; p. 980.
Kuenneth, G. W., Paterson, N. J. Let-off mechanism for narrow-ware looms. No. 940,330; Nov. 16; Sp. p. 4180; Gaz. vol. 148; p. 705.
Kuhn, E., assignor to Kuhn Specialties Company, East Orange, N. J. Device for flushing basins. No. 941,997; Nov. 30; Sp. p. 7768; Gaz. vol. 148; p. 1309.
Kuhn, H., Rochester, N. Y. Producing translucent paper. No. 938,877; Nov. 2; Sp. p. 929; Gaz. vol. 148; p. 146.
Kuhn Specialties Company. (See Kuhn, E., assignor.)
Kumpfmiller, A., Hockligngen, near Hemer, Germany. Tannin-containing extract and producing same. No. 940,394; Nov. 16; Sp. p. 4348; Gaz. vol. 148; p. 728.
Kunheim u. Co. (See Huber, J. L., assignor.)
Küntzler, H., assignor to Adder Machine Company, Kingston, Pa. Ribbon feeding and reversing mechanism for adding-machines. No. 940,814; Nov. 23; Sp. p. 5261; Gaz. vol. 148; p. 893.
Kurtzon, M., Chicago, Ill. Combined roller-support and casing for edgewise-movable doors. No. 938,493; Nov. 2; Sp. p. 104; Gaz. vol. 148; p. 16.
Kurz, A. W., Cleveland, Ohio. Log-loading apparatus. No. 940,331; Nov. 16; Sp. p. 4183; Gaz. vol. 148; p. 706.
Kuster, D. F., and G. J. Niemann, Washtucna, Wash. Plowing-machine. No. 939,716; Nov. 9; Sp. p. 2794; Gaz. vol. 148; p. 461.
Kutz, C. W., Humbert, Pa. Track structure. No. 941,324; Nov. 23; Sp. p. 6339; Gaz. vol. 148; p. 1060.
Kyle, J. L., Seaforth, Ontario, Canada. Machine for sharpening lawn-mowers, skates, &c. No. 938,494; Nov. 2; Sp. p. 105; Gaz. vol. 148; p. 16.
La Baw, W., Asbury Park, N. J. Door-stop. No. 941,885; Nov. 30; Sp. p. 7561; Gaz. vol. 148; p. 1272.
La Cour, J. L. (See Arnold and La Cour.)
La Fave, J. H., Defiance, Ohio. Metal package. No. 940,168; Nov. 16; Sp. p. 3820; Gaz. vol. 148; p. 649.
La Pointe, R. A., Riverside, Cal. Power-transmitting apparatus. No. 941,154; Nov. 23; Sp. p. 5983; Gaz. vol. 148; p. 1006.
Laboisn, C. S., Washington, D. C., assignor to Union Typewriter Company, Jersey City, N. J. Type-writing machine. No. 940,332; Nov. 16; Sp. p. 4185; Gaz. vol. 148; p. 706.
Laboisn, C. S., Washington, D. C., assignor to Union Typewriter Company, Jersey City, N. J. Tabulating device for type-writers. No. 940,395; Nov. 16; Sp. p. 4350; Gaz. vol. 148; p. 728.
Lacell, H. G. (See Kent and Lacell.)
Lackie, W. J. (See Littman and Lackie.)
Lackner, R. J., New York, N. Y. Sign. No. 940,697; Nov. 23; Sp. p. 5000; Gaz. vol. 148; p. 853.
Laclede Christy Clay Products Company. (See Girtanner, F., assignor.)

Lacy, E. A., *et al.* (See Spiegel, J. F., assignor.)
Lacy, W. E., Avon, N. Y. Seed-germinating tester. No. 940,167; Nov. 16; Sp. p. 3818; Gaz. vol. 148; p. 648.
Ladd, C., *et al.* (See Lee, H. V., O. S., and C. F., assignors.)
Lafer, J. W., Catawba Island, Ohio. Wood-blight composition. No. 939,273; Nov. 9; Sp. p. 1793; Gaz. vol. 148; p. 310.
Lafferty, R. C., Clarksburg, W. Va. Sign. No. 940,536; Nov. 16; Sp. p. 4644; Gaz. vol. 148; p. 774.
Lafleur, B., Abbotsford, British Columbia, Canada. Straight-edge for circular saws. No. 940,032; Nov. 16; Sp. p. 3477; Gaz. vol. 148; p. 601.
Laflin and Rand Powder Company. (See Dobbs, C., assignor.)
Lagergren, J. E., assignor, by mesne assignments, to Ikonograph Company of America, New York, N. Y. Kinetoscopic apparatus. No. 939,274; Nov. 9; Sp. p. 1794; Gaz. vol. 148; p. 310.
Lagonda Manufacturing Company. (See Hauer, E. E., assignor.)
Laird, J. M., Huntingdon, Pa. Snow-guard for roofs. No. 939,516; Nov. 9; Sp. p. 2366; Gaz. vol. 148; p. 392.
Lalonde, J., Montreal, Quebec, Canada. Stair-guard. No. 938,771; Nov. 2; Sp. p. 686; Gaz. vol. 148; p. 110.
Lamb, E. E., Pulaski, Va. Fresh-air conveyer. No. 941,370; Nov. 30; Sp. p. 6448; Gaz. vol. 148; p. 1093.
Lamb, J., San Francisco, Cal. Glass-cutting tool. No. 939,843; Nov. 9; Sp. p. 3063; Gaz. vol. 148; p. 505.
Lamb Knitting Machine Co. (See Parker, C. W., assignor.)
Lambert, A., Newark, N. J. Duplex thrust device for friction-clutches. No. 938,772; Nov. 2; Sp. p. 687; Gaz. vol. 148; p. 110.
Lambert, H. L., Rouen, France. Locomotive track-sander. No. 941,457; Nov. 30; Sp. p. 6650; Gaz. vol. 148; p. 1127.
Lamburth, C. E., San Francisco, Cal. Reinforced-concrete pile for pier and foundation construction. No. 941,078; Nov. 23; Sp. p. 5810; Gaz. vol. 148; p. 980.
Lamme, B. G., R. S. Feicht, Pittsburg, and G. H. Garcelon, Wilkinsburg, Pa., assignors to Westinghouse Electric & Manufacturing Company. Dynamo-electric machine. No. 940,698; Nov. 23; Sp. p. 5001; Gaz. vol. 148; p. 854.
Lamson, F. S., assignor to Cosmos Construction Company, Inc., Washington, D. C. Laying concrete pavement. No. 941,886; Nov. 30; Sp. p. 7561; Gaz. vol. 148; p. 1272.
Lanchester, G. H., Birmingham, England. Gear-actuating mechanism for motor-vehicles. No. 941,261; Nov. 23; Sp. p. 6204; Gaz. vol. 148; p. 1041.
Landau, D., San Francisco, Cal. Bottle-stopper. No. 941,788; Nov. 30; Sp. p. 7344; Gaz. vol. 148; p. 1238.
Landenberger, R., Chicago, Ill. Envelop. No. 941,525; Nov. 30; Sp. p. 6786; Gaz. vol. 148; p. 1150.
Landers, Frary and Clark. (See Smith and Curtiss, assignors.)
Landis, C. W., *et al.* (See Scott and Dilligard, assignors.)
Landon, J. N., Hartland, Vt. Antirefillable bottle. No. 939,602; Nov. 9; Sp. p. 2565; Gaz. vol. 148; p. 421.
Landvatter, O. H., assignor to Badische Maschinenfabrik & Eisengiesserei vormals G. Sebold und Sebold & Neff, Durlach, Germany. Dipping device for match-machines. No. 940,934; Nov. 23; Sp. p. 5504; Gaz. vol. 148; p. 932.
Lang, E. M., Jr. (See Cobb, E. M., assignor.)
Langschmidt, E., assignor to Wm. Wrigley, Jr., & Co., Chicago, Ill. Box. No. 939,517; Nov. 9; Sp. p. 2367; Gaz. vol. 148; p. 392.
Lanham, C. W., Hustonville, Ky. Corn-planter. No. 939,717; Nov. 9; Sp. p. 2796; Gaz. vol. 148; p. 462.
Lansdale, M. F., assignor of one-half to H. G. Fowler, Denver, Colo. Amalgamator. No. 941,371; Nov. 30; Sp. p. 6450; Gaz. vol. 148; p. 1099.
Lansing Wheelbarrow Company. (See Verplanck, H. M., assignor.)
Lapp, C. E., and W. H. Harrison, Los Angeles, Cal. Casing-perforator. No. 939,917; Nov. 9; Sp. p. 3233; Gaz. vol. 148; p. 532.
Laraway, W. H., Grand Rapids, Mich. Vending-machine. No. 941,079; Nov. 23; Sp. p. 5811; Gaz. vol. 148; p. 980.
Larche, P. A. (See Conekin, D., assignor.)
Larkin, J. L., and J. C. Woody, Mount Vernon, Ind., assignors to Champion Safety Lock Company, Geneva, Ohio. Hinge. No. 938,669; Nov. 2; Sp. p. 498; Gaz. vol. 148; p. 76.
Larkin, W. H., Butler, Pa. Pump for wells. No. 938,878; Nov. 2; Sp. p. 930; Gaz. vol. 148; p. 147.
Larsen, C. C., assignor of one-half to F. Shenkberg, Sioux City, Iowa. Willow-stripping machine. No. 940,260; Nov. 16; Sp. p. 4007; Gaz. Vol. 148; p. 682.
Larsen, L. B., Portland, Oreg. Concrete-block machine. No. 940,935; Nov. 23; Sp. p. 5508; Gaz. vol. 148; p. 933.
Larsen, L. B., Portland, Oreg. Bond for two-membered concrete building-blocks. No. 941,080; Nov. 23; Sp. p. 5814; Gaz. vol. 148; p. 981.
Larsen, M., New York, N. Y. Torpedo. No. 940,053; Nov. 16; Sp. p. 3478; Gaz. vol. 148; p. 601.
Larsen, W., Honolulu, Hawaii. Apparatus for loading coal. No. 938,879; Nov. 2; Sp. p. 931; Gaz. vol. 148; p. 147.
Larson, E. L., De Kalb, Ill. Track-sanding device. No. 939,718; Nov. 9; Sp. p. 2798; Gaz. vol. 148; p. 462.
Larson, G., Jamestown, N. Y. Grinding-machine. No. 939,038; Nov. 2; Sp. p. 1266; Gaz. vol. 148; p. 203.
Lathrop, E. L., Galion, Ohio. Road-making machine. No. 940,169; Nov. 16; Sp. p. 3822; Gaz. vol. 148; p. 649.
Lathrop, F. H., Chicago, Ill. Concrete conveying and mixing cart. No. 939,275; Nov. 9; Sp. p. 1795; Gaz. vol. 148; p. 310.
Lathrop, F. H., assignor of three-fourths to J. Dabney, Chicago, Ill. Machine to destroy cotton-boll weevils. No. 938,592; Nov. 2; Sp. p. 341; Gaz. vol. 148; p. 51.
Lathrop, F. L., and H. E. Chase, assignors to H. L. Judd Company, Wallingford, Conn. Traverse-ring. No. 938,773; Nov. 2; Sp. p. 691; Gaz. vol. 148; p. 111.
Lattner, P. E., and S. N. Robinson, Minneapolis, Minn. Blocking device for trucks. No. 939,518; Nov. 9; Sp. p. 2369; Gaz. vol. 148; p. 393.
Lau, H. E., Pottstown, Pa. Rivet-holder. No. 940,467; Nov. 16; Sp. p. 4497; Gaz. vol. 148; p. 752.
Laub, H., trustee. (See Mercader, C., assignor.)
Laubeauf, M. A., Paris, France. Water-tight hatch or manhole cover. No. 938,593; Nov. 2; Sp. p. 342; Gaz. vol. 148; p. 51.
Laurence, B., *et al.* (See McCabe, J. D., assignor.)
Lauritzen, C. M., Chicago, Ill. Machine for cutting, beating, and pulverizing. No. 939,276; Nov. 9; Sp. p. 1798; Gaz. vol. 148; p. 311.
Lawrence, J. N., Nevada, Mo. Band-brake. No. 939,519; Nov. 9; Sp. p. 2370; Gaz. vol. 148; p. 393.
Lawrence, W. H., and P. Torchio, New York, N. Y. Automatic circuit-breaker. No. 940,881; Nov. 23; p. Sp. p. 5397; Gaz. vol. 148; p. 914.
Lawrence, W. P., Colorado Springs, Colo. Sheet-metal tubing. No. 939,039; Nov. 2; Sp. p. 1269; Gaz. vol. 148; p. 204.
Lawson, C. O., Middleton, Idaho. Gun-support. No. 941,640; Nov. 30; Sp. p. 7014; Gaz. vol. 148; p. 1186.
Lawson, G. D., and A. Wheeler, Rose Hill, Va. Nut-lock. No. 938,880; Nov. 2; Sp. p. 935; Gaz. vol. 148; p. 147.
Lawson, H. W., Nashua, N. H. Cement-pot. No. 940,333; Nov. 16; Sp. p. 4184; Gaz. vol. 148; p. 706.
Lawson, J. F., assignor to Cincinnati Butchers Supply Company, Cincinnati, Ohio. Hog-scraper. No. 938,594; Nov. 2; Sp. p. 345; Gaz. vol. 148; p. 52.
Lawton, E. G., Bermuda, La. Veterinary instrument. No. 941,325; Nov. 23; Sp. p. 6341; Gaz. vol. 148; p. 1061.
Le Blanc, A., New York, N. Y. Remote electric-control system for search-lights and the like. No. 939,719; Nov. 9; Sp. p. 2799; Gaz. vol. 148; p. 463.
Le Gore, J. W., Le Gore, Md. Distributer. No. 940,538; Nov. 16; Sp. p. 4650; Gaz. vol. 148; p. 775.
Le Manquais, E. R., assignor to Le Manquais Electrical Manufacturing Company, Bellemead, N. J. Wall-cabinet for electrical apparatus. No. 942,002; Nov. 30; Sp. p. 7785; Gaz. vol. 148; p. 1311.
Le Manquais Electrical Manufacturing Company. (See Le Manquais, E. R., assignor.)
Le Myre, J. E., Nashua, N. H., assignor, by mesne assignments, to Patent Sales Company, Kittery, Me. Permutation-lock. No. 940,936; Nov. 23; Sp. p. 5510; Gaz. vol. 148; p. 933.
Leach, A. F., Boston, Mass. Portable tent. No. 941,458; Nov. 30; Sp. p. 6651; Gaz. vol. 148; p. 1127.
Leach, J. N., Melrose, assignor to Judson L. Thomson Manufacturing Company, Waltham, Mass. Feed system for hydrocarbon-burners. No. 938,670; Nov. 2; Sp. p. 500; Gaz. vol. 148; p. 77.
Leadon, J. M., Jr., Shieldsville, Minn. Wire-supporting device. No. 940,034; Nov. 16; Sp. p. 3480; Gaz. vol. 148; p. 601.
Leager, I. T., Chestertown, Md. Corn-shocker. No. 938,595; Nov. 2; Sp. p. 350; Gaz. vol. 148; p. 52.
Leahy, J. W., deceased, Jersey City, N. J.; M. A. Leahy, administratrix. Railway-tie. No. 940,640; Nov. 16; Sp. p. 4861; Gaz. vol. 148; p. 809.
Leahy, J. W., deceased, Chicago, Ill.; M. A. Leahy, administratrix. Railway-tie. No. 940,641; Nov. 16; Sp. p. 4862; Gaz. vol. 148; p. 809.
Leahy, M. A., administratrix. (See Leahy, J. W.)
Leathers, C. C., Leytonstone, England. Vaporizer for disinfectants. No. 940,604; Nov. 16; Sp. p. 4783; Gaz. vol. 148; p. 797.
Lecheler, L., Chicago, Ill. Machine for splitting and core-slicing cabbages. No. 941,262; Nov. 23; Sp. p. 6207; Gaz. vol. 148; p. 1042.
Ledoux, J. W., Swarthmore, Pa., assignor to Simplex Valve & Meter Company, Camden, N. J. Air-valve. No. 939,277; Nov. 9; Sp. p. 1802; Gaz. vol. 148; p. 311.
Lee, C. A., Oneida, N. Y. Cushion-stuffing device. No. 939,278; Nov. 9; Sp. p. 1803; Gaz. vol. 148; p. 312.
Lee, C. F. (See Lee, H. V., O. S., and C. F.)
Lee, D. C., Detroit, Mich. Embroidering attachment for sewing-machines. No. 939,603; Nov. 9; Sp. p. 2566; Gaz. vol. 148; p. 421.
Lee, G. H., Omaha, Nebr. Lamp-chimney. No. 940,468; Nov. 16; Sp. p. 4498; Gaz. vol. 148; p. 752.
Lee, H. J., and E. F. Gray, Scranton, Pa., assignors of two-thirds to said Lee and one-third to said Gray. Package-tie. No. 939,040; Nov. 2; Sp. p. 1272; Gaz. vol. 148; p. 204.
Lee, H. V., O. S., and C. F., Youngstown, assignors of one-half to A. E. Hazelrigg and C. Ladd, Terre Haute, Ind. Beet-harvester. No. 938,881; Nov. 2; Sp. p. 936; Gaz. vol. 148; p. 148.
Lee, J. E., Milwaukee, Wis. Hanging shelf. No. 938,596; Nov. 2; Sp. p. 353; Gaz. vol. 148; p. 53.
Lee, J. L., Pasadena, Cal. Printer's galley. No. 940,975; Nov. 23; Sp. p. 5586; Gaz. vol. 148; p. 945.
Lee, O. S. (See Lee, H. V., O. S., and C. F.)
Lee, W. H., assignor to Syracuse Chilled Plow Company, Syracuse, N. Y. Sulky-plow. No. 941,887; Nov. 30; Sp. p. 7564; Gaz. vol. 148; p. 1273.

Lefkowitz, H. B. (See Roffy, J. T., assignor.)
Leftwich, W. D., Wilkinsburg, Pa. Coupling mechanism. No. 940,334; Nov. 16; Sp. p. 4195; Gaz. vol. 148; p. 707.
Legault, B., Montreal, Quebec, Canada. Railway-switch mechanism. No. 939,279; Nov. 9; Sp. p. 1804; Gaz. vol. 148; p. 312.
Leggo, A. V., St. Klida, Victoria, Australia. Rabble for ore-roasting furnaces. No. 940,537; Nov. 16; Sp. p. 4646; Gaz. vol. 148; p. 774.
Lehigh, C. M., Chicago, Ill. Rake. No. 938,882; Nov. 2; Sp. p. 940; Gaz. vol. 148; p. 148.
Lehmann, A. E., St. Charles, Mo. Excavating apparatus. No. 940,035; Nov. 16; Sp. p. 3481; Gaz. vol. 148; p. 602.
Lehmann, E. (See Lehmann, K. and E.)
Lehmann, K., Wilmersdorf-Berlin, and E. Lehmann, Küstrin-Neustadt, Germany. Combustion device for doing away with exhaust-gases in combustion-engines. No. 939,844; Nov. 9; Sp. p. 3063; Gaz. vol. 148; p. 506.
Leighton, H., Geneva, assignor of one-half to W. S. Clark, Middlefield, Ohio. Bowling-alley amusement device. No. 939,280; Nov. 9; Sp. p. 1808; Gaz. vol. 148; p. 312.
Leineweber, H., Chicago, Ill. Pneumatic tool. No. 938,774; Nov. 2; Sp. p. 693; Gaz. vol. 148; p. 111.
Leipziger Maschinenbau-Gesellschaft m. b. H. (See Jay, R., assignor.)
Leisure, F. M., Templeton, Pa. Envelop. No. 941,320; Nov. 23; Sp. p. 6394; Gaz. vol. 148; p. 1069.
Leith, J., assignor of one-half to H. Caya, Sherbrooke, Quebec, Canada. Street-railway switch. No. 939,041; Nov. 2; Sp. p. 1274; Gaz. vol. 148; p. 205.
Lemm, A. C., Fremont, Ohio. Can-opener. No. 940,396; Nov. 16; Sp. p. 4358; Gaz. vol. 148; p. 729.
Lemon, R. L. (See Wocher, Lemon, and Mortsolf.)
Lennane, J., *et al.* (See Howe, S. G., assignor.)
Lennane, W. E., *et al.* (See Howe, S. G., assignor.)
Lennon, W. S., Tucson, Ariz. Car-coupling. No. 939,720; Nov. 9; Sp. p. 2803; Gaz. vol. 148; p. 463.
Leonard, C. G., Savannah, N. Y. Carbureter. No. 941,424; Nov. 30; Sp. p. 6585; Gaz. vol. 148; p. 1117.
Leonard, H. W., Bronxville, N. Y. Resistance unit. No. 938,671; Nov. 2; Sp. p. 506; Gaz. vol. 148; p. 77.
Leonard, H. W., Bronxville, N. Y. Electric-circuit controller. No. 941,425; Nov 30; Sp. p. 6587; Gaz. vol. 148; p. 1117.
Leopold, G. O., assignor to North Bros. Mfg. Co., Philadelphia, Pa. Gearing. No. 939,042; Nov. 2; Sp. p. 1275; Gaz. vol. 148; p. 205.
Leppert, H. E., New Britain, assignor to Hart Manufacturing Company, Hartford, Conn. Binding-post. No. 938,672; Nov. 2; Sp. p. 508; Gaz. vol. 148; p. 77.
Leppert, H. E., New Britain, assignor to Hart Manufacturing Company, Hartford, Conn. Binding-post. No. 940,335; Nov. 16; Sp. p. 4198; Gaz. vol. 148; p. 707.
Lerch, S. P., Canton, Ohio. Hay-carrier. No. 938,775; Nov. 2; Sp. p. 695; Gaz. vol. 148; p. 112.
Lester-Adams Tobacco Press Company. (See Hammond, C. H., assignor.)
Lester, H. B., Hartford, Conn., assignor to Davis Sewing Machine Company, Dayton, Ohio. Automatic screw-machine. No. 939,604; Nov. 9; Sp. p. 2568; Gaz. vol. 148; p. 422.
Lester, J. A., Interlaken, N. Y. Cleansing compound. No. 941,155; Nov. 23; Sp. p. 5984; Gaz. vol. 148; p. 1006.
Leverich, R. G., Berrien Springs, Mich. Concrete-mixing machine. No. 941,998; Nov. 30; Sp. p. 7771; Gaz. vol. 148; p. 1310.
Levin, E., New York, N. Y. Garment-form. No. 941,022; Nov. 23; Sp. p. 5698; Gaz. vol. 148; p. 962.
Levy, H. G., and G. N. Blanchard, San Francisco, Cal.; said Blanchard assignor to said Levy. Electric water-heater. No. 939,605; Nov. 9; Sp. p. 2573; Gaz. vol. 148; p. 422.
Lewis, E. M., Moundsville, W. Va. Display box and tray. No. 939,721; Nov. 9; Sp. p. 2806; Gaz. vol. 148; p. 464.
Lewis, E. V., Fresno, Cal. Swing. No. 941,081; Nov. 23; Sp. p. 5816; Gaz. vol. 148; p. 981.
Lewis, E. Z., Chicago, Ill. Attachment for type-writers. No. 940,336; Nov. 16; Sp. p. 4199; Gaz. vol. 148; p. 708.
Lewis, G. A., Troy, N. Y., assignor of one-half to Edward Manogue Co. Ventilator. No. 940,036; Nov. 16; Sp. p. 3484; Gaz. vol. 148; p. 602.
Lewis, G. S., assignor to J. Stevens Arms & Tool Company, Chicopee Falls, Mass. Firearm. No. 939,142; Nov. 2; Sp. p. 1470; Gaz. vol. 148; p. 239.
Lewis, J. E., assignor to Bush Manufacturing Company, Hartford, Conn. Radiator for automobiles. No. 940,976; Nov. 23; Sp. p. 5587; Gaz. vol. 148; p. 946.
Lewis, J. S. (See Farrell and Lewis.)
Lewis, T. H., and H. C. Graves, Stillwater, Okla. Washing-machine. No. 940,882; Nov. 23; Sp. p. 5399; Gaz. vol. 148; p. 915.
Lewis, W., Philadelphia, Pa., assignor to Tabor Manufacturing Company, Camden, N. J. Molding-machine. No. 941,999; Nov. 30; Sp. p. 7773; Gaz. vol. 148; p. 1310.
Lewis, W. P., Wauneta, Nebr. Wrench. No. 940,977; Nov. 23; Sp. p. 5588; Gaz. vol. 148; p. 946.
Lewisson, L. (See Clauss and Lewisson.)
Leydorf, J. C., Perrysburg, Ohio. Means for propelling vehicles. No. 942,000; Nov. 30; Sp. p. 7783; Gaz. vol. 148; p. 1310.
Leyner, C. P., Boston, Mass., assignor to J. G. Leyner, Denver, Colo. Syringe or the like. No. 939,520; Nov. 9; Sp. p. 2371; Gaz. vol. 148; p. 393.
Leyner, J. G. (See Leyner, C. P., assignor.)
Libby, C. L., Indianapolis, Ind. Feed for lathes. No. 939,043; Nov. 2; Sp. p. 1277; Gaz. vol. 148; p. 205.
Libby, C. L., Indianapolis, Ind. Tool-post for lathes. No. 939,722; Nov. 9; Sp. p. 2807; Gaz. vol. 148; p. 464.
Lieb, H., *et al.* (See Green, J. B., assignor.)
Liebrecht, A., Frankfort-on-the-Main, assignor to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany. Antiseptic. No. 941,888; Nov. 30; Sp. p. 7568; Gaz. vol. 148; p. 1273.
Light, A. H., assignor to A. H. Light Engineering Company, Los Angeles, Cal. Automatic oil-burner. No. 940,539; Nov. 16; Sp. p. 4654; Gaz. vol. 148; p. 775.
Liles, O., Belle Center, Ohio. Shaving mug and brush casing. No. 940,883; Nov. 23; Sp. p. 5401; Gaz. vol. 148; p. 915.
Lillie, S. M., Philadelphia, Pa. Evaporating apparatus. No. 939,143; Nov. 2; Sp. p. 1471; Gaz. vol. 148; p. 239.
Lima Locomotive & Machine Company. (See Leightner, L. E., assignor.)
Lincoln, P. M., Pittsburg, Pa., assignor to Westinghouse Electric & Manufacturing Company. System of electrical distribution. No. 941,372; Nov. 30; Sp. p. 6453; Gaz. vol. 148; p. 1099.
Lindhard, P. T., New York, N. Y. Tube-mill, &c. No. 939,044; Nov. 2; Sp. p. 1279; Gaz. vol. 148; p. 206.
Lindley, C. C., Memphis, Tenn. Flushing-tank. No. 939,521; Nov. 9; Sp. p. 2372; Gaz. vol. 148; p. 394.
Lindquist, C. E. (See Pearson and Lindquist.)
Lindsay, W., Chicago, Ill. Enameling-powder distributer. No. 939,918; Nov. 9; Sp. p. 3236; Gaz. vol. 148; p. 533.
Lindsley, W. L. (See Johnson, C. H., assignor.)
Lindstrand, S., Chicago, Ill. Countersink attachment. No. 938,673; Nov. 2; Sp. p. 510; Gaz. vol. 148; p. 78.
Lindström, C. A., Allegheny, assignor to Pressed Steel Car Company, Pittsburg, Pa. Car-door-operating mechanism. No. 939,425; Nov. 9; Sp. p. 2180; Gaz. vol. 148; p. 363.
Lindström, C. A., assignor to Pressed Steel Car Company, Pittsburg, Pa. Car-door-operating mechanism. No. 939,426; Nov. 9; Sp. p. 2187; Gaz. vol. 148; p. 363.
Lindström, K. I., Nykvarn, Sweden. Milking-machine. No. 941,789; Nov. 30; Sp. p. 7345; Gaz. vol. 148; p. 1238.
Linotype and Machinery Limited. (See Parker, T. R. G., assignor.)
Linotype and Machinery Limited. (See Pearce, H., assignor.)
Lipe, J. J., Witt, Ill. Apparatus for treating wooden wheels. No. 941,683; Nov. 30; Sp. p. 7104; Gaz. vol. 148; p. 1201.
List, O. (See Atkinson, T. N., assignor.)
Litchfield, E. C., and D. Garst, assignors to Litchfield Manufacturing Company, Waterloo, Iowa. Manure-spreader. (Reissue.) No. 13,047; Nov. 30; Sp. p. 7864; Gaz. vol. 148; p. 1325.
Little & Company, A. E. (See Baynard, W. H., assignor.)
Littman, A., and W. J. Lackie, Cleveland, Ohio. Shaft-tug attachment. No. 941,326; Nov. 23; Sp. p. 6342; Gaz. vol. 148; p. 1061.
Livermore & Knight Company. (See Holt, W. O., assignor.)
Livingston, C. C., Faribault, Minn. Garment-holder. No. 939,606; Nov. 9; Sp. p. 2575; Gaz. vol. 148; p. 423.
Livingston, J. B., New Haven, Conn. Percolator. No. 939,281; Nov. 9; Sp. p. 1809; Gaz. vol. 148; p. 313.
Locke, A. J., *et al.* (See Pitts, E. L., assignor.)
Locke, N. A., assignor to Hunter Fan & Motor Company, Fulton, N. Y. Electric-motor fan. No. 939,723; Nov. 9; Sp. p. 2809; Gaz. vol. 148; p. 465.
Locklin, G. C., Hammond, Ind. Folding strap or brace. No. 938,674; Nov. 2; Sp. p. 511; Gaz. vol. 148; p. 78.
Lockwood, A. D., Peekskill, N. Y. Brush-guard. No. 939,522; Nov. 9; Sp. p. 2375; Gaz. vol. 148; p. 394.
Lockwood, B. F., Lyons, N. Y. Silo. No. 940,170; Nov. 16; Sp. p. 3824; Gaz. vol. 148; p. 649.
Lockwood, H. S., South Norwalk, Conn. Door-knob. No. 938,776; Nov. 2; Sp. p. 697; Gaz. vol. 148; p. 112.
Lockwood, M. H., New York, N. Y., assignor to Union Typewriter Company, Jersey City, N. J. Writing and adding machine. No. 940,037; Nov. 16; Sp. p. 3486; Gaz. vol. 148; p. 602.
Locomotive Tender Frame Company. (See Howard, C. H., assignor.)
Loeb, H., New York, N. Y. Belting. No. 939,724; Nov. 9; Sp. p. 2811; Gaz. vol. 148; p. 465.
Loeffler, G., Tampa, Fla. Horseshoe. No. 940,337; Nov. 16; Sp. p. 4201; Gaz. vol. 148; p. 708.
Loewer, H. F., Rochester, N. Y. Last. No. 941,373; Nov. 30; Sp. p. 6455; Gaz. vol. 148; p. 1099.
Logan, C. E., and A. R. Barnett, Mill Grove, Mo. Automatic device for attaching and releasing plow-points. No. 941,933; Nov. 30; Sp. p. 7656; Gaz. vol. 148; p. 1289.
Lombardo, R., Genoa, Italy. Syringe for hypodermic and intramuscular injections. No. 938,597; Nov. 2; Sp. p. 355; Gaz. vol. 148; p. 53.

Long, C. E. (See Long, F. R. and C. E.)
Long, C. O. (See Heatherington and Long.)
Long, C. W. (See Reinoehl and Long.)
Long, E. M., assignor to Standard Optical Company, Geneva, N. Y. Machine for grinding the surfaces of lenses. No. 940,978; Nov. 23; Sp. p. 5589; Gaz. vol. 148; p. 946.
Long, F. R., Milton, and C. E. Long, Williamsport, assignors to American Forged Nut Company, Bloomsburg, Pa. Nut-making machine. No. 938,598; Nov. 2; Sp. p. 356; Gaz. vol. 148; p. 53.
Long, F. R. and C. E., Williamsport, assignors to American Forged Nut Company, Bloomsburg, Pa. Nut-making machine. No. 938,599; Nov. 2; Sp. p. 360; Gaz. vol. 148; p. 53.
Loomis, B., Hartford, Conn. Apparatus for manufacturing gas. No. 939,282; Nov. 9; Sp. p. 1811; Gaz. vol. 148; p. 313.
Loomis, W. A., Ilion, N. Y. Automatic speed-controller. No. 940,979; Nov. 23; Sp. p. 5593; Gaz. vol. 148; p. 947.
Loop, J. Z., Philadelphia, Pa., and G. R. J. Newman, Washington, D. C. Stock-feeder. No. 940,549; Nov. 16; Sp. p. 4658; Gaz. vol. 148; p. 776.
Lorenz, W. A., Hartford, Conn., assignor of one-half to Beech-Nut Packing Company, Canajoharie, N. Y., and one-fourth to W. H. Honiss, Hartford, Conn. Jar-tray. No. 938,675; Nov. 2; Sp. p. 513; Gaz. vol. 148; p. 78.
Loshbough, A. W., assignor to Sturgis Steel Go-Cart Company, Sturgis, Mich. Folding baby-carriage. No. 941,374; Nov. 30; Sp. p. 6456; Gaz. vol. 148; p. 1099.
Lothrop, F. B., South Acton, Mass. Protector for carboys. No. 939,283; Nov. 9; Sp. p. 1814; Gaz. vol. 148; p. 313.
Loud, H. S., New York, N. Y., and J. Panter, Stretford, Manchester, England, assignors to Westinghouse Machine Company. Turbine-blade. No. 941,375; Nov. 30; Sp. p. 6461; Gaz. vol. 148; p. 1100.
Louden, W. (See Neller and Louden.)
Loudon, W. A., Chicago, Ill., assignor to General Electric Company. Turbine-controller. No. 941,426; Nov. 30; Sp. p. 6593; Gaz. vol. 148; p. 1117.
Loughlin, T., New Kensington, Pa. Nut-lock. No. 940,605; Nov. 16; Sp. p. 4785; Gaz. vol. 148; p. 797.
Louis E. Marsh Company. (See Marsh, L. E., assignor.)
Louisville Filler Company. (See Falls and Williams, assignors.)
Love, T. J., Lincoln, Ill. Stalk-cutter. No. 940,171; Nov. 16; Sp. p. 3826; Gaz. vol. 148; p. 650.
Lovejoy, C. C., New York, N. Y. Clothes-line hanger. No. 939,045; Nov. 2; Sp. p. 1280; Gaz. vol. 148; p. 206.
Lovekin, L. D., and P. M. Young, Philadelphia, and H. Krapp, Reading, Pa. Hatch-cover and operating means therefor. No. 941,526; Nov. 30; Sp. p. 6788; Gaz. vol. 148; p. 1150.
Loveland, W. A., Minneapolis, Minn. Key-fastener. No. 939,607; Nov. 9; Sp. p. 2577; Gaz. vol. 148; p. 423.
Lovett, A., Philadelphia, Pa. Clothes-wringer. No. 942,001; Nov. 30; Sp. p. 7784; Gaz. vol. 148; p. 1311.
Lowe, S., Bridgeport, Conn. Tool-holder. No. 938,600; Nov. 2; Sp. p. 364; Gaz. vol. 148; p. 54.
Lowenstein, H. C., Oakland, Md. Boot and shoe polishing machine. No. 939,725; Nov. 9; Sp. p. 2812; Gaz. vol. 148; p. 465.
Lucas, C. O., assignor to Lucas Pump Co., Dayton, Ohio. Milk-pump. No. 940,651; Nov. 16; Sp. p. 4884; Gaz. vol. 148; p. 813.
Lucas Pump Co. (See Lucas, C. O., assignor.)
Lucas, R., Blackheath, assignor to Valveless Limited, London, England. Internal-combustion engine. No. 941,376; Nov. 30; Sp. p. 6463; Gaz. vol. 148; p. 1100.
Luce Manufacturing Company. (See Luce, T. C., assignor.)
Luce, T. C., assignor to Luce Manufacturing Company, Dalton, Mass. Self-adjusting easter. No. 941,082; Nov. 23; Sp. p. 5818; Gaz. vol. 148; p. 982.
Lucius, F. J., *et al.* (See Wallace, R. H., assignor.)
Luckenbach, R., Colwyn, Pa., assignor to Borindum Extraction Company. Means for the concentration by amalgamation of values of metallic ore matter. No. 938,676; Nov. 2; Sp. p. 515; Gaz. vol. 148; p. 79.
Ludwick, W. D., assignor to Northwest Metallurgical Company, Seattle, Wash. Magnetic ore-separator. No. 939,523; Nov. 9; Sp. p. 2376; Gaz. vol. 148; p. 394.
Ludy, J. E., *et al.* (See Pitts, E. L., assignor.)
Luebkert, O. H., assignor to Saladin Pneumatic Malting Construction Company, Chicago, Ill. Malt-kiln. No. 940,172; Nov. 16; Sp. p. 3828; Gaz. vol. 148; p. 650.
Luethy, F. C., assignor of one-half to W. L. Ultsch, Chicago, Ill. Skirt-marker. No. 938,677; Nov. 2; Sp. p. 517; Gaz. vol. 148; p. 79.
Lundberg, P. G. C., Wernamo, Sweden. Protecting arrangement for rotary tools. No. 941,427; Nov. 30; Sp. p. 6597; Gaz. vol. 148; p. 1118.
Lüngen, A., New York, N. Y., assignor to Edwards & Company. Binding-post. No. 940,397; Nov. 16; Sp. p. 4360; Gaz. vol. 148; p. 729.
Lunstrum, L., Council Bluffs, Iowa. Air-flue blower. No. 938,495; Nov. 2; Sp. p. 107; Gaz. vol. 148; p. 17.
Lüring, N., Hanover, assignor to Gebrüder Körting Actiengesellschaft, Körtingsdorf, near Hanover, Germany. Production of soap powder. No. 940,398; Nov. 16; Sp. p. 4361; Gaz. vol. 148; p. 729.
Lusse, J. (See Lusse, R. and J.)
Lusse, R. and J., Philadelphia, Pa. Friction-driving mechanism. No. 939,046; Nov. 2; Sp. p. 1282; Gaz. vol. 148; p. 206.
Luther Bros. Co. (See Thompson, J. M., assignor.)
Lüttringhaus, A. (See Isler, Lüttringhaus, and Diesbach.)
Lutz, G. A., Plainfield, and C. C. Sibley, Perth Amboy, N. J. Receptacle or the like for conduits. No. 941,156; Nov. 23; Sp. p. 5985; Gaz. vol. 148; p. 1007.
Lutz, G. A., Plainfield, N. J., assignor to American Circular Loom Company, Portland, Me. Pipe-cleaning apparatus. No. 939,608; Nov. 9; Sp. p. 2577; Gaz. vol. 148; p. 423.
Lyman, S. W., Roberts, Mont. Railway-rail. No. 941,580; Nov. 30; Sp. p. 6895; Gaz. vol. 148; p. 1167.
Lyman, W. C., *et al.* (See Frost, R. L., assignor.)
Lyneh, E. W., College Park, Ga. Clothes-pounder. No. 940,699; Nov. 23; Sp. p. 5004; Gaz. vol. 148; p. 854.
Lyons, H. C. (See McLean, Lyons, and Clark.)
Lyons, J., Brooklyn, assignor to H. M. Thomas, New York, N. Y. Folding bed. No. 940,038; Nov. 16; Sp. p. 3521; Gaz. vol. 148; p. 603.
Lysaght, C. J., Newark, N. J., assignor to R. Neumann Hardware Co. Machine for cutting and trimming the edges of corner-pieces. No. 939,144; Nov. 2; Sp. p. 1474; Gaz. vol. 148; p. 240.
Lysaght, C. J., Newark, N. J., assignor to R. Neumann Hardware Co. Machine or apparatus for creasing the edges of corner-pieces. No. 939,145; Nov. 2; Sp. p. 1482; Gaz. vol. 148; p. 241.
Lyster, B. R. and M. J., Whitefield, N. H. Apparatus for distilling wood-alcohol and other products. No. 941,641; Nov. 30; Sp. p. 7016; Gaz. vol. 148; p. 1187.
Lyster, M. J. (See Lyster, B. R. and M. J.)
Ma Godoy, J., San Antonio, Tex. Automatic switch. No. 942,033; Nov. 30; Sp. p. 7835; Gaz. vol. 148; p. 1320.
Maas, J., assignor to American Gas Light Company, Kalamazoo, Mich. Needle-valve. No. 938,601; Nov. 2; Sp. p. 365; Gaz. vol. 148; p. 54.
Maas, J., assignor to American Gas Light Company, Kalamazoo, Mich. Incandescent gas-lamp. No. 938,602; Nov. 2; Sp. p. 366; Gaz. vol. 148; p. 54.
Maass, C. H., Bergenfield, N. J., assignor to John Kroder & Henry Reubel Company, New York, N. Y. Curtain-hook. No. 940,642; Nov. 16; Sp. p. 4863; Gaz. vol. 148; p. 809.
MacCormack Drill and Manufacturing Company. (See Hibschle, H. J., assignor.)
MacCrone, W. H. (See Cogswell and MacCrone.)
MacDonald, C. W., assignor of one-third to S. T. MacDonald and one-third to W. H. Davison, Philadelphia, Pa. Paper-box-covering machine. No. 940,541; Nov. 16; Sp. p. 4661; Gaz. vol. 148; p. 776.
MacDonald, S. T., *et al.* (See MacDonald, C. W., assignor.)
MacMahon, J. A., Philadelphia, Pa. Fender or trolley-wheel guard. No. 941,790; Nov. 30; Sp. p. 7347; Gaz. vol. 148; p. 1238.
MacRae, A. W. (See Atkins, W., assignor.)
Macallen Company. (See McCarthy, L., assignor.)
Macbeth, J., Dayton, Ohio. Concrete-wall construction. No. 938,678; Nov. 2; Sp. p. 520; Gaz. vol. 148; p. 79.
Macdonald, H. P., Montclair, assignor to Snead & Company Iron Works, Jersey City, N. J. Sand-rainming machine. No. 941,023; Nov. 23; Sp. p. 5699; Gaz. vol. 148; p. 962.
Mace, J. O., Grundyville, Tex. Fence-post. No. 940,173; Nov. 16; Sp. p. 3831; Gaz. vol. 148; p. 650.
Macfarlane, W. P. A., assignor to R. Fitzgerald, Chicago, Ill. Fluid-pressure brake. No. 941,684; Nov. 30; Sp. p. 7106; Gaz. vol. 148; p. 1201.
Mack, J. A., Salida, Colo. Rotary engine. No. 939,609; Nov. 9; Sp. p. 2580; Gaz. vol. 148; p. 424.
Mackay, E. (See Ferrell and Mackay.)
Mackenzie, W. A. (See Doane and Ceeder, assignors.)
Mackintosh, F., Schenectady, N. Y., assignor to General Electric Company. Combined switch and fuse-plug. No. 940,174; Nov. 16; Sp. p. 3833; Gaz. vol. 148; p. 650.
Madsen, G. C., assignor of one-half to T. T. Schouler, Worcester, Mass. Water-heater. No. 940,980; Nov. 23; Sp. p. 5595; Gaz. vol. 148; p. 947.
Magdiel, J. H., assignor to Magdiel-Morris Manufacturing Company, Salt Lake City, Utah. Composite wall and constructing same. No. 939,726; Nov. 9; Sp. p. 2818; Gaz. vol. 148; p. 466.

Magdiel-Morris Manufacturing Company. (See Magdiel, J. H., assignor.)
Magruder, P. K., San Antonio, Tex. Lock-escutcheon. No. 940,261; Nov. 16; Sp. p. 4009; Gaz. vol. 148; p. 682.
Mahon, E. C., assignor of one-half to A. J. McDade, Dubuque, Iowa. Calendar. No. 941,719; Nov. 30; Sp. p. 7202; Gaz. vol. 148; p. 1214.
Maier, W., assignor of one-third to himself, one-third to S. H. Koopmans, and one-third to H. R. Hoffeld, Buffalo, N. Y. Cushion for the bottoms of chair-legs, &c. No. 938,883; Nov. 2; Sp. p. 941; Gaz. vol. 148; p. 149.
Main, W. F., Salt Lake City, Utah. Variable-speed device. No. 939,427; Nov. 9; Sp. p. 2190; Gaz. vol. 148; p. 363.
Maitland, J. L., Passaic, assignor of one-third to W. A. Callanan, Jersey City, and one-third to C. Rider, Mountainville, N. J. Pneumatic tire. No. 939,428; Nov. 9; Sp. p. 2191; Gaz. vol. 148; p. 364.
Majette, M., Columbia, N. C. Standard attachment for logging-cars. No. 940,262; Nov. 16; Sp. p. 4010; Gaz. vol. 148; p. 683.
Maki, M., Lakota, N. D. Snap-hook. No. 939,727; Nov. 9; Sp. p. 2822; Gaz. vol. 148; p. 466.
Malcom, J. F., Bluffton, assignor of one-half to A. L. Meeks, Montpelier, Ind. Oil-vaporizer. No. 940,981; Nov. 23; Sp. p. 5597; Gaz. vol. 148; p. 948.
Mallory, D., Edgar, Nebr. Wrench. No. 939,728; Nov. 9; Sp. p. 2823; Gaz. vol. 148; p. 466.
Mallory, D. F. (See Brewington, H. S., assignor.)
Malocsay, F. X., Jersey City, N. J., assignor to W. H. Heulings, Philadelphia, Pa. Car-door. No. 939,919; Nov. 9; Sp. p. 3238; Gaz. vol. 148; p. 533.
Maloney, J. G., Scranton, Pa. Pole-attaching means for vehicles. No. 940,982; Nov. 23; Sp. p. 5598; Gaz. vol. 148; p. 948.
Manbeck, C. B., assignor to Standard Oil Company, Whiting, Ind. Candle-end-forming machine. No. 941,083; Nov. 23; Sp. p. 5820; Gaz. vol. 148; p. 982.
Manganese Steel Rail Company. (See Potter, W. S., assignor.)
Mannes, S. (See Pugatsky, Wilkenfeld, and Mannes.)
Manning, G. C., Portland, Oreg. Automatic knob-operated door-lock. No. 941,327; Nov. 23; Sp. p. 6343; Gaz. vol. 148; p. 1061.
Manon, J. H., St. Joseph, Mo. Refrigerator. No. 940,700; Nov. 23; Sp. p. 5005; Gaz. vol. 148; p. 854.
Mansfield, E. S., Atlanta, Ga. Paper-feed for type-writers. No. 941,889; Nov. 30; Sp. p. 7569; Gaz. vol. 148; p. 1273.
Mantius, O., assignor to Zaremba Company, Chicago, Ill. Rotary discharge-valve. No. 941,024; Nov. 23; Sp. p. 5703; Gaz. vol. 148; p. 962.
Manufacturers Machine Company. (See Glass, P. R., assignor.)
Manufacturers Machine Company. (See Heys, J. J., assignor.)
Manufacturers Machine Company. (See Phelan, M. D., assignor.)
Manufacturers Outlet Co. (See Markstein, S., assignor.)
Manville, F. B. (See Richards, F. H., assignor.)
Maples, C. R., Cleveland, Ohio. Packing-ring. No. 939,047; Nov. 2; Sp. p. 1283; Gaz. vol. 148; p. 206.
Marble, E. C., Chicago, Ill. Variable-speed apparatus. No. 938,679; Nov. 2; Sp. p. 521; Gaz. vol. 148; p. 80.
Marble, W. B., Tacoma, Wash. Propelling and steering device for vessels. No. 940,039; Nov. 16; Sp. p. 3525; Gaz. vol. 148; p. 603.
Marcou, J. N., and J. C. St. Peter, Bay City, Mich. Automatic locating-buoy. No. 941,377; Nov. 30; Sp. p. 6463; Gaz. vol. 148; p. 1101.
Marek, E., Chicago, Ill. Pipe-coupling. No. 939,146; Nov. 2; Sp. p. 1492; Gaz. vol. 148; p. 241.
Marek, L. (See Scheurer and Marek.)
Marengo, W. E., Worcester, assignor of one-half to J. B. Proulx, Southbridge, Mass. Cushion-tire. No. 939,524; Nov. 9; Sp. p. 2370; Gaz. vol. 148; p. 395.
Mark, R. (See Mark, W. and R.)
Mark, W. and R., Durdar, Carlisle, England. Music-turner. No. 939,525; Nov. 9; Sp. p. 2381; Gaz. vol. 148; p. 395.
Marks, H., *et al.* (See Bricken, J., assignor.)
Marks, J., Devonport, New Zealand. Rotary engine. No. 939,729; Nov. 9; Sp. p. 2824; Gaz. vol. 148; p. 467.
Marks, K., *et al.* (See Bricken, J., assignor.)
Marks, W., Pasco, Wash. Display device. No. 940,263; Nov. 16; Sp. p. 4012; Gaz. vol. 148; p. 683.
Markstein, S., assignor, by mesne assignments, to Manufacturers Outlet Co., New York, N. Y. Pneumatic sweeper. No. 941,347; Nov. 23; Sp. p. 6384; Gaz. vol. 148; p. 1067.
Markstein, S., assignor, by mesne assignments, to Manufacturers Outlet Co., New York, N. Y. Pneumatic cleaner. No. 942,037; Nov. 30; Sp. p. 7845; Gaz. vol. 148; p. 1322.
Marlin Firearms Company. (See De Jarnatt, H. W., assignor.)
Marlin Firearms Company. (See Wheeler, J. H., assignor.)
Marlsey, J. N. (See Sawyer, J. H., assignor.)
Marsh, J. G., Manchester, N. H. Finger-pad. No. 942,003; Nov. 30; Sp. p. 7787; Gaz. vol. 148; p. 1311.
Marsh, J. P., Chicago, Ill. Automatic air-valve. No. 941,791; Nov. 30; Sp. p. 7349; Gaz. vol. 148; p. 1239.
Marsh, L. E., assignor to Louis E. Marsh Company, San Francisco, Cal. Loose-leaf book. No. 941,084; Nov. 23; Sp. p. 5822; Gaz. vol. 148; p. 982.
Marsh, W. C., Dunkirk, N. Y. Valve. No. 941,934; Nov. 30; Sp. p. 7658; Gaz. vol. 148; p. 1289.
Marshall, D. A., assignor to C. F. and C. G. Pence, Spokane, Wash. Mold for concrete walls. No. 942,004; Nov. 30; Sp. p. 7788; Gaz. vol. 148; p. 1311.
Marshall, E. B. (See Wilbur and Marshall.)
Marshall, F. W., Yonkers, N. Y., assignor to Otis Elevator Company, Jersey City, N. J. Hydraulic valve. No. 940,643; Nov. 16; Sp. p. 4864; Gaz. vol. 148; p. 810.
Marshall, J., Covington, assignor of one-half to W. R. Miller, Ripley, Tenn. Hand-car. No. 940,175; Nov. 16; Sp. p. 3834; Gaz. vol. 148; p. 651.
Marshall, N. (See Sanford and Marshall.)
Marthinson, C., Washington, D. C. Machine for making paper receptacles. No. 941,085; Nov. 23; Sp. p. 5824; Gaz. vol. 148; p. 983.
Martin, C. A., Racine, Wis. Spark-plug. No. 941,157; Nov. 23; Sp. p. 5986; Gaz. vol. 148; p. 1007.
Martin, C. E., administrator. (See Martin, J. A.)
Martin, F., and M. V. Haskins, Worcester, Mass. Riddle or sieve. No. 940,338; Nov. 16; Sp. p. 4203; Gaz. vol. 148; p. 708.
Martin, G. B., Marietta, Ohio. Nut-lock. No. 939,048; Nov. 2; Sp. p. 1284; Gaz. vol. 148; p. 207.
Martin, J. A., deceased, Toledo, Ohio; C. E. Martin, administrator. Lubricator. No. 940,339; Nov. 16; Sp. p. 4205; Gaz. vol. 148; p. 708.
Martin, J. H., Roanoke, Va. Optometer. No. 941,581; Nov. 30; Sp. p. 6897; Gaz. vol. 148; p. 1167.
Martin, R. E., Newark, N. J. Adjustable and detachable handle for saws. No. 938,680; Nov. 2; Sp. p. 522; Gaz. vol. 148; p. 80.
Martin, S. L., Oklahoma, Okla. Cotton-chopper. No. 939,429; Nov. 9; Sp. p. 2192; Gaz. vol. 148; p. 364.
Martin, W. H., assignor of one-fourth to E. Cook, Geyserville, Cal. Revolving suspension wagon-rack. No. 939,147; Nov. 2; Sp. p. 1493 Gaz. vol. 148; p. 242.
Marty, M. M., McGregor, Iowa. Wire-stretcher. No. 940,884; Nov. 23; Sp. p. 5402; Gaz. vol. 148; p. 915.
Mary, F. L., Chehalis, Wash. Folding crate. No. 941,202; Nov. 23; Sp. p. 6094; Gaz. vol. 148; p. 1022.
Marzluff, F. (See Koper, W. F., assignor.)
Mason, C. T., assignor to Sumter Telephone Mfg. Co., Sumter, S. C. Lightning-arrester. No. 940,176; Nov. 16; Sp. p. 3835; Gaz. vol. 148; p. 651.
Mason, H. M., and F. Ohe, Oakland, Cal. Rail-fastening device. No. 941,264; Nov. 23; Sp. p. 6221; Gaz. vol. 148; p. 1043.
Mason, R. L., *et al.* (See McCabe, J. D., assignor.)
Mason, W. J., Daphne, Ala. Horse-tail tether. No. 940,937; Nov. 23; Sp. p. 5518; Gaz. vol. 148; p. 934.
Matcham, C. A., Allentown, assignor to Fuller Engineering Company, Catasauqua, Pa. Kiln. No. 939,049; Nov. 2; Sp. p. 1285; Gaz. vol. 148; p. 207.
Matheson, E., *et al.* (See Curtiss, E., assignor.)
Matheson, M. L., *et al.* (See Curtiss, E., assignor.)
Mathews, C. E., Doylestown, Wis. Attachment for stovepipes. No. 940,542; Nov. 16; Sp. p. 4669; Gaz. vol. 148; p. 776.
Matosin, N. M. (See Mestrovich, C., assignor.)
Mattern, E. O., Portland, Oreg. Automatic prescription-lens-grinding machine. No. 939,845; Nov. 9; Sp. p. 3066; Gaz. vol. 148; p. 506.
Matthews, G. B., assignor of one-half to W. B. Matthews, Washington, D. C. Puzzle. No. 939,050; Nov. 2; Sp. p. 1287; Gaz. vol. 148; p. 207.
Matthews, H., Kidderminster, England. Pork or like scorer. No. 939,846; Nov. 9; Sp. p. 3070; Gaz. vol. 148; p. 507.
Matthews, J. L., Boise, Idaho. Saw attachment. No. 939,051; Nov. 2; Sp. p. 1288; Gaz. vol. 148; p. 207.
Matthews, J. L., San Diego, Cal. Wave-motor. No. 938,681; Nov. 2; Sp. p. 524; Gaz. vol. 148; p. 80.
Matthews, W. B. (See Matthews, G. B., assignor.)
Mausolff, P., Frankfort-on-the-Main, Germany, assignor to Roessler and Hassiacher Chemical Co., New York, N. Y. Substitute for soap for washing, cleaning, and bleaching purposes. No. 941,158; Nov. 23; Sp. p. 5988; Gaz. vol. 148; p. 1007.
Max Ams Machine Company. (See Brenzinger, J., assignor.)
Maxim, H. P., Hartford, Conn., assignor to Maxim Silent Firearms Company, New York, N. Y. Sand-box for rifle practice. No. 941,642; Nov. 30; Sp. p. 7017; Gaz. vol. 148; p. 1187.
Maxim Silent Firearms Company. (See Maxim, H. P., assignor.)
Maxwell, B. C., assignor to J. Whiting, Jr., trustee, Canton, Ohio. Manifolding-pad. No. 939,148; Nov. 2; Sp. p. 1494; Gaz. vol. 148; p. 242.
Maxwell, B. C., assignor to J. Whiting, Jr., trustee, Canton, Ohio. Manifolding-book. No. 939,149; Nov. 2; Sp. p. 1496; Gaz. vol. 148; p. 242.
Maxwell, B. C., assignor to J. Whiting, Jr., trustee, Canton Ohio. Manifolding book or pad. No. 939,150; Nov. 2; Sp. p. 1498; Gaz. vol. 148; p. 243.

Maxwell, B. C., assignor to J. Whiting, Jr., trustee, Canton, Ohio. Manifolding book or pad. No. 939,151; Nov. 2; Sp. p. 1500; Gaz. vol. 148; p. 243.
Maxwell, W. C., Ocala, Fla. Railway-track-tamping machine. No. 939,847; Nov. 9; Sp. p. 3071; Gaz. vol. 148; p. 507.
Mayer, C., St. Louis, Mo. Upright-piano case. No. 940,340; Nov. 16; Sp. p. 4206; Gaz. vol. 148; p. 709.
Mayhew, F. J. (See Taylor, H. H., assignor.)
Maynard Rubber Corporation. (See Whitcher, F. B., assignor.)
Mazalin, J., Passaic, N. J. Envelop. No. 941,328; Nov. 23; Sp. p. 6345; Gaz. vol. 148; p. 1061.
Mazza, E., Turin, Italy. Apparatus for separating the constituent elements of gaseous mixtures. No. 940,885; Nov. 23; Sp. p. 5403; Gaz. vol. 148; p. 916.
Mazzanovich, A. L., New York, N. Y. Fender for street-cars. No. 941,527; Nov. 30; Sp. p. 6793; Gaz. vol. 148; p. 1151.
McAfee, C. D., Burgettstown, Pa. Rail fastener and bond. No. 941,332; Nov. 23; Sp. p. 6352; Gaz. vol. 148; p. 1063.
McAllister, J., C. G. Anderson, and B. H. Hawkins, Buffalo, N. Y. Sliding-door fastener. No. 941,379; Nov. 30; Sp. p. 6471; Gaz. vol. 148; p. 1101.
McAlpine, L. B., assignor to Climax Road Machine Co., Marathon, N. Y. Hitching and steering device. No. 941,939; Nov. 30; Sp. p. 7666; Gaz. vol. 148; p. 1291.
McBean, G. B., Chicago, Ill. Coupling. No. 941,031; Nov. 23; Sp. p. 5716; Gaz. vol. 148; p. 964.
McBerty, F. R., Evanston, Ill., assignor to Burroughs Adding Machine Company, Detroit, Mich. Adding-machine. No. 938,501; Nov. 2; Sp. p. 117; Gaz. vol. 148; p. 19.
McCabe, J. D., assignor of one-third to R. L. Mason and one-third to B. Laurence, Woodbury, Tenn. Buggy-shaft support. No. 939,552; Nov. 9; Sp. p. 3082; Gaz. vol. 148; p. 509.
McCalib, D. C., El Paso, Tex. Railway-switch. No. 941,089; Nov. 23; Sp. p. 5830; Gaz. vol. 148; p. 984.
McCall, O. F., and C. L. Taft, Tacoma, Wash. Curtain-hook. No. 939,664; Nov. 2; Sp. p. 1312; Gaz. vol. 148; p. 212.
McCallister, C. A., Marietta, Wash. Nautical instrument. No. 938,780; Nov. 2; Sp. p. 704; Gaz. vol. 148; p. 114.
McCarthy, J., *et al.* (See Prendergast, W. H., assignor.)
McCarthy, L., assignor to Mcallen Company, Boston, Mass. Manufacturing insulators. No. 941,032; Nov. 23; Sp. p. 5718; Gaz. vol. 148; p. 965.
McCarthy, L. R., and J. C. Vroman, Spartansburg, Pa. Plunger mechanism for oil-wells. No. 940,347; Nov. 16; Sp. p. 4219; Gaz. vol. 148; p. 711.
McCarty, N., assignor to Atlas Engine Works, Indianapolis, Ind. Pump. No. 940,703; Nov. 23; Sp. p. 5009; Gaz. vol. 148; p. 855.
McCarty, N., assignor to Atlas Engine Works, Indianapolis, Ind. Pump. No. 940,704; Nov. 23; Sp. p. 5011; Gaz. vol. 148; p. 856.
McCaskill, T. L., Albany, Ga. Reversing-gearing. No. 940,889; Nov. 23; Sp. p. 5415; Gaz. vol. 148; p. 917.
McCauley, F. L. (See Elkins, A. F., assignor.)
McClure, C. F., and W. I. Shuman, Sullivan, Ill. Light-cabinet. No. 940,544; Nov. 16; Sp. p. 4672; Gaz. vol. 148; p. 777.
McClure, E., assignor of one-half to F. P. Smith, Chicago, Ill. Grating, screen, screen-door construction, and the like. No. 942,039; Nov. 30; Sp. p. 7850; Gaz. vol. 148; p. 1322.
McComb, J. S., Dobbs Ferry, N. Y. Extensible post for loose-leaf binders. No. 940,705; Nov. 23; Sp. p. 5012; Gaz. vol. 148; p. 856.
McComb, J. S., Dobbs Ferry, N. Y. Loose-leaf binder. No. 940,706; Nov. 23; Sp. p. 5014; Gaz. vol. 148; p. 856.
McComb, J. S., Dobbs Ferry, N. Y. Support for loose-leaf binders. No. 940,707; Nov. 23; Sp. p. 5015; Gaz. vol. 148; p. 857.
McCord, L. A., Laurens, S. C. Reed-organ. No. 939,065; Nov. 2; Sp. p. 1313; Gaz. vol. 148; p. 212.
McCormick, J. S., deceased, West Millgrove, Ohio; S. Yates, administratrix. Revolving safe. No. 941,940; Nov. 30; Sp. p. 7667; Gaz. vol. 148; p. 1291.
McCoy, M. H., assignor of one-half to W. H. Dean, Coshocton, Ohio. Nut-lock. No. 940,267; Nov. 16; Sp. p. 4019; Gaz. vol. 148; p. 684.
McCrary, J. W., *et al.* (See Mitchell, C. B., assignor.)
McCrery, C. T., Vancouver, British Columbia, Canada. Sugar-bowl. No. 939,066; Nov. 2; Sp. p. 1315; Gaz. vol. 148; p. 213.
McCulley, A. F., Frisco, Utah. Paper-roll attachment for type-writers. No. 938,885; Nov. 2; Sp. p. 943; Gaz. vol. 148; p. 149.
McCulloch, G., East St. Louis, Ill., assignor to Aluminum Company of America, Niagara Falls, N. Y. Manufacture of alumina. No. 941,799; Nov. 30; Sp. p. 7364; Gaz. vol. 148; p. 1241.
McDade, A. J. (See Mahon, E. C., assignor.)
McDevitt, F. H., Easthampton, Mass., and A. Walton, Charlotte, N. C., assignors of one-third to G. A. Ayer, Easthampton, Mass. Speed-changing device for spinning-machines. No. 941,645; Nov. 30; Sp. p. 7022; Gaz. vol. 148; p. 1188.
McDonald, C., *et al.* (See Huck, W., assignor.)
McDonald, W. A., Grampian, Pa. Switch for incandescent-lamp sockets. No. 941,941; Nov. 30; Sp. p. 7669; Gaz. vol. 148; p. 1291.
McDonnell, H. E., Leominster, Mass. Electric controlling and signaling system for railways. No. 939,154; Nov. 2; Sp. p. 1509; Gaz. vol. 148; p. 244.
McDonough, M. T., Beckley, W. Va. Mine-ventilator. No. 938,781; Nov. 2; Sp. p. 706; Gaz. vol. 148; p. 114.
McDowell, G. H. (See O'Leary, J., assignor.)
McDowell, J. A. (See Scott, S. J., assignor.)
McElroy, J. F., assignor to Consolidated Car-Heating Company, Albany, N. Y. Car-heater. No. 942,040; Nov. 30; Sp. p. 7852; Gaz. vol. 148; p. 1323.
McElroy, J. H., Chicago, Ill. Voting-machine. No. 941,800; Nov. 30; Sp. p. 7365; Gaz. vol. 148; p. 1242.
McElroy, J. H., Chicago, Ill. Interlocking mechanism for voting-machines. No. 941,801; Nov. 30; Sp. p. 7373; Gaz. vol. 148; p. 1242.
McElroy, J. H., Chicago, Ill. Voting-machine. No. 941,802; Nov. 30; Sp. p. 7379; Gaz. vol. 148; p. 1242.
McEvoy, M., Neola, Iowa. Four-horse doubletree. No. 939,534; Nov. 9; Sp. p. 2400; Gaz. vol. 148; p. 398.
McEwen, F. E. (See Palmer, H. R., assignor.) (Reissue.)
McFarland, C. N., assignor to Adder Machine Company, Kingston, Pa. Keyboard-locking mechanism for adding-machines. No. 940,708; Nov. 23; Sp. p. 5017; Gaz. vol. 148; p. 857.
McFarland, C. N., Dorranceton, assignor to Adder Machine Company, Kingston, Pa. Adding-machine. No. 940,709; Nov. 23; Sp. p. 5022; Gaz. vol. 148; p. 857.
McFarland, G. L., assignor of one-fourth to J. V. McFarland and one-fourth to S. Roman, Butler, Okla. Railway-switch. No. 940,646; Nov. 16; Sp. p. 4874; Gaz. vol. 148; p. 811.
McFarland, J. V., *et al.* (See McFarland, G. L., assignor.)
McFarland, L., assignor of one-half to J. J. Fitzgerald, Pittsburg, Pa. Metallic tie and rail-fastener. No. 939,067; Nov. 2; Sp. p. 1316; Gaz. vol. 148; p. 213.
McGann, T. F., Somerville, Mass., assignor, by mesne assignments, to O. A. Miller Treeing Machine Company, Portland, Me. Holder for boot and shoe forms. No. 941,723; Nov. 30; Sp. p. 7208; Gaz. vol. 148; p. 1215.
McGehee, J. H. (See Towle, H. P., assignor.)
McGrath, H. B., East Cleveland, Ohio. Grass-catcher. No. 939,068; Nov. 2; Sp. p. 1318; Gaz. vol. 148; p. 214.
McGregor, W. A., Bradford, Pa. Well-pump. No. 940,545; Nov. 16; Sp. p. 4675; Gaz. vol. 148; p. 778.
McGuiness, B. F., Worcester, Mass., assignor to Crompton & Knowles Loom Works. Weaving. No. 938,502; Nov. 2; Sp. p. 121; Gaz. vol. 148; p. 19.
McGuiness, B. F., Worcester, Mass., assignor to Crompton & Knowles Loom Works. Filling-thread-cutting device for weft-replenishing looms. No. 939,433; Nov. 9; Sp. p. 2197; Gaz. vol. 148; p. 365.
McIlwain, J., Okawville, Ill. Nut-lock. No. 938,503; Nov. 2; Sp. p. 123; Gaz. vol. 148; p. 20.
McIntosh, J. M., Warren, Ohio. Ventilating-chimney. No. 940,348; Nov. 16; Sp. p. 4220; Gaz. vol. 148; p. 711.
McIntosh Stereopticon Company. (See Hoy, P. R., assignor.)
McIntyre, J. J., assignor of one-half to F. F. Elsele, Ironton, Ohio. Signal-lantern. No. 941,803; Nov. 30; Sp. p. 7385; Gaz. vol. 148; p. 1243.
McKain, F., Cleveland, Ohio. Bag-closure. No. 939,736; Nov. 9; Sp. p. 2844; Gaz. vol. 148; p. 469.
McKee, G. W., Chicago, Ill. Metal-melting hydrocarbon-burning furnace. No. 940,710; Nov. 23; Sp. p. 5025; Gaz. vol. 148; p. 858.
McKee, W. J., assignor to Imperial Cash Register Company, Detroit, Mich. Cash-register. No. 940,816; Nov. 23; Sp. p. 5267; Gaz. vol. 148; p. 894.
McKeen, W. R., Jr., Omaha, Nebr., assignor to E. H. Harriman, Arden, N. Y. Engine-valve. No. 940,349; Nov. 16; Sp. p. 4223; Gaz. vol. 148; p. 712.
McKelvey, E. N. (See Eells and McKelvey.)
McKenzie, G., Bay City, Mich. Saw-filing clamp. No. 940,045; Nov. 16; Sp. p. 3538; Gaz. vol. 148; p. 605.
McKenzie, W. H. (See Knapp, W. H., assignor.)
McKernan, F. M., assignor of one-half to J. E. Stacey, Cincinnati, Ohio. Construction of glass-molds. No. 941,584; Nov. 30; Sp. p. 6903; Gaz. vol. 148; p. 1168.
McKesson, C. L., and O. S. Black, Colorado Springs, Colo. Ore-concentrator. No. 941,333; Nov. 23; Sp. p. 6353; Gaz. vol. 148; p. 1063.
McKibbin, J., New York, N. Y. Machine for applying paste to cardboard, &c. No. 941,530; Nov. 30; Sp. p. 6799; Gaz. vol. 148; p. 1151.
McKnight, F. W., assignor of one-half to J. B. Krimminger, Los Angeles, Cal. Pipe-riveting machine. No. 940,608; Nov. 16; Sp. p. 4788; Gaz. vol. 148; p. 798.
McKoy, E. A., New Orleans, La. Turpentine-cup. No. 941,724; Nov. 30; Sp. p. 7210; Gaz. vol. 148; p. 1216.
McLane, H., assignor of one-half to E. W. Wilde, Bangor, Me. Hod. No. 940,350; Nov. 16; Sp. p. 4226; Gaz. vol. 148; p. 713.
McLaughlin, J. C., Jersey City, N. J., assignor to Underwood Typewriter Company, New York, N. Y. Type-writing machine. No. 941,166; Nov. 23; Sp. p. 6006; Gaz. vol. 148; p. 1010.

McLean, J. E., Plum township, Allegheny county, Pa. Attachment for faucets and spigots. No. 939,069; Nov. 2; Sp. p. 1320; Gaz. vol. 148; p. 214.
McLean, W. J., Everett, Mass. Amusement device. No. 941,334; Nov. 23; Sp. p. 6356; Gaz. vol. 148; p. 1063.
McLean, W. T., H. C. Lyons, and C. R. Clark, Alexandria, Va. Pump. No. 940,817; Nov. 23; Sp. p. 5273; Gaz. vol. 148; p. 894.
McLellan, H. R. (See Mowry, A. L., assignor.)
McMasters, A. H., assignor of one-half to M. Hertzberg, Bellaire, Ohio. Train hose-coupling. No. 939,070; Nov. 2; Sp. p. 1321; Gaz. vol. 148; p. 214.
McMeen & Miller. (See Hulfish, D. S., assignor.)
McMillan, C. W., *et al.* (See Bickle and McMillan, assignors.)
McMillan, M. (See Bickle and McMillan.)
McNamara, J., Montreal, Quebec, Canada, assignor to Merganthaler Linotype Company. Line-casting machine. No. 939,291; Nov. 9; Sp. p. 1836; Gaz. vol. 148; p. 316.
McPhee, C. D., Arnprior, and J. Gillies, Braeside, Ontario, Canada. Electric time-fuse. No. 939,155; Nov. 2; Sp. p. 1511; Gaz. vol. 148; p. 245.
McQuitty, L. E., Mulvane, Kans. Corn-planter. No. 939,853; Nov. 9; Sp. p. 3084; Gaz. vol. 148; p. 509.
McRae, W., Eastman, Ga. Mixing-machine. No. 941,267; Nov. 23; Sp. p. 6226; Gaz. vol. 148; p. 1043.
McVoy, V. P., Mobile, Ala. Hose-coupling. No. 939,434; Nov. 9; Sp. p. 2200; Gaz. vol. 148; p. 366.
McVoy, V. P., Mobile, Ala. Hose-coupling. No. 939,435; Nov. 9; Sp. p. 2202; Gaz. vol. 148; p. 366.
McVoy, V. P., Mobile, Ala. Hose-coupling. No. 939,436; Nov. 9; Sp. p. 2205; Gaz. vol. 148; p. 366.
McVoy, V. P., Mobile, Ala. Hose-coupling. No. 939,437; Nov. 9; Sp. p. 2209; Gaz. vol. 148; p. 367.
Mead, P. J., Morenci, Mich. Brick-machine. No. 940,177; Nov. 16; Sp. p. 3836; Gaz. vol. 148; p. 651.
Meade, J. (See Sydeman and Meade.)
Medart, E. J., executor. (See Medart, F.)
Medart, F., deceased; E. J. Medart, executor, assignor to Fred Medart Manufacturing Company, St. Louis, Mo. Caster for gymnasium apparatus. No. 940,606; Nov. 16; Sp. p. 4785; Gaz. vol. 148; p. 797.
Meek, R. H. (See Krieger, A. W., assignor.)
Meeker, W. P., Maplewood, N. J. Block-tiling machine. No. 941,792; Nov. 30; Sp. p. 7351; Gaz. vol. 148; p. 1239.
Meeker, W. P., Maplewood, and M. S. Drake, Newark, N. J. Machine for molding tile-faced blocks. No. 940,983; Nov. 23; Sp. p. 5599; Gaz. vol. 148; p. 948.
Meeks, A. L. (See Malcom, J. F., assignor.)
Meier, A. J., Glendale, Mo. Lining for storage-battery jars. No. 941,720; Nov. 30; Sp. p. 7203; Gaz. vol. 148; p. 1214.
Meilink Manufacturing Company. (See Reynolds, W. H., assignor.)
Melesdy, J. T., Newark, N. J. Outlet-box. No. 938,682; Nov. 2; Sp. p. 525; Gaz. vol. 148; p. 80.
Mentzer, W. Y., assignor to Oliver Machinery Company, Grand Rapids, Mich. Quick-acting woodworking-vise. No. 939,284; Nov. 9; Sp. p. 1816; Gaz. vol. 148; p. 314.
Menzl, J., and B. L. Schwartz, Dayton, Ohio. Drip-pan. No. 940,040; Nov. 16; Sp. p. 3527; Gaz. vol. 148; p. 604.
Mercader, C., deceased; E. Mercader, administrator, assignor to H. Laub, trustee, Pittsburg, Pa. Forging-press. No. 939,920; Nov. 9; Sp. p. 3239; Gaz. vol. 148; p. 534.
Mercader, E., administrator. (See Mercader, C.)
Merchant & Evans Co. (See Rose, J. M., assignor.)
Meredith, Z. A., Elkhart, Ind. Cornet. No. 939,285; Nov. 9; Sp. p. 1817; Gaz. vol. 148; p. 314.
Mergenthaler Linotype Company. (See Dodge, P. T., assignor.)
Mergenthaler Linotype Company. (See Johannesen, F., assignor.)
Mergenthaler Linotype Company. (See McNamara, J., assignor.)
Mergenthaler Linotype Company. (See Mergenthaler, O., assignor.)
Mergenthaler Linotype Company. (See Rogers, J. R., assignor.)
Mergenthaler, O., deceased; Safe Deposit and Trust Company of Baltimore and A. Greenleaf, executors, Baltimore, Md., assignors to Mergenthaler Linotype Company. Typographic machine or machine of like character. No. 940,071; Nov. 16; Sp. p. 3597; Gaz. vol. 148; p. 615.
Merkel, W. B., New York, N. Y., assignor to J. S. S. Fulton, Fullerton, Pa. Furnace. No. 939,526; Nov. 9; Sp. p. 2382; Gaz. vol. 148; p. 395.
Merkle, O. T., Paris, Ill. Broom-head cover. No. 939,052; Nov. 2; Sp. p. 1290; Gaz. vol. 148; p. 208.
Merklen, B., assignor to B. Merklen, Jr., Brooklyn, N. Y. Bowling-pin. No. 940,341; Nov. 16; Sp. p. 4208; Gaz. vol. 148; p. 709.
Merrick, F. W., assignor to Union Lock Stitch Company, Boston, Mass. Lock-stitch sewing-machine. No. 939,152; Nov. 2; Sp. p. 1501; Gaz. vol. 148; p. 243.
Merrill, W. L., Schenectady, N. Y., assignor to General Electric Company. Automatic control of water-tight doors. No. 941,428; Nov. 30; Sp. p. 6598; Gaz. vol. 148; p. 1118.
Merritt & Company. (See Holden, G., assignor.)
Merry, C. L., Kansas City, Mo. Eyeglass-guard. No. 939,527; Nov. 9; Sp. p. 2387; Gaz. vol. 148; p. 396.
Mesinger, H., New York, N. Y. Air-ship. No. 940,701; Nov. 23; Sp. p. 5006; Gaz. vol. 148; p. 855.
Mestrovich, C., assignor to N. M. Matosin, Portland, Oreg. Ambulance. No. 938,496; Nov. 2; Sp. p. 109; Gaz. vol. 148; p. 17.
Metallic Sheathing Company. (See Berg, L. J., assignor.)
Metallic Sheathing Company. (See Dunbar and Berg, assignors.)
Meter, W. F., and W. L. Rideout, assignors to Electrical Manufacturing Company, Oshkosh, Wis. Automatic electric-circuit breaker. No. 939,730; Nov. 9; Sp. p. 2828; Gaz. vol. 148; p. 467.
Meyer, E. W. (See Smith and Meyer.)
Meyer, F., Oak Park, Ill. Piano-action. No. 940,264; Nov. 16; Sp. p. 4014; Gaz. vol. 148; p. 683.
Meyer, G. J., Milwaukee, Wis. Bottler's apparatus. No. 940,178; Nov. 16; Sp. p. 3838; Gaz. vol. 148; p. 652.
Meyer, H., New York, N. Y. Adjustable piano-pedal connection. No. 939,053; Nov. 2; Sp. p. 1291; Gaz. vol. 148; p. 208.
Meyer, J. W., Freeport, Ill. Wheel. No. 942,005; Nov. 30; Sp. p. 7790; Gaz. vol. 148; p. 1312.
Meyer, P. J., New York, N. Y. Engraving-machine. No. 940,179; Nov. 16; Sp. p. 3841; Gaz. vol. 148; p. 652.
Meyers, P. P., assignor of one-half to O. K. Cole, Grinnell, Iowa. Electric water-heater. No. 939,054; Nov. 2; Sp. p. 1292; Gaz. vol. 148; p. 208.
Meyers, W. F., New York, N. Y. Stone-cutting machine. No. 939,528; Nov. 9; Sp. p. 2388; Gaz. vol. 148; p. 396.
Meyersberg, G., Berlin, Germany. Compound turbine. No. 941,794; Nov. 30; Sp. p. 7357; Gaz. vol. 148; p. 1240.
Meyrowitz Manufacturing Company. (See Buchhop, F., assignor.)
Michaud, O. E., St. Louis, Mo. Roller-bearing. No. 939,055; Nov. 2; Sp. p. 1294; Gaz. vol. 148; p. 209.
Michaud, O. E., St. Louis, Mo. Roller-bearing. No. 939,056; Nov. 2; Sp. p. 1296; Gaz. vol. 148; p. 209.
Michon, E. A. (See Gerrard, T. H., assignor.)
Midbo, A., and G. Gulbrandson, New York, N. Y. Telltale-bottle. No. 941,890; Nov. 30; Sp. p. 7571; Gaz. vol. 148; p. 1274.
Middleton, H. N., Westville, N. J. Pneumatic separator. No. 940,469; Nov. 16; Sp. p. 4499; Gaz. vol. 148; p. 752.
Midgley, T., Worthington, Ohio. Tire for vehicle-wheels. No. 939,610; Nov. 9; Sp. p. 2581; Gaz. vol. 148; p. 424.
Midgley, T., Worthington, Ohio. Tire for vehicle-wheels. No. 939,611; Nov. 9; Sp. p. 2583; Gaz. vol. 148; p. 424.
Miely, F. J. S., Gunnison, Colo. Gate and door fastener. No. 941,203; Nov. 23; Sp. p. 6096; Gaz. vol. 148; p. 1023.
Milankovitch, M., Vienna, Austria-Hungary. Production of hollow reinforced-concrete slabs. No. 940,041; Nov. 16; Sp. p. 3529; Gaz. vol. 148; p. 604.
Militz, A. E., Leverkusen, near Cologne, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Soluble starch. No. 941,159; Nov. 23; Sp. p. 5990; Gaz. vol. 148; p. 1007.
Mill, A., assignor to C. Mill, Cincinnati, Ohio. Fluid-motor. No. 941,582; Nov. 30; Sp. p. 6900; Gaz. vol. 148; p. 1168.
Mill, C. (See Mill, A., assignor.)
Millar, J. D., Milwaukee, Wis. Flask for sand molds. No. 939,848; Nov. 9; Sp. p. 3074; Gaz. vol. 148; p. 507.
Millar, J. D., Milwaukee, Wis. Molding-flask. No. 939,849; Nov. 9; Sp. p. 3075; Gaz. vol. 148; p. 508.
Miller, A. J., Cleveland, Ohio. Carboy. No. 939,286; Nov. 9; Sp. p. 1821; Gaz. vol. 148; p. 315.
Miller, D. W., Chicago, Ill. Excavating-machine. No. 939,731; Nov. 9; Sp. p. 2831; Gaz. vol. 148; p. 467.
Miller, D. W., Chicago, Ill. Excavating-machine. No. 939,850; Nov. 9; Sp. p. 3077; Gaz. vol. 148; p. 508.
Miller, H., Hansas City, Kans., and G. B. Hallenbeck, Kansas City, Mo. Combined trap-nest and brooder. No. 938,603; Nov. 2; Sp. p. 369; Gaz. vol. 148; p. 55.
Miller, H. C., Waterford, N. Y. Buttonhole-machine. No. 940,042; Nov. 16; Sp. p. 3530; Gaz. vol. 148; p. 604.
Miller, H. C., Waterford, N. Y., assignor, by mesne assignments, to Victor Talking Machine Company, Camden, N. J. Combined stand and horn for talking-machines. (Reissue.) No. 13,044; Nov 23; Sp p. 6404; Gaz. vol. 148; p 1071.
Miller, H. C., Waterford, N. Y. Collar. No. 941,795; Nov. 30; Sp. p. 7358; Gaz. vol. 148; p. 1240.
Miller, H. G., assignor to Ideal Filter Company, Cleveland, Ohio. Press. No. 939,732; Nov. 9; Sp. p. 2837; Gaz. vol. 148; p. 468.
Miller, H. S., Elizabeth, N. J., assignor to Diehl Manufacturing Company. Brush for dynamo-electric machines. No. 938,604; Nov. 2; Sp. p. 370; Gaz. vol. 148; p. 55.
Miller, J., Cleveland, Ohio. Cabinet for bill-files. No. 941,025; Nov. 23; Sp. p. 5706; Gaz. vol. 148; p. 963.

Miller, J., assignor to James B. Clow & Sons, Chicago, Ill. Mechanism for operating the outlet-valves of washbasins, bath-tubs, or other receptacles. No. 941,797; Nov. 30; Sp. p. 7361; Gaz. vol. 148; p. 1241.
Miller, J. A. (See Bingaman and Miller.)
Miller, J. F., assignor of one-half to W. H. Aldridge, Trail, British Columbia, Canada. Anode-mold. No. 941,796; Nov. 30; Sp. p. 7360; Gaz. vol. 148; p. 1240.
Miller, J. L. (See Powell and Miller.)
Miller, J. S., Bergville, Minn. Negative-developer. No. 941,643; Nov. 30; Sp. p. 7018; Gaz. vol. 148; p. 1187.
Miller, J. W., Sr., Harrisburg, Pa. Key-wheel type-writer. No. 941,026; Nov. 23; Sp. p. 5708; Gaz. vol. 148; p. 963.
Miller, P., Minto, N. D. Pneumatic stacker. No. 941,583; Nov. 30; Sp. p. 6901; Gaz. vol. 148; p. 1168.
Miller, T. S., South Orange, N. J. Cableway. No. 942,038; Nov. 30; Sp. p. 7846; Gaz. vol. 148; p. 1322.
Miller, W. H., Bridgewater, Va. Plant-pulling implement. No. 941,644; Nov. 30; Sp. p. 7021; Gaz. vol. 148; p. 1188.
Miller, W. J., Coffeyville, Kans. Glass-molding machine. No. 941,935; Nov. 30; Sp. p. 7659; Gaz. vol. 148; p. 1290.
Miller, W. R. (See Marshall, J., assignor.)
Millice, P. S., Hamilton, Ohio. Flushing apparatus. No. 938,683; Nov. 2; Sp. p. 526; Gaz. vol. 148; p. 81.
Milligan, J. H. (See Russell, J., assignor.)
Mills, C., Newton Upper Falls, Mass., assignor to W. C. Swift, Chicago, Ill. Molding-machine. No. 938,684; Nov. 2; Sp. p. 529; Gaz. vol. 148; p. 81.
Milne, R., assignor to Rockford Drilling Machine Company, Rockford, Ill. Differential positive-feed mechanism. No. 940,342; Nov. 16; Sp. p. 4209; Gaz. vol. 148; p. 709.
Milner, E. H., Stockbridge, Mich. Chair. No. 941,160; Nov. 23; Sp. p. 5991; Gaz. vol. 148; p. 1008.
Milwaukee Stamping Co. (See Erickson, E. S., assignor.)
Milwaukee Stamping Co. (See Petri, W. J., assignor.)
Miner Engineering Company. (See Miner, F. J., assignor.)
Miner, F. J., assignor to Miner Engineering Company, Detroit, Mich. Blower or pump. No. 940,984; Nov. 23; Sp. p. 5601; Gaz. vol. 148; p. 949.
Miner, H. L., Brandon, Vt. Box. No. 939,287; Nov. 9; Sp. p. 1822; Gaz. vol. 148; p. 315.
Miner, S. A., Camrose, Alberta, Canada. Non-refillable bottle. No. 939,430; Nov. 9; Sp. p. 2194; Gaz. vol. 148; p. 364.
Minor, L. C., Cincinnati, Ohio. Bleaching rosin. No. 939,733; Nov. 9; Sp. p. 2840; Gaz. vol. 148; p. 468.
Mintel, W. F., Pawtucket, R. I. Means for applying wax to loom-warp. No. 940,607; Nov. 16; Sp. p. 4787; Gaz. vol. 148; p. 798.
Mirgan, J. S., Lancaster, Ohio. Checkrein. No. 940,866; Nov. 23; Sp. p. 5405; Gaz. vol. 148; p. 916.
Miskin, A. R., Idaho Falls, Idaho. Spring-wheel. No. 941,329; Nov. 23; Sp. p. 6346; Gaz. vol. 148; p. 1061.
Mississippi Glass Company. (See Walsh, R. A. B., assignor.)
Mitchell, C. B., assignor of one-fourth to H. B. Hurt and one-fourth to J. W. McCrary, Franklin, Tex. Telephone attachment. No. 941,086; Nov. 23; Sp. p. 5926; Gaz. vol. 148; p. 983.
Mitchell, E. G. (See Harsant, H., assignor.)
Mitred Box Company. (See Klein, A., assignor.) (Reissue.)
Mittelstädt, O. A. F., Hohensaathen-on-the-Oder, Germany. Tire-shield. No. 940,343; Nov. 16; Sp. p. 4212; Gaz. vol. 148; p. 710.
Mittinger, G. E., Jr., New Castle, Pa. Coffee-percolator. No. 941,330; Nov. 23; Sp. p. 6348; Gaz. vol. 148; p. 1062.
Modern Machine Company *et al.* (See Pink, S. J., assignor.)
Moehrlin, E. (See Zimmerman, W., assignor.)
Moeller, D. (See Moeller, L. and D.)
Moeller, L. and D., Andrew, Iowa; said L. Moeller assignor to said D. Moeller. Lock-bolt. No. 939,921; Nov. 9; Sp. p. 3240; Gaz. vol. 148; p. 534.
Moeller, W. J., Hartwell, assignor to Philip Carey Manufacturing Company, Lockland, Ohio. Sectional asbestos covering. No. 940,265; Nov. 16; Sp. p. 4016; Gaz. vol. 148; p. 684.
Moldenhauer, W. (See Dieffenbach and Moldenhauer.)
Moloney, W. M., Toronto, Ontario, assignor to J. Playfair, Midland, Canada. Mail catching and delivering device for railways. No. 940,180; Nov. 16; Sp. p. 3842; Gaz. vol. 148; p. 652.
Monarch Typewriter Company. (See Barney, E. E., assignor.)
Mongelli, G. A., Philadelphia, Pa. Rule. No. 941,936; Nov. 30; Sp. p. 7660; Gaz. vol. 148; p. 1290.
Monk, W. G., Syracuse, N. Y. Match-safe. No. 940,344; Nov. 16; Sp. p. 4214; Gaz. vol. 148; p. 710.
Montag, G., assignor to Gesellschaft für Tabakveredelung m. b. H., Mannheim, Germany. Treating tobacco, &c. No. 940,181; Nov. 16; Sp. p. 3844; Gaz. vol. 148; p. 653.
Montague Mailing Machinery Co. (See Owens, C., assignor.)
Monti, E., Turin, Italy. Apparatus for concentrating solutions. No. 940,644; Nov. 16; Sp. p. 4868; Gaz. vol. 148; p. 810.
Moody, J. N., South Boston, Va. Ventilating-canopy. No. 941,685; Nov. 30; Sp. p. 7112; Gaz. vol. 148; p. 1202.
Moody, L. J., Ridgway, Colo. Combined mop head and wringer. No. 938,685; Nov. 2; Sp. p. 532; Gaz. vol. 148; p. 82.
Mooney, C. S., assignor to Northwestern Expanded Metal Company, Chicago, Ill. Basket. No. 938,497; Nov. 2; Sp. p. 109; Gaz. vol. 148; p. 17.
Mooney, T., Boston, Mass. Base-ball puzzle. No. 939,612; Nov. 9; Sp. p. 2584; Gaz. vol. 148; p. 424.
Moore, A. (See Moore, W. H., A. P., and A.)
Moore, A. P. (See Moore, W. H., A. P., and A.)
Moore, B., Cherryvale, Kans. Liquid-fuel burner. No. 939,613; Nov. 9; Sp. p. 2585; Gaz. vol. 148; p. 425.
Moore Brothers Company. (See Moore, L., assignor.)
Moore, C. H., New York, N. Y. Water-closet-outlet connection. No. 938,777; Nov. 2; Sp. p. 698; Gaz. vol. 148; p. 112.
Moore, D. H., Bakersfield, Cal. Egg-cooker. No. 941,265; Nov. 23; Sp. p. 6223; Gaz. vol. 148; p. 1043.
Moore, E. C., Philadelphia, Pa. Go-cart. No. 938,498; Nov. 2; Sp. p. 111; Gaz. vol. 148; p. 18.
Moore, G. H., Boston, Mass. Temporary binder. No. 940,345; Nov. 16; Sp. p. 4215; Gaz. vol. 148; p. 711.
Moore, G. R., Chicago, Ill. Shaft. No. 941,087; Nov. 23; Sp. p. 5828; Gaz. vol. 148; p. 984.
Moore, J. L., Edgewood Park, Pa., assignor to Westinghouse Machine Company. Cut-off valve. No. 940,815; Nov. 23; Sp. p. 5264; Gaz. vol. 148; p. 893.
Moore, L., assignor to Moore Brothers Company, Joliet, Ill. Stove. No. 939,529; Nov. 9; Sp. p. 2391; Gaz. vol. 148; p. 396.
Moore, M. W., Everett, assignor to Samuel Ward Company, Boston, Mass. Fountain-pen. No. 939,057; Nov. 2; Sp. p. 1298; Gaz. vol. 148; p. 210.
Moore, W. B., Walla Walla, Wash. Magnetic separator. No. 940,266; Nov. 16; Sp. p. 4017; Gaz. vol. 148; p. 684.
Moore, W. H., A. P., and A., Toledo, Ohio. Mail-bag catcher and deliverer. No. 940,887; Nov. 23; Sp. p. 5406; Gaz. vol. 148; p. 916.
Moore, W. J., East Pittsburg, Pa. Corn-sheller. No. 941,798; Nov. 30; Sp. p. 7363; Gaz. vol. 148; p. 1241.
Moore, W. R., East Orange, N. J. Gun-cleaner. No. 940,985; Nov. 23; Sp. p. 5602; Gaz. vol. 148; p. 949.
Moore and White Company. (See White, J. A., assignor.)
Moreau, J., assignor of one-third to J. G. Cornet and one-third to L. H. Ferger, Indianapolis, Ind. Vegetable-cutter. No. 941,161; Nov. 23; Sp. p. 5992; Gaz. vol. 148; p. 1008.
Morehead, J., New Plymouth, Ohio. Wire-stretcher. No. 942,006; Nov. 30; Sp. p. 7791; Gaz. vol. 148; p. 1312.
Morehouse, E. W., assignor to B. A. Ballou & Company, Incorporated, Providence, R. I. Link cuff-button. No. 939,851; Nov. 9; Sp. p. 3080; Gaz. vol. 148; p. 508.
Morgan, A. B., San Francisco, Cal. Portable sprayer. No. 941,528; Nov. 30; Sp. p. 6795; Gaz. vol. 148; p. 1151.
Morgan, F. A., assignor to Morgan Fare Register Company, Indianapolis, Ind. Indicating and recording device. No. 940,888; Nov. 23; Sp. p. 5410; Gaz. vol. 148; p. 917.
Morgan Fare Register Company. (See Morgan, F. A., assignor.)
Morgan, J. B., and C. R. Webster, Rochester, N. Y. Radiator-valve. No. 940,182; Nov. 16; Sp. p. 3846; Gaz. vol. 148; p. 653.
Morgan Spring Company. (See Sleeper, F. H., assignor.)
Morgan, W. S. (See Pearson, J. H., assignor.)
Morganthaler, P. C., Fort Wayne, Ind., assignor to Fort Wayne Electric Works. Electric meter. No. 941,459; Nov. 30; Sp. p. 6654; Gaz. vol. 148; p. 1128.
Morriggl, C., assignor to A. Saurer, Arbon, Switzerland. Perforating or pricking apparatus for embroidery-machines. No. 938,884; Nov. 2; Sp. p. 942; Gaz. vol. 148; p. 149.
Morley Button Manufacturing Company. (See Bennett, W. E., assignor.)
Morningstar, J. P. (See Vernon and Morningstar.)
Morrill, W. H., assignor of one-half to H. D. Walton, Bangor, Me. Bag-tie. No. 942,007; Nov. 30; Sp. p. 7792; Gaz. vol. 148; p. 1312.
Morris, E., Newark, N. J., assignor to Shiman-Miller Manufacturing Company, New York, N. Y. Hinge-joint for lockets, &c. No. 939,530; Nov. 9; Sp. p. 2395; Gaz. vol. 148; p. 397.
Morris, E., Jr., Baltimore, Md. Garment-supporting strap. No. 939,058; Nov. 2; Sp. p. 1300; Gaz. vol. 148; p. 210.
Morris, G. W., Racine, Wis. Engine-setting for horizontal boilers. No. 941,460; Nov. 30; Sp. p. 6655; Gaz. vol. 148; p. 1128.
Morris, J., New York, N. Y. Pipe. No. 941,027; Nov. 23; Sp. p. 5710; Gaz. vol. 148; p. 963.
Morris, R. C., assignor of one-fourth to G. C. Terry and one-fourth to C. O. Tice, Louisville, Ky. Form or mold for concrete receptacles. No. 939,059; Nov. 2; Sp. p. 1301; Gaz. vol. 148; p. 210.
Morrison, J. G., New York, N. Y. Gearing. No. 939,153; Nov. 2; Sp. p. 1506; Gaz. vol. 148; p. 244.

Morrison, J. W., assignor to Steam Appliance Manufacturing Company, Batavia, N. Y. Water-purifier. No. 938,778; Nov. 2; Sp. p. 700; Gaz. vol. 148; p. 113.
Morrison, J. W., assignor to Steam Appliance Manufacturing Company, Batavia, N. Y. Purifying water. No. 938,779; Nov. 2; Sp. p. 702; Gaz. vol. 148; p. 113.
Morrison, W., Chicago, Ill. Secondary battery. No. 940,043; Nov. 16; Sp. p. 3535; Gaz. vol. 148; p. 605.
Morrow, T. T., Ray, Ind. Snap-hook. No. 939,531; Nov. 9; Sp. p. 2396; Gaz. vol. 148; p. 398.
Morse Twist Drill and Machine Co. (See Stearns, R. H., assignor.)
Morse, W. A., Westport, N. Y. Electric switch. No. 941,266; Nov. 23; Sp. p. 6224; Gaz. vol. 148; p. 1043.
Morss, S. B., Rahway, N. J. Lamp-burner. No. 941,163; Nov. 23; Sp. p. 6001; Gaz. vol. 148; p. 1009.
Morton, A. M., Little Rock, Ark. Foldable umbrella. No. 940,346; Nov. 16; Sp. p. 4217; Gaz. vol. 148; p. 711.
Morton, F. M., and W. H. Dismuke, Phoenix, Ala. Cotton-bale-tie straightening and cleaning machine. No. 939,532; Nov. 9; Sp. p. 2397; Gaz. vol. 148; p. 398.
Morton, G. L., Four Oaks, Sutton Coldfield, England. Gas-producer. No. 939,288; Nov. 9; Sp. p. 1824; Gaz. vol. 148; p. 315.
Morton, M., Muskegon Heights, Mich. Tool-holder and means for setting the tools therein. No. 940,938; Nov. 23; Sp. p. 5519; Gaz. vol. 148; p. 934.
Mortsolf, L. H. (See Wocher, Lemon, and Mortsolf.)
Moscovitz, S. B., New York, N. Y. Exhibiting apparatus. No. 942,008; Nov. 30; Sp. p. 7793; Gaz. vol. 148; p. 1312.
Mosher, P. R., Parlier, Cal. Plow. No. 938,686; Nov. 2; Sp. p. 533; Gaz. vol. 148; p. 82.
Mosler Safe Company. (See Bartels, C., assignor.)
Moss, C. E., Boston, Mass. Apparatus for drying sheet material. No. 941,721; Nov. 30; Sp. p. 7204; Gaz. vol. 148; p. 1214.
Moss, F. (See Pepling, M., assignor.)
Moss, F. J., Conneaut Lake, Pa. Acetylene-gas generator. No. 939,614; Nov. 9; Sp. p. 2586; Gaz. vol. 148; p. 425.
Moss, I., Boston, Mass. Antifriction-bearing. No. 939,060; Nov. 2; Sp. p. 1304; Gaz. vol. 148; p. 211.
Mosteller, D. H., assignor to Mosteller Manufacturing Company, Chicago, Ill. Fruit cutter and squeezer. No. 939,615; Nov. 9; Sp. p. 2589; Gaz. vol. 148; p. 425.
Mosteller Manufacturing Company. (See Mosteller, D. H., assignor.)
Mottlan, A. J., New York, N. Y., assignor to Press Feeder Company. Printing-press. No. 941,162; Nov. 23; Sp. p. 5994; Gaz. vol. 148; p. 1008.
Moulthrop, L. H., assignor to Perkins Electric Switch Mfg. Company, Bridgeport, Conn. Switch. No. 940,645; Nov. 16; Sp. p. 4873; Gaz. vol. 148; p. 811.
Moulton, I. C., assignor, by mesne assignments, to Simplex Self-Hoisting Machine Company, Boston, Mass. Hoisting appliance. No. 941,722; Nov. 30; Sp. p. 7205; Gaz. vol. 148; p. 1215.
Mowry, A. L., assignor to H. R. McLellan, St. John, New Brunswick, Canada. Machine for manufacturing grooved pins, &c. No. 939,061; Nov. 2; Sp. p. 1306; Gaz. vol. 148; p. 211.
Moylan, A. M., Century, Fla. Tie and rail-fastener. No. 941,937; Nov. 30; Sp. p. 7663; Gaz. vol. 148; p. 1291.
Muchler, A. (See Muchler, M., assignor.)
Muchler, M., assignor to A. Muchler, New York, N. Y. Quoin. No. 939,950; Nov. 9; Sp. p. 3296; Gaz. vol. 148; p. 544.
Mueller Brothers Art and Manufacturing Company. (See Mueller, J., assignor.)
Mueller, J., assignor to Mueller Brothers Art and Manufacturing Company, Chicago, Ill. Machine for making picture-frames. No. 941,331; Nov. 23; Sp. p. 6349; Gaz. vol. 148; p. 1062.
Mueller, M. A., Brooklyn, N. Y. Life-saving apparatus. No. 942,009; Nov. 30; Sp. p. 7798; Gaz. vol. 148; p. 1313.
Mueser, W., New York, N. Y. Concrete-steel construction. No. 940,399; Nov. 16; Sp. p. 4362; Gaz. vol. 148; p. 730.
Mullen, C. R. (See Chubb and Mullen.)
Mullen, J. E., New Hampton, Iowa. Gate. No. 940,044; Nov. 16; Sp. p. 3537; Gaz. vol. 148; p. 605.
Müller, C. O., assignor to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany. Azo dye and making same. No. 941,088; Nov. 23; Sp. p. 5829; Gaz. vol. 148; p. 984.
Müller, E. F., Leipzig-Reudnitz, Germany. Machine for the manufacture of paper bags. No. 940,183; Nov. 16; Sp. p. 3849; Gaz. vol. 148; p. 654.
Müller, F. W. E., Chicago, Ill. Hair-tonic. No. 939,431; Nov. 9; Sp. p. 2195; Gaz. vol. 148; p. 365.
Müller, H., Leipzig, Germany. Telpherage system. No. 941,938; Nov. 30; Sp. p. 7665; Gaz. vol. 148; p. 1291.
Müller, O. J., New York, N. Y. Holder and protector for musical-instrument strings. No. 939,734; Nov. 9; Sp. p. 2841; Gaz. vol. 148; p. 469.
Mumford, H. T., New York, N. Y., assignor to Mumford Manufacturing and Supply Company. Belt-lacing tool and square. No. 940,400; Nov. 16; Sp. p. 4364; Gaz. vol. 148; p. 730.
Mumford, H. T., New York, N. Y., assignor to Mumford Manufacturing and Supply Company. Belt-lacing tool. No. 940,401; Nov. 16; Sp. p. 4366; Gaz. vol. 148; p. 730.
Mumford Manufacturing and Supply Company. (See Mumford, H. T., assignor.)
Munsill, J. L., assignor of one-half to J. C. and A. Krohn, Leavenworth, Kans. Tongs. No. 938,499; Nov. 2; Sp. p. 114; Gaz. vol. 148; p. 18.
Murchey, W., Detroit, Mich. Thread-cutting tool. No. 939,725; Nov. 9; Sp. p. 2842; Gaz. vol. 148; p. 469.
Murdock, C. D., Philadelphia, Pa. Flanging pipes. No. 940,702; Nov. 23; Sp. p. 5008; Gaz. vol. 148; p. 855.
Murphey, F. P., Decatur, Ill. Wire-reel and mounting therefor. No. 939,616; Nov. 9; Sp. p. 2590; Gaz. vol. 148; p. 426.
Murphy Iron Works. (See Fortune, J. R., assignor.)
Murphy, J. (See Carnahan and Murphy.)
Murphy, J. J., assignor to Eagle Lock Co., Terryville, Conn. Combination-lock. No. 941,028; Nov. 23; Sp. p. 5712; Gaz. vol. 148; p. 963.
Murphy, P. J., Alexandria, Va. Saw-carriage. No. 940,470; Nov. 16; Sp. p. 4502; Gaz. vol. 148; p. 753.
Murphy, T. H., assignor to Johnston Novelty & Mill Specialty Co., Utica, N. Y. Machine for turning and winding tubular fabrics. No. 941,164; Nov. 23; Sp. p. 6003; Gaz. vol. 148; p. 1009.
Murray, E., Glasgow, Scotland. Spring vehicle-wheel. No. 939,432; Nov. 9; Sp. p. 2196; Gaz. vol. 148; p. 365.
Murray, H. D. (See Fithian and Murray.)
Murray, J. (See Wolsey and Fussey, assignors.)
Murray, J. J., Newton, Mass. Spare-tire case. No. 940,543; Nov. 16; Sp. p. 4671; Gaz. vol. 148; p. 777.
Murray, J. W., Chicago, Ill., assignor to Knox Metal Wheel Company, Knox, Ind. Metal wheel-hub. No. 941,029; Nov. 23; Sp. p. 5714; Gaz. vol. 148; p. 964.
Murray, J. W., assignor to Knox Metal Wheel Company, Knox, Ind. Metal wheel. No. 941,030; Nov. 23; Sp. p. 5715; Gaz. vol. 148; p. 964.
Murray, T. E., New York, N. Y. Electric cut-out. No. 941,165; Nov. 23; Sp. p. 6005; Gaz. vol. 148; p. 1009.
Murray, W. J. (See Cane, W. E., assignor.)
Muth, A. W. (See Griffin and Muth.)
Muzzy, W. H., assignor, by mesne assignments, to National Cash Register Company, Dayton, Ohio. Cash-register. No. 939,289; Nov. 9; Sp. p. 1825; Gaz. vol. 148; p. 316.
Muzzy, W. H., assignor, by mesne assignments, to National Cash Register Company, Dayton, Ohio. Cash-register. No. 941,378; Nov. 30; Sp. p. 6465; Gaz. vol. 148; p. 1101.
Myers, A. D., Colchester, Ill. Feed-box. No. 939,533; Nov. 9; Sp. p. 2399; Gaz. vol. 148; p. 398.
Myers, A. M., and W. A. Polster, assignors to Gallon Metallic Vault Company, Gallon, Ohio. Vault-closure. No. 939,922; Nov. 9; Sp. p. 3242; Gaz. vol. 148; p. 534.
Myers, F., New York, N. Y. Device for sharpening razors and razor-blades. No. 941,529; Nov. 30; Sp. p. 6796; Gaz. vol. 148; p. 1151.
Myers, F. W., New York, N. Y. Device for cleaning brushes of carpet-sweepers. No. 939,290; Nov. 9; Sp. p. 1835; Gaz. vol. 148; p. 316.
Myers, L. C., assignor to Royal Typewriter Company, New York, N. Y. Type-writing machine. No. 938,500; Nov. 2; Sp. p. 116; Gaz. vol. 148; p. 19.
Myers, W. S., and C. C. Kahne, Ashland, Ky. Vegetable-cutter. No. 939,951; Nov. 9; Sp. p. 3298; Gaz. vol. 148; p. 544.
Mygatt, O. A., New York, N. Y. Skirting for reflectors. No. 939,062; Nov. 2; Sp. p. 1310; Gaz. vol. 148; p. 212.
Myrholm, J., Odell, Ill. Mechanism for converting rotary into reciprocatory motion. No. 939,063; Nov. 2; Sp. p. 1311; Gaz. vol. 148; p. 212.
Nagle, F. C., Keithville, La. Gyve. No. 941,942; Nov. 30; Sp. p. 7670; Gaz. vol. 148; p. 1292.
Nagy, F. (See Ilg, C. C., assignor.)
Nagyvathy, B. (See Nagyvathy, K. and B.)
Nagyvathy, K. and B., Johnstown, Pa. Nut-lock. No. 941,804; Nov. 30; Sp. p. 7387; Gaz. vol. 148; p. 1243.
Nail, J. J., Kimbolton, N. C. Reversible plow. No. 939,617; Nov. 9; Sp. p. 2593; Gaz. vol. 148; p. 426.
Narragansett Machine Company. (See Thornley, A. J., assignor.)
Nässén, J. F., and A. E. T. Bergström, Stockholm, Sweden. Apparatus for lighting and extinguishing gas-lights from a distance. No. 940,046; Nov. 16; Sp. p. 3541; Gaz. vol. 148; p. 606.
National Ammonia Company. (See Schrandenbach, C., assignor.)
National Anti-Friction Roller-Bearing Company. (See Killian, A. T., assignor.)
National Biscuit Company. (See Ferrall and Mackay, assignors.)
National Blank Book Co. (See Webster, E. P., assignor.)
National Cash Register Company. (See Kettering, E. F., assignor.)
National Cash Register Company. (See Muzzy, W. H., assignor.)

National Cash Register Company. (See Von Pein, E. J., assignor.)
National Dump Car Company. (See Otis, S., assignor.)
National Electric Signaling Company. (See Fessenden, R. A., assignor.)
National Malleable Castings Company. (See Byers, J. J., assignor.)
National Railway Materials Company. (See Hall, G. L., assignor.)
National Water Main Cleaning Co. (See Wehrle, G. M., assignor.)
National Water Main Cleaning Company. (See Greenan, H. A., assignor.) (Reissue.)
National Waterproof Film Company. (See Daniels, W. A., assignor.)
National Waterproof Film Company. (See Thompson, F. B., assignor.)
Nazarian, J., Syracuse, N. Y. Loom. No. 938,886; Nov. 2; Sp. p. 945; Gaz. vol. 148; p. 150.
Neble, H., Stamford, Conn. Sash-lock. No. 939,854; Nov. 9; Sp. p. 3086; Gaz. vol. 148; p. 510.
Neebes, W. J., Jr., Chicago, Ill. Knockdown box. No. 938,887; Nov. 2; Sp. p. 949; Gaz. vol. 148; p. 151.
Neller, A. H., Fairfield, Iowa. Overhead track. No. 941,805; Nov. 30; Sp. p. 7388; Gaz. vol. 148; p. 1243.
Neller, A. H., and W. Louden, Fairfield, Iowa. Supporting device for overhead tracks. No. 939,618; Nov. 9; Sp. p. 2594; Gaz. vol. 148; p. 427.
Nelson, C., Brooklyn, assignor to S. Sternau & Co., New York, N. Y. Coffee-machine. No. 938,605; Nov. 2; Sp. p. 372; Gaz. vol. 148; p. 55.
Nelson, J. W., New York, N. Y. Hydraulic-pressure generating and applying device. No. 939,535; Nov. 9; Sp. p. 2401; Gaz. vol. 148; p. 398.
Nelson, J. W., New York, N. Y. Hydraulic-pressure generating, controlling, and applying apparatus. No. 939,737; Nov. 9; Sp. p. 2845; Gaz. vol. 148; p. 469.
Nelson, J. W., New York, N. Y. Hydraulic pressure generating, controlling, and applying device. No. 941,167; Nov. 23; Sp. p. 6013; Gaz. vol. 148; p. 1010.
Nelson, L., Rockford, Ill. Bookcase. No. 941,168; Nov. 23; Sp. p. 6017; Gaz. vol. 148; p. 1011.
Nelson, L. M., Douglas, Wyo. Tire-fastener. No. 939,619; Nov. 9; Sp. p. 2596; Gaz. vol. 148; p. 427.
Nelson, N. D., New York, N. Y. Support for neckties. No. 938,687; Nov. 2; Sp. p. 534; Gaz. vol. 148; p. 82.
Nelson, N. J., Red Wing, Minn. Apparatus for effecting the interchange of mail, express, and train orders, despatches, &c. No. 941,401; Nov. 30; Sp. p. 6657; Gaz. vol. 148; p. 1129.
Nelson, R. G. and V. E., Joliet, Ill. Gas-engine. No. 941,169; Nov. 23; Sp. p. 6018; Gaz. vol. 148; p. 1011.
Nelson, V. E. (See Nelson, R. G. and V. E.)
Neptune Meter Company. (See Dlits, H. I., assignor.)
Neptune Meter Company. (See Gumprecht, W. L., assignor.)
Nesbitt, S. J., Sr., Elizabeth, N. J. Brake for roller-skates. No. 939,536; Nov. 9; Sp. p. 2406; Gaz. vol. 148; p. 399.
Nethercut, E. S., Evanston, Ill. Railway-rail structure. No. 940,818; Nov. 23; Sp. p. 5274; Gaz. vol. 148; p. 894.
Neugebauer, O., Hanover, assignor to Siemens & Halske A. G., Berlin, Germany. Dental instrument. No. 940,351; Nov. 16; Sp. p. 4227; Gaz. vol. 148; p. 713.
Neumann, H. A., New York, N. Y. Trousers-crease retainer. No. 940,712; Nov. 23; Sp. p. 5027; Gaz. vol. 148; p. 859.
Neureuther, A. H., Peru, Ill. Weighing-scale. No. 941,725; Nov. 30; Sp. p. 7211; Gaz. vol. 148; p. 1216.
New England Roller Grate Company. (See Baush, W. H., assignor.)
New Haven Clock Co. (See Porter, W. E., assignor.)
New Jersey Patent Company. (See Aylsworth, J. W., assignor.)
New Jersey Patent Company. (See Pierman, A. N., assignor.)
Newbery, F. T., San Francisco, Cal. Apparatus for applying water-power. No. 941,090; Nov. 23; Sp. p. 5834; Gaz. vol. 148; p. 984.
Newberry, J. E., Decatur, Ga. Plow-handle adjustment. No. 940,609; Nov. 16; Sp. p. 4791; Gaz. vol. 148; p. 798.
Newland, F. M., Alger, Ohio. Weeder. No. 941,091; Nov. 23; Sp. p. 5835; Gaz. vol. 148; p. 985.
Newland, R. M., Seaford, Del. Peanut-shelling machine. No. 941,086; Nov. 30; Sp. p. 7113; Gaz. vol. 148; p. 1202.
Newman, E. L., Parsons, Kans., assignor, by mesne assignments, of one-half to H. P. Frankeberger. Crude-oil burner. No. 940,713; Nov. 23; Sp. p. 5028; Gaz. vol. 148; p. 859.
Newman, G. R. J. (See Loop, J. Z., assignor.)
Ney, A. D., Aurora, Ill. Apparatus and process for laying cement sidewalks or similar structures. No. 939,071; Nov. 2; Sp. p. 1322; Gaz. vol. 148; p. 215.
Ney, A. D., Aurora, Ill. Rock-like substance. No. 939,072; Nov. 2; Sp. p. 1326; Gaz. vol. 148; p. 215.
Nicholes, H. W., Atlanta, Ga. Pipe. No. 940,184; Nov. 16; Sp. p. 3854; Gaz. vol. 148; p. 654.
Nicholes, N. W. (See Jones and Nicholes.)
Nichols and Shepard Company. (See Bathrick, G. H., assignor.)
Nichols, W. G., Chicago Heights, Ill. Casting metals. No. 938,688; Nov. 2; Sp. p. 535; Gaz. vol. 148; p. 83.
Nichols, W. G., Chicago Heights, Ill. Casting metals. No. 938,689; Nov. 2; Sp. p. 537; Gaz. vol. 148; p. 83.
Nichols, W. G., Chicago, Ill., assignor to American Brake Shoe & Foundry Company, Jersey City, N. J. Stone-crusher head. No. 940,352; Nov. 16; Sp. p. 4228; Gaz. vol. 148; p. 713.
Nickel, H. A. (See Wessell, Nickel, and Wessell.)
Nickols, D. F., Lincoln, Ill. Tellurian. No. 940,546; Nov. 16; Sp. p. 4677; Gaz. vol. 148; p. 778.
Nielsen, E. W., Hoboken, N. J. Stamp-affixer. No. 939,537; Nov. 9; Sp. p. 2408; Gaz. vol. 148; p. 399.
Nielsen, J., Butte, Mont. Square-hole auger. No. 939,435; Nov. 9; Sp. p. 2212; Gaz. vol. 148; p. 367.
Niemann, G. J. (See Kuster and Niemann.)
Nightingall Gas Control Company. (See Nightingall, V. C. J., assignor.)
Nightingall, V. C. J., assignor to Nightingall Gas Control Company Limited, Melbourne, Victoria, Australia. Gas lighting and extinguishing apparatus. No. 940,610; Nov. 16; Sp. p. 4792; Gaz. vol. 148; p. 799.
Nilsson, J. W., Balfour, N. D. Attachment for telephones. No. 940,047; Nov. 16; Sp. p. 3543; Gaz. vol. 148; p. 606.
Nineteen Hundred Washer Company. (See Sheak, A. G., assignor.)
Nisbet, A., *et al.* (See Dettelbach and Powell, assignors.)
Niss, C. F., Chicago, Ill. Photographic shutter. No. 940,714; Nov. 23; Sp. p. 5030; Gaz. vol. 148; p. 859.
Noble, G. W. (See Johnson and Noble.)
Nodine, L. R., assignor of one-half to E. Stahl, Naugatuck, Conn. Shock-absorbing pad. No. 938,504; Nov. 2; Sp. p. 124; Gaz. vol. 148; p. 20.
Nodon, A., Bordeaux, France. Recovering tin from waste. No. 940,471; Nov. 16; Sp. p. 4503; Gaz. vol. 148; p. 753.
Noelting, B. H., Nebraska City, Nebr. Caster. No. 938,888; Nov. 2; Sp. p. 951; Gaz. vol. 148; p. 151.
Noggle, W. H., Lancaster, Ohio. Thill tug or carrier. No. 941,943; Nov. 30; Sp. p. 7672; Gaz. vol. 148; p. 1292.
Noland, W. H., Fresno, assignor of one-third to E. A. Stallings and one-third to T. B. Hardy, Fresno county, Cal. Cap-stemmer and raisin-cleaner. No. 939,073; Nov. 2; Sp. p. 1328; Gaz. vol. 148; p. 216.
Nolen, J. G. (See Hewitt and Nolen.)
Nolen, J. G., assignor of one-half to F. B. Cook, Chicago, Ill. Test for fire-alarm apparatus. No. 939,292; Nov. 9; Sp. p. 1837; Gaz. vol. 148; p. 317.
Nolen, J. G., and J. E. Shepherd, Chicago, Ill. Fire-protection signal system. No. 939,293; Nov. 9; Sp. p. 1839; Gaz. vol. 148; p. 317.
Nolley, D. D., assignor of one-third to J. C. Hales and one-third to J. B. Farmer, Wilson, N. C. Bottle-filling faucet. No. 941,268; Nov. 23; Sp. p. 6227; Gaz. vol. 148; p. 1044.
Noodt, V. A., Hamburg, and G. Göttsche, Altona, Germany; said Göttsche assignor to said Noodt. Producing insulating bodies. No. 941,585; Nov. 30; Sp. p. 6904; Gaz. vol. 148; p. 1168.
Norman, C. V., and G. Peterson, Springfield, Mass. Chalk-holder. No. 939,156; Nov. 2; Sp. p. 1512; Gaz. vol. 148; p. 245.
Norrick, H. C., Muncie, Ind. Tool-holder. No. 940,185; Nov. 16; Sp. p. 3855; Gaz. vol. 148; p. 655.
Norris, A. E., Cambridge, Mass. Hoisting or conveying apparatus. No. 939,294; Nov. 9; Sp. p. 1846; Gaz. vol. 148; p. 318.
Norris, C. W. (See Spellman, C. J., assignor.)
Norris, W. G., Seattle, Wash. Safe or vault. No. 940,268; Nov. 16; Sp. p. 4020; Gaz. vol. 148; p. 685.
Norris, W. M., Edwards, Miss. Log-wagon. No. 940,547; Nov. 16; Sp. p. 4678; Gaz. vol. 148; p. 778.
North Bros. Mfg. Co. (See Leopold, G. O., assignor.)
North Electric Company. (See Clement, E. E., assignor.)
North & Judd Mfg. Company. (See Smith, C. E., assignor.)
North, R., Oxford Street, London, England, assignor to R. C. Campbell, Chicago, Ill., and London, England. Machine for printing and issuing tickets and registering fares. No. 939,295; Nov. 9; Sp. p. 1851; Gaz. vol. 148; p. 318.
North, R., Paris, France, assignor to R. C. Campbell, Chicago, Ill., and London, England. Registering apparatus. No. 939,296; Nov. 9; Sp. p. 1860; Gaz. vol. 148; p. 319.
North, R., Paris, France, assignor to R. C. Campbell, Chicago, Ill., and London, England. Ticket printing and issuing machine. No. 939,297; Nov. 9; Sp. p. 1867; Gaz. vol. 148; p. 319.
Northrop, J., assignor to W. F. Draper, Hopedale, Mass. Let-off mechanism for looms. No. 941,380; Nov. 30; Sp. p. 6472; Gaz. vol. 148; p. 1102.
Northwest Metallurgical Company. (See Ludwick, W. D., assignor.)
Northwestern Expanded Metal Company. (See Mooney, C. S., assignor.)
Norton, C. H., J. C. Spence, and H. N. Cudworth, assignors to Norton Grinding Company, Worcester, Mass. Machine for grinding. No. 940,548; Nov. 16; Sp. p. 4680; Gaz. vol. 148; p. 779.

Norton, C. H., J. C. Spence, and H. N. Cudworth, assignors to Norton Grinding Company, Worcester, Mass. Reversing device. No. 940,549; Nov. 16; Sp. p. 4682; Gaz. vol. 148; p. 779.
Norton, E., New York, N. Y. Tin-plate-finishing machine. No. 940,715; Nov. 23; Sp. p. 5034; Gaz. vol. 148; p. 860.
Norton, E., New York, N. Y., and L. C. Krummel, Clinton, Conn. Sheet-metal-working press. No. 941,806; Nov. 30; Sp. p. 7390; Gaz. vol. 148; p. 1244.
Norton Grinding Company. (See Norton, Spence, and Cudworth, assignors.)
Norton, W. F., and H. N. Reid, Sedalia, Mo. Emergency-brake. No. 941,335; Nov. 23; Sp. p. 6357; Gaz. vol. 148; p. 1064.
Noye Manufacturing Company. (See Wilson, J. A., Jr., assignor.)
Nulf, C. M., and G. M. Jackson, Frankton, Ind. Apparatus for treating butter. No. 940,716; Nov. 23; Sp. p. 5037; Gaz. vol. 148; p. 860.
Nye, J. R., Waterville, Me. Carbureter. No. 940,652; Nov. 16; Sp. p. 4885; Gaz. vol. 148; p. 813.
O. A. Miller Treeing Machine Company. (See McGann, T. F., assignor.)
O'Brien, J. H., Ilion, N. Y., assignor, by mesne assignments, to Union Typewriter Company, Jersey City, N. J. Type-writing machine. No. 938,690; Nov. 2; Sp. p. 538; Gaz. vol. 148; p. 83.
O'Brien, P., *et al.* (See Thorin, P. A., assignor.)
O'Connor, J. F., assignor to W. H. Miner Company, Chicago, Ill. Roller side-bearing. No. 940,353; Nov. 16; Sp. p. 4230; Gaz. vol. 148; p. 713.
O'Connor, J. F., assignor to W. H. Miner Company, Chicago, Ill. Roller center-bearing. No. 940,819; Nov. 23; Sp. p. 5275; Gaz. vol. 148; p. 895.
O'Connor, W. H., Newark, N. J. Steam or other fluid pressure regulator. No. 941,092; Nov. 23; Sp. p. 5837; Gaz. vol. 148; p. 985.
O'Leary, J., Cohoes, N. Y. Car-fender. No. 939,953; Nov. 9; Sp. p. 3303; Gaz. vol. 148; p. 545.
O'Leary, J., assignor of one-fourth to G. H. McDowell, Cohoes, N. Y. Car-fender. No. 939,952; Nov. 9; Sp. p. 3301; Gaz. vol. 148; p. 545.
O'Neale, G. L., San Jose, Cal. Weed-burning car. No. 939,538; Nov. 9; Sp. p. 2410; Gaz. vol. 148; p. 400.
O'Neil, M. L. (See Churchill and O'Neil.)
Ohe, F. (See Mason and Ohe.)
Oil Well Supply Company. (See Sands, L. C., assignor.)
Okerfelt, G. (See Pfenninghausen and Okerfelt.)
Olbon, J. A., assignor of one-half to L. F. Braun, Paterson, N. J. Mail-pouch catching and delivering apparatus. No. 939,738; Nov. 9; Sp. p. 2851; Gaz. vol. 148; p. 470.
Old Dominion Specialty Manufacturing Company. (See Brauchli, J., assignor.)
Olden, C. E., Mason City, Iowa. Clay-gathering machine. No. 939,855; Nov. 9; Sp. p. 3087; Gaz. vol. 148; p. 510.
Oldenbusch, E., New York, N. Y. Easel. No. 940,472; Nov. 16; Sp. p. 4504; Gaz. vol. 148; p. 753.
Oldman, E., assignor to Farrar & Trefts, Buffalo, N. Y. Manhole cover-plate. No. 941,531; Nov. 30; Sp. p. 6800; Gaz. vol. 148; p. 1152.
Oligny, J. D., assignor to Peat Gas and Coal Company, Montreal, Quebec, Canada. Peat-gas plant. No. 938,691; Nov. 2; Sp. p. 541; Gaz. vol. 148; p. 83.
Olinger, N., Mount Pleasant, Pa. Puzzle postal-card. No. 939,074; Nov. 2; Sp. p. 1329; Gaz. vol. 148; p. 216.
Oliver Machinery Company. (See Mentzer, W. Y., assignor.)
Olmstead-Qualsoag Corset Company. (See Daley, J. A., assignor.)
Olsen, V., and F. Schroder, Bridgeport, Conn. Air-compressor. No. 941,646; Nov. 30; Sp. p. 7024; Gaz. vol. 148; p. 1188.
Olshan, M. (See Brown, M., assignor.)
Olson, O. J., assignor of one-half to H. C. Romfo, Fero, N. D. Hay rake and loader. No. 939,157; Nov. 2; Sp. p. 1514; Gaz. vol. 148; p. 246.
Olsson, O., Milwaukee, Wis. Belt-sander. No. 938,692; Nov. 2; Sp. p. 542; Gaz. vol. 148; p. 84.
Ontario Silver Company. (See Gorton, W. F., assignor.)
Oppenheim, J., Vienna, Austria-Hungary. Adjustable hames-fastener. No. 940,269; Nov. 16; Sp. p. 4021; Gaz. vol. 148; p. 685.
Optische Anstalt C. P. Goerz Aktiengesellschaft. (See Brauburger, E., assignor.)
Optische Anstalt C. P. Goerz Aktiengesellschaft. (See Dubenhorst, F., assignor.)
Orchard, A. S., assignor to Keystone Type Foundry, Philadelphia, Pa. Printer's galley. No. 939,620; Nov. 9; Sp. p. 2598; Gaz. vol. 148; p. 428.
Ordóñez, S., and L. Katz, San Francisco, Cal. Device to turn railway-switches. No. 938,889; Nov. 2; Sp. p. 952; Gaz. vol. 148; p. 151.
Orndorff, W. R., Ithaca, N. Y., assignor to Parke, Davis & Company, Detroit, Mich. Phenol halogen phthalein compound. No. 939,075; Nov. 2; Sp. p. 1331; Gaz. vol. 148; p. 216.
Orr, L. H., New York, N. Y. Embossing appliance. No. 941,532; Nov. 30; Sp. p. 6801; Gaz. vol. 148; p. 1152.
Osborne, J. C., Erie, Pa. Furnace. No. 938,693; Nov. 2; Sp. p. 544; Gaz. vol. 148; p. 84.
Osman, R. C., assignor to Globe Ticket Company, Philadelphia, Pa. Transfer-ticket. No. 940,048; Nov. 16; Sp. p. 3545; Gaz. vol. 148; p. 606.
Ostby, O. (See Strömberg, P. P., assignor.)
Ostermann, H. C., Chicago, Ill. Brake-mast. No. 939,076; Nov. 2; Sp. p. 1332; Gaz. vol. 148; p. 217.
Otis Elevator Company. (See Marshall, E. W., assignor.)
Otis, S., assignor to National Dump Car Company, Chicago, Ill. Door-operating mechanism for dump-cars. No. 939,298; Nov. 9; Sp. p. 1878; Gaz. vol. 148; p. 320.
Otis, S., assignor to National Dump Car Company, Chicago, Ill. Dump-car. No. 941,381; Nov. 30; Sp. p. 6474; Gaz. vol. 148; p. 1102.
Ott, C. W., Pittsburg, assignor to Ott Circle Swing Mfg. Co., Girard, Kans. Merry-go-round. No. 942,041; Nov. 30; Sp. p. 7853; Gaz. vol. 148; p. 1323.
Ott Circle Swing Mfg. Co. (See Ott, C. W., assignor.)
Ott, P., Leverkusen, near Cologne, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Azin dye and making same. No. 940,354; Nov. 16; Sp. p. 4232; Gaz. vol. 148; p. 714.
Otteson, J. C., Plainfield, N. J. Hand-stamp. No. 940,186; Nov. 16; Sp. p. 3856; Gaz. vol. 148; p. 655.
Owen, H. A., and A. K. Pratt, assignors to Whitin Machine Works, Whitinsville, Mass. Pattern mechanism for looms. No. 939,299; Nov. 9; Sp. p. 1879; Gaz. vol. 148; p. 320.
Owens, C., Chattanooga, Tenn., assignor to Montague Mailing Machinery Co. Printing-plate. No. 939,739; Nov. 9; Sp. p. 2855; Gaz. vol. 148; p. 470.
Owsley, J. S. (See Sloane and Owsley.)
Oxford, C. E., Fayetteville, Ark. Telephone-cabinet. No. 941,336; Nov. 23; Sp. p. 6358; Gaz. vol. 148; p. 1064.
P. & F. Corbin. (See Fletcher, J. R., assignor.)
P. H. & F. M. Roots Company. (See Hicks, G. C., Jr., assignor.)
Pace, W. W. (See Sholar and Pace.)
Packard, L. M., Brockton, Mass. Non-refillable bottle. No. 939,300; Nov. 9; Sp. p. 1881; Gaz. vol. 148; p. 320.
Paden, L. E., Philadelphia, Pa., assignor to Pay-Within-Car Company, Wilmington, Del. Passenger railway-car. No. 941,807; Nov. 30; Sp. p. 7402; Gaz. vol. 148; p. 1244.
Page, C. C., assignor of one-half to R. Tucker, Portland, Oreg. Drawing instrument. No. 941,687; Nov. 30; Sp. p. 7117; Gaz. vol. 148; p. 1202.
Pahlow, F. C., assignor of one-half to A. C. Pessano, Detroit, Mich. Pipe-coupling. No. 939,539; Nov. 9; Sp. p. 2411; Gaz. vol. 148; p. 400.
Paine, F. R., Albany, N. Y., assignor to Standard Oil Company of New York. Lubricating device. No. 939,301; Nov. 9; Sp. p. 1883; Gaz. vol. 148; p. 321.
Paine, S. B., Newton, Mass., assignor to General Electric Company. Apparatus for starting electric motors. No. 940,550; Nov. 16; Sp. p. 4684; Gaz. vol. 148; p. 779.
Painter, J. L., Bellevue, Ohio. Power-hammer. No. 941,093; Nov. 23; Sp. p. 5840; Gaz. vol. 148; p. 985.
Palm, C., Aurora, Ill. Trolley-retriever. No. 941,944; Nov. 30; Sp. p. 7673; Gaz. vol. 148; p. 1292.
Palmer, G. W., *et al.* (See Giddings, F. M., assignor.)
Palmer, H. R., Seattle, Wash. Telephone attachment. No. 939,439; Nov. 9; Sp. p. 2213; Gaz. vol. 148; p. 368.
Palmer, H. R., Cleveland, Ohio assignor, by mesne assignments, to F. E. McEwen. Protector for rubber tires. (Reissue.) No. 13,045; Nov. 23; Sp. p. 6406; Gaz. vol. 148; p. 1071.
Palmer, I. E., Middletown, Conn. Running-gear for vehicles. No. 938,782; Nov. 2; Sp. p. 707; Gaz. vol. 148; p. 114.
Palmer, I. E., Middletown, Conn. Trackless power-driven vehicle. No. 938,783; Nov. 2; Sp. p. 712; Gaz. vol. 148; p. 115.
Palmer, I. E., Middletown, Conn. Running-gear for vehicles. No. 938,784; Nov. 2; Sp. p. 715; Gaz. vol. 148; p. 115.
Palmer, I. E., Middletown, Conn. Shuttle-picking mechanism for looms. No. 938,785; Nov. 2; Sp. p. 717; Gaz. vol. 148; p. 115.
Palmer, I. E., Middletown, Conn. Trackless power-driven vehicle. No. 938,786; Nov. 2; Sp. p. 719; Gaz. vol. 148; p. 116.
Palmer, I. E., Middletown, Conn. Trackless power-driven vehicle. No. 939,077; Nov. 2; Sp. p. 1334; Gaz. vol. 148; p. 217.
Palmer, I. E., Middletown, Conn. Trackless power-driven vehicle. No. 939,158; Nov. 2; Sp. p. 1516; Gaz. vol. 148; p. 246.
Palmer, I. E., Middletown, Conn. Textile-conditioning apparatus. No. 941,382; Nov. 30; Sp. p. 6477; Gaz. vol. 148; p. 1102.
Palmer, T. E., and W. W. Baker, Elwood, Ind. Boiler-compound mixer and feeder. No. 939,540; Nov. 9; Sp. p. 2413; Gaz. vol. 148; p. 400.
Panter, P. (See Loud and Panter.)
Papanti, R., Springfield, Mass. Carbureter. No. 939,856; Nov. 9; Sp. p. 3089; Gaz. vol. 148; p. 510.
Papish, J., New York, N. Y. Filling device. No. 940,611; Nov. 16; Sp. p. 4796; Gaz. vol. 148; p. 799.
Papp, O., McKeesport, Pa. Bottle. No. 940,049; Nov. 16; Sp. p. 3548; Gaz. vol. 148; p. 607.

Paramount Knitting Company. (See Pope, F., assignor.)
Pardee, E. T., Boston, Mass. Valve-controlling device. No. 941,033; Nov. 23; Sp. p. 5720; Gaz. vol. 148; p. 965.
Paris, W., Manchester, N. H., assignor to United Shoe Machinery Company, Paterson, N. J. Heel-building machine. No. 939,302; Nov. 9; Sp. p. 1885; Gaz. vol. 148; p. 321.
Parisen, R. T., Pittsburg, Pa. Towel-cabinet. No. 940,717; Nov. 23; Sp. p. 5038; Gaz. vol. 148; p. 860.
Park, W. D., Philadelphia, Pa. Attachment for picker-sticks. No. 938,694; Nov. 2; Sp. p. 545; Gaz. vol. 148; p. 85.
Parke, Davis & Company. (See Orndorff, W. R., assignor.)
Parker, C. L., Lynn, and W. C. Collyer, Reading, Mass., assignors to United Shoe Machinery Company, Paterson, N. J. Sole-leveling machine. No. 939,621; Nov. 9; Sp. p. 2599; Gaz. vol. 148; p. 428.
Parker, C. W., Springfield, assignor to Lamb Knitting Machine Co., Chicopee Falls, Mass. Transmission-gearing. No. 941,034; Nov. 23; Sp. p. 5721; Gaz. vol. 148; p. 965.
Parker, C. W., Springfield, assignor to Lamb Knitting Machine Company, Chicopee Falls, Mass. Transmission-gearing. No. 941,035; Nov. 23; Sp. p. 5724; Gaz. vol. 148; p. 966.
Parker, E. D., assignor to Bridgeport Metal Goods Manufacturing Company, Bridgeport, Conn. Combination curtain-bracket. No. 940,820; Nov. 23; Sp. p. 5277; Gaz. vol. 148; p. 895.
Parker, E. F., Fairfield, Me. Causticizing-tank. No. 941,036; Nov. 23; Sp. p. 5727; Gaz. vol. 148; p. 966.
Parker, H. H., Cleveland, Ohio. Self-restoring trolley. No. 940,718; Nov. 23; Sp. p. 5040; Gaz. vol. 148; p. 861.
Parker, J., assignor to Kestner Evaporator Company, Philadelphia, Pa. Evaporating apparatus. No. 940,473; Nov. 16; Sp. p. 4506; Gaz. vol. 148; p. 753.
Parker, J. C., Philadelphia, Pa. Steam-generator. No. 941,402; Nov. 30; Sp. p. 6660; Gaz. vol. 148; p. 1129.
Parker, J. F., assignor to Pittsburg Automatic Smoke Preventor Company, Pittsburg, Pa. Automatic shut-off. No. 940,050; Nov. 16; Sp. p. 3550; Gaz. vol. 148; p. 607.
Parker, T., Ironbridge, England. Distillation of bituminous coal or similar carbonaceous substances. No. 941,352; Nov. 23; Sp. p. 6399; Gaz. vol. 148; p. 1070.
Parker, T. R. G., Broadheath, assignor to Linotype and Machinery Limited, London, England. Sheet-inverting apparatus for use in connection with printing-machines. No. 939,541; Nov. 9; Sp. p. 2415; Gaz. vol. 148; p. 401.
Parker, W. L. (See Hardman, G. H., assignor.)
Parks, E. F., and S. W. Wardwell, Providence, R. I. Braiding-machine. No. 939,622; Nov. 9; Sp. p. 2602; Gaz. vol. 148; p. 428.
Parks, J. R., Spokane, Wash. Treating ores. No. 940,821; Nov. 23; Sp. p. 5279; Gaz. vol. 148; p. 895.
Parmelee, C. L. (See Ferla, J., assignor.)
Parnall, J. B. (See Youngberg and Parnall.)
Parsons, F., Boston, Mass. Cord terminal. No. 941,808; Nov. 30; Sp. p. 7403; Gaz. vol. 148; p. 1244.
Päschke, B. (See Kleber, W., assignor.)
Paschke, O. H., Lynd, Minn. Concave for threshing-machines. No. 941,037; Nov. 23; Sp. p. 5728; Gaz. vol. 148; p. 967.
Pastoriza, J. J. (See Schwander, P. W., assignor.)
Patent Sales Company. (See Le Myre, J. E., assignor.)
Paterson, W. C., Denver, Colo. Pulp-agitator. No. 940,612; Nov. 16; Sp. p. 4797; Gaz. vol. 148; p. 800.
Patrick, J. M., Los Angeles, Cal. Wind-deflector for automobiles. No. 940,270; Nov. 16; Sp. p. 4022; Gaz. vol. 148; p. 685.
Patsch, I. C., Houston, Pa. Horseshoe. No. 939,440; Nov. 9; Sp. p. 2214; Gaz. vol. 148; p. 368.
Patterson, D. W., Philadelphia, Pa. Feeding device for water-purifying apparatus. No. 940,402; Nov. 16; Sp. p. 4368; Gaz. vol. 148; p. 731.
Patterson, E. S., *et al.* (See Anderson, J., assignor.)
Patterson, J. B., Philadelphia, Pa. Hammock-stand. No. 940,939; Nov. 23; Sp. p. 5521; Gaz. vol. 148; p. 934.
Patterson, J. L., Roanoke Rapids, N. C. Means for protecting roll-bearings of textile machinery. No. 940,551; Nov. 16; Sp. p. 4686; Gaz. vol. 148; p. 780.
Patterson, R. B., Sr., East Chicago, Ind., assignor of one-half to J. M. Weber, Chicago, Ill. Ash-pan. No. 940,403; Nov. 16; Sp. p. 4371; Gaz. vol. 148; p. 731.
Patterson, W. A., assignor to Cotton Harvester Company, St. Louis, Mo. Cotton-separator. No. 939,303; Nov. 9; Sp. p. 1888; Gaz. vol. 148; p. 322.
Pattison, B. S. (See Carrick, J. T., assignor.)
Pauling, H., assignor to Firm of Salpeters-Aure-Industrie-Gesellschaft, Ges. M. B. H., Gelsenkirchen, Germany. Apparatus for producing electric discharges. No. 939,441; Nov. 9; Sp. p. 2215; Gaz. vol. 148; p. 368.
Pauling, H., assignor to Salpetersäure-Industrie-Gesellschaft, G. M. B. H., Gelsenkirchen, Germany. Production of voltaic high-current arcs. No. 939,442; Nov. 9; Sp. p. 2216; Gaz. vol. 148; p. 368.
Pavey, V. F., Leesburg, Ohio. Corn-planter. No. 939,159; Nov. 2; Sp. p. 1519; Gaz. vol. 148; p. 246.
Pavia, L., Allentown, Pa. Shuttle. No. 940,271; Nov. 16; Sp. p. 4023; Gaz. vol. 148; p. 685.
Pay-Within Car Company. (See Englund, A. H., assignor.)
Pay-Within-Car Company. (See Paden, L. E., assignor.)
Payne, F. E., and M. M. House, Indianapolis, Ind. Extension-arm for chairs. No. 939,623; Nov. 9; Sp. p. 2605; Gaz. vol. 148; p. 429.
Peacock, S., Chicago, Ill., assignor to American Cyanamid Company, New York, N. Y. Making cement and other products. No. 939,078; Nov. 2; Sp. p. 1337; Gaz. vol. 148; p. 217.
Pearce, H., Broadheath, Altrincham, assignor to Linotype and Machinery Limited, London, England. Keyboard mechanism of typographic machines. No. 941,383; Nov. 30; Sp. p. 6482; Gaz. vol. 148; p. 1103.
Pearce, H., and J. E. Billington, Broadheath, England. Typographical composing and casting machine. No. 941,384; Nov. 30; Sp. p. 6483; Gaz. vol. 148; p. 1103.
Pearn, F. (See Pearn, W. A. and F.)
Pearn, W. A. and F., West Gorton, Manchester, England. Machine for milling, facing, and other metal-cutting operations. No. 941,269; Nov. 23; Sp. p. 6230; Gaz. vol. 148; p. 1044.
Pearson, J., Chicago, Ill. Dump-car. No. 940,187; Nov. 16; Sp. p. 3858; Gaz. vol. 148; p. 655.
Pearson, J., Chicago, Ill. Car-roof. No. 940,355; Nov. 16; Sp. p. 4234; Gaz. vol. 148; p. 714.
Pearson, J. H., assignor of one-half to W. S. Morgan, Westplains, Mo. Door. No. 941,094; Nov. 23; Sp. p. 5842; Gaz. vol. 148; p. 986.
Pearson, O., and C. E. Lindquist, Chicago, Ill. Sash-lock. No. 941,038; Nov. 23; Sp. p. 5730; Gaz. vol. 148; p. 967.
Pearson, W. B., Chicago, Ill., and E. R. Seward; said Seward assignor to Hartford Machine Screw Company, Hartford, Conn. Chuck. No. 939,304; Nov. 9; Sp. p. 1891; Gaz. vol. 148; p. 322.
Pease, F. B., Rochester, N. Y. Fruit-packing device. No. 939,740; Nov. 9; Sp. p. 2856; Gaz. vol. 148; p. 471.
Peat Gas and Coal Company. (See Oligny, J. D., assignor.)
Peck, W. A., Jersey City, N. J. Tool-holder. No. 939,079; Nov. 2; Sp. p. 1339; Gaz. vol. 148; p. 218.
Pein, E. J. von, assignor to National Cash Register Company, Dayton, Ohio. Cash-register. No. 938,527; Nov. 2; Sp. p. 192; Gaz. vol. 148; p. 28.
Peirce, C. L., Jr., Chicago, Ill., assignor to W. G. Nagel Electric Company, Toledo, Ohio. Cable-hanger. No. 941,039; Nov. 23; Sp. p. 5733; Gaz. vol. 148; p. 968.
Peirce, J. W., Cornish, Vt. Horse-blanket. No. 938,787; Nov. 2; Sp. p. 722; Gaz. vol. 148; p. 116.
Pelletier, J. H., Maspeth, N. Y. Can-closing device. No. 941,533; Nov. 30; Sp. p. 6804; Gaz. vol. 148; p. 1152.
Peloso, S., New York, N. Y. Non-refillable bottle. No. 939,305; Nov. 9; Sp. p. 1893; Gaz. vol. 148; p. 322.
Pelton, J. G. (See Green, J. W., assignor.)
Pelton Water Wheel Co. (See Hacberlein, M., assignor.)
Pence, A. H., Somerville, Ala. Marine table. No. 938,695; Nov. 2; Sp. p. 546; Gaz. vol. 148; p. 85.
Pence, C. F., *et al.* (See Marshall, D. A., assignor.)
Pence, C. G., *et al.* (See Marshall, D. A., assignor.)
Pence, J. H., Greeneville, Tenn. Lantern. No. 939,542; Nov. 9; Sp. p. 2420; Gaz. vol. 148; p. 401.
Pendleton, R. F., Norwich, N. Y. Coin-controlled game-element carrier. No. 939,306; Nov. 9; Sp. p. 1894; Gaz. vol. 148; p. 323.
Penn Railroad Tie Company. (See Bonzano, M. F., assignor.)
Pennington, E., Westhope, N. D. Self-binder attachment. No. 941,945; Nov. 30; Sp. p. 7676; Gaz. vol. 148; p. 1293.
Pennsylvania Furnace and Stove Company. (See Schellhammer, A. L., assignor.)
Penwell, A. L., Leland, Oreg. Combination-door. No. 940,719; Nov. 23; Sp. p. 5043; Gaz. vol. 148; p. 861.
Pepling, M., Newark, N. J., assignor to F. Moss, New York, N. Y. Winding-machine. No. 939,160; Nov. 2; Sp. p. 1521; Gaz. vol. 148; p. 247.
Perdew, C. H., Sr., Henry, Ill. Crow-call. No. 939,080; Nov. 2; Sp. p. 1341; Gaz. vol. 148; p. 219.
Perkins Electric Switch Mfg. Company. (See Monithrop, L. H., assignor.)
Perley, J., Lynn, Mass., assignor, by mesne assignments, to Reece Buttonhole Machine Company. Machine for sewing shank-eyed buttons. No. 939,161; Nov. 2; Sp. p. 1527; Gaz. vol. 148; p. 247.
Perring, J. O., Kalamazoo, Mich. Camera. No. 941,688; Nov. 30; Sp. p. 7121; Gaz. vol. 148; p. 1203.
Perron, A. J., Lowell, Mass. Pie-trimmer. No. 941,337; Nov. 23; Sp. p. 6360; Gaz. vol. 148; p. 1064.
Perry, R. S., Cave Spring, Ga. Manufacture of paints. No. 938,505; Nov. 2; Sp. p. 125; Gaz. vol. 148; p. 20.
Perry, T. O., Chicago, Ill. Pneumatic pump or apparatus for raising water by means of compressed air. No. 939,307; Nov. 9; Sp. p. 1897; Gaz. vol. 148; p. 323.
Perry, W. E., Toronto, Ontario, Canada. Rotary washing-machine. No. 938,506; Nov. 2; Sp. p. 128; Gaz. vol. 148; p. 20.

Persic, F., assignor of one-fourth to J. Kastjack, Minonk, Ill. Rail-fastener. No. 940,986; Nov. 23; Sp. p. 5604; Gaz. vol. 148; p. 949.
Personett, H., Atwood, Ill. Rope-making machine. No. 939,308; Nov. 9; Sp. p. 1903; Gaz. vol. 148; p. 324.
Persoons, A. (See Persoons, J. and A.)
Persoons, J. and A., Thildonck, Belgium. Drum for centrifugal cream-separators. No. 941,809; Nov. 30; Sp. p. 7404; Gaz. vol. 148; p. 1245.
Pessano, A. C. (See Pahlow, F. C., assignor.)
Peterson, A. M., Goodhue, Minn. Mortar or concrete mixer. No. 940,552; Nov. 16; Sp. p. 4089; Gaz. vol. 148; p. 780.
Peterson, C. C., Sheridan township, Washington county, Nebr. Automatic windmill-regulator. No. 941,647; Nov. 30; Sp. p. 7026; Gaz. vol. 148; p. 1189.
Peterson, C. F., Schenectady, N. Y., assignor to General Electric Company. Making insulating fabrics. No. 940,188; Nov. 16; Sp. p. 3862; Gaz. vol. 148; p. 656.
Peterson, E., Wakefield, Mass. Sostenuto attachment for pianos. No. 939,309; Nov. 9; Sp. p. 1905; Gaz. vol. 148; p. 325.
Peterson, G. (See Norman and Peterson.)
Peterson, J. G., assignor to Arrow Electric Company, Hartford, Conn. Electric-switch handle. No. 941,534; Nov. 30; Sp. p. 6806; Gaz. vol. 148; p. 1153.
Petley, B. H., Seattle, Wash. Fluid-pressure regulator. No. 942,042; Nov. 30; Sp. p. 7858; Gaz. vol. 148; p. 1324.
Peto, J. T., assignor to S. T. Walkup, New York, N. Y. Roll-renewing attachment for printing-presses. No. 940,272; Nov. 16; Sp. p. 4025; Gaz. vol. 148; p. 686.
Petri, G. H., Boston, Mass. Forming-machine for dough. No. 941,338; Nov. 23; Sp. p. 6361; Gaz. vol. 148; p. 1064.
Petri, W. J., Milwaukee, assignor to Milwaukee Stamping Co., West Allis, Wis. Hinge for traveling-bags. No. 941,040; Nov. 23; Sp. p. 5734; Gaz. vol. 148; p. 968.
Pfalzgraf, C. F., Baltimore, Md. Safety trip device for power-operated machines. No. 941,726; Nov. 30; Sp. p. 7213; Gaz. vol. 148; p. 1216.
Pfaudler Company. (See Puffer, C. C., assignor.)
Pfennighausen, G. E., Wethersfield, and G. Okerfelt, Hartford, Conn. Article made from reeds, ratan, or the like. No. 938,696; Nov. 2; Sp. p. 547; Gaz. vol. 148; p. 85.
Pfister, L. F., assignor to S. T. Walkup, New York, N. Y. Means for supplying rolls of paper to printing-presses. No. 940,273; Nov. 16; Sp. p. 4033; Gaz. vol. 148; p. 686.
Pfunder, E. L., Hartford, Conn., assignor to Underwood Typewriter Company, New York, N. Y. Type-writing machine. No. 938,507; Nov. 2; Sp. p. 130; Gaz. vol. 148; p. 21.
Phelan, M. D., Dorchester, Mass., assignor, by mesne assignments, to Manufacturers Machine Company, Montclair, N. J. Portable power-tacker. No. 938,508; Nov. 2; Sp. p. 133; Gaz. vol. 148; p. 21.
Phelps, F. A., Newark, N. J. Valve-inserting machine. No. 940,356; Nov. 16; Sp. p. 4237; Gaz. vol. 148; p. 714.
Philip Carey Manufacturing Company. (See Moeller, W. J., assignor.)
Philips, E., Columbus, Ohio, assignor to C. S. Davis, Philadelphia, Pa. Split metal pulley. No. 940,720; Nov. 23; Sp. p. 5045; Gaz. vol. 148; p. 862.
Phillips, C., Meridian, Miss. Attachment for feed-water injectors. No. 939,310; Nov. 9; Sp. p. 1907; Gaz. vol. 148; p. 325.
Phillips, C. E., Indianapolis, Ind. Concrete-block machine. No. 939,543; Nov. 9; Sp. p. 2421; Gaz. vol. 148; p. 401.
Phillips, C. G. (See Willour, L., assignor.)
Phillips, C. S., Chicago, Ill. Ventilated cooking-vessel cover. No. 941,041; Nov. 23; Sp. p. 5735; Gaz. vol. 148; p. 968.
Phillips, H. S., Burlington, N. J. Foot-rest. No. 938,697; Nov. 2; Sp. p. 548; Gaz. vol. 148; p. 85.
Phillips, J. F., Gorgona, Panama. Automatic alarm for refrigerator drip-pans. No. 939,311; Nov. 9; Sp. p. 1911; Gaz. vol. 148; p. 325.
Phillips and J. Scott & Sons Limited, D. (See Boyd, J., assignor.)
Phillips, W. A., and F. Hutchins, London, England. Making insulating-coverings for electric conductors. No. 941,810; Nov. 30; Sp. p. 7407; Gaz. vol. 148; p. 1245.
Phillips, W. H., Fairmount, N. D. Dumping-vehicle. No. 940,721; Nov. 23; Sp. p. 5047; Gaz. vol. 148; p. 862.
Philo, W. E., Stockton, Cal. Pencil-holder. No. 940,822; Nov. 23; Sp. p. 5281; Gaz. vol. 148; p. 896.
Phipps, W. A., Fay, Okla. Cotton-picker. No. 940,274; Nov. 16; Sp. p. 4043; Gaz. vol. 148; p. 687.
Pickard, O. L., Columbus, Ohio. Bowling-alley finishing and leveling machine. No. 939,544; Nov. 9; Sp. p. 2423; Gaz. vol. 148; p. 402.
Pickel, E. (See Barnett and Pickel.)
Picken, A., Norfolk, Va. Sorting-machine. No. 941,270; Nov. 23; Sp. p. 6232; Gaz. vol. 148; p. 1045.
Pickens, W. A. (See Henderson, C. O., assignor.)
Pierce, G. L., New York, N. Y. Sewed shoe. No. 939,624; Nov. 9; Sp. p. 2608; Gaz. vol. 148; p. 429.
Pierini, P., Rome, Italy. Synchronizing apparatus. No. 941,891; Nov. 30; Sp. p. 7572; Gaz. vol. 148; p. 1274.
Pierman, A. N., Newark, assignor to New Jersey Patent Company, West Orange, N. J. Sound-reproducer. No. 940,051; Nov. 16; Sp. p. 3552; Gaz. vol. 148; p. 608.
Piestrak, C. S., London, England. Combustion-engine. No. 940,474; Nov. 16; Sp. p. 4510; Gaz. vol. 148; p. 754.
Pindstofte, A. A., Frederiksberg, near Copenhagen, Denmark. Pasteurizing apparatus. No. 939,162; Nov. 2; Sp. p. 1529; Gaz. vol. 148; p. 248.
Pine, G. V. A., assignor to Automatic Roll Paper Printer Manufacturing Company, Baltimore, Md. Automatic roll-paper cutter and printer. No. 939,545; Nov. 9; Sp. p. 2425; Gaz. vol. 148; p. 402.
Pine, J. A. W., New York, N. Y. Rejuvenating asphalt. No. 938,698; Nov. 2; Sp. p. 549; Gaz. vol. 148; p. 86.
Pingree, G. A., Rocky Ford, Colo. Beet-harvester. No. 940,189; Nov. 16; Sp. p. 3894; Gaz. vol. 148; p. 656.
Pink, J. J. (See Pink and Fletcher, assignors.)
Pink, J. J., and J. Fletcher, assignors to J. J. Pink, Chicago, Ill. Kinetoscope. No. 940,275; Nov. 16; Sp. p. 4044; Gaz. vol. 148; p. 687.
Pink, S. J., assignor of one-half to Modern Machine Company, Ottawa, and one-half to J. A. Bullman, Ottawa East, Canada. Brick-press. No. 938,699; Nov. 2; Sp. p. 552; Gaz. vol. 148; p. 86.
Pipe, J. L., Quincy, Ill. Scale. No. 939,857; Nov. 9; Sp. p. 3091; Gaz. vol. 148; p. 511.
Piquette, N., Chassell, Mich. Sweep for hay-presses. No. 938,700; Nov. 2; Sp. p. 554; Gaz. vol. 148; p. 86.
Piquette, N., Chassell, Mich. Hay-press. No. 938,701; Nov. 2; Sp. p. 555; Gaz. vol. 148; p. 87.
Pitcher, E. C., San Francisco, Cal. Door-hanger. No. 941,095; Nov. 23; Sp. p. 5844; Gaz. vol. 148; p. 986.
Pittman, G. A., Deweese, Nebr. Well-tubing and means for connecting sections thereof. No. 941,204; Nov. 23; Sp. p. 6098; Gaz. vol. 148; p. 1023.
Pittman, R. W., New York, N. Y. Pencil-sharpening device. No. 940,613; Nov. 16; Sp. p. 4800; Gaz. vol. 148; p. 800.
Pitts, E. L., assignor of one-third to A. J. Locke and one-third to J. E. Ludy, Yuma, Ariz. Seal-lock. No. 940,475; Nov. 16; Sp. p. 451; Gaz. vol. 148; p. 754.
Pittsburg Automatic Smoke Preventor Company. (See Parker, J. F., assignor.)
Pittsburgh Track Specialty Company. (See Hassel, G. A., assignor.)
Plamondon, F. N., Bordeaux, Wash. Attachment for combs. No. 940,890; Nov. 23; Sp. p. 5419; Gaz. vol. 148; p. 918.
Plant, T. G. (See Hooper, W. H., assignor.)
Plant, T. G. (See Steuart, W. C., assignor.)
Plant, T. G. (See Woodward, E., assignor.)
Plant, T. G., Boston, Mass. Stopping mechanism. No. 940,052; Nov. 16; Sp. p. 3555; Gaz. vol. 148; p. 608.
Plant, T. G., Boston, Mass. Sewing-machine. No. 940,053; Nov. 16; Sp. p. 3557; Gaz. vol. 148; p. 609.
Plant, T. G., Boston, Mass. Sole-sewing machine. No. 940,054; Nov. 16; Sp. p. 3560; Gaz. vol. 148; p. 609.
Plant, T. G., Boston, Mass. Sole-sewing machine. No. 940,055; Nov. 16; Sp. p. 3566; Gaz. vol. 148; p. 610.
Plant, T. G., Boston, Mass. Jack for boot and shoe lasts. No. 940,722; Nov. 23; Sp. p. 5049; Gaz. vol. 148; p. 863.
Plant, T. G., Boston, Mass. Channeling device for sewing-machines. No. 940,723; Nov. 23; Sp. p. 5052; Gaz. vol. 148; p. 863.
Plant, T. G., Boston, Mass. Sewing-machine. No. 940,724; Nov. 23; Sp. p. 5054; Gaz. vol. 148; p. 863.
Plant, T. G., Boston, Mass. Shoe-sewing machine. No. 940,725; Nov. 23; Sp. p. 5059; Gaz. vol. 148; p. 864.
Plant, T. G., Boston, Mass. Lock-stitch sewing-machine. No. 940,726; Nov. 23; Sp. p. 5064; Gaz. vol. 148; p. 864.
Plate, L. (See Jack, R. E., assignor.)
Platt, C. D. Bridgeport, Conn. Keyless socket. No. 941,811; Nov. 30; Sp. p. 7408; Gaz. vol. 148; p. 1245.
Playfair, J. (See Moloney, W. M., assignor.)
Plean, A., New York, N. Y. Stem-winding mechanism for watches. No. 939,081; Nov. 2; Sp. p. 1342; Gaz. vol. 148; p. 218.
Plean, A., New York, N. Y. Setting mechanism for watches. No. 939,082; Nov. 2; Sp. p. 1345; Gaz. vol. 148; p. 219.
Plumer, A. H., St. Louis, Mo. Display-bin. No. 939,546; Nov. 9; Sp. p. 2428; Gaz. vol. 148; p. 403.
Plummer, S. A., West Newton, Ind. Seed-sower. No. 940,891; Nov. 23; Sp. p. 5420; Gaz. vol. 148; p. 918.
Pneumatic Scale Corporation *et al.* (See Doble, W. H., assignor.)
Pneumatic Scale Corporation *et al.* (See Doble and Wheaton, assignors.)
Pocock, A. J., Dayton, Ohio. Hydraulic pump. No. 940,056; Nov. 16; Sp. p. 3567; Gaz. vol. 148; p. 610.
Poell, H., Philadelphia, Pa. Tinner's double-seaming machine. No. 939,083; Nov. 2; Sp. p. 1346; Gaz. vol. 148; p. 219.
Poirier, G. H. (See Blessing, Aten, and Poirier.)
Poister, W. A. (See Myers and Poister.)
Pojar, T., Dodge, Nebr. Draft-tongue. No. 939,547; Nov. 9; Sp. p. 2428; Gaz. vol. 148; p. 403.
Polák, A., Paris, France. Apparatus for strengthening weak electrical currents. No. 939,625; Nov. 9; Sp. p. 2611; Gaz. vol. 148; p. 430.
Pollard, J. A., Oakland, Miss. Self-closing bottom for well-strainers. No. 941,205; Nov. 23; Sp. p. 6099; Gaz. vol. 148; p. 1022.

Pollock, M. L. (See Schmitt, E. D., assignor.)
Pomeroy, F. H., Bradford, assignor, by mesne assignments, to Safety Gas Lighter Co., Haverhill, Mass. Gas-lighter. No. 940,276; Nov. 16; Sp. p. 4048; Gaz. vol. 148; p. 688.
Pope Automatic Merchandizing Company. (See Kalner, F. C., assignor.)
Pope, F., Kankakee, assignor to Paramount Knitting Company, Chicago, Ill. Hosiery-turner. No. 939,312; Nov. 9; Sp. p. 1912; Gaz. vol. 148; p. 326.
Popp, B., assignor to E. Dubied & Cie., Couvet, Switzerland. Needle-cam for straight independent-needle knitting-machines. No. 941,206; Nov. 23; Sp. p. 6101; Gaz. vol. 148; p. 1024.
Porbeck, O., St. Louis, Mo. Dust-collector and separator. No. 938,702; Nov. 2; Sp. p. 556; Gaz. vol. 148; p. 87.
Port, G. C., Ebensburg, Pa. Snow-shovel. No. 941,271; Nov. 23; Sp. p. 6243; Gaz. vol. 148; p. 1045.
Porter, C. O., Grand Rapids, Mich. Rotary cutter-head. No. 940,940; Nov. 23; Sp. p. 5522; Gaz. vol. 148; p. 934.
Porter, J. Y., Detroit, Mich. Electrically-actuated train-switch. No. 939,626; Nov. 9; Sp. p. 2612; Gaz. vol. 148; p. 430.
Porter, W. E., assignor to New Haven Clock Co., New Haven, Conn. Alarm-clock. No. 941,042; Nov. 23; Sp. p. 5736; Gaz. vol. 148; p. 968.
Portsche, G. (See Bertrand and Portsche.)
Posson, E., Chicago, Ill. Car-frame. No. 940,357; Nov. 16; Sp. p. 4240; Gaz. vol. 148; p. 715.
Posson, E., Chicago, Ill. Underframe for railway-cars. No. 940,358; Nov. 16; Sp. p. 4241; Gaz. vol. 148; p. 715.
Posson, E., Chicago, Ill., assignor to Grain Belt Car Specialty Company. Emergency car-coupling. No. 940,553; Nov. 16; Sp. p. 4091; Gaz. vol. 148; p. 780.
Potstada, G., San Francisco, Cal. Metal-shears. No. 939,627; Nov. 9; Sp. p. 2614; Gaz. vol. 148; p. 430.
Potter, D. J. (See Reiff, W. H., assignor.)
Potter, G. E. (See Sauer and Potter.)
Potter, W. S., assignor to Manganese Steel Rail Company, Mahwah, N. J. Producing finished shapes of manganese steel. No. 938,891; Nov. 2; Sp. p. 955; Gaz. vol. 148; p. 152.
Potter, W. S., assignor to Manganese Steel Rail Company, Mahwah, N. J. Treating manganese steel ingots. No. 938,892; Nov. 2; Sp. p. 958; Gaz. vol. 148; p. 152.
Potter, W. S., assignor to Manganese Steel Rail Company, Mahwah, N. J. Rolling manganese steel. No. 938,893; Nov. 2; Sp. p. 961; Gaz. vol. 148; p. 152.
Potter, W. S., assignor to Manganese Steel Rail Company, Mahwah, N. J. Manganese steel. No. 939,084; Nov. 2; Sp. p. 1349; Gaz. vol. 148; p. 219.
Potter, W. S., New York, N. Y., assignor to Manganese Steel Rail Company, Mahwah, N. J. Treating manganese steel. No. 939,163; Nov. 2; Sp. p. 1530; Gaz. vol. 148; p. 248.
Potter, W. S., New York, N. Y., assignor to Manganese Steel Rail Company, Mahwah, N. J. Producing finished shapes from manganese steel. No. 939,164; Nov. 2; Sp. p. 1532; Gaz. vol. 148; p. 248.
Potterton, J., Lynn, Mass. Hood for electrical wiring on stand-pipes. No. 939,165; Nov. 2; Sp. p. 1534; Gaz. vol. 148; p. 248.
Potthoff, L., Flushing, N. Y. Electroplating apparatus. No. 941,535; Nov. 30; Sp. p. 6807; Gaz. vol. 148; p. 1153.
Potts, J. R., Mechanicsburg, Pa. Latch-bolt for doors. No. 941,689; Nov. 30; Sp. p. 7126; Gaz. vol. 148; p. 1203.
Pouch, F. D., Newcastle, Ind. Change-speed gearing. No. 941,727; Nov. 30; Sp. p. 7216; Gaz. vol. 148; p. 1217.
Powell, A. M., Valdez, Alaska. Combined hammer and sight. No. 939,085; Nov. 2; Sp. p. 1351; Gaz. vol. 148; p. 220.
Powell, A. W., New York, N. Y. Lady's garment. No. 940,957; Nov. 23; Sp. p. 5605; Gaz. vol. 148; p. 950.
Powell, A. W., New York, N. Y. Head and back rest. No. 941,043; Nov. 23; Sp. p. 5738; Gaz. vol. 148; p. 969.
Powell, E. W. B. (See Dettelbach and Powell.)
Powell, M. P., Jr., Hilandale, Miss. Shaft-detaching device. No. 938,890; Nov. 2; Sp. p. 953; Gaz. vol. 148; p. 152.
Powell, N. M., and J. L. Miller, Fairfield, Ill. Merry-go-round. No. 942,010; Nov. 30; Sp. p. 7799; Gaz. vol. 148; p. 1313.
Powell, W. J., Coffeyville, Kans. Tool-holder. No. 941,272; Nov. 23; Sp. p. 6244; Gaz. vol. 148; p. 1045.
Power and Mining Machinery Company. (See Bernhard, R., assignor.)
Power, W. M., Portchester, N. Y. Governor for internal-combustion engines. No. 939,923; Nov. 9; Sp. p. 3243; Gaz. vol. 148; p. 534.
Pratt, A. K. (See Owen and Pratt.)
Pratt, H. V. (See Singer and Pratt.)
Pratt & Whitney Company. (See Grohmann, C. L., assignor.)
Pratt & Whitney Company. (See Hanson, B. M. W., assignor.)
Prazak, E., Elizabeth, N. J., assignor to Singer Manufacturing Company. Overseaming sewing-machine. No. 939,548; Nov. 9; Sp. p. 2430; Gaz. vol. 148; p. 403.
Preast, R. J., New York, N. Y. Cue. No. 941,728; Nov. 30; Sp. p. 7218; Gaz. vol. 148; p. 1217.
Prelle, A. F. W., assignor of one-third to O. E. Woods, Bassett, Nebr. Rail brace and fastener. No. 940,554; Nov. 16; Sp. p. 4092; Gaz. vol. 148; p. 781.
Prendergast, W. H., assignor of one-fourth to J. McCarthy and one-fourth to R. Fechner, Savannah, Ga. Track-sanding device. No. 940,476; Nov. 16; Sp. p. 4513; Gaz. vol. 148; p. 755.
Prentice, G. W., Providence, R. I. Fabric for lacing-tips and the like and composition for the same. No. 939,313; Nov. 9; Sp. p. 1913; Gaz. vol. 148; p. 326.
Prentice, H., Bellevue, Pa. By-product retort coke-oven. No. 939,086; Nov. 2; Sp. p. 1352; Gaz. vol. 148; p. 220.
Press Feeder Company. (See Mottian, A. J., assignor.)
Pressed Steel Car Company. (See Koch, F., assignor.)
Pressed Steel Car Company. (See Lindström, C. A., assignor.)
Preston, A. E., Battle Creek, Mich. Spraying-nozzle. No. 940,477; Nov. 16; Sp. p. 4515; Gaz. vol. 148; p. 755.
Preston, A. F., Boston, Mass. Machine for cutting sheet material. No. 938,788; Nov. 2; Sp. p. 724; Gaz. vol. 148; p. 117.
Preston, A. M., Broxton, Ga. Waist and skirt supporter. No. 941,207; Nov. 23; Sp. p. 6105; Gaz. vol. 148; p. 1024.
Preuss, F. A., Green Garden precinct, Madison county, Nebr. Air-compressor. No. 939,314; Nov. 9; Sp. p. 1915; Gaz. vol. 148; p. 326.
Preuss, F. A., Green Garden township, Madison county, Nebr. Windmill. No. 940,057; Nov. 16; Sp. p. 3569; Gaz. vol. 148; p. 610.
Pricer, J., and T. J. Bartow, Manzanola, Colo. Seeding device. No. 939,087; Nov. 2; Sp. p. 1354; Gaz. vol. 148; p. 220.
Pries, H., Michigan City, Ind. Refrigerator-car. No. 939,315; Nov. 9; Sp. p. 1916; Gaz. vol. 148; p. 326.
Primrose, J. (See Foster and Primrose.)
Prior, O., Milford, Mich. Rolling toy. No. 941,946; Nov. 30; Sp. p. 7077; Gaz. vol. 148; p. 1293.
Probasco, A. H., Turtle Creek township, Warren county, Ohio. Tool for forming wire joints. No. 940,823; Nov. 23; Sp. p. 5283; Gaz. vol. 148; p. 896.
Proulx, J. B. (See Marengo, W. E., assignor.)
Provost, P., Milwaukee, Wis. Grain-drier. No. 940,190; Nov. 16; Sp. p. 3866; Gaz. vol. 148; p. 656.
Puffer, C. C., assignor to Pfaudler Company, Rochester, N. Y. Manhole-closure. No. 939,628; Nov. 9; Sp. p. 2616; Gaz. vol. 148; p. 431.
Pugatsky, M. H. Wilkenfeld, and S. Mannes, New York, N. Y. Clasp-fastener. No. 941,096; Nov. 23; Sp. p. 5846; Gaz. vol. 148; p. 986.
Pulfrich, C., assignor to Firm of C. Zeiss, Jena, Germany. Telemeter for two successive observations. No. 941,812; Nov. 30; Sp. p. 7410; Gaz. vol. 148; p. 1246.
Pullen, J. M., Ozark, Mo. Temperature-regulating apparatus. No. 939,858; Nov. 9; Sp. p. 3094; Gaz. vol. 148; p. 511.
Pullen, J. M., Ozark, Mo. Tripod. No. 939,859; Nov. 9; Sp. p. 3095; Gaz. vol. 148; p. 511.
Pullen, L. W., Philadelphia, Pa. Puzzle. No. 938,509; Nov. 2; Sp. p. 139; Gaz. vol. 148; p. 22.
Purdy, M. E., Ridgefield Park, N. J. Comb. No. 941,586; Nov. 30; Sp. p. 6905; Gaz. vol. 148; p. 1168.
Purple, G. E., assignor to Flexible Steel Lacing Company, Chicago, Ill. Belt-coupling. No. 938,511; Nov. 2; Sp. p. 142; Gaz. vol. 148; p. 22.
Purple, G. E., A. B. Beach, Chicago, Ill., and W. H. Trout, Milwaukee, Wis., assignors to Flexible Steel Lacing Company, Chicago, Ill. Belt-coupling. No. 938,510; Nov. 2; Sp. p. 140; Gaz. vol. 148; p. 22.
Purvis, G. H. (See Ellis, Purvis, and Creech.)
Putnam, J. W., Grand Rapids, Mich. Folding box. No. 940,941; Nov. 23; Sp. p. 5523; Gaz. vol. 148; p. 935.
Putnam, R., Corcoran, Cal. Fuel-feeding apparatus. No. 941,587; Nov. 30; Sp. p. 6907; Gaz. vol. 148; p. 1169.
Pym, C. F., Essex, Ontario, Canada, assignor of one-half to Krentler Bros. Co., Detroit, Mich. Lasting-machine. No. 938,512; Nov. 2; Sp. p. 144; Gaz. vol. 148; p. 22.
Pym, C. F., Essex, Ontario, Canada, assignor of one-half to Krentler Brothers Co., Detroit, Mich. Lasting-machine. No. 938,513; Nov. 2; Sp. p. 153; Gaz. vol. 148; p. 23.
Pym, C. F., Essex, Ontario, Canada, assignor of one-half to Krentler Brothers Company, Detroit, Mich. Lasting-machine. No. 938,514; Nov. 2; Sp. p. 160; Gaz. vol. 148; p. 23.
Pym, C. F., Essex, Ontario, Canada, assignor to Krentler-Arnold Hinge Last Company, Detroit, Mich. Locking collapsible last. No. 939,860; Nov. 9; Sp. p. 3097; Gaz. vol. 148; p. 511.
Quigley, S., assignor of one-half to F. J. Johnson, Fitchburg, Mass. Dental instrument. No. 940,058; Nov. 16; Sp. p. 3570; Gaz. vol. 148; p. 611.
Quill, J. A., Eureka, Cal. Rotary engine. No. 939,861; Nov. 9; Sp. p. 3101; Gaz. vol. 148; p. 512.
Quimby, C. E., assignor to Standard Optical Company, Geneva, N. Y. Lens-polishing machine. No. 940,988; Nov. 23; Sp. p. 5607; Gaz. vol. 148; p. 950.
Quinby, W., White Plains, N. Y. Culinary utensil. No. 940,059; Nov. 16; Sp. p. 3572; Gaz. vol. 148; p. 611.
Quinn, J., Montreal, Quebec, Canada. Fare-box. No. 940,727; Nov. 23; Sp. p. 5066; Gaz. vol. 148; p. 865.

R. Neumann Hardware Co. (See Lysaght, C. J., assignor.)
Rader, H. S., Palmerton, Pa. Center-bearing. No. 939,443; Nov. 9; Sp. p. 2217; Gaz. vol. 148; p. 368.
Raehn, F. J., Pittsburg, Pa. Adjustable support for sinks. No. 939,741; Nov. 9; Sp. p. 2858; Gaz. vol. 148; p. 471.
Raffalovich, L., New York, N. Y., assignor to S. B. R. Specialty Company. Muffler cut-out for explosive-engines. No. 942,011; Nov. 30; Sp. p. 7801; Gaz. vol. 148; p. 1313.
Rafferty, C. (See Cunniff and Rafferty.)
Railways Surface Contact Supplies Company. (See Stephens, W. M., assignor.)
Raiter, C., Breckenridge, Minn. Switch-stand. No. 941,813; Nov. 30; Sp. p. 7412; Gaz. vol. 148; p. 1246.
Ralph, J. E. (See Stickney, B. R., assignor.)
Ralph, J. E., Newark, N. J. Card attachment. No. 941,273; Nov. 23; Sp. p. 6246; Gaz. vol. 148; p. 1046.
Ralph, T. W., North Augusta, Ontario, Canada. Telephone detector device. No. 940,359; Nov. 16; Sp. p. 4242; Gaz. vol. 148; p. 715.
Ramsey, R., Portland, Mich. Adjustable chair. No. 940,824; Nov. 23; Sp. p. 5285; Gaz. vol. 148; p. 896.
Randall, H. J. (See Dunn and Randall.)
Randall, T. L., assignor of one-half to T. J. Dobin, Centerville, Mo. Horseshoe. No. 942,012; Nov. 30; Sp. p. 7803; Gaz. vol. 148; p. 1314.
Ranney, J. L., Macedonia, Ohio. Machine for washing cans and the like. No. 940,060; Nov. 16; Sp. p. 3573; Gaz. vol. 148; p. 611.
Ransome, E. L., assignor to Ransome-International Conduit Co., New York, N. Y. Apparatus for laying concrete sidewalks, curbs, &c. No. 940,061; Nov. 16; Sp. p. 3577; Gaz. vol. 148; p. 612.
Ransome-International Conduit Co. (See Ransome, E. L., assignor.)
Ranum, N. L., Devils Lake, N. D. Bag-fastener. No. 939,316; Nov. 9; Sp. p. 1918; Gaz. vol. 148; p. 327.
Rapp, S. W., Detroit, Mich. Carbureter. No. 938,894; Nov. 2; Sp. p. 965; Gaz. vol. 148; p. 153.
Rash, J. R., Henderson, Ky. Hat. No. 940,062; Nov. 16; Sp. p. 3584; Gaz. vol. 148; p. 612.
Rau, A. (See Whyte and Rau.)
Rawalt, W., Blandinsville, Ill. Farrier's implement. No. 940,478; Nov. 16; Sp. p. 4517; Gaz. vol. 148; p. 756.
Raymond, M., Philadelphia, Pa. Non-refillable bottle. No. 938,703; Nov. 2; Sp. p. 558; Gaz. vol. 148; p. 87.
Raynesford, M. R., Ellis, Kans. Bench-stop. No. 939,088; Nov. 2; Sp. p. 1356; Gaz. vol. 148; p. 221.
Rea, E. C. and G. W., Baker City, Oreg. Wrench. No. 939,317; Nov. 9; Sp. p. 1919; Gaz. vol. 148; p. 327.
Rea, G. W. (See Rea, E. C. and G. W.)
Read, E. C., Franklin, Pa. Suspension device for telephone and telegraph cables and other electrical conductors. No. 940,555; Nov. 16; Sp. p. 4693; Gaz. vol. 148; p. 781.
Read, H. V. R., London, and R. H. Campbell, Edmonton, England. Fire-extinguisher apparatus. No. 940,614; Nov. 16; Sp. p. 4801; Gaz. vol. 148; p. 800.
Reaveley, R. R., Fort Williams, Ontario, Canada. Car-door for grain, coal, &c. No. 938,789; Nov. 2; Sp. p. 726; Gaz. vol. 148; p. 117.
Rebman, C. M. (See Sanders and Rebman.)
Rebman, J., Dallas, Tex. Magazine-firearm. No. 940,191; Nov. 16; Sp. p. 3808; Gaz. vol. 148; p. 657.
Red Wing Advertising Company. (See Sulzer, C. S., assignor.)
Redington, T. G., New York, N. Y. Shoe-tree. No. 941,947; Nov. 30; Sp. p. 7679; Gaz. vol. 148; p. 1293.
Redlich, A., and J. Wladika, Vienna, Austria-Hungary. Treatment of quebracho extract. No. 939,742; Nov. 9; Sp. p. 3859; Gaz. vol. 148; p. 471.
Redman, C. F. (See Bayless and Redman.)
Redman, C. F., Youngstown, Ohio. Portable suspending device. No. 939,318; Nov. 9; Sp. p. 1919; Gaz. vol. 148; p. 327.
Reece Buttonhole Machine Company. (See Perley, J., assignor.)
Reece, L. D., Des Moines, Iowa. Saw-hanger. No. 940,728; Nov. 23; Sp. p. 5068; Gaz. vol. 148; p. 865.
Reed & Barton Corporation. (See Glover, D. H., assignor.)
Reed, E., assignor to S. R. Reed, Cookeville, Tenn. Automatic air-pump. No. 940,892; Nov. 23; Sp. p. 5422; Gaz. vol. 148; p. 918.
Reed, G. B., assignor of one-half to A. T. Kirkland, Buffalo, N. Y. Box. No. 939,166; Nov. 2; Sp. p. 1535; Gaz. vol. 148; p. 249.
Reed, J. W., Hammond, Ind. Holder for concrete-reinforcing. No. 939,743; Nov. 9; Sp. p. 2860; Gaz. vol. 148; p. 471.
Reed, M. H., Pittsburg, Pa. Concrete-mixer. No. 939,629; Nov. 9; Sp. p. 2618; Gaz. vol. 148; p. 431.
Reed, S. R. (See Reed, E., assignor.)
Reed, W. J., Janesville, Wis. Necktie-fastener. No. 938,606; Nov. 2; Sp. p. 374; Gaz. vol. 148; p. 56.
Reed, W. J., Janesville, Wis. Kitchen-sink. No. 938,607; Nov. 2; Sp. p. 375; Gaz. vol. 148; p. 56.
Reenstierna, G. L., assignor of two-thirds to W. H. Hinners, Edgewater, N. J. Vegetable-slicer. No. 940,063; Nov. 16; Sp. p. 3585; Gaz. vol. 148; p. 612.
Reenstierna, G. L., assignor of three-fourths to W. H. Hinners, Edgewater, N. J. Vegetable-slicer. No. 940,064; Nov. 16; Sp. p. 3586; Gaz. vol. 148; p. 613.
Rees, D., Joplin, Mo. Churn. No. 941,948; Nov. 30; Sp. p. 7679; Gaz. vol. 148; p. 1294.
Reese, B. D., Philadelphia, Pa. Dirigible balloon. No. 939,089; Nov. 2; Sp. p. 1357; Gaz. vol. 148; p. 221.
Regan, J., New Bedford, Mass., assignor to Crompton & Knowles Loom Works. Electric warp stop-motion. No. 939,924; Nov. 9; Sp. p. 3245; Gaz. vol. 148; p. 535.
Regina Company. (See Sampere, J., assignor.)
Reicherter, H., Cameron, W. Va. Spool and twine holding device. No. 941,949; Nov. 30; Sp. p. 7682; Gaz. vol. 148; p. 1294.
Reid, H. N. (See Norton and Reid.)
Reid, J., Childress, Tex. Canopy-top for vehicles. No. 941,274; Nov. 23; Sp. p. 6249; Gaz. vol. 148; p. 1046.
Reidenbach, H., Marion, Ind. Spring structure. No. 939,090; Nov. 2; Sp. p. 1360; Gaz. vol. 148; p. 221.
Reiff, W. H., assignor to D. J. Potter, Philadelphia, Pa. Automatic alarm. No. 941,950; Nov. 30; Sp. p. 7683; Gaz. vol. 148; p. 1294.
Rein, R., Berlin, Germany. Calculating-machine. No. 938,791; Nov. 2; Sp. p. 730; Gaz. vol. 148; p. 118.
Rein, R., Berlin, Germany. Calculating-machine. No. 938,790; Nov. 2; Sp. p. 728; Gaz. vol. 148; p. 118.
Reinecking, F. C., Jersey City, N. J. Reed air-intake regulator for carbureters. No. 939,549; Nov. 9; Sp. p. 2434; Gaz. vol. 148; p. 404.
Reinoehl, C. W., Steelton, and C. W. Long, Fort Hunter, Pa. Switch-stand. No. 941,814; Nov. 30; Sp. p. 7414; Gaz. vol. 148; p. 1246.
Reisert, M. E., assignor to Hennefer Maschinenfabrik C. Reuther & Reisert, M. B. H., Hennef-on-the-Sieg, Germany. Automatic weighing-scale. No. 941,588; Nov. 30; Sp. p. 6909; Gaz. vol. 148; p. 1169.
Remané, H., assignor to Deutsche Gasglühlicht Actien Gesellschaft (Auergesellschaft), Berlin, Germany. Miner's electric lamp. No. 939,630; Nov. 9; Sp. p. 2620; Gaz. vol. 148; p. 431.
Remington Typewriter Company. (See Woodward, O., assignor.)
Remington Typewriter Company. (See Yaw, C. B., assignor.)
Renaud, T. H., assignor of one-third to W. Bawden and one-third to E. L. Adreon, Jr., St. Louis, Mo. Piston-packing ring. No. 941,536; Nov. 30; Sp. p. 6812; Gaz. vol. 148; p. 1153.
Rendleman, N., Knoxville, assignor to Jones & Laughlin Steel Company, Pittsburg, Pa. Rail. No. 939,319; Nov. 9; Sp. p. 1920; Gaz. vol. 148; p. 327.
Rendleman, N., Knoxville, assignor to Jones & Laughlin Steel Company, Pittsburg, Pa. Manufacturing rails. No. 939,320; Nov. 9; Sp. p. 1921; Gaz. vol. 148; p. 328.
Rennerfelt, G., New York, N. Y. Thrust-bearing. No. 941,097; Nov. 23; Sp. p. 5848; Gaz. vol. 148; p. 987.
Reum, C. F., Rockford, Ill. Jack-rafter bevel. No. 938,704; Nov. 2; Sp. p. 559; Gaz. vol. 148; p. 88.
Rexroth, J. J., Chicago, Ill. Double-acting pump. No. 940,192; Nov. 16; Sp. p. 3871; Gaz. vol. 148; p. 657.
Reyer, G. W., Wichita, Kans. Hame-fastener. No. 939,321; Nov. 9; Sp. p. 1923; Gaz. vol. 148; p. 328.
Reynolds, D. A., assignor of one-half to L. T. Adams, New York, N. Y. Skirt-gage. No. 940,615; Nov. 16; Sp. p. 4803; Gaz. vol. 148; p. 800.
Reynolds, H. A., Woonsocket, R. I., assignor to Electric Compositor Company, New York, N. Y. Matrix-channeling machine. No. 939,631; Nov. 9; Sp. p. 2622; Gaz. vol. 148; p. 432.
Reynolds, H. A., Woonsocket, R. I., assignor to Electric Compositor Company, New York, N. Y. Dovetail-notch-chamfering machine for matrices. No. 939,632; Nov. 9; Sp. p. 2624; Gaz. vol. 148; p. 432.
Reynolds, H. A., Woonsocket, R. I., assignor to Electric Compositor Company, New York, N. Y. Combination punching-machine for matrices. No. 939,633; Nov. 9; Sp. p. 2727; Gaz. vol. 148; p. 433.
Reynolds, W. C., Polo, Ill. Attachment for planters. No. 941,951; Nov. 30; Sp. p. 7685; Gaz. vol. 148; p. 1295.
Reynolds, W. H., assignor to Mellink Manufacturing Company, Toledo, Ohio. Wall-safe. No. 939,322; Nov. 9; Sp. p. 1925; Gaz. vol. 148; p. 329.
Rhoades, A. E., assignor to Draper Company, Hopedale, Mass. Twister stop-motion. No. 941,463; Nov. 30; Sp. p. 6664; Gaz. vol. 148; p. 1129.
Rhoades, A. E., assignor to Draper Company, Hopedale, Mass. Traverse-motion for yarn-spinning apparatus. No. 941,648; Nov. 30; Sp. p. 7028; Gaz. vol. 148; p. 1189.
Rhoades, A. E., assignor to Draper Company, Hopedale, Mass. Traverse-motion for yarn-spinning apparatus. No. 941,649; Nov. 30; Sp. p. 7036; Gaz. vol. 148; p. 1190.
Rhoades, A. E., assignor to Draper Company, Hopedale, Mass. Traverse-motion for yarn-spinning apparatus. No. 941,650; Nov. 30; Sp. p. 7043; Gaz. vol. 148; p. 1190.
Rhodes, J. B., Kalamazoo, Mich., assignor to Western Wheeled Scraper Company, Aurora, Ill. Dump-car. No. 940,893; Nov. 23; Sp. p. 5423; Gaz. vol. 148; p. 919.
Rice, G. W., Champaign, Ill. Cotton-chopper. No. 941,098; Nov. 23; Sp. p. 5850; Gaz. vol. 148; p. 987.

Rice, M. E., Los Angeles, Cal. Arch and heel support. No. 941,464; Nov. 30; Sp. p. 6665; Gaz. vol. 148; p. 1130.
Rich, D. (See Wichmann and Rich.)
Richard, J., Paris, France. Apparatus for viewing stereoscopic or other pictures. No. 940,479; Nov. 16; Sp. p. 4518; Gaz. vol. 148; p. 756.
Richards, F. H., Hartford, assignor to F. B. Manville, Waterville, Conn. Picture-exhibiting machine. No. 938,895; Nov. 2; Sp. p. 969; Gaz. vol. 148; p. 153.
Richards, F. H., Hartford, Conn., assignor, by mesne assignments, to American Typographic Corporation. Machine for making types and type-bars. No. 940,277; Nov. 16; Sp. p. 4051; Gaz. vol. 148; p. 688.
Richards, F. H., Hartford, Conn., assignor, by mesne assignments, to American Typographic Corporation. Manufacture of type-bars. No. 940,404; Nov. 16; Sp. p. 4372; Gaz. vol. 148; p. 731.
Richards, H. W., Oak Park, Ill. Grain-car door. No. 941,099; Nov. 23; Sp. p. 5852; Gaz. vol. 148; p. 987.
Richards, J. (See Barrett, T., assignor.)
Richards, J., and H. Ahnfeldt, Butte, Mont. Bottle-closure. No. 941,651; Nov. 30; Sp. p. 7051; Gaz. vol. 148; p. 1191.
Richards, J. E., Dayton, Ohio, assignor to Dayton Clothing Manufacturing Company. Union suit. (Reissue.) No. 13,046; Nov. 23; Sp. p. 6408; Gaz. vol. 148; p. 1071.
Richards, J. T., Chicago, Ill. Bar-bender. No. 940,360; Nov. 16; Sp. p. 4246; Gaz. vol. 148; p. 716.
Richardson, F. B., Slidell, La. Shaft-coupling. No. 939,744; Nov. 9; Sp. p. 2861; Gaz. vol. 148; p. 472.
Richardson, T., Ridgway, Pa. Veneering-machine. No. 938,896; Nov. 2; Sp. p. 976; Gaz. vol. 148; p. 154.
Richmond, G. E., Houston, Tex. Crate. No. 938,705; Nov. 2; Sp. p. 560; Gaz. vol. 148; p. 88.
Richmond, G. E., Houston, Tex. Automatic dumping-elevator. No. 940,065; Nov. 16; Sp. p. 3587; Gaz. vol. 148; p. 613.
Richmond, G. E., Houston, Tex. Automatic counting apparatus. No. 940,066; Nov. 16; Sp. p. 3590; Gaz. vol. 148; p. 613.
Richter, J. L., San Antonio, Tex. Rafter-marking instrument. No. 940,067; Nov. 16; Sp. p. 3591; Gaz. vol. 148; p. 614.
Richter, S., Martin, Pa. Coke-drag. No. 941,385; Nov. 30; Sp. p. 6491; Gaz. vol. 148; p. 1104.
Rickey, W. E., Rocky, Okla. Alfalfa drier and mill. No. 940,193; Nov. 16; Sp. p. 3879; Gaz. vol. 148; p. 658.
Rideout, W. L. (See Meier and Rideout.)
Rider, C., *et al.* (See Maitland, J. L., assignor.)
Rider, S. S., Brookland, D. C. Clothes-line reel. No. 939,862; Nov. 9; Sp. p. 3102; Gaz. vol. 148; p. 512.
Ridgway Dynamo & Engine Company. (See Hall, T., assignor.)
Ridgway, E. L., Frost, Tex. Spark-arrester. No. 939,444; Nov. 9; Sp. p. 2218; Gaz. vol. 148; p. 369.
Riebe, G. W., Itasca, Wis. Pallet-setting implement. No. 940,278; Nov. 16; Sp. p. 4061; Gaz. vol. 148; p. 688.
Riegel, R., Hawthorne, N. Y. Non-refillable bottle. No. 938,706; Nov. 2; Sp. p. 561; Gaz. vol. 148; p. 88.
Riehl, J. B., Philadelphia, Pa., assignor to American Specialty Manufacturing Company, Dover, Del. Securing notches to sticks of umbrellas and parasols. No. 941,952; Nov. 30; Sp. p. 7687; Gaz. vol. 148; p. 1295.
Riggs, G. P., St. Marys, W. Va. Hunting-knife. No. 939,091; Nov. 2; Sp. p. 1361; Gaz. vol. 148; p. 221.
Rigling, W., Hamilton, Ohio. Egg-tester. No. 940,361; Nov. 16; Sp. p. 4248; Gaz. vol. 148; p. 716.
Riley, R. S., Providence, R. I., assignor to Williamson Bros. Company, Philadelphia, Pa. Steering-gear. No. 939,323; Nov. 9; Sp. p. 1926; Gaz. vol. 148; p. 329.
Ritchel, M., Centerville, Iowa. Door-fastening device. No. 940,362; Nov. 16; Sp. p. 4249; Gaz. vol. 148; p. 716.
Ritscher, W. J. S., Pittsburg, Pa. Horse-detacher. No. 939,745; Nov. 9; Sp. p. 2862; Gaz. vol. 148; p. 472.
Rivers, W. E., Old Bridge, N. J. Saggar. No. 941,044; Nov. 23; Sp. p. 5740; Gaz. vol. 148; p. 969.
Rix, M. H. (See Hovey and Rix.)
Roath, J. C., Adrian, Ill. Disk tongue device. No. 940,194; Nov. 16; Sp. p. 3881; Gaz. vol. 148; p. 658.
Robbins, C. C., Portland, Oreg., assignor to Wyckoff, Seamans & Benedict, Ilion, N. Y. Type-writing machine. No. 940,363; Nov. 16; Sp. p. 4250; Gaz. vol. 148; p. 717.
Robert N. Bassett Company. (See Burns, M. F., assignor.)
Roberts, F. L., Washington, D. C. Locomotive ash-pan. No. 941,815; Nov. 30; Sp. p. 7417; Gaz. vol. 148; p. 1247.
Roberts, J. M. (See Brown and Roberts.)
Roberts, J. O., Granger, Tex. Guard or fender for vehicle-wheels. No. 941,170; Nov. 23; Sp. p. 6021; Gaz. vol. 148; p. 1011.
Roberts, Johnson & Rand Shoe Company. (See Watkins, G., assignor.)
Robertson, F., Denver, Colo. Substitute buttonhole attachment. No. 939,092; Nov. 2; Sp. p. 1363; Gaz. vol. 148; p. 222.
Robertson, W. A., Charlottetown, Prince Edward Island, Canada. Planing-machine. No. 939,093; Nov. 2; Sp. p. 1364; Gaz. vol. 148; p. 222.
Robinet, N. Tonkawa, Okla. Cotton-chopper. No. 940,279; Nov. 16; Sp. p. 4063; Gaz. vol. 148; p. 689.
Robinson, A. J., Boston, Mass. Faucet. No. 940,556; Nov. 16; Sp. p. 4695; Gaz. vol. 148; p. 781.
Robinson, D. F., assignor to Continental Can Company, Baltimore, Md. Die-cutting machine. No. 941,953; Nov. 30; Sp. p. 7688; Gaz. vol. 148; p. 1295.
Robinson, J. E., Wheeling, W. Va. Nut-lock. No. 938,515; Nov. 2; Sp. p. 169; Gaz. vol. 148; p. 23.
Robinson, R. W., Worcester, Mass. Clothes-reel. No. 940,729; Nov. 23; Sp. p. 5068; Gaz. vol. 148; p. 865.
Robinson, S., Pemlico, London, England. Means for packing reciprocating pistons and the like. No. 940,068; Nov. 16; Sp. p. 3593; Gaz. vol. 148; p. 614.
Robinson, S. N. (See Lattner and Robinson.)
Robinson, T. F. (See Swanson, J. H., assignor.)
Robinson, W. C., Pittsburg, Pa. Metal-punch. No. 939,324; Nov. 9; Sp. p. 1929; Gaz. vol. 148; p. 329.
Robischung, H. B., Cloverdale, Mich., assignor to Chicago Railway Equipment Company, Chicago, Ill. Adjustable brake-head. No. 939,094; Nov. 2; Sp. p. 1367; Gaz. vol. 148; p. 223.
Roby, L. E., Peoria, Ill. Agricultural machine. No. 941,465; Nov. 30; Sp. p. 6666; Gaz. vol. 148; p. 1130.
Röchling, H., and W. Rodenhauser, Völklingen, assignors to Gröndal Kjellin Company Limited, London, England. Electric furnace. No. 939,095; Nov. 2; Sp. p. 1371; Gaz. vol. 148; p. 223.
Rock, F. W., assignor of one-half to E. A. Field, Detroit, Mich. Air-hose coupling. No. 941,652; Nov. 30; Sp. p. 7052; Gaz. vol. 148; p. 1191.
Rock Island Plow Company. (See Johnson, W. E., assignor.)
Rockford Drilling Machine Company. (See Milne, R., assignor.)
Rockwell, W. S., assignor to W. S. Rockwell Company, New York, N. Y. Annealing and hardening furnace. No. 940,280; Nov. 16; Sp. p. 4064; Gaz. vol. 148; p. 689.
Rodenhauser, W. (See Röchling and Rodenhauser.)
Rodger Ballast Car Company. (See Hart, H. S., assignor.)
Roe, C. O., Wesley, Iowa. Machine for cooking shelled peanuts, &c. No. 940,557; Nov. 16; Sp. p. 4696; Gaz. vol. 148; p. 782.
Roebuck, A. C., Chicago, Ill. Kinetoscope. No. 939,634; Nov. 9; Sp. p. 2630; Gaz. vol. 148; p. 433.
Roessler and Hasslacher Chemical Co. (See Mausoff, P., assignor.)
Roff, C. H., Madalin, N. Y. Nut-lock. No. 938,707; Nov. 2; Sp. p. 563; Gaz. vol. 148; p. 88.
Roffy, J. T., Chicago, Ill., assignor, by mesne assignments, to H. B. Lefkowitz, New York, N. Y. Advertisement-displaying apparatus. No. 940,281; Nov. 16; Sp. p. 4067; Gaz. vol. 148; p. 689.
Rogers, G. D., Gloucester, Mass. Electric separator. No. 940,282; Nov. 16; Sp. p. 4069; Gaz. vol. 148; p. 690.
Rogers, J. R., Brooklyn, N. Y., assignor to Mergenthaler Linotype Company. Keyboard mechanism for line-casting machines. No. 939,325; Nov. 9; Sp. p. 1930; Gaz. vol. 148; p. 329.
Roggensack, L. A., Balfour, N. D. Automatic stock-feeding device. No. 938,608; Nov. 2; Sp. p. 375; Gaz. vol. 148; p. 56.
Rohr, M. von, assignor to Firm of C. Zeiss, Jena, Germany. Optical cystoscope system. No. 940,894; Nov. 23; Sp. p. 5425; Gaz. vol. 148; p. 919.
Rohr, M. von, assignor to Firm of C. Zeiss, Jena, Germany. Lens system. No. 940,895; Nov. 23; Sp. p. 5426; Gaz. vol. 148; p. 919.
Roman, S., *et al.* (See McFarland, G. L., assignor.)
Romfo, H. C. (See Olson, O. J., assignor.)
Romig, R. W., Pittsburg, Pa., assignor to Fairbanks Company, New York, N. Y. Automatic cut-off for weigh-scales. No. 940,616; Nov. 16; Sp. p. 4804; Gaz. vol. 148; p. 801.
Rooney, E. H., assignor to Whitin Machine Works, Whitinsville, Mass. Draw-box. (Reissue.) No. 13,041; Nov. 16; Sp. p. 4892; Gaz. vol. 148; p. 815.
Roos, G. M., Waverly, assignor of one-half to L. G. Rose, Minneapolis, Minn. Sugar-beet seeder. No. 939,635; Nov. 9; Sp. p. 2632; Gaz. vol. 148; p. 434.
Root, H. C., Westgrove, Pa. Milk-heater. No. 939,636; Nov. 9; Sp. p. 2634; Gaz. vol. 148; p. 434.
Root, J. H. (See Hanna, F. W., assignor.)
Roovers, A. W., New York, N. Y. Engraving or duplicating machine. No. 940,730; Nov. 23; Sp. p. 5069; Gaz. vol. 148; p. 865.
Roper, G. M., Hickman, Ky. Cultivator. No. 941,580; Nov. 30; Sp. p. 6911; Gaz. vol. 148; p. 1170.
Rorabaw, J. M., Diamond, Mo. Stone-gatherer. No. 940,558; Nov. 16; Sp. p. 4698; Gaz. vol. 148; p. 782.
Rorke, E. F., Chicago, Ill. Labeling-machine. No. 940,731; Nov. 23; Sp. p. 5077; Gaz. vol. 148; p. 866.
Rose, J. M., Philadelphia, Pa., assignor to Merchant & Evans Co., Camden, N. J. Ventilator. No. 941,171; Nov. 23; Sp. p. 6022; Gaz. vol. 148; p. 1012.
Rose, L. G. (See Roos, G. M., assignor.)
Rosebery, H. C., Taro, Va. Paper-roll holder. No. 940,364; Nov. 16; Sp. p. 4252; Gaz. vol. 148; p. 717.
Rosenbach, J. F., Göttingen, Germany. Preparing a preventive of tuberculosis. No. 939,097; Nov. 2; Sp. p. 1374; Gaz. vol. 148; p. 224.

Rosenfield Manufacturing Company. (See Rosenfield, W. W., assignor.)
Rosenfield, W. W., New York, N. Y., assignor to Rosenfield Manufacturing Company. Coin-operated machine. No. 939,746; Nov. 9; Sp. p. 2864; Gaz. vol. 148; p. 472.
Rosenfield, W. W., New York, N. Y., assignor to Rosenfield Manufacturing Company. Weighing-machine. No. 939,747; Nov. 9; Sp. p. 2868; Gaz. vol. 148; p. 473.
Ross, D. E., Brookston, assignor to Ross Gear and Tool Company, La Fayette, Ind. Differential mechanism. No. 941,101; Nov. 23; Sp. p. 5855; Gaz. vol. 148; p. 988.
Ross Gear and Tool Company. (See Ross, D. E., assignor.)
Ross, I. I., Thebes, Ill. Hose-coupling. No. 939,096; Nov. 2; Sp. p. 1372; Gaz. vol. 148; p. 223.
Ross, J., assignor of one-eighth to J. Gustafson and one-eighth to V. Jacobson, Terry, S. D. Means for transferring passengers to and from moving trains. No. 941,954; Nov. 30; Sp. p. 7690; Gaz. vol. 148; p. 1296.
Ross, J. C., Butte, Mont. Reversing mechanism. No. 941,275; Nov. 23; Sp. p. 6251; Gaz. vol. 148; p. 1046.
Ross, J. F., assignor of one-third to W. E. Ross, one-third to P. F. Ross, and one-third to C. F. Van Horne, Toronto, Ontario, Canada. Self-sealing can. No. 941,729; Nov. 30; Sp. p. 7219; Gaz. vol. 148; p. 1218.
Ross, P. F., *et al.* (See Ross, J. F., assignor.)
Ross, R. (See Wiggs, J. L., assignor.)
Ross, W. (See Kirby, J., assignor.)
Ross, W. E., *et al.* (See Ross, J. F., assignor.)
Rothengatter, R., New York, N. Y. Foldable kitchen-rack. No. 941,653; Nov. 30; Sp. p. 7054; Gaz. vol. 148; p. 1192.
Rotherham, G. H., Tonopah, Nev. Tube-mill lining. No. 939,637; Nov. 9; Sp. p. 2637; Gaz. vol. 148; p. 435.
Roughan, G. F. Boston, Mass. Cable-railway. No. 940,825; Nov. 23; Sp. p. 5285; Gaz. vol. 148; p. 896.
Roughan, G. F., Boston, Mass. Movable flange for hoisting-drums. No. 940,826; Nov. 23; Sp. p. 5287; Gaz. vol. 148; p. 897.
Rountree, J., Berkeley, Cal. Resilient wheel. No. 939,748; Nov. 9; Sp. p. 2874; Gaz. vol. 148; p. 473.
Rouse, H., Jr., Elizabeth, N. J., assignor to Boynton Furnace Company, New York, N. Y. Damper for furnace or stove pipes. No. 940,942; Nov. 23; Sp. p. 5525; Gaz. vol. 148; p. 935.
Roux, H., Marseille, France. Reducing or pressure-regulating valve for steam-engines and the like. No. 940,195; Nov. 16; Sp. p. 3882; Gaz. vol. 148; p. 659.
Row, R. R., Jersey City, N. J., assignor to Griscom-Spencer Company, New York, N. Y. Ice-cream machinery. No. 941,172; Nov. 23; Sp. p. 6024; Gaz. vol. 148; p. 1012.
Rowe, G. H., Riverside, assignor to Electro-Magnetic Tool Company, Chicago, Ill. Electromechanical device. No. 938,708; Nov. 2; Sp. p. 564; Gaz. vol. 148; p. 89.
Rowe, G. H., Berwyn, assignor to Electro-Magnetic Tool Company, Chicago, Ill. Electromechanical device. No. 938,709; Nov. 2; Sp. p. 567; Gaz. vol. 148; p. 89.
Rowe, T. G., Los Angeles, Cal. Wheel-drive for automobiles. No. 940,069; Nov. 16; Sp. p. 3594; Gaz. vol. 148; p. 615.
Rowlands, G., assignor of one-half to W. S. Wood, Schenectady, N. Y. Antiseptic mouthpiece for telephones. No. 941,173; Nov. 23; Sp. p. 6025; Gaz. vol. 148; p. 1012.
Rowling, W. H., Salinas, Cal. Resilient tire. No. 939,638; Nov. 9; Sp. p. 2638; Gaz. vol. 148; p. 435.
Royal Phone & Phonogram Co. (See Applegate, F. C., assignor.)
Royal Solvent Company. (See Grant, W. A., assignor.)
Royal Typewriter Company. (See Myers, L. C., assignor.)
Rudolph, F. A., Maplewood, Mo. Repeating mechanical sign apparatus. No. 939,550; Nov. 9; Sp. p. 2435; Gaz. vol. 148; p. 404
Rusby, J. H., Nutley, N. J. Electric switch. No. 939,803; Nov. 9; Sp. p. 3104; Gaz. vol. 148; p. 512.
Russ Automatic Labeling Co. (See Russ, G. F., assignor.)
Russ, G. F., Hoboken, N. J., assignor to Russ Automatic Labeling Co., New York, N. Y. Can-labeling machine. No. 938,897; Nov. 2; Sp. p. 978; Gaz. vol. 148; p. 154.
Russell, A., Merchantville, N. J. Advertising-sign. No. 938,710; Nov. 2; Sp. p. 570; Gaz. vol. 148; p. 89.
Russell & Erwin Manufacturing Company. (See Voight, H. G., assignor.)
Russell, F. J., New York, N. Y. Electrical receptacle. No. 941,276; Nov. 23; Sp. p. 6255; Gaz. vol. 148; p. 1047.
Russell, F. M., and A. J. Jung, London, England. Mechanism for indicating and recording the movements of ships' helms. No. 941,955; Nov. 30; Sp. p. 7692; Gaz. vol. 148; p. 1296.
Russell, J., assignor of one-half to J. H. Milligan, Langlaagte, near Johannesburg, Transvaal. Apparatus for recording bell or like signals, especially applicable to mines. No. 938,516; Nov. 2; Sp. p. 170; Gaz. vol. 148; p. 24.
Russell, S. S., Columbia, S. C. Quilting-frame. No. 940,070; Nov. 16; Sp. p. 3596; Gaz. vol. 148; p. 615.
Rutland Machine & Automobile Company *et al.* (See Goddard, G. M., assignor.)
Ryan, M. L. (See Hightower, C. assignor.)
Ryon, E. H., Worcester, Mass., assignor to Crompton & Knowles Loom Works. Weft-replenishing loom. No. 939,326; Nov. 9; Sp. p. 1930; Gaz. vol. 148; p. 330.
Ryon, E. H., Worcester, Mass., assignor to Crompton & Knowles Loom Works. Filling-thread-cutting mechanism. No. 939,445; Nov. 9; Sp. p. 2220; Gaz. vol. 148; p. 369.
Ryon, E. H., Worcester, Mass., assignor to Crompton & Knowles Loom Works. Filling-detector mechanism for weft-replenishing looms. No. 939,954; Nov. 9; Sp. p. 3307; Gaz. vol. 148; p. 545.
S. B. R. Specialty Company. (See Raffalovich, L., assignor.)
S. R. Dresser Manufacturing Company. (See White, G. H., assignor.)
S. S. White Dental Mfg. Co. (See Browne, A. W., assignor.)
Sá, B. M. de, Rio de Janeiro, Brazil. Elastic tire for vehicle-wheels. No. 939,327; Nov. 9; Sp. p. 1933; Gaz. vol. 148; p. 330.
Sack, A., administratrix. (See Sack, H.)
Sack, D., Vandergrift Heights, Pa. Boot or shoe upper. No. 939,639; Nov. 9; Sp. p. 2640; Gaz. vol. 148; p. 436.
Sack, F., and F. A. Tyler, St. Mary, Nebr. Piano tuning-pin. No. 941,730; Nov. 30; Sp. p. 7221; Gaz. vol. 148; p. 1218.
Sack, H., deceased, Dusseldorf, Germany; A. Sack, administratrix. Universal rolling-mill. No. 939,167; Nov. 2; Sp. p. 1537; Gaz. vol. 148; p. 249.
Sack, H., deceased, Dusseldorf, Germany; A. Sack, administratrix. Rolling flanged bars. No. 939,168; Nov. 2; Sp. p. 1539; Gaz. vol. 148; p. 249.
Sack, H., deceased, Dusseldorf, Germany; A. Sack, administratrix. Rolling-mill. No. 939,169; Nov. 2; Sp. p. 1541; Gaz. vol. 148; p. 249.
Sack, H., deceased, Dusseldorf, Germany; A. Sack, administratrix. Universal rolls for rolling flanged bars. No. 939,170; Nov. 2; Sp. p. 1544; Gaz. vol. 148; p. 250.
Sack, H., deceased, Dusseldorf, Germany; A. Sack, administratrix. Making channel-bars with taperless flanges. No. 939,171; Nov. 2; Sp. p. 1546; Gaz. vol. 148; p. 250.
Sack, H., deceased, Dusseldorf, Germany; A. Sack, administratrix. Universal rolling-mill. No. 939,172; Nov. 2; Sp. p. 1546; Gaz. vol. 148; p. 250.
Sack, H., deceased, Dusseldorf, Germany; A. Sack, administratrix. Universal rolling-mill. No. 939,173; Nov. 2; Sp. p. 1549; Gaz. vol. 148; p. 251.
Sadler, L. E., assignor to F. H. Sadler Company, Attleboro, Mass. Finger-ring. No. 939,864; Nov. 9; Sp. p. 3107; Gaz. vol. 148; p. 513.
Saeger, C. M. (See Harding, W. H., assignor.)
Safe Deposit and Trust Company of Baltimore *et al.*, executors. (See Mergenthaler, O.)
Safety Gas Lighter Co. (See Pomeroy, F. H., assignor.)
Safety Window Company. (See Cooney, J., assignor.)
Sagendorph, F. E., Philadelphia, Pa. Furring-strip. No. 939,749; Nov. 9; Sp. p. 2875; Gaz. vol. 148; p. 474.
Sager, J. H., assignor to J. H. Sager Company, Rochester, N. Y. Automobile buffer-bar. No. 941,654; Nov. 30; Sp. p. 7055; Gaz. vol. 148; p. 1192.
Saladin Pneumatic Malting Construction Company. (See Luebkert, O. H., assignor.)
Sales Department, E. P. Gleason Manufacturing Company. (See Sherrer, W. G., assignor.)
Salina Foundry and Manufacturing Company. (See Jennings, C. M., assignor.)
Sallows, J. F., assignor to Sallows Manufacturing Company, Lansing, Mich. Cable-grip. No. 940,732; Nov. 23; Sp. p. 5080; Gaz. vol. 148; p. 866.
Sallows Manufacturing Company. (See Sallows, J. F., assignor.)
Saloch, R. C., St. Louis, Mo. Clock. No. 940,617; Nov. 16; Sp. p. 4806; Gaz. vol. 148; p. 801.
Salpeters-Aure-Industrie-Gesellschaft, Ges. M. B. H., Firm of. (See Pauling, H., assignor.)
Salzer, B., and G. Walther, Chemnitz, Germany. Lace-pattern mechanism for straight-knitting machines. No. 939,328; Nov. 9; Sp. p. 1935; Gaz. vol. 148; p. 330.
Sampere, J., New York, N. Y., assignor to Regina Company, Rahway, N. J. Automatic-piano attachment. No. 940,072; Nov. 16; Sp. p. 3611; Gaz. vol. 148; p. 615.
Samuel, L., Chicago, Ill. Truck-wheel-blocking device. No. 940,365; Nov. 16; Sp. p. 4255; Gaz. vol. 148; p. 717.
Samuel, M. B., Philadelphia, Pa. Card-table. No. 940,283; Nov. 16; Sp. p. 4070; Gaz. vol. 148; p. 690.
Samuel Ward Company. (See Moore, M. W., assignor.)
San Telmo Cigar Mfg. Company. (See Helms, R., assignor.)

Sanders, A., and C. M. Rebman, Okemah, Okla. Side-board attachment for wagons. No. 941,956; Nov. 30; Sp. p. 7696; Gaz. vol. 148; p. 1297.
Sanderson, H. J., assignor of one-fourth to W. D. Sanderson, Cowansville, Pa. Mail-bag deliverer. No. 940,618; Nov. 16; Sp. p. 4807; Gaz. vol. 148; p. 801.
Sanderson, W. D. (See Sanderson, H. J., assignor.)
Sands, H. Z. (See Sweet, B. W., assignor.)
Sands, L. C., Pittsburg, Pa. Tubular drill-stem for hydraulic rotary drilling apparatus. No. 940,733; Nov. 23; Sp. p. 5080; Gaz. vol. 148; p. 866.
Sands, L. C., assignor to Oil Well Supply Company, Pittsburg, Pa. Sand-reel. No. 938,609; Nov. 2; Sp. p. 377; Gaz. vol. 148; p. 56.
Sandy, W. J. L., London, England. Electrolyte for use in electric batteries. No. 940,734; Nov. 23; Sp. p. 5082; Gaz. vol. 148; p. 867.
Sanford & Bennett Company. (See Sanford, W. W., assignor.)
Sanford, F. W., Boston, and N. Marshall, assignors, by mesne assignments, to N. Marshall, Newton, Mass. Metal-working machine. No. 940,619; Nov. 16; Sp. p. 4809; Gaz. vol. 148; p. 802.
Sanford, W. W., Newark, N. J., assignor to Sanford & Bennett Company, New York, N. Y. Reservoir-pen. No. 941,466; Nov. 30; Sp. p. 6669; Gaz. vol. 148; p. 1130.
Sanitary Brush and Compound Company. (See Wolfgram and Klausman, assignors.)
Sanitary Can Company. (See Butler, W. F., assignor.)
Sanitary Can Machinery Company. (See Brenzinger, J., assignor.)
Sargent, F. G., Westford, Mass. Telephone. No. 940,284; Nov. 16; Sp. p. 4071; Gaz. vol. 148; p. 690.
Sargent, M. B., Momence, assignor to Emerson Typewriter Company, Chicago, Ill. Type-writer-carriage stop mechanism. No. 939,640; Nov. 9; Sp. p. 2641; Gaz. vol. 148; p. 436.
Sarno, M. G., New York, N. Y. Attachment for washboards. No. 940,896; Nov. 23; Sp. p. 5428; Gaz. vol. 148; p. 920.
Sartell, V., Highwood, Mont. Fluid-distributing comb. No. 940,196; Nov. 16; Sp. p. 3884; Gaz. vol. 148; p. 659.
Sauer, J. A., Brooklyn, N. Y., and G. E. Potter, Newark, N. J.; said Potter assignor to said Sauer. Antiseptic finger-moistener. No. 939,098; Nov. 2; Sp. p. 1376; Gaz. vol. 148; p. 224.
Sauerman, H. B. and J. A., Chicago, Ill. Conveyer. No. 941,045; Nov. 23; Sp. p. 5741; Gaz. vol. 148; p. 969.
Sauerman, J. A. (See Sauerman, H. B. and J. A.)
Saul, J., Jersey City, N. J. Kitchen utensil. No. 939,329; Nov. 9; Sp. p. 1936; Gaz. vol. 148; p. 331.
Saunders, E. A., South Bend, Ind. Apparatus for applying rubber soles to boots and shoes. No. 939,330; Nov. 9; Sp. p. 1937; Gaz. vol. 148; p. 331.
Saurer, A. (See Moriggl, C., assignor.)
Sausser, J. M., Osnaburg, Ohio. Mine-door-operating device. No. 941,102; Nov. 23; Sp. p. 5859; Gaz. vol. 148; p. 988.
Saussure, J. B. de. (See Hardin and Saussure.)
Savy, A. H., Paris, France. Machine for the manufacture of chocolate confections. No. 941,537; Nov. 30; Sp. p. 6814; Gaz. vol. 148; p. 1153.
Sawyer, C. F., Minneapolis, Minn. Nut-lock. No. 941,046; Nov. 23; Sp. p. 5744; Gaz. vol. 148; p. 970.
Sawyer, J. H., assignor of one-half to J. N. Marlsey, Lexington, Ky. Bale-wiring mechanism. No. 940,897; Nov. 23; Sp. p. 5429; Gaz. vol. 148; p. 920.
Sawyer, O. A., assignor to E. A. Thissell, Lowell, Mass. Weft-replenishing mechanism for looms. No. 938,711; Nov. 2; Sp. p. 572; Gaz. vol. 148; p. 90.
Sawyer, O. A., assignor to E. A. Thissell, Lowell, Mass. Stop-motion for looms. No. 938,712; Nov. 2; Sp. p. 574; Gaz. vol. 148; p. 90.
Scanland, J. A., assignor to Acme Harvesting Machine Company, Peoria, Ill. Harvester-reel support. No. 941,655; Nov. 30; Sp. p. 7056; Gaz. vol. 148; p. 1192.
Scarbrough, L., Kell, Ill. Nail-puller. No. 940,197; Nov. 16; Sp. p. 3885; Gaz. vol. 148; p. 659.
Schaaff, J. T., Washington, D. C. Alternating-current electric motor. No. 939,331; Nov. 9; Sp. p. 1939; Gaz. vol. 148; p. 331.
Schade, F. A., assignor to Stanley Rule & Level Company, New Britain, Conn. Bench-dog. No. 941,816; Nov. 30; Sp. p. 7418; Gaz. vol. 148; p. 1247.
Schaffer, V. J., and J. M. Dempsey, Chicago, Ill. Apparatus for developing the lungs. No. 940,735; Nov. 23; Sp. p. 5083; Gaz. vol. 148; p. 867.
Schaller, M. D., Vernon Center, N. Y. Holdback. No. 940,620; Nov. 16; Sp. p. 4812; Gaz. vol. 148; p. 802.
Schauffelberger, W., Zurich, Switzerland. Speed-indicator. No. 938,898; Nov. 2; Sp. p. 984; Gaz. vol. 148; p. 155.
Schaumburg, C., New York, N. Y. Shoulder-pad attachment for violin chin-rests. No. 940,405; Nov. 16; Sp. p. 4375; Gaz. vol. 148; p. 732.
Schebler, G. M., Indianapolis, Ind. Strainer and separator for gasolene-supply. No. 939,551; Nov. 9; Sp. p. 2438; Gaz. vol. 148; p. 404.
Scheck, L., Batavia, N. Y. Ice-cream can. No. 939,805; Nov. 9; Sp. p. 3108; Gaz. vol. 148; p. 513.
Schedler, H., New York, N. Y. Etching-machine. No. 940,480; Nov. 16; Sp. p. 4521; Gaz. vol. 148; p. 752.
Scheewe, R., Hamburg, Germany. Press-button. No. 939,446; Nov. 9; Sp. p. 2222; Gaz. vol. 148; p. 370.
Schehr, G. A., Cincinnati, Ohio. Handle. No. 939,332; Nov. 9; Sp. p. 1940; Gaz. vol. 148; p. 332.
Schelbe, H. M., Wilkinsburg, Pa., assignor to Westinghouse Electric & Manufacturing Company. Vapor electrical apparatus. No. 940,736; Nov. 23; Sp. p. 5084; Gaz. vol. 148; p. 867.
Schelffler, G. D., Jackson, Mich. Feed-regulator. No. 940,943; Nov. 23; Sp. p. 5526; Gaz. vol. 148; p. 935.
Schell, C. C., Mount Oliver, Pa. Curtain-pole. No. 938,792; Nov. 2; Sp. p. 732; Gaz. vol. 148; p. 118.
Schellhammer, A. L., assignor to Pennsylvania Furnace and Stove Company, Warren, Pa. Heater. No. 939,925; Nov. 9; Sp. p. 3247; Gaz. vol. 148; p. 535.
Schenck, M., Middletown, assignor, by mesne assignments, to Ceramic Machinery Company, Hamilton, Ohio. Feeding and dusting device for coating-machines. No. 940,737; Nov. 23; Sp. p. 5085; Gaz. vol. 148; p. 868.
Schendel, S., New York, N. Y. Cigarette and match box. No. 940,198; Nov. 16; Sp. p. 3886; Gaz. vol. 148; p. 660.
Schesnack, A., Bevier, Mo. Puzzle. No. 939,552; Nov. 9; Sp. p. 2440; Gaz. vol. 148; p. 405.
Scheuerer, A., Jr., Hoboken, N. J. Multiple-printing press. No. 939,553; Nov. 9; Sp. p. 2441; Gaz. vol. 148; p. 405.
Scheurer, R. C., and L. Marek, Union Hill, N. J. Clothes-line tightener. No. 939,099; Nov. 2; Sp. p. 1377; Gaz. vol. 148; p. 224.
Scheurmann, W., Newark-upon-Trent, England, assignor to Henry R. Worthington. Centrifugal and similar pump, blower, and the like. No. 939,333; Nov. 9; Sp. p. 1942; Gaz. vol. 148; p. 332.
Schies, J., Anderson, Ind. Jar-closure. No. 941,538; Nov. 30; Sp. p. 6816; Gaz. vol. 148; p. 1154.
Schille, F., Brooklyn, N. Y. Match-safe. No. 939,100; Nov. 2; Sp. p. 1378; Gaz. vol. 148; p. 224.
Schilling, R., Oakland, Cal. Labeled-can drier. No. 938,713; Nov. 2; Sp. p. 575; Gaz. vol. 148; p. 90.
Schimmel, F., Faribault, Minn. Sanding, abrading, or polishing machine. No. 941,957; Nov. 30; Sp. p. 7698; Gaz. vol. 148; p. 1297.
Schipper, A. C., Aurora, Ind. Bass-drum and cymbal beater. No. 938,899; Nov. 2; Sp. p. 989; Gaz. vol. 148; p. 155.
Schirmer, T. F., Dayton, Ohio. Shipping-bill register. No. 940,481; Nov. 16; Sp. p. 4522; Gaz. vol. 148; p. 757.
Schlangen Racker Company. (See Schlangen, S., assignor.)
Schlangen, S., assignor to Schlangen Racker Company, Chicago, Ill. Filling apparatus for liquids. No. 940,366; Nov. 16; Sp. p. 4256; Gaz. vol. 148; p. 717.
Schlapbach, F. H., Rome, assignor of one-half to E. Fuller, Cedartown, Ga. Sliding door and window fastener. No. 939,174; Nov. 2; Sp. p. 1550; Gaz. vol. 148; p. 251.
Schleicher, C. B., Brady, Nebr. Vehicle-pole. No. 941,380; Nov. 30; Sp. p. 6493; Gaz. vol. 148; p. 1104.
Schleicher, C. B., Brady, Nebr. Neck-yoke. No. 941,387; Nov. 30; Sp. p. 6494; Gaz. vol. 148; p. 1104.
Schleicher, J. C., New York, N. Y. Sealed drinking vessel. No. 939,554; Nov. 9; Sp. p. 2444; Gaz. vol. 148; p. 405.
Schleicher, W. A., Cleveland, Ohio. Swivel snap-hook. No. 940,738; Nov. 23; Sp. p. 5090; Gaz. vol. 148; p. 868.
Schlueter, A. H., Oakland, Cal. Milk-heater. No. 940,367; Nov. 16; Sp. p. 4275; Gaz. vol. 148; p. 718.
Schlüssler, A., assignor of one-half to A. Burger, New York, N. Y. Divided bolt. No. 940,739; Nov. 23; Sp. p. 5091; Gaz. vol. 148; p. 868.
Schmatolla, E., London, England. Retort-furnace. No. 940,199; Nov. 16; Sp. p. 3887; Gaz. vol. 148; p. 660.
Schmatolla, E., London, England. Gas-kiln. No. 942,013; Nov. 30; Sp. p. 7804; Gaz. vol. 148; p. 1314.
Schmidt, E., Mahlsdorf, assignor to Firm of J. Hirschhorn, Berlin, Germany. Lamp. No. 940,073; Nov. 16; Sp. p. 3613; Gaz. vol. 148; p. 616.
Schmidt, F., assignor to E. H. Huenefeld Company, Cincinnati, Ohio. Stovepipe. No. 940,406; Nov. 16; Sp. p. 4376; Gaz. vol. 148; p. 732.
Schmidt, F. M., Washington, D. C. Means for adjusting vests, trousers, &c. No. 941,277; Nov. 23; Sp. p. 6257; Gaz. vol. 148; p. 1047.
Schmidt, M. E., Convent, N. J. Traction device. No. 939,334; Nov. 9; Sp. p. 1945; Gaz. vol. 148; p. 332.
Schmidt, R. F., Cincinnati, Ohio. Rotary engine. No. 938,714; Nov. 2; Sp. p. 577; Gaz. vol. 148; p. 90.
Schmitt, C. A., assignor to Carter's Ink Company, Boston, Mass. Paste pot or jar. No. 941,278; Nov. 23; Sp. p. 6259; Gaz. vol. 148; p. 1047.
Schmitt, E. D., assignor to International Vending Machine Company, Baltimore, Md. Stamp or ticket vending machine. No. 938,900; Nov. 2; Sp. p. 990; Gaz. vol. 148; p. 156.
Schmitt, E. D., assignor to M. L. Pollock, Baltimore, Md. Coin-selecting mechanism for vending-machines. No. 940,074; Nov. 16; Sp. p. 3614; Gaz. vol. 148; p. 616.
Schmitt, E. P., Seymour, Ind. Alarm for carding-machines. No. 939,750; Nov. 9; Sp. p. 2876; Gaz. vol. 148; p. 474.
Schmitt, H. J., Jersey City, N. J. Beverage-siphon. No. 938,517; Nov. 2; Sp. p. 173; Gaz. vol. 148; p. 24.
Schmitt, J., Zurich, Switzerland. Fore-carriage of vehicles. No. 939,555; Nov. 9; Sp. p. 2445; Gaz. vol. 148; p. 406.
Schnabel, M., Newcastle, Cal. Elastic wheel. No. 938,901; Nov. 2; Sp. p. 996; Gaz. vol. 148; p. 156.
Schneider, E., Le Creuzot, France. Safety device for the fuses of projectiles. No. 939,447; Nov. 9; Sp. p. 2223; Gaz. vol. 148; p. 370.

Schneider, F. G., and W. C. L. Ziehn, Chicago, Ill.; said Ziehn assignor to said Schneider. Bar-fixture. No. 942,014; Nov. 30; Sp. p. 7807; Gaz. vol. 148; p. 1314.
Schneider, J. G., Würzburg, Germany. Flat film-pack. No. 941,103; Nov. 23; Sp. p. 5863; Gaz. vol. 148; p. 988.
Schnelbach, H. A., Crafton, Pa. Drawing glass cylinders. No. 939,101; Nov. 2; Sp. p. 1380; Gaz. vol. 148; p. 225.
Schoenhaar, W., Wilmington, Del. Baker's oven. No. 940,559; Nov. 16; Sp. p. 4699; Gaz. vol. 148; p. 782.
Schoff, H. W., River Forest, assignor to Imperial Brass Manufacturing Company, Chicago, Ill. Burner. No. 938,902; Nov. 2; Sp. p. 998; Gaz. vol. 148; p. 157.
Schouler, T. T. (See Madsen, G. C., assignor.)
Schram, A. L., Hillsboro, Ill. Gathering-pool for glass-tanks. No. 938,518; Nov. 2; Sp. p. 174; Gaz. vol. 148; p. 24.
Schramm, A. W., Riverton, N. J., assignor to Electro Dental Manufacturing Company, Philadelphia, Pa. Pump. No. 941,958; Nov. 30; Sp. p. 7701; Gaz. vol. 148; p. 1297.
Schraudenbach, C., assignor to National Ammonia Company, St. Louis, Mo. Cap for shipping-cylinders. No. 938,793; Nov. 2; Sp. p. 733; Gaz. vol. 148; p. 118.
Schroder, F. (See Olsen and Schroder.)
Schroeder, H. C., assignor to Goss Printing Press Company, Chicago, Ill. Gearing. No. 940,200; Nov. 16; Sp. p. 3890; Gaz. vol. 148; p. 661.
Schroeder, H. C., assignor to Goss Printing Press Company, Chicago, Ill. Variable-speed driving mechanism. No. 940,201; Nov. 16; Sp. p. 3896; Gaz. vol. 148; p. 661.
Schuette, E., Manitowoc, Wis. Chart for recording-compasses. No. 939,867; Nov. 9; Sp. p. 3114; Gaz. vol. 148; p. 514.
Schuette, E., and N. Dedrick, Manitowoc, Wis.; said Dedrick assignor to said Schuette. Apparatus for recording-compasses. No. 939,866; Nov. 9; Sp. p. 3110; Gaz. vol. 148; p. 513.
Schulfis, C. F., Lakewood, assignor to Cleveland Collet and Machine Company, Cleveland, Ohio. Drill-chuck. No. 939,102; Nov. 2; Sp. p. 1381; Gaz. vol. 148; p. 225.
Schultz, H. O., assignor of one-half to A. J. Huff, Canton, Ohio. Whiffletree. No. 940,368; Nov. 16; Sp. p. 4276; Gaz. vol. 148; p. 718.
Schulz, G., New York, N. Y. Rotary engine. No. 939,751; Nov. 9; Sp. p. 2877; Gaz. vol. 148; p. 474.
Schumacher, A. A., Lisbon, N. D. Railway-switch. No. 938,610; Nov. 2; Sp. p. 379; Gaz. vol. 148; p. 56.
Schuman Company. (See Schuman, J. B., assignor.)
Schuman, J. B., assignor to Schuman Company, Indianapolis, Ind. Shock-loader. No. 938,611; Nov. 2; Sp. p. 381; Gaz. vol. 148; p. 57.
Schuman, J. B., assignor to Schuman Company, Indianapolis, Ind. Shock-loader. No. 939,335; Nov. 9; Sp. p. 1948; Gaz. vol. 148; p. 333.
Schumann, F., assignor of one-half to F. Shuman, Philadelphia, Pa. Railway-tie. No. 940,740; Nov. 23; Sp. p. 5092; Gaz. vol. 148; p. 868.
Schushey, J., Pittsburg, Pa. Rail-joint. No. 941,279; Nov. 23; Sp. p. 6262; Gaz. vol. 148; p. 1048.
Schuster, F. J., Theresa, Wis. Building block and wall. No. 941,656; Nov. 30; Sp. p. 7058; Gaz. vol. 148; p. 1195.
Schuster, P., Hötensleben near Magdeburg, Germany. Device for preventing dust detonations. No. 940,075; Nov. 16; Sp. p. 3617; Gaz. vol. 148; p. 617.
Schutte and Koerting Company. (See Knauf, P. W., assignor.)
Schütz, H. von, Wetzlar, Germany. Detinning tin-plate by means of chlorin. No. 940,898; Nov. 23; Sp. p. 5431; Gaz. vol. 148; p. 920.
Schwander, P. W., assignor of one-third to J. J. Pastoriza, Houston, Tex. Self-indexing loose-leaf ledger. No. 940,560; Nov. 16; Sp. p. 4701; Gaz. vol. 148; p. 783.
Schwartz, B. L. (See Menzi and Schwartz.)
Schwartz, H., Nashville, Tenn. Ship-cleaner. No. 938,794; Nov. 2; Sp. p. 734; Gaz. vol. 148; p. 119.
Scott, B. L., Scranton, Pa. Hair-pin. No. 938,715; Nov. 2; Sp. p. 582; Gaz. vol. 148; p. 91.
Scott, E. K., Kansas City, Mo. Liquid-dropper. No. 939,556; Nov. 9; Sp. p. 2447; Gaz. vol. 148; p. 406.
Scott, H. L., Providence, R. I. Tester. No. 940,482; Nov. 16; Sp. p. 4524; Gaz. vol. 148; p. 757.
Scott, H. S., and M. L. Dilgard, assignors to C. W. Landis, A. Thomas, and U. S. Shelly, Ashland, Ohio. Machine for making hollow building-blocks. No. 940,741; Nov. 23; Sp. p. 5095; Gaz. vol. 148; p. 869.
Scott, I. M. (See Flanagan, C. E., assignor.)
Scott, J. E., Hillsdale, Ill. Harrow-evener. No. 941,104; Nov. 23; Sp. p. 5865; Gaz. vol. 148; p. 989.
Scott, J. M., Racine, Wis., assignor, by mesne assignments, to O. R. Barnett, Chicago, Ill. Railway-rail anchor. No. 938,716; Nov. 2; Sp. p. 583; Gaz. vol. 148; p. 91.
Scott, L. L., Joplin, Mo. Internal-combustion rock-drill. No. 941,731; Nov. 30; Sp. p. 7223; Gaz. vol. 148; p. 1219.
Scott, L. L., Joplin, Mo. Internal-combustion rock-drill. No. 941,732; Nov. 30; Sp. p. 7226; Gaz. vol. 148; p. 1219.
Scott, R. W., Leeds Point, N. J., assignor of one-half to L. N. D. Williams, Ogontz, Pa. Latch-needle for knitting-machines. No. 938,795; Nov. 2; Sp. p. 736; Gaz. vol. 148; p. 119.
Scott, S. J., assignor of one-third to J. A. McDowell, Columbus, Ohio. Railway-track construction. No. 939,336; Nov. 9; Sp. p. 1954; Gaz. vol. 148; p. 333.
Scott, T. F., Everett, Mass. Vehicle-wheel. No. 938,796; Nov. 2; Sp. p. 738; Gaz. vol. 148; p. 119.
Scott, W. M., Philadelphia, Pa., assignor to Cutter Electrical and Manufacturing Company. Automatic magnetic circuit-breaker. No. 940,647; Nov. 16; Sp. p. 4876; Gaz. vol. 148; p. 811.
Scovill, J. E., Chicago, Ill. Electric chime. No. 940,483; Nov. 16; Sp. p. 4527; Gaz. vol. 148; p. 757.
Scruggs, E. C., Nashville, Tenn. Spring-hinge for doors. No. 938,797; Nov. 2; Sp. p. 739; Gaz. vol. 148; p. 120.
Scruggs, E. C., Nashville, Tenn. Hose-supporter. No. 940,285; Nov. 16; Sp. p. 4072; Gaz. vol. 148; p. 690.
Seaman, F. A., *et al.* (See Goodrich, O. A., assignor.)
Searight, J. R., assignor to Detroit Shear Company, Detroit, Mich. Shears. No. 942,043; Nov. 30; Sp. p. 7860; Gaz. vol. 148; p. 1324.
Sears Roebuck & Company. (See Krotz, A. S., assignor.)
Seaver, J. M., Boston, Mass. Separator. No. 940,076; Nov. 16; Sp. p. 3617; Gaz. vol. 148; p. 617.
Seay, W. W., San Francisco, Cal. Refrigerating apparatus. No. 941,733; Nov. 30; Sp. p. 7229; Gaz. vol. 148; p. 1219.
Seay, W. W., San Francisco, Cal. Refrigeration. No. 941,734; Nov. 30; Sp. p. 7231; Gaz. vol. 148; p. 1220.
Sebree, W. T., assignor of one-sixth to J. F. Jett, one-sixth to H. Smith, one-sixth to L. Thoma, one-sixth to D. M. Bridges, and one-sixth to J. Jett, Carrollton, Ky. Railway mail catcher and deliverer. No. 939,557; Nov. 9; Sp. p. 2449; Gaz. vol. 148; p. 406.
Seefeldt, W. F., *et al.* (See Wallace, R. H., assignor.)
Seely, J. A. (See Fisk and Seely.)
Seep, J. (See Willfley, A. R., assignor.)
Seibel, W. A., Montera, Wash. Garment-supporter. No. 941,105; Nov. 23; Sp. p. 5866; Gaz. vol. 148; p. 989.
Seiberling, F. A. (See State, W. C., assignor.)
Seller, P., Oakland, assignor of one-half to S. J. Johnson, San Francisco, Cal. Synchronizing device for picture-machines and phonographs. No. 939,337; Nov. 9; Sp. p. 1956; Gaz. vol. 148; p. 333.
Selders, D. E., Van Orin, Ill. Power-transmission apparatus. No. 941,280; Nov. 23; Sp. p. 6263; Gaz. vol. 148; p. 1048.
Sellers, G., Chicago, Ill. Electrical transmission of graphic messages. No. 939,338; Nov. 9; Sp. p. 1957; Gaz. vol. 148; p. 334.
Sellers, G., Chicago, Ill. Electric transmission of messages. No. 939,339; Nov. 9; Sp. p. 1964; Gaz. vol. 148; p. 334.
Semler, O., *et al.* (See Spahr, E. J., assignor.)
Seng Company. (See Barbrake, J. A., assignor.)
Seng, W. P., Chicago, Ill. Rivet-spinning machine. No. 939,558; Nov. 9; Sp. p. 2452; Gaz. vol. 148; p. 406.
Seng, W. P., Chicago, Ill. Rivet-spinning machine. No. 939,559; Nov. 9; Sp. p. 2454; Gaz. vol. 148; p. 407.
Senn, W. W., Munson Station, Pa. Nut-lock. No. 941,959; Nov. 30; Sp. p. 7703; Gaz. vol. 148; p. 1298.
Serruys, A. M. C. and M. M. J., Spokane, Wash. Corset. No. 939,868; Nov. 9; Sp. p. 3115; Gaz. vol. 148; p. 514.
Serruys, M. M. J. (See Serruys, A. M. C. and M. M. J.)
Setz, H. R., Pittsburg, Pa. Liquid-fuel-combustion engine. No. 940,369; Nov. 16; Sp. p. 4277; Gaz. vol. 148; p. 719.
Setzer, J. L., Stanberry, Mo. Low-water signal for boilers. No. 940,202; Nov. 16; Sp. p. 3902; Gaz. vol. 148; p. 662.
Sewall, M. W., Roselle, assignor to Babcock & Wilcox Company, Bayonne, N. J. Furnace. No. 941,657; Nov. 30; Sp. p. 7060; Gaz. vol. 148; p. 1195.
Sewall, M. W., Roselle, assignor to Babcock & Wilcox Company, Bayonne, N. J. Furnace. No. 941,658; Nov. 30; Sp. p. 7062; Gaz. vol. 148; p. 1195.
Seward, E. R. (See Pearson and Seward.)
Seward, G. O., Holcombs Rock, Va., assignor, by mesne assignments, to Electro Metallurgical Company. Tapping-furnace. No. 940,501; Nov. 16; Sp. p. 4703; Gaz. vol. 148; p. 783.
Seyboth, F. W., Zwickau, Germany. Mechanical stoker for furnaces. No. 939,869; Nov. 9; Sp. p. 3116; Gaz. vol. 148; p. 514.
Shainsey, F. J., Sr., Dayton, Ohio, assignor, by mesne assignments, to Krentler-Arnold Hinge Last Company, Detroit, Mich. Last-lock. No. 939,903; Nov. 2; Sp. p. 1001; Gaz. vol. 148; p. 157.
Shallenberger, C. S., assignor to C. M. Clark, St. Louis, Mo. Car-truck. No. 939,870; Nov. 9; Sp. p. 3118; Gaz. vol. 148; p. 515.
Shank, W. C., Mont Alto, Pa. File-holder. No. 938,519; Nov. 2; Sp. p. 178; Gaz. vol. 148; p. 25.
Sharman, A. W., Clapham, London, England. Wireless telephony and telegraphy. No. 942,044; Nov. 30; Sp. p. 7861; Gaz. vol. 148; p. 1324.
Sharp, C. S., Auburn, N. Y., assignor to International Harvester Company. Disk-harrow. No. 940,203; Nov. 16; Sp. p. 3903; Gaz. vol. 148; p. 662.
Sharp, J. W., Jr., Philadelphia, Pa. Water-closet and tank. No. 941,539; Nov. 30; Sp. p. 6817; Gaz. vol. 148; p. 1154.
Sharp, J. W., Jr., Philadelphia, Pa. Washbasin. No. 941,540; Nov. 30; Sp. p. 6819; Gaz. vol. 148; p. 1154.
Shaul, J. M., Lansing, Mich. Switch-point lock. No. 941,735; Nov. 30; Sp. p. 7235; Gaz. vol. 148; p. 1220.

Shea, J. J., Hartford, Conn., assignor to Hartford Rubber Works Company. Elastic connecting-strap. No. 941,659; Nov. 30; Sp. p. 7064; Gaz. vol. 148; p. 1194.
Sheak, A. G., assignor to Nineteen Hundred Washer Company, Binghamton, N. Y. Filter. No. 939,448; Nov. 9; Sp. p. 2225; Gaz. vol. 148; p. 370.
Sheffield Car Company. (See Hovey, W. S., assignor.)
Sheffield Car Company. (See Hovey and Rix, assignors.)
Sheffield Car Company. (See Hovey and Stebbins, assignors.)
Shelly, U. S., *et al.* (See Scott and Dilgard, assignors.)
Shelton, W. N. (See Small and Shelton.)
Shelton, W. N., Boston, Mass. Adhesive repair device. No. 941,047; Nov. 23; Sp. p. 5745; Gaz. vol. 148; p. 970.
Shenkberg, F. (See Larsen, C. C., assignor.)
Shepard, H. E., assignor of one-half to C. Gallery, Rochester, N. Y. Closure-removing device for receptacles. No. 939,641; Nov. 9; Sp. p. 2643; Gaz. vol. 148; p. 437.
Shepard, H. W., assignor to Atlantic Drier Company, New York, N. Y. Drier. No. 939,175; Nov. 2; Sp. p. 1551; Gaz. vol. 148; p. 251.
Shepard, W. L., Elmwood, assignor of one-half to H. J. Wickham, Manchester, Conn. Machine for condensing peat. No. 940,944; Nov. 23; Sp. p. 5528; Gaz. vol. 148; p. 936.
Shepard, W. L., Elmwood, and H. J. Wickham, Manchester, Conn. Fuel-producer. No. 940,945; Nov. 23; Sp. p. 5529; Gaz. vol. 148; p. 936.
Shepherd, J. E. (See Nolen and Shepherd.)
Shepherd, J. F., Chicago, Ill. Fire-protection and signal system. No. 941,048; Nov. 23; Sp. p. 5746; Gaz. vol. 148; p. 970.
Sherman, C. W., Bellevue, Pa. Casting plant. No. 938,904; Nov. 2; Sp. p. 1003; Gaz. vol. 148; p. 158.
Sherman, H. A., Van Vleck, Tex. Dirt-tamping tool. No. 940,370; Nov. 16; Sp. p. 4281; Gaz. vol. 148; p. 719.
Sherman, L. P., assignor of one-half to R. H. Ingersoll, Biddeford, Me. Picker-stick mechanism for looms. No. 939,560; Nov. 9; Sp. p. 2455; Gaz. vol. 148; p. 407.
Sherman, M. L., Lohn, Tex. Urinal. No. 940,077; Nov. 16; Sp. p. 3620; Gaz. vol. 148; p. 617.
Sherman, P. B., Cleveland, Ohio. Garment. No. 939,871; Nov. 9; Sp. p. 3120; Gaz. vol. 148; p. 515.
Sherrer, W. G., New York, N. Y., assignor to Sales Department, E. P. Gleason Manufacturing Company. Safety-globe and guard. No. 940,899; Nov. 23; Sp. p. 5433; Gaz. vol. 148; p. 920.
Sheward, A. T., assignor to Williams Patent Crusher & Pulverizer Company, St. Louis, Mo. Dust collector and separator. No. 940,827; Nov. 23; Sp. p. 5289; Gaz. vol. 148; p. 897.
Shields, J. F. (See Boulton, C. W., assignor.)
Shill, P. B., Leytonstone, assignor of one-fourth to C. W. Bluemel, one-fourth to F. H. Bluemel, and one-fourth to E. A. Bluemel, Wolston, England. Pneumatic-despatch system. No. 939,872; Nov. 9; Sp. p. 3121; Gaz. vol. 148; p. 515.
Shiman Miller Manufacturing Company. (See Morris, E., assignor.)
Shipley, D. E. (See Board, I. D., assignor.)
Sholar, E. H., assignor to Volunteer Disc Plow Company, Chattanooga, Tenn. Reversible disk plow. No. 941,818; Nov. 30; Sp. p. 7425; Gaz. vol. 148; p. 1248.
Sholar, E. H., and W. W. Pace, assignors to Volunteer Disc Plow Co., Chattanooga, Tenn. Disk plow. No. 941,817; Nov. 30; Sp. p. 7419; Gaz. vol. 148; p. 1248.
Short, J. W., Geneva, N. Y. Syringe. No. 942,015; Nov. 30; Sp. p. 7808; Gaz. vol. 148; p. 1315.
Shraud, G. A., Blue Island, Ill. Collapsible box or crate. No. 940,371; Nov. 16; Sp. p. 4282; Gaz. vol. 148; p. 719.
Shreve, C. E., Atlantic City, N. J. Milk-pail. No. 940,372; Nov. 16; Sp. p. 4286; Gaz. vol. 148; p. 720.
Shriner, R. L., New York, N. Y., assignor to Standard Stopper Company, Jersey City, N. J. Bottle-capping machine. No. 938,612; Nov. 2; Sp. p. 384; Gaz. vol. 148; p. 57.
Shue, E. F., New York, N. Y. Liquid-weigher. No. 939,103; Nov. 2; Sp. p. 1383; Gaz. vol. 148; p. 225.
Shuman, F. (See Schumann, F., assignor.)
Shuman, W. I. (See McClure and Shuman.)
Shupe, H. P., Cleveland, Ohio. Garment-pressing machine. No. 940,078; Nov. 16; Sp. p. 3621; Gaz. vol. 148; p. 618.
Shutt, J. E., Ganado, Tex. Plunger head or valve. No. 940,900; Nov. 23; Sp. p. 5434; Gaz. vol. 148; p. 921.
Sibley, C. C. (See Lutz and Sibley.)
Sibley, R. W., Boston, Mass. Wire and wire-fabric stretcher. No. 942,016; Nov. 30; Sp. p. 7809; Gaz. vol. 148; p. 1315.
Sicking, B. (See Hoff, C., assignor.)
Sieben, H., assignor of one-fourth to L. E. Wyne and one-fourth to A. H. Glasner, Kansas City, Mo. Fluid-controlling apparatus. No. 938,613; Nov. 2; Sp. p. 389; Gaz. vol. 148; p. 58.
Siebert, H. C. (See Ahlen and Siebert.)
Siegfried, R., Pittsburg, Pa., assignor to Westinghouse Electric & Manufacturing Company. Cross-connections for dynamo-electric machines. No. 941,388; Nov. 30; Sp. p. 6495; Gaz. vol. 148; p. 1105.
Siegrist, A. (See Speckenbach, O., assignor.)
Siegrist, G. M., *et al.* (See Doerr, C. J., assignor.)
Siemens & Halske, A. G. (See Neugebauer, O., assignor.)
Siemens-Schuckert-Werke G. m. b. H. (See Krell, O., assignor.)
Sigler, W. S., San Pedro, Mexico. Apparatus for jointing pipes. No. 940,562; Nov. 16; Sp. p. 4705; Gaz. vol. 148; p. 783.
Silica Syndicate Limited. (See Kent and Lacell, assignors.)
Silver, W. P., Isabel, Kans. Grain-separator. No. 939,449; Nov. 9; Sp. p. 2228; Gaz. vol. 148; p. 370.
Simmen, P. J., Oakland, Cal. Train-despatcher's chart. No. 940,079; Nov. 16; Sp. p. 3624; Gaz. vol. 148; p. 618.
Simmen, P. J., Los Angeles, Cal. Cab-signal circuit. No. 941,541; Nov. 30; Sp. p. 6820; Gaz. vol. 148; p. 1155.
Simmons Manufacturing Company. (See Gall, J. F., assignor.)
Simmons, L. R. (See Simmons, W. C. and L. R.)
Simmons, W. C. and L. R., Beaver City, Nebr. Washing-machine. No. 939,340; Nov. 9; Sp. p. 1969; Gaz. vol. 148; p. 335.
Simon, A. (See Hoffman, M. H., assignor.)
Simonson, A., New York, N. Y. Paper decoration. No. 940,484; Nov. 16; Sp. p. 4530; Gaz. vol. 148; p. 758.
Simonson, C. J., Caron, Saskatchewan, Canada. Rack for rolls of merchandise. No. 941,281; Nov. 23; Sp. p. 6265; Gaz. vol. 148; p. 1048.
Simplex Piano Player Company. (See Brown, T. P., assignor.)
Simplex Self-Hoisting Machine Company. (See Moulton, I. C., assignor.)
Simplex Valve & Meter Company. (See Ledoux, J. W., assignor.)
Simpson, A. E., assignor of one-half to Bentley & Jackson, Limited, Bury, England. Gearing for stentering-machines. No. 939,959; Nov. 9; Sp. p. 3317; Gaz. vol. 148; p. 547.
Simpson, D. M., Chicago, Ill. Drinking-cup attachment. No. 940,204; Nov. 16; Sp. p. 3904; Gaz. vol. 148; p. 663.
Simpson, H., Burlington, Wis. Water retaining and conveying attachment for cable lightning-rods. No. 940,742; Nov. 23; Sp. p. 5098; Gaz. vol. 148; p. 869.
Simpson, J. A., Somerville, Mass. Fastener. No. 941,542; Nov. 30; Sp. p. 6822; Gaz. vol. 148; p. 1155.
Simpson, W. R. (See Chadbourne and Simpson.)
Singer, A. (See Forbes and Singer.)
Singer, C., Winfred, S. D. Window-frame. No. 940,485; Nov. 16; Sp. p. 4532; Gaz. vol. 148; p. 758.
Singer, H. D., and H. V. Pratt, Hospital, Ill. Steam-trap. No. 939,450; Nov. 9; Sp. p. 2231; Gaz. vol. 148; p. 371.
Singer Manufacturing Company. (See De Voe, A. H., assignor.)
Singer Manufacturing Company. (See Prazak, E., assignor.)
Single Service Package Corporation of America. (See Jenkins, C. F., assignor.)
Sinnickson, G. R., Haddonfield, N. J. Beehive. No. 940,407; Nov. 16; Sp. p. 4377; Gaz. vol. 148; p. 732.
Sipp, G., Paterson, N. J. Warping-machine. No. 940,080; Nov. 16; Sp. p. 3626; Gaz. vol. 148; p. 619.
Sirr, J., and J. W. Kleine, Chicago, Ill. Bed-spring. No. 938,717; Nov. 2; Sp. p. 584; Gaz. vol. 148; p. 92.
Sistek, J., and J. Spinka, Chicago, Ill. Fluid-actuated vise. No. 941,543; Nov. 30; Sp. p. 6824; Gaz. vol. 148; p. 1155.
Skinner, F. W., Tompkinsville, N. Y. Constructing and erecting reinforced-concrete beams, girders, and arch-ribs. No. 939,642; Nov. 9; Sp. p. 2645; Gaz. vol. 148; p. 437.
Skogsberg, J. A., Chicago, Ill. Bath-tub seat. No. 941,544; Nov. 30; Sp. p. 6825; Gaz. vol. 148; p. 1156.
Slady, F. W., assignor to Bryant Electric Company, Bridgeport, Conn. Incandescent-lamp socket. No. 941,174; Nov. 23; Sp. p. 6026; Gaz. vol. 148; p. 1013.
Slee, A. L., Berkeley, Cal. Changeable-speed transmission mechanism. No. 939,643; Nov. 9; Sp. p. 2647; Gaz. vol. 148; p. 437.
Sleeper, C. W., Lancaster, N. H. Can-soldering machine. No. 939,104; Nov. 2; Sp. p. 1384; Gaz. vol. 148; p. 226.
Sleeper, F. H., Coaticook, Quebec, Canada, assignor to Morgan Spring Company, Worcester, Mass. Machine for making coiled springs. No. 940,828; Nov. 23; Sp. p. 5291; Gaz. vol. 148; p. 898.
Sloane, W. L., and J. S. Owsley, Owensboro, Ky. Printing-machine. No. 941,106; Nov. 23; Sp. p. 5867; Gaz. vol. 148; p. 989.
Small, C. T., Malden, and W. N. Shelton, Newtonville, assignors to Franklin Rubber Company, Boston, Mass. Garment. No. 939,176 Nov. 2; Sp. p. 1554; Gaz. vol. 148; p. 252.
Smallman, J. W., Nuneaton, England. Haulage-clip. No. 941,049; Nov. 23; Sp. p. 5750; Gaz. vol. 148; p. 971.
Smiley, F. M., Goshen, Ind. Draft appliance. No. 941,545; Nov. 30; Sp. p. 6827; Gaz. vol. 148; p. 1156.

Smith, A. E., assignor to T. L. Smith Company, Milwaukee, Wis. Power charging device for concrete-mixers. No. 939,341; Nov. 9; Sp. p. 1970; Gaz. vol. 148; p. 335.
Smith, A. J., assignor of one-half to F. R. Baker, Chicago, Ill. Phonographic needle. No. 940,486; Nov. 16; Sp. p. 4533; Gaz. vol. 148; p. 759.
Smith, A. R., Marion, Ind. Collapsible arch-centering form. No. 938,718; Nov. 2; Sp. p. 585; Gaz. vol. 148; p. 92.
Smith, C. E., assignor to North & Judd Mfg. Company, New Britain, Conn. Lever-buckle. No. 940,829; Nov. 23; Sp. p. 5296; Gaz. vol. 148; p. 898.
Smith, C. F., and G. E. Curtiss, assignors to Landers, Frary and Clark, New Britain, Conn. Tea or coffee pot. No. 940,081; Nov. 16; Sp. p. 3629; Gaz. vol. 148; p. 619.
Smith, C. G. (See Hampton and Smith.)
Smith, C. H., Scranton, Pa. Valve. No. 940,621; Nov. 16; Sp. p. 4813; Gaz. vol. 148; p. 802.
Smith, C. J., assignor to Hardsocg Wonder Drill Co., Ottumwa, Iowa. Wire-working implement. No. 942,017; Nov. 30; Sp. p. 7810; Gaz. vol. 148; p. 1315.
Smith, C. L., Ponca, Nebr. Gate-hook. No. 940,205; Nov. 16; Sp. p. 3906; Gaz. vol. 148; p. 663.
Smith, C. N., St. Thomas, Ontario, Canada. Brake-shoe key. No. 941,107; Nov. 23; Sp. p. 5869; Gaz. vol. 148; p. 989.
Smith, C. S., and D. H. Hadsell, assignors of one-third to T. D. Barry, Brockton, Mass. Machine for pressing and shaping the backs of shoes. No. 939,105; Nov. 2; Sp. p. 1387; Gaz. vol. 148; p. 226.
Smith, D. R. (See Fisk and Smith.)
Smith, E. C., Newton, Iowa. Coffee cleaning and grading machine. No. 940,989; Nov. 23; Sp. p. 5609; Gaz. vol. 148; p. 950.
Smith, E. D., Pittsburg, Pa. Combined garbage-can and rubbish-burner. No. 940,062; Nov. 16; Sp. p. 3630; Gaz. vol. 148; p. 619
Smith, F. E., Hartford, Conn. Vulcanizer. No. 939,342; Nov. 9; Sp. p. 1971; Gaz. vol. 148; p. 335.
Smith, F. P. (See McClure, E., assignor.)
Smith, F. W., New York, N. Y. Electric switch. No. 941,660; Nov. 30; Sp. p. 7065; Gaz. vol. 148; p. 1194.
Smith, G. A., Southwick, Brighton, England. Kinematograph apparatus for the production of colored pictures. No. 941,960; Nov. 30; Sp. p. 7705; Gaz. vol. 148; p. 1298.
Smith, G. L., H. F. Graver, and J. J. Wiegand, East Toledo, Ohio. Nut-lock. No. 940,990; Nov. 23; Sp. p. 5611; Gaz. vol. 148; p. 951.
Smith, G. M., *et al.* (See Wirgovits, J., assignor.)
Smith, H., *et al.* (See Sebree, W. T., assignor.)
Smith, H., assignor of one-half to J. A. Barger, Bellingham, Wash. Lawn-mower trimming attachment. No. 939,926; Nov. 9; Sp. p. 3250; Gaz. vol. 148; p. 535.
Smith, H. A., Columbus, Ohio. Attachment for phonographs. No. 941,546; Nov. 30; Sp. p. 6828; Gaz. vol. 148; p. 1156.
Smith, H. F., Philadelphia, Pa., assignor to Smith Incandescent Light Company. Lamp. (Reissue.) No. 13,033; Nov. 2; Sp. p. 1600; Gaz. vol. 148; p. 259.
Smith, H. K., Union, S. C. Envelop-cabinet. No. 941,736; Nov. 30; Sp. p. 7236; Gaz. vol. 148; p. 1220.
Smith, H. M. (See Hadley and Smith.)
Smith Incandescent Light Company. (See Smith, H. F., assignor.) (Reissue.)
Smith, J. H., Rochester, N. Y. Automatic pressure control. No. 939,752; Nov. 9; Sp. p. 2880; Gaz. vol. 148; p. 475.
Smith, L. K., Moberly, Mo. Journal-box. No. 941,661; Nov. 30; Sp. p. 7066; Gaz. vol. 148; p. 1194.
Smith, L. W. (See Stires and Smith.)
Smith, O. P., South Framingham, Mass., assignor to himself, and W. F. Blake, St. Louis, Mo. Propeller. No. 940,743; Nov. 23; Sp. p. 5099; Gaz. vol. 148; p. 869.
Smith, R. H., Hamilton, Mass. Horse-boot. No. 941,819; Nov. 30; Sp. p. 7427; Gaz. vol. 148; p. 1248.
Smith, S. B., Willow Springs, Ill. Firearm. No. 941,662; Nov. 30; Sp. p. 7068; Gaz. vol. 148; p. 1195.
Smith, S. R., Gainesville, Tex. Device for teaching penmanship. No. 940,744; Nov. 23; Sp. p. 5101; Gaz. vol. 148; p. 869
Smith, T. L., and E. W. Meyer, assignors to T. L. Smith Company, Milwaukee, Wis. Liquid-measuring tank. No. 940,200; Nov. 16; Sp. p. 3906; Gaz. vol. 148; p. 663.
Smith, W., Viropa, W. Va. Combined graphophone-horn and record-case. No. 939,753; Nov. 9; Sp. p. 2881; Gaz. vol. 148; p. 475.
Smith, W. F., Philadelphia, Pa. Hydraulic separator. No. 941,663; Nov. 30; Sp. p. 7071; Gaz. vol. 148; p. 1195.
Smith, W. H., assignor of one-half to M. F. Barrett, Cleveland, Ohio. Valve device for corrosive liquids. No. 939,927; Nov. 9; Sp. p. 3251; Gaz. vol. 148; p. 536.
Smith, W. H., Cleveland, assignor of one-half to M. F. Barrett, East Cleveland, Ohio. Valve device for corrosive liquids. No. 941,351; Nov. 23; Sp. p. 6395; Gaz. vol. 148; p. 1069.
Smith, W. M., Prospect Park, assignor to W. H. Heulings, Jr., Philadelphia, Pa. Car-door and means for operating it. No. 938,719; Nov. 2; Sp. p. 587; Gaz. vol. 148; p. 92.
Smith, W. T., Philadelphia, Pa. Laying-table for rope portières. No. 939,873; Nov. 9; Sp. p. 3127; Gaz. vol. 148; p. 516.
Smitson, W. A., and A. German, Elwood, Ind. Device for holding wire screens. No. 941,282; Nov. 23; Sp. p. 6266; Gaz. vol. 148; p. 1045.
Snaman, W. E., Pittsburg, Pa. Flushing apparatus for water-closet bowls or hoppers. No. 941,283; Nov. 23; Sp. p. 6267; Gaz. vol. 148; p. 1049.
Snead & Company Iron Works. (See Macdonald, H. P., assignor.)
Sneddon, J. P., Barberton, Ohio, assignor to Babcock & Wilcox Company, New York, N. Y. Water-tube boiler. No. 941,820; Nov. 30; Sp. p. 7429; Gaz. vol. 148; p. 1249.
Snediker, H. L., Kansas City, Mo. Syrup-pump for soda-fountains. No. 940,991; Nov. 23; Sp. p. 5612; Gaz. vol. 148; p. 951.
Snow, D. W., Portland, Me. Car-window ventilator. No. 940,946; Nov. 23; Sp. p. 5532; Gaz. vol. 148; p. 936.
Snyder, G. C., *et al.* (See Jones, A. M., assignor.)
Snyder, J. B., Plum Run, Pa. Cant-hook. No. 940,207; Nov. 16; Sp. p. 3908; Gaz. vol. 148; p. 664.
Snyder, J. E., Swissvale, Pa., assignor to Westinghouse Machine Company. Turbine-blading. No. 941,389; Nov. 30; Sp. p. 6497; Gaz. vol. 148; p. 1105.
Snyder, J. G., Altoona, Pa. Metallic railway-tie. No. 939,343; Nov. 9; Sp. p. 1974; Gaz. vol. 148; p. 336.
Snyder, O. M., *et al.* (See Jones, A. M., assignor.)
Société Lecaron Fils. (See Desiot, E., assignor.)
Société Universelle des Appareils Contrôleurs. (See Soulage, G. I. F., assignor.)
Society of Chemical Industry in Basle. (See Engi and Kappeler, assignors.)
Society of Chemical Industry in Basle. (See Kraft, H., assignor.)
Soderstrom, J. A., Chicago, Ill. Necktie. No. 940,992; Nov. 23; Sp. p. 5615; Gaz. vol. 148; p. 951.
Soles, W. A., New York, N. Y. Hair-drying apparatus. No. 939,106; Nov. 2; Sp. p. 1389; Gaz. vol. 148; p. 226.
Solvay Process Company. (See Decker, W. H., assignor.)
Son, M. (See Son, W. H., assignor.)
Son, W. H., assignor to M. Son, New York, N. Y. Car-truck. No. 940,901; Nov. 23; Sp. p. 5435; Gaz. vol. 148; p. 921.
Son, W. H., assignor to M. Son, New York, N. Y. Car. No. 940,902; Nov. 23; Sp. p. 5437; Gaz. vol. 148; p. 921.
Sorenson, E., Emmett, Idaho. Apparatus for treating grain. No. 941,821; Nov. 30; Sp. p. 7431; Gaz. vol. 148; p. 1249.
Soss, F. (See Canfield, H. R., assignor.)
Soulage, G. I. F., assignor to Société Universelle des Appareils Contrôleurs, Paris, France. Apparatus for the control and the registration of the operations performed by distributing-machines. No. 941,892; Nov. 30; Sp. p. 7574; Gaz. vol. 148; p. 1275.
Soutar, J. L., Seattle, Wash. Split-switch quadrant adjustment. No. 939,561; Nov. 9; Sp. p. 2457; Gaz. vol. 148; p. 408.
Southerland, J. M., Monte Ne, Ark. Mold for making nest-eggs. No. 940,208; Nov. 16; Sp. p. 3909; Gaz. vol. 148; p. 664.
Sovereign, G. E., Pottersville, N. J. Attrition-plate for leather-shredding mills. No. 938,798; Nov. 2; Sp. p. 741; Gaz. vol. 148; p. 120.
Spacie, T., Chicago, Ill. Roller-skate. No. 939,451; Nov. 9; Sp. p. 2232; Gaz. vol. 148; p. 371.
Spahn, H., Chicago, Ill. Micrometer. No. 939,562; Nov. 9; Sp. p. 2459; Gaz. vol. 148; p. 408.
Spähr, E. J., assignor of one-half to O. Semler and E. Bohrmann, New York, N. Y. Means for attaching axle-boxes. No. 941,822; Nov. 30; Sp. p. 7433; Gaz. vol. 148; p. 1250.
Sparks, W. A., St. Marys, W. Va. Welding-tool. No. 940,903; Nov. 23; Sp. p. 5439; Gaz. vol. 148; p. 921.
Spaulding, E. F., Brooklyn, N. Y. Coin-controlled vending-machine. No. 939,563; Nov. 9; Sp. p. 2461; Gaz. vol. 148; p. 408.
Spear, F. D., Brooklyn, N. Y. Lens-carrier for lanterns. No. 939,754; Nov. 9; Sp. p. 2882; Gaz. vol. 148; p. 475.
Speckenbach, O., assignor of one-half to A. Siegrist, New York, N. Y. Passenger-controlled register for street-cars. No. 941,108; Nov. 23; Sp. p. 5870; Gaz. vol. 148; p. 990.
Speer, M. (See King, M. M., assignor.)
Speerstra, P. H., Steubenville, Ohio. Climbing-stirrup. No. 938,905; Nov. 2; Sp. p. 1006; Gaz. vol. 148; p. 158.
Spellman, C. J., Wauwatosa, assignor of one-half to C. W. Norris. Milwaukee, Wis. Double-acting switch. No. 940,408; Nov. 16; Sp. p. 4379; Gaz. vol. 148; p. 732.
Spence, J. C. (See Norton, Spence, and Cudworth.)
Spencer, R. M., Edwall, Wash. Spring-tire. No. 940,904; Nov. 23; Sp. p. 5440; Gaz. vol. 148; p. 922.
Spenko, J., Collinwood, Ohio. Vegetable-cutter. No. 940,830; Nov. 23; Sp. p. 5297; Gaz. vol. 148; p. 898.
Spiegel, J. F., assignor of one-fourth to F. C. Williams and one-fourth to E. A. Lacy, Galeton, Pa. Air-brake retaining-valve. No. 939,928; Nov. 9; Sp. p. 3255; Gaz. vol. 148; p. 536.
Spiegle, F. M., New York, N. Y. Landing net-frame. No. 941,961; Nov. 30; Sp. p. 7707; Gaz. vol. 148; p. 1299.
Spinka, J. (See Sistek and Spinka.)
Spivey, T. S. (See Keller, J. R., assignor.)

St. Peter, J. C. (See Marcou and St. Peter.)
Stables, G., Philadelphia, Pa. Vehicle-brake. No. 938,720; Nov. 2; Sp. p. 589; Gaz. vol. 148; p. 92.
Stacey, J. E. (See McKernan, F. M., assignor.)
Stacy, G., and G. A. Julius, Perth, Western Australia, Australia. Voting-machine. No. 939,755; Nov. 9; Sp. p. 2884; Gaz. vol. 148; p. 476.
Stacy, G., and G. A. Julius, Perth, Western Australia, Australia. Voting-machine. No. 939,929; Nov. 9; Sp. p. 3258; Gaz. vol. 148; p. 537.
Stafford Company. (See Jackson, S. S., assignor.)
Stahl, E. (See Nodine, L. R., assignor.)
Stahr, W. J., Nescopeck, Pa. Car-brake. No. 940,373; Nov. 16; Sp. p. 4289; Gaz. vol. 148; p. 720.
Stalford, F. D., Frederick, Okla. Crude-oil burner. No. 941,284; Nov. 23; Sp. p. 6271; Gaz. vol. 148; p. 1049.
Stalford, F. D., Frederick, Okla. Crude-oil burner. No. 941,285; Nov. 23; Sp. p. 6272; Gaz. vol. 148; p. 1050.
Stallings, E. A., *et al.* (See Noland, W. H., assignor.)
Stalter, J. B., Pittsford, N. Y. Crib. No. 941,429; Nov. 30; Sp. p. 6599; Gaz. vol. 148; p. 1118.
Stam, T. R., West Union, Iowa. Trolley-head. No. 939,564; Nov. 9; Sp. p. 2469; Gaz. vol. 148; p. 409.
Stambaugh, C. C., New York, N. Y. Milk pasteurizer and filter. No. 939,107; Nov. 2; Sp. p. 1390; Gaz. vol. 148; p. 227.
Stanbro, G. L., and A. D. Wagner, Norfolk, Va. Electromagnetic traction system. No. 940,487; Nov. 16; Sp. p. 4534; Gaz. vol. 148; p. 759.
Standard Computing Scale Company. (See Buckingham, F. H., assignor.)
Standard Equipment Company. (See Davidson, R. J., assignor.)
Standard Fender Company. (See Keizur, M. L., assignor.)
Standard Machinery Company. (See Zschech, G. H., assignor.)
Standard Oil Company. (See Manbeck, C. B., assignor.)
Standard Oil Company of New York. (See Paine, F. R., assignor.)
Standard Optical Company. (See Long, E. M., assignor.)
Standard Optical Company. (See Quimby, C. E., assignor.)
Standard Steel Tie Company. (See Côté, G. M., assignor.)
Standard Stopper Company. (See Shriner, R. L., assignor.)
Standard Underground Cable Company. (See Davis, C. W., assignor.)
Standard Varnish Works. (See Beausejour, R. A., assignor.)
Stanley, C. M., Hamilton, Ohio. Craft adapted to travel in a resisting medium. No. 939,344; Nov. 9; Sp. p. 1976; Gaz. vol. 148; p. 336.
Stanley Rule & Level Company. (See Schade, E. A., assignor.)
Stanley, T. H., Denver, Colo. Truss. No. 940,622; Nov. 16; Sp. p. 4815; Gaz. vol. 148; p. 803.
Stanley, W., Great Barrington, Mass., assignor to General Electric Company. Alternating-current apparatus. No. 941,467; Nov. 30; Sp. p. 6670; Gaz. vol. 148; p. 1131.
Stanley, W., Great Barrington, Mass., assignor to General Electric Company. Electric meter. No. 941,468; Nov. 30; Sp. p. 6675; Gaz. vol. 148; p. 1131.
Stanly, W., Great Barrington, Mass., assignor to General Electric Company. Alternating-current meter. No. 941,469; Nov. 30; Sp. p. 6678; Gaz. vol. 148; p. 1131.
Starke, A., Richmond, Va. Piston-head for engines. No. 941,737; Nov. 30; Sp. p. 7238; Gaz. vol. 148; p. 1221.
Starr, C. M., South Bend, Ind. Brick-machine. No. 940,623; Nov. 16; Sp. p. 4817; Gaz. vol. 148; p. 803.
State, W. C., assignor to F. A. Seiberling, Akron, Ohio. Pneumatic-tire-shoe-manufacturing machine. No. 941,962; Nov. 30; Sp. p. 7708; Gaz. vol. 148; p. 1299.
Steam Appliance Manufacturing Company. (See Morrison, J. W., assignor.)
Stearns, R. H., Milwaukee, Wis., assignor to Morse Twist Drill and Machine Co., New Bedford, Mass. Arbor for shell-reamers. No. 939,345; Nov. 9; Sp. p. 1978; Gaz. vol. 148; p. 336.
Stebbins, C. B. (See Hovey and Stebbins.)
Stedham, T., Victoria, British Columbia, Canada. Reinforced-concrete pile. No. 942,018; Nov. 30; Sp. p. 7812; Gaz. vol. 148; p. 1315.
Steedman, G. F., St. Louis, Mo. Locking mechanism for elevators. No. 938,520; Nov. 2; Sp. p. 178; Gaz. vol. 148; p. 25.
Steele, L. C., Vandergrift, Pa. Plate-bar-heating furnace. No. 941,738; Nov. 30; Sp. p. 7241; Gaz. vol. 148; p. 1221.
Steger, M., Bochum, Germany. Apparatus for separating particles of liquid from gases and vapors. No. 940,947; Nov. 23; Sp. p. 5533; Gaz. vol. 148; p. 937.
Stein, J. P., Reading, Pa. Operating device for vehicle-lamps. No. 941,739; Nov. 30; Sp. p. 7242; Gaz. vol. 148; p. 1221.
Steinberger, L., New York, N. Y. Binding-post. No. 941,893; Nov. 30; Sp. p. 7581; Gaz. vol. 148; p. 1276.
Steinmetz, C. P., Schenectady, N. Y., assignor to General Electric Company. Attachment for mercury-lamps. No. 940,209; Nov. 16; Sp. p. 3910; Gaz. vol. 148; p. 664.
Steinmetz, C. P., Schenectady, N. Y., assignor to General Electric Company. Dynamo-electric machine. No. 940,210; Nov. 16; Sp. p. 3912; Gaz. vol. 148; p. 664.
Stelle, C. A., Chicago, Ill. Percolator. No. 938,906; Nov. 2; Sp. p. 1007; Gaz. vol. 148; p. 159.
Stelzer, C. G., Polk, Ohio. Clod-crusher. No. 941,740; Nov. 30; Sp. p. 7243; Gaz. vol. 148; p. 1221.
Stephens, W. M., Philadelphia, Pa., assignor to Railways Surface Contact Supplies Company, Wilmington, Del. Electric-railway system. No. 940,211; Nov. 16; Sp. p. 3914; Gaz. vol. 148; p. 665.
Sterling, M. H., Bisbee, Ariz. Detachable knife-blade. No. 939,346; Nov. 9; Sp. p. 1979; Gaz. vol. 148; p. 336.
Stern, D., Cincinnati, Ohio. Aseptic lamp for dental, medical, or surgical purposes. No. 940,831; Nov. 23; Sp. p. 5299; Gaz. vol. 148; p. 899.
Stern, E. (See Klein, J., assignor.)
Sternau & Co., S. (See Nelson, C., assignor.)
Stetson, L. B., Bellevue, Wash. Frame. No. 941,894; Nov. 30; Sp. p. 7583; Gaz. vol. 148; p. 1276.
Stettina, P. von, Schenectady, N. Y. Horseshoe. No. 938,907; Nov. 2; Sp. p. 1009; Gaz. vol. 148; p. 159.
Stevenson, W. M., assignor to Hodges Fiber Carpet Company, Indian Orchard, Mass. Wall-covering. No. 942,019; Nov. 30; Sp. p. 7813; Gaz. vol. 148; p. 1316.
Stewart, A., Jr. (See Thurston, F. A., assignor.)
Stewart, B. F., Chicago, Ill. Igniting apparatus for explosive-engines. No. 940,374; Nov. 16; Sp. p. 4290; Gaz. vol. 148; p. 721.
Stewart, S. B., Jr., Schenectady, N. Y., assignor to General Electric Company. Underrunning current-collector. No. 941,390; Nov. 30; Sp. p. 6500; Gaz. vol. 148; p. 1105.
Stewart, W. C., Lynn, assignor, by mesne assignments, to T. G. Plant, Boston, Mass. Work-support. No. 940,745; Nov. 23; Sp. p. 5102; Gaz. vol. 148; p. 870.
Stewart, W. J., New York, N. Y. Hat-protector. No. 939,874; Nov. 9; Sp. p. 3129; Gaz. vol. 148; p. 516.
Stickley, J. W., Norfolk, Va. Track-sanding apparatus. No. 940,375; Nov. 16; Sp. p. 4293; Gaz. vol. 148; p. 721.
Stickney, B. R., Ticonderoga, N. Y., assignor of one-half to J. E. Ralph, Joliet, Ill. Sheet-feeding machine. No. 939,177; Nov. 2; Sp. p. 1555; Gaz. vol. 148; p. 252.
Stillwell, H. A., Woodbury, N. J., assignor to E. I. du Pont de Nemours Powder Company, Wilmington, Del. Shell-feeding machine. No. 941,823; Nov. 30; Sp. p. 7434; Gaz. vol. 148; p. 1250.
Stimpson, E. B., Brooklyn, N. Y., assignor to Edwin B. Stimpson Company. Stud or rivet. No. 940,083; Nov. 16; Sp. p. 3631; Gaz. vol. 148; p. 620.
Stimpson, E. B., Brooklyn, N. Y., assignor to Edwin B. Stimpson Company. Machine for creasing leather and the like. No. 940,084; Nov. 16; Sp. p. 3632; Gaz. vol. 148; p. 620.
Stimpson, E. B., Brooklyn, N. Y., assignor to Edwin B. Stimpson Company. Tire-protective rivet. No. 940,085; Nov. 16; Sp. p. 3635; Gaz. vol. 148; p. 620.
Stimpson, W. F., Detroit, Mich. Scale. No. 939,875; Nov. 9; Sp. p. 3130; Gaz. vol. 148; p. 516.
Stimpson, W. F., Detroit, Mich. Scale. No. 941,590; Nov. 30; Sp. p. 6913; Gaz. vol. 148; p. 1170.
Stires, H. O., and L. W. Smith, Trenton, N. J. Horse-releaser. No. 938,721; Nov. 2; Sp. p. 590; Gaz. vol. 148; p. 93.
Stitzer, A. B., Philadelphia, Pa. Electric car-controlling system. No. 941,391; Nov. 30; Sp. p. 6501; Gaz. vol. 148; p. 1106.
Stjernstedt, E. C. M. W., Stockholm, Sweden. Means for attaching shafts to spades or other tools. No. 941,286; Nov. 23; Sp. p. 6275; Gaz. vol. 148; p. 1050.
Stocker, G., New York, N. Y. Holder. No. 940,086; Nov. 16; Sp. p. 3636; Gaz. vol. 148; p. 620.
Stocking, E. L., Buffalo, N. Y. Lumber-roller for cars. No. 939,452; Nov. 9; Sp. p. 2235; Gaz. vol. 148; p. 371.
Stolz, B., *et al.*, executors. (See Just, J. A.)
Stomberg, J., Port Wing, Wis. Toy flying-machine. No. 942,020; Nov. 30; Sp. p. 7814; Gaz. vol. 148; p. 1316.
Stone, E., Chicago, Ill. Cover for ironing-boards. No. 941,430; Nov. 30; Sp. p. 6600; Gaz. vol. 148; p. 1119.
Stone, E. F., Chicago, Ill. Indicating coin-holder for telephone-users. No. 941,524; Nov. 30; Sp. p. 7439; Gaz. vol. 148; p. 1250.
Stone, H. B., Providence, R. I. Telephone system. No. 940,746; Nov. 23; Sp. p. 5105; Gaz. vol. 148; p. 870.
Stone, J., Cameron, Tex. Sweep-stock. No. 940,905; Nov. 23; Sp. p. 5441; Gaz. vol. 148; p. 922.
Stone, J. M., Newberg, Oreg. Separator. No. 940,212; Nov. 16; Sp. p. 3917; Gaz. vol. 148; p. 665.
Stone, M. L., Lowell, Mass., assignor to Draper Company, Portland, Me. Automatic weft-replenishing mechanism for looms. No. 940,286; Nov. 16; Sp. p. 4073; Gaz. vol. 148; p. 691.
Strachan & Henshaw. (See Duerden, S., assignor.)
Strain, J. (See Borrowdale and Strain.)
Strasburger, F. C. H., assignor to Bottlers Machinery Manufacturing Company, Chicago, Ill. Filling-machine. No. 940,624; Nov. 16; Sp. p. 4819; Gaz. vol. 148; p. 803.

Strasburger, L., and L. Granges, Paris, France. Machine for cleansing bottles and similar vessels. No. 940,948; Nov. 23; Sp. p. 5534; Gaz. vol. 148; p. 937.
Strauss, E. H., assignor to American Commerce & Specialty Co., Chicago, Ill. Friction and inertia counteracting device for scales. No. 939,347; Nov. 9; Sp. p. 1981; Gaz. vol. 148; p. 337.
Straw, E. E., Marshfield, Oreg. Tank. No. 941,895; Nov. 30; Sp. p. 7584; Gaz. vol. 148; p. 1276.
Stream, S. A. (See Clarke and Stream.)
Strömberg, P. P., assignor of one-half to O. Ostby, Gjesaasen, Norway. Adjustable spanner. No. 940,625; Nov. 16; Sp. p. 4824; Gaz. vol. 148; p. 804.
Strong, Carlisle & Hammond Company. (See Weintz, J., assignor.)
Stroud, W. (See Barr and Stroud.)
Stryker, C. L. (See Bachman, W. S., assignor.)
Stubblefield, J. A., Salem, Oreg. Snap. No. 940,213; Nov. 16; Sp. p. 3918; Gaz. vol. 148; p. 666.
Sturgis, C. M., Birmingham, Ala. Scale. No. 941,208; Nov. 23; Sp. p. 6106; Gaz. vol. 148; p. 1024.
Sturgis Steel Go-Cart Company. (See Loshbough, A. W., assignor.)
Sub-Target Gun Company. (See Cummings, H. H., assignor.)
Subers, L. A. (See Bayne and Subers.)
Sullivan, I. M., Springfield, Ohio. Smoke-preventive apparatus. No. 941,547; Nov. 30; Sp. p. 6831; Gaz. vol. 148; p. 1157.
Sullivan, J. D., Salt Lake City, Utah. Molding apparatus. No. 941,287; Nov. 23; Sp. p. 6276; Gaz. vol. 148; p. 1050.
Sullivan, W. A., New York, N. Y. Vertical roundabout. No. 941,209; Nov. 23; Sp. p. 6108; Gaz. vol. 148; p. 1025.
Sultzer, C. S., assignor to Red Wing Advertising Company, Red Wing, Minn. Check-book. No. 938,908; Nov. 2; Sp. p. 1010; Gaz. vol. 148; p. 159.
Sultzer, C. S., assignor to Red Wing Advertising Company, Red Wing, Minn. Folding check-book. No. 938,909; Nov. 2; Sp. p. 1011; Gaz. vol. 148; p. 160.
Sultzer, C. S., assignor to Red Wing Advertising Company, Red Wing, Minn. Pocket check-book. No. 938,910; Nov. 2; Sp. p. 1013; Gaz. vol. 148; p. 160.
Sulzberger, N., New York, N. Y. Non-odorous phenol salve and ointment. No. 938,614; Nov. 2; Sp. p. 391; Gaz. vol. 148; p. 58.
Summers, F. E., Scotland county, Mo. Telephone system. No. 939,756; Nov. 9; Sp. p. 2900; Gaz. vol. 148; p. 476.
Summers Fiber Company. (See Summers, L. L., assignor.)
Summers, L. L., Chicago, Ill., assignor to Summers Fiber Company, Port Huron, Mich. Fiber-cleaning machine. No. 938,722; Nov. 2; Sp. p. 591; Gaz. vol. 148; p. 93.
Sumpner, W. E., Moseley, near Birmingham, England. Phase adjustment. No. 940,747; Nov. 23; Sp. p. 5110; Gaz. vol. 148; p. 871.
Sumter Telephone Mfg. Co. (See Mason, C. T., assignor.)
Sundee, J. R., assignor to Empire Jewelry Case Company, Buffalo, N. Y. Jewelry-box. No. 941,741; Nov. 30; Sp. p. 7244; Gaz. vol. 148; p. 1222.
Supplementary Spiral Spring Company. (See Furmidge, S., assignor.)
Supreme Knitting Bobbin Company. (See Wardwell, S. W., assignor.)
Suter, J., Jersey City, N. J. Aerial vessel. No. 941,896; Nov. 30; Sp. p. 7586; Gaz. vol. 148; p. 1277.
Sutherland, E., Hollywood, Cal. Combination nozzle-support and spraying device. No. 941,109; Nov. 23; Sp. p. 5877; Gaz. vol. 148; p. 990.
Sutter, O., Isanti, Minn. Sorting-belt. No. 938,521; Nov. 2; Sp. p. 183; Gaz. vol. 148; p. 25.
Sutton, W., Sacramento, Cal. Oil-burner. No. 940,949; Nov. 23; Sp. p. 5538; Gaz. vol. 148; p. 937.
Swain, H., San Francisco, Cal. Pump for automobile-tires. No. 938,522; Nov. 2; Sp. p. 184; Gaz. vol. 148; p. 26.
Swainson, A., Spokane, Wash. Insect-destroyer. No. 941,742; Nov. 30; Sp. p. 7245; Gaz. vol. 148; p. 1222.
Swan, F. A., Cliftondale, Mass. Coupling for fish-tapes. No. 938,723; Nov. 2; Sp. p. 594; Gaz. vol. 148; p. 93.
Swangren, E. V. (See Weber, Eberhart, and Swangren.)
Swank, L., assignor to Dwiggins Wire Fence Company, Anderson, Ind. Die. No. 940,214; Nov. 16; Sp. p. 3920; Gaz. vol. 148; p. 666.
Swank, L., assignor to Dwiggins Wire Fence Company, Anderson, Ind. Die. No. 940,215; Nov. 16; Sp. p. 3922; Gaz. vol. 148; p. 666.
Swank, T. M., Louisville, Ky. Lock-valve. No. 939,108; Nov. 2; Sp. p. 1392; Gaz. vol. 148; p. 227.
Swanson, C. C., assignor of one-half to W. Conry, Laporte, Ind. Wrench. No. 941,431; Nov. 30; Sp. p. 6601; Gaz. vol. 148; p. 1119.
Swanson, C. C., assignor of one-half to W. Conry, Laporte, Ind. Hub-attaching device. No. 941,470; Nov. 30; Sp. p. 6681; Gaz. vol. 148; p. 1132.
Swanson, J. H., Baldwin, Wis., assignor of one-fourth to T. F. Robinson, St. Paul, Minn. Telephone-line selective switch device. No. 941,743; Nov. 30; Sp. p. 7246; Gaz. vol. 148; p. 1222.
Swarthout, E. E., Evanston, Ill. Gearing. No. 940,748; Nov. 23; Sp. p. 5113; Gaz. vol. 148; p. 871.
Sweet, B. W., assignor to H. Z. Sands, Cleveland, Ohio. Sheet-metal supporting-arm. No. 941,591; Nov. 30; Sp. p. 6916; Gaz. vol. 148; p. 1170.
Sweet, C. A., *et al.* (See Anderson, J., assignor.)
Sweet, C. E., Wilkinsburg, Pa., assignor to Westinghouse Machine Company. Manufacturing compound-tapered wedges. No. 940,749; Nov. 23; Sp. p. 5115; Gaz. vol. 148; p. 871.
Swett, L. R., Boston, Mass. Envelop. No. 939,876; Nov. 9; Sp. p. 3132; Gaz. vol. 148; p. 517.
Swett, W. R., assignor to Acme Match Company, Roanoke, Va. Match-machine. No. 939,348; Nov. 9; Sp. p. 1983; Gaz. vol. 148; p. 337.
Swift, W. C. (See Mills, C., assignor.)
Switzer, J. A., Philadelphia, Pa. Method of and apparatus for testing and sorting metallic bodies. No. 939,109; Nov. 2; Sp. p. 1394; Gaz. vol. 148; p. 227.
Swoger, A. D., Pittsburg, Pa. Extinguisher. No. 940,832; Nov. 23; Sp. p. 5300; Gaz. vol. 148; p. 899.
Sydeman, A., and J. Meade, Stoughton, Mass. Apparatus for treating coated textile fabrics. No. 940,563; Nov. 16; Sp. p. 4706; Gaz. vol. 148; p. 784.
Sykes, C. J., Chicago, Ill. Cloth measurer and marker. No. 941,110; Nov. 23; Sp. p. 5879; Gaz. vol. 148; p. 990.
Sykes, J. W., Chicago, Ill. Ditching and earth-distributing mechanism. No. 941,050; Nov. 23; Sp. p. 5751; Gaz. vol. 148; p. 971.
Sykes, J. W., Chicago, Ill. Dike-building apparatus and process. No. 941,051; Nov. 23; Sp. p. 5754; Gaz. vol. 148; p. 971.
Symington, T. H., Baltimore, Md. Torsion-lid for journal-boxes. No. 938,523; Nov. 2; Sp. p. 185; Gaz. vol. 148; p. 26.
Syracuse Chilled Plow Company. (See Lee, W. H., assignor.)
Széchenyi, E. (See Koszegi and Széchenyi.)
T. L. Smith Company. (See Smith, A. E., assignor.)
T. L. Smith Company. (See Smith and Meyer, assignors.)
Tabor Manufacturing Company. (See Lewis, W., assignor.)
Tacon, E., *et al.* (See Brodton, A. L., assignor.)
Tacon, E. G., *et al.* (See Brodton, A. L., assignor.)
Taft, A. H., Troy, N. Y. Shoe-tree. No. 938,615; Nov. 2; Sp. p. 392; Gaz. vol. 148; p. 59.
Taft, C. L. (See McCall and Taft.)
Taft, S. E. (See Gooding and Taft.)
Taira, T., Fresno, Cal. Controlling-switch for moving-picture machines and stereopticons. No. 939,110; Nov. 2; Sp. p. 1402; Gaz. vol. 148; p. 228.
Talt, E. E., Bradford, Pa. Loose-leaf holder. No. 941,963; Nov. 30; Sp. p. 7716; Gaz. vol. 148; p. 1299.
Talley, H., Joplin, Mo. Mixing-machine for explosives. No. 940,216; Nov. 16; Sp. p. 3924; Gaz. vol. 148; p. 667.
Tambour, J. (See Köfler, T., assignor.)
Tambour, J., Nanterre, near Paris, France. Automatic safety appliance for pistols, &c. No. 939,111; Nov. 2; Sp. p. 1405; Gaz. vol. 148; p. 228.
Tambour, J., Nanterre, near Paris, France. Small-arm. No. 939,112; Nov. 2; Sp. p. 1407; Gaz. vol. 148; p. 229.
Taprogge, M., Neheim, Germany. Cloth bookbinding. No. 940,287; Nov. 16; Sp. p. 4076; Gaz. vol. 148; p. 691.
Tasto, J., Treynor, Iowa. Torpedo. No. 941,111; Nov. 23; Sp. p. 5880; Gaz. vol. 148; p. 991.
Tate, A. O., Toronto, Ontario, Canada, assignor to Tate Electrolytic Company of America. Storage battery. No. 940,288; Nov. 16; Sp. p. 4076; Gaz. vol. 148; p. 691.
Tate Electrolytic Company of America. (See Tate, A. O., assignor.)
Tattoon, P. E., Revere, Mass. Parting foundation for wigs. No. 941,744; Nov. 30; Sp. p. 7252; Gaz. vol. 148; p. 1223.
Tauber, I., Vienna, Austria-Hungary. Insole or support for deformed feet. No. 940,564; Nov. 16; Sp. p. 4711; Gaz. vol. 148; p. 784.
Taylor, E., Brooklyn, N. Y., assignor to Gerard Development Company. Method and means of utilizing volatile liquids as a motive power. No. 939,757; Nov. 9; Sp. p. 2906; Gaz. vol. 148; p. 477.
Taylor, H. H., San Jose, assignor of one-half to himself, and one-half to F. J. Mayhew, San Francisco, Cal. Spring-wheel. No. 939,565; Nov. 9; Sp. p. 2470; Gaz. vol. 148; p. 409.
Taylor, H. H., San Jose, assignor of one-half to himself, and one-half to F. J. Mayhew, San Francisco, Cal. Temperature-controlled transmission mechanism. No. 939,566; Nov. 9; Sp. p. 2472; Gaz. vol. 148; p. 410.
Taylor, J. B., Schenectady, N. Y. Sound-locating device. No. 939,349; Nov. 9; Sp. p. 1989; Gaz. vol. 148; p. 337.
Taylor, J. D., Pittsburg, Pa. Thermo-electric generation. No. 941,826; Nov. 30; Sp. p. 7442; Gaz. vol. 148; p. 1251.
Taylor, J. L., Bloomfield, N. J. Miter-clamp. No. 941,825; Nov. 30; Sp. p. 7440; Gaz. vol. 148; p. 1251.
Taylor, J. T. (See Weatherly, J. R., assignor.)

Taylor, L., Swarthmore, Pa. Method and apparatus for determining proportions in compounds and mixtures. No. 940,217; Nov. 16; Sp. p. 3925; Gaz. vol. 148; p. 667.
Taylor, T. B., New York, N. Y. Propelling means for vessels. No. 938,911; Nov. 2; Sp. p. 1014; Gaz. vol. 148; p. 161.
Taylor, W. L. (See Buchan, J. W., assignor.)
Tea Tray Company of Newark, N. J. (See Beetham, T. J., assignor.)
Teasdale, G. W., St. Louis, Mo. Carton. No. 938,799; Nov. 2; Sp. p. 743; Gaz. vol. 148; p. 121.
Teetor, C. F., *et al.* (See Hetherington, W., assignor.)
Teletopograph Signal Company. (See Dougal and Chambers, assignors.)
Temple, S. R., Cincinnatus, N. Y. Truck. No. 940,565; Nov. 16; Sp. p. 4712; Gaz. vol. 148; p. 784.
Templin, J. H. (See Wiedemann and Templin.)
Terrell, E., Columbus, Ohio, assignor to E. V. Gambier, trustee. Type receiving and supporting device. No. 940,087; Nov. 16; Sp. p. 3638; Gaz. vol. 148; p. 621.
Terry, G. C., *et al.* (See Morris, R. C., assignor.)
Teschel, G. R., Parkersburg, W. Va. Cuspidor. No. 938,912; Nov. 2; Sp. p. 1015; Gaz. vol. 148; p. 161.
Teske, C., Ray, N. D. Individual hair-spring-stud index for watches and clocks. No. 940,750; Nov. 23; Sp. p. 5116; Gaz. vol. 148; p. 871.
Tharp, J., *et al.* (See Estis, W. B., assignor.)
Tharp, M. A., *et al.* (See Estis, W. B., assignor.)
Thatcher, W. R., Oskaloosa, Iowa. Milk pasteurizer and cooler. No. 941,964; Nov. 30; Sp. p. 7717; Gaz. vol. 148; p. 1299.
Theobald, F. F., Cleveland, Ohio. Combined original package and safe for matches. No. 938,913; Nov. 2; Sp. p. 1019; Gaz. vol. 148; p. 161.
Theyskens, A., Tesselt, Belgium. Door-hanger. No. 940,088; Nov. 16; Sp. p. 3639; Gaz. vol. 148; p. 621.
Thibert, N. R., assignor to A. Thomas and M. J. Whittall, Worcester, Mass. Foot-propelled vehicle. No. 941,471; Nov. 30; Sp. p. 6682; Gaz. vol. 148; p. 1132.
Thissell, E. A. (See Sawyer, O. A., assignor.)
Thom, J. C., Helmetta, N. J., assignor to American Snuff Company, New York, N. Y. Sealing apparatus. No. 939,453; Nov. 9; Sp. p. 2237; Gaz. vol. 148; p. 372.
Thom, J. C., Helmetta, N. J., assignor to American Snuff Company, New York, N. Y. Machine for applying bottoms to cans. No. 939,454; Nov. 9; Sp. p. 2238; Gaz. vol. 148; p. 372.
Thom, J. C., Helmetta, N. J., assignor to American Snuff Company, New York, N. Y. Machine for filling boxes. No. 939,455; Nov. 9; Sp. p. 2242; Gaz. vol. 148; p. 372.
Thoma, L., *et al.* (See Sebree, W. T., assignor.)
Thomas, A., *et al.* (See Scott and Dilgard, assignors.)
Thomas, A., *et al.* (See Thibert, N. R., assignor.)
Thomas, H. M. (See Lyons, J., assignor.)
Thomas, J., Joliet, Ill. Rail-splice. No. 940,218; Nov. 16; Sp. p. 3930; Gaz. vol. 148; p. 668.
Thomas, W., Vancouver, British Columbia, Canada. Manufacturing mixed coal-gas and carbureted water-gas. No. 940,289; Nov. 16; Sp. p. 4079; Gaz. vol. 148; p. 692.
Thomaschewski, P., Vohwinkel, near Elberfeld, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Anthracene compound. No. 938,616; Nov. 2; Sp. p. 394; Gaz. vol. 148; p. 59.
Thomaschewski, P., Vohwinkel, near Elberfeld, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Anthracene compound. No. 938,617; Nov. 2; Sp. p. 394; Gaz. vol. 148; p. 59.
Thompson, A. B., *et al.* (See Thompson, J. B., assignor.)
Thompson, C. H., Toronto, Ontario, Canada. Ventilating water-closet. No. 940,833; Nov. 23; Sp. p. 5302; Gaz. vol. 148; p. 899.
Thompson, F. B., assignor to National Waterproof Film Company, Chicago, Ill. Film-drying machine. No. 939,350; Nov. 9; Sp. p. 1991; Gaz. vol. 148; p. 338.
Thompson, H. H., *et al.* (See Thompson, J. B., assignor.)
Thompson, H. L., Elgin, Ill. Steam-pump. No. 938,724; Nov. 2; Sp. p. 596; Gaz. vol. 148; p. 94.
Thompson, J. B., assignor of two-thirds to A. B. and H. H. Thompson, Mount Calm, Tex. Cotton-chopper. No. 940,906; Nov. 23; Sp. p. 5442; Gaz. vol. 148; p. 922.
Thompson, J. M., assignor to Luther Bros. Co., Milwaukee, Wis. Driving-gear for grinding-machines. No. 940,089; Nov. 16; Sp. p. 3641; Gaz. vol. 148; p. 621.
Thompson, T. O., Zacapa, Guatemala. Faucet. No. 941,210; Nov. 23; Sp. p. 6110; Gaz. vol. 148; p. 1025.
Thompson, W., Kalamazoo, Mich. Oven for gas or vapor burning stoves. No. 938,914; Nov. 2; Sp. p. 1022; Gaz. vol. 148; p. 162.
Thompson, W. D., assignor to Hutchins Car Roofing Company, Detroit, Mich. Door-hanger. No. 941,664; Nov. 30; Sp. p. 7072; Gaz. vol. 148; p. 1195.
Thompson, W. R., South Norwalk, Conn. Air-compressor. No. 940,751; Nov. 23; Sp. p. 5118; Gaz. vol. 148; p. 872.
Thomson, H. N., and W. M. Kelly, Anaconda, Mont. Rabble-arm and rake. No. 940,488; Nov. 16; Sp. p. 4537; Gaz. vol. 148; p. 759.
Thomson, S. G. (See Thomson, W. P. and S. G.)
Thomson-Thomson Company. (See Thomson, W. P. and S. G., assignors.)
Thomson, W. P. and S. G., assignors to Thomson-Thomson Company, Philadelphia, Pa. Splice-bar for rail-joints. No. 941,472; Nov. 30; Sp. p. 6685; Gaz. vol. 148; p. 1132.
Thomson, W. S., assignor to H. D. Smith and Company, Plantsville, Conn. Whiffletree clevis-hook. No. 938,524; Nov. 2; Sp. p. 187; Gaz. vol. 148; p. 27.
Thorin, P. A., Iron River, Mich. Bottle. No. 940,993; Nov. 23; Sp. p. 5616; Gaz. vol. 148; p. 952.
Thorin, P. A., assignor of one-third to P. O'Brien, Iron River, Mich., and one-sixth to E. W. Hopkins, Commonwealth, Wis. Safety-envelop. No. 941,288; Nov. 23; Sp. p. 6277; Gaz. vol. 148; p. 1051.
Thorley, A. P. (See Willcocks and Thorley.)
Thormeyer, F. E., Hamburg, Germany. Apparatus for producing audible moving pictures, pieces of music, and other performances. No. 941,211; Nov. 23; Sp. p. 6112; Gaz. vol. 148; p. 1025.
Thornley, A. J., assignor to Narragansett Machine Company, Pawtucket, R. I. Gymnasium-horse. No. 941,665; Nov. 30; Sp. p. 7073; Gaz. vol. 148; p. 1195.
Thorson, M., Sanders, Mont. Rail-joint. No. 941,473; Nov. 30; Sp. p. 6688; Gaz. vol. 148; p. 1133.
Thrall, G. C., *et al.* (See Goddard, G. M., assignor.)
Thum, M., Rochester, N. Y. Chair. No. 938,915; Nov. 2; Sp. p. 1024; Gaz. vol. 148; p. 162.
Thun, F., Reading, Pa. Reinforced concrete. No. 939,567; Nov. 9; Sp. p. 2475; Gaz. vol. 148; p. 410.
Thurman, J. S., Los Angeles, Cal. Eraser. No. 938,725; Nov. 2; Sp. p. 597; Gaz. vol. 148; p. 94.
Thurston, F. A., assignor of one-half to A. Stewart, Jr., Lynn, Mass. Driving and reversing mechanism. No. 938,800; Nov. 2; Sp. p. 745; Gaz. vol. 148; p. 121.
Tice, C. O., *et al.* (See Morris, R. C., assignor.)
Tice, F. B., Polo, Ill. Gate. No. 939,568; Nov. 9; Sp. p. 2478; Gaz. vol. 148; p. 411.
Tierney, H. A., assignor of one-half to J. J. Egan, Newport, R. I. Shutter-releasing device. No. 941,592; Nov. 30; Sp. p. 6917; Gaz. vol. 148; p. 1171.
Tiffany, R. D., Bellingham, Wash. Incandescent lamp. No. 941,593; Nov. 30; Sp. p. 6918; Gaz. vol. 148; p. 1171.
Tilghman, R. C., Anacostia, D. C. Balloon. No. 939,644; Nov. 9; Sp. p. 2649; Gaz. vol. 148; p. 438.
Tilghman, R. L., Birmingham, Ala. Locker-refrigerator. No. 938,620; Nov. 2; Sp. p. 395; Gaz. vol. 148; p. 59.
Tillery, C. B., London, Ky. Wagon-bed. No. 939,758; Nov. 9; Sp. p. 2908; Gaz. vol. 148; p. 477.
Tillotson, M., Providence, assignor to J. W. Coggeshall, Cranston, R. I. Humidifier. No. 939,351; Nov. 9; Sp. p. 1992; Gaz. vol. 148; p. 338.
Tilp, J., Hoboken, N. J., assignor to H. C. Meyer, Jr., Harburg, Germany. Web-cutting mechanism for cane-looms. No. 941,112; Nov. 23; Sp. p. 5882; Gaz. vol. 148; p. 991.
Tilton, F. N., Hartford, Conn. Steam-generator. No. 939,759; Nov. 9; Sp. p. 2909; Gaz. vol. 148; p. 477.
Timmons, J. M., Delaware, Ohio. Mold for making concrete structures. No. 940,090; Nov. 16; Sp. p. 3643; Gaz. vol. 148; p. 622.
Tippett, R. B. (See Brewington, H. S., assignor.)
Tittle, R. D., Springfield, Ohio. Operating device for driven mechanisms. No. 938,726; Nov. 2; Sp. p. 598; Gaz. vol. 148; p. 94.
Tittle, R. D., Springfield, Ohio. Intermittent grip device. No. 938,727; Nov. 2; Sp. p. 602; Gaz. vol. 148; p. 95.
Tizard, A. T., Durango, Colo. Tire. No. 941,289; Nov. 23; Sp. p. 6279; Gaz. vol. 148; p. 1051.
Tobey, W. L., Winthrop, Mass. Silencer for internal-combustion engines. No. 940,290; Nov. 16; Sp. p. 4081; Gaz. vol. 148; p. 692.
Tobey, W. L., Winthrop, Mass. Under-water exhaust-outlet for internal-combustion engines. No. 940,291; Nov. 16; Sp. p. 4082; Gaz. vol. 148; p. 692.
Todd & Co., E. (See Haring, J. C., assignor.)
Todd, M. J., and D. Farquhar, assignors to Buffalo Steam Roller Company, Buffalo, N. Y. Road-roller. No. 939,877; Nov. 9; Sp. p. 3133; Gaz. vol. 148; p. 517.
Toffler, A., Cleveland, Ohio. Shaving-mug. No. 940,409; Nov. 16; Sp. p. 4381; Gaz. vol. 148; p. 733.
Toles, J. K., Los Angeles, Cal. Fiber-cleaning apparatus. No. 939,569; Nov. 9; Sp. p. 2478; Gaz. vol. 148; p. 411.
Tolman, R. P., Berkeley, Cal. Artist's wet-canvas carrier. No. 941,212; Nov. 23; Sp. p. 6117; Gaz. vol. 148; p. 1026.
Tomlinson, C. H., Mansfield, Ohio. Car-coupling. No. 941,965; Nov. 30; Sp. p. 7719; Gaz. vol. 148; p. 1300.
Tomlinson, R. D., assignor to Allis-Chalmers Company, Milwaukee, Wis. Steam-condenser. No. 940,648; Nov. 16; Sp. p. 4880; Gaz. vol. 148; p. 812.

Tone, F. J., Niagara Falls, N. Y. Composition of matter for generating heat. No. 939,570; Nov. 9; Sp. p. 2480; Gaz. vol. 148; p. 411.
Tone, F. J., Niagara Falls, N. Y. Producing silicon carbid. No. 941,539; Nov. 23; Sp. p. 6363; Gaz. vol. 148; p. 1064.
Tone, F. J., assignor to Carborundum Company, Niagara Falls, N. Y. Composition of matter for the generation of heat. No. 939,930; Nov. 9; Sp. p. 3262; Gaz. vol. 148; p. 538.
Torchio, P. (See Lawrence and Torchio.)
Toupin, A., St. Agathe, Manitoba, Canada. Excavator. No. 940,752; Nov. 23; Sp. p. 5120; Gaz. vol. 148; p. 872.
Tower, C. A., Cleveland, Ohio. Mechanical movement. No. 940,753; Nov. 23; Sp. p. 5125; Gaz. vol. 148; p. 873.
Towle, H. P., assignor of five-eighths to J. H. McGehee, San Jose, Cal. Faucet and hose coupling. No. 939,931; Nov. 9; Sp. p. 3263; Gaz. vol. 148; p. 538.
Towle, H. P., assignor of five-eighths to J. H. McGehee, San Jose, Cal. Faucet hose-coupling. No. 939,932; Nov. 9; Sp. p. 3265; Gaz. vol. 148; p. 538.
Transom Draft Gear Company. (See Bundy and Acker, assignors.)
Trask, G. F. D., Orange, N. J. Hose-rack. No. 941,410; Nov. 30; Sp. p. 6564; Gaz. vol. 148; p. 1113.
Trautner, N. W., assignor of two-fifths to H. C. Kohn, Red Wing, Minn. Quickly-adjustable bolt. No. 939,933; Nov. 9; Sp. p. 3266; Gaz. vol. 148; p. 539.
Travers, C. J., Chicago, Ill. Chair. No. 940,907; Nov. 23; Sp. p. 5444; Gaz. vol. 148; p. 923.
Traverse City Chair Co. (See Grellick, C. L., assignor.)
Traylor, R. N. (See Wise, J. A., assignor.)
Treichel, F. C. D. (See Kerndl, A. B., assignor.)
Treischman, F., Wadena, Minn. Folding metal box or case. No. 938,916; Nov. 2; Sp. p. 1025; Gaz. vol. 148; p. 162.
Trejo, G., Mexico, Mexico. Carriage-return and line-spacing mechanism for type-writers. No. 938,801; Nov. 2; Sp. p. 748; Gaz. vol. 148; p. 121.
Trenkamp Stove & Manufacturing Company. (See Geurink, B. A., assignor.)
Trevor, F. N., assignor to Trevor Manufacturing Company, Lockport, N. Y. Sawing-machine. No. 939,760; Nov. 9; Sp. p. 2910; Gaz. vol. 148; p. 478.
Trevor Manufacturing Company. (See Trevor, F. N., assignor.)
Trewhella, B. (See Trewhella, W., assignor.)
Trewhella, W., assignor to himself and B. Trewhella, Trentham, Victoria, Australia. Double-pinion toothed gear-train. No. 940,091; Nov. 16; Sp. p. 3646; Gaz. vol. 148; p. 622.
Trist, A. R., St. Albans, assignor to Trist Piano Player Limited, London, England. Electropneumatic piano-player. No. 941,432; Nov. 30; Sp. p. 6602; Gaz. vol. 148; p. 1119.
Trist, A. R., St. Albans, assignor to Trist Piano Player Limited, London, England. Music-record sheet for automatic piano-playing mechanism and the like. No. 941,433; Nov. 30; Sp. p. 6603; Gaz. vol. 148; p. 1119.
Trist Piano Player Limited. (See Trist, A. R., assignor.)
Trotter, T. W., Sault Ste. Marie, Ontario, Canada. Adjustable suspension-cord for electric lamps. No. 938,802; Nov. 2; Sp. p. 755; Gaz. vol. 148; p. 122.
Trouche, G., Puteaux, France. Motor more especially applicable for driving barges, wherries, flatboats, and the like. No. 941,827; Nov. 30; Sp. p. 7447; Gaz. vol. 148; p. 1252.
Trout, W. H. (See Purple, Beach, and Trout.)
Trowbridge, W. W., and C. H. Wheelock, Newton, Mass. Razor-blade stropper. No. 940,412; Nov. 16; Sp. p. 4387; Gaz. vol. 148; p. 734.
Troy Laundry Machinery Company. (See Bartholomew, W., assignor.)
Troy Laundry Machinery Company. (See Wilcox and Bartholomew, assignors.)
Truitt, W. T., New York, N. Y. Hat-holder. No. 939,352; Nov. 9; Sp. p. 1994; Gaz. vol. 148; p. 338.
Truxler, L. X., Vernon, British Columbia, Canada. Hand-truck. No. 938,917; Nov. 2; Sp. p. 1027; Gaz. vol. 148; p. 163.
Tsorones, C., Minneapolis, Minn. Hair-tonic. No. 941,434; Nov. 30; Sp. p. 6604; Gaz. vol. 148; p. 1119.
Tsuji, K., Takaoka, Toyama, Japan. Drier. No. 940,908; Nov. 23; Sp. p. 5446; Gaz. vol. 148; p. 923.
Tuch, C. C., Honolulu, Hawaii. Power-generator. No. 938,918; Nov. 2; Sp. p. 1029; Gaz. vol. 148; p. 163.
Tucker, B. W., Newark, N. J., assignor to American Tobacco Company, New York, N. Y. Packaging-machine. No. 939,353; Nov. 9; Sp. p. 1996; Gaz. vol. 148; p. 339.
Tucker, J. M., Ripley, Tenn. Combined planter and harrow. No. 939,761; Nov. 9; Sp. p. 3913; Gaz. vol. 148; p. 478.
Tucker, R. (See Page, C. C., assignor.)
Tucker, R. C., Lamont, Mich. Wagon-jack. No. 939,113; Nov. 2; Sp. p. 1408; Gaz. vol. 148; p. 229.
Tully, C. B., Wood Green, London, England. Manufacturing gas. No. 938,919; Nov. 2; Sp. p. 1030; Gaz. vol. 148; p. 163.
Turbayne, W. A., Lancaster, N. Y., assignor to Gould Coupler Company. Electrical system of distribution. No. 941,113; Nov. 23; Sp. p. 5884; Gaz. vol. 148; p. 991.
Turner, H. C., Los Angeles, Cal. Shock-absorber. No. 941,594; Nov. 30; Sp. p. 6920; Gaz. vol. 148; p. 1171.
Turner, K. M., New York, N. Y. Telephonic system for auditoriums. No. 941,114; Nov. 23; Sp. p. 5888; Gaz. vol. 148; p. 991.
Turner, M. W., *et al.* (See Johnson, G. F., assignor.)
Turney, B. E., Bridgeport, Conn. Electric mouth-mirror. No. 938,525; Nov. 2; Sp. p. 189; Gaz. vol. 148; p. 27.
Tuttle, W. R., Nunda, N. Y. Drum batch-mixer. No. 939,762; Nov. 9; Sp. p. 2914; Gaz. vol. 148; p. 479.
Tyler, F. A. (See Sack and Tyler.)
Ulitsch, W. L. (See Luethy, F. C., assignor.)
Undenstock, J., Peoria, Ill. Shoe-stretcher. No. 940,092; Nov. 16; Sp. p. 3647; Gaz. vol. 148; p. 622.
Umfries, T. P., Cedartown, Ga. Foldable shipping-crate. No. 940,754; Nov. 23; Sp. p. 5126; Gaz. vol. 148; p. 873.
Underhill, Z. D., Belford Station, N. Y. Cat-guard. No. 940,755; Nov. 23; Sp. p. 5128; Gaz. vol. 148; p. 873.
Underwood, J. W., St. Louis, Mo. Flash-light apparatus. No. 939,354; Nov 9; Sp. p. 2010; Gaz. vol. 148; p. 339.
Underwood Typewriter Company. (See McLaughlin, J. C., assignor.)
Underwood Typewriter Company. (See Pfunder, E. L., assignor.)
Unger, M., Pittsfield, Mass., assignor to General Electric Company. Induction-furnace. No. 941,435; Nov. 30; Sp. p. 6605; Gaz. vol. 148; p. 1119.
Union Fibre Company. (See Brown, A. G., assignor.)
Union Lock Stitch Company. (See Merrick, F. W., assignor.)
Union Typewriter Company. (See Felbel, J., assignor.)
Union Typewriter Company. (See Ingram, O. L., assignor.)
Union Typewriter Company. (See Labofish, C. S., assignor.)
Union Typewriter Company. (See Lockwood, M. H., assignor.)
Union Typewriter Company. (See O'Brien, J. H., assignor.)
United Electric Signal Company. (See Wood, S. A., assignor.)
United Gas Improvement Company. (See Dickey, S. J., assignor.)
United Revolving Door Company. (See Clymer and Degen, assignors.)
United Shoe Machinery Company. (See Ashton, O., assignor.)
United Shoe Machinery Company. (See Flynt, L. W. G., assignor.)
United Shoe Machinery Company. (See Hawkins and Bourgeois, assignors.)
United Shoe Machinery Company. (See Paris, W., assignor.)
United Shoe Machinery Company. (See Parker and Collyer, assignors.)
United Shoe Machinery Company. (See Winkley, E. E., assignor.)
United States Floor Surfacing Machine Company. (See Allen, F. R., assignor.)
United States Floor Surfacing Machine Company. (See Whatley, A. H., assignor.)
United States Graphotype Company. (See Ackerman, W., assignor.)
United States Lock-Nut Company. (See Brach, L. S., assignor.)
United States Pick Company. (See Blow, C. H., assignor.)
Upton, H. J., Somerville, assignor to Davidson Rubber Company, Boston, Mass. Fountain-pen. No. 939,456; Nov. 9; Sp. p. 2246; Gaz. vol. 148; p. 373.
Urie, W. T., Kansas City, Mo. Boat. No. 939,878; Nov. 9; Sp. p. 3135; Gaz. vol. 148; p. 517.
Vaage, H. H., Brooklyn, N. Y. Water-gage. No. 939,763; Nov. 9; Sp. p. 2918; Gaz. vol. 148; p. 479.
Vaill, E. W., Jr., Englewood, N. J. Pendulum-actuated clock. No. 940,410; Nov. 16; Sp. p. 4382; Gaz. vol. 148; p. 733.
Vale, D. G., Salem township, Meigs county, Ohio. Self-lighting cigar. No. 941,966; Nov. 30; Sp. p. 7722; Gaz. vol. 148; p. 1300.
Valley, G., Malmö, Sweden. Chalice. No. 939,960; Nov. 9; Sp. p. 3319; Gaz. vol. 148; p. 547.
Valveless Limited. (See Lucas, R., assignor.)
Van Cott, F. J., Unadilla, N. Y. Silo. No. 939,355; Nov. 9; Sp. p. 2011; Gaz. vol. 148; p. 339.
Van Dine, F. E., Elmira, N. Y. Music-turner. No. 940,219; Nov. 16; Sp. p. 3932; Gaz. vol. 148; p. 668.
Van Dorn Electric and Manufacturing Company. (See Hafemeister, W. C., assignor.)
Van Guelpen, O. H., New York, N. Y. Candelabrum. No. 941,213; Nov. 23; Sp. p. 6118; Gaz. vol. 148; p. 1026.
Van Hoosebeke, C., *et al.* (See Hamilton, J. L., assignor.)
Van Horne, C. F., *et al.* (See Ross, J. F., assignor.)
Van Liew, A. M. (See Van Liew, J. and A. M.)

Van Liew, J. and A. M., Houghton, Mich. Miner's lamp. No. 941,897; Nov. 30; Sp. p. 7589; Gaz. vol. 148; p. 1277.
Van Natta, E. H., Belleville, Kans. Molding-machine. No. 941,214; Nov. 23; Sp. p. 6120; Gaz. vol. 148; p. 1026.
Van Norman, C. E., Springfield, Mass. Metal-working machinery. No. 938,803; Nov. 2; Sp. p. 758; Gaz. vol. 148; p. 122.
Van Nostrand, H. L., Tekamah, Nebr. Tube. No. 941,745; Nov. 30; Sp. p. 7253; Gaz. vol. 148; p. 1223.
Van Ormer, L. G., Trafford, Pa. Wrench. No. 939,879; Nov. 9; Sp. p. 3137; Gaz. vol. 148; p. 518.
Van Riper, G. T., Freeport, N. Y. Clothes-line hanger. No. 941,898; Nov. 30; Sp. p. 7591; Gaz. vol. 148; p. 1278.
Van Riper, L. C., New York, N. Y. Envelop. No. 941,392; Nov. 30; Sp. p. 6509; Gaz. vol. 148; p. 1106.
Van Scoter, W., Buffalo, N. Y. Water-wheel. No. 941,474; Nov. 30; Sp. p. 6688; Gaz. vol. 148; p. 1133.
Van Vechten, M. M., New York, N. Y. Female urinal. No. 940,756; Nov. 23; Sp. p. 5129; Gaz. vol. 148; p. 873.
Van Wormer, A., assignor to Horton Manufacturing Company, Fort Wayne, Ind. Gearing for washing-machines. No. 939,645; Nov. 9; Sp. p. 2651; Gaz. vol. 148; p. 438.
Van Wormer, J. R., Toledo, Ohio. Paper-box-blank machine. No. 939,571; Nov. 9; Sp. p. 2482; Gaz. vol. 148; p. 411.
Vandenbroek, J. C. (See Jones, I. N., assignor.)
Vanderford, A. A., Peru, Nebr. Combination garment-hanger. No. 941,115; Nov. 23; Sp. p. 5890; Gaz. vol. 148; p. 992.
Vanderman, W., Willimantic, Conn. Lead-joint runner. No. 939,356; Nov. 9; Sp. p. 2013; Gaz. vol. 148; p. 340.
Vanderveld, A. (See Dodge, Freeman, and Vanderveld.)
Vandervell, C. A., and F. I. Hoffman, London, England. Magneto-electric machine for ignition purposes. No. 939,357; Nov. 9; Sp. p. 2015; Gaz. vol. 148; p. 340.
Varder, H., New York, N. Y. Mirror. No. 940,411; Nov. 16; Sp. p. 4386; Gaz. vol. 148; p. 734.
Veneer Machinery Company. (See Dennis, A. A., assignor.) (Reissue.)
Vermont Farm Machine Company. (See Kimball, P. L., assignor.)
Vernon, C. D., and J. P. Morningstar, Wheeling, W. Va.; said Morningstar assignor to said Vernon. Expansion-bolt. No. 939,457; Nov. 9; Sp. p. 2247; Gaz. vol. 148; p. 373.
Verplanck, H. M., assignor to Lansing Wheelbarrow Company, Lansing, Mich. Turn-table. No. 938,920; Nov. 2; Sp. p. 1035; Gaz. vol. 148; p. 164.
Vick, R. M., Alliance, Ohio. Educational device. No. 940,093; Nov. 16; Sp. p. 3651; Gaz. vol. 148; p. 623.
Vickers Sons & Maxim. (See Williamson, A. D., assignor.)
Vickers Sons & Maxim. (See Dawson and Buckham, assignors.)
Vickers Sons & Maxim Limited. (See Dawson and Horne, assignors.)
Vickers, T. E., and A. L. Henry, Wrightsville, Ga. Detachable book-rest for chairs. No. 939,761; Nov. 9; Sp. p. 2919; Gaz. vol. 148; p. 479.
Vicksell, J. V., Mediapolis, Iowa. Lifting and lowering apparatus. No. 938,728; Nov. 2, Sp. p. 605; Gaz. vol. 148; p. 95.
Victor Talking Machine Company. (See Cheney, G. K., assignor.)
Victor Talking Machine Company. (See English, J. C., assignor.)
Victor Talking Machine Company. (See Miller, H. C., assignor.) (Reissue.)
Victor Talking Machine Company. (See Wickes, C. S., assignor.)
Victor Typewriter Company. (See Hagerstrom, J. A., assignor.)
Vissat, A. L., Bridgeville, Pa. Switch. No. 940,566; Nov. 16; Sp. p. 4713; Gaz. vol. 148; p. 785.
Voege, H., St. Louis, Mo. Moving-picture apparatus. No. 938,729; Nov. 2; Sp. p. 606; Gaz. vol. 148; p. 96.
Vogel, B. (See Vogel, W., assignor.)
Vogel, E. W., Chicago, Ill. Lightning-arrester. No. 940,220; Nov. 16; Sp. p. 3934; Gaz. vol. 148; p. 668.
Vogel, F. M., Lynn, Mass., assignor to General Electric Company. Electric meter. No. 941,436; Nov. 30; Sp. p. 6606; Gaz. vol. 148; p. 1120.
Vogel, W., assignor to B. Vogel, New York, N. Y. Cutting-tool for appliqué-work. No. 941,967; Nov. 30; Sp. p. 7723; Gaz. vol. 148; p. 1300.
Vogelmann, J. A., Brooklyn, N. Y. Self-filling fountain-pen. No. 940,909; Nov. 23; Sp. p. 5448; Gaz. vol. 148; p. 923.
Voight, H. G., assignor to Russell & Erwin Manufacturing Company, New Britain, Conn. Panic-bolt. No. 938,526; Nov. 2; Sp. p. 190; Gaz. vol. 148; p. 27.
Voight, H. G., assignor to Russell & Erwin Manufacturing Company, New Britain, Conn. Lock. No. 938,921; Nov. 2; Sp. p. 1038; Gaz. vol. 148; p. 164.
Vold, L. H., Westville, N. J., assignor to William Sellers & Company, Incorporated, Philadelphia, Pa. Lathe. No. 941,475; Nov. 30; Sp. p. 6690; Gaz. vol. 148; p. 1133.
Voliva, A. R., North Yakima, Wash. Coin-holder. No. 938,922; Nov. 2; Sp. p. 1041; Gaz. vol. 148; p. 165.
Voller, J. A. and L., Etna, Pa. Amusement apparatus. No. 941,828; Nov. 30; Sp. p. 7448; Gaz. vol. 148; p. 1252.
Voller, L. (See Voller, J. A. and L.)
Volunteer Disc Plow Co. (See Sholar and Pace, assignors.)
Volunteer Disc Plow Company. (See Sholar, E. H., assignor.)
Vote-Berger Company. (See Wallace, J. N., assignor.)
Vroman, J. C. (See McCarthy and Vroman.)
W. G. Nagel Electric Company. (See Peirce, C. L., Jr., assignor.)
W. H. Miner Company. (See O'Conner, J. F., assignor.)
W. J. Young Machinery Company. (See Grover, G. B., assignor.)
W. S. Rockwell Company. (See Rockwell, W. S., assignor.)
Wachter, H., Clinton, Mo. Wagon-body. No. 939,114; Nov. 2; Sp. p. 1409; Gaz. vol. 148; p. 229.
Wade, G. H., Atlanta, Ga. Water-heater. No. 941,215; Nov. 23; Sp. p. 6124; Gaz. vol. 148; p. 1027.
Wagner, A. D. (See Stanbro and Wagner.)
Wagner, B. (See Geissler, F., assignor.)
Wagner, E., Cincinnati, Ohio. Scarf-pin. No. 940,094; Nov. 16; Sp. p. 3652; Gaz. vol. 148; p. 623.
Wagner, E. E., Lamar, Mo. Portable holder for films and illustrated-song outfits. No. 940,757; Nov. 23; Sp. p. 5132; Gaz. vol. 148; p. 874.
Wagner Manufacturing Company. (See Wuhl, A., assignor.)
Wagoner, H. V., Brooklyn, N. Y. Binder. No. 938,621; Nov. 2; Sp. p. 398; Gaz. vol. 148; p. 60.
Wakeley, R. H., Philadelphia, Pa. Tack-lifter. No. 941,476; Nov. 30; Sp. p. 6692; Gaz. vol. 148; p. 1134.
Wales, C., Cleveland, Ohio. Adding-machine. No. 940,758; Nov. 23; Sp. p. 5133; Gaz. vol. 148; p. 874.
Wales, E. L., Monson, Mass., assignor to Heimann & Lichten, New York, N. Y. Felt hat. No. 941,746; Nov. 30; Sp. p. 7255; Gaz. vol. 148; p. 1224.
Wales, N. B., Braintree, Mass. Heating apparatus. No. 940,567; Nov. 16; Sp. p. 4715; Gaz. vol. 148; p. 785.
Wales, S. S., Munhall, assignor to Carnegie Steel Company, Pittsburg, Pa. Treating armor-plate. No. 941,477; Nov. 30; Sp. p. 6693; Gaz. vol. 148; p. 1134.
Walker, J., Boston, Mass. Grinding-mill. No. 938,923; Nov. 2; Sp. p. 1042; Gaz. vol. 148; p. 165.
Walker, J. D. (See Faris and Walker.)
Walker, J. H., Lexington, Ky. Trolley-pole catcher. No. 941,216; Nov. 23; Sp. p. 6125; Gaz. vol. 148; p. 1027.
Walker, M., New York, N. Y. Depressible-runner dirigible sled. No. 940,221; Nov. 16; Sp. p. 3935; Gaz. vol. 148; p. 669.
Walkup, S. T. (See Peto, J. T., assignor.)
Walkup, S. T. (See Pfister, L. F., assignor.)
Wallace, E. D., Minneapolis, Minn., assignor, by mesne assignments, to Adams Letter Folding Machine Company, Chicago, Ill. Folding-machine. No. 941,747; Nov. 30; Sp. p. 7256; Gaz. vol. 148; p. 1224.
Wallace, F. C. (See Forsyth and Wallace.)
Wallace, J. H., New York, N. Y. Paper-making machine. No. 940,950; Nov. 23; Sp. p. 5539; Gaz. vol. 148; p. 938.
Wallace, J. N., assignor to Vote-Berger Company, La Crosse, Wis. Telephone system. No. 940,994; Nov. 23; Sp. p. 5618; Gaz. vol. 148; p. 952.
Wallace, R. H., New Brighton, assignor of one-third to F. J. Lucius, Bellevue, and one-third to W. F. Seefeldt, Beaver Falls, Pa. Pneumatic tool. No. 941,748; Nov. 30; Sp. p. 7258; Gaz. vol. 148; p. 1224.
Wallace, W., Sydney, Nova Scotia, Canada. Railway-rail joint. No. 939,358; Nov. 9; Sp. p. 2016; Gaz. vol. 148; p. 340.
Wallder, C. E., Hawthorn, and H. M. Ashton, Coburg, Victoria, Australia. Skinning and cutting tool. No. 941,829; Nov. 30; Sp. p. 7450; Gaz. vol. 148; p. 1252.
Waller, A. E., Pawtucket, R. I. Cutting-tool. No. 939,359; Nov. 9; Sp. p. 2017; Gaz. vol. 148; p. 341.
Walser, J. J., assignor to Goss Printing Press Company, Chicago, Ill. Driving mechanism. No. 940,095; Nov. 16; Sp. p. 3653; Gaz. vol. 148; p. 623.
Walser, J. J., assignor to Goss Printing Press Company, Chicago, Ill. Variable-speed driving mechanism. No. 940,096; Nov. 16; Sp. p. 3662; Gaz. vol. 148; p. 624.
Walser, J. J., assignor to Goss Printing Press Company, Chicago, Ill. Variable-speed driving mechanism. No. 940,626; Nov. 16; Sp. p. 4825; Gaz. vol. 148; p. 804.
Walsh, C. J. (See Hughes, T., assignor.)
Walsh, P. J., Detroit, Mich. Disinfecting apparatus. No. 940,097; Nov. 16; Sp. p. 3668; Gaz. vol. 148; p. 624.
Walsh, R. A. B., St. Louis, Mo. Method of and machine for making wire-glass. No. 940,837; Nov. 23; Sp. p. 5313; Gaz. vol. 148; p. 901.
Walsh, R. A. B., St. Louis, Mo. Method of and machine for making wire-glass. No. 940,838; Nov. 23; Sp. p. 5316; Gaz. vol. 148; p. 901.
Walsh, R. A. B., St. Louis, Mo. Method of and machine for making wire-glass. No. 940,840; Nov. 23; Sp. p. 5320; Gaz. vol. 148; p. 902.
Walsh, R. A. B., St. Louis, Mo. Method of and machine for making wire-glass. No. 940,841; Nov. 23; Sp. p. 5321; Gaz. vol. 148; p. 902.

Walsh, R. A. B., St. Louis, Mo. Method and apparatus for making wire-glass. No. 940,843; Nov. 23; Sp. p. 5326; Gaz. vol. 148; p. 903.
Walsh, R. A. B., St. Louis, Mo. Apparatus for making wire-glass. No. 940,844; Nov. 23; Sp. p. 5327; Gaz. vol. 148; p. 903.
Walsh, R. A. B., St. Louis, Mo. Method and apparatus for making wire-glass. No. 940,845; Nov. 23; Sp. p. 5329; Gaz. vol. 148; p. 903.
Walsh, R. A. B., St. Louis, Mo. Method and apparatus for making wire-glass. No. 940,846; Nov. 23; Sp. p. 5330; Gaz. vol. 148; p. 904.
Walsh, R. A. B., assignor to Mississippi Glass Company, St. Louis, Mo. Method of and machine for making wire-glass. No. 940,834; Nov. 23; Sp. p. 5304; Gaz. vol. 148; p. 900.
Walsh, R. A. B., St. Louis, Mo., assignor to Mississippi Wire Glass Company, New York, N. Y. Method of and machine for making wire-glass. No. 940,835; Nov. 23; Sp. p. 5309; Gaz. vol. 148; p. 900.
Walsh, R. A. B., assignor to Mississippi Glass Company, St. Louis, Mo. Method of and machine for making wire-glass. No. 940,836; Nov. 23; Sp. p. 5311; Gaz. vol. 148; p. 901.
Walsh, R. A. B., assignor to Mississippi Glass Company, St. Louis, Mo. Method of and machine for making wire-glass. No. 940,839; Nov. 23; Sp. p. 5318; Gaz. vol. 148; p. 901.
Walsh, R. A. B., assignor to Mississippi Glass Company, St. Louis, Mo. Method of and machine for making wire-glass. No. 940,842; Nov. 23; Sp. p. 5324; Gaz. vol. 148; p. 902.
Walte, C., Louisville, Ky. Rotary lawn-rake. No. 939,765; Nov. 9; Sp. p. 2921; Gaz. vol. 148; p. 480.
Walter, A. G., assignor of one-half to B. M. Inman, Fremont, Ohio. Binding means for chairs. No. 940,759; Nov. 23; Sp. p. 5140; Gaz. vol. 148; p. 874.
Walther, G. (See Salzer and Walther.)
Waltman, S., Wesson, Miss. Cultivator. No. 939,766; Nov. 9; Sp. p. 2922; Gaz. vol. 148; p. 480.
Walton, A. (See McDevitt and Walton.)
Walton, H. D. (See Morrill, W. H., assignor.)
Wanner, A., Jr., Hoboken, N. J. Chair-seat. No. 938,730; Nov. 2; Sp. p. 607; Gaz. vol. 148; p. 96.
Wanner, E. P., New York, N. Y. Arm-chair. No. 940,995; Nov. 23; Sp. p. 5620; Gaz. vol. 148; p. 952.
Ward Equipment Company. (See Ward, J. E., assignor.)
Ward, F., Chicago, Ill. Illuminated sign. No. 940,847; Nov. 23; Sp. p. 5331; Gaz. vol. 148; p. 904.
Ward, J. C., Epworth, Iowa. Portable and detachable disk-grinder. No. 939,115; Nov. 2; Sp. p. 1411; Gaz. vol. 148; p. 230.
Ward, J. E., assignor to Ward Equipment Company, New York, N. Y. Hose-coupling and gasket therefor. No. 938,731; Nov. 2; Sp. p. 608; Gaz. vol. 148; p. 96.
Ward, J. E., assignor to Ward Equipment Company, New York, N. Y. Hose-coupling. No. 939,195; Nov. 2; Sp. p. 1595; Gaz. vol. 148; p. 258.
Ward, J. E., assignor to Ward Equipment Company, New York, N. Y. Ventilator for railway-cars. No. 941,290; Nov. 23; Sp. p. 6280; Gaz. vol. 148; p. 1051.
Ward, W. S., assignor to H. D. Smith and Company, Plantsville, Conn. Hatchet. No. 939,458; Nov. 9; Sp. p. 2249; Gaz. vol. 148; p. 373.
Wardle, R. M. (See Hisey and Wardle.)
Wardwell, S. W. (See Parks and Wardwell.)
Wardwell, S. W., Providence, R. I. Winding-machine. No. 940,489; Nov. 16; Sp. p. 4539; Gaz. vol. 148; p. 750.
Wardwell, S. W., Providence, R. I., assignor to Supreme Knitting Bobbin Company, Portland, Me. Bobbin-holder. No. 941,595; Nov. 30; Sp. p. 6922; Gaz. vol. 148; p. 1172.
Warfel, H. E., *et al.* (See Graham, E., assignor.)
Warmsley, A. H., Ilford, England. Carbureter. No. 941,393; Nov. 30; Sp. p. 6511; Gaz. vol. 148; p. 1106.
Warren, J. N., *et al.* (See Goodrich, O. A., assignor.)
Warren, T., Balboa, Panama. Combined tie lifter and holder. No. 938,528; Nov. 2; Sp. p. 199; Gaz. vol. 148; p. 28.
Warren Webster & Company. (See Fitts, J. L., assignor.)
Washburne, L. A., St. Johns, Mich. Pump-bracket. No. 939,360; Nov. 9; Sp. p. 2018; Gaz. vol. 148; p. 341.
Waterhouse, A. G., Good Ground, N. Y. Distilling alcohols and other volatile liquids. No. 939,361; Nov. 9; Sp. p. 2019; Gaz. vol. 148; p. 341.
Watkins, G., Washington, assignor to Roberts, Johnson & Rand Shoe Company, St. Louis, Mo. Boot. No. 941,116; Nov. 23; Sp. p. 5892; Gaz. vol. 148; p. 992.
Watkins, J. W., Zanesville, Ohio, assignor of one-half to J. T. Adams, Terre Haute, Ind. Lubricant. No. 939,646; Nov. 9; Sp. p. 2653; Gaz. vol. 148; p. 439.
Watson, J. C., Terre Haute, Ind. Safety-valve. No. 941,478; Nov. 30; Sp. p. 6995; Gaz. vol. 148; p. 1134.
Watson, J. L., Sr., and J. L., Jr., Los Angeles, Cal. Frangible receptacle. No. 939,572; Nov. 9; Sp. p. 2485; Gaz. vol. 148; p. 412.
Watt, J., Baltimore, Md. Combined step-ladder, ironing-board, and clothes-rack. No. 938,924; Nov. 2; Sp. p. 1047; Gaz. vol. 148; p. 165.
Weatherly, J. R., Atlanta, Ga. Stalk-cutter. No. 939,573; Nov. 9; Sp. p. 2486; Gaz. vol. 148; p. 412.
Weatherly, J. R., assignor of one-half to J. T. Taylor, Americus, Ga. Lever. No. 939,574; Nov. 9; Sp. p. 2487; Gaz. vol. 148; p. 412.
Weaver, L. E., East Hampton, Conn. Bobbin-case. No. 939,647; Nov. 9; Sp. p. 2654; Gaz. vol. 148; p. 439.
Weaver, T. A., Santa Rosa, Cal. Reinforcement for brick walls, &c. No. 938,925; Nov. 2; Sp. p. 1049; Gaz. vol. 148; p. 166.
Weber, A., Long Branch, N. J. Shutter-operator. No. 941,309; Nov. 30; Sp. p. 7592; Gaz. vol. 148; p. 1278.
Weber, G. W., F. Eberhart, New York, N. Y., and E. V. Swangren, Maywood, Ill., assignors to American Can Company, New York, N. Y. Can-cover-coating machine. No. 938,529; Nov. 2; Sp. p. 200; Gaz. vol. 148; p. 28.
Weber, J. M. (See Patterson, R. B. Sr., assignor.)
Webster, C. R. (See Morgan and Webster.)
Webster, E. P., Bridgeport, Conn., assignor to National Blank Book Co., Holyoke, Mass. Loose-leaf binder. No. 938,530; Nov. 2; Sp. p. 207; Gaz. vol. 148; p. 29.
Webster, H. A., assignor, by mesne assignments, to C. K. Fox, Haverhill, Mass. Sole-leveling machine. No. 940,627; Nov. 16; Sp. p. 4831; Gaz. vol. 148; p. 805.
Webster, H. G., assignor to Kellogg Switchboard and Supply Company, Chicago, Ill. Telephone system. No. 941,666; Nov. 30; Sp. p. 7075; Gaz. vol. 148; p. 1196.
Webster and Perks Tool Company. (See Forbes and Singer, assignors.)
Weckesser, O. H., Ross township, Allegheny county, Pa. Mixing-machine. No. 941,830; Nov. 30; Sp. p. 7452; Gaz. vol. 148; p. 1253.
Wedge, U., Ardmore, Pa. Roasting and like furnace. No. 939,880; Nov. 9; Sp. p. 3138; Gaz. vol. 148; p. 518.
Wedge, U., Ardmore, Pa. Roasting-furnace. No. 939,881; Nov. 9; Sp. p. 3141; Gaz. vol. 148; p. 518.
Wedge, U., Ardmore, Pa. Furnace. No. 939,934; Nov. 9; Sp. p. 3267; Gaz. vol. 148; p. 539.
Weglein, L., Jr., Philadelphia, Pa. Knockdown box. No. 941,117; Nov. 23; Sp. p. 5893; Gaz. vol. 148; p. 993.
Wehrle, G. M., assignor to National Water Main Cleaning Co., New York, N. Y. Device for joining parts of conduits. No. 940,098; Nov. 16; Sp. p. 3670; Gaz. vol. 148; p. 625.
Weidel, H. F., assignor of one-half to J. H. Attridge, Rochester, N. Y. Lock. No. 938,926; Nov. 2; Sp. p. 1050; Gaz. vol. 148; p. 166.
Weil, O. (See Goldschmidt and Weil.)
Weingarden, I. M., and A. Cummings, Chicago, Ill. Theatrical apparatus. No. 938,927; Nov. 2; Sp. p. 1051; Gaz. vol. 148; p. 166.
Weintz, J., Cleveland, Ohio. Gas-burner. No 941,437; Nov. 30; Sp. p. 6608; Gaz. vol. 148; p. 1120.
Weintz, J., assignor to Strong, Carlisle & Hammond Company, Cleveland, Ohio. Oil-burner. No. 941,479; Nov. 30; Sp. p. 6696; Gaz. vol. 148; p. 1134.
Weismann, A., Berlin, Germany. Advertising apparatus. No. 942,021; Nov. 30; Sp. p. 7816; Gaz. vol. 148; p. 1317
Weitzel, R. C. (See Jenssen and Weitzel.)
Welch, L. W., Grand Rapids, Mich. Display-cabinet. No. 942,022; Nov. 30; Sp. p. 7820; Gaz. vol. 148; p. 1317.
Welds, O. D., assignor of one-half to F. D. Handy, Jackson, Mich. Churn. No. 940,099; Nov. 16; Sp. p. 3672; Gaz. vol. 148; p. 625.
Welker, L., Jr., Williamsport, Pa. Table. No. 940,490; Nov. 16; Sp. p. 4545; Gaz. vol. 148; p. 760.
Wells, E. J., Grinnell, Iowa. Hay-rack. No. 938,928; Nov. 2; Sp. p. 1054; Gaz. vol. 148; p. 166.
Wells, F. E. and F. W., Greenfield, Mass.; said F. E. Wells assignor to said F. W. Wells. Die-stock. No. 939,648; Nov. 9; Sp. p. 2656; Gaz. vol. 148; p. 439.
Wells, F. W. (See Wells, F. E. and F. W.)
Wells, H. L., New Haven, Conn. Separating copper, nickel, and other metals from copper-nickel matte. No. 940,292; Nov. 16; Sp. p. 4083; Gaz. vol. 148; p. 693.
Wells, H. L., New Haven, Conn. Recovering hydrochloric acid from nickel-chlorid solution. No. 940,293; Nov. 16; Sp. p. 4087; Gaz. vol. 148; p. 693.
Welsh, L. E., assignor to American Concrete Piling Company, Philadelphia, Pa. Means for filling holes with concrete. No. 940,100; Nov. 16; Sp. p. 3675; Gaz. vol. 148; p. 626.
Wensinger, C. F., Fremont, Ohio. Storm-shield. No. 940,413; Nov. 16; Sp. p. 4388; Gaz. vol. 148; p. 734.
Wentworth, H. A., Newton, assignor to Huff Electrostatic Separator Company, Boston, Mass. Roasting separation process. No. 938,732; Nov. 2; Sp. p. 609; Gaz. vol. 148; p. 96.
Wenzel, J. M., Corsica, S. D. Flue-cutter. No. 940,222; Nov. 16; Sp. p. 3937; Gaz. vol. 148; p. 669.
Werden, H. T., assignor of one-half to S. L. W. Coe, New York, N. Y. Coin-detector. No. 940,568; Nov. 16; Sp. p. 4721; Gaz. vol. 148; p. 786.
Werner, P. R., Philadelphia, Pa. Ignition system for explosion-engines. No. 940,376; Nov. 16; Sp. p. 4295; Gaz. vol. 148; p. 721.
Werner, T. O., Bangor, Pa. Automatic dumping device for elevated carriers. No. 940,760; Nov. 23; Sp. p. 5141; Gaz. vol. 148; p. 875.
Wert, H. O., Bloomsburg, Pa. Tie and brace for railway-rails. No. 941,217; Nov. 23; Sp. p. 6129; Gaz. vol. 148; p. 1027.

Wessell, A. L. (See Wessell, Nickel, and Wessell.)
Wessell, F. A., H. A. Nickel, and A. L. Wessell, assignors to Wessell, Nickel & Gross, New York, N. Y. Repeating-action for grand-pianos. No. 939,362; Nov. 9; Sp. p. 2023; Gaz. vol. 148; p. 342.
Wessell, Nickel & Gross. (See Wessell, Nickel, and Wessell, assignors.)
Wessels, H. J., German Valley, Ill. Fence-post, &c. No. 940,996; Nov. 23; Sp. p. 5621; Gaz. vol. 148; p. 952.
West, A., Chicago, Ill. Sleeping-car berth. No. 938,929; Nov. 2; Sp. p. 1056; Gaz. vol. 148; p. 167.
West, A. J., Pittsburg, Pa., assignor to Westinghouse Machine Company. Internal-combustion engine. No. 939,459; Nov. 9; Sp. p. 2250; Gaz. vol. 148; p. 373.
West, A. J., Pittsburg, Pa., assignor to Westinghouse Machine Company. Piston-rod packing. No 941,394; Nov. 30; Sp. p. 6515; Gaz. vol. 148; p. 1107.
West, I. S., Difficult, Tenn. Hub-attaching device. No. 938,804; Nov. 2; Sp. p. 763; Gaz. vol. 148; p. 123.
West, J. T., Bowling Green, Ky. Railway-track-rail holder and brace. No. 939,767; Nov. 9; Sp. p. 2923; Gaz. vol 148; p. 480.
Western Electric Company. (See Crouch, H. D., assignor.)
Western Wheeled Scraper Company. (See Rhodes, J. B., assignor.)
Westinghouse Electric & Manufacturing Company. (See Dearborn, R. J., assignor.)
Westinghouse Electric & Manufacturing Company. (See Lamme, Feicht, and Garcelon, assignors.)
Westinghouse Electric & Manufacturing Company. (See Lincoln, P. M., assignor.)
Westinghouse Electric & Manufacturing Company. (See Scheibe, H. M., assignor.)
Westinghouse Electric & Manufacturing Company. (See Siegfried, R., assignor.)
Westinghouse, G., Pittsburg, Pa. Marine turbine. No. 941,390; Nov. 30; Sp. p. 6520; Gaz. vol. 148; p. 1108.
Westinghouse, G., Pittsburg, Pa., assignor to Westinghouse Machine Company. Elastic-fluid turbine. No. 941,395; Nov. 30; Sp. p. 6518; Gaz. vol. 148; p. 1107.
Westinghouse Machine Company. (See Barton, H. L., assignor.)
Westinghouse Machine Company. (See Ehrhart, R. N., assignor.)
Westinghouse Machine Company. (See Gilson, C., assignor.)
Westinghouse Machine Company. (See Green, J. S., assignor.)
Westinghouse Machine Company. (See Hodgkinson, F., assignor.)
Westinghouse Machine Company. (See Loud and Panter, assignors.)
Westinghouse Machine Company. (See Moore, J. L., assignor.)
Westinghouse Machine Company. (See Snyder, J. E., assignor.)
Westinghouse Machine Company. (See Sweet, C. E., assignor.)
Westinghouse Machine Company. (See West, A. J., assignor.)
Westinghouse Machine Company. (See Westinghouse, G., assignor.)
Westman, L. A., Cleveland, Ohio. Shaft-coupling. No. 938,531; Nov. 2; Sp. p. 209; Gaz. vol. 148; p. 29.
Westring, C. A., *et al.* (See Giddings, F. M., assignor.)
Wetmore, C. P., Chicago, Ill., assignor to Comptograph Company. Actuating mechanism for adding-machines. No. 938,532; Nov. 2; Sp. p. 211; Gaz. vol. 148; p. 30.
Wetzel, G. L., Baltimore, Md. Automatic gun-hose. No. 940,101; Nov. 16; Sp. p. 3677; Gaz. vol. 148; p. 626.
Wever, W., South Milwaukee, Wis. Mail-bag catcher. No. 940,102; Nov. 16; Sp. p. 3680; Gaz. vol. 148; p. 627.
Whalen Company. (See Whalen, J. T., assignor.)
Whalen, J. T., Brooklyn, N. Y. Indicating and recording device. No. 940,761; Nov. 23; Sp. p. 5142; Gaz. vol. 148; p. 875.
Whalen, J. T., New York, N. Y., assignor, by mesne assignments, to Whalen Company, Jersey City, N. J. Permutation-padlock. No. 940,762; Nov. 23; Sp. p. 5144; Gaz. vol. 148; p. 875.
Whalen, J. T., New York, N. Y., assignor to Whalen Company, Jersey City, N. J. Permutation-padlock. No. 940,763; Nov. 23; Sp. p. 5146; Gaz. vol. 148; p. 876.
Whaley, W., Knoxville, Tenn. Shoveling-machine. No. 940,997; Nov. 23; Sp. p. 5622; Gaz. vol. 148; p. 953.
Whaley, W., Knoxville, Tenn. Shoveling-machine. No. 940,998; Nov. 23; Sp. p. 5632; Gaz. vol. 148; p. 953.
Whaley, W., Knoxville, Tenn. Shoveling-machine. No. 940,999; Nov. 23; Sp. p. 5635; Gaz. vol. 148; p. 953.
Wharton, J. S. L., *et al.* (See Gibson, G. H., assignor.)
Whatley, A. H., assignor to United States Floor Surfacing Machine Company, Providence, R. I. Surfacing-machine. No. 939,363; Nov. 9; Sp. p. 2024; Gaz. vol. 148; p. 342.
Wheary, G. H., Racine, Wis. Hat-carrier. No. 939,364; Nov. 9; Sp. p. 2027; Gaz. vol. 148; p. 342.
Wheary, G. H., Racine, Wis. Wardrobe-trunk. No. 939,575; Nov. 9; Sp. p. 2489; Gaz. vol. 148; p. 413.
Wheaton, C. M. (See Doble and Wheaton.)
Wheeler, A. (See Lawson and Wheeler.)
Wheeler, A. A., M. V. Haskins, and A. H. Wheeler, Worcester, Mass. Door. No. 940,294; Nov. 16; Sp. p. 4087; Gaz. vol. 148; p. 693.
Wheeler, A. H. (See Wheeler, Haskins, and Wheeler.)
Wheeler, J. H., assignor to Marlin Firearms Company, New Haven, Conn. Magazine cut-off for repeating firearms. No. 940,764; Nov. 23; Sp. p. 5150; Gaz. vol. 148; p. 876.
Wheeler, O. D., Charlotte, N. C. Water-closet floor-coupling. No. 938,533; Nov. 2; Sp. p. 214; Gaz. vol. 148; p. 30.
Wheelock, C. H. (See Trowbridge and Wheelock.)
Wheelwright, C. S., Bristol, assignor to International Continuous Filter Press Company, Providence, R. I. Carrying and pressing apparatus. No. 939,576; Nov. 9; Sp. p. 2490; Gaz. vol. 148; p. 413.
Whitacre, E. G., Wellsville, Ohio. Driving-gear for automobiles. No. 939,116; Nov. 2; Sp. p. 1412; Gaz. vol. 148; p. 230.
Whitcher, F. B., West Sprineld, gfassignor of two-thirds to Maynard Rubber Corporation, Springfield, Mass. Toy. No. 940,223; Nov. 16; Sp. p. 3939; Gaz. vol. 148; p. 669.
White, B. F., Newark, N. J. Automatic soldering-tool. No. 941,218; Nov. 23; Sp. p. 6130; Gaz. vol. 148; p. 1027.
White Company. (See Wilson, J. P. L., assignor.)
White, F. C., assignor to Wilcox & White Company, Meriden, Conn. Tracker-board. No. 939,178; Nov. 2; Sp. p. 1559; Gaz. vol. 148; p. 253.
White, F. L., Cambridge, Mass. Automatic antiscalding and mixing valve. No. 941,596; Nov. 30; Sp. p. 6924; Gaz. vol. 148; p. 1172.
White, G. H., Oil City, assignor to S. R. Dresser Manufacturing Company, Bradford, Pa. Making metal rings for pipe-couplings. No. 940,414; Nov. 16; Sp. p. 4390; Gaz. vol. 148; p. 734.
White, H. E., Schenectady, N. Y., assignor to General Electric Company. Motor-control system. No. 941,397; Nov. 30; Sp. p. 6521; Gaz. vol. 148; p. 1108.
White, H. R., Lowell, Mass., assignor to Wyckoff, Seamans & Benedict, Ilion, N. Y. Type-writing machine. No. 940,765; Nov. 23; Sp. p. 5153; Gaz. vol. 148; p. 876.
White, J. A., assignor to Moore and White Company, Philadelphia, Pa. Paper-making machine. No. 941,968; Nov. 30; Sp. p. 7725; Gaz. vol. 148; p. 1301.
White, L. S., Waterbury, Conn. Oven-thermometer. No. 941,667; Nov. 30; Sp. p. 7080; Gaz. vol. 148; p. 1196.
White, M. R., Deal Island, Md. Propeller. No. 938,733; Nov. 2; Sp. p. 611; Gaz. vol. 148; p. 96.
White, N., Detroit, Mich., assignor to Adder Machine Company, Kingston, Pa. Lock for numeral-wheels for adding-machines. No. 940,766; Nov. 23; Sp. p. 5158; Gaz. vol. 148; p. 877.
White, W., Lawrence, Mass. Wet-machine. No. 939,460; Nov. 9; Sp. p. 2251; Gaz. vol. 148; p. 374.
White, W. O., Republic, Pa. Door for coke-ovens. No. 941,398; Nov. 30; Sp. p. 6524; Gaz. vol. 148; p. 1108.
Whiteman, G. W., Philadelphia, assignor to C. J. Buck, Gallitzin, Pa. Insulated rail-joint. No. 941,175; Nov. 23; Sp. p. 6027; Gaz. vol. 148; p. 1013.
Whitesell, W. H. (See Hoffer, Whitesell, and Bente.)
Whiteside, D. I., San Francisco, Cal. Rotatable sign. No. 939,768; Nov. 9; Sp. p. 2924; Gaz. vol. 148; p. 480.
Whitin Machine Works. (See Owen and Pratt, assignors.)
Whitin Machine Works. (See Rooney, E. H., assignor.) (Reissue.)
Whiting, J., Jr., trustee. (See Maxwell, B. C., assignor.)
Whiting, W. J., Handsworth, near Birmingham, England. Automatic firearm. No. 939,882; Nov. 9; Sp. p. 3145; Gaz. vol. 148; p. 519.
Whitlock Coil Pipe Company. (See Gordon, C., assignor.)
Whitmore, F. A., Philadelphia, Pa., assignor to Crompton & Knowles Loom Works. Loom for making tufted fabrics. No. 941,176; Nov. 23; Sp. p. 6029; Gaz. vol. 148; p. 1013.
Whitney, W. C., assignor to Highland Falls Manufacturing Company, Highland Falls, N. Y. Drill. No. 938,534; Nov. 2; Sp. p. 215; Gaz. vol. 148; p. 31.
Whittaker, L., Butler, Pa. Furnace. No. 941,480; Nov. 30; Sp. p. 6698; Gaz. vol. 148; p. 1135.
Whittall, M. J., *et al.* (See Thibert, N. R., assignor.)
Whittredge, C. D., Saugus, assignor to Wm. Filene's Sons Company, Boston, Mass. Exhibiting apparatus. No. 941,118; Nov. 23; Sp. p. 5895; Gaz. vol. 148; p. 993.
Whyte, C., Marrickville, Sydney, and A. Rau, St. Peters, Sydney, New South Wales, Australia; said Rau assignor to said Whyte. Manifolding copying-book. No. 942,023; Nov. 30; Sp. p. 7820; Gaz. vol. 148; p. 1318.
Wichmann, G. B., and D. Rich, St. Louis, Mo. Mop. No. 939,883; Nov. 9; Sp. p. 3148; Gaz. vol. 148; p. 519.
Wickes Brothers. (See Graham, J. L., assignor.)

Wiekes, C. S., Camden, N. J., assignor to Victor Talking Machine Company. Apparatus for making sound-records for talking-machines. No. 941,291; Nov. 23; Sp. p. 6281; Gaz. vol. 148; p. 1052.
Wickham, H. J. (See Shepard, W. L., assignor.)
Widmann, F. C., Cleveland, Ohio. Tool for jewel-setters. No. 941,831; Nov. 30; Sp. p. 7457; Gaz. vol. 148; p. 1253.
Widmann, F. C., Cleveland, Ohio. Ring-clamp. No. 941,832; Nov. 30; Sp. p. 7460; Gaz. vol. 148; p. 1254.
Wiedemann, T., and J. H. Templin, Philadelphia, Pa., assignors, by mesne assignments, to Keller Manufacturing Company. Vacuum-cleaner. No. 939,117; Nov. 2; Sp. p. 1414; Gaz. vol. 148; p. 230.
Wiegand, J. J. (See Smith, Graver, and Wiegand.)
Wieman, F. W., Lawrence, Kans. Self-cleaning rake. No. 941,292; Nov. 23; Sp. p. 6287; Gaz. vol. 148; p. 1052.
Wiendl, J., Denver, Colo. Lemon-squeezer. No. 940,628; Nov. 16; Sp. p. 4835; Gaz. vol. 148; p. 805.
Wiener, C. C. (See Bebin, N. C., assignor.)
Wienshienk, C. (See Herks, J., assignor.)
Wiest, J. H., assignor to Indiana Concrete Form Co., Indianapolis, Ind. Concrete shingle. No. 938,930; Nov. 2; Sp. p. 1057; Gaz. vol. 148; p. 167.
Wiest, J. H., assignor to Indiana Concrete Form Co., Indianapolis, Ind. Combination concrete-molding machine. No. 939,118; Nov. 2; Sp. p. 1416; Gaz. vol. 148; p. 231.
Wiethoff, C., Minneapolis, Minn. Dental-instrument sharpener. No. 939,365; Nov. 9; Sp. p. 2028; Gaz. vol. 148; p. 342.
Wigginton, G. P., assignor to Kalamazoo Loose Leaf Binder Company, Kalamazoo, Mich. Binder. No. 941,481; Nov. 30; Sp. p. 6700; Gaz. vol. 148; p. 1135.
Wigginton, G. P., and F. W. Hodges, assignors to Kalamazoo Loose Leaf Binder Company, Kalamazoo, Mich. Binder. No. 941,482; Nov. 30; Sp. p. 6703; Gaz. vol. 148; p. 1135.
Wikander, G. R. (See Erikson and Wikander.)
Wilbur, F. P., and E. B. Marshall, Milwaukee, Wis. Receptacle-closure. No. 940,653; Nov. 16; Sp. p. 4887; Gaz. vol. 148; p. 814.
Wilcox, H., Newark, N. J., assignor of one-half to W. W. Gage, New York, N. Y., and one-half to F. Brabson, Newark, N. J. Safety-razor. No. 939,935; Nov. 9; Sp. p. 3268; Gaz. vol. 148; p. 539.
Wilcox, H. S., and W. Bartholomew, assignors to Troy Laundry Machinery Company, Chicago, Ill. Power-controller for machines. No. 940,767; Nov. 23; Sp. p. 5167; Gaz. vol. 148; p. 877.
Wilcox, M. A., Los Angeles, Cal. Hot-water house-heater. No. 941,597; Nov. 30; Sp. p. 6927; Gaz. vol. 148; p. 1172.
Wilcox & White Company. (See White, F. C., assignor.)
Wild, H., assignor to Firm of C. Zeiss, Jena, Germany. Telemeter. No. 939,366; Nov. 9; Sp. p. 2030; Gaz. vol. 148; p. 343.
Wilde, E. W. (See McLane, H., assignor.)
Wildman Mfg. Co. (See Ballard, G. L., assignor.)
Wiles, R., Chicago, Ill., assignor to C. P. Clement, Liege, Belgium. Automatic pistol. No. 941,749; Nov. 30; Sp. p. 7259; Gaz. vol. 148; p. 1224.
Willey, A. R., Denver, Colo., assignor of one-half to J. Seep, Oil City, Pa. Roasting-furnace. No. 939,936; Nov. 9; Sp. p. 3270; Gaz. vol. 148; p. 540.
Wilgis, J. L., Upland, assignor of one-half to R. Ross, Chester, Pa. Window-screen. No. 940,569; Nov. 16; Sp. p. 4723; Gaz. vol. 148; p. 789.
Wilkenfeld, H. (See Pugatsky, Wilkenfeld, and Mannes.)
Willcocks, A. L., and A. P. Thorley, New York, N. Y. Bluing device. No. 939,649; Nov. 9; Sp. p. 2658; Gaz. vol. 148; p. 440.
Willenborg, C. B., Dyersville, Iowa. Carrier. No. 940,768; Nov. 23; Sp. p. 5170; Gaz. vol. 148; p. 878.
William B. Mershon and Company. (See Gilbert, H. J., assignor.)
William Sellers & Company. (See Void, L. H., assignor.)
Williams, A. D., Roseville, Cal. Trunk-harness. No. 941,969; Nov. 30; Sp. p. 7726; Gaz. vol. 148; p. 1301.
Williams, C. H., Jr., assignor to Chicago Railway Equipment Company, Chicago, Ill. Brake-beam. No. 938,535; Nov. 2; Sp. p. 217; Gaz. vol. 148; p. 31.
Williams, F. C., *et al.* (See Spiegel, J. F., assignor.)
Williams, G. A., Salt Lake City, Utah. Injector-twyer. No. 941,833; Nov. 30; Sp. p. 7461; Gaz. vol. 148; p. 1254.
Williams, G. N., Jr., New York, N. Y. Stone-fluting machine. No. 939,577; Nov. 9; Sp. p. 2497; Gaz. vol. 148; p. 413.
Williams, J. B. (See Willison and Williams.)
Williams, J. R., Scranton, Pa. Making steel-center calks. No. 939,884; Nov. 9; Sp. p. 3149; Gaz. vol. 148; p. 519.
Williams, J. R., Milwaukee, Wis. Vent-cap. No. 941,668; Nov. 30; Sp. p. 7081; Gaz. vol. 148; p. 1196.
Williams, L. N. D (See Scott, R. W., assignor.)
Williams, L. P. (See Falls and Williams.)
Williams, M. F., and E. H. Frickey, assignors to Williams Patent Crusher & Pulverizer Company, St. Louis, Mo. Shredding-machine. No. 938,734; Nov. 2; Sp. p. 612; Gaz. vol. 148; p. 96.
Williams, M. J., Chicago, Ill. Pulverizer. No. 939,769; Nov. 9; Sp. p. 2925; Gaz. vol. 148; p. 481.
Williams, M. J., Chicago, Ill. Pulverizer. No. 939,770; Nov. 9; Sp. p. 2927; Gaz. vol. 148; p. 481.
Williams, M. J., Chicago, Ill. Pulverizer. No. 939,771; Nov. 9; Sp. p. 2928; Gaz. vol. 148; p. 481.
Williams, M. J., Chicago, Ill. Pulverizer. No. 939,772; Nov. 9; Sp. p. 2929; Gaz. vol. 148; p. 482.
Williams, M. J., Chicago, Ill. Pulverizer. No. 939,773; Nov. 9; Sp. p. 2930; Gaz. vol. 148; p. 482.
Williams, M. J., Chicago, Ill. Pulverizer. No. 939,774; Nov. 9; Sp. p. 2932; Gaz. vol. 148; p. 482.
Williams, M. J., Chicago, Ill. Pulverizer. No. 939,775; Nov. 9; Sp. p. 2933; Gaz. vol. 148; p. 483.
Williams, M. J., Chicago, Ill. Pulverizer. No. 939,776; Nov. 9; Sp. p. 2934; Gaz. vol. 148; p. 483.
Williams, M. J., Chicago, Ill. Pulverizer. No. 939,777; Nov. 9; Sp. p. 2935; Gaz. vol. 148; p. 483.
Williams, M. J., Chicago, Ill. Pulverizer. No. 939,778; Nov. 9; Sp. p. 2936; Gaz. vol. 148; p. 484.
Williams Patent Crusher & Pulverizer Company. (See Frickey, E. H., assignor.)
Williams Patent Crusher & Pulverizer Company. (See Sheward, A. T., assignor.)
Williams Patent Crusher & Pulverizer Company. (See Williams and Frickey, assignors.
Williams, T. M., Los Angeles, Cal. Drag-handle for fishing-reels. No. 940,415; Nov. 16; Sp. p. 4392; Gaz. vol. 148; p. 735.
Williams, W. K., assignor to Grand Rapids Show Case Company, Grand Rapids, Mich. Inclosed display-rack. No. 941,483; Nov. 30; Sp. p. 6707; Gaz. vol. 148; p. 1136.
Williamson, A. D., assignor to Vickers Sons & Maxim, Limited, Sheffield, England. Gearing. No. 938,805; Nov. 2; Sp. p. 764; Gaz. vol. 148; p. 123.
Williamson, A. D., assignor to Vickers Sons & Maxim Limited, Sheffield, England. Gearing. No. 939,179; Nov. 2; Sp. p. 1560; Gaz. vol. 148; p. 253.
Williamson Bros. Company. (See Riley, R. S., assignor.)
Williamson, C. A., Jersey City, N. J. Brake-operating mechanism for cars. No. 941,219; Nov. 23; Sp. p. 6133; Gaz. vol. 148; p. 1028.
Williamson, G. S., *et al.* (See Herzog, J., assignor.)
Willimack, V., Lost Nation, Iowa. Sharpener for lawn-mower cutters. No. 939,885; Nov. 9; Sp. p. 3152; Gaz. vol. 148; p. 520.
Willis, J. F., Minneapolis, Minn. Valve for water-closet tanks. No. 940,295; Nov. 16; Sp. p. 4083; Gaz. vol. 148; p. 693.
Willison, A. C., and J. B. Williams, Cumberland, Md. Fastening device for emergency-exit doors. No. 941,000; Nov. 23; Sp. p. 5644; Gaz. vol. 148; p. 954.
Willour, L., assignor of one-half to C. G. Phillips, Ashland, Ohio. Lifting-jack. No. 938,806; Nov. 2; Sp. p. 767; Gaz. vol. 148; p. 123.
Wills, W. W., Janesville, Wis. Ballot-box. No. 939,367; Nov. 9; Sp. p. 2033; Gaz. vol. 148; p. 343.
Willsie, H. E., New York, N. Y. Machine for melting snow from streets and sidewalks. No. 939,461; Nov. 9; Sp. p. 2253; Gaz. vol. 148; p. 374.
Wilson, A. L., Brunswick, Ga. Revolving grate. No. 940,570; Nov. 16; Sp. p. 4725; Gaz. vol. 148; p. 786.
Wilson, E. E., Scottsville, Kans. Auto-propeller. No. 941,970; Nov. 30; Sp. p. 7727; Gaz. vol. 148; p. 1301.
Wilson, E. R., Hillsdale, Ind. Generator and mixer. No. 939,779; Nov. 9; Sp. p. 2938; Gaz. vol. 148; p. 484.
Wilson, H. B., San Francisco, Cal. Window-screen. No. 939,780; Nov. 9; Sp. p. 2939; Gaz. vol. 148; p. 484.
Wilson, H. G. (See Jacobs, B. F., assignor.)
Wilson, J. A., Jr., assignor to Noye Manufacturing Company, Buffalo, N. Y. Steering-gear for vehicles. No. 939,180; Nov. 2; Sp. p. 1563; Gaz. vol. 148; p. 253.
Wilson, J. P. L., assignor to White Company, Cleveland, Ohio. Ambulance. No. 940,104; Nov. 16; Sp. p. 3683; Gaz. vol. 148; p. 627.
Wilson, J. T., Jersey Shore, Pa. Lap-joint for packings. No. 942,024; Nov. 30; Sp. p. 7823; Gaz. vol. 148; p. 1318.
Wilson, L. G., Larchmont, N. Y. Electrical controlling system for rolling or sliding shutters, elevators, &c. No. 939,650; Nov. 9; Sp. p. 2659; Gaz. vol. 148; p. 440.
Wilson, W., Blair, Nebr. Separable sectional draft-beam for harrows. No. 941,177; Nov. 23; Sp. p. 6032; Gaz. vol. 148; p. 1014.
Wilstam, A., Los Angeles, Cal. Motive-power system. No. 940,769; Nov. 23; Sp. p. 5171; Gaz. vol. 148; p. 878.
Wiltrout, F. M., Corunna, Ind. Portable concrete-tile mold. No. 939,578; Nov. 9; Sp. p. 2499; Gaz. vol. 148; p. 414.
Winans, W. G., Spokane, Wash. Folding seat. No. 939,937; Nov. 9; Sp. p. 3272; Gaz. vol. 148; p. 540.
Winchester Repeating Arms Co. (See Burton, F. F., assignor.)
Wing, I. J., Lincoln, Nebr. Folding and sliding safe-cabinet. No. 941,052; Nov. 23; Sp. p. 5756; Gaz. vol. 148; p. 971.
Wing, L. J., New York, N. Y. Fan. No. 941,834; Nov. 30; Sp. p. 7462; Gaz. vol. 148; p. 1254.
Winkley, E. E., Lynn, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Sole-pressing machine. No. 939,462; Nov. 9; Sp. p. 2256; Gaz. vol. 148; p. 375.

Winship, W. E., New York, N. Y., assignor to Gould Storage Battery Company. Electrical system of distribution. No. 941,690; Nov. 30; Sp. p. 7128; Gaz. vol. 148; p. 1204.
Winslow, H., Providence, R. I., assignor to Cassella Color Company, New York, N. Y. Dyeing wool. No. 941,399; Nov. 30; Sp. p. 6527; Gaz. vol. 148; p. 1109.
Winslow, M. H., Terre Haute, Ind. Platform-scale. No. 941,119; Nov. 23; Sp. p. 5896; Gaz. vol. 148; p. 993.
Winter, G. B., London, England. Motor-car wheel. No. 942,025; Nov. 30; Sp. p. 7824; Gaz. vol. 148; p. 1318.
Wirgovits, J., assignor of one-third to H. Heller and one-third to G. M. Smith, New York, N. Y. Aluminum-solder. No. 941,835; Nov. 30; Sp. p. 7465; Gaz. vol. 148; p. 1255.
Wise, J. A., assignor of one-half to R. N. Traylor, Daingerfield, Tex. Potato-cutter. No. 941,001; Nov. 23; Sp. p. 5646; Gaz. vol. 148; p. 954.
Wise, W. D., Detroit, Minn. Cross-line buckle. No. 938,536; Nov. 2; Sp. p. 218; Gaz. vol. 148; p. 31.
Withem, W., assignor to Atlas Engine Works, Indianapolis, Ind. Boiler-bracket. No. 939,368; Nov. 9; Sp. p. 2038; Gaz. vol. 148; p. 344.
Witt, D., Sheffield, Iowa. Stovepipe-elbow. No. 941,836; Nov. 30; Sp. p. 7466; Gaz. vol. 148; p. 1255.
Wladika, J. (See Redlich and Wladika.)
Wm. Filene's Sons Company. (See Whittredge, C. D., assignor.)
Wm. Wrigley, Jr., & Co. (See Langschmidt, E., assignor.)
Wocher, W. F., R. L. Lemon, and L. H. Mortsolf, Indianapolis, Ind. Safety electrical-circuit breaker. No. 940,910; Nov. 23; Sp. p. 5449; Gaz. vol. 148; p. 923.
Wocher, W. F., R. L. Lemon, and L. H. Mortsolf, Indianapolis, Ind. Safety electrical-circuit breaker. No. 941,002; Nov. 23; Sp. p. 5648; Gaz. vol. 148; p. 955.
Wodzinski, C. W., Menominee, Mich. Car-truck. No. 941,293; Nov. 23; Sp. p. 6288; Gaz. vol. 148; p. 1052.
Wodzinski, C. W., Milwaukee, Wis. Sad-iron. No. 942,026; Nov. 30; Sp. p. 7826; Gaz. vol. 148; p. 1318.
Wolf Company. (See Wolf, H. G., assignor.)
Wolf, H. G., assignor to Wolf Company, Chambersburg, Pa. Bushing for pulleys, gears, and the like. No. 941,602; Nov. 30; Sp. p. 6940; Gaz. vol. 148; p. 1174.
Wolf, Sayer & Heller. (See Heller, I., assignor.)
Wolfe, S. C., Angola, Ind. Tire-protector anchor. No. 938,537; Nov. 2; Sp. p. 220; Gaz. vol. 148; p. 32.
Wolfgram, F. D., and E. Klausman, assignors to Sanitary Brush and Compound Company, Milwaukee, Wis. Brush. No. 938,735; Nov. 2; Sp. p. 616; Gaz. vol. 148; p. 97.
Wolfgram, F. D., and E. Klausman, assignors to Sanitary Brush and Compound Company, Milwaukee, Wis. Sweeping compound. No. 939,369; Nov. 9; Sp. p. 2039; Gaz. vol. 148; p. 344.
Wolfrom, E. J., Salida, Colo. Cutter-bar. No. 941,400; Nov. 30; Sp. p. 6528; Gaz. vol. 148; p. 1109.
Wolle, J. A. (See Budd and Wolle.)
Wolsey, G., and L. Fussey, assignors to J. Murray, Alpena, Mich. Blasting-cartridge. No. 939,886; Nov. 9; Sp. p. 3153; Gaz. vol. 148; p. 520.
Wood, A. A., Atlanta, Ga. Belt-shifting mechanism. No. 938,931; Nov. 2; Sp. p. 1059; Gaz. vol. 148; p. 168.
Wood, H. A. W., assignor to Campbell Printing Press & Mfg. Co., New York, N. Y. Combined perfecting or two-color printing-machine. No. 941,598; Nov. 30; Sp. p. 6930; Gaz. vol. 148; p. 1173.
Wood, J., Noroton, Conn. Combined ventilator and smoke-consumer. No. 941,900; Nov. 30; Sp. p. 7593; Gaz. vol. 148; p. 1278.
Wood, S. A., assignor to United Electric Signal Company, Providence, R. I. Block-signaling apparatus. No. 939,370; Nov. 9; Sp. p. 2040; Gaz. vol. 148; p. 344.
Wood, W. H. (See Haase, C. H., assignor.)
Wood, W. S. (See Rowlands, G., assignor.)
Woodbridge, J. L., Philadelphia, Pa. Means for rectifying single-phase currents. No. 941,599; Nov. 30; Sp. p. 6935; Gaz. vol. 148; p. 1173.
Woodbridge, J. L., Philadelphia, Pa. System of electrical distribution. No. 941,600; Nov. 30; Sp. p. 6936; Gaz. vol. 148; p. 1173.
Woodbridge, J. L., Philadelphia, Pa. System of electrical distribution. No. 941,601; Nov. 30; Sp. p. 6938; Gaz. vol. 148; p. 1174.
Woodbury, C. A., Chester, Pa., assignor to E. I. du Pont de Nemours Powder Company, Wilmington, Del. Detonator. No. 939,371; Nov. 9; Sp. p. 2043; Gaz. vol. 148; p. 345
Woodland, F. O., Worcester, Mass. Labeling-machine. No. 938,807; Nov. 2; Sp. p. 769; Gaz. vol. 148; p. 124.
Woodland, F. O., Worcester, Mass. Labeling-machine. No. 940,105; Nov. 16; Sp. p. 3684; Gaz. vol. 148; p. 628.
Woodland, F. O., Worcester, Mass. Labeling-machine. No. 941,178; Nov. 23; Sp. p. 6034; Gaz. vol. 148; p. 1014.
Woodruff, A. C., Juntura, Oreg. Nut-lock. No. 938,932; Nov. 2; Sp. p. 1062; Gaz. vol. 148; p. 168
Woodruff Company. (See Woods, R. V., assignor.)
Woods, H. E., Chicago, Ill. Shock-absorbing device for gas-mantle fixtures. No. 940,629; Nov. 16; Sp. p. 4841; Gaz. vol. 148; p. 806.
Woods, O. E. (See Prelle, A. F. W., assignor.)
Woods, R. V., assignor of one-half to Woodruff Company, San Francisco, Cal. Concrete building construction. No. 941,837; Nov. 30; Sp. p. 7467; Gaz. vol. 148; p. 1255.
Woodward, B. C. (See Gardner, A. M., assignor.)
Woodward, E., Somerville, assignor, by mesne assignments, to T. G. Plant, Boston, Mass. Automatic leveler. No. 939,372; Nov. 9; Sp. p. 2045; Gaz. vol. 148; p. 345.
Woodward, O., Montclair, N. J., assignor to Remington Typewriter Company, Ilion, N. Y. Type-writing machine. No. 941,120; Nov. 23; Sp. p. 5897; Gaz. vol. 148; p. 993.
Woody, J. C. (See Larkin and Woody.)
Woop, W., Ossining, N. Y. Carriage-top. No. 938,933; Nov. 2; Sp. p. 1062; Gaz. vol. 148; p. 168.
Wooster, W. W., Berlin, N. J. Talking-machine. No. 939,781; Nov. 9; Sp. p. 2940; Gaz. vol. 148; p. 485.
Worcester, W. W., Canton, Ohio. Trap. No. 940,911; Nov. 23; Sp. p. 5453; Gaz. vol. 148; p. 924.
Word Bros. (See Word, J. B. and W. W., assignors.)
Word, J. B. and W. W., assignors to Word Bros., San Francisco, Cal. Coal-puncher-sharpening machine. No. 941,484; Nov. 30; Sp. p. 6709; Gaz. vol. 148; p. 1136.
Word, W. W. (See Word, J. B. and W. W.)
Worley, G. D., assignor of one-half to J. D. Clark, Texarkana, Ark. Railway-switch. No. 941,220; Nov. 23; Sp. p. 6134; Gaz. vol. 148; p. 1028.
Worthington Company. (See Worthington, G. C., assignor.)
Worthington, G. C., assignor to Worthington Company, Elyria, Ohio. Velocipede. No. 941,121; Nov. 23; Sp. p. 5902; Gaz. vol. 148; p. 994.
Wright, C., assignor of one-half to G. E. Wright, South Greensburg, Pa. Combined shade-roller and curtain-bracket. No. 938,934; Nov. 2; Sp. p. 1063; Gaz. vol. 148; p. 168.
Wright, G. E. (See Wright, C., assignor.)
Wright, J. D., assignor of one-half to L. S. Clark, Brooklyn, N. Y. Car-fender. No. 942,027; Nov. 30; Sp. p. 7827; Gaz. vol. 148; p. 1319.
Wright, T., Jersey City, N. J. Dumping-wagon. No. 939,782; Nov. 9; Sp. p. 2945; Gaz. vol. 148; p. 485.
Wulff, A., assignor to Wagner Manufacturing Company, Cedar Falls, Iowa. Roller-bearing wheel. No. 940,106; Nov. 16; Sp. p. 3687; Gaz. vol. 148; p. 628.
Wulff, A., assignor to Wagner Manufacturing Company, Cedar Falls, Iowa. Track and hanger for doors. No. 940,770; Nov. 23; Sp. p. 5174; Gaz. vol. 148; p. 879.
Wurzer, J. F., and J. G. Hartman, Millvale, Pa. Street-sweeper. No. 941,838; Nov. 30; Sp. p. 7468; Gaz. vol. 148; p. 1255.
Wyant, A. T., Neenah, Wis. Paper-making-machine-cleansing device. No. 941,750; Nov. 30; Sp. p. 7260; Gaz. vol. 148; p. 1225.
Wyckoff, Seamans & Benedict. (See Robbins, C. C., assignor.)
Wyckoff, Seamans & Benedict. (See White, H. R., assignor.)
Wyckoff, Seamans & Benedict. (See Yaw, C. B., assignor.)
Wylder, L., Cathay, N. D. Railway-tie. No. 938,538; Nov. 2; Sp. p. 221; Gaz. vol. 148; p. 32.
Wylder, L., Cathay, N. D. Railway-tie. No. 938,539; Nov. 2; Sp. p. 223; Gaz. vol. 148; p. 32.
Wyman, H., Worcester, Mass., assignor to Crompton & Knowles Loom Works. Weft-replenishing-loom magazine. No. 938,540; Nov. 2; Sp. p. 224; Gaz. vol. 148; p. 33.
Wyman, H., and J. T. Cyr, Worcester, Mass., assignors to Crompton & Knowles Loom Works. Weft-replenishing loom. No. 941,179; Nov. 23; Sp. p. 6046; Gaz. vol. 148; p. 1015.
Wyman, W. F., assignor of one-half to J. A. Crum, Oshkosh, Wis. Grass-crimping apparatus. No. 940,630; Nov. 16; Sp. p. 4842; Gaz. vol. 148; p. 806.
Wynberg, A., Amsterdam, Netherlands. Wax-like product obtained from sugar-cane. No. 941,401; Nov. 30; Sp. p. 6530; Gaz. vol. 148; p. 1109.
Wyne, L. E., *et al.* (See Sieben, H., assignor.)
Xavier, J., Cleveland, Ohio, assignor to American Can Company, New York, N. Y. Sheet-metal display-can. No. 938,736; Nov. 2; Sp. p. 618; Gaz. vol. 148; p. 97.
Yarberry, W. B., Goddard, Kans. Rural-mail-delivery car. No. 940,107; Nov. 16; Sp. p. 3688; Gaz. vol. 148; p. 628.
Yates, R., Passaic, N. J. Ice-skate. No. 940,108; Nov. 16; Sp. p. 3690; Gaz. vol. 148; p. 629.
Yates, S., administratrix. (See McCormick, J. S.)
Yaw, C. B., Arlington, N. J., assignor to Remington Typewriter Company, Ilion, N. Y. Type-writing machine. No. 939,579; Nov. 9; Sp. p. 2500; Gaz. vol. 148; p. 414.

Yaw, C. B., New York, assignor to Wyckoff, Seamans & Benedict, Ilion, N. Y. Type-writing machine. No. 941,122; Nov. 23; Sp. p. 5904; Gaz. vol. 148; p. 994.
Yost, J. E., Arkansas City, Kans. Dry yeast compound. No. 941,221; Nov. 23; Sp. p. 6137; Gaz. vol. 148; p. 1029.
Young, C. G. (See Barnes, G. M., assignor.)
Young, F. W., East Orange, assignor to Crocker-Wheeler Company, Ampere, N. J. Bridging-block for dynamo-electric machines. No. 941,180; Nov. 23; Sp. p. 6053; Gaz. vol. 148; p. 1015.
Young, F. W., East Orange, and E. Heitmann, Montclair, assignors to Crocker-Wheeler Company, Ampere, N J. Lining for slots of dynamo-electric-machine elements. No. 941,181; Nov. 23; Sp. p. 6054; Gaz. vol. 148; p. 1015.
Young, F. W., East Orange, assignor to Crocker-Wheeler Company, Ampere, N. J. Bridging-block for dynamo-electric machines. No. 941,182; Nov. 23; Sp. p. 6055; Gaz. vol. 148; p. 1016.
Young, G. F. (See Duering, F. E., assignor.)
Young, J. N., assignor of four-fifths to S. W. King, Dallas, Tex. Oil-burner. No. 942,028; Nov. 30; Sp. p. 7828; Gaz. vol. 148; p. 1319.
Young, L. T., Red Bank, N. J. Game apparatus. No. 939,580; Nov. 9; Sp. p. 2509; Gaz. vol. 148; p. 414.
Young, M. G., Coventry township, Summit county, Ohio. Alarm for sprinkler systems. No. 941,053; Nov. 23; Sp. p. 5757; Gaz. vol. 148; p. 972.
Young-Mann-Averill Company. (See Young, O. W., assignor.)
Young, O. W., Chicago, Ill., assignor to Young-Mann-Averill Company. Joint for shifting means for radius-rods. No. 940,224; Nov. 16; Sp. p. 3939; Gaz. vol. 148; p. 670.
Young, P. K., Omaha, Nebr. Groove-filling device for street-railway crossings. No. 939,493; Nov. 9; Sp. p. 2264; Gaz. vol. 148; p. 375.
Young, P. M. (See Lovekin and Young.)
Young, S. D., assignor to Grand Rapids Show Case Company, Grand Rapids, Mich. Guard for rotary garment-supports. No. 941,669; Nov. 30; Sp. p. 7082; Gaz. vol. 148; p. 1197.
Young, W. F., Chicago, Ill. Checking attachment for carriages and wagons. No. 940,771; Nov. 23; Sp. p. 5175; Gaz. vol. 148; p. 879.
Young, W. H., Decatur, Ga. Refrigerator. No. 940,416; Nov. 16; Sp. p. 4393; Gaz. vol. 148; p. 735.
Young, W. W., Springfield, Mass. Sound-regulator. No. 940,109; Nov. 16; Sp. p. 3692; Gaz. vol. 148; p. 629.
Youngberg, S. A., and J. B. Parnall, assignors of one-third to F. J. Kietzer, Rosthern, Saskatchewan Canada. Car-fender. No. 940,772; Nov. 23; Sp. p. 5176; Gaz. vol. 148; p. 879.
Youngblood, D. F., San Antonio, Tex. Forge locked grating. No. 940,912; Nov. 23; Sp. p. 5456; Gaz. vol. 148; p. 924.
Yount, S. T., Chicago, Ill. Therapeutic device. No. 938,808; Nov. 2; Sp. p. 772; Gaz. vol. 148; p. 124.
Zahm, C. L., Los Angeles, Cal., assignor of one-fourth to E. E. Clement, Washington, D. C. Telephone-exchange system. No. 938,541; Nov. 2; Sp. p. 226; Gaz. vol. 148; p. 33.
Zahm, C. L., Los Angeles, Cal., assignor of one-fourth to E. E. Clement, Washington, D. C. Telephone-exchange system. No. 941,839; Nov. 30; Sp. p. 7471; Gaz. vol. 148; p. 1256.
Zahn, R., Plauen, Germany. Embroidering-machine. No. 941,123; Nov. 23; Sp. p. 5915; Gaz. vol. 148; p. 995.
Zander, J., assignor to Acetylene Apparatus Manufacturing Co., Chicago, Ill. Acetylene-generator. No. 940,110; Nov. 16; Sp. p. 3694; Gaz. vol. 148; p. 629.
Zaremba Company. (See Mantius, O., assignor.)
Zech, N. P., Milwaukee, Wis. Car-brake. No. 938,935; Nov. 2; Sp. p. 1065; Gaz. vol. 148; p. 169.
Zehner, E. R., Toledo, Ohio. Bristle-drying machine. No. 938,542; Nov. 2; Sp. p. 234; Gaz. vol. 148; p. 34.
Zeiss, Firm of C. (See Eppenstein, O., assignor.)
Zeiss, Firm of C. (See König, A., assignor.)
Zeiss, Firm of C. (See Pulfrich, C., assignor.)
Zeiss, Firm of C. (See Rohr, M. von, assignor.)
Zeiss, Firm of C. (See Wild, H., assignor.)
Ziegler, A. T., Pittsburg, Pa. Electric control for pantographs. No. 938,936; Nov. 2; Sp. p. 1067; Gaz. vol. 148; p. 169.
Ziehn, W. C. L. (See Schneider and Ziehn.)
Ziemss, H., Jr., Chicago, Ill. Brake-beam. No. 940,417; Nov. 16; Sp. p. 4394; Gaz. vol. 148; p. 735.
Zimmerman, W., Chicago, Ill., assignor of one-third to E. Moehrlin. Molding mechanism. No. 939,581; Nov. 9; Sp. p. 2510; Gaz. vol. 148; p. 415.
Zimmermann, W. F., assignor to Gould & Eberhardt, Newark, N. J. Work-support for metal-working machines. No. 940,418; Nov. 16; Sp. p. 4396; Gaz. vol. 148; p. 736.
Zinn, E., Brooklyn, N. Y. Tool-handle. No. 941,901; Nov. 30; Sp. p. 7595; Gaz. vol. 148; p. 1278.
Zschech, G. H., deceased, Berwyn; J. F. Devine, administrator, assignor to Standard Machinery Company, Chicago, Ill. Vacuum-pump. No. 940,913; Nov. 23; Sp. p. 5458; Gaz. vol. 148; p. 925.
Zuech, A. T., and G. H. Diemer, Trinidad, Colo. Shaker for fire-grates. No. 942,029; Nov. 30; Sp. p. 7830; Gaz. vol. 148; p. 1319.

ALPHABETICAL LIST OF PATENTEES OF DESIGNS.

Alzenman, J., New York, N. Y. Mantel-cover. No. 40,371; Nov. 23; Gaz. vol. 148; p. 1073.
Baxter, F., Passaic, N. J. Tea-cup. No. 40,365; Nov. 23; Gaz. vol. 148; p. 1072.
Beattie, H. W., Quincy, Mass., assignor to Sill Stove Works, Rochester, N. Y. Stove. No. 40,356; Nov. 16; Gaz. vol. 148; p. 817.
Benjamin Electric Manufacturing Company. (See Benjamin, R. B., assignor.)
Benjamin, R. B., assignor to Benjamin Electric Manufacturing Company, Chicago, Ill. Electric-lamp socket. No. 40,380; Nov. 30; Gaz. vol. 148; p. 1327.
Birmingham, J. E., assignor to Shreve & Company, San Francisco, Cal. Handle of spoons, forks, or similar articles. Nos. 40,330–1; Nov. 2; Gaz. vol. 148; p. 264.
Booth, K., assignor to Gillinder & Sons, Inc., Philadelphia, Pa. Artificial-light shade. No. 40,354; Nov. 16; Gaz. vol. 148; p. 816.
Booth, K., assignor to Gillinder & Sons, Inc., Philadelphia, Pa. Artificial-light shade. No. 40,378; Nov. 30; Gaz. vol. 148; p. 1326.
Boyden, F. S., Chicago, Ill. Brooch. No. 40,349; Nov. 16; Gaz. vol. 148; p. 815.
Bray, A., Leeds, England. Vertical inverted incandescent gas-burner. No. 40,346; Nov. 9; Gaz. vol. 148; p. 553.
Bunnell, S. H., assignor to Griscom-Spencer Company, New York, N. Y. Ice-cream-freezer casing. No. 40,381; Nov. 30; Gaz. vol. 148; p. 1327.
Chance Brothers and Co. (See Woodward, T. J., assignor.)
Codman, W. C., assignor to Gorham Manufacturing Company, Providence, R. I. Teapot or similar article. No. 40,366; Nov. 23; Gaz. vol. 148; p. 1072.
Crowell, G. L., Jr., Arlington, N. J., assignor to Dominick & Haff, New York, N. Y. Spoon, fork, or similar article. No. 40,350; Nov. 16; Gaz. vol. 148; p. 815.
De Goey, W., Providence, R. I. Dish or similar article. No. 40,367; Nov. 23; Gaz. vol. 148; p. 1072.
Doebell, F., assignor to A. Siegrist Co., New York, N. Y. Braid. No. 40,363; Nov. 16; Gaz. vol. 148; p. 818.
Dominick & Haff. (See Crowell, G. L., Jr., assignor.)
Gair, R., New York, N. Y. Doily. No. 40,348; Nov. 9; Gaz. vol. 148; p. 553.
George La Monte & Son. (See Sergeant, W. L., assignor.)
Gill & Company. (See Kappler, J., assignor.)
Gillinder & Sons. (See Booth, K., assignor.)
Gorham Manufacturing Company. (See Codman, W. C., assignor.)
Gorham Manufacturing Company. (See Meyers, E., assignor.)
Gray, W. J., Jeannette, Pa. Lamp-shade. No. 40,379; Nov. 30; Gaz. vol. 148; p. 1327.
Griscom-Spencer Company. (See Bunnell, S. H., assignor.)
Hawkes, S., Corning, N. Y. Glass pitcher. Nos. 40,324–5; Nov. 2; Gaz. vol. 148; pp. 262–3.
Hentschy, S., New Kensington, Pa. Dish. No. 40,375; Nov. 30; Gaz. vol. 148; p. 1326.
Hoffman-Corr Manufacturing Company. (See McBride, W. J., assignor.)
Jameson, W. A., Niagara Falls, N. Y. Spoon, fork, or similar article. No. 40,351; Nov. 16; Gaz. vol. 148; p. 816.
Jandus Electric Company. (See Stowe, B. A., assignor.)
Jones Company, I. A. (See Moore and Timberlake, assignors.)
Kappler, J., assignor to Gill & Company, Philadelphia, Pa. Lamp-shade. No. 40,345; Nov. 9; Gaz. vol. 148; p. 553.
Keith, D. W., Plankinton, S. D. Reservoir for fountain-syringes. No. 40,377; Nov. 30; Gaz. vol. 148; p. 1326.
Kny, W., Wingswinford, near Dudley, England. Goblet. No. 40,360; Nov. 16; Gaz. vol. 148; p. 818.
Lambert, J., Hoboken, N. J. Purse and belt therefor. No. 40,341; Nov. 9; Gaz. vol. 148; p. 552.
Lambert, J., Hoboken, N. J. Chatelaine-bag. No. 40,376; Nov. 30; Gaz. vol. 148; p. 1326.
Lingohr, O., Solingen, Germany. Toy figure. No. 40,342; Nov. 9; Gaz. vol. 148; p. 552.
Long, F. U., and M. L. Packer, assignors to Ohio State Stove Company, Columbus, Ohio. Gas-stove. No. 40,368; Nov. 23; Gaz. vol. 148; p. 1072.
Long, F. U., and M. L. Packer, assignors to Ohio State Stove Company, Columbus, Ohio. Stove. No. 40,382; Nov 30; Gaz. vol. 148 p. 1327.
McBride, W. J., assignor to Hoffman-Corr Manufacturing Company, Philadelphia, Pa. Cap for hammock-spreader ends. No. 40,369; Nov. 23; Gaz. vol. 148; p. 1072.
Meyers, E., Taunton, Mass., assignor to Gorham Manufacturing Company, Providence, R. I. Spoon or similar article. No. 40,352; Nov. 16; Gaz. vol. 148; p. 816.
Moore, E. M., and P. J. Timberlake, Jackson, Mich., assignors to I. A. Jones Company, Chicago, Ill. Stand or holder for cut flowers and plants. No. 40,361; Nov. 16; Gaz. vol. 148; p. 818.
New Jersey Patent Company. (See Weber, P., assignor.)
Oehrle, F. W., Philadelphia, Pa. Woven edging. No. 40,364; Nov. 16; Gaz. vol. 148; p. 818.
Ohio State Stove Company. (See Long and Packer, assignors.)
Osborne, C., assignor to Whiting Manufacturing Company, New York, N. Y. Handle for spoons, forks, or similar articles. No. 40,353; Nov. 16; Gaz. vol. 148; p. 816.
Packer, M. L. (See Long and Packer.)
Peichar, J., Cincinnati, Ohio. Cuff-button. No. 40,337; Nov. 9; Gaz. vol. 148; p. 551.
Quennard, G. H., Allendale, N. J. Interlocking tile. No. 40,358; Nov. 16; Gaz. vol. 148; p. 817.
Reed & Barton Corporation. (See Turner, G. L., assignor.)
Sanford, A. J., Newark, Ohio. Light-shade. Nos. 40,326–9; Nov. 2; Gaz. vol. 148; p. 263.
Sanford, A. J., Newark, Ohio. Light-shade. Nos. 40,332–5; Nov. 2; Gaz. vol. 148; pp. 264–5.
Sanford, A. J., Newark, Ohio. Light-shade. Nos. 40,343–4; Nov. 9; Gaz. vol. 148; pp. 552–3.
Sergeant, W. L., Nutley, N. J., assignor to George La Monte & Son, New York, N. Y. Safety-paper. No. 40,362; Nov. 16; Gaz. vol. 148; p. 818.
Shoyer, D. W., New York, N. Y. Hammock. No. 40,370; Nov. 23; Gaz. vol. 148; p. 1073.
Shreve & Company. (See Birmingham, J. E., assignor.)
Siegrist Co., A. (See Doebell, F., assignor.)
Sill Stove Works. (See Beattie, H. W., assignor.)
Southwick, A. A., assignor to Tiffany & Company, New York, N. Y. Handle for spoons, forks, or similar articles. Nos. 40,339–40; Nov. 9; Gaz. vol. 148; p. 552.
Sowers, E. B., Columbus, Ohio. Drinking-cup. No. 40,374; Nov. 30; Gaz. vol. 148; p. 1326.
Stowe, B. A., assignor to Jandus Electric Company, Cleveland, Ohio. Bracket for supporting fans and the like. No. 40,357; Nov. 16; Gaz. vol. 148; p. 817.
Tiffany & Company. (See Southwick, A. A., assignor.)
Tilton, G. P., assignor to Towle Manufacturing Company, Newburyport, Mass. Spoon, fork, or similar article. No. 40,372; Nov. 30; Gaz. vol. 148; p. 1326.
Timberlake, P. J. (See Moore and Timberlake.)
Towle Manufacturing Company. (See Tilton, G. P., assignor.)
Turner, C. Y., New York, N. Y. Flag. No. 40,336; Nov. 9; Gaz. vol. 148; p. 551.
Turner, G. L., assignor to Reed & Barton Corporation, Taunton, Mass. Spoon or fork. No. 40,338; Nov. 9; Gaz. vol. 148; p. 551.
Turner, J. W., Des Moines, Iowa. Electrolier. No. 40,355; Nov. 16; Gaz. vol. 148; p. 817.
Van Cise, F. J. and W. C., Mayville, N. Y. Clock-case. No. 40,373; Nov. 30; Gaz. vol. 148; p. 1326.
Van Cise, W. C. (See Van Cise, F. J. and W. C.)
Weber, P., Orange, assignor to New Jersey Patent Company, West Orange, N. J. Phonograph-cabinet. No. 40,347; Nov. 9; Gaz. vol. 148; p. 553.
Whiting Manufacturing Company. (See Osborne, C., assignor.)
Woodward, T. J., West Bromwich, assignor to Chance Brothers and Co. Limited, Glass Works, near Birmingham, England. Sheet-glass. No. 40,359; Nov. 16; Gaz. vol. 148; p. 817.

ALPHABETICAL LIST OF REGISTRANTS OF TRADE-MARKS.

A. Schoenhut Company, Philadelphia, Pa. Toys. No. 75,675; Nov. 2; Gaz. vol. 148; p. 275.
A. H. Heisey & Co. Inc., Newark, Ohio. Pressed glassware. No. 75,897; Nov. 23; Gaz. vol. 148; p. 1082.
Aberdeen Mill Company, Aberdeen, S. D. Wheat-flour. No. 75,794; Nov. 16; Gaz. vol. 148; p. 828.
Aberdeen Mill Company, Aberdeen, S. D. Wheat-flour. Nos. 75,916-17; Nov. 30; Gaz. vol. 148; p. 1339.
Adler & Co., J., New York, N. Y. Leather gloves. No. 75,833; Nov. 23; Gaz. vol. 148; p. 1081.
Agatine Shoe-Hook and Eyelet Company, Newark, N. J. Shoe lacing hooks and studs. No. 75,888; Nov. 23; Gaz. vol. 148; p. 1082.
Alkin-Lambert Company, New York, N. Y. Pencils, pencil-cases, penholders, and pen-cases. No. 75,657; Nov. 2; Gaz. vol. 148; p. 275
Aktiengesellschaft vormals B. Siegfried, Zofingen, Switzerland. Remedy for gonorrhea. No. 75,951; Nov. 30; Gaz. vol. 148; p. 1340.
Allen, W. H., Detroit, Mich. Petticoats. No. 75,834; Nov. 23; Gaz. vol. 148; p. 1081.
Alsberg, W., Philadelphia, Pa. Hosiery. No. 75,676; Nov. 2; Gaz. vol. 148; p. 275.
American Radiator Company, East Orange, N. J.; Chicago, Ill.; New York, N. Y.; Philadelphia, Pa.; Boston, Mass.; London, England; Paris, France, and Berlin, Germany. Boilers and heaters. No. 75,777; Nov. 16; Gaz. vol. 148; p. 827.
American Tap Bush Company, Detroit, Mich. Beer taps and bushes. No. 75,736; Nov. 9; Gaz. vol. 148; p. 565.
Amies Asphalt Company, Philadelphia, Pa. Paving composition. No. 75,658; Nov. 2; Gaz. vol. 148; p. 275.
Antinori, L. e P., Florence, Italy. White Chianti wine. No. 75,952; Nov. 30; Gaz. vol. 148; p. 1340.
Ashe, Noyes & Small Company, Auburn, Me. Leather shoes. No. 75,912; Nov. 23; Gaz. vol. 148; p. 1083.
Athens Knitting Company, Athens, N. Y. Knit underwear. No. 75,835; Nov. 23; Gaz. vol. 148; p. 1081.
Athey, C. M., Baltimore, Md. Face and scalp lotions. No. 75,953; Nov. 30; Gaz. vol. 148; p. 1340.
Atlantic Export Company, New York, N. Y. Dried brewer's grain. No. 75,889; Nov. 23; Gaz. vol. 148; p. 1082.
Austin, Nichols & Co., New York, N. Y. Canned salmon and dried salt codfish. No. 75,836; Nov. 23; Gaz. vol. 148; p. 1081.
Austin, Nichols & Co., New York, N. Y. Italian olive-oil. No. 75,918; Nov. 30; Gaz. vol. 148; p. 1339.
Austin, Nichols & Co., New York, N. Y. Blended coffee. No. 75,919; Nov. 30; Gaz. vol. 148; p. 1339.
Azusa Foot-Hill Citrus Association, Azusa, Cal. Oranges, grape-fruit, tangerines, and lemons. Nos. 75,920-1; Nov. 30; Gaz. vol. 148; p. 1339.
Badger and Heslin, New Haven, Conn. Leather shoes. No. 75,759; Nov. 16; Gaz. vol. 148; p. 827.
Baird Bros & Co., Cleveland, Ohio. Sewing-machine oil and axle-grease. No. 75,677; Nov. 2; Gaz. vol. 148; p. 275.
Baketel, H. S., New York, N. Y. Sugar-converting animal enzym for treatment of diabetes. No. 75,778; Nov. 16; Gaz. vol. 148; p. 827.
Batcheller Importing Co., New York, N. Y. Toilet and bath powders. No. 75,954; Nov. 30; Gaz. vol. 148; p. 1340.
Bates Manufacturing Company, West Orange, N. J. Automatic numbering-machines. No. 75,922; Nov. 30; Gaz. vol. 148; p. 1339.
Beatrice Poultry & Cold Storage Co., Beatrice, Nebr. Dressed poultry. No. 75,923; Nov. 30; Gaz. vol. 148; p. 1339.
Blackburn, C. W., Petaluma, Cal. Hair-dye. No. 75,837; Nov. 23; Gaz. vol. 148; p. 1081.
Block Light Company, New York and Brooklyn, N. Y. Incandescent gas-mantles. No. 75,924; Nov. 30; Gaz. vol. 148; p. 1339.
Boardman & Gray, Albany, N. Y. Pianos. No. 75,913; Nov. 23; Gaz. vol. 148; p. 1083.
Boettiger, L. A., New York, N. Y. Pacifiers. No. 75,658; Nov. 2; Gaz. vol. 148; p. 276.
Bosworth-Staley Company, Chicago, Ill. Copy-multiplying machines. No. 75,712; Nov. 9; Gaz. vol. 148; p. 565.
Bowie, C. P., Berkeley, Cal. Proprietary medicine. No. 75,955; Nov. 30; Gaz. vol. 148; p. 1340.
Breitung, A., Chicago, Ill. Cigars. No. 75,689; Nov. 2; Gaz. vol. 148; p. 276.
Breitung, A., Chicago, Ill. Cigars. No. 75,956; Nov. 30; Gaz. vol. 148; p. 1340.
Brey, W. F., Philadelphia, Pa. Wheat-flour. No. 75,925; Nov. 30; Gaz. vol. 148; p. 1339.
Bridgeport Webbing Company, Inc., Bridgeport, Conn. Belts for personal wear. No. 75,760; Nov. 16; Gaz. vol. 148; p. 827.
Brodé, F. W., Memphis, Tenn. Cotton-seed meal. No. 75,690; Nov. 2; Gaz. vol. 148; p. 276.
Brown, A. C., New York, N. Y. Toilet and pumice soaps. No. 75,795; Nov. 16; Gaz. vol. 148; p. 828.
Brown & Co., C. E., Springfield, Mass. Certain foods. No. 75,926; Nov. 30; Gaz. vol. 148; p. 1339.
Brunner Baking Company, Buffalo, N. Y. Bread. No. 75,737; Nov. 9; Gaz. vol. 148; p. 565.
Buffalo Cereal Co., Buffalo, N. Y. Certain foods. No. 75,796; Nov. 16; Gaz. vol. 148; p. 828.
Burckhardt & Company, Cincinnati, Ohio. Soap. No. 75,898; Nov. 23; Gaz. vol. 148; p. 1082.
Burk, L., Philadelphia, Pa. Bacon. No. 75,691; Nov. 2; Gaz. vol. 148; p. 276.
Butterfield & Co., F., New York, N. Y. Cotton piece goods. No. 75,678; Nov. 2; Gaz. vol. 148; p. 275.
Butz, S., Easton, Pa. Dry-powder fire-extinguishing compound. No. 75,957; Nov. 30; Gaz. vol. 148; p. 1340.
California Fruit Canners Association, San Francisco, Cal. Certain foods. No. 75,958; Nov. 30; Gaz. vol. 148; p. 1340.
Canadian Chicle Company, Peterborough, Ontario, Canada. Chewing-gums. No. 75,738; Nov. 9; Gaz. vol. 148; p. 565.
Canary, N., Chicago, Ill. Salve. No. 75,761; Nov. 16; Gaz. vol. 148; p. 827.
Cardolax Company, New York, N. Y. Laxatives, antiseptic powder, &c. No. 75,739; Nov. 9; Gaz. vol. 148; p. 565.
Carmel Wine Company, New York, N. Y. Still wines. No. 75,797; Nov 16; Gaz. vol. 148; p. 828.
Centaur Film Co., New York, N. Y. Motion-picture films. No. 75,927; Nov. 30; Gaz. vol. 148; p. 1339.
Central-California Canneries, San Francisco, Cal. Canned fruits. Nos. 75,928-30; Nov. 30; Gaz. vol. 148; p. 1339.
Central California Canneries, San Francisco, Cal. Canned fruits and vegetables. No. 75,931; Nov. 30; Gaz. vol. 148; p. 1339.
Central Consumers Company, Louisville, Ky. Beer. No. 75,798; Nov. 16; Gaz. vol. 148; p. 828.
Chattanooga Paint Co., Chattanooga, Tenn. Mortar-colors. No. 75,799; Nov. 16; Gaz. vol. 148; p. 828.
Chicago Varnish Co., Chicago, Ill. Varnishes, primers, and ready-mixed paints. No. 75,932; Nov. 30; Gaz. vol. 148; p. 1339.
Clark Grocery Co., Memphis, Tenn. Blended coffee. No. 75,740; Nov. 9; Gaz. vol. 148; p. 566.
Clauss, H., Fremont, Ohio. Penknives, scissors, and manicure files and blades. No. 75,692; Nov. 2; Gaz. vol. 148; p. 276.
Co-operative Printing Company, Chicago, Ill. Newspapers. No. 75,779; Nov. 16; Gaz. vol. 148; p. 827.
Cohn, M. J., New York, N. Y. Cloaks, outer suits, and dresses. No. 75,800; Nov. 16; Gaz. vol. 148; p. 828.
Columbia Refining Company, New York, N. Y. Lubricating-greases. No. 75,680; Nov. 2; Gaz. vol. 148; p. 275.
Connell, J. J., Boston, Mass. Boys' outer suits. Nos. 75,721-3; Nov. 9; Gaz. vol. 148; p. 565.
Consolidated Engineering Co., Chicago, Ill. Valves and valve-fittings. No. 75,959; Nov. 30; Gaz. vol. 148; p. 1340.
Corinth Woolen Mills, St. Louis, Mo. Youths' outer suits. No. 75,838; Nov. 23; Gaz. vol. 148; p. 1081.
Corset H Company, Worcester, Mass. Corsets. No. 75,724; Nov. 9; Gaz. vol. 148; p. 565.
Courtade, E., New York, N. Y. Blended coffee. No. 75,801; Nov. 16; Gaz. vol. 148; p. 828.
Cox Gelatine Company, New York, N. Y. Gelatin. No. 75,693; Nov. 2; Gaz. vol. 148; p. 276.
Crippen & Reid, Saratoga Springs and Ballston Spa, N. Y. Outer wash-suits, dress and shirt waists, kimonos, &c. No. 75,762; Nov. 16; Gaz. vol. 148; p. 827.
Crocker, R. M., Chicago, Ill. Tonic to be used in stock foods for animals. No. 75,828; Nov. 16; Gaz. vol. 148; p. 829.
Cudlipp, E., New York, N. Y. Mouth-wash. No. 75,960; Nov. 30; Gaz. vol. 148; p. 1340.
Curioso Dust Company, Los Angeles, Cal. Finger-nail-polishing compound. No. 75,780; Nov. 16; Gaz. vol. 148; p. 827.
Cushing Medical Supply Co., Dover, Del., and Boston, Mass. Whisky, rum, gin, brandy, and rock and rye. No. 75,899; Nov. 23; Gaz. vol. 148; p. 1083.
Custer Chemical Co., New York, N. Y. Peroxid of hydrogen. No. 75,713; Nov. 9; Gaz. vol. 148; p. 565.
D. T. Owen Co., East Cleveland, Ohio. Couches and beds. No. 75,839; Nov. 23; Gaz. vol. 148; p. 1081.
Daimler-Motoren-Gesellschaft Untertürkheim, near Stuttgart, Germany. Chains, valves, cocks, chain and tube couplings. No. 75,681; Nov. 2; Gaz. vol. 148; p. 275.
Dallet and Weyl, New York, N. Y. Certain clothing. No. 75,933; Nov. 30; Gaz. vol. 148; p. 1339.
Dan River Power & Mfg. Co., Danville, Va. Cotton shirtings. No. 75,890; Nov. 23; Gaz. vol. 148; p. 1082.
Dannemann & Ca., S. Felix, Brazil. Cigars. No. 75,979; Nov. 30; Gaz. vol. 148; p. 1340.
Darling, F. E. B., Albany, N. Y. Baking-powder. No. 75,853; Nov. 23; Gaz. vol. 148; p. 1081.
Deal, W., Osage, Okla. Liniment. No. 75,781; Nov. 16; Gaz. vol. 148; p. 827.
Dixon & Co., J., Prahran, near Melbourne, Victoria, Australia. Non-alcoholic extract for making beverages. No. 75,694; Nov. 2; Gaz. vol. 148; p. 276.
Dow & Webb, Wooster, Ohio. Roof and metal paint. No. 75,695; Nov. 2; Gaz. vol. 148; p. 276.
Dresser, H. B., Liverpool, England. Cement (calcareous) for making artificial millstones. No. 75,840; Nov. 23; Gaz. vol. 148; p. 1081.
E. E. Sutherland Medicine Co, Paducah, Ky. Remedies for certain diseases. No. 75,980; Nov. 30; Gaz. vol. 148; p. 1340.

East Hartford Manufacturing Company, Burnside, Conn. Writing, printing, ledger, parchment, bond, and book paper. No. 75,682; Nov. 2; Gaz. vol. 148; p. 275.
Ebling Company, New York, N. Y. Non-alcoholic carbonated beverage. No. 75,900; Nov. 23; Gaz. vol. 148; p. 1083.
Eddy, L. R., Elizabeth, N. J. Sash-locks. No. 75,961; Nov. 30; Gaz. vol. 148; p. 1340.
Edwardsville Milling Company, Edwardsville, Ill. Wheat-flour. No. 75,891; Nov. 23; Gaz. vol. 148; p. 1082.
Edwin Clapp & Son, Inc., East Weymouth, Mass. Boots and shoes made of leather, rubber, and canvas. No. 75,659; Nov. 2; Gaz. vol. 148; p. 275.
Ehrich & Graetz, Berlin, Germany. Certain heating and lighting apparatus. No. 75,660; Nov. 2; Gaz. vol. 148; p. 275.
Elgin Milk & Cream Company, Elgin, Ill. Evaporated milk. No. 75,696; Nov. 2; Gaz. vol. 148; p. 276.
Engel, A. W., Chicago, Ill. Imitation diamonds. No. 75,661; Nov. 2; Gaz. vol. 148; p. 275.
Epstein, M. L., Fort Worth, Tex. Cigars. No. 75,824; Nov. 16; Gaz. vol. 148; p. 829.
Evershed & Vignoles, Ltd., London, England. Instruments for measuring electrical resistances. No. 75,683; Nov. 2; Gaz. vol. 148; p. 275.
F. H. Roberts Company, Boston, Mass. Chocolates and bonbons. No. 75,741; Nov. 9; Gaz. vol. 148; p. 566.
F. O. Pierce Co., New York, N. Y. Waterproofing coating. No. 75,841; Nov. 23; Gaz. vol. 148; p. 1081.
Feore & Co., K. A., New York, N. Y. Ladies' and children's undershirts, nightgowns, and dressing-sacks. No. 75,854; Nov. 23; Gaz. vol. 148; p. 1081.
Ferguson, C. A., Memphis, Tenn. Preparation for neuralgia, rheumatism, indigestion, &c. No. 75,782; Nov. 16; Gaz. vol. 148; p. 827.
Fiber Horseshoe Company, Pittsburg, Pa. Horseshoes. No. 75,662; Nov. 2; Gaz. vol. 148; p. 275.
Fleischl & Son, E., New York, N. Y. Certain foods. No. 75,901; Nov. 23; Gaz. vol. 148; p. 1083.
Florence Wagon Works, Florence, Ala. Wagons. Nos. 75,934–5; Nov. 30; Gaz. vol. 148; p. 1339.
Ford Manufacturing Company, Chicago, Ill. Sheathing-paper. Nos. 75,783–4; Nov. 16; Gaz. vol. 148; p. 827.
Forster, T. V., New York, N. Y. Fire-extinguishers. No. 75,742; Nov. 9; Gaz. vol. 148; p. 566.
Frank Richards Laundry Supply Co., New York, N. Y. Wheat-starch for laundry purposes. No. 75,842; Nov. 23; Gaz. vol. 148; p. 1081.
Frank Richards Laundry Supply Co., New York, N. Y. Corn-starch for laundry purposes. No. 75,843; Nov. 23; Gaz. vol. 148; p. 1081.
Fred. Eckart Packing Company, Fort Wayne, Ind. Compound of lard and tallow. No. 75,743; Nov. 9; Gaz. vol. 148; p. 566.
Friedman, J., New York, N. Y. Buttonhole-gimp. No. 75,844; Nov. 23; Gaz. vol. 148; p. 1081.
G. B. Borsalino fu Lazzaro & Co., Alessandria, Italy. Men's hats. No. 75,763; Nov. 16; Gaz. vol. 148; p. 827.
G. C. Y. Leather Company, Philadelphia, Pa. Enameled and patent leather. No. 75,902; Nov. 23; Gaz. vol. 148; p. 1083.
G. & L. Chemical Company, St. Louis, Mo. Corn remedies. No. 75,603; Nov. 2; Gaz. vol. 148; p. 275.
Galt & Co., W. M., Washington, D. C. Wheat-flour. No. 75,697; Nov. 2; Gaz. vol. 148; p. 276.
Gangelhoff Bros., Minneapolis, Minn. Mattresses. No. 75,664; Nov. 2; Gaz. vol. 148; p. 275.
Garcia & Vega, New York, N. Y. Cigars. No. 75,744; Nov. 9; Gaz. vol. 148; p. 566.
Gelbtrunk, I., New York, N. Y. Cotton piece goods. No. 75,665; Nov. 2; Gaz. vol. 148; p. 275.
Geo. Bieler Sons Co., Cincinnati, Ohio. Distillate of malt and rye with fruit-juices. No. 75,936; Nov. 30; Gaz. vol. 148; p. 1339.
Geo. Borgfeldt & Co., New York, N. Y. Perfumery. No. 75,666; Nov. 2; Gaz. vol. 148; p. 275.
Geo. Borgfeldt & Co., New York, N. Y. Electric portables, electrollers, and electric lamps. No. 75,892; Nov. 23; Gaz. vol. 148; p. 1082.
Geo. D. Wetherill & Co., Inc., Philadelphia, Pa. Enamel paints. No. 75,802; Nov. 16; Gaz. vol. 148; p. 828.
Geo. H. Striefmann's Sons Company, Cincinnati, Ohio. Sugar wafers. No. 75,698; Nov. 2; Gaz. vol. 148; p. 276.
Girolamo, A., Latrobe, Pa. Remedy for rheumatism. No. 75,766; Nov. 16; Gaz. vol. 148; p. 827.
Grandmont, E. de, New York, N. Y. Coutils, batistes, satins, tricot, &c. No. 75,846; Nov. 23; Gaz. vol. 148; p. 1081.
Grasselli Chemical Company, Cleveland, Ohio. Arsenate of lead. No. 75,981; Nov. 30; Gaz. vol. 148; p. 1340.
Graux, L., Paris, France. Granulated laxative pharmaceutical product. No. 75,847; Nov. 23; Gaz. vol. 148; p. 1081.
Great Western Cereal Company, Chicago, Ill. Cattle feed. No. 75,745; Nov. 9; Gaz. vol. 148; p. 566.
Greenberg & Son, J., New York, N. Y. Men's and young men's outer suits and overcoats and trousers. No. 75,848; Nov. 23; Gaz. vol. 148; p. 1081.
Griggs, Cooper & Co., St. Paul, Minn. Olive salad and corn-starch. No. 75,937; Nov. 30; Gaz. vol. 148; p. 1339.
Grossmith, T. H., New York, N. Y. Flavorings. No. 75,803; Nov. 16; Gaz. vol. 148; p. 828.
Gruszka, K., Chicago, Ill. Mouth-washes and toothache medicines. No. 75,767; Nov. 16; Gaz. vol. 148; p. 827.
H. W. Gossard Company, Chicago, Belvidere, and Dixon, Ill., and Elkhart, Ind. Corset-steels. No. 75,785; Nov. 16; Gaz. vol. 148; p. 827.
Haggerty Refining Company, New York, N. Y. Boiler compounds. No. 75,825; Nov. 16; Gaz. vol. 148; p. 829.
Hammond Distilling Co., Hammond, Ind., and Chicago, Ill. Denatured alcohol. No. 75,962; Nov. 30; Gaz. vol. 148; p. 1340.
Harrison Safety Boiler Works, Philadelphia, Pa. Steam-separators, oil-separators, oil-ammonia separators, and receiver-separators. No. 75,684; Nov. 2; Gaz. vol. 148; p. 276.
Hawks, N. J., New York, N. Y. Can-openers. No. 75,746; Nov. 9; Gaz. vol. 148; p. 566.
Hecht & Bro., I., Havre de Grace, Md. Whisky. No. 75,849; Nov. 23; Gaz. vol. 148; p. 1081.
Helm, E. G., New York, N. Y. Combined brushes and combs for tinting the hair. No. 75,850; Nov. 23; Gaz. vol. 148; p. 1081.
Hennessy, T. J., Oakland, Cal. Remedy for indigestion. No. 75,851; Nov. 23; Gaz. vol. 148; p. 1081.
Henry C. Werner Co, Columbus, Ohio. Leather boots and shoes. No. 75,852; Nov. 23; Gaz. vol. 148; p. 1081.
Henry H. Shufeldt & Co., Peoria, Ill. Cordials. No. 75,714; Nov. 9; Gaz. vol. 148; p. 565.
Holton & Co., C., Bloomington, Ill. Certain foods. No. 75,679; Nov. 2; Gaz. vol. 148; p. 275.
How Company, Oldtown, Me. Type-writer ribbon and carbon-paper. No. 75,938; Nov. 30; Gaz. vol. 148; p. 1339.
Howard Brush Company, New York, N. Y. Toilet-brushes. Nos. 75,725–6; Nov. 9; Gaz. vol. 148; p. 565.
Hudes, S., New York, N. Y. Perfumery. No. 75,893; Nov. 23; Gaz. vol. 148; p. 1082.
Hutchinson, Pierce & Co., New York, N. Y. Textile collars and cuffs. No. 75,914; Nov. 23; Gaz. vol. 148; p. 1083.
Ideal Manufacturing Company, Dallas, Tex. Mattresses. No. 75,786; Nov. 16; Gaz. vol. 148; p. 828.
Incandescent Light & Supply Co., Wichita, Kans. Gas-mantles. No. 75,787; Nov. 16; Gaz. vol. 148; p. 828.
J. C. Blair Company, Huntingdon, Pa. Paper, envelops, tablets, and blank books. No. 75,667; Nov. 2; Gaz. vol. 148; p. 275.
J. D. Riedel Aktiengesellschaft, Berlin, Germany. Pyrazolone-phenyl-dimethyl-salicylate. No. 75,768; Nov. 16; Gaz. vol. 148; p. 827.
J. J. Saville & Company, Limited, Sheffield, England. Certain tools and parts of machinery. No. 75,804; Nov. 16; Gaz. vol. 148; p. 828.
J. M. Hour Company, Toledo, Ohio. Blended coffee. No. 75,939; Nov. 30; Gaz. vol. 148; p. 1339.
J. & R. Tennent Limited, Glasgow, Scotland. Lager-beer. No. 75,903; Nov. 23; Gaz. vol. 148; p. 1083.
James A. Banister Company, Newark, N. J. Boots, shoes, and slippers of leather, rubber, and canvas. No. 75,855; Nov. 23; Gaz. vol. 148; p. 1081.
James A. Banister Company, Newark, N. J. Boots, shoes, and slippers of leather, rubber, and canvas. No. 75,904; Nov. 23; Gaz. vol. 148; p. 1083.
James D. McLaurin Co. Inc., New York, N. Y. Sealing-machines and tape-moisteners. No. 75,856; Nov. 23; Gaz. vol. 148; p. 1081.
Jaubert, G. F., Paris, France. Substances for purifying acetylene, &c. No. 75,668; Nov. 2; Gaz. vol. 148; p. 275.
Jennings, W. R., Newport News, Va. Bread. No. 75,805; Nov. 16; Gaz. vol. 148; p. 828.
Jewell Belting Company, Hartford, Conn. Leather belting. No. 75,963; Nov. 30; Gaz. vol. 148; p. 1340.
Jewett, R. A., Boston, Mass. Soap. No. 75,905; Nov. 23; Gaz. vol. 148; p. 1083.
John Morrell & Company Limited, Ottumwa, Iowa, and Liverpool, England. Canned, pickled, and preserved meats. No. 75,826; Nov. 16; Gaz. vol. 148; p. 829.
Johnson, M. E., trustee, Fitchburg, Mass. Rifles, shotguns, pistols, and revolvers. No. 75,788; Nov. 16; Gaz. vol. 148; p. 828.
Jordan, L. B., New Orleans, La. Flavoring extract. No. 75,806; Nov. 16; Gaz. vol. 148; p. 828.
Jos. Klein Company, New York, N. Y. Boys' knee-pants and double-breasted outer suits. No. 75,940; Nov. 30; Gaz. vol. 148; p. 1339.
Kanegafuchi Spinning Company, Limited, Kobé, Japan. Spun-silk yarns and noils. No. 75,857; Nov. 23; Gaz. vol. 148; p. 1081.
Kasprowicz, B., Gnesen, Germany. Brandy. No. 75,858; Nov. 23; Gaz. vol. 148; p. 1081.
Kasprowicz, B., Gnesen, Germany. Fruit brandy. No. 75,859; Nov. 23; Gaz. vol. 148; p. 1081.
Kasprowicz, B., Gnesen, Germany. Brandy. Nos. 75,860–1; Nov. 23; Gaz. vol. 148; p. 1081.
Keeley Brewing Co., Chicago, Ill. Beer. No. 75,699; Nov. 2; Gaz. vol. 148; p. 276.
Kentucky Remedy Co., Henderson, Ky. Remedy for certain diseases. No. 75,789; Nov. 16; Gaz. vol. 148; p. 828.
Keystone Varnish Company, Brooklyn, N. Y. Varnishes. No. 75,906; Nov. 23; Gaz. vol. 148; p. 1083.
Kleinsorgen, F., Elberfeld, Germany. Mouth-washes and liquid dentifrices. No. 75,894; Nov. 23; Gaz. vol. 148; p. 1082.
Klugh, P. B., Chicago, Ill. Pianos, organs, and piano-players. No. 75,715; Nov. 9; Gaz. vol. 148; p. 565.
Knothe Brothers, New York, N. Y. Suspenders. No. 75,862; Nov. 23; Gaz. vol. 148; p. 1081.
Koerner & Co., W., Cunnersdorf, near Hirschberg, Germany. Bitters. No. 75,964; Nov. 30; Gaz. vol. 148; p. 1340.
Krupp, B. S., Saginaw, Mich. Photographic-printing plates. No. 75,863; Nov. 23; Gaz. vol. 148; p. 1082.
L. A. Becker Company, Jersey City, N. J., and Chicago, Ill. Jars. No. 75,864; Nov. 23; Gaz. vol. 148; p. 1082.
L. M. Rumsey Manufacturing Company, St. Louis, Mo. Water-closets. Nos. 75,807–8; Nov. 16; Gaz. vol. 148; p. 828.
Levi, I. E., Erie, Pa. Medicines used for inhalants. No. 75,865; Nov. 23; Gaz. vol. 148; p. 1082.
Levi, I. E., Erie, Pa. Inhalers. No. 75,965; Nov. 30; Gaz. vol. 148; p. 1340.
Levussove, L., New York, N. Y. Manufactured goat-hair. No. 75,809; Nov. 16; Gaz. vol. 148; p. 828.
Lindner, R., Leipzig, Germany. Skins and furs. No. 75,966; Nov. 30; Gaz. vol. 148; p. 1340.
Lockwood-Luetkemeyer Company, Cleveland, Ohio. Binder-twine. No. 75,827; Nov. 16; Gaz. vol. 148; p. 829.
Ludwig Hupfeld Aktien-Ges., Leipzig, Germany. Certain musical instruments. No. 75,893; Nov. 23; Gaz. vol. 148; p. 1082.
Lunkenheimer Company, Cincinnati, Ohio. Cocks, nozzles, unions, and valves. No. 75,747; Nov. 9; Gaz. vol. 148; p. 566.

M. Rumely Company, Laporte, Ind. Machinery for plowing, hulling, and threshing. No. 75,685; Nov. 2; Gaz. vol. 148; p. 276.
M. A. Gunst & Co., San Francisco, Cal. Cigars. No. 75,700; Nov. 2; Gaz. vol. 148; p. 276.
Manitowoc Pea Packing Company, Manitowoc, Wis. Canned vegetables. Nos. 75,702–8; Nov. 2; Gaz. vol. 148; p. 276.
Manitowoc Pea Packing Company, Manitowoc, Wis. Canned vegetables. No. 75,810; Nov. 16; Gaz. vol. 148; p. 828.
Maphis Chemical Company, Inc., Strasburg, Va. Cream dentifrice. No. 75,866; Nov. 23; Gaz. vol. 148; p. 1082.
Masury-Young Company, Boston, Mass. Adhesive compositions for the protection of trees and plants from insects. No. 75,769; Nov. 16; Gaz. vol. 148; p. 827.
Mauser Mill Company, Laurys Station, Pa. Wheat-flour. No. 75,867; Nov. 23; Gaz. vol. 148; p. 1082.
Maxwell-McClure Fitts Dry Goods Co., Kansas City, Mo. Overalls, work-shirts, jumpers, &c. No. 75,727; Nov. 9; Gaz. vol. 148; p. 565.
McCray Refrigerator Company, Kendallville, Ind. Refrigerators. No. 75,728; Nov. 9; Gaz. vol. 148; p. 565.
McManus, T. E., Schenectady, N. Y. Liniment. No. 75,967; Nov. 30; Gaz. vol. 148; p. 1340.
Mechanical Rubber Company, New York, N. Y. Rubber water-bottles and syringes. No. 75,748; Nov. 9; Gaz. vol. 148; p. 566.
Mees, H. J., Philadelphia, Pa. Breads, pies, and cakes. No. 75,749; Nov. 9; Gaz. vol. 148; p. 566.
Mercurio Bros. Grocer Co., St. Louis, Mo. Spaghetti, macaroni, and noodle dressing. No. 75,701; Nov. 2; Gaz. vol. 148; p. 276.
Miller, Dubrul & Peters Mfg. Co., Cincinnati, Ohio. Cigar-molds. Nos. 75,868–9; Nov. 23; Gaz. vol. 148; p. 1082.
Minute Tapioca Company, Orange, Mass. Prepared tapioca. No. 75,870; Nov. 23; Gaz. vol. 148; p. 1082.
Monroe Cheese Company, Monroe, N. Y. Cream-cheese. No. 75,871; Nov. 23; Gaz. vol. 148; p. 1082.
Moore Web Co., Fall River, Mass. Garter, suspender, and belt webs, elastic and non-elastic, braided, or woven. No. 75,750; Nov. 9; Gaz. vol. 148; p. 566.
Morgenstern & Company, New York, N. Y. Preparations containing oxygen. No. 75,982; Nov. 30; Gaz. vol. 148; p. 1340.
Mt. Clemens Mineral Springs Water Co., Mount Clemens, Mich. Bathing-salt. No. 75,968; Nov. 30; Gaz. vol. 148; p. 1340.
Multiscope and Film Company, Burlington, Wis. Photographic cameras and attachments. No. 75,872; Nov. 23; Gaz. vol. 148; p. 1082.
Naser, Katen & Nahass, New York, N. Y. Certain fancy goods. No. 75,873; Nov. 23; Gaz. vol. 148; p. 1082.
National Biscuit Company, Jersey City, N. J., and New York, N. Y. Sugar wafers. No. 75,811; Nov. 16; Gaz. vol. 148; p. 828.
National Biscuit Company, Jersey City, N. J., and New York, N. Y. Biscuit. No. 75,812; Nov. 16; Gaz. vol. 148; p. 828.
National Coffee Co., Fort Worth, Tex. Coffee. No. 75,941; Nov. 30; Gaz. vol. 148; p. 1339.
National Grocer Company, Detroit, Mich. Certain foods. No. 75,942; Nov. 30; Gaz. vol. 148; p. 1339.
New Castle Portland Cement Co., New Castle, Pa. Hydraulic cement. No. 75,969; Nov. 30; Gaz. vol. 148; p. 1340.
New Orleans Brewing Co., New Orleans, La. Non-intoxicating malt beverage. No. 75,813; Nov. 16; Gaz. vol. 148; p. 828.
New Orleans Coffee Co., Ltd., New Orleans, La. Compound of roasted coffee and chicory. No. 75,874; Nov. 23; Gaz. vol. 148; p. 1082.
New York Belting and Packing Company, Limited, New York, N. Y. Hose composed of rubber or rubber and fabric. Nos. 75,707–8; Nov. 2; Gaz. vol. 148; p. 276.
New York Leather Belting Co., New York, N. Y. Balata belting. No. 75,875; Nov. 23; Gaz. vol. 148; p. 1082.
Northern Shoe Co., Duluth, Minn. Men's and boys' leather boots and shoes. No. 75,943; Nov. 30; Gaz. vol. 148; p. 1339.
Northern Shoe Co., Duluth, Minn. Infants' and children's leather shoes. No. 75,944; Nov. 30; Gaz. vol. 148; p. 1339.
Norwine Coffee Company, St. Louis, Mo. Blended coffee. No. 75,814; Nov. 16; Gaz. vol. 148; p. 828.
Novelty Manufacturing Company, Jackson, Mich. Oil, gas, and vapor stoves. No. 75,729; Nov. 9; Gaz. vol. 148; p. 565.
O'Neill-Adams Co., New York, N. Y. Coffee. No. 75,876; Nov. 23; Gaz. vol. 148; p. 1082.
Ortega Land Company, San Francisco, Cal. Candy. No. 75,815; Nov. 16; Gaz. vol. 148; p. 828.
Owl Drug Co., San Francisco, Cal. Salves, lotions, face-creams, poison-oak remedies, &c. No. 75,770; Nov. 16; Gaz. vol. 148; p. 827.
Oxygen Products Company, New York, N. Y. Peroxid cream. No. 75,669; Nov. 2; Gaz. vol. 148; p. 275.
Palazzolo, J., New York, N. Y. Perfumery. No. 75,771; Nov. 16; Gaz. vol. 148; p. 827.
Paquin, R. J., Curtis, Nebr. Insecticide. No. 75,772; Nov. 16; Gaz. vol. 148; p. 827.
Paris, Allen & Company, New York, N. Y. Straight rye whisky. No. 75,716; Nov. 9; Gaz. vol. 148; p. 565.
Parsons & Parsons Company, Cleveland, Ohio. Collars, cuffs, and shirt-fronts. No. 75,945; Nov. 30; Gaz. vol. 148; p. 1339.
Pasteur Vaccine Company Limited, London, England, and Paris, France. Vaccine virus for animals. No. 75,773; Nov. 16; Gaz. vol. 148; p. 827.
Pasteur Vaccine Company Limited, London, England, and Paris, France. Yeast. No. 75,816; Nov. 16; Gaz. vol. 148; p. 828.
Pen-Carbon Manifold Co., New Brunswick, N. J. Carbon-paper. No. 75,670; Nov. 2; Gaz. vol. 148; p. 275.
Penna. Lubricating Co., Pittsburg, Pa. Lubricating-greases. No. 75,686; Nov. 2; Gaz. vol. 148; p. 276.
Phila. Grease Mfg. Co., Philadelphia, Pa. Lubricating-grease. No. 75,970; Nov. 30; Gaz. vol. 148; p. 1340.
Pike Manufacturing Company, Pike and Littleton, N. H.; Evansville, Vt.; Orleans, Ind.; Hot Springs, Ark., and New York, N. Y. Grinding-machines. No. 75,877; Nov. 23; Gaz. vol. 148; p. 1082.
Providence Dyeing Bleaching and Calendering Company, Providence, R. I. Cotton piece goods. No. 75,971; Nov. 30; Gaz. vol. 148; p. 1340.
R. H. White Company, Boston, Mass. Boots, shoes, sandals, and slippers. No. 75,671; Nov. 2; Gaz. vol. 148; p. 275.
Ratcliff-Sanders Grocer Company, Tulsa, Okla. Certain foods. No. 75,751; Nov. 9; Gaz. vol. 148; p. 566.
Regent Shirt Company, New York, N. Y. Union suits, drawers, and undershirts. No. 75,878; Nov. 23; Gaz. vol. 148; p. 1082.
Reid-Edelmuth Manufacturing Co., Brooklyn, N. Y. Freezers. No. 75,790; Nov. 16; Gaz. vol. 148; p. 828.
Renkert & Co., A., Memphis, Tenn. Remedy for certain diseases. No. 75,907; Nov. 23; Gaz. vol. 148; p. 1083.
Richmond Hosiery Mills, Chattanooga, Tenn., and Rossville, Ga. Hosiery. Nos. 75,730–2; Nov. 9; Gaz. vol. 148; p. 565.
Richmond Hosiery Mills, Chattanooga, Tenn., and Rossville, Ga. Hosiery. No. 75,774; Nov. 16; Gaz. vol. 148; p. 827.
Richmond Hosiery Mills, Chattanooga, Tenn., and Rossville, Ga. Hosiery. No. 75,879; Nov. 23; Gaz. vol. 148; p. 1082.
Robert Low's Son & Howard, Esopus, N. Y., and London, England. Adhesive cement. No. 75,791; Nov. 16; Gaz. vol. 148; p. 828.
Rockwood Chemical Company, Boston, Mass. Ointments, germicides, liniments, and hair-tonics. No. 75,983; Nov. 30; Gaz. vol. 148; p. 1340.
Rockwood Manufacturing Company, Indianapolis, Ind. Paper pulleys. No. 75,687; Nov. 2; Gaz. vol. 148; p. 276.
Roden Coal Company, Birmingham, Ala. Coal. No. 75,908; Nov. 23; Gaz. vol. 148; p. 1083.
Rossendale-Reddaway Belting & Hose Co., Newark, N. J. Woven or fabric belting, textile belting, and hose. No. 75,733; Nov. 9; Gaz. vol. 148; p. 565.
S. M. Bixby & Co., New York, N. Y. Leather-polishes. No. 75,752; Nov. 9; Gaz. vol. 148; p. 566.
Saccharin-Fabrik, Aktien-Gesellschaft, vorm. Fahlberg, List & Co., Salbke-Westerhüsen, Germany. Saccharin. No. 75,972; Nov. 30; Gaz. vol. 148; p. 1340.
Scheer, Grandi & Co., San Francisco, Cal. Butter. No. 75,946; Nov. 30; Gaz. vol. 148; p. 1339.
Schmulbach Brewing Company, Wheeling, W. Va. Lager-beer. No. 75,909; Nov. 23; Gaz. vol. 148; p. 1083.
Schoenheit Medicine Co., A., San Jose, Cal. Remedy for certain diseases. No. 75,656; Nov. 2; Gaz. vol. 148; p. 275.
Scudders-Gale Grocer Co., St. Louis, Mo. French olive-oil. No. 75,910; Nov. 23; Gaz. vol. 148; p. 1083.
Sears & Nichols Company, Chillicothe and Frankfort, Ohio. Canned fruits, berries, vegetables, &c. No. 75,758; Nov. 9; Gaz. vol. 148; p. 566.
Sears & Nichols Company, Chillicothe and Frankfort, Ohio. Canned vegetables. No. 75,947; Nov. 30; Gaz. vol. 148; p. 1339.
Seay, G. W., Atlanta, Ga. Suspenders, neckties, garters, and belts. No. 75,896; Nov. 23; Gaz. vol. 148; p. 1082.
Seebohm & Dieckstahl, Ld., Sheffield, England. Steel. No. 75,829; Nov. 16; Gaz. vol. 148; p. 829.
Selery-Soda Company, New York, N. Y. Headache remedy. No. 75,973; Nov. 30; Gaz. vol. 148; p. 1340.
Sénégas, J., New York, N. Y. Hair dressing and tonic. No. 75,672; Nov. 2; Gaz. vol. 148; p. 275.
Serrell, L. W., New York, N. Y. Vacuum cleaning apparatus. No. 75,817; Nov. 16; Gaz. vol. 148; p. 828.
Servida, A., New York, N. Y. Italian olive-oil. No. 75,709; Nov. 2; Gaz. vol. 148; p. 276.
Shanks Co., J. C., Denver, Colo. Steel ranges, cooking and heating stoves. No. 75,880; Nov. 23; Gaz. vol. 148; p. 1082.
Shapiro, H., New York, N. Y. Washboilers. No. 75,792; Nov. 16; Gaz. vol. 148; p. 828.
Sharp & Dohme, Baltimore, Md. Antiseptic powder. No. 75,881; Nov. 23; Gaz. vol. 148; p. 1082.
Sharp & Dohme, Baltimore, Md. Remedy for coughs and colds. No. 75,974; Nov. 30; Gaz. vol. 148; p. 1340.
Shawnee Milling Co., Shawnee, Okla. Alfalfa and grain dairy and stock food. No. 75,915; Nov. 23; Gaz. vol. 148; p. 1083.
Siegert & Hijos, Dr. J. G. B., Port of Spain, Trinidad. Cordials. No. 75,717; Nov. 9; Gaz vol. 148; p. 565.
Slater Manufacturing Company, Pawtucket, R. I. Toweling. Nos. 75,718–19; Nov. 9; Gaz. vol. 148; p. 565.
Slutz & Company, C., Bethlehem township, Stark county, Ohio. Liniment for external use on live stock. No. 75,882; Nov. 23; Gaz. vol. 148; p. 1082.
Smith, A. D., Orange, N. J. Diaper-cloth. No. 75,911; Nov. 23; Gaz. vol. 148; p. 1083.
Snyder-Chaffee Company, Columbus, Ohio. Chocolates. No. 75,710; Nov. 2; Gaz. vol. 148; p. 276.
Société Anonyme des Plaques et Papiers Photographiques A Lumière et ses Fils, Lyon, France. Sensitive plates and films for color photography. No. 75,948; Nov. 30; Gaz. vol. 148; p. 1340.
Standard Knitting Company, Cleveland, Ohio. Knitted jackets, coats, vests, toques, &c. No. 75,673; Nov. 2; Gaz. vol. 148; p. 275.
Steel Protected Concrete Co., Philadelphia, Pa. Metal cornerbars for concrete curbs. No. 75,753; Nov. 9; Gaz. vol. 148; p. 566.
Stelle, C. A., Chicago, Ill. Percolators and filters. No. 75,734; Nov. 9; Gaz. vol. 148; p. 565.
Stockhausen, K., Dresden, Germany. Crude and plate glass and hollow glassware for illuminating purposes. No. 75,793; Nov. 16; Gaz. vol. 148; p. 828.
Stockhausen, K., Dresden, Germany. Spectacle-glasses, lenses, and photographic light-filters. No. 75,818; Nov. 16; Gaz. vol. 148; p. 828.
Stott, D., Detroit, Mich. Wheat-flour. No. 75,949; Nov. 30; Gaz. vol. 148; p. 1340.

Strohmeyer & Arpe Company, New York, N. Y. Certain foods. No. 75,819; Nov. 16; Gaz. vol. 148; p. 828.
Sunlit Fruit Company, West Berkeley, Cal. Canned fruits and vegetables. No. 75,883; Nov. 23; Gaz. vol. 148; p. 1082.
Surbrug, J. W., Montclair, N. J. Pipes. No. 75,711; Nov. 2; Gaz. vol. 148; p. 276.
Tappan Shoe Manufacturing Company, Coldwater, Mich. Shoes. No. 75,775; Nov. 16; Gaz. vol. 148; p. 827.
Tea Consumers' Company, London, England. Tea and coffee. No. 75,820; Nov. 16; Gaz. vol. 148; p. 829.
Theo. Noel Company, Chicago, Ill. Medicines. No. 75,884; Nov. 23; Gaz. vol. 148; p. 1082.
Tipton, M. R., Portland, Oreg., and Seattle, Wash. Medicine for amenorrhea, &c. No. 75,776; Nov. 16; Gaz. vol. 148; p. 827.
Tomkins Brothers, Newark, N. J. Wall-plaster. No. 75,975; Nov. 30; Gaz. vol. 148; p. 1340.
Tottle & Co., W. A., Baltimore, Md. Brushes. No. 75,830; Nov. 16; Gaz. vol. 148; p. 829.
Trippe, Barker & Company, New York, N. Y. Certain textiles. No. 75,885; Nov. 23; Gaz. vol. 148; p. 1082.
Turner Bros. Ltd., Rochdale, England. Packing and jointing materials. No. 75,735; Nov. 9; Gaz. vol. 148; p. 565.
Union Card & Paper Co., New York, N. Y. Writing and printing paper. No. 75,831; Nov. 16; Gaz. vol. 148; p. 829.
Union Distilling Co., Cincinnati, Ohio. Blended whisky. No. 75,832; Nov. 16; Gaz. vol. 148; p. 829.
Union Fishermen's Co-op. Pack'g Co., Astoria, Oreg. Canned salmon. No. 75,886; Nov. 23; Gaz. vol. 148; p. 1082.
Union Waxed & Parchment Company, Hamburg, N. J. Sad-iron waxing and polishing mats. No. 75,754; Nov. 9; Gaz. vol. 148; p. 566.
United Grocery Company, Jacksonville, Fla. Horse, mule, and cattle feed. No. 75,821; Nov. 17; Gaz. vol. 148; p. 829.
United States Malleable Iron Co., Toledo, Ohio. Malleable castings. No. 75,755; Nov. 9; Gaz. vol. 148; p. 566.
Vacuum Oil Company, Rochester, N. Y. Oils, greases, and waxes. Nos. 75,976–7; Nov. 30; Gaz. vol. 148; p. 1340.
Von Bremen, Asche & Co., New York, N. Y. Olive-oil, macaroni, capers, &c. No. 75,756; Nov. 9; Gaz. vol. 148; p. 566.
Ward-Mackey Co., Pittsburg, Pa. Crackers, biscuits, cake, cookies, and bread. No. 75,887; Nov. 23; Gaz. vol. 148; p. 1082.
Weatherproof Manufacturing Company, St. Louis, Mo. Roofing and deadening felt, building and roofing papers. No. 75,720; Nov. 9; Gaz. vol. 148; p. 565.
Webber, W. P., Lynn, Mass. Transferable patterns. No. 75,822; Nov. 16; Gaz. vol. 148; p. 829.
Weber and Heilbroner, New York, N. Y. Certain clothing. No. 75,950; Nov. 30; Gaz. vol. 148; p. 1340
Weegar, J. A., Boston, Mass. Salve. No. 75,674; Nov. 2; Gaz. vol. 148; p. 275.
Whiteside & Blank, Newark, N. J. Jewelry. No. 75,757; Nov. 9; Gaz. vol. 148; p. 566.
Wonalancet Company, Nashua, N. H. Carded cotton. No. 75,823; Nov. 16; Gaz. vol. 148; p. 829.
Wood, J. B., Franklin, Ga. Remedy for chronic cough and consumption. No. 75,978; Nov. 30; Gaz. vol. 148; p. 1340.

ALPHABETICAL LIST OF REGISTRANTS OF LABELS.

Capitol Paint. Oil & Varnish Company, Washington, Pa. "Japan Lacquer." (For a Varnish or Wood-Finisher.) No. 15,069; Nov. 9; Gaz. vol. 148; p. 567.
Hygienic Food Co., Battle Creek, Mich. "Mapl-Flour." (For Pancake-Flour.) No. 15,070; Nov. 30; Gaz. vol. 148; p. 1341.
M. Shaughnessy Distilling Co., St. Louis, Mo. "Shaughnessy's Special Blended Whiskey." (For Blended Whisky.) No. 15,067; Nov. 9; Gaz. vol. 148; p. 567.
Wall, J. J., Duluth, Minn. "Wanigas." (For Straight Rye Whisky.) No. 15,068; Nov. 9; Gaz. vol. 148; p. 567.

DISCLAIMERS.

Walker, W. H., Racine, Wis.; disclaimer filed by assignee, O. K. Barnett. Rail-anchor. No. 911,856; disclaimer filed Nov. 3, 1909; Gaz. vol. 148; p. 575.

ALPHABETICAL LIST OF INVENTIONS

FOR WHICH

PATENTS WERE ISSUED DURING THE MONTH OF NOVEMBER, 1909.

[Abbreviations: "Sp."=Monthly Volume of Specifications; "Gaz."=Official Gazette.]

Accumulator, Hydraulic. A. W. French. No. 941,867; Nov. 30; Sp. p. 7528; Gaz. vol. 148; p. 1266.
Acetates, Making. H. O. Chute. No. 939,980; Nov. 16; Sp. p. 3379; Gaz. vol. 148; p. 582.
Acetylene-generating apparatus. A. Davis. No. 940,437; Nov. 16; Sp. p. 4437; Gaz. vol. 148; p. 742.
Acetylene-generator. J. Zander. No. 940,110; Nov. 16; Sp. p. 3694; Gaz. vol. 148; p. 629.
Acid from nickel-chlorid solution, Recovering hydrochloric. H. L. Wells. No. 940,293; Nov. 16; Sp. p. 4087; Gaz. vol. 148; p. 693.
Acid, New mercury salt of para-aminophenylarsinic. J. Altschul. No. 938,939; Nov. 2; Sp. p. 1072; Gaz. vol. 148; p. 170.
Acid phosphate and the like, Apparatus for handling. J. T. Capers. No. 940,583; Nov. 16; Sp. p. 4748; Gaz. vol. 148; p. 790.
Adding-machine. F. R. McCarty. No. 938,501; Nov. 2; Sp. p. 117; Gaz. vol. 148; p. 19.
Adding-machine. C. N. McFarland. No. 940,709; Nov. 23; Sp. p. 5022; Gaz. vol. 148; p. 857.
Adding-machine. C. Wales. No. 940,758; Nov. 23; Sp. p. 5133; Gaz. vol. 148; p. 874.
Adding-machine actuating mechanism. C. P. Wetmore. No. 938,532; Nov. 2; Sp. p. 211; Gaz. vol. 148; p. 30.
Adding-machine ribbon feeding and reversing mechanism. H. Küntzler. No. 940,814; Nov. 23; Sp. p. 5261; Gaz. vol. 148; p. 893.
Adding-machines, Keyboard-locking mechanism for. C. N. McFarland. No. 940,708; Nov. 23; Sp. p. 5017; Gaz. vol. 148; p. 857.
Adding-machines, Lock for numeral-wheels for. N. White. No. 940,766; Nov. 23; Sp. p. 5158; Gaz. vol. 148; p. 877.
Adjustable bolt, Quickly-. N. W. Trautner. No. 939,933; Nov. 9; Sp. p. 3266; Gaz. vol. 148; p. 539.
Adjustable bracket. J. Knape. No. 941,582; Nov. 30; Sp. p. 7103; Gaz. vol. 148; p. 1201.
Adjustable chair. R. Ramsey. No. 940,824; Nov. 23; Sp. p. 5285; Gaz. vol. 148; p. 896.
Advertisement-displaying apparatus. J. T. Roffy. No. 940,281; Nov. 16; Sp. p. 4067; Gaz. vol. 148; p. 689.
Advertising apparatus. A. Weismann. No. 942,021; Nov. 30; Sp. p. 7816; Gaz. vol. 148; p. 1317.
Advertising-card. W. O. Holt. No. 940,316; Nov. 16; Sp. p. 4154; Gaz. vol. 148; p. 701.
Advertising device. C. H. Collins. No. 941,012; Nov. 23; Sp. p. 5071; Gaz. vol. 148; p. 958.
Advertising hat-rack. B. Klum. No. 938,591; Nov. 2; Sp. p. 339; Gaz. vol. 148; p. 50.
Aerial vessel. J. Suter. No. 941,896; Nov. 30; Sp. p. 7586; Gaz. vol. 148; p. 1277.
Aeroplane. S. W. Applegate. No. 939,651; Nov. 9; Sp. p. 2661; Gaz. vol. 148; p. 440.
Agitator. F. E. Goldsmith. No. 939,905; Nov. 9; Sp. p. 3202; Gaz. vol. 148; p. 528.
Agricultural implement. W. B. Estis. No. 939,820; Nov. 9; Sp. p. 3020; Gaz. vol. 148; p. 498.
Agricultural implements, Journal for. A. C. Ditmar. No. 941,191; Nov. 23; Sp. p. 6073; Gaz. vol. 148; p. 1019.
Agricultural machine. L. E. Roby. No. 941,465; Nov. 30; Sp. p. 6966; Gaz. vol. 148; p. 1130.
Agricultural machine for rolling, mowing, and other similar operations. G. H. Colt. No. 941,309; Nov. 23; Sp. p. 6312; Gaz. vol. 148; p. 1056.
Air-brake appliance, Safety. T. W. Ash. No. 941,295; Nov. 23; Sp. p. 6290; Gaz. vol. 148; p. 1052.
Air-brake coupling, Automatic. W. E. Campbell and H. T. Ingham. No. 941,348; Nov. 23; Sp. p. 6387; Gaz. vol. 148; p. 1068.
Air-brake regulator. C. J. Doerr. No. 939,896; Nov. 9; Sp. p. 3176; Gaz. vol. 148; p. 524.
Air-brake retaining-valve. J. F. Spiegel. No. 939,928; Nov. 9; Sp. p. 3255; Gaz. vol. 148; p. 536.
Air-brake system. J. W. Hicks. No. 940,314; Nov. 16; Sp. p. 4150; Gaz. vol. 148; p. 700.
Air-brake systems, Automatic bleeder for. E. V. Conley, 2d. No. 940,676; Nov. 23; Sp. p. 4958; Gaz. vol. 148; p. 846.
Air-compressor. F. A. Preuss. No. 939,314; Nov. 9; Sp. p. 1915; Gaz. vol. 148; p. 326.
Air-compressor. W. R. Thompson. No. 940,751; Nov. 23; Sp. p. 5118; Gaz. vol. 148; p. 872.
Air-compressor. V. Olsen and F. Schroder. No. 941,646; Nov. 30; Sp. p. 7024; Gaz. vol. 148; p. 1188.
Air-compressor, Compound. N. A. Christensen. No. 938,742; Nov. 2; Sp. p. 629; Gaz. vol. 148; p. 100.
Air compressor or pump. J. Delbridge. No. 941,627; Nov. 30; Sp. p. 6990; Gaz. vol. 148; p. 1183.
Air conveyer, Fresh-. E. E. Lamb. No. 941,370; Nov. 30; Sp. p. 6448; Gaz. vol. 148; p. 1098.
Air-heater. G. L. Bryant. No. 941,756; Nov. 30; Sp. p. 7280; Gaz. vol. 148; p. 1227.
Air-ship. B. W. Dysart. No. 939,483; Nov. 9; Sp. p. 2305; Gaz. vol. 148; p. 382.
Air-ship. H. Mesinger. No. 940,701; Nov. 23; Sp. p. 5006; Gaz. vol. 148; p. 855.
Air-ships and the like, Optical instrument for determining the direction of travel of. O. Krell. No. 940,329; Nov. 16; Sp. p. 4178; Gaz. vol. 148; p. 705.
Alarm: *See* Automatic alarm; Burglar-alarm; Carding-machine alarm; Fire-alarm.
Alarm mechanism, Time-controlled. H. W. Howard. No. 940,692; Nov. 23; Sp. p. 4989; Gaz. vol. 148; p. 852.
Alfalfa drier and mill. W. E. Rickey. No. 940,193; Nov. 16; Sp. p. 3879; Gaz. vol. 148; p. 658.
Alloys, &c., Manufacturing calcium-silicon. H. Goldschmidt and O. Weil. No. 938,758; Nov. 2; Sp. p. 655; Gaz. vol. 148; p. 106.
Alloys, Producing low-carbon, low-silicon titanium. F. M. Becket. No. 941,553; Nov. 30; Sp. p. 6839; Gaz. vol. 148; p. 1158.
Alumina, Manufacture of. G. McCulloch. No. 941,799; Nov. 30; Sp. p. 7364; Gaz. vol. 148; p. 1241.
Aluminum cell reactance. J. J. Frank. No. 941,445; Nov. 30; Sp. p. 6628; Gaz. vol. 148; p. 1123.
Amalgamator. M. F. Lansdale. No. 941,371; Nov. 30; Sp. p. 6450; Gaz. vol. 148; p. 1099.
Amalgamator. H. A. Corliss. No. 941,560; Nov. 30; Sp. p. 6854; Gaz. vol. 148; p. 1161.
Ambulance. C. Mestrovich. No. 938,496; Nov. 2; Sp. p. 109; Gaz. vol. 148; p. 17.
Ambulance. J. P. L. Wilson. No. 940,104; Nov. 16; Sp. p. 3683; Gaz. vol. 148; p. 627.
Ammonia, especially sulfate of ammonia, Making salts of. O. P. Hurford. No. 940,972; Nov. 23; Sp. p. 5580; Gaz. vol. 148; p. 944.
Amusement apparatus. J. A. and L. Voller. No. 941,528; Nov. 30; Sp. p. 7448; Gaz. vol. 148; p. 1252.
Amusement device. M. B. Becker. No. 940,664; Nov. 23; Sp. p. 4926; Gaz. vol. 148; p. 843.
Amusement device. W. J. McLean. No. 941,334; Nov. 23; Sp. p. 6356; Gaz. vol. 148; p. 1063.
Amusement device. R. H. Alexander. No. 941,902; Nov. 30; Sp. p. 7597; Gaz. vol. 148; p. 1279.
Anchor. M. W. Hall. No. 941,776; Nov. 30; Sp. p. 7325; Gaz. vol. 148; p. 1234.
Animal-cover. C. L. Hastings. No. 940,967; Nov. 23; Sp. p. 5572; Gaz. vol. 148; p. 943.
Animal-trap. J. M. Gunn. No. 941,988; Nov. 30; Sp. p. 7756; Gaz. vol. 148; p. 1306.
Annealing and hardening furnace. W. S. Rockwell. No. 940,280; Nov. 16; Sp. p. 4064; Gaz. vol. 148; p. 689.
Annunciator-case. H. D. Crouch. No. 939,672; Nov. 9; Sp. p. 2712; Gaz. vol. 148; p. 448.
Anode-mold. J. F. Miller. No. 941,796; Nov. 30; Sp. p. 7360; Gaz. vol. 148; p. 1240.
Anthracene compound. P. Thomaschewski. No. 938,616; Nov. 2; Sp. p. 394; Gaz. vol. 148; p. 59.
Anthracene compound. P. Thomaschewski. No. 938,617; Nov. 2; Sp. p. 394; Gaz. vol. 148; p. 59.
Antiseptic. A. Liebrecht. No. 941,888; Nov. 30; Sp. p. 7568; Gaz. vol. 148; p. 1273.
Antislipping attachment. J. S. Gajewski. No. 940,799; Nov. 23; Sp. p. 5235; Gaz. vol. 148; p. 888.
Anvil. G. E. Freeborn. No. 940,798; Nov. 23; Sp. p. 5234; Gaz. vol. 148; p. 888.
Arch and heel support. M. E. Rice. No. 941,464; Nov. 30; Sp. p. 6665; Gaz. vol. 148; p. 1130.
Arch-centering form, Collapsible. A. R. Smith. No. 938,715; Nov. 2; Sp. p. 585; Gaz. vol. 148; p. 92.
Arch-supporter, Adjustable. T. Hughes. No. 940,022; Nov. 16; Sp. p. 3458; Gaz. vol. 148; p. 597.
Arm-chair. E. P. Wanner. No. 940,995; Nov. 23; Sp. p. 5620; Gaz. vol. 148; p. 952.
Armor-plate, Treating. S. S. Wales. No. 941,477; Nov. 30; Sp. p. 6693; Gaz. vol. 148; p. 1134.
Asbestos covering, Sectional. W. J. Moeller. No. 940,265; Nov. 16; Sp. p. 4016; Gaz. vol. 148; p. 684.
Ash-pan. R. B. Patterson, Sr. No. 940,403; Nov. 16; Sp. p. 4371; Gaz. vol. 148; p. 731.
Ash-tray. S. Grünthal. No. 939,909; Nov. 9; Sp. p. 3210; Gaz. vol. 148; p. 529.
Asphalt, Rejuvenating. J. A. W. Pine. No. 938,698; Nov. 2; Sp. p. 549; Gaz. vol. 148; p. 86.

Assaying composition. J. C. Hames. No. 938,849; Nov. 2; Sp. p. 854; Gaz. vol. 148; p. 137.
Atomizer. T. A. De Vilbiss. No. 938,648; Nov. 2; Sp. p. 443; Gaz. vol. 148; p. 69.
Auger attachment, Post-hole-. E. Eisenbraun. No. 939,235; Nov. 9; Sp. p. 1709; Gaz. vol. 148; p. 297.
Auger-bit. J. W. Caldwell. No. 940,426; Nov. 16; Sp. p. 4412; Gaz. vol. 148; p. 738.
Auger, Coal-. C. R. Anderson. No. 938,941; Nov. 2; Sp. p. 1075; Gaz. vol. 148; p. 171.
Auger, Square-hole. J. Nielsen. No. 939,438; Nov. 9; Sp. p. 2212; Gaz. vol. 148; p. 367.
Auto-horse. C. E. Birky. No. 941,301; Nov. 23; Sp. p. 6303; Gaz. vol. 148; p. 1054.
Auto-propeller. E. E. Wilson. No. 941,970; Nov. 30; Sp. p. 7727; Gaz. vol. 148; p. 1301.
Automatic alarm. W. H. Reiff. No. 941,950; Nov. 30; Sp. p. 7683; Gaz. vol. 148; p. 1294.
Automatic switch. E. F. Bubb. No. 941,227; Nov. 23; Sp. p. 6146; Gaz. vol. 148; p. 1031.
Automatic switch. J. Ma Godoy. No. 942,033; Nov. 30; Sp. p. 7835; Gaz. vol. 148; p. 1320.
Automobile buffer-bar. J. H. Sager. No. 941,654; Nov. 30; Sp. p. 7055; Gaz. vol. 148; p. 1192.
Automobile driving-gear. E. G. Whitacre. No. 939,116; Nov. 2; Sp. p. 1412; Gaz. vol. 148; p. 230.
Automobile-engine. A. S. Krotz. No. 940,031; Nov. 16; Sp. p. 3476; Gaz. vol. 148; p. 600.
Automobile touring-map carrier. H. Dalitz. No. 938,828; Nov. 2; Sp. p. 816; Gaz. vol. 148; p. 131.
Automobile wheel-drive. T. G. Rowe. No. 940,069; Nov. 16; Sp. p. 3594; Gaz. vol. 148; p. 615.
Automobile wind-deflector. J. M. Patrick. No. 940,270; Nov. 16; Sp. p. 4022; Gaz. vol. 148; p. 685.
Automobiles, Radiator for. J. E. Lewis. No. 940,976; Nov. 23; Sp. p. 5587; Gaz. vol. 148; p. 946.
Awning-fixture. F. O. Berg. No. 940,120; Nov. 16; Sp. p. 3715; Gaz. vol. 148; p. 633.
Axle and making same, Steel car-. A. C. Cunningham. No. 938,827; Nov. 2; Sp. p. 812; Gaz. vol. 148; p. 130.
Axle-boxes, Means for attaching. E. J. Spahr. No. 941,822; Nov. 30; Sp. p. 7433; Gaz. vol. 148; p. 1250.
Axle, Combined steering and driving. J. W. Buchan. No. 939,795; Nov. 9; Sp. p. 2981; Gaz. vol. 148; p. 490.
Axle lubricator, Car-. T. Hardy, Jr., and A. Droll. No. 938,852; Nov. 2; Sp. p. 857; Gaz. vol. 148; p. 138.
Axles, Reworking worn car-. J. M. Hansen. No. 940,805; Nov. 23; Sp. p. 5246; Gaz. vol. 148; p. 890.
Axles, Reworking worn car-. J. M. Hansen. No. 940,806; Nov. 23; Sp. p. 5247; Gaz. vol. 148; p. 890.
Baby-cloths, Receptacle for. C. Brewer. No. 938,961; Nov. 2; Sp. p. 1113; Gaz. vol. 148; p. 178.
Bag: *See* Feed-bag; Water-bag.
Bag-closure. F. McKain. No. 939,736; Nov. 9; Sp. p. 2844; Gaz. vol. 148; p. 469.
Bag-fastener. C. Hiering and A. Fuller. No. 939,256; Nov. 9; Sp. p. 1745; Gaz. vol. 148; p. 304.
Bag-fastener. C. Hiering and A. Fuller. No. 939,257; Nov. 9; Sp. p. 1748; Gaz. vol. 148; p. 304.
Bag-fastener. N. L. Ranum. No. 939,316; Nov. 9; Sp. p. 1918; Gaz. vol. 148; p. 327.
Bag-fastener. E. S. Erickson. No. 941,016; Nov. 23; Sp. p. 5084; Gaz. vol. 148; p. 960.
Bag-frame catch. C. Hiering and A. Fuller. No. 939,913; Nov. 9; Sp. p. 3218; Gaz. vol. 148; p. 530.
Bag-holding device. H. Ihme. No. 941,578; Nov. 30; Sp. p. 6892; Gaz. vol. 148; p. 1167.
Bag-tie. W. H. Morrill. No. 942,007; Nov. 30; Sp. p. 7792; Gaz. vol. 148; p. 1312.
Bait, Artificial. M. A. Burthe. No. 941,911; Nov. 30; Sp. p. 7613; Gaz. vol. 148; p. 1282.
Baking-powder tester. F. Kiely. No. 940,258; Nov. 16; Sp. p. 4004; Gaz. vol. 148; p. 681.
Bale-tie straightening and cleaning machine, Cotton-. F. M. Morton and W. H. Dismuke. No. 939,532; Nov. 9; Sp. p. 2397; Gaz. vol. 148; p. 398.
Bale-wiring mechanism. J. H. Sawyer. No. 940,897; Nov. 23; Sp. p. 5429; Gaz. vol. 148; p. 920.
Baling-press. F. A. Bothwell. No. 939,466; Nov. 9; Sp. p. 2268; Gaz. vol. 148; p. 376.
Ball-grinding machine. C. A. Hirth. No. 939,502; Nov. 9; Sp. p. 2334; Gaz. vol. 148; p. 387.
Balloon. R. C. Tilghman. No. 939,644; Nov. 9; Sp. p. 2649; Gaz. vol. 148; p. 438.
Balloon, Dirigible. B. D. Reese. No. 939,089; Nov. 2; Sp. p. 1357; Gaz. vol. 148; p. 221.
Ballot-box. W. W. Wills. No. 939,367; Nov. 9; Sp. p. 2033; Gaz. vol. 148; p. 343.
Band-brake. J. N. Lawrence. No. 939,519; Nov. 9; Sp. p. 2370; Gaz. vol. 148; p. 393.
Band-cutter. J. B. Deane. No. 938,831; Nov. 2; Sp. p. 825; Gaz. vol. 148; p. 132.
Banking-machine. A. Clark. No. 939,472; Nov. 9; Sp. p. 2286; Gaz. vol. 148; p. 378.
Bar: *See* Automobile buffer-bar; Concrete-reinforcing bar; Cutter-bar; Reinforcing-bar.
Bar-bender. J. T. Richards. No. 940,360; Nov. 16; Sp. p. 4246; Gaz. vol. 148; p. 716.
Bar-fixture. F. G. Schneider and W. C. L. Zelhn. No. 942,014; Nov. 30; Sp. p. 7807; Gaz. vol. 148; p. 1314.
Barrel head and hoop fastener. Z. Dixon. No. 938,650; Nov. 2; Sp. p. 450; Gaz. vol. 148; p. 70.
Barrel-heads in place, Means for holding. W. H. Decker. No. 941,562; Nov. 30; Sp. p. 6858; Gaz. vol. 148; p. 1162.
Barrel-making machine. E. F. Beugler. No. 941,404; Nov. 30; Sp. p. 6537; Gaz. vol. 148; p. 1110.
Basin, Wash-. J. W. Sharp, Jr. No. 941,540; Nov. 30; Sp. p. 6819; Gaz. vol. 148; p. 1154.
Basket. C. S. Mooney. No. 938,497; Nov. 2; Sp. p. 109; Gaz. vol. 148; p. 17.
Baskets, boxes, &c., Corner-iron for. F. W. Goedeke. No. 939,005; Nov. 2; Sp. p. 1196; Gaz. vol. 148; p. 191.
Bath-tub attachment. A. Bulin. No. 939,797; Nov. 9; Sp. p. 2984; Gaz. vol. 148; p. 491.
Bath-tub seat. J. A. Skogsberg. No. 941,544; Nov. 30; Sp. p. 6825; Gaz. vol. 148; p. 1156.
Battery: *See* Primary battery; Secondary battery; Storage battery.
Battery-contact. J. H. Gugler. No. 938,663; Nov. 2; Sp. p. 484; Gaz. vol. 148; p. 74.
Battery jars, Lining for storage-. A. J. Meier. No. 941,720; Nov. 30; Sp. p. 7203; Gaz. vol. 148; p. 1214.
Battery system, Combined primary and secondary. J. H. Gugler. No. 940,008; Nov. 16; Sp. p. 3434; Gaz. vol. 148; p. 592.
Bean-separator. F. C. Britt. No. 941,305; Nov. 23; Sp. p. 6307; Gaz. vol. 148; p. 1055.
Bearing, Antifriction-. I. Moss. No. 939,060; Nov. 2; Sp. p. 1304; Gaz. vol. 148; p. 211.
Bearing, Ball-. W. E. Cane. No. 939,391; Nov. 9; Sp. p. 2102; Gaz. vol. 148; p. 351.
Bearing, Center-. H. S. Rader. No. 939,443; Nov. 9; Sp. p. 2217; Gaz. vol. 148; p. 368.
Bearing for trough-conveyers, &c., Roller-. H. Bentley. No. 941,972; Nov. 30; Sp. p. 7731; Gaz. vol. 148; p. 1302.
Bearing, Roller-. O. E. Michaud. No. 939,055; Nov. 2; Sp. p. 1294; Gaz. vol. 148; p. 209.
Bearing, Roller-. O. E. Michaud. No. 939,056; Nov. 2; Sp. p. 1296; Gaz. vol. 148; p. 209.
Bearing, Roller-. H. Hess. No. 941,636; Nov. 30; Sp. p. 7006; Gaz. vol. 148; p. 1185.
Bearing, Roller center-. J. F. O'Connor. No. 940,819; Nov. 23; Sp. p. 5275; Gaz. vol. 148; p. 895.
Bearing, Roller side. J. F. O'Connor. No. 940,353; Nov. 16; Sp. p. 4230; Gaz. vol. 148; p. 713.
Bearing, Thrust-. A. T. Killian. No. 939,269; Nov. 9; Sp. p. 1786; Gaz. vol. 148; p. 309.
Bearing, Thrust-. G. Rennerfelt. No. 941,097; Nov. 23; Sp. p. 5848; Gaz. vol. 148; p. 987.
Bearing wheel, Roller-. A. Wulff. No. 940,106; Nov. 16; Sp. p. 3687; Gaz. vol. 148; p. 628.
Bearings, Means for introducing balls into ball-. E. Geschke. No. 941,632; Nov. 30; Sp. p. 7001; Gaz. vol. 148; p. 1184.
Bearings of textile machinery, Means for protecting roll-. J. L. Patterson. No. 940,551; Nov. 16; Sp. p. 4686; Gaz. vol. 148; p. 780
Bed-covering. W. H. Bender. No. 939,585; Nov. 9; Sp. p. 2520; Gaz. vol. 148; p. 416.
Bed, Folding. C. R. Gardner. No. 939,241; Nov. 9; Sp. p. 1721; Gaz. vol. 148; p. 299.
Bed, Folding. J. Lyons. No. 940,038; Nov. 16; Sp. p. 3521; Gaz. vol. 148; p. 603.
Bed, Folding. L. B. Jeffcott. No. 941,879; Nov. 30; Sp. p. 7550; Gaz. vol. 148; p. 1270.
Bed, Folding. J. H. Edmonds. No. 941,982; Nov. 30; Sp. p. 7745; Gaz. vol. 148; p. 1305.
Bed, Folding wall-. W. C. James. No. 938,668; Nov. 2; Sp. p. 493; Gaz. vol. 148; p. 76.
Bed, Invalid-. J. H. Corner. No. 941,620; Nov. 30; Sp. p. 6978; Gaz. vol. 148; p. 1180.
Bed-pad. J. P. Duval. No. 940,958; Nov. 23; Sp. p. 5555; Gaz. vol. 148; p. 940.
Bed, Sofa-. L. G. Ihrig. No. 940,321; Nov. 16; Sp. p. 4161; Gaz. vol. 148; p. 702.
Bed-spring. J. Sirr and J. W. Kleine. No. 938,717; Nov. 2; Sp. p. 584; Gaz. vol. 148; p. 92.
Bed, Wall or cabinet. N. B. Douglass. No. 939,482; Nov. 9; Sp. p. 2304; Gaz. vol. 148; p. 381.
Bedstead-mount-buffing machine. J. F. Gall. No. 941,706; Nov. 30; Sp. p. 7173; Gaz. vol. 148; p. 1210.
Beehive. G. R. Sinnickson. No. 940,407; Nov. 16; Sp. p. 4377; Gaz. vol. 148; p. 732.
Beer, Bottling. R. Gull. No. 938,577; Nov. 2; Sp. p. 309; Gaz. vol. 148; p. 46.
Beer-bottling machine. R. Gull. No. 938,578; Nov. 2; Sp. p. 313; Gaz. vol. 148; p. 46.
Beet-blocker. E. Kraak. No. 939,715; Nov. 9; Sp. p. 2791; Gaz. vol. 148; p. 461.
Belt-coupling. G. E. Purple, A. B. Beach, and W. H. Trout. No. 938,510; Nov. 2; Sp. p. 140; Gaz. vol. 148; p. 22.
Belt-coupling. G. E. Purple. No. 938,511; Nov. 2; Sp. p. 142; Gaz. vol. 148; p. 22.
Belt, Drive-. A. G. Kolbe. No. 941,786; Nov. 30; Sp. p. 7341; Gaz. vol. 148; p. 1237.
Belt-fastener. C. S. Eaton. No. 940,443; Nov. 16; Sp. p. 4451; Gaz. vol. 148; p. 744.
Belt-sander. O. Olsson. No. 938,692; Nov. 2; Sp. p. 542; Gaz. vol. 148; p. 84.
Belt-shifting mechanism. A. A. Wood. No. 938,931; Nov. 2; Sp. p. 1059; Gaz. vol. 148; p. 168.
Belt, Sorting-. O. Sutter. No. 938,521; Nov. 2; Sp. p. 183; Gaz. vol. 148; p. 25.
Belt-tightener. D. R. and H. W. Blakeslee. No. 941,226; Nov. 23; Sp. p. 6145; Gaz. vol. 148; p. 1030.
Belting. H. Loeb. No. 939,724; Nov. 9; Sp. p. 2811; Gaz. vol. 148; p. 465.
Bench: *See* Piano-bench.
Bench-clamp. R. T. Bond. No. 938,457; Nov. 2; Sp. p. 8; Gaz. vol. 148; p. 4.
Bench-dog. E. A. Schade. No. 941,816; Nov. 30; Sp. p. 7418; Gaz. vol. 148; p. 1247.

Bench-stop. M. R. Raynesford. No. 939,088; Nov. 2; Sp. p. 1356; Gaz. vol. 148; p. 221.
Bending-machine. R. A. Carter. No. 938,556; Nov. 2; Sp. p. 263; Gaz. vol. 148; p. 39.
Benzoate, Manufacturing. E. O. Barstow. No. 939,584; Nov. 9; Sp. p. 2516; Gaz. vol. 148; p. 415.
Benzoate, Manufacturing. E. O. Barstow. No. 939,940; Nov. 9; Sp. p. 3277; Gaz. vol. 148; p. 541.
Benzoate, Manufacturing. E. O. Barstow. No. 939,941; Nov. 9; Sp. p. 3280; Gaz. vol. 148; p. 541.
Berth, Sleeping-car. A. West. No. 938,929; Nov. 2; Sp. p. 1056; Gaz. vol. 148; p. 167.
Bevel, Jack-rafter. C. F. Reum. No. 938,704; Nov. 2; Sp. p. 559; Gaz. vol. 148; p. 88.
Bill-holder. I. H. P. Colleen. No. 941,559; Nov. 30; Sp. p. 6852; Gaz. vol. 148; p. 1160.
Bin: *See* Display-bin.
Binder. H. V. Wagoner. No. 938,621; Nov. 2; Sp. p. 398; Gaz. vol. 148; p. 60.
Binder. A. C. Hafely. No. 941,142; Nov. 23; Sp. p. 5957; Gaz. vol. 148; p. 1002.
Binder. G. P. Wigginton. No. 941,481; Nov. 30; Sp. p. 6700; Gaz. vol. 148; p. 1135.
Binder. G. P. Wigginton and F. W. Hodges. No. 941,482; Nov. 30; Sp. p. 6703; Gaz. vol. 148; p. 1135.
Binder attachment, Self-. E. Pennington. No. 941,945; Nov. 30; Sp. p. 7676; Gaz. vol. 148; p. 1293.
Binder, Loose-leaf. E. P. Webster. No. 938,530; Nov. 2; Sp. p. 207; Gaz. vol. 148; p. 29.
Binder, Loose-leaf. J. S. McComb. No. 940,706; Nov. 23; Sp. p. 5014; Gaz. vol. 148; p. 856.
Binder, Loose-leaf. M. von Hertzberg. No. 941,196; Nov. 23; Sp. p. 6083; Gaz. vol. 148; p. 1021.
Binder or loose-sheet holder, Temporary. H. F. Busbong. No. 940,508; Nov. 16; Sp. p. 4589; Gaz. vol. 148; p. 766.
Binder, Temporary. G. H. Moore. No. 940,345; Nov. 16; Sp. p. 4215; Gaz. vol. 148; p. 711.
Binders, Extensible post for loose-leaf. J. S. McComb. No. 940,705; Nov. 23; Sp. p. 5012; Gaz. vol. 148; p. 856.
Binders, Support for loose-leaf. J. S. McComb. No. 940,707; Nov. 23; Sp. p. 5015; Gaz. vol. 148; p. 857.
Binding-post. H. E. Leppert. No. 938,672; Nov. 2; Sp. p. 508; Gaz. vol. 148; p. 77.
Binding-post. H. E. Leppert. No. 940,335; Nov. 16; Sp. p. 4198; Gaz. vol. 148; p. 707.
Binding-post. A. Lüngen. No. 940,397; Nov. 16; Sp. p. 4360; Gaz. vol. 148; p. 729.
Binding-post. L. Steinberger. No. 941,893; Nov. 30; Sp. p. 7581; Gaz. vol. 148; p. 1276.
Bit: *See* Auger-bit.
Blade-holding means. H. L. Barton. No. 940,778; Nov. 23; Sp. p. 5188; Gaz. vol. 148; p. 881.
Blind-stop. H. L. Beadle. No. 941,552; Nov. 30; Sp. p. 6838; Gaz. vol. 148; p. 1158.
Block: *See* Building-block; Cement block.
Block-signaling apparatus. S. A. Wood. No. 939,370; Nov. 9; Sp. p. 2040; Gaz. vol. 148; p. 344.
Block-signaling system. F. F. Brush. No. 939,973; Nov. 16; Sp. p. 3349; Gaz. vol. 148; p. 579.
Blow-off pipes, Protector for. A. R. Chambers. No. 940,427; Nov. 16; Sp. p. 4415; Gaz. vol. 148; p. 738.
Blower, Air-flue. L. Lunstrum. No. 938,495; Nov. 2; Sp. p. 107; Gaz. vol. 148; p. 17.
Blower or pump. F. J. Miner. No. 940,964; Nov. 23; Sp. p. 5601; Gaz. vol. 148; p. 949.
Blower, Rotary. L. E. Fagan. No. 940,587; Nov. 16; Sp. p. 4753; Gaz. vol. 148; p. 792.
Bluing device. A. L. Willcocks and A. P. Thorley. No. 939,649; Nov. 9; Sp. p. 2658; Gaz. vol. 148; p. 440.
Board: *See* Panel-board; Tracker-board; Washboard.
Board, Apparatus for manufacture of composition. J. Ferla. No. 940,449; Nov. 16; Sp. p. 4465; Gaz. vol. 148; p. 746.
Boards, Manufacturing composition. J. Ferla. No. 940,450; Nov. 16; Sp. p. 4468; Gaz. vol. 148; p. 746.
Boat. W. T. Urie. No. 939,878; Nov. 9; Sp. p. 3135; Gaz. vol. 148; p. 517.
Boat. C. Hoffman. No. 941,923; Nov. 30; Sp. p. 7636; Gaz. vol. 148; p. 1286.
Boat-lowering device, Life-. C. J. Christensen. No. 940,512; Nov. 16; Sp. p. 4598; Gaz. vol. 148; p. 767.
Bobbin-case. L. E. Weaver. No. 939,647; Nov. 9; Sp. p. 2654; Gaz. vol. 148; p. 439.
Bobbin-holder. S. W. Wardwell. No. 941,595; Nov. 30; Sp. p. 6922; Gaz. vol. 148; p. 1172.
Boiler: *See* Water-tube boiler.
Boiler. D. Hanlon. No. 940,684; Nov. 23; Sp. p. 4972; Gaz. vol. 148; p. 849.
Boiler-bracket. W. Withem. No. 939,368; Nov. 9; Sp. p. 2038; Gaz. vol. 148; p. 344.
Boiler-compound mixer and feeder. T. E. Palmer and W. W. Baker. No. 939,540; Nov. 9; Sp. p. 2413; Gaz. vol. 148; p. 400.
Boiler low-water signal. J. L. Setzer. No. 940,202; Nov. 16; Sp. p. 3902; Gaz. vol. 148; p. 662.
Boiler superheater, Locomotive-. L. E. Feightner. No. 939,237; Nov. 9; Sp. p. 1712; Gaz. vol. 148; p. 297.
Boiler water-circulator. C. C. Eckliff. No. 939,991; Nov. 16; Sp. p. 3403; Gaz. vol. 148; p. 586.
Boilers, Engine-setting for horizontal. G. W. Morris. No. 941,460; Nov. 30; Sp. p. 6655; Gaz. vol. 148; p. 1128.
Bolt: *See* Adjustable bolt; Divided bolt; Expansion-bolt; Lock-bolt; Panic-bolt.
Bolt-case. R. W. Hubbard. No. 939,694; Nov. 9; Sp. p. 2755; Gaz. vol. 148; p. 455.
Bone-black kiln. B. Eba. No. 940,520; Nov. 16; Sp. p. 4613; Gaz. vol. 148; p. 770.
Book, Check-. C. S. Sultzer. No. 938,908; Nov. 2; Sp. p. 1010; Gaz. vol. 148; p. 159.
Book, Folding check-. C. S. Sultzer. No. 938,909; Nov. 2; Sp. p. 1011; Gaz. vol. 148; p. 160.
Book, Loose-leaf. L. E. Marsh. No. 941,084; Nov. 23; Sp. p. 5822; Gaz. vol. 148; p. 982.
Book, Manifolding-. B. C. Maxwell. No. 939,149; Nov. 2; Sp. p. 1496; Gaz. vol. 148; p. 242.
Book, Manifolding copying-. C. G. C. Whyte and A. Rau. No. 942,023; Nov. 30; Sp. p. 7820; Gaz. vol. 148; p. 1318.
Book or pad, Manifolding. B. C. Maxwell. No. 939,150; Nov. 2; Sp. p. 1498; Gaz. vol. 148; p. 243.
Book or pad, Manifolding. B. C. Maxwell. No. 939,151; Nov. 2; Sp. p. 1500; Gaz. vol. 148; p. 243.
Book, Pocket check-. C. S. Sultzer. No. 938,910; Nov. 2; Sp. p. 1013; Gaz. vol. 148; p. 160.
Bookbinding, Cloth. M. Taprogge. No. 940,287; Nov. 16; Sp. p. 4076; Gaz. vol. 148; p. 691.
Bookcase. L. Nelson. No. 941,168; Nov. 23; Sp. p. 6017; Gaz. vol. 148; p. 1011.
Boot. G. Watkins. No. 941,116; Nov. 23; Sp. p. 5892; Gaz. vol. 148; p. 992.
Boot and shoe forms, Holder for. T. F. McGann. No. 941,723; Nov. 30; Sp. p. 7208; Gaz. vol. 148; p. 1215.
Boot and shoe polishing machine. H. C. Lowenstein. No. 939,725; Nov. 9; Sp. p. 2812; Gaz. vol. 148; p. 465.
Boot and shoe separable fastener. J. Jepperson. No. 940,462; Nov. 16; Sp. p. 4487; Gaz. vol. 148; p. 750.
Boot or shoe upper. D. Sack. No. 939,639; Nov. 9; Sp. p. 2640; Gaz. vol. 148; p. 436.
Bottle. O. Papp. No. 940,049; Nov. 16; Sp. p. 3548; Gaz. vol. 148; p. 607.
Bottle. E. T. Greenfield. No. 940,310; Nov. 16; Sp. p. 4139; Gaz. vol. 148; p. 698.
Bottle. P. A. Thorin. No. 940,993; Nov. 23; Sp. p. 5616; Gaz. vol. 148; p. 952.
Bottle, Antirefillable. J. N. Landon. No. 939,602; Nov. 9; Sp. p. 2565; Gaz. vol. 148; p. 421.
Bottle-capping machine. R. L. Shriner. No. 938,612; Nov. 2; Sp. p. 384; Gaz. vol. 148; p. 57.
Bottle-capping machine. G. Kirkegaard. No. 939,141; Nov. 2; Sp. p. 1468; Gaz. vol. 148; p. 238.
Bottle-caps, Device for removing. C. F. Forsyth and F. C. Wallace. No. 941,865; Nov. 30; Sp. p. 7524; Gaz. vol. 148; p. 1266
Bottle-closure. F. W. H. Clay. No. 938,825; Nov. 2; Sp. p. 809; Gaz. vol. 148; p. 130.
Bottle-closure. R. M. Cauffman and W. Best. No. 938,971; Nov. 2; Sp. p. 1126; Gaz. vol. 148; p. 181.
Bottle-closure. J. Richards and H. Ahnfeldt. No. 941,651; Nov. 30; Sp. p. 7051; Gaz. vol. 148; p. 1191.
Bottle-filling machine. J. M. Falls and L. P. Williams. No. 940,138; Nov. 16; Sp. p. 3748; Gaz. vol. 148; p. 639.
Bottle-lock. W. H. Bryan. No. 940,125; Nov. 16; Sp. p. 3724; Gaz. vol. 148; p. 635.
Bottle-neck protector. V. Durand, Jr. No. 941,769; Nov. 30; Sp. p. 7314; Gaz. vol. 148; p. 1232.
Bottle, Non-refillable. M. Raymond. No. 938,703; Nov. 2; Sp. p. 558; Gaz. vol. 148; p. 87.
Bottle, Non-refillable. R. Riegel. No. 938,706; Nov. 2; Sp. p. 561; Gaz. vol. 148; p. 88.
Bottle, Non-refillable. E. Ferguson. No. 939,238; Nov. 9; Sp. p. 1716; Gaz. vol. 148; p. 298.
Bottle, Non-refillable. L. M. Packard. No. 939,300; Nov. 9; Sp. p. 1881; Gaz. vol. 148; p. 320
Bottle, Non-refillable. S. Peloso. No. 939,305; Nov. 9; Sp. p. 1893; Gaz. vol. 148; p. 322.
Bottle, Non-refillable. S. A. Miner. No. 939,430; Nov. 9; Sp. p. 2194; Gaz. vol. 148; p. 364.
Bottle, Non-refillable. F. W. Herbert. No. 940,687; Nov. 23; Sp. p. 4977; Gaz. vol. 148; p. 849.
Bottle, Non-refillable. L. C. Foster. No. 940,962; Nov. 23; Sp. p. 5563; Gaz. vol. 148; p. 941.
Bottle, Non-refillable. J. Berg. No. 941,184; Nov. 23; Sp. p. 6057; Gaz. vol. 148; p. 1016.
Bottle, Non-refillable. E. B. Barner. No. 941,551; Nov. 30; Sp. p. 6837; Gaz. vol. 148; p. 1157.
Bottle, Non-refillable. A. G. H. Jenssen and R. C. Weltzel. No. 941,994; Nov. 30; Sp. p. 7764; Gaz. vol. 148; p. 1306.
Bottle receptacle, Milk-. A. G. Brodhead. No. 941,853; Nov. 30; Sp. p. 7503; Gaz. vol. 148; p. 1261.
Bottle, Siphon-. P. Devarco. No. 938,746; Nov. 2; Sp. p. 637; Gaz. vol. 148; p. 101.
Bottle-stopper. W. E. Gaston. No. 940,926; Nov. 23; Sp. p. 5481; Gaz. vol. 148; p. 929.
Bottle-stopper. D. Landau. No. 941,788; Nov. 30; Sp. p. 7344; Gaz. vol. 148; p. 1238.
Bottle, Telltale-. A. Midbo and G. Gulbrandson. No. 941,890; Nov. 30; Sp. p. 7571; Gaz. vol. 148; p. 1274.
Bottle washer, Milk-. W. W. Haggard. No. 940,011; Nov. 16; Sp. p. 3439; Gaz. vol. 148; p. 593.
Bottles and similar vessels, Machine for cleansing. L. Strasburger and L. Granges. No. 940,948; Nov. 23; Sp. p. 5534; Gaz. vol. 148; p. 937.
Bottler's apparatus. G. J. Meyer. No. 940,178; Nov. 16; Sp. p. 3838; Gaz. vol. 148; p. 652.
Bottling-machine. J. H. Champ. No. 939,214; Nov. 9; Sp. p. 1644; Gaz. vol. 148; p. 290.
Bottling-machine. J. H. Champ. No. 939,978; Nov. 16; Sp. p. 3366; Gaz. vol. 148; p. 581.
Bowl, Sugar-. C. T. McCreery. No. 939,066; Nov. 2; Sp. p. 1315; Gaz. vol. 148; p. 213.
Bowling-alley amusement device. H. Leighton. No. 939,280; Nov. 9; Sp. p. 1808; Gaz. vol. 148; p. 312.

Bowling-alley finishing and leveling machine. O. L. Pickard. No. 939,544; Nov. 9; Sp. p. 2423; Gaz. vol. 148; p. 402.
Bowling-alley pin-setting mechanism. L. A. Brigel. No. 941,011; Nov. 30; Sp. p. 6953; Gaz. vol. 148; p. 1177.
Bowling-alley-surfacing machine. G. B. Gonia. No. 940,004; Nov. 16; Sp. p. 3425; Gaz. vol. 148; p. 590.
Bowling-pin. B. Merklen. No. 940,341; Nov. 16; Sp. p. 4208; Gaz. vol. 148; p. 709.
Box: *See* Ballot-box; Cigarette and match box; Collapsible box; Cooling-box; Display-box; Egg-box; Fare-box; Feed-box; File-box; Folding box; Jewelry-box; Knockdown box; Match-box; Metal box; Outlet-box; Paper box; Pitman-box; Shipping-box; Sound-box; Spice-box; Talking-machine sound-box.
Box. M. M. King. No. 938,590; Nov. 2; Sp. p. 338; Gaz. vol. 148; p. 50.
Box. J. H. Baker. No. 938,811; Nov. 2; Sp. p. 776; Gaz. vol. 148; p. 125.
Box. G. B. Reed. No. 939,166; Nov. 2; Sp. p. 1535; Gaz. vol. 148; p. 249.
Box. H. L. Miner. No. 939,287; Nov. 9; Sp. p. 1822; Gaz. vol. 148; p. 315.
Box. E. Langschmidt. No. 939,517; Nov. 9; Sp. p. 2367; Gaz. vol. 148; p. 392.
Box. R. W. Carroll. No. 940,922; Nov. 23; Sp. p. 5475; Gaz. vol. 148; p. 928.
Box. D. H. Glover. No. 941,140; Nov. 23; Sp. p. 5955; Gaz. vol. 148; p. 1002.
Box. A. E. Klingenberg. No. 941,323; Nov. 23; Sp. p. 6338; Gaz. vol. 148; p. 1060.
Box-filling machine. J. C. Thom. No. 939,455; Nov. 9; Sp. p. 2242; Gaz. vol. 148; p. 372.
Box-handling attachment for shelves. J. R. Jones and H. W. Nicholes. No. 940,578; Nov. 23; Sp. p. 5388; Gaz. vol. 148; p. 913.
Box or case. F. J. Kress. No. 939,272; Nov. 9; Sp. p. 1791; Gaz. vol. 148; p. 310.
Box or container. J. F. Byrne. No. 941,356; Nov. 30; Sp. p. 6417; Gaz. vol. 148; p. 1094.
Brace: *See* Dashboard-brace; Rail-brace; Railway-rail brace; Shoulder-brace.
Bracket: *See* Adjustable bracket; Boiler-bracket; Curtain-bracket; Pump-bracket; Scaffold-bracket; Shade-roller bracket; Shingle-bracket.
Braiding-machine. A. E. Chernack. No. 939,216; Nov. 9; Sp. p. 1651; Gaz. vol. 148; p. 291.
Braiding-machine. E. F. Parks and S. W. Wardwell. No. 939,622; Nov. 9; Sp. p. 2602; Gaz. vol. 148; p. 428.
Brake: *See* Band-brake; Car-brake; Cornice-brake; Emergency-brake; Fluid-pressure brake; Skate-brake; Vehicle-brake; Wagon-brake.
Brake. E. Herold. No. 940,461; Nov. 16; Sp. p. 4486; Gaz. vol. 148; p. 750.
Brake apparatus, Fluid-pressure-. M. Corrington. No. 941,914; Nov. 30; Sp. p. 7618; Gaz. vol. 148; p. 1283.
Brake-beam. C. H. Williams, Jr. No. 938,535; Nov. 2; Sp. p. 217; Gaz. vol. 148; p. 31.
Brake-beam. H. Ziemss, Jr. No. 940,417; Nov. 16; Sp. p. 4394; Gaz. vol. 148; p. 735.
Brake-head, Adjustable. W. A. Robischung. No. 939,094; Nov. 2; Sp. p. 1367; Gaz. vol. 148; p. 223.
Brake-mast. H. C. Ostermann. No. 939,076; Nov. 2; Sp. p. 1332; Gaz. vol. 148; p. 217.
Brake-shoe key. C. N. Smith. No. 941,107; Nov. 23; Sp. p. 5869; Gaz. vol. 148; p. 989.
Brake slack-adjuster, Automatic. R. F. Hamilton. No. 939,018; Nov. 2; Sp. p. 1225; Gaz. vol. 148; p. 195.
Bread-cutting machine. M. J. Ferren. No. 941,065; Nov. 23; Sp. p. 5781; Gaz. vol. 148; p. 976.
Brick-machine. P. J. Mead. No. 940,177; Nov. 16; Sp. p. 3836; Gaz. vol. 148; p. 651.
Brick-machine. C. M. Starr. No. 940,623; Nov. 16; Sp. p. 4817; Gaz. vol. 148; p. 803.
Brick-press. S. J. Pink. No. 938,699; Nov. 2; Sp. p. 552; Gaz. vol. 148; p. 86.
Bricklaying-machine. M. Falcone. No. 941,137; Nov. 23; Sp. p. 5947; Gaz. vol. 148; p. 1000.
Bridge. J. F. Kaspar. No. 940,326; Nov. 16; Sp. p. 4174; Gaz. vol. 148; p. 704.
Briqueting-machine. F. H. Elsworth and C. L. Dowell. No. 940,959; Nov. 23; Sp. p. 5556; Gaz. vol. 148; p. 941.
Bristle-drying machine. E. R. Zehner. No. 938,542; Nov. 2; Sp. p. 234; Gaz. vol. 148; p. 34.
Broom-head cover. O. T. Merkle. No. 939,052; Nov. 2; Sp. p. 1290; Gaz. vol. 148; p. 208.
Brush. F. D. Wolfgram and E. Klausman. No. 938,735; Nov. 2; Sp. p. 616; Gaz. vol. 148; p. 97.
Brush. E. E. Ahlstedt and A. L. Bowman. No. 939,181; Nov. 2; Sp. p. 1566; Gaz. vol. 148; p. 254.
Brush-guard. A. D. Lockwood. No. 939,522; Nov. 9; Sp. p. 2375; Gaz. vol. 148; p. 394.
Brush-holder. E. R. Knight. No. 940,393; Nov. 16; Sp. p. 4346; Gaz. vol. 148; p. 728.
Brush holder, Antiseptic tooth-. W. D. Jones. No. 941,200; Nov. 23; Sp. p. 6092; Gaz. vol. 148; p. 1022.
Brush-ware. J. A. Burnside. No. 941,306; Nov. 23; Sp. p. 6309; Gaz. vol. 148; p. 1055.
Buckle. A. Cohen. No. 939,394; Nov. 9; Sp. p. 2112; Gaz. vol. 148; p. 352.
Buckle. A. Bienenzucht. No. 940,498; Nov. 16; Sp. p. 4570; Gaz. vol. 148; p. 763.
Buckle. L. H. Fishel. No. 941,702; Nov. 30; Sp. p. 7157; Gaz. vol. 148; p. 1208.
Buckle and clasp, Combined. M. F. Burns. No. 939,122; Nov. 2; Sp. p. 1425; Gaz. vol. 148; p. 232.
Buckle, Belt-. A. M. Gardner. No. 941,242; Nov. 23; Sp. p. 6175; Gaz. vol. 148; p. 1036.
Buckle, Cross-line. W. D. Wise. No. 938,536; Nov. 2; Sp. p. 218; Gaz. vol. 148; p. 31.
Buckle for waist-belts. J. A. Dubois. No. 941,136; Nov. 23; Sp. p. 5946; Gaz. vol. 148; p. 1000.
Buckle, Lever-. C. E. Smith. No. 940,829; Nov. 23; Sp. p. 5296; Gaz. vol. 148; p. 898.
Buffing-machine. J. J. Heys. No. 940,015; Nov. 16; Sp. p. 3443; Gaz. vol. 148; p. 594.
Buggy-top support, Yielding. C. P. Johnson. No. 940,158; Nov. 16; Sp. p. 3783; Gaz. vol. 148; p. 645.
Building-block. E. Chapman. No. 941,617; Nov. 30; Sp. p. 6970; Gaz. vol. 148; p. 1179.
Building block and wall. F. J. Schuster. No. 941,656; Nov. 30; Sp. p. 7058; Gaz. vol. 148; p. 1193.
Building-block, Interlocking. B. Benas. No. 940,227; Nov. 16; Sp. p. 3943; Gaz. vol. 148; p. 670.
Building-blocks, Machine for making hollow. H. S. Scott and M. L. Dilgard. No. 940,741; Nov. 23; Sp. p. 5095; Gaz. vol. 148; p. 869.
Building-blocks, Musical. A. A. Giffin. No. 939,127; Nov. 2; Sp. p. 1441; Gaz. vol. 148; p. 234.
Building structure. V. Font. No. 939,000; Nov. 2; Sp. p. 1189; Gaz. vol. 148; p. 190.
Built-up article. W. C. Harlow. No. 939,833; Nov. 9; Sp. p. 3046; Gaz. vol. 148; p. 503.
Buoy, Automatic locating-. J. N. Marcou and J. C. St. Peter. No. 941,377; Nov. 30; Sp. p. 6463; Gaz. vol. 148; p. 1101.
Burette, Automatic. S. D. Beard. No. 939,382; Nov. 9; Sp. p. 2087; Gaz. vol. 148; p. 348.
Burglar-alarm. M. Korbel. No. 940,535; Nov. 16; Sp. p. 4643; Gaz. vol. 148; p. 774.
Burner: *See* Gas-burner; Gas or oil burner; Lamp-burner; Liquid-fuel burner; Oil-burner; Petroleum-burner; Wick-burner.
Burner. H. W. Schoff. No. 938,902; Nov. 2; Sp. p. 998; Gaz. vol. 148; p. 157.
Bushing and check-valve, Combined reducing-. W. S. Jacobs. No. 941,713; Nov. 30; Sp. p. 7191; Gaz. vol. 148; p. 1212.
Bushing for pulleys, gears, and the like. H. G. Wolf. No. 941,602; Nov. 30; Sp. p. 6940; Gaz. vol. 148; p. 1174.
Bust-pad. A. C. Henderson. No. 938,856; Nov. 2; Sp. p. 864; Gaz. vol. 148; p. 139.
Butter and lard cutter. C. H. Carlson. No. 938,970; Nov. 2; Sp. p. 1123; Gaz. vol. 148; p. 180.
Butter, Apparatus for the continuous manufacture of. A. H. Borgström. No. 938,815; Nov. 2; Sp. p. 785; Gaz. vol. 148; p. 126.
Butter-treating apparatus. C. M. Nulf and G. M. Jackson. No. 940,716; Nov. 23; Sp. p. 5037; Gaz. vol. 148; p. 860.
Button, Cuff-. L. A. Gardner. No. 939,680; Nov. 9; Sp. p. 2725; Gaz. vol. 148; p. 450.
Button, Link cuff-. E. W. Morehouse. No. 939,851; Nov. 9; Sp. p. 3080; Gaz. vol. 148; p. 508.
Buttonhole attachment, Substitute. F. Robertson. No. 939,092; Nov. 2; Sp. p. 1363; Gaz. vol. 148; p. 222.
Buttonhole-machine. H. C. Miller. No. 940,042; Nov. 16; Sp. p. 3530; Gaz. vol. 148; p. 604.
By-pass. E. Burhorn. No. 940,920; Nov. 23; Sp. p. 5469; Gaz. vol. 148; p. 927.
Cab-signal circuit. P. J. Simmen. No. 941,541; Nov. 30; Sp. p. 6820; Gaz. vol. 148; p. 1155.
Cabbages, Machine for splitting and core-slicing. L. Lecheler. No. 941,262; Nov. 23; Sp. p. 6207; Gaz. vol. 148; p. 1042.
Cabinet. C. M. Hutchinson. No. 940,023; Nov. 16; Sp. p. 3459; Gaz. vol. 148; p. 597.
Cabinet and display-rack, Combined. A. E. Baker. No. 939,199; Nov. 9; Sp. p. 1616; Gaz. vol. 148; p. 285.
Cabinet, Envelop-. H. K. Smith. No. 941,736; Nov. 30; Sp. p. 7236; Gaz. vol. 148; p. 1220.
Cabinet, Folding and sliding safe-. I. J. Wing. No. 941,052; Nov. 23; Sp. p. 5756; Gaz. vol. 148; p. 971.
Cabinet, Light-. C. F. McClure and W. I. Shuman. No. 940,544; Nov. 16; Sp. p. 4672; Gaz. vol. 148; p. 777.
Cabinet, Towel-. R. T. Parisen. No. 940,717; Nov. 23; Sp. p. 5038; Gaz. vol. 148; p. 860.
Cable-grip. J. F. Sallows. No. 940,732; Nov. 23; Sp. p. 5080; Gaz. vol. 148; p. 866.
Cable-hanger. C. L. Peirce, Jr. No. 941,039; Nov. 23; Sp. p. 5733; Gaz. vol. 148; p. 968.
Cable traction apparatus. C. J. Eastman. No. 938,655; Nov. 2; Sp. p. 462; Gaz. vol. 148; p. 71.
Cables, Clamping mechanism for litter-supporting. W. Gutenkunst. No. 938,847; Nov. 2; Sp. p. 850; Gaz. vol. 148; p. 137.
Cableway. T. S. Miller. No. 942,038; Nov. 30; Sp. p. 7846; Gaz. vol. 148; p. 1322.
Cake-coating machine. P. D. Harton. No. 939,836; Nov. 9; Sp. p. 3050; Gaz. vol. 148; p. 504.
Calculating implement. E. J. Brandt. No. 941,004; Nov. 23; Sp. p. 5653; Gaz. vol. 148; p. 955.
Calculating-machine. J. Bricken. No. 938,550; Nov. 2; Sp. p. 248; Gaz. vol. 148; p. 37.
Calculating-machine. R. Rein. No. 938,790; Nov. 2; Sp. p. 728; Gaz. vol. 148; p. 118.
Calculating-machine. R. Rein. No. 938,791; Nov. 2; Sp. p. 730; Gaz. vol. 148; p. 118.
Calculating-machines, Index-plate for. J. Graber. No. 941,774; Nov. 30; Sp. p. 7322; Gaz. vol. 148; p. 1234.
Calendar. E. C. Mahon. No. 941,719; Nov. 30; Sp. p. 7202; Gaz. vol. 148; p. 1214.
Calks, Making steel-center. J. R. Williams. No. 939,884; Nov. 9; Sp. p. 3149; Gaz. vol. 148; p. 519.
Camera. I. O. Perring. No. 941,668; Nov. 30; Sp. p. 7121; Gaz. vol. 148; p. 1203.
Camera. H. W. Conner. No. 941,696; Nov. 30; Sp. p. 7144; Gaz. vol. 148; p. 1206.
Cameras, Roller-blind for photographic. E. Brauburger. No. 941,126; Nov. 23; Sp. p. 5920; Gaz. vol. 148; p. 996.
Can: *See* Containing-can; Display-can; Garbage-can; Ice-cream can; Milk-can; Self-sealing can.
Can-body-forming machine. W. W. Jones. No. 941,076; Nov. 23; Sp. p. 5804; Gaz. vol. 148; p. 979.
Can-bottoms, Machine for applying. J. C. Thom. No. 939,454; Nov. 9; Sp. p. 2238; Gaz. vol. 148; p. 372.

Can-cap dropper. E. M. Cobb. No. 941,357; Nov. 30; Sp. p. 6419; Gaz. vol. 148; p. 1094.
Can-caps, Machine for applying cement to. W. F. Butler. No. 938,460; Nov. 2; Sp. p. 15; Gaz. vol. 148; p. 5.
Can-closing device. J. H. Pelletier. No. 941,533; Nov. 30; Sp. p. 6804; Gaz. vol. 148; p. 1152.
Can closure, Powder-. G. W. Childs. No. 940,128; Nov. 16; Sp. p. 3733; Gaz. vol. 148; p. 635.
Can-cover-coating machine. G. W. F. Weber, F. Eberhart, and E. V. Swangren. No. 938,529; Nov. 2; Sp. p. 200; Gaz. vol. 148; p. 28.
Can cutter and tapping valve, Oil-. W. M. Curtis. No. 938,644; Nov. 2; Sp. p. 438; Gaz. vol. 148; p. 68.
Can drier, Labeled-. R. Schilling. No. 938,713; Nov. 2; Sp. p. 575; Gaz. vol. 148; p. 90.
Can-heading machine. L. C. Krummel. No. 941,346; Nov. 23; Sp. p. 6376; Gaz. vol. 148; p. 1067.
Can-heading machine. J. Brenzinger. No. 941,755; Nov. 30; Sp. p. 7272; Gaz. vol. 148; p. 1226.
Can neck and making the same, Milk-. R. Bray. No. 938,960; Nov. 2; Sp. p. 1111; Gaz. vol. 148; p. 177.
Can-opener. A. C. Lemm. No. 940,396; Nov. 16; Sp. p. 4358; Gaz. vol. 148; p. 729.
Can-opener. W. G. Kircher. No. 940,932; Nov. 23; Sp. p. 5500; Gaz. vol. 148; p. 932.
Cans and the like, Machine for washing. J. L. Ranney. No. 940,060; Nov. 16; Sp. p. 3573; Gaz. vol. 148; p. 611.
Cans, Heading sheet-metal. B. Adriance. No. 939,197; Nov. 9; Sp. p. 1613; Gaz. vol. 148; p. 285.
Canning apparatus. T. H. Eldson. No. 939,485; Nov. 9; Sp. p. 2309; Gaz. vol. 148; p. 382.
Canceling machine, Letter-. L. Blessing, M. L. Aten, and G. H. Poirier. No. 941,848; Nov. 30; Sp. p. 7493; Gaz. vol. 148; p. 1259.
Canceling machine, Ticket-. W. C. Fisk and J. A. Seely. No. 940,452; Nov. 16; Sp. p. 4472; Gaz. vol. 148; p. 747.
Canceling machine, Ticket-. W. C. Fisk and J. A. Seely. No. 940,681; Nov. 23; Sp. p. 4968; Gaz. vol. 148; p. 848.
Candelabrum. O. H. Van Guelpen. No. 941,213; Nov. 23; Sp. p. 6118; Gaz. vol. 148; p. 1026.
Candle-end-forming machine. C. B. Manbeck. No. 941,083; Nov. 23; Sp. p. 5820; Gaz. vol. 148; p. 982.
Candlestick, Miner's. C. Fisk. No. 938,838; Nov. 2; Sp. p. 834; Gaz. vol. 148; p. 134.
Candy-pulling machine. H. S. Brewington. No. 941,610; Nov. 30; Sp. p. 6954; Gaz. vol. 148; p. 1176.
Cane, Wax-like product obtained from sugar-. A. Wynberg. No. 941,401; Nov. 30; Sp. p. 6530; Gaz. vol. 148; p. 1109.
Canopy-frame having doors. W. S. Davidson. No. 941,765; Nov. 30; Sp. p. 7303; Gaz. vol. 148; p. 1230.
Canopy, Ventilating-. J. N. Moody. No. 941,685; Nov. 30; Sp. p. 7112; Gaz. vol. 148; p. 1202.
Cant-hook. J. B. Snyder. No. 940,207; Nov. 16; Sp. p. 3908; Gaz. vol. 148; p. 664.
Canvas carrier, Artist's wet-. R. P. Tolman. No. 941,212; Nov. 23; Sp. p. 6117; Gaz. vol. 148; p. 1026.
Car. W. H. Son. No. 940,902; Nov. 23; Sp. p. 5437; Gaz. vol. 148; p. 921.
Car. E. S. Bucknam. No. 941,855; Nov. 30; Sp. p. 7506; Gaz. vol. 148; p. 1262.
Car angle-cock holder, Railway-. L. A. Hoerr. No. 939,421; Nov. 9; Sp. p. 2172; Gaz. vol. 148; p. 361.
Car-bolster. C. H. Anderson. No. 941,691; Nov. 30; Sp. p. 7136; Gaz. vol. 148; p. 1204.
Car-brake. N. P. Zech. No. 938,935; Nov. 2; Sp. p. 1065; Gaz. vol. 148; p. 169.
Car-brake. J. W. Johnson No. 939,701; Nov. 9; Sp. p. 2768; Gaz. vol. 148; p. 457.
Car-brake. W. J. Stahr. No. 940,373; Nov. 16; Sp. p. 4280; Gaz. vol. 148; p. 720.
Car-brake-operating mechanism. C. A. Williamson. No. 941,219; Nov. 23; Sp. p. 6133; Gaz. vol. 148; p. 1028.
Car construction. T. Dunbar and L. J. Berg. No. 940,378; Nov. 16; Sp. p. 4315; Gaz. vol. 148; p. 723.
Car-controlling system, Electric. A. B. Stitzer. No. 941,391; Nov. 30; Sp. p. 6501; Gaz. vol. 148; p. 1106.
Car-coupling. W. S. Lennon. No. 939,720; Nov. 9; Sp. p. 2803; Gaz. vol. 148; p. 463.
Car-coupling. C. H. Tomlinson. No. 941,965; Nov. 30; Sp. p. 7719; Gaz. vol. 148; p. 1300.
Car-coupling, Emergency. E. Posson. No. 940,553; Nov. 16; Sp. p. 4691; Gaz. vol. 148; p. 780.
Car-door. F. X. Malocsay. No. 939,919; Nov. 9; Sp. p. 3238; Gaz. vol. 148; p. 533.
Car-door and means for operating it. W. M. Smith. No. 938,719; Nov. 2; Sp. p. 587; Gaz. vol. 148; p. 92.
Car-door for grain, coal, &c. R. R. Reaveley. No. 938,789; Nov. 2; Sp. p. 726; Gaz. vol. 148; p. 117.
Car door, Grain-. H. J. Bickle and M. McMillan. No. 939,660; Nov. 9; Sp. p. 2690; Gaz. vol. 148; p. 443.
Car door, Grain-. H. W. Richards. No. 941,099; Nov. 23; Sp. p. 5852; Gaz. vol. 148; p. 987.
Car-door hanger. R. E. Frame and C. G. Harrington. No. 941,069; Nov. 23; Sp. p. 5794; Gaz. vol. 148; p. 977.
Car-door-operating mechanism. C. A. Lindström. No. 939,425; Nov. 9; Sp. p. 2180; Gaz. vol. 148; p. 363.
Car-door-operating mechanism. C. A. Lindström. No. 939,426; Nov. 9; Sp. p. 2187; Gaz. vol. 148; p. 363.
Car-door-operating mechanism, Dump-. S. Otis. No. 939,298; Nov. 9; Sp. p. 1878; Gaz. vol. 148; p. 320.
Car, Dump-. C. H. Clark. No. 938,976; Nov. 2; Sp. p. 1138; Gaz. vol. 148; p. 182.
Car, Dump-. C. H. Clark. No. 939,588; Nov. 9; Sp. p. 2529; Gaz. vol. 148; p. 417.
Car, Dump-. J. Pearson. No. 940,187; Nov. 16; Sp. p. 3858; Gaz. vol. 148; p. 655.
Car, Dump-. J. B. Rhodes. No. 940,893; Nov. 23; Sp. p. 5423; Gaz. vol. 148; p. 919.
Car, Dump-. S. Otis. No. 941,381; Nov. 30; Sp. p. 6474; Gaz. vol. 148; p. 1102.
Car end-gate, Mine-. L. F. Brubaker. No. 939,944; Nov. 9; Sp. p. 3288; Gas. vol. 148; p. 542.
Car-fender. G. A. Etsler. No. 938,994; Nov. 2; Sp. p. 1179; Gaz. vol. 148; p. 188.
Car-fender. M. L. Kelzur. No. 939,915; Nov. 9; Sp. p. 3222; Gaz. vol. 148; p. 531.
Car-fender. J. O'Leary. No. 939,952; Nov. 9; Sp. p. 3301; Gaz. vol. 148; p. 545.
Car-fender. J. O'Leary. No. 939,953; Nov. 9; Sp. p. 3303; Gaz. vol. 148; p. 545.
Car-fender. T. J. Killeen. No. 940,464; Nov. 16; Sp. p. 4491; Gaz. vol. 148; p. 751.
Car-fender. C. D. B. Fisk and D. R. Smith. No. 940,588; Nov. 16; Sp. p. 4750; Gaz. vol. 148; p. 792.
Car-fender. S. A. Youngberg and J. B. Parnall. No. 940,772; Nov. 23; Sp. p. 5176; Gaz. vol. 148; p. 879.
Car-fender. J. D. Wright. No. 942,027; Nov. 30; Sp. p. 7827; Gaz. vol. 148; p. 1319.
Car fender, Air-actuated street-. J. M. Claney. No. 941,497; Nov. 30; Sp. p. 6731; Gaz. vol. 148; p. 1141.
Car fender, Street-. A. L. Mazzanovich. No. 941,527; Nov. 30; Sp. p. 6793; Gaz. vol. 148; p. 1151.
Car fender, Street-. G. J. Fleissner. No. 941,984; Nov. 30; Sp. p. 7749; Gaz. vol. 148; p. 1305.
Car for transporting ore or other material. W. C. Carr. No. 941,405; Nov. 30; Sp. p. 6548; Gaz. vol. 148; p. 1110.
Car-frame. E. Posson. No. 940,357; Nov. 16; Sp. p. 4240; Gaz. vol. 148; p. 715.
Car-grain-door lock, Box-. C. O. French. No. 938,409; Nov. 2; Sp. p. 31; Gaz. vol. 148; p. 7.
Car, Hand-. J. Marshall. No. 940,175; Nov. 16; Sp. p. 3834; Gaz. vol. 148; p. 651.
Car, Hand-. J. D. Kerr. No. 941,420; Nov. 30; Sp. p. 6579; Gaz. vol. 148; p. 1116.
Car-heater. J. F. McElroy. No. 942,040; Nov. 30; Sp. p. 7852; Gaz. vol. 148; p. 1323.
Car heating and ventilating apparatus. F. H. Farrington. No. 940,636; Nov. 16; Sp. p. 4851; Gaz. vol. 148; p. 808.
Car, Motor hand-. W. S. Hovey and M. H. Rix. No. 939,423; Nov. 9; Sp. p. 2176; Gaz. vol. 148; p. 362.
Car-mover. R. F. Hageman. No. 939,249; Nov. 9; Sp. p. 1733; Gaz. vol. 148; p. 301.
Car, Passenger railway-. L. E. Paden. No. 941,807; Nov. 30; Sp. p. 7402; Gaz. vol. 148; p. 1244.
Car, Pay-within passenger railway-. A. H. Englund. No. 939,899; Nov. 9; Sp. p. 3183; Gaz. vol. 148; p. 525.
Car, Railway-. H. S. Hart. No. 941,249; Nov. 23; Sp. p. 6185; Gaz. vol. 148; p. 1037.
Car, Railway motor-. W. S. Hovey and M. H. Rix. No. 938,582; Nov. 2; Sp. p. 326; Gaz. vol. 148; p. 48.
Car-roof. J. Pearson. No. 940,355; Nov. 16; Sp. p. 4234; Gaz. vol. 148; p. 714.
Car-seat, Folding. J. S. Farrell and J. S. Lewis. No. 939,593; Nov. 9; Sp. p. 2548; Gaz. vol. 148; p. 418.
Car-seats, Wear-strip and retainer for securing coverings to the frames of. F. H. Henry. No. 941,875; Nov. 30; Sp. p. 7545; Gaz. vol. 148; p. 1269.
Car, Steel box-. R. E. Frame and C. G. Harrington. No. 941,067; Nov. 23; Sp. p. 5787; Gaz. vol. 148; p. 976.
Car-step, Folding. G. F. Brandau. No. 939,970; Nov. 16; Sp. p. 3345; Gaz. vol. 148; p. 579.
Car-switch-operating mechanism. F. G. Elbel. No. 940,136; Nov. 16; Sp. p. 3744; Gaz. vol. 148; p. 638.
Car-track-sanding device. W. E. Fielding. No. 938,837; Nov. 2; Sp. p. 833; Gaz. vol. 148; p. 134.
Car-underframe bolster construction. F. Koch. No. 938,770; Nov. 2; Sp. p. 684; Gaz. vol. 148; p. 110.
Car underframe, Railway-. E. Posson. No. 940,358; Nov. 16; Sp. p. 4241; Gaz. vol. 148; p. 715.
Car-ventilator. C. M. Askegren. No. 939,784; Nov. 9; Sp. p. 2949; Gaz. vol. 148; p. 486.
Car ventilator, Railway-. J. E. Ward. No. 941,290; Nov. 23; Sp. p. 6280; Gaz. vol. 148; p. 1051.
Car, Weed-burning. G. L. O'Neale. No. 939,538; Nov. 9; Sp. p. 2410; Gaz. vol. 148; p. 400.
Car-wheel and mounting. T. Donohoe. No. 938,985; Nov. 2; Sp. p. 1168; Gaz. vol. 148; p. 186.
Car wheel, Motor-. G. B. Winter. No. 942,025; Nov. 30; Sp. p. 7824; Gaz. vol. 148; p. 1318.
Car wind-screen, Motor-. J. Hodgson. No. 940,529; Nov. 16; Sp. p. 4628; Gaz. vol. 148; p. 772.
Car-window ventilator. D. W. Snow. No. 940,946; Nov. 23; Sp. p. 5532; Gaz. vol. 148; p. 936.
Cars, Grass-cutting attachment for. W. J. Clarke and S. A. Stream. No. 940,514; Nov. 16; Sp. p. 4602; Gaz. vol. 148; p. 768
Cars, Lumber-roller for. E. L. Stocking. No. 939,452; Nov. 9; Sp. p. 2235; Gaz. vol. 148; p. 371.
Cars or the like, System of precooling fruit-. A. Faget. No. 941,443; Nov. 30; Sp. p. 6624; Gaz. vol. 148; p. 1122.
Cars, Passenger-controlled register for street-. O. Speckenbach. No. 941,108; Nov. 23; Sp. p. 5870; Gaz. vol. 148; p. 990.
Cars, Radiator suspension for motor-. G. Enrico. No. 939,961; Nov. 9; Sp. p. 3321; Gaz. vol. 148; p. 548.
Carbid and manufacturing same. H. L. Hartenstein. No. 938,581; Nov. 2; Sp. p. 323; Gaz. vol. 148; p. 47.
Carboy. A. J. Miller. No. 939,286; Nov. 9; Sp. p. 1821; Gaz. vol. 148; p. 315.
Carboy-protector. F. B. Lothrop. No. 939,283; Nov. 9; Sp. p. 1814; Gaz. vol. 148; p. 313.
Carbureter. S. W. Rapp. No. 938,894; Nov. 2; Sp. p. 965; Gaz. vol. 148; p. 153.
Carbureter. E. A. Dickson. No. 939,481; Nov. 9; Sp. p. 2302; Gaz. vol. 148; p. 381.

Carbureter. R. Papanti. No. 939,856; Nov. 9; Sp. p. 3089; Gaz. vol. 148; p. 510.
Carbureter. J. R. Nye. No. 940,652; Nov. 16; Sp. p. 4885; Gaz. vol. 148; p. 813.
Carbureter. A. H. Warmsley. No. 941,393; Nov. 30; Sp. p. 6511; Gaz. vol. 148; p. 1106.
Carbureter. J. H. Cooper. No. 941,406; Nov. 30; Sp. p. 6550; Gaz. vol. 148; p. 1111.
Carbureter. C. G. Leonard. No. 941,424; Nov. 30; Sp. p. 6585; Gaz. vol. 148; p. 1117.
Carbureters, Reed air-intake regulator for. F. C. Reineking. No. 939,549; Nov. 9; Sp. p. 2434; Gaz. vol. 148; p. 404.
Card attachment. J. E. Ralph. No. 941,273; Nov. 23; Sp. p. 6246; Gaz. vol. 148; p. 1046.
Card-case or pocket-book. M. W. Cummings and J. F. Jordan. No. 939,673; Nov. 9; Sp. p. 2713; Gaz. vol. 148; p. 448.
Card-table. M. B. Samuel. No. 940,283; Nov. 16; Sp. p. 4070; Gaz. vol. 148; p. 690.
Carding-machine alarm. E. P. Schmitt. No. 939,750; Nov. 9; Sp. p. 2876; Gaz. vol. 148; p. 474.
Carpet fastener, Stair-. C. W. Kirsch. No. 939,601; Nov. 9; Sp. p. 2564; Gaz. vol. 148; p. 421.
Carpet-fasteners, Tool for detaching. W. H. Boles. No. 939,207; Nov. 9; Sp. p. 1629; Gaz. vol. 148; p. 288.
Carpet-sweeper brushes, Device for cleaning. F. W. Myers. No. 939,290; Nov. 9; Sp. p. 1835; Gaz. vol. 148; p. 316.
Carriage and wagon checking attachment. W. F. Young. No. 940,771; Nov. 23; Sp. p. 5175; Gaz. vol. 148; p. 879.
Carriage, Folding baby-. A. W. Loshbough. No. 941,374; Nov. 30; Sp. p. 6456; Gaz. vol. 148; p. 1099.
Carriage-top. W. Woop. No. 938,933; Nov. 2; Sp. p. 1062; Gaz. vol. 148; p. 168.
Carrier: *See* Canvas carrier; Endless carrier; Game-element carrier; Hat-carrier; Hay-carrier; Lens-carrier; Stereopticon-slide carrier; Thresher-feeder carrier.
Carrier. C. B. Willenborg. No. 940,768; Nov. 23; Sp. p. 5170; Gaz. vol. 148; p. 878.
Carriers, Automatic dumping device for elevated. T. O. Werner. No. 940,760; Nov. 23; Sp. p. 5141; Gaz. vol. 148; p. 875.
Carrying and pressing apparatus. C. S. Wheelwright. No. 939,576; Nov. 9; Sp. p. 2490; Gaz. vol. 148; p. 413.
Carton. G. W. Teasdale. No. 938,799; Nov. 2; Sp. p. 743; Gaz. vol. 148; p. 121.
Cartridge, Blasting-. G. Wolsey and L. Fussey. No. 939,886; Nov. 9; Sp. p. 3153; Gaz. vol. 148; p. 520.
Case: *See* Annunciator-case; Bobbin-case; Bolt-case; Bookcase; Card-case; Egg-case; Packing and display case; Piano-case; Shipping-case; Show-case; Tire-case.
Cash-register. E. J. von Pein. No. 938,527; Nov. 2; Sp. p. 192; Gaz. vol. 148; p. 28.
Cash-register. W. H. Muzzy. No. 939,289; Nov. 9; Sp. p. 1825; Gaz. vol. 148; p. 316.
Cash-register. W. J. McKee. No. 940,816; Nov. 23; Sp. p. 5267; Gaz. vol. 148; p. 894.
Cash-register. W. H. Muzzy. No. 941,378; Nov. 30; Sp. p. 6465; Gaz. vol. 148; p. 1101.
Caster. E. H. Humphrey. No. 938,867; Nov. 2; Sp. p. 912; Gaz. vol. 148; p. 143.
Caster. B. H. Noelting. No. 938,888; Nov. 2; Sp. p. 951; Gaz. vol. 148; p. 151.
Caster. G. W. Bent. No. 940,780; Nov. 23; Sp. p. 5193; Gaz. vol. 148; p. 882.
Caster for gymnasium apparatus. F. Medart. No. 940,606; Nov. 16; Sp. p. 4785; Gaz. vol. 148; p. 797.
Caster, Furniture-. E. H. Humphrey. No. 938,866; Nov. 2; Sp. p. 910; Gaz. vol. 148; p. 143.
Caster, Self-adjusting. T. C. Luce. No. 941,062; Nov. 23; Sp. p. 5818; Gaz. vol. 148; p. 982.
Casting apparatus. A. Casey. No. 940,302; Nov. 16; Sp. p. 4125; Gaz. vol. 148; p. 696.
Casting metals. W. G. Nichols. No. 938,688; Nov. 2; Sp. p. 535; Gaz. vol. 148; p. 83.
Casting metals. W. G. Nichols. No. 938,689; Nov. 2; Sp. p. 537; Gaz. vol. 148; p. 83.
Casting plant. C. W. Sherman. No. 938,904; Nov. 2; Sp. p. 1003; Gaz. vol. 148; p. 158.
Cat-guard. Z. D. Underhill. No. 940,755; Nov. 23; Sp. p. 5128; Gaz. vol. 148; p. 873.
Cataloguing system. R. T. Close. No. 941,499; Nov. 30; Sp. p. 6733; Gaz. vol. 148; p. 1141.
Catamenial bandage. C. B. Cahoon. No. 938,967; Nov. 2; Sp. p. 1120; Gaz. vol. 148; p. 179.
Catamenial garment. A. L. Brodton. No. 939,943; Nov. 9; Sp. p. 3286; Gaz. vol. 148; p. 542.
Causticizing-tank. E. F. Parker. No. 941,036; Nov. 23; Sp. p. 5727; Gaz. vol. 148; p. 966.
Cement and other products, Making. S. Peacock. No. 939,078; Nov. 2; Sp. p. 1337; Gaz. vol. 148; p. 217.
Cement block for wall structure. W. L. Davidson. No. 941,624; Nov. 30; Sp. p. 6987; Gaz. vol. 148; p. 1182.
Cement-block machine. F. J. Emal and C. P. Horn. No. 939,236; Nov. 9; Sp. p. 1710; Gaz. vol. 148; p. 297.
Cement-kiln. T. A. Edison. No. 939,817; Nov. 9; Sp. p. 3016; Gaz. vol. 148; p. 497.
Cement, Manufacture of. S. O. Cowper-Coles. No. 939,217; Nov. 9; Sp. p. 1653; Gaz. vol. 148; p. 291.
Cement-pot. H. W. Lawson. No. 940,333; Nov. 16; Sp. p. 4194; Gaz. vol. 148; p. 706.
Cement, Process and apparatus for artificially aging or seasoning Portland. T. A. Edison. No. 941,630; Nov. 30; Sp. p. 6998; Gaz. vol. 148; p. 1184.
Cement sidewalks or similar structures, Apparatus and process for laying. A. D. Nay. No. 939,071; Nov. 2; Sp. p. 1322; Gaz. vol. 148; p. 215.
Cement wash-tub mold. T. V. Galassé. No. 941,139; Nov. 23; Sp. p. 5952; Gaz. vol. 148; p. 1001.
Cementitious composition and making same. W. E. Carson. No. 939,977; Nov. 16; Sp. p. 3363; Gaz. vol. 148; p. 581.
Centrifugal extractor. W. Bartholomew. No. 940,662; Nov. 23; Sp. p. 4921; Gaz. vol. 148; p. 842.
Centrifugal machine. G. N. Goddard. No. 939,904; Nov. 9; Sp. p. 3201; Gaz. vol. 148; p. 527.
Chain-manipulating tool. J. C. Jensen. No. 939,511; Nov. 9; Sp. p. 2352; Gaz. vol. 148; p. 390.
Chair: *See* Adjustable chair; Arm-chair; Folding chair; Rocking-chair; Trick-chair.
Chair. M. Thum. No. 938,915; Nov. 2; Sp. p. 1024; Gaz. vol. 148; p. 162.
Chair. C. J. Travers. No. 940,907; Nov. 23; Sp. p. 5444; Gaz. vol. 148; p. 923.
Chair. E. H. Milner. No. 941,160; Nov. 23; Sp. p. 5991; Gaz. vol. 148; p. 1008.
Chair. L. Berzon and H. Goldberg. No. 941,555; Nov. 30; Sp. p. 6845; Gaz. vol. 148; p. 1159.
Chair. C. L. Grellick. No. 941,919; Nov. 30; Sp. p. 7627; Gaz. vol. 148; p. 1284.
Chair attachment. A. V. and W. H. Jackson. No. 939,841; Nov. 9; Sp. p. 3059; Gaz. vol. 148; p. 505.
Chair attachment, Barber-. T. G. Aitken. No. 938,937; Nov. 2; Sp. p. 1070; Gaz. vol. 148; p. 170.
Chair detachable book-rest. T. E. Vickers and A. L. Henry. No. 939,764; Nov. 9; Sp. p. 2919; Gaz. vol. 148; p. 479.
Chair extension-arm. F. E. Payne and M. M. House. No. 939,623; Nov. 9; Sp. p. 2605; Gaz. vol. 148; p. 429.
Chair fan attachment. L. Hildreth. No. 940,688; Nov. 23; Sp. p. 4979; Gaz. vol. 148; p. 850.
Chair-iron. H. W. Bolens. No. 940,232; Nov. 16; Sp. p. 3949; Gaz. vol. 148; p. 672.
Chair-seat. A. Wanner, Jr. No. 938,730; Nov. 2; Sp. p. 607; Gaz. vol. 148; p. 96.
Chairs, Adjustable foot-rest for Morris. C. L. Grellick. No. 939,827; Nov. 9; Sp. p. 3035; Gaz. vol. 148; p. 500.
Chairs, Binding means for. A. G. Walter. No. 940,759; Nov. 23; Sp. p. 5140; Gaz. vol. 148; p. 874.
Chalice. G. Valley. No. 939,960; Nov. 9; Sp. p. 3319; Gaz. vol. 148; p. 547.
Chalk-holder. C. V. Norman and G. Peterson. No. 939,156; Nov. 2; Sp. p. 1512; Gaz. vol. 148; p. 245.
Channel-bars with taperless flanges, Making. H. Sack. No. 939,171; Nov. 2; Sp. p. 1546; Gaz. vol. 148; p. 250.
Check, Barber's account-. J. Church. No. 939,979; Nov. 16; Sp. p. 3377; Gaz. vol. 148; p. 582.
Check-controlled mechanism. F. C. Kalner. No. 941,716; Nov. 30; Sp. p. 7196; Gaz. vol. 148; p. 1213.
Checkrein. J. S. Mirgan. No. 940,886; Nov. 23; Sp. p. 5405; Gaz. vol. 148; p. 916.
Chime, Electric. J. E. Scovill. No. 940,483; Nov. 16; Sp. p. 4527; Gaz. vol. 148; p. 757.
Chimney, Ventilating-. J. M. McIntosh. No. 940,348; Nov. 16; Sp. p. 4220; Gaz. vol. 148; p. 711.
Chocolate confections, Machine for the manufacture of. A. H. Savy. No. 941,537; Nov. 30; Sp. p. 6814; Gaz. vol. 148; p. 1153.
Chopper: *See* Cotton-chopper.
Chuck. W. B. Pearson and E. R. Seward. No. 939,304; Nov. 9; Sp. p. 1891; Gaz. vol. 148; p. 322.
Chuck, Automatic. H. O. Evans. No. 938,996; Nov. 2; Sp. p. 1183; Gaz. vol. 148; p. 189.
Chuck, Drill-. H. N. Kennedy. No. 938,589; Nov. 2; Sp. p. 337; Gaz. vol. 148; p. 50.
Chuck, Drill-. C. F. Schultis. No. 939,102; Nov. 2; Sp. p. 1381; Gaz. vol. 148; p. 225.
Chuck, Lathe and drilling. W. Kleber. No. 938,873; Nov. 2; Sp. p. 921; Gaz. vol. 148; p. 145.
Churn. O. D. Welds. No. 940,099; Nov. 16; Sp. p. 3672; Gaz. vol. 148; p. 625.
Churn. F. A. Grant. No. 941,318; Nov. 23; Sp. p. 6331; Gaz. vol. 148; p. 1058.
Churn. D. Rees. No. 941,948; Nov. 30; Sp. p. 7679; Gaz. vol. 148; p. 1294.
Churn and ice-cream freezer, Combined. W. A. Jones. No. 939,512; Nov. 9; Sp. p. 2353; Gaz. vol. 148; p. 390.
Chute, Bean-. R. A. and H. O. Haenke. No. 939,830; Nov. 9; Sp. p. 3041; Gaz. vol. 148; p. 501.
Chute, Waste-. G. A. Hofmeyer. No. 939,690; Nov. 9; Sp. p. 2747; Gaz. vol. 148; p. 453.
Chute, Waste-. G. A. Hofmeyer. No. 939,691; Nov. 9; Sp. p. 2749; Gaz. vol. 148; p. 454.
Cigar end or tuck forming machine. R. Helms. No. 940,248; Nov. 16; Sp. p. 3963; Gaz. vol. 148; p. 678.
Cigar, Self-lighting. D. G. Vale. No. 941,966; Nov. 30; Sp. p. 7722; Gaz. vol. 148; p. 1300.
Cigarette and match box. S. Schendel. No. 940,198; Nov. 16; Sp. p. 3886; Gaz. vol. 148; p. 660.
Cigarettes, &c., Machine for packeting. E. L. Bracy. No. 941,490; Nov. 30; Sp. p. 6719; Gaz. vol. 148; p. 1138.
Circuit-breaker, Automatic. W. H. Lawrence and P. Torchio. No. 940,881; Nov. 23; Sp. p. 5397; Gaz. vol. 148; p. 914.
Circuit breaker, Automatic electric-. W. F. Meier and W. L. Rideout. No. 939,730; Nov. 9; Sp. p. 2828; Gaz. vol. 148; p. 467.
Circuit-breaker, Automatic magnetic. W. M. Scott. No. 940,647; Nov. 16; Sp. p. 4876; Gaz. vol. 148; p. 811.
Clamp: *See* Bench-clamp; Corset-clamp; Dental tooth-clamp; Fence-clamp; Miter-clamp; Rail-clamp; Razor-blade clamp; Ring-clamp; Saw-filing clamp; Wire-clamp; Wringer-clamp.
Clamp. D. A. Ducharme. No. 941,504; Nov. 30; Sp. p. 6747; Gaz. vol. 148; p. 1143.

Clamp and rail-brace. J. J. Griffin and A. W. Muth. No. 940,964; Nov. 23; Sp. p. 5567; Gaz. vol. 148; p. 942.
Clamping device. J. W. Higgins. No. 938,862; Nov. 2; Sp. p. 883; Gaz. vol. 148; p. 141.
Clasp-fastener. M. Pugatsky, H. Wilkenfeld, and S. Mannes. No. 941,096; Nov. 23; Sp. p. 5846; Gaz. vol. 148; p. 986.
Clay-gathering machine. C. E. Olden. No. 939,855; Nov. 9; Sp. p. 3087; Gaz. vol. 148; p. 510.
Cleaner: *See* Grain-cleaner; Gun-cleaner; Pneumatic cleaner; Ship-cleaner; Vacuum-cleaner.
Cleaner. J. Hadka. No. 939,248; Nov. 9; Sp. p. 1732; Gaz. vol. 148; p. 301.
Cleansing compound. J. A. Lester. No. 941,155; Nov. 23; Sp. p. 5984; Gaz. vol. 148; p. 1006.
Clevis-hook, Whiffletree. W. S. Thomson. No. 938,524; Nov. 2; Sp. p. 187; Gaz. vol. 148; p. 27.
Clip: *See* Haulage clip; Swingletree safety-clip; Thread-cutting clip.
Clock. R. C. Saloch. No. 940,617; Nov. 16; Sp. p. 4806; Gaz. vol. 148; p. 801.
Clock, Alarm-. W. E. Porter. No. 941,042; Nov. 23; Sp. p. 5736; Gaz. vol. 148; p. 968.
Clock, Pendulum-actuated. E. W. Valli, Jr. No. 940,410; Nov. 16; Sp. p. 4382; Gaz. vol. 148; p. 733.
Clod-crusher. C. G. Stelzer. No. 941,740; Nov. 30; Sp. p. 7243; Gaz. vol. 148; p. 1221.
Closet: *See* Water-closet.
Clothes-drier. G. B. Deacon. No. 939,398; Nov. 9; Sp. p. 2120; Gaz. vol. 148; p. 353.
Clothes-line hanger. C. C. Lovejoy. No. 939,045; Nov. 2; Sp. p. 1280; Gaz. vol. 148; p. 206.
Clothes-line hanger. G. T. Van Riper. No. 941,898; Nov. 30; Sp. p. 7591; Gaz. vol. 148; p. 1278.
Clothes-line reel. S. S. Rider. No. 939,862; Nov. 9; Sp. p. 3102; Gaz. vol. 148; p. 512.
Clothes-line prop. W. Hetherington. No. 940,875; Nov. 23; Sp. p. 5383; Gaz. vol. 148; p. 912.
Clothes-line reel and tightener. R. M. Kneisley. No. 939,033; Nov. 2; Sp. p. 1260; Gaz. vol. 148; p. 202.
Clothes-line support. G. A. Culbertson. No. 939,811; Nov. 9; Sp. p. 3008; Gaz. vol. 148; p. 495.
Clothes-line tightener. R. C. Scheurer and L. Marek. No. 939,099; Nov. 2; Sp. p. 1377; Gaz. vol. 148; p. 224.
Clothes-pounder. E. W. Lynch. No. 940,699; Nov. 23; Sp. p. 5004; Gaz. vol. 148; p. 854.
Clothes-press, Steam. A. J. Hoffman. No. 939,025; Nov. 2; Sp. p. 1239; Gaz. vol. 148; p. 198.
Clothes-rack, Suspended. B. B. Bosworth. No. 941,909; Nov. 30; Sp. p. 7610; Gaz. vol. 148; p. 1281.
Clothes-reel. R. W. Robinson. No. 940,729; Nov. 23; Sp. p. 5068; Gaz. vol. 148; p. 865.
Clothes-wringer. A. Lovett. No. 942,001; Nov. 30; Sp. p. 7784; Gaz. vol. 148; p. 1311.
Cluster, Wireless. R. B. Benjamin. No. 938,631; Nov. 2; Sp. p. 417; Gaz. vol. 148; p. 63.
Clutch. T. H. Gerrard. No. 940,002; Nov. 16; Sp. p. 3422; Gaz. vol. 148; p. 590.
Clutch. W. S. Hovey and C. B. Stebbins. No. 940,970; Nov. 23; Sp. p. 5576; Gaz. vol. 148; p. 944.
Clutch. F. P. Huyck. No. 941,349; Nov. 23; Sp. p. 6389; Gaz. vol. 148; p. 1098.
Clutch. G. W. Brubaker, Jr. No. 941,973; Nov. 30; Sp. p. 7732; Gaz. vol. 148; p. 1302.
Clutch-actuating mechanism. B. M. W. Hanson. No. 939,192; Nov. 2; Sp. p. 1588; Gaz. vol. 148; p. 257.
Clutch, Driving and brake. F. T. Gottschalk. No. 939,411; Nov. 9; Sp. p. 2156; Gaz. vol. 148; p. 358.
Clutch, Friction-. F. Evans. No. 940,679; Nov. 23; Sp. p. 4964; Gaz. vol. 148; p. 847.
Clutch, Pulley-. A. H. Cameron. No. 939,663; Nov. 9; Sp. p. 2696; Gaz. vol. 148; p. 444.
Clutches, Duplex thrust device for friction-. A. Lambert. No. 938,772; Nov. 2; Sp. p. 687; Gaz. vol. 148; p. 110.
Coal, Briqueting. C. E. Hite. No. 941,454; Nov. 30; Sp. p. 6645; Gaz. vol. 148; p. 1126.
Coal-loading apparatus. W. Larsen. No. 938,879; Nov. 2; Sp. p. 931; Gaz. vol. 148; p. 147.
Coasting-record device. F. Hedley and J. S. Doyle. No. 940,810; Nov. 23; Sp. p. 5252; Gaz. vol. 148; p. 891.
Coating device. G. H. Hardman. No. 940,593; Nov. 16; Sp. p. 4763; Gaz. vol. 148; p. 794.
Coating-machines, Feeding and dusting device for. M. Schenck. No. 940,737; Nov. 23; Sp. p. 5085; Gaz. vol. 148; p. 868.
Coating machines, Holder for liquid-. R. A. Beausejour. No. 941,607; Nov. 30; Sp. p. 6947; Gaz. vol. 148; p. 1175.
Cock, Ball-. W. J. Frost. No. 938,470; Nov. 2; Sp. p. 33; Gaz. vol. 148; p. 8.
Cock, Compression-. C. S. Frishmuth. No. 941,316; Nov. 23; Sp. p. 6328; Gaz. vol. 148; p. 1058.
Coffee cleaning and grading machine. E. C. Smith. No. 940,980; Nov. 23; Sp. p. 5009; Gaz. vol. 148; p. 950.
Coffee-machine. C. Nelson. No. 938,605; Nov. 2; Sp. p. 372; Gaz. vol. 148; p. 55.
Coin-collector. A. M. Farnsworth. No. 941,509; Nov. 30; Sp. p. 6759; Gaz. vol. 148; p. 1145.
Coin-controlled apparatus. A. G. Kennel. No. 940,973; Nov. 23; Sp. p. 5584; Gaz. vol. 148; p. 945.
Coin-detector. H. T. Werden. No. 940,568; Nov. 16; Sp. p. 4721; Gaz. vol. 148; p. 786.
Coin-holder. A. R. Voliva. No. 938,922; Nov. 2; Sp. p. 1041; Gaz. vol. 148; p. 165.
Coin-operated machine. W. W. Rosenfield. No. 939,746; Nov. 9; Sp. p. 2864; Gaz. vol. 148; p. 472.
Coke-drag. S. Richter. No. 941,385; Nov. 30; Sp. p. 6491; Gaz. vol. 148; p. 1104.
Coke-oven, By-product retort. H. Prentice. No. 939,066; Nov. 2; Sp. p. 1352; Gaz. vol. 148; p. 220.
Coke-oven door. W. O. White. No. 941,398; Nov. 30; Sp. p. 6524; Gaz. vol. 148; p. 1108.
Collapsible box or crate. G. A. Shraud. No. 940,371; Nov. 16; Sp. p. 4282; Gaz. vol. 148; p. 719.
Collar. E. L. Bevington. No. 939,204; Nov. 9; Sp. p. 1626; Gaz. vol. 148; p. 287.
Collar. H. C. Miller. No. 941,795; Nov. 30; Sp. p. 7358; Gaz. vol. 148; p. 1240.
Collar machine, Horse-. J. C. Collett and A. C. Jackson. No. 939,218; Nov. 9; Sp. p. 1655; Gaz. vol. 148; p. 292.
Collar-supporter. B. C. Bubar. No. 939,388; Nov. 9; Sp. p. 2099; Gaz. vol. 148; p. 350.
Coloring-matter, Vat. J. Deinet. No. 938,618; Nov. 2; Sp. p. 395; Gaz. vol. 148; p. 59.
Coloring-matter, Vat. J. Deinet. No. 938,619; Nov. 2; Sp. p. 395; Gaz. vol. 148; p. 59.
Colter attachment, Plow. C. Hightower. No. 941,252; Nov. 23; Sp. p. 6190; Gaz. vol. 148; p. 1039.
Comb. W. Jacobs. No. 940,532; Nov. 16; Sp. p. 4633; Gaz. vol. 148; p. 773.
Comb. M. E. Purdy. No. 941,586; Nov. 30; Sp. p. 6905; Gaz. vol. 148; p. 1168.
Comb attachment. F. N. Plamondon. No. 940,890; Nov. 23; Sp. p. 5419; Gaz. vol. 148; p. 918.
Combination-lock. J. J. Murphy. No. 941,028; Nov. 23; Sp. p. 5712; Gaz. vol. 148; p. 963.
Combination-lock. W. Fox. No. 941,241; Nov. 23; Sp. p. 6172; Gaz. vol. 148; p. 1035.
Combustion-engine. C. S. Plestrak. No. 940,474; Nov. 16; Sp. p. 4510; Gaz. vol. 148; p. 754.
Comfortables, Sanitary washable case for. A. C. Caldwell. No. 938,968; Nov. 2; Sp. p. 1121; Gaz. vol. 148; p. 179.
Communication, Selection in systems of. E. E. Clement. No. 939,187; Nov. 2; Sp. p. 1558; Gaz. vol. 148; p. 256.
Communication, Selection in systems of. E. E. Clement. No. 939,188; Nov. 2; Sp. p. 1582; Gaz. vol. 148; p. 256.
Communication, Selective apparatus for systems of. E. E. Clement. No. 939,186; Nov. 2; Sp. p. 1577; Gaz. vol. 148; p. 255.
Compass, Beam-. F. S. Hurst. No. 939,597; Nov. 9; Sp. p. 2556; Gaz. vol. 148; p. 419.
Compasses, Apparatus for recording-. E. Schuette and N. Dedrick. No. 939,866; Nov. 9; Sp. p. 3110; Gaz. vol. 148; p. 513.
Compasses, Chart for recording-. E. Schuette. No. 939,867; Nov. 9; Sp. p. 3114; Gaz. vol. 148; p. 514.
Composing and casting machine, Typographical. H. Pearce and J. E. Billington. No. 941,384; Nov. 30; Sp. p. 6483; Gaz. vol. 148; p. 1103.
Composition of matter. C. F. Ackerman. No. 939,938; Nov. 9; Sp. p. 3273; Gaz. vol. 148; p. 540.
Composition of matter. F. J. Conboy. No. 939,982; Nov. 16; Sp. p. 3383; Gaz. vol. 148; p. 583.
Compounds and mixtures, Method and apparatus for determining proportions in. L. Taylor. No. 940,217; Nov. 16; Sp. p. 3925; Gaz. vol. 148; p. 667.
Computing-machine. J. M. Daly. No. 939,221; Nov. 9; Sp. p. 1659; Gaz. vol. 148; p. 293.
Computing-machine. J. M. Daly. No. 939,479; Nov. 9; Sp. p. 2297; Gaz. vol. 148; p. 380.
Computing-machine-check-stamping mechanism. G. A. Armstrong. No. 938,455; Nov. 2; Sp. p. 1; Gaz. vol. 148; p. 3.
Computing-table. E. Aberle. No. 938,737; Nov. 2; Sp. p. 620; Gaz. vol. 148; p. 96.
Concentrator slime-feeding device. J. B. Green. No. 941,918; Nov. 30; Sp. p. 7624; Gaz. vol. 148; p. 1284.
Concrete beams, girders, and arch-ribs, Constructing and erecting reinforced-. F. W. Skinner. No. 939,642; Nov. 9; Sp. p. 2645; Gaz. vol. 148; p. 437.
Concrete-block machine. O. H. Davis. No. 939,225; Nov. 9; Sp. p. 1688; Gaz. vol. 148; p. 294.
Concrete-block machine. C. E. Phillips. No. 939,543; Nov. 9; Sp. p. 2421; Gaz. vol. 148; p. 401.
Concrete-block machine. L. B. Larsen. No. 940,935; Nov. 23; Sp. p. 5508; Gaz. vol. 148; p. 933.
Concrete-block-molding machine. C. Colwitz. No. 940,131; Nov. 16; Sp. p. 3737; Gaz. vol. 148; p. 637.
Concrete building-blocks, Bond for two-membered. L. B. Larsen. No. 941,080; Nov. 23; Sp. p. 5814; Gaz. vol. 148; p. 981.
Concrete building construction. R. V. Woods. No. 941,837; Nov. 30; Sp. p. 7467; Gaz. vol. 148; p. 1255.
Concrete construction. C. E. Brockhausen. No. 938,458; Nov. 2; Sp. p. 10; Gaz. vol. 148; p. 4.
Concrete construction, Metal tie for. E. Chapman. No. 941,616; Nov. 30; Sp. p. 6969; Gaz. vol. 148; p. 1179.
Concrete conveying and mixing cart. F. H. Lathrop. No. 939,275; Nov. 9; Sp. p. 1795; Gaz. vol. [illegible]0.
Concrete floor construction, Reinforced-. U. S. G. Athey. No. 940,296; Nov. 16; Sp. p. 4095; Gaz. vol. 148; p. 694.
Concrete, Means for filling holes with. L. E. Welsh. No. 940,100; Nov. 16; Sp. p. 3675; Gaz. vol. 148; p. 626.
Concrete-mixer. M. H. Reed. No. 939,629; Nov. 9; Sp. p. 2618; Gaz. vol. 148; p. 431.
Concrete-mixers, Power charging device for. A. E. Smith. No. 939,341; Nov. 9; Sp. p. 1970; Gaz. vol. 148; p. 335.
Concrete-mixing machine. R. G. Leverich. No. 941,998; Nov. 30; Sp. p. 7771; Gaz. vol. 148; p. 1310.
Concrete-molding machine, Combination. J. H. West. No. 939,118; Nov. 2; Sp. p. 1416; Gaz. vol. 148; p. 231.
Concrete partition, Reinforced-. G. M. Graham. No. 938,659; Nov. 2; Sp. p. 478; Gaz. vol. 148; p. 73.
Concrete pavements, Laying. F. S. Lamson. No. 941,886; Nov. 30; Sp. p. 7561; Gaz. vol. 148; p. 1272.
Concrete pile for pier and foundation construction, Reinforced-. C. E. Lamburth. No. 941,078; Nov. 23; Sp. p. 5810; Gaz. vol. 148; p. 980.

Concrete pile, Reinforced-. T. Stedman. No. 942,018; Nov. 30; Sp. p. 7812; Gaz. vol. 148; p. 1315.
Concrete receptacles. Form or mold for. R. C. Morris. No. 939,059; Nov. 2; Sp. p. 1301; Gaz. vol. 148; p. 210.
Concrete, Reinforced. F. Thun. No. 939,567; Nov. 9; Sp. p. 2475; Gaz. vol. 148; p. 410.
Concrete-reinforcing bar. J. M. Dudley. No. 939,403; Nov. 9; Sp. p. 2139; Gaz. vol. 148; p. 355.
Concrete-reinforcing, Holder for. J. W. Reed. No. 939,743; Nov. 9; Sp. p. 2860; Gaz. vol. 148; p. 471.
Concrete shingle. J. H. Wiest. No. 938,930; Nov. 2; Sp. p. 1057; Gaz. vol. 148; p. 167.
Concrete sidewalks, curbs, &c., Apparatus for laying. E. L. Ransome. No. 940,061; Nov. 16; Sp. p. 3577; Gaz. vol. 148; p. 612.
Concrete slabs, Production of hollow reinforced-. M. Milankovitch. No. 940,041; Nov. 16; Sp. p. 3529; Gaz. vol. 148; p. 604.
Concrete-steel construction. W. Mueser. No. 940,399; Nov. 16; Sp. p. 4362; Gaz. vol. 148; p. 730.
Concrete structure, Reinforced. G. M. Graham. No. 938,662; Nov. 2; Sp. p. 482; Gaz. vol. 148; p. 74.
Concrete-structure reinforcing-frame. G. M. Graham. No. 938,661; Nov. 2; Sp. p. 481; Gaz. vol. 148; p. 74.
Concrete-structures, Erecting reinforced. G. M. Graham. No. 938,660; Nov. 2; Sp. p. 479; Gaz. vol. 148; p. 73.
Concrete structures, Mold for making. J. M. Timmons. No. 940,090; Nov. 16; Sp. p. 3643; Gaz. vol. 148; p. 622.
Concrete-tile mold. B. T. Beckman. No. 939,968; Nov. 16; Sp. p. 3343; Gaz. vol. 148; p. 578.
Concrete-tile mold, Portable. F. M. Wiltrout. No. 939,578; Nov. 9; Sp. p. 2499; Gaz. vol. 148; p. 414.
Concrete-wall construction. J. Macbeth. No. 938,678; Nov. 2; Sp. p. 520; Gaz. vol. 148; p. 79.
Concrete-wall mold. D. A. Marshall. No. 942,004; Nov. 30; Sp. p. 7788; Gaz. vol. 148; p. 1311.
Condenser. C. J. A. Gottlieb. No. 938,476; Nov. 2; Sp. p. 47; Gaz. vol. 148; p. 10.
Condenser, Steam-. R. D. Tomlinson. No. 940,648; Nov. 16; Sp. p. 4880; Gaz. vol. 148; p. 812.
Conduits, Device for joining parts of. G. M. Wehrle. No. 940,098; Nov. 16; Sp. p. 3670; Gaz. vol. 148; p. 625.
Conduits, Receptacle or the like for. G. A. Lutz and C. C. Sibley. No. 941,156; Nov. 23; Sp. p. 5985; Gaz. vol. 148; p. 1007.
Confectionery-machine. O. F. Granlund. No. 941,070; Nov. 23; Sp. p. 5796; Gaz. vol. 148; p. 978.
Connector. T. A. Hammond. No. 940,012; Nov. 16; Sp. p. 3439; Gaz. vol. 148; p. 594.
Container. O. A. Borden. No. 941,303; Nov. 23; Sp. p. 6305; Gaz. vol. 148; p. 1054.
Containing-can. W. H. Hoyt. No. 941,781; Nov. 30; Sp. p. 7334; Gaz. vol. 148; p. 1236.
Conveyer. H. B. and J. A. Sauerman. No. 941,045; Nov. 23; Sp. p. 5741; Gaz. vol. 148; p. 969.
Conveyer. F. Eberhart. No. 941,364; Nov. 30; Sp. p. 6438; Gaz. vol. 148; p. 1096.
Conveyer-bucket. J. B. Gibson. No. 939,243; Nov. 9; Sp. p. 1724; Gaz. vol. 148; p. 299.
Cooker, Egg-. D. H. Moore. No. 941,265; Nov. 23; Sp. p. 6223; Gaz. vol. 148; p. 1043.
Cooking shelled peanuts, &c., Machine for. C. O. Roe. No. 940,557; Nov. 16; Sp. p. 4096; Gaz. vol. 148; p. 782.
Cooking utensil. L. Carr. No. 940,672; Nov. 23; Sp. p. 4938; Gaz. vol. 148; p. 844.
Cooking-vessel cover, Ventilated. C. S. Phillips. No. 941,041; Nov. 23; Sp. p. 5735; Gaz. vol. 148; p. 968.
Cooler: *See* Liquid-cooler.
Cooling-box. H. J. Kuck. No. 941,077; Nov. 23; Sp. p. 5808; Gaz. vol. 148; p. 980.
Cooling system. L. L. Bogue. No. 938,814; Nov. 2; Sp. p. 783; Gaz. vol. 148; p. 126.
Coop, Poultry-. C. I. Bumpass. No. 939,798; Nov. 9; Sp. p. 2985; Gaz. vol. 148; p. 491.
Coop, Poultry-. A. M. Benzing. No. 941,300; Nov. 23; Sp. p. 6301; Gaz. vol. 148; p. 1054.
Coop, Poultry-. J. A. Emert. No. 941,507; Nov. 30; Sp. p. 6756; Gaz. vol. 148; p. 1144.
Copper, nickel, and other metals from copper-nickel matte, Separating. H. L. Wells. No. 940,292; Nov. 16; Sp. p. 4083; Gaz. vol. 148; p. 698.
Copper or copper-nickel mattes, Treatment of. J. T. Carrick. No. 939,947; Nov. 9; Sp. p. 3291; Gaz. vol. 148; p. 543.
Copy-holder. I. H. P. Colleen. No. 938,978; Nov. 2; Sp. p. 1145; Gaz. vol. 148; p. 183.
Copy-holder. F. M. Giddings. No. 940,003; Nov. 16; Sp. p. 3423; Gaz. vol. 148; p. 590.
Cord terminal. F. Parsons. No. 941,808; Nov. 30; Sp. p. 7403; Gaz. vol. 148; p. 1244.
Corn-husking implement. S. B. Dykes. No. 941,505; Nov. 30; Sp. p. 6749; Gaz. vol. 148; p. 1143.
Corn-sheller. W. J. Moore. No. 941,798; Nov. 30; Sp. p. 7363; Gaz. vol. 148; p. 1241.
Corn-shocker. I. T. Leager. No. 938,595; Nov. 2; Sp. p. 350; Gaz. vol. 148; p. 52.
Corner-pieces, Machine for cutting and trimming the edges of. C. J. Lysaght. No. 939,144; Nov. 2; Sp. p. 1474; Gaz. vol. 148; p. 240.
Corner-pieces, Machine or apparatus for creasing the edges of. C. J. Lysaght. No. 939,145; Nov. 2; Sp. p. 1482; Gaz. vol. 148; p. 241.
Cornet. Z. A. Meredith. No. 939,285; Nov. 9; Sp. p. 1817; Gaz. vol. 148; p. 314.
Cornice-brake. G. C. Keene. No. 941,783; Nov. 30; Sp. p. 7337; Gaz. vol. 148; p. 1236.
Corset. A. M. C. and M. M. J. Serruys. No. 939,868; Nov. 9; Sp. p. 3115; Gaz. vol. 148; p. 514.
Corset. J. A. Daley. No. 939,893; Nov. 9; Sp. p. 3178; Gaz. vol. 148; p. 523.
Corset-clamp. S. E. Florsheim. No. 938,567; Nov. 2; Sp. p. 289; Gaz. vol. 148; p. 42.
Cotton-chopper. J. D. Armstead and S. Kelley. No. 938,626; Nov. 2; Sp. p. 410; Gaz. vol. 148; p. 62.
Cotton-chopper. I. F. Harris. No. 939,253; Nov. 9; Sp. p. 1740; Gaz. vol. 148; p. 303.
Cotton-chopper. S. L. Martin. No. 939,429; Nov. 9; Sp. p. 2192; Gaz. vol. 148; p. 364.
Cotton-chopper. N. Robinet. No. 940,279; Nov. 16; Sp. p. 4063; Gaz. vol. 148; p. 689.
Cotton-chopper. J. B. Thompson. No. 940,906; Nov. 23; Sp. p. 5442; Gaz. vol. 148; p. 922.
Cotton-chopper. G. W. Rice. No. 941,098; Nov. 23; Sp. p. 5850; Gaz. vol. 148; p. 987.
Cotton-chopper. W. A. Crow. No. 941,230; Nov. 23; Sp. p. 6151; Gaz. vol. 148; p. 1032.
Cotton gathering and gleaning machine. O. C. Houghton. No. 938,864; Nov. 2; Sp. p. 885; Gaz. vol. 148; p. 142.
Cotton-picker. W. A. Phipps. No. 940,274; Nov. 16; Sp. p. 4043; Gaz. vol. 148; p. 687.
Cotton-picker. W. W. Bays. No. 941,055; Nov. 23; Sp. p. 5761; Gaz. vol. 148; p. 972.
Cotton-separator. W. A. Patterson. No. 939,303; Nov. 9; Sp. p. 1888; Gaz. vol. 148; p. 322.
Couch and bed, Convertible. L. B. Jeffcott. No. 941,878; Nov. 30; Sp. p. 7548; Gaz. vol. 148; p. 1270.
Couch, Convertible chair-. M. Brown. No. 941,186; Nov. 23; Sp. p. 6060; Gaz. vol. 148; p. 1017.
Couch, Electrovibratory. W. A. Church. No. 941,673; Nov. 30; Sp. p. 7068; Gaz. vol. 148; p. 1198.
Couch fabric. C. H. Gall. No. 938,569; Nov. 2; Sp. p. 292; Gaz. vol. 148; p. 43.
Counter, Article-. A. Bretschneider. No. 940,851; Nov. 23; Sp. p. 5339; Gaz. vol. 148; p. 905.
Countersink attachment. S. Lindstrand. No. 938,673; Nov. 2; Sp. p. 510; Gaz. vol. 148; p. 78.
Counting apparatus, Automatic. G. E. Richmond. No. 940,066; Nov. 16; Sp. p. 3590; Gaz. vol. 148; p. 613.
Coupling: *See* Air-brake coupling; Belt-coupling; Car-coupling; Electric-conductor coupling; Fire-hose coupling; Fish-tape coupling; Float-coupling; Hose-coupling; Hose and pipe coupling; Insulating shaft-coupling; Pipe-coupling; Shaft-coupling; Train-line coupling; Water-closet floor-coupling.
Coupling. G. B. McBean. No. 941,031; Nov. 23; Sp. p. 5716; Gaz. vol. 148; p. 964.
Coupling mechanism. W. D. Leftwich. No. 940,334; Nov. 16; Sp. p. 4195; Gaz. vol. 148; p. 707.
Cradle. C. H. Johnson. No. 941,927; Nov. 30; Sp. p. 7642; Gaz. vol. 148; p. 1287.
Craft adapted to travel in a resisting medium. C. M. Stanley. No. 939,344; Nov. 9; Sp. p. 1976; Gaz. vol. 148; p. 336.
Crane, Horn-. T. J. Beetham. No. 938,739; Nov. 2; Sp. p. 623; Gaz. vol. 148; p. 99.
Crank, Safety-. C. C. Ilg. No. 939,027; Nov. 2; Sp. p. 1244; Gaz. vol. 148; p. 199.
Crate. G. E. Richmond. No. 938,705; Nov. 2; Sp. p. 560; Gaz. vol. 148; p. 88.
Crate, Foldable shipping-. T. P. Umfries. No. 940,754; Nov. 23; Sp. p. 5126; Gaz. vol. 148; p. 873.
Crate, Folding. J. I. Hall. No. 939,250; Nov. 9; Sp. p. 1735; Gaz. vol. 148; p. 301.
Crate, Folding. F. C. Edson. No. 939,484; Nov. 9; Sp. p. 2307; Gaz. vol. 148; p. 382.
Crate, Folding. F. L. Mary. No. 941,202; Nov. 23; Sp. p. 6094; Gaz. vol. 148; p. 1022.
Crate, Shipping-. H. N. Backus. No. 939,582; Nov. 9; Sp. p. 2510; Gaz. vol. 148; p. 415.
Cream-separating apparatus. J. W. Heathcote. No. 940,686; Nov. 23; Sp. p. 4976; Gaz. vol. 148; p. 849.
Cream-separator, Centrifugal. P. L. Kimball. No. 941,881; Nov. 30; Sp. p. 7553; Gaz. vol. 148; p. 1271.
Cream-separators, Drum for centrifugal. J. and A. Persoons. No. 941,509; Nov. 30; Sp. p. 7404; Gaz. vol. 148; p. 1245.
Credit system. J. O. Greenwald. No. 939,245; Nov. 9; Sp. p. 1726; Gaz. vol. 148; p. 300.
Crib. J. B. Stalter. No. 941,429; Nov. 30; Sp. p. 6599; Gaz. vol. 148; p. 1118.
Cross-tie and rail-fastener. A. Birochik. No. 941,225; Nov. 23; Sp. p. 6142; Gaz. vol. 148; p. 1030.
Crow-call. C. H. Perdew, Sr. No. 939,080; Nov. 2; Sp. p. 1341; Gaz. vol. 148; p. 218.
Crown-matrices, Machine for contouring. F. O. Jaques, Jr. No. 939,261; Nov. 9; Sp. p. 1755; Gaz. vol. 148; p. 305.
Crusher: *See* Clod-crusher.
Crusher-head. R. Bernhard. No. 938,546; Nov. 2; Sp. p. 240; Gaz. vol. 148; p. 35.
Crusher-head. R. Bernhard. No. 938,953; Nov. 2; Sp. p. 1101; Gaz. vol. 148; p. 175.
Crushing-machine, Flexible. B. E. Gregg. No. 941,710; Nov. 30; Sp. p. 7187; Gaz. vol. 148; p. 1211.
Cue. R. J. Breast. No. 941,728; Nov. 30; Sp. p. 7218; Gaz. vol. 148; p. 1217.
Cuff. E. L. Bevington. No. 939,203; Nov. 9; Sp. p. 1624; Gaz. vol. 148; p. 287.
Cuff-holder. W. S. Bachman. No. 939,464; Nov. 9; Sp. p. 2266; Gaz. vol. 148; p. 375.
Cuff-holder. W. S. Arnold. No. 940,225; Nov. 16; Sp. p. 3941; Gaz. vol. 148; p. 670.
Culinary utensil. W. Quinby. No. 940,059; Nov. 16; Sp. p. 3572; Gaz. vol. 148; p. 611.
Cultivating-machine. K. Koszegi and E. Szechenyi. No. 941,422; Nov. 30; Sp. p. 6582; Gaz. vol. 148; p. 1116.
Cultivator. S. Waltman. No. 939,766; Nov. 9; Sp. p. 2922; Gaz. vol. 148; p. 480.
Cultivator. W. E. Johnson. No. 940,159; Nov. 16; Sp. p. 3784; Gaz. vol. 148; p. 645.

Cultivator. G. M. Roper. No. 941,589; Nov. 30; Sp. p. 6911; Gaz. vol. 148; p. 1170.
Cultivator. J. Hobson, Jr. No. 941,678; Nov. 30; Sp. p. 7096; Gaz. vol. 148; p. 1199.
Cup: *See* Grease or lubricant cup; Oil-cup; Turpentine-cup.
Cup. M. Dishman. No. 941,236; Nov. 23; Sp. p. 6164; Gaz. vol. 148; p. 1034.
Cup attachment, Drinking-. D. M. Simpson. No. 940,204; Nov. 16; Sp. p. 3904; Gaz. vol. 148; p. 663.
Curb-corners, Nosing for. W. S. Clifford. No. 940,432; Nov. 16; Sp. p. 4428; Gaz. vol. 148; p. 740.
Current apparatus, Alternating-. W. Stanley. No. 941,467; Nov. 30; Sp. p. 6670; Gaz. vol. 148; p. 1131.
Current-collector. G. R. Forster. No. 939,995; Nov. 16; Sp. p. 3409; Gaz. vol. 148; p. 587.
Current-collector, Underrunning. S. B. Stewart, Jr. No. 941,390; Nov. 30; Sp. p. 6500; Gaz. vol. 148; p. 1103.
Current meter, Alternating-. W. Stanly. No. 941,469; Nov. 30; Sp. p. 6678; Gaz. vol. 148; p. 1131.
Currents, Means for rectifying single-phase. J. L. Woodbridge. No. 941,599; Nov. 30; Sp. p. 6935; Gaz. vol. 148; p. 1173.
Curtain and shade hanger, Combined window. J. W. Henley. No. 938,485; Nov. 2; Sp. p. 72; Gaz. vol. 148; p. 13.
Curtain-bracket. C. B. Dumond. No. 939,815; Nov. 9; Sp. p. 3013; Gaz. vol. 148; p. 496.
Curtain-bracket, Combination. E. D. Parker. No. 940,820; Nov. 23; Sp. p. 5277; Gaz. vol. 148; p. 895.
Curtain-hook. O. F. McCall and C. L. Taft. No. 939,064; Nov. 2; Sp. p. 1312; Gaz. vol. 148; p. 212.
Curtain-hook. C. H. Maass. No. 940,642; Nov. 16; Sp. p. 4863; Gaz. vol. 148; p. 809.
Curtain-pole. C. C. Schell. No. 938,792; Nov. 2; Sp. p. 732; Gaz. vol. 148; p. 118.
Curtain-pole support. L. E. Eells and E. N. McKelvey. No. 940,711; Nov. 23; Sp. p. 5026; Gaz. vol. 148; p. 858.
Curtain-rod leader. C. W. Boulton. No. 940,668; Nov. 23; Sp. p. 4932; Gaz. vol. 148; p. 843.
Curving machine, Sheet-material-. C. N. Frey. No. 938,751; Nov. 2; Sp. p. 646; Gaz. vol. 148; p. 103.
Cushion for the bottoms of chair-legs, &c. W. Maier. No. 938,883; Nov. 2; Sp. p. 941; Gaz. vol. 148; p. 149.
Cushion-stuffing device. C. A. Lee. No. 939,276; Nov. 9; Sp. p. 1802; Gaz. vol. 148; p. 312.
Cushion-wheel. A. Ellis. No. 938,834; Nov. 2; Sp. p. 829; Gaz. vol. 148; p. 133.
Cuspidor. G. R. Teschel. No. 938,912; Nov. 2; Sp. p. 1018; Gaz. vol. 148; p. 161.
Cuspidor. D. V. Haddock. No. 939,013; Nov. 2; Sp. p. 1218; Gaz. vol. 148; p. 194.
Cut-off, Water-spout. G. Henkel. No. 938,665; Nov. 2; Sp. p. 487; Gaz. vol. 148; p. 75.
Cutter: *See* Band-cutter; Butter and lard cutter; Can-cutter; Flue-cutter; Fruit-cutter; Paper-cutter; Potato-cutter; Potato-vine cutter; Rotary cutter; Sage-brush and weed cutter; Stalk-cutter; Twine-cutter; Vegetable-cutter.
Cutter-bar. E. J. Wolfrom. No. 941,400; Nov. 30; Sp. p. 6528; Gaz. vol. 148; p. 1109
Cutter-head, Rotary. C. O. Porter. No. 940,940; Nov. 23; Sp. p. 5522; Gaz. vol. 148; p. 934.
Cutting, beating, and pulverizing machine. C. M. Lauritzen. No. 939,276; Nov. 9; Sp. p. 1798; Gaz. vol. 148; p. 311.
Cutting machine, Sheet-material-. A. F. Preston. No. 938,788; Nov. 2; Sp. p. 724; Gaz. vol. 148; p. 117.
Cutting-off tool. A. E. Waller. No. 939,359; Nov. 9; Sp. p. 2017; Gaz. vol. 148; p. 341.
Cutting-tool for appliqué-work. W. Vogel. No. 941,967; Nov. 30; Sp. p. 7723; Gaz. vol. 148; p. 1300.
Cycle and bicycle stand, Motor-. F. C. Hoffer, W. H. Whitesell, and F. H. Bente. No. 940,250; Nov. 16; Sp. p. 3987; Gaz. vol. 148; p. 678.
Cycle, Motor-. J. E. Allen. No. 941,903; Nov. 30; Sp. p. 7599; Gaz. vol. 148; p. 1279.
Damper for furnace or stove pipes. R. Rouse, Jr. No. 940,942; Nov. 23; Sp. p. 5525; Gaz. vol. 148; p. 935.
Dashboard-brace. F. H. Hosay. No. 941,711; Nov. 30; Sp. p. 7189; Gaz. vol. 148; p. 1212.
Dental-engine-handpiece swivel. A. W. Browne. No. 941,612; Nov. 30; Sp. p. 6960; Gaz. vol. 148; p. 1177.
Dental inlay-holder. B. F. Copp. No. 939,476; Nov. 9; Sp. p. 2283; Gaz. vol. 148; p. 380.
Dental instrument. E. L. Chott. No. 938,640; Nov. 2; Sp. p. 432; Gaz. vol. 148; p. 66.
Dental instrument. S. Quigley. No. 940,058; Nov. 16; Sp. p. 3570; Gaz. vol. 148; p. 611.
Dental instrument. O. Neugebauer. No. 940,351; Nov. 16; Sp. p. 4227; Gaz. vol. 148; p. 713.
Dental plate. D. D. Hyman. No. 941,149; Nov. 23; Sp. p. 5975; Gaz. vol. 148; p. 1005.
Dental tooth-clamp. G. A. Harper. No. 939,834; Nov. 9; Sp. p. 3048; Gaz. vol. 148; p. 503.
Dentistry. M. R. Koons. No. 941,718; Nov. 30; Sp. p. 7201; Gaz. vol. 148; p. 1214.
Deraller. J. T. Farrell. No. 940,139; Nov. 16; Sp. p. 3752; Gaz. vol. 148; p. 639.
Desiccating-machine. E. R. Fillmore. No. 939,126; Nov. 2; Sp. p. 1434; Gaz. vol. 148; p. 234.
Designating, recording, and registering mechanism. E. J. Brandt. No. 941,005; Nov. 23; Sp. p. 5654; Gaz. vol. 148; p. 956.
Desk. N. E. Fealy. No. 939,125; Nov. 2; Sp. p. 1431; Gaz. vol. 148; p. 233.
Detonator. C. A. Woodbury. No. 939,371; Nov. 9; Sp. p. 2044; Gaz. vol. 148; p. 345.
Die: *See* Forming-die.
Die. F. H. Hotchkiss. No. 939,505; Nov. 9; Sp. p. 2340; Gaz. vol. 148; p. 388.
Die. L. Swank. No. 940,214; Nov. 16; Sp. p. 3926; Gaz. vol. 148; p. 666.
Die. L. Swank. No. 940,215; Nov. 16; Sp. p. 3922; Gaz. vol. 148; p. 666.
Die-cutting machine. D. P. Robinson. No. 941,953; Nov. 30; Sp. p. 7688; Gaz. vol. 148; p. 1295.
Die-stock. F. E. and F. W. Wells. No. 939,648; Nov. 9; Sp. p. 2656; Gaz. vol. 148; p. 439.
Die-stripper. J. H. Ames. No. 938,940; Nov. 2; Sp. p. 1073; Gaz. vol. 148; p. 170.
Dies, Forming. E. D. Boyce. No. 939,468; Nov. 9; Sp. p. 2276; Gaz. vol. 148; p. 377.
Differential mechanism. D. E. Ross. No. 941,101; Nov. 23; Sp. p. 5855; Gaz. vol. 148; p. 988
Dike-building apparatus and process. J. W. Sykes. No. 941,051; Nov. 23; Sp. p. 5754; Gaz. vol. 148, p. 971.
Disinfecting apparatus. P. J. Walsh. No. 940,097; Nov. 16; Sp. p. 3668; Gaz. vol. 148; p. 624.
Disinfecting apparatus. W. M. Byer. No. 940,921; Nov. 23; Sp. p. 5471; Gaz. vol. 148; p. 928.
Disk drill. S. E. Davis. No. 939,812; Nov. 9; Sp. p. 3008; Gaz. vol. 148; p. 495.
Disk tongue device. J. C. Roath. No. 940,194; Nov. 16. Sp. p. 3881; Gaz. vol. 148; p. 658.
Dish-washing apparatus. E. Aldrich. No. 938,622; Nov. 2; Sp. p. 399; Gaz. vol. 148; p. 60.
Display apparatus. J. Gaynor. No. 938,571; Nov. 2; Sp. p. 295; Gaz. vol. 148; p. 43.
Display-bin. A. H. Plumer. No. 939,546; Nov. 9; Sp. p. 2428; Gaz. vol. 148; p. 403.
Display-box. A. and J. Eichhorn. No. 939,234; Nov. 9; Sp. p. 1708; Gaz. vol. 148; p. 296.
Display box and tray. E. M. Lewis. No. 939,721; Nov. 9; Sp. p. 2806; Gaz. vol. 148; p. 464.
Display-cabinet. L. W. Welch. No. 942,022; Nov. 30; Sp. p. 7820; Gaz. vol. 148; p. 1317.
Display-can, Sheet-metal. J. Xavier. No. 938,736; Nov. 2; Sp. p. 618; Gaz. vol. 148; p. 97.
Display device. W. Marks. No. 940,263; Nov. 16; Sp. p. 4012; Gaz. vol. 148; p. 683.
Display device, Heat-operated. J. R. Keller. No. 939,705; Nov. 9; Sp. p. 2776; Gaz. vol. 148; p. 458.
Display-holder. J. Brauchli. No. 939,942; Nov. 9; Sp. p. 3284; Gaz. vol. 148; p. 541.
Display-rack, Fruit and vegetable. C. C. Hart. No. 940,807; Nov. 23; Sp. p. 5249; Gaz. vol. 148; p. 891.
Display-rack, Inclosed. W. K. Williams. No. 941,483; Nov. 30; Sp. p. 6707; Gaz. vol. 148; p. 1136.
Display sheets or curtains, Frame for. L. C. Davidson. No. 941,622; Nov. 30; Sp. p. 6983; Gaz. vol. 148; p. 1181.
Distillation of bituminous coal or similar carbonaceous substances. T. Parker. No. 941,352; Nov. 23; Sp. p. 6399; Gaz. vol. 148; p. 1070.
Distilling alcohols and other volatile liquids. A. G. Waterhouse. No. 939,361; Nov. 9; Sp. p. 2019; Gaz. vol. 148; p. 341.
Distilling wood-alcohol and other products, Apparatus for. B. R. and M. J. Lyster. No. 941,641; Nov. 30; Sp. p. 7016; Gaz. vol. 148; p. 1187.
Distributer. J. W. Le Gore. No. 940,538; Nov. 16; Sp. p. 4650; Gaz. vol. 148; p. 775.
Distributing-machines, Apparatus for the control and the registration of the operations performed by. G. I. F. Soulage. No. 941,892; Nov. 30; Sp. p. 7574; Gaz. vol. 148; p. 1275.
Ditch-digging machine. E. Jeschke. No. 939,598; Nov. 9; Sp. p. 2558; Gaz. vol. 148; p. 420.
Ditching and earth-distributing mechanism. J. W. Sykes. No. 941,050; Nov. 23; Sp. p. 5751; Gaz. vol. 148; p. 971.
Ditching-machine. J. B. Hill. No. 941,145; Nov. 23; Sp. p. 5963; Gaz. vol. 148; p. 1003.
Divided bolt. A. Schlüssler. No. 940,739; Nov. 23; Sp. p. 5091; Gaz. vol. 148; p. 868.
Door. A. A. Wheeler, M. V. Haskins, and A. H. Wheeler. No. 940,294; Nov. 16; Sp. p. 4087; Gaz. vol. 148; p. 693.
Door. J. H. Pearson. No. 941,094; Nov. 23; Sp. p. 5842; Gaz. vol. 148; p. 986.
Door and window fastener, Sliding. F. H. Schlapbach. No. 939,174; Nov. 2; Sp. p. 1550; Gaz. vol. 148; p. 251.
Door-check. C. L. Butler. No. 941,492; Nov. 30; Sp. p. 6724; Gaz. vol. 148; p. 1139.
Door-check. R. W. Hubbard. No. 941,782; Nov. 30; Sp. p. 7335; Gaz. vol. 148; p. 1236.
Door-closer. W. W. Bjorling. No. 941,907; Nov. 30; Sp. p. 7607; Gaz. vol. 148; p. 1281.
Door, Combination-. A. L. Penwell. No. 940,719; Nov. 23; Sp. p. 5043; Gaz. vol. 148; p. 861.
Door fan attachment. J. N. Hatcher. No. 941,921; Nov. 30; Sp. p. 7631; Gaz. vol. 148; p. 1285.
Door-fastener. J. Auger. No. 939,785; Nov. 9; Sp. p. 2950; Gaz. vol. 148; p. 486.
Door-fastener. A. Berdan. No. 941,057; Nov. 23; Sp. p. 5767; Gaz. vol. 148; p. 973.
Door-fastener. B. B. Fairman. No. 941,771; Nov. 30; Sp. p. 7317; Gaz. vol. 148; p. 1233.
Door fastener, Sliding-. J. McAllister, C. G. Anderson, and B. H. Hawkins. No. 941,379; Nov. 30; Sp. p. 6471; Gaz. vol. 148; p. 1101.
Door-fastening device. M. Ritchel. No. 940,362; Nov. 16; Sp. p. 4249; Gaz. vol. 148; p. 716.
Door-hanger. G. T. Buddle. No. 938,823; Nov. 2; Sp. p. 804; Gaz. vol. 148; p. 129.
Door-hanger. A. Theyskens. No. 940,088; Nov. 16; Sp. p. 3639; Gaz. vol. 148; p. 621.
Door-hanger. W. D. Ferris. No. 940,307; Nov. 16; Sp. p. 4134; Gaz. vol. 148; p. 697.
Door-hanger. E. C. Pitcher. No. 941,095; Nov. 23; Sp. p. 5844; Gaz. vol. 148; p. 986.

Door-hanger. W. D. Thompson. No. 941,664; Nov. 30; Sp. p. 7072; Gaz. vol. 148; p. 1195.
Door-lock, Automatic knob-operated. G. C. Manning. No. 941,327; Nov. 23; Sp. p. 6343; Gaz. vol. 148; p. 1061.
Door-lock, Combination. A. E. Brown and J. M. Roberts. No. 939,210; Nov. 9; Sp. p. 1635; Gaz. vol. 148; p. 289.
Door, Metallic. R. E. Frame and C. G. Harrington. No. 941,068; Nov. 23; Sp. p. 5793; Gaz. vol. 148; p. 977.
Door-operating mechanism. E. D. Curtis. No. 941,132; Nov. 23; Sp. p. 5938; Gaz. vol. 148; p. 998.
Door, Revolving. F. Clymer and J. Degen. No. 941,619; Nov. 30; Sp. p. 6973; Gaz. vol. 148; p. 1180.
Door, Revolving. C. J. Cruff. No. 941,699; Nov. 30; Sp. p. 7150; Gaz. vol. 148; p. 1207.
Door-stop. D. Crockett. No. 940,436; Nov. 16; Sp. p. 4436; Gaz. vol. 148; p. 742.
Door-stop. W. La Baw. No. 941,885; Nov. 30; Sp. p. 7561; Gaz. vol. 148; p. 1272.
Door track and hanger. A. Wulff. No. 940,770; Nov. 23; Sp. p. 5174; Gaz. vol. 148; p. 879.
Doors, Automatic control of water-tight. W. L. Merrill. No. 941,428; Nov. 30; Sp. p. 6598; Gaz. vol. 148; p. 1118.
Doors, Combined roller-support and casing for edgewise-movable. M. Kurtzon. No. 938,493; Nov. 2; Sp. p. 104; Gaz. vol. 148; p. 16.
Doors, Fastening device for emergency-exit. A. C. Willison and J. B. Williams. No. 941,000; Nov. 23; Sp. p. 5644; Gaz. vol. 148; p. 954.
Doors, screens, &c., Means for hanging. T. Gill. No. 939,004; Nov. 2; Sp. p. 1194; Gaz. vol. 148; p. 191.
Dosing device, Liquid-tight. E. M. Bajon. No. 941,905; Nov. 30; Sp. p. 7602; Gaz. vol. 148; p. 1280.
Double-acting switch. C. J. Spellman. No. 940,405; Nov. 16; Sp. p. 4379; Gaz. vol. 148; p. 732.
Doubling apparatus. P. E. Donner. No. 941,700; Nov. 30; Sp. p. 7154; Gaz. vol. 148; p. 1207.
Doubletree. G. M. Frink. No. 939,002; Nov. 2; Sp. p. 1191; Gaz. vol. 148; p. 191.
Doubletree, Four-horse. M. McEvoy. No. 939,534; Nov. 9; Sp. p. 2400; Gaz. vol. 148; p. 398.
Dough and like materials, Machine for treating. G. S. Baker. No. 941,296; Nov. 23; Sp. p. 6291; Gaz. vol. 148; p. 1053.
Dough-forming machine. G. H. Petri. No. 941,338; Nov. 23; Sp. p. 6361; Gaz. vol. 148; p. 1064.
Dough-mixing machine. C. Chambers, Jr. No. 939,392; Nov. 9; Sp. p. 2103; Gaz. vol. 148; p. 351.
Draft appliance. O. Atkinson. No. 939,378; Nov. 9; Sp. p. 2081; Gaz. vol. 148; p. 347.
Draft appliance. F. M. Smiley. No. 941,545; Nov. 30; Sp. p. 6827; Gaz. vol. 148; p. 1156.
Draft device. C. P. Hansen. No. 941,920; Nov. 30; Sp. p. 7630; Gaz. vol. 148; p. 1285.
Draft-equalizer. A. V. Burke. No. 938,637; Nov. 2; Sp. p. 429; Gaz. vol. 148; p. 66.
Drag. J. and A. Bladholm. No. 941,340; Nov. 23; Sp. p. 6365; Gaz. vol. 148; p. 1065.
Draw-box. E. H. Rooney. (Reissue.) No. 13,041; Nov. 16; Sp. p. 4892; Gaz. vol. 148; p. 815.
Drawing instrument. C. C. Page. No. 941,687; Nov. 30; Sp. p. 7117; Gaz. vol. 148; p. 1202.
Dredge. C. W. Diehl. No. 939,227; Nov. 9; Sp. p. 1691; Gaz. vol. 148; p. 294.
Dredger, Caisson-. R. A. Gardner. No. 941,869; Nov. 30; Sp. p. 7533; Gaz. vol. 148; p. 1267.
Dress-shield. R. S. Kleinert. No. 939,712; Nov. 9; Sp. p. 2786; Gaz. vol. 148; p. 460.
Dressing-machine reel. R. Knebel. No. 940,603; Nov. 16; Sp. p. 4782; Gaz. vol. 148; p. 796.
Drier: *See* Alfalfa-drier; Can-drier; Clothes-drier; Grain-drier.
Drier. H. W. Shepard. No. 939,175; Nov. 2; Sp. p. 1551; Gaz. vol. 148; p. 251.
Drier. C. E. Geiger. No. 940,144; Nov. 16; Sp. p. 3760; Gaz. vol. 148; p. 641.
Drier. K. Tsuji. No. 940,908; Nov. 23; Sp. p. 5446; Gaz. vol. 148; p. 923.
Drill: *See* Disk drill; Ratchet-drill; Rock-drill.
Drill. W. C. Whitney. No. 938,534; Nov. 2; Sp. p. 215; Gaz. vol. 148; p. 31.
Drill and stay-bolt cutter, Combined. F. Fleming. No. 941,568; Nov. 30; Sp. p. 6872; Gaz. vol. 148; p. 1164.
Drilling apparatus, Tubular drill-stem for hydraulic rotary. L. C. Sands. No. 940,733; Nov. 23; Sp. p. 5080; Gaz. vol. 148; p. 866.
Drilling-machine. J. W. Green. No. 939,907; Nov. 9; Sp. p. 3206; Gaz. vol. 148; p. 528.
Drinking fountain for birds, fowls, and animals. W. B. Gething. No. 939,493; Nov. 9; Sp. p. 2310; Gaz. vol. 148; p. 385.
Drinking glasses, bowls, cups, spoons, &c., Labial protecting means for. L. Jancey. No. 939,698; Nov. 9; Sp. p. 2763; Gaz. vol. 148; p. 456.
Drinking-vessel, Sealed. J. C. Schleicher. No. 939,554; Nov. 9; Sp. p. 2444; Gaz. vol. 148; p. 405.
Drip-pan. J. Menzl and B. L. Schwartz. No. 940,040; Nov. 16; Sp. p. 3527; Gaz. vol. 148; p. 604.
Drip-receiver. H. O. Bessette. No. 939,202; Nov. 9; Sp. p. 1623; Gaz. vol. 148; p. 287.
Drive, Four-wheel positive. O. A. Goodrich. No. 941,514; Nov. 30; Sp. p. 6770; Gaz. vol. 148; p. 1146.
Driven mechanisms, Operating device for. R. D. Tittle. No. 938,726; Nov. 2; Sp. p. 598; Gaz. vol. 148; p. 94.
Driving and reversing mechanism. P. A. Thurston. No. 938,800; Nov. 2; Sp. p. 745; Gaz. vol. 148; p. 121.
Driving mechanism. J. J. Walser. No. 940,095; Nov. 16; Sp. p. 3653; Gaz. vol. 148; p. 623.
Driving mechanism, Friction. R. and J. Lusse. No. 939,046; Nov. 2; Sp. p. 1282; Gaz. vol. 148; p. 206.
Driving mechanism, Variable-speed. J. J. Walser. No. 940,096; Nov. 16; Sp. p. 3662; Gaz. vol. 148; p. 624.
Driving mechanism, Variable-speed. H. C. Schroeder. No. 940,201; Nov. 16; Sp. p. 3896; Gaz. vol. 148; p. 661.
Driving mechanism, Variable-speed. J. J. Walser. No. 940,626; Nov. 16; Sp. p. 4825; Gaz. vol. 148; p. 804.
Dropper: *See* Can-cap dropper; Liquid-dropper.
Drum and cymbal beater, Bass-. A. C. Schipper. No. 938,899; Nov. 2; Sp. p. 989; Gaz. vol. 148; p. 155.
Drum batch-mixer. W. R. Tuttle. No. 939,762; Nov. 9; Sp. p. 2914; Gaz. vol. 148; p. 479.
Dry-room conveyer, Combined. W. Bartholomew. No. 940,661; Nov. 23; Sp. p. 4920; Gaz. vol. 148; p. 841.
Drying apparatus for tea, grain, &c. S. C. Davidson. No. 940,237; Nov. 16; Sp. p. 3960; Gaz. vol. 148; p. 674.
Drying apparatus, Hair and fur. E. Deslot. No. 941,980; Nov. 30; Sp. p. 7743; Gaz. vol. 148; p. 1304.
Drying sheet material, Apparatus for. C. E. Moes. No. 941,721; Nov. 30; Sp. p. 7204; Gaz. vol. 148; p. 1214.
Dumping-elevator, Automatic. G. E. Richmond. No. 940,065; Nov. 16; Sp. p. 3587; Gaz. vol. 148; p. 613.
Dust collector and separator. E. H. Frickey. No. 938,656; Nov. 2; Sp. p. 471; Gaz. vol. 148; p. 72.
Dust collector and separator. O. Forbeck. No. 938,702; Nov. 2; Sp. p. 556; Gaz. vol. 148; p. 87.
Dust collector and separator. A. T. Sheward. No. 940,827; Nov. 23; Sp. p. 5289; Gaz. vol. 148; p. 897.
Dust detonations, Device for preventing. P. Schuster. No. 940 075; Nov. 16; Sp. p. 3617; Gaz. vol. 148; p. 617.
Dust-pan. W. E. Ballman. No. 940,422; Nov. 16; Sp. p. 4407; Gaz. vol. 148; p. 737.
Dust-separating tank. D. Fogarty. No. 940,141; Nov. 16; Sp. p. 3756; Gaz. vol. 148; p. 640.
Dye and making same, Azin. P. Ott. No. 940,354; Nov. 16; Sp. p. 4232; Gaz. vol. 148; p. 714.
Dye and making same, Azo. C. O. Müller. No. 941,088; Nov. 23; Sp. p. 5829; Gaz. vol. 148; p. 984.
Dye and making same, Brown vat. G. Engi and H. Kappeler. No. 940,586; Nov. 16; Sp. p. 4752; Gaz. vol. 148; p. 791
Dye and making same, Vat. H. Kraft. No. 941,152; Nov. 23; Sp. p. 5979; Gaz. vol. 148; p. 1005.
Dye, Vat. P. Fischer. No. 938,565; Nov. 2; Sp. p. 287; Gaz. vol. 148; p. 42.
Dye, Yellow. P. Fischer. No. 938,566; Nov. 2; Sp. p. 288; Gaz. vol. 148; p. 42.
Dyeing apparatus, Hat-. F. Bauer. No. 938,738; Nov. 2; Sp. p. 622; Gaz. vol. 148; p. 98.
Dyeing apparatus, Yarn-. F. Geissler and B. Wagner. No. 940,868; Nov. 23; Sp. p. 5373; Gaz. vol. 148; p. 910.
Dyeing wool. H. Winslow. No. 941,399; Nov. 30; Sp. p. 6527; Gaz. vol. 148; p. 1109.
Easel. E. Oldenbusch. No. 940,472; Nov. 16; Sp. p. 4504; Gaz. vol. 148; p. 753.
Eaves-trough. G. Hensler. No. 939,838; Nov. 9; Sp. p. 3055; Gaz. vol. 148; p. 504.
Educational device. A. S. Kilroy. No. 939,515; Nov. 9; Sp. p. 2364; Gaz. vol. 148; p. 392.
Educational device. R. M. Vick. No. 940,093; Nov. 16; Sp. p. 3651; Gaz. vol. 148; p. 623.
Egg-box, Folding. C. T. Bloomer. No. 939,661; Nov. 9; Sp. p. 2693; Gaz. vol. 148; p. 444.
Egg cabinet and testing attachment. F. J. Baigie. No. 938,629; Nov. 2; Sp. p. 414; Gaz. vol. 148; p. 62.
Egg-case, Foldable metal. A. R. Burleson. No. 940,234; Nov. 16; Sp. p. 3953; Gaz. vol. 148; p. 673.
Egg-opener. T. Cowburn. No. 940,790; Nov. 23; Sp. p. 5218; Gaz. vol. 148; p. 886.
Egg-separator. P. A. Bayless and C. F. Redman. No. 940,119; Nov. 16; Sp. p. 3712; Gaz. vol. 148; p. 632.
Egg-separator. H. H. Heatherington and C. O. Long. No. 941,415; Nov. 30; Sp. p. 6572; Gaz. vol. 148; p. 1114.
Egg-tester. J. W. Billings. No. 939,205; Nov. 9; Sp. p. 1627; Gaz. vol. 148; p. 287.
Egg-tester. W. Rigling. No. 940,361; Nov. 16; Sp. p. 4248; Gaz. vol. 148; p. 716.
Eggs, Mold for making nest-. J. M. Southerland. No. 940,208; Nov. 16; Sp. p. 3909; Gaz. vol. 148; p. 664.
Eggs, Preserving. W. H. Burns. No. 938,965; Nov. 2; Sp. p. 1118; Gaz. vol. 148; p. 179.
Elastic connecting-strap. J. J. Shea. No. 941,650; Nov. 30; Sp. p. 7064; Gaz. vol. 148; p. 1194.
Elastic-fluid engine. C. V. Kerr. No. 940,162; Nov. 16; Sp. p. 3794; Gaz. vol. 148; p. 646.
Elastic wheel. M. Schnabel. No. 938,901; Nov. 2; Sp. p. 996; Gaz. vol. 148; p. 156.
Electric appliances, Attachment for. H. W. Denhard. No. 941,979; Nov. 30; Sp. p. 7742; Gaz. vol. 148; p. 1304.
Electric-cable terminal. C. W. Davis. No. 941,859; Nov. 30; Sp. p. 7513; Gaz. vol. 148; p. 1263.
Electric cell or battery, Primary. A. Heil. No. 941,416; Nov. 30; Sp. p. 6572; Gaz. vol. 148; p. 1114.
Electric-circuit controller. H. W. Leonard. No. 941,425; Nov. 30; Sp. p. 6587; Gaz. vol. 148; p. 1117.
Electric circuits, Means for controlling. G. W. Hart. No. 941,777; Nov. 30; Sp. p. 7325; Gaz. vol. 148; p. 1235.
Electric circuits, Protective device for. S. R. Bergman. No. 940,578; Nov. 16; Sp. p. 4739; Gaz. vol. 148; p. 780.
Electric-conductor coupling. J. L. Hinds. No. 939,501; Nov. 9; Sp. p. 2333; Gaz. vol. 148; p. 387.
Electric-conductor coupling. J. L. Hinds. No. 939,689; Nov. 9; Sp. p. 2746; Gaz. vol. 148; p. 453.
Electric conductors, Safety device for overhead. E. Giraud. No. 940,525; Nov. 16; Sp. p. 4623; Gaz. vol. 148; p. 771
Electric cut-out. T. E. Murray. No. 941,165; Nov. 23; Sp. p. 6005; Gaz. vol. 148; p. 1009.
Electric discharges, Apparatus for producing. H. Pauling. No. 939,441; Nov. 9; Sp. p. 2215; Gaz. vol. 148; p. 368.

Electric furnace. H. Röchling and W. Rodenhauser. No. 939,095; Nov. 2; Sp. p. 1371; Gaz. vol. 148; p. 223.
Electric furnace. C. A. Keller. No. 941,419; Nov. 30; Sp. p. 6578; Gaz. vol. 148; p. 1115.
Electric furnace for gas reactions. O. Dieffenbach and W. Moldenhauer. No. 941,768; Nov. 30; Sp. p. 7312; Gaz. vol. 148; p. 1232.
Electric generator. E. T. Kenney. No. 940,392; Nov. 16; Sp. p. 4345; Gaz. vol. 148; p. 727.
Electric heater, Luminous. W. F. Howard and A. B. Cousins. No. 940,021; Nov. 16; Sp. p. 3457; Gaz. vol. 148; p. 597.
Electric light, Incandescent. J. T. Bigger. No. 939,909; Nov. 16; Sp. p. 3344; Gaz. vol. 148; p. 578.
Electric-machine brush, Dynamo-. H. S. Miller. No. 938,604; Nov. 2; Sp. p. 370; Gaz. vol. 148; p. 55.
Electric machine, Dynamo-. A. L. Cushman. No. 938,558; Nov. 2; Sp. p. 266; Gaz. vol. 148; p. 39.
Electric machine, Dynamo-. C. P. Steinmetz. No. 940,210; Nov. 16; Sp. p. 3912; Gaz. vol. 148; p. 664.
Electric machine, Dynamo-. B. A. Behrend. No. 940,632; Nov. 16; Sp. p. 4846; Gaz. vol. 148; p. 806.
Electric machine, Dynamo-. B. G. Lamme and R. S. Feicht. No. 940,698; Nov. 23; Sp. p. 5001; Gaz. vol. 148; p. 854.
Electric machine, Dynamo-. F. B. Howell. No. 941,456; Nov. 30; Sp. p. 6648; Gaz. vol. 148; p. 1127.
Electric machines, Cross connection for dynamo-. R. Siegfried. No. 941,388; Nov. 30; Sp. p. 6495; Gaz. vol. 148; p. 1103.
Electric-machine elements, Lining for slots of dynamo-. F. W. Young and E. Heitmann. No. 941,181; Nov. 23; Sp. p. 6054; Gaz. vol. 148; p. 1015.
Electric machine for ignition purposes, Magneto-. C. A. Vandervell and F. I. Hoffman. No. 939,357; Nov. 9; Sp. p. 2015; Gaz. vol. 148; p. 340.
Electric machines, Bridging-block for dynamo-. F. W. Young. No. 941,180; Nov. 23; Sp. p. 6053; Gaz. vol. 148; p. 1015.
Electric machines, Bridging-block for dynamo-. F. W. Young. No. 941,182; Nov. 23; Sp. p. 6055; Gaz. vol. 148; p. 1016.
Electric meter. F. M. Vogel. No. 941,436; Nov. 30; Sp. p. 6606; Gaz. vol. 148; p. 1120.
Electric meter. P. C. Morganthaler. No. 941,459; Nov. 30; Sp. p. 6654; Gaz. vol. 148; p. 1128.
Electric meter. W. Stanley. No. 941,468; Nov. 30; Sp. p. 6675; Gaz. vol. 148; p. 1131.
Electric motor, Alternating-current. J. T. Schaaff. No. 939,331; Nov. 9; Sp. p. 1939; Gaz. vol. 148; p. 331.
Electric separator. G. D. Rogers. No. 940,282; Nov. 16; Sp. p. 4069; Gaz. vol. 148; p. 690.
Electric switch. G. W. Hart. No. 938,664; Nov. 2; Sp. p. 485; Gaz. vol. 148; p. 75.
Electric switch. F. Hoerle. No. 939,258; Nov. 9; Sp. p. 1749; Gaz. vol. 148; p. 304.
Electric switch. J. H. Rusby. No. 939,863; Nov. 9; Sp. p. 3104; Gaz. vol. 148; p. 512.
Electric switch. O. M. Knoblock. No. 940,328; Nov. 16; Sp. p. 4177; Gaz. vol. 148; p. 705.
Electric-switch. W. A. Morse. No. 941,266; Nov. 23; Sp. p. 6224; Gaz. vol. 148; p. 1043.
Electric switch. F. W. Smith. No. 941,660; Nov. 30; Sp. p. 7065; Gaz. vol. 148; p. 1194.
Electric transmission of messages. G. Sellers. No. 939,339; Nov. 9; Sp. p. 1964; Gaz. vol. 148; p. 334.
Electrical apparatus, Vapor. H. M. Schelbe. No. 940,736; Nov. 23; Sp. p. 5084; Gaz. vol. 148; p. 867.
Electrical apparatus, Wall-cabinet for. E. R. Le Manquais. No. 942,002; Nov. 30; Sp. p. 7785; Gaz. vol. 148; p. 1311.
Electrical-cable terminal. C. W. Davis. No. 941,860; Nov. 30; Sp. p. 7514; Gaz. vol. 148; p. 1264.
Electrical-circuit breaker, Safety. W. F. Wocher, R. L. Lemon, and L. H. Mortsolf. No. 940,910; Nov. 23; Sp. p. 5449; Gaz. vol. 148; p. 923.
Electrical-circuit breaker, Safety. W. F. Wocher, R. L. Lemon, and L. H. Mortsolf. No. 941,002; Nov. 23; Sp. p. 5648; Gaz. vol. 148; p. 955.
Electrical conducting system. W. E. Athearn. No. 940,655; Nov. 23; Sp. p. 4900; Gaz. vol. 148; p. 839.
Electrical currents, Apparatus for strengthening weak. A. Pollák. No. 939,625; Nov. 9; Sp. p. 2611; Gaz. vol. 148; p. 430.
Electrical-distribution system. A. S. Hubbard. No. 938,865; Nov. 2; Sp. p. 907; Gaz. vol. 148; p. 142.
Electrical-distribution system. W. A. Turbayne. No. 941,113; Nov. 23; Sp. p. 5884; Gaz. vol. 148; p. 991.
Electrical-distribution system. R. J. Dearborn. No. 941,362; Nov. 30; Sp. p. 6430; Gaz. vol. 148; p. 1095.
Electrical-distribution system. P. M. Lincoln. No. 941,372; Nov. 30; Sp. p. 6453; Gaz. vol. 148; p. 1099.
Electrical-distribution system. J. L. Woodbridge. No. 941,600; Nov. 30; Sp. p. 6938; Gaz. vol. 148; p. 1173.
Electrical-distribution system. J. L. Woodbridge. No. 941,601; Nov. 30; Sp. p. 6938; Gaz. vol. 148; p. 1174.
Electrical-distribution system. W. E. Winship. No. 941,690; Nov. 30; Sp. p. 7128; Gaz. vol. 148; p. 1204.
Electrical receptacle. G. W. Goodridge. No. 940,526; Nov. 16; Sp. p. 4625; Gaz. vol. 148; p. 771.
Electrical receptacle. F. J. Russell. No. 941,276; Nov. 23; Sp. p. 6255; Gaz. vol. 148; p. 1047.
Electrical transmission of graphic messages. G. Sellers. No. 939,338; Nov. 9; Sp. p. 1957; Gaz. vol. 148; p. 334.
Electrical wiring on stand-pipes, Hood for. J. Potterton. No. 939,165; Nov. 2; Sp. p. 1534; Gaz. vol. 148; p. 248.
Electricity, Generating. H. B. Blackmore. No. 939,183; Nov. 2; Sp. p. 1568; Gaz. vol. 148; p. 254.
Electricity in moving material, Apparatus for neutralizing. W. H. Chapman. No. 940,428; Nov. 16; Sp. p. 4418; Gaz. vol. 148; p. 739.
Electricity, Means for neutralizing static. W. H. Chapman. No. 940,431; Nov. 16; Sp. p. 4425; Gaz. vol. 148; p. 740.
Electricity, Neutralizing static. W. H. Chapman. No. 940,429; Nov. 16; Sp. p. 4421; Gaz. vol. 148; p. 739.
Electricity, Process and apparatus for neutralizing static. W. H. Chapman. No. 940,430; Nov. 16; Sp. p. 4423; Gaz. vol. 148; p. 740.
Electrode element for storage batteries. T. A. Edison. No. 940,635; Nov. 16; Sp. p. 4850; Gaz. vol. 148; p. 807.
Electrolyte for use in electric batteries. W. J. L. Sandy. No. 940,734; Nov. 23; Sp. p. 5082; Gaz. vol. 148; p. 867.
Electromagnetic device. E. A. Brofos. No. 938,740; Nov. 2; Sp. p. 625; Gaz. vol. 148; p. 99.
Electromechanical device. G. H. Rowe. No. 938,708; Nov. 2; Sp. p. 564; Gaz. vol. 148; p. 89.
Electromechanical device. G. H. Rowe. No. 938,709; Nov. 2; Sp. p. 567; Gaz. vol. 148; p. 89.
Electroplating apparatus. L. Potthoff. No. 941,535; Nov. 30; Sp. p. 6807; Gaz. vol. 148; p. 1153.
Elevating and lowering apparatus. E. P. Dandridge. No. 938,986; Nov. 2; Sp. p. 1160; Gaz. vol. 148; p. 185.
Elevator: *See* Dumping-elevator.
Elevator feed-wheel, Liquid-. J. F. Barker. No. 939,380; Nov. 9; Sp. p. 2085; Gaz. vol. 148; p. 348.
Elevator locking mechanism. G. F. Steedman. No. 938,520; Nov. 2; Sp. p. 178; Gaz. vol. 148; p. 25.
Elevator safety device, Automatic. J. T. Dempsey. No. 940,792; Nov. 23; Sp. p. 5222; Gaz. vol. 148; p. 886.
Elliptic spring. H. Jeffrey. No. 941,521; Nov. 30; Sp. p. 6781; Gaz. vol. 148; p. 1149.
Embossing appliance. L. N. Orr. No. 941,522; Nov. 30; Sp. p. 6801; Gaz. vol. 148; p. 1152.
Embroidering-machine. J. Brunnschweiler. No. 939,471; Nov. 9; Sp. p. 2284; Gaz. vol. 148; p. 378.
Embroidering-machine. R. Zahn. No. 941,123; Nov. 23; Sp. p. 5915; Gaz. vol. 148; p. 995.
Embroidery-machines, Perforating or pricking apparatus for. C. Moriggl. No. 938,884; Nov. 2; Sp. p. 942; Gaz. vol. 148; p. 149.
Emergency-brake. W. F. Norton and H. N. Reid. No. 941,335; Nov. 23; Sp. p. 6357; Gaz. vol. 148; p. 1064.
Emulsion, Producing a mineral-oil. S. Knopf. No. 941,785; Nov. 30; Sp. p. 7340; Gaz. vol. 148; p. 1237.
Endless carrier. F. A. Emerick. No. 940,793; Nov. 23; Sp. p. 5223; Gaz. vol. 148; p. 886.
Engine: *See* Automobile-engine; Combustion-engine; Elastic-fluid engine; Explosive-engine; Gas-engine; Gasolene-engine; Internal-combustion engine; Liquid-fuel combustion-engine; Rotary engine; Rotary combustion-engine.
Engine construction, Gas or gasolene. C. Herreshoff. No. 940,650; Nov. 16; Sp. p. 4882; Gaz. vol. 148; p. 812.
Engine igniting apparatus, Explosive-. B. F. Stewart. No. 940,374; Nov. 16; Sp. p. 4290; Gaz. vol. 148; p. 721.
Engine ignition device, Explosive-. A. F. Clarke. No. 939,805; Nov. 9; Sp. p. 2996; Gaz. vol. 148; p. 493.
Engine ignition system, Explosion-. P. R. Werner. No. 940,376; Nov. 16; Sp. p. 4295; Gaz. vol. 148; p. 721.
Engine ignition system, Internal combustion-. C. B. Askew. No. 941,124; Nov. 23; Sp. p. 5917; Gaz. vol. 148; p. 995.
Engine piston-head. A. Starke. No. 941,737; Nov. 30; Sp. p. 7238; Gaz. vol. 148; p. 1221.
Engines, Causing self-ignition in explosive-. A. O. Haney. No. 940,872; Nov. 23; Sp. p. 5379; Gaz. vol. 148; p. 911.
Engines, Combustion device for doing away with exhaust-gases in combustion-. K. and E. Lehmann. No. 939,844; Nov. 9; Sp. p. 3063; Gaz. vol. 148; p. 506.
Engines, Muffler cut-out for explosive-. L. Raffalovich. No. 942,011; Nov. 30; Sp. p. 7801; Gaz. vol. 148; p. 1313.
Engines, Silencer for internal-combustion. W. L. Tobey. No. 940,290; Nov. 16; Sp. p. 4081; Gaz. vol. 148; p. 692.
Engines, Spark-plug for internal-combustion. M. Eyquem. No. 940,448; Nov. 16; Sp. p. 4464; Gaz. vol. 148; p. 746.
Engines, Spark-timer for internal-combustion gas-. O. L. Brainard. No. 941,556; Nov. 30; Sp. p. 6848; Gaz vol. 148; p. 1159.
Engines, Under-water exhaust-outlet for internal-combustion. W. L. Tobey. No. 940,291; Nov. 16; Sp. p. 4082; Gaz. vol. 148; p. 692.
Engraving-machine. P. J. Meyer. No. 940,179; Nov. 16; Sp. p. 3841; Gaz. vol. 148; p. 652.
Engraving or duplicating machine. A. W. Roovers. No. 940,730; Nov. 23; Sp. p. 5069; Gaz. vol. 148; p. 865.
Envelop. L. R. Swett. No. 939,876; Nov. 9; Sp. p. 3132; Gaz. vol. 148; p. 517.
Envelop. C. B. Kilby. No. 940,974; Nov. 23; Sp. p. 5585; Gaz. vol. 148; p. 945.
Envelop. J. Mazalin. No. 941,328; Nov. 23; Sp. p. 6345; Gaz. vol. 148; p. 1061.
Envelop. F. M. Leisure. No. 941,350; Nov. 23; Sp. p. 6394; Gaz. vol. 148; p. 1069.
Envelop. L. C. Van Riper. No. 941,392; Nov. 30; Sp. p. 6509; Gaz. vol. 148; p. 1106.
Envelop. R. Landenberger. No. 941,525; Nov. 30; Sp. p. 6780; Gaz. vol. 148; p. 1150.
Envelop. P. Forschler. No. 941,924; Nov. 30; Sp. p. 7637; Gaz. vol. 148; p. 1286.
Envelop-clipping machine. C. E. Campbell. No. 938,741; Nov. 2; Sp. p. 627; Gaz. vol. 148; p. 99.
Envelop, Safety-. R. Hassel. No. 939,949; Nov. 9; Sp. p. 3295; Gaz. vol. 148; p. 543.
Envelop, Safety-. P. A. Thorin. No. 941,288; Nov. 23; Sp. p. 6277; Gaz. vol. 148; p. 1051.
Equalizer, Front-fork. S. J. Buckland. No. 940,783; Nov. 23; Sp. p. 5198; Gaz. vol. 148; p. 883.
Eraser. J. S. Thurman. No. 938,725; Nov. 2; Sp. p. 597; Gaz. vol. 148; p. 94.
Eraser-cleaning machine. J. A. Jones. No. 940,254; Nov. 16; Sp. p. 3994; Gaz. vol. 148; p. 680.
Eraser, Ink-. F. M. Holder. No. 928,667; Nov. 2; Sp. p. 493; Gaz. vol. 148; p. 76.
Etching-machine. H. Schedler. No. 940,480; Nov. 16; Sp. p. 4521; Gaz. vol. 148; p. 756.

Evaporating apparatus. S. M. Lillie. No. 939,143; Nov. 2; Sp. p. 1471; Gaz. vol. 148; p. 239.
Evaporating apparatus. J. Parker. No. 940,473; Nov. 16; Sp. p. 4506; Gaz. vol. 148; p. 753.
Excavating apparatus. A. E. Lehmann. No. 940,035; Nov. 16; Sp. p. 3481; Gaz. vol. 148; p. 602.
Excavating-machine. D. W. Miller. No. 939,731; Nov. 9; Sp. p. 2831; Gaz. vol. 148; p. 467.
Excavating-machine. D. W. Miller. No. 939,850; Nov. 9; Sp. p. 3077; Gaz. vol. 148; p. 508.
Excavator. A. Toupin. No. 940,752; Nov. 23; Sp. p. 5120; Gaz. vol. 148; p. 872.
Excavator, Drainage-. M. G. Bunnell. No. 940,120; Nov. 16; Sp. p. 3727; Gaz. vol. 148; p. 635.
Exhibiting apparatus. C. D. Whittredge. No. 941,118; Nov. 23; Sp. p. 5895; Gaz. vol. 148; p. 993.
Exhibiting apparatus. S. B. Moscovitz. No. 942,008; Nov. 30; Sp. p. 7793; Gaz. vol. 148; p. 1312.
Expansion-bolt. C. D. Vernon and J. P. Morningstar. No. 939,457; Nov. 9; Sp. p. 2247; Gaz. vol. 148; p. 373.
Expansion-tank with liquid-relief. H. A. R. Dietrich. No. 941,235; Nov. 23; Sp. p. 6160; Gaz. vol. 148; p. 1033.
Explosive. C. U. Buck. No. 940,580; Nov. 16; Sp. p. 4743; Gaz. vol. 148; p. 790.
Explosive-engine. A. J. Cole. No. 939,669; Nov. 9; Sp. p. 2708; Gaz. vol. 148; p. 447.
Explosive grenade. F. M. Hale. No. 940,527; Nov. 16; Sp. p. 4625; Gaz. vol. 148; p. 771.
Explosive-mixing machine. H. Talley. No. 940,216; Nov. 16; Sp. p. 3924; Gaz. vol. 148; p. 667.
Extinguisher. A. D. Swoger. No. 940,832; Nov. 23; Sp. p. 5300; Gaz. vol. 148; p. 899.
Extractor: *See* Centrifugal extractor; Sinew-extractor.
Eyeglass-guard. C. L. Merry. No. 939,527; Nov. 9; Sp. p. 2387; Gaz. vol. 148; p. 396.
Eyeglass-mounting. S. J. Clulee. No. 938,744; Nov. 2; Sp. p. 633; Gaz. vol. 148; p. 100.
Eyeglasses. S. J. Clulee. No. 939,668; Nov. 9; Sp. p. 2707; Gaz. vol. 148; p. 447.
Eyeglasses. F. Hamilton. No. 940,683; Nov. 23; Sp. p. 4971; Gaz. vol. 148; p. 848.
Fabric: *See* Couch fabric; Reinforced fabric; Spring fabric; Woven fabric.
Fabrics, Machine for turning and winding tubular. T. H. Murphy. No. 941,164; Nov. 23; Sp. p. 6003; Gaz. vol. 148; p. 1009.
Fabrics, Machinery for manufacturing textile. W. Bowker. No. 939,467; Nov. 9; Sp. p. 2269; Gaz. vol. 148; p. 376
Fan. L. L. Korach. No. 939,916; Nov. 9; Sp. p. 3230; Gaz. vol. 148; p. 532.
Fan. L. J. Wing. No. 941,834; Nov. 30; Sp. p. 7462; Gaz. vol. 148; p. 1254.
Fan, Electric-motor. N. A. Locke. No. 939,723; Nov. 9; Sp. p. 2809; Gaz. vol. 148; p. 465.
Fan, pump, and the like, Centrifugal. J. Kirby. No. 939,140; Nov. 2; Sp. p. 1464; Gaz. vol. 148; p. 238.
Fans, Blade of centrifugal. O. B. Jacobsen. No. 939,136; Nov. 2; Sp. p. 1455; Gaz. vol. 148; p. 237.
Fare-box. J. Quinn. No. 940,727; Nov. 23; Sp. p. 5066; Gaz. vol. 148; p. 865.
Fare-recorder. F. Batt. No. 939,789; Nov. 9; Sp. p. 2959; Gaz. vol. 148; p. 487.
Farrier's implement. W. Rawalt. No. 940,478; Nov. 16; Sp. p. 4517; Gaz. vol. 148; p. 756.
Fastener. J. A. Simpson. No. 941,542; Nov. 30; Sp. p. 6822; Gaz. vol. 148; p. 1155.
Fastener. C. A. Conrard. No. 941,977; Nov. 30; Sp. p. 7740; Gaz. vol. 148; p. 1304.
Fastener, Separable. S. A. Asquith. No. 940,917; Nov. 23; Sp. p. 5465; Gaz. vol. 148; p. 926.
Fastener-setting machine. W. E. Bennett. No. 939,200; Nov. 9; Sp. p. 1618; Gaz. vol. 148; p. 286.
Faucet. J. Falasca. No. 940,522; Nov. 16; Sp. p. 4619; Gaz. vol. 148; p. 770.
Faucet. A. J. Robinson. No. 940,556; Nov. 16; Sp. p. 4695; Gaz. vol. 148; p. 781.
Faucet. T. O. Thompson. No. 941,210; Nov. 23; Sp. p. 6110; Gaz. vol. 148; p. 1025.
Faucet and hose-coupling. H. P. Towle. No. 939,931; Nov. 9; Sp. p. 3263; Gaz. vol. 148; p. 538.
Faucet and spigot attachment. J. E. McLean. No. 939,069; Nov. 2; Sp. p. 1320; Gaz. vol. 148; p. 214.
Faucet, Beer-. T. Davis. No. 940,438; Nov. 16; Sp. p. 4440; Gaz. vol. 148; p. 742.
Faucet, Bottle-filling. D. D. Nolley. No. 941,268; Nov. 23; Sp. p. 6227; Gaz. vol. 148; p. 1044.
Faucet, Compound. F. B. Hunter. No. 938,868; Nov. 2; Sp. p. 913; Gaz. vol. 148; p. 144.
Faucet for cheese apparatus. J. Brensike. No. 941,694; Nov. 30; Sp. p. 7140; Gaz. vol. 148; p. 1205.
Faucet hose-coupling. H. P. Towle. No. 939,932; Nov. 9; Sp. p. 3265; Gaz. vol. 148; p. 538.
Feed-bag. T. Brennan. No. 939,971; Nov. 16; Sp. p. 3347; Gaz. vol. 148; p. 579.
Feed-box. A. D. Myers. No. 939,533; Nov. 9; Sp. p. 2399; Gaz. vol. 148; p. 398.
Feed-mechanism, Differential positive-. R. Milne. No. 940,342; Nov. 16; Sp. p. 4209; Gaz. vol. 148; p. 709.
Feed-regulator. G. D. Scheiffler. No. 940,943; Nov. 23; Sp. p. 5526; Gaz. vol. 148; p. 935.
Feed-water heater. G. H. Gibson. No. 938,573; Nov. 2; Sp. p. 269; Gaz. vol. 148; p. 44.
Feed-water injectors, Attachment for. C. Phillips. No. 939,310; Nov. 9; Sp. p. 1907; Gaz. vol. 148; p. 325.
Feed-water purifier. T. Grieve. No. 939,110; Nov. 2; Sp. p. 1212; Gaz. vol. 148; p. 193.
Feed-water regulator. C. Brent. No. 939,889; Nov. 9; Sp. p. 3163; Gaz. vol. 148; p. 521.
Feeder, Stock-. J. Z. Loop and G. R. J. Newman. No. 940,540; Nov. 16; Sp. p. 4658; Gaz. vol. 148; p. 776.
Feeding device, Automatic stock-. L. A. Roggensack. No. 938,608; Nov. 2; Sp. p. 375; Gaz. vol. 148; p. 56.
Feeding mechanism. B. M. W. Hanson. No. 940,929; Nov. 23; Sp. p. 5487; Gaz. vol. 148; p. 930.
Fence-clamp. A. C. Harrison. No. 939,835; Nov. 9; Sp. p. 3049; Gaz. vol. 148; p. 503.
Fence clamp, Woven-wire-. J. Fisher. No. 938,564; Nov. 2; Sp. p. 285; Gaz. vol. 148; p. 41.
Fence-lock. G. H. Farmilo. No. 940,680; Nov. 23; Sp. p. 4967; Gaz. vol. 148; p. 847.
Fence-post. J. O. Mace. No. 940,173; Nov. 16; Sp. p. 3831; Gaz. vol. 148; p. 650.
Fence-post, &c. H. J. Wessels. No. 940,996; Nov. 23; Sp. p. 5621; Gaz. vol. 148; p. 952.
Fence-post staple. J. Darling. No. 941,078; Nov. 30; Sp. p. 7741; Gaz. vol. 148; p. 1304.
Fender: *See* Car-fender; Plow-fender.
Fender or trolley-wheel guard. J. A. MacMahon. No. 941,790; Nov. 30; Sp. p. 7347; Gaz. vol. 148; p. 1238.
Ferrule, Waste-. J. Klein. No. 939,711; Nov. 9; Sp. p. 2785; Gaz. vol. 148; p. 460.
Fertilizer-distributer. E. C. Galloway. No. 940,455; Nov. 16; Sp. p. 4477; Gaz. vol. 148; p. 748.
Fertilizer-distributer. G. E. Alphin. No. 941,603; Nov. 30; Sp. p. 6941; Gaz. vol. 148; p. 1174.
Fertilizer-distributer and planter, Combined. F. W. Decker. No. 940,517; Nov. 16; Sp. p. 4609; Gaz. vol. 148; p. 769.
Fiber-cleaning apparatus. J. K. Toles. No. 939,569; Nov. 9; Sp. p. 2478; Gaz. vol. 148; p. 411.
Fiber-cleaning machine. L. L. Summers. No. 938,722; Nov. 2; Sp. p. 591; Gaz. vol. 148; p. 93.
Fifth-wheel. J. Herby. No. 939,254; Nov. 9; Sp. p. 1742; Gaz. vol. 148; p. 303.
File-box. C. Keck and A. Doln. No. 941,681; Nov. 30; Sp. p. 7100; Gaz. vol. 148; p. 1200.
File cabinet, Bill-. J. Miller. No. 941,025; Nov. 23; Sp. p. 5706; Gaz. vol. 148; p. 963.
File-holder. W. C. Shank. No. 938,519; Nov. 2; Sp. p. 178; Gaz. vol. 148; p. 25.
Filing-cabinet. J. Dannheiser. No. 941,133; Nov. 23; Sp. p. 5941; Gaz. vol. 148; p. 999.
Filling device. J. Papish. No. 940,611; Nov. 16; Sp. p. 4796; Gaz. vol. 148; p. 799.
Filling-machine. J. F. Haller. No. 938,482; Nov. 2; Sp. p. 66; Gaz. vol. 148; p. 12.
Filling-machine. F. C. H. Strasburger. No. 940,624; Nov. 16; Sp. p. 4819; Gaz. vol. 148; p. 803.
Film-drying machine. F. B. Thompson. No. 939,350; Nov. 9; Sp. p. 1991; Gaz. vol. 148; p. 338.
Film-frame apparatus. B. Day. No. 941,500; Nov. 30; Sp. p. 6736; Gaz. vol. 148; p. 1141.
Film-pack, Flat. J. G. Schneider. No. 941,103; Nov. 23; Sp. p. 5863; Gaz. vol. 148; p. 988.
Films and illustrated-song outfits, Portable holder for. E. E. Wagner. No. 940,757; Nov. 23; Sp. p. 5132; Gaz. vol. 148; p. 874.
Filter. R. S. Browne. No. 938,636; Nov. 2; Sp. p. 427; Gaz. vol. 148; p. 65.
Filter. L. W. and M. Andres. No. 938,947; Nov. 2; Sp. p. 1091; Gaz. vol. 148; p. 173.
Filter. A. G. Sheak. No. 939,448; Nov. 9; Sp. p. 2225; Gaz. vol. 148; p. 370.
Filter. J. W. Hammett. No. 939,497; Nov. 9; Sp. p. 2327; Gaz. vol. 148; p. 386.
Filter, Water-. I. K. Hisey and R. M. Wardle. No. 939,418; Nov. 9; Sp. p. 2168; Gaz. vol. 148; p. 360.
Filters, Indicator device for reservoir-. F. N. Connet. No. 941,061; Nov. 23; Sp. p. 5772; Gaz. vol. 148; p. 974.
Finger-pad. J. G. Marsh. No. 942,003; Nov. 30; Sp. p. 7787; Gaz. vol. 148; p. 1311.
Finger-ring. L. E. Sadler. No. 939,864; Nov. 9; Sp. p. 3107; Gaz. vol. 148; p. 513.
Fire-alarm. W. Goodchild. No. 939,128; Nov. 2; Sp. p. 1432; Gaz. vol. 148; p. 234.
Fire-alarm test apparatus. J. G. Nolen. No. 939,292; Nov. 9; Sp. p. 1837; Gaz. vol. 148; p. 317.
Fire-escape. A. Anderson. No. 938,625; Nov. 2; Sp. p. 408; Gaz. vol. 148; p. 61.
Fire-escape. J. E. Andrews. No. 939,375; Nov. 9; Sp. p. 2077; Gaz. vol. 148; p. 346.
Fire-escape. A. A. Jahnke. No. 940,601; Nov. 16; Sp. p. 4778; Gaz. vol. 148; p. 796.
Fire-escape. C. E. Green and T. C. Brasket. No. 941,246; Nov. 23; Sp. p. 6179; Gaz. vol. 148; p. 1036.
Fire-extinguisher and signaling system, Automatic. R. B. Hewitt and J. G. Nolen. No. 938,859; Nov. 2; Sp. p. 867; Gaz. vol. 148; p. 140.
Fire-extinguisher apparatus. H. V. R. Read and R. H. Campbell. No. 940,614; Nov. 16; Sp. p. 4801; Gaz. vol. 148; p. 800.
Fire-extinguisher valve. A. Blauvelt. No. 940,953; Nov. 23; Sp. p. 5546; Gaz. vol. 148; p. 939.
Fire-hose coupling. H. J. Hickey. No. 941,900; Nov. 30; Sp. p. 7759; Gaz. vol. 148; p. 1307.
Fire-pail, Air-tight. C. F. Crane. No. 939,220; Nov. 9; Sp. p. 1658; Gaz. vol. 148; p. 292.
Fire-protection and signal system. J. E. Shepherd. No. 941,048; Nov. 23; Sp. p. 5746; Gaz. vol. 148; p. 970.
Fire-protection signal system. J. G. Nolen and J. E. Shepherd. No. 939,293; Nov. 9; Sp. p. 1839; Gaz. vol. 148; p. 317.
Firearm. G. S. Lewis. No. 939,142; Nov. 2; Sp. p. 1470; Gaz. vol. 148; p. 239.
Firearm. S. B. Smith. No. 941,662; Nov. 30; Sp. p. 7068; Gaz. vol. 148; p. 1195.
Firearm, Automatic. W. J. Whiting. No. 939,882; Nov. 9; Sp. p. 3145; Gaz. vol. 148; p. 519.

Firearm-lock. T. Köfler. No. 941,260; Nov. 23; Sp. p. 6203; Gaz. vol. 148; p. 1041.
Firearm, Magazine-. J. Rebman. No. 940,191; Nov. 16; Sp. p. 3868; Gaz. vol. 148; p. 657.
Firearm, Magazine-. H. W. De Jarnatt. No. 940,791; Nov. 23; Sp. p. 5219; Gaz. vol. 148; p. 886.
Firearm-sight. W. J. C. Downey. No. 939,813; Nov. 9; Sp. p. 3010; Gaz. vol. 148; p. 496.
Firearms, Magazine cut-off for repeating. J. H. Wheeler. No. 940,764; Nov. 23; Sp. p. 5150; Gaz. vol. 148; p. 876.
Fish-hook. W. E. Koch. No. 940,465; Nov. 16; Sp. p. 4494; Gaz. vol. 148; p. 751.
Fish-tape coupling. F. A. Swan. No. 938,723; Nov. 2; Sp. p. 594; Gaz. vol. 148; p. 93.
Fishing-reel line-guide. W. A. Austin. No. 938,948; Nov. 2; Sp. p. 1092; Gaz. vol. 148; p. 173.
Fishing-reels, Drag-handle for. T. M. Williams. No. 940,415; Nov. 16; Sp. p. 4392; Gaz. vol. 148; p. 735.
Fishing-rod. W. A. Austin. No. 942,030; Nov. 30; Sp. p. 7831; Gaz. vol. 148; p. 1319.
Flanged pipe. C. Gordon. No. 940,870; Nov. 23; Sp. p. 5377; Gaz. vol. 148; p. 911.
Flash-light. J. Anderson. No. 938,945; Nov. 2; Sp. p. 1087; Gaz. vol. 148; p. 172.
Flash-light apparatus. J. W. Underwood. No. 939,354; Nov. 9; Sp. p. 2010; Gaz. vol. 148; p. 339.
Flask: *See* Molding-flask; Sand-mold flask.
Flask. L. W. Daman. No. 940,858; Nov. 23; Sp. p. 5351; Gaz. vol. 148; p. 907.
Flat-iron, Self-heating. C. S. Konigsberg and W. Allen. No. 940,466; Nov. 16; Sp. p. 4495; Gaz. vol. 148; p. 751.
Float-coupling. C. Dargent. No. 939,397; Nov. 9; Sp. p. 2118; Gaz. vol. 148; p. 353.
Floor-jack. A. Junker. No. 940,695; Nov. 23; Sp. p. 4996; Gaz. vol. 148; p. 853.
Floor-scraping machine. S. Drew. No. 938,652; Nov. 2; Sp. p. 451; Gaz. vol. 148; p. 70.
Flower-pot holder. A. Haglund. No. 941,448; Nov. 30; Sp. p. 6933; Gaz. vol. 148; p. 1124.
Flower-supporter. A. Heim. No. 940,153; Nov. 16; Sp. p. 3777; Gaz. vol. 148; p. 644.
Flue-cutter. J. M. Wenzel. No. 940,222; Nov. 16; Sp. p. 3937; Gaz. vol. 148; p. 669.
Flue expander and beader. J. L. Didier. No. 941,190; Nov. 23; Sp. p. 6071; Gaz. vol. 148; p. 1019.
Flue, Metallic. L. D. Armstrong. No. 939,652; Nov. 9; Sp. p. 2663; Gaz. vol. 148; p. 440.
Fluid-controlling apparatus. H. Sieben. No. 938,613; Nov. 2; Sp. p. 389; Gaz. vol. 148; p. 58.
Fluid-distributing comb. V. Sartell. No. 940,196; Nov. 16; Sp. p. 3884; Gaz. vol. 148; p. 659.
Fluid-motor. A. Mill. No. 941,582; Nov. 30; Sp. p. 6993; Gaz. vol. 148; p. 1168.
Fluid-pressure brake. W. P. A. MacFarlane. No. 941,684; Nov. 30; Sp. p. 7106; Gaz. vol. 148; p. 1201.
Fluid-pressure combination-lock. W. J. Holstatter. No. 938,487; Nov. 2; Sp. p. 57; Gaz. vol. 148; p. 14.
Fluid-pressure regulator. F. H. Brown. No. 939,470; Nov. 9; Sp. p. 2281; Gaz. vol. 148; p. 377.
Fluid-pressure regulator. B. H. Petley. No. 942,042; Nov. 30; Sp. p. 7858; Gaz. vol. 148; p. 1324.
Fluid-testing apparatus. H. B. Bishop. No. 940,850; Nov. 23; Sp. p. 5337; Gaz. vol. 148; p. 905.
Flushing apparatus. P. S. Millice. No. 938,683; Nov. 2; Sp. p. 526; Gaz. vol. 148; p. 81.
Flushing apparatus. T. W. Christy. No. 939,123; Nov. 2; Sp. p. 1427; Gaz. vol. 148; p. 232.
Flushing apparatus for water-closet bowls or hoppers. W. E. Shaman. No. 941,283; Nov. 23; Sp. p. 6267; Gaz. vol. 148; p. 1049.
Flushing device, Basin-. E. Kuhn. No. 941,997; Nov. 30; Sp. p. 7768; Gaz. vol. 148; p. 1309.
Flushing-tank. C. M. Franzhelm. No. 938,468; Nov. 2; Sp. p. 29; Gaz. vol. 148; p. 7.
Flushing-tank. C. C. Lindley. No. 939,521; Nov. 9; Sp. p. 2372; Gaz. vol. 148; p. 394.
Fly-book. S. E. Creasey. No. 940,132; Nov. 16; Sp. p. 3739; Gaz. vol. 148; p. 637.
Fly-screen. E. Curtiss. No. 939,395; Nov. 9; Sp. p. 2113; Gaz. vol. 148; p. 353.
Flying-machine. A. H. Friedel. No. 940,846; Nov. 23; Sp. p. 5368; Gaz. vol. 148; p. 909.
Folding box. H. L. Gulline. No. 940,009; Nov. 16; Sp. p. 3435; Gaz. vol. 148; p. 593.
Folding box. H. L. Gulline. No. 940,010; Nov. 16; Sp. p. 3436; Gaz. vol. 148; p. 593.
Folding box. J. W. Putnam. No. 940,941; Nov. 23; Sp. p. 5523; Gaz. vol. 148; p. 935.
Folding box. C. F. Jenkins. No. 941,256; Nov. 23; Sp. p. 6196; Gaz. vol. 148; p. 1040.
Folding box. C. F. Jenkins. No. 941,257; Nov. 23; Sp. p. 6198; Gaz. vol. 148; p. 1040.
Folding box or shipping-case. W. H. Noble and C. M. Wheaton. No. 941,013; Nov. 23; Sp. p. 5674; Gaz. vol. 148; p. 958.
Folding chair. W. W. Dozier. No. 938,832; Nov. 2; Sp. p. 826; Gaz. vol. 148; p. 132.
Folding chair. F. M. Burrowes. No. 940,582; Nov. 16; Sp. p. 4746; Gaz. vol. 148; p. 790.
Folding-machine. E. D. Wallace. No. 941,747; Nov. 30; Sp. p. 7256; Gaz. vol. 148; p. 1224.
Folding seat. W. G. Winans. No. 939,937; Nov. 9; Sp. p. 3272; Gaz. vol. 148; p. 540.
Folding strap or brace. G. C. Locklin. No. 938,674; Nov. 2; Sp. p. 511; Gaz. vol. 148; p. 78.
Folding table. C. E. Forbes and A. Singer. No. 939,824; Nov. 9; Sp. p. 3030; Gaz. vol. 148; p. 499.
Folding table. F. W. Anderson. No. 939,963; Nov. 16; Sp. p. 3333; Gaz. vol. 148; p. 577.
Foot-rest. H. S. Phillips. No. 938,697; Nov. 2; Sp. p. 548; Gaz. vol. 148; p. 85.
Forging-press. C. Mereàder. No. 939,920; Nov. 9; Sp. p. 3239; Gaz. vol. 148; p. 534.
Fork: *See* Vehicle spring-fork.
Form, Garment-. E. Levin. No. 941,022; Nov. 23; Sp. p. 5698; Gaz. vol. 148; p. 962.
Fountain: *See* Drinking-fountain; Stock and poultry fountain; Water-fountain.
Frame: *See* Canopy-frame; Car-frame; Gage-movement frame; Locomotive-tender frame; Net frame; Purse or bag frame; Quilting-frame; Seat-frame; Stove-frame; Umbrella-frame; Window-frame.
Frame. L. B. Stetson. No. 941,894; Nov. 30; Sp. p. 7583; Gaz. vol. 148; p. 1276.
Frangible receptacle. J. L. Watson, Sr. and Jr. No. 939,572; Nov. 9; Sp. p. 2485; Gaz. vol. 148; p. 412
Freezer. G. F. Dickson. No. 941,767; Nov. 30; Sp. p. 7309; Gaz. vol. 148; p. 1231.
Frog, Hard-center. W. H. Dotter and R. S. Hays. No. 940,441; Nov. 16; Sp. p. 4445; Gaz. vol. 148; p. 743.
Frog, Reversible. W. H. Dotter and R. S. Hays. No. 940,440; Nov. 16; Sp. p. 4443; Gaz. vol. 148; p. 743.
Fruit-cooling apparatus. M. W. Groom. No. 939,685; Nov. 9; Sp. p. 2735; Gaz. vol. 148; p. 452.
Fruit-cutter and squeezer. D. H. Mosteller. No. 939,615; Nov. 9; Sp. p. 2589; Gaz. vol. 148; p. 425.
Fruit-jar. H. B. Burns. No. 940,581; Nov. 16; Sp. p. 4745; Gaz. vol. 148; p. 790.
Fruit-packing device. F. B. Pease. No. 939,740; Nov. 9; Sp. p. 2856; Gaz. vol. 148; p. 471.
Fruit-picker. J. R. Johnson. No. 941,258; Nov. 23; Sp. p. 6199; Gaz. vol. 148; p. 1040.
Fuel, Artificial. R. W. Howell. No. 941,577; Nov. 30; Sp. p. 6892; Gaz. vol. 148; p. 1167.
Fuel-feeder. W. H. Harding and C. M. Saeger. No. 940,313; Nov. 16; Sp. p. 4148; Gaz. vol. 148; p. 700.
Fuel-feeding apparatus. R. Putnam. No. 941,887; Nov. 30; Sp. p. 6907; Gaz. vol. 148; p. 1169.
Fuel-producer. W. L. Shepard and H. W. Wickham. No. 940,945; Nov. 23; Sp. p. 5529; Gaz. vol. 148; p. 936.
Furnace: *See* Annealing and hardening furnace; Electric furnace; Hydrocarbon-burning furnace; Induction-furnace; Plate-bar-heating furnace; Retort-furnace; Roasting-furnace; Roasting and like furnace; Tapping-furnace.
Furnace. J. C. Osborne. No. 938,693; Nov. 2; Sp. p. 544; Gaz. vol. 148; p. 84.
Furnace. W. B. Merkel. No. 939,526; Nov. 9; Sp. p. 2382; Gaz. vol. 148; p. 395.
Furnace. U. Wedge. No. 939,934; Nov. 9; Sp. p. 3267; Gaz. vol. 148; p. 539.
Furnace. J. R. Fortune. No. 939,997; Nov. 16; Sp. p. 3412; Gaz. vol. 148; p. 558.
Furnace. E. V. Coulston. No. 940,789; Nov. 23; Sp. p. 5215; Gaz. vol. 148; p. 885.
Furnace. L. Whittaker. No. 941,489; Nov. 30; Sp. p. 6698; Gaz. vol. 148; p. 1135.
Furnace. M. W. Sewall. No. 941,657; Nov. 30; Sp. p. 7060; Gaz. vol. 148; p. 1193.
Furnace. M. W. Sewall. No. 941,658; Nov. 30; Sp. p. 7062; Gaz. vol. 148; p. 1193.
Furnace bridge-walls, Protecting-cap for. J. R. Fortune. No. 941,569; Nov. 30; Sp. p. 6877; Gaz. vol. 148; p. 1164.
Furnace-charging apparatus, Blast-. W. and A. Crooke. No. 939,671; Nov. 9; Sp. p. 2711; Gaz. vol. 148; p. 447.
Furnace fire-door. J. R. Fortune. No. 939,996; Nov. 16; Sp. p. 3410; Gaz. vol. 148; p. 558.
Furnace-grate. W. H. Baush. No. 940,849; Nov. 23; Sp. p. 5334; Gaz. vol. 148; p. 904.
Furnace-grate. F. Girtanner. No. 941,572; Nov. 30; Sp. p. 6885; Gaz. vol. 148; p. 1165.
Furnace mechanical charging apparatus, Blast-. L. Geuze. No. 938,572; Nov. 2; Sp. p. 297; Gaz. vol. 148; p. 44.
Furnaces, Rabble for ore-roasting. A. V. Leggo. No. 940,537; Nov. 16; Sp. p. 4646; Gaz. vol. 148; p. 774.
Furnaces, Smoke-consuming attachment for. W. P. Choltz. No. 941,496; Nov. 30; Sp. p. 6730; Gaz. vol. 148; p. 1140.
Furring-strip. F. E. Sagendorph. No. 939,749; Nov. 9; Sp. p. 2875; Gaz. vol. 148; p. 474.
Fuse. F. G. Jones. No. 941,020; Nov. 23; Sp. p. 5695; Gaz. vol. 148; p. 961.
Fuse, Electric time-. C. D. McPhee and J. Gillies. No. 939,155; Nov. 2; Sp. p. 1511; Gaz. vol. 148; p. 245.
Fuse-holder. J. E. Graybill. No. 938,477; Nov. 2; Sp. p. 48; Gaz. vol. 148; p. 10.
Fuses of projectiles, Safety device for the. E. Schneider. No. 939,447; Nov. 9; Sp. p. 2223; Gaz. vol. 148; p. 370.
Gage: *See* Hinging-gage; Miter-gage; Raker-gage; Skirt-gage; Water-gage.
Gage. R. Atkinson. No. 941,843; Nov. 30; Sp. p. 7485; Gaz. vol. 148; p. 1258.
Gage-glass. C. L. Dickerson. No. 940,860; Nov. 23; Sp. p. 5353; Gaz. vol. 148; p. 907.
Gage-movement frame. F. C. Blanchard and E. B. Crocker. No. 940,379; Nov. 16; Sp. p. 4318; Gaz. vol. 148; p. 723.
Gambrel, Hog-. C. G. Coultas. No. 940,434; Nov. 16; Sp. p. 4431; Gaz. vol. 148; p. 741.
Game. H. E. Hire. No. 939,024; Nov. 2; Sp. p. 1236; Gaz. vol. 148; p. 198.
Game apparatus. L. T. Young. No. 939,580; Nov. 9; Sp. p. 2509; Gaz. vol. 148; p. 414.
Game apparatus. A. B. Clemens. No. 940,855; Nov. 23; Sp. p. 5346; Gaz. vol. 148; p. 906.

Game apparatus. B. Hamilton. No. 941,194; Nov. 23; Sp. p. 6077; Gaz. vol. 148; p. 1020.
Game apparatus. W. B. Beckley. No. 941,488; Nov. 30; Sp. p. 6715; Gaz. vol. 148; p. 1138.
Game apparatus. A. De Meurisse. No. 941,793; Nov. 30; Sp. p. 7353; Gaz. vol. 148; p. 1239.
Game-element carrier, Coin-controlled. R. F. Pendleton. No. 939,306; Nov. 9; Sp. p. 1804; Gaz. vol. 148; p. 323.
Gang-edger. U. Anderson. No. 941,751; Nov. 30; Sp. p. 7262; Gaz. vol. 148; p. 1225.
Garbage-can and rubbish-burner, Combined. E. D. Smith. No. 940,082; Nov. 16; Sp. p. 3630; Gaz. vol. 148; p. 619.
Garment. C. T. Small and W. N. Shelton. No. 939,176; Nov. 2; Sp. p. 1554; Gaz. vol. 148; p. 252.
Garment. P. B. Sherman. No. 939,871; Nov. 9; Sp. p. 3120; Gaz. vol. 148; p. 515.
Garment-hanger. W. F. Freeman. No. 941,510; Nov. 30; Sp. p. 6761; Gaz. vol. 148; p. 1145.
Garment-hanger, Combination. A. A. Vanderford. No. 941,115; Nov. 23; Sp. p. 5890; Gaz. vol. 148; p. 992.
Garment-holder. C. C. Livingston. No. 939,606; Nov. 9; Sp. p. 2575; Gaz. vol. 148; p. 423.
Garment, Lady's. A. W. Powell. No. 940,987; Nov. 23; Sp. p. 5605; Gaz. vol. 148; p. 950.
Garment-presser. C. A. Friedrich. No. 939,408; Nov. 9; Sp. p. 2149; Gaz. vol. 148; p. 356.
Garment-support, Movable. L. G. Dodge. No. 941,501; Nov. 30; Sp. p. 6742; Gaz. vol. 148; p. 1142.
Garment-support, Movable. L. G. Dodge, W. Freeman, and A. Vanderveld. No. 941,502; Nov. 30; Sp. p. 6743; Gaz. vol. 148; p. 1142.
Garment-supports, Guard for rotary. S. D. Young. No. 941,669; Nov. 30; Sp. p. 7082; Gaz. vol. 148; p. 1197.
Garment-supporter. W. A. Seibel. No. 941,105; Nov. 23; Sp. p. 5866; Gaz. vol. 148; p. 989.
Garment-supporter. S. Kops. No. 941,787; Nov. 30; Sp. p. 7342; Gaz. vol. 148; p. 1237.
Garment-supporting strap. E. Morris, Jr. No. 939,058; Nov. 2; Sp. p. 1300; Gaz. vol. 148; p. 210.
Gas and carbureted water-gas, Manufacturing mixed coal-. W. Thomas. No. 940,289; Nov. 16; Sp. p. 4079; Gaz. vol. 148; p. 692.
Gas apparatus, Water-. S. J. Dickey. No. 940,925; Nov. 23; Sp. p. 5479; Gaz. vol. 148; p. 929.
Gas-burner. W. F. Cobedesh. No. 938,745; Nov. 2; Sp. p. 636; Gaz. vol. 148, p. 101.
Gas-burner. B. A. Geurink. No. 939,242; Nov. 9; Sp. p. 1723; Gaz. vol. 148; p. 299.
Gas-burner. J. Weintz. No. 941,437; Nov. 30; Sp. p. 6608; Gaz. vol. 148; p. 1120.
Gas-burner. B. A. Geurink. No. 941,708; Nov. 30; Sp. p. 7184; Gaz. vol. 148; p. 1211.
Gas-burner, Self-closing. C. A. Johnson. No. 939,263; Nov. 9; Sp. p. 1763; Gaz. vol. 148; p. 306.
Gas-engine. R. G. and V. E. Nelson. No. 941,169; Nov. 23; Sp. p. 6018; Gaz. vol. 148; p. 1011.
Gas-escape. H. H. Fulton. No. 941,917; Nov. 30; Sp. p. 7623; Gaz. vol. 148; p. 1284.
Gas generator, Acetylene-. F. J. Moss. No. 939,614; Nov. 9; Sp. p. 2586; Gaz. vol. 148; p. 425.
Gas generator, Acetylene-. Z. A. Ferrel. No. 940,384; Nov. 16; Sp. p. 4328; Gaz. vol. 148; p. 725.
Gas-kiln. E. Schmatolla. No. 942,013; Nov. 30; Sp. p. 7804; Gaz. vol. 148; p. 1314.
Gas-lighter. F. H. Pomeroy. No. 940,276; Nov. 16; Sp. p. 4048; Gaz. vol. 148; p. 688.
Gas lighting and extinguishing apparatus. V. C. J. Nightingall. No. 940,610; Nov. 16; Sp. p. 4792; Gaz. vol. 148; p. 799.
Gas-lights from a distance, Apparatus for lighting and extinguishing. J. F. Nässén and A. E. T. Bergström. No. 940,046; Nov. 16; Sp. p. 3541; Gaz. vol. 148; p. 606.
Gas-main stopper. P. Goodman. No. 940,458; Nov. 16; Sp. p. 4481; Gaz. vol. 148; p. 749.
Gas-mantle-fixture shock-absorbing device. H. E. Woods. No. 940,629; Nov. 16; Sp. p. 4841; Gaz. vol. 148; p. 806.
Gas, Manufacturing. C. B. Tully. No. 938,919; Nov. 2; Sp. p. 1030; Gaz. vol. 148; p. 163.
Gas-manufacturing apparatus. B. Loomis. No. 939,282; Nov. 9; Sp. p. 1811; Gaz. vol. 148; p. 313.
Gas or oil burner. O. J. Heindel. No. 939,415; Nov. 9; Sp. p. 2162; Gaz. vol. 148; p. 359.
Gas plant, Peat-. J. D. Oligny. No. 938,691; Nov. 2; Sp. p 541; Gaz. vol. 148; p. 83.
Gas plants, Supply-tank and carbureter for. F. B. Alldredge. No. 940,916; Nov. 23; Sp. p. 5463; Gaz. vol. 148; p. 926.
Gas-producer. G. L. Morton. No. 939,288; Nov. 9; Sp. p. 1824; Gaz. vol. 148; p. 315.
Gas-producer. R. B. Kernohan. No. 940,696; Nov. 23; Sp. p. 4997; Gaz. vol. 148; p. 853.
Gas-producers, Vibratory disintegrator for. J. J. Astor. No. 940,493; Nov. 16; Sp. p. 4550; Gaz. vol. 148; p. 761.
Gas-regulator. M. Graetz. No. 939,684; Nov. 9; Sp. p. 2734; Gaz. vol. 148; p. 451.
Gas-washer. W. Feld. No. 940,103; Nov. 16; Sp. p. 3681; Gaz. vol. 148; p. 627.
Gases and vapors, Apparatus for separating particles of liquid from. M. Steger. No. 940,947; Nov. 23; Sp. p. 5533; Gaz. vol. 148; p. 937.
Gases, Apparatus for cleaning. W. Ahlen and H. C. Siebert. No. 941,841; Nov. 30; Sp. p. 7479; Gaz. vol. 148; p. 1257.
Gases, Apparatus for purifying burner-. J. B. F. Herreshoff. No. 940,596; Nov. 16; Sp. p. 4768; Gaz. vol. 148; p. 794.
Gases, Purification of burner-. J. B. F. Herreshoff. No. 940,595; Nov. 16; Sp. p. 4766; Gaz. vol. 148; p. 794.
Gaseous mixtures, Apparatus for separating the constituent elements of. E. Nazza. No. 940,885; Nov. 23; Sp. p. 5403; Gaz. vol. 148; p. 916.
Gasolene apparatus, Storage. H. E. Grant. No. 939,596; Nov. 9; Sp. p. 2555; Gaz. vol. 148; p. 419.
Gasolene-engine. J. C. Johnson. No. 940,027; Nov. 16; Sp. p. 3467; Gaz. vol. 148; p. 599.
Gasolene-supply Strainer and separator for. G. M. Schebler. No. 939,551; Nov. 9; Sp. p. 2438; Gaz. vol. 148; p. 404.
Gate: *See* Car end-gate; Railway-crossing gate; Sliding gate; Starting and separating gate.
Gate. F. B. Tice. No. 939,568; Nov. 9; Sp. p. 2478; Gaz. vol. 148; p. 411.
Gate. J. E. Mullen. No. 940,044; Nov. 16; Sp. p. 3537; Gaz. vol. 148; p. 605.
Gate and door fastener. F. J. S. Miely. No. 941,203; Nov. 23; Sp. p. 6096; Gaz. vol. 148; p. 1023.
Gate-hook. C. L. Smith. No. 940,205; Nov. 16; Sp. p. 3906; Gaz. vol. 148; p. 663.
Gate-operating attachment. J. B. Faulkner. No. 940,306; Nov. 16; Sp. p. 4132; Gaz. vol. 148; p. 697.
Gear-train, Double-pinion toothed. W. Trewhella. No. 940,091; Nov. 16; Sp. p. 3646; Gaz. vol. 148; p. 622.
Gear, Transmission-. W. S. Hovey. No. 939,914; Nov. 9; Sp. p. 3219; Gaz. vol. 148; p. 530.
Gear, Variable-speed-transmission. E. P. Cowles. No. 939,589; Nov. 9; Sp. p. 2533; Gaz. vol. 148; p. 417.
Gears, Draw-bar and yoke attachment for draft-. C. L. Bundy and J. J. Acker. No. 939,390; Nov. 9; Sp. p. 2101; Gaz. vol. 148; p. 351.
Gearing. A. D. Williamson. No. 938,805; Nov. 2; Sp. p. 764; Gaz vol. 148; p. 123.
Gearing. G. O. Leopold. No. 939,042; Nov. 2; Sp. p. 1275; Gaz. vol. 148; p. 205.
Gearing. J. G. Morrison. No. 939,153; Nov. 2; Sp. p. 1506; Gaz. vol. 148; p. 244.
Gearing. A. D. Williamson. No. 939,179; Nov 2; Sp. p. 1560; Gaz. vol. 148; p. 253.
Gearing. H. C. Schroeder. No. 940,290; Nov. 16; Sp. p. 3890; Gaz. vol. 148; p. 661.
Gearing. E. E. Swarthout. No. 940,748; Nov. 23; Sp. p. 5113; Gaz. vol. 148; p. 871.
Gearing, Change-speed. F. D. Pouch. No. 941,727; Nov. 30; Sp. p. 7216; Gaz. vol. 148; p. 1217.
Gearing for stentering-machines. A. E. Simpson. No. 939,959; Nov. 9; Sp. p. 3317; Gaz. vol. 148; p. 547.
Gearing, Friction-. J. L. Graham. No. 940,006; Nov. 16; Sp. p. 3429; Gaz. vol. 148; p. 591.
Gearing, Friction-. G. H. Chisholm. No. 941,856; Nov. 30; Sp. p. 7508; Gaz. vol. 148; p. 1262.
Gearing, Frictional. L. C. Arnaud. No. 939,653; Nov. 9; Sp. p. 2664; Gaz. vol. 148; p. 440.
Gearing, Reversing-. T. L. McCaskill. No. 940,889; Nov. 23; Sp. p. 5415; Gaz. vol. 148; p. 917.
Gearing, Transmission-. C. W. Parker. No. 941,034; Nov. 23; Sp. p. 5721; Gaz. vol. 148; p. 965.
Gearing, Transmission-. C. W. Parker. No. 941,035; Nov. 23; Sp. p. 5724; Gaz. vol. 148; p. 966.
Gearing, Transmission-. A. R. Behnke. No. 941,056; Nov. 23; Sp. p. 5766; Gaz. vol. 148; p. 973.
Generator: *See* Acetylene-generator; Electric generator; Gas-generator; Magneto-generator; Power-generator; Steam-generator.
Generator and mixer. E. R. Wilson. No. 939,779; Nov. 9; Sp. p. 2938; Gaz. vol. 148; p. 484.
Glass: *See* Gage-glass.
Glass, Apparatus for making wire-. R. A. B. Walsh. No. 940,844; Nov. 23; Sp. p. 5327; Gaz. vol. 148; p. 903.
Glass being drawn, Device for maintaining the width of sheets of. I. W. Colburn. No. 940,675; Nov. 23; Sp. p. 4954; Gaz. vol. 148; p. 846.
Glass-cutting tool. J. Lamb. No. 939,843; Nov. 9; Sp. p. 3052; Gaz. vol. 148; p. 505.
Glass cylinders, Device for forming. F. J. Houze. No. 941,148; Nov. 23; Sp. p. 5974; Gaz. vol. 148; p. 1004.
Glass cylinders, Drawing. H. A. Schnelbach. No. 939,101; Nov. 2; Sp. p. 1380; Gaz. vol. 148; p. 225.
Glass-etching machine. A. B. Knight. No. 941,883; Nov. 30; Sp. p. 7556; Gaz. vol. 148; p. 1272.
Glass, Machine for making wire-. J. I. Arbogast. No. 941,842; Nov. 30; Sp. p. 7481; Gaz. vol. 148; p. 1257.
Glass, Method and apparatus for making wire-. R. A. B. Walsh. No. 940,843; Nov. 23; Sp. p. 5326; Gaz. vol. 148; p. 903.
Glass, Method and apparatus for making wire-. R. A. B. Walsh. No. 940,845; Nov. 23; Sp. p. 5329; Gaz. vol. 148; p. 903.
Glass, Method and apparatus for making wire-. R. A. B. Walsh. No. 940,846; Nov. 23; Sp. p. 5330; Gaz. vol. 148; p. 904.
Glass, Method of and apparatus for drawing continuous sheets of. E. Fourcault. No. 941,866; Nov. 30; Sp. p. 7525; Gaz. vol. 148; p. 1266.
Glass, Method of and machine for making wire-. R. A. B. Walsh. No. 940,834; Nov. 23; Sp. p. 5304; Gaz. vol. 148; p. 900.
Glass, Method of and machine for making wire-. R. A. B. Walsh. No. 940,835; Nov. 23; Sp. p. 5309; Gaz. vol. 148; p. 900.
Glass, Method of and machine for making wire-. R. A. B. Walsh. No. 940,836; Nov. 23; Sp. p. 5311; Gaz. vol. 148; p. 901.
Glass, Method of and machine for making wire-. R. A. B. Walsh. No. 940,837; Nov. 23; Sp. p. 5313; Gaz. vol. 148, p. 901.
Glass, Method of and machine for making wire-. R. A. B. Walsh. No. 940,838; Nov. 23; Sp. p. 5316; Gaz. vol. 148; p. 901.
Glass, Method of and machine for making wire-. R. A. B. Walsh. No. 940,839; Nov. 23; Sp. p. 5318; Gaz. vol. 148; p. 901.
Glass, Method of and machine for making wire-. R. A. B. Walsh. No. 940,840; Nov. 23; Sp. p. 5320; Gaz. vol. 148; p. 902.
Glass, Method of and machine for making wire-. R. A. B. Walsh. No. 940,841; Nov. 23; Sp. p. 5321; Gaz. vol. 148; p. 902.
Glass, Method of and machine for making wire-. R. A. B. Walsh. No. 940,842; Nov. 23; Sp. p. 5324; Gaz. vol. 148; p. 902.
Glass, Method of and means for manufacture of window-. R. L. Frink. No. 941,512; Nov. 30; Sp. p. 6764; Gaz. vol. 148; p. 1146.
Glass-molding machine. W. J. Miller. No. 941,935; Nov. 30; Sp. p. 7659; Gaz. vol. 148; p. 1290.
Glass-molds, Construction of. F. M. McKernan. No. 941,584; Nov. 30; Sp. p. 6903; Gaz. vol. 148; p. 1168.

Glass-tank gathering-pool. A. L. Schram. No. 938,518; Nov. 2; Sp. p. 174; Gaz. vol. 148; p. 24.
Glassware, Mechanism for producing hollow. C. J. Koenig. No. 940,165; Nov. 16; Sp. p. 3802; Gaz. vol. 148; p. 648.
Glazier's point. C. A. Buffat. No. 939,796; Nov. 9; Sp. p. 2983; Gaz. vol. 148; p. 491.
Glazing tile, brick, or the like. F. E. Goldsmith. No. 941,635; Nov. 30; Sp. p. 7005; Gaz. vol. 148; p. 1185.
Globe and guard, Safety-. W. G. Sherrer. No. 940,899; Nov. 23; Sp. p. 5433; Gaz. vol. 148; p. 920.
Go-cart. E. C. Moore. No. 938,498; Nov. 2; Sp. p. 111; Gaz. vol. 148; p. 18.
Governor. N. C. Bassett. No. 939 656; Nov. 9; Sp. p. 2669; Gaz. vol. 148; p. 441.
Governor, Fly-ball. M. Haeberlein. No. 941,775; Nov. 30; Sp. p. 7323; Gaz. vol. 148; p. 1234.
Governor for internal-combustion engines. W. M. Power. No. 939,923; Nov. 9; Sp. p. 3243; Gaz. vol. 148; p. 534.
Grab or draft hook. D. A. Busch. No. 938,551; Nov. 2; Sp. p. 256; Gaz. vol. 148; p. 37.
Grader and drag, Road. E. B. Fritchman. No. 939,003; Nov. 2; Sp. p. 1193; Gaz. vol. 148; p. 191.
Grader, Road-. A. W. Hadley and H. M. Smith. No. 940,389; Nov. 16; Sp. p. 4339; Gaz. vol. 148; p. 726.
Grain cleaner and separator. F. Grotenrath. No. 938,576; Nov. 2; Sp. p. 306; Gaz. vol. 148; p. 45.
Grain-conveyer. G. and T. B. Byrne. No. 941,060; Nov. 23; Sp. p. 5771; Gaz. vol. 148; p. 974.
Grain-drier. P. Provost. No. 940,190; Nov. 16; Sp. p. 3896; Gaz. vol. 148; p. 656.
Grain-separator. W. P. Silver. No. 939,449; Nov. 9; Sp. p. 2228; Gaz. vol. 148; p. 370.
Grain-treating apparatus. E. Sorenson. No. 941,821; Nov. 30; Sp. p. 7431; Gaz. vol. 148; p. 1249.
Graphophone-horn and record-case, Combined. W. Smith. No. 939,753; Nov. 9; Sp. p. 2881; Gaz. vol. 148; p. 475.
Grass-catcher. H. B. McGrath. No. 939,068; Nov. 2; Sp. p. 1318; Gaz. vol. 148; p. 214.
Grass-crimping apparatus. W. F. Wyman. No. 940,430; Nov. 16; Sp. p. 4842; Gaz. vol. 148; p. 806.
Grass-cutting device. W. S. Hayden. No. 939,837; Nov. 9; Sp. p. 3055; Gaz. vol. 148; p. 504.
Grate. C. F. Butler. No. 939,945; Nov. 9; Sp. p. 3289; Gaz. vol. 148; p. 542.
Grate, Revolving. A. L. Wilson. No. 940,570; Nov. 16; Sp. p. 4725; Gaz. vol. 148; p. 786.
Grates, Shaker for fire-. A. T. Zuech and G. H. Diemer. No. 942,029; Nov. 30; Sp. p. 7830; Gaz. vol. 148; p. 1319.
Grating. Forge locked. D. F. Youngblood. No. 940,912; Nov. 23; Sp. p. 5456; Gaz. vol. 148; p. 924.
Grating, screen screen-door construction, and the like. E. McClure. No. 942,039; Nov. 30; Sp. p. 7850; Gaz. vol. 148; p. 1322.
Grease or lubricant cup. G. W. Bowen. No. 941,849; Nov. 30; Sp. p. 7496; Gaz. vol. 148; p. 1260.
Grinder, Portable and detachable disk-. J. C. Ward. No. 939,115; Nov. 2; Sp. p. 1411; Gaz. vol. 148; p. 230.
Grinder, Skate-runner. C. L. Joy. No. 940,931; Nov. 23; Sp. p. 5498; Gaz. vol. 148; p. 932.
Grinding and polishing roll. A. Bevan. No. 938,547; Nov. 2; Sp. p. 242; Gaz. vol. 148; p. 36.
Grinding-machine. G. Larson. No. 939,038; Nov. 2; Sp. p. 1266; Gaz. vol. 148; p. 203.
Grinding-machine. C. H. Norton, J. C. Spence, and H. N. Cudworth. No. 940,548; Nov. 16; Sp. p. 4680; Gaz. vol. 148; p. 779.
Grinding machine, Cutlery-. C. L. Joy. No. 940,930; Nov. 23; Sp. p. 5495; Gaz. vol. 148; p. 931.
Grinding-machine driving-gear. J. M. Thompson. No. 940,089; Nov. 16; Sp. p. 3641; Gaz. vol. 148; p. 621.
Grinding machine, Lens-. F. Buchhop. No. 938,459; Nov. 2; Sp. p. 12; Gaz. vol. 148; p. 4.
Grinding-mill. J. Walker. No. 938,923; Nov. 2; Sp. p. 1042; Gaz. vol. 148; p. 165.
Grinding-mill. J. C. Clark. No. 940,513; Nov. 16; Sp. p. 4599; Gaz. vol. 148; p. 767.
Grinding solid bodies, Machine for. A. J. Ericsson. No. 938,466; Nov. 2; Sp. p. 27; Gaz. vol. 148; p. 7.
Grip device, Intermittent. R. D. Tittle. No. 938,727; Nov. 2; Sp. p. 602; Gaz. vol. 148; p. 95.
Grooving-machine. A. Klein. (Reissue.) No. 13,043; Nov. 23; Sp. p. 6401; Gaz. vol. 148; p. 1070.
Gun. J. R. Crabtree. No. 938,983; Nov. 2; Sp. p. 1155; Gaz. vol. 148; p. 184.
Gun-carriage for field ordnance. J. A. Deport. No. 939,399; Nov. 9; Sp. p. 3122; Gaz. vol. 148; p. 354.
Gun-cleaner. W. R. Moore. No. 940,985; Nov. 23; Sp. p. 5602; Gaz. vol. 148; p. 949.
Gun-cleaning means. R. A. Fessenden. No. 938,836; Nov. 2; Sp. p. 831; Gaz. vol. 148; p. 133.
Gun-hose, Automatic. G. L. Wetzel. No. 940,101; Nov. 16; Sp. p. 3677; Gaz. vol. 148; p. 626.
Gun, Recoiling-barrel. F. F. Burton. No. 941,006; Nov. 23; Sp. p. 5659; Gaz. vol. 148; p. 956.
Gun-stock. L. F. Kennedy. No. 939,707; Nov. 9; Sp. p. 2778; Gaz. vol. 148; p. 459.
Gun-support. C. O. Lawson. No. 941,640 Nov. 30; Sp. p. 7014; Gaz. vol. 148; p. 1186.
Guns, Device for emptying the magazines of repeating shot-. T. Hardy. No. 938,851; Nov. 2; Sp. p. 856; Gaz. vol. 148; p. 138.
Guns, Range-keeper for. A. T. Dawson and J. Horne. No. 941,626; Nov. 30; Sp. p. 6989; Gaz. vol. 148; p. 1182.
Gymnasium-horse. A. J. Thornley. No. 941,665; Nov. 30; Sp. p. 7073; Gaz. vol. 148; p. 1195.
Gyve. F. C. Nagle. No. 941,942; Nov. 30; Sp. p. 7670; Gaz. vol. 148; p. 1292.
Hair-drying apparatus. W. A. Soles. No. 939,106; Nov. 2; Sp. p. 1389; Gaz. vol. 148; p. 226.
Hair-pin. B. L. Scott. No. 938,715; Nov. 2; Sp. p. 582; Gaz. vol. 148; p. 91.
Hair-pin holder. S. H. Goldberg. No. 940,801; Nov. 23; Sp. p. 5240; Gaz. vol. 148; p. 889.
Hair-tonic. F. W. E. Müller. No. 939,431; Nov. 9; Sp. p. 2195; Gaz. vol. 148; p. 365.
Hair-tonic. S. Tsorones. No. 941,434; Nov. 30; Sp. p. 6604; Gaz. vol. 148; p. 1119.
Hair waver or curler. J. R. Bux. No. 938,552; Nov. 2; Sp. p. 257; Gaz. vol. 148; p. 37.
Halogenated naphthanthraquinon and making same. M. Isler, A. Lüttringhaus, and H. von Diesbach. No. 941,320; Nov. 23; Sp. p. 6333; Gaz. vol. 148; p. 1059.
Hame and trace connection. F. F. Hodges. No. 939,420; Nov. 9; Sp. p. 2171; Gaz. vol. 148; p. 361.
Hame-fastener. G. W. Reyer. No. 939,321; Nov. 9; Sp. p. 1923; Gaz. vol. 148; p. 328.
Hames-fastener, Adjustable. J. Oppenheim. No. 940,269; Nov. 16; Sp. p. 4021; Gaz. vol. 148; p. 685.
Hammer and sight, Combined. A. M. Powell. No. 939,085; Nov. 2; Sp. p. 1351; Gaz. vol. 148; p. 220.
Hammer, Pneumatic. H. H. Grobes. No. 939,828; Nov. 9; Sp. p. 3038; Gaz. vol. 148; p. 501.
Hammer, Power-. J. L. Painter. No. 941,093; Nov. 23; Sp. p. 5840; Gaz. vol. 148; p. 985.
Hammers, Die-holder for drop-. W. F. Gorton. No. 940,005; Nov. 16; Sp. p. 3428; Gaz. vol. 148; p. 591.
Hammers, Lifting-board for drop-. G. W. Conklin. No. 940,956; Nov. 23; Sp. p. 5552; Gaz. vol. 148; p. 940.
Hammers, Water attachment for pneumatic. C. T. Carnahan and J. Murphy. No. 940,510; Nov. 16; Sp. p. 4595; Gaz. vol. 148; p. 766.
Hammock-stand. J. B. Patterson. No. 940,939; Nov. 23; Sp. p. 5521; Gaz. vol. 148; p. 934.
Hand, Artificial. W. A. Hennessey. No. 941,107; Nov. 23; Sp. p. 6081; Gaz. vol. 148; p. 1020.
Handle: *See* Saw-handle; Switch-handle; Tool-handle.
Handle. G. A. Schehr. No. 939,332; Nov. 9; Sp. p. 1940; Gaz. vol. 148; p. 332.
Hanger: *See* Cable-hanger; Car-door hanger; Clothes-line hanger; Curtain and shade hanger; Door-hanger; Garment-hanger; Meat-hanger; Poultry-hanger; Saw-hanger; Shade-hanger.
Harness. H. H. Crawford. No. 939,985; Nov. 16; Sp. p. 3339; Gaz. vol. 148; p. 584.
Harrow. R. C. Bowman. No. 940,501; Nov. 16; Sp. p. 4574; Gaz. vol. 148; p. 764.
Harrow, Disk. C. S. Sharp. No. 940,203; Nov. 16; Sp. p. 3903; Gaz. vol. 148; p. 662.
Harrow, Disk. H. Christensen. No. 940,923; Nov. 23; Sp. p. 5476; Gaz. vol. 148; p. 928.
Harrow-evener. J. E. Scott. No. 941,104; Nov. 23; Sp. p. 5865; Gaz. vol. 148; p. 989.
Harrow, Guarded-end steel-lever. W. E. Johnson. No. 940,160; Nov. 16; Sp. p. 3790; Gaz. vol. 148; p. 646.
Harrows, Separable sectional draft-beam for. W. Wilson. No. 941,177; Nov. 23; Sp. p. 6032; Gaz. vol. 148; p. 1014.
Harvester, Beet-. H. V., O. S., and C. F. Lee. No. 938,881; Nov. 2; Sp. p. 936; Gaz. vol. 148; p. 148.
Harvester, Beet-. G. A. Pingree. No. 940,189; Nov. 16; Sp. p. 3864; Gaz. vol. 148; p. 656.
Harvester, Cotton-. C. N. Goodwin. No. 939,008; Nov. 2; Sp. p. 1205; Gaz. vol. 148; p. 192.
Harvester-reel support. J. A. Scanland. No. 941,655; Nov. 30; Sp. p. 7056; Gaz. vol. 148; p. 1192.
Hasp-lock. A. J. French. No. 941,511; Nov. 30; Sp. p. 6762; Gaz. vol. 148; p. 1145.
Hat. J. R. Rash. No. 940,002; Nov. 16; Sp. p. 3584; Gaz. vol. 148; p. 612.
Hat-carrier. G. H. Wheary. No. 939,364; Nov. 9; Sp. p. 2027; Gaz. vol. 148; p. 342.
Hat, Felt. E. L. Wales. No. 941,746; Nov. 30; Sp. p. 7255; Gaz. vol. 148; p. 1224.
Hat-holder. W. R. Evans. No. 938,998; Nov. 2; Sp. p. 1186; Gaz. vol. 148; p. 189.
Hat-holder. W. T. Truitt. No. 939,352; Nov. 9; Sp. p. 1994; Gaz. vol. 148; p. 338.
Hat-protector. W. J. Stewart. No. 939,874; Nov. 9; Sp. p. 3129; Gaz. vol. 148; p. 516.
Hats and other head-coverings, Sweat-band for. J. W. Kolsch. No. 941,717; Nov. 30; Sp. p. 7200; Gaz. vol. 148; p. 1213.
Hatch-cover and operating means therefor. L. D. Lovekin, P. M. Young, and H. Krapp. No. 941,526; Nov. 30; Sp. p. 6788; Gaz. vol. 148; p. 1150.
Hatch or manhole cover, Water-tight. M. A. Laubeuf. No. 938,593; Nov. 2; Sp. p. 342; Gaz. vol. 148; p. 51.
Hatchet. W. S. Ward. No. 939,458; Nov. 9; Sp. p. 2249; Gaz. vol. 148; p. 373.
Haulage-clip. J. W. Smallman. No. 941,049; Nov. 23; Sp. p. 5750; Gaz. vol. 148; p. 971.
Hay-carrier. S. P. Lerch. No. 938,775; Nov. 2; Sp. p. 695; Gaz. vol. 148; p. 112.
Hay-press. N. Piquette. No. 938,701; Nov. 2; Sp. p. 555; Gaz. vol. 148; p. 87.
Hay-press. W. W. Boykin. No. 940,669; Nov. 23; Sp. p. 4933; Gaz. vol. 148; p. 844.
Hay-press. H. B. Gaskin. No. 941,243; Nov. 23; Sp. p. 6177; Gaz. vol. 148; p. 1036.
Hay-press sweep. N. Piquette. No. 938,700; Nov. 2; Sp. p. 554; Gaz. vol. 148; p. 86.
Hay-rack. E. J. Wells. No. 938,928; Nov. 2; Sp. p. 1054; Gaz. vol. 148; p. 166.
Hay rake and loader. O. J. Olson. No. 939,157; Nov. 2; Sp. p. 1514; Gaz. vol. 148; p. 246.

Hay rake and loader, Combined. O. Boyer. No. 938,959; Nov. 2; Sp. p. 1109; Gaz. vol. 148; p. 177.
Hay-sling. J. M. Boyd. No. 939,469; Nov. 9; Sp. p. 2278; Gaz. vol. 148; p. 377.
Hay-tedder. J. F. Hermann. No. 940,968; Nov. 23; Sp. p. 5573; Gaz. vol. 148; p. 943.
Head-adjusting mechanism. C. L. Grohmann. No. 938,479; Nov. 2; Sp. p. 56; Gaz. vol. 148; p. 11.
Head and back rest. A. W. Powell. No. 941,043; Nov. 23; Sp. p. 5738; Gaz. vol. 148; p. 969.
Head-rest. J., A., and J. P. Barker. No. 939,655; Nov. 9; Sp. p. 2667; Gaz. vol. 148; p. 441.
Headlight bracket and mechanism for turning same, Automobile-. F. H. Aubeuf. No. 938,456; Nov. 2; Sp. p. 7; Gaz. vol. 148; p. 3.
Headlight-cover. C. W. Houghton. No. 940,156; Nov. 16; Sp. p. 3785; Gaz. vol. 148; p. 645.
Headlight, Locomotive-. J. A. Hamby and S. S. Butcher. No. 939,832; Nov. 9; Sp. p. 3044; Gaz. vol. 148; p. 502.
Headlight, Locomotive-. S. W. Emery. No. 940,446; Nov. 16; Sp. p. 4457; Gaz. vol. 148; p. 745.
Heat, Composition of matter for the generation of. F. J. Tone. No. 939,930; Nov. 9; Sp. p. 3262; Gaz. vol. 148; p. 538.
Heat-generating composition. F. J. Tone. No. 939,570; Nov. 9; Sp. p. 2480; Gaz. vol. 148; p. 411.
Heat-retainer. F. H. Daniels. No. 941,858; Nov. 30; Sp. p. 7511; Gaz. vol. 148; p. 1263.
Heat-transmitter. H. Friedenthal. No. 940,244; Nov. 16; Sp. p. 3975; Gaz. vol. 148; p. 676.
Heater; *See* Air-heater; Car-heater; Electric heater; Feed-water heater; Hot-water house-heater; Milk-heater; Water-heater.
Heater. A. L. Schellhammer. No. 939,925; Nov. 9; Sp. p. 3247; Gaz. vol. 148; p. 535.
Heater. G. W. Bowman and J. A. Becraft. No. 941,910; Nov. 30; Sp. p. 7612; Gaz. vol. 148; p. 1281.
Heating and melting furnace. W. N. Best. No. 941,609; Nov. 30; Sp. p. 6952; Gaz. vol. 148; p. 1176.
Heating apparatus. N. B. Wales. No. 940,567; Nov. 16; Sp. p. 4715; Gaz. vol. 148; p. 785.
Heel-building machine. W. Paris. No. 939,302; Nov. 9; Sp. p. 1885; Gaz. vol. 148; p. 321.
Heel-compressing machine. G. B. Grover. No. 939,686; Nov. 9; Sp. p. 2736; Gaz. vol. 148; p. 452.
Heel-sweep, Reversible and adjustable. J. H. Brockman. No. 938,963; Nov. 2; Sp. p. 1115; Gaz. vol. 148; p. 178.
Hinge. J. L. Larkin and J. C. Woody. No. 938,669; Nov. 2; Sp. p. 498; Gaz. vol. 148; p. 76.
Hinge, Double-acting. J. A. Fischer. No. 941,239; Nov. 23; Sp. p. 6167; Gaz. vol. 148; p. 1034.
Hinge, Double-acting spring-. E. Bommer. No. 941,185; Nov. 23; Sp. p. 6058; Gaz. vol. 148; p. 1016.
Hinge for doors, Spring-. E. C. Scruggs. No. 938,797; Nov. 2; Sp. p. 739; Gaz. vol. 148; p. 120.
Hinge, Invisible. H. R. Canfield. No. 941,672; Nov. 30; Sp. p. 7086; Gaz. vol. 148; p. 1197.
Hinge-joint for lockets, &c. E. Morris. No. 939,530; Nov. 9; Sp. p. 2395; Gaz. vol. 148; p. 397.
Hinge structure, Gate-. G. I. Kendrick and J. Carroll. No. 939,706; Nov. 9; Sp. p. 2777; Gaz. vol. 148; p. 458.
Hinging-gage. W. H. Gelbaugh. No. 940,001; Nov. 16; Sp. p. 3421; Gaz. vol. 148; p. 589.
Hitching and steering device. L. B. McAlpine. No. 941,939; Nov. 30; Sp. p. 7666; Gaz. vol. 148; p. 1291.
Hod. H. McLane. No. 940,350; Nov. 16; Sp. p. 4226; Gaz. vol. 148; p. 713.
Hog-scraping machines, Beater for. W. Gussenhoven. No. 938,761; Nov. 2; Sp. p. 668; Gaz. vol. 148; p. 106.
Hog-trap. J. Dobry. No. 939,228; Nov. 9; Sp. p. 1694; Gaz. vol. 148; p. 294.
Hoisting apparatus. H. W. Bachelder. No. 939,955; Nov. 9; Sp. p. 3309; Gaz. vol. 148; p. 546.
Hoisting apparatus. G. Hammond. No. 940,148; Nov. 16; Sp. p. 3768; Gaz. vol. 148; p. 642.
Hoisting appliance. I. C. Moulton. No. 941,722; Nov. 30; Sp. p. 7205; Gaz. vol. 148; p. 1215.
Hoisting-drums, Movable flange for. G. F. Roughan. No. 940,826; Nov. 23; Sp. p. 5287; Gaz. vol. 148; p. 897.
Hoisting or conveying apparatus. A. E. Norris. No. 939,294; Nov. 9; Sp. p. 1846; Gaz. vol. 148; p. 318.
Hoisting or logging device. W. H. Corbett. No. 939,670; Nov. 9; Sp. p. 2710; Gaz. vol. 148; p. 447.
Holdback. M. D. Schaller. No. 940,620; Nov. 16; Sp. p. 4812; Gaz. vol. 148; p. 802.
Holder. G. Stocker. No. 940,086; Nov. 16; Sp. p. 3636; Gaz. vol. 148; p. 620.
Hollow bodies, Means for extruding. A. P. Hine. No. 941,365; Nov. 30; Sp. p. 6440; Gaz. vol. 148; p. 1096.
Hook; *See* Cant-hook; Clevis-hook; Curtain-hook; Fish-hook; Gate-hook; Grab or draft hook; Snap-hook; Trace-hook.
Hoop sizing and clamping device. L. Gibbs. No. 940,869; Nov. 23; Sp. p. 5375; Gaz. vol. 148; p. 910.
Hopper and soil-pipe cleaner, Extension-. W. H. Cloak. No. 941,538; Nov. 30; Sp. p. 6849; Gaz. vol. 148; p. 1160.
Horse-blanket. J. W. Peirce. No. 938,787; Nov. 2; Sp. p. 722; Gaz. vol. 148; p. 116.
Horse-blanket. E. S. Burwell. No. 939,662; Nov. 9; Sp. p. 2695; Gaz. vol. 148; p. 444.
Horse-boot. R. H. Smith. No. 941,819; Nov. 30; Sp. p. 7427; Gaz. vol. 148; p. 1248.
Horse-detacher. W. J. S. Ritscher. No. 939,745; Nov. 9; Sp. p. 2862; Gaz. vol. 148; p. 472.
Horse-releaser. H. O. Stires and L. W. Smith. No. 938,721; Nov. 2; Sp. p. 590; Gaz. vol. 148; p. 93.
Horse-tail tether. W. J. Mason. No. 940,937; Nov. 23; Sp. p. 5518; Gaz. vol. 148; p. 934.
Horseshoe. J. H. Hershberger. No. 938,858; Nov. 2; Sp. p. 867; Gaz. vol. 148; p. 140.
Horseshoe. P. von Stettina. No. 938,907; Nov. 2; Sp. p. 1009; Gaz. vol. 148; p. 159.
Horseshoe. I. C. Patsch. No. 939,440; Nov. 9; Sp. p. 2214; Gaz. vol. 148; p. 368.
Horseshoe. G. W. Cogswell and W. H. MacCrone. No. 939,473; Nov. 9; Sp. p. 2288; Gaz. vol. 148; p. 379.
Horseshoe. G. Loeffler. No. 940,337; Nov. 16; Sp. p. 4201; Gaz. vol. 148; p. 708.
Horseshoe. T. L. Randall. No. 942,012; Nov. 30; Sp. p. 7803; Gaz. vol. 148; p. 1314.
Horseshoe-bending machine. D. Freuler. No. 939,901; Nov. 9; Sp. p. 3186; Gaz. vol. 148; p. 526.
Horseshoe-calk former. E. N. Childs. No. 940,235; Nov. 16; Sp. p. 3954; Gaz. vol. 148; p. 673.
Hose and pipe coupling. S. M. Johnson. No. 941,150; Nov. 23; Sp. p. 5976; Gaz. vol. 148; p. 1005.
Hose-coupling. W. F. Koper. No. 939,036; Nov. 2; Sp. p. 1263; Gaz. vol. 148; p. 203.
Hose-coupling. I. I. Rose. No. 939,096; Nov. 2; Sp. p. 1372; Gaz. vol. 148; p. 223.
Hose-coupling. J. E. Ward. No. 939,195; Nov. 2; Sp. p. 1595; Gaz. vol. 148; p. 258.
Hose-coupling. V. P. McVoy. No. 939,434; Nov. 9; Sp. p. 2200; Gaz. vol. 148; p. 366.
Hose-coupling. V. P. McVoy. No. 939,435; Nov. 9; Sp. p. 2202; Gaz. vol. 148; p. 366.
Hose-coupling. V. P. McVoy. No. 939,436; Nov. 9; Sp. p. 2205; Gaz. vol. 148; p. 366.
Hose-coupling. V. P. McVoy. No. 939,437; Nov. 9; Sp. p. 2209; Gaz. vol. 148; p. 367.
Hose coupling, Air-. E. L. Brown. No. 939,211; Nov. 9; Sp. p. 1638; Gaz. vol. 148; p. 289
Hose coupling, Air-. F. W. Rock. No. 941,652; Nov. 30; Sp. p. 7052; Gaz. vol. 148; p. 1191.
Hose-coupling and gasket therefor. J. E. Ward. No. 938,731; Nov. 2; Sp. p. 608; Gaz. vol. 148; p. 96.
Hose-coupling, Expansion. H. C. Bostian. No. 941,355; Nov. 30; Sp. p. 6416; Gaz. vol. 148; p. 1094.
Hose-coupling, Train. A. H. McMasters. No. 939,070; Nov. 2; Sp. p. 1321; Gaz. vol. 148; p. 214.
Hose-rack. G. F. D. Trask. No. 941,410; Nov. 30; Sp. p. 6564; Gaz. vol. 148; p. 1113.
Hose-supporter. E. C. Scruggs. No. 940,285; Nov. 16; Sp. p. 4072; Gaz. vol. 148; p. 690.
Hosiery-turner. F. Pope. No. 939,312; Nov. 9; Sp. p. 1912; Gaz. vol. 148; p. 326.
Hot-water house-heater. M. A. Wilcox. No. 941,597; Nov. 30; Sp. p. 6927; Gaz. vol. 148; p. 1172.
Hub-attaching device. I. S. West. No. 938,804; Nov. 2; Sp. p. 763; Gaz. vol. 148; p. 123.
Hub-attaching device. C. C. Swanson. No. 941,470; Nov. 30; Sp. p. 6681; Gaz. vol. 148; p. 1132.
Hub, Metal wheel-. J. W. Murray. No. 941,029; Nov. 23; Sp. p. 5714; Gaz. vol. 148; p. 964.
Humidifier. M. Tillotson. No. 939,351; Nov. 9; Sp. p. 1992; Gaz. vol. 148; p. 338.
Humidifier. S. H. Bunnell. No. 941,187; Nov. 23; Sp. p. 6062; Gaz. vol. 148; p. 1017.
Hunting-knife. G. P. Riggs. No. 939,091; Nov. 2; Sp. p. 1361; Gaz. vol. 148; p. 221.
Husking-machine. W. Clouser. No. 941,229; Nov. 23; Sp. p. 6149; Gaz. vol. 148; p. 1031.
Hydraulic jack. E. A. Gathmann. No. 941,870; Nov. 30; Sp. p. 7535; Gaz. vol. 148; p. 1267.
Hydraulic separator. W. F. Smith. No. 941,663; Nov. 30; Sp. p. 7071; Gaz. vol. 148; p. 1195.
Hydrocarbon-burners, Feed system for. J. N. Leach. No. 938,670; Nov. 2; Sp. p. 500; Gaz. vol. 148; p. 77.
Hydrocarbon-burning furnace, Metal-melting. G. W. McKee. No. 940,710; Nov. 23; Sp. p. 5025; Gaz. vol. 148; p. 858.
Ice-cream can. J. H. Scheck. No. 939,865; Nov. 9; Sp. p. 3108; Gaz. vol. 148; p. 513.
Ice-cream machinery. R. R. Row. No. 941,172; Nov. 23; Sp. p. 6024; Gaz. vol. 148; p. 1012.
Ice-cream-mold gaging attachment. J. A. Aubry. No. 938,628; Nov. 2; Sp. p. 413; Gaz. vol. 148; p. 62.
Ice-creeper for horseshoes. G. H. Echols. No. 940,381; Nov. 16; Sp. p. 4322; Gaz. vol. 148; p. 724.
Ice harvesting and cutting apparatus, Plate-. D. J. Havenstrite. No. 940,013; Nov. 16; Sp. p. 3440; Gaz. vol. 148; p. 594.
Ice-making apparatus. D. J. Havenstrite. No. 938,853; Nov. 2; Sp. p. 859; Gaz. vol. 148; p. 139.
Ice-making apparatus. D. J. Havenstrite. No. 941,414; Nov. 30; Sp. p. 6570; Gaz. vol. 148; p. 1114.
Indicating and recording device. J. T. Whalen. No. 940,761; Nov. 23; Sp. p. 5142; Gaz. vol. 148; p. 875.
Indicating and recording device. F. A. Morgan. No. 940,888; Nov. 23; Sp. p. 5410; Gaz. vol. 148; p. 917.
Indicator; *See* Slip-indicator; Speed-indicator; Street-indicator; Winding-indicator.
Indicator. W. Houghton. No. 939,422; Nov. 9; Sp. p. 2173, Gaz. vol. 148; p. 361.
Indicator. A. J. Border. No. 941,354; Nov. 30; Sp. p. 6412; Gaz. vol. 148; p. 1093.
Indicator. H. E. Golden. No. 941,872; Nov. 30; Sp. p. 7538; Gaz. vol. 148; p. 1268.
Induction-furnace. M. Unger. No. 941,435; Nov. 30; Sp. p. 6605; Gaz. vol. 148; p. 1119.
Inductive disturbances, Nullifying. W. E. Athearn. No. 940,654; Nov. 23; Sp. p. 4897; Gaz. vol. 148; p. 839.
Inductive disturbances, System for nullifying. J. A. Barrett. No. 940,658; Nov. 23; Sp. p. 4908; Gaz. vol. 148; p. 840.
Infant's band. J. Gundel. No. 939,012; Nov. 2; Sp. p. 1216; Gaz. vol. 148; p. 194.
Infusions, Apparatus for preparing. F. A. Cauchois. No. 941,009; Nov. 23; Sp. p. 5665; Gaz. vol. 148; p. 957.

Ingot-e. R. B. Carnahan, Jr. No. 940,785; Nov. 23; Sp. p. 5202; Gaz. vol. 148; p. 883.
Ingot-mold. E. Gathmann. No. 940,386; Nov. 16; Sp. p. 4333; Gaz. vol. 148; p. 726.
Inkstand. H. R. Christians. No. 941,308; Nov. 23; Sp. p. 6311; Gaz. vol. 148; p. 1056.
Inseam-trimming machine. F. H. Hawkins and A. Bourgeois. No. 939,498; Nov. 9; Sp. p. 2329; Gaz. vol. 148; p. 386.
Insect-catcher. E. Attaway. No. 940,116; Nov. 16; Sp. p. 3706; Gaz. vol. 148; p. 631.
Insect-destroyer. A. Swainson. No. 941,742; Nov. 30; Sp. p. 7245; Gaz. vol. 148; p. 1222.
Insole or support for deformed feet. I. Tauber. No. 940,564; Nov. 16; Sp. p. 4711; Gaz. vol. 148; p. 784.
Insole-reinforcing machine. W. H. Hooper. No. 940,690; Nov. 23; Sp. p. 4984; Gaz. vol. 148; p. 851.
Instrument and medicine case. C. B. Benson. No. 941,608; Nov. 30; Sp. p. 6949; Gaz. vol. 148; p. 1176.
Insulating bodies, Producing. V. A. Noodt and G. Göttsche. No. 941,585; Nov. 30; Sp. p. 6904; Gaz. vol. 148; p. 1168.
Insulating-coverings for electric conductors, Making. W. A. Phillips and F. Hutchins. No. 941,810; Nov. 30; Sp. p. 7407; Gaz. vol. 148; p. 1245.
Insulating fabrics, Making. C. F. Peterson. No. 940,188; Nov. 16; Sp. p. 3862; Gaz. vol. 148; p. 656.
Insulating shaft-coupling. J. R. Grundy. No. 939,829; Nov. 9; Sp. p. 3040; Gaz. vol. 148; p. 501.
Insulators, Manufacturing. L. McCarthy. No. 941,032; Nov. 23; Sp. p. 5718; Gaz. vol. 148; p. 965.
Internal-combustion engine. G. V. Benson. No. 938,633; Nov. 2; Sp. p. 421; Gaz. vol. 148; p. 64.
Internal-combustion engine. W. M. Appleton. No. 939,376; Nov. 9; Sp. p. 2079; Gaz. vol. 148; p. 346.
Internal-combustion engine. A. J. West. No. 939,459; Nov. 9; Sp. p. 2250; Gaz. vol. 148; p. 373.
Internal-combustion engine. R. L. Frost. No. 941,138; Nov. 23; Sp. p. 5950; Gaz. vol. 148; p. 1001.
Internal-combustion engine. R. Lucas. No. 941,376; Nov. 30; Sp. p. 6413; Gaz. vol. 148; p. 1100.
Iron; *See* Chair-iron; Flat-iron; Sad-iron.
Iron manufacture. R. B. Carnahan, Jr. No. 940,784; Nov. 23; Sp. p. 5201; Gaz. vol. 148; p. 883.
Iron or steel, Treating. P. M. Becket. No. 940,065; Nov. 23; Sp. p. 4928; Gaz. vol. 148; p. 843.
Iron-oxid scale, Electrolytically removing. C. W. Danforth and N. Jones. No. 939,223; Nov. 9; Sp. p. 1685; Gaz. vol. 148; p. 293.
Iron-oxid scale, Electrolytically removing. C. W. Danforth and N. Jones. No. 939,224; Nov. 9; Sp. p. 1687; Gaz. vol. 148; p. 294.
Ironing-board cover. E. Stone. No. 941,430; Nov. 30; Sp. p. 6600; Gaz. vol. 148; p. 1119.
Ironing-press. W. Bartholomew. No. 940,690; Nov. 23; Sp. p. 4914; Gaz. vol. 148; p. 841.
Jack; *See* Floor-jack; Hydraulic jack; Last-jack; Lifting-jack; Screw-jack; Wagon-jack.
Jar; *See* Fruit-jar.
Jar-closure. G. Henderson. No. 941,417; Nov. 30; Sp. p. 6574; Gaz. vol. 148; p. 1115.
Jar-closure. J. Schies. No. 941,538; Nov. 30; Sp. p. 6816; Gaz. vol. 148; p. 1154.
Jar-tray. W. A. Lorenz. No. 938,675; Nov. 2; Sp. p. 513; Gaz. vol. 148; p. 78.
Jewel-setter's tool. F. C. Widmann. No. 941,831; Nov. 30; Sp. p. 7457; Gaz. vol. 148; p. 1253.
Jewelry-box. L. E. Brown. No. 938,964; Nov. 2; Sp. p. 1117; Gaz. vol. 148; p. 179.
Jewelry-box. J. R. Sundee. No. 941,741; Nov. 30; Sp. p. 7244; Gaz. vol. 148; p. 1222.
Joint; *See* Hinge-joint; Pipe-joint; Rail-joint; Railway-rail joint; Roofing-joint.
Joint connection, Universal-. J. B. Jourdain and L. Dextraze. No. 941,928; Nov. 30; Sp. p. 7644; Gaz. vol. 148; p. 1287.
Journal-box. G. Frowen. No. 938,841; Nov. 2; Sp. p. 838; Gaz. vol. 148; p. 135.
Journal-box. L. K. Smith. No. 941,661; Nov. 30; Sp. p. 7066; Gaz. vol. 148; p. 1194.
Journal-box torsion-lid. T. H. Symington. No. 938,523; Nov. 2; Sp. p. 185; Gaz. vol. 148; p. 26.
Key; *See* Brake-shoe key; Lock-key; Telegraph-key; Violin-key.
Key. J. Blaszczyk. No. 939,184; Nov. 2; Sp. p. 1572; Gaz. vol. 148; p. 255.
Key-fastener. W. A. Loveland. No. 939,607; Nov. 9; Sp. p. 2577; Gaz. vol. 148; p. 423.
Keyhole-illuminating device. J. D. Hardin and J. B. de Saussure. No. 941,576; Nov. 30; Sp. p. 6889; Gaz. vol. 148; p. 1166.
Keyless socket. C. D. Platt. No. 941,811; Nov. 30; Sp. p. 7408; Gaz. vol. 148; p. 1245.
Kiln; *See* Bone-black kiln; Cement-kiln; Gas-kiln; Malt-kiln.
Kiln. C. A. Matcham. No. 939,049; Nov. 2; Sp. p. 1285; Gaz. vol. 148; p. 207.
Kinematograph and like instrument. E. A. Ivatts. No. 939,135; Nov. 2; Sp. p. 1454; Gaz. vol. 148; p. 237.
Kinematograph apparatus for the production of colored pictures. G. A. Smith. No. 941,960; Nov. 30; Sp. p. 7705; Gaz. vol. 148; p. 1298.
Kinetoscope. A. C. Roebuck. No. 939,634; Nov. 9; Sp. p. 2630; Gaz. vol. 148; p. 433.
Kinetoscope. J. J. Fink and J. Fletcher. No. 940,275; Nov. 16; Sp. p. 4044; Gaz. vol. 148; p. 687.
Kinetoscopic apparatus. J. E. Lagergren. No. 939,274; Nov. 9; Sp. p. 1794; Gaz. vol. 148; p. 310.
Kitchen-rack, Foldable. R. Rothengatter. No. 941,653; Nov. 30; Sp. p. 7054; Gaz. vol. 148; p. 1192.
Kitchen utensil. F. H. Hamblin. No. 939,251; Nov. 9; Sp. p. 1737; Gaz. vol. 148; p. 302.
Kitchen utensil. J. Saul. No. 939,329; Nov. 9; Sp. p. 1936; Gaz. vol. 148; p. 331.
Knife; *See* Hunting-knife; Oil-cloth-cutting knife; Trimming-knife.
Knife and fork scourer. W. D. Holmes. No. 940,018; Nov. 16; Sp. p. 3449; Gaz. vol. 148; p. 596.
Knife-blade, Detachable. M. H. Sterling. No. 939,346; Nov. 9; Sp. p. 1979; Gaz. vol. 148; p. 337.
Knife for tapping rubber-trees. Q. Q. Bradford. No. 940,670; Nov. 23; Sp. p. 4935; Gaz. vol. 148; p. 844.
Knitting-machine latch-needle. R. W. Scott. No. 938,795; Nov. 2; Sp. p. 736; Gaz. vol. 148; p. 119.
Knitting-machine take-up mechanism. G. L. Ballard. No. 940,656; Nov. 23; Sp. p. 4904; Gaz. vol. 148; p. 840.
Knitting machines, Lace-pattern mechanism for straight-. B. Salzer and G. Walther. No. 939,328; Nov. 9; Sp. p. 1935; Gaz. vol. 148; p. 330.
Knitting-machines, Needle-cam for straight independent-needle. B. Popp. No. 941,206; Nov. 23; Sp. p. 6101; Gaz. vol. 148; p. 1024.
Knob, Door-. H. S. Lockwood. No. 938,776; Nov. 2; Sp. p. 697; Gaz. vol. 148; p. 112.
Knob fastener, Door-. F. E. Beardsley. No. 941,906; Nov. 30; Sp. p. 7604; Gaz. vol. 148; p. 1280.
Knob-spindle, Swivel. J. R. Fletcher. No. 939,191; Nov. 2; Sp. p. 1587; Gaz. vol. 148; p. 257.
Knockdown box. W. J. Neches, Jr. No. 938,887; Nov. 2; Sp. p. 949; Gaz. vol. 148; p. 151.
Knockdown box. W. L. Howland. No. 939,026; Nov. 2; Sp. p. 1243; Gaz. vol. 148; p. 199.
Knockdown box. T. A. Brenner. No. 940,122; Nov. 16; Sp. p. 3718; Gaz. vol. 148; p. 633.
Knockdown box. L. Weglein, Jr. No. 941,117; Nov. 23; Sp. p. 5893; Gaz. vol. 148; p. 993.
Labeling-machine. F. O. Woodland. No. 938,807; Nov. 2; Sp. p. 769; Gaz. vol. 148; p. 124.
Labeling-machine. F. O. Woodland. No. 940,105; Nov. 16; Sp. p. 3684; Gaz. vol. 148; p. 628.
Labeling-machine. E. F. Rorke. No. 940,731; Nov. 23; Sp. p. 5077; Gaz. vol. 148; p. 866.
Labeling-machine. F. O. Woodland. No. 941,178; Nov 23; Sp. p. 6034; Gaz. vol. 148; p. 1014.
Labeling machine, Box-. F. Coates. No. 940,674; Nov. 23; Sp. p. 4943; Gaz. vol. 148; p. 845.
Labeling machine, Can-. G. F. Russ. No. 938,897; Nov. 2; Sp. p. 978; Gaz. vol. 148; p. 154.
Lacing-tips and the like and composition for the same, Fabric for. G. W. Prentice. No. 939,313; Nov. 9; Sp. p. 1913; Gaz. vol. 148; p. 326.
Lacing tool and square, Belt-. H. T. Mumford. No. 940,400; Nov. 16; Sp. p. 4364; Gaz. vol. 148; p. 730.
Lacing tool, Belt-. H. T. Mumford. No. 940,401; Nov. 16; Sp. p. 4366; Gaz. vol. 148; p. 730.
Ladder. J. W. Caldwell. No. 938,638; Nov. 2; Sp. p. 430; Gaz. vol. 148; p. 66.
Ladder, Ironing-board, and clothes-rack, Combined step-. J. Watt. No. 938,924; Nov. 2; Sp. p. 1047; Gaz. vol. 148; p. 165.
Lamp. H. F. Smith. (Reissue.) No. 13,033; Nov. 2; Sp. p. 1600; Gaz. vol. 148; p. 259.
Lamp. E. Schmidt. No. 940,073; Nov. 16; Sp. p. 3613; Gaz. vol. 148; p. 616.
Lamp adjustable support, Electric-. L. Erikson. No. 941,863; Nov. 30; Sp. p. 7520; Gaz. vol. 148; p. 1265.
Lamp attachment, Mercury-. C. P. Steinmetz. No. 940,309; Nov. 16; Sp. p. 3910; Gaz. vol. 148; p. 664.
Lamp-burner. W. E. Gard. No. 938,754; Nov. 2; Sp. p. 652; Gaz. vol. 148; p. 104.
Lamp-burner. S. B. Morse. No. 941,163; Nov. 23; Sp. p. 6001; Gaz. vol. 148; p. 1009.
Lamp-burner. F. E. Fender. No. 941,315; Nov. 23; Sp. p. 6327; Gaz. vol. 148; p. 1058.
Lamp burner, Incandescent-. A. A. Jahnke. No. 939,137; Nov. 2; Sp. p. 1457; Gaz. vol. 148; p. 237.
Lamp, Carriage-. H. Blau. No. 939,355; Nov. 9; Sp. p. 2094; Gaz. vol. 148; p. 349.
Lamp-chimney. G. H. Lee. No. 940,468; Nov. 16; Sp. p. 4498; Gaz. vol. 148; p. 752.
Lamp for dental, medical, or surgical purposes, Aseptic. D. Stern. No. 940,831; Nov. 23; Sp. p. 5299; Gaz. vol. 148; p. 899.
Lamp, Gas or vapor electric. P. C. Hewitt. No. 939,912; Nov. 9; Sp. p. 3216; Gaz. vol. 148; p. 530.
Lamp-globe. A. H. Humphrey. No. 940,530; Nov. 16; Sp. p. 4629; Gaz. vol. 148; p. 772.
Lamp-holding attachment for miners' caps. C. R. Anderson. No. 938,942; Nov. 2; Sp. p. 1076; Gaz. vol. 148; p. 171.
Lamp, Incandescent. R. D. Tiffany. No. 941,593; Nov. 30; Sp. p. 6918; Gaz. vol. 148; p. 1171.
Lamp, Incandescent gas-. J. Maas. No. 938,602; Nov. 2; Sp. p. 366; Gaz. vol. 148; p. 54.
Lamp, Mercury and other vapor electric. H. A. Kent and H. G. Lacell. No. 939,708; Nov. 9; Sp. p. 2780; Gaz. vol. 148; p. 459.
Lamp, Miner's. J. and A. M. Van Liew. No. 941,897; Nov. 30; Sp. p. 7589; Gaz. vol. 148; p. 1277.
Lamp, Miner's electric. H. Remané. No. 939,630; Nov. 9; Sp. p. 2620; Gaz. vol. 148; p. 431.
Lamp operating device, Vehicle-. J. P. Stein. No. 941,739; Nov. 30; Sp. p. 7242; Gaz. vol. 148; p. 1221.
Lamp shade, Electric-. N. C. Bebin. No. 940,649; Nov. 16; Sp. p. 4881; Gaz. vol. 148; p. 812.
Lamp socket, Cluster-. R. B. Benjamin. No. 938,632; Nov. 2; Sp. p. 420; Gaz. vol. 148; p. 64.
Lamp socket, Incandescent-. F. W. Slady. No. 941,174; Nov. 23; Sp. p. 6026; Gaz. vol. 148; p. 1013.
Lamp-socket switch, Incandescent-. W. A. McDonald. No. 941,941; Nov. 30; Sp. p. 7669; Gaz. vol. 148; p. 1291.
Lamp, Vehicle-. F. C. Ahrens. No. 940,915; Nov. 23; Sp. p. 5462; Gaz. vol. 148; p. 926.

Lamps, Adjustable suspension-cord for electric. T. W. Trotter. No. 938,802; Nov. 2; Sp. p. 755; Gaz. vol. 148; p. 122.
Lamps, Sealing filament-carriers into bulbs of electric incandescent. J. Kremenezky. No. 941,996; Nov. 30; Sp. p. 7767; Gaz. vol. 148; p. 1309.
Land-roller. E. Englund. No. 941,770; Nov. 30; Sp. p. 7316; Gaz. vol. 148; p. 1232.
Lantern. J. H. Pence. No. 939,542; Nov. 9; Sp. p. 2420; Gaz. vol. 148; p. 401.
Lantern. O. R. Henson. No. 941,922; Nov. 30; Sp. p. 7632; Gaz. vol. 148; p. 1285.
Lantern and heater, Combination. O. H. Armington. No. 939,377; Nov. 9; Sp. p. 2080; Gaz. vol. 148; p. 347.
Lantern, Signal-. J. J. McIntyre. No. 941,803; Nov. 30; Sp. p. 7385; Gaz. vol. 148; p. 1243.
Last. H. F. Loewer. No. 941,373; Nov. 30; Sp. p. 6455; Gaz. vol. 148; p. 1099.
Last jack, Boot and shoe. T. G. Plant. No. 940,722; Nov. 23; Sp. p. 5049; Gaz. vol. 148; p. 863.
Last-lock. F. J. Shainsey, Sr. No. 938,903; Nov. 2; Sp. p. 1001; Gaz. vol. 148; p. 157.
Last, Locking collapsible. C. F. Pym. No. 939,860; Nov. 9; Sp. p. 3097; Gaz. vol. 148; p. 511.
Last, Shoe-. A. J. Buch. No. 939,212; Nov. 9; Sp. p. 1640; Gaz. vol. 148; p. 290.
Last, Shoe-. A. C. Hayden. No. 941,451; Nov. 30; Sp. p. 6639; Gaz. vol. 148; p. 1125.
Lasting-machine. C. F. Pym. No. 938,512; Nov. 2; Sp. p. 144; Gaz. vol. 148; p. 22.
Lasting-machine. C. F. Pym. No. 938,513; Nov. 2; Sp. p. 153; Gaz. vol. 148; p. 23.
Lasting-machine. C. F. Pym. No. 938,514; Nov. 2; Sp. p. 160; Gaz. vol. 148; p. 23.
Latch-bolt for doors. J. R. Potts. No. 941,689; Nov. 30; Sp. p. 7126; Gaz. vol. 148; p. 1203.
Lathe. L. H. Vold. No. 941,475; Nov. 30; Sp. p. 6690; Gaz. vol. 148; p. 1133.
Lathe. C. D. Fischer, Jr. No. 941,701; Nov. 30; Sp. p. 7156; Gaz. vol. 148; p. 1208.
Lathe-tool, Combination. O. Carlborg. No. 940,301; Nov. 16; Sp. p. 4123; Gaz. vol. 148; p. 695.
Lathe-tool holder. J. and W. Carr. No. 939,976; Nov. 16; Sp. p. 3360; Gaz. vol. 148; p. 581.
Lathe tool-post. C. L. Libby. No. 939,722; Nov. 9; Sp. p. 2807; Gaz. vol. 148; p. 464.
Lathes, Feed for. C. L. Libby. No. 939,043; Nov. 2; Sp. p. 1277; Gaz. vol. 148; p. 205.
Lawn-rake, Rotary. C. Waite. No. 939,765; Nov. 9; Sp. p. 2921; Gaz. vol. 148; p. 480.
Lead-joint runner. W. Vanderman. No. 939,356; Nov. 9; Sp. p. 2013; Gaz. vol. 148; p. 340.
Leaf holder, Loose-. E. E. Tait. No. 941,963; Nov. 30; Sp. p. 7716; Gaz. vol. 148; p. 1299.
Leather and the like creasing machine. E. B. Stimpson. No. 940,084; Nov. 16; Sp. p. 3632; Gaz. vol. 148; p. 620.
Leather cutting, beveling, splitting, and grooving machine. C. Hildebrandt. No. 940,390; Nov. 16; Sp. p. 4342; Gaz. vol. 148; p. 727.
Leather-edging tool. F. F. Cummis. No. 940,857; Nov. 23; Sp. p. 5349; Gaz. vol. 148; p. 907.
Leather-shredding mills, Attrition-plate for. G. E. Sovereign. No. 938,798; Nov. 2; Sp. p. 741; Gaz. vol. 148; p. 120.
Leather-staking machine. A. C. Brill. No. 941,851; Nov. 30; Sp. p. 7499; Gaz. vol. 148; p. 1260.
Ledger, Loose-leaf. H. F. Bushong. No. 941,757; Nov. 30; Sp. p. 7280; Gaz. vol. 148; p. 1227.
Ledger, Self-indexing loose-leaf. P. W. Schwander. No. 940,560; Nov. 16; Sp. p. 4701; Gaz. vol. 148; p. 783.
Lemon-squeezer. J. Wiendl. No. 940,628; Nov. 16; Sp. p. 4835; Gaz. vol. 148; p. 805.
Lens carrier, Lantern-. F. D. Spear. No. 939,754; Nov. 9; Sp. p. 2882; Gaz. vol. 148; p. 475.
Lens-grinding machine. F. Buchhop. No. 939,975; Nov. 16; Sp. p. 3358; Gaz. vol. 148; p. 580.
Lens-grinding machine, Automatic prescription-. E. O. Mattern. No. 939,845; Nov. 9; Sp. p. 3066; Gaz. vol. 148; p. 506.
Lens-polishing machine. C. E. Quimby. No. 940,988; Nov. 23; Sp. p. 5607; Gaz. vol. 148; p. 950.
Lens system. M. von Rohr. No. 940,895; Nov. 23; Sp. p. 5426; Gaz. vol. 148; p. 919.
Lenses, Machine for grinding the surfaces of. E. M. Long. No. 940,978; Nov. 23; Sp. p. 5589; Gaz. vol. 148; p. 946.
Level. T. H. Brittain. No. 940,671; Nov. 23; Sp. p. 4937; Gaz. vol. 148; p. 844.
Level. M. Ichtertz. No. 941,368; Nov. 30; Sp. p. 6445; Gaz. vol. 148; p. 1098.
Leveler, Automatic. E. Woodward. No. 939,372; Nov. 9; Sp. p. 2045; Gaz. vol. 148; p. 345.
Lever. J. R. Weatherly. No. 939,574; Nov. 9; Sp. p. 2487; Gaz. vol. 148; p. 412.
Life-saving apparatus. M. A. Mueller. No. 942,009; Nov. 30; Sp. p. 7798; Gaz. vol. 148; p. 1313.
Lifter: *See* Tie-lifter; Track-lifter; Transom-lifter.
Lifting and lowering apparatus. J. V. Vickxell. No. 938,728; Nov. 2; Sp. p. 605; Gaz. vol. 148; p. 95.
Lifting apparatus. J. H. Gilman. No. 938,755; Nov. 2; Sp. p. 656; Gaz. vol. 148; p. 104.
Lifting-jack. L. Willour. No. 938,806; Nov. 2; Sp. p. 757; Gaz. vol. 148; p. 123.
Lifting-jack. F. M. Allerton. No. 939,374; Nov. 9; Sp. p. 2076; Gaz. vol. 148; p. 346.
Lifting-jack. E. Cook. No. 940,433; Nov. 16; Sp. p. 4429; Gaz. vol. 148; p. 740.
Light: *See* Electric light; Flash-light.
Lighting and extinguishing device, Automatic. A. J. Bedford. No. 939,790; Nov. 9; Sp. p. 2966; Gaz. vol. 148; p. 488.
Lightning-arrester. C. T. Mason. No. 940,176; Nov. 16; Sp. p. 3835; Gaz. vol. 148; p. 651.
Lightning-arrester. E. W. Vogel. No. 940,220; Nov. 16; Sp. p. 3934; Gaz. vol. 148; p. 668.
Lightning-rods, Water retaining and conveying attachment for cable. H. Simpson. No. 940,742; Nov. 23; Sp. p. 5098; Gaz. vol. 148; p. 869.
Lime and apparatus therefor, Burning. H. L. Doherty. No. 938,987; Nov. 2; Sp. p. 1162; Gaz. vol. 148; p. 185.
Line-casting machine. J. McNamara. No. 939,291; Nov. 9; Sp. p. 1836; Gaz. vol. 148; p. 316.
Line-casting machines, Keyboard mechanism for. J. R. Rogers. No. 939,325; Nov. 9; Sp. p. 1930; Gaz. vol. 148; p. 329.
Lino-slug-trimming machine. S. R. Carter. No. 939,800; Nov. 9; Sp. p. 2988; Gaz. vol. 148; p. 492.
Linotype and other type-casting machines, Matrix for. C. A. Albrecht. No. 938,938; Nov. 2; Sp. p. 1071; Gaz. vol. 148; p. 170.
Linotype-machine. F. Johannesen. No. 939,262; Nov. 9; Sp. p. 1759; Gaz. vol. 148; p. 306.
Lip-turning machine. W. H. Hooper. No. 940,020; Nov. 16; Sp. p. 3454; Gaz. vol. 148; p. 596.
Lip-turning machine, Channel-. W. H. Hooper. No. 940,019; Nov. 16; Sp. p. 3451; Gaz. vol. 148; p. 596.
Liquid as a motive power, Method and means of utilizing. E. Taylor. No. 939,757; Nov. 9; Sp. p. 2906; Gaz. vol. 148; p. 477.
Liquid-cooler. J. D. Hendrix. No. 939,021; Nov. 2; Sp. p. 1232; Gaz. vol. 148; p. 197.
Liquid cooling and dispensing apparatus. G. W. and W. H. Fulper. No. 939,954; Nov. 9; Sp. p. 2552; Gaz. vol. 148; p. 418.
Liquid-dropper. E. K. Scott. No. 939,556; Nov. 9; Sp. p. 2447; Gaz. vol. 148; p. 406.
Liquid-fuel burner. C. A. Braaten. No. 939,121; Nov. 2; Sp. p. 1423; Gaz. vol. 148; p. 232.
Liquid-fuel burner. B. Moore. No. 939,613; Nov. 9; Sp. p. 2585; Gaz. vol. 148; p. 425.
Liquid-fuel burner. R. M. Hammond. No. 940,149; Nov. 16; Sp. p. 3769; Gaz. vol. 148; p. 643.
Liquid-fuel burner. A. Koch. No. 940,813; Nov. 23; Sp. p. 5258; Gaz. vol. 148; p. 892.
Liquid-fuel-combustion engine. H. R. Setz. No. 940,369; Nov. 16; Sp. p. 4277; Gaz. vol. 148; p. 719.
Liquid-fuel-lighting system. A. Burton. No. 939,799; Nov. 9; Sp. p. 2986; Gaz. vol. 148; p. 491.
Liquid-volume recorder. C. I. Carrico and B. Hawkins. No. 941,007; Nov. 23; Sp. p. 5660; Gaz. vol. 148; p. 956.
Liquid-volume recorder. C. I. Carrico and B. Hawkins. No. 941,008; Nov. 23; Sp. p. 5663; Gaz. vol. 148; p. 956.
Liquids, Filling apparatus for. S. Schlangen. No. 940,366; Nov. 16; Sp. p. 4256; Gaz. vol. 148; p. 717.
Liquids, Filling, storing, and discharging inflammable. F. Claussand L. Lewisson. No. 938,977; Nov. 2; Sp. p. 1144; Gaz. vol. 148; p. 183.
Litter-carrier trip mechanism and reaction-stop. W. Gutenkunst. No. 938,579; Nov. 2; Sp. p. 320; Gaz. vol. 148; p. 47.
Loading and unloading device. T. Fullbright. No. 941,571; Nov. 30; Sp. p. 6880; Gaz. vol. 148; p. 1165.
Lock: *See* Bottle-lock; Car-door lock; Combination-lock; Door-lock; Fence-lock; Firearm-lock; Fluid-pressure combination-lock; Hasp-lock; Last-lock; Nut-lock; Permutation-lock; Sash-lock; Seal-lock; Switch-point lock; Table-lock; Time-lock.
Lock. H. G. Voight. No. 938,921; Nov. 2; Sp. p. 1038; Gaz. vol. 148; p. 164.
Lock. H. F. Weidel. No. 938,926; Nov. 2; Sp. p. 1050; Gaz. vol. 148; p. 166.
Lock. H. Eckhardt. No. 938,991; Nov. 2; Sp. p. 1172; Gaz. vol. 148; p. 187.
Lock. B. Borland. No. 940,300; Nov. 16; Sp. p. 4111; Gaz. vol. 148; p. 695.
Lock. W. Hernicz. No. 941,250; Nov. 23; Sp. p. 6186; Gaz. vol. 148; p. 1038.
Lock. N. T. Foster and B. M. Dreska. No. 941,570; Nov. 30; Sp. p. 6879; Gaz. vol. 148; p. 1165.
Lock-bolt. L. and D. Moeller. No. 939,921; Nov. 9; Sp. p. 3240; Gaz. vol. 148; p. 534.
Lock-escutcheon. P. K. Magruder. No. 940,261; Nov. 16; Sp. p. 4009; Gaz. vol. 148; p. 682.
Lock-key. I. C. Freud. No. 939,679; Nov. 9; Sp. p. 2724; Gaz. vol. 148; p. 450.
Locks and latches, Safety-guard for. G. E. Hosch. No. 941,877; Nov. 30; Sp. p. 7547; Gaz. vol. 148; p. 1269.
Locks, Seal attachment for. C. H. Johnson. No. 939,699; Nov. 9; Sp. p. 2764; Gaz. vol. 148; p. 456.
Locomotive ash-pan. R. W. Clark. No. 938,824; Nov. 2; Sp. p. 805; Gaz. vol. 148; p. 130.
Locomotive ash-pan. F. L. Roberts. No. 941,815; Nov. 30; Sp. p. 7417; Gaz. vol. 148; p. 1247.
Locomotive-tender frame. C. H. Howard. No. 940,157; Nov. 16; Sp. p. 3782; Gaz. vol. 148; p. 645.
Locomotive track-sander. H. L. Lambert. No. 941,457; Nov. 30; Sp. p. 6650; Gaz. vol. 148; p. 1127.
Log-conveyer. R. Grogan and C. Henson. No. 939,011; Nov. 2; Sp. p. 1214; Gaz. vol. 148; p. 194.
Log-loading apparatus. A. W. Kurz. No. 940,331; Nov. 16; Sp. p. 4183; Gaz. vol. 148; p. 706.
Logging-car standard attachment. M. Majette. No. 940,262; Nov. 16; Sp. p. 4010; Gaz. vol. 148; p. 683.
Loom. J. Nazarian. No. 938,886; Nov. 2; Sp. p. 945; Gaz. vol. 148; p. 150.
Loom filling-detector mechanism. G. F. Hutchins. No. 939,696; Nov. 9; Sp. p. 2757; Gaz. vol. 148; p. 455.
Loom filling-detector mechanism, Weft-replenishing-. E. H. Ryon. No. 939,954; Nov. 9; Sp. p. 3307; Gaz. vol. 148; p. 545.
Loom for making tufted fabrics. F. A. Whitmore. No. 941,176; Nov. 23; Sp. p. 6029; Gaz. vol. 148; p. 1013.
Loom for weaving tufted pile fabrics. J. P. Humphries. No. 940,531; Nov. 16; Sp. p. 4630; Gaz. vol. 148; p. 773.

Loom let-off mechanism. J. Northrop. No. 941,380; Nov. 30; Sp. p. 6472; Gaz. vol. 148; p. 1102.
Loom let-off mechanism, Narrow-ware-. G. W. Kuenneth. No. 940,330; Nov. 16; Sp. p. 4180; Gaz. vol. 148; p. 705.
Loom magazine, Weft-replenishing-. H. Wyman. No. 938,540; Nov. 2; Sp. p. 224; Gaz. vol. 148; p. 33.
Loom pattern mechanism. H. A. Owen and A. K. Pratt. No. 939,299; Nov. 9; Sp. p. 1879; Gaz. vol. 148; p. 320.
Loom picker-stick mechanism. L. P. Sherman. No. 939,560; Nov. 9; Sp. p. 2455; Gaz. vol. 148; p. 407.
Loom picking-motion. W. H. Ayer. No. 941,844; Nov. 30; Sp. p. 7486; Gaz. vol. 148; p. 1258.
Loom-shuttle. J. V. Cunniff and C. Rafferty. No. 939,892; Nov. 9; Sp. p. 3169; Gaz. vol. 148; p. 523.
Loom shuttle-picking mechanism. I. E. Palmer. No. 938,785; Nov. 2; Sp. p. 717; Gaz. vol. 148; p. 115.
Loom stop-motion. O. A. Sawyer. No. 938,712; Nov. 2; Sp. p. 574; Gaz. vol. 148; p. 90.
Loom-temple. N. I. Allen. No. 940,776; Nov. 23; Sp. p. 5185; Gaz. vol. 148; p. 880.
Loom-warp, Means for applying wax to. W. F. Minfel. No. 940,607; Nov. 16; Sp. p. 4787; Gaz. vol. 148; p. 798.
Loom, Weft-replenishing. E. H. Ryon. No. 939,326; Nov. 9; Sp. p. 1930; Gaz. vol. 148; p. 330.
Loom, Weft-replenishing. H. Wyman and J. T. Cyr. No. 941,179; Nov. 23; Sp. p. 6046; Gaz. vol. 148; p. 1015.
Loom weft-replenishing mechanism. O. A. Sawyer. No. 938,711; Nov. 2; Sp. p. 572; Gaz. vol. 148; p. 90.
Loom weft-replenishing mechanism, Automatic. M. L. Stone. No. 940,266; Nov. 16; Sp. p. 4073; Gaz. vol. 148; p. 691.
Looms, Differential filling-supply-gaging device for. S. S. Jackson. No. 940,600; Nov. 16; Sp. p. 4774; Gaz. vol. 148; p. 795.
Looms, Filling-thread-cutting device for weft-replenishing. B. F. McGuiness. No. 939,433; Nov. 9; Sp. p. 2197; Gaz. vol. 148; p. 365.
Looms for weaving, Beating-up mechanism of. W. Hollas, R. Farnworth, and T. Jackson. No. 939,503; Nov. 9; Sp. p. 2336; Gaz. vol. 148; p. 387.
Looms, Web-cutting mechanism for cane-. J. Tilp. No. 941,112; Nov. 23; Sp. p. 5882; Gaz. vol. 148; p. 991.
Loss-preventing device. M. T. Fish. No. 939,487; Nov. 9; Sp. p. 2312; Gaz. vol. 148; p. 353.
Lubricant. J. W. Watkins. No. 939,646; Nov. 9; Sp. p. 2653; Gaz. vol. 148; p. 439.
Lubricating device. F. R. Paine. No. 939,301; Nov. 9; Sp. p. 1883; Gaz. vol. 148; p. 321.
Lubricator: *See* Axle-lubricator; Valve-stem lubricator.
Lubricator. J. A. Martin. No. 940,339; Nov. 16; Sp. p. 4205; Gaz. vol. 148; p. 708.
Lubricator. R. C. Agner. No. 940,572; Nov. 16; Sp. p. 4728; Gaz. vol. 148; p. 787.
Lungs, Apparatus for developing the. V. J. Schaefler and J. M. Dempsey. No. 940,735; Nov. 23; Sp. p. 5083; Gaz. vol. 148; p. 867.
Lymph, Making preventive and curative. S. Krafft. No. 941,423; Nov. 30; Sp. p. 6583; Gaz. vol. 148; p. 1116.
Magnetic separator. W. B. Moore. No. 940,266; Nov. 16; Sp. p. 4017; Gaz. vol. 148; p. 684.
Magneto-generator. R. H. Hassler. No. 939,910; Nov. 9; Sp. p. 3210; Gaz. vol. 148; p. 529.
Mail-bag catcher. W. Wever. No. 940,102; Nov. 16; Sp. p. 3680; Gaz. vol. 148; p. 627.
Mail-bag catcher and deliverer. W. H., A. P., and A. Moore. No. 940,887; Nov. 23; Sp. p. 5406; Gaz. vol. 148; p. 916.
Mail-bag catching and delivering apparatus. T. F. Curtis. No. 938,985; Nov. 2; Sp. p. 1157; Gaz. vol. 148; p. 185.
Mail-bag deliverer. S. B. Colbert. No. 939,806; Nov. 9; Sp. p. 3000; Gaz. vol. 148; p. 494.
Mail-bag deliverer. H. J. Sanderson. No. 940,618; Nov. 16; Sp. p. 4807; Gaz. vol. 148; p. 801.
Mail catcher and deliverer, Railway-. W. T. Sebree. No. 939,557; Nov. 9; Sp. p. 2449; Gaz. vol. 148; p. 406.
Mail catching and delivering device for railways. W. M. Moloney. No. 940,180; Nov. 16; Sp. p. 3842; Gaz. vol. 148; p. 652.
Mail-crane. H. J. Hedrick. No. 940,152; Nov. 16; Sp. p. 3774; Gaz. vol. 148; p. 643.
Mail delivering and receiving device. J. A. Bossi. No. 939,793; Nov. 9; Sp. p. 2976; Gaz. vol. 148; p. 489.
Mail-delivering apparatus. J. T. Howard. No. 939,259; Nov. 9; Sp. p. 1751; Gaz. vol. 148; p. 305.
Mail-delivering appliance for railway-trains. H. J. Hill. No. 939,688; Nov. 9; Sp. p. 2742; Gaz. vol. 148; p. 453.
Mail-delivery car, Rural-. W. B. Yarberry. No. 940,107; Nov. 16; Sp. p. 3688; Gaz. vol. 148; p. 628.
Mail, express, and train orders, despatches, &c., Apparatus for effecting the interchange of. N. J. Nelson. No. 941,461; Nov. 30; Sp. p. 6657; Gaz. vol. 148; p. 1129.
Mail-marking machine. W. Barry. No. 940,496; Nov. 16; Sp. p. 4556; Gaz. vol. 148; p. 762.
Mail-package. B. L. Dotson. No. 941,237; Nov. 23; Sp. p. 6165; Gaz. vol. 148; p. 1034.
Mail-pouch catching and delivering apparatus. J. A. Olbon. No. 939,738; Nov. 9; Sp. p. 2851; Gaz. vol. 148; p. 470.
Mail-pouch-delivery apparatus. C. W. Broughton. No. 938,821; Nov. 2; Sp. p. 797; Gaz. vol. 148; p. 128.
Mailing-tube. V. Guertin. No. 940,146; Nov. 16; Sp. p. 3766; Gaz. vol. 148; p. 642.
Mainspring-winder. G. W. Bowers. No. 938,818; Nov. 2; Sp. p. 790; Gaz. vol. 148; p. 127.
Malt-kiln. O. H. Luebkert. No. 940,172; Nov. 16; Sp. p. 3828; Gaz. vol. 148; p. 650.
Manhole-closure. C. C. Puffer. No. 939,628; Nov. 9; Sp. p. 2616; Gaz. vol. 148; p. 431.
Manhole cover-plate. E. Oldman. No. 941,531; Nov. 30; Sp. p. 6800; Gaz. vol. 148; p. 1152.
Manifolding-pad. B. C. Maxwell. No. 939,148; Nov. 2; Sp. p. 1494; Gaz. vol. 148; p. 242.
Mantle, Incandescent. O. Kaufmann. No. 940,639; Nov. 16; Sp. p. 4860; Gaz. vol. 148; p. 809.
Manure-spreader. D. Garst. No. 941,513; Nov. 30; Sp. p. 6769; Gaz. vol. 148; p. 1146.
Manure-spreader. E. C. Littlefield and D. Garst. (Reissue.) No. 13,047; Nov. 30; Sp. p. 7864; Gaz. vol. 148; p. 1325.
Marine table. A. H. Pence. No. 938,695; Nov. 2; Sp. p. 546; Gaz. vol. 148; p. 85.
Marker, Self-feeding. A. G. Gunn. No. 938,846; Nov. 2; Sp. p. 849; Gaz. vol. 148; p. 136.
Massage and air-compressing machine. J. B. Fey. No. 939,822; Nov. 9; Sp. p. 3025; Gaz. vol. 148; p. 498.
Match-box, Automatic. J. G. Hanna. No. 939,252; Nov. 9; Sp. p. 1739; Gaz. vol. 148; p. 302.
Match holder or safe. H. M. King. No. 939,710; Nov. 9; Sp. p. 2782; Gaz. vol. 148; p. 459.
Match-machine. W. R. Swett. No. 939,348; Nov. 9; Sp. p. 1983; Gaz. vol. 148; p. 337.
Match-machines, Dipping device for. O. H. Landvatter. No. 940,934; Nov. 23; Sp. p. 5504; Gaz. vol. 148; p. 932.
Match-safe. F. Schille. No. 939,100; Nov. 2; Sp. p. 1378; Gaz. vol. 148; p. 224.
Match-safe. W. G. Monk. No. 940,344; Nov. 16; Sp. p. 4214; Gaz. vol. 148; p. 710.
Match-safe. J. E. Gearhart. No. 940,387; Nov. 16; Sp. p. 4335; Gaz. vol. 148; p. 726.
Match-safe, Pocket. J. F. Beatty. No. 939,657; Nov. 9; Sp. p. 2671; Gaz. vol. 148; p. 442.
Match-scratcher. G. A. Barnes. No. 941,487; Nov. 30; Sp. p. 6714; Gaz. vol. 148; p. 1137.
Matches, Combined original package and safe for. F. F. Theobald. No. 938,913; Nov. 2; Sp. p. 1019; Gaz. vol. 148; p. 161.
Matrices, Dovetail-notch-chamfering machine for. H. A. Reynolds. No. 939,632; Nov. 9; Sp. p. 2624; Gaz. vol. 148; p. 432.
Matrices, Producing. P. T. Dodge. No. 939,988; Nov. 16; Sp. p. 3398; Gaz. vol. 148; p. 585.
Matrix-channeling machine. H. A. Reynolds. No. 939,631; Nov. 9; Sp. p. 2622; Gaz. vol. 148; p. 432.
Matrix combination punching-machine. H. A. Reynolds. No. 939,633; Nov. 9; Sp. p. 2627; Gaz. vol. 148; p. 433.
Measure, Tape-. T. W. Hanrath. No. 940,873; Nov. 23; Sp. p. 5380; Gaz. vol. 148; p. 912.
Measurer and marker, Cloth. C. J. Sykes. No. 941,110; Nov. 23; Sp. p. 5879; Gaz. vol. 148; p. 990.
Measurer, Liquid-. C. C. Allen. No. 939,198; Nov. 9; Sp. p. 1614; Gaz. vol. 148; p. 285.
Measuring apparatus. G. A. Cowen. No. 941,359; Nov. 30; Sp. p. 6423; Gaz. vol. 148; p. 1095.
Measuring apparatus, Hat-frame-wire-. W. M. Jameson. No. 941,637; Nov. 30; Sp. p. 7008; Gaz. vol. 148; p. 1186.
Measuring device. J. Hood. No. 941,253; Nov. 23; Sp. p. 6193; Gaz. vol. 148; p. 1039.
Measuring device, Chest-expansion-. C. W. Kennedy, E. W. Carlson, and N. C. Jeffes. No. 940,256; Nov. 16; Sp. p. 3999; Gaz. vol. 148; p. 680.
Measuring instrument. O. W. Dolph. No. 940,439; Nov. 16; Sp. p. 4441; Gaz. vol. 148; p. 743.
Measuring instrument, Electric. A. H. Hoyt. No. 940,318; Nov. 16; Sp. p. 4157; Gaz. vol. 148; p. 701.
Measuring instrument, Electric. A. H. Hoyt. No. 940,319; Nov. 16; Sp. p. 4158; Gaz. vol. 148; p. 701.
Measuring instrument, Optical distance-. F. Dultenhorst. No. 941,503; Nov. 30; Sp. p. 6746; Gaz. vol. 148; p. 1142.
Measuring tank, Liquid-. T. L. Smith and E. W. Meyer. No. 940,206; Nov. 16; Sp. p. 3906; Gaz. vol. 148; p. 663.
Meat-conveyer. W. A. Guenther. No. 941,248; Nov. 23; Sp. p. 6183; Gaz. vol. 148; p. 1037.
Meat-hanger. M. J. Condell, H. C. Beck, and F. H. Dannenberg. No. 940,924; Nov. 23; Sp. p. 5477; Gaz. vol. 148; p. 929.
Mechanical movement. G. W. Hart. No. 939,193; Nov. 2; Sp. p. 1592; Gaz. vol. 148; p. 257.
Mechanical movement. C. A. Tower. No. 940,753; Nov. 23; Sp. p. 5125; Gaz. vol. 148; p. 873.
Mechanical movement. G. A. Anderson. No. 941,003; Nov. 23; Sp. p. 5652; Gaz. vol. 148; p. 955.
Mechanical movement. R. T. Johnston. No. 941,639; Nov. 30; Sp. p. 7010; Gaz. vol. 148; p. 1186.
Medicine-dispenser. F. M. Beverly. No. 941,489; Nov. 30; Sp. p. 6718; Gaz. vol. 148; p. 1138.
Merry-go-round. N. M. Powell and J. L. Miller. No. 942,010; Nov. 30; Sp. p. 7799; Gaz. vol. 148; p. 1313.
Merry-go-round. C. W. Ott. No. 942,041; Nov. 30; Sp. p. 7853; Gaz. vol. 148; p. 1323.
Metal box. G. Klenk and J. F. Fink. (Reissue.) No. 13,038; Nov. 9; Sp. p. 3327; Gaz. vol. 148; p. 550.
Metal box or case, Folding. F. Treischman. No. 938,916; Nov. 2; Sp. p. 1025; Gaz. vol. 148; p. 162.
Metal molding. P. T. Kenny. No. 938,768; Nov. 2; Sp. p. 681; Gaz. vol. 148; p. 109.
Metal plates, Apparatus for pressing parts of large dimensions from. M. A. Bourgeois. No. 938,816; Nov. 2; Sp. p. 787; Gaz. vol. 148; p. 126.
Metal-shears. G. Potstada. No. 939,627; Nov. 9; Sp. p. 2614; Gaz. vol. 148; p. 430.
Metal sheets, Machine for shearing. G. B. Johnson. No. 941,199; Nov. 23; Sp. p. 6085; Gaz. vol. 148; p. 1021.
Metal sheets, Manufacturing. C. W. Bray. No. 941,850; Nov. 30; Sp. p. 7498; Gaz. vol. 148; p. 1260.
Metal wheel. J. W. Murray. No. 941,030; Nov. 23; Sp. p. 5715; Gaz. vol. 148; p. 964.
Metal-working machine. F. W. Sanford and N. Marshall. No. 940,619; Nov. 16; Sp. p. 4809; Gaz. vol. 148; p. 802.
Metal-working machine. B. M. W. Hanson. No. 940,928; Nov. 23; Sp. p. 5485; Gaz. vol. 148; p. 930.

Metal-working machines, Stop for carriages of. B. M. W. Hanson. No. 938,483; Nov. 2; Sp. p. 69; Gaz. vol. 148; p. 13.
Metal-working machines, Work-support for. W. F. Zimmermann. No. 940,418; Nov. 16; Sp. p. 4396; Gaz. vol. 148; p. 736.
Metal-working machinery. C. E. Van Norman. No. 938,803; Nov. 2; Sp. p. 758; Gaz. vol. 148; p. 122.
Metals, Apparatus for treating molten. F. S. Adams. No. 940,774; Nov. 23; Sp. p. 5182; Gaz. vol. 148; p. 880.
Metals, ores, &c., Working. O. Frick. No. 938,752; Nov. 2; Sp. p. 648; Gaz. vol. 148; p. 103.
Metallic bodies, Method of and apparatus for testing and sorting. J. A. Switzer. No. 939,109; Nov. 2; Sp. p. 1394; Gaz. vol. 148; p. 227.
Metallic leaf, Package-roll of. W. H. Coe. No. 939,189; Nov. 2; Sp. p. 1585; Gaz. vol. 148; p. 256.
Metallic tie. T. B. Bradford. No. 939,794; Nov. 9; Sp. p. 2980; Gaz. vol. 148; p. 490.
Metallic tie. M. F. Bonzano. No. 940,500; Nov. 16; Sp. p. 4572; Gaz. vol. 148; p. 763.
Metallic tie and rail-fastener. L. McFarland. No. 939,067; Nov. 2; Sp. p. 1316; Gaz. vol. 148; p. 213.
Metallic tie and rail-fastener. G. A. Hassel. No. 940,809; Nov. 23; Sp. p. 5251; Gaz. vol. 148; p. 891.
Metallic tie and rail-fastening. G. A. Hassel. No. 940,966; Nov. 23; Sp. p. 5571; Gaz. vol. 148; p. 943.
Metallurgical process. A. G. Betts. No. 938,634; Nov. 2; Sp. p. 423; Gaz. vol. 148; p. 65.
Meter: *See* Current-meter; Electric meter; Proportional meter; Water-meter.
Meter. W. L. Gumprecht. No. 941,573; Nov. 30; Sp. p. 6886; Gaz. vol. 148; p. 1166.
Meters, Gearing for. A. F. Hintze. No. 940,638; Nov. 16; Sp. p. 4857; Gaz. vol. 148; p. 808.
Micrometer. H. Spahn. No. 939,562; Nov. 9; Sp. p. 2459; Gaz. vol. 148; p. 408.
Milk-can. G. H. and E. C. Damrow. No. 941,222; Nov. 23; Sp. p. 6154; Gaz. vol. 148; p. 1032.
Milk, Desiccating. F. X. Govers. No. 939,495; Nov. 9; Sp. p. 2323; Gaz. vol. 148; p. 355.
Milk, Fibrous desiccated. J. A. Just. No. 939,139; Nov. 2; Sp. p. 1462; Gaz. vol. 148; p. 238.
Milk-heater. H. C. Root. No. 939,636; Nov. 9; Sp. p. 2634; Gaz. vol. 148; p. 434.
Milk-heater. A. H. Schlueter. No. 940,367; Nov. 16; Sp. p. 4275; Gaz. vol. 148; p. 718.
Milk pasteurizer and cooler. W. R. Thatcher. No. 941,964; Nov. 30; Sp. p. 7717; Gaz. vol. 148; p. 1299.
Milk pasteurizer and filter. C. C. Stambaugh. No. 939,107; Nov. 2; Sp. p. 1390; Gaz. vol. 148; p. 227.
Milk, Utilizing dried. J. A. Just. No. 939,138; Nov. 2; Sp. p. 1458; Gaz. vol. 148; p. 238.
Milking appliance. J. Henrichsen and C. J. Hemmingsen. No. 938,857; Nov. 2; Sp. p. 865; Gaz. vol. 148; p. 140.
Milking-machine. J. J. Bukolt. No. 940,852; Nov. 23; Sp. p. 5341; Gaz. vol. 148; p. 905.
Milking-machine. K. I. Lindström. No. 941,789; Nov. 30; Sp. p. 7345; Gaz. vol. 148; p. 1238.
Milking vessel. S. W. Gerster. No. 938,658; Nov. 2; Sp. p. 477; Gaz. vol. 148; p. 73.
Mill: *See* Grinding-mill; Pulverizing-mill; Rolling-mill; Tube-mill; Windmill.
Milling, facing, and other metal-cutting operations, Machine for. W. A. and F. Pearn. No. 941,269; Nov. 23; Sp. p. 6230; Gaz. vol. 148; p. 1044.
Mine-door-operating device. J. M. Sausser. No. 941,102; Nov. 23; Sp. p. 5859; Gaz. vol. 148; p. 988.
Mine, Submarine. A. P. Broomell. No. 940,506; Nov. 16; Sp. p. 4584; Gaz. vol. 148; p. 765.
Mine-ventilator. M. T. McDonough. No. 938,781; Nov. 2; Sp. p. 706; Gaz. vol. 148; p. 114.
Mines, Apparatus for recording bell or like signals, especially applicable to. J. Russell. No. 938,516; Nov. 2; Sp. p. 170; Gaz. vol. 148; p. 24.
Mines, Priming charge for. L. Cahtie. No. 938,553; Nov. 2; Sp. p. 257; Gaz. vol. 148; p. 38.
Mirror. H. Varder. No. 940,411; Nov. 16; Sp. p. 4380; Gaz. vol. 148; p. 734.
Mirror, Electric mouth-. B. E. Turney. No. 938,525; Nov. 2; Sp. p. 189; Gaz. vol. 148; p. 27.
Mirror, Portable. C. W. Angell. No. 940,115; Nov. 16; Sp. p. 3705; Gaz. vol. 148; p. 631.
Miter-clamp. J. L. Taylor. No. 941,825; Nov. 30; Sp. p. 7440; Gaz. vol. 148; p. 1251.
Miter-gage. J. Erikson and G. R. Wikander. No. 939,405; Nov. 9; Sp. p. 2142; Gaz. vol. 148; p. 355.
Mixer: *See* Boiler-compound mixer; Concrete-mixer; Drum batch-mixer; Mortar or concrete mixer.
Mixing apparatus. D. B. Jackson. No. 941,075; Nov. 23; Sp. p. 5803; Gaz. vol. 148; p. 979.
Mixing-machine. W. McRae. No. 941,267; Nov. 23; Sp. p. 6226; Gaz. vol. 148; p. 1043.
Mixing-machine. O. H. Weckesser. No. 941,830; Nov. 30; Sp. p. 7452; Gaz. vol. 148; p. 1253.
Mixing-receptacle, Hand. A. Hallenberg. No. 939,017; Nov. 2; Sp. p. 1223; Gaz. vol. 148; p. 195.
Mixtures, Obtaining intimate. E. Dor-Delattre. No. 939,989; Nov. 16; Sp. p. 3399; Gaz. vol. 148; p. 585.
Moistener and affixer, Automatic stamp. W. Z. Bean. No. 940,497; Nov. 16; Sp. p. 4567; Gaz. vol. 148; p. 762.
Moistener, Antiseptic finger-. J. A. Sauer and G. E. Potter. No. 939,098; Nov. 2; Sp. p. 1376; Gaz. vol. 148; p. 224.
Moistening device. L. W. Homire. No. 940,598; Nov. 16; Sp. p. 4772; Gaz. vol. 148; p. 795.
Molasses-jug and other hinged-lid receptacle. C. S. Baron. No. 940,918; Nov. 23; Sp. p. 5467; Gaz. vol. 148; p. 927.
Mold: *See* Anode-mold; Cement-washtub mold; Concrete-tile mold; Concrete-wall mold; Ingot-mold
Mold. J. N. Erixon. No. 939,819; Nov. 9; Sp. p. 3019; Gaz. vol. 148; p. 497.
Mold. J. R. Kay. No. 940,463; Nov. 16; Sp. p. 4488; Gaz. vol. 148; p. 750.
Molding apparatus. J. D. Sullivan. No. 941,287; Nov. 23; Sp. p. 6276; Gaz. vol. 148; p. 1050.
Molding articles. L. H. Baekeland. No. 939,966; Nov. 16; Sp. p. 3339; Gaz. vol. 148; p. 578.
Molding-flask. J. D. Millar. No. 939,849; Nov. 9; Sp. p. 3075; Gaz. vol. 148; p. 508.
Molding-machine. C. Mills. No. 938,684; Nov. 2; Sp. p. 529; Gaz. vol. 148; p. 81.
Molding-machine. C. W. King. No. 939,030; Nov. 2; Sp. p. 1250; Gaz. vol. 148; p. 201.
Molding-machine. V. E. Knecht. No. 939,032; Nov. 2; Sp. p. 1255; Gaz. vol. 148; p. 202.
Molding-machine. E. H. Van Natta. No. 941,214; Nov. 23; Sp. p. 6120; Gaz. vol. 148; p. 1026.
Molding-machine. W. F. Kerlin and E. W. Bowen. No. 941,930; Nov. 30; Sp. p. 7647; Gaz. vol. 148; p. 1288.
Molding-machine. W. Lewis. No. 941,999; Nov. 30; Sp. p. 7773; Gaz. vol. 148; p. 1310.
Molding mechanism. W. Zimmermann. No. 939,581; Nov. 9; Sp. p. 2510; Gaz. vol. 148; p. 415.
Mop. G. B. Wichmann and D. Rich. No. 939,883; Nov. 9; Sp. p. 3148; Gaz. vol. 148; p. 519.
Mop head and wringer, Combined. L. J. Moody. No. 938,685; Nov. 2; Sp. p. 532; Gaz. vol. 148; p. 82.
Mortar or concrete mixer. A. M. Peterson. No. 940,552; Nov. 16; Sp. p. 4689; Gaz. vol. 148; p. 780.
Motion, Mechanism for converting rotatory into reciprocatory. J. Myrholm. No. 939,063; Nov. 2; Sp. p. 1311; Gaz. vol. 148; p. 212.
Motive-power system. A. Wilstam. No. 940,769; Nov. 23; Sp. p. 5171; Gaz. vol. 148; p. 878.
Motor: *See* Electric motor; Fluid-motor; Rotary motor; Water-motor; Wave-motor.
Motor-control system. E. F. W. Alexanderson. No. 940,112; Nov. 16; Sp. p. 3697; Gaz. vol. 148; p. 630.
Motor-control system. H. E. White. No. 941,397; Nov. 30; Sp. p. 6521; Gaz. vol. 148; p. 1108.
Motor-control system, Electric-. A. C. Eastwood. No. 940,241; Nov. 16; Sp. p. 3967; Gaz. vol. 148; p. 675.
Motor controller, Electric-. F. Diehl. No. 938,649; Nov. 2; Sp. p. 445; Gaz. vol. 148; p. 69.
Motor-generator set. W. A. Danielson. No. 941,439; Nov. 30; Sp. p. 6611; Gaz. vol. 148; p. 1121.
Motor more especially applicable for driving barges, wherries, flatboats, and the like. G. Trouche. No. 941,827; Nov. 30; Sp. p. 7447; Gaz. vol. 148; p. 1252.
Motor-starter. M. R. Hanna. No. 941,412; Nov. 30; Sp. p. 6566; Gaz. vol. 148; p. 1113.
Motor-starting apparatus, Electric-. S. B. Paine. No. 940,550; Nov. 16; Sp. p. 4684; Gaz. vol. 148; p. 779.
Motors, Arrangement for regulation of speed of compensated single-phase. E. Arnold and J. L. La Cour. No. 940,492; Nov. 16; Sp. p. 4548; Gaz. vol. 148; p. 760.
Mower, Lawn-. A. B. Case. No. 940,854; Nov. 23; Sp. p. 5344; Gaz. vol. 148; p. 906.
Mower, Power lawn-. W. P. M. Braun. No. 941,127; Nov. 23; Sp. p. 5922; Gaz. vol. 148; p. 996.
Mower trimming attachment, Lawn-. H. Smith. No. 939,926; Nov. 9; Sp. p. 3250; Gaz. vol. 148; p. 535.
Mud-guard. W. J. Chisholm. No. 941,228; Nov. 23; Sp. p. 6147; Gaz. vol. 148; p. 1031.
Muffler. G. C. Hicks, Jr. No. 938,860; Nov. 2; Sp. p. 880; Gaz. vol. 148; p. 141.
Music-record sheet for automatic piano-playing mechanism and the like. A. R. Trist. No. 941,433; Nov. 30; Sp. p. 6603; Gaz. vol. 148; p. 1119.
Music-turner. W. and R. Mark. No. 939,525; Nov. 9; Sp. p. 2381; Gaz. vol. 148; p. 395.
Music-turner. E. E. Van Dine. No. 940,219; Nov. 16; Sp. p. 3932; Gaz. vol. 148; p. 668.
Musical-instrument strings, Holder and protector for. O. J. Müller. No. 939,734; Nov. 9; Sp. p. 2841; Gaz. vol. 148; p. 469.
Musical-instrument tracker mechanism. T. P. Brown. No. 939,387; Nov. 9; Sp. p. 2097; Gaz. vol. 148; p. 350.
Musical instruments, Note-accenting device for. T. P. Brown. No. 941,491; Nov. 30; Sp. p. 6721; Gaz. vol. 148; p. 1139.
Nail-puller. L. Scarbrough. No. 940,197; Nov. 16; Sp. p. 3885; Gaz. vol. 148; p. 659.
Nailer, Automatic clench-. P. R. Glass. No. 938,474; Nov. 2; Sp. p. 40; Gaz. vol. 148; p. 9.
Nautical instrument. C. A. McCallister. No. 938,780; Nov. 2; Sp. p. 704; Gaz. vol. 148; p. 114.
Navigation apparatus. W. J. Chance. No. 938,972; Nov. 2; Sp. p. 1127; Gaz. vol. 148; p. 181.
Necktie. J. A. Soderstrom. No. 940,992; Nov. 23; Sp. p. 5615; Gaz. vol. 148; p. 951.
Necktie-fastener. W. J. Reed. No. 938,606; Nov. 2; Sp. p. 374; Gaz. vol. 148; p. 56.
Necktie-holder. G. A. Ferguson and A. B. Hay. No. 938,749; Nov. 2; Sp. p. 643; Gaz. vol. 148; p. 102.
Necktie-support. N. D. Nelson. No. 938,687; Nov. 2; Sp. p. 534; Gaz. vol. 148; p. 82.
Needle, Lacing-. W. T. Germany. No. 940,682; Nov. 23; Sp. p. 4970; Gaz. vol. 148; p. 848.
Negative-developer. J. S. Miller. No. 941,643; Nov. 30; Sp. p. 7018; Gaz. vol. 148; p. 1187.
Nest and brooder, Combined trap-. H. Miller and G. B. Hallenbeck. No. 938,603; Nov. 2; Sp. p. 369; Gaz. vol. 148; p. 55.
Net frame, Landing-. G. M. Barnes. No. 939,381; Nov. 9; Sp. p. 2086; Gaz. vol. 148; p. 348.

Net frame, Landing-. F. M. Spiegle. No. 941,961; Nov. 30; Sp. p. 7707; Gaz. vol. 148; p. 1299.
Nozzle, Regulating-. W. A. Doble. No. 941,440; Nov. 30; Sp. p. 6614; Gaz. vol. 148; p. 1121.
Nozzle, Spraying-. A. E. Preston. No. 940,477; Nov. 16; Sp. p. 4515; Gaz. vol. 148; p. 755.
Nozzle-support and spraying device. Combination. E. Sutherland. No. 941,109; Nov. 23; Sp. p. 5877; Gaz. vol. 148; p. 990.
Nut and wrench, Combined. A. A. Friz. No. 940,000; Nov. 16; Sp. p. 3419; Gaz. vol. 148; p. 589.
Nut-lock. J. McIlwain. No. 938,503; Nov. 2; Sp. p. 123; Gaz. vol. 148; p. 20.
Nut-lock. J. E. Robinson. No. 938,515; Nov. 2; Sp. p. 169; Gaz. vol. 148; p. 23.
Nut-lock. C. H. Roff. No. 938,707; Nov. 2; Sp. p. 563; Gaz. vol. 148; p. 88.
Nut-lock. G. D. Lawson and A. Wheeler. No. 938,880; Nov. 2; Sp. p. 935; Gaz. vol. 148; p. 147.
Nut-lock. A. C. Woodruff. No. 938,932; Nov. 2; Sp. p. 1062; Gaz. vol. 148; p. 168.
Nut-lock. G. B. Martin. No. 939,048; Nov. 2; Sp. p. 1284; Gaz. vol. 148; p. 207.
Nut-lock. H. P. Davies. No. 939,124; Nov. 2; Sp. p. 1430; Gaz. vol. 148; p. 233.
Nut-lock. W. Atkins. No. 939,654; Nov. 9; Sp. p. 2666; Gaz. vol. 148; p. 441.
Nut-lock. M. H. McCoy. No. 940,267; Nov. 16; Sp. p. 4019; Gaz. vol. 148; p. 684.
Nut-lock. L. S. Brach. No. 940,503; Nov. 16; Sp. p. 4578; Gaz. vol. 148; p. 764.
Nut-lock. T. Loughlin. No. 940,605; Nov. 16; Sp. p. 4785; Gaz. vol. 148; p. 797.
Nut-lock. G. L. Smith, H. F. Graver, and J. J. Wiegand. No. 940,990; Nov. 23; Sp. p. 5611; Gaz. vol. 148; p. 951.
Nut-lock. C. F. Sawyer. No. 941,046; Nov. 23; Sp. p. 5744; Gaz. vol. 148; p. 970.
Nut-lock. K. and B. Nagyvathy. No. 941,804; Nov. 30; Sp. p. 7387; Gaz. vol. 148; p. 1243.
Nut-lock. W. W. Senn. No. 941,959; Nov. 30; Sp. p. 7703; Gaz. vol. 148; p. 1298.
Nut-making machine. F. R. and C. E. Long. No. 938,598; Nov. 2; Sp. p. 356; Gaz. vol. 148; p. 53.
Nut-making machine. F. R. and C. E. Long. No. 938,599; Nov. 2; Sp. p. 360; Gaz. vol. 148; p. 53.
Oar-rack. E. G. Hodgkins. No. 941,779; Nov. 30; Sp. p. 7331; Gaz. vol. 148; p. 1235.
Obstetrical device. H. J Barnes. No. 940,576; Nov. 16; Sp. p. 4735; Gaz vol. 148; p. 788.
Oil and grease gun, Combined. F. J. Ball. No. 939,465; Nov. 9; Sp. p. 2207; Gaz. vol. 148; p. 376.
Oil-burner. W. S. Jenks. No. 939,029; Nov. 2; Sp. p. 1249; Gaz. vol. 148; p. 200.
Oil-burner. C. Eckland. No. 939,816; Nov. 9; Sp. p. 3015; Gaz. vol. 148; p. 497.
Oil-burner. W. Sutton. No. 940,949; Nov. 23; Sp. p. 5538; Gaz. vol. 148; p. 937.
Oil-burner. J. Weintz. No. 941,479; Nov. 30; Sp. p. 6696; Gaz. vol. 148; p. 1134.
Oil-burner. J. N. Young. No. 942,028; Nov. 30; Sp. p. 7828; Gaz. vol. 148; p. 1319.
Oil-burner, Automatic. A. H. Light. No. 940,539; Nov. 16; Sp. p. 4654; Gaz. vol. 148; p. 775.
Oil burner, Crude-. E. L. Newman. No. 940,713; Nov. 23; Sp. p. 5028; Gaz. vol. 148; p. 859.
Oil burner, Crude-. F. D. Stalford. No. 941,284; Nov. 23; Sp. p. 6271; Gaz. vol. 148; p. 1049.
Oil burner, Crude-. F. D. Stalford. No. 941,285; Nov. 23; Sp. p. 6272; Gaz. vol. 148; p. 1050.
Oil-cake-forming machine. A. W. French. No. 939,492; Nov. 9; Sp. p. 2319; Gaz. vol. 148; p. 384.
Oil-cloth-cutting knife. A. H. Fesemyer. No. 940,308; Nov. 16; Sp. p. 4137; Gaz. vol. 148; p. 698.
Oil-cup for planes. D. James. No. 940,324; Nov. 16; Sp. p. 4171; Gaz. vol. 148; p. 703.
Oiling device for gas-meter diaphragms, Automatic. J. R. Daly. No. 939,675; Nov. 9; Sp. p. 2717; Gaz. vol. 148; p. 449.
Oiling device for gas-meter diaphragms, Automatic. J. R. Daly. No. 940,304; Nov. 16; Sp. p. 4129; Gaz. vol. 148; p. 696.
Optical cystoscope system. M. von Rohr. No. 940,894; Nov. 23; Sp. p. 5425; Gaz. vol. 148; p. 919.
Optical instrument. F. L. G. Kollmorgen. No. 941,021; Nov. 23; Sp. p. 5696; Gaz. vol. 148; p. 961.
Optometer. J. H. Martin. No. 941,581; Nov. 30; Sp. p. 6897; Gaz. vol. 148; p. 1167.
Optometer. H. L. De Zeng. No. 941,766; Nov. 30; Sp. p. 7305; Gaz. vol. 148; p. 1231.
Orchard-heating device. J. L. Hamilton. No. 940,965; Nov. 23; Sp. p. 5568; Gaz. vol. 148; p. 942.
Ordnance, Ammunition-hoisting apparatus for heavy. A. T. Dawson and J. Horne. No. 938,560; Nov. 2; Sp. p. 269; Gaz. vol. 148; p. 40.
Ore-concentrator. C. L. McKesson and O. S. Black. No. 941,333; Nov. 23; Sp. p. 6353; Gaz. vol. 148; p. 1063.
Ore matter, Means for the concentration by amalgamation of values of metallic. R. Luckenbach. No. 938,676; Nov. 2; Sp. p. 515; Gaz. vol. 148; p. 79.
Ore separating or concentrating apparatus. G. F. Godley. No. 941,634; Nov. 30; Sp. p. 7004; Gaz. vol. 148; p. 1185.
Ore-separator, Magnetic. W. D. Ludwick. No. 939,523; Nov. 9; Sp. p. 2376; Gaz. vol. 148; p. 394.
Ores, Treating. J. R. Parks. No. 940,821; Nov. 23; Sp. p. 5279; Gaz. vol. 148; p. 895.
Ores, Treating certain. H. S. Auerbach. No. 941,904; Nov. 30; Sp. p. 7601; Gaz. vol. 148; p. 1280.
Organ, Reed-. L. A. McCord. No. 939,065; Nov. 2; Sp. p. 1313; Gaz. vol. 148; p. 212.
Outlet-box. J. T. Meleady. No. 938,682; Nov. 2; Sp. p. 525; Gaz. vol. 148; p. 80.
Oven, Bake-. B. A. Geurink. No. 939,410; Nov 9; Sp. p. 2154; Gaz. vol. 148; p. 357.
Oven, Baker's. W. Schoenhaar. No. 940,559; Nov. 16; Sp. p. 4699; Gaz. vol. 148; p. 782.
Oven door, Bake-. J. M. Hoepfl. No. 941,780; Nov. 30; Sp. p. 7333; Gaz. vol. 148; p. 1236.
Package, Metal. J. H. La Fave. No. 940,168; Nov. 16; Sp. p. 3820; Gaz. vol. 148; p. 649.
Package-tie. H. J. Lee and E. F. Gray. No. 939,040; Nov. 2; Sp. p. 1272; Gaz. vol. 148; p. 204.
Package-tie. G. L. Hindman. No. 941,991; Nov. 30; Sp. p. 7760; Gaz. vol. 148; p. 1307.
Packaging-machine. B. W. Tucker. No. 939,353; Nov. 9; Sp. p. 1999; Gaz. vol. 148; p. 339.
Packing and display case. F. S. Ferry. No. 940,451; Nov. 16; Sp. p. 4470; Gaz. vol. 148; p. 747.
Packing and display receptacle. W. E. Collins. No. 939,807; Nov. 9; Sp. p. 3002; Gaz. vol. 148; p. 494.
Packing, Hydraulic. F. Hymans. No. 938,870; Nov. 2; Sp. p. 915; Gaz. vol. 148; p. 144.
Packing-machine. J. Fassino. No. 941,444; Nov. 30; Sp. p. 6626; Gaz. vol. 148; p. 1123.
Packing material. L. H. Baekeland. No. 941,605; Nov. 30; Sp. p. 6944; Gaz. vol. 148; p. 1175.
Packing, Piston-rod. A. J. West. No. 941,394; Nov. 30; Sp. p. 6515; Gaz. vol. 148; p. 1107.
Packing reciprocating pistons and the like, Means for. S. Robinson. No. 940,068; Nov. 16; Sp. p. 3593; Gaz. vol. 148; p. 614.
Packing-ring. C. R. Maples. No. 939,047; Nov. 2; Sp. p. 1283; Gaz. vol. 148; p. 206.
Packing ring, Piston-. T. H. Renaud. No. 941,536; Nov. 30; Sp. p. 6812; Gaz. vol. 148; p. 1153.
Packings, Lap-joint for. J. T. Wilson. No. 942,024; Nov. 30; Sp. p. 7823; Gaz. vol. 148; p. 1318.
Pad: *See* Bed-pad; Bust-pad; Finger-pad; Manifolding-pad; Shock-absorbing pad.
Padlock Combination-. D. L. Campbell. No. 941,128; Nov. 23; Sp. p. 5924; Gaz. vol. 148; p. 997.
Padlock, Permutation-. J. T. Whalen. No. 940,762; Nov. 23; Sp. p. 5144; Gaz. vol. 148; p. 875.
Padlock, Permutation-. J. T. Whalen. No. 940,763; Nov. 23; Sp. p. 5146; Gaz. vol. 148; p. 876.
Pail, Dinner-. E. M. and G. L. Adams. No. 940,551; Nov. 16; Sp. p. 4727; Gaz. vol. 148; p. 787.
Pail, Dinner-. W. A. Edwards. No. 941,915; Nov. 30; Sp. p. 7621; Gaz. vol. 148; p. 1283.
Pail, Milk-. C. E. Shreve. No. 940,372; Nov. 16; Sp. p. 4286; Gaz. vol. 148; p. 720.
Painting machine, Wheel-. J. Heinz. No. 939,416; Nov. 9; Sp. p. 2163; Gaz. vol. 148; p. 359.
Paints, Manufacture of. R. S. Perry. No. 938,505; Nov. 2; Sp. p. 125; Gaz. vol. 148; p. 20.
Pallet-setting implement. G. W. Riebe. No. 940,278; Nov. 16; Sp. p. 4061; Gaz. vol. 148; p. 688.
Pan: *See* Ash-pan; Drip-pan; Dust-pan; Locomotive ash-pan.
Panel-board. A. E. Blackman. No. 938,635; Nov. 2; Sp. p. 426; Gaz. vol. 148; p. 65.
Panic-bolt. H. G. Voight. No. 938,526; Nov. 2; Sp. p. 190; Gaz. vol. 148; p. 27.
Pantographs, Electric control for. A. T. Ziegler. No. 938,936; Nov. 2; Sp. p. 1067; Gaz. vol. 148; p. 169.
Paper. P. Hinkel. No. 940,969; Nov. 23; Sp. p. 5575; Gaz. vol. 148; p. 944.
Paper, &c., Apparatus for cutting. P. G. E. Daniel and C. A. H. Bullock. No. 940,862; Nov. 23; Sp. p. 5359; Gaz. vol. 148; p. 908.
Paper-bag machine. O. Hesser. No. 938,486; Nov. 2; Sp. p. 74; Gaz. vol. 148; p. 13.
Paper-bag machine. E. E. Claussen. No. 940,515; Nov. 16; Sp. p. 4605; Gaz. vol. 148; p. 768.
Paper-bag machines, Diamond-fold-forming mechanism for. C. D. King. No. 940,534; Nov. 16; Sp. p. 4635; Gaz. vol. 148; p. 773.
Paper-bag-making machinery. S. Duerden. No. 938,653; Nov. 2; Sp. p. 456; Gaz. vol. 148; p. 71.
Paper-bag-manufacturing machine. E. F. Müller. No. 940,183; Nov. 16; Sp. p. 3849; Gaz. vol. 148; p. 654.
Paper box. C. B. Davis. No. 940,634; Nov. 16; Sp. p. 4848; Gaz. vol. 148; p. 807.
Paper box. C. S Bird. No. 940,667; Nov. 23; Sp. p. 4930; Gaz. vol. 148; p. 843.
Paper box. C. S. Bird. No. 940,781; Nov. 23; Sp. p. 5194; Gaz. vol. 148; p. 882.
Paper box. C. S. Bird. No. 940,782; Nov. 23; Sp. p. 5196; Gaz. vol. 148; p. 882.
Paper-box-blank machine. J. R. Van Wormer. No. 939,571; Nov. 9; Sp. p. 2482; Gaz. vol. 148; p. 411.
Paper-box-covering machine. C. W. MacDonald. No. 940,541; Nov. 16; Sp. p. 4661; Gaz. vol. 148; p. 776.
Paper box for packing paints, &c. F. E. Cornell. No. 938,981; Nov. 2; Sp. p. 1151; Gaz. vol. 148; p. 184.
Paper cutter and printer, Automatic roll-. G. V. A. Pine. No. 939,545; Nov. 9; Sp. p. 2425; Gaz. vol. 148; p. 402.
Paper decoration. A. Simonson. No. 940,484; Nov. 16; Sp. p. 4530; Gaz. vol. 148; p. 758.
Paper-dish-making machine. I. Bertin. No. 939,888; Nov. 9; Sp. p. 3156; Gaz. vol. 148; p. 521.
Paper-feeder, Automatic. J. Hren. No. 939,260; Nov. 9; Sp. p. 1753; Gaz. vol. 148; p. 305.
Paper-making apparatus. W. H. Decker. No. 941,561; Nov. 30; Sp. p. 6855; Gaz. vol. 148; p. 1161.
Paper-making machine. J. H. Wallace. No. 940,950; Nov. 23; Sp. p. 5539; Gaz. vol. 148; p. 938.
Paper-making machine. J. A. White. No. 941,968; Nov. 30; Sp. p. 7725; Gaz. vol. 148; p. 1301.

Paper-making-machine-cleansing device. A. T. Wyant. No. 941,750; Nov. 30; Sp. p. 7260; Gaz. vol. 148; p. 1225.
Paper package, Toilet-. G. T. Johnson. No. 941,715; Nov. 30; Sp. p. 7194; Gaz. vol. 148; p. 1213.
Paper, Producing translucent. H. Kuhn. No. 938,877; Nov. 2; Sp. p. 929; Gaz. vol. 148; p. 146.
Paper receptacle. G. H. Griffiths. No. 940,592; Nov. 16; Sp. p. 4762; Gaz. vol. 148; p. 793.
Paper receptacle. C. F. Jenkins. No. 941,092; Nov. 30; Sp. p. 7761; Gaz. vol. 148; p. 1307.
Paper receptacles, Machine for making. C. Marthinson. No. 941,085; Nov. 23; Sp. p. 5824; Gaz. vol. 148; p. 983.
Paper-roll holder. H. C. Rosebery. No. 940,364; Nov. 16; Sp. p. 4252; Gaz. vol. 148; p. 717.
Paper sheets together, Machinery for separating, feeding, and cementing. W. Fricker. No. 941,868; Nov. 30; Sp. p. 7534; Gaz. vol. 148; p. 1267.
Paper shells, Machine for making. J. Chesney. No. 939,948; Nov. 9; Sp. p. 3292; Gaz. vol. 148; p. 543.
Paste pot or jar. C. A. Schmitt. No. 941,278; Nov. 23; Sp. p. 6259; Gaz. vol. 148; p. 1047.
Paste to cardboard, &c., Machine for applying. J. McKibbin. No. 941,530; Nov. 30; Sp. p. 6799; Gaz. vol. 148; p. 1151.
Pasteboard with paper, &c., Machine for coating. W. Kellner. No. 938,586; Nov. 2; Sp. p. 334; Gaz. vol. 148; p. 49.
Pasteurizing apparatus. A. A. Pindstofte. No. 939,162; Nov. 2; Sp. p. 1529; Gaz. vol. 148; p. 248.
Pastry-cutting machine. E. B. Coburn. No. 939,981; Nov. 16; Sp. p. 3382; Gaz. vol. 148; p. 582.
Peanut-shelling machine. R. M. Newland. No. 941,686; Nov. 30; Sp. p. 7113; Gaz. vol. 148; p. 1202.
Pea-condensing machine. W. L. Shepard. No. 940,944; Nov. 23; Sp. p. 5528; Gaz. vol. 148; p. 936.
Pedal and panel mechanism. T. P. Brown. No. 939,386; Nov. 9; Sp. p. 2005; Gaz. vol. 148; p. 350.
Peeling machine, Apple-. R. Buchi. No. 938,822; Nov. 2; Sp. p. 801; Gaz. vol. 148; p. 129.
Pen, Composite. J. F. Betzler. No. 941,403; Nov. 30; Sp. p. 6536; Gaz. vol. 148; p. 1110.
Pen, Fountain-. M. W. Moore. No. 939,057; Nov. 2; Sp. p. 1298; Gaz. vol. 148; p. 210.
Pen, Fountain-. H. J. Upton. No. 939,456; Nov. 9; Sp. p. 2246; Gaz. vol. 148; p. 373.
Pen nib, Fountain-. D. Cameron. No. 940 509; Nov. 16; Sp. p. 4593; Gaz. vol. 148; p. 766.
Pen, Reservoir-. W. W. Sanford. No. 941,466; Nov. 30; Sp. p. 6669; Gaz. vol. 148; p. 1130.
Pen, Self-filling fountain-. J. A. Vogelmann. No. 940,909; Nov. 23; Sp. p. 5448; Gaz. vol. 148; p. 923.
Pencil. W. A. Fraser. No. 940,797; Nov. 23; Sp. p. 5233; Gaz. vol. 148; p. 888.
Pencil-holder. W. E. Philo. No. 940,822; Nov. 23; Sp. p. 5281; Gaz. vol. 148; p. 896.
Pencil holder and sharpener, Combined. C. H. Haase. No. 941,518; Nov. 30; Sp. p. 6777; Gaz. vol. 148; p. 1148.
Pencil-holder, Pocket. J. O. Heinley. No. 938,764; Nov. 2; Sp. p. 673; Gaz. vol. 148; p. 107.
Pencil-point sharpener. A. W. Elsner. No. 938,835; Nov. 2; Sp. p. 830; Gaz. vol. 148; p. 133.
Pencil, Polypoint. J. C. Haring. No. 940,247; Nov. 16; Sp. p. 3981; Gaz. vol. 148; p. 677.
Pencil-sharpener. E. H. Humphrey. No. 939,133; Nov. 2; Sp. p. 1451; Gaz. vol. 148; p. 236.
Pencil-sharpener. R. F. George. No. 941,631; Nov. 30; Sp. p. 7000; Gaz. vol. 148; p. 1184.
Pencil-sharpening device. R. W. Pittman. No. 940,613; Nov. 16; Sp. p. 4800; Gaz. vol. 148; p. 800.
Pendant. A. Jacques. No. 939,510; Nov. 9; Sp. p. 2351; Gaz. vol. 148; p. 390.
Penholder. W. B. Grover. No. 938,740; Nov. 2; Sp. p. 667; Gaz. vol. 148; p. 106.
Penholder. R. J. Cox. No. 939,810; Nov. 9; Sp. p. 3007; Gaz. vol. 148; p. 495.
Penholder attachment. J. J. Fitzgerald. No. 941,240; Nov. 23; Sp. p. 6171; Gaz. vol. 148; p. 1035.
Percolator. C. A. Stelle. No. 938,906; Nov. 2; Sp. p. 1007; Gaz. vol. 148; p. 159.
Percolator. J. B. Livingston. No. 939,281; Nov. 9; Sp. p. 1809; Gaz. vol. 148; p. 313.
Percolator, Coffee-. G. E. Mittinger, Jr. No. 941,330; Nov. 23; Sp. p. 6348; Gaz. vol. 148; p. 1062.
Percolator, Simple-syrup. S. T. Hensel. No. 939,131; Nov. 2; Sp. p. 1447; Gaz. vol. 148; p. 235.
Percolator, Syrup-. F. De Clercq. No. 941,234; Nov. 23; Sp. p. 6159; Gaz. vol. 148; p. 1033.
Perforating-machine. L. W. G. Flynt. No. 941,704; Nov. 30; Sp. p. 7161; Gaz. vol. 148; p. 1209.
Perforator, Casing-. C. E. Lapp and W. H. Harrison. No. 939,917; Nov. 9; Sp. p. 3233; Gaz. vol. 148; p. 532.
Permutation-lock. O. Anderson. No. 939,887; Nov. 9; Sp. p. 3154; Gaz. vol. 148; p. 520.
Permutation-lock. J. E. Le Myre. No. 940,936; Nov. 23; Sp. p. 5510; Gaz. vol. 148; p. 933.
Petroleum-burner. W. H. Eaton. No. 940,305; Nov. 16; Sp. p. 4131; Gaz. vol. 148; p. 697.
Phase adjustment. W. E. Sumpner. No. 940,747; Nov. 23; Sp. p. 5110; Gaz. vol. 148; p. 871.
Phenol halogen phthalein compound. W. R. Orndorff. No. 939,075; Nov. 2; Sp. p. 1331; Gaz. vol. 148; p. 216.
Phonogram. F. C. Applegate. No. 939,120; Nov. 2; Sp. p. 1422; Gaz. vol. 148; p. 232.
Phonograms, Making. F. C. Applegate. No. 939,119; Nov. 2; Sp. p. 1421; Gaz. vol. 148; p. 231.
Phonograph. F. E. Holman. No. 939,692; Nov. 9; Sp. p. 2752; Gaz. vol. 148; p. 454.
Phonograph attachment. H. A. Smith. No. 941,546; Nov. 30; Sp. p. 6828; Gaz. vol. 148; p. 1156.
Phonograph-records, Apparatus for making duplicate. J. W. Aylsworth. No. 940,631; Nov. 16; Sp. p. 4843; Gaz. vol. 148; p. 806.
Phonograph-records, Holder and index for. R. E. Alexander and M. J. Knickerbocker. No. 938,809; Nov. 2; Sp. p. 773; Gaz. vol. 148; p. 124.
Phonographic needle. A. J. Smith. No. 940,486; Nov. 16; Sp. p. 4533; Gaz. vol. 148; p. 759.
Phonographic recording and reproducing machine. T. A. Edison. No. 939,992; Nov. 16; Sp. p. 3405; Gaz. vol. 148; p. 586.
Phorometer. J. E. Cogan. No. 938,463; Nov. 2; Sp. p. 21; Gaz. vol. 148; p. 6.
Photographer's range-finder. G. B. Brayton. No. 940,504; Nov. 16; Sp. p. 4580; Gaz. vol. 148; p. 764.
Photographic shutter. C. F. J. Niss. No. 940,714; Nov. 23; Sp. p. 5030; Gaz. vol. 148; p. 859.
Piano-action. F. Meyer. No. 940,264; Nov. 16; Sp. p. 4014; Gaz. vol. 148; p. 683.
Piano-actions, Tool for applying bridles to. A. G. Crawford. No. 938,826; Nov. 2; Sp. p. 811; Gaz. vol. 148; p. 130.
Piano attachment, Automatic-. J. Sampere. No. 940,072; Nov. 16; Sp. p. 3611; Gaz. vol. 148; p. 615.
Piano-bench. A. B. Hanson. No. 940,804; Nov. 23; Sp. p. 5244; Gaz. vol. 148; p. 890.
Piano case, Upright-. C. Mayer. No. 940,340; Nov. 16; Sp. p. 4206; Gaz. vol. 148; p. 709.
Piano-pedal connection, Adjustable. H. Meyer. No. 939,055; Nov. 2; Sp. p. 1291; Gaz. vol. 148; p. 208.
Piano-player, Electropneumatic. A. R. Trist. No. 941,432; Nov. 30; Sp. p. 6602; Gaz. vol. 148; p. 1119.
Piano tuning-pin. F. Sack and F. A. Tyler. No. 941,730; Nov. 30; Sp. p. 7221; Gaz. vol. 148; p. 1218.
Piano-violin. J. Balde. No. 939,786; Nov. 9; Sp. p. 2951; Gaz. vol. 148; p. 486.
Pianos, Repeating-action for grand. F. A. Wessell, H. A. Nickel, and A. L. Wessell. No. 939,362; Nov. 9; Sp. p. 2023; Gaz. vol. 148; p. 342.
Pianos, Sostenuto attachment for. E. Peterson. No. 939,309; Nov. 9; Sp. p. 1905; Gaz. vol. 148; p. 325.
Pick. C. H. Blow. No. 938,955; Nov. 2; Sp. p. 1105; Gaz. vol. 148; p. 176.
Picker: *See* Cotton-picker; Fruit-picker.
Picker-stick attachment. W. D. Park. No. 938,694; Nov. 2; Sp. p. 545; Gaz. vol. 148; p. 85.
Picture apparatus, Moving-. H. Voege. No. 938,729; Nov. 2; Sp. p. 606; Gaz. vol. 148; p. 96.
Picture-exhibiting machine. F. H. Richards. No. 938,895; Nov. 2; Sp. p. 969; Gaz. vol. 148; p. 153.
Picture-frame-making machine. J. Mueller. No. 941,331; Nov. 23; Sp. p. 6349; Gaz. vol. 148; p. 1062.
Picture-hanger, Adjustable. J. Degan. No. 939,226; Nov. 9; Sp. p. 1690; Gaz. vol. 148; p. 294.
Picture-machines and phonographs, Synchronizing device for. P. Seiler. No. 939,357; Nov. 9; Sp. p. 1956; Gaz. vol. 148; p. 333.
Picture machines and stereopticons, Controlling-switch for moving-. T. Taira. No. 939,110; Nov. 2; Sp. p. 1402; Gaz. vol. 148; p. 228.
Pictures, Apparatus for viewing stereoscopic or other. J. Richard. No. 940,479; Nov. 16; Sp. p. 4518; Gaz. vol. 148; p. 756.
Pictures, Electric process for making. B. D. Avis, Jr. No. 940,495; Nov. 16; Sp. p. 4553; Gaz. vol. 148; p. 762.
Pictures, pieces of music, and other performances, Apparatus for producing audible moving. F. E. Thormeyer. No. 941,211; Nov. 23; Sp. p. 6112; Gaz. vol. 148; p. 1025.
Pie-trimmer. A. J. Perron. No. 941,337; Nov. 23; Sp. p. 6360; Gaz. vol. 148; p. 1064.
Pin: *See* Bowling-pin; Hair-pin; Piano tuning-pin; Scarf-pin.
Pins, &c., Machine for manufacturing grooved. A. L. Mowry. No. 939,061; Nov. 2; Sp. p. 1306; Gaz. vol. 148; p. 211.
Pincers, Lasting-. W. Huck. No. 941,254; Nov. 23; Sp. p. 6193; Gaz. vol. 148; p. 1039.
Pipe: *See* Flanged pipe; Stovepipe; Tobacco-pipe.
Pipe. H. W. Nicholes. No. 940,184; Nov. 16; Sp. p. 3854; Gaz. vol. 148; p. 654.
Pipe. J. A. Irving. No. 941,019; Nov. 23; Sp. p. 5692; Gaz. vol. 148; p. 961.
Pipe. L. Morris. No. 941,027; Nov. 23; Sp. p. 5710; Gaz. vol. 148; p. 963.
Pipe and cleaner therefor. M. A. Hadcock. No. 939,247; Nov. 9; Sp. p. 1731; Gaz. vol. 148; p. 301.
Pipe-cleaning apparatus. G. A. Lutz. No. 939,608; Nov. 9; Sp. p. 2577; Gaz. vol. 148; p. 423.
Pipe-coupling. G. W. Curry. No. 938,984; Nov. 2; Sp. p. 1156; Gaz. vol. 148; p. 184.
Pipe-coupling. E. Marek. No. 939,140; Nov. 2; Sp. p. 1492; Gaz. vol. 148; p. 241.
Pipe-coupling. F. C. Pahlow. No. 939,539; Nov. 9; Sp. p. 2411; Gaz. vol. 148; p. 400.
Pipe-coupling, Automatic. F. C. Doane and F. E. Ceeder. No. 940,678; Nov. 23; Sp. p. 4962; Gaz. vol. 148; p. 846.
Pipe-couplings, Making metal rings for. G. H. White. No. 940,414; Nov. 16; Sp. p. 4390; Gaz. vol. 148; p. 734.
Pipe-hanger support. R. A. Jenckes. No. 941,714; Nov. 30; Sp. p. 7193; Gaz. vol. 148; p. 1212.
Pipe-joint, Flexible. W. A. Greenlaw. No. 939,908; Nov. 9; Sp. p. 3208; Gaz. vol. 148; p. 529.
Pipe-lines, Device for passing cables through. H. A. Greenan. (Reissue.) No. 13,032; Nov 2; Sp. p. 1599; Gaz. vol. 148; p. 259.
Pipe or hose cleaning device. C. C. Gerhardt. No. 940,457; Nov. 16; Sp. p. 4481; Gaz. vol. 148; p. 749.
Pipe-riveting machine. F. W. McKnight. No. 940,608; Nov. 16; Sp. p. 4788; Gaz. vol. 148; p. 798.

Pipes, Apparatus for jointing. W. S. Sigler. No. 940,562; Nov. 16; Sp. p. 4705; Gaz. vol. 148; p. 783.
Pipes, &c., Coupling for train-. J. E. Forsyth. No. 941,066; Nov. 23; Sp. p. 5783; Gaz. vol. 148; p. 976.
Pipes, Flanging. C. D. Murdock. No. 940,702; Nov. 23; Sp. p. 5008; Gaz. vol. 148; p. 855.
Pistol, Automatic. R. Wiles. No. 941,749; Nov. 30; Sp. p. 7250; Gaz. vol. 148; p. 1224.
Pistols, &c., Automatic safety appliance for. J. Tambour. No. 939,111; Nov. 2; Sp. p. 1405; Gaz. vol. 148; p. 228.
Piston. T. Hall. No. 938,481; Nov. 2; Sp. p. 65; Gaz. vol. 148; p. 12.
Pitman-box. C. M. Jennings. No. 941,638; Nov. 30; Sp. p. 7009; Gaz. vol. 148; p. 1186.
Planing-machine. W. A. Robertson. No. 939,093; Nov. 2; Sp. p. 1364; Gaz. vol. 148; p. 222.
Plant-pulling implement. W. H. Miller. No. 941,644; Nov. 30; Sp. p. 7021; Gaz. vol. 148; p. 1188.
Planter and harrow, Combined. J. M. Tucker. No. 939,761; Nov. 9; Sp. p. 2913; Gaz. vol. 148; p. 478.
Planter attachment. W. C. Reynolds. No. 941,951; Nov. 30; Sp. p. 7085; Gaz. vol. 148; p. 1205.
Planter attachment, Corn-. F. A. Cook. No. 939,983; Nov. 16; Sp. p. 3384; Gaz. vol. 148; p. 583.
Planter, Corn-. V. F. Davey. No. 939,159; Nov 2; Sp. p. 1519; Gaz. vol. 148; p 240.
Planter, Corn-. C. W. Lanham. No. 939,717; Nov. 9; Sp. p. 2796; Gaz. vol. 148; p. 462.
Planter, Corn-. L. E. McQuitty. No. 939,833; Nov. 9; Sp. p. 3084; Gaz. vol. 148; p. 509.
Planter, Corn-. A. J. Anderson. No. 941,485; Nov. 30; Sp. p. 6711; Gaz. vol. 148; p. 1137.
Planter, Corn-. G. M. Gorman. No. 941,874; Nov. 30; Sp. p. 7542; Gaz. vol. 148; p. 1269.
Planter, Potato-. W. A. Hall, Sr. No. 941,449; Nov. 30; Sp. p. 6634; Gaz. vol. 148; p. 1124.
Planter, Seed-. W. N. Jay. No. 941,579; Nov. 30; Sp. p. 6893; Gaz. vol. 148; p. 1167.
Planter-shoe truck. W. N. Kilby and S. W. Kerr. No. 941,421; Nov. 30; Sp. p. 6580; Gaz. vol. 148; p. 1116.
Planters, Gage-wheel for corn-. W. T. Ellis. No. 940,382; Nov. 16; Sp. p. 4324; Gaz. vol. 148; p. 724.
Planting machine, Potato-. W. A. Hall, Sr. No. 940,147; Nov. 16; Sp. p. 3767; Gaz. vol. 148; p. 642.
Plastic or adhesive material, Machine for applying. O. Ashton. No. 940,419; Nov. 16; Sp. p. 4398; Gaz. vol. 148; p. 736.
Plate attachment, Pie-. H. Isaacs. No. 941,074; Nov. 23; Sp. p. 5802; Gaz. vol. 148; p. 979.
Plate-bar-heating furnace. L. C. Steele. No. 941,738; Nov. 30; Sp. p. 7241; Gaz. vol. 148; p. 1221.
Plate-holder. R. Kroedel. No. 940,030; Nov. 16; Sp. p. 3472; Gaz. vol. 148; p. 600.
Plates and sheets, Manufacture of. D. S. Brookman. No. 941,854; Nov. 30; Sp. p. 7505; Gaz. vol. 148; p. 1262.
Plates and sheets, Manufacture of. S. A. Davis. No. 941,861; Nov. 30; Sp. p. 7517; Gaz. vol. 148; p. 1264.
Plates, Making half-tone. J. Hartnett, Jr. No. 940,808; Nov. 23; Sp. p. 5250; Gaz. vol. 148; p. 891.
Plating-machine. H. F. Dunbar. No. 940 990; Nov. 16; Sp. p. 3401; Gaz. vol. 148; p. 585.
Pliers, Wire-skinning. G. W. Goodridge. No. 941,192; Nov. 23; Sp. p. 6075; Gaz. vol. 148; p. 1019.
Plow. F. R. Mosher. No. 938,686; Nov. 2; Sp. p. 533; Gaz. vol. 148; p. 82.
Plow. C. Christensen. No. 938,975; Nov. 2; Sp. p. 1135; Gaz. vol. 148; p. 182.
Plow. H. H. Julich. No. 939,704; Nov. 9; Sp. p. 2774; Gaz. vol. 148; p. 458.
Plow. B. T. Bethune. No. 941,224; Nov. 23; Sp. p. 6141; Gaz. vol. 148; p. 1030.
Plow. E. M. Buckhannan. No. 941,614; Nov. 30; Sp. p. 6965; Gaz. vol. 148; p. 1178.
Plow attachment. C. W. De Kay. No. 938,647; Nov. 2; Sp. p. 442; Gaz. vol. 148; p. 68.
Plow attachment. P. Flynn. No. 938,839; Nov. 2; Sp. p. 835; Gaz. vol. 148; p. 134.
Plow Disk. E. H. Sholar and W. W. Pace. No. 941,817; Nov. 30; Sp. p. 7419; Gaz. vol. 148; p. 1248.
Plow-fender, Double-shovel-. K. B. Faris and J. D. Walker. No. 941,772; Nov. 30; Sp. p. 7319; Gaz. vol. 148; p. 1233.
Plow Gang-. L. A. Hubert. No. 939,132; Nov. 2; Sp. p. 1470; Gaz. vol. 148; p. 236.
Plow-handle adjustment. J. E. Newberry. No. 940,609; Nov. 16; Sp. p. 4791; Gaz. vol. 148; p. 798.
Plow, Motor-. W. T. Bennett. No. 941,299; Nov. 23; Sp. p. 6298; Gaz. vol. 148; p. 1053.
Plow-points, Automatic device for attaching and releasing. C. E. Logan and A. R. Barnett. No. 941,933; Nov. 30; Sp. p. 7656; Gaz. vol. 148; p. 1289.
Plow, Reversible. W. Koehler. No. 939,271; Nov. 9; Sp. p. 1789; Gaz. vol. 148; p. 309.
Plow, Reversible. J. J. Nall. No. 939,617; Nov. 9; Sp. p. 2593; Gaz. vol. 148; p. 426.
Plow, Reversible disk. E. H. Sholar. No. 941,818; Nov. 30; Sp. p. 7425; Gaz. vol. 148; p. 1248.
Plow, Sulky-. W. H. Lee. No. 941,887; Nov. 30; Sp. p. 7564; Gaz. vol. 148; p. 1273.
Plow-sweep. S. H. Carpenter. No. 938,639; Nov. 2; Sp. p. 432; Gaz. vol. 148; p. 66.
Plows, Spreading attachment for. H. M. Jack. No. 941,369; Nov. 30; Sp. p. 6446; Gaz. vol. 148; p. 1098.
Plows, Weed-turning attachment for. T. J. Baxter. No. 941,298; Nov. 23; Sp. p. 6297; Gaz. vol. 148; p. 1053.
Plowing-machine. D. F. Kuster and G. J. Niemann. No. 939,716; Nov. 9; Sp. p. 2794; Gaz. vol. 148; p. 461.
Plumbing joint-fitting and attachment. W. J. and P. M. Forster. No. 939,001; Nov. 2; Sp. p. 1190; Gaz. vol. 148; p. 190.
Plumbing-trap. J. T. Costello. No. 941,062; Nov. 23; Sp. p. 5774; Gaz. vol. 148; p. 975.
Plunger head or valve. J. E. Shutt. No. 940,900; Nov. 23; Sp. p. 5434; Gaz. vol. 148; p. 921.
Pneumatic cleaner. S. Markstein. No. 942,037; Nov. 30; Sp. p. 7845; Gaz. vol. 148; p. 1322.
Pneumatic-despatch system. P. R. Shill. No. 939,872; Nov. 9; Sp. p. 3121; Gaz. vol. 148; p. 515.
Pneumatic separator. H. N. Middleton. No. 940,469; Nov. 16; Sp. p. 4499; Gaz. vol. 148; p. 752.
Pneumatic sweeper. S. Markstein. No. 941,347; Nov. 23; Sp. p. 6384; Gaz. vol. 148; p. 1067.
Pocket-book and savings-bank, Combined. E. S. Hoch. No. 940,315; Nov. 16; Sp. p. 4152; Gaz. vol. 148; p. 700.
Poke, Animal-. P. W. Amlie. No. 940,573; Nov. 16; Sp. p. 4729; Gaz. vol. 148; p. 787.
Pole, Vehicle-. C. B. Schleichter. No. 941,386; Nov. 30; Sp. p. 6403; Gaz. vol. 148; p. 1104.
Popcorn-popper. M. H. Hoffman. No. 938,466; Nov. 2; Sp. p. 492; Gaz. vol. 148; p. 76.
Post: *See* Binding-post; Fence-post; Lathe tool-post.
Post-card, Souvenir. R. Hasbrouck. No. 938,763; Nov. 2; Sp. p. 672; Gaz. vol. 148; p. 107.
Pot: *See* Cement-pot; Paste-pot; Tea or coffee pot.
Pot and kettle cover. I. Chapman. No. 939,802; Nov. 9; Sp. p. 2991; Gaz. vol. 148; p. 492.
Potato-cutter. J. A. Wise. No. 941,001; Nov. 23; Sp. p. 5646; Gaz. vol. 148; p. 954.
Potato digging and gathering machine. J. K. Bleashack. No. 940,121; Nov. 16; Sp. p. 3716; Gaz. vol. 148; p. 633.
Potato-vine cutter. G. P. Gregory. No. 941,247; Nov. 23; Sp. p. 6182; Gaz. vol. 148; p. 1037.
Poultry-hanger. L. F. Henig. No. 938,765; Nov. 2; Sp. p. 675; Gaz. vol. 148; p. 108.
Powder-cutting machine. C. Dobbs. No. 939,895; Nov. 9; Sp. p. 3173; Gaz. vol. 148; p. 524.
Powder distributer, Enameling-. W. Lindsay. No. 939,918; Nov. 9; Sp. p. 3236; Gaz. vol. 148; p. 533.
Power-controller for machines. H. S. Wilcox and W. Bartholomew. No. 940,767; Nov. 23; Sp. p. 5167; Gaz. vol. 148; p. 877.
Power-generator. C. C. Tuch. No. 938,918; Nov. 2; Sp. p. 1029; Gaz. vol. 148; p. 163.
Power-operated machines, Safety trip device for. C. F. Pfalzgraf. No. 941,726; Nov. 30; Sp. p. 7213; Gaz. vol. 148; p. 1216.
Power-tacker, Portable. M. D. Phelan. No. 938,508; Nov. 2; Sp. p. 133; Gaz. vol. 148; p. 21.
Power-transmission apparatus. D. E. Selders. No. 941,280; Nov. 23; Sp. p. 6263; Gaz. vol. 148; p. 1048.
Power-transmission mechanism. C. Kilroy. No. 940,880; Nov. 23; Sp. p. 5394; Gaz. vol. 148; p. 914.
Power-transmitting apparatus. R. A. La Pointe. No. 941,154; Nov. 23; Sp. p. 5983; Gaz. vol. 148; p. 1006.
Power-transmitting mechanism. C. H. Draper. No. 940,861; Nov. 23; Sp. p. 5354; Gaz. vol. 148; p. 908.
Preserving edible substances. A. J. Baldwin. No. 940,848; Nov. 23; Sp. p. 5333; Gaz. vol. 148; p. 904.
Press: *See* Baling-press; Brick-press; Clothes-press; Forging-press; Hay-press; Ironing-press; Printing-press; Sheet-metal-working press; Tobacco-press.
Press. S. L. Carter. No 938,462; Nov. 2; Sp. p. 20; Gaz. vol. 148; p. 5.
Press. L. H. Conner. No. 939,475; Nov. 9; Sp. p. 2291; Gaz. vol. 148; p. 379.
Press. H. G. Miller. No. 939,732; Nov. 9; Sp. p. 2837; Gaz. vol. 148; p. 468.
Press. J. C. Fiddyment. No. 940,961; Nov. 23; Sp. p. 5538; Gaz. vol. 148; p. 941.
Press-button. R. Scheewe. No. 939,446; Nov. 9; Sp. p. 2222; Gaz. vol. 148; p. 370.
Press-feeding mechanism, Automatic. L. C. Krummel. No. 938,876; Nov. 2; Sp. p. 925; Gaz. vol. 148; p. 146.
Pressing machine, Garment-. H. P. Shupe. No. 940,678; Nov. 16; Sp. p. 3621; Gaz. vol. 148; p. 618.
Pressure control Automatic. J. H. Smith. No. 939,752; Nov. 9; Sp. p. 2880; Gaz. vol. 148; p. 475.
Pressure generating and applying device, Hydraulic-. J. W. Nelson. No. 939,535; Nov. 9; Sp. p. 2401; Gaz. vol. 148; p. 398.
Pressure generating, controlling, and applying apparatus Hydraulic-. J. W. Nelson. No. 939,737; Nov. 9; Sp. p. 2845; Gaz. vol. 148; p. 469.
Pressure generating, controlling, and applying device, Hydraulic-. J. W. Nelson. No. 941,167; Nov. 23; Sp. p. 6013; Gaz. vol. 148; p. 1010.
Pressure-regulator. W. F. Krichbaum. No. 941,153; Nov. 23; Sp. p. 5980; Gaz. vol. 148; p. 1005.
Primary battery. C. E. Hite. No. 941,366; Nov. 30; Sp. p. 6441; Gaz. vol. 148; p. 1097
Printer's galley. A. S. Orchard. No. 939,620; Nov. 9; Sp. p. 2598; Gaz. vol. 148; p. 428.
Printer's galley. J. L. Lee. No. 940,975; Nov. 23; Sp. p. 5586; Gaz. vol. 148; p. 945.
Printer's quoin. T. J. Amundson. No. 940,113; Nov. 16; Sp. p. 3701; Gaz. vol. 148; p. 630.
Printing and folding machines and the like, Automatic sheet-feeder for. H. Hollings. No. 942,036; Nov. 30; Sp. p. 7842; Gaz. vol. 148; p. 1321.
Printing and issuing machine, Ticket. R. North. No. 939,297; Nov. 9; Sp. p. 1867; Gaz. vol. 148; p. 319.
Printing and issuing tickets and registering fares, Machine for. R. North. No. 939,295; Nov. 9; Sp. p. 1851; Gaz. vol. 148; p. 318.
Printing in colors. J. R. Brown. No. 941,670; Nov. 30; Sp. p. 7064; Gaz. vol. 148; p. 1197.
Printing-machine. W. L. Sloane and J. S. Owsley. No. 941,106; Nov. 23; Sp. p. 5867; Gaz. vol. 148; p. 989.

Printing-machine, Combined perfecting or two-color. H. A. W. Wood. No. 941,598; Nov. 30; Sp. p. 6930; Gaz. vol. 148; p. 1173.
Printing-machines, Sheet-inverting apparatus for use in connection with. T. R. G. Parker. No. 939,541; Nov. 9; Sp. p. 2415; Gaz. vol. 148; p. 401.
Printing-plate. C. Owens. No. 939,739; Nov. 9; Sp. p. 2655; Gaz. vol. 148; p. 470.
Printing-press. A. J. Mottlau. No. 941,162; Nov. 23; Sp. p. 5994; Gaz. vol. 148; p. 1008.
Printing-press gripper. M. W. Alger and C. L. Jacobson. No. 940,491; Nov. 16; Sp. p. 4546; Gaz. vol. 148; p. 760.
Printing-press, Multiple-. A. Scheuerer, Jr. No. 939,553; Nov. 9; Sp. p. 2441; Gaz. vol. 148; p. 405.
Printing-press roll-renewing attachment. J. T. Peto. No. 940,272; Nov. 16; Sp. p. 4025; Gaz. vol. 148; p. 686.
Printing-press sheet-feeding apparatus. C. Hermann. No. 941,778; Nov. 30; Sp. p. 7330; Gaz. vol. 148; p. 1235.
Printing-presses, Means for supplying rolls of paper to. L. F. Pfister. No. 940,273; Nov. 16; Sp. p. 4033; Gaz. vol. 148; p. 686.
Pritch. C. Hoff. No. 940,597; Nov. 16; Sp. p. 4770; Gaz. vol. 148; p. 795.
Projectile. H. M. Gleason. No. 939,682; Nov. 9; Sp. p. 2727; Gaz. vol. 148; p. 451.
Projection-apparatus attachment. W. J. Ashley. No. 941,752; Nov. 30; Sp. p. 7266; Gaz. vol. 148; p. 1225.
Propeller. M. R. White. No. 938,733; Nov. 2; Sp. p. 611; Gaz. vol. 148; p. 96.
Propeller. O. P. Smith. No. 940,743; Nov. 23; Sp. p. 5099; Gaz. vol. 148; p. 869.
Propelling and steering device, Vessel. W. B. Marble. No. 940,039; Nov. 16; Sp. p. 3525; Gaz. vol. 148; p. 603.
Propelling device, Ship-. M. Franklin. No. 938,750; Nov. 2; Sp. p. 644; Gaz. vol. 148; p. 103.
Propelling means for vessels. T. B. Taylor. No. 938,911; Nov. 2; Sp. p. 1014; Gaz. vol. 148; p. 161.
Propelling mechanism, Boat-. B. F. Jacobs. No. 939,028; Nov. 2; Sp. p. 1246; Gaz. vol. 148; p. 199.
Proportional meter. J. C. Anderson. No. 940,114; Nov. 16; Sp. p. 3702; Gaz. vol. 148; p. 631.
Pruning-shears. E. Arneson. No. 938,627; Nov. 2; Sp. p. 411; Gaz. vol. 148; p. 62.
Puller: *See* Nail-puller.
Pulley, Split metal. E. Philips. No. 940,720; Nov. 23; Sp. p. 5045; Gaz. vol. 148; p. 862.
Pulp-agitator. W. C. Paterson. No. 940,612; Nov. 16; Sp. p. 4797; Gaz. vol. 148; p. 800.
Pulp-screening machine. J. F. Fisher. No. 941,017; Nov. 23; Sp. p. 5686; Gaz. vol. 148; p. 960.
Pulp-shaping machine. A. Komp. No. 941,884; Nov. 30; Sp. p. 7559; Gaz. vol. 148; p. 1272.
Pulverizer. M. J. Williams. No. 939,769; Nov. 9; Sp. p. 2925; Gaz. vol. 148; p. 481.
Pulverizer. M. J. Williams. No. 939,770; Nov. 9; Sp. p. 2927; Gaz. vol. 148; p. 481.
Pulverizer. M. J. Williams. No. 939,771; Nov. 9; Sp. p. 2928; Gaz. vol. 148; p. 481.
Pulverizer. M. J. Williams. No. 939,772; Nov. 9; Sp. p. 2929; Gaz. vol. 148; p. 482.
Pulverizer. M. J. Williams. No. 939,773; Nov. 9; Sp. p. 2930; Gaz. vol. 148; p. 482.
Pulverizer. M. J. Williams. No. 939,774; Nov. 9; Sp. p. 2932; Gaz. vol. 148; p. 482.
Pulverizer. M. J. Williams. No. 939,775; Nov. 9; Sp. p. 2933; Gaz. vol. 148; p. 483.
Pulverizer. M. J. Williams. No. 939,776; Nov. 9; Sp. p. 2934; Gaz. vol. 148; p. 483.
Pulverizer. M. J. Williams. No. 939,777; Nov. 9; Sp. p. 2935; Gaz. vol. 148; p. 483.
Pulverizer. M. J. Williams. No. 939,778; Nov. 9; Sp. p. 2936; Gaz. vol. 148; p. 484.
Pulverizing-mill. J. C. Clark. No. 940,129; Nov. 16; Sp. p. 3734; Gaz. vol. 148; p. 636.
Pump. A. Heimann and L. Flatow. No. 939,911; Nov. 9; Sp. p. 3213; Gaz. vol. 148; p. 530.
Pump. N. McCarty. No. 940,703; Nov. 23; Sp. p. 5009; Gaz. vol. 148; p. 855.
Pump. N. McCarty. No. 940,704; Nov. 23; Sp. p. 5011; Gaz. vol. 148; p. 856.
Pump. W. T. McLean, H. C. Lyons, and C. K. Clark. No. 940,817; Nov. 23; Sp. p. 5273; Gaz. vol. 148; p. 894.
Pump. A. W. Schramm. No. 941,968; Nov. 30; Sp. p. 7701; Gaz. vol. 148; p. 1297.
Pump, Air-lift. F. G. Kimball. No. 939,270; Nov. 9; Sp. p. 1788; Gaz. vol. 148; p. 309.
Pump, Automatic air-. E. Reed. No. 940,892; Nov. 23; Sp. p. 5422; Gaz. vol. 148; p. 918.
Pump, blower, and the like, Centrifugal and similar. W. Scheurmann. No. 939,333; Nov. 9; Sp. p. 1942; Gaz. vol. 148; p. 332.
Pump-bracket. L. A. Washburne. No. 939,360; Nov. 9; Sp. p. 2018; Gaz. vol. 148; p. 341.
Pump, Breast-. E. P. Fowler. No. 940,454; Nov. 16; Sp. p. 4475; Gaz. vol. 148; p. 748.
Pump, Centrifugal. C. V. Kerr. No. 940,257; Nov. 16; Sp. p. 4001; Gaz. vol. 148; p. 681.
Pump, Centrifugal. D. V. Burrell. No. 941,557; Nov. 30; Sp. p. 6848; Gaz. vol. 148; p. 1160.
Pump-counterbalancing device. J. O. Bane. No. 939,967; Nov. 16; Sp. p. 3341; Gaz. vol. 148; p. 578.
Pump, Double-acting. J. J. Rexroth. No. 940,192; Nov. 16; Sp. p. 3871; Gaz. vol. 148; p. 657.
Pump for automobile-tires. H. Swain. No. 938,522; Nov. 2; Sp. p. 184; Gaz. vol. 148; p. 26.
Pump for wells. W. H. Larkin. No. 938,878; Nov. 2; Sp. p. 930; Gaz. vol. 148; p. 147.
Pump, Hydraulic. A. J. Pocock. No. 940,056; Nov. 16; Sp. p. 3567; Gaz. vol. 148; p. 610.
Pump, Milk-. C. O. Lucas. No. 940,651; Nov. 16; Sp. p. 4884; Gaz. vol. 148; p. 813.
Pump, Multiple-impeller. A. E. Guy. No. 940,871; Nov. 23; Sp. p. 5378; Gaz. vol. 148; p. 911.
Pump or apparatus for raising water by means of compressed air, Pneumatic. T. O. Perry. No. 939,307; Nov. 9; Sp. p. 1897; Gaz. vol. 148; p. 323.
Pump, Steam-. H. L. Thompson. No. 938,724; Nov. 2; Sp. p. 596; Gaz. vol. 148; p. 94.
Pump, Vacuum-. G. H. Zschech. No. 940,913; Nov. 23; Sp. p. 5458; Gaz. vol. 148; p. 925.
Pump, Well-. W. A. McGregor. No. 940,545; Nov. 16; Sp. p. 4675; Gaz. vol. 148; p. 778.
Pumping or forcing mechanism, Air. H. Harsant. No. 941,450; Nov. 30; Sp. p. 6837; Gaz. vol. 148; p. 1125.
Pumping system, Automatic. J. Hanson. No. 940,312; Nov. 16; Sp. p. 4145; Gaz. vol. 148; p. 699.
Punch. F. Harling. No. 938,580; Nov. 2; Sp. p. 321; Gaz. vol. 148; p. 47.
Punch, Metal-. W. C. Robinson. No. 939,324; Nov. 9; Sp. p. 1929; Gaz. vol. 148; p. 329.
Punching holes in metal plates, Machine for. C. H. Clark. No. 939,185; Nov. 2; Sp. p. 1573; Gaz. vol. 148; p. 255.
Punching-machine. E. Bambauer. No. 940,575; Nov. 16; Sp. p. 4732; Gaz. vol. 148; p. 788.
Punching-machine, Rotary. F. Koelsch. No. 939,958; Nov. 9; Sp. p. 3316; Gaz. vol. 148; p. 547.
Purse or bag frame. C. Hiering and A. Fuller. No. 939,255; Nov. 9; Sp. p. 1744; Gaz. vol. 148; p. 303.
Puzzle. L. W. Pullen. No. 938,509; Nov. 2; Sp. p. 139; Gaz. vol. 148; p. 22.
Puzzle. G. B. Matthews. No. 939,050; Nov. 2; Sp. p. 1287; Gaz. vol. 148; p. 207.
Puzzle. A. Schesnack. No. 939,552; Nov. 9; Sp. p. 2440; Gaz. vol. 148; p. 405.
Puzzle, Base-ball. T. Mooney. No. 939,612; Nov. 9; Sp. p. 2584; Gaz. vol. 148; p. 424.
Puzzle for the blind, Raised. M. A. Houghton. No. 941,680; Nov. 30; Sp. p. 7099; Gaz. vol. 148; p. 1200.
Puzzle postal card. N. Olinger. No. 939,074; Nov. 2; Sp. p. 1329; Gaz. vol. 148; p. 216.
Quadrant adjustment, Split-switch. J. L. Soutar. No. 939,561; Nov. 9; Sp. p. 2457; Gaz. vol. 148; p. 408.
Quebracho extract, Treatment of. A. Redlich and J. Wladika. No. 939,742; Nov. 9; Sp. p. 2859; Gaz. vol. 148; p. 471.
Quilting-frame. S. S. Russell. No. 940,070; Nov. 16; Sp. p. 3596; Gaz. vol. 148; p. 615.
Quoin. M. Muehler. No. 939,950; Nov. 9; Sp. p. 3296; Gaz. vol. 148; p. 544.
Rabble-arm and rake. H. N. Thomson and W. M. Kelly. No. 940,488; Nov. 16; Sp. p. 4537; Gaz. vol. 148; p. 759.
Race-strap. L. B. Garrison. No. 939,902; Nov. 9; Sp. p. 3189; Gaz. vol. 148; p. 526.
Rack: *See* Advertising hat-rack; Clothes-rack; Display-rack; Hay-rack; Hose-rack; Kitchen-rack; Oar-rack; Shoe-rack; Toast-rack; Wagon-rack.
Rack. C. J. Hawkins. No. 938,854; Nov. 2; Sp. p. 861; Gaz. vol. 148; p. 139.
Rack for rolls of merchandise. C. J. Simonson. No. 941,281; Nov. 23; Sp. p. 6265; Gaz. vol. 148; p. 1048.
Radiator. W. J. Elder. No. 940,445; Nov. 16; Sp. p. 4456; Gaz. vol. 148; p. 745.
Radius-averaging instrument. W. H. Bristol. No. 938,962; Nov. 2; Sp. p. 1114; Gaz. vol. 148; p. 178.
Radius-rod-shifting means, Joint for. O. W. Young. No. 940,224; Nov. 16; Sp. p. 3939; Gaz. vol. 148; p. 670.
Rafter-marking instrument. J. L. Richter. No. 940,067; Nov. 16; Sp. p. 3591; Gaz. vol. 148; p. 614.
Rail. N. Rendleman. No. 939,319; Nov. 9; Sp. p. 1920; Gaz. vol. 148; p. 327.
Rail-bending tool. J. R. James. No. 940,325; Nov. 16; Sp. p. 4173; Gaz. vol. 148; p. 704.
Rail brace and fastener. A. F. W. Prelle. No. 940,554; Nov. 16; Sp. p. 4692; Gaz. vol. 148; p. 781.
Rail-clamp, Anchor. A. W. Brand. No. 938,549; Nov. 2; Sp. p. 247; Gaz. vol. 148; p. 37.
Rail clamp, Guard-. G. L. Hall. No. 938,848; Nov. 2; Sp. p. 851; Gaz. vol. 148; p. 137.
Rail connection. W. C. Bopp. No. 940,954; Nov. 23; Sp. p. 5550; Gaz. vol. 148; p. 939.
Rail-curve seat. J. E. Dougherty. No. 941,312; Nov. 23; Sp. p. 6324; Gaz. vol. 148; p. 1057.
Rail-fastener. F. Persic. No. 940,986; Nov. 23; Sp. p. 5604; Gaz. vol. 148; p. 949.
Rail-fastener. G. M. Côté. No. 941,697; Nov. 30; Sp. p. 7147; Gaz. vol. 148; p. 1206.
Rail fastener and bond. C. D. McAfee. No. 941,332; Nov. 23; Sp. p. 6352; Gaz. vol. 148; p. 1063.
Rail-fastening. J. Hiltzert. No. 939,419; Nov. 9; Sp. p. 2170; Gaz. vol. 148; p. 360.
Rail-fastening device. H. M. Mason and F. Ohe. No. 941,264; Nov. 23; Sp. p. 6221; Gaz. vol. 148; p. 1043.
Rail-fastening device. J. E. Hanlque. No. 941,575; Nov. 30; Sp. p. 6885; Gaz. vol. 148; p. 1166.
Rail-joint. E. J. Frost. No. 939,240; Nov. 9; Sp. p. 1720; Gaz. vol. 148; p. 298.
Rail-joint. A. Bymuh. No. 940,633; Nov. 16; Sp. p. 4847; Gaz. vol. 148; p. 807.
Rail-joint. G. H. Barbour. No. 940,777; Nov. 23; Sp. p. 5186; Gaz. vol. 148; p. 881.
Rail-joint. J. Schushey. No. 941,279; Nov. 23; Sp. p. 6262; Gaz. vol. 148; p. 1048.

Rail-joint. M. Thorson. No. 941,473; Nov. 30; Sp. p. 6688; Gaz. vol. 148; p. 1133.
Rail-joint, Boltless. F. Kelly. No. 938,587; Nov. 2; Sp. p. 334; Gaz. vol. 148; p. 49.
Rail-joint, Insulated. G. W. Whiteman. No. 941,175; Nov. 23; Sp. p. 6027; Gaz. vol. 148; p. 1013.
Rail-joints, Splice-bar for. W. P. and S. G. Thomson. No. 941,472; Nov. 30; Sp. p. 6685; Gaz. vol. 148; p. 1132.
Rail-sanding device. C. F. Johndrow. No. 940,025; Nov. 16; Sp. p. 3462; Gaz. vol. 148; p. 598.
Rail-splice. J. Thomas. No. 940,218; Nov. 16; Sp. p. 3930; Gaz. vol. 148; p. 668.
Rail-support. G. M. Côté. No. 939,477; Nov. 9; Sp. p. 2294; Gaz. vol. 148; p. 380.
Rail-supporting means of metallic ties, Brace for. M. F. Bonzano. No. 940,579; Nov. 16; Sp. p. 4742; Gaz. vol. 148; p. 789.
Rail-tie. A. J. Chambliss. No. 939,801; Nov. 9; Sp. p. 2990; Gaz. vol. 148; p. 492.
Rail-tie. C. Carrell. No. 941,307; Nov. 23; Sp. p. 6310; Gaz. vol. 148; p. 1055.
Rail-tie. W. Churchill and M. L. O'Neil. No. 941,913; Nov. 30; Sp. p. 7616; Gaz. vol. 148; p. 1283.
Rails, &c., Instrument for measuring the cross-section of. R. Barthelmes. No. 941,297; Nov. 23; Sp. p. 6295; Gaz. vol. 148; p. 1053.
Rails, Manufacturing. N. Rendleman. No. 939,320; Nov. 9; Sp. p. 1921; Gaz. vol. 148; p. 328.
Rails, Treatment of steel. F. H. Daniels. No. 941,134; Nov. 23; Sp. p. 5943; Gaz. vol. 148; p. 999.
Railway and rail-support therefor. W. L. De Remer. No. 942,032; Nov. 30; Sp. p. 7834; Gaz. vol. 148; p. 1320.
Railway automatic safety appliance. W. G. Daring. No. 941,233; Nov. 23; Sp. p. 6155; Gaz. vol. 148; p. 1032.
Railway, Cable-. G. F. Roughan. No. 940,825; Nov. 23; Sp. p. 5285; Gaz. vol. 148; p. 896.
Railway-coach. R. A. Felton. No. 940,383; Nov. 16; Sp. p. 4325; Gaz. vol. 148; p. 724.
Railway-crossing gate, Automatically-operated. W. J. Cook. No. 940,786; Nov. 23; Sp. p. 5203; Gaz. vol. 148; p. 883.
Railway crossings, Groove-filling device for street-. P. K. Young. No. 939,463; Nov. 9; Sp. p. 2264; Gaz. vol. 148; p. 375.
Railway-frog. J. A. Foster. No. 940,523; Nov. 16; Sp. p. 4621; Gaz. vol. 148; p. 770.
Railway-frog. H. G. Elfborg. No. 940,863; Nov. 23; Sp. p. 5361; Gaz. vol. 148; p. 909.
Railway-frog. H. G. Elfborg. No. 940,864; Nov. 23; Sp. p. 5363; Gaz. vol. 148; p. 909.
Railway-joint. G. W. Amos. No. 941,604; Nov. 30; Sp. p. 6943; Gaz. vol. 148; p. 1175.
Railway-rail. J. Huntington. No. 940,320; Nov. 16; Sp. p. 4159; Gaz. vol. 148; p. 702.
Railway-rail. S. W. Lyman. No. 941,580; Nov. 30; Sp. p. 6895; Gaz. vol. 148; p. 1167.
Railway-rail anchor. J. M. Scott. No. 938,716; Nov. 2; Sp. p. 583; Gaz. vol. 148; p. 91.
Railway-rail brace. E. J. Anthony. No. 941,693; Nov. 30; Sp. p. 7139; Gaz. vol. 148; p. 1205.
Railway-rail joint. A. P. Finley. No. 938,467; Nov. 2; Sp. p. 29; Gaz. vol. 148; p. 7.
Railway-rail joint. H. T. Fiske. No. 939,239; Nov. 9; Sp. p. 1717; Gaz. vol. 148; p. 298.
Railway-rail joint. W. Wallace. No. 939,358; Nov. 9; Sp. p. 2016; Gaz. vol. 148; p. 340.
Railway-rail joint. R. S. Du Bose. No. 939,814; Nov. 9; Sp. p. 3012; Gaz. vol. 148; p. 496.
Railway-rail-locking mechanism. E. J. Anthony. No. 941,692; Nov. 30; Sp. p. 7137; Gaz. vol. 148; p. 1204.
Railway-rail structure. E. S. Nethercut. No. 940,818; Nov. 23; Sp. p. 5274; Gaz. vol. 148; p. 894.
Railway-rail tie and brace. H. O. Wert. No. 941,217; Nov. 23; Sp. p. 6129; Gaz. vol. 148; p. 1027.
Railway safety appliance. J. T. Andrew. No. 941,222; Nov. 23; Sp. p. 6138; Gaz. vol. 148; p. 1029.
Railway safety device. O. J. Berend. No. 939,201; Nov. 9; Sp. p. 1621; Gaz. vol. 148; p. 286.
Railway-signal. L. E. Garnett. No. 940,800; Nov. 23; Sp. p. 5237; Gaz. vol. 148; p. 889.
Railway signaling apparatus. F. F. Brush. No. 939,974; Nov. 16; Sp. p. 3356; Gaz. vol. 148; p. 580.
Railway signaling apparatus. W. J. Cook. No. 940,787; Nov. 23; Sp. p. 5210; Gaz. vol. 148; p. 884.
Railway signaling apparatus, Electric. W. J. Cook. No. 939,984; Nov. 16; Sp. p. 3385; Gaz. vol. 148; p. 583.
Railway signaling system. T. M. Dougal and J. M. Chambers. No. 941,263; Nov. 23; Sp. p. 6210; Gaz. vol. 148; p. 1042.
Railway-spike. F. B. Kobert. No. 938,875; Nov. 2; Sp. p. 924; Gaz. vol. 148; p. 146.
Railway-switch. A. A. Schumacher. No. 938,610; Nov. 2; Sp. p. 379; Gaz. vol. 148; p. 56.
Railway-switch. G. L. McFarland. No. 940,646; Nov. 16; Sp. p. 4874; Gaz. vol. 148; p. 811.
Railway-switch. D. C. McCalib. No. 941,089; Nov. 23; Sp. p. 5830; Gaz. vol. 148; p. 984.
Railway-switch. G. D. Worley. No. 941,220; Nov. 23; Sp. p. 6134; Gaz. vol. 148; p. 1028.
Railway-switch device. G. R. Johnson. No. 941,522; Nov. 30; Sp. p. 6782; Gaz. vol. 148; p. 1149.
Railway-switch mechanism. B. Legault. No. 939,279; Nov. 9; Sp. p. 1804; Gaz. vol. 148; p. 312.
Railway switch, Street-. J. Leith. No. 939,041; Nov. 2; Sp. p. 1274; Gaz. vol. 148; p. 205.
Railway-switches, Device to turn. S. Ordóñez and L. Katz. No. 938,889; Nov. 2; Sp. p. 952; Gaz. vol. 148; p. 151.
Railway-switches, Manufacture of slide-plates for. R. J. Davidson. No. 941,623; Nov. 30; Sp. p. 6983; Gaz. vol. 148; p. 1182.
Railway system, Electric-. W. M. Stephens. No. 940,211; Nov. 16; Sp. p. 3914; Gaz. vol. 148; p. 665.
Railway system, Third-rail electric-. C. Kozesnik. No. 940,028; Nov. 16; Sp. p. 3468; Gaz. vol. 148; p. 599.
Railway system, Third-rail electric-. C. Kozesnik. No. 941,151; Nov. 23; Sp. p. 5978; Gaz. vol. 148; p. 1005.
Railway-tie. L. Wylder. No. 938,538; Nov. 2; Sp. p. 221; Gaz. vol. 148; p. 32.
Railway-tie. L. Wylder. No. 938,539; Nov. 2; Sp. p. 223; Gaz. vol. 148; p. 32.
Railway-tie. J. W. Leahy. No. 940,640; Nov. 16; Sp. p. 4861; Gaz. vol. 148; p. 809.
Railway-tie. J. W. Leahy. No. 940,641; Nov. 16; Sp. p. 4862; Gaz. vol. 148; p. 809.
Railway-tie. F. Schumann. No. 940,740; Nov. 23; Sp. p. 5092; Gaz. vol. 148; p. 868.
Railway-tie, Metallic. J. G. Snyder. No. 939,343; Nov. 9; Sp. p. 1974; Gaz. vol. 148; p. 336.
Railway-track construction. S. J. Scott. No. 939,336; Nov. 9; Sp. p. 1954; Gaz. vol. 148; p. 333
Railway-track-rail holder and brace. J. T. West. No. 939,767; Nov. 9; Sp. p. 2923; Gaz. vol. 148; p. 480.
Railway-track-tamping machine. W. C. Maxwell. No. 939,847; Nov. 9; Sp. p. 3071; Gaz. vol. 148; p. 507.
Railway-traffic-controlling system. H. Bezer. No. 939,659; Nov. 9; Sp. p. 2673; Gaz. vol. 148; p. 443.
Railways, Electric controlling and signalling system for. H. E. McDonnell. No. 939,154; Nov. 2; Sp. p. 1509; Gaz. vol. 148; p. 244.
Rake: *See* Hay-rake; Lawn-rake; Self-cleaning rake.
Rake. C. M. Lehigh. No. 938,882; Nov. 2; Sp. p. 940; Gaz. vol. 148; p. 148.
Raker gage and jointer. J. C. Gehrman. No. 938,472; Nov. 2; Sp. p. 37; Gaz. vol. 148; p. 9.
Range-finder, Single-observer. A. Barr and W. Stroud. No. 941,125; Nov. 23; Sp. p. 5918; Gaz. vol. 148; p. 995.
Range-finders, Scale for. A. Barr and W. Stroud. No. 940,425; Nov. 16; Sp. p. 4411; Gaz. vol. 148; p. 738.
Ratchet and drill extension. H. J. Forster. No. 939,900; Nov. 9; Sp. p. 3184; Gaz. vol. 148; p. 526.
Ratchet-drill. G. W. Figg. No. 941,916; Nov. 30; Sp. p. 7622; Gaz. vol. 148; p. 1283.
Ratchet-releasing mechanism. C. O. L. Cardell. No. 941,188; Nov. 23; Sp. p. 6063; Gaz. vol. 148; p. 1017.
Razor-blade clamp. A. H. Fleming. No. 941,566; Nov. 30; Sp. p. 6866; Gaz. vol. 148; p. 1163.
Razor-blade holder, Safety-. D. Conekin. No. 940,516; Nov. 16; Sp. p. 4609; Gaz. vol. 148; p. 709.
Razor-blade strop. I. Conrad. No. 939,219; Nov. 9; Sp. p. 1657; Gaz. vol. 148; p. 292.
Razor-blade stropper. W. W. Trowbridge and C. H. Wheelock. No. 940,412; Nov. 16; Sp. p. 4387; Gaz. vol. 148; p. 734.
Razor, Safety-. W. Diebel. No. 939,400; Nov. 9; Sp. p. 2123; Gaz. vol. 148; p. 354.
Razor, Safety-. H. Wilcox. No. 939,935; Nov. 9; Sp. p. 3268; Gaz. vol. 148; p. 539.
Razor, Safety-. F. Crupelli. No. 941,231; Nov. 23; Sp. p. 6153; Gaz. vol. 148; p. 1032.
Reamer. A. E. Church. No. 941,912; Nov. 30; Sp. p. 7615; Gaz. vol. 148; p. 1282.
Reamers, Arbor for shell-. R. H. Stearns. No. 939,345; Nov. 9; Sp. p. 1978; Gaz. vol. 148; p. 336.
Receptacle-closure. F. P. Wilbur and E. B. Marshall. No. 940,653; Nov. 16; Sp. p. 4887; Gaz. vol. 148; p. 814.
Receptacle-closure-removing device. H. E. Shepard. No. 939,641; Nov. 9; Sp. p. 2643; Gaz. vol. 148; p. 437.
Recorder: *See* Fare-recorder.
Reeds, ratan, &c., Article made from. G. E. Pfennighausen. No. 938,696; Nov. 2; Sp. p. 547; Gaz. vol. 148; p. 85.
Reel: *See* Clothes-reel; Clothes-line reel; Dressing-machine reel; Sand-reel; Wire-reel.
Reflectors, Skirting for. O. A. Mygatt. No. 939,062; Nov. 2; Sp. p. 1310; Gaz. vol. 148; p. 212.
Refrigerating apparatus. C. M. Gay. No. 940,590; Nov. 16; Sp. p. 4759; Gaz. vol. 148; p. 793.
Refrigerating apparatus. W. W. Seay. No. 941,733; Nov. 30; Sp. p. 7229; Gaz. vol. 148; p. 1219.
Refrigerating-counter. E. Carpenter. No. 938,554; Nov. 2; Sp. p. 259; Gaz. vol. 148; p. 38.
Refrigeration, Process of. W. W. Seay. No. 941,734; Nov. 30; Sp. p. 7231; Gaz. vol. 148; p. 1220.
Refrigerator. E. F. Cramer. No. 939,891; Nov. 9; Sp. p. 3166; Gaz. vol. 148; p. 522.
Refrigerator. W. H. Young. No. 940,416; Nov. 16; Sp. p. 4393; Gaz. vol. 148; p. 735.
Refrigerator. J. H. Manon. No. 940,700; Nov. 23; Sp. p. 5005; Gaz. vol. 148; p. 854.
Refrigerator-car. J. M. Borrowdale and J. Strain. No. 938,958; Nov. 2; Sp. p. 1108; Gaz. vol. 148; p. 177.
Refrigerator-car. H. Pries. No. 939,315; Nov. 9; Sp. p. 1916; Gaz. vol. 148; p. 326.
Refrigerator-car. A. G. Brown. No. 940,124; Nov. 16; Sp. p. 3722; Gaz. vol. 148; p. 634.
Refrigerator drip-pans, Automatic alarm for. J. F. Phillips. No. 939,311; Nov. 9; Sp. p. 1911; Gaz. vol. 148; p. 325.
Refrigerator, Locker-. R. L. Tilghman. No. 938,620; Nov. 2; Sp. p. 395; Gaz. vol. 148; p. 59.
Register: *See* Cash-register; Shipping-bill register.
Register or ventilator. E. D. House. No. 941,367; Nov. 30; Sp. p. 6444; Gaz. vol. 148; p. 1097.
Register or ventilator. H. S. Hart. No. 941,413; Nov. 30; Sp. p. 6569; Gaz. vol. 148; p. 1114.
Registering apparatus. R. North. No. 939,296; Nov. 9; Sp. p. 1860; Gaz. vol. 148; p. 319.

Regulator: *See* Air-brake regulator; Feed-regulator; Feed-water regulator; Fluid-pressure regulator; Gas-regulator; Pressure-regulator; Sound-regulator; Stove-regulator; Windmill-regulator.
Reinforced fabric, Unwoven. E. D. C. Bayne and L. A. Subers. No. 940,779; Nov. 23; Sp. p. 5190; Gaz. vol. 148; p. 881.
Reinforcing-bar. T. W. Jenks. No. 939,962; Nov. 9; Sp. p. 3322; Gaz. vol. 148; p. 548.
Relay. T. W. Gleeson. No. 941,709; Nov. 30; Sp. p. 7186; Gaz. vol. 148; p. 1211.
Relay. F. R. Corwin and C. A. Bals. No. 941,761; Nov. 30; Sp. p. 7295; Gaz. vol. 148; p. 1229.
Relay, Electromagnetic. D. I. Garretson. No. 939,409; Nov. 9; Sp. p. 2151; Gaz. vol. 148; p. 357.
Relay, Self-locking. J. F. Keely. No. 938,588; Nov. 2; Sp. p. 335; Gaz. vol. 148; p. 49.
Repair device, Adhesive. W. N. Shelton. No. 941,047; Nov. 23; Sp. p. 5745; Gaz. vol. 148; p. 970.
Replenishing device. J. Chandler. No. 938,557; Nov. 2; Sp. p. 264; Gaz. vol. 148; p. 39.
Reraller. O. B. Grant. No. 938,845; Nov. 2; Sp. p. 845; Gaz. vol. 148; p. 136.
Resawing-machine. H. J. Gilbert. No. 939,903; Nov. 9; Sp. p. 3190; Gaz. vol. 148; p. 527.
Resilient wheel. J. Rountree. No. 939,748; Nov. 9; Sp. p. 2874; Gaz. vol. 148; p. 473.
Resistance unit. H. W. Leonard. No. 938,671; Nov. 2; Sp. p. 506; Gaz. vol. 148; p. 77.
Resistance unit. H. E. Heath. No. 940,151; Nov. 16; Sp. p. 3773; Gaz. vol. 148; p. 643.
Retort-furnace. E. Schmatolla. No. 940,199; Nov. 16; Sp. p. 3887; Gaz. vol. 148; p. 660.
Retorts and the like, Measuring feed device for. M. Bittrich. No. 938,954; Nov. 2; Sp. p. 1103; Gaz. vol. 148; p. 176.
Reversing device. C. H. Norton, J. C. Spence, and H. N. Cudworth. No. 940,549; Nov. 16; Sp. p. 4682; Gaz. vol. 148; p. 779.
Reversing mechanism. J. C. Ross. No. 941,275; Nov. 23; Sp. p. 6251; Gaz. vol. 148; p. 1046.
Reversing mechanism, Automatic. H. O. Evans. No. 938,997; Nov. 2; Sp. p. 1185; Gaz. vol. 148; p. 189.
Rheostat. G. H. Dorgeloh. No. 941,441; Nov. 30; Sp. p. 6621; Gaz. vol. 148; p. 1121.
Ribbon-feed mechanism. C. M. Crook. No. 941,130; Nov. 23; Sp. p. 5931; Gaz. vol. 148; p. 998.
Ribbon-reversing mechanism, Automatic ink-. R. E. Benner. No. 941,554; Nov. 30; Sp. p. 6840; Gaz. vol. 148; p. 1158.
Riddle or sieve. F. Martin and M. V. Haskins. No. 940,338; Nov. 16; Sp. p. 4203; Gaz. vol. 148; p. 708.
Rifle practice, Sand-box for. H. P. Maxim. No. 941,642; Nov. 30; Sp. p. 7017; Gaz. vol. 148; p. 1187.
Rim holder, Spare-. B. B. Bradley. No. 941,341; Nov. 23; Sp. p. 6366; Gaz. vol. 148; p. 1065.
Rims, Means for attaching demountable. H. H. Ford. No. 940,243; Nov. 16; Sp. p. 3973; Gaz. vol. 148; p. 676.
Ring: *See* Finger-ring; Packing-ring; Traverse-ring.
Ring-clamp. F. C. Widmann. No. 941,832; Nov. 30; Sp. p. 7460; Gaz. vol. 148; p. 1254.
Rivet. W. P. Bartel. No. 938,812; Nov. 2; Sp. p. 776; Gaz. vol. 148; p. 125.
Rivet. A. L. Eaton. No. 940,442; Nov. 16; Sp. p. 4449; Gaz. vol. 148; p. 744.
Rivet-holder. H. E. Lau. No. 940,467; Nov. 16; Sp. p. 4497; Gaz. vol. 148; p. 752.
Rivet-spinning machine. W. P. Seng. No. 939,558; Nov. 9; Sp. p. 2452; Gaz. vol. 148; p. 406.
Rivet-spinning machine. W. P. Seng. No. 939,559; Nov. 9; Sp. p. 2454; Gaz. vol. 148; p. 407.
Riveting-machine. R. Jay. No. 940,533; Nov. 16; Sp. p. 4634; Gaz. vol. 148; p. 773.
Road and land leveling machine. W. Kaiser. No. 941,929; Nov. 30; Sp. p. 7645; Gaz. vol. 148; p. 1288.
Road and street construction. J. H. Amies. No. 941,548; Nov. 30; Sp. p. 6833; Gaz. vol. 148; p. 1157.
Road construction and repair. S. G. Howe. No. 940,971; Nov. 23; Sp. p. 5578; Gaz. vol. 148; p. 944.
Road-making machine. E. L. Lathrop. No. 940,169; Nov. 16; Sp. p. 3821; Gaz. vol. 148; p. 649.
Roasting and like furnace. U. Wedge. No. 939,880; Nov. 9; Sp. p. 3138; Gaz. vol. 148; p. 518.
Roasting-furnace. U. Wedge. No. 939,881; Nov. 9; Sp. p. 3141; Gaz. vol. 148; p. 518.
Roasting-furnace. A. R. Wiffley. No. 939,936; Nov. 9; Sp. p. 3270; Gaz. vol. 148; p. 540.
Roasting separation process. H. A. Wentworth. No. 938,732; Nov. 2; Sp. p. 609; Gaz. vol. 148; p. 96.
Rock-drill. H. J. Hibschle. No. 941,251; Nov. 23; Sp. p. 6187; Gaz. vol. 148; p. 1038.
Rock-drill, Internal-combustion. L. L. Scott. No. 941,731; Nov. 30; Sp. p. 7223; Gaz. vol. 148; p. 1219.
Rock-drill, Internal-combustion. L. L. Scott. No. 941,732; Nov. 30; Sp. p. 7226; Gaz. vol. 148; p. 1219.
Rock-like substance. A. D. Ney. No. 939,072; Nov. 2; Sp. p. 1326; Gaz. vol. 148; p. 215.
Rocking-chair, Reclining. M. Bruflat. No. 940,233; Nov. 16; Sp. p. 3951; Gaz. vol. 148; p. 672.
Rod: *See* Fishing-rod; Stadia-rod; Telemeter-rod.
Roll-shaping apparatus. W. U. Dennison. No. 939,590; Nov. 9; Sp. p. 2543; Gaz. vol. 148; p. 417.
Roller: *See* Land-roller; Shade-roller.
Roller. A. E. Blight. No. 939,206; Nov. 9; Sp. p. 1628; Gaz. vol. 148; p. 288.
Roller, Road-. M. J. Todd and D. Farquhar. No. 939,877; Nov. 9; Sp. p. 3133; Gaz. vol. 148; p. 517.
Rolling flanged bars. H. Sack. No 939,168; Nov. 2; Sp. p. 1539; Gaz. vol. 148; p. 249.
Rolling flanged bars, Universal rolls for. H. Sack. No. 939,170; Nov. 2; Sp. p. 1544; Gaz. vol. 148; p. 250.
Rolling manganese steel. W. S. Potter. No. 938,893; Nov. 2; Sp. p. 961; Gaz. vol. 148; p. 152.
Rolling-mill. H. Sack. No. 939,169; Nov. 2; Sp. p. 1541; Gaz. vol. 148; p. 249.
Rolling-mill, Universal. H. Sack. No. 939,167; Nov. 2; Sp. p. 1537; Gaz. vol. 148; p. 249.
Rolling-mill, Universal. H. Sack. No. 939,172; Nov. 2; Sp. p. 1546; Gaz. vol. 148; p. 250.
Rolling-mill, Universal. H. Sack. No. 939,173; Nov. 2; Sp. p. 1549; Gaz. vol. 148; p. 251.
Rolling ribbed bars. T. W. Jenks. No. 941,880; Nov. 30; Sp. p. 7552; Gaz. vol. 148; p. 1271.
Rolling structural material, Regulating initial strains in. A. H. Emery. No. 939,676; Nov. 9; Sp. p. 2719; Gaz. vol. 148; p. 449.
Roofing joint, Metal-. L. B. Hunter. No. 938,869; Nov. 2; Sp. p. 915; Gaz. vol. 148; p. 144.
Rope-making machine. H. Personett. No. 939,308; Nov. 9; Sp. p. 1903; Gaz. vol. 148; p. 324.
Rope portières. Laying-table for. W. T. Smith. No. 939,873; Nov. 9; Sp. p. 3127; Gaz. vol. 148; p. 516.
Rosin, Bleaching. L. C. Minor. No. 939,733; Nov. 9; Sp. p. 2840; Gaz. vol. 148; p. 468.
Rotary carrier. F. A. Johnson. No. 939,709; Nov. 9; Sp. p. 2765; Gaz. vol. 148; p. 456.
Rotary combustion-engine. F. Fleming. No. 941,567; Nov. 30; Sp. p. 6868; Gaz. vol. 148; p. 1163.
Rotary engine. R. F. Schmidt. No. 938,714; Nov. 2; Sp. p. 577; Gaz. vol. 148; p. 90.
Rotary engine. J. A. Mack. No. 939,609; Nov. 9; Sp. p. 2580; Gaz. vol. 148; p. 424.
Rotary engine. J. Marks. No. 939,729; Nov. 9; Sp. p. 2824; Gaz. vol. 148; p. 467.
Rotary engine. G. Schulz. No. 939,751; Nov. 9; Sp. p. 2877; Gaz. vol. 148; p. 474.
Rotary engine. J. A. Quill. No. 939,861; Nov. 9; Sp. p. 3101; Gaz. vol. 148; p. 512.
Rotary engine. J. C. Hagerty. No. 940,246; Nov. 16; Sp. p. 3979; Gaz. vol. 148; p. 677.
Rotary motor. E. E. Hauer. No. 940,150; Nov. 16; Sp. p. 3771; Gaz. vol. 148; p. 643.
Roundabout, Vertical. W. A. Sullivan. No. 941,209; Nov. 23; Sp. p. 6108; Gaz. vol. 148; p. 1025.
Rubber soles to boots and shoes. Apparatus for applying. E. A. Saunders. No. 939,330; Nov. 9; Sp. p. 1937; Gaz. vol. 148; p. 331.
Rule. P. F. Burns. No. 941,492; Nov. 30; Sp. p. 6722; Gaz. vol. 148; p. 1139.
Rule. G. A. Mongelli. No. 941,936; Nov. 30; Sp. p. 7660; Gaz. vol. 148; p. 1290.
Ruler for drawing curves, Flexible. C. and O. Bartels. No. 940,118; Nov. 16; Sp. p. 3711; Gaz. vol. 148; p. 632.
Sack-holder. J. E. Hull. No. 939,508; Nov. 9; Sp. p. 2348; Gaz. vol. 148; p. 389.
Sad-iron. M. J. Haber. No. 938,762; Nov. 2; Sp. p. 670; Gaz. vol. 148; p. 107.
Sad-iron. C. W. Wodzinski. No. 942,026; Nov. 30; Sp. p. 7826; Gaz. vol. 148; p. 1318.
Sad-iron, Electrical. W. A. Braun. No. 941,342; Nov. 23; Sp. p. 6367; Gaz. vol. 148; p. 1065.
Safe-door cam. C. Bartels. No. 938,545; Nov. 2; Sp. p. 239; Gaz. vol. 148; p. 35.
Safe, Revolving. J. S. McCormick. No. 941,940; Nov. 30; Sp. p. 7667; Gaz. vol. 148; p. 1291.
Safe, Wall-. W. H. Reynolds. No. 939,322; Nov. 9; Sp. p. 1925; Gaz. vol. 148; p. 329.
Safe or vault. W. G. Norris. No. 940,268; Nov. 16; Sp. p. 4020; Gaz. vol. 148; p. 685.
Sage-brush and weed cutter. H. E. Gale and E. E. Krengel. No. 939,595; Nov. 9; Sp. p. 2554; Gaz. vol. 148; p. 419.
Saggar. W. E. Rivers. No. 941,044; Nov. 23; Sp. p. 5740; Gaz. vol. 148; p. 969.
Salve and ointment, Non-odorous phenol. N. Silsberger. No. 938,614; Nov. 2; Sp. p. 391; Gaz. vol. 148; p. 58.
Sand-mold flask. J. D. Millar. No. 939,848; Nov. 9; Sp. p. 3074; Gaz. vol. 148; p. 507.
Sand-ramming machine. H. P. Macdonald. No. 941,023; Nov. 23; Sp. p. 5699; Gaz. vol. 148; p. 962.
Sand-reel. L. C. Sands. No. 938,609; Nov. 2; Sp. p. 377; Gaz. vol. 148; p. 56.
Sanding, abrading, or polishing machine. F. Schimmel. No. 941,957; Nov. 30; Sp. p. 7698; Gaz. vol. 148; p. 1297.
Sash-bar construction for skylights in greenhouses. J. F. M. Farquhar. No. 939,592; Nov. 9; Sp. p. 2547; Gaz. vol. 148; p. 418.
Sash-fastener. C. A. Hunt. No. 938,584; Nov. 2; Sp. p. 331; Gaz. vol. 148; p. 49.
Sash-holder. J. N. Hilton. No. 939,500; Nov. 9; Sp. p. 2332; Gaz. vol. 148; p. 387.
Sash holder and lock. T. Kephart. No. 939,709; Nov. 9; Sp. p. 2781; Gaz. vol. 148; p. 459.
Sash-lock. J. C. Deggim. No. 939,480; Nov. 9; Sp. p. 2300; Gaz. vol. 148; p. 381.
Sash-lock. H. Noble. No. 939,854; Nov. 9; Sp. p. 3086; Gaz. vol. 148; p. 510.
Sash-lock. O. Pearson and C. E. Lindquist. No. 941,038; Nov. 23; Sp. p. 5730; Gaz. vol. 148; p. 967.
Sash-lock. G. M. Blandford. No. 941,059; Nov. 23; Sp. p. 5770; Gaz. vol. 148; p. 974.
Sash, Metal. H. H. Forsyth. No. 939,607; Nov. 9; Sp. p. 2146; Gaz. vol. 148; p. 356.
Sash, Metal window-. F. E. Duering. No. 941,629; Nov. 30; Sp. p. 6996; Gaz. vol. 148; p. 1183.
Sash-operating mechanism. S. E. Cibulas. No. 941,343; Nov. 23; Sp. p. 6368; Gaz. vol. 148; p. 1066.

Saw. R. Hoe, Jr. No. 941,455; Nov. 30; Sp. p. 6647; Gaz. vol. 148; p. 1126.
Saw. A. P. Fridstrom. No. 941,705; Nov. 30; Sp. p. 7168; Gaz. vol. 148; p. 1209.
Saw and like machines, Feed device for. H. J. Hick. No. 940,016; Nov. 16; Sp. p. 3445; Gaz. vol. 148; p. 595.
Saw attachment. J. I. Matthews. No. 939,051; Nov. 2; Sp. p. 1288; Gaz. vol. 148; p. 207.
Saw-carriage. P. J. Murphy. No. 940,470; Nov. 16; Sp. p. 4502; Gaz. vol. 148; p. 753.
Saw, Drag-. F. Hornquist. No. 940,876; Nov. 23; Sp. p. 5384; Gaz. vol. 148; p. 912.
Saw-filing clamp. G. McKenzie. No. 940,045; Nov. 16; Sp. p. 3538; Gaz. vol. 148; p. 605.
Saw-handle, Adjustable and detachable. R. E. Martin. No. 938,680; Nov. 2; Sp. p. 522; Gaz. vol. 148; p. 80.
Saw-hanger. L. D. Reece. No. 940,728; Nov. 23; Sp. p. 5068; Gaz. vol. 148; p. 865.
Saw-jointer. J. Bohyer. No. 938,957; Nov. 2; Sp. p. 1107; Gaz. vol. 148; p. 176.
Saw jointer and gage. C. C. Du Bose. No. 941,981; Nov. 30; Sp. p. 7744; Gaz. vol. 148; p. 1304.
Saw resawing-machine, Band-. C. E. Cleveland. No. 941,758; Nov. 30; Sp. p. 7284; Gaz. vol. 148; p. 1227.
Saw-swage. R. S. Jackson. No. 940,024; Nov. 16; Sp. p. 3460; Gaz. vol. 148; p. 598.
Saw swaging and shaping device. T. W. Cross. No. 941,131; Nov. 23; Sp. p. 5934; Gaz. vol. 148; p. 998.
Saw-tooth. J. W. Dunn and H. J. Randall. No. 940,518; Nov. 16; Sp. p. 4611; Gaz. vol. 148; p. 769.
Saws, Straight-edge for circular. B. Lafleur. No. 940,032; Nov. 16; Sp. p. 3477; Gaz. vol. 148; p. 601.
Sawing-machine. A. Fisher. No. 939,488; Nov. 9; Sp. p. 2313; Gaz. vol. 148; p. 383.
Sawing-machine. F. N. Trevor. No. 939,760; Nov. 9; Sp. p. 2910; Gaz. vol. 148; p. 478.
Sawmill-carriage-operating mechanism. C. A. Jones. No. 939,264; Nov. 9; Sp. p. 1767; Gaz. vol. 148; p. 307.
Scaffold-bracket. A. W. Guthat. No. 940,459; Nov. 16; Sp. p. 4483; Gaz. vol. 148; p. 749.
Scaffolding. G. E. Humphries. (Reissue.) No. 13,036; Nov. 9; Sp. p. 3322; Gaz. vol. 148; p. 548.
Scaffolding. G. E. Humphries. (Reissue.) No. 13,037; Nov. 9; Sp. p. 3325; Gaz. vol. 148; p. 549.
Scale. F. H. Buckingham. No. 939,213; Nov. 9; Sp. p. 1642; Gaz. vol. 148; p. 290.
Scale. S. C. Cooper. No. 939,809; Nov. 9; Sp. p. 3005; Gaz. vol. 148; p. 495.
Scale. J. L. Pipe. No. 939,857; Nov. 9; Sp. p. 3091; Gaz. vol. 148; p. 511.
Scale. W. F. Stimpson. No. 939,875; Nov. 9; Sp. p. 3130; Gaz. vol. 148; p. 516.
Scale. C. M. Sturgis. No. 941,208; Nov. 23; Sp. p. 6106; Gaz. vol. 148; p. 1024.
Scale. W. F. Stimpson. No. 941,590; Nov. 30; Sp. p. 6913; Gaz. vol. 148; p. 1170.
Scale, Automatic weighing-. M. E. Reisert. No. 941,588; Nov. 30; Sp. p. 6909; Gaz. vol. 148; p. 1169.
Scale extension. D. N. Collins. No. 940,130; Nov. 16; Sp. p. 3735; Gaz. vol. 148; p. 636.
Scale, Platform-. M. H. Winslow. No. 941,119; Nov. 23; Sp. p. 5890; Gaz. vol. 148; p. 994.
Scale, Weighing-. A. H. Neureuther. No. 941,725; Nov. 30; Sp. p. 7211; Gaz. vol. 148; p. 1216.
Scales, Automatic cut-off for weigh-. R. W. Romig. No. 940,616; Nov. 16; Sp. p. 4804; Gaz. vol. 148; p. 801.
Scales, Friction and inertia counteracting device for. E. H. Strauss. No. 939,347; Nov. 9; Sp. p. 1981; Gaz. vol. 148; p. 337.
Scarf-pin. E. Wagner. No. 940,094; Nov. 16; Sp. p. 3652; Gaz. vol. 148; p. 623.
Scorer, Pork or like. H. Matthews. No. 939,846; Nov. 9; Sp. p. 3070; Gaz. vol. 148; p. 507.
Scraper. F. J. Dumond and D. W. Hall. No. 939,404; Nov. 9; Sp. p. 2141; Gaz. vol. 148; p. 355.
Scraper. H. Bingaman and J. A. Miller. No. 940,666; Nov. 23; Sp. p. 4929; Gaz. vol. 148; p. 843.
Scraper, Hog-. J. F. Lawson. No. 938,594; Nov. 2; Sp. p. 345; Gaz. vol. 148; p. 52.
Scraper, Road-. C. H. Casner. No. 939,664; Nov. 9; Sp. p. 2700; Gaz. vol. 148; p. 445.
Scraper, Road-. C. H. Casner. No. 939,665; Nov. 9; Sp. p. 2701; Gaz. vol. 148; p. 446.
Screen: *See* Car wind-screen; Fly-screen; Shaker-screen; Window-screen.
Screen-holding device, Wire-. W. A. Smitson and A. German. No. 941,282; Nov. 23; Sp. p. 6266; Gaz. vol. 148; p. 1048.
Screw-jack. C. V. Fowler. No. 938,840; Nov. 2; Sp. p. 836; Gaz. vol. 148; p. 134.
Screw-machine, Automatic. H. B. Lester. No. 939,604; Nov. 9; Sp. p. 2568; Gaz. vol. 148; p. 422.
Screw-threading implement. G. F. Chapman. No. 938,973; Nov. 2; Sp. p. 1130; Gaz. vol. 148; p. 181.
Seal. W. Collins. No. 938,979; Nov. 2; Sp. p. 1148; Gaz. vol. 148; p. 183.
Seal, Box-. J. J. Ferrall and E. Mackay. No. 940,242; Nov. 16; Sp. p. 3972; Gaz. vol. 148; p. 676.
Seal, Box-. E. J. Brooks. No. 940,505; Nov. 16; Sp. p. 4582; Gaz. vol. 148; p. 765.
Seal-lock. W. K. Blodgett. No. 938,813; Nov. 2; Sp. p. 778; Gaz. vol. 148; p. 125.
Seal-lock. E. L. Pitts. No. 940,475; Nov. 16; Sp. p. 4512; Gaz. vol. 148; p. 754.
Seals on papers, Device for impressing. F. Gottschalk. No. 938,756; Nov. 2, Sp. p. 662; Gaz. vol. 148; p. 105.
Seals on papers, Device for impressing. F. Gottschalk. No. 938,757; Nov. 2; Sp. p. 663; Gaz. vol. 148; p. 105.
Sealing apparatus. J. C. Thom. No. 939,453; Nov. 9; Sp. p. 2237; Gaz. vol. 148; p. 372.
Sealing machine for containers, Vacuum-. J. Brenzinger. No. 940,123; Nov. 16; Sp. p. 3720; Gaz. vol. 148; p. 634.
Seaming machine, Tinner's double-. H. Poell. No. 939,063; Nov. 2; Sp. p. 1346; Gaz. vol. 148; p. 219.
Search-lights and the like, Remote electric-control system for. A. Le Blanc. No. 939,719; Nov. 9; Sp. p. 2799; Gaz. vol. 148; p. 463.
Seat: *See* Bath-tub seat; Car-seat; Chair-seat; Folding seat; Rail-curve seat; Vehicle-seat.
Seat-frame. E. G. Budd and J. A. Wollé. No. 939,389; Nov. 9; Sp. p. 2100; Gaz. vol. 148; p. 351.
Secondary battery. W. Morrison. No. 940,043; Nov. 16; Sp. p. 3535; Gaz. vol. 148; p. 605.
Section-liner. E. B. Kerst. No. 938,769; Nov. 2; Sp. p. 683; Gaz. vol. 148; p. 109.
Seed-germinating tester. W. E. Lacy. No. 940,167; Nov. 16; Sp. p. 3818; Gaz. vol. 148; p. 648.
Seeder. G. A. Knoblock. No. 938,492; Nov. 2; Sp. p. 103; Gaz. vol. 148; p. 16.
Seeder, Sugar-beet. G. M. Roos. No. 939,635; Nov. 9; Sp. p. 2632; Gaz. vol. 148; p. 434.
Seeding device. J. Pricer and T. J. Bartow. No. 939,087; Nov. 2; Sp. p. 1354; Gaz. vol. 148; p. 220.
Seeding-machine. H. Arnold. No. 939,964; Nov. 16; Sp. p. 3334; Gaz. vol. 148; p. 577.
Seeding machine, Raisin-. W. H. Knapp. No. 940,327; Nov. 16; Sp. p. 4176; Gaz. vol. 148; p. 704.
Self-cleaning rake. F. W. Wieman. No. 941,292; Nov. 23; Sp. p. 6287; Gaz. vol. 148; p. 1052.
Self-sealing can. J. F. Ross. No. 941,729; Nov. 30; Sp. p. 7219; Gaz. vol. 148; p. 1218.
Semiplastic substances, Instrument for handling. J. Holtzmann. No. 939,693; Nov. 9; Sp. p. 2753; Gaz. vol. 148; p. 454.
Separator: *See* Bean-separator; Cotton-separator; Cream-separator; Egg-separator; Electric separator; Grain-separator; Hydraulic separator; Magnetic separator; Ore-separator; Pneumatic separator.
Separator. E. H. Frickey. No. 938,657; Nov. 2; Sp. p. 474; Gaz. vol. 148; p. 72.
Separator. J. M. Seaver. No. 940,076; Nov. 16; Sp. p. 3617; Gaz. vol. 148; p. 617.
Separator. J. M. Stone. No. 940,212; Nov. 16; Sp. p. 3917; Gaz. vol. 148; p. 665.
Sewer-traps, Testing-plug for. J. F. Christy. No. 939,804; Nov. 9; Sp. p. 2994; Gaz. vol. 148; p. 493.
Sewing and embroidering machine. R. Cornely. No. 940,788; Nov. 23; Sp. p. 5213; Gaz. vol. 148; p. 885.
Sewing-machine. T. G. Plant. No. 940,053; Nov. 16; Sp. p. 3557; Gaz. vol. 148; p. 609.
Sewing-machine. T. G. Plant. No. 940,724; Nov. 23; Sp. p. 5054; Gaz. vol. 148; p. 863.
Sewing-machine channel-moistening device. W. H. Hooper. No. 940,691; Nov. 23; Sp. p. 4987; Gaz. vol. 148; p. 851.
Sewing-machine channeling device. T. G. Plant. No. 940,723; Nov. 23; Sp. p. 5052; Gaz. vol. 148; p. 863.
Sewing-machine embroidering attachment. D. C. Lee. No. 939,603; Nov. 9; Sp. p. 2566; Gaz. vol. 148; p. 421.
Sewing-machine, Lock-stitch. F. W. Merrick. No. 939,152; Nov. 2; Sp. p. 1501; Gaz. vol. 148; p. 243.
Sewing-machine, Lock-stitch. T. G. Plant. No. 940,726; Nov. 23; Sp. p. 5064; Gaz. vol. 148; p. 864.
Sewing-machine, Overseaming. E. Prazsk. No. 939,548; Nov. 9; Sp. p. 2430; Gaz. vol. 148; p. 403.
Sewing-machine power-transmitter. A. B. Cohn. No. 941,857; Nov. 30; Sp. p. 7509; Gaz. vol. 148; p. 1262.
Sewing machine, Shoe-. T. G. Plant. No. 940,725; Nov. 23; Sp. p. 5059; Gaz. vol. 148; p. 864.
Sewing machine, Sole-. T. G. Plant. No. 940,054; Nov. 16; Sp. p. 3560; Gaz. vol. 148; p. 609.
Sewing machine, Sole-. T. G. Plant. No. 940,055; Nov. 16; Sp. p. 3566; Gaz. vol. 148; p. 610.
Sewing machine, Sole-. L. Goddu. No. 940,637; Nov. 16; Sp. p. 4852; Gaz. vol. 148; p. 808.
Sewing-machine work-holder. A. H. De Voe. No. 939,894; Nov. 9; Sp. p. 3171; Gaz. vol. 148; p. 523.
Sewing shank-eyed buttons, Machine for. J. Perley. No. 939,161; Nov. 2; Sp. p. 1527; Gaz. vol. 148; p. 247.
Shade-adjusting device, Window-. A. R. Barnett and E. PicKel. No. 940,226; Nov. 16; Sp. p. 3942; Gaz. vol. 148; p. 670.
Shade and lace-curtain support, Window-. H. F. Cook. No. 939,808; Nov. 9; Sp. p. 3004; Gaz. vol. 148; p. 494.
Shade-hanger, Adjustable. W. B. Caswell. No. 940,380; Nov. 16; Sp. p. 4320; Gaz. vol. 148; p. 723.
Shade hanger Window-. B. F. Gindlesperger. No. 941,987; Nov. 30; Sp. p. 7754; Gaz. vol. 148; p. 1306.
Shade-roller and curtain-bracket, Combined. C. Wright. No. 938,934; Nov. 2; Sp. p. 1063; Gaz. vol. 148; p. 168.
Shade-roller bracket or support, Curtain-. J. M. and H. H. Bryant. No. 940,507; Nov. 16; Sp. p. 4588; Gaz. vol. 148; p. 765.
Shade-roller bracket, Window-. V. T. Crawford. No. 938,642; Nov. 2; Sp. p. 436; Gaz. vol. 148; p. 67.
Shade-roller fixture. N. Fleischaker. No. 939,994; Nov. 16; Sp. p. 3408; Gaz. vol. 148; p. 587.
Shaft. G. R. Moore. No. 941,087; Nov. 23; Sp. p. 5828; Gaz. vol. 148; p. 984.
Shaft-coupling. L. A. Westman. No. 938,531; Nov. 2; Sp. p. 209; Gaz. vol. 148; p. 29.
Shaft-coupling. F. B. Richardson. No. 939,744; Nov. 9; Sp. p. 2861; Gaz. vol. 148; p. 472.
Shaft-detaching device. M. P. Powell, Jr. No. 938,890; Nov. 2; Sp. p. 953; Gaz. vol. 148; p. 152.
Shaft support, Buggy-. J. D. McCabe. No. 939,852; Nov. 9; Sp. p. 3082; Gaz. vol. 148; p. 509.
Shaker-screen, Vibrating. L. C. Dibert. No. 941,862; Nov. 30; Sp. p. 7518; Gaz. vol. 148; p. 1264.

Sharpener, Dental-instrument. C. Wiethoff. No. 939,365; Nov. 9; Sp. p. 2028; Gaz. vol. 148; p. 342.
Sharpener, Disk-. F. H. Klenke. No. 939,713; Nov. 9; Sp. p. 2787; Gaz. vol. 148; p. 460.
Sharpener, Lawn-mower-cutter. V. Willimack. No. 939,885; Nov. 9; Sp. p. 3152; Gaz. vol. 148; p. 520.
Sharpener, Scraper-. J. B. Ackermann. No. 940,773; Nov. 23; Sp. p. 5181; Gaz. vol. 148; p. 880.
Sharpening and honing device, Razor. T. Doswald. No. 939,402; Nov. 9; Sp. p. 2138; Gaz. vol. 148; p. 355.
Sharpening device, Blade-. W. D. Chapin. No. 939,215; Nov. 9; Sp. p. 1650; Gaz. vol. 148; p. 291.
Sharpening device, Razor-. A. D. Benson and J. F. Harris. No. 940,298; Nov. 16; Sp. p. 4108; Gaz. vol. 148; p. 694.
Sharpening device, Razor-. W. H. Dunn. No. 941,564; Nov. 30; Sp. p. 6862; Gaz. vol. 148; p. 1163.
Sharpening lawn-mowers, skates, &c., Machine for. J. L. Kyle. No. 938,494; Nov. 2; Sp. p. 105; Gaz. vol. 148; p. 16.
Sharpening machine, Coal-puncher-. J. B. and W. W. Word. No. 941,484; Nov. 30; Sp. p. 6709; Gaz. vol. 148; p. 1136.
Sharpening razors and razor-blades, Device for. F. Myers. No. 941,529; Nov. 30; Sp. p. 6796; Gaz. vol. 148; p. 1151.
Shaving-mug. A. Toffler. No. 940,409; Nov. 16; Sp. p. 4381; Gaz. vol. 148; p. 733.
Shaving mug and brush easing. O. Liles. No. 940,883; Nov. 23; Sp. p. 5401; Gaz. vol. 148; p. 915.
Shears: *See* Metal-shears; Pruning-shears.
Shears. A. J. Baur. No. 938,639; Nov. 2; Sp. p. 416; Gaz. vol. 148; p. 63.
Shears. J. R. Searight. No. 942,043; Nov. 30; Sp. p. 7860; Gaz. vol. 148 p. 1324.
Sheet-feeding apparatus. A. S. Allen. No. 939,182; Nov. 2; Sp. p. 1567; Gaz. vol. 148; p. 254.
Sheet-feeding machine. B. R. Stickney. No. 939,177; Nov. 2; Sp. p. 1555; Gaz. vol. 148; p. 252.
Sheet-metal bodies, Apparatus for forming hollow. B. Adriance and A. Calleson. No. 940,914; Nov. 23; Sp. p. 5460; Gaz. vol. 148; p. 925.
Sheet-metal bodies, Forming. I. N. Jones. No. 939,702; Nov. 9; Sp. p. 2770; Gaz. vol. 148; p. 457.
Sheet-metal supporting-arm. B. W. Sweet. No. 941,591; Nov. 30; Sp. p. 6916; Gaz. vol. 148; p. 1170.
Sheet-metal-working press. E. Norton and L. C. Krummel. No. 941,806; Nov. 30; Sp. p. 7360; Gaz. vol. 148; p. 1244.
Sheets, Guide mechanism for traveling. L. B. Doman. No. 939,897; Nov. 9; Sp. p. 3178; Gaz. vol. 148; p. 525.
Shelf, Hanging. J. E. Lee. No. 938,596; Nov. 2; Sp. p. 353; Gaz. vol. 148; p. 53.
Shelf-feeding machine. H. A. Stillwell No. 941,823; Nov. 30; Sp. p. 7434; Gaz. vol. 148; p. 1250.
Shelving. G. Holden. No. 940,017; Nov. 16; Sp. p. 3448; Gaz. vol. 148; p. 595.
Shingle-bracket. J. B. Demary. No. 940,957; Nov. 23; Sp. p. 5554; Gaz. vol. 148; p. 940.
Ship. H. C. Davis. No. 938,645; Nov. 2; Sp. p. 439; Gaz. vol. 148; p. 68.
Ship-cleaner. H. Schwartz. No. 938,794; Nov. 2; Sp. p. 734; Gaz. vol. 148; p. 119.
Shipping-bill register. T. F. Schirmer. No. 940,481; Nov. 16; Sp. p. 4522; Gaz. vol. 148; p. 757.
Shipping-box. M. B. Claff. No. 941,438; Nov. 30; Sp. p. 6610; Gaz. vol. 148; p. 1120.
Shipping case or box, Knockdown. W. H. Doble. No. 941,014; Nov. 23; Sp. p. 5679; Gaz. vol. 148; p. 959.
Shipping-cylinder cap. C. Schraudenbach. No. 938,793; Nov. 2; Sp. p. 733; Gaz. vol. 148; p. 118.
Shipping-package. F. F. East. No. 939,232; Nov. 9; Sp. p. 1706; Gaz. vol. 148; p. 297.
Ships' helms, Mechanism for indicating and recording the movements of. F. M. Russell and A. J. Jung. No. 941,955; Nov. 30; Sp. p. 7692; Gaz. vol. 148; p. 1296.
Shock-absorber. H. C. Turner. No. 941,594; Nov. 30; Sp. p. 6920; Gaz. vol. 148; p. 1171.
Shock-absorbing pad. L. R. Nodine. No. 938,504; Nov. 2; Sp. p. 124; Gaz. vol. 148; p. 20.
Shock-loader. J. B. Schuman. No. 938,611; Nov. 2; Sp. p. 381; Gaz. vol. 148; p. 57.
Shock-loader. J. B. Schuman. No. 939,335; Nov. 9; Sp. p. 1948; Gaz. vol. 148; p. 333.
Shoe. F. A. Critz, Jr. No. 940,856; Nov. 23; Sp. p. 5348; Gaz. vol. 148; p. 907.
Shoe-polishing machine. F. Humphreville. No. 941,345; Nov. 23; Sp. p. 6372; Gaz. vol. 148; p. 1066.
Shoe-rack. S. Hermann. No. 940,812; Nov. 23; Sp. p. 5257; Gaz. vol. 148; p. 892.
Shoe, Sewed. G. L. Pierce. No. 939,624; Nov. 9; Sp. p. 2608; Gaz. vol. 148; p. 429.
Shoe-shank randing and cutting-in machine. C. S. Gooding and S. E. Taft. No. 939,007; Nov. 2; Sp. p. 1199; Gaz. vol. 148; p. 192.
Shoe, Sporting-. D. J. Golden. No. 938,843; Nov. 2; Sp. p. 841; Gaz. vol. 148; p. 135.
Shoe-stretcher. J. Umdenstock. No. 940,092; Nov. 16; Sp. p. 3647; Gaz. vol. 148; p. 622.
Shoe-tree. A. H. Taft. No. 938,615; Nov. 2; Sp. p. 392; Gaz. vol. 148; p. 59.
Shoe-tree. T. G. Redington. No. 941,947; Nov. 30; Sp. p. 7679; Gaz. vol. 148; p. 1293.
Shoe tree or form. W. H. Baynard. No. 941,353; Nov. 30; Sp. p. 6411; Gaz. vol. 148; p. 1093.
Shoes, Machine for pressing and shaping the backs of. C. S. Smith and D. H. Hadsell. No. 939,105; Nov. 2; Sp. p. 1387; Gaz. vol. 148; p. 226.
Shoulder-brace. J. U. Adams. No. 940,775; Nov. 23; Sp. p. 5183; Gaz. vol. 148; p. 880.
Shovel: *See* Snow-shovel.
Shovel and hoe, Combined. D. B. Hartwell. No. 939,019; Nov. 2; Sp. p. 1227; Gaz. vol. 148; p. 196.
Shoveling-machine. W. Whaley. No. 940,997; Nov. 23; Sp. p. 5622; Gaz. vol. 148; p. 953.
Shoveling-machine. W. Whaley. No. 940,998; Nov. 23; Sp. p. 5632; Gaz. vol. 148; p. 953.
Shoveling-machine. W. Whaley. No. 940,999; Nov. 23; Sp. p. 5635; Gaz. vol. 148; p. 953.
Show-case. A. Johnson. No. 940,251; Nov. 16; Sp. p. 3988; Gaz. vol. 148; p. 679.
Show-case. J. F. Bierend. No. 940,299; Nov. 16; Sp. p. 4109; Gaz. vol. 148; p. 695.
Shredding-machine. M. F. Williams and E. H. Frickey. No. 938,734; Nov. 2; Sp. p. 612; Gaz. vol. 148; p. 96.
Shut-off, Automatic. J. F. Parker. No. 940,050; Nov. 16; Sp. p. 3550; Gaz. vol. 148; p. 607.
Shutter fastener or bower. G. Erwin. No. 938,748; Nov. 2; Sp. p. 642; Gaz. vol. 148; p. 102.
Shutter-operator. A. Weber. No. 941,899; Nov. 30; Sp. p. 7592; Gaz. vol. 148; p. 1278.
Shutter-releasing device. H. A. Tierney. No. 941,592; Nov. 30; Sp. p. 6917; Gaz. vol. 148; p. 1171.
Shutters and elevators, &c., Electrical controlling system for rolling or sliding. L. G. Wilson. No. 939,650; Nov. 9; Sp. p. 2459; Gaz. vol. 148; p. 440.
Shuttle. L. Pavia. No. 940,271; Nov. 16; Sp. p. 4023; Gaz. vol. 148; p. 685.
Siding. I. S. Conover. No. 941,358; Nov. 30; Sp. p. 6422; Gaz. vol. 148; p. 1094.
Sifter, Ash-. J. S. Brown. No. 941,613; Nov. 30; Sp. p. 6963; Gaz. vol. 148; p. 1178.
Sign. R. C. Lafferty. No. 940,536; Nov. 16; Sp. p. 4644; Gaz. vol. 148; p. 774.
Sign. R. J. Lackner. No. 940,697; Nov. 23; Sp. p. 5000; Gaz. vol. 148; p. 853.
Sign, Advertising-. A. Russell. No. 938,710; Nov. 2; Sp. p. 570; Gaz. vol. 148; p. 89.
Sign apparatus, Repeating mechanical. F. A. Rudolph. No. 959,550; Nov. 9; Sp. p. 2435; Gaz. vol. 148; p. 404.
Sign for advertising purposes, &c., Changeable. C. D. Chadbourne and W. R. Simpson. No. 941,695; Nov. 30; Sp. p. 7141; Gaz. vol. 148; p. 1205.
Sign, Illuminated. F. Ward. No. 940,847; Nov. 23; Sp. p. 5331; Gaz. vol. 148; p. 904.
Sign, Rotatable. D. I. Whiteside. No. 939,768; Nov. 9; Sp. p. 2924; Gaz. vol. 148; p. 480.
Signal: *See* Boiler low-water signal; Railway-signal.
Signal. L. A. Hawkins. No. 941,144; Nov. 23; Sp. p. 5961; Gaz. vol. 148; p. 1003.
Signal and air-brake, Combined. A. M. Jones. No. 941,259; Nov. 23; Sp. p. 6200; Gaz. vol. 148; p. 1041.
Signal apparatus, Visual-. R. Einbigler. No. 940,444; Nov. 16; Sp. p. 4453; Gaz. vol. 148; p. 744.
Signal transmitting and receiving apparatus, Electrical. A. T. Dawson and G. T. Buckham. No. 938,830; Nov. 2; Sp. p. 819; Gaz. vol. 148; p. 131.
Silicon carbid, Producing. F. J. Tone. No. 941,339; Nov. 23; Sp. p. 6363; Gaz. vol. 148; p. 1064.
Silo. F. J. Van Cott. No. 939,355; Nov. 9; Sp. p. 2011; Gaz. vol. 148; p. 339.
Silo. C. Gminer. No. 939,826; Nov. 9; Sp. p. 3034; Gaz. vol. 148; p. 500.
Silo. B. F. Lockwood. No. 940,170; Nov. 16; Sp. p. 3824; Gaz. vol. 148; p. 649.
Silo-doors, Interlocking lever for. W. A. Holmagel. No. 941,679; Nov. 30; Sp. p. 7098; Gaz. vol. 148; p. 1200.
Silver, Assaying for. J. C. Haines. No. 939,413; Nov. 9; Sp. p. 2158; Gaz. vol. 148; p. 358.
Sinew-extractor. G. A. Congdon. No. 941,759; Nov. 30; Sp. p. 7291; Gaz. vol. 148; p. 1228.
Sink, Kitchen-. W. J. Reed. No. 938,607; Nov. 2; Sp. p. 375; Gaz. vol. 148; p. 56.
Sinks, Adjustable support for. F. J. Raehn. No. 939,741; Nov. 9; Sp. p. 2858; Gaz. vol. 148; p. 471.
Siphon, Beverage-. H. J. Schmitt. No. 938,517; Nov. 2; Sp. p. 173; Gaz. vol. 148; p. 24.
Sizing composition. W. Hoskins. No. 940,317; Nov. 16; Sp. p. 4156; Gaz. vol. 148; p. 701.
Skate brake, Roller-. S. J. Nesbitt, Sr. No. 939,536; Nov. 9; Sp. p. 2406; Gaz. vol. 148; p. 399.
Skate, Ice-. R. Yates. No. 940,108; Nov. 16; Sp. p. 3690; Gaz. vol. 148; p. 629.
Skate, Roller-. T. Spacie. No. 939,451; Nov. 9; Sp. p. 2232; Gaz. vol. 148; p. 371.
Skinning and cutting tool. C. E. Walther and H. M. Ashton. No. 941,829; Nov. 30; Sp. p. 7450; Gaz. vol. 148; p. 1252.
Skins and the like, Machine for the treatment of. F. A. Geipel. No. 941,317; Nov. 23; Sp. p. 6330; Gaz. vol. 148; p. 1058.
Skirt-gage. D. A. Reynolds. No. 940,615; Nov. 16; Sp. p. 4803; Gaz. vol. 148; p. 800.
Skirt-marker. F. C. Luethy. No. 938,677; Nov. 2; Sp. p. 517; Gaz. vol. 148; p. 79.
Sled. J. Z. Ducharme. No. 939,231; Nov. 9; Sp. p. 1704; Gaz. vol. 148; p. 295.
Sled, Depressible-runner dirigible. M. Walker. No. 940,221; Nov. 16; Sp. p. 3935; Gaz. vol. 148; p. 669.
Sleigh attachment. S. L. Charles. No. 939,666; Nov. 9; Sp. p. 2703; Gaz. vol. 148; p. 446.
Sleigh, Self-propelled. J. H. Hayes. No. 939,194; Nov. 2; Sp. p. 1593; Gaz. vol. 148; p. 258.

Slicer, Vegetable-. G. L. Reenstierna. No. 940,063; Nov. 16; Sp. p. 3585; Gaz. vol. 148; p. 612.
Slicer, Vegetable-. G. L. Reenstierna. No. 940,064; Nov. 16; Sp. p. 3586; Gaz. vol. 148; p. 613.
Slicer, Vegetable-. V. Johnson. No. 940,252; Nov. 16; Sp. p. 3991; Gaz. vol. 148; p. 679.
Slicing-machine. S. L. Garner. No. 940,867; Nov. 23; Sp. p. 5370; Gaz. vol. 148; p. 910.
Slicing machine, Meat-. I. Heller. No. 939,417; Nov. 9; Sp. p. 2164; Gaz. vol. 148; p. 359.
Sliding gate. F. H. Doering. No. 940,134; Nov. 16; Sp. p. 3741; Gaz. vol. 148; p. 638.
Sliding gate. F. H. Doering. No. 941,028; Nov. 30; Sp. p. 6995; Gaz. vol. 148; p. 1183.
Slip-indicator. G. A. Johnstone. No. 941,418; Nov. 30; Sp. p. 6576; Gaz. vol. 148; p. 1115.
Small-arm. J. Tambour. No. 939,112; Nov. 2; Sp. p. 1407; Gaz. vol. 148; p. 229.
Smoke-preventive apparatus. I. M. Sullivan. No. 941,547; Nov. 30; Sp. p. 6831; Gaz. vol. 148; p. 1157.
Snap. J. A. Stubblefield. No. 940,213; Nov. 16; Sp. p. 3918; Gaz. vol. 148; p. 666.
Snap-hook. P. T. Morrow. No. 939,531; Nov. 9; Sp. p. 2396; Gaz. vol. 148; p. 398.
Snap-hook. M. Makl. No. 939,727; Nov. 9; Sp. p. 2822; Gaz. vol. 148; p. 466.
Snap-hook, Swivel. W. A. Schleicher. No. 940,738; Nov. 23; Sp. p. 5090; Gaz. vol. 148; p. 868.
Snap-switch, Two-pole. L. Kellner. No. 939,599; Nov. 9; Sp. p. 2560; Gaz. vol. 148; p. 420.
Snow from streets and sidewalks, Machine for melting. H. E. Willsie. No. 939,401; Nov. 9; Sp. p. 2253; Gaz. vol. 148; p. 374.
Snow-guard for roofs. J. M. Laird. No. 939,516; Nov. 9; Sp. p. 2366; Gaz. vol. 148; p. 392.
Snow-shovel. G. C. Port. No. 941,271; Nov. 23; Sp. p. 6243; Gaz. vol. 148; p. 1045.
Soap for washing, cleaning, and bleaching purposes, Substitute for. P. Mausolff. No. 941,158; Nov. 23; Sp. p. 5988; Gaz. vol. 148; p. 1007.
Soap-making apparatus. W. A. Grant. No. 939,906; Nov. 9; Sp. p. 3204; Gaz. vol. 148; p. 528.
Soap powder, Production of. W. Lüring. No. 940,398; Nov. 16; Sp. p. 4361; Gaz. vol. 148; p. 729.
Soda-fountains, Syrup-pump for. H. L. Snediker. No. 940,991; Nov. 23; Sp. p. 5612; Gaz. vol. 148; p. 951.
Sodium salt of lactalbumin, Making a neutral. E. Fischer and P. Bergell. No. 941,773; Nov. 30; Sp. p. 7320; Gaz. vol. 148; p. 1233.
Solder, Aluminum-. J. Wirgovits. No. 941,835; Nov. 30; Sp. p. 7465; Gaz. vol. 148; p. 1255.
Solder for aluminum. L. Goppman. No. 939,494; Nov. 9; Sp. p. 2322; Gaz. vol. 148; p. 385.
Soldering, Flux for use in. W. Ackermann. No. 940,111; Nov. 16; Sp. p. 3696; Gaz. vol. 148; p. 630.
Soldering-machine. W. M. Holloway. No. 941,147; Nov. 23; Sp. p. 5969; Gaz. vol. 148; p. 1004.
Soldering machine, Can-. C. W. Sleeper. No. 939,104; Nov. 2; Sp. p. 1384; Gaz. vol. 148; p. 226.
Soldering-tool, Automatic. B. F. White. No. 941,218; Nov. 23; Sp. p. 6130; Gaz. vol. 148; p. 1027.
Sole-leveling machine. C. L. Parker and W. C. Collyer. No. 939,621; Nov. 9; Sp. p. 2599; Gaz. vol. 148; p. 428.
Sole-leveling machine. H. A. Webster. No. 940,627; Nov. 16; Sp. p. 4831; Gaz. vol. 148; p. 805.
Sole-pressing machine. E. F. Winkley. No. 939,402; Nov. 9; Sp. p. 2256; Gaz. vol. 148; p. 375.
Soles for boots and shoes, Making. O. C. Davis. No. 938,829; Nov. 2; Sp. p. 817; Gaz. vol. 148; p. 131.
Solutions, Apparatus for concentrating. E. Monti. No. 940,644; Nov. 16; Sp. p. 4866; Gaz. vol. 148; p. 810.
Sorting-machine. A. Picken. No. 941,270; Nov. 23; Sp. p. 6232; Gaz. vol. 148; p. 1045.
Sound-box for sound recording and reproducing machines. J. C. English. No. 940,794; Nov. 23; Sp. p. 5225; Gaz. vol. 148; p. 887.
Sound-box for sound recording and reproducing machines. J. C. English. No. 940,796; Nov. 23; Sp. p. 5231; Gaz. vol. 148; p. 887.
Sound-locating device. J. B. Taylor. No. 939,349; Nov. 9; Sp. p. 1989; Gaz. vol. 148; p. 337.
Sound, Recording. G. K. Cheney. No. 941,010; Nov. 23; Sp. p. 5666; Gaz. vol. 148; p. 957.
Sound-recording apparatus. G. K. Cheney. No. 941,011; Nov. 23; Sp. p. 5669; Gaz. vol. 148; p. 957.
Sound-records, Production of double-faced. F. L. Capps. No. 941,975; Nov. 30; Sp. p. 7737; Gaz. vol. 148; p. 1303.
Sound-regulator. W. W. Young. No. 940,109; Nov. 16; Sp. p. 3692; Gaz. vol. 148; p. 629.
Sound-reproducer. A. N. Pierman. No. 940,051; Nov. 16; Sp. p. 3552; Gaz. vol. 148; p. 608.
Sower, Seed-. S. A. Plummer. No. 940,891; Nov. 23; Sp. p. 5420; Gaz. vol. 148; p. 918.
Spades or other tools, Means for attaching shafts to. E. C. M. W. Stjernstedt. No. 941,286; Nov. 23; Sp. p. 6275; Gaz. vol. 148; p. 1050.
Spangle cutting and attaching machine. G. W. Bingham. No. 940,229; Nov. 16; Sp. p. 3945; Gaz. vol. 148; p. 671.
Spanner, Adjustable. P. P. Strömberg. No. 940,625; Nov. 16; Sp. p. 4824; Gaz. vol. 148; p. 804.
Spark-arrester. E. L. Ridgway. No. 939,444; Nov. 9; Sp. p. 2218; Gaz. vol. 148; p. 369.
Spark-arrester. L. A. Coleman. No. 940,955; Nov. 23; Sp. p. 5551; Gaz. vol. 148; p. 939.
Spark-plug. A. Helwig. No. 940,594; Nov. 16; Sp. p. 4765; Gaz. vol. 148; p. 794.
Spark-plug. C. A. Martin. No. 941,157; Nov. 23; Sp. p. 5986; Gaz. vol. 148; p. 1007.
Speed apparatus, Variable-. E. C. Marble. No. 938,679; Nov. 2; Sp. p. 521; Gaz. vol. 148; p. 80.
Speed-changing device. D. O. James. No. 941,925; Nov. 30; Sp. p. 7689; Gaz. vol. 148; p. 1296.
Speed-controller, Automatic. W. A. Loomis. No. 940,979; Nov. 23; Sp. p. 5593; Gaz. vol. 148; p. 947.
Speed device, Variable-. W. F. Main. No. 939,427; Nov. 9; Sp. p. 2190; Gaz. vol. 148; p. 363.
Speed indicating or recording device. W. H. Bristol. No. 939,209; Nov. 9; Sp. p. 1634; Gaz. vol. 148; p. 288.
Speed-indicator. W. Schaufelberger. No. 938,898; Nov. 2; Sp. p. 984; Gaz. vol. 148; p. 155.
Speed-indicator governor. A. Grossmann. No. 941,516; Nov. 30; Sp. p. 6773; Gaz. vol. 148; p. 1147.
Speed mechanism, Change-. C. B. Elmore. No. 941,506; Nov. 30; Sp. p. 6749; Gaz. vol. 148; p. 1144.
Speed transmission mechanism, Changeable-. A. L. Slee. No. 939,643; Nov. 9; Sp. p. 2647; Gaz. vol. 148; p. 437.
Speedometer. H. C. Berry. No. 941,223; Nov. 23; Sp. p. 6140; Gaz. vol. 148; p. 1029.
Spice-box. E. Frank. No. 939,825; Nov. 9; Sp. p. 3033; Gaz. vol. 148; p. 500.
Spike-holder. H. O. Crippen. No. 941,621; Nov. 30; Sp. p. 6981; Gaz. vol. 148; p. 1181.
Spindle: *See* Knot-spindle.
Spindle-bands, Tension-regulating device for. J. S. Berard. No. 941,183; Nov. 23; Sp. p. 6056; Gaz. vol. 148; p. 1016.
Spindle-driving bands, Mechanism for guiding and applying tension to. J. Boyd No. 940,502; Nov. 16; Sp. p. 4575; Gaz. vol. 148; p. 764.
Spinning apparatus, Traverse-motion for yarn-. A. E. Rhoades. No. 941,648; Nov. 30; Sp. p. 7028; Gaz. vol. 148; p. 1189.
Spinning apparatus, Traverse-motion for yarn-. A. E. Rhoades. No. 941,649; Nov. 30; Sp. p. 7036; Gaz. vol. 148; p. 1190.
Spinning apparatus, Traverse-motion for yarn-. A. E. Rhoades. No. 941,650; Nov. 30; Sp. p. 7043; Gaz. vol. 148; p. 1190.
Spinning-machine speed-changing device. F. H. McDevitt and A. Walton. No. 941,645; Nov. 30; Sp. p. 7022; Gaz. vol. 148; p. 1188.
Spokes, Tenon-forming machine for wheel-. E. and E. E. Davis. No. 941,625; Nov. 30; Sp. p. 6985; Gaz. vol. 148; p. 1182.
Spool and twine holding device. H. Reicherter. No. 941,949; Nov. 30; Sp. p. 7682; Gaz. vol. 148; p. 1294.
Spoon, Souvenir locket-. I. Holsman. No. 939,840; Nov. 9; Sp. p. 3058; Gaz. vol. 148; p. 505.
Sprayer, Portable. A. B. Morgan. No. 941,528; Nov. 30; Sp. p. 6795; Gaz. vol. 148; p. 1151.
Spring: *See* Bed-spring; Elliptic spring.
Spring fabric. H. E. Gates. No. 941,447; Nov. 30; Sp. p. 6631; Gaz. vol. 148; p. 1124.
Spring-fastener. F. Bowen. No. 941,754; Nov. 30; Sp. p. 7271; Gaz. vol. 148; p. 1226.
Spring structure. H. Reidenbach. No. 939,090; Nov. 2; Sp. p. 1360; Gaz. vol. 148; p. 221.
Spring-wheel. H. H. Taylor. No. 939,565; Nov. 9; Sp. p. 2470; Gaz. vol. 148; p. 409.
Spring-wheel. A. R. Miskin. No. 941,329; Nov. 23; Sp. p. 6346; Gaz. vol. 148; p. 1061.
Spring-wheel. C. W. Baeder. No. 941,550; Nov. 30; Sp. p. 6836; Gaz. vol. 148; p. 1157.
Springs, Machine for making coiled. F. H. Sleeper. No. 940,828; Nov. 23; Sp. p. 5291; Gaz. vol. 148; p. 898.
Sprinkler. J. W. Campbell. No. 941,671; Nov. 30; Sp. p. 7085; Gaz. vol. 148; p. 1197.
Sprinkler-system alarm. M. G. Young. No. 941,053; Nov. 23; Sp. p. 5757; Gaz. vol. 148; p. 972.
Square. S. B. and O. J. Easley. No. 941,313; Nov. 23; Sp. p. 6325; Gaz. vol. 148; p. 1057.
Squeezer. W. M. Holloway. No. 941,146; Nov. 23; Sp. p. 5966; Gaz. vol. 148; p. 1003.
Stacker, Hay-. E. G. Carter. No. 938,461; Nov. 2; Sp. p. 18; Gaz. vol. 148; p. 5.
Stacker, Hay-. A. B. and M. A. Clippinger. No. 939,393; Nov. 9; Sp. p. 2110; Gaz. vol. 148; p. 352.
Stacker, Hay-. E. Barnes. No. 940,657; Nov. 23; Sp. p. 4906; Gaz. vol. 148; p. 840.
Stacker, Hay-. F. M. Erwin. No. 941,238; Nov. 23; Sp. p. 6166; Gaz. vol. 148; p. 1034.
Stacker, Pneumatic. P. Miller. No. 941,583; Nov. 30; Sp. p. 6901; Gaz. vol. 148; p. 1168.
Stacker, Pneumatic straw-. S. D. Felsing. (Reissue.) No. 13,039; Nov. 16; Sp. p. 4888; Gaz. vol. 148; p. 814.
Stacker, Pneumatic straw-. G. H. Bathrick. No. 941,606; Nov. 30; Sp. p. 6945; Gaz. vol. 148; p. 1175.
Stadia-rod. J. H. Granbery. No. 940,007; Nov. 16; Sp. p. 3431; Gaz. vol. 148; p. 592.
Stair-guard. J. Lalonde. No. 938,771; Nov. 2; Sp. p. 686; Gaz. vol. 148; p. 110.
Stalk-cutter. J. R. Weatherly. No. 939,573; Nov. 9; Sp. p. 2486; Gaz. vol. 148; p. 412.
Stalk-cutter. T. J. Love. No. 940,171; Nov. 16; Sp. p. 3826; Gaz. vol. 148; p. 650.
Stamp-affixer. E. W. Nielsen. No. 939,537; Nov. 9; Sp. p. 2408; Gaz. vol. 148; p. 399.
Stamp, Hand-. A. D. Joslin. No. 939,513; Nov. 9; Sp. p. 2350; Gaz. vol. 148; p. 391.
Stamp, Hand-. J. C. Otteson. No. 940,186; Nov. 16; Sp. p. 3856; Gaz. vol. 148; p. 655.
Stamp-mortar. M. P. Boss. No. 939,208; Nov. 9; Sp. p. 1631; Gaz. vol. 148; p. 288.
Stamps, Automatic machine for attaching postage-. H. S. Brewington. No. 938,820; Nov. 2; Sp. p. 793; Gaz. vol. 148; p. 128.
Stand: *See* Cycle and bicycle stand; Hammock-stand; Stove-stand; Switch-stand; Talking-machine stand.
Starch, Soluble. A. E. Militz. No. 941,159; Nov. 23; Sp. p. 5990; Gaz. vol. 148; p. 1007.
Starting and separating gate. R. V. Jones. No. 939,703; Nov. 9; Sp. p. 2771; Gaz. vol. 148; p. 457.
Steam-generator. F. N. Tilton. No. 939,759; Nov. 9; Sp. p. 2909; Gaz. vol. 148; p. 477.

Steam-generator. J. C. Parker. No. 941,402; Nov. 30; Sp. p. 6660; Gaz. vol. 148; p. 1129.
Steam or other fluid pressure regulator. W. H. O'Connor. No. 941,092; Nov. 23; Sp. p. 5837; Gaz. vol. 148; p. 985.
Steam-trap. H. D. Singer and H. V. Pratt. No. 939,450; Nov. 9; Sp. p. 2231; Gaz. vol. 148; p. 371.
Steam-trap. N. English. No. 939,677; Nov. 9; Sp. p. 2720; Gaz. vol. 148; p. 450.
Steam-trap. J. W. Barton. No. 941,846; Nov. 30; Sp. p. 7489; Gaz. vol. 148; p. 1259.
Steam-trap. J. W. Barton. No. 941,847; Nov. 30; Sp. p. 7490; Gaz. vol. 148; p. 1259.
Steam-washer, Automatic. R. E. Jack. No. 940,694; Nov. 23; Sp. p. 4995; Gaz. vol. 148; p. 852.
Steel Ingots, Treating manganese-. W. S. Potter. No. 938,892; Nov. 2; Sp. p. 958; Gaz. vol. 148; p. 152.
Steel, Manganese. W. S. Potter. No. 939,084; Nov. 2; Sp. p. 1349; Gaz. vol. 148; p. 219.
Steel, Producing finished shapes from manganese. W. S. Potter. No. 939,164; Nov. 2; Sp. p. 1532; Gaz. vol. 148; p. 248.
Steel, Producing finished shapes of manganese. W. S. Potter. No. 938,891; Nov. 2; Sp. p. 955; Gaz. vol. 148; p. 152.
Steel, Treating manganese. W. S. Potter. No. 939,163; Nov. 2; Sp. p. 1530; Gaz. vol. 148; p. 248.
Steering-gear. R. S. Riley. No. 939,323; Nov. 9; Sp. p. 1926; Gaz. vol. 148; p. 329.
Stemmer and raisin-cleaner, Cap-. W. H. Noland. No. 939,073; Nov. 2; Sp. p. 1328; Gaz. vol. 148; p. 216.
Stenographic machine. W. J. Kehoe. No. 940,255; Nov. 16; Sp. p. 3996; Gaz. vol. 148; p. 680.
Steps, Safety device for treads of. A. I. Davis. No. 942,031; Nov. 30; Sp. p. 7833; Gaz. vol. 148; p. 1320.
Stereopticon-slide carrier. P. R. Hoy. No. 941,712; Nov. 30; Sp. p. 7190; Gaz. vol. 148; p. 1212.
Stereotype-trimmer. C. W. Baeder. No. 941,549; Nov. 30; Sp. p. 6835; Gaz. vol. 148; p. 1157.
Stirrup, Climbing-. P. H. Speerstra. No. 938,905; Nov. 2; Sp. p. 1006; Gaz. vol. 148; p. 158.
Stirrup, Safety-. J. L. James. No. 939,697; Nov. 9; Sp. p. 2762; Gaz. vol. 148; p. 455.
Stock and poultry fountain. A. A. Kramer. No. 940,259; Nov. 16; Sp. p. 4005; Gaz. vol. 148; p. 682.
Stocking. G. T. Drennan. No. 940,585; Nov. 16; Sp. p. 4751; Gaz. vol. 148; p. 791.
Stocking, Self-supporting. G. Graham. No. 941,193; Nov. 23; Sp. p. 6076; Gaz. vol. 148; p. 1019.
Stoker. G. Andersen. No. 941,486; Nov. 30; Sp. p. 6713; Gaz. vol. 148; p. 1137.
Stoker for furnaces, Mechanical. F. W. Seyboth. No. 939,869; Nov. 9; Sp. p. 3116; Gaz. vol. 148; p. 514.
Stoker, Locomotive mechanical. D. F. Crawford. No. 941,698; Nov. 30; Sp. p. 7148; Gaz. vol. 148; p. 1207.
Stone-crusher head. W. G. Nichols. No. 940,352; Nov. 16; Sp. p. 4228; Gaz. vol. 148; p. 713.
Stone-cutting machine. W. F. Meyers. No. 939,528; Nov. 9; Sp. p. 2388; Gaz. vol. 148; p. 396.
Stone-fluting machine. G. N. Williams, Jr. No. 939,577; Nov. 9; Sp. p. 2497; Gaz. vol. 148; p. 413.
Stone-gatherer. J. M. Rorabaw. No. 940,558; Nov. 16; Sp. p. 4698; Gaz. vol. 148; p. 782.
Stone-saw. J. Gillies. No. 938,473; Nov. 2; Sp. p. 38; Gaz. vol. 148; p. 9.
Stop-motion, Twister. A. E. Rhoades. No. 941,463; Nov. 30; Sp. p. 6654; Gaz. vol. 148; p. 1129.
Stopper: *See* Bottle-stopper.
Stopper. O. A. Borden. No. 941,302; Nov. 23; Sp. p. 6304; Gaz. vol. 148; p 1054.
Stopping mechanism. T. G. Plant. No. 940,052; Nov. 16; Sp. p. 3555; Gaz. vol. 148; p. 608.
Storage battery. G. M. W. Goettling. No. 939,006; Nov. 2; Sp. p. 1197; Gaz. vol. 148; p. 192.
Storage battery. A. O. Tate. No. 940,288; Nov. 16; Sp. p. 4076; Gaz. vol. 148; p. 691.
Store-service credit-system apparatus. C. F. Kettering. No. 939,267; Nov. 9; Sp. p. 1772; Gaz. vol. 148; p. 308.
Storm-shield. C. F. Wensinger. No. 940,413; Nov. 16; Sp. p. 4388; Gaz. vol. 148; p. 734.
Stove. E. W. Anthony. No. 938,543; Nov. 2; Sp. p. 236; Gaz. vol. 148; p. 34.
Stove. L. Moore. No. 939,529; Nov. 9; Sp. p. 2391; Gaz. vol. 148; p. 396.
Stove. J. E. Choltus and H. Jeannesson. No. 939,890; Nov. 9; Sp. p. 3165; Gaz. vol. 148; p. 522.
Stove. J. M. Johnson and G. W. Noble. No. 941,321; Nov. 23; Sp. p. 6335; Gaz. vol. 148; p. 1059.
Stove. E. R. Cahoone. No. 941,974; Nov. 30; Sp. p. 7733; Gaz. vol. 148; p. 1302.
Stove and range top. Cooking. B. B. Culver. No. 941,064; Nov. 23; Sp. p. 5779; Gaz. vol. 148; p. 975.
Stove attachment, Cook-. O. Deschamps. No. 940,238; Nov. 16; Sp. p. 3962; Gaz. vol. 148; p. 674.
Stove frame, Gas-. F. Graff, Jr. No. 941,141; Nov. 23; Sp. p. 5956; Gaz. vol. 148; p. 1002.
Stove, Gas-. S. H. Blodgett. No. 941,908; Nov. 30; Sp. p. 7608; Gaz. vol. 148; p. 1281.
Stove, Oil-gas cooking-. O. E. V. Ericson. No. 938,747; Nov. 2; Sp. p. 640; Gaz. vol. 148; p. 102.
Stove regulator, Gas-. A. M. Johnson. No. 940,391; Nov. 16; Sp. p. 4343; Gaz. vol. 148; p. 727.
Stove stand, Gas-. W. F. Krumsee. No. 941,524; Nov. 30; Sp. p. 6785; Gaz. vol. 148; p. 1149.
Stoves, Oven for gas or vapor burning. W. Thompson. No. 938,914; Nov. 2; Sp. p. 1022; Gaz. vol. 148; p. 162.
Stovepipe. F. Schmidt. No. 940,406; Nov. 16; Sp. p. 4376; Gaz. vol. 148; p. 732.
Stovepipe. W. W. Graham. No. 940,927; Nov. 23; Sp. p. 5484; Gaz. vol. 148; p. 930.
Stovepipe attachment. C. E. Mathews. No. 940,542; Nov. 16; Sp. p. 4669; Gaz. vol. 148; p. 776.
Stovepipe-elbow. D. Witt. No. 941,836; Nov. 30; Sp. p. 7466; Gaz. vol. 148; p. 1255.
Straining apparatus, Continuous centrifugal. A. J. Ericsson. No. 939,993; Nov. 16; Sp. p. 3406; Gaz. vol. 148; p. 587.
Straining, mashing, grating, and chopping machine. E. Hubert. No. 938,766; Nov. 2; Sp. p. 675; Gaz. vol. 148; p. 108.
Strap: *See* Elastic connecting-strap; Garment-supporting strap; Race-strap; Undertaker's lifting-strap.
Street-indicating device. C. E. Greenfield. No. 938,478; Nov. 2; Sp. p. 53; Gaz. vol. 148; p. 11.
Street-indicator and advertising device, Combined. J. H. Goodier. No. 940,963; Nov. 23; Sp. p. 5564; Gaz. vol. 148; p. 942.
Street-sweeper. J. F. Wurzer and J. G. Hartman. No. 941,838; Nov. 30; Sp. p. 7468; Gaz. vol. 148; p. 1255.
Stud or rivet. E. B. Stimpson. No. 940,083; Nov. 16; Sp. p. 3631; Gaz. vol. 148; p. 620.
Superheater for use in connection with vulcanizers and other apparatus. J. Berliner. No. 939,956; Nov. 9; Sp. p. 3311; Gaz. vol. 148; p. 546.
Superheater, Steam-. E. H. Foster and J. Primrose. No. 938,568; Nov. 2; Sp. p. 290; Gaz. vol. 148; p. 42.
Surfacing-machine. A. H. Whatley. No. 939,363; Nov. 9; Sp. p. 2024; Gaz. vol. 148; p. 342.
Surfacing-machine. F. R. Allen. No. 939,373; Nov. 9; Sp. p. 2072; Gaz. vol. 148; p. 345.
Surfacing-machine, Pneumatic. G. L. Badger. No. 940,297; Nov. 16; Sp. p. 4096; Gaz. vol. 148; p. 694.
Surgical applicator. E. H. Eastman. No. 940,519; Nov. 16; Sp. p. 4612; Gaz. vol. 148; p. 769.
Surgical instrument. J. W. Kolb. No. 939,034; Nov. 2; Sp. p. 1261; Gaz. vol. 148; p. 202.
Surgical instrument. J. W. Kolb. No. 939,035; Nov. 2; Sp. p. 1262; Gaz. vol. 148; p. 202.
Suspender-check. F. B. Hawes. No. 939,687; Nov. 9; Sp. p. 2741; Gaz. vol. 148; p. 452.
Suspenders. G. M. Edgarton. No. 939,898; Nov. 9; Sp. p. 3181; Gaz. vol. 148; p. 525.
Suspending device, Portable. C. F. Redman. No. 939,318; Nov. 9; Sp. p. 1919; Gaz. vol. 148; p. 327.
Sweep-stock. J. Stone. No. 940,905; Nov. 23; Sp. p. 5441; Gaz. vol. 148; p. 922.
Sweeping apparatus. J. Cable. No. 941,494; Nov. 30; Sp. p. 6726; Gaz. vol. 148; p. 1140.
Sweeping compound. F. D. Wolfgram and E. Klausman. No. 939,369; Nov. 9; Sp. p. 2039; Gaz. vol. 148; p. 344.
Swimming appliance. W. A. Glazier. No. 941,244; Nov. 23; Sp. p. 6178; Gaz. vol. 148; p. 1036.
Swing. E. V. Lewis. No. 941,081; Nov. 23; Sp. p. 5816; Gaz. vol. 148; p 981.
Swingletree safety-clip. E. Graham. No. 940,388; Nov. 16; Sp. p. 4339; Gaz. vol. 148; p. 726.
Switch: *See* Automatic switch; Double-acting switch; Electric switch; Lamp-socket switch; Railway-switch; Snap-switch; Train-switch.
Switch. A. L. Vissat. No. 940,566; Nov. 16; Sp. p. 4713; Gaz. vol. 148; p. 785.
Switch. L. H. Moulthrop. No. 940,645; Nov. 16; Sp. p. 4873; Gaz. vol. 148; p. 811.
Switch and blow-out, Combination. W. C. Hafemeister. No. 940,311; Nov. 16; Sp. p. 4142; Gaz. vol. 148; p. 699.
Switch and fuse-plug, Combined. F. Mackintosh. No. 940,174; Nov. 16; Sp. p. 3833; Gaz. vol. 148; p. 650.
Switch handle, Electric-. J. G. Peterson. No. 941,534; Nov. 30; Sp. p. 6806; Gaz. vol. 148; p. 1153.
Switch-keys, Bank of locking. E. R. Corwin and C. A. Bals. No. 941,763; Nov. 30; Sp. p. 7300; Gaz. vol. 148; p. 1230.
Switch-point lock. J. M. Shaul. No. 941,735; Nov. 30; Sp. p. 7235; Gaz. vol. 148; p. 1220.
Switch-stand. C. Raiter. No. 941,813; Nov. 30; Sp. p. 7412; Gaz. vol. 148; p. 1246.
Switch-stand. C. W. Reinoehl and C. W. Long. No. 941,814; Nov. 30; Sp. p. 7414; Gaz. vol. 148; p. 1246.
Switches, Control of electrically-operated. A. S. Cubitt. No. 941,408; Nov. 30; Sp. p. 6556; Gaz. vol. 148; p. 1112.
Synchronizing apparatus. P. Pierini. No. 941,891; Nov. 30; Sp. p. 7572; Gaz. vol. 148; p. 1274.
Syringe. J. W. Short. No. 942,015; Nov. 30; Sp. p. 7808; Gaz. vol. 148; p. 1315.
Syringe for hypodermic and intramuscular injections. R. Lombardo. No. 938,597; Nov. 2; Sp. p. 355; Gaz. vol. 148; p. 53.
Syringe, Hypodermic. W. Ball. No. 938,544; Nov. 2; Sp. p. 238; Gaz. vol. 148; p. 34.
Syringe, Hypodermic. F. D. Bell. No. 938,951; Nov. 2; Sp. p. 1097; Gaz. vol. 148; p. 174.
Syringe or the like. C. P. Leyner. No. 939,520; Nov. 9; Sp. p. 2371; Gaz. vol. 148; p. 393.
Syringe, Vaginal. E. H. Keske. No. 939,266; Nov. 9; Sp. p. 1771; Gaz. vol. 148; p. 307.
Table: *See* Card-table; Computing-table; Folding table; Marine table; Turn-table.
Table. L. Welker, Jr. No. 940,490; Nov. 16; Sp. p. 4545; Gaz. vol. 148; p. 760.
Table lock, Extension-. J. A. Barbrake. No. 939,379; Nov. 9; Sp. p. 2083; Gaz. vol. 148; p. 347.
Table safety device, Round-. A. F. Elkins. No. 938,561; Nov. 2; Sp. p. 273; Gaz. vol. 148; p. 40.
Tag-holder. O. Anderson. No. 938,946; Nov. 2; Sp. p. 1089; Gaz. vol. 148; p. 173.
Talking-machine. W. W. Wooster. No. 939,781; Nov. 9; Sp. p. 2940; Gaz. vol. 148; p. 485.

Talking-machine sound-box. M. Keen. No. 940,161; Nov. 16; Sp. p. 3792; Gaz. vol. 148; p. 646.
Talking-machine sound-box. J. C. English. No. 940,795; Nov. 23; Sp. p. 5229; Gaz. vol. 148; p. 887.
Talking-machine stand and horn, Combined. H. C Miller. (Reissue.) No. 13,044; Nov. 23; Sp. p. 6404; Gaz. vol. 148; p. 1071.
Talking-machines, Apparatus for making sound-records for. C. S. Wickes. No. 941,291; Nov. 23; Sp. p. 6281; Gaz. vol. 148; p. 1052.
Tamping tool, Dirt-. H. A. Sherman. No. 940,370; Nov. 16; Sp. p. 4281; Gaz. vol. 148; p. 719.
Tank: *See* Causticizing-tank; Dust-separating tank; Expansion-tank; Flushing-tank; Measuring-tank; Water-closet, &c., tank
Tank. E. E. Straw. No. 941,895; Nov. 30; Sp. p. 7584; Gaz. vol. 148; p. 1276.
Tanks used in skimming sullage from crucibles into water, Cover for. W. H. Carpenter. No. 938 555; Nov. 2; Sp. p. 261; Gaz. vol. 148; p. 38.
Tannin-containing extract and producing same. A. Kumpfmiller. No. 940,394; Nov. 16; Sp. p. 4348; Gaz. vol. 148; p. 728.
Tape. T. P. Himes. No. 939,839; Nov. 9; Sp. p. 3057; Gaz. vol. 148; p. 504.
Taper-roughing tool. B. M. W. Hanson. No. 938,484; Nov. 2; Sp. p. 71; Gaz. vol. 148; p. 13.
Tapping-furnace. G. O. Seward. No. 940,561; Nov. 16; Sp. p. 4703; Gaz. vol. 148; p. 783.
Target-practice apparatus, Coin-controlled. H. H. Cummings. No. 941,360; Nov. 30; Sp. p. 6424; Gaz. vol. 148; p. 1095.
Target-trap. W. H. Ilestand. No. 938,861; Nov. 2; Sp. p. 882; Gaz. vol. 148; p. 141.
Tea or coffee pot. C. F. Smith and G. E. Curtiss. No. 940,081; Nov. 16; Sp. p. 3629; Gaz. vol. 148; p. 619.
Teaching penmanship, Device for. S. R. Smith. No. 940,744; Nov. 23; Sp. p. 5101; Gaz. vol. 148; p. 870.
Teeth, Making artificial. J. Humphrey. No. 940,599; Nov. 16; Sp. p. 4773; Gaz. vol. 148; p. 795.
Telegraph sending-machine. J. A. Hulit. No. 939,507; Nov. 9; Sp. p. 2343; Gaz. vol. 148; p. 389.
Telegraph system and apparatus. T. B. Dixon. No. 939,401; Nov. 9; Sp. p. 2125; Gaz. vol. 148; p. 354.
Telegraph-transmitter. B. F. Bellows. No. 939,383; Nov. 9; Sp. p. 2089; Gaz. vol. 148; p. 349.
Telegraph-transmitter. G. M. Goddard. No. 939,683; Nov. 9; Sp. p. 2728; Gaz. vol. 148; p. 451.
Telemeter. H. Wild. No. 939,366; Nov. 9; Sp. p. 2030; Gaz. vol. 148; p. 343.
Telemeter, Coincidence-. O. Eppenstein. No. 940,137; Nov. 16; Sp. p. 3746; Gaz. vol. 148; p. 639.
Telemeter for two successive observations. C. Pulfrich. No. 941,812; Nov. 30; Sp. p. 7410; Gaz. vol. 148; p. 1246.
Telemeter-rod. C. E. Flanagan. No. 939,489; Nov. 9; Sp. p. 2314; Gaz. vol. 148; p. 383.
Telemeter, Separating-prism. A. König. No. 940,166; Nov. 16; Sp. p. 3816; Gaz. vol. 148; p. 648.
Telephone. F. G. Sargent. No. 940,284; Nov. 16; Sp. p. 4071; Gaz. vol. 148; p. 690.
Telephone and telegraph cables and other electrical conductors, Suspension device for. E. C. Real. No. 940,555; Nov. 16; Sp. p. 4693; Gaz. vol. 148; p. 781.
Telephone attachment. H. R. Palmer. No. 939,439; Nov. 9; Sp. p. 2213; Gaz. vol. 148; p. 368.
Telephone attachment. J. W. Nilsson. No. 940,047; Nov. 16; Sp. p. 3543; Gaz. vol. 148; p. 606.
Telephone attachment. C. B. Mitchell. No. 941,096; Nov. 23; Sp. p. 5826; Gaz. vol. 148; p. 983.
Telephone-cabinet. C. E. Oxford. No. 941,336; Nov. 23; Sp. p. 6358; Gaz. vol. 148; p. 1064.
Telephone-call-recording device. G. R. Fawkes. No. 940,140; Nov. 16; Sp. p. 3753; Gaz. vol. 148; p. 639.
Telephone-connector, Intermediate. C. A. Hearn and W. H. Feddejohann. No. 941,519; Nov. 30; Sp. p. 6778; Gaz. vol. 148; p. 1148.
Telephone, Desk-. E. R. Corwin and C. A. Bals. No. 941,762; Nov. 30; Sp. p. 7298; Gaz. vol. 148; p. 1229.
Telephone detector device. T. W. Ralph. No. 940,359; Nov. 16; Sp. p. 4242; Gaz. vol. 148; p. 715.
Telephone-exchange. C. A. Anderson and W. Hagstrom. No. 938,943; Nov. 2; Sp. p. 1077; Gaz. vol. 148; p. 171.
Telephone-exchange calling device. C. A. Anderson and W. Hagstrom. No. 938,944; Nov. 2; Sp. p. 1082; Gaz. vol. 148; p. 172.
Telephone-exchange system. C. L. Zahm. No. 938,541; Nov. 2; Sp. p. 226; Gaz. vol. 148; p. 33.
Telephone-exchange system. C. L. Zahm. No. 941,839; Nov. 30; Sp. p. 7471; Gaz. vol. 148; p. 1256.
Telephone-key and means for actuating the same. W. Christensen. No. 940,673; Nov. 23; Sp. p. 4939; Gaz. vol. 148; p. 845.
Telephone-line selective switch device. J. H. Swanson. No. 941,743; Nov. 30; Sp. p. 7246; Gaz. vol. 148; p. 1222.
Telephone-line-testing system. A. N. Chenoweth. No. 938,974; Nov. 2; Sp. p. 1131; Gaz. vol. 148; p. 182.
Telephone-mouthpiece, Antiseptic. G. Rowlands. No. 941,173; Nov. 23; Sp. p. 6025; Gaz. vol. 148; p. 1012.
Telephone pay-station, Automatic. F. X. Bee. No. 938,949; Nov. 2; Sp. p. 1093; Gaz. vol. 148; p. 173.
Telephone system. F. E. Summers. No. 939,756; Nov. 9; Sp. p. 2900; Gaz. vol. 148; p. 476.
Telephone system. D. S. Hulfish. No. 940,693; Nov. 23; Sp. p. 4991; Gaz. vol. 148; p. 852.
Telephone system. H. B. Stone. No. 940,746; Nov. 23; Sp. p. 5105; Gaz. vol. 148; p. 870.
Telephone system. J. N. Wallace. No. 940,994; Nov. 23; Sp. p. 5618; Gaz. vol. 148; p. 952.
Telephone system. H. G. Webster. No. 941,666; Nov. 30; Sp. p. 7075; Gaz. vol. 148; p. 1196.
Telephone-transmitter. C. E. Egnér and J. G. Holmström. No. 938,992; Nov. 2; Sp. p. 1175; Gaz. vol. 148; p. 187.
Telephone-transmitter. W. W. Dean. (Reissue.) No. 13,035; Nov. 2; Sp. p. 1608; Gaz. vol. 148; p. 262.
Telephone-users, Indicating coin-holder for. E. F. Stone. No. 941,824; Nov. 30; Sp. p. 7439; Gaz. vol. 148; p. 1250.
Telephonic system for auditoriums. K. M. Turner. No. 941,114; Nov. 23; Sp. p. 5888; Gaz. vol. 148; p. 991.
Telephony and telegraphy, Wireless. A. W. Sharman. No. 942,044; Nov. 30; Sp. p. 7861; Gaz. vol. 148; p. 1324.
Tellurian. D. F. Nickols. No. 940,546; Nov. 16; Sp. p. 4677; Gaz. vol. 148; p. 778.
Telpherage system. H. Müller. No. 941,938; Nov. 30; Sp. p. 7665; Gaz. vol. 148; p. 1291.
Temperature-regulating apparatus. J. M. Pullen. No. 939,858; Nov. 9; Sp. p. 3094; Gaz. vol. 148; p. 511.
Tent, Portable. A. F. Leach. No. 941,458; Nov. 30; Sp. p. 6651; Gaz. vol. 148; p. 1127.
Tester. H. L. Scott. No. 940,482; Nov. 16; Sp. p. 4524; Gaz. vol. 148; p. 757.
Textile-conditioning apparatus. I. E. Palmer. No. 941,382; Nov. 30; Sp. p. 6477; Gaz. vol. 148; p. 1102.
Textile fabrics, Apparatus for treating coated. A. Sydeman and J. Meade. No. 940,593; Nov. 16; Sp. p. 4706; Gaz. vol. 148; p. 784.
Textile stock, Composition for dressing. E. Dath. No. 941,361; Nov. 30; Sp. p. 6429; Gaz. vol. 148; p. 1095.
Theatrical apparatus. I. M. Weingarden and A. Cummings. No. 938,927; Nov. 2; Sp. p. 1051; Gaz. vol. 148; p. 166.
Therapeutic device. S. T. Yount. No. 938,806; Nov. 2; Sp. p. 772; Gaz. vol. 148; p. 124.
Thermo-electric generation. J. D. Taylor. No. 941,826; Nov. 30; Sp. p. 7442; Gaz. vol. 148; p. 1251.
Thermometer, Oven-. L. S. White. No. 941,667; Nov. 30; Sp. p. 7080; Gaz. vol. 148; p. 1196.
Thermostat. J. H. Brady. No. 938,548; Nov. 2; Sp. p. 244; Gaz. vol. 148; p. 36.
Thermostat. H. G. Geissinger. No. 939,957; Nov. 9; Sp. p. 3312; Gaz. vol. 148; p. 546.
Thorium sulfid, Making. J. L. Huber. No. 941,071; Nov. 23; Sp. p. 5799; Gaz. vol. 148; p. 978.
Thread-cop. A. N. Chartier. No. 939,667; Nov. 9; Sp. p. 2705; Gaz. vol. 148; p. 446.
Thread-cutting clip. H. R. Benda. No. 940,228; Nov. 16; Sp. p. 3944; Gaz. vol. 148; p. 671.
Thread-cutting mechanism, Filling-. E. H. Ryon. No. 939,445; Nov. 9; Sp. p. 2220; Gaz. vol. 148; p. 369.
Thread-cutting tool. W. Murchey. No. 939,735; Nov. 9; Sp. p. 2842; Gaz. vol. 148; p. 469.
Thresher-feeder carrier. J. W. Kennedy. No. 938,871; Nov. 2; Sp. p. 917; Gaz. vol. 148; p. 144.
Threshing-machine. O. A. Amble. No. 938,624; Nov. 2; Sp. p. 406; Gaz. vol. 148; p. 61.
Threshing-machine concave. O. H. Paschke. No. 941,037; Nov. 23; Sp. p. 5728; Gaz. vol. 148; p. 967.
Threshing-machine feeder. A. F. and H. C. Johnson. No. 940,026; Nov. 16; Sp. p. 3465; Gaz. vol. 148; p. 599.
Ticket, Transfer-. R. C. Osman. No. 940,048; Nov. 16; Sp. p. 3545; Gaz. vol. 148; p. 606.
Tie: *See* Bag-tie; Cross-tie; Metallic tie; Necktie; Package-tie; Rail-tie; Railway-tie; Railway-rail tie.
Tie and rail-fastener. A. M. Moylan. No. 941,937; Nov. 30; Sp. p. 7603; Gaz. vol. 148; p. 1291.
Tie-holder. A. A. Felix. No. 939,678; Nov. 9; Sp. p. 2722; Gaz. vol. 148; p. 450.
Tie lifter and holder, Combined. T. Warren. No. 938,528; Nov. 2; Sp. p. 199; Gaz. vol. 148; p. 28.
Tile-faced blocks, Machine for molding. W. P. Meeker and M. S. Drake. No. 940,983; Nov. 23; Sp. p. 5599; Gaz. vol. 148; p. 948.
Tiling machine, Block-. W. P. Meeker. No. 941,792; Nov. 30; Sp. p. 7351; Gaz. vol. 148; p. 1239.
Timber-felling machine. E. S. Cuyler. No. 938,559; Nov. 2; Sp. p. 268; Gaz. vol. 148; p. 40.
Time-lock. E. M. Benham. No. 939,384; Nov. 9; Sp. p. 2091; Gaz. vol. 148; p. 349.
Tin from waste, Recovering. A. Nodon. No. 940,471; Nov. 16; Sp. p. 4501; Gaz. vol. 148; p. 753.
Tin-plate by means of chlorin, Detinning. H. von Schütz. No. 940,898; Nov. 23; Sp. p. 5431; Gaz. vol. 148; p. 920.
Tin-plate-finishing machine. E. Norton. No. 940,715; Nov. 23; Sp. p. 5034; Gaz. vol. 148; p. 860.
Tinned sheet-iron boxes, &c., for detinning, Preparing. E. Goldschmidt. (Reissue.) No. 13,042; Nov. 16; Sp. p. 4893; Gaz. vol. 148. p. 815.
Tire. W. D. Harris. No. 940 528; Nov. 16; Sp. p. 4628; Gaz. vol. 148; p. 772.
Tire. A. T. Tizard. No. 941,289; Nov. 23; Sp. p. 6279; Gaz. vol. 148; p. 1051.
Tire and tightening means therefor, Vehicle-. G. A. Krohn. No. 939,037; Nov. 2; Sp. p. 1264; Gaz. vol. 148; p. 203.
Tire antislipping attachment. M. J. Frambach. No. 939,491; Nov. 9; Sp. p. 2317; Gaz. vol. 148; p. 384.
Tire-armor. B. F. Ginn. No. 940,591; Nov. 16; Sp. p. 4761; Gaz. vol. 148; p. 793.
Tire case, Spare-. J. J. Murray. No. 940,543; Nov. 16; Sp. p. 4671; Gaz. vol. 148; p. 777.
Tire, Cushion-. W. E. Marengo. No. 939,524; Nov. 9; Sp. p. 2379; Gaz. vol. 148; p. 395.
Tire, Cushion-. G. G. Hayes. No. 940,460; Nov. 16; Sp. p. 4484; Gaz. vol. 148; p. 749.
Tire, Cushion-. C. O. Baughman. No. 940,919; Nov. 23; Sp. p. 5468; Gaz. vol. 148; p. 927.
Tire-fastener. L. M. Nelson. No. 939,619; Nov. 9; Sp. p. 2596; Gaz. vol. 148; p. 427.
Tire for vehicle-wheels, Elastic. B. M. de Sá. No. 939,327; Nov. 9; Sp. p. 1933; Gaz. vol. 148; p. 330.
Tire for vehicles, Cushion-. E. E. Euchenhofer. No. 941,508; Nov. 30; Sp. p. 6757; Gaz. vol. 148; p. 1144.

Tire for vehicles, Resilient. G. O. Draper. No. 941,015; Nov. 23; Sp. p. 5681; Gaz. vol. 148; p. 959.
Tire-inflating device. E. Hayne. No. 939,020; Nov. 2; Sp. p. 1230; Gaz. vol. 148; p. 196.
Tire, Pneumatic. J. L. Maitland. No. 939,428; Nov. 9; Sp. p. 2191; Gaz. vol. 148; p. 364.
Tire, Pneumatic. C. M. Gautier. No. 941,871; Nov. 30; Sp. p. 7537; Gaz. vol. 148; p. 1208.
Tire-protective rivet. E. B. Stimpson. No. 940,985; Nov. 16; Sp. p. 3955; Gaz. vol. 148; p. 620.
Tire-protector. F. R. and C. R. Colvin. No. 939,474; Nov. 9; Sp. p. 2290; Gaz. vol. 148; p. 379.
Tire-protector anchor. S. G. Wolfe. No. 938,587; Nov. 2; Sp. p. 220; Gaz. vol. 148; p. 32.
Tire protector, Rubber-. H. R. Palmer. (Reissue.) No. 13,045; Nov. 23; Sp. p. 6406; Gaz. vol. 148; p. 1071.
Tire, Resilient. W. H. Rowling. No. 939,638; Nov. 9; Sp. p. 2638; Gaz. vol. 148; p. 435.
Tire-shield. O. A. F. Mittelstadt. No. 940,343; Nov. 16; Sp. p. 4212; Gaz. vol. 148; p. 710.
Tire-shoe-manufacturing machine, Pneumatic-. W. C. State. No. 941,962; Nov. 30; Sp. p. 7708; Gaz. vol. 148; p. 1299.
Tire, Spring-. R. M. Spencer. No. 940,904; Nov. 23; Sp. p. 5440; Gaz. vol. 148; p. 922.
Tire, Spring-. W. L. Johns. No. 941,926; Nov. 30; Sp. p. 7641; Gaz. vol. 148; p. 1287.
Tire, Vehicle-. C. F. Fisk. No. 938,999; Nov. 2; Sp. p. 1187; Gaz. vol. 148; p. 190.
Tire, Vehicle-. C. O. Henderson. No. 940,014; Nov. 16; Sp. p. 3443; Gaz. vol. 148; p. 594.
Tire, Vehicle-wheel. T. Midgley. No. 939,610; Nov. 9; Sp. p. 2581; Gaz. vol. 148; p. 424.
Tire, Vehicle-wheel. T. Midgley. No. 939,611; Nov. 9; Sp. p. 2583; Gaz. vol. 148; p. 424.
Tire, Wheel-. F. L. Berg. No. 941,058; Nov. 23; Sp. p. 5769; Gaz. vol. 148; p. 974.
Toast-rack. C. P. Conger. No. 940,393; Nov. 16; Sp. p. 4128; Gaz. vol. 148; p. 696.
Tobacco-pipe. J. E. Irving. No. 939,134; Nov. 2; Sp. p. 1453; Gaz. vol. 148; p. 236.
Tobacco-press. C. H. Hammond. No. 940,803; Nov. 23; Sp. p. 5242; Gaz. vol. 148; p. 890.
Tobacco, &c., Treating. G. Montag. No. 940,181; Nov. 16; Sp. p. 3844; Gaz. vol. 148; p. 653.
Tongs. J. L. Munsill. No. 938,409; Nov. 2; Sp. p. 114; Gaz. vol. 148; p. 18.
Tongue, Draft-. T. Pojar. No. 939,547; Nov. 9; Sp. p. 2428; Gaz. vol. 148; p. 403.
Tongue-support. W. C. D. Evans. No. 940,960; Nov. 23; Sp. p. 5557; Gaz. vol. 148; p. 941.
Tonnage-equating machine. J. M. Daly. No. 939,222; Nov. 9; Sp. p. 1671; Gaz. vol. 148; p. 293.
Tool. F. H. Gruer. No. 939,496; Nov. 9; Sp. p. 2325; Gaz. vol. 148; p. 386.
Tool, Combination-. T. B. Huestis. No. 938,583; Nov. 2; Sp. p. 330; Gaz. vol. 148; p. 48.
Tool-handle. E. Zinn. No. 941,901; Nov. 30; Sp. p. 7595; Gaz. vol. 148; p. 1278.
Tool-holder. S. Lowe. No. 938,600; Nov. 2; Sp. p. 364; Gaz. vol. 148; p. 54.
Tool-holder. W. A. Peck. No. 939,079; Nov. 2; Sp. p. 1339; Gaz. vol. 148; p. 218.
Tool-holder. H. C. Norrick. No. 940,185; Nov. 16; Sp. p. 3855; Gaz. vol. 148; p. 655.
Tool-holder. W. J. Powell. No. 941,272; Nov. 23; Sp. p. 6244; Gaz. vol. 148; p. 1045.
Tool-holder. C. Grunder. No. 942,034; Nov. 30; Sp. p. 7837; Gaz. vol. 148; p. 1321.
Tool-holder and means for setting the tools therein. M. Morton. No. 940,938; Nov. 23; Sp. p. 5519; Gaz. vol. 148; p. 934.
Tool holder, Machine-. H. O. Evans. No. 938,995; Nov. 2; Sp. p. 1182; Gaz. vol. 148; p. 188.
Tool, Pneumatic. H. Leineweber. No. 938,774; Nov. 2; Sp. p. 693; Gaz. vol. 148; p. 111.
Tool, Pneumatic. C. Christiansen. No. 939,803; Nov. 9; Sp. p. 2992; Gaz. vol. 148; p. 492.
Tool, Pneumatic. R. H. Wallace. No. 941,748; Nov. 30; Sp. p. 7258; Gaz. vol. 148; p. 1224.
Tool-support for tools or tool-holders. G. C. Barnes. No. 941,845; Nov. 30; Sp. p. 7487; Gaz. vol. 148; p. 1258.
Tools, Protecting arrangement for rotary. P. G. C. Lundberg. No. 941,427; Nov. 30; Sp. p. 6597; Gaz. vol. 148; p. 1118.
Tooth-regulating device. J. Aderer. No. 941,840; Nov. 30; Sp. p. 7477; Gaz. vol. 148; p. 1257.
Torpedo. M. Larsen. No. 940,033; Nov. 16; Sp. p. 3478; Gaz. vol. 148; p. 601.
Torpedo. J. Tasto. No. 941,111; Nov. 23; Sp. p. 5880; Gaz. vol. 148; p. 991.
Torpedo, Railway-. F. Dutcher. No. 938,465; Nov. 2; Sp. p. 26; Gaz. vol. 148; p. 6.
Toy. H. R. Graham, Jr. No. 938,844; Nov. 2; Sp. p. 842; Gaz. vol. 148; p. 135.
Toy. A. Klink. No. 938,874; Nov. 2; Sp. p. 922; Gaz. vol. 148; p. 145.
Toy. G. Henery. No. 939,022; Nov. 2; Sp. p. 1234; Gaz. vol. 148; p. 197.
Toy. J. B. Bowman. No. 939,586; Nov. 9; Sp. p. 2522; Gaz. vol. 148; p. 416.
Toy. F. B. Whitcher. No. 940,223; Nov. 16; Sp. p. 3939; Gaz. vol. 148; p. 669.
Toy. A. H. Cotton. No. 941,311; Nov. 23; Sp. p. 6323; Gaz. vol. 148; p. 1057.
Toy and game trap-shooter. C. A. Evans. No. 941,864; Nov. 30; Sp. p. 7522; Gaz vol. 148; p. 1265.
Toy cannon. W. H. Cornford. No. 938,982; Nov. 2; Sp. p. 1153; Gaz. vol. 148; p. 184.
Toy flying-machine. J. Stomberg. No. 942,020; Nov. 30; Sp. p. 7814; Gaz. vol. 148; p. 1316.
Toy, Rolling. O. Prior. No. 941,946; Nov. 30; Sp. p. 7677; Gaz. vol. 148; p. 1293.
Trace-hook. A. P. Hoard. No. 941,520; Nov. 30; Sp. p. 6780; Gaz. vol. 148; p. 1148.
Track construction. H. Fihman. No. 941,674; Nov. 30; Sp. p. 7090; Gaz. vol. 148; p. 1198.
Track-inspector, Automatic. T. Ellis, G. H. Purvis, and J. S. Creech. No. 938,993; Nov. 2; Sp. p. 1176; Gaz. vol. 148; p. 188.
Track-lifter. R. B. Wakeley. No. 941,476; Nov. 30; Sp. p. 6692; Gaz. vol. 148; p. 1134.
Track, Overhead. A. H. Neller. No. 941,805; Nov. 30; Sp. p. 7388; Gaz. vol. 148; p. 1243.
Track-sanding apparatus. J. W. Stickley. No. 940,375; Nov. 16; Sp. p. 4203; Gaz. vol. 148; p. 721.
Track-sanding device. E. L. Larson. No. 939,718; Nov. 9; Sp. p. 2798; Gaz. vol. 148; p. 462.
Track-sanding device. W. H. Prendergast. No. 940,476; Nov. 16; Sp. p. 4513; Gaz. vol. 148; p. 755.
Track structure. C. W. Kutz. No. 941,324; Nov. 23; Sp. p. 6339; Gaz. vol. 148; p. 1060.
Track-supporting device, Overhead-. A. H. Neller and W. Louden. No. 939,618; Nov. 9; Sp. p. 2594; Gaz. vol. 148; p. 427.
Tracker-board. F. C. White. No. 939,178; Nov. 2; Sp. p. 1559; Gaz. vol. 148; p. 253.
Traction device. M. E. Schmidt. No. 939,334; Nov. 9; Sp. p. 1945; Gaz. vol. 148; p. 332.
Traction-increasing device. A. E. Kintner. No. 938,490; Nov. 2; Sp. p. 96; Gaz. vol. 148; p. 15.
Traction system, Electromagnetic. G. L. Stanbro and A. D. Wagner. No. 940,487; Nov. 16; Sp. p. 4534; Gaz. vol. 148; p. 759.
Train-dispatcher's chart. P. J. Simmen. No. 940,079; Nov. 16; Sp. p. 3624; Gaz. vol. 148; p. 618.
Train interlocker and cross-bridge. J. Cooperstock. No. 938,980; Nov. 2; Sp. p. 1149; Gaz. vol. 148; p. 183.
Train-line coupling, Automatic. J. W. Jackson. No. 938,585; Nov. 2; Sp. p. 332; Gaz. vol. 148; p. 49.
Train-switch, Electrically-actuated. J. Y. Porter. No. 939,626; Nov. 9; Sp. p. 2612; Gaz. vol. 148; p. 430.
Trains, Means for transferring passengers to and from moving. J. Ross. No. 941,954; Nov. 30; Sp. p. 7690; Gaz. vol. 148; p. 1296.
Tramways, Point-operating mechanism for. T. N. Atkinson. No. 939,939; Nov. 9; Sp. p. 3274; Gaz. vol. 148; p. 540.
Transmission-controller. C. E. Cox. No. 941,407; Nov. 30; Sp. p. 6553; Gaz. vol. 148; p. 1111.
Transmission mechanism, Friction. J. Becker. No. 941,402; Nov. 30; Sp. p. 6532; Gaz. vol. 148; p. 1109.
Transmission mechanism, Temperature-controlled. H. H. Taylor. No. 939,566; Nov. 9; Sp. p. 2472; Gaz. vol. 148; p. 410.
Transom-lifter. A. C. Goethel. No. 938,475; Nov. 2; Sp. p. 46; Gaz. vol. 148; p. 10.
Transom-ratchet. L. J. Berg. No. 938,952; Nov. 2; Sp. p. 1099; Gaz. vol. 148; p. 175.
Transplanting implement. L. C. Doughty. No. 938,651; Nov. 2; Sp. p. 450; Gaz. vol. 148; p. 70.
Trap: *See* Animal-trap; Hog-trap; Plumbing-trap; Steam-trap; Target-trap.
Trap. C. Clark. No. 938,743; Nov. 2; Sp. p. 632; Gaz. vol. 148; p. 100.
Trap. P. Elfstrom. No. 939,818; Nov. 9; Sp. p. 3018; Gaz. vol. 148; p. 497.
Trap. C. Janke. No. 940,877; Nov. 23; Sp. p. 5386; Gaz. vol. 148; p. 913.
Trap. W. W. Worcester. No. 940,911; Nov. 23; Sp. p. 5453; Gaz. vol. 148; p. 924.
Traveling-bag hinge. W. J. Petri. No. 941,040; Nov. 23; Sp. p. 5734; Gaz. vol. 148; p. 968.
Traverse-ring. F. L. Lathrop and H. E. Chase. No. 938,773; Nov. 2; Sp. p. 691; Gaz. vol. 148; p. 111.
Treadle mechanism. W. Bartholomew. No. 940,659; Nov. 23; Sp. p. 4911; Gaz. vol. 148; p. 841.
Tree: *See* Shoe-tree.
Tree-felling apparatus. E. L. Freese. (Reissue.) No. 13,040; Nov. 16; Sp. p. 4890; Gaz. vol. 148; p. 814.
Trick-chair. E. De Moulin. No. 941,135; Nov. 23; Sp. p. 5944; Gaz. vol. 148; p. 1000.
Trick lung-tester. C. E. Herd. No. 939,023; Nov. 2; Sp. p. 1235; Gaz. vol. 148; p. 197.
Trimmer: *See* Pie-trimmer; Stereotype-trimmer.
Trimming-knife. W. H. Ayers and C. A. Dorr. No. 940,420; Nov. 16; Sp. p. 4405; Gaz. vol. 148; p. 736.
Tripod. J. M. Pullen. No. 939,859; Nov. 9; Sp. p. 3095; Gaz. vol. 148; p. 511.
Trolley-catcher. C. I. Farll. No. 941,363; Nov. 30; Sp. p. 6432; Gaz. vol. 148; p. 1096.
Trolley-harp. J. T. Archer. No. 940,574; Nov. 16; Sp. p. 4730; Gaz. vol. 148; p. 787.
Trolley-head. T. R. Stam. No. 939,564; Nov 9; Sp. p. 2469; Gaz. vol. 148; p. 409.
Trolley-head. J. J. Bennett. No 939,658; Nov. 9; Sp. p. 2672; Gaz. vol. 148; p. 442.
Trolley-head. B. F. Foss. No. 940,309; Nov. 16; Sp. p. 4138; Gaz. vol. 148; p. 698.
Trolley-pole catcher. J. H. Walker. No. 941,216; Nov. 23; Sp. p. 6125; Gaz. vol. 148; p. 1027.
Trolley-retriever. C. Palm. No. 941,944; Nov. 30; Sp. p. 7673; Gaz. vol. 148; p. 1292.
Trolley, Self-restoring. H. H. Parker. No. 940,718; Nov. 23; Sp. p. 5040; Gaz. vol. 148; p. 861.
Trough: *See* Eaves-trough.
Trousers-crease retainer. H. A. Neumann. No. 940,712; Nov. 23; Sp. p. 5027; Gaz. vol. 148; p. 859.

Trousers-stretcher. E. N. Hallett. No. 939,831; Nov. 9; Sp. p. 3042; Gaz. vol. 148; p. 502.
Truck. J. F. Fierke. No. 939,406; Nov. 9; Sp. p. 2144; Gaz. vol. 148; p. 356.
Truck. S. R. Temple. No. 940,563; Nov. 16; Sp. p. 4712; Gaz. vol. 148; p. 784.
Truck-bolster. J. J. Byers. No. 939,946; Nov. 9; Sp. p. 3290; Gaz. vol. 148; p. 542.
Truck, Car-. C. S. Shallenberger. No. 939,870; Nov. 9; Sp. p. 3118; Gaz. vol. 148; p. 515.
Truck, Car-. E. A. Curtis. No. 940,133; Nov. 16; sp. p. 3740; Gaz. vol. 148; p. 637.
Truck, Car-. W. H. Son. No. 940,901; Nov. 23; Sp. p. 5435; Gaz. vol. 148; p. 921.
Truck, Car-. C. W. Wodznski. No. 941,263; Nov. 23; Sp. p. 6288; Gaz. vol. 148; p. 1052.
Truck, Car-. C. B. Goodspeed. No. 941,515; Nov. 30; Sp. p. 6773; Gaz. vol. 148; p. 1147.
Truck for locomotives, Forward. W. L. Austin. No. 940,494; Nov. 16; Sp. p. 4552; Gaz. vol. 148; p. 761.
Truck, Hand-. B. Keyser and C. F. Ingold. No. 938,872; Nov. 2; Sp. p. 918; Gaz. vol. 148; p. 145.
Truck, Hand-. L. X. Truxler. No. 938,917; Nov. 2; Sp. p. 1027; Gaz. vol. 148; p. 163.
Truck, Hand-. A. B. Kerndl. No. 939,600; Nov. 9; Sp. p. 2563; Gaz. vol. 148; p. 421.
Truck, Lifting-. A. A. Ake. No. 939,783; Nov. 9; Sp. p. 2947; Gaz. vol. 148; p. 485.
Truck Power-. J. B. Heverling. No. 941,677; Nov. 30; Sp. p. 7094; Gaz. vol. 148; p. 1199.
Truck side frames, Brake-hanger-pin construction for car-. G. G. Floyd. No. 940,865; Nov. 23; Sp. p. 5366; Gaz. vol. 148; p. 909.
Trucks, Blocking device for. P. E. Lattner and S. N. Robinson. No. 939,518; Nov. 9; Sp. p. 2369; Gaz. vol. 148; p. 393.
Trunk. W. T. Fuller. No. 941,446; Nov. 30; Sp. p. 6629; Gaz. vol. 148; p. 1123.
Trunk-harness. A. D. Williams. No. 941,969; Nov. 30; Sp. p. 7726; Gaz. vol. 148; p. 1301.
Trunk-leg, Folding. R. C. Bain. No. 940,421; Nov. 16; Sp. p. 4400; Gaz. vol. 148; p. 737.
Trunk, Wardrobe-. G. H. Wheary. No. 939,575; Nov. 9; Sp. p. 2489; Gaz. vol. 148; p. 413.
Truss. T. H. Stanley. No. 940,622; Nov. 16; Sp. p. 4815; Gaz. vol. 148; p. 803.
Tube: *See* Mailing-tube.
Tube. H. I. Van Nostrand. No. 941,745; Nov. 30; Sp. p. 7253; Gaz. vol. 148; p. 1223.
Tube-mill, &c. P. T. Lindhard. No. 939,044; Nov. 2; Sp. p. 1279; Gaz. vol. 148; p. 206.
Tube-mill lining. G. H. Rotherham. No. 939,037; Nov. 9; Sp. p. 2437; Gaz. vol. 148; p. 435.
Tube-welding apparatus. H. Dicke and E. Klinkmann. No. 939,591; Nov. 9; Sp. p. 2545; Gaz. vol. 148; p. 418.
Tubes, Apparatus for making spirally-wound. C. F. Jenkins. No. 941,255; Nov. 23; Sp. p. 6195; Gaz. vol. 148; p. 1039.
Tubes, Forming metallic. L. D. Davis. No. 938,646; Nov. 2; Sp. p. 440; Gaz. vol. 148; p. 68.
Tubes, Method of and apparatus for interiorly coating. E. James. No. 938,489; Nov. 2; Sp. p. 92; Gaz. vol. 148; p. 15.
Tubing. E. T. Greenfield. No. 938,575; Nov. 2; Sp. p. 304; Gaz. vol. 148; p. 45.
Tubing, Apparatus for making spiral. E. T. Greenfield. No. 939,244; Nov. 9; Sp. p. 1725; Gaz. vol. 148; p. 299.
Tubing, Sheet-metal. W. P. Lawrence. No. 939,039; Nov. 2; Sp. p. 1269; Gaz. vol. 148; p. 204.
Tuberculosis, Preparing a preventive of. J. F. Rosenbach. No. 939,097; Nov. 2; Sp. p. 1574; Gaz. vol. 148; p. 224.
Tug attachment, Shaft-. A. Littman and W. J. Lackie. No. 941,320; Nov. 23; Sp. p. 6342; Gaz. vol. 148; p. 1061.
Tug or carrier. Thill. W. R. Noggle. No. 941,943; Nov. 30; Sp. p. 7672; Gaz. vol. 148; p. 1292.
Tunnels and the like, Bulkhead for. G. W. Jackson. No. 940,323; Nov. 16; Sp. p. 4169; Gaz. vol. 148; p. 703.
Turbine. C. A. Kaiser. No. 939,514; Nov. 9; Sp. p. 2360; Gaz. vol. 148; p. 391.
Turbine. J. H. Felthousen. No. 939,821; Nov. 9; Sp. p. 3022; Gaz. vol. 148; p. 498.
Turbine-blade. H. S. Loud and J. Panter. No. 941,375; Nov. 30; Sp. p. 6461; Gaz. vol. 148; p. 1100.
Turbine-blade-holding means. C. Gilson. No. 941,411; Nov. 30; Sp. p. 6565; Gaz. vol. 148; p. 1113.
Turbine-blading. J. E. Snyder. No. 941,389; Nov. 30; Sp. p. 6497; Gaz. vol. 148; p. 1103.
Turbine, Compound. G. Meyersberg. No. 941,794; Nov. 30; Sp. p. 7357; Gaz. vol. 148; p. 1240.
Turbine-controller. W. A. Loudon. No. 941,426; Nov. 30; Sp. p. 6593; Gaz. vol. 148; p. 1117.
Turbine, Elastic-fluid. J. S. Green. No. 940,802; Nov. 23; Sp. p. 5241; Gaz. vol. 148; p. 889.
Turbine, Elastic-fluid. P. J. Hedlund. No. 940,874; Nov. 23; Sp. p. 5381; Gaz. vol. 148; p. 912.
Turbine, Elastic-fluid. G. Westinghouse. No. 941,395; Nov. 30; Sp. p. 6518; Gaz. vol. 148; p. 1107.
Turbine, Elastic-fluid. R. N. Ehrhart. No. 941,409; Nov. 30; Sp. p. 6561; Gaz. vol. 148; p. 1112.
Turbine, Internal-combustion gas-. G. E. Dod. No. 939,229; Nov. 9; Sp. p. 1700; Gaz. vol. 148; p. 295.
Turbine, Marine. G. Westinghouse. No. 941,396; Nov. 30; Sp. p. 6520; Gaz. vol. 148; p. 1108.
Turbine, Steam-. M. Keller. No. 941,322; Nov. 23; Sp. p. 6337; Gaz. vol. 148; p. 1060.
Turbines, Automatic stop for elastic-fluid. F. Hodgkinson. No. 940,689; Nov. 23; Sp. p. 4981; Gaz. vol. 148; p. 850.
Turn-table. H. M. Verplanck. No. 938,920; Nov. 2; Sp. p. 1035; Gaz. vol. 148; p. 164.
Turpentine-cup. E. A. McKoy. No. 941,724; Nov. 30; Sp. p. 7210; Gaz. vol. 148; p. 1216.
Twine-cutter. J. H. Keating. No. 941,995; Nov. 30; Sp. p. 7766; Gaz. vol. 148; p. 1308.
Twine-cutter, Safety. F. H. Haskell. No. 939,129; Nov. 2; Sp. p. 1444; Gaz. vol. 148; p. 235.
Twine-making machine. C. Kleren. No. 939,268; Nov. 9; Sp. p. 1780; Gaz. vol. 148; p. 308.
Twine take-up. J. B. Eastman. No. 939,233; Nov. 9; Sp. p. 1707; Gaz. vol. 148; p. 296.
Twyer, Injector-. G. A. Williams. No. 941,833; Nov. 30; Sp. p. 7461; Gaz. vol. 148; p. 1254.
Type-bars, Manufacture of. F. H. Richards. No. 940,404; Nov. 16; Sp. p. 4372; Gaz. vol. 148; p. 731.
Type casting and composing machine. W. Ackerman. No. 940,377; Nov. 16; Sp. p. 4311; Gaz. vol. 148; p. 722.
Type receiving and supporting device. E. Terrell. No. 940,087; Nov. 16; Sp. p. 3638; Gaz. vol. 148; p. 621.
Type setting and casting machine. C. Koske. No. 941,931; Nov. 30; Sp. p. 7651; Gaz. vol. 148; p. 1288.
Type setting and casting machine. O. Koske. No. 941,932; Nov. 30; Sp. p. 7652; Gaz. vol. 148; p. 1289.
Type-writer. S. Aronson. No. 939,965; Nov. 16; Sp. p. 3355; Gaz. vol. 148; p. 577.
Type-writer attachment. A. C. Kendrick. No. 939,265; Nov. 9; Sp. p. 1769; Gaz. vol. 148; p. 307.
Type-writer attachment. E. Z. Lewis. No. 940,336; Nov. 16; Sp. p. 4199; Gaz. vol. 148; p. 708.
Type-writer cabinet. M. Foley. No. 941,985; Nov. 30; Sp. p. 7752; Gaz. vol. 148; p. 1305.
Type-writer carriage-return and line-spacing mechanism. G. Trejo. No. 938,801; Nov. 2; Sp. p. 748; Gaz. vol. 148; p. 121.
Type-writer-carriage stop mechanism. M. B. Sargent. No. 939,640; Nov. 9; Sp. p. 2641; Gaz. vol. 148; p. 436.
Type-writer desk or table-top. G. M. Crider. No. 938,464; Nov. 2; Sp. p. 24; Gaz. vol. 148; p. 6.
Type-writer, Key-wheel. J. W. Miller, Sr. No. 941,026; Nov. 23; Sp. p. 5708; Gaz. vol. 148; p. 963.
Type-writer paper-roll attachment. A. F. McCulley. No. 938,885; Nov. 2; Sp. p. 943; Gaz. vol. 148; p. 149.
Type-writer tabulating device. C. S. Labofish. No. 940,395; Nov. 16; Sp. p. 4350; Gaz. vol. 148; p. 728.
Type-writers, Paper-feed for. E. S. Mansfield. No. 941,889; Nov. 30; Sp. p. 7569; Gaz. vol. 148; p. 1273.
Type-writing machine. J. A. Hagerstrom. No. 938,480; Nov. 2; Sp. p. 59; Gaz. vol. 148; p. 11.
Type-writing machine. L. C. Myers. No. 938,500; Nov. 2; Sp. p. 116; Gaz. vol. 148; p. 19.
Type-writing machine. E. L. Plunder. No. 938,507; Nov. 2; Sp. p. 130; Gaz. vol. 148; p. 21.
Type-writing machine. J. Felbel. No. 938,562; Nov. 2; Sp. p. 274; Gaz. vol. 148; p. 41.
Type-writing machine. J. H. O'Brien. No. 938,690; Nov. 2; Sp. p. 538; Gaz. vol. 148; p. 83.
Type-writing machine. C. B. Yaw. No. 939,579; Nov. 9; Sp. p. 2500; Gaz. vol. 148; p. 414.
Type-writing machine. E. E. Barney. No. 939,583; Nov. 9; Sp. p. 2512; Gaz. vol. 148; p. 415.
Type-writing machine. A. T. Brown. No. 939,587; Nov. 9; Sp. p. 2523; Gaz. vol. 148; p. 416.
Type-writing machine. O. L. Ingram. No. 940,322; Nov. 16; Sp. p. 4162; Gaz. vol. 148; p. 702.
Type-writing machine. C. S. Labofish. No. 940,332; Nov. 16; Sp. p. 4185; Gaz. vol. 148; p. 706.
Type-writing machine. C. C. Robbins. No. 940,363; Nov. 16; Sp. p. 4250; Gaz. vol. 148; p. 717.
Type-writing machine. H. R. White. No. 940,765; Nov. 23; Sp. p. 5153; Gaz. vol. 148; p. 876.
Type-writing machine. O. Woodward. No. 941,120; Nov. 23; Sp. p. 5897; Gaz. vol. 148; p. 993.
Type-writing machine. C. B. Yaw. No. 941,122; Nov. 23; Sp. p. 5904; Gaz. vol. 148; p. 994.
Type-writing machine. J. C. McLaughlin. No. 941,166; Nov. 23; Sp. p. 6006; Gaz. vol. 148; p. 1010.
Type-writing-machine adjusting appliance. C. S. Alverson. No. 941,294; Nov. 23; Sp. p. 6289; Gaz. vol. 148; p. 1052.
Types and type-bars, Machine for making. F. H. Richards. No. 940,277; Nov. 16; Sp. p. 4051; Gaz. vol. 148; p. 688.
Typographic machine or machine of like character. O. Mergenthaler. No. 940,071; Nov. 16; Sp. p. 3597; Gaz. vol. 148; p. 615.
Typographic machines, Keyboard mechanism of. H. Pearce. No. 941,383; Nov. 30; Sp. p. 6482; Gaz. vol. 148; p. 1103.
Umbrella, Foldable. A. M. Morton. No. 940,346; Nov. 16; Sp. p. 4217; Gaz. vol. 148; p. 711.
Umbrella, Folding. J. Edmondson. No. 938,833; Nov. 2; Sp. p. 828; Gaz. vol. 148; p. 133.
Umbrella, Folding. X. J. Zoller. No. 939,842; Nov. 9; Sp. p. 3061; Gaz. vol. 148; p. 505.
Umbrella, Folding. J. Casale. No. 941,615; Nov. 30; Sp. p. 6967; Gaz. vol. 148; p. 1178.
Umbrella-frame. E. C. Beecher. No. 938,950; Nov. 2; Sp. p. 1096; Gaz. vol. 148; p. 174.
Umbrella-rib socket. C. Hoff. No. 938,863; Nov. 2; Sp. p. 884; Gaz. vol. 148; p. 142.
Umbrellas and parasols, Securing notches to sticks of. J. B. Riehl. No. 941,952; Nov. 30; Sp. p. 7687; Gaz. vol. 148; p. 1295.
Undertaker's lifting-strap. J. P. Huber. No. 941,072; Nov. 23; Sp. p. 5800; Gaz. vol. 148; p. 978.
Union suit. J. E. Richards. (Reissue.) No. 13,046; Nov. 23; Sp. p. 6408; Gaz. vol. 148; p. 1071.
Unloading device, Shiftable instantaneous. J. Herks. No. 940,511; Nov. 23; Sp. p. 5256; Gaz. vol. 148; p. 892.
Urinal. M. L. Sherman. No. 940,077; Nov. 16; Sp. p. 3620; Gaz. vol. 148; p. 617.
Urinal, Female. M. M. Van Vechten. No. 940,756; Nov. 23; Sp. p. 5129; Gaz. vol. 148; p. 873.

Vacuum-cleaner. T. Wiedemann and J. H. Templin. No. 939,117; Nov. 2; Sp. p. 1414; Gaz. vol. 148; p. 230.
Vacuum-cleaner. I. L. Green. No. 941,675; Nov. 30; Sp. p. 7091; Gaz. vol. 148; p. 1198.
Vacuum-cleaner. I. L. Green. No. 941,676; Nov. 30; Sp. p. 7092; Gaz. vol. 148; p. 1198.
Vacuum cleaning apparatus, Separating-tank for. D. Fogarty. No. 940,142; Nov. 16; Sp. p. 3758; Gaz. vol. 148; p. 640.
Valve. P. W. Knauf. No. 938,491; Nov. 2; Sp. p. 101; Gaz. vol. 148; p. 15.
Valve. T. J. Hendricks. No. 939,499; Nov. 9; Sp. p. 2331; Gaz. vol. 148; p. 387.
Valve. J. L. Fitts. No. 939,823; Nov. 9; Sp. p. 3028; Gaz. vol. 148; p. 499.
Valve. C. A. Dawley. No. 939,871; Nov. 16; Sp. p. 3393; Gaz. vol. 148; p. 585.
Valve. C. H. Smith. No. 940,629; Nov. 16; Sp. p. 4813; Gaz. vol. 148; p. 802.
Valve. J. C. Evans. No. 941,314; Nov. 23; Sp. p. 6326; Gaz. vol. 148; p. 1057.
Valve. W. C. Marsh. No. 941,934; Nov. 30; Sp. p. 7658; Gaz. vol. 148; p. 1289.
Valve, Air-. F. C. Goff. No. 939,196; Nov. 2; Sp. p. 1596; Gaz. vol. 148; p. 258.
Valve, Air-. J. W. Ledoux. No. 939,277; Nov. 9; Sp. p. 1802; Gaz. vol. 148; p. 311.
Valve, Automatic air-. J. P. Morsh. No. 941,791; Nov. 30; Sp. p. 7349; Gaz. vol. 148; p. 1239.
Valve, Automatic anticsalding and mixing. F. L. White. No. 941,596; Nov. 30; Sp. p. 6924; Gaz. vol. 148; p. 1172.
Valve, Automatic relief-. N. Gambino. No. 938,570; Nov. 2; Sp. p. 295; Gaz. vol. 148; p. 43.
Valve, Automatically-closing. F. H. Goldsmith. No. 938,574; Nov. 2; Sp. p. 302; Gaz. vol. 148; p. 45.
Valve-controlling device. E. T. Pardee. No. 941,033; Nov. 23; Sp. p. 5720; Gaz. vol. 148; p. 965.
Valve, Cut-off. J. L. Moore. No. 940,815; Nov. 23; Sp. p. 5264; Gaz. vol. 148; p. 893.
Valve device for corrosive liquids. W. H. Smith. No. 939,927; Nov. 9; Sp. p. 3251; Gaz. vol. 148; p. 536.
Valve device for corrosive liquids. W. H. Smith. No. 941,351; Nov. 23; Sp. p. 6395; Gaz. vol. 148; p. 1069.
Valve, Dry-pipe. H. G. Baker. No. 941,971; Nov. 30; Sp. p. 7729; Gaz. vol. 148; p. 1302.
Valve, Engine-. W. R. McKeen, Jr. No. 940,349; Nov. 16; Sp. p. 4223; Gaz. vol. 148; p. 712.
Valve, Fluid-pressure. J. Folco. No. 940,385; Nov. 16; Sp. p. 4331; Gaz. vol. 148; p. 725.
Valve for locomotive-boilers, &c., Check-. T. R. Fondren. No. 940,453; Nov. 16; Sp. p. 4473; Gaz. vol. 148; p. 747.
Valve for steam-engines, &c., Reducing or pressure-regulating. H. Roux. No. 940,195; Nov. 16; Sp. p. 3882; Gaz. vol. 148; p. 659.
Valve for steep-tanks. J. F. Dornfeld. No. 941,442; Nov. 30; Sp. p. 6623; Gaz. vol. 148; p. 1122.
Valve for water-tanks, Float-. E. N. Campbell. No. 940,127; Nov. 16; Sp. p. 3732; Gaz. vol. 148; p. 635.
Valve-gear. A. Chubb and C. R. Mullen. No. 941,189; Nov. 23; Sp. p. 6065; Gaz. vol. 148; p. 1018.
Valve-gear for engines. T. Jolma. No. 941,523; Nov. 30; Sp. p. 6781; Gaz. vol. 148; p. 1149.
Valve, Hydraulic. E. W. Marshall. No. 940,643; Nov. 16; Sp. p. 4864; Gaz. vol. 148; p. 810.
Valve-inserting machine. F. A. Phelps. No. 940,356; Nov. 16; Sp. p. 4237; Gaz. vol. 148; p. 714.
Valve, Lock-. T. M. Swank. No. 939,108; Nov. 2; Sp. p. 1392; Gaz. vol. 148; p. 227.
Valve mechanism for heating apparatus. J. L. Fitts. No. 941,703; Nov. 30; Sp. p. 7159; Gaz. vol. 148; p. 1208.
Valve, Needle-. J. Maas. No. 938,601; Nov. 2; Sp. p. 365; Gaz. vol. 148; p. 54.
Valve of the globe type. H. J. Kiel. No. 940,163; Nov. 16; Sp. p. 3798; Gaz. vol. 148; p. 647.
Valve, Radiator-. J. B. Morgan and C. R. Webster. No. 940,182; Nov. 16; Sp. p. 3847; Gaz. vol. 148; p. 653
Valve, Regulating-. B. Blümel. No. 939,792; Nov. 9; Sp. p. 2973; Gaz. vol. 148; p. 489.
Valve-replacing apparatus. E. W. Goodwin. No. 941,873; Nov. 30; Sp. p. 7540; Gaz. vol. 148; p. 1268.
Valve, Rotary discharge-. O. Mantius. No. 941,024; Nov. 23; Sp. p. 5703; Gaz. vol. 148; p. 962.
Valve, Safety-. J. C. Watson. No. 941,478; Nov. 30; Sp. p. 6695; Gaz. vol. 148; p. 1134.
Valve-stem lubricator and packing. W. E. Foltz. No. 940,143; Nov. 16; Sp. p. 3758; Gaz. vol. 148; p. 641.
Valve, Stop or like. G. J. O. D. Dikkers. No. 940,239; Nov. 16; Sp. p. 3964; Gaz. vol. 148; p. 674.
Valve, Straightway. T. Barrett. No. 940,577; Nov. 16; Sp. p. 4736; Gaz. vol. 148; p. 789.
Valve, Thermostatic. A. D. Horne. No. 940,155; Nov. 16; Sp. p. 3779; Gaz. vol. 148; p. 644.
Valves, Automatically opening and closing. G. Dalén. No. 939,986; Nov. 16; Sp. p. 3390; Gaz. vol. 148; p. 584.
Valves of washbasins, bath-tubs, or other receptacles, Mechanism for operating the outlet-. J. Miller. No. 941,797; Nov. 30; Sp. p. 7361; Gaz. vol. 148; p. 1241.
Vaporizer for disinfectants. C. C. Leathers. No. 940,604; Nov. 16; Sp. p. 4783; Gaz. vol. 148; p. 797.
Vaporizer, Oil-. J. F. Malcom. No. 940,981; Nov. 23; Sp. p. 5597; Gaz. vol. 148; p. 948.
Vault-closure. A. M. Myers and W. A. Polster. No. 939,922; Nov. 9; Sp. p. 3242; Gaz. vol. 148; p. 534.
Vault, Grave-. S. Fry. No. 941,986; Nov. 30; Sp. p. 7753; Gaz. vol. 148; p. 1306.
Vegetable-cutter. W. S. Myers and C. C. Kahne. No. 939,951; Nov. 9; Sp. p. 3298; Gaz. vol. 148; p. 544.
Vegetable-cutter. J. Spenko. No. 940,830; Nov. 23; Sp. p. 5297; Gaz. vol. 148; p. 898.
Vegetable-cutter. J. Moreau. No. 941,161; Nov. 23; Sp. p. 5992; Gaz. vol. 148; p. 1008.
Vegetable-masher. B. Itsuka. No. 941,073; Nov. 23; Sp. p. 5801; Gaz. vol. 148; p. 978.
Vehicle-bodies, Detachable floor for. W. B. C. Hershey. No. 940,154; Nov. 16; Sp. p. 3778; Gaz. vol. 148; p. 644.
Vehicle-body. E. W. Crosby. No. 939,478; Nov. 9; Sp. p. 2296; Gaz. vol. 148; p. 380.
Vehicle-brake. G. Stables. No. 938,720; Nov. 2; Sp. p. 589; Gaz. vol. 148; p. 92.
Vehicle-brake. W. T. Hinshaw. No. 941,876; Nov. 30; Sp. p. 7546; Gaz. vol. 148; p. 1269.
Vehicle-brake, Automatic. C. E. Crumm. No. 941,063; Nov. 23; Sp. p. 5778; Gaz. vol. 148; p. 975.
Vehicle canopy-top. J. Reid. No. 941,274; Nov. 23; Sp. p. 6249; Gaz. vol. 148; p. 1046.
Vehicle construction, Motor-. E. Grunefeldt. No. 941,517; Nov. 30; Sp. p. 6775; Gaz. vol. 148; p. 1147.
Vehicle cushioned wheel. W. J. Hipman. No. 941,453; Nov. 30; Sp. p. 6642; Gaz. vol. 148; p. 1126.
Vehicle, Dumping-. W. H. Phillips. No. 940,721; Nov. 23; Sp. p. 5047; Gaz. vol. 148; p. 862.
Vehicle, Foot-propelled. N. R. Thibert. No. 941,471; Nov. 30; Sp. p. 6682; Gaz. vol. 148; p. 1132.
Vehicle, Motor-. B. D. Gray. No. 940,145; Nov. 16; Sp. p. 3764; Gaz. vol. 148; p. 641.
Vehicle, Motor-. F. E. Case. No. 940,511; Nov. 16; Sp. p. 4597; Gaz. vol. 148; p. 767.
Vehicle, Motor-. J. A. Charter. No. 941,129; Nov. 23; Sp. p. 5926; Gaz. vol. 148; p. 997.
Vehicle-propelling means. J. C. Leydorf. No. 942,000; Nov. 30; Sp. p. 7783; Gaz. vol. 148; p. 1310.
Vehicle running-gear. I. E. Palmer. No. 938,782; Nov. 2; Sp. p. 707; Gaz. vol. 148; p. 114.
Vehicle running-gear. I. E. Palmer. No. 938,784; Nov. 2; Sp. p. 715; Gaz. vol. 148; p. 115.
Vehicle-seat. F. J. Elsner. No. 941,983; Nov. 30; Sp. p. 7748; Gaz. vol. 148; p. 1305.
Vehicle spring-fork, Wheeled-. J. W. Gates. No. 940,245; Nov. 16; Sp. p. 3976; Gaz. vol. 148; p. 676.
Vehicle steering-gear. J. A. Wilson, Jr. No. 939,180; Nov. 2; Sp. p. 1563; Gaz. vol. 148; p. 253.
Vehicle, Trackless power-driven. I. E. Palmer. No. 938,783; Nov. 2; Sp. p. 712; Gaz. vol. 148; p. 115.
Vehicle, Trackless power-driven. I. E. Palmer. No. 938,786; Nov. 2; Sp. p. 719; Gaz. vol. 148; p. 116.
Vehicle, Trackless power-driven. I. E. Palmer. No. 939,077; Nov. 2; Sp. p. 1334; Gaz. vol. 148; p. 217.
Vehicle, Trackless power-driven. I. E. Palmer. No. 939,158; Nov. 2; Sp. p. 1516; Gaz. vol. 148; p. 246.
Vehicle-wheel. T. F. Scott. No. 938,796; Nov. 2; Sp. p. 738; Gaz. vol. 148; p. 119.
Vehicle-wheel. E. Dettelbach and E. W. B. Powell. No. 939,190; Nov. 2; Sp. p. 1586; Gaz. vol. 148; p. 256.
Vehicle-wheel. L. Garnier. No. 939,681; Nov. 9; Sp. p. 2726; Gaz. vol. 148; p. 450.
Vehicle-wheel. T. Hübscher. No. 939,695; Nov. 9; Sp. p. 2756; Gaz. vol. 148; p. 455.
Vehicle-wheel. H. O. Clark. No. 941,976; Nov. 30; Sp. p. 7739; Gaz. vol. 148; p. 1304.
Vehicle-wheel, Spring. E. Murray. No. 939,432; Nov. 9; Sp. p. 2196; Gaz. vol. 148; p. 365.
Vehicles, Antislipping tread attachment for motor-. M. Jenseo. No. 941,993; Nov. 30; Sp. p. 7762; Gaz. vol. 148; p. 1308.
Vehicles, Fore-carriage of. J. Schmitt. No. 939,555; Nov. 9; Sp. p. 2445; Gaz. vol. 148; p. 406.
Vehicles, Front-wheel drive for traction-. L. K. Brown. No. 939,972; Nov. 16; Sp. p. 3348; Gaz. vol. 148; p. 579.
Vehicles, Gear-actuating mechanism for motor-. G. H. Lanchester. No. 941,261; Nov. 23; Sp. p. 6204; Gaz. vol. 148; p. 1041.
Vehicles, Means for preventing rebound in. S. Furmidge. No. 938,733; Nov. 2; Sp. p. 650; Gaz. vol. 148; p. 104.
Vehicles, Pilot-light-shifting attachment for. E. E. Hampton and C. G. Smith. No. 941,574; Nov. 30; Sp. p. 6887; Gaz. vol. 148; p. 1166.
Vehicles, Pole-attaching means for. J. G. Maloney. No. 940,982; Nov. 23; Sp. p. 5598; Gaz. vol. 148; p. 948.
Velocipede. G. C. Worthington. No. 941,121; Nov. 23; Sp. p. 5902; Gaz. vol. 148; p. 994.
Vending device, Liquid-. H. G. Cordley. No. 941,760; Nov. 30; Sp. p. 7292; Gaz. vol. 148; p. 1228.
Vending-machine. G. F. Johnson. No. 938,767; Nov. 2; Sp. p. 678; Gaz. vol. 148; p. 108.
Vending-machine. W. H. Laraway. No. 941,079; Nov. 23; Sp. p. 5811; Gaz. vol. 148; p. 980.
Vending-machine, Coin-controlled. E. F. Spaulding. No. 939,563; Nov. 9; Sp. p. 2461; Gaz. vol. 148; p. 408.
Vending machine, Food-. I. O. Carlson. No. 941,495; Nov. 30; Sp. p. 6727; Gaz. vol. 148; p. 1140.
Vending machine, Stamp or ticket. E. D. Schmitt. No. 938,900; Nov. 2; Sp. p. 990; Gaz. vol. 148; p. 156.
Vending-machines, Coin-selecting mechanism for. E. D. Schmitt. No. 940,074; Nov. 16; Sp. p. 3614; Gaz. vol. 148; p. 616.
Veneering-machine. T. Richardson. No. 938,896; Nov. 2; Sp. p. 976; Gaz. vol. 148; p. 154.
Veneers, Gluing. A. A. Dennis. (Reissue.) No. 13,034; Nov. 2; Sp. p. 1605; Gaz. vol. 148; p. 261.
Vent-cap. J. R. Williams. No. 941,668; Nov. 30; Sp. p. 7081; Gaz. vol. 148; p. 1196.
Ventilator: *See* Car-ventilator; *See* Car-window ventilator; Mine-ventilator.
Ventilator. G. A. Lewis. No. 940,036; Nov. 16; Sp. p. 3484; Gaz. vol. 148; p. 602.
Ventilator. J. M. Rose. No. 941,171; Nov. 23; Sp. p. 6022; Gaz. vol. 148; p. 1012.

Ventilator and smoke-consumer, Combined. J. Wood. No. 941,900; Nov. 30; Sp. p. 7593; Gaz. vol. 148; p. 1278.
Vessel, Apparatus for recording deviations in the course of a. J. Fraser and C. Jumeaux. No. 939,999; Nov. 16; Sp. p. 3417; Gaz. vol. 148; p. 589.
Vessels, Determining positions of. R. A. Fessenden. No. 941,565; Nov. 30; Sp. p. 6863; Gaz. vol. 148; p. 1163.
Vests, trousers, &c., Means for adjusting. F. M. Schmidt. No. 941,277; Nov. 23; Sp. p. 6257; Gaz. vol. 148; p. 1047.
Veterinary instrument. E. G. Lawton. No. 941,325; Nov. 23; Sp. p. 6341; Gaz. vol. 148; p. 1061.
Violin. F. O. Fish. No. 939,486; Nov. 9; Sp. p. 2310; Gaz. vol. 148; p. 383.
Violin chin-rests, Shoulder-pad attachment for. C. Schaumburg. No. 940,405; Nov. 16; Sp. p. 4375; Gaz. vol. 148; p. 732.
Violin-key. H. Harmer. No. 941,196; Nov. 23; Sp. p. 6080; Gaz. vol. 148; p. 1020.
Vise and sharpening-gage, Combination tool-. G. T. Cantara. No. 938,969; Nov. 2; Sp. p. 1122; Gaz. vol. 148; p. 180.
Vise, Fluid-actuated. J. Sistek and J. Spinka. No. 941,543; Nov. 30; Sp. p. 6824; Gaz. vol. 148; p. 1155.
Vise, Quick-acting woodworking. W. Y. Mentzer. No. 939,284; Nov. 9; Sp. p. 1816; Gaz. vol. 148; p. 314.
Voltaic high-current arcs, Production of. H. Pauling. No. 939,442; Nov. 9; Sp. p. 2216; Gaz. vol. 148; p. 368.
Voting-machine. G. Stacy and G. A. Julius. No. 939,755; Nov. 9; Sp. p. 2884; Gaz. vol. 148; p. 476.
Voting-machine. G. Stacy and G. A. Julius. No. 939,929; Nov. 9; Sp. p. 3258; Gaz. vol. 148; p. 537.
Voting-machine. J. H. McElroy. No. 941,800; Nov. 30; Sp. p. 7265; Gaz. vol. 148; p. 1242.
Voting-machine. J. H. McElroy. No. 941,802; Nov. 30; Sp. p. 7379; Gaz. vol. 148; p. 1242.
Voting-machine construction. C. F. Currey. No. 938,643; Nov. 2; Sp. p. 437; Gaz. vol. 148; p. 67.
Voting-machine counter construction. C. F. Currey. No. 939,674; Nov. 9; Sp. p. 2715; Gaz. vol. 148; p. 448.
Voting-machine interlocking mechanism. J. H. McElroy. No. 941,801; Nov. 30; Sp. p. 7373; Gaz. vol. 148; p. 1242.
Vulcanizer. F. E. Smith. No. 939,342; Nov. 9; Sp. p. 1971; Gaz. vol. 148; p. 335.
Wagon. G. W. Gayle. No. 940,476; Nov. 16; Sp. p. 4479; Gaz. vol. 148; p. 748.
Wagon-bed. C. B. Tillery. No. 939,758; Nov. 9; Sp. p. 2908; Gaz. vol. 148; p. 477.
Wagon-body. H. Wachter. No. 939,114; Nov. 2; Sp. p. 1409; Gaz. vol. 148; p. 229.
Wagon-brake. J. Auth and H. Kettler. No. 938,810; Nov. 2; Sp. p. 774; Gaz. vol. 148; p. 125.
Wagon-brake. J. E. Hewitt. No. 940,249; Nov. 16; Sp. p. 3985; Gaz. vol. 148; p. 678.
Wagon, Camping-. D. L. Hardin. No. 941,195; Nov. 23; Sp. p. 6078; Gaz. vol. 148; p. 1020.
Wagon-dump. E. Ewel and S. L. Clement. No. 940,447; Nov. 16; Sp. p. 4459; Gaz. vol. 148; p. 745.
Wagon, Dumping-. H. L. Hazen. No. 939,130; Nov. 2; Sp. p. 1446; Gaz. vol. 148; p. 235.
Wagon, Dumping-. J. Heberling. No. 939,414; Nov. 9; Sp. p. 2159; Gaz. vol. 148; p. 358.
Wagon, Dumping-. T. Wright. No. 939,782; Nov. 9; Sp. p. 2945; Gaz. vol. 148; p. 485.
Wagon-jack. R. C. Tucker. No. 939,113; Nov. 2; Sp. p. 1408; Gaz. vol. 148; p. 229.
Wagon, Log-. W. M. Norris. No. 940,547; Nov. 16; Sp. p. 4078; Gaz. vol. 148; p. 778.
Wagon-rack, Revolving suspension. W. H. Martin. No. 939,147; Nov. 2; Sp. p. 1493; Gaz. vol. 148; p. 242.
Wagon side-board attachment. A. Sanders and C. M. Rebman. No. 941,956; Nov. 30; Sp. p. 7696; Gaz. vol. 148; p. 1297.
Wagon storm-front. H. Foster. No. 939,998; Nov. 16; Sp. p. 3416; Gaz. vol. 148; p. 588.
Wainscoting, walls, and the like, Composition of matter for the finishing coat on. G. Clapham. No. 941,498; Nov. 30; Sp. p. 6732; Gaz. vol. 148; p. 1141.
Waist and skirt supporter. A. M. Preston. No. 941,207; Nov. 23; Sp. p. 6105; Gaz. vol. 148; p. 1024.
Wall and constructing same, Composite. J. H. Magdiel. No. 939,726; Nov. 9; Sp. p. 2818; Gaz. vol. 148; p. 466.
Wall-covering. W. M. Stevenson. No. 942,019; Nov. 30; Sp. p. 7813; Gaz. vol. 148; p. 1316.
Walls, &c., Reinforcement for brick. T. A. Weaver. No. 938,925; Nov. 2; Sp. p. 1049; Gaz. vol. 148; p. 166.
Wallet. J. R. Cardwell. No. 940,853; Nov. 23; Sp. p. 5343; Gaz. vol. 148; p. 906.
Warp-beam tension device. G. Keller. No. 941,201; Nov. 23; Sp. p. 6093; Gaz. vol. 148; p. 1022.
Warp stop-motion, Electric. J. Regan. No. 939,924; Nov. 9; Sp. p. 3245; Gaz. vol. 148; p. 535.
Warping-machine. G. Sipp. No. 940,080; Nov. 16; Sp. p. 3709; Gaz. vol. 148; p. 632.
Washer: *See* Bottle-washer; Gas-washer; Steam-washer.
Washers, Bearing for sterilizing-. W. Bartholomew. No. 940,663; Nov. 23; Sp. p. 4925; Gaz. vol. 148; p. 842.
Washing-machine. W. C. and L. R. Simmons. No. 939,340; Nov. 9; Sp. p. 1969; Gaz. vol. 148; p. 335.
Washing-machine. T. H. Lewis and H. C. Graves. No. 940,882; Nov. 23; Sp. p. 5399; Gaz. vol. 148; p. 915.
Washing-machine. W. E. Devore. No. 941,344; Nov. 23; Sp. p. 6371; Gaz. vol. 148; p. 1066.
Washing-machine. M. M. Hanson. No. 941,989; Nov. 30; Sp. p. 7758; Gaz. vol. 148; p. 1307.
Washing-machine attachment. S. Bowman. No. 941,304; Nov. 23; Sp. p. 6306; Gaz. vol. 148; p. 1055.
Washing-machine gearing. A. Van Wormer. No. 939,645; Nov. 9; Sp. p. 2651; Gaz. vol. 148; p. 438.
Washing-machine gearing device. W. H. Johnson. No. 940,273; Nov. 16; Sp. p. 3992; Gaz. vol. 148; p. 679.
Washing-machine, Rotary. W. E. Perry. No. 938,506; Nov. 2; Sp. p. 128; Gaz. vol. 148; p. 20.
Washboard. H. A. Bierley. No. 940,499; Nov. 16; Sp. p. 4471; Gaz. vol. 148; p. 763.
Washboard attachment. M. G. Sarno. No. 940,896; Nov. 23; Sp. p. 5428; Gaz. vol. 148; p. 920.
Washtub-cover. A. Adams. No. 941,054; Nov. 23; Sp. p. 5760; Gaz. vol. 148; p. 972.
Watch. A. Aune. No. 940,117; Nov. 16; Sp. p. 3709; Gaz. vol. 148; p. 632.
Watch-movement holder. G. W. Bowers. No. 938,817; Nov. 2; Sp. p. 789; Gaz. vol. 148; p. 127.
Watch setting device. J. H. Gorman. No. 939,009; Nov. 2; Sp. p. 1210; Gaz. vol. 148; p. 193.
Watch setting mechanism. A. Plean. No. 939,082; Nov. 2; Sp. p. 1345; Gaz. vol. 148; p. 219.
Watch stem-winding mechanism. A. Plean. No. 939,081; Nov. 2; Sp. p. 1342; Gaz. vol. 148; p. 218.
Watches and clocks, Individual hair-spring-stud index for. C. Teske. No. 940,750; Nov. 23; Sp. p. 5116; Gaz. vol. 148; p. 871.
Watchmaker's roller-replacing tool. G. W. Bowers. No. 938,819; Nov. 2; Sp. p. 792; Gaz. vol. 148; p. 128.
Water-bag. F. A. Gordon. No. 941,245; Nov. 23; Sp. p. 6178; Gaz. vol. 148; p. 1036.
Water closet and tank. J. W. Sharp, Jr. No. 941,539; Nov. 30; Sp. p. 6817; Gaz. vol. 148; p. 1154.
Water-closet-disinfecting devices, Valve for. J. Kneen. No. 939,424; Nov. 9; Sp. p. 2179; Gaz. vol. 148; p. 362.
Water-closet floor-coupling. O. D. Wheeler. No. 938,533; Nov. 2; Sp. p. 214; Gaz. vol. 148; p. 30.
Water-closet-outlet connection. C. H. Moore. No. 938,777; Nov. 2; Sp. p. 698; Gaz. vol. 148; p. 112.
Water-closet stool. D. Craig. No. 940,435; Nov. 16; Sp. p. 4432; Gaz. vol. 148; p. 741.
Water-closet, &c., tank. G. H. Bailey. No. 940,951; Nov. 23; Sp. p. 5542; Gaz. vol. 148; p. 938.
Water-closet, &c., tank. G. H. Bailey. No. 940,952; Nov. 23; Sp. p. 5545; Gaz. vol. 148; p. 939.
Water-closet-tank valve. J. F. Willis. No. 940,295; Nov. 16; Sp. p. 4093; Gaz. vol. 148; p. 693.
Water-closet, Ventilating. C. H. Thompson. No. 940,833; Nov. 23; Sp. p. 5302; Gaz. vol. 148; p. 890.
Water-fountain. B. Kaminsky. No. 940,879; Nov. 23; Sp. p. 5393; Gaz. vol. 148; p. 914.
Water-gage. H. H. Vaage. No. 939,763; Nov. 9; Sp. p. 2918; Gaz. vol. 148; p. 479.
Water-heater. D. W. Allman. No. 938,623; Nov. 2; Sp. p. 400; Gaz. vol. 148; p. 60.
Water-heater. D. Hanlon. No. 940,685; Nov. 23; Sp. p. 4974; Gaz. vol. 148; p. 849.
Water-heater. G. C. Madsen. No. 940,980; Nov. 23; Sp. p. 5595; Gaz. vol. 148; p. 947.
Water-heater. G. H. Wade. No. 941,215; Nov. 23; Sp. p. 6124; Gaz. vol. 148; p. 1027.
Water-heater. H. R. Churchill. No. 941,618; Nov. 30; Sp. p. 6971; Gaz. vol. 148; p. 1179.
Water-heater. B. B. Kinkade. No. 941,882; Nov. 30; Sp. p. 7554; Gaz. vol. 148; p. 1271.
Water-heater, Electric. P. P. Meyers. No. 939,054; Nov. 2; Sp. p. 1292; Gaz. vol. 148; p. 206.
Water-heater, Electric. H. G. Levy and G. N. Blanchard. No. 939,605; Nov. 9; Sp. p. 2573; Gaz. vol. 148; p. 422.
Water-heater, Instantaneous. C. E. Duryea. No. 940,240; Nov. 16; Sp. p. 3995; Gaz. vol. 148; p. 675.
Water-heating system. B. B. Kinkade. No. 941,784; Nov. 30; Sp. p. 7338; Gaz. vol. 148; p. 1237.
Water-meter. H. I. Dilts. No. 941,563; Nov. 30; Sp. p. 6860; Gaz. vol. 148; p. 1162.
Water-meter, Self-registering. F. W. Hanna. No. 938,850; Nov. 2; Sp. p. 855; Gaz. vol. 148; p. 137.
Water-motor. C. J. Duncan. No. 938,969; Nov. 2; Sp. p 1169; Gaz. vol. 148; p. 186.
Water-motor. J. Hubmann. No. 939,506; Nov. 9; Sp. p. 2342; Gaz. vol. 148; p. 389.
Water-power-applying apparatus. F. T. Newbery. No. 941,090; Nov. 23; Sp. p. 5834; Gaz. vol. 148; p. 984.
Water-purifier. J. W. Morrison. No. 938,778; Nov. 2; Sp. p. 700; Gaz. vol. 148; p. 113.
Water, Purifying. J. W. Morrison. No. 938,779; Nov. 2; Sp. p. 702; Gaz. vol. 148; p. 113.
Water-purifying apparatus, Feeding device for. D. W. Patterson. No. 940,402; Nov. 16; Sp. p. 4368; Gaz. vol. 148; p. 731.
Water-tube boiler. G. Kingsley. No. 939,031; Nov. 2; Sp. p. 1253; Gaz. vol. 148; p. 201.
Water-tube boiler. J. P. Sneddon. No. 941,820; Nov. 30; Sp. p. 7429; Gaz. vol. 148; p. 1249.
Water-wheel. D. D. Dennis. No. 940,677; Nov. 23; Sp. p. 4960; Gaz. vol. 148; p. 846.
Water-wheel. W. Van Scoter. No. 941,474; Nov. 30; Sp. p. 6688; Gaz. vol. 148; p. 1133.
Wave-motor. J. L. Matthews. No. 938,681; Nov. 2; Sp. p. 524; Gaz. vol. 148; p. 80.
Weaving. B. F. McGuiness. No. 938,502; Nov. 2; Sp. p. 121; Gaz. vol. 148; p. 19.
Web-coating machine. W. A. Daniels. No. 939,396; Nov. 9; Sp. p. 2115; Gaz. vol. 148; p. 353.
Web-folding mechanism. E. Klein. No. 940,933; Nov. 23; Sp. p. 5501; Gaz. vol. 148; p. 932.
Wedges, Manufacturing compound tapered. C. E. Sweet. No. 940,949; Nov. 23; Sp. p. 5115; Gaz. vol. 148; p. 871.
Weeder. G. Greene. No. 938,759; Nov. 2; Sp. p. 666; Gaz. vol. 148; p. 106.

Weeder. F. M. Newland. No. 941,091; Nov. 23; Sp. p. 5835; Gaz. vol. 148; p. 985.
Weevils, Machine to destroy cotton-boll. F. H. Lathrop. No. 938,592; Nov. 2; Sp. p. 341; Gaz. vol. 148; p. 51.
Weigher, Automatic grain-. L. S. Godfrey. No. 941,633; Nov. 30; Sp. p. 7003; Gaz. vol. 148; p. 1185.
Weigher, Liquid-. E. F. Shue. No. 939,103; Nov. 2; Sp. p. 1383; Gaz. vol. 148; p. 225.
Weighing-machine. W. W. Rosenfield. No. 939,747; Nov. 9; Sp. p. 2868; Gaz. vol. 148; p. 473.
Welding-tool. W. A. Sparks. No. 940,903; Nov. 23; Sp. p. 5439; Gaz. vol. 148; p. 921.
Well-capping device, Oil-. F. M. Henning. No. 941,452; Nov. 30; Sp. p. 6641; Gaz. vol. 148; p. 1125.
Well drilling and operating apparatus. E. J. Fithian and H. D. Murray. No. 940,589; Nov. 16; Sp. p. 4758; Gaz. vol. 148; p. 792.
Well-strainers, Self-closing bottom for. J. A. Pollard. No. 941,205; Nov. 23; Sp. p. 6099; Gaz. vol. 148; p. 1023.
Well-tubing and means for connecting sections thereof. G. A. Pittman. No. 941,204; Nov. 23; Sp. p. 6098; Gaz. vol. 148; p. 1023.
Wells, Apparatus for firing explosives in. L. H. Broadwater. No. 941,852; Nov. 30; Sp. p. 7501; Gaz. vol. 148; p. 1261.
Wells, Plunger mechanism for oil-. L. R. McCarthy and J. C. Vroman. No. 940,347; Nov. 16; Sp. p. 4219; Gaz. vol. 148; p. 711.
Wet-machine. W. White. No. 939,460; Nov. 9; Sp. p. 2251; Gaz. vol. 148; p. 374.
Wheel: *See* Bearing-wheel; Car-wheel; Cushion-wheel; Elastic wheel; Elevator feed-wheel; Fifth-wheel; Metal wheel; Resilient wheel; Spring-wheel; Vehicle-wheel; Water-wheel.
Wheel. W. P. Davies. No. 940,584; Nov. 16; Sp. p. 4750; Gaz. vol. 148; p. 791.
Wheel. F. E. Bertrand and G. Portsche. No. 941,753; Nov. 30; Sp. p. 7269; Gaz. vol. 148; p. 1226.
Wheel. J. W. Meyer. No. 942,005; Nov. 30; Sp. p. 7790; Gaz. vol. 148; p. 1312.
Wheel-blocking device, Truck-. L. Samuel. No. 940,365; Nov. 16; Sp. p. 4255; Gaz. vol. 148; p. 717.
Wheel guard or fender, Vehicle-. J. O. Roberts. No. 941,170; Nov. 23; Sp. p. 6021; Gaz. vol. 148; p. 1011.
Wheel rim, Vehicle-. O. Kirsch. No. 940,602; Nov. 16; Sp. p. 4780; Gaz. vol. 148; p. 795.
Wheels, Apparatus for treating wooden. J. J. Lipe. No. 941,683; Nov. 30; Sp. p. 7104; Gaz. vol. 148; p. 1201.
Wheels, Detachable spur for vehicle-. E. E. Eastwood. No. 938,990; Nov. 2; Sp. p. 1171; Gaz. vol. 148; p. 187.
Wheels, Manufacturing metal. G. Kowarsky. No. 939,714; Nov. 9; Sp. p. 2789; Gaz. vol. 148; p. 461.
Wheels, Mud-scraper for. J. O. Davison. No. 940,859; Nov. 23; Sp. p. 5352; Gaz. vol. 148; p. 907.
Whiffletree. H. O. Schultz. No. 940,368; Nov. 16; Sp. p. 4276; Gaz. vol. 148; p. 718.
Whip-socket. R. Habekost. No. 939,246; Nov. 9; Sp. p. 1730; Gaz. vol. 148; p. 300.
Wick-burner, Incandescent. J. Herzog. No. 942,035; Nov. 30; Sp. p. 7841; Gaz. vol. 148; p. 1321.
Wigs, Parting foundation for. P. E. Tattoon. No. 941,744; Nov. 30; Sp. p. 7252; Gaz. vol. 148; p. 1223.
Willow-stripping machine. C. C. Larsen. No. 940,260; Nov. 16; Sp. p. 4007; Gaz. vol. 148; p. 682.
Winding, doubling, gassing, and like machine, Yarn or thread. J. Higginson, Jr., and H. Arundel. No. 941,319; Nov. 23; Sp. p. 6332; Gaz. vol. 148; p. 1059.
Winding-indicator. J. C. Hawkins. No. 941,143; Nov. 23; Sp. p. 5959; Gaz. vol. 148; p. 1002.
Winding-machine. M. Pipling. No. 939,160; Nov. 2; Sp. p. 1521; Gaz. vol. 148; p. 247.
Winding-machine. S. W. Wardwell. No. 940,489; Nov. 16; Sp. p. 4539; Gaz. vol. 148; p. 759.
Winding mechanism, Self-. A. D. Blodgett and F. S. Atkinson. No. 939,791; Nov. 9; Sp. p. 2909; Gaz. vol. 148; p. 488.
Windmill. F. A. Preuss. No. 940,057; Nov. 16; Sp. p. 3769; Gaz. vol. 148; p. 610.
Windmill power-saver. J. R. Byrnes. No. 938,966; Nov 2; Sp. p. 1119; Gaz. vol. 148; p. 179.
Windmill-regulator, Automatic. C. C. Peterson. No. 941,647; Nov. 30; Sp. p. 7026; Gaz. vol. 148; p. 1189.
Windmill-tower. W. Hopper. No. 939,504; Nov. 9; Sp. p. 2338; Gaz. vol. 148; p. 388.
Window. J. Cooney. No. 941,310; Nov. 23; Sp. p. 6319; Gaz. vol. 148; p. 1057.
Window construction, Metal-. G. H. Forsyth. No. 941,018; Nov. 23; Sp. p. 5688; Gaz. vol. 148; p. 960.
Window-frame. A. W. Krieger. No. 940,029; Nov. 16; Sp. p. 3471; Gaz. vol. 148; p. 600.
Window-frame. C. Singer. No. 940,485; Nov. 16; Sp. p. 4532; Gaz. vol. 148; p. 758.
Window-operating mechanism, Swinging-. J. S. Gourlay. No. 939,412; Nov. 9; Sp. p. 2157; Gaz. vol. 148; p. 358.
Window-pane fastener. D. D. Crouse. No. 941,764; Nov. 30; Sp. p. 7302; Gaz. vol. 148; p. 1230.
Window-screen. J. H. Cornellson. No. 938,641; Nov. 2; Sp. p. 434; Gaz. vol. 148; p. 67.
Window-screen. H. B. Wilson. No. 939,780; Nov. 9; Sp. p. 2739; Gaz. vol. 148; p. 484.
Window-screen. J. L. Wilgis. No. 940,569; Nov. 16; Sp. p. 4723; Gaz. vol. 148; p. 786.
Windows, Device for cleaning the outside of. J. Edman. No. 940,135; Nov. 16; Sp. p. 3743; Gaz. vol. 148; p. 638.
Wire and wire-fabric stretcher. R. W. Sibley. No. 942,016; Nov. 30; Sp. p. 7809; Gaz. vol. 148; p. 1315.
Wire cabinet and measuring-table, Screen-. N. W. Clouse. No. 940,236; Nov. 16; Sp. p. 3959; Gaz. vol. 148; p. 673.
Wire-clamp. S. Gibson. No. 938,842; Nov. 2; Sp. p. 839; Gaz. vol. 148; p. 135.
Wire-joints, Tool for forming. A. B. Probasco. No. 940,823; Nov. 23; Sp. p. 5283; Gaz. vol. 148; p. 896.
Wire-reel and mounting therefor. F. P. Murphey. No. 939,616; Nov. 9; Sp. p. 2590; Gaz. vol. 148; p. 426.
Wire-splicer. I. G. Huston. No. 939,509; Nov. 9; Sp. p. 2350; Gaz. vol. 148; p. 390.
Wire-stretcher. E. F. Hopkins. No. 938,486; Nov. 2; Sp. p. 91; Gaz. vol. 148; p. 14.
Wire-stretcher. J. F. Ball. No. 939,787; Nov. 9; Sp. p. 2955; Gaz. vol. 148; p. 486.
Wire-stretcher. J. C. Barclay. No. 940,423; Nov. 16; Sp. p. 4408; Gaz. vol. 148; p. 737.
Wire-stretcher. J. C. Barclay. No. 940,424; Nov. 16; Sp. p. 4409; Gaz. vol. 148; p. 737.
Wire-stretcher. M. M. Marty. No. 940,884; Nov. 23; Sp. p. 5402; Gaz. vol. 148; p. 915.
Wire-stretcher. J. Morehead. No. 942,006; Nov. 30; Sp. p. 7791; Gaz. vol. 148; p. 1312.
Wire-stretcher, Combination. J. T. Ferguson. No. 938,503; Nov. 2; Sp. p. 284; Gaz. vol. 148; p. 41.
Wire-stretching appliance. G. A. Endicott. No. 940,521; Nov. 16; Sp. p. 4617; Gaz. vol. 148; p. 770.
Wire-supporting device. J. M. Leadon, Jr. No. 940,034; Nov. 16; Sp. p. 3480; Gaz. vol. 148; p. 601.
Wire-twisting machine. L. Blessing. No. 940,231; Nov. 16; Sp. p. 3948; Gaz. vol. 148; p. 671.
Wire-working implement. C. J. Smith. No. 942,017; Nov. 30; Sp. p. 7810; Gaz. vol. 148; p. 1315.
Wires, Grounding device or terminal for line-. W. R. Garton. No. 938,471; Nov. 2; Sp. p. 35; Gaz. vol. 148; p. 8.
Wood-blight composition. J. W. Lafer. No. 939,273; Nov. 9; Sp. p. 1793; Gaz. vol. 148; p. 310.
Wood, Coloring. W. A. Hall. No. 939,014; Nov. 2; Sp. p. 1219; Gaz. vol. 148; p. 194.
Wood, Coloring. W. A. Hall. No. 939,015; Nov. 2; Sp. p. 1220; Gaz. vol. 148; p. 195.
Wood, Coloring and graining. W. A. Hall. No. 939,016; Nov. 2; Sp. p. 1222; Gaz. vol. 148; p. 195.
Work-support. W. C. Stewart. No. 940,745; Nov. 23; Sp. p. 5102; Gaz. vol. 148; p. 870.
Woven fabric. T. B. Dorman. No. 939,230; Nov. 9; Sp. p. 1701; Gaz. vol. 148; p. 295.
Wrench. L. D. Board. No. 938,956; Nov. 2; Sp. p. 1106; Gaz. vol. 148; p. 176.
Wrench. E. C. and G. W. Rea. No. 939,317; Nov. 9; Sp. p. 1919; Gaz. vol. 148; p. 327.
Wrench. D. Mallory. No. 939,728; Nov. 9; Sp. p. 2823; Gaz. vol. 148; p. 466.
Wrench. P. Bartok. No. 939,788; Nov. 9; Sp. p. 2957; Gaz. vol. 148; p. 487.
Wrench. L. G. Van Ormer. No. 939,879; Nov. 9; Sp. p. 3137; Gaz. vol. 148; p. 518.
Wrench. S. C. Foster. No. 940,524; Nov. 16; Sp. p. 4622; Gaz. vol. 148; p. 771.
Wrench. W. P. Lewis. No. 940,977; Nov. 23; Sp. p. 5588; Gaz. vol. 148; p. 946.
Wrench. C. C. Swanson. No. 941,431; Nov. 30; Sp. p. 6601; Gaz. vol. 148; p. 1119.
Wrench. H. M. Gaines. No. 941,707; Nov. 30; Sp. p. 7183; Gaz. vol. 148; p. 1210.
Wringer: *See* Clothes-wringer.
Wringer-clamp. P. Helfrich. No. 938,855; Nov. 2; Sp. p. 862; Gaz. vol. 148; p. 139.
Writing and adding machine. M. H. Lockwood. No. 940,037; Nov. 16; Sp. p. 3486; Gaz. vol. 148; p. 602.
Writing instrument. J. W. Dyches. No. 938,654; Nov. 2; Sp. p. 459; Gaz. vol. 148; p. 71.
Yarn-clearer or slub-catcher. G. W. Foster. No. 939,490; Nov. 9; Sp. p. 2316; Gaz. vol. 148; p. 384.
Yeast compound, Dry. J. E. Yost. No. 941,221; Nov. 23; Sp. p. 6137; Gaz. vol. 148; p. 1029.
Yoke attachment, Neck-. P. Bissen. No. 940,230; Nov. 16; Sp. p. 3947; Gaz. vol. 148; p. 671.
Yoke, Neck-. C. B. Schleicher. No. 941,387; Nov. 30; Sp. p. 6494; Gaz. vol. 148; p. 1104.

ALPHABETICAL LIST OF DESIGNS.

Bag, Chatelaine-. J. Lambert. No. 40,376; Nov. 30; Gaz. vol. 148; p. 1326.
Bracket for supporting fans, &c. B. A. Stowe. No. 40,357; Nov. 16; Gaz. vol. 148; p. 817.
Braid. F. Doebell. No. 40,343; Nov. 16; Gaz. vol. 148; p. 818.
Brooch. F. S. Boyden. No. 40,340; Nov. 16; Gaz. vol. 148; p. 815.
Button, Cuff-. J. Pejchar. No. 40,337; Nov. 9; Gaz. vol. 148; p. 551.
Clock-case. F. J. and W. C. Van Clse. No. 40,373; Nov. 30; Gaz. vol. 148; p. 1326.
Cup, Drinking-. E. B. Sowers. No. 40,374; Nov. 30; Gaz. vol. 148; p. 1326.
Dish. S. Hentschv. No. 40,375; Nov. 30; Gaz. vol. 148; p. 1326.
Dish or similar article. W. De Goey. No. 40,367; Nov. 23; Gaz. vol. 148; p. 1072.
Dolly. R. Gair. No. 40,348; Nov. 9; Gaz. vol. 148; p. 553.
Edging, Woven. F. W. Oelrie. No. 40,364; Nov. 16; Gaz. vol. 148; p. 818.
Electroiier. J. W. Turner. No. 40,355; Nov. 16; Gaz. vol. 148; p. 817.
Flag. C. Y. Turner. No. 40,336; Nov. 9; Gaz. vol. 148; p. 551.
Flowers and plants, Stand or holder for cut. E. M. Moore and P. J. Timberlake. No. 40,361; Nov. 16; Gaz. vol. 148; p. 818.
Gas-burner, Vertical inverted incandescent. A. Bray. No. 40,346; Nov. 9; Gaz. vol. 148; p. 553.
Glass pitcher. S. Hawkes. Nos 40,324–5; Nov. 2; Gaz. vol. 148; pp. 262–3.
Glass, Sheet-. T. J. Woodward. No. 40,349; Nov. 16; Gaz. vol. 148; p. 817.
Goblet. W. Knv. No. 40,360; Nov. 16; Gaz. vol. 148; p. 818.
Hammock. D. W. Shover. No. 40,370; Nov. 23; Gaz. vol. 148; p. 1073.
Hammock spreader ends, Cap for. W. J. McBride. No. 40,360; Nov. 23; Gaz. vol. 148; p. 1072.
Ice-cream-freezer casing. S. H. Bunnell. No. 40,358; Nov. 30; Gaz. vol. 148; p. 1327.
Lamp-shade. J. Kappler. No. 40,345; Nov. 9; Gaz. vol. 148; p. 553.
Lamp-shade. W. J. Gray. No. 40,379; Nov. 30; Gaz. vol. 148; p. 1327.
Lamp socket, Electric-. R. B. Benjamin. No. 40,380; Nov. 30; Gaz. vol. 148; p. 1327.
Light-shade. A. J. Sanford. Nos. 40,326–9; Nov. 2; Gaz. vol. 148; p. 263.
Light-shade. A. J. Sanford. Nos. 40,332–5; Nov. 2; Gaz. vol. 148; pp. 264–5.
Light-shade. A. J. Sanford. Nos. 40,343–4; Nov. 9; Gaz. vol. 148; pp. 552–3.
Light shade, Artificial-. K. Booth. No. 40,354; Nov. 16; Gaz. vol. 148; p. 816.
Light shade, Artificial-. K. Booth. No. 40,378; Nov. 30; Gaz. vol. 148; p. 1326.
Mantel-cover. J. Alzenman. No. 40,371; Nov. 23; Gaz. vol. 148; p. 1073.
Paper, Safety-. W. L. Sergeant. No. 40,352; Nov. 16; Gaz. vol. 148; p. 818.
Phonograph-cabinet. P. Weber. No. 40,347; Nov. 9; Gaz. vol. 148; p. 553.
Purse and belt therefor. J. Lambert. No. 40,341; Nov. 9; Gaz. vol. 148; p. 552.
Spoon, fork, or similar article. G. L. Crowell, Jr. No. 40,350; Nov. 16; Gaz. vol. 148; p. 815.
Spoon, fork, or similar article. W. A. Jameson. No. 40,351; Nov. 16; Gaz. vol. 148; p. 816.
Spoon, fork, or similar article. G. P. Tilton. No. 40,372; Nov. 30; Gaz. vol. 148; p. 1326.
Spoon or fork. G. L. Turner. No. 40,338; Nov. 9; Gaz. vol. 148; p. 551.
Spoon or similar article. F. Meyers. No. 40,342; Nov. 9; Gaz. vol. 148; p. 816.
Spoons, forks, or similar articles, Handle for. A. A. Southwick. Nos. 40,339–40; Nov. 9; Gaz. vol. 148; p. 552.
Spoons, forks, or similar articles, Handle for. C. Osborne. No. 40,353; Nov. 16; Gaz. vol. 148; p. 816.
Spoons, forks, or similar articles, Handle of. J. E. Birmingham. Nos. 40,330–1; Nov. 2; Gaz. vol. 148; p. 264.
Stove. H. W. Beattie. No. 40,356; Nov. 16; Gaz. vol. 148; p. 817.
Stove. F. U. Long and M. L. Packer. No. 40,382; Nov. 30; Gaz. vol. 148; p. 1327.
Stove, Gas-. F. U. Long and M. L. Packer. No. 40,368; Nov. 23; Gaz. vol. 148; p. 1072.
Syringes, Reservoir for fountain-. D. W. Keith. No. 40,377; Nov. 30; Gaz. vol. 148; p. 1326.
Tea-cup. P. Baxter. No. 40,365; Nov. 23; Gaz. vol. 148; p. 1072.
Teapot or similar article. W. C. Codman. No. 40,366; Nov. 23; Gaz. vol. 148; p. 1072.
Tile, Interlocking-. G. H. Quennard. No. 40,378; Nov. 16; Gaz. vol. 148; p. 817.
Toy figure. O. Lingohr. No. 40,342; Nov. 9; Gaz. vol. 148; p. 552.

ALPHABETICAL LIST OF TRADE-MARKS.

Acetylene, &c., Substances for purifying. G. F. Jaubert. No. 75,668; Nov. 2; Gaz. vol. 148; p. 275.
Alcohol, Denatured. Hammond Distilling Co. No. 75,962; Nov. 30; Gaz. vol. 148; p. 1340.
Antiseptic powder. Sharp & Dohme. No. 75,881; Nov. 23; Gaz. vol. 148; p. 1082.
Bacon. L. Burk. No. 75,691; Nov. 2; Gaz. vol. 148; p. 276.
Baking-powder. Royal Baking Powder Company. No. 75,853; Nov. 23; Gaz. vol. 148; p. 1081.
Beer. Keeley Brewing Co. No. 75,699; Nov. 2; Gaz. vol. 148; p. 276.
Beer. Central Consumers Company. No. 75,798; Nov 16; Gaz. vol. 148; p. 828.
Beer, Lager-. J. & R. Tennent. No. 75,903; Nov. 23; Gaz. vol. 148; p. 1083.
Beer, Lager-. Schmulbach Brewing Company. No. 75,909; Nov. 23; Gaz. vol. 148; p. 1083.
Belting and hose. Rossendale-Reddaway Belting & Hose Co. No. 75,733; Nov. 9; Gaz. vol. 148; p. 565.
Belting, Balata. New York Leather Belting Co. No. 75,875; Nov. 23; Gaz. vol. 148; p. 1082.
Belting, Leather. Jewell Belting Company. No. 75,963; Nov. 30; Gaz. vol. 148; p. 1340.
Belts for personal wear. Bridgeport Webbing Company. No. 75,760; Nov. 16; Gaz. vol. 148; p. 827.
Beverage, Non-alcoholic carbonated. Ebling Company. No. 75,900; Nov. 23; Gaz. vol. 148; p. 1083.
Beverage, Non-intoxicating malt. New Orleans Brewing Company. No. 75,813; Nov. 16; Gaz. vol. 148; p. 828.
Beverages, Non-alcoholic extract used in making. J. Dixon & Co. No. 75,694; Nov. 2; Gaz. vol. 148; p. 276.
Biscuit. National Biscuit Company. No. 75,812; Nov. 16; Gaz. vol. 148; p. 828.
Bitters. W. Koerner & Co. No. 75,964; Nov. 30; Gaz. vol. 148; p. 1340.
Boiler compounds. Haggerty Refining Company. No. 75,825; Nov. 16; Gaz. vol. 148; p. 829.
Boilers and heaters. American Radiator Company. No. 75,777; Nov. 16; Gaz. vol. 148; p. 827.
Boots and shoes. Edwin Clapp & Son. No. 75,659; Nov. 2; Gaz. vol. 148; p. 275.
Boots and shoes, Leather. Henry C. Werner Co. No. 75,852; Nov. 23; Gaz. vol. 148; p. 1081.
Boots and shoes, Men's and boys' leather. Northern Shoe Co. No. 75,943; Nov. 30; Gaz. vol. 148; p. 1339.
Boots, shoes, and slippers. James A. Banister Company. No. 75,855; Nov. 23; Gaz. vol. 148; p. 1081.
Boots, shoes, and slippers of leather, rubber, and canvas. James A. Banister Company. No. 75,904; Nov. 23; Gaz. vol. 148; p. 1083.
Boots, shoes, sandals, and slippers. R. H. White Company. No. 75,671; Nov. 2; Gaz. vol. 148; p. 275.
Brandy. B. Kasprowicz. Nos. 75,858-61; Nov. 23; Gaz. vol. 148; p. 1081.
Bread. Brunner Baking Company. No. 75,737; Nov. 9; Gaz. vol. 148; p. 565.
Bread. W. R. Jennings. No. 75,805; Nov. 16; Gaz. vol. 148; p. 828.
Breads, pies, and cakes. H. J. Mees. No. 75,749; Nov. 9; Gaz. vol. 148; p. 566.
Brewer's grain, Dried. Atlantic Export Company. No. 75,889; Nov. 23; Gaz. vol. 148; p. 1082.
Brushes. W. A. Tottle & Co. No. 75,830; Nov. 16; Gaz. vol. 148; p. 829.
Brushes and combs for tinting the hair, Combined. E. G. Helm. No. 75,850; Nov. 23; Gaz. vol. 148; p. 1081.
Brushes, Toilet-. Howard Brush Company. Nos. 75,725-6; Nov. 9; Gaz. vol. 148; p. 565.
Butter. Scheer, Grandi & Co. No. 75,946; Nov. 30; Gaz. vol. 148; p. 1339.
Buttonhole-gimp. J. Friedman. No. 75,844; Nov. 23; Gaz. vol. 148; p. 1081.
Can-openers. N. J. Hawks. No. 75,746; Nov. 9; Gaz. vol. 148; p. 566.
Canned fruits. Central California Canneries. Nos. 75,928-30; Nov. 30; Gaz. vol. 148; p. 1339.
Canned fruits and vegetables. Sunlit Fruit Company. No. 75,883; Nov. 23; Gaz. vol. 148; p. 1082.
Canned fruits and vegetables. Central California Canneries. No. 75,931; Nov. 30; Gaz. vol. 148; p. 1339.
Canned fruits, berries, vegetables, &c. Sears & Nichols Company. No. 75,758; Nov. 9; Gaz. vol 148; p. 566.
Canned, pickled, and preserved meats. John Morrell & Company. No. 75,826; Nov. 16; Gaz. vol. 148; p. 829.
Canned salmon. Union Fishermen's Co-op. Pack'g Co. No. 75,886; Nov. 23; Gaz. vol. 148; p. 1082.
Canned salmon and dried salt codfish. Austin, Nichols & Co. No. 75,836; Nov. 23; Gaz. vol. 148; p. 1081.
Canned vegetables. Manitowoc Pea Packing Company. Nos. 75,702-5; Nov. 2; Gaz. vol. 148; p. 276.
Canned vegetables. Manitowoc Pea Packing Company. No. 75,810; Nov. 16; Gaz. vol. 148; p. 828.
Canned vegetables. Sears & Nichols Company. No. 75,947; Nov. 30; Gaz. vol. 148; p. 1339.
Candy. Ortega Land Company. No. 75,815; Nov. 16; Gaz. vol. 148; p. 828.
Candy lozenges. New England Confectionery Co. No. 75,706; Nov. 2; Gaz. vol. 148; p. 276.
Castings, Malleable. United States Malleable Iron Co. No. 75,755; Nov. 9; Gaz. vol. 148; p. 566.
Cement, Adhesive. Robert Low's Son & Howard. No. 75,791; Nov. 16; Gaz. vol. 148; p. 828.
Cement, Calcareous. H. B. Dresser. No. 75,840; Nov. 23; Gaz. vol. 148; p. 1081.
Cement, Hydraulic. New Castle Portland Cement Co. No. 75,909; Nov. 30; Gaz. vol. 148; p. 1340.
Chains, valves, cocks, and chain and tube couplings. Daimler-Motoren-Gesellschaft. No. 75,681; Nov. 2; Gaz. vol. 148; p. 275.
Cheese, Cream-. Monroe Cheese Company. No. 75,871; Nov. 23; Gaz. vol. 148; p. 1082.
Chocolates. Snyder-Chaffee Company. No. 75,710; Nov. 2; Gaz. vol. 148; p. 276.
Chocolates and bonbons. F. H. Roberts Company. No. 75,741; Nov. 9; Gaz. vol. 148; p. 566.
Cigar-molds. Miller, Dubrul & Peters Mfg. Co. Nos. 75,868-9; Nov. 23; Gaz. vol. 148; p. 1082.
Cigars. A. Breitung. No. 75,689; Nov. 2; Gaz. vol. 148; p. 276.
Cigars. M. A. Gunst & Co. No. 75,700; Nov. 2; Gaz. vol. 148; p. 276.
Cigars. Garcia & Vega. No. 75,744; Nov. 9; Gaz. vol. 148; p. 566.
Cigars. M. L. Eppstein. No. 75,824; Nov. 16; Gaz. vol. 148; p. 829.
Cigars. A. Breitung. No. 75,956; Nov. 30; Gaz. vol. 148; p. 1340.
Cigars. Dannemann & Co. No. 75,979; Nov. 30; Gaz. vol. 148; p. 1340.
Cleaning apparatus, Vacuum. L. W. Serrell. No. 75,817; Nov. 16; Gaz. vol. 148; p. 828.
Cloaks, outer suits, and dresses. M. J. Cohn. No. 75,800; Nov. 16; Gaz. vol. 148; p. 828.
Clothing, Certain. Dallet and Weyl. No. 75,933; Nov. 30; Gaz. vol. 148; p. 1339.
Clothing, Certain. Weber and Heilbroner. No. 75,950; Nov. 30; Gaz. vol. 148; p. 1340.
Coal. Roden Coal Company. No. 75,908; Nov. 23; Gaz. vol. 148; p. 1083.
Cocks, nozzles, unions, and valves. Lunkenheimer Company. No. 75,747; Nov. 9; Gaz. vol. 148; p. 566.
Coffee. O'Neill-Adams Co. No. 75,876; Nov. 23; Gaz. vol. 148; p. 1082.
Coffee. National Coffee Co. No. 75,941; Nov. 30; Gaz. vol. 148; p. 1339.
Coffee and chicory, Compound of roasted. New Orleans Coffee Co. No. 75,874; Nov. 23; Gaz. vol. 148; p. 1082.
Coffee, Blended. Clark Grocery Co. No. 75,740; Nov. 9; Gaz. vol. 148; p. 566.
Coffee, Blended. E. Courtade. No. 75,801; Nov. 16; Gaz. vol. 148; p. 828.
Coffee, Blended. Norwine Coffee Company. No. 75,814; Nov. 16; Gaz. vol. 148; p. 828.
Coffee, Blended. Austin, Nichols & Co. No. 75,919; Nov. 30; Gaz. vol. 148; p. 1339.
Coffee, Blended. J. M. Bour Company. No. 75,939; Nov. 30; Gaz. vol. 148; p. 1339.
Collars and cuffs, Textile. Hutchinson, Pierce & Co. No. 75,914; Nov. 23; Gaz. vol. 148; p. 1083.
Collars, cuffs, and shirt-fronts. Parsons & Parsons Company. No. 75,945; Nov. 30; Gaz. vol. 148; p. 1339.
Colors, Mortar-. Chattanooga Paint Co. No. 75,799; Nov. 16; Gaz. vol. 148; p. 828.
Concrete curbs, Metal corner-bars for. Steel Protected Concrete Co. No. 75,753; Nov. 9; Gaz. vol. 148; p. 566.
Copy-multiplying machines. Bosworth-Staley Company. No. 75,712; Nov. 9; Gaz. vol. 148; p. 565.
Cordials. Henry H. Shufeldt & Co. No. 75,714; Nov. 9; Gaz. vol. 148; p. 565.
Cordials. Dr. J. G. B. Siegert & Hijos. No. 75,717; Nov. 9; Gaz. vol. 148; p. 565.
Corset-steels. H. W. Gossard Company. No. 75,785; Nov. 16; Gaz. vol. 148; p. 827.
Corsets. Corset H Company. No. 75,724; Nov. 9; Gaz. vol. 148; p. 565.
Cotton, Carded. Wonalancet Company. No. 75,823; Nov. 16; Gaz. vol. 148; p. 829.
Cotton piece goods. I. Gelbtrunk. No. 75,665; Nov. 2; Gaz. vol. 148; p. 275.
Cotton piece goods. F. Butterfield & Co. No. 75,678; Nov. 2; Gaz. vol. 148; p. 275.
Cotton piece goods. Providence Dyeing Bleaching and Calendering Company. No. 75,971; Nov. 30; Gaz. vol. 148; p. 1340.
Cotton-seed meal. F. W. Brodé. No. 75,690; Nov. 2; Gaz. vol. 148; p. 276.
Couches and beds. D. T. Owen Co. No. 75,839; Nov. 23; Gaz. vol. 148; p. 1081.

Coutils, batistes, satins, tricot, &c. E. de Grandmont. No. 75,846; Nov. 23; Gaz. vol. 148; p. 1081.
Crackers, biscuits, cake, cookies, and bread. Ward-Mackey Co. No. 75,887; Nov. 23; Gaz. vol. 148; p. 1082.
Cream, Peroxid. Oxygen Products Company. No. 75,669; Nov. 2; Gaz. vol. 148; p. 275.
Dentifrice, Cream. Maphis Chemical Company. No. 75,866; Nov. 23; Gaz. vol. 148; p. 1082.
Diamonds, Imitation. A. W. Engel. No. 75,661; Nov. 2; Gaz. vol. 148; p. 275.
Diaper-cloth. A. D. Smith. No. 75,911; Nov. 23; Gaz. vol. 148; p. 1083.
Electric portables, electrollers, and electric lamps. Geo. Borgfeldt & Co. No. 75,892; Nov. 23; Gaz. vol. 148; p. 1082.
Enzym for treatment of diabetes, Sugar-converting animal. H. S. Baketel. No. 75,778; Nov. 16; Gaz. vol. 148; p. 827.
Fancy goods, Certain. Naser, Katen & Nahass. No. 75,873; Nov. 23; Gaz. vol. 148; p. 1082.
Feed, Cattle. Great Western Cereal Company. No. 75,745; Nov. 9; Gaz. vol. 148; p. 566.
Feed, Horse, mule, and cattle. United Grocery Company. No. 75,821; Nov. 16; Gaz. vol. 148; p. 829.
Felt and building and roofing papers, Roofing and deadening. Weatherproof Manufacturing Company. No. 75,720; Nov. 9; Gaz. vol. 148; p. 565.
Finger-nail-polishing compound. Curioso Dust Company. No. 75,780; Nov. 16; Gaz. vol. 148; p. 827.
Fire-extinguishers. T. V. Forster. No. 75,742; Nov. 9; Gaz. vol. 148; p. 566.
Fire-extinguishing compound, Dry-powder. S. Butz. No. 75,957; Nov. 30; Gaz. vol. 148; p. 1340.
Flavoring extract. L. B. Jordan. No. 75,806; Nov. 16; Gaz. vol. 148; p. 828.
Flavorings. T. H. Grossmith. No. 75,803; Nov. 16; Gaz. vol. 148; p. 828.
Flour, Wheat-. W. M. Galt & Co. No. 75,697; Nov. 2; Gaz. vol. 148; p. 276.
Flour, Wheat-. Aberdeen Mill Company. No. 75,794; Nov. 16; Gaz. vol. 148; p. 828.
Flour, Wheat-. Mauser Mill Company. No. 75,807; Nov. 23; Gaz. vol. 148; p. 1082.
Flour, Wheat-. Edwardsville Milling Company. No. 75,891; Nov. 23; Gaz. vol. 148; p. 1082.
Flour, Wheat-. Aberdeen Mill Company. Nos. 75,916-17; Nov. 30; Gaz. vol. 148; p. 1339.
Flour, Wheat-. W. F. Brey. No. 75,925; Nov. 30; Gaz. vol. 148; p. 1339.
Flour, Wheat-. D. Stott. No. 75,949; Nov. 30; Gaz. vol. 148; p. 1340.
Food, Alfalfa and grain dairy and stock. Shawnee Milling Co. No. 75,915; Nov. 23; Gaz. vol. 148; p. 1083.
Foods, Certain. C. Holton & Co. No. 75,679; Nov. 2; Gaz. vol. 148; p. 275.
Foods, Certain. Ratcliff-Sanders Grocery Company. No. 75,751; Nov. 9; Gaz. vol. 148; p. 566.
Foods, Certain. Buffalo Cereal Co. No. 75,796; Nov. 16; Gaz. vol. 148; p. 828.
Foods, Certain. Strohmeyer & Arpe Company. No. 75,819; Nov. 16; Gaz. vol. 148; p. 828.
Foods, Certain. E. Fleischl & Son. No. 75,901; Nov. 23; Gaz. vol. 148; p. 1083.
Foods, Certain. C. E. Brown & Co. No. 75,926; Nov. 30; Gaz. vol. 148; p. 1339.
Foods, Certain. National Grocer Company. No. 75,942; Nov. 30; Gaz. vol. 148; p. 1339.
Foods, Certain. California Fruit Canners Association. No. 75,958; Nov. 30; Gaz. vol. 148; p. 1340.
Foods for animals. Tonic to be used in stock. R. M. Crocker. No. 75,828; Nov. 16; Gaz. vol. 148; p. 829.
Freezers. Reid-Edelmuth Manufacturing Co. No. 75,790; Nov. 16; Gaz. vol. 148; p. 828.
Garter, suspender, and belt webs, elastic and non-elastic, braided or woven. Moore Web Co. No. 75,750; Nov. 9; Gaz. vol. 148; p. 566.
Gelatin. Cox Gelatine Company. No. 75,693; Nov. 2; Gaz. vol. 148; p. 276.
Glass and hollow glassware for illuminating purposes, Crude and plate. K. Stockhausen. No. 75,793; Nov. 16; Gaz. vol. 148; p. 828.
Glassware, Pressed. A. H. Heisey & Co. No. 75,897; Nov. 23; Gaz. vol. 148; p. 1082.
Gloves, Leather. J. Adler & Co. No. 75,833; Nov. 23; Gaz. vol. 148; p. 1081.
Grease, Lubricating-. Phila. Grease Mfg. Co. No. 75,970; Nov. 30; Gaz. vol. 148; p. 1340.
Greases, Lubricating-. Columbia Refining Company. No. 75,680; Nov. 2; Gaz. vol. 148; p. 275.
Greases, Lubricating-. Penna. Lubricating Co. No. 75,686; Nov. 2; Gaz. vol. 148; p. 276.
Grinding-machines. Pike Manufacturing Company. No. 75,877; Nov. 23; Gaz. vol. 148; p. 1082.
Gums, Chewing-. Canadian Chicle Company. No. 75,738; Nov. 9; Gaz. vol. 148; p. 565.
Hair dressing and tonic. J. Sénégas. No. 75,672; Nov. 2; Gaz. vol. 148; p. 275.
Hair-dye. C. W. Blackburn. No. 75,837; Nov. 23; Gaz. vol. 148; p. 1081.
Hair, Manufactured goat-. L. Levussove. No. 75,809; Nov. 16; Gaz. vol. 148; p. 828.
Hats, Men's. G. B. Borsalino fu Lazzaro & Co. Nos. 75,763-5; Nov. 16; Gaz. vol. 148; p. 827.
Heating and lighting apparatus, Certain. Ehrich & Graetz. No. 75,660; Nov. 2; Gaz. vol. 148; p. 275.
Horseshoes. Fiber Horseshoe Company. No. 75,662; Nov. 2; Gaz. vol. 148; p. 275.
Hosiery. W. Alsberg. No. 75,676; Nov. 2; Gaz. vol. 148; p. 275.
Hosiery. Richmond Hosiery Mills. Nos. 75,730-2; Nov. 9; Gaz. vol. 148; p. 565.
Hosiery. Richmond Hosiery Mills. No. 75,774; Nov. 16; Gaz. vol. 148; p. 827.
Hosiery. Richmond Hosiery Mills. No. 75,879; Nov. 23; Gaz. vol. 148; p. 1082.
Hydrogen, Peroxid of. Custer Chemical Co. No. 75,713; Nov. 9; Gaz. vol. 148; p. 565.
Inhalers. I. E. Levi. No. 75,965; Nov. 30; Gaz. vol. 148; p. 1340.
Insecticide. R. J. Paquin. No. 75,772; Nov. 16; Gaz. vol. 148; p. 827.
Insects, Compositions for protecting trees and plants from. Masury-Young Company. No. 75,769; Nov. 16; Gaz. vol. 148; p. 827.
Jars. L. A. Becker Company. No. 75,864; Nov. 23; Gaz. vol. 148; p. 1082.
Jewelry, Certain articles of. Whiteside & Blank. No. 75,757; Nov. 9; Gaz. vol. 148; p. 566.
Knit underwear. Athens Knitting Company. No. 75,835; Nov. 23; Gaz. vol. 148; p. 1081.
Knitted jackets, coats, vests, toques, &c. Standard Knitting Company. No. 75,673; Nov. 2; Gaz. vol. 148; p. 275.
Knives, scissors, and manicure files and blades, Pen-. H. Clauss. No. 75,692; Nov. 2; Gaz. vol. 148; p. 276.
Lacing hooks and studs, Shoe-. Agatine Shoe-Hook and Eyelet Company. No. 75,888; Nov. 23; Gaz. vol. 148; p. 1082.
Lard and tallow compound. Fred. Eckart Packing Company. No. 75,743; Nov. 9; Gaz. vol. 148; p. 566.
Laxative pharmaceutical product, Granulated. L. Graux. No. 75,847; Nov. 23; Gaz. vol. 148; p. 1081.
Laxatives, antiseptic powders, &c. Cardolax Company. No. 75,739; Nov. 9; Gaz. vol. 148; p. 565.
Lead, Arsenate of. Grasselli Chemical Company. No. 75,981; Nov. 30; Gaz. vol. 148; p. 1340.
Leather, Enameled and patent. G. C. Y. Leather Company. No. 75,902; Nov. 23; Gaz. vol. 148; p. 1083.
Leather-polishes. S. M. Bixby & Co. No. 75,752; Nov. 9; Gaz. vol. 148; p. 566.
Liniment. W. Deal. No. 75,781; Nov. 16; Gaz. vol. 148; p. 827.
Liniment. T. E. McManus. No. 75,967; Nov. 30; Gaz. vol. 148; p. 1340.
Liniment for live stock. C. Slutz & Company. No. 75,882; Nov. 23; Gaz. vol. 148; p. 1082.
Locks, Sash-. L. R. Eddy. No. 75,961; Nov. 30; Gaz. vol. 148; p. 1340.
Lotions, Face and scalp. C. M. Athey. No. 75,953; Nov. 30; Gaz. vol. 148; p. 1340.
Macaroni, spaghetti, and noodle dressing. Mercurio Bros. Grocer Co. No. 75,701; Nov. 2; Gaz. vol. 148; p. 276.
Malt and rye with fruit-juices, Distillate of. Geo. Bieler Sons Co. No. 75,936; Nov. 30; Gaz. vol. 148; p. 1339.
Mantles, Gas-. Incandescent Light & Supply Co. No. 75,787; Nov. 16; Gaz. vol. 148; p. 828.
Mantles, Incandescant gas-. Block Light Company. No. 75,924; Nov. 30; Gaz. vol. 148; p. 1339.
Mattresses. Gangelhoff Bros. No. 75,664; Nov. 2; Gaz. vol. 148; p. 275.
Mattresses. Ideal Manufacturing Company. No. 75,786; Nov. 16; Gaz. vol. 148; p. 828.
Measuring electrical resistances, Instruments for. Eversbed & Vignoles. No. 75,683; Nov. 2; Gaz. vol. 148; p. 275.
Medicine for amenorrhea, &c. M. R. Upton. No. 75,776; Nov. 16; Gaz. vol. 148; p. 827.
Medicine, Proprietary. C. P. Bowie. No. 75,955; Nov. 30; Gaz. vol. 148; p. 1340.
Medicines. Theo. Noel Company. No. 75,884; Nov. 23; Gaz. vol. 148; p. 1082.
Medicines for inhalants. I. E. Levi. No. 75,865; Nov. 23; Gaz. vol. 148; p. 1082.
Milk, Evaporated. Elgin Milk & Cream Company. No. 75,696; Nov. 2; Gaz. vol. 148; p. 276.
Mouth-wash. E. Cudlipp. No. 75,960; Nov. 30; Gaz. vol. 148; p. 1340.
Mouth-washes and liquid dentifrices. F. Kleinsorgen. No. 75,894; Nov. 23; Gaz. vol. 148; p. 1082.
Mouth-washes and toothache medicines. K. Gruszka. No. 75,767; Nov. 16; Gaz. vol. 148; p. 827.
Musical instruments, Certain. Ludwig Hupfeld Aktien-Ges. No. 75,895; Nov. 23; Gaz. vol. 148; p. 1082.
Newspapers. Co-operative Printing Company. No. 75,779; Nov. 16; Gaz. vol. 148; p. 827.
Numbering-machines, Automatic. Bates Manufacturing Company. No. 75,922; Nov. 30; Gaz. vol. 148; p. 1339.
Oil, cycle-oil, and axle-grease, Sewing-machine. Baird Bros. & Co. No. 75,677; Nov. 2; Gaz. vol. 148; p. 275.
Oil, Italian olive-. A. Servida. No. 75,709; Nov. 2; Gaz. vol. 148; p. 276.
Oil, Italian olive-. Austin, Nichols & Co. No. 75,918; Nov. 30; Gaz. vol. 148; p. 1339.
Oil, macaroni, capers, &c., Olive-. Von Bremen, Asche & Co. No. 75,756; Nov. 9; Gaz. vol. 148; p. 566.
Oil, Olive-. Scudders-Gale Grocer Co. No. 75,910; Nov. 23; Gaz. vol. 148; p. 1083.
Oils, greases, and waxes. Vacuum Oil Company. Nos. 75,976-7; Nov. 30; Gaz. vol. 148; p. 1340.
Ointments, germicides, liniments, and hair-tonics. Rockwood Chemical Company. No. 75,983; Nov. 30; Gaz. vol. 148; p. 1340.
Olive salad and corn-starch. Griggs, Cooper & Co. No. 75,937; Nov. 30; Gaz. vol. 148; p. 1339.
Oranges, grape-fruit, tangerines, and lemons. Azusa Foot-Hill Citrus Association. Nos. 75,920-1; Nov. 30; Gaz. vol. 148; p. 1339.
Overalls, work-shirts, jumpers, &c. Maxwell-McClure Fitts Dry Goods Co. No. 75,727; Nov. 9; Gaz. vol. 148; p. 565.
Oxygen preparation. Morgenstern & Company. No. 75,982; Nov. 30; Gaz. vol. 148; p. 1340.

Pacifiers. L. A. Boettiger. No. 75,688; Nov. 2; Gaz. vol. 148; p. 276.
Packing and jointing materials. Turner Bros. No. 75,735; Nov. 9; Gaz. vol. 148; p. 565.
Paint, Roof and metal. Dow & Webb. No. 75,695; Nov. 2; Gaz. vol. 148; p. 276.
Paints, Enamel. Geo. D. Wetherill & Co. No. 75,802; Nov. 16; Gaz. vol. 148; p. 828.
Pants and double-breasted outer suits, Boys' knee-. J. Klein Company. No. 75,940; Nov. 30; Gaz. vol. 148; p. 1339.
Paper, Carbon-. Pen-Carbon Manifold Co. No. 75,670; Nov. 2; Gaz. vol. 148; p. 275.
Paper, envelops, tablets, and blank books. J. C. Blair Company. No. 75,667; Nov. 2; Gaz. vol. 148; p. 275.
Paper, Sheathing-. Ford Manufacturing Company. Nos. 75,783–4; Nov. 16; Gaz. vol. 148; p. 827.
Paper, Writing and printing. Union Card & Paper Co. No. 75 831; Nov. 16; Gaz. vol. 148; p. 829.
Paper, Writing, printing, bond, book, &c. East Hartford Manufacturing Company. No. 75,682; Nov. 2; Gaz. vol. 148; p. 275.
Patterns, Transferable. W. P. Webber. No. 75,822; Nov. 16; Gaz. vol. 148; p. 829.
Paving composition. Amies Asphalt Company. No. 75,658; Nov. 2; Gaz. vol. 148; p. 275.
Pencils, pencil-cases, penholders, and pen-cases. Alkin-Lambert Company. No. 75,657; Nov. 2; Gaz. vol. 148; p. 275.
Percolators and filters. C. A. Stelle. No. 75,734; Nov. 9; Gaz. vol. 148; p. 565.
Perfumery. Geo. Borgfeldt & Co. No. 75,666; Nov. 2; Gaz. vol. 148; p. 275.
Perfumery. J. Palazzolo. No. 75,771; Nov. 16; Gaz. vol. 148; p. 827.
Perfumery. S. Hudes. No. 75,893; Nov. 23; Gaz. vol. 148; p. 1082.
Petticoats. W. H. Allen. No. 75,834; Nov. 23; Gaz. vol. 148; p. 1081.
Photographic cameras and attachments. Multiscope and Film Company. No. 75,872; Nov. 23; Gaz. vol. 148; p. 1082.
Photographic-printing plates. B. S. Krupp. No. 75,863; Nov. 23; Gaz. vol. 148; p. 1082.
Photography, Sensitive plates and films for color. Société Anonyme des Plaques et Papiers Photographiques A Lumière et ses Fils. No. 75,948; Nov. 30; Gaz vol. 148; p. 1340.
Pianos. Boardman & Gray. No. 75,913; Nov. 23; Gaz. vol. 148; p. 1083.
Pianos, organs, and piano-players. P. B. Klugh. No. 75,715; Nov. 9; Gaz. vol. 148; p. 565.
Picture films, Motion-. Centaur Film Co. No. 75,927; Nov. 30; Gaz. vol. 148; p. 1339.
Pipes. J. W. Surbrug. No. 75,711; Nov. 2; Gaz. vol. 148; p. 276.
Plaster, Wall-. Tomkins Brothers. No. 75,975; Nov. 30; Gaz. vol. 148; p. 1340.
Plowing, hulling, and threshing machinery. M. Rumely Company. No. 75,685; Nov. 2; Gaz. vol. 148; p. 276.
Poultry, Dressed. Beatrice Poultry and Cold Storage Co. No. 75,923; Nov. 30; Gaz. vol. 148; p. 1339.
Powders, Toilet and bath. Batcheller Importing Co. No. 75,954; Nov. 30; Gaz. vol. 148; p. 1340.
Preparation for neuralgia, rheumatism, indigestion, &c. C. A. Ferguson. No. 75,782; Nov. 16; Gaz. vol. 148; p. 827.
Pulleys, Paper. Rockwood Manufacturing Company. No. 75,687; Nov. 2; Gaz. vol. 148; p. 276.
Pyrazolone-phenyl-dimethyl-salicylate. J. D. Riedel Aktiengesellschaft. No. 75,768; Nov. 16; Gaz. vol. 148; p. 827.
Ranges, cooking and heating stoves, Steel. J. C. Shanks Co. No. 75,880; Nov. 23; Gaz. vol. 148; p. 1082.
Refrigerators. McCray Refrigerator Company. No. 75,728; Nov. 9; Gaz. vol. 148; p. 565.
Remedies, Corn. G. & L. Chemical Company. No. 75,663; Nov. 2; Gaz. vol. 148; p. 275.
Remedies for certain diseases. E. E. Sutherland Medicine Co. No. 75,980; Nov. 30; Gaz. vol. 148; p. 1340.
Remedy for certain diseases. A. Schoenhelt Medicine Co. No. 75,656; Nov. 2; Gaz. vol. 148; p. 275.
Remedy for certain diseases. Kentucky Remedy Co. No. 75,789; Nov. 16; Gaz. vol. 148; p. 828.
Remedy for certain diseases. A. Renkert & Co. No. 75,907; Nov. 23; Gaz. vol. 148; p. 1083.
Remedy for chronic couch and consumption. J. B. Wood. No. 75,978; Nov. 30; Gaz. vol. 148; p. 1340.
Remedy for coughs and colds. Sharp & Dohme. No. 75,974; Nov. 30; Gaz. vol. 148; p. 1340.
Remedy for gonorrhea. Aktiengesellschaft vormals B. Siegfried. No. 75,951; Nov. 30; Gaz. vol. 148; p. 1340.
Remedy for indigestion. T. J. Hennessy. No. 75,851; Nov. 23; Gaz. vol. 148; p. 1081.
Remedy for rheumatism. A. Girolamo. No. 75,766; Nov. 16; Gaz. vol. 148; p. 827.
Remedy, Headache. Selery-Soda Company. No. 75,973; Nov. 30; Gaz. vol. 148; p. 1340.
Rifles, shotguns, pistols, and revolvers. M. E. Johnson, trustee. No. 75,788; Nov. 16; Gaz. vol. 148; p. 828.
Rubber or rubber and fabric hose. New York Belting and Packing Company. Nos. 75,707–8; Nov. 2; Gaz. vol. 148; p. 276.
Rubber water-bottles and syringes. Mechanical Rubber Company. No. 75,748; Nov. 9; Gaz. vol. 148; p. 566.
Saccharin. Saccharin-Fabrik Aktien-Gesellschaft vorm. Fahlberg, List & Co. No. 75,972; Nov. 30; Gaz. vol. 148; p. 1340.
Sad-iron waxing and polishing mats. Union Waxed & Parchment Paper Company. No. 75,754; Nov. 9; Gaz. vol. 148; p. 566.
Salt, Bathing-. Mt. Clemens Mineral Springs Water Co. No. 75,968; Nov. 30; Gaz vol. 148; p. 1340.
Salve. J. A. Weegar. No. 75,674; Nov. 2; Gaz. vol. 148; p. 275.
Salve. N. Canary. No. 75,761; Nov. 16; Gaz. vol. 148; p. 827.
Salves, lotions, face-creams, poison-oak remedies, &c. Owl Drug Co. No. 75,770; Nov. 16; Gaz. vol. 148; p. 827.
Sealing-machines and tape-moistenors. James D. McLaurin Co. No. 75,856; Nov. 23; Gaz. vol. 148; p. 1081.
Shirtings, Cotton. Dan River Power & Mfg. Co. No. 75,890; Nov. 23; Gaz. vol. 148; p. 1082.
Shoes. Tappan Shoe Manufacturing Company. No. 75,775; Nov. 16; Gaz. vol. 148; p. 827.
Shoes, Infants' and children's leather. Northern Shoe Co. No. 75,944; Nov. 30; Gaz. vol. 148; p. 1339.
Shoes, Leather. Badger and Heslin. No. 75,759; Nov. 16; Gaz. vol. 148; p. 827.
Shoes, Leather. Ashe, Noyes & Small Company. No. 75,912; Nov. 23; Gaz. vol. 148; p. 1083.
Skins and furs. R. Lindner. No. 75,966; Nov. 30; Gaz vol. 148; p. 1340.
Soap. Burckhardt & Company. No. 75,898; Nov. 23; Gaz. vol. 148; p. 1082.
Soap. R. A. Jewett. No. 75,905; Nov. 23; Gaz. vol. 148; p. 1083.
Soaps, Toilet and pumice. A. C. Brown. No. 75,795; Nov. 16; Gaz. vol. 148; p. 828.
Spectacle-glasses, lenses, and photographic light-filters. K. Stockhausen. No. 75,818; Nov. 16; Gaz. vol. 148; p. 828.
Starch for laundry purposes, Corn-. Frank Richards Laundry Supply Co. No. 75,843; Nov. 23; Gaz. vol. 148; p. 1081.
Starch for laundry purposes, Wheat-. Frank Richards Laundry Supply Co. No. 75,842; Nov. 23; Gaz. vol. 148; p. 1081.
Steam, oil, oil-ammonia, and receiver separators. Harrison Safety Boiler Works. No. 75,684; Nov. 2; Gaz. vol. 148; p. 276.
Steel. Seebohm & Dieckstahl. No. 75,829; Nov. 16; Gaz. vol. 148; p. 829.
Stoves, Oil, gas, and vapor. Novelty Manufacturing Company. No. 75,729; Nov. 9; Gaz. vol. 148; p. 565.
Sugar wafers. Geo. H. Strietmann's Sons Company. No. 75,698; Nov. 2; Gaz. vol. 148; p. 276.
Sugar wafers. National Biscuit Company. No. 75,811; Nov. 16; Gaz. vol. 148; p. 828.
Suits, Boys' outer. J. J. Connell. Nos. 75,721–3; Nov. 9; Gaz. vol. 148; p. 565.
Suits, drawers, and undershirts, Union. Regent Shirt Company. No. 75,878; Nov. 23; Gaz. vol. 148; p. 1082.
Suits, dress and shirt waists, kimonos, &c., Wash-. Crippen & Reid. No. 75,762; Nov. 16; Gaz. vol. 148; p. 827.
Suits, overcoats, and trousers, Outer. J. Greenberg & Son. No. 75,848; Nov. 23; Gaz. vol. 148; p. 1081.
Suits, Youths' outer. Corinth Woolen Mills. No. 75,838; Nov. 23; Gaz. vol. 148; p. 1081.
Suspenders. Knothe Brothers. No. 75,802; Nov. 23; Gaz. vol. 148; p. 1081.
Suspenders, neckties, garters, and belts. G. W. Seay. No. 75,896; Nov. 23; Gaz. vol. 148; p. 1082.
Tapioca, Prepared. Minute Tapioca Company. No. 75,870; Nov. 23; Gaz. vol. 148; p. 1082.
Taps and bushes, Beer. American Tap Bush Company. No. 75,736; Nov. 9; Gaz. vol. 148; p. 565.
Tea and coffee. Tea Consumers' Company. No. 75,820; Nov. 16; Gaz. vol. 148; p. 829.
Textiles, Certain. Trippe, Barker & Company. No. 75,885; Nov. 23; Gaz. vol. 148; p. 1082.
Tools and parts of machinery, Certain. J. J. Saville & Company. No. 75,804; Nov. 16; Gaz. vol. 148; p. 828.
Toweling. Slater Manufacturing Company. Nos. 75,718–19; Nov. 9; Gaz. vol. 148; p. 565.
Toys. A. Schoenhut Company. No. 75,675; Nov. 2; Gaz. vol. 148; p. 275.
Twine, Binder-. Lockwood-Luetkemeyer-Henry Company. No. 75,827; Nov. 16; Gaz. vol. 148; p. 829.
Type-writer ribbon and carbon-paper. How Company. No. 75 938; Nov. 30; Gaz. vol. 148; p. 1339.
Underskirts, nightgowns, and dressing-sacks. K. A. Feore & Co. No. 75,854; Nov. 23; Gaz. vol. 148; p. 1081.
Vaccine virus for animals. Pasteur Vaccine Company. No. 75,773; Nov. 16; Gaz. vol. 148; p. 827.
Valves and valve-fittings. Consolidated Engineering Co. No. 75,959; Nov 30; Gaz. vol. 148; p. 1340.
Varnishes. Keystone Varnish Company. No. 75,906; Nov. 23; Gaz. vol. 148; p. 1083.
Varnishes, primers, and ready-mixed paints. Chicago Varnish Co. No. 75,932; Nov. 30; Gaz. vol. 148; p. 1339.
Wagons. Florence Wagon Works. No. 75,934; Nov. 30; Gaz. vol. 148; p. 1339.
Washboilers. H. Shapiro. No. 75,792; Nov. 16; Gaz. vol. 148; p. 828.
Water-closets. L. M. Rumsey Manufacturing Company. Nos. 75,807–8; Nov. 16; Gaz. vol. 148; p. 828.
Waterproofing coating. F. O. Pierce Co. No. 75,841; Nov. 23; Gaz. vol. 148; p. 1081.
Whisky. Paris, Allen & Company. No. 75,716; Nov. 9; Gaz. vol. 148; p. 565.
Whisky. I. Hecht & Bro. No. 75,849; Nov. 23; Gaz. vol. 148; p. 1081.
Whisky, Blended. Union Distilling Co. No. 75,832; Nov. 16; Gaz. vol. 148; p. 829.
Whisky, rum, gin, brandy, and rock and rye. Cushing Medical Supply Co. No. 75,899; Nov. 23; Gaz. vol. 148; p. 1083.
Wine, White Chianti. L. e P. Antinori No. 75,952; Nov. 30; Gaz. vol. 148; p 1340.
Wines, Still. Carmel Wine Company. No. 75,797; Nov. 16; Gaz. vol. 148; p. 828.
Yarns and rolls, Spun-silk. Kanegafuchi Spinning Company. No. 75,857; Nov. 23; Gaz. vol. 148; p. 1081.
Yeast. Pasteur Vaccine Company. No. 75,816; Nov. 16; Gaz. vol. 148; p. 828.

ALPHABETICAL LIST OF LABELS.

"Japan Lacquer." (For a Varnish or Wood-Finisher.) Capitol Paint, Oil & Varnish Company. No. 15,069; Nov. 9; Gaz. vol. 148; p. 567.
"Mapi-Flour." (For Pancake-Flour.) Hygienic Food Co. No. 15,070; Nov. 30; Gaz. vol. 148; p. 1341.
"Shaughnessy's Special Blended Whiskey." (For Blended Whisky.) M. Shaughnessy Distilling Co. No. 15,067; Nov. 9; Gaz. vol. 148; p. 567.
"Wanigas." (For Straight Rye Whisky.) J. J. Wall. No. 15,068; Nov. 9; Gaz. vol. 148; p. 567.

DISCLAIMERS.

Rail-anchor. W. H. Walker. No. 911,856; date of patent Feb. 9, 1909; disclaimer filed Nov. 3, 1909; Gaz. vol. 148; p. 575.

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UNITED STATES PATENT OFFICE.

VOLUME CXLIX.

DECEMBER,

1909.

WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1910.

ERRATA.

942,266, page 679, first claim, line 10, after the word "thereto" strike out the semicolon.

943,088, page 372, in heading, assignment, State of incorporation, for "Maine" read *Massachusetts.*

943,610, page 570, in heading, name of administratrix, for "Ellen D. Main" read *Ellen B. Main.*

944,452, page 910, in heading, assignment, residence of assignee, for "New York, N. Y." read *York, Pa.*

944,486, page 922, in heading, assignment, name of assignee, for "Hick's Improved Engine Brake Company" read *Hicks' Improved Engine Brake Company.*

944,679, page 989, in heading, title of invention, for "Toilet-Brush" read *Toilet-Brush, &c.*

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THE OFFICIAL GAZETTE

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VOL. 149—No. 1. TUESDAY, DECEMBER 7, 1909. PRICE—$5 per year.

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Reissues	7	No. 13,048 to No. 13,054, inclusive.
Total	925	

TO CITIZENS OF THE UNITED STATES.

States.	Patents and Designs.	Trade-Marks.	States.	Patents and Designs.	Trade-Marks.
Alabama	4	.....	Ohio	56	9
Arkansas	2	.....	Oklahoma	7	.....
California	31	3	Oregon	8	.....
Colorado	9	1	Pennsylvania	68	3
Connecticut	22	.....	Rhode Island	8	1
Delaware	1	.....	South Carolina	1	1
Florida	2	1	South Dakota	2	.....
Georgia	10	1	Tennessee	6	2
Idaho	1	.....	Texas	11	.....
Illinois	77	.....	Utah	3	.....
Indiana	21	.....	Vermont	.....	.....
Iowa	20	.....	Virginia	8	.....
Kansas	4	.....	Washington	12	2
Kentucky	4	2	West Virginia	7	1
Louisiana	7	.....	Wisconsin	16	.....
Maine	5	.....	Wyoming	.....	.....
Maryland	14	3			
Massachusetts	54	6	Alaska, District of	1	.....
Michigan	32	2	Arizona Territory	1	.....
Minnesota	14	1	District of Columbia	3	.....
Mississippi	5	.....	Hawaii Territory	.....	.....
Missouri	17	3	New Mexico Ter't'y	.....	.....
Montana	1	.....	Panama	.....	.....
Nebraska	8	1	Philippine Islands	.....	.....
Nevada	.....	.....	U. S. Army	.....	.....
New Hampshire	2	.....	U. S. Navy	1	.....
New Jersey	34	1			
New York	141	24	Total to citizens of the United States	767	68
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North Dakota	2	.....			

TO CITIZENS OF FOREIGN COUNTRIES.

Countries.	Patents and Designs.	Trade-Marks.	Countries.	Patents and Designs.	Trade-Marks.
Argentina	1	.....	Natal	.....	.....
Austria-Hungary	3	.....	Netherlands	1	1
Belgium	2	.....	Newfoundland	.....	.....
Brazil	.....	.....	New South Wales	1	.....
British West Indies	.....	.....	New Zealand	.....	.....
Canada	15	.....	Norway	.....	.....
Cape Colony	.....	.....	Persia	.....	.....
Chile	.....	.....	Queensland	.....	.....
China	.....	.....	Russia	.....	.....
Costa Rica	.....	.....	Scotland	.....	.....
Cuba	1	.....	South Australia	.....	.....
Denmark	.....	.....	Spain	.....	.....
Ecuador	.....	.....	Sweden	1	.....
England	22	2	Switzerland	2	.....
France	4	.....	Tasmania	.....	.....
Germany	16	6	Transvaal, South Africa	.....	.....
Guatemala	.....	.....	Victoria	.....	.....
Ireland	.....	.....	Western Australia	1	.....
Italy	2	1			
Japan	1	.....	Total to citizens of foreign countries	73	10
Java	.....	.....			
Mexico	.....	.....			

Trade-Mark Law of Ecuador.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., November 26, 1909.

This Office has received from the Department of State a copy of the following executive order relating to the provisions of the Ecuadorian trade-mark law concerning fees for publication.

EDWARD B. MOORE,
Commissioner.

FROM "REGISTRO OFICIAL," REPUBLIC OF ECUADOR, AUGUST 17, 1909.

[Translation.]

(No. 2,064.)

By order of the President of the Republic, persons who may have trade-marks registered in accordance with the provisions of the law of October 28, 1908, shall pay once as the fee for publication in the *Registro Oficial*, in the form provided by article 18 of said law, the sum of ten sucres * for each trade-mark requiring such publication.

Government Palace, Quito, May 4, 1909.

THE PRESIDENT OF THE REPUBLIC,
By BORJA,
Minister of the Treasury.

*(1 sucre=50 cents.)

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business November 30, 1909.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended	No. of applications awaiting action.
313	1. Fences; Harrows and Diggers; Plows; Seeders and Planters; Trees, Plants, and Flowers.	Sept. 21	Oct. 18	431
128	2. Aeronautics; Bee Culture; Dairy; Label-Affixers; Paper Files and Binders; Pneumatic Despatch; Pneumatics; Presses; Store-Service; Tobacco.	July 1	Aug. 5	778
175	3. Annealing and Tempering; Coating with Metal; Electrochemistry; Metal-Founding; Metallurgy; Shaping Fluid Metal.	Oct. 26	Nov. 17	126
232	4. Bridges; Conveyers; Cranes and Derricks; Excavating; Hoisting; Hydraulic Engineering; Loading and Unloading; Metallic Building Structures.	Aug. 10	Oct. 20	679
167	5. Bookbinding; Harvesters; Jewelry; Music.	Aug. 19	Sept. 16	533
318	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Medicines; Preserving; Sugar and Salt.	Sept. 20	Oct. 8	386
312	7. Educational Appliances; Clutches; Games and Toys; Mechanical Motors; Nut and Bolt Locks; Optics; Velocipedes.	Oct. 9	Oct. 22	452
131	8. Beds; Chairs; Furniture; Kitchen and Table Articles; Store Furniture.	Aug. 11	Oct. 30	447
142	9. Air and Gas Pumps; Fire-Extinguishers; Hydraulic Motors; Pumps; Sewerage; Wind-Wheels.	Aug. 2	Nov. 6	448
332	10. Carriages and Wagons.....	Oct. 4	Oct. 18	576
154	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus.	Oct. 11	Oct. 6	315
324	12. Elevators; Journal-Boxes, Pulleys, and Shafting; Lubrication; Machine Elements.	Oct. 18	Oct. 16	518
329	13. Arms, Projectiles, and Explosive Charges, Making; Metal-Working, Etc.	Aug. 2	Oct. 25	472
307	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Metal-Ornamenting; Sheet-Metal Ware, Making; Tools; Wire-Working.	Sept. 1	Nov. 1	425
308	15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Sheets and Fabrics; Liquid Coating Compositions; Paper-Making; Plastic Block and Earthenware Apparatus; Plastic Compositions; Plastics.	Sept. 10	Nov. 17	559
109	16. Telegraphy; Telephony.....	July 24	Oct. 4	291
303	17. Linotyping; Matrix-Making; Paper Manufactures; Printing.	Oct. 9	Oct. 16	271
327	18. Injectors and Ejectors; Steam and Vacuum Pumps; Steam-Boilers; Steam-Engines; Steam-Engine Valves.	Sept. 20	Sept. 15	335
236	19. Dampers, Automatic; Furnaces; Heat-Distributing Systems; Stoves and Furnaces.	Oct. 5	Sept. 25	326
179	20. Artificial Limbs; Builders' Hardware; Dentistry; Locks and Latches; Safes; Undertaking.	Oct. 9	Oct. 4	262
112	21. Brakes and Gins; Carding; Cloth-Finishing; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving.	Aug. 17	Oct. 26	488
249	22. Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Firearms; Marine Propulsion; Ordnance; Railway-Rails and Joints; Railway-Ties and Fasteners; Ships.	Sept. 11	Oct. 13	283
379	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Time-Controlling Mechanism.	Oct. 4	Oct. 15	406

Applications Under Examination—Continued.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended	No. of applications awaiting action.
144	24. Apparel; Apparel Apparatus; Electricity, Medical and Surgical; Sewing-Machines; Surgery.	Oct. 23	Nov. 1	417
312	25. Butchering; Mills; Threshing; Vegetable Cutters and Crushers.	Oct. 27	Nov. 8	240
106	26. Electric Heating and Rheostats; Electric Railways; Electricity, Generation; Motive Power.	June 21	Oct. 4	697
372	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus.	Oct. 16	Oct. 13	371
382	28. Internal-Combustion Engines; Miscellaneous Heat-Engine Plants.	Oct. 16	Oct. 8	391
147	29. Coopering; Fire-Escapes; Ladders; Roofs; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking-Tools.	Aug. 17	Oct. 14	520
152	30. Fluid-Pressure Regulators; Illuminating-Burners; Liquid and Gaseous Fuel Burners; Type-Writing Machines.	Oct. 2	Nov. 11	233
172	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue; Water Purification.	Sept. 27	Oct. 25	258
278	32. Carbonating Beverages; Dispensing Beverages; Dispensing-Cans; Fine Arts; Packaging Liquids; Refrigeration.	Oct. 1	Nov. 1	240
164	33. Cutlery; Domestic Cooking Vessels; Electric Signaling; Masonry and Concrete Structures; Paving; Tents, Canopies, Umbrellas, and Canes.	Sept. 1	Oct. 14	460
304	34. Railways; Railway-Brakes; Railway Rolling-Stock.	Oct. 15	Nov. 11	175
244	35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Garment-Supporters; Toilet.	Sept. 25	Oct. 30	735
264	36. Curtains, Shades, and Screens; Drafting; Driers; Engraving; Measuring Instruments; Photography.	Aug. 11	Aug. 25	822
107	37. Electric Lighting; Electricity, Conductors; Electricity, General Applications.	Aug. 16	Sept. 9	669
378	38. Artesian and Oil Wells; Bottles and Jars; Care of Live Stock; Fishing and Trapping; Stationery; Stone-Working.	Aug. 3	Oct. 19	862
321	39. Baths and Closets; Water Distribution.	July 17	Oct. 12	659
280	40. Baggage; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Lighting-Fixtures; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	July 1	Nov. 1	728
125	41. Railway Draft Appliances; Resilient Tires and Wheels.	July 12	Oct. 11	627
279	42. Railway Signaling; Signals.....	July 29	Nov. 5	209

Oldest new case, June 21; oldest amended, Aug. 5.

Total number of applications awaiting action..... 19,120

161	TRADE-MARKS AND DESIGNS:			
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Trade-Marks.

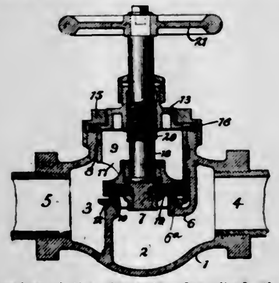
The publication of trade-marks under the act of February 20, 1905, in the OFFICIAL GAZETTE, commenced May 2, 1905, and will appear in each weekly number of the GAZETTE thereafter.

Extra copies of the trade-mark portion of the GAZETTE, which will be sold separately, may be obtained single or in quantities for five cents each. Coupons will be taken in payment thereof.

PATENTS

GRANTED DECEMBER 7, 1909.

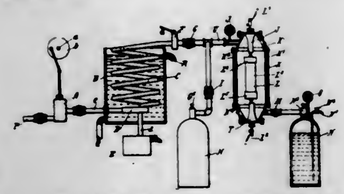
942,045. VALVE. FRANK M. ASHLEY, Brooklyn, N. Y. Filed July 28, 1900. Serial No. 25,130.



1. In a valve of the character described, the combination of a body portion having an internal lug at one side, said body portion also containing a dividing wall presenting an opening and raised ring seat surrounding said opening, a cylinder with a groove engaged by said body-lug and with a lower portion embodying a raised ring seat and containing an under groove for receiving the seat of the dividing wall, the surface forming the opening in said lower portion being flush with the corresponding surface in the wall, a cap confining said cylinder and holding the lower seat portion in bearing engagement with the dividing wall, and a valve stem guided through the cap and carrying a valve for coaction with either of said seats.

2. In a valve of the character described, the combination of a body portion having an internal lug at one side, said body portion also containing a dividing wall presenting an opening and raised ring seat surrounding said opening, a cylinder with a groove engaged by said body lug and with a lower portion embodying a raised ring seat and containing an under groove for receiving the seat of the dividing wall, the surface forming the opening in said lower portion being flush with the corresponding surface in the wall, a cap confining said cylinder and holding the lower seat portion in bearing engagement with the dividing wall, and a valve stem guided through the cap and carrying a valve for coaction with either of said ring seats, said valve having a yielding face.

942,046. PROCESS OF GENERATING AND STORING OZONE. FRANK M. ASHLEY, New York, N. Y. Continuation of application filed Sept. 21, 1905, Serial No. 279,567. This application filed Dec. 15, 1906. Serial No. 347,928.



1. The herein described process, consisting in compressing oxygen to a suitable degree, then cooling the same, then passing said oxygen into an ozonator and permitting the pressure to quickly decrease to a predetermined pressure, subjecting the oxygen while in said ozonator to the action of an electric current, and leading the ozone generated, without reducing the pressure to any considerable degree, into a suitable storage receptacle.

2. The herein described process, consisting in compressing a gas containing a considerable quantity of free oxygen, then withdrawing the heat caused by such compression, then subjecting said oxygen to the action of an electric current to generate ozone, and thereafter leading said ozone, into a suitable storage receptacle, without allowing the same to expand to any considerable degree.

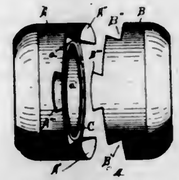
3. The herein described process consisting in leading oxygen gas under pressure into an ozonator and subjecting the same to electric treatment and then passing said gas after said treatment into a receptacle in which water or similar fluid is stored, and allowing said water to escape from said receptacle as fast as said gas is admitted therein in such a manner as to prevent the gas from expanding to any considerable degree in said receptacle during the storing thereof.

4. The herein described process, consisting in leading oxygen under pressure into an ozonator and converting the said oxygen into ozone, then leading said ozone into a suitable storage receptacle without allowing the ozone to expand to any considerable degree during the storage thereof.

5. The herein described process consisting in leading oxygen under pressure into an ozonator and then quickly decreasing the pressure therein while the oxygen is treated electrically to convert it into ozone gas, then leading said gas into a suitable storage receptacle and storing same under the same pressure as is maintained in the ozonator.

[Claims 6 to 11 not printed in the Gazette.]

942,047. HOSE OR PIPE COUPLING. CHARLES E. ATKINSON, Richmond, Ind. Filed Mar. 8, 1909. Serial No. 481,964.

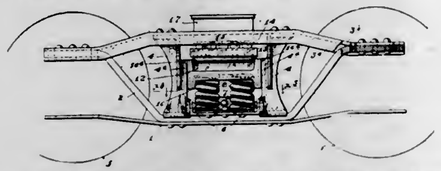


1. A hose or pipe coupling formed round in cross-section and having its ends rounded in an axial direction, consisting of a male-member and a female-member provided with parallel contact faces disposed at an acute angle with relation to the axial direction of the coupling, the two faces being dovetailed convergently together, a dovetailed-lug projecting from the face of the male-member and adjoining the periphery thereof at the wider end of its face and fitting in an oppositely disposed socket formed in the face of the female member, said dovetailed-lug and said socket forming means for contributing in retaining said faces in contact with each other and also preventing said faces from being contacted tighter than they should.

2. A hose or pipe coupling formed round in cross section and comprising two members having oppositely disposed

faces which are disposed at an acute angle to the common axis, means for removably connecting said faces, said means comprising a pair of undercut and convergently arranged flanges formed integral with one of said faces and a pair of undercut convergently arranged grooves formed in the face of the other member and adapted to snugly receive said flanges therein wedge-like to draw the two faces tightly into contact with each other, a dovetailed lug projecting from the face of one of said members and adapted to fit in an undercut cavity formed in the face of the other member, said last named cavity and lug being oppositely directed to that of the first named grooves and flanges, and a washer seated in one of said faces and adapted to contact with the other face when the two members are contacted.

942,048. CAR-TRUCK. JOHN C. BARBER, Chicago, Ill. Filed Oct. 10, 1907. Serial No. 396,803.



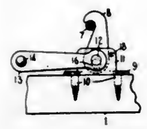
1. In a car truck, the combination with side frames having bolster columns with vertical guide lug seats, of a truck bolster having a body portion of less width than the space between the bolster columns, and end castings rigidly but detachably secured to the ends of said bolster and each extended to both sides of said bolster and serving as chafing blocks for the same, and provided with projecting guide lugs working in the vertical seats of said bolster columns.

2. In a car truck, the combination with side frames having bolster columns with vertical guide lug seats, of a truck bolster having a body portion of less width than the bolster space between the columns, an end casting having a horizontal web engaging the under surface of the end portions of said bolster and provided at its ends with vertically extended portions which serve as chafing plates and with projecting guide lugs which latter work in the vertical seats of said bolster columns, means detachably securing said end castings to said bolster, and springs interposed between said bolster and underlying portions of the truck frame, said horizontal web portion of said end castings being perforated to afford seats for the upper ends of said springs and permitting the upper ends of said springs to directly engage said bolster, substantially as described.

3. In a car truck, the combination with side frames having bolster columns with vertical guide lug seats, of a truck bolster having a body portion of less width than the space between the said bolsters, end castings engaging the under surfaces of the end portions of said bolster and provided with guide lugs that work in the vertical seats of said columns, roller bases applied to the upper surfaces of the end portions of said bolster, bolts passed through said end castings, bolster and roller bases and detachably connecting the same, springs interposed between said bolster and underlying portions of said truck frame, a body bolster above said truck bolster, and roller bearing device interposed between said body bolster and said roller bases, substantially as described.

4. In a car truck, having side frames of the arch bar type, the combination with bolster columns having inwardly projecting guide flanges of less height than the columns, of a truck bolster underlying the top arch bars, which bolster has an I-beam body of less width than the narrowest space between said columns, and is provided with endwise removable end castings serving as chafing blocks for the bolster and as caps for the bolster springs, and having outwardly extending guide lugs working between the said guide flanges of said bolsters and removable therefrom at their tops, substantially as described.

942,049. TYPE-WRITING-MACHINE CLAMP. EDWIN E. BARNEY, Syracuse, N. Y., assignor to The Monarch Typewriter Company, Syracuse, N. Y., a Corporation of New York. Filed Mar. 13, 1905. Serial No. 249,860.



1. In a baseboard clamp for machines, a horizontal rock shaft mounted on said baseboard and extending beneath a lower frame piece of the machine, a handle on the outer end of said shaft, a hook pivotally mounted on the inner end of said shaft to swing in a vertical plane, a stud on the machine in position to be engaged by said hook, and a washer of pliable material tightly held between the outer face of said hook and the inner face of said shaft with sufficient tension so that when the shaft is turned the hook may be swung therewith to a position in which it engages against the stud.

2. In a baseboard clamp for machines, a horizontal rock shaft mounted on said baseboard and extending beneath a lower frame piece of the machine, a handle on the outer end of said shaft, a hook pivotally and eccentrically mounted on the inner end of said shaft to swing in a vertical plane, a stud on the machine in position to be engaged by said hook, and a washer of pliable material tightly held between the outer face of said hook and the inner face of said shaft with sufficient tension so that when the shaft is turned the hook may be swung therewith to a position in which it engages against the stud but will turn on its pivot when in such position as the rock shaft is turned still farther, to draw the hook tightly against the stud through the action of its eccentric mounting.

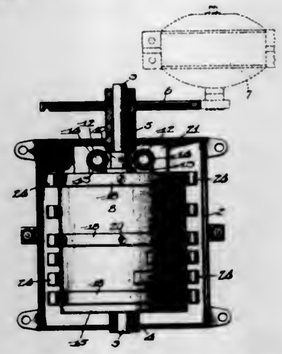
3. In a baseboard clamp for clamping a machine to a baseboard, the combination of a rock shaft mounted on one of the parts to be clamped together, a handle on one end of said rock shaft, a hook pivotally and eccentrically mounted on the other end of said shaft, a stud on the other of said parts engageable by said hook, and a friction device tightly held between a surface of said hook and a surface of said shaft with sufficient tension so that when the shaft is turned the hook may be swung therewith to a position in which it engages against the stud but will allow the shaft to be turned still farther after the hook is arrested to draw the hook tightly against the stud through the action of the eccentric mounting.

4. In a baseboard clamp for clamping a machine to a baseboard, the combination of a rock shaft mounted on one of the parts to be clamped together, a handle on one end of said rock shaft, a hook pivotally and eccentrically mounted on the other end of said shaft, a stud on the other of said parts engageable by said hook, a friction device tightly held between a surface of said hook and a surface of said shaft with sufficient tension so that when the shaft is turned the hook may be swung therewith to a position in which it engages against the stud but will allow the shaft to be turned still farther after the hook is arrested to draw the hook tightly against the stud through the action of the eccentric mounting, and frictional means for holding said rock shaft against the accidental turning.

5. In a clamp for clamping a machine to a baseboard, the combination of a rock shaft, a hook pivotally and eccentrically mounted on said rock shaft, a frame in which said rock shaft is journaled, and a friction device engaging surfaces of said hook, rock shaft and frame and under tension sufficient to cause the hook to be turned with the rock shaft to hold the hook against accidental motion and to permit the rock shaft to turn independently of the hook when the hook is arrested; and means coöperating with said hook to connect the machine and baseboard and for arresting said hook.

[Claims 6 to 10 not printed in the Gazette.]

942,050. MOTOR-CONTROLLING DEVICE. THOMAS E. BARNUM, Milwaukee, Wis., assignor to The Cutler-Hammer Manufacturing Company, Milwaukee, Wis., a Corporation of Wisconsin. Filed Mar. 14, 1907. Serial No. 362,352.



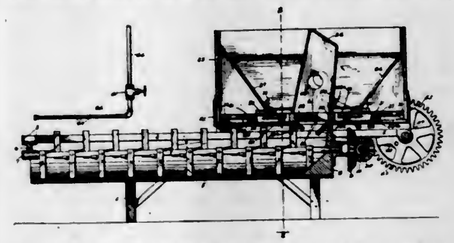
1. In a controller for electric motors, in combination, a supporting frame, a shaft revolubly mounted in said frame, two drum sections rigidly mounted on said shaft, said drum sections being insulated from said shaft and from each other, a set of contact segments carried by each of said drum sections, and stationary contact fingers arranged to be engaged by said contact segments, said shaft being adapted to be continuously rotated in one direction to cause said sets of contact segments to alternately engage said contact fingers to periodically change the circuit connections of the motor.

2. In a controller for electric motors, in combination, a supporting frame, a shaft revolubly mounted in said frame, two drum sections rigidly mounted on said shaft, said drum sections being insulated from said shaft and from each other, a set of contact segments carried by each of said drum sections, and two oppositely disposed sets of contact fingers mounted on said frame, said shaft being adapted to be continuously rotated in one direction to cause said sets of contact segments to alternately engage said sets of contact fingers, certain of the segments on each drum section being arranged to coöperate with said contact fingers to control the direction of operation of the motor, and the other of said segments being arranged to coöperate with said contact fingers to gradually remove a resistance from the motor circuit upon each reversal of the motor.

3. In a controller for electric motors, in combination, a supporting frame, a shaft revolubly mounted thereon, two drum sections rigidly mounted on said shaft, said drum sections being insulated from said shaft and from each other, contact segments carried by each of said drum sections and stationary contact fingers arranged to be engaged by said contact segments, certain of said segments on each drum section being arranged to coöperate with said contact fingers to control the direction of operation of the motor, and other of said segments on each drum section being arranged to coöperate with said contact fingers to gradually remove a resistance from the motor circuit upon each reversal of the motor, said resistance controlling segments being similarly arranged on both of said drum sections to insure gradual removal of the resistance from the motor circuit when said shaft is continuously rotated in one direction to periodically reverse the operation of the motor.

942,051. FEEDING DEVICE FOR CEMENT-MIXERS. HOMER C. BAXTER, Kent, Ohio. Filed June 16, 1908. Serial No. 438,751.

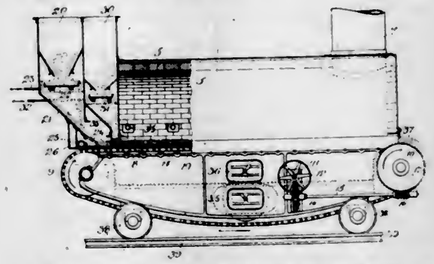
1. In a feeding device for cement mixers, the combination of a frame, spaced base plates carried by the frame, said base plates provided with downwardly inclined inner ends, reciprocating frames mounted upon the base plate, bars adapted to actuate said reciprocating frames and means for actuating the bars in opposite directions, guide-plates located above the reciprocating frames, plates adjustably attached to the reciprocating frames and means for holding said plates in fixed adjustment, a box located above the reciprocating frames, said box provided with an open partition, said reciprocating frames located below the box and upon opposite sides of an opening between the spaced plates, and a mixer located below the spaced base plates, substantially as and for the purpose specified.



2. In a feeding device for cement mixers, the combination of a frame, spaced base plates carried by the frame, said base plates provided with downwardly inclined inner ends, reciprocating frames mounted upon the base plate, bars adapted to actuate said reciprocating frames and means for actuating the bars in opposite directions, guide-plates located above the reciprocating frames, plates adjustably attached to the reciprocating frames and means for holding said plates in fixed adjustment, a box located above the reciprocating frames, said box provided with an open partition, said open partition provided with sight apertures, said reciprocating frames located below the box and upon opposite sides of an opening between the spaced plates, and a mixer located below the spaced base plates, substantially as and for the purpose specified.

3. In a feeding device for cement mixers, the combination of a frame, spaced base plates carried by the frame, reciprocating frames mounted upon the base plate, bars adapted to actuate said reciprocating frames and means for actuating the bars in opposite directions, guide-plates located above the reciprocating frames, plates adjustably attached to the reciprocating frames and means for holding said plates in fixed adjustment, a box located above the reciprocating frames, said box provided with an open partition said reciprocating frames located below the box and upon opposite sides of an opening between the spaced plates, and a mixer located below the spaced base plates, substantially as and for the purpose specified.

942,052. FURNACE FOR TREATING ORES. HERMAN C. BELLINGER, Salt Lake City, Utah, assignor of one-half to G. H. Elvis, Salt Lake City, Utah. Filed June 16, 1908. Serial No. 438,694.



1. In an apparatus for preparing ores for blast furnaces, a blast chamber, a traveling carrier operating therethrough, means for delivering the ore to be prepared to such carrier and means for protecting the bed of ores to be prepared from the action of the blast in the chamber.

2. In an apparatus for preparing ore for blast furnaces, a blast chamber, a traveling carrier operating therethrough, means for delivering the ore to be prepared upon said carrier, and means for delivering a protecting blanket on top of the bed of ore.

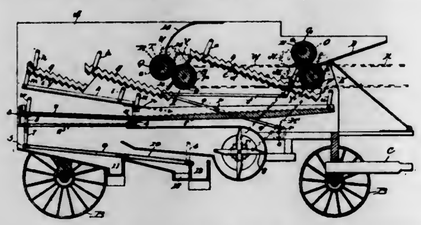
3. In an apparatus for preparing ores for smelting furnaces and other purposes, a blast chamber, means for continuously feeding the ores to be prepared through such chamber, and means for protecting the bed of ores to be prepared from the action of the blast in such chamber.

4. In a machine for preparing ores and the like for smelting furnaces or other purposes, a blast chamber, a traveling carrier operating therethrough, an ore hopper delivering to said carrier, and igniting means located below the hopper for igniting a portion of the ore adjacent the point of delivery thereof to said carrier.

5. In an apparatus for preparing ores or the like for smelting or other purposes, a blast chamber, a carrier operating therethrough, a hopper delivering to such carrier, a grizzly arranged at the delivery end of the hopper and a burner located below the grizzly.

[Claims 6 to 12 not printed in the Gazette.]

942,053. GARBANZON HULLING AND SEPARATING MACHINE. DON E. J. BROCKETT and FRANK GARVER, Marion, Ohio, assignors to The Huber Manufacturing Company, Marion, Ohio, a Corporation of Ohio. Filed Oct. 5, 1905. Serial No. 281,388.



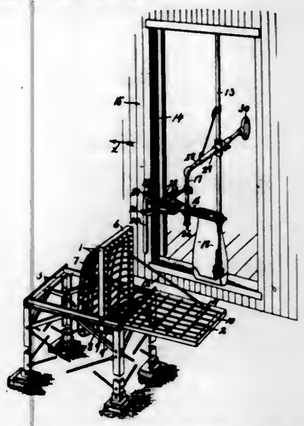
1. In a machine for treating garbanzon, the combination, with a feed hopper, a first pair of revoluble hulling rolls, one of which is yieldable from the other, and a shaking rack extending from this pair rearward, of a second pair of revoluble hulling rolls, one of which is yieldable from the other near the rear of said rack, a second shaking rack extending from the second pair of rolls rearward, a return board for said second rack, a grain board below the racks, a chaffer board beyond said grain board, and means for passing a current of air through and past said chaffer board.

2. In a machine for treating garbanzon, the following instrumentalities; a feed hopper, a first pair of revoluble hulling rolls, one of which is yieldable from the other, a shaking rack from this pair rearward, a second pair of revoluble hulling rolls, one of which is yieldable from the other, near the rear end of said rack, a second shaking rack beneath the second pair of rolls, a return board under the latter, a grain board below the racks, a chaffer board in continuation of the grain board, a riddle under the chaffer board, a fan blower adapted to blow a current past and through the riddle and chaffer board, and sizing screens beneath the riddle each having a separate chute.

3. In a machine for treating garbanzon, the combination, of a feed hopper and a pair of revoluble hulling rolls having their surfaces cushioned, with separating devices following said rolls and adapted to receive from them the garbanzon vine with the crushed bolls or pods and liberated seed, to separate the seed from the boll fragments and vine.

4. In a machine for treating garbanzon, the combination, of a feed hopper and a pair of revoluble rolls having their surfaces cushioned, a shaking rack extending rearward therefrom, a second pair of revoluble hulling rolls having their surfaces cushioned, and sifting or separating devices following said second pair of rolls.

942,054. RAILWAY MAIL-HANDLING APPARATUS. NEILL H. CAMPBELL, Binghamton, N. Y. Filed Feb. 1, 1909. Serial No. 475,442.



1. In a railway-mail transfer system, a bag holder on a car, a stationary support, a bag receiver pivoted to and rising from the support and means on the car coacting with the receiver for releasing the bag from said holder and depositing the same into the receiver and rocking said receiver from its receiving position as the car moves relatively to the receiver.

2. In a railway-mail transfer system, a bag holder on a car, a movable receiver, a stationary support for the receiver, means on the car actuated by contact with the receiver for releasing the bag from the holder and shifting the receiver from its receiving position and a normally open cover closed by the shifting of the receiver.

3. In a system for transferring mail bags from a moving car to a receiving station, a bag holder on the car, a stationary support, a swinging basket pivoted to and normally rising from the support and having its open side normally opposed to the direction of movement of the car and in the path of movement of the bag, and means on the car coacting with the receiver for releasing the bag from the holder and allowing such bag to pass into the basket and rock the same from its receiving position.

4. In a system for transferring mail bags from a moving car to a receiving station, a bag holder on the car, a support at the station, a normally upright vertically swinging basket hinged to and rising from the support and having a flexible netting bottom and its open side disposed in the path of the approaching bag, and coacting devices at the station and on the car for releasing the bag from its holder and allowing such bag to gravitate into the basket and rock the same to a horizontal position.

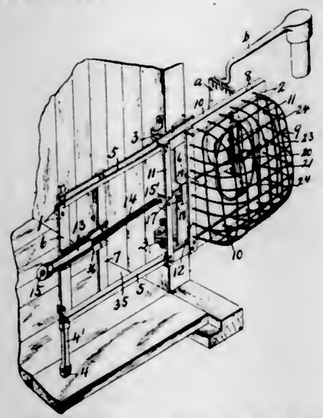
5. In a system for transferring mail bags from a moving car to a receiving station, a bag holder on the car, a movable basket at such station and having its open side disposed in the path of the approaching bag, and coacting devices at the station and on the car for releasing the bag from the holder and allowing such bag to gravitate into and shift the basket from its receiving position, and a normally open basket cover closed by the shifting of the basket.

[Claims 6 to 15 not printed in the Gazette.]

942,055. RAILWAY MAIL-CATCHER. NEILL H. CAMPBELL, Binghamton, N. Y. Filed Feb. 1, 1909. Serial No. 475,443.

1. In a mail catcher for railway mail cars, a bag receiving basket slidable into and out of the car and having its open side disposed in an upright plane and facing in the direction of movement of the car, a detent for holding the basket in its receiving position and means engaged by the bag for tripping the detent.

2. In a mail catcher for railway mail cars, a guide frame hinged to the car, a bag receiving basket slidable on said frame and having its open side disposed in an upright plane and facing in the direction of movement of the car, movable means for holding the basket in its receiving position, and means actuated by contact with the bag for releasing said means.

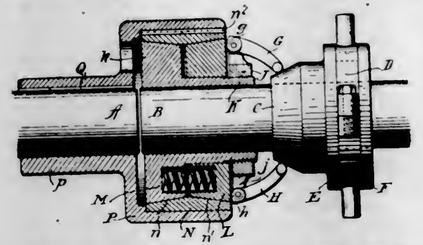


3. In a mail catcher for railway mail cars, a bag receiving basket slidable into and out of the car and having its open side disposed in an upright plane and facing in the direction of movement of the car, movable means for holding the basket in its receiving position, means actuated by contact with the bag for releasing said means, and additional means for forcing the basket from its receiving position when said holding means is released.

4. In a mail catcher for railway mail cars, an upright frame, a slidable basket having its open side disposed in an upright position and guided on said frame, and movable means for locking the basket in its receiving position.

5. In a mail catcher for railway mail cars, an upright frame, a slidable basket having its open side disposed in an upright position and guided on said frame, movable means for locking the basket in its receiving position, means actuated by contact with the bag for forcing said locking means from its locking position, and a spring for forcing the spring from its receiving position when unlocked.

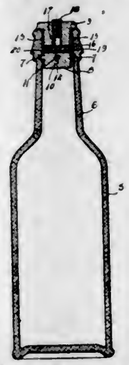
942,056. FRICTION-CLUTCH. HARRY A. CUMFER, Chicago, Ill., assignor of one-half to Frank Adams Mitchell, Chicago, Ill. Filed Apr. 14, 1909. Serial No. 489,756.



1. In a friction clutch, the combination with a shaft, of a cone movable along the shaft, an annular wedge having a sleeve movably encircling the shaft, a ring secured upon the sleeve, arms pivotally supported by the said ring and having parts in contact with the said cone, an annular wedge movably supported on the exterior of the said sleeve, the said pivoted arms being provided with cams arranged to act upon the said last-mentioned annular wedge, springs interposed between the wedges to hold them normally apart, and a separate clutch member having surfaces arranged adjacent to the inclined surfaces of the annular wedges.

2. In a friction clutch, the combination with a shaft, of a cone movable along the shaft, an annular wedge having a sleeve movably encircling the shaft, a ring secured upon the sleeve, arms pivotally supported by the said ring and having parts in contact with the said cone, an annular wedge movably supported on the exterior of the said sleeve, the said pivoted arms being provided with cams arranged to act upon the said last-mentioned annular wedge, springs interposed between the wedges to hold them normally apart, and a separate clutch member comprising a cylindrical housing having a ring secured within it, the said ring having surfaces arranged adjacent to the inclined surfaces of the annular wedges.

942,057. DRENCHING-BOTTLE. CLAUDE B. DAVIS, Manchester, Va. Filed May 11, 1909. Serial No. 495,339.



1. The combination with a bottle and the neck thereof, of a bushing held within the neck of the bottle and provided with a passage communicating both interiorly and exteriorly of the bottle, and a plug fitted in the passage and grooved from end to end.

2. The combination with a bottle and the neck thereof, of a bushing held within the neck of the bottle and having intercommunicating transverse and longitudinal passages communicating respectively with the interior and exterior of the bottle, and a plug fitted in the transverse passage and grooved from end to end, the groove of the plug communicating with the longitudinal passage of the bushing.

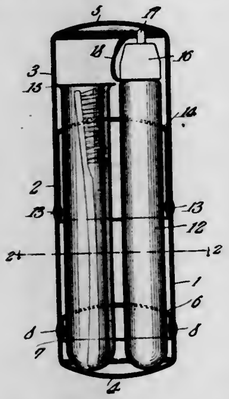
3. The combination with a bottle and the neck thereof, of a bushing held within the neck of the bottle and having intercommunicating transverse and longitudinal passages communicating respectively with the interior and exterior of the bottle, and a plug fitted in the transverse passage and grooved helically from end to end, the grooves of the plug communicating with the longitudinal passage of the bushing.

4. The combination with a bottle and the neck thereof, of a bushing held within the neck of the bottle and having intercommunicating transverse and longitudinal passages communicating respectively with the interior and exterior of the bottle, and a plug fitted in the transverse passage and having a plurality of grooves extending from end to end and having communication with the longitudinal passage of the bushing.

942,058. TOOTH-BRUSH HOLDER. CHARLES H. DE GOWIN, Cheboygan, Mich. Filed Feb. 27, 1909. Serial No. 480,442.

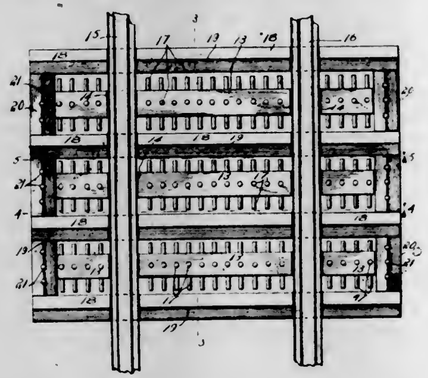
1. A tooth brush holder comprising a case having fixed end walls, one of said walls having orifices therethrough, a partition within the case having orifices registering with the orifices in said end wall, and a cover fitting over said orificed end wall of the case.

2. A tooth brush case comprising a bottom member, an outward dished orificed partition arranged therein, a top member secured within the bottom member and provided



with an outward dished orificed end wall, receptacles projecting through the two sets of orifices, and a cover engaging the top member.

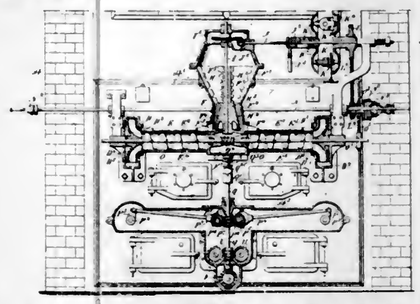
942,059. CATTLE-GUARD. SYRUS C. DUNN, Joiner, Ark. Filed June 12, 1909. Serial No. 501,855.



1. A device of the class described comprising longitudinal stringer members adapted to bear beneath the railway rails and provided with alternate bearings and recesses, a plurality of transverse members spaced apart and bearing in the recesses of the stringer members and extending between the rails and beyond the same at each end, a plurality of outer stringer members bearing beneath the terminals of the transverse members at their outer ends, pins extending from said outer stringer members, a plurality of rollers having radially extending pins and with journals engaging said bearings with their terminals adjacent to the outer stringer members.

2. A device of the class described comprising main stringer members adapted to bear beneath the railway rails and provided with alternately arranged bearings and recesses, a plurality of rollers having radially extending pins with journals engaging said bearings, a plurality of tie members supported in said recesses and with pointed upper faces, and stringer members connected to said tie members and having pointed upper faces and upwardly directed pins.

942,060. MECHANICAL STOKER. THADDIOUS V. ELLIOTT, New York, N. Y. Filed Mar. 23, 1908. Serial No. 422,664.



1. A mechanical stoker, comprising the following instrumentalities in combination, namely, a crusher for reducing the fuel, a centrifugal feed wheel for feeding the reduced fuel into the fire box, delivery means for conducting the reduced fuel from the said crusher to the said feed wheel, the said feed wheel being connected with and actuated by the said delivery means, a fire box having a grate provided with movable grate bars, an ash remover, a shaft driven from the said delivery means, means for simultaneously actuating the said crusher and the said delivery means, a second shaft, means for actuating the grate bars and the ash remover from said second shaft, and a clutch connection between the said second shaft and the shaft driven from the delivery means.

2. In a mechanical stoker, the combination with a crusher for reducing the fuel, a fire box having a grate provided with grate bars mounted to rock, means for discharging the fuel into the fire box, a conveyer for receiving the fuel from the crusher and delivering it to the said discharging means, a shaft carrying said conveyer, the said discharging means being connected with and actuated by the said conveyer shaft, shafts mounted to rock, connection between the rocking shafts and the grate bars for transmitting the rocking motion of the shafts to said grate bars, a vertical shaft mounted to turn and connected with the said rocking shafts to rock the same, a second vertical shaft driven from the conveyer shaft, a clutch connection between the said vertical shafts, and means for actuating the said crusher and the conveyer simultaneously.

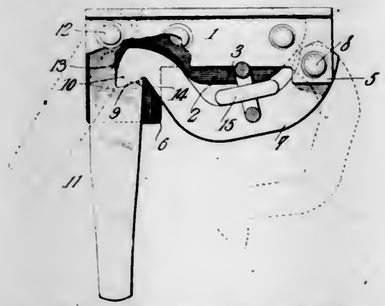
3. In a mechanical stoker for a furnace, the combination with a crusher provided with an outlet, a tubular casing connected with the outlet of the crusher, a conveyer in said tubular casing, a shaft for said conveyer, a casing connected with the tubular casing and through which the shaft of the conveyer extends, the said casing being provided with an outlet leading to the fire box of the furnace, a centrifugal feed wheel in said casing and secured to the conveyer shaft to turn therewith, the said feed wheel discharging into the outlet of the casing, a grate provided with grate bars mounted to rock, a vertical shaft, means for rocking the grate bars from said shaft, a second vertical shaft driven from the conveyer shaft, a clutch connection between the vertical shafts, and means for simultaneously actuating the said crusher and the said conveyer.

4. In a mechanical stoker for a furnace, a fire box having a grate provided with grate bars mounted to rock, a feeding device for feeding fuel into the fire box and comprising a screw conveyer and a shaft for the same, an ash remover, a vertical shaft, means for actuating the grate bars and the ash remover from said vertical shaft, a second vertical shaft driven from the shaft of the conveyer, a clutch connection between the vertical shafts, and means for actuating the conveyer.

5. In a mechanical stoker for a furnace, the combination with a crusher for reducing the fuel, a fire box having a grate provided with movable grate bars, means for discharging the fuel into the fire box, a device for receiving the fuel from the crusher and delivering it to the said discharging means, the said discharging means being connected with and actuated by the said delivery device, a vertically disposed shaft, having a clutch member at its upper end, means for actuating the said grate bars from the said vertically disposed shaft, a shaft driven from the said delivery device and having a clutch member mounted to slide on and to turn with the shaft and adapted to engage the clutch member of said vertically disposed shaft, means for throwing the clutch members out of engagement with each other to stop the movement of the grate bars, a main drive shaft and means for actuating the said crusher and the said delivery device from said shaft.

[Claims 6 to 9 not printed in the Gazette.]

942,061. CHAIN SECURING AND RELEASING DEVICE. WILLIAM S. FERGUSON and ARTIE W. MCMICHAEL, Leesville, La. Filed Oct. 20, 1908. Serial No. 458,693.



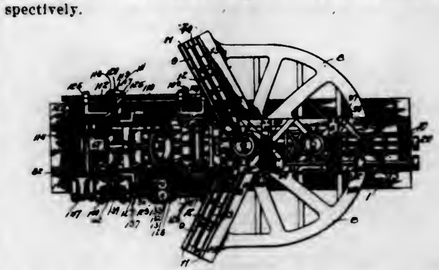
1. A chain securing and releasing device comprising a body having an upstanding chain bearing surface, a staple pivotally connected at one end with the body and cut away from its edge to straddle the chain bearing surface thereof, and to receive the chain and a lever fulcrumed to the body and having a notch located between its fulcrum point and handle end for the reception of the free end of the staple.

2. A chain securing and releasing device comprising a body having a support-engaging base and a chain bearing surface disposed at an angle to the plane of the support-engaging base, a staple pivotally connected at one end with the body and adapted to straddle the chain bearing surface thereof with its edge opposite said surface out of parallel relation thereto, and a lever fulcrumed to the body and having a notch for the reception of the free end of the staple.

3. A chain securing and releasing device comprising a body having a chain bearing surface, a staple pivotally connected at one end with the body and adapted to straddle the chain bearing surface thereof, said staple having at its free end an arcuate edge and a lever fulcrumed to the body and having a notch provided with an arcuate side, said notch being adapted to receive the free end of the staple whereby the arcuate side and edge may have contact with each other.

942,062. MACHINE FOR DISHING AND FLANGING PLATES. CHARLES GABRIEL, Chicago, Ill. Filed Mar. 20, 1908. Serial No. 422,271.

1. In a machine of the kind specified, a supporting frame equipped with means for rotatably clamping a plate therein, a frame pivotally supported thereon at one end, said frames being movable toward and away from each other to vary the position of the pivot on said last-named frame, an oscillating frame carried by said pivoted frame, and driven rolls carried by said oscillating frame and engaging the edge portion of the plate to rotate the latter, said pivoted and oscillating frames being independently operable to distort the body and edge portions of the plate respectively.



2. In a machine of the kind specified, a supporting frame equipped with means for rotatably clamping a plate therein, a frame pivotally supported thereon at one end, said frames being movable toward and away from each other to vary the position of the pivot on said last-named frame, an oscillating frame carried by said pivoted frame, and driven rolls carried by said oscillating frame and engaging the edge portion of the plate to rotate the latter, the faces of said rolls being adjustable toward and away from each other to accommodate plates of various thickness.

3. In a machine of the kind specified, a supporting frame equipped with means for rotatably clamping a plate therein, a frame pivotally supported thereon at one end, said frames being movable toward and away from each other to vary the position of the pivot on said last-named frame, an oscillating frame carried by said pivoted frame, a driven cylindrical roll carried by said oscillating frame on which the edge portion of the plate rests, a driven miter roll having its axis disposed at an angle of forty-five degrees to the axis of said cylindrical roll and being geared to the latter, said miter roll being adjustable longitudinally of its axis and having one point in its face moving in a plane parallel with the face of said cylindrical roll, said miter roll engaging the upper face of the plate, and means for actuating said pivoted and oscillating frames independently of each other to distort the body and edge portion respectively of said plate.

4. In a machine of the kind specified, a plate supporting frame, means for rotating the supporting frame, a frame carrying bending rolls adapted to engage said plate, said last-named frame being pivotally supported on said first-named frame, and said last-named frame being adapted to be raised and lowered at its free end portion, the said pivot being adjustable to change the radial distance of the bending rolls therefrom, upright vertical racks pivotally mounted on the base plate of the machine, pinions on said last-named frame engaging said rack, and coacting means on said rack and said last-named frame maintaining said rack and pinion in mesh.

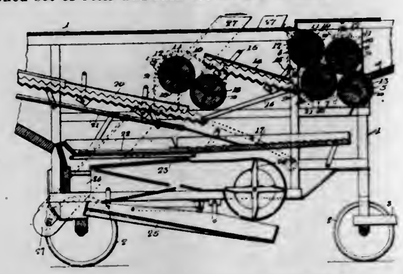
5. In a machine of the kind specified, a frame carrying plate supporting and rotating means, a frame carrying bending rolls and movable with relation to said first-named frame to vary the distance of said bending rolls from the axis of rotation of the plate, a pivotal connection between said frames adjustable with relation to said frame carrying said bending rolls and rigid with relation to said first-named frame, upright pivotally supported racks disposed on the base plate of said first-named frame, pinions carried by the last-named frame and meshing with said racks, and coacting means on said last-named frame and said rack bars maintaining the latter and said pinions in mesh.

[Claim 6 not printed in the Gazette.]

942,063. GARBANZON-THRESHING MACHINE. FRANK GARVER, Marion, Ohio, assignor to The Huber Manufacturing Company, Marion, Ohio, a Corporation of Ohio. Filed May 4, 1908. Serial No. 430,713.

1. In a machine of the character described, a set of rolls comprising three or more rolls, one of said rolls being in operative engagement with two of the other rolls, said rolls being so arranged that both points of engagement lie in the path of the material to be operated upon.

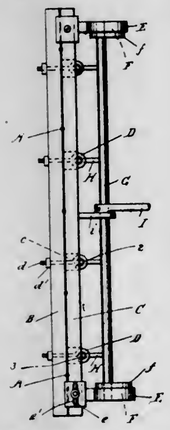
a second set of rolls located beyond the first-mentioned set of rolls, and a shaking rack located between said first-mentioned set of rolls and said second set of rolls.



2. In a machine of the character described, a set of rolls comprising three or more rolls and having plain cushioned exterior surfaces, one of said rolls being in operative engagement with two of the other rolls, and said rolls being so arranged that both points of engagement will lie in the path of the material to be operated upon, a second set of rolls located beyond the first-mentioned set of rolls, and a shaking rack interposed between said sets of rolls.

3. In a machine of the character described, a set of rolls comprising four rolls, each of said rolls being in operative engagement with one of the other of said rolls and one of said rolls being in operative engagement with two of the other of said rolls, and said rolls being so arranged that three points of engagement lie in the path of the material to be operated upon.

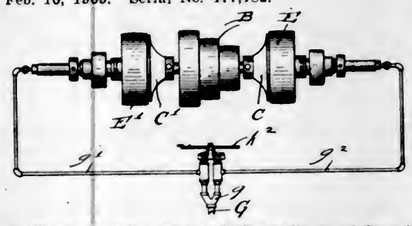
942,064. CLAMP FOR FENCE-WIRES. JOHN T. GRAYSON and JAMES I. HENTZ, Blountstown, Fla. Filed July 7, 1909. Serial No. 506,314.



1. In a clamp for fence-wires, the combination, with two clamping-bars for engaging the wire, one of the said bars being provided with slots and the other bar being provided with eyes which project from the slots; of bearing-brackets secured to the slotted clamping-bar, a rod provided with eccentrics on its ends which are journaled in the said brackets, hooks projecting from the said rod and engaging with the eyes and the slotted bar, and means for turning the said rod and its eccentrics in their bearings.

2. In a clamp for fence-wires, the combination, with two clamping-bars for engaging the wires, one of the said bars being provided with slots and the other bar being provided with eyes which project from the slots; of bearing-brackets secured to the slotted clamping-bar, a rod provided with eccentrics on its ends which are journaled in the said brackets, a cam secured to the middle part of the said rod and bearing against the slotted bar, hooks projecting from the said rod and engaging with the eyes and the slotted bar, and an operating lever secured to the middle part of the said rod.

942,065. PNEUMATICALLY-OPERATED SHAFT. PAUL J. GREBEL, Chicago, Ill., assignor to Manufacturers Equipment Company, a Corporation of Illinois. Filed Feb. 10, 1909. Serial No. 477,182.



1. The combination with a shaft axially bored from its ends inwardly and ported through the side thereof, of inwardly facing cylinders open at their inner ends and rigidly secured on the shaft to receive the pressure from the port therein, pistons slidable in the cylinders, a fixed pulley on the shaft, outwardly facing friction cones rigidly secured on the shaft, slidable loose pulleys engaged on the shaft and having the faces adjacent the cones complemental therewith, the hubs of said loose pulleys bearing against the pistons and suitable connections to admit pressure into the appropriate cylinder to actuate the piston to force the appropriate loose pulley upon its cone.

2. The combination with a shaft of a driving pulley thereon, outwardly facing friction elements on each side thereof, sleeves slidable on the shaft, loose pulleys journaled on said sleeves, one adjacent each of said friction elements, inwardly facing cylinders rigidly secured on the shaft, one on the outer side of each loose pulley, pneumatically operated pistons slidable in the cylinders, one bearing against each sleeve, pressure pipes connected to supply pressure into the cylinders to actuate said pistons and valves connected in the pressure pipes and adapted to admit pressure to selectively actuate the pistons.
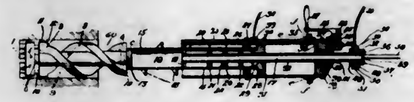
3. In a device of the class described a shaft, cylinders thereon, pistons in said cylinders, sleeves slidable on said shaft against each of which one of the pistons bear, loose pulleys rotatably engaged on the sleeves and slidable therewith, said loose pulleys having friction faces, friction members rigidly secured to the shaft adapted to be engaged by the friction faces of the loose pulleys, a pulley rigidly secured to the shaft and means for admitting pressure into either cylinder.

4. A reversible countershaft embracing a shaft, a driving pulley thereon, outwardly facing friction elements on each side thereof, sleeves on the shaft, one slidable between the driving pulley and each friction element, loose pulleys journaled on said sleeves and held from longitudinal movement relatively of the sleeves and adapted by the sliding of the sleeves to engage the friction elements, and pneumatically operated pistons slidable on the shaft adapted to adjust the loose pulleys to engage the friction elements.

5. The combination with a shaft axially bored from its ends inwardly and ported through the side thereof, of inwardly facing cylinders open at their inner ends and rigidly secured on the shaft to receive the pressure from the port therein, pistons slidable in said cylinders, a member secured to each piston having radial slots adapted to admit the pressure into the cylinder and to prevent the piston closing the port in the shaft, a fixed pulley on the shaft, friction members on the shaft, pulleys on the shaft having friction faces complemental with the friction members, and suitable connections to admit pressure into said cylinders to actuate the pistons.

[Claims 6 to 14 not printed in the Gazette.]

942,066. FEED FOR PNEUMATIC TOOLS. MARTIN HARDSOCG, Ottumwa, Iowa. Filed Apr. 2, 1907. Serial No. 366,032.



1. In a feed mechanism for a pneumatic tool, the combination of a fixed outer casing, a revoluble supply tube located therein for conveying a medium under pressure and held against endwise movement, an abutment secured on the forward end of the supply tube, a revoluble endwise movable carrying tube encircling the supply tube and its abutment, means for revolving the carrying tube and a hammer frame connected with the carrying tube and forming a chamber between its rear end and the abutment of the carrying tube, whereby a medium under pressure, when admitted to the chamber, will act on the end of the frame and feed forward the frame and the carrying tube, substantially as described.

2. In a feed mechanism for a pneumatic tool, the combination of a fixed outer casing, a revoluble tube located thereon for conveying a medium under pressure and having a fixed relation against endwise movement, an abutment secured on the forward end of the supply tube, a revoluble and endwise movable carrying tube encircling the supply tube, means for revolving the carrying tube, a hammer frame entered into the forward end of the carrying tube and forming a chamber between its rear end and the abutment of the supply tube, and a tool carried by the frame, whereby a medium under pressure admitted to the chamber between the end of the frame and the abutment on the supply tube will actuate the tool and feed forward the hammer frame, substantially as described.

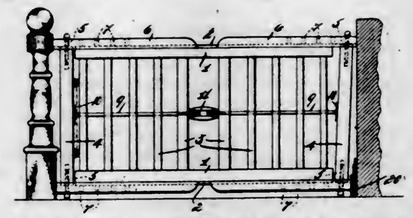
3. In a feed mechanism for a pneumatic tool, the combination of a revoluble and endwise movable tube carrying a hammer frame, a fixed outer casing encircling the hammer frame carrying tube, a fixed abutment secured within the outer casing, and a piston fixed on the hammer frame carrying tube and adapted to slide within the outer casing, whereby a medium under pressure admitted between the fixed abutment and piston will act against the piston and withdraw the casing, the carrying tube and the hammer frame, substantially as described.

4. In a feed mechanism for a pneumatic tool, the combination of a revoluble and endwise movable carrying tube, a hammer frame entered onto the forward end of the carrying tube, a fixed outer casing encircling the carrying tube, a tool carried by the hammer frame, a fixed abutment for the outer casing between the casing and the carrying tube, and a piston secured on the outer end of and endwise movable with the carrying tube and between the tube and the outer casing, whereby a medium under pressure admitted between the abutment and movable piston will act and withdraw the carrying tube, the hammer frame and the tool, substantially as described.

5. In a feed mechanism for a pneumatic tool, the combination of a revoluble supply tube for a medium under pressure and having a fixed relation against endwise movement, an abutment secured on the forward end of the supply tube, a revoluble and endwise movable carrying tube encircling the supply tube, a hammer frame connected to the forward end of the revoluble and endwise movable carrying tube and forming a chamber between its rear end and the abutment of the supply tube, an outer fixed casing, an abutment secured within the outer casing between the casing and the carrying tube, and a piston attached to the rear end of the carrying tube, the relation of the parts being such that the admission of a medium under pressure to the chamber acts to feed forward the hammer frame and the admission of a medium under pressure between the abutment of the outer casing and the piston acts to withdraw the hammer frame, substantially as described.

[Claims 6 to 11 not printed in the Gazette.]

942,067. BABY-GATE. GRAYSON HEIDT, New York, N. Y. Filed Dec. 30, 1908. Serial No. 470,058.



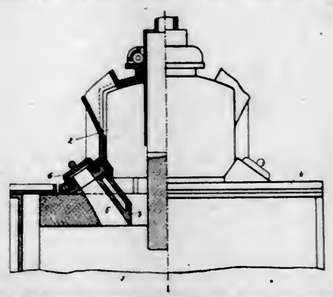
1. A baby gate comprising a main panel, an auxiliary frame at the side thereof and means for expanding and holding in expanded condition the gate, slidable horizontal slides for the frame, a vertical member therefor and adjustment means adapted to occupy different positions in the horizontal slides with relation to the vertical member, whereby one size of gate and the limited motion of the expanding means may be used for closing openings of varying width.

2. A baby gate comprising a main panel, an auxiliary clamping side member movable toward and away from main panel, a clamping means adapted to press said side into position against the walls, said side being free to take a position at right angles or slant-wise with relation to the main panel.

3. A baby gate comprising a main panel, a clamping member having a vertical side, and horizontal slides on said main panel, a loose joint where the side and slides join, adapted to permit the side to take a different angle from a right angle with said slides, an expansion rod bearing against the approximate center of the vertical side, and pivotally secured thereto, and means for permitting the extension of the rod and side.

4. A baby gate comprising a main panel, a clamping member having a vertical side, and horizontal slides on said main panel, a loose joint where the side and slides join, an expansion rod bearing against the approximate center of the vertical side and means for permitting the extension of the rod and side, in combination with means for changing the position of said loose joints.

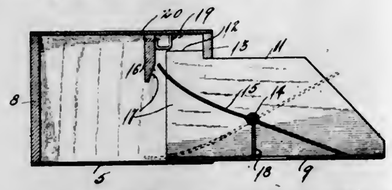
942,068. ELECTRIC FURNACE WITH RAISED CHARGING-PIT. ALOIS HELFENSTEIN, Vienna, Austria-Hungary. Filed June 12, 1909. Serial No. 501,837.



1. In an electric furnace with raised charging pit, broad slots or openings in the roof of the furnace laterally and around the charging pit, these openings being closed gas-tight by removable sand sealed covers substantially as described and illustrated.

2. In an electric furnace with raised charging pit, a cone suspending into the melting hearth or furnace, the roof of the hearth being provided with a plurality of openings adjacent this cone and directed to the center of the hearth and sand covers closing these openings substantially as described and illustrated.

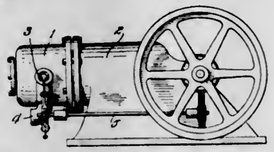
942,069. TRAP. GEORGE W. HESS, Hempstead, N. Y. Filed May 28, 1909. Serial No. 498,970.



1. A trap comprising a casing open at its forward end and upper side, a runway having vertical side walls disposed between and extending in advance of the side walls of said casing, said side walls of the runway being provided at their inner upper corners with vertical extensions disposed between the side walls of said casing, a cross piece connecting the upper side portions of the forward ends of the side walls of said casing and having its inner face bearing on the said vertical extensions, an inclined false-bottom pivoted between the side walls of the runway and a pivoted cover forming a closure for the open upper side of the said casing.

2. A trap comprising a casing open at its forward end and upper side, a runway having vertical side walls disposed between and extending in advance of the side walls of said casing, a cross piece at the forward open end of said casing serving to retain said runway against outward movement, an inclined false-bottom pivoted between the side walls of the runway, a second cross piece having its terminals secured to the opposed inner faces of the side wall of the casing and arranged parallel with the first-named cross piece and spaced therefrom, said second-named cross piece being provided on one face with a beveled surface disposed adjacent the inner end of said false-bottom, a bait hook secured to the forward face of the second-named cross piece and arranged above the inner end of the false-bottom and having its terminals lying in a plane with the upper edges of the side walls of the casing, and a cover pivoted to one side wall of the casing and adapted to bear on the upper edge of the opposite side wall and terminal of said bait hook.

942,070. INTERNAL-COMBUSTION ENGINE. EUGENE HIGGINS, Lansing, Mich. Filed Dec. 28, 1908. Serial No. 469,663.



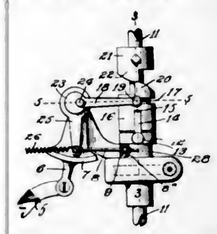
1. An internal combustion engine, comprising a combustion chamber, a body inserted in said chamber having a heating chamber open at the outer end, a vaporizing chamber near the middle, and a front end having numerous small perforations, and means for periodically injecting oil into the vaporizing chamber.

2. An internal combustion engine, comprising a combustion chamber, a cylindrical body inserted in said chamber, said body having a chamber open at the outer end and provided with a longitudinal partition and a transverse partition spaced apart, a middle vaporizing chamber, and a forward end having numerous small perforations; and means for periodically injecting oil into said vaporizing chamber.

3. An internal combustion engine, comprising a combustion chamber, a cylindrical body inserted in said chamber, said body being open at the rear and provided with a horizontal and a transverse partition spaced apart and also having a middle vaporizing chamber and a thick forward end perforated with numerous small passages of greater length than diameter; and means for periodically injecting oil into the vaporizing chamber.

4. In an internal combustion engine having a combustion chamber, means for vaporizing liquid fuel, and means for superheating the resulting vapor, consisting of a heated body projecting into the combustion chamber having numerous small and elongated passages, whereby the vapor is superheated in passing therethrough and also discharged in numerous small jets into the said combustion chamber.

942,071. GOVERNOR FOR INTERNAL-COMBUSTION ENGINES. EUGENE HIGGINS, Lansing, Mich. Filed Dec. 28, 1908. Serial No. 469,664.



1. A governor for internal combustion engines comprising a pivoted arm carrying a segment, a pawl adapted to engage the segment and move the arm, means for laterally moving the pawl to operate the arm, and a centrifugal governor connected to the pawl to adjust the same opposite various parts of the segment.

2. A governor for internal combustion engines comprising a pivoted arm carrying a segment concentric with the axis of the pivot, a pawl adapted to engage the segment and move the arm about its axis, means for moving the pawl into engagement with the segment, means for moving the pawl about the axis of the arm, and a centrifugal governor connected to the pawl to adjust the same opposite various parts of the segment.

3. A governor for internal combustion engines, comprising a pivoted arm carrying a segment, a pawl pivoted eccentrically to the segment, a lever adapted to move the pawl toward the segment, and also to move the pawl about the axis of the segment, and a centrifugal governor connected to the pawl to adjust the same opposite various portions of the segment.

4. A governor for internal combustion engines having a fuel pump, comprising a pivoted arm connected to the plunger of the pump, a segment on the arm and concentric with the axis thereof, an eccentric having its axis in common with the axis of the arm, a pawl journaled on the eccentric, a spring connected to the pawl to move the same toward one end of the segment, and a centrifugal governor connected to the pawl to move the same toward the other end of the segment.

5. An internal combustion engine, comprising a fuel pump, a pivoted arm connected to the pump plunger to move the same in one direction, a spring to move the plunger in the opposite direction, a segment on the arm and concentric with the axis thereof, an eccentric having its axis in common with the axis of the arm, a pawl journaled on the eccentric and adapted to engage the segment, a spring attached to the pawl to move the same toward one end of the segment, a rod attached to the pawl opposite the spring, an adjustable nut on the rod, a bell crank lever engaging the nut, and a centrifugal governor connected to said bell crank lever to operate the same.

[Claims 6 and 7 not printed in the Gazette.]

942,072. BAKING-POWDER. JOHN H. HOOKER, Buckingham, England. Filed May 24, 1907. Serial No. 375,422.

1. As a new article of manufacture, baking powder comprising as an ingredient a soluble alkaline milk powder containing not less than two per cent. of alkali.

2. As a new article of manufacture, baking powder comprising as an ingredient a soluble alkaline milk powder containing not less than two per cent. of alkali, an alkaline carbonate, and a solid acid substance, substantially as described.

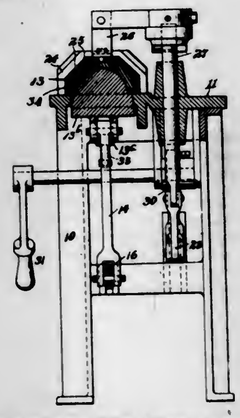
3. As a new article of manufacture, baking powder consisting of a soluble alkaline milk powder containing not less than two per cent. of alkali, bicarbonate of soda and tartaric acid, substantially as described.

4. A process for the manufacture of baking powder, comprising partial concentration of milk, addition to the partially concentrated milk of an alkali carbonate, evaporation of the mixture to dryness at a temperature below boiling heat, pulverization of the dry mixture and incorporation of the same with further alkali carbonate and with a solid acid substance capable of reacting therewith under the action of heat and moisture to evolve carbonic acid.

5. A process for the manufacture of baking powder, comprising partial concentration of milk, addition to the partially concentrated milk of bicarbonate of soda, evaporation of the mixture to dryness at a temperature below boiling heat, pulverization of the dry mixture and incorporation thereof with further bicarbonate of soda and a solid acid substance, as tartaric acid, capable of reacting therewith under the action of heat and moisture, to evolve carbonic acid.

[Claim 6 not printed in the Gazette.]

942,073. CASTING-MACHINE. FRANK H. HOWARD, Brookside, near Reading, Pa. Filed Mar. 3, 1909. Serial No. 481,119.



1. In a metal casting machine, a revolving table, a base, an annular track, wheels adapted to travel on said track, means for engaging and holding said table against movement, a plurality of casting devices located on said table each device comprising in its make up a frame; a drag; means comprising a double toggle, a vertical rod and a horizontal pivoted lever, for lowering and raising said drag; a perforated cope; an oscillating arm on which said cope is mounted, and means comprising a vertical rod, an arm pivoted to the frame and an eccentric, for raising and lowering the cope.

2. In a casting machine a frame having an opening in its top, a drag, means for raising and lowering said drag, a perforated cope, an oscillating arm on which said cope is mounted and means for raising and lowering said cope.

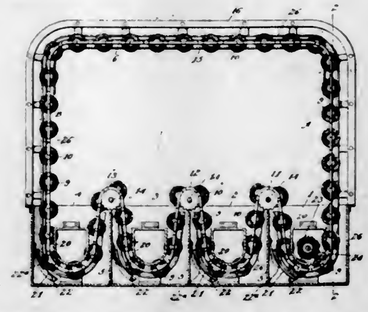
3. In a casting machine, a frame, a drag, a depending rod secured to said drag, a lever secured to said rod, a double toggle connected to and adapted to operate said lever to raise and lower the drag, a perforated cope, an oscillating arm on which said cope is mounted, a vertical rod to the top of which said arm is movably secured and means for raising and lowering said vertical rod.

4. In a casting machine, a frame, a drag, a depending rod secured to said drag, a lever secured to said rod, a double toggle connected to and adapted to operate said lever to raise and lower the drag, a perforated cope, an oscillating arm on which said cope is mounted, a vertical rod to the top of which said arm is movably secured, an eccentric connected to said rod, a hand lever adapted to operate said eccentric, and an arm pivotally secured to said eccentric and to the machine frame whereby said rod may be raised and lowered.

5. A journal bearing casting machine comprising a frame having an opening in its top, a drag, means for moving said drag vertically, a cope and means for moving said cope vertically and horizontally.

[Claim 6 not printed in the Gazette.]

942,074. GLASS-WASHING APPARATUS. CHARLES W. JAYCOX, Philadelphia, Pa. Filed Jan. 5, 1909. Serial No. 470,747.



1. In an apparatus of the character described, the combination with a tank adapted to contain cleansing fluid, of a guide frame, a conveyer supported on said frame and constructed to pass through said tank, rotary brushes carried by said conveyer and adapted to support glasses thereon, and means for turning said brushes.

2. In an apparatus of the character described, the combination with a tank adapted to contain cleansing fluid, of a guide frame, a conveyer supported on said frame and constructed to pass through said tank, rotary brushes on said conveyer and adapted to receive glasses thereon, means for turning said brushes, and means for cleaning the outside of the glasses.

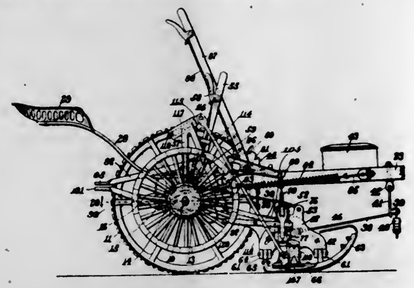
3. In an apparatus of the character described, the combination with a series of tanks adapted to contain cleansing fluids, of a guide frame, a conveyer supported on said frame and constructed to pass through said tanks, brushes carried by said conveyer and adapted to receive glasses thereon, means for holding the glasses on the brushes, and means for revolving the brushes in the tanks.

4. In an apparatus of the character described, the combination with a series of tanks adapted to contain cleansing fluids, of a guide frame, a conveyer supported on said frame and constructed to pass through said tanks, brushes carried by said conveyer and adapted to receive glasses thereon, means for holding the glasses on the brushes, means for revolving the brushes in the tanks, and means in the tanks for holding the glasses while the brushes turn.

5. In an apparatus of the character described, the combination with a series of tanks adapted to contain cleansing fluids, of a guide frame, a conveyer supported on said frame and constructed to pass through said tanks, brushes carried by said conveyer and adapted to receive glasses thereon, means for holding the glasses on the brushes, means for revolving the brushes in the tanks, means in the tanks for holding the glasses while the brushes turn, and a rotary brush in one of said tanks engaging the outside of the glasses.

[Claims 6 to 9 not printed in the Gazette.]

942,075. MOWING-MACHINE. MARTIN JEWELL, Clinton, Me. Filed Nov. 5, 1908. Serial No. 461,241.



1. In a mowing machine, the combination of a revoluble wheel provided with substantially parallel radiating zigzag walls; a pivoted lever in front of said wheel; a projection thereon; means for retaining said projection in contact with one of said walls; a knife bar; a universal joint upon said knife with which said pivoted lever is directly connected; and means for moving said lever about said joint to remove said projection from the path of said walls.

2. In a mowing machine, the combination of a revoluble wheel provided with substantially parallel radiating zigzag walls; a pivoted lever in front of said wheel; a projection thereon; means for retaining said projection in contact with one of said walls; a knife bar; a universal joint upon said knife bar with which said pivoted lever is directly connected; and means for moving said lever about said joint to remove said projection from the path of said walls and locking it in such disengaged position.

3. In a mowing machine, the combination of a revoluble wheel provided with substantially parallel radiating zigzag walls; a pivoted lever in front of said wheel provided with members for engaging said walls; a knife bar; a universal joint upon said bar with which said lever is directly connected; and means for moving said lever outwardly from the axis of said wheel about said joint to disengage said members from said walls.

4. In a mowing machine, the combination of a revoluble wheel provided with a radiating zigzag wall; a pivoted lever in front of said wheel provided with a member normally engaging said wall; a knife bar; a universal joint upon said bar with which said lever is directly connected; and means for moving said lever outwardly from the axis of said wheel about said joint to disengage said member from said wall.

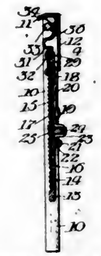
5. In a mowing machine, the combination of a revoluble wheel provided with a radiating zigzag wall; an upright lever in front of said wheel having a member normally engaging said wall and provided at its upper end with a lateral projection; a fixed bearing for said projection in which it is adapted to oscillate; a knife bar; a universal joint upon said bar with which the other end of said lever is directly connected; and means for moving said projection outwardly in its bearing to disengage said wall-engaging member from said wall.

[Claims 6 to 12 not printed in the Gazette.]

942,076. WASHBOARD. DAVID C. JULESON, Chicago, Ill. Filed Nov. 7, 1908. Serial No. 461,448.

1. A wash-board consisting of a main frame, a rubbing surface divided into sections mounted on the frame, a brush interposed between said sections, and means for moving one of said sections toward and from the other section and for raising and lowering the brush.

2. A wash-board consisting of a main frame, a corrugated rubbing surface divided into sections mounted on the frame, a brush interposed between said sections, means to move one of the sections toward and from the other and to raise and lower the brush, and means to fasten the movable section and the brush in either their raised or lowered positions.



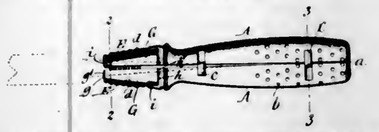
3. A wash-board consisting of a main frame, a corrugated rubbing surface divided into sections, one of said sections movably mounted on the frame, a brush interposed between said sections, a handle movably mounted on the upper portion of the main frame and having a diagonally disposed slot, a rod loosely secured at one of its ends to the movable section and having at its other end a crank extended through the slot in the handle, said rod also having a crank in loose engagement with the back of the brush.

4. A wash-board consisting of a main frame, a corrugated rubbing surface divided into sections, one of said sections mounted on the frame for vertical movement, a brush interposed between said sections, a handle transversely and movably mounted on the upper portion of the frame and having a diagonally disposed slot near each of its ends, rods loosely secured at their lower ends to the movable section and each having at its upper end a crank extended through the slots of the handle, each of said rods also having a crank in loose engagement with the brush back.

5. A wash-board consisting of a main frame, a corrugated rubbing surface divided into sections, one of said sections movably mounted on the frame, a brush interposed between said sections, a handle movably mounted on the upper portion of the main frame and having a diagonally disposed slot, a rod loosely secured at one of its ends to the movable section and having at its other end a crank extended through the slot in the handle, said rod also having a crank in loose engagement with the back of the brush, and means for securing the handle in its raised or lowered position.

[Claim 6 not printed in the Gazette.]

942,077. TOOL HANDLE. EDWARD KENER, Jr., Buffalo, N. Y. Filed Feb. 8, 1908. Serial No. 414,881.



1. An adjustable tool handle comprising a hollow sheet metal body composed of two arms which are connected at their rear ends while their front ends are each of semi-circular form and provided with external screw threads, a screw threaded sleeve engaging with the threads of said arms, and separate jaws arranged on the inner sides of the front ends of said arms and adapted to engage a tool, substantially as set forth.

2. An adjustable tool handle comprising a hollow sheet metal body composed of two arms which are connected at their rear ends while their front ends are tapered forwardly and provided with external screw threads and are each of semi-circular form, a forwardly tapering screw threaded sleeve engaging with the threads of said arms, and separate jaws arranged on the inner sides of the front ends of said arms and provided with V-shaped seats which are adapted to receive the tool, substantially as set forth.

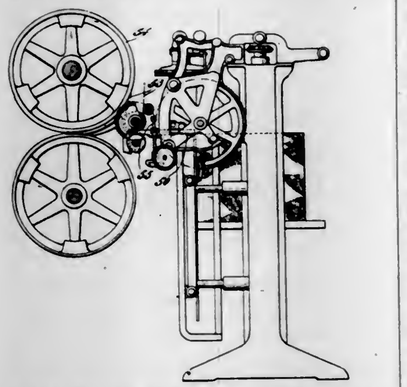
3. An adjustable tool handle comprising an integral sheet metal body composed of two dished arms arranged with their concave sides facing each other and a transverse web connecting the rear ends of the arms, adjusting means connecting the front ends of said arms, and guide lips bent out of one of said arms and engaging with the other arm, substantially as set forth.

4. An adjustable tool handle comprising an integral sheet metal body composed of two dished arms arranged with their concave sides facing each other and a transverse web connecting the rear ends of the arms, adjusting means connecting the front ends of said arms, and guide lips bent out of one of said arms and engaging with the inner side of the other arm, substantially as set forth.

5. An adjustable tool handle comprising a body having two arms connected at their rear ends and provided at their front ends with external screw threads and internal jaws, and a screw sleeve adapted to engage with the thread of the arms and comprising two sections constructed of sheet metal and secured to each other with their concave sides opposite each other, substantially as set forth.

[Claims 6 to 13 not printed in the Gazette.]

942,078. MACHINE FOR FEEDING SHEETS. HOWARD K. KING, Philadelphia, Pa., assignor to Chambers Brothers Company, a Corporation of Pennsylvania. Filed Apr. 29, 1908. Serial No. 430,010.



1. In a sheet feeding machine, the combination of means for combing the sheets, valve controlled means for disengaging the combing means from the sheets, a valve trip to be encountered by the advancing sheet and a trip latch also to be ecountered by the advancing sheet.

2. In a sheet feeding machine, the combination of means for combing the sheets, valve controlled means for disengaging the combing means from the sheets, a valve trip and independently operated trip latches encountered by the advancing sheet for controlling the valve trip.

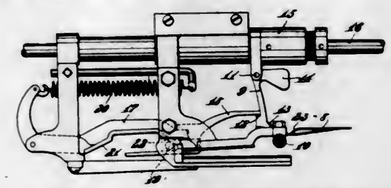
3. In a sheet feeding machine, the combination of means for combing the sheets forward, pneumatic means for rendering said combing means effective or ineffective, valve trips actuated by the advancing sheet for controlling the pneumatic means, and trip latches controlling the valve trips also actuated by the advancing sheet to release the valve trips only when the latches are actuated simultaneously, as and for the purpose specified.

4. In a sheet feeding machine, the combination of a combing wheel adapted to operate upon the sheet about midway its extension, valve controlled means for disengaging the combing wheel from the sheet, a valve trip to be encountered by the advancing sheet, and valve trip latches adapted to be actuated by the advancing sheet.

5. In a sheet feeding machine, the combination of a combing wheel adapted to operate upon the sheet about midway its extension, valve controlled means for disengaging the combing wheel from the sheet, a valve trip to be encountered by the advancing sheet, and trip latches for controlling the valve trip adapted to be actuated by the advancing sheet simultaneously to release said valve.

[Claims 6 to 18 not printed in the Gazette.]

942,079. SHEET-REGISTERING MECHANISM. HOWARD K. KING, Philadelphia, Pa., assignor to Chambers Brothers Company, a Corporation of Pennsylvania. Filed Apr. 3, 1908. Serial No. 424,969.



1. In a sheet registering device, the combination of reciprocating nipper elements, means for normally causing the elements to open at the end of their reciprocating movement in each direction, and to close during the intermediate portion of said movement, and latching means for maintaining the nipper elements open during the entire movement in one direction.

2. A reciprocating nipper, means for normally causing the opening of the nipper toward the end of its movement in each direction, and the closure of the nipper during the intermediate movement, and latch and projection means for preventing the closure of the nipper during its entire movement in one direction.

3. A reciprocating nipper and means for normally causing the opening of the nipper toward the end of its movement in each direction, and the closure of the nipper during the intermediate movement, a gravity actuated latch for engaging a movable element of the nipper, at the commencement of its movement in one direction, to prevent the closure thereof, and means for disengaging the latch from said nipper element at the beginning of its movement in the other direction.

4. A reciprocating nipper and means for normally causing the opening of the nipper toward the end of its movement in each direction, and the closure of the nipper during the intermediate movement, a latch for restraining said closure during the movement of the nipper in one direction, a spring in the path of travel of said latch adapted to yield to the latch to permit the same to pass over it in one direction while engaged with the nipper element and to cause the disengagement of the latch from the nipper element in its movement in the opposite direction.

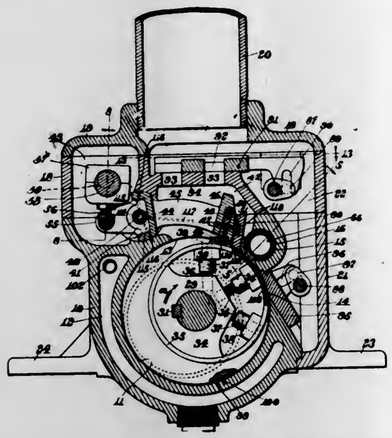
5. A reciprocating nipper and means for normally causing the opening of the nipper toward the end of its movement in each direction, and the closure of the nipper during the intermediate movement, a counterbalanced latch for restraining said closure during the movement of the nipper in one direction, a spring in the path of travel of said latch adapted to yield to the latch to permit the same to pass over it in one direction, while engaged with the nipper element, and to cause the disengagement of the latch from the nipper element in its movement in the opposite direction.

[Claim 6 not printed in the Gazette.]

942,080. ROTARY MOTOR AND PUMP. JUSTUS R. KINNEY, Dorchester, Mass. Filed Nov. 5, 1907. Serial No. 400,768.

1. In a device of the class described, the combination of a casing having a cylindrical chamber; a rotary piston therein composed of a segment of a cylinder; a continuous cylindrical band thereon; a member threaded to said seg-

ment provided with an enlarged portion intermediate its ends; a bar in contact with said enlarged portion extending transversely of the inner circumferential wall of said band provided with an opening therethrough for the reception of the outer end of said threaded member; and means for moving said threaded member.



2. In a device of the class described, the combination of a casing having a cylindrical chamber; a rotary piston therein composed of a segment of a cylinder; a continuous cylindrical band thereon; a plurality of members threaded to said segment each provided with an enlarged portion intermediate its ends; a bar in contact with said enlarged portion extending transversely of said band provided with a plurality of openings therethrough for the reception of the outer ends of said threaded members; and means on the outer ends of said threaded members by which they may be adjusted.

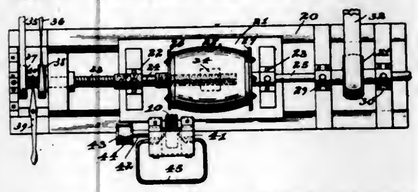
3. In a device of the class described, the combination of a casing having a cylindrical chamber; a rotary piston therein; a pivoted blade adapted to bear upon the periphery of said piston and provided with openings therethrough intermediate the piston contacting portion and the pivot thereof; an inlet valve; and means for operating said valve to admit a motive agent directly into said chamber at one side of said piston contacting portion of said pivoted blade or indirectly through said openings at the opposite side of the blade.

4. In a device of the class described, the combination of a casing having a cylindrical chamber; a rotary piston therein; a pivoted blade adapted to bear upon the periphery of said piston and provided with openings therethrough intermediate the piston contacting portion and the pivot thereof; an inlet valve; means for operating said valve to admit a motive agent directly into said chamber at one side of said piston contacting portion or indirectly through said openings at the opposite side of said blade; two exhaust ports communicating with said chamber; and a valve for each.

5. In a device of the class described, the combination of a casing having a cylindrical chamber; a rotary piston therein; a pivoted blade adapted to bear upon the periphery of said piston and provided with openings therethrough intermediate the piston contacting portion and the pivot thereof; an inlet valve; means for operating said valve to admit a motive agent directly into said chamber at one side of said piston contacting portion or indirectly through said openings at the opposite side of said blade; two exhaust ports communicating with said chamber; a valve for each; and means for simultaneously opening one valve and closing the other.

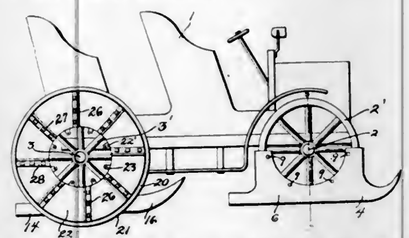
[Claims 6 to 31 not printed in the Gazette.]

942,081. CIRCULAR CUTTER. ROBERT D. KINYON, Chicago, Ill. Filed May 27, 1909. Serial No. 498,722.



In a machine of the character described, the combination of a work holder, means to rotate the work, a rotary cutter, and means to rotate said cutter in contact with the work, said cutter consisting of an inner support and a case-hardened band shrunk on said support and having on its face a plurality of cutting teeth diagonally disposed at an angle of approximately forty-five degrees, the front faces of said teeth being abrupt and having all parts thereof substantially radial to said cutter, the back faces of the teeth being sloping and forming an angle of approximately sixty degrees with the front faces of the teeth, substantially as described.

942,082. SLEIGH ATTACHMENT FOR AUTOMOBILES. PEDER M. KNUTSON, Clifford, N. D., assignor of one-half to Henry Kram, Clifford, N. D. Filed Mar. 12, 1909. Serial No. 482,976.



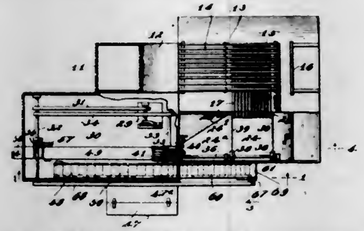
1. The combination with a vehicle body, of a frame supporting said body, wheels mounted on axles at the front and rear of said frame, runners attached to the front wheels, runners secured to the rear axle, plates arranged on either side of the rear wheels, one of said plates being obliquely disposed beyond the periphery of the wheel, blades extending outwardly at right angles to the oblique portions of said plates and secured thereto, and means for securing said plates together, substantially as and for the purpose set forth.

2. The combination with a vehicle body, of a frame for supporting said body, wheels mounted on axles on the front and rear of said frame, runners attached to the front wheels, runners secured to the rear axle, plates arranged on either side of the rear wheels, one of said plates being obliquely disposed beyond the periphery of said wheels, blades arranged at intervals on said plates and extending outwardly at right angles to the oblique portion thereof, flanges formed on one edge of said blades, rivets extending through said flanges and the oblique portion of said plates, spaced ears upon the inner periphery of said plates, and bolts connecting said ears and securing said plates together substantially as and for the purpose set forth.

3. The combination with a vehicle body, of a frame for supporting said body, wheels mounted on axles at the front and rear of said frame, runners attached to the front wheels, sleeves upon said rear axle provided with oppositely disposed flanges, runners depending from said sleeves and having brace rods, the upper ends of said brace rods being secured between said flanges, concentrically disposed plates arranged on either side of the rear wheels, one of said plates being obliquely disposed beyond the periphery of said wheels, the other of said plates having a knife edge at the outer periphery thereof, blades arranged at intervals upon the oblique portions of said first mentioned plates and extending outwardly at right angles thereto, said blades being substantially triangular in form and having a flange upon one edge thereof, rivets for connecting said blades and plates together, ears formed upon the inner periphery of the outer plates, and ears hinged to the inner plates in alinement therewith, bolts for connecting said ears, and stay rods connecting said plates beyond the periphery of said wheels substantially as and for the purpose set forth.

4. The combination with a vehicle body, of a frame for supporting said body, wheels mounted on axles at the front and rear of said frame, plates arranged on either side of said front wheels having their lower edges disposed at right angles and extending in opposite directions, rivets for connecting the angled portions of said plates together, bolts extending between the spokes of said wheels and connecting the side plates, plates concentrically arranged on either side of the rear wheels, one of said plates being obliquely disposed beyond the periphery of said wheels, blades extending outwardly at right angles to the oblique portions of said plates, the lower edges of said blades being provided with a knife edge, a flange upon one edge of said blade and means for securing said plates and blades together, substantially as and for the purpose set forth.

942,083. APPARATUS FOR WASTE-ROCK ELIMINATION. HENRY L. KRAMER, Kramer, Ind. Filed Mar. 11, 1909. Serial No. 482,739.

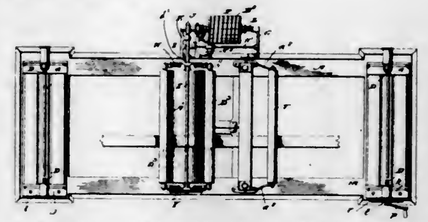


1. In a waste-rock eliminator, the combination of a grizzly, means to deliver mixed waste-rock and pay-ore to said grizzly, a bin to receive the material which passes through said grizzly, an equalizing receptacle receiving the material failing to pass through said grizzly, a conveyer receiving the mixture from said receptacle and conveying it on its way to a waste-pile, and a pay-ore conveyer adjacent to said first conveyer and adapted to receive the pay-ore removed from the mixture on said first conveyer and deliver it into said bin, the remaining waste-rock on said first conveyer being discharged on said waste-pile, substantially as described.

2. In a waste-rock eliminator, the combination of a grizzly, means to deliver mixed waste-rock and pay-ore to said grizzly, a bin to receive the material which passes through said grizzly, an equalizing receptacle receiving the material failing to pass through said grizzly, a conveyer receiving the mixture from said receptacle and conveying it on its way to a waste-pile, a second grizzly between said receptacle and said conveyer over which the mixture discharged from said compartment passes, and a pay-ore conveyer adjacent to said first conveyer and adapted to receive the pay-ore removed from the mixture on said first conveyer and deliver it into said bin, the remaining waste-rock on said first conveyer being discharged on said waste-pile, substantially as described.

942,084. CLOTH-MEASURING MACHINE. CHARLES H. LANTZ, Manhattan, Kans. Filed Jan. 22, 1909. Serial No. 473,693.

1. In a machine for measuring cloth and like material, the combination of a shaft adapted to be rotated by the passage of material through the machine, a drum frictionally held on the shaft and having a spiral groove and an aperture in communication therewith, and a carriage having a pin adapted to move in the groove of the drum and into the aperture thereof.



2. In a machine for measuring cloth and like material, the combination of a measuring drum adapted to be rotated by the passage of material through the machine, a spring-impelled knife, means for holding the knife out of action a carriage movable by the rotation of the drum, and means operated by the carriage for releasing the knife at the completion of a predetermined traverse of the carriage.

3. In a machine for measuring cloth and like material, the combination of a measuring drum adapted to be rotated by the passage of material through the machine, means for cutting the material, a device movable by the rotation of the drum, means for holding the cutting means against movement, and means actuable by the movable device upon the completion of a predetermined movement thereof for releasing the cutting means.

4. In a machine for measuring cloth and like material, the combination of a measuring drum adapted to be rotated by the passage of material through the machine, a spring-impelled knife, means for holding the knife out of action, a device movable by the rotation of the drum, and means operated by said device for releasing the knife at the completion of a predetermined movement of said device.

5. In a machine for measuring cloth and like material, the combination of a shaft adapted to be rotated by the passage of material through the machine, a drum frictionally held on the shaft and having a spiral groove and an aperture in communication therewith, means for cutting the material, a carriage having a pin adapted to move in the groove of the drum and into the aperture thereof, and means actuable by the said pin for effecting operation of the cutting means upon the completion of a predetermined traverse of the carriage.

[Claims 6 to 27 not printed in the Gazette.]

942,085. CHAIR-COUPLING. GUSTAF E. LINDER, Geneva, Ill. Filed Nov. 14, 1908. Serial No. 462,671.



1. In a chair coupler, the combination with stationary receivers arranged to be secured to the chairs, of a link arranged to make sliding engagement with said receivers, spring-pressed locking pins for locking said links against longitudinal movement, the springs for said pins being secured to the link at their outer end and having their free ends arranged near the center of the link.

2. A device for coupling two chairs together side by side, comprising a socket arranged to be secured to one of said chairs, said socket being formed with a horizontal slideway therein, a coupling member adapted to slidably engage the slideway of said socket, manually releasable means for connecting said coupling member to said socket, and means for attaching said coupling member to the other chair, whereby said chairs are coupled together.

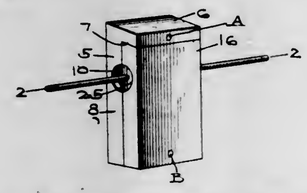
3. A device for coupling two chairs together side by side, comprising a socket arranged to be secured to one of said chairs, said socket being formed with a horizontal slideway therein, a second socket arranged to be secured to the other chair, said second socket also being formed with a horizontal slideway therein, a coupling member adapted to slidably engage the slideways of said sockets to couple the chairs together, and manually releasable means for connecting said coupling member to said sockets.

4. A device for coupling two chairs together side by side, comprising a socket arranged to be secured to one of said chairs, said socket being formed with a horizontal slideway therein, a second socket arranged to be secured to the other chair, said second socket also being formed with a horizontal slideway therein, a coupling member adapted to slidably engage the slideways of said sockets to couple the chairs together, and manually releasable spring connection means between said coupling member and said sockets.

5. In a chair coupler, the combination with a pair of socket members, each member being formed of sheet metal having its edges turned downwardly and inwardly to form a sliding socket and having a pin-receiving opening formed therein, of a link member comprising a rigid bar having its ends arranged to enter the sockets of said receiving members, and pins carried near the ends of said link adapted to enter the openings in said receivers to lock the link against longitudinal movement.

[Claim 6 not printed in the Gazette.]

942,086. SUPPORT AND INSULATOR. EDWARD F. LINDSAY, Pringle, S. D. Filed Apr. 10, 1909. Serial No. 489,060.

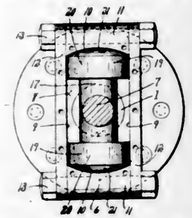


1. A holding member having an extending upper end provided with a beveled under face, two oppositely positioned beveled edges, of a non-conductor having a concaved face and two beveled faces running parallel with said face and frictionally held within said holding member, a cap plate having oppositely positioned bevel edges and an upper beveled end resting below said extending end, and a beveled edged non-conductor having a convex face registering with said concave face and slidably held to said cap plate, each of said non-conductors having a transversely positioned wire receiving groove.

2. In combination, a holding member having beveled edges, a held member having beveled edges secured to said holding member, each of said beveled edges having a recess, a concave beveled edge insulator held within said holding member, a bevel edged insulator having a convex face held within said held member, each of said insulators having a transversely positioned groove and means to secure said held member to said holding member.

3. A holding member having an extending upper end provided with beveled under face and two oppositely positioned beveled edges, of a non-conductor having a concaved face provided with two oppositely flat shoulders, the longitudinal edges of said insulator being beveled edged, a wire receiving slot traversing the concaved face of said insulator, a held member having oppositely positioned beveled edges and an upper beveled end resting below said extending end, and a beveled edged non-conductor having a convex face registering with said concave face and two oppositely positioned flat shoulders said insulator being slidably held within said held member, each of said members having a transversely positioned recess, and means to secure said members.

942,087. UNIVERSAL JOINT. WILLARD C. LIPE, Syracuse, N. Y. Filed Nov. 25, 1905. Serial No. 289,020.



1. A universal joint comprising driving and driven members, one including a main body having arms arranged substantially parallel to the axis of said member and formed with opposing concave cylindrically curved faces, plates secured to the side edges of said arms and forming with the arms an open ended socket, and the other member projecting into the socket and having means coacting with the inner faces of said arms and plates, substantially as and for the purpose described.

2. A universal joint comprising driving and driven members, one including a main body having projecting arms substantially parallel to the axis of said member, plates arranged on opposite sides of said arms and forming with the arms an open ended socket, and fastening members passing transversely through the arms and the plates, and the other member projecting into said socket and having means coacting with the inner faces of said arms and said plates, substantially as and for the purpose set forth.

3. A universal joint comprising driving and driven members, one including a main body having projecting arms substantially parallel to the axis of said member, plates secured to the side edges of the arms, the body, the arms and the plates forming a socket having an open end, and a closure for the open end of the socket, said closure having an opening in its central portion, and the other member projecting through said opening and having means coacting with the inner faces of said arms and plates, substantially as and for the purpose described.

942,088. PAPER BOTTLE. ROBERT LUNDELL, New York, N. Y. Filed Jan. 2, 1909. Serial No. 470,541.



1. As an article of manufacture a paper bottle embracing a body part having a bottom secured thereto; together with a strengthening ring located around the neck and below the mouth, substantially as described.

2. As an article of manufacture a paper bottle having a body part of the form of the frustum of a cone; a bottom in the nature of a cup secured thereto by an inwardly turned crimp; together with a strengthening ring around the neck, the latter increasing in diameter from said ring toward the mouth, substantially as described.

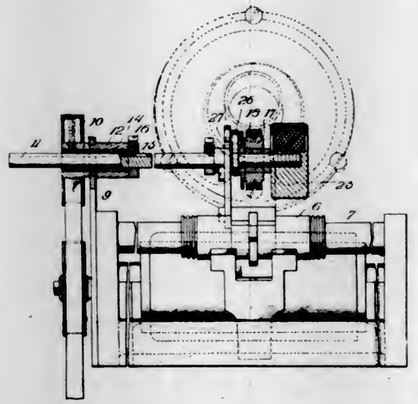
3. As an article of manufacture a paper bottle having the form of a frustum of a cone and a strengthening ring located around the neck and below the mouth, substantially as described.

4. As an article of manufacture a paper bottle having the form of a frustum of a cone; a bottle secured within the base thereof by an inwardly extending crimp; together with a strengthening ring about the neck; said ring being held in place by an enlarged extension of the upper end of the body and acting as a guide to sever the neck from the body when it is designed to use the contents, substantially as described.

5. As an article of manufacture a paper bottle having a body part which diminishes in size from the bottom thereof to the base of the neck said neck expanding continuously to the mouth; together with an inclosing ring held in place between the neck and the body part, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

942,089. PHONIC APPARATUS. THOMAS H. MACDONALD, Bridgeport, Conn., assignor to American Graphophone Company, Bridgeport, Conn., a Corporation of West Virginia. Filed Dec. 21, 1904. Serial No. 237,857.



1. In a phonic apparatus, the combination with primary and secondary vibrating means, of intermediate friction means including a friction roll and shoe, a movable carriage supporting said friction means, and a shaft carrying said roll and having one bearing on said carriage and having a sliding connection with another bearing on a stationary part of the frame.

2. In a phonic apparatus, the combination with primary and secondary vibrating means, of intermediate friction means including a friction roll and shoe, a movable carriage supporting said friction means, a shaft carrying said roll and having a bearing on said carriage, a rotating sleeve having a bearing on the frame, and a connection whereby said shaft rotates with said sleeve but can slide freely therein.

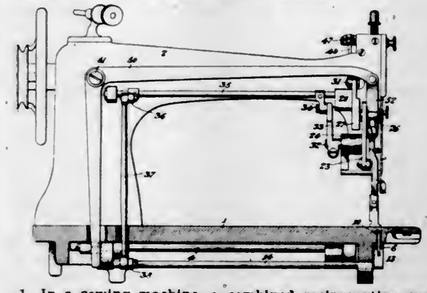
3. In a phonic apparatus, the combination with primary and secondary vibrating means, of intermediate friction means including a friction roll and shoe, a movable carriage supporting said friction means, a shaft carrying said roll, a bearing for said shaft pivoted on said carriage so that the roll rests by gravity against the shoe, another bearing on a stationary part of the frame, and a sliding connection between said shaft and one of said bearings.

4. The combination with the carriage and means for propelling the same, of a diaphragm mounted on said carriage, a weight pivoted independently of said diaphragm, and means for disengaging said propelling means and simultaneously lifting said weight independent of the diaphragm.

5. The combination with the carriage and means for propelling the same, of a diaphragm, a weight pivoted independently of said diaphragm, a stylus pivoted to said weight, friction means between said stylus and diaphragm, and means for disengaging said propelling means and simultaneously lifting said weight.

[Claims 6 to 20 not printed in the Gazette.]

942,090. SEWING-MACHINE. WILLIAM A. MACK, Cleveland, Ohio, assignor to The Standard Sewing Machine Company, Cleveland, Ohio, a Corporation of Ohio. Filed Apr. 18, 1906. Serial No. 312,305.

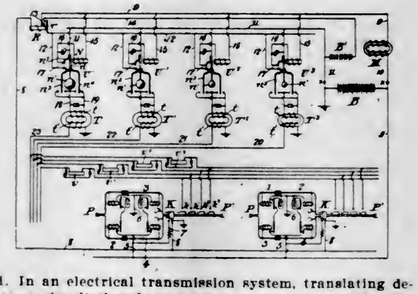


1. In a sewing machine, a combined reciprocating and vibrating needle, two feed members having work-gripping surfaces operative to engage the work at opposite sides thereof and clamp it therebetween and coöperating with the said needle to effect the feed of the work while the needle is in the work, said two feed members each being provided with means for engagement with the needle at its rear side during the feeding operation, and means for operating said needle and feed members.

2. In a sewing machine, a combined reciprocating and vibrating needle, two feed members having work-gripping surfaces operative to engage the work at opposite sides thereof and clamp it therebetween and coöperating with the said needle to effect the feed of the work while the needle is in the work, said two feed members each being provided with a complemental needle-opening, and means for operating said needle and feed members.

3. In a sewing machine, a combined reciprocating and vibrating needle, two feed members having work-gripping surfaces operative to engage the work at opposite sides thereof and clamp it therebetween and coöperating with the said needle to effect the feed of the work while the needle is in the work, said two feed members each being provided with a complemental needle-opening, means for operating said needle and feed members, and adjusting means common to both the said needle and feed members for effecting a like adjustment of feed movement to the same.

942,091. HARMONIC SIGNALING SYSTEM. RAY H. MANSON, Elyria, Ohio, assignor to Dean Electric Company, Elyria, Ohio, a Corporation of Ohio. Filed Feb. 8, 1906. Serial No. 300,125.



1. In an electrical transmission system, translating devices, a circuit therefor, a main source of current for the circuit for supplying energy thereto in quantity, an energy storing or retarding device between said main source and the transmission circuit, whereby a comparatively smooth flow of current is produced, together with a supplemental source connected outside of the energy storing device, and adapted to impress sharply varying periodic waves of electromotive force upon the circuit, so as to accentuate the effects due to the main source.

2. In an electrical transmission system, a circuit and alternating current translating devices therefor, a main source of current for the circuit supplying energy thereto in flattened waves, and a supplemental source adapted to impress synchronous accentuating waves on the circuit.

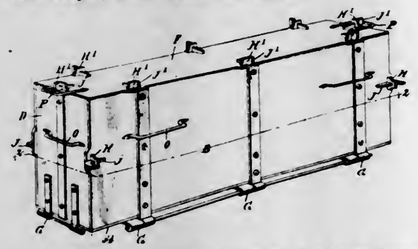
3. In an electrical transmission system, a circuit, alternating current translating devices thereon, commutating means and a plurality of sources of direct current supply for said commutating means, comprising a main source adapted to supply bulk energy and one or more supplemental sources adapted to directly modify the electromotive force so as to produce accentuated waves.

4. In an electrical transmission system, a circuit, alternating current translating devices thereon, a pole-changing device, and a plurality of current sources therefor, adapted to have their electromotive forces and currents combined through said pole-changer to produce resultant effects in the line and translating devices.

5. In an electrical transmission system a circuit, alternating current translating devices thereon, a pole-changer connected therewith, a main source of continuous current connected to said pole-changer through a retardation coil, and a supplemental source connected to the pole-changer direct.

[Claims 6 to 26 not printed in the Gazette.]

942,092. BLOCK-MOLD. ERNEST MAY, New York, N. Y. Filed May 6, 1908. Serial No. 431,131.



A casing flask comprising a bottom and sides hinged thereto, said sides having at their ends projecting slotted lugs, and on their upper edges projecting perforated lugs, ends having a hinged connection with the bottom and having projecting perforated lugs at their sides and top, the side lugs engaging the slotted lugs of the sides, a top having slotted lugs for engagement by the perforated lugs of the sides and ends, and a wedge-shaped key engaging the perforated lugs whereby to force the parts into close engagement with each other.

942,093. JOINT FOR ARTIFICIAL LIMBS. FRANK W. MERRICK, Chicago, Ill. Filed Mar. 25, 1909. Serial No. 485,652.



A joint for artificial limbs, comprising a member having a smooth and unbroken inner face, a cylindric stud rising centrally from the said face, an annular bevel or incline encircling the base of said stud, another member having a cup formed in its inner face, an opening in the center of said cup, said opening receiving the end of said stud, balls held in the cup by said bevel or incline, each ball thereby having only three points of contact with the two members of the joint, and means including a screw extending into the stud for crowding the balls outwardly by drawing said bevel or incline into the cup, as set forth.

942,094. LABEL-HOLDER. EDWARD J. MIDDLETON, Manchester, Iowa. Filed Mar. 8, 1909. Serial No. 481,912.



1. The combination, in a label holder, of a long and flat-faced main part adapted to be fixedly attached to an object and constructed with a hinge member at midlength and with symmetrical ends forming supports for two labels at its face on the respective sides of said hinge member, a movable part or leaf conformed to said ends of the main part and having a hinge member at one end articulated with that of said main part and affording supports for two labels on its respective sides, and means for holding said leaf against said main part on either side of the hinges.

2. The combination, in a label holder, of a long and flat-faced main part constructed with a hinge member at midlength and countersunk holes for attaching screws and with attaching surfaces for two labels of paper or the like on the respective sides of the springs covering the heads of the attaching screws, a movable part or leaf adapted to overlie either of said labels on the main part and having a hinge member at one end articulated with that of said main part and affording supports for two labels on its respective sides, and means for holding said leaf against said main part on either side of the hinge.

3. The combination, in a label holder, of a long and flat-faced main part adapted to be fixedly attached to the pouch and sack rack of a railway postal car and constructed with a hinge member and a coincident slot at midlength and with symmetrical ends affording supports for two labels on its face on the respective sides of said hinge member, a movable part or leaf adapted to overlie either of such labels on said main part and having at one end a hinge member articulated with that of said main part and a two-faced eccentric protruding at the back of the main part through said slot, and a blade spring attached to the back of said main part and interacting with said eccentric to hold said leaf against either end of said main part.

4. A label holder for the pouch and sack racks of railway postal cars having, in combination, a long and flat-faced main part constructed with a hinge member and a coincident slot at midlength and with symmetrical ends forming supports for alternate labels on its face and with bosses at its back and countersunk holes coincident with said bosses for attaching screws, a movable part or leaf adapted to overlie either of such labels on said main part and having at one end a hinge member articulated with that of said main part and a two-faced eccentric protruding at the back of the main part through said slot, and a blade spring attached to the back of said main part and interacting with said eccentric to hold said leaf against either end of said main part, substantially as hereinbefore specified.

942,095. SILO. GEERT MOEKE, Zeeland, Mich. Filed Apr. 2, 1909. Serial No. 487,450.

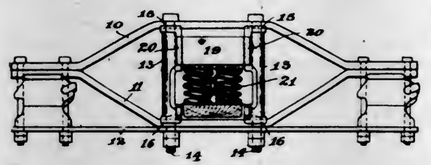
1. A silo, comprising staves spaced apart to form a door opening, braces at intervals across said opening, and doors between said braces each consisting of a series of strips hinged to each other, said strips also joined to each other and to the adjacent staves by tongues and grooves, and means for securing the doors in closed position between the braces and staves.

2. A silo, comprising vertically disposed staves joined to each other by tongues and grooves and spaced apart to form a door opening, braces at intervals across said opening, and beveled at the upper and under sides to receive the doors, doors between the braces, each consisting of three separate strips hinged to each other and one side strip hinged to the adjacent stave, said strips also being joined to each other and to the adjacent staves by detachable tongues and grooves and a fastening and handle on the middle strip.



3. A silo, comprising vertically disposed staves joined by tongues and grooves and spaced apart to form a door opening, brace bars at intervals across said opening and extending between adjacent staves and joined thereto by tongues and grooves and also overlapping on the outside of said staves and bolted thereto, said braces also each having beveled upper and lower sides and a groove in the outer side, bands surrounding the staves and extending through said grooves, doors between the braces, each consisting of a series of separate strips hinged to each other and joined to each other and to the adjacent staves by tongues and grooves and beveled at the end to fit the braces.

942,096. RAILWAY-CAR TRUCK. CHARLES F. MURRAY, Chicago, Ill., assignor to American Steel Foundries, New York, N. Y., a Corporation of New Jersey. Filed Nov. 9, 1907. Serial No. 401,491.



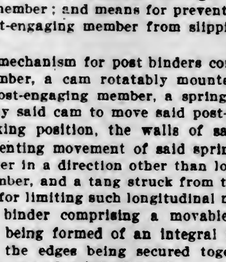
1. In a railway car truck side frame, the combination of an upper arch bar, a separate inverted arch bar, and one or more independent columns between said arch bars, each of said columns having a recess on one face to permit removal of the bolster and also having integral therewith a brake hanger support, substantially as described.

2. As an article of manufacture, a column casting adapted for use between the upper and inverted arch bars of a car truck side frame, having a recess on one face to permit removal of the truck bolster and having a brake hanger support integral therewith, substantially as described.

3. As an article of manufacture, a combined spring seat and column casting adapted for use between the upper and inverted arch bars of a car truck side frame, said casting having a central seat to accommodate springs and at its opposite ends a pair of upwardly-extended columns, the lower portions of the adjacent faces of which are recessed to permit withdrawal of the bolster, each of said columns having a brake hanger support integral therewith, substantially as described.

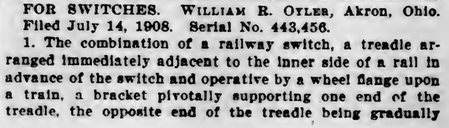
942,097. TIRE. BURT F. NORCROSS, Waltham, Mass. Filed June 18, 1907. Serial No. 379,575.

The combination with a wheel rim, of a flat ring fitted thereupon and formed with a longitudinally arranged continuous series of lugs, each provided on opposite sides with an eye, a tubular tire carried by the rim, a series of transversely arranged loops located within the interior of the tire and corresponding in number to the number of lugs, each loop being formed by a separate helix, the loops having their ends secured in the eyes, and a flat metal ring



located within the interior of the tire between the outer portions of the loops and the inner surface of the tire.

942,098. LOOSE-LEAF BINDER. GEORGE O. OLSON, Chicago, Ill., assignor to Fort Dearborn Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 4, 1908. Serial No. 451,640.



1. A lock mechanism for post binders comprising a hollow side member, a cam rotatably mounted between the walls of said side member, a post-engaging block slidable in said side member, and a spring intermediate said cam and block adapted to be compressed by said cam to move said block into locking position, said spring and said post-engaging block being separate from each other and being unattached to said cam.

2. In a post binder, a hollow side member; a cam rotatably mounted between the walls of said side member; a post-engaging member slidable in said side member; and a spring intermediate said cam and said post-engaging member, adapted to be compressed by said cam to move said post-engaging member into locking position, said spring and said post-engaging member being loose in said side member and being insertible through the end of said hollow side member; and means for preventing said spring and said post-engaging member from slipping out of said side member.

3. A lock mechanism for post binders comprising a hollow side member, a cam rotatably mounted in said side member, a post-engaging member, a spring adapted to be compressed by said cam to move said post-engaging member into locking position, the walls of said hollow side member preventing movement of said spring and post-engaging member in a direction other than longitudinally of said side member, and a tang struck from the wall of said side member for limiting such longitudinal movement.

4. A post binder comprising a movable side member, said member being formed of an integral folded piece of sheet metal, the edges being secured together by tangs punched from one edge into the other.

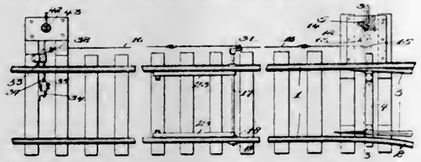
5. A post binder comprising a movable side member, said member being formed of an integral folded piece of sheet metal, the edges being secured together by tangs punched from one edge into openings in the other edge.

[Claim 6 not printed in the Gazette.]

942,099. SIGNALING AND OPERATING MECHANISM FOR SWITCHES. WILLIAM R. OYLER, Akron, Ohio. Filed July 14, 1908. Serial No. 443,456.

1. The combination of a railway switch, a treadle arranged immediately adjacent to the inner side of a rail in advance of the switch and operative by a wheel flange upon a train, a bracket pivotally supporting one end of the treadle, the opposite end of the treadle being gradually

inclined upwardly, a shaft extending transversely of the rail and having a crank thereon, a link pivotally connecting said crank and the upper end of the treadle, said link preventing tilting or lateral movement of the treadle with respect to the rail, and a connection between said shaft and switch for positively setting the switch in a predetermined position when said treadle is depressed by the passage of a train thereover approaching the switch.



2. The combination of a railway switch, a pair of treadles arranged at a given point in advance of the switch and in immediate proximity to the inner sides of the rails, means for pivotally mounting those ends of the treadles farthest removed from the switch at such elevations as to clear the wheel flanges, a shaft extending transversely of the track and beneath the two rails, a pair of cranks on said shaft, a pair of links pivotally connected to said cranks and attached to the vertically movable ends of the treadles, said links preventing tilting or lateral displacement of the treadles with respect to the rails and serving to positively depress the treadles when said shaft is rotated in one direction, and an operative connection between said shaft and the switch whereby the latter will be set in predetermined position by the simultaneous depression of said treadles.

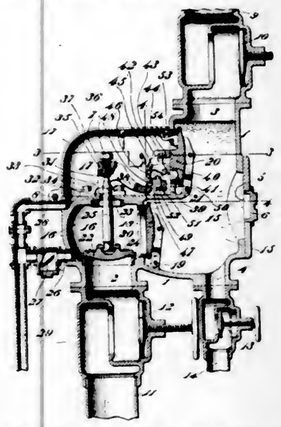
3. The combination of a railway switch, a shaft arranged transversely of the track in advance of the switch and provided with a pair of cranks, and a pair of treadles arranged immediately within the respective rails, each treadle being of T-form in cross section, a pair of brackets coöperating with the web of the respective treadles at the forward ends thereof, a pair of links straddling and pivotally attached to the web portions of the treadles at the opposite ends thereof, a crank attached to the outer end of said shaft, and a connection extending along the track and connecting the said crank upon said shaft to the switch, said connection serving to positively elevate the treadles into inclined position when the switch is set for a sliding and for positively setting the switch for the main track when the inclined treadles are depressed by the wheel flanges on a passing train.

4. The combination of a railway switch, a signal arranged at a suitable point upon the track in advance of the switch, treadles arranged upon the track at a point between said switch and signal, said treadles being automatically operative by a passing train and connected to operate said switch and a single rigid connection between the switch treadles and signal for positively setting the signal in warning position when the switch is set for a siding and for returning the signal to clear position when the switch is reset for the main track.

5. The combination of a railway switch, means for setting the same, a shaft mounted transversely of the track at a suitable distance in advance of the switch and operatively connected to the switch setting means, a crank arm rigidly mounted on said shaft between the rails of the track and provided with an extension that is pivoted thereon to form a latch, a spring connecting said crank and latch to yieldingly retain the latter in an operative position, an alarm adapted to be carried upon a locomotive or train and provided with a part arranged to be actuated by said latch when the train approaches the switch and capable of moving past the latch without operation when moving from the switch, and train-operated devices arranged along the track between the said latch and switch for positively setting the latch in inoperative position when the switch is set in one position and for permitting the latch to occupy an operative position when the switch is set in a different position.

[Claims 6 and 7 not printed in the Gazette.]

942,100. DRY VALVE. FRED A. PHELPS, Laconia, N. H. Filed Apr. 19, 1906. Serial No. 312,692.



1. In a sprinkling system, a dry valve comprising, a chamber to communicate with the system, a second chamber to communicate with the water supply, a passage between said first and second chambers and a check valve in said passage, a main valve between said second chamber and the supply, said first chamber having an opening therefrom and an air valve in said opening mounted to open inwardly into said first chamber, said air valve being closed both normally and during operation of the system, connections between said main and air valves by means of which, with one pressure in the system, said air valve maintains said main valve closed, and through which connections, upon a predetermined variation of that pressure, the air valve is momentarily actuated by the main valve to release the latter entirely.

2. In a sprinkling system, a dry valve comprising, a chamber to communicate with the system and with the water supply, said chamber having an opening therefrom, an air valve in said opening mounted to open inwardly into said chamber, said air valve being closed both normally and during operation of the system, connections outside of said chamber between said main valve and the external face of said air valve by means of which, with one pressure in the system, said air valve maintains said main valve closed, and through which connections, upon a predetermined variation of that pressure, the air valve is momentarily actuated by the main valve to entirely release the latter.

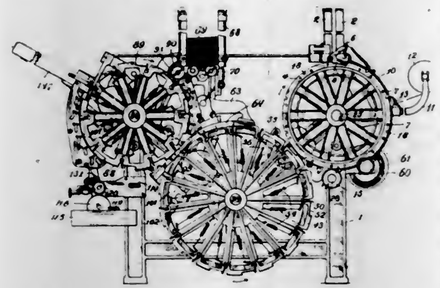
3. In a sprinkling system, a dry valve comprising, a chamber to communicate with the system, a second chamber to communicate with the water supply, a passage between said first and second chambers and a check valve in said passage, a main valve between said second chamber and the supply, said first chamber having an opening therefrom and an air valve in said opening mounted to open inwardly into said first chamber, said air valve being normally closed by the air pressure in the system, connections between said main and air valves by means of which said air valve maintains said main valve closed, and through which connections, upon a predetermined variation of that pressure, the air valve is momentarily actuated, said connections being constructed to break upon such actuation of the air valve to permit the main valve to open under the water pressure and the air valve to again close under the system air pressure.

4. In a sprinkling system, a dry valve comprising, a chamber to communicate with the system, a second chamber to communicate with the water supply, a passage between said first and second chambers and a check valve in said passage, a main valve between said second chamber and the supply, said first chamber having an opening therefrom and an air valve in said opening mounted to open inwardly into said first chamber, means in connection with said air valve to actuate the same upon a predetermined relative variation of system and supply pressure, means normally maintaining said main valve tight but actuated upon movement of the air valve to release said main valve entirely, said air valve being thereupon freed to be reseated by the system air pressure.

5. In a sprinkling system, a dry valve comprising, a chamber in communication with the system and with the supply, a main valve between the supply and said chamber, an air valve in communication with the system and maintained normally closed by the pressure in the system, connections between said main and air valves comprising a strut on the main valve, a pivoted lever, an intermediate point of which is normally engaged by said strut, a bell crank lever, a toggle post, linked toggles, one of which normally engages said toggle post and one arm of said bell crank lever, and another of which engages the free end of said first named lever, and a joint between the other arm of said bell crank lever and the air valve, whereby movement of the main valve is communicated to the air valve.

[Claims 6 to 17 not printed in the Gazette.]

942,101. WRAPPING-MACHINE. ALBERT M. PRICE, Elgin, Ill. Filed June 1, 1908. Serial No. 436,001.



1. In a wrapping machine, the combination with a continuously rotating wheel provided with means for holding an article and its wrapper, of means for folding the wrapper about the article while carried by said wheel, a second continuously rotating wheel, means for transferring the article and wrapper from said first wheel to said second wheel and to a predetermined position upon a band, means for feeding said bands to the required position to receive the wrapped article, means for completing the folding of the band about the article, and means for applying adhesive to the band for securing the ends thereof later, said means being adapted to operate while the wrapped article and band are being carried by the second continuously rotating wheel.

2. In a wrapping machine, the combination with a continuously rotating wheel adapted to receive an article and band therefor of means for folding the rear end of the band over and upon the article, of means for applying an adhesive material to the outer face of the end of the band thus folded down, and means for folding the front end of the band over and upon the previously folded rear end of the band, whereby the two ends of the band will be secured together by the adhesive material, all of said means being adapted to operate while the article and band therefor are carried by, and during the continuous rotation of, said wheel.

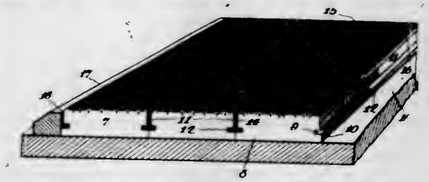
3. In a wrapping machine, the combination with a continuously rotating wheel, adapted to receive an article, and a wrapper, of means for folding the wrapper outward about the article while both are carried by said wheel, a second continuously rotating wheel adapted to receive the wrapped article and a band therefor, means for transferring the wrapped article from the first wheel to the second wheel and to a predetermined position upon the band, which band is arranged at an angle to the first wrapper, and means for feeding the band to such an angular position to receive the wrapped article.

4. In a wrapping machine, a paper roll holder, a continuously rotating feed wheel provided with pockets, an article magazine, means for feeding the paper to the wheel, automatically placing the articles successively thereon, and automatically severing the paper into strips, means for automatically transferring the article and its paper strip to a second continuously rotating wheel provided with pockets, means for automatically folding the strip around the article while on the wheel to constitute a wrapper therefor, a label or band magazine, a third continuously rotating wheel provided with pockets, means for automatically feeding the labels to the wheel over the pockets, automatic means for transferring the wrapped article from the second wheel to the third wheel so that the wrapper on the article will be at an angle to the band on the third wheel, and means for automatically gumming said band and folding it around the article and its wrapper.

5. In a wrapping machine, a paper roll holder, a continuously rotating feed wheel provided with pockets, an article magazine, means for feeding the paper to the wheel, automatically placing the articles successively thereon and automatically severing the paper into strips, means for automatically transferring the article and its paper strip to a second continuously rotating wheel provided with pockets, means for automatically folding the strip around the article while on the wheel to constitute a wrapper therefor, a label or band magazine, a third continuously rotating wheel provided with pockets, means for automatically holding the labels to the wheel over the pockets, automatic means for transferring the wrapped article from the second wheel to the third wheel so that the wrapper on the article will be at an angle to the band on the third wheel, and means for automatically gumming said band, folding it around its wrapper while on the third wheel and discharging the wrapped article therefrom.

[Claims 6 and 7 not printed in the Gazette.]

942,102. TYPE-BAR AND TYPOGRAPHIC FORM. FRANCIS H. RICHARDS, Hartford, Conn., assignor, by mesne assignments, to American Typographic Corporation, a Corporation of New Jersey. Filed Dec. 13, 1902. Serial No. 135,060.



1. The combination with a column of typebars, each bar of which is recessed at each side, of a column of typebars adjacent thereto, the ends of which are also recessed, the ends of the bars of one column abutting the ends of the bars in the other column so that said recesses form a channel, and an interlocking element lying in said channel uniting the said columns and having an upward projecting ruling edge.

2. The combination with a column of typebars, each bar of which is recessed at each side, of a column of typebars adjacent thereto, the ends of which are also recessed, the ends of the bars of one column abutting the ends of the bars of another column, whereby the recesses form a channel, and an element lying in said channel interlocking and uniting said columns and having an upwardly projecting portion suitably formed to form a column rule.

3. The combination with a column of typebars, of a column of typebars adjacent thereto, the ends of the bars at the adjacent sides of the respective columns being recessed, said recess forming channels in the columns having their upper and lower faces parallel with the plane of the printing face of the bar, and an interlock lying in each of

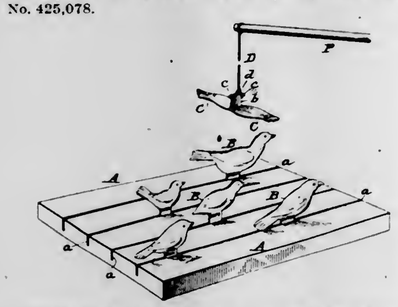
said channels, portions of the ends of the bars of one column abutting portions of the ends of the bars of the other column and portions of the ends of the bars of each column abutting the interlock.

4. The combination with a column of typebars, of a column of typebars adjacent thereto, portions of the ends of the bars of one column abutting portions of the ends of the bars of the other column; a channel in the end of each column and comprising notches in each bar; an interlock lying partly in each channel; and having a web for interposition between portions of the adjacent ends of each column, other portions of said adjacent ends abutting one another and a rule upstanding from said web.

5. The combination with a column of typebars having an extension at the lower portion of each end thereof and a recess above said extension, of another column of typebars adjacent thereto and whose ends are likewise formed, the bars of one column abutting portions of the bars at the end of the other column and forming a channel parallel to the longitudinal axis of the bars, and other channels transverse to said first mentioned channel, and an interlocking member located in said channels.

[Claims 6 to 8 not printed in the Gazette.]

942,103. APPARATUS FOR GAMES. WILLIAM J. RIGNEY, Brooklyn, N. Y., assignor to McLoughlin Brothers, Brooklyn, N. Y., a Firm. Filed Apr. 3, 1908. Serial No. 425,078.

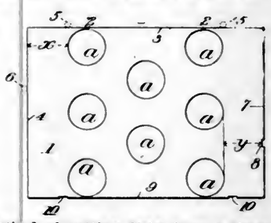


1. In a game apparatus a pair of wings adapted to engage with a flat portion of a body imitating a bird each wing comprising a laterally projecting portion and an inner or body portion turned up at right angles thereto, said body portions being adapted to lie against each other when in a vertical position and such turned up portions being hingedly connected together at their upper ends by suitable means, substantially as and for the purpose shown and described.

2. In a game apparatus a pair of wings adapted to engage with a flat portion of a body imitating a bird each wing being composed of a laterally projecting flat portion and an upright portion at right angles thereto, the upright portions having projections at their upper ends for engaging a connecting element, and a connecting loop of flexible material in engagement with the upright portions by the medium of said projections, substantially as and for the purposes shown and described.

942,104. METHOD OF CUTTING DISKS FROM SHEET-METAL PLATES. DANIEL P. ROBINSON, Baltimore, Md., assignor to Continental Can Company, Baltimore, Md., a Corporation of Maryland. Filed Jan. 15, 1909. Serial No. 472,433.

1. The method of cutting disks from a sheet of metal with dies consisting in cutting in one operation a series of disks arranged in an odd number of parallel rows with the end disks in the outside rows, adjacent the sides of the sheet, and the disks in adjacent rows staggered relative to each other, cutting in another operation a series of disks arranged in an even number of parallel rows and having the disks in adjacent rows staggered relative to each other, with the outer disks in alternate rows located adjacent the sides of the sheet, and adjacent the end disks in the outer rows of the first named series of disks and cutting in still another operation, a similar series of disks arranged in the same even number of parallel rows, and having a reverse disposition to each other, relative to the second named series of disks with the end disks in alternate rows located adjacent the side of the sheet, and adjacent the end disks in the outer rows of the first named series of disks, but on the opposite side thereof.



2. The method of cutting disks from a sheet of metal, with dies consisting in cutting in one operation, a series of eight disks, arranged in three parallel rows with the end disks of the outside rows adjacent the sides of the sheet and the disk in adjacent rows staggered relative to each other, cutting in another operation, a series of ten disks arranged in four parallel rows and having the disks in adjacent rows staggered relative to each other, with the outer disks in alternate rows located adjacent the side of the sheet, and adjacent the end disks in the outer rows of the first named series of disks and cutting in still another operation a series of ten disks arranged in four parallel rows, and having a reverse position relative to each other relative to the second named series of disks with the end disks in alternate rows located adjacent the sides of the sheet and adjacent the end disks in the outer rows of the first named series of disks but on the opposite side thereof.

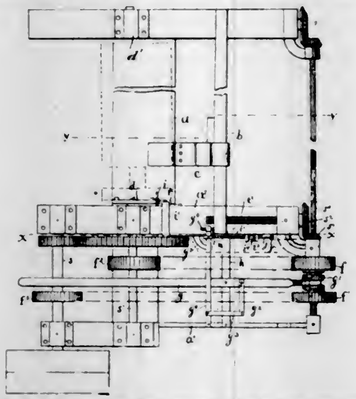
3. The method of cutting disks from sheet metal with dies consisting in gaging the sheet at one end and one side cutting therefrom a series of disks and cutting in the same operation gaging surfaces at the opposite end and opposite side, which gaging surfaces have the same relative disposition to the openings formed by the cut disks as the end and side by which the sheet is initially gaged, whereby either end or either side may be used to position the sheet for subsequent cutting operations.

4. The method of cutting disks from sheet metal, by a series of operations with a gang of dies consisting in gaging the sheet by suitable gage pins relative to said gang of dies, cutting therefrom a series of disks and cutting by the same operation gaging surfaces at the opposite side of the sheet from that engaging the gage pins, which gaging surfaces have the same relative disposition to the openings formed by the cut disks as the side by which said sheet is initially gaged, whereby either side of the sheet may be used to position said sheet for subsequent operations of said gang of dies.

5. The method of cutting disks from a sheet of metal by a series of operations, with a gang of dies consisting in gaging the sheet at one end and one side by suitable gaging members, cutting gaging notches in the opposite side and opposite end which notches are disposed longitudinally of the side and end so that when said sheet is turned end for end, said notches will engage said gaging members and position said sheet whereby the openings formed in the sheet in the cutting of the disks by the different operations of a gang of dies, may be properly located relative to each other.

942,105. STOP-MOTION FOR VENEER-LATHES. JOHN M. ROUNDS, Strong, Me. Filed Jan. 9, 1908. Serial No. 409,899.

1. In a veneer lathe the combination with the knife carrier bar and shipping lever, of a movable guide adapted to bear against the outside of the log, a stop connected with the shipping lever and adapted to be struck by the knife carrier bar on its rearward movement and means operated by said guide for moving said stop in and out.



2. In a stop motion for veneer lathes, the combination with the knife carrier bar and shipping lever, of a movable guide adapted to bear against the outside of the log, a horizontally movable bar connected with the said guide, a stop carried by said bar and adapted to be struck by the knife carrier bar on its rearward movement and means actuated by said stop for throwing the shipping lever.

3. In a veneer lathe, the combination with the knife carrier bar and shipping lever of a movable guide adapted to bear against the outside of the log, a longitudinally movable bar connected with said guide, a longitudinally movable rod adjacent to said bar and connected with the shipping lever, a stop on said rod adapted to be struck by the knife carrier bar on its rearward movement to move said rod longitudinally and means carried by said bar to slide said stop on its rod.

4. In a veneer lathe, the combination with the knife carrier bar and shipping lever, of a movable guide adapted to bear against the outside of the log, a longitudinally movable bar connected with said guide, a longitudinally movable rod adjacent to said bar and connected with the shipping lever, a stop on said rod adapted to slide thereon and to be struck by the knife carrier bar on its rearward movement, the stop being so connected with the rod as to be clamped thereto by the contact with the knife carrier bar, and a block secured to said bar and embracing said stop to slide it on said rod when out of contact with the knife carrier bar.

5. In a veneer lathe, the combination with the knife carrier bar and shipping lever, of a movable guide adapted to bear against the outside of the log, a longitudinally movable bar connected with said guide, a longitudinally movable rod adjacent to said bar and connected with the shipping lever, a stop sliding loosely on said rod and adapted to be struck by the knife carrier bar on its rearward movement at a point remote from the rod, whereby the stop pinches the rod and moves the same, and a block secured to said bar and embracing said stop to slide it on said rod when out of contact with the knife carrier bar.

[Claims 6 to 9 not printed in the Gazette.]

942,106. TREATMENT OF CONIFEROUS WOODS. WILLSON H. ROWLEY, Detroit, Mich. Filed June 5, 1908. Serial No. 436,962.

1. The process which consists in subjecting a coniferous wood to distillation to obtain a volatile solvent having a lower specific gravity and boiling point than commercial oil of turpentine, and then extracting soluble constituents of coniferous wood with said volatile solvent.

2. The process which consists in subjecting a coniferous wood to limited distillation with steam to obtain a volatile solvent having a lower specific gravity and boiling point than commercial oil of turpentine, and then extracting soluble constituents of coniferous wood with said volatile solvent.

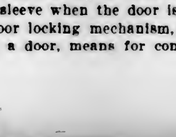
3. The process which consists in subjecting a coniferous wood to distillation to obtain a volatile solvent having a lower specific gravity and boiling point than commercial oil of turpentine, extracting soluble constituents of coniferous wood with said volatile solvent, and finally converting the extracted wood into pulp or fiber stock.

4. The process which consists in subjecting a coniferous wood to limited distillation with steam to obtain a volatile solvent having a lower specific gravity and boiling point than commercial oil of turpentine, extracting soluble constituents of coniferous wood with said volatile solvent, and finally converting the extracted wood into pulp or fiber stock.

5. The process which consists in subjecting a coniferous wood to distillation with steam to obtain a volatile solvent, and then extracting soluble constituents from the partially exhausted wood with said solvent.

[Claims 6 to 13 not printed in the Gazette.]

942,107. PENCIL-SHARPENER. ADOLPH RYDQUIST, Rochester, N. Y. Filed Nov. 5, 1908. Serial No. 461,198.

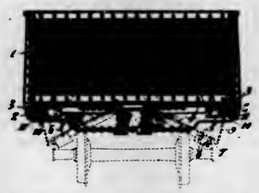


1. In a pencil sharpener a pencil receiving tube, a reciprocating clamping member substantially surrounding said tube, a cutting member held in position by said clamping member, and means for adjusting the position of said clamping member.

2. In a pencil sharpener a pencil-receiving tube, a cutting member, a clamping sleeve substantially surrounding said tube and engaging said cutting member, an operating screw formed with a flange for regulating the tension of said clamping member against said cutting member, an upstanding flange projecting from said clamping tube and engaging said regulating screw and co-acting with the flange on said screw whereby when said screw is operated motion will be communicated to said clamping sleeve.

3. In a pencil sharpener a pencil receiving tube formed with a bevel on one side, a cutting member positioned on said bevel, a clamping sleeve formed with a beveled side coacting with the beveled side of said tube, a screw receiving member projecting from the end of said sleeve, a screw engaging said screw receiving member, and means mounted on said tube for receiving said screw whereby when said screw is rotated the clamping action of said sleeve against said cutter will be varied.

942,108. CAR-DOOR MECHANISM. RALPH V. SAGE, Westmont, Pa. Filed Aug. 19, 1907. Serial No. 389,102.



1. In a car door locking mechanism, a shaft, a sleeve thereon, a door, means for connecting the door with the sleeve, and a pivoted locking-bar secured to the door and bearing on said sleeve when the door is closed.

2. In a car door locking mechanism, a shaft mounted on the car-body, a door, means for connecting the same

with the shaft, and a pivoted locking-bar secured to the door, said bar having a bearing on the shaft when the door is closed.

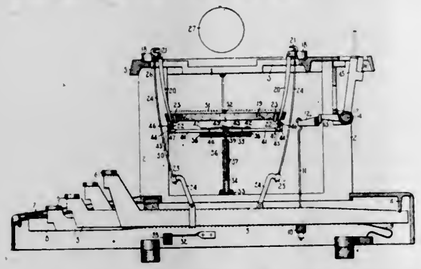
3. In a car door operating and locking mechanism, a shaft revolubly mounted on the car-body, a winding sleeve thereon, a swinging door, a locking-bar connected thereto by pivoted links, and a flexible connection between the sleeve and the locking-bar, whereby the rotation of said shaft closes the door, and then projects the locking-bar over and upon the upper surface of the sleeve, locking and supporting said door.

4. In a car door locking mechanism, a shaft mounted on the car-body, a swinging door, means for connecting the same with the shaft, and a pivoted locking-bar secured to the door, said bar having a bearing on the shaft when the door is closed.

5. In a car door locking mechanism, a shaft mounted on the car-body, a door, means for connecting the same with the shaft, a pivoted locking-bar secured to the door, said bar having a bearing on the shaft, and means for releasing the locking-bar.

[Claims 6 to 16 not printed in the Gazette.]

942,109. TYPE-WRITING MACHINE. AUGUSTUS G. SNYDER, Ilion, N. Y., assignor to Wyckoff, Seamans & Benedict, Ilion, N. Y., a Corporation of New York. Filed Mar. 25, 1903. Serial No. 149,580.



1. In a typewriting machine, the combination of a pivoted type bar, a key actuated device, an unyielding draw link extending from said key-actuated device to the type bar, a fixed stop operative to prevent the link from actuating the type bar during the latter part of the printing movement of the type bar, and a lost motion link-guiding connection rendering the type bar movable by its momentum to complete its printing action.

2. In a typewriting machine, the combination of a pivoted type bar having an arm on its pivoted end, a key-actuated device, an unyielding draw-link extending from said key-actuated device to the type-bar and comprising a loop engaged with said arm of the type-bar and forming therewith a link guiding connection, and a fixed stop operative to prevent the link from actuating the type-bar during the latter part of the printing movement of the type bar, the arm of the type bar being movable within the loop of the link to allow the type bar to be carried by its momentum to its printing position.

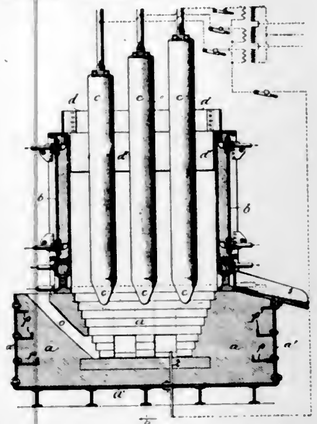
3. In a typewriting machine, the combination of a pivoted type-bar, a key lever, an unyielding draw-link extending from the key lever to the type bar, a stop operative on the key-lever to prevent the link from actuating the type-bar during the latter part of the printing movement of the type-bar, and a lost motion link-guiding connection rendering the type-bar movable by its momentum to complete its printing action.

4. In a typewriting machine, the combination of a pivoted type bar having an arm on its pivoted end, a key-lever, an unyielding draw-link extending from the key-lever to the type-bar and comprising a loop engaged with said arm on the type-bar and forming therewith a link-guiding connection, and a stop operative on the key-lever to prevent the link from actuating the type-bar during the latter part of the printing movement of the type-bar, the arm of the type-bar being movable within the loop of the link to allow the type-bar to be carried by its momentum to its printing position.

5. In a typewriting machine, the combination of a pivoted type-bar, a key-actuated device, an unyielding draw-link extending from said key-actuated device to the type-bar, a stop operative to prevent the link from actuating the type-bar during the latter part of the printing movement of the type-bar, and a lost motion link-guiding connection rendering the key-actuated device movable at the beginning of a stroke while the type bar is at rest, and rendering the type-bar movable by its momentum in the latter part of its printing action.

[Claims 6 to 75 not printed in the Gazette.]

942,110. ELECTRIC FURNACE. FREDERICK T. SNYDER, Oak Park, Ill., assignor to Electric Metals Company, Chicago, Ill., a Corporation of West Virginia. Filed Sept. 25, 1906. Serial No. 336,186.



1. An electric furnace comprising a crucible base, a fluid-cooled wall surmounting said base, a tap-opening being provided near the top of the crucible for drawing off the molten product therein, and a body of heat-insulating material extending through said cooled wall above the level of said tap, and having an outlet opening therethrough.

2. An electric smelting furnace having a fluid-cooled wall, a tap opening being provided for removing the molten product, and a tube of heat-insulating material extending through said wall, above the level of said tap opening, the bore of said tube being relatively small and an additional water-jacket surrounding said tube.

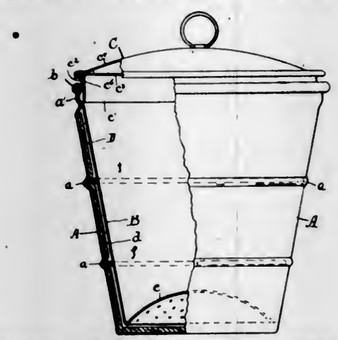
3. In an electric furnace adapted to be heated by the passage of an electric current through a bath of slag, the combination of water-jacketed walls, a body of heat-insulating material extending through said walls above the level of said slag bath and having an outlet from the furnace therethrough.

4. The combination with an electric smelting furnace having a crucible base surmounted by a water-jacketed wall, said furnace being adapted to be heated by the passage of electricity through a bath of molten slag contained in said crucible base, said wall having a passage therethrough above the line of said slag bath and a lining of heat-insulating material for said passage.

5. An electric furnace having a crucible base, a water-jacket surmounting said base to form the wall of the furnace, a tap opening being provided near the top of said crucible for removing the molten product from the furnace, and a plug of carbonaceous material extending through said water-jacket above the level of said tap, said plug having a relatively small opening therethrough.

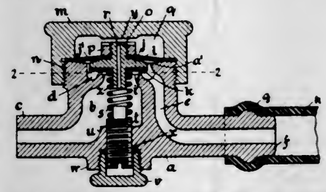
[Claims 6 to 15 not printed in the Gazette.]

942,111. COOKING UTENSIL. ALEXANDER SPEIRS, Westbrook, Me. Filed Apr. 1, 1907. Serial No. 365,656.



The herein described cooking utensil consisting of a pair of open topped sheet metal vessels forming an inner and an outer vessel said vessels being secured together to leave a substantially steam tight insulating space between them, an annular groove formed in the outer vessel, a sheet of insulating material occupying and partially filling said space and in contact with the outer vessel and a tightly fitting ring pressing the asbestos outward into said groove.

942,112. GAS-PRESSURE REGULATOR. ORVILLE SPRECHER, Milwaukee, Wis. Filed Mar. 3, 1909. Serial No. 481,114.



1. A gas pressure-regulator comprising, in combination with the high and low-pressure chambers separated by a valve-seat, a reciprocating-plug covering said valve-seat on the upper side thereof and acting to open the valve in rising, a high-pressure regulating-chamber above said valve-seat, a member connected with said plug and exposed to the downward pressure of said regulating-chamber, and a spring acting to raise said plug from the seat in opposition to the pressure on said member.

2. A gas-pressure regulator comprising, in combination with the high and low-pressure chambers separated by a valve-seat, a reciprocating-plug covering said valve-seat, a high-pressure regulating-chamber above said valve-seat, a spring acting to raise said plug from the seat; said plug being provided with a tubular passageway connecting said high-pressure chamber with said regulating-chamber.

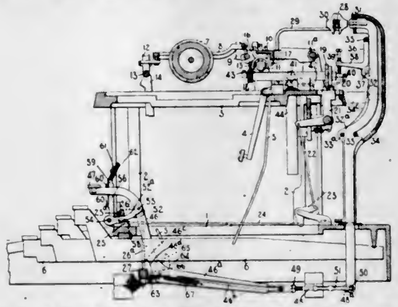
3. A gas-pressure regulator comprising in combination, a high-pressure chamber, a low-pressure chamber, an apertured partition separating said chambers and having an annular valve seat surrounding the aperture; a reciprocating valve-plug covering said seat and located in the low-pressure chamber and opening by a movement away from said high-pressure chamber; a flexible diaphragm closing the open side of said low-pressure chamber and secured centrally to said plug, a cap-piece secured over said diaphragm and clamping the edges thereof and leaving a rectangular-chamber in said cap-piece above said diaphragm, and means resiliently raising said plug against the pressure upon said diaphragm, there being a passageway connecting said regulating-chamber with the source of high-pressure.

4. A gas-pressure regulator comprising, in combination, a high-pressure chamber, a low-pressure chamber, an apertured partition separating said chambers and having an annular valve-seat surrounding the aperture, a reciprocating valve-plug covering said seat and located in the low-pressure chamber and opening by a movement away from said high-pressure chamber; a flexible diaphragm closing the open side of said low-pressure chamber, and secured centrally to said plug, a cap-piece secured over said diaphragm and clamping the edges thereof and leaving a regulating-chamber in said cap-piece above said diaphragm, and means resiliently raising said plug against the pressure upon said diaphragm; said plug having a tubular passageway connecting the inner or high-pressure chamber with said regulating-chamber.

5. A gas-pressure regulator comprising, in combination, a high-pressure chamber, a low-pressure chamber, an apertured partition separating said chambers and having an annular valve-seat surrounding the aperture; a reciprocating valve-plug covering said seat and located in the low-pressure chamber and opening by a movement away from said high-pressure chamber; a flexible diaphragm closing the open side of said low-pressure chamber and secured centrally to said plug, a cap-piece secured over said diaphragm and clamping the edges thereof, leaving a regulating-chamber in said cap-piece above said diaphragm, a coiled compression-spring pressing against the inner face of said plug, an adjustable abutment for the end of said spring opposite said plug, and a passageway connecting said regulating-chamber with the source of high pressure.

[Claims 6 to 9 not printed in the Gazette.]

942,113. TYPE-WRITING MACHINE. ANDREW W. STEIGER, Bridgeport, Conn., assignor to Wyckoff, Seamans & Benedict, Ilion, N. Y., a Corporation of New York. Filed Sept. 18, 1907. Serial No. 393,439.



1. In a typewriting machine and in a tabulating mechanism, the combination of a carriage, a stop thereon, an upright lever of the first order, a tabulator stop operatively connected with the upper arm of said lever, a second lever disposed at an angle to said upright lever and having one arm directly connected with the lower arm of said upright lever, the other arm of said second lever being provided with a key-button, and a guide link pivotally connected with said second lever and having a fixed axis of rotation.

2. In a typewriting machine and in a tabulating mechanism, the combination of a carriage, a carriage stop, a co-operating stop, a lever connected with said coöperating stop, and a depressible key lever connected with the first named lever and having a fulcrum the position of which varies during the depression of said key lever.

3. In a typewriting machine and in a tabulating mechanism, the combination of a carriage, a carriage stop, a co-operating stop, a lever for actuating said coöperating stop, said lever having a fixed fulcrum, and a key lever directly connected to the first recited lever, said key lever having a moving fulcrum.

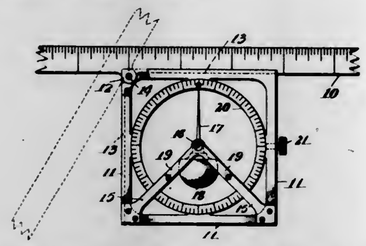
4. In a typewriting machine and in a tabulating mechanism, the combination of a carriage, a stop thereon, a co-

operating stop, a lever for actuating said coöperating stop, said lever having a fixed fulcrum, a pivoted arm, and a key lever pivotally connected with said arm and with the first recited lever.

5. In a typewriting machine and in a tabulating mechanism, the combination of a carriage, a carriage stop thereon, a coöperating stop, a lever for actuating said coöperating stop, said lever having a fixed fulcrum, an arm having a fixed pivot, and a key lever pivotally connected both to said arm and to the first recited lever.

[Claims 6 to 25 not printed in the Gazette.]

942,114. PROTRACTOR AND LEVEL. NAPOLEON R. THIBERT, Worcester, Mass., assignor to Matthew J. Whittall and Alfred Thomas, Worcester, Mass. Filed Sept. 16, 1907. Serial No. 393,207.



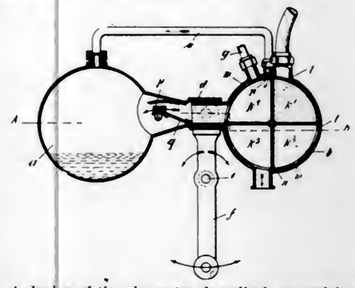
1. The combination with a straight edge, of a square frame, means at the corner between two sides for removably and pivotally connecting the frame with the straight edge, a circular scale centrally mounted on the frame with its zero point at the center of one of said sides, a counterweighted pointer pivoted at the center of said circular scale and a frame supported by the side of the frame opposite said zero point for supporting the pointer at the center of the scale.

2. The combination with a straight edge, of a rectangular frame pivotally connected with the straight edge at one corner of said frame, said frame having grooves along the two sides adjacent to said corner, the bottoms of said grooves intersecting the pivot, and said grooves being adapted to receive the edge of the straight edge, whereby the latter may be swung into either of the grooves, means for clamping the straight edge with respect to the frame, and a plumb level mounted within said frame, said plumb level comprising a circular scale having a zero point in the center of one of the edges of the frame adjacent to said pivot, and a counter-balanced pointer hung at the center of said scale and supported by said frame from the side opposite said zero point.

3. The combination with a straight edge, of a rectangular frame pivotally connected with the straight edge at one corner of said frame, means for clamping the straight edge with respect to the frame, and a plumb level mounted within said frame, said plumb level comprising a circular scale having a zero point in the center of one of the edges of the frame adjacent to said pivot, and a counter-balanced pointer hung at the center of said scale and supported by said frame, said scale comprising a central ridge having division marks on both sides of the same, and the frame having arms extending from two corners thereof and meeting in the center, said arms being outwardly bent near their inner ends and having adjustable pivots at said ends, and the counter-weight of the pointer being located in the outwardly bent part of the arms.

4. The combination with a straight edge, of a rectangular frame pivotally connected with the straight edge at one corner of said frame, said frame having grooves along the two sides adjacent to said corner, the bottoms of said grooves intersecting the pivot, and said grooves being adapted to receive the edge of the straight edge, whereby the latter may be swung into either of the grooves, means for clamping the straight edge with respect to the frame, and a plumb level mounted within said frame, said plumb level comprising a circular scale having a zero point in the center of one of the edges of the frame adjacent to said pivot, and a counter-balanced pointer hung at the center of said scale and supported by said frame, said scale being located half way between the two sides of said frame, and comprising a sharp central ridge having division marks on both sides of the same, and the frame having arms extending from two corners thereof and meeting in the center, said arms being outwardly bent near their inner ends and having adjustable pivots at said ends, and the counter-weight of the pointer being located in the outwardly bent part of the arms and midway between them.

942,115. CONTRIVANCE FOR SATURATING LIQUIDS WITH GAS. FRANZ TROSIENER, Düsseldorf, Germany. Filed Aug. 10, 1909. Serial No. 512,121.



1. A device of the character described, comprising a mixing vessel, a casing connected thereto, a chambered apertured plug rotatable within the casing, a liquid pipe and a gas pipe adapted to communicate with the plug, an atomizer intermediate mixing vessel and casing, and means for pivotally supporting the vessel and casing.

2. A device of the character described, comprising a mixing vessel, a casing connected thereto, a chambered apertured plug rotatable within the casing, a liquid pipe and a gas pipe adapted to communicate with the plug, a brush and a flap valve intermediate mixing vessel and casing, and means for pivotally supporting the vessel and casing.

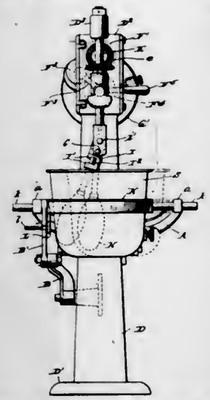
3. A device of the character described, comprising a mixing vessel, a casing connected thereto, a chambered apertured plug rotatable within the casing, a liquid pipe and a gas pipe adapted to communicate with the plug, a brush, a serrated rail and a flap valve intermediate mixing vessel and casing, and means for pivotally supporting the vessel and casing.

942,116. BEATING AND MIXING MACHINE. FRANK H. VAN HOUTEN and HARRY M. BACHMAN, Fishkill-on-the-Hudson, N. Y., assignors to Dutchess Tool Company, Fishkill-on-the-Hudson, N. Y., a Corporation of New York. Filed Dec. 23, 1908. Serial No. 468,957.

1. In a creaming and beating machine, the combination with the standard, the receptacle support mounted on said standard, of a vertical shaft mounted in fixed bearings with means for rotating the same, a beater holder mounted on the lower end of the shaft, and oppositely projecting arms on said holder separated by a space in which the beater may be inserted transversely of the holder and behind which arms the beater may be turned into vertical position, substantially as described.

2. In a creaming and beating machine, the combination with the vertical standard, the receptacle support adjustably mounted on said standard and the overhanging arm, of the vertical shaft journaled in said arm, means for rotating said shaft, a beater holder pivotally mounted on the lower end of the shaft to swing transversely, a clamp for securing said holder in its adjusted position, and oppositely projecting arms on said holder separated by a space in which the beater may be inserted transversely of the holder, and behind which arms the beater may be turned into vertical position, substantially as described.

3. In a creaming and beating machine, the combination with the standard, vertically arranged beater shaft, and means for rotating said shaft, of a receptacle support embodying a ring in which the receptacle is mounted, said ring having oppositely projecting trunnions and a vertically adjustable frame in which said trunnions are loosely mounted to move longitudinally, whereby the receptacle may be moved into an eccentric position with respect to the axis of the shaft.



4. In a creaming and beating machine, the combination with the standard and vertically arranged beater shaft with means for rotating the same, of the receptacle support embodying a ring having oppositely extending trunnions, a frame pivotally mounted on the standard and having bearing in which said trunnions are movable longitudinally to adjust the receptacle transversely, a downwardly extending link connected with said ring, a parallel pivoted arm for holding said ring in its horizontal position when adjusted vertically and means for holding the ring in its vertical position of adjustment.

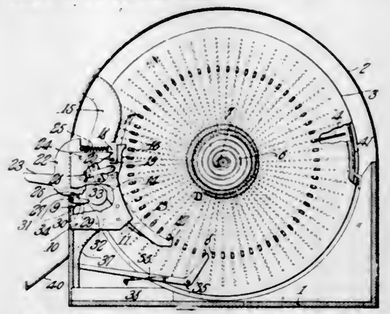
5. In a creaming and beating machine, the combination with the vertical standard having the head and overhanging arm, the vertical shaft journaled in said arm, the horizontal shaft journaled in the head, and change gearing interposed between said shafts, of the receptacle support embodying a ring having oppositely extending trunnions, a frame in which said trunnions are mounted and movable longitudinally for the transverse adjustment of the receptacle, said frame being pivotally mounted on the standard, means for holding said frame in its adjusted position, an arm parallel with said frame, and a connection between said arm and ring whereby the ring is maintained in its horizontal position regardless of its position of vertical adjustment.

942,117. VENDING-MACHINE. FRANK M. WEBER, Carsonville, Mich. Filed July 22, 1909. Serial No. 508,956.

1. In a vending machine, a vending mechanism having a constant tendency to move actively, and a coin controlled lock therefor comprising a detent lever having one end in the path of an inserted coin, a co-acting member accessible from the exterior of the machine, and a stop member for the coin having means for locking the member accessible from the exterior of the machine in inoperative position.

2. In a vending machine, a coin-controlled lock comprising an operating member for the vending side of the machine, a stop member for the coin co-acting with the said operating member to arrest the movement of an inserted coin of proper size, and an operating member accessible from the exterior of the machine, said stop member and last-named operating member co-acting to cause the locking of the last-named operating member in inactive position in the absence of a coin of proper size in the machine.

3. In a vending machine, a vending mechanism, and a coin controlled lock therefor comprising a lever having one end in the path of an inserted coin, a member accessible from the exterior of the machine, and a stop member for the coin having means for locking the member accessible from the exterior of the machine in inoperative position and having a constant tendency to the locking position, said stop member moving to the release position under the weight of an inserted coin.

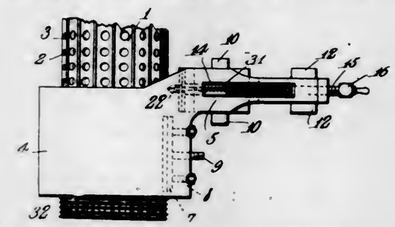


4. In a vending machine, a vending mechanism having a constant tendency to move actively, and a coin-controlled lock therefor comprising a detent lever having one end in the path of an inserted coin, a co-acting member accessible from the exterior of the machine and provided with a series of notches, and a stop member for the coin having a projection adapted to the notches in the member accessible from the exterior of the machine and operating to lock said member in the inoperative position in the absence of an inserted coin.

5. In a vending machine, a vending mechanism having a constant tendency to move actively, and a coin-controlled lock therefor comprising a detent lever having one end in the path of an inserted coin, a co-acting member accessible from the exterior of the machine and provided with a series of notches, and a stop member for the coin having a projection adapted to the notches in the member accessible from the exterior of the machine and operating to lock said member in the inoperative position in the absence of an inserted coin, said stop member yielding to the weight of an inserted coin to release the member accessible from the exterior of the machine.

[Claims 6 and 7 not printed in the Gazette.]

942,118. NOTCHING MEANS FOR WIRE-WINDING MACHINES. WILLIAM L. WEAGIN, Houston, Tex., assignor to Stancliff Well Screen Mfg. Co., Houston, Tex. Filed May 20, 1909. Serial No. 497,253.



1. In a notching means for wire winding machines, a chisel having an arc-shaped cutting edge and a mounting for the said chisel in which the chisel has a limited movement about the axis of generation of its cutting edge.

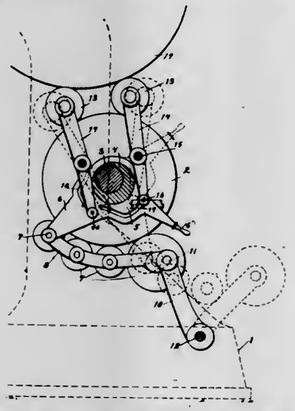
2. In a notching means for wire-winding machines, a chisel having an arc-shaped cutting edge, a mounting for said chisel in which the chisel is movable about the axis of generation of its cutting edge, and elastic constraining means tending to maintain the chisel in a predetermined position.

3. In a notching means for wire winding machines, a chisel having an arc-shaped cutting edge and provided with trunnions having their axis of rotation coincident with the axis of generation of the cutting edge of the chisel, a support for the chisel having bearings for the said trunnions, and a spring constraining the chisel to a predetermined position.

4. In a notching means for wire winding machines, a chisel having an arc-shaped cutting edge and provided with trunnions having their axis of rotation coincident with the axis of generation of the cutting edge of the chisel, a recessed supporting block in which the chisel is seated and having bearings for the trunnions of the chisel, a spring connected at one end to the chisel structure and at the other end to a fixed member carried by the block, and means for adjusting the block in the direction of its length.

5. In a notching means for wire winding machines, a guiding or support frame for the member to be notched, a chisel having an arc-shaped cutting edge and provided with trunnions having their axis of rotation coincident with the axis of generation of the cutting edge of the chisel, a supporting block having bearings for the chisel trunnions and in turn mounted in the support for the article to be notched, a spring constraining the chisel to a predetermined position, and means for adjusting the block and the chisel carried thereby to or from the article to be notched.

942,119. THROW-OFF MECHANISM FOR THE INKING-ROLLS OF ROTARY PRINTING-PRESSES. LYMAN A. WHEAT, Battle Creek, Mich. Filed Apr. 3, 1909. Serial No. 487,675.



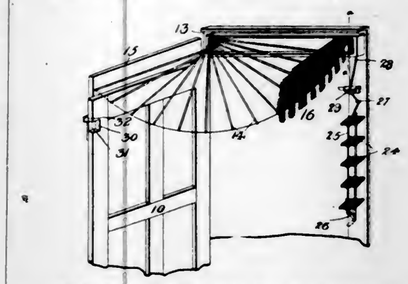
1. The combination with a printing press, of an ink-drum supported on a suitable shaft; ink-rollers arranged to contact with the same; a fixed eccentric on the bushing surrounding the shaft of the said ink-drum; a plate journaled on said eccentric and adapted to act thereon; an arm projecting from said eccentric plate; a bar supporting the inking rolls pivoted to said arm; a link extending down from the outer end of the bar pivoted thereto; a rock shaft to which the said link is secured; ductor rolls supported on suitable arms which are pivoted to the inside of the frame; and inwardly projecting pins on said arms; and slots in said plate coacting with the pins on said arm to throw the ductor rolls out, all coacting substantially as described and for the purpose specified.

2. The combination with a printing press, of an ink-drum supported on a suitable shaft; ink rollers arranged to contact with the same; a fixed eccentric on the bushing surrounding the shaft of the said ink-drum; a plate journaled on said eccentric and adapted to act thereon; an arm projecting from said eccentric plate; a bar supporting the inking rolls pivoted to said arm; a link extending down from the outer end of the bar pivoted thereto; and a rock shaft to which the said link is secured, all coacting substantially as described and for the purpose specified.

3. The combination with a printing press, of an ink-drum supported on a suitable shaft; ink rollers arranged to contact with the same; a fixed eccentric on the bushing surrounding said shaft; a plate journaled on said eccentric and adapted to act thereon; means for swinging said plate; and connections from said plate to said ink rollers whereby they will be controlled by the operation of said plate on said eccentric, coacting as specified.

4. The combination with a printing press, of an ink-drum supported on a suitable shaft; ink rollers arranged to contact with the same; a plate journaled on said shaft and connected to control the said ink rollers; ductor rolls supported on suitable arms which are pivoted to the inside of the printing press frame; inwardly projecting pins on said arms; and slots in said plate coacting with said pins to throw the ductor rolls out, coacting as specified.

942,120. FLY ATTACHMENT FOR SCREENS. ELIZABETH WHITE, Boone, Iowa. Filed Oct. 3, 1908. Serial No. 456,072.



1. An attachment for screen doors, comprising a box designed to be fitted to the casing above the door and consisting of a top and end pieces, said box being of a length slightly greater than the width of the door; a cover on the forward side of the door mounted so as to engage the forward open side of the box above the door, when the door is closed; ribs mounted for radial movement, secured within said box; a flexible screen, one end secured to the aforesaid box and its other end secured to the aforesaid cover said screen also being secured to the aforesaid ribs to fold therewith and be inclosed and covered in said box when the door is closed, substantially as shown and described.

2. A screen door attachment comprising, in combination, a frame vertically mounted on the front portion of the door and near the forward edge thereof; arms, evenly spaced and arranged to be swung in outward and upward radial movement from their bearings on said frame, a continuous cable secured intermediately to the extremity of each of said arms, and extending upwardly to pass through an orifice in the upper portion of the door and thence to a point near the rear edge thereof, a coil spring secured to the upper end of said cable and to the door frame, and a leaf spring secured to the lower extremity of said cable and to said door.

3. An attachment for a screen door, comprising in combination a plurality of depending frames, evenly spaced and arranged and secured, for radial movement, to the casing adjacent the forward edge surface of the door; a leaf-spring secured to the casing immediately below said plurality of frames; a cable secured to said leaf-spring, and extending upwardly to a point near the top of the casing where it is secured thereto, said cable being also secured to the lower extremity of each of the said frames; a hinge secured to the casing above the said plurality of frames, said hinge projecting inwardly beyond the said casing, the upper member of said hinge being divided into two parts, one extending upwardly in a vertical plane between the casing and the said cable, the other portion thereof, curving upwardly and rearwardly; a recess in the door, designed to receive the curved portion of the upper member of the aforesaid hinge; a plate secured to the front of the door and covering the aforesaid recess; a second plate, mounted above the first mentioned plate and extending outwardly from the door to an engagement within the under surface of the vertical portion of the upper member of the hinge, substantially as shown and described.

4. A screen door attachment, comprising in combination a flexible screen designed to cover an opening at the top of the door when the door is open, said flexible screen being so constructed as to be folded up and retained within a box at the top of the door when the door is closed; a flapper, comprising a plurality of arms actuated by a cable having its upper end secured to the casing and its lower end secured to the door, mounted on the front of the door and near the forward edge thereof; a flapper, secured to the casing adjacent the forward edge surface of the door, comprising a plurality of frames secured for radial movement from their bearings, said flapper being operated by the opening and closing of the door, substantially as shown and described.

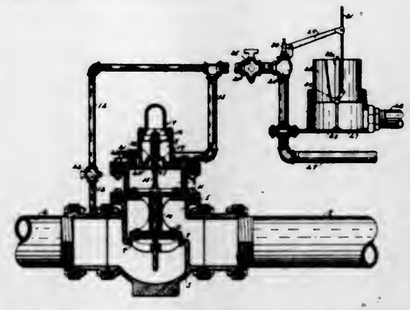
942,121. STRAINER. MAY C. WHITE, Kenilworth, Ill. Filed Aug. 15, 1908. Serial No. 448,688.

A strainer comprising a series of strainer-members provided with bottoms having perforations of increasing fineness, the side walls extending below the horizontal plane of the bottoms, bottomless-member provided with means on the outer surface adapted to secure the edges of a cloth to be arranged in the member below the lower strainer-member, the lower edges of the members being contracted to form annular shoulders, said contracted portion taking within the upper wall of the succeeding member, in combination with a member adapted to receive the contracted wall of the lower member and support the assembled members to permit of proper straining operation.

942,122. VALVE. FREDRICK N. WHITESELL, Three Rivers, Mich., assignor to Sheffield Car Company, Three Rivers, Mich. Filed Sept. 21, 1908. Serial No. 454,085.

1. The combination with a main tank, of a water supply; a valve casing connected to said water supply and main tank and provided with a main valve chamber; a piston cylinder, and an auxiliary or inlet chamber for said piston cylinder; a connection for said auxiliary valve chamber to the water supply; a valve for said connection; a main valve; a piston connected thereto, the area of said piston being greater than that of said main valve; an auxiliary valve movably mounted on the stem of said piston; means for regulating the movement of said auxiliary valve on said stem relative to said piston; a by-pass connecting said auxiliary valve chamber with said cylinder chamber; a valve for said by-pass; an exhaust pipe for said auxiliary valve chamber; a valve for said exhaust pipe; a float tank connected to said main tank; a float; and connections for said float to said valve for said exhaust pipe.

2. The combination with a main tank, of a water supply; a valve casing connected to said water supply and main tank and provided with a main valve chamber; a piston cylinder; and an auxiliary or inlet chamber for said piston cylinder; a connection for said auxiliary valve chamber to the water supply; a main valve; a piston connected thereto, the area of said piston being greater than that of said main valve; an auxiliary valve movably mounted on the stem of said piston; means for regulating the movement of said auxiliary valve on said stem relative to said piston; a by-pass connecting said auxiliary valve chamber with said cylinder chamber; an exhaust pipe for said auxiliary valve chamber; a valve for said exhaust pipe; a float tank connected to said main tank; a float; and connections for said float to said valve for said exhaust pipe.



3. The combination with a main tank, of a water supply; a valve casing connected to said water supply and main tank and provided with a main valve chamber; a piston cylinder, and an auxiliary or inlet chamber for said piston cylinder; a connection for said auxiliary valve chamber to the water supply; a valve for said connection; a main valve; a piston connected thereto, the area of said piston being greater than that of said main valve; an auxiliary valve movably mounted on the stem of said piston; means for regulating the movement of said auxiliary valve on said stem relative to said piston; a by-pass connecting said auxiliary valve chamber with said cylinder chamber; an exhaust pipe for said auxiliary valve chamber; a valve for said exhaust pipe; a float tank connected to said main tank; a float; and connections for said float to said valve for said exhaust pipe.

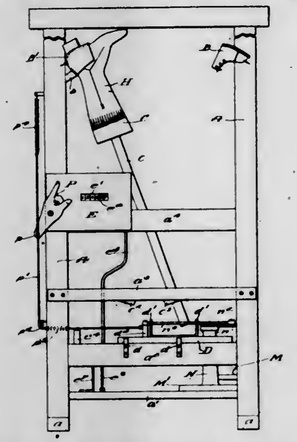
4. The combination with a main tank, of a water supply; a valve casing connected to said water supply and main tank and provided with a main valve chamber; a piston cylinder, and an auxiliary or inlet chamber for said piston cylinder; a connection for said auxiliary valve chamber to the water supply; a main valve; a piston connected thereto, the area of said piston being greater than that of said main valve; an auxiliary valve movably mounted on the stem of said piston; means for regulating the movement of said auxiliary valve on said stem relative to said piston; a by-pass connecting said auxiliary valve chamber with said cylinder chamber; an exhaust pipe for said auxiliary valve chamber; a valve for said exhaust pipe; a float tank connected to said main tank; a float; and connections for said float to said valve for said exhaust pipe.

5. The combination with a main tank, of a water supply; a valve casing connected to said water supply and main tank and provided with a main valve chamber; a piston cylinder, and an auxiliary or inlet chamber for said piston cylinder; a connection for said auxiliary valve chamber to the water supply; a valve for said connection; a main valve; a piston connected thereto, the area of said piston being greater than that of said main valve; an auxiliary valve movably mounted on the stem of said piston; a by-pass connecting said auxiliary valve chamber with said cylinder chamber; a valve for said by-pass; an exhaust pipe for said auxiliary valve chamber; a valve for

said exhaust pipe; a float tank connected to said main tank; a float; and connections for said float to said valve for said exhaust pipe.

[Claims 6 to 25 not printed in the Gazette.]

942,123. EXHIBITING APPARATUS. CHARLES D. WHITTREDGE, Saugus, Mass., assignor to Wm. Filene's Sons Company, Boston, Mass., a Corporation of Massachusetts. Filed May 12, 1909. Serial No. 495,426.



1. In an exhibiting apparatus, a pair of opposed abrading members, and a reciprocating form adapted to carry an article of wearing apparel and to move the same alternately into rubbing engagement with said opposed abrading members.

2. In an exhibiting apparatus, a pair of opposed abrading members, and a reciprocating form adapted to carry an article of wearing apparel and to move the same alternately into rubbing engagement with said opposed abrading members, and a motor adapted to reciprocate said form.

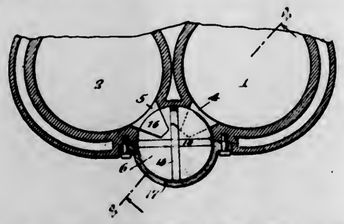
3. In an exhibiting apparatus, a shoe section, a foot-form, one of said parts being movable relatively to the other, the form being adapted to enter the shoe section, and means to actuate said movable part.

4. In an exhibiting apparatus, a shoe section, a reciprocating foot-form adapted to enter said shoe section, and means to actuate said reciprocating foot-form.

5. In an exhibiting apparatus, a pair of opposed abrading members, one of which consists of the toe part of a shoe and the other of the heel part of a shoe, a reciprocating foot-form, and means to move said foot-form alternately into said toe and heel parts.

[Claims 6 to 17 not printed in the Gazette.]

942,124. INTERNAL-COMBUSTION ENGINE. CHARLES G. WRIDGWAY, New York, N. Y. Filed Dec. 31, 1908. Serial No. 470,201.



1. In an internal combustion engine, the combination of a piston cylinder having a port for both inlet and outlet; and a rotary spherical valve for said port, whereby one valve may control both the inlet and outlet at said port.

2. In an internal combustion engine, the combination of a piston cylinder having a port for both inlet and outlet; and a rotary spherical valve for said port having separate inlet and outlet passages to register with said port, whereby one valve may control both the inlet and outlet at said port.

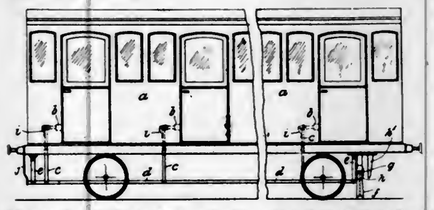
3. In a four cycle internal combustion engine, the combination of a piston cylinder having a port for both inlet and outlet; and a four cycle rotary valve having separate inlet and outlet passages for said port, said valve being provided with suitable packing dividing it into four sections, whereby one valve may control both the inlet and outlet at said port.

4. In an internal combustion engine, the combination of two piston cylinders, each cylinder having a port for both inlet and outlet; and a rotary spherical valve having two passages for said ports, whereby one valve may control both the inlet and outlet at both of said ports.

5. In a four cycle internal combustion engine, the combination of two piston cylinders, each cylinder having a port for both inlet and outlet; and a rotary four cycle valve having two passages for said ports, said valve being provided with suitable packing dividing it into four sections, whereby one valve may control both the inlet and outlet of both of said ports.

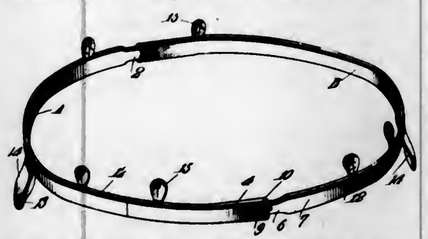
[Claims 6 to 9 not printed in the Gazette.]

942,125. APPLIANCE FOR AUTOMATICALLY AND OTHERWISE LOCKING AND UNLOCKING RAILWAY-CARRIAGE DOORS. DAVID ANDREWS and CHARLES BICKERTON, Manchester, England; said Bickerton assignor to said Andrews. Filed Apr. 24, 1909. Serial No. 491,943.



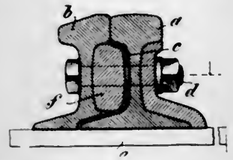
Means for locking and unlocking the doors of railway carriages comprising locking bolts, springs for holding the bolts in locked position, a swinging rail, leaves connecting the rail to the bolts, said bolts having a slot and pin connection with the levers, a spring for normally holding the swinging rail in a position to unlock the door, a cam adapted to engage with one end of the rail, and a vane actuated by the air pressure due to the motion of the train for turning the cam into engagement with the rail to lock the door.

942,126. TROUSERS-SUPPORT. JOHN V. BACKLUND, Lisbon, N. D. Filed Apr. 2, 1908. Serial No. 424,812.



A garment supporter including non-flexible opposed downwardly and outwardly curved hip pads, and a belt secured to the upper ends of the pads.

942,127. RAIL-JOINT. MAX BARSCHALL, New York, N. Y. Filed Feb. 15, 1906. Serial No. 301,233.



1. In a rail joint, the combination of a main rail and sleepers, an auxiliary wheel-bearing member disposed to permit yielding of the rail ends in a vertical direction, relatively to said member between the sleepers, but rigidly connected with said rail at both of its ends above the sleepers, a filling piece having enlarged ends of a length substantially equal to the width of said sleepers, and means for rigidly connecting said ends to said rails.

2. In a rail joint, the combination of a main rail and sleepers, of an auxiliary wheel bearing member and a filling piece having enlarged ends of a length substantially equal to the width of said sleepers, as set forth.

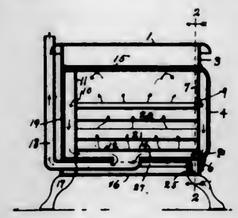
3. In a rail joint, the combination of a main rail and sleepers, of an auxiliary wheel bearing member, a filling piece substantially of the length of said auxiliary wheel bearing member, said filling piece having enlarged ends conforming to the space formed by the base, web and head of said main rail, said ends being rigidly connected with said main rail and said auxiliary wheel bearing member, substantially as set forth.

4. In a rail joint, the combination of a main rail and sleepers, of an auxiliary wheel bearing member and filling pieces disposed with their ends substantially over the whole width of the sleepers, said filling pieces conforming on said ends to the space formed by the base, web and head of said main rail and disposed between said main rail and said auxiliary wheel bearing member, the portion of said pieces between the sleepers being of suitable width to allow yielding of the rail ends disposed between the sleepers, substantially as set forth.

5. In a rail joint, the combination of a main rail and sleepers, of a fish rail, a filling piece and a second filling piece between said first filler and said fish rail, said filling piece suitably shaped to permit a yielding connection of the rail ends in a vertical direction between the sleepers, but a rigid connection of said ends above the sleepers.

[Claims 6 and 7 not printed in the Gazette.]

942,128. GAS-RANGE OVEN. WILLIAM J. BEST, Detroit, Mich. Filed Sept. 8, 1908. Serial No. 451,925.



1. The combination of a casing, an oven within the same and spaced therefrom, said oven having perforated side and rear walls, a door forming the front of the oven and comprising an imperforate outer plate and a perforated inner plate separated therefrom, a plate having a central opening mounted between the bottom of the oven and the base plate of the casing and separated from the former by a space which connects with the spaces at the rear of the oven and in the door, burners at the lower edge of the sides of the oven, the products of combustion entering the oven through openings in its sides and passing out through openings in its back and in the door, thence down into the space below the oven; and a pipe to convey the waste gases from below the oven out of the casing.

2. The combination of a casing, an oven within the same and spaced therefrom at sides, back and bottom, the side and rear walls of said oven being perforated, a door for said oven extending below the bottom plate thereof, said door comprising an imperforate outer plate and an inner plate perforated to permit passage of gases from the oven to the space below the oven, burners in the spaces between the walls of the oven and the casing, the products of combustion passing from the burners through the side walls into the oven and through the back wall and inner plate of the door out of the oven, then down into the space below the oven, and a pipe connecting into the space below the oven to convey products of combustion therefrom.

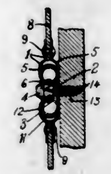
3. The combination of a casing, an oven within the casing and separated therefrom by side, back and bottom flues, a door for said oven, burners in the lower ends of the side flues, said oven having openings in its sides to communicate with the side flues and in its back to communicate with the back flue, said back flue communicating with the bottom flue, and a pipe connecting into the bottom at substantially the middle of the same.

4. The combination of a casing, an oven within the casing separated therefrom by side, back and bottom flues, a door for the oven and casing formed of plates to constitute a flue connecting to the bottom flue and oven, burners in the lower ends of the side flues, said oven having openings in its sides to communicate with the side flues and its back perforated to communicate with the back flue, said back flue communicating with the bottom flue, plates separating the side flues from the bottom and back flues, and a pipe connecting into the bottom flue.

5. The combination of a casing, a burner within the casing, an oven within the casing having imperforate top and bottom and perforated sides and back, said oven spaced apart from the back, sides and bottom of the casing, plates separating the spaces at the sides of the oven from the spaces at the back and bottom of the oven, a door having an inner space communicating with the oven and the space below the oven, and a pipe communicating with the space below the oven.

[Claims 6 and 7 not printed in the Gazette.]

942,129. FASTENER. FRANKLIN D. BROGA, Oneida, N. Y. Filed July 13, 1908. Serial No. 443,313.



1. A fastener comprising a socket member associated with one of two parts to be detachably fastened together, said member having a passage in one side thereof, an annular coiled spring loosely arranged in the socket member and having its axial opening registering with the passage, said spring having a limited movement laterally relatively to the axis of the passage, and the socket member being provided with means for holding the spring from movement in opposite directions lengthwise of the axis of the passage and for holding said spring from undue lateral movement, and a button member associated with the other of said two parts and movable through the passage of the socket member into the axial opening of the spring, the button member detachably engaging said spring and being detachable therefrom by movement axially of said passage and without movement of said button member relatively to said part with which the button member is associated, substantially as described.

2. A fastener comprising a socket member associated with one of two parts to be detachably fastened together,

said member having a passage in one side thereof, an annular coiled spring loosely arranged in the socket member and having its central opening registering with the passage, said spring having a limited movement as a whole laterally relatively to the axis of the passage, and the socket member being provided with opposing walls for holding the spring from movement in opposite directions lengthwise of the axis of the passage, and with an annular wall for holding said spring from undue lateral movement, and a button member associated with the other of said two parts and movable through the passage of the socket member into the central opening of the spring and into and out of engagement with said spring, substantially as described.

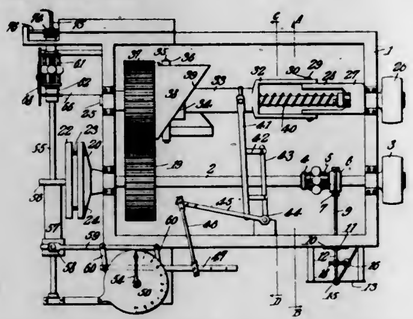
3. A socket member, for a detachable fastener, comprising a helix arranged in the form of a ring and having its ends connected, and a chamber for confining the ring-shaped helix, said chamber being of greater diameter than the ring-shaped helix, whereby the latter is free to shift laterally therein, and being provided with means coacting with the ring-shaped helix for preventing substantial movement of the same in the direction of the axis of the chamber and ring-shaped helix, substantially as described.

4. A fastener comprising a socket member associated with one of two parts to be fastened together, said member having a passage in one side thereof, an annular coiled spring loosely arranged in the socket member and having its central opening registering with the passage, the spring having a limited movement laterally relatively to the passage, a transversely split band around the annular spring for resisting expansion of said spring, and a button member associated with the other of said two parts and movable through the passage of the socket member into the opening of the annular spring, substantially as and for the purpose specified.

5. A fastener comprising a socket member associated with one of two parts to be fastened together, said member having a passage in one side thereof, an annular coiled spring loosely arranged in the socket member and having its central opening registering with the passage, reinforcing means around said opening of the spring, and a button member associated with the other of said two parts and movable through the passage of the socket member into the opening of the annular spring, substantially as and for the purpose specified.

[Claims 6 and 7 not printed in the Gazette.]

942,130. METER FOR INDICATING HORSE-POWER. WILLIAM E. BURT, Yuba, Wis. Filed Oct. 30, 1908. Serial No. 460,356.



1. In a meter of the class described the combination with variable power mechanism including contacting friction disks, one of said disks being normally inactive; of power mechanism for rotating the other disk, torque-indicating mechanism actuated by the said power mechanism, means operated by the torque-indicating mechanism, for shifting the normally inactive disk upon the face of the disk of the power mechanism in proportion to the developed torque, and separate means operated by the shifted disk for indicating power at the time of observation, and the total energy respectively.

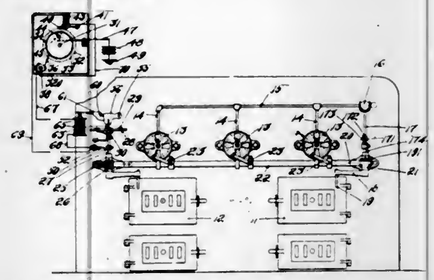
2. In a meter of the class described the combination with variable power gearing including contacting friction disks, one of said disks being normally inactive; of power mechanism for actuating the other disk, torque-mechanism operated by the said power mechanism, means operated by the torque mechanism for shifting the normally inactive disk upon the face of the revoluble disk in proportion to the developed torque, and an indicator operated by the shiftable disk and including a centrifugal governor, a rocking element actuated thereby, an index, and gearing interposed between the index and the rocking element for transmitting motion to said index.

3. A meter including driving mechanism, torque-indicating mechanism, an indicator for disclosing horse-power at the time of observation, connections between the said mechanisms for actuating said indicator, an indicator for disclosing total energy, and means operated by said connections for actuating said last mentioned indicator.

4. In a dynamometer of the class described variable power gearing comprising a driving element, a normally inactive driven element, torque-operated means for shifting the driven element into operative relation to the driving element, and means operated by the driven element for indicating horse-power at the time of observation, and total energy-indicating means operated by said driven element.

5. In a dynamometer of the class described torque-indicating mechanism comprising a shaft for connection with a load, a power-actuated cam loosely mounted on the shaft and including oppositely disposed arcuate wings having inclined bearing faces, parallel arms secured to and revoluble with the shaft, a sleeve feathered upon the shaft, arms upon the sleeve and slidably engaging the first mentioned arms, trunnions radiating from the sleeve, a spring upon the shaft and bearing against the sleeve to hold the trunnions normally in contact with the inclined faces of the cam wings, a torque-indicator, and means for transmitting motion to said indicator from the sleeve.

942,131. TIME-CONTROLLED SMOKE-PREVENTER. BRADFORD L. AMES, Boston, Mass. Filed Feb. 28, 1908. Serial No. 418,210.



1. In a smoke-preventer and in combination with operating means therefor, door-operated means for actuating said operating means in one direction, a spring for actuating it in the other direction, a ratchet and pawl to hold the spring after the movement in the first direction, and releasing means for said pawl comprising a clock-train, an electric circuit normally open, a solenoid in said circuit to act on said pawl, and a contact device actuated by the clock-train to close the circuit at the end of a predetermined period of time.

2. In a smoke preventer and in combination with operating means therefor, door-operated means for actuating said operating means in one direction, a spring for actuating said operating means in the other direction, a stop plate and pawl for said spring, a solenoid to move the pawl and release the stop plate and spring, time controlled mechanism, and electric connections between said time controlled mechanism and said solenoid.

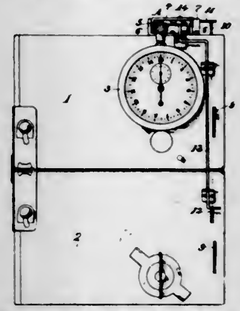
3. In a smoke-preventer and in combination with operating means therefor, door-operated means for actuating said operating means in one direction, a spring for actuating it in the other direction, a ratchet and pawl to hold the spring after the movement in the first direction, and releasing means for said pawl comprising a clock-train, an electric circuit normally open, a solenoid in said circuit to act on said pawl, a contact device rotatable with said clock-train to close the circuit at the end of a pre-determined period of time after said contact begins to rotate, a latch to keep the contact from rotating, a solenoid to operate said latch, a second circuit through said solenoid and a contact operated by the door-operated means to close the last mentioned circuit, lift the latch, and allow the first mentioned contact to begin to rotate when the door operated means is moved in the first direction.

4. In a smoke preventer and in combination with the doors of a furnace, the air-damper and the steam valve actuated in one direction by the door of the furnace, a source of electric energy, a clock movement, a pin-carrier on shaft thereof, a clutch to cause said pin-carrier to turn with said shaft, a latch to hold the pin-carrier from rotation, actuating means operated by a movement of a furnace door to move the latch and set the pin-carrier in motion, pins on said pin-carrier, and a brush making contact with one of said pins after a predetermined interval to close a circuit and actuate the said air damper and steam valve in the opposite direction.

5. In a smoke preventer and in combination with operating means therefor, door operated means for actuating said operating means in one direction, a spring for actuating said operating means in the other direction, a stop plate and pawl for said spring, a solenoid to move the pawl and release the stop plate and spring, a source of electric energy, a clock movement, a pin-carrier on a shaft thereof, pins on said pin-carrier, and a brush making contact with said pins at predetermined intervals to close a circuit through the said solenoid and release the said spring.

[Claims 6 and 7 not printed in the Gazette.]

942,132. SPEED-MEASURING MACHINE. DANIEL F. COMSTOCK, Brookline, and HERBERT T. KALMUS, Boston, Mass. Filed Feb. 10, 1909. Serial No. 477,124.



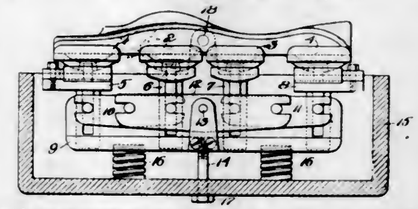
1. A speed measuring apparatus, having, in combination, two picture making apparatuses, a stop watch, and connections between the stop watch and the picture making apparatuses operating to cause one of the picture making apparatuses to take a picture upon the starting of the stop watch and to cause the other picture making apparatus to take a picture upon the stopping of the stop watch, substantially as described.

2. A speed measuring apparatus, having, in combination, two cameras each provided with shutters and escapements, a stop watch and connections between the stop watch and the escapements of the cameras having provision for releasing the escapement of one camera on the starting of the stop watch and for releasing the escapement of the other camera on the stopping of the stop watch, substantially as described.

3. A speed measuring apparatus, having, in combination, two picture making devices, a time interval measuring device, and connections between the devices operating to cause one of the picture making devices to take a picture at the beginning of the measured time interval and to cause the other picture making device to take a picture at the end of the measured time interval, substantially as described.

4. A speed measuring device, having, in combination, means for taking two pictures and for determining the time interval between, substantially as described.

942,133. SOLE-PRESSING PAD. HERMAN A. DAVENPORT, Brockton, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Oct. 9, 1905. Serial No. 281,923.



1. A sole pressing pad, having, in combination, a forepart of yielding elastic material and a heel part of yielding elastic material substantially harder than the fore part.

2. A sole pressing pad, having, in combination, a forepart of soft rubber and a heel part of substantially harder rubber.

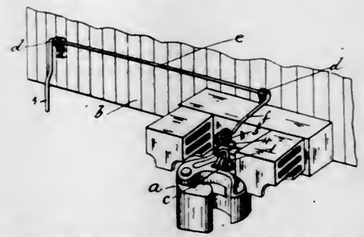
3. A sole pressing pad, having, in combination, a forepart and a heel part of yielding elastic material, the heel part being shaped to bear against the sole of a shoe inside of the edge of the heel seat.

4. A sole pressing pad, having, in combination, a forepart of soft rubber and a heel part of substantially harder rubber shaped to bear against the sole of a shoe inside of the edge of the heel seat.

5. A sole pressing pad, having, in combination, a forepart and a heel part of yielding elastic material, and a covering of leather molded to the shape of the working faces of the heel and foreparts.

[Claims 6 to 9 not printed in the Gazette.]

942,134. UNCOUPLING-CHAIN FOR CAR-COUPLINGS. GEORGE G. DAVIS, Indianapolis, Ind. Filed Oct. 16, 1908. Serial No. 458,021.

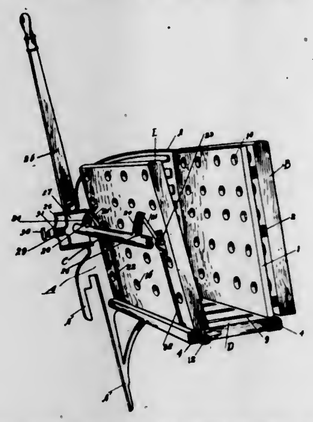


The combination with a car-coupler lock and uncoupling-lever, of an uncoupling-chain having a link adapted to be coupled to the lock and elongated in the direction of the longitudinal movement of the coupler, and a link integral with the first named link and adapted to be coupled to the said lever, substantially as described.

942,135. MOP-WRINGER. MILTON E. DAVIS, Canastota, N. Y. Filed Mar. 25, 1908. Serial No. 423,255.

1. A device of the character described having a presser-back resiliently mounted, a bottom loosely supported and

a presser, with means for operating the latter toward and from the presser-back, the said means comprising lever connections having one member bearing with spring pressure on another thereof, substantially as described.



2. A device of the character described having a resiliently mounted presser-back and a reciprocally movable presser, a bottom member pivotally supported with relation to the two, the bottom being slotted and fingers mounted on the presser-back and on the presser projecting into the slots of the bottom, substantially as described.

3. In a device of the character described, the combination with side brackets, a bottom and a back suitably connected, of a reciprocally moving presser and means for moving the said presser, the said means comprising lever members adapted by positive engagement with each other to move the presser a portion of its distance and having resilient means on one of said members and bearing on the other in the operation of the device to complete the movement of the presser, with increased leverage toward the end of the stroke, substantially as described.

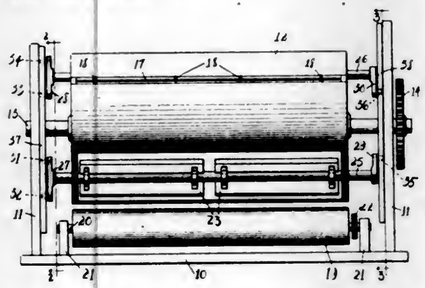
4. In a device of the character described, side brackets, a back secured thereto, a bottom swingably mounted relative to the back and to the presser, a presser mounted to be reciprocated between the brackets, and means mounted on the presser and engaging the bottom whereby loosely to support the same, substantially as described.

5. In a device of the character described, the combination of presser members mounted to compress the mop, with a yielding pressure on both sides upon the latter, one of the presser members being movable and having means for reciprocating it, said means consisting of lever members, one which bears against a spring carried by the connected member, substantially as described.

[Claims 6 to 11 not printed in the Gazette.]

942,136. ROTARY FOLDER FOR PRINTING-PRESSES. WILLIAM H. DE BUSK, Chicago, Ill. Filed Jan. 20, 1909. Serial No. 473,236.

1. In a rotary folder, the combination with a rotary carrier, a folding blade adapted to rotate therewith and mounted revolubly relatively thereto, a bearing stud revoluble with said folding blade relative to said carrier, and means adapted to engage said bearing stud as said carrier rotates and thereby to turn said folding blade, of a second bearing stud revoluble with said folding blade relative to said carrier and positioned in a plane which passes through the folding blade axis at an angle to the plane which passes through said first-mentioned bearing stud and said folding blade axis, and means adapted to engage said second bearing stud as said carrier rotates and thereby to turn said folding blade, each turning means and its coöperating bearing stud being adapted to turn said folding blade into and past the position at which the plane passing through the other of said bearing studs and through said folding blade axis is perpendicular to the circle of rotation of said rotary carrier.



2. In a rotary folder, the combination with a rotary carrier, a folding blade adapted to rotate therewith and mounted revolubly relatively thereto, a bearing stud revoluble with said folding blade relative to said carrier located in the plane passing through the edge and the axis of the folding blade, and means adapted to engage said bearing stud as said carrier rotates and thereby to turn said folding blade, of a second bearing stud revoluble with said folding blade relative to said carrier and positioned in a plane which passes through the axis of said folding blade at an angle to said first-mentioned plane, and means adapted to engage said second bearing stud and adapted by itself to positively turn said folding blade into and past its position perpendicular to the circle of rotation of said carrier.

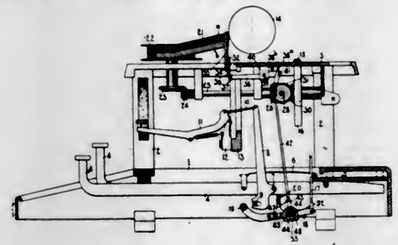
3. In a rotary folder, the combination with a rotary carrier, a folding blade adapted to rotate therewith and mounted revolubly relative thereto, a bearing stud revoluble with said folding blade relative to said carrier, and means adapted to engage said bearing stud as said carrier rotates and thereby to turn said folding blade, of a second bearing stud revoluble with said folding blade relative to said carrier and positioned in a plane which passes through the axis of said folding blade at an angle to the plane which passes through said first-mentioned bearing stud and through said folding blade axis and also at an angle to the plane which passes through the edge and the axis of the folding blade, and means adapted to engage said second bearing stud as said carrier rotates and thereby to turn said folding blade into and past the position at which said plane passing through said first-mentioned stud and said folding blade axis is perpendicular to the circle of rotation of said rotary carrier.

4. In a rotary folder, the combination with a rotary carrier, a folding blade adapted to rotate therewith and mounted revolubly relatively thereto, a bearing stud revoluble with said folding blade relative to said carrier, and a cam adapted to engage said bearing stud as said carrier rotates and thereby to turn said folding blade, of a second bearing stud revoluble with said folding blade relative to said carrier and positioned in a plane which passes through the folding blade axis at an angle to the plane which passes through said first-mentioned bearing stud and said folding blade axis, and a cam adapted to engage said second bearing stud as said carrier rotates and thereby to turn said folding blade, that portion of each cam which is being traversed by one of said bearing studs immediately before and after the time when the plane which passes through the other of said bearing studs and through the folding blade axis is perpendicular to the circle of rotation of the carrier being relatively very effective to turn said folding blade without a blow or violent contact of parts by reason of being at an advantageous angle relative to the direction of movement of the blade shaft taken in connection with the relative positions of the blade shaft and the bearing stud upon which said cam is acting.

5. In a rotary folder, the combination of a rotary carrier, a folding blade adapted to rotate therewith and mounted revolubly relatively thereto, and means adapted to turn said folding blade, said means comprising a bearing stud revoluble with said folding blade and positioned outside the plane passing through the edge and the axis of the folding blade and in a plane intersecting said first-mentioned plane at right angles along a line intermediate the edges of the blade, and a stationary cam adapted to act upon said bearing stud and adapted by itself to positively turn said folding blade into and past a position perpendicular to the circle of rotation of said folding blade with said rotary carrier.

[Claims 6 to 15 not printed in the Gazette.]

942,137. TYPE-WRITING MACHINE. JACOB FELBEL, New York, N. Y., assignor to Union Typewriter Company, Jersey City, N. J., a Corporation of New Jersey. Filed Sept. 17, 1906. Serial No. 334,916.



1. In a typewriting machine, the combination with a ribbon normally removed from the printing point, of means for causing the ribbon to cover the printing point at printing operations, said means comprising an actuating device, a device actuated by said actuating device, and a connection between said devices, said connection being capable of imparting different extents of movement to said actuated device and to the ribbon and said connection being always connected with said devices at the same places or points on said devices.

2. In a typewriting machine, the combination with a ribbon normally removed from the printing point, of means for causing said ribbon to cover the printing point at printing operations, said means comprising an actuating device, a device actuated by said actuating device, and a connection between said devices, said connection being adjustable at will to vary the movement of the ribbon and said connection being always connected with said devices at the same places or points on said devices.

3. In a typewriting machine, the combination of a ribbon vibrator having a single normal position, a key actuated universal bar, and actuating connections between said parts, one member of which is a rotatively-mounted device adjustable to vary the throw of the vibrator without altering the normal position thereof.

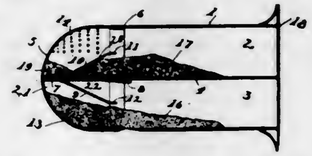
4. In a typewriting machine, the combination of a ribbon normally removed from the printing point, a key actuated universal bar, and devices between the universal bar and ribbon for vibrating the latter at printing operations, said devices comprising a rotatively-mounted connection adjustable to vary the vibratory movement of the ribbon without altering the normal position of the latter.

5. In a typewriting machine, the combination of a ribbon vibrator, a key actuated universal bar, connections between said vibrator and said universal bar, said connections including an eccentric for varying the throw of the vibrator, said eccentric forming an element of the connections.

[Claims 6 to 28 not printed in the Gazette.]

942,138. CONDIMENT-SHAKER. EDWIN GEBHARDT, Cincinnati, Ohio. Filed Mar. 30, 1908. Serial No. 424,178.

In a shaker for condiments, a receptacle provided with a division wall to divide the receptacle into two compartments, a cover for this receptacle perforated to permit the discharge of the condiments, the said cover provided with a partition to register with the division wall of the receptacle, and inclined plates secured on each side of the cover partition and extending downwardly and away from said partition across each receptacle, substantially midway of the sides to prevent the discharge of the condiment from the uppermost compartment when the shaker is inverted to



discharge the contents from the other compartment, at the same time to permit free passage into the cover from the lower compartment when so inverted, said cover having an imperforate central zone on each side of the cover partition to serve as an additional receptacle for the condiment to be retained.

942,139. HANDPIECE FOR VACUUM CLEANING SYSTEMS. CARL R. GREEN, Dayton, Ohio, assignor to The National Vacuum Cleaning Company, Dayton, Ohio, a Corporation of Ohio. Filed Feb. 8, 1908. Serial No. 414,968.



1. A hand piece for vacuum cleaning apparatus, comprising a member having an inverted U shaped passage therein for the current of dust laden air, the bend of said U shaped passage being uppermost, and in view of the operator, said bend being of transparent material whereby the movement of the dust particles through the same may be observed, the line of the walls of said U shaped passage being substantially continuous throughout, substantially as specified.

2. In a hand piece for vacuum cleaning apparatus, an upward extending intake pipe, said pipe terminating at its upper extremity in a chamber, a septum dividing said chamber into two semi-circular compartments with one of which compartments said intake pipe communicates, a pipe leading from the other compartment, a cap of transparent material on the upper extremity of said chamber and communicating with each of said semi-circular compartments, the combined transverse area of said compartments being substantially equal to the transverse area of the cap, substantially as specified.

3. In a device as described, a hand piece comprising an intake pipe, an offtake pipe arranged angularly with relation to said intake pipe and adapted to form a hand hold for the device and a transparent cap located above the offtake pipe and connecting the intake, and offtake passages, the walls thereof registering with the external walls of said passages, substantially as specified.

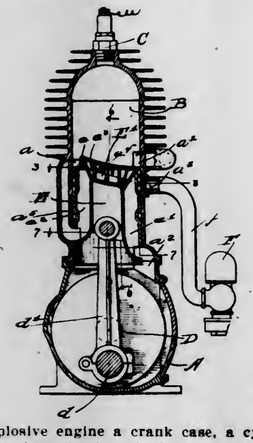
4. In a hand piece for vacuum cleaning apparatus, an intake pipe, a removable head on said intake pipe having therein two parallel passages, a transparent cap on said head with which each of said passages communicates, the walls of said cap registering with the walls of said passages and forming therewith a continuous U shaped con-

duit, said intake pipe communicating with one of said passages and a pump communicating with the other passage, substantially as specified.

5. In a hand piece for a vacuum cleaning system, an intake pipe, a head removably connected thereto, a septum dividing said head into two passages, the intake pipe communicating with one of said passages, an offtake pipe integral with said head and arranged angularly therewith, said offtake being adapted to form a hand hold and communicating with the other of said passages, and a transparent cap on said head forming a means of communication between the respective passages of said head, substantially as specified.

[Claims 6 to 9 not printed in the Gazette.]

942,140. EXPLOSIVE-ENGINE. JOHN D. HAY, Chicago, Ill., assignor of one-half to William R. Donaldson, Chicago, Ill. Filed Nov. 2, 1906. Serial No. 341,720.



1. In an explosive engine a crank case, a cylinder secured thereto, a piston in the cylinder containing a chamber in its head and exposing a relatively thin wall to the combustion of the charge, said piston provided with passages on opposite sides thereof, the lower ends of which open outwardly through the wall of the piston, a plurality of ports on opposite sides of the cylinder, one adapted to admit the explosive mixture into one of the passages in the piston at the outer limit of movement of the piston, a passage connecting the ports on the opposite side of the cylinder from said admission port, adapted to admit the explosive mixture from the piston to the crank case and means for admitting the explosive mixture in the crank case into one of the passages in the piston for admission into the combustion chamber in the cylinder.

2. In an explosive engine a piston containing a transverse chamber in its head lying close to the combustion surface of the piston and having passages opening therein at one end on opposite sides of the piston, said passages opening downwardly and outwardly through the sides of the piston only at the lower ends thereof, and pins extending across the chamber and connecting opposite walls.

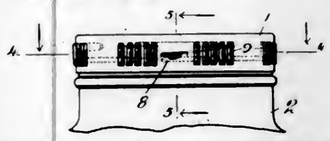
3. In an explosive engine, a crank case, a cylinder secured thereto, a piston containing a chamber, passages terminating at one end in the chamber and extending downwardly and ported through the sides of the piston, inlet ports, one for the crank case and one for the cylinder, adapted to communicate at different times with one of the passages and connected by a passage through which and the piston the explosive fluid flows at the ends of each stroke of the piston, and ports, one opening through the cylinder and one opening from the crank case adapted to communicate at different times with the other passage in the piston.

4. A piston for the purposes specified having a chamber in its head affording an upper thin wall exposed to the combustion of the charge and a lower thin wall, passages leading from the chamber and ported outwardly through the sides of the piston near its lower end, and mixing and radiating fins or pins integral with the walls of the chamber in the head of the piston.

5. In an explosive engine a crank case, a cylinder secured thereto, oppositely disposed inlet ports in the cylinder, a piston in said cylinder having a continuous passage leading from the lower end of the piston on one side thereof upwardly beneath the head and extending downwardly on the opposite side of the piston, said passage only at the lower ends opening through the sides of the piston and adapted to register with the oppositely disposed inlet ports to admit the explosive fluid therethrough, and a passage leading downwardly from one of said inlet ports adapted to open into the lower end of the cylinder when the piston is at its upper limit of movement admitting the explosive mixture into the crank case for initial compression.

[Claims 6 to 15 not printed in the Gazette.]

942,141. JAR AND BOTTLE CLOSURE. EDMUND HOFFMAN, New York, N. Y., assignor to American Stopper Company, a Corporation of New Jersey. Filed Jan. 5, 1909. Serial No. 470,748.



1. The combination of a jar and a cap having an annular pendent flange and means for attaching the cap and jar together comprising an inwardly and upwardly inclined lug on the cap flange and a groove on the jar having an inwardly and upwardly inclined abutment for coöperation with said lug.

2. The combination of a jar having a plurality of grooves formed in its upper edge, each groove comprising an enlarged opening, a gradually contracting extension from the opening and a lower and upwardly inclined wall, and a cap having a pendent annular flange and a coöperating series of inwardly and upwardly extending lugs adapted to be entered into said grooves and engage the same.

3. The combination with a jar having grooves formed in its exterior with inclined lower walls and gradually decreasing in diameter, of a cap having a pendent annular flange, inwardly and upwardly inclined lugs formed in the flange, with the angle of inclination corresponding with that of the lower wall of the grooves and bearing thereagainst, the upper edge of said lugs being inclined to the horizontal.

4. In a device of the class described, a jar or bottle neck having bayonet-joint like grooves with inclined lower edges.

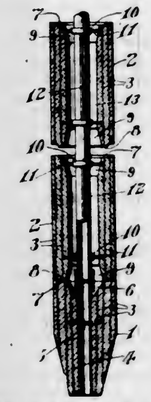
5. In a device of the class described, a bottle neck having bayonet-joint like grooves with inclined lower edges, and a cap with lugs struck therefrom having surfaces adapted to engage said bevel edges and force the top of said lugs against the upper wall of said bayonet-joint like grooves.

[Claim 6 not printed in the Gazette.]

942,142. REINFORCED-CONCRETE PILING. JAMES P. HOLMES, Ocean City, N. J. Filed Feb. 5, 1909. Serial No. 476,223.

1. A pile comprising tubular sections, having tongue and groove connection between them, said sections having enlarged recesses at their adjacent ends, adapted to receive a filling of concrete therein.

2. In a pile, the combination with a lower section, of a pipe anchored in and extending through said lower section and having a screw threaded upper end, an upper section constructed to form a tight joint with the lower section, a removable water supply pipe projected through the upper section and screwed onto the pipe in the lower section, and collars carried by the upper section and movable on said removable pipe, to guide the upper section into position on the lower section.



3. A pile composed of sections of reinforced concrete, a water supply pipe anchored in and extending through the lowest section and projecting upwardly into a recess in the upper end of the lower section, a tubular upper section constructed to fit upon the lower section, and having a recess in its lower end, a removable pipe constructed to pass through the upper section and connected with the pipe in the lower section for the admission of water thereto, and said sections adapted to receive a filling of cement, locking them together to form a continuous pile.

4. A pile comprising tubular sections, having tongue and groove connection between them, said sections having enlarged recesses at their adjacent ends adapted to receive a filling of concrete therein, and said sections having registering grooves in their opposite faces, connecting bars, and tongues on said connecting bars adapted to enter the grooves in the piles to form a wall.

5. A pile comprising tubular sections, having tongue and groove connection between them, said sections having enlarged recesses at their adjacent ends adapted to receive a filling of concrete therein, and said sections having registering grooves in their opposite faces, connecting bars, and tongues on said connecting bars adapted to enter the grooves in the piles to form a wall, said pile sections having registering grooves midway between the first mentioned grooves, an inclined pile or post having a groove therein, and props having tenons at their ends adapted to enter the last mentioned groove in said pile sections and in the inclined post or pile, substantially as and for the purpose set forth.

942,143. CATENARY SUSPENSION SYSTEM FOR THE TROLLEY-WIRES OF ELECTRIC RAILWAYS. KALMAN VON KANDO, Vado Ligure, Italy, assignor to George Westinghouse, Pittsburg, Pa. Filed Oct. 2, 1908. Serial No. 455,933.



1. In a catenary suspension system for trolley wires of electric railways, the combination of a supporting arm, an insulator secured thereto and an intermediate member carried by said insulator to which the suspension wire is adjustably secured.

2. In a catenary suspension system for trolley wires of electric railways the combination of a supporting arm, an insulator secured thereon, an intermediate member carried by said insulator, a clamp adapted to secure the suspension wire to said intermediate member and means for regulating the height of said clamp.

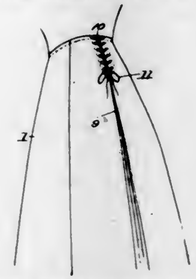
3. In a catenary suspension system for trolley wires of electric railways, the combination of a supporting arm, an insulator secured to, but laterally adjustable thereon, an intermediate member carried by said insulator, a clamp adapted to secure a suspension wire to said intermediate member and means for regulating the height of the said clamp.

4. In a catenary suspension system for trolley wires of electric railways, the combination of a supporting arm, an insulator secured thereon, a notched intermediate member carried by said insulator, a clamp adapted to secure a suspension wire against the notched part of said intermediate member and means for regulating the height of said clamp.

5. In a catenary suspension system for trolley wires of electric railways, the combination of a supporting arm, an insulator secured thereon, a slotted intermediate member carried by said insulator, a clamp adapted to secure a suspension wire to the intermediate member and a bolt passing through the clamp and slot in the intermediate member by which the height of the clamp can be adjusted, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

942,144. GARMENT. MEYER LANG, Louisville, Ky. Filed Aug. 7, 1909. Serial No. 511,765.



1. A skirt formed with an opening at or near the front, and having an inverted box plait in the back thereof, said plait formed to produce spaced edges giving the appearance of an opening, each of said edges being provided with a series of vertically arranged eyelets, and lacing passed through said eyelets and through the plait at or near the upper edge thereof for preventing the said upper edge from sagging or dropping down.

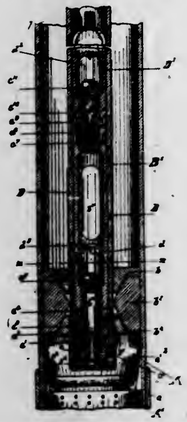
2. A skirt formed with an opening at or near the front, and having an inverted box plait in the back thereof, said plait formed to produce spaced edges giving the appearance of an opening, each of said edges being provided with a series of vertically arranged eyelets, lacing passed through said eyelets and through the plait at or near the upper edge thereof for preventing the said upper edge from sagging or dropping down, and reinforcing material arranged along the side and upper edges of the plait through which the eyelets and lacing pass.

942,145. PUMP. CHARLES F. PRESLAR, Norwood, Ohio. Filed Sept. 9, 1907. Serial No. 391,948.

1. In a compressed-air elevator for liquids, a well-casing, an independent discharge pipe maintained axially therein and extending into the body of water to be lifted; annular packings with an interval between, seated on the periphery of the discharge pipe and expansible radially to seat against the inner wall of the casing to form between them in said interval a closed annular chamber; an open tube section removably seated in said discharge pipe, and provided with diaphragm valve-seats at opposite sides of a radial opening in the discharge pipe into said annular chamber; lifting check-valves seating on said valve seats, and one or more air pipes extending through the upper packing into the annular chamber.

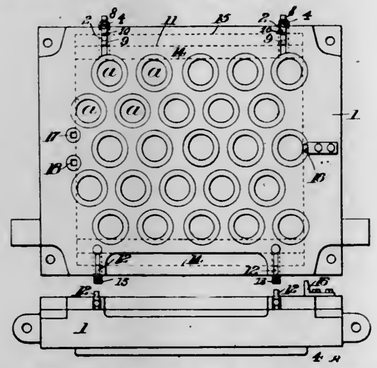
2. In a compressed-air elevator for liquids, a well casing adapted to be projected into the body of water to

be lifted; an independent discharge pipe maintained axially within the casing approximately to the bottom thereof; annular packings arranged with an interval between near the bottom of the discharge pipe and expansible radially to seat against the inner wall of the casing to form between the packings a closed annular chamber; and an open tube section removably seated in



said discharge pipe, and provided with diaphragm valve-seats at opposite sides of a radial opening between the interior of the tube section between the valves into said annular chamber; lifting check valves seated on said diaphragm seats; and air-admission and exhaust pipes carried downward in the well casing outside of the discharge pipe into the annular space between the packings.

942,146. DIE-CUTTING MACHINE. DANIEL P. ROBINSON, Baltimore, Md., assignor to Continental Can Company, Baltimore, Md., a Corporation of New Jersey. Filed Feb. 23, 1909. Serial No. 479,556.



1. A die-cutting machine, including in combination a gang of dies, interchangeable gages at the rear of the machine for differently locating a sheet relative to said dies for two separate operations of said dies, a gage at the front of the machine for differently locating said sheet relative to said dies for another operation of said dies, and means at the end of the machine for positioning the end of said sheet.

2. A die cutting machine including in combination, a gang of dies, interchangeable gages at the rear of the machine for differently locating a sheet relative to said dies for two separate operations of said dies, a gage at the front of the machine for differently locating said sheet relative to said dies for another operation of said dies, and means for locating the sheet in the same endwise position relative to the dies for each operation.

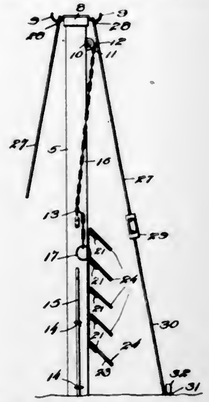
3. A die cutting machine, including in combination, a gang of dies arranged in parallel rows crosswise of the machine with the dies in adjacent rows staggered relative to one another, and the space between the dies in each row slightly greater than the diameter of said dies, means for locating the sheet in three different positions crosswise of the machine for three different operations of said dies, and means for locating the sheet in the same endwise position relative to the dies for each operation.

4. A die-cutting machine, including in combination, a gang of dies arranged in parallel rows crosswise of the machine with the dies in adjacent rows staggered relative to one another, and the space between the dies in each row slightly greater than the diameter of said dies, interchangeable gages at one side of the machine for differently locating a sheet for two different operations of the dies, a gage at the other side of the machine for locating the sheet for another different operation of the dies, and means for locating the sheet in the same endwise position relative to the dies for each operation.

5. A die-cutting machine, including in combination, a gang of dies, a gage having two gaging surfaces, means whereby either of said gaging surfaces may be brought into operative relation to said dies, and means for locking said gaging surfaces in operative position.

[Claim 6 not printed in the Gazette.]

942,147. SNOW-FENCE. HERMAN J. SCHWEITZER, Putney, S. D. Filed Apr. 10, 1909. Serial No. 489,059.



1. In combination, two hollow standards each having a lengthwise positioned slot, a pliable member held within each standard, a plurality of carrying sleeves fixed to each pliable member and held in spaced relation, a bracket secured to each sleeve and projecting beyond the slot of the standard, and a plurality of panels, each panel being carried by two oppositely positioned brackets.

2. In combination, two hollow standards each having a lengthwise positioned slot, a pliable member held within each standard, a plurality of carrying sleeves fixed to each pliable member and held in spaced relation, a bracket secured to each sleeve and projecting beyond the slot of each standard, a plurality of panels each panel being carried by two oppositely positioned brackets, and means to adjustably hold said pliable members.

3. In combination, two hollow standards each having a lengthwise positioned slot, a pliable member held within each standard, a plurality of brackets carried by each pliable member, and a plurality of panels, each panel being carried by two oppositely positioned brackets.

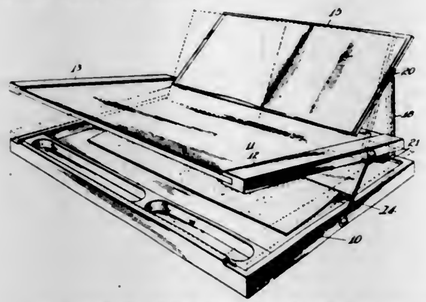
4. In combination, two hollow standards each having a lengthwise positioned slot, a pliable member held in each

standard, a plurality of carrying means fixed to each pliable member and held in spaced relation, a bracket secured to each pliable member and projecting beyond the slot of the standard, all of said brackets extending in like direction, a plurality of panels each panel being carried by two oppositely positioned brackets, and means to adjustably hold said pliable members.

5. In combination, two hollow standards each having a lengthwise positioned slot, a carrying member held within said standard, a plurality of brackets fixed to each carrying member and held in spaced relation, said brackets extending obliquely from said carrying members, and a plurality of panels carried by said obliquely extending brackets.

[Claims 6 to 13 not printed in the Gazette.]

942,148. PORTABLE WRITING AND DRAWING DESK. TRUMAN E. STARK, Naperville, Ill. Filed Nov. 11, 1908. Serial No. 462,131.



1. In a portable drawing and writing desk, in combination, a base, a cover hinged to the base by links attached to the ends of said parts, an easel hinged to the inner face of the cover near one of its edges, and a leg for the easel hinged thereto and to the base, such leg comprising a rod pivotally attached to the base adjacent one of its edges and having its ends bent laterally and pivotally engaged with the side edges of the easel.

2. In a portable drawing and writing desk, in combination, a base, a cover hinged to the base by links attached to the ends of said parts, an easel hinged to the inner face of the cover near one of its edges, and a leg for the easel hinged thereto and to the base, such leg comprising a rod housed in a channel in the base adjacent one of its edges and having its ends bent laterally and pivotally engaged with the side edges of the easel.

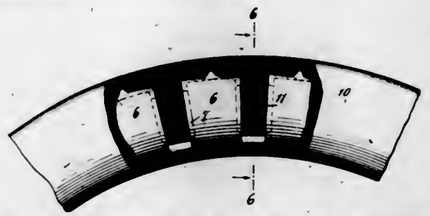
3. In a drawing and writing desk, in combination, a base having a longitudinal channel in its lower face and apertures opening through its upper face at the ends of the channel, a reversible cover connected to the base by links pivotally attached to the ends of such members, an easel hinged to the inner face of the cover, and a leg for the easel comprising a rod housed within the channel and having its end portions bent upwardly and forwardly and inwardly, the inturned ends entering the side edges of the easel as pivots.

942,149. TIRE. JOSEPH C. TAYLOR, New York, N. Y. Filed June 11, 1906. Serial No. 321,209.

1. A tire having an outer tube and a plurality of resilient, non-inflatable, metallic tube-sections therein, each of said tube-sections having a projection thereon coacting with the outer tube to hold the section against displacement, substantially as set forth.

2. A tire having an outer tube, a plurality of resilient, non-inflatable, metallic tube-sections therein spaced apart around the tube, and means lying between said sections for limiting the extent to which said tube may be depressed, each of said tube-sections having a projection thereon coacting with the outer tube to hold the section against displacement, substantially as set forth.

3. A tire having an outer tube and a plurality of resilient, non-inflatable, metallic tube-sections therein, said outer tube having a plurality of inwardly extending parts thereon limiting the extent to which it may be depressed and each of said sections having a projection thereon coacting with the outer tube to hold the section against displacement, substantially as set forth.

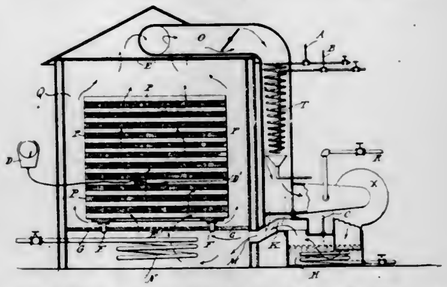


4. A tire having an outer tube, a plurality of resilient, non-inflatable, metallic tube-sections therein, each of cylindrical form and consisting of a single piece of metal, and projections integral with said tube extending inwardly of the tube a substantial distance spacing said sections apart and limiting the extent to which the outer tube may be depressed, substantially as set forth.

5. A tire having an outer tube, a plurality of resilient, non-inflatable, metallic tube-sections therein spaced apart around the tube, and means lying between said sections for limiting the extent to which said tube may be depressed, each of said sections consisting of a single piece of metal of cylindrical form and of greater width on the tread side than on the opposite side and each having integral inwardly-extending teeth at its ends, substantially as set forth.

[Claims 6 to 11 not printed in the Gazette.]

942,150. PROCESS OF RAPIDLY DRYING TIMBER AND OTHER MOISTURE-BEARING SUBSTANCES. HARRY D. TIEMANN, New Haven, Conn. Filed July 1, 1909. Serial No. 505,454. (Dedicated to the public.)



1. In the process of drying wood and other moisture-bearing substances, an improvement consisting in the combination and sequence of the following operations: heating the substance by means of a non-oxidizing gas or gases mixed with a certain amount of water vapor until the substance is uniformly or nearly uniformly heated throughout, then followed by cooling in the presence of or by means of the same or other gas or gases containing less water vapor, and repeating this same said sequence of operations until the desired effect and degree of dryness are obtained.

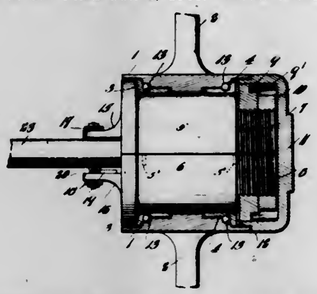
2. In the process of drying wood and other moisture bearing substances, an improvement consisting in the combination and sequence of the following operations: heating the substance by means of a non-oxidizing gas or gases at or near atmospheric pressure mixed with a certain amount of water vapor, until the substance is thoroughly heated through, then followed by cooling at or near atmospheric pressure by means of or in the presence

of the same or other gas or gases containing less water vapor, and repeating this same said sequence of operations until the desired effect and degree of dryness are obtained.

3. In the process of drying wood and other moisture-bearing substances, an improvement consisting in the combination and sequence of the following operations:—heating the substance by means of a non-oxidizing gas or gases mixed with a certain amount of water vapor at pressure greater than atmospheric until the substance is thoroughly heated through, then followed by cooling at reduced pressure by means of or in the presence of the same or other gas or gases containing less water vapor, and repeating this same said sequence of operations until the desired effect and degree of dryness are obtained.

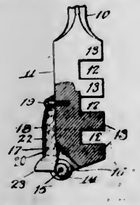
4. In the process of drying wood and other moisture-bearing substances, an improvement consisting in the combination and sequence of the following operations: heating the substance by means of a non-oxidizing gas or gases mixed with a certain amount of water vapor until the substance is uniformly or nearly uniformly heated throughout, then followed by cooling in the presence of or by means of the same or other gas or gases containing less water vapor, and repeating this said sequence of operations and increasing the temperature to which the substance is heated as the substance approaches dryness, until the desired effect and degree of dryness is obtained.

942,151. AUTOMOBILE-AXLE. MACK D. TINDAL, Columbia, S. C. Filed Oct. 5, 1908. Serial No. 456,172.



In a wheel and axle construction, a main horizontal shaft provided with a circular head, a hub, comprising two separable semi-cylindrical sections and provided with registering recesses arranged to receive said head, a vertical shaft constituting a retaining bolt for said separable members arranged to pass through an opening in said head, vertical rollers between said vertical shaft and said head, a collar disposed on said shaft at the upper and lower ends of said rollers, bearing plates and space plates arranged to fit over said collars and to be held in a recess in said hub together with a guide member arranged concentrically of said vertical shaft, and means on said horizontal shaft, to coöperate with said guide member.

942,152. GLASS-CUTTER. JAMES W. TUCKER, Chicago, Ill. Filed Jan. 4, 1909. Serial No. 470,705.



1. As a new article of manufacture, a glass cutter comprising a handle having a cutter wheel journaled therein and provided with a partially exposed wad of absorbent material contacting with the cutter wheel and arranged to apply oil directly thereto.

2. As a new article of manufacture, a glass cutter having a rotary cutting device journaled in one end, and a partially exposed wad of absorbent material secured in place adjacent to and contacting with the cutting device and adapted to apply oil directly thereto.

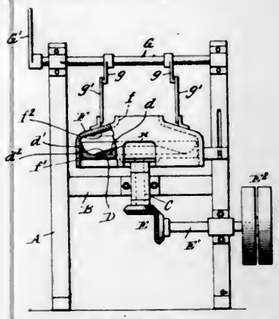
3. As a new article of manufacture, a glass cutter, having a rotary cutter wheel journaled therein, a partially exposed oil applicator secured adjacent to and contacting with the cutter wheel for applying oil directly thereto.

4. As a new article of manufacture, a glass cutter having a rotary cutting wheel journaled therein, a partially exposed wad of absorbent material arranged adjacent to and contacting with the cutter wheel for applying oil directly thereto, and a suitably supported clip for holding said absorbent material in place, said clip partially inclosing the absorbent material.

5. As a new article of manufacture, a glass cutter having a rotary cutter wheel journaled therein, and a suitably supported and partially exposed wad of absorbent material for containing oil and in which the cutter wheel is partially embedded.

[Claims 6 to 10 not printed in the Gazette.]

942,153. DOUGH MOLDING OR SHAPING MACHINE. FRANK H. VAN HOUTEN, Fishkill-on-the-Hudson, N. Y., assignor to Dutchess Tool Company, Fishkill-on-the-Hudson, N. Y., a Corporation of New York. Filed June 4, 1908. Serial No. 436,674.



1. A dough forming machine, embodying a rotary head constituting one forming surface and a relatively fixed cover constituting the other forming surface said surfaces being substantially parallel and an unbroken annular peripheral confining wall, whereby the lump of dough being formed is held against radial movement under the influence of centrifugal force.

2. An apparatus for forming dough embodying a rotary head having an upwardly extending unbroken annular peripheral flange and a coöperating former movable toward and from the rotary head, and between which and the rotary head the lump of dough being formed is confined said coöperating former having a central entrance opening and a peripheral exit opening for the lumps of dough.

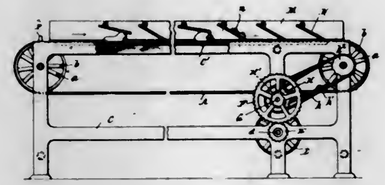
3. An apparatus for forming dough embodying a horizontal rotary head having an upwardly extending annular unbroken peripheral flange a coöperating former having a central entrance opening and a peripheral flange for inclosing the head, the opposing forming faces of the former and head being arranged in substantial parallelism and means whereby the head and coöperating former may be separated to discharge the dough.

4. A dough forming machine embodying a rotary head of relatively small diameter mounted on a vertical axis and having a forming face downwardly inclined from the axis and a confining wall curving upwardly into a peripheral flange and a coöperating former having a downwardly extending peripheral flange and a forming face lying in substantial parallelism with the forming face of the rotary head.

5. A dough forming machine embodying a rotary head mounted on a vertical axis and having a dish-shaped recess in its upper face, of a coöperating former movable toward and from the head and having a centrally arranged entrance aperture for the dough to be formed.

[Claim 6 not printed in the Gazette.]

942,154. MACHINE FOR ROUNDING-UP LUMPS OF DOUGH IN THE MANUFACTURE OF BREAD. FRANK H. VAN HOUTEN, Jr., Fishkill-on-the-Hudson, N. Y., assignor to Dutchess Tool Company, Fishkill-on-the-Hudson, N. Y., a Corporation of New York. Filed Feb. 18, 1909. Serial No. 478,646.



1. In a rounding up machine, the combination of the following instrumentalities, to wit: a pair of parallel belts with means for moving the same in the same direction at a differential speed, and a longitudinally fixed contacting surface located in proximity to the belts, the arrangement being such that a lump of material supported on the belts and rotated on a substantially perpendicular axis by the differential movement of the belts will contact with said surface.

2. In a rounding up machine, the combination of the following instrumentalities, to wit: a plurality of supporting surfaces arranged side by side, means for imparting differential movement to said surfaces simultaneously in the same direction and a contacting surface extending longitudinally of said surfaces, the arrangement being such that a lump of material lying on both said supporting surfaces and advanced thereby will coöperate with said contacting surface.

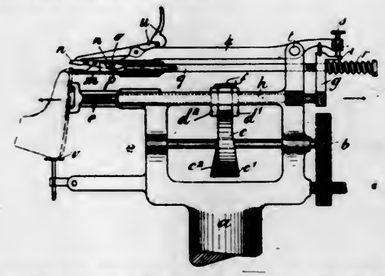
3. In a rounding up machine, the combination of the following instrumentalities, to wit: a plurality of longitudinally movable supports arranged side by side, means for imparting differential movement to said supports simultaneously in the same direction, a longitudinally extending contacting surface lying in proximity to the slower moving support and with which the lump contacts to maintain its engagement with the more rapidly moving surface.

4. In a rounding up machine, the combination of the following instrumentalities, to wit: a plurality of longitudinally movable supporting surfaces arranged side by side, means for imparting differential movement to said surfaces simultaneously in the same direction, a longitudinally extending contacting surface adjustably mounted in proximity to the slower moving supporting surface and with which the lump contacts to maintain its position in engagement with the more rapidly moving supporting surface.

5. In a rounding up machine, the combination of the following instrumentalities, to wit: longitudinally movable supporting surfaces arranged side by side and extending in the same plane, means for imparting differential movement to the said surfaces simultaneously in the same direction, and a contacting surface overlying said supports and with which the upper portion of the lump carried by the supports contacts, whereby the upper portion of the lump is retarded and its surface smoothed in its passage under the contacting surface.

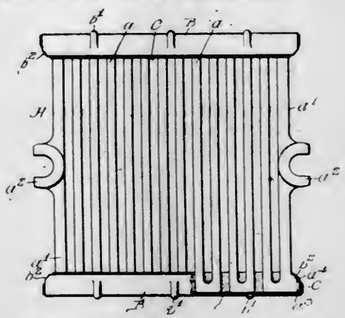
[Claims 6 to 10 not printed in the Gazette.]

942,155. PULLING-OVER MACHINE. HEINRICH WALTHER, Frankfort-on-the-Main, Germany. Filed July 30, 1909. Serial No. 510,377.



Pulling over machine comprising in combination with a last, pincers and a sole presser, a cam disk mounted in the machine frame cam faces on said cam disk one face actuating the sole presser the other opening and closing the pincers, means for actuating said cam disk and means for causing said pincers to turn inward as and for the purpose set forth.

942,156. GRID RESISTANCE. HENRY J. WIEGAND, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Mar. 29, 1909. Serial No. 486,513.



1. In combination, a grid resistance having lugs thereon, and a reinforcing strip placed over the edge of said grid and having portions bent around said lugs to retain the same on said grid.

2. In combination, a grid resistance having lugs formed on the end bars thereof, substantially U-shaped reinforcing strips placed over the edges of the grid, said reinforcing strips having portions thereof bent around said lugs.

3. In combination, a grid resistance having lugs formed on the end bars thereof, said lugs having an inclined face, reinforcing strips placed over the edges of said grid and having portions bent over the inclined faces of said lugs, and means for insulating the reinforcing strips from the grid.

4. In combination, a grid resistance having lugs formed on the end bars thereof, substantially U-shaped reinforcing strips placed over the edges of said grid, and insulating strips interposed between said reinforcing strips and said grid, said reinforcing and insulating strips having portions thereof bent around said lugs.

942,157. VAPOR ELECTRIC APPARATUS. HOWARD I. WOOD, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Jan. 18, 1904. Serial No. 189,413.

1. The combination of an exhausted envelop, electrodes therein one, at least, of which is adapted to emit vapor, a filament having one end resting on or in the vapor emit-

ting electrode, and positively operating means for moving the filament laterally out of engagement with said vapor emitting electrode.



2. In a vapor electric apparatus, the combination of a vaporizable electrode, a filament or similar flexible conductor having one end resting on said vaporizable electrode, an armature connected to the filament, and means for moving the armature so as to produce lateral motion of the filament.

3. In a vapor electric apparatus, the combination of an exhausted envelop, electrodes therein, a filament extending between said electrodes, and mica supports for said filament.

4. The combination of an inclined tube, an electrode in the upper end of the tube, an electrode in the lower end of the tube, a filament or similar conductor extending between said electrodes, an armature connected at one end of the filament, and means for moving said armature to produce lateral motion of the filament.

5. The combination of a tubular exhausted envelop, electrodes therein, a filament extending between said electrodes, and means connected to the filament for producing lateral movement thereof.

[Claims 6 to 11 not printed in the Gazette.]

942,158. SAFETY GAS-VALVE. FORREST YOCKEY and CHARLES D. MCLEOD, Sioux City, Iowa. Filed Mar. 27, 1909. Serial No. 486,234.



1. In an automatic cut-off for gas burners, a pillar having an opening in the upper side thereof, a tube of expansive material secured in said opening, a valve in said pillar, a lever pivoted therein and adapted to control said valve, and a wire in said tube adapted to permit the valve to open by the pressure of gas thereon or to hold said valve closed, according as heat is applied to or withdrawn from the tube and the tube expanded or contracted, as and for the purposes specified.

2. In an automatic cut-off for gas burners, a pillar having an opening in the upper side thereof, a tube of expansive material secured in said opening, a vertical valve in said pillar, a lever pivoted therein at one end and attached to said valve, said lever having a depression therein directly underneath said tube, and a wire resting in said depression extending through the tube to the top thereof and adapted to permit the valve to open by the pressure of gas thereon, or to hold said valve closed according as heat is applied to or withdrawn from the tube, and the tube expanded or contracted, as and for the purposes specified.

3. In an automatic cut-off for gas burners, a pillar, a tube of expansive material communicating with the interior thereof, said tube being closed at the outer end, a valve in said pillar and a stem adjustable to said valve, a lever pivoted therein and adapted to control said valve and stem, and a wire extending through said tube and resting against said lever and adapted to release the valve and permit the valve to open by the pressure of gas thereon or to hold said valve closed, as heat is applied to or withdrawn from the tube and the tube expanded or contracted, substantially as described.

942,159. INNER GARMENT. JEANNE W. APPLETON, New York, N. Y. Filed Jan. 18, 1909. Serial No. 472,811.

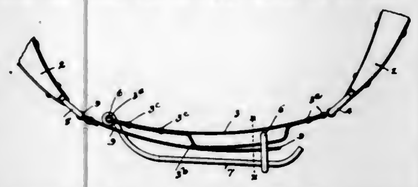


1. A garment of the character stated formed of separate pieces of rubber elastic material overlapped with the joints free to expand and contract, and means for suitably uniting the same.

2. A garment of the character stated comprising a body and legs continuous thereof, said members being formed of separate pieces of rubber elastic webbing, said pieces being adapted to overlap at their joints, means for connecting said pieces without interference with their ability to expand and contract, and means for respectively adjusting and closing said body and legs.

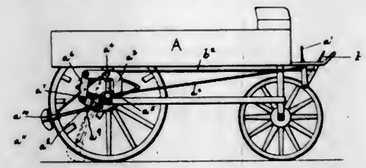
3. A garment of the character stated composed of an upper and a lower garment separable from each other and their adjacent portions overlapped, each garment composed of separate rubber elastic pieces with their adjacent edges overlapped, and vertical stays for connecting said pieces, leaving the joints and said pieces free to expand and contract.

942,160. HAME-FASTENING. JOHN H. BANKSON, Otterbein, Ind. Filed Feb. 13, 1909. Serial No. 477,678.



In a device of the character described, the combination with the hame members of a tongue plate pivotally connected to one of said members, said tongue plate having a number of spaced, centrally disposed perforations formed therein, a plate extension the material of which is bent to form a body portion 3, eyelets at each end of said body portion and an elongated loop or keeper 3^b depending from the underside of the body portion, the material of said extension being riveted together between said eyelets and said loop, a tongue pivotally connected to the end of the plate extension, the free end of said tongue being bent upwardly, and a ring slidable in said elongated keeper and adapted to hook over the upturned end of said tongue.

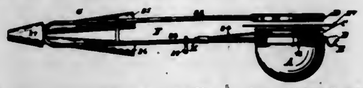
942,161. WHEEL-BLOCK. ANNA J. A. BENNETT, Seattle, Wash. Filed Nov. 5, 1908. Serial No. 461,180.



1. A brake mechanism for vehicles including brake-shoes, a bar carrying said brake shoes, a rod carried by said bar, a pair of levers, a connecting-rod, plurality of links joining the connecting-rod and previously mentioned rod, and a strap connecting the other lever and the shoe-carrying bar.

2. A brake mechanism for vehicles including brake-shoes, a bar carrying the same, a rod secured to said bar and engaging slotted angle-plates on the vehicle, a lever, a connecting-rod secured thereto, link connections between the previously mentioned rod and said connecting-rod, an additional lever, and a strap connecting said additional lever with the shoe-carrying bar.

942,162. SOUNDING TOY. JOHN BERG, Chicago, Ill. Filed July 6, 1909. Serial No. 506,064.



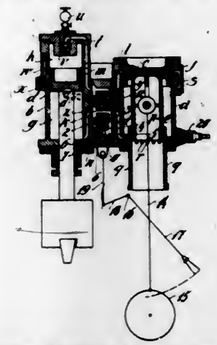
1. A toy, comprising a handle; a bow-shaped part to which said handle is affixed; an upper, cup-shaped, member having an opening in its bottom; a lower annular member having an inwardly-projecting flange; a resilient bag secured to said lower annular member, and suitable clamping-members adapted to hold the upper and lower members in proper juxtaposition said upper member being secured to one, and the lower member being fastened to the other, member of said bow-shaped part.

2. A toy, comprising a handle, said handle being an instrument adapted to emit a sound when blown into, a U-shaped part attached to said handle; an upper, cup-shaped, member, there being an opening in the bottom of said cup-shaped member; a lower annular member having a flange; a resilient, hemispherical shell secured to said lower annular member, and suitable clamping-devices adapted to hold the upper and lower members in proper juxtaposition, said members being secured to the U-shaped part, as described.

3. A toy, comprising a handle; a bow-shaped part to which said handle is attached; an upper, cup-shaped, member having an opening in its bottom; a lower, annular member having an inwardly-projecting flange; an intermediary member flexibly suspended between the upper and lower members, a clasp, hinged to said lower member and adapted to engage the said upper member, said upper and lower members being secured to said bow-shaped part, there being a clamp on one member of said bow-shaped part adapted for engagement with the other member of said bow-shaped part.

942,163. PNEUMATIC POWER-HAMMER. AUGUST BERNER, Munich, Germany. Filed Apr. 13, 1909. Serial No. 489,706.

1. In a pneumatic hammer, a pump cylinder, and a stuffing box cylinder of smaller diameter engaging one end of the pump cylinder, in combination, with a stepped piston fitting into the pump cylinder at one end and having a trunk fitting in and adapted to slide in the stuffing box cylinder, said stuffing box cylinder being provided with a communication leading into the annular space between the pump cylinder and the piston trunk, and arranged at a point where it will be exposed when the pump piston arrives near the end of its forward stroke, a communication between the head of the pump cylinder space and an intermediate portion of said cylinder space, adapted to be opened by the piston near the end of its forward stroke.



2. In a pneumatic hammer, a pump cylinder having a communicating passage between its head and an intermediate portion, and a stuffing box cylinder of smaller diameter engaging the end of the pump cylinder, extending a short distance within the same to form an annular space with the said pump cylinder, and provided with a series of ports extending from the interior of the said stuffing cylinder into the said annular space, in combination, with a stepped piston having an annular forward portion fitting into the pump cylinder, and a hollow trunk portion fitting into the stuffing box cylinder, the annular forward portion and the hollow trunk portion of said piston being of such length as to open the ports and the communicating passage at a point near the end of its forward stroke.

3. In a pneumatic hammer, an air compressing pump, a ram-cylinder, a ram piston adapted to reciprocate within the same, and a casing containing a valve device for controlling the communication between the upper and lower cylinder spaces of the pump and the ram, in combination, with a duct connecting an intermediate part of the ram cylinder with the valve casing, and a port in the valve device adapted to register with said duct, when the valve device has been shifted into the proper position.

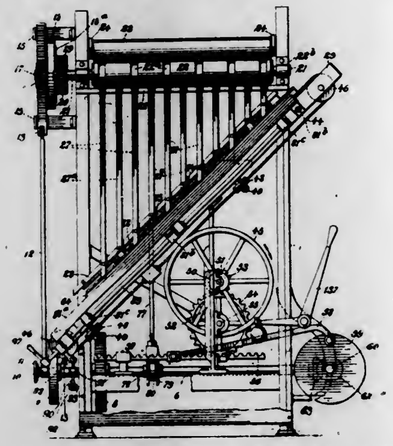
4. In a pneumatic hammer, an air compressing pump, a ram cylinder, a ram piston adapted to reciprocate within the same, and a valve cylinder arranged between the two and having ports for the communication between the forward and rear portions of the cylinder spaces of the pump cylinder and the ram cylinder, in combination, with a duct leading from an intermediate portion of the ram cylinder into the valve cylinder, and a slide valve slidably arranged within the valve cylinder and provided with communicating passages adapted to register with the ports of the same and with a transverse passage leading to the exterior and adapted to register with the said duct, whereby the ram piston may be raised only to a portion of its stroke.

5. In a pneumatic hammer, a ram cylinder, in combination, with a ram piston adapted to reciprocate within the same, and means for introducing compressed air into the rear part of the cylinder, the said cylinder being provided with a passage connecting the head of the forward working chamber with an intermediate portion of the cylinder space, a non-return valve being arranged in the said passage and so disposed that the compressed air will be allowed to pass forward into the cylinder head, when the piston has passed the rear opening of said passage, but will be prevented from returning, thereby producing an air cushion at the head of the cylinder.

942,164. CUTTING-MACHINE. ANDREW C. BOLTON, New York, N. Y., assignor to Gutta Percha & Rubber Manufacturing Company, New York, N. Y., a Corporation of New York. Filed Apr. 9, 1909. Serial No. 488,953.

1. In a fabric cutting machine, a guideway, a slide adapted to travel in said guideway a knife carried by said

slide and movable transversely thereto, and mechanism for first moving said knife transversely of the slide and then moving said slide and knife bodily longitudinally of the guideway in one direction or the other.



2. In a fabric cutting machine, a guideway, a knife adapted to travel longitudinally therein and means for moving said knife into or out of operative position according to the direction of travel of the knife in said guideway.

3. In a fabric cutting machine, a guideway, a slide adapted to travel in said guideway, a knife carried by said slide and movable transversely thereof, a second slide connected with said knife and movably mounted on said first named slide, and mechanism connected with said second named slide for first moving it relatively to the first named slide to shift said knife transversely and then moving both slides and knife bodily in said guide in one direction or the other.

4. In a fabric cutting machine, a guideway, a slide adapted to travel in said guideway, a knife mounted on said slide and movable transversely thereof, a cam-member pivotally carried by said slide and connected with said knife and mechanism for initially moving said cam-member to move the knife transversely and for finally moving said slide, cam-member and knife bodily in said guideway in one direction or the other.

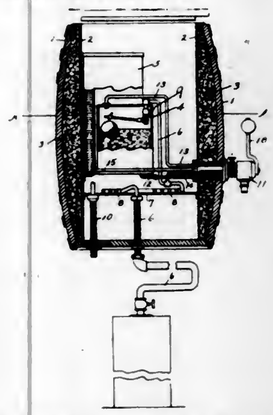
5. In a fabric cutting machine, a movable cutting device, a support for the fabric, a clamping member for clamping the fabric adjacent to the path of the cutting device, means for freeing the fabric from said clamping device after said fabric has been cut and mechanism for operating said cutting device.

[Claims 6 to 17 not printed in the Gazette.]

942,165. LIQUID-DISPENSING APPARATUS. HARRY S. CORNISH, New York, N. Y. Filed July 30, 1908. Serial No. 446,038.

1. In a liquid dispensing apparatus the combination of a dispensing faucet, an operating handle therefor, means for delivering a syrup to said faucet, means for delivering charged liquid in a still condition to said faucet, means for delivering charged liquid at an increased pressure to said faucet and means for simultaneously drawing all of said liquids from said faucet by a single movement of said operating handle.

2. In a liquid dispensing apparatus, the combination with a syrup tank and a still liquid reservoir, of a dispensing faucet, an operating handle therefor, connections from said syrup tank and said reservoir to said faucet and adapted to deliver liquid thereto, means for delivering liquid to said faucet from a source of charged liquid supply under pressure and means for simultaneously drawing liquid through said faucet from said syrup tank, said reservoir and said source of charged liquid by a single movement of said operating handle.



3. In a liquid dispensing apparatus, the combination with a syrup tank and a still liquid reservoir, of means for supplying liquid to said reservoir from a source of charged liquid supply, a float valve adapted to govern the flow of liquid to said reservoir, a dispensing faucet, an operating handle therefor connections from said syrup tank and said reservoir to said faucet and adapted to deliver liquid thereto, means for delivering liquid to said faucet direct from said source of charged liquid supply, and means for simultaneously drawing liquid through said faucet from said syrup tank, said reservoir and said source of charged liquid by a single movement of said operating handle.

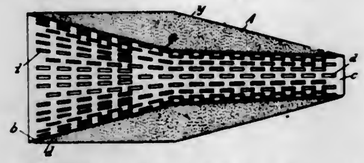
4. In a liquid dispensing apparatus, the combination with a syrup tank and a closed still liquid reservoir, of means for supplying liquid to said closed reservoir from a source of charged liquid supply, means for automatically governing the flow of liquid to said reservoir, a dispensing faucet, connections from said syrup tank and said reservoir to said faucet and adapted to deliver liquid thereto, means for delivering liquid to said faucet direct from said source of charged liquid supply, means for simultaneously drawing liquid through said faucet from said syrup tank, said reservoir and said source of charged liquid supply and means for simultaneously shifting the top pressure from said closed reservoir through said faucet.

5. In a liquid dispensing apparatus, the combination with a syrup tank and a closed still liquid reservoir, of means for supplying liquid to said closed reservoir from a source of charged liquid supply, means for automatically governing the flow of liquid to said reservoir, a dispensing faucet, connections from said syrup tank and said reservoir to said faucet and adapted to deliver liquid thereto, means for delivering liquid to said faucet direct from said source of charged liquid supply, means for simultaneously drawing liquid through said faucet from said syrup tank, said reservoir and said source of charged liquid supply, and a connection between said faucet and the gas space in said closed reservoir whereby the gas from said reservoir may escape through said faucet.

[Claims 6 to 14 not printed in the Gazette.]

942,166. DYEING. FREDERICK H. DANIELL, Franklin, N. H., and JOHN C. HEBDEN, Providence, R. I. Filed Nov. 10, 1908. Serial No. 461,911.

1. An improved method of dyeing or similarly treating textiles, consisting of winding yarn into bobbins of cylindrical body and tapered delivery end, on porous holders having hollow, frusto-conical bases and tubular barrels; arranging a series of bobbins in axial alinement with the delivery end of one bobbin fitted into the hollow base of the next bobbin; compressing the bobbins into a continuous tubular mass; and forcing a fluid through the holders to cause it to radiate into the yarn mass.



2. An improved method of dyeing or similarly treating yarn wound into hollow bobbins having tapered noses and hollow base ends, consisting of arranging a plurality of bobbins in axial alinement with the tapered nose of one bobbin fitted into the hollow base of the next bobbin; compressing the cops into a continuous, tubular mass, and forcing a fluid through the mass under pressure.

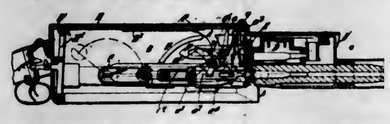
3. An improved method of dyeing or similarly treating textiles, consisting of winding the yarn into bobbins having pointed delivery ends and hollow base ends, with the cavities in the bases of the same taper as the delivery ends; supporting the bobbins on a stringer in axial alinement with the tapered end of one bobbin fitted into the cavity of the next bobbin; applying pressure to the end bobbins to compact the yarn into a continuous tubular mass; and forcing a fluid through the mass.

4. An improved method of dyeing or similarly treating textiles, consisting of winding the yarn into bobbins formed with one end tapered and the opposite end concave with a cavity corresponding to the taper of the pointed end; arranging the bobbins on a stringer having a perforated form adapted to fit the cavity of the bobbin at one end and a second perforated form adapted to fit over the pointed end of the bobbin at the opposite end; forcing the two forms together to compress the yarn into a continuous tubular mass; and pumping a fluid through the mass.

5. An improved method of dyeing or similarly treating yarn, consisting of winding the yarn into hollow bobbins having one end tapered and the opposite end concaved to correspond with said taper; arranging the bobbins in series with the tapered end of one bobbin fitted into the cavity of the next; supporting the bobbins between a plate *f* adapted to bear against the base of the bobbin at one end and a form *f* fitted to the tapered end of the bobbin at the other end; pressing the plate and form together to compress the yarn into a continuous tubular mass and forcing a fluid through the mass.

[Claim 6 not printed in the Gazette.]

942,167. AUTOMATIC GUN. ARTHUR T. DAWSON and GEORGE T. BUCKHAM, London, England, assignors to Vickers Sons & Maxim Limited, London, England. Filed Oct. 23, 1907. Serial No. 398,718.



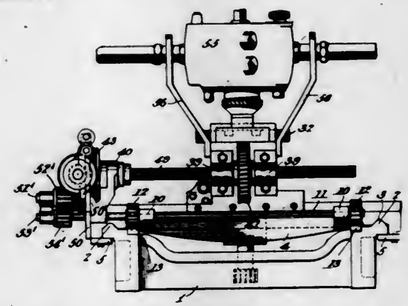
1. In an automatic gun of the Maxim type, a reciprocating lock consisting in the combination with the striker, the vertically moving cartridge carrier and the side levers, of a cocking arm, a firing sear, and a main spring, all situated above the axis of the striker, lifting levers for the carrier mounted on the same axis as that of the cocking arm and engaging with the carrier at its upper end, a safety sear situated below the axis of said striker, a sliding trigger plate engaging with the firing sear, and means for actuating said trigger plate to fire the gun.

2. In an automatic gun of the Maxim type, a reciprocating lock consisting in the combination with the striker, the vertically moving cartridge carrier, the side levers, the cocking arm, the firing sear, the main spring, and lifting levers for the carrier, of a pivoted safety sear having a notch therein, a pivot pin in the lock frame with which the said notch engages and on which the safety sear pivots, means for preventing said safety sear from unintentional disengagement from the pivot pin, a sliding trigger plate engaging with the firing sear, and means for actuating said trigger plate to fire the gun.

3. In an automatic gun of the Maxim type, a reciprocating lock consisting in the combination with the striker, the vertically moving cartridge carrier, the side levers, the cocking arm, the firing sear, the main spring, and lifting levers for the carrier, of a pivoted safety sear having a forked end, a pin in the lock frame with which the forked end engages and on which it pivots, means for preventing the said safety sear from moving longitudinally away from the pin, a sliding trigger plate engaging with the firing sear, and means for actuating said trigger plate to fire the gun.

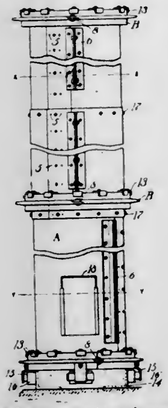
4. In an automatic gun of the Maxim type, a reciprocating lock consisting in the combination with the striker, the vertically moving cartridge carrier, the side levers, the cocking arm, the firing sear, the main spring, and lifting levers for the carrier, of a safety sear having a forked end, a pin in the lock frame with which the forked end engages, a transverse projection on the safety sear, a slot in the lock frame with which the said projection engages, a sliding trigger plate engaging with the firing sear, and means for actuating said trigger plate to fire the gun.

942,168. PORTABLE MILLING-MACHINE. RICHARD P. DECKER, Atlanta, Ga. Filed Apr. 18, 1908. Serial No. 427,794.



A machine of the type set forth comprising a bed-plate, guide members formed integral with two parallel sides thereof, racks on said sides immediately adjacent said guides, a carriage having a dovetailed head and mounted to reciprocate on the bed-plate, said carriage having grooved ways complementary to the guides of said bed-plate and means engaging under said guides whereby to hold the carriage to the bed-plate, said carriage carrying pinions engaging with the racks of the bed-plate, a second carriage mounted to reciprocate on the dovetailed head of the first named carriage, a tool holding spindle and upright arms on the second carriage, a driving motor fitting upon said spindle and supported by said upright arms, a tool carried by said spindle, and gearing connections between the spindle and the carriages whereby the same may be operated simultaneously.

942,169. MEANS FOR CONSTRUCTING CONCRETE COLUMNS. PHILIPPE A. DESLAURIERS and LOUIS P. DESLAURIERS, St. Paul, Minn. Filed May 25, 1907. Serial No. 375,603.



1. Means for forming concrete columns consisting of a longitudinally split casing composed of a plurality of telescoping sections, means detachably securing together the free edges of said casing, and a plurality of templet frames inclosing said casing each frame covering the overlapping edges of adjacent sections, and means for adjusting the size of each mold section.

2. Means for molding concrete columns comprising a split casing composed of telescoping sections, outwardly extending flanges carried by the free edges of each section of said casing, said flanges being cut away upon the telescoping portions of the sections and templet frames inclosing the overlapping portions of said sections between the cut away portions of said flanges and means for adjusting the size of each mold section.

3. Means for molding concrete columns comprising a split casing composed of telescoping sections, and means surrounding the overlapping portions of the outer sections for contracting the same upon the inner sections.

4. Means for forming concrete columns comprising a split casing composed of inner and outer sections, the outer sections telescoping over the inner sections, and means for adjustably clamping the overlapping portions of the outer sections upon the inner casing sections for the purpose set forth.

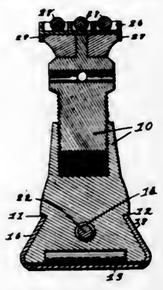
5. Means for molding concrete columns comprising a split casing composed of sections, the end of one section telescoping over the adjacent end of the next section and clamping means surrounding the overlapping portion of said outer section and extending beyond the free edge thereof to make a tight joint between said sections for the purpose set forth.

[Claims 6 to 11 not printed in the Gazette.]

942,170. SHIFTING JACK-SCREW. SYLVESTER M. DUNLAP, Des Moines, Iowa. Filed May 22, 1908. Serial No. 434,329.

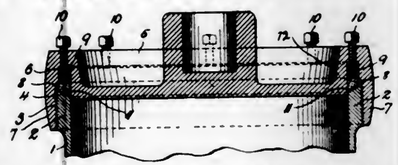
1. A shifting jackscrew, comprising in combination a jackscrew provided with a centrally located internally screw threaded channel, oppositely disposed parallel grooves, and rollers; a frame provided with upwardly extending and inwardly inclined longitudinal sides and upwardly extending ends provided with oblong slots; a screw threaded shaft mounted in said slots and engaging the screw threads in the said internally screw threaded opening, means for rotating said shaft, all arranged and combined substantially as shown and described.

2. A shifting jackscrew comprising, a jackscrew provided with parallel grooves in its base and an internally screw threaded opening and parallel rollers in its under surface; a base provided with inwardly inclined and upwardly projecting longitudinal sides and upwardly projecting ends provided with oblong slots; a screw threaded shaft and means for rotating said shaft; an upper portion



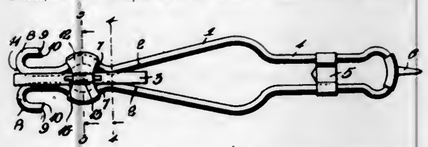
designed to be secured on the upper surface of the jackscrew and parallel rollers in said upper portion, substantially as shown and described.

942,171. CLOSURE. FREDERIC ECAUBERT, New York, N. Y. Filed Aug. 3, 1907. Serial No. 386,866.



The combination of a vessel having an open end, a cover for closing said open end provided with substantially parallel flanges arranged to engage both the interior and exterior surfaces of said vessel and spaced apart to form an annular chamber, one of said flanges being provided with means for securing the cover in position on the vessel, a packing located in said annular chamber in engagement with the upper edge of said vessel, a pressure distributing ring also located in said recess above and in engagement with said packing and adjustable pressure members extending through the cover from the exterior thereof and bearing upon the pressure distributing ring, said pressure members extending in a direction perpendicular to the upper surface of the pressure distributing ring.

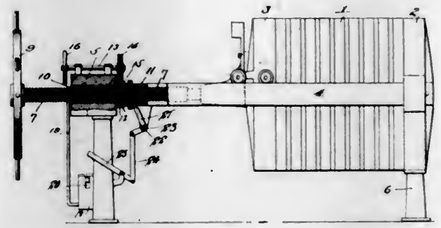
942,172. KNIFE-SHARPENER. MOSES L. HAWKS, New York, N. Y. Filed Feb. 4, 1909. Serial No. 476,042.



A device of the class described, comprising a wire frame having a handle portion formed thereon, a pair of convergent legs forming rests and guideways for the instrument to be sharpened, a triangular steel having two of its side edges overlapping the legs, a clamp for holding said legs in proper relative position, and a wedge engaging said clamp and steel for adjustably securing the steel in position between the legs.

942,173. FILTER-PRESS. EDGAR W. HELLER, Newark, N. J. Filed Feb. 11, 1909. Serial No. 477,379.

1. A filter press comprising a shifting head, filter plates, means for rapidly adjusting the shifting head to said plates, a hydraulic means for applying the final pressure to said shifting head, and means whereby the adjusting means may be locked against movement to relieve the hydraulic means of the thrust of the shifting head.



2. A filter press comprising a shifting head, filter plates, a jack screw for rapidly adjusting the shifting head to said plates, a hydraulic means for applying the final pressure to said shifting head, and means adapted to engage the jack screw to relieve the hydraulic means of the thrust of the shifting head.

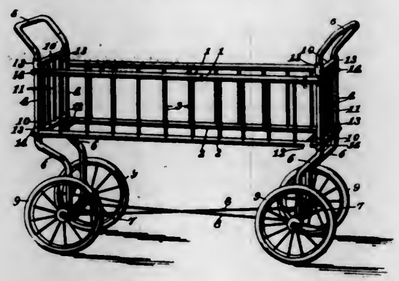
3. A press comprising a shifting head, means for rapidly adjusting the shifting head, a hydraulic means for applying the final pressure to said shifting head, and means whereby the adjusting means may be locked against movement to relieve the hydraulic means of the thrust of the shifting head.

4. A press comprising a shifting head, a jack screw, means for rotating the jack screw for rapidly adjusting the shifting head, means for moving said jack screw longitudinally without rotation to apply the final pressure to the shifting head, and means adapted to engage the jack screw to relieve the hydraulic means of the thrust of the shifting head.

5. A filter press comprising a shifting head, filter plates, a jack screw for rapidly adjusting the shifting head, means for moving said jack screw longitudinally without rotating it to apply the final pressure to the shifting head, and means to lock said screw to take up the thrust of the shifting head.

[Claims 6 to 17 not printed in the Gazette.]

942,174. COMBINATION CRIB AND BABY-CARRIAGE. AUGUSTIN HENDRICKS, Grand Rapids, Mich. Filed Feb. 20, 1909. Serial No. 479,017.



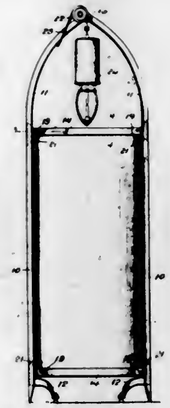
1. A combination crib and baby cab, comprising a crib or body portion having legs bent diagonally inward and downward, axles attached to said legs, and wheels mounted on the ends of the axles and located beneath the body portion.

2. A combination crib and baby cab comprising ends having legs integrally connected at the top to form handles, and bent inward and downward at the lower ends, axles attached to the legs, wheels on the axles, sides having upper and lower rails, and means for detachably securing the sides to the ends.

3. A combination crib and baby cab, comprising corner posts extended upward and connected to form a handle and extended downward and inward to form inwardly bent legs, end rails and axles connecting said posts, wheels on the axles, upper and lower tubular side rails detachably connected to said posts, bolts extending through the posts and side rails, and supporting bars detachably connecting the lower side rails.

4. A combination crib and baby cab, comprising tubular corner posts extended upward and connected to form handles and extended downward and bent inward and thence downward, plugs in the lower ends of the legs, saddles on the lower ends of the plugs, axles attached to the saddles, wheels on the axles, upper and lower tubular side rails connecting the posts and detachably secured thereto, end rails connecting the posts and fixed thereto, and supporting bars detachably connecting the lower side rails.

942,175. FRAME STRUCTURE FOR BLUE-PRINTING APPARATUS. REINHOLD HERMAN, Crafton, Pa. Filed Jan. 18, 1909. Serial No. 472,846.



1. In a blue-printing apparatus, a supporting frame comprising two spaced bars, and a printing frame between said bars, said printing frame having an end ring positioned by and adjustably secured on said bars.

2. In a blue-printing apparatus, a supporting frame comprising two spaced bars, and a printing frame between said bars, said printing frame having an end ring positioned by and adjustably secured on said bars, said ring and bars being complementally formed to permit said adjustments in directions axially of the ring.

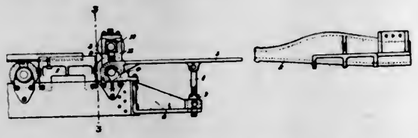
3. In a blue-printing apparatus, a supporting frame comprising two spacer bars angular in cross-section and connected together intermediate their ends, and a casting carried by said frame and having a face seated on and secured to the angle of one of said bars to prevent torsional movements thereof, said casting having lamp-positioning means.

4. In a blue-printing apparatus, a supporting-frame comprising two spaced bars connected together at their upper ends, and a printing frame between said bars, said bars being positioned relatively to each other intermediate the end-planes of the printing-frame, one of said bars carrying a permanently-positioned means for supporting the lamp.

5. In a blue-printing apparatus, a supporting-frame comprising two spaced vertically-extending bars, and two spaced rings carried by and fixedly-connected to said frame, said rings having their axes extending in parallelism with the spaced bars, said rings forming the end-rings of the printing frame.

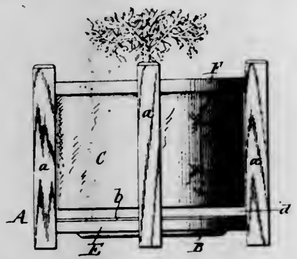
[Claims 6 to 12 not printed in the Gazette.]

942,176. SKELP-TREATING APPARATUS FOR LAP-WELD PIPE. HENRY W. HOCK, Youngstown, Ohio, assignor to The Youngstown Sheet and Tube Company, Youngstown, Ohio, a Corporation of Ohio. Filed Jan. 25, 1909. Serial No. 474,019.



In an apparatus for preparing skelp for lap-weld furnaces, a scarfing table, a bending die, a pair of bending rolls between the table and the die for conforming the skelp to the feeding-in end of the die, a skelp-supporting table between the bending rolls and the die, means for pivotally supporting the end of the table near the rolls, a bracket extending from the roll housing toward the die and beneath the table, a rod hinged to the table, and an adjusting nut carried by the bracket and working on the rod to adjust the outer end of the table.

942,177. FLOWER-POT HOLDER. CHARLES H. KEITSCH, Buffalo, N. Y. Filed Apr. 13, 1909. Serial No. 489,672.



1. A flower pot holder comprising a frame, a pan arranged in the frame and adapted to support a flower pot, and a screen for inclosing the pot mounted on the frame and separated at its lower edge from the pan by an intervening space.

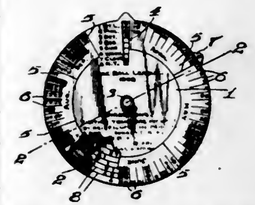
2. A flower pot holder comprising a frame, a pan arranged in the frame and adapted to support a flower pot, and a screen for inclosing the pot secured at its upper edge to the frame and having its lower edge detached from the frame and separated from the pan by an intervening space.

3. A flower pot holder comprising a frame, a pan arranged in the frame and adapted to support a flower pot, and a screen of flexible material for inclosing the pot secured at its upper edge to the frame and having its lower edge detached from the frame and separated from the pan by an intervening space.

4. A flower pot holder comprising a frame composed of a plurality of upright posts, upper and lower horizontal rings secured to upper and lower parts of the posts, a pan resting with its rim on the lower ring, and an annular screen or wall secured at its upper edge to the upper ring and separated at its lower edge from the pan by an intervening space.

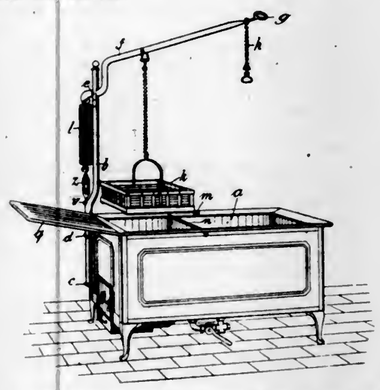
942,178. GAME-SCHEDULE. CHRISTOPHER H. LOVELL, St. Louis, Mo. Filed Sept. 21, 1908. Serial No. 454,071.

A game schedule, comprising a pair of disks rotatably connected, there being a slot formed in one of said disks, a list of contestants marked on the face of said disk adjacent the slot, and the contestants being consecutively numbered, schedule dates printed on the face of said disk adjacent the edge thereof, a series of radially arranged rows of numbers printed on the face of the second disk, which numbers correspond to the consecutive numbers of the contestants printed on the first disk, said radially arranged rows of numbers arranged to be visible through



the slot in the first mentioned disk as either disk is rotated, and an integral extension forming an indicator on the periphery of the second disk for selecting a date on the first mentioned disk.

942,179. DISH-WASHING MACHINE. HANS MÜRY, Zurich, Switzerland, assignor to Eugen Séquin, Rapperswil, Kt. St. Gallen, Switzerland. Filed Dec. 22, 1908. Serial No. 468,769.



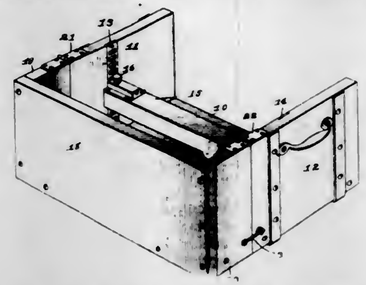
1. A dish washing machine comprising in combination, a tank, a post rotatably mounted adjacent said tank, a lever pivotally connected to said post, one end of said lever being provided with a handle, a spring engaging the other end of the lever, and a container for dishes suspended on said lever on the same arm whereon the handle is provided.

2. A dish washing machine comprising in combination, a tank, a post rotatably mounted adjacent said tank, a lever pivotally connected to said post, said lever being provided on one end with a handle, a spring engaging the other end of said lever, a cross rail extending from one side of the tank to the other side thereof, and a container for the dishes, provided with means for engaging the said cross rail of the tank to hold said container in an inclined position.

942,180. ASSEMBLY-BOX FOR PERFORATING AND BINDING MACHINES. CHARLES F. MCBEE, Athens, Ohio. Filed Mar. 31, 1908. Serial No. 424,358.

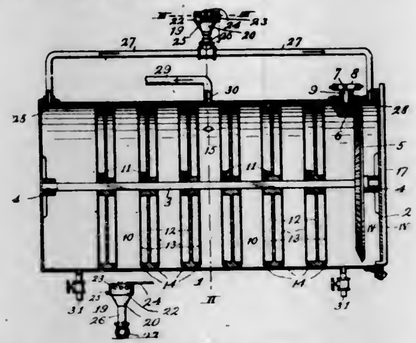
An assembly box for perforating and binding machines comprising a rear and a front portion hinged together; a base and sides to said rear portion said base protruding in front of said side and recesses in the inner surface of each of said sides; a cross bar fitting between the said sides and means for securing said cross bar in said recesses; a base, sides and forward part to said forward

portion said sides extending in the rear of said base the two portions forming in their entirety one complete box



open at its rear; means for locking said two portions together, substantially as shown and described.
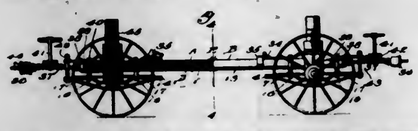
942,181. CARBURETER. THOMAS W. L. MCGUIRE and LUTHER HAMMICK, Kansas City, Mo. Filed June 9, 1908. Serial No. 437,468.



1. A carbureter, comprising, in combination with a tank, a shaft centrally mounted in said tank, inlet and outlet pipes, means for regulating the air supply, and a series of drums mounted at spaced intervals on said shaft, said drums comprising perforated disks having peripheral flanges, and sheets of fibrous material stretched over said flanges on each side of said disks, said inlet pipe being externally branched to supply air at each end of said tank.

2. A carbureter, comprising, in combination with a tank, a shaft centrally mounted in said tank, inlet and outlet pipes, said inlet pipe being externally branched, means for regulating the air supply, and a series of drums mounted at spaced intervals on said shaft, said drums comprising perforated disks having peripheral flanges extending over each side, sheets of fibrous material stretched over each of said flanges, and means for fastening said sheets.

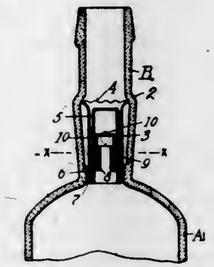
942,182. RUNNING-GEAR. ALFRED T. NEWELL, Birmingham, Ala. Original application filed June 20, 1908, Serial No. 439,547. Divided and this application filed Oct. 20, 1908. Serial No. 460,030.



1. The combination of trucks each provided with a fifth wheel, a pole connecting the trucks, and cuffs hinged to the fifth wheel and arranged to be swung to or from locking engagement with the pole.

2. The combination of a truck, a pole pivotally connected to the truck, a draw bar pivoted to the truck, and a fifth wheel comprising spaced upper and lower annular plates connected together and fixed to the truck and extending across the draw bar and the pole respectively above and below the same, with the upper plate resting on the pole.

942,183. NON-REFILLABLE BOTTLE. FRANK S. NOVOTNY, St. Paul, Minn., assignor of one-half to Justus C. French, Burlington, Vt. Filed Mar. 13, 1908. Serial No. 420,851.



1. In combination with a bottle neck formed with an inner circumferential shoulder, an open top chamber flared at its outer end underneath said shoulder, a closed top inner chamber extending through the bottom of said outer chamber and communicating with the interior of the bottle, and a conduit secured in the lower end of said chamber and interspaced at its upper end from said chamber, said inner chamber being formed with side openings.

2. In combination with a bottle neck, an open top chamber secured therein, an inner closed top chamber of uniform diameter extending through the bottom of said outer chamber and communicating with the interior of the bottle, said inner chamber being formed with side openings, and a conduit secured in the lower end of said inner chamber, said conduit terminating short of the upper end of said inner chamber and being interspaced from the side wall of said chamber.

3. In combination with a bottle neck formed with an interior shoulder, an open top chamber fitted within said neck below said shoulder, a closed top inner chamber extending through the bottom of said outer chamber and communicating with the interior of the bottle, said inner chamber being formed with side openings, and a valve slidably supported within said inner chamber.

4. In combination with a bottle neck formed with an interior circumferential shoulder, an open top chamber fitted in said neck below said shoulder, an inner closed top chamber extending through the bottom of said outer chamber and communicating with the interior of the bottle, the inner chamber being provided with side openings, a conduit within the lower end of said inner chamber interspaced at its outer end from said chamber, and a valve for said conduit.

5. In combination with a bottle neck, an open top chamber secured therein, an inner closed top chamber extending through the bottom of said outer chamber and communicating with the interior of the bottle, a conduit in the lower end of said inner chamber interspaced at its upper end from said chamber, and a cap slidably covering said conduit.

[Claim 6 not printed in the Gazette.]

942,184. METHOD OF LINING PIPES. JAMES O. PERSONS, Norfolk, Va. Filed Oct. 14, 1908. Serial No. 457,761.

1. The method herein described of expanding a malleable tube which consists in simultaneously forcing a se-

ries of spreaders of progressively increasing diameter through said tube.



2. The method herein described, of expanding a malleable tube which consists in simultaneously forcing a series of spreaders of progressively increasing diameter through said tube, the said spreaders having expanding surfaces of less length than the overall length of the spreader, whereby the friction between the spreaders and the tube is decreased.

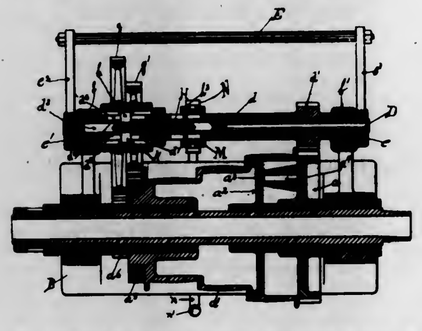
3. The herein described method of lining pipes which consists in first, inserting into the pipe to be lined a malleable tube of less diameter; secondly, expanding said tube progressively from end to end; and thirdly, forcing said tube into intimate contact with the pipe by means of fluid pressure.

4. The herein described method of lining pipes which consists in inserting into the pipe to be lined a malleable tube and expanding said tube progressively by driving a spreader therethrough by means of fluid pressure acting directly against said spreader, whereby all air between the tube and pipe is expelled.

5. The herein described method of lining pipes which consists in; first, drawing into the pipe to be lined a malleable tube of less diameter; second, inserting into one end of said tube a suitable spreader; third, admitting fluid presure behind said spreader so as to drive the same through said tube; and fourth, arresting the movement of said spreader at the other end of said tube and increasing the fluid pressure within the tube.

[Claims 6 to 10 not printed in the Gazette.]

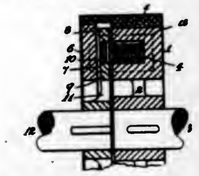
942,185. DOUBLE BACK GEARING. JOHN C. PFLANZER, Cincinnati, Ohio, assignor to The Champion Tool Works Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Dec. 16, 1908. Serial No. 467,840.



In a double back gearing for lathes the combination of a sleeve, two gears of different size mounted loosely side by side upon the sleeve, a shaft within the gears, a pin mounted in said bore, a key secured to the pin and adapted to stand between the gears out of engagement therewith or to engage one or the other of said gears, and a collar mounted to slide upon the sleeve and secured to the pin.

942,186. MAGNETIC CLUTCH. HENRY W. RAVENSHAW, Hanwell, England. Filed Feb. 28, 1907. Serial No. 359,905.

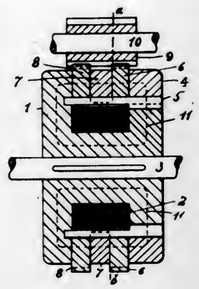
1. A magnetic clutch comprising a driving and driven shafts, an annular electromagnet and an annular keeper, and an intermediate element consisting of two concentric rings of magnetic material secured together by a flexible ring of non-magnetic material, whereby a tighter fit between the parts of the clutch when in operation is effected, substantially as described.



2. A magnetic clutch comprising a driving and driven shafts, an annular electromagnet and annular keeper, an intermediate element consisting of two concentric rings of magnetic material secured together by a flexible ring of non-magnetic material, and a sleeve of magnetic material surrounding the shaft, the magnetic circuit from the magnet to the keeper being completed out through the intermediate element and back through the sleeve, substantially as described.

3. A magnetic clutch comprising an annular electromagnet and an annular keeper, an intermediate element consisting of two concentric rings of magnetic material secured together by a flexible ring of non-magnetic material, the outer ring being supplied with gear teeth, and a driving and a driven shaft one of which carries a pinion meshing with the teeth described, substantially as described.

942,187. MAGNETIC CLUTCH. HENRY W. RAVENSHAW, Hanwell, England. Filed Jan. 14, 1908. Serial No. 410,744.



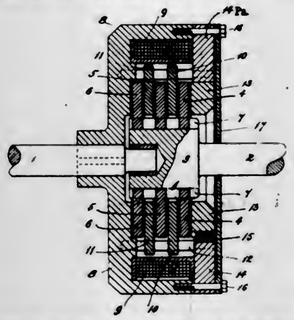
1. A magnetic clutch comprising a driving and a driven shaft, an annular electromagnet, an annular keeper consisting of an open ring and a concentric ring mounted to slide in the opening of the open ring, and intermediate elements between the magnet and keeper, substantially as described.

2. A magnetic clutch comprising a driving and a driven shaft, an annular electromagnet, an annular keeper, a slotted hood, and intermediate elements between the magnet and keeper feathered in the slots in the hood through which intermediate elements the magnetic circuit is completed, substantially as described.

3. A magnetic clutch comprising a driving and a driven shaft, an annular electromagnet, an annular keeper, a slotted hood carrying a power transmitting element, and intermediate elements between the magnet and keeper feathered in the slots of the hood through which intermediate elements the magnetic circuit is completed, substantially as described.

942,188. MAGNETIC CLUTCH OR BRAKE. HENRY W. RAVENSHAW, Hanwell, England. Filed Mar. 17, 1908. Serial No. 421,687.

1. A magnetic clutch or brake comprising a driving and a driven shaft, a boss connecting the shafts, slidably mounted intermediate elements in part mounted on the boss, and a magnetizing coil surrounding the intermediate elements, substantially as described.



2. A magnetic clutch or brake comprising alined driving and driven shafts, a boss connecting the shafts, an annular, recessed electromagnet mounted on one of these shafts, a magnetizing coil contained in the recess, and intermediate elements located within the magnetizing coil which are secured to the driving and driven shafts respectively, one set of intermediate elements coacting peripherally with the annular electromagnet, the other directly with the boss on the shaft, substanially as described.

3. A magnetic clutch or brake comprising alined driving and driven shafts, an annular, recessed electromagnet mounted on one of the shafts, a magnetizing coil contained in the recess, an annular extension piece secured to the electromagnet, a keeper sliding within the annular extension piece, and intermediate elements, located within the coil, which are secured to the driving and driven shafts respectively and are operated by the keeper to couple the shafts, substantially as described.

4. A magnetic clutch or brake comprising alined driving and driven shafts, an annular, recessed electromagnet mounted on one of the shafts, a magnetizing coil contained in the recess, an annular extension piece secured to the electromagnet, a keeper formed of two concentric parts, and intermediate elements located within the coil, which are secured to the driving and driven shafts respectively and are operated by the keeper to couple the shafts, substantially as described.

5. A magnetic clutch or brake comprising alined driving and driven shafts, an annular, recessed electromagnet mounted on one of the shafts, a magnetizing coil contained in the recess, an annular extension piece secured to the electromagnet, a keeper formed of two concentric parts, a cover, and intermediate elements located within the coil which are secured to the driving and driven shafts respectively and are operated by the keeper to couple the shafts, substantially as described.

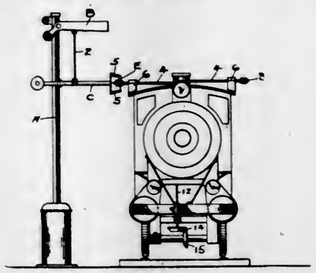
942,189. AUTOMATIC TRAIN-STOP. WILLIAM J. SOSEENE, Emeryville, Cal. Filed May 17, 1909. Serial No. 496,541.

1. In an automatic train stop the combination with a trip on the roadway of mechanism connected with the running gear to shut off the supply of steam to the cylinders; means for setting the mechanism out of contact with the running gear and releasing means therefor operated by the trip.

2. In an automatic train stop the combination with a trip on the roadway and an air brake system on the train of mechanism actuated by the movement of the train adapted to be put into operation by the trip to gradually apply the brakes on the train.

3. In an automatic train stop the combination with a trip on the roadway and an air brake system on the train, of mechanism operative by the movement of the train and arranged to be thrown into operation by the trip to gradually open the valve in the air pipe and cut off the supply of steam to the cylinders.

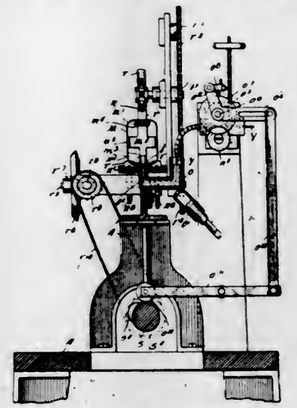
4. In an automatic train stop the combination with a trip on the roadway and an air brake system on the train of mechanism released by the trip and adapted to be operated by the motion of the train to apply the brakes and a governor in said mechanism arranged to regulate the rate at which the brakes are applied.



5. In an automatic train stop the combination with a trip on the roadway and an air brake system on the train of means on the train thrown into operation by the trip to slightly open the air valve, and to vary the opening thereof inversely with the speed of the train.

[Claims 6 to 9 not printed in the Gazette.]

942,190. AUTOMATIC-FEED CAN-BODY MACHINE. WILLIAM E. TAYLOR, Eastport, Me., assignor to American Can Company, New York, N. Y., a Corporation of New Jersey. Filed Mar. 24, 1909. Serial No. 485,362.



1. In a can body machine, the combination with a magazine for body blanks, of a body blank separator having an upper inclined face and a narrow ledge, a reciprocating body blank feeder for pushing the lowermost blank off said ledge, a reciprocating carrier for the body blanks furnished with a plurality of pusher fingers, tension shoes for holding the blanks straight upon the carrier, notching dies, hook forming devices, a body former horn, wings for forming the blank around said horn, a bumper for squeezing the hooks into a lock seam at the middle portion of the can body, a soldering horn, a fluxing device, a molten solder receptacle having a leg with a slotted top plate below the level of the molten solder in said receptacle, a solder feed device and a plurality of conveyers furnished with pusher-arms, the pusher arms of all the conveyers simultaneously engaging each can body at its middle portion above the horn and at the corners below the horn, substantially as specified.

2. In a can body machine, the combination with a holder for the body blanks, of a separator having an upper in-

clined face and a narrow ledge, a feeder for pushing the lowermost blank off said ledge, and a carrier for the body blanks to which they are delivered one by one by said feeder, substantially as specified.

3. In a can body machine, the combination with a holder for the body blanks, of a separator having an upper inclined face and a narrow ledge, a feeder for pushing the lowermost blank off said ledge, and a carrier for the body blanks to which they are delivered one by one by said feeder, said feeder comprising a plurality of fingers each having a tapering front end to adapt it to pass under the pile of blanks in the holder, substantially as specified.

4. In a can body machine, the combination with a holder for the body blanks, of a separator having an upper inclined face and a narrow ledge, a feeder for pushing the lowermost blank off said ledge, and a carrier for the body blanks to which they are delivered one by one by said feeder, said feeder comprising a plurality of fingers each having a tapering front end to adapt it to pass under the pile of blanks in the holder, with a blank engaging device adapted to engage the lowermost blank only of the pile of blanks in the holder, substantially as specified.

5. In a can body machine, the combination with a holder for the body blanks, of a separator having an upper inclined face and a narrow ledge, a feeder for pushing the lowermost blank off said ledge, and a carrier for the body blanks to which they are delivered one by one by said feeder, said feeder comprising a plurality of fingers each furnished with a blank engaging device or shoulder adapted to engage the lowermost blank only of the pile of blanks in the holder, substantially as specified.

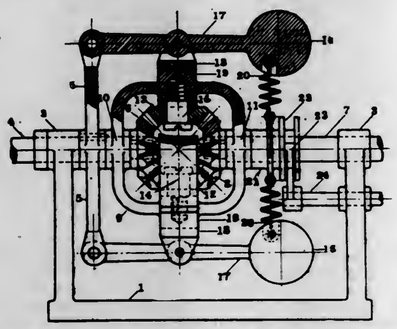
[Claims 6 to 39 not printed in the Gazette.]

942,191. PACKING-PAD. ALBERT D. ALEXANDER, Urbanna, Va. Filed June 7, 1907. Serial No. 377,800.



A packing pad, consisting of a series of independent layers of excelsior or the like, each layer being substantially uniform in character, and pasted together.

942,192. SPEED-CHANGING MECHANISM. EDWARD H. R. BARTON, Englewood, N. J., assignor of one-half to Raymond Carpenter, Hackensack, N. J. Filed Mar. 18, 1907. Serial No. 363,150.



1. In a speed changing mechanism, a driven member, a driving member, an intermediate member connected to the driven and the driving members and other means to connect and to cause the driven member and the intermediate member to react upon each other and thereby determine the speed of the driven member, substantially as set forth.

2. In a speed changing mechanism, a driven member, a driving member, an intermediate member connected to the driven and the driving members, other means to connect and to cause the driven member and the intermediate member to react upon each other and means to vary the said reaction between the said driven and intermediate members and thereby control the speed of the driven member, substantially as set forth.

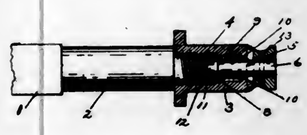
3. In a speed changing mechanism, a driven member, a driving member, an intermediate member connected to the driven and the driving members, other means to connect and to cause the driven member and the intermediate member to react upon each other and means to automatically vary the reaction between the said driven and intermediate members and thereby automatically control the speed of the driven member substantially as set forth.

4. In a speed changing mechanism, a driven member, a driving member, an intermediate member connected to the driven and the driving members, other means to connect and to cause the driven member and the intermediate member to react upon each other and a governor to automatically vary the said reaction between the said driven and intermediate members and thereby automatically control the speed of the driven member, substantially as set forth.

5. In a speed changing mechanism, a driven member, a driving member, an intermediate member, means to cause the driven member and the intermediate member to react upon each other and a governor connected to the driven member to automatically vary the reaction between the said driven and intermediate members and thereby automatically control the speed of the driven member, substantially as set forth.

[Claims 6 to 14 not printed in the Gazette.]

942,193. NUT-LOCK. WILLIAM H. BELTZ, Springfield, Ohio, assignor of one-third to Frank R. Beltz, Cleveland, Ohio, and one-third to Charles F. Huber, Springfield, Ohio. Filed Oct. 5, 1908. Serial No. 456,170.

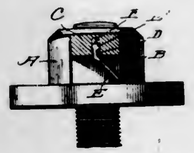


1. In a nut-lock device, the combination of an axle-spindle, a groove in the end thereof, with a nut adapted to be screwed onto the end of said spindle, a cap at the end of said nut having lugs on the inner face thereof, grooves in said nut to receive said lugs, a shank between said cap and said axle-spindle, a lug on the end of said shank to enter the groove in said spindle, and means for simultaneously locking said shank to said spindle and said cap to said nut, substantially as described.

2. In a nut-lock device, the combination of an axle-spindle, and a groove therein, with a nut adapted to be screwed onto the end of said spindle, a cap on the end of said nut, grooves in said nut, a shank extending from said cap into said nut, lugs on said cap adapted to enter said grooves in said nut, a lug on the end of said shank adapted to enter said groove in the end of said spindle, all of said lugs being held spring-pressed in said grooves when said device is in locked position, substantially as described.

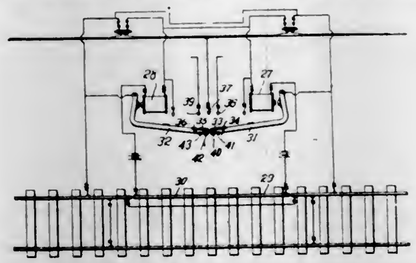
3. A nut-locking device consisting of the combination of an axle-spindle, a groove in the end thereof, with a nut adapted to be screwed onto the end of said spindle, a cap on the end of said nut, grooves in said nut, a shank extending from said cap into said nut, lugs on said cap adapted to enter said grooves in said nut, a lug on the end of said shank adapted to enter said groove in the end of said spindle, a coil spring around said shank, and all of said lugs adapted to be held spring-pressed by said coil spring in their respective grooves when said device is locked, substantially as described.

942,194. NUT-LOCK. GEORGE BRYAR, Boston, Mass. Filed Dec. 18, 1907, Serial No. 407,040. Renewed Apr. 10, 1909. Serial No. 489,186.



A nut having one corner thereof cut away for a portion of its thickness providing a projecting shoulder, said shoulder having a bore provided therein which bore is perpendicular to the base of the nut, a spring steel locking pin adapted to be inserted in the said bore, a piece of soft metal inserted in the bore before the end of the pin is driven home, said end of the pin being slightly flattened, said pin being of such length that when one end is inserted in the bore the opposite end will project a short distance beyond the base of the nut, substantially as described.

942,195. SIGNAL-CONTROLLING APPARATUS. WINTHROP M. CHAPMAN, Needham, Mass., assignor to Electric-Railway Signal Company, Kittery, Me., a Corporation of Maine. Filed Apr. 25, 1908. Serial No. 429,178.



1. A signal controlling apparatus, having, in combination, contacts arranged to be closed by the trolley of an electric car, contacts arranged to be closed by the wheels of the car, and a signal controlling circuit closed by the closure of both sets of contacts.

2. A signal controlling apparatus, having, in combination, contacts arranged to be closed by the trolley of an electric car, contacts arranged to be closed by the wheels of the car, a signal controlling circuit closed by the closure of both sets of contacts, and means for maintaining the circuit closed after one set of contacts is opened.

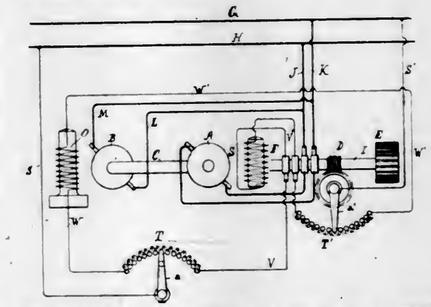
3. A signal controlling apparatus, having, in combination, contacts arranged to be closed by the trolley of an electric car, contacts including an insulated section of rail arranged to be closed by the wheels of the car, and a signal controlling circuit closed by the closure of both sets of contacts.

4. A signal controlling apparatus, having, in combination, contacts arranged to be closed by the trolley of an electric car, contacts arranged to be closed by the wheels of a car, and a signal controlling circuit including both sets of contacts in series whereby the circuit is closed by the closure of both sets of contacts.

5. A signal controlling apparatus, having, in combination, contacts arranged to be closed by the trolley of an electric car, contacts including an insulated section of rail arranged to be closed by the wheels of a car, and a signal controlling circuit including both sets of contacts in series whereby the circuit is closed by the closure of both sets of contacts.

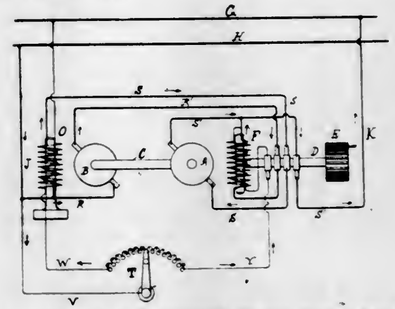
[Claims 6 to 11 not printed in the Gazette.]

942,196. APPARATUS FOR CONTROLLING ELECTRIC MOTORS. HARRY E. DEY, Jersey City, N. J., assignor to Ben T. Cable, New York, N. Y. Filed Aug. 6, 1908. Serial No. 447,195.



An apparatus for controlling electric motors which consists of a dynamo electric machine with one stationary and one rotary element, a second dynamo electric machine, both elements of which are rotary and one of which is mechanically connected to the rotary element of the first dynamo electric machine, a primary resistance, whereby the relative strength of the field magnets of said machines is varied and controlled, and a counter resistance operated with the load.

942,197. APPARATUS FOR CONTROLLING ELECTRIC MOTORS. HARRY E. DEY, Jersey City, N. J., assignor to Ben T. Cable, New York, N. Y. Filed Aug. 8, 1908. Serial No. 447,570.

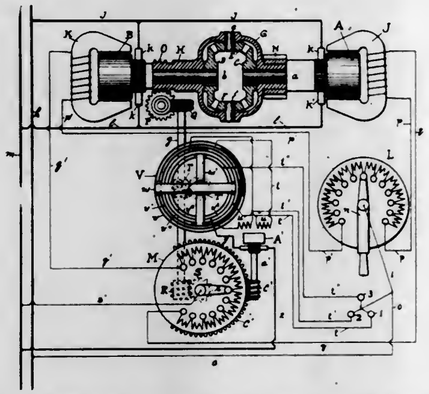


An apparatus for controlling electric motors which is composed of two dynamo-electric machines with one moving element of each machine mechanically joined with a moving element of the other machine and with the series wire of the field magnet of each machine placed in the circuit of the armature of the other machine instead of in the circuit of its own armature.

942,198. APPARATUS FOR CONTROLLING ELECTRIC MOTORS. HARRY E. DEY, Jersey City, N. J., assignor to Ben T. Cable, New York, N. Y. Filed May 21, 1909. Serial No. 497,423.

1. An apparatus for controlling electric motors which consists of a number of dynamo-electric machines, a rheostat whereby the relative strength of the field magnets of said machines is varied and controlled, and a pilot motor

operating said rheostat;—said rheostat being also operated with the load to restore said rheostat to its normal position.

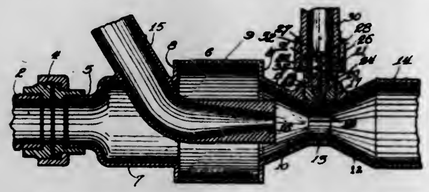


2. An apparatus for controlling electric motors which consists of a number of dynamo-electric machines, a rheostat whereby the relative strength of the field magnets of said machines is varied and controlled, a pilot motor operating said rheostat and a combined switch and cut-off under push button control whereby said pilot motor is operated and controlled;—said rheostat being itself operated with the load to restore said rheostat to its normal position.

3. In an apparatus for controlling electric motors, a combined switch and cut-off which consists of a number of concentric insulated rings and a number of arms adapted to pass over the same, in such manner as to supply current to a suitable pilot motor and cause the same to rotate in one direction or the other as desired, or to cut off the current automatically at the end of the stroke and at the central position when required and a pilot motor to which said current is applied.

4. In an apparatus for controlling electric motors, a combined switch and cut-off whereby the operation of the driven mechanism is controlled, and which consists mainly of a three push button control,—one button causing said driven mechanism to move in one direction, another button causing said mechanism to move in the opposite direction, and the third button acting to restore said mechanism to its central position.

942,199. PROPELLING MEANS FOR VESSELS. FRANK FANNING, Woodward, Okla., assignor of one-third to Fred E. Ray and one-third to A. B. Paul, Woodward county, Okla. Filed July 26, 1909. Serial No. 509,491.

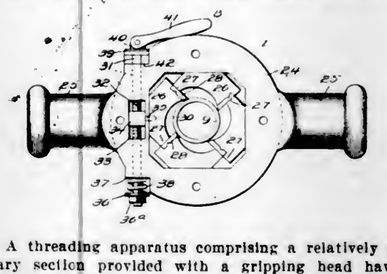


1. In a propelling apparatus, an intake pipe, an ejector having a reduced end connected to the intake pipe, and an enlarged portion of greater diameter than the intake pipe, a reservoir communicating with and of larger diameter than the ejector, a mixing chamber connected at one end with said reservoir and consisting of a pair of conical frustum shaped chambers connected at their smaller ends by an intermediate cylindrical portion, an inclined steam pipe extending downward in a curve through the enlarged portion of the ejector, and then horizontally through the reservoir and projecting into the mixing chamber, a relief valve for the mixing chamber, and a discharge pipe connected with said mixing chamber, and of greater diameter than the intake pipe, and of smaller diameter than the reservoir.

2. In a propelling apparatus, an ejector, an intake pipe for said ejector, and a discharge pipe carried by said ejector, said discharge pipe being substantially larger than said intake pipe.

3. In a propelling apparatus, a casing provided with a reservoir chamber and also reduced end-extensions, one of the reduced end-extensions congested and provided with a side-opening in the congested portion, a valve device in communication with the side-opening, the other extension provided with an integral angularly-disposed injector extending into the reservoir chamber and positioned longitudinally thereof, and said injector being formed of the same external diameter throughout its length and provided with a converging bore toward its discharge.

942,200. PIPE AND ROD THREADER. HENRY GAUTSCHI, Toledo, Ohio. Filed Sept. 1, 1908. Serial No. 451,211.



1. A threading apparatus comprising a relatively stationary section provided with a gripping head having means to grip the rod or pipe to be threaded, a relatively movable section slidably connected with said relatively stationary section and forming a turning head, feeding means for obtaining a relative movement of the turning head toward the gripping head, radially movable dies upon the turning head, adapted to be projected and retracted, a controlling device for said dies slidably mounted on the head, a spring for maintaining the same in position to hold the dies normally projected, and a forked retracting device mounted on the turning head and rotating therewith and engaging and held from longitudinal movement by the relatively stationary section, said device being provided with an inclined face to engage and operate said controlling device to retract the dies at the limit of the threading movement of the turning head.

2. A threading apparatus comprising a relatively stationary section formed with a gripping head provided with means for gripping a rod or pipe to be threaded, a relatively movable section telescopically connected with said stationary section and forming a turning head, a feed connection between the sections, radially movable dies on the turning head, a laterally movable controlling device on the turning head for adjusting said dies in and out, said device being spring operated in one direction to hold the dies retracted and provided with a bearing surface, and a retracting device slidably fitted between said bearing surface and a corresponding surface on the head and adapted to rotate with said head and engaging and held from longitudinal movement by the stationary section, said retracting device being adapted to engage the bearing surface of the controlling device and move said device to retract the dies at the limit of the threading movement of the turning head.

3. A threading apparatus comprising telescopic turning and gripping sections, means for securing a feed motion of the threading section, relatively movable threading dies upon the turning section adapted to be projected and retracted to engage and release the work, a controlling device slidably mounted on the turning section and operative in reverse directions to adjust the dies in and out, means for normally holding said device in die projecting position, and a device slidably mounted upon and rotatable with the turning section and held from longitudinal movement by the gripping section for moving said controlling device in opposition to said holding means to retract the dies at the limit of threading movement of the turning section.

4. A threading apparatus comprising telescopic gripping and turning sections, means for securing a feed motion of the turning section, relatively movable dies on the turning section adapted to be projected and retracted to engage and release the work, a controlling rod slidably mounted on the turning section and operatively arranged to project and retract the dies upon reverse sliding movements thereof, means for normally holding said rod in die projecting position, and a forked retractor bar slidably engaging the turning section and arranged to rotate therewith and held from longitudinal movement by contact with the gripping section, said bar having its forked portion operatively engaging the rod and provided with inclined surfaces to retract said rod and release the dies against the resistance of said holding means at the limit of threading movement of the turning section.

942,201. CARTON OR HOLDER FOR LAUNDRIED ARTICLES. NATHAN J. GOODMAN, St. Louis, Mo., assignor to Simplex Self Holding Carton Co., St. Louis, Mo., a Corporation of Missouri. Filed Mar. 3, 1909. Serial No. 481,043.



1. A carton of the class described, comprising a base of comparatively stiff material, a wrapper section composed of a single sheet of thin, transparent flexible material secured to one edge of said base, the said base section being disposed approximately centrally of the wrapper section, and strips of stiff material secured to the terminal portions of the wrapper section.

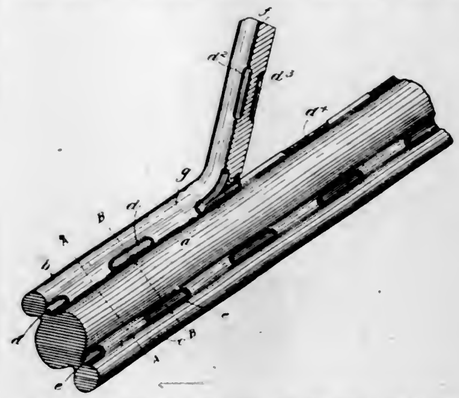
2. A carton of the class described, comprising a base of comparatively stiff flexible material, a wrapper section composed of a single sheet of thin, transparent material secured to one edge of said base so that about equal portions of the wrapper section project beyond the edges of the base, a strip of stiff material secured to one side of the wrapper section, and a strip of stiff but flexible material secured to the opposite side of the wrapper section, the ends of which latter strip project beyond the wrapper section to form tongues for engaging the base of the carton when it is folded.

3. A carton of the class described, composed of a wrapper section of a single sheet of thin, transparent material, a base provided with slots and of comparatively heavy material, one edge of which is secured to said wrapper section so that said base occupies a position comparatively centrally of said wrapper section, a strip of stiff material secured to one side of said wrapper section, a strip of stiff but flexible material secured to the opposite side of said wrapper section, the ends of which strip project beyond the wrapper section for engaging the slots formed in the base section when folded.

4. A carton of the class described, composed of a wrapper section of a single sheet of thin, transparent material, a base provided with curved slots and of comparatively heavy material, one edge of which is secured to said wrapper section so that said base occupies a position comparatively centrally of said wrapper section, a strip of stiff material secured to one side of said wrapper section, a strip of stiff but flexible material secured to the opposite side of said wrapper section, the ends of which strip project beyond the wrapper section for engaging the curved slots formed in the base section when folded.

5. A carton of the class described, comprising a wrapper section of a single sheet of thin, transparent material, a base section provided with curved slots and of comparatively heavy material, one edge of said base being secured to said wrapper section so that said base occupies a comparatively central position on said wrapper section, the length of the base being the same as the width of the central portion of the wrapper section, and the width of the wrapper section beyond the base being narrower than the length of the base section, a strip of stiff but flexible material secured to one side of the wrapper section, its ends projecting beyond the wrapper section so as to form tongues to engage with the slots in the base section when the carton is folded.

942,202. METALLIC REINFORCING-BAR FOR CONCRETE CONSTRUCTION. RICHARD J. GRACE, Portland, Oreg. Filed Apr. 22, 1908. Serial No. 428,633.



1. A reinforcing bar for concrete consisting of a body made with a laterally projecting web, longitudinally spaced portions of greater cross-section area at intervals along the web, and auxiliary members sheared from said web portions of the main body, the shear of said auxiliary members terminating in front of said web-portions of greater cross-section area.

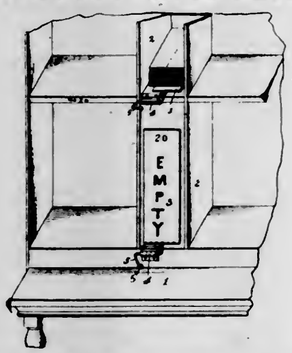
2. A reinforcing bar for concrete consisting of a body made with a laterally projecting web having a series of depressions along the line of union between the main body and said web, and auxiliary members sheared from said web-portions of the main body along the line of said depressions, said shears terminating in front of the said undepressed web-portions of greater cross-section area.

3. A reinforcing bar for concrete consisting of a body made with a laterally projecting web having a series of depressions along the line of union between the main body and said web, auxiliary members sheared from said web-portions of the main body along the line of said depressions, said shears terminating in front of the said undepressed web-portions of greater cross-section area, and said depressions in the body of the bar and its said auxiliary members being arranged to constitute shoulders adapted to prevent the displacement of said body portion and its auxiliary members in the concrete enveloping the same.

942,203. POST-OFFICE BOX. HENRY O. HAYWOOD, Savannah, Ga. Filed Dec. 9, 1905. Serial No. 291,146.

1. A post office box, a device obstructing access to the same, said device having means to indicate the condition of the box and the number of the carrier, a housing con-

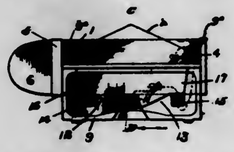
nected to the base of the box, and an arm hinged in said housing and attached to said obstructing means.



2. A post office box, an indicating device obstructing access to the same, a pintled hinge for attaching the same to the box, the pintle extending into a weighted handle adapted to hold said device elevated when the box is empty.

3. A post office box, a plate hinged to the box and obstructing access to the same, said plate provided with bottom and lateral flanges, and a handle adapted to be held by said flanges, said handle provided with means for holding the plate elevated when the box is empty.

942,204. INSECT-TRAP. ROSS HAZELRIGG, Oakland, Cal. Filed Jan. 2, 1909. Serial No. 470,443.



1. A device of the character described comprising a cylindrical body portion, removable closing means for the ends thereof, an entrance frame carried by said body portion, and having one portion extending into the interior thereof, partition plates carried by said frame and dividing the same into two chambers, a passageway communication between the entrance frame and one of said chambers, end passageways forming communication between the two chambers, and cones communicating with said body portion and said chambers.

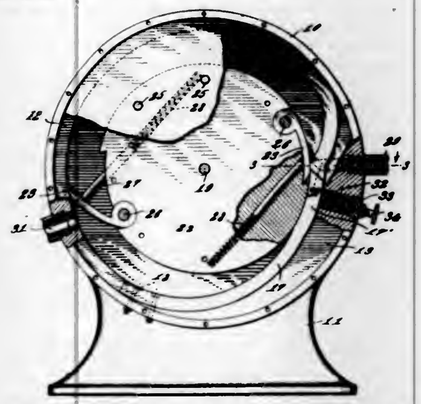
2. A device of the character described comprising a body portion, removable closing means for the ends thereof, an entrance frame carried by said body and communicating with the interior thereof, partition plates dividing said frame into an upper and a lower chamber, a tapering entrance communicating with said upper chamber, side guides forming a passageway from said upper chamber to said lower chamber, and upper cones forming a passageway from said lower chamber to the interior of the said body.

3. A device of the character described comprising a body portion substantially cylindrical in shape and carrying an entrance frame, end collars carried by said body, an end cap provided with a collar adapted to be seated over the collar at one end of the body, and a connecting thimble provided with an end collar adapted to be seated over the other end of said body.

4. An insect trap comprising a body having an entrance thereto and having its ends provided with collars, a connecting thimble having one end adapted to be fitted over one of the ends of said body, and its other end adapted to be fitted over a similar end of another trap body, and end caps for sealing the free ends of said bodies.

5. A device of the character described comprising a body, an entrance frame therefor having a tapering passageway communicating with its interior, diverging plates dividing said frame into upper and lower chambers, side cones forming passageways between said chambers, end cones forming a communication between the lower chamber and the body, and partition plates for guiding insects from the lower chamber to the said end cones.

942,205. ROTARY STEAM-ENGINE. JOHN W. JOHNSON, Bisbee, Ariz. Filed July 3, 1909. Serial No. 505,859.

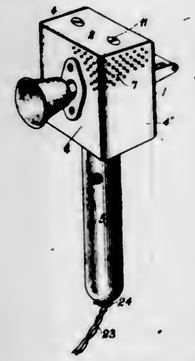


1. The herein described rotary steam engine comprising, in combination, a cylinder having a section thereof eccentrically formed and a pivotal continuation of said eccentrically formed section, one end thereof being rigidly connected to the main portion of the cylinder and the other end being free, the extremity thereof being eccentric with the cylinder, a piston rotatably mounted within the cylinder and having a plurality of abutments pivotally secured thereto for coöperation with the inner wall of the cylinder, a live steam port adjacent the free end of the said eccentric section, means to cause the abutments to coöperate with the cylinder comprising spring pressed plungers, adjustable spring means to cause the free end of the said movable cylinder section to coöperate with the outer periphery of the piston, and means whereby said abutments may rest flush with the periphery of said piston when the latter is in contact with the said eccentrically formed section of the cylinder, as and for the purpose set forth.

2. The herein described rotary steam engine comprising, in combination, a hollow cylinder comprising a circular member and two oppositely disposed face plates secured to said circular member, said circular member being rabbeted on one edge next to the face plate adjacent thereto, a shaft journaled concentrically in said cylinder, a piston secured to said shaft, said piston including a disk bearing against the rabbeted portion of said circular section, the main portion of the piston bearing against the inner wall of the opposite disk, and means to adjustably vary the degree of friction between the piston and the cylinder parts coöperating therewith, said adjusting devices including a pair of non-rotary members surrounding the shaft, a coil spring between said members, and a collar secured to the shaft and coöperating with one of said non-rotary members, substantially as set forth.

942,206. MASSAGE APPARATUS. JOSEPH W. JONES, New York, N. Y. Filed Nov. 7, 1908. Serial No. 461,523.

1. An electric massage apparatus, comprising the combination, with a casing consisting of a centrally apertured plate having its ends extending at right angles therefrom and a second plate of similar shape engaging transversely thereof to complete the inclosure, of an electro-magnet carried by each of the plate-ends first mentioned, an insulated ring secured at the aperture before mentioned and having inwardly-extending standards carrying insulated binding-posts and having outwardly-extending standards, an armature-plate located between said electro-magnets and mounted at its outer end in the standards last-mentioned and having its free end extending to the central aperture in said second plate and adapted to carry a massage-device, a contact-member carried on said armature-plate adjacent to each binding-post, electrical connections from one of the leading-in wires to each of the electro-magnets and thence to its non-adjacent binding-post, and an electrical connection from the other leading-in wire to said contact-members.



2. An electrical massage apparatus consisting of a substantially I-shaped main frame and a similarly-shaped cover interlocked therewith to form a casing, a tubular handle secured to the bottom of said plate, an armature-bracket secured about an aperture in the central portion of said plate and carrying binding-posts, an armature mounted in said armature-bracket and carrying at its other end a detachable massage-brush, one or more electro-magnets located on each side of said armature and secured to the respective ends of said frame, and suitably-connected make-and-break devices for actuating said armature.

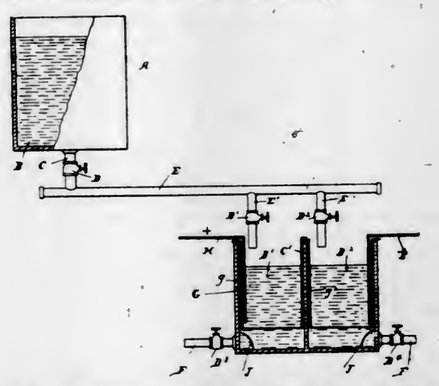
3. An electric apparatus comprising a casing consisting of a centrally-apertured plate having its two ends bent at right angles thereto and a similarly-shaped plate transversely engaging the first to inclose the interior, a handle for said casing secured to the bottom end of the first-named plate,—and located within said interior oppositely-disposed electro-magnets secured to the ends of the first-named plate, an armature-bracket secured to the main portion of the first-named plate at the aperture aforesaid and having inwardly-extending standards supporting binding-posts, and an armature supported in said bracket and located between the electro-magnets and having its free end extending to the central aperture in the second plate aforesaid and carrying a massage-device, and means for making-and-breaking the circuit for each set of electro-magnets and thereby directing the current alternately from one set to the opposite set of magnets.

4. The combination, with one or more pairs of oppositely-disposed electro-magnets, a common armature vibrating between them and carrying on each side a contact-member, a massage-device carried by said armature, a binding-post adjacent to each contact-member, and wiring from each binding-post to the non-adjacent electro-magnet, of a casing therefor comprising two I-shaped plates transversely engaging each other, on one of which plates the before-mentioned parts are directly mounted, and a handle secured to said casing and carrying the leading-in wires and a main switch.

5. In an electrical apparatus, the armature-bracket consisting of a ring having a pair of diametrically-opposed standards extending from one side thereof, and another pair of diametrically-opposed standards extending from the other side of said ring, the plane of each pair being at right angles to the plane of the other pair.

[Claims 6 to 8 not printed in the Gazette.]

942,207. PROCESS OF TREATING THE SPENT LIQUOR OF PAPER-MILLS. ISIDOR KITSEE, Philadelphia, Pa. Filed Feb. 20, 1903, Serial No. 144,347. Renewed Apr. 8, 1909. Serial No. 488,733.

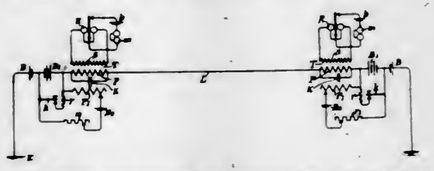


1. The process of treating spent liquor from paper or pulp mills which comprises placing the spent liquor in the positive compartment of an electrolytic apparatus, in placing a solution of salt in the negative compartment of said apparatus, in sending currents of electricity through said compartments whereby the solution in the negative compartment becomes alkaline and the intercellulose and resinous material is retained in the positive compartment.

2. The process of treating spent liquor from paper or pulp mills which comprises subjecting said spent liquor to the action of an electric current in the positive compartment of an electrolytic apparatus, the negative compartment of said apparatus containing a second conducting fluid.

3. The process of recovering the caustic and resinous matter of the spent liquor from paper or pulp mills, which comprises making said spent liquor the anolyte in an electric apparatus and sending currents of electricity through said apparatus.

942,208. DUPLEX CABLE TELEGRAPHY. ISIDOR KITSEE, Philadelphia, Pa. Filed May 20, 1908, Serial No. 433,806. Renewed Apr. 29, 1909. Serial No. 492,091.



1. In duplex telegraphy, the combination with the line, of receiving apparatus comprising a transformer whose primary is associated with said line, a receiving instrument controlled by the transformer secondary, and a third winding upon said transformer associated with the transmitting apparatus for neutralizing in the transformer secondary the effect of the transmitted impulses.

2. In duplex telegraphy, the combination with the line, of transmitting apparatus comprising means for impressing upon said line impulses alternating in polarity, and receiving apparatus comprising a transformer whose primary is associated with said line, a signaling instrument controlled by the transformer secondary, and a third

winding on said transformer and associated with said transmitting apparatus for neutralizing in the transformer secondary the effect of the transmitted impulses.

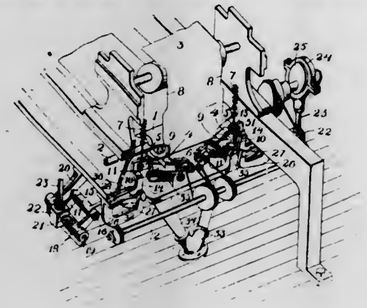
3. In duplex telegraphy, the combination with the line, of a receiving instrument connected in a circuit in inductive relation with said line, transmitting apparatus for impressing upon said line impulses alternating in polarity, and an inductive connection between said receiving instrument and transmitting apparatus for neutralizing in said receiving instrument the effect of the transmitted impulses.

4. In duplex telegraphy, the combination with the line, of a receiving instrument, oppositely disposed sources of energy, a circuit in shunt to one of said sources including a key, a circuit including the primary of a transformer and said key, said receiving instrument being included in a circuit in inductive relation to said line and in inductive relation to said primary.

5. In duplex telegraphy without an artificial line, the combination with a line or cable having great capacity, of a receiving instrument connected in a circuit in inductive relation with said line or cable, transmitting apparatus for impressing current impulses upon said line or cable, and a winding associated with said transmitting apparatus and in inductive relation with the circuit including said receiving instrument for neutralizing in the circuit of said receiving instrument the effect to the transmitted current.

[Claim 6 not printed in the Gazette.]

942,209. CUTTING MECHANISM. WILLIAM S. METCALFE, Worcester, Mass. Filed Aug. 5, 1907. Serial No. 387,059.



1. In a cutting mechanism, the combination with means for severing a strip from sheet material, comprising a pressing roll, of a second roll arranged to coöperate with said pressing roll to carry the severed strip away from the cutting mechanism.

2. In a cutting mechanism, the combination with means for severing a strip from sheet material, comprising a pressing roll, of a second roll arranged to coöperate with said pressing roll to carry the severed strip away from the cutting mechanism, and means for guiding the severed strip between said pressing roll and said coöperating roll.

3. A cutting mechanism for severing lateral strips from a continuous sheet, provided with a cutting cylinder, a pair of rolls in front of said cutting cylinder, arranged to receive upon their upper surface the severed strip as it falls from said continuous sheet, a blade arranged to insert said strip between said rolls, and means for actuating said blade.

4. A cutting mechanism for severing strips from a continuous sheet, provided with a severing mechanism, a pair of rolls in position to receive the strip as it is severed from said continuous sheet, a blade for inserting the strip between said rolls, a movable arm carrying said blade, and means for actuating said movable arm.

5. The combination with a cutting mechanism for severing a strip from sheet material, of a pair of rolls for removing the severed strip, means for separately rotating one of said pair of rolls at a circumferential speed greater than the other of said rolls, and means for guiding the severed strip into contact with said faster roll.

[Claims 6 to 8 not printed in the Gazette.]

942,210. TURPENTINE-CUP. EDWIN A. MCKOY, New Orleans, La. Filed June 10, 1907. Serial No. 378,204.



1. In a device of the class described, an apron provided with an opening extending longitudinally thereof.

2. In a device of the class described, an apron provided with a slot extending longitudinally thereof.

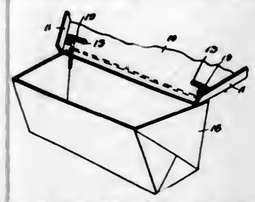
3. In a device of the class described, an apron provided with flanges formed at its opposite ends, and a slot extending longitudinally of the apron and between the flanges.

4. In a device of the class described, an apron provided with a longitudinally extending slot, and a receptacle adapted to be suspended from the apron and beneath the slot.

5. In a device of the class described, an apron, flanges formed upon opposite ends of the apron, a slot formed longitudinally of the apron and between the flanges, and a receptacle proportioned to be suspended from the flanges and beneath the slot.

[Claims 6 to 8 not printed in the Gazette.]

942,211. TURPENTINE-CUP. EDWIN A. MCKOY, New Orleans, La. Filed June 10, 1907. Serial No. 378,205.



1. In a device of the class described, an apron provided with an opening formed adjacent its lower longitudinal edge, and a receptacle provided with an upstanding member having means for interengagement with the opening in the edge of the apron.

2. In a device of the class described, an apron provided with an opening adjacent its lower longitudinal edge, and a receptacle provided with a hook upstanding therefrom and adapted to engage within the opening.

3. In a device of the class described, an apron provided with a flange downwardly turned at its lower longitudinal edge, and with an opening formed therein, and a receptacle provided with means upstanding therefrom adapted to engage within the opening.

4. In a device of the class described, an apron provided with a down-turned flange at its lower longitudinal edge and with an opening formed therein, and a receptacle provided with a hook upstanding therefrom and proportioned to hook within the opening and suspend the receptacle beneath the lower longitudinal edge.

5. In a device of the class described, an apron, an opening formed adjacent the lower longitudinal edge of the apron, a receptacle, and means upstanding from the receptacle adapted to engage within the opening and support the receptacle from spaced points.

[Claim 6 not printed in the Gazette.]

942,212. APPARATUS FOR TURPENTINE-GATHERING. EDWIN A. MCKOY, New Orleans, La. Filed Aug. 2, 1907. Serial No. 386,845.

1. An apron embodying an insertion edge and flanges at opposite ends bent spirally adjacent the insertion edge.

2. An apron embodying an insertion edge, and reversely inclined flanges at opposite ends bent spirally at the insertion edge and at the ends most widely separated.



3. An apron embodying an insertion edge and flanges at opposite ends bent spirally at their extremities adjacent the insertion edge.

4. An apron embodying an insertion edge and reversely inclined flanges at opposite ends bent spirally at their extremities adjacent the insertion edge and most widely separated.

5. An apron embodying an insertion edge and flanges at the opposite ends having their upper ends cut away and bent spirally to facilitate insertion of the insertion edge.

[Claims 6 to 10 not printed in the Gazette.]

942,213. FUEL COMPOSITION AND METHOD OF PRODUCING THE SAME. LYMAN R. PALMER, Los Angeles, Cal. Filed Mar. 13, 1908. Serial No. 420,955.

1. A fuel composition characterized as a solidified mass of particles of carbonaceous material, said particles being covered with a thin coat of asphaltum and grease compounded together substantially as and for the purpose set forth.

2. A fuel briquet consisting of a solidified and compacted mass characterized as consisting of particles of carbonaceous material and asphaltum and grease compounded together in the proportions substantially specified.

3. The method of producing fuel composition which consists in mixing together pulverized coal or other carbonaceous material and asphaltum, or pitch, or both, and submitting the mixture to heat, then injecting heated grease into the lower part of the mass, causing the asphaltum to flux and combine with the carbonaceous material and then pressing the mass into blocks or briquets.

4. The method set forth of producing a fuel composition by means of the injection of hot grease into a mixture of carbonaceous material and asphaltum.

5. A fuel briquet composed of the admixture of 85 parts of carbonaceous material, 15 parts of asphaltum, 5 parts of pitch submitted to a temperature of 400 degrees Fahrenheit until liquefied, fluxed by the injection of three per cent. of melted grease, and formed into blocks.

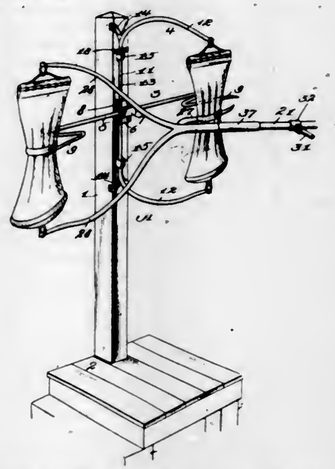
[Claims 6 and 7 not printed in the Gazette.]

942,214. MAIL-POUCH-TRANSFERRING APPARATUS. JOHN W. PEPPLE, Hillsboro, Tex. Filed Mar. 8, 1909. Serial No. 482,167.

1. In a mail pouch delivering and receiving apparatus, in combination, a main bar carried upon the mail car and mounted to stand out horizontally therefrom, a member movably associated with said bar and having one position when the bar is extended and another position when the bar is retracted, mail pouch catching means carried by said member and mail pouch holding means carried by said member.

2. In a mail pouch delivering and receiving apparatus, in combination, a supporting bar carried by the mail car and mounted to stand out horizontally therefrom, a member pivotally mounted upon said bar and having an extended position with relation to the bar when the latter stands out from the car and having an angular position with relation to the bar when the latter is moved close to the car, means carried by said member and forming an element of mail pouch transferring means, and means for holding said member in extended position with relation to said bar.

3. In a mail pouch delivering and receiving apparatus, in combination, a main bar carried upon the mail car and mounted to stand out horizontally therefrom, a link pivoted at the end of said main bar, a member pivoted to said link, mail pouch catching means carried by said member, mail pouch holding means carried by said member, and a sleeve slidably mounted on said main bar and movable to a position to surround said member and said link and to hold the same in extended position with relation to said bar.

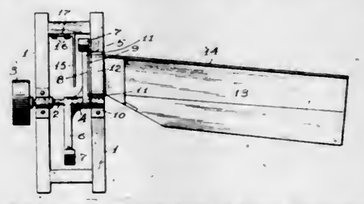


4. In a mail pouch delivering and receiving apparatus, in combination, a main bar movably mounted upon the mail car, mail pouch transferring means associated with said main bar, and handle means for the main bar and operating automatically to hold said main bar against movement from its innermost position.

5. In a mail pouch delivering and receiving apparatus, in combination, a main bar movably carried upon the mail car, mail pouch transferring means associated with said main bar, an operating means for the main bar, comprising a pivotal handle member, the mail car having an opening in its side wall through which said handle member extends, the handle member having automatic operation when the main bar is in its innermost position to hold the same against outward movement.

[Claims 6 to 15 not printed in the Gazette.]

942,215. BRUSH-CHOPPER. JAMES PORTEOUS, Fresno, Cal. Filed Mar. 24, 1909. Serial No. 485,429.



1. In a machine of the character described, the combination of a frame, a stationary cutting blade mounted thereon, a coöperating cutting blade, a rotary shaft for the coöperating blade, a carrying arm for the rotary blade mounted on said shaft, and a counter weight arm connected to the first mentioned arm and offset laterally therefrom.

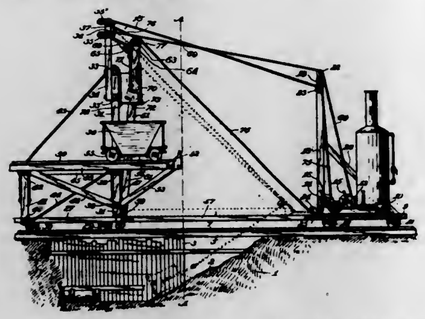
2. A brush chopper comprising a frame, a rotatable shaft mounted thereon, a knife fixed to the frame, a pair of arms projecting in opposite directions and secured to the shaft and to one another, said arms being offset relative to one another, and a knife carried by that arm adjacent the fixed knife and arranged to coöperate with said fixed knife.

3. A brush chopper comprising a frame, a relatively fixed knife, a rotary shaft, a support carried by the shaft, the support being an integral casting and comprising oppositely extending arms, one of which is offset laterally relative to the other, and a knife carried by that arm next adjacent to the relatively fixed knife.

4. A brush chopper comprising a frame, a relatively fixed knife mounted on the frame, a rotary shaft, an integral casting fixed to the shaft comprising two substantially rectangular arms extending in opposite directions and offset relatively to one another, a knife carried by one only of said arms, and shoes at the ends of the respective arms.

5. In a brush chopper, the combination of a frame, a stationary knife secured to the frame, a rotatable shaft mounted on the frame, a knife projecting to one side only of said shaft and secured thereto, a weighted arm for the knife, a counter weight arm projecting from the opposite side of the arm and secured to the latter, and the two arms being arranged adjacent to one another but in different vertical planes, a guide way having a side flange inclined longitudinally of the guide way for feeding the material at an inclination to the knife, and a gage secured to the frame, to define the length of the pieces to be cut.

942,216. EXCAVATING OR HOISTING APPARATUS. JOSEPH L. POTTER, Indianapolis, Ind. Filed May 24, 1909. Serial No. 497,875.



1. Hoisting apparatus including a trestle having an upright frame, a winding-drum mounted beyond the end of the trestle, a track on the trestle, a cable connected to the winding-drum, a lifting device connected to the cable, and means cooperating with the upright frame and the cable for guiding the lifting device toward the winding-drum and thence to a position above the track.

2. Excavating or hoisting apparatus including an upright frame, a guide-sheave on the frame, a cable-guide pivotally supported in proximity to the upright frame to swing upward toward the frame or downward therefrom, a car track extending through the upright frame and also through the cable-guide when the latter is swung upward near to the frame, a cable extending over the guide-sheave to the cable-guide, and a hoisting cable connected with the cable-guide to be guided thereby to different positions.

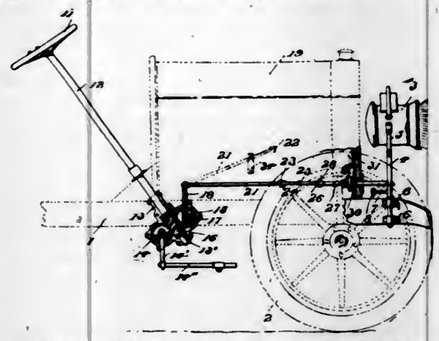
3. Excavating or hoisting apparatus including an upright frame, a guide-sheave on the frame, a winding-drum suitably supported, a cable-guide pivotally supported in proximity to the upright frame to swing upward toward the frame or downward from the frame and having a guide-sheave thereon, a car-track extending through the upright frame and also through the cable-guide when the latter is swung upward near to the frame, a hoisting cable connected to the winding-drum and extending over the guide-sheaves, and a lifting device connected to the cable.

4. Excavating or hoisting apparatus including an upright frame, a guide-sheave on the frame, a winding-drum mounted opposite the upright frame, a cable-guide pivotally supported in proximity to the upright frame to swing forward toward the winding-drum or upward toward the upright frame and having a guide-sheave thereon, a car-track extending beyond the upright frame toward the winding-drum and also in the opposite direction, a hoisting-cable connected to the winding-drum and extending through the guide-sheaves, and a lifting device connected to the cable and adapted to engage the cable-guide to move the cable-guide upward.

5. Hoisting apparatus including a trestle having an upright frame at an end thereof, a guide-sheave mounted on the upright frame, a winding-drum mounted beyond the end of the trestle, a track on the trestle extending under the guide-sheave and toward the winding-drum, a cable connected to the winding-drum and extending over the guide-sheave, a cable-guiding means mounted to move approximately between the winding-drum and the guide-sheave and having operative connection with the cable to be moved thereby, and a lifting device having operative connection with the cable-guiding means to be guided thereby from a position relatively near to the winding-drum to a position relatively near to the guide-sheave above the track.

[Claims 6 to 10 not printed in the Gazette.]

942,217. MECHANISM FOR VEHICLE LAMPS OR HEADLIGHTS. ALOIS P. PRENDERGAST, Baltimore, Md. Filed May 15, 1907. Serial No. 373,747.



1. In an automobile or similar vehicle, a steering rod, a gear connected thereto and constituting part of the mechanism for steering the vehicle, a lamp, a rotatable upright on which said lamp is mounted, an arm fixed to said upright, a second gear connected to said steering rod, a crank arm secured thereto, and connections between said arms whereby said lamp is moved concurrently with the angular movement of the wheels.

2. In an automobile or similar vehicle, a steering rod, connections therebetween and the wheels for changing the angular position of the latter, a gear connected to said rod, a plurality of lamps, a rotatable upright on which each lamp is mounted, connections between said lamps, an arm fixed to one of said uprights, and connections between said gear and arm independent of said first-mentioned connections whereby said lamps are moved angularly concurrently with the angular movement of the wheels.

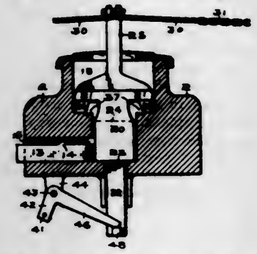
3. In an automobile or similar vehicle, a steering device, a plurality of lamps, a two-part connecting rod between said lamps, the two parts of said rod being adjustably connected whereby the rod may be lengthened or shortened, and connections between said steering device and one of said lamps whereby said lamps are moved angularly concurrently with the angular movement of the wheels.

4. In an automobile or similar vehicle, a steering device, a lamp, a sectional connecting rod between said steering device and lamp, means for disconnecting said sections, one of said sections being provided with a slot adapted to be alined with a slot on a fixed part of the machine, and means for engaging said alined slots to immobilize the lamp when so disconnected.

5. In an automobile or similar vehicle, a hood, a steering device, a lamp, a sectional connecting rod between said steering device and lamp, means for disconnecting said sections, a bracket for supporting one end of a section when so disconnected, a sleeve arranged in the front wall of the hood and provided with a slot adapted to be alined with a slot in one of said sections, and means for engaging said alined slots to immobilize the lamp when so disconnected.

[Claim 6 not printed in the Gazette.]

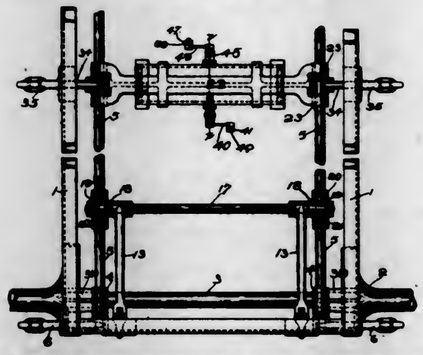
942,218. AUTOMATIC CAR-COUPLING. OTTO F. RICHTER, Indianapolis, Ind., assignor of one-half to Lona M. Stark, Indianapolis, Ind. Filed Mar. 25, 1909. Serial No. 485,709.



1. An automatic car coupler of the above specified class comprising a coupler-head, a knuckle pivotally mounted within said head, a locking-pin passing through said head and adapted to lock the knuckle in closed position, means to hold said locking-pin in its uppermost position when the knuckle stands open, and a tension device adapted to apply tension to both the locking-pin and knuckle.

2. An automatic car coupler of the above specified class comprising a coupler-head, a knuckle pivotally mounted within said head, a tail-piece on said knuckle extending rearwardly in same plane in which said knuckle moves, a locking-pin passing at right angle through the path of travel of said tail-piece, and a single tension device operatively associated with both the locking-pin and knuckle and adapted to lower the locking-pin when released and open the knuckle when the locking-pin is raised.

942,219. VEHICLE. ALBERT F. ROCKWELL, Bristol, Conn., assignor to The New Departure Manufacturing Company, Bristol, Conn., a Corporation of Connecticut. Filed May 11, 1905. Serial No. 259,860.



1. In a vehicle, a supporting base, a body having movement with relation thereto, means for maintaining parallelism between said base and said body, said means including rockable elements connected to said base and said body, rock arms upon said rockable elements, a cylinder adapted to receive a fluid cushion, and pistons in said cylinder and connected to said respective rock arms; substantially as described.

2. In combination, a vehicle body, its trucks or axles, the longitudinally extending rock shafts, the transverse shafts pivotally supported thereon, jointed connections between the rock shafts and the transverse shafts and the vehicle body, and a fluid pressure device controlling the rock shafts; substantially as described.

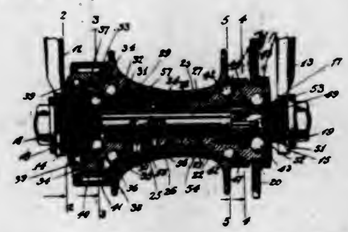
3. In combination, a vehicle body, its trucks or axles, the longitudinally extending rock shafts, jointed connections between the sides of the body and said rock shafts at a plurality of points along said shafts, the transverse shafts supported upon said rock shafts, and a plurality of jointed connections between the ends of the body and said transverse shafts; substantially as described.

4. In a vehicle, a supporting base, a body having movement with relation thereto, means for maintaining parallelism between said base and said body irrespective of the position of the load on the vehicle body, said means including transverse and longitudinal rock shafts, a cylinder adapted to receive a fluid cushion, movable fluid actuated means in said cylinder and connections between said movable means and the rock shafts.

5. In a vehicle, a supporting base, a body having movement with relation thereto, means for maintaining parallelism between said base and said body, said means including longitudinal and transverse rock shafts, a variable elastic pressure device for maintaining the body and base a predetermined distance apart irrespective of the applied load, and means for operatively connecting said elastic pressure device to the rock shafts.

[Claims 6 to 17 not printed in the Gazette.]

942,220. VARIABLE-SPEED MECHANISM. ALBERT F. ROCKWELL, Bristol, Conn., assignor to The New Departure Manufacturing Company, Bristol, Conn., a Corporation of Connecticut. Filed June 4, 1906. Serial No. 320,066.



1. In a device of the class described, the combination with a driving part and a driven part, of a change speed gear interposed between the driving part and the driven part, clutches in engagement with the driving part, one of said clutches being adapted to be moved into direct clutching position with the driven part and the other of said clutches being adapted to be moved into clutching position with the change speed gear, springs adapted to exert tension against said clutches, and means for causing one of said springs to overcome the tension of the other of said springs.

2. In a device of the class described, the combination with a driving part and a driven part, of a change speed gear interposed between the driving part and the driven part, clutches in engagement with the driving part, one of said clutches being adapted to be moved into direct clutching position with the driven part and the other of said clutches being adapted to be moved into clutching position with the change speed gear, springs adapted to exert tension against said clutches, one of said springs being normally not under tension, and means for causing said last-named spring to overcome the tension of the other spring.

3. The combination with a driving member and a driven member, of a clutch actuator rigid with the driving member and extending within the driven member, a

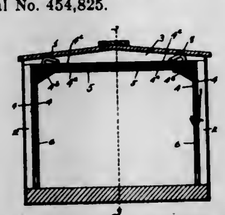
plurality of gear elements interposed between the driven member and the driving member and arranged one within the other, one of said elements being eccentric with the elements with which it meshes, one of said elements having a clutch face, and a clutch member actuated by the clutch actuator for engagement with the clutch face so as to enable the driving part to be connected to or disconnected from the element having a clutch face.

4. A driving part and a driven part, means for connecting the driving part rigid with the driven part, a change speed gear connected to the driven part and adapted to be connected to the driving part, said change speed gear comprising elements one within the other, and one of which is eccentric to the element with which it meshes, and means positively and directly controlled by the driving part for disconnecting the first-named means from the driven part when the driving part is connected to the change speed gear.

5. The combination with a driving and a driven element, of a variable speed mechanism interposed between the driving element and the driven element and including a plural number of clutches, and a clutch-actuator movable with the driving element and having exterior and interior threads engaging said clutches to move them to clutch said clutch-actuator directly with the driven element or with the change speed mechanism.

[Claims 6 to 17 not printed in the Gazette.]

942,221. GRAIN-DOOR FOR CARS. ROBERT C. RUSSELL, Arthur, Ontario, Canada, assignor of one-fourth to Gomer T. Griffiths, Columbus, Ohio. Filed Sept. 25, 1908. Serial No. 454,825.



1. In a door for grain cars, the combination with a car, its framework, of vertical channeled guide ways on the opposite sides of the door frame and a plurality of superposed, horizontal, channeled guide ways secured to the roof beams of the car and extending transversely of said car, enlarged guiding portions 4^b extending between the vertical and horizontal guide ways, said enlarged guiding portions being in communication with all of the horizontal guide ways, and door-way closing boards movable in said guide ways.

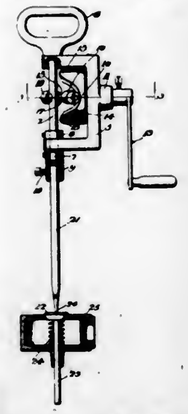
2. In a door for grain cars, the combination with a car, its framework, of vertical channeled guide ways on the opposite sides of the door frame and a plurality of superposed horizontal, channeled guide ways secured to the roof beams of the car and extending transversely of said car, enlarged guiding portions 4^b extending between the vertical and horizontal guide ways, said enlarged guiding portions being in communication with all of the horizontal guide ways, transverse openings 4^c formed in the side walls of the uppermost horizontal guide ways to permit of the passage of boards endwise therethrough, and door-way closing boards movable in said guide ways.

3. In a door for grain cars, the combination with a car, its framework, of vertical channeled guide ways on the opposite sides of the door frame and a plurality of superposed, horizontal, channeled guide ways secured to the roof beams of the car and extending transversely of said car, enlarged guiding portions 4^b extending between the vertical and horizontal guide ways, said enlarged guiding portions being in communication with all of the horizontal guide ways, hooks pivotally connected to the roof beams of the car and adapted to swing down over the ends of all of the horizontal guide ways, and door-way closing boards movable in said guide ways.

4. In a door for grain cars, the combination with a car, its framework, of vertical channeled guide ways on the opposite sides of the door frame, a plurality of superposed, horizontal, channeled guide ways secured to the roof beams of the car and extending transversely of said car, enlarged guiding portions 4^b extending between the vertical and horizontal guide ways, said enlarged guiding portions being in communication with all of the horizontal guide ways, hooks pivotally connected to the roof beams of the car and adapted to swing down over the ends of all of the horizontal guide ways, door-way closing boards movable in said guide ways, and a door in one of said door way closing boards.

5. In a door for grain cars, the combination with a car, its framework, of vertical channeled guide ways on the opposite sides of the door frame, a plurality of superposed, horizontal, channeled guide ways secured to the roof beams of the car and extending transversely of said car, enlarged guiding portions 4^b extending between the vertical and horizontal guide ways, said enlarged guiding portions being in communication with all of the horizontal guide ways, hooks pivotally connected to the roof beams of the car and adapted to swing down over the ends of all of the horizontal guide ways, door-way closing boards movable in said guide ways, a door in one of said door-way closing boards, and a plurality of pins adapted to pass through the guide ways on the opposite sides of the door frame, and to pierce said door-way closing doors to thereby hold said boards in position.

942,222. VALVE-GRINDER. IRVIN C. SMITH, Los Angeles, Cal. Filed Dec. 21, 1908. Serial No. 468,502.

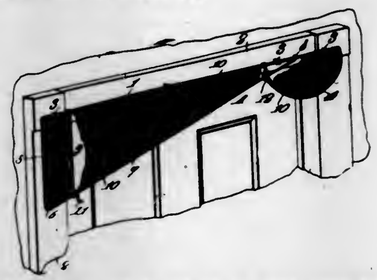


1. A valve grinder, comprising a frame having a handle thereon for manual operation, a vertical shaft journaled in the frame, a tool connected to the shaft for engagement with a valve, a transverse shaft journaled in the frame, a cam mounted on the transverse shaft, the cam having a face whose curves lie in a cylindrical surface around the shaft, and a cam follower mounted on the vertical shaft.

2. A valve grinder, comprising a frame, a longitudinal shaft journaled in the frame, means on the shaft for engagement with a valve, a transverse shaft journaled in the frame, a cam mounted on the transverse shaft, and a cam follower mounted on the longitudinal shaft.

942,223. SCREEN-DOOR ATTACHMENT. CHARLES SPENCER, Kaw, Okla. Filed Aug. 11, 1908. Serial No. 447,971.

1. A screen for use at the top of doors, comprising a horizontal hinged frame suitably covered and adapted to swing outside the door when the latter is closed, and above it when said door is opened, a portion of the free edge of the frame being inclined with respect to the hinged edge, and another portion of said free edge being bowed outwardly from the hinged edge.

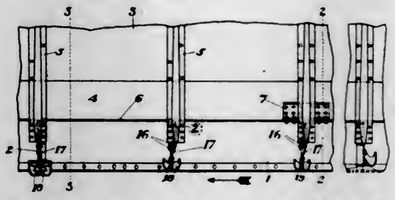


2. A screen for use at the top of doors, comprising a frame hinged above a door, made of wire and suitably covered, adapted to hang downwardly against the front of the door when the latter is closed, a projection on said frame bearing on said door for elevating the screen when the door is opened, and an upturned finger on the outer end of the screen.

3. The combination with a door frame, of a door mounted to swing from said frame, a guard frame, means for mounting said guard frame upon said door frame to swing above the opening thereof, and a member connected at the ends to said guard frame and depending therefrom and into the path of said door when said door is open.

4. A screen for use at the top of doors, comprising a frame made of wire having a straight length for pivotal attachment to a door frame one end of which has a semicircular return bend attached at its end to said straight length, a right angled portion at its opposite end and an inclined length extending from the extreme end of the right angled portion to said straight length within the return bend, a projection on said return bend for swinging the screen and a finger on the outer end of the inclined wire.

942,224. CAR CONSTRUCTION. JOHN F. STREIB, Avalon, Pa., assignor to Pressed Steel Car Company, Pittsburg, Pa., a Corporation of New Jersey. Filed Jan. 31, 1908. Serial No. 413,666.



1. In a car, the combination of cross bearers having horizontal upper edges, a side wall supported thereby and bent inwardly along its lower edge and secured to the outer ends of said cross bearers to space the same and form a shedding surface and drop doors between said cross bearers and in horizontal positions when closed.

2. In a car, the combination of cross bearers having horizontal upper edges, side stakes rising from the outer ends of said cross bearers and secured thereto, a side wall secured to said stakes, bent in along its lower edge and secured to the outer ends of said cross bearers to space the same and form a shedding surface and drop doors between said cross bearers and horizontal when in closed positions.

3. In a car, a wall having an intermediate portion inclined inwardly and its lower portion extending at an angle to said inclined portion to form a shedding surface and an edge strip.

4. In a car, a wall having its lower portion formed substantially V-shape in cross-section.

5. In a car, a wall having its lower portion inclined inwardly and bent outwardly to form a shedding incline and an edge plate.

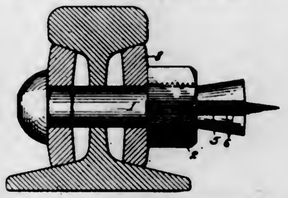
[Claims 6 to 38 not printed in the Gazette.]

942,225. AUTOMOBILE WIND-SHIELD. AMOS W. TOWLE, Chicago, Ill., assignor of one-half to Peter Wendel and one-half to Peter Wendel, trustee, Chicago, Ill. Filed Oct. 2, 1908. Serial No. 455,855.



A vehicle wind shield comprising an upper adjustable section and a lower fixed section, a brace secured to the outer side of the lower fixed section and having a toothed edge for receiving a toothed brace on the upper adjustable section, rods pivotally connected to the brace and to the upper adjustable section, and adjustable thumb screws carried by plates on the upper movable section, adapted to engage apertures formed in the brace when in raised position, and for engaging sockets on the lower section for locking the shield in lowered position, the toothed braces engaging toothed retainers on the lower section, substantially as described.

942,226. NUT-LOCKING EXPANSION-BOLT. CHARLES D. VERNON and JACOB P. MORNINGSTAR, Wheeling, W. Va.; said Morningstar assignor to said Vernon. Filed Mar. 31, 1909. Serial No. 486,852.



1. In a device of the character described, a threadless bolt having a tapered slot therein, and a wedge seated in said slot with its lateral edges toothed and projected outward therefrom, said wedge being adapted to be forced outward by a nut threaded thereon against a bearing wall for expanding the end of the bolt.

2. In a device of the character described, a threadless bolt having a tapered slot in its nut-receiving end, a wedge corresponding substantially in size and form with said slot mounted in the latter with its lateral edges projected outward therefrom, teeth carried by said lateral edges, said wedge being adapted to move outward to expand the end of the bolt behind the nut when the latter assumes a position in bearing engagement with a wall through which the bolt is projected.

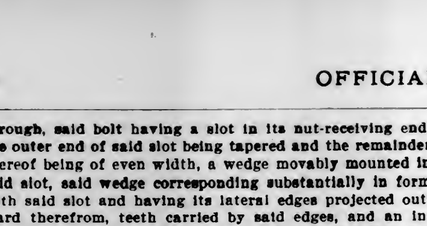
3. In nut and bolt interlocking means, the combination with a structure to be secured, of a bolt projected there-

through, said bolt having a slot in its nut-receiving end, the outer end of said slot being tapered and the remainder thereof being of even width, a wedge movably mounted in said slot, said wedge corresponding substantially in form with said slot and having its lateral edges projected outward therefrom, teeth carried by said edges, and an interiorly-threaded nut whose bore is of a greater diameter than the diameter of the bolt, the threads of said nut being in traveling engagement with the teeth of the wedge and said nut being adapted to exert an outward force upon the wedge for expanding the end of the bolt when it assumes pressure-exerting position with relation to said structure.

4. In nut and bolt interlocking means, a threadless bolt having a slot in its nut-receiving end, said slot being tapered at its outer end and having an even width from said taper inward, a wedge adapted to be inserted laterally in said slot, said wedge corresponding substantially in size and form with said slot and having a greater width than the diameter of the bolt, teeth having a slight inclination carried by the lateral edges of said wedge, and a nut having threads adapted for traveling upon the teeth of the wedge, said nut being adapted when in engagement with a forward movement-retarding surface or structure to exert an outwardly-directed force upon the wedge for expanding the end of the bolt.

5. In a device of the character described, a bolt having a slot therein and a wedge seated in said slot with its lateral edges toothed and projected outward therefrom, said wedge being adapted for receiving a nut thereon and for movement in said slot to expand the bolt behind the nut when the latter assumes a non-progressive position with relation to the bolt.

942,227. INTERNAL-COMBUSTION ENGINE. CARLEY G. WELD, North Chatham, Mass. Filed Oct. 15, 1908. Serial No. 457,816.



1. An internal combustion engine having, in combination, a moving part adapted to be moved by the explosion of the gas, ignition instrumentalities including a magneto having a rotatable member, a clutch adapted to operatively connect said rotatable member and said moving part, said clutch comprising two members normally in driving connection so as to be incapable of relative rotation in either direction, an actuating member, and means adapted to be operated by said actuating member to move one of said clutch members longitudinally of its axis out of engagement with the other and rotate said rotatable member.

2. An internal combustion engine having, in combination, a moving part adapted to be moved by the explosion of the gas, ignition instrumentalities including a magneto having a rotatable member normally in driving connection with said moving part, a device capable of but a limited amount of rotation relatively to said rotatable member, and means adapted to be operated by the rotation of said device to disconnect said rotatable member from said moving part and rotate said member.

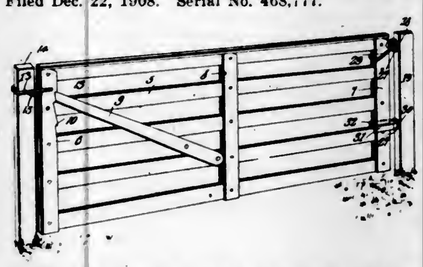
3. An internal combustion engine having, in combination, a moving part adapted to be moved by the explosion of the gas, ignition instrumentalities including a magneto having a rotatable member, a clutch comprising two members connected to said rotatable member and said moving part, respectively, said clutch members being normally positively interlocked so as to be incapable of relative rotation in either direction, an actuating member, and means adapted to be operated by said actuating member to disconnect said clutch members from driving connection with each other and rotate said rotatable member.

4. An internal combustion engine having, in combination, a moving part adapted to be moved by the explosion of the gas, ignition instrumentalities including a magneto having a rotatable member, a clutch comprising two members normally in driving connection with each other, one of said clutch members being connected with said moving part and the other being connected to said rotatable member, a second clutch, and a device to actuate said second clutch to disconnect the members of said first-named clutch from each other, said device being adapted to subsequently impart rotation through said second clutch to said rotatable member.

5. An internal combustion engine having in combination, a moving part adapted to be moved by the explosion of the gas, ignition instrumentalities including a magneto having a rotatable member, a clutch comprising two members, one of which is fast to said rotatable member, while the other is connected to said moving part, a spring adapted to normally hold said clutch members in engagement with each other, a second clutch comprising two members and a rotatable device interposed therebetween, and a device adapted to be operated by the rotation of said second clutch to disengage said first-named clutch members from each other, said second clutch having means to subsequently rotate said rotatable member independently of said moving part.

[Claims 6 to 14 not printed in the Gazette.]

942,228. GATE. WILLIE D. WHITNEY, Holley, N. Y. Filed Dec. 22, 1908. Serial No. 468,777.



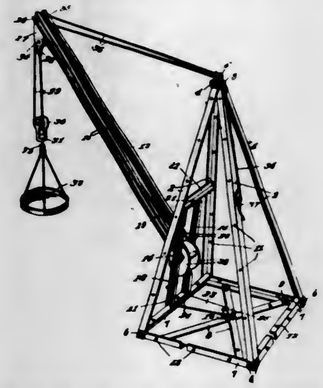
1. In a gate having a notched rear end-post, a hinge-post provided with hinge-pins, blocks swiveled on said pins, arms projecting from one of said blocks and embracing the rear end-post of the gate, and a link pivoted to the other block and loosely embracing said rear end-post of the gate and engageable with the notches thereof.

2. In a gate, a hinge post provided with hinge pins, blocks swiveled on said pins, and arms projecting from said blocks and loosely embracing the rear end post of the gate to permit vertical adjustment thereof.

942,229. TOY DERRICK. MARCUS T. C. WING, Sewickley, Pa. Filed Mar. 25, 1909. Serial No. 485,725.

1. A toy of the character described comprising a tower having upwardly converging angle metal corner bars having their angular or channeled portions turned inwardly, and the flanges at their upper ends overlapping, a cap plate bent into substantially U-shaped and arranged over said overlapping flanges of the upper ends of the corner bars, a removable transverse fastening passed through the depending portions of the cap and said overlapping flanges of the corner bars, and a base to which the lower ends of said corner bars are detachably united.

2. A toy of the character described comprising a tower having upwardly converging angle metal corner bars having their angular or channeled portions turned inwardly and the flanges at their upper ends overlapping, a cap plate bent into substantially U-shape and arranged over said overlapping flanges of the upper ends of the corner bars, a removable transverse fastening passed through the depending portions of the cap and said overlapping flanges of the corner bars, connecting bars detachably uniting the lower ends of said corner bars and forming a base, a horizontally swinging member upon one side of said tower, a vertically swinging boom carried by said member, means for operating said boom, and a hoisting tackle carried by said boom.



3. A toy of the character described comprising a tower having upwardly converging angle metal corner bars having their angular or channeled portions turned inwardly, and the flanges at their upper ends overlapping, a cap plate bent into substantially U-shape and arranged over said overlapping flanges of the upper ends of the corner bars, a removable transverse fastening passed through the depending portions of the cap and said overlapping flanges of the corner bars, an eye at the top of said cap plate, a cleat upon one of said corner bars, a vertically swinging boom carried by the tower, a guide upon the outer end of the boom, an operating cord for the boom passed through said eye and around said guide, one end of said cord being attached to the eye, and its other end being engaged with said cleat, a hoisting tackle carried by said boom, and a base to which the lower ends of the corner bars are detachably united

4. A toy of the character described comprising a tower composed of detachably connected bars including upper and lower horizontal bars, a rectangular frame arranged between said horizontal bars, removable pivots mounting said frame betwen said bars for horizontal swinging movement, a horizontal crank shaft in said frame, a winding drum on said crank shaft, a boom swung from said crank shaft and having spaced members, a guide between the outer ends of said boom members, a boom operating cord between the upper portion of the tower and said guide, and a hoisting tackle upon the boom and including a cord wound upon said winding drum.

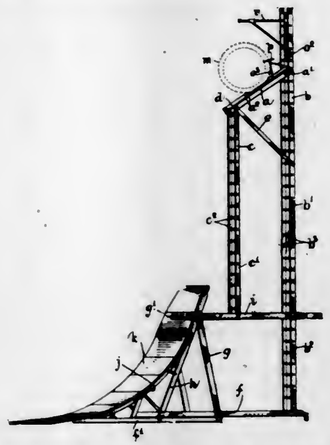
5. A toy of the character described comprising a tower, a horizontally swinging boom support in said tower, a retarding arm carried by said support and adapted to frictionally engage a portion of the tower to retard the swinging movement of said support and a boom carried by said support.

[Claims 6 to 8 not printed in the Gazette.]

942,230. AMUSEMENT APPARATUS. ARTHUR C. WOLF, New York, N. Y., assignor to Arthur T. Prescott, East Orange, N. J. Filed Mar. 31, 1909. Serial No. 486,851.

1. In an amusement apparatus, the combination of an elevated starting platform, and a landing platform located on a lower level and on substantially the same vertical plane as the discharge end of said starting platform whereby a vehicle will drop substantially vertically from said starting platform to said landing platform.

2. In an amusement apparatus, a forwardly and downwardly inclined elevated starting platform and a landing platform located on a lower level and on substantially the same vertical plane as the discharge end of said starting platform whereby a vehicle will drop substantially vertically from said starting platform to said landing platform.



3. In an amusement apparatus, the combination with an elevated starting platform, of a landing platform located on a lower level and on substantially the same vertical plane as the discharge end of said starting platform whereby a vehicle will drop substantially vertically from said starting platform to said landing platform, the traction surface of said landing platform being curved downwardly and forwardly whereby the impact of a conveyance therewith will be reduced.

4. In an amusement apparatus an elevated starting platform and a landing platform having a downwardly and forwardly curved traction surface, the downward curved portion being on substantially the same vertical plane as the discharge end of said starting platform whereby a vehicle will drop from said starting platform substantially vertically to said landing platform, and a reverse curve at the top of said landing platform upwardly and toward said starting platform.

5. In an amusement apparatus, an elevated starting platform and a landing platform located on a lower level than, and on substantially the same vertical plane as said starting platform whereby a vehicle will drop substantially vertically from said starting platform to said landing platform, said landing platform having a continuous traction surface formed in an easement curve, extending downwardly and forwardly relative to said starting platform.

[Claims 6 to 10 not printed in the Gazette.]

942,231. BAG-HOLDER. HJALMAR WOODMAN, Joliet, Ill. Filed Aug. 10, 1909. Serial No. 512,134.

1. A bag-holder comprising a base, a tubular standard secured in said base, a rod telescopically mounted in said standard, means carried by said standard for securing said rod in its adjusted position, a lateral sleeve formed upon the upper end of said rod, L-shaped bag holding arms mounted in said sleeve and telescopically connected, said arms being vertically movable into operative and inoperative position and laterally adjustable in said sleeve and means formed integral with said sleeve and extending inwardly thereof adapted to secure said arms in their adjusted position.

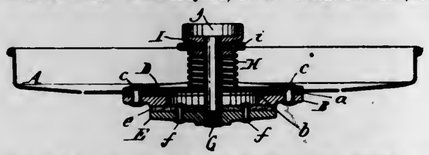
2. A bag holder comprising a base, a vertical tubular standard secured therein, a rod telescopically mounted in said standard, a sleeve upon the upper end of said rod, L-shaped arms mounted in said sleeve, said arms being movable into operative and inoperative position and hav-

ing longitudinal slots in the inner ends thereof, one of said arms being telescopically arranged within the other of said arms, both of said arms having lateral recesses communicating with said slots, a lug integrally formed with said sleeve and extending inwardly thereof, said lug being



positioned in the longitudinal slots formed in said arms when the arms are in inoperative position, the lateral recesses provided in said arms being adapted to register and receive said lug when the arms are disposed in operative position, to lock the same against lateral movement, and a plurality of depending bag receiving hooks secured in the parallel end portions of said arms.

942,232. VALVE FOR AUTOMOBILE DRIP-PANS. THOMAS A. YAPP, Buffalo, N. Y., assignor to E. R. Thomas Motor Company, Buffalo, N. Y., a Corporation of New York. Filed May 24, 1909. Serial No. 497,960.

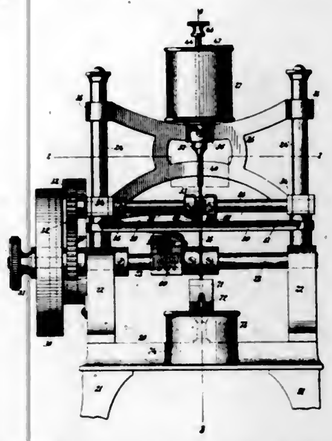


1. A valve for the drain openings of automobile drip pans comprising a valve ring adapted to be secured to the underside of said pan around its drain opening, a guide bar secured to the upper side of said pan across said opening, a valve disk movable toward and from the underside of said ring, a valve stem connected at its lower end with the disk and guided with its central part in said bar, a head arranged on the upper end of said stem and a spring interposed between said bar and head and operating to hold the disk yieldingly in its closed position.

2. A valve for the drain openings of automobile drip pans comprising a valve ring adapted to be secured to the underside of said pan around its drain opening, a guide bar secured to the upper side of said pan across said opening, a valve disk movable toward and from the underside of said ring, a valve stem connected at its lower end with the disk and guided with its central part in said bar, a head arranged on the upper end of said stem and having a cup-shaped upper side, and a spring surrounding the upper part of the stem and engaging its upper and lower ends with said head and bar for holding the disk yieldingly in its closed position.

942,233. TURN-DOWN-COLLAR-SEAM-DAMPENING MACHINE. WILLIAM A. ZEIDLER, New York, N. Y., assignor to William A. Zeidler Company, New York, N. Y., a Corporation of New York. Filed Aug. 9, 1907. Serial No. 387,746.

1. In a collar-dampening machine, a pair of dampening wheels disposed one over the other, means for rotating the same, and means for supplying water to said wheels, combined with a feed-table over which collars are fed to said wheels, means for engaging the seam-edge of the seam-ridge of the collar for guiding the same, and a yielding finger normally held inoperative by the body of the traveling collar and adapted when unrestrained to project upwardly through a hole in said table in the path of the inclined edge of the final tab-end of the collar for deflecting the same from passage between said wheels; substantially as set forth.



2. In a collar-dampening machine, a pair of dampening wheels disposed one over the other, means for rotating the same, and means for supplying water to said wheels, combined with a feed-table over which collars are fed to said wheels, and a guide for the collars, said guide comprising a folded plate hinged at its fold on said feed-table and comprising an upper member extending inwardly above said table and a lower member extending inwardly below said table, said lower member being weighted and said upper member having at its inner end depending lugs to engage the collar at opposite sides of its seam-ridge and one of said lugs being in line with said wheels and adapted to engage the seam-edge of said ridge; substantially as set forth.

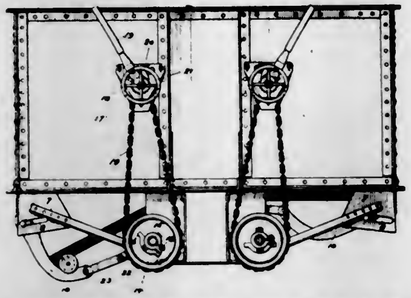
3. In a collar-dampening machine, a pair of dampening wheels disposed one over the other, means for rotating the same, and means for supplying water to said wheels, combined with a feed-table over which collars are fed to said wheels, a collar guide formed of a folded plate passed upon the edge of said table and adapted to have a hinged action thereon, and a U-plate secured on said edge for maintaining said plate in position, said guide comprising an upper member extending inwardly above said table and a lower member extending inwardly below said table, said lower member being weighted and said upper member having at its inner end depending lugs to engage the collar at opposite sides of its seam-ridge and one of said lugs being in line with said wheels and adapted to engage the seam-edge of said ridges; substantially as set forth.

4. In a collar-dampening machine, a pair of dampening wheels disposed one over the other, means for supplying said lower wheel with water, means for rotating said wheels to draw collars through the machine and dampen them along their folding line, and means for guiding said collars, combined with means for feeding water in limited quantity to said upper wheel and comprising a water-reservoir having a hollow depending discharge nozzle containing a valve-seat and slotted in its side, a valve-rod adjustable toward and from said seat, and means in said nozzle and extending along its slotted side to control the escape of water from said nozzle; substantially as set forth.

5. In a collar-dampening machine, a pair of dampening wheels disposed one over the other, means for supplying said lower wheel with water, means for rotating said wheels to draw collars through the machine and dampen them along thir folding line, and means for guiding said collars, combined with means for feeding water in limited quantity to said upper wheel and comprising a water-reservoir having a hollow depending internally threaded stem with a discharge nozzle extending downwardly therefrom and containing a valve-seat and slotted in its side, a threaded valve rod in said stem adjustable toward and from said seat and having a flattened side, and means in said nozzle and extended along its slotted side to control the escape of water from said nozzle; substantially as set forth.

[Claims 6 to 10 not printed in the Gazette.]

942,234. DOOR-OPERATING MECHANISM. ROBERT M. ZIMMERMAN, Montreal, Quebec, Canada, assignor to National Dump Car Company, Chicago, Ill., a Corporation of Maine. Filed May 29, 1908. Serial No. 435,657.



1. In a dump car, a hinged door, a lever extending transversely of the door and mounted adjacent the free edge thereof and having a pivotal and bodily movement, said lever contacting with part of said door and the upper surface of said lever having a curved contour whereby movement of the lever exerts both a lifting and a camming action upon the door, and means for raising and lowering said lever.

2. In a dump car, a hinged door, a lever extending transversely of said door and pivoted adjacent the free edge thereof, said lever contacting with a part of said door and being provided adjacent its pivoted end with a depression, and means for raising and lowering said lever, the parts being so proportioned that when the lever is raised the contacting part of the door will lie in said depression.

3. In a dump car, a hinged door, a lever mounted in the fixed part of the car frame adjacent the free edge of said door and contacting therewith, said lever having a pivotal and a bodily movement, and means for imparting such movement to said lever.

4. In a dump car, a hinged door, a lever mounted in a fixed part of the car frame adjacent the free edge of said door, said lever having a pivotal and a bodily movement with reference to said fixed part, a projection upon said door coöperating with said lever, and means for imparting pivotal and bodily movement to said lever.

5. In a dump car, a hinged door, a lever mounted in a fixed part of the car frame adjacent the free edge of said door and having a pivotal and bodily movement with reference to said fixed part, said lever being provided near its outer end with a depression, a projection on said door engaging said lever, and means for imparting pivotal and bodily movement to said lever, the parts being so disposed that the bodily movement of said lever causes said projection to enter said depression.

[Claims 6 to 9 not printed in the Gazette.]

942,235. METHOD OF PREPARING MINERAL MATERIALS AND THE LIKE FOR STREET AND ROAD CONSTRUCTION. JOSEPH H. AMIES, Philadelphia, Pa., assignor to The Amies Asphalt Company, Philadelphia, Pa., a Corporation of South Dakota. Filed Feb. 20, 1909. Serial No. 479,253.

The herein described process which consists in mixing heated asphalt with heated water to induce fomentation of the asphalt and during the fomentation adding cold mineral, fibrous, and like matters in successive small quantities to the foaming mass whereby the said matters are coated by a self acting process.

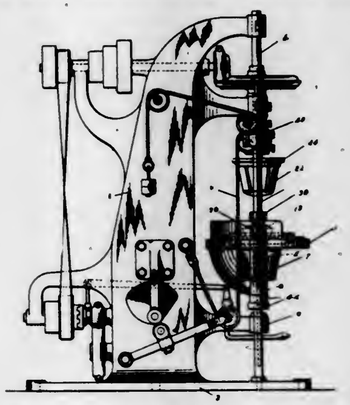
942,236. COMPOSITION FOR PAVING PURPOSES. JOSEPH H. AMIES, Philadelphia, Pa., assignor to The Amies Asphalt Company, Philadelphia, Pa., a Corporation of South Dakota. Filed Feb. 20, 1909. Serial No. 479,256.

A composition for paving purposes formed of mineral matters and the like, coated with a light oil then mixed with hot asphaltic cement and the like, then mixed with a cream of calcium hydrate, for the purposes as fully set forth.

942,237. PAVING COMPOSITION. JOSEPH H. AMIES, Philadelphia, Pa., assignor to The Amies Asphalt Company, Philadelphia, Pa., a Corporation of South Dakota. Filed Feb. 20, 1909. Serial No. 479,259.

The herein described composition which consists in mixing coal tar, and the like, with suitable elements such as crushed stone and the like, and adding and mixing therewith calcium oxid or calcium hydrate for the purposes set forth.

942,238. MACHINE FOR FORMING PLASTIC MATERIAL. GEORGE S. BALSLEY and PHILIP H. A. BALSLEY, Detroit, Mich. Filed Nov. 25, 1907. Serial No. 403,759.



1. A machine for forming vessels from plastic material comprising a frame, a former rotatably mounted thereon, a platen reciprocable in ways in alinement with the former, a mold thereon adapted to coact with the former, a collar longitudinally adjustable on the former adapted to close the top of the mold, a stop on the ways, a collar longitudinally adjustable on the platen adapted to engage the stop coincident with the closing of the mold by the former collar, means for reciprocating the platen adapted to yieldingly maintain the platen against the stop during a portion of the stroke, and a foot plate on the former, adapted to fall away from the former body when the latter is raised.

2. In a machine for forming vessels from plastic material, a reciprocable mold, a rotatable former adapted to coact therewith, and means adapted to admit air around the inner peripheries of the mold and former when the mold is retracted, consisting of a foot plate movably seated on the lower end of the former whose margin extends to the lower peripheral margin of the former, the former body having air passages extending from the upper end of the former to the rear of the foot plate, a base removably seated in the mold, and a bottom plate sup-

ported at an interval above the base, the mold having air vents opening into the mold interior and into the interval between the base and bottom plate.

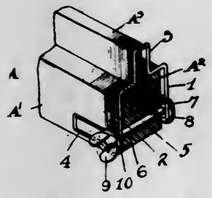
3. A machine for forming vessels from plastic materials comprising a reciprocable mold, a rotatable former adapted to coact therewith, means adapted to reciprocate the mold, adjusting means adapted to limit the movement of the mold toward the former, yielding supporting members between the mold and reciprocating members adapted to maintain the mold in position against the adjusting means during a portion of the stroke of the reciprocating means, means adapted to admit air around the inner peripheries of the mold and former when the mold is retracted, consisting of a foot plate yieldingly seated on the lower end of the former whose margin extends to the lower peripheral margin of the former, the latter having air passages extending from the upper end to the rear of the foot plate, a base removably seated in the mold, and a bottom plate supported at an interval above the base, adapted to centrally register with air vents through the mold when the mold is raised, that open into the mold interior and into the interval between the base and bottom plate, the thickness of the bottom plate being less than the vertical height of the vents.

4. In a machine for forming vessels from plastic material, a rotatable former having a body provided with a movable yieldingly projected foot plate and air ducts leading from the upper part of the body to the rear of the bottom plate, a mold having a body conforming substantially to the former provided with a base having a bottom plate supported at an interval above it and air ducts through the body walls and base communicating with the interior and with the interval between the plate and base, and means to arrest and support the base when the body recedes from the spinner.

5. In a machine for forming vessels from plastic material, a rotatable former having a body provided with a movable yieldingly projected foot plate seated thereon, and with an air duct leading from the upper part of the body through the plate seat, a reciprocable mold having a hollow body substantially conforming interiorly to the exterior of the former, a perforated movable base adapted to close the lower end of the mold and to be projected thereby toward the former, a bottom plate yieldingly supported at an interval above the base, and air ducts through the body walls each opening into the interior of the mold and into the interval between the base and bottom plate, and a spindle adapted to arrest and support the base when the mold descends.

[Claims 6 and 7 not printed in the Gazette.]

942,239. LOCKING DEVICE FOR CLAMPS. JOSEPH BEGINS, Brunswick, Me., assignor to Barber-Colman Company, Rockford, Ill., a Corporation of Illinois. Filed Apr. 20, 1907. Serial No. 369,389.



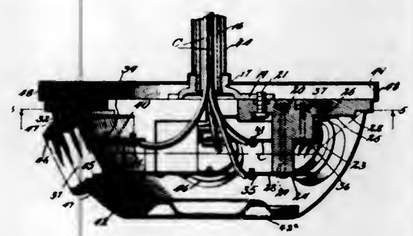
1. A clamp having a bail pivotally and slidably attached thereto, and means for securing said bail against movement with relation to the clamp.

2. A clamp provided with a locking device consisting of a portion adapted to fit over the sections of the clamp, said portion having an elongated loop thereon, and means extending through said loop for clamping said portion to the clamp.

3. A clamp provided with a locking means consisting of a member adapted to fit over the sections of the clamp, said member having two elongated loops thereon, and a bolt extending through one of the clamp-sections and through said elongated loops for securing said member to the clamp.

4. A clamp provided with a locking means consisting of a bail formed from wire and adapted to fit over and conforming to the clamp sections, said bail having an elongated loop at each side thereof adapted to lie at opposite sides of one of the clamp-sections, a bolt extending through said clamp section and through said elongated loops, and a clamp nut on said bolt.

942,240. PLURAL-LAMP-HOLDING DEVICE. REUBEN B. BENJAMIN, Chicago, Ill., assignor to Benjamin Electric Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 5, 1907. Serial No. 387,091.



1. In a plural lamp-holding device, the combination with a supporting member, of a plurality of radially-extending legs therefor, an insulating block secured to each of said legs, electrical contact and lamp-holding devices carried by said blocks, and a casing inclosing said blocks and said contact and lamp-holding devices, said casing having openings registering with said lamp-holding devices.

2. In a plural lamp-holding device, the combination with a supporting member, of a plurality of insulating blocks secured thereto, an electrically conductive member secured to said blocks, lamp-holding devices secured to said electrically conductive member, a second electrically conductive member separately secured to said blocks and arranged to conduct current to the center contacts of the lamps, a metallic casing having openings registering with said lamp-holding devices, and means surrounding each of said lamp-holding devices for insulating the same from said casing.

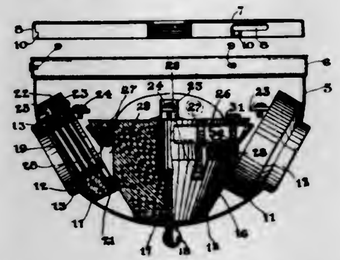
3. In a plural lamp-holding device, the combination with a support, of a plurality of legs extending radially therefrom, an insulating member secured to each of said legs, and a pair of current-carrying supporting members separately secured to said insulating members, a plurality of lamp-receiving contact shells carried by one of said members, and a plurality of contact members carried by the other of said members for association with said shells.

4. In a plural lamp-holding device, the combination with a supporting member, of a plurality of legs extending therefrom, an insulating member secured to each of said legs, an electrically-conductive supporting ring secured to said insulating members, a plurality of lamp-receiving contact shells secured to said ring, a second electrically-conductive supporting ring separately secured to said insulating members, and a plurality of contacts carried by said second ring and associated with said shells to engage the center terminals of lamps inserted therein.

5. In a plural lamp-holding device, the combination with a support, of a plurality of insulating blocks carried by said support, an electrically-conductive member carried by said blocks, a plurality of lamp-receiving contact shells secured to and carried by said electrically-conductive member, a second electrically-conductive member separately carried by said blocks, and a plurality of contacts carried by said second electrically-conductive member, said contacts being associated with said contact shells to engage the center terminals of lamps inserted therein.

[Claims 6 to 17 not printed in the Gazette.]

942,241. PLURAL LAMP-SOCKET. REUBEN B. BENJAMIN, Chicago, Ill., assignor to Benjamin Electric Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 28, 1907. Serial No. 408,408.



1. In a plural lamp-holding device, a casing, insulating lamp-holding means carried by said casing, separate outer contacts for said lamp-holding means, a separate binding terminal for each of said outer contacts, a continuous center contact for all of said lamp-holding devices, a binding terminal for said center contact member, and a base carrying said center contact and its binding terminal, said base being removable independently of said outer contacts or their binding terminals.

2. In a plural lamp-holding device, a casing having lamp-receiving openings, outer lamp-terminal-engaging members carried by said casing and corresponding to said openings, each of said members having its own binding terminal, an inner contact opposite each of said openings, a binding terminal common to all of said inner contacts, and a base to which said common binding terminal is secured, said base being secured in said casing independently of said outer lamp-terminal engaging members and removable independently of said members.

3. In a plural lamp-holding device, a casing having lamp-receiving openings, an outer contact corresponding to each of said openings, an inner contact common to all of said openings, separate binding terminals for said outer contacts, and a base carrying said inner contact and made removable independently of said outer contacts.

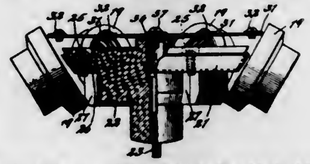
4. In a plural lamp-holding device, a casing having lamp-receiving openings, an insulating bushing in each of said openings, a threaded shell in each of said bushings, a binding terminal for each of said threaded shells, an insulating member within said casing arranged to engage said bushings and hold the same in said openings, an annular contact member extending around said insulating member and forming a center contact for engagement with all of the lamps, and a binding terminal for said annular contact member.

5. In a plural lamp-holding device, the combination of a casing, conducting lamp-receiving shells carried by said casing, an individual binding terminal for each of said shells carried by and insulated from the casing, an insulating member located within said casing and secured therein independently of said shells, and means carried by said insulating member for electrically connecting with the center terminals of lamps inserted into said shells.

[Claims 6 to 9 not printed in the Gazette.]

942,242. PLURAL-LAMP-HOLDING DEVICE. REUBEN B. BENJAMIN, Chicago, Ill., assignor to Benjamin Electric Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 28, 1907. Serial No. 408,409.

1. In a plural lamp-holding device, a casing comprising a back-plate and a bowl-shaped shell having lamp-receiving openings, an insulating bushing in each of said openings having shoulders for preventing said bushings from passing outward through said openings, a threaded socket-shell in each of said bushings, means supported wholly by said shells, for electrically connecting all of said shells together, an insulating base within said casing, and means carried by said base for conducting current to the center terminals of the lamps, said base being supported independently of said shells and said shell-connecting means.



2. In a plural lamp-holding device, a base, a casing comprising a back-plate and a bowl-shaped shell having lamp-receiving openings, a threaded socket-shell in each of said openings, means in each of said openings for insulating the socket-shell from the casing, each of said socket-shells having an integral tongue extending therefrom, means supported by said tongues and located between said base and said back-plate for electrically connecting all of said socket-shells together, means independent of said shells and said connecting means for securing said base in position in said casing, and an annular contact carried by said base for engaging with the center terminals of the lamps.

3. In a plural lamp-holding device, a casing comprising a back-plate and a bowl-shaped shell supported thereby having lamp-receiving openings, an insulating bushing in each of said openings, a threaded socket-shell in each of said bushings, an insulating base within said bowl-shaped shell, a contact carried by said base for engagement with the center terminals of the lamps, and means for connecting all of said threaded shells together electrically, said base being supported independently of said connecting means.

4. In a plural lamp-holding device, a casing comprising a back-plate and a bowl-shaped shell having lamp-receiving openings, an insulating bushing in each of said openings, an insulating base within said shell engaging said bushings to prevent their moving inwardly in said openings, a threaded socket-shell in each of said bushings, means supported by said socket-shells for electrically connecting said shells together, and means carried by said base for conducting current to the center terminals of the lamps.

5. In a plural lamp-holding device, a casing having a circularly-arranged series of openings, a threaded socket-shell in each of said openings, a base within said casing, means carried by said base for conducting current to the center terminals of lamps carried by said shells, and a plurality of metallic strips, each arranged to mechanically and electrically connect a pair of sockets together, a plurality of said strips crossing each other and being electrically connected at their crossing point.

[Claims 6 to 8 not printed in the Gazette.]

942,243. METHOD OF MILKING COWS. FRANZ M. BERBERICH, Kiel, Germany. Filed Nov. 25, 1908. Serial No. 464,427.

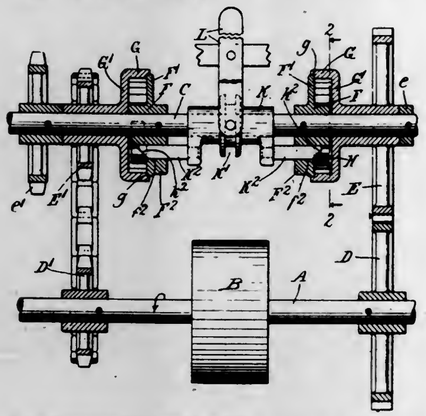


1. A method of milking a cow which consists in subjecting the cow to a slight electric shock so as to cause the milk to flow freely and simultaneously pressing the teats on the cow's udder so as to produce a reflex action on the muscles of the cow; substantially as described.

2. A method of milking a cow which consists in subjecting the cow to a slight electric shock, and subjecting the teats of the cow's udder to a combined pressing and sucking action; substantially as described.

3. The herein-described method of milking a cow, which consists in applying teat cups to the teats of the cow's udder, creating suction within said teat cups and simultaneously subjecting the cow's udder to a slight electric shock.

942,244. CLUTCH MECHANISM. JOSEPH BODA, Plano, Ill., assignor to The Independent Harvester Company, Plano, Ill., a Corporation of Maine. Filed June 15, 1908. Serial No. 438,464.



1. In combination with a shaft to or from which power is to be transmitted and a wheel loose for rotation on such shaft, a clutch collar fast on the shaft; a ratchet element rigid with the wheel; a dog pivotally mounted on the clutch collar having its opposite ends adapted and positioned for engaging the ratchet, one end at a time; a spring reacting on the dog for holding it normally engaged at one end with the ratchet; a shipping collar mounted for sliding on the shaft; a finger extending therefrom engaging the clutch collar and encountering the dog thereon, the end of the finger being beveled for such encounter to wedge the dog against the opposition of its spring and the dog being constructed for movement of its head bodily upon such encounter, the encountering parts of the finger and dog being unyielding with respect to the remainder of said elements for positively moving the dog into and holding it in engagement with the ratchet.

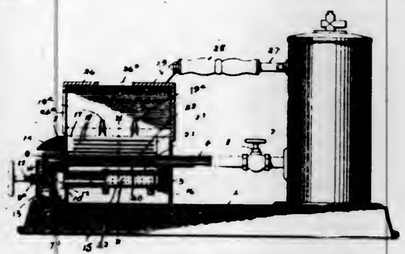
2. In combination with a shaft to or from which power is to be transmitted, two wheels loose for rotation on such shaft and means for communicating rotation in opposite directions to or from such wheels; ratchet elements rigid with the wheels respectively and facing each other; clutch collars fast on the shaft between the two ratchet elements and coöperating with them respectively; dogs pivoted on the clutch collars, each having its opposite ends adapted to be engaged one at a time with the coöperating ratchet and provided each with a spring for holding one end normally engaged with the ratchet; a shipping collar loose for sliding on the shaft between the two clutch collars; fingers projecting from the opposite ends of said shipping collar into engagement with the clutch collars respectively, said fingers being beveled for encounter with the clutch collars, respectively, toward which they are moved, the encountering parts of said fingers and dogs being unyielding with respect to the remainder of said elements respectively for positively wedging the encountered heads into engagement with the ratchets respectively.

3. In combination with a shaft to or from which power is to be transmitted and a wheel loose for rotation on such shaft, a clutch collar fast on the shaft; a ratchet element rigid with the wheel; a dog pivotally mounted on the clutch collar having its opposite ends adapted and positioned for engaging the ratchet one at a time; a spring reacting on the dog for holding its head normally engaged with the ratchet; a shipping collar mounted for sliding on the shaft; a finger extending therefrom engaging the clutch collar and encountering the dog thereon for rocking it positively about its pivot in opposition to its spring, the ratchet shoulders of the ratchet being sloped, so that at the position at which each is engaged with the head of the dog, it stands at an obtuse angle to any line from it to the axis of the pivot of the dog.

4. In combination with a shaft to or from which power is to be transmitted, and a wheel loose for rotation on such shaft, a clutch collar fast on the shaft; a ratchet element rigid with the wheel; a dog pivotally mounted on the clutch collar having its opposite ends adapted and positioned for engaging the ratchet, one end at a time: a spring operating on the dog for holding one end normally engaged with the ratchet; a collar mounted for sliding on the shaft; a finger extending therefrom encountering the dog on the clutch collar for rocking it about its pivot in opposition to its spring, the dog being constructed for movement as a rigid element throughout its entire extent from the point of encounter of the finger to and including the ratchet-engaged end.

5. In combination with a shaft to or from which power is to be transmitted, and a wheel loose for rotation on such shaft, a clutch collar fast on the shaft; a ratchet element rigid with the wheel; a dog pivotally mounted on the clutch collar having its opposite ends adapted and positioned for engaging the ratchet, one end at a time; a spring operating on the dog for holding one end normally engaged with the ratchet; a collar mounted for sliding on the shaft; a finger extending therefrom encountering the dog on the clutch collar for rocking it about its pivot in opposition to its spring, the encountering parts of the finger and dog being unyielding with respect to the remainder of said elements for positive transmission of the movement of the one to the other, and positive holding of the encountered end of the dog in engagement with the ratchet.

942,245. SOLDERING-FURNACE. EDWARD T. BURGESS, Columbus, Ohio. Filed Apr. 17, 1909. Serial No. 490,551.



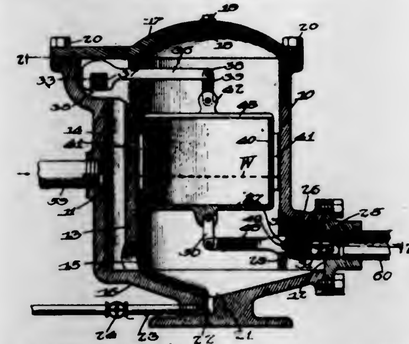
1. In a soldering furnace, the combination with a stove body, opposing burners arranged in said body, and a gasolene supply pipe extending below said burners, of a gas conducting pipe extending beneath said gasolene supply pipe and having a burner opening therein, said gas conducting pipe being connected with said opposing burners, and means for discharging gas generated in said gasolene supply pipe into the forward end of said gas conducting pipe.

2. In a soldering furnace, the combination with a stove body, a hollow burner therein, and a gasolene supply pipe beneath said burner, of a gas conducting pipe below the gasolene pipe and having a burner opening, a perforated plate partially closing said burner opening, a connection between the rear end of said gas pipe and said hollow burner, and means for discharging gas generated in said gasolene pipe and its connections into said gas pipe.

3. In a soldering furnace, the combination with a stove body, hollow burners supported therein, a gasolene supply pipe extending below said burners, an angular pipe extension at the forward end of said gasolene pipe, and an adjustable valve intersecting said pipe extension, of a gas conducting pipe beneath the gasolene pipe having a burner opening therein, a gas conducting connection between said gas pipe and said hollow burners, and inclined soldering iron supports above said burners.

4. In a soldering furnace, the combination with a stove body having vertical end recesses, a gasolene conducting pipe extending through said recesses, and burners above said gasolene pipe, of a gas conducting pipe below said gasolene pipe and connected with said burners, said gas conducting pipe having a burner opening, and means for discharging gas from the gasolene pipe into said gas conducting pipe, and a shield crossing the forward recess in said stove body and pivoted on one side thereof.

942,246. VALVE FOR STEAM-TRAPS. BENTON L. CLOVER and GRIFFITH H. CLOVER, Chicago, Ill. Filed Nov. 4, 1907. Serial No. 400,529.



1. A valve for steam traps and the like comprising a housing having registering inlet and discharge openings, a valve plug within the housing provided with a single port passing therethrough and adapted to simultaneously communicate with the registering openings, said plug being also provided with a passage communicating with the trap and also with the port in said plug, and means for moving the plug in the housing.

2. A valve for steam traps and the like comprising a valve housing provided with registering apertures and having open ends, a valve plug within the housing provided with a single port extending therethrough and adapted to simultaneously communicate with the apertures in the housing, said plug being also provided with passages extending through the ends thereof and communicating with the port in said plug, said housing and plug terminating short of the walls of the trap whereby the water of condensation may enter the said passages, and means for operating the valve plug.

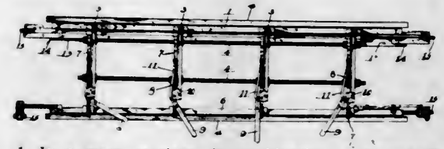
3. A valve for steam traps and the like comprising a housing provided with registering apertures and having open ends, a valve plug within the housing provided with a port extending therethrough and adapted to communicate with the apertures in the housing, said plug being also provided with passages extending through the ends thereof and communicating with the port therein, the ends of the plug projecting beyond the ends of the housing and terminating short of the walls of the trap and being provided with angular extremities, and a yoke for operating the valve provided with bifurcated portions in which the angular extremities are adapted to be seated.

4. A valve for steam traps and the like comprising a valve housing provided with registering apertures, a rotary valve plug in the housing provided with a port adapted to register with the apertures, the extremities of the plug projecting beyond the housing and terminating short of the walls of the trap, said plug being also provided with passages extending therethrough and communicating with the port therein, means for rotating the valve plug, and means for bodily moving the valve plug in the housing during its rotary movement.

5. A valve for steam traps and the like comprising a housing provided with registering apertures, a rotary valve plug in the housing provided with a port adapted to register with the apertures, the extremities of the plug projecting beyond the housing and terminating short of the walls of the trap, said plug being also provided with passages extending therethrough and communicating with the port therein and also with the trap, means for rotating the plug, and a pin and slot connection between the plug and housing for bodily moving the valve plug in the housing during its rotary movement.

[Claims 6 and 7 not printed in the Gazette.]

942,247. WARP-CARRIAGE. HOWARD D. COLMAN, Rockford, Ill., assignor to Barber-Colman Company, Rockford, Ill., a Corporation of Illinois. Filed Oct. 28, 1907. Serial No. 399,437.



1. In a warp carriage, in combination, a framework carrying a warp clamp; arms slidably mounted in said frame; a clamp carried by said arms; hand levers mounted in said frame; and a link connecting each of said hand levers with one of said arms.

2. In a warp carriage, in combination, a framework; a clamp carried by said framework; a plurality of arms slidably mounted in said framework; a clamp carried by said arms; hand levers mounted in said framework; a rod connecting all of said hand levers for simultaneous movement; and a link connecting each of said hand levers with one of said arms.

3. In a warp carriage, in combination, a plurality of angular arms each comprising a horizontal portion; two longitudinal rods secured in the horizontal portions of said arms; a warp clamp carried by said arms; a plurality of angular arms, each comprising a horizontal portion having two elongated openings therein through which said rods extend; a warp clamp secured to said last mentioned arms; and means for moving said sets of arms toward and away from each other.

942,248. AUTOMATIC SELF-INDICATING FUSE. FRANK B. COOK, Chicago, Ill. Filed Mar. 1, 1909. Serial No. 480,602.

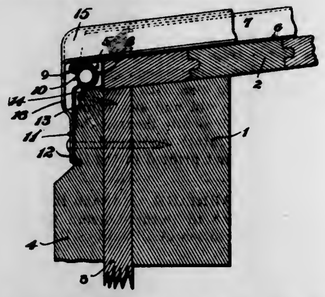


A fuse of the character described having a casing for the fusible conductor and metallic end caps on the casing, at least one of the end caps having a hollow outwardly-projecting hub thereon, a metallic plunger carried within the said hub and movable therein, a coil spring encircling the said plunger and being conductively attached to the latter and to the said hub, and a fusible conductor extending through the said casing and through the said plunger and being attached to the outer end of the latter, the said fusible conductor being normally under tension whereby the coil spring is held under compression to normally hold the said plunger down into the said hub, the fusing of the fusible conductor releasing the said coil spring and thereby permitting same to extend itself and thus move the said plunger outwardly, relatively to the said hub, for purposes substantially as described.

942,249. CAR-ROOF. EDSON C. COVERT, New Kensington, Pa., assignor to Peter H. Murphy, Pittsburg, Pa. Filed Apr. 3, 1909. Serial No. 487,708.

1. A car comprising roof sheets whose outer ends are rebent on the underside to form outwardly opening sock-

ets, and clips mounted at the side of the car and having heads interlocking with said sockets.



2. A car comprising roof sheets whose outer ends are rebent on the underside to form sockets, the part adjacent to the line of the rebend being turned downwardly, and clips mounted at the side of the car and having heads interlocking with said sockets.

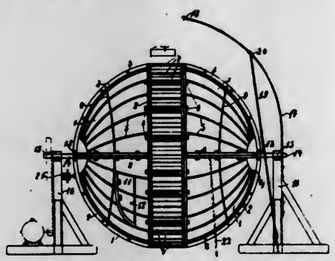
3. A car comprising roof sheets whose outer ends are bent to form sockets at the edge of the car and sheet metal clips mounted on the side of the car and having their upper marginal portions rolled to fit pivotally in said sockets.

4. A car comprising roof sheets whose outer ends are bent to form sockets, and metal sheets secured to the side of the car and having their upper marginal portions offset and rolled to fit pivotally in said sockets.

5. A car comprising roof sheets whose outer ends are bent to form sockets at the edge of the car and sheets of metal mounted on the side of the car and having their upper marginal portions rolled to fit pivotally in said sockets, the upper portion of said last mentioned sheets being normally spaced from the side of the car.

[Claims 6 to 8 not printed in the Gazette.]

942,250. SPHERE FOR ACROBATIC PURPOSES. COLOMAN F. DEMEK, Berlin, Germany. Filed July 19, 1909. Serial No. 508,485.



1. The combination of two standards, a sphere comprising a plurality of segments each comprising boundary bars and longitudinal ribs mounted revolubly on said standards, and tensioned means for stiffening the surface of the sphere.

2. The combination of two standards, a sphere comprising a plurality of segments each comprising boundary bars and longitudinal ribs mounted revolubly on said standards, and tensioned means for stiffening the surface of the sphere, and a holder or support attached to one of said standards and located above said sphere.

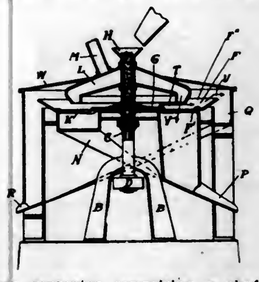
3. The combination of two standards, a sphere comprising a plurality of segments each comprising boundary bars and longitudinal T-shaped ribs mounted revolubly on said standards, and tensioned means for stiffening the surface of the sphere, and a wire net attached to said ribs inside the sphere.

4. The combination of two standards, a sphere comprising two sets of segments and cross-bars forming a track connecting the same mounted revolubly on said standards, each segment being composed of boundary bars and longitudinal ribs, and tensioned means for stiffening the surface of the sphere.

5. The combination of two standards, a sphere comprising a plurality of segments each comprising boundary bars and longitudinal, perforated, T-shaped ribs mounted revolubly on said standards, and tensioned ropes passing through said ribs.

[Claims 6 to 8 not printed in the Gazette.]

942,251. CENTRIFUGAL DRY COAL-SEPARATOR. ALFRED ERNST, Pittsburg, Pa., assignor to The Coal and Coke By-Products Company, a Corporation of West Virginia. Filed Oct. 3, 1908. Serial No. 455,991.



1. A rotary separator comprising a shaft vertically mounted, a rotary table thereon having an inner and an outer member separated by an interval and each adapted to receive the material and discharge it therefrom by centrifugal force, said outer member having a rising or inclined portion surrounding a horizontal receiving surface approximately in the same plane or level as that of the discharging edge of the inner member, for receiving the heavier material discharged across said interval by centrifugal force, means for delivering material to be separated to the inner member, and means for catching or receiving the materials discharging from the outer member, for substantially the purposes set forth.

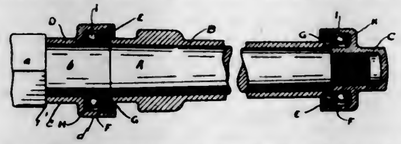
2. A rotary separator comprising a shaft vertically mounted, a rotary table thereon having an inner and an outer member separated by an interval and each adapted to receive the material and discharge it therefrom by centrifugal force, said outer member having a receiving surface approximately in the same plane or level as that of the discharging edge of the inner member, for receiving the heavier material discharged across said interval by centrifugal force, means for delivering material to be separated to the inner member, and means for catching or receiving the materials discharged from the outer member, and a blast nozzle directed toward said interval, for substantially the purposes set forth.

3. A rotary separating table having a vertical shaft and an inner member from which the material to be separated is thrown by the centrifugal force, and having an outer rotary member presenting a comparatively thin edge which is located in approximately the same horizontal plane with the delivering edge of the inner member but at an interval therefrom to divide the material or materials.

4. A rotary separating table having an inner member from which the material to be separated is thrown by the centrifugal force, and having an outer rotary member presenting a comparatively thin edge which is located in position to divide the material or materials, and a blast duct having a mouth which restricts and directs a blast through the interval between the inner and outer member.

5. A rotary separating table comprising two members in approximately a single horizontal plane with one or more separating intervals between them, and an air blast duct provided with a mouth or mouths directed toward said interval or intervals.

942,252. ROLLER-BEARING. FRANK M. FOOTE, Marshall, Mich. Filed Oct. 30, 1908. Serial No. 460,231.



1. In a roller bearing, the combination of an axle spindle having a shoulder, a collar fitting the inner rounded portion of the spindle, one end of the collar contacting with the shoulder and the other end being enlarged, a raceway ring located within the enlarged part of the collar, rollers bearing against the raceway ring, a cup contacting with the bearing rollers, a compressible washer in the cup, a spring ring fitting around the cup and into a slanting groove in the inner side of the enlarged part of the collar, the spring being provided with an annular internally extending rib to engage and hold the cup from displacement.

2. In a roller bearing, the combination of a nut provided with an enlarged portion which is grooved, the other end of the nut being adapted to receive a wrench, a raceway ring located in the groove, rollers bearing against the raceway ring, a cup in contact with the bearing rollers, a compressible washer in the cup and a spring fitting over the outside of the cup and into a slanting groove in the inside of the outer wall of the grooved portion, the spring being provided with an annular internally extending rib to engage and hold the cup from displacement.

3. In a roller bearing, the combination of an axle spindle having a shoulder, a collar fitting the inner rounded portion of the spindle and in contact with the shoulder, the other end of the collar enlarged, an axle nut with an enlarged part which is grooved, a raceway ring located in the groove in the nut and also in the enlarged part of the collar, rollers bearing against the raceway rings, cups in contact with said rollers, compressible washers in the cups, a spring fitting over the outside of each cup and into a slanting groove, the springs provided with an annular internally extending rib to engage and hold the cups from displacement, said compressible washers being located one at each end of a wheel boxing and in direct contact therewith.

942,253. COIN-CONTROLLED VENDING APPARATUS. MICHAEL J. FORTH, Boston, Mass., assignor, by mesne assignments, of one-half to John Leake, Boston, Mass. Filed Nov. 27, 1908. Serial No. 464,633.



1. In a coin-controlled apparatus, the combination with a casing, of a coin-receiving plunger therein having an exposed end which may be engaged to force the plunger inwardly, said plunger having a pocket to receive a coin and an opening leading into the pocket through the exposed end of the plunger, locking means to restrain the plunger from inward movement, and means controlled by a coin in said pocket to hold said locking means inoperative.

2. In a coin-controlled apparatus, the combination with a casing, of a coin-receiving plunger therein having an exposed end by which it may be engaged to force it inwardly, said plunger having a pocket and an opening leading into the pocket through its exposed end, locking means to restrain the inward movement of the plunger, means controlled by a coin in said pocket to hold said locking means inactive, and means actuated by the movement of the plunger for delivering an article.

3. In a coin-controlled apparatus, the combination with a casing, of a coin-receiving plunger therein having an exposed end which may be engaged to force the plunger inwardly, said plunger having a pocket to receive a coin and an opening leading into the pocket through the exposed end of the plunger, locking means to restrain the plunger from inward movement; means controlled by a coin in said pocket to hold said locking means inoperative, and means to prevent return movement of the plunger while the coin is in the pocket.

4. In a coin-controlled apparatus, the combination with a manually-movable coin-receiving plunger having a pocket to receive a coin, of a lock for the plunger, which lock is held inoperative by a coin in said pocket, means operated by the manual inward movement of the plunger to deliver an article, and means controlled by the coin to prevent the return of the plunger while the coin is in the pocket.

5. In a coin-controlled apparatus, the combination with a casing, of a coin-receiving plunger therein having an exposed end by which it may be engaged to force it inwardly, said plunger having a pocket and a coin-receiving opening leading into the pocket through the exposed end of the plunger, a pawl normally locking the plunger from inward movement but held inoperative by a coin in the pocket, and means to restrain the plunger from return movement while the coin occupies the pocket.

[Claims 6 to 14 not printed in the Gazette.]

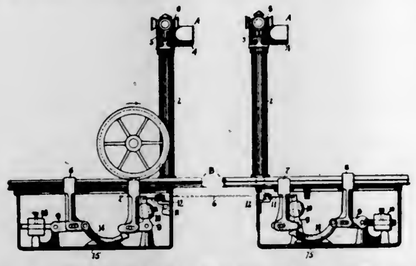
942,254. CISTERN-CLEANER. JOHN H. FOX, Tacoma, Wash. Filed Mar. 26, 1908. Serial No. 423,294.



In a cistern-cleaner, the combination of a bucket having a bottom concave on its upper-side and convex on its under-side and provided with an opening in its deepest part, a valve for this opening, means to manipulate it, a piston fitted to this bucket which is concave on its under-side to clear this valve in the bottom and is pro-

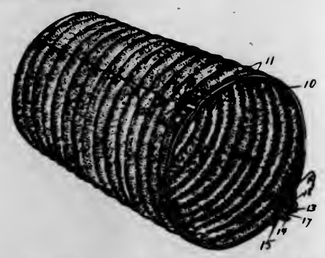
vided with a relief-valve, a stem on the upper-side of the piston, a tubular member adapted to receive this stem in its lower part to guide the same and fitted at its upper end to permit attachment of a handle, braces whereby this tubular member is rigidly connected in a permanent position above the bucket, and means to raise and to lower the piston in the bucket, these means consisting of a rod connected to the upper-side of the piston close to the stem thereof and provided with a handle at its upper end, and of a rope connected to this end, the same serving to raise the piston while the handled rod is used to lower the same.

942,255. BLOCK-SIGNALING SYSTEM FOR RAILWAYS. JOHN GASZPER, Cleveland, Ohio. Filed Apr. 29, 1909. Serial No. 493,030.



In a railway block signal system, a set of vibratory signaling devices and means to connect a plurality of said devices for joint vibrating operation and contact devices along the line adapted to be engaged by the wheels of trains and having operative connections with the said devices, whereby a continuous vibratory and flashing signal is produced by trains entering the block and a continuous visible signal is obtained when the train is within the block.

942,256. CORRUGATED-METAL CULVERT. ALFRED G. HAGUE, Des Moines, Iowa. Filed Dec. 16, 1907. Serial No. 406,713.



1. An improved corrugated culvert, comprising a section formed of sheet metal and of cylindrical shape, said culvert being divided longitudinally at two diametrically opposite points, and an adjusting means at each of said divided portions, each adjusting means comprising two lugs secured to adjacent portions of the culvert, and a bolt detachably connected with said lugs, said parts being so arranged that when the bolt is moved in one direction the adjacent edges will be spread apart, and when moved in the other direction the adjacent edges will be drawn together.

2. An improved corrugated culvert, comprising a cylindrical sheet metal body portion with its longitudinal edges in overlapping positions, a lug fixed to one edge, said lug having two upright portions, one of the upright portions being slotted, the other lug having two upright portions both of which are provided with openings, a nut arranged between the two latter upright portions, and a bolt extended through said openings and through said nut and having its head arranged between the two upright portions of the first mentioned lug with the body portion of the bolt inserted in said slot.

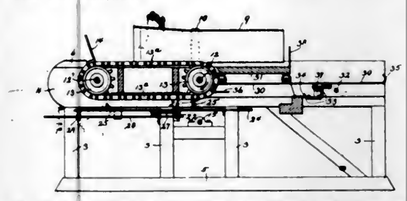
3. An improved culvert, comprising a sheet metal body portion provided with spiral corrugations throughout its length, the longitudinal edges of said culvert being in overlapping positions, and means for adjusting said overlapping edges at the end as required to spread the end or contract it.

4. An improved culvert, comprising a sheet metal body portion provided with spiral corrugations throughout its length, the longitudinal edges of said culvert being in overlapping positions, and means for adjusting said overlapping edges at the end as required to spread the end or contract it, said means comprising lugs, and a bolt that is detachable from the lugs.

5. A culvert comprising a body portion formed of a single sheet of metal of cylindrical shape, with its edges in overlapping position and secured together, spiral corrugations formed on the end portions thereof, one end being capable of spreading at the point where the edges overlap, said end being also provided with a longitudinal notch at the side opposite from the overlapping edges.

[Claims 6 and 7 not printed in the Gazette.]

942,257. BALING-MACHINE. WILLIAM H. HANSEN and ALBERT J. PRICE, Chicago, Ill. Filed Mar. 3, 1909. Serial No. 481,110.



1. In a machine of the class described, the combination of a hood having an open end and a uniformly tapered interior with a filling tube attached at the termination of the uniform taper and an oscillating member adapted to force packs of small original packages through the hood and into the filling tube, as specified.

2. In a machine of the class described, the combination with a horizontal platform of a hood having an open end and a uniformly-tapered interior with a filling tube attached at the termination of the uniform taper, an oscillating member adapted to travel on the platform and through the hood, and mechanism for operating the oscillating member, as specified.

3. In a machine of the class described, the combination with a slotted platform, a tapering hood and a filling tube of a belt in the slotted platform, a pusher on the belt and mechanism for producing oscillating movement of the belt as specified.

4. In a machine of the class described, the combination with a platform, an open-ended hood provided with a uniformly tapered interior, a filling tube attached to the hood at the termination of the uniform taper, an oscillating member and mechanism for operating the same for forcing packs of original small packages from the platform into and through the hood and filling tube by repeated impulses, as specified.

5. In a machine of the class described the combination with the filling tube of a truck, a two truck length divided track, a pivoted support for the rear length of track and a latch and tripping device as specified.

[Claim 6 not printed in the Gazette.]

942,258. CARLINE. JOHN J. HOFFMAN, St. Louis, Mo., assignor to Peter H. Murphy, St. Louis, Mo. Filed May 25, 1908. Serial No. 434,765.

1. A carline consisting of a plate of metal which is grooved longitudinally from points adjacent to the ends, said groove being of maximum depth midway of its length and decreasing to a mimium at the ends thereof and the metal at the top of the sides of the groove being curled outwardly and, except at the end portions, downwardly, the extent of such downturning being inversely as the depth of the groove.



2. A carline consisting of a plate of metal whose ends are turned downwardly and which is grooved longitudinally from points adjacent to the downturned ends, said groove being of maximum depth midway of its length and decreasing to a minimum at the ends thereof, and the metal at the top of the sides of the groove being curled outwardly and, except adjacent to the ends of the groove, downwardly, the extent of such downturning being inversely as the depth of the groove.

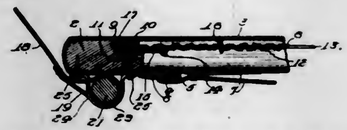
3. A carline consisting of a plate of metal whose ends are turned downwardly and which has a longitudinal groove terminating short of the downturned ends, said groove being of maximum depth midway of its length and decreasing to a minimum at the ends thereof, and the metal at the top of the sides of the grooves being curled outwardly and, except at the end portions, downwardly, the extent of such downturning being inversely as the depth of the groove.

4. A carline consisting of a plate of metal whose ends are turned downwardly and which is grooved longitudinally from points adjacent to the downturned ends, said groove being of maximum depth midway of its length and decreasing to a minimum at the ends thereof and the metal at the top of the sides of the groove adjacent to the ends being turned outwardly to constitute bearing surfaces and the intermediate top portions being curled outwardly and downwardly, the extent of such downturning being inversely as the depth of the groove.

5. A sheet metal channeled carline having marginal flanges curled downwardly and outwardly at an inclination, substantially as described.

[Claim 6 not printed in the Gazette.]

942,259. SUSPENSION-COUCH. HERMAN L. HOHLFELD, Philadelphia, Pa. Filed June 27, 1908. Serial No. 440,736.



1. A suspension couch comprising a frame, a cloth for suspending said frame having a pocket in one edge thereof, and a spreader extending through said pocket and secured to said frame for holding said cloth in position.

2. A suspension couch comprising a frame, a cloth cover for said frame over the upper side thereof, a spring mattress secured to said frame beneath said cover, a spreader, means carried by said spreader to suspend said couch, and means to hold said spreader upon said frame, said means serving also to hold said cover in place.

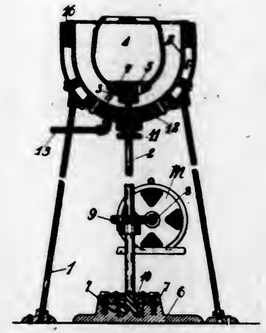
3. A suspension couch comprising a substantially rectangular frame, a cover extending over the upper side of said frame and around the outside edges thereof, lacing upon the other side of said frame to hold said cover in position, a spreader upon the under side of said frame and outside of said cover, means to secure said spreader to said frame, and means carried by said spreader for supporting the couch.

4. A suspension couch comprising a frame, a cover extending across the upper side of said frame and around one edge of and extending inwardly upon the under side thereof, a spreader upon the under side of said frame and outside of said cover, a cleat passing through said cover and around said spreader securing said spreader to said frame, and means carried by said spreader to support said couch.

5. A suspension couch comprising a frame, a cover across the upper side of said frame, and around the under edge thereof, a spreader secured to the under side of said frame and outside of said cover, a cloth carried by said spreader for suspending said couch, said cloth having a spreader upon the outer end thereof, and clue cords connected to said last mentioned spreader.

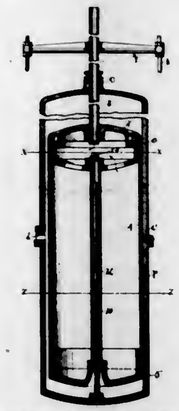
[Claims 6 to 18 not printed in the Gazette.]

942,260. ICE-CREAM FREEZER. ALBERT E. HOPLEY, Hayward, Cal. Filed Sept. 28, 1908. Serial No. 455,120.



In an ice cream freezer, a fixed insulated receptacle having a drain opening, a revoluble cream receptacle having a drain opening, a shaft passing through the first receptacle and supporting the cream receptacle, a packing gland for the shaft where it passes through the bottom of the outer receptacle, a step bearing for the shaft, a bearing adapted to prevent the shaft and inner receptacle from rising out of their places, and a cover for the space between the inner and outer receptacles, said cover being made in two pieces and hinged together.

942,261. PISTON FOR HOT-AIR ENGINES. FRANK B. HUBBARD, Middlefield, Ohio. Filed Dec. 24, 1908. Serial No. 469,165.

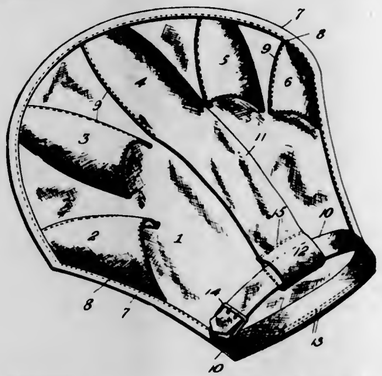


1. In a hot air engine, a transfer mechanism for the hot air comprising a tubular cylinder, a tubular piston therein

having closed ends and a tube centrally connecting said ends, a guide member fixed in one end of said cylinder and extending into said tube, and a ventilating guide tube connected with the other end of said piston and having a bearing in the end of said cylinder.

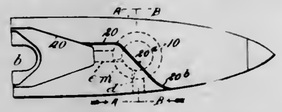
2. The combination of the cylinder, a double ended tubular piston therein and a tube connecting said ends, a guide rod fixed in the bottom of said cylinder extending into said tube and a guide tube fixed in the upper end of said piston slidably mounted in the upper end of said cylinder, the said piston supported apart from the wall of the cylinder all around by said parts, and a plug closing the upper end of said connecting tube.

942,262. SWIMMING-GLOVE. CHRISTIAN IVERSON, Boulder Creek, Cal. Filed June 25, 1909. Serial No. 504,357.



A swimming glove comprising a flexible sheet of waterproof material having its edge folded over and secured to form a reinforcing rim, an adjustable wrist strap secured across the inner edge of the sheet, a centrally arranged stall for the second finger secured to the rear face of the sheet and having its inner end extended to form an integral back strap, the latter having its extremity folded upon itself and secured to provide a loop for the wrist strap, stalls for the thumb and first finger arranged upon the sheet on one side of the second finger stall, and stalls for the third and fourth fingers arranged upon the sheet on the other side of the second finger stall.

942,263. THREADING DEVICE FOR SHUTTLES. JAMES JORDAN, Montreal, Quebec, Canada. Filed Feb. 14, 1908. Serial No. 415,940.



1. The combination with a shuttle having a cop-well and axial and transverse thread apertures, and provided at its threading end with a slot extending diagonally across the top and side of the shuttle and effecting a communication between the thread apertures such side being otherwise intact, of a threading device inserted through the bottom side of the shuttle and set in the path of such slot and presenting eyes coinciding with the thread apertures and slots leading from such eyes to one edge of the said device, and means for guiding into the last mentioned slots a thread dropped laterally into the slot in the shuttle.

2. The combination with a shuttle having a cop-well and axial and transverse threaded apertures, and provided at its threading end with a slot extending diagonally across the top and side of the shuttle and effecting a communication between the thread apertures such side being otherwise intact, of a threading device inserted through the bottom side of the shuttle and set in the path of such slot and presenting eyes coinciding with the thread apertures, and slots leading from such eyes in the device to the top of the said device, and the said top of the device having inclined portions leading to the mouths of the slots therein.

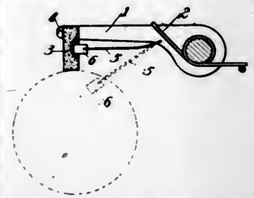
3. The combination with a shuttle having a cop-well and axial and transverse thread apertures, and provided at its threading end with a slot extending diagonally across the top and side of the shuttle and effecting a communication between the thread apertures such side being otherwise intact, of a threading device inserted through the bottom side of the shuttle and set in the path of such slot and presenting eyes coinciding with the thread apertures, and slots leading from such eyes in the device to the top of the said device, the said top of the device having inclined portions leading to the mouths of the slots therein, and an upwardly projecting abutment at the top of the device between the eyes and adapted to deflect the thread into such eyes.

4. The combination with a shuttle having a cop-well, and a slot, of a threading device set in the threading end of the shuttle and consisting of a cylindrical member presenting eyes communicating with the slot, and such member also having slots leading from such eyes to one edge of the said member, and means for guiding into the last mentioned slots a thread dropped laterally into the slot in the shuttle and the said parts presenting a clearance for the thread between the portions of the device contiguous to the eyes and the interior of the shuttle.

5. The combination with a shuttle having a cop-well, a slot communicating with the cop well and extending diagonally across the top and one side of the shuttle such top and side being otherwise intact and the bottom of the shuttle having a boring intersecting the said slot, of a threading device set in the said boring such device consisting of a cylindrical member presenting eyes communicating with the slot, and the said member having slots leading from such eyes to one edge of the said member, and means for guiding into the last mentioned slots a thread dropped laterally into the slot in the shuttle and the device presenting a clearance for the thread between the portions of the device contiguous to the eyes and the adjacent wall of the boring.

[Claims 6 to 10 not printed in the Gazette.]

942,264. BRUSH-HOLDER. AUSTIN KIMBLE, Chicago, Ill., assignor to Kimble Electric Company, Chicago, Ill. Filed Mar. 22, 1909. Serial No. 484,996.



1. In a dynamo electric machine, the combination of a movable contact member, a brush bearing on said contact member, a spring arranged to throw said brush away from said contact member, and means for automatically releasing said spring when the brush has been worn to a certain point.

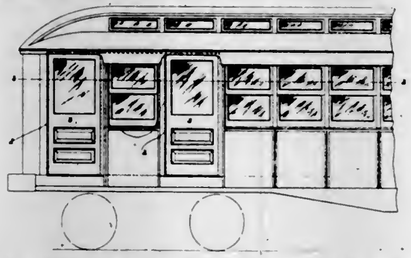
2. In a dynamo electric machine, the combination of a movable contact member, a brush bearing on said contact member, a spring adapted to act between the brush and contact member, means for holding said spring in a retracted position, and means for automatically releasing said spring to throw said brush away from said contact member when said brush has been worn to a certain point.

3. In a dynamo electric machine, the combination of a movable contact member, a brush bearing on said contact member, a spring adapted to act between the brush and contact member, means for holding said spring in a retracted position, and means for automatically releasing said spring to throw said brush away from said contact member when said brush has been worn to a certain point, and a block of insulation carried by said spring and adapted to engage the contact member and insulate the brush after the release of said spring.

4. In a dynamo electric machine, the combination of a movable contact member, a brush bearing on said contact member, a spring adapted to act between the brush and contact member, means for holding said spring in a retracted position, means for automatically releasing said spring to throw said brush away from said contact member when said brush has been worn to a certain point, a block of insulation carried by said spring and adapted to engage the contact member and insulate the brush after the release of said spring, and insulating material interposed between the brush holder and contact member in such manner as to prevent the short-circuiting thereof by said spring.

5. In a dynamo electric machine, the combination of a movable contact member, a brush bearing on said contact member, a spring adapted to act between the brush and contact member, there being a socket in the brush for holding said spring in a retracted position, and means for automatically releasing said spring when said brush has been worn to a certain point.

942,265. PASSENGER-CAR. PETER M. KLING, Pittsburg, Pa., assignor to Pressed Steel Car Company, Pittsburg, Pa., a Corporation of New Jersey. Filed Mar. 17, 1908. Serial No. 421,673.

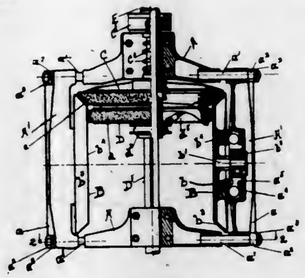


In a passenger car, a plurality of doorways, in combination with a plurality of doors for closing said doorways, spacing bars at top and bottom of said doors tying said doors together to form a single door structure and causing the doors to move simultaneously, a track upon which said door structure travels, a single roller for each door for supporting the door structure, each roller located centrally of its door and means for operating said door structure.

942,266. TRANSMISSION-GEARING. CYRUS B. KURTZ, Lakewood, Ohio. Filed Dec. 7, 1908. Serial No. 466,218.

1. In mechanism of the class described, the combination with a frame; of a shaft to be driven journaled in said frame; friction disks borne by said frame so as to be movable toward and from said shaft; a friction disk longitudinally slidably but non-rotatably mounted upon said shaft between said first-named disks; a friction disk adapted to be connected with the driving shaft and to peripherally engage said first-named disks; and positively operating clutch means borne by said driven disk and movable relatively thereto; to directly connect the same with said driving disk.

2. In mechanism of the class described, the combination with a frame comprising end members and side members movably mounted relatively to said end members; of a shaft to be driven journaled in said end members; friction disks borne by said side members, respectively, said disks lying within the points of support of said side members on said end members; a friction disk longitudinally slidably but non-rotatably mounted upon said driven shaft and adapted to engage the faces of said first-named disks; and a driving disk adapted to engage the edges of said first-named disks.



3. In mechanism of the class described, the combination with a frame comprising end members and side members movably mounted relatively to said end members; of a shaft to be driven journaled in said end members; friction disks borne by said side members, respectively, said disks lying within the points of support of said side members on said end members; a friction disk longitudinally slidably but non-rotatably mounted upon said driven shaft and adapted to engage the inner faces of said first-named disks, said side members being provided with thrust bearings for the outer faces of said disks; and a driving disk adapted to engage the edges of said disks.

4. In mechanism of the class described, the combination with a frame comprising end members and side members movably mounted relatively to said end members; of a shaft to be driven journaled in said end members; friction disks borne by said side members, respectively, said disks lying within the points of support of said side members on said end members; a friction disk longitudinally slidably but non-rotatably mounted upon said driven shaft and adapted to engage the inner faces of said first-named disks, said disks having central pins and said side members being provided with bearings for such pins and with thrust bearings for the outer faces of said disks; and a driving disk adapted to engage the edges of said disks.

5. In mechanism of the class described, the combination with a frame; of a shaft to be driven journaled in said frame, said frame including members movable toward and from said shaft; friction disks borne by said frame members so as to be movable therewith; a friction disk longitudinally slidably but non-rotatably mounted upon said driven shaft and adapted to engage the inner faces of said first-named disks, said frame members being provided with thrust bearings for the outer faces of said disks; and a driving disk adapted to engage the edges of said first-named disks.

[Claims 6 to 20 not printed in the Gazette.]
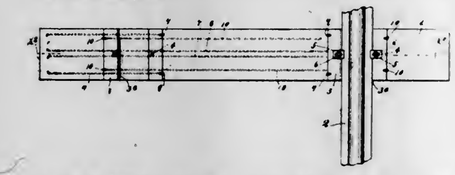
942,267. METAL-REINFORCED RAILWAY-TIE. JOHN F. LAHART, Minneapolis, Minn. Filed June 5, 1907. Serial No. 377,328.



1. A railway tie having a body portion constructed of concrete and having embedded therein, near each end, a rail anchoring device, and having embedded therein and extended longitudinally thereof reinforcing rods located one pair above and the other pair below the longitudinal axis of said tie and having intermediate portions looped completely around and closely engaging the said rail anchoring device, substantially as described.

2. A railway tie having a concrete body, saddle plates seated in the upper portion of said tie in position to receive and support the rails, nutted bolts partially embedded in said concrete body and extended upward through said saddle plates, and reinforcing rods extended longitudinally of and embedded within said concrete body and having intermediate portions looped completely around and closely engaging said bolts, substantially as described.

942,268. METAL-REINFORCED RAILWAY-TIE. JOHN F. LAHART, Minneapolis, Minn. Filed Jan. 3, 1908. Serial No. 409,160.
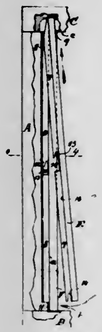


1. In a railway tie, the combination with a concrete body, of metal saddle plates on the upper surface of said concrete body, and metal truss rods connected to the opposite edge portions of said saddle plates and embedded in said concrete body, substantially as described.

2. In a railway tie, the combination with a concrete body, of channeled metal saddle plates seated in the upper surface of said concrete body, rail anchoring-staples embedded in said concrete body and having nutted end portions projecting through said saddle plates, and reversely extended relatively long and short truss rods secured to the edge portions of said saddle plates and embedded in and extended longitudinally of said concrete body, substantially as described.

3. In a railway tie, the combination with a concrete body, of channeled saddle plates seated in the upper surface of said tie body, rail anchoring staples embedded in said tie body and having nutted ends projecting through and above said saddle plates, reversely extended relatively long and short truss rods secured to the opposite edges of said saddle plates and embedded in and extended longitudinally of said tie body, and additional reinforcing rods embedded in and extended longitudinally of said tie body and directly secured to said staples, substantially as described.

942,269. METALLIC WINDOW. THOMAS LEE, Home City, Ohio. Filed Mar. 8, 1909. Serial No. 481,923.



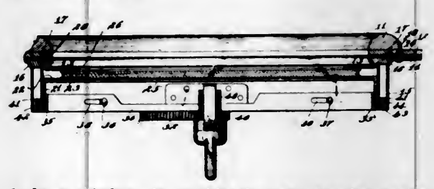
1. In a window, the combination of sliding sashes, metallic strips to guide them during their movement, said strips having each a notch extending inwardly from one of their ends, a frame to which the sashes are fitted and which consists of upright and horizontal members one of which latter is provided with openings each adapted to receive one end of each guide-strip, and projections on the frame adapted to be engaged by the notches at the other ends of the guide-strips.

2. In a window, the combination of sliding sashes, metallic strips to guide them each of which is provided with a tongue, a frame consisting of horizontal and upright members to which the sashes are fitted and the upright members of which have grooves to which the tongues of the guide-strips are fitted and in which they are seated, devices to hold these latter removably in place and spacing means within these grooves to hold them to their shape, the tongues occupying these grooves being cut out to clear these spacing means.

3. In a window, the combination of sliding sashes, metallic strips to guide them which are provided with a tongue, a frame consisting of horizontal and upright members to which the sashes are fitted and the upright members of which have grooves to which the tongues of the guide-strips are fitted and hook-shaped spacing means rigidly secured within these grooves to hold them to shape, the tongues mentioned being adapted to engage with these means so as to be held in position by them.

4. In a window, the combination of sliding sashes, a frame consisting of horizontal and upright members to which these sashes are fitted, they moving between the opposite jamb-surfaces of these upright members, each of which latter is provided with grooves, metallic strips which guide these sashes and which have shoulders adapted to seat against the jamb-surfaces of the upright members and tongues adapted to enter the grooves in them, the tongues having notches, each of which is upwardly extended, the extended part of each notch presenting an inclined edge, hooks within the grooves to hold the guide-strips in position and means whereby these hooks are rigidly held in place within these grooves, said hooks beyond the point of their attachment being extended upwardly, which upwardly extended parts also present an inclined edge complementary to the inclined edge in the extended part of the notches, the notches being adapted to pass over the hooks when the guide strips are in elevated position after which, when they are lowered, the inclined edges of hooks and of notches engage each other, drawing thereby the shoulders on the guide-strips to a seat against the jamb-surfaces of the window-frame.

942,270. CAR-WINDOW. THOMAS A. LEGGE, Chicago, Ill., assignor to The Adams & Westlake Company, Chicago, Ill., a Corporation of Illinois. Filed July 6, 1908. Serial No. 442,213.



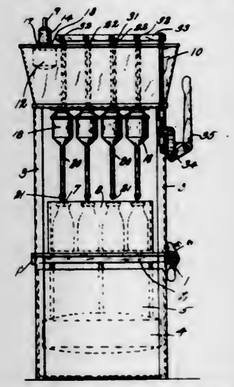
1. In a window, in combination, an annular casing comprising a wall plate having an instanding flange, and an angle plate having one leaf secured to the wall plate, a cushion between the flange of the wall plate and the instanding leaf of the angle plate; and a sash bearing on the cushion.

2. In a window, in combination, a casing comprising a circular wall-plate having an instanding flange the outer edge of which is overturned and provided with radially-disposed cam faces; a sash fitting within the flange of the casing; an oscillatable ring carried by the sash and having radial fingers engageable with the cam faces.

3. In a window, in combination, a casing comprising a circular wall-plate having an instanding flange the outer edge of which is overturned and provided with radially-disposed cam faces; a sash fitting within the flange of the casing; an oscillatable ring carried by the casing and having radial fingers engageable with the cam faces; a rack mounted on the ring; a hand-controlled spindle journaled in the casing, and a pinion carried by the spindle and engaging the rack.

4. In a window, in combination, a casing comprising an annular wall plate having its inner edge instanding, an annular angle plate having its radial leaf seated upon the wall plate and its instanding leaf spaced apart from the instanding edge thereof and having the edge of its instanding leaf overturned inwardly and provided with cam faces; and a sash comprising a pair of interfitting annular angle plates, their radial leaves being spaced apart and their instanding leaves being secured together, and an oscillatable annulus U-shaped in cross-section and riding upon the edges of the instanding leaves of the angle plates, the outer leaf of the annulus carrying radially-projecting fingers engageable with the cam faces of the casing, and its inner leaf having circumferentially-disposed slots, and studs fixed in the fixed sash members and projecting through such slots.

942,271. BOTTLING-MACHINE. ROBERT LITTLER, Haddonfield, N. J. Filed Sept. 8, 1908. Serial No. 452,081.

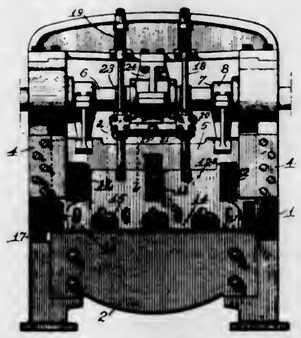


1. In a bottle filling machine, the combination with a fluid supply tank, of a plurality of chambers connected with said tank, piston valves controlling the passage between said tank and chambers, valves controlling the egress of fluids from each chamber, an operating means comprising a system of levers and handle therefor, rigid connections limitedly slidable between the piston and lower valves, adapted to allow an excess motion to the first named valves and single connections between each of the said first named valves and their operating means.

2. In a bottle filling machine, comprising means for elevating and supporting a plurality of bottles, a series of fillers positionally located to enter the mouth of the bottle and a supply tank common to all of said fillers, the combination with a series of measuring chambers intermediate of the tank and fillers, strainers removably secured at the extremities of the fillers, independent means for the egress of air from the chambers, piston valves controlling the entrance of fluids to the measuring chambers, conical valves controlling the egress of fluids from the measuring chambers, single connections between each set of valves comprising means whereby the conical valves may be opened or closed without a corresponding opening or closing of the piston valves, and connections between each of the said first named valves and their operating means.

3. In a bottle filling machine, the combination with a fluid supply tank, of a plurality of measuring chambers detachably secured to the bottom of said tank and having single cylindrical passage-ways communicating therewith, piston valves movable longitudinally within said passage-ways, conical valve seats formed at the inner ends of the measuring chambers, valves fitted thereto adapted to close by gravity and having hollow stems extending vertically upward within the measuring chambers, stems attached to the piston valves extending downward and slidable within the hollow valve stems, connections between the said valve stems whereby the piston valves have a definitely greater range of movement imparted to them than may be given to the conical valves, rods attached to the opposite ends of said piston valves and means for operation thereof, all substantially as shown and described.

942,272. MULTIPLE PUNCHING-MACHINE. CHARLES E. MACBETH, Hamilton, Ohio, assignor to The Long & Allstatter Company, Hamilton, Ohio. Filed Oct. 9, 1908. Serial No. 457,007.



1. A punching machine comprising, a vertically reciprocating main gate to carry the punches, vertically reciprocating holddown-gates mounted in guides at the opposite faces of the main gate and having feet provided with inwardly presenting longitudinal grooves, a holddown-bar fitted to slide longitudinally in the feet of the holddown-gates and perforated for the punches, and mechanism for reciprocating all the gates, combined substantially as set forth.

2. A punching machine comprising, a vertically reciprocating main gate to carry the punches, vertically reciprocating holddown-gates mounted in guides at the opposite faces of the main gate, a holddown-bar carried by the feet of the holddown-gates and perforated for the punches, a cam-shaft, cams thereon for reciprocating the main gate, rods extending vertically from the holddown-gates, springs connected with the rods to serve in raising the holddown-gates, cross-bars extending from the front to the rear rods and below the cam-shaft, and cams on the cam-shaft over the cross-bars to co-act therewith in moving the holddown-gates downward, combined substantially as set forth.

3. A punching machine comprising, a vertically reciprocating main gate to carry the punches, vertically reciprocating holddown-gates mounted in guides at the opposite faces of the main gate, a holddown-bar carried by the feet of the holddown-gates and perforated for the punches, a cam-shaft, cams thereon for reciprocating the main gate, rods extending vertically from the holddown-gates, springs connected with the rods to serve in raising the holddown-gates, cross-bars extending from the front to the rear rods and below the cam-shaft, cams on the cam-shaft over the cross-bars to co-act therewith in moving the holddown-gates downward, and adjusting nuts on the rods above and below the cross-bars to serve in adjusting the distance between the cross-bars and the holddown-bar, combined substantially as set forth.

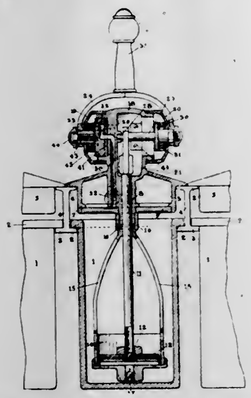
4. A punching machine comprising, a vertically reciprocating main gate to carry the punches, vertically reciprocating holddown-gates mounted in guides at the opposite faces of the main gate, a holddown-bar carried by the feet of the holddown-gates and perforated for the punches, a cam-shaft, cams thereon for reciprocating the main gate, rods extending vertically from the holddown-gates, springs connected with the rods to serve in raising the holddown-gates, cross-bars extending from the front to the rear

rods and below the cam-shaft, cams on the cam-shaft over the cross-bars to co-act therewith in moving the holddown-gates downward, and a hand-lever coöperating with the holddown-gates and a fixed part of the machine to serve in depressing the holddown-bar independent of the power-mechanism of the machine, combined substantially as set forth.

5. A punching machine comprising, a vertically reciprocating main gate to carry the punches, vertically reciprocating holddown-gates mounted in guides at the opposite faces of the main gate, a holddown-bar carried by the feet of the holddown-gates and perforated for the punches, a cam-shaft, cams thereon for reciprocating the main gate, rods extending vertically from the holddown-gates, springs connected with the rods to serve in raising the holddown-gates, cross-bars extending from the front to the rear rods and below the cam-shaft, cams on the cam-shaft over the cross-bars to co-act therewith in moving the holddown-gates downward, and a hand-lever trunnioned in said cross-bars and adapted to engage with some fixed part of the machine to serve in depressing the holddown-bar independent of the power mechanism of the machine, combined substantially as set forth.

[Claims 6 to 11 not printed in the Gazette.]

942,273. DISPENSING APPARATUS. ROBERT G. MARSH, Detroit, Mich. Filed Apr. 19, 1909. Serial No. 490,739.



1. In a liquid dispensing apparatus, a series of receptacles for liquids, a measuring chamber for each receptacle having an inlet adapted to be connected to a charging tank and an outlet, a nozzle for the outlet, a single controlling member adapted to alternately open the inlet and outlet, and means for forcing a definite quantity of liquid from the receptacle out through the chamber nozzle, and means adapted to operate the controlling member in proper relation to the discharge from the receptacle, each measuring chamber, controlling member, and measuring means together constituting a unit structure separable from and adapted to form a cover for the companion receptacle.

2. In a liquid dispensing apparatus, a series of receptacles for liquids, a measuring chamber for each receptacle forming a removable cover therefor, and having an inlet adapted to be connected to a charging tank and an outlet, a nozzle for the outlet, a measuring barrel attached to the cover adapted to be immersed in the contents of the receptacle when the cover is in place, and means for forcing the barrel contents out through the chamber nozzle in proper relation to the discharge from the chamber, and means adapted to operate a controlling member, each chamber with its barrel, controlling member and operating means forming a unit structure bodily removable from the companion receptacle.

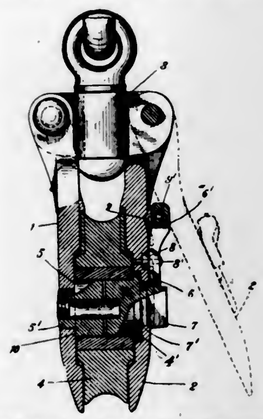
3. In a liquid dispensing apparatus, a series of receptacles for liquids, a measuring chamber for each receptacle having an inlet adapted to be connected to a charging tank and an outlet, a nozzle for the outlet a controlling member adapted to alternately open the inlet and outlet, means for forcing a definite quantity of liquid from the receptacle out through the chamber nozzle, and means adapted to operate the controlling member in proper relation to the discharge from the receptacle, and recording means in the chamber operatively connected to the receptacle discharging means adapted to register each discharge.

4. In a liquid dispensing apparatus, a series of receptacles for liquids, a measuring chamber for each receptacle having an inlet adapted to be connected to a charging tank and an outlet, a controlling member adapted to alternately open the inlet and outlet, a nozzle for the outlet means for forcing a definite quantity of liquid from the receptacle out through the chamber nozzle, and means adapted to operate the controlling member in proper relation to the discharge from the receptacle, and recording means in the chamber operatively connected to the receptacle discharging means adapted to register each discharge, each chamber with the controlling member, measuring means and registering mechanism constituting a unit structure separate from and forming a cover on the companion receptacle.

5. In a liquid dispensing apparatus, parallel I-beams in spaced relation, open liquid receptacles supported by lateral ledges on the lower flanges of adjacent beams, a measuring chamber for each receptacle adapted to be supported thereover on the upper flanges of the beams and provided with an inlet adapted to be connected to a charging tank and an outlet, a nozzle for the outlet a measuring barrel secured to each chamber and immersed in the contents of the receptacle when the chamber is in operative position, a single controlling member on the chamber adapted to alternately open the chamber inlet and outlet, and means mounted on the chamber for forcing the contents of the barrel out through the chamber nozzle, and means adapted to operate the controlling member in proper relation to the discharge from the barrel, the chamber, controlling member, barrel and forcing means forming a removable unit structure.

[Claims 6 to 19 not printed in the Gazette.]

942,274. SNATCH-BLOCK. ERNEST MARTIN, Index, Wash. Filed Mar. 22, 1909. Serial No. 485,102.

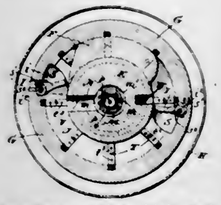


1. In a snatch block construction, in combination, a bearing having one end portion formed angular in cross section, a cheek plate formed with an opening for reception of the angular end portion of said bearing, and a shifter for moving said cheek plate toward said bearing to effect a securing of one to the other.

2. In a snatch block construction, in combination, a bearing having one end portion formed angular in cross section, a cheek plate supported for edgewise movement and formed with an angular opening for reception of the angular end portion of said bearing, said angular end portion of said bearing and said cheek plate having parts for interlocking engagement with one another, and a shifter for shifting said cheek plate, as specified.

3. In a snatch block construction, in combination, a bearing having one end portion formed angular in cross section, a cheek plate supported for edgewise movement and formed with an angular opening for reception of the angular end portion of said bearing, said angular end portion of said bearing and said cheek plate having parts for interlocking engagement with one another, and an eccentric on said cheek plate arranged to engage said bearing, said eccentric being supported for rotation, for the purpose specified.

942,275. ROTARY STEAM-ENGINE. WILLIAM E. MINUE, Fredericton, New Brunswick, Canada, assignor of one-half to William C. Burtt, Fredericton, New Brunswick, Canada. Filed Feb. 25, 1909. Serial No. 479,976.



1. In a rotary steam engine, high and low pressure cylinders, abutments therein, swinging pistons adapted to coöperate with said abutments, means connecting the pistons in both cylinders together, and means operatively associated with said connecting means for simultaneously opening and closing the pistons in both cylinders to effect their operation in consonance, in combination with a steam supply and valve mechanism for similarly controlling the admission and exhaust from the high and low pressure cylinders.

2. In an engine of the character described, an abutment, a cylinder, swinging pistons in said cylinder adapted to coöperate with said abutment, means for shifting the pistons from inactive to active position, and an oil cap inclosing said means whereby the latter may be constantly lubricated.

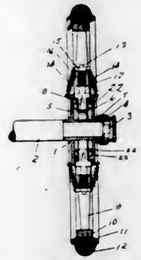
3. In an engine of the character described, relatively rotatable and non-rotatable members arranged to cooperate to actuate the rotatable member, a fly wheel secured to the periphery of the rotatable member, and a casing surrounding the engine, spaced therefrom and extending from the opposite sides of the fly wheel, substantially as described.

4. In an engine, relatively rotatable and non-rotatable members arranged to coöperate to effect actuation of the rotatable member, means for supporting the non-rotatable member at its outer end, means for supporting the rotatable member at its outer end, and mutual engagements between the inner end of the rotatable member and the supported end of the non-rotatable member and between the inner end of the non-rotatable member and the supported end of the rotatable member constituting their intermediate support in combination with power transmitting means carried by and operable with the rotatable member.

5. In an engine, relatively rotatable and non-rotatable members arranged to coöperate to effect actuation of the rotatable member, means for supporting the non-rotatable member at its outer end, means for supporting the rotatable member at its outer end, and mutual engagements between the inner end of the rotatable member and the supported end of the non-rotatable member and between the inner end of the non-rotatable member and the supported end of the rotatable member constituting their intermediate support, the rotatable member being on the outside of the non-rotatable member and completely inclosing the latter save at one end, in combination with a packing at said end in combination with power transmitting means carried by and operable with the rotatable member.

[Claims 6 to 20 not printed in the Gazette.]

942,276. SPRING-WHEEL. ALFRED MOORE, Detroit, Mich. Filed Sept. 13, 1907. Serial No. 392,651.



1. A spring wheel having a main hub, a floating hub encircling the main hub, means adapted to maintain the hubs in proper lateral relation and to confine their relative rotation to a limited arc, main springs radially disposed on the main hub, and radially disposed auxiliary springs on the floating hub connected at their outer ends to the outer ends of the main springs.

2. A spring wheel having a main hub, a floating hub encircling the main hub, means adapted to maintain the hubs in proper lateral relation and to confine their relative rotation to a limited arc, main springs radially secured at their inner ends to the main hub, and radially disposed auxiliary springs on the floating hub connected at their outer ends to the outer ends of the main springs and adapted to close and act as ferrules when the main springs are under load tension.

3. A spring wheel, having a main hub, a floating hub encircling the main hub, means adapted to maintain the hubs in proper lateral relation and to confine their relative rotation to a limited arc, radial guides on the floating hub, auxiliary springs on the guides, and radially disposed main springs connected at their inner ends to the main hub and at their outer ends to the outer ends of the auxiliary springs.

4. A spring wheel having a main hub, a floating hub encircling the main hub, means adapted to maintain the hubs in proper lateral relation and to confine their relative rotation to a limited arc, radial guides on the floating hub, auxiliary springs on the guides, and radially disposed main springs connected at their inner ends to the main hub and at their outer ends to the outer ends of the auxiliary springs, said auxiliary springs being adapted to close and act as ferrules when the main springs are under load tension.

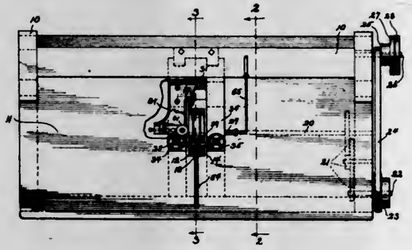
5. A spring wheel having a main hub, a floating hub encircling the main hub, rigid spokes on the floating hub, a felly on the spokes, means adapted to maintain the hubs in proper lateral relation and to confine their relative rotation to a limited arc, radial guides on the floating hub, interposed between the spokes, auxiliary springs on the guides and radially disposed main springs connected at their inner ends to the main hub and at their outer ends to the outer ends of the auxiliary springs.

[Claims 6 and 7 not printed in the Gazette.]

942,277. VENEER-TAPING MACHINE. MARTIN NYSTROM and LOUIS TANON, Chicago, Ill., assignors to Veneer Machinery Company, Grand Rapids, Mich., a Corporation of Michigan. Filed Oct. 29, 1908. Serial No. 460,172.

1. In a veneer taping machine, an upper and a lower clamping wheel each provided on its periphery with a plurality of laterally movable contact members, a second up-

per and a second lower clamping wheel adjacent to said first named wheels, means for rotating said second named clamping wheels and means for moving said contact members toward said second named clamping wheels while said members are clamping material between the wheels.



2. In a veneer taping machine, two pairs of upper and lower clamping wheels provided on their periphery with a plurality of laterally movable contact members, means for rotating said wheels and means for moving said contact members of one pair of wheels toward the other pair of wheels while said members are clamping material between the wheels.

3. In a veneer taping machine, an upper and a lower clamping wheel each provided on its periphery with a plurality of integrally laterally movable contact members, means for rotating said wheels, a second upper and a second lower clamping wheel adjacent to one side of said first named clamping wheels, means for rotating said second named clamping wheels and means for moving said contact members of said first named wheels toward the second named wheels while said wheels are clamping material between them.

4. In a veneer taping machine, two pair of upper and lower clamping wheels provided on their periphery with a plurality of integral laterally movable contact members, means for rotating said wheels and means for moving said contact members of one pair of wheels toward the other pair of wheels while said members are clamping material between the wheels.

5. In a veneer tapering machine, an upper and a lower clamping wheel each provided on its periphery with a plurality of integral laterally movable contact members, means for rotating said wheels, a second upper and a second lower clamping wheel adjacent to one side of said first named clamping wheels, means for rotating said second named clamping wheels and means comprising cam tracks for moving said contact members of said first named wheels toward the second named wheels while said wheels are clamping material between them.

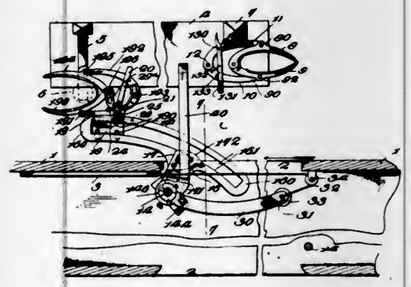
[Claims 6 to 13 not printed in the Gazette.]

942,278. MAIL-BAG-HANDLING APPARATUS. HAZEL N. PEDERSEN and PETER M. CHRISTENSEN, Racine, Wis. Filed Mar. 19, 1909. Serial No. 484,476.

1. In railway mail bag handling apparatus, a mail bag clutch or catcher comprising rockable jaws having forward free ends and pivotally united rear ends, and means pivotally supporting and controlling said jaws whereby the clutch can be opened and whereby the same will be automatically closed to grip one or more mail bags by the engagement of the bag or bags with the connected ends of the jaws.

2. In apparatus of the character substantially as set forth, a receiving or catching clutch comprising pivotally mounted jaws hinged together at their rear ends and having free front ends, and supporting means pivotally applied to said jaws at points intermediate their ends and whereby the same are capable of opening and closing.

3. In mail bag handling apparatus, a bag catcher consisting of a clutch adapted to open and close and comprising jaws having free front ends and flexibly connected at their rear ends, and means pivotally supporting said jaws and applied thereto intermediate their ends and comprising a swinging supporting member.



4. A mail bag catcher consisting of a clutch comprising movable jaws adapted to receive and automatically close on and clutch a bag, supporting means for said jaws comprising a swinging member pivotally applied to an intermediate portion of one of said jaws, and means whereby said clutch is caused to close on and grip the bag by the meeting impact between the bag and clutch.

5. In a mail bag handling apparatus, a bag catcher consisting of a clutch comprising pivotally mounted members adapted to be swung to open the clutch to receive a bag, supporting means for said members comprising arms pivotally united at their rear ends to open and close with said members, means whereby the meeting impact of the bag and clutch will cause the clutch to automatically close on and hold the bag, and locking means holding the clutch in closed bag holding position.

[Claims 6 to 31 not printed in the Gazette.]

942,279. STORAGE BATTERY. DAVID P. PERRY, Chicago, Ill., assignor, by mesne assignments, of two-thirds to William Morrison, Chicago, Ill., and one-third to M. A. Lumbard, Des Moines, Iowa. Filed Oct. 12, 1903. Serial No. 176,802.



1. A storage battery comprising a suitable metallic cell, a horizontal cylindric reticulated negative pole electrode, a cylindric positive pole electrode arranged concentrically within said negative pole electrode, a cylindric conductor arranged concentrically within said positive pole electrode, and a suitable electrolyte.

2. A storage battery comprising a suitable cell, horizontally arranged positive and negative pole electrodes arranged one within the other and suitably mounted within said cell, disks of insulation inserted within the ends of the negative pole electrode and closing the ends of the positive pole electrode, and a suitable electrolyte.

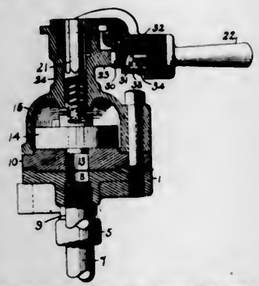
3. A storage battery comprising a suitable cell, horizontally arranged cylindric positive and negative pole electrodes mounted within said cell, the positive pole electrode being arranged concentrically within the negative pole electrode, circular pieces of insulating material for maintaining the concentricity of the two elements, and a suitable electrolyte.

4. A storage battery comprising a metallic cell, a cylindric and horizontally arranged negative pole electrode suitably mounted within said cell and consisting of a cylinder of wire gauze, a cylindric negative element arranged concentrically within said negative pole electrode, said positive pole electrode element comprising a perforated metallic tube filled with suitable active material, there being a layer of porous material applied to the outer surface of said perforated metallic tube, there being a perforated rubber tube fitted upon said layer of porous material, means intermediate the ends of the elements for maintaining the latter in their proper relative positions, disks of insulation inserted within the ends of the negative pole electrode and closing the ends of the positive pole electrode element, means for binding the two elements firmly together, an insulated terminal extending from the positive pole electrode, and a suitable electrolyte in which the two elements are completely submerged.

5. A storage battery comprising a cylindric negative pole electrode, a cylindric positive pole electrode of less diameter than the negative pole electrode and arranged concentrically within the latter, a cylindric conductor of less diameter than the positive pole electrode and arranged concentrically within the latter, the said elements being arranged horizontally, a cell containing said elements, a suitable electrolyte, and suitable active material surrounding said conductor and filling the bore of said positive pole electrode.

[Claim 6 not printed in the Gazette.]

942,280. ENGINEER'S VALVE FOR TRAIN-BRAKES. WILLIAM K. RANKIN, Philadelphia, Pa., assignor to John E. Reyburn, Philadelphia, Pa. Filed Jan. 15, 1909. Serial No. 472,397.



1. In an engineer's valve for train brakes, the combination of a case with connections thereto from an air reservoir and a train pipe, and having an exhaust passage; a valve seat with ports coöperating with the connections and the exhaust; an upper part inclosing the valve seat and forming a passage from the reservoir to the train pipe; a valve rotatable on the seat and having a curvilinear through port from the reservoir to the case, a through port for the train pipe, an interior port from the train pipe to the exhaust port, and within each train pipe port a projection containing an auxiliary port adapted to limit the flow of fluid pressure when placed in connection with the train pipe port for a graduated release, and a graduated application, and means to operate the valve.

2. In an engineer's valve, a casing base with connections and ports for a reservoir, a train pipe and an exhaust; a valve seat with corresponding and coöperating ports; a case above the valve seat; a rotatable valve having an elongated through port from the reservoir ports in the base and valve seat, to the interior of the case; an oppositely disposed through port coöperating with the base and seat ports, opening into the case, and therein a ledge with an auxiliary port; an interior port adapted to connect the train pipe and exhaust ports of the base and seat, and therein a ledge with an auxiliary port, and means to rotate the valve.

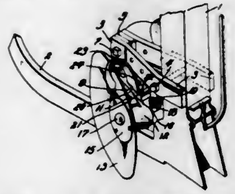
3. In an engineer's valve, a case with connections and passages to a reservoir, a train pipe and an exhaust; a rotatable disk valve controlling the passages, a stem connected to the valve, a handle removably connected to the stem and a resiliently supported roller therefor; a projecting flange on the case and indentures therein adapted to be engaged by the roller aforesaid to positively control the operative positions of the valve.

4. In an engineer's valve, a case comprising an upper inclosing part; a lower part with reservoir, train pipe and exhaust passages and connections; an interposed valve seat with coöperative passages; a rotatable valve inclosed by the case, mounted on the valve seat and having means for its rotation; a port through the valve affording continuous communication between the reservoir connections and the interior of the case; a port through the valve adapted to open communication between case and the train pipe, and an auxiliary port therein; a port wholly within the valve, adapted to connect the train pipe and the exhaust and an auxiliary port therein.

5. In an engineer's valve, a case comprising a base part with connections and ports for a reservoir, a train pipe and an exhaust; a valve seat with corresponding parts; and a valve inclosing part; a rotatable valve in the case with a non intercepting port for the reservoir, a port for the train pipe and an auxiliary port therein, an interior port for the train pipe and the exhaust and an auxiliary port therein; means to rotate the valve for restricted passage and full passage from the case to the train pipe, and restricted passage and full passage from the train pipe to the exhaust, said rotative means being positively controlled for the different operative positions of the valve by resiliently supported devices engaging indentations or depressions provided for such control of the valve.

[Claim 6 not printed in the Gazette.]

942,281. FURROW-OPENER. LAURITS T. RASMUSSEN, Council Bluffs, Iowa, assignor to Walker Manufacturing Company, Council Bluffs, Iowa, a Corporation of South Dakota. Filed Feb. 25, 1909. Serial No. 480,050.



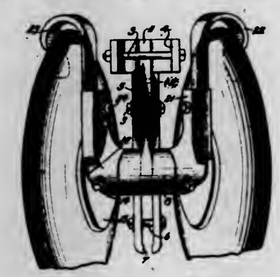
1. In a furrow opener, a standard adapted for connection with a planter shoe, arms mounted on said standard and adapted for embracing a seed tube, means for tightening said arms against said seed tube, body plates secured to opposite sides of said standard, bolts connecting said body plates and extending at opposite edges of said standard, and disk members revolubly mounted on said body plates.

2. In combination with the seed tube and shoe of a planter, a standard having a solid upper part and a bifurcated lower part, the lower part engaging said shoe; a bolt passing through the upper end of the standard; a pair of horizontally disposed arms secured by said bolt to the standard, said arms extending rearwardly to the seed tube and straddling the same and secured thereto by a bolt passing forward of said tube, body plates secured directly to the outer sides of the standard and solely supported thereby; and disks mounted on said body plates.

3. In combination with the seed tube and shoe of a planter, a standard comprising twin bars secured together at their upper ends and diverging downwardly, their lower ends engaging said shoe; a pair of horizontally disposed arms contacting the outer sides of the seed tube and the standard and secured to the standard at the upper end thereof by a bolt passing through said arms and standard, and secured to the seed-tube by a bolt passing at the front of said tube, body plates secured directly to the outer sides of the standard and solely supported thereby, axles carried by the body plates; and disks mounted on said axles.

4. In furrow openers, the combination with a planter seed tube and shoe, of a standard located forwardly from the seed-tube, a pair of body plates formed to engage the outer sides of the standard and provided with bolt-holes at front and rear of the standard and formed with outwardly projecting bosses, and bolts passing through said bolt holes for securing said plates to the standard.

942,282. FURROW-OPENER. LAURITS T. RASMUSSEN, Council Bluffs, Iowa, assignor to Walker Manufacturing Company, Council Bluffs, Iowa, a Corporation of South Dakota. Filed Feb. 25, 1909. Serial No. 480,051.



1. In a furrow opener, an attaching mechanism comprising parallel arms, having depending portions, a head block having a slotted standard projected between the depending arms, a bolt carried by said arm portions and projected through the standard slot.

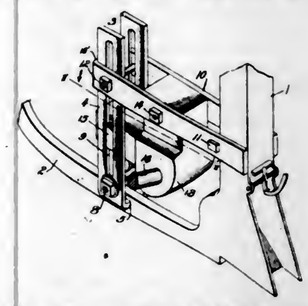
2. In a furrow opener, an attaching mechanism, a head block having a standard adapted for adjustable cooperation with said attaching mechanism, axles extending from said head block, disks carried by said axles, brackets carried by said axles, said brackets having lips adapted to overlie the attaching mechanism, and cleaner blades carried by said brackets.

3. In a furrow opener, a pair of vertically disposed, spaced attaching members, an axle-block having a reduced integral extension adapted to be clamped between said attaching members, disk axles carried by said block, scraper brackets mounted on said axles and provided with hooked ends engaging the attaching members, and scrapers secured to said brackets, substantially as set forth.

4. The combination with a planter shoe and seed tube, of arms embracing the seed tube and extending forwardly therefrom and having depending portions adapted for frictional contact with the planter shoe, means for tightening said arms against the seed tube and shoe, a head block having a slotted standard projected between said arms, a bolt connecting said arms and projecting through the standard slot, stub axles extending laterally from the head block, disks having hubs adapted for adjustment on said axles, and each provided with a groove at its inner end, brackets carried by said axles between the disk hubs and head block, set screws for fixing said brackets on their axles, arms projecting forwardly from said brackets and having lips engaging the forward edges of said attaching arms, posts at the rear of said brackets, and cleaner blades carried by said posts, each of said cleaner blades having a lip projected into the groove of the adjacent disk hub and a body portion overlying the adjacent disk, substantially as set forth.

5. The combination with a planter shoe and seed tube, of attaching arms embracing the seed tube and shoe and having bolts for tightening same thereagainst, a head block having a slotted standard projected between said arms, a bolt carried by said arms and extending through the standard slot, and whereby the attaching arms are united, axles extending laterally from the head block, disks having hubs adapted for horizontal adjustment on said axles and provided with grooves at their inner ends, brackets interposed between the disk hubs and head block, means for fixing said brackets in adjusted position, posts extending rearwardly and upwardly from said brackets, and cleaner blades removably mounted on said posts and having lip portions adapted for projection into the hub grooves, substantially as and for the purpose set forth.

942,283. FURROW-OPENER. LAURITS T. RASMUSSEN, Council Bluffs, Iowa, assignor to Walker Manufacturing Company, Council Bluffs, Iowa, a Corporation of South Dakota. Filed Mar. 8, 1909. Serial No. 481,935.



1. A furrow opener comprising a standard provided with vertical slots passing therethrough from side to side, and arms having adjustable connection with said standard, of a head block having a vertical portion adapted for connection with said arms, and a horizontal portion extended into proximity to said standard, and means projecting from said horizontal portion into the standard slots and adapted for anchoring the head block thereto.

2. The combination with a planter seed tube and shoe of a standard carried by said shoe and provided with longitudinal slots, arms adjustably connected with said standard and having frictional engagement with said seed tube, a head block carried by said arms and having a portion extended between the standard members, and wings on the extended portion of said head block and extending into the standard slots.

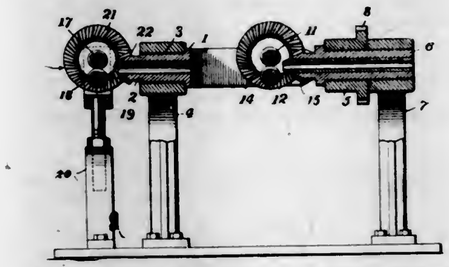
3. The combination with a planter seed tube and shoe, of a standard comprising longitudinally slotted bars having frictional engagement with said shoe at their lower ends, arms embracing said seed tube and standard, and having a bolt extending therethrough and through the slots in the standard bars, a head block having an upper portion projected between and secured to said arms, and a forward portion projected between the standard bars, wings on said forward block portion and extending into the slots in said standard bars, and disks revolubly mounted on said head block, for the purpose set forth.

4. The combination with a planter seed tube and shoe, of a standard clamped to said shoe and provided with longitudinal slots, arms clamped to the seed tube and extending toward said standard and provided with lips that overlie the forward edge of the standard, a head block having one portion secured to said arms and a forward member having lips projected into the standard slots, and disks carried by said head block.

942,284. CANDY-TWISTING MACHINE. WILLIAM D. REEVES, Atlanta, Ga. Filed July 31, 1908. Serial No. 446,353.

1. In a candy making machine, the combination with a stationary candy receiving tube, of a rotary candy receiving tube in line therewith, intermediate transverse grooved rollers mounted to move bodily with said rotary tube, gearing connecting said rollers with the stationary tube whereby they rotate upon their own axes as they turn, grooved feed rollers in advance of the end of said rotary tube mounted upon stationary bearings, and gearing connection between said rollers and tube whereby they are rotated upon their axes as the tube is turned.

2. In a candy making machine, the combination with grooved feed rollers, of a rotary member having a tubular portion adjacent and in line with said feed rollers and having a bifurcated portion carrying grooved feed rollers in line with said tubular portion, a stationary discharge tube in line with said last mentioned rollers, rotary bearing connection between said stationary tube and rotary member, and gearing connection between said stationary tube and feed rollers whereby the rollers are rotated on their axes when the frame is turned.



3. In a candy making machine, the combination with a rotary member embodying a tubular candy receiving portion at one end, a tubular portion at the other end having an interior bearing surface and an intermediate connecting frame, of a stationary candy receiving tube in line with the candy receiving portion and upon which the bearing surface of said tubular portion fits, transverse shafts in said frame upon opposite sides of the central line of the member, grooved rollers having intermeshing gears on said shafts and bevel gears connecting one of said rollers with the end of said stationary tube.

4. In a candy making machine, the combination with a rotary member, embodying a tubular candy receiving portion at one end, a tubular portion at the other end having an interior bearing surface, and an intermediate connecting frame, of a stationary candy receiving tube in line with the candy receiving portion and upon which the bearing surface of said tubular portion fits, transverse shafts in said frame upon opposite sides of the central line of the member, grooved rollers having intermeshing gears on said shafts, a bevel gear upon the end of said stationary tube, and a bevel gear making eccentric engagement therewith mounted on one of said shafts and secured to the roller thereon.

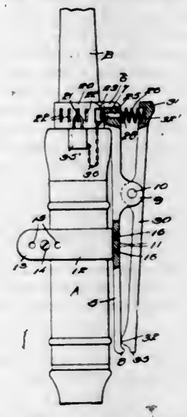
5. In a candy making machine, the combination with a stationary candy receiving tube, of a rotary member in line with said tube, grooved rollers mounted transversely in said member, the meeting edges of said rollers being in line with said tube, gears connecting said rollers whereby they move together, a bevel gear upon the end of said stationary tube, and a bevel gear upon one of said rollers making eccentric engagement with the gear on said tube.

[Claims 6 and 7 not printed in the Gazette.]

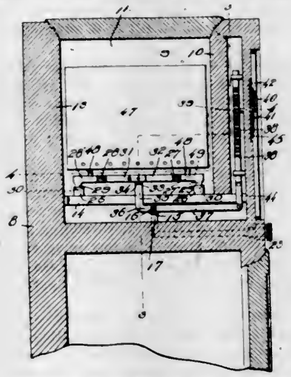
942,285. WHIP-LOCK. JOSEPH W. ROBERTSON, Cadiz, Ohio. Filed June 10, 1909. Serial No. 501,243.

1. A whip lock having in combination, a carrier bar having an outstanding head at one end, an oppositely extending guide lip at the other and an intermediately positioned ear, a flat pliant locking band, a securing pin carried by said outstanding head, said pin at one end supporting said locking band, a coiled spring carried at the remaining end of said pin, a clamping arm having a guide lip at its lower end for coaction with said first mentioned guide lip and a socket at its upper end registering with said spring, a pin carried by said ear to pivotally support said arm, an eye carried at one end of said band the remaining end of said band having a plurality of eye openings arranged to engage said eye, a lock to engage said eye, and a clamping collar carried by said carrier bar.

2. The combination with a carrier bar, of a clamping collar secured to said bar intermediate of its ends, a pivot pin carried at the upper end of said carrier bar, a clamping band pivotally carried by said pin, said band at one end having a plurality of eye openings, an eye carried at the remaining end of said clamping band arranged for engagement in said eyes, and means to lock said band end to said eye.



942,286. ICE-BOX AND REFRIGERATOR SCALE. DUDLEY G. SANSBURY and ADELINE H. SANSBURY, Brooklyn, N. Y. Filed Nov. 5, 1908. Serial No. 461,249.



1. The combination with an ice box, of a pair of supporting bars mounted therein, said supporting bars having sockets in their upper faces, a pair of pivotally connected members, rounded feet carried by the pivotally connected members and engaged in the sockets, the pivot point of the members lying inwardly of the feet, a shaft pivotally connected with the supporting bars for rocking movement, connections between the pivot point of the two members and the shaft for rotation of the shaft when the pivot point is mounted downwardly, an indicator mounted upon the outer surface of the ice box, connections between the indicator and the shaft for operation of the indicator when the shaft is rocked, and adjustable means for holding the shaft yieldably against rocking motion.

2. In a scale structure, the combination with parallel members, of a transverse shaft pivotally connected with the members, upwardly extending projections carried by the members, said projections having arcuate sockets in their upper faces, a pair of spaced members disposed transversely of the supporting members and extending across the space between the supporting members, said second named members having outwardly turned end portions, depending rounded feet carried by the end portions and engaged in the sockets of the projections, inwardly extending members carried by the second named members,

said inwardly extending members being pivotally connected, said second named members having arcuate sockets in their upper faces inwardly of their feet, an ice receptacle having depending rounded projections engaged in the sockets of the second named members, a laterally and upwardly extending arm carried by the shaft, said arm having a notch at its upper end, a knife edge, connected with the pivoted members and resting in the notch of the arm, a lever connected with the shaft and extending oppositely from the arm, a rack bar connected with the lever and extending upwardly therefrom, an indicator connected with the rack bar, said indicator being arranged to show the weight of matter within the receptacle, a scale located adjacent to the rack bar, a pointer carried by the rack bar and arranged to indicate different points upon the scale, a depending arm carried by the shaft, a forwardly extending rod pivotally connected with the depending arm, a helical spring engaged with the rod and arranged to hold the lower end of the depending arm against forward movement, and means for varying the tension of the spring.

942,287. PROCESS OF TREATING TOMATOES. OTTO SCHROEN, Naples, Italy. Filed Aug. 29, 1907. Serial No. 390,684.

1. In the process of treating tomatoes, reducing the tomatoes, boiling their pulp and juice with access of air, shredding and then drying the resulting product substantially out of contact with the air and *in vacuo* to a consistency capable of being ground.

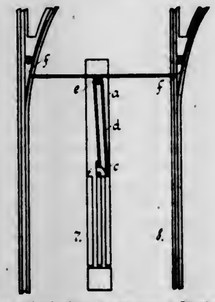
2. The process of treating tomatoes which comprises reducing and sieving the tomatoes, boiling them with access of air, evaporating the resulting product *in vacuo* to a pasty condition, shredding the product and subjecting it to a final drying *in vacuo* till it is sufficiently hard to be ground.

3. The process of treating tomatoes which comprises boiling the pulp and juice with access of air, evaporating the resulting product *in vacuo* to a pasty condition, shredding the pasty mass, drying the shredded mass in an atmosphere substantially free from oxygen until sufficiently hard to grind.

4. The process of treating tomatoes which consists in reducing and sieving the tomatoes, boiling the juice and pulp with access of air, evaporating the resulting product *in vacuo* to a pasty consistency, shredding the pasty mass, drying the shredded mass at a low temperature in an atmosphere substantially free from oxygen, grinding and dry pressing the ground mass before hygroscopic absorption sets in.

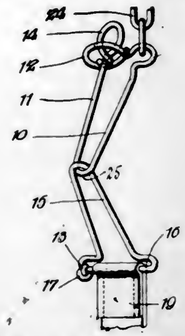
5. The process of treating tomatoes which comprises reducing and sieving the tomatoes, boiling them with access of air, evaporating the product *in vacuo* to a pasty condition, forming the product into filaments and drying *in vacuo* at a comparatively low temperature.

942,288. SWITCH FOR TRAMWAYS. NATHAN SCHWARZ, Posen, Germany. Filed Mar. 5, 1909. Serial No. 481,354.



An improved switch for tramcars adapted to be operated from the car comprising in combination, an auxiliary rail fixed between the ordinary rails, having two longitudinal guide grooves in its upper surface, a guide piece for shifting the cables pivoted upon said auxiliary rail in front of the guide grooves, means for securing said guide piece in its position, two cables fixed with one end to said guide piece, the one at the front end and the other at the rear end of the same, switch pieces between the fixed and the movable rails to which the other ends of said cables are attached and rollers for guiding said cables, means for operating the guide piece from the car consisting of vertical rods and a suitable device for lowering the one or the other of said rods so that it penetrates into the corresponding guide groove of the auxiliary rail and strikes against the guide piece to make the same swing around its pivot, substantially as described and for the purpose set forth.

942,289. BREAST-STRAP SNAP. WENCEL SEDLACEK, Ord, Nebr. Filed Oct. 26, 1908. Serial No. 459,622.



1. A device of the class described comprising a body having two spaced arms rigidly united with eyes at their ends, one of said eyes arranged at right angles to the arm of which it forms a part and transversely thereof and with the other eye extending through the same, an elongated loop adapted to be engaged in said body by passing the same through the right angled eye and around the other eye, said body adapted to be coupled to one structure and said loop member adapted to be coupled to another structure.

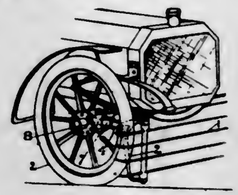
2. A device of the class described comprising a body having two spaced arms rigidly united with an eye at one end, said eye arranged at right angles to the arm of which it forms a part and transversely thereof with the terminal of the other arm extending through said eye, a loop adapted to be engaged in said body by passing the same through said eye and around the extended arm terminal.

3. A device of the class described comprising a body having two spaced arms rigidly united with an eye at one end of one arm, said eye arranged at right angles to said arm and transversely thereto with the terminal of said other arm extending through said eye, and a lateral loop in the arm having the eye and adjacent to said eye.

4. A device of the class described comprising a body formed from a single piece of wire having an eye in one end bent at right angles thereto and the body bent intermediate its ends into a substantially U shape with the free end of the body extending through the eye, and an elongated loop adapted to be engaged in said body by passing the same through the right angled eye and around the terminal of the body extending therethrough.

5. A device of the class described comprising a body formed from a single piece of wire having an eye in one end bent at right angles thereto and with a lateral loop next to the eye and the body bent intermediate its ends into a substantially U shape with the free end of the body extending through the eye, and an elongated loop adapted to be engaged in said body by passing the same through the right angled eye and around the terminal of the body extending therethrough.

942,290. FENDER. AUGUSTUS W. SHANK, Detroit, Mich., assignor, by direct and mesne assignments, of one-half to George Rottman, one-eighth to George W. Lynn, and one-eighth to William W. Tackabury, Detroit, Mich. Filed Feb. 3, 1909. Serial No. 477,811.

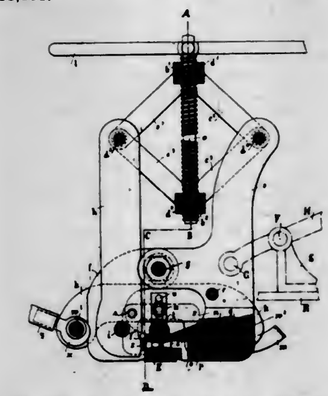


1. A fender for an automobile comprising in combination with the steering bearing wheels and members of the running gear which swing with the said wheels, supporting brackets secured to said members, and a shield in front of said wheels pivotally supported on the brackets.

2. A fender for an automobile comprising a shield adapted to span the steering bearing-wheels of the vehicle, and brackets pivotally attached to the shield and adapted to be secured at their inner ends to the portions of the running gear which swing with the wheels.

3. The combination with the steering bearing-wheels of an automobile and the portion of the running gear which swings therewith of a fender consisting of supporting members detachably secured to the said portion of the gear and a shield in front of the said wheels secured on said supporting members.

942,291. HAND PUNCHING-MACHINE. HEINRICH SIEGRIST, Oberwil, Switzerland, assignor to Weidmann & Co., Zurich, Switzerland. Filed Sept. 16, 1908. Serial No. 453,331.

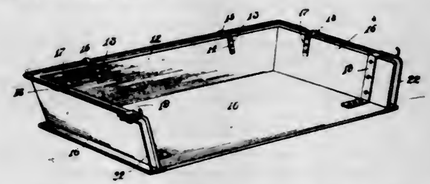


1. A punching machine comprising in combination with a double threaded spindle and with two nuts, one for each of the threads of said spindle, the die-support, means for attaching the machine upon the work-piece, a pivot at the upper end of said die-support, a rod pivoted with one end to said pivot and with its other end to the upper nut of the screw-spindle and a second rod pivoted with one end to said pivot and with its other end to the lower nut of the screw-spindle, a pressure-lever, a pivot at the upper end of said pressure-lever, a rod pivoted with one end to said pivot and with its other end to the upper nut and a second rod pivoted with one end to the pivot and with its other end to the lower nut of the screw-spindle, so that the four rods form two parallelograms of forces acting in lateral direction upon the upper end of the pressure-lever, the punch situated in front of the lower end of the pressure-lever, a removable guide-piece for the punch opposite the die, two-cranked cheeks linked with their upper ends to the die-support and carrying between their lower ends the said guide-piece for the punch, a bolt fixed in said cranked cheeks serving as pivot for the lower ends of the pressure-lever, means for pressing the cranked cheeks with the guide-piece for the punch and the die-support against the work-piece and means for moving the screw-spindle so that it acts upon the punch, substantially as described and shown.

2. In an improved punching-machine the means for simultaneously pressing the guide-piece for the punch and the die-support against the work-piece comprising in combination with said die-support and the cranked-cheeks hinged to the same with their upper ends, a bolt fixed in the rear end of the die-support so that it projects from the same with both ends, cover-links pivoted upon said bolt and projecting with their other ends over the rear ends of the cranked cheeks, an axle fixed between the free ends of said cover links and an eccentric keyed upon said axle so that it bears against the rear ends of the cranked-cheeks, and a hand-lever for revolving said axle, substantially as described and shown.

3. In a punching-machine the adjustable means for fixing the die-support upon the work-piece, comprising in combination, the die-support having a guide-slot, a guide-pin in said slot and a shackle fixed upon said guide-pin, a toothed part of said shackle and a ratchet-bar mounted in the die-support and adapted to engage with the toothing of the shackle, substantially as described and for the purpose set forth.

942,292. SHIFTING-RAIL FOR VEHICLE-SEATS. ALBERT E. SMITH, South Bend, Ind. Filed Feb. 26, 1908. Serial No. 417,868.



1. In a device of the character described, a shifting rail, brackets adapted to engage the upper and lower edges of the rail, other brackets each having a perforation and a slot leading from the side thereof into the perforation, said rail having shouldered lugs for projection through the perforations of said other brackets with their shoulders fitted in the said perforations, and a clamp rotatively mounted on each lug, the extremity of each lug being upset to prevent detachment of the clamp, each clamp being thereby permanently carried by the rail and having a shoulder for passage through the slot of the corresponding other bracket which binds against the under face of said other bracket when the clamp is turned in one direction to lock the rail against displacement.

2. In a device of the character described, a shifting rail, brackets adapted to engage the upper and lower edges of the rail, other brackets each having a perforation and a slot leading from the side thereof into the perforation, said rail having lugs for projection through the perforations of said other brackets, and a clamp rotatively mounted on each lug, each clamp having a shoulder for passage through the slot of the corresponding other bracket which binds against the under face of said other bracket when the clamp is turned in one direction to lock the rail against displacement.

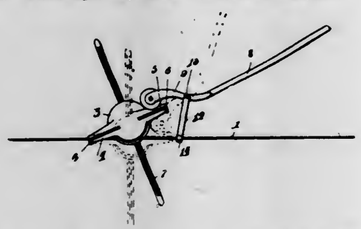
3. In a device of the character described, a shifting rail, brackets arranged in pairs, one bracket of each pair having a substantially horizontally directed portion whose extremity is turned upwardly and then downwardly to provide a notch to engage over the top of the rail, the other bracket of each pair having a substantially horizontally directed portion whose outer end is directed upwardly to provide a stop and then directed downwardly and again upwardly to provide a notch to engage under the rail,

other brackets, and means to lock the rail in engagement with the last-mentioned brackets.

4. In a device of the character described, a shifting rail, brackets arranged in pairs, one bracket of each pair having a substantially horizontally directed portion whose extremity is turned upwardly and then downwardly to provide a notch to engage over the top of the rail, the other bracket of each pair having a substantially horizontally directed portion whose outer end is directed upwardly to provide a stop and then directed downwardly and again upwardly to provide a notch to engage under the rail, other brackets, each having a substantially horizontal portion provided with a perforation and a slot, the rail having shouldered lugs for passage through the perforations of the last-mentioned brackets with their shoulders disposed in the perforations, a clamp rotatively mounted on each lug and having a shoulder for passage through the slot of the corresponding last-mentioned bracket adapted to bind against the under face of the corresponding last-mentioned bracket when turned in one direction to lock the rail against displacement, the lugs being upset to prevent detachment of the clamps.

5. In a device of the character described, a shifting rail, brackets arranged in pairs, one bracket of each pair having a substantially horizontally directed portion whose extremity is turned upwardly and then downwardly to provide a notch to engage over the top of the rail, the other bracket of each pair having a substantially horizontally directed portion whose outer end is directed upwardly to provide a stop and then directed downwardly and again upwardly to provide a notch to engage under the rail, other brackets, each having a substantially horizontal portion provided with a perforation and a slot, the rail having lugs for passage through the perforations of the last-mentioned brackets, a clamp rotatively mounted on each lug and having a shoulder for passage through the slot of the corresponding last-mentioned bracket adapted to bind against the under face of the corresponding last-mentioned bracket when turned in one direction to lock the rail against displacement.

942,293. TOOL. DEWITT C. SOUTHWORTH, South Bend, Ind. Filed Apr. 24, 1909. Serial No. 491,007.

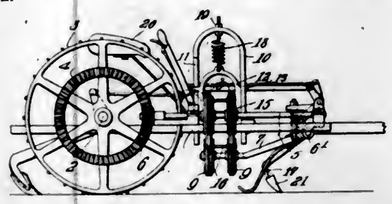


A device of the class described, comprising a lever having a curved end whose extremity is bifurcated with a flattened portion above the bifurcation, a grooved roller mounted in the bifurcation, and an arm having one end pivotally secured to the lever at its flattened portion above the bifurcation and having its other end formed into a hook disposed in a lateral direction with respect to the lever, substantially as described.

942,294. COTTON-CHOPPER. NOAH T. SPEER, New Madrid, Mo., assignor of one-half to Mandel Frankle, New Madrid, Mo. Filed Apr. 24, 1909. Serial No. 492,007.
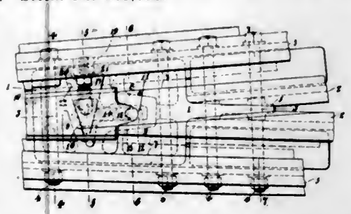
1. A cotton chopper comprising hoe-supporting elements mounted for orbital movement, hoes carried by said elements, pivoted arms for holding the elements and hoes carried thereby in position for performing the chopping operation, means for moving the elements, and resilient means for uniformly maintaining the hoe-supporting elements during their orbital movement.

2. A cotton chopper comprising hoe-supporting elements mounted for orbital movement, chopping hoes supported by said elements, means for moving said elements, arms pivotally mounted and having wheels adapted to guide the hoe-supporting elements during the chopping operation of the hoes, and resilient means for maintaining the hoe-supporting elements during the chopping operation.



3. A cotton chopper comprising hoe-supporting elements mounted for orbital movement, hoes supported by said elements, means for moving the said elements, arms pivotally mounted and carrying wheels for guiding the hoe-supporting elements, runners adjustably attached to the arms and adapted to travel upon the surface of the soil, and resilient means for maintaining the hoe-supporting elements in position during the chopping operation of the hoes.

942,295. TONGUE-SWITCH. JAMES B. STRONG and JOHN D. MCPHERSON, Hillburn, N. Y. Filed July 22, 1909. Serial No. 509,056.



1. In a tongue switch the combination with a heel block and a tongue pivoted thereto, of means for holding said tongue in its socket comprising a movable adjustment block, and means for actuating said block within the limits of the track lines of the switch.

2. In a tongue switch the combination with a heel block provided with a socket, of a tongue having an extension flush with the tread of said tongue seating in said socket and forming a pivot for said tongue, and means for holding said pivot portion of the tongue in said socket arranged within the limits of the track lines of the switch.

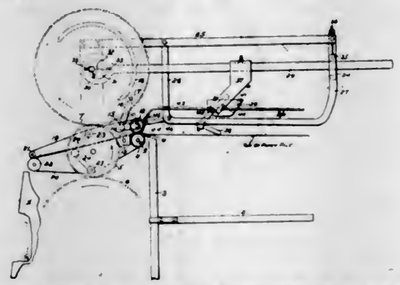
3. In a tongue switch the combination with a heel block provided with a socket, of a tongue having an extension forming part of the tread of said tongue and seating in said socket to form the pivot for said tongue, a lug on said tongue projecting into a recess provided in the switch heel block beneath said socket, an adjusting block operatively engaging said lug by means of a sliding plunger, and means engaging said block for adjusting the same.

4. In a tongue switch the combination of a heel block provided with a pivot socket and with a flange-way having an opening therein, a tongue provided with an extension seating in said socket to form a pivot, an adjusting block operatively engaging said tongue to hold said pivot in the socket, and means actuated through the opening in the flange-way of the switch block for adjusting said adjusting block.

5. In a tongue switch the combination of a heel block having a flange-way with an opening therein, a tongue pivoted to said switch block, and means for holding said tongue in the socket comprising a wedge block, a bolt swiveled to said block and a nut on said bolt in the opening in the flange-way and acting against the heel block to move said bolt, substantially as described.

[Claim 6 not printed in the Gazette.]

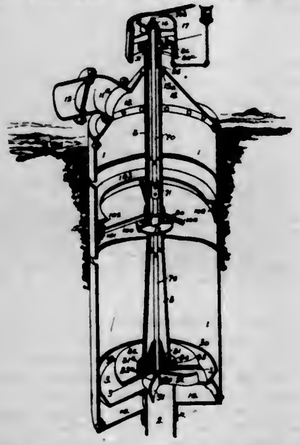
942,296. PAPER-FEED MECHANISM FOR PRINTING-PRESSES. JUNIUS E. TUCKER, Memphis, Tenn., assignor, by mesne assignments, to Tucker Feeder Company, Augusta, Me. Filed Mar. 18, 1907. Serial No. 362,953.



1. In a feeding mechanism, the combination with a stationary bar, a rod disposed above said bar, and means for reciprocating said rod, of a bracket secured to the rod, a scraper finger carried by said bracket, an elongated cam block pivotally supported by said bracket and weighted at one side of its pivotal support, means controlled by a paper sheet for holding said cam block out of contact with the stationary bar and for releasing said cam block to permit it to engage said stationary bar during a portion of the travel of the rod and scraper finger to raise the latter.

2. In a feeding mechanism, the combination with a frame, a stationary bar secured to said frame, and a shaft, of a slotted eccentric mounted on said shaft, screws for adjusting the eccentric relatively to the shaft, a rod connected with said eccentric, a scraper finger carried by said rod, and a cam block coöperating with said finger and the stationary bar to raise said finger and the reciprocating rod during a portion of the travel of the same.

942,297. PUMP MECHANISM. MARVIN B. VAN NESS, Welsh, La. Filed Mar. 11, 1909. Serial No. 482,719.



1. The combination with a deep well tube, a pit in which the tube extends, a disk plate on the upper end of the tube that forms the bottom of the pumping shell, said plate having an outwardly flared rim, and the pit a discharge in the upper end; of a centrally disposed casing pendent from the top of the pit, a plate that forms the closure for the bottom of the casing and the top of the pump shell, said plate having a hub bearing, a hub bearing in the upper end of the casing, a rotary pump head mounted in the shell at the bottom of the pit, a shaft that extends down into the pit through the casing and carries the said head, means for vertically adjusting the shaft and the head, and for imparting motion to the shaft.

2. The combination with the pit closed at the top and the bottom and having a central intake at the lower end and a discharge at the upper end, a casing that extends from the top of the pit to a point near the intake, a rotary pump that operates in the bottom of the pit to direct the fluid from the intake to the discharge end of the pit, the casing having a closure hub in its upper and in its lower end, a shaft journaled in the hubs having a drive pulley at the upper end and carrying a rotary pump head at the lower end, and adjustable means for bracing the casing in the pit, said means consisting of a skeleton brace having an annular rim, and a central hub for the casing, and a clamping ring having a wedge rim for fitting between the annular rim of the brace and the pit wall.

3. The combination with the pit closed at the top and bottom having a discharge at the upper end, and a central aperture at the lower end to receive the end of the well tubing; of a pump shell mounted on the bottom of the pit in communication with the well tubing and having an annularly and upwardly directing fluid discharge; a rotary pumping head horizontally mounted in the shell, a shaft connected to the pumping head that extends through the top of the pit, a casing that surrounds the shaft and extends through the top of the pit, said casing having a plug bearing on each end for the shaft, the plug in the lower end of the casing having a concaved bearing, the pump head having a convexed bearing for fitting the said concaved bearing, a metallic washer interposed between the two bearings, and means at the upper end of the shaft for adjusting it vertically with respect to the said bearings.

4. The combination with the pit, the pump head in the bottom thereof, a pump shaft, belt pulley on said shaft, the shaft casing that extends through the top of the pit to support said pulley and take the belt pull and closed at the top and bottom, an oil supply to the casing, a packing bearing between the lower end of the casing and the pump head and means operable from the top of the pit for adjusting the shaft and head vertically.

5. In a pumping mechanism of the character described, a well pit, a rotary pump head therein, a line of shaft from the pump through the top of the pit, a casing that entirely surrounds the shaft portion inside the pit, means for leading lubricant into the casing and devices for adjusting the bearing of the pump head against the lower end of the casing for cutting off oil leakage therefrom.

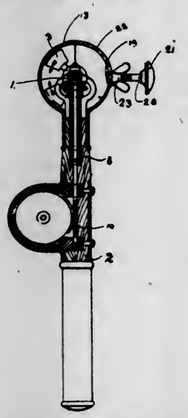
942,298. HAIR-CUTTING INSTRUMENT. FREDERICK B. WALTER, Chicago, Ill. Filed Jan. 31, 1908. Serial No. 413,653.



1. An instrument of the class described comprising a body provided with teeth, a stud formed upon the body, a blade, means whereby the blade may assume different positions upon the stud to and from the body with its cutting edge normally parallel with respect to the points of the teeth, and other means to hold said blade in adjusted position on the stud.

2. An instrument of the class described comprising a body provided with teeth, a threaded stud formed upon the body, a blade provided with a threaded aperture engaged upon the stud, said blade being adjustable to or from the body by rotation upon the stud, and a lock nut held upon said stud to secure said blade in adjusted position thereon.

942,299. MASSAGE DEVICE. HENRIK WIKING, Gottenborg, and BROR J.-BENGTSSON, Kållered, Sweden. Filed June 26, 1909. Serial No. 504,493.



1. In a massage device, the combination of a handle, a shell carried by and extending beyond one end of the handle, suitably supported weights revoluble in parallel planes within the shell, means for simultaneously revolving the weights in opposite directions, and means on the shell for utilizing the vibrating motion thereof on a spot to be treated.

2. An apparatus for mechanical massage comprising a handle, a fixed shaft at the end of the handle and at right angles thereto, two weights pivoted on the shaft with their center of gravity outside the shaft a bevel wheel on that part of each weight, which surrounds the shaft a third bevel wheel between the said bevel-wheels and engaging both these, a rotatable shaft inside the handle, on which shaft the third bevel wheel is fixed, a worm at the rear end of said shaft, a wormwheel engaging said worm and a crank to revolve the wormwheel.

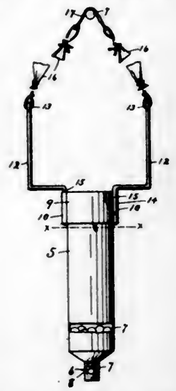
3. In an apparatus for mechanical massage the combination with a handle and a fixed shaft at the end of the handle at right angles thereto, of two weights pivoted on the shaft, bevel gears to swing the weights around the shaft arranged so that the weights in revolving always pass each other at the ends of that diameter of their revolving circle, which is at right angles to the handle, a cylindrical shell covering the two weights and fixed to the handle, an arm projecting from the shell in a plane parallel with the revolving planes of the weights, a ball at the outer end of said arm, and means to fix the arm in any arbitrary inclination to the handle between 90 and 180 degrees.

4. In an apparatus for mechanical massage the combination with a handle, and a fixed shaft at right angles to the handle, of two weights, turnable around the shaft so as to pass each other always at distinct points of their revolving circle, means for revolving the weights, a cylindrical shell covering the weights, an arm projecting from said shell and provided at the outer end with a ball, a slit in the cylindrical surface of the shell in a plane parallel with the revolving planes of the weights, the inner end of the arm penetrating said slit, a head on the arm inside the shell and a wing nut outside the same for the purpose to fix the arm in arbitrary inclination to the handle.

5. In an apparatus for mechanical massage the combination with a handle, and a fixed shaft at right angles to the handle, of two weights pivoted on the shaft, means for swinging the weights around the shaft, a cylindrical shell covering the weights, an arm projecting from the shell and provided at the outer end with a ball, two arms projecting in opposite directions from the hub of each weight, the one arm being angular in section and extending through a correspondingly shaped hole in one weight, a spiral spring around the other arm, and a bracket fixed on the weight on which bracket as well as on the hub of the weight the spiral spring acts, for the purpose described.

[Claims 6 and 7 not printed in the Gazette.]

942,300. CATAPULT. RALPH C. WINCHESTER, Gotebo, Okla. Filed Feb. 13, 1909. Serial No. 477,645.



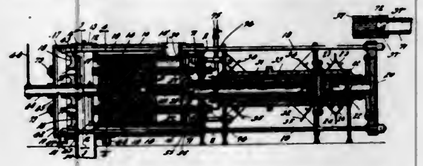
1. A catapult having a magazine body adapted to hold missiles and the other parts of the device, detachable arms for said catapult and a cap for said magazine provided with means to hold said arms in operative position.

2. In a catapult a magazine body, a reduced extension on the lower end of said body having a lateral opening therein, detachable elastic-holding arms, a cap on said body and means to hold said arms in operative position.

3. A catapult comprising a body, a cap on said body having longitudinal recesses to form sockets between its own opposite sides and the sides of said body and arms adapted to stand in said sockets when in operative position.

4. A catapult having a tubular body a reduced extension having a lateral opening on the lower end of said body, a cap extending down over the upper end of said body and having recesses in its opposite sides, a fork made in two members having their lower ends flattened to fit into sockets formed by said recesses in said cap and the exterior of said body, and elastic strips and a sling, as herein set forth.

942,301. PRESS FOR EXPRESSING FLUIDS FROM SOLIDS. FREDERICK G. WISELOGEL, Indianapolis, Ind., assignor to United States Construction and Utilization Company, Rochester, N. Y., a Corporation of New York. Filed Aug. 31, 1908. Serial No. 451,105.



1. In a press the combination of a container having suitable ends for closing the same, a pulp receiver mounted within said container and provided with strainer walls and having an open end leading to a pulp discharge outlet, means forming the said pulp outlet, a head reciprocably mounted within the container, and movable toward and from the open end of the pulp receiver to close and open the same, a piston and cylinder for moving said head, a plunger mounted within the receiver and adapted to traverse the same to the pulp discharge passage, and a cylinder and piston for moving said plunger.

2. In a press the combination of a container having suitable ends for closing the same, a pulp receiver mounted within said container and provided with strainer walls and having an open end leading to a pulp discharge outlet, means forming the said pulp outlet, a head reciprocably mounted within the container, and movable toward and from the open end of the pulp receiver to close and open the same, a piston and cylinder for moving said head, a plunger mounted within the receiver and adapted to traverse the same to the pulp discharge passage, and a cylinder and piston for moving said plunger, fluid outlet tubes having strainer walls mounted within the pulp receiver and extending through the plunger and through the head, substantially as described.

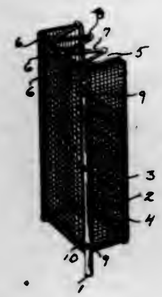
3. In a press, the combination of a perforated container, a movable head adapted to close one end of said container, means for shifting said head toward and from the open end of the container, means forming a pulp outlet passage leading from the open end of the container and traversed by said head, and a plunger arranged in the container and adapted to traverse the same to the pulp outlet.

4. In a press, the combination of a perforated container, a movable head adapted to close one end of said container, means for shifting said head toward and from the open end of the container, a tube rotatably mounted in said head and perforated, stirrer arms carried by said tube inside the head, and a plunger arranged in the container and adapted to traverse the same and to slip over the tube carried by the head.

5. In a press, the combination with a perforated container, of a movable head adapted to close the open end of said container, means for shifting said head toward and from the open end of the container, means forming a pulp outlet passage leading from the open end of the container and traversed by said head, a plunger adapted to traverse said container toward and from the movable head, and a perforated fluid outlet tube arranged within said container.

[Claims 6 to 20 not printed in the Gazette.]

942,302. FRUIT-PICKER. EPHRAIM A. ABLEMAN, Gheen, Minn. Filed June 23, 1909. Serial No. 503,862.

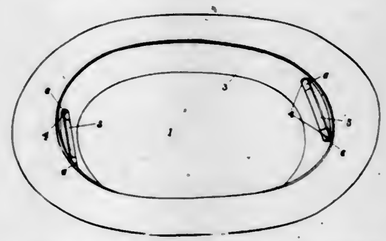


1. In a fruit picker, a wire frame rectangular in section having wire netting secured to the sides and the bottom thereof, rings secured to one edge of said frame, an operating handle extending through said rings, notches in said handle adapted to receive said rings, loops formed upon the upper end of said frame, and a wire bent upon itself to form a plurality of convolutions, one end of each of said convolutions being secured in one of said loops and the extremities of said wire secured to said frame.

2. In a fruit picker, a wire frame rectangular in section having wire netting secured to the sides and the bottom thereof, the netting upon one side of said frame terminating below the upper end of the same and the upper end of the frame being open, a plurality of rings pivotally secured upon one edge of said frame, an operating handle extending through said rings, recesses formed in said handle to receive said rings and limit the downward movement of said frame, a plurality of loops formed on one side of the upper end of said frame, and a wire bent to form a plurality of convolutions, the extremities of said wire being secured to said frame, the intermediate portions of said wire secured to said loops and extending outwardly over the open end of said receiver.

3. In a fruit picker a receiver rectangular in cross section, a plurality of rings pivotally secured to one edge of the receiver, a notched operating handle extending through said rings, said rings being engaged in the notches the rings being normally positioned obliquely with relation to the longitudinal axis of the handle to support the receiver, the upper end of the receivers being open, a wire bent upon itself to form a plurality of convolutions and disposed in the open end of the receiver, and means for securing the extremities of said wire and one end of each of the convolutions to the receiver.

942,303. HAT RETAINING AND VENTILATING MEANS. ROBERT D. BAKER, Detroit, Mich. Filed Mar. 11, 1909. Serial No. 482,649.



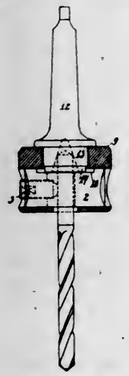
1. A device for the purposes specified comprising the combination with a hat having a sweat band, of a spring strip whose ends are inserted in transverse slots in the sweat band near the end of the hat, said strip being adapted to conform to and lie flush against the sweat band when the hat is placed firmly in position, and to stand apart from the band when released, and a covering for the strip between the slots adapted to prevent displacement of the strip.

2. The combination with a hat having a sweat band provided with a pair of transverse slots near each end of the hat, and an outer hat band, of a hollow guide inserted in each slot and secured at its inner end by spurs passing through the hat under the hat band, and a spring strip at each end of the hat whose ends pass through the adjacent pair of guides, the strips each having an enlarged body to correspond in contour to the guides, and the sweat band being slightly cut away between each pair of slots to receive the strips when the hat is in place.

942,304. SELF-CENTERING CHUCK. BERNHARD BOMBORN and ALEXANDER HOFFMANN, Berlin, Germany; said Hoffmann assignor to said Bomborn. Filed Mar. 16, 1909. Serial No. 483,762.

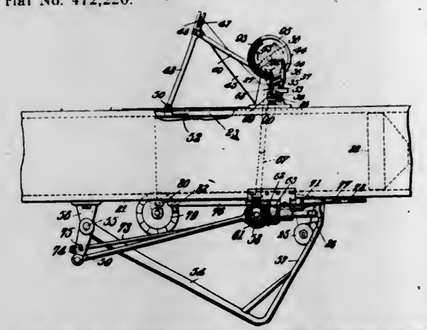
An automatically centering chuck comprising a stock having a tool centering aperture therein, a head detachably connected with the stock having a cylindrical bore extending therethrough perpendicular to the axis of the tool centering aperture, a cylindrical core mounted in the bore of substantially the same dimensions of the latter and provided with a tool receiving slot passing transversely through it and with a flat recess formed in a portion of its periphery, said recess adapted to receive an extension formed on the stock, said extension serving to prevent rotation of the core by engaging the bottom of the recess and to limit the longitudinal movement of

the core in the bore by forming an abutment for the end walls of the recess, and a screw in the core wholly within



the bore to clamp a tool against the walls of the transverse slot.

942,305. AUTOMATIC WIRE-TYING MACHINE. OSCAR L. BOWERS, Willard, Ill., assignor of one-half to John L. Bowers, Willard, Ill. Filed Jan. 14, 1909. Serial No. 472,220.



1. In a baling mechanism, means for feeding a predetermined slack, non-restrained, length of baling wire into the press box prior to the operation of the bale forming means.

2. In a baling mechanism, a baling wire storing spool, means for feeding a predetermined length of wire from the spool into position beside the press box prior to the operation of the bale forming means, said length being slack and non-restrained and being adapted to be fed into the box by the bale during formation, the spool being designed to overcome the resistance offered by the wire to the bale whereby no wire will be unwound from the spool during the period of formation of a bale.

3. In a baling mechanism, means for forming a predetermined non-restrained slack in the baling wire prior to the operation of the bale forming means.

4. In a baling mechanism, means for feeding into the press box a sufficient non-restrained, slack, length of the baling wire to embrace a plurality of the sides of the bale.

5. In a baling mechanism, means operable prior to the operation of the bale forming means for feeding into the press box a slack, non-restrained length of baling wire sufficient to embrace two sides and one end of the bale.

[Claims 6 to 43 not printed in the Gazette.]

942,306. DRINKING-TUBE. JAMES L. CLARKE, Leamington, England. Filed Apr. 24, 1909. Serial No. 492,049.

1. A drinking tube for a bottle or flask, provided with a resilient member and adapted to be confined within a bottle, and to be automatically projected at one end beyond the mouth of the bottle by said member when the bottle closure is removed.



2. A drinking tube for a bottle or flask provided with a spring adapted to be compressed by the cork or closure of the bottle when in the closed position and to cause the upper end of the tube to be projected beyond the mouth of the bottle when the closure is removed, substantially as set forth.

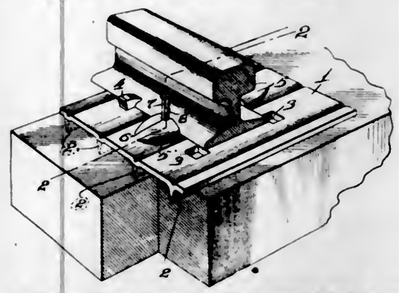
3. A drinking tube for a bottle or a flask provided with a spring adapted to be compressed by the cork or closure of the bottle when in the closed position, and means for adjusting the position of the spring relatively to the tube, substantially as set forth.

4. A drinking tube for a bottle or flask, a movable frame at the lower end of said tube and a spring tending to force the tube and the frame apart, substantially as set forth.

5. A drinking tube for a bottle or flask, a movable frame at the lower end of said tube, a spring tending to force the tube and the frame apart and means for adjusting the position of the spring relatively to the tube, substantially as set forth.

[Claims 6 to 9 not printed in the Gazette.]

942,307. COMBINED TIE-PLATE AND RAIL-ANTI-CREEPER. MARCUS S. CLARKE, Houston, Tex., assignor of one-half to Edward L. Adreon, Jr., St. Louis, Mo. Filed Oct. 9, 1908. Serial No. 456,888.

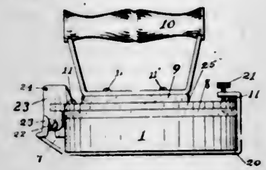


1. A device of the class described comprising a plate adapted to be positioned on a tie beneath a railway rail, ribs integral with the underside of said plate, lugs formed on the top of the plate, the edges of which lugs engage the edges of the base flanges of the rail there being an aperture formed through the plate at the end of one of the lugs, a key adapted to be driven through said aperture, which key tapers gradually throughout its length from top to bottom and one of the sides of which key is provided with vertically disposed sharp teeth.

2. A combined tie plate and rail anti-creeper, comprising a base plate formed of a single piece of metal, an integral rib formed on the under side of said base plate, an outer and inner lug formed on the top of the plate, which lugs are formed by being struck and pressed upward from the body of the plate, the interior edge of the outer lug being adapted to engage the outer edge of the base flange of the rail for limiting the outer movement of the rail, the inner one of said lugs being provided with a recess formed in its top wall, coinciding with the opening formed in the plate from which said lug is struck, and a key adapted to be driven through said recess and the opening in the plate formed beneath it, said key having its opposing edges gradually tapered from the head to the point.

3. A combined tie plate and rail anti-creeper, comprising a base plate formed of a single piece of metal, an integral rib formed on the under side of said base plate, an outer and inner lug formed on the top of the plate, which lugs are formed by being struck and pressed upward from the body of the plate, the interior edge of the outer lug being adapted to engage the outer edge of the base flange of the rail for limiting the outer movement of the rail, the inner one of said lugs being provided with a recess formed in its top wall, coinciding with the opening formed in the plate from which said lug is struck, and a key adapted to be driven through said recess and the opening in the plate formed beneath it, the opposing edges of said key being uniformly and gradually tapered from the head to the point.

942,308. IRON HEATED BY ELECTRICITY. JOHN COLLICOTT, Salt Lake City, Utah. Filed June 8, 1909. Serial No. 500,961.



1. In an iron of the class described, the combination of a chambered base, heating units pivotally secured to the interior of said base, a perforated covering for said base, and a hinged rest member secured to said covering, as and for the purposes described.

2. In an iron of the class described, in combination, the chambered base, heating units pivotally secured to the interior of said base, a covering for said base, a hinged member secured to said covering, and a seam press secured to said hinged member in contact with the face of the iron, as and for the purposes described.

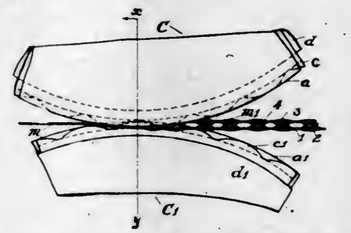
3. In combination with an electrically heated iron a hinged terminal protector, a seam press secured to the lower part of said terminal protector that contacts with the face of the iron and is adjustably secured thereto, as and for the purposes described.

4. In combination with an iron, terminals secured thereto, lugs on said terminals, a locking switch adapted to be fitted thereover, springs secured to said locking switch, their lower ends adapted to engage said lugs, a switch to compress said springs, as and for the purposes described.

5. In an iron of the class described the combination of a chambered base, a perforated covering therefor, a rest member hinged to said covering, a heat-proof insulator between said base and said covering, an air space between said insulator and said covering, adjustable heating units within said chambered base, said units pivoted on pins at one end, set screws threadably secured in said units, terminals secured in said base with lugs thereon, a locking switch adapted to be fitted on said terminals, locking springs adapted to engage the lugs on said terminals, a switch adapted to set said springs and means for passing an electric current through said iron.

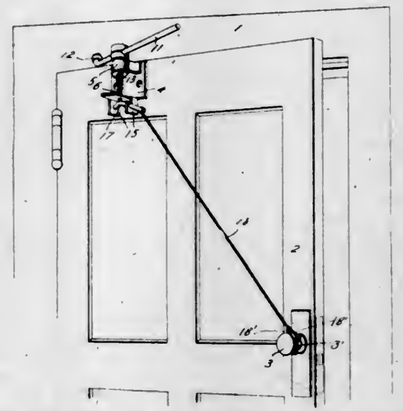
942,309. METHOD OF FORMING EXPANDED METAL. WILLIAM H. COOLEY, Brockport, N. Y. Filed Jan. 2, 1909. Serial No. 470,287.

1. The improved method of forming expanded metal which consists in forming alternatingly interrupted series of cuts in the metal to leave alternating keys between the cuts at their interruptions and simultaneously bending the strips extending longitudinally of and between the cuts to uniformly shorten the sheet in the direction of the cuts to permit the expansion of the sheet substantially without a further shortening of the sheet in the direction of the cuts and substantially without stretching the metal, and drawing points correspondingly located on opposite sides of and relatively to the cuts, in the metal thus prepared, without a further intermediate corrugating or treatment, apart in substantially straight and parallel lines substantially without stretching the metal and substantially without shortening the metal in the direction of the cuts.



2. The improved method of forming expanded metal which consists in forming alternatingly interrupted series of cuts in the metal to leave alternating keys between the cuts at their interruptions and simultaneously bending the strips extending longitudinally of and between the cuts to shorten the sheet in the direction of the cuts to permit the expansion of the sheet substantially without a further shortening of the sheet in the direction of the cuts and substantially without stretching the metal and drawing points correspondingly located on opposite sides of and relatively to the cuts in the metal thus prepared, without a further intermediate corrugating or treatment, apart in substantially straight and parallel lines substantially without stretching the metal and substantially without shortening the metal in the direction of the cuts.

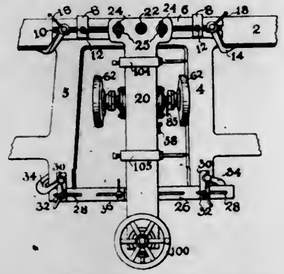
942,310. DOOR-HOLDER. HENRY M. DALY, Presidio, Tex. Filed Sept. 1, 1909. Serial No. 515,679.



In combination, a door frame, a door mounted therein, a door lock embodying a door knob and carried by the door, a locking rod pivotally connected with the door frame above the door, and door holding means on the door consisting of a base plate, a supporting member carried by said base plate, a pair of clutch members above said supporting member, a tension member consisting of a stem having a loop at its upper end passing through the supporting member, the sides of the loop passing through the clutch members to the top of the loop bearing against

the top of the uppermost clutch member, a spring connected with the lower portion of the tension member and bearing against the lower portion of the supporting member to normally hold the clutch members in engagement with the locking rod which passes therebetween, a bracket at the lower end of said base, a crank shaft mounted on the bracket, and having its crank engaging the lower end of the tension member, and a connection between the crank shaft and the door knob.

942,311. PORTABLE GRINDING-MACHINE. CHARLES W. DANGLEMEYER and JAMES J. CONNORS, Dubuque, Iowa. Filed Feb. 6, 1909. Serial No. 476,559.



1. In a device of the character described, a plate adjustably secured to the face of an engine frame, a frame provided with a dovetail adjustably secured to said plate a head carrying a movable and adjustable power box, a shaft in the power box with grinders attached, a dovetail in the head adapted to engage the dovetail in the frame and slide thereon, a screw secured in the frame and adapted to engage the head, and carry the head up and down thereon, a stay provided with a slot in its center and removably secured to the lower end of the jaws of the engine frame, and means engaging the frame and the slot in the stay to adjust the frame parallel to the jaw to be ground, and secure the frame in such adjusted position without removing the stay from the jaws of the engine frame.

2. In a device of the character described, a frame provided with a longitudinal groove and a dovetail, a head having a dovetail in its base adapted to engage the dovetail in the frame and also provided with a dovetail in its face, a plate forming part of the dovetail in the face of the head and said plate grooved on its under side, a power box engaging the dovetail and plate in the face of the head, and means for locking the power box on the head consisting of a key in the groove of the plates, a pin provided with a cam or cut away portion, and an operating handle to force the key against the base of the power box and lock it therein.

3. In a device of the character described, a frame provided with a dovetail, means for adjustably attaching the frame to the frame of an engine, a screw secured in the back of the grinding frame, a stay secured to the jaws of an engine frame and provided with a centrally longitudinal slot, a movable and adjustable dovetail block adapted to engage the dovetail in the back of the frame, means for engaging the block and the slot in the stay to adjustably hold the frame to the stay, a head carrying a power box provided with a dovetail adapted to engage the dovetail in the frame and slide thereon, a shaft in said head, grinders secured to the shaft, and collars on the shaft provided with balls which form ball bearings for the grinders.

4. In a device of the character described, a frame provided with a dovetail and longitudinal groove, means for adjustably securing the frame to the face of an engine frame, a head provided with a dovetail in its base and adapted to engage the dovetail in the frame and the dovetail in the face, a power box secured to the plate and carrying grinders, means for removably locking the plate on the head, a screw secured to the frame in the groove and adapted to engage the head and cause the head with the grinders thereon to travel up and down on the frame, and means for adjusting the grinders to attack either jaw of the engine frame.

5. In a device of the character described, a frame, a head attached to the frame, a power box carrying a shaft with grinders attached, a plate adjustably secured to the head and means for adjusting the grinders to attack the jaw to be ground consisting of a screw removably secured in the head and engaging a threaded groove in the face of the plate to the other face of which the power box is adjustably attached.

[Claim 6 not printed in the Gazette.]

942,312. ROTARY TUBE-CLEANER. PHILIP J. DARLINGTON, Pittsburg, Pa. Filed Dec. 2, 1907. Serial No. 404,680.



1. In a rotary tube cleaner, a frame provided with fluid passages and with an axial bore, a shaft rotatably journaled in said bore and provided with a shoulder near its front end, a cylindrical section in front of said shoulder and a threaded section at its front end, a wheel fitting said cylindrical section, and a tool holder screwed onto the threaded end of said shaft against said wheel forcing the latter against said shoulder.

2. In a rotary tube cleaner, a frame provided with fluid passages and with an axial bore, a shaft rotatably journaled in said bore and provided with a shoulder near its front end, a cylindrical section in front of said shoulder and a threaded section at its front end, a wheel fitting said cylindrical section, a key between said shaft and said wheel to prevent relative rotation, and a tool holder screwed onto the threaded end of said shaft against said wheel forcing the latter against said shoulder.

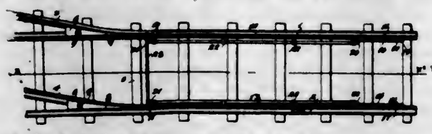
3. In a rotary tube cleaner, a solid circular body having teeth formed in its periphery and extending substantially longitudinally of the body, all of said teeth being in the same transverse plane and different ones of said teeth making different angles with the axis of said body, a rotary shaft, a shank carrying said toothed body, and flexible means connecting said shank to said rotary shaft.

4. In a rotary tube cleaning device, a rotary stem provided near its front end with a shoulder and a reduced section of circular cross-section in front of said shoulder, a cutter fitting the reduced section and bearing against the shoulder, a nut threaded onto the front end of the stem with the threads running contrawise to the direction of rotation of the stem, said nut being formed with angles, and a cutter having a correspondingly shaped socket into which said nut fits, the socket walls engaging the side faces of said nut, whereby the latter is carried with the cutter in its tendency to rotate on the stem.

5. In a rotary tube cleaner, a solid circular body having teeth formed on its periphery in substantially the same transverse plane and extending substantially longitudinally of the body, the alternate ones of said teeth extending at opposite angles to the axis of the body, a rotary shaft, a shank carrying said toothed body, and flexible means connecting said shank to said rotary shaft.

942,313. SWITCH-RAIL-CONTROLLING DEVICE. WILLIAM F. DONER, Winnipeg, Manitoba, Canada. Filed Jan. 18, 1909. Serial No. 472,857.

1. In a device of the class described the combination with the rails; the switch points; and the car, of a slidable plate pivotally secured to the switch points; a set of opposing rods rotatably mounted in brackets extending from the inner side of the rails, such rods having crank ends, one set of ends engaging with the plate and being adapted in the rotation of the rods to move the plate transversely of the track; a set of actuating bars pivotally secured to each rail of the track and having an enlarged end with an elongated opening therein, the opening being designed to receive the remaining crank ends of the rods; and means carried by the car whereby the actuating bars can be depressed, as and for the purpose specified.



2. In a device of the class described the combination with the car; the track; the switch points; and the flange rails, such flange rails being bent outwardly from the rails at some distance from the switch points forming a vertical opening between the track and flange rails; a slidable plate pivotally secured to the switch points; a set of rods rotatably mounted in brackets extending from the inner side of the rails, such rods having cranked ends, one set of the cranked ends being in engagement with the slidable plate and adapted in the rotation of the rods to move the plate transversely of the track; a set of actuating bars pivotally secured to the track within the openings provided between the flange and track rails, such bars having their extending ends enlarged and provided with an elongated opening, the opening being designed to receive the other set of cranked ends which pass into said openings through openings provided in the flange rails; and means carried by the car whereby the actuating bars can be depressed to rotate the rods, as and for the purpose specified.

3. In a device of the class described the combination with the rails and the rods rotatably mounted in brackets carried by the rails, such brackets being formed with a pair of opposing exteriorly threaded bosses, of piping interiorly threaded at its ends and adapted to screw to the bosses and inclosing the rods, as and for the purpose specified.

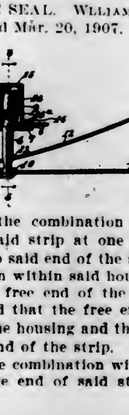
4. In a device of the class described the combination with the car floor; the car trucks; and the car wheel, of an arm pivotally secured to the trucks and having its extending end provided with a roller; a plate secured to the outer face of the wheel and concentric with the wheel, the ends of the plate being apart; a roller carried by the arm and adapted to operate on the plate; a foot lever pivotally secured to the trucks and engaging with the arm; and a spring interconnected to the car floor and the arm, as and for the purpose specified.

5. In a device of the class described the combination with the actuating bars pivotally secured to the track and having their free ends normally extending above the level of the track; the car body; the car trucks; and wheels, of plates secured to the inner face of an opposing pair of car wheels and concentric therewith, such plates having their ends apart; arms pivotally secured at their upper end to the trucks and having their free ends turned downwardly toward the track and provided with rollers adapted to engage with the respective actuating bars; a roller carried by the arms and adapted to enter the opening between the ends of the plates and operating on the inner edge of such plates; foot levers pivotally secured to the trucks and engaging with the arms whereby they may be depressed and springs secured to the arms and to the car body, as and for the purpose specified.

942,314. COMBINED CHECK AND SEAL. WILLIAM E. ELLIOTT, Grand Rapids, Mich. Filed Mar. 12, 1907. Serial No. 361,899.

1. A device of the class described comprising a strip of sheet metal having a lateral enlargement intermediate its ends provided with folded edges, and also having one or more openings in one end, a locking pin fixed in the other end, a transverse member secured on the end having the pin, and locking means on the end of said member adapted to receive and retain the pin.

2. In a device of the class described, the combination of a strip of sheet metal having a lateral enlargement intermediate its ends provided with folded edges, one end being provided with a series of openings and also being severed at its sides from the lateral enlargement, a locking pin fixed in the other end, a transverse member secured to the end having the pin, a case on the end of said extension adapted to receive the pin and means for retaining the pin within the case.



3. A device of the class described, comprising a strip of metal having perforations near one end and a locking pin near the other end, and a lateral enlargement having folded edges to hold a tag, a tag provided with an opening to receive the strip, and a transverse member on the strip having retaining means adapted to receive the locking pin and retain the same.

4. A combined seal and check, comprising a strip of metal having a lateral enlargement provided with folded edges to form grooves, said enlargement being partially severed at the sides of said strip, a tag in the grooves and having an opening to receive the strip, a locking pin near one end of the strip, a series of openings near the other end of the strip, a transverse member secured by the pin, retaining means on said member to receive and retain the pin, a detachable check having a number thereon, and a corresponding number on the strip and tag.

5. The combination of a metallic seal comprising a strip of metal, means for sealing its ends to each other, said strip having a lateral enlargement having folded edges forming grooves to receive a tag, a tag inserted in said grooves and provided with an opening to receive the strip, and a detachable portion to said seal to serve as a check.

942,315. METALLIC SEAL. WILLIAM E. ELLIOTT, Grand Rapids, Mich. Filed Mar. 20, 1907. Serial No. 363,363.



1. In a car seal, the combination with a strip, of a housing secured to said strip at one end thereof, a projection also secured to said end of the strip, and means for locking said projection within said housing, the projection and housing and the free end of the strip being so constructed and arranged that the free end of the strip may be received between the housing and the projection so as to lock it to the other end of the strip.

2. In a car seal, the combination with a strip, of a projection secured to one end of said strip, a housing also

secured to said end of the strip adjacent said projection, and means for locking said projection within said housing and coincidently locking the opposite end of said strip between said projection and housing.

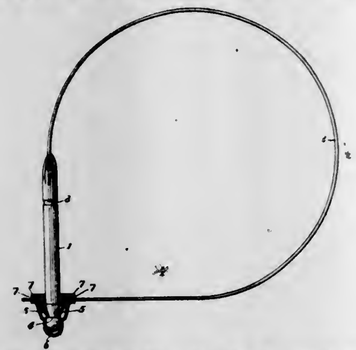
3. In a car seal, the combination with a strip having an opening in one end thereof, of a projection secured to the other end of said strip adapted to extend through said opening, a housing also secured to the latter end of said strip adjacent said projection, and means for locking said projection within said housing with the projection inserted through said opening thereby uniting the opposite ends of said strip.

4. In a car seal, the combination with a strip, of a housing secured to one end of the strip, a projection also secured to said end of the strip, and a catch fixed within said housing adapted to engage said projection and lock the same within said housing the free end of the strip being constructed and arranged to be received between the projection and the housing so as to be locked thereby to the opposite end of the strip.

5. A metallic seal comprising a strip of sheet metal having an opening to receive a locking pin, a housing attached to the strip and with its axis in line with said opening, a separate retainer of truncated conical form and of substantially the length of the interior of the case and located within the same, said retainer having yielding fingers bent inward to form hooks, and a locking pin secured to said strip and having a circumferential shoulder engaged by the inwardly bent ends of the fingers.

[Claims 6 to 10 not printed in the Gazette.]

942,316. METALLIC SEAL. WILLIAM E. ELLIOTT, Grand Rapids, Mich. Filed Apr. 6, 1907. Serial No. 366,832.



1. A seal comprising a seal body having locking means therein to retain the end of the shackle, a shackle attached to the seal body at one end, said shackle being flexible throughout a portion of its length next the seal body, and rigid and bolt-like throughout the remaining portion of its length, the end only of the rigid portion being adapted to be inserted in the seal body, whereby the shackle may be applied either as a flexible band or the rigid portion thereof outside the seal body may be applied as a rigid bolt.

2. A seal comprising a shackle having a flat flexible portion provided with an opening near one end to receive the other end, and a rigid bolt-like portion having a shoulder near the other end, and adapted to be inserted in said opening, a housing to inclose the end only of said rigid portion, and locking means in the housing to engage said shoulder, whereby the shackle may be applied as a flexible band, or the rigid portion extending outside the housing may be applied as a rigid bolt.

3. A seal comprising a shackle embodying a rigid portion, and also having a flat, flexible portion, said rigid portion having a shoulder near its end, said flexible portion having an opening near its end to receive the end of said rigid portion and normally of less diameter than the said end, and also having yielding margins, and a housing inclosing the end of said rigid portion and said margins.

4. A seal comprising a shackle having a bolt-like portion provided with a shoulder near its end and a broad flat flexible portion having an opening near its end adapted to receive the shouldered end of the bolt-like portion, means for locking the shouldered end after it has passed through said opening, a housing secured to the shackle and inclosing said shouldered end and locking means, and means carried by the housing to receive the said end and hold the same against lateral movement.

5. A seal comprising a shackle having a bolt-like portion provided with a shoulder near its end, and a broad flat flexible portion having an opening near its other end adapted to receive the shouldered end of the bolt-like portion, means for automatically locking the shouldered end after it has passed through said opening, and a housing inclosing said means and end and having a portion to receive the said end adapted to fit closely around the same and prevent lateral movement thereof.

[Claims 6 to 12 not printed in the Gazette.]

942,317. PACKING AND REGISTERING METALLIC SEALS. WILLIAM E. ELLIOTT, Grand Rapids, Mich. Filed Mar. 12, 1907, Serial No. 361,898. Renewed Apr. 26, 1909. Serial No. 492,317.



1. In a package, the combination of metallic seals, and sheets of paper arranged in alternate layers, each sheet of paper having a series of ruled lines corresponding to the series of seals, and each line on the paper and each seal opposite thereto having the same number impressed thereon.

2. In a package, the combination of metallic seals and sheets of paper arranged in alternate layers, the sheets of paper having ruled lines corresponding in number to the number of seals in a layer, each seal and each line on the paper having thereon the same number, the sheets of paper ruled vertically into columns for entry of data concerning the corresponding series of seals.

3. In combination, metallic seals arranged in layers, each layer being detachably connected to form a card of ten and a book comprising a series of leaves ruled for ten lines, the leaves of the book being arranged to alternate with the cards of seals the seals being numbered consecutively and the lines of the book numbered consecutively to correspond, the line numbers of the book running from zero upward and each leaf having the same number as a book number, and the seals having a series of numbers consisting of the book number followed by the line number as units and tens of the seal number.

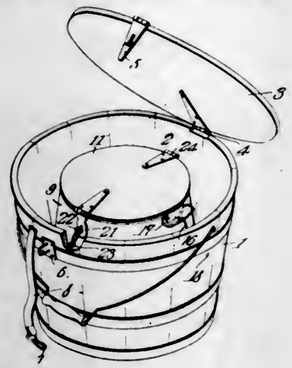
4. In combination, seals detachably connected in series of tens to form cards of seals, and a book having a series of leaves ruled with corresponding lines of ten and also ruled in columns with headings to indicate the date on which the seal is used, the consignee of the package, and the address of the consignee the leaves of the book being arranged at alternate with the cards of seals.

5. In a package, the combination of seals having oppositely projecting locking pins and retaining means, said seals being arranged in superposed layers off-set longitudinally, and a series of leaves interposed between the layers of seals and off-set in like manner, said leaves being ruled in lines corresponding to the number of seals arranged therebetween, and each line and each corresponding seal having a corresponding number.

[Claim 6 not printed in the Gazette.]

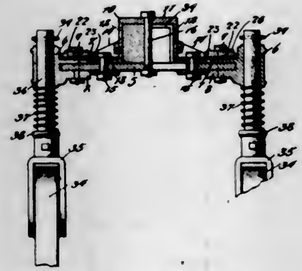
942,318. REFRIGERATING-PACKAGE. ANDREW W. FOLSOM, Sherman, Tex. Filed Feb. 15, 1909. Serial No. 477,990.

1. A refrigerating package comprising an inner truncated cone-shaped receptacle provided with resilient bails, an outer reversely truncated receptacle provided with hooks to engage the bails, means for holding the inner receptacle spaced from the bottom of the outer receptacle, and imperforate covers carried by the two receptacles, and being designed to engage with each other, whereby to retain the cover of the inner receptacle firmly seated.



2. A refrigerating package comprising an inner receptacle provided with resilient bails, an outer receptacle provided with hooks to engage the bails, means for holding the inner receptacle spaced from the bottom of the outer receptacle, and imperforate covers carried by the two receptacles, and being designed to engage with each other, whereby to retain the cover of the inner receptacle firmly seated.

942,319. FORE-CARRIAGE. JOSEPH W. GAMBLE, Carpentersville, Ill. Filed June 24, 1907. Serial No. 380,632.



1. A fore carriage for agricultural implements having a stub tongue comprising a connecting bar, journal boxes, caster wheels free to caster on the end of said bar, said journal boxes being provided with inwardly extending flanges between which said connecting bar is secured, a flanged hood rigidly mounted on the center of said connecting bar adapted to fit over and rigidly engage the end of the stub tongue, and hold it against movement with respect to said connecting bar.

2. A fore-carriage for agricultural implements, comprising a connecting bar, a hood mounted thereon, journal boxes secured to the ends of said connecting bar, caster wheels free to caster seated in said journal boxes, a guiding tongue yoke, means secured to said connecting bar for securing said guiding tongue yoke thereto, and strengthening strips secured above said connecting bar, said strengthening strips comprising complementary plates adapted to fit together.

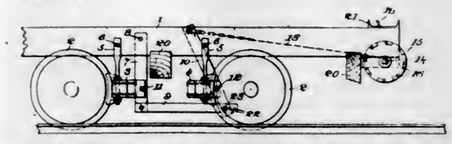
3. A fore-carriage for agricultural implements, comprising a connecting bar, a hood mounted thereon, journal boxes secured to the ends of said connecting bar, caster wheels free to caster seated in said journal boxes, a guiding tongue yoke, means secured to said connecting bar for securing said guiding tongue yoke thereto, and strengthening strips secured above said connecting bar, said strengthening strips comprising complementary plates one of said plates being provided with an ear adapted to fit within a recess in the complementary plate.

4. A fore-carriage for agricultural implements, comprising a connecting bar, a hood mounted thereon, journal boxes secured to the ends of said connecting bar, caster wheels free to caster seated in said journal boxes, a guiding tongue yoke, said guiding tongue yoke being provided with depending flanges for engaging the guiding tongue, means secured to said connecting bar for securing said guiding tongue yoke thereto, and strengthening strips secured above said connecting bar.

5. A fore-carriage for agricultural implements, comprising a connecting bar, caster wheels free to caster on the ends of said bar, bearing springs for said wheels, a hood mounted on the center of said connecting bar, said hood being adapted to receive and retain the stub tongue of said agricultural implement, said hood being provided with inwardly projecting flanges against which the end of said stub tongue abuts, and a guiding tongue yoke secured to the said connecting bar.

[Claims 6 to 8 not printed in the Gazette.]

942,320. BRAKE FOR DUMP-CARS. LOUIS P. GASTON, Somerville, N. J. Filed Sept. 9, 1909. Serial No. 516,879.



1. The combination with the car frame, supporting wheels and brake rigging therefor, of a revoluble spindle, means for rotating said spindle by foot power, and a flexible connection from the live lever of said brake rigging to the spindle.

2. The combination with a narrow supporting frame for a car, supporting wheels and brake rigging therefor, of a horizontal revoluble spindle journaled on said frame, a chain connected to said spindle and to the live lever of the brake rigging, and a foot operated wheel on said spindle.

3. The combination with a narrow supporting frame for a car, supporting wheels and brake rigging therefor, of a horizontal revoluble spindle journaled on said frame, a chain connected to said spindle and to the live lever of the brake rigging, and a foot operated wheel on said spindle located on one side of the frame, together with a pawl and ratchet mechanism for the spindle also mounted on the frame.

4. The combination with a narrow supporting frame for a car, supporting wheels and brake rigging therefor, of a horizontal revoluble spindle journaled on said frame, a chain connected to said spindle and to the live lever of the brake rigging, and a foot operated wheel on said spindle located on one side of the frame, together with a pawl and ratchet mechanism for the spindle also mounted on the frame, the tail of the pawl projecting above the top of the frame.

5. The combination with the car frame, supporting wheels and brake rigging therefor, of a revoluble spindle, means for rotating said spindle by foot power, and a flexible connection from the live lever of said brake rigging to the spindle, together with foot controlled locking means for said spindle.

[Claim 6 not printed in the Gazette.]

942,321. WINDOW-SHADE TACK. LOUIS B. GIRARD, Los Angeles, Cal., assignor, by direct and mesne assignments, to The Girard Manufacturing Company, Los Angeles, Cal., a Corporation of California. Filed Oct. 17, 1908. Serial No. 458,285.

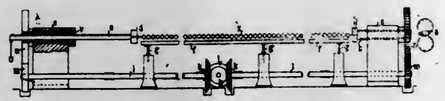
1. A window shade tack comprising a head formed of sheet metal with a prong on one side and having a notch

in the opposite side said notch being substantially the same size as said prong, and two prongs on the notched side, said head having two beveled portions each side of the single prong.



2. A shade roller tack comprising a single piece of sheet metal formed with a head having a notch 3, and a prong 4, said notch and prong having the relative areas as shown, said head having two prongs 5 and two cut-away portions 8 of substantially the comparative dimensions shown.

942,322. APPARATUS FOR USE IN TWISTING METAL RODS OR BARS. LOUIS HÄRTEL and LUDWIG KISSLING, Remscheid, Germany. Filed July 9, 1906. Serial No. 325,287.



1. In apparatus for helically twisting rods, the combination with a pair of rolls of a rotatable hollow spindle adapted to receive a rod from the rolls, a second longitudinally adjustable spindle, removed from but in line with the first, a rod-fixing head on each spindle, means to rotate the spindles in opposite directions, and means to automatically stop the rotation of the spindles after a predetermined number of revolutions.

2. In apparatus for helically twisting rods the combination with a pair of rolls of a rotatable hollow spindle adapted to receive a rod from the rolls, a second longitudinally adjustable spindle removed from but in line with the first, a rod-fixing head on each spindle, a vertically adjustable trough extending between the spindles, means to rotate the spindles in opposite directions and means to automatically stop the rotation of the spindles after a predetermined number of revolutions.

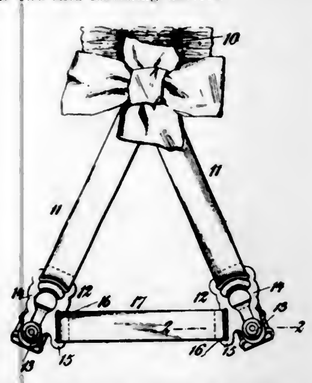
3. In apparatus for helically twisting rods, the combination with a pair of rolls, of a rotatable hollow spindle adapted to receive a rod from the rolls, a second longitudinally adjustable spindle, removed from but in line with the first, a rod-fixing head on each spindle, means to rotate the spindles in opposite directions, and a screw spindle driven by said means, a traveler nut on said spindle and a clutch operating lever in the path of the nut, substantially as set forth.

4. In apparatus for helically twisting rods, the combination with a pair of rolls, of a rotatable hollow spindle adapted to receive a rod from the rolls, a second longitudinally adjustable spindle, removed from but in line with the first, a rod fixing head on each spindle, means to rotate the spindles in opposite directions, a screw spindle driven by said means, a traveler nut on said spindle, a clutch operating lever in the path of the nut, and means, comprising a sliding guide, an index and scale to exactly position the nut on the spindle when the latter is stationary, so that the nut will engage the clutch-operating lever after a predetermined number of revolutions of the spindle, substantially as set forth.

942,323. GARMENT-SUPPORTER. DANIEL H. HAYWOOD, New York, N. Y., assignor of one-half to Max Hartog, Paterson, N. J. Filed July 25, 1908. Serial No. 445,306.

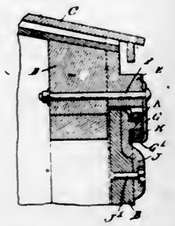
1. A garment supporter comprising two suspension straps, a fastening device at the end of each said strap, and an elastic connection directly connecting the two said fastening devices.

2. A garment supporter comprising two suspension straps, fastening devices at the ends thereof, each said fastening device comprising a stud arranged to pass to the rear of the garment, and a loop adapted to pass to the front of the garment and to engage the stud through the said garment, and an elastic strap directly connecting the loops of the two said fastening devices.



3. A garment supporter comprising an elastic connecting strap, and fastening devices at the opposite ends thereof, the said fastening devices each comprising a loop which, together with the elastic connecting strap, is arranged to rest upon the face of the garment, a stud arranged to pass to the rear of the said garment and to be engaged by the said loop through the garment, and a lateral connection which connects the loop and stud over the edge of the said garment.

942,324. COMBINED HANGER AND TRACK FOR CAR-DOORS. EDWARD A. HILL, Chicago, Ill., assignor to Chicago Grain Door Company, Chicago, Ill., a Corporation of Illinois. Filed May 15, 1909. Serial No. 496,163.

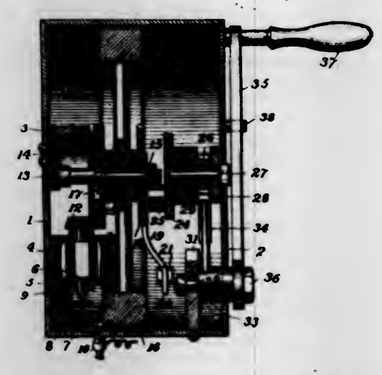


1. The combination with a railway car and a door, of a block arranged above said door, an inwardly turned L bar attached to said block and extending below the upper edge of the door, hangers attached to the outside of said door, the upper parts of which are off-set into the door so as to be substantially flush with the outer surface of the door, and trolley wheels mounted on the off-set parts of said hangers to sustain the door on said L bar.

2. The combination with a railway car and a door, of hangers which are secured on the outside of said door, the upper parts of which are off-set into said door, trolley wheels mounted on the upper parts of said hangers above the bend in the off-set and below the upper edge of the door, and a track for said trolley wheels secured to the car above said door.

3. The combination with a railway car and a door, of hangers secured on the outside of said door having perforations in the upper parts thereof below the upper edge of the door, trolley wheels having axles rigid therewith mounted in said perforations and a track bar secured to the car above the door, comprising a vertical member and inturned flange, said track bar sustaining the trolley wheels and holding them from lateral displacement in the hangers.

942,325. ELECTRIC GENERATOR. GUSTAV A. HUBER, New York, N. Y., assignor to Huber Automatic Magneto Signaling Company, New York, N. Y., a Corporation of New York. Filed Feb. 10, 1908. Serial No. 415,199.



1. In combination, an electric generator, and means for actuating the same comprising a ratchet wheel connected with the armature thereof, a swinging pawl cooperating with said ratchet, a lever for actuating said pawl, and means for holding said pawl out of engagement with said ratchet except when said lever is operated.

2. Mechanism for manually generating electric currents, comprising a suitable generator, a flywheel separate therefrom and geared thereto, a ratchet wheel rigidly connected to said flywheel, a pawl in operative relation with said ratchet wheel, means for moving said pawl bodily so as to cause it to engage said ratchet wheel and impart an impulse thereto, and means for automatically disengaging said pawl from said wheel after such impulse has been imparted.

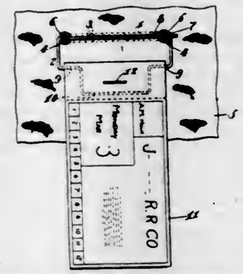
3. Mechanism for manually generating electric currents comprising a suitable generator, a flywheel connected therewith, and means for imparting an impulse to said wheel so as to cause it to spin and drive said generator, such means comprising a ratchet wheel, a spring pressed pawl associated therewith, a pivoted bracket carrying said pawl, a spring normally urging said bracket toward one limit of its stroke, a lever for swinging said bracket to the other limit of its stroke and compressing said spring, such spring, when the handle is released, serving to cause said pawl to engage and drive said ratchet wheel, and means for disengaging said pawl from the said wheel when the bracket has regained its original position.

4. Mechanism for manually generating electric currents, comprising a cylindrical casing, a flywheel mounted therein and snugly fitting the same, a gear wheel secured to one side of said flywheel and a ratchet wheel to the other, a suitable generator in the casing driven by said gear wheel, a swinging pawl associated with said ratchet wheel, and means for so moving said pawl as to cause it to momentarily engage, travel with, and then disengage said ratchet wheel, whereby said flywheel is caused to spin.

5. Mechanism for manually generating electrical currents comprising a cylindrical casing, a generator armature mounted transversely of said casing, heads closing the ends of said casing, a field magnet for said generator armature, and a flywheel axially mounted on and supported by one of said heads, a motor mounted axially on and supported by the other head, gearing between said fly wheel and said generator, and gearing between said motor and said fly wheel.

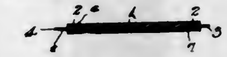
[Claim 6 not printed in the Gazette.]

942,326. TRANSFER-HANGER. THOMAS E. HUDSON and EDWARD HUDSON, Philadelphia, Pa. Filed Feb. 4, 1909. Serial No. 476,176.



In a device of the character described, the combination with two members, one member having eyes at its ends, the other member having a cross pin to project through said eyes, a hook to lock said pin, and alined shoulders and a depressed intermediate portion, whereby said last mentioned member may position itself around a transfer binding staple and support a package of transfers, substantially as set forth.

942,327. RULE. CHARLES E. JEWELL and CHARLES H. WESTCOTT, Seneca Falls, N. Y. Filed Jan. 24, 1908. Serial No. 412,412.



1. The combination of a relatively thin rule body having a slot in one edge parallel with the axis of the body and a metal strip permanently inserted in the slot and having members engaging the side of the slot and serving to prevent displacement of the strip.

2. The combination of a rule body having slotted edges and a metal strip permanently inserted in each of the slots and having barbs which enter grooves in the sides of the slot.

3. The combination of a rule body having a slot in one edge, and a metal strip permanently seated in the slot and having integrally formed barbs projecting transversely from it and engaging grooves in the sides of the slots.

4. A ruler comprising a relatively thin body provided in one edge with a slot parallel with the axis of the body and a metal strip seated in the slot, the strip having projections engaging grooves in the sides of the slot formed by longitudinal displacement of the strip.

5. A ruler comprising a wood body provided at one edge with a longitudinal slot and a metal strip seated in the slot and provided with a plurality of separated projections extending from the strip on each side engaging grooves cut in the edges of the slot by said projections.

942,328. IGNITER FOR INTERNAL-COMBUSTION MOTORS. HOWARD A. JOHNSTON, Toronto, Ontario, Canada. Filed Sept. 27, 1907. Serial No. 394,869.

1. An igniter for internal combustion motors comprising a sparking plug provided with suitable electrodes, one electrode being shaped to form a cup, and the other shaped as a wire extending from without the cup within sparking distance of the rim of the cup.

2. An igniter for internal combustion motors comprising a sparking plug provided with suitable electrodes,

one electrode being shaped to form a cup, and the other shaped as a wire entering the cup from without and extending within sparking distance of the cup at any point of their overlap.



3. An igniter for internal combustion motors comprising a sparking plug provided with electrodes suitably shaped to form between them a spark gap and a cup below the spark gap shaped to give a maximum possible fluid level slightly below the spark gap whereby a supply of liquid fuel may be held at the spark gap which cannot rise above and insulate the spark gap.

4. An igniter for internal combustion motors, comprising a sparking plug provided with a suitable electrode; and a cup formed as part of another electrode forming a spark gap with the first electrode, adapted to concentrate a spray of fuel upon the spark gap, and cupped below the spark gap, the first electrode being formed of comparatively fine wire.

5. An igniter for internal combustion motors, comprising a sparking plug provided with a suitable electrode; and a cup formed as part of another electrode and located at the spark gap, one of the electrodes being formed of comparatively fine wire.

942,329. INTERLOCKING BRAKE-SHOE. HARRY JONES, Suffern, N. Y., assignor to Edward H. Fallows, New York, N. Y. Filed Aug. 28, 1909. Serial No. 514,994.



1. A brake shoe of the character described, the body of which is provided with openings for the reception and retention of wire loops attached to the body of a similar shoe when assembled therewith, substantially as described.

2. A brake shoe of the character described, the body of which is provided with openings having shoulders on the side walls thereof for the reception and retention of the key fastening means on a similar shoe when assembled therewith, substantially as described.

3. A brake shoe of the character described, comprising a body, a removable key-lug supported on the back of said body, and means for retaining said lug in position, substantially as described.

4. A brake shoe, comprising a body, a key-lug removably attached to said body, and means permanently attached to said body for holding the removable key-lug in position.

5. A brake shoe comprising a body, a key-lug thereon and adapted when broken to be removed from the body, and means for holding the unbroken key-lug in position.

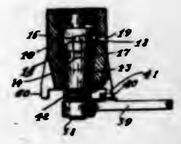
[Claims 6 to 12 not printed in the Gazette.]

942,330. FASTENING FOR LOOPS AND THE LIKE. WILLIAM M. JONES and HARLAND STEWART, San Francisco, Cal. Filed June 2, 1909. Serial No. 499,790.



In combination with a casing having a screw depending therefrom, a cap closing the rear wall of said casing, the front wall thereof being formed with a slot of uniform width in the plane of the screw, and the inner surface of said front wall being formed with recesses extending from said slot at right angles thereto, an attachment device having a T-shaped stem having a rounded cross head, the cross member thereof being adapted to pass through said slot when in registry therewith, and to rock in said recesses when at right angles to said slot, a follower disk slidable in and guided by the casing, and a coiled spring between said follower and cap arranged to press said cross member into said recesses, substantially as described.

942,331. PRESSURE-RETAINING VALVE. RICHARD W. KELLY, Los Angeles, Cal., assignor of one-half to G. E. Harpham, Los Angeles, Cal. Filed Feb. 13, 1909. Serial No. 477,528.



1. A pressure retaining valve mechanism comprising a valve casing having a longitudinal valve chamber in said casing and having a transverse channel therethrough and a branch channel running from the lower portion of the transverse channel and terminating in the valve chamber at one side of the transverse channel, said casing also having a port opening through the side thereof at a distance from the transverse channel; a valve plug in said chamber having a circumferential groove extending nearly around said plug and being of less capacity at one end thereof and adapted when the valve plug is in certain positions to connect the upper and lower ends of the transverse channel, said plug also having a circumferential groove at one side of the other groove, said last groove being adapted to connect the branch channel with the port when the plug is in the release position.

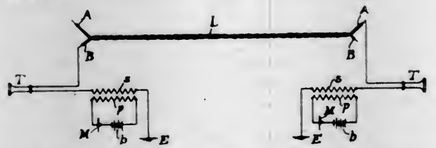
2. A pressure retaining valve mechanism comprising a valve casing having a valve plug therein, said casing having ports and channels therein and said plug having a plurality of peripheral grooves of different capacities and adapted to be operated at different times to connect parts of a channel or parts of a channel and a port, substantially as described herein.

3. A pressure retaining valve mechanism comprising a valve chamber casing having a longitudinal valve plug therein, said valve casing having a transverse channel therethrough and a branch channel in the lower part and a port at one side of said channel, said plug having a long peripheral groove of a less capacity at one end than at the other and adapted at certain positions of the valve plug to connect the upper and lower ends of the transverse channel, said plug also having a shorter peripheral groove at one side of the longer groove adapted to connect the branch channel and the port at the other position of the plug.

4. A pressure retaining valve mechanism comprising a casing having a longitudinal valve plug therein, said valve casing having a transverse channel therethrough and a branch channel in the lower part terminating at the valve plug, and a port at one side of said channel, said plug having a long peripheral groove of less capacity at one end than at the other end, adapted when the valve plug is at certain positions to connect the upper and lower ends of the transverse channel, said plug also having a shorter peripheral groove at one side of the longer groove adapted to connect the branch channel and the port at the other position of the plug; a second valve chamber casing connected to the first valve chamber casing said casing having a channel adapted to register with the channel of the transverse casing and opening into the valve chamber at one side of the center thereof, said casing also having a channel opening from the center of the bottom thereof and extending to the outside of said casing, and a valve in said last casing adapted to control said last channel.

5. A pressure retaining valve mechanism comprising a casing having a longitudinal valve plug therein, said valve casing having a transverse channel therethrough, and a branch channel in the lower part terminating at the valve plug, and a port at one side of said channel, said plug having a long peripheral groove of less capacity at one end than at the other end adapted when the valve plug is at certain positions to connect the upper and lower ends of the transverse channel, said plug also having a shorter peripheral groove at one side of the longer groove adapted to connect the branch channel and the port at the other position of the plug; a second valve chamber casing connected to the first valve chamber casing said casing having a channel adapted to register with the channel of the transverse casing and opening into the valve chamber at one side of the center thereof, said casing also having a channel at one side of the center of the bottom thereof and extending to the outside of said casing and a spring pressed valve in said last casing adapted to control said last channel.

942,332. ELECTRICAL CONDUCTOR. ISIDOR KITSEE, Philadelphia, Pa. Filed Apr. 10, 1908. Serial No. 426,228.



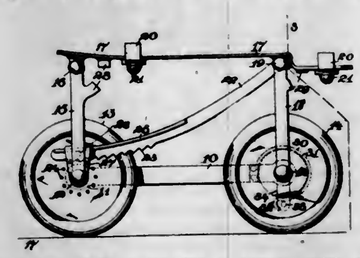
1. A composite line conductor comprising conductively independent conductors disposed in proximity to each other, the resistance of said conductors being half or less than half the resistance between said conductors.

2. A composite line conductor comprising conductively independent conductors disposed in proximity to each other, the mutual capacity between said conductors being twice or more than twice the absolute capacity of said conductors.

3. A composite line conductor comprising conductively independent conductors disposed in proximity to each other, the resistance of said conductors being half or less than half the resistance between said conductors, and the mutual capacity between said conductors greatly preponderating over the self or absolute capacity of said conductors.

4. A composite line conductor comprising conductively independent conductors disposed in proximity to each other, the resistance of said conductors being half or less than half the resistance between said conductors, and the mutual capacity between said conductors being twice or more than twice the absolute capacity of said conductors.

942,333. ROLLER-SKATE. WILLIAM LENNON, East Orange, N. J. Filed May 15, 1909. Serial No. 496,193.



1. A roller skate comprising a support with wheels thereon, a foot-plate, a connection between the foot-plate and the wheels to operate the wheels, and means for mounting the foot-plate so that it is adapted to swing forward and downward to operate said connection.

2. A roller skate comprising a support with wheels thereon, a foot-plate, a connection between the foot-plate and the wheels to operate the wheels, and means for mounting the foot-plate so that it is adapted to swing forward and downward and parallel with the ground at all points of its travel, said downward swing serving to operate said connection.

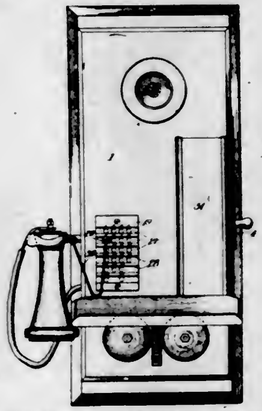
3. A roller skate comprising a support with wheels thereon, a foot-plate, a connection between the foot-plate and the wheels to operate the wheels, means for mounting the foot-plate so that it is adapted to swing forward and downward to operate said connection, and means for limiting the downward movement of the foot-plate.

4. A roller skate comprising a support with wheels thereon, a foot-plate, a connection between the foot-plate and the wheels to operate the wheels, means for mounting the foot-plate so that it is adapted to swing forward and downward and in parallel relation with the ground at all points in its movement, and means for limiting the downward movement of the foot-plate.

5. A roller skate comprising a support with wheels thereon, a pair of brackets arranged in parallel relation and pivoted to the support, a foot-plate pivoted to the brackets and adapted to swing toward the ground and parallel therewith, and means connecting the foot-plate and one of the wheels for operating the wheel on the descent of the foot-plate said means being inoperative on the ascent of the foot-plate.

[Claims 6 to 13 not printed in the Gazette.]

942,334. MECHANICAL CODE-SIGNALING DEVICE. FRITZ A. MEISSNER, Manchester, Va. Filed Dec. 11, 1908. Serial No. 467,036.



1. In a mechanical code signaling device, the combination, with a plate having a plurality of parallel rows of circuit breakers therein, of a circuit closer, a frame having means for introducing said circuit closer into contact with various points on said plate, and for holding it in position so that it closes the circuit between said frame and plate, means to slide said plate in line with the circuit breakers therein whereby one or more of them are moved over said circuit closer, and means to automatically disengage said circuit closer at the end of the stroke of said plate.

2. In a mechanical code-signaling device, the combination, with a plate having a row of circuit breakers therein, of a frame having a row of perforations therein arranged in alinement with the row of circuit breakers in said plate, a circuit closer adapted to be inserted through any one of the perforations in said frame to contact with various points in said plate, and means to slide said plate in line with the circuit breakers therein whereby one or more of them are moved over said circuit closer.

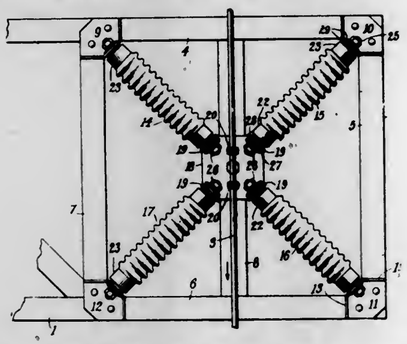
3. In a mechanical code-signaling device, the combination, with a flat plate having a plurality of rows of circuit breakers therein, of a frame having a plurality of rows of perforations therein arranged respectively in alinement with the rows of circuit breakers in said plate, a circuit closer adapted to be inserted through any one of the perforations in said frame so as to contact with various points on said plate, and means to slide said plate in line with the rows of circuit breakers whereby one or more of them are moved over said circuit closer.

4. In a mechanical code-signaling device, the combination, with a plate having a plurality of circuit breakers therein, of a circuit closer, a frame having means for introducing said circuit closer into contact with various points on said plate, means to retain said circuit closer in the desired position, means to slide said plate in line with the circuit breakers therein whereby one or more of them are moved over said circuit closer, and means for automatically releasing said circuit closer at the end of the stroke of said plate.

5. In a mechanical code-signaling device, the combination, with a vertically movable plate having circuit breakers therein, of a circuit closer adapted to be held in contact with said plate, means to raise said plate which becomes automatically disengaged when released, means to return said plate to normal position when released, and means to cushion the fall of said plate.

[Claims 6 to 13 not printed in the Gazette.]

942,335. INSULATING-SUPPORT FOR HIGH-TENSION CONDUCTORS. RALPH D. MERSHON, New York, N. Y. Filed Feb. 5, 1908. Serial No. 414,308.



1. An insulating support for high tension conductors, comprising a framed structure having insulating structural members for resolving mechanical forces originating in the conductor into components and connected each to oppose forces substantially in one direction only, as set forth.

2. An insulating support for high tension conductors, comprising a framed structure having insulating structural members for resolving mechanical forces originating in the conductors into components and connected to oppose forces substantially of compression only, as set forth.

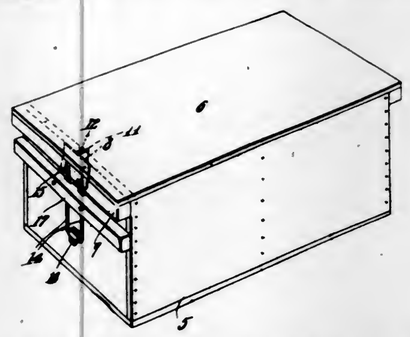
3. An insulating support for high tension conductors, comprising a framed structure having insulating structural members converging toward the conductor and connected each to oppose forces substantially in one direction only, as set forth.

4. An insulating support for high tension conductors, comprising a framed structure having insulating structural members for resolving mechanical forces originating in the conductor into components, conductor-carrying means, and connections between the said means and the said insulating members, constructed to transmit to the respective members substantially only forces in one direction, as set forth.

5. An insulating support for high tension conductors, comprising centrally-placed means for carrying the conductor, insulating members converging toward said means, and yielding connections between said means and the said insulating members, as set forth.

[Claims 6 to 11 not printed in the Gazette.]

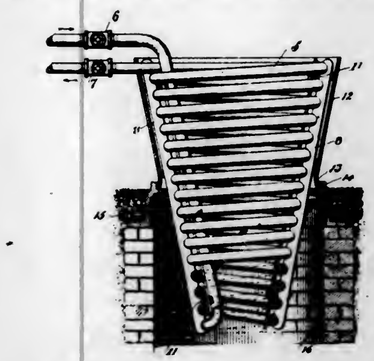
942,336. BOX-COVER FASTENING. FRANK H. MOELLENBROCK, Dissen, Mo. Filed Apr. 24, 1909. Serial No. 492,050.



1. The combination with a receptacle, and its cover, said receptacle having a slot in one of its walls, of a fastening for the cover comprising a plate secured thereto, a fin projecting from the plate into the aforesaid slot, a pair of oppositely presented hooks projecting from one of the edges of the plate, and spring fingers secured to the receptacle, and engageable with the hooks.

2. The combination with a receptacle, and its cover, of a fastening for the cover comprising a plate secured thereto, a pair of oppositely presented hooks projecting from one of the edges of the plate, and off-set therefrom, a pair of spring arms secured to the receptacle and extending behind the hooks, and forward bends at the ends of the arms engageable with the hooks.

942,337. SNOW-MELTER. CLARENCE L. MOORE, Brooklyn, N. Y. Filed Jan. 4, 1909. Serial No. 470,632.



1. In a snow melter, the combination of a pipe bent spirally in the form of an inverted cone and having a steam inlet and outlet, and means constituting a hopper and support for said pipe.

2. In a snow melter, the combination of a pipe bent spirally in the form of an inverted cone and having one end terminating in a steam inlet and the other end terminating in a steam outlet and means constituting a hopper and support for said pipe.

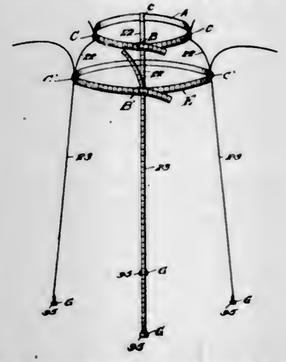
3. In a snow melter, the combination of a pipe bent spirally in the form of an inverted cone and having a steam inlet and outlet, means for maintaining the whirls of said pipe in spaced relation, and means constituting a hopper and support for said pipe.

4. In a snow melter, the combination of a pipe bent spirally in the form of an inverted cone and having a steam inlet and outlet, clamps for maintaining the whirls of said pipe in spaced relation, and means constituting a hopper and support for said pipe.

5. In a snow melter, the combination of a pipe bent spirally in the form of an inverted cone and having a steam inlet and outlet and casing inclosing a portion of said pipe and serving the dual function of a hopper and support.

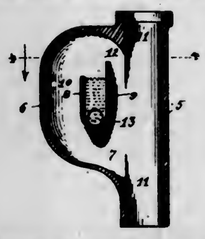
[Claims 6 to 8 not printed in the Gazette.]

942,338. SKIRT-MEASURER. MARGARET E. MORRISON, Bartley, Nebr. Filed Feb. 8, 1909. Serial No. 476,673.



An article of the class described, including a sealed belt, and a buckle member carried thereby, said buckle member comprising a base portion having a vertical slot at one end receiving one end of the belt therethrough, and having a clamp member pivoted thereon, said clamp having an operating wing adapted to indicate the length of the belt when engaged with a figure, said base member having a pendent extension having lateral ears thereon carrying therebetween a clamp member similar to the one first described, a vertical tape slidably engaged beneath the last named clamp member, a second buckle, similar to the one first described, carried at the lower end of the tape, a hip belt carried by the buckle, and a second vertical tape slidably engaged with the buckle.

942,339. SOIL-PIPE FITTING. FRED B. MORTON, Pasadena, Cal. Filed Apr. 3, 1909. Serial No. 487,777.



1. As a new article of manufacture, a soil pipe fitting comprising a tubular body with an enlargement on one side thereof and a trap in said enlargement all comprising one integral structure adapted to be inserted into and form a part of a line of soil pipe, said trap being offset from the main channel of said soil pipe and having a channel or open way at the sides and at the top and bottom of the trap.

2. A soil pipe fitting comprising a tubular body with an enlargement on one side thereof; a trap in said enlargement offset from the main channel of the tubular body, said fitting having a channel between the trap and the outer wall thereof passing downwardly and below the trap and opening into the main channel of the tubular body, said trap being provided with apertures with which the fixture pipes can be connected.

3. A soil pipe fitting comprising a section of soil pipe having a trap chamber on one side thereof said chamber opening into the channel passing through said soil pipe; a trap in said trap chamber having the wall near the section of the soil pipe higher than the other wall and being situate near the center of said chamber whereby the discharge from the trap passes down at the side of and below the trap and into the body of the soil pipe member, said trap having an opening into the bottom thereof with which a fixture pipe can be connected.

4. A soil pipe fitting comprising a tubular body having on one side thereof an enlargement, said enlargement forming a trap chamber; a trap in said chamber offset from the channel of the tubular body, said trap having a channel extending all around the same and having the wall nearer the channel through the tubular body higher than the other wall, and being provided with apertures opening into said trap with which the fixture pipes can be connected.

5. A soil pipe fitting comprising a section of soil pipe having a trap chamber on one side thereof opening into the channel passing through the soil pipe; and a trap in said chamber offset from the channel of the soil pipe.

942,340. SILO. JOHN H. MCCOY, Harrisville, Pa. Filed Feb. 15, 1909. Serial No. 478,091.



1. A concrete structure consisting of a cylindrical vertical shell having a vertical opening therein and provided with a series of removable connecting elements extending across the opening at intervals and secured to holding devices set in the edges of the wall, substantially as set forth.

2. A concrete structure consisting of a cylindrical vertical shell having a vertical opening therein and provided with a series of adjustable and removable connecting elements extending across the opening at intervals and secured to holding devices set in the edges of the wall, substantially as set forth.

3. In a silo, the combination with a cylindrical wall of concrete having a vertical discharge opening, of a series of anchoring eyes having their shanks set into opposing edges of said wall at each side of the opening, and corresponding series of removable tension elements connected therewith, substantially as set forth.

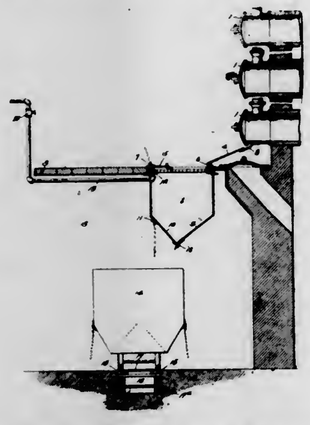
4. A silo provided with a vertical discharge opening and series of connecting elements set in each opposing edge of the wall, and connecting rods having intermediate adjusting turnbuckles, and outer terminal hooks inserted in said elements, substantially as set forth.

5. In a silo, the combination with a cylindrical wall of concrete having a vertical discharge opening, of a series of anchoring eyes having their shanks set into opposing edges of said wall at each side of the opening, and corresponding series of removable connecting rods having intermediate adjusting turnbuckles, and terminal hooks for engagement with said eyes, substantially as set forth.

942,341. APPARATUS FOR HANDLING COKE. DONALD MCDONALD, Louisville, Ky. Filed Aug. 9, 1905. Serial No. 273,417.

1. The combination with the retort in a gas-retort house, and the floor of said house: of means for receiving, confining and quenching the coke from said retort, comprising a bin located at an opening in said floor beneath said

retort; said bin being open at top to admit coke from the retort and to permit vapor from the quenching water to escape vertically from the bin, being constructed with tight side walls to confine the body of coke being quenched as well as the vapor therefrom and limit the area of the rising vapor to the space in front of the retort discharging into the bin, and being provided with means for spraying the coke within it, and with a bottom closure movable to permit the quenched coke to pass from the bin.



2. The combination with the retort in a gas-retort house, and the floor of said house; of means for receiving, confining and quenching the coke from said retort, comprising a bin fixedly mounted at, and projecting downwardly from, an opening in said floor at a point beneath said retort; said bin being open at top to admit coke from the retort and to permit vapor from the quenching water to escape vertically from the bin, being constructed with tight side walls to confine the body of coke being quenched as well as the vapor therefrom and limit the area of the rising vapor to the space in front of the retort discharging into the bin and being provided with means for spraying the coke within it, and with a bottom closure movable to permit the quenched coke to pass from the bin.

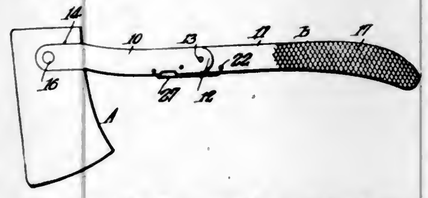
3. The combination with the bench of retorts in a gas-retort house, and the floor of said house; of individual means serving to separately receive, confine and quench the coke from the several retorts, comprising bins fixedly located in and projecting downwardly from openings in the said floor beneath the several retorts; said bins being restricted in horizontal dimensions to the several spaces of the retorts which they respectively serve and being open at top to admit coke from the retort and to permit vapor from the quenching water to escape vertically from the bin, being constructed with tight side walls to confine the body of coke being quenched as well as the vapor therefrom and compel the rising vapor to escape above the floor in an area limited to the space in front of the retorts discharging into the bin; and said bin being provided with means for spraying the coke within it, and with a bottom closure movable to permit the quenched coke to pass from the bin.

4. The combination with a retort house having a horizontal series of retorts, a main floor and a cellar beneath the main floor, of a corresponding series of quenching bins located beneath said retorts and depending into the cellar below, each bin located and constructed to receive and to confine laterally the coke from the retort located above it, and each having a bottom closure.

5. The combination with a plurality of retorts, arranged in horizontal series, of a corresponding series of quenching bins beneath said retorts, each located and constructed to receive and confine the coke from the retort located above it, and each having a bottom and a top closure and provided with means for quenching the coke, located within the bin whereby the body of coke from a single retort may be quenched while completely inclosed and the vapors produced by the quenching prevented from spreading through the working spaces.

[Claims 6 to 9 not printed in the Gazette.]

942,342. FOLDING POCKET-HATCHET. HUGH MCNALLY, Richland Center, Wis. Filed Nov. 4, 1908. Serial No. 461,068.



1. In a tool, a handle comprised of foldable sections, a blade carried by one section, a transverse pin upon one section, and a latch pivoted to the other section and formed to engage with the pin when the sections are in unfolded position to hold the said sections in said position, and to ride over the said pin when the sections are folded.

2. In a tool, a handle comprised of foldable sections, a blade carried by one section, a transverse pin carried upon one section and having a flattened surface, and a latch pivoted to the other section and provided with an inclined end adapted to engage with the flattened surface of the pin to hold the sections in unfolded position.

3. In a tool, a handle comprised of foldable sections, a blade carried by one section, a transverse pin carried by the other section and provided with a flattened surface, and a latch pivoted to the other section and provided with angularly cut ends engageable with the flattened surface of the pin to hold the sections in unfolded position, the said latch being adapted to ride over the said pin upon folding of the sections.

4. In a tool, a handle comprised of foldable sections, a blade carried by one section, the said sections being of channel formation, a flattened pin extending transversely of the channel of one member, and a latch pivoted between the sides of the channel of the other member and working in the channel of the first mentioned member above the pin, the said latch being arranged to engage at its end with the flattened side of the pin when the sections are in unfolded position.

5. In a tool, a handle comprised of foldable sections, a blade carried by one section, the said sections being of channel formation, a pin extending transversely of the channel of one section, and a channeled latch member pivoted in the channel of the other section and extending into the channel of the first mentioned section and riding over the pin, the said latch member being arranged to engage at its end with the pin when the sections are in unfolded position.

[Claims 6 to 12 not printed in the Gazette.]

942,343. BRAKE-SHOE. CHARLES B. MCPHILLIPS, Suffern, N. Y., assignor to Edward H. Fallows, New York, N. Y. Filed Aug. 19, 1909. Serial No. 513,552.



1. A brake shoe consisting of a cast metal body and a strengthening plate located at or adjacent to the back thereof, and pins, one end of each of which is anchored in said body and the opposite end bent over and upon said plate, substantially as described.

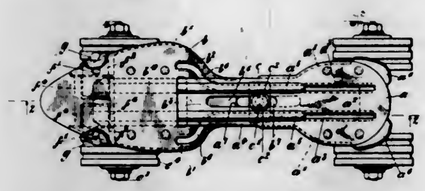
2. A brake shoe comprising a cast metal body and a strengthening plate, and pins, one end of each of which is headed and anchored in said body, and the opposite end bent over and upon said plate, substantially as described.

3. A brake shoe comprising a cast metal body provided at its back with a recess, a strengthening plate located within said recess, and pins, one end of each of which is anchored in the cast metal body, and the opposite end bent over and upon said plate, whereby to removably lock the latter to said body, substantially as described.

4. A brake shoe comprising a cast metal body provided at its back with a recess, a plate formed with key and guide lugs and located in said recess, pins, one end of each of which is headed and anchored in said body, the opposite end being bent over and upon said plate, whereby to removably hold the latter in position on said body, substantially as described.

5. A brake shoe comprising a body provided with side flanges on its back, and with end stops, a strengthening plate located on the back of said body and between said flanges, and provided with key and guide lugs, pins, one end of each of which is anchored in said body, the opposite end projecting up through said flanges, and bent over and upon said plate, whereby to removably lock the latter in position on said body, substantially as described.

942,344. ROLLER-SKATE. JOHN NUTTALL, Chicopee, Mass., assignor to A. G. Spalding & Bros., Jersey City, N. J., a Corporation of New Jersey. Filed May 21, 1909. Serial No. 497,414.



1. In a roller skate, the combination of a heel plate having its rear portion corrugated longitudinally with downwardly pressed corrugations and its forward extension corrugated longitudinally with upwardly pressed corrugations, a toe plate having its rearward extension corrugated longitudinally with downwardly pressed corrugations to fit upon the downwardly pressed corrugations of the heel plate, and means to clamp said plates together adjustably.

2. In a roller skate, the combination of a heel plate having upwardly pressed longitudinal corrugations, a toe plate having downwardly pressed longitudinal corrugations, one of said plates being slotted between the corrugations, a locking bolt passed through the plates between the longitudinal corrugations, and a clamp spanning the corrugations on opposite sides of the bolt.

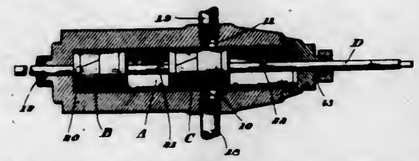
3. In a roller skate, the combination of a heel plate, a toe plate, one of said plates being corrugated longitudinally and one of said plates being slotted, a locking bolt passed through the plates between longitudinal corrugations, and a clamp spanning the corrugations and conforming thereto.

4. In a roller skate, the combination of a heel plate, a toe plate, one of said plates having longitudinal corrugations and one of said plates being slotted, a locking bolt passing through the plates and having its head flattened at the sides to drop between the raised corrugations, and a clamp.

5. In a roller skate, the combination of a heel plate having raised corrugations in its forward extension, a toe plate having depressed corrugations in its rearward extension, one of said plates being slotted, a locking bolt passing through the plates and having its head flattened on opposite sides to drop between the corrugations of one of the plates and a clamp spanning the corrugations of the other of said plates and conforming thereto.

[Claims 6 to 8 not printed in the Gazette.]

942,345. THROTTLE-VALVE. ZACCHEUS PAUL, Croton, Ontario, Canada. Filed Mar. 1, 1909. Serial No. 480,611.

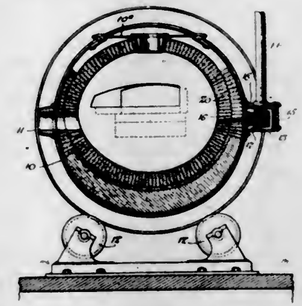


1. A throttle valve including a cylinder having ports on opposite sides thereof, a piston adapted, when in a certain position to close the ports, means for actuating the piston and simultaneously opening both sides of the cylinder to the atmosphere when the piston is moved to closed position.

2. A throttle valve including a cylinder having inlet and outlet ports thereon, spaced reciprocable pistons adapted when on opposite sides of the ports to afford communication between them, valves adapted when the pistons are in closed position to open the space between the piston and the opposite end of the cylinder to the atmosphere, means for actuating the piston and the valves, to open the valves when the pistons are in closed position.

3. A throttle valve including a cylinder having inlet and outlet ports thereon, a piston rod, spaced pistons thereon adapted when in one position to afford communication between the ports, valves adapted to open the ends of the cylinder and the space between the pistons to the atmosphere when the pistons are in closed position, means for actuating the piston rod, and mechanism connecting the piston rod with the valves, whereby when the pistons are moved to closed position the valves will be automatically opened.

942,346. METHOD OF AND CONVERTER VESSEL FOR BESSEMERIZING COPPER MATTE. WILLIAM H. PEIRCE and ELIAS A. C. SMITH, Baltimore, Md. Filed June 13, 1908. Serial No. 438,286.



1. In copper matte converters, the combination with an outer shell, of an inner, non-corrodible lining left free to expand under high heat, and a set of blast twyers embedded in such lining, but flexibly sustained with relation to the outer shell to participate in shift of the lining while still held in true relation with the air supply, substantially as described.

2. In copper matte converters, the combination with an outer shell having an open top and a non-corrodible inner lining, arched over to freely expand adjacent such top, of the series of blast twyers, flexibly sustained with relation to the outer shell and extended through the lining to participate in the shift thereof while still

preserving the tight, coherent state of such lining, substantially as described.

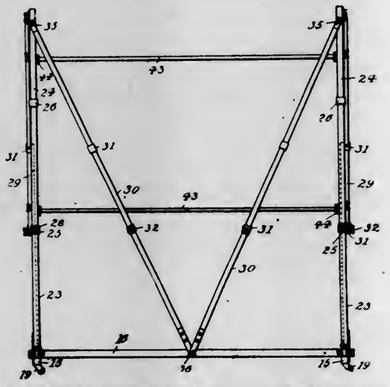
3. In copper matte converters, the combination with an outer shell, of the internal, non-corrodible lining free to heave therein, a set of blast twyers embedded in and extended through said lining, and an external wind-box within which such twyers are flexibly sustained in air-tight state, substantially as described.

4. In copper matte converters, the combination with an outer shell, of the internal, non-corrodible lining free to heave under extreme heat, the blast twyers extended through the lining but flexibly sustained adjacent the converter shell, a wind-box inclosing the inlets for said twyers and a cement coating to close the junction of each twyer with the converter shell and with the wind-box respectively.

5. In copper matte converters, the combination with an outer shell provided with an internal lining, of a series of metal twyers, square in cross-section, sustained flexibly from the shell and embedded in the lining brick to form a snug joint therewith, substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

942,347. SCAFFOLD. STEPHAN PICHLER, Brooklyn, N. Y. Filed June 9, 1909. Serial No. 501,119.



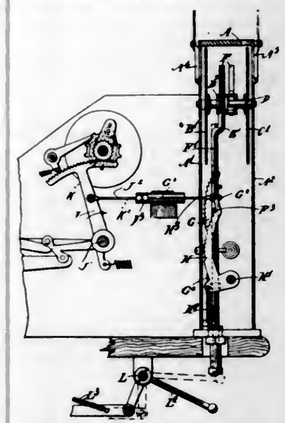
1. A scaffold comprising a first pair of parallel beams, a second pair of superposed parallel beams bolted thereto, a U-shaped shoe secured to each upper beam at the junction between the lower and upper beams, a sectional upright engaging each shoe and resting upon the lower beam, sectional braces engaging the uprights, and a vertically adjustable platform suspended between said uprights.

2. A scaffold comprising a detachable bottom frame composed of two pairs of parallel beams, a bolt at the center of each beam, shoes secured to said beams, sectional uprights engaging the shoes, a pair of sectional braces connecting the top of each upright with the bolts of the adjoining beams, and a vertically adjustable platform suspended between the uprights.

3. A scaffold comprising a first pair of parallel beams, a second pair of superposed parallel beams bolted thereto, a U-shaped shoe secured to each upper beam at the junction between the lower and upper beams, a sectional upright engaging each shoe and resting upon the lower beam, a pair of sectional braces connecting the top of each upright with the center of each adjoining beam, and a vertically adjustable platform suspended between the uprights.

942,348. INDICATOR FOR CASH-REGISTERS. ARTHUR J. POSTANS, London, England, assignor to Adder Cash Register Syndicate Limited, London, England. Filed Aug. 27, 1907. Serial No. 390,336.

1. In an item indicator for a cash register the combination of, a movable sign device, a member operatively connected therewith, a loading for that member that always tends to advance it and the sign device, a computing member that has a cam-shaped face which engages some part whereby the advance of the loaded member under the action of its loading is arrested, and means for effecting relative displacement of the computing member and such engaging part in such direction as to bring a fresh portion of the cam-shaped face into operation the degree of displacement varying according to the amount to be registered, substantially as set forth.



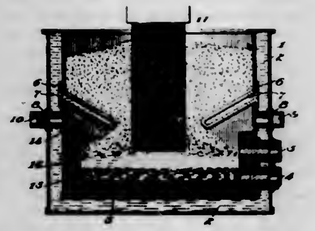
2. In an item indicator for a cash register the combination of, a movable sign device, a member operatively connected therewith, a loading for that member that always tends to advance it and the sign device, a computing member that has a cam-shaped face whereon a part carried by the loaded member bears and whereby the advance of the loaded member under the action of its loading is arrested and means for displacing the computing member in such direction that a portion of the cam-shaped face more remote from the engaging part of the loaded member is brought opposite such part the degree of displacement varying according to the amount to be registered, substantially as set forth.

3. In an item indicator for a cash register the combination of, a movable sign device, a member operatively connected therewith, a loading for the member that always tends to advance it in a given path, such movement also advancing the sign-device, a toothed rack whose teeth lie approximately in the line of travel of a portion of this loaded member the teeth being engaged by such portion under the action of the loading, a pivotal support for the toothed rack whereby the rack is carried in such manner that that end of it toward which the engaging portion of the loaded member advances always lies in the path of the engaging portion, and means for swinging the rack about the pivot so that that end nearest the engaging portion of the loaded member will be carried away from such portion a distance varying according to the amount to be registered, substantially as set forth.

4. In an item indicator for a cash register the combination of, a movable sign device, a loaded member that is operatively connected with the sign device and always tends to advance in a given path under the action of its loading, a toothed rack whose teeth lie approximately in the line of travel of a portion of this loaded member the teeth being engaged by such portion, a pivotal support for the toothed rack whereby the rack is carried in such manner that that end of it toward which the engaging portion of the loaded member advances always lies in the path of the engaging portion and such pivoted support moreover being disposed in such position that a line drawn from the point of engagement of the rack in the direction of thrust of the loaded member would pass to one side of the pivot and on such side as would cause the pressure of the engaging portion on the rack to rock the rack toward such engaging portion, and means for swinging the rack about the pivot so that that end nearest the engaging portion of the loaded member will be carried away from such portion a distance varying according to the amount to be registered, substantially as set forth.

5. In an item indicator for a cash register the combination of, a movable sign device, a loaded member that is operatively connected with the sign device and always tends to advance in a given path under the action of its loading, a toothed rack whose teeth lie approximately in the line of travel of a portion of this loaded member the teeth being engaged by such portion, a pivotal support for the toothed rack whereby the rack is carried in such manner that that end of it toward which the engaging portion of the loaded member advances always lies in the path of the engaging portion, means for swinging the rack about the pivotal support so that that end nearest the engaging portion of the loaded member will be carried away from such portion a distance varying according to the amount to be registered, yielding means that always tend to swing the rack upon its pivotal support and thus maintain it in engagement with the loaded member, and means for forcing the loaded member back against the action of its loading whereby all the parts return to their normal positions, substantially as set forth.

942,349. PROCESS OF PRODUCING FERRO ALLOYS. EDGAR F. PRICE, Niagara Falls, N. Y., assignor, by mesne assignments, to Central Trust Company of New York, trustee, a Corporation of New York. Filed June 1, 1907. Serial No. 376,882.



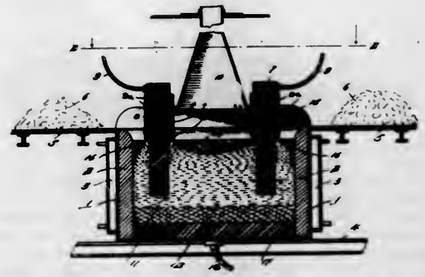
1. The process of producing ferro-alloys, which consists in electrically smelting a finely-divided charge of a metallic compound, a reducing agent and a source of iron, surrounding and embedding the zone of reduction and protecting the electrodes from the oxidizing and cooling effect of the atmosphere by a considerable body of the charge, and withdrawing the waste gases beneath the surface of the charge.

2. The process of producing ferro-alloys, which consists in electrically smelting a finely-divided charge of a metallic compound, a reducing agent and a source of iron, surrounding and embedding the zone of reduction and protecting the electrodes from the oxidizing and cooling effect of the atmosphere by a considerable body of the charge, and withdrawing the waste gases laterally in different directions beneath the surface of the charge.

3. The process of producing ferro-silicon, which consists in electrically smelting a finely-divided charge of a silicon compound, a reducing agent and a source of iron, surrounding and embedding the zone of reduction and protecting the electrodes from the oxidizing and cooling effect of the atmosphere by a considerable body of the charge, and withdrawing the waste gases beneath the surface of the charge.

4. The process of producing ferro-silicon, which consists in electrically smelting a finely-divided charge of a silicon compound, a reducing agent and a source of iron, surrounding and embedding the zone of reduction and protecting the electrodes from the oxidizing and cooling effect of the atmosphere by a considerable body of the charge, and withdrawing the waste gases laterally in different directions beneath the surface of the charge.

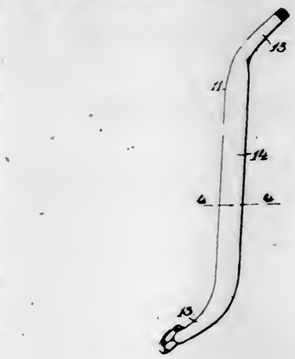
942,350. ELECTRIC FURNACE. EDGAR F. PRICE, Niagara Falls, N. Y., assignor to Electro Metallurgical Company, Chicago, Ill., a Corporation of West Virginia. Filed Jan. 27, 1908. Serial No. 412,888.



1. An electric furnace comprising an open vessel, oppositely disposed series of electrodes depending into the same, and a stack disposed above the bath and between the electrodes, whereby the air-current flowing to the stack passes in proximity to the electrodes.

2. An electric furnace comprising an open vessel, opposite series of vertically disposed, spaced electrodes depending into the same, and a stack disposed above the bath and between the electrodes, whereby the air-current flowing to the stack passes around and between the electrodes.

942,351. HAME. WALTER L. PRICE, Newark, and HARRY E. SCHENCK, East Orange, N. J. Filed Dec. 26, 1908. Serial No. 469,390.



1. A hame consisting of two tubular elements of the same length and contour fastened permanently together, the inner tube being made of a strong metal, and the outer tube being made of an ornamental metal.

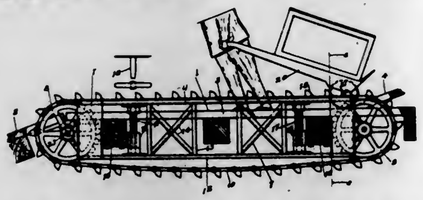
2. A hame consisting of two tubular elements of the same length, one within the other, both elements having reduced ends, whereby they are permanently fitted together.

3. A hame consisting of two tubular elements of the same length fitted closely together, one within the other, and having reduced and bent ends whereby they are insured against movement on one another either longitudinally or rotatably.

942,352. INCLINED TRUCK-ELEVATOR. JESSE W. RENO, New York, N. Y. Filed Aug. 12, 1909. Serial No. 512,531.

1. The combination with a platform having a pivotal connection secured to one end thereof and adapted by means of said pivotal connection to be secured to a stationary platform, of a pair of sprocket wheels rotatably

mounted below the surface of said platform and an endless chain mounted upon said sprocket wheels having truck engaging lugs secured thereto.



2. The combination with a platform having a pivotal connection secured to one end thereof and adapted to be secured to a stationary platform, of a pair of sprocket wheels rotatably mounted below the surface of said platform having their peripheries extended above said surface, and an endless chain mounted upon said sprocket wheels having truck engaging lugs secured thereto.

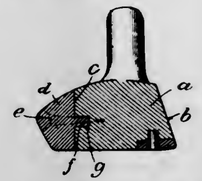
3. The combination with a platform, of a pair of sprocket wheels rotatably mounted below the surface of said platform, an endless chain mounted upon said sprocket wheels having truck engaging lugs secured thereto, and means for shifting said sprocket wheels and chain into and out of operative position.

4. The combination with a platform having a pivotal connection secured to one end thereof and adapted to be secured to a stationary platform, of a pair of sprocket wheels rotatably mounted below the surface of said platform, an endless chain mounted upon said sprocket wheels having truck engaging lugs secured thereto, and means for raising said sprocket wheels and chain above the surface of said platform and lowering them below the surface of said platform.

5. The combination with a platform, of a frame movably secured to said platform, a pair of sprocket wheels rotatably mounted in said frame, and a chain having engaging lugs secured thereto mounted on said sprocket wheels.

[Claims 6 to 9 not printed in the Gazette.]

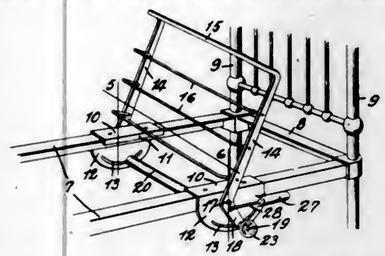
942,353. GOLF-CLUB. FREDERICK E. RIGDEN, Chicopee, Mass., assignor to A. G. Spalding & Bros., Jersey City, N. J., a Corporation of New Jersey. Filed May 27, 1908. Serial No. 435,189.



In a golf club, a head comprising a wooden body portion having a concave recess formed in its rear face and extending vertically throughout the thickness of said head; a weight seated in said recess and extending vertically throughout the thickness of said head, whereby the surfaces of said head and weight are continuous and the weight serves also to protect the head from wear, the center of gravity of said weight being in line with the striking point on the forward face of the head; and means for securing said weight in position within said recess.

942,354. HEAD-REST FOR BEDS. JOHN G. RYAN, Montreal, Quebec, Canada. Filed June 14, 1909. Serial No. 502,141.

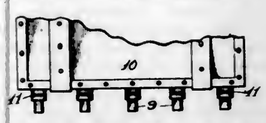
1. A head rest comprising a U-shaped frame, the side members of said frame being pivoted near the free ends thereof and the portions between the pivotal points and the free ends being bent to form short arm levers, plates having depending flanges secured to the side rails of the bed, said flanges having curved slots in the lower sides thereof, the sides of said frame being pivoted to the depending flanges of the plates, a rod extending through the free ends of said side members and operating in the slots in the flanges, a tube surrounding said rod between the flanges, means for frictionally holding said frame in position, and a spring attached to the short arm levers and adapted to hold the head rest normally in raised position.



2. A head rest comprising a U-shaped frame having the side members of said frame near the free ends bent to form short arm levers, plates having depending flanges secured to the side rails of the bed, said flanges having curved slots in the lower edges thereof, the side members of said frame being pivoted to the outside of the flanges of said plates, a rod connecting the free extremities of said short arm levers and operating in the slots in said flanges, a tube surrounding said rod between the flanges, means for tightening said rods to hold the extremities of said frame in frictional contact with the side flanges, spring operating in a casing secured to said plates, and a rod operating within said spring and attached to the short arm levers of the side frame to hold the head rest in normally raised position.

3. A head rest for beds comprising the combination with the side rails, of plates secured thereto, depending flanges formed integral with said plates, said flanges being provided at the bottom with curved slots, and a head rest consisting of side arms connected by an end rail, said side arms being pivoted to the depending flanges, and a rod connecting the ends of the levers and extending through the slots in the side flanges, a tubular member inclosing the rod between the flanges, said rod being provided with means to lock same in any desired position.

942,355. APPARATUS FOR FILLING METAL PIPES WITH SAND. CHARLES O. SCHOLZ, Pittsburg, Pa., assignor of one-half to Addison T. Stewart, Pittsburg, Pa. Filed Jan. 29, 1907. Serial No. 354,578.



1. In a pipe filler, the combination of a carrier or support, means to suspend a pipe in said support, and means to raise and drop said support with a jolting action.

2. In a pipe filling device, the combination of a carrier or support for the pipe, means to suspend a pipe in said support, a hopper adapted to contain sand so disposed with relation to said pipes that the sand therein may be charged into said pipes and means to raise and drop said support with a jolting action.

3. In a pipe filling device, the combination of a frame, a carrier or pipe support mounted therein, means to suspend a pipe in said support, a hopper adapted to contain sand for charging said pipe, and means to rapidly raise and drop said pipe support whereby the sand being charged therein is thoroughly compacted.

4. In a pipe filling device, the combination of a frame, a carrier or support for the pipes, means to suspend a plurality of pipes in said support, and means to raise and drop said support with a jolt or jarring action.

5. In a pipe filling device, the combination of a frame, a carrier or support for pipes mounted in said frame, clamps mounted in said support for securing the pipes therein, a power shaft journaled in said frame, a shaft driven from said power shaft, a spider carrying rollers mounted on said last mentioned shaft, an elbow lever actuated by said rollers adapted to contact with and recede from said support whereby said support is given a rapid up and down jolting movement for the purpose of thoroughly compacting the sand in said pipes.

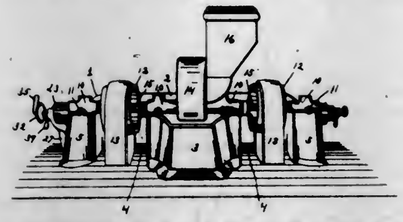
942,356. CHAIN-MANIPULATING TOOL. JOHN H. SHELLEY, New York, N. Y. Filed Feb. 17, 1909. Serial No. 478,425.



1. A chain manipulating tool, comprising pivotally connected handles provided at one end with coöperating jaws, one of said jaws having a substantially straight inner face with a shallow depression therein adapted to seat the rear wall of the chain links and prevent lateral displacement thereof, the other jaw being disposed at right angles to said first-mentioned jaw and having a wedge-shaped operating end, substantially as and for the purpose described.

2. A chain manipulating tool, comprising pivotally connected handles provided on one side of their pivot axis with coöperating jaws, one of said jaws being longitudinally disposed and having a substantially straight inner side provided with a longitudinally elongated and transversely concaved socket, the other jaw being disposed in angular relation to the first jaw and being tapered to form a wedge, said latter jaw being provided with a concaved inner side.

942,357. GRINDING-MILL. GEORGE E. SOVEREIGN, Pottersville, N. J. Filed Aug. 10, 1907. Serial No. 388,019.



1. The combination with a supporting frame, a shaft adapted to be moved longitudinally therein and coöperating disks one mounted on said shaft, of a pin in longitudinal alinement with said shaft and engaging the end thereof, a hollow screw inclosing said pin, threaded bearings for said screw, and a diametrically disposed cam on the end of said screw engaging said pin.

2. The combination with a shaft adapted to be moved longitudinally, bearings for said shaft, and coöperating disks one mounted on the shaft, of a hollow screw in alinement with said shaft and provided with a hand wheel, a pin in said screw adapted to engage the end of the shaft, a cross-pin limiting inward movement of said pin with respect to the screw, a cam pivoted upon the said hand wheel and adapted to engage said pin to force the same inward, and threaded bearings for said screw.

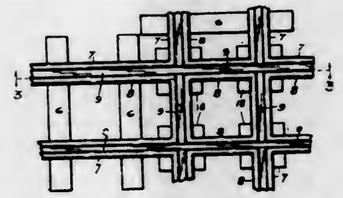
3. The combination with a bed frame, a shaft movable longitudinally therein and coöperating disks one mounted on said shaft, of a bracket upon the end of said frame, a bolt securing said bracket to the frame intermediate of its upper and lower ends, a spring between said bracket and head of the bolt, and means carried by the upper end of said bracket for adjusting the position of said longitudinal shaft, the lower end of the bracket abutting against the bed frame.

4. The combination with a longitudinally movable shaft, bearings for said shaft and coöperating disks one mounted on said shaft, of a vertically disposed bracket resiliently attached intermediate of its ends to a fixed support and engaging the same at its lower end, the upper end of said bracket being forked, a bushing mounted in said forked end of the bracket, a lubricating casing between said bushing and the shaft, and means carried by said bushing for adjusting said shaft longitudinally.

5. In a grinding mill, a grinding disk provided on its face with a series of alternate annular grooves and ribs which ribs increase in height outwardly, and radial ribs intersecting said annular ribs and having continuous faces lying in the plane of the face of the outer annular rib.

[Claims 6 and 7 not printed in the Gazette.]

942,358. RAILWAY-CROSSING. IRA O. STANT, Dublin, Ind., assignor of one-fourth to S. P. Bradway, Dublin, Ind., and one-fourth to Newton Balance Valve Co., Newton, Iowa. Filed Mar. 15, 1909. Serial No. 483,545.



1. In a railway crossing, the combination with the fixed rails of two cross-tracks having wheel-flange notches therein, of movable rails adapted in their elevated positions to fill out the notches in said fixed rails, means for locking said movable rails in their elevated positions, and means by the lowering of the movable rails of one track for locking the movable rails of the other track.

2. In a railway crossing, the combination with the fixed rails of two cross-tracks having wheel-flange notches therein, of movable rails adapted in their elevated positions to fill out the notches in said fixed rails, shoes to lock the movable rails in elevated position, and means by the lowering of the movable rails of one track for locking the movable rails of the other track.

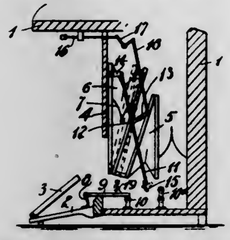
3. In a railway crossing, the combination with the fixed rails of two cross-tracks having wheel-flange notches therein, of movable rails adapted in their elevated positions to fill out the notches in said fixed rails, shoes to lock the movable rails in elevated position and means by the lowering of the movable rails of one track for locking the movable rails of the other track, said means comprising spirally grooved rocked shafts to which said shoes are fixed and lugs on the movable rails to engage said spiral grooves and rock said shafts by the travel of the movable rails.

4. In a railway crossing, the combination with the fixed rails of two cross-tracks, having wheel-flange notches therein, of movable rails adapted in their elevated positions to fill out the notches in said fixed rails, shoes to lock the movable rails in elevated position and means by the lowering of the movable rails of the other track, said means comprising spirally grooved rock shafts to which said shoes are fixed and lugs on the movable rails to engage said spiral grooves

and rock said shafts by the travel of the movable rails, the lower ends of the grooves on said rock shaft extending longitudinally of the shaft and not spirally.

5. In a railway crossing, the combination with fixed rails and movable rails of shafts located in sockets in the movable rails and having shoes adapted to be moved by the rocking of their shafts into position to lock oppositely placed movable rails in their elevated position, said rock shafts having spiral grooves terminating with straight portions extending longitudinally of the shaft, the sockets in which said shafts are seated having lugs which enter said grooves.

942,359. PEDAL-FOLDING APPARATUS. FRANK C. WHITE, Meriden, Conn., assignor to The Wilcox & White Company, Meriden, Conn., a Corporation of Connecticut. Filed Mar. 5, 1909. Serial No. 481,501.



1. In an instrument of the character described, a case, a foot pedal, a carrier therefor arranged when in one position to present said pedal for operation and when in another position to retire said pedal within the case, and a manually controllable power device for shifting said pedal support and pedal from the operative or extended position to the inoperative or retired position.

2. In an instrument of the character described, a case, a foot pedal, a carrier therefor arranged when in one position to present said pedal for operation and when in another position to retire said pedal within the case, and a manually controllable power device for shifting said pedal support and pedal from the operative to the inoperative or retired position, said power device including a bellows and a connection between said bellows and the parts to be shifted.

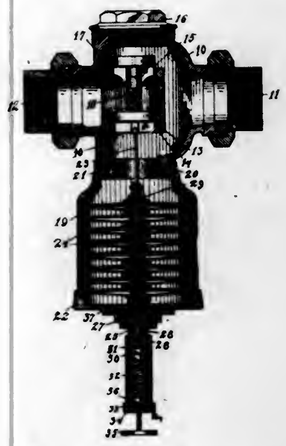
3. In an instrument of the character described, a case, a foot pedal, a carrier therefor arranged when in one position to present said pedal for operation, and when in another position to retire said pedal within the case, and a manually controllable power device for shifting said pedal support and pedal from the operative to the inoperative or retired position, said power device including a normally distended equalizer bellows and a connection between the movable part of said bellows and the parts to be shifted.

4. In an instrument of the character described, a case, a foot pedal, a carrier therefor arranged when in one position to present said pedal for operation, and when in another position to retire said pedal within the case, and a power device for shifting said pedal support and pedal from the operative to the inoperative or retired position, said power device including a normally distended equalizer bellows and a connection between the movable part of said bellows and the parts to be shifted, and manually controllable means operatively connected with said power device whereby the latter may be manually moved into and out of the operative position.

5. An instrument of the character described, including bellows and means for operating the same, a foot pedal, a movable support therefor arranged to hold said foot pedal in operative position and arranged to hold said foot pedal in an inoperative or "out of the way" position, and a power device for shifting said pedal supporting means and pedal to the last mentioned position, and a controlling device for moving said power device into and out of its operative position.

[Claim 6 not printed in the Gazette.]

942,360. REGULATING-VALVE. THOMAS M. WILKINS, East Randolph, N. Y., assignor to Charles S. Grover, Jamestown, N. Y. Filed Aug. 24, 1908. Serial No. 450,085.



1. In a device of the character described, an inlet pipe and an outlet pipe a bulb-shaped partition therebetween valve seats in said partition, a double balance valve cooperating with said seats, a stem for said valve; a resilient hollow metal diaphragm on the valve stem, and a steam tight casing around said diaphragm having direct connection with the inlet side of said partition to admit the steam on all sides of said diaphragm.

2. In a device of the character described, a valvular connection for the inlet and outlet pipes, said valvular connection consisting of a bulb-shaped partition therein having valve seat openings, a double valve mounted in said openings having a suitable stem, a multiple hollow diaphragm on said stem, a steam tight casing inclosing said diaphragm and having direct connection with said valve on its inlet side to admit the steam under pressure to all sides of said diaphragm, a rod extending through said multiple diaphragm, a spring on the end of said rod, and a set nut to adjust the pressure of said spring.

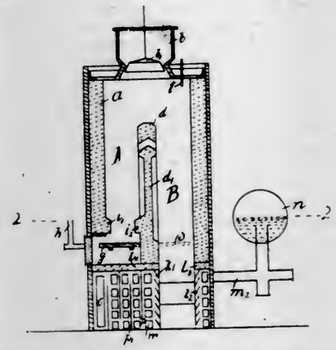
3. In a device of the character described, a valvular connection for the inlet and outlet pipes, a partition in said valvular connection having valve seat openings, a double valve mounted in said openings having a stem, a plurality of resilient hollow diaphragms on said stem, a steam tight casing inclosing said diaphragm and having direct connection with said valve on its inlet side, a tube having an opening therein to admit the atmospheric pressure to the inside of said diaphragm, and means for adjusting the expansion of said diaphragm.

4. In a device of the character described, a valvular connection 10 for the inlet 11 and outlet 12, a partition 13 having valve seat openings 14 and 15 therein, a valve 17 mounted in said openings having a stem 23, a series of hollow diaphragms 24 attached to said stem, tubes 26 and 30 attached to said diaphragm, a steam tight casing 19 having opening 20 admitting to the inlet side of said valve, a rod 28 extending through said multiple diaphragm, a spring 32 and plug 33 on the outer end of said rod and a set screw 35 bearing against said plug, substantially as and for the purpose specified.

5. In a device of the character described, an inlet port and an outlet port, a partition therebetween, valve seats in said partition, a double balance valve coöperating with said seats, a stem for said valve, a resilient hollow metal diaphragm on the valve stem, a steam tight casing around said diaphragm having direct connection with the inlet side of said partition, and double adjusting means for accurately setting said diaphragm to actuate said valves.

[Claims 6 to 8 not printed in the Gazette.]

942,361. GAS-PRODUCER. OTTO K. ZWINGENBERGER, New York, N. Y. Filed June 21, 1909. Serial No. 503,518.



1. A combination gas-producer consisting of a coking chamber and a combustion chamber, a partition extending upwardly from the bottom of the producer structure separating one chamber from the other, said combustion chamber having a grate at the lower end thereof, a water-tube system with a supply tank, located below said chambers, and constructed to cool the outgoing gases, a supply pipe at the lower part of the combustion chamber for air or a mixture of air and steam, outlets for the coke, an outlet for the gases leading from the lower portion of the producer structure and shutters located between the coking chamber and the water tubes system for the protection of the tubes.

2. A combination gas-producer consisting of a coking chamber and a combustion chamber, said combustion chamber being provided with scallops at the lower contracted end, a partition extending upwardly from the bottom of the producer structure separating one chamber from the other, a water-tube system with supply tank, located below said chambers, and constructed to cool the outgoing gases, a supply pipe at the lower part of the combustion chamber for air or a mixture of air and steam, outlets for the coke, an outlet for the gases leading from the lower portion of the producer structure and shutters located between the coking chamber and the water tubes system for the protection of the tubes.

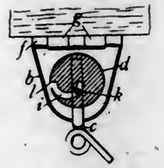
3. A combination gas-producer consistsing of a coking chamber and a combustion chamber, a partition extending upwardly from the bottom of the producer structure separating one chamber from the other, both of said chambers mounted on an arrangement to contain a water-tube system with a supply tank as a cooling device, a supply pipe at the lower part of the combustion chamber for air or a mixture of air and steam, outlets for the coke, an outlet for the gases leading from the lower portion of the producer structure and shutters located between the coking chamber and the water-tubes system for the protection of the tubes.

4. A combination gas-producer consisting of a coking chamber and a combustion chamber, a partition extending upwardly from the bottom of the producer structure separating one chamber from the other, both of said chambers mounted on an arrangement to contain a water-tube system with a supply tank, a water-tube system with supply tank as a cooling device, longitudinal or cross sectional partitions terminating in proper distance from the bottom or ceiling of the arrangement respectively to divide the space of this arrangement thus separating the parts of the water-tube system and making the gases go around the water-tubes in a zig-zag way toward the exit.

5. A combination gas-producer consisting of a coking chamber and a combustion chamber, a partition extending upwardly from the bottom of the producer structure separating one chamber from the other, a water-tube system with supply tank, located below said chambers, and constructed to cool the outgoing gases, a grate at the lower part of the coking chamber to transform the coke generated in the same into carbon-monoxid and hydrogen by the action of steam on the glowing carbon.

[Claim 6 not printed in the Gazette.]

942,362. THREAD-GUIDE FOR COTTON-SPINNING AND LIKE MACHINERY. JOSEPH APPLEBY and EDWIN APPLEBY, Aston, near Birmingham, England. Filed Feb. 9, 1909. Serial No. 476,879.



1. In thread guides and similar fittings for textile machinery, the combination with a holder, and a guide movable longitudinally with respect to the holder, of a movable cam like adjustment and locking piece adapted to impart the longitudinal movements to the guide and retain the same in position, substantially as described.

2. In thread guides and similar fittings for textile machinery, the combination with a holder, and a guide movable longitudinally with respect to the holder, of a rotatable cam like adjustment and locking piece adapted to impart the longitudinal movements to the guide and retain the same in position, substantially as described.

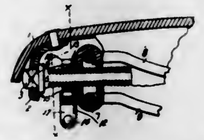
3. In thread guides and similar fittings for textile machinery, the combination with a holder and a guide movable with respect to the holder, of a rotatable adjustment piece, having a slot therein, and a projection from the guide engaging the slot, substantially as described.

4. In thread guides and similar fittings for textile machinery, the combination with a holder, and a guide movable with respect to the holder, of a rotatable adjustment piece, having a curved slot formed from the center to the periphery of the said piece, and a projection from the guide engaging the slot, substantially as described.

5. In thread guides and similar fittings for textile machinery, the combination with a holder, and a guide movable with respect to the holder, of a rotatable adjustment and locking piece, having a slot therein, a projection on the guide engaging the slot, and an abutment on the adjustment and locking piece adapted to limit the rotation of the said piece, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

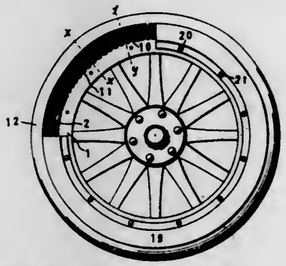
942,363. CYCLE-SADDLE. THOMAS BETTNEY, Birmingham, England. Filed Mar. 13, 1909. Serial No. 483,255.



1. In a cycle saddle the combination with the leather top tensioning screw of a nut mounted thereon and made like a ratchet wheel and a lever carried by said screw and furnished with a pawl and adapted to engage with and turn the nut to tighten up the said leather top part, substantially as set forth.

2. In a cycle saddle, the combination with a leather top tensioning screw and tension plate, of a nut mounted on said screw and made like a ratchet wheel, a washer situated between the saddle tension plate and said nut, and a lever having a pawl and mounted to revolve on said washer and being adapted to engage with and turn the nut to tighten up the leather top part, said washer being slightly thicker than the lever so as to enable the latter to turn freely.

942,364. VEHICLE-WHEEL TIRE. JOHN A. BOYAJEAN, New York, N. Y. Filed Aug. 18, 1908. Serial No. 449,145.



1. A vehicle wheel tire comprising a plurality of spring rims of the width of the tire and layers of yielding pads between adjacent rims and seated therein, the pads in each layer being spaced apart and the pads of one layer being opposite and equal in length to the spaces of the adjacent layer.

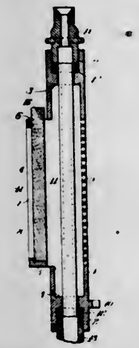
2. A vehicle wheel tire comprising a plurality of spring rims and layers of yielding pads between adjacent rims, the pads in each layer being spaced apart and the pads of one layer being opposite the spaces of the adjacent layer each rim having a channel and bosses for holding its pads in place.

3. A vehicle wheel tire comprising a plurality of spring rims, and layers of yielding pads spaced apart between the rims, each rim having a projecting channeled portion and side flanges locking the pads in place.

4. A vehicle wheel tire comprising a plurality of spring rims and layers of yielding pads spaced apart between the rims, each rim having a channel, projecting bosses and side flanges locking the pads in place.

5. A vehicle wheel tire comprising a plurality of spring rims and layers of yielding pads spaced apart between the rims, each rim having a channel, projecting bosses and side flanges locking the pads in place and a yielding tread surrounding the outer rim.

942,365. WATER-GAGE. ROBERT H. BUCKNER, Portsmouth, Va. Filed Dec. 29, 1908. Serial No. 469,869.



1. A water gage, having a glass tube for the water, and a combined single piece tube holder and shield comprising essentially a metal tube provided with means for receiving and seating the glass tube, and having openings arranged at right angles to admit light and air and permit the escape of water in case the glass breaks, and a vertically slotted pocket containing a thick plate of glass.

2. A water gage, having a glass tube, and a combined tube holder and shield comprising essentially a tubular casing in a single piece provided with means to receive the fittings by which it may be mounted upon a boiler, flanges to receive the glass tube and against which it may be packed, and a pocket having front and top openings, said casting also having an opening opposite to the pocket, and a glass plate inserted in said pocket.

3. A water gage, having a glass tube, and a combined tube holder and shield made as a single piece and comprising essentially a tubular casing provided with means to receive the fittings by which it may be mounted upon a boiler, flanges to receive the glass tube and against which it may be packed, and a pocket having front and top openings, said casting also having an opening opposite to the pocket, and other openings between the pocket and the opening last named, and a glass plate inserted in said pocket.

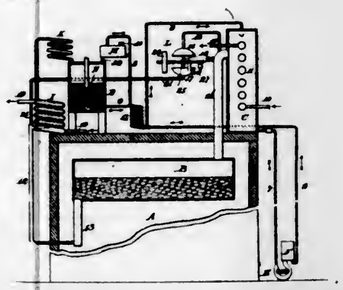
4. A water gage, having a glass tube for the water, and a combined tube holder and shield comprising essentially in a single casting a metal tube provided with means for receiving and seating the glass tube, and having openings to admit light and air and permit the escape of water in case the glass breaks, lugs to receive an illuminating agent, and a pocket containing a thick plate of glass.

942,366. ATTACHMENT FOR TYPE-WRITERS. WILLIAM M. DEETER, Philadelphia, Pa. Filed Oct. 26, 1908. Serial No. 459,648.



An attachment of the character described comprising a plate, a clamp thereon for supporting said plate on a typewriter frame, a tongue integral with the lower end of said plate and disposed in front of the same, and having inwardly bent side edges and a depressed portion intermediate of said side edges.

942,367. REFRIGERATING-MACHINE. RICHARD N. DYER, East Orange, N. J. Filed Feb. 4, 1907. Serial No. 355,542.



1. In a refrigerating machine of the class described, the combination with the still and condenser, of automatic means for supplying air to the still and condenser when the pressure falls below the normal, substantially as set forth.

2. In a refrigerating machine of the class described, the combination with the still and condenser, of an automatic valve controlled by the pressure in the still and condenser for supplying air to the still and condenser when the pressure falls below the normal, substantially as set forth.

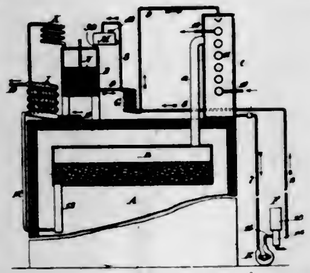
3. In a refrigerating machine of the class described, the combination with the still and condenser, of an automatic valve controlled by the pressure in the still and condenser for supplying air to the still and condenser, and means for balancing said valve against barometric pressure, substantially as set forth.

4. In a refrigerating machine of the class described, the combination with the still and condenser, of an automatic valve controlled by the pressure in the still and condenser and balanced against the barometric pressure for supplying air to the still and condenser, substantially as set forth.

5. In a refrigerating machine of the class described, the combination with the still and condenser, of an automatic valve controlled by differences in pressure between the higher and lower pressure portions of the apparatus and operating to supply air to the higher pressure portion of the apparatus, substantially as set forth.

[Claims 6 to 10 not printed in the Gazette.]

942,368. AUTOMATIC AIR-TRAP. RICHARD N. DYER, East Orange, N. J. Filed Feb. 27, 1907. Serial No. 359,640.



1. The combination with a pump receiving air and liquid and a receptacle to which the liquid freed of air is delivered against a pressure less than that of the atmosphere, of an automatic air trap located between the pump and such receptacle intermittently discharging the air and closed against atmospheric pressure between the intervals of discharging air, whereby the pump will not work against atmospheric pressure in delivering liquid to such receptacle.

2. The combination with a pump receiving air and liquid, of an automatic intermittently acting air trap connected with the discharge of the pump including a chamber in which the air accumulates while the liquid freed of air is forced from said chamber against a pressure less than that of the atmosphere, and automatic means for automatically closing the liquid outlet from said chamber and for causing the effort of the pump to expel the air therefrom against atmospheric pressure, whereby between intervals of air expulsion the pump will not work against atmospheric pressure.

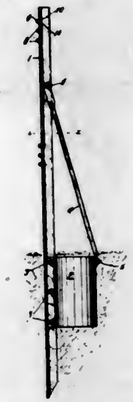
3. The combination with a pump receiving air and liquid, and a receptacle to which the liquid freed of air is delivered against a pressure less than that of the atmosphere, of a closed chamber intermediate between the pump and said receptacle for separating the air from the liquid, and automatic means controlled by the level of the liquid in said chamber closing the liquid outlet from said chamber and permitting the pump to displace the air therefrom.

4. The combination with a pump receiving air and liquid, and a receptacle to which the liquid freed of air is delivered against a pressure less than that of the atmosphere, of a closed chamber intermediate between the pump and said receptacle for separating the air from the liquid, automatic means controlled by the lowering of the liquid level in said chamber closing the liquid outlet from said chamber and permitting the pump to displace the air from said chamber, and automatic means controlled by the rise in the liquid level for opening said outlet.

5. The automatic air-trap having in combination, a closed chamber having a liquid outlet and a float valve closing the liquid outlet from such chamber when the accumulation of air in the chamber lowers the liquid level, a controlled opening in such chamber through which the accumulated air is expelled from the chamber and means for unseating the float valve after the air is expelled, substantially as set forth.

[Claims 6 and 7 not printed in the Gazette.]

942,369. METALLIC FENCE-POST. EDWARD C. KAHN, Milwaukee, Wis. Filed June 30, 1909. Serial No. 505,144.



1. In a metallic fence post of the described class, the combination of a vertical wire supporting member, a tubular anchor wholly open at its lower end its vertical walls terminating downwardly and adapted to penetrate the soil when driven rigidly affixed at one side to the lower end of said member, and a brace member rigidly affixed at its upper end to said wire supporting member and at its lower end to said anchor on the side opposite to said vertical wire supporting member.

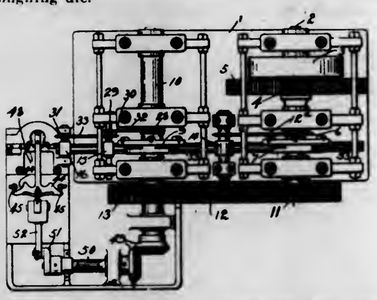
2. In a metallic fence post of the described class, the combination of a vertical wire supporting member angular in cross section, a hollow anchor wholly open at its lower end its vertical walls terminating downwardly and adapted to penetrate the soil when driven rigidly affixed at one side to the lower end of said member, and a brace member rigidly affixed at its upper end to said wire supporting member and at its lower end to said anchor on the side opposite to said vertical wire supporting member.

3. In a metallic fence post of the described class, the combination of a vertical wire supporting member, a tubular anchor wholly open at both its upper and lower ends its vertical walls terminating downwardly and adapted when driven to penetrate the soil comprising two separate members one of which is affixed to the wire supporting member near its lower end and the other being affixed to said wire supporting member on a higher plane slightly at a distance therefrom, and a brace member rigidly affixed at its upper end to one side of said wire supporting member and at its lower end to the upper end of said anchor, all substantially as and for the purpose specified.

942,370. MACHINE FOR MAKING HORSESHOES. RUFUS S. MATTESON, Providence, R. I., assignor to Olney T. Inman, Bridgeton, R. I., and Josiah A. King, Warwick, R. I. Filed June 22, 1907. Serial No. 380,290.

1. In a machine for making horseshoes the combination of a rotatable roughing die, a rotatable finishing die, means for rotating said dies in unison, means located between said dies for feeding the blank from the roughing die to the finishing die, and automatically operated means located between said feeding means and said finishing die for positively engaging said blank to arrest

the feeding movement thereof, and means actuated by the finishing die when the latter reaches an operative position to withdraw said arresting means, whereby said finishing die will register with the impression made by the roughing die.

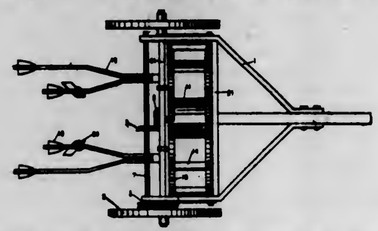


2. In a machine for making horseshoes, the combination of a rotatable roughing die, a rotatable finishing die, means for rotating said dies in unison, means for feeding a blank from the roughing die to the finishing die, a withdrawable stop arranged to interrupt the passage of the blank between the feeding means and said finishing die, said feeding means being constructed to permit of such interruption, and means operated by said finishing die for withdrawing said stop, said withdrawing means being timed to coöperate with said finishing die, whereby the latter will register with the impression made by the roughing die.

3. In a machine for making horseshoes, the combination of a rotatable roughing die, a rotatable finishing die, means for rotating said dies in unison, means for feeding a blank from the roughing die to the finishing die, a pivoted finger arranged to normally interrupt the passage of the blank between the dies, said feeding means being constructed to permit of such interruption, and a cam carried by the finishing die for automatically rocking said finger to withdraw the same.

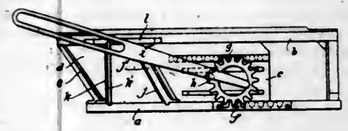
4. In a machine for making horseshoes, the combination of a rotatable roughing die, a rotatable finishing die, means for rotating said dies in unison, means for feeding a blank from the roughing die to the finishing die, a stop provided with a counterbalanced portion and arranged to intercept the path of movement of the blank between the dies, and means carried by said finishing die for automatically withdrawing said stop.

942,371. COTTON-CHOPPER. WINSTON B. ALEXANDER, Dallas, Tex. Filed July 26, 1909. Serial No. 509,687.



In a cotton chopper, the combination with the frame, axle, and transporting wheels thereof, of a drum rotatably mounted in the frame longitudinal of the chopper, a spindle upon which the drum is fast, a shaft transverse of the machine, a pair of beveled gears communicating rotation from the shaft to the spindle, chain and sprocket wheel mechanism communicating rotation from a transporting wheel to said shaft, a plurality of curved, resilient, two-part arms, extending from the drum, the length of said arms being adjustable, and a plurality of chopping knives mounted upon the extremities of said arms.

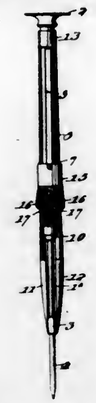
942,372. TOBACCO-CUTTING MACHINE. FRANK M. BEALL and PEARL A. PARKER, Anadarko, Okla. Filed Nov. 2, 1908. Serial No. 460,802.



1. In a tobacco cutting machine, the combination with a knife, of means for supporting and guiding the knife, and means for moving the knife back and forth comprising a sunken stationary rack and a rack connected with and movable by the said knife, and a toothed annulus engaging both racks at the same time and having an operating lever.

2. In a tobacco cutting machine, the combination with a knife, of means for supporting and guiding the knife, and means for moving the knife back and forth comprising a sunken stationary rack and a sunken rack connected with and movable by the said knife, and a toothed annulus engaging both racks at the same time and having an operating lever.

942,373. COMBINED SCREW-DRIVER AND TWEEZERS. ALETH BJORN and CHARLES E. CASHMORE, New York, N. Y. Filed Sept. 8, 1908. Serial No. 452,004.



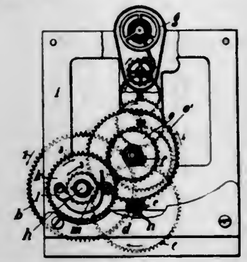
1. The combination of a tool shank, a spring mounted on said shank, a sleeve mounted on the shank around said spring and having a longitudinal slot therein, a pair of tweezers carried by said sleeve and a clutch member having a pin arranged to extend through the tool shank, said member being adapted to engage openings formed in the legs of the tweezers.

2. The combination of a tool shank having an enlarged portion with a transverse aperture extending therethrough, a sleeve mounted on said shank and having a longitudinally extending slot arranged to register with said aperture, a spring mounted on said shank and inclosed by said sleeve, a pair of tweezers mounted on the sleeve and having a plurality of blades or legs, each of said blades being formed with an opening therein, and a clutch member provided with clutch devices adapted to engage the openings in the tweezer blades, said clutch member being slidably mounted on said sleeve and secured by a pin arranged to extend through the aperture in the tool shank.

3. A tool shank having an aperture extending transversely therethrough, a sleeve mounted on said shank, a spring mounted on said shank within said sleeve, said sleeve being provided with a longitudinally-extending slot and with laterally-extending lugs, tweezers mounted on said sleeve and having openings adapted to register with said lugs, and a clutch member having a pin extending through the aperture in the shank and having means to engage the openings in the tweezers.

4. A tool shank having a spring coiled therearound, said shank having means for engagement with one end of said spring, a sleeve slidable on said shank and having one end engaged with the other end of said spring, tweezers carried by said sleeve, a ring encircling the tweezer blades, and slidable on said sleeve, said ring being mounted to move with said shank, a catch member carried by said ring, a coöperating catch member on said tweezers arranged for engagement by the ring-carried member, when said ring is in one of its extreme positions to hold the tweezers in inoperative position.

942,374. CLOCK AND THE LIKE. JOSEF BÜHLER, Freiburg, Germany, assignor to Die Vereinigten Freiburger Uhrenfabriken Aktiengesellschaft, Incl. vormals Gustav Becker, Freiburg, Germany. Filed Oct. 3, 1907. Serial No. 395,710.



1. The combination in a driving mechanism for clocks, of a mainspring, a clock-work driving arbor, means whereby said arbor is actuated by the unwinding of the outer end of the spring, and means whereby said driving arbor is simultaneously actuated in the same direction by the unwinding of the inner end of the spring, substantially as described.

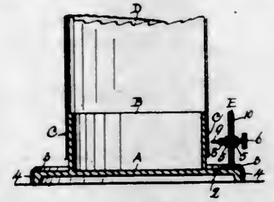
2. The combination in a driving mechanism for clocks, of a frame, an arbor journaled in the frame, a barrel loosely mounted on the arbor, a mainspring secured at its inner end to the arbor and at its outer end to the barrel, an arbor connected with the hand and escapement mechanism, direct gearing connecting the barrel with said second arbor, and indirect reversing gearing connecting the spring arbor with said second arbor, substantially as described.

3. The combination in a driving mechanism for clocks, of a frame, an arbor journaled in the frame, a barrel loosely mounted on the arbor, a mainspring secured at its inner end to the arbor and at its outer end to the barrel, a clock-work driving arbor, a toothed rim on the barrel, a second arbor, direct gearing connecting said second arbor with the toothed rim, a gear loosely mounted on the spring arbor, ratchet mechanism connecting it with the spring arbor, a gear on the driving arbor, intermediate gearing connecting the last named gear with the second arbor, and gearing connecting the second arbor with the clockwork driving arbor, substantially as described.

942,375. SKIRT-MARKER. SARAH E. C. CAMPBELL, Hamilton, Ontario, Canada. Filed July 21, 1909. Serial No. 508,835.

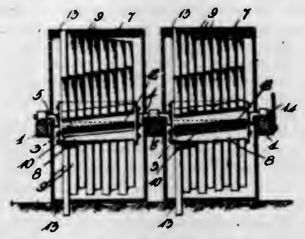
1. A skirt marker comprising a circular base, a circular wall extending above the base, a beveled flange around the edge of the base and extending above in beveled or dovetail form, as a guide, a vertical post adapted to slide and travel on said base, and guided and retained by said beveled flange, and adjustable means on the post to mark a line parallel with said base, on a skirt positioned around said wall.

2. A skirt marker comprising a circular base, a circular wall extending above the base, a plurality of pins extending from the sides of the wall, a beveled guide flange around the top of the base in beveled or dovetail form, a vertical post having a base with beveled edge to conform to said beveled flange adapted to travel around and guided



and retained by said guide, adjustable means on the post to mark a line, parallel with said base, on the lower part of a skirt positioned around said wall and retained in said position by means of said pins.

942,376. DRUM HARROW. SAMUEL B. CLARDY, Ackerman, Miss. Filed Feb. 4, 1909. Serial No. 475,990.



1. A harrow comprising a hollow drum provided with openings and adapted to rotate, a hub adapted to rotate within the drum on an axis eccentric thereto, and bars loosely mounted on the hub and adapted to project through the openings in the drum.

2. A harrow comprising a shaft the spindles of which are eccentrically placed with reference to the main body thereof, a hollow drum journaled on the spindles and having openings in its shell, a hub adapted to rotate on the main body of the shaft, and bars loosely connected to the hub and adapted to project through the openings in the shell of the drum.

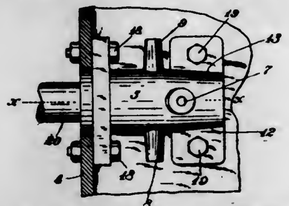
3. A harrow comprising a frame, bearings carried thereby, a shaft, the spindles of which are arranged eccentrically with relation to its main body and are journaled in said bearings, a hollow drum journaled on the spindles and having openings in its shell, a hub journaled on the main body of the shaft, and bars loosely connected to the hub and adapted to project through the openings in the shell of the drum.

4. A harrow comprising a frame, bearings carried thereby, a shaft, the spindles of which are arranged eccentrically with relation to its main body and are journaled in said bearings, means for adjusting the main body of the shaft with reference to the spindles to bring it above or below them, a hollow drum journaled on the spindles and having openings in its shell, a hub journaled on the main body of the shaft, and bars loosely connected to the hub and adapted to project through the openings in the shell of the drum.

5. A harrow comprising a frame, bearings carried thereby, a shaft, the spindles of which are arranged eccentrically with relation to its main body and are journaled in said bearings, means for adjusting the main body of the shaft with reference to the spindles to bring it above or below them, means for locking it in its adjusted positions, a hollow drum journaled on the spindles and having openings in its shell, a hub journaled on the main body of the shaft, and bars loosely connected to the hub and adapted to project through the openings in the shell of the drum.

[Claims 6 to 10 not printed in the Gazette.]

942,377. TRACK-SANDER. PATRICK J. COADY, Columbus, Ohio. Filed Apr. 2, 1909. Serial No. 487,375.



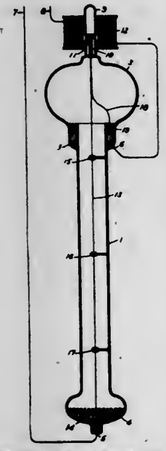
1. In a track sander, a structure containing a compressed air chamber provided with a sand entraining and expelling port, a chamber into which the entraining and expelling port discharges and walls forming a chamber below the compressed air chamber that communicates with the chamber into which the sand entraining and expelling port discharges, said compressed air chamber also provided with a sand agitating port discharging externally of all the said chambers.

2. In a track sander, a structure containing a compressed air chamber provided with a sand entraining and expelling and sand agitating ports, a chamber into which the entraining and expelling port discharges, a cavity below the compressed air chamber communicating with the chamber into which the sand entraining and expelling port discharges, and side openings leading into the cavity below the compressed air chamber.

3. In a track sander, a structure containing a compressed air chamber provided with a sand entraining and sand expelling and a sand agitating port, a chamber into which the entraining and expelling port discharges and a side opening admitting sand to the chamber in which the sand entraining and expelling port discharges.

4. In a track sander, the combination with a sand reservoir, of a structure on the interior thereof containing a compressed air chamber provided with a sand expelling port to expel sand to the exterior of the reservoir, and a port to agitate sand in the reservoir in the vicinity of the structure, and a passage for the agitated sand to the vicinity of the sand expelling port.

942,378. VAPOR ELECTRIC APPARATUS. LEONARD E. DEMPSTER, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Mar. 19, 1904. Serial No. 198,886.



1. In a vapor electric apparatus, the combination of a plurality of mercury electrodes, a filamentary conductor initially connecting said electrodes, and means for dissimultaneously breaking the connections at the working surfaces of the respective electrodes.

2. In a vapor electric apparatus, the combination of an exhausted envelop or container provided with electrodes, a filament extending from one electrode and making electrical connection with the other, and means for moving the filament relative to the envelop for breaking the electrical connection at each electrode.

3. In a vapor apparatus, the combination of a container, electrodes therein, a filamentary conductor electrically connecting said electrodes, and means for moving said conductor so as to break the electrical connection at the negative electrode and subsequently to break the electrical connection at the positive electrode.

4. In a vapor apparatus, the combination of a container, electrodes therein, a filamentary conductor electrically connecting said electrodes, and electrical means for moving said conductor so as to break the electrical connection at the negative electrode and subsequently to break the electrical connection at the positive electrode.

5. In a vapor electric apparatus, the combination of a container, electrodes therein, a filament electrically connecting said electrodes, a magnetic core attached to said filament, and means for creating a magnetic field for moving said core.

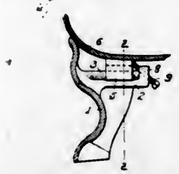
[Claim 6 not printed in the Gazette.]

942,379. METHOD OF MANUFACTURING DYNAMO-BRUSHES, &c. GEORG EGLY, Berlin, Germany, assignor to Gebrüder Siemens & Co., Charlottenburg, Germany. Filed Jan. 25, 1907. Serial No. 354,128. (Specimens.)

1. A method of manufacturing dynamo brushes and other sliding contacts, consisting in mixing powdered silicon intimately with powdered carbon, in molding the mixture thus obtained and in heating said mixture in a nitrogenous atmosphere.

2. A method of manufacturing dynamo brushes and other sliding contacts, consisting in mixing triturated silicon intimately with powdered carbon, in molding the mixture thus obtained and in heating said mixture in nitrogen.

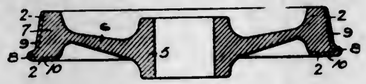
942,380. LEG-FASTENING. GEORGE W. FRANZHEIM, Wheeling, W. Va. Filed Nov. 4, 1907. Serial No. 400,450.



1. In a device of the character described, the combination with the body to be sustained, of an integral lug carried by said body, said lug having a longitudinal mortise therein, a supporting leg, an integral splayed tongue carried by said leg and fitted in the mortise of the lug, said tongue projecting on beyond the rear end of said lug, an integral terminal lug carried by the rear end of said tongue, and a set-screw projected diagonally through said terminal lug into impinging engagement with said body for exerting a force in a direction opposite to that of the tension to which said tongue is subjected, said set screw being seated at its free end in the corner formed by the under side of said body and the rear face of said lug.

2. In combination with a body, an integral depending lug carried by said body formed with a dovetail groove which has its narrowest portion extending through the bottom of said lug, a leg, an integral tongue carried by said leg, said tongue having its sides at its top flaring outwardly so as to be of a dovetail shape; said tongue being received in said groove of the lug and being held thereby against downward movement, an integral upstanding terminal lug on said tongue having a diagonal threaded aperture extending therethrough, and a set screw operating in said threaded opening and bearing against the rear face of said lug of the body, said screw when rotated tending to force said tongue rearwardly and at the same time downwardly to thereby securely lock the same in said dovetail groove.

942,381. FORGED STEEL CAR-WHEEL. JOHN M. HANSEN, Pittsburg, Pa., assignor to Forged Steel Wheel Company, Pittsburg, Pa., a Corporation of Pennsylvania. Filed Mar. 5, 1909. Serial No. 481,458.

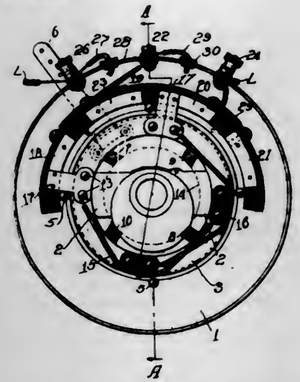


1. An integral steel forged car wheel formed from a rolled slab and having a hub, a web and a tread united to the web about mid-way of the tread, and having the wearing faces of the tread and flange formed of the condensed face metal of the rolled slab.

2. An integral steel forged car wheel formed from a rolled slab and having a hub, a web, and a tread united to the web about mid-way of the tread, and having the fiber of the rim set on edge toward the wearing face of the tread, and the wearing faces of the tread and flange formed of the condensed face metal of the rolled slab.

3. An integral steel forged car wheel formed from a rolled slab and having a hub, a web, and tread united to the web about mid-way of the tread, and having the flange formed of the outer metal of the rolled slab, and the wearing faces of the tread and flange formed of the condensed face metal of the rolled slab.

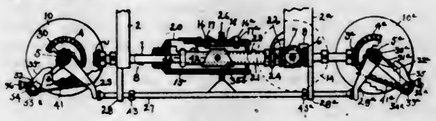
942,382. MOTOR-CONTROLLER. AUSTIN KIMBLE, Chicago, Ill., assignor to Kimble Electric Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 7, 1909. Serial No. 516,346.



1. In a motor, the combination of an end cap for the stator frame, a shaft bearing carried by brackets on said cap, a brush holder ring rotatably mounted on said cap concentric with said shaft bearing, brush holders mounted on said ring and adapted to hold brushes in position to bear upon a commutator located between said shaft bearing and said ring, contact members mounted on the inner face of said ring and extending into the space inclosed by said cap, a series of stationary contacts mounted within said cap in position to be successively engaged by said contact members through the rotation of said ring, and means for rotating said ring.

2. In a motor end cap, the combination of an annular disk, flanges integral with said disk for attaching it to a motor frame, a groove in one face of said disk, a ring seated in said groove, removable means for retaining said ring slidably in said groove, brush holders mounted on the outer face of said ring, contact members mounted on the inner face of said ring, and extending into the space inclosed by said cap, a series of stationary contacts mounted within said cap in position to be successively engaged by said contact members through the rotation of said ring, and means for rotating said ring.

942,383. AUTOMATIC RIBBON-REVERSING MECHANISM FOR TYPE-WRITING MACHINES. GEORGE M. KITZMILLER, Norfolk, Va. Filed Sept. 1, 1909. Serial No. 515,712.



1. In a typewriting machine and in a ribbon-reversing mechanism, the combination with ribbon-spools, of power-driven devices provided with shifting means, means for rotating said devices in opposite directions, and means controlled by the ribbon-spools for operatively connecting said devices.

2. In a typewriting machine and in a ribbon-reversing mechanism, the combination of ribbon-spools, power-driven devices provided with shifting means, gears for rotating said devices in opposite directions, and means controlled by the ribbon to connect the said devices.

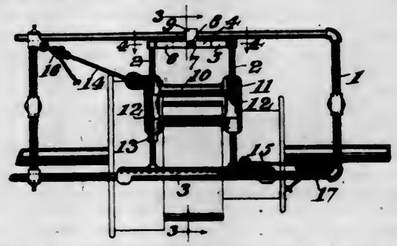
3. In a typewriting machine and in a ribbon-reversing mechanism, the combination of ribbon-spools, shafts, one surrounding the other, means for rotating said shafts in opposite directions, a device having oppositely-acting shifting means thereon, and mounted on and rotating with one of said shafts, and means controlled by the ribbon for operatively connecting said shafts.

4. In a typewriting machine and in a ribbon-reversing mechanism, the combination of ribbon-spools, an endwise shiftable rotatable shaft, a non-shiftable shaft mounted on, and revolving in a direction opposite to that of the shiftable shaft, means for rotating said shaft, and devices coöperating with the ribbon-spools for operatively connecting the shafts for the purpose specified.

5. In a typewriting machine and in a ribbon-reversing mechanism, the combination of ribbon-spools, an endwise-movable rotatable shaft, endwise shifting means mounted on said shaft, means for rotating said shaft in one direction and the means mounted thereon in the opposite direction, engaging devices revolving with the movable shaft, and means controlled by the ribbon for operatively connecting said shifting means and said engaging devices.

[Claims 6 to 21 not printed in the Gazette.]

942,384. BELT-SHIFTER. JAMES A. LONG, Portland, Oreg., assignor of one-third to Ernest E. Boggess. Filed July 17, 1908. Serial No. 444,066.



1. A step cone belt shifter comprising a supporting frame, a support horizontally slidable thereon, a belt frame carried on said support, and means for simultaneously moving said belt frame horizontally and vertically to positively shift the belt to smaller or larger steps.

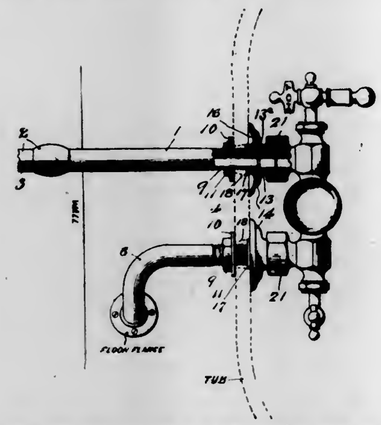
2. A step cone belt shifter comprising a supporting frame, a support thereon, a belt frame surrounding the

belt and sliding on the support, and means to simultaneously move the belt frame laterally and vertically to positively shift the belt to smaller or larger steps.

3. A step cone belt shifter comprising a supporting frame, a belt frame support horizontally slidable thereon, a belt frame removably carried by said support and adapted to removably surround the belt whereby the belt may be removed from the frame, and means to simultaneously move the belt frame laterally and vertically to positively shift the belt to smaller or larger steps.

4. In a device of the class described, the combination with a frame, of a separable support, horizontally slidably mounted on the frame, a separable belt frame slidably mounted on said support and adapted to removably surround the belt whereby the belt may be disengaged from the frame, and means whereby the belt frame is simultaneously moved laterally and vertically to positively shift the belt to smaller or larger steps.

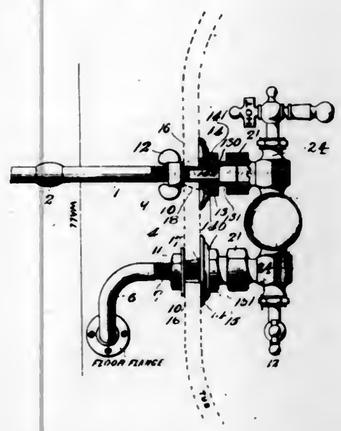
942,385. LAVATORY-FITTING. PHILIP MUELLER, Decatur, Ill., assignor to H. Mueller Manufacturing Company, Decatur, Ill., a Corporation of Illinois. Filed Nov. 21, 1907. Serial No. 403,242.



1. The combination with a lavatory member having an opening therethrough, of a supply pipe extending through said opening, said pipe being screw threaded externally and having a locking nut threaded thereon adapted to contact with a wall of the lavatory member, and a sleeve member screw threaded to said pipe on the opposite side of said lavatory member, said sleeve member having an integral outwardly-extending flange formed to provide an annular face spaced from the hub on the sleeve member, said face forming the portion of the sleeve member in contact with the face of the wall of the lavatory member opposite to that with which contact is made by said locking nut, the hub of said sleeve being of a length to project beyond the plane of said annular face to provide a portion extending within the opening of the lavatory member, and serving to substantially position said pipe relative to said opening, said hub and annular face forming means to support the supply pipe against bending under pressure.

2. The combination with a lavatory member having an opening therethrough, of a supply pipe extending through said opening, said pipe being screw threaded externally and having a locking nut threaded thereon adapted to contact with a wall of the lavatory member, and a sleeve member screw threaded to said pipe on the opposite side of said lavatory member, said sleeve member having an integral outwardly-extending flange formed to provide an annular face spaced from the hub on the sleeve member, said face forming the portion of the sleeve member in contact with the face of the wall of the lavatory member opposite to that with which contact is made by said locking nut, the hub of said sleeve being of a length to project beyond the plane of said annular face to provide a portion extending within the opening of the lavatory member, and serving to substantially position said pipe relative to said opening, said hub and annular face forming means to support the supply pipe against bending under pressure, said sleeve having a wrench-hold extending forwardly from said flange.

942,386. LAVATORY-FITTING. PHILIP MUELLER, Decatur, Ill., assignor to H. Mueller Manufacturing Company, Decatur, Ill., a Corporation of Illinois. Filed Nov. 21, 1907. Serial No. 403,243.



1. The combination with a lavatory member having an aperture in its wall, of a supply pipe, a sleeve threaded onto the exterior of the free end of said pipe, said pipe and sleeve each having a clamping member movable solely on itself, said members positioning the fitting relative to the lavatory member, and a faucet removably secured to said sleeve.

2. The combination with a lavatory member having an aperture in its wall; of a supply pipe having a threaded end, a sleeve screwed thereon, a faucet, means for detachably connecting said sleeve and faucet, a nut screwed on the pipe outside said wall, and a flange screwed on the sleeve inside said wall and whose hub has an annular extension on its inner face provided with a smooth bore adapted to surround said sleeve.

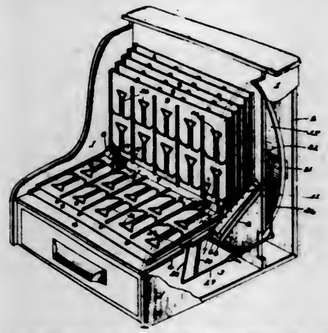
3. The combination with a bath tub having an aperture in its wall; of a supply pipe having a threaded end, a sleeve screwed thereon and having part of its exterior smooth, a faucet, means for detachably connecting said sleeve and faucet, a nut screwed on the pipe outside said wall, and a flange screwed on the sleeve inside said wall and whose hub has an annular extension on its inner face provided with a smooth bore adapted to project over the smooth portion of said sleeve.

4. The combination with a lavatory member having an aperture in its wall; of a supply pipe having a threaded end projecting therethrough, a sleeve screwed thereon, a faucet, means for detachably connecting said sleeve and faucet, a nut screwed on the pipe outside said wall, and a flange inside said wall carried solely by and adjusted with the sleeve and having a wrench hold on its inner face.

5. The combination with a lavatory member having an aperture in its wall; of a supply pipe having a threaded end projecting therethrough, a sleeve screwed thereon and exteriorly threaded at its outer end, a faucet, means for detachably connecting said sleeve and faucet, a nut screwed on the pipe outside said wall, and a flange inside said wall screwed on the exterior threads of said sleeve.

[Claims 6 to 9 not printed in the Gazette.]

942,387. CREDIT-CABINET. ROLLO M. VICK, Alliance, Ohio. Filed Dec. 16, 1907. Serial No. 406,719.



1. In a credit-cabinet, a case or frame, a removable plate, a series of credit-slip-holding-leaves pivotally attached to said removable plate, means for connecting credit-slips to the leaves, springs connected to the removable plate, and rollers carried by the credit-slip-holding-leaves and located below the pivotal points of the credit-slip-holding-leaves, said rollers adapted for bearing contact upon the springs fixed to the removable plate, substantially as and for the purpose specified.

2. In a credit-cabinet of the class described, a case or frame, a removable plate provided with end flanges, a series of credit slip-holding leaves pivoted to the end flanges of the plate, springs connected to the removable plate and elements carried by the credit-slip-holding-leaves adapted for contact with the springs, said elements located below the pivotal points of the credit-slip-holding-leaves, substantially as and for the purpose specified.

942,388. AUTOMATIC WARNING-SIGNAL AND STOPPING DEVICE FOR THE SAFE MOVEMENT OF PUBLIC CONVEYANCES. WILLIAM WHITMAN, Philadelphia, Pa. Filed May 28, 1909. Serial No. 498,864.



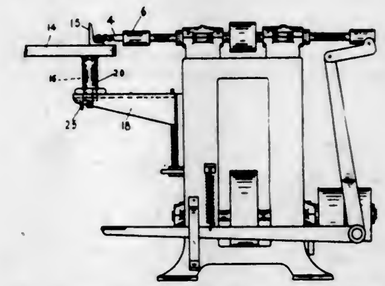
1. In a device of the character described, the combination with a trip, comprising an L-shaped member pivotally supported at one end, a second member pivoted to the L-shaped member adjacent the angle of the latter, and a spring normally holding said last mentioned member against the first mentioned member.

2. In a device of the character described, the combination with a shaft, an L-shaped member fixed to turn with said shaft, a second member having a curved contact at its free end and pivotally secured at its other end to said L-shaped member adjacent the angle of the latter, and a spring normally holding said second member against one arm of said L-shaped member, and a spring below said L-shaped member.

3. In a device of the character described, the combination with a bracket, parallel ears on said bracket, a shaft having bearings in said ears and made angular between its ends, an L-shaped member having an angular opening in one end mounted on the shaft, a second member pivotally secured to the L-shaped member adjacent the angle of the latter, and a spring pressing the second member against one arm of said L-shaped member.

942,389. BORING-MACHINE. GEORGE D. WIGGINS, Saginaw, Mich. Filed July 13, 1908. Serial No. 443,204.

1. A boring machine comprising a table, a pivotally supported rod to which the table is secured, the table adapted to oscillate in a horizontal plane, a gage extending across the table and having an opening intermediate its ends in alinement with the axis of rotation of the table, the outer face of the gage against which the work abuts, lying in the same vertical plane with the axis of rotation of the table, and a rotatable boring tool whose longitudinal axis lies at right angles to the axis of rotation of the table, the operative end of the tool receivable in the opening in the gage.

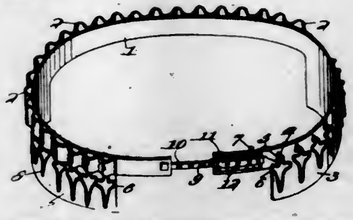


2. The combination with a tool, of a bracket, a column slidably mounted on the bracket, a rod rotatably received in the column, a table loosely resting on and supported by the column, the table secured to the rod, and coöperating means carried by the column and rod respectively for limiting the horizontal swinging movement of the table relative to the tool.

3. A boring machine comprising a boring tool, a table adapted to swing in a horizontal plane relative to the tool, the tool extending radially to the arc of movement described by the table, and a non-adjustable gage extending transversely of the table and having an opening therethrough to accommodate the tool, the outer face of the gage against which the work abuts lying in a vertical plane intersecting the axis of oscillation of the table to bring the face of the work in line with the vertical axis of oscillation.

4. A boring machine comprising a boring tool, a bracket, a column mounted on the bracket, a rod passing through and rotatable in the column, a table carried by the rod and loosely resting on the upper end of the column, a tongue projecting laterally from the rod, and means on the bracket engaged by the tongue for limiting the horizontal swinging movement of the table.

942,390. CARTRIDGE AND GAME BELT. WILLIE A. WILEY, West Point, Miss. Filed May 27, 1909. Serial No. 498,760.

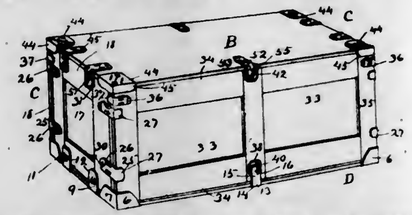


1. A belt of the class described comprising a cartridge supporting strip, a plurality of game supporting hooks near opposite ends of the belt, a rectangular casing provided with a plurality of spaced hook receiving apertures attached to one end of the belt, and a flat connecting strip provided with a series of outwardly bent hooks adapted to be engaged with the apertured portions of said casing.

2. A belt of the class described, comprising a cartridge supporting strip provided at opposite ends with longitudinal series of spaced apertures, hip members arranged

at the inner faces and at opposite ends of the cartridge supporting strip, series of vertical supporting wires arranged between the hip members and the ends of the belt and having central outwardly projecting portions which pass through the apertures of the latter, and game supporting members having hooked or looped portions to engage those of the supporting wires and hooked terminals to engage the game, and means for adjustably connecting the ends of the belt together.

942,391. BOX. HENRY H. KINSEY, Ogden, Utah, assignor, by mesne assignments, to Kinsey Box Company, Ogden, Utah, a Corporation of Utah. Filed Apr. 27, 1907. Serial No. 370,669.



The combination of a bottom having angle bracing arms, each provided with a vertical plate on the side of the box and a vertical plate on the end of the box, the ends hinged to the end edges of the bottom and adapted when in vertical position to rest against the said vertical plates on the end of the box, the top section or cover having corner angle plates each formed with a flange on the end of the box and a flange on the side of the box adapted to lie outside of and to laterally support the end and side sections of the box, the side sections adapted to lie against the vertical end edges of the ends of the box and to be slid from above into assembled position with respect to the ends and bottom, right-angled clips secured to the outside faces of the hinged ends of the box and slidably engaging the end edges of the sides of the box, and right-angled clips secured to the outside faces of the slidable sides of the box and slidably engaging the outside faces of the ends of the box at points above the said clips secured to the ends of the box, and means for detachably locking the bottom and the top to the ends of the box.

942,392. BALL-BEARING. GUSTAV A. W. KOCH, Paris, France. Filed July 14, 1908. Serial No. 443,446.



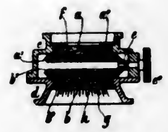
1. In a ball bearing, two integral rings of different diameters adapted to be placed one within the other and having a race-way for the balls in the juxtaposed interior and exterior periphery of the respective rings, the periphery of one of said rings being provided with an eccentric frusto-conical surface at one side of the race-way therein to facilitate the movement of such ring over the balls, into operative relation with the other ring after the balls have been inserted into the race-way of the latter ring.

2. In a ball bearing, two integral rings of different diameters adapted to be placed one within the other and having a race-way for the balls in the juxtaposed interior and exterior periphery of the respective rings, the exterior periphery of the inner one of said rings having an eccentric frusto-conical surface at one side of the race-way therein to facilitate the movement of such ring over the balls, into operative relation with the other ring after the balls have been inserted into the race-way of the latter ring.

3. A ball bearing consisting of two concentric rings with a race-way and balls between them and formed by assembling the balls in proper relation to one ring and forcing the other ring by pressure past said balls and into place with respect to the other ring, one of said rings being formed with an eccentric frusto-conical engaging surface on one side for engaging the balls as the ring is pressed into place.

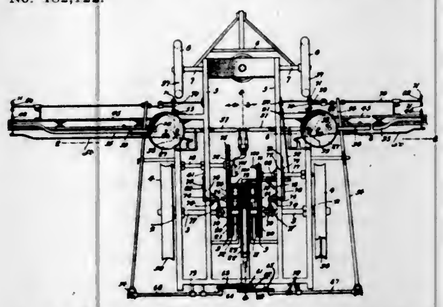
4. A confining ring for a ball bearing having a concave circular race-way, and a marginal surface on one side of said race-way whose surface is inclined to the cylindrical, the angle of said inclination varying continuously from a certain minimum to a certain maximum.

942,393. ANGLE-MEASURING APPLIANCE. ALBERT KÖNIG, Jena, Germany, assignor to Firm of Carl Zeiss, Jena, Germany. Filed Oct. 4, 1907. Serial No. 395,908.



A double image angle-measuring appliance, consisting of two Rochon prisms, two circular polarizing double refracting crystal plates, the plates being secured on the inner sides of the prisms, and means for rotating the prisms through equal angles, but in opposite directions.

942,394. CORN-PLANTER AND MARKER. AUGUSTUS W. KOAGE, Pine River, Wis. Filed Mar. 8, 1909. Serial No. 482,122.



1. In a corn planter, a frame having traction wheels, a manually controlled gear mechanism operated by said wheels, seed receptacles having oscillating disks operated by said mechanism, chutes communicating with said receptacles and provided with furrow openers, markers arranged forward of the openers, and a lever mechanism operated by said gear mechanism for continuously and intermittently operating two of said markers, while the others are operated manually at times.

2. In a corn planter, a frame having traction wheels, a manually controlled gear mechanism operated by said wheels, seed receptacles having oscillating disks operated by said mechanism, chutes communicating with said receptacles and provided with furrow openers, markers arranged forward of the openers, a lever mechanism operated by said gear mechanism for continuously and intermittently operating two of said markers, while the others are operated manually at times, and interchangeable means coöperative with the gear mechanism whereby quick and consecutive operation of said disks may be obtained.

3. In a corn planter, a frame having traction wheels, a manually controlled gear mechanism operated by said wheels, seed receptacles having oscillating disks operated by said mechanism, chutes communicating with said receptacles and provided with furrow openers, markers arranged forward of the openers, a lever mechanism operated by said gear mechanism for continuously and intermittently operating two of said markers, while the others are operated manually at times, interchangeable means coöperative with the gear mechanism whereby quick and consecutive operation of said disks may be obtained, and means manually manipulated whereby the gear mechanism may be thrown into and out of gear with the traction wheels.

4. In a corn planter, a frame, seed receptacles having oscillating disks, chutes communicating with said receptacles and provided with furrow openers, said openers, and chutes having cutoffs, means for operating the cutoffs and the disks, markers arranged forward of the openers and two of them operated continuously by said means while the others are operated at times manually.

5. In a corn planter, a frame, seed receptacles having oscillating disks, chutes communicating with the receptacles and provided with furrow openers, said openers and chutes having cutoffs, means for operating the disks and cutoffs simultaneously, markers arranged forward of the openers and two of them operated continuously by said means, and means operated manually for operating the other markers, and spring actuated means for restoring the manually operated markers to their normal position.

[Claims 6 to 12 not printed in the Gazette.]

942,395. METHOD OF IMPROVING TEXTILE FIBERS, THREADS, AND FABRICS. GUSTAV KRAEMER, Cologne, Germany. Filed June 24, 1907. Serial No. 380,516.

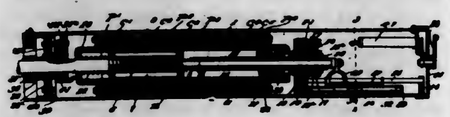
1. The method of improving textile fibers, threads or fabrics, which consists in mixing a solution of nitro-cellulose with chlorhydrin (derivative of the glycerin) and with an aromatic derivative of a sulfo-acid, in impregnating with this mixture the textile matters, and in drying the latter.

2. The method of improving textile fibers, threads or fabrics, which consists in mixing a solution of nitro-cellulose with chlorhydrin (derivative of the glycerin) and with an aromatic derivative of a sulfo-acid, in impregnating with this mixture the textile matters, and in drying the latter by means of warm pressing rollers or the like.

3. The method of improving textile fibers, threads or fabrics, which consists in mixing a solution of nitro-cellulose with chlorhydrin (derivative of the glycerin) and with an aromatic derivative of a sulfo-acid while adding a color, in impregnating with this mixture the textile matters, and in drying the latter.

4. The method of improving textile fibers, threads or fabrics, which consists in mixing a solution of nitro-cellulose with chlorhydrin (derivative of the glycerin) and with an aromatic derivative of a sulfo-acid while adding a color, in impregnating with this mixture the textile matters, and in drying the latter by means of warm pressing rollers or the like.

942,396. ELECTRIC DRILL. PURD J. LINCOLN, Birmingham, Ala. Filed Nov. 18, 1908. Serial No. 463,239.



1. The combination of a central field coil, a field coil on each side of the central field coil, an end field coil for each of the side field coils, an armature mounted to reciprocate within the field coils, a drill operating rod carried by the armature, and means for introducing the central coil and two end coils into an electric circuit alternately in series with the respective side coils to actuate the armature.

2. The combination of a central field coil, a field coil on each side of the central coil, an end field coil for each of the side field coils, poles interposed between the central coil and the side coils and also located at the outer ends of the end coils, an armature mounted to reciprocate within the field coils, a drill operating rod carried by the armature, and means for introducing the central coil and two end coils into an electric circuit alternately in series with the respective side coils.

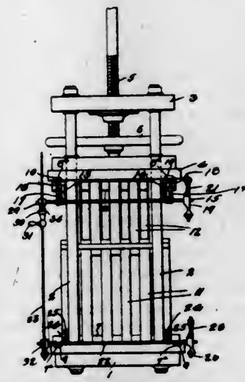
3. The combination of a casing, a series of field coils within the casing, an armature mounted to reciprocate within the field coils, a coil upon the armature, a rod projecting from the armature, an angular sleeve fitted over the rod, conductor strips applied to the angular sleeve and insulated from each other, the said conductor strips being connected to the terminals of the armature coil, a hub journaled within the casing and formed with an angular opening loosely receiving the before mentioned sleeves, contacts upon the hub for engaging the before mentioned conductor strips, collector rings upon the hub in electrical connection with the contacts, brushes engaging the collector rings, and a switch mechanism actuated by the rod for introducing selected ones of the field coils alternately into an electric circuit in series with the armature coil.

4. The combination of a casing, a rod, means for reciprocating the rod, a rotatably mounted armature carried by the rod and formed with a plurality of radially projecting poles, a pawl and ratchet connection between the armature and the rod, a field with poles corresponding to the poles of the armature and adapted to coöperate with the armature to turn the same, and means for periodically reversing the polarity of the poles of the armature to cause the same to revolve alternately in opposite directions through a fixed arc.

5. The combination of a series of field coils, an armature mounted to reciprocate within the field coils, a drill operating rod projecting from the armature, feed wires, a rotary armature carried by the rod and provided with armature coils, a field coöperating with the rotary armature and provided with coils in a shunt circuit with the feed wires, and means for introducing selected ones of the field coils alternately into circuit with the feed wires in series with the armature coils.

[Claim 6 not printed in the Gazette.]

942,397. CIGAR-PRESSER. SOLOMON G. LIPSCHUTZ, Philadelphia, Pa. Filed May 17, 1909. Serial No. 496,439.



1. In a cigar press, in combination with a base and a plunger, collapsible partitions slidably mounted on said base and plunger.

2. In a cigar press, in combination with a base and a plunger having grooves, cross bars slidably mounted in said grooves, and collapsible partitions secured to said cross bars.

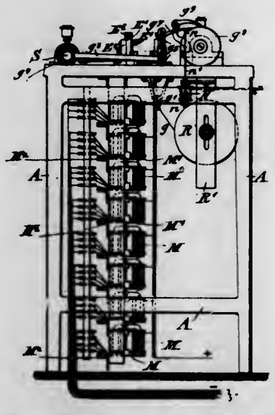
3. In a cigar press, in combination with a base and a plunger, collapsible partitions consisting of tongue and grooved pieces secured to said base and plunger.

4. In a cigar press, in combination with a base and a plunger, cross bars slidably secured to said base and plunger, collapsible partitions secured to said cross bars, and mechanism to simultaneously move the cross bars toward or from one another.

5. In a cigar press, in combination with a base and a plunger having grooves therein, angle-iron cross bars slidably mounted in said grooves, and tongue and grooved pieces secured to said cross-bars.

[Claims 6 to 9 not printed in the Gazette.]

942,398. APPARATUS FOR PRODUCING PERFORATED MUSIC-RECORD SHEETS. GEORGE MACHLET, Jr., Elizabeth, N. J. Filed Oct. 10, 1903. Serial No. 176,506.



1. In a machine for producing perforated music-record sheets, the combination with a system of music keys and a series of parallel reciprocating pushers, of a transverse rail for supporting the same, a series of lifters below said pushers guided in perforations of said rail, motor-devices for said lifters, means controlled by said keys for actuating said motor-devices, a stationary bridge above the ends of the pushers, and guided and spring-actuated punches located at a higher level than the pushers, said punches having heels at their inner ends abutting against the lower end of the bridge, substantially as set forth.

2. In a machine for producing perforated music-record sheets, the combination with a system of music keys and parallel pushers, of means for imparting reciprocating motion to the pushers, a transverse rail for supporting said pushers, lifters guided in perforations of said supporting rail below the pushers, motor-devices controlled by said keys for actuating said lifters, and guided and spring-actuated punches operated by said pushers when the latter are placed by the lifters in line with the punches, substantially as set forth.

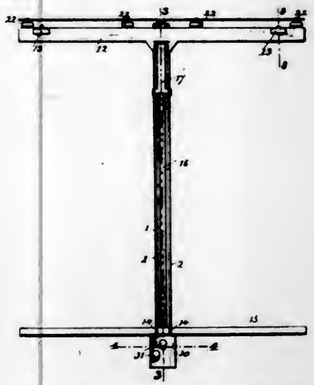
3. In a machine for producing perforated music-record sheets, the combination with a system of music keys and a rotary driving-shaft having a cam-cylinder, of a series of parallel pushers strapped to said cam-cylinder, a transverse rail for supporting the front-ends of the pushers, a bridge above the same, lifters guided in perforations of the supporting rail below the pushers, means controlled by said keys for raising said lifters at the proper time, punches provided with heels at their rear ends, springs applied to said bridge for engaging the heels of said punches, perforated guide-rails for said punches, a die-plate provided with perforations in line with the punches, means for feeding a paper-sheet between the punches and die-plate, and means connected with the driving-shaft for imparting a step-by-step motion to said paper-sheet during the backward motion of the pushers, substantially as set forth.

4. In a machine for producing perforated music-record sheets, the combination with a system of music keys, of a series of reciprocating pushers, intermittently-actuating lifters below said pushers and controlled by said keys, guided and spring-actuated punches arranged normally above said pushers but in line with the same when raised by the lifters, a perforated die-plate adjacent to the end of the punches, means for intermittently feeding a paper-sheet between the punches and die-plate during the return-motion of the pushers, and means for interrupting the motion of the feed-mechanism, substantially as set forth.

5. In a machine for producing perforated music-record sheets, the combination with a system of music keys, of a series of reciprocating pushers, a transverse guide-rail for supporting the front-ends of said pushers, said rail being provided with perforations below said front-ends, a series of lifters below said pushers, guided in the perforations of said rail, motor-devices for intermittently actuating said lifters, means located below said keys for enabling them to actuate said motor-devices when the keys are depressed, and connections between the said actuating means and the motor-devices, substantially as set forth.

[Claims 6 to 74 not printed in the Gazette.]

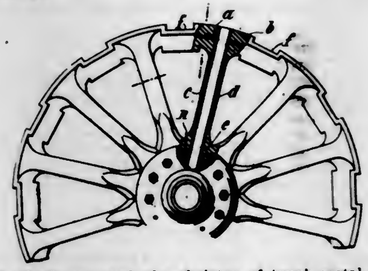
942,399. MUSIC HOLDER AND TURNER. HARRY M. MASTERS, Dellroy, Ohio. Filed Apr. 29, 1909. Serial No. 492,945.



In a music holder and turner, a main supporting frame, means to detachably and adjustably secure said frame to a piano, music turning rods revolubly mounted on said frame, operating gears on the lower ends of said rods, said gears having formed therein segmental slots to receive the opposite turning rods whereby the latter are mounted in close relation, channel shaped rack bars engaged with said gears, said bars having formed therein guide slots to receive the turning rods whereby said bars are held in operative engagement with the gears, operating shanks arranged on said rack bars, guides to receive said shanks, thumb engaging heads and finger grips on said guides, and thumb or finger projections on said shanks whereby the same are readily actuated to engage said rack bars with their respective gears to operate said turning rods in one direction or the other.

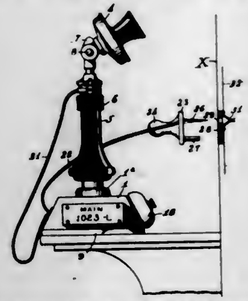
942,400. WHEEL, PULLEY, AND THE LIKE. PIERRE MONTUPET, Paris, France, assignor to Societe Montupet & Co., Nogent les Vierges, Oise, France. Filed Mar. 6, 1908. Serial No. 419,544.

1. A wheel composed of a skeleton of tough metal with an envelop of light alloy of aluminium around the skeleton, the latter comprising a series of tubular spoke cores and circular core bands for the felly and hub both perforated to allow the ends of the spoke members to pass therethrough.



2. A wheel composed of a skeleton of tough metal with an envelop of light alloy of aluminium around the skeleton, the latter comprising a series of tubular spoke cores, and circular core bands for the felly and hub both perforated to allow the ends of the spoke members to pass therethrough the core band for the felly being also perforated to allow the aluminium alloy to pass through for the purpose described.

942,401. PORTABLE TELEPHONE. OTTO L. MULOT, Brooklyn, N. Y. Filed Oct. 12, 1908. Serial No. 457,409.



1. A portable telephone set of the desk stand type comprising a base, a supporting post secured therein, a transmitter carried at the upper end of said post, a receiver hook pivoted in the side of said post, a receiver of the usual type supported by said hook, a ringer located in said base, an induction coil disposed within said post, and operative connections between said parts terminating in a single pair of conductors, said conductors constituting the leads for both the talking and ringing circuits, and adapted to be connected to any point of an external circuit.

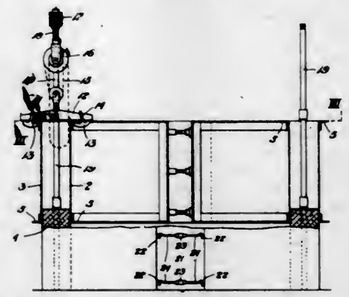
2. A portable telephone set of the desk stand type comprising a base, a hollow supporting post secured therein, a transmitter carried at the upper end of said post, a receiver hook pivoted in the side of said post and controlling the telephone circuits, a receiver of the usual type supported by said hook, a conductor cord extending from said receiver to the base of the instrument, ringer coils and a condenser disposed within said base, an induction coil located in said hollow post, operative connections between said parts, and a conductor cord extending from said base, and forming the terminals of both the ringing and talking circuits, and provided at its end with a contact plug adapted to be inserted in a suitable socket located at any desired point in an external circuit.

3. A portable telephone set of the desk stand type comprising a hollow pyramidal base and a supporting post rising therefrom, a transmitter and receiver supported by said post, a condenser supported next the bottom of said base, a ringer above said condenser and next the top of said base, and bells for said ringer mounted side by side on one of the flat faces of said base.

4. In a portable telephone set of the desk stand type, a supporting post split vertically into two sections, each of said sections having at its upper end a prong, a transmitter supported between said prongs, and a single screw maintaining all of said parts in position.

5. In a portable telephone set of the desk stand type, a base, a supporting post divided vertically into two sections, one of said sections being rigidly secured to the base and supporting directly the receiver and transmitter, a socket in the base adjacent said section into which one end of the other section is adapted to fit, the said socket being relatively deep and the said end of said section being rounded off, and means for securing said sections together at their ends away from said base.

942,402. APPARATUS FOR BUILDING HOLLOW CONCRETE STRUCTURES. JOHN H. MCCOY, Harrisville, Pa. Filed Nov. 25, 1908. Serial No. 464,449.



1. In the manufacture of annular concrete walls, the combination with supporting elements set in the wall, and continuous annular sectional molding shells adapted to embrace the wall cavity having means for adjusting their diameter; of hoisting mechanism supported on said elements and provided with cross arms having separable holding dogs each having a holding loop for connecting the cross arms with the molding shell, substantially as set forth.

2. In the manufacture of annular concrete walls, the combination with supporting elements set in the walls in pairs, and continuous annular sectional molding shells adapted to embrace the wall cavity having means for adjusting their diameters; of cross arms mounted on the tops of said elements, and holding mechanism depending from said bars and provided with cross arms and separable holding dogs each having loops embracing the terminals of the cross arms and engaging the molding shells, substantially as set forth.

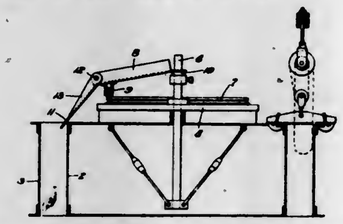
3. The combination with molding shells having terminal flanges, of a cross arm, dogs each having a loop adapted to engage and connect said cross arm with one of said flanges, and means for exerting lifting power on the cross arm, substantially as set forth.

4. The combination with molding shells having terminal flanges, of a cross arm, dogs each having a loop adapted to engage and connect said cross arm with one of said flanges, and means embodying upwardly extending supporting devices and lifting mechanism supported thereby, for lifting the cross arm and said molding shells, substantially as set forth.

5. In the manufacture of annular concrete walls, the combination with upwardly extending vertical posts built in the wall having supporting terminal caps, and embracing annular adjustable molding shells having terminal flanges; of cross supporting bars set on said caps, hoisting mechanism depending from said bars each having a terminal cross arm, and separable securing dogs each having a link embracing the cross arm and a shoe portion adapted to engage one of said flanges and the under side of the cross arm, substantially as set forth.

[Claims 6 and 7 not printed in the Gazette.]

942,403. APPARATUS FOR DISTRIBUTING BUILDING MATERIAL. JOHN H. MCCOY, Harrisville, Pa. Filed Nov. 25, 1908. Serial No. 464,450.



1. The combination with a mold composed of inner and outer annular walls with an intervening space, and a platform supported upon the inner walls; of an annularly traveling distributing trough mounted on said platform and provided with a pivoted adjustable trough extension adapted to deliver material into the cavity between the walls, substantially as set forth.

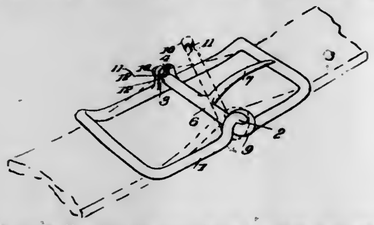
2. The combination with a mold composed of inner and outer annular walls with an intervening space, and a platform supported upon the inner walls; of an annularly traveling distributing trough mounted on said platform and provided with a pivoted adjustable trough extension adapted to deliver material into the cavity between the walls having an edge substantially corresponding to the curvature of the wall cavity, substantially as set forth.

3. The combination with a supporting platform and an outer wall-forming annular mold composed of inner and outer shells and an intervening cavity, of a circular supporting track arranged around the top of the platform and a distributing trough mounted on said track for annular travel and distribution of material to the wall cavity, substantially as set forth.

4. The combination with a supporting platform, a surrounding annular mold, an annular track on the platform and a central post, of a distributing trough having supporting wheels mounted on said track and pivotally connected with the central post, substantially as set forth.

5. The combination with a supporting platform, a surrounding annular mold, an annular track on the platform and a central post, of a distributing trough having supporting wheels mounted on said track and pivotally connected with the central post, and provided with a pivoted distributing extension, substantially as set forth.

942,404. CROSS-LINE BUCKLE. HENRY B. MCGOWAN, Hurley, Okla. Filed Aug. 4, 1908. Serial No. 446,919.

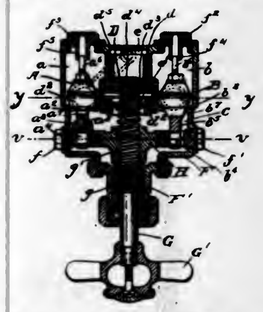


1. A cross line buckle comprising a frame provided on one side with an eye having a contracted entrance passage, a cross bar pivoted to the other side of the frame for a rotative movement in a plane transverse to the longer axis of the buckle but having free axial rotation, said cross bar having a tongue projecting therefrom, and being formed at its free end with a contracted neck adapted to enter the contracted entrance of said eye when the cross bar is axially turned in one direction, but to be retained in a cross wise position within the eye when said cross bar is turned into an operative position.

2. A cross line buckle comprising a frame provided with two oppositely disposed eyes, one of which is formed with a contracted entrance portion, a cross bar linked to the other eye and formed with a recessed end adapted to pass turough said contracted entrance portion and be retained within said eye by a partial revolution of the bar in either direction and a tongue carried by said bar substantially as described.

3. A cross line buckle comprising a frame provided on one side with an eye having a contracted entrance passage and on its opposite side having a deflected portion, a cross bar formed at one end with a closed eye engaging with the deflected portion of the frame for a pivotal opening movement and a movement of axial rotation, said cross bar at its opposite end having a contracted portion adapted to enter the contracted passage in said first named eye and to be retained in a crosswise position within said eye by turning the cross bar axially.

942,405. NON-SCALDING SHOWER-BATH COCK. DANIEL W. MCNEIL, Cincinnati, Ohio, assignor to The John Douglas Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Aug. 14, 1908. Serial No. 448,464.



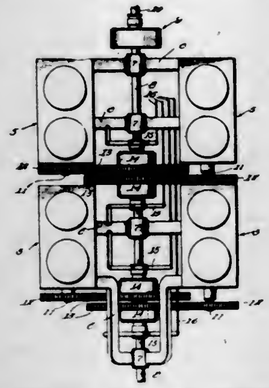
1. In a hot and cold water cock, the combination of a valve casing having a mixing chamber and an exit chamber communicating with the mixing chamber, cold and hot water valves adapted to regulate the flow of water to the mixing chamber, a third valve for controlling the communication between the exit and the mixing chambers, and a means of communicating the pressure of the cold water to the third valve to carry it away from its seat, whereby when the pressure of the cold water to the cock is diminished, the third valve closes the communication between the mixing and the exit chamber.

2. In a hot and cold water cock, the combination of a casing having a hot water chamber, a cold water chamber, a mixing chamber and an exit chamber, hot and cold water valves in the casing and adapted to regulate the communication between the hot and cold water chambers and the mixing chamber, a third valve adapted to regulate the communication between the mixing and the exit chambers, a yoke, means of coupling the hot and cold water valves to the yoke, a valve stem having two sets of differential screw-threads, one engaging the casing, the other set engaging the yoke, and means of communicating the movement of the stem to the third valve to carry it toward its seat, whereby the movement of the valve stem regulates the positions of the hot and cold water valves and the third valve.

3. In a hot and cold water cock the combination of a casing having within it an elongated mixing chamber, a hot water chamber, a cold water chamber and an exit chamber upon the same side of the mixing chamber, the wall between said chambers having openings in it, a hot water, a cold water and an exit valve seated against the respective openings, a main actuating stem and a means of connecting it with the valves whereby the movement of the stem simultaneously moves the three said valves.

4. In a hot and cold water cock the combination of a casing having within it an elongated mixing chamber, a hot water chamber, a cold water chamber and an exit chamber upon the same side of the mixing chamber, the wall between said chambers having openings in it, a hot water, a cold water and an exit valve seated against the respective openings, a yoke, means of connecting it to the hot and cold water valves, a differential screw engaging the casing and the yoke, and means of causing the exit valve to move with the screw.

942,406. TRANSMISSION-GEARING. LEMUEL C. NORTON, Los Angeles, Cal. Filed Sept. 28, 1908. Serial No. 454,079.



1. In a transmission gearing, the combination of a main transmission shaft, a clutch member thereon, a second shaft, a clutch member thereon adapted to engage with the clutch member on said first named shaft, a plurality of engines provided with crank shafts, and transmission means between said engine shafts and said main shaft.

2. In a transmission gearing, the combination of a main transmission shaft, a clutch member thereon, a second transmission shaft, a clutch member thereon adapted to engage with the clutch member on said main shaft, a plurality of motors, and transmission means mounted between said motors and said main shaft.

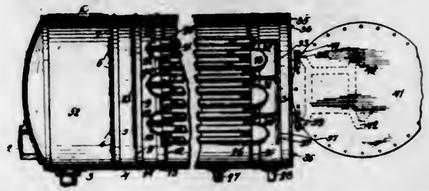
3. In a transmission gearing, the combination of a main transmission shaft, a friction clutch member thereon, a second transmission shaft, a friction clutch member thereon adapted to engage the clutch member on said main shaft, a plurality of motors, and transmission means between said motors and said main shaft.

4. In a transmission gearing, the combination of a main transmission shaft, a friction clutch member thereon, a second transmission shaft, a friction clutch member thereon adapted to engage the clutch member on said main shaft, a plurality of motors, and transmission means between said motors and said main shaft, said transmission means including a plurality of friction clutches.

5. In a transmission gearing, the combination of a main transmission shaft, a clutch member thereon, a second transmission shaft, a clutch member thereon adapted to engage the clutch member on said main shaft, a plurality of motors, and gear transmission means between said motors and said main shaft.

942,407. EVAPORATING APPARATUS. CHARLES ORDWAY, New York, N. Y. Filed Dec. 17, 1908. Serial No. 468,044.

1. In evaporating apparatus, a riveted and caiked shell for an effect having substantially uniform diameter, tube sheets provided with spaced tube apertures riveted in said shell adjacent its ends to form a vapor chamber and a feed chamber within said shell ends, tubes in said tube apertures extending through the intermediate steam space; baffle flanges riveted to said shell within said vapor space, a manhole in said shell communicating with said vapor space, sectional baffles removably bolted to said baffle flanges and removable through said manhole, the end of said shell adjacent said feed chamber being formed with an inspection hole of substantially the same area as said tube ends, a hinged door normally closing said hole, feed pipes and connected feed caps communicating with the tubes of each coil, backing plates coöperating with said tube sheets, return bolts securing said backing plates and tube sheets together and projecting therefrom, return bends having integral inclosing casings for said bolts and projecting flanges encircling a plurality of said tubes and constricted tube apertures alined with said tubes, to guide the liquor with respect thereto, there being coöperating inclined annular recesses in said projecting flanges and tube sheet around said tubes and gaskets therein to automatically pack said tubes as said bends are forced home.



2. In evaporating apparatus, a riveted shell for an effect having substantially uniform diameter, tube sheets provided with spaced tube apertures riveted in said shell adjacent its ends to form a vapor chamber and a feed chamber provided with inspection openings, tubes in said tube apertures extending through the intermediate heating space, baffle flanges secured to said shell within said vapor space, sectional baffles removably bolted to said baffle flanges and removable through the inspection opening in said vapor space, a hinged door normally closing the inspection opening in said feeding space and being of substantially the same area as the tube ends, feed connections within said feed chamber and communicating with the tubes of each coil to supply liquor thereto from said feed chamber, backing plates coöperating with said tube sheets, return bolts securing said backing plates and tube sheets together and projecting therefrom, and return bends having integral projecting flanges encircling a plurality of said tubes and inclined annular recesses in said flanges and the tube sheets around said tubes and gaskets therein to automatically pack said tubes as said return bends are forced home.

3. In evaporating apparatus, a riveted shell for an effect having substantially uniform diameter, tube sheets provided with spaced tube apertures secured in said shell adjacent its ends to form a vapor chamber and a feed chamber within said shell ends provided with inspection openings, tubes mounted with their ends in said tube apertures, baffle flanges secured to said shell within said vapor space, sectional baffles removably bolted to said baffle flanges and removable through the inspection opening in said vapor chamber and a removable door of substantially the same area as said tube ends closing the inspection opening in said feed chamber to give access to the tube ends and connections therein and feeding and return connections within said feed chamber and communicating with said tubes.

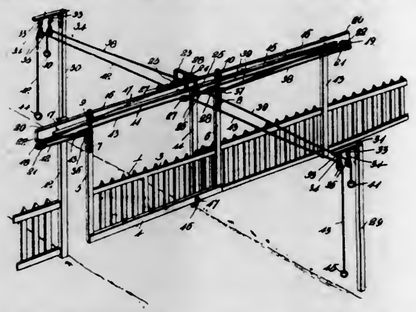
4. In evaporating apparatus, a shell for an effect, tube sheets provided with spaced tube apertures secured in said shell adjacent its ends to form a vapor chamber and a feed chamber within said shell ends provided with inspection openings, tubes having their ends mounted in said tube apertures, a removable door having substantially the same area as said tube ends mounted on one of the ends of said shell to give access to said tube ends and connections and feeding and return connections communicating with said tubes.

5. In evaporating apparatus, a shell for an effect, tube sheets provided with spaced tube apertures secured in said shell to form a vapor chamber and feed chamber within said shell ends, tubes having their ends in said tube apertures, a manhole mounted in the end of said shell communicating with said vapor chamber, baffle flanges

secured to said shell within said vapor chamber and sectional baffles removably secured to said baffle flanges and removable through said manhole.

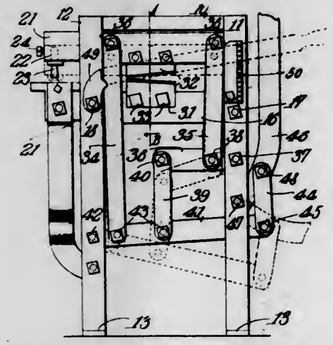
[Claims 6 to 12 not printed in the Gazette.]

942,408. SLIDING GATE. JACOB M. PETERMAN, New Market, Iowa. Filed Aug. 19, 1909. Serial No. 513,678.



A gate supporting structure comprising a cross bar, means for supporting said cross bar, a U-shaped member having a central depending bifurcated arm secured to said bar, with the legs thereof arranged on opposite sides of the bar, eyes arranged in the free ends of said legs, guide pulleys supported in said eyes on opposite sides of said bar, a pair of guide pulleys arranged at each end of said bar on the lower face thereof and flexible elements operable on said pulleys and adapted to be connected with the gate to be actuated.

942,409. PUNCH AND SHEAR. CHARLES PETERSON, Stanchfield, Minn. Filed July 2, 1908. Serial No. 441,527.



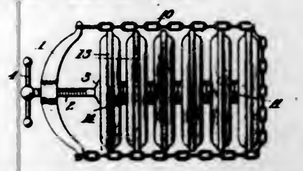
1. In a machine of the class described a frame comprising a top member and legs attached to opposite sides thereof, a stationary tool-holder secured between the legs, a movable tool-holder slidable between the legs, parallel links attached to the movable holder, oppositely extending levers pivotally connected to the respective links, a link connection between the levers, and means for actuating the levers.

2. In a combined punch and shear, a frame comprising a top member and legs attached to the top member at the side of each and to form two pairs, a stationary tool holder rigidly held between the pairs of legs, a movable tool holder slidably mounted between the legs, links attached to the movable tool holder bearing against the said links to guide the tool holder, and a system of levers and links attached to the first mentioned links arranged to pivotally move the ends of the tool holder.

3. In a combined punch and shear, a frame comprising a bar metal top and bar metal legs rigidly attached thereto at each side of the end provided with outwardly turned and suitable holding down tool holder, a stationary tool holder comprising a pair of bars in parallel relation held between the legs and extending outwardly therefrom, said bars being provided with a suitable tool holder and one thereof having a tool holding nut, a movable tool holder comprising similarly arranged bars having also a semicircular recess at the outer end, bar metal links pivotally connected to the movable tool holder having their upper ends bearing against the inner side of the said links, a bar metal lever pivotally connected to one pair of said legs and one pair of said links and passing between the opposite pair of the legs, a second bar metal lever pivotally connected to the second pair of the legs and a second link, a link of bar metal connecting the end of the second lever with a point intermediate the ends of the first lever, an operating lever fulcrumed between the second pair of legs, and links connecting the free end of the first lever with a point adjacent the fulcrum of the third lever.

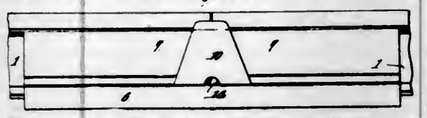
4. In a machine of the class described a frame, a stationary tool-holder secured thereto, a slidable tool-holder links pivotally connected to opposite end portions of the slidable holder, oppositely extending upper and lower levers pivotally connected at their outer ends to the frame, said links being connected to the respective levers, a link connection between the levers, and means for actuating said levers.

942,410. PRESSING DEVICE FOR PUSH-NIPPLE RADIATORS. HERMAN L. E. PETERSON, Elgin, Ill. Filed Apr. 18, 1908. Serial No. 427,945.



A clamping-device for assembling radiator-sections, comprising a yoke having an outstanding straight-end and an end with a hook-portion, said straight-end being provided with a transverse pivot-aperture and the hook-portion of the other end provided with a transverse shallow holding-notch formed in the socket of the hook-portion, a plunger threaded through the central portion of the yoke and carrying a pressing-head upon its inner end, a chain having one of its end-links straddling said straight-end and said end-link provided with registering apertures which aline with the pivot-apertures through said straight-end of the yoke, said apertures in the end-link being formed near one end thereof for permitting free pivotal movement of the end-link upon the straight-end relative to the longitudinal axis of the yoke and also of free movement of the contiguous link of the chain carried by the end-link, and a rivet passing through the alined openings of the end-link and the pivot-aperture of the yoke for fixedly holding the chain upon the yoke and in pivotal relation thereto, the other end of the chain being adapted for quick adjustment upon the yoke and securely retained in the shallow-notch during operation of the clamping-device.

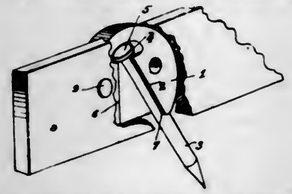
942,411. RAIL-JOINT. WILLIAM E. RANSOM, North Yakima, Wash. Filed June 21, 1909. Serial No. 503,509.



1. A device of the class described comprising a casing arranged to receive telescopically, and to inclose, the web and flange of a rail, the said casing being provided, intermediate its ends, with oppositely disposed, sloping buttresses, extending to the edges of the casing and provided upon their upper faces, at their outer edges, with inwardly extending depressions constituting seats located within the contour of the buttresses and arranged to receive the outstanding portion of a spike head, the casing being intact beneath the depressions.

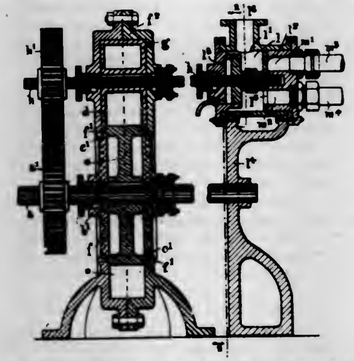
2. A device of the class described comprising a casing arranged to receive telescopically, and to inclose, the web and flange of a rail, the said casing being provided intermediate its ends, with oppositely disposed, pyramidal buttresses, each having its apex extended superiorly and laterally beyond the casing to engage the ball of a rail, the buttresses extending to the edges of the casing and being provided upon their faces at their outer edges, with inwardly extending depressions located within the contour of the buttresses and arranged to receive the outstanding portion of a spike head, the casing being intact beneath the depressions.

942,412. HARROW-TOOTH FASTENER. EARL M. RICH, Glidden, Iowa. Filed June 11, 1908. Serial No. 437,897.



The combination with a support, of a perforated substantially circular casting secured to the support and provided with communicating recesses opening through the bottom and one side thereof, the other side of the casting at said communicating recesses being closed, the side walls of the lower recess being curved transversely to produce seating grooves disposed at an angle to each other, and the upper recess being smaller than and disposed at substantially right angles to the lower recess to produce oppositely disposed shoulders, a tooth free to rotate and oscillate in said recesses and having a cylindrical body portion adapted to enter the seating grooves of the lower recess and provided with an enlarged head seated in the upper recess and adapted to bear against said shoulders, and fastening devices extending through the perforations in the casting and engaging the support for securing the casting in position thereon, said support forming a closure for the open side of the casting.

942,413. ROTARY ENGINE. HENRI ROUX, Marseille, France. Filed July 20, 1908. Serial No. 444,455.



1. In a rotary engine, a plurality of cylinders having enlarged heads, rotary pistons movable within the cylinders, each of the pistons being provided with a single abutment, rotary valves located in the enlarged heads of the cylinders having recesses for the radial movement of the abutments of the pistons, a valve casing having spaced ports therein, a rotary valve disk having a slot therein for separately closing either of the ports and jointly both of them, and means connected with the cylinders and the valve casing for supplying fluid under pressure thereto.

2. In a rotary engine, a plurality of cylinders, a plurality of pistons rotatable in the cylinders, said cylinders having enlarged heads, and said pistons being provided with single abutments, valves having recesses therein for the reception of the abutments of the pistons rotatable in the enlarged heads of the cylinders and coacting with the pistons thereof, a valve casing having spaced ports, fluid conducting means connected with the spaced ports of the valve casing and with the cylinders, and a rotary valve disk having a slot therein for separately closing either of the ports of the valve casing and jointly opening both of said ports.

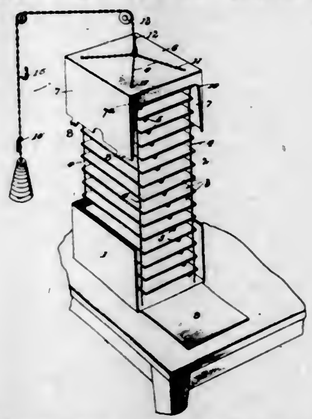
3. In a rotary engine, a plurality of cylinders, a plurality of pistons, said cylinders being formed with enlarged heads and said pistons being provided with single abutments, rotary valves having recesses for the reception of the abutments of the pistons secured in the enlarged heads of the cylinders, a valve casing having spaced ports therein connected with the cylinder, a rotary valve disk having a slot therein for separately closing either of the ports of the valve casing and jointly opening both of said ports, and a plurality of reciprocating plungers for reversing the direction of rotation of the pistons connected therewith.

4. In a rotary engine, a plurality of cylinders, a plurality of pistons, said cylinders being formed with enlarged heads and said pistons being provided with single abutments, rotary valves having recesses for the reception of the abutments mounted in the enlarged heads of the cylinders, means for supplying fluid under pressure to the cylinders, valves connected with said cylinders for directing the flow of the pressure fluid to either cylinder, and plunger valves movable in the supply means for reversing the direction of flow of the fluid.

5. In a rotary engine, a plurality of pistons, means for supplying fluid under pressure to the pistons, cylinders for the pistons, means for controlling the flow of the fluid to either of the pistons, reciprocating plunger valves located in the supply means for reversing the flow of the fluid, and a screw operated indicator head for operating the plunger valves.

[Claims 6 and 7 not printed in the Gazette.]

942,414. FILING-CABINET. JAMES R. RYAN, Sault Ste. Marie, Mich. Filed Feb. 17, 1909. Serial No. 478,371.

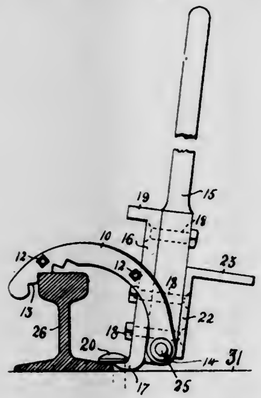


1. A filing appliance comprising a box or case, a set of vertically extensible and collapsible shelves connected

at the lower end to the bottom of the box and adapted to be entirely contained therein in collapsed condition, a cover carried at the upper end of the set of shelves and arranged to telescope with the case, an over head pulley, a chain detachably connected to the shelves and passing around the pulley, and a counterbalancing weight depending from the chain to sustain the shelves in extended or partially extended condition.

2. A filing appliance embodying a box or case having a hinged drop front, a set of vertically extensible and collapsible shelves secured at the lower end in the box and adapted to be entirely contained therein in collapsed condition, a cover carried at the upper end of the set of shelves and consisting of a top and depending sides, the sides being arranged to telescope with the box, and the side corresponding to the drop front being recessed for the purpose specified, and counterpoising means for sustaining the shelves in extended or partially extended condition.

942,415. SPIKE-PULLER. WILFRED F. SCOTT, Uniontown, Pa. Filed May 22, 1909. Serial No. 497,618.



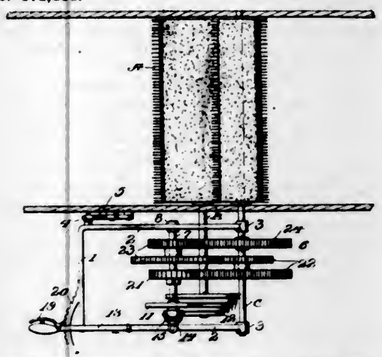
1. A spike puller comprising a yoke member having notches for engagement with the head of a rail, a bar mounted to swing upon said yoke member, and a plate secured to said bar and provided with a claw at one end for engagement under the head of a spike and with a forward projection at the other end.

2. A spike puller comprising a yoke member having notches for engagement with the head of a rail, a bar mounted to swing upon said yoke member, a plate secured to said bar and provided with a claw at one end for engagement under the head of a spike, a fulcrum plate having a forward projection, and means for adjustably securing said fulcrum plate to said bar at the side opposite to the claw plate.

3. In a spike puller, a yoke member formed of two downwardly curving members having rail engaging notches at one end, means for rigidly coupling said yoke members in spaced relations, a bar mounted to swing between said yoke members, a plate secured to said bar and provided with a claw at one end for engagement under the head of a spike and with a forward projection at the other end.

4. In a spike puller, a yoke member formed of two downwardly curving members having rail engaging notches at one end, means for rigidly coupling said yoke members in spaced relations, a bar mounted to swing between said yoke members, a plate secured to said bar and provided with a claw at one end for engaging beneath the head of a spike, a fulcrum plate having a forward projection, and means for adjustably securing said fulcrum plate to said bar at the side opposite to the claw plate.

942,416. SPEED-VARYING MECHANISM. ALEXANDER C. SMITH, Hobart, Okla. Filed Jan. 9, 1909. Serial No. 471,463.



1. The combination of substantially parallel drive and driven shafts, a cone gear rigidly mounted on said drive shaft, a supporting frame journaled on the driven shaft and adjustable toward and away from the cone gear, a countershaft substantially parallel to the said shafts and journaled on the frame, a gearing connection between the countershaft and the driven shaft, and a gear wheel mounted to turn with the countershaft and slidable longitudinally thereon to effect engagement with different sections of the cone gear.

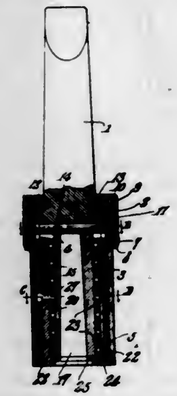
2. The combination of substantially parallel drive and driven shafts, a cone gear rigidly mounted on one of said shafts, a supporting frame journaled on the other shaft and adjustable toward and away from the cone gear, a counter shaft substantially parallel to the said shafts and journaled on the frame, a gearing connection between the countershaft and the shaft on which the frame is journaled, a gear wheel mounted to turn with the countershaft and slidable longitudinally thereon to effect engagement with different sections of the cone gear, a toothed segment disposed in proximity to the swinging end of the supporting frame, and a pawl carried by the supporting frame and engaging with the segment to retain the frame in adjusted position.

3. The combination of substantially parallel drive and driven shafts, a cone gear rigidly mounted on one of said shafts, a supporting frame journaled on the other shaft and adjustable toward and away from the cone gear, a countershaft substantially parallel to the said shafts and journaled on the frame, a gearing connection between the countershaft and the shaft on which the supporting frame is journaled, a gear wheel mounted to turn with the countershaft and slidable longitudinally thereon to effect engagement with different sections of the cone gear, a lever fulcrumed on the supporting frame and connected to the last named gear to shift the same on the countershaft, and means for holding the lever in different adjusted positions.

4. The combination of substantially parallel drive and driven shafts, a cone gear rigidly mounted on one of said shafts, a supporting frame adjustable toward and away from the cone gear and embodying spaced side bars provided with bearings journaled on the other shaft at longitudinally spaced points, a countershaft journaled transversely of the side bars, a gearing connection between the countershaft and the shaft on which the side bars are journaled, and a gear wheel mounted to turn with the countershaft and slidable longitudinally thereon to effect engagement with different sections of the cone gear.

942,417. DRILL-CHUCK. PETER STEINER, Lima, Ohio. Filed Mar. 18, 1909. Serial No. 484,168.

1. A chuck comprising a tubular body, a sleeve threaded thereon, a spring for rotating the sleeve in one direction, oppositely disposed tool-gripping jaws within the body and having eccentrically arranged faces, jaws interposed between the body and the tool-gripping jaws and having eccentric faces, anti-friction devices interposed between the two sets of jaws and bearing upon the eccentric faces, said tool-gripping jaws having annular grooves therein, and means operated by the sleeve for shifting the tool-gripping jaws to bring the grooves into register with the anti-friction devices.



2. A chuck comprising a tubular body, inner and outer sets of jaws within the body, the adjoining faces of said jaws being eccentrically arranged with relation to the longitudinal axis of the body but concentric to each other, the jaws of one set having annular grooves therein, anti-friction devices interposed between the eccentric faces of the jaws, and spring-controlled means for shifting one of the jaws to bring the grooves in register with said anti-friction devices.

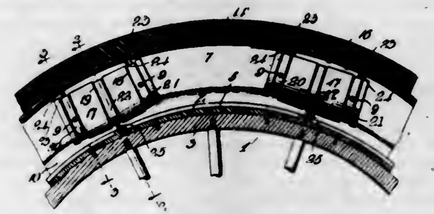
3. A chuck comprising a cylindrical body, outer and inner sets of jaws within the body, the meeting faces of the jaws of the two sets being eccentrically arranged with relation to the body, said faces being concentric with each other, anti-friction devices interposed between the eccentric faces of the inner and outer jaws, the jaws of one set having grooves for the reception of said devices, means adjustably mounted upon the body for shifting the grooved jaws to bring the grooves into register with the anti-friction devices, and means for automatically returning the parts to their initial positions.

4. A chuck comprising a tubular cylindrical body, oppositely disposed similar inner jaws within the body, oppositely disposed similar outer jaws within the body, the adjoining faces of the inner and outer jaws being concentric with each other but eccentric with the body, anti-friction devices interposed between the eccentric faces of the inner and outer jaws, said inner jaws having annular grooves normally removed from the anti-friction devices, means adjustably mounted upon the body for shifting the inner jaws to bring the grooves into register with the anti-friction devices, and means for automatically returning the parts to their initial positions.

5. A chuck comprising a tubular cylindrical body, spaced outer and inner jaws within the body, the adjoining faces of the outer and inner jaws being concentric with each other but eccentric with the body, anti-friction devices interposed between said faces, the inner jaws being provided with annular grooves normally removed from said devices, a ring slidably mounted upon the body, a pin arranged diametrically within and movable with the ring, said pin bearing upon the inner jaws, a sleeve adjustably mounted upon the body and engaging the ring to slide the same, said ring and pin being movable in one direction to bring the grooves into register with the anti-friction devices, and means for automatically returning the parts of the chuck to their initial positions.

[Claim 6 not printed in the Gazette.]

942,418. TIRE. WILLIAM R. STEWART and THOMAS S. STEWART, Saltsburg, Pa., assignors of one-third to Abraham Samuel Braverman, Avonmore, Pa. Filed Feb. 4, 1909. Serial No. 476,084.

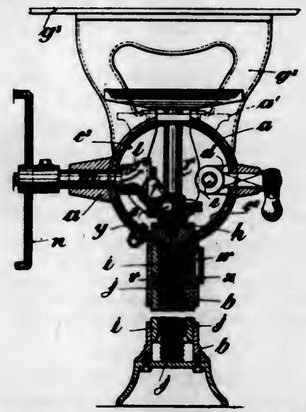


1. A vehicle tire comprising a hollow, annular, metallic casing having outwardly bulged sides and provided with spaced, depending flanges at the inner face thereof, adapted to embrace the sides of a wheel rim, a tread member secured to the periphery of said casing, a plurality of rubber cylinders arranged longitudinally within said casing, and secured thereto.

2. A vehicle tire comprising a hollow, annular, metallic casing having outwardly bulged sides and provided with spaced, depending flanges at the inner face thereof, adapted to embrace the sides of a wheel rim, a tread member secured to the periphery of said casing, a plurality of rubber cylinders arranged longitudinally within said casing, means for securing said cylinders to said casing, and means for securing said cylinders to a wheel rim.

3. The combination with a vehicle wheel having a rim, of a resilient tire comprising a hollow, metallic, annular casing, provided at its inner face with spaced annular flanges adapted to embrace the opposite sides of said rim, a packing arranged between said flanges and said wheel rim, a plurality of cushioning cylinders arranged within said casing, bands extending around the opposite ends of said cylinders and having means for connection with the casing and bands extending around the centers of said cylinders, and provided with means for engaging the wheel rim.

942,419. MACHINE FOR USE IN DRAWING PATTERNS IN MOLDING. STEPHEN STRETTLES, Manchester, England. Filed Feb. 15, 1909. Serial No. 478,077.



1. A machine for use in drawing patterns in molding comprising an open-ended cylinder, a vertical hollow support on which the cylinder is horizontally mounted, two further cylindrical parts or slides telescopically fitting the said cylinder, end frames carried by the said slides, means for adjusting the said slides longitudinally and further means for holding them in any desired position, a bar

within the said cylinder and extending from end to end, a rod centrally connected to the said bar and slidably fitting the said hollow support, a spring for balancing or helping to balance the weight of the rod and bar, and anything carried thereby, a rotary member within the cylinder, and adapted to engage the bar, and, on being rotated, raise or lower the bar, uprights or posts carried by the bar and extending through the cylinder wall and on being raised adapted to lie slightly below the top edges of the end frames, substantially as herein set forth.

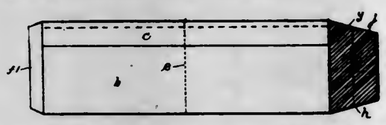
2. In a machine for use in drawing patterns in molding, an open-ended cylinder, and a hollow vertical support on which the cylinder is horizontally mounted, in combination with two cylindrical slides fitting telescopically within the cylinder, a right and left handed screw, lugs on the slides with which the screw engages and a further lug and a screwed stud and handle by which the screw is supported and clamped, substantially as herein set forth.

3. In machines for drawing patterns in molding, the combination with an open-ended cylinder with openings in the top part and at each end, and a hollow vertical support on which the cylinder is horizontally mounted, of a bar arranged horizontally within the cylinder, a rod connected to the bar and slidingly fitting the said hollow vertical support, sleeves adjustably mounted on the bar, uprights or posts carried by the sleeves and projecting upward through the openings in the cylinder, a rotary member within the cylinder and a short stud or axis for such member passing transversely through the wall of the cylinder, and means whereby the member on being rotated raises and lowers the bar, and with it the posts, substantially as herein set forth.

4. In machines for drawing patterns in molding, an open-ended cylinder and a hollow vertical pillar on which the cylinder is horizontally mounted, a bar arranged horizontally within the cylinder and a rod connected to the bar at right angles and slidably fitting the said hollow vertical support, and said rod having vertical grooves producing vertical parallel ridges, anti-friction rollers and means for adjustably supporting the roller axes, substantially as herein set forth.

5. In machines for drawing patterns in molding, an open-ended cylinder and a hollow vertical support on which the cylinder is horizontally mounted, in combination with two cylindrical slides telescopically fitting the cylinder and each slide closed at one end by a cap having an opening for allowing of the insertion of the boss of a turn-key handle, a swivel cover for said opening, and a pair of vertical frames fitted to the slides on which the molding box may rest, substantially as herein set forth.

942,420. ENVELOP. LYMAN R. SWETT, Boston, Mass. Filed Aug. 23, 1909. Serial No. 514,124.

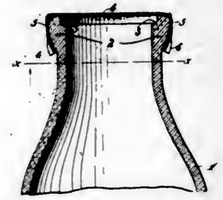


An envelop having two pockets joined at their bottoms and foldable together with their sealing flaps facing each other, a flap on one of said pockets of any preferred construction and a cross perforated sealing flap on the other pocket adapted to seal both pockets and permit them to be separated.

942,421. BOTTLE CLOSURE AND SEAL. OLOF N. TEVANDER and ARTHUR MANIERRE, Chicago, Ill. Filed Jan. 4, 1909. Serial No. 470,646.

1. In a bottle closure and seal, a body portion and a flange depending from the edge thereof, and a reinforcing member secured to said flange adapted to be compressed, crimped or corrugated, substantially as and for the purposes set forth.

2. In a bottle closure and seal, a circular portion and a peripheral flange depending therefrom, and a reinforcing member attached to said flange capable of being crimped or corrugated, substantially as and for the purposes set forth.



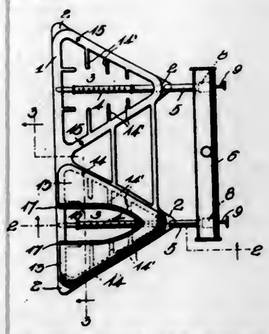
3. In a bottle closure and seal, a circular body portion and a substantially cylindrical flange depending from the periphery thereof, and a reinforcement secured to the lower edge of said flange capable of being crimped or corrugated and of retaining the shape thus formed, substantially as and for the purposes set forth.

4. In a bottle closure and seal, a circular body portion of paste board, a cylindrical flange integral with and depending from the periphery of said body portion, and a reinforcement secured to said flange adapted to be crimped and to cause said flange to grip the bead of a bottle, substantially as and for the purposes set forth.

5. In a bottle closure and seal, a circular paste-board body portion and an integral cylindrical flange depending from the periphery thereof, and a metallic band secured to the periphery of said flange by means of hooks formed therein, substantially as and for the purposes set forth.

[Claims 6 to 9 not printed in the Gazette.]

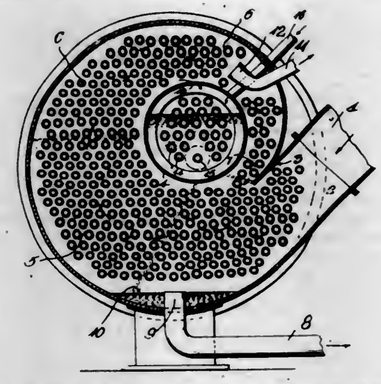
942,422. PORTABLE IRON-HEATER. EDWIN C. THOMPSON, Long Branch, N. J. Filed June 11, 1909. Serial No. 501,600.



1. A portable heater of the class described comprising a supporting frame provided at opposite ends with burner compartments and in its upper edge with vertical sockets, horizontal burners extending through said compartments, a gasolene tank arranged at an elevation at one side of the frame, supply pipes communicating with said tank and adapted to feed the gasolene to the burners, valves for cutting off the supply of gasolene, and iron supporting plates having depending pins adapted to seat in the sockets of the burner compartments when arranged in position.

2. A portable heater of the class described comprising a supporting frame provided at opposite ends with triangular-shaped burner compartments having vertical sockets formed in the upper edges of their walls, supporting fingers projecting inwardly into said compartments, a gasolene tank arranged at an elevation at one side of the device, horizontal feed pipes extending longitudinally through the burner compartments, vertical pipes connected with the rear ends of the feed pipes and supporting the tank, removable iron supporting plates having depending pins to seat in said sockets, and central openings having their walls recessed to receive the edges of the irons.

942,423. SURFACE CONDENSER. YASUZO WADAGAKI, Sasebo, Japan. Filed Oct. 7, 1908. Serial No. 456,595.



1. A surface condenser comprising a cylinder having a condensed water pocket, a steam inlet adapted to cause the exhaust steam entering the cylinder to directly impinge against the water in said pocket and to travel in a rotary direction.

2. A surface condenser comprising a cylinder, a steam inlet adapted to throw the vapor for condensation to the periphery of the cylinder, a condensing water pocket formed in the line of travel of the vapor and adapted to be engaged thereby and means arranged adjacent the inlet for restricting the passage of the vapor.

3. A surface condenser comprising a casing, means to direct steam thereinto, cooling means arranged in the cylinder, means to form a restricted passage in the cylinder for the vapor, and a dry air pump supply pipe arranged in the restricted passage with its mouth open to the flow of vapor.

4. A condenser comprising a cylindrical body, a tangential inlet pipe, a hollow cylinder mounted eccentrically in the condenser, adjacent the pipe, cooling tubes arranged around said cylinder and means to direct the vapors whereby they will pass around the cylinder.

5. A condenser comprising a cylindrical body, a tube mounted eccentrically in said body, cooling tubes around said eccentrically mounted tube, and a tangentially disposed guiding vane.

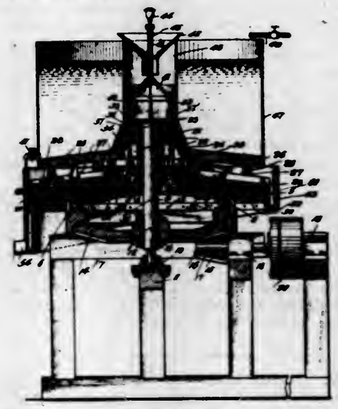
[Claims 6 to 9 not printed in the Gazette.]

942,424. PULVERIZING-MACHINE. EUGENE E. WANN, Los Angeles, Cal. Filed Feb. 19, 1906. Serial No. 301,923.

1. In a pulverizing machine, a base-plate; a die plate secured thereon; a plurality of movable grinding shoes resting on said die plate, the front and rear edges of adjacent movable grinding shoes forming a radial curved channel; and means to rotate said grinding shoes.

2. In a machine of the character herein described, a frame; a base plate having a downwardly and outwardly inclined surface secured to said frame; a sectional die plate secured in locked engagement on said base plate; a plurality of movable grinding shoes resting on said die plate, the front and rear edges of adjacent shoes forming a feed channel; means to rotate said grinding shoes, comprising a downwardly and outwardly inclined rotatable disk; a plurality of projections on the under face of said disk, said projections adapted to engage sockets on the upper faces of said shoes; a centrally disposed hub on said disk having a plurality of vertically disposed lugs on its inner face; a driving shaft mounted in said frame; a driving sleeve keyed to the outer end of said driving shaft, said sleeve having a plurality of vertically disposed slots therein adapted to engage the lugs on the disk hub; and means to rotate said shaft.

3. In a pulverizing machine, a base plate; a die plate secured thereon; a plurality of movable grinding shoes having their upper front, rear and inner edges provided with flanges, resting on said die plate, the front and rear edges of adjacent shoes forming a curved feed channel; and means to rotate said shoes.

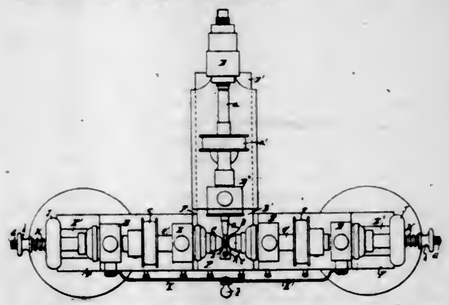


4. In a pulverizing machine, a base plate; a sectional die plate removably secured to said base plate; a plurality of movable grinding shoes resting on said die plate, the front and rear edges of adjacent shoes forming a curved feed channel; a centrally disposed feed way terminating in a plurality of discharge pipes; an annular distributing chamber located below said discharge pipes and communicating with said feed channels; and means to rotate said shoes.

5. In a machine of the class described, a frame; a base plate secured to said frame; a die plate removably secured to said base plate; a plurality of movable grinding shoes resting on said die plate, the front and rear edges of adjacent shoes forming a feed channel; a centrally disposed feed way communicating with said feed channels; a centrally disposed vertical driving shaft mounted in said frame; a muller disk secured to the outer end of said shaft and vertically movable thereon, said disk being in adjustable engagement with said shoes; a weight tank secured to said muller disk; means to keep the weight of said tank constant; and means to rotate said shaft.

[Claims 6 and 7 not printed in the Gazette.]

942,425. MACHINE FOR CUPPING SAPPHIRES AND OTHER PRECIOUS STONES. JOHN L. WENNSTROM, Suffern, N. Y., assignor to American Gem Mining Syndicate, St. Louis, Mo., a Corporation of Montana. Filed Feb. 27, 1909. Serial No. 480,336.



1. A machine for cupping sapphires or other stones, comprising a frame and a rotary spindle carrying a grinding ball, two sliding heads carrying rotary spindles with

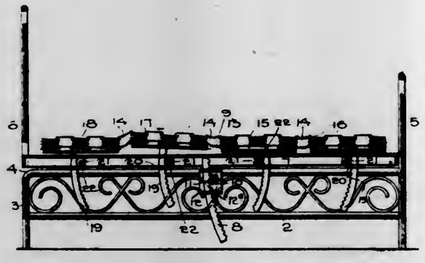
chucks, and means to automatically press the stones, carried by the chucks simultaneously against opposite sides of the grinding ball.

2. A machine for cupping sapphires or other stones, comprising a frame and a rotary spindle carrying a grinding ball with two sliding heads carrying rotary spindles with chucks adapted to hold the stones on opposite sides of the grinding ball, and spring means for normally pressing the stones against the ball.

3. A machine for cupping sapphires or other stones, comprising a frame and a rotary spindle carrying a grinding ball with two sliding heads carrying rotary spindles with chucks to hold the stones on opposite sides of the grinding ball, spring means to press the heads toward each other and the stones against the grinding ball and means to separate the two heads against the pressure of the springs.

4. A machine for cupping sapphires or other stones, comprising a frame and a grinding head having a rotary spindle carrying a grinding ball with two sliding heads carrying rotary spindles with chucks adapted to hold the stones on opposite sides of the grinding ball, means for normally pressing the stones against the ball, and means for oscillating the grinding head on an axis coinciding with the center of the grinding ball.

942,426. BEDSTEAD. JOHN WESTHAVER, Edgewater, Colo., assignor, by mesne assignments, of one-third to Eliza Wakefield and two-thirds to Harold Westhaver, Edgewater, Colo. Filed Mar. 5, 1908. Serial No. 419,304.



1. A bedstead, comprising in combination a fixed frame, a second frame superposed upon said fixed frame and having a pivotal connection therewith, means for tilting said second frame as a rigid unit, sectional springs carried by said second frame, and means for independently adjusting each sectional spring.

2. A bedstead comprising in combination, a fixed frame, a second frame unitarily pivoted to said fixed frame, sectional springs carried by said second frame, and being vertically adjustable thereon, and means for adjusting said second frame as a unit, whereby said springs may be variously disposed above said fixed frame.

3. A bedstead, comprising in combination, a fixed frame, a second frame unitarily pivoted to said fixed frame by one of its ends, a rack and pinion adjustment located away from said pivoted end for unitarily raising said frame, sectional springs carried by said second frame, and rack and pinion adjustments for each section whereby said sections may be variously disposed with relation to said fixed frame through the medium of said adjustment on said second frame and said sections.

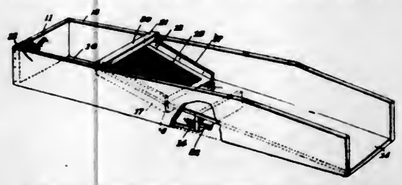
4. A bedstead, comprising in combination, a fixed frame, a second frame unitarily pivoted to said fixed frame by one of its ends, a rack and pinion adjustment located away from said pivoted end for unitarily raising said frame, sectional springs carried by said second frame, and rack and pinion adjustments for each section, said rack and pinion adjustments comprising sets of arcual racks oppositely disposed on each side of the center of said second frame, whereby said sections may be given a substantially arcual adjustment with relation to said second frame.

942,427. RAIL-CLAMP. DAVID S. WERT, Pittsburg, Pa. Filed Mar. 5, 1909. Serial No. 481,244.



The combination with a tie formed with openings extending therethrough and designed to lie underneath and at opposite sides of a superposed rail base, the said openings being downwardly flared, the tie being also formed with apertures spaced from said openings on opposite sides of a rail, a rail resting on the ties between and over the opening, and clamps arranged to secure the rail to the tie, said clamps embodying heads projecting upwardly through the openings and formed with face edges curved correspondingly to the side edges of the base flanges, but on a larger radius, neck portions extending outwardly in opposite directions from the rail and underneath the tie and angularly disposed to the head portions, and upwardly extending attaching arms projected upwardly through the said apertures and arranged for adjustable fastening therein, the point of juncture between the rear edges of the heads and the upper edges of the neck portions constituting fulcrum points engaging the outer walls of the openings at the lower edges thereof and the rear edges of the heads being straight or plane from said fulcrum points and upwardly a distance at least equal to the height of the walls of said opening.

942,428. LIQUID-STRAINER. FRANKLIN L. WILLIAMS, Tamaroa, Ill. Filed Mar. 31, 1909. Serial No. 487,050.



1. A device as specified comprising an elongated trough, an inclined bottom mounted at the outer end of said trough and adapted to overlap the bottom of the trough intermediately thereof, a door positioned beneath the inner end of said inclined bottom and the outer end of the bottom of the trough, a flange depended from the inner extremity of the inclined bottom and a screen mounted in said trough intermediately thereof and in the plane of the inclined bottom adapted for separating liquid which is passed upwardly therethrough.

2. A device as specified comprising two sides, an end wall carried by said sides, a bottom positioned between said sides and said end wall and extended from an intermediate point of said sides, a door carried upon the end of the bottom and extended upwardly therefrom, an inclined bottom engaged on the upper edge of said door and extended forwardly therefrom between said sides, said inclined bottom extended inwardly from said door, a flange depended from the inner end of said inclined bottom to form a trap in conjunction with said door and a screen mounted intermediately of said sides and positioned in the plane of said inclined bottom.

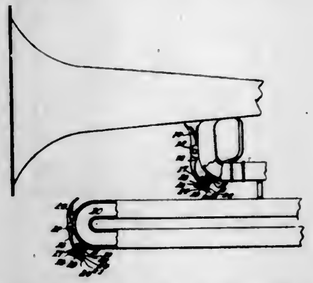
3. A device as specified comprising an elongated body portion, a straight bottom in said body portion, an inclined bottom disposed in said body portion and overlapped in relation to said first bottom, a trap formed between said sides at the adjoining ends of the same and a screen positioned over said first bottom and disposed in the plane of said inclined bottom to strain liquid passed upwardly therethrough.

4. A device as specified comprising an elongated body portion, a bottom formed in said body portion and extended approximately half the length thereof, an inclined bottom positioned in said body portion at the opposite end thereof, the inner raised end of said inclined bottom being positioned in overlapped relation to said first bottom, a flange depended from the raised end of said inclined bottom, a door positioned between the end of said first bottom and the under face of said inclined bottom and a screen disposed in said body portion in the plane of said inclined bottom and adapted for straining a liquid poured in said body portion.

5. A device as specified comprising two sides a bottom extended approximately half the lengths of said sides, a door upwardly extended from the end of said body between said sides, an inclined bottom carried between said sides and extended outwardly from said first bottom, the raised end of the same being engaged on said door and extended inwardly therefrom, a flange depended from the inner extremity of said inclined bottom, beads disposed in pairs and in registered relation against the opposite inner faces of said sides, a frame slidably disposed between said beads, a screen mounted in said frame and a cross-brace secured to the upper end of said frame for engagement upon the upper edges of said sides to support said frame rigidly in position.

[Claims 6 to 9 not printed in the Gazette.]

942,429. WATER-KEY FOR MUSICAL INSTRUMENTS. WILLIAM W. ALLEN, Cornell, Ill. Filed Feb. 4. 1909. Serial No. 476,007.



1. A device of the class described comprising a tube, a vent formed in said tube, a lever pivotally disposed upon said tube adjacent the vent formed therein, a closure carried upon the inner extremity of said lever for engagement about the vent, said closure having an outer open end a spring disposed between the tube and said lever for holding said closure about said vent, an absorbent material disposed in said closure, a bar hingedly connected at one side of said closure and extended diametrically across the open outer end thereof and a leaf spring disposed on said closure for engagement with said bar to hold the same in a closed position.

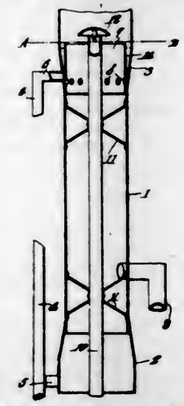
2. A device of the class described comprising a wind instrument, a tube on said instrument, a vent formed in said tube, a closure adapted for engagement over said vent, a flange inwardly extended from the inner end of said closure for engagement about said vent, an absorbent material positioned in said closure, a bar pivotally disposed across the outer end of said closure for retaining said absorbent material in position and means for securing said closure against said vent.

3. A wind instrument provided with a tube having a vent formed therein in combination with a closure detachably positioned over the vent on said tube, an absorbent disposed in said closure and means carried by said closure for removably retaining said absorbent therein.

4. In combination with a wind instrument provided with a tube having a vent formed therein of a spring actuated lever mounted on said tube adjacent said vent, a closure carried by said lever having the inner end thereof reduced to engage said vent, an absorbent engaged in said closure and a bar detachably engaged over the outer end of said closure for retaining said absorbent in position.

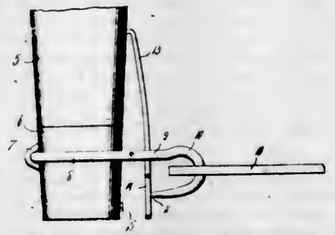
5. A wind instrument provided with a tube having a vent formed therein in combination with a spring-actuated lever fulcrumed in juxtaposition to said vent, a closure disposed on said lever, a flange inwardly extended from the inner edge of said closure for engagement about said vent, a bar hingedly disposed at one side of said closure at the outer edge of the same, an inwardly curved flange formed upon the free extremity of said bar, a leaf spring carried upon the opposite side of said closure, a lip formed on said leaf spring to engage said flange and an absorbent detachably retained in said closure by said bar.

942,430. SMOKE-WASHER. JOHN ALTENHOFEN, Richland, Iowa. Filed Mar. 12, 1909. Serial No. 482,988.



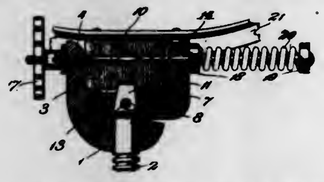
In a device of the class described, a straight stack having a flaring top; a tubular sleeve arranged to be inserted within the stack through the upper end of the stack, the upper end of the stack being so constructed that the sleeve may be lifted out of the stack at will, the sleeve being perforated circumferentially and arranged to engage the lower end of the flaring portion of the stack in wedging relation to form a trough between the sleeve and the flaring portion of the stack; a pipe axially mounted in the stack; and a baffle-plate assembled with the upper extremity of the pipe and arranged to deflect the contents of the pipe downwardly to contact with the jets proceeding from the perforations in the sleeve; and means for simultaneously supplying a liquid to the trough and to the pipe.

942,431. WHIFFLETREE-HOOK. ROBERT F. BLOOM, Starbuck, Minn. Filed Jan. 27, 1909. Serial No. 474,555.



The combination with a whiffletree of a ferrule connected thereto, at one end of the same, an eye formed on said ferrule and projecting from the same rearwardly of the whiffletree, a ring loosely connected in the eye, an open hook formed integral with the ring, the said ring adapted to encircle the ferrule, and a leaf spring having one end fixed to the ferrule and having its opposite end passed through the ring and terminating in a circular bearing extremity and adapted to normally engage the bill of the hook.

942,432. CHAIR-IRON. HARRY W. BOLENS, Port Washington, Wis. Filed Mar. 23, 1909. Serial No. 485,210.



1. In a chair-iron, the combination, of a cast-metal yoke comprising a central upwardly disposed perforated standard and opposite similarly disposed shorter lugs or ears transversely bored and terminating at their upper ends in stop-lugs or shoulders, a sheet-metal stop-plate terminating in depending side-ears embracing said shorter lugs or ears of the yoke and between its ends provided with a transverse slot receiving the stop-lugs or shoulders of the yoke, an inverted U-shaped sheet-metal spreader having depending side-ears longer than and embracing those of the stop-plate and riveted thereto, a transverse pintle passing through the depending side-ears of the stop-plate and the spreader and through the transverse shorter lugs or ears of the yoke, a perforated cross-plate extending upwardly from and formed integral with the rear of the stop-plate and abutting against the horizontal portion of the spreader, and a tension-rod carrying the usual tension-devices passing through the perforation in said cross-plate and through the perforation of the standard of the yoke.

2. In a chair-iron, the combination, of a yoke comprising a central upwardly disposed perforated standard, located at the front of the yoke, and opposite vertically disposed side-standards somewhat shorter than the central standard and provided with stop-shoulders or lugs, a stop-plate provided with opposite depending side-ears embracing the side-standards of the yoke and between its ends having a transverse slot receiving the stop-shoulders of the yoke, an inverted U-shaped spreader surmounting the stop-plate and having opposite depending side-ears embracing those of the stop-plate, a pintle passing through the side standards and ears of the stop-plate and spreader, means for rigidly connecting the ears of the stop-plate and spreader together, a tension-bolt passed through the perforation in the central standard of the yoke, and means located in rear of the spreader and supported thereby for receiving and supporting the rear end of the tension-rod.

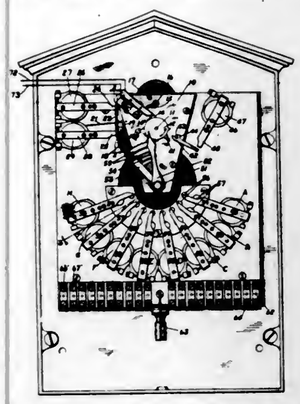
3. In a chair-iron, the combination, of a yoke having a centrally located and vertically disposed perforated standard and opposite similarly disposed shorter standards in rear of the central standard, a stop-plate having depending side-ears embracing the shorter standards and provided between its ends with stops for coacting at each side of and with the said shorter standards, an inverted U-shaped spreader surmounting the stop-plate and having depending side-ears embracing those of the stop-plate and secured rigidly thereto, a pintle passing through the ears of the spreader and the stop-plate and the shorter standards of the yoke, and a tension-rod carrying the usual tension-devices mounted in the perforation of the central standard and supported at its rear end in rear of the spreader.

4. In a chair-iron, the combination, of a cast-metal yoke having a centrally located vertically disposed perforated standard at its front and in rear thereof and at opposite sides provided with shorter standards terminating at their upper ends in shoulders, a sheet-metal stop-plate having its ends downturned to form ears embracing the shorter standards of the yoke and its rear portion reduced and upwardly disposed to form a cross-plate, and between its ends slotted to receive the shoulders at the upper ends of the shorter standards of the yoke, an inverted U-shaped spreader formed of sheet-metal and having its opposite ends downturned to form ears embracing those of the stop-plate and at its rear edge supporting the upper end of the cross-plate, a pintle passed transversely through the ears of the spreader and stop-plate and through the shorter side-standards of the yoke, rivets connecting the ears of the spreader and stop-plate, a tension-rod extending through the perforation in the centrally located standard of the yoke and through a similar perforation in the cross-plate and between the horizontal portions of the stop-plate and the spreader, a hand-wheel at the front of the tension-rod, and a spring tension-device on the rod in rear of the cross-plate.

5. In a chair-iron, the combination with a spreader having depending ends, of a plate connecting said ends and having at its rear an upturned portion formed integrally therewith and at its end engaging the upper portion of the spreader, and a tension-device the spring of which abuts against said upturned portion.

[Claims 6 to 8 not printed in the Gazette.]

942,433. ALARM APPARATUS. HARRY R. BRETNEY, Indianapolis, Ind., assignor to John Wocher, John T. Dickson, and James S. Cruse, Indianapolis, Ind. Filed Jan. 11, 1909. Serial No. 471,650.



1. In an alarm apparatus, the combination, with means for imposing a signal upon a signal circuit, of a pair of electromagnets, means connected with both of said magnets for restraining the action of the signal imposing means when both of said magnets are in the same condition but permitting movement of the signal imposing means when the two magnets are in differing condition, a second restraining member for arresting the signal imposing means at an intermediate point in its possible operation, another electromagnet controlling said second restraining means, and means by which the first two electromagnets may be connected each to one of the sides of a protective circuit, and the other electromagnet may be connected to both sides of the protective circuit.

2. In an alarm apparatus, the combination, with means for imposing a signal upon an alarm circuit, said means comprising a motor for actuating the signal imposing member, of means for normally restraining said motor, a pair of electromagnets each connected with said restraining means for withdrawal thereof upon change of condition of either electromagnet relative to the other, said electromagnets being adapted for separate connection to the two sides of a protective circuit, and a second motor-restraining member arranged to engage and restrain the motor subsequent to an initial action thereof, an electromagnet controlling said second restraining member, said last mentioned electromagnet being adapted for connection to both sides of the aforesaid protective circuit.

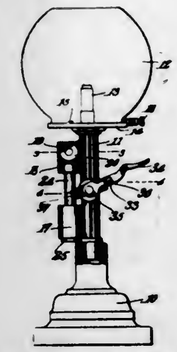
3. In an alarm apparatus, an indicator mechanism comprising an electromagnet having two parallel coils each adapted to be connected to one side of a protective circuit, and each provided with an independent terminal, a brush adapted to be brought into engagement with said two terminals to bring the two sides of the protective circuit together, and an indicator controlled by said electromagnet.

4. In an alarm apparatus, an indicator mechanism comprising an electromagnet having two coils each adapted to be connected to one side of a protective circuit, and each provided with an independent terminal, a brush adapted to be brought into engagement with said two terminals to bring the two sides of the protective circuit together, an indicator, an armature controlled by said electromagnet and adapted to be moved thereby into and out of the path of movement of the indicator to arrest said indicator, and means for driving the brush and indicator.

5. In an alarm apparatus, an indicator mechanism comprising a plurality of magnets each comprising an armature, two parallel independent coils and a pair of terminals one for an end of each coil, an indicator member comprising a terminal portion adapted to coöperate with any pair of terminals of any one of the magnets, means for causing a relative movement between the terminal portion and the pairs of magnet terminals in successive coöperation, and means controlled by the magnets for arresting such relative movement.

[Claims 6 and 7 not printed in the Gazette.]

942,434. COMBINED CIGAR LIGHTER AND CUTTER. GEORGE W. BRITTON, Camden, N. J. Filed Jan. 19, 1909. Serial No. 473,145.

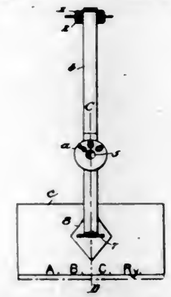


1. In a device of the class described, a support, a sleeve carried by the support, said sleeve being formed with a cigar tip receiving opening and an opening for the discharge of the severed tips, a substantially cylindrical cutter mounted to work in said sleeve and provided with a cutting edge adapted to pass the first mentioned opening upon movement of the cutter, and with a notched or cut away portion which registers with the last mentioned opening, and means whereby the cutter may be actuated.

2. In a device of the class described, a support, a sleeve carried by the said support, the said sleeve being formed with a cigar-tip receiving opening and substantially opposite to the opening with an opening for the discharge of the severed tip, a substantially cylindrical cutter mounted to work in said sleeve and provided with a cutting edge adapted to pass the first mentioned opening upon movement of the cutter, and with a notched or cut away portion which registers with the last mentioned opening, and means whereby the cutter may be actuated.

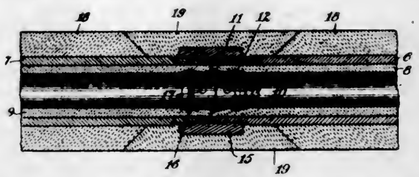
942,435. TAG-ATTACHING SEAL. EDWARD J. BROOKS, East Orange, N. J. Filed Sept. 7, 1909. Serial No. 516,475.

A tag-attaching seal having, in combination, a compressible seal part of lead or the like constructed with a threading slot and a centering hole perpendicular to said slot, and a narrow shackle of flexible sheet-metal one end of which is preliminarily made fast within the back of said slot and the other end of which is adapted to be threaded and rethreaded through said slot to form loops for attaching the seal to the object that is to be



sealed and for attaching a tag to the seal part and to locate second and third thicknesses of the shackle within said slot and behind said centering hole, substantially as and for the purposes hereinbefore specified.

942,436. CEMENT-LINED PIPE AND FITTINGS. FRANK H. CANEY, Newton, Mass. Filed May 10, 1909. Serial No. 495,067.



1. A metal pipe lined with cement having a metal sleeve embedded in said cement at one end thereof, said metal sleeve being completely separated from said metal pipe by said cement and forming a part of its interior bore.

2. A metal pipe lined with cement having a metal sleeve embedded in said cement at one end thereof, said metal sleeve being completely separated from said metal pipe by said cement and forming a part of its interior bore, said sleeve having a portion thereof projecting outwardly therefrom into said cement lining.

3. A metal pipe lined with cement having a metal sleeve embedded in said cement at one end thereof, said metal sleeve being completely separated from said metal pipe by said cement and forming a part of its interior bore, said sleeve having a hole therein into which said cement projects.

4. A metal pipe lined with cement having a metal sleeve embedded in said cement at one end thereof, said metal sleeve being completely separated from said metal pipe by said cement and forming a part of its interior bore, said sleeve having an annular rib projecting outwardly therefrom into said cement lining.

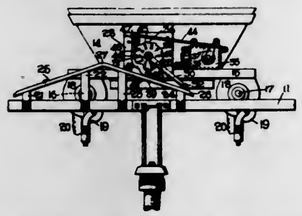
5. A metal pipe lined with cement having a metal sleeve embedded in said cement at one end thereof, said metal sleeve being completely separated from said metal pipe by said cement and forming a part of its interior bore, said sleeve projecting outwardly beyond one end of said cement lining.

[Claims 6 to 11 not printed in the Gazette.]

942,437. TRANSPORTATION SYSTEM. WILLIAM C. CARR, Buffalo, N. Y. Filed Dec. 1, 1908. Serial No. 465,531.

1. In a transportation system, a track having a plurality of stations at intervals along the track, a car on said track, means for reversing the direction of travel of

said car, and mechanism including an element in proximity to the track and an element attached to the car and capable of adjustment relative to the reversing means whereby said reversing means may be actuated to reverse the car at any predetermined station.



2. In a transportation system, a track having a plurality of stations at intervals along the track, a car on said track, means for reversing the direction of travel of said car and mechanism whereby said reversing means may be actuated to reverse the car at any predetermined station.

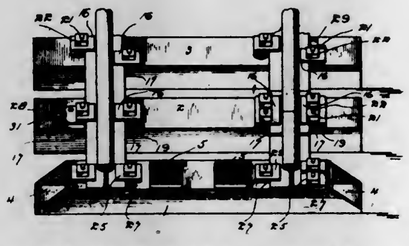
3. In a transportation system, a track having a plurality of stations, a car on said track and means for reversing said car at any predetermined station.

4. In a transportation system, a track having a plurality of stations, a car on said track and automatic means for reversing said car at any predetermined station.

5. In a transportation system, a track having a plurality of stations, a car on said track and means actuated from a station for reversing said car at any predetermined station.

[Claims 6 to 15 not printed in the Gazette.]

942,438. TIE AND MEANS FOR FASTENING RAILS THEREON. IRA C. CATTON, Brimfield, Ill. Filed May 20, 1909. Serial No. 497,283.



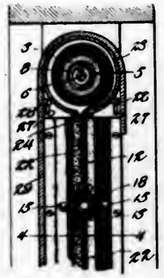
1. In a railway system, a metallic tie, and a fastener therefor formed of a single piece of material bent upon itself to form a rail engaging lip, an abutment for the longitudinal edge of the rail, and a flat bearing surface for contact with the tie, and also provided with an extension adapted for interlocking engagement with said tie.

2. A rail fastener formed of a single length of sheet metal folded upon itself to provide a rail flange engaging lip, an edge abutment, and an angular extension for interlocking engagement with a tie.

3. As a new article of manufacture, a rail fastener formed of sheet metal folded upon itself to form a rail flange engaging lip, an abutment for one edge of said flange, an angular extension for interlocking engagement with a tie, and with registering bolt holes formed through the folded portions of the fastener.

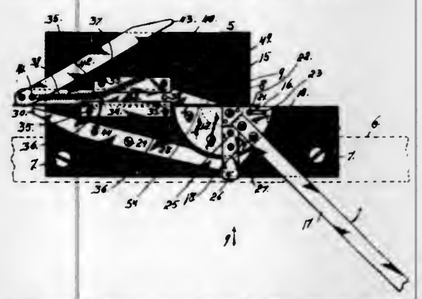
4. In a railway system, a hollow metallic tie provided with an opening through its upper surface, a rail fastener for said tie composed of a folded sheet metal blank provided with a rail flange engaging lip, an abutment shoulder for the longitudinal edge of said flange, and a wide flat base for contact with said tie, the folded portions of said fasteners being provided with registering bolt holes whereby said fastener is retained in rigid but detachable engagement with said tie, the said fastener being also provided with an integral angular extension adapted for interlocking engagement with said opening.

942,439. CURTAIN-FIXTURE. BEACH W. CODDINGTON, Colon, Mich. Filed Sept. 25, 1908. Serial No. 454,718.



In a curtain fixture of the character set forth, the combination with a spring actuated roller and a curtain therefor, said curtain having its lower end provided with spring pressed rods adapted to contact with the sides of a window or door frame and the roller having one of its ends provided with a projecting rounded pin and its opposite end provided with a non cylindrical pintle, of a hood having its ends provided with a circular and a non-circular opening adapted for the reception of the projections of the roller, said ends being also provided with elongated slots adapted for the reception of retaining elements whereby the device is secured to the frame and whereby the casing may be lowered to permit of the insertion of a drapery and raised to cause the drapery to contact with the top of the casing and to retain the same between the hood and the casing.

942,440. WIRE-BENDER. LOUIS D. DANFORTH, Denver, Colo. Filed Mar. 7, 1908. Serial No. 419,618.



1. A metal bender comprising a support, an operating member pivotally mounted thereon and having an exterior angle and an abutment provided with an exterior angle around which the angle of the operating member is adapted to travel, and means for holding the wire in contact with one of the angle faces of the abutment, while the operating device is in motion, comprising a member mounted to slide longitudinally of the wire and in contact therewith, and means connected with the slidable member and actuated from the operating member for automatically imparting to the sliding member movement in a rearward direction as the operating member approaches its limit of movement.

2. A device of the class described comprising a support, an operating member pivotally mounted thereon having an exterior angle, an abutment fast on the support and around which the angle of the operating member is adapted to travel, a second abutment having a beveled face whose pointed extremity terminates adjacent the exterior angle of the first abutment, the wire to be bent occupying a position between the two abutments, the second abutment being mounted to slide longitudinally of the wire and in contact therewith, and an operative connection between the two abutments, whereby the second abutment is actuated during the latter part of the stroke of the first abutment.

3. A wire bender comprising a support, an abutment fixedly connected therewith and having an exterior angle, an operating member pivotally mounted on the support, its axis being adjacent the angle of the abutment, the operating member also having an exterior angle coinciding as to position with its axis whereby when the said device is in motion it travels around the exterior angle of the abutment, the wire to be bent being in engagement with one of the angle faces of the abutment and protruding beyond the same to engagement with one of the faces of the operating member, a second abutment coöperating to hold the wire in operative relation with the first named abutment, the second abutment being mounted to slide longitudinally of the wire, and a connection between the two abutments, whereby the second abutment is actuated in a rearward direction as the first abutment approaches its limit of movement, substantially as described.

4. A device of the class described comprising an operating member pivotally mounted thereon and having an exterior angle located adjacent its axis or center of motion, an abutment fixedly connected with the support and also having an exterior angle located adjacent the corresponding angle of the operating member, a second abutment mounted on the support to slide longitudinally of the wire and having a part occupying a position adjacent one of the angle faces of the fixed abutment, the wire to be bent occupying a position between the two abutments and normally protruding beyond the same to engage one of the angle faces of the operating device, the movable abutment having a beveled face terminating in a pointed extremity and normally occupying a position adjacent the center of motion of the operating device.

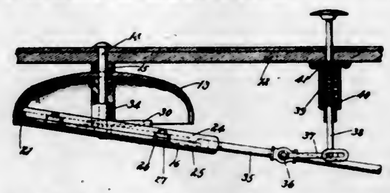
5. The combination with a support, of an abutment fixedly connected with the support and having an exterior angle, an operating member also having an exterior angle located adjacent the corresponding angle of the abutment, the center of motion of the operating member being adjacent the exterior angles of the abutment and said device, a second abutment slidably mounted on the support and having a part occupying a position adjacent one of the angle faces of the fixed abutment, the wire to be bent occupying a position between the two abutments and protruding beyond the same to engagement with the operating member, the movable abutment having a beveled face terminating in a pointed extremity located adjacent the center of motion of the operating member and adjacent the exterior angles of the fixed abutment and the said member, the operating member being provided with an arm, and the movable abutment also having a part rigidly connected therewith and adapted to be engaged by the arm of the operating member during the travel of the latter, whereby the movable abutment is caused to recede during the wire bending operation, to allow the operating member to force the bent portion of the wire against the body of the latter, the said body portion being in engagement with the fixed abutment.

[Claims 6 to 13 not printed in the Gazette.]

942,441. FLUID-PRESSURE ENGINE. CYRUS P. EBERSOLE, Keokuk, Iowa, assignor to Electric Service Supplies Company, Philadelphia, Pa., a Corporation of New Jersey. Filed Aug. 8, 1908. Serial No. 447,566.

1. In a fluid pressure engine, the combination with a pressure cylinder and a vacuum cylinder, of a blow delivering member adapted to be moved in one direction in said pressure cylinder and moved in an opposite direction in said vacuum cylinder.

2. In a fluid pressure engine, the combination with a blow delivering member, of means by which said member is caused to move in one direction by fluid under pressure and in an opposite direction by a vacuum.



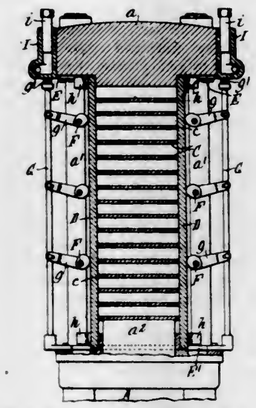
3. In a fluid pressure engine, the combination with a blow delivering member, of a pressure cylinder, and a vacuum cylinder, said cylinders being so related that the admission of fluid under pressure to one of said cylinders creates a vacuum in the other.

4. In a fluid pressure engine, the combination with a pressure cylinder and a vacuum cylinder, a blow delivering member operating in said cylinders, the vacuum cylinder communicating with the pressure cylinder at the forward and rear ends thereof.

5. In a fluid pressure engine, the combination with a pressure cylinder and a vacuum cylinder, a blow-delivering member operating in said cylinders, the vacuum cylinder communicating with the pressure cylinder at two points.

[Claims 6 to 28 not printed in the Gazette.]

942,442. EXPRESSING-PRESS. ALFRED W. FRENCH, Piqua, Ohio. Filed Apr. 22, 1909. Serial No. 491,454.



1. The combination with a press having movable press plates between which the material is pressed, of movable side walls at opposite sides of said press plates, and means for moving said side walls into and out of engagement with the edges of said press plates, substantially as set forth.

2. The combination with a press having vertically movable horizontal press plates between which the material is pressed, of upright movable side walls at opposite sides of said press plates, and means for moving said side walls into and out of engagement with the edges of said press plates, substantially as set forth.

3. The combination with a press having movable press plates between which the material is pressed, of movable side walls at opposite sides of said press plates, and means for forcing said side walls against the edges of said press plates with a varying pressure depending upon the pressure to which the material is subjected, substantially as set forth.

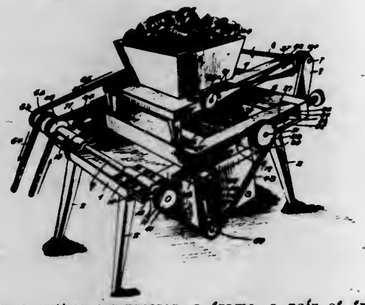
4. The combination with a press having movable press plates between which the material is pressed, of movable side walls at opposite sides of said press plates, means for

forcing said side walls against the edges of said press plates with a varying pressure depending upon the pressure to which the material is subjected, and means for moving said side walls away from the press plates when the pressure on the material is relieved, substantially as set forth.

5. The combination with a press having vertically movable horizontal press plates between which the material is pressed, of an upright wall at one side of said press plates, and means for moving said wall laterally toward and from said press plates to bear against the edges of the several press plates and to free the plates, substantially as set forth.

[Claims 6 to 11 not printed in the Gazette.]

942,443. COTTON-COMPRESSOR. BERL C. GALLAREAD, Canton, Miss. Filed Aug. 10, 1908. Serial No. 447,785.

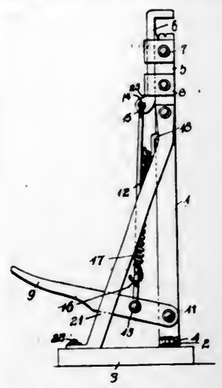


1. In a cotton compressor, a frame, a pair of frames hinged one above the other and above the first mentioned frame and adapted to swing upwardly and outwardly and provided with openings, corrugated rollers disposed and adapted to rotate within the openings, one of said corrugated rollers having bearing members, one of said hinged frames having guideways to receive said bearing members, said bearing members having studs projecting therefrom, members threaded in one of the hinged frames and provided with hollow portions to receive said studs, tension means surrounding said studs and a portion of said threaded members and adapted to bear against said bearing members in order to hold the guided roller yieldably in contact with its coöperating roller, said threaded members adapted to regulate the tension of the tension means, and mechanism for causing the rollers to rotate toward one another.

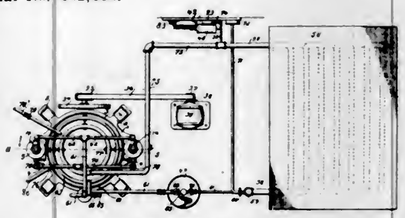
2. In a cotton compressor, a frame, a pair of frames hinged one above the other and above the first mentioned frame and adapted to swing upwardly and outwardly and provided with openings, a hopper carried by one of the hinged frames, corrugated rollers disposed and adapted to rotate within the openings, one of said corrugated rollers having bearing members, one of said hinged frames having guideways to receive said bearing members, said bearing members having studs projecting therefrom, members threaded in one of the hinged frames and provided with hollow portions to receive said studs, tension means surrounding said studs and a portion of said threaded members and adapted to bear against said bearing members in order to hold the guided roller yieldably in contact with its coöperating roller, said threaded members adapted to regulate the tension of the tension means, mechanism for causing the rollers to rotate toward one another, a tension device for a portion of said mechanism, and a receptacle to recieve the cotton.

942,444. FOOT-POWER WELDING DEVICE. HENRY H. GARVER and GUY F. BISSELL, Grant City, Mo. Filed Mar. 2, 1909. Serial No. 480,966.

A foot power welding device, comprising a standard, a lever having a bifurcated end, said bifurcated end being pivotally connected to said standard, the upper part of said standard terminating at a head, a movable head adapted to coöperate therewith, said movable head being connected to the first named head by a plurality of yokes, a link connected with said lever and said movable head, said standard being provided with a recess adapted to receive a hook and to lock the same therewithin, a spring connected with said hook and said lever adapted to raise said lever for restoring the movable head to its initial position, and a shoulder formed on said head for limiting the upward movement of the movable head.



942,445. REFRIGERATING APPARATUS. JOHN HEINRICH, Kansas City, Mo., assignor of one-half to Edward T. Powers, Kansas City, Mo. Filed May 12, 1908. Serial No. 432,403.



1. In a refrigerating apparatus, the combination with a compressor cylinder, of a piston mounted therein, an expansion chamber, a conductor leading from the expansion chamber to the cylinder and provided with an inlet for oil, said inlet being disposed so that oil deposited therein will run into the cylinder, and a conductor connected with the cylinder and with the expansion chamber for conveying compressed fluid from said cylinder to the expansion chamber, the latter named conductor having a portion comprising a condenser for condensing the fluid carried in said conductor, the latter named conductor having also located therein an oil receptacle in which the oil is separated from the compressed fluid prior to the passage of said fluid into said condenser portion, said receptacle having an outlet for the oil and a valve controlling said outlet.

2. In a refrigerating apparatus, the combination with a compressor cylinder provided with an inlet and an outlet, of a conductor connected with said inlet for conveying to said cylinder fluid to be compressed, said conductor having means by which oil may be deposited and carried therein to said cylinder, and a discharge conductor connected with the outlet of said cylinder and having a portion forming a condenser in which the compressed fluid is condensed, the latter named conductor having located therein intermediate said cylinder and said condenser portion a receptacle in which oil conveyed in said conductor is discharged and separated from the compressed fluid, said receptacle being provided with a draw-off cock.

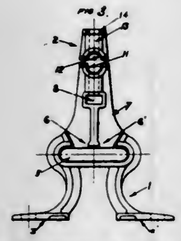
3. In a refrigerating apparatus, the combination with a suitable support, of a receptacle mounted on said support and adapted to contain a cooling medium, of two compressor cylinders mounted on said support at diametrically opposite sides of said receptacle and provided each with an inlet and an outlet, of a rotary driving shaft mounted on said support and extending transversely under said receptacle, two pistons mounted respectively in said cylinders, means by which, when said driving shaft is rotated, said pistons are reciprocated in opposite directions, and two conductors for respectively conveying compressed and expanded fluid from and to said cylinders, said conductors each having a portion thereof normally covered by said cooling medium in said receptacle, the discharge end of the conductor for conveying expanded fluid having two branches connected respectively with the inlets of said cylinders, the inlet end of said conductor for conveying compressed fluid having two branches connected respectively with the outlets of said cylinders.

4. In a refrigerating machine, the combination with a compressing cylinder, of two conductors connected therewith for conveying respectively compressed and expanded fluid, a receptacle for containing liquid in which said conductors are normally immersed, and by which heat is transferred from one conductor to the other, and means for discharging liquid from said receptacle in contact with said cylinder and then conveying the liquid back to said receptacle.

5. In a refrigerating machine, the combination with a compressing cylinder having a jacket, of two conductors connected with said cylinder for conveying compressed and expanded fluid, a receptacle for containing liquid in which said conductors are normally immersed, and means for conveying liquid from said receptacle to said jacket and back to said receptacle.

[Claims 6 and 7 not printed in the Gazette.]

942,446. PIPE OR ROD CARRIER. GEORGE HOLT, Watervliet, N. Y. Filed Oct. 29, 1908. Serial No. 460,181.



1. In a pipe or rod carrier the combination of a lower or base section adapted to be secured to a suitable foundation, an upper section adapted to engage with the top of the lower section, means associated with the two sections to prevent their changing their alinement with each other after being secured together, and a bolt or screw for securing the upper and lower sections together, said bolt passing through the upper section into the lower section.

2. In a pipe or rod carrier, the combination of lower or base sections adapted to be secured to a suitable foundation, upper sections adapted to engage with the tops of the lower sections in a manner preventing the upper and lower sections changing their relative positions with each other, means for rigidly connecting together the tops of adjacent upper sections and a bolt or screw for securing each upper section to its lower section.

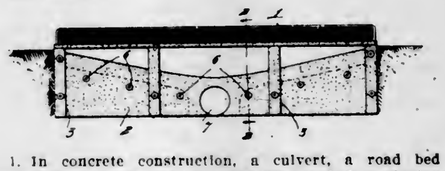
3. In a pipe or rod carrier, the combination of lower or base sections, upper sections engaging with the tops of the lower sections in a manner maintaining alinement, means associated with the sections for supporting top and bottom rollers as shown, means associated with the upper sections for rigidly connecting them together and a bolt or screw for connecting each upper section to its lower section.

4. In a pipe or rod carrier, the combination of lower or base sections and upper sections matching or fitting together, the upper sections being secured to the lower sections, each by a bolt or screw, a bottom roller and a top roller journaled in the said sections, the top roller adapted to be displaced and replaced after removing or loosening one of the said bolts or screws as shown and described.

5. In a pipe or rod carrier, the combination of lower sections adapted to be secured to a foundation, upper sections secured to the lower sections by bolts passing through the upper sections into the lower sections, the heads of the upper sections adapted to interlock with one another, a top and bottom roller journaled in the said sections, the top roller adapted to be removed upon the removal of one of the said bolts as shown and described.

[Claim 6 not printed in the Gazette.]

942,447. CONCRETE CONSTRUCTION. CHARLES W. HORTON, Belle Rive, Ill. Filed June 1, 1909. Serial No. 499,289.



1. In concrete construction, a culvert, a road bed formed thereover and having its sides and floor sloping downward from the banks of the stream to a point above the culvert, the lower portion of the road bed at the center thus affording an overflow outlet for the water and relieving the device of the strain to which it would be subject were there no outlet for the water except the culvert.

2. In concrete construction, a roadway formed with its sides and floor sloping downwardly from the end toward the center, a pipe passing laterally under said roadway, and means for laterally bracing the roadway.

3. In concrete construction, a culvert, a concrete road bed passing thereover and curved downwardly from the ends toward the center to provide an overflow outlet for water not carried off by the culvert, tapering posts formed thereon for bracing the roadbed, and a footpath carried by certain of said posts.

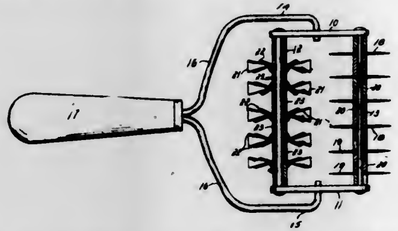
4. In combination with a concaved concrete roadbed sloping downwardly from both ends toward the center and providing an overflow outlet for water not otherwise carried off, a pipe passing laterally therethrough, tie and brace rods secured therein, and pillars formed thereon having broad bases tapering toward the top, for bracing the roadbed against lateral strain.

5. In combination with a concaved concrete roadbed sloping downwardly from both ends toward the center and providing an overflow outlet for water not otherwise carried off, a pipe passing laterally therethrough, tie and brace rods secured therein, pillars formed thereon for bracing the roadbed against lateral strain, brace rods passing through the pillars, and means providing a level footpath secured to the tops of certain of said pillars, and guard rails carried by the said path.

942,448. MEAT-TENDERER. WILLIAM H. HUMESTON, Denver, Colo. Filed Apr. 20, 1909. Serial No. 490,984.

1. An implement of the class described comprising a plurality of cutting blades arranged in parallel relations and mounted for rotation, each blade having a plurality of radial recesses in its rim, and a plurality of cutting blades arranged in parallel relation and spaced apart and mounted for rotation, each of said last mentioned blades

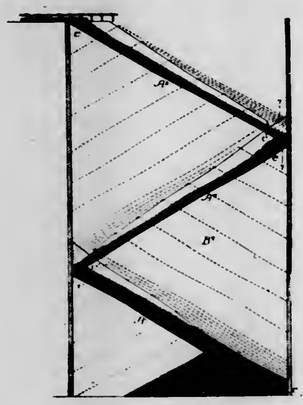
having its rim corrugated and located opposite the spaces between the first mentioned blades.



2. An implement of the class described comprising a supporting frame including spaced side members and rods spaced apart and connecting said side members, a plurality of cutting blades arranged in parallel relations and mounted for rotation upon one of said rods, each of said blades having a plurality of radial recesses in its rims, and a plurality of cutting blades arranged in parallel relations and spaced apart and mounted for rotation upon the other of said rods, each of said last mentioned blades having its rim corrugated and located opposite the spaces between the first mentioned blades.

3. An implement of the class described comprising a frame formed with spaced end members and connecting rods spaced apart and arranged in parallel relations, a handle swinging from said end members intermediate said rods, a plurality of cutting blades arranged in parallel relations and mounted for rotation upon one of said rods, said blades having a plurality of recesses in its rim, and a plurality of cutting blades spaced apart and mounted for rotation upon the other of said rods, each of said last mentioned blades having its rim corrugated and located opposite the spaces between the first mentioned blades.

942,449. APPARATUS FOR TRANSFERRING MATERIAL FROM A HIGH TO A LOWER LEVEL. ARTHUR C. JOHNSTON, Wyncote, Pa., assignor to Dodge Coal Storage Company, Naugatuck, Conn., a Corporation of Connecticut. Filed Jan. 30, 1907. Serial No. 354,856.



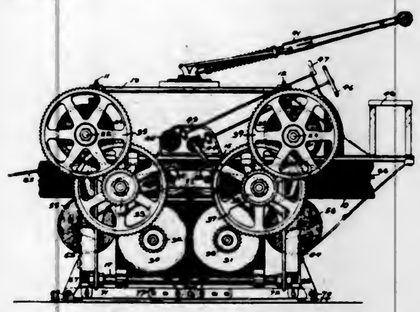
1. A chute arranged at an incline, said chute having sides higher at the upper end than at the lower end, an abutment for retaining a body of material in the chute at the angle of repose of said material so that when additional material is discharged onto the chute, said material held by the abutment will form a roughened surface to retard the flow of said material thus preventing breakage of the material to any appreciable extent, substantially as described.

2. The combination of a bin having a piling floor, two or more chutes arranged at an incline one above another, one chute discharging into another, each chute having an abutment at its lower end, side members and a roughened surface, said chutes being so arranged that material flowing over the roughened surface of one chute will flow down to the abutment and will then flow laterally from the sides of said chute on to the roughened surface of the chute directly below it, substantially as described.

3. The combination of a bin having a piling floor, two or more chutes arranged in zigzag form above the piling floor, said chutes having side members and being wider at the upper end than at the lower end, so that the lower end of the chute can overflow into the upper end of the other chute, each chute having a roughened surface, an abutment at the lower end of each chute so that when the material is discharged on to the chutes it will flow over the roughened surface and the abutments will cause the material to flow laterally over the side members of the upper chute on to the widened portion of the chute directly below it, substantially as described.

4. The combination of a bin, a series of chutes mounted in the bin, one chute being arranged at a higher level than another, the body of each chute being less in width at the lower end than at the upper end, the lower end of one chute being extended into the upper end of the chute next below it, the sides of the chutes being higher at the upper end than at the lower end, an abutment for each chute, the whole being so combined that material discharged into the upper chute will be held by the abutment to form a roughened bed over which other material must flow, the same continuing throughout the several chutes so that material as it is discharged into the bin will flow over the several chutes to the piling floor, or to the apex of the pile being formed without breakage to an appreciable extent, substantially as described.

942,450. TOWING DEVICE. CARL W. LARSON, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Aug. 14, 1908. Serial No. 448,517.



1. A towing device comprising a frame made up of C-shaped end members connected rigidly together by bars, driving and supporting wheels journaled in the top of said C-shaped end members, traction increasing wheels, U-shaped members supporting said traction increasing wheels and arranged for vertical sliding movement in the bottom of said C-shaped members, and a system of equalizing levers for transmitting the pull of the tow line to the U-shaped members to produce a tendency for the latter with the traction increasing wheels to move upward.

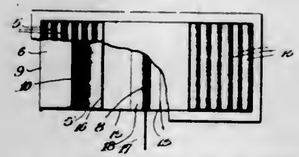
2. A towing device intended for operation on a single rail comprising a frame made up of C-shaped end members rigidly secured together by bars, a driving and supporting wheel journaled in the top of each end member and arranged to engage the top of the rail, traction increasing wheels arranged to engage the bottom of the rail, a U-shaped member in which each of said traction increasing wheels is supported arranged for vertical movement in the bottom of said C-shaped members, and a system of equalizing levers to which the tow line is connected for transmitting the pull of the tow line to said U-shaped supporting members for the traction increasing wheels to cause the latter forcibly to engage the rail with substantially equal pressure.

3. A towing device intended for operation on a single rail comprising a frame made up of C-shaped end members rigidly secured together by bars, a driving and supporting wheel journaled in the top of each end member and arranged to engage the top of the rail, traction increasing wheels arranged to engage the bottom of the rail, U-shaped members in which said traction increasing wheels are supported arranged for vertical movement in ways in the bottom of said C-shaped members, levers pivoted in each C-shaped end member and extending toward one another inwardly under said U-shaped members and coöperating therewith, and a link to which the tow line is secured connecting the adjacent ends of said levers to form an equalizing system whereby the pull of the tow line is transmitted to the traction increasing wheels to cause the latter to forcibly engage the rail with substantially equal pressure.

4. A towing device intended for operation on a single rail comprising a frame, driving and supporting wheels journaled in said frame and arranged to engage the top of said rail, traction increasing wheels supported in said frame and capable of vertical movement therein and arranged to engage the bottom of said rail, levers pivoted in said frame and extending toward one another and under said traction increasing wheels, connections between said levers and said traction increasing wheels, and a link connecting the adjacent ends of said levers to which link the tow line is secured whereby the pull of the tow line is transmitted to said traction increasing wheels to cause the latter to forcibly engage the rail with substantially equal pressure.

5. A towing device intended for operation on a single rail comprising a frame, driving and supporting wheels journaled in said frame and arranged to engage the top of said rail, traction increasing wheels supported for vertical movement in the frame and arranged to engage the bottom of said rail, levers pivoted in said frame and extending under said traction increasing wheels, connections between said levers and said traction increasing wheels, and an adjustable link connection between said levers to which the tow line is secured whereby the pull of the tow line is transmitted to said traction increasing wheels to cause the latter forcibly to engage the rail with substantially equal pressure capable of regulation.

942,451. CAR-VENTILATOR. FRANK J. LINEHAN, Boston, Mass. Filed Apr. 1, 1909. Serial No. 487,146.



1. A ventilator for cars comprising two separate chambers each having a lateral opening in its side and one chamber having an open end, and means for establishing a suction outwardly through the lateral opening in the other chamber.

2. A ventilator for cars formed with symmetrically-arranged separate chambers each open at the end and each provided in its bottom with an opening of considerable area and a lateral opening in one side, and a fin depending from the bottom of the ventilator midway between the bottom openings.

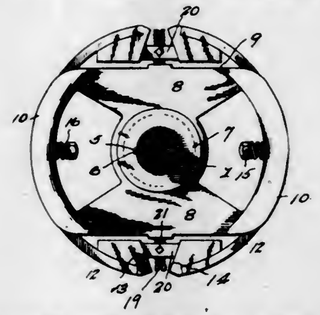
3. The combination with a car, of a ventilator comprising a chamber exterior to the car, said chamber being open at one end and having an opening in its bottom of considerable area adapted to discharge a quantity of air admitted through said open end sufficient to discharge cinders and other solid matter and a lateral opening leading into the car, and a vertical partition extending from the inner side of the open mouth diagonally toward the opposite side but terminating at a point separated from said side.

4. A ventilator for cars comprising a chamber open at one end, a vertical partition extending from one side of said open end diagonally toward the other side but terminating at a point separated from said side, said chamber having an opening in its bottom at the rear of said partition, which opening extends from one side to the other thereof, and also having a lateral opening in the side with which said partition connects and a fin depending from the bottom adjacent the opening therein.

5. A ventilator for cars formed with symmetrically-arranged separate chambers, each open at the end and each provided with an opening of considerable area in its bottom and a lateral opening in one side near said open end, and a fin depending from the bottom of said ventilator midway between said bottom openings.

[Claims 6 and 7 not printed in the Gazette.]

942,452. FRICTION-CLUTCH. PAUL B. MARFIELD, Cincinnati, Ohio, assignor to Nugent Tool Company, Cincinnati, Ohio. Filed Apr. 5, 1909. Serial No. 487,882.



1. In a friction clutch, the combination with the shaft, a shell pulley loosely mounted thereon, a hub on the shaft formed with a series of radially disposed openings, mechanism carried by a groove in the hub and adapted to be expanded to engage the shell pulley, means passed through certain of said radial openings and held in position by springs engaging the same and the hub, said means serving to hold the expanding mechanism in position, plungers mounted in the other radial openings, and means mounted on the shaft for operating said mechanism by the outward propulsion of said plungers.

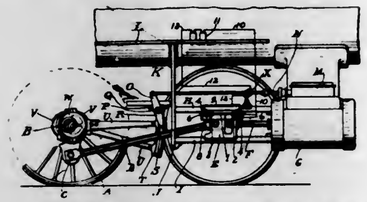
2. In a friction clutch, the combination of a shaft, a shell pulley rotatable upon the shaft, a hub made fast upon the shaft, springs loosely carried by the hub and adapted to be expanded to engage the shell pulley, plungers mounted in radial holes in the hub and constructed to expand the springs against the shell pulley by direct wedging action against the springs, and a shifting collar carrying wedging means to operate said plungers by forcing them outward.

3. In a friction clutch, the combination of a shaft, a rotatable member on said shaft, a hub made fast to the shaft, a pair of springs mounted in the hub and held in place by springs having engagement with the hub and with means passing through the rim thereof, said springs being adapted to be expanded to frictionally engage the said rotatable member, and radially movable means on the hub for engaging said springs to cause said frictional engagement.

4. In a friction clutch, the combination of a shaft, a rotatable member thereon, a hub made fast on the shaft and formed with a pair of flat faced extensions and a pair of curved rims providing pockets, a pair of springs fitted in said pockets and formed with bearing heads,

means for retaining the springs in place in the pockets, a pair of plungers mounted in radial holes in the arms of the hub, a shifting collar provided with two feather keys with wedge shaped ends for engaging and forcing outward the plungers and blocks carried by the plungers, each block having two sloping faces with an angle adapted to expand the friction springs by contact with the bearing heads on end of said springs, when plungers are forced outward, and thereby causing frictional contact of said springs with the rotatable member.

942,453. MAKING RECORDS FOR SETTING SLIDE-VALVES. JOHN B. MICHAEL, Knoxville, Tenn. Filed Oct. 30, 1906. Serial No. 341,310.



1. In an apparatus for making records on a slide valve stem, the combination of a stylus, a stylus support adapted to normally hold the stylus in the port mark plane for movement up and down with the valve stem, and means adapted to be operatively connected with a part of the engine which is in operative relation with the piston for actuating said stylus when said part is passing the dead centers.

2. In an apparatus for making records on a slide valve stem, the combination of a stylus, a stylus support adapted to normally hold the stylus in the port mark plane in yielding engagement with the valve stem to partake of the up-and-down movement of the latter, and stylus-actuating mechanism adapted to be operatively connected with a part of the engine which is in operative relation with the piston for actuating said stylus when said part is passing the dead centers.

3. In an apparatus for making records on a slide valve stem, the combination of a stylus, a stylus support adapted to normally hold the stylus in the port mark plane to bear upon one side of the valve in the up and down path of the latter, yielding means for pressing said support against said stem, and means adapted to be operatively connected with a part of the engine which is in operative relation with the piston for actuating said stylus when said part is passing the dead centers.

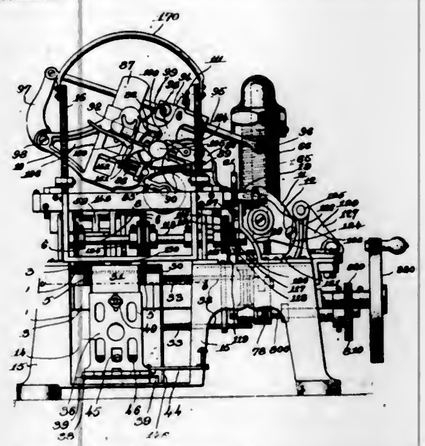
4. In an apparatus for making records on a slide valve stem, the combination of a stylus, a stylus support adapted to normally hold the stylus in the port mark plane for movement up and down with the valve stem, and electro-magnetic mechanism adapted to be operatively connected with a part of the engine which is in operative relation with the piston for actuating said stylus when said part is passing the dead centers.

5. In an apparatus for making records on a slide valve stem, the combination of a stylus, a stylus support adapted to normally hold the stylus in the port mark plane for movement up and down with the valve stem, and means adapted to be operatively connected with a part of the engine which is in operative relation with the piston for actuating said stylus transversely to said stem when said part is passing the dead centers.

[Claims 6 to 31 not printed in the Gazette.]

942,454. STAMP-AFFIXING MACHINE. JOHN F. MONAGHAN, South Bend, Ind. Filed Nov. 8, 1907. Serial No. 401,237.

1. In a stamp-affixing machine, the combination with means to sustain a pile or stack of envelops, of means to moisten the top envelop while on the pile, means to apply a stamp to the moistened envelop and envelop-ejecting mechanism.



2. In a stamp-affixing machine, the combination with means to sustain a pile or stack of envelops, of an envelop moistener, means to operate the latter to moisten the top envelop of the stack, means to cut a stamp from a plurality of connected stamps and apply said stamp to the moistened envelop and means to eject the stamped envelop from the pile.

3. In a stamp-affixing machine, the combination with means to sustain a pile or stack of envelops, of an envelop moistener, means to operate the latter to moisten the top envelop of the stack, means to cut a stamp from a plurality of connected stamps and apply said stamp to the moistened envelop while on the pile or stack, and means to eject the stamped envelop from the top of the pile.

4. In a stamp-affixing machine, the combination with a frame provided with means to sustain a plurality of envelops, of an arm pivotally mounted on said frame, a stamp-receiving reel carried by said arm, means to feed stamps therefrom, means to operate the arm, a device carried by the arm for applying said stamps to an envelop, and envelop-ejecting mechanism.

5. In a stamp-affixing machine, the combination with a frame provided with means to sustain a plurality of envelops, of an arm pivotally mounted on the frame, a stamp-receiving reel carried by said arm, means to feed stamps therefrom, an envelop moistener, and means to operate said arm to apply said stamps to an envelop.

[Claims 6 to 50 not printed in the Gazette.]

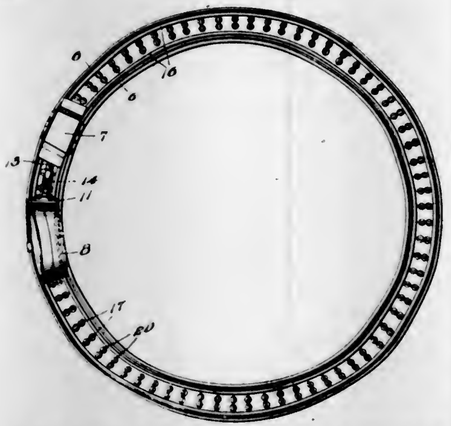
942,455. AIR-COMPRESSOR. ALFRED T. NEWELL, Birmingham, Ala. Filed Mar. 5, 1909. Serial No. 481,303.

1. The combination of a raised track, a motor thereon, a depressed track, a weighted roller thereon connected to the motor, and pumps located under the depressed track and having piston-rods projecting above the track in the path of the roller, to be depressed thereby.

2. The combination of an upper track, a motor thereon, a track located below the upper track, a weighted roller located between the rails of the upper track and rolling on the lower track, a draft connection between the motor and the roller, and pumps located under the lower track, and means actuated by the passage of the roller thereover to operate the pumps.

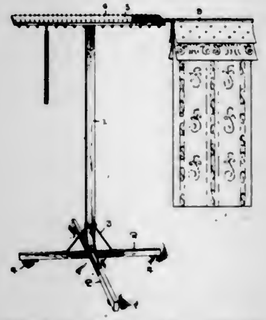
3. The combination of upper and lower concentric circular tracks, a weighted roller on the lower track, a motor on the upper track, draft connections between the motor and roller, and a series of pumps located along the lower track and having operating means actuated by the passage of the roller thereover.

4. The combination of upper and lower concentric circular tracks, a weighted roller located between the rails of the upper track and movable on the lower track, an axle on which the roller turns, extending across above the upper track, a motor on the upper track, connected to the axle, and pumps located below the lower track and having operating means actuated by the passage of the roller thereover.



5. The combination of a row of pumps having pistons and rods, a yoke extending across above the pumps and fastened to the rods, a roller carried by the yoke, and a weighted roller which travels over the pumps and is arranged to contact with said roller and depress the pump pistons.

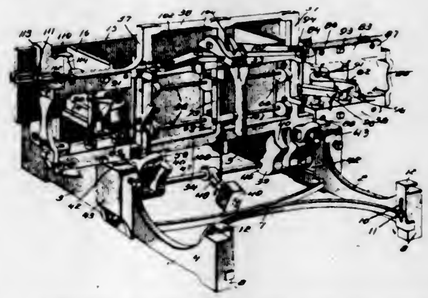
942,456. DISPLAY-RACK. JAMES A. NICKERSON, Fairbury, Ill. Filed May 4, 1909. Serial No. 493,805.



A sample wallpaper display rack, comprising a board member, means for supporting said board member in an elevated position, said board member being provided with upstanding pins adapted for insertion into said board for retention in upright position, a hollow arm of rectangular formation in general outline, the lower edge of the walls of said arm being inturned thus quickening said walls at the lower edges thereof, said arm having at one end a socket the axis of which is at right angles to the axis of said arm, said socket being adapted to receive one of said pins, the thickened portion of the lower edges of said walls being adapted to clamp the infolded paper samples inserted into said hollow arm.

942,457. MOLDING-MACHINE. SAMUEL F. NICOLAI, Jackson, Mich. Filed Apr. 10, 1907. Serial No. 367,377.

1. A molding apparatus including a mold box comprising a fixed wall, end plates, a face plate, and a pallet, a framework for supporting the fixed wall, a frame movably mounted on the framework and carrying the remaining sections of the mold box, said frame when in operative position disposing the pallet section of the box in parallel relation to the fixed wall, and means carried by the frame to automatically adjust one of said mold sections in the closing movement of the frame.



2. A molding apparatus including a mold box comprising a fixed wall, end plates, a face plate, and a pallet, a framework for supporting the fixed wall, a frame movably mounted on the framework and carrying the remaining sections of the mold box, said frame when in operative position disposing the pallet section of the box in parallel relation to the fixed wall, and means carried by the frame for clamping the pallet in position relative to the remaining sections of the mold box.

3. A molding apparatus including a mold box comprising a fixed wall, end plates, a face plate, and a pallet, a framework for supporting the fixed wall, a frame movably mounted on the framework and carrying the remaining sections of the mold box, said frame when in operative position disposing the pallet section of the box in parallel relation to the fixed wall, and means carried by the frame for clamping the pallet in position relative to the remaining sections of the mold box, said means being arranged to accommodate pallets of different thicknesses.

4. A molding apparatus including a mold box comprising a fixed wall, end plates, a face plate, and a pallet, a framework for supporting the fixed wall, a frame movably mounted on the framework and carrying the remaining sections of the mold box, said frame when in operative position disposing the pallet section of the box in parallel relation the fixed wall, and means carried by the frame for independently moving the end walls with relation to the face plate.

5. A molding apparatus including a mold box comprising a fixed wall, end plates, a face plate, and a pallet, a framework for supporting the fixed wall, a frame movably mounted on the framework and carrying the remaining sections of the mold box, said frame when in operative position disposing the pallet section of the box in parallel relation to the fixed wall, means carried by the frame for independently moving the end walls with relation to the face plate, and means automatically actuated in the movement of the end wall operating means for releasing the face plate from mold box forming position.

[Claims 6 to 11 not printed in the Gazette.]

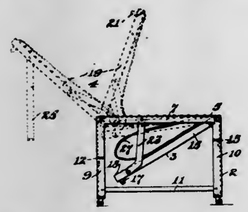
942,458. RAILWAY-SWITCH. JOHN F. OBER, New Orleans, La. Filed Aug. 2, 1909. Serial No. 510,704.



In means for the purpose described, the combination of a railway comprising a movable switch rail, a casing embedded in the roadbed of the railway and between the

rails thereof and having raised bars on its bottom, separated by intervening spaces, a lid countersunk in the casing and having a countersink in its upper side and a curvilinear slot in the bottom wall of said countersink and also having in its upper side longitudinal and parallel grooves that extend from the said countersink and are upwardly beveled at their outer ends, a horizontally-swinging shoe pivoted in the said countersink and having a depending pin movable in said slot, levers movable one by the other and fulcrumed on certain of the bars on the bottom of the casing and movable horizontally on other of said bars; one of said levers being connected with and movable by the said pin, and a connection intermediate the other lever and the said movable switch rail.

942,459. COUCH-BED. HAROLD D. PENNEY, New York, N. Y. Filed Mar. 18, 1909. Serial No. 484,126.



1. In a couch body, the combination of a main frame, and a pair of swinging frames secured thereto at opposite sides thereof and connected together for manipulation one by the other, one of said frames being over the other and one having an inclined position with relation to and spaced from the other of said frames when the structure is in the form of a single bed or couch, thereby to form between them a storage space for the reception of the bed clothing.

2. In a couch bed, the combination of a main frame, and a pair of swinging frames secured thereto at opposite sides thereof and connected together for manipulation one by the other, one of said frames being under the other and the lower frame thereof having an inclined position with relation to and spaced from the upper frame when the structure is in the form of a single couch, thereby to form between them a storage space for the reception of the bed clothing.

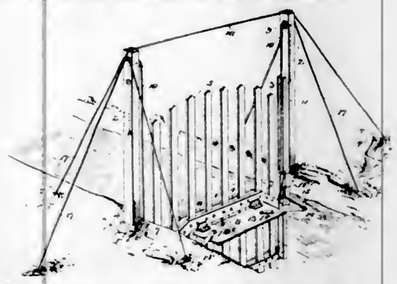
3. In a couch bed, the combination of a main frame, a pair of swinging frames secured thereto at opposite sides thereof and connected together for manipulation one by the other, one of said frames being over the other and one having an inclined position with relation to and spaced from the other of said frames when the structure is in the form of a single bed or couch thereby to form between them a storage space for the reception of the bed clothing, and means connected to said swinging frames for holding the bed clothing in its storage space.

4. In a couch bed, the combination of a main frame, a pair of swinging frames secured thereto at opposite sides thereof and connected together for manipulation one by the other, one of said frames being under the other and the lower frame thereof having an inclined position with relation to the upper frame when the structure is in the form of a single couch thereby to form a storage space for the reception of the bed clothing, and means connected to said swinging frames for holding the bed clothing in its storage space.

5. In a couch bed, the combination of a main frame, a pair of swinging frames secured thereto at opposite sides thereof and connected together for manipulation one by the other, one of said frames having an inclined position with relation to the other of said frames when the structure is in the form of a single bed or couch thereby to form a storage space for the reception of the bed clothing, and means connected to said swinging frames for holding the bed clothing in its storage space and comprising a fabric secured adjacent to the forward end of each of said swinging frames whereby it also forms a covering for the upper sides of said frames.

[Claims 6 to 25 not printed in the Gazette.]

942,460. WATER-GATE. JOHN H. PHIPPS, Wickliffe, Ky. Filed Nov. 5, 1908. Serial No. 461,255.



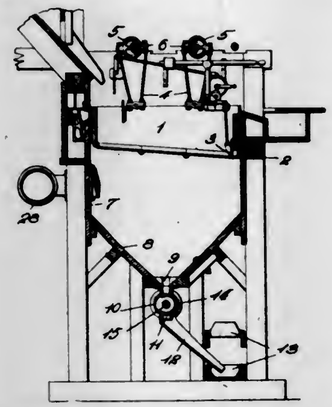
1. The combination with spaced standards, of a gate slidably mounted for vertical movement between the standards, a float pivotally connected with the gate, a catch adapted to engage the gate for holding said gate in lowered position, an arm pivotally mounted on the upper surface of the float, a pin secured to the float and bearing against the arm for limiting the outward movement thereof, a flexible connection between the free end of the arm and catch for releasing the gate, and means operatively connected with the gate for moving said gate to elevated position when the catch is released.

2. The combination with spaced standards, of a gate slidably mounted for vertical movement between the standards, a float pivotally connected with the gate, catches pivotally mounted on the standards and adapted to engage the gate for holding the latter in lowered position, arms pivotally mounted on the upper surface of the float, pins secured to the float and bearing against the arm for limiting the outward movement thereof, a flexible connection between each arm and the adjacent catch, and a weight operatively connected with the gate for moving said gate to vertical position when the catches are released.

3. The combination with spaced standards having guides secured thereto, of a gate slidably mounted for vertical movement in said guides, a float pivotally secured to one side of the gate, catches pivotally mounted on the standards and adapted to engage the gate for holding the latter in lowered position, spring pins extending laterally from the standards and bearing against the rear faces of the catches, diverging arms secured to the upper surface of the float, flexible connections between the outer ends of the arms and the adjacent catches, and means operatively connected with the gate for moving said gate to elevated position when the catches are released.

942,461. COAL OR ORE WASHER. ERNST PROCHASKA, Alton, Ill. Filed Jan. 23, 1909. Serial No. 473,799.

1. The combination of a washing tank provided with a converging hopper bottom having an outlet at the bottom, a discharge valve consisting of a gate housing formed with a cylindrical body having a vertical inlet at the top registering with the hopper outlet and also having an escape opening at the bottom, a gate shaft extending longitudinally through the cylindrical body, and a segmental gate fixed to the gate shaft and providing a receiving chamber closely fitting the cylindrical body and adapted to open and close the vertical inlet and the escape opening of the gate housing alternately, a ratchet wheel fixed to the gate shaft, rocker arms loosely fitted to the gate shaft, on opposite sides of and adjacent to the ratchet wheel, a rod mounted in the inner ends of the rocker arms, a pawl mounted on the rod between the rocker arms, and a reciprocating operating rod having a fork pivoted to the rod of the rocker arms and embracing the pawl.



2. The combination of a washing tank provided with a converging hopper bottom having an outlet at the bottom, a discharge valve consisting of a gate housing formed with a cylindrical body, having a vertical inlet at the top registering with the hopper outlet and also having an escape opening at the bottom, a gate shaft extending longitudinally through the cylindrical body, and a segmental gate fixed to the gate shaft and providing a receiving chamber closely fitting the cylindrical body and adapted to open and close the vertical inlet and the escape opening of the gate housing alternately, a ratchet wheel fixed to the gate shaft, rocker arms loosely fitted to the gate shaft on opposite sides of and adjacent to the ratchet wheel, a rod mounted in the outer ends of the rocker arms, a pawl mounted on the rod between the rocker arms, a reciprocating operating rod having a fork pivoted to the rod of the rocker arms and embracing the pawl, a shield loosely mounted upon the gate shaft and extending across the ratchet wheel beneath the pawl and having an arm and operating rod.

3. The combination of a washing tank provided with a converging hopper bottom having an outlet at the bottom, a discharge valve consisting of a gate housing formed with a cylindrical body having a vertical inlet at the top registering with the hopper outlet and also having an escape opening at the bottom, and a gate shaft extending longitudinally through the cylindrical body, a segmental gate fixed to the gate shaft and providing a receiving chamber closely fitting the cylindrical body and adapted to open and close the vertical inlet and the escape opening of the gate housing alternately, a ratchet wheel fixed to the gate shaft, rocker arms loosely fitted to the gate shaft on opposite sides of and adjacent to the ratchet wheel, a rod mounted in the outer ends of the rocker arms, a pawl mounted on the rod between the rocker arms, a reciprocating operating rod having a fork pivoted to the rod of the rocker arms and embracing the pawl, at its inner end and an eccentric strap at its outer end, a driven shaft having an eccentric surrounded by the eccentric strap, a jig operating eccentric shaft, wheels upon the driven shaft and eccentric shaft and a flexible connection between the wheels.

4. The combination of a washing tank provided with a converging hopper bottom having an outlet at the bottom, a discharge valve consisting of a gate housing formed with a cylindrical body having a vertical inlet at the top registering with the hopper outlet and also having an escape opening at the bottom, a gate shaft extending longitudinally through the cylindrical body, a segmental gate fixed to the gate shaft and providing a receiving chamber closely fitting the cylindrical body and adapted to open and close the vertical inlet and the escape opening of the gate housing alternately, a ratchet wheel fixed to the gate shaft, rocker arms loosely fitted to the gate shaft on opposite sides of and adjacent to the ratchet wheel, a rod mounted in the outer ends of the rocker arms, a pawl mounted on the rod between the rocker arms, a reciprocating operating rod having a fork pivoted to the rod of the rocker arms and embracing the pawl, at its inner end, and an eccentric strap at its outer end, a driven shaft having an eccentric surrounded by the eccentric strap, a jig operating eccentric shaft, wheels upon the driven shaft and eccentric shaft, a flexible connection between the wheels, and a shield loosely mounted upon the gate shaft and extending across the ratchet wheel beneath the pawl and having an arm and operating rod.

942,462. CLOTHES-POUNDER. CULLEN A. ROBERTSON, Milledgeville, Ga. Filed Sept. 24, 1908. Serial No. 454,527.



A clothes pounder comprising a handle, a pounder head at one end of the handle, said head having a hollow lower portion, a series of transverse openings communicating with the interior of its hollow portion and an annular groove in its outer face above the said hollow portion, a reinforcing band encircling the hollow portion of the pounder head and a flexible band secured to the pounder head above said hollow portion, over said transverse openings and said annular groove, and adapted to produce a suction through said transverse openings when the pounder is raised.

942,463. METHOD OF AND MEANS FOR REGULATING THE SPEED OF ELECTRIC MOTORS. ROBERT H. ROGERS, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Aug. 5, 1908. Serial No. 447,065.

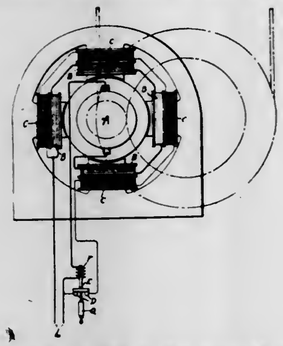
1. The method of regulating the speed of an electric motor having two field windings wound cumulatively, which consists in maintaining one of said field circuits open when the motor is heavily loaded and closing said field circuit when said motor is lightly loaded.

2. The method of regulating the speed of a series motor having a cumulative shunt field winding, which consists in maintaining said shunt field winding open when the motor is heavily loaded and closing said shunt field circuit when said motor is lightly loaded.

3. The method of regulating the speed of an electric motor having a shunt and series field winding, which consists in operating said motor as a series motor when under load and as a cumulative compound motor when lightly loaded.

4. In combination with an electric motor having two field windings wound cumulatively, means for maintaining the circuit of one of said windings open when the motor is heavily loaded and for closing said circuit when the motor is lightly loaded.

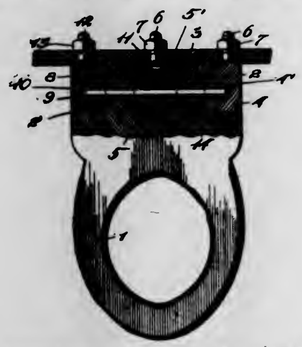
5. In combination with an electric motor having two field windings wound cumulatively, means actuated by the current supplied the armature of said motor for main-



taining the circuit of one of said windings open when a large amount of current is supplied and for closing said circuit when a small amount of current is supplied.

[Claims 6 to 10 not printed in the Gazette.]

942,464. WATER-CLOSET. HORACE S. RUMSEY, St. Louis, Mo. Filed Apr. 14, 1909. Serial No. 489,917.



1. The combination in a water closet, of a seat having ears and a divided hinge member therefor having ears closely fitted to the ears of the seat and a concealed pintle connecting the ears of the seat and hinge member, and fastening means whereby said hinge member may be secured to a support; said fastening means being inaccessible in the compartment in which the water closet is located.

2. The combination in a water closet, of a seat, a hinge section provided with a pair of ears between which one of the ears of said seat is fitted, and a second hinge section between which and the first named hinge section the other ear of said seat is fitted, a pintle connecting the ears of said seat and hinge sections, and means carried by said hinge sections whereby they may be attached to a support.

3. The combination in a water closet, of a seat and pair of hinge sections provided with means for attaching them to a support, and a pintle connecting said seat to said hinge sections, one of said hinge sections being provided at its inner end with a stem entering into the other hinge section.

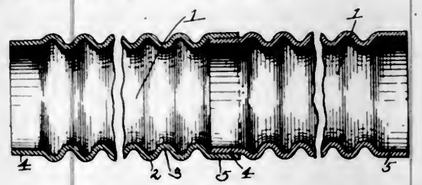
942,465. MOVABLE-PICTURE MOUNT. HERBERT O. SAUER, New York, N. Y., assignor of one-half to Walter A. P. Davis, Philadelphia, Pa. Filed Feb. 6, 1909. Serial No. 476,545.

1. In a device of the character described, the combination with a strip of tape wound tightly upon itself to form a pliable block, said block having opposite plane faces with pictures thereon, of a flexible band surrounding the roll and in close contact therewith.



2. In a device of the character described, the combination with a strip of tape wound tightly upon itself to form a pliable block adapted to have its contour and shape varied and to retain its altered shape; and having objects or pictures printed or drawn on its faces and a yielding band surrounding the roll and in close contact therewith.

942,466. CULVERT. LOUIS SCHNUERER, Elyria, Ohio. Filed Mar. 28, 1908. Serial No. 423,860.



1. A culvert comprising a plurality of corrugated pipe sections having tapered sleeve connections between their ends, said sleeve connections being of no greater diameter than that of the pipe sections whereby when they are connected in the ditch the corrugations of the pipe sections may rest upon the solid undisturbed earth.

2. A pipe section for culverts having corrugations throughout the same forming external shoulders, a bell on one end tapering outward internally and a sleeve tapering toward the other end and of less diameter than said bell.

3. A pipe section for culverts corrugated throughout its length and provided at one end with a bell of no greater diameter than that of the pipe and having the opening therein tapering outward and a connecting sleeve on the opposite end of said pipe tapering toward the end and adapted to fit into the bell of a corresponding pipe section.

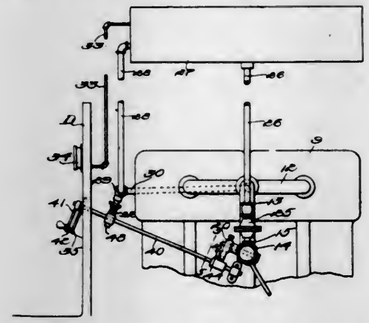
942,467. STARTING DEVICE FOR INTERNAL-COMBUSTION MOTORS. ELIEL L. SHARPNECK, Boston, Mass. Filed Feb. 6, 1909. Serial No. 476,579.

1. The combination with an internal combustion motor having an exhaust furnished with two outlets, of a valve movably mounted in said exhaust, for controlling the flow of fluid therethrough, and a second valve actuated by the opening movement of said first mentioned valve to close one of said outlets.

2. The combination with an internal combustion motor having an exhaust pipe furnished with a branch outlet, and a storage tank connected with said outlet, of a shaft journaled in said exhaust pipe and having a valve member designed to close said branch outlet, and means for operating said valve shaft.

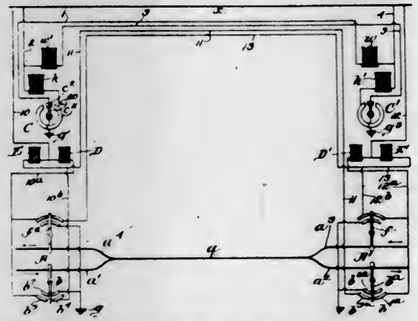
3. The combination with an internal combustion motor having an exhaust furnished with a branch outlet, a tank connected with said outlet and with the fluid supply of said motor by a pipe having a normally closed valve, of a duplex valve within said exhaust and having an actuating member extending from said exhaust, and rotatable means for operating said valve actuating means.

4. The combination with an internal combustion motor having an exhaust furnished with a branch outlet having a valve seat, a storage tank connected with said branch outlet and by a pipe with the fluid supply of said motor, a spring closed valve in said pipe, a shaft journaled in said exhaust and having a valve, within said exhaust, and furnished with a valve member adapted to close the valve



seat of said branch outlet, a spring retracted arm on the outer end of said valve shaft and having a cam, of a shaft journaled in bearings and having means adapted to act respectively against the valve stem of the supply valve and against said cam of the exhaust valve shaft arm to actuate said members against the pressure of their respective springs.

942,468. AUTOMATIC SIGNALING SYSTEM FOR RAILWAYS. GEORGE H. SLOANE, Boston, Mass., assignor of one-half to Herbert B. Waters and Harold Plimpton. Filed May 26, 1908. Serial No. 435,157.



1. In an automatic signaling system for a railway block, a visible signaling device located at each end of said block, an automatic switch also located at each end of the block for maintaining a current through two alternative electric circuits, the one a distant circuit acting when energized through said switch to set the distant signal to show a clear track, the other circuit being a local circuit acting when energized to set the local signal at cautionary position to indicate the presence of a car moving through the block in advance of the car actuating the switch, substantially as described.

2. In an automatic signaling system for a railway block, the combination of a signaling device located at each end of the block and embracing a three-position target, a pair of electro-magnets for controlling the position of said target, one magnet acting when energized to keep the target in position to indicate a clear track, the other magnet when energized acting to display a cautionary signal, the second magnet being inoperative to move the signal except when the first magnet is energized, substantially as described.

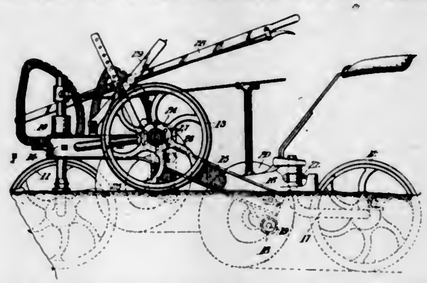
3. In an automatic signaling system for a railway block, the combination of a signaling device located at each end of the block and embracing a three-position target actuated by gravity to move into danger position when its controlling magnets are deënergized, a pair of electro-magnets for controlling the position of said target, one magnet acting when energized to keep the target in position to indicate a clear track, the other magnet when energized acting to display a cautionary signal, the second magnet being inoperative to move the target except when the first magnet is energized, substantially as described.

4. In an automatic signaling system for a railway block, the combination of a signaling device located at each end of the block and embracing a three-position target arranged to move to danger position when its controlling magnets are deënergized, one magnet acting when energized to move the target from danger position to clear position, the second magnet when energized acting to move the target from the clear position to cautionary position and being inoperative to move the target from its danger position, substantially as described.

5. In an electric signaling system for a railway block, the combination of a circuit closer located at each end of the block and actuated by the car passing the same, an automatic switch for maintaining an electric current through alternative circuits, the one a distant circuit acting to control a target at the farther end of the block, the other a local circuit acting to control a local target, the switch acting to shunt the current from the distant circuit that maintains the distant target at the clear position to the local circuit which maintains the local target at cautionary position, the distant target being moved by gravity to danger position when said shifting action of the switch has occurred, substantially as described.

[Claims 6 to 11 not printed in the Gazette.]

942,469. TILLING-MACHINE. GEORGE SPALDING, Stockton, Cal. Filed Dec. 30, 1908. Serial No. 470,035.



1. A tilling machine having a plurality of rotary disks mounted in succession with each disk in advance, higher than, and partly to the land side of its next following disk, and with each disk spaced apart from its next following disk and so arranged as to be substantially out of the path of movement of the earth as lifted and turned by such following disk, and with said disks so arranged that the earth plowed by each disk is discharged by it ahead of and outside of the face of its next following disk.

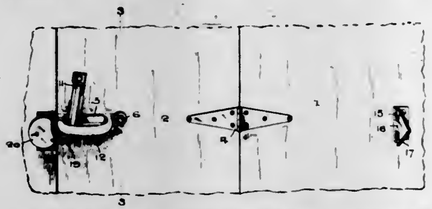
2. A tilling machine having a plurality of rotary disks mounted in succession with each disk in advance, higher than, and partly to the land side of its next following disk, and with each disk spaced apart from its next following disk and so arranged as to be substantially out of the path of movement of the earth as lifted and turned by such following disk, and with said disks so arranged that the earth plowed by each disk is discharged by it ahead of and outside of the face of its next following disk, and means for varying the relative positions of said disks.

3. A tilling machine having a plurality of rotary disks mounted in succession, with each disk except the rear one entirely in advance of the next following disk, and higher than, and partly to the land side of the said next following

disk, the face of each disk being set to discharge its earth free from conflict with the earth discharged by the next preceding disk.

4. A tilling machine having a plurality of rotary disks mounted in succession, the axis of each disk being in advance, to the land side, and above the axis of the next succeeding disk and so angled and tilted that the delivery edge of each disk is substantially in advance and to one side of the cutting edge of the next succeeding disk, each disk being set to discharge its earth free from conflict with the earth discharged by the next preceding disk.

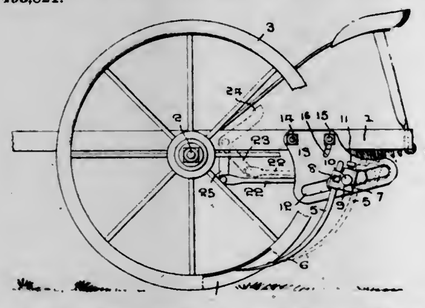
942,470. FASTENING DEVICE. CHARLES W. STARK, Mountain Lake, Minn. Filed Feb. 9, 1909. Serial No. 476,873.



1. A device of the character described, comprising a latch having an elongated hand hold loop, said loop extending from the pivotal end of said latch to nearly its opposite terminal, said latch having an engaging arrow-head shaped end, a keeper adapted for engagement with said terminal head and having a right angled outstanding arrow shaped portion, the latter having an opening about centrally therethrough, and a locking means having a shackle adapted to engage said opening and said loop, effecting the coupling together of said keeper and said loop practically in contact with each other.

2. A device of the character described comprising a pivoted latch having an elongated hand hold loop, said latch having an arrow headed terminal just beyond said loop, a keeper having a right angled portion also arrow-head shaped and adapted for engagement with said terminal of said latch, said right angled portion of said keeper having an opening about centrally therethrough, a locking means having a shackle adapted for engagement with said opening and said loop effecting locking engagement between said loop and said keeper, and an arrow headed keeper having at its inner end or base upper and lower notches adapted for engagement with said loop when the latch is presented thereto in opening the door.

942,471. WHEEL-SCRAPER. CHARLES W. STARK, Mountain Lake, Minn. Filed May 4, 1909. Serial No. 493,821.

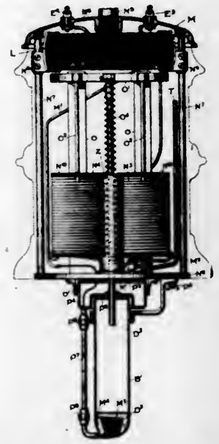


1. In a scraping device the combination with a frame and supporting wheels therefor, said wheels having circumferential channels; of blades adapted to be moved into engagement with said channels, a bar extending transversely of the frame, adjustable hangers on the frame having elongated slots therein to receive said bar, said slots being inclined and means to move the bar longitudinally of the slots, whereby said blades will be brought into engagement with the wheels.

2. In a scraping device the combination with a frame having carrying wheels therefor; of scraping blades adapted to engage said wheels a supporting bar, means to adjustably attach the blades to the bar, hangers adjustably secured to the frame, said hangers having elongated inclined slots through which the bar extends, bearings for said bar, anti-friction devices on the bearings adapted to enter said slots, means to adjust the bearings on the bar and means to move said bar from end to end of the slots, whereby the blades will be moved into or out of engagement with the wheels.

3. In a scraping device, the combination with a frame and carrying wheels therefor; of blades, a supporting bar for the blades, means to adjustably mount the blades on the bar, hangers on said frame, said hangers having elongated inclined slots therein, means to adjust the hangers, bearings for said bar, anti-friction devices carried by the bearings and entering said slots, a bell crank lever pivoted to the frame, means between said lever and bar adapted to move the bar forwardly in the slots when the lever is depressed and means to move the bar rearwardly in the slots when the lever is released.

942,472. ELECTRIC LIGHTING. CHARLES P. STEINMETZ, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Apr. 21, 1900, Serial No. 13,718. Renewed July 23, 1906. Serial No. 327,401.



1. The method of modifying the color of the light from an arc existing within a transparent or translucent envelop, which consists in introducing into the arc a color-modifying substance in the condition of a salt of one of the general class of acids forming, or capable of forming, the envelop.

2. The method which consists in causing sympathetic light-giving oscillations in a transparent or translucent envelop, and continuously associating and dissociating the inner wall of the envelop without destroying its translucency.

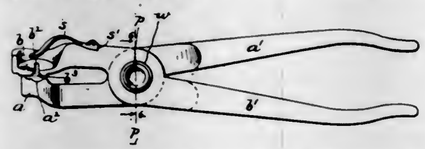
3. The method which consists in causing sympathetic light-giving oscillations of conducting vapors in a transparent or translucent envelop, and continuously associating and dissociating the inner wall of the envelop without destroying its translucency.

4. The method of protecting a transparent or translucent substance in the presence of active chemicals, which consists in introducing said chemicals as salts of acids forming with the materials of the transparent substance a transparent or translucent substance.

5. The method of producing light which consists in generating an electric arc in a glass inclosure, and introducing to the arc metallic salts of silica acid radicals.

[Claims 6 to 13 not printed in the Gazette.]

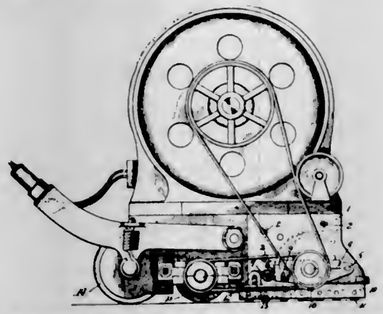
942,473. BUTTON-SETTING INSTRUMENT. JAMES F. THAYER, Providence, R. I., assignor, by mesne assignments, to Heaton-Peninsular Button Fastener Company, Boston, Mass., a Corporation of Maine. Filed Apr. 23, 1909. Serial No. 491,683.



1. The combination in a button-setting instrument, of a pair of oppositely disposed handle members pivoted together, forwardly extending upper and lower jaw members integral with the said handle part arranged respectively for temporarily holding a connected button and a pronged fastener and for bending the prongs of the latter when the jaws are forced toward each other, a sheet-metal spring member secured to said upper jaw having its free or outer end portion constructed to bear against the underside of a button and extend to or nearly to the adjacent vertical side of its shank or eye and not project therebeyond, substantially as shown and described.

2. The combination in a button-setting instrument, of a pair of oppositely disposed jaw-carrying handle members pivoted together and constructed substantially as described, one of the members at said pivot point having a pintle integral therewith and passing transversely through the other handle member and terminating in a cup-shaped end, and a washer positioned upon the pin and bearing against the face of the front handle member and held in place by bending the rim of the cupped part of the pintle both rearwardly and outwardly.

942,474. FLOOR-DRESSING MACHINE. LOUIS H. VERONNEAU, Viauville, near Montreal, Quebec, Canada. Filed Mar. 19, 1908. Serial No. 422,148.



1. In combination with a support and side plates secured thereto, a dressing tool mounted in said plates, boxes pivotally mounted to said plates, and a plurality of runners mounted in each box and almost entirely inclosed thereby, one or more of said runners being on each side of the pivotal point of the box containing them, substantially as set forth.

2. In combination with a support and side plates secured thereto, a dressing tool mounted in said plates, approximately straight bars parallel to the line of operation and pivoted at points between their ends to the said plates, and runners, a plurality of which are carried by each of said bars, one or more of such runners being arranged respectively before and behind the pivotal point of the bar carrying them, substantially as set forth.

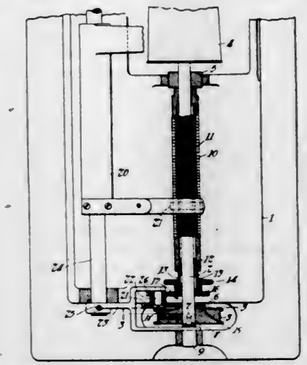
3. In combination with a carriage having a roller support at one end and side plates mounted on said carriage, a dressing tool between said plates, a pair of parts pivoted to its sides near the other end thereof, each of said parts being provided before and behind its pivotal point with runners, substantially as set forth.

4. In combination with a carriage and dressing tool carried thereby, a roller support for one end of said carriage and means for providing automatically yielding support for its other end, said means comprising a pivoted bar and runners carried by said bar, one or more of said runners being respectively before and behind its pivoted point, substantially as set forth.

5. In combination with a carriage and dressing tool carried thereby, a pivotal support for one end of said carriage and supporting means carrying a plurality of rollers arranged in line parallel to the line of operation, said means being pivoted at a point between the more forward and the more rearward of said rollers, substantially as set forth.

[Claims 6 to 8 not printed in the Gazette.]

942,475. PHONOGRAPH. PETER WEBER, Orange, N. J., assignor to New Jersey Patent Company, West Orange, N. J., a Corporation of New Jersey. Filed Apr. 8, 1908. Serial No. 425,844.



1. In a phonograph, the combination with the rotating hollow feed screw shaft, of a rotary power shaft within said screw shaft, means for locking said shafts together so as to rotate at the same speed and interchangeable means for gearing said shafts together so as to rotate at different speeds, substantially as set forth.

2. In a phonograph, the combination with the rotary hollow feed screw shaft, the traveling carriage and means co-acting with the feed screw for progressing the same, of a sound record support, a main shaft adapted to rotate said support and situated within the feed screw shaft, means for driving said main shaft, and interchangeable means for driving said feed screw shaft from said main support at different speeds, substantially as set forth.

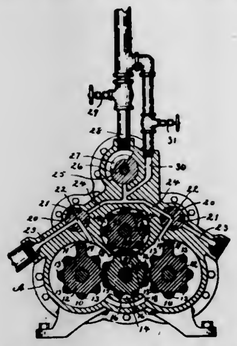
3. In a phonograph, the combination of the main shaft adapted to rotate the sound record support, a rotary hollow feed screw shaft surrounding said main shaft, a slidable sleeve rotatable with said screw shaft, a partial gear train coupling and gear means carried by said sleeve, said sleeve being adapted thereby to interchangeably couple said shafts together directly and through said gear train, whereby one shaft may be driven from the other at different rates of speed, substantially as set forth.

4. In a phonograph, the combination of a main shaft adapted to rotate the sound record support, a rotary hollow feed screw shaft surrounding said main shaft and adapted to impart a progressive movement to the sound box carriage, and means for gearing said screw shaft to said main shaft, substantially as set forth.

5. In a phonograph, the combination of a rotary main shaft, a rotary hollow screw shaft surrounding the same, and a gear train between said shafts adapted to drive the hollow shaft at one-half the speed of the main shaft, substantially as set forth.

[Claims 6 to 10 not printed in the Gazette.]

942,476. ROTARY ENGINE. WILLIAM W. WHEELER, Meriden, Conn. Filed Sept. 14, 1909. Serial No. 517,612.



1. In a rotary engine having a rotary abutment provided with teeth and spaces between the said teeth, an idler rotary abutment provided with teeth and spaces essentially the counterparts of the said teeth and spaces on said rotary abutment and adapted to coact therewith so as to fill said spaces in said rotary abutment and thereby prevent by displacement a loss in active motive fluid.

2. In a rotary engine, a rotary piston, a rotary abutment, coacting teeth on said piston and abutment, an idler rotary abutment, displacement teeth on said idler rotary abutment, said latter teeth adapted to coact with the teeth on said abutment and displace thereby live motive fluid.

3. In a rotary engine having a rotary piston and rotary abutment provided with coacting teeth, means for preventing the bodily carrying away of the active motive fluid by the said teeth on the said rotary abutment.

4. In a rotary engine having a rotary piston and a rotary abutment provided with coacting teeth and spaces between the teeth on said rotary abutment, means for preventing the carrying away of active motive fluid by the said teeth on the said rotary abutment comprising displacing such fluid by filling the said spaces.

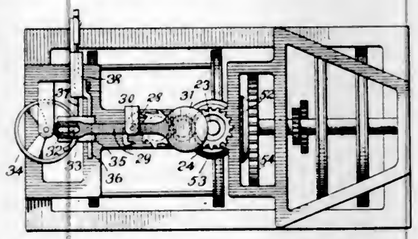
5. In a rotary engine having a rotary piston and a rotary abutment provided with coacting teeth, and spaces between the said teeth and said abutment, means for preventing carrying away of active motive fluid confined within the said spaces comprising an idler abutment provided with teeth adapted to displace such fluid from said spaces.

[Claims 6 to 10 not printed in the Gazette.]

942,477. FIRE-ESCAPE. JOHN B. ALBERT, Bethel, Conn., assignor to Gertrude Albert, Bethel, Conn. Filed May 8, 1908. Serial No. 431,574.

1. The combination with an endless carrier, of a shaft having means thereon around which the carrier travels, an escapement mechanism, a plurality of gears operating said mechanism from the carrier shaft, and a lever operatively connected to escapement mechanism and operated thereby, a balance wheel, a cross-head, a rod connected to the cross-head, and operated by the lever in connection with the balance wheel, a lever adapted to engage the rod at one end, a cam wheel, means operated by the movement of the cam wheel to move the last mentioned lever, and means for operating the cam wheel as the carrier moves.

2. The combination with an endless carrier, of a shaft having means thereon around which the carrier travels, an escapement mechanism, a plurality of gears operating said mechanism from the carrier shaft, a cross-head, a rod connected to the cross-head, a cam wheel, means operated by the movement of the cam wheel for operating the rod in one direction, and means for operating the cam wheel as the carrier moves.



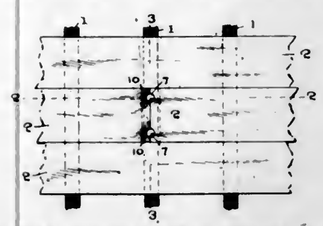
3. The combination with a carrier, of a carrier shaft, an escapement mechanism, a cam, and means operated by the movement of the cam to control the escapement mechanism as the carrier moves.

4. The combination with an endless carrier, of a shaft having means thereon around which the carrier travels, an escapement mechanism, a plurality of gears operating said mechanism from the carrier shaft, a lever operatively connected to the escapement mechanism and operated thereby, a balance wheel, a cross-head, a rod connected to the cross-head, a connection between the lever cross-head and the balance wheel, a lever adapted to engage the rod at one end, a cam wheel, and means operated by the movement of the cam wheel adapted to engage the lever and the rod in one direction as the carrier moves.

5. The combination with an endless carrier, of a shaft having sprocket wheels thereon around which the carrier travels, an escapement mechanism, a plurality of gears operating said mechanism from the carrier shaft, a lever operatively connected to the escapement mechanism and operated thereby, a rod connected to the lever, a cam wheel, means operated by the movement of the cam wheel to move said rod in one direction, and means for operating the cam wheel as the carrier moves.

[Claims 6 and 7 not printed in the Gazette.]

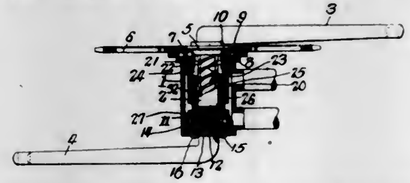
942,478. SECURING MEANS FOR BOAT-PLANKING. JOHN M. ALEXANDER and MICHAEL WILLHAHN, Wyandotte, Mich. Filed Oct. 27, 1908. Serial No. 459,801.



1. The herein described means for securing the abutting ends of planks, comprising the combination with ribs and planks therefor, the abutting ends of said planks having alining slots therein; of plates adapted to enter said slots and means extending through said plates and engaging the ribs to lock the planks on the ribs.

2. The herein described means for securing planking to supports, comprising the combination with supports and planking therefor, the abutting ends of said planks having alining slots extending transversely of the planks and semi-circular grooves extending at right angles to the trend of the slots; of plates adapted to enter the recess formed by said slots, and means extending through said plates and grooves and into engagement with said supports to hold said planks on the supports.

942,479. COASTER-BRAKE. CHARLES A. BAYLOR, Laporte, Ind., assignor to Great Western Manufacturing Company, a Corporation of Illinois. Filed Jan. 12, 1909. Serial No. 471,847.



1. The combination with a crank-hanger sleeve and a crank-shaft mounted therein, of a sprocket-wheel provided with a hub which has bearing engagement with said hanger-sleeve and with said crank-shaft, means operated by the forward turning movement of the crank-shaft producing frictional driving connection between said crank-shaft and said sprocket-wheel hub, a brake-device affording frictional engagement between the hanger-sleeve and said sprocket-wheel hub, and means for actuating said brake-device operated by the backward turning of said crank-shaft.

2. The combination with a crank-hanger sleeve, of a sprocket-wheel having a hub which is supported by and has bearing engagement with one end of said hanger-sleeve, a crank-shaft one end of which is supported by and has bearing engagement with the hanger-sleeve and the other end of which is supported by and has bearing engagement with the sprocket-wheel hub, a friction-clutch device located within the hanger-sleeve and operated by the forward turning movement of the crank-shaft, for producing driving connection between the crank-shaft and the sprocket-wheel, and a friction-brake device located within the hanger-sleeve and operated by the backward turning movement of said crank-shaft for producing frictional engagement between the hanger-sleeve and the said sprocket-wheel.

3. The combination with a crank-hanger sleeve and a crank-shaft mounted therein, of a sprocket-wheel provided with a hub which has bearing engagement with said hanger-sleeve and with said crank-shaft, said hub being provided with an annular friction-clutch member and with an annular friction-brake member, a friction-clutch member having movement endwise of the crank-shaft and adapted to be brought into frictional contact with said friction-clutch member on the sprocket-wheel hub by the forward turning movement of the said crank-shaft, a non-rotative friction-brake member in the hanger-sleeve, adapted for engagement with said friction-brake member on the sprocket-wheel hub, and means for operating said non-rotative friction-brake member actuated by the movement of the said friction-clutch member endwise of the crank-shaft in the backward turning movement of said crank-shaft.

4. The combination with a crank-hanger sleeve and a crank-shaft mounted therein, of a sprocket-wheel provided with a hub which has bearing engagement with said hanger-sleeve and with said crank-shaft, said hub being provided with an annular friction-clutch member and with an annular friction-brake member, a friction-clutch ring surrounding said shaft and adapted for endwise movement thereon by the turning movement of said shaft, a friction-brake member located within the hanger-sleeve and adapted to co-act with the friction-brake member on the sprocket-wheel hub, and an endwise movable brake-actuating sleeve having non-rotative, endwise sliding connection with the hanger-sleeve and which is shifted endwise by said friction-clutch ring.

5. The combination with a crank-hanger sleeve, of a crank-shaft and crank-arm thereon made in one piece, said crank-shaft being provided with screw-threads, a sprocket-wheel hub provided with an annular friction-clutch member, a cylindric friction-brake member detachably secured to said sprocket-wheel hub, a friction-clutch ring surrounding said crank-shaft and engaging the screw-threads thereon, said friction-clutch ring consisting of a plurality of parts or segments, a non-rotative clutch-actuating sleeve, an annular fixed bearing member for the shaft, detachably secured to said hanger-sleeve, said clutch-actuating sleeve being adapted to slide endwise at one end in said bearing-ring and having a longitudinal slot, and said bearing-ring having an inwardly projecting lug engaging said slot, a split friction-brake sleeve surrounding said brake-actuating sleeve within the said cylindric friction-clutch member, and means for expanding said friction-brake ring, operated by the endwise movement of said brake-actuating sleeve.

942,480. EYEGLASS-HOLDER. WILLIAM H. BRADSHAW, Nyack, N. Y. Filed Mar. 10, 1909. Serial No. 482,498.



1. An eyeglass holder having two sides with an interior chamber formed in one of the sides to receive a polisher for the glasses, and a cover hinged within such side to confine the polisher in the chamber, the cover being held closed by the glasses when carried in the holder.

2. An eyeglass holder having two sides connected by a hinge, one of such sides having a chamber opening within the holder, a cover fitted to the inside of the holder containing such chamber and the lid of the holder having a lining *h* extended over such cover and secured to the same to form a hinge for the cover.

3. An eyeglass holder having two sides connected by a hinge, one of such sides having a chamber opening within the holder, a cover hinged to the bottom of the holder inside the same near the hinge of its lid, such cover having the thumb-piece *i* for lifting the same.

942,481. ANIMAL-TRAP. ALBERT BRECHEISEN, Kansas City, Mo. Filed June 10, 1908. Serial No. 437,713.



1. In a trap of the character described, a receptacle, an entrapping device associated therewith comprising a tubular member opening into the receptacle, and having a drop, said member consisting of a plurality of parts foldable with relation to each other, and means for detachably connecting said device in operative relation to the receptacle, and means for holding the parts of said tubular member in operative relation to each other.

2. In a trap of the character described, a receptacle, an entrapping device associated therewith comprising a tubular member adapted to be supported in position to communicate with the said receptacle, means for controlling communication between said member and the receptacle, said member comprising a plurality of parts normally in longitudinal alinement with each other, but foldable with relation to each other, and means for detachably connecting said device to the receptacle.

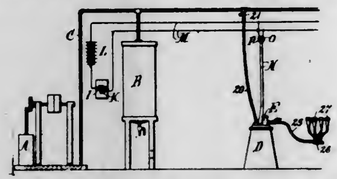
3. In a trap of the character described, a receptacle, an entrapping device associated therewith comprising a tubu-

lar member adapted to be supported in position to communicate with the said receptacle, means for controlling communication between said member and the receptacle, said member comprising a plurality of parts normally in longitudinal alinement with each other, but foldable with relation to each other, and means for maintaining the said parts in longitudinal alinement with each other.

4. In a trap of the character described, a receptacle, an entrapping device associated therewith comprising a tubular member adapted to be supported in position to communicate with the said receptacle, means for controlling communication between said member and the receptacle, said member comprising a plurality of parts normally in longitudinal alinement with each other, but foldable with relation to each other, means for maintaining the said parts in longitudinal alinement with each other, and means for detachably connecting said device to the receptacle.

5. In a trap of the character described, a receptacle, an entrapping device associated therewith comprising a tubular member adapted to be supported above an open end of the receptacle and inclosing a portion thereof, and means hingedly connected to the said member for closing the remainder of the open end of the receptacle.

942,482. MILKING-MACHINE. LOOMIS BURRELL, Little Falls, N. Y., assignor to D. H. Burrell & Company, Little Falls, N. Y. Filed Feb. 7, 1907. Serial No. 356,137.



1. In a milking machine, the combination of teat cups, a suction apparatus, a pulsator which applies the suction intermittently to the teat cups and which is moved by pneumatic means, and an electric mechanism which operates the pulsator, substantially as set forth.

2. In a milking machine, the combination of teat cups, a suction apparatus, a pulsator which applies the suction intermittently to the teat cups, a reversing valve for the pulsator, and an electric mechanism which actuates the reversing valve, substantially as set forth.

3. In a milking machine, the combination of teat cups, a suction apparatus, a pulsator having a reciprocating valve which applies the suction intermittently to the teat cups and which is acted upon by the suction, a reversing valve which alternately applies the suction to the pulsator valve and disconnects the suction therefrom, and an electric mechanism which actuates the reversing valve, substantially as set forth.

4. In a milking machine, the combination of teat cups, a suction apparatus, a pulsator which applies the suction intermittently to the teat cups, an electro-magnetic mechanism for operating the pulsator, a generator, and a circuit-breaker for supplying current intermittently to the electro-magnetic mechanism, substantially as set forth.

5. In a milking machine, the combination of teat cups, a suction apparatus, a pulsator which applies the suction intermittently to the teat cups, a reversing valve for the pulsator, an electro-magnet for actuating the reversing valve, a generator, and a circuit-breaker for supplying current intermittently to the electro-magnet, substantially as set forth.

[Claims 6 to 16 not printed in the Gazette.]

942,483. CASE FOR SHAVING APPLIANCES. WALTER L. CLARK, New York, N. Y. Filed Feb. 18, 1907. Serial No. 358,100.

1. A razor case comprising a hollow body portion provided with a transversely-extending top piece adapted to support the head of a safety razor and formed to permit the handle of the same to pass lengthwise into said body portion, and blade pockets located between the walls of the body portion and the space which receives the handle of the razor.



2. A razor case comprising a body portion provided with a transversely-extending top piece adapted to underlie the head of a "Gillette" razor and provided with an opening arranged to permit the handle of the razor to pass lengthwise into said body portion, said top piece being also formed to provide supplementary openings located in position to receive the positioning pins of the razor, whereby lateral and turning movement of the latter are prevented when in its inserted position, and a cover for said body portion.

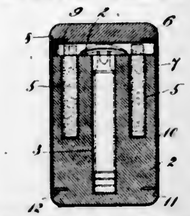
3. A razor case comprising a hollow body portion and a partition piece contained therein and providing at the open end of the body portion a transversely-extending top piece having blade-pocket walls extending inward therefrom, said top piece being formed to permit the handle of the razor to pass lengthwise into said body portion between said blade-pocket walls.

4. A razor case comprising a hollow body portion provided with a transversely-extending top piece adapted to underlie the head of a safety razor and formed to permit the handle of the same to pass lengthwise into said body portion, and means for holding the razor against endwise, lateral and turning movements when in its inserted position, said top piece being provided with inwardly-extending walls forming, in conjunction with the walls of the body portion, blade pockets which are open at their outer ends.

5. A razor case comprising a hollow body portion provided with a transversely-extending top piece adapted to underlie the head of a safety razor and formed to permit the handle of the same to pass lengthwise into said body portion, said top piece being also provided with an opening leading into the interior of said body portion and adapted to receive a shaving brush or the like, and means for preventing endwise, lateral and turning movements of said razor when in its inserted position.

[Claims 6 to 9 not printed in the Gazette.]

942,484. RAZOR-CASE. WALTER L. CLARK, New York, N. Y. Filed Feb. 20, 1907. Serial No. 358,527.



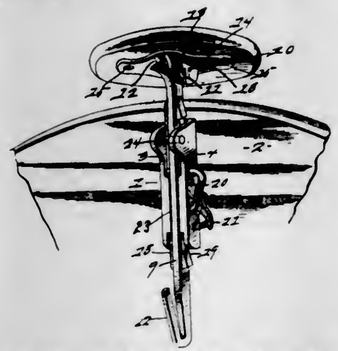
1. A razor case comprising a body portion formed from a solid block which is recessed at one end to provide a central pocket of sufficient size to receive the handle of a Gillette razor and additional pockets located on opposite sides of the central pocket to receive the positioning pins of the razor, and a cover adapted to be closed over the recessed end of the block and form an obstruction to limit endwise movements of said razor.

2. A razor case comprising a body portion formed from a solid block which is recessed at one end to provide a central pocket of sufficient size to receive the handle of a Gillette razor and additional pockets located on opposite sides of the central pocket to receive the positioning pins of the razor, said end of the block being also provided with one or more supplementary pockets to receive extra blades, and a cover adapted to be closed over the recessed end of the block and form an obstruction to limit endwise movements of said razor and blades.

3. A razor case comprising a body portion and a cover formed from two solid blocks of like cross section, a tube carried by said cover and adapted to telescope over one end of the body portion, and a tubular jacket surrounding said body portion and forming a stop for limiting the telescopic movement of the cover, whereby a space sufficient to receive the head of a "Gillette" razor is provided between the body portion and cover, said body portion being recessed at its covered end to provide pockets adapted to receive the handle and positioning pins of said razor.

4. A razor case comprising a body portion and a cover formed from two solid blocks of circular cross section and equal diameter, one end of the body portion being recessed to provide pockets adapted to receive respectively the handle and positioning pins of a "Gillette" razor and extra blades therefor, and said cover being provided with a tubular portion adapted to telescope over the recessed end of the body portion and bring the under side of the cover into position to prevent endwise movement of said razor and blades.

942,485. HEAD-REST. FRANK CORKINS, Adams township, Lucas county, Ohio. Filed Sept. 29, 1909. Serial No. 520,113.

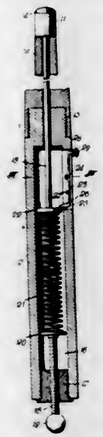


1. In a head rest for chairs, a longitudinally slotted main casting adapted to be fixed to a chair back, a pad-supporting-stem slidably mounted in said casting and formed with a hook at its lower end adapted to traverse the slot in the main casting, and a transversely arranged stop fixed at the upper end of the main casting in the path of the hook adapted to engage the hook and serve as a means for suspending the pad-supporting-stem therefrom, substantially as described.

2. In a head rest for chairs, a main casting fixed to a chair back, having sides spaced apart to provide a longitudinal slot, a pad-supporting-stem guided so as to slide in the main casting, the stem being formed at its lower end with a hook adapted to traverse the slot between the sides of the main casting, and a transverse pin supported upon the main casting in the path of the hook upon the stem, substantially as described and for the purpose set forth.

942,486. CUE. WILLIAM M. DALL, Basking Ridge, N. J. Filed May 14, 1909. Serial No. 495,952.

1. A cue having its body provided with a longitudinally extending opening, a rod movably held in said opening, a striking member carried by the rod and arranged on one end thereof, a spring having one end engaging the rod tending normally to force the same outward, an adjustable device for varying the tension of the spring bearing upon one end of the latter, a pivotally held lever having one end adapted to engage a part of the rod and hold the same against outward movement, and a spring tending normally to force the lever into engaging position.



2. A cue having its body provided with a longitudinally extending opening, a rod movably held in said opening, a striking member arranged on the end of the rod, a spring having one end engaging a part of the rod and tending normally to force the same outward, an adjustable rod for varying the tension of the spring, and a pivotally held lever having one end adapted to engage a part of the first mentioned rod and hold the same against outward movement.

3. A cue having its body provided with a longitudinally extending opening, a rod movably held in said opening, a striking member carried by the rod, a collar carried by the rod, a spring having one end engaging the collar tending normally to force the rod outward, a sleeve closing one end of said opening, an adjustable rod having a threaded stem for varying the tension of the spring, and a pivotally held lever having one end adapted to engage the collar of the rod and hold the same against outward movement.

4. A cue having its body provided with a longitudinally extending opening, a rod movably held in said opening, a striking member carried by the rod, a spring having one end engaging a part of the rod and tending normally to force the rod outward, a pivotally held lever having one end adapted to engage a part of the rod and hold the same against outward movement and a threaded rod provided with a disk bearing against one end of the spring which operates said movably held rod.

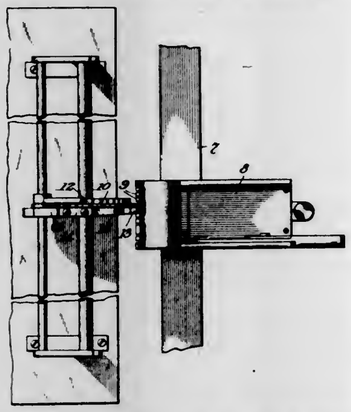
5. A cue comprising a normally stationary member and a movable member, a rod secured to the movable member, a spring normally forcing the rod outwardly, and a threaded device adjustably held in one member of the cue and engaging the spring to vary the tension thereof.

[Claims 6 and 7 not printed in the Gazette.]

942,487. NUMBER-WHEEL LOCK FOR CALCULATING-MACHINES. WILLIAM L. DENCH, Pelham, N. Y., assignor to Elliott-Fisher Company, New York, N. Y., a Corporation of Delaware. Filed Mar. 3, 1908. Serial No. 418,978.

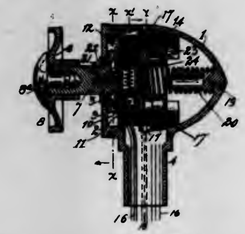
1. In a combined typewriting and adding machine, the combination with a typewriter including a carriage, frame, and printing mechanism, of a register having a series of denominational members, a master actuator operated by the printing mechanism of the typewriter, said master

actuator being movable to engage successive denominational members and adapted during such movement to engage two members at the same time, and locking means movable with the master actuator to engage and prevent effective operation of a denominational member while the actuator is moving into engagement therewith and before said actuator has cleared the adjacent member.



2. In a combined typewriting and adding machine, the combination with a typewriter including a carriage, a frame and printing mechanism, of a register mounted on the frame and having a series of denominational members, a master actuator movable with the carriage to engage successive members and operated by the printing mechanism of the typewriter, and locking means mounted on and movable with the carriage to engage and prevent effective operation of a denominational member while the actuator is moving into engagement therewith and before said actuator has cleared the adjacent member.

942,488. CONTROLLER FOR ELECTRIC AUTOMOBILES. HENRY P. DODGE, Toledo, Ohio. Filed June 5, 1909. Serial No. 500,322.



1. In a device of the described character, a fixed member, a member mounted movably relatively to the fixed member, two parallel series of electrical contacts carried by one of said members, a contact-piece carried by the other member, and means for moving said contact-piece into alinement with either of said series and into electrical engagement with either of said contacts combined with means for holding said contact piece normally in open circuit position.

2. In a device of the described character, a fixed member, a member mounted movably relatively to the fixed member, two parallel series of electrical contacts carried by one of said members, a contact-piece carried by the other of said members, means for moving said contact-piece into alinement with either of said series and into electrical engagement with either of said contacts, a spring which holds said contact-piece normally in alinement with one of said series, and another spring which holds said contact-piece normally out of engagement with either of the contacts of said latter series.

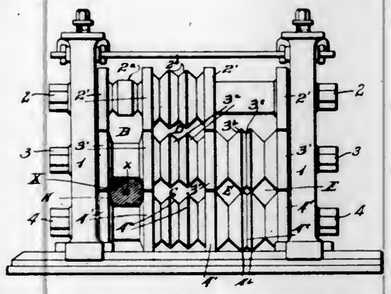
3. In a device of the described character, a fixed member, a member mounted movably relatively to the fixed member, a contact-piece carried by one of said members, a series of electrical contacts carried by the other member and disposed in the path of and arranged to contact successively with said contact-piece, a hand-piece for actuating the movable member, a hollow stem which supports said members in operative position, and wires connected with said contacts and leading through said hollow stem.

4. In a device of the described character, a shell having a hollow stem adapted for engagement with the steering-handle of an automobile, a shaft revolubly and longitudinally mounted in said shell, two parallel series of contact-points circularly disposed within and insulated from said shell, contact-pieces carried by said shaft and arranged,—by the longitudinal movement of the shaft,—to coincide with either of said series, and arranged,—by the rotation of the shaft,—to electrically engage either of the several contact-points in said series.

5. In a device of the described character, a shell, a shaft arranged for rotation and longitudinal movement therein, a spring which holds the shaft normally at a predetermined point in its rotation, a spring which holds the shaft normally at a predetermined point longitudinally, a hand-wheel for actuating the shaft, contact-pieces carried by the shaft and contacts supported within and insulated from the shell and disposed in the circular paths of the contact-pieces.

[Claims 6 to 12 not printed in the Gazette.]

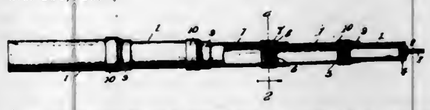
942,489. METHOD OF MAKING WROUGHT ARTICLES. JOHN H. DODS, Lawrence, Kans. Filed May 6, 1909. Serial No. 494,255.



1. The improved method herein described of making wrought articles, which consists in casting an ingot larger in cross section than is necessary for the wrought article to be produced, then rolling the ingot to spread its outer portion from its central pipe portion and expose the pipe portion, then severing the outer portion from the pipe portion, and finally reducing the outer portion.

2. The improved method herein described of making wrought articles, which consists in casting an ingot larger in cross section than is necessary for the wrought article to be produced, then rolling the ingot longitudinally to separate its outer portion from its central pipe portion and expose the pipe portion, then severing the outer portion from the pipe portion, and finally reducing the outer portion.

942,490. TELESCOPIC ARTICLE. WILLIAM J. DUNN, Montreal, Quebec, Canada. Filed Dec. 4, 1908. Serial No. 466,040.



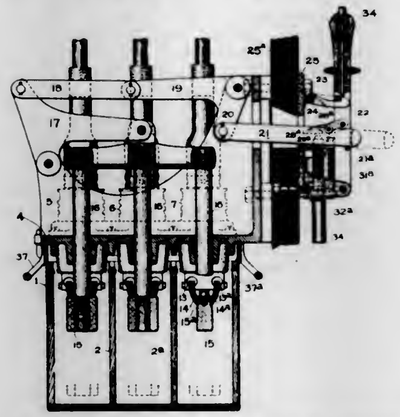
1. A telescopic article comprising a plurality of sections and provided with recesses, a spring pressed plunger in each of said recesses arranged to work in openings provided in the ends of the sections and ferrules disposed on the sections and provided with splayed ends arranged to work over the plungers.

2. A telescopic article comprising a plurality of longitudinally movable sections provided with recesses, a plunger adapted to work in each of said recesses, ferrules disposed on the sections and provided with splayed ends adapted to work over the plungers, and means for preventing axial movement of the sections.

3. A telescopic article comprising a plurality of movable sections provided with longitudinal ribs, each of said sections having a recess in one end thereof, a spring pressed plunger in each recess, and ferrules mounted on the sections and provided with splayed ends arranged to work over the plungers.

4. A telescopic article comprising a plurality of sections provided with ribs adapted to prevent axial movement of the sections, each of said sections having a recess in one end thereof, a spring pressed plunger in each of said recesses arranged to work in openings provided in the ends of the sections, and ferrules mounted on the sections and provided with splayed ends to cover the plungers, substantially as described.

942,491. ELECTRIC SWITCH. WILLIAM L. R. EMMET and EDWARD M. HEWLETT, Schenectady, N. Y., assignors to General Electric Company, a Corporation of New York. Filed Feb. 14, 1901. Serial No. 47,223.



1. In an electric switch, a movable contact member, an actuator therefor, means for connecting said contact member with said actuator, a latch for engaging said actuator for holding said contact member in normal position, and means for breaking the connection between said contact member and actuator and leaving the latter restrained upon the occurrence of predetermined electrical conditions.

2. In an electric switch, a movable contact member, an actuator therefor, a latch connecting said contact member with said actuator, a latch engaging said actuator for holding said contact member in circuit-closing position, and means for breaking the connection between said contact member and actuator upon attempted closure of the switch during the existence of predetermined electrical conditions.

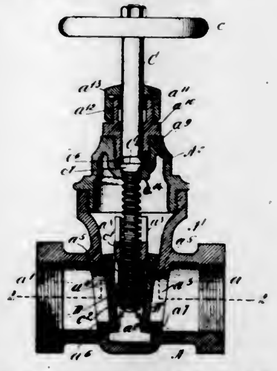
3. In an electric switch, a base, a movable contact member, an actuator therefor, a latch engaging said actuator to lock the same to said base, a latch for locking said contact member to said actuator, and electro-responsive means for unlocking said contact member from said actuator.

4. In an electric switch, a base, a movable contact member, an actuator therefor, means for restraining said contact member in normal position comprising means engaging said actuator and locking the same to said base, and means for preventing the operation of said switch during the existence of predetermined electrical conditions.

5. In an electrical switch, a movable contact member, a toggle for operating said contact member, an actuator, means for connecting said actuator with said toggle, means for engaging said actuator for holding said contact member in normal position, and electro-responsive means for breaking the connection between said actuator and toggle.

[Claims 6 to 33 not printed in the Gazette.]

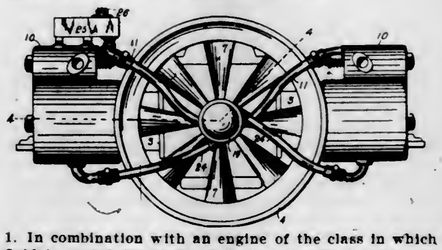
942,492. VALVE. CHARLES F. FERNALD, Boston, Mass., assignor to Star Brass Manufacturing Company, Boston, Mass., a Corporation of Massachusetts. Filed May 10, 1907. Serial No. 372,848.



1. A valve having inclined seats, disks adapted to become seated thereon which disks are provided with sockets formed in the backs thereof, a valve stem by which said disks are controlled, and a nut threaded on said stem the opposite sides of which nut facing the respective disks and sockets formed therein are cylindrically convexed to fit loosely within said respective sockets and which nut is so formed also that the lines of curvature presented by the opposite convexed sides thereof will lie in planes positioned at substantially right angles to each other.

2. A valve having inclined seats, disks adapted to become seated thereon, said disks having sockets formed in the backs thereof, means for guiding said disks to move onto and off their respective seats, a valve stem by which said disks are controlled, and a nut threaded upon said stem the opposite sides of which nut facing the respective disks and sockets formed therein are cylindrically convexed to fit loosely within said respective sockets and which nut is so formed also that the lines of curvature presented by the opposite convexed sides thereof will lie in planes positioned at substantially right angles to each other.

942,493. FLUID-COOLING MEANS FOR GASOLENE OR OTHER ENGINES. MILTON A. FESLER, Visalia, Cal. Filed Mar. 23, 1906, Serial No. 307,596. Renewed Mar. 9, 1909. Serial No. 482,402.



1. In combination with an engine of the class in which a fluid is cooled for re-use, a hollow fly wheel driven by the engine, having hollow spokes connected with the rim

of the fly wheel said spokes being elongated in cross section and the general direction of said cross section being oblique to the axis of the fly wheel, and means for conducting the fluid to and from said spokes, substantially as described.

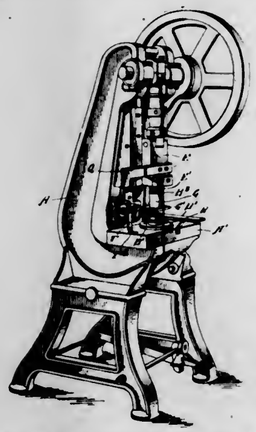
2. In combination with an engine of the class in which a fluid is cooled for reuse, means for so cooling the fluid comprising a fly wheel driven by the engine and having a hollow rim, hollow spokes leading thereto, a hub having passages individually connected with said spokes, and means for conducting the fluid to one passage and from another passage, substantially as described.

3. In combination with an engine of the class in which a fluid is cooled for reuse, means for so cooling the fluid comprising a fly wheel driven by the engine and having a hollow rim, hollow spokes leading thereto, a hub having passages individually connected with said spokes, means for conducting the fluid to one passage and from another passage, and a rotary pump revolving in unison with the fly wheel, and imparting movement to the fluid, substantially as described.

4. In combination with an engine of the class in which a fluid is cooled for reuse, means for so cooling the fluid comprising a fly wheel driven by the engine and having a hollow rim, hollow spokes leading thereto, the rim of the fly wheel being divided into compartments and the spokes communicating in pairs with the compartments, a hub having passages individually connected with said spokes, and means for conducting the fluid to one passage and from another passage, substantially as described.

5. The combination with an engine of the class in which a fluid is cooled for reuse, means for so cooling the fluid comprising a fly wheel driven by the engine and having a hollow rim, hollow spokes leading thereto, a hub having passages individually connected with said spokes, means for conducting the fluid to one passage and from another passage, inner and outer tubes, stuffing boxes therefor and connections between said tubes and the passages, substantially as described.

942,494. MACHINE FOR APPLYING SOLDER TO RIMS OF CAPS FOR CANS. ROBERT FLANIGAN, Baltimore, Md., assignor of one-half to Edward E. Weaver, Baltimore county, Md. Filed Feb. 26, 1909. Serial No. 480,273.



1. An apparatus for applying solder to caps, comprising a stationary die upon which the cap rests, a movable yielding die adapted to hold the cap upon said stationary die, means for feeding a wire solder to a position adjacent to the dies, a positively driven die having a chambered portion within which the yielding die telescopes, a shell in which said positively driven die is mounted, a projection upon the latter extending through an elongated slot in said shell, a spring interposed between the projection of the positively driven die and said shell, causing the latter to return to its normal position to form a space for the reception of the wire solder, said positively driven die having a circular tapering end adapted to sever a wire solder which has been previously fed beneath the same and afterward force the ring of solder about the marginal edge of a cap held between the yielding and the stationary dies, as set forth.

2. An apparatus for applying solder to caps, comprising a stationary die upon which the cap rests, a movable yielding die adapted to hold the cap upon said stationary die, means for feeding a wire solder to a position adjacent to the dies, a positively driven die having a chambered portion in which said yielding die is mounted, a shell in which the positively driven die is mounted, a guideway leading to and connected with said shell in which a wire solder is fed into the space intermediate the shell and said movable yielding die, the end of said positively driven die adapted to sever the wire solder and force the latter about the edge of a cap held between the stationary and yielding dies, as set forth.

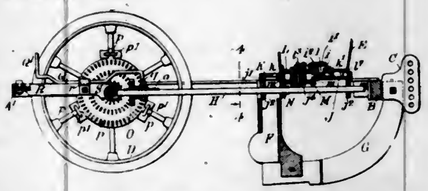
3. An apparatus for applying solder to caps, comprising a stationary die upon which the cap rests, a movable yielding die adapted to hold the cap upon said stationary die, means for feeding a wire solder to a position adjacent to the dies, a positively driven die having a chambered portion in which said yielding die is mounted, a shell in which the positively driven die is mounted, a guideway leading to and connected with said shell in which a wire solder is fed into the space intermediate the shell and said movable yielding die, the end of said positively driven die adapted to sever the wire solder and force the latter about the edge of a cap held between the stationary and yielding dies, and means for ejecting a cap to which said solder has been applied, as set forth.

4. An apparatus for applying solder to caps, comprising a stationary die upon which the cap rests, a movable yielding die adapted to hold the cap upon said stationary die, means for feeding a wire solder to a position adjacent to the dies, a positively driven die having a chambered portion in which said yielding die is mounted, a shell in which the positively driven die is mounted, a guideway leading to and connected with said shell in which a wire solder is fed into the space intermediate the shell and said movable yielding die, the end of said positively driven die adapted to sever the wire solder and force the latter about the edge of a cap held between the stationary and yielding dies, an ejector rod mounted within the stationary die and movable with the positively driven die, as set forth.

5. An apparatus for applying solder to caps, comprising a stationary die upon which the cap rests, a yielding shell mounted about said die, a cap feeding chute leading to said die, a positively driven die having a chambered portion in its end, a yielding die mounted within said chamber, a yielding shell mounted about said positively driven die, and means for feeding wire solder in the space between the yielding die and said shell, as set forth.

[Claims 6 to 20 not printed in the Gazette.]

942,495. SEED-PLANTER. ERNEST C. FOWLER and THOMAS E. DALY, Pulaski, Tenn. Filed Sept. 2, 1908. Serial No. 451,370.



1. In a seeding machine for planting different kinds of seed in conjunction, a seeding mechanism comprising a hopper divided into separate compartments for the different seed, a base-plate therennder having a discharge-opening, a revoluble seed-disk thereon having a plurality of concentric rows of holes, both rows of holes adapted to pass over said discharge opening, and a cover-plate in the bottom of the hopper overlying said seed-disk and having within each compartment a segmental slot overlying only one of the said rows of holes in the seed-disk, whereby the different kinds of seed in the compartments are dropped into the different rows of holes and deposited through said discharge-opening.

2. In a seed-planting machine, a seeding mechanism comprising a base-plate having an oblong discharge-opening therethrough extending across the path of movement of a seed-disk, the said seed-disk revolubly seated on said base-plate and having a plurality of concentric rows of holes therethrough, a cover-plate overlying said seed-disk and having a plurality of elongated slots therethrough, one on each side of the center of the seed-disk, and one slot curved in the arc of a circle lying within the circle partially described by the other slot, each of said rows of holes being arranged concentric with or to pass under one of said curved slots, in combination with a divided hopper having a separate compartment arranged over each of said curved slots, and means for rotating said seed-wheel so as to bring the holes therein successively over said discharge-opening.

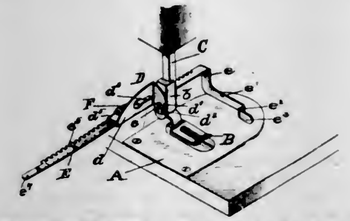
3. In a seed-planting machine, a seeding mechanism comprising a base-plate having a flat annular portion through a segment of which is formed an oblong discharge-opening extending across the path of movement of a seed-disk, the said seed-disk revolubly seated on said annular portion and having a plurality of concentric rows of holes therethrough, a cover-plate overlying said seed-disk and having a plurality of slots therethrough at opposite sides of the center of the disk, one slot lying within the circle partially described by the other, and each slot concentric with a row of holes in said seed-disk, cut-offs at the terminals of the slots toward which the seed-disk travels, a divided hopper having separate compartments over the respective slots, and means for rotating said seed-wheel so as to bring the holes therein successively over said discharge-opening.

4. In a seed-planter, a revoluble seed-disk having holes or cups therein, and a cover-plate or hopper-bottom thereover having an arc-shaped slot therein overlying said holes or cups, in combination with a cut-off consisting of a substantially T-shaped device having a pintle or cross-bar pivotally-seated across the slot and a tongue or finger projecting therefrom and spring-pressed into said slot and against the face of the disk, and a bracket attached on the cover-plate having a semi-tubular portion housing said pintle or cross-bar.

5. In a seed-planting machine, the combination of a revoluble seed-disk having a plurality of concentric rows of holes, a cover-plate therefor, a two-compartment hopper disposed above the cover-plate, the cover-plate having an arc-shaped slot in each compartment registering with one series of holes in the seed-disk, each of said arc-shaped slots terminating at one end at the rear of the hopper, and means for rotating the seed-disk.

[Claims 6 and 7 not printed in the Gazette.]

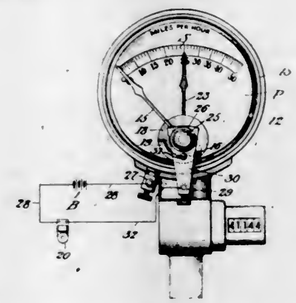
942,496. SEWING-MACHINE GAGE. NATHAN FRIEDMAN, Chicago, Ill. Filed June 7, 1909. Serial No. 500,629.



1. A sewing machine gage comprising a bracket having portions extending at right angles to each other and each portion slotted for engagement with the fastening screw of the sewing machine presser foot shank, one such portion of the bracket or the other being fitted against the presser foot shank and said bracket having a slide-way to extend alongside said presser foot shank; and a gage bar in said slide-way.

2. A sewing machine gage comprising a bracket having portions extending at right angles to each other and each portion slotted for engagement with the fastening screw of the sewing machine presser foot shank, one such portion of the bracket or the other being fitted against the presser foot shank and said bracket having a slide-way to extend alongside said presser foot shank; a gage bar in said slide-way having rack teeth, and a worm-gear on the bracket engaging said teeth.

942,497. SPEEDOMETER. WILLIAM R. HARRIS, Irvington-on-the-Hudson, N. Y. Filed July 28, 1908. Serial No. 445,807.



1. The combination with the indicator hand of a speedometer and the scale over which said hand moves, of an adjustable and settable contact member coöperatively associated with the indicator hand and with which the pivotal end of the latter makes continuous contact during a part of its registering movement, a pointer movable with said contact member, and means for adjusting and setting the said contact member and pointer.

2. The combination with the indicator hand of a speedometer, of an adjustable and settable contact member coöperatively associated with said hand and with which the pivotal end of the latter makes continuous contact during a part of its registering movement, a rotatable stem on which said contact member is mounted, and means for rotating and setting the stem against rotation.

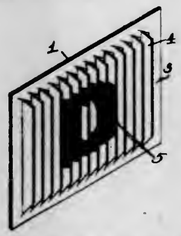
3. The combination with the indicator hand of a speedometer, of an adjustable and settable contact member having a yielding tongue coöperatively associated with said hand with which the pivotal end of the latter makes continuous contact during a part of its registering movement, a rotatable stem on which said member is mounted, and means for setting the stem against rotation.

4. The combination with the indicator hand of a speedometer, of an adjustable and settable contact member having a yielding portion coöperatively associated with said hand and with which the pivotal end of the latter makes continuous contact during a part of its registering movement, a rotatable stem upon which said contact member is mounted, and means for rotating the stem to adjust said member.

5. The combination with the indicator hand of a speedometer and the scale over which said hand moves, of an adjustable contact member having a yielding portion cooperatively associated with said hand and with which the pivotal end of the latter makes continuous contact during a part of its registering movement, a pointer movable with the contact member, a rotatable stem upon which said pointer and member are mounted and means for rotatably adjusting the step.

[Claims 6 to 11 not printed in the Gazette.]

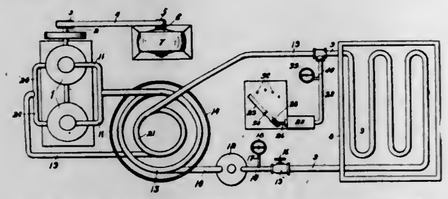
942,498. TRIPLE-SIGN MANUFACTURE. THEODORE P. HEINEMANN, Connersville, Ind., assignor to The Triple Sign Company, Connersville, Ind. Filed May 12, 1909. Serial No. 495,531.



1. The improved method of triple sign manufacture consisting in delineating normal sign matter on a flat pattern, dividing that pattern into a series of strips in correspondence with the slat spacing of the sign to be produced, reversibly transposing the strips bearing said sign matter, thereby producing a flat pattern bearing abnormal sign matter, and copying said abnormal sign matter on a plate to form part of the sign, as substantially set forth.

2. The improved method of triple sign manufacture consisting in delineating normal sign matter on a flat pattern, dividing that pattern into a series of strips in correspondence with the slat spacing of the sign to be produced, reversely transposing the strips bearing said sign matter thereby producing abnormal sign matter, copying said abnormal sign matter on the back of a front plate, and delineating normal sign matter on the front of said front plate, all substantially as set forth.

942,499. REFRIGERATING APPARATUS. JOHN HEINRICH, Kansas City, Mo., assignor of one-half to Edward T. Powers, Kansas City, Mo. Filed May 12, 1908. Serial No. 432,404.



1. In a refrigerating apparatus, the combination with means for compressing a refrigerating fluid, of a motor for operating said compressing means, an expansion chamber, a conductor for conveying compressed fluid from said compressing means to said expansion chamber, a return conductor for conveying the expanded fluid to said compressing means, and means controlled by the pressure in said return conductor for controlling the operation of said motor.

2. In a refrigerating apparatus, the combination with means for compressing a refrigerating fluid, of a motor for operating said compressing means, an expansion chamber, a conductor for conveying compressed fluid from said compressing means to said expansion chamber, a return conductor for conveying the expanded fluid from the expansion chamber to said compression means, and means by which said motor is started or stopped in operation when the pressure in said return conductor rises above or falls below respectively the atmospheric pressure.

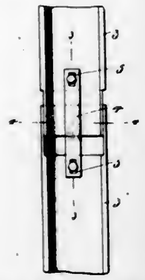
3. In a refrigerating apparatus, the combination with a compression cylinder, of a piston mounted therein, a motor, means connected with said motor for operating said piston, an expansion chamber, a conductor for conveying compressed fluid from said cylinder to said expansion chamber, a return conductor for conveying the expanded fluid from said chamber to said cylinder, and means by which increase and decrease in pressure in said return conductor will respectively start and stop the running of said motor.

4. In a refrigerating apparatus, the combination with a motor, of means operated by the motor for compressing a refrigerating fluid, an expansion chamber, a conductor for conveying compressed fluid from the compressing means to said expansion chamber, a valve controlling the discharge of fluid from said conductor into said expansion chamber, a return conductor for conveying expanded fluid from the expansion chamber to said compression means, and means controlled by the pressure in said return conductor for controlling the running of said motor.

5. In a refrigerating apparatus, the combination with a motor, of means operated thereby for compressing a refrigerating fluid, an expansion chamber, a conductor for conveying compressed fluid from said compressing means to said expansion chamber, a return conductor connecting the expansion chamber with said compressing means, a cylinder, a piston reciprocative in said cylinder, means by which, when said piston is reciprocated, said motor will be alternately started and stopped, and means for conveying fluid from the return conductor into said cylinder at one side of said piston.

[Claims 6 to 13 not printed in the Gazette.]

942,500. METALLIC PROTECTOR FOR PNEUMATIC TIRES. ERIC A. HULTBERG, Chicago, Ill. Filed July 17, 1908. Serial No. 444,091.



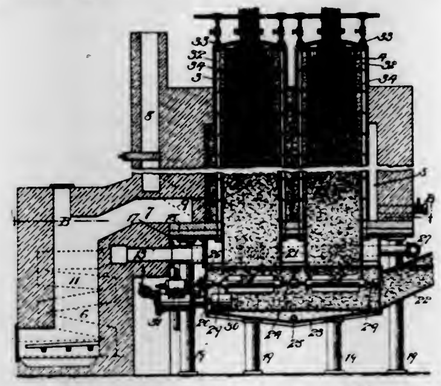
In a tire protector the combination with a tire of a plurality of metallic plates curved between their longitudinal edges to conform to the curvature of said tire, the extremities of said plates being oppositely reduced to allow the overlapping of the same and flat springs having longitudinal slots formed at the opposite ends thereof positioned against the inner faces of said plates, said flat springs being extended beneath the overlapped end of said plates and riveted loosely thereto.

942,501. RETORT FOR THE MANUFACTURE OF ILLUMINATING-GAS. CHARLES W. ISBELL, New York, N. Y. Filed Dec. 2, 1908. Serial No. 465,602.

1. In an apparatus of the character described, a common closed gas chamber and a plurality of upright retorts arranged to discharge their gas from the bottoms thereof into said common closed gas chamber.

2. In an apparatus of the character described, a plurality of upright retorts arranged to discharge their gas from the bottoms thereof, a water seal for the bottoms of the retorts and a common closed gas chamber above the said water seal arranged to receive the gas as it is discharged from the bottoms of the said retorts.

3. In an apparatus of the character described, a closed gas chamber and an upright retort having an open bottom and arranged to discharge its gas through the bottom into the said closed gas chamber, said retort having a main gas flue located within the walls of the retort and opening at its bottom directly into said gas chamber and branch flues leading from the interior of the retort at different points along the same into the said main gas flue.

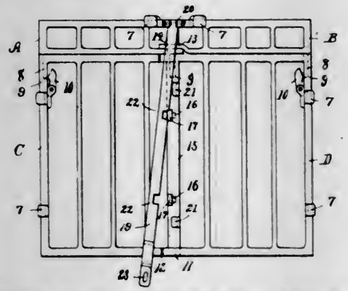


4. In an apparatus of the character described, a closed gas chamber and an upright retort having an open bottom and arranged to discharge its gas through the bottom into said closed gas chamber, said retort having a plurality of main gas flues located within the walls of the retort and opening at their bottoms directly into said closed gas chamber and branch flues leading from the interior of the retort at different points along the same into the said main gas flues.

5. In an apparatus of the character described, a common closed gas chamber and a plurality of upright retorts arranged to discharge their gas from the bottoms thereof into said common gas chamber, each of said retorts having a main gas flue therein opening at its bottom directly into said common gas chamber and branch flues leading from the interior of the retort at different points along the same into said main gas flue.

[Claims 6 to 26 not printed in the Gazette.]

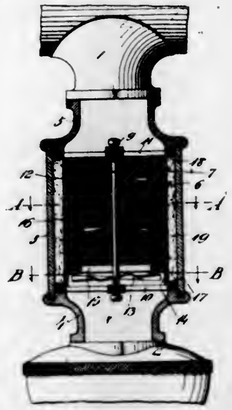
942,502. ADJUSTABLE WINDOW-GRATE. STEPHEN JABLONOVSKY, Bridgeport, Conn. Filed June 25, 1909. Serial No. 504,218.



1. A window grating comprising a pair of grate sections adjustably connected one to the other, a second pair of grate sections also slidably connected one with the other and arranged above the first said sections and adjustably connected therewith, and means for securing the said sections in their extended positions within a window frame.

2. A window grating comprising a pair of grate sections adjustably connected one to the other, a second pair of grate sections also slidably connected one with the other and arranged above the first said sections and adjustably connected therewith, a locking bar pivotally connected to one of the upper sections to hold the same in an extended position and adapted to be fastened to a window frame to hold the sections within the same.

942,503. CARBURETER FOR HYDROCARBON-ENGINES. SOLOMON R. JACOBS, New York, N. Y. Filed Aug. 19, 1909. Serial No. 513,681.



1. An auxiliary carbureter including a rotary perforated cage provided with one or more fans acted upon by the mixture passing through the cage for rotating the cage and thereby whirling the mixture to produce a more complete commingling of the air and hydrocarbon and for eliminating the heavier particles of hydrocarbon from the mixture by centrifugal action.

2. An auxiliary carbureter including a rotary perforated cage for whirling the mixture as it passes therethrough to produce a more complete commingling of the air and hydrocarbon and for eliminating the heavier particles of hydrocarbon from the mixture by centrifugal action, and a perforated screen surrounding the cage against which the said heavier particles of hydrocarbon are thrown.

3. An auxiliary carbureter including a rotary perforated cage for whirling the mixture as it passes therethrough to produce a more complete commingling of the air and hydrocarbon and for eliminating the heavier particles of hydrocarbon from the mixture by centrifugal action, a perforated screen surrounding the cage against which the said heavier particles of hydrocarbon are thrown, and an absorbent material surrounding the said screen for temporarily retaining the heavier particles of hydrocarbon which pass through the screen.

4. An auxiliary carbureter including a rotary perforated cage provided with one or more fans acted upon by the mixture passing through the cage for rotating the cage and thereby whirling the mixture to produce a more complete commingling of the air and hydrocarbon and for eliminating the heavier particles of hydrocarbon from the mixture by centrifugal action and a perforated screen surrounding the cage against which the said heavier particles of hydrocarbon are thrown.

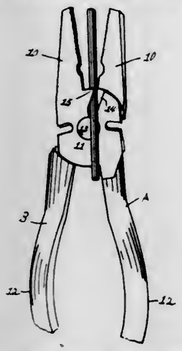
5. An auxiliary carbureter including a rotary perforated cage provided with one or more fans acted upon by the mixture passing through the cage for rotating the cage and thereby whirling the mixture to produce a more complete commingling of the air and hydrocarbon and for eliminating the heavier particles of hydrocarbon from the mixture by centrifugal action, a perforated screen surrounding the cage against which the said heavier particles of hydrocarbon are thrown and an absorbent material surrounding the screen for temporarily retaining the particles of hydrocarbon which pass through the screen.

[Claims 6 to 8 not printed in the Gazette.]

942,504. PLIERS. HENRY F. KELLEMEN, Utica, N. Y., assignor to Utica Drop Forge & Tool Company, Yorkville, N. Y. Filed May 24, 1909. Serial No. 497,826.

1. In pliers, the combination of a pair of jaws provided with overlapping, rearwardly extended portions of reduced thickness and oppositely disposed with respect to said

jaws, one of said overlapping portions having a slot extended into the space between said jaws when in open position, one of the forward edges of said slot and the inner end of the opposite jaw being relatively inclined and arranged to constitute a pair of coöperating cutting edges.



2. In pliers, the combination of a pair of jaws provided with overlapping, rearwardly extended portions of reduced thickness and oppositely disposed with respect to said jaws, one of said overlapping portions having a slot extended into the space between said jaws when in open position, one of the forward edges of said slot and the inner end of the opposite jaw being arranged to constitute a pair of coöperating cutting edges, said edges converging toward the outer face of said overlapping portion when said jaws are open.

3. In pliers, the combination of a pair of jaws provided with overlapping rearwardly extended portions of reduced thickness and oppositely disposed with respect to said jaws, one of said overlapping portions having a slot extended into the space between said jaws when in open position and inclined with respect to the outer face of said portion to form an overhanging wall, the forward end of said wall and the inner end of the opposite jaw being arranged to constitute a pair of coöperating cutting edges.

942,505. COMPOSITION FOR RAILWAY-TIES, &c. JOSEPH KIRKHAM, Los Angeles, Cal., assignor of one-half to William Elvin Pritchard, Los Angeles, Cal. Filed Apr. 13, 1908. Serial No. 426,916.



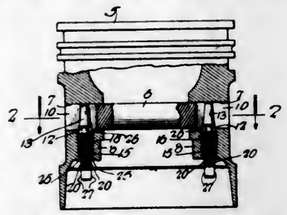
1. A composition for use in making railroad cross-ties comprising, lime rock, kaolin, silica grit, pulp fiber, asphaltum or tar compositions, substantially as described.

2. A composition for use in making railway ties comprising lime rock, kaolin (common), silica grit, pulp fiber, asphaltum or tar, substantially as described.

942,506. SET-SCREW. AXEL LEVEDAHL, Aurora, Ill., assignor to Aurora Automatic Machinery Company, Aurora, Ill., a Corporation of Illinois. Filed Apr. 19, 1909. Serial No. 490,691.

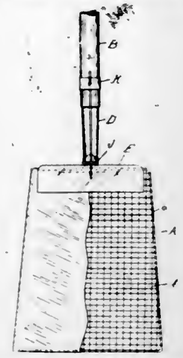
1. The combination with a metal part provided with a screw-threaded hole, of a set-screw which is inserted in said screw-threaded hole; said set-screw being provided with a longitudinally extending, lateral, locking surface on the portion of its screw-threaded length which is located within the outer end of the screw-threaded hole, and the metal of the said part in which the set-screw is inserted at the outer end of the said screw-threaded hole being swaged inwardly to form an integral projection which, by its contact with the locking face of the set-screw between the ends of the screw-threaded portion, holds the latter from turning.

2. The combination with a metal part, provided with a screw-threaded hole, of a set-screw which is inserted in said screw-threaded hole, said set-screw being provided with two oppositely located flat faces which extend along said screw for a portion of the screw-threaded length thereof, and the inner ends of which extend into the



screw-threaded hole, said part in which the set-screw is inserted being provided with inwardly extending projections which are formed by swaging inwardly the metal at the outer end of the screw-threaded hole and which engage the flat faces of the set-screw between the ends of the screw-threaded portion thereof to lock the latter against rotation.

942,507. DUSTER. ROSE S. MELCHERS, Detroit, Mich. Filed Mar. 22, 1909. Serial No. 484,984.

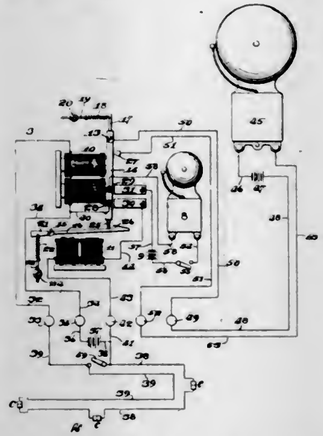


1. A duster, comprising a thin wide flat body, flexible in a direction transverse to its length, a socket member projecting in the plane of the body from one edge thereof, a handle engaging the socket, and a cloth clamp comprising elongated transverse clamping members arranged in alinement upon opposite sides of the body adjoining the socket member, and rearwardly-projecting supporting arms for the clamps rigidly attached to the handle.

2. A duster, comprising a thin wide flat body flexible in a direction transverse to its length, a handle socket projecting from said body and in substantially the plane thereof, a handle engaging said socket, a pair of cloth clamps arranged upon opposite sides of the body adjacent the junction of the latter and handle extending transversely of the body for substantially its entire width, a pair of arms carrying the members terminating in offsets extending within apertures formed in the handle, a retaining band for securing the outer ends of the arms to the handle, and a clamping link slidably engaging the arms serving to clamp the members to the body.

3. In a duster, the combination with a thin wide flat body section flexible in a direction transverse to its length, said body section comprising a frame formed from a single strand of wire bent intermediate its ends into substantially rectangular configuration, having the end portions thereof bent into parallelism centrally of one end of the body section and projecting at substantially right angles thereto, and a covering therefor, of a handle having one end positioned between the projecting end portions of the frame, a clamping sleeve embracing the handle and arms for securing the latter to the handle, and a pair of cloth clamps extending transversely of the body in proximity to the junction of the latter and handle.

942,508. ELECTRIC-CIRCUIT-CONTROLLING RELAY. BURNETT MENKIN, New York, N. Y. Filed Feb. 3, 1909. Serial No. 475,803.



1. The combination of a first electric circuit including an electromagnet, a second electric circuit including an electromagnet, said first and second circuits receiving electric current from a common source, a third electric circuit including a translating device, means under the control of the electromagnet of the first circuit for opening and closing the second circuit, and means under the control of the electromagnet of the second circuit for changing the character of the third circuit.

2. The combination of a first electric circuit including an electromagnet, a normally open second electric circuit including an electromagnet, said first and second circuits receiving electric current from a common source, a normally open third electric circuit including a translating device, means under the control of the electromagnet of the first circuit for closing the second circuit, and means under the control of the electromagnet of the second circuit for closing the third circuit.

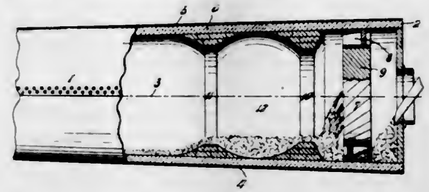
3. The combination of a first electric circuit including an electromagnet, a second electric circuit including an electromagnet, said first and second circuits receiving electric current from a common source, a third electric circuit including a translating device, a fourth electric circuit including a translating device, means under the control of the electromagnet of the first circuit for opening and closing the second and fourth circuits, and means under the control of the electromagnet of the second circuit for changing the character of the third circuit.

4. The combination of a first electric circuit including an electromagnet, a normally open second electric circuit including an electromagnet, said first and second circuits receiving electric current from a common source, a normally open third electric circuit including a translating device, a normally open fourth electric circuit including a translating device, means under the control of the electromagnet of the first circuit for closing the second and fourth circuits, and means under the control of the electromagnet of the second circuit for closing the third circuit.

5. The combination of a normally closed first electric circuit including an electromagnet provided with an armature held normally in a first position against the magnet and movable to a second position and a third position away from the magnet, a spring tending to move the armature away from the magnet, a normally open second electric circuit including an electromagnet, said first and second circuits receiving electric current from a common source, said second circuit being closed by the movement of said armature from its first to its second position, means under the control of the electromagnet of the second circuit to control the movement of said armature from its second to its third position, and a normally open third electric circuit including a translating device, said third circuit being closed by the movement of said armature from its second to its third position.

[Claims 6 to 8 not printed in the Gazette.]

942,509. CEMENT-KILN. THOMAS M. MORGAN, Long Point, Quebec, Canada. Filed Feb. 1, 1907. Serial No. 355,190.



1. A cement kiln of gradually increasing diameter, toward its rear end, a wall having a series of inclined channels within said kiln, and means for retarding the flow of cement in its passage through the enlarged portion of the kiln.

2. A cement kiln of frusto-conical form having its longitudinal axis inclined and its lower face lying in a horizontal plane, a wall near the rear end of said kiln, means for allowing the cement to flow through said wall, and means for retarding the passage of the cement within the enlarged portion of the kiln.

3. A cement kiln of frusto-conical form having a wall located near its rear end, a plurality of inclined channels passing through said wall, and one or more retarding rings located between said wall and the mouth of the kiln.

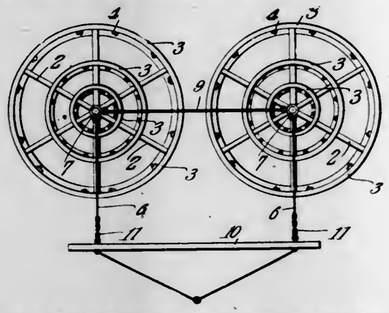
942,510. TOWING ARRANGEMENT FOR CANAL AND RIVER VESSELS. EMIL O. NIKEL, Taworzno, Austria-Hungary. Filed Nov. 23, 1908. Serial No. 464,039.



1. Towing device for canal and river vessels, comprising two drawing lines of strong resistance, wound on separate drums on a vessel, means to turn said drums at will in the same and opposite directions, fixed stations at suitable distances from each other along the tow path, means at the free ends of the drawing lines to tie them at said stations, loose carrying lines, extending from the end of each drawing line forwardly, and a traveling drum adapted to take up said carrying lines, one as a lower strand and the other as an upper strand, substantially as described.

2. Towing device for canal and river vessels comprising two drawing lines of strong resistance, wound on separate drums on a vessel, reversible motors for each drum and a clutch to couple the drums, fixed stations at suitable distances from each other along the tow path, means at the free ends of the drawing lines to tie them at said stations, loose carrying lines of lighter cross section than the drawing lines extending from the end of each drawing line forwardly and a traveling drum adapted to take up said carrying lines, one as a lower strand and the other as an upper strand, substantially as described.

942,511. HARROW. GEORGE A. OLSON, Ramey, Minn. Filed May 26, 1909. Serial No. 498,418.

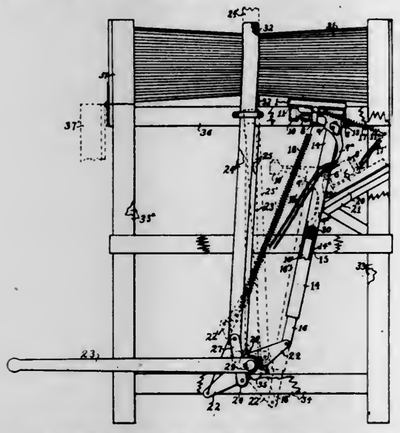


1. In a harrow a member mounted for rotation and consisting of a series of Z-bars, teeth pivoted thereto for limited swinging movement, a hub located within the bars, and spokes radiating from the hub and passing transversely through the vertical webs of the Z-bars.

2. A harrow comprising a Z-bar, teeth pivoted thereto, a hub, spokes connecting the hub with the Z-bar, a draft beam pivotally connected with the hub, and a clip attached to the draft beam and extending under the outer flange of the Z-bar.

3. A harrow comprising a plurality of rotating members made up of Z-bars and annularly formed, teeth pivoted to the bars, hubs located within the said annuli, spokes connecting the hubs with the annuli, draft beams pivotally connected with the hub, clips attached to the beams and projecting under the outer flanges of the annuli, and a connecting bar pivotally joined at its ends with the centers of the adjacent rotating members.

942,512. AUTOMATIC SHINGLE-STAMP AND PACKER'S RECORDER. GEORGE A. ORTWEIN, Maple Falls, Wash. Filed Mar. 1, 1909. Serial No. 480,715.



1. In a shingle stamping apparatus, the combination of a lateral stamp and means for attaching said stamp to the operating mechanism of a shingle-packer's press, said means being adapted to cause the lettered surface of said stamp to be pressed against a bunch of shingles when said bunch is being brought under compression by the operation of said mechanism and being further adapted to cause the lettered surface of said stamp to be brought into contact with an inking pad when said bunch is being released from said compression by the operation of said mechanism.

2. In a shingle stamping apparatus, the combination of a stamp suited to print or stamp data on a bunch of shingles, the shaft of a shingle-packer's press, means for revolving said shaft forward and backward through an arc, a lever rigidly attached to said shaft at a medial point, a resilient compression link joining one end of said lever to a hinge on said stamp, being suited to press said stamp against said bunch of shingles when in said press, also suited to withdraw said stamp from said contact, a resilient tension element one end being attached to said stamp and the other end being attached to the framework of said press, being suited to turn said stamp on said hinge and invert the same when said stamp is being carried downward by said link, a resilient tension element, one end being connected to the other end of said lever and the other end being connected to said stamp being suited to turn said stamp on said hinge and revert the same when said stamp is being carried upward by said link, and an inking pad adapted to receive said stamp when inverted.

3. In a shingle stamping apparatus, the combination of a stamp suited to print or stamp data on a bunch of shingles, the shaft of a shingle-packer's press, means for revolving said shaft forward and backward through an arc, a lever rigidly attached to said shaft at a medial point, a resilient compression link joining one end of said lever to a hinge on said stamp, being suited to press said stamp against said bunch of shingles when in said press, also suited to withdraw said stamp from said contact, a resilient tension element, one end being attached to said stamp and the other end being attached to the framework of said press, being suited to turn said stamp on said hinge and invert the same when said stamp is being carried downward by said link, a resilient tension element one end being connected to the other end of said lever and the other end being connected to said stamp being suited to turn said stamp on said hinge and revert the same when said stamp is being carried upward by said link, an inking pad being suitably attached to the framework of said press and adapted to receive said stamp when inverted, an inclined-surface piece attached to said link being adapted to strike against a fixed, deflecting piece and cause said stamp to fall centrally on said inking pad when inverted, and a fixed piece being suited to deflect said inclined-surface piece.

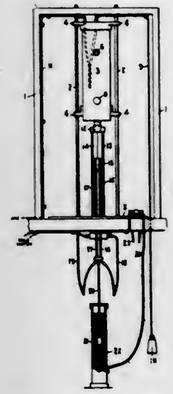
4. In a shingle stamp, the combination of a lettered stamp consisting of two principal parts, one being adapted to print the manufacturer's name and address on a bunch of shingles, the other being adapted to print a character on said bunch of shingles which may designate the machine in which said bunch was packed, and means for attaching said stamp to the operating mechanism of a shingle-packer's press, said means being adapted to cause the lettered surface of said stamp to be pressed against a bunch of shingles when said bunch is being brought under compression by the operation of said mechanism and being further adapted to cause the lettered surface of said stamp to be brought into contact with an inking pad when said bunch is being released from said compression by the operation of said mechanism.

5. In combination with the jaw actuating means of a machine for packing shingles, a carrier connected for operation thereby, means supporting said carrier for movement toward and from the shingles being packed, a branding head rotatably supported on said carrier, and means for imparting rotary movement to said head during movement of said carrier.

942,513. SINTERING APPARATUS. ROBERT PALMER, Larchmont, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Feb. 10, 1909. Serial No. 477,181.

1. In a thermo-electric apparatus, the combination of an envelop, means for supplying a gas to said envelop, and a plurality of water-cooled clamps for holding material to be treated, at least one of said clamps being freely movable.

2. In a sintering apparatus, the combination of a container, means for supplying gas thereto, means for clamping a body to be sintered and for conducting current thereto, and means for passing a cooling fluid through said clamping and current-conducting means.

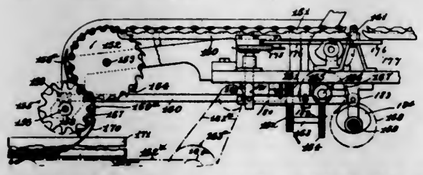


3. In a sintering apparatus, the combination of a fixed clamp, a movable clamp, means for counterbalancing the weight of said movable clamp, and means for conducting current to said clamps.

4. In a sintering apparatus, the combination of a fixed clamp, a movable clamp, a float attached to said movable clamp and supported by a liquid, and means for supplying current to said clamps.

5. In a sintering apparatus, the combination of coöperating water-cooled clamps, one of which is freely movable, electrical conductors operatively connected to said clamps, and a float immersed in a body of mercury and rigidly attached to the movable clamp for supporting the same.

942,514. CIGARETTE-TIPPING MACHINE. STANISLAUS PALMOWSKY, New York, N. Y. Filed Nov. 28, 1908. Serial No. 464,892.



1. In a cigarette tipping machine, conveying rails for conveying the tipped cigarettes to a revolving drum, said drum having hook shaped pockets, a second drum coacting with said first mentioned drum and adapted to receive the cigarettes therefrom, a chute upon which said cigarettes are discharged by said second drum, a box into which said cigarettes are finally discharged and means for moving said box while same is being filled.

2. In a cigarette tipping machine, conveying rails for conveying the tipped cigarettes to a revolving drum, said drum having hook shaped pockets, a second drum coacting with said first mentioned drum and adapted to receive the cigarettes therefrom, a chute upon which said cigarettes are discharged by said second drum, guard rails at the sides of said drums to keep said cigarettes from falling out, a box into which said cigarettes are finally discharged and means for moving said box while same is being filled.

3. In a cigarette tipping machine, conveying rails for conveying the tipped cigarettes to a revolving drum, said drum having hook shaped pockets, a second drum coacting with said first mentioned drum and adapted to receive the cigarettes therefrom, a chute upon which said cigarettes are discharged by said second drum, a box into which said cigarettes are finally discharged and an endless belt for feeding said box into position to receive said cigarettes.

942,515. FLUE-CLEANER. SAMUEL S. POOLE, Albany, N. Y. Filed Oct. 14, 1908. Serial No. 457,616.



1. A flue cleaner, having, in combination, a head, a spiral support having one or more convolutions carried by the head, and scale cutting disks loosely mounted on the support for rotation by engagement with the interior of a flue so arranged that they will operate upon the entire interior surface of the flue as the head is moved longitudinally through the flue, substantially as described.

2. A flue cleaner, having, in combination, a head, a spiral rod having one or more convolutions carried by the head, and toothed cutter disks loosely mounted on the rod for rotation by engagement with the interior of a flue as the head is moved longitudinally through the flue, substantially as described.

3. A flue cleaner, having, in combination, a head provided with a standard, a rod spirally arranged about the standard and having one end connected therewith, and cutter disks loosely mounted on the rod for rotation by engagement with the interior of the flue as the head is moved longitudinally through the flue, substantially as described.

4. A flue cleaner, having, in combination, a head, a spiral rod having one or more convolutions carried thereby, cutter disks loosely mounted on the rod for rotation by engagement with the interior of a flue as the head is moved longitudinally through the flue, and devices for expanding or contracting the spiral rod to vary the diameter of the spiral, substantially as described.

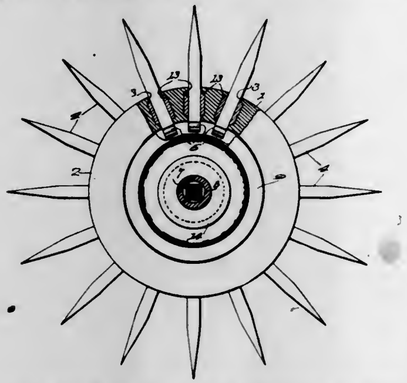
5. A flue cleaner, having, in combination, a head provided with a standard, a rod spirally arranged about the standard connected with the head and with the standard, cutter disks loosely mounted on the rod and spacing washers between the disks.

942,516. ALFALFA-HARROW. EDWIN F. PRICE, Upper Sandusky, Ohio, assignor to The Ohio Manufacturing Company, Upper Sandusky, Ohio, a Corporation of Ohio. Filed Oct. 18, 1909. Serial No. 523,119.

1. In a harrow of the character described, a disk comprising a body portion, an annular projection arranged near the edge of said body portion and having a series of sockets therein, teeth arranged in the respective sockets and having transverse grooves near the inner ends thereof, a clamping plate having a rib near the edge thereof adapted to enter the grooves in said teeth, and means for securing said clamping plate to said body portion.

2. In a harrow of the character described, the combination, with a gang-bolt, of a disk comprising a body portion mounted on said gang-bolt, an annular projection arranged near the edge of said body portion on one side thereof and having a series of radially arranged sockets therein, a series of teeth mounted in the respective sockets and having transverse grooves near their inner ends, a clamping

plate mounted on said gang-bolt and having a projection arranged near the edge thereof and adapted to engage the grooves in said teeth, and means for securing said clamping plate to said body portion.



3. In a harrow of the character described, the combination, with a gang-bolt, of a disk comprising a body portion mounted on said gang-bolt, an annular projection arranged near the edge of said body portion on one side thereof and having a series of radially arranged sockets therein, a series of teeth mounted in the respective sockets and having transverse grooves near their inner ends, a clamping plate mounted on said gang-bolt and having a projection arranged near the edge thereof and adapted to engage the grooves in said teeth, means for securing said clamping plate to said body portion, and spacing sleeves mounted on said gang-bolt and adapted to engage the outer faces of said body portion and said clamping plate, respectively.

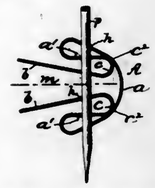
4. In a harrow of the character described, the combination, with a gang-bolt, of a disk comprising a body portion mounted on said gang-bolt, an annular projection arranged near the edge of said body portion on one side thereof and having a series of radially arranged sockets therein, a series of teeth mounted in the respective sockets and having transverse grooves near their inner ends, a clamping plate mounted on said gang-bolt and having a projection arranged near the edge thereof and adapted to engage the grooves in said teeth, means for securing said clamping plate to said body portion, and spacing sleeves mounted on said gang bolt and having the ends adjacent said disk enlarged and adapted to engage said body portion and said clamping plate, respectively, at points removed from said gang-bolt.

5. A disk of the character described comprising a body portion, a laterally extending annular projection arranged on one side thereof and having a series of radially arranged sockets, a series of teeth mounted in the respective sockets, extending beyond the inner ends thereof and having transverse grooves in said projecting portions, a clamping plate adapted to fit within said annular projection on said body portion and having a rib near the edge thereof adapted to engage the grooves in said teeth.

[Claims 6 to 8 not printed in the Gazette.]

942,517. SAFETY ATTACHMENT FOR SCARF-PINS. FRED S. REYNOLDS, Cranston, R. I., assignor to Cory & Reynolds Company, Providence, R. I., a Corporation of Rhode Island. Filed July 6, 1909. Serial No. 505,967.

1. As an improved article of manufacture, a one-piece protector or safety device for the stems of scarf-pins and analogous articles, the same consisting of a resilient bow member having oppositely disposed rearwardly extending upper and lower portions, each portion being bent and comprising three laterally separated plies of the stock having holes therethrough and terminating in a handle or grasping part, the major portion of said bow part being forward of the axes of said holes while the said handle part extends rearwardly from said axes, and having the holes of the said upper and lower portions arranged to substantially register with one another to receive a pin when the said portions are sufficiently compressed or sprung toward each other.



2. In a device of the character described, a strip of spring-metal bent to produce a bow part having rearwardly projecting oppositely disposed end portions, each of the latter having the metal further bent and extending forwardly to or nearly to the back of the bow and then reversely bent and projecting rearward to produce a grasping element, and having the metal or plies comprising each of said end portions provided with holes normally inclined to the central or medium line of the device.

3. In a device of the character described, a strip of spring-metal bent to produce a bow part having rearwardly projecting oppositely disposed suitably apertured end portions, the metal of each of said portions being bent and extended forwardly to produce a loop terminating in a rearward handle or grasping element, and having said loop parts arranged and adapted to simultaneously engage the bow and forcibly draw said end portions toward each other from the normal or expanded position upon suitably pressing or manipulating the handle elements, thereby contracting the distance lying between the latter and causing the several apertures to be substantially alined to receive the stem or shank of a pin, substantially as described.

942,518. AERIAL TRAMWAY. HARRY S. ROBINSON, Fallston, Md., assignor to Charles B. Mann, Jr., Baltimore, Md. Filed Oct. 14, 1907. Serial No. 397,303.



1. The combination in an elevated cableway of two parallel cables comprising one track; a plural number of stands on which said cables are seated—said stands provided with a bridge extending in the direction of the cable track fully across the stand; and a car having wheels provided with two circular rims of different diameters—one for traversing the track-cable and the other for traversing said bridge.

2. An elevated cableway having two parallel cables composing one track; and a plural number of upright stands on which said cables are seated, and said stands provided with an immovable bridge extending across the stand in the same direction as the cable-track.

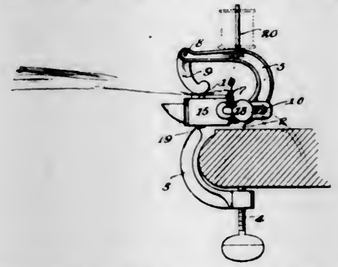
3. The combination in an elevated cableway of two parallel cables comprising one track; a plural number of immovable stands on which said cables are seated—said stands provided with a bridge extending in the direction of the cable track; and a car having wheels provided with two circular rims of different diameters, one rim of which is grooved to traverse the track-cable and the other adapted to traverse the said bridge and while traversing on the bridge will support the car at a higher elevation than when traversing the track-cable.

4. The combination in an elevated cableway of two parallel cables comprising one track, said two cables being independent of each other and a down-pointed loop formed in each cable; a plural number of immovable stands each having on top two seats on which a cable is supported and provided between said seats with a slot that opens in the vertical direction and down through which one of said loops projects, whereby the loop can be inserted bodily or removed bodily; and mechanical means applied to said loop to stretch the cable-track when desired.

5. The combination in an elevated cableway of two parallel cables comprising one track, said two cables being independent of each other and a down-pointed loop formed in each cable; a plural number of immovable stands each having on top two seats on which a cable is supported and provided between said seats with a slot that opens in the vertical direction and down through which one loop projects; a pulley hanging in said loop, a screw-threaded rod pendent from said pulley, and a nut on said screw-threaded rod to draw downward on the pulley.

[Claims 6 to 16 not printed in the Gazette.]

942,519. BUTTONHOLE-CUTTER. FRED F. ROBY, Boston, Mass. Filed Apr. 9, 1909. Serial No. 488,932.



1. A buttonhole cutter comprising a base plate, means for clamping said plate to a support, a knife fixed on said plate and projecting out therefrom and in the same plane therewith, a shield longitudinally adjustable along the face of said knife, and means for clamping the shield in any adjusted position.

2. A buttonhole cutter comprising a base plate, means for clamping said plate to a support, a knife carried by said plate parallel therewith and projecting out therefrom, said knife being formed with an angular edge, and a shield adjustable along the face of the knife and adjustably held thereto, said shield having an edge at right angles to the longitudinal axis of the knife.

3. A buttonhole cutter comprising a base, means attached thereto for clamping the base upon a support, a knife attached to the face of said base and projecting out therefrom, said knife having a sharpened edge extending from one side of the knife downward and inward to the other side thereof, an adjustable shield comprising a blade having its end at right angles to the longitudinal axis of the knife, said shield being longitudinally slotted, and a set screw passing from said slot into said base, whereby the shield may be adjusted longitudinally along the face of the knife.

4. A buttonhole cutter comprising a clamp, a vertically arranged base plate forming the upper portion of said clamp, a knife secured to the face of said base plate and projecting out therefrom, said knife being pointed at its outer end and having a cutting edge extending from one edge of the knife at an angle to the other edge of the knife, and a shield comprising a blade portion whose outer end is at right angles to the longitudinal axis of the knife, the rear of said blade being extended and slotted, and a set screw passing over said slot and into the base plate, whereby the shield may be adjusted in the knife.

5. In a buttonhole cutter, a base plate, a clamp, whereby the base plate may be fixed to a support, a knife projecting out from the base plate, the face of the knife and the face of the base plate being in alinement, a guide lug on the base plate below the knife, and a shield being longitudinally adjustable relative to the knife and resting at its forward end on said lug.

942,520. VARIABLE-SPEED COASTING AND BRAKING HUB. ALBERT F. ROCKWELL, Bristol, Conn., assignor to The New Departure Manufacturing Company, Bristol, Conn., a Corporation of Connecticut. Filed Mar. 1, 1904. Serial No. 196,037.



1. A coasting and braking hub having in combination, a driver, an auxiliary driver arranged within the hub, brake mechanism, and means for clutching the driver to the auxiliary driver or to the brake mechanism.

2. A coasting and braking hub having in combination, a driver, an auxiliary driver arranged within the hub, and brake mechanism, together with means for clutching the driver to the hub, to the auxiliary driver or to the brake mechanism.

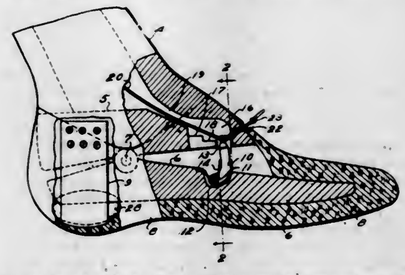
3. A coasting and braking hub having in combination, a driver, an auxiliary driver within and geared to the hub, and brake mechanism, together with clutch mechanism for clutching the driver to the hub, to the auxiliary driver or to the brake mechanism, or for releasing the driver therefrom.

4. A coasting and braking hub having in combination, an auxiliary driver arranged within and geared to the hub, brake mechanism, and means for clutching the driver to the auxiliary driver or to the brake mechanism.

5. A coasting and braking hub having in combination, a main driver, together with means for clutching it to the hub, a brake actuator, an auxiliary driver, and an intermediate clutch element for connecting the main driver with the brake actuator or with the auxiliary driver.

[Claims 6 to 53 not printed in the Gazette.]

942,521. ARTIFICIAL FOOT. JAMES F. ROWLEY, Chicago, Ill. Filed Apr. 1, 1907. Serial No. 365,841.



1. In an artificial limb, the combination of a shin section, a foot member fulcrumed thereon, a stop movably secured to said foot member and adapted to engage

the shin section to limit the movement of said foot member on its fulcrum, and means operative from above the fulcrum for shifting said stop.

2. In an artificial limb, the combination of a shin section, a foot member fulcrumed thereon, a stop secured to said foot member and movable into and out of position for engaging said shin section to limit the movement of said foot member on its fulcrum, yielding means normally urging said stop out of such position, and means adapted to be operated from above for shifting said stop into position for engaging said shin section.

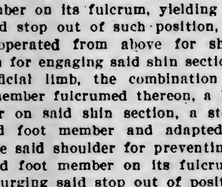
3. In an artificial limb, the combination of a shin section, a foot member fulcrumed thereon, a horizontally disposed shoulder on said shin section, a stop movably mounted on said foot member and adapted to extend upward to engage said shoulder for preventing a certain movement of said foot member on its fulcrum, yielding means normally urging said stop out of position for engaging said shoulder, and means adapted to be operated from above the fulcrum for shifting said stop into engagement with said shoulder.

4. In an artificial limb, the combination of a shin section, a foot member fulcrumed thereon, a stop arm pivotally mounted on said foot member, said shin section being slotted to receive said stop arm and having at one side of the slot a shoulder adapted to be engaged by said arm for limiting the movement of said foot member on its fulcrum, means normally urging said stop arm out of engagement with said shoulder, and means operative from above for shifting said stop arm into such engagement.

5. In an artificial limb, the combination of a shin section, a foot member fulcrumed thereon, a stop arm pivotally mounted on said foot member, said shin section being slotted to receive said stop arm and having adjacent to said stop a plurality of shoulders corresponding to different relative angular positions of the foot member on its fulcrum, said stop being movable into and out of position for engaging either of said shoulders to provide different limits of movement for said foot member on its fulcrum, yielding means normally urging said stop out of engagement with said shoulders, means operative from above for shifting said stop into engagement with said shoulders, and adjustable means for limiting the movement of said stop so as to cause the same to shift into engagement with a certain shoulder at each operation of said shifting means.

[Claims 6 to 8 not printed in the Gazette.]

942,522. DISCHARGE-SPOUT FOR CANS. JOHN A. SAUER, Brooklyn, N. Y. Filed May 28, 1908. Serial No. 435,541.



1. In a device of the character described, the combination of a discharge spout provided upon one side with a longitudinally disposed sleeve, a closure for the discharge spout, and a spring rod extending transversely across the closure and normally holding the same in a closed position, one end of the spring rod being extended laterally and pivotally supported within the sleeve while the opposite end is hooked for engagement with the spout to lock the closure in a closed position.

2. In a device of the character described, the combination of a spout, a sleeve upon one side of the spout, a swinging closure for the discharge end of the spout, a spring rod engaging the swinging closure for holding the same in a closed position, one end of the spring strip being bent at an angle and pivotally mounted in the before mentioned sleeve, and a reinforcing wire extending around the closure, an intermediate portion of the reinforcing wire being looped to form a finger-piece while the ends of the wire are extended laterally to form stops for limiting the movement of the closure.

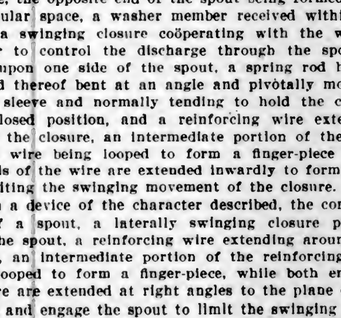
3. In a device of the character described, the combination of a spout provided at one end with an enlargement designed to be applied to the discharge opening of a receptacle, the opposite end of the spout being formed with an annular space, a washer member received within the space, a swinging closure coöperating with the washer member to control the discharge through the spout, a sleeve upon one side of the spout, a spring rod having one end thereof bent at an angle and pivotally mounted in the sleeve and normally tending to hold the closure in a closed position, and a reinforcing wire extending around the closure, an intermediate portion of the reinforcing wire being looped to form a finger-piece while the ends of the wire are extended inwardly to form stops for limiting the swinging movement of the closure.

4. In a device of the character described, the combination of a spout, a laterally swinging closure pivoted upon the spout, a reinforcing wire extending around the closure, an intermediate portion of the reinforcing wire being looped to form a finger-piece, while both ends of the wire are extended at right angles to the plane of the closure and engage the spout to limit the swinging movement of the closure in either direction, and a spring arm forming the pivot of said closure and forcing the closure inward into engagement with the spout.

5. In a device of the character described, the combination with a spout, of a laterally swinging closure therefor, an angular spring arm, one end of which engages with the face of the closure and the other end of which has pivotal engagement with the spout to permit the closure to be turned in a plane transverse to the spout, the free extremity of said wire being inwardly turned across the edge of the closure to form a locking projection, and a reinforcing wire extending around a margin of the closure, an intermediate portion of the reinforcing wire being looped over the inwardly projecting free end of the spring arm to form a finger-piece whereby the closure may be moved, the ends of said wire being both angularly bent and extended to engage the spout and thereby limit the swinging movement of the closure in either direction.

[Claim 6 not printed in the Gazette.]

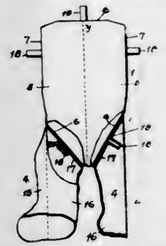
942,523. IRRIGATING-SYRINGE. WILLIAM S. SAWYER, Camden, N. J., assignor to Industrial Development & Manufacturing Co., a Corporation of New Jersey. Filed Jan. 16, 1909, Serial No. 472,717. Renewed Oct. 20, 1909. Serial No. 523,701.



1. A speculum comprising two jaws pivoted together, one of said jaws having integral ears spaced apart and provided with threaded registering apertures, an irrigating tube having an integral projection positioned between said ears and apertured, an adjusting screw passing through the registering apertures in said ears and projection and designed to hold the tube in an adjusted position, as set forth.

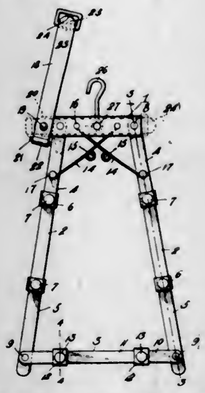
2. A speculum comprising two jaws pivoted together, one of said jaws having integral ears spaced apart and provided with threaded registering apertures, an irrigating tube having an integral projection positioned between said ears and apertured, an adjusting screw passing through the registering apertures in said ears and projection of the tube and provided with a shouldered portion bearing against one of said ears and adapted to hold the tube in an adjusted position, as set forth.

942,524. JOINTED SHEET-METAL FIGURE. FREDERICK C. SNEYD, Irvington, N. J., assignor to James A. Browne, trading as Reeves & Browne, Newark, N. J. Filed Mar. 6, 1908. Serial No. 419,440.



In an article of the character described, the combination with one member having a portion of its exterior forming a seat, of a hollow closed member comprising two sections soldered together at their meeting edges, said second member having at its outer surface a seat located wholly on one of its said sections and adapted to articulate upon the said seat of the first-mentioned member, said second member extending in the direction of its length obliquely from the contact surface of said seats and having the plane of division of its said sections starting at the extreme end of the hollow closed member contiguous to the said seat thereof and extending longitudinally of said member to its other end, and means for connecting said members at said seats, whereby free access is provided for articulation of said members before the sections of the hollow closed member are soldered together.

942,525. SKIRT HANGER AND STRETCHER. WILLIAM J. TETREAULT, Moosup, Conn. Filed June 24, 1909. Serial No. 504,170.



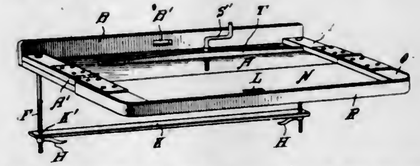
1. A device of the character described comprising a channeled connecting member having its open edge downturned, side members pivoted in the channel of said connecting member, a waist band clamp to co-act with said connecting member, a suspending means upon said connecting member, coil springs each having one end connected to said connecting member, and its other end connected to one of the side members, and a longitudinally extensible means connecting the side members.

2. A device of the character described comprising an upper connecting member, side members pivoted to said connecting member, means for holding said side members in spaced relation, a waist band clamp having spring members pivoted on opposite sides of the connecting member on one end of the same, and means for uniting the free ends of said spring clamp members to cause the latter to retain the waist band against opposite sides of said connecting member.

3. A device of the character described comprising an upper member, a suspending hook thereon, side members pivoted to the upper member, an extensible connecting member between said side members, springs for actuating said side members away from each other, a waist band clamp consisting of resilient clamping strips pivoted on opposite sides of the upper member, and means uniting the free ends of said clamping strips.

4. A device of the character described comprising an extensible frame having an upper member, waist band clamping means consisting of resilient strips pivoted on opposite sides of said upper member at one end, a loop uniting the pivoted ends of said strips and a keeper loop carried by the free end of one strip and adapted to receive the free end of the other strip.

942,526. LUGGAGE-CARRIER. THOMAS W. TSCHIFFELY, Hagerstown, Md. Filed July 10, 1909. Serial No. 507,000.



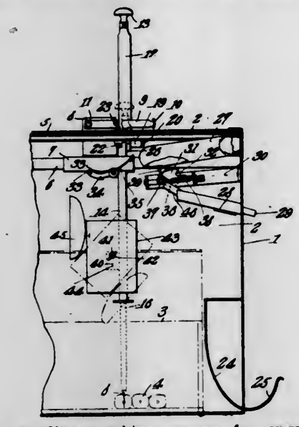
An attachment for buggies for carrying sewing machines, etc., comprising a board having a flange at one edge at right angles to the board which is apertured for the reception of a retaining strap, an apertured shelf hinged to said board and adapted to be held flush therewith when open by coming in contact with the edge of the board, said shelf adapted, when closed, to be positioned behind said flange, a retaining strap passing through the aperture in the board and shelf and means carried by the board for holding an article thereon, as shown and described.

942,527. CIGAR-VENDING MACHINE. LESLIE A. VANDIVER, Chicago, Ill., assignor to Star Novelty Mfg. Co., Inc., Chicago, Ill. Filed Mar. 18, 1909. Serial No. 484,149.

1. In a vending machine, a carrier movable in different directions in the machine, a stabbing point on the carrier and movable to and from the articles to be vended for engaging and lifting the articles by piercing the same, a stripper for the stabbing point mounted on and movable with the carrier, and means for rendering the stripper active at the discharge end of the machine.

2. In a vending machine, a carrier movable from point to point and into operative relation with any one of a number of articles to be vended, a rod mounted on the carrier and having at one end a stabbing point and movable in a direction at right angles to the carrier to engage the chosen articles by piercing the same with the stabbing point and to raise the same to a position to be carried toward the discharge end of the machine, and a stripper for the stabbing point mounted on the carrier.

3. In a vending machine, a carrier, a support for the same along which the carrier may be moved from point to point in the machine, a tubular guide supported by the carrier, a member within reach of the customer, a rod in the guide connected to and controlled by the member within reach of the customer, a stabbing point on the end of the rod toward the articles to be vended, the rod having a range of movement sufficient to carry the stabbing point into and out of the tubular guide, and a spring tending to return the rod to initial position after having been projected from the tubular member.

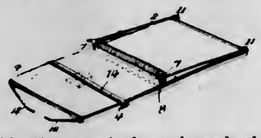


4. In a vending machine, means for engaging and lifting the articles to be vended comprising a stabbing point, a rod carrying said point and spring actuated in one direction, a member fastened to and actuating said rod and within the reach of a customer, and a locking means acting on the member within reach of the customer for arresting the movement of said member before reaching the initial position.

5. In a vending machine, a stabbing point, means within reach of a customer for moving the point to and from the articles to be vended, a stripper into and out of which the stabbing point is movable, and means for arresting the customer-actuated means at a predetermined point on the return to initial position, and before the stripper becomes active to the stabbing point.

[Claims 6 to 8 not printed in the Gazette.]

942,528. ANIMAL-TRAP. REUBEN M. WILBUR, Leadville, Colo. Filed Jan. 18, 1909. Serial No. 472,946.



1. In combination, a platform formed of a strip of material bent upon itself to form superposed plates, the longitudinal edge of one of which overlaps the longitudinal edge of the other, a spring-actuated jaw mounted upon the platform, longitudinal shafts journaled between said plates at opposite edges of the platform, catches at one end of the shafts to engage with the jaw and hold the same when the trap is set, and pedals at the opposite ends of the shafts to extend beneath the platform and support the same at one end.

2. In a trap of the character described, the combination of a platform having opposite edge portions bent to provide bearings, a spring-actuated jaw mounted upon the platform, and triggers mounted in said longitudinal bearings, each trigger comprising a shaft, a catch at one end of the shaft and a pedal at the opposite end of said shaft.

3. In a trap of the character described, the combination of a platform having a longitudinal edge thereof bent to provide a bearing, a spring actuated jaw mounted upon the platform, a trigger journaled in said longitudinal bearing and comprising a shaft having a catch at one end thereof, and a pedal at its opposite end, the pedal being bent at an angle to the longitudinal plane of the shaft and having its free end inclined downwardly beneath the platform and terminating approximately at the middle longitudinal line of said platform.

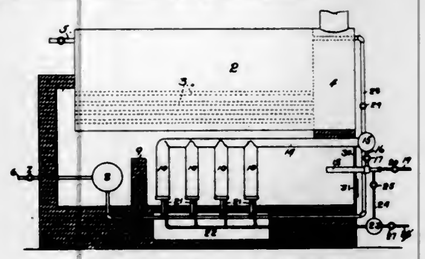
942,529. CALIPERS. GEORGE T. YOUNG, Stoneham, and ALBERT H. GLEASON, Stow, Mass. Filed June 16, 1908. Serial No. 438,742.



1. A caliper having in pivotal combination measuring legs, handles for operating said legs, said handles having thumb and finger holds, a graduated member carried by one of said handles on the end thereof and extending in part beneath the hold of the other handle when the handles are in a closed position, and an arm carried by said other handle to extend alongside said graduated member and beneath the hold of said handle to which the graduated member is secured.

2. A caliper having in pivotal combination measuring legs, handles for operating said legs, said handles having thumb and finger holds, a graduated arc carried by one of said handles on the end thereof and an arm carried by the other of said handles, said arm extending over said graduated arc with the end of said arm turned around the end of said arc forming a pointer coöperating with the graduations on said arc.

942,530. PROCESS FOR ECONOMIZING FUEL. DELOS ALLEN and ALEXANDER C. PYPER, Los Angeles, Cal. Filed Oct. 22, 1908. Serial No. 459,085.

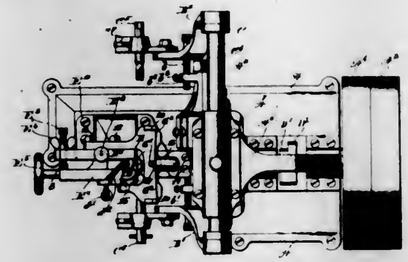


1. In a fuel economizing process, passing steam into a chamber, heating it therein, effecting a separation therefrom of the lighter constituents of the steam at a high degree of heat, and mingling said constituents at a high degree of heat with a fuel in a combustion chamber.

2. In a fuel economizing process, passing steam into a chamber, heating it therein, effecting a separation therefrom of the lighter constituents of the steam at a high degree of temperature, and mingling said constituents at a high degree of temperature with hydrocarbon, and discharging the mixture into a combustion chamber.

3. In a fuel economizing process, passing steam into a preheating chamber, thence passing it into a second chamber, heating it therein to a higher temperature, effecting a separation therefrom of the lighter constituents of the steam at a high temperature, then mingling the lighter constituents thereof with a fuel, and discharging the resulting mixture at a high degree of temperature into a flame in a combustion chamber.

942,531. SAW-SETTING MACHINE. ARTEMAS C. AMBLER, Natick, Mass. Filed Jan. 24, 1907. Serial No. 353,768.



1. In a machine of the class described, a reciprocating frame, two opposed screws adjustably carried by the frame, saw-feeding means operating to feed a saw longitudinally between each of the strokes of the frame, and tooth-setting means including a pivoted swage situated between said screws and adapted to be engaged thereby.

2. In a machine of the class described, a file-carrying frame provided with a plurality of actuators, means to feed the saw longitudinally between each of the strokes of said frame in one and then in an opposite direction, tooth setting means including a swage moved in one direction by one and then in an opposite direction by the other of said actuators to thereby bend or set said teeth in opposite directions, and a resilient equalizing device to place the acting faces of the swage in their inoperative position while the saw is being fed.

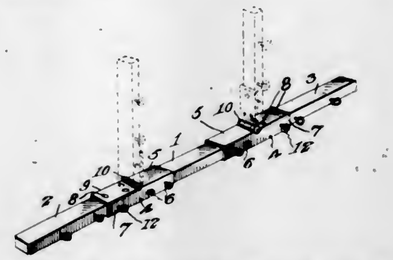
3. In a machine of the class described, means to clamp and hold frictionally a saw blade, a yoke embracing the toothed edge of the clamped saw, a saw setting swage pivoted on said yoke and having two jaws and a yielding evener movable with said swage and coacting with said yoke and serving normally to retain the swage in position with its faces out of the path of movement of the saw as the latter is being fed through said clamping means.

4. In a machine of the class described, means to clamp and hold frictionally a saw blade, a yoke embracing the toothed edge of the clamped saw, a saw setting swage pivoted on said yoke and having two jaws and a yielding evener movable with said swage and coacting with said yoke and serving normally to retain the swage in position with its faces out of the path of movement of the saw as the latter is being fed through said clamping means, combined with devices to meet said swage and move the same positively in one and then in the other direction that one or the other of its faces may meet the right hand side of one tooth and then the left hand side of another tooth, the equalizer restoring the swage into its inoperative position between one and its next tooth setting stroke.

5. In a machine of the class described, a frame, a driving shaft, means for reciprocating the frame by rotation of the driving shaft, file-sustaining means carried by the frame, two adjustable projections also sustained by the frame, a swage pivoted between said projections and adapted to be actuated thereby as the frame reciprocates, means to hold a saw, a pivoted saw-feeding lever, and a cam on the driving shaft for actuating said lever, said cam having a portion provided with a single throw point and another portion having two oppositely-situated throw points and being adjustable longitudinally of the shaft so that the portion having the single throw point or the portion having the two throw points may be situated to operate the lever.

[Claim 6 not printed in the Gazette.]

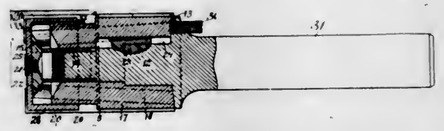
942,532. CONNECTING-BAR FOR HARROWS. GEORGE ANDERSON, Bladen, Nebr. Filed July 31, 1909. Serial No. 510,669.



1. A coupling bar of the character described comprising a central and end members, sleeves upon the ends of the central member and having channeled outer ends, top plates for said channeled outer ends hinged to said sleeves and secured to the end members, whereby the latter may swing upwardly out of the channeled ends of said sleeves and means for retaining said end members in the channeled ends of said sleeves and in longitudinal alinement with the central member.

2. A coupling bar of the character described comprising a central and end members, sleeves upon the ends of the central member and having channeled outer ends, top plates for said channeled outer ends hinged to said sleeves and secured to the end members, whereby the latter may swing upwardly out of the channeled ends of said sleeves, the opposite side walls of the channeled ends of the sleeves and said end members being formed with transverse openings adapted to register when the end members are in the channeled portions of the sleeves and in longitudinal alinement with the central member and removable fastenings arranged in said alining openings for the purpose set forth.

942,533. ADJUSTABLE REAMER. RALPH W. BAILEY, Hudson, Mass., assignor of one-half to Walter H. Sawyer, Lewiston, Me. Filed Nov. 17, 1908. Serial No. 463,122.



1. An adjustable reamer comprising a stud having an inner abutment and an outer abutment, one of said abutments being adjustable relatively to the other, a telescopic head having an inner member movable endwise on the stud between said abutments and an outer member secured to the adjustable abutment, said members having alined longitudinal slots, and a series of cutters supported laterally by said slots and longitudinally by said abutments, the cutters and the inner member of the head being provided with complemental means for radially adjusting, confining and supporting the cutters.

2. An adjustable reamer comprising a stud having an inner abutment and an outer abutment, one of said abutments being adjustable relatively to the other, a telescopic head having an inner member movable endwise on the stud between said abutments and an outer member secured to the adjustable abutment, said members having alined longi-

tudinal slots, and a series of cutters supported laterally and longitudinally by said slots and abutments respectively, and extended through the outer member of the head so that their outer ends are unobstructed, means being provided for radially adjusting, confining and supporting the cutters.

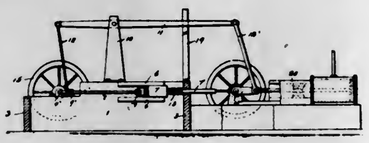
3. An adjustable reamer comprising a supporting stud having an inner abutment and an outer abutment, one of said abutments being adjustable relatively to the other, a series of cutters having thickened backs provided with inner and outer end faces seated on said abutments, and means between the abutments having provisions for radially adjusting, confining and supporting the cutters without longitudinal displacement thereof, the outer ends of the cutting edges of the cutters extending beyond the outer end faces of the backs, and across the outer abutment.

4. An adjustable reamer comprising a supporting stud having an inner abutment and an outer abutment, one of said abutments being adjustable relatively to the other, a series of cutters having thickened backs which are inclined relatively to the cutting edges and have inner and outer end faces seated on said abutments, the outer ends of the cutting edges of the cutters extending beyond the outer end faces of the backs and across the outer abutment, and a sleeve longitudinally movable on the stud between the abutments and having inclined sockets engaged with the cutter backs, and slots engaged with the sides of the cutters, a longitudinal movement of the sleeve causing a radial adjustment of the cutters without longitudinal displacement thereof.

5. An adjustable reamer comprising a supporting stud having an inner abutment and an outer abutment, one of said abutments being adjustable relatively to the other, a series of cutters having thickened backs which are inclined relatively to the cutting edges and have inner and outer end faces seated on said abutments, the outer ends of the cutting edges of the cutters extending beyond the outer end faces of the backs and across the outer abutment, a sleeve movably mounted on the stud between the abutments and having inclined sockets engaged with the cutter backs and slots engaged with the sides of the cutters, and means for longitudinally adjusting said sleeve, a longitudinal movement of the sleeve causing a radial adjustment of the cutters without longitudinal displacement thereof.

[Claims 6 to 11 not printed in the Gazette.]

942,534. POWER DEVICE. WILLIAM H. H. BAKER, Sciota Mills, Ill. Filed July 31, 1909. Serial No. 510,584.



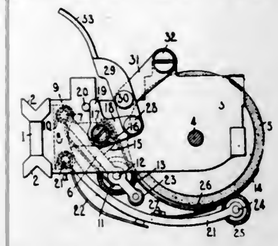
1. In combination with a motor, a base member, a crank shaft carried by said base member, compressible and expansible means operated by said crank shaft, and means for connecting said crank shaft to the crank shaft of the motor.

2. In combination with a motor, a base member, a crank shaft carried by said base member, a cross head mechanism carried by said base, compressible and expansible means secured to said cross head, means connecting said cross head and said crank shaft, a rocker arm pivotally carried by the base, and means for connecting said rocker arm with said crank shaft, and with the crank shaft of the motor.

3. In combination with a motor having a crank shaft, a crank shaft spaced from that of the motor, a pair of crossheads connected to said second crank shaft, a rod carried by each of said cross heads, a coil spring surrounding each rod and engaging the cross head thereof, means to form a bearing through which the free ends of the rods slide and to provide an abutment for the springs, a rocker arm pivotally mounted in the space between the two crank shafts, and a connecting rod connected at each end of said rocker arm and to the respective crank shaft.

4. In combination with a motor having a crank shaft, an attachment for the motor composed of a base formed with sides, ends and a pair of intermediate stringers, a crank shaft mounted on said sides, a pair of cross heads slidably mounted between the stringers and sides, pitman connecting one end of the cross heads with said second crank shaft, a rod carried by each cross head and extending through an opening provided therefor in one of said end walls, a coil spring surrounding each rod abutting the cross heads at one end and said end of the base at the other end, a pair of standards carried by the stringers, a rocker arm pivoted between the standards, a connecting rod at one end of the rocker arm secured to the second crank shaft, a second connecting rod at the other end of the rocker arm connected to the engine crank shaft, and a second pair of standards carried by the inner end of the base to guide said rocker arm in its travel.

942,535. TYPE-WRITING MACHINE. EDWIN E. BARNEY, Syracuse, N. Y., assignor to The Monarch Typewriter Company, Syracuse, N. Y., a Corporation of New York. Filed Nov. 23, 1907. Serial No. 403,531.



1. In a typewriting machine, the combination of a platen, a feed roller coöperating therewith, and means for releasing said feed roller and for locking same in the released position, said means including feed roll hangers, a rock shaft operative on said hangers to throw the feed roller out of coöperative relation with the platen, a crank arm on said rock shaft, and a hand-controlled toggle connected to said crank arm and operative on said rock shaft to actuate and lock it.

2. In a typewriting machine, the combination of a platen, feed rollers coöperating therewith, and means for releasing said feed rollers and for locking them in the released position, said means including feed roll hangers, a rock shaft operative on the hangers to move said hangers to throw the feed rollers out of coöperative relation with the platen, a crank arm on said rock shaft, and a hand controlled toggle connected to said crank arm in order to rock the shaft and lock it, the disposition and relation of the parts being such that the feed rollers will be locked in the released position when the toggle is in the dead center position.

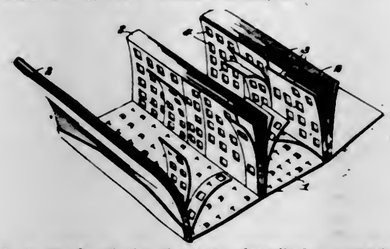
3. In a typewriting machine, the combination of a platen, feed rollers coöperating therewith, and means for releasing said feed rollers and for locking them in the released position, said means including feed roll hangers, a rock shaft coöperative with said hangers to throw the feed rollers out of coöperative relation with the platen, a crank arm on said rock shaft, a toggle connected to said crank arm, and a finger piece connected directly to one of the elements of said toggle to control the rock shaft through the toggle.

4. In a typewriting machine, the combination of a platen, feed rollers coöperating therewith, and means for releasing said feed rollers and for locking them in the released position, said means including feed roll hangers, a rock shaft coöperative with the hangers to throw the feed rollers out of coöperative relation with the platen, a crank arm on said rock shaft, and a hand-controlled toggle connected to said crank arm, the disposition and relation of the parts being such that the feed rollers will be locked in the released positions when the toggle is in the dead center position, and a finger piece connected to one of said toggle elements so as to actuate and lock the shaft by the toggle, said finger piece constituting a stop to limit the movement of the toggle elements in one direction when they are in the dead center position.

5. In a typewriting machine, the combination of a platen, feed rollers coöperating therewith, and means for releasing said feed rollers and for locking them in the released position, said means including feed roll hangers, a rock shaft coöperative with said hangers to throw the feed rollers out of coöperative relation with the platen, a crank arm on said rock shaft, a stop which coöperates with said crank arm to limit the movement of the crank arm and the parts connected therewith in one direction, a toggle connected to said crank arm, and a finger piece connected to one element of said toggle to effect an actuation and a locking of the rock shaft through the toggle, said finger piece constituting a stop to limit the movement of the toggle in the opposite direction.

[Claims 6 to 11 not printed in the Gazette.]

942,536. PUZZLE. WILLIAM F. BARTSCH, Edgemoor, Del. Filed Nov. 5, 1908. Serial No. 461,166.



1. A puzzle of the character described, comprising a sheet provided with indicia, and sets of leaves adapted to be interfolded upon the sheet each leaf being formed with openings corresponding in relative position with a part only of the indicia on the sheet, a plurality of said openings in the various leaves being adapted to register, and sundry of the openings in some of the leaves corresponding with solid portions of other leaves.

2. A puzzle of the character described, comprising a sheet provided with indicia some distinguishable from others, and sets of leaves adapted to be interfolded upon the sheet, each of the leaves having openings and being provided between the openings with indicia similar to the indicia upon the sheet, the openings and the indicia of a leaf corresponding in number and relative position with the indicia upon the sheet.

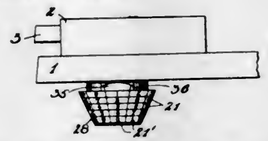
3. A puzzle of the character described comprising a sheet provided with indicia, and sets of leaves adapted to be interfolded upon the sheet, each leaf being constructed in sections formed with openings corresponding in relative position with a part only of the indicia on the corresponding part of the sheet, a plurality of said openings in the various sections being adapted to register and sundry of the openings in some of the sections corresponding with solid portions of other sections.

4. A puzzle of the character described comprising a sheet provided with indicia, and sets of leaves adapted to be interfolded upon the sheet, each leaf being of uniform size and consisting of a plurality of sections of varying widths, the sections being formed with openings corresponding in relative position with a part only of the indicia on the corresponding part of the sheet, a plurality of said openings in the various sections being adapted to register and sundry of the openings in some of the sections corresponding with solid portions of other sections.

5. A puzzle of the character described, comprising a sheet provided with indicia of various kinds, and sets of leaves attached at one edge to the sheet and adapted to be interfolded thereon, the leaves of the sets being of uniform size, and each consisting of several sections of varying width, and the sections being formed with openings and being provided in the spaces between the openings with indicia, the openings and indicia of each leaf corresponding in number and relative position to the indicia on the sheet.

[Claims 6 to 11 not printed in the Gazette.]

942,537. KEYHOLE-PLUG AND GUARD THEREFOR. CHARLES S. BATDORF, Brooklyn, N. Y. Filed May 7, 1909. Serial No. 494,543.



1. A key hole guard, comprising a member adapted to be inserted in the key hole and a combination member adapted to be removably secured over a portion of said first member projecting from said key hole, said combination member having combination elements to engage said projecting portion to retain the first member within said key hole.

2. A key hole guard, comprising a member adapted to be inserted within the key hole, said member consisting of pivoted elements so arranged that upon expansion of the inserted ends of said elements the same will be retained within the key hole, and a combination member adapted to be slipped upon the projecting ends of said first member, said combination member having combination elements arranged to maintain said inserted members in expanded position and prevent the withdrawal thereof from said key hole.

3. A key hole guard, comprising a member adapted to be inserted within the key hole and to be expanded to retain the same therein, and a combination member adapted to be secured upon a projecting portion of said first member and to maintain the same expanded within said key hole, said combination member consisting of a plurality of combination elements capable of adjustment to retain the same upon said first member and to permit the same to be moved from said first member.

4. A key hole guard, comprising a member adapted to be inserted within the key hole and retained therein, a combination member adapted to receive a projecting portion of said first member and to cause engagement thereof with said key hole, said combination member comprising a plurality of rotatable disks having portions adapted to engage said first member to prevent separation of said members, said elements being capable of adjustment to permit removal of said combination member from said first member.

5. A keyhole guard comprising a member consisting of two parts pivoted together and adapted to be inserted within the keyhole and to be expanded to retain the same therein, a combination member adapted to be removably secured on a projecting portion of the first member and to maintain the same expanded within said keyhole, said combination member comprising a plurality of combination elements capable of adjustment to retain the same upon said first member and to permit the same to be removed from said first member.

[Claims 6 to 16 not printed in the Gazette.]

942,538. ANTISEPTIC SOAP. WALLACE A. BEATTY, New York, N. Y., assignor to Robert W. McCulloch, trustee, New York, N. Y. Filed Mar. 1, 1907. Serial No. 359,994. Renewed May 7, 1909. Serial No. 494,585.

1. An antiseptic soap combining a saponaceous element and tetra-brom-cresol.

2. An antiseptic soap combining a saponaceous element and a compound of bromin and cresol, which compound contains substantially 75% of bromin.

3. A detergent combining a saponaceous element and an antiseptic having tetra-brom-cresol as its base.

942,539. DUST-PROOF JOURNAL-BEARING FOR REVOLUBLE DISKS. PETER BROMAN, Beaver Dam, Wis., assignor to Beaver Dam Manufacturing Company, Beaver Dam, Wis., a Corporation of Wisconsin. Filed July 31, 1908. Serial No. 446,209. Renewed Oct. 18, 1909. Serial No. 523,198.



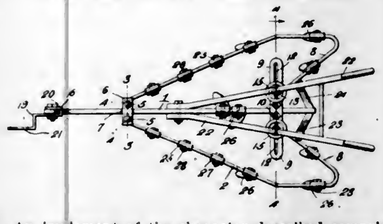
1. In a device of the described class, the combination of a concavo-convex disk having its central portion bent inwardly toward the concave side thereof, forming a hollow hub revoluble with said disk, an annular stationary bearing located in said hub upon and around which said disk is adapted to revolve, an annular plate secured to the convex side of said disk adapted to bear against the exterior vertical surface of said stationary bearing, a disk supporting arm rigidly secured at one end to the draw bar of the machine with which said disk is used, a stationary hub affixed to the lower end of said arm and means for rigidly securing said disk supporting bearing to said hub.

2. In a device of the described class, the combination of a concavo-convex disk having its central portion bent inwardly toward the concave side thereof, forming a hollow hub revoluble with said disk, an annular stationary bearing located in said hub upon and around which said disk is adapted to revolve, an annular plate secured to the convex side of said disk, provided with a central chamber for the reception of the head of a central disk supporting bolt, adapted to bear against the exterior vertical surface of said stationary bearing, a disk supporting arm rigidly secured at one end to the draw bar of the machine with which said disk is used, a stationary hub affixed to the lower end of said arm and a central bolt adapted to rigidly support said stationary bearing in contact with the opposing surface of said stationary hub.

3. In a device of the described class, the combination of a concavo-convex disk having its central portion bent inwardly toward the concave side thereof forming a hollow hub revoluble with said disk, an annular stationary bearing located in said hub upon and around which said disk is adapted to revolve, an annular plate secured to the convex side of said disk, adapted to bear against the exterior vertical surface of said stationary bearing, a disk supporting arm rigidly secured at one end to the draw bar of the machine with which said disk is used, a stationary hub affixed to the lower end of said arm, means for rigidly securing said disk supporting bearing to said hub, an annular chamber formed in the periphery of said stationary hub and a dust proof packing located in said annular chamber, adapted to close the joints between said stationary and said revoluble hub.

4. In a device of the described class, the combination of a concavo-convex disk having its central portion bent inwardly toward the concave side thereof forming a hollow hub revoluble with said disk, an annular stationary bearing located in said hub upon and around which said disk is adapted to revolve, an annular plate secured to the convex side of said disk, adapted to bear against the exterior vertical surface of said stationary bearing, a disk supporting arm rigidly secured at one end to the draw bar of the machine with which said disk is used, a stationary hub affixed to the lower end of said arm, means for rigidly securing said disk supporting bearing to said hub, an annular chamber formed in the periphery of said stationary hub, a dust proof packing located in said annular chamber, adapted to close the joints between said stationary and said revoluble hub, and an annular ring interposed between said packing and the opposing surface of said revoluble hub.

942,540. CULTIVATOR. CRAIG W. BROWN, Lewiston, N. C. Filed May 20, 1909. Serial No. 497,218.

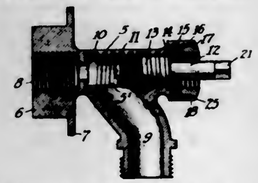


1. An implement of the character described comprising a centrally arranged main beam, rearwardly diverging side beams having their forward ends hingedly connected to the main beam and their rear ends bent inwardly and provided with eyes, earth working elements upon said beams, a transverse connecting bar arranged upon the main beam and having its projecting ends formed with longitudinal slots, a clip adjustably securing the central portion of said connecting bar to said main beam, and clamping bolts arranged in the eyes at the rear ends of the side beams and in the longitudinal slots of said connecting bars, substantially as described.

2. The hereindescribed implement comprising a centrally arranged main beam having its forward end upturned and apertured and its intermediate portion formed in its top and bottom edges with notches, upper and lower apertured plates arranged in said notches, rearwardly diverging side beams having their forward ends bent to form eyes and arranged between said plates and pivot fastenings passed through said plates and the eyes in the side beams to pivotally unite the latter and the main beam, the rear ends of said side beams being bent inwardly and forwardly and having their extremities bent to form eyes, a transverse connecting bar arranged across the rear portion of the main beam and having its projecting ends formed with longitudinal slots, a clip adjustably securing the central portion of the connecting bar to said main beam, clamping bolts arranged in the eyes at the rear ends of the side beams and in the slots of said connecting bars to secure the side beams in adjusted position, earth working elements upon the side and main beams, a pair of upwardly and rearwardly diverging handles secured at their forward ends on opposite sides of the intermediate portion of the main beam, and braces between said handles and the rear end of the main beam.

942,541. SILLCOCK AND OTHER VALVE. FRANK W. CARLSON, Chicago, Ill. Filed Dec. 18, 1908. Serial No. 468,099.

1. A sillcock comprising a body, a head on the body adapted to be seated in the frame or foundation of a building, said head being angular in form and having recesses in its sides, and an outwardly projecting flange around the head to lie against said frame or foundation.

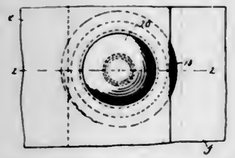


2. A valve comprising a body, a seat in said body, a stem screw-threaded in the body, a valve disk on said stem to engage said seat, and a collar screwed into the outer end of the body to prevent the removal of the stem, said collar being threaded interiorly to receive a master key.

3. A valve comprising a body, a seat in the body, a stem screw-threaded in the body, a valve on the stem to engage said seat, a shoulder in the body, a washer on the stem to engage said shoulder, a gasket to engage said washer, and a hollow collar screw-threaded in the end of the body to engage said gasket, said collar being threaded interiorly to receive a master key and the end of said stem being located within said collar when the valve is seated and shaped to receive an operating key.

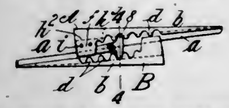
4. A valve comprising a body, a head at one end of the body provided with a threaded opening to receive a pipe, said head being angular in form and recessed at its sides to make locking engagement with the frame or foundation of a building, a seat in the body, a stem screw-threaded in the body, a valve disk on said stem to engage said seat, a shoulder in the body, a washer on the stem to engage said shoulder, a gasket on the stem, and a hollow collar screw threaded in the other end of the body against said washer, said collar being threaded exteriorly and interiorly and one of said threads being a right thread and the other a left thread.

942,542. FASTENING DEVICE. FRED S. CARR, Brookline, Mass., assignor to Carr Fastener Company, Boston, Mass., a Corporation of Maine. Filed Jan. 10, 1908. Serial No. 410,124.



A fastener composed of a socket member having a center post and also having a marginal inwardly opening groove and resilient jaws secured to the socket member in said groove, and projecting inwardly from the latter, and a stud member formed to enter the socket member, and having a center pocket to receive said post and also provided with a flat shoulder adapted to be positively interlocked with one of the jaws, and an inclined shoulder adapted to exert a displacing pressure on the other jaw.

942,543. QUOIN. EDWARD J. CASEY, Springfield, Mass. Filed Mar. 13, 1909. Serial No. 483,164.

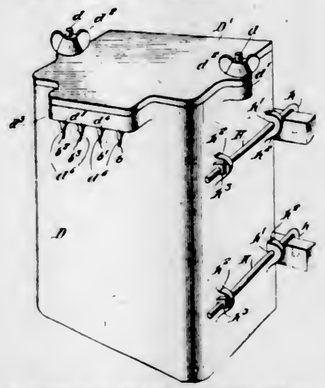


1. A quoin comprising relatively movable wedge-shaped members having opposed rack-teeth at their sides, one of the quoin members having a longitudinal way inside of its rack teeth and the other quoin member having a spring detent engaged therewith and carried thereby, normally operative by its reaction to have a portion thereof engaged in the teeth of the relatively opposite quoin member and adapted by the engagement sidewise thereagainst of the quoin operating key to be transversely moved out of its rack tooth engagement and to be free for movement in the said longitudinal way.

2. A quoin comprising relatively movable wedge-shaped members having opposed rack teeth at their sides, and each having a longitudinal way inside of its rack teeth, one of the quoin members having a spring plate secured to its one end portion thereto, having its outer extremity laterally deflected and provided with oppositely extended projections, normally operative by the spring reaction of said plate to engage opposite teeth of the quoin members and adapted by the engagement sidewise thereagainst of the quoin operating key to be transversely moved out of its rack tooth engagements and to be free for movement in the said longitudinal ways.

3. A quoin comprising relatively movable wedge-shaped members having opposed rack teeth at their sides, one of said members having a longitudinal groove inside of its rack teeth and having its end portion beyond the series of rack teeth widened and having a recess through said widened portion continuous with said groove and the other quoin member also having a longitudinal groove inside of its rack teeth, a T-shaped spring plate having its longitudinal member disposed and confined in said recess in the widened end part of the one quoin member and having its end portion comprising oppositely extending projections normally laterally deflected from the plane of the groove, and said recess adapted, when the quoin members are in operative relations, to engage in the opposed rack teeth thereof and adapted by the pressure in an inward direction sidewise thereagainst to be forced to the coinciding plane of said longitudinal grooves.

942,544. ELECTRIC TRANSFORMER AND GOVERNOR. EDWARD R. CLIFF, New York, N. Y. Filed Mar. 5, 1908. Serial No. 419,030.



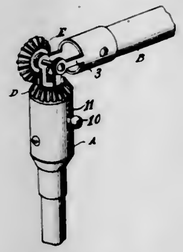
1. The combination, with an inclosing case for reception of the operative parts of an electric transformer and governor constructed with a detachable cover, and with an outwardly extending flange that is provided with a passage-way or passage-ways formed therein, of a series of insulating nipples arranged in such flange and connecting with the interior of the case through such passage-way or passage-ways, substantially as described.

2. The combination, with a closed bottom inclosing case provided with a detachable cover and constructed with an outwardly extending flange having a passage-way or passage-ways formed therein, of a series of insulating nipples arranged in such flange and connecting with the interior

of such inclosing case through said passage-way or passage-ways, and means by which the case with its contained parts may be secured to an appropriate support, substantially as described.

3. The combination, with an inclosing case constructed with an outwardly extending flange and provided with insulating nipples arranged therein and with a passage-way or passage-ways leading from such nipples to the interior of the case, a magnetic circuit arranged in such inclosing case, and a primary and a secondary coil arranged within such magnetic circuit, of conductors leading from the primary and secondary coils to and through such insulating nipples and respectively adapted for connection in circuit with a source of alternate current electric supply, and in circuit with a series of electrically operated units, substantially as described.

942,545. ADJUSTING DEVICE FOR SUPPORTS. PAUL COLIDGE, New York, N. Y. Filed Mar. 31, 1909. Serial No. 487,045.



1. In a device of the class described, the combination of a supporting section, a member rotatably connected thereto, a second section pivotally connected to the rotatable member, a toothed member conxial in respect to the rotatable member, another toothed member engaging the above mentioned toothed member and coaxially movable with the pivoted section aforesaid, and means for locking one of said toothed members and the rotatable member from movement to thereby hold the sections in adjusted positions.

2. In a device of the class described, the combination of a supporting section, a toothed member rotatively mounted thereon, a second section pivoted to the first section, adjusting members, one of which is coaxial with the pivot aforesaid and movable with the pivoted section and the other of which is coaxial with the rotative member, said adjusting members being engaged, and a locking device coacting with one of the toothed members to prevent pivotal or rotative movement of the sections aforesaid with respect to one another.

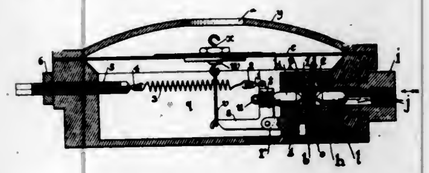
3. In a device of the class described, the combination of a supporting section, a rotative member carried thereby, another section pivoted to the rotative member, a toothed element movable with the pivoted section and coaxial with respect to the pivot means, a second toothed member coaxial with respect to the rotative member and meshing with the first mentioned toothed member, and a sliding locking device carried by one section and engageable with one toothed element and the rotative member to lock the sections in adjusted positions.

4. In a device of the class described, the combination of a supporting section, a sleeve rotatable thereon, another section pivotally connected with said sleeve, an adjusting gear carried by the last mentioned section and arranged coaxially with reference to its pivot, an adjusting gear mounted for movement on the supporting section and engaging the gear of the other section, and means carried by the supporting section for engagement with the sleeve and the gear of said section to lock these parts from movement and hold the sections in a predetermined adjustment.

5. In a device of the class described, the combination of a lower supporting section, an upper section, a sleeve rotatable on the supporting section and having pivotal connection with the upper section, a gear movable with the upper section and secured thereto coaxially with reference to its pivot, a second gear meshing with that above mentioned and mounted loosely on the supporting section, locking catches arranged to engage the sleeve and the gear on the supporting section to prevent movement of these parts with reference to said section, and means for operating said catches simultaneously to permit of rotative and pivotal movement of the upper section on the lower section.

[Claims 6 and 7 not printed in the Gazette.]

942,546. PRESSURE-REGULATOR. GEORGE W. COLLIN, Bridgeport, Conn., assignor to The Safety Car Heating and Lighting Company, a Corporation of New Jersey. Filed July 18, 1903. Serial No. 166,175.



1. In a regulator, in combination, a pressure chamber having a gas inlet opening, a flexible diaphragm forming one of the walls of said pressure chamber, a valve located within said gas inlet opening and adapted to cut off the flow of gas therethrough, a bell crank lever pivotally mounted at a point intermediate its ends within said pressure chamber, one of the legs of said lever intermediate its ends being connected with said valve, a link connecting the other leg of said bell crank lever with said diaphragm, a pair of coil springs connected with the end of said first mentioned leg of the bell crank lever, and an adjusting screw accessible from a position exteriorly of said chamber having a swivel connection with said springs.

2. In a regulator, in combination, a pressure chamber having a gas inlet opening, a flexible diaphragm formed in one of the walls of said pressure chamber, means having two oppositely disposed valve faces located within said gas inlet opening and adapted to cut off the flow of gas therethrough by movement in either direction, a bell crank lever pivotally mounted within said pressure chamber, one leg of said lever intermediate its ends being connected with said means, a link connecting the other leg of said bell crank lever with said diaphragm, a pair of coil springs connected with the end of the first mentioned leg and positioned upon either side of said link and an adjusting screw operative from a position exteriorly of said chamber connected with said springs.

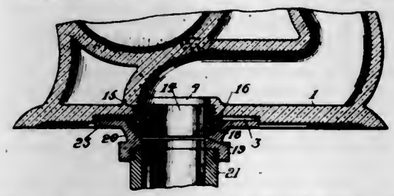
3. In a regulator, in combination, a pressure chamber, a valve chest comprising piston chambers connected by a reduced passage, the ends of said passage forming valve seats, a valve piston having oppositely disposed faces adapted to engage said seats, an axially alined inlet to one of said chambers, a laterally extending outlet from the other of said chambers and means in said pressure chamber adapted to control the operation of said valve.

942,547. SANITARY WARE. JOSEPH J. COSGROVE, Scranton, Pa., assignor to Standard Sanitary Manufacturing Company, Pittsburg, Pa., a Corporation of New Jersey. Filed June 11, 1907. Serial No. 378,355.

1. A water-closet of vitreous sanitary ware having an integral screwthread formed on the inner wall of its outlet passage.

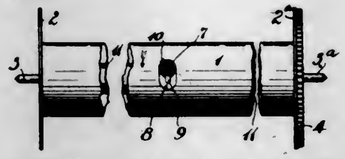
2. A water-closet of vitreous sanitary ware having an integral screw-thread formed on the inner wall of its outlet passage and a metallic thimble screwed into said outlet passage.

3. A water-closet of vitreous material having an outlet passage with an integral molded screw-thread formed



thereon, in combination with a screw-threaded metallic thimble engaging the screw-thread on the outlet passage.

942,548. RECEIVING-SPOOL FOR NOTE-SHEETS. WALTER R. CRIPPEN, Cambridge, Mass., assignor to Emerson Piano Company, Boston, Mass., a Corporation of Massachusetts. Filed Dec. 18, 1908. Serial No. 468,110.

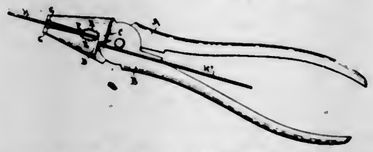


1. A receiving spool for note sheets and the like, comprising a hollow, cylindrical body, an opening in the wall of said body, a tongue projecting into said opening, a portion of the body adjacent to the tongue being depressed to form a recess for the purpose described.

2. A receiving spool for note sheets and the like, comprising a cylindrical body, a retaining tongue, said spool being counterbalanced at a point away from said tongue.

3. A receiving spool for note sheets and the like, comprising a hollow, cylindrical body, a perforation in the external wall thereof, a tongue projecting into said perforation, and a counterweight carried by said body at a point away from said tongue.

942,549. PLIERS. WILLIAM CRONK, Montour Falls, N. Y. Filed Dec. 21, 1907. Serial No. 407,485.

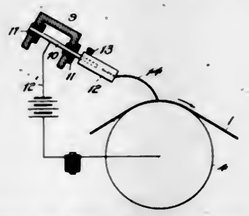


1. Pliers having gripping jaws formed with continuous rearwardly flaring sides which terminate at the joint circle in transversely projecting cutting knives, said jaws being provided with oppositely disposed recesses which extend forward from the cutting edges of the knives.

2. Pliers having flat gripping jaws formed on each side with continuous flaring projections which terminate at the joint circle in transverse cutting knives, said jaws being provided with oppositely disposed recesses which pass transversely across the jaws and extend forward from the cutting edges of the knives.

942,550. CONTACT DEVICE FOR SELF-PLAYING MUSICAL INSTRUMENTS AND OTHER APPARATUS. GEORGE H. DAVIS, West Orange, N. J. Filed Feb. 4, 1905. Serial No. 244,155.

1. In an electrical selecting device adapted to coöperate with a moving perforated web, a contact roll or bar over which the web is adapted to pass, a normally fixed support, and a plurality of elastic selector fingers rigidly secured to said support and coöperating with the bar or roll, each finger being freely capable of appreciable elongation, the free end of each finger meeting the surface of the bar or roll at an angle greater than 45° and not greater than 90°.



2. In an electrical selecting device adapted to coöperate with a moving perforated web, a contact roll or bar over which the web is adapted to pass, a fixed support, and a plurality of selector fingers rigidly fastened to said support and coöperating with the bar or roll, each finger being without support between the point where it is affixed to the said normally fixed support and the point where it contacts with the bar or roll, and being freely capable of appreciable elongation, the said finger meeting the surface of the bar or roll at an angle greater than 45° and not greater than 90°.

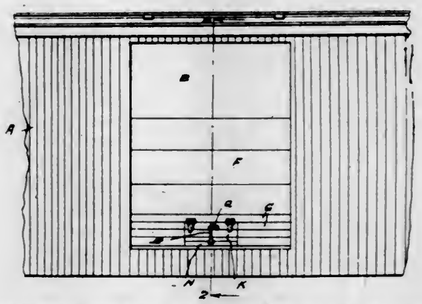
3. In an electrical apparatus, the combination with a perforated web, of a contact bar or roll over which said web travels, and a wire selector finger coöperating with said bar or roll said finger having a loop intermediate its ends whereby its free end may yield in the direction of travel of the web.

4. In an electrical selecting device adapted to coöperate with a moving perforated web, a contact roll or bar over which the web is adapted to pass, a normally fixed support, and a plurality of elastic selector fingers coöperating with the bar or roll, each finger being bowed throughout its length between the point of attachment to the said fixed support and the point of contact with the bar or roll, and the free end of each finger meeting the surface of the bar or roll at an angle between 45° and 90°.

5. In a contact device of the character described, a channeled supporting rail 9, a plurality of insulated bushings 11 carried by said rail, pins 10 passing through said bushings, a sleeve 12 detachably connected to each of said pins, a contact-finger carried by each sleeve, and a contact bar or roll with which the fingers coöperate.

[Claims 6 and 7 not printed in the Gazette.]

942,551. GRAIN-CAR DOOR. WINFIELD S. DRISKELL, Gretna, Nebr., assignor of one-third to E. S. Clark and one-third to Hans Peters, Gretna, Nebr. Filed Jan. 13, 1909. Serial No. 472,082.



In a grain car door, the combination with a car body having a door opening, of a door fitted to said opening and having an opening in its lower portion with an upturned keeper at its lower end, a supplemental door fitted to said opening and hinged at its upper edge to the main door, a

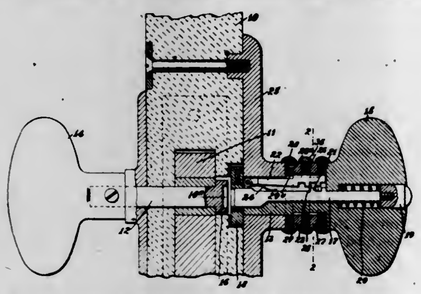
plate hinged at its lower end to the lower edge of the supplemental door and adapted to engage said keeper and retain the hinged plate in position, a lever connected with said hinged plate, and means engaging the free end of the lever to lock the parts in closed position, said lever extending in a direction opposite to that of the hinges of the supplemental door.

942,552. COMBINED SOCK AND GARTER. LLOYD O. GITCHELL, New York, N. Y. Filed Mar. 8, 1909. Serial No. 482,025.



A sock provided at the sides of its upper edge with upwardly-extending, integral and diametrically opposite flaps, an elastic band secured to the terminals of the said flaps, and a closing device for closing the overlapping ends of the said band at a point in front of the said flaps.

942,553. PERMUTATION-LOCK. GEORGE H. HAMILTON, Portland, Oreg. Filed May 25, 1909. Serial No. 498,232.



1. In a lock, a latch spindle transversely divided into two separate sections, each section independently revoluble, with one of the sections having a push-bar to lock the two sections of the spindle together, slidable therein, a spring-pressed pawl to lock the push-bar in its retracted and projected positions, and a permutation mechanism to control the pawl, carried on that section of the spindle having the push-bar.

2. In a lock, a latch spindle transversely divided into two separate sections, a push-bar to lock the two sections of the spindle together, slidable in one of said sections, and means to lock the push-bar in its projected and retracted positions, including a permutation mechanism having index rings and operating rings, the said index rings and operating rings alternating with each other, with the index rings fixed to the spindle section having the push-bar and each provided with a number of recesses on its inner face, one of which is elongated, and the operating rings revoluble on the spindle and each having a spring-pressed pin adapted to successively engage the recesses of the adjacent index ring.

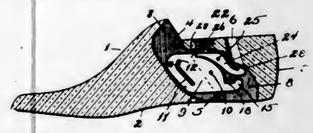
3. In a lock, a latch spindle having separate sections, one of said sections longitudinally slotted and provided with a knob having a counterbored recess, a push-bar to lock the two sections of the spindle together, slidable in said slot and extended into the counterbored portion of the knob, a push-button in said counterbored portion of the knob and attached to the push-bar, a spring bearing on the push-button and knob, forcing the push-bar outwardly, and means to lock the push-bar against inward movement, including a permutation mechanism revoluble on the slotted section of the spindle adjacent to and at the outside of the knob.

4. In a lock, a latch spindle in separate sections, one of the spindle sections having a knob provided with a recess, a push-bar to lock the two sections of the spindle together, slidable in one of the spindle sections and having a push-button arranged in said recess, and means to lock the push-bar in its retracted position, including a permutation mechanism carried on the spindle at the outside of and adjacent to the knob.

5. In a lock, a latch spindle constructed of an inner and outer section, the outer section having a longitudinal slot, a push-bar to lock the two sections of the spindle together, slidably mounted in said slot, means normally forcing the push-bar in a direction to disengage it from the opposite spindle, a pawl to lock the push-bar in its retracted position, pivotally supported in said slot, and a permutation mechanism to control the pawl, carried on the slotted spindle section and having index and operating rings alternating with each other, with the index rings secured to the spindle.

[Claims 6 to 10 not printed in the Gazette.]

942,554. LAST. WILLIAM S. HAMM, Newton, Mass., assignor, by mesne assignments, to Krentler-Arnold Hinge Last Company, Detroit, Mich., a Corporation of Michigan. Filed Nov. 9, 1901. Serial No. 81,662. Renewed Oct. 22, 1903. Serial No. 178,154.



1. A divided last, having its forepart and heel-part severed by an oblique cut extending from the bottom upwardly and forwardly to permit the heel-part to slide forwardly for shortening movement within a shoe when it is desired to remove the last from the shoe, a spindle socket in the heel-part, a vertical plate permanently secured at its opposite ends in the heel-part and forepart respectively, the securing means in one of the last parts consisting of a slot in said plate and a transverse pin in the last part to permit the shortening and lengthening sliding movement of the heel-part on the forepart, said plate having a shoulder in the heel-part, and locking means movably mounted in the heel-part to engage said shoulder of the plate in the heel-part, said locking means extending rearwardly and being operable from said spindle socket for movement out of engagement with said shoulder to permit the last part to be moved into last-shortening position.

2. A divided last, having its forepart and heel-part severed by an oblique cut extending from the bottom upwardly and forwardly to permit the heel-part to slide forwardly for shortening movement within a shoe when it is desired to remove the last from the shoe, a spindle socket in the heel-part, a vertical plate permanently secured at its opposite ends in the heel-part and forepart respectively, the securing means in one of the last parts consisting of a slot in said plate and a transverse pin in the last part to permit the shortening and lengthening sliding movement of the heel-part on the forepart, said plate having a shoulder in the heel-part, locking means movably mounted in the heel-part to engage said shoulder of the plate in the heel-part, said locking means extending rearwardly and being operable from said spindle socket for movement out of engagement with said shoulder to permit the last part to be moved into last-shortening position, and a spring for normally moving said locking means into locking position.

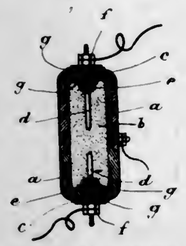
3. A divided last, having its parts joined by a combined lock-and-union, including a vertical plate, pivoted at one end in one of said last-parts, and automatic means, pivoted in the heel-part and movable within the last and interlocking with said plate in the heel-part, for locking said parts when the last-parts are moved to lengthened position.

4. A last comprising two sections, a movable latch on one of said sections formed with a slot having a pin-locking portion and a pin-guiding portion, a pin on the other section occupying said slot, and means yieldingly projecting said latch into locking position.

5. A divided last, comprising a forepart and a heel-part, the latter being provided with a spindle socket, said last having a vertical plate joining its parts for relative movement, said plate having a shoulder in its top edge, and a locking dog pivoted in the heel-part of the last and extending forwardly in engagement with said shoulder to lock the last in lengthened position, said locking dog being operable from the spindle socket of said heel-part.

[Claims 6 to 9 not printed in the Gazette.]

942,555. ELECTRIC RESISTANCE APPARATUS. MAX HANKIN, Brussels, Belgium. Filed Jan. 5, 1909. Serial No. 470,782.



1. In a device for use as a resistance in an electric circuit, in combination, a closed conducting metal envelop, particles of a resisting material filling said envelop and two terminals extending through and insulated from opposite ends of the said envelop and embedded in the said particles.

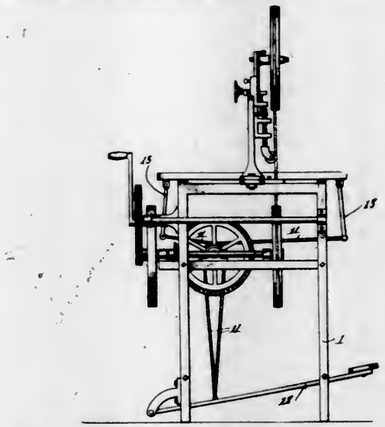
2. In a device for use as a resistance in an electric circuit, in combination, a closed conducting metal envelop, particles of a resisting material filling said envelop and two terminals extending through and insulated from opposite ends of the said envelop and embedded in the said particles, the said terminals being separated from each other by a distance of about twice the distance that separates them laterally from the envelop.

3. In a device for use as a resistance in an electric circuit, in combination, a closed conducting metal casing, particles of cast iron filling said casing and two terminals extending through and insulated from opposite ends of the said envelop and embedded in the said particles.

4. In a device for use as a resistance in an electric circuit, in combination, a closed conducting metal casing, rusty particles of cast iron filling said casing and two terminals extending through and insulated from opposite ends of the said casing and embedded in the said particles.

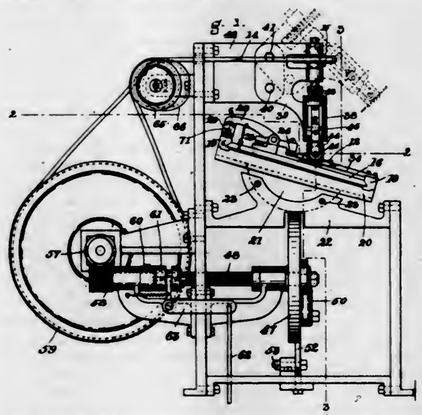
942,556. FOOT-POWER MOTOR. WILLIAM HARGROVE, Montreal, Quebec, Canada, assignor of one-half to Philip Armstrong Elliott, Montreal, Canada. Filed Nov. 11, 1907. Serial No. 401,628.

1. The combination of a frame and a shaft mounted therein, with sprocket wheels loosely supported on said shaft, one way clutch connections between said sprocket wheels and the said shaft, a treadle, chains connected at one end to the treadle and passing over the said sprocket wheels in opposite directions, arms to which the other ends of the chains are connected, pintles on which the said arms are loosely mounted, means for rotatably supporting the pintles, coiled springs each connected at one end to the frame and at the other end to a pintle, a pair of ratchets each of which turns with one of said pintles, a pair of pawls each of which is pivoted to one of said arms and engages the proximate ratchet to feed the same and a pair of retaining pawls or dogs each of which engages one of these ratchets substantially as set forth.



2. In combination with a shaft and a treadle, a locking arm, a chain connecting said treadle to said arm and engaging a sprocket wheel on said shaft, a ratchet mounted on said shaft, a spring pressed pawl engaging said ratchet mounted on said sprocket wheel, a rocking pintle, a spring attached thereto and tending to raise said treadle, a pawl and ratchet making connection between said pintle and said arm, and a dog adapted to engage said ratchet at will to hold it in one position while the pawl is shifted over one or more teeth for a new hold, thus providing for the adjustment of the tension of said spring, substantially as set forth.

942,557. MACHINE FOR MAKING SKIVED BLANKS FOR HEEL-COUNTERS, &c. LESLIE L. HARTWELL, Revere, Mass., assignor to Arthur G. Walton, Wakefield, Mass. Filed Feb. 26, 1909. Serial No. 480,247.



1. A blank making machine comprising a cutter adapted to act in a given plane, a movable work-supporting bed which is inclined relatively to the plane of the cutter, a

presser-foot adapted to clamp a blank sheet against said bed, automatic means for raising and depressing the presser-foot to alternately clamp and release the blank sheet, and means for varying the inclination of the bed.

2. A blank making machine comprising a cutter adapted to act in a given plane, a movable work-supporting bed which is inclined relatively to the plane of the cutter, a presser-foot adapted to clamp a blank sheet against the bed, and means operated by movements of the bed for moving the presser-foot toward and from the bed.

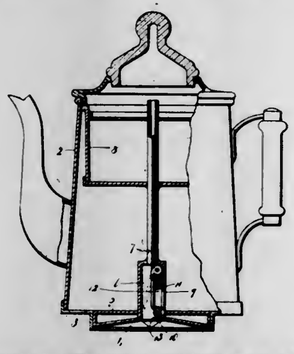
3. A blank making machine comprising a cutter adapted to act in a given plane, a movable work-supporting bed which is inclined relatively to the plane of the cutter, a presser-foot adapted to clamp a blank sheet against the bed, a lever connected with the presser-foot, and a fixed track against which said lever is yieldingly pressed, said track having alternating depressed and raised portions adapted to support the lever and presser-foot in different positions.

4. A blank making machine comprising a cutter adapted to act in a given plane, a work-supporting bed which is inclined relatively to the plane of the cutter, means for reciprocating the bed, a presser-foot movable toward and from the bed and normally separated therefrom, and means operated by movements of the bed for moving the presser-foot relatively to the bed to clamp and release the sheet.

5. A blank making machine comprising a cutter adapted to act in a given plane, a work-supporting bed which is inclined relatively to the plane of the cutter, means for reciprocating the bed, means for securing a blank sheet to the bed, and means for engaging the severed and projected blanks and preventing their retraction with the bed.

[Claims 6 to 11 not printed in the Gazette.]

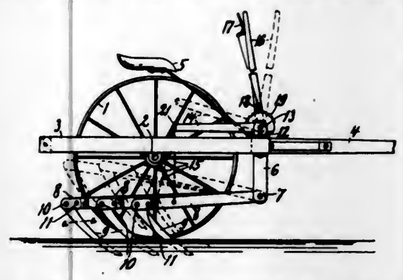
942,558. COFFEE-POT. JOHN A. HOLMGREN, New Britain, Conn., assignor of one-half to Joseph Edward Johnson, Meriden, Conn. Filed Apr. 19, 1909. Serial No. 490,942.



1. A percolator coffee pot comprising a pot having the central portion of its bottom depressed, a tube base located in said depressed portion, a valve-chamber mounted in said base and opening through it, a tube opening through the top of said chamber, an opening in one side of said chamber, and a removable valve block located in said chamber and having a port adjacent to said opening, and a valve hinged at its upper end to said block and normally closing said port.

2. A coffee pot having the central portion of its bottom depressed, a tube base located in said depressed portion and formed in its underside with radial grooves, a centrally arranged valve chamber mounted in said base and opening through it, a tube opening through the top of said chamber, an opening in one side of said chamber, a removable valve block located in said chamber and having a port adjacent to said opening, a valve hinged at its upper end to said block and normally closing said port, substantially as described.

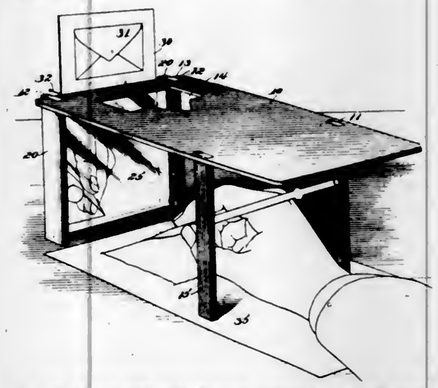
942,559. QUACK-GRASS DIGGER. JAMES HOPKINS, Boardman, Wis. Filed Dec. 7, 1908. Serial No. 466,243.



1. A device of the class described having teeth, each normally occupying a forwardly inclined position with its point and being flat, solid and of even thickness in cross section all along from end to end and arranged to move edgewise in the soil, the forward weed digging edge of the tooth being rounded so as to impel the roots of weeds upwardly without cutting them to pieces.

2. A tooth for uprooting weeds, the same constituting a flat solid bar adapted to move edgewise in the ground while standing at an incline with its lower end forward, the front weed digging edge of the tooth being rounded, substantially as and for the purpose set forth, said tooth being of practically the same thickness throughout its entire length.

942,560. OPTICAL-ILLUSION APPARATUS. EDWIN P. HOYT, New York, N. Y. Filed Apr. 8, 1909. Serial No. 488,609.



1. The herein-described article, comprising a top constituting a screen and provided with a sight-opening, means for supporting the rear end of the screen and permitting the insertion of one's hand therebeneath, and means independent of the rear supporting means and disposed along the front edge of the screen and depending from said front edge, for supporting the front end of the screen and for supporting also a mirror in a substantially vertical position.

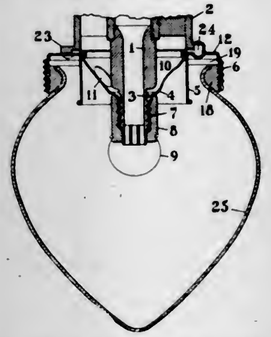
2. In a device of the character described, a board constituting a screen and provided with a sight opening, detachable front and rear legs, and a mirror detachably held in the front legs.

3. In a device of the character described, a board constituting a screen and provided with a sight-opening, front and rear detachable legs, and a mirror detachably held in the front legs, the said front legs having in their opposed sides vertical grooves in which the mirror is received.

4. A device of the character described, comprising a horizontal board having a series of openings, and legs adapted to said openings, certain of said openings being at the front and extending through the front edge of the screen, the screen having a sight opening at the front portion, the front legs projecting at their front edges beyond the front edge of the screen and having means for supporting a mirror thereon.

5. A device of the character described, comprising a horizontal board having a series of openings and legs adapted to said openings, certain of said openings being at the front and extending through the front edge of the screen, the screen having a sight opening adjacent to the front edge and slightly inward therefrom, the front legs projecting at their front edges beyond the front edge of the screen and having means for supporting a mirror thereon, the said means comprising vertical grooves in the opposed faces of the front legs, the grooves terminating short of the bottom ends of the legs, and a mirror fitting said grooves, but of such a height as to cause its top edge to lie below the screen.

942,561. GAS-LIGHTING APPARATUS. GEORGE E. HULSE, Jersey City, N. J., assignor to The Safety Car Heating & Lighting Company, a Corporation of New Jersey. Filed Feb. 20, 1906. Serial No. 301,988.



1. In a gas lighting apparatus, a downwardly-extending burner nozzle, and a deflecting member detachably carried by the end thereof, said member comprising a depending imperforate bell having the shape of a right cylinder and having its lower end terminating above the end of said nozzle adapted to direct a current of air downwardly and upwardly in a substantially U-shaped path adjacent the end of said burner nozzle.

2. In a gas lighting apparatus, a downwardly extending burner tube, and a deflecting member suspended from the end of said burner tube, said member comprising a mantle supporting portion affixable to the lower end of said burner, and a depending annular portion adapted to direct air downwardly along its outer periphery and adjacent said burner end and subsequently direct said air upwardly along its inner periphery.

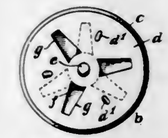
3. In a gas lighting apparatus, a lamp body an inverted burner tube, and a combined globe and mantle holder secured to the lower end of said burner tube and in abutment with the lower end of said lamp body, said holder having air inlets along its outer periphery and air exits adjacent said burner, and a depending bell extending from said holder intermediate said air inlets and exits, whereby air will be directed in a substantially U-shaped course adjacent the end of said burner.

4. In a gas lighting apparatus, a burner having a threaded lower end, and an annular shield suspended from said burner and adapted to direct fresh air downwardly into proximity with the end of said burner and subsequently direct said air upwardly and away from said burner end along a path distinct from said downwardly flowing air, said shield being detachably suspended from the lower end of said burner.

5. In a gas lighting apparatus, a burner having a threaded lower end, a mantle mounted upon the end thereof, and a member carried by said burner end in threaded engagement therewith and having an annular shield portion and adapted to direct fresh air downwardly along its outer periphery into contact with said mantle and subsequently direct said air upwardly and away from said mantle along its inner periphery.

[Claims 6 to 24 not printed in the Gazette.]

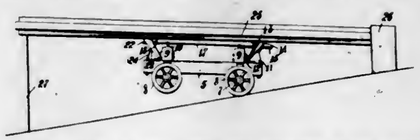
942,562. CONTAINER-TOP. BENJAMIN T. B. HYDE, New York, N. Y. Filed Aug. 12, 1909. Serial No. 512,523.



1. A container having a top, consisting of two disks, one fixed and the other pivoted thereto, each of said disks having oblong perforations radially arranged from the central imperforate portion of the top, said perforations being wider toward the central portion of the top than toward the periphery of said disks, substantially as and for the purposes described.

2. A container having a top, consisting of two disks, one fixed and the other pivoted thereto, each of said disks having oblong perforations radially arranged from the central portion of the top, said perforations being wider toward the central imperforate portion of said top than toward the periphery of said disks and means forming part of one of said disks to permit of shifting one disk over the other, substantially as and for the purposes described.

942,563. TRUCK. CHRISTIAN J. INGARD, San Francisco, Cal. Filed July 24, 1909. Serial No. 509,391.



1. In a truck, a body, two load carriers spaced apart and hinged to the body, the free terminals of the load carriers normally diverging, and means to hold the free terminals of the load carriers at a predetermined distance from each other.

2. In a truck, two longitudinal members spaced apart, two sets of bearings secured to the longitudinal members, axles journaled to the bearings, wheels mounted on the axles, transverse bolster members secured to the top of the longitudinal members, two load carriers spaced apart and hinged to the body formed by the longitudinal members and the transverse bolster members, and detachable means adapted for holding the free terminals of the load carriers at a predetermined distance from each other.

3. In a truck, a body, two load carriers normally supported obliquely on the body at different angles relatively to the body, and detachable means for holding the free terminals of the load carriers at a predetermined distance from each other.

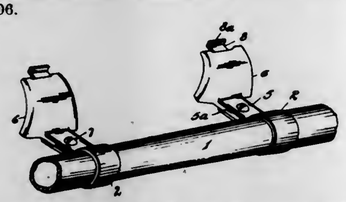
4. In a truck, a body having two transverse bolster members spaced apart, two load carriers mounted on the body, one at the outer side of each of the bolster members, one of the load carriers being adapted to move relatively to the other, and disengageable means adapted for holding the load carriers at a predetermined distance from each other.

5. In a truck, a body having two transverse bolster members spaced apart, two load carriers hinged to the

body, one at the outer side of each of the bolster members, and disengageable means for holding the load carriers at a predetermined distance from each other.

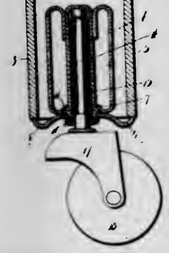
[Claims 6 to 11 not printed in the Gazette.]

942,564. DETACHABLE BRACKET. DAVID M. IRELAND, Detroit, Mich. Filed Apr. 9, 1909. Serial No. 488,806.



In combination with a pair of supporting brackets, each having a rising portion adapted to engage correspondingly shaped shoulders of a support, a locking tongue portion adapted to engage in a complementary recess therein, and a horizontal portion provided with depending lateral flanges, a tubular object supporting member, a plurality of loops engaging thereabout with their terminal portions extending under the horizontal portions of the brackets, and screw members for holding said horizontal portions in close engagement over the terminal tongues, substantially as described.

942,565. CASTER. JOSEPH E. JOHNSON, Meriden, Conn. Filed June 14, 1909. Serial No. 502,071.

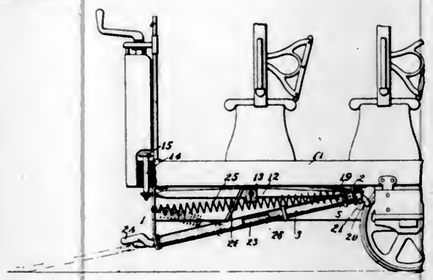


1. A caster comprising a socket, a sleeve-like spring in said socket into which a caster pintle may be inserted and removed, a track plate coupled with said socket and adapted to form a bearing for the lower end of a hollow leg, a frame mounted on said socket and comprising a strip having a perforation through which the socket passes, said strip extending upward and bearing at its upper ends against the sides of said socket.

2. A caster comprising a socket into which a caster pintle may be inserted and removed, a track plate coupled with said socket and adapted to form a bearing for the lower end of a hollow leg, a frame mounted on said socket and comprising a strip having a perforation through which the socket passes, said strip extending upward and bearing at its upper end against the sides of said socket, the ends of the strip extending upward and turned downward against the sides of said socket.

942,566. CAR-FENDER. JOHN J. KELLY, New York, N. Y. Filed Apr. 15, 1909. Serial No. 490,036.

1. In a car fender, in combination, a cradle, means for supporting said cradle in an inclined position under the forward end of the car, means tending to advance said cradle, means for guiding said cradle to advance in a downwardly inclined direction, a trip frame guided longitudinally of said cradle and normally projecting forwardly of said cradle, and means for normally detaining said cradle, said trip frame affording means for releasing said cradle.



2. In a car fender, in combination, a pair of inclined guide bars mounted under the forward end of the car and depressed toward their forward extremities, a cradle having a frame guided on said guide bars, springs tending to advance said cradle, means for normally detaining said cradle in a rearmost position, a trip frame having a bar extending across the front of said cradle and affording means when struck for releasing said cradle.

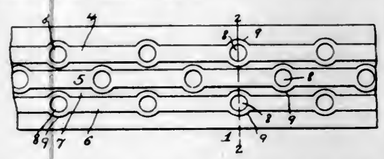
3. In a car fender, in combination, a pair of inclined guide bars disposed under the forward end of the car and depressed at their forward extremities, a cradle having a frame guided on said guide bars and adapted to slide forwardly thereupon, springs connected with said cradle frame and adapted to advance the same, a member engaging said frame and normally detaining said frame in its rearmost position, and a trip frame guided on said guide bars and affording means for actuating said member to release said cradle.

4. In a car fender, in combination, a pair of inclined tubular guide bars having their forward ends depressed, a cradle having a frame guided on said guide bars, springs connected with said cradle frame and tending to advance the same, a member normally engaging said cradle frame and adapted to detain the same in its rearmost position, and a trip frame projecting at its forward end before said cradle frame and having side bars sliding in said tubular guide bars, said trip frame being in engagement with said member and affording means for actuating said member to release said cradle therefrom.

5. In a car fender, in combination, a pair of inclined guide bars mounted under the forward end of the car and depressed at their forward extremities, a cradle having a frame guided on said guide bars, springs tending to advance said cradle, a lever engaging said cradle frame and normally adapted to detain said cradle in its rearmost position, and a trip frame projecting before said cradle and engaging said lever, said trip frame affording means for actuating said lever to release said cradle.

[Claims 6 to 11 not printed in the Gazette.]

942,567. AUTOMOBILE-TIRE. IVA B. KEMPSHALL, Boston, Mass. Filed Aug. 13, 1909. Serial No. 512,700.



1. An anti-skidding tire for automobiles provided with a rubber surface, formed along the tread with a series of continuous longitudinal ribs, each of which presents continuous edges extending around the tire, and is formed with a series of pockets.

2. An anti-skidding tire for automobiles provided with a rubber surface, formed along the tread with a series of continuous longitudinal ribs presenting continuous edges extending around the tire, each of the ribs being formed with a series of enlargements forming protuberances on said edges.

942,568. DEVICE FOR CLOSING SWINGING DOORS. WILLIAM H. KNAPP, Evanston, Ill. Filed May 10, 1909. Serial No. 494,958.



1. In a device of the kind described, the combination of a cap lever, a door lever hinged thereto, said levers of substantially equal length with tractive means including a spring applied to said door lever approximate to said hinge, substantially as described.

2. In a device of the kind described, the combination of a cap lever, one end of which is hinged to the door cap, a door lever substantially of the same length, one end of which is hinged to the door, the other ends of said levers being hinged together, with resilient means attached to said door lever approximate to the hinge of both levers, substantially as described and illustrated.

942,569. METHOD OF SECURING THE CHLORIDIZATION OF ORES. WILLIAM KOEHLER, Cleveland, Ohio. Filed Mar. 26, 1909. Serial No. 485,899.

1. The process of treating refractory ores which consists in subjecting them to the action of a halogen acid in the presence of hydrogen.

2. The process of treating refractory ores consisting in subjecting them to the action of a halogen acid in the presence of hydrogen and a carbon compound.

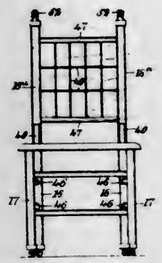
3. The process of treating refractory ores which consists in subjecting them to the action of hydrochloric acid in the presence of hydrogen.

4. The process of treating refractory ores which consists in subjecting them to the action of hydrochloric acid in the presence of a carbon compound and hydrogen.

5. The process of treating refractory ores which consists in subjecting them to the action of a halogen acid gas in the presence of hydrogen.

[Claims 6 to 8 not printed in the Gazette.]

942,570. CHAIR. WILLIAM P. LAWRENCE, Colorado Springs, Colo. Filed Dec. 29, 1908. Serial No. 469,841.



1. A chair having a seat including a sheet metal frame provided with inner and outer downwardly-extending flanges, a reinforcing plate beneath said frame and secured to both of said flanges, and a chair leg having two members slidably connected together, one of said members being secured to said plate and the other of said members being unattached thereto.

2. A chair having a seat including a sheet metal frame provided with two substantially concentric depending flanges, a seat bottom terminating adjacent the inner one of said flanges, a plate beneath said frame and having flanges in engagement with the flanges of said frame, means for securing one of said flanges to the inner flange of the frame and securing the seat bottom to said last-mentioned flange, and an upwardly-extending portion on the inner side of the outer flange of the frame for retaining the corresponding flange of said plate in position.

3. A chair having a seat including a sheet metal frame provided with two substantially concentric depending flanges, a plate beneath said frame and having flanges in engagement with the flanges of said frame, means for securing one of said flanges to the inner flange of the frame, and an upwardly-extending portion on the inner side of the outer flange of the frame for retaining the corresponding flange of said plate in position.

4. An article of furniture having a tubular element thereof formed of two members detachably secured together, one of said members being substantially channel-shaped in cross section and having outwardly-extending beads adjacent its free edges, inwardly-extending flanges adjacent the inner edges of said beads, and a series of short upwardly and outwardly-extending flanges carried by said last-mentioned flanges adjacent their free edges, and the other of said members comprising a plate fitting between said beads and having a series of short inwardly-extending flanges for coacting with the short flanges of the other member to secure said members together upon the longitudinal movement of one member in respect to the other through a distance substantially equal to the length of one of said short flanges, all of said short flanges being concealed from view when said members are in operative relationship.

5. A chair having a seat, a chair leg having a portion extending above said seat and constituting a portion of the chair back, an angular connecting member secured to the under side of said seat and the front side of said leg, means for securing said connecting member to said chair seat, and a triangular brace in engagement with the upper side of said seat and the front side of said leg and serving to conceal said securing means, said seat and said chair back having apertures therein and said triangular brace having projections extending through said apertures, and means independent of the angular connecting member and in engagement with said projections for retaining said triangular brace in position.

942,571. SPIRAL SCREW-DRIVER. JOHN A. LELAND, Montague, Mass., assignor to Millers Falls Company, Millers Falls, Mass., a Corporation of Massachusetts. Filed Dec. 8, 1908. Serial No. 466,512.



1. A tool of the character described comprising a tubular holder, a tool carrying shaft movable therein and provided with oppositely inclined intersecting helical grooves, collars rotatably mounted in said holder and each provided with an internal rib engaging one of said grooves said collars being also provided with external ratchet teeth, pawls arranged to engage said teeth, said pawls being placed side by side and extended in opposite directions, a normally immovable single spring held in position within said holder and engaging both pawls, to hold said pawls normally out of engagement with said ratchets, and an operating sleeve for said pawls mounted upon said holder.

2. A tool of the character described comprising a tubular holder, a tool carrying shaft movable therein and provided with oppositely inclined intersecting helical grooves, collars rotatably mounted in said holder and each provided with an internal rib engaging one of said grooves, said collars being also provided with external ratchet teeth, pawls arranged to engage said teeth, said pawls being placed side by side and extended in opposite directions, a normally immovable spring formed with a body portion held between said pawls and provided with

oppositely projected arms extended over said pawls and parallel therewith, and an operating sleeve for said pawls mounted upon said holder.

3. A tool of the character described comprising a tubular holder, a tool carrying shaft movable therein and provided with oppositely inclined intersecting helical grooves, collars rotatably mounted in said holder and each provided with an internal rib engaging one of said grooves, said collars being also provided with external ratchet teeth, pawls arranged to engage said teeth, said pawls being placed side by side and extended in opposite directions, a flat plate spring formed of a substantially S-shaped plate, the arms of which are arranged to engage said pawls, and a sleeve for controlling the operation of said pawls.

4. A tool of the character described, comprising a tubular holder provided with longitudinal slots arranged side by side, a tool carrying shaft mounted in said holder and provided with oppositely inclined intersecting helical grooves, collars rotatably mounted in said holder and each provided with means for engaging one of said grooves, said collars being also provided with external ratchet teeth, pawls mounted in said slots and arranged to engage said ratchets, a spring secured between said slots and engaging both pawls, and means for operating said pawls.

5. A tool of the character described, comprising a tubular holder provided with longitudinal slots arranged side by side and connected by transverse sockets, a tool carrying shaft mounted in said holder and provided with oppositely inclined intersecting helical grooves, collars rotatably mounted in said holder and each provided with means for engaging one of said grooves, said collars being also provided with external ratchet teeth, pawls mounted in said slots and having trunnions engaging said transverse sockets, a spring engaging said pawls, and means for operating said pawls.

[Claim 6 not printed in the Gazette.]

942,572. AUTOMATIC TOOL FOR BORING. JOHN A. LELAND and WILLIAM G. STEBBINS, Montague, Mass., assignors to Millers Falls Company, Millers Falls, Mass., a Corporation of Massachusetts. Filed Dec. 22, 1908. Serial No. 468,774.

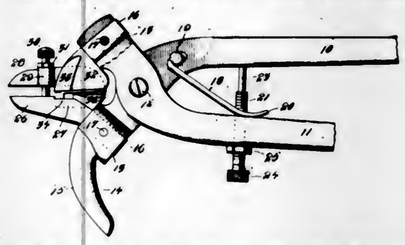


1. A tool of the character described, comprising a tubular holder, a tool carrying shank movable endwise in the holder, said holder and shank having interengaged members which cause the rotation of the shank when it is moved endwise, a spring which normally projects the shank from the holder, and means for locking the shank at any point in its range of projection to provent rotation and endwise movement thereof.

2. A tool of the character described, comprising a tubular holder, a tool carrying shank movable endwise in the holder, said holder and shank having interengaged members which cause the rotation of the shank when it is moved endwise, a spring which normally projects the shank from the holder, and a shank locking device carried by the holder and constructed to engage the shank at any point in its range of projection to prevent rotation and endwise movement thereof.

3. A tool of the character described, comprising a tubular holder, a tool carrying shank movable endwise in the holder, said holder and shank having interengaged members which cause the rotation of the shank when it is moved endwise, a spring which normally projects the shank from the holder, a clamp constructed to engage said shank at any point in its range of projection to prevent rotation and endwise movement thereof, and means carried by said holder for controlling the operation of said clamp.

942,573. SAW-SETTING TOOL. JULES L'HOTE, Pittsfield, Mass. Filed Nov. 3, 1908. Serial No. 460,896.



1. In a tool of the class described, pivoted handle members, an anvil jaw carried by one of said members and having a flat supporting face and a saw setting recess, an auxiliary setting jaw having an inclined setting point disposed to travel above the recess of said anvil, and a gage plate mounted upon the under face of said setting jaw and having a depending portion extending laterally of the setting point and adapted to engage the tooth being set.

2. In a tool of the class described, pivoted handle members, an anvil jaw carried by one of said members and having a flat supporting surface and a saw setting recess, an adjustable device disposed above said surface, an auxiliary setting jaw having an inclined setting point disposed to travel above the recess of said anvil jaw, and a slotted gage plate mounted upon the under face of said setting jaw and provided with a depending portion extending laterally of the setting point and adjustable relatively to the point of said setting jaw.

3. In a tool of the class described, pivoted handle members, a jaw mounted in one of said members and having a fixed flat anvil face and a recessed portion at its rear, an upward extension at one side of said face provided with a laterally disposed threaded socket, an adjusting screw mounted in said socket for movement toward and from the anvil face of the jaw, and a coöperating setting jaw carried by the opposite handle member and having a gage plate mounted thereon with a depending portion extending laterally of the setting point and adjustable relatively to the point of said setting jaw.

942,574. FRICTION-CLUTCH. AMOS LINT, Dayton, Ohio, assignor of one-half to David P. Clark, Dayton, Ohio. Filed Apr. 2, 1908. Serial No. 424,697.



1. In a friction clutch, the combination, with driving and driven members, one of said members having a hub, and a journal, forming the sole support for said hub, comprising a sleeve having a longitudinal slot therein, of an expanding-rod rotatably supported in said slot, and means for rocking said rod about its longitudinal axis, thereby causing said rod to engage the adjacent edges of said sleeve and expand said sleeve into frictional engagement with said hub.

2. In a friction clutch, the combination, with driving and driven members, one of said members having a hub, and a journal, forming the sole support for said hub, comprising a sleeve having a longitudinal slot therein, of an expanding-rod rotatably supported in said slot, bearings for said rod at the opposite ends of said slot, and means for rocking said rod about its longitudinal axis, thereby causing said rod to engage the adjacent edges of said sleeve and expand said sleeve into frictional engagement with said hub.

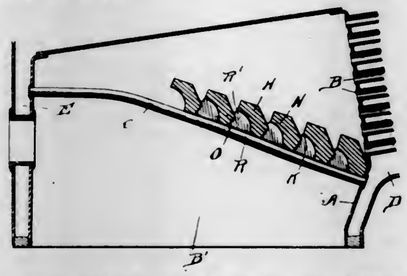
3. In a frictional clutch, the combination, with driving and driven members, one of said members having a hub, and a journal, forming the sole support for said hub, comprising a sleeve having a longitudinal slot therein, of an expanding-rod rotatably supported in said slot, bearings for said rod at the opposite ends of said slot, a rock arm carried by said rod beyond one of said bearings, and a member having an inclined surface slidably mounted near one end of said rod and adapted to engage said rock arm and move said rod about its longitudinal axis.

4. In a friction clutch, the combination, with a shaft, a sleeve mounted on said shaft and having a longitudinal slot, a hub mounted solely upon said sleeve and rotatable relatively to said shaft, and bearings arranged at the opposite ends of said sleeve, of an expanding-rod journaled in said bearings and supported within said slot, and means for moving said rod about its longitudinal axis.

5. In a friction clutch, the combination, with a shaft, a sleeve mounted on said shaft and having a longitudinal slot, a hub mounted solely upon said sleeve and rotatable relatively to said shaft, and bearings arranged at the opposite ends of said sleeve, of an expanding-rod journaled in said bearings and supported within said slot, said rod extending beyond one of said bearings and having that portion extending beyond said bearing bent at an angle to the body portion thereof to form a rock arm, and a cone slidably mounted on said shaft and adapted to actuate said rock arm to move said expanding rod about its longitudinal axis.

[Claims 6 to 8 not printed in the Gazette.]

942,575. ARCH FOR FIRE-BOXES OF LOCOMOTIVES, &c. JOHN LOFTUS, Albany, N. Y. Filed May 10, 1909. Serial No. 494,991.



1. In combination with a fire box and boiler flues of a locomotive, an arch made up of rows of brick spaced apart and positioned within the fire box and having their opposite faces inclined with respect to the horizon and away from said flues, flanges projecting from the under faces of the brick and having their lower edges inclined and in alinement with one another and against which flanges the adjacent rows of brick are adapted to bear.

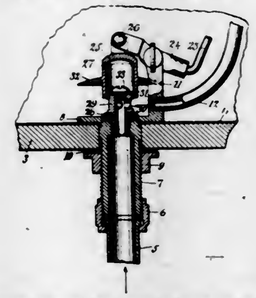
2. In combination with a fire box and boiler flues of a locomotive, an arch made up of rows of brick spaced apart and positioned within the fire box and having their opposite faces inclined with respect to the horizon and away from said flues, flanges projecting from the under faces of the brick and having their lower edges inclined and in alinement with one another and against which flanges the adjacent rows of brick are adapted to bear, the upright edge of each flange having a notch adapted to receive an angled portion of a brick in adjacent row with spaces intervening between the rows.

3. In combination with a fire box and boiler flues of a locomotive, an arch made up of rows of brick spaced apart and positioned within the fire box and having their opposite faces inclined with respect to the horizon and away from said flues, the under surface of each brick being concaved, each brick having an integral flange projecting from its concaved face, the under edges of the flanges being in alinement and disposed at inclinations.

4. In combination with a fire box and boiler flues of a locomotive, an arch made up of rows of brick positioned within the fire box and having their opposite faces inclined with respect to the horizon and away from said flues, said rows being spaced apart with increasing distances from the lower to the upper row and provided with flanges upon their upper faces, the lower marginal edges of which flanges are in alinement and at inclinations, the forward edge of each row being in alinement with the rearmost portion of each adjacent row of brick.

5. In combination with a firebox and boiler flues of a locomotive, an arch made up of rows of brick positioned within the fire box and having their opposite faces inclined with respect to the horizon and away from said flues, said rows being spaced apart with increasing distances from the lower to the upper row and provided with flanges upon their upper faces, the lower marginal edges of which flanges are in alinement and at inclinations, the forward edge of each flange being notched and the rear edge of each row having an angled portion engaging said notches.

942,576. VALVE. WILLIAM N. LONG, Eugene, Oreg. Filed Jan. 14, 1909. Serial No. 472,194.



The combination of a receptacle, a nozzle extending thereinto for discharging a liquid, said nozzle being provided with a hole, a cup movable relatively to said nozzle for the purpose of opening and closing said hole, said cup being provided with an air vent and being further provided with a shield encircling said cup and disposed at the approximate center of said cup intermediate the top and bottom thereof, for the purpose of preventing excessive splashing of water.

942,577. METALLIC SHINGLE AND THE METHOD OF MAKING THE SAME. THOMAS M. LUNAN, Buffalo, and ALFRED C. RANTSCH, New York, N. Y. Filed Dec. 1, 1908. Serial No. 465,535.



1. As a new article of manufacture, a sheet metal shingle having a coating of glass, for substantially the purposes set forth.

2. As a new article of manufacture, a glass-coated metal shingle having rounded edges, the said coating being also upon said edges, for substantially the purposes set forth.

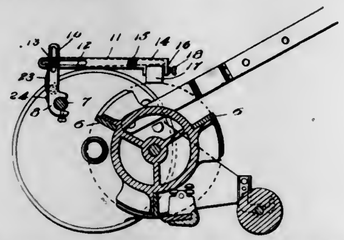
3. As a new article of manufacture, a glass-coated metal shingle having hemmed or curled edges, the said coating being also upon said edges, for substantially the purposes set forth.

4. As a new article of manufacture, a glass-coated metal shingle having reinforced edges, the said coating being also upon said edges, for substantially the purposes set forth.

5. As a new article of manufacture, a glass-coated shingle having means providing for suitable fastenings, for substantially the purposes set forth.

[Claims 6 to 10 not printed in the Gazette.]

942,578. SHARPENER FOR LAWN-MOWERS. EDWARD MERRITT, Westminster, Mass. Filed Sept. 14, 1909. Serial No. 517,616.

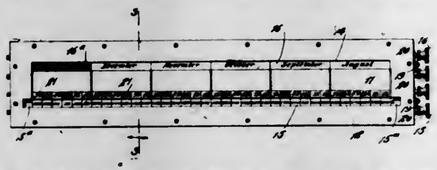


1. A sharpener for lawn mowers, comprising an abrading bar adapted to rest upon the knives of the mower, supports for said bar, and a spring-pressed lever bearing against said bar to hold the same to the knives.

2. A sharpener for lawn mowers, comprising an abrading bar adapted to rest upon the knives of the mower, supports for the bar attachable to the guard rod of the mower, a bracket adapted to be fixed to said rod, a lever pivoted to the bracket and bearing on the bar to press the same against the knives, and a spring bearing on the lever.

3. A sharpener for lawn mowers, comprising brackets adapted for attachment to the guard rod of the mower, links adjustably connected to the brackets, holders pivotally connected to the links, and an abrading bar carried by the holders and arranged to rest on the knives of the mower.

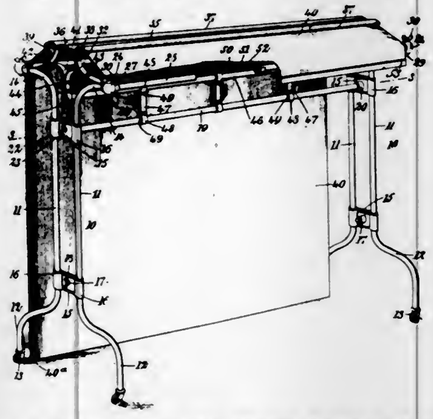
942,579. CALCULATING DEVICE. CHARLES H. MILLER, New Rochelle, N. Y. Filed Jan. 27, 1909. Serial No. 474,402. Renewed Oct. 16, 1909. Serial No. 523,055.



1. A calculating device having a table with the index column of months and rows of months respectively related to the months of the index column, such rows being consecutively precedent to the months of the index column to which they relate, an interest table calculated to amounts of interest on a given principal at a given rate for periods corresponding to the months of the first named table, and arranged to be read in connection with the months thereof and means for indicating certain parts of such tables, whereby the accrued interest on said principal from any of the precedent months of the first named table to the date may be exhibited at will.

2. A calculating device having a casing with openings in the face thereof, pairs of rollers mounted in the casing and adapted to be manually operated, a month table mounted on one of such pairs of rollers and visible in part through one of the openings in the face of the casing, such table having the index column of months and rows of months respectively related to the months of the index column, such rows being consecutively precedent to the months of the index column to which they relate, and an interest table wound over the second pair of rollers and visible in part through the second opening in the casing, the interest table having amounts of interest on a given rate for periods corresponding to the months of the first named table and arranged to be read in connection therewith, whereby the accrued interest on said principal from any of the precedent months of the first named table to date may be exhibited at will.

942,580. RACK. GEORGE H. MCGREGOR, New Glasgow, Nova Scotia, Canada, and ANDREW S. RUDLAND, New York, N. Y. Filed Jan. 30, 1909. Serial No. 475,254.



1. In a device of the class described, standards having bars adapted to support articles to be displayed, said standards comprising spaced uprights, clamp braces connecting said uprights and each comprising a strip doubled upon itself and offset to embrace said uprights, each brace having a socket, a cross-bar having the ends located in said sockets, and means for securing said ends in place, whereby said brackets are clamped in position.

2. In a device of the class described, a joint comprising a hollow member having sockets, said hollow member having openings therethrough, members having ends located in said sockets and provided with openings therethrough, and a bolt extending through said openings of said hollow member and of said other members.

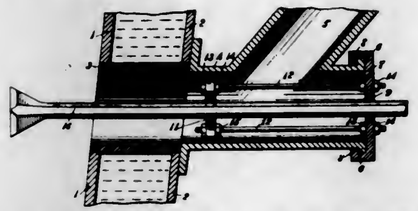
3. In a device of the class described, a joint comprising a hollow member having oppositely extending sockets, said sockets being formed removably to receive the ends of members to be jointed, said hollow member having openings therethrough adapted to receive a bolt, and a bolt within said openings and adapted to pass through openings of one of said members to be jointed.

4. In a device of the class described, standards comprising spaced uprights, clamp braces connecting said uprights, a lower cross bar mounted between certain of said braces, frames carried at the upper ends of said uprights and connecting said uprights of each of said standards, hangers mounted upon said frames, an upper cross bar connecting said hangers, connections between said upper cross bar and said lower cross bar, side bars mounted between the upper ends of opposite uprights and serving to support articles to be displayed, a top upon said frames, and curtains depending from said top at the outside of said side bars.

5. In a device of the class described, standards comprising spaced uprights, clamp braces connecting said uprights, certain of said braces having sockets, a lower cross bar removably mounted in said sockets, frames carried at the upper ends of said uprights and connecting said uprights of each of said standards, hangers mounted upon said frames and depending therefrom, an upper cross bar carried by said hangers, connecting strips between said upper cross bar and said lower cross bar, side bars removably mounted between the upper ends of opposite uprights and serving to support articles to be displayed, a top carried by said frame and having the opposite edges outwardly disposed, rollers carried by said frames under said edges of said top, and curtains supported by said rollers and adapted to be raised and lowered.

[Claim 6 not printed in the Gazette.]

942,581. DRILL-GUIDE. ALVIN C. NEAL, New York, N. Y. Filed June 15, 1909. Serial No. 502,214.



1. In a device of the class described, the combination, with a twyer, of a cap, a drill support, and connecting rods between said cap and said drill support.

2. In a device of the class described, the combination, with a twyer, of a cap having an opening therein, of a support having an opening therein substantially in a line with the opening in said cap, and a plurality of connecting rods secured to said cap and said support.

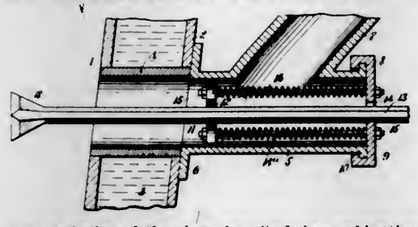
3. In a device of the class described, the combination, with a twyer, of a cap having an opening therein, of a perforated support having an opening therein substantially in alinement with the opening in said cap, and a plurality of connecting rods secured to said cap and said support.

4. A drill guide comprising a cap having an opening therein, of a support having a plurality of openings therein, one of which extends in substantial alinement with the opening in said cap, and connecting rods securing said support to said cap.

5. A drill guide comprising a cap having an opening therein, a support having a plurality of openings therein, one of which extends in substantial alinement with the opening in said cap, and connecting rods adjustably securing said support to said cap.

[Claim 6 not printed in the Gazette.]

942,582. DRILL-GUIDE. ALVIN C. NEAL, New York, N. Y. Filed Aug. 21, 1909. Serial No. 513,913.

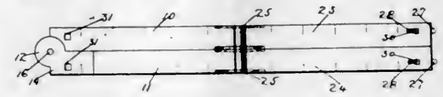


1. In a device of the class described, in combination, a member adapted to seat at the outer end of the twyer and affording means for guiding the drill bit, a guide member for the drill bit adapted to enter the twyer, and resilient means connected with said last member tending to hold the same in position.

2. In a device of the class described, in combination, a cap adapted to seat upon the outer end of the twyer, having an opening through which the drill bit may pass, an inner guide member adapted to enter the twyer and also having an opening through which the drill bit may pass, springs disposed between said cap and said inner guide member tending to cushion a blow delivered on the inner side of said guide member, and means for limiting the inward movement of said guide member with respect to said cap.

3. In a device of the class described, in combination, a cap adapted to be attached to the outer end of the twyer and having a guide opening for the twyer, a guide disk adapted to enter the twyer and also having a guide opening for the drill bit, guide bolts connecting said cap and said guide disk, passing through the same and having nuts on the outer side limiting the distance between said cap and said disk, and cushion springs disposed around said guide bolts and tending to cushion a blow delivered on the inner face of said disk.

942,583. RULE. WILBUR L. NEELD, Seattle, Wash. Filed Sept. 2, 1908. Serial No. 451,341.



1. A rule comprising two sections, a hinge disposed between said sections, legs carried upon the extremities of said sections, hinges disposed between said sections and said legs, said sections being movable to lie at times in a line with each other and at times against each other, a spring arranged to hold said sections normally in alinement, one of said sections having a recess therein, and the other of said sections having a chamber opening through its outer end and having a passage in its edge communicating with the chamber, a bolt slidably engaged in the chamber, an arm carried by the bolt and extending outwardly through the passage and arranged for engagement in the recess to hold said sections against each other, said bolt extending beyond the end of the section in which it is engaged, the leg which is attached to said last named section having a recess therein for the reception of the bolt when the leg is in alinement with the said section, and springs arranged to hold the legs in alinement with their respective sections.

2. In a rule, the combination with a member, of a second member pivoted to the first named member for movement into and out of position to lie thereagainst, means for holding the second named member out of such position, said second named member having a recess therein, said first named member having a chamber therein and having a passage communicating with the chamber and lying in position for registration with the recess, a bolt slidably engaged in the chamber, an arm carried by the bolt, and arranged for engagement in the recess of the second named member to hold the two members against separation, a spring arranged to hold the bolt with its arm normally in operative position, said bolt extending normally beyond the end of the first named member, and a leg hinged to the end of the first named member for movement into and out of position to form an extension of the first named member, said leg having a recess therein for the reception of the outer end of the bolt.

942,584. CONCENTRATOR AND AMALGAMATOR. JOHN I. E. NELSON, Betties, Alaska. Filed Oct. 24, 1908. Serial No. 459,280.

1. In an amalgamator, a receptacle which is adapted to contain quicksilver, there being a port in the wall of the receptacle, and a valve consisting of a plurality of sections adapted to move independently of each other to close the said port, there being an opening in each of the said sections of the valve.

2. In an amalgamator, a receptacle having an annular periphery, there being a port in the wall of the receptacle.

and a collar disposed around the receptacle over a portion of the port adapted to be rotated relatively to the receptacle, there being a cut-away portion in the collar so that the port will be opened wider when the collar is rotated to a position where the cut-away portion registers with the port.



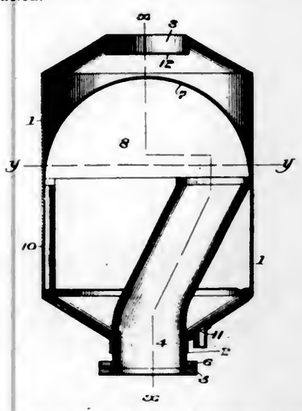
3. In an amalgamator, a receptacle which is adapted to contain quicksilver in its bottom, there being a port in the wall of the receptacle, a deep mixing chamber having an inclosed bottom, there being a port in the wall of the mixing chamber at a distance from its bottom, a valve consisting of a plurality of sections adapted to move independently of each other to control the port in the wall of the mixing chamber, a pipe adapted to convey material into the top of the mixing chamber, the diameter of the pipe being substantially as great as the area of the bottom of the mixing chamber, and communicating means connecting the port in the mixing chamber with the receptacle.

4. In an amalgamator, a receptacle which is adapted to contain quicksilver in its bottom, there being a port in the wall of the receptacle, a deep mixing chamber, the sides of which converge toward its bottom, which is inclosed, there being a port in the wall of the mixing chamber at a distance from its bottom, a valve consisting of a plurality of sections adapted to move independently of each other to close the port in the mixing chamber, a pipe adapted to convey material to the mixing chamber, the axis of the pipe being substantially in alinement with the center of the bottom of the mixing chamber, and communicating means connecting the port in the mixing chamber with the receptacle.

5. In an amalgamator, a receptacle which is adapted to contain silver, there being a port in the wall of the receptacle, a deep mixing chamber converging toward its bottom, there being a port in the wall of the mixing chamber, a communicating means converging downward in which the mixing chamber is disposed and is spaced therefrom, the communicating means leading into the receptacle, studs on the receptacle, mixing chamber and communicating means respectively, links secured to the studs by which the communicating means and the receptacle are supported, a hopper, studs on the hopper, links secured to the last named studs and to studs on the mixing chamber by which the mixing chamber is supported, a pipe leading from the hopper to the mixing chamber, a collar mounted on the pipe, a flange on the collar, flanges in the mixing chamber with which the first named flanges are adapted to engage, and means to support the hopper.

942,585. EXHAUST-HEAD. JUSTUS W. PARKER, Beverly, N. J. Filed Apr. 21, 1908. Serial No. 428,370.

1. In a device of the character described, a casing, an outwardly inclined inlet and an outlet therefor, a conduit secured to said inlet and extending interiorly of said casing, a curved deflecting plate located adjacent said conduit intermediate of the latter and said outlet, side walls secured to said plate and extending downwardly below the discharge opening of said inlet, thereby forming an inclosed passage having a communication with said casing, and means to collect and discharge the water of condensation.



2. In a device of the character described, a casing, an outwardly inclined inlet and an outlet therefor, a conduit secured to said inlet extending interiorly of said casing, a curved deflector plate located adjacent said conduit and extending across said casing, side walls secured to said plate forming an inclosed passage having a communication with said casing, and means to collect and discharge the water of condensation.

3. In a device of the character described, a casing, an inlet and an outlet therefor, a conduit secured to said inlet and extending interiorly of said casing, a deflecting plate located adjacent said conduit, side walls secured to said plate forming an inclosed passage having a communication with said casing, channels on said side walls and drain pipes secured in alinement with said channels.

4. In a device of the character described, a casing, an inlet and an outlet therefor, a conduit secured to said inlet extending interiorly of said casing, a curved deflecting member located adjacent the outlet of said conduit, channels on the side walls of said members, drain pipes at the termination of said channels and an auxiliary outlet from said casing.

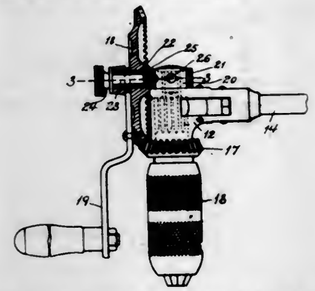
5. In a device of the character described, a casing, an inlet and an outlet therefor, a conduit secured to said inlet and inclined interiorly of said casing, a curved deflecting member secured adjacent the outlet of said conduit channels secured to the walls of said member, drain pipes adjacent said channels and an auxiliary outlet in the bottom of said casing.

[Claims 6 to 10 not printed in the Gazette.]

942,586. DRILL-BRACE. WILLIAM J. PARSONS and JOHN A. LELAND, Montague, Mass., assignors to Millers Falls Company, Millers Falls, Mass., a Corporation of Massachusetts. Filed May 7, 1909. Serial No. 494,658.

1. A drill brace comprising a brace body, a chuck rotatively connected therewith, said body including a U-shaped portion forming a crank, a bevel gear affixed to the chuck, a driving bevel gear meshing with the chuck gear, and means for securing the driving gear in different positions relatively to the chuck body.

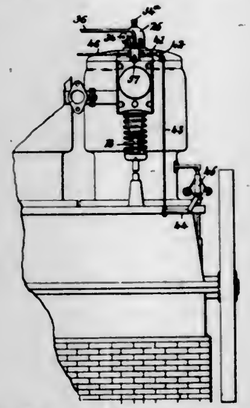
2. A drill brace comprising a brace body, a chuck rotatively connected therewith, said body including a U-shaped portion forming a crank, a bevel gear affixed to the chuck, a stud pivotally connected to the body, a driving bevel gear journaled on said stud and meshing with the chuck gear, the axis on which the stud is supposed to swing being in alinement with the axis of the chuck and its gear, whereby the stud is adapted to be adjusted to locate the driving gear in different positions relatively to the brace body, and means for positively securing the stud to the body in different positions.



3. A drill brace comprising a brace body, a chuck rotatively connected therewith, said body including a U-shaped portion forming a crank, the body being provided with a fixed circular boss in alinement with the axis of the chuck, a sleeve fitted to turn on said boss and having a hollow internally threaded stud, projecting at an angle to the axis of the chuck, a bevel gear attached to the chuck, a driving bevel gear journaled on the stud and meshing with the chuck gear, and a set screw which engages the internal thread of the stud and the perimeter of the boss, and is adapted to adjustably secure the stud to the boss in different positions.

4. In a drill brace, the combination with the body having a rest and chuck in alinement and having an intermediate crank, of multiplying gearing for the chuck; said gearing being mounted below the crank to enable the device to be operated by the crank without interference by said gearing, and means for adjusting said gearing to different positions about the axis of the chuck bearing.

942,587. VALVE FOR ENGINES. OTTO PEARSON, Worcester, Mass. Filed Dec. 10, 1908. Serial No. 466,784.



1. In combination, a puppet valve having a valve stem, a valve cage, means within the valve cage for guiding said stem, a rock shaft mounted upon the wall of said cage and having an arm extending into the cage and an arm extending exteriorly of the cage, and a coil spring outside of said cage and having one end secured to a fixed point and having the opposite end secured to the last-mentioned arm.

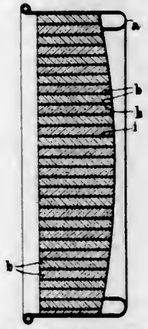
2. In combination, a puppet valve having a valve stem, a valve cage having inlet openings and means for guiding the valve stem, a bracket upon the exterior of said cage, a rock shaft journaled upon the wall of said cage and having an arm extending into the cage and engaging with the valve stem, and having a second arm extending exteriorly of the valve cage, a spring having one end secured to said last-mentioned arm, and means for adjustably connecting the opposite end of the spring to said bracket adjacent the outer end of the latter.

942,588. BAND-SAW WHEEL. CHARLES A. PUTNAM, Tupper Lake, N. Y. Filed June 8, 1908. Serial No. 437,293.



The combination with two band wheel rim sections, having opposed V-shaped tongue and channel formations on their mating edges, and spaced laterally perforated ears depending from the rim sections, of a filling ring formed of a plurality of sections having interlocked connections at their ends, and having their edges channeled and tongued to respectively engage with the tongue and channel formations on the edges of the band wheel rim sections, and bolts and nuts engaging the perforated ears for clamping the rim sections upon the sectional filling ring.

942,589. LAMP. HENRY SALSBURY, London, England. Filed Dec. 16, 1907. Serial No. 406,822.



1. As an article of manufacture, a glass formed of laminæ having reflecting surfaces on one side of said laminæ and light absorbing surfaces on the other side of same.

2. As an article of manufacture, a glass formed of laminæ having a polished surface on one side of said laminæ and a ground surface on the other side of same.

3. In combination, a source of light, a plurality of translucent laminæ disposed edgewise to the rays of light from said source, means disposed between the laminæ for reflecting certain of the rays of light passing through said laminæ, and means disposed between said laminæ for absorbing certain other of said rays of light.

4. As an article of manufacture a glass having reflecting and light absorbing surfaces disposed edgewise to the light transmitting surfaces of said glass.

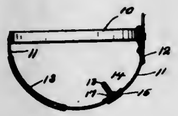
5. In combination a source of light, and a plurality of translucent laminæ disposed transversely to the rays from said source, said laminæ having reflecting surfaces on their upper sides and light absorbing surfaces on their lower sides.

[Claims 6 and 7 not printed in the Gazette.]

942,590. RECTAL APPARATUS. JOHN P. SANBORN, Cleveland, Ohio, assignor to The Natura Company, a Corporation of Ohio. Filed Jan. 2, 1909. Serial No. 470,485.

1. In a rectal apparatus adapted to be worn on the body, a strap to extend under the crotch said strap having

mounted thereon a rectal device comprising a member having a rounded projection adapted to bear against the anus and a tubular member extending centrally from said rounded projection, and adapted to be inserted into the rectum.

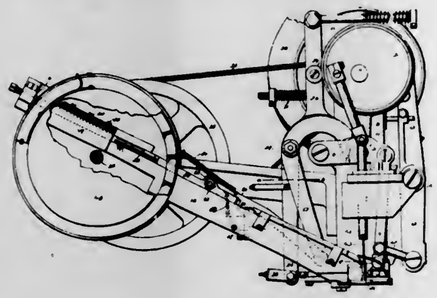


2. In a rectal apparatus adapted to be worn on the body, a strap adapted to extend under the crotch, a rectal device slidably mounted on said strap comprising a tube adapted to extend into the rectum, said tube having a number of perforations and containing a healing remedy, and means for exerting a continuous pressure on the latter so as to force the same outward toward the outer or free end of the tube.

3. In a rectal apparatus adapted to be worn on the body, a strap extending under the crotch, and having mounted thereon a rectal device comprising a plate having a tube extending therefrom and adapted to be placed in the rectum, said device having at the base of the tube a rounded projecting member adapted to bear against the anus, said tube having near its free end a number of perforations and containing a healing remedy, and means in said tube exerting a continuous pressure on the remedy to force the same along the tube toward the perforations.

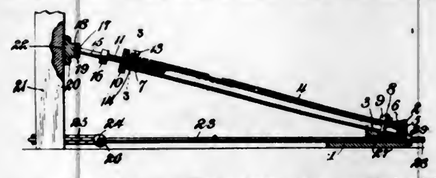
4. In a rectal apparatus adapted to be worn on the body, a belt adapted to encircle the waist, an adjustable strap adapted to extend under the crotch and secured to said belt at the front and rear thereof, and a rectal device mounted on said strap and capable of adjustment thereon, said device comprising a plate having a groove through which the strap extends and having a rounded projection adapted to bear against the anus, and a tubular member extending centrally from said rounded projection and adapted to be placed in the rectum, said tubular member having near the outer or free end a number of perforations and containing a healing remedy, a piston or plunger in said member, and a spring bearing against the plunger to force the same and the remedy outward.

942,591. MACHINE FOR NAILING SHOES. VICTOR SANDAHL, New York, N. Y., assignor to L. Wheeler Beeches, New Haven, Conn. Filed Dec. 9, 1907. Serial No. 405,849.



In a machine for nailing shoes, the combination with a hopper and a chute, of a jarrer arranged upon said chute and extending into said hopper, means for moving the jarrer longitudinally, a pin mounted in said jarrer, a hook lever adapted to engage with said pin, a cam lug on said lever whereby in the downward movement of the lever it is elevated out of engagement with said pin, substantially as described.

942,592. FENCE-BRACE. GOTTLEIB SCHNEIDER, Bluffton, Ind., assignor of one-half to La Vergne B. Stevens, Bluffton, Ind. Filed Aug. 6, 1908. Serial No. 447,303.



1. A fence brace including a base plate provided with an integral upwardly extending enlargement forming a support and having an inclined groove extending from the inner side of the enlargement and terminating short of the rear face thereof to provide an abutting end wall, said support being also provided with an approximately horizontal opening extending through the enlargement below the groove and located above the plate, an inclined bracing member having its lower end secured in the groove and fitted against the abutting end wall thereof, said bracing member being adapted to engage the upper portion of a fence post, and a tie rod secured in the said opening and provided with means for connecting it with the lower portion of the fence post.

2. A fence brace including a base plate provided with an integral upwardly extending enlargement forming a support and having an inclined groove extending from the inner side of the enlargement and terminating short of the rear face thereof to provide an abutting end wall, a stud rigid with the support and extending upward from the bottom of the groove thereof at a point intermediate of the ends of the same, and an inclined bracing member having its lower end arranged in the groove of the support and fitted against the end wall thereof and pierced by the said stud, said bracing member being adapted to engage the upper portion of the fence post.

3. A fence post including a base plate, a rigid inclined bracing member, a vertical bearing plate having a roughened face adapted to directly engage a post at any point along the same, said bearing plate being also provided at its outer face with a bearing recess, an adjusting device forming a rigid extension of the inclined brace and fitted in the recess of the bearing plate and adapted to be arranged at different angles to the said plate, and means for adjustably connecting the base plate with the lower portion of a post for changing the inclination of the inclined brace.

4. A fence brace including an inclined bracing member, a split nut carried by the bracing member, a set screw adjustably engaging the split nut and adapted to be loosened to permit the same to expand, and an operating screw engaging the nut and arranged to adjust the upper portion of a fence post.

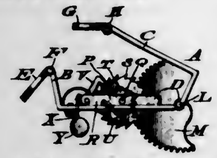
5. A fence brace including an inclined bracing member, a cylindrical nut fitted within the upper end of the bracing member and split longitudinally and provided with an indentation, a set screw mounted on the bracing member and engaging the indentation of the nut, and an operating screw engaging the threads of the nut and arranged to adjust the upper portion of a post.

[Claim 6 not printed in the Gazette.]

942,593. DOOR OR OTHER ALARM. JULIUS SEELHORST, Jr., Camden, N. J., assignor of one-half to Christian Kull, Philadelphia, Pa. Filed Dec. 22, 1908. Serial No. 468,841.

1. In a bell or alarm, a toothed member movable with and adapted to be operated by a swinging object, a gear wheel in engagement with said member, a plurality of ratchets, one of which is fixed to said wheel, and the other one of which is loose therefrom, means for coupling said ratchets so as to rotate together in one direction of motion of said gear wheel, and a tripping device carrying a bell hammer and adapted to be engaged by the loose ratchet and hold said ratchet inoperative.

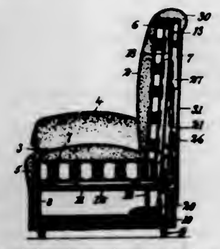
2. In a bell or alarm, an articulated frame, a butt pivotally connected with one of the members thereof and adapted to be stationarily attached to a movable object, a butt pivotally connected with another member of said frame and adapted to be attached to a stationary object, and mechanism for operating a bell hammer mounted on one of the members of said frame.



3. In a bell or alarm, mechanism and a bell hammer adapted to be operated by the same, and a frame operative by a movable object carrying said mechanism, said frame being composed of pivotally united articulated members, means for pivotally connecting one of said members with said object, and means for pivotally connecting another member with a stationary object the members of said frame being movable in unison upon their pivots.

4. A bell or alarm consisting of an articulated frame, a toothed member mounted at the junction of two members of said frame and movable with one of said members, a gear wheel with which said toothed member is adapted to mesh, a plurality of ratchets, a shaft carrying said wheel and ratchets, said wheel and one ratchet being fixed and the other ratchet being loose on said shaft, a pawl on the loose ratchet, the same being adapted to be engaged by the fixed ratchet, an oscillating lever engaged by the said loose ratchet, to couple the ratchets when the frame members move in one direction and to hold the loose ratchet immovable when the parts move in the opposite direction and a bell hammer carried by said lever.

942,594. ARM-CHAIR AND FOLDING BED. JOHN C. SMITH, Manchester, N. H. Filed Mar. 3, 1909. Serial No. 481,143.



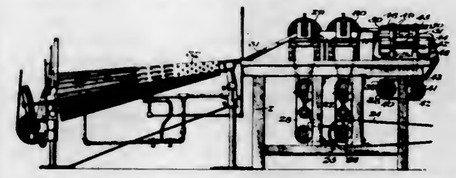
1. An article of furniture having a leg frame, folding frames attached to said leg frame on opposite sides thereof, means for supporting said folding frames in a substantially horizontal position so as to form a bedstead, means for supporting one of said frames in a substantially erect position so as to form a chair back, the other of said frames being normally folded over said leg frame, a chair body seated upon said leg frame and upon said substantially erect folding frame, and a spring attached at its ends only to said folding frames and received in said leg frame, said leg frame having a bottom supporting the slack of said spring.

2. An article of furniture comprising a leg frame, a back section hinged to said leg frame, a foot section hinged to said leg frame opposite to said back section, braces pivotally attached to said foot section, adapted to engage said back section to support the same in a substantially erect position when said foot section is folded upon said frame, means for supporting said back section in a substantially horizontal position to form a bedstead, said braces constituting legs for supporting said foot section in a substantially horizontal position.

3. An article of furniture having a leg section, a back section attached to said leg section, means for supporting said back section in a substantially horizontal position, a foot section also attached to said leg section, means for supporting said foot section in a substantially horizontal position, said foot section, said leg section and said back section coöperating to form a bedstead, the said foot section being adapted to fold over said leg section, means for supporting said back section in a substantially erect position, a chair body having a rigid frame seating on said leg section and engaging said back section, said chair body having an apron at the back thereof extending downwardly from the upper portion of said back section, and means for securing the lower portion of said apron to said leg section.

4. An article of furniture having a leg frame, a back section hinged to said leg frame on one side thereof, a foot extension hinged to said leg frame on the opposite side thereof and normally lying folded on the upper side of said leg section, means for holding said back section in a substantially erect position, means for supporting said back section in a substantially horizontal position so as to form a bedstead, and a chair body having a rigid seat having a frame receiving said foot extension and held in position thereby and having a rigid back receiving said back section.

942,595. CANDY-MACHINE. JOHN SMITH, Philadelphia, Pa., assignor of one-half to Henry Brandle, Philadelphia, Pa. Filed July 7, 1909. Serial No. 506,278.



1. In a candy machine, a plurality of rolls for drawing candy, a plurality of feeding rollers adjacent thereto and provided with cutting means, a hopper suitably positioned with respect to said feed rolls, and means to deliver a strip of candy from said feed rolls to said hopper.

2. In a candy machine, a plurality of rolls for drawing candy, a plurality of feeding rollers adjacent thereto and provided with cutting means, a hopper suitably positioned with respect to said feed rolls, and a reciprocable arm adapted to engage and deliver a strip of candy from said feed rolls to said hopper.

3. In a candy machine, a plurality of rolls for drawing candy, a plurality of feeding rollers adjacent thereto and provided with cutting means, a hopper suitably positioned with respect to said feed rolls, a reciprocable arm adapted to engage and deliver a strip of candy from said feed rolls to said hopper, and guide means between said feed rolls and said hopper.

4. In a candy machine, a plurality of rolls for drawing candy, a plurality of feeding rollers adjacent thereto and provided with cutting means, a hopper suitably positioned with respect to said feed rolls, an arm mounted for reciprocating movement, a toothed member carried by said arm, and a cam movement suitably supported to shift said arm in one direction, and a spring to return the same, whereby a strip of candy is delivered to said hopper.

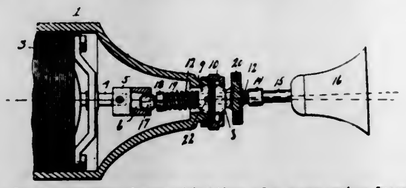
5. In a candy machine, a support, a hopper on said support, a cutting device adjacent said hopper, a reciprocable arm between said hopper and said cutting device for delivering a strip of candy to said hopper, and means to open said hopper at a predetermined time.

[Claims 6 to 16 not printed in the Gazette.]

942,596. VIBRATOR. ALFRED J. STECKER, Detroit, Mich., assignor to Eureka Vibrator Co., Detroit, Mich., a Corporation of Michigan. Filed Apr. 25, 1908. Serial No. 429,134.

1. In a vibrator, the combination of a supporting frame, a rotary member journaled therein, an applicator, means

for transmitting movement to the applicator comprising a spherical member jointedly seated in the frame, a rod passing through said member and movable longitudinally therein, one end of said rod having a sliding engagement with said rotary member, and means carried by said rod exterior of the frame for adjusting it longitudinally through the spherical member to adjust the sliding engagement of said rod with said rotary member.



2. In a vibrator, the combination of a supporting frame, a rotary member journaled therein, a spherical member jointedly seated in the frame and fixed with respect to said rotary member, an applicator, means for transmitting movement to the applicator comprising a longitudinally movable rod fast to the applicator at one end, and having sliding engagement at the other end with said rotary member, said rod being movable through the spherical member, and means for moving said rod longitudinally.

3. In a vibrator, the combination of a supporting frame, a rotary member therein provided with a socket disposed at an angle to the axis of said member, a ball jointedly seated in said frame, an applicator, means for imparting movement to the applicator, said means comprising a longitudinally movable rod connected with the applicator at one end, and at the other end engaging in the socket of said rotary member, said rod passing through and movable longitudinally in said ball, and means for adjusting the rod longitudinally to vary its engagement in the socket of the rotary member.

4. In a vibrator, the combination of a supporting frame, a rotary member journaled therein, an applicator, a longitudinally movable rod connected with said applicator at one end, and having a sliding engagement at the other end with said rotary member, a ball jointedly seated in the frame through which said rod is longitudinally movable, and an adjusting disk threaded on said rod and engaging a fixed part to effect a longitudinal movement thereof.

5. In a vibrator, the combination of a supporting frame, a rotary member journaled therein having an inclined socket, a ball jointedly seated in the frame, a rod passing through said ball, an applicator connected with the outer end of said rod, the inner end of said rod engaging in the socket of the rotary member, a spring connected to said rod at one end and at the other end engaging a fixed part for moving said rod in one direction, and means for moving the rod longitudinally against the action of said spring.

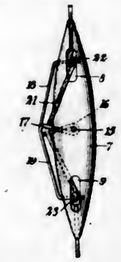
[Claims 6 to 13 not printed in the Gazette.]

942,597. SINKER. GEORGE W. TEASDALE, New York, N. Y., assignor of one-half to Frederick H. Plate, Brooklyn, N. Y. Filed Nov. 27, 1908. Serial No. 464,775.

1. A sinker, comprising a body portion provided adjacent to its ends with slots and with holes extending into said slots, and a member of spring wire mounted upon said body portion and provided with portions extending into said holes for the purpose of holding a line within said slots.

2. A sinker, comprising a body portion provided adjacent to one of its ends with a slot, and further provided with a hole merging into said slot, and a member of spring metal connected with said body portion and provided with a portion bent inwardly and extending into said hole for the purpose of holding a line within said slot.

3. A sinker, comprising a body portion of metal provided adjacent to its ends with slots, a member of spring metal secured to said body portion and bent toward the ends thereof, said member of spring metal being provided with portions extending through said slots for the purpose of holding a line therein.

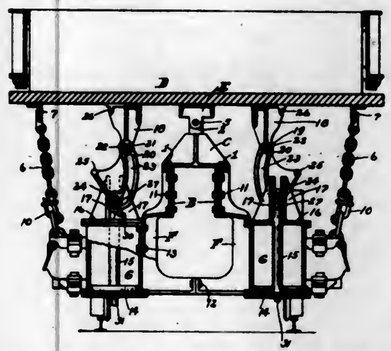


4. A sinker, comprising a heavy body portion provided with a hole disposed adjacent to its middle and with slots in its ends, a spring wire connected with said body portion and extending from said hole, said spring wire being provided with portions overlapping each other for the purpose of engaging a cord, said spring wire being further provided with portions extending from said hole and bent transversely into said slots for the purpose of engaging portions of a line extending through said slots.

5. A sinker, comprising a heavy body portion provided adjacent to its middle with holes, and adjacent to its ends with other holes, a pin extending into one of said holes adjacent to the middle of said body portion, a spring wire mounted upon said pin and extending from another of said holes adjacent to the middle of said body portion, said spring wire being provided with portions overlapping each other, and adapted to press upon a cord, said portions extending toward the ends of said body portion into the holes adjacent to said ends.

[Claim 6 not printed in the Gazette.]

942,598. DUMP-CAR. HARRY E. THOMPSON, Knoxville, Tenn., assignor of William J. Oliver Manufacturing Company, a Corporation of Tennessee. Filed June 3, 1909. Serial No. 499,941.



1. In a dump car, the combination with trucks, underframing, and a car body mounted upon said under-framing for tilting sidewise, of means for normally holding the car body in the horizontal position, upright cylinders located at opposite sides of the middle, longitudinal, upright plane of the car, fluid pipes leading into the lower portions of said cylinders, upright pistons in said cylinders, piston stems rising from said pistons, links hinged at their upper ends to the car body and slidably engaged with said piston stems and formed at their lower ends for temporarily non-slidably engaging said stems.

2. In a dump car, the combination with trucks, underframing, and a car body mounted upon said under-framing for tilting sidewise, of means for normally holding the car body in the horizontal position, upright cylinders located at opposite sides of the middle, longitudinal, upright plane of the car, fluid pipes leading into the lower portions of said cylinders, upright pistons in said cylinders, stems rising from said pistons, and members interposed between said stems and the car body and arranged for non-slidable engagement with said stems during the upward movement of the latter and for slidable engagement with said stems during the descent of the latter and while the latter are at their lower limit and said members are descending.

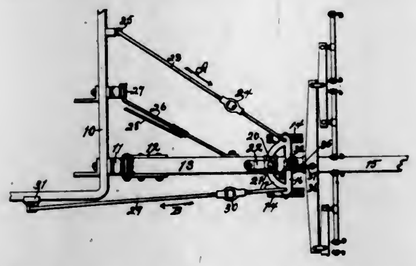
3. In a dump car, the combination with trucks, underframing, and a car body mounted upon said under-framing for tilting sidewise, of means for normally holding the car body in the horizontal position, upright cylinders located at opposite sides of the middle, longitudinal, upright plane of the car, fluid pipes leading into the lower portions of said cylinders, upright pistons in said cylinders, piston stems rising from said pistons, slotted links hinged at their upper ends to the car body and adapted to abut against the adjacent cylinder, and a cross-shaft upon said piston and extending into the slots of said links.

4. In a dump car, the combination with trucks, underframing, and a car body mounted upon said under-framing for tilting sidewise, of means for normally holding the car body in the horizontal position, upright cylinders located at opposite sides of the middle, longitudinal, upright plane of the car, fluid pipes leading into the lower portions of said cylinders, upright pistons in said cylinders, piston stems rising from said pistons, pairs of links hinged at their upper ends to the car body and slidably engaged with said piston stems and formed at their lower ends for temporarily non-slidably engaging said stems.

5. In a dump car, the combination with trucks, underframing, and a car body mounted upon said under-framing for tilting sidewise, of means for normally holding the car body in the horizontal position, upright cylinders located at opposite sides of the middle, longitudinal, upright plane of the car, fluid pipes leading into the lower portions of said cylinders, upright pistons in said cylinders, piston stems rising from said pistons, links hinged at their upper ends to the car body each having a slot and a recess at the lower end of said slot, and cross-shafts located upon said piston stems and extending into said slots.

[Claims 6 to 9 not printed in the Gazette.]

942,599. DRAFT APPLIANCE. WILLIAM TIERNAN and HENRY M. SCHREIBER, Rolfe, Iowa. Filed Feb. 9, 1909. Serial No. 477,469.



1. The combination of a machine frame, a stub-tongue hinged to said frame, an evener plate formed with a straight front bar and a curved rear bar connected at their ends, the curved rear bar of the plate formed with a transverse row of holes, the evener plate arranged horizontally on the stub-tongue and pivoted thereto by a king bolt extending through one or another of said holes, adjustable braces on opposite sides of said stub-tongue and pivotally connecting end portions of the evener plate to said frame, a clevis mounted for lateral sliding adjustment on the front bar of the evener plate in front of said king bolt, means for locking said clevis to the plate, and means for attaching swingletrees to said clevis.

2. The combination of a machine frame, a stub-tongue hinged to said frame, an evener plate mounted horizontally on the forward end portion of said stub-tongue, said evener plate formed with a straight front bar and a curved rear bar connected at their ends, the curved rear bar of the plate formed with a transverse row of holes, a king bolt mounted loosely through one or another of said holes and extending through the stub-tongue, adjustable braces on opposite sides of said stub-tongue and connecting end portions of the evener plate to said frame, a clevis mounted for lateral sliding adjustment on the front bar of the evener plate in front of said king bolt, a set screw in said clevis adapted to engage said front bar, means for attaching swingletrees to said clevis, and a tongue-truck beneath and supporting the forward end portion of said stub-tongue.

3. The combination of a machine frame, a stub-tongue hinged to said frame, an evener plate mounted horizontally on the forward end portion of said stub-tongue, said evener plate formed with a straight front bar and a curved rear bar connected at their ends, the curved rear bar of the plate formed with a transverse row of holes, a king bolt mounted loosely through one or another of said holes and extending through the stub-tongue, adjustable braces on opposite sides of said stub-tongue and connecting end portions of the evener plate to said frame, a clevis mounted for lateral sliding adjustment on the front bar of the evener plate in front of said king bolt, said clevis resting on said stub-tongue, a set screw in said clevis adapted to engage said front bar, said clevis formed with a series of vertical holes in front of said evener plate, another clevis engaging in one or another of said vertical holes, a swingletree engaging the latter clevis, and a tongue-truck beneath and supporting the forward end portion of said stub-tongue.

4. The combination of a machine frame, a stub-tongue hinged to said frame, an evener plate pivotally mounted on said stub-tongue and adjustable laterally thereof, adjustable braces on opposite sides of said stub-tongue and connecting end portions of the evener plate to said frame, a clevis mounted for lateral sliding adjustment on the evener plate in front of the pivot of said plate, means for locking said clevis to the plate, and means for attaching swingletrees to said clevis.

5. The combination of a machine frame, a stub-tongue hinged to said frame, an evener plate pivotally mounted on said stub-tongue and adjustable laterally thereof, adjustable braces on opposite sides of said stub-tongue and connecting end portions of the evener plate to said frame, a clevis mounted for lateral sliding adjustment on the evener plate in front of the pivot of said plate, means for locking said clevis to the plate, means for attaching swingletrees to said clevis, and a tongue-truck beneath and supporting the forward end portion of said stub-tongue.

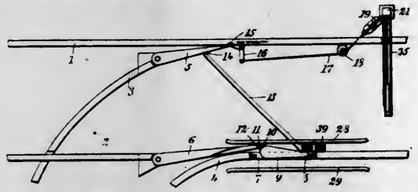
[Claim 6 not printed in the Gazette.]

942,600. AUTOMATIC SWITCH FOR RAILWAYS. FRANCISCO REXACH Y TORRES and FAUSTO SAINZ DE LA PEÑA Y MARTINEZ, Habana, Cuba, assignors of one-third to Ulpiano Rexach, Habana, Cuba. Filed Oct. 24, 1908. Serial No. 459,350.

1. In combination, a main track, a switch, switch points adapted to open and close said switch, an elongated trip arm pivotally mounted in longitudinal alinement with one of the rails of said main track and adapted to swing across the same so as to project on one side thereof, and means carried by the car for engaging said trip arm on either side of said rail.

2. In combination, a main track, a switch, switch points adapted to open or close said switch, a trip arm

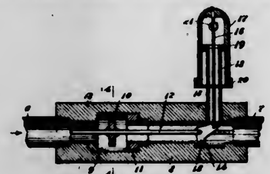
pivotally mounted in longitudinal alinement with one of the rails of said track, adapted to swing across the rail and having a pin and slot connection at one end with one of said switch points, said trip arm being adapted to project on either side of said rail, and means for operating the other switch point from said trip arm.



3. In combination, a main track, a switch, switch points adapted to open or close said switch, one of the rails of said track having an opening in the web thereof, an elongated trip arm pivotally mounted in said opening and adapted to have its free end swing through said opening from one side to the other side of said rail, means for connecting the free end of said trip arm with one of said switch points, and means for operating the other of said switch points from said trip arm.

4. In combination, a main track, a switch, switch points adapted to open or close said switch, one of the rails of said track having an opening in the web thereof, a trip arm pivotally mounted in said opening and adapted to have its free end swing through said opening to either side of said rail, means for connecting the free end of said trip arm with one of said switch points, means for operating the other of said switch points from said trip arm, and guard rails at the sides of said rail limiting the movement of said trip arm.

942,601. SAFETY GAS CUT-OFF. HARVY TULLIS, Lisbon, Ohio. Filed May 19, 1909. Serial No. 496,929.

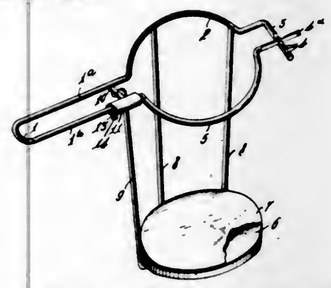


A safety gas cut-off, comprising a straight pipe section having a valve mounted to operate longitudinally therein, a rocking lever mounted in said section adapted to open and close the said valve, a vertical pipe extension opening into the said pipe section on the delivery side of the said valve and forming an open communication from said section, an inverted closed end tube guidably mounted on said vertical extension and forming a gas tight sliding joint therewith, and a connection between said rocking lever and said tube to open and close the said valve.

942,602. JAR-HOLDER. JOHN TWOHIG, Hull, Ill. Filed Sept. 30, 1909. Serial No. 520,246.

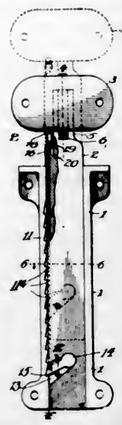
1. A device for holding jars and other vessels comprising a handle member having a curved jaw fixed to one end thereof, a movable jaw pivotally connected with said handle, a sleeve slidably mounted on said handle and adapted to engage said movable jaw to hold it in closed position, a spring member mounted on said handle and adapted to engage said sleeve for holding said sleeve in contact with said movable jaw.

2. A device for holding jars and other vessels comprising a loop-shaped handle member having a curved jaw fixed to the free end of one member thereof, a movable jaw pivotally connected with the other member of said handle, a sleeve slidably mounted on said last mentioned handle member adapted to engage said movable jaw to hold it in closed position, a spring member operable to engage the inner face of said sleeve, and secured to said handle, and means for releasing said spring member from said sleeve.



3. A jar holding device comprising a loop-shaped handle, a curved fixed jaw extending from the free end of one member of said handle, and having an L-shaped latch member formed on its free end, a plurality of teeth formed on one arm of said latch member, a movable jaw pivoted at one end to the free end of the other handle member and having a longitudinally extending arm at its free end for engagement with said toothed arm, and means for locking said movable jaw in closed position.

942,603. HEAD-REST FOR BARBER-CHAIRS. ANDREW L. UNDELAND, Omaha, Nebr. Filed June 25, 1908, Serial No. 440,289. Renewed May 19, 1909. Serial No. 496,940.



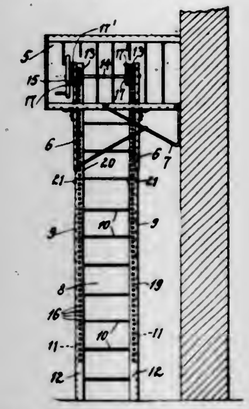
1. In an attachment for chairs, the combination with the back of a chair, of a channel-shaped standard secured thereto with the back of the chair forming a cover for the channel-opening, said standard having a ratch formed in one of the side walls of the channel, a slide-bar vertically adjustable in said channel, said slide-bar having an outwardly flared cut-away portion at its lower end in the edge thereof adjacent said ratch, a pawl pivoted within said cut-away portion of the slide-bar, a spring normally holding said pawl in engagement with said ratch, and an operating rod extending from said pawl beyond the upper end of said slide bar and provided at its upper end with an operating handle.

2. In an attachment for chairs, the combination with a channel-shaped standard adapted to be secured to the back of a chair, one of the side walls of the channel forming a ratch, a slide-bar consisting of a flat longitudinal plate vertically adjustable in said channel, said slide-bar having a cut-away portion at its lower end in the side thereof adjacent to said ratch, and a longitudinal groove in the side of the slide bar extending from said cut-away portion to the upper end of the slide-bar, a pawl pivoted within the cut-away portion of the slide-bar, and an operating rod secured to said pawl and extending above the end of said slide bar, said rod lying in said groove in the slide-bar and being provided at its free end with an operating handle.

3. In an attachment for chairs, the combination with a channel-shaped standard adapted to be secured to the back of a chair, one of the side walls of the channel forming a ratch, a slide-bar vertically adjustable in said channel, said slide-bar having a cut-away portion on the side thereof adjacent to said ratch, said cut-away portion being in the form of a deep notch having a rounded bottom and outwardly flaring walls, a pawl pivoted within said cut-away portion of the slide-bar, said pawl having a rounded head fitting in the rounded bottom of said notch, a spring normally holding said pawl in engagement with said ratch, and an operating rod extending from said pawl to the upper end of said slide-bar.

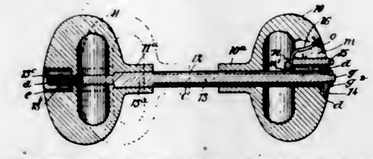
4. In an attachment for chairs, the combination with a channel-shaped standard adapted to be secured to the back of a chair, one of the side walls of the channel forming a ratch, a slide-bar vertically adjustable in said channel, said slide-bar having a cut-away portion on the side thereof adjacent to said ratch, and a longitudinal groove extending from said cut-away portion to the upper end of the slide-bar, a pawl pivoted within the cut-away portion of the slide-bar, and an operating rod lying in said groove in the slide bar, said rod being pivoted at its lower end to said pawl and having its upper end extending beyond said slide-bar and bent back upon itself, said slide bar having a longitudinal hole in its end forming a guide for the end of the bent-back portion of the operating rod.

942,604. FIRE-ESCAPE. LAURENZ VOGL, New York, N. Y., assignor of one-half to Fritz Gotfredsen, New York, N. Y. Filed Aug. 21, 1908. Serial No. 449,066.



In a fire escape, the combination with a platform, of guide supports fixedly secured at an angle to said platform, said guides being U-shaped in cross section, a suitably anchored bracket engaging the depending portions of the supports to further hold the same, a ladder engaging the guide supports, the side rails of the ladder being angle, the vertical legs thereof fitting within the U-shaped guide supports, and means carried by the guide supports engaging the horizontal legs of the side rails of the ladder for imparting longitudinal movement to the ladder.

942,605. ADJUSTABLE DOOR-KNOB. RICHESON C. WALTER, Parsons township, Alfalfa county, Okla. Filed Mar. 10, 1909. Serial No. 482,443.



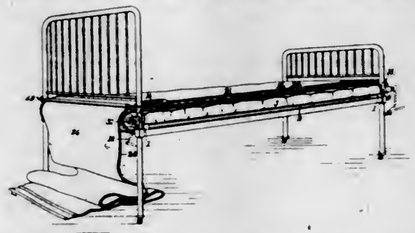
1. The combination with two door knobs, having squared passages in their shanks, of a spindle having a squared portion thereon that fits loosely in the shank of one knob, and having a cylindrical portion extended from the squared portion, a sleeve having a squared exterior wall and a cylindrical bore wherein the cylindrical portion of the spindle is loosely fitted, said sleeve fitting in the squared opening in the shank of the other knob, means for releasably locking the sleeve upon the cylindrical portion of the spindle, and also for releasably securing the sleeve upon said knob.

2. The combination with two door knobs having squared openings therein, and a socket in the outer end of one knob, of a spindle having a squared portion that passes through the knob having the socket therein, a thread on the reduced end of said squared portion of the spindle, a cap nut therefor, a cylindrical portion for the spindle, a sleeve having a cylindrical bore and a square exterior, said cylindrical portion of the spindle fitting loosely in the sleeve, and the sleeve fitting in the other knob, and detachable means for locking the sleeve upon the cylindrical portion of the spindle.

3. The combination with a door knob having squared openings therethrough, a sleeve having a cylindrical bore and a squared exterior, a spindle having a cylindrical portion that loosely occupies the bore of said sleeve, a locking disk mounted on the end of the spindle and having a notch therein, and a spring-pressed latch bar loosely secured in the knob and adapted by adjustment to enter the notch.

4. The combination with two door knobs having squared openings therein, a socket in the outer end of one knob, a spindle having a squared portion that fits in the knob having the socket, said squared end of the spindle terminating in a diametrically reduced screw body, and a cap nut that said screw body may be screwed into, of a cylindrical portion for the spindle, a sleeve having a cylindrical bore and a squared exterior, the spindle loosely fitting into said bore of the sleeve, a notched disk mounted on a squared end of the spindle that extends beyond the cylindrical portion thereof, means for securing the disk on the spindle, and a spring-pressed latch bar in the knob adapted by adjustment to enter a notch in the disk.

942,606. ATTACHMENT FOR BEDS. PIERCE H. WILSON, Talent, Oreg., assignor of one-half to Louis Lager, Talent, Oreg. Filed Feb. 27, 1909. Serial No. 480,326.



1. In an attachment for beds, in combination with a bed, drums oppositely disposed near the respective edges of the bed, sprockets disposed around their peripheries, a continuous belt disposed on the drums, which has eye-

lets spaced apart for engaging the sprockets, a stretcher disposed under the continuous belt, and means for tightening the stretcher.

2. In an attachment for beds, in combination with a bed, drums oppositely disposed near the respective edges of the bed, sprockets disposed around their peripheries, a continuous belt disposed on the drums, which has eyelets spaced apart for engaging the sprockets, a stretcher disposed under the continuous belt, means for tightening the stretcher, a mattress disposed under the stretcher, and means for rotating the drums.

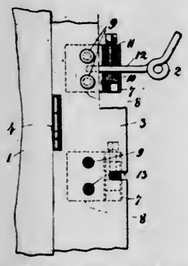
3. In an attachment for beds, a traveling member, a pad which is detachably secured to the traveling member, and a sheet which is disposed around the end of the pad to travel therewith.

4. In an attachment for beds, a belt disposed substantially from one end of the bed to the other, means for moving the belt relatively to the bed, a traveling member, a pad which is detachably secured thereto, and a sheet which is disposed around the end of the pad to be fastened to the belt, the other end of the sheet being secured to the bed so that the traveling member, the pad and the sheet will move with the belt when it is operated.

5. In an attachment for beds, a belt which is adapted to be moved relatively to the bed, disposed substantially from one end of the bed to the other, a traveling member, two pads which are oppositely disposed and are detachably secured to the traveling member, and means for securing the pads and traveling member to move with the belt.

[Claims 6 to 22 not printed in the Gazette.]

942,607. THREAD-BOARD. WILLIAM O. ALDRICH, Whitinsville, Mass., assignor to The Whitin Machine Works, Whitinsville, Mass., a Corporation of Massachusetts. Filed Aug. 3, 1909. Serial No. 511,005.



1. In a thread-board, a thread-board rail mounted in hinged relation to the roller beam and free to be swung upwardly and backwardly toward the vertical plane thereof for doffing, in combination with a plurality of thread guides pivotally carried on horizontal axes by the outer margins of said rail and with the inner extremities of their shanks extending beneath the said rail.

2. In a thread-board, a thread-board rail mounted in hinged relation to the roller beam, and a plurality of thread guides pivotally carried by, and having shanks extending beneath the outer margin of said rail and inwardly and outwardly adjustable with respect to said rail.

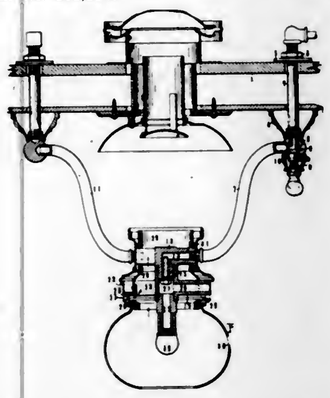
3. In a thread-board, a horizontal supporting plate, in combination with a wire thread guide hinged on a horizontal axis on the said plate and having a shank projected inwardly beyond its axis and abutting against the under side of said plate to limit the hinging movement of said thread guide.

4. In a thread-board, a thread-board rail mounted in hinged relation to the roller beam and having one or more hinge knuckles on its outer margin, in combination with straight thread-guide shanks intersecting said knuckles and rotatably supported thereby.

5. In a thread-board, a horizontal thread-guide supporting member mounted in hinged relation to the roller beam and having a horizontal hinge knuckle on its outer margin with its axis disposed below the level of the adjacent portion of said member, in combination with a thread-guide shank pivoted in and intersecting said knuckle and extended beyond the same and beneath said supporting member.

[Claims 6 to 12 not printed in the Gazette.]

942,608. LAMP. ELMER E. ALLBEE, Arlington, N. J., assignor to Safety Car Heating & Lighting Company, a Corporation of New Jersey. Filed Dec. 26, 1907. Serial No. 408,194.



1. A device of the nature disclosed comprising in combination, a central portion having a gas channel leading from one or more of its vertical sides and communicating with an injector, a burner tube depending from said central portion adapted to receive a combustible mixture from said injector, a gas mantle mounted on the lower end of said burner tube, said central portion having vents for receiving and discharging the rising products of combustion, and air inlets adapted to commingle fresh air with said rising products of combustion.

2. A device of the nature disclosed comprising in combination, a body portion having a gas inlet at one side thereof and leading to a downwardly directed delivery nipple carried by said body portion, a casting secured to said body portion and providing an air inlet leading transversely toward said nipple, a burner tube depending from said casting adjacent the inner ends of said nipple and air inlet, and a mantle mounted on the lower end of said burner tube.

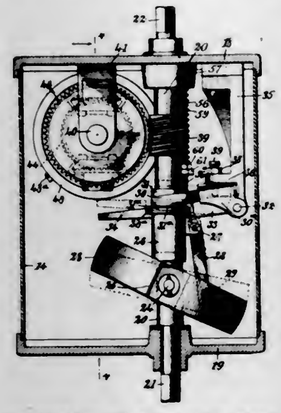
3. A device of the nature disclosed comprising, in combination, a chimney provided near its lower end with a space for the admission of fresh air, a central portion arranged in said chimney adapted to receive gas at its upper end, a gas conduit leading laterally through said chimney into the upper end of said central portion said central portion being provided with an air passage leading through said chimney to an intermediate portion thereof, an injector arranged at said intermediate portion, a burner tube depending from said central portion adjacent said injector for receiving the combustible mixture from said injector and a mantle mounted on the lower end of said burner tube.

4. A device of the nature disclosed comprising in combination, a body portion having a gas channel leading from one side toward the center and downwardly from said center, a delivery nipple adjustably mounted in the lower end of the downwardly leading gas channel, a perforate tube serving as a dust separator carried by said nipple and projecting into said gas channel, a chimney carried by said body portion, a casting secured to said body portion providing a transverse air inlet leading from the exterior of said chimney and terminating adjacent the said delivery nipple, a burner tube depending from adjacent the junction of said air inlet and delivery nipple, a mantle mounted on the lower end of said burner tube whereby products of combustion may be discharged upwardly into said chimney, and means for admitting wash air into said chimney.

5. A device of the nature disclosed comprising, in combination, a car roof, a ventilator passing therethrough, a plurality of supporting members arranged equidistant from said ventilator one of said supporting members serving as a conduit, a body portion underlying said ventilator, a plurality of bracket arms converging downwardly from said supporting members toward said body portion, one of said bracket arms serving as a gas conduit, an injector nipple secured to said body portion and adapted to project a stream of gas downwardly, a second member secured to said body portion and having air passages leading horizontally to said injector nozzle, a burner tube depending downwardly from adjacent said injector nozzle adapted to receive the mixed gases therefrom, and a mantle mounted on the end of said burner tube.

[Claims 6 to 8 not printed in the Gazette.]

942,609. GEARING. HAYDN M. BAKER, Jr., New York, N. Y. Filed Aug. 27, 1908. Serial No. 450,439.



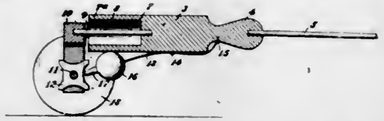
1. The combination of a revoluble shaft, a governor mounted thereupon, a sleeve encircling said shaft and connected with said governor, a rocking shaft, mechanism connecting said sleeve with said rocking shaft so as to cause the same to rock in consequence of changes of speed of said governor, a pawl connected with said rocking shaft and adapted to be shifted in position, and gearing connected with said shaft and driven thereby, said gearing including a revoluble member provided with a tooth, said tooth being so positioned as to engage said pawl whenever the latter occupies a predetermined position controllable by the speed of said governor, and mechanism connected with said revoluble member and controllable thereby, said last-mentioned mechanism being driven by said shaft whenever said revoluble member is stopped by said pawl.

2. The combination of a revoluble driving shaft, a governor connected therewith, a pawl connected with said governor and controllable by movements thereof, gearing connected with said driving shaft and driven thereby, said gearing including a revoluble member provided with a tooth for engaging said pawl, said pawl being so positioned as to partially obstruct the path of travel of said tooth when said pawl occupies a predetermined position controllable by the speed of said governor, and mechanism connected with said revoluble member and controllable thereby, said mechanism being driven by said shaft whenever said revoluble member is stopped by said pawl.

3. The combination of a revoluble driving shaft, a revoluble driven shaft, a governor connected with said revoluble driving shaft, a pawl connected with said governor and actuated by motions of the same, gearing disposed intermediate said driving shaft and said driven shaft, and mechanism including a revoluble member provided with a portion for engaging said pawl when the latter occupies a predetermined position, the position of said gearing intermediate said driven and said driving shafts being adapted to change when said pawl is engaged by said portion of said revoluble member.

4. The combination of a revoluble driving shaft, a governor mounted thereupon, a pawl connected with said governor and controllable thereby, a revoluble driven shaft, gearing for connecting said driving shaft with said driven shaft, said gearing including planetary gear wheels meshing together, and a revoluble member for supporting said planetary gear wheels, said revoluble member being provided with a tooth for engaging said pawl and thus stopping the rotation of said revoluble member for the purpose of changing the operative relation between said driven shaft and said driving shaft.

942,610. SOUNDING TOY. WILLIAM BARTHOLOMAE, New York, N. Y., assignor to himself and Harry Zimmermann, New York, N. Y. Filed May 7, 1909. Serial No. 494,612.



1. The combination of a body member of substantially cylindrical form, said body member being provided with an opening and with a slot merging into said opening, a clapper for striking said body member at a point adjacent to said slot, a pin connected with said body member and disposed centrally within said opening, said pin being of sufficient length to extend beyond the end of said body member, a fork mounted upon the outer end of said pin, an axle extending through said fork and adapted to turn relatively to the same, a wheel mounted upon said axle for the purpose of turning the latter, a star wheel carried by said axle and adapted to rotate therewith, and a clapper mounted upon said body member and disposed partially within the path of travel of said star wheel.

2. The combination of a body member of substantially cylindrical form, said body member being provided with an opening and with a slot merging into said opening, a clapper for striking said body member at a point adjacent to said slot, a pin disposed centrally within said opening, said pin being of sufficient length to extend beyond the end of said body member, means including an axle connected with the outer end of said pin for the purpose of actuating said body member, a star wheel mounted upon said axle and revoluble therewith, and a clapper mounted upon said body member and having a portion disposed partially within the path of travel of said star wheel.

3. The combination of a body member having a thin portion to be struck, an axle connected with said body member for the purpose of supporting the latter, a star wheel mounted upon said axle and revoluble therewith, a leaf spring mounted upon said body member and extending in the proximate direction of said axle, and a striking member mounted upon said leaf spring at a point adjacent to the end thereof nearest said axle, said leaf spring and said striking member together constituting a clapper, said clapper being disposed partially within the path of travel of said star wheel.

4. The combination of a body member having generally the form of a vehicle and provided with a thin portion to sound when struck, a leaf spring mounted upon the under side of said body member and extending generally toward the rear thereof, an axle revoluble relatively to said body member, said axle being disposed adjacent to the rear portion of said body member, a striking member mounted upon said leaf spring at a point adjacent to the rear end of said body member, and mechanism carried by said axle and revoluble therewith for the purpose of actuating said striking member.

5. The combination of a body member provided with a thin portion of substantially cylindrical form and adapted to sound when struck, said thin portion having a pair of slots disposed oppositely to each other, a leaf spring mounted upon said body member and provided with a striking member extending toward a portion of said body member intermediate said slots for the purpose of striking said body member at a point favorable to the production of loud sound, an axle revoluble relatively to said body member, and means carried by said axle for actuating said striking member relatively to said body member.

942,611. METAL FRAME FOR GLASS PANES. AMAND BUSSE, New York, N. Y. Filed Apr. 17, 1909. Serial No. 490,556.



1. The combination of intersecting mullions and transoms, each in the form of a T-bar, with the bars extending in one direction having T-slots in the webs thereof, through which the intersecting bars pass, and with the head of one of the bars at each point of intersection cut out to receive the head of the other bar and thus locate the heads of all the bars in the same plane.

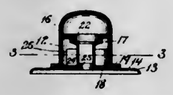
2. The combination of a series of mullions, and a transom intersecting the mullions, the transom and mullions each being in the form of a T-bar, with the mullion bars having T-slots in the webs thereof, through which the transom passes, and the transom bar having the heads thereof removed to receive the heads of the mullion bars.

3. The combination of intersecting mullions and transoms, each in the form of a metal T-bar continuous in length, one set of said bars having T-slots passing through the webs thereof, with a slit formed in the web at the end of each slot, and the other set of bars received in said slots and having cut-out portions in the heads at the points of intersection to receive the heads of the other bars, and with the bars having the cut-out portions engaged at the inner end and secured in place by the metal at the inner side of the slits.

4. The herein-described process of joining metal T-bar mullions and transoms, which consists in providing the webs of one set of the bars with T-slots of less length than the maximum width of the other bars, and with slits at the inner ends of the slots, expanding the metal at the inner sides of the slots sufficiently to admit of the other set of bars being slid endwise through the slots, providing the other set of bars with cut-out portions adapted to register with the first set of bars and forcing the expanded metal inwardly to secure the two sets of bars together when the cut-out portions of the second set of bars are in register with the first set of bars.

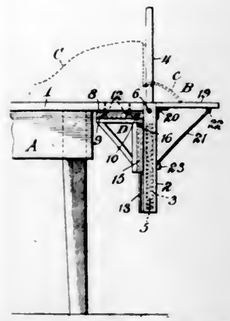
5. The combination of a mullion-bar and a transom-bar intersecting each other, each bar having a head and a web, with one of the bars at the point of intersection having a slot in the web thereof through which the other bar is adapted to be slid when both of the bars are facing in the same direction, and the other bar having its head cut out at the point of intersection to receive the head of the slotted bar and thus locate the heads of both of the bars in the same plane.

942,612. CARRIAGE-CURTAIN FASTENER. FRED S. CARR, Brookline, Mass., assignor to Carr Fastener Company, Boston, Mass., a Corporation of Maine. Filed Oct. 20, 1908. Serial No. 458,701.



A curtain fastener comprising inseparable base and head members the adjacent portions of which are oval in transverse section, the base member being hollow and composed of a sheet metal cup the bottom portion of which has a flat seat, and an outer bearing surrounded by said seat, while its body portion has an attaching flange and a recess surrounded by said flange, a bottom plate seated in said recess, and provided with an inner bearing, the head member being composed of a sheet metal cup the bottom portion of which constitutes a head, while the body portion is contracted to form an inner face formed to bear on the said flat seat of the base member, and an integral hollow stem inseparably connected to said bottom plate and having outer and inner journal portions formed to engage the said outer and inner bearings, and an intermediate polygonal spring-engaging portion, the inner end of the stem being rotatably engaged with said bottom plate, and a spring located within the hollow base member and bearing against the polygonal portion of the stem to yieldingly hold the stem and head with their adjacent oval portions in alinement or at an angle to each other.

942,613. TABLE ATTACHMENT. JUE AH CHOW, Helena, Mont. Filed Jan. 22, 1908. Serial No. 412,171.



1. A table attachment of the class described comprising a vertically-disposed casing having an opening at its top, a vertical plate movable inwardly and outwardly through the opening, a device for mounting the casing on a table with the open upper end of the casing flush with the table top, and a leaf extension secured to the casing in a position flush with the table top.

2. The combination with a table having a top, of an attachment therefor comprising a support mounted on the table below the top thereof, a plate-like rest mounted on the support and projectable upwardly above the table top and disposed at an angle thereto, and resilient means for projecting the rest upwardly.

3. The combination with a table, of an attachment comprising a support arranged on the table with its upper end flush with the top of the latter, a plate-like rest movably mounted on the support and projectable upwardly, and an extension leaf mounted on the support and disposed when in open position flush with the top of the table.

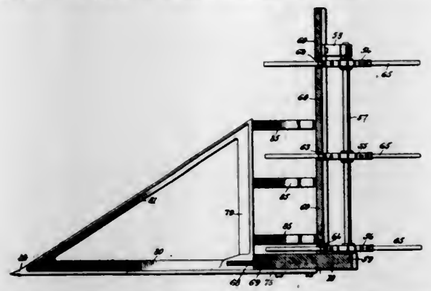
4. The combination with a table, of a removable attachment thereon, said attachment comprising a vertically-disposed casing open at its upper end, a plate-like rest movable in and out of the opening and disposed at right angles to the top of the table, and yielding means within the casing to urge the plate outwardly.

5. The combination with a table, of an attachment comprising a support, brackets for securing the support to the table, a slidable plate-like rest on the support and projectable upwardly above the top of the table, an extension leaf carried by the support, and means for holding the extension leaf in open position.

[Claims 6 to 9 not printed in the Gazette.]

942,614. GRAIN-CUTTER. LINDLEY CLARK, Greenfield, Ind. Filed Mar. 25, 1909. Serial No. 485,698.

1. The combination with a binder, of means for dividing the grain to be cut into sections, means for cutting the grain sections, and means for conveying the cut grain in upright position to said binder, comprising a support for the butts of the grain stalks, and a plurality of chains arranged one above the other and each provided with arms engaging the grain to move it over said support.



2. The combination with a binder, of means for dividing the grain to be cut, means for cutting the grain, means for retaining the cut grain in upright position, comprising a plurality of spring fingers associated with each dividing means, means for supporting the butts of the grain stalks, a plurality of chains moving over said support, and a plurality of arms on each chain arranged to move the grain in upright position to the binder.

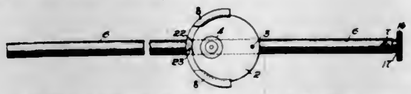
3. The combination with a binder, of means for dividing the grain to be cut, comprising a plurality of triangular frames, a support, a cutter mounted on said support, a guide extending along said support for retaining the cut grain in upright position, a plurality of inclined spring fingers mounted on said triangular frames, a plurality of chains mounted to travel longitudinally along said guide, and a plurality of arms mounted on each of said chains.

4. The combination with a binder, of a support, a cutter-bar mounted on said support, a plurality of triangular guides secured to said support, a plurality of fingers secured to said guides, an upright wall mounted to extend along said support and having longitudinal slots therein, a shaft rotatably mounted at each end of said slots, a plurality of sprocket-wheels mounted on each shaft, a plurality of chains having arms and passing over said wheels, and means for rotating said shafts.

5. The combination with a binder, of a plurality of triangular members for dividing the grain, a reel rotatably mounted, means for cutting the grain, a support for the butts of the grain stalks, a plurality of inclined spring fingers mounted on said triangular members, an upright guide extending along said support, and a plurality of feed chains passing along said upright guide, each having a plurality of arms secured thereto.

[Claim 6 not printed in the Gazette.]

942,615. TARGET-PRACTICE APPARATUS. HENRY H. CUMMINGS, Newton, Mass., assignor to Sub-Target Gun Company, Boston, Mass., a Corporation of Maine. Filed Mar. 26, 1909. Serial No. 485,976.



1. An aim recording attachment for a firearm comprising a marking rod adapted to be inserted in the bore thereof, a target and target holder, and a tubular member on which said target holder may be adjustably supported, said member being adapted to receive the marking rod when removed from the firearm.

2. An aim recording attachment for a firearm comprising a marking device, a target holder and a tubular support on which the holder is adjustable, said support being formed to serve as a container for the marking device when the latter is out of use.

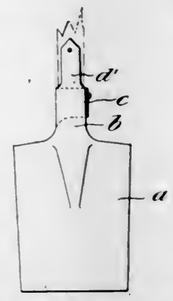
3. An aim recording attachment for a firearm having a marking device for recording the aim thereof, a target holder of resilient material for holding the target on which the aim is recorded, and a supporting rod, said holder having an opening to embrace said supporting rod, and a friction holding formation whereby a friction hold is secured thereon by the resilient material of the holder.

4. In a target practice apparatus, the combination with an aiming device, of a recording marker, and a target holder, the latter having retaining walls for the target, a relatively heavy backing portion and a supporting portion projecting from the backing portion, all composed of a single molded piece of resilient material.

5. In a target practice apparatus, the combination with an aiming device for aiming at a suitable aim-fixing spot, of an aim-recording means, a target holder having circular target-receiving walls, and a circular target provided with a bull's eye for receiving record of the aim said target being adjustable in said holder to adjust said bull's eye relatively to the aiming spot.

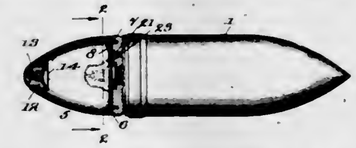
[Claims 6 to 13 not printed in the Gazette.]

942,616. BLADE FOR SPADES OR SHOVELS. HERMANN DAHLMANN, Gevelsberg, Germany. Filed May 7, 1909. Serial No. 494,527.



A shovel blade having a laterally closed handle socket formed integral therewith and fastening strips extending from the upper edge of said socket.

942,617. ATTACHMENT FOR PROJECTILES. CLELAND DAVIS, U. S. Navy. Filed Nov. 4, 1907, Serial No. 400,595. Renewed May 10, 1909. Serial No. 495,173.



1. The combination of a projectile, and a hollow collapsible cone shaped means attached to the base thereof for lessening the resistance of the air during flight, substantially as described.

2. The combination of a projectile, and a cone shaped hollow, flexible, means attached thereto for lessening the resistance of the air during flight, substantially as described.

3. The combination of a projectile, a hollow, collapsible, means attached thereto for lessening the resistance of the air during flight, and means for inflating the same while the shell is acquiring its velocity, substantially as described.

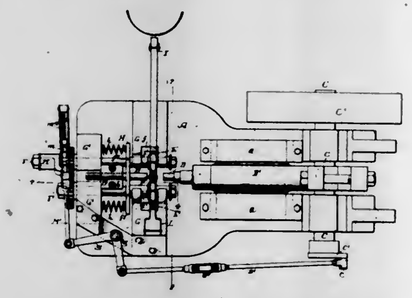
4. The combination of a projectile, of a hollow, collapsible, means attached thereto for lessening the resist-

ance of the air during flight; and means for inflating said collapsible means while the shell is acquiring its velocity comprising a channel for conducting the gases of explosion into said collapsible means, substantially as described.

5. The combination of a projectile, a bag attached thereto conforming to the contour of the projectile, of such a shape as to lessen the resistance of the air during flight, and means for causing said bag to be inflated after the gun is fired, substantially as described.

[Claim 6 not printed in the Gazette.]

942,618. MACHINE FOR RIVETING CHAPLETS. VIBERT DAVIS, Philadelphia, Pa. Filed May 15, 1909. Serial No. 496,184.



1. The combination in a machine for riveting chaplets, of a fixed punch and a movable punch, a pair of dies for carrying the chaplets, means for yieldingly supporting the dies, and means for actuating the movable punch so as to force the chaplet against the fixed punch, whereby the projecting ends are riveted.

2. The combination in a machine for riveting chaplets, of a fixed punch, a movable punch, a pair of rotatable dies situated edge to edge, one of said dies having a series of notches on its periphery, means for rotating the dies, and means for actuating the movable punch.

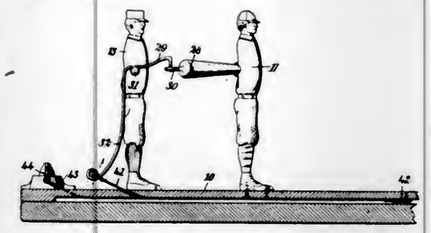
3. The combination in a chaplet riveting machine, of a fixed punch, a movable punch, two rotatable dies arranged edge to edge, each die having a series of notches in its periphery, said notches alining with each other when in line with the punches, means for yieldingly supporting the dies, and means for intermittently turning them.

4. The combination in a machine for riveting chaplets, of a fixed punch, a movable punch, a pair of rotatable dies arranged edge to edge, each die having a series of notches in its periphery, shafts supporting the dies, a plate resting against shoulders on the shafts, springs back of the plate which allow the dies to yield when the movable punch contacts with the chaplet held by the dies.

5. The combination in a chaplet riveting machine, of a base frame, a fixed punch having a threaded portion, bearings on the frame having a threaded opening to receive the fixed punch, so that the said punch can be adjusted when desired, a movable punch, a slide carrying said punch, guides on the frame, means for actuating said movable punch, two shafts adapted to bearings on the frame, a circular die mounted on each shaft, each die having a series of notches to receive the spindle of the chaplet and being of such width that the disks of the chaplet will rest on each side of the dies, said shafts being shouldered, a plate resting against the shoulders, springs back of the plate, so that when the movable punch presses against the spindle of the chaplet it will carry the dies and plate with it, forcing the opposite end of the chaplet spindle against the fixed punch, and means for intermittently rotating the dies.

[Claims 6 and 7 not printed in the Gazette.]

942,619. BASE-BALL-GAME APPARATUS. JOHN W. E. DEAN, New York, N. Y. Filed Mar. 11, 1908. Serial No. 420,427.



1. In a game apparatus of the character described, a support, two uprights on the support, one in rear of the other, a spring arm carried by one upright, an arm on the other upright and adapted to engage the spring arm to hold it in operative position, and means for operating the said arm, whereby it may be disengaged from the spring arm to release the same.

2. In a game apparatus of the character described, a support, two uprights fixedly secured upon the support, one in rear of the other, a spring arm secured at one end to one of the uprights and constituting a bat, an arm pivoted to the other upright and adapted to engage the spring arm to hold it under tension, and means for operating the pivoted arm to release the spring arm.

3. In a game apparatus of the character described, a support, two uprights fixedly secured upon the support, one in rear of the other, a spring arm having one end secured to one of the uprights and provided at its free end with means for holding a ball, a pivoted arm on the other upright and having a member adapted to engage the spring arm to hold the latter under tension, and means for operating the pivoted arm to release the spring arm.

4. In a game apparatus of the character described, a support, two dummy figures fixedly secured upon the support, one in rear of the other, a spring arm secured at one end to one figure and provided with a loop or eye, said arm constituting a bat, an arm pivoted intermediate of its ends on a horizontal pivot to the other figure and having a hook on one end for engaging the hook or eye of the spring arm, and means connected with the other end of the pivoted arm for operating it.

5. In a game apparatus of the character described, a support, two dummy figures fixedly secured upon the support, one in rear of the other, a spring arm secured at one end to one of the figures and provided at its free end with a plurality of loops forming a ball holding device and with an eye, an arm pivoted intermediate of its ends on a horizontal pivot to the other figure, and having a hook at one end adapted to engage the eye of the spring arm, and means connected with the other end of the pivoted arm for operating it.

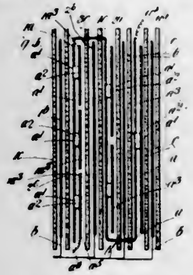
[Claim 6 not printed in the Gazette.]

942,620. ELECTRIC TELEGRAPHY. JOSEPH A. L. DEARLOVE, London, England. Filed Mar. 1, 1909. Serial No. 480,583.

1. In a duplex system of telegraphy, an artificial line consisting of earth plates, inducing elements, a resistant element directly connected with said inducing elements, and dielectric arranged in operative relation to the aforesaid resistant and inducing elements and to the earth plates.

2. In a duplex system of telegraphy, an artificial line consisting of earth plates, inducing elements, a conducting element of resistant material having negligible temperature coefficient which is directly connected with said inducing elements and dielectric interposed between the successive lengths of said resistant element.

3. In a duplex system of telegraphy, an artificial line comprising earth plates, inducing sheets, dielectric arranged in operative relation to said earth plates and inducing sheets, a conducting strip of negligible temperature coefficient directly connected to said inducing sheets and having the successive lengths arranged on opposite sides of the dielectric.

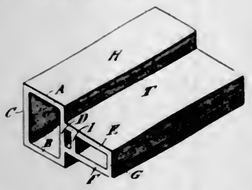


4. In a duplex system of telegraphy, an artificial line comprising earth plates, a conductor formed as a strip composed of metal having negligible or nearly negligible temperature coefficient, an extension or extensions of tinfoil or similar metal attached to the said strip, and dielectric interposed between successive lengths of said strip.

5. In a duplex system of telegraphy, an artificial line comprising earth plates, a conductor formed as a wire composed of metal having negligible temperature coefficient, an extension or extensions of tinfoil attached to the said wire, and dielectric interposed between successive lengths of said wire.

[Claims 6 to 8 not printed in the Gazette.]

942,621. BUILDING-BLOCK. WILLIAM C. DENISON, Cleveland Heights, Ohio, assignor to The Ohio Clay Company, Cleveland, Ohio, a Corporation of Ohio. Filed Oct. 1, 1908. Serial No. 455,667.



1. A building block having a hollow rectangular head, a hollow tongue extending from the middle of the side of the head for a distance substantially equal to the distance across the head, the thickness of said tongue being substantially half the thickness of the head, and the wall of the head adjacent to the tongue extending continuously across the tongue to make a separating web between them.

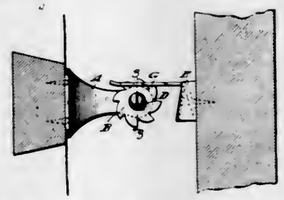
2. In a building block, the combination of a hollow rectangular head, a hollow tongue extending from the middle of one side of the head, the side of the head adjacent to the tongue forming one continuous alined wall across the end of the tongue, and an internal web within the tongue parallel to and adjacent to said side of the head, the location of the web in the tongue being such that in a wall the web may take a position substantially in line with the end wall of the tongues to form a continuous series of supporting members.

3. In a building block, the combination of a comparatively long hollow head, rectangular both internally and externally in cross section, and a tongue projecting from one of the sides of the head and having parallel top and bottom faces whose distance apart is substantially half that of the distance between the top and bottom faces of the head, the tongue being of the same length as the head and being hollow, the hollows of the head and tongue extending continuously from one end of the block to the other and each being of substantially the same cross section throughout.

4. In a building block, the combination of a hollow rectangular head, a hollow rectangular tongue projecting from the middle of the side of the head, the adjacent wall of the head extending continuously across the adjacent side of the tongue, the tongue having an internal web parallel with and adjacent to the said wall of the head, the thickness of the tongue from top to bottom being substantially half that of the corresponding dimension of the head, the width of the tongue being equal to the width of the head plus the distance between said internal web and the adjacent wall of the head, and the length of the tongue being equal to the length of the head.

5. In a building block, the combination of a hollow rectangular head, a hollow rectangular tongue projecting from the middle of the side of the head, the adjacent wall of the head extending in one continuous plane across the adjacent side of the tongue, the tongue having an internal web parallel with and adjacent to the side wall of the head, the thickness of the tongue from top to bottom being substantially half the corresponding dimension of the head, the width of the tongue being equal to the width of the head plus the distance between the internal web and the adjacent wall of the head, and the length of the tongue being equal to the length of the head, whereby said blocks may be set up in a wall either with the blocks alternately placed or with the heads alining and the tongues alining, in each case there being a continuous series of supporting members, one above the other, provided by the respective walls and webs.

942,622. DOOR-CHECK. DOMINGO DESPLATS, Buenos Ayres, Argentina. Filed Feb. 23, 1909. Serial No. 479,454.



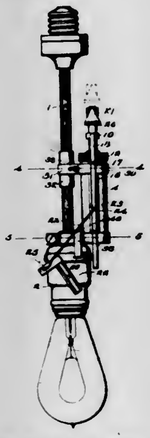
A door check comprising in combination, a fixed member, a circular toothed element, means frictionally securing said element to said member to retard rotation of the former, and a device mounted upon the door and provided with a portion for automatic engagement with and disengagement from said toothed element.

942,623. AUTOMATIC CUT-OFF. PAUL DIXON, Atlanta, Ga. Filed Dec. 20, 1907. Serial No. 407,284.

1. The combination with fluid-conducting means and a cut off therefor, of movable means connected to said cut off and normally stationary when initially set, and automatically controlled means continuously movable when set, said automatically controlled means being set by the movement of said movable means in one direction, and said movable means being operated at a predetermined time by the movement of said automatically controlled means in the opposite direction of movement, substantially as described.

2. The combination with fluid conducting means and a cut-off therefor, of a movable rod, a connecting rod between said movable rod and said cut-off, a cylinder, a plunger rod operating in said cylinder and engaging said movable rod at a predetermined position in the travel of said plunger rod, means exerting a pressure on said plunger rod in one direction, and means controlling the fluid discharge from said cylinder to retard the movement of said plunger rod, substantially as described.

3. The combination with fluid conducting means and a cut-off therefor, of a movable rod, a connecting rod between said cut-off and said movable rod, a cylinder, a hollow plunger rod in said cylinder and communicating with the interior thereof, means controlling the fluid discharge through said hollow plunger rod during movement thereof, and means coöperating between said plunger rod and movable rod to operate the latter during a portion of the movement of said plunger rod, substantially as described.



4. The combination with fluid conducting means and a cut-off therefor, of a movable rod, a connecting rod between said movable rod and said cut-off, a cylinder, a plunger rod operating in said cylinder engaging said movable rod during said plunger rod's travel, said plunger rod having a discharge orifice in its upper end and having a lower open end communicating with the interior of said cylinder, means for exerting pressure in one direction on said plunger rod to move same, and means for regulating the fluid discharge through said orifice, substantially as described.

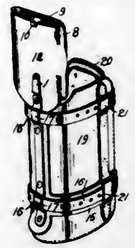
5. The combination with fluid conducting means and a cut-off therefor, of a movable rod, a connecting rod between said movable rod and said cut-off, a cylinder, a plunger rod operating in said cylinder engaging said movable rod during said plunger rod's travel, said plunger rod having a discharge orifice in its upper end and having a lower open end communicating with the interior of said cylinder, means for exerting pressure in one direction on said plunger rod to move same, and means for regulating the fluid discharge through said orifice comprising a cap closing said orifice, substantially as described.

[Claims 6 to 20 not printed in the Gazette.]

942,624. DRESSING-RETAINER AND SHIELD FOR THE KNEES OF HORSES. JOHN DOUGLAS, Waverley, near Sydney, New South Wales, Australia, assignor to himself and Francis Goodwin Geddes, Waverley, Australia. Filed June 10, 1909. Serial No. 501,442.

1. A dressing retainer and shield for the knees of horses comprising a shield-piece, a pad-piece, and a dressing or pad held by the pad-piece, the pad-piece being removably secured to the shield-piece and the pad-piece and dressing or pad held thereby being arranged to lie within the shield-piece.

2. A dressing retainer and shield for the knees of horses comprising a shield-piece, a pad-piece, a dressing or pad held by the pad-piece, the pad-piece being removably secured to the shield-piece and the pad-piece and dressing or pad held thereby being arranged to lie within the shield-piece, the shield-piece having a downwardly extending part, and attachment means combined with the lower part of the shield-piece for attachment to the leg below the knee with the pad or dressing upon the knee.

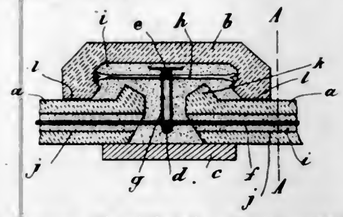


3. A dressing retainer and shield for the knees of horses comprising a shield-piece having recesses therein, a pad-piece, and a dressing or pad held by the pad-piece, the pad-piece having projecting parts in coöperative relation with the recesses in the shield-piece.

4. A dressing retainer and shield for the knees of horses comprising a shield-piece having recesses therein, a pad-piece constructed as a double T and having catches to take in the recesses in the shield piece, a dressing or pad held by the pad-piece, and a turn button on the shield-piece adapted to cover one of the catches of the pad-piece.

5. A dressing retainer and shield for the knees of horses comprising a pad-piece, a dressing or pad held thereby, a shield-piece to which the pad-piece is removably attached and which is arranged exteriorly of the pad-piece and dressing or pad, the shield-piece having a downwardly extending part with runners for straps and arms adapted to partly surround the leg below the knee, and linings and straps combined with the lower part of the shield-piece for attachment of the same to the leg below the knee with the pad or dressing held against the knee.

942,625. REINFORCED CONCRETE STRUCTURE. MAURICE DUMAS, Brussels, Belgium, assignor to Leon Monnoyer & Fils, Brussels, Belgium. Filed Mar. 8, 1909. Serial No. 482,107.

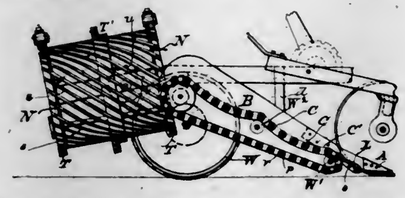


1. A structure of reinforced concrete consisting of blocks of concrete arranged end to end with a variable space between their adjacent ends, in combination with concrete connecting ribs the rear faces of which are recessed throughout their entire height, these ribs covering the outer faces of the ends of each pair of blocks, horizontal reinforcing means connecting these blocks one with the other, vertical reinforcing means located in the recesses of the ribs, means for connecting together the horizontal and vertical reinforcing means and a concrete mortar filling entirely the spaces between the blocks and between the blocks and the ribs and embedding the reinforcing means.

2. A structure of reinforced concrete consisting of blocks of concrete arranged end to end along the two sides of an angle with a variable space between their adjacent ends, in combination with connecting ribs of concrete U-shaped in cross-section the ends of the lateral faces of the said ribs being applied to the outer faces of said blocks in proximity to their adjacent ends, horizontal reinforcing means connecting the said blocks one with the other, vertical reinforcing means located in the recesses of the ribs, means for connecting together the horizontal and vertical reinforcing means and a concrete mortar filling entirely the spaces between the blocks and between the blocks and the ribs and embedding the reinforcing means.

3. A structure of reinforced concrete consisting of superposed courses each formed of concrete blocks arranged end to end along the two sides of an angle with a space between their adjacent ends, this space being less in one course than in the preceding course, in combination with superposed concrete connecting ribs U-shaped in cross-section, the ends of the lateral faces of the said ribs being applied to the outer faces of the said blocks in proximity to their adjacent ends, horizontal reinforcing means connecting the said blocks one with the other, vertical reinforcing means located in the recesses of the ribs, means for connecting together the horizontal and vertical reinforcing means, and a concrete mortar filling entirely the spaces between the blocks and between the blocks and the ribs and embedding the reinforcing means.

942,626. APPARATUS FOR HARVESTING POTATOES, ONIONS, &c. WILLIAM J. DUNHAM and EUGENE W. PECK, Gloversville, N. Y. Filed Dec. 3, 1908. Serial No. 465,846.



1. In a vegetable excavating and separating device, traction wheels, a revolving screen, means for revolving the screen, an excavator, a conveyer adapted to receive material from the excavator and deliver said material to the screen, said conveyer having a series of cross bars each incased in a tube, a flexible member on each end thereof, and means for driving the conveyer, members over which the sleeves travel and by which they are rotated.

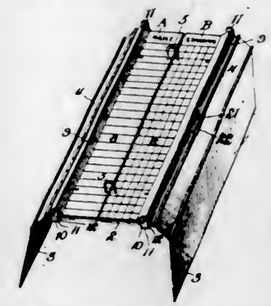
2. In a vegetable excavating and separating device, traction wheels, a revolving screen, means for revolving said screen, an excavator, a conveyer adapted to receive material from the excavator and deliver said material to the screen, said conveyer having a series of cross bars, each incased in a tube, a flexible member on each end thereof, means for driving the conveyer, members over which the sleeves travel and by which they are rotated, a flapper interposed between the excavator and the conveyer, the said flapper taking motion from the conveyer.

3. In a vegetable excavating and separating device, traction wheels, a revolving screen, means for revolving said screen, an excavator, a conveyer adapted to receive material from the excavator and deliver said material to the screen, said conveyer having a series of cross bars each incased in a tube, a flexible member on each end thereof, means for driving the conveyer, members over which the sleeves travel and by which they are rotated, and a flapper interposed between the excavator and the conveyer, the said flapper taking motion from the conveyer.

4. In a potato digger, a conveyer having flexible members, bars extending between the flexible members, casings on the bars, means for driving the conveyers and means for causing the rotation of the casings.

942,627. RECORD-TABLET. GUY A. ELIASON, Iola, Wis. Filed Dec. 8, 1908. Serial No. 466,536.

1. A tablet comprising a back, a plurality of record leaves, a device for holding the leaves removably on the back, a pivoted locking member mounted on the back to engage the said device for locking the same and having an extremity terminating adjacent one edge of the back and formed thereat into a finger hold, and means for limiting the swinging movement of the member.



2. A tablet comprising a back, a plurality of record leaves, a device for holding the leaves removably on the back, and a pivoted locking member mounted on the back to engage the said device for locking the same and having an extremity terminating adjacent one edge of the back and formed thereat into a finger hold, said back having a recess in which the finger hold moves to limit the movement of the member.

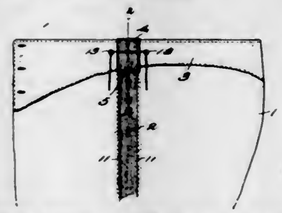
3. A tablet including a flat rigid plate, a horizontal rotatable pivot bar longitudinally supported on the face of said plate having a U-shaped clip formed at one end adapted to engage with the margins of record leaves and permit said leaves to be shifted around on said tablet from one side of said clip to the other and thus present different faces of the leaves on transverse opposed sides of the tablet, means for rotating the pivot bar to open or close the clips against the inside face of the tablet, and a locking member pivoted on the plate for holding said bar from rotation and the clips closed.

4. A tablet including a flat rigid plate, a longitudinal rotatable bar supported on the face of said plate along the longitudinal median line thereof, a U-shaped clip formed on said bar, and a slide pivoted to the tablet to prevent the rotation of said bar and having its outer end extending upwardly at one edge of the plate to form a grip, said clip being adapted to engage with the margins of opposed independent record leaves and permit said leaves to be shifted around on the clip from one lateral margin of the tablet to the other.

5. A tablet comprising a back, loose leaf holding devices carried thereby, a leaf-clamping member extending from one end of the back to the other, springs connected with the member and back to hold the member in clamping position and to constitute supporting means for the latter.

[Claims 6 to 21 not printed in the Gazette.]

942,628. ADJUSTABLE WAISTBAND FOR GARMENTS. MILTON S. ERLANGER, Baltimore, Md. Filed Nov. 27, 1908. Serial No. 464,630.

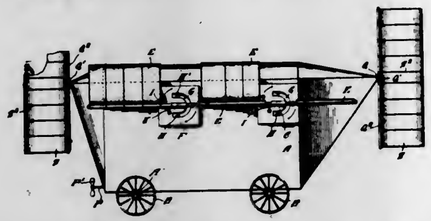


1. A garment having a waist band composed of a plurality of thicknesses of material, and an inserted elastic strip having an extension passing up on one side of said band, down on the other to form a fold, and up against

said fold to form a pocket; holes through one of said thicknesses on each side of said fold, and a string passing through said holes and between said thicknesses, substantially as described.

2. A garment having a waist band; an inserted piece of elastic material in said band provided with a plurality of thicknesses; perforations on each side of said material, and a string passing through the same, substantially as described.

942,629. AERIAL NAVIGATING APPARATUS. LEVI FELKER, Washington, D. C. Filed Apr. 3, 1909. Serial No. 487,685.



1. An aerial navigating apparatus, etc., comprising a housing, rotatable shafts mounted in suitable bearings therein, rods rotatably connected to said shafts, wings mounted at right angles to each other upon each of said rods, pins carried by said rods and projecting at right angles thereto, ball bearings upon said pins, grooved ways having each an inclined end against which one or the other of said balls is adapted to bear to give a partial rotary movement to the rod, and aeroplane steering rudders at the ends of said housing, as set forth.

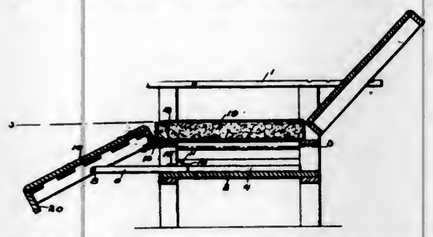
2. An aerial navigating apparatus, etc., comprising a housing, rotatable shafts mounted in suitable bearings therein, rods rotatably connected to said shafts, wings mounted at right angles to each other upon each of said rods, pins carried by said rods and projecting at right angles thereto, ball bearings upon said pins, grooved ways having each an inclined end against which one or the other of said balls is adapted to bear to give a partial rotary movement to the rod, and aeroplane steering rudders having universally adjusted connections with the ends of said housing, as set forth.

3. An aerial navigating apparatus, etc., comprising a housing, rotatable shafts mounted in suitable bearings therein, T-shaped unions connected to said shafts, rods rotatably mounted in said T-shaped unions, wings secured at right angles to each other upon said rods, pins projecting from said rod, a ball bearing upon each pin, semicircular grooved ways upon the opposite sides of the housing and each groove having an inclined end wall adapted to contact to cause a partial revolution to be imparted to each wing carrying rod, and aeroplane rudder means for steering the apparatus, as set forth.

4. An aerial navigating apparatus, etc., comprising a housing, rotatable shafts mounted in suitable bearings therein, T-shaped unions connected to said shafts, rods rotatably mounted in said T-shaped unions, wings secured at right angles to each other upon said rods, pins projecting from said rod, a ball bearing upon each pin, semicircular grooved ways upon the opposite sides of the housing and each groove having an inclined end wall adapted to contact to cause a partial revolution to be imparted to each wing carrying rod, means for preventing said rods from rotation while the pins are moving between the ends of said grooved way on a flat surface of the projecting portion of the housing, and aeroplane rudders for steering the apparatus, as set forth.

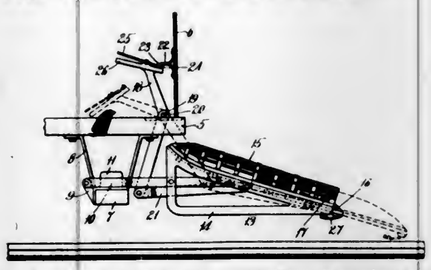
5. An aerial navigating apparatus, etc., comprising a housing, rotatable shafts mounted in suitable bearings therein, T-shaped unions connected to said shafts, rods rotatably mounted in said T-shaped unions, wings secured at right angles to each other upon said rods, fingers projecting from said rods at angles thereto, a ball bearing mounted in a socket portion upon each of said fingers, laterally extending portions of the housing having flat faces which are provided with semi-circular grooved ways, each terminating in an inclined end wall against which certain of said balls are adapted to contact, as the shaft carrying said rods rotates, to cause a partial revolution to be imparted to each rod, said fingers and ball bearings serving to prevent said rod from rotation while the balls are in contact with said flat surface intermediate the ends of the grooved way, aeroplane steering rudders, and means for operating the same, as set forth.

942,630. FOOT AND LEG REST. JOHN FLINDALL, Chicago, Ill. Filed Feb. 10, 1909. Serial No. 477,174.



In an article of furniture, a support, a plurality of runways, a sliding support mounted on each of the runways, a rectangular stop arranged at the rear end of each of the sliding supports, a cross bar secured to each of the runways and formed with a slot for accommodating the stops, the construction of the stops causing the cross bar to be locked against lateral movement and against removal from the support, a pivotally mounted foot and leg rest connected with the outer end of the sliding support, and angular lugs rigidly secured to the inner edge of the foot rest and leg rest and arranged to engage the support, the angularity of the lugs determining the angle of the foot and leg rest when moved to supporting position.

942,631. CAR-FENDER. JOHN FLYNN, Bridgewater, Mass. Filed Jan. 2, 1909. Serial No. 470,335.



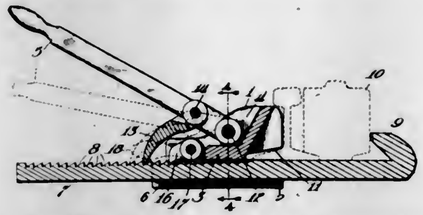
1. A car fender, having, in combination, a member movable toward and away from the ground, an operating lever arranged to be operated by the foot of the motorman, a link connecting said lever to said member, a detent adapted to engage said lever to hold said member raised, and a second lever pivoted to said operating lever and adapted to be operated by the foot of the motorman to disengage said detent from said operating lever to allow the same to move said member toward the ground.

2. A car fender, having, in combination, a stationary guard member arranged to project permanently from the front of a car, a second member slidably mounted upon said stationary member to move forwardly and downwardly, an operating lever by which said second member is controlled, a detent adapted to normally lock said member, and means to release said detent to allow said second member to move forwardly and downwardly.

3. A car fender, having, in combination, a stationary member arranged to project forwardly and downwardly from the front of a car, a second member slidably mounted upon said stationary member to move forwardly and downwardly, an operating lever by which said second member is adapted to be moved, a detent adapted to normally lock said member, and a lever pivoted on said operating lever and adapted to be moved to release said detent to allow said operating lever to be moved to carry said second member toward the ground.

4. A car fender having, in combination, a guard member adapted to project from the front of a car, a second member slidably mounted on said guard member to move forwardly and downwardly, means to control said second member, and a support on which said guard member is pivotally supported so as to be capable of being lifted from its normal position.

942,632. RATCHET-CLAMP FOR CAR-REPLACERS. WILLIAM GAKLE, Chicago, Ill. Filed Dec. 5, 1908. Serial No. 466,057.



1. In a ratchet clamp for car replacers, the combination with a main body, of a rack bar reciprocating therethrough and provided at one end with a head adapted to engage a car replacer, an operating lever connected to said main body, a pawl carried by said lever and actuating said rack bar, and a dog pivotally mounted within said main body and automatically engaging said rack bar to lock the latter.

2. In a ratchet clamp for car replacers, the combination with a main body casting, of a rack bar adapted to reciprocate therethrough, and provided with a head for engaging a car replacer, means for actuating said ratchet bar to clamp the replacer against the rail, and means for locking said rack bar in clamped position.

3. In a ratchet clamp for car replacers, the combination with a main frame adapted to engage the rail, of a rack bar reciprocating therethrough and provided with a head for engaging a car replacer, a pawl for stepping-up said rack bar, means for actuating said pawl, and means for locking said rack bar.

4. In a ratchet clamp for car replacers, the combination with a main casting adapted to engage the rail, a rack bar reciprocating therethrough and provided with a head for engaging the car replacer, means for stepping-up said rack bar, and means for automatically locking said rack bar.

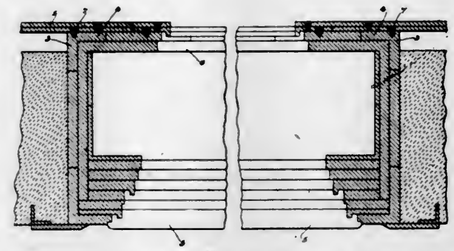
5. In a ratchet clamp for car replacers, the combination with a main body casting provided with a guide way, of a rack bar reciprocating in said guide way, an operating lever pivotally mounted in said main body, an actuating pawl carried by said lever, and a locking dog pivotally mounted in said main casting to automatically lock the rack bar in its stepped-up position.

942,633. VAULT-VESTIBULE. JOSEPH G. GIESTING, San Francisco, Cal., assignor to Herring-Hall-Marvin Safe Company, Hamilton, Ohio. Filed Sept. 1, 1908. Serial No. 451,224.

1. In a device of the character described, the combination of a vault, a vestibule therefor and corner plates on the vestibule, the rear wings of which extend inwardly and are attached to the vault.

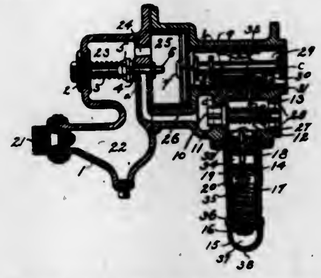
2. In a device of the character described, the combination of a vault inclosed within walls of masonry with the exception of an opening at its front and a vestibule of equal width with and movable through said opening, adapted to be attached to said vault after the vault is entirely inclosed by the masonry.

3. In a device of the character described, the combination of a vault inclosed within walls of masonry with the exception of an opening at its front and a detachable vestibule of equal width with and movable through said opening, adapted to be attached by means of corner plates to said vault.



4. In a device of the character described, the combination of a vault inclosed within walls of masonry with the exception of an opening at its front and a detachable vestibule of equal width with and movable through said opening, adapted to be attached by means of corner plates having inwardly directed wings to said vault.

942,634. QUICK-ACTION TRIPLE VALVE. DAVID S. GILBERT, Reading, Pa. Filed Aug. 11, 1909. Serial No. 512,298.



1. In a quick-action triple valve, the combination, substantially as set forth, of a triple valve proper, an emergency valve located in a chamber immediately forward of the piston cylinder of the triple valve, a yoke-like stop secured to said valve having two fingers extending into the cylinder of the triple valve through openings in the partition between said chamber and said cylinder, a spring acting to close said valve and restrain the movement of the triple valve piston, a check valve in said emergency air passage, and a pressure-reducing valve adjacent said check valve for blowing down the pressure in the brake cylinder in emergency applications of the brakes.

2. In a quick-action triple valve, the combination, substantially as set forth, of a triple valve proper, an emergency valve located in a chamber immediately forward of the piston cylinder of the triple valve and having movement in line with the direction of movement of the triple valve, a yoke-like stop secured to said valve having fingers extending into the cylinder of the triple valve through air passages in the partition between said chamber and said cylinder, an emergency air passage leading to the brake cylinder having an entrance between said fingers and controlled by said valve, a spring encircling the stem of said valve acting to normally close the same and limit the movement of the triple valve piston in ordinary service applications and to yield to the pressure of said piston and open said valve in emergency applications, a check valve in said emergency air passage, and a pressure-reducing valve adjacent said check valve.

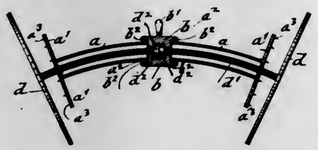
3. In a quick-action triple valve, the combination substantially as set forth, of a triple valve proper, an emergency valve located in a chamber adjacent the piston cylinder of the triple valve and having movement in line with the direction of movement of the triple valve, a partition between said chamber and said cylinder, openings in said partition establishing communication between said chamber and said cylinder, an emergency air passage formed in said partition and having an entrance from said chamber intermediate two of said openings, said entrance being controlled by said valve, a yoke-like stop secured to said valve having fingers projecting through said openings into the triple valve cylinder, a spring encircling the stem of said valve and acting to normally close the same and limit the movement of the triple valve piston, and a removable cap nut in the wall of said chamber opposite said partition against which said spring abuts and whereby said valve may be removed from said chamber.

4. In combination with a triple valve and quick-action means for admitting train pipe pressure directly to the brake cylinder, a pressure-reducing valve comprising a casing having a chamber therein, a piston exposed to air pressure movable in said chamber and normally seated against a shoulder in the upper portion of said chamber, a plurality of annularly arranged radial vents opening into said chamber and adapted to be normally closed by said piston, and a longitudinal radial slot opening into said chamber below said vents and communicating therewith.

5. A pressure-reducing valve comprising a casing containing a chamber, a piston exposed to air pressure movable therein, a seat for said piston and an adjustable spring acting to normally retain said piston upon said seat, a plurality of annularly arranged radial vents in the wall of said casing opening into said chamber and adapted to be normally closed by said piston, a longitudinal radial slot in the wall of said casing spaced from the annular line of said vents and opening into said chamber, and passages in the wall of said casing forming communication between said vents and said slot.

[Claim 6 not printed in the Gazette.]

942,635. CUFF-BUTTON. HENRY GINNEL, Garden City, N. Y. Filed Feb. 8, 1909. Serial No. 476,647.

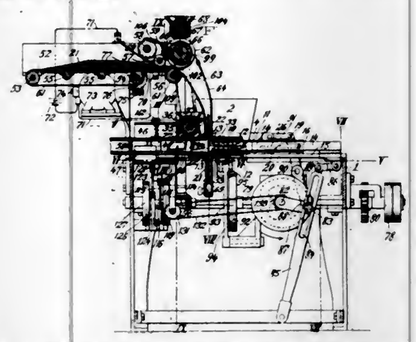


1. A cuff-button comprising two tubular retainers, a rotatable sleeve engaging the inner ends of said retainers, holding plates or abutments at the outer ends of the tubular retainers, buttons having shanks passing through said retainers, and means for locking the inner ends of the button-shanks to or releasing them from the sleeve.

2. A cuff-button consisting of two tubular retainers having flanged inner ends, a rotatable sleeve connecting said inner ends and provided with alined openings and a cylindrical space between said openings, holding plates or abutments at the outer ends of the tubular retainers, said abutments having projecting points, and buttons having shanks passing through the retainers and provided with T-shaped ends adapted to be inserted into and locked by the sleeve on turning the same or released from the sleeve for moving the buttons away from the abutments.

942,636. PACKAGE-WRAPPING MACHINE. FELIPE GIROUD, New York, N. Y. Filed June 13, 1908. Serial No. 438,278.

1. A wrapping machine comprising devices for folding the wrapper, a reciprocating plunger, means for depositing a wrapper between the wrapper folding devices and the plunger, a hopper containing the articles to be wrapped, a finger plunger moving transversely of the first mentioned plunger, said finger plunger serving to transfer a limited number of articles from the hopper to a position between said wrapper and the first mentioned plunger, means whereby forward movement of the first mentioned plunger, first compresses said articles into a compact package and then forces the package together with the wrapper into the devices which fold the wrapper upon the package.



2. A wrapping machine comprising devices for folding the wrapper, a reciprocating plunger, and continuously revolving feed rollers, one of said feed rollers carrying segments adapted to apply paste to parts of a wrapper, means for feeding a wrapper to said feed rollers and paste applying segments, means whereby the partially pasted wrapper is deposited between the folding devices and the plunger, means for depositing a limited number of articles between said wrapper and the plunger, and means whereby forward movement of the plunger, first compresses the articles into a compact package, and then forces the package together with the wrapper into the devices which fold the wrapper upon the package.

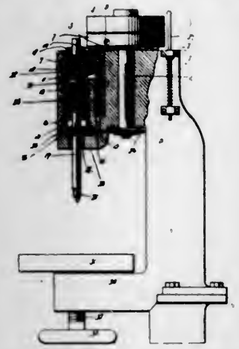
3. A wrapping machine comprising devices for folding the wrapper, a reciprocating plunger, and continuously revolving feed rollers, one of said feed rollers carrying segments adapted to apply paste to parts of a wrapper, a wrapper magazine, and means for feeding a wrapper therefrom to said feed rollers and paste applying segments, means whereby the partially pasted wrapper is deposited between the folding devices and the plunger, means for depositing a limited number of articles between said wrapper and the plunger, and means whereby forward movement of the plunger, first compresses the articles into a compact package and then forces the package together with the wrapper into the devices which fold the wrapper upon the package.

4. A wrapping machine comprising devices for folding the wrapper, a reciprocating plunger, means for depositing a wrapper between the wrapper folding devices and the plunger, means for depositing a limited number of articles between said wrapper and the plunger, and means whereby forward movement of the plunger, first compresses the articles into a compact package, and then forces the package together with the wrapper into the devices which fold the wrapper upon the package.

5. A cigarette wrapping machine comprising a reciprocating plunger, devices for folding the wrapper, means for depositing a wrapper between the wrapper folding devices and the plunger, channels for holding a limited number of cigarettes with the long axes of said cigarettes extending transversely of the line of travel of said plunger, plunger fingers adapted to move said cigarettes to rest lengthwise across the line of travel of the first mentioned plunger, and means whereby forward movement of the first mentioned plunger first compresses the cigarettes into a compact package and then forces the package together with the wrapper into the devices which fold the wrapper upon the package.

[Claims 6 to 16 not printed in the Gazette.]

942,637. RIVETING-MACHINE. CHARLES GREINER, New Haven, Conn. Filed Mar. 29, 1909. Serial No. 486,402.



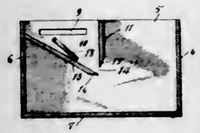
1. In a riveting machine, the combination with a revolving head, of a circular series of rollers mounted therein so as to project beyond one face thereof, a spring-actuated chambered plunger provided with an offsetting arm, a roller mounted in the said arm in position to be struck by the rollers in the head as the same revolves, and a spring-cushioned hammer carried by the said plunger.

2. In a riveting machine, the combination with a revolving head, of a shaft upon which the same is mounted, a sprocket-wheel carried by the said shaft and rotating with the said head, a circular series of rollers mounted in the said head so as to project beyond one face thereof, a spring-actuated chambered plunger provided with an offsetting arm, a roller mounted in the said arm in position to be engaged by the rollers carried by the head as the same is revolved, a spring-cushioned hammer mounted in the said plunger, a sprocket mounted upon the said hammer for rotation therewith, and connection between the two sprockets mentioned, whereby the hammer is rotated.

3. In a riveting machine, the combination with a fixed and a loose pulley, of a circular series of rollers mounted in the lower face of the fixed pulley which is located below the loose pulley, a spring-actuated plunger having an offsetting arm, a roller mounted in the said arm in position to be engaged in succession by the rollers mounted in the fixed pulley as the same revolves, a cushioning hammer mounted in the said plunger, and means for rotating the said hammer from the said fixed pulley.

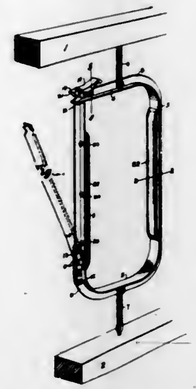
4. In a riveting machine, the combination with a head revolving in a horizontal plane and provided upon its lower face with a circular series of cam-like obstructions, of a vertically arranged spring-actuated chambered plunger formed with an inwardly extending offsetting arm, a roller mounted in the said arm in position to be struck by the cam-like obstructions in the lower face of the head, a spring-cushioned hammer carried by the said plunger, and means for rotating the hammer.

942,638. PORTABLE SAVINGS-BANK. JOHAN H. GUNNES, Seattle, Wash. Filed Sept. 18, 1909. Serial No. 518,373.



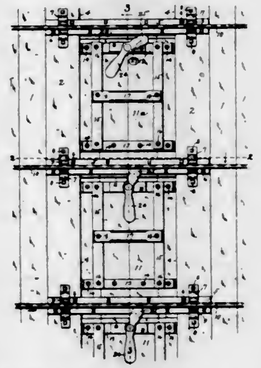
A portable savings bank, comprising a rectangular box having a coin-slot extending through one of its sides, a coin-chute arranged within said box opposite said coin-slot, said chute being comprised of an end piece secured by one edge to the side of the box and having its opposite edge supported by a vertical bracket-plate arranged parallel with the side of the box, an inclined bottom for the chute arranged below the coin slot and extending between the side of the box and said bracket plate and supported thereby, and a cover adapted to form a closure for both box and coin-chute.

942,639. STANCHION. FRANK G. HARRIS and AUGUSTUS E. HARRIS, Salem, Ohio. Filed Apr. 17, 1909. Serial No. 490,526.



In a stanchion, the combination of a stanchion frame consisting of a vertical and upper and lower angled portions, means for suspending said stanchion frame, spaced bars secured to the lower portion of the frame, the top or upper ends of said bars provided with beveled inner edges, a stanchion bar pivoted at its bottom or lower end to the frame, said bar adapted to strike the beveled edges of the spaced bars, a pivoted latch secured to the upper angled portion of the frame and the pivoted stanchion bar adapted to engage the latch secured to the stanchion frame and a spring connected to the stanchion frame and adapted for engagement with the latch, substantially as and for the purpose specified.

942,640. SILO. WILLIAMSON R. HARRISON and ALBERT C. JACOBY, Massillon, Ohio; said Jacoby assignor to said Harrison. Filed Feb. 18, 1909. Serial No. 478,702.



1. A silo having a vertical opening with door jambs on each side, a series of transverse braces extending between the jambs and a series of doors having side edge portions adapted to bear against the inner sides of the jambs, the adjoining end edges of the doors being shaped substantially

as V tongues and grooves, and a lever provided with an arm and a cam on each door adapted to operate on the adjacent brace to force the door outward and downward.

2. A silo having a vertical opening with door jambs on each side, a series of transverse braces extending between the jambs and a series of doors having side edge portions adapted to bear against the inner sides of the jambs, the adjoining end edges of the doors being shaped substantially as V tongues and grooves, and a lever on each door adapted to operate on the adjacent brace to draw the door outward.

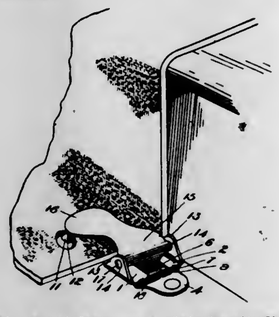
3. A silo having a vertical opening with a frame including door jambs and transverse braces and a series of doors having side edge portions adapted to bear against the inner sides of the jambs, the adjoining end edges of the doors being shaped substantially as V tongues and grooves, and a lever provided with an arm and a cam on each door adapted to operate on the frame to force the door outward and downward.

4. A silo having a vertical opening with a frame including door jambs and transverse braces, and a series of doors having side edge portions adapted to bear against the inner sides of the jambs, the adjoining end edges of the doors being shaped substantially as V tongues and grooves, and a lever on each door adapted to operate on the frame to draw the door outward.

5. A silo having a vertical opening with door jambs on each side, a series of transverse braces extending between the jambs and a series of doors having side edge portions adapted to bear against the inner sides of the jambs, there being tongues and grooves on the adjoining end edges of the doors, and a lever provided with an arm and a cam on each door adapted to operate on the adjacent brace to force the door outward and downward.

[Claims 6 to 19 not printed in the Gazette.]

942,641. STAIR-CARPET FASTENER. WILLIAM W. HESSON, Toronto, Ontario, Canada. Filed May 3, 1909. Serial No. 493,698.



1. In a stair carpet fastener, a plate longitudinally slotted having base portions adapted to be secured to the floor and supporting the slotted and central raised portion, a spring held in suspension by said plate beneath said central raised portion, and a lever pivotally supported above and by said plate and having a tongue portion adapted to engage the carpet and a tail piece bent downwardly and engaging said spring.

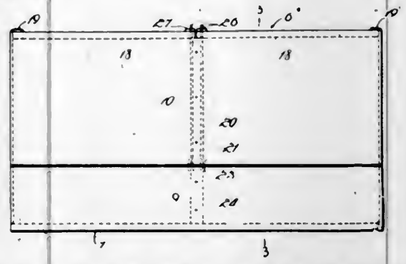
2. In a stair carpet fastener, a plate longitudinally slotted having offset ends forming base portions adapted to be secured to the floor and supporting a slotted and central raised portion, one of said offset portions having an orifice therethrough, a spring secured to one of said offset portions and extending through said orifice and beneath said central raised portion and having its inner end projecting through said longitudinal slot, and a lever pivotally supported above and by said plate and having a tongue portion adapted to engage the carpet and a tail piece bent downwardly and engaging said spring.

3. In a stair carpet fastener, a plate longitudinally slotted having offset portions forming bases adapted to be secured to the floor, one of said offset portions being arranged at one end of said slot and the other of said offset portions having an orifice through the upright portion in longitudinal alinement with said slot and lugs formed at the outer end thereof, a spring extending through said orifice and held securely to the upper side of the adjacent offset portion or base by the lugs forming part with said base folding thereover, said spring at its other end extending through said longitudinal slot and slidably supported by the upright wall portion of the other of said offsets, and a lever pivotally supported above and by said plate having a tongue portion adapted to engage the carpet and a tail piece bent downwardly and extending through said longitudinal slot and engaging said spring.

4. In a stair carpet fastener, a plate longitudinally slotted having base portions adapted to be secured to the floor and supporting a slotted and central raised portion, one of said bases having a pair of hook shaped members extending upwardly therefrom and adapted to grip the carpet, a spring held in suspension by said plate beneath said central raised portion, and a lever pivotally supported above and by said plate and having a tongue portion adapted to engage the carpet and a tail piece bent downwardly and engaging said spring.

5. In a stair carpet fastener, a plate having a slot in the top thereof, and lugs projecting upwardly from the sides and offset portions forming bases and hook shaped members projecting upwardly therefrom, a spring suspended from said plate beneath said slot, a lever pivotally supported in said upwardly extending lugs and having a broad flat tongue shaped portion extending forwardly and adapted to engage the carpet, and a tail piece bent downwardly and extending through said slot and engaging said spring.

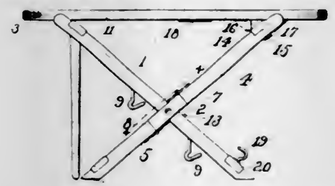
942,642. FOLDING BOX OR CRATE. RUDOLPH HOHENSTEIN, Meacham, Oreg. Filed June 2, 1909. Serial No. 499,733.



A box of the class described comprising a bottom, side and end pieces mounted securely thereto, end walls hinged to said end pieces and adapted to fold inwardly with respect to the bottom, side walls hinged to the side pieces and adapted to fold inwardly with respect to the bottom, guide stays secured to the side walls and pieces and hinged together, a partition removably mounted in the guide stays top sections hinged to the end walls, perforated extensions on the upper extremities of the guide stays, and cross strips secured to the meeting edges of the top sections and having slotted extremities to engage the perforated extension to permit locking of the top sections.

942,643. FOLDING IRONING-TABLE. JOHN H. HUMMER, Ashtabula Harbor, Ohio. Filed May 13, 1908. Serial No. 432,668.

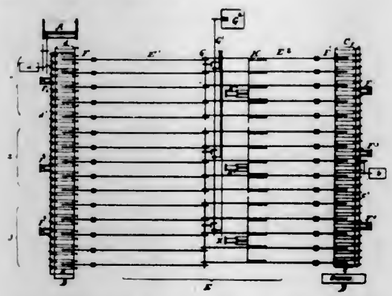
1. The combination, with a folding stand comprising two frames arranged transversely to each other whereby they assume oppositely inclined positions when said stand is erected, one frame comprising short middle sections, rigidly secured to the other frame, and end sections hinged to the opposite ends of said middle sections and adapted to be folded upon the other frame, said end sections being rule jointed so that when they are extended they will support the stand in an erected position, of a board adapted to be supported on said stand.



2. The combination, with a folding stand comprising two frames arranged transversely to each other whereby they assume oppositely inclined positions when said stand is erected, the end portions of one frame being rule-jointed and adapted to be folded upon the other frame, of a board adapted to be supported on said stand, and a prop hinged to the upper end of the non-folding frame and adapted to assume a vertical position and extend down to the floor when in use, said prop also being adapted to be folded and secured in the plane of the frame to which it is attached.

3. The combination, with a folding stand comprising two frames rigidly secured transversely of each other, each frame having cross pieces at its ends, the end portions of one of said frames adapted to be folded upon the other frame, of a board adapted to be supported on said stand when the latter is erected, a headed lug on the cross piece of one of the folded end portions, a key-slotted plate secured to said board and adapted to engage said lug when the stand is folded, and means carried by one of the cross pieces of the non-folding frame to engage the end of said board when its plate is engaged with said lug.

942,644. TRANSFER-TABLE FOR ROLLING-MILLS. CHARLES L. HUSTON, Coatesville, Pa. Filed Apr. 29, 1905. Serial No. 258,073.



1. The combination of a rolling mill table, a shears table, a transfer table between the two, endless carriers on the transfer table for moving a plate from the rolling mill table to the shears table, and means placed between said carriers for elevating the plate while on the transfer table so that the underside of the plate can be examined, said means being independent of and normally below the carriers.

2. The combination in a transfer table, of chains arranged to travel on said table, means for driving said chains, a shaft mounted below the surface of the table, arms on the said shaft arranged to be projected through the table when the shaft is turned so as to lift a plate off the chains.

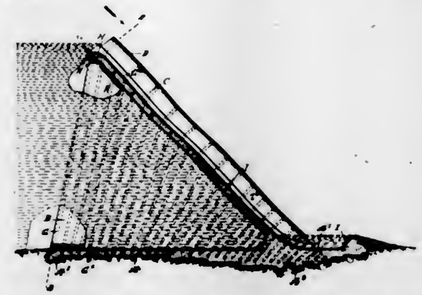
3. The combination of two parallel roller tables spaced apart, a transfer table mounted between the two roller tables, endless chains arranged to travel on the transfer table, means for driving the chains, a shaft situated below the surface of the table, arms on said shaft, heels on the arms, means for operating the shaft whereby the arms will lift the plate off the table, the heels acting as a stop for the blade and being placed so that the plate will be clear of the chains when elevated, in order that the chains can be operated while the plate is in the elevated position.

4. The combination in a transfer table, of chains arranged to travel on said table, means for driving said chains, reverse mechanism for reversing the direction of movement of the chains, a shaft mounted below the surface of the table, arms on said shaft arranged to be projected through the table when the shaft is turned so as to lift a plate off the chains.

5. In a transfer table, the combination of endless chains, means for driving said chains, reverse mechanism for reversing the direction of movement of the chains, a shaft situated below the surface of the table, arms on said shaft, heels on the arms, the mechanism being so arranged that the heel can be projected above the surface of the table after a plate has traversed over that portion of the table and on reversing the mechanism the plate can be brought against the heel, after which the arms can be raised to lift the plate off the chains.

[Claim 6 not printed in the Gazette.]

942,645. CONCRETE DAM. HENRY A. ICKE, Church Stretton, England. Filed Dec. 31, 1908. Serial No. 470,157.



1. A concrete dam, comprising a floor, a wall extending integrally from the said floor and inclined in an up-stream direction, and diaphragms connecting the said wall and floor with each other and forming pockets open up-stream.

2. A concrete dam, comprising a floor, a wall extending integrally from the said floor and inclined in an up-stream direction, and diaphragms integrally connecting the said wall and floor with each other and extending vertically and longitudinally for forming pockets open up-stream, to be filled with water for the latter to exert tensile stresses on the members of the dam.

3. A concrete dam, comprising integral members forming pockets open at the up-stream side of the dam.

4. A concrete dam, comprising pockets open only at the up-stream side of the dam.

5. A concrete dam, comprising pockets open only at the up-stream side of the dam and approximately triangular in shape, the base of the triangle forming the floor of the dam.

[Claims 6 to 39 not printed in the Gazette.]

942,646. ELECTRIC IGNITING DEVICE. JOSEPH A. JEFFERY and BENJAMIN A. JEFFERY, San Francisco, Cal. Filed Aug. 15, 1906. Serial No. 330,620.



1. An electric sparking device with separated terminals, the exposed area of either of said terminals being restricted to a limit where the proximity or surface contact

therewith of a medium of lesser conductivity will be insufficient to carry the current without heating such medium to the point of disintegration.

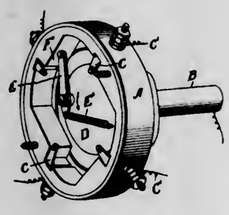
2. An electric sparking device with separated terminals, and a terminal insulator having an exposed surface, the extremity of either of said terminals being embedded in the exposed surface of the insulator and presenting a restricted area of electric discharge sufficient to cause an impact of the electric spark upon said exposed surface, whereby accumulating short circuiting media in proximity to said terminals are removed or destroyed by said impact.

3. An electric sparking device with separated terminals, and a terminal insulator, having an exposed surface, said terminals being so arranged as to cause an impact of the electric spark upon the exposed surface of the insulator, the exposed area of one of said terminals presenting a restricted area of electric discharge sufficient to cause part of the heat of said spark to be expended upon the exposed surface of the insulator, whereby accumulating short circuiting media in proximity to said terminals are removed by the impact of said discharge or destroyed by the heat of the latter.

4. An electric sparking device with separated terminals, and a terminal insulator, either of said terminals being flush with said insulating medium and presenting a restricted area of electric discharge sufficient to cause part of the heat or energy of the electric spark or discharge to become operative in removing short circuiting media on the surface of the insulator adjacent said flush terminal.

5. An electric sparking device with separated terminals, and a terminal insulator presenting a flat plane adjacent one of said terminals, one of said terminals presenting a restricted area of electric discharge sufficient to cause the heat or energy of the electric spark or discharge to become operative in removing short circuiting media on the flat plane of said insulator adjacent said terminals.

942,647. ELECTRICAL CONTACT DEVICE. CHARLES F. JENKINS, Washington, D. C. Filed Aug. 21, 1908. Serial No. 449,683.



1. In apparatus of the class described, the combination with a contact piece mounted to move in a predetermined path and to be moved from its normal position, during advance, by retarding or accelerating its movement, of a series of contact pieces fixed at intervals in said path, means for retarding and suddenly releasing the moving contact piece as it approaches each fixed contact piece, and a spring yieldingly resisting both the retardation and the counter movement beyond normal position.

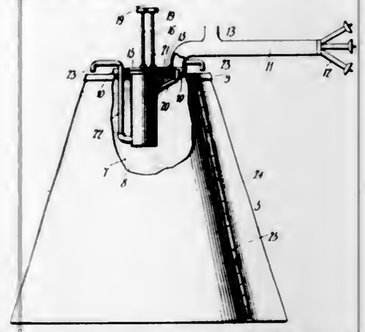
2. The combination with a series of fixed contact pieces, of a co-acting contact bar mounted to approach each of the fixed pieces in succession and pivoted to swing freely forward and rearward from its normal alinement during such approach, means for retarding and suddenly releasing the bar as it approaches each fixed piece and a spring arranged to resist both retardation and the movement of the bar forward past its normal position when released.

3. The combination with a series of contact pieces mounted in a circle, of a traveling contact piece mounted to move around the circle making contact with the fixed pieces in succession and to be moved from its normal position, during advance, by retarding or accelerating its movement, spring devices permitting while resisting both retardation and the opposite movement beyond normal position, and means for retarding and suddenly releasing the traveling contact piece as it approaches each of the other contact pieces.

4. The combination with a rotatable plate, of a contact bar pivoted freely between its ends upon the plate, a series of fixed contact pieces in the normal path of the outer end of the bar, means for retarding and then suddenly releasing the outer end of the bar as it approaches each fixed piece, and a spring yieldingly resisting the swinging of the bar in either direction upon its pivot.

5. The combination with a rotary shaft, of a centrally and freely pivoted laterally extending contact piece carried by the shaft, a series of contact pieces arranged in the path of the outer end of the pivoted contact piece, an alining spring connected to the opposite end of the pivoted piece and adapted to resist its swinging in either direction on its pivot, and means for retarding and suddenly releasing the outer end of the pivoted piece as it approaches each of the other pieces.

942,648. MILK SAMPLING AND MEASURING DEVICE. ALBERT A. JOHNSON, Marinette, Wis. Filed Mar. 18, 1909. Serial No. 484,164.



1. The combination with a receptacle, of a closure therefor, having an inlet port, a sample depository depending from the closure within the receptacle, a piston working in said depository, an inlet pipe in communication with the depository and intersecting said inlet port, and a delivery pipe leading from said depository.

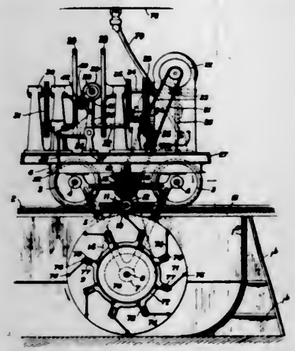
2. The combination with a receptacle having independent compartments, of a cover fitted on said receptacle, supply means in communication with the compartments, respectively, sample depositories supported by the cover and depending into the compartments, means forming communication between each of said depositories and the supply means, delivery means leading from each of said depositories, and means for effecting the discharge of contents from the depositories through said delivery means.

3. The combination with a receptacle, of a closure therefor, having an inlet port, a sample depository depending from the closure within the receptacle, a piston working in said depository, an inlet pipe in communication with the depository and intersecting said inlet port, a delivery pipe leading from said depository, and a regulating slide controlling the communication through the inlet pipe.

942,649. MALT-STIRRER. MATHIAS KONDOLF, Rochester, N. Y. Filed July 25, 1908. Serial No. 445,316.

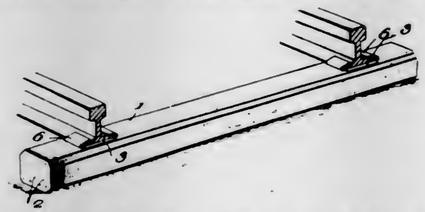
1. A malting pit, a track above the same, a carriage on the track, motor means for driving the carriage in both directions, a rotary frame carried by the carriage, means for rotating the same, a series of shovel blades pivoted in said frame on pivots substantially parallel to the axis of rotation of the frame, and a spider rotatable with reference to said frame and connected to said shovel blades whereby the blades may be tilted into either of two positions at similar angles to a radial plane passing through the axis of rotation and through the pivotal axis of each blade.

2. A malting pit, a track above the same, a carriage on the track, motor means for driving the carriage in both directions, a rotary frame carried by the carriage, means for rotating the same, a series of shovel blades pivoted near their outer edges to said frame on pivots substantially parallel to the axis of rotation of the frame and near the peripheral portion thereof, and means rotatable with reference to said frame for supporting the inner portions of said blades whereby upon rotation of said means with reference to the frame the inner portions of the blades are swung to different angles to a plane passing through the axis of rotation of the frame and the pivotal axis of each blade.



3. A malting pit, a track above the same, a carriage on the track, motor means for driving the carriage in both directions, a rotary frame carried by the carriage, means for rotating the same, a series of shovel blades pivoted near their outer edges to said frame on pivots substantially parallel to the axis of rotation of the frame and near the peripheral portion thereof, studs carried by said blades near their inner edges, and a spider plate revoluble with reference to the frame and having slots for said studs whereby on rotation of said spider frame the shovel blades may be tilted to similar angles to opposite sides of a plane passing through the axis of rotation of the frame and through the pivotal axis of each shovel blade.

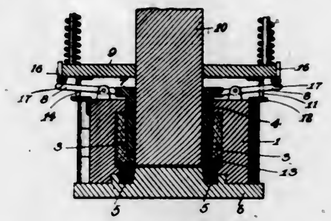
942,650. RAILROAD-TIE. HENRY C. KREPPS, Seattle, Wash. Filed May 22, 1909. Serial No. 497,662.



A railway tie formed of reinforced concrete, and rail retaining plates, each plate being provided with depending portions embedded within the tie parallel with the longitudinal sides thereof, the lower ends of said parallel portions being hooked and located beneath reinforcing members of the tie, said plates having at their ends, transversely of the tie, upwardly bent portions for engaging and holding the base of a rail.

942,651. MANUFACTURE OF GLASS ARTICLES. CHARLES B. LAWTON, Penn township, Allegheny county, Pa. Filed Jan. 9, 1909. Serial No. 471,455.

1. In an apparatus for shaping glass, the combination of a mold, a skirt or movable wall forming a portion of the matrix of the mold, a plunger for forcing the glass into the matrix and means operative by the plunger operating for shifting the skirt.



2. In an apparatus for shaping glass, the combination of a mold having a matrix, a basin or receptacle for glass, a movable wall controlling the flow of glass from the basin into the matrix, a plunger for forcing the glass into the matrix and means operative by the plunger for shifting said wall.

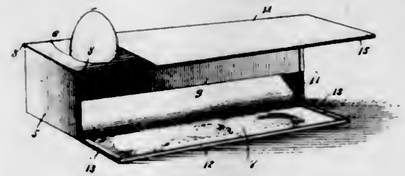
3. In an apparatus for shaping glass, the combination of a mold having an annular matrix, an annular skirt or shell forming the inner wall of the matrix and controlling the flow of glass into the matrix, a plunger for forcing the glass into the matrix, and means operative by the plunger for shifting the skirt.

4. In an apparatus for shaping glass, the combination of a mold and an annular removable stool forming a portion of the matrix and adapted to support the article when removed from the shaping apparatus.

5. In an apparatus for shaping glass, the combination of a mold having an annular matrix, and a ring or stool removably arranged in the bottom of the mold and forming a portion of the matrix and adapted to support the article adjacent to the fin or blow-over when removed from the mold, and while removing the fin or blow-over.

[Claims 6 to 10 not printed in the Gazette.]

942,652. EGG-TESTER. EVELYN LEISS, Bronxville, N. Y. Filed June 19, 1909. Serial No. 503,185.
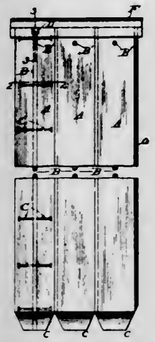


1. In an egg tester, a box having an egg-seating opening in the top and having a door at one side hinged at its lower edge to swing outwardly, and a mirror carried on the inner face of the door, through which the said opening is observable when the door is opened.

2. In an egg tester, a box having egg-seating openings in the top and provided with a door at one side hinged at its lower edge to swing outwardly, a wall in the box inclining downwardly toward the door, and a mirror arranged on the inner side of the door.

3. In an egg tester, a box having egg-seating openings in the top, a door arranged at one side of the box hinged to swing downwardly and outwardly, and a mirror through which the openings are observable, removably held on the inner face of the door.

4. In an egg tester, a box having egg-seating openings at the top and provided with a side portion extending from the top, a door hinged at its lower edge to swing downwardly and outwardly and closing an opening under the said side portion of the box, a wall arranged in the box inclining downwardly to the lower edge of the door, and a mirror through which the openings in the top of the box are observable when the door is open, carried on the inner side of the door.

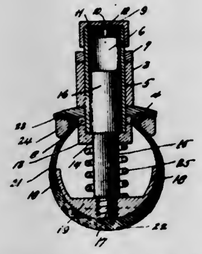
942,653. PILE. WILLIAM N. LOUQUE, New Orleans, La., assignor to William M. Wren, New Orleans, La. Filed July 2, 1909. Serial No. 505,628.



1. A pile comprising a body of plastic material tapered at its lower end, a pipe embedded and permanently secured in the body and extending between the upper and lower ends thereof to form a combined reinforcement and jet and having its upper end threaded, and an interiorly threaded cap arranged on the upper threaded end of the pipe and below the upper end of the body of plastic material and equipped with a device adapted for the connection of means employed to lower the pile to position.

2. A pile comprising a body of plastic material tapered at its lower end, a pipe embedded and permanently secured in the body and extending between the upper and lower ends thereof, arms fixed to and extending laterally from the pipe at intervals in the length thereof and also embedded and permanently secured in the plastic body, a cap threaded on the upper end of the pipe and arranged below the upper end of the body, and an eye on said cap.

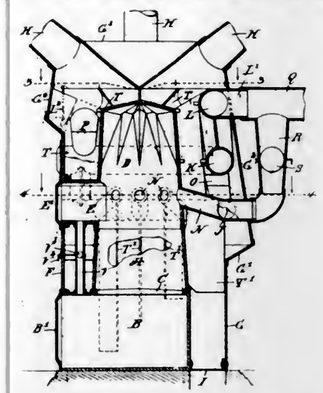
942,654. TIRE. JAMES G. MAXWELL, Washington, Pa. Filed Nov. 9, 1908. Serial No. 461,677.



1. The combination with a wheel having spokes, a felly, and a rim, said felly and rim between said spokes being provided with openings, cylinders arranged in said openings, caps carried by said cylinders and having ports formed therein for admitting air to said cylinders, pistons slidably mounted in said cylinders, a semi cylindrical sectional reinforced shell carried by said pistons, springs interposed between said shell and said cylinder, and a tire surrounding said shell and having the edges thereof secured to said rim, substantially as described.

2. The combination with a wheel rim, and a tire secured thereto, of a plurality of cylinders extending through the rim, nuts engaging said cylinders for securing the cylinders in position in the rim, caps on the outer ends of said cylinders each provided with a central aperture, pistons in said cylinders having their rods extending through the outer ends of the cylinders and through the caps on said outer ends of the cylinders, a sectional reinforced shell with said tire, said piston rods being connected one to each section of said shell, and springs arranged on the piston rods between the sections of said shell and the caps on the outer ends of said cylinders.

942,655. HOT-AIR FURNACE. WILLIAM MILLER, New York, N. Y. Filed Sept. 12, 1908. Serial No. 452,718.



1. A hot air furnace, comprising a combustion chamber, a plurality of horizontally-disposed segmental heating flues arranged around the said combustion chamber, located one above the other and connected with each other, the flues increasing in cross sectional area from the lowermost to the uppermost one, the lowermost heating flue having connection with the said combustion chamber and the uppermost heating flue connecting with the chimney, and an outer shell inclosing the said heating flues, and in contact with the outer face of the uppermost heating flue and spaced from the lower heating flues.

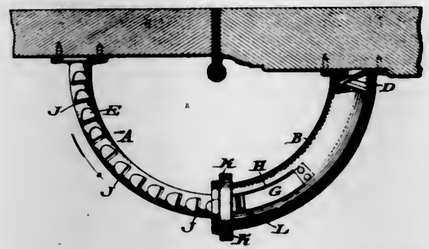
2. A hot air furnace, comprising a combustion chamber, an exterior shell, a plurality or horizontally-disposed segmental heating flues one above the other and arranged around the combustion chamber, the uppermost flue being in contact with the shell with its ends terminating a short distance from the front of the shell and having connection with the chimney and the other flues being spaced from the shell and having their ends in the front of the furnace, a plurality of branch flues extending inwardly and upwardly from the lowermost heating flue and opening into the combustion chamber, vertical branch flues connecting the lowermost heating flue with the intermediate or next heating flue above at the rear, and vertical branch flues connecting the front ends of the intermediate flue with the top heating flue.

3. A hot air furnace, comprising a fire pot, a combustion chamber on top of the said fire pot, an ash pit below the said fire pot, a plurality of horizontally disposed heating flues located one above the other and connected with each other, the upper heating flue having connection with the chimney, branch flues connecting the lower heating flue with the said combustion chamber, a shell having a dome and outlet flues and inclosing the said heating flues and the said fire pot, combustion chamber and ash pit, and vertical baffle plates extending on opposite sides of the branch flues and forming separate vertical channels for distributing the entering air and causing it to be heated uniformly.

4. A hot air furnace, comprising a fire pot, a combustion chamber on top of the said fire pot, an ash pit below the said fire pot, a plurality of horizontally-disposed heating flues located one above the other and connected with each other, the upper heating flue having connection with the chimney, branch flues connecting the lower heating flue with the said combustion chamber, a shell having a dome and outlet flues and inclosing the said heating flues and the said fire pot, combustion chamber and ash pit, and vertical baffle plates for forming separate vertical channels for distributing the entering air and causing it to be heated uniformly, the said baffle plates extending from opposite sides of the branch flues between the heating flues and the fire box and combustion chamber and in engagement therewith.

5. In a hot air furnace, a fire pot, a combustion chamber on the fire pot, a plurality of heating flues arranged around the combustion chamber, one above the other and communicating with each other, branch flues connecting the lowermost heating flues with the combustion chamber, and vertical baffle plates arranged on opposite sides of the branch flues and extending therefrom between the heating flues and the fire box and combustion chamber, and secured thereto.

942,656. COMBINED DOOR CLOSER AND STOP. HARRY C. MOORE, Philadelphia, Pa. Filed May 18, 1909. Serial No. 496,750.



1. A device of the character described formed of curved arms telescopically fitted to each other, one of said arms comprising a rack, a catch on the other arm, a spring adapted to bear against said rack to cause the same to return to its normal position, adjustable means constructed and arranged to cause said catch to engage with said rack and allow it to be disengaged therefrom.

2. A device of the character described formed of curved arms telescopically fitted to each other, one of said arms comprising in its construction a rack, a catch on the other arm, a spring adapted to bear against said rack to cause the same to return to its normal position, and movable means including a ring on the catch-carrying arm constructed to engage said catch and interlock the same with said rack.

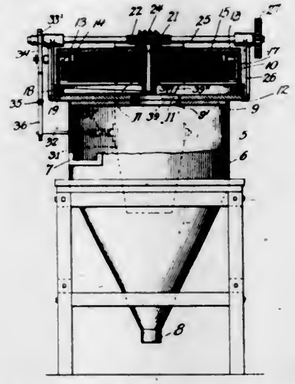
3. In a device of the character described, segmental arms, a catch on one arm adapted to engage a rack on the other arm, a slidable collar on the first-named arm adapted to move said catch in engagement with a member of said rack, and a resilient shoe interposed between said catch and collar.

4. In a device of the character described, a segmental rack arm, a segmental tubular arm, the latter receiving the former telescopically, a head on said rack, a spring in the tubular arm adapted to bear on said head, a resilient catch on the tubular arm having a nose adapted to engage a tooth of said rack, said tubular arm having a slot in which said catch is movable, and a slidable collar on said tubular arm adapted to bear against said catch to move the nose thereof into engagement with a tooth of said rack.

942,657. DUST-COLLECTOR. ORVILLE M. MORSE, Jackson, Mich. Filed July 10, 1909. Serial No. 506,937.

1. The combination with a centrifugal dust collector having an air outlet, of a filtering collector having its inlet connected with said outlet, providing a rotatable element having an endless peripheral skirt of filtering material suspended from its upper edge and free at its lower edge through which the air must pass in escape, means for segregating a continually changing portion of said skirt from communication with the interior of the filtering collector, and means for cleaning the segregated portions of the skirt.

2. The combination with a centrifugal dust collector having an outlet opening, of a filtering collecting element disposed with reference to said centrifugal dust collector to receive leakage therefrom, said element having a continuous peripheral suspended wall of fabric free at its lower edge, means for rotating the said fabric wall, a cleaning chamber substantially segregated from the interior of said element, through which a continually changing portion of the fabric wall passes, and means within said cleaning chamber for directly whipping the fabric therein contained.



3. The combination with a centrifugal dust collector having an outlet in its top, of a fabric collecting-chamber structure superposed upon the centrifugal collector providing a suitable head, a peripheral fabric wall depending from said head and free at its lower edge, and unstretched peripherally, means for rotating said head and wall, a cleaning chamber through which a continually changing portion of the fabric wall passes, and means for cleaning the contained portion of said fabric wall.

4. The combination with a centrifugal dust collector, of a fabric collector connected therewith, providing a rotatable peripheral fabric wall, suspended at its upper edge and free at its lower edge, a retaining wall with which the lower edge of said fabric coacts, a cleaning-chamber structure through which a changing portion of the fabric wall passes, and means for cleaning the portion of the fabric wall contained within said cleaning chamber.

5. The combination with a centrifugal dust collector, of a horizontal turret structure superposed thereon, the continuous peripheral wall of said turret being of fabric unstretched and free at its lower edge, means for rotating said fabric wall, a cleaning chamber through which a continually changing portion of said wall passes, having an opening to the interior of the turret, means within the cleaning chamber for cleaning the portion of the fabric therein, and means within the turret for forcing material accumulating on the bottom thereof into the cleaning chamber through said opening thereto.

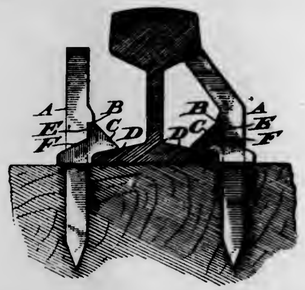
[Claims 6 to 8 not printed in the Gazette.]

942,658. SPIKE AND CHAIR FOR RAILROAD-RAILS. JAMES T. NULTY, Philadelphia, Pa. Filed Apr. 14, 1909. Serial No. 489,862.

1. A cheek piece formed of a body having a vertical opening therethrough and its under side adapted to be seated on the base of a railroad rail, said body having a peak rising therefrom, and a spike having a shoulder being adapted to press downwardly on said peak.

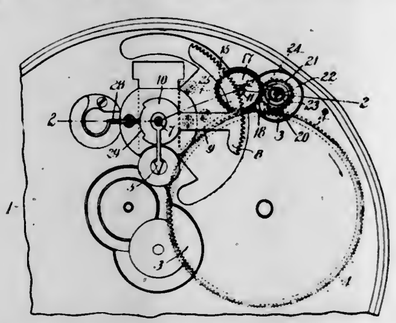
2. A spike provided with a shoulder on a side thereof, and a cheek piece adapted to be seated on the base of a railroad rail and having an opening to receive said spike, said shoulder being adapted to bear downwardly on said cheek piece and the head of the spike seated under the head of the rail to sustain the same and retain the spike in position.

3. A spike having on a side thereof, a shoulder whose under face extends at a right angle from said side, and a cheek piece having a body adapted to receive said spike and formed with a peak, the upper face of which accords with the right angular under side of the shoulder of the spike said shoulder adapted to bear downwardly on said cheek piece and the head of the spike seated under the head of the rail to sustain the latter and retain the spike in position.



4. A spike provided with a shoulder on a side thereof, and a cheek piece adapted to be seated on the flange of a railroad rail to receive said spike and provided with a peak and an incline adjoining the same and having said shoulder adapted to bear downwardly on an upper wall of the peak of said cheek piece.

942,659. WINDING-INDICATOR. OLOF OHLSON, Newton, Mass., assignor to Waltham Watch Company, Waltham, Mass., a Corporation of Massachusetts. Filed Apr. 10, 1908. Serial No. 426,222.



1. In a watch or clock movement, in combination with a main-spring barrel and a main wheel, an indicator for showing the degree to which the main-spring is wound, a pinion having a driving engagement with said indicator and driven by the main wheel in the unwinding of the spring, a pinion carrier pivoted concentrically with said pinion, an intermediate pinion mounted on said carrier in mesh with the first pinion and adapted to be brought into mesh with teeth on the main-spring barrel, and a separator pivoted to said carrier arranged to mesh with the teeth on the barrel and remove the second pinion from engagement therewith.

2. In a watch or clock movement, in combination with a main-spring barrel and a main wheel, an indicator for showing the degree to which the main-spring is wound, a pinion having a driving engagement with said indicator and driven by the main wheel in the unwinding of the spring, a pinion carrier pivoted concentrically with said pinion, an intermediate pinion mounted on said carrier in mesh with the first pinion and adapted to be brought into mesh with teeth on the main-spring barrel, a spring acting on said carrier, tending to swing the same toward the barrel to engage the teeth of said intermediate pinion with the barrel teeth, and a separator pivoted to said carrier arranged to mesh with the teeth on the barrel and remove the second pinion from engagement therewith, said separator being swung into inoperative position by the movement of the barrel during winding to permit engagement of the intermediate pinion, and being returned to operative, or disabling, position by recoil of the barrel.

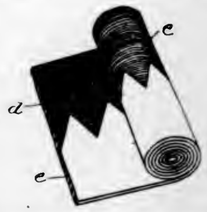
3. In combination with the main wheel and toothed main-spring barrel of a watch or clock movement, both of which turn in the same direction, an indicator, intermeshing pinions, one of which is adapted to be driven by the main wheel and the other by the barrel, in the same direction, driving connections between said pinions and indicator whereby the latter is moved in opposite directions according as one or the other of the pinions is driven, means constantly active, tending to carry the barrel-driven pinion into mesh with the teeth of said barrel, and a separator for holding said pinion out of mesh.

4. In combination with the main wheel and main-spring barrel of a watch or clock movement, both of which are adapted to turn in the same direction, and the latter having peripheral teeth, an indicator, a toothed segment attached thereto, a shaft having projections adapted when rotated to engage and actuate said toothed segment and indicator, a gear operatively engaged with said shaft, a swinging holder by which said gear is carried, and whereby the latter is adapted to be brought into and out of mesh with the teeth of the barrel, and a positively acting separator for disconnecting said gear from the barrel and holding the same out of mesh while the barel is stationary.

5. In combination with the main wheel and main-spring barrel of a watch or clock movement, both of which are adapted to turn in the same direction, and the latter having peripheral teeth, an indicator, a toothed element attached thereto, a shaft having projections adapted when rotated to engage and actuate said toothed element and indicator, a gear operatively engaged with said shaft, a swinging holder by which said gear is carried, and whereby the latter is adapted to be brought into and out of mesh with the teeth of the barrel, and a separator independent of the main-spring holding click mounted swivelly on said holder beside the said gear and projecting beyond the latter to engage the barrel and hold the gear out of mesh therewith, said separator being displaced when the barrel is turned to wind up the main spring.

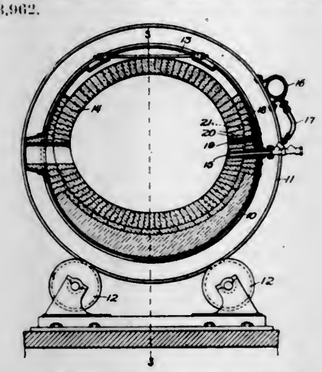
[Claims 6 to 8 not printed in the Gazette.]

942,660. ROOFING-PACKAGE. FREDERICK C. OVERBURY, New York, N. Y., assignor to Flintkote Manufacturing Company, Rutherford, N. J., a Corporation of New Jersey. Filed Feb. 18, 1908. Serial No. 416,547.



As an article of manufacture, a cylindrical roofing package, composed of a sheet of flexible roofing material, longitudinally subdivided into a plurality of roofing strips and wound into a roll with the projections of one strip alternating with the projections of the other strip, the outer face of one strip being of a color, tint or shade different from the outer face of the other strip, and the outer faces of the projections of both strips being convexed crosswise by the winding of the strips, whereby, when the two strips are laid with their contrasting faces outward, the edges of the projections will bear closely on the surfaces on which they are laid.

942,661. METALLURGICAL CONVERTER. WILLIAM H. PEIRCE, Baltimore, Md. Filed Oct. 22, 1909. Serial No. 523,962.



1. In metallurgic converters, the combination with an outer shell, of an inner lining shiftable relatively to the shell under the influence of heat, a set of twyers extending through the lining, and an abutment secured to the shell adjacent the twyers and embedded in the lining to form a substantially non-shifting zone therein in the immediate neighborhood of the twyers, the lining being free to expand in opposite directions from such zone, substantially as described.

2. In metallurgic converters, the combination with a cylindrical shell rotatably sustained in horizontal position, of an inner, continuous lining shiftable relatively to the shell under the influence of heat, a set of twyers arranged longitudinally at one side of the shell and extending through the lining, and a longitudinally extending shelf secured to the shell adjacent the twyers and extending into the lining to form a substantially non-shifting zone therein at the twyer belt, the lining being otherwise free to expand in opposite directions from the twyer belt, substantially as described.

3. In copper matte converters, the combination with an outer shell, of an inner lining expansible therein under the influence of heat, a set of blast twyers extending through the lining, and an abutment adjacent the twyers, said abutment forming a barrier against substantial transverse shifting of the lining in the immediate neighborhood of the twyers, substantially as described.

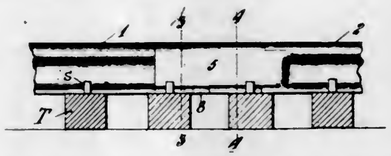
4. A converter for bessemerizing copper matte comprising an outer shell having a tenacious, coherent non-corrodible lining shiftable relatively to the shell under the influence of heat, a set of blast twyers extending through the lining, and means forming a non-shifting zone in the lining in the immediate neighborhood of the twyers, substantially as described.

5. A converter for bessemerizing copper matte comprising an outer shell, a set of blast twyers extending through said shell, and a tenacious coherent lining of non-corrodible basic material continuous with the shell and having a substantially non-shifting zone formed therein in the immediate neighborhood of said twyers, said lining being otherwise free to expand within the shell under the influence of high heat while preserving its continuity, substantially as described.

[Claims 6 to 11 not printed in the Gazette.]

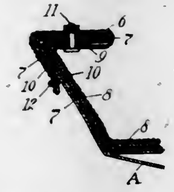
942,662. RAIL-JOINT. WALLACE P. PERKINS, Willis, Tex. Filed Apr. 27, 1909. Serial No. 492,571.

1. In a rail joint, the combination of a rail having at one end a tenon formed by removing a portion of the head from the web of the rail, said rail also having, adjacent said end, portions of its base flanges removed to provide recesses and a second rail having its web at one end enlarged and mortised to receive the tenon on the other rail, the second rail having portions of its base flanges, at a distance from said end, removed to provide recesses, whereby the remaining portions of said base flanges may enter the recesses in the base flanges of the first mentioned rail, and the remaining portions of the base flanges of the first mentioned rail may enter said recesses in the base flanges of the second mentioned rail to provide an interlocking connection between said rails.



2. In a rail joint, the combination with cross ties, of a rail having at one end a tenon formed by removing a portion of the head from the web of the rail, said rail also having, adjacent said end, portions of its base flanges removed to provide recesses, a second rail having its web at one end enlarged and mortised to receive the tenon on the other rail, the second rail having portions of its base flanges, at a distance from said end, removed to provide recesses, whereby the remaining portions of said base flanges may enter the recesses in the base flanges of the first mentioned rail, and the remaining portions of the base flanges of the first mentioned rail may enter said recesses in the base flanges of the second mentioned rail to provide an interlocking connection between said rails, and spikes driven into said ties and having their heads engaged with the base flanges of the rails, certain of said ties being disposed beneath the recessed base flanges of the rails and certain of the spikes being engaged with the remaining portions of said base flanges at the ends of the rails, substantially as described.

942,663. APPARATUS FOR WASHING OUT PLACER-GOLD. SAMUEL RACHELMAN, St. Paul, Minn., assignor to Northern Placer Machine Company, St. Paul, Minn., a Corporation of Minnesota. Filed Dec. 26, 1908. Serial No. 469,509.



1. In combination with a placer pan of the class described, a removable flexible waxed lining therefor, metallic plates arranged over said lining, and an upper open-work lining.

2. In combination with a placer pan of the class described, a flexible waxed lining therefor, metallic plates arranged over said lining and an upper lining of loose fuzzy material.

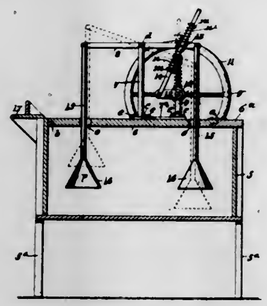
3. In combination with a placer pan of the class described formed with an inwardly extending rim, a waxed lining for said pan, metallic plates arranged upon said lining and an upper lining of loose material, the free edges of said linings passing over said rim and being secured in connection therewith.

4. In combination with a placer pan adapted for horizontal rotation, a lining of loose fuzzy material covering the interior of said pan and superposed layers of waxy and metal attracting material below said lining.

5. In combination with a placer pan of the class described, a lining of loose fuzzy material covering the interior of said pan, and a waxed surface arranged below said lining.

[Claims 6 and 7 not printed in the Gazette.]

942,664. WASHING-MACHINE. ERNEST RAMTHUN, Kewaskum, and CHARLES J. GUTEKUNST, Campbellsport, Wis. Filed July 21, 1909. Serial No. 508,837.



1. The combination with a suds box and a lid thereon, of a post on the lid, a rocking bar pivoted on the post between its ends, plunger rods pendent from the ends of the rocking bar and passing down through the lid, pounder cups on the lower ends of the plunger rods, a reciprocable rod having a sliding and cushioned connection with the rocking bar, and means for reciprocating the said rod to rock the bar so as to alternately depress the pounder cups.

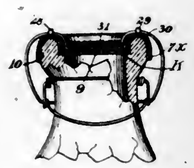
2. The combination with a suds box, and a lid hinged by one end thereon, of a post upright on the lid, two similar rocking bars centrally and oppositely pivoted on the upper portion of the post, a driving shaft rotatably mounted on the lid, a crank arm on one end of the shaft, a connecting rod pivoted by one end on the outer end of the crank arm and loosely supported between the rocking bars, springs adapted for cushioning the transmission of motion from the connecting rod to the rocking bars, plunger rods on the ends of the rocking bars passing down loosely through the lid, and pounder cups on the lower ends of the plunger rods.

3. The combination with a suds box, and a lid hinged at one end on the open upper end of said suds box, of an upright post centrally erected on the lid, a base plate on the lid, which supports said post, pedestal boxes on the base plate, a driving shaft journaled in said boxes, a balance wheel on one end of said shaft, a crank arm on the other end of said shaft, duplicate rocking bars pivoted oppositely at their centers on the upper end of the post, plunger rods pivoted at their upper ends between ends of the rocking bars, said rods extending loosely down through the lid, pounder cups on the lower ends of the plunger rods, a connecting rod pivoted by one end on the outer end of the crank arm, a guide box pivoted between the rocking bars above the crank shaft, collars on the connecting rod, and cushion springs on said connecting rod pressing between the guide box and said collars.

4. The combination with a suds box, of a post mounted thereon, a rocking bar pivoted on the post between its ends, plunger rods pendent from the ends of the rocking bar and passing into the box, the plunger rods having pounders at their lower ends, a driving shaft, a connecting rod connected with the driving shaft and reciprocated therefrom, the said connecting rod having a loose connection with the rocking bar, and springs for transmitting motion from the connecting rod to the rocking bar.

5. The combination with a suds box, and a lid thereon, of a post on the lid, a rocking bar pivoted on the post between its ends, plunger rods pendent from the ends of the rocking bar and passing through the lid, pounder cups at the lower ends of the plunger rods, a guide box pivoted to the rocking bar, a connecting rod extending through the bore of the guide box, a driving shaft connected with the connecting rod to reciprocate the same in the guide box, and cushion springs on the connecting rod and bearing on opposite sides of the guide box.

942,665. BOTTLE-CLOSURE. WILLIAM H. REID, New York, N. Y. Filed Sept. 25, 1909. Serial No. 519,606.



1. In a bottle closure, a cap member having an annular channel opening downward and shaped for engagement with the bottle mouth over substantially its entire top portion, a stopper member of fibrous material having its marginal portion concavo-convex and located between the cap member and the bottle mouth, a bail pivoted on the cap member on opposite sides and having a cam portion between its pivoted portions extending down to the plane of the inner edges of the cap member when the bail is in clamping position, and securing means for the bail.

2. In a bottle closure, a cap member having an annular channel opening downward and shaped for engagement with the bottle mouth over substantially its entire top portion, a stopper member of fibrous material having its marginal portion formed concavo-convex and located between the cap member and the bottle mouth, a bail pivoted on the cap member on opposite sides and having a cam portion between its pivotal portions extending down to the plane of the inner edges of the cap member when the bail is in clamping position, securing means for the bail, and sealing means attaching the cam portion to the adjacent member.

3. In a bottle closure, a cap member having an annular channel opening downward and shaped for engagement with the bottle mouth over substantially its entire top portion, a stopper member of fibrous material having its marginal portion concavo-convex and located between the cap member and the bottle mouth, a disk on the central portion of the stopper member and engaged by the cap member, and securing means for clamping the cap member on the bottle.

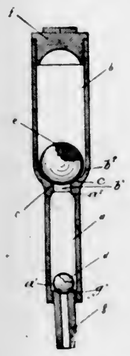
4. In a bottle closure, a cap member having an annular channel opening downward and shaped for engagement with the bottle mouth over substantially its entire top portion, a stopper member of fibrous material having its marginal portion concavo-convex and located between the cap member and the bottle mouth, a disk on the central portion of the stopper member and engaged by the cap member, a bail pivoted on the cap member on opposite sides and having a cam portion between its pivoted portions extending down to engage the said disk member, and securing means for the bail.

5. In a bottle closure, a cap member having an annular channel opening downward and shaped for engagement with the bottle mouth over substantially its entire top portion, a bail pivoted on the cap member on opposite sides and having a cam portion between said pivoted portions extending down to the plane of the inner edges of the channel portion when the bail is in clamping position, and securing means for the bail.

[Claims 6 to 13 not printed in the Gazette.]

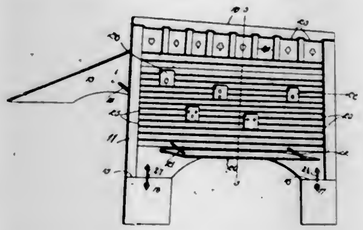
942,666. AIR VESSEL FOR WATER-SUPPLY PIPES. KARL ROMSTAEDT, Berlin, Germany. Filed Oct. 3, 1907. Serial No. 395,751.

1. A shock absorber for water supply pipes comprising in combination, a relatively restricted elongated closed chamber adapted to communicate with a supply pipe, a gravity acting ball valve heavier than water and serving to normally close communication between said chamber and said pipe, an elongated closed chamber superimposed on and communicating with said first mentioned member and relatively enlarged with respect thereto, and a gravity acting ball valve heavier than water and of greater weight than said first mentioned valve and normally closing communication between said chambers.



2. A shock absorber for water supply pipes comprising in combination, a closed chamber adapted to communicate with the supply pipe, a gravity acting ball valve heavier than water and serving to normally close communication between said chamber and said pipe, a closed chamber superimposed on and communicating with said first mentioned chamber, and a gravity acting ball valve heavier than water and of greater weight than said first mentioned valve and normally closing communication between said chambers.

942,667. SOLITAIRE-BOARD. FANNY E. S. SMITH, St. Louis, Mo. Filed May 7, 1909. Serial No. 494,618.



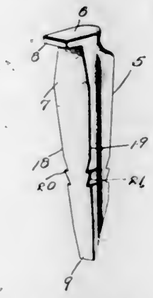
1. A device of the class described comprising a supporting board adapted to be held upright, a plurality of pockets extending along the board at one edge and separated by vertical partition members and adapted to receive cards, a plurality of card supporting strips secured by their lower edges to the board and arranged transversely of the same and overlapping at their free edges, and a dealing shelf mounted to swing from said board.

2. A device of the class described comprising a supporting board adapted to be held upright, a plurality of pockets extending along the board at one edge and adapted to receive cards, a plurality of card supporting strips secured at their lower edges to the board and overlapping at their free edges, binder strips at the ends of the board and extending over the ends of the card supporting strips, and a dealing shelf connected to said board below said strips.

3. A device of the class described comprising a supporting board adapted to be held upright, a plurality of pockets for receiving playing cards and located upon the board at one side, a plurality of card supporting strips secured by their lower edges to the board and arranged transversely of the same, and a dealing shelf suspended from said board below said strips.

4. A device of the class described comprising a supporting board adapted to be held upright, a plurality of pockets for receiving playing cards and located upon the board at one edge, a plurality of card supporting strips secured by their lower edges to the board and arranged transversely thereof, a dealing shelf mounted to swing from the face of said board and below said strips, feet extensions mounted upon the lower edge of the board, and means for supporting said extensions in longitudinal alinement with the body of the board.

942,668. RAILWAY-SPIKE. ROBERT L. SMITH, Rich Mountain, W. Va. Filed Mar. 21, 1905. Serial No. 251,275.



As a new article of manufacture, a tapering spike, consisting of a single piece of metal having a wedge point, a lip provided head, a flat front face, a rear hollow face, channeled sides, and a transverse shoulder at the rear upper end having a straight under edge and two end webs directed toward the point of the spike, the lower portions of the edges between the channeled sides and rear face being incised, as and for the purpose set forth.

942,669. TRANSPARENT THEATER-PROGRAM HOLDER. FRANK E. SAUERWEIN, ROBERT ZACHARIAS, and CHARLES E. LEWIS, Baltimore, Md., assignors to The Lewis Company, Baltimore, Md., a Corporation of Maryland. Filed Sept. 3, 1909. Serial No. 516,079.



1. A program holder comprising a plurality of pockets of transparent material, a program sheet bent upon itself and inserted with one end in each pocket and held in place by the pockets, as set forth.

2. A program holder consisting of sheets of transparent material forming two pockets with their adjacent edges open, means for attaching the device to a seat

or other fixed object, a program bent upon itself at its longitudinal center and inserted in said pockets when folded back toward each other, the inner ends of the pockets serving to hold the program in place when the pockets are closed or opened, as set forth.

942,670. DETACHABLE-LEAF PROGRAM-HOLDER. FRANK E. SAUERWEIN, ROBERT ZACHARIAS, and CHARLES E. LEWIS, Baltimore, Md., assignors to The Lewis Company, Baltimore, Md., a Corporation of Maryland. Filed Sept. 3, 1909. Serial No. 516,080.



1. A program holding device comprising covers having lugs projecting therefrom at right angles to the plane of the cover and apertured, detachable leaves having lugs at right angles to the plane thereof and apertured, a hinged rod passing through registering apertures in said covers and leaves, and means for locking the same together, as set forth.

2. A program holding device comprising covers having lugs projecting therefrom at right angles to the plane of the cover and apertured, detachable leaves having lugs at right angles to the plane thereof and apertured, a hinged rod passing through registering apertures in said covers and leaves, and a lock engaging said rod and adapted to hold the leaves hinged together, as set forth.

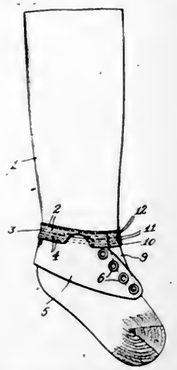
3. A program holding device comprising covers having lugs projecting therefrom at right angles to the plane of the cover and apertured, detachable leaves having lugs at right angles to the plane thereof and apertured, a hinged rod passing through registering apertures in said covers and leaves, the upper end of the rod having an annular groove terminating in a shoulder, a casing in which the grooved end of said rod is adapted to engage, and means within the casing for engagement with said shoulder to lock the rod within the casing, as set forth.

4. A program holding device comprising covers having lugs projecting therefrom at right angles to the plane of the cover and apertured, detachable leaves having lugs at right angles to the plane thereof and apertured, a hinged rod passing through registering apertures in said covers and leaves, the upper end of the rod having an annular groove terminating in a shoulder, a casing in which the grooved end of said rod is adapted to engage, and a resilient finger within said casing adapted to spring into said groove and engage the shoulder to hold the rod within the casing, as set forth.

942,671. EXCLUDER FOR ELASTIC SOCKS. FREDERIC W. SAVAGE, Granville, N. Y. Filed Sept. 21, 1909. Serial No. 518,803.

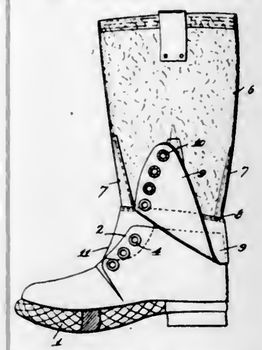
1. In combination with an elastic sock, an excluder attached to the ankle portion of said sock, the portion of the excluder adjacent the line of attachment being elastic to yield laterally with said sock.

2. The combination with an elastic sock, and an excluder of water-proof material attached thereto at the



ankle portion, of a band of elastic material forming the means of attachment between said excluder and sock.

942,672. EXCLUDER FOR FELT AND KNITTED BOOTS AND SOCKS. FREDERIC W. SAVAGE, Granville, N. Y. Filed Sept. 21, 1909. Serial No. 518,804.



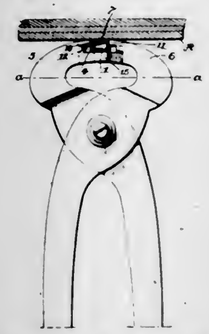
1. The combination with an overshoe having flaps adapted to be united at their front, of a boot within said overshoe, a depending excluder fixed to said boot and overlying the upper edge of said overshoe, and means for conjointly fastening the edges of said flaps and the edges of said excluder to restrain relative movement.

2. The combination with an overshoe having the meeting edges of its flaps provided with a series of eyelets, of a boot within said overshoe, a depending excluder fixed to said boot and overlying the upper edge of said overshoe and having its meeting edges provided with eyelets registering with the eyelets in said flaps, and a lacing conjointly fastening and lacing said flaps and excluder to restrain relative movement.

3. The combination with an overshoe having flaps and an upwardly projecting tongue, of a boot within said overshoe, a depending excluder fixed to said boot and overlying the upper edge of the overshoe, a depending tongue on said boot overlying said overshoe tongue but underlying the flaps thereof, and means for uniting the meeting edges of said flaps and said excluder.

4. The combination with an overshoe having the meeting edges of its flaps provided with series of eyelets and having an upwardly projecting tongue, of a boot within said overshoe, a depending excluder fixed to said boot and overlying the upper edge of the overshoe and having its meeting edges provided with eyelets registering with the eyelets in said flaps, a depending tongue on said boot overlying said overshoe tongue but underlying the flaps thereof, and a lacing conjointly uniting and lacing said flaps and excluder.

942,673. TOOL FOR SEALING BOX-FASTENERS. ROBERT SCHLEICHER, Louisville, Ky., assignor to Mengel Box Company, Louisville, Ky., a Corporation of New Jersey. Filed June 9, 1909. Serial No. 501,122.



1. In a tool for securing a fastening device comprising a shank and wings adapted to be folded about said shank, the combination of actuating means; and a pair of oppositely disposed dies operated by said means, one of said dies having a guiding prong adapted to position the dies relatively to the fastening device and to approximate the parts thereof, and each die having an abutment to engage one of said wings and to bend the same inwardly toward the opposite wing, the dies being slotted to receive the body and the infolded wings of the fastener.

2. In a tool for securing a fastening device comprising a shank having an enlarged head and wings adapted to be folded about said shank behind said head, the combination of actuating means; and a pair of oppositely disposed dies, operated by said means, one of said dies having a guiding prong adapted to position the dies relatively to the fastening device and to approximate the parts thereof so that said shank lies between said wings, and each die having an abutment to engage one of said wings and to bend the same inwardly toward the opposite wing, the dies being slotted to receive the body and the infolded wings of the fastener.

3. In a tool for securing a fastening device comprising a shank and wings adapted to be folded about said shank, the combination of actuating means; and a pair of oppositely disposed dies operated by said means, one of said dies having a guiding prong adapted to position the dies relatively to the fastening device and to approximate the parts thereof, and each die having an abutment to engage one of said wings and to bend the same inwardly toward the opposite wing, the dies being slotted to receive the body and the infolded wings of the fastener and to conform to the contour thereof.

4. In a device for sealing metallic fasteners, the combination of a pair of dies, each die having an abutment adapted to engage and fold a member of the fastener, and two series of intermeshing projections carried by the respective dies for preventing lateral displacement of the fastener in one direction prior to and throughout the action of the dies.

5. In a device for sealing metallic fasteners, the combination of a pair of dies, each die having an abutment adapted to engage and fold a member of the fastener, and two series of intermeshing projections carried by the respective dies for preventing lateral displacement of the fastener prior to and throughout the action of the dies, each die being formed with a recess intermediate said abutment and its series of projections.

[Claims 6 and 7 not printed in the Gazette.]

942,674. METHOD OF MAKING DIPHENYL-ORTHO-OXALIC ESTERS. HANS SCHNEIDER, Hamburg, Germany. Filed Jan. 28, 1909. Serial No. 474,676.

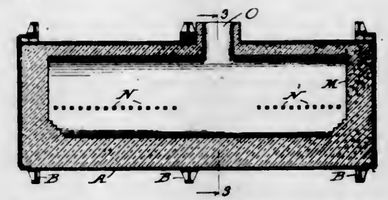
1. A process for manufacturing diphenyl-ortho-oxalic ester consisting in stirring anhydrous oxalic acid together with liquefied phenol, substantially as described.

2. A process for manufacturing diphenyl-ortho-oxalic ester consisting in stirring anhydrous oxalic acid together with liquefied phenol in the proportion of one molecule of anhydrous oxalic acid to two molecules of phenol, substantially as described.

3. A process for manufacturing diphenyl-ortho-oxalic ester consisting in stirring anhydrous oxalic acid together with liquefied phenol at a temperature below the vaporizing point of either constituent.

4. A process for manufacturing diphenyl-ortho-oxalic ester consisting in stirring anhydrous oxalic acid together with liquefied phenol thoroughly until the temperature rises and the reaction is completed.

942,675. COPPER-MATTE CONVERTER. ELIAS A. C. SMITH, Baltimore, Md. Filed Oct. 7, 1909. Serial No. 521,532.



1. A converter for bessemerizing copper matte having a series of twyers for the admission of the bessemerizing blast and having an outlet port for the escape of the gaseous products of the bessemerizing operation, said outlet port being substantially out of range of the slopping action of the twyers; substantially as described.

2. A converter for bessemerizing copper matte, having a series of twyers for the admission of the bessemerizing blast, and having an outlet port for the escape of the gaseous products of the bessemerizing operation, that portion of the converter below the outlet port being devoid of twyers; substantially as described.

3. A converter for bessemerizing copper matte having a series of twyers for the admission of the bessemerizing blast extending longitudinally of the converter, and having an outlet port for the escape of the gaseous products of the bessemerizing operation, said outlet port being located beyond the series of twyers; substantially as described.

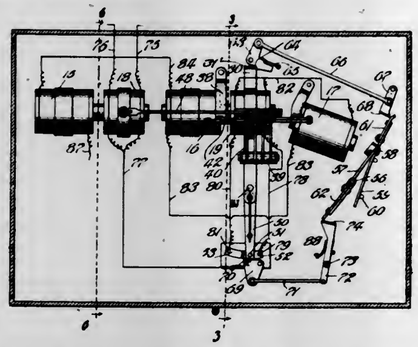
942,676. SIGNALING SYSTEM. FAE E. SMITH, Ames, Iowa. Filed July 24, 1908. Serial No. 445,227.

1. A signaling system for electrically operated railroads including a trolley conductor, a signal, a plurality of switches supported adjacent the conductor and in electrical connection with the signal, and a conductor carried by each switch and spaced from the trolley conductor, the initially engaged end of the switch being formed to guide the trolley wheel to electrically connect the trolley conductor and switch conductor.

2. A signaling system for electric railroads including a trolley conductor, a signal, a movable electro-magnet arranged to directly affect the signal, and fixed electro-magnets coöperating with the movable electro-magnet to reciprocate the latter in the travel of the vehicle throughout a prescribed length of trolley conductor.

3. A signaling system for electric railroads including a trolley conductor, said system comprising a signal, a movable electro-magnet arranged to directly affect the signal, fixed electro-magnets between which the movable magnet is arranged for reciprocation, and spaced independently energized means for inducing a flow of current in the movable electro-magnet and in the fixed electro-magnet, said

means being arranged to respectively induce a reversed polarity in the movable electro-magnet, whereby in the energization of the electro-magnet under one of said means said electro-magnet is moved in one direction and in its energization under the other of said means it is moved in the opposite direction.

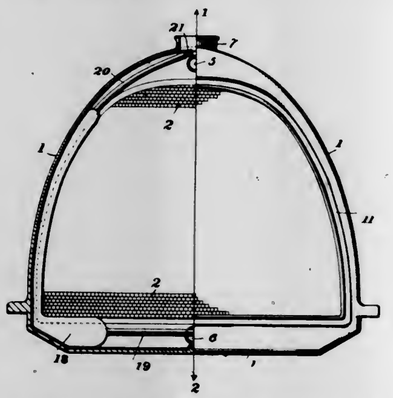


4. An electrically operated signaling system including a signal, a signal controlling electro-magnet, fixed electro-magnets between which the signal controlling magnet is adapted for movement, and means for successively energizing all of said magnets during the travel of the vehicle, said successive energization reversing the polarity of the controlling magnet without affecting the polarity of the fixed magnet.

5. An electrically operated signaling system including a signal, a signal controlling electro-magnet, fixed electro-magnets between which the signal controlling magnet is adapted for movement, means for successively energizing and reversing the polarity of the controlling magnet, means for locking the controlling magnet in either position, and a movable electro-magnet adapted to control the locking means.

[Claims 6 to 12 not printed in the Gazette.]

942,677. AUTOMOBILE-RADIATOR. HAROLD P. SMITH and LESLIE E. HOOKER, Pawtucket, R. I. Filed Aug. 21, 1908. Serial No. 449,737.



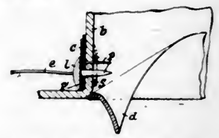
1. A radiator of the class described, comprising a plurality of nested tubes, a surrounding casing and yielding supporting means between said tubes and casing.

2. A radiator of the class described, comprising a U-shaped outer casing, a U-shaped rubber lining within said casing and a plurality of nested tubes secured to and supported by said lining.

3. A radiator of the class described, comprising a surrounding casing, a plurality of nested tubes within said casing, elastic means secured to both said casing and said nest of tubes and additional yielding means interposed between said casing and tubes.

4. A radiator of the class described, comprising a U-shaped casing, a plurality of nested tubes within said casing, a U-shaped lining of elastic material secured to said casing and to said tubes and a pneumatic support interposed between said tubes and bottom and sides of said casing.

942,678. HAT-GUARD. MICHAEL R. SODEN and MATTHEW J. SODEN, Paterson, N. J. Filed June 25, 1909. Serial No. 504,302.

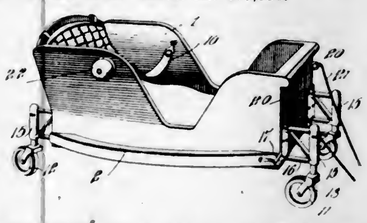


1. In combination, with a hat, of a hat guard comprising a cord and a securing device for the cord attached to the hat and consisting of a part bearing squarely against a wall of the hat and having a plurality of prongs projecting therefrom and penetrating said hat wall and bent back against the material thereof, said part being concave and open for substantially its full width on the side thereof adjoining, and having a penetrating opening in the portion thereof farthest from, said wall, and the cord having a knot interposed between said wall and said part and inclosed in the concavity of the latter and restraining the cord from withdrawal from said part, substantially as described.

2. In combination, with a hat, of a hat guard comprising a cord and means for securing the cord to the hat comprising a part bearing squarely against a wall of the hat and having a plurality of prongs projecting therefrom and penetrating said hat wall, and a gasket penetrated by the protruding ends of the prongs, said prongs being bent back at their protruding ends and said part having a penetrating opening receiving the cord and being concave on the side thereof adjoining said wall and the cord having a knot interposed between said wall and said part and inclosed in the concavity of the latter and restraining the cord from withdrawal from said part, substantially as described.

3. In combination, with a hat, a hat-guard comprising a cord and a securing device therefor attached to the hat and consisting of a part having a plurality of prongs projecting therefrom and penetrating the hat and bent back against the material thereof, said part having an opening receiving the cord and another prong bent into clenching relation to the cord, substantially as described.

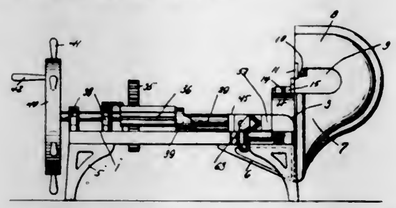
942,679. BABY-AUTO. JOHN R. SPENCER, Bartow, Fla. Filed Feb. 25, 1909. Serial No. 479,856.



1. A toy vehicle of the character described comprising a box or body, a seat comprising a strip of flexible material secured inside the body in front, a curved cross bar extending across the body, said seat having an upholstered portion and provided with supporting means to engage the back of the body to support said seat.

2. A toy vehicle comprising a body made in representation of an automobile body, skeleton frames extending outward from the front and back of said body, caster wheels mounted in the outer ends of said frames, curved guards secured to the lower edge of said body, and rubber strips secured to said guards.

942,680. COMBINED SHEAR, PUNCH, AND BENDING MACHINE. STEFAN TAKACS, Chicago, Ill. Filed Apr. 22, 1909. Serial No. 491,435.



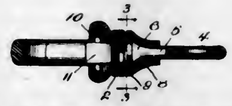
1. In a punch, shear and bending machine, a bed plate, a shearing member connected to the rear edge of said bed plate, a shearing member movably supported relative to the first mentioned member and adapted to coöperate therewith, a die holder movably mounted upon said bed plate, a shear actuating head detachably connected to said holder and adapted to move under the last mentioned shear member for elevating the same, a bar cutting die adapted to be connected to said holder, a bar cutting die detachably mounted upon said bed plate and adapted to coöperate with the die of said holder for cutting a bar clamped against the last mentioned die, a die adapted to be connected to said holder for bending a bar placed upon said bed plate, and means for moving said die holder, said means including a screw, gear wheels for revolving said screw, and means for revolving said gear wheels.

2. A machine of the type described, comprising a bed plate, a shearing member connected to said bed plate, a shearing member movably supported by said plate and adapted to coöperate with the first mentioned member, a revoluble roller carried by said movable shearing member, a die holder movably mounted upon said bed plate, a head detachably connected to said holder and adapted to engage the roller of said movable shear member for elevating the same, means arranged beneath said bed plate for normally maintaining said movable shear member in a lowered position, a bar cutting die adapted to be detachably connected to said holder, a punching die adapted to be detachably connected to said holder, dies adapted to be detachably mounted upon said bed plate to coöperate with said bar cutting die and said punching die, means supported by said bed plate for moving said holder, and means supported by said bed plate for clamping a piece of work thereon.

3. A machine of the class described comprising a bed plate, a feed shaft connected thereto and provided with a screw-threaded end and further provided with a gear, a screw bearing for the screw-threaded portion of said shaft, a guide housing, a tool holder mounted in said guide housing and having one end provided with means for attaching a tool thereto and having its other end connected to said shaft, whereby said holder will be shifted simultaneously with the longitudinal movement of the shaft, an operating shaft journaled to said bed plate, means for rotating said shaft and an elongated gear wheel carried by the operating shaft and meshing with the first-mentioned gear wheel for driving the same during the longitudinal movement of the feed shaft.

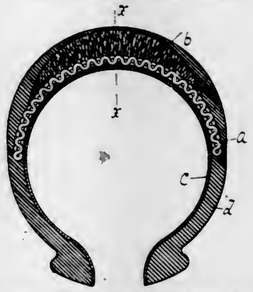
942,681. SWIVEL-HOOK. CARL G. THEILING, Spencer, N. C. Filed Jan. 30, 1909. Serial No. 475,193.

1. A swivel hook comprising a hollow body or base embodying a tapering internal annular shoulder, a ring, and a stem rigidly attached to the ring and entering said base and embodying a tapered head at its inner end engaging said shoulder and adapted to turn freely within the base wherein it is retained by the shoulder.



2. A swivel hook comprising a hollow body or base embodying a tapering internal annular shoulder, and an annular groove adjacent to the shoulder where it is of the greatest diameter, a ring, and a stem rigidly attached to the ring and entering said base and embodying a tapered head at its inner end engaging said shoulder and adapted to turn freely within the base wherein it is retained by the shoulder, and an annular bead on the head engaging said groove.

942,682. TIRE-PROTECTOR. FRANCISQUE VACHER, New York, N. Y. Filed Dec. 19, 1908. Serial No. 468,299.



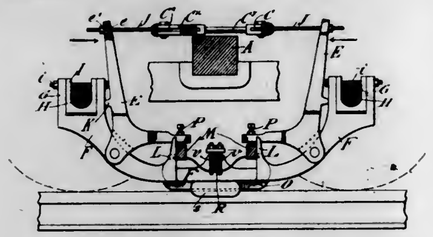
A tire protector comprising a metallic webbing with a canvas support or backing, metallic threads having parts woven into the webbing leaving parts thereof free to project, and a mass of enoutchouc vulcanized to the canvas and about the metallic webbing and threads to embody the whole.

942,683. LADDER. JOSEPH VAGHI, Bethel, Conn. Filed Jan. 28, 1909. Serial No. 474,717.



A ladder comprising side bars in the form of lazy tongs and rungs whose ends are the pivots for the lazy tongs, a catch pivoted on one of the pivots connecting the ends of the lazy tongs and near the lower end of the ladder and having a slot for engaging the opposite pivot, and an angular arm, a spring pressing the arm for the purpose specified, a stop lug on the lazy tong member opposite to the spring, the catch having a beveled end for engaging the pivot to lift the catch.

942,684. BRAKE FOR RAILWAY-CARS. LOUIS DE VITO, Cleveland, Ohio. Filed Dec. 9, 1908. Serial No. 466,584.



1. In a brake mechanism for railway cars, the combination, with the axles of the car-truck, of hanger-frames having bearings at their ends for said axles and pivotally supported on the latter to swing laterally, and brake mechanism supported on said frames.

2. In a brake mechanism for railway cars, the combination, with the axles of the car-truck, of hanger-frames connecting the axles and having journal-bearings at their ends for the latter, means pivotally supporting said frames on the axles so that the frames may swing laterally with respect to the rails, and brake mechanism supported on and extending between said hanger-frames.

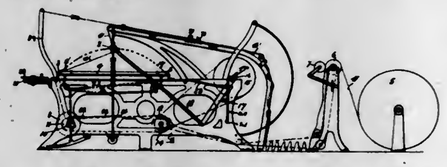
3. In a brake mechanism for railway cars, the combination, with the hanger-frames, of parallel bars extending between the same and guided vertically, brake-blocks connecting said bars at the ends, and brake-shoes carried by said blocks.

4. In a brake mechanism for railway cars, the combination, with the hanger-frames, of parallel bars guided vertically therein, brake-blocks connecting said bars, and an intermediate supporting bar extending between the hanger-frames and having means at its ends to guide the brake-blocks.

5. In a brake mechanism for railway cars, the combination of hanger-frames, a transverse supporting bar connecting the same, a brake-carrying frame embodying parallel bars at opposite sides of said supporting bar, leaf-springs extending across the supporting bar and beneath said bars of the brake-carrying frame, and means to depress the brake-carrying frame.

[Claims 6 to 11 not printed in the Gazette.]

942,685. MEASURING ATTACHMENT FOR CLOTH-FOLDING MACHINES. KIT VON THIGPEN, Greensboro, N. C., assignor of one-third to The Proximity Manufacturing Company and one-third to Ransom F. Thigpen, Greensboro, N. C. Filed June 9, 1908. Serial No. 437,469.



1. In a machine of the class described, a cloth folding device, a device for indicating the length and number of the folds of cloth, said folding device and said indicating device being operated by said machine, and an automatic stop motion operated by the cloth in transit.

2. In a machine of the class described, a cloth folding device, means for indicating the length of the folds of cloth, comprising a graduated indicating-plate, a rotatable ratchet disk adjacent to said plate, having a hub, a stud extending through said hub and graduated plate, a spring-engaging said stud and hub, a rod connected to said machine and provided with a pawl at one end thereof engaging said ratchet disk, and a pawl engaging the disk to prevent rotation in the reverse direction.

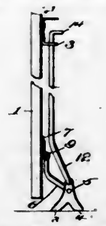
3. In a machine of the class described, a cloth folding device, means for indicating the length of the folds of the cloth, comprising a ratchet disk provided with a hub, an indicating plate revoluble with said disk, means for operating the folding device and means for rotating said disk and indicating-plate, said means being connected to a revoluble member on the machine, a finger engaging the periphery of said hub and connected to the means for rotating the disk to engage and disengage said finger with said hub.

4. In a machine of the class described, a reciprocating cloth carrier, means for indicating the length of the folds of the cloth, means for reciprocating the cloth folding device and means for rotating the indicating device, and an automatic stop motion operated by the cloth in transit to the cloth carrier.

5. In a machine of the class described, a cloth folding device, means for indicating the length of the folds of the cloth, means for operating the cloth carrier, means for rotating the indicating device, and a pair of bars between which the cloth travels toward the folding device, and means for separating said bars for the purpose described.

[Claim 6 not printed in the Gazette.]

942,686. DOOR-STOP. JOHN L. WEBB, Oakley, Idaho. Filed Sept. 15, 1909. Serial No. 517,878.



1. In a door stop, a foot formed with a bifurcated lower end, and friction members on the bifurcated lower end, a pivotally mounted arm for actuating said foot, a spring for actuating said arm, and a rod pivotally engaging one end of said foot for moving the same against the action of said spring.

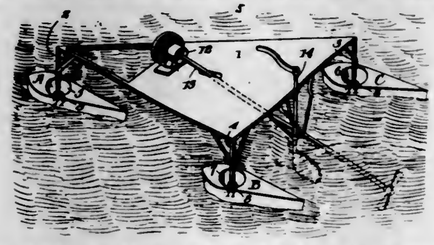
2. In a door stop, a foot formed bifurcated at one end, means arranged on said bifurcated end for preventing the slipping of said foot, an arm pivotally mounted on said foot slightly off-center thereof, a support in which said arm is pivotally mounted, a spring acting on said arm for normally causing the same to press said foot downward, and a rod pivotally connected with said foot at the end opposite the bifurcated portion, said rod being adapted to be operated for raising said foot against the action of said spring.

942,687. COMPOUND BOAT. JAMES D. WHITE, London, England. Filed Mar. 9, 1909. Serial No. 482,235.

1. In a compound boat, a rigid deck, downwardly extending supports therefor, a plurality of individual hulls, universal joints for connecting each of said supports to one of said hulls said connection being in each case low down in the hull forward of the center of lateral resistance of the hull and abaft of the center of buoyancy thereof.

2. In a compound boat, a rigid deck, downwardly extending supports therefor, a plurality of individual hulls, each provided with a bulkheaded well, universal joints for connecting each of said supports with said hulls arranged in the bottom of said bulkheaded well forward of the center of lateral resistance of the hull and abaft of the center of buoyancy thereof.

3. In a compound boat, a rigid deck, downwardly extending supports therefor, a plurality of individual hulls, each hull being designed with full lines forward and fine lines aft on the "cod's head and mackerel's tail" principle, and having a conical shaped bulkheaded well extending nearly to the keel, universal joints for connecting each of said supports with said hulls arranged in the bottom of said bulkheaded well forward of the center of lateral resistance of the hull and abaft of the center of buoyancy thereof.



of lateral resistance of the hull and abaft of the center of buoyancy thereof.

942,688. SMOKING-PIPE. EDGAR B. WHITNEY, Oakland, Cal. Filed Feb. 24, 1909. Serial No. 479,772.



1. The improved smoking-pipe comprising a bowl having a socket, a main stem *b* fitted detachably in the latter and provided with a large bore 2 extending inward from the outer end, and a small smoke-passage 3 formed in the integral upper portion of the said stem and extending to a point near the outer end of the same, the supplemental bored stem *c* attached to the outer end of the main stem and extending nearly to the end of the larger bore in the latter, and a mouth-piece attached to the outer end of such supplemental stem, substantially as described.

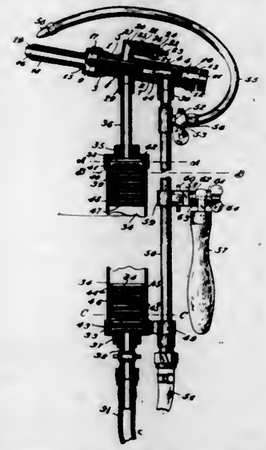
2. The improved smoking-pipe comprising a bowl with socket, a main stem provided with a smoke-passage extending rearwardly therein and having an enlarged lengthwise chamber, a supplemental stem or smoke-conductor attached to the main stem and extending forward in the chamber of the same, and a mouth-piece having an opening on its upper side, as shown and described.

942,689. HINGE. DANIEL WILDE, Washington, Iowa. Filed July 28, 1905. Serial No. 271,666.



A hinge for windows and the like, comprising flexible rods pivoted at one end to the window sash, pins on the frame at a point between the ends of the rods over which they are hooked, and means on the window sash engaged by the free ends of the rods for connecting the window sash to the frame, thereby forming a pivotal connection between the window and frame.

942,690. BLOWPIPE. JOHN F. WILLIAMS, Sandusky, Ohio. Filed May 28, 1909. Serial No. 498,822.



1. The combination, with a blow pipe casing, of a conduit for supplying gas therethrough, and a series of transverse members in said conduit, said members being spaced apart and being provided with apertures forming a restricted passageway for the gas through the conduit.

2. The combination of a blow pipe having a conduit for supplying gas therethrough, and two series of transverse members in said blow pipe, the members of one series being formed of foraminous material and the members of the other series being provided alternately with centrally arranged and externally arranged apertures providing a tortuous passageway for the gas through the conduit.

3. The combination of a blow pipe having a conduit for supplying gas therethrough, and a series of spaced transversely arranged members of foraminous material in said conduit forming a restricted passageway for gas therethrough.

4. The combination of a blow pipe, a conduit for supplying gas therethrough, and a series of transverse partitions in said conduit, said partitions being provided alternately with a centrally arranged and an externally arranged passageway, providing a restricted, tortuous passageway for gas through the conduit.

5. The combination of a blow pipe and means for supplying gas therethrough, said means comprising a conduit having means providing a restricted passageway for gas therethrough, and a check valve arranged to close the discharge end of the conduit.

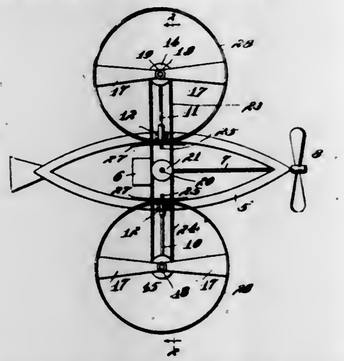
[Claims 6 to 28 not printed in the Gazette.]

942,691. GYROSCOPIC AEROPLANE. SYDNEY S. WILLIAMS, Chicago, Ill. Filed July 1, 1907. Serial No. 381,718.

1. The combination with a flying machine, means to propel the machine, of a plurality of blades without pitch mounted on a common hub about whose axis they are adapted to be rotated, and means to rotate the blades.

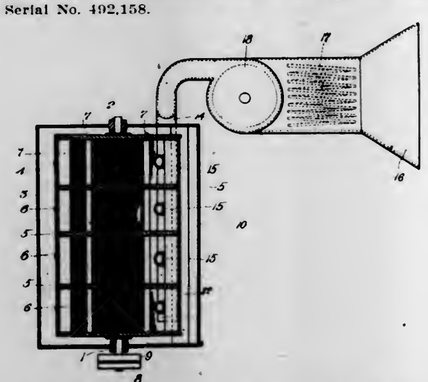
2. The combination with a flying machine, means to propel the machine, of a plurality of hubs each provided with blades whose surface lies within their plane of rotation and which are adapted to be rotated about the axis of their common hub, and means to rotate the blades.

3. The combination with a flying machine, means to propel the machine, of a plurality of hubs each provided with blades whose surface lies within their plane of rotation and which are adapted to be rotated about the axis of their common hub, means to incline the axis of the hub to vary the inclination of the plane or figure of rotation of the blades, and means to rotate the blades.



4. The combination with a flying machine, means to propel the machine, of one or more hubs each provided with a plurality of blades without pitch and adapted to be rotated about their common axis, a circumferential rim mounted on the outer ends of the blades, means to incline the axis of the hub to vary the inclination of the plane or figure of rotation of the blades, and means to rotate the blades.

942,692. CLOTHES-DRIER FOR LAUNDRIES. ELMER E. WINGATE, Watertown, Mass. Filed Apr. 26, 1909. Serial No. 492,158.



1. A clothes drier, comprising a rotary drum divided transversely into individual compartments provided with means for continually lifting and dropping the clothes in said compartments, and having a screen-like periphery through which hot air may be driven, combined with means for introducing hot air transversely through said periphery into each compartment separately as the drum rotates, and means for collecting and withdrawing the lint and moisture-laden air after it has passed through the clothes.

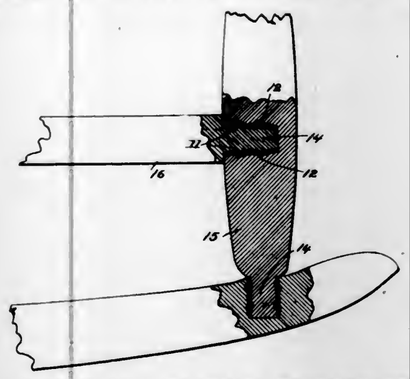
2. A clothes drier, comprising a rotary drum having a peripheral screen through which hot air may be driven, lifters set radially lengthwise of said drum for carrying the clothes up from the bottom approximately to the top as the drum is rotated and permitting the clothes to open out and drop by gravity, means for delivering hot air under pressure transversely through said peripheral screen including means for restricting said air-delivery to said transverse direction through the screen, for removing the moisture from the clothes as they fall, a housing inclosing said drum for collecting the moisture-laden air as it escapes from the drum, and outlet means for withdrawing the air and lint from said housing and continuously discharging the same from the apparatus.

3. A clothes drier, comprising a rotary drum having a peripheral screen through which hot air may be driven, lifters set radially lengthwise of said drum for carrying the clothes up from the bottom approximately to the top as the drum is rotated and permitting the clothes to open out and drop by gravity, air-confining means located adjacent the lower side of said drum for delivering hot air under pressure at a single restricted region transversely through said peripheral screen underneath said falling clothes for removing the moisture from the clothes as they fall, a housing inclosing said drum for collecting the moisture-laden air as it escapes from the drum, and outlet means for withdrawing the air and lint from said housing.

4. A clothes drier, comprising a rotary drum having a peripheral screen through which hot air may be driven, transverse partitions separating said drum into a series of individual compartments, lifters set radially lengthwise of said drum for carrying the clothes up from the bottom approximately to the top as the drum is rotated and permitting the clothes to open out and drop by gravity, means for delivering a separate jet of hot air transversely through said screen into each compartment for removing the moisture from the clothes as they fall, a housing inclosing said drum for collecting the moisture-laden air as it escapes from the drum, and outlet means for withdrawing the air and lint from said housing and discharging said air and lint from the apparatus.

5. A clothes drier, comprising a rotary drum having a screen periphery and divided into a series of distinct transverse compartments, lifting means therein for raising the clothes from the bottom to the top as the drum rotates for permitting the clothes to fall, a housing surrounding said drum for collecting and retaining the moisture driven from the clothes, hot-air delivering means within said housing, a nozzle adjacent the lower side of each compartment of said drum connected to said hot-air delivering means for delivering a jet of hot air through said screen into each compartment against the falling clothes, and outlet means including a pipe connection through the upper portion of said housing opposite each compartment for withdrawing the moisture and lint from said housing as they are driven off from the clothes in the drum including means for discharging said moisture and lint from the apparatus.

942,693. JOINT-FASTENER. MILTON W. WINTERMUTE, Buffalo, N. Y. Filed June 9, 1909. Serial No. 501,065.



1. A joint fastener, composed of resilient sheet material having slits formed therein with the material upon opposite sides of the slits stamped in opposite directions and with oppositely directed inclinations.

2. A joint fastener comprising sheet material and with engaging members disposed upon opposite sides of the sheet having adjacent engaging faces and oppositely disposed inclinations.

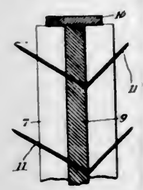
3. A joint fastener composed of resilient sheet material with semipyramidal engaging portions stamped up from the sheet, the semipyramids upon opposite sides of the sheet having their apexes oppositely disposed.

4. A joint fastener composed of resilient sheet material with semipyramidal engaging portions stamped up from the sheet, with the bases of semipyramids upon the opposite sides of the sheet adjacent and their apexes oppositely disposed.

5. A joint fastener composed of resilient sheet material with similarly formed semipyramidal engaging portions stamped up from opposite sides of the sheet.

[Claims 6 to 8 not printed in the Gazette.]

942,694. CORN-RACK. JOHN S. WINTON, Milford, Iowa. Filed Oct. 30, 1908. Serial No. 460,253.



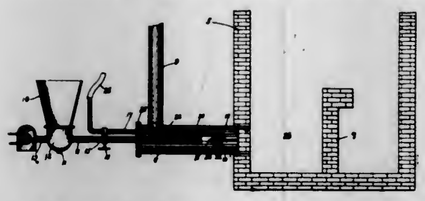
The combination of a supporting member, and corn ear impaling pins inclining upwardly and outwardly from the opposite faces of said member, with one of said pins passing through the member and integral with the pin at the opposite side.

942,695. LOSS-PREVENTING DEVICE. WALTER K. WOLF, Brownstown, Pa. Filed Mar. 1, 1909. Serial No. 480,622.



As an article of manufacture, a safety device consisting of a stem having a conical opening terminating in a hole formed therein, a lower leaf secured to said stem, an upper leaf pivoted to said stem, a clutch member provided with shafts and having a hole and a notch formed therein, said clutch member adapted to be journaled in the lower leaf by means of the shafts, and a spring coiled about one of said shafts, one of which rests against the clutch member, the opposite end against the lower leaf, substantially, as shown and described.

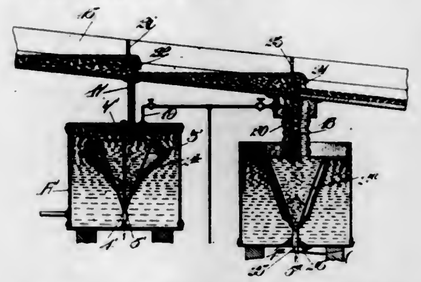
942,696. COAL-DUST BURNER. JOHN W. ZELL, Duncannon, Pa., assignor of one-half to George Pennell, Duncannon, Pa. Filed May 6, 1909. Serial No. 494,355.



1. In a device for supplying a mixture of coal dust and fluid to the combustion chamber of a furnace, the combination with a furnace; of a casing arranged exteriorly of the furnace, a coal dust feed pipe disposed within said casing and a liquid blast pipe adjustably fitted within the casing and arranged parallel with and exterior of the feed pipe, said blast pipe being provided at its inner end with a fuel deflector located in the casing and having openings to permit the liquid from the blast pipe to enter the casing at right-angles to the coal dust from the feed pipe.

2. In a device for supplying a mixture of coal dust and fluid to the combustion chamber of a furnace, the combination with a furnace; of a casing arranged exteriorly of the furnace, a coal dust feed pipe disposed within said casing and a liquid blast pipe adjustably fitted within the casing and arranged parallel with and exterior of the feed pipe, a hollow fuel deflector located in the casing and connected with the blast pipe, said fuel deflector being arranged in axial alinement with the feed pipe and having openings to permit the fluid from the blast pipe to enter the casing at right-angles to the coal dust from the feed pipe.

942,697. SAND AND SLIME SEPARATOR AND CLASSIFIER. CHARLES ALLEN, El Paso, Tex. Filed Feb. 10, 1909. Serial No. 477,188.



1. A separator for liquids and solids comprising a liquid-containing tank and a separating vessel in floating suspension in the tank, said separating vessel having an inlet for liquid containing solids in suspension, said vessel having a discharge outlet for the solids, and means for opening and closing said outlet with the rise and fall of the floating vessel.

2. A separating apparatus comprising a liquid-containing tank and an inverted separating cone suspended in the liquid in the tank, said cone having a flexible discharge outlet at its apex extending outside the tank, and a valve supported independent of the cone for said outlet, and means whereby said valve is opened and closed by the rise and fall of the cone in the liquid in the tank.

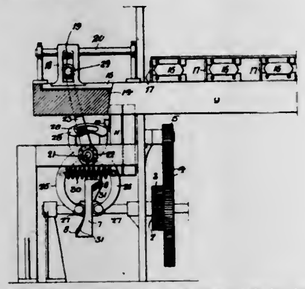
3. A separator for liquids and solids comprising a liquid-containing tank, a separating vessel in floating suspension in the tank, said vessel having an outlet in its bottom for the solids, and a valve supported independent of said floating vessel to open and close said outlet and means for recovering the separated solids separate from the liquid in the tank.

4. A separator for liquids and solids comprising a liquid-containing tank, an inverted separating cone in floating suspension in the tank, a buoy floating in said tank and suspending said cone, said cone having an outlet for the solids, and a valve for controlling said outlet and means for recovering the separated solids separate from the liquid in the tank.

5. A separator for solids and liquids comprising a liquid-containing tank, an inverted separating cone in floating suspension in the tank, a buoy floating in said tank and suspending said cone, said cone having an outlet for the solids, and a valve for controlling said outlet, said valve supported independent of the cone and means for recovering the separated solids separate from the liquid in the tank and cone.

[Claims 6 to 9 not printed in the Gazette.]

942,698. SHUTTLE-OPERATING MECHANISM. CLARENCE F. ARNOLD, Philadelphia, Pa. Filed June 9, 1908. Serial No. 437,524.



1. In a shuttle motion for narrow fabric looms, the combination with the driving shaft of a loom, the lay, and means for operating the latter from said shaft, of a shuttle-actuating-bar slidably mounted in said lay, a countershaft actuated by said driving shaft, a pivotally mounted oscillating arm in operative engagement with said shuttle-actuating-bars, means including rotating cams carried by the countershaft and pivoted levers engaged thereby for actuating said oscillating arm, and means permitting lost motion between the levers and the said arm whereby the engagement of said levers with said arm is in the nature of a quick, sharp blow.

2. In a shuttle motion for narrow fabric looms, the combination with the driving shaft of a loom, the lay, and means for operating the latter from said shaft, of a shuttle-actuating-bar slidably mounted in said lay, an oscillating arm pivoted to the loom frame and in operative engagement with the shuttle-actuating-bar, levers in operative engagement with said arm on opposite sides of the same for imparting movement thereto in two directions, a countershaft actuated by said driving shaft, rotating cams carried by said countershaft for actuating said levers whereby the arm is caused to reciprocate the shuttle-actuating-bar in the lay, and means permitting lost motion between the levers and the said arm whereby the engagement of said levers with said arm is in the nature of a quick, sharp blow.

3. In a shuttle motion for narrow fabric looms, the combination with the driving shaft of a loom, the lay and means for operating the latter from said shaft, of a shuttle-actuating-bar slidably mounted in said lay, an arm pivoted to the loom frame and in engagement with the shuttle-actuating-bar, levers in operative engagement with said arm on opposite sides of the same for imparting movement thereto in two directions, a countershaft, actuated by said driving shaft, cams carried by said countershaft for actuating said levers whereby the shuttle-actuating-bar may be reciprocated in the lay, and tension means connecting said levers whereby one end of each of the same is maintained in contact with the cams.

4. In a shuttle motion for narrow fabric looms, the combination with the driving shaft of a loom, the lay and means for operating the latter from said shaft, of a shuttle-actuating-bar slidably mounted in said lay, a series of shuttles carried by the lay, means on said bar for engagement with the shuttles, a slotted guide carried by said bar, an arm pivoted to the loom frame and having a portion in engagement with said guide, a countershaft, means for actuating said countershaft from the driving shaft, a disk carried by said countershaft, and means including rotating cams carried by said disk for actuating said arm whereby the bar may be reciprocated in the lay and actuate the shuttles in opposite directions.

[Claims 6 to 13 not printed in the Gazette.]

942,699. METHOD OF MAKING INSOLUBLE PRODUCTS OF PHENOL AND FORMALDEHYDE. LEO H. BAEKELAND, Yonkers, N. Y. Filed July 13, 1907. Serial No. 383,684.

1. The method of producing a hard, compact, insoluble and infusible condensation product of phenols and formaldehyde, which consists in reacting upon a phenolic body with formaldehyde, and then converting the product into a hard, insoluble and infusible body by the combined action of heat and pressure.

2. The method of making articles containing an insoluble and infusible condensation product of phenols and formaldehyde, which consists in reacting on a phenolic body with formaldehyde, producing thereby a reaction product capable of transformation by heat into an insoluble and infusible body, forming the article from said reaction product, and rendering the article hard, insoluble and infusible by application of heat and pressure.

3. The method of making articles containing an insoluble and infusible condensation product of phenols and formaldehyde, which consists in reacting on a phenolic body with formaldehyde, producing thereby a reaction product capable of transformation by heat into an insoluble and infusible body, separating water from the resulting product, forming the article from said reaction product, and rendering the article hard, insoluble and infusible by application of heat and pressure.

4. The method of making articles containing an insoluble and infusible condensation product of phenols and formaldehyde, which consists in reacting on a phenolic body with formaldehyde, producing thereby a reaction product capable of transformation by heat into an insoluble and infusible body, forming the article from said reaction product compounded with a filling material, and rendering the article hard, insoluble and infusible by application of heat and pressure.

5. In a method of making articles containing an insoluble and infusible condensation product of phenols and formaldehyde, the step which consists in causing the water to separate from the mixture of a phenolic body and an aqueous solution of formaldehyde by adding to said mixture a metallic salt soluble in water and adapted to cause such separation.

942,700. CONDENSATION PRODUCT OF PHENOL AND FORMALDEHYDE AND METHOD OF MAKING THE SAME. LEO H. BAEKELAND, Yonkers, N. Y. Filed Dec. 4, 1907. Serial No. 405,021.

1. A condensation product resulting from the reaction of a phenolic body and formaldehyde, said condensation product being solid at all temperatures, hard when cold, soft and elastic when heated but infusible, and insoluble in alcohol, glycerin, formaldehyde or mixtures of these, but swelling in phenol and acetone without complete solution therein.

2. The method of making a condensation product of a phenolic body and formaldehyde, which consists in reacting on a phenolic body with formaldehyde, and arresting the reaction when the initial condensation product has been transformed into a mass which is solid at all temperatures and hard when cold, soft and elastic when heated but infusible, insoluble in alcohol, glycerin and formaldehyde or mixtures of these, and which swells in phenol and acetone without complete solution therein.

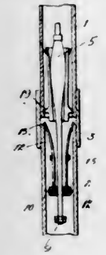
3. The method of making a condensation product of a phenolic body and formaldehyde, which consists in reacting on a phenolic body with formaldehyde, separating water from the initial condensation product, and arresting the reaction, when the initial condensation product has been transformed into a mass which is solid at all temperatures and hard when cold, soft and elastic when heated but infusible, insoluble in alcohol, glycerin and formaldehyde or mixtures of these, and which swells in phenol and acetone without complete solution therein.

4. The method of making a shaped condensation product of a phenolic body and formaldehyde, which consists in reacting on a phenolic body with formaldehyde, arresting the reaction when the product has become infusible and insoluble but is yet capable of softening under the influence of heat, and shaping and hardening said product.

5. The method of making a shaped condensation product of a phenolic body and formaldehyde, which consists in reacting on a phenolic body with formaldehyde, arresting the reaction when the product has become infusible and insoluble but is yet capable of softening under the influence of heat, shaping said product and hardening the same by adequate application of heat.

[Claims 6 and 7 not printed in the Gazette.]

942,701. WELL-TUBE CUTTER. JESSE F. BAKER, Littleton, W. Va. Filed July 31, 1909. Serial No. 510,607.



1. A cutting device for the purpose set forth comprising a plurality of resilient hangers having hook-shaped upper ends, a plurality of shanks supported by the hooked ends of said hangers and each provided with a cutting tooth, and a combined supporting and operating member extending through said shanks and hangers and provided with means adapted to engage the shanks to project them to cause the cutting action of the teeth.

2. A cutting device for the purpose set forth comprising a plurality of resilient hangers having hook-shaped upper ends, a plurality of shanks supported by the hooked ends of said hangers and each provided with a cutting tooth, a combined supporting and operating member extending through said shanks and hangers and provided with means adapted to engage the shanks to project them to cause the cutting action of the teeth, and a holding band for normally maintaining the hangers in a contracted position.

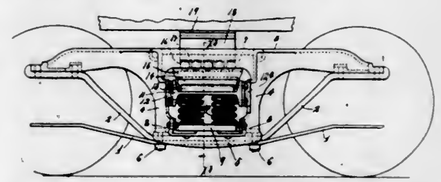
3. A cutting device for the purpose set forth comprising a plurality of resilient hangers having hook-shaped upper ends, a plurality of shanks supported by the hooked ends of said hangers and each provided with a cutting tooth, and a combined supporting and operating member extending through said shanks and hangers and provided with means adapted to engage the shanks to project them to cause the cutting action of the teeth, each of the cutting teeth being segmental in contour and further having a flat lower face and a beveled upper face.

4. A cutting device for the purpose set forth comprising a plurality of resilient hangers having hook-shaped upper ends, a plurality of shanks supported by the hooked ends of said hangers and each provided with a cutting tooth, a combined supporting and operating member extending through said shanks and hangers and provided with means adapted to engage the shanks to project them to cause the cutting action of the teeth, and a holding band for normally maintaining the hangers in a contracted position, each of said cutting teeth being segmental in contour and having a beveled upper face and a flat lower face.

5. A cutting device for the purpose set forth comprising a plurality of resilient hangers having hook-shaped upper ends, a plurality of shanks supported by the hooked ends of said hangers and each provided with a cutting tooth, a combined supporting and operating member extending through said shanks and hangers and provided with means adapted to engage the shanks to project them to cause the cutting action of the teeth, and an annular member for supporting and connecting together the lower ends of said hangers.

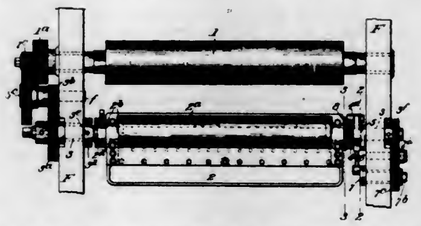
[Claims 6 to 16 not printed in the Gazette.]

942,702. CAR-TRUCK. JOHN C. BARBER, Chicago, Ill. Filed June 5, 1908. Serial No. 436,849.



In a car truck, the combination with side frames having bolster columns, of a bolster body in the form of an I-beam of less width than the space between said columns and provided with independent guide lugs, the guide lugs on one side of the bolster being permanently riveted to the flanges thereof, and the guide lugs on the other side of said bolster being detachably secured thereto by rigid bolts passed through the flanges thereof and through the said detachable guide lugs, and said side frames having openings from which the bolster may be removed endwise when said removable guide lugs are detached and said bolster is turned laterally to an oblique position, substantially as described.

942,703. INKING APPARATUS. HENRY F. BECHMAN, Battle Creek, Mich., assignor to Duplex Printing Press Company, Battle Creek, Mich., a Corporation of Michigan. Filed Mar. 20, 1909. Serial No. 484,617.



1. In an inking mechanism the combination of an ink fountain, a fountain roller, a driven shaft passing through said roller, means for locking said roller to said shaft at the will of the operator and means for indirectly operating the roller from said shaft at the will of the operator.

2. In an inking apparatus the combination of an ink fountain, a fountain roller journaled therein, a driven shaft extending axially through said roller, a ratchet on the fountain roller, a pawl engaging said ratchet, and means for oscillating said pawl actuated by said shaft.

3. In an inking mechanism for printing presses the combination of a fountain, a fountain roller, a driven shaft extending axially through said roller, a ratchet on the gudgeon of said roller, an oscillating lever mounted on the shaft opposite the ratchet, a pawl carried by said lever engaging said ratchet, a rotatable crank, a pitman connecting said crank to said lever, and gearing for rotating said crank from said shaft.

4. In an inking mechanism the combination of an ink fountain, a fountain roller, a driven shaft passing through said roller, clutch devices for locking said roller to the shaft at the will of the operator, a ratchet on the fountain

roller, a pawl engaging said ratchet, and means whereby said pawl may be driven by said shaft at the will of the operator.

5. In an inking mechanism the combination of a fountain, a fountain roller, a driven shaft extending axially through said roller, a ratchet on the gudgeon of the fountain roller, an oscillating lever mounted on the shaft opposite the ratchet, a pawl carried by said lever engaging said ratchet, a rotatable crank, a pitman connected to said crank and having a hook end adapted to be detachably connected to said lever for operating the latter, and gearing for rotating said crank from said shaft.

[Claims 6 and 7 not printed in the Gazette.]

942,704. METHOD OF SECURING METAL CONTACTS TO CARBON ELECTRODES. STEPHAN BENKÖ, Budapest, Austria-Hungary. Filed July 8, 1909. Serial No. 506,610.



1. A method of attaching metal contacts to carbon electrodes, consisting in heating the head portion of the electrode to a temperature above the melting point of the metal to be employed, and in impregnating said portion with molten metal, said metal being absorbed by the heated carbon.

2. A method of attaching metal contacts to carbon electrodes, consisting in heating the head-portion of the electrode to a temperature above the melting point of the metal to be employed, and in impregnating said portion with molten metal, said metal being pressed into the heated carbon while still in a semi-liquid state and under a high pressure.

3. A method of securing metal contacts to carbon electrodes consisting in providing the electrodes at the parts to which the metal contact is to be attached, with perforations, placing the perforated parts of the electrodes, in a heated state, into a mold, pouring molten metal into the mold, and subjecting the cast portion to a high pressure.

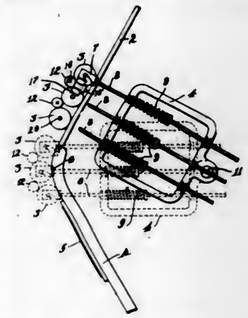
4. A method of securing metal contacts to carbon electrodes consisting in providing the electrodes, at the parts to which the metal contact is to be attached, with perforations, placing the perforated parts of the electrodes in a heated state into a mold, pouring molten metal into the mold, and subjecting the cast portion together with the mold, to a high pressure.

5. A method of securing metal contacts to carbon electrodes consisting in providing the electrodes, at the parts to which the metal contact is to be attached, with perforations, placing the perforated parts of the electrodes in a heated state, into a mold, pouring molten metal into the mold, and subjecting the cast portion together with the mold to high pressure in the longitudinal direction of said perforations.

942,705. INK-DISTRIBUTER FOR PLATEN-PRESSES. ABE E. BERREYESA, Oakland, Cal. Filed Jan. 13, 1909. Serial No. 472,000.

1. The combination in a printing press, of an ink disk, a plurality of distributing rollers, means whereby said rollers may independently reciprocate, equalizing rollers intermediate of the distributing rollers and arranged above the centers thereof, each equalizing roller adapted to bear lengthwise upon the surface of an adjacent pair of distributing rollers, and ink connections between the equalizing rollers and the spindles of the distributing rollers.

2. The combination in a printing press, of a printing form, inking rollers adapted to traverse said form, means for supporting the inking rollers, equalizing rollers intermediate of the inking rollers and above the centers thereof and each adapted to bear lengthwise upon the surface of each adjacent pair of inking rollers, and link connections between the equalizing rollers and spindles of the inking rollers.



3. In a printing press, the combination of a form and an inking plate arranged in a plane at an angle to the plane of the form, inking rollers traversing said plate and form, a rocking support for the rollers, means by which the rollers have a limited movement radially of said support, to permit of their angular travel between the plate and form, equalizing rollers located in the spaces between the inking rollers and above the centers thereof; each equalizing roller adapted to bear lengthwise upon the surface of each adjacent pair of inking rollers, and link connections outside of the plane of the ends of the equalizing rollers and between said rollers and the spindles of the inking rollers.

4. In a printing-press, the combination of a form and an inking plate arranged in a plane at an angle to the plane of the form, inking rollers traversing said plate and form, a rocking support for the rollers, means by which the rollers have a limited movement radially of said support to permit of their angular travel between the plate and form, equalizing rollers contacting with the inking rollers and carried by the inking rollers support, and means including link connections between the equalizing rollers and the spindles of the inking rollers by which said equalizing rollers are adjusted to the angular travel of the inking rollers.

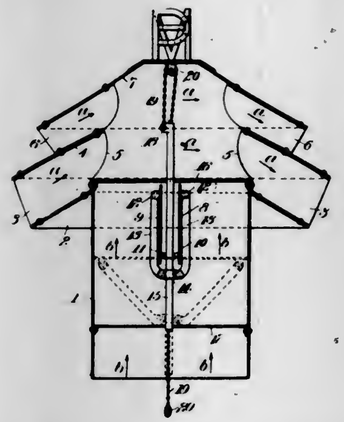
5. In a printing-press, the combination of a form and an inking plate arranged in a plane at an angle to the plane of the form, inking rollers traversing said plate and form, a rocking support for the rollers, means by which the rollers have a limited movement radially of said support to permit of their angular travel between the plate and form, equalizing rollers contacting with the inking rollers and carried by the inking rollers support, and means by which said equalizing rollers are adjusted to the angular travel of the inking rollers, said last-named means comprising extendible link connections between the equalizing rollers and the spindles of the inking rollers.

942,706. MATCH-SAFE. CHRISTINA E. BIRKY, Alvin, Ill. Filed Jan. 14, 1909. Serial No. 472,282.



A match safe comprising a body of oblong form in cross section having rounded ends and a flat top and bottom, the latter having a filling opening and the top having a centrally disposed discharge aperture in line with the inner wall at one end of the body, hinged covers fitted to the top and bottom of the body and closing the openings thereof, and a plate extending lengthwise of the body and attached at its ends to the top and the bottom thereof and along one edge to a side of the body, said plate being inclined transversely toward an end of the body and terminating centrally thereof and having the opposite edge portion rebent to form with a curved end of the body, a pocket to receive a single match, said pocket being in line with the discharge aperture in the top of the body.

942,707. ROOF-VENTILATOR. WILLIAM W. BIRNSTOCK, York, Pa., assignor to Pullman Automatic Ventilator Mfg. Company, York, Pa., a Corporation of Pennsylvania. Filed Feb. 6, 1909. Serial No. 476,478.



1. A roof ventilator including in combination a body portion forming a central passage, dampers for closing said body portion, a tube extending above and below said dampers for controlling the position of said dampers and means for moving said tube comprising a flexible member, extending through said tube.

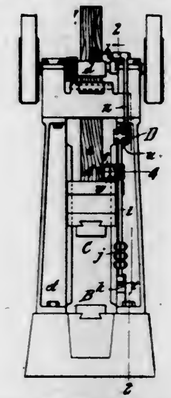
2. A roof ventilator including in combination a body portion, having a central passage therethrough, a cap secured above said body portion, radial plates between said cap and said body portion for forming radial passages for the movement of the air above said body portion, pivoted dampers located in said body portion for closing the passage therethrough, a chain for raising and lowering said dampers, said chain having a fusible link therein.

3. A roof ventilator including in combination, a body portion including a central passage therethrough, dampers for closing the passage through said body portion, arms secured to said dampers, a tube extending above and below said dampers centrally thereof to which said arms are pivoted, and a chain for raising and lowering said tube extending through said tube.

4. A roof ventilator including in combination a body portion, dampers for closing the opening in said body portion, a pivotal support located at the inner sides of said dampers, ears carried by the outer ends of said dampers, arms pivoted to said ears, a tube, a collar carried by said tube to which said arms are pivoted, a chain secured to said tube, a pulley over which said chain passes, and a fusible link formed in said chain.

5. A roof ventilator including in combination a cylindrical body portion, spaced guide rods carried by said body portion, a central tube guided by said guide rods, dampers located between said guide rods, arms pivoted to said dampers, a collar carried by said tube to which said arms are pivoted, and means for raising and lowering said tube.

942,708. DROP-HAMMER. LUCIEN P. BLOT, Springfield, Mass. Filed Jan. 29, 1908. Serial No. 413,248.

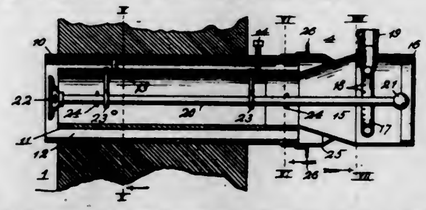


1. The combination with the hammer and the friction roll positioning lever, of a controlling rod for said lever consisting of two straight sections, the upper one thereof being pivoted to and depending vertically below the lever and having a clamp block detachably secured to, and revolubly adjustable at its lower extremity, while the lower straight section endwise overlaps the lower extremity of the upper section and is confined in said clamp block and is provided at an intermediate portion thereof with a laterally extending abutment to be contacted against by the hammer, said lower rod section being vertically adjustable relatively to the upper section and also, because of the character of said clamp block, revolubly adjustable relatively to said upper section.

2. The combination with the hammer, and the friction roll positioning lever, of a controlling rod for said lever pivotally hung to the latter, having a socketed block adjustably clamped on an intermediate portion thereof outside of the vertical line of the rod, and which block is provided with a downwardly opening socket having a solid top closing wall, and a contact member composed of a body of wood fitted in said socket and downwardly protruding below the bottom of the block, for receiving the abutment thereagainst of the rising hammer.

3. The combination with the hammer and the friction roll positioning lever, of a friction roll controlling rod hung to the lever and made in two sections removably connected, and the one adjustable relatively to the other, and the lower one of said sections having near its lower end a transverse tapered hole with a hardened tapered pin in place therein.

942,709. GAS-BURNER. LOUIS H. BRADY, Kansas City, Mo. Filed Sept. 24, 1907. Serial No. 394,283.

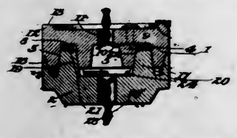


1. A gas-burner consisting of a tubular casing, a mixing-tube arranged concentrically therein and of less diameter than the same to leave an annular air-passage between it and the casing, means for controlling the flow of air through said passage, means for discharging gas into the mixing-tube, and a sliding-damper extending through said mixing-tube for regulating the flow of air therethrough.

2. A gas-burner consisting of a tubular casing, a mixing-tube removably arranged within the casing and of less diameter than the same to leave an annular air-passage between it and the casing, a damper slidingly mounted within the mixing-tube, and an annular damper for controlling the flow of air through the air-passage between the casing and the mixing-tube.

3. A gas-burner consisting of a tubular casing, a mixing-tube arranged therein and of less diameter than the same to leave an annular air space between it and the casing, a mixing-chamber having a tapered end communicating with the mixing-tube, an annular damper slidingly embracing the casing and adapted to contact with the tapered portion of the mixing-chamber, means for discharging gas into the mixing-chamber, and a damper in the mixing-tube for controlling the flow of air therethrough.

942,710. CONNECTION-ROSETTE FOR ELECTRIC WIRES. JAMES L. BURTON, Plainville, Conn., assignor of one-half to Frank A. Champlin, East Long Meadow, Mass. Filed July 25, 1908. Serial No. 445,380.

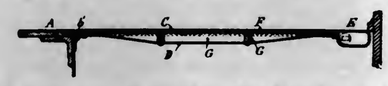


1. A device of the class described comprising a fixed member having eccentric grooves formed therein; contact pieces secured in said grooves; a removable member having curved projections thereon adapted to engage the eccentric grooves in the fixed member; and contact pieces conforming to said projections and adapted to bear against the contact pieces secured in the eccentric grooves of the fixed member.

2. In a device of the class described the combination with an eccentrically grooved member of a member having curved projections to enter and traverse the grooves of said grooved member; contact pieces secured in the grooves of the grooved member; contact pieces secured to the member having the projections and conforming to said projections and fuse clamps secured to one of the members.

3. In a device of the class described the combination with an eccentrically grooved member having a reduced and tapered periphery at one end, of a member having curved projections to enter and traverse the grooves of said grooved member and provided with an internally tapered flange; contact pieces secured in the grooves of the grooved member; contact pieces secured to the member having the projections and conforming to said projections and fuse clamps secured to one of the members.

942,711. TRAP-DOOR FOR RAILWAY-CARS AND SIMILAR STRUCTURES. EDWARD F. CHAFFEE, New York, N. Y., assignor to Oliver M. Edwards, Syracuse, N. Y. Filed June 17, 1909. Serial No. 502,697.



1. A platform trap door comprising a plurality of plates arranged in two portions and adapted to be secured together and to hinge means and form substantially a flat surface for one side of the door and substantinlly a smooth surface for the other side, which portions are secured together with means arranged between them in position to reinforce and stiffen the central portions of the door and hinging means secured to the plurality of plates for hinging the door in the platform.

2. A platform trap door comprising a plurality of plates arranged in two portions, one portion of which forms a substantially flat surface and another portion forms substantially a smooth surface, such surfaces being opposite one another and being secured together with means arranged between them in position to reinforce and stiffen the central portions of the door.

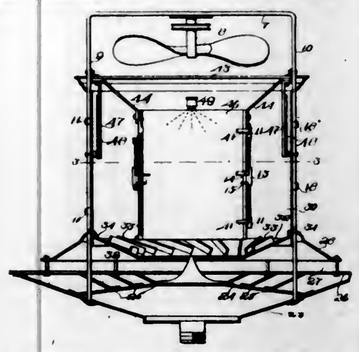
3. A platform trap door comprising a plurality of plates arranged in two portions which are secured together and to hinging means and form a substantially flat surface for one side of the door and substantially a smooth surface for the under side of the door, such portions being secured together in such manner that the two portions are nearer to each other near the edge of the door than they are toward the center thereof with means arranged between such portions in position to reinforce and stiffen the central portions of the door.

4. A platform trap door comprising a plurality of plates arranged in two portions, one of which forms substantially a flat surface to receive the tiling for the door and the other forms substantially a smooth under surface of the door, which portions are secured together with means arranged between them in position for such means and a portion of such plates to reinforce and stiffen the central portions of the door and U shaped binding means secured to the side and front edges of the door.

5. In a platform trap door the combination, substantially as set forth, of a plurality of plates, means adapted to separate one portion of such plates from another portion and thereby reinforce the central portions of the door, hinge portions adapted to hinge the door in the platform, and means adapted to secure the plates together adjacent to the edges of the door with separating means between the two portions of said plates.

[Claims 6 to 27 not printed in the Gazette.]

942,712. HUMIDIFIER. FRANK B. COMINS, Sharon, Mass. Filed Mar. 22, 1909. Serial No. 485,011.



1. A humidifier comprising two air passages one embraced by the other, the outer of said air passages having a door opening larger than the diameter of said inner air passage.

2. A humidifier comprising two cylinders, one within the other, of which the outer has a door opening, and a mounting for said inner cylinder on which said inner cylinder may move through the door opening of the outer cylinder.

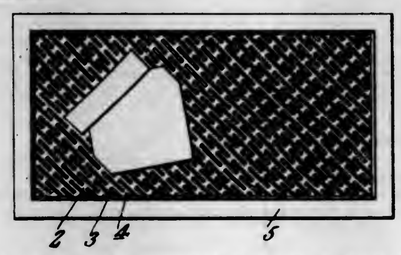
3. A humidifier comprising an outer cylinder having a door opening, and an inner cylinder pivotally mounted and located within said outer cylinder and adapted to be swung through said door opening.

4. A humidifier comprising an outer cylinder having a door opening, a door for closing said opening, and an inner cylinder pivotally mounted with respect to said outer cylinder to swing through said door opening, and means for supporting said inner cylinder when swung outward.

5. The combination with a hanger frame having a pair of depending arms, and a segmental casing member secured to said arms, of a cross bar pivotally mounted between said arms, and an inner cylindrical casing carried by said cross bar, as described.

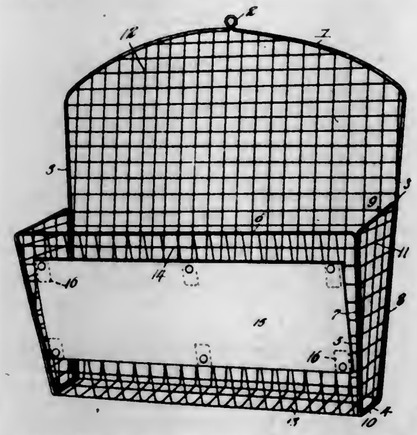
[Claim 6 not printed in the Gazette.]

942,713. CARD AND PICTURE HOLDER. JOSEPH A. COPE, Fulton, Ill. Filed Oct. 3, 1908. Serial No. 455,992.



A display holder comprising a backing, a facing arranged on each side of the backing, each facing having a series of parallel slits, divided throughout their length into minor slits by intervening integral portions of the facings, said slit-dividing portions of the facings being located at points approximately midway between the ends of the minor slits of the next adjacent slit, with such arrangement continued throughout the series of slits, and bounding battens located about the edges of the backings, and having outer surfaces lying in planes beyond the planes of the outer surfaces of the facings.

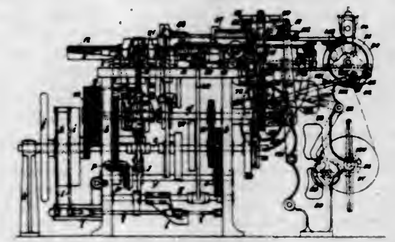
942,714. WIRE WALL-POCKET. THOMAS V. CROMWELL, St. Louis, Mo. Filed Mar. 10, 1909. Serial No. 482,460.



A wire wall pocket embodying a back, a bottom, an inclined front, and end walls, all composed of wire fabric and reinforcing marginal frames, in combination with a plate or panel secured to the front wall of the pocket, hanger straps of metal embracing the fabric wires of the front wall, and split rivets inserted through said plate and through the hanger straps, each of said straps being folded upon itself and having the extremities thereof held between said plate and one or more of the fabric wires of the front wall of the pocket, substantially as described.

942,715. MACHINERY OR APPARATUS FOR FORMING OR MAKING PAPER BAGS. JOB DAY, WILLIAM H. DAY, CHARLES H. DAY, and ALBERT DAY, Leeds, England. Filed May 23, 1908. Serial No. 434,575.

1. In a paper bag forming machine, the combination of the table of the machine having a folding box thereon, of a conveyer table fixed transversely upon the table of the machine, said conveyer table being provided with projecting sides and divided into stepped sections of different levels, and having a pair of parallel and continuous grooves therein, a pair of bars reciprocating respectively in said grooves, a pair of projecting pushers for each stepped section fixed respectively to each of the said bars, each pair of pushers being of a different height to suit its section and inclined on their tops and recessed at their front portions and means for intermittently reciprocating the said bars and the pushers of each of the said sections simultaneously, and a projection fixed to the vertical portion of each step of the conveyer table for preventing a sheet of paper returning with the bars and pushers.



2. The combination of the table of the machine having a folding box fixed thereon and a conveyer table fixed transversely upon the table of the machine, said conveyer table being provided with projecting sides and divided into stepped sections of different levels and having a pair of parallel and continuous grooves therein, a pair of bars reciprocating respectively in the said grooves, a pair of projecting pushers for each section fixed respectively to each of the said bars, each pair of pushers being of a different height to suit its stepped section and inclined on their tops and recessed at their front portions, and means for intermittently reciprocating the said bars and pushers of each section simultaneously, a projection fixed to the vertical portion of each step of the conveyer table for preventing a sheet of paper returning with the bars and pushers, a lever jointed to the end of the conveyer table for pressing the sheets of paper backward, means for intermittently moving the last named lever in and out of position, a perforated plate arranged over a section of the conveyer table for clamping the paper down on to the surface of the said table, a vertical rod upon which the said clamping plate is mounted, means for intermittently reciprocating the said plate and its vertical rod and a stop for preventing the perforated plate coming in contact with the table when no sheet of paper is in position.

3. The combination of the table of the machine having a folding box fixed thereon and a conveyer table fixed transversely upon the table of the machine, said conveyer table being provided with projecting sides and divided into stepped sections of different levels and having a pair of parallel and continuous grooves therein, a pair of bars reciprocating respectively in the said grooves, a pair of projecting pushers for each section fixed respectively to each of the said bars, each pair of pushers being of a different height to suit its stepped section and inclined on their tops and recessed at their front portions, and means for intermittently reciprocating the said bars and pushers of each section simultaneously, a projection fixed to the vertical portion of each step of the conveyer table for preventing a sheet of paper returning with the bars and pushers, a spring working in a slot in the conveyer table, a gum box fixed upon the first named table on one side of the conveyer table, rollers rotating in the gum box and means for rotating the same, framework made to rise and fall, gumming apparatus mounted upon the said framework so as to be capable of being horizontally reciprocated over the gum box and its rollers and the slotted plates, means for operating the gumming apparatus and stop mechanism for preventing the gum-

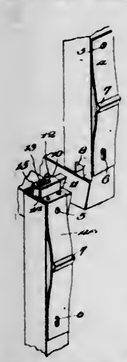
mer coming in contact with the table when no sheet of paper is in position.

4. The combination of the table of the machine, a stepped grooved and slotted conveyer table, bars provided with projecting pushers reciprocating therein and means for intermittently reciprocating the same, horizontal projections fixed to the steps of the conveyer table, for preventing the return of a sheet to the preceding step, a spring fixed in the slot of the conveyer table, a slotted plate for pressing the sheet on to the table and thereby depressing said spring, means for causing the said plate to intermittently rise and fall, a gum box mounted on the table of the machine, rollers revolving in said gum box, means for rotating said rollers, a horizontally reciprocated slide, a gummer mounted in said slide, a rising and falling carrier in which said gummer slide is mounted, means for intermittently reciprocating the gummer slide and causing its carrier to rise and fall, a lever fulcrumed to the underside of the machine, said lever being bent at one end to engage with said spring, a weighted loop lever jointed to its opposite end to form a stop for preventing the gummer coming in contact with the table when there is no sheet in position to be gummed, as set forth.

5. The combination with the table of the machine and with a stepped conveyer table provided with means for conveying a sheet from step to step, of a flat spring fixed in a central opening in the conveyer table, a rising and falling conveyer, a slotted plate fixed to said carrier for holding a sheet in position for acting upon said spring, means for operating the said carrier, a double ended lever fulcrumed to the table of the machine belt at one end to engage with the said spring, and a weighted looped stop lever jointed to the end spring.

[Claims 6 to 8 not printed in the Gazette.]

942,716. SASH HOLDER AND LOCK. KENNIS F. DESKINS, Logan, W. Va., assignor of one-half to Benjamine F. Dewees, Logan, W. Va. Filed Apr. 7, 1909. Serial No. 488,442.



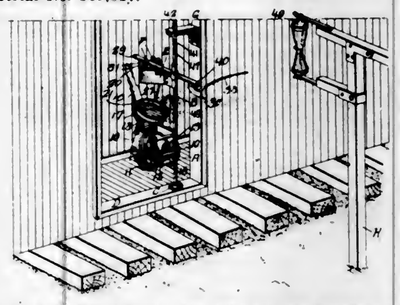
1. In a window, the combination with a window frame whose inner faces are provided with corrugations, of a window sash having bowed springs attached to its outer edges, each of said springs being provided with a detent tooth at its middle adapted to engage with the corrugations on the window frame, one end of each of said springs being fast and the other free to move, the free end being formed with a longitudinally extending slot, and a pin passing through the slot engaging the window sash.

2. A spring sash holder for window sashes having its upper end angularly bent to engage over the upper end of a sash, said upper angularly bent end of the spring carrying a bolt casing, and a spring actuated bolt carried in said casing and adapted to engage with a recess in the lower end of the upper sash.

3. In a window, a window frame having sash channels, in combination with upper and lower sashes, the lower sash having at its upper end a spring sash holder engaging with the side edge of the sash and pressing outwardly against the window frame, the upper end of said spring being angularly bent over the upper edge of the sash and there formed into a bolt casing, a strip riveted to the underside of the angularly bent end of the spring and forming the bottom of the bolt casing, a flange on said strip closing the end of the bolt casing, a bolt in the casing having a projecting stud, and a spring in the casing acting against the bolt to force it outward, the lower end of the upper sash being formed with a recess in which the said bolt engages.

4. A holder for window sashes, comprising a bowed spring having an angularly bent end adapted to fit over the upper end of a window sash, and a sliding bolt casing formed in one piece with said spring upon the angularly bent end thereof.

942,717. MAIL-EXCHANGING DEVICE. HOWARD DIEFENBACH, West Alexandria, Ohio. Filed July 27, 1909. Serial No. 509,817.



1. In a device of the class described, an upright supported for oscillation, a frame supported upon the upright, a spring actuated shaft supported in the frame, and a lever extending from said shaft and equipped with mail bag supporting means.

2. In a device of the class described, an upright supported for oscillation, a frame supported upon the upright, a spring actuated shaft supported in the frame and having a lever connected therewith, a tray supported upon the lever, and trigger means engaging the lever to hold the spring-actuated shaft under tension.

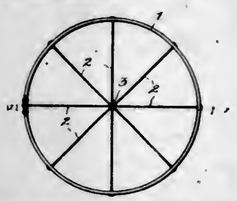
3. In a device of the character described, an upright supported for oscillation, a frame supported upon the upright and including side members and connecting members, a spring actuated shaft supported in the frame, a lever connected with the shaft, a tray supported upon the lever, and trigger means engaging the lever to hold the spring-actuated shaft under tension, one of the connecting members of the frame constituting a stop lying in the path of the lever to intercept the latter when released from the trigger.

4. In a device of the character described, an upright supported for oscillation, a frame supported upon the upright, a spring actuated tray-carrying lever supported in the frame, and provided with a catch, a spring actuated trigger arranged to engage the catch to hold the lever under tension, a sleeve supported for oscillation upon the upright and having an arm carrying a mail bag receiving hook, and trigger releasing means adapted to be operated by the oscillatory movement of the sleeve under the impact of a mail bag upon the receiving hook.

5. In a device of the class described, an upright supported for oscillation, a frame supported upon the upright, a spring actuated tray carrying lever supported in the frame, trigger means for holding the lever under tension, a sleeve supported for oscillation upon the upright and having a tubular arm, a mail bag receiving hook supported reversibly upon the tubular arm, and trigger releasing mechanism operable by the oscillatory sleeve and including an arm extending from the latter, bell cranks supported adjacent to opposite sides of said arm, a lever having a projection extending in the path of the bell cranks, and a link connecting said lever with the trigger.

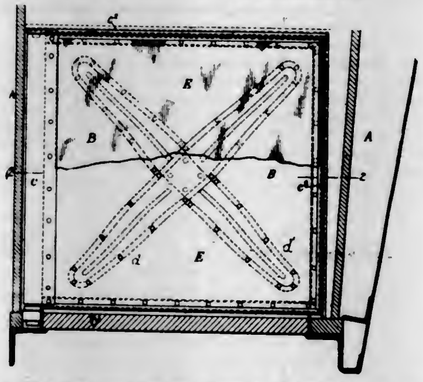
[Claims 6 to 11 not printed in the Gazette.]

942,718. DIRECTION AND DISTANCE LOCATOR. WILLIAM H. DOLBY, Nicholsville, Ohio. Filed Nov. 1, 1907. Serial No. 400,217.



An implement of the class described comprising an annular band arranged on edge and a series of thread-like members disposed diametrically of and terminally secured to the band, said members crossing each other at the center of the band and forming a central point from which the respective members radiate in relatively opposite directions, and a handle projecting radially from the band, one of said members extending beyond the band and through the handle to secure the latter in place.

942,719. TRAP-DOOR FOR RAILWAY-CARS AND SIMILAR STRUCTURES. OLIVER M. EDWARDS, Syracuse, N. Y. Filed Feb. 5, 1908. Serial No. 414,326.



1. In a trap door for the vestibule of a railway car the combination, substantially as set forth, of a flat plate adapted to form the main portion of such door and to receive hinge portions for mounting the same in place, reinforcing means formed separate from the plate and adapted to be secured thereto with portions thereof at varying distances therefrom, which distances vary from the central portion of the plate outwardly toward the hinge and front side portions of the door, and securing means adapted to attach such reinforcing means to the plate and thereby strengthen and stiffen the same.

2. In a trap door for the vestibule of a railway car the combination, substantially as set forth, of a flat plate adapted to form the main portion of such door and to receive hinge portions for mounting the same in place, reinforcing means formed separate from the plate, different portions of which, when secured to the plate, are adapted to reinforce and strengthen the same in two directions, one at an angle to the other, with the major portions thereof held away from and out of contact with the plate by the minor portions which contact with and bear against such plate, and means adapted to secure the minor portions of the reinforcing means to the plate to reinforce and strengthen the same.

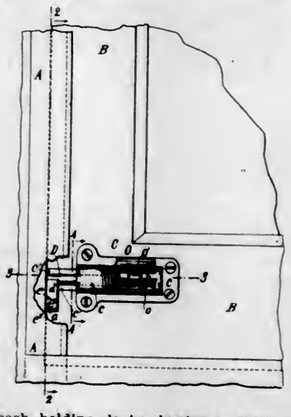
3. In a trap door for the vestibule of a railway car the combination, substantially as set forth, of a flat plate forming the main portion of the door and adapted to receive hinge portions for mounting the same in place, reinforcing ribs formed separate from such plate out of sheet metal and adapted to be secured thereto at the edges of such ribs, and securing means adapted to secure such ribs to the plate, thereby strengthening and stiffening the same.

4. In a trap door the combination, substantially as set forth, of a plate forming the main portion of the door and adapted to receive hinge portions for hinging the same in place, reinforcing ribs formed out of thin metal and adapted to cross one another with the edge portions thereof in a common plane and adapted to bear against the plate when secured thereto, and securing means adapted to secure such ribs to the plate for stiffening the same.

5. In a trap door for the vestibule of a railway car the combination, substantially as set forth, of a plate forming the main portion of a door and adapted to receive a hinge portion which extends along one edge of such plate and is adapted to be secured thereto and extend above the upper surface thereof to stiffen that portion of such plate, a hinge portion adapted to extend substantially across the door, a stiffening piece adapted to be attached to the opposite edge portion of the plate and stiffen the same, reinforcing ribs formed separate from such plate by bending and adapted to be secured thereto at different points adjacent to the opposite edges of such ribs and at an angle to the hinge portion of the door, and securing means adapted to secure the reinforcing means, hinge portion and strengthening piece to the plate, thereby strengthening and stiffening the same against loads placed thereon.

[Claims 6 to 33 not printed in the Gazette.]

942,720. SASH-HOLDING DEVICE. OLIVER M. EDWARDS, Syracuse, N. Y. Filed June 17, 1909. Serial No. 502,686.



1. In a sash holding device having a shaft to which the holding dog is secured the combination, substantially as set forth, of a casing adapted to receive the shaft and operating means, a support for the dog arranged in position relatively thereto to receive and support the dog upon the application of force thereon in a direction tending to move it toward the support, and operating means adapted to move the dog and hold it in operative position.

2. In a sash holding device having a shaft to which the holding dog is secured the combination, substantially as

set forth, of a casing adapted to receive the shaft and operating means, which casing is provided with an extension arranged in position to form a support for the holding dog upon the application of force thereto tending to move it toward the same, and means adapted to move the dog into holding position.

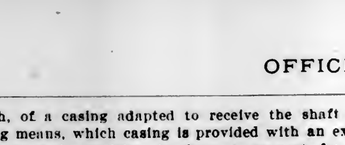
3. In a sash holding device the combination, substantially as set forth, of a casing having flange portions by which it may be secured to the sash and a shaft receiving portion which projects in opposite directions beyond such flange portions and is adapted to receive the shaft, a shaft mounted in bearings formed in the receiving portion of the casing, a holding dog secured to the shaft, and operating means adapted to move the shaft and dog, a portion of which is connected with such shaft.

4. In a sash holding device the combination, substantially as set forth, of a casing provided with portions adapted to project beyond a line coincident with the line of the face of the sash in substantially opposite directions and to receive a shaft, lengthwise portions of which are mounted in such projecting portions, a shaft mounted in bearings formed in the casing, a holding dog secured to the shaft, and operating means adapted to move the shaft and dog a portion of which is connected with such shaft.

5. In a sash holding device having a shaft to which the holding dog is secured the combination, substantially as set forth, of a casing adapted to receive a shaft and operative means and having an extension adapted to support the holding dog, which casing is adapted by reason of its construction to be received in a depression in the face of the sash with no portion of such extension to extend beyond the outer line of the shaft received in said casing, and operating means adapted to move the dog into and out of holding position.

[Claims 6 to 14 not printed in the Gazette.]

942,721. METALLIC TIE. LEO A. EMERLEY and FRIEDRICH MATSCHUK, Altoona, Pa. Filed Aug. 3, 1908. Serial No. 446,555.

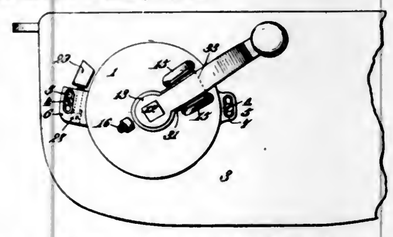


1. The combination of a metallic tie provided with a recessed rail supporting surface, and also provided with vertical openings and with transverse openings intersecting the vertical openings, a rail engaging clamp having an opening therethrough, a locking clamp provided with a shank passed through the opening of the rail engaging clamp and into the vertical opening of the tie, and means for securing said locking clamp in locking engagement with the rail engaging clamp.

2. A metallic tie the rail supporting surface of which is recessed and provided with vertical openings which are intersected by transverse openings, a rail engaging clamp provided with a toothed or serrated surface and having an opening formed therein, a locking clamp having a toothed or serrated surface corresponding to the toothed or serrated surface of the rail clamp and provided with a shank adapted to be passed through the opening in the said rail clamp and into the vertical opening of the tie, and means for locking said locking clamp in engagement with said rail clamp.

942,722. CONTROLLER-REGULATOR. CHARLES M. FEIST, Sioux City, Iowa; assignor of forty-nine one-hundredths to Edwin L. Kirk, Sioux City, Iowa. Filed June 5, 1909. Serial No. 500,316.

1. A controller regulator comprising fast and loose members, a series of teeth provided upon one member, each tooth consisting of a pair of shoulders of different heights, and a pivoted dog carried by the other member and arranged for engagement with said teeth, to insure a step-by-step movement of the loose member when the latter is rapidly rotated, said dog being inoperative when said loose member is slowly rotated.



2. A controller regulator comprising fast and loose members, a series of teeth provided upon one member, each tooth consisting of a pair of shoulders of different heights, and a pivoted dog carried by the other member and formed with a pair of shoulders, the higher shoulders of said teeth being arranged to ride one of the shoulders of said dog when the loose member is rotated slowly and to be engaged by the other shoulder of the dog when said member is rapidly rotated, to abruptly terminate such rapid rotation.

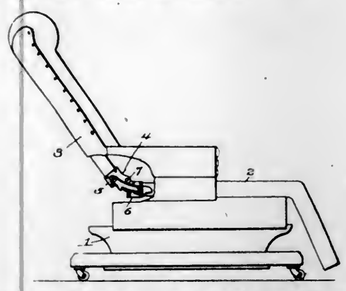
3. A controller regulator comprising fast and loose members, a series of teeth provided upon one member, and a pivoted dog carried by the other member for coöperation with said teeth, said dog being formed at opposite ends with a trip shoulder and a tail, and intermediate its ends with a locking shoulder.

4. A controller regulator having one member thereof formed with a pocket having a depression in its bottom wall, in combination with a dog pivoted in said pocket above said depression and arranged to drop into the latter upon injury to its pivot.

5. The combination, with a controller cap and its stop, of a regulator mounted upon the cap and having its base member formed with a pair of lugs, one lug having a horizontal passage formed therethrough, a movable member extending through said passage and having one end thereof arranged for contact with said stop, to adjust said base member with reference to the controller mechanism, and means for retaining said base member in adjusted position.

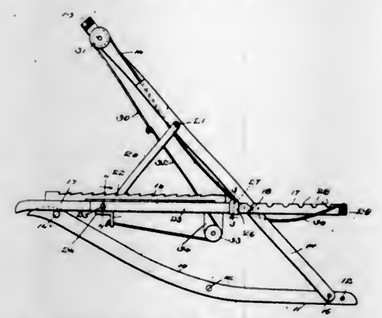
[Claim 6 not printed in the Gazette.]

942,723. HINGE. JOHN FLINDALL, Chicago, Ill. Filed Nov. 27, 1908. Serial No. 464,668.



In a hinge, a hinge proper, a pawl pivotally mounted on one part of the hinge proper, a stop rigidly secured to the other part of said hinge proper and adapted to be engaged by the teeth of said pawl, a locking frictional member arc-shaped in construction arranged with a portion of its convex face bearing against the said pawl, said locking frictional member being formed with cam slots in each end thereof, and pins passing through said slots with heads adapted to bear against said locking frictional member so that by tightening or loosening said pins the amount of frictional engagement between said locking frictional member and said pawl is increased or decreased as desired, said pins also acting in said cam slots for causing said pawl to be raised out of engagement with said stop when moved to the rearward extreme, said locking frictional member holding said pawl out of engagement with said stop until said pins acting in said cam slots positively move said pawl.

942,724. CHAIR. JOHN FLINDALL, Chicago, Ill. Filed Dec. 17, 1908. Serial No. 468,025.



1. In a chair, a support, a frame pivoted to the support, a frame pivoted to the first-mentioned frame, and resting slidably upon the support, a roller connected with said second mentioned frame, a web passed over said roller, a flexible member secured to said web and to said last-mentioned frame, and a roller secured to said last-mentioned frame for guiding said flexible member.

2. In a chair, a plurality of frames, movable longitudinally relative to each other for increasing the combined length of the frames, a web carried by the frames, and a cable connected to said web adapted to lengthen the web as the combined length of the frames is increased.

3. In a chair, a plurality of frames movable longitudinally relative to each other increasing the combined length of the frames, another frame, means to vary the angular relation of the last mentioned frame with the combined frames, a web supported by the combined frames and by their associated frame, a flexible cable connected to the web adapted to vary the length of the web as the length of the combined frames is increased.

4. In a chair, adjacent frames movable longitudinally relative to each other, an upright frame disposed at an angle to the combined frames, a web supported by the combined frames and the upright frame, means to vary the length of the combined frames, and means to produce a similar and simultaneous variation of the length of the web.

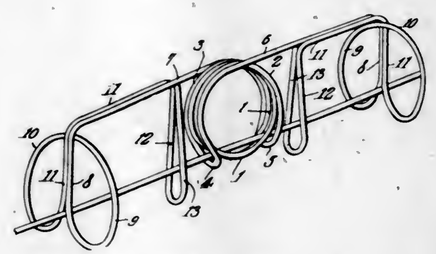
5. In a chair, combined frames movable longitudinally relative to each other, an upright frame pivoted to the combined frames, means to vary the angular relation of the upright frame to the combined frames, a roller carried by the upright frames, a web secured to one of the combined frames and passed over the roller of the upright frame, and means secured to the web adapted to vary the length of the web as the length of the combined frames is varied.

[Claim 6 not printed in the Gazette.]

942,725. CLOTHES-PIN. ALFONSO C. FRENCH, Daingerfield, Tex. Filed July 17, 1909. Serial No. 508,137.

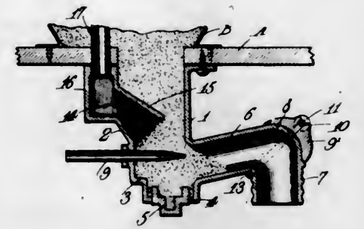
1. A clothes pin comprising a central coil having oppositely extending spring arms provided at their outer terminals with depending spring clamps, and means interposed between the opposite sides of the coil and spring clamps, serving when brought in engagement with a clothes line to limit the upward movement of the arms.

2. A clothes pin comprising a central coil having oppositely extending spring arms provided at their outer terminals with depending spring clamps, and a depending stop interposed between the coil and each spring clamp having its lower end extending below the horizontal plane of the said central coil to limit the upward movement of the arm.



3. A clothes pin comprising a central coil having oppositely extending spring arms provided at their outer terminals with depending spring clamps disposed parallel to the axis of the coil, and a depending stop interposed between the coil and each spring clamp having its axis transverse to the axis of the coil to limit the upward movement of the arm.

942,726. TRACK-SANDER. ALBERT W. HAM, Troy, N. Y. Filed July 12, 1909. Serial No. 507,208.



1. A track sander comprising a casing having a sand outlet and a moisture vent, this casing constituting means for supporting a pile of sand between the vent and the sand outlet.

2. A sand box having a sand outlet and a moisture vent, said box constituting means for supporting a pile of sand in the path of an air current moving from the outlet to the vent.

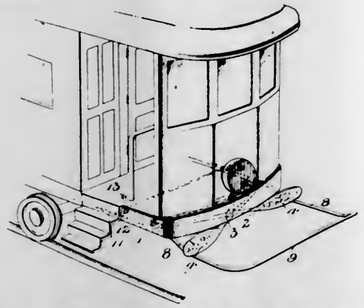
3. A sand box having an inclined shelf forming at one side of the box a contracted passage for the sand, there being a combined air inlet and sand outlet below and at one side of the passage and an air outlet at the opposite side of the passage.

4. A sand box having a pocket in the bottom thereof and a shelf disposed above the pocket and constituting means for limiting the quantity of sand flowing thereinto, there being a combined sand outlet and air inlet in one side of the box and between the shelf and the pocket, and an air outlet in the opposite side of the box and between the shelf and pocket.

5. In a track-sander, a casing having a discharge pipe and a ventilating opening, and a nozzle terminating at a point close to and in alinement with the pipe and within the angle of the pile of sand, the discharge end of the nozzle being between the said opening and the discharge end of the pipe.

[Claims 6 to 8 not printed in the Gazette.]

942,727. CAR-FENDER. JAMES A. HORNE, Oregon City, Oreg., assignor of one-third to George C. Brownell, Oregon City, Oreg. Filed Jan. 13, 1909. Serial No. 472,109.

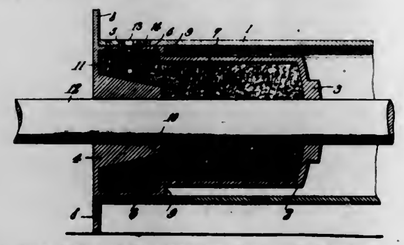


1. A car fender comprising a pair of toggle arms, a cross bar connected to the rear ends of said arms and arranged upon a rearward movement to close the arms together, and means connected to said cross-bar for moving the same rearwardly upon the impact of an obstruction with the fender.

2. A car fender comprising a pair of toggle arms, a cross bar connected to the rear end of said arms and arranged upon a rearward movement to close the arms together and a frame connected to said cross bar and embodying a cross rod designed to occupy a position in front of the arms.

3. A car fender comprising a pair of toggle arms, rollers journaled in the rear ends of said arms, a cross bar passing through said rear ends and engaging the front sides of said rollers, and a frame the side rods of which are connected to the cross bar, the frame embodying a front cross rod designed to occupy a position in front of said arms.

942,728. LUBRICATING DRAPER-ROLLER. JOHN D. JONES, Walla Walla, Wash., assignor to The Lubricating Wheel and Roller Company, Walla Walla, Wash. Filed Sept. 19, 1908. Serial No. 453,765.



1. In a device of the class described, cylindrical oil cups each comprising a base portion and a body portion integral with the base portion, the body portion extending beyond the base portion, coaxial therewith, and of smaller diameter than the base portion, each of said oil cups having an inner bearing carried by the body portion and an outer bearing carried by the base portion; a tubular roller inclosing the oil cups and having its terminals rigidly attached to the base portions of the oil cups.

2. In a device of the class described, a cylindrical oil cup having a frusto-conical bearing projecting inwardly from its outer end and being provided with a shoulder projecting inwardly from its periphery in substantial alinement with the plane of the inner end of the bearing; a roller inclosing the oil cup and having its terminal rigidly attached thereto; an inlet valve for the oil cup accessible through the wall of the roller and positioned to discharge a lubricant upon the frusto-conical face of the bearing.

3. In a device of the class described, a cylindrical oil cup having a frusto-conical bearing projecting inwardly from its outer end and having a bearing projecting outwardly from its inner end, and being provided with a shoulder projecting inwardly from its periphery in substantial alinement with the plane of the inner end of the frusto-conical bearing; means for discharging a lubricant upon the frusto-conical face of the bearing; and a roller inclosing the oil cup and having its terminal rigidly attached thereto.

942,729. ELECTROLYTE AND METHOD OF ELECTRODEPOSITING NICKEL. EDWARD F. KERN, Knoxville, Tenn., assignor of one-half to Percy S. Brown, New York, N. Y. Filed Sept. 7, 1909. Serial No. 516,503.

1. A process of electrodepositing nickel, which consists in electrolyzing a solution containing fluo-silicate of nickel.

2. A process of electrodepositing nickel, which consists in electrolyzing a solution containing fluo-silicate of nickel with an anode of nickel.

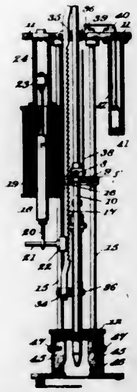
3. A process of electrodepositing nickel, which consists in electrolyzing a solution containing fluo-silicate of nickel and an alkaline fluorid.

4. A process of electrodepositing nickel, which consists in electrolyzing a solution containing fluo-silicate of nickel and ammonium fluorid.

5. A process of electrodepositing nickel, which consists in electrolyzing a solution containing fluo-silicate of nickel, an alkaline fluorid, and a soluble fluo-silicate of a metal which is more basic than nickel.

[Claims 6 to 13 not printed in the Gazette.]

942,730. FLAMING ARC-LAMP. GEORGE L. MARTIN, Brooklyn, and ARTHUR W. SCHREINER, Evergreen, Long Island, N. Y., assignors to said George L. Martin. Filed Feb. 17, 1909. Serial No. 478,437.



1. In a feed mechanism for arc lamps, the combination of a magnet, a bar provided with cam surfaces at each end an adjustable connection between the armature of said magnet and said bar for controlling said cam surfaces; carbon supports; a clutch mechanism between said supports and said bar; and adjustable means coacting with said cam surfaces to move said bar laterally and to disengage said bar from said clutch mechanism; substantially as described.

2. In a feed mechanism for flaming arc lamps provided with inclined carbons, the combination of a magnet; a bar provided with cam surfaces controlled thereby; carbon supports; a clutch mechanism between said supports and said bar; and adjustable means coacting with said cam surfaces to move said bar laterally to disengage said bar from said clutch mechanism; substantially as described.

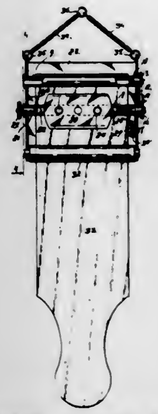
3. In a feed mechanism for arc lamps, the combination of a magnet; a bar controlled thereby and provided with cam surfaces at each end; carbon supports adapted to fall under gravity when released; a clutch mechanism between said supports and said bar adapted to be released from said bar at intervals; and adjustable brackets with which said cam surfaces contact at intervals and thereby compel said bar to disengage said clutch mechanism, substantially as described.

4. In an arc lamp feed mechanism, the combination of a solenoidal magnet; a core therefor; a bar provided with cam surfaces at each end; connections between said core and said bar; carbon supports; a clutch mechanism between said supports and said bar comprising a sleeve; a rod on which said sleeve slides, and brackets on said rod against which said cam surfaces contact, substantially as described.

5. In an arc lamp feed mechanism, the combination of a solenoidal magnet; a core therefor; a dash pot controlling the movements of said core; a bar provided with cam surfaces at each end; adjustable connections between said core and said bar; carbon supports; a counterbalance for said supports; a clutch mechanism between said supports and said bar comprising a sleeve; a fixed rod on which said sleeve slides; and brackets on said rod against which said cam surfaces contact, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

942,731. RAZOR-SHARPENING DEVICE. JOHN J. MEEHAN, Denver, Colo. Filed July 2, 1908. Serial No. 441,537.



1. A razor sharpener comprising a casing, a spindle journaled in the casing, a strop engaging the said spindle, and a second spindle journaled in the casing and slotted on opposite sides, means for normally retaining the second spindle in a predetermined position, a holder for the blade adapted to be inserted in the last named spindle which is hollow, the opposite edges of a double edged blade protruding through the slots in the spindle, substantially as described.

2. A razor sharpener comprising a casing, a spindle journaled in the casing, a razor strop passing around and engaging the spindle in operative relation, a second spindle journaled in the casing to receive a double edged blade, means for normally retaining the second spindle in a predetermined position, and an operative connection between the journal of the first named spindle and that of the blade-holding spindle, whereby as the strop is moved back and forth over the first named spindle, the blade is actuated for sharpening purposes.

3. A razor sharpener comprising a casing, two rock spindles journaled in the opposite sides of the casing, a holder adapted to receive a double edged blade, the said blade-holder being inserted in the one spindle which is hollow for the purpose, the last named spindle being slotted on opposite sides to allow the opposite edges of the blade to protrude, an operative connection between the two spindles, a flexible strop adapted to engage the other spindle, and a spring for normally retaining the blade-carrying spindle in such position that the blade will be parallel, or approximately parallel, with the runs of the strop, substantially as described.

4. The combination with a casing, of a rock spindle journaled in the casing, a flexible strop engaging the said spindle, a second spindle slotted on opposite sides and adapted to receive a double edged blade, the last named spindle being provided with a lip, springs engaging the lip on opposite sides and normally holding the second spindle in such position that the blade is parallel, or approximately parallel, with the runs of the strop, the opposite extremities of the two spindles being provided with crank arms connected in operative relation whereby as the one spindle is actuated the other is simultaneously operated, substantially as described.

5. In a razor sharpener, the combination with a casing, of a blade-holding spindle journaled in the casing, the blade being double edged and protruding through slots formed in the said spindle, means for normally maintaining the blade-holding spindle in a predetermined position, another spindle journaled in the casing, a flexible strop engaging the last named spindle, an operative connection between the two spindles, and a guide roller engaging the opposite runs of the sharpening strop, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

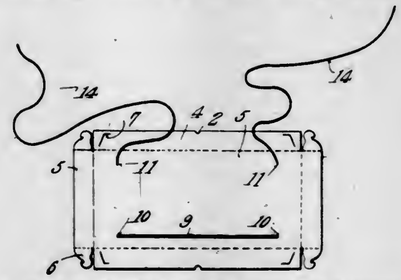
942,732. WIRE-TWISTER. ISAAC N. MORFORD, Waynesville, Ill. Filed Feb. 9, 1909. Serial No. 476,949.



1. A reversible wire twister including a bar or lever provided at one end with a substantially T-shaped wire-engaging member consisting of a stem and arms extending laterally from the outer end of the stem, the said bar or lever being provided at opposite sides of the inner end of the stem with wire-receiving openings.

2. A reversible wire twister including a bar or lever having a flat outer end and provided with a substantially T-shaped wire-engaging member formed integral with the bar or lever and set at an obtuse angle to the same and consisting of an outwardly tapered stem and laterally extending arms provided at their inner edges with wire-receiving notches, said bar or lever being also provided at opposite sides of the stem and in advance of the same with wire-receiving openings located in substantial alinement with the notches.

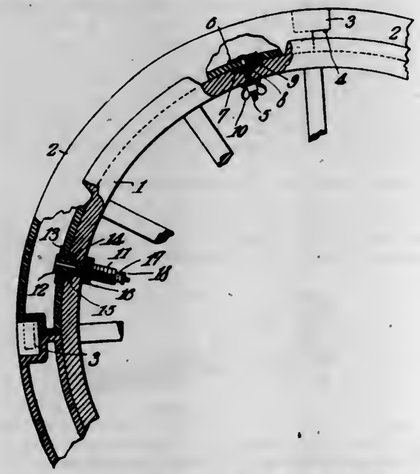
942,733. BAGGAGE-FASTENER. JACOB B. MOSES, Dallas, Tex. Filed Aug. 16, 1909. Serial No. 513,092.



A device of the class described comprising a rectangular lid having openings near its corners; a flexible ele-

ment having its intermediate portion disposed upon the upper surface of the lid, adjacent one of the longitudinal edges of the lid, the free ends of the flexible element being passed through certain of the openings, adjacent said longitudinal edge, and extended transversely of the lid along the lower surface of the lid, through others of the openings, adjacent the other longitudinal edge, the length of the flexible element being greater than twice the transverse circumference of the lid, the flexible element being arranged to be severed in its intermediate portion, to form a pair of bands arranged to be united transversely of the lid.

942,734. PNEUMATIC TIRE. PAUL G. MUENCHINGER, Newport, R. I., assignor of one-half to Edward F. Shiek, Brookline, Mass. Filed July 27, 1908. Serial No. 445,517.



1. A pneumatic tire comprising separately removable inflatable sections, each section having a closed end, there being a recess within and an inflatable tongue upon each end of each section, the tongues of each section being disposed to be seated within the recesses of the adjoining sections and each constituting a portion of the tread of the tire.

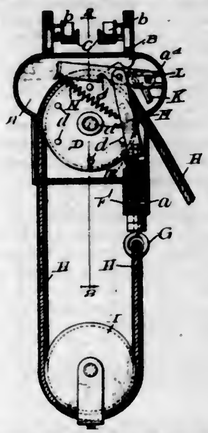
2. In a pneumatic tire, a series of separately removable and separately inflatable sections, said sections having lapping inflatable tongues, all of the tongues constituting portions of the tread of the tire.

3. In a pneumatic tire, a series of separately removable and separately inflatable sections, said sections having lapping inflatable tongues at their ends and disposed side by side, there being recesses within the end portions of the sections for the reception of the tongues of the adjoining sections.

942,735. HOISTING DEVICE. HUBERT A. MYERS, Goshen, Ind. Filed Apr. 4, 1908. Serial No. 425,146.

1. In a hoisting device, a sheave or pulley, a hoisting cable therefor, means for securing one end of the cable to the said hoisting device, and a brake-shoe for engaging the cable where the same starts over the sheave or pulley from the end thereof where the power is applied, and means operated by the sheave and the weight on the cable for operating said brake-shoe to check the fall of the load.

2. In a hoisting device, a sheave or pulley, a hoisting cable therefor, means for securing one end of the cable to the said hoisting device, a housing, a locking dog pivoted directly on the housing, the axis of the said sheave or pulley and locking dog being fixed relative to each other, means on the sheave or pulley for engaging the dog, and means on the sheave for communicating the weight of the load to said dog to bring the latter into operative relation to said sheave or pulley.



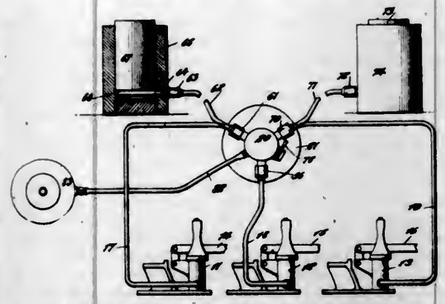
3. In a hoisting device, a sheave or pulley, a hoisting cable therefor, means for securing one end of the cable to the said hoisting device, a locking dog, means on the sheave or pulley for engaging said dog, to positively lock the sheave, and a brake-shoe operated by said dog to engage the cable where the same starts over the sheave or pulley from the end thereof where the power is applied to check the fall of the load.

4. In a hoisting device, a sheave or pulley, a hoisting cable therefor, a pivoted locking dog for said sheave or pulley, and means for throwing the load directly on the said dog, at the outer side of the pivot, so that the dog sustains the weight thereof, to bring the latter into operative relation to said sheave or pulley.

5. In a hoisting device, a housing, a sheave or pulley, a hoisting cable therefor, a brake-shoe provided with a pivot having a sliding connection with said housing, and means for utilizing the weight of the load to bring the said shoe into engagement with said cable.

[Claims 6 to 17 not printed in the Gazette.]

942,736. HYDRAULIC PRESSURE GENERATING AND APPLYING APPARATUS. JAMES W. NELSON, New York, N. Y. Filed Feb. 20, 1908. Serial No. 416,842.



1. In combination, a plurality of at least three separate pumps and means apart therefrom for applying the generated pressure, the pump and pressure valves seating downwardly in an individually moving fitting which is provided with means for the manual control of said valves.

2. In combination, a plurality of at least three separate pumps, means apart therefrom for applying the generated pressures, the pump and pressure valves seating downwardly in an individually movable fitting which is provided with means for the manual control of said valves, and means for insuring substantially vertical operation of said valves during use of the device.

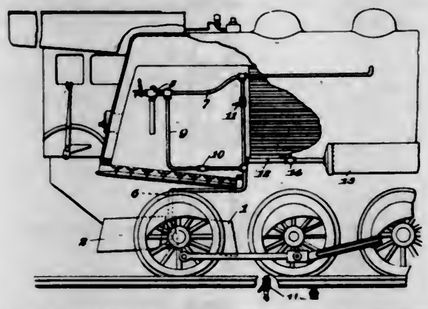
3. In combination, a plurality of at least three separate pumps and means apart therefrom for applying the generated pressures, the pump valves seating downwardly in an individually movable fitting which is provided with means for successively unseating said valves to render one or more of said pumps inoperative.

4. In combination, a plurality of at least three separate pumps, means apart therefrom for applying the generated pressures, the pump valves seating downwardly in an individually movable fitting which is provided with means for successively unseating said valves to render one or more of said pumps inoperative, and means for insuring substantially vertical operation of said valves while the device is in use.

5. In combination, a plurality of at least three separate pumps and means apart therefrom for applying the generated pressures at a plurality of selective points, the pump and pressure valves seating downwardly in an individually movable fitting which is provided with means for equalizing the applied pressures and with means for the manual control of said valves.

[Claims 6 to 17 not printed in the Gazette.]

942,737. DEVICE FOR CLEANING ASH-PANS OF LOCOMOTIVES. NELS OLSON, Birmingham, Ala. Filed Nov. 30, 1908. Serial No. 465,177.



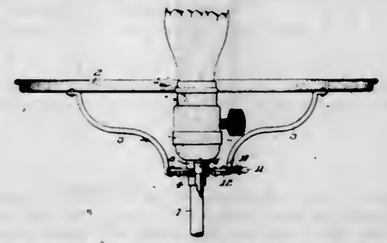
1. The combination with an ash pan of the character described, and an injector, the ash pan embodying front and rear sections, of pipes provided with nozzles arranged in the bottom of said sections, a feed water pipe leading from the injector, a pipe having connection with said feed water pipe, and also a connection with the nozzle pipes of both ash pan sections, a connection between the over-flow port of the injector and the pipe which connects the feed water pipe with the nozzle pipes and a check valve in the pipe which leads from the overflow port of the injector.

2. The combination with an ash pan of the character described and an injector, of a pipe provided with nozzles adapted to discharge into said ash pan, a feed water pipe leading from the injector, a connection between said first named pipe and the feed water pipe, and a connection between the over-flow port of the injector and said first named pipe, said last named connection being provided with a check valve opening toward the first named pipe.

3. The combination with an ash pan of the character described, an injector, an air drum, and a feed water pipe adapted to lead from the injector to the boiler of the engine, of a pipe provided with nozzles adapted to discharge into the ash pan, a connection between said pipe and the feed water pipe, a connection between said connection and the over-flow port of the injector, a pipe connecting the air drum with said first named connection, a valve in said first named connection, and a check valve for said second named connection.

4. The combination with an ash pan of the character described, an injector, an air drum, and a feed water pipe adapted to lead from the injector to the boiler of the engine of a pipe provided with nozzles adapted to discharge into the ash pan, a connection between said pipe and the feed water pipe, said connection being provided with a valve, a pipe connection between said last named connection and the overflow port of the injector, a pipe connecting the air drum with said first named connection above the point of connection of said second named pipe connection and first named connection, and a valve in said air pipe connection.

942,738. SHADE-HOLDER. WILLIAM A. PAINTER, Pittsburg, Pa., assignor to Pittsburgh Lamp, Brass & Glass Company, Pittsburg, Pa., a Corporation of New Jersey. Filed Sept. 23, 1908. Serial No. 454,414.



1. A shade-holder having a flexible shade supporting-member, a central base-member comprising two sections, means for locking the sections together, and an arm connecting each section and the shade supporting-member.

2. A shade-holder having a flexible shade supporting member, an adjustable base-member comprising a plurality of separable parts, and arms connecting the parts and the supporting member.

3. A shade-holder having a flexible shade supporting-member, a central base-member comprising two separable parts or sections, a latch-member on each part, and arms connecting the parts or sections and the supporting-member.

4. The combination with a lighting-fixture, of a supporting-plate, a shade-holder having a flexible shade supporting-member, a central base-member comprising two sections, means for locking the sections together, and an arm connecting each section and the shade supporting-member.

5. The combination with an electric lamp, a shade-holder having a flexible shade supporting-member, a central base-member comprising two sections, means for locking the sections together, and arms connecting the sections and the supporting-member.

942,739. TRIP WALL-PACKER FOR OIL-WELLS. WILLIAM PALM, Butler, Pa. Filed Jan. 9, 1909. Serial No. 471,521.

1. In a trip wall packer, the combination with a tube, a collar fixed to the upper end of said tube, an expansible packer surrounding said tube and having the upper end thereof engaging said collar, a tapering sleeve said collar and tapering sleeve movably fitted upon said tube for engaging the lower end of said packer, a ring encircling said tube below said sleeve, slips carried by said ring for engaging said sleeve, bow springs connected to said ring for normally holding said slips in engagement with said sleeve, latches carried by the lower ends of two of said springs, a collar mounted upon said tube below said ring and having an annular beveled enlargement for engaging said latches and holding said slips in a retracted position during the setting of said packer, said last-named collar being rotated to release said latches, and permit said slips to engage the wall of a hole and hold said sleeve to expand said packer, substantially as, and for the purpose described.

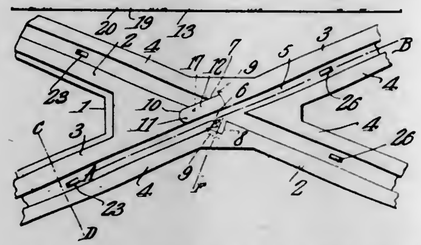
2. In a trip wall packer, the combination with a tube, a collar fixed to the upper end of said tube, an expansible

packer surrounding said tube and having the upper end thereof engaging said collar, a tapering sleeve movably fitted upon said tube for engaging the lower end of said packer, a ring encircling said tube below said sleeve, slips carried by said ring for engaging said sleeve, bow springs connected to said ring for normally holding said slips in



engagement with said sleeve, latches carried by the lower ends of two of said springs, and a collar mounted upon said tube below said ring and having an annular beveled enlargement for engaging said latches and holding said slips in a retracted position during the setting of said packer.

942,740. RAILROAD-CROSSING. WILLIAM C. PETERS, Harrisburg, Pa. Filed Oct. 19, 1909. Serial No. 523,394.



1. A device of the class described including a base casting having diverging channels, there being tread portions spaced by the channels, said channels being provided in opposed portions with recesses located adjacent the point of communication of the channels, a bridging device movably mounted within the intersecting portion of the channels, a plunger, and means actuated by the depression of the plunger for shifting the bridging device into one of the recesses.

2. A device of the class described including a base casting having communicating channels, there being diverging tread portions separated by the channels, a bridging device movably mounted within the communicating portions of the channels, there being recesses in opposed portions of said channels at their point of communication, plungers movably mounted adjacent the said portions, a rock bar, a connection between said rock bar and the bridging device, and means actuated by each plunger for shifting the rock bar.

3. A railroad crossing including a base casting having intersecting channels, there being crossed tread portions spaced by the intersecting portion of the channels, said channels being provided in opposed portions with recesses located adjacent the point of intersection of the channels each recess being provided with an outlet, a bridging device movably mounted within the intersecting portion of the channels, a plunger projecting into each channel, and means actuated by the depression of the plunger for shifting the bridging device into one of the recesses.

4. A railroad crossing including a base casting having intersecting channels, there being crossed tread portions separated by the channels at the points of intersection, a bridging device movably mounted within the intersecting portions of the channels, there being recesses in opposed portions of said channels at their point of intersection, a plunger movably mounted within each channel, a rock bar, a connection between said rock bar and the bridging device and means actuated by each plunger for shifting the rock bar.

5. A railroad crossing including a base casting having intersecting channels, there being crossed tread portions spaced by said channels at their point of intersection, a bridging device movably mounted within the intersecting portions of the channels, there being recessed within the tread portions at opposite sides of the intersecting portions of the channels, said bridging device being shiftable into either of said recesses and into alinement with either of the tread portions, a rock bar, a connection between the rock bar and bridging device, cross arms connected to the rock bar, plungers movably mounted within the channels, and lever connections between the plunger and one of the cross arms.

942,741. CUSHION-WHEEL. EDWARD J. POPE, Holyoke, Mass. Filed July 16, 1908. Serial No. 443,800.



1. A cushion wheel comprising a hub, rigid spokes, a rim supported on said spokes, a tire in said rim, said hub having radial sockets, other spokes mounted in said sockets and each having a tread piece extending over and engaging said tire, the latter spokes being independently movable longitudinally with respect to each other, another continuous tire mounted around said tread pieces and serving to hold them and the movable spokes in proper position, and adjustable collars secured to said movable spokes and adapted to limit the inward movement of said spokes by coming in contact with the ends of said radial sockets.

2. A cushion wheel comprising a hub, rigid spokes, a rim supported on said spokes, a tire in said rim, other spokes separately mounted and each having a tread piece extending over and engaging said tire, the latter spokes being independently movable longitudinally with respect to each other, and another tire mounted upon said tread pieces, the portion of each tread piece which contacts with said first-mentioned tire being curved longitudinally on an arc of greater radius than the periphery of said tire, for the purpose specified.

3. A cushion wheel comprising a hub, rigid spokes, a rim supported on said spokes, a tire in said rim, said hub having radial sockets, other spokes mounted in said sockets and each having a tread piece extending over and engaging said tire, the latter spokes being independently movable longitudinally with respect to each other, and another continuous tire mounted around said tread pieces and serving to hold them and the movable spokes in proper position, the portion of each tread piece which contacts with said first-mentioned tire being curved longitudinally on an arc of greater radius than the periphery of said tire, for the purpose specified.

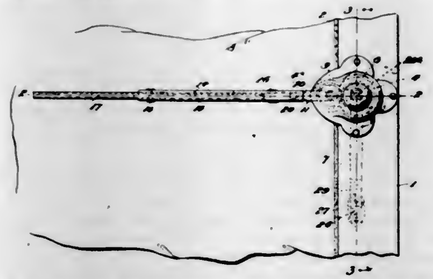
942,742. SCREW-DRIVER. BERT PRESSON, Pittsburg, Kans. Filed Aug. 26, 1908. Serial No. 450,382.



1. In a device of the class described, a shank threaded adjacent one of its ends and being provided with protuberances and depressions adjacent its other end; a collar rotatably mounted upon the shank and being provided with resilient fingers having protuberances to engage the depressions and protuberances upon the shank; and a sleeve swiveled to the collar and being threaded to engage the shank.

2. In a device of the class described, a shank threaded adjacent one of its ends and being provided with protuberances and depressions adjacent its other end; a collar rotatably mounted upon the shank and having a rounded head, the said collar being provided with resilient fingers having protuberances to engage the depressions and protuberances upon the shank; and a sleeve rotatably mounted upon the shank and being threaded to engage the shank, the said sleeve being arranged to inclose the collar and being inbent terminally to engage the rounded head thereof.

942,743. WINDOW-CLEANING APPARATUS. CLINTON E. PRICKETT, Allegheny, Pa. Filed Nov. 6, 1908. Serial No. 461,346.



1. A window-cleaning apparatus comprising a spindle provided with an arm support, a journal for the spindle, a cleaning arm pivotally connected to the arm support, a wiper bar pivotally carried by the cleaning arm, means for turning the cleaning arm about its pivot to hold the wiper bar evenly and forcibly against the windowpane, and means for turning the spindle.

2. A window-cleaning apparatus comprising a spindle provided with an arm support, a journal for the spindle, a cleaning arm pivotally connected at an intermediate point to the arm support, a wiper bar pivotally carried at one end of the cleaning arm, means interposed between the other end of the cleaning arm and the arm support for rocking the former about its axis to hold the wiper bar against the windowpane, and means for turning the spindle.

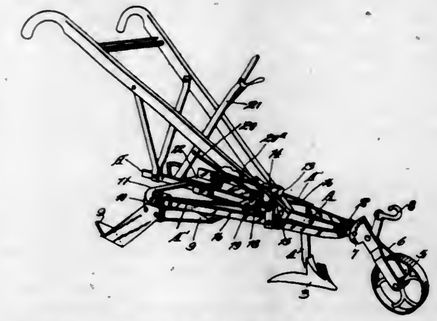
3. A window cleaning apparatus comprising an arm support, a cleaning arm connected thereto to turn about a transverse axis, a wiper bar carried by the cleaning arm, means for rocking the cleaning arm relative to the arm support to press the wiper bar against the window pane, and means for actuating the arm support to sweep the wiper bar across the pane.

4. A window-cleaning apparatus comprising a spindle provided with an arm support, a journal for the spindle, a cleaning arm pivotally connected at an intermediate point to the arm support, a wiper bar pivotally carried at one end of the cleaning arm, an expansion spring interposed between the other end of the cleaning arm and the arm support to rock the former about its pivot and hold the wiper bar effectually against the window pane, and means for turning the spindle.

5. A window-cleaning apparatus comprising a drive shaft, provided with a handle, a gear wheel rigidly mounted upon the drive shaft, a spindle, journals for the drive shaft and spindle, a relatively small pinion mounted upon the stub shaft and meshing with the gear wheel, the spindle being provided with an arm support, a cleaning arm pivotally connected to the arm support, a wiper bar carried by the cleaning arm, and means for rocking the cleaning arm about its pivot to hold the wiper bar effectually against the window pane.

[Claims 6 to 11 not printed in the Gazette.]

942,744. WEED-CUTTER AND CULTIVATOR. MARCELLUS PRUYN, Sacramento, Cal. Filed Sept. 27, 1909. Serial No. 519,698.



1. The combination in a weed cutter of a frame, including hinged outer members having the rear ends capable of expansion and contraction with relation to the central portion, cutting blades and angle plates to which the blades are bolted, said plates being pivoted and turnable with relation to the rear ends of the outer frame bars, a box slidable upon the center bar of the frame, connecting bars slidable transversely through said box having their outer ends connected with the pivoted angle plates, a plate pivoted to the forward portion of the frame, and links connecting the pivot plate with the movable frame bars and with the slidable box.

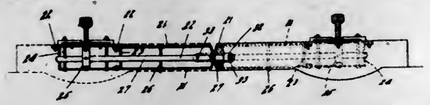
2. The combination in a weed cutter, having hinged frame bars capable of being expanded or contracted, of cutters pivotally connected with said frame bars, transverse controlling bars rigidly connected with the cutters, a central longitudinally movable box through which the controlling bars are slidable, means for expanding and contracting the frame bars, and connecting means by which said movements of the frame bars are transmitted to turn the cutters about their pivots.

3. The combination in a cultivator and weed cutter, of a frame having the outer members hinged at the front, means for expanding or contracting the rear ends of said members, cutters pivotally connected with the frame bars, a pivoted bell crank lever or plate, a link connecting one arm of said plate with a movable frame bar, a longitudinally slidable box, controller bars rigidly connected with the pivoted cutters and having their inner ends slidable transversely through the slidable box, a link connecting the other arm of the bell crank with the slidable box, and a hand lever connected with the expanding and contracting means of the frame bars.

4. The combination in a cultivator and weed cutter, of a central longitudinally disposed frame bar, side bars hinged to the center bar at the front and divergent rearwardly, cutters turnably connected with the rear ends of

the side bars, a transversely disposed box or traveler slidable upon the center frame bar, and having antifrictional clasping devices engaging the inclined side bars, a lever connected with said slidable member, a second box slidable upon the center bar, transverse bars having their outer ends rigidly connected with the turnable cutters, and their inner ends slidable through said second box, an angular or bell crank plate having its intermediate angle pivoted, a connection between one outer angle and one of the separable frame bars, and a connection between the other angle and the second slidable box.

942,745. RAILROAD-TIE. HUGH H. RANJE, Indianapolis, Ind. Filed Aug. 27, 1909. Serial No. 514,890.



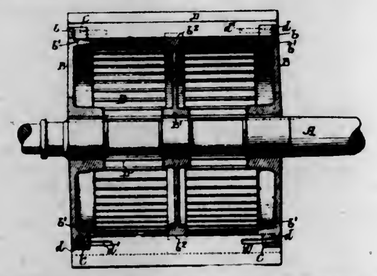
1. The combination, in a railway tie, of two sections each composed of a metal skeleton and a cement body, the plates of the metal skeleton extending to the surface where the two parts come together and having at that point a curved form, coupling plates for uniting the sections, and bolts extending through the sections and the coupling plates and holding the same together.

2. The combination, in a railway tie, of a metal skeleton composed of two U-shaped longitudinal members secured together, rail bearers, struts connecting said several longitudinal members, and bolts connecting the several parts together.

3. The combination, in a railway tie composed of two parts, each embodying a metal skeleton composed of two U-shaped longitudinal members secured together, rail bearers, struts connecting said several longitudinal members, bolts connecting the several parts together, and coupling plates and bolts connecting the sections.

4. The combination, in a railway tie, of two sections each composed of a metal skeleton and a cement body, the plates of the metal skeleton extending to the surface where the two parts come together and having at that point a curved form, coupling plates for uniting the sections, and bolts extending through the sections and the coupling plates and holding the same together, the cement body of each section being thickened downwardly below the point where the rail rests upon the tie.

942,746. BEATER-ROLL FOR PAPER-MAKING MACHINES. WILLIAM H. RANKIN and CHARLES P. DEDERICK, Elizabeth, N. J., assignors to said William H. Rankin. Filed July 3, 1909. Serial No. 505,810.



1. The combination in a beater roll, of a shaft, heads on the shaft, each head having a flange, a blade mounted between the flanges, and wedges securing the blade to the heads and forming the interlock between the blade and heads.

2. The combination in a beater roll of heads, each having a flange and a bearing surface, a series of blades, each blade being notched at each end and adapted to fit in between the flanges and rest upon the bearing surface, and having a longitudinal groove near each end, and each head having a groove and a wedge adapted to the grooves in the blade and heads.

3. The combination in a beater roll, of a shaft, two heads, a flange and a bearing surface; on each head, a series of blades, each blade being notched at each end to fit between the flanges and rest upon the bearing surface, each blade being grooved at each end in one face and each head being grooved, with wedges adapted to the two grooves and acting to force the blades down and on to the bearing surface of each head and filling blocks between the blades.

4. The combination in a beater roll of a shaft, two heads mounted on the shaft and a central support also mounted on the shaft, said support and heads being notched, the heads having flanges formed thereon, the blades having notches at each end adapted to the heads and the central support, each blade being recessed in one face near each end, the heads also being recessed and having one wall tapered with wedges mounted in the recesses tending to force the blades down on the heads, and the central support with a notched filling block of wood mounted between the heads and between the blades and a second wooden strip mounted between the blades.

942,747. PENCIL-HOLDER. EDWARD C. REITER, Rockville, Conn. Filed Jan. 19, 1909. Serial No. 473,131.



1. As a new article, a holder comprising a sleeve like body, having a T-head at one side, its other side being shaped to receive an elastic plug.

2. As a new article, a holder formed of sheet metal, having a sleeve like body, one side of which has a T-head extension and the other side of which is apertured to receive an elastic plug.

3. As a new article, a holder of the character described formed of a sheet metal member bent upon itself to form a tubular portion and laterally extended T-head members that lap upon each other and an elastic plug held to extend within the tubular portion.

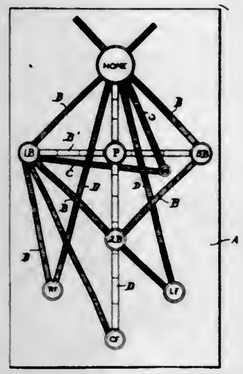
4. A device for the purpose described formed of a sheet metal member having a tubular body portion, one side of which has an aperture, the other side of which is extended to form two T-head members that lap upon each other, said members being riveted together at their necks, and a rubber plug that fits in the aperture of the tubular portion and has its ends projected inside and outside of the said portion.

5. A blank for holders of the character stated, comprising a body portion centrally apertured, the opposite ends of the body portion being tapered to a reduced width to form necks, and the ends of the necks being extended laterally to form T-heads.

942,748. GAME-BOARD. FRANK G. REMPE, Oakland, Cal. Filed May 17, 1909. Serial No. 496,414.

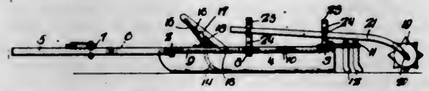
1. The hereindescribed game board comprising a board having the diagram of a base ball field thereon, said field consisting of the diamond positions of first base, second base, third base, and the home plate, and the positions of left field, center field, and right field, said diamond positions being connected by parallel lines divided into a plurality of spaces, each of said field positions being connected to the first base and the home plate by parallel lines to provide paths for the movement of playing pieces, said paths being divided into a plurality of blocks or spaces, a short stop position indicated within said diamond, said position also being connected by indicated paths to the first base and the home plate, a pitcher's position located in the center of said diamond and connected to each of the diamond positions by indicated

paths, the paths connecting said diamond positions being extended beyond the home plate and also divided into a number of spaces substantially as and for the purpose set forth.



2. The herein described game board comprising a board having a base ball field represented thereon, said field consisting of the positions of first base, second base, third base, and home plate which comprise the diamond positions, the pitcher's position being indicated in the center of said diamond, said diamond positions being connected by parallel lines divided by transverse lines into a plurality of spaces, similarly divided lines connecting the pitcher's position with each of said diamond positions, field positions upon said board connected with first base and the home plate by parallel lines and likewise divided into a plurality of spaces, playing pieces occupying certain of the field positions and movable over the paths formed by said connecting lines, a short stop position indicated within the diamond and connected to the first base and home plate by parallel lines also divided into a plurality of spaces, the lines connecting said diamond positions extending beyond the home plate, in combination with an indicator provided with two arrows revolubly mounted thereon, said indication being provided with concentric circles printed or otherwise designed upon its surface, a plurality of radial lines dividing the space between said circles and between the circles and the arrows, into a plurality of spaces of equal area, the names of certain of the playing positions being designated between said circles and adapted to indicate the manner in which the ball has been hit, and numbers in said spaces between the circles and the arrows, adapted to indicate the character of the ball thrown by the pitcher, said arrows being mounted for independent rotation substantially as and for the purpose set forth.

942,749. ROAD GRADER AND SCRAPER. SAMUEL RICHARDSON, Hoover, Ind. Filed June 16, 1909. Serial No. 502,534.

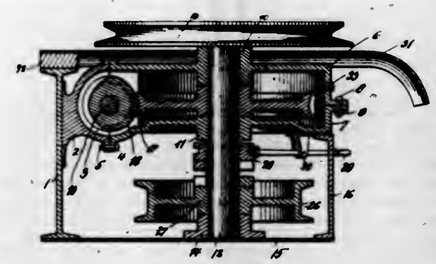


1. A road grader and scraper comprising a triangular frame having divergent scraper blades, a transverse rock shaft journaled upon the forward portion of the frame and extending at its ends beyond the same, runner shoes upon the ends of said shaft, means for regulating the shaft and securing the same in adjusted position, and an adjustable support at the rear of the frame.

2. A road grader and scraper comprising a triangular frame provided with divergent scraper blades, a draft device at the forward end of the frame, a rock shaft journaled upon the forward end of the frame, runner shoes mounted upon said shaft, crank arms connected with the shaft, locking devices for locking said arms in a plurality of adjusted positions, a rear support for the frame, and means for adjusting the same.

3. A road grader and scraper comprising a triangular frame carrying divergent scraper blades, a draft appliance at the forward end of the frame, a support at the forward end of the frame having elements to travel upon the surface of the ground, means for adjusting said supports, a wheeled support for the rear end of the frame having a bar extending forwardly therefrom, and means for adjustably connecting said bar with the frame.

942,750. CONVEYER FOR MINES. PATRICK J. RILEY, Hallsville, W. Va. Filed Mar. 12, 1909. Serial No. 483,029.



1. In a wall conveyer for mines, the combination with a motor driven shaft, and a worm located upon said shaft, of an I-beam, a channel bar, a gear casing supported by said I-beam and said channel bar, and comprising a housing and a sectional horizontal casing, a vertical shaft journaled in said casing, a gear wheel mounted upon said shaft and meshing with said worm, a grooved sheave mounted upon the upper end of said shaft, a grooved sheave loosely mounted upon the lower end of said shaft, a clutch member for controlling the operation of said loosely mounted sheave, clutch members controlling the operation of said worm, and a horizontal apron arranged above said gear casing, substantially as, and for the purpose herein described.

2. In a wall conveyer for mines, the combination with a motor driven shaft, and a worm located upon said shaft, of an I-beam, a channel bar, a gear casing supported by said I-beam and said channel bar, and comprising a housing and a sectional horizontal casing, a vertical shaft journaled in said casing, a gear wheel mounted upon said shaft and meshing with said worm, a grooved sheave mounted upon the upper end of said shaft, a grooved sheave loosely mounted upon the lower end of said shaft, a clutch member for controlling the operation of said loosely mounted sheave, and clutch members controlling the operation of said worm, substantially as, and for the purpose herein described.

3. A wall conveyer comprising a driven shaft, a gear casing adapted to contain a lubricant, and surrounding said shaft a driven worm journaled in said casing, a gear wheel mounted upon said shaft and meshing with said worm, a grooved sheave fixed upon the upper end of said shaft above said casing, a sheave loosely mounted upon the lower end of said shaft below said casing, a clutch mechanism for controlling the operation of said loosely mounted sheave, and an apron arranged between said gear casing and said fixed shaft.

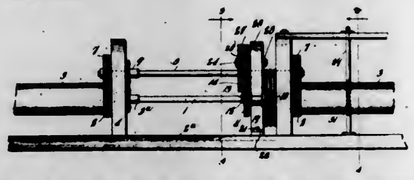
4. A wall conveyer comprising a driven shaft, a gear casing adapted to contain a lubricant, and surrounding said shaft a driven worm journaled in said casing, a gear wheel mounted upon said shaft and meshing with said worm, a grooved sheave fixed upon the upper end of said shaft above said casing, a sheave loosely mounted upon the lower end of said shaft below said casing, and a clutch mechanism for controlling the operation of said loosely mounted sheave.

942,751. COMBINED HOSE SUPPORTER AND PROTECTOR. VANNIE ROBBINS, Meridian, Miss. Filed Oct. 21, 1908. Serial No. 458,879.



A combined hose supporter and protector comprising a band of stout fabric shaped to conform to the knee of the wearer and reinforced against stretching by transverse rows of stitches disposed in parallel spaced relation and extending from near the top to a point below the transverse median line of the article, the band being provided at each end with a gathered pocket, and elastic bands arranged in the pockets, that at the lower end of the band being of greater width than that at the upper end to constitute the former a garter.

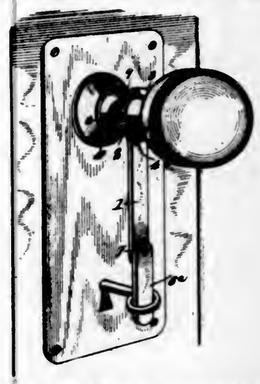
942,752. REVERSING MECHANISM FOR THE BAND-CYLINDERS OF SPINNING-MULES. JOHN H. RYALLS, Charlottesville, Va. Filed Feb. 15, 1909. Serial No. 477,857.



1. In an apparatus of the class described, the combination with alined band cylinders spaced apart by a power shaft between the cylinders, a gear on said power shaft, a bracket having a bearing for said countershaft said bracket being provided with an extension extending outwardly relatively to the bearing for the counter-shaft and slotted longitudinally, a broad pinion, a stud shaft having a bearing for said broad pinion and means securing the stud shaft adjustable in the slot of the bracket extension whereby the stud shaft may be adjusted in and out relatively to the gear on the power shaft, and a counter-shaft journaled to the bracket and a pinion keyed on and movable along the counter-shaft and adjustable in one position into mesh with the gear on the power shaft and also adjustable laterally to said first position whereby it may be meshed with the broad pinion when the latter is moved into position to mesh directly with the gear on the power shaft, all substantially as and for the purposes set forth, whereby the broad pinion may be utilized to transmit motion from the gear on the power shaft to the counter-shaft or the parts may be adjusted to move the broad pinion out of mesh with the gears on both the power shaft and counter-shaft and said gears be meshed directly together as set forth.

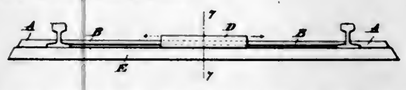
2. In an apparatus of the class described the combination with alined band cylinders spaced apart of a power shaft between the cylinders a gear on the power shaft, a counter-shaft, a gear keyed on and movable along the counter-shaft into and out of mesh with the gear of the power shaft, a pinion broader than the gear on the power shaft and movable into and out of mesh with the gear on the power shaft and adapted when meshed with the gear on the power shaft to also mesh in a different plane with the gear on the counter-shaft all substantially as described, whereby the broad pinion may be adjusted to transmit motion from the gear on the power shaft to that on the counter-shaft or the gear on the counter-shaft may be meshed directly with that of the power shaft and the broad pinion be moved out of mesh with both of said gears substantially as and for the purpose set forth.

942,753. KEY-FASTENER. PATRICK J. RYAN, Spokane, Wash. Filed July 20, 1909. Serial No. 508,621.



A device of the class described, comprising a bar having at one end a sectional ring, one of the sections being integral with the bar and the other hinged to the bar and cooperating with the fixed section to form a clamp for encircling the shank of a door knob, each of the free ends of the sections being provided with a transverse groove adjacent to the extremity thereof for the purpose specified, and a second bar mounted on the free end of the first bar for lateral swinging movement and foldable on the first bar.

942,754. SELF-ADJUSTING STEEL RAILWAY-TIE. ALBERT J. SCHNEIDER, Ironwood, Mich. Filed Jan. 30, 1909. Serial No. 475,282.

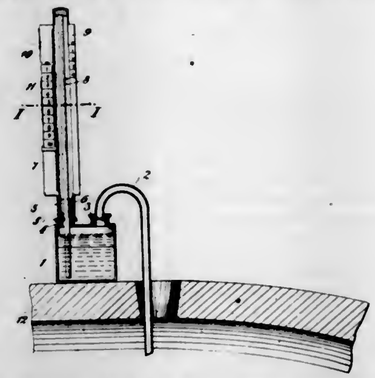


1. The combination, in a railway tie, of two complementary coöperating parts, each having a lug to engage the inner side of one rail and another to engage the outer side of the other rail, the inner lugs being provided with lateral grooves, and a protecting plate adapted to slide in said grooves.

2. A railway tie comprising two complementary parts meeting in an oblique joint, and having a vertical wedge shaped slot intersecting said joint, a wedge adapted to fit the slot for pushing the complementary parts into engagement with the rails.

942,755. CONTROLLING DEVICE FOR FILLING VESSELS. GUSTAV SCHOLLMEYER, Köthen, Germany. Filed Feb. 4, 1909. Serial No. 476,100.

1. A controlling device for filling vessels comprising the combination of a closed receptacle containing a fluid and adapted to be placed on the vessel to be filled, a tube detachably connected with the said receptacle and adapted to be introduced into the vessel to be filled, a socket on said receptacle, an indicating pipe air-tightly inserted into said socket and having its lower end dipping into the fluid contained in said receptacle, a protecting cover turnably arranged on said socket and partly surrounding the said indicating pipe, two lateral projections on said protecting cover, a scale being provided on one of said lateral projections and adapted to indicate the thickness of the wall of the vessel to be filled, and a part provided with a scale and shiftable on the other of said two lateral projections and adapted to indicate the height of the empty space of the vessel to be filled, substantially as and for the purpose set forth.

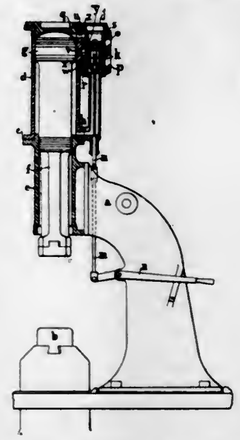


2. A controlling device for filling vessels comprising the combination of a closed receptacle containing a fluid and adapted to be placed on the vessel to be filled, a bent tube detachably connected with the said receptacle, a flexible tube removably attached to said bent tube, and a rectangular bent tube connected with the said flexible tube and adapted to be inserted into the vessel to be filled, a socket on said receptacle, an indicating pipe air-tightly inserted into said socket and having its lower end dipping into the fluid contained in said receptacle, a protecting cover turnably arranged on said socket and partly surrounding the said indicating pipe, two lateral projections on said protecting cover, a scale being provided on one of said lateral projections and adapted to indicate the thickness of the wall of the vessel to be filled, and a part provided with a scale and shiftable on the other of said two lateral projections and adapted to indicate the height of the empty space of the vessel to be filled, substantially as and for the purpose set forth.

942,756. POWER-HAMMER. THOMAS SCOTT-KING, Penarth, Cardiff, and WILLIAM NORRIS, Blackpool, England. Filed Sept. 4, 1906. Serial No. 333,180.

1. In combination with the anvil and frame of a pneumatic hammer, a tup and tup chamber, a piston on said tup and working in said chamber, a valve chamber and a valve therein, high pressure air and exhaust connections to said valve chamber, a passage opening into the lower end of said tup chamber whereby high pressure air can act to raise the tup, a passage through the valve in communication with said passage opening at the lower end of the tup chamber and also in communication with a passage opening into the upper end of said chamber, whereby the air used to raise the tup can act expansively on said tup to strike a blow and another passage opening to the upper end of said chamber acting in conjunction with said valve to admit high pressure air direct whereby the force of the blow is increased and a cramping action is obtained.

2. In combination with the anvil and frame of a pneumatic hammer, a tup and tup chamber, a piston on said tup and working in said chamber, a valve chamber, a ported cylindrical liner of the same diameter throughout its entire length within said valve chamber, high pressure air and exhaust connections to said chamber and opposite different sets of ports in the liner, a passage opening into the lower end of tup chamber and a passage opening into the upper end of said chamber whereby the air used to raise the tup can act expansively on said tup to strike a blow and said upper passage acting in conjunction with said valve to admit high pressure air direct whereby the force of the blow is increased and a cramping action is obtained.



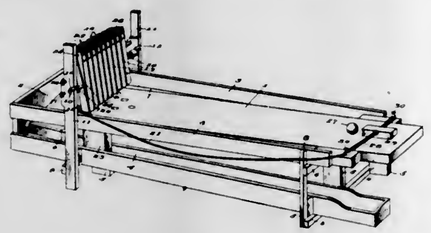
3. In a pneumatic hammer, a tup and tup chamber, a valve and valve chamber having a ported cylinder liner, high pressure and exhaust connections opposite different sets of ports in the liner, two connections leading from the valve chamber to the upper end of hammer cylinder, a connection leading to the lower end of said cylinder, a cylindrical valve having a waist or narrow portion and arranged to work within the liner.

4. In combination with the anvil and frame of a pneumatic hammer, a tup and tup chamber, a piston on said tup and working in said chamber, a guide cylinder placed below an opening from said tup chamber in which guide cylinder the tup is a working fit, a valve chamber and a valve therein, high pressure air and exhaust connections to said valve chamber, a passage opening into the lower end of said tup chamber whereby high pressure air can act to raise the tup, a passage through the valve in communication with said passage opening at the lower end of the tup chamber and also in communication with a passage opening into the upper end of said chamber, whereby the air used to raise the tup can act expansively on said tup to strike a blow and another passage opening to the upper end of said chamber acting in conjunction with said valve to admit high pressure air direct whereby the force of the blow is increased and a cramping action is obtained.

5. In combination with the anvil and frame of a pneumatic hammer, a tup and tup chamber, a piston on said tup and working in said chamber, a valve chamber, a ported cylindrical liner of the same diameter throughout its entire length within said valve chamber, high pressure air and exhaust connections to said chamber and opposite different sets of ports in the liner, a passage opening into the lower end of tup chamber, a valve chamber, and a valve therein, high pressure air and exhaust connections to said valve chamber, a passage opening into the lower end of said tup chamber whereby high pressure air can act to raise the tup, a passage through the valve in communication with said passage opening at the lower end of the tup chamber and also in communication with a passage opening into the upper end of said chamber, whereby the air used to raise the tup can act expansively on said tup to strike a blow and another passage opening to the upper end of said chamber acting in conjunction with said valve to admit high pressure air direct whereby the force of the blow is increased and a cramping action is obtained.

[Claims 6 and 7 not printed in the Gazette.]

942,757. GAME APPARATUS. WHITFIELD STEVENSON, Crestline, Ohio. Filed Apr. 24, 1908. Serial No. 429,020.



1. In game apparatus the combination of an alley having a pit at one end and provided with a return way, said alley adapted to have balls projected thereover, pins suspended over the rear end of the alley and adapted to be overturned by the balls projected over the alley, a resetting rail for returning the pins to normal position, a stop located in the return way for arresting the forward movement of the balls and connecting means between the stop and resetting rail to admit of said stop acting as a counterbalance for returning the resetting rail to normal position, and actuating means connected with the resetting rail to admit of operating the same and the stop when it is required to return the pins to normal position and to permit the played balls to return to the front end of the alley.

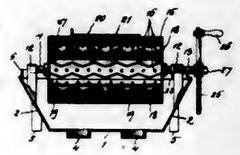
2. Game apparatus comprising an alley having a pit at its rear end and a return way in communication with said pit, uprights at the sides of the alley, a rod mounted in said uprights and extended across the alley, pins pivotally mounted upon said rod, a resetting rail for returning the pins to normal position mounted upon said uprights, a stop arranged in the return way, a cord attached at one end to the stop and at its opposite end to the resetting rail and passed over a guide intermediate of its ends arranged near the top of one of said uprights, and an operating cord having connection with the resetting rail and extending to the players' end of the alley.

3. Game apparatus comprising an alley, uprights at the sides of the alley, a rod mounted in said uprights, pins pivotally mounted upon said rod, means for holding the pins in normal position and limiting their movement when displaced, a resetting rail having end portions bent in the same direction to provide arms terminating in eyes which receive the rod upon which the pins are mounted and an operating cord attached to said resetting rail to return the parts to normal position.

4. Game apparatus comprising an alley, uprights at the sides of the alley having slots extended through their vertical edges, a rod removably mounted in said slots, pins pivotally mounted upon said rod, a resetting rail mounted upon said rod and movable therewith, other rods movably mounted in said uprights and serving to limit the movements of the pins, both when played and when in normal position, and operating means connected with said resetting rail.

5. Game apparatus comprising an alley having a return way at one side and a transversely inclined pit at the rear end to deliver the played balls into said return way, uprights at the sides of the alley, a rod movably mounted in the uprights, pins pivotally mounted upon said rod, a resetting rail having its end portions bent and terminating in eyes through which the said rod passes, other rods removably mounted in the uprights and serving to hold the pins in given position both when played and when in normal position, a stop located in the return way, a cord connected at its ends to, respectively, said resetting rail and stop, a guide near the upper end of one of said uprights to receive the cord connecting the stop and resetting rail, and an operating cord connected to the resetting rail for moving the same from the players' end of the alley.

942,758. WASHING-MACHINE. JOSEPH SZÁVA, McKeesport, Pa., assignor of one-half to Albert Kiraly, McKeesport, Pa. Filed June 22, 1909. Serial No. 503,612.



1. A washing machine comprising a receptacle, a rotatable cylinder mounted therein and of the same diameter throughout, said cylinder closed at each end and having its body provided with longitudinally extending rows of perforations, longitudinally extending perforated pipes arranged within said cylinder, supported in the ends of the cylinder and opening at each end into said receptacle during the rotation of the cylinder, means whereby access can be had to said cylinder, longitudinally extending corrugated ribs secured to the inner face of said cylinder and extending from one end to the other thereof, said pipes alternately disposed with respect to said rows of openings and each of said rows of openings arranged between a pair of ribs and each of said perforated pipes arranged between a pair of ribs.

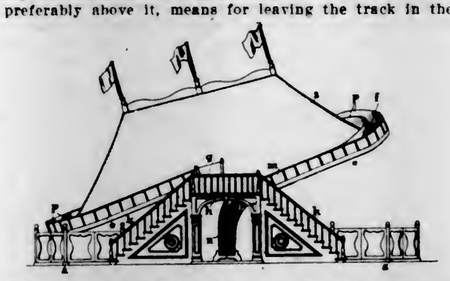
2. A washing machine comprising a receptacle, a rotatable cylinder mounted therein and of the same diameter throughout, said cylinder closed at each end and having its body provided with longitudinally extending rows of perforations, longitudinally extending perforated pipes arranged within said cylinder, supported in the ends of the cylinder and opening at each end into said receptacle during the rotation of the cylinder, means whereby access can be had to said cylinder, longitudinally extending corrugated ribs secured to the inner face of said cylinder and extending from one end to the other thereof, said pipes alternately disposed with respect to said rows of openings and each of said rows of openings arranged between a pair of ribs and each of said perforated pipes arranged between a pair of ribs, supports within said receptacle, trunnions carried by the cylinder and journaled in said supports, and means arranged exteriorly of the receptacle and connected in one of said trunnions for rotating the cylinder.

3. A washing machine comprising a receptacle, a rotatable cylinder mounted therein and of the same diameter throughout, said cylinder closed at each end and having its body provided with longitudinally extending rows of perforations, longitudinally extending perforated pipes arranged within said cylinder, supported in the ends of the cylinder and opening at each end into said receptacle during the rotation of the cylinder, longitudinally extending corrugated ribs secured to the inner face of said cylinder and extending from one end to the other thereof, said pipes alternately disposed with respect to said rows of openings and each of said rows of openings arranged between a pair of ribs and each of said perforated pipes arranged between a pair of ribs, supports within said receptacle, trunnions carried by the cylinder and journaled in said supports, means arranged exteriorly of the receptacle and connected in one of said trunnions for rotating the cylinder, and a removable cover mounted upon said receptacle for inclosing said cylinder and supports.

942,759. APPARATUS FOR THE AMUSEMENT OF THE PUBLIC. WALTER TAYLOR, Bermondsey, London, England. Filed Apr. 5, 1909. Serial No. 488,059.

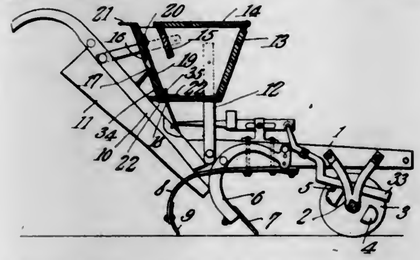
1. An apparatus of the see-saw type comprising a platform, a track extending around same, means for entering the said track in the neighborhood of the main axle and preferably above same, means for leaving the track in the neighborhood of the said axle and preferably below same and means for mechanically operating the whole apparatus for the purposes set forth.

2. An apparatus of the see-saw type comprising a platform, a track extending around the same, means for entering said track in the neighborhood of the main axle and preferably above it, means for leaving the track in the



neighborhood of the said axle and preferably below it, and means for mechanically operating the whole apparatus, said track being provided with boards on its bottom and with protecting side, substantially as described.

942,760. PLANTER. JAMES W. TRAMMELL and HOPE H. HAMMACK, Sumner, Ga. Filed Sept. 20, 1909. Serial No. 518,725.



1. A planter comprising a wheel-supported beam, a hopper mounted thereon, a reciprocating slide mounted in the hopper, levers fulcrumed upon the beam and operatively connected together one of the said levers being slidably mounted with relation to its fulcrum, one of the levers being operatively connected with the slide and the other adapted to be operated by the wheel.

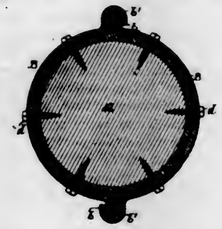
2. A planter comprising a wheel-supported beam, a hopper mounted thereon, a slide mounted for reciprocation in the hopper, levers fulcrumed upon the beam and operatively connected together, one of the said levers being weighted at one end and slidably mounted with relation to its fulcrum and operatively connected with the slide in the hopper and the other lever adapted to be operated by the wheel.

3. A planter comprising a wheel-supported beam, a hopper mounted thereon, a slide mounted for reciprocation in the hopper, levers fulcrumed to the beam and operatively connected together one of the levers having sliding engagement with said slide and the other lever adapted to be operated by the wheel.

4. A planter comprising a wheel-supported beam, a hopper mounted thereon, a slide mounted for reciprocation in the hopper and having a feed opening, a lug carried by the slide and located adjacent the lower edge of the opening therein, levers fulcrumed upon the beam and operatively connected together one of the said levers having sliding engagement with the said slide and the other adapted to be operated by the wheel.

942,761. POLE-SLEEVE. CONSTANTINE B. VOYNOW, Philadelphia, Pa. Filed June 16, 1909. Serial No. 502,511.

1. The combination of a pole with protective means therefor consisting of a sleeve made in a plurality of interlocking segmental sections, of which one is movable longitudinally of the pole to bring said sections into interlocking engagement.



2. The combination of a pole with protective means therefor consisting of a sleeve made in a plurality of interlocking segmental sections, of which one is movable longitudinally of the pole to bring said sections into interlocking engagement, said sleeve being spaced away from the pole and having filling material run into the space between it and said pole.

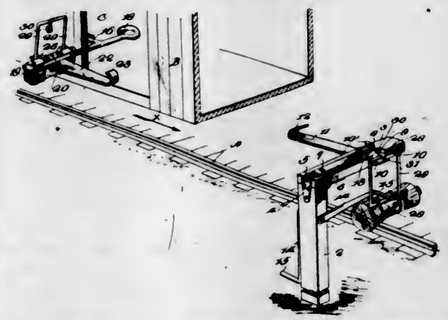
3. The combination of a pole, with protective means therefor consisting of a sleeve spaced away from said pole, and filling material consisting of a mixture of sulfur and sand between the sleeve and the pole.

4. The combination with a pole, of protective means therefor consisting of a sleeve made in a plurality of segmental sections having their edges interlocked and of an interior diameter greater than the exterior diameter of the pole, spacing means for holding said sleeve at a uniform distance from the pole, and filling material between the pole and the sleeve.

5. The combination with a pole, of protective means therefor consisting of a sleeve made in a plurality of segmental sections, each section having one of its longitudinal edges flanged outwardly and its other longitudinal edge flanged outwardly and turned over, said edges of the sections interlocking with each other.

[Claims 6 to 12 not printed in the Gazette.]

942,762. CATCHING AND DELIVERING APPARATUS FOR MAIL-POUCHES. JAMES L. WARE, Terry, Miss., assignor of one-half to Ambrose E. O'Brien, Terry, Miss. Filed June 30, 1909. Serial No. 505,196.



1. The combination with a rectangular pouch hanger, of a mail-bag catching and delivering apparatus including a projecting cross-bar, a receiving bar projecting at right angles from the cross-bar, means on the cross-bar opposed to the receiving bar for supporting said pouch hanger, and a pivoted latch on the cross-bar holding the pouch hanger in place but permitting it to be withdrawn.

2. A mail pouch catching and delivering apparatus including a stationary standard, a hinged cross bar supported on the standard, a pivoted latch bar engaging to hold the cross bar in raised position, a receiving bar projecting from the cross bar at right angles thereto and

having a hooked end, means for supporting a pouch upon the cross bar, said means engaging with the pivoted latch bar, and means on a car for receiving said pouch and disengaging it from said latch bar, whereby the latch bar will be moved to release the cross bar and allow it to fall.

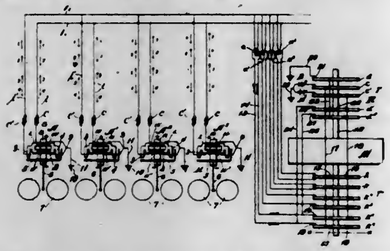
3. A mail pouch catching and delivering apparatus including a stationary standard, a hinged cross bar supported on the standard, a lug on the standard, a pivoted latch bar on the cross bar engaging with the lug to hold the cross bar in a raised position, a receiving bar projecting from the cross bar at right angles thereto and having a hooked end, means for supporting a pouch upon said cross bar, said means engaging with the pivoted latch bar, and means on the car for receiving said pouch and disengaging it from the latch bar, whereby the latch bar will be made to release the cross bar and allow it to fall.

4. A pouch catching and delivering apparatus including a stationary standard, a hinged cross bar supported on the standard, a lug on the standard, a pivoted latch bar engaging with the lug in one position to hold the cross bar raised, a receiving bar projecting at right angles to the cross bar and having a hooked end, a pouch hanger attachable to a pouch at one end and having at the other a hook engaging with the pivoted latch, and means on a car adapted to pass through said hanger, whereby the pivoted latch will be turned to deliver the pouch and to permit the cross bar to fall.

5. A mail pouch catching and delivering apparatus including a stationary standard, a cross bar hinged to the upper end of the standard, a lug on the standard, a latch bar pivoted on the cross arm and engaging at one end with said lug, the other end of said latch bar being reduced, a receiving bar projecting at right angles from the cross bar and having a hooked end, a hanger at one end adapted to be attached to a pouch and at the other provided with a hook, said hook engaging over the reduced end of the latch bar, pins projecting from the cross bar upon which the hanger is supported, and means on a car for engaging said hanger, thereby turning the latch bar, disengaging the hanger from the latch bar and permitting the cross bar to fall.

[Claims 6 to 10 not printed in the Gazette.]

942,763. SIGNALING APPARATUS FOR TELEPHONE SYSTEMS. ROSCOE C. WELTY, Omaha, Nebr. Filed June 2, 1908. Serial No. 436,262.



1. In a party line telephone system, a ringer consisting of separate cores connected together to form a closed magnetic circuit, pole pieces connected with the cores, a biased armature disposed in coöperative relation with the pole pieces, windings on the cores, means for connecting windings together at one end and to ground, lead wires connected with the opposite ends of the windings, and condensers disposed in series with the lead wires.

2. In a telephone signaling system, the combination of a plurality of ringers each having separate windings and responsive to current passing simultaneously through both windings in a given direction, and a ringing machine for producing current through the corresponding windings simultaneously, and another current through the other windings, and a current simultaneously through the windings of each and every ringer in a given direction for operating only one of the latter.

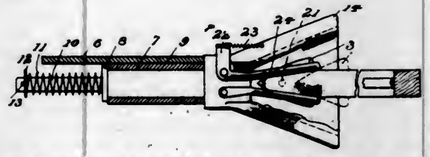
3. In a telephone signaling system, the combination of a plurality of polarized ringers having biased armatures and each having its windings different than those of the remaining ringers whereby each ringer responds to a predetermined set of currents, condensers connected in series one for each of said windings, means for grounding the windings, a ringing machine for connecting all the ringers in circuit, and keys for controlling the sets of current produced by the ringing machine, said ringing machine comprising a plurality of commutators, brushes bearing on the same for producing intermittent current in the ringing circuits, and grounded batteries connected with the commutators.

4. In a telephone signaling system, the combination of a plurality of polarized ringers having biased armatures and each having its windings different than those of the remaining ringers whereby each ringer responds to a predetermined set of currents, condensers connected in series one for each of said windings, means for grounding the windings, a ringer machine including separate means for producing a given set of currents, and keys or switches for connecting any current-producing means in circuit to actuate a predetermined ringer, said ringing machine comprising a rotary shaft, means for driving the same, commutators mounted on the shaft and insulated from each other, brushes bearing on the commutators for connecting the ringers in circuit, collector rings mounted on the shaft, connections between the said rings and commutators, grounded batteries, electrical connections between the batteries and collector rings, and means for effecting the discharge of the condensers.

5. In a ringing machine for a selective signaling party line telephone system, the combination of a plurality of commutator elements, collector rings electrically connected with the elements in a certain order, means for connecting a given element or elements in the telephone circuit, means for rotating the elements and rings together, oppositely-disposed batteries connected respectively with the collector rings and connected with the ground, and discharge rings rotating with the other rings and periodically connected in circuit.

[Claims 6 to 8 not printed in the Gazette.]

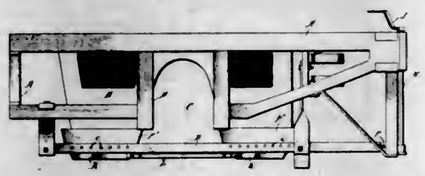
942,764. TRACTION-COUPLING. MIKE WESTRA, Orange City, Iowa. Filed July 22, 1908. Serial No. 444,850.



In a coupling, as specified the combination of a guide, U-shaped locking members pivotally mounted in said guide, a spring engaged by the said locking members for normally contracting the same, a spear head adapted for engagement between said locking members, an arm projected outwardly of said guide from the upper of said locking members at the pivotal end of the same and adapted to raise said upper locking member from said spear head, and stops inwardly extended from said guide between said locking members for engagement with the lower of said locking members when the same is drawn upwardly by said spring out of the line of draft to admit of the springing of said spear head therefrom.

942,765. LOCOMOTIVE ASH-PAN. TIMOTHY W. ANDERSON, Fort Smith, Ark., assignor of one-fourth to James M. Johnston, Fort Smith, Ark., and one-fourth to C. F. Richardson, St. Louis, Mo. Filed Mar. 22, 1909. Serial No. 484,921.

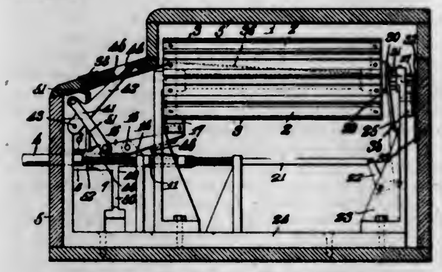
1. In an ash-pan construction, a receptacle having an opening in its bottom, a frame disposed about said receptacle and spaced therefrom, a portion of said frame being arranged to project below the lower edge of said receptacle, a pair of rails, a closure comprising a slide supported on said rails and arranged to move underneath said frame and to register with the opening in said receptacle, and means for reciprocating said slide.



2. In an ash-pan construction, a main support, rails carried thereby, a rectangular frame secured to said rails, a closure comprising a slide carried on said rails and arranged to project underneath said frame, means for reciprocating said slide carried by said support, and a receptacle arranged to project part way into said frame, the sides of the receptacle being spaced from the frame.

3. In an ash pan construction, a main support, rails carried thereby, a rectangular frame secured to said rails, a closure comprising a slide carried on said rails, and arranged to project underneath said frame, a lever for reciprocating said slide carried by said support, and a receptacle having an opening in its bottom carried by said main frame, and arranged to project part-way into said frame, the sides of the receptacle being spaced from the frame.

942,766. STAMP-VENDING MACHINE. JOHN R. ARMINGTON, Roanoke, Va. Filed Jan. 30, 1909. Serial No. 475,172.



1. A stamp vending machine comprising a revoluble holder adapted to contain separated parallel strips of stamps and bring the same successively to a given position, means for intermittently feeding a strip of stamps lengthwise and projecting the stamps one at a time from the holder, and means for separating the stamps from the strip and delivering the same.

2. A stamp vending machine comprising a revoluble holder adapted to contain separated parallel strips of stamps, means for intermittently turning said holder to bring the strips successively to a given position, plunger operated means for intermittently feeding a stamp strip lengthwise, and means for separating the stamps one at a time from the strip and delivering the same.

3. A stamp vending machine comprising a revoluble holder adapted to contain separated parallel strips of stamps, means for intermittently turning said holder to bring the strips successively to a given position, means for intermittently feeding a strip of stamps lengthwise and projecting the same one at a time beyond the holder, and means for separating the stamps from the strip and delivering the same.

4. A stamp vending machine comprising a holder adapted to contain a strip of stamps, a feeding element operating to feed the stamp strip lengthwise with a step-by-step movement, and an arm embodying a stamp receiver which receives the stamps one at a time from the holder, separates them from the strip and transfers them to the delivery holder.

5. A stamp vending machine comprising a revoluble holder embodying a circular series of guideways for strips of stamps, means for intermittently feeding the strips of stamps lengthwise and projecting the stamps one at a time beyond the holder and means for separating the stamps from the strip and delivering the same.

942,767. TROLLEY-WHEEL. HARRY L. BAYLIES, Chicago, Ill. Filed Apr. 9, 1909. Serial No. 488,994.



1. A trolley wheel comprising attachable rims, a central bearing portion having an annular grooved periphery, the bodies of the rims and central bearing portion being cut away, a metallic hub having a concave body serving as an oil chamber, an outer bearing body positioned within the hub, an inner bearing body, roller bearings disposed transversely between the outer bearing and the inner bearing body, an axle engaging the inner bearing body, oil passages formed in both the outer and inner bearing bodies for permitting oil to flow from the oil chamber through the bearings and about the axle, and locking means uniting the parts together, substantially as described.

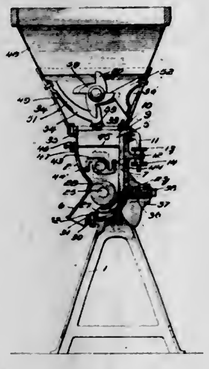
2. A trolley wheel comprising attachable rims, a central bearing portion having an annular grooved periphery, the bodies of the rims and central bearing portion being cut away, a metallic hub having a concave body serving as an oil chamber, and having lugs projecting therefrom, the respective rims, central bearing portion and lugs having openings therethrough in register with one another, locking means, as bolts, passed through the registered openings, uniting the parts together, an outer bearing body positioned within the hub, an inner bearing body, roller bearings disposed transversely between the inner and outer bearing bodies, an axle engaging the inner bearing body, and oil passages formed in both the inner and outer bearing bodies for permitting oil to flow from the oil chamber through the bearings and about the axle, substantially as described.

942,768. GRINDING-MILL. JOSEPH BERCHA, Beatrice, Nebr. Filed May 4, 1909. Serial No. 493,860.

1. In a grinding apparatus the combination of a casing having a slot in the upper end thereof, a grinding roll in the lower portion of said casing, a vertical bracket arm having a curved lower end partially surrounding the roll and a projection at its upper end extending exteriorly through said slot, a concave carried by the curved lower end of the arm, an adjustable support on the exterior of

the casing to which said projection is pivotally connected, and a spring upon the casing yieldingly backing the curved end of the arm.

2. In a grinding apparatus, the combination of a casing, a grinding roll at the lower end of the casing, a bracket arm extending vertically within the casing having a curved lower end carrying a concave arranged adjacent the roll, a vertically adjustable support pivotally connected with the upper end of the arm, a spring upon the casing and yieldingly backing the curved end of the arm, and an adjustable stop for limiting the upward vertical adjustment of the arm, and an adjustable stop for limiting the downward vertical adjustment of the arm.



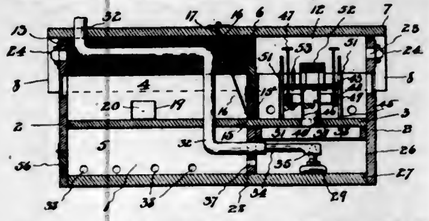
3. In a grinding apparatus, the combination of a casing having a slot at the upper end thereof, a grinding roll journaled in said casing, a bracket arm vertically arranged within the casing and having a lower curved end carrying a concave for coaction with the roll and provided at its upper end with a projection extending through said slot, a screw stem supported exteriorly of the casing and pivotally connected with said projection, adjusting nuts for raising and lowering said stem, and a spring arranged upon the casing and yieldingly backing the curved end of the bracket.

4. In a grinding apparatus, the combination of a casing having a slot in the upper end thereof, a grinding roll within the casing, a vertically disposed bracket arm within the casing having a lower curved end partially surrounding the roll and having a projection at its upper end extending through said slot, a concave carried by the curved end of the arm, an adjustable support upon the exterior of the casing pivotally connected with said projection, a concave carried by the curved end of the arm, adjustable stops engaging the upper and lower ends of the arm for limiting the vertical movements thereof, a spring upon the casing yieldingly backing the curved end of the arm, and means for varying the tension of said spring.

5. In a grinding apparatus, the combination of a casing having a slot therein, a grinding roll within the casing, a vertical bracket arm within the casing having a lower curved end partially surrounding the roll and having a projection at its upper end extending outwardly through said slot, a sectional concave carried by the curved end of the arm, a bracket on the exterior of the casing, a threaded rod carried by the bracket and pivotally connected with said projection, nuts upon said rod above and below the bracket for vertically adjusting the rod, a spring upon the casing yieldingly backing the curved end of the arm, means for regulating the resistance of said spring, and adjustable stops engaging the upper and lower ends of the arm for limiting the vertical movements thereof.

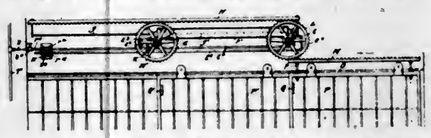
[Claims 6 to 8 not printed in the Gazette.]

942,769. BROODER. ANDREW J. BLOWERS, Berne, Ind. Filed Nov. 19, 1908. Serial No. 463,388.



In a brooder, a horizontal support, a hover under said support, a fence inclosing the upper side of said support, and a hover mounted on said support within said fenced inclosure.

942,770. AUTOMATIC SAFETY ELEVATOR-DOOR OPENER AND CLOSER. FRANK F. BOYD, Philadelphia, Pa. Filed Jan. 8, 1909. Serial No. 471,281.



1. In a door opening device for elevators, the combination with a slidable door, of pneumatic means for opening and closing the same, a valve for directing the admission and the exit of air, a contact member carried by the elevator car and arranged to operate said valve, and centrifugal means carried by the elevator car for actuating the contact member.

2. In a door opening device for elevators, the combination with a slidable door, of a rack bar secured thereto, a gear in mesh with said rack bar, a second rack bar, a piston connected with said second rack bar, a cylinder arranged to receive said piston, a valve for admitting compressed air to either end of said cylinder, and a centrifugally controlled contact member carried by an elevator car and arranged to operate said valve.

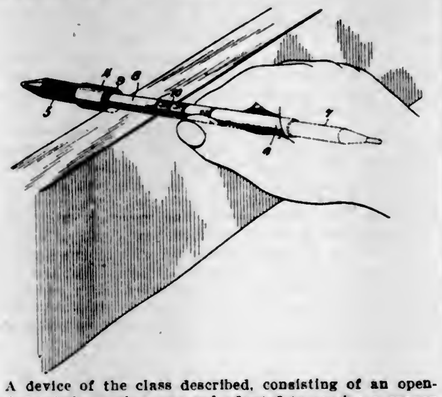
3. In a door opening device for elevators, the combination with a slidable door, of a rack bar carried thereby, gears arranged to engage said rack bar, a second rack bar, a piston having a piston rod on each side thereof, said piston rods being connected with said second rack bar, a cylinder arranged to receive said piston, a valve for admitting compressed air on either side of said piston, a plunger carried by the elevator car, a friction wheel, a centrifugal governor operated by said wheel and arranged to actuate said plunger, and a valve stem carried by said valve and arranged to be engaged by said plunger for shifting the valve.

4. In a door opening device for elevators, the combination with a slidable door, of pneumatic means for opening and closing the same, a valve for directing the admission and exit of air, a contact member carried by the elevator car and arranged to operate said valve, the movement of said contact member being automatically controlled by the movement of the elevator car, and centrifugal means carried by the elevator car for actuating the contact member.

5. In a door opening device for elevators, the combination with a slidable door, of a cylinder, a piston disposed therein, a rack bar connected with said piston, means operated by said rack bar for opening and closing said door, a valve for admitting compressed air at either end of said cylinder, a pipe leading from the valve to each end of said cylinder for admitting compressed air, an exhaust pipe leading from each end of said cylinder to said valve and automatic means carried by the elevator car for controlling said valve.

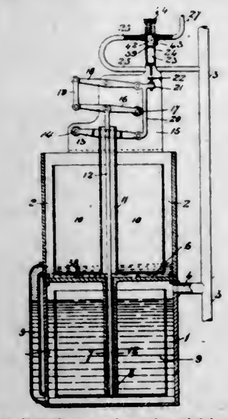
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942,771. COMBINED CRAYON, LUMBER-GAGE, AND TALLY-PENCIL. CLAYTON P. BREINING, Hancock, Md. Filed June 2, 1909. Serial No. 499,646.



A device of the class described, consisting of an open-ended tubular casing, one end adapted to receive a crayon and the other end a pencil, and an intermediate and integral connecting portion forming a gage and having a diameter equal to the pencil-receiving end, the crayon-receiving end having a greater interior diameter than the last-mentioned portions and forming an enlarged tubular holder for the crayon, an annular shoulder or flange at the junction of the crayon-receiving end and gage, said shoulder forming a stop for the end of the crayon and also a shoulder for the gage, and a plurality of marks provided on the gage and spaced apart to form a scale of inches and fractions thereof leading off from the said shoulder.

942,772. GAS LIGHTING AND EXTINGUISHING APPARATUS. ARTHUR E. BROADBERRY, London, England. Filed Mar. 21, 1908. Serial No. 422,500.



1. In a gas lighting and extinguishing apparatus, in combination, a gas lamp, a gas supply pipe, a valve in the supply pipe and controlling the supply of gas to the lamp, valve operating means including a pressure operated element, and means for causing the operation of the valve operating means and comprising a gas receiver, a connection between the gas receiver and the supply pipe, a connection between the supply pipe and the pressure operated element, a valve controlling the last named connection and normally closing the same, a float controlling the operation of the last named valve and resting in a body of liquid in the gas receiver and means having a constricted aperture in communication with the space in which the body of liquid is confined whereby slight and gradual pressure variations are without substantial effect on the float but whereby a sudden and material increase in the pressure will cause a corresponding change in the position of the float to cause the latter to open the last named valve.

2. In a gas lighting and extinguishing apparatus, in combination, a gas lamp, a gas supply pipe, a valve in the supply pipe and controlling the supply of gas to the lamp, valve operating means including a pressure operated element and means for causing the operation of the valve operating means and comprising a gas receiver having two chambers and a partition separating the chambers and having a constricted opening affording communication therebetween, a connection between the supply pipe and the pressure operated element, valve means controlling the connection, a float in each chamber and resting on a body of liquid therein, means connecting the floats and the valve means whereby the latter is operated by movement of the former and means connecting the supply pipe and one of the chambers.

3. In a gas lighting and extinguishing apparatus, in combination, a gas lamp, a gas supply pipe, a valve in the supply pipe and controlling the supply of gas to the lamp, valve operating means including a pressure operated element and means for causing the operation of the valve operating means and comprising a gas receiver having two liquid containing chambers associated therewith, means separating said chambers and having a constricted opening affording communication therebetween, a connection between the supply pipe and the pressure operated element, valve means in the connection, a float in one of the chambers and having operative movement in accordance with a variation in the level of the liquid in said chamber, means connecting the float and the valve means whereby the operative movement of the former causes the opening of the latter and a connection between the supply pipe and one of the chambers.

4. In a gas lighting and extinguishing apparatus, in combination, a gas supply pipe, a casing for maintaining a body of liquid in communication with the supply pipe, a partition in the casing and provided with a constricted opening in communication with the space in which the body of liquid is confined, an operating element in the casing and arranged to be operatively moved upon any sudden increase in the pressure of the gas of such degree that the liquid flowing through the constricted opening can not wholly compensate therefor, a lamp receiving gas from the supply pipe, a lamp valve controlling the flow of gas to the lamp, pressure-operated means for operating the lamp valve, a by-pass connection between the supply pipe and the pressure operated means, a by-pass connection valve and an operative connection between the operating element and the by-pass connection valve.

5. In a gas lighting and extinguishing apparatus, in combination, a supply pipe, a valve controlling the flow of gas therethrough, valve operating means including a movable pressure controlled element, a by-pass connection between the supply pipe and the pressure controlled element, a second valve controlling the flow of gas through the by-pass connection and an element arranged to be operatively moved upon a sudden and material variation of the pressure in the supply pipe for causing thereby the operative movement of the second valve.

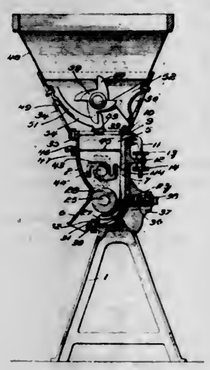
942,773. FRICTION DRAFT-RIGGING. CHESTER K. BROOKS, Cleveland, Ohio, assignor to The National Malleable Castings Company, Cleveland, Ohio, a Corporation of Ohio. Filed Feb. 5, 1909. Serial No. 476,197.

1. A friction draft rigging having friction elements with friction surfaces longitudinal with the line of draft, a link connecting said elements and actuated in buffing and draft by motion of said elements relatively to each other, and spring mechanism.

2. A friction draft rigging having friction elements with friction surfaces longitudinal with the line of draft, a link connecting said elements and actuated in buffing

the casing to which said projection is pivotally connected, and a spring upon the casing yieldingly backing the curved end of the arm.

2. In a grinding apparatus, the combination of a casing, a grinding roll at the lower end of the casing, a bracket arm extending vertically within the casing having a curved lower end carrying a concave arranged adjacent the roll, a vertically adjustable support pivotally connected with the upper end of the arm, a spring upon the casing and yieldingly backing the curved end of the arm, and an adjustable stop for limiting the upward vertical adjustment of the arm, and an adjustable stop for limiting the downward vertical adjustment of the arm.



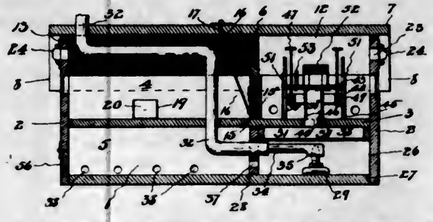
3. In a grinding apparatus, the combination of a casing having a slot at the upper end thereof, a grinding roll journaled in said casing, a bracket arm vertically arranged within the casing and having a lower curved end carrying a concave for coaction with the roll and provided at its upper end with a projection extending through said slot, a screw stem supported exteriorly of the casing and pivotally connected with said projection, adjusting nuts for raising and lowering said stem, and a spring arranged upon the casing and yieldingly backing the curved end of the bracket.

4. In a grinding apparatus, the combination of a casing having a slot in the upper end thereof, a grinding roll within the casing, a vertically disposed bracket arm within the casing having a lower curved end partially surrounding the roll and having a projection at its upper end extending through said slot, a concave carried by the curved end of the arm, an adjustable support upon the exterior of the casing pivotally connected with said projection, a concave carried by the curved end of the arm, adjustable stops engaging the upper and lower ends of the arm for limiting the vertical movements thereof, a spring upon the casing yieldingly backing the curved end of the arm, and means for varying the tension of said spring.

5. In a grinding apparatus, the combination of a casing having a slot therein, a grinding roll within the casing, a vertical bracket arm within the casing having a lower curved end partially surrounding the roll and having a projection at its upper end extending outwardly through said slot, a sectional concave carried by the curved end of the arm, a bracket on the exterior of the casing, a threaded rod carried by the bracket and pivotally connected with said projection, nuts upon said rod above and below the bracket for vertically adjusting the rod, a spring upon the casing yieldingly backing the curved end of the arm, means for regulating the resistance of said spring, and adjustable stops engaging the upper and lower ends of the arm for limiting the vertical movements thereof.

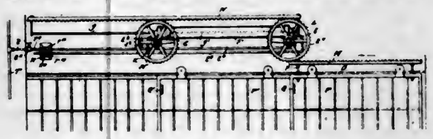
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1. In a door opening device for elevators, the combination with a slidable door, of pneumatic means for opening and closing the same, a valve for directing the admission and the exit of air, a contact member carried by the elevator car and arranged to operate said valve, and centrifugal means carried by the elevator car for actuating the contact member.

2. In a door opening device for elevators, the combination with a slidable door, of a rack bar secured thereto, a gear in mesh with said rack bar, a second rack bar, a piston connected with said second rack bar, a cylinder arranged to receive said piston, a valve for admitting compressed air to either end of said cylinder, and a centrifugally controlled contact member carried by an elevator car and arranged to operate said valve.

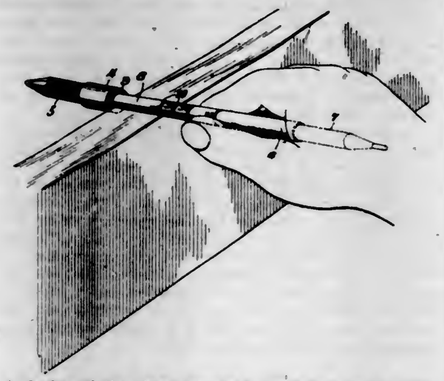
3. In a door opening device for elevators, the combination with a slidable door, of a rack bar carried thereby, gears arranged to engage said rack bar, a second rack bar, a piston having a piston rod on each side thereof, said piston rods being connected with said second rack bar, a cylinder arranged to receive said piston, a valve for admitting compressed air on either side of said piston, a plunger carried by the elevator car, a friction wheel, a centrifugal governor operated by said wheel and arranged to actuate said plunger, and a valve stem carried by said valve and arranged to be engaged by said plunger for shifting the valve.

4. In a door opening device for elevators, the combination with a slidable door, of pneumatic means for opening and closing the same, a valve for directing the admission and exit of air, a contact member carried by the elevator car and arranged to operate said valve, the movement of said contact member being automatically controlled by the movement of the elevator car, and centrifugal means carried by the elevator car for actuating the contact member.

5. In a door opening device for elevators, the combination with a slidable door, of a cylinder, a piston disposed therein, a rack bar connected with said piston, means operated by said rack bar for opening and closing said door, a valve for admitting compressed air at either end of said cylinder, a pipe leading from the valve to each end of said cylinder for admitting compressed air, an exhaust pipe leading from each end of said cylinder to said valve and automatic means carried by the elevator car for controlling said valve.

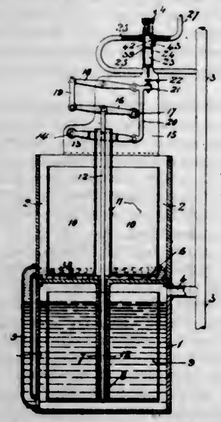
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1. In a gas lighting and extinguishing apparatus, in combination, a gas lamp, a gas supply pipe, a valve in the supply pipe and controlling the supply of gas to the lamp, valve operating means including a pressure operated element, and means for causing the operation of the valve operating means and comprising a gas receiver, a connection between the gas receiver and the supply pipe, a connection between the supply pipe and the pressure operated element, a valve controlling the last named connection and normally closing the same, a float controlling the operation of the last named valve and resting in a body of liquid in the gas receiver and means having a constricted aperture in communication with the space in which the body of liquid is confined whereby slight and gradual pressure variations are without substantial effect on the float but whereby a sudden and material increase in the pressure will cause a corresponding change in the position of the float to cause the latter to open the last named valve.

2. In a gas lighting and extinguishing apparatus, in combination, a gas lamp, a gas supply pipe, a valve in the supply pipe and controlling the supply of gas to the lamp, valve operating means including a pressure operated element and means for causing the operation of the valve operating means and comprising a gas receiver having two chambers and a partition separating the chambers and having a constricted opening affording communication therebetween, a connection between the supply pipe and the pressure operated element, valve means controlling the connection, a float in each chamber and resting on a body of liquid therein, means connecting the floats and the valve means whereby the latter is operated by movement of the former and means connecting the supply pipe and one of the chambers.

3. In a gas lighting and extinguishing apparatus, in combination, a gas lamp, a gas supply pipe, a valve in the supply pipe and controlling the supply of gas to the lamp, valve operating means including a pressure operated element and means for causing the operation of the valve operating means and comprising a gas receiver having two liquid containing chambers associated therewith, means separating said chambers and having a constricted opening affording communication therebetween, a connection between the supply pipe and the pressure operated element, valve means in the connection, a float in one of the chambers and having operative movement in accordance with a variation in the level of the liquid in said chamber, means connecting the float and the valve means whereby the operative movement of the former causes the opening of the latter and a connection between the supply pipe and one of the chambers.

4. In a gas lighting and extinguishing apparatus, in combination, a gas supply pipe, a casing for maintaining a body of liquid in communication with the supply pipe, a partition in the casing and provided with a constricted opening in communication with the space in which the body of liquid is confined, an operating element in the casing and arranged to be operatively moved upon any sudden increase in the pressure of the gas of such degree that the liquid flowing through the constricted opening can not wholly compensate therefor, a lamp receiving gas from the supply pipe, a lamp valve controlling the flow of gas to the lamp, pressure-operated means for operating the lamp valve, a by-pass connection between the supply pipe and the pressure operated means, a by-pass connection valve and an operative connection between the operating element and the by-pass connection valve.

5. In a gas lighting and extinguishing apparatus, in combination, a supply pipe, a valve controlling the flow of gas therethrough, valve operating means including a movable pressure controlled element, a by-pass connection between the supply pipe and the pressure controlled element, a second valve controlling the flow of gas through the by-pass connection and an element arranged to be operatively moved upon a sudden and material variation of the pressure in the supply pipe for causing thereby the operative movement of the second valve.

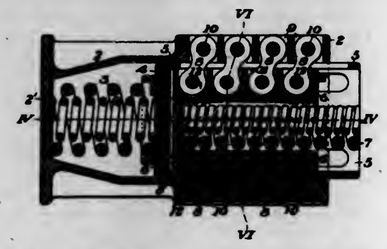
942,773. FRICTION DRAFT-RIGGING. CHESTER K. BROOKS, Cleveland, Ohio, assignor to The National Malleable Castings Company, Cleveland, Ohio, a Corporation of Ohio. Filed Feb. 5, 1909. Serial No. 476,197.

1. A friction draft rigging having friction elements with friction surfaces longitudinal with the line of draft, a link connecting said elements and actuated in buffing and draft by motion of said elements relatively to each other, and spring mechanism.

2. A friction draft rigging having friction elements with friction surfaces longitudinal with the line of draft, a link connecting said elements and actuated in buffing

and draft by motion of said elements relatively to each other, spring mechanism, and an interposed friction plate.

3. A friction draft rigging having longitudinally movable friction elements whose friction surfaces are longitudinal with the line of draft, springs opposing the motion of said elements, and a link connecting the said elements and drawing them together in buffing and draft.

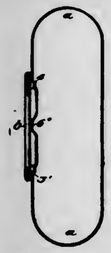


4. A friction draft rigging having longitudinally movable friction elements whose friction surfaces are longitudinal with the line of draft, and one of which has a stop bearing on the car frame, a link connecting said elements and drawing them together in buffing and draft, and spring mechanism.

5. A friction draft rigging having, in combination with the longitudinally movable coupler, friction elements whose friction surfaces are longitudinal with the line of draft, a link connecting the same and an interposed friction plate independent of the coupler, and spring mechanism.

[Claims 6 to 20 not printed in the Gazette.]

942,774. SNAP-SEAL. EDWARD J. BROOKS, East Orange, N. J. Filed Sept. 15, 1909. Serial No. 517,857.



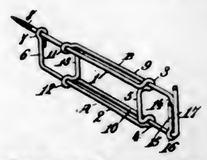
1. The combination, in a snap seal of a flexible shackle of flat wire and a substantially flat seal part of sheet metal, united at one of the shackle ends, said shackle having at its other end a resilient terminal hook and said seal-part comprising a member provided on its back with a tunnel-shaped projection forming an inlet and passage constructed to admit said hook, a seal-part member covering the front of the member first named, and a substantially tubular catch member within said passage constructed with partly detached latitudinal portions forming successive holds for the hook within it.

2. The combination, in a snap seal, of a flexible shackle of flat wire and a substantially flat seal part of sheet metal, united at one of the shackle ends, said shackle having at its other end a resilient terminal hook, and said seal-part comprising a member provided on its back with a tunnel-shaped projection forming an inlet and passage constructed to admit said hook and having a contracted inlet end and a closed inner end, a seal-part member covering the front of the member first named, and a substantially tubular catch member within said passage held in place between said inner end and said contracted inlet end and constructed with partly detached latitudinal portions forming successive holds for the hook within it.

3. In combination with a flexible flat-wire shackle having a resilient terminal hook at each end, a substantially flat sheet-metal seal-part member provided on its back with a pair of tunnel-shaped projections forming an inlet and passage for each shackle end, a seal-part member covering the front of the member first named, and a catch device having a pair of substantially tubular members forming successive holds for the respective hooks within the respective passages and a portion connecting said tubular members.

4. In combination with a flexible flat-wire shackle having a resilient terminal hook at each end, a substantially flat sheet-metal seal-part member provided on its back with a pair of tunnel-shaped projections forming an inlet passage for each shackle end, and a seal-part member covering the front of the member first named, a catch device of sheet metal in one piece including a pair of substantially tubular members constructed with longitudinal portions and with partly detached latitudinal portions forming successive holds for the respective hooks within the respective passages and a portion connecting said longitudinal portions of the respective tubular members, substantially as hereinbefore specified.

942,775. WINDOW-SHADE BRACKET. COLBERT W. BROWN, Leonard, Tex. Filed June 5, 1909. Serial No. 500,292.



1. A window shade bracket comprising a pair of slidably connected skeleton wire members, one of said members being provided with an attaching device, the other member having its ends bent to coöperate with each other in forming a bar-supporting loop.

2. In a window shade bracket, a member constructed of a single strip of wire having one end thereof formed with an eye and the other end passed through said eye, and bent parallel with the first-mentioned end to coöperate therewith in forming a bar-supporting-hook, one of said ends forming the tongue and the other end the stem of the hook.

3. In a window shade bracket, a member constructed of a single strip of wire bent to provide a pair of spaced parallel sections, and a connecting section, the free end of one of said parallel sections being bent downwardly and formed with an eye, and the free end of the other parallel section being passed through said eye and bent upwardly, said bent ends coöperating with each other in forming a bar-supporting-hook.

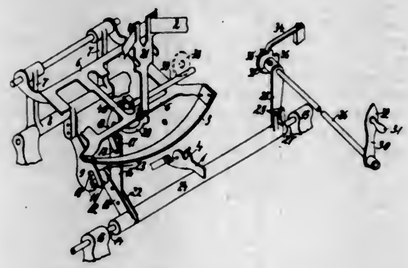
4. A window shade bracket comprising a pair of slidably connected wire members, one of said members being provided with an attaching device, and the other member having one end thereof formed with an eye and the other end passed through said eye, and bent parallel with the first-mentioned end to coöperate therewith in forming a bar-supporting-hook, one of said ends forming the tongue and the other end the stem of the hook.

5. A window shade bracket, comprising a pair of adjustable members, each having parallel side wires provided with eyes through which the side wires of the other member project, one of the side wires of one section being extended and threaded, to form an attaching device.

[Claim 6 not printed in the Gazette.]

942,776. TYPE-WRITING MACHINE. HARRY CRUTCHLEY, Jersey City, N. J., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of New Jersey. Filed Nov. 25, 1908. Serial No. 464,354.

1. In a typewriting machine, the combination of a ribbon-vibrating lever, a rocker arm engaging said lever and mounted on a shaft, a wrist engaged by said rocker arm, a member reciprocating at the type strokes and normally engaged by said wrist, a wrist-carrier mounted upon said shaft to rock with said arm, said carrier movable along said shaft to withdraw said wrist from said reciprocating member, and means to adjust said carrier.



2. In a typewriting machine, the combination of a ribbon-vibrating lever, a rocker arm engaging said lever and mounted on a shaft, a wrist engaged by said rocker arm, a member reciprocating at the type strokes and normally engaged by said wrist, a wrist-carrier mounted upon said shaft to rock with said arm, said carrier movable along said shaft to withdraw said wrist from said reciprocating member, means to adjust said carrier, and a detent to hold said carrier at different adjustments.

3. In a typewriting machine, the combination with a platen-shift rail, of a ribbon-vibrating lever mounted thereon and having a depending arm provided with a pin, a rocker-arm mounted at its lower end upon a shaft and at its upper end having a vertical slot to engage said pin and permit up and down shifting of the platen-shift rail, a wrist movable axially in said rocker arm; a slotted vibrating arm fixed upon a rocking support of a universal-bar frame which reciprocates at the type strokes, a sleeve upon said shaft, said sleeve having an arm in which said wrist is fixed, a forwardly extending shaft, an arm upon the latter and having an engagement with said sleeve, a finger-piece and index upon said forwardly extending shaft, and a detent connected to the latter shaft for holding said wrist either in or out of engagement with said slotted arm.

4. In a typewriting machine, the combination with a vibrating lever 9, of a ribbon-vibrating rocker arm, a wrist 11 movable axially in said rocker arm to connect and disconnect it from said lever, a carrier upon which said wrist is mounted, said carrier mounted to vibrate idly with said rocker arm and also to withdraw and return said wrist from engagement with said lever 9, and a manually controlled member mounted upon the framework and loosely connected to said carrier to shift said wrist.

5. In a typewriting machine, the combination with type keys and a universal-bar frame operated thereby, of a ribbon vibrator, a lever connected to the ribbon vibrator having a downwardly extending arm, an upwardly extending rocker arm fixed at its lower end upon a shaft extending across and fixed in the machine frame, said rocker arm provided with an upwardly extending auxiliary arm provided at its upper end with a slot engaged by a pin carried by the downwardly extending arm of the lever, a second rocker arm extending parallel with the first rocker arm and secured at its lower end upon a hollow shaft mounted upon the first shaft for endwise sliding movement, a wrist carried at the upper end of said second rocker arm, said wrist engaging a bearing in the upper end of the first rocker arm for axial movement, and a downwardly and forwardly extending vibrating arm fixed upon the universal-bar frame, said arm provided with a slot at its lower end normally engaged by the wrist to operate the ribbon vibrator at the type strokes.

[Claims 6 and 7 not printed in the Gazette.]

942,777. SPINNING-SPINDLE. JOHN V. CUNNIFF, Fall River, Mass., assignor to William F. Draper, Hopedale, Mass. Filed June 21, 1909. Serial No. 503,290.



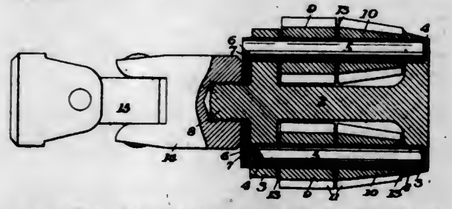
1. A spinning spindle having spring fingers at its upper portion formed integral therewith, and forming the sole bobbin driving connection between the spindle and bobbin.

2. An upright spinning spindle having a slot at its upper portion forming spring bobbin-driving fingers adapted to engage the interior of and drive a bobbin and having a shoulder or seat for the lower part of the bobbin, said spring fingers forming the sole bobbin driving connection between the bobbin and the spindle.

3. A spinning spindle having a projecting portion upon which the lower portion of a bobbin may rest, and provided with bobbin driving spring fingers at its upper portion formed integral with the spindle and forming the sole bobbin driving connection between the bobbin and spindle.

4. A spinning spindle having spring fingers at its upper portion formed integral therewith, the ends of said spring fingers having inclined surfaces and a seat or shoulder on the spindle on which the lower end of the bobbin may rest, said spring fingers forming the sole bobbin driving connection between the bobbin and the spindle.

942,778. BOILER-TUBE CLEANER. WILLIAM S. ELLIOTT, Pittsburg, Pa. Filed Mar. 11, 1909. Serial No. 482,658.



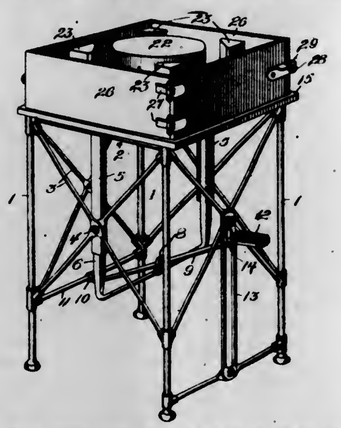
1. A boiler tube cleaner, comprising a head having front and rear arms formed with openings therein, a plurality of pins or spindles seated in said openings, and having shouldered or recessed projecting rear end portions, and a retaining ring engaging the recesses of said end portions, and holding the pins against rearward movement, said ring being removable to permit the pins to be removed from said openings, and cutters loosely mounted on the pins or spindles between the said arms; substantially as described.

2. A boiler tube cleaner, comprising a head having front and rear arms formed with openings therein, the openings in the forward arms being closed at their forward ends, a plurality of pins or spindles seated in said openings, and inserted from the rear of the head, said pins or spindles having their rear end portions projecting beyond

the rear arms of the head, and formed with shoulders or recesses, and a removable retaining member engaging the shoulders or recesses of all the pins or spindles; substantially as described.

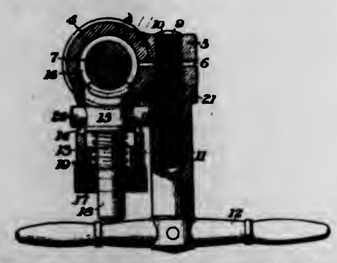
3. A boiler tube cleaner, comprising a head having front and rear arms formed with openings therein, a plurality of pins or spindles seated in said openings, and having shouldered or recessed projecting rear end portions, and a retaining ring engaging the recesses of said end portions, and holding the pins against rearward movement, said ring being removable to permit the pins to be removed from said openings, together with a drill secured to said head in advance of the cutters.

942,779. FLUE-BLOCK MOLD. OLIVER C. HIATT, Elwood, Ind. Filed Aug. 28, 1908. Serial No. 450,709.



A flue block mold comprising a frame, a pallet supporting top, a vertically movable core plate, a flue core and four ventilator cores carried by the core plate, a stationary pallet having apertures of the same size and shape as the flue core and ventilator cores, a detachable side wall frame, and means for raising and lowering the core plate to project the flue core through said aperture comprising a U-shaped sliding yoke having upwardly extending bars terminally connected to the core plate, guides in which said arms slide, a single operating lever fulcrumed at one end of the stand and having a sliding connection at an intermediate point with the cross bars of the yoke, a slotted guide for said lever, and a catch for holding said lever in position to sustain the core plate elevated.

942,780. COUPLING DEVICE. LORENZ IVERSEN, West Homestead, Pa., assignor to Mesta Machine Company, Pittsburg, Pa., a Corporation of Pennsylvania. Filed June 8, 1909. Serial No. 500,925.



1. In a device of the character described, the combination of two telescoping members, a spring-pressed latch device carried by one of said members and arranged to engage the other member, and a clamping device for clamping the two members rigidly together, said clamping device having means for releasing the latch member; substantially as described.

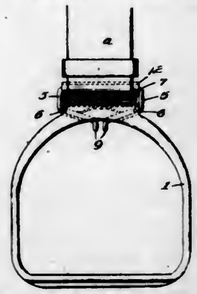
2. In a device of the character described, the combination of two telescoping members, the outer member consisting of a sleeve having a split portion, a clamping device for clamping the split portion of the sleeve upon the other member, a latch device carried by said sleeve and arranged to engage the other member, and means whereby the release of the clamping device releases the latch device; substantially as described.

5. In a device of the character described, a split sleeve section, a rod telescoping said section and having a recess therein, a spring-pressed latch carried by the sleeve section and arranged to engage the recess in the rod, and a clamping device for the sleeve section, said clamping device having means for engaging the latch member to release the same; substantially as described.

4. In a device of the character described, a split sleeve section, a rod telescoping said section and having a recess therein, a spring-pressed latch carried by the sleeve section and arranged to engage the recess in the rod, a clamping device for the sleeve section, said clamping device having means for engaging the latch member to release the same, and a latch member having an extension forming a stop for the clamping device; substantially as described.

5. In a device of the character described, a rod, a split sleeve section telescoping over the rod, a clamping bolt and nut for said sleeve, and a spring-pressed latch member carried by the sleeve and arranged to engage a recess in the rod, said latch member and nut having portions adapted to engage with each other to effect the release of the latch, and also having portions coöperating to form a stop for the nut; substantially as described.

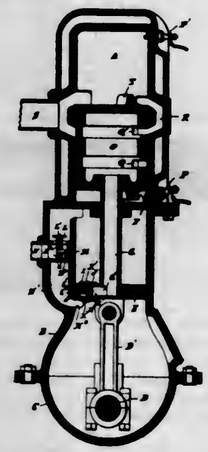
942,781. SAFETY-STIRRUP. WILLIAM V. JOHNSTON, Everett, Wash. Filed May 7, 1909. Serial No. 494,576.



A stirrup having a recess in its upper side, said recess opening at its ends in the upper portion of the stirrup and also opening downwardly above the center of the stirrup, hooks pivotally mounted on said stirrup, having upturned arms provided with inturned heads or bills, said hooks being further provided with downwardly extending arms operating in said recess and provided with downturned end portions which extend downwardly in the upper portion of the stirrup above the foot rest thereof, and a spring in said recess bearing on said lower arms of the hooks and normally securing the hooks in engaged position, in combination with a link for connection to a stirrup strap and having recesses in its ends for engagement by the heads of bills of the hooks.

942,782. INTERNAL-COMBUSTION ENGINE. HAROLD L. JONES, Carthage, N. Y. Filed Mar. 22, 1909. Serial No. 485,116.

1. An internal combustion engine having a cylinder and a plurality of compression chambers, a hollow piston within said cylinder and adapted to communicate with the latter as the piston approaches its limit in opposite directions, a sparking plug adjacent to each end of the cylinder, a hollow piston stem fastened to and communicating with said piston, a compression head separating said chambers and connected to said stem, and valve regulated means for allowing a gaseous fuel to enter said piston from the compression chambers, as set forth.



2. An internal combustion engine having a cylinder and a plurality of compression chambers, a hollow piston within said cylinder and adapted to communicate with the latter as the piston approaches its limit in opposite directions, a sparking plug adjacent to each end of the cylinder, a hollow stem fastened to and communicating with said piston, a compression head separating said chambers and connected to said stem, a valve regulated fuel passageway communicating with the compression chambers, and a valve regulated passageway leading through said compression head to said piston stem, as set forth.

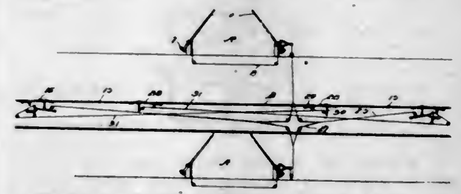
3. An internal combustion engine having a cylinder and a plurality of compression chambers, a hollow piston head within said cylinder and adapted to communicate with the latter as the piston approaches its limit in opposite directions, a sparking plug adjacent to each end of the cylinder, a hollow stem fastened to and communicating with said piston head, a compression head separating said chambers and connected to said stem, a valve regulated fuel passageway communicating with the compression chamber said head provided with a port leading into said hollow piston stem, a double valve mounted in an opening in said compression head and adapted to regulate communication between the compression chambers upon opposite sides of the compression head, and the hollow piston, as set forth.

4. An internal combustion engine having a cylinder and a plurality of compression chambers, a hollow piston head within said cylinder and adapted to communicate with the latter as the piston approaches its limit in opposite directions, a sparking plug adjacent to each end of the cylinder, a hollow stem fastened to and communicating with said piston head, a compression head separating said chambers and connected to said stem, said compression head provided with a duct communicating with said hollow stem, a plug seated in an opening in said compression head, a double valve mounted in said plug and regulating ports leading through said plug, the latter being provided with an opening communicating with the duct in said head, and a valve regulated fuel passageway communicating with the compression chambers above and below the compression head, as set forth.

5. An internal combustion engine having a cylinder and a plurality of compression chambers, a hollow piston head within said cylinder and adapted to communicate with the latter as the piston approaches its limit in opposite directions, a sparking plug adjacent to each end of the cylinder, a hollow stem fastened to and communicating with said piston, a compression head separating said chambers and connected to said stem, said compression head provided with a duct communicating with said hollow stem, a hollow threaded plug mounted in an opening leading through the compression head, said plug having a circumferential opening communicating with said duct which communicates with the stem, a double suction and compression valve regulating openings in the ends of said plug, and a valve regulated fuel passageway communicating with the compression chambers on opposite sides of the compression head, as set forth.

[Claims 6 to 9 not printed in the Gazette.]

942,783. RAILWAY-GATE. EDWARD L. KISHPAUGH, Chatham, N. J. Filed July 24, 1908. Serial No. 509,340.



1. In a railroad gate, a counter-weighted gate lever, a pinion connected therewith, a rack segment meshing with the pinion, a spring supported operating lever adapted to be operated by a passing train, a trigger lever, a link connecting the latter with the spring supported lever, a spring actuated trigger engaging the trigger lever trigger actuating mechanism, and a suitably guided flexible element connecting the trigger lever with the gate actuating segment rack.

2. In a railroad gate, a counter-weighted gate lever, a segment rack actuating the same, a spring supported operating lever, a trigger lever, a link connecting the latter with the operating lever, a spring actuated trigger engaging the trigger lever, a suitably guided flexible element connecting the trigger lever with the gate actuating segment rack, a spring supported releasing lever having a depending arm, and a suitably guided flexible element connecting said arm with the spring actuated trigger.

942,784. HINGE-HANGER. GILBERT E. LEVERTON, Denver, Colo. Filed Mar. 5, 1909. Serial No. 481,284.

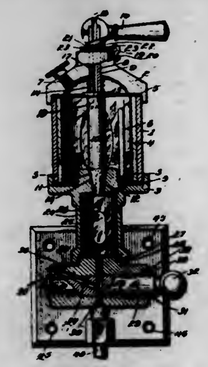


A hanger for window screens and the like, comprising complemental members one member having spaced hooks whose closed ends are square or flat and the other member having a shank of a width corresponding to the distance between said spaced hooks, and a flat cross head at the end of the shank arranged about at a right angle to the plane of the member and adapted to obtain a square seat upon the flat closed ends of the aforesaid hooks.

942,785. PRIMER FOR GASOLENE-ENGINES. ALBERT H. LINAWEAVER, Findlay, Ohio. Filed May 19, 1909. Serial No. 496,928.

1. A primer for gasolene engines embodying a reservoir for gasolene, a charge measuring chamber adapted to be placed in communication with said reservoir, a reservoir cock controlling such communication and pro-

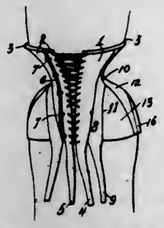
vided with an air vent, a priming tube leading from said measuring chamber to the mixture intake pipe at a point between the carbureter and combustion chamber, an air inlet in communication with said priming tube, and a priming cock controlling said air inlet and communication between the measuring chamber and priming tube.



2. A primer for gasolene engines embodying a reservoir for gasolene a charge measuring chamber adapted to be placed into communication with said reservoir, a reservoir cock controlling said communication, a priming tube leading from said measuring chamber to the mixture intake pipe at a point between the carbureter and combustion chamber, an air inlet in communication with said priming tube, and a priming cock having passages which simultaneously register with said air inlet and the port between the measuring chamber and priming tube.

3. A primer for gasolene engines embodying a reservoir for gasolene, a charge measuring chamber adapted to be placed in communication with said reservoir, a reservoir cock controlling said communication, a priming tube leading from said measuring chamber to the mixture intake pipe at a point between the carbureter and combustion chamber, an air inlet in communication with said priming tube, a dust protector overlying the entrance to said air inlet, and a priming cock controlling said air inlet and communication between the measuring chamber and said priming tube.

942,786. CORSET. CATHERINE MACMAHN, Toledo, Ohio. Filed Mar. 30, 1905. Serial No. 252,830.



A corset comprising elongated triangular central corset sections 1 and 2 extending from the bust line to points below the lower edge of the corset, the extended portions constituting integrally formed hose-supporters, the adjacent margins of said central corset sections forming the median line of the corset, said margins being provided with lacing devices, and one of said central sections being formed of two parts and the other of said sections being formed of a single part, the adjacent edges of such parts being parallel with the median line of the corset, the adjacent edges of said two parts being provided with clasping devices, that one of said two parts lying nearer the median line of the corset comprising a long narrow strip of substantially the same width throughout, the other of said two parts being triangular in form and a plurality of connecting pieces, the connecting pieces immediately adjoining each of the said central corset sections 1 and 2 being also extended below the lower edge of the corset to constitute a hose supporter, substantially as described.

942,787. FLEXIBLE CONDUIT. CHARLES H. MILLER, West Pittsburg, Pa., assignor to Safety-Armorite Conduit Company, Pittsburg, Pa., a Corporation of Pennsylvania. Filed July 25, 1907. Serial No. 385,517.



1. A non-metallic flexible conduit for electric wires, having an inner layer provided with a smooth interior face, and a tubular braided or woven fabric surrounding said inner layer and saturated with a protecting substance; substantially as described.

2. A non-metallic flexible conduit for electric wires, having an inner layer provided on its inner surface with a coating or lining of smooth material, a tubular braided or woven fabric surrounding the inner layer and saturated with a fireproofing solution, and a helically wound strip of paper surrounding and covering the fabric; substantially as described.

3. A flexible non-metallic conduit for electric wires, comprising an inner layer of oil cloth, a tubular braided or woven fabric surrounding the oil cloth, a flexible strip wound helically over said fabric, another woven or braided tubular fabric surrounding the helically wound strip, and an outer layer of protecting compound; substantially as described.

4. A flexible non-metallic conduit for electric wires, comprising an inner fabric tube having a smooth interior surface, a second fabric tube surrounding the first and coated with a waterproofing solution, a helically wound paper strip surrounding the fabric tube, a woven or braided tubular fabric surrounding the paper strips and saturated with a protecting solution, and an outer covering of mica flakes; substantially as described.

942,788. CONDUIT FOR ELECTRIC WIRES. CHARLES H. MILLER, West Pittsburg, Pa., assignor to Safety-Armorite Conduit Company, Pittsburg, Pa., a Corporation of Pennsylvania. Filed July 25, 1907. Serial No. 385,518.



1. A flexible conduit for electric wires, having an inner lining of woven or braided strips, the weft and warp strips being spirally wound in opposite directions; substantially as described.

2. A flexible conduit for electric wires, having an inner lining of woven or braided strips, the weft and warp strips being spirally wound in opposite directions, and a waterproofed tubular braided or woven fabric around said inner layer; substantially as described.

3. A conduit for electric wires, having an inner lining of woven or braided paper strips, the weft and warp strips being wound in opposite directions, a succeeding layer of spirally wound strip, and an outer braided or woven tubular fabric saturated with a waterproofing compound; substantially as described.

4. A conduit for electric wires, having an inner lining of woven or braided paper strips, the weft and warp strips being spirally wound in opposite directions, a succeeding layer of spirally wound strips of paper, and an outer braided or woven tubular fabric saturated with waterproofing compound; substantially as described.

5. A conduit for electric wires, having an inner layer of woven or braided paper strips, the weft and warp strips being wound spirally in opposite directions, a tubular woven or braided fabric surrounding said inner layer, a spirally wound paper strip surrounding the fabric, and an outer woven or braided tubular fabric, both of said fabrics being saturated with a waterproofing compound; substantially as described.

[Claim 6 not printed in the Gazette.]

942,789. FLEXIBLE ELECTRIC CONDUIT. CHARLES H. MILLER, West Pittsburg, Pa., assignor to Safety-Armorite Conduit Company, Pittsburg, Pa., a Corporation of Pennsylvania. Filed July 25, 1907. Serial No. 385,519.



1. A flexible electric conduit containing a woven or braided tubular fabric and a flexible spirally wound wooden strip; substantially as described.

2. A flexible electric conduit containing an inner smooth composition lining, a covering consisting of a helically wound strip of reed or ratan, and a wrapping for the strips; substantially as described.

3. A flexible electric conduit having an inner fabric covered with composition, a spirally wound wooden strip inclosing the same, a wrapping for the wooden strips, and a woven or braided fabric inclosing the same and saturated with waterproofing compound, substantially as described.

4. A flexible electric conduit having an inner fabric covered with composition, a spirally wound wooden strip inclosing the same and impregnated with fireproofing material, a wrapping for the wooden strips, and a woven or braided fabric inclosing the same and saturated with waterproofing compound; substantially as described.

5. A flexible electric conduit having an inner oilcloth lining, a covering of helically wound wooden strips, a cloth wrapping for the strips, and braided or woven fabric suitably waterproofed and inclosing the same; substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

942,790. FLEXIBLE CONDUIT FOR ELECTRIC WIRES. CHARLES H. MILLER, West Pittsburg, Pa., assignor to Safety-Armorite Conduit Company, Pittsburg, Pa., a Corporation of Pennsylvania. Filed July 25, 1907. Serial No. 385,520.



1. A flexible non-metallic conduit for electric wires, consisting of an inner air and water-tight flexible tube, a helical winding of paper surrounding said tube, a muslin wrapper surrounding the paper winding and impregnated with an adhesive composition, and a braided or woven tubular fabric surrounding the muslin wrapping; substantially as described.

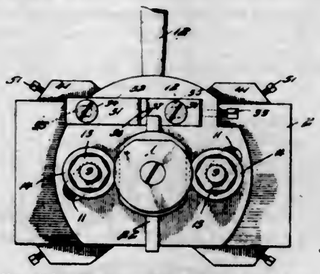
2. A flexible non-metallic conduit for electric wires, consisting of an inner air and water-tight flexible tube, a helical winding of paper surrounding said tube, a muslin wrapper surrounding the paper winding and impregnated with an adhesive composition, and a braided or woven tubular fabric surrounding the muslin wrapping, said fabric being treated with a fireproofing substance; substantially as described.

3. A flexible non-metallic conduit for electric wires, consisting of an inner air and water-tight flexible tube, a helical winding of paper surrounding said tube, a muslin wrapper surrounding the paper winding and impregnated with an adhesive composition, and a braided or woven tubular fabric surrounding the muslin wrapping, said fabric being treated with a fireproofing substance and having an outer coating of non-inflammable material; substantially as described.

4. A non-metallic flexible conduit for electric wires, comprising an inner fabric tube having a composition lining to form a smooth interior surface, a flexible strip wound spirally around said tube, a muslin wrapping for said strip, and a braided or woven tubular fabric surrounding the wrapping of a waterproof and non-inflammable character; substantially as described.

5. A flexible non-metallic conduit for electric wires, consisting of an inner fabric tube having a composition lining to form a smooth interior surface, a flexible stiffening strip wound spirally around said tube, a thin fabric wrapping for said strip and a braided or woven tubular fabric surrounding the wrapping, said fabric being treated with a protecting solution; substantially as described.

942,791. SCREW-CUTTING MACHINE. RICHARD C. NUGENT, Cincinnati, Ohio, assignor to The Nugent Tool Company, Cincinnati, Ohio. Filed Feb. 10, 1908. Serial No. 415,113.



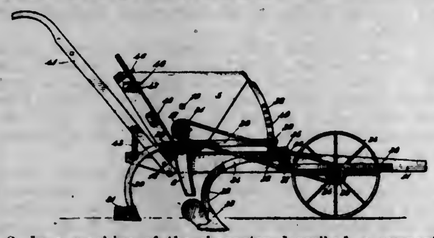
1. A collapsible die comprising a spindle and a head carried thereby, the head having a grooveway therein, die supporting slides held in said grooveway, pins carried by the slides and projecting rearwardly through slots in the head, pockets being formed in the head and springs seated in said pockets bearing against the slide pins to force the slides apart, abutment screws to be engaged by the pins to limit the opening movement of the slides, an annulus mounted on the spindle in rear of the head having cam slots receiving the slide pins, a latch on the annulus, an adjustable stop member mounted in the bore of the spindle, a transverse key carried by the same to engage the latch on the annulus to lock the annulus and hold the slides closed, a spring adjustably held in the bore of the spindle to hold the key in engagement with the latch, and cutters adjustably mounted on the slides.

2. A die comprising a head having a grooveway therein, die supporting slides held in the grooveway, pins on the slides projecting rearwardly through the head, springs seated in the head and bearing outwardly against the heads to force the slides outward, abutments to be engaged by the pins to limit the outward movement of the slides, an annulus rotatably mounted in rear of the head and having cam slots receiving the pins, a latch member carried by the annulus, an adjustable stop mounted in the head, a key carried by the same to engage the latch, a spring to hold the key in engagement with the latch, and cutters mounted in the slides.

942,792. COMBINED SEED-PLANTER AND FERTILIZER-DISTRIBUTER. EARL P. PATTERSON, Griffin, and JACOB T. PATTERSON, Milner, Ga. Filed Sept. 8, 1909. Serial No. 516,662.

1. In a machine of the class described, a supporting beam having a transverse recess, a wear plate in the bot-

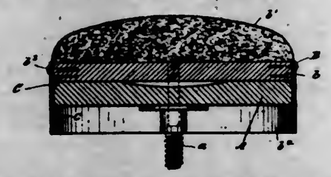
tom of said recess, a hopper having a downwardly extending stud, a seed box having a flange apertured to engage said stud, the side walls of said box being provided with transverse slots, a regulating slide seated for transverse movement between the flange of the seed tube and the wear plate, and means for adjusting said slide to regulate the escape of material from the seed box.



2. In a machine of the character described, a supporting beam, a seed box, an arcuate brace connecting the seed box with the beam and having a plurality of transverse perforations, a beam pivoted upon the side of the seed box concentric with the arcuate brace, a coverer carried by said beam, and means for connecting the latter adjustably with the arcuate brace.

3. In a machine of the character described, a supporting beam, a seed box supported thereon, a seed tube connected with the box and located adjacent to one side of the beam, a regulating slide extending transversely through the seed tube, means for operating said slide, a shaft supported for rotation in the seed box and having spirally disposed fingers, a transporting wheel supporting the front end of the beam, means for transmitting motion from the transporting wheel to the rotary shaft in the seed box, and auxiliary beams adjustably connected with the supporting beam and with the seed box and carrying furrow opening and covering means.

942,793. SUPPLEMENTAL SEAT. AUGUST REINEKE, Chicago, Ill. Filed Aug. 20, 1908. Serial No. 449,423.

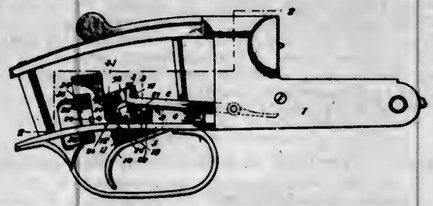


1. In a device of the class described the combination with a bottom member of upholstering thereon, a peripheral flange on said member, and a plurality of spring clips secured at their upper ends between said member and said flange and extending downwardly from said member in close contact with said flange, and each being provided near its lower end with an inwardly curved portion adapted to be straightened when forced against said flange.

2. In a device of the class described the combination with a seat of a bottom member adapted to overlie the same, upholstering on said member, a peripheral flange on said member extending below said seat and out of contact therewith, and a plurality of spring clips secured at their upper ends between said member and said flange and extending downwardly between said flange and said seat, each clip having an inwardly curved portion near its lower end adapted to be flattened against the flange when being moved past said seat.

942,794. SINGLE-TRIGGER MECHANISM FOR DOUBLE-BARREL GUNS. JOHN D. RUSS, Spencer, W. Va., assignor of one-sixth to A. J. Lyons and five-twelfths to F. F. McIntosh, Spencer, W. Va. Filed Nov. 25, 1907. Serial No. 403,742.

1. A single trigger mechanism for multi-barrel guns including a common sear-actuating means and a selective sear-actuating means both normally in firing position, and means whereby initial movement of the trigger forces said common sear-actuating means out of operative position, and further movement causes said selective-sear-actuating means to operate.



2. A single trigger mechanism for multi-barrel guns including a common sear-actuating means, a selective sear actuating means coöperating therewith and instrumentalities for moving said common sear-actuating means out of operative position immediately previous to the final actuating movement of said selective sear-actuating means.

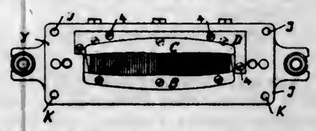
3. A single trigger mechanism for multi-barrel guns including a common sear-actuating means, a selective sear-actuating means, and instrumentalities for automatically moving said common sear-actuating means out of operative position and operating said selective sear-actuating means immediately thereafter.

4. A single trigger mechanism for multi-barrel guns including a common sear-actuating means, a selective sear-actuating means, and instrumentalities for moving said common sear-actuating means forwardly away from firing position and said selective sear-actuating means upwardly to release one sear.

5. A single trigger mechanism for multi-barrel guns including a common sear-actuating means, a selective sear-actuating means, and instrumentalities for moving said common sear-actuating means upwardly and forwardly away from firing position and said selective sear-actuating means upwardly to release one sear.

[Claims 6 to 36 not printed in the Gazette.]

942,795. DEVICE FOR CUTTING COMBS. FRANZ SCHÄTZ, Oberhausen, near Augsburg, Germany, and BERNARD VAN DER HOEK, Apeldoorn, Netherlands. Filed Feb. 1, 1908. Serial No. 413,913.



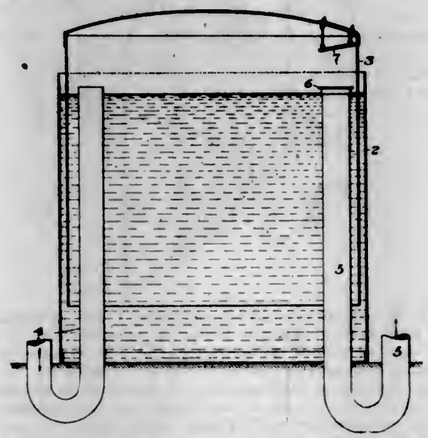
1. Means for stamping out combs out of celluloid or other suitable material, comprising two dies with cutter plates, a lifter bar fixed in each die, lifter plates secured to the lifter bars in the upper and lower dies, adapted to move between the cutter plates of each die and fill the spaces between them, substantially as described.

2. Means for stamping out combs of celluloid or other suitable material, comprising an upper and lower die, containing each a cutter bar and a lifter bar, the upper cutter bar being rigidly connected to the lower lifter bar and the lower cutter bar connected with the upper lifter bar, substantially as described.

942,796. LOW-LIMIT VALVE FOR GAS-HOLDERS. LEONARD SHAW, Chicago, Ill. Filed May 26, 1909. Serial No. 498,516.

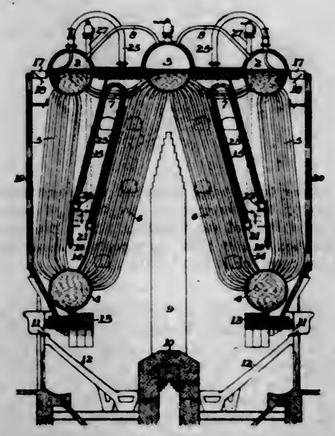
1. A gas holder having a movable bell which is water sealed at its lower end, a gas inlet, a gas outlet above the water seal, and a valve supported from the bell and at an angle with relation to the top of the outlet pipe for closing the outlet pipe when the said bell reaches a predetermined level; substantially as described.

2. A gas holder having a movable bell which is water sealed at its lower end, a gas inlet, a gas outlet above the water seal, a valve seat on the end of said outlet pipe, and a valve for closing the outlet suspended from the top of the bell and at an angle with relation to said seat; substantially as described.



3. A gas holder having a movable bell which is water sealed at its lower end, a gas inlet, a gas outlet above the water seal, a valve seat on the upper end of the outlet pipe and a valve connected to the bell at an angle to said seat by means of flexible connections and arranged to seat on the seat and close the outlet when the bell has reached a predetermined level: substantially as described.

942,797. WATER-TUBE BOILER. JAMES P. SNEDDON, Barberton, Ohio, assignor to The Babcock & Wilcox Company, New York, N. Y., a Corporation of New Jersey. Filed Mar. 6, 1907. Serial No. 360,849.



1. A water tube boiler of the A-shaped type having a centrally-disposed primary combustion chamber, firing openings at both front and rear of the boiler setting, drums, and circulating tubes connecting the drums, substantially as described.

2. A water tube boiler of the class described having a central primary combustion chamber and provided with firing openings at both front and rear of the boiler setting, a plurality of escape flues, and baffles for dividing the products of combustion from the central combustion chamber and directing the divided currents independently toward said escape flues, substantially as described.

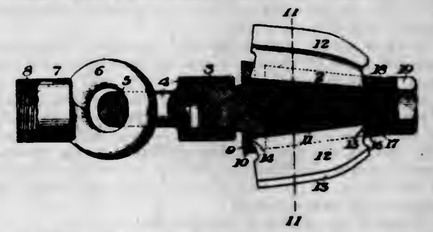
3. In a water tube boiler of the class described, a centrally-disposed primary combustion chamber, firing openings arranged at both front and rear of the boiler setting, a pair of escape flues, and means for dividing the products of combustion from the central combustion chamber and causing the same to flow in independent paths toward the escape flues, substantially as described.

4. In a water tube boiler of the class described, a centrally-disposed primary combustion chamber, firing openings arranged at both front and rear of the boiler setting, a pair of escape flues, drums, circulating tubes connecting the drums, and baffles arranged between the banks of tubes, said baffles serving to direct separate portions of the products of combustion from the central combustion chamber in independent streams toward the escape flues, substantially as described.

5. A water tube boiler of the A-shaped type having firing openings at both front and rear, a central primary combustion chamber with which both firing openings communicate, a pair of lower mud drums, a plurality of upper steam and water drums, banks of tubes connecting the drums, and baffles arranged between the banks of tubes, substantially as described.

[Claims 6 to 11 not printed in the Gazette.]

942,798. BOILER-TUBE CLEANER. JOHNSON V. SYMONS, Johnstown, Pa., assignor to Liberty Manufacturing Company, Pittsburg, Pa., a Corporation of Pennsylvania. Filed Mar. 15, 1909. Serial No. 483,400.



1. A tube cleaning tool, comprising a head, having an undercut flange at one end, and a plurality of longitudinal extending slots forward of said flange, a plurality of cutter blades removably seated in said slots, and clamping means at the opposite end of the head for securing the blades in said slots; substantially as described.

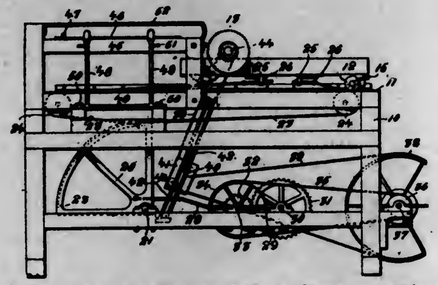
2. A tube cleaning tool, comprising a head having a plurality of longitudinal slots, an undercut flange at one end, and a removable washer at the opposite end,—said washer having an undercut or concave face, clamping blades removably seated in said slots, and having heel portions which engage the undercut face of the flange and washer, and means for clamping the washer against the blades; substantially as described.

942,799. STAVE-JOINTING MACHINE. NOAH M. TAYLOR, Memphis, Tenn. Filed May 14, 1909. Serial No. 495,997.

1. In a stave jointing machine, a frame, a carriage mounted to travel thereon and provided with a saw, a work support at one side of said frame, a curved guide rail disposed upon said frame opposite said support, means depending from said carriage to engage said rail, and means for maintaining said saw in a plane at an angle normal to the radius of the curved path in which the cutting edge of the saw travels.

2. In a stave jointing machine, a frame, a carriage mounted to travel thereon and provided with a saw, a work support at one side of said frame, a curved guide rail contacting with one end of said carriage, and an independent guide rail disposed at one end of the curved guide rail and contacting with the opposite end of the carriage and

operating to maintain the saw in a plane at an angle normal to the radius of the curved path in which the cutting edge of the saw lies.



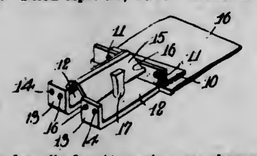
3. In a stave jointing machine, a frame, a carriage mounted to travel thereon and provided with a saw, a work support at one side of said frame, a curved guide rail contacting with one end of said carriage, a straight guide rail extended beyond one end of the curved rail, and rollers carried by said carriage to engage said straight rail and operating to maintain the saw in a plane at an angle normal to the radius of the curved path in which the cutting edge of the saw lies.

4. In a stave jointing machine, a frame, a carriage mounted to travel thereon, a saw mounted upon said carriage, means for guiding the front end of said carriage in a curved path, and means for so moving the rear end of said carriage as to maintain the plane of the saw at an angle normal to the radius of the curved path in which the cutting edge of the saw lies.

5. In a stave jointing machine, a frame, a carriage mounted to travel thereon, a saw mounted upon said carriage, means for guiding the front end of said carriage in a curved path, means for so moving the rear end of said carriage as to maintain the plane of the saw at an angle normal to the radius of the curved path in which the cutting edge of the saw lies, a driving belt having guiding means beneath said carriage to permit a lateral movement of the belt in its travel in a curved path, and means for reciprocating said carriage.

[Claim 6 not printed in the Gazette.]

942,800. GIN-SAW CLEANER. ALBERT N. TUMLIN, Cave Spring, Ga. Filed Apr. 14, 1908. Serial No. 427,002.

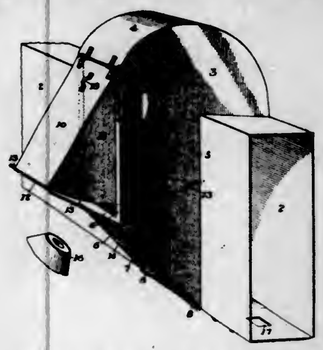


The herein described cotton gin saw cleaner comprising a base plate having a pair of spaced members extending therefrom and lugs turned up from the outer ends of said members, an angle iron plate secured to the base plate, cleaner blades provided with pintles projecting from their opposite ends and at their lower sides, said blades being pivoted in the lugs and the angle iron plate, said blades adapted to extend across the teeth of a gin saw at opposite sides thereof for cleaning said saw, and stops connected to said arms for limiting the spreading action of said blades.

942,801. CONVERTER HOOD AND FLUE. ALMON P. TURNER, Copper Cliff, Ontario, Canada, assignor to International Nickel Company, New York, N. Y., a Corporation of New Jersey. Filed Oct. 12, 1909. Serial No. 522,355.

1. A series of converters having a common flue extending in front of them, said flue having hoods located in proper relation to receive the blast from the converters; substantially as described.

2. In combination with a converter, a flue extending in front thereof, said flue having an enlarged hood with an opening toward the converter; substantially as described.



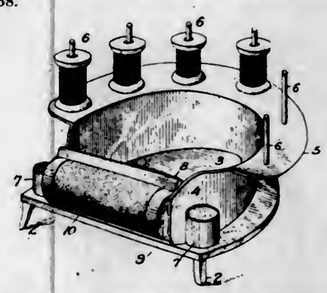
3. In combination with a converter, a flue extending in front thereof, said flue having an enlarged hood with an opening toward the converter, and a swinging cover for the hood opening; substantially as described.

4. A converter hood having an inclined bottom, at least a portion of which is removable for reaching accumulations or accretions; substantially as described.

5. A converter hood having an inclined bottom with a hinged portion; substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

942,802. COMBINATION SEWING-MATERIAL HOLDER. RICHARD A. WALKER and JOSEPH V. PARRISH, Skidmore, Mo. Filed Apr. 6, 1909. Serial No. 488,268.



In a holder for sewing material, the combination with a base having a chamber or a receptacle, of boxes at the front corners thereof for thimbles, and a pin cushion between the boxes and pins for spools around the upper edge of the receptacle.

942,803. PLATED METAL AND PROCESS OF MAKING THE SAME. JOHN WILDER, Connellsville, Pa., assignor to The Wilder Metal Coating and Manufacturing Company, Connellsville, Pa., a Corporation of New Jersey. Filed June 9, 1909. Serial No. 501,147.

1. As a new manufacture, iron or steel having a coating of an alloy containing aluminium, copper and zinc.

2. As a new manufacture, iron or steel having a coating of an alloy containing aluminium, copper and tin.

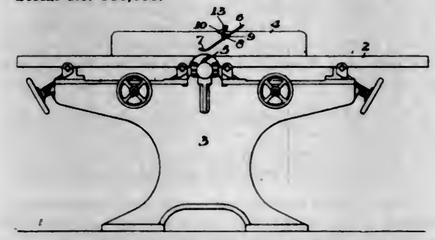
3. As a new manufacture, iron or steel having a coating of an alloy containing aluminium, copper, tin and zinc.

4. The process of coating iron or steel consisting in preparing a molten bath of an alloy containing aluminium, copper and zinc; cleansing and drying the iron or steel; and introducing the iron or steel into and withdrawing it from the molten bath.

5. The process of coating iron or steel consisting in preparing a molten bath of an alloy containing aluminium, copper and zinc; cleansing and drying the iron or steel; and introducing the iron or steel into and withdrawing it from the molten bath.

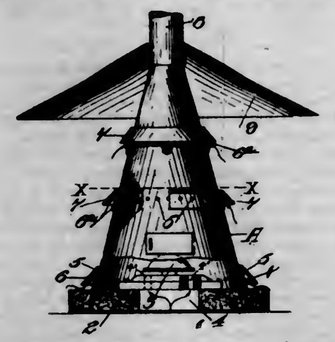
[Claim 6 not printed in the Gazette.]

942,804. PRESSURE DEVICE FOR WOODWORKING-MACHINES. CLINTON G. WILDERSON, Leetonia, Ohio, assignor to The Crescent Machine Company, Leetonia, Ohio, a Corporation of Ohio. Filed Sept. 29, 1906. Serial No. 336,683.



A pressure device for wood working machines, comprising a pressure spring having a shank mounted on a rotatably and longitudinally adjustable support, a set screw for retaining the support in its adjusted position, a recess in said support adapted to receive the shank and the spring, a clamp having a pair of arms which embraces the support, said arms having slots to receive the shank of the spring, said shank of the spring securing the clamp from rotary and endwise movement on the support, and a screw to secure the shank of the spring between the support and clamp; substantially as described.

942,805. HEATING-STOVE. HERMAN F. ARENBERG, Petaluma, Cal. Filed Mar. 10, 1909. Serial No. 482,519.



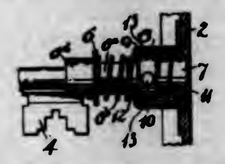
1. A heating device consisting of an exterior conical casing, and a supporting base, an oil burner located in the lower part of the casing, means for supplying air directly to the burner, a series of supplemental air inlets surrounding the casing at different elevations, and means for controlling the admission of air thereto, said last named means comprising perforated sleeves rotatively mounted on the casing adapted to have their perforations moved into or out of register with the air inlets, said sleeves having portions overhanging the inlets.

2. In an apparatus of the character described, an upwardly convergent conical casing, and a supporting base having an air inlet, a hydrocarbon burner located above the air inlet, a series of air inlet openings through the sides of the casing disposed in series between the bottom and the top, sleeves fitting and turnable upon the sides of the casing, said sleeves having hood portions overhanging the air inlets, and said sleeves having openings adapted to register with or cut off the openings in the casing, whereby regulated increments of air may be admitted to mix with the products of combustion at different points from the bottom to the top of the casing.

3. In an apparatus of the character described, a conical upwardly convergent casing, and a base upon which it is supported, a hydrocarbon burner located in the lower part of the casing, means for supplying air directly to said burner through the base, a series of openings made in horizontal planes at different elevations between the bottom and top of the casing, sleeves fitting the casing at these points having openings therethrough, said sleeves being turnable to cause the openings to register with, or cut off, or limit, the size of the openings in the casing, and downwardly divergent flanges connecting with the upper edges of the sleeves, and projecting over the air inlet openings.

4. In an apparatus of the character described, a conical upwardly converging casing, a supporting base, a burner centrally located near the lower part of the casing, means for supplying air directly to the burner, a series of openings through the casing in horizontal planes between the bottom and the top, corresponding sleeves fitting the casing and having openings adapted to register with those of the casing, and control a supplemental air supply, said sleeves having downwardly and outwardly diverging flanges forming guides for directing the air through the openings, and a conical deflector fixed around the top of the cone, and extending outwardly therefrom.

942,806. INDICATOR FOR LOCKS. AUGUST ARENS and ERNEST L. TRICH, New Britain, Conn., assignors to P. & F. Corbin, New Britain, Conn., a Corporation of Connecticut. Filed May 22, 1909. Serial No. 497,630.



1. In an indicator for door locks, an indicator support having an opening therein, an indicating button mounted therein and movable depthwise thereof in said opening, a spring for normally repressing said button, means for projecting said button comprising a rotatable hub mounted to the rear of said button, a cam connection between said hub and button, means to prevent said button from rotating in said support, a key coupling carried by said hub and projecting rearwardly, whereby said hub may be rotated by a key to move the indicating button in one direction.

2. In an indicator for door locks, an indicator support having an opening therein, an indicating button mounted thereon and movable depthwise thereof in said opening, a spring for normally repressing said button, means for projecting said button comprising a rotatable hub mounted to the rear of said button, a cam connection between said hub and button, means to prevent said button from rotating in said support, a key coupling carried by said hub and projecting rearwardly, whereby said hub may be rotated by a key to move the indicating button in one direction, said coupling being longitudinally movable in said hub.

3. An indicator for a lock comprising a support, an indicating device carried thereby, means for moving said indicating device to and fro including a rotatable hub, means for indirectly connecting said hub with the key for operating the lock, whereby when the key is turned said hub will be turned.

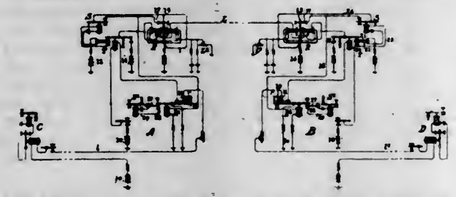
4. An indicator for a key-operated lock, comprising a longitudinally movable finger piece arranged substantially in line with the key for operating said lock and an intermediate mechanical coupling including a hub coöperating

with said finger piece for transforming a rotary movement of the key into a longitudinal movement of the said finger piece.

5. In an indicator for locks, a lock, a key, a normally retracted movable finger piece mounted on the outer side of the door to which said lock is to be applied and arranged for longitudinal movement in and out, said finger piece being substantially in line with the key-hole in the lock, a mechanical coupling including a hub arranged between said finger piece and key and constructed to transform a rotary movement of said key into a longitudinal movement of the finger piece, and means independent of the key to return said finger piece to its normal retracted position.

[Claims 6 to 13 not printed in the Gazette.]

942,807. TELEGRAPHIC REPEATING APPARATUS. WILLIAM E. ATHEARN, New York, N. Y., assignor to American Telephone and Telegraph Company, a Corporation of New York. Filed June 12, 1909. Serial No. 501,777.



1. The combination with a line including telegraph stations and intermediate repeating apparatus having sections each organized to act either as transmitting or receiving elements in accordance with the direction of transmission, the sections when receiving being under the direct control of the receiving station during a portion of the operation of the transmitting section, of means dependent upon the exercise of such direct control for extending the capability of control by the receiving station.

2. The combination with a telegraph line having transmitting and receiving stations and intermediate repeating apparatus comprising sections for the respective stations, each section being provided with transmitting apparatus and with primary and secondary receiving apparatus, the transmitting apparatus of each section being controlled by the home station and the receiving apparatus being controlled by the distant station, of means operable upon the exercise of control by the receiving station over its transmitting apparatus for removing the associated secondary receiving apparatus from the control of the transmitting station.

3. In a telegraph system, the combination with a multiplex line and a line for single transmission, of a repeating apparatus connecting said lines and comprising a primary and a secondary receiving apparatus and a transmitting apparatus each having an energizing winding and a movable contact member, the winding of the transmitting apparatus being in circuit with the single transmission line and with the contact member of the secondary receiving apparatus, in certain positions of the contact member being under its sole control and in other positions of said contact member being under its control and that of the single transmission line, and means under the influence of current through the winding of the transmitting apparatus for determining the position of the contact member of the secondary receiving apparatus.

4. A telegraphic repeating apparatus having two sections each comprising a transmitter, a primary relay operable by the transmitter of the other section and a secondary relay operable by the primary relay, and means associated with the transmitter for controlling the circuit of the secondary relay in the same section of the apparatus.

5. A telegraphic repeating apparatus having two sections each comprising a transmitter, a primary relay operable by the transmitter of the other section and a secondary relay operable by the primary relay, extra contacts upon the transmitter, and a controlling apparatus having a winding in circuit with the extra contacts and being provided with contacts in circuit with the secondary relay.

[Claims 6 to 9 not printed in the Gazette.]

942,808. ABRASIVE COMPOSITION AND METHOD OF MAKING SAME. LEO H. BAEKELAND, Yonkers, N. Y. Filed Oct. 26, 1907. Serial No. 398,382.

1. The method of making an abrasive composition which consists in incorporating an abrasive material with a phenolic body and formaldehyde and transforming the same into an insoluble condensation product.

2. The method of making an abrasive composition which consists in incorporating an abrasive material with a phenolic body and formaldehyde and transforming the same into an insoluble condensation product by application of heat.

3. The method of making an abrasive composition which consists in incorporating an abrasive material with a phenolic body and formaldehyde and transforming the same into an insoluble condensation product by application of heat and pressure.

4. An abrasive or polishing composition containing an abrading or polishing agent, and an insoluble condensation product of a phenolic body and formaldehyde.

942,809. CONDENSATION PRODUCT AND METHOD OF MAKING SAME. LEO H. BAEKELAND, Yonkers, N. Y. Filed Oct. 15, 1907, Serial No. 397,560. Renewed Sept. 17, 1909. Serial No. 518,283.

1. The method which consists in reacting on a phenolic body with formaldehyde in presence of a base serving as a condensing agent, the proportion of base in the product being less than one-fifth of the equimolecular proportion of the phenolic body used.

2. The method which consists in reacting on a phenolic body with formaldehyde in presence of a base serving as a condensing agent, the proportion of base in the product being less than one-fifth of the equimolecular proportion of the phenolic body used, and separating water from the resulting product.

3. The method which consists in reacting on a phenolic body with formaldehyde in presence of a base serving as a condensing agent, the proportion of base in the product being less than one-fifth of the equimolecular proportion of the phenolic body used, separating water from the resulting product, and then hardening the same.

4. The method which consists in reacting on a phenolic body with formaldehyde in presence of a base serving as a condensing agent, the proportion of base in the product being less than one-fifth of the equimolecular proportion of the phenolic body used, separating water from the resulting product, and then hardening the same by application of heat and pressure.

5. The method which consists in reacting on a phenolic body with formaldehyde in presence of a base serving as a condensing agent, the proportion of base in the product being less than one-fifth of the equimolecular proportion of the phenolic body used, compounding the resulting body with a suitable material and then hardening the composition.

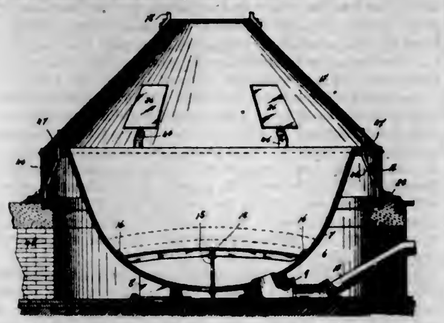
[Claims 6 to 8 not printed in the Gazette.]

942,810. ORE-ROASTING POT. FRANK D. BAKER, Denver, Colo. Filed Nov. 14, 1908. Serial No. 462,702.

1. In ore roasting apparatus of the class described, the combination with a roasting-pot, of a hood inclosing the upper portion of the pot, the lower edge of the hood being sealed to form an air-tight chamber in which the pot is located.

2. The combination with a chamber and a roasting-pot mounted therein, of a hood covering and surrounding the upper portion of the pot, the lower edge of the hood being provided with an air-tight seal, for the purpose set forth.

3. In apparatus of the class described, the combination with a chamber and a roasting-pot mounted therein, of a hood inclosing the upper part of the pot, the lower edge of the hood being supported by the wall of the chamber, and means for forming an air tight seal around the lower edge of the hood, substantially as described.

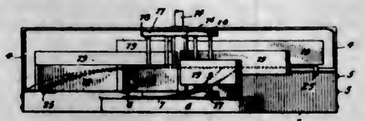


4. The combination with a roasting-pot and a wall surrounding the pot and forming a chamber in which the pot is supported, of a hood supported by the wall and means applied to the wall for sealing the lower edge of the hood against the entrance of air, for the purpose set forth.

5. The combination with a roasting-pot, of a hood for the pot, the hood being mounted to rotate, and its lower edge being provided with an air tight seal, substantially as described.

[Claims 6 to 13 not printed in the Gazette.]

942,811. WATER-WHEEL. JOHN L. BEIL, Galena, Ill. Filed June 17, 1909. Serial No. 502,703.



1. A water wheel comprising a substantially semi-cylindrical frame adapted to be partially immersed in a horizontal position in a stream, and with the flat side thereof substantially parallel with the direction of flow of the current, a vertical shaft journaled at the center of the frame, a hub on the shaft within the frame and provided at each end with a marginal annular flange, radially arranged pairs of rods connecting the flanges at spaced intervals, a blade or vane for each pair of rods and provided with upper and lower pairs of grooved rollers for engaging the rods of the pair, rollers on the lower edges of the blades, and cam plates on which the rollers run, each plate comprising an elevated horizontal portion offset from the bottom of the frame and connected thereto by inclined portions, for the purpose specified.

2. A water wheel comprising a vertical shaft, a hub journaled thereon and provided at each end with a flange, pairs of rods connecting the flanges at spaced intervals, the members of each pair being arranged in alinement and radial with respect to the shaft, a blade for each pair, each of said blades having an upper or lower pair of grooved rollers for engaging the rods of the pair, rollers on the lower edges of the blades, and cam plates for engagement by the rollers to raise and lower the blades.

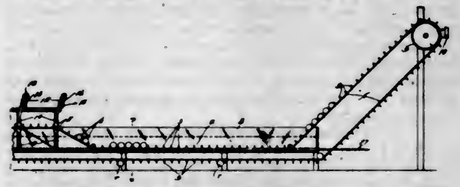
3. A water wheel comprising a frame, a shaft journaled therein, a rotor on the shaft, said rotor comprising a hub, pairs of rods supported by the hub in spaced relation, the members of each pair being in alinement and radial to the hub, a blade supported by each pair, each of said blades having a plurality of pairs of grooved rollers for each rod and engaging the rod between the members of the pairs, and a cam plate for raising and lowering the blades for the purpose specified.

4. A water wheel comprising a frame, a shaft journaled therein, a rotor on the shaft, said rotor comprising a hub, pairs of rods supported by the hub in spaced relation, the members of each pair being in alinement and radial to the hub, a blade supported by each pair, each of said blades having a plurality of pairs of grooved rollers for each rod and engaging the rod between the members of the pairs, and means for raising and lowering the blades, for the purpose specified.

5. A water wheel comprising a frame, a shaft journaled therein, a rotor on the shaft, said rotor comprising a hub, pairs of rods supported by the hub in spaced relation, the members of each pair being in alinement and radial to the hub, a blade for each pair, means for connecting the blade to the rods to permit said blade to move longitudinally thereof, while retaining it perpendicular and radial to the hub, and means for lifting the blades, for the purpose specified.

[Claims 6 and 7 not printed in the Gazette.]

942,812. CAN-COOKER. JOHN COOK, West Berkeley, Cal. Filed June 19, 1909. Serial No. 503,178.



1. A can-cooker comprising an endless chain, a heating tank, means for supporting the chain to permit a portion of it to be submerged in the tank, and means for varying the submerged length of the chain, said chain provided with can-carrying means.

2. In a can-cooker, the combination of a heating tank, a can-carrier suitably supported and having a portion submerged in the tank, and means for raising and lowering portions of the carrier to vary the submerged length thereof.

3. In a can-cooker, the combination of a heating tank, a can-carrier suitably supported and having a portion submerged in the tank, and means for raising and lowering portions of the carrier to vary the submerged length thereof, said raising and lowering means comprising vertically sliding supports for the carrier, and means for effecting the raising and lowering of said supports.

4. In a can-cooker, the combination of a heating tank, an endless carrier having a can-carrying portion submerged in the tank, the opposite sides of the carrier being supported above the tank on adjustable rollers, and means for adjusting said rollers to vary the submerged length of said carrier.

5. In a can-cooker, the combination of a heating tank, an endless carrier having a can-carrying portion submerged in the tank, the opposite sides of the carrier being supported above the tank on adjustable rollers, and means for adjusting said rollers to vary the submerged length of said carrier, said rollers being mounted on blocks sliding in vertical standards, and said blocks operative in pairs.

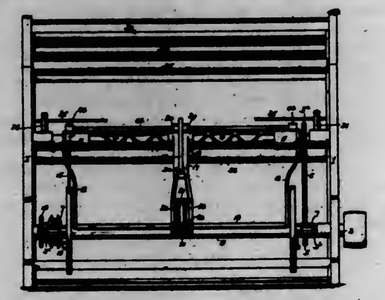
[Claims 6 to 12 not printed in the Gazette.]

942,813. WARP-BALLING MACHINE. WALTER G. DENN, Philadelphia, Pa. Filed Jan. 6, 1909. Serial No. 471,014.

1. The combination, in a warp balling machine, of a winding device, and means for laying the warp rope, said means comprising a screw-actuated nut and a guiding lever pivotally mounted upon said nut so as to have movement, irrespective of the latter, to increase the speed of movement of the guiding device in respect to that of the nut.

2. The combination, in a warp balling machine, of a winding device, and a warp rope guiding device compris-

ing a screw-actuated nut, a lever pivoted thereto and carrying a guide for said warp rope, and means for contacting with said lever and imparting movement thereto as the nut approaches the limit of its travel in either direction.



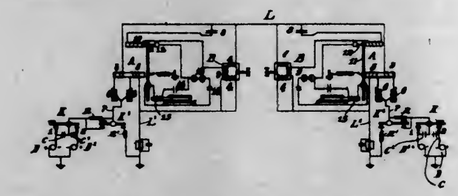
3. The combination, in a warp balling machine, of a winding device, a warp rope guiding device comprising a screw-actuated nut, a lever pivoted thereto and carrying the guide for said warp rope, means for contacting with said lever and imparting movement thereto as the nut approaches the limit of its travel in either direction, and springs for returning the lever to normal position after such movements.

4. The combination, in a warp balling machine, of a winding device, a guiding device for the warp rope, comprising a pair of guide rollers between which said rope passes and a superposed transverse roller over which it passes, and means for longitudinally reciprocating said guiding device.

5. The combination, in a warp balling machine, of a winding device, a roller for contacting with the surface of the ball, a guiding device having a pair of rollers contacting with said first mentioned roller and receiving the warp rope between them and a superposed transverse roller, whereby said warp rope is directed to said pair of rollers.

[Claim 6 not printed in the Gazette.]

942,814. MULTIPLEX TELEGRAPH. STEPHEN D. FIELD, Stockbridge, Mass., assignor to The Western Union Telegraph Company, New York, N. Y., a Corporation of New York. Filed June 17, 1909. Serial No. 502,687.



1. A multiplex telegraph system comprising in combination main and artificial lines, a differentially wound relay, having its differential windings, one in such main line and the other in such artificial line, and another relay having its coils connected to the main and artificial lines in bridge relation with respect to said first relay and having an inductive capacity greater than that of the main line and artificial line coils of said first mentioned relay.

2. A multiplex telegraph system comprising in combination main and artificial lines, a differentially wound relay, having its differential windings, one in such main line and the other in such artificial line, and another relay having its coils connected to the main and artificial lines in bridge relation with respect to said first relay, and connected to the line on the line side of said first mentioned relay, and having an inductive capacity greater than that of the main line and artificial line coils of said first mentioned relay.

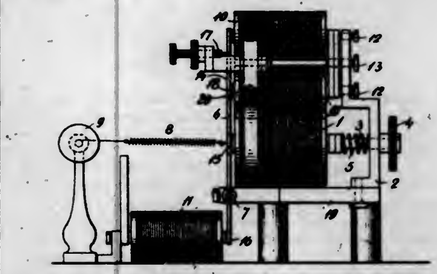
3. A multiplex telegraph system comprising in combination main and artificial lines, a differentially wound neutral relay having its differential windings, one in such main line and the other in such artificial line, and a polar relay having its coils connected to the main and artificial lines in bridge relation with respect to said neutral relay, and having an inductive capacity greater than that of the main line and artificial line coils of the neutral relay.

4. A multiplex telegraph system comprising in combination main and artificial lines, a differentially wound neutral relay having its differential coils, one in such main line and the other in such artificial line, and a polar relay having its coils connected to the main and artificial lines in bridge relation with respect to said neutral relay, and connected to the line on the line side of said neutral relay, and having an inductive capacity greater than that of the main line and artificial line coils of the neutral relay.

5. A multiplex telegraph system comprising in combination a main line, an artificial line, a differentially wound relay having its differential coils connected, the one in said main line and the other in said artificial line, said relay having also an armature and a holding magnet therefor, and connecting means bridging the coils of such holding magnet between the main and artificial lines, means in such bridge connection for creating a flow of current through such holding magnet coils, during times of current change in the line, and another relay connected to the main line and artificial line in bridge relation with respect to said first relay.

[Claims 6 to 20 not printed in the Gazette.]

942,815. RELAY. STEPHEN D. FIELD, Stockbridge, Mass., assignor to The Western Union Telegraph Company, New York, N. Y., a Corporation of New York. Filed June 17, 1909. Serial No. 502,688.



1. A relay comprising in combination a movably mounted armature, a main electro-magnet therefor, a holding electro-magnet likewise coacting with the armature, and an auxiliary electro-magnet also coacting with said armature and acting thereupon in the same direction as the holding magnet.

2. A relay comprising in combination a movably mounted armature, a main electro-magnet therefor, a holding electro-magnet likewise coacting with the armature, and an auxiliary electro-magnet also coacting with said armature and acting thereupon in the same direction as the holding magnet, the core of such auxiliary magnet having normal material magnetic value in addition to any magnetism due to current flowing through its coils.

3. A relay comprising in combination a movably mounted armature, a main electro-magnet therefor, a holding electro-magnet likewise coacting with the armature, and an auxiliary electro-magnet also coacting with said armature and acting thereupon in the same direction as the holding magnet, a condenser in circuit with said holding magnet and a condenser in circuit with said auxiliary magnet.

4. A relay comprising in combination a movably mounted armature, a main electro-magnet therefor, a holding electro-magnet likewise coacting with the armature, and an auxiliary electro-magnet also coacting with said armature and acting thereupon in the same direction as the holding magnet, the core of such auxiliary magnet having normal material magnetic value in addition to any magnetism due to current flowing through its coils, a condenser in circuit with said holding magnet and a condenser in circuit with said auxiliary magnet.

5. A relay comprising a pivotally mounted armature, a main electro-magnet therefor, upon one side of the pivot, a holding electro-magnet for said armature, upon the same side of the pivot as said main magnet, and an auxiliary electro-magnet for said armature upon the opposite side of the pivot, but acting upon said armature in the same direction as said main and auxiliary magnets.

[Claims 6 to 8 not printed in the Gazette.]

942,816. SOUND-BOX FOR TALKING-MACHINES. ALEX FISCHER, Kensington, London, England. Original application filed Feb. 3, 1908, Serial No. 414,070. Divided and this application filed October 23, 1908. Serial No. 459,207.



1. The combination of a sound box having brackets, a flexible washer in contact with said box, a flanged tube bearing at one end on said washer, and screws passing through said brackets and into said tube, substantially as described.

2. The combination of a sound box having brackets and a groove thereon, a flexible washer in said groove, a flanged tube bearing on said washer, and screws passing through said brackets and into said tube, substantially as described.

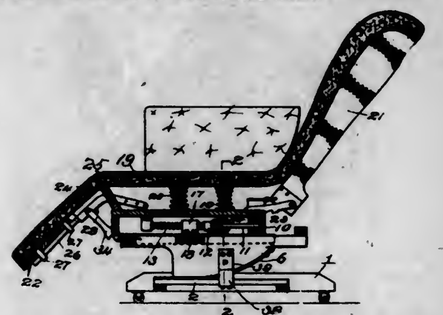
3. The combination of a sound box having brackets and a groove on its back, a flexible washer in said groove, a flanged tube bearing on said washer, screws passing through said brackets and into said tube, and a spring-pressed pin carried by said tube, substantially as described.

4. The combination of a sound box having brackets, a flexible washer in contact with said box, a flanged tube bearing at one end on said washer, screws passing through a hole in said tube, and a rubber ring passing around said tube and pressing said pin inward, substantially as described.

942,817. COMBINATION CHAIR AND COUCH. JOHN FLINDALL, Chicago, Ill. Filed Feb. 10, 1908. Serial No. 415,225.

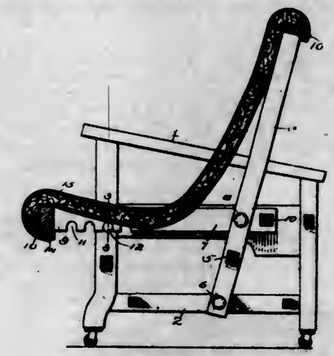
1. In a chair, a base, a reciprocating frame mounted above said base, a foot rest connected with said frame, a covering extending over said frame and said foot rest and secured at one end to said frame and at the opposite end to said foot rest, a pawl pivotally connected with said foot rest and engaging said base for holding the foot rest in a predetermined relationship to said base, and means for moving said frame whereby the angle of said foot rest will be varied.

2. In a chair, a base, a movable frame mounted on said base, a foot rest pivotally connected with said frame, a cover for said frame, and foot rest, said cover being secured to said frame and said foot rest, pivotally mounted means connected to said foot rest and to said base for supporting the foot rest, and means for moving said frame on said base whereby movement will be communicated to said cover and to said foot rest for varying the angle of said foot rest in relation to said frame.



3. In a chair, a base, a sliding frame, a foot and leg rest connected with said frame, sliding supports for said foot and leg rest, means connecting said slides to said frame, a cover for said frame and said foot rest, means pivotally secured to said slide and engaging said base for causing an adjustment of said foot and leg rest upon a longitudinal movement of said frame, and means for moving longitudinally said frame.

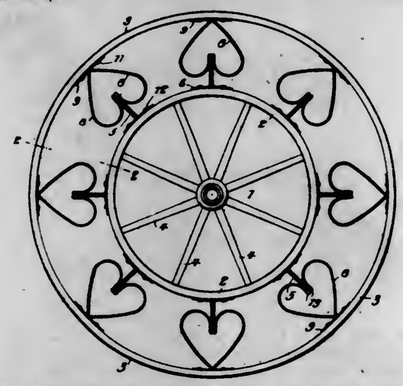
942,818. RECLINING-CHAIR. JOHN FLINDALL, Chicago, Ill. Filed Feb. 18, 1909. Serial No. 478,607.



1. In a chair, a rigid body portion formed with bracing members, a back pivotally secured to one of said bracing members near the bottom of said body portion, a substantially horizontal reciprocating seat frame, means for pivotally securing said seat frame to said back between the ends thereof, means for regulating the position of said seat frame in regard to said body portion and said back, and a strip of material connected to the top of said back and the front of said seat frame, whereby a swinging automatically adjustable seat is formed.

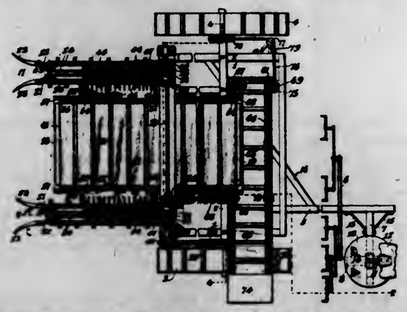
2. In a chair, a body portion formed with a rigid framework having a plurality of braces, a back pivotally secured at its bottom to one of said braces, a reciprocating seat frame formed with a plurality of notches at the front end thereof, a pin pivotally connecting said seat frame and said back, whereby upon the pivotal movement of said back the seat frame will be moved longitudinally, a pin projecting from said rigid framework and adapted to engage the notches in said reciprocating seat frame for controlling the reciprocatory movement of said seat frame, and a single supporting strip secured to the back of the upper end of said back and to the bottom of the front end of said reciprocating seat frame, said strip passing over the top of said back and the front of said seat frame and forming an automatically adjustable seat.

942,819. WHEEL. CHRISTIAN C. FOSS and CHARLES L. WHITE, Quitman, Ga. Filed Mar. 31, 1909. Serial No. 486,863.



A wheel of the class described comprising a hub, an inner rim, spokes connecting the hub and the inner rim, an outer rim concentric with the inner rim and spaced apart therefrom and a plurality of cushioning devices connecting the rims and arranged therebetween, each of said devices comprising a plurality of similar and independent sections, the sections of a single device being symmetrically arranged with respect to each other, each section consisting of a straight portion having an angular lug abutting against the inner rim and secured thereto, and a portion curved backwardly alongside the straight portion, thence outwardly and thence inclined inwardly, and engaging the outer rim, the junction of said portion with the rim intersecting a line passing longitudinally of the straight portion, said portion having an angular lug for engaging the outer rim and secured thereto, said sections being arranged with the straight portion of one superposed on the straight portion of the other, and with the curved portions extending outwardly.

942,820. CORN-HARVESTER. JAMES W. FROM, Shelby, Nebr. Filed Mar. 27, 1908. Serial No. 423,748.



1. A corn harvesting machine including a frame provided at opposite sides with passage-ways for the standing corn and having an intermediate platform arranged to receive the ears of corn, husking rolls located at the rear ends of the passage-ways for removing the ears from the husks without separating the latter from the stalks, and means carried by the frame for causing the ears of corn to fall upon the platform.

2. A corn harvesting machine including a frame provided at opposite sides with passage-ways for the standing corn and having an intermediate platform arranged to receive the ears of corn, husking rolls located at the rear ends of the passage-ways for removing the ears from the husks without separating the latter from the stalks, means carried by the frame for causing the ears of corn to fall upon the platform, and means for conveying the ears of corn rearwardly.

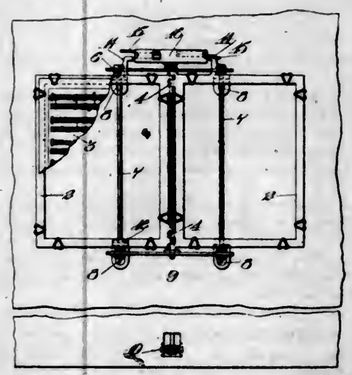
3. A corn harvesting machine including a frame provided at opposite sides with passage-ways for the standing corn and having an intermediate platform arranged to receive the ears of corn, husking rolls located at the rear ends of the passage-ways for removing the ears from the husks without separating the latter from the stalks, means carried by the frame for causing the ears of corn to fall upon the platform, an elevator located in rear of the platform, and means for conveying the ears of corn rearwardly from the platform to the elevator.

4. A corn harvesting machine including a frame provided at opposite sides with passage-ways for the standing corn and having an intermediate platform arranged to receive the ears of corn, husking rolls located at the rear ends of the passage-ways for removing the ears from the husks without separating the latter from the stalks, means carried by the frame for causing the ears of corn to fall upon the platform, and an endless conveyer arranged above and spaced from the platform and provided with means for engaging the ears of corn for conveying the same rearwardly.

5. A corn harvesting machine including a frame provided at opposite sides with passage-ways for the standing corn and having an intermediate platform composed of a front horizontal portion and a rear inclined portion, husking rolls located at the rear ends of the passage-ways for removing the ears from the husks without separating the latter from the stalks, means for causing the ears of corn to fall upon the platform, and a longitudinal conveyer having a lower flight or stretch composed of a front horizontal portion and a rear inclined portion spaced from and coöperating with the platform.

[Claims 6 to 19 not printed in the Gazette.]

942,821. MUSIC-LEAF TURNER. ROBERT A. GIBSON, South Berkeley, Cal., assignor of one-half to John B. Sartolou, Oakland, Cal. Filed Feb. 10, 1909. Serial No. 477,057.



1. In a music leaf turner, the combination of a series of pivoted music leaf holders, a suitable support for the same, a single drum, means for revolving the drum, and spring pressed actuators on said drum and arranged in different horizontal planes and adapted to successively engage said holders to turn them.

2. In a music leaf turner, the combination with a series of pivoted music leaf holders, a suitable support for the same, a single drum, means for revolving the drum, actuators arranged in different horizontal planes and secured to said drum and projecting from the perimeter thereof, said actuators being yieldingly mounted and normally pressed outwardly and adapted to engage successive holders to turn them, and means by which said drum is adapted to turn the holders in either direction.

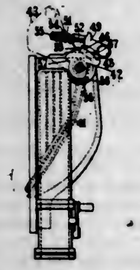
3. In a music leaf turner, the combination of a series of music leaf holders, a carrier for said holders, said carrier comprising spaced plates and upright rods connecting the same, a removable pivot rod carried by the plates and engaging eyes on the holders, about which rod the holders are turnable, and means including slotted projections and latches pivotally mounted thereon for attaching the carrier to a support.

4. In a music leaf turner, the combination of a series of music leaf holders, a carrier for said holders, said carrier comprising spaced plates connected by upright rods, said plates carrying a removable pivot rod engaging eyes on the holders, and about which pivot rod said holders are turnable, and means for attaching said carrier to a suitable support, said last-named means including slotted brackets engageable by the said upright rods, and pivoted latches on the brackets for removably holding the carrier in position.

5. In a music leaf turner, the combination of a series of music leaf holders, a carrier for said holders, said carrier comprising spaced plates connected by upright rods, said plates carrying a removable pivot rod engaging eyes on the holders, and about which pivot rod said holders are turnable, means including slotted brackets and latches pivoted thereon for attaching said carrier to a suitable support, and mechanical means for turning said holders successively, said last-named means including a drum pivoted eccentric to the said pivot rod and carrying a plurality of actuators engageable with the holders to turn them, a pedal, and pedal connections with the drum for actuating the drum.

[Claims 6 and 7 not printed in the Gazette.]

942,822. FURNACE-DOOR. GUSTAV DE GRAHL, Wilmersdorf, near Berlin, Germany. Filed Oct. 17, 1908. Serial No. 458,290.

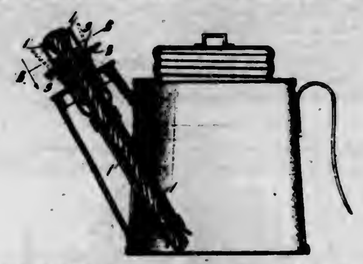


1. In a device of the class described the combination of a furnace provided with a door-opening, a shaft on the furnace, a door on the shaft for closing the door-opening and able to swing inward, of a counterweight revoluble on said shaft and adapted to balance said door, and a sector having two shoulders fixed on said shaft, said counterweight being adapted to coact with and actuate said sector.

2. In a device of the class described the combination of a furnace provided with a door-opening, a shaft on the furnace, a door on the shaft for closing the door-opening and able to swing inward, of a counterweight revoluble on said shaft and adapted to balance said door, and a sector having two shoulders fixed on said shaft, said counterweight having a projection adapted to coact with and actuate said shoulders.

3. In a device of the class described the combination of a furnace provided with a door-opening, a shaft on the furnace, a door on the shaft for closing the door-opening and able to swing inward, of a counterweight revoluble on said shaft and adapted to balance said door, a sector having two shoulders and a nose fixed on said shaft, said counterweight having a projection adapted to coact with and actuate said shoulders, and a detent-lever pivoted on the furnace, said detent-lever having a spring-pressed pawl adapted to engage with said nose.

942,823. MINER'S LAMP. RALPH L. GRAVES, Sumpter, Oreg. Filed Apr. 26, 1909. Serial No. 492,217.

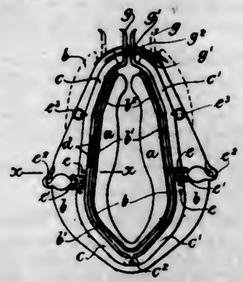


1. In a miner's lamp of the type indicated, the combination, with a wick and burner attachment, and a series of wire conductors extending into the body of the lamp and projecting alongside the protruding portion of the wick, and a movable device applied to the outer ends of the conductors and adapted, when duly adjusted, to force them laterally toward or from the wick, as shown and described.

2. In a miner's lamp of the type indicated, the combination with a wick and burner attachment, and a series of conductors extending into the body of the lamp and projecting alongside the protruding portion of the wick, of means for adjusting said conductors laterally with relation to the outer end of the wick, the same consisting of a disk which is movable on the burner and provided with openings through which the conductors project, the adjustment of the disk in one direction or the other serving to project the conductors more or less, in the manner described.

3. In a miner's lamp of the type indicated, the combination with a wick and burner attachment, and a series of conductors extending into the body of the lamp and projecting alongside the protruding portion of the wick, and a disk mounted rotatably on the burner and provided with a series of eccentric slots through which the said conductors project, whereby, upon rotation of said disk, the conductors are moved outward or inward correspondingly.

942,824. METAL-FRAMED HORSE-COLLAR. WILLIAM HARDWICK, York, Western Australia, Australia, assignor of one-half to John Edward Hardwick, Perth, Western Australia, Australia. Filed Aug. 1, 1908. Serial No. 446,444.

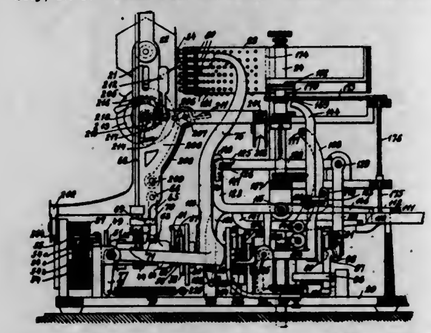


1. The combination, with a horse collar structure, of a rim comprising a pair of exteriorly attached members of angular cross section, said members having the lower ends of their base portions formed with extensions over-lapping each other and pivotally connected together, the extension of one member being arranged to contact with the adjacent end of the flange portion of the other member, for limiting the outward pivotal movement of said members.

2. The combination, with a horse collar structure, of a rim comprising a pair of exteriorly attached members of angular cross section, said members having the lower ends of their base portions formed with extensions overlapping

each other and pivotally connected together, the extension of one member being arranged to contact with the adjacent end of the flange portion of the other member, for limiting the outward pivotal movement of said members; up-turned fingers formed upon the flange portions of said members at the upper ends thereof, said fingers being designed to be brought face to face; and means for fastening said fingers in such position.

942,825. TYPE-WRITER. LEON HAUERSTEIN, Jersey City, N. J. Filed Feb. 20, 1909. Serial No. 479,153.



1. A typewriter comprising a type carrier having thereon a plurality of type characters arranged in permanent word groups, and automatic key-controlled means arranged to print successively and in order from the characters of any selected word group.

2. A typewriter comprising a type carrier having thereon a plurality of type characters arranged in permanent word groups, a plurality of word keys, each corresponding to one of said word groups, and automatic means controlled by said keys and arranged to print successively and in order from the characters of any word group corresponding to any one of said keys which may be actuated.

3. A typewriter comprising a plurality of type arranged in word-groups, the type of each such group arranged in a row, and automatic word-printing means arranged to print automatically and successively from the different type of a selected word-group.

4. A typewriter comprising a plurality of type arranged in permanent word-groups and automatic word-printing means arranged to print successively and automatically from the type of different word-groups, and determining means determining the word-group to be printed from.

5. A typewriter comprising a type carrier having a plurality of type arranged in different word-groups, key-controlled determining means determining the group to be printed from, and automatic printing means arranged to print automatically and successively from the several type of each group so determined.

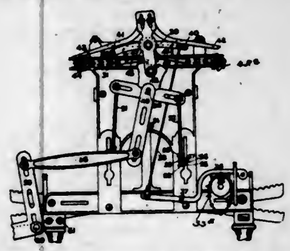
[Claims 6 to 45 not printed in the Gazette.]

942,826. LOOM-DOBBY. THOMAS HAWORTH, JOSEPH BRIGGS, and WILLIAM AYREY, Rishton, England, assignors to Richard Henry Place, Rishton, England, and George Crawshaw, Clayton-le-Moors, England. Filed Sept. 3, 1907. Serial No. 391,110.

1. In a loom dobby, jack levers, vertically movable rods for actuating said levers, said rods provided with side fins, and balk levers adapted to receive the upper ends of said rods and the fins on the rods.

2. In a loom dobby, jack levers, vertically movable rods for actuating said levers, said rods provided with side fins, balk levers adapted to receive the upper ends of said rods and the fins on the rods, and said rods provided with tail pieces adapted to engage in the jack levers.

3. In a loom dobby, jack levers, vertically movable rods for actuating said levers, said rods provided with side fins, horizontally disposed balk levers adapted to receive the upper ends of said rods and the fins on the rods, and draw-bars seated upon the balk levers and each provided with an upwardly projected extension having an inclined head and a depending extension having a hooked terminal adapted to engage with the dobby knife.

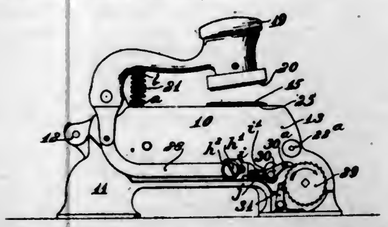


4. A loom dobby comprising horizontally disposed balk levers, draw bars seated upon the balk levers and each provided with an upwardly projected extension having an inclined head and a depending extension having a hooked terminal adapted to engage with the dobby knife, dobby feelers adapted to act upon the inclined heads of the draw bars, jack levers, and vertically movable rods for actuating said levers and provided with projecting means, the balk levers receiving the upper ends of said rods and projecting means.

5. A loom dobby comprising horizontally disposed balk levers, draw bars seated upon the balk levers and each provided with an upwardly projected extension having an inclined head and a depending extension having a hooked terminal adapted to engage with the dobby knife, dobby feelers to act upon the inclined heads of the draw bars, pattern cylinders, a shiftable frame carrying the dobby cylinders and adapted to bring said cylinders in position to act upon the feelers, jack levers, vertically movable rods for actuating said levers having projecting means, the balk levers receiving the upper ends of said rods and the projecting means thereof, and means for operating the said frame.

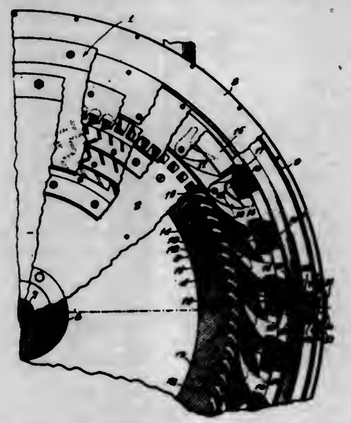
[Claims 6 and 7 not printed in the Gazette.]

942,827. REVERSIBLE RIBBON-FEED FOR DATING-STAMPS. BENJAMIN B. HILL, Philadelphia, Pa., assignor to The B. B. Hill Manufacturing Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed July 8, 1909. Serial No. 506,450.



In a dating-stamp, an inking-ribbon mounted on separate ratcheted-drums and actuating mechanism therefor, comprising a spring controlled stamp-head, a bar arranged in sliding connection with the stamp-casing and in pivotal connection with said spring controlled stamp-head, a pivotal pawl, a coiled spring and a pin bearing normally against said pivotal pawl to hold it in contact with one of said ratcheted drums and a spring controlled detent pivoted to the stamp-base, said detent actuated by said ratcheted-drum and said pawl and detent provided with means to respectively, throw the same manually into and out of engagement with said ratcheted-drum, substantially as and for the purposes described.

942,828. REGULATOR FOR TURBINES. SOLOMON T. HOLLY, Los Angeles, Cal., assignor of one-fourth to Carrie C. Holly, one-fourth to Luther M. Marston, and one-fourth to Annie M. Marston, Los Angeles, Cal. Filed Nov. 4, 1907. Serial No. 400,717.



1. A regulator for turbines comprising an annular series of pivotal valve members forming nozzles, circumferentially moving means to control said valve members, gyratory means to regulate said controlling means, a governor, and gearing operating between said governor and said gyratory means, said gyratory means being provided with an arm for gyrating the same, one end of said arm being eccentrically connected with a gear of said gearing and the other end of said arm being mounted axially in line with said gear.

2. A regulator for turbines comprising annular series of pivotal valve members forming nozzles, internal means engaging said valve members for moving the same, means to move one series of valve members a greater distance than another series, and external means for operating said means.

3. A regulator for turbines comprising two annular series of pivotal valve members forming nozzles, means for moving said valve members to control the size of the nozzles, and means for governing said moving means to give a greater movement to one series of valve members than to the other.

4. A regulator for turbines, comprising annular series of pivotal valve members, forming expansive fluid nozzles, circumferentially movable rings, carried by said valve members, for simultaneously actuating all of said members, and means for giving a greater circumferential movement to one of said rings than to the other.

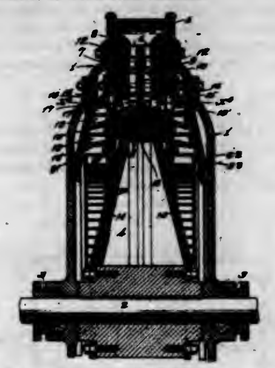
5. A regulator for turbines, comprising annular series of pivotal valve members, forming expansive fluid nozzles, circumferentially movable rings carried by said members, for actuating all of said members, means for actuating said rings, and means for governing said means, to give a greater circumferential movement to one of said rings than to the other, for controlling the size of the nozzle.

[Claims 6 to 13 not printed in the Gazette.]

942,829. TURBINE. SOLOMON T. HOLLY, Los Angeles, Cal., assignor of one-fourth to Carrie C. Holly, one-fourth to Luther M. Marston, and one-fourth to Annie M. Marston, Los Angeles, Cal. Filed Jan. 13, 1908. Serial No. 410,709.

1. A rotor provided with rows of peripheral buckets which extend forwardly and inwardly and then outwardly to the side thereof, and a diaphragm centrally dividing said buckets, in combination with a stator having an annular steam chest means for dividing the steam from the steam chest into two streams, and means to cause the steam to be directed to one or both rows of buckets.

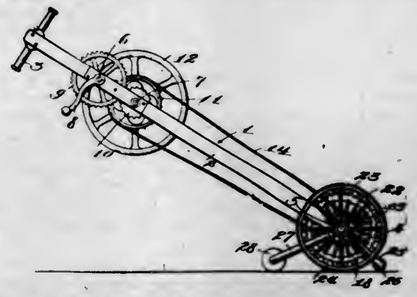
2. A rotor provided with two rows of peripheral buckets which extend forwardly and inwardly to the side thereof, and a diaphragm centrally dividing and isolating one row of buckets from the other, in combination with a stator, provided with an annular steam chest, means for dividing the steam from said steam chest into two jets, and means carried by said stator to cause said jets to be delivered to one or the other, or both said buckets.



3. In a turbine, a rotor provided with two rows of peripheral buckets, vanes of various angles and lengths to receive the fluid, and a diaphragm centrally dividing said buckets in combination with a stator, a steam chest, an annular divided valve chamber to deliver elastic fluid to the buckets of said rotor, blades of varying lengths and angles fixed in said stator to direct the fluid, and means for securing said vanes and blades against vibration.

4. In a turbine, a stator having blades of varying lengths to direct the fluid, a rotor having vanes of varying lengths to receive the fluid, the longer of said blades being notched and a notched band or ring fitting the notches of said blades and vanes to secure same against vibration.

942,830. MACHINE FOR DRESSING FLOORS. SIDNEY D. HOY, Sioux City, Iowa. Filed July 15, 1909. Serial No. 507,799.



1. In a dressing machine, in combination, an axle, a handle pivotally surrounding one end of the axle, a gear wheel on the axle, gearing carried on the handle for operating the gear wheel and a dressing device provided on the axle wholly at one side of the handle and the gear wheel and projecting freely therefrom, the dressing device being driven from the gear wheel and the handle being movable pivotally to a position at either side of the dressing device.

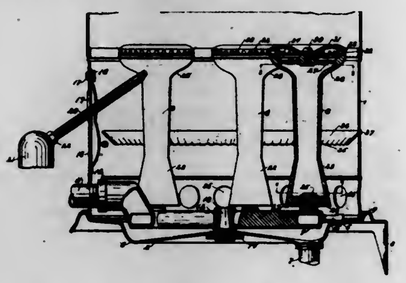
2. In a dressing machine, in combination, a dressing roller, an axle therefor, a supporting wheel connected to the axle, a pair of angularly disposed bars connected to the axle for pivotal adjustment thereon, and rollers carried by the bars.

3. In a dressing machine, in combination, a dressing roller, an axle therefor, a supporting wheel connected to

the axle, a pair of angularly disposed bars connected to the axle for pivotal adjustment thereon, a roller carried by each bar, a reversible handle having an end portion pivotally surrounding one end of the axle and means for operating the dressing roller.

4. In a dressing machine, in combination, a dressing roller, an axle therefor, a supporting wheel connected to the axle, a pair of L-shaped bars having longitudinal and radial portions, the portions of one bar being longer than the corresponding portions of the other bar, the radial portions being connected to the axle for pivotal adjustment thereon, and rollers provided on the longitudinal portions.

942,831. GAS-BURNER. HERBERT S. HUMPHREY, Kalamazoo, Mich. Original application filed Mar. 31, 1908, Serial No. 424,323. Divided and this application filed Jan. 15, 1909. Serial No. 472,463.



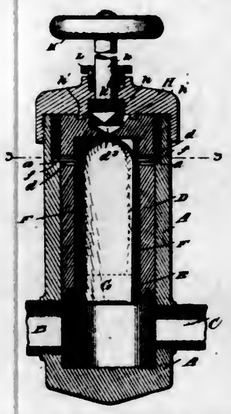
1. In a gas burner, the combination of a gas delivery nozzle; a burner tube having an expanded conical portion at its lower end and an expanded head at its upper end; integrally formed cross pieces arranged at the upper and lower ends of said tube, the lower cross piece having a hole therein adapted to receive the said gas delivery nozzle whereby the burner is supported; a screen arranged on the lower end of said burner tube below said cross piece; a cap or tip for said burner having a downwardly-turned flange at its edge adapted to rest on said head, said tip having notch-like jet orifices in its edges; a retaining screw for said cap threaded into said cross piece at the upper end of said burner; and a screen clamped between said head and said cap.

2. The combination with a burner tube having an expanded head at its upper end and a cross piece in said head, of a cap or tip having a depressed central part and a downwardly-turned flange at its edge adapted to rest on said head, said flange having jet orifices therein; a screen arranged between said head and said cap; and a retaining screw for said cap threaded into said cross piece whereby said cap and screen are secured in position; said screen being clamped at its edges between said head and cap and at its center between said arm and the depressed part of said cap.

942,832. AUTOMATIC CUT-OFF FOR GAS-MAINS. CHARLES E. LAHMERS, New Philadelphia, Ohio. Filed Mar. 9, 1909. Serial No. 482,299.

1. An automatic cut-off comprising a casing provided with openings for the admission and exit of gas, a slidable cylinder disposed within said casing, spring means secured to said cylinder and arranged to engage over a portion of said casing for suspending the cylinder and a collapsible member secured to said cylinder and arranged to keep said suspending means normally in engagement with said casing when the pressure is on and to release said suspending means from said casing when the pressure decreases.

2. An automatic cut off comprising a casing provided with openings for the admission and exit of gas, a slidable cylinder disposed within said casing, springs secured to said cylinder and arranged to engage said casing, and a collapsible member secured to said cylinder and arranged to keep said springs normally in engagement with said casing when the pressure is on, and to release said springs from said casing when the pressure decreases.



3. An automatic cut off comprising a casing provided with openings for the admission and exit of gas, a slidable member disposed within said casing and provided with slots, springs secured to the inner side of said cylinder and having portions adapted to extend through said slots and to engage said casing, a collapsible member secured within said cylinder and arranged to keep said springs in an extended position when the gas pressure is on, and to collapse when the gas pressure is reduced, thereby permitting the retraction of said springs and their disengagement from the casing and allowing the cylinder to descend and to close simultaneously, the openings for the admission and the exit of gas.

942,833. HAIR-SUPPORTER. JANNETTE LATSCH, Seattle, Wash. Filed Nov. 30, 1908. Serial No. 465,199.



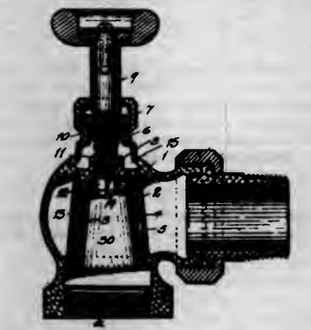
1. In a support for hair, a retaining frame consisting of wires spaced apart and formed into a substantially U-shaped construction, a supporting frame spaced from the retaining frame and extending partially within the same, a substantially cone-shaped projection carried by the supporting frame, and wires connecting the retaining frame, the supporting frame and the cone-shaped projection.

2. In a support for hair, a retaining frame consisting of wires formed substantially in the shape of the letter U, a supporting frame spaced from the retaining frame and extending partially therein, and consisting of a base wire substantially circular in outline and having a portion of its base turned inward and upward, connecting

wires engaging one of the wires of the retaining frame and extending to and encircling the base wire of the supporting frame, a second substantially circular wire spaced outwardly from the base wire and engaging the inward and upward turned portion thereof and substantially concentric with the base wire, the connecting wires extending to the second mentioned circular wire and encircling the same and extending to and engaging the end of the inward and upward turned portion of the first mentioned circular wire.
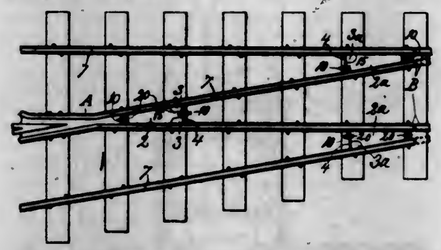
3. In a support for hair, a pair of wires formed substantially in the shape of the letter U, a substantially circular base wire having a portion turned inward and upward to a point above the center of the base, a second substantially circular wire positioned above the center of the first mentioned circular wire and connected with the inward and upward turned portion thereof, a pair of wires connecting one of the first mentioned wires with the first and second mentioned circular wires and the end of the inward and upward turned portion of the first mentioned circular wire.

942,834. VALVE. JOSEPH P. LAVIGNE, Detroit, Mich., assignor to The Lavigne Manufacturing Company, Detroit, Mich. Filed June 5, 1907. Serial No. 377,300.



In a valve, a casing, a conical valve seating therein and provided with a diaphragm across its end, a valve stem provided with right threads to engage through the neck of said casing and with left threads to engage through the diaphragm across the bottom of said valve and with a prismatic terminal within the chamber of the valve, a valve actuator engaging on said prismatic terminal, stop lugs coacting with said actuator to permit a slight turning movement of the valve stem with respect to the valve previous to the engagement of said actuator with said stop lugs, substantially as described.

942,835. SAFETY-BLOCK FOR RAILWAY-TRACKS. LOUIS F. LEARMAN, St. Paul, Minn., assignor of one-half to Edith M. Coon, St. Paul, Minn. Filed Apr. 3, 1909. Serial No. 487,745.



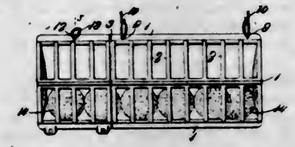
1. In a safety block for railway tracks, a casing adapted to be secured at the side of the rail, a cover having portions guided by the casing so as to move vertically therein, springs interposed between the cover and the bottom of the casing and means stopping the upward movement of the cover when it is about flush with the top of the rail, said stopping means consisting of a stud screw in each end of the casing, said cover having at each end a vertical groove closed at its lower end and straddling the inner end of the adjacent screw

2. In a safety block for railway tracks, a casing adapted to be secured at the side of the rail, a cover having portions guided by the casing so as to move vertically therein, springs interposed between the cover and the bottom of the casing and means stopping the upward movement of the cover when it is about flush with the top of the rail, said casing having its bottom inclined toward a certain point and at said point provided with an aperture, and means for closing the aperture.

3. In a safety block for railway tracks, a casing adapted to be secured at the side of the rail, a cover having portions guided by the casing so as to move vertically therein, springs interposed between the cover and the bottom of the casing and means stopping the upward movement of the cover when it is about flush with the top of the rail, said cover having vertical end portions guidingly fitted in the casing and said casing having in its bottom depressions for said end portions of the cover and a longitudinal channel connecting the depressions, the bottom of said channel being lowest near the middle and its lowest point provided with an aperture and means for easily closing and opening the same.

4. In a safety block for railway tracks, a casing adapted to be secured at the side of a rail, a cover having portions guided by the casing so as to move vertically therein, springs interposed between the cover and the bottom of the casing and means stopping the upward movement of the cover when it is about flush with the top of the rail, said stopping means consisting of a stud screw in each end of the casing, said cover having at each end a vertical groove closed at its lower end and straddling the inner end of the adjacent screw, said stud screws having jam-nuts adapted to be turned tight against the ends of the casing.

942,836. CONTAINER FOR BOILER-SCALE REMOVERS. GEORGE O. LEONARD, Stamford, N. Y. Filed Nov. 22, 1907. Serial No. 403,389.



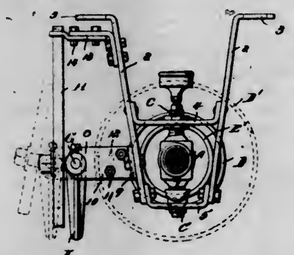
1. In a container of the character described, the combination of a plurality of longitudinal T shaped braces, a plurality of arc shaped transverse ribs connected thereto, said ribs and said braces forming a latticework body, closure means hinged to one of said braces consisting of a part forming a semi-circular end portion and a part forming a semi-cylindrical side portion, means co-acting with said closure means to form a closed latticework container, and means for suspending said container in a boiler.

2. In a container of the character described, the combination of a plurality of longitudinal braces, and a plurality of transverse ribs connected thereto, said ribs and braces forming a tubular latticework body, said braces projecting beyond said tubular body, closure means hinged to one of said projecting braces consisting of a part forming a side for said body and a part forming an end portion, means co-acting with the parts aforesaid to form a closed latticework container, means for maintaining said closure means in a closed position, and means for suspending said container in a boiler.

3. In a container of the class described, the combination of a plurality of longitudinal braces and a plurality of transverse ribs connected thereto, said ribs and braces forming a latticework receptacle, and two of said braces projecting beyond said receptacle, a closure means hinged to one of said projecting braces consisting of a pair of

semi-cylindrical doors each of which is formed with a side for said body and an end portion, means co-acting with said closure means and engaging the other of said braces projecting beyond the body portion for holding the closure means in a closed position, and means for suspending said container in a boiler.

942,837. SUPPORT FOR BELT-SHIFTERS. CHRISTOPHER W. LEVALLEY, Milwaukee, Wis. Filed Dec. 7, 1905, Serial No. 290,780. Renewed Jan. 14, 1909. Serial No. 472,297.



1. The combination with a belt shifter comprising a longitudinally movable shaft and a shifting lever, of a shaft hanger, an adjustable bearing for the shaft of the belt shifter secured to the lower portion of the shaft hanger, and a bracket having a bearing for the upper end of the shifting lever secured to the upper portion of the shaft hanger, substantially as set forth.

2. The combination with a shaft hanger and a belt shifter comprising a longitudinally movable shaft and a shifting lever therefor, of a bearing for the shaft of the belt shifter secured to the lower end of the shaft hanger and adjustable to carry the belt shifting shaft toward or from the shaft hanger, and a bracket having a bearing for the upper end of the shifting lever, said bracket being also adjustable, substantially as set forth.

3. The combination of a belt shifter comprising a longitudinally movable shaft, bearings adjustable both vertically and horizontally, a belt shifter lever, a bearing for the said lever adjustable vertically and horizontally relatively to said bearings for the belt shifter shaft, and means for securing said bearings in their adjusted positions.

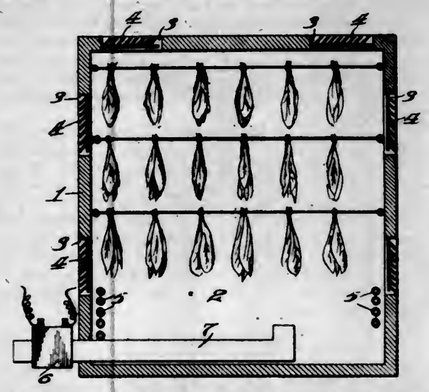
4. The combination with a shaft hanger, of a belt shifter comprising a longitudinally movable shaft, a bearing for the said shaft adjustable vertically, and toward and from the said shaft hanger, a belt shifter lever, a bearing for the said lever secured to said shaft hanger, means for independently adjusting said bearing both vertically and horizontally relatively to said belt shifter shaft, and means for securing the belt shifter and lever bearings in their adjusted positions.

942,838. PROCESS OF AGING AND CURING TOBACCO. STEPHEN G. MARTIN, Chicago, Ill., and WILLIAM O. BARTHOLOMEW, St. Louis, and EDWARD SCHAAF, St. Marys, Mo. Filed Nov. 30, 1908. Serial No. 465,428.

1. The herein described process of treating tobacco, which consists in taking the tobacco to be treated and placing it in a suitably inclosed chamber, and there exposing it to a gaseous medium produced by subjecting atmospheric air to the action of an electric flaming discharge.

2. The herein described process of treating tobacco, which consists in taking the tobacco and placing it in a chamber, warming said chamber in which the tobacco is located to a temperature approximating 100° F., and passing into said chamber a gaseous medium of pure air and peroxid of nitrogen.

3. The herein described process of treating tobacco, which consists in taking the tobacco and placing it in a tight chamber, warming said chamber in which the tobacco is located to a temperature approximating 100° F., passing into said chamber a gaseous medium of pure air and peroxid of nitrogen and causing such gaseous medium to circulate within the chamber.



4. The process of treating tobacco to age it herein described, which consists in subjecting the partly or improperly aged tobacco leaves to the action of a gaseous medium consisting of a mixture of air and peroxid of nitrogen.

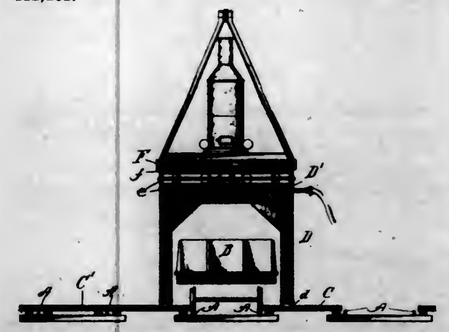
5. The process of treating tobacco, which consists in placing the tobacco in a suitable chamber and bringing into intimate contact with the tobacco a gaseous medium containing peroxid of nitrogen, whereby the tobacco is matured and ripened without the intervention of induced or artificial fermentation of the leaf.

942,839. BOX-FASTENER. CHARLES O. MASON, Attleboro Falls, Mass. Filed July 19, 1909. Serial No. 508,443.



In combination with a box and its cover having a slit therein, a fastener secured to the box and having a foldable cover engaging tongue passing through the slit, said fastener having an integral auxiliary tongue for engaging the inside face of the cover, said auxiliary tongue having its base in proximity to the line of fold of the main tongue whereby it will be moved outward into engagement with the cover when the main tongue is straightened, substantially as described.

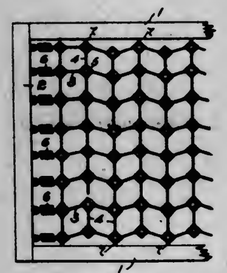
942,840. CAR-UNLOADING APPARATUS. JOHN W. PAGE, Chicago, Ill. Filed Jan. 24, 1908. Serial No. 412,401.



1. In a device of the class described, the combination with a main-track, cars to be unloaded movable thereon, a surface cross-track, a frame movable on said cross-track and adapted to straddle the main-track, and excavating means mounted on the frame.

2. In a device of the class described, the combination with a main-track, cars thereon, a surface cross-track at higher level than the main-track and having a gap to permit the passage of cars on the main-track through said gap, a movable section adapted to fill the gap, a frame movable on the cross-track and adapted to straddle the main-track and excavating means upon the frame.

942,841. RESILIENT BOTTOM FOR COUCH-HAMMOCKS, &c. ISAAC E. PALMER, Middletown, Conn., assignor to I. E. Palmer Co., Middletown, Conn., a Corporation of Connecticut. Filed June 5, 1909. Serial No. 500,306.



1. A resilient bottom for couch hammocks and other structures comprising in combination a frame composed of longitudinal and end members, a seating therefor having flexible connections to the said frame, and a plurality of connecting devices at each side of the seating, thereby to connect said seating to the said longitudinal members, said connecting devices at one side being obliquely arranged with respect to the said connecting devices at the other side, whereby the seating is under pressure laterally yielding in the transverse line of each of said side connecting devices, as well as being longitudinally resilient.

2. A resilient bottom for couch hammocks and other structures comprising in combination a frame composed of longitudinal and end members, a seating therefor having end springs, and a plurality of springless connecting devices at each side of the seating, thereby to connect said seating to the said longitudinal members, all of said springless connecting devices on each side being obliquely arranged with respect to each of the said springless connecting devices on the opposite side, so that in use the seating yields in the transverse line of each of said connecting devices.

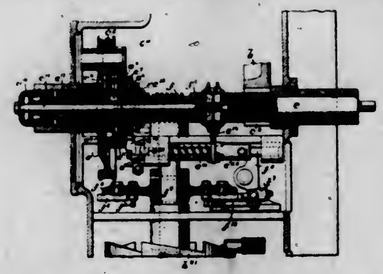
3. A resilient bottom for couch hammocks and other structures comprising in combination a frame composed of longitudinal and end members, a seating therefor composed of longitudinally extending members and transverse links connected thereto, end springs connecting said seating to the frame, and a plurality of springless connecting devices at each side of the seating and connecting the same to said longitudinal frame members, said springless connecting devices at one side of the frame being in substantial lateral alinement with certain of said transverse links and the said springless connecting devices at the opposite side of the frame being in substantial transverse alinement with other of said transverse links, whereby each transverse line of links is free from the frame at one end at least of such transverse line so as to be free to yield when subjected to pressure.

942,842. CUSHION-TIRE FOR VEHICLE-WHEELS. JOHN H. POOLE, Brockton, Mass., assignor of three-eighths to Frank L. Price and three-eighths to James G. Wilde, Brockton, Mass. Filed Dec. 15, 1908. Serial No. 467,729.

A cushioned tire comprising a flexible shoe having edges collectively constituting a longitudinally divided transversely flat inner face adapted to be seated on a wheel rim by a lateral movement of the tire, a resilient cushion backing the tread portion of the shoe, a flexible diaphragm interposed between the side portions of the shoe and forming a backing for the cushion, and means for coupling together the parts of the inner face of the shoe to confine and arch the diaphragm toward the cushion.



942,843. GEARING. JAMES C. POTTER and JOHN JOHNSTON, Pawtucket, R. I., assignors to Potter and Johnston Machine Company, Pawtucket, R. I., a Corporation of Rhode Island. Filed Jan. 7, 1901. Serial No. 42,365.



1. As an improvement in gearing for moving the turrets of automatic turret lathes, the combination of the member to be moved, means to move said member at predetermined different speeds at various times but in the same direction, and automatic means to select the speeds in succession at which the member is to be moved.

2. As an improvement in gearing for moving the turrets of automatic turret lathes, the combination of the member to be moved, means to move said member at predetermined different speeds at various times but in the same direction, and automatic means to select the speeds in succession at which the member is to be moved, said means including a speed-changing cam having a series of cam surfaces, and a moving part with which said surfaces coact in succession.

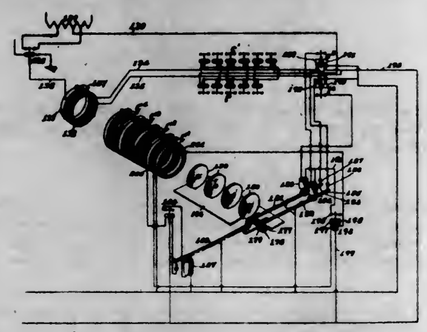
3. As an improvement in gearing for moving the turrets of automatic turret lathes, the combination of the member to be moved, means to move said member at predetermined different speeds at various times but in the same direction, automatic means to select the speeds in succession at which the member is to be moved, and supplemental means for varying the speed of said member.

4. In a lathe, the combination of a shaft from which power is to be transmitted, mechanism for moving such shaft at different speeds, including gearing having members moving at different rates of speed, automatic means for rendering said members effective to rotate the shaft and rendering said members inactive to rotate the shaft, a handle operable at will, and connections between said handle and said mechanism, whereby the said members thereof may be connected to the shaft at different times, and disconnected therefrom by the manipulation of said handle.

5. In a lathe, the combination of a shaft, several gears for rotating said shaft at different speeds, a lever, a sliding collar, connections between said collar and said gears,

whereby the movements of said collar control the operative relation of the several gears to the shaft, automatic means for actuating said lever, a handle, and connections between the same and the collar whereby the collar may be moved at will.

942,844. AUTOMATIC TELEGRAPH. LOUIS M. POTTS, Baltimore, Md., assignor to The Rowland Telegraphic Company, Baltimore, Md., a Corporation of New Jersey. Filed July 6, 1905. Serial No. 268,494.



1. The combination with a prepared sheet, having thereon code impressions arranged in a series of groups of transverse lines, and in code formation in lines passing substantially at right angles to the direction of the said groups of lines, of automatic transmitting means controlled by said sheet, and automatic means to record in multiple lines abreast the intelligence contained in said groups of lines of code impressions.

2. The combination with a prepared sheet, having thereon code impressions arranged in a series of groups of transverse lines and in code formation in lines passing substantially at right angles to the direction of the said groups of lines, of a series of groups of electrical contacts, one group for each group of transverse lines of impressions and arranged to impinge on said sheet; means to effect relative movement between said sheet and contacts in the direction of the transverse lines of code impressions to bring the respective lines of said impressions into engagement with the group contacts abreast; a series of circuits in which said contacts are connected; a main circuit, and means coöperating with said sheet, contacts and plurality of circuits to impress the elements of the code upon said main circuit.

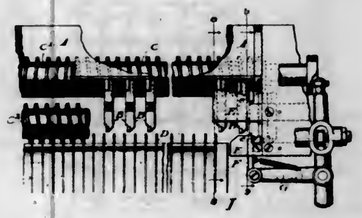
3. The combination with a plurality of groups of electrical contacts, a plurality of groups of normally incomplete local circuits in which said contacts are connected, a main circuit, a prepared controlling sheet having thereon code impressions arranged in multiple lines in groups, means to bring said groups of lines of code impressions abreast into operative relation with the respective groups of said contacts to alter the electrical condition of the circuits in which said contacts are connected, and means coöperating with said controlling sheet to impress the elements of said code on said main line.

4. The combination with a telegraph line, of a main line transmitter connected therein, a plurality of groups of electric circuits for operating said transmitter; a progressive contact maker arranged to connect said transmitter in said circuits successively, and a primary controlling device consisting of a prepared sheet having code impressions thereon arranged in a series of groups of transverse lines, each group of lines of impressions corresponding to a line of matter to be transmitted and each adapted to control a separate group of said circuits.

5. The combination with a telegraph line, of a main line transmitter connected therein, a plurality of groups of electric circuits for operating said transmitters; a progressive contact maker arranged to connect said transmitter in said circuits successively, and a primary controlling device consisting of a prepared sheet having code impressions thereon arranged in a series of groups of transverse lines, each group of lines of impressions corresponding to a line of matter to be transmitted and each adapted to control a separate group of said circuits, and means to automatically print in a plurality of lines abreast, the matter represented by said series of groups of lines of code impressions.

[Claims 6 to 22 not printed in the Gazette.]

942,845. LINE-CASTING MACHINE. JOHN R. ROGERS, Brooklyn, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Jan. 20, 1909. Serial No. 473,271.



1. In a line casting machine, a horizontal distributer, matrices of different thicknesses, and means controlled by the matrices and acting to deliver thin matrices to the distributer at short intervals and thick matrices at longer intervals, substantially as described.

2. In a line-casting machine, the combination of the toothed distributer bar, feed screws adjacent thereto, a vertically reciprocating feed finger, and matrices shouldered substantially as described; whereby two upward movements of the finger are required to deliver a matrix to the screws.

3. In a line casting machine, the combination of the horizontal distributer bar, the feed screws, the rails E having shoulders to limit the horizontal advance of the matrices, thick matrices with lifting shoulders, thinner matrices without such shoulders, and a lifting finger shouldered substantially as described, whereby it is enabled to lift the thin matrices to the distributer bar by a single stroke and the thicker matrices by two strokes.

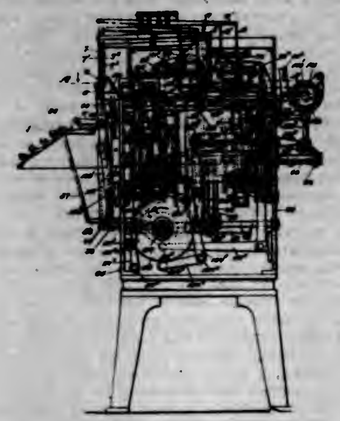
4. In a line-casting machine, the combination of a distributer bar, adjacent feed screws, a lifting finger, means for presenting matrices successively thereto, and a series of thick and thin matrices, the former being shouldered and the latter without shoulders, substantially as described; whereby the thin matrices are presented to the distributing devices at shorter intervals than the thick matrices.

5. The combination of a distributing mechanism and means for delivering individual matrices thereto at longer or shorter intervals according to their thickness.

[Claims 6 to 9 not printed in the Gazette.]

942,846. TYPE CASTING AND COMPOSING MACHINE. ODDUR V. SIGURDSSON, New York, N. Y., assignor to Oddur Manufacturing Company, New York, N. Y., a Corporation of West Virginia. Filed Oct. 31, 1908. Serial No. 460,397.

1. A typecasting machine comprising a keyboard, a plurality of type casting units controlled by the keys each unit being adapted to produce types of different widths runningwise, means whereby on successive depression of any keys of the board the type casting units are successively set in operation in regular rotation each going into operation irrespective of whether the one put into operation ahead of it has completed the casting of a type, a line composing receptacle located in the plane in which the type are cast and to which the types are successively delivered in the order in which the keys in the board are manipulated, means for solidifying the composed line of types by casting metal thereupon, a composing galley located in the same plane in which the types are cast and means for delivering the solidified line to the galley.



2. A type casting machine comprising a keyboard, a plurality of type casting units controlled by the keys each unit being adapted to produce types of different widths runningwise, means whereby on successive depression of any keys of the board the type casting units are successively set in operation in regular rotation each going into operation irrespective of whether the one put into operation ahead of it has completed the casting of a type, a line composing receptacle located in the plane in which the type are cast and to which the types are successively delivered in the order in which the keys in the board are manipulated, means for inserting space pieces between the words of the line formed in the composing receptacle, means for solidifying the composed line of types by casting metal thereupon, means for then withdrawing the spacing pieces, a composing galley located in the same plane in which the types are cast and means for delivering the solidified line to the galley.

3. A type casting unit controlled by the key board and comprising a plurality of matrix bars in which are distributed the matrices of a single font and a mold having a single molding cavity with which all the matrices of several matrix bars coöperate and which is automatically adjustable to the different widths required by the several type of the same font, combined with a line composing receptacle located in the same plane in which the types are cast, means for automatically delivering the types as cast to the assembling receptacle, a line solidifying mold located in the same plane as that in which the types are cast, means for delivering to the solidifying mold a line of type assembled in the composing chamber, means for admitting molten metal to the solidifying mold to integrally unite the line of types therein, a composing galley and means for transferring the solidified line to the composing galley.

4. A type casting unit controlled by the key board and comprising a plurality of matrix bars in which are distributed the matrices of a single font and a mold having a single molding cavity with which all the matrices of several matrix bars coöperate and which is automatically adjustable to the different widths required by the several types of the same font, combined with a line composing receptacle located in the same plane in which the types are cast, means for automatically delivering the types as cast to the assembling receptacle, means for inserting space pieces between the words of the line formed in the composing receptacle, a line solidifying mold located in the same plane as that in which the types are cast, means for delivering to the solidifying mold a line of type assembled in the composing chamber, means for admitting molten metal to the solidifying mold to integrally unite the line of types therein, means for then withdrawing the spacing pieces, a composing galley and means for transferring the solidified line to the composing galley.

5. A type casting and composing machine comprising a keyboard, a plurality of type casting units controlled by the key board, means whereby on successive depression of any keys of the board the type casting units are successively set in operation in regular rotation each going into operation irrespective of whether the one put into operation ahead of it has completed the casting of a type, each unit comprising a mold and a plurality of matrix bars upon which the matrices of a font are distributed, combined with a line composing receptacle, means for automatically, successively delivering the types to the line composing receptacle in the order in which the keys of the board are manipulated, a line solidifying mold, means for transferring the composed line from the line composing receptacle to the solidifying mold, means for admitting molten metal to the mold to integrally unite the types of the line, a composing galley and means for transferring the solidified line to the galley.

[Claims 6 to 29 not printed in the Gazette.]

942,847. SEAL AND SPOUT FOR CANS AND OTHER RECEPTACLES. HARRY A. TAUSSDALE, Conneaut, Ohio. Filed Jan. 7, 1909. Serial No. 471,172.

1. A can-neck having a cap provided with a perforation, in combination with a device removably attached to said neck and provided with an opening above said cap and a spout adapted to be passed through said opening, but provided with a part which cannot pass through the same, the said spout and part being removable from said device and also being rotatably adjustable on said cap to open or close the passage through the same, substantially as set forth.

2. A can neck which is externally screw-threaded and provided with a cap having a perforation, in combination with an annular part which is screw-threaded to engage said neck and provided with a central opening and a horizontal part surrounding the same, a spout adapted to pass up through the said opening and removable from said annular part at will, said spout being provided with a plate extending under said part and said spout and plate being free to be turned in contact with said cap to open or close the latter.

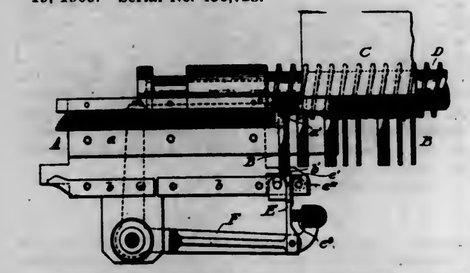
3. In combination with a can neck having a cap provided with a perforation, a spout normally adjustable by rotation thereon, provided with an opening which registers with said perforation, said spout being adapted to close the can by turning said opening out of register therewith, and means adapted to be detachably fastened on the can and to hold said spout on said cap, but permitting the said spout to be withdrawn from said means after detaching the latter from the can, substantially as set forth.

4. In combination with a can neck provided with a cap B having a perforation, a movably horizontal spout having an opening in its under side adapted to register with said perforation and provided with a recessed plate containing a packing which is correspondingly perforated, said plate extending outward from said recess and a screw-threaded, additional cap E adapted to engage the screw-threads on said neck and to overlap the outer part of said plate for holding said packing against cap B and said spout in place, said cap E also having a central opening through which said spout may be withdrawn at will after removing cap E from the can neck, substantially as set forth.

5. A can neck in combination with two caps fastened thereon and a spout, which has a part clamped between these caps and is removable from the upper cap, said caps and spout being provided with registering perforations and said spout being rotatably adjustable while in position against the inner cap to open or cut off the flow through said perforations at will.

[Claim 6 not printed in the Gazette.]

942,848. LINE-CASTING MACHINE. FRANCIS B. CONVERSE, Brooklyn, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Apr. 19, 1909. Serial No. 490,723.



1. In a mechanism of the class described, the combination of a matrix lifting finger, and means to hold the same momentarily out of engagement with a second matrix.

2. In a machine of the class described, matrices of different thicknesses, in combination with a lifting finger adapted to yield before the matrix, and means for momentarily rendering the finger inoperative when the matrices exceed a certain thickness.

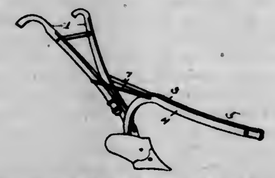
3. In a machine of the class described, matrices of different thicknesses, a matrix lifting finger and means controlling its action; said means controlled in turn by matrices of one thickness, but not by those of another thickness.

4. In combination with the lifting finger, arranged to yield before the matrix being lifted, means to keep the finger momentarily out of action when it yields beyond a certain point; whereby an idle stroke of the finger is secured after lifting each thick matrix.

5. In a mechanism of the class described, means for sustaining a line of matrices, a device for lifting individual matrices from the line, said device arranged to yield before the advancing line, and a spring to resist said advance; in combination with interlocking members to retain the device momentarily when advanced beyond a given position; whereby the device is rendered temporarily inactive after lifting a thick matrix.

[Claims 6 and 7 not printed in the Gazette.]

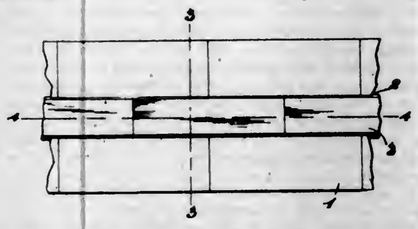
942,849. PLOW. JAMES T. GANTT, Macon, Ga. Filed Mar. 12, 1909. Serial No. 483,011.



1. In a device of the character described, a bifurcated beam comprising in its construction a pair of spaced bars, a spacing member positioned upon the plow end of the beam between the bars and provided with a pair of lugs engaging the extreme lower ends of the bars, a boot positioned upon the beam and engaging the spacing member upon the front and side thereof, the boot being provided with an upright portion having a rearwardly extending flange adapted to engage the beam upon one side and extending to the bottom of the boot and projecting in the rear thereof, and adapted to engage one of the lugs of the spacing member, a second rearwardly extending flange projecting in the rear of the upright portion of the boot at the top thereof, and adapted to bear upon one side of the beam, a point positioned upon the bottom of the boot and having a curved face, and provided with a rearwardly extending flange, a curved cutting edge formed at the juncture of the curved face and rearwardly extending flange, a mold board positioned upon the boot above the point and having a cutting edge positioned to form a continuation of the cutting edge of the point, a landside formed with a pair of horizontal flanges projecting from each side and in the rear thereof, the front of the landside having a beveled edge adapted to abut the rearwardly extending flange of the point and to be secured to the rearwardly extending projection carried by the bottom of the boot, substantially as shown and described.

2. In a device of the character described, a bifurcated beam comprising in its construction a pair of spaced bars, a spacing member positioned upon the lower end of the beam between the bars and provided with a pair of lugs engaging the extreme ends of the bars, a boot provided with an upwardly extending projection, a rearwardly extending flange projecting therefrom at the top thereof and adapted to engage the beam upon one side, a second rearwardly extending flange projecting from the rear of the upright projection and continuing to the bottom of the boot to form a landside support, a point positioned upon the lower end of the boot and provided with a rearwardly extending flange, a mold-board positioned above the point upon the boot, the mold-board and the point each having cutting edges at the front thereof adapted to form a continuous cutting edge from the extreme forward end of the point to the top of the mold-board, a landside having a pair of horizontal flanges projecting therefrom, the front end of the landside having a beveled portion formed thereon, the landside being adapted to be secured to the landside support, the beveled portion of the landside being adapted to abut the rearwardly extending flange of the point, and means for securing the landside, the point and the mold-board upon the boot, and means for securing the boot to the beam, substantially as shown and described.

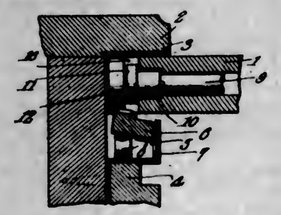
942,850. FIRE-CLAY BUILDING-BLOCK. JOHN O. ST. JOHN, St. Louis, Mo. Filed Aug. 31, 1907. Serial No. 390,984.



1. The combination of two fire proof hollow building blocks provided with straight and parallel ends, sides and faces, each block being formed of hardened plastic material and provided on one of its faces with a longitudinally disposed dove-tailed groove, the grooves in each block coinciding, a slidable wooden strip having dovetailed side edges movably seated in the groove in each tile, answering the purpose of a nail block and also as a fastening means for holding said tiles in alinement, said wooden strip being greater in thickness than the depth of the groove in the blocks.

2. As a new article of manufacture, a fire-proof building block formed of hardened plastic material, the said building block being provided with parallel chambers, one of which chambers is smaller than the other chambers, a longitudinal dove-tailed groove formed in one wall of the smaller chamber, the surfaces of said groove being smooth, and a wooden strip having dovetailed side edges and of greater thickness than the depth of the groove in which it is located, said strip being free to move in said groove.

942,851. WINDOW LOCK AND LIFT. ROY T. AXE, Juniata, Pa. Original application filed Nov. 9, 1907, Serial No. 401,523. Divided and this application filed Nov. 30, 1908. Serial No. 465,082.



1. In a window, means for holding the window sash in adjusted positions, comprising a friction strip for each side of the window sash and a spring for each strip urging the same in contact with the window sash, and means for overcoming the action of the springs to release the window sash, comprising rollers mounted upon a rock arm on each side of the axis thereof at each end of the window sash and in operative relation to the respective strips, and means for moving the rock arm about its axis to cause the rollers to engage the strips and move them away from the window sash.

2. In a window, means for holding the window sash in adjusted positions comprising a friction strip hinged along one edge to a fixed portion of the window frame, a spring normally urging said strip against the sash, and means for overcoming the action of the spring to release the sash comprising a rock shaft carried by the sash, a handle also on the sash and connected to said shaft, and rollers carried by said shaft on each side of the axis thereof and movable into engagement with the spring constrained strip and the window casing respectively.

3. In a window, means for holding the window sash in adjusted positions, comprising a friction strip hinged along one edge to a fixed portion of the window frame, a spring normally urging the strip against the window sash, means carried by the sash for overcoming the action of the spring to release the sash, a latch member carried by the strip, and co-acting means on the sash receiving the latch member when the sash is in the lowermost position.

4. In a window, means for holding the window sash in adjusted positions, comprising a friction strip hinged along one edge to a fixed portion of the window frame, a spring urging said strip toward said window sash, a shaft rotatably mounted in the sash, and radially projecting means assembled with the terminal of the shaft, arranged to engage the said strip to overcome the action of the spring.

942,852. INDURATED PRODUCT AND METHOD OF PREPARING SAME. LEO H. BAEKELAND, Yonkers, N. Y. Original application filed July 13, 1907, Serial No. 383,684. Divided and this application filed Apr. 18, 1908. Serial No. 427,874.

1. The method of indurating fibrous or cellular materials which consists in mixing formaldehyde and a phenolic body in proportions to yield an insoluble and infusible reaction product, separating water from the mixture, applying the resulting substantially water-free product to the fibrous or cellular material, and hardening the composition.

2. The method of indurating fibrous or cellular materials which consists in mixing formaldehyde and a phenolic body in proportions to yield an insoluble and infusible reaction product, separating water from the mixture, applying the resulting substantially water-free product to the fibrous or cellular material, and hardening the composition by simultaneous application of heat and pressure.

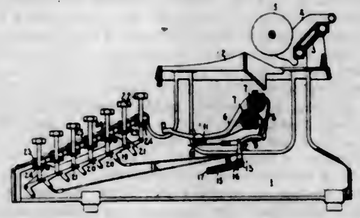
3. The method of indurating wood which consists in mixing formaldehyde and a phenolic body in proportion to yield an insoluble and infusible reaction product, separating water from the mixture, applying the resulting substantially water-free product to the wood and hardening the composition.

4. The method of indurating wood which consists in mixing formaldehyde and a phenolic body in proportion to yield an insoluble and infusible reaction product, separating water from the mixture, applying the resulting substantially water-free product to the wood and hardening the composition by simultaneous application of heat and pressure.

5. As a new composition of matter wood cell tissue impregnated with an infusible and insoluble condensation product of phenol and formaldehyde.

[Claim 6 not printed in the Gazette.]

942,853. TYPE-WRITING MACHINE. JOHN H. BARR, Syracuse, N. Y., assignor to The Smith Premier Typewriter Company, Syracuse, N. Y., a Corporation of New York. Original application filed Sept. 27, 1907, Serial No. 394,854. Divided and this application filed Sept. 20, 1909. Serial No. 518,619.



1. In a typewriting machine, the combination with printing keys and parts actuated thereby, of a pad for arresting said keys in normal position, said pad comprising a metal casing and sound deadening material such as felt, said casing having parts thereof bent into engagement with the felt to hold said felt in place.

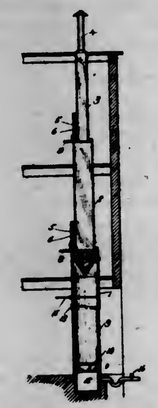
2. In a typewriting machine, the combination of a series of keys and key stems having stops thereon, and an arresting device having perforations for said key stems, said arresting device comprising a sheet metal casing and a strip of sound deadening material such as felt, said casing having ears bent up between the key stems to retain the felt.

3. In a typewriting machine, the combination of a series of keys arranged in rows and mounted on key stems, and a series of arresting devices for said key stems comprising a bar for each row of keys having sound deadening material such as felt secured thereto and stops on the key stems to engage said sound deadening material, said bars being supported only at their ends.

4. In a typewriting machine, the combination with a series of keys, of a pad for arresting said keys, said pad comprising a casing composed of a strip of sheet metal with a stiffening flange, a strip of sound deadening material, means for clamping said sound deadening material to said casing at numerous points in its length, and means for supporting said casing at its ends.

5. In a typewriting machine, the combination with a series of keys having stems, of a keyboard plate for guiding said stems, and pads for said key stems comprising strips of sheet metal supported at their ends and strips of sound deadening material clamped to said strips of sheet metal, and said strips of metal and sound-deadening material being perforated for the passage of said key stems.

942,854. GARBAGE CHUTE AND CAN. EDWIN BRADSHAW, San Francisco, Cal., assignor to Margaret Bradshaw, San Francisco, Cal. Filed Dec. 16, 1907. Serial No. 406,795.



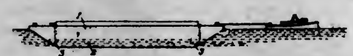
1. In a garbage chute, a removable can having a perforated removable bottom and a packing joint at the bottom, a cesspool on which the can is placed, a chute connected to the can, means to make the joint between the can and chute substantially air tight, and a vent for the chute extending out of the roof of the house, or porch.

2. In a garbage chute, a removable can having a perforated bottom, a cess pool on which the can is placed, a sewer connection for the cesspool, a chute connected with the can, successively smaller chutes connected with the lower chutes and forming a series of shoulders, and a wash pipe placed under the shoulder of the chutes at their points of connection.

3. In a garbage chute, a removable can having a perforated bottom, a cesspool on which the can is placed, a chute connected with the can and having successively smaller chutes as it passes up and forming a series of shoulders, wash pipes placed at the shoulder of the smaller chutes and the larger chutes and adapted to wash the inside of the chutes, and a double door at each floor of the building through which the garbage may be thrown into the chute.

4. In a garbage chute, a large chute, smaller chutes connected therewith and extending out the roof of a building, a garbage can having a perforated bottom at the bottom of the large chute, a cesspool, a sewer connected with the cess-pool, a vent for the sewer, and means whereby the can may be entirely removed from the cesspool for cleaning.

942,855. ANTIDRIFTING DEVICE. ELIAS GUNNELL, Manitowoc, Wis., assignor to Manitowoc Dry Dock Company, Manitowoc, Wis., a Corporation of Wisconsin. Original application filed Nov. 20, 1907. Serial No. 403,014. Divided and this application filed Mar. 5, 1909. Serial No. 481,393.



1. The combination with a scow having an open bottomed dumping well extending throughout its length, of an anti-drifting flap hinged on a vertical axis and lying in the well, and means whereby the flap may be held in a position transverse to the well.

2. The combination with a scow having an open bottomed dumping well extending throughout its length, of an anti-drifting flap hinged at the edge of the well on a vertical operating shaft and means for turning the flap to a position transverse to the well.

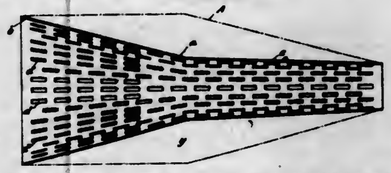
3. The combination with a scow having an opened bottomed dumping well extending throughout its length, of an operating shaft extending from the deck of the scow to the well, and an anti-drifting flap mounted on the shaft and lying in the well.

4. The combination with a scow having an open bottomed dumping well extending throughout its length of a pair of operating shafts extending from the deck of the scow to opposite sides of the well, and a retarding flap on each shaft.

5. The combination with a scow having an open bottomed dumping well extending throughout its length, of anti-drifting flaps hinged on vertical axes on opposite sides of the well and means whereby the flaps may be held in positions transverse to the well.

[Claim 6 not printed in the Gazette.]

942,856. YARN-SUPPORT FOR DYEING. JOHN C. HEBDEN, Providence, R. I., and FREDERICK H. DANIELL, Franklin, N. H. Original application filed Nov. 10, 1908, Serial No. 461,911. Divided and this application filed Apr. 10, 1909. Serial No. 489,143.



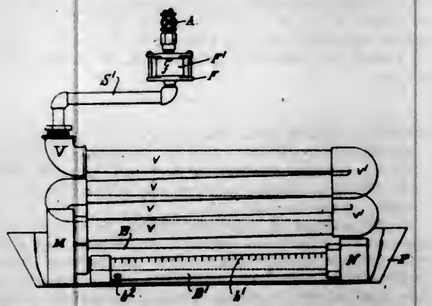
1. The within described yarn support for use in treating yarn with fluids, comprising a hollow, porous frusto-conical base portion and a porous, tubular barrel connected thereto.

2. The within described yarn support for dyeing, comprising a hollow, frusto-conical base and a tapered, tubular barrel projecting from the base, with perforations in the base and barrel.

3. The within described yarn support, for use in treating textiles with fluids, formed of sheet metal with a hollow, frusto-conical base portion and a tubular barrel, with perforations in the base and barrel.

4. The within described yarn support for use in treating textiles with fluids comprising a hollow, frusto-conical base portion, and a tubular barrel projecting therefrom, with narrow openings in the base and barrel portions extending in the direction of the axis of the support.

942,857. HYDROCARBON-BURNER. JOHN A. HUNT, Boston, Mass. Continuation of application Serial No. 235,428, filed Dec. 5, 1904. This application filed June 23, 1906. Serial No. 323,024.



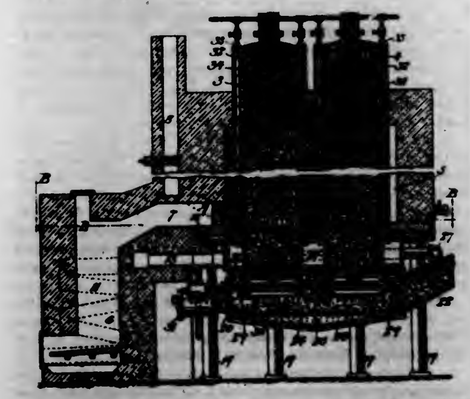
1. A hydro-carbon burner comprising a pair of substantially parallel vaporizing tubes, a relatively larger mixing chamber to which said tubes are connected, both of said tubes entering the same side of said chamber and said chamber having a flat wall opposite to and extending in front of the points of entry of both of said tubes for baffling and mixing the vapor, a vapor discharge tube extending from said mixing chamber on the same side as and below the point of entry of said parallel tubes and opposite to said wall and oil and water connections for said vaporizing tubes.

2. A hydro-carbon burner comprising a pair of substantially parallel vaporising tubes, a relatively larger mixing chamber to which said tubes are connected, both of said tubes entering the same side of said chamber, said chamber having a flat vapor baffling wall opposite to and extending in front of the points of entry of said parallel tubes, a second pair of substantially parallel tubes lying above the first named tubes and connected thereto at their ends, said second pair of tubes at the opposite end of their last named connection passing over the top of said mixing chamber and in close proximity thereto, a vapor discharge tube extending from said mixing chamber on the same side as and below the point of entry of said parallel tubes first named and opposite to said baffling wall and oil and water connections for said vaporizing tubes.

3. A hydro-carbon burner comprising a pair of substantially parallel vaporizing tubes, a relatively larger mixing chamber to which said tubes are connected, both of said tubes entering the same side of said chamber and said chamber having a baffling wall opposite to and extending in front of the points of entry of said parallel tubes, a second pair of substantially parallel tubes located above said first named tubes and connected at their ends therewith, said last mentioned tubes passing over the top of said mixing chamber and in close proximity thereto, a vapor discharge tube extending from said mixing chamber near its bottom on the same side as and below the points of entry of said first named tubes and opposite to said baffling wall, a burner tube connected to said vapor discharge tube, a drain vent in said burner tube near its end, all of said tubes being laid in a continuous incline down to the end of the vapor discharge tube and oil and water connections for said vaporizing tubes.

4. In a hydro-carbon burner, a mixing chamber having oppositely disposed sloping surfaces on its top, oil and water vaporizing tubes operatively connected therewith and each having a plurality of turns, each turn being slightly staggered from the vertical alternately in opposite directions and alternately overlying said sloping surfaces of said mixing chamber.

942,858. RETORT FOR THE MANUFACTURE OF ILLUMINATING-GAS. CHARLES W. ISBELL, New York, N. Y. Original application filed Dec. 2, 1908, Serial No. 465,602. Divided and this application filed Feb. 26, 1909. Serial No. 480,132.



1. In an apparatus of the character described, a retort having its interior enlarged in steps from the top to the bottom thereof to form gas spaces under the steps, said retort having a main gas flue therein and branch flues leading from said gas spaces into said main gas flue.

2. In an apparatus of the character described, a retort having its interior enlarged in steps from the top to the bottom thereof to form gas spaces under the steps, said retort having a plurality of main gas flues therein and branch flues leading from the said gas spaces into the said main gas flues.

3. In an apparatus of the character described, a retort composed of sections, the bores of which increase in diameter from the top to the bottom of the retort to form a step by step enlargement of the interior of the retort whereby gas spaces are formed under the said steps, said retort having a main gas flue therein and branch flues leading from said gas spaces into said main gas flue.

4. In an apparatus of the character described, a retort composed of sections, the bores of which increase in diameter from the top to the bottom of the retort to form a step by step enlargement of the interior of the retort whereby gas spaces are formed under the said steps, said retort having a plurality of main gas flues therein and branch flues leading from the said gas spaces into the said main gas flues.

942,859. MAIL-BOX SUPPORT. ALGERNON P. KERSEY, Greensboro, N. C. Filed Feb. 19, 1909. Serial No. 478,921.



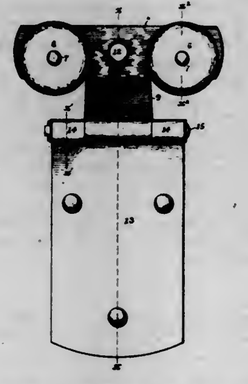
1. A mail-box support comprising a tubular standard, a head mounted to rotate thereon, a stem secured to the head and projecting into the standard, means within the standard for preventing longitudinal movement of the stem relative to the standard, said head having a series of openings therein, box-engaging and supporting plates mounted on the head, an arm extending from each of said plates, and means upon each arm for extending through one of the openings and into engagement with the head, said means bearing upwardly against the head.

2. A mail box support comprising a tubular standard, a head mounted to rotate thereon and comprising a counterbored hub, spokes radiating therefrom, and a flanged peripheral portion connecting the outer ends of the spokes, the counterbore within the hub constituting a seat for one end of the standard, a stem secured within and extending from the hub and mounted to rotate within the standard, base plates, and arms extending from said plates and between the spokes, said arms bearing downwardly upon the peripheral portion of the head and upwardly upon the hub portion thereof.

942,860. DOOR-HANGER. JOHN H. LAWRENCE, Sterling, Ill., assignor of one-half to Edwin F. Lawrence, Sterling, Ill. Continuation of application Serial No. 386,281, filed July 30, 1907. This application filed Feb. 15, 1909. Serial No. 478,052.

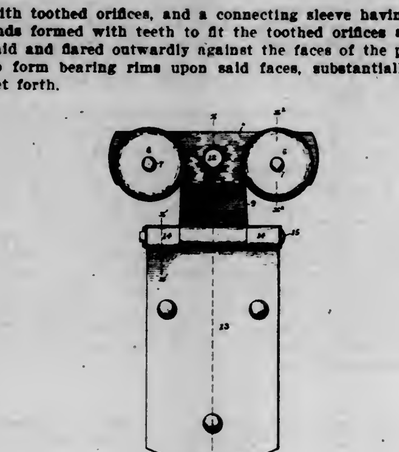
1. In a carriage for door hangers, the combination of a pair of frame plates in separated relation and formed

with toothed orifices, and a connecting sleeve having its ends formed with teeth to fit the toothed orifices aforesaid and flared outwardly against the faces of the plates to form bearing rims upon said faces, substantially as set forth.



2. A door hanger comprising in its construction, a wheeled carriage, a depending hanger strap attached at its upper end to said carriage and formed with a longitudinal pivot eye at its lower end, in combination with an angle bracket adapted for attachment to the top of the door and formed with pivot eyes, a pivot pin passing through said pivot eyes to connect the depending strap and angle bracket together in a pivotal manner, the pivot eyes of the angle bracket being formed by integral end loops and intermediate horizontal tongues projecting underneath the pivot eye of the hanger strap to form a top therefor, substantially as set forth.

942,861. GAS-ANALYZER FOR FURNACES. CYPRIEN O. MAILLOUX and HENRY J. WESTOVER, New York, N. Y. Original application filed Feb. 7, 1907, Serial No. 356,188. Divided and this application filed Apr. 22, 1907. Serial No. 369,469.



1. In combination, an automatic gas analysis apparatus, a plurality of pipes for delivering the gaseous products of combustion from a plurality of furnaces, a directing valve by which each of said pipes, one after another communicates with said gas analysis apparatus, and means for operating said valve controlled by the movement of the said gas analysis apparatus, substantially as described.

2. An automatic CO_2 analyzer, a plurality of gas conveying pipes, a directing valve with which said pipes communicate for placing them one after the other in operative relation with said analyzer, electro-magnetic means for moving said valve and a circuit controlled by movement of said analyzer for energizing said valve-moving means, substantially as described.

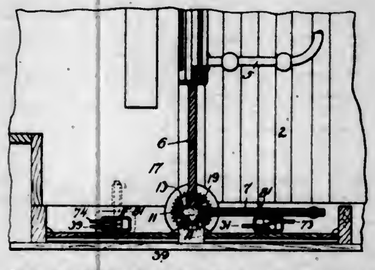
3. In combination, an automatic gas analyzing apparatus, a gas-directing means having entrance pipes arranged around a common center, a revoluble directing pipe placed so as to register at one end with said entrance pipes successively, and electro-magnetic means controlled by said analyzer for turning said directing pipe step-by-step, substantially as described.

4. A device of the class described comprising an analyzer, a gas-conveying pipe therefor, clearing means for said pipe, an actuating device for said clearing means and automatic means controlled by said analyzer for causing operation of said actuating device, substantially as described.

5. A device of the class described comprising an analyzer, a gas-conveying pipe therefor, a gas-directing device inserted in the course of said pipe, clearing means for said pipe, an actuating device for said clearing means and automatic means controlled by said analyzer for causing substantially simultaneous operation of said gas-directing device and of said actuating device, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

942,862. CAR-DOOR. FRANCIS X. MALOCSAY, Jersey City, N. J., assignor to William H. Heulings, Philadelphia, Pa. Original application filed Sept. 1, 1908, Serial No. 451,161. Divided and this application filed Dec. 9, 1908. Serial No. 466,618.



1. In a car of the class described, a door, guides mounted on pivots, said door having angularly disposed members, means for mounting and actuating said door so that it may be used for ingress purposes only and means for changing said door so that it may be used for exit purposes only, and means coöperating with said guides to lock the door against improper movement.

2. In a car of the class described, a door, guides mounted on pivots, said door having angularly disposed members, means for mounting and actuating said door so that it may be used for ingress purposes only and means for changing said door so that it may be used for exit purposes only, means coöperating with said guides to lock the door against improper movement, and springs secured to the pivots on said guides to shift them upwardly into a vertical position well within their pivot.

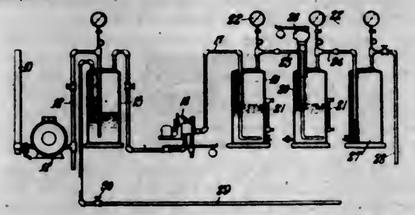
3. In a car of the class described, a car door comprising a pivot, panels adapted to swing about and move through the same, pivotally mounted guides, and means for permitting them to close well within their pivot.

4. In a car of the class described, a door provided with a pivot, sliding panels supported by said pivot and held thereby at right angles to each other and adapted to slide through such pivot, pivotally mounted guides, and means for sliding the panels through said pivot.

5. In a car of the class described, a vertical pivot extending the length of the door and having right angled slots therethrough, guides pivoted in such vertical pivot, said pivot and guides having co-acting stops, and means for sliding said panels through said pivot.

[Claims 6 to 17 not printed in the Gazette.]

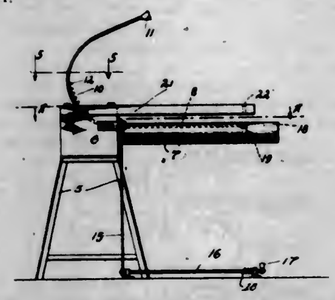
942,863. APPARATUS FOR TREATING GAS. DEWITT C. MCINTIRE, Bradford, Pa., deceased; Lizzie M. McIntire, administratrix. Filed May 21, 1909. Serial No. 497,479.



1. In apparatus of the class described, the combination of a gas meter, a gas receiving tank connected to the delivery side of the gas meter, an air compressor connected with said tank to receive gas therefrom, a carbureter to which the mixed air and gas under pressure is directed, and a storage reservoir to which the carbureted fluid is delivered and in which the excess of carbureting liquid is deposited.

2. In apparatus of the class described, the combination of a gas meter, a gas receiving tank connected to the delivery side of the gas meter, an air compressor connected with said tank and arranged to receive equal volumes of the gas and atmospheric air and to compress the same, a pair of serially connected carbureters through which the compressed fluid is forced, a storage tank and settling device into which the carbureted fluid is delivered in advance of the point of consumption, and a valved pipe forming a by-pass for the low pressure gas between the receiving tank and the point of consumption.

942,864. RIVET-FEEDING DEVICE. JAMES E. PETERS, Los Angeles, Cal. Filed June 8, 1908. Serial No. 437,284.



1. In a rivet feeding mechanism, a suitably mounted frame and a longitudinally grooved riveting stake secured thereto, a slotted grooved rivet carrier mounted on the frame and communicating with the groove formed in the stake, and a rivet forcing means mounted on the frame and operating transversely of the stake to force the rivets forwardly.

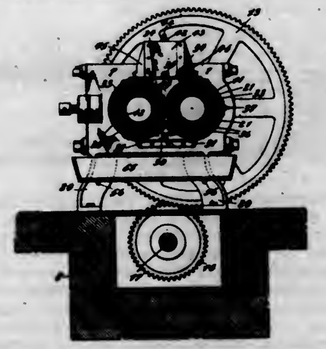
2. In a rivet feeding mechanism, a suitably mounted frame and a longitudinally grooved riveting stake secured thereto, a slotted rivet carrier secured to the frame and communicating with the groove formed in the stake, said carrier adapted to feed the rivets by gravity to the groove in the stake, means mounted on said frame and operating transversely of said stake to force the rivets forwardly, and means to actuate said rivet forcing means.

3. In a rivet feeding mechanism, the combination of a channeled stake adapted to receive a row of up ended rivets and having a slot in the top through which the upper end of the rivets project, a rivet carrier communicating with said stake and adapted to feed rivets thereto by gravity, and means acting across the path of the channel formed in said stake to force the rivets forwardly.

4. In a rivet feeding mechanism, a channeled stake and a rivet carrier attached thereto, said carrier communicating with the channel in said stake, a reciprocating wedge-shaped rivet feeding arm mounted in said stake and acting transversely across the path of rivet travel, and means to reciprocate said arm.

5. In a rivet feeding mechanism, a channeled stake and a rivet carrier attached thereto, said carrier communicating with the channel in said stake, a rivet forcing means mounted on the frame and operating transversely of the stake to force the rivets forwardly, and means to actuate said rivet forcing means.

942,865. GRINDING OR PULVERIZING MACHINE. AUGUST H. PETERSEN, New York, N. Y. Filed Mar. 17, 1909. Serial No. 484,025.



1. In a grinding or pulverizing machine, the combination with grinding cylinders or rollers and means adapted to operate the same, of a shield or casing partially surrounding each roller having a smooth inner surface and adapted to receive the material being ground after it has passed between the rollers and to guide said material and permit it to be carried around by said rollers and passed again between the same.

2. In a grinding or pulverizing machine, the combination with grinding cylinders or rollers and means adapted to operate the same, of a shield or casing partially surrounding each roller and provided with perforations, said shields being adapted to receive the material being ground, after it has passed between the rollers, to permit the pulverized portion of such material to pass through said perforations and to permit the remainder of the material to be carried around by said rollers and passed again between the same.

3. In a grinding or pulverizing machine, the combination with grinding cylinders or rollers and means adapted to operate the same, of a shield or casing partially surrounding each roller and provided with an inturned end flange adjacent to the ends of the rollers and also provided with perforations, said shields being adapted to receive the material being ground, after it has passed between the rollers, to permit the pulverized portion of such material to pass through said perforations and to permit the remainder of the material to be carried around by said rollers and passed again between the same.

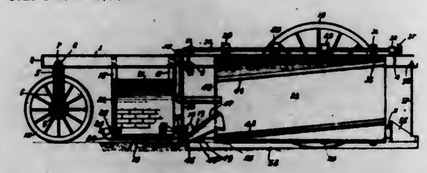
4. In a grinding or pulverizing machine, the combination with grinding cylinders or rollers and means adapted to operate the same, of a shield or casing, composed of a plurality of sections, pivotally united to each other, partially surrounding each roller and provided with an inturned end flange adjacent to the ends of the rollers and

also provided with perforations, said shields being adapted to receive the material being ground, after it has passed between the rollers, to permit the pulverized portion of such material to pass through said perforations and to permit the remainder of the material to be carried around by said rollers and passed again between the same.

5. In a grinding or pulverizing machine, the combination with grinding cylinders or rollers, means adapted to operate the same, and means adapted to direct the material to be ground toward the middle part of the rollers and away from the ends thereof, of a shield or casing partially surrounding each roller and provided with an inturned end flange adjacent to the ends of the rollers and also provided with perforations, said shields being adapted to receive the material being ground, after it has passed between the rollers, to permit the pulverized portion of such material to pass through said perforations and to permit the remainder of the material to be carried around by said rollers and passed again between the same.

[Claim 6 not printed in the Gazette.]

942,866. ROAD-WORKING MACHINE. MICHAEL A. POPKESS, Kansas City, Mo. Filed Nov. 27, 1908. Serial No. 464,746.



1. A road-working machine, comprising a frame provided with ground-engaging supports, a cylinder carried by said frame, a plow or shovel carried by the frame and adapted to be pitched downwardly and forwardly below the level of the ground in order to scoop up earth-surfacing material and deliver it into the cylinder.

2. A road-working machine, comprising a frame provided with ground-engaging supports, a cylinder carried by said frame, a plow or shovel carried by the frame and adapted to be pitched downwardly and forwardly below the level of the ground in order to scoop up earth-surfacing material and deliver it into the cylinder, and means for scattering or distributing the material within the cylinder and causing it to eventually drop from the rear of the latter, onto the solid bed or roadway.

3. A road-working machine, comprising a frame provided with ground-engaging supports, a cylinder carried by said frame, a plow or shovel carried by the frame and adapted to be pitched downwardly and forwardly below the level of the ground in order to scoop up earth-surfacing material and deliver it into the cylinder, means for scattering or distributing the material within the cylinder and causing it to eventually drop from the rear end of the latter, onto the solid bed or roadway, and means movable with the machine, for spreading or distributing the material evenly discharged from the cylinder, in the furrow or channel produced by its original elevation by the plow or shovel.

4. A road-working machine, comprising a frame provided with ground-engaging supports, a cylinder carried by said frame, a plow or shovel carried by the frame and adapted to be pitched downwardly and forwardly below the level of the ground in order to scoop up earth-surfacing material and deliver it into the cylinder, means for scattering or distributing the material within the cylinder and causing it to eventually drop from the rear end of the latter, onto the solid bed or roadway, and a V-shape spreader movable with and arranged at the rear end of the frame to evenly spread the material discharged by the cylinder.

5. A road-working machine, comprising a frame provided with ground-engaging supports, a cylinder carried by said frame, a plow or shovel carried by the frame and adapted to be pitched downwardly and forwardly below the level of the ground in order to scoop up earth-surfacing material and deliver it into the cylinder, and a pair of parallel guards movable with the machine and extending rearwardly from the front and lower edge of the plow.

[Claims 6 to 16 not printed in the Gazette.]

942,867. MAGNETIC CLUTCH. HENRY W. RAVENSHAW, Hanwell, England. Original application filed Feb. 28, 1907, Serial No. 359,905. Divided and this application filed Mar. 29, 1909. Serial No. 486,640.

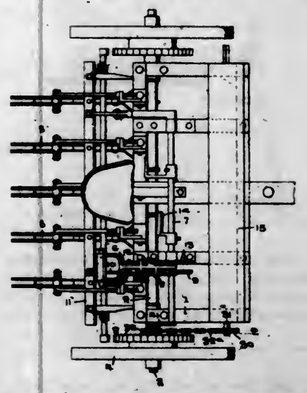


1. A magnetic clutch comprising a driving and a driven shaft, an annular electromagnet, an annular keeper and an intermediate element between the electromagnet and the keeper, the arrangement being such that the magnetic circuit is completed out through the intermediate element and back through the shaft.

2. A magnetic clutch comprising a driving and driven shaft, an annular electromagnet and annular keeper and an intermediate element consisting of two concentric rings of magnetic material secured together by a flexible ring of non-magnetic material, the arrangement being such that the magnetic circuit is completed out through the intermediate element and back through the shaft, substantially as described.

3. A magnetic clutch comprising an annular electromagnet and an annular keeper, an intermediate element consisting of two concentric rings of magnetic material secured together by a flexible ring of non-magnetic material, the outer ring being supplied with gear teeth, and a driving and a driven shaft one of which carries a pinion meshing with the teeth described, the arrangement being such that the magnetic circuit is completed out through the intermediate element and back through the shaft, substantially as described.

942,868. SEEDER. CHARLES W. STARK, Mountain Lake, Minn. Original application filed Oct. 20, 1908, Serial No. 458,660. Divided and this application filed June 15, 1909. Serial No. 502,290.

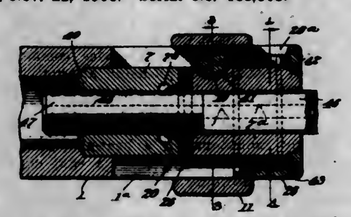


1. In a combined cultivator and seeding device, the combination with a frame, an axle on said frame, beams carried by the axle and means to raise and lower said beams; of a hopper carried by the frame, housings below said hopper, a shaft extending longitudinally of the hopper and through the housings, feeding devices fixed on said shaft follow-blocks arranged upon, and independent of, said shaft, a sprocket on said shaft, a similar sprocket on said axle, a chain extending around said sprockets, the sprocket on the axle having a clutch face, a similar clutch face on the axle and means adapted to operate simultaneously with the elevation of said beams to separate said clutch faces and stop the operation of the seeding attachment and means arranged upon said shaft adapted, with said feeding devices, to effect the longitudinal movement of said follow-blocks with the like movement of said shaft and feeding devices.

2. In a combined cultivating and seeding device, the combination with a frame, an axle carried by said frame, cultivating devices attached to said axle and means to raise and lower the cultivating devices; of a seed hopper carried by said frame and forwardly of said cultivating attachments, feeding devices below said hopper, means connected with the axle to drive said feeding devices, additional means coöperating with the cultivating attachment, elevating devices to disconnect the feed driving mechanism and stop the operation of the seeder, spouts hingedly secured below said hopper spring tongues applied to said spouts, and shoulders below said hopper adapted to be engaged by said spring tongues to normally hold said spouts in a vertical position.

3. In a seeding device, the combination with a hopper having openings therein; of housings having shoulders thereon, spouts hingedly secured to said housings and spring tongues on said spouts adapted to engage said shoulders and normally retain the spouts in vertical position.

942,869. DRILL-STEEL HOLDING AND PACKING MEANS. DANIEL S. WAUGH, Denver, Colo., assignor to The Denver Rock Drill and Machinery Co., Denver, Colo. Filed Nov. 21, 1908. Serial No. 463,805.



1. In a drilling machine, the combination with a motor barrel, of a chuck located at one end of the same and comprising separate sections having bores therethrough of different cross sectional configuration, a packing washer interposed between the sections, and means detachably associated with the sections for holding the same in place.

2. In a drilling machine, the combination with a motor barrel, of a chuck located at one end of the same and comprising separate sections having bores therethrough of different cross sectional configuration, a packing washer interposed between the sections, and means detachably engaging one of the sections for holding said sections in place.

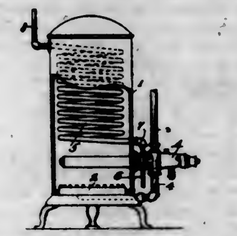
3. In a drilling machine, the combination with a motor barrel, of a chuck located at one end of the same and comprising separate sections having bores therethrough of different cross sectional configuration, a packing washer interposed between the sections, and a cap detachably mounted on the barrel and detachably engaging the outer section only of the chuck.

4. In a drilling machine, the combination with a motor barrel, of a chuck fitted thereinto and comprising inner and outer sections, the inner section having a bore that is substantially circular in cross section, the outer section having a bore that is angular in cross section, a packing washer interposed between the sections, and means detachably mounted on the barrel and detachably engaging the outer section to hold the chuck in place.

5. In a drilling machine, the combination with a motor barrel, of a chuck fitted thereinto and comprising inner and outer sections, the inner section having a bore that is substantially circular in cross section, the outer section having a bore that is angular in cross section, a packing washer interposed between the sections and having a bore substantially circular in cross section, and a cap detachably fitted on the end of the barrel and engaging the outer end of the outer section.

[Claims 6 to 29 not printed in the Gazette.]

942,870. THEROMSTAT. JOHN F. WILLIAMS, Sandusky, Ohio. Filed Apr. 17, 1908. Serial No. 427,590.



1. In a thermostat, the combination of a support, inlet and outlet connections carried by said support, channels in the support communicating with said connections respectively, an expansible member carried by said support, a casing surrounding said member and projecting beyond the same, and means dividing the space between the casing and member into longitudinal ducts communicating respectively with said channels, substantially as specified.

2. In a thermostat, the combination of a support having inlet and outlet ports, a rod extending through said support, an expansible member surrounding said rod and operatively connected thereto, a source of fluid supply, and means for circulating a fluid through the inlet port and externally of the expansible member and around the end of said member which is remote from said port and back through the outlet port, a valve, and a connection between said valve and rod.

3. In a thermostat, the combination of a supporting member having inlet and outlet connections on opposite sides thereof, an expansible member carried by said supporting member, a casing carried by said supporting member and inclosing the expansible member, and a partition dividing said casing into a pair of longitudinal ducts or passageways extending lengthwise of the casing and connected at the end remote from said support, said ducts or passageways communicating respectively with the inlet and outlet connections.

4. The combination of a valve casing, an expansible member projecting from said casing, a casing surrounding said expansible member and projecting beyond the end of the same, a partition extending across said casing and terminating short of the projecting end thereof and dividing the casing into a pair of longitudinal passageways and an end passageway, and inlet and outlet connections communicating respectively with said longitudinal passageways.

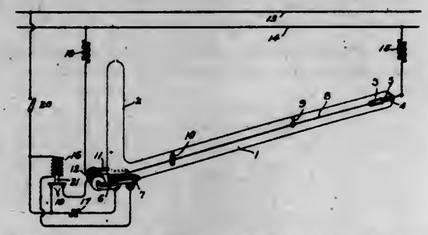
5. In a thermostat, the combination of an expansible member, a casing inclosing the same and projecting beyond the end of the expansible member, means for dividing the space between said member and said casing into longitudinal passageways, and a removable closure for the projecting end portion of the casing.

[Claims 6 to 13 not printed in the Gazette.]

942,871. VAPOR ELECTRIC APPARATUS. HOWARD I. WOOD, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Dec. 17, 1908. Serial No. 188,482.

1. In a vapor electric apparatus, the combination of a vaporizable electrode, a conductor having one end resting thereon, and means for subjecting said conductor to the influence of an intersecting magnetic field.

2. In a vapor electric apparatus, the combination of a vaporizable electrode, a filament having one end resting on the surface of said electrode, means for passing current through the filament, and means for subjecting the filament to the influence of an intersecting magnetic field whereby it is caused to move out of engagement with the electrode.



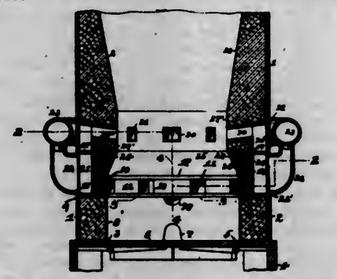
3. The combination of an exhausted envelop, electrodes therein adjacent to each other, a filament having one end resting on one of the electrodes, and a magnet or other device producing a magnetic field for lifting the filament out of engagement with its coacting electrode and for blowing the arc then resulting toward the coöperating electrode.

4. In a starting device for vapor electric apparatus, the combination of means affording a conducting path through the apparatus for current from the supply source, and means acting electro-dynamically upon the current thus flowing for producing a break in the conducting path thus generating an initial starting arc.

5. The combination of an exhausted envelop, a plurality of electrodes, and an electro-magnet for causing an arc started from one electrode to shift to another electrode.

[Claims 6 to 15 not printed in the Gazette.]

942,872. FURNACE. MICHAEL ZIPPLER, Sr., Pittsburg, Pa.; Michael Zippler, Jr., executor of said Michael Zippler, Sr., deceased. Filed Mar. 12, 1909. Serial No. 483,042.



1. In a furnace, the combination of the wall or lining having main twyers within the same, an air chamber within said lining and connected to said twyers, said chamber being of greater vertical depth than said twyers, and a plate extending from the interior of said lining and forming the wall of said chamber.

2. In a furnace, the combination of the wall or lining having main twyers within the same, an air chamber within said lining and connected to said twyers, said chamber being of greater vertical depth than said twyers, and an angular-shaped plate extending from the interior of said lining and forming the wall of said chamber.

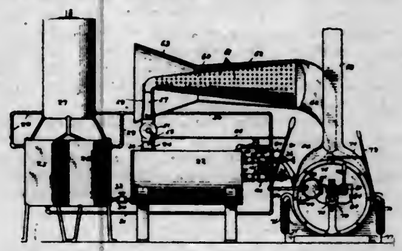
3. In a furnace, the combination of the wall or lining having main twyers within the same, an air chamber within said lining and connected to said twyers, said chamber being of greater vertical depth than said twyers, and a Z-shaped plate extending from the interior portion of said lining and forming the walls of said chamber.

4. In a furnace, the combination of the wall or lining having main twyers within the same, an air chamber within said lining and connected to said twyers, said chamber being of greater vertical depth than said twyers, auxiliary twyers leading up from said chamber and into the furnace through said lining, and a Z-shaped plate extending from the interior portion of said lining for forming the walls of said chamber and for supporting said auxiliary twyers.

5. In a furnace, the combination of the wall or lining having main twyers within the same, an air chamber within said lining and connected to said twyers, said chamber being of greater vertical depth than said twyers, and a sectional Z-shaped plate extending from the interior portion of said lining and forming the walls of said chamber.

[Claims 6 to 8 not printed in the Gazette.]

942,873. POWER-GENERATING APPARATUS. CHRISTOPHER J. LAKE, (name changed from John Christopher Lake by judicial order,) Bridgeport, Conn. Filed Jan. 4, 1906. Serial No. 294,552.



1. The combination with a generator for producing heated gas by explosions of a heat-absorbing chamber contiguous to the generator, a port in said chamber for admitting a heat-absorbing agent thereto to be converted into pressure fluid by the heat of the explosions, a common discharge tube from the generator and the chamber, and an alternately-acting valve device common to the generator and chamber for releasing alternately the gas from the generator and the pressure fluid from the chamber.

2. The combination with a generator for producing heated gas by explosions, of a heat-absorbing chamber surrounding the generator, a port in said chamber for admitting a heat-absorbing agent thereto to be converted into pressure fluid by the heat of the explosions, a common discharge tube from the generator and the chamber, and an alternately-acting valve device common to the generator and chamber for releasing alternately the gas from the generator and the pressure fluid from the chamber.

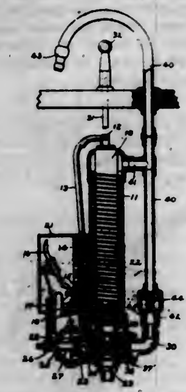
3. The combination with a generator for producing heated gas by explosions, of a heat-absorbing chamber contiguous to the generator, a port in said chamber for admitting a heat-absorbing agent thereto to be converted into pressure fluid by the heat of the explosions, a common discharge tube from the generator and the chamber, an alternately-acting valve device common to the generator and chamber for releasing alternately the gas from the generator and the pressure fluid from the chamber, and a motor connected to operate said valve device.

4. The combination with a generator for producing heated gas by explosions, of a heat-absorbing chamber contiguous to the generator, a mixing device connected with the chamber for producing a mixture of air and finely-divided water, means for introducing said mixture into the chamber to be heated therein by the heat of the explosions, and a common discharge tube from the generator and the chamber.

5. The combination with a generator for producing heated gas by explosions, of a heat-absorbing chamber surrounding the generator, a mixing device connected with the chamber for producing a mixture of air and finely-divided water, means for introducing said mixture into the chamber to be heated therein by the heat of the explosions, and a common discharge tube from the generator and the chamber.

[Claims 6 to 26 not printed in the Gazette.]

942,874. ELECTRIC HEATER. GEORGE E. STEVENS, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed May 29, 1907. Serial No. 376,398.



1. The combination with an electric fluid heating device, of means for delivering fluid thereto under pressure, and means operated by the fluid pressure for controlling the flow of fluid and the circuit of the heater.

2. The combination with an electric fluid heating device, of means for delivering fluid thereto under pressure, and means controlled by the fluid pressure for admitting fluid to the heater and closing the circuit of the heater.

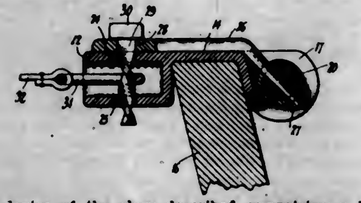
3. The combination with an electric fluid heater, of means for delivering fluid thereto under pressure, a switch in the heater circuit, and means controlled by the fluid as it passes to the heater for operating said switch.

4. The combination with an electric fluid heater, of means for delivering fluid thereto under pressure, a normally-open switch in the heater circuit, and means controlled by the fluid as it passes to the heater for closing said switch.

5. The combination of an electric fluid heater, a discharging pipe, valve mechanism for delivering fluid under pressure either to the heater or to the discharge pipe, and means operated by the fluid pressure for controlling the circuit of the heater.

[Claims 6 to 13 not printed in the Gazette.]

942,875. STOCK-RELEASER. LOUIS F. LEMON and JOHN C. STOOPS, Neodesha, Kans.; said Stoops assignor of one-third of his right to said Lemon. Filed May 22, 1909. Serial No. 497,761.



1. A device of the class described comprising a body member having a socket, an arm swingingly connected to said member and provided with a slot, and a twisted pin movable in said slot and extending through said socket, said pin adapted to support a halter ring within the socket.

2. A device of the class described comprising a body member having a socket, an arm swingingly connected to said member and provided with a slot, a twisted pin movable in said slot and extending through said socket, said pin adapted to support a halter ring within the socket, and means for operating said arm.

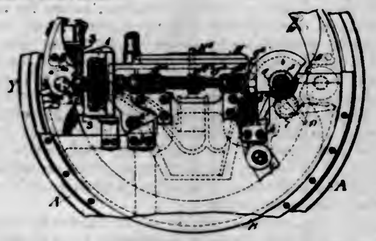
3. A device of the class described comprising a body member having a socket, an operating member mounted for rotation, an arm connected to said operating member and provided with a slot, a twisted pin movable in said slot and extending through said socket, said pin adapted to support a halter ring within the socket, and means for actuating said operating member.

4. The combination with a plurality of mangers of an operating member mounted for rotation, a body member connected to each manger and each body provided with a socket, an arm for each of said bodies and connected to said operating member, each arm having a longitudinal slot, a twisted pin movably engaging each of said slots and extending through one of said sockets, each of said pins being adapted to support a halter ring in one of the sockets, and means for actuating said operating member.

5. A device of the class described comprising a body member having a socket at one end and spaced ears at the other end, an operating member extending through said ears, an arm connected at one end to said operating member between said ears and with a slot at the free end, and a twisted pin movable in said slot and extending through said socket, said pin adapted to support a halter ring within the socket.

REISSUES.

13,048. LINE-CASTING MACHINE. FRITZ C. LUCKE D'AIX, New York, N. Y., assignor, by mesne assignments, to Empire Trust Company, trustee, New York, N. Y., a Corporation of New York. Filed Aug. 20, 1908. Serial No. 449,571. Original No. 884,971, dated Nov. 6, 1906. Serial No. 295,618.



1. In a line-casting machine and in combination with a carrier for the composed line of matrices, mold-jaws movable one to and from the other, a carrier for said jaws movable to and from the line of matrices, and "setting-tongues" forming the sides of the mold-space of which the jaws form the top and bottom, supported by the matrix-carrier and adapted to enter and withdraw from between the mold jaws, according as the jaw-carrier moves toward or away from the matrices, substantially as and for the purposes hereinbefore set forth.

2. In a line-casting machine and in combination with a carrier for the composed line of matrices, spring-closed mold-jaws movable to and from the line of matrices, setting tongues supported by the matrix-carrier and adapted to enter between the jaws as the jaw-carrier moves toward the line of matrices, means for opening the jaws and holding them open against the stress of the closing spring, and means whereby said opened jaws after the tongues have entered between them, are automatically unlocked and permitted to close upon the tongue, substantially as and for the purposes hereinbefore set forth.

3. In a line-casting machine and in combination with a carrier for the composed line of matrices, a mold-carrying frame movable toward and away from the line of matrices, a slide mounted in and movable lengthwise of said frame, spring-closed mold-jaws mounted in the slide and movable one to and from the other, "setting-tongues" on the matrix-carrier to enter between the jaws as the carrying-frame moves toward the matrices, means for severally actuating the mold-carrying frame and slide to move at

the times and in the manner substantially as set forth, means for automatically opening the jaws against the stress of the closing-spring during the movement of their slide from casting to ejecting position and locking them in that position, and means whereby said jaws after their return to casting position and when the mold-carrying frame again moves forward, are automatically unlocked and permitted to close upon the "setting-tongues."

4. In a line-casting machine a mold the top and bottom of which are formed of parallel spring-closed jaws, a jaw carrier in which said jaws are movable in parallel planes to and from one another, and means for holding the jaws open against the stress of their closing-spring, substantially as and for the purposes hereinbefore set forth.

5. In a line-casting machine, a mold the top and bottom of which are formed of parallel spring-closed jaws, a jaw-carrier in which said jaws are movable in parallel planes to and from one another, means for opening the jaws against the stress of their closing-spring, and means for locking them in open position, substantially as and for the purposes hereinbefore set forth.

6. In a linotype-machine, a spring-closed reciprocatory mold, means for moving the mold bodily from casting to ejecting position and return, means for opening the mold against the stress of its closing-spring during its travel from casting to ejecting position, and means for maintaining the mold in open position during its return to casting position, substantially as and for the purposes hereinbefore set forth.

7. In a line-casting machine, and in combination with a holder for the composed line of matrices, a spring-closed mold; "setting-tongues" on the matrix-holder to enter the open mold; means for moving the mold from casting to ejecting position and return; means for opening the mold against the stress of its closing-spring during its travel from casting to ejecting position; means for locking the mold in open position during its travel from ejecting to casting position; and means whereby the open mold after it has returned to casting position and has been entered by the "setting-tongues" is unlocked and permitted to close upon said tongues, substantially as set forth.

8. In a line casting machine, a longitudinally reciprocating mold including a vertically movable member to vary the distance between the upper and lower walls of the mold space or cavity, in combination with an adjustable slug-shaving knife controlled as to its position by the said vertically movable member.

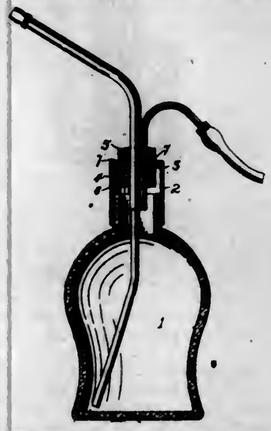
9. In a line-casting machine a mold-carrying frame, a slide mounted and movable lengthwise in said frame, a mold comprising top and bottom jaws mounted in said slide and movable one to and from the other so as to close and open the mold, and a shaving-knife mounted in the mold-carrying frame and slidably engaging a thus-movable jaw so as to partake of its opening and closing movements only, substantially as hereinbefore set forth.

10. In a line-casting machine and in combination with a carrier for the composed line of matrices, a mold-carrying frame, a slide mounted in and movable lengthwise, in said frame and means for moving said slide, mold-jaws mounted in said frame and movable to and from one another, shaving-knives mounted in the mold-carrying frame, and slidably engaging the mold-jaws, so as to partake of their opening and closing movements only, substantially as and for the purposes hereinbefore set forth.

11. In a line-casting machine, a mold the top and bottom of which are formed of jaws movable to and from one another, a slide in which said jaws are mounted, a frame in which said slide is mounted and lengthwise movable, a plate mounted in said frame so as to be capable of down-and-up motion only, and slidably engaging one of the mold-jaws so as to partake of its opening and closing movement, and shaving-knives carried by said plate for trimming the front, rear and face of the slug held between the jaws, as the jaw-slide moves from casting to ejecting position, substantially as and for the purposes hereinbefore set forth.

12. In a line casting machine and in combination with a carrier for the composed line of matrices, a mold and mold-carrier, a melting-pot movable toward and away from the mold-carrier and the line of matrices, and spring yielding connections between the melting-pot and mold-carrier whereby the melting-pot is caused to advance and retract the mold-carrier to and from the line of matrices, and, in its forward movement, to exert a yielding pressure to hold the open front end of the mold against the line of matrices, and to seat its mouth or discharge-spout against the open rear end of the mold, substantially as and for the purposes hereinbefore set forth.

13,049. CLOSURE FOR FLUID-RECEPTACLES. ALLEN DE VILBISS and THOMAS A. DE VILBISS, Toledo, Ohio. Filed Oct. 20, 1909. Serial No. 523,728. Original No. 935,094, dated Sept. 28, 1909, Serial No. 479,524.



1. The combination with a fluid receptacle, of a ferrule fitted to the neck thereof and having its outer end turned inwardly and contracted at the mouth of the ferrule to form a flexible seat, a closure member for said ferrule having a shoulder coacting with said seat to form a close joint therewith, and means for drawing said member to its seat.

2. In combination, a fluid receptacle, a ferrule fitted to the neck thereof and having its outer end turned within itself and contracted adjacent to the mouth of the ferrule to form a flexible inclined seat, a closure member for said ferrule having a shoulder coacting with said inclined seat to form a close joint therewith, and coöperating means on said ferrule and member for drawing the member to its seat.

3. In combination, a fluid receptacle, a ferrule fitted to the neck thereof and having its outer end turned inwardly and contracted to form a flexible inclined seat and then extending inwardly in tubular form, and a closure member threaded into said tubular part and having a shoulder coacting with said inclined seat to form a close joint therewith.

4. In combination, a fluid receptacle, a ferrule formed of flexible material and fitted to the receptacle neck, said ferrule having its outer end turned within itself and shaped to form an inwardly inclined conical seat and a contracted cylindrical portion at the base of such seat, and a plug threaded into the cylindrical portion and having a shoulder angled relative to the incline of such seat and adapted to coact therewith to form a tight joint when the plug is screwed home.

13,050. PROCESS OF JOINING METAL PIECES. HANS GOLDSCHMIDT, Essen-on-the-Ruhr, Germany, assignor, by direct and mesne assignments, to Goldschmidt Thermit Co., New York, N. Y., a Corporation of New York. Filed May 7, 1906. Serial No. 315,686. Original No. 717,840, dated Jan. 6, 1903, Serial No. 65,192.

1. Process of joining metals by means of the heat arising by the reaction taking place when pulverized aluminium and reducible oxygen-containing metal compounds are mixed and this mixture is ignited, said process consisting in casting the highly-over-heated molten metal arising by the reaction directly around one part of the metal pieces to be joined, and the molten alumina around another part of these metal pieces, substantially as described and for the purpose set forth.

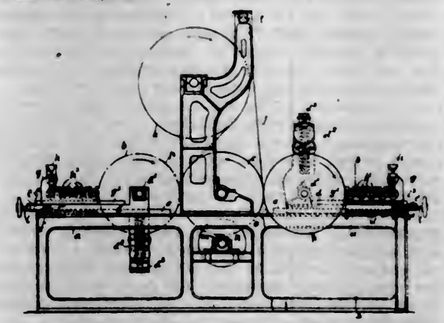


2. Process of joining metal pieces consisting in surrounding the ends to be joined with a mold, filling a crucible provided with a tap-hole in the bottom with a mixture consisting of aluminium and a reducible oxygen-containing metal compound, bringing the crucible above the mold in that way that the tap-hole is not situated vertically above the parts to be joined, igniting the mixture contained in the crucible and opening the tap-hole of the same, substantially as described and for the purpose set forth.

3. Process of joining metal pieces consisting in surrounding the ends to be joined with a mold, filling a crucible provided with a tap-hole in the bottom with a mixture consisting of aluminium and a reducible oxygen-containing metal compound, after the tap-hole being closed by means of a substance capable of being molten by the heat arising by the reaction taking place by the ignition of the mixture mentioned above, bringing the crucible above the mold in that way that the tap-hole is not situated vertically above the metal pieces to be joined and igniting the mixture contained in the crucible, substantially as described and for the purpose set forth.

4. A process of welding metal which consists in igniting in a crucible a mixture of a reducible metallic compound and aluminium and causing the molten metal to discharge from the crucible into contact with a metal part in advance of the molten slag.

13,051. PRINTING MACHINERY. JOHN A. J. HAYES, Manchester, England. Filed July 17, 1909. Serial No. 508,255. Original No. 909,591, dated Jan. 12, 1909, Serial No. 424,126.

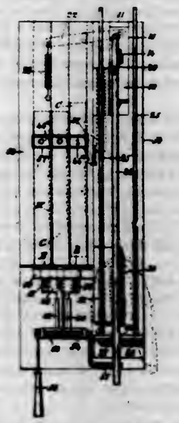


1. In a printing machine, the combination with a main frame having an impression cylinder mounted in fixed bearings thereon, the said main frame being provided with guide ways running longitudinally thereof and extending to the outer end of the machine, of a frame adapted to engage and be moved in said guide ways toward said impression roller and removable from the frame by moving said frame in said guide ways out of engagement therewith and free from the frame, a printing cylinder mounted upon said sliding frame in position to be brought into proper relation with the impression roller, said printing roller frame being provided with guide ways of a like character to those of the main frame and a further frame carrying inking devices adapted to be placed into engagement with and moved toward the printing roller and also movable outwardly along the guide ways out of the printing roller frame, said printing roller frame being also provided with a bail and screw to secure the inking frame in operative position, substantially as described.

2. In a printing machine, the combination with a main frame, and an impression roller mounted thereon, of a series of independent frames each carrying a printing roller and each frame being independently movable on the main frame and independently removable therefrom, and a series of frames each mounted on one of said printing roller frames, and provided with inking devices each of said inking frames being movable on and removable from its printing roller frame, substantially as described.

3. In a printing machine, the combination with the main frame provided with a series of guide ways, of an impression roller mounted in fixed bearings therein, of a series of independent frames each movably mounted and adapted to slide in one of said guide ways, a printing roller and a damping device mounted on each of said sliding frames and inking devices removably secured to each of said sliding frames, substantially as described.

13,052. REGISTERING DEVICE. ROSS HUNTER, Atlanta, Ga. Filed June 2, 1909. Serial No. 499,813. Original No. 877,430, dated Jan. 21, 1908, Serial No. 362,312.



1. In a registering device for laundry or similar articles, a supporting body, a retaining means for the articles and between which and the said body the articles are passed, the said retaining means being movable toward and from the body, and a registering device operated by the passage of the articles between the retaining means and the supporting body.

2. In a registering device for laundry or similar articles, a retaining means for the articles and a registering device operated by the passage of the articles to the retaining means, and a device for releasing the registering device and for operating the retaining means to permit the removal of the articles.

3. In a machine for registering and holding laundry and similar articles, a body section, a retaining bar, a guide bar adjacent to which the retaining bar operates, registering bars having sliding movement on the body, and means for operating the registering bars by the passage of articles between the retaining bar and the said guides.

4. In a machine for registering and holding laundry and similar articles, a body section, a retaining bar, guide bars between which the retaining bar operates, registering bars having sliding movement on the body, means for operating the registering bars by the passage of articles between the retaining bar and the said guides, and means

for simultaneously lifting the retaining bar to free the articles held thereby and bring the registering bars into initial position.

5. In a laundry registering device, a body section, guide bars carried thereby, a retaining bar located between the guide bars capable of being carried to and from the body section, a lever located between the guide bars adjacent to the upper or receiving portion of the retaining bar, registering bars having numerals produced thereon, and means connected with the said lever whereby to move the registering bars step by step to expose one number after the other, the registering bars being arranged in the order of units, tens, hundreds, one registering bar having means for operating the adjoining registering bar.

6. In a laundry registering device, a body section, guide bars carried thereby, a retaining bar located between the guide bars capable of being carried to and from the body section, a lever located between the guide bars adjacent to the upper or receiving portion of the retaining bar, registering bars having numerals produced thereon, means connected with the said lever whereby to move the registering bars step by step to expose one number after the other, the registering bars being arranged in the order of units, tens, hundreds, one registering bar having means for operating the adjoining registering bar, means for carrying the retaining bar to releasing position, and simultaneously restoring the registering bars to their initial position.

7. In a machine for registering and holding laundry or similar articles, a body section provided with a guide, a retaining means having parallel movement toward and from the body section, and between which and the said guide the articles are passed, a registering device, and means for operating the registering device by the passage of the articles between the said guide and the retaining means.

8. In a machine for registering and holding laundry and similar articles, a body section, a guide carried thereby, a retaining means, movable toward and from the body section, a lever located adjacent to the receiving portion of the retaining means, and moved by the passage of the articles between the guide and the retaining means, a registering device, and connections between the said lever and the registering device for operating the latter.

9. In a machine for registering and holding laundry and similar articles, a body section, a guide carried thereby, a retaining means movable toward and from the body section, a lever located adjacent to the receiving portion of the retaining means, and moved by the passage of the articles between the guide and the retaining means, slides operated by the said lever, a registering mechanism, and means for actuating the registering mechanism by the movement of said slides.

10. A register having movable register bars tending gravitationally to maintain initial positions, means for advancing said bars successively, and means for holding said bars independently in a plurality of positions, each of said bars having a series of numbers.

11. A register having slidable register bars each having a series of numbers, an operating member for successively advancing said bars, and pawls for holding said respective bars in a plurality of positions.

12. A register having register bars free to move to return to initial zero positions, a member operable to advance said bars intermittently to effect the registering action of the device, pawls for holding said bars in a plurality of advanced positions, and shifting members controlled by said bars for releasing said pawls.

13. A register having movable register bars, tending gravitationally to maintain initial positions, means for advancing said bars successively, means for holding said bars in a plurality of advanced positions, and means for simultaneously releasing said bars from the advanced positions.

14. A register having movable register bars tending gravitationally to maintain initial positions and each having successive numbers indicated thereon, means for advancing said bars successively, means for holding said bars in a plurality of advanced positions, means for simultaneously releasing said holding means, and means on said bars for rendering said holding means operative after said bars have returned to their initial positions.

15. A register having a register bar tending gravitationally to maintain an initial position, means for advancing said bar in steps, means for holding said bar in a plurality of advanced positions, means on said bar for rendering said holding means inoperative, means on said bar for rendering said holding means operative, and means independent of said bar for rendering said holding means inoperative.

16. A register having register bars, means for intermittently advancing the first of said bars, and means for advancing another of said bars through the movement of said first bar, said last mentioned means being inoperative until said first bar reaches a predetermined position, said bars tending gravitationally to assume initial, zero positions.

17. A register having register bars, means for intermittently advancing the first of said bars, means for advancing others of said bars through the movement of said first bar, means for holding said last mentioned advancing means inoperative until said first bar reaches a predetermined position, said last mentioned means being released by said first bar, and means for holding said bars in a plurality of advanced positions, said bars tending gravitationally to return from the advanced positions to initial, zero positions.

18. A register having register bars free to move to return to initial, zero positions, means for intermittently advancing said bars to effect the registering action of the device, means for holding said bars in a plurality of advanced positions, and means controlled by said bars, for releasing said holding means.

19. A register having a plurality of successive register bars, means for intermittently advancing the first said register bars, said first register bar controlling said successive register bars, means for holding said register bars in a plurality of advanced positions, said register bars being free to move to return to initial, zero positions and controlling said holding means, and means independent of said bars, for simultaneously releasing all of said bars from advanced positions.

20. A register having a casing, register bars, means for guiding said bars whereby they are free to move longitudinally and to return to initial, zero positions, dogs adapted to engage said bars to hold the same in a plurality of positions, means for intermittently and successively advancing said bars, said bars having means for inoperatively disposing said dogs when said bars reach predetermined positions, means for holding said dogs inoperative, and means on said bars for releasing said holding means when said bars reach predetermined positions.

21. A register having a units register bar, means for intermittently advancing said bar, a tens register bar, and mechanism adapted to operate said tens bar and controlled by said units bar, said mechanism being normally inoperative and being rendered operative by said units bar when the same reaches a predetermined position.

22. A register having a units register bar, means for intermittently advancing said bar, successive register bars, and instrumentalities, each controlling a successive bar and each operable by another bar, said instrumentalities being normally inoperative and being rendered operative when said bars controlling them reach predetermined positions.

23. A register having register bars free to move to return to initial, zero positions, means for intermittently advancing said bars to effect the registering action, means for holding said bars in a plurality of advanced positions, means controlled by said bars for releasing said holding means, and instrumentalities each adapted to operate one of said bars and controlled by another of said bars, said instrumentalities being normally inoperative, and being rendered operative by said bars controlling them when the same reach predetermined positions.

24. A register, having slidable register bars tending gravitationally to maintain initial positions, an operating slide for advancing said bars successively, pawls for holding said bars in a plurality of advanced positions, and shifting plates each controlled by one of said bars and operable to release said pawls, said shifting plates being simultaneously operable independently of said bars.

25. A register having register bars, a slide for intermittently advancing the first of said bars, and a dog carried by the first of said bars and serving to advance another of said bars, said dog being inoperative until said first bar reaches a predetermined position, said bars tending gravitationally to assume initial, zero positions.

26. A register, comprising slidable register bars, an operating slide for intermittently advancing the first of said bars, a member pivotally carried by said first bar and having a dog adapted to advance the second of said bars, and a guide adapted to engage said member operatively to position said dog when said bar carrying said member reaches a predetermined point.

27. A register, comprising slidable register bars, an operating slide for intermittently advancing the first of said bars, a member pivotally carried by said first bar and having a dog adapted to advance the second of said bars, a guide adapted to engage said member operatively to position said dog when said bar carrying said member reaches a predetermined point, pawls for holding said bars in a plurality of positions, and members controlled by said bars for displacing said pawls into operative positions when said bars reach predetermined points, whereby said bars become free to return to their initial, zero positions.

28. A register, having slidable register bars, an operating slide for intermittently advancing the first of said bars, a member pivoted upon said first bar and having a dog adapted to engage the second of said bars to advance the same, a slotted partition adapted to engage said member when said first bar reaches a predetermined point, operatively to position said dog, shifting plates each controlled by one of said bars, pawls serving to hold said bars in a plurality of positions, said shifting plates being adapted to displace said pawls from engagement with said bars, and a member for simultaneously operating said shifting plates to release said pawls.

29. A register, comprising slidable register bars, an operating slide for intermittently advancing the first of said bars, said first bar having a movable dog for advancing the second of said bars, a partition having means for guiding said dog into an operative position, and a numeral plate carried by said first bar and extending movably over said partition, said numeral plate having numbers indicated thereon.

30. A register having guideways, register bars slidably mounted in said guideways, an operating slide for intermittently advancing the first of said bars, said bars, with the exception of the last of said bars, each having a pivoted lever, dogs carried by said levers, said levers having stops adapted to limit the movement of said dogs in one direction, said guideways having partitions provided with guide slots and adapted to be engaged by said respective levers, whereby said dogs are operatively positioned when said bars reach predetermined positions, shifting plates, said bars being adapted to raise said plates when said bars reach predetermined positions, and pawls adapted to hold said bars in a plurality of positions, said shifting plates when raised serving to release said pawls, said bars when returning to initial positions engaging said shifting plates to return said plates to initial positions.

31. A register having guideways, register bars slidably mounted in said guideways, an operating slide for intermittently advancing the first of said bars, said bars, with the exception of the last of said bars, each having a pivoted lever, dogs carried by said levers, said levers having stops adapted to limit the movement of said dogs in one direction, said guideways having partitions provided with guide slots and adapted to be engaged by said respective levers, whereby said dogs are operatively positioned when said bars reach predetermined positions, shifting plates, said bars being adapted to raise said plates when said bars reach predetermined positions, pawls adapted to hold said bars in a plurality of positions, said shifting plates when raised serving to release said pawls, said bars when returning to initial positions engaging said shifting plates to return said plates to initial positions, a member for simultaneously raising said shifting plates independently of said bars, said shifting plates being adapted to be raised independently of said last-mentioned member, and numeral plates each carried by one of said bars and offset above said partitions, said numeral plates having numerals indicated thereon.

32. A register having a slidable register bar, a pawl for holding said bar in a plurality of positions, a shifting plate having separated lugs, one of said lugs being adapted to engage said pawl to displace the same when said shifting plate is moved, said bar having a part adapted to engage said plate to move the same when said bar reaches a predetermined position, said bar having a further part adapted to engage one of said lugs to return said shifting plate to its initial position when said bar returns to its initial position, and a slide for intermittently advancing said bar.

33. A register having slidable register bars, an operating slide, a dog carried by said slide and adapted to engage the first of said bars to advance the same as said slide is operated, a lug adapted to dispose said dog inoperatively when said slide moves in one direction, and a pawl for holding said first bar in a plurality of positions, said bars each controlling the next adjacent bar.

34. A register having an initial register bar arranged to slide, an operating slide, a dog pivotally carried by said slide and adapted to engage said bar to advance the same intermittently, a pawl for holding said bar in a plurality of positions, a spring tending to hold said dog and said pawl in normal positions, and a shifting plate, said shifting plate being controlled by said bar, and being adapted to release said pawl when said bar reaches a predetermined position.

35. A register having guideways, register bars arranged to slide in said guideways and having teeth, said bars tending gravitationally to assume initial positions, an actuating slide having a dog for operating the first of said bars, and a pawl for holding said first bar in a plurality of positions, shifting plates, one of said plates controlling said pawl to release the same, said bars controlling said shifting plates, said first bar having means for operating said second bar.

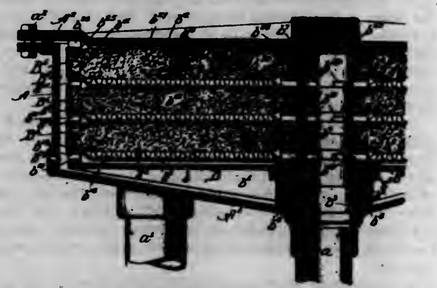
36. A register having guideways, register bars arranged to slide in said guideways and having teeth, said bars tending gravitationally to assume initial positions, an actuating slide having a dog for operating the first of said bars, a pawl for holding said first bar in a plurality of positions, shifting plates, one of said plates controlling said pawl to release the same, said bars controlling said shifting plate, said first bar having a lever carrying a dog adapted to engage said second bar to operate the same when said lever is in a predetermined position, said guideway of said second bar having a partition presenting a slot adapted to guide said lever into the predetermined position, and a pawl for holding said second bar in a plurality of positions, said shifting plate controlled by said second bar being adapted to render said last-mentioned pawl inoperative.

13,053. FILTER. JOHN T. H. PAUL, Chicago, Ill., assignor to E. Goldman & Co. Inc., Chicago, Ill., a Corporation of Illinois. Filed Aug. 1, 1908. Serial No. 446,501. Original No. 888,731, dated May 26, 1908, Serial No. 411,158.

1. In a filter, the combination of a plurality of cells, each cell comprising a cell pan, or support, having its bottom provided on both sides with grooves, and provided centrally with a perforation, a conduit-section extending through said perforation, a packing-ring at the lower outer marginal surface of each cell pan bottom, the packing-ring of one cell pan being received in the upper portion of the cell pan beneath, and each packing-ring being provided with perforations, ports opening through said conduit-sections and communicating with the grooves on

the upper sides of the cell pan bottoms, and filter-masses in said cell pans.

2. In a filter, the combination of a plurality of cells, each cell comprising a cell pan having a corrugated bottom affording grooves on both sides of the bottom, the bottom having a central perforation, a conduit-section extending through said perforation and equipped with an external flange serving as a packet-ring located above the upper marginal surface surrounding said perforation, said conduit-section having perforations communicating with the grooves on the upper surface of the cell pan bottom, a packing-ring surrounding the conduit-section beneath the cell pan bottom, a packing-ring at the lower outer marginal surface of the cell pan bottom provided with perforations communicating with the grooves on the under surface of the cell pan bottom, the last-named packing-ring of each cell pan bottom being received in the upper portion of the cell pan beneath, and a filter-mass confined between the bottom of each cell pan and the lower surface of the bottom of the next superposed cell pan.



3. In a filter, the combination of a plurality of cells, each cell comprising a cell pan having a corrugated bottom provided with a central perforation and having a raised flat outer marginal portion and a depressed flat inner marginal portion, a conduit-section having an external flange bearing upon the upper surface of the inner marginal portion of the cell pan bottom, said conduit-section having perforations communicating with the lower portion of the conduit-section being of a reduced diameter, a packing-ring on the conduit-section beneath the lower surface of the inner margin of the cell pan bottom, a packing-ring applied at the lower surface of the outer marginal portions of the cell pan bottom and provided with perforations, said last-named packing-ring of one cell pan bottom being received within the upper portion of the cell pan beneath, and a filter-mass in the cell pan confined between the cell pan bottom and the lower surface of the bottom of the next superposed cell pan.

4. In a filter, the combination of a plurality of filter-cells, each cell comprising a cell pan, or support, having a corrugated bottom and a central perforation, and having a raised flat outer marginal portion and a depressed flat inner marginal portion, a conduit-section extending through said central perforation and having an external flange bearing upon the upper surface of the inner marginal portion of the cell pan bottom, and perforations extending therethrough and communicating with the grooves on the upper surface of the cell pan bottom, a packing-ring encircling the conduit-section and bearing against the lower surface of the inner marginal portion of the cell pan bottom, a packing-ring bearing upon the upper surface of the outer marginal portion of the cell pan bottom, a packing-ring applied at the lower surface of the outer marginal portion of the cell pan bottom and provided with perforations communicating with the grooves on the lower side of the cell pan, and filter masses in said cell pan.

5. In a filter, the combination of a plurality of cells, each cell comprising a cell-pan, or support, having a bottom provided with deep and narrow corrugations and provided centrally with a perforation, a conduit-section extending through said central perforation, packing-rings above and beneath the cell pan bottom at said conduit-section, packing-rings above and beneath the cell pan bottom at the outer marginal portion thereof, and a disk of filtering material in or on each cell-pan, or support, and resting directly upon the corrugated bottom thereof.

6. In a filter, the combination of a casing having a central outlet conduit, an inlet conduit, and a plurality of cells within said casing and forming with the cylindrical wall of the casing an annular chamber, each cell comprising a cell pan having a corrugated bottom and a central perforation, a conduit-section extending through said central perforation and having an external flange forming a packing-ring at one side of the cell pan bottom, a packing-ring applied to the conduit-section at the opposite side of said cell pan bottom, said conduit-section having perforations and communicating with the grooves on the under surface of the cell pan bottom, a packing ring applied to the upper surface of the outer marginal portion of the cell pan bottom, a packing-ring applied to the lower surface of the outer marginal portion of the cell pan bottom, said last-named packing-ring having perforations communicating with the grooves on the lower side of the cell pan bottom, the last-named packing-ring of one cell pan bottom being received within the upper portion of the cell pan beneath, and a single pad of filtering material confined in each cell pan.

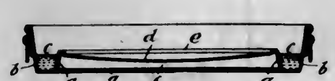
7. In a filter-cell, the combination of a cell pan, or support, having a corrugated bottom and provided with a central perforation, the bottom of said cell pan having an elevated flat marginal portion adjacent to the vertical flange of the cell pan and having a depressed flat marginal portion surrounding the central perforation, a packing-ring applied to the lower surface of the cell pan bottom at the outer flat marginal portion thereof and provided with radial openings, an externally flanged conduit-section extending through said central perforation, the flange bearing upon the upper surface of the inner flat marginal portion of the cell pan bottom, the conduit-section having radial perforations communicating with the grooves on the upper surface of the cell pan bottom, and a packing-ring applied to the conduit-section at the lower surface of the inner flat marginal portion of the cell pan bottom.

8. In a filter-cell, a cell pan having a corrugated bottom and a central perforation, a packing-ring applied to the lower surface of the outer marginal portion of the cell pan bottom and having openings therethrough communicating with the grooves on the lower surface of the cell-pan bottom, and a conduit-section extending through said central perforation and provided with perforations communicating with grooves on the upper surface of the cell-pan bottom.

9. In a filter cell, a cell-pan, or support, having a bottom provided with corrugations and with a central perforation and provided with a flat raised outer marginal portion and a flat depressed inner marginal portion, a packing-ring applied to the lower surface of said outer flat marginal portion of the cell pan bottom and provided with openings extending therethrough, a conduit-section extending through said central perforation and having an external flange bearing upon the upper surface of the inner marginal portion of the cell pan bottom, said conduit-section having perforations therethrough communicating with the grooves on the upper surface of the cell pan bottom, and a packing-ring encircling said conduit-section and bearing against the lower surface of the inner marginal portion of the cell pan bottom.

10. In a filter, the combination of a casing, a plurality of superposed filter cells therein and forming therewith an annular chamber, each cell comprising a pan provided with a bottom which is corrugated to afford closely related grooves on both sides throughout substantially its whole area, said pan having an upturned flange at its periphery, a central conduit extending through the pan-bottoms and communicating with the grooves on one side thereof, the grooves on the other side of said bottoms communicating with said annular chamber, and filter masses confined between said bottoms and contacting directly therewith.

18,054. ROASTING-PAN. PERCY SCOTT, Montreal, Quebec, Canada. Filed Apr. 24, 1909. Serial No. 492,091. Original No. 875,117, dated Dec. 31, 1907, Serial No. 389,067.



1. A roasting pan having an elevated basin adapted to contain liquid, and outer and inner walls connected by a bottom and forming therewith a channel or liquid receptacle encircling said basin and extending below the same.

2. A roasting pan having a central portion provided with a raised margin and outer and inner walls connected by an intervening bottom and forming therewith a channel encircling and extending below said central portion, the inner wall inclosing an insulating air space.

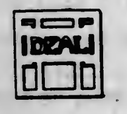
3. A roasting pan having an elevated central portion provided with a raised margin and outer and inner walls connected by a bottom and forming therewith a channel or receptacle encircling said central portion and extending below the same, said outer wall extending above the inner wall and central portion and the inner wall inclosing an insulating air space below said central portion.

4. A roasting pan formed with an outer main encircling wall and a bottom, the latter having an integral central portion raised to about half the height of the main wall of the pan and formed with a concave depression therein, the space between the main wall and the wall of the central raised portion forming an encircling depression lower than the depression in such central raised portion, substantially as and for the purposes set forth.

5. A roasting pan formed with an outer main encircling wall and a bottom, the latter having an integral central portion raised to about half the height of the main wall of the pan and formed with a concave depression therein, and a plate extending across and closing the opening to the space beneath said raised central portion, the space between the main wall and the wall of the central raised portion forming an encircling depression lower than the depression in such central raised portion, substantially as and for the purposes set forth.

DESIGNS.

40,383. EMBLEM. FREDERIC M. GRANT, Chicago, Ill., assignor to Gean Cowgill Comerford, Chicago, Ill. Filed July 14, 1909. Serial No. 507,663. Term of patent 14 years.



The ornamental design for an emblem, as shown.

40,384. EMBLEM. WILLIAM G. LEE and ALBERT E. KING, Cleveland, Ohio, assignors to Brotherhood of Railroad Trainmen, a Fraternal Beneficial Association of Ohio. Filed Sept. 15, 1909. Serial No. 517,957. Term of patent 14 years.



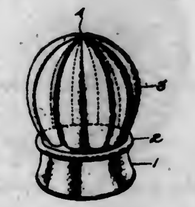
The ornamental design for an emblem, as shown.

40,385. CHARM, PIN, OR SIMILAR ARTICLE. ROBERT LEDING, Washington, D. C. Filed Aug. 7, 1909. Serial No. 511,821. Term of patent 3½ years.



The ornamental design for a charm, pin or similar article, as shown.

40,386. BOTTLE-CAP. HENRY A. MINER, Malden, Mass. Filed Mar. 15, 1909. Serial No. 483,657. Term of patent 3½ years.



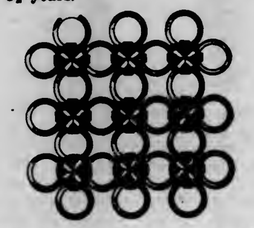
The ornamental design for a bottle cap, as shown and described.

40,387. HANGING RECEPTACLE. WILLIAM R. NOE, East Orange, N. J. Filed Oct. 14, 1909. Serial No. 522,687. Term of patent 3½ years.



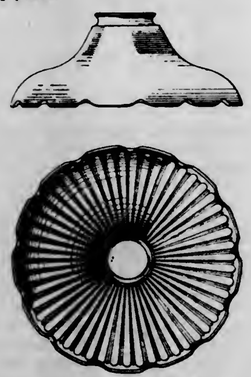
The ornamental design for a hanging receptacle, as shown.

40,388. METAL MESH FABRIC. FRANK J. LIGHTBODY, Cambridge, Mass., assignor to Cambridge Novelty Company, Cambridge, Mass., a Corporation of Massachusetts. Filed Oct. 13, 1909. Serial No. 522,501. Term of patent 3½ years.



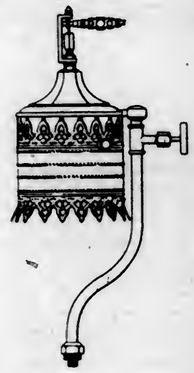
The ornamental design for a metal mesh fabric, as shown.

40,389. LAMP-SHADE. EDGAR A. GILLINDER, Tacony, Pa. Filed June 17, 1909. Serial No. 502,847. Term of patent 3½ years.



The ornamental design for a lamp shade, as shown.

40,390. LIGHTING-FIXTURE. WILLIAM TURES, Chicago, Ill., assignor to The Tures Manufacturing Company, Milwaukee, Wis., a Corporation of Wisconsin. Filed Sept. 24, 1909. Serial No. 519,502. Term of patent 7 years.



The ornamental design for a lighting fixture, as shown.

40,391. SLIPPER. LOUIS MERZ, New York, N. Y., assignor to The John J. Latteman Shoe Mfg. Co., Brooklyn, N. Y. Filed Mar. 30, 1909. Serial No. 486,827. Term of patent 3½ years.



The ornamental design for a slipper as shown and described.

TRADE-MARKS

PUBLISHED DECEMBER 7, 1909.

The following trade-marks have been adjudged entitled to registration under the act of February 20, 1905, and are published in compliance with section 6 of said act. Said section provides:

"Any person who believes he would be damaged by the registration of a mark may oppose the same by filing notice of opposition, stating the grounds therefor, in the Patent Office within thirty days after the publication of the mark sought to be registered, which said notice of opposition shall be verified by the person filing the same before one of the officers mentioned in section two of this act. If no notice of opposition is filed within said time the Commissioner shall issue a certificate of registration therefor, as hereinafter provided for."

Marks which are stated to have been "Used ten years" are registrable under the last proviso of section 5 of said act, which is as follows:

"And provided further, That nothing herein shall prevent the registration of any mark used by the applicant or his predecessors, or by those from whom title to the mark is derived, in commerce with foreign nations or among the several States, or with Indian tribes, which was in actual and exclusive use as a trade-mark of the applicant or his predecessors from whom he derived title for ten years next preceding the passage of this act."

Section 14 of said act provides for the following fee:

"On filing notice of opposition to the registration of a trade-mark, ten dollars."

Ser. No. 27,571. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) POPE & WILSON, Chicago, Ill. Filed May 22, 1907.

COVOTAN

Particular description of goods.—Lotion and Face-Cream.

Ser. No. 30,056. (CLASS 27. HOROLOGICAL INSTRUMENTS.) BYRON L. STRASBURGER & Co, New York, N. Y. Filed Sept. 18, 1907.

BERWYN

Particular description of goods.—Watches and Watch-Movements.

Ser. No. 34,824. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) ROYAL WORCESTER CORSET Co., Worcester, Mass. Filed May 19, 1908.

ADJUSTO

Particular description of goods.—Hose-Supporters.

Ser. No. 35,709. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) ADAMS & ELTING COMPANY, Chicago, Ill. Filed June 24, 1908. Used ten years.



Particular description of goods.—Calcimine.

Ser. No. 35,710. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) ADAMS & ELTING COMPANY, Chicago, Ill. Filed June 24, 1908. Used ten years.

HYGIENIC

Particular description of goods.—Calcimine.

Ser. No. 37,141. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) THE RUDOLPH WURLITZER Co., Cincinnati, Ohio. Filed Sept. 3, 1908. Used ten years.

EXCELSIOR

Particular description of goods.—Horns and Violins.

Ser. No. 37,142. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) THE RUDOLPH WURLITZER CO., Cincinnati, Ohio. Filed Sept. 3, 1908. Used ten years.

PERFECTION

Particular description of goods.—Brass Horns and Violins, Mandolin-Tailpieces.

Ser. No. 37,143. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) THE RUDOLPH WURLITZER CO., Cincinnati, Ohio. Filed Sept. 3, 1908. Used ten years.

PROFESSIONAL

Particular description of goods.—Brass Horns and Violins.

Ser. No. 37,154. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) THE RUDOLPH WURLITZER CO., Cincinnati, Ohio. Filed Sept. 3, 1908. Used ten years.

RWB

Particular description of goods.—Violins, Violoncellos, Violin-Bows, Pianos, Automatic Harps, Talking-Machine Needles, Bandonions, Drums, Brass Horns, and Cornets.

Ser. No. 37,296. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WADE H. RICHARDSON, El Paso, Tex. Filed Sept. 9, 1908.

THOXYLINE

Particular description of goods.—A Remedy for Treatment of Skin Diseases.

Ser. No. 38,379. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) COLUMBIA RIVER PACKERS ASSOCIATION, Astoria, Oreg. Filed Oct. 30, 1908.



Particular description of goods.—Canned Salmon.

Ser. No. 38,638. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) AMERICAN COFFEE CO OF N O LTD., New Orleans, La. Filed Nov. 13, 1908.



Consists of the name "St. Charles Hotel" and a representation of the St. Charles Hotel.

Particular description of goods.—Blended Roasted Coffee and Blended Tea.

Ser. No. 39,020. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) INTERNATIONAL BANANA FOOD CO., Chicago, Ill. Filed Dec. 1, 1908.



Particular description of goods.—A Granulated, Ground, or Pulverized Food Substance Made from Bananas and a Drink Produced Therefrom.

Ser. No. 39,277. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) BLANKENHEYM & NOLET'S DISTILLEERDERIJ, Rotterdam, Netherlands. Filed Dec. 14, 1908.



Particular description of goods.—Straight Geneva.

Ser. No. 39,278. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) BLANKENHEYM & NOLET'S DISTILLEERDERIJ, Rotterdam, Netherlands. Filed Dec. 14, 1908.



Particular description of goods.—Straight Geneva

Ser. No. 39,365. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE IMPERIAL CHEMICAL MFG CO., New York, N. Y. Filed Dec. 16, 1908. Used ten years.

IMPERIAL

Particular description of goods.—Toilet Preparations—Namely, Hair-Regenerator, Hair-Remover, Hair-Tonic, Shampoo, Cream for the Skin, Creamy Emulsion for the Skin of the Face, Neck, and Hands, and Rouge for the Cheeks and Lips.

Ser. No. 39,426. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HENRY SOLOMON WELLCOME, London, England. Filed Dec. 18, 1908.

TABLOID

Particular description of goods.—Acids; Albumens; Menthol; Alkalies; Alkaloids; Alums; Amids; Amins; Ammonium Compounds; Anesthetics; Antiseptics; Benzin Derivatives; Coal-Tar Products; Cyanogen Derivatives; Deodorants; Dentifrice in Solid Form; Digestive Ferments; Disinfectants; Effervescent Salts; Germicides; Glucosides; Medicinal Vegetable Gums; Medicinal Vegetable-Gum Resins; Halogen Derivatives and Compounds; Medicinal Animal-Gland Substances, (Thyroid Gland, Mammary Gland, Parotid Gland, Pituitary Gland, Prostate Gland, Thymus Gland;) Dried Medicinal Animal-Tissue Substances, (Cerebrin, Ovarian;) Ox-Bile Substance; Pig-Bile Substance; Residuum Rubrum, (Dried Residue Ox-Blood Substance;) Bone Medulla Substance; Didymin, (Testicular Substance;) Kidney Substance; Spinal-Cord Substance; Hemoglobin; Medicinal Oils; Medicinal Powders; Metallic Salts; Methyl Compounds; Mineral Substances; Naphthols; Nucleins; Oleo-Resins; Phenols; Photographic Developers, Reducers, Intensifiers, Fixers, Sensitizers, and Accelerators; Pastils; Pills, Powdered Medicinal Extracts; Reducing Agents; Salts; Solid Medicinal Extracts, and Sugar of Milk.

Ser. No. 39,708. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) CARBONE-LICHT-GESELLSCHAFT MIT BESCHRÄNKTER HAFTUNG, Berlin, Germany. Filed Jan. 4, 1909.

Troja

Particular description of goods.—Arc and Incandescent Electric Lamps.

Ser. No. 41,013. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) WADSWORTH, HOWLAND & CO., INCORPORATED, Boston, Mass. Filed Mar. 8, 1909.

FRESCOINE

Particular description of goods.—Calcimine.

Ser. No. 41,095. (CLASS 2. RECEPTACLES.) LEADER IRON WORKS, Decatur, Ill. Filed Mar. 11, 1909. Used ten years.

Leader

Particular description of goods.—Pneumatic Tanks and Parts of Same.

Ser. No. 41,529. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) AMERICAN LARD COMPANY, Brooklyn, N. Y. Filed Apr. 1, 1909.

Flower BRAND

Particular description of goods.—Lard.

Ser. No. 41,791. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE J K ARMSBY CO, Chicago, Ill., and San Francisco, Cal. Filed Apr. 15, 1909.



EXCELSIOR

Particular description of goods.—Dried Fruits—Namely, Apples, Apricots, Cherries, Nectarines, Peaches, Pears, Plums, Prunes, and Raisins.

Ser. No. 41,977. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BERNARR MACFADDEN, Battle Creek, Mich. Filed Apr. 24, 1909.

LAX-O-BISK

Particular description of goods.—Invalids' Food in the Form of a Cracker or Wafer Made of Cereals and Fruits.

Ser. No. 42,057. (CLASS 12. CONSTRUCTION MATERIALS.) THE WHITE SANDS COMPANY, Alamogordo, N. Mex. Ter. Filed Apr. 27, 1909. Used ten years.

WHITE SAND

Particular description of goods.—Cement, Plaster, and Brick.

Ser. No. 42,078. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE SHARP & NICHOLS COMPANY, Chillicothe, Ohio. Filed Apr. 28, 1909.

PRIDE OF DEEPWATER

Particular description of goods.—Canned Fruits, Berries, Vegetables, Sauer-Kraut, and Hominy.

Ser. No. 42,252. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) FREDERICK H. SAUER, New York, N. Y. Filed May 5, 1909. Used ten years.

MANHATTAN

Particular description of goods.—Valves.

Ser. No. 42,722. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CLEAN SWEEP COMPANY, Cairo, Ill. Filed May 28, 1909.



The ground of the barrel, the brush portion of the broom, and the head of the brush being printed in orange.

Particular description of goods.—Dust-Layer and Disinfectant.

Ser. No. 42,726. (CLASS 31. FILTERS AND REFRIGERATORS.) WERNER, PFLEIDERER & PERKINS LD., Peterborough, England. Filed May 28, 1909.

ARKTOS

Particular description of goods.—Refrigerators for Storing Meat, Foods, and other Substances and Freezing-Machines and Parts of Freezing-Machines.

Ser. No. 42,937. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WASSERMANN & CO THE ANTIGLISSOL COMPANY LD LAUSANNE, Lausanne, Switzerland. Filed June 10, 1909.

Ferro-ol

Particular description of goods.—Compounds for Brazing and Welding Metals.

Ser. No. 43,001. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) L. D. CRAIGHEAD, Wilkinsburg, Pa. Filed June 14, 1909.



Particular description of goods.—Wheat-Flour.

Ser. No. 43,036. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) QUAKER CITY CHOCOLATE AND CONFECTIONERY COMPANY, Philadelphia, Pa. Filed June 15, 1909. Used ten years.

RICKEY

Particular description of goods.—Chocolate Creams.

Ser. No. 43,345. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) HENRY MATHEW ALLEYN, London, England. Filed June 30, 1909.



No claim being made to the words "The Invisible Castor Domes of Silence" or to the representation of the caster.

Particular description of goods.—Metal Casters for Furniture.

Ser. No. 43,393. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) APPERSON BROS. AUTOMOBILE COMPANY, Kokomo, Ind. Filed July 3, 1909.



Particular description of goods.—Automobiles.

Ser. No. 43,470. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE COX GELATINE COMPANY, New York, N. Y. Filed July 12, 1909. Used ten years.

COX'S

Particular description of goods.—Gelatin.

Ser. No. 43,558. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE CLEVELAND CREAM CHEESE CO., Cleveland, Ohio. Filed July 16, 1909.



Particular description of goods.—Cream-Cheese.

Ser. No. 43,559. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE CLEVELAND CREAM CHEESE CO., Cleveland, Ohio. Filed July 16, 1909.



Particular description of goods.—Cream-Cheese.

Ser. No. 43,574. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SOCIETE ANONYME DES MATIERES COLORANTES & PRODUITS CHIMIQUES DE SAINT-DENIS, Paris, France. Filed July 16, 1909.



Particular description of goods.—Coal-Tar Dyes and Coloring-Matters.

Ser. No. 43,605. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE WILLIAM EDWARDS COMPANY, Cleveland, Ohio. Filed July 17, 1909. Used ten years.

Edwards

Particular description of goods.—Oyster-Dressing, Worcestershire-Style Sauce, Mint Sauce, Maple-Syrup, Apple-Butter, Mince-Meat, Prepared Mustard, Chilli Sauce, Corn-Starch, Crushed Fruits, Flavoring Extracts, Olives, Salad-Dressing, Grape-Jelly, Currant-Jelly, Fruit-Preserves, Honey, Cider-Vinegar, Malt Vinegar, and Sugar.

Ser. No. 43,668. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) GEO BRAY & CO LD, Leeds, England. Filed July 21, 1909.

Particular description of goods.—Acetylene-Gas Burners (in Which Metal Predominates) other Than Burners for Use in Connection with Incandescent Mantles or other Equivalent Devices.

Ser. No. 43,772. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) ROLF-MARTIN COMPANY, Fort Wayne, Ind. Filed July 24, 1909.

RM CO

Particular description of goods.—Gas-Controlling Valves; Brass Closet-Floor Flanges; Brass Cock-Hole Covers for Bath-Tubs; Brass Traps for Lavatories, Bath-Tubs, and Sinks; Brass Supply-Pipes for Bath-Tubs, Lavatories, and Sinks; Brass Bath-Cocks, Fuller and Compression; Brass Faucets, Fuller and Compression; Brass Valves; Stop-Cocks; Waste-Cocks; Sill-Cocks; Brass Spun Flanges; Brass Slip-Joint Connections; Brass Basin-Cocks; Closet-Tank Ball-Cocks; Closet-Tank Flush-Valves; Copper and Brass Tank-Floats; Rubber Closet Connections and Elbows; Rubber Tank Flush-Balls; Rubber Bumpers for Water-Closet Seats; Rubber Force-Cups; Rubber Basin Bath-Stoppers; Leather Pump-Valve Repairs; and Soil-Pipe Testing-Plugs.

Ser. No. 43,781. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) PARKE DAVIS & CO., Detroit, Mich. Filed July 26, 1909.

PITUITRIN

Particular description of goods.—Cardio-Vascular Stimulants and Diuretics.

Ser. No. 43,867. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) AGRABIA, FABRIK LANDW. ARTIKEL ERNST RUST, Dresden, Germany. Filed July 29, 1909.

Antisual.

Particular description of goods.—An Insecticide Particularly for Use in the Destruction of and Protection Against the *Schizoneura Lanigera*.

Ser. No. 44,194. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) THE DE LONG HOOK AND EYE COMPANY, Philadelphia, Pa. Filed Aug. 18, 1909.

ZIP-ZAK

Particular description of goods.—Rebounding Toys.

Ser. No. 44,244. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) CASTNER, CURRAN & BULLITT, Philadelphia, Pa. Filed Aug. 19, 1909.

C. C. B.

Particular description of goods.—Coal.

Ser. No. 42,078. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE SEARS & NICHOLS COMPANY, Chillicothe, Ohio. Filed Apr. 28, 1909.

PRIDE OF PENTWATER

Particular description of goods.—Canned Fruits, Berries, Vegetables, Sauer-Kraut, and Hominy.

Ser. No. 42,252. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) FREDERICK H. SAUER, New York, N. Y. Filed May 5, 1909. Used ten years.

MANHATTAN

Particular description of goods.—Valves.

Ser. No. 42,722. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CLEAN SWEEP COMPANY, Cairo, Ill. Filed May 28, 1909.



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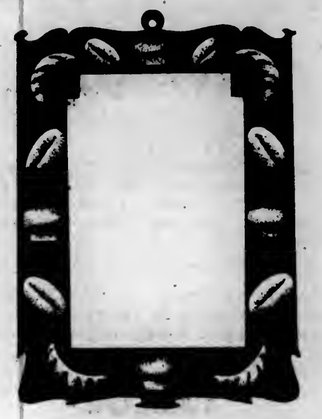
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Ser. No. 42,937. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WASSERMANN & CO THE ANTIGLISSOL COMPANY LD LAUSANNE, Lausanne, Switzerland. Filed June 10, 1909.

Ferro-ol

Particular description of goods.—Compounds for Brasing and Welding Metals.

Ser. No. 43,001. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) L. D. CRAIGHEAD, Wilkinsburg, Pa. Filed June 14, 1909.



Particular description of goods.—Wheat-Flour.

Ser. No. 43,036. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) QUAKER CITY CHOCOLATE AND CONFECTIONERY COMPANY, Philadelphia, Pa. Filed June 15, 1909. Used ten years.

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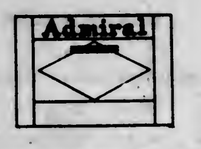
Particular description of goods.—Automobiles.

Ser. No. 43,470. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE COX GELATINE COMPANY, New York, N. Y. Filed July 12, 1909. Used ten years.

COX'S

Particular description of goods.—Gelatin.

Ser. No. 43,558. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE CLEVELAND CREAM CHEESE CO., Cleveland, Ohio. Filed July 16, 1909.



Particular description of goods.—Cream-Cheese.

Ser. No. 43,559. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE CLEVELAND CREAM CHEESE CO., Cleveland, Ohio. Filed July 16, 1909.



Particular description of goods.—Cream-Cheese.

Ser. No. 43,574. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SOCIETE ANONYME DES MATIERES COLORANTES & PRODUITS CHIMIQUES DE SAINT-DENIS, Paris, France. Filed July 16, 1909.



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Particular description of goods.—Acetylene-Gas Burners (in Which Metal Predominates) other Than Burners for Use in Connection with Incandescent Mantles or other Equivalent Devices.

Ser. No. 43,772. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) ROLF-MARTIN COMPANY, Fort Wayne, Ind. Filed July 24, 1909.

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Ser. No. 43,781. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) PARKE DAVIS & CO., Detroit, Mich. Filed July 26, 1909.

PITUITRIN

Particular description of goods.—Cardio-Vascular Stimulants and Diuretics.

Ser. No. 43,867. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) AGRABIA, FABRIK LANDW. ARTIKEL ERNST RUST, Dresden, Germany. Filed July 29, 1909.

Antisual.

Particular description of goods.—An Insecticide Particularly for Use in the Destruction of and Protection Against the *Schizoneura Lanigera*.

Ser. No. 44,194. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) THE DE LONG HOOK AND EYE COMPANY, Philadelphia, Pa. Filed Aug. 18, 1909.

ZIP-ZAK

Particular description of goods.—Rebounding Toys.

Ser. No. 44,244. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) CASTNER, CURRAN & BULLITT, Philadelphia, Pa. Filed Aug. 19, 1909.

C. C. B.

Particular description of goods.—Coal.

Ser. No. 44,248. (CLASS 12. CONSTRUCTION MATERIALS.) KEY CITY ROOFING CO., Dubuque, Iowa. Filed Aug. 20, 1909.

DREADNAUGHT



Particular description of goods.—Prepared Rubber Roofings and Prepared Gravel Roofings.

Ser. No. 44,277. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) E. MCKITTRICK & CO., New York, N. Y. Filed Aug. 21, 1909.

E. McK & CO



Particular description of goods.—White and Colored Cotton Dress Goods.

Ser. No. 44,296. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) EDGAR ALLEN & CO LD., Sheffield, England. Filed Aug. 23, 1909.

MINERVA

Particular description of goods.—Twist, Mining, Rock-Boring, Wood-Boring, and Similar Drills, Milling, Slotting, Shaping, Turning, Wood, Bone, Wheel Dividing, Fluting, Grooving, and Similar Cutters, Machine-Knives and Machine-Tools, All Being Parts of Machinery.

Ser. No. 44,312. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) DAVID STOTT, Detroit, Mich. Filed Aug. 23, 1909.

GOLDEN RULE

Particular description of goods.—Wheat-Flour.

Ser. No. 44,318. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) WHEELER & WILSON, Boston, Mass. Filed Aug. 23, 1909.

NORTH SHORE

Particular description of goods.—Hammocks and Swings.

Ser. No. 44,459. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) W. F. CHARLES, Loughborough, England. Filed Aug. 31, 1909.

ZENOBIA

Particular description of goods.—Perfumery, Sachet, Toilet Powder, Toilet Water, Bath-Powder, Tooth-Powder, Tooth-Paste, Toilet Crême, Hair-Pomade, and Shampoo-Powders.

Ser. No. 44,472. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) CHUCK BROS & DAVIS, New York, N. Y. Filed Sept. 1, 1909.

WOODCHUCK MILLS

Particular description of goods.—Cotton Elastic Canvas, Percalines, Butcher-Linens, Buckrams, Shrunk Pocketings, Silesias, Farmers' Satins, Mercerized Sateens, Sleeve-Linings, Wigans, Cambrics, and Crinolines.

Ser. No. 44,479. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE CITIZENS CANNING COMPANY, Spiceland, Ind. Filed Sept. 1, 1909.

HOOSIER

Particular description of goods.—Canned Tomatoes.

Ser. No. 44,511. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) RUCH BROS. CANNING COMPANY, Englewood, N. J.; Apalachicola and Cedar Key, Fla., and Baltimore, Md. Filed Sept. 2, 1909.



Particular description of goods.—Canned Oysters.

Ser. No. 44,515. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) MAGNALIUM-INDUSTRIE GESELLSCHAFT, M. B. H., Berlin, Germany. Filed Sept. 2, 1909.



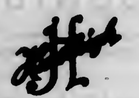
Particular description of goods.—Aluminum, Magnesium, and Aluminum-Magnesium Alloys.

Ser. No. 44,529. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) HARRY A. STAUNTON, Philadelphia, Pa. Filed Sept. 3, 1909.



Particular description of goods.—Hair-Nets and Veils.

Ser. No. 44,535. (CLASS 39. CLOTHING.) JOHN E. HURST & COMPANY, Baltimore, Md. Filed Sept. 4, 1909.



Particular description of goods.—Men's, Ladies', and Children's Knit and Muslin Undershirts, Drawers, and Union Suits; Chemises; Corset-Covers; Night-Shirts; Pajamas; Nightgowns; Undershirts; Dress-Skirts; Shirt-Waists; Ladies', Misses', and Children's Outer Suits; Ladies', Misses', and Children's Cloaks; Negligée, Dress, and Work Shirts; Overalls; Jackets; Sweaters; Hosiery; Gloves; Evening-Dress Protectors; Collars; Cuffs; Corsets; Dressing-Sacks; Dresses; Kimonos; Ladies' and Misses' Shawls and Fascinators; Tam-o'-Shanters; Knitted Jackets; Knitted Coats; Knitted Vests; Knitted Toques; Knitted Sweaters; Knitted Skirts; and Petticoats.

Ser. No. 44,542. (CLASS 21. FILTERS AND REFRIGERATORS.) THE DANA MANUFACTURING COMPANY, Norwood, Ohio. Filed Sept. 4, 1909. Used ten years.

ZERO

Particular description of goods.—Ice-Cream Freezers.

Ser. No. 44,553. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MAX MORRIS DRUG COMPANY, Macon, Ga. Filed Sept. 7, 1909.



The picture and the facsimile-signature being that of Dr. M. J. Banks, deceased.

Particular description of goods.—Liniment for the Alleviation of Rheumatism, Neuralgia, Headache, Bruises, Swellings, Stiff Joints, Contraction of Muscles, Strains, Sprains, Sciatica, Lumbago, Backache, Pleurisy, Chest-Colds, Pneumonia, and Gout.

Ser. No. 44,566. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) EDWARD A. URBAN, Houston, Tex. Filed Sept. 7, 1909.



Consists of my portrait.

Particular description of goods.—A Salve for the Treatment of Catarrh, Croup, Eczema, and All Membraneous Affections.

Ser. No. 44,603. (CLASS 41. CANES, PARASOLS, AND UMBRELLAS.) ARTHE, LEVY, BERNHARD CO., New York, N. Y. Filed Sept. 9, 1909.

Venus

Particular description of goods.—Umbrellas.

Ser. No. 44,604. (CLASS 41. CANES, PARASOLS, AND UMBRELLAS.) ARTHE, LEVY, BERNHARD CO., New York, N. Y. Filed Sept. 9, 1909.

Mars

Particular description of goods.—Umbrellas.

Ser. No. 44,605. (CLASS 41. CANES, PARASOLS, AND UMBRELLAS.) ARTHE, LEVY, BERNHARD CO., New York, N. Y. Filed Sept. 9, 1909.

Jupiter

Particular description of goods.—Umbrellas.

Ser. No. 44,606. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) WEST LOOP GARTER CO., Philadelphia, Pa. Filed Sept. 9, 1909.

W.L.G.

Particular description of goods.—Stocking-Supporters.

Ser. No. 44,761. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) CHARLES CLUTHE, Glen Ridge, N. J., and New York, N. Y. Filed Sept. 18, 1909. Used ten years.

THE CLUTHE

Particular description of goods.—Appliances for the Treatment of Ruptures, Floating Kidneys, and Abdominal Displacements.

Ser. No. 44,794. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) THE TOLEDO WHEELBARROW COMPANY, Toledo, Ohio. Filed Sept. 20, 1909.



The surrounding border being printed in red.
Particular description of goods.—Wheelbarrows.

Ser. No. 44,822. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) MAJESTIC BOTTLING CO., San Francisco, Cal. Filed Sept. 20, 1909. Used ten years.

MAJESTIC

Particular description of goods.—Distilled Water, Spring-Water, Natural and Artificial Mineral Water, and Carbonated Flavored Tonic Beverages.

Ser. No. 44,849. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) STROHMEYER & ARPE COMPANY, New York, N. Y. Filed Sept. 21, 1909.

Re Umberto

Particular description of goods.—Canned Macaroni, Canned Tomato Sauce, Canned Vegetables, and Canned Fish.

Ser. No. 44,857. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) MITTS & MERRILL, Saginaw, Mich. Filed Sept. 22, 1909.

GIANT

Particular description of goods.—Key-Seating Machines.

Ser. No. 44,889. (CLASS 39. CLOTHING.) OLD FORT KNITTING MILLS, Fort Wayne, Ind. Filed Sept. 23, 1909.

"JUMBO"

Particular description of goods.—Hosiery.

Ser. No. 44,906. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) THE HUMPHREYES MANUFACTURING COMPANY, Mansfield, Ohio. Filed Sept. 23, 1909.



Particular description of goods.—Bath-Tubs, One-Piece Lavatories, Sectional Lavatories, One-Piece Roll-Rim Sinks, Two-Piece Roll-Rim Sinks, Drain-Boards, Flat-Rim Sinks, Sink-Backs, Trays, Roll and Flat Rim Slop-Sinks, Closet-Tanks and Closet Combinations, One and Two Piece Urinals, Bath-Cocks, Fuller and Compression Bibs, Lavatory-Stops, Basin Supply-Pipes, Bath Supply-Pipes, Brass Ferrules, Lavatory-Traps, Sink-Traps, Bath-Wastes, Closet-Fittings, Urinal-Stall Fittings, Stop and Waste Cocks, and Basin-Cocks.

Ser. No. 44,907. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE HUMPHREYES MANUFACTURING COMPANY, Mansfield, Ohio. Filed Sept. 23, 1909.



Particular description of goods.—Hand and Power Pumps of Iron and Brass.

Ser. No. 44,921. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) ELECTRIC RENOVATOR MANUFACTURING CO., Pittsburg, Pa. Filed Sept. 23, 1909.

JUNIOR

Particular description of goods.—Pneumatic Cleaning and Renovating Apparatus and Parts Thereof.

Ser. No. 44,958. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HOLT & COMPANY, New York, N. Y. Filed Sept. 25, 1909.

EL COCO

Particular description of goods.—Wheat-Flour.

Ser. No. 44,967. (CLASS 15. OILS AND GREASES.) STANDARD OIL COMPANY, Jersey City, N. J. Filed Sept. 25, 1909.

Parowax

Particular description of goods.—Paraffin.

Ser. No. 44,991. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CROWN MILLS COMPANY, Belleville, Ill., and St. Louis, Mo. Filed Sept. 28, 1909. Used ten years.

CROWN

Particular description of goods.—Wheat-Flour.

Ser. No. 45,057. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE WESTERN COFFEE CO., El Paso, Tex. Filed Oct. 1, 1909.

EL TRADO

Particular description of goods.—Coffee.

Ser. No. 45,062. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CROSBY ROLLER MILLING COMPANY, Topeka, Kans. Filed Oct. 1, 1909.



Particular description of goods.—Wheat-Flour.

Ser. No. 45,064. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CROSBY ROLLER MILLING COMPANY, Topeka, Kans. Filed Oct. 1, 1909.



Particular description of goods.—Wheat-Flour.

Ser. No. 45,096. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) OOSTBURG EVAPORATED MILK CO., Oostburg, Wis. Filed Oct. 2, 1909.

SWAN



Particular description of goods.—Evaporated Milk.

Ser. No. 45,098. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WILLIAM MCMURRAY, St. Paul, Minn. Filed Oct. 2, 1909.



Particular description of goods.—Coffees.

Ser. No. 45,124. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) NEW YORK CHEMICAL COMPANY, Dallas, Tex. Filed Oct. 4, 1909.

ZAN-ZINE

Particular description of goods.—An Antidote for Malaria, Chills, Fever, and Dumb Ague.

Ser. No. 45,131. (CLASS 39. CLOTHING.) EDWARD LEFI CO., Gloversville, N. Y. Filed Oct. 4, 1909.

REVOL

Particular description of goods.—Leather and Textile Gloves and Mittens.

Ser. No. 45,136. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) PRATT-LOW PRESERVING COMPANY, Santa Clara, Cal. Filed Oct. 4, 1909.

TALISMAN

Particular description of goods.—Canned Fruits and Canned Vegetables.

Ser. No. 45,137. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) PRATT-LOW PRESERVING COMPANY, Santa Clara, Cal. Filed Oct. 4, 1909.

SILVER FLOWER



Particular description of goods.—Canned Fruits and Canned Vegetables.

Ser. No. 45,138. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ARMS & KIDDER, Kansas City, Mo. Filed Oct. 4, 1909.

GREAT RUN

Particular description of goods.—Wheat-Flour.

Ser. No. 45,139. (CLASS 39. CLOTHING.) BROWN DURRELL CO., Boston, Mass. Filed Oct. 4, 1909.

ECONOMY

Particular description of goods.—Hosiery.

Ser. No. 45,148. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) THE VITRIFIED WHEEL COMPANY, Westfield, Mass. Filed Oct. 5, 1909. Used ten years.

VITRIFIED

Particular description of goods.—Emery-Wheels, Corundum-Wheels, Emery, Corundum, Rub-Stones, Emery and Corundum Oil-Stones, Sticks, and Pencils.

Ser. No. 45,156. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) FRANK A. KLAINE, Newport, Ky. Filed Oct. 6, 1909. Used ten years.

OMAHA

Particular description of goods.—Cooking, Heating, and Gas Stoves.

Ser. No. 45,168. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MARTIN & NURRE CANNING CO., Blair, Nebr. Filed Oct. 7, 1909. Used ten years.



Particular description of goods.—Canned Corn.

Ser. No. 45,169. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MARTIN & NURRE CANNING CO., Blair, Nebr. Filed Oct. 7, 1909.



Particular description of goods.—Canned Corn.

Ser. No. 45,176. (CLASS 27. HOROLOGICAL INSTRUMENTS.) SCHERWIN & SCHLUTTER, Copenhagen, Denmark. Filed Oct. 7, 1909.



Particular description of goods.—Watches, Watch-Movements, Watch Parts, Clocks, Clock-Movements, and Clock Parts.

Ser. No. 45,180. (CLASS 29. BROOMS, BRUSHES, AND DUSTERS.) BURDETT MFG. CO., Kansas City, Mo. Filed Oct. 7, 1909.

ULTIMOP

Particular description of goods.—Mops.

Ser. No. 45,184. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) THE YBISER HOOK AND EYE COMPANY, Philadelphia, Pa. Filed Oct. 7, 1909.



Particular description of goods.—Hooks and Eyes.

Ser. No. 45,200. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SCHANDEIN & LIND, Philadelphia, Pa. Filed Oct. 9, 1909. Used ten years.



Particular description of goods.—Chewing-Gum.

Ser. No. 45,249. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) IOWA DAIRY SEPARATOR COMPANY, Waterloo, Iowa. Filed Oct. 11, 1909.

CHORE BOY

Particular description of goods.—Internal-Combustion Engines.

Ser. No. 45,396. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ELECTRO BLEACHING GAS COMPANY, New York, N. Y. Filed Oct. 19, 1909.

ELCHLORA

Particular description of goods.—Specially-Treated Chlorin Gas.

Ser. No. 45,405. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) THE PITTSBURGH DRY GOODS COMPANY, Pittsburg, Pa. Filed Oct. 19, 1909. Used ten years.

THE DUQUESNE



Particular description of goods.—Wool Blankets.

Ser. No. 45,407. (CLASS 39. CLOTHING.) THE PITTSBURGH DRY GOODS COMPANY, Pittsburg, Pa. Filed Oct. 19, 1909.

M. & M.

Particular description of goods.—Overalls.

Ser. No. 45,438. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) FRED BUTTERFIELD & CO., New York, N. Y. Filed Oct. 21, 1909.

DURBAR

Particular description of goods.—Cotton Piece Goods.

TRADE-MARKS

REGISTERED DECEMBER 7, 1909.

75,984. RUBBER FOOTWEAR. APSLEY RUBBER COMPANY, Hudson, Mass.
Filed August 21, 1909. Serial No. 44,266. PUBLISHED OCTOBER 5, 1909.

75,985. SUSPENDERS AND BELTS. A. BRODE & SON, New York, N. Y.
Filed August 17, 1909. Serial No. 44,187. PUBLISHED OCTOBER 5, 1909.

75,986. BOYS', GIRLS', AND CHILDREN'S LEATHER, CANVAS, AND CLOTH SHOES. THE BROWN SHOE COMPANY, St. Louis, Mo.
Filed October 19, 1908. Serial No. 38,133. PUBLISHED OCTOBER 5, 1909.

75,987. CRACKERS AND CAKES. THE DAYTON BISCUIT CO., Dayton, Ohio.
Filed February 25, 1909. Serial No. 40,780. PUBLISHED OCTOBER 5, 1909.

75,988. STRAW, FELT, AND TEXTILE HATS AND CAPS. THE FRANCIS COMPANY, INC., Baltimore, Md.
Filed July 1, 1909. Serial No. 43,349. PUBLISHED OCTOBER 5, 1909.

75,989. CERTAIN FOODS. GRIGGS, COOPER & CO., St. Paul, Minn.
Filed July 28, 1909. Serial No. 43,859. PUBLISHED OCTOBER 5, 1909.

75,990. NEGLIGÉE AND STIFF SHIRTS, UNDERSHIRTS, DRAWERS, NIGHT-SHIRTS, AND PAJAMAS. HAMBURGER, WOLF & WEILLER, Baltimore, Md.
Filed August 10, 1909. Serial No. 44,065. PUBLISHED OCTOBER 5, 1909.

75,991. COCOA, COCOA-BUTTER, AND CHOCOLATE. "INTERNATIONALE CACAOFABRIEKEN," Amsterdam, Netherlands.
Filed October 21, 1908. Serial No. 38,162. PUBLISHED OCTOBER 5, 1909.

75,992. COFFEE. THE INTERNATIONAL TEA COMPANY'S STORES, LIMITED, London, England.
Filed July 21, 1909. Serial No. 43,674. PUBLISHED OCTOBER 5, 1909.

75,993. CERTAIN PIECE GOODS. JOHN LONKE, Jersey City, N. J., and New York, N. Y.
Filed June 21, 1909. Serial No. 43,152. PUBLISHED SEPTEMBER 28, 1909.

75,994. OUTING, NEGLIGÉE, AND DRESS SHIRTS. EMANUEL LOTH, Cincinnati, Ohio.
Filed October 13, 1908. Serial No. 37,988. PUBLISHED MAY 18, 1909.

75,995. FRUITS. THE NORTH FORK FRUIT GROWERS ASSOCIATION, Paonia, Colo.
Filed July 22, 1909. Serial No. 43,683. PUBLISHED OCTOBER 5, 1909.

75,996. HOSIERY. RICHMOND HOSIERY MILLS, Chattanooga, Tenn., and Rossville, Ga.
Filed June 21, 1909. Serial No. 43,161. PUBLISHED OCTOBER 5, 1909.

75,997. HOSIERY. RICHMOND HOSIERY MILLS, Chattanooga, Tenn., and Rossville, Ga.
Filed June 21, 1909. Serial No. 43,167. PUBLISHED OCTOBER 5, 1909.

75,998. BUTTONS. JOSEPH W. SCHLOSS & COMPANY, New York, N. Y.
Filed July 20, 1909. Serial No. 43,650. PUBLISHED OCTOBER 5, 1909.

75,999. CANNED FRUITS, BERRIES, VEGETABLES, AND PORK AND BEANS. THE SEARS & NICHOLS COMPANY, Chillicothe and Frankfort, Ohio.
Filed April 28, 1909. Serial No. 42,074. PUBLISHED OCTOBER 5, 1909.

76,000. CANNED FOODS. THE SEARS & NICHOLS COMPANY, Chillicothe and Frankfort, Ohio.
Filed April 28, 1909. Serial No. 42,075. PUBLISHED OCTOBER 5, 1909.

76,001. KID GLOVES AND LEATHER SHOES. SIMPSON CRAWFORD CO., New York, N. Y.
Filed July 1, 1909. Serial No. 43,352. PUBLISHED OCTOBER 5, 1909.

76,002. HOSIERY AND KNITTED VESTS, UNDERSHIRTS, DRAWERS, AND UNION SUITS. STANDARD KNITTING MILLS COMPANY, New York, N. Y.
Filed July 15, 1909. Serial No. 43,543. PUBLISHED OCTOBER 5, 1909.

76,003. CANNED FRUITS. SUNLIT FRUIT COMPANY. West Berkeley, Cal.
Filed May 26, 1909. Serial No. 42,682. PUBLISHED OCTOBER 5, 1909.

76,004. CANNED FRUITS. SUNLIT FRUIT COMPANY, West Berkeley, Cal.
Filed May 26, 1909. Serial No. 42,683. PUBLISHED OCTOBER 5, 1909.

76,005. CERTAIN FOODS. UNCLE SAM'S MACARONI COMPANY, Tecumseh, Mich.
Filed September 10, 1908. Serial No. 37,308. PUBLISHED OCTOBER 5, 1909.

76,006. TEA, BLENDED COFFEE, FLAVORING EXTRACTS, AND SPICES. YOUNG BROS., INC., Seattle, Wash.
Filed July 3, 1909. Serial No. 43,386. PUBLISHED OCTOBER 5, 1909.

76,007. CERTAIN TEXTILES. CHINA & JAPAN TRADING COMPANY, LIMITED, New York, N. Y.
Filed August 20, 1909. Serial No. 44,251. PUBLISHED OCTOBER 5, 1909.

76,008. CERTAIN TEXTILES. CHINA & JAPAN TRADING COMPANY, LIMITED, New York, N. Y.
Filed August 20, 1909. Serial No. 44,252. PUBLISHED OCTOBER 5, 1909.

76,009. CERTAIN ELECTRICAL APPARATUS. AMERICAN ELECTRICAL NOVELTY & MANUFACTURING COMPANY, (by judicial change of name now AMERICAN EVER READY CO.), New York, N. Y.
Filed August 8, 1908. Serial No. 36,549. PUBLISHED OCTOBER 5, 1909.

76,010. ELECTRIC BATTERIES. AMERICAN ELECTRICAL NOVELTY & MANUFACTURING COMPANY, (by judicial change of name now AMERICAN EVER READY CO.), New York, N. Y.
Filed August 8, 1908. Serial No. 36,550. PUBLISHED OCTOBER 5, 1909.

76,011. CLOTHES-WRINGERS. THE AMERICAN WRINGER COMPANY, New York, N. Y.
Filed October 14, 1905. Serial No. 13,621. PUBLISHED OCTOBER 5, 1909.

76,012. OLD RED CHIANTI WINE. LODOVICI E PIERO ANTINORI, Florence, Italy.
Filed April 6, 1909. Serial No. 41,624. PUBLISHED OCTOBER 5, 1909.

76,013. SUITINGS, SHIRTINGS, AND SHEETINGS. L. S. BAUMGARDNER & COMPANY, Toledo, Ohio.
Filed August 13, 1909. Serial No. 44,133. PUBLISHED OCTOBER 5, 1909.

76,014. SAFETY BLASTING-POWDER. WILLIAM H. BLUMENSTEIN, Pottsville, Pa.
Filed August 6, 1909. Serial No. 44,002. PUBLISHED OCTOBER 5, 1909.

76,015. VEGETABLE AND FLOWER SEEDS. C. C. MORSE & CO, San Francisco, Cal.
Filed July 3, 1909. Serial No. 43,382. PUBLISHED OCTOBER 5, 1909.

76,016. CURTAIN-RODS, PARTS THEREOF, AND ORNAMENTS THEREFOR. C. P. HENRY NOVELTY COMPANY, Providence, R. I.
Filed July 26, 1909. Serial No. 43,795. PUBLISHED OCTOBER 5, 1909.

76,017. LINIMENT AND OINTMENT. WILLIAM H. CALDWELL, Tuckahoe, N. J.
Filed August 10, 1909. Serial No. 44,137. PUBLISHED OCTOBER 5, 1909.

76,018. BLEACHING AGENTS. CASTNER ELECTROLYTIC ALKALI COMPANY, Niagara Falls, N. Y.
Filed June 26, 1909. Serial No. 43,274. PUBLISHED OCTOBER 5, 1909.

76,019. WASHBOARDS. THE CLEVELAND WASHBOARD CO., Cleveland, Ohio.
Filed July 23, 1909. Serial No. 43,708. PUBLISHED OCTOBER 5, 1909.

76,020. CERTAIN TOOLS AND MACHINERY. DAIMLER-MOTOREN-GESELLSCHAFT, Untertürkheim, near Stuttgart, Germany.
Filed July 11, 1907. Serial No. 28,714. PUBLISHED OCTOBER 5, 1909.

76,021. CERTAIN FURNITURE. DOTEN-DUNTON DESK CO., Boston, Mass.
Filed May 26, 1909. Serial No. 42,693. PUBLISHED OCTOBER 5, 1909.

76,022. MUSICAL PUBLICATIONS. G. SCHIRMER, New York, N. Y.
Filed September 1, 1905. Serial No. 12,145. PUBLISHED OCTOBER 5, 1909.

76,023. CIGARS. GARCIA & VEGA, New York, N. Y.
Filed January 19, 1909. Serial No. 39,992. PUBLISHED OCTOBER 5, 1909.

76,024. CIGARS. GONZALEZ AND SANCHEZ CO., Jacksonville, Fla.
Filed July 26, 1909. Serial No. 43,784. PUBLISHED OCTOBER 5, 1909.

76,025. BEER. THE INDEPENDENT BREWING COMPANY, Philadelphia, Pa.
Filed July 21, 1909. Serial No. 43,680. PUBLISHED OCTOBER 5, 1909.

76,026. ELECTROMEDICAL APPARATUS. THE KNY SCHEERER COMPANY, New York, N. Y.
Filed July 26, 1909. Serial No. 43,787. PUBLISHED OCTOBER 5, 1909.

76,027. SPIRITUOUS BITTERS. W. KOERNER & CO., Cunnersdorf, near Hirschberg, Germany.
Filed February 15, 1909. Serial No. 40,551. PUBLISHED OCTOBER 5, 1909.

76,028. NATURAL MINERAL WATERS. KÖNIGLICHE REGIERUNG ABTEILUNG FÜR DIREKTE STEUERN DOMÄNEN UND FORSTEN IN WIESBADEN, Wiesbaden, Germany.
Filed March 18, 1908. Serial No. 33,447. PUBLISHED OCTOBER 5, 1909.

76,029. STEAM-TRAPS AND UNIONS. LANCASTER & TONGE LTD., Manchester, England.
Filed June 6, 1908. Serial No. 35,191. PUBLISHED OCTOBER 5, 1909.

76,030. LIGHTNING-ARRESTERS. FREDERIC W. LORD, New York, N. Y.
Filed April 27, 1909. Serial No. 42,049. PUBLISHED OCTOBER 5, 1909.

76,031. CERTAIN LIGHTING APPARATUS. NATIONAL GAS LIGHT COMPANY, Kalamazoo, Mich.
Filed November 13, 1908. Serial No. 38,630. PUBLISHED OCTOBER 5, 1909.

76,032. SHOE-POLISH. ROBERTSON & SONS, New York, Buffalo, and Rochester, N. Y.
Filed March 10, 1909. Serial No. 41,072. PUBLISHED OCTOBER 5, 1909.

76,033. PAINTS AND ENAMELS. ALFRED SALOMON, New York, N. Y.
Filed August 3, 1909. Serial No. 43,954. PUBLISHED OCTOBER 5, 1909.

76,034. LEATHER SHOES PROVIDED WITH CUSHION-INSOLES. JOHN G. SATTLER, Buffalo, N. Y.
Filed August 23, 1909. Serial No. 44,303. PUBLISHED OCTOBER 5, 1909.

76,035. LUBRICATING COMPOUND. THE TROPICAL OIL COMPANY, Cleveland, Ohio.
Filed August 13, 1909. Serial No. 44,125. PUBLISHED OCTOBER 5, 1909.

76,036. WOODEN TOOL-HANDLES. TURNER, DAY & WOOLWORTH HANDLE CO., Louisville, Ky.; Memphis and Nashville, Tenn., and Huntington, W. Va.
Filed July 14, 1909. Serial No. 43,518. PUBLISHED OCTOBER 5, 1909.

76,037. CERTAIN EARTHENWARE ARTICLES. OZARK POTTERY COMPANY, St. Louis, Mo.
Filed January 26, 1907. Serial No. 24,917. PUBLISHED OCTOBER 5, 1909.

76,038. STATUARY, BAS-RELIEFS, AND STATUETTES. OZARK POTTERY COMPANY, St. Louis, Mo.
Filed January 26, 1907. Serial No. 24,918. PUBLISHED OCTOBER 5, 1909.

76,039. CERTAIN KNIVES AND TOOLS. SNELL & ATHERTON INCORPORATED, Brockton, Mass.
Filed July 24, 1909. Serial No. 43,751. PUBLISHED OCTOBER 5, 1909.

76,040. SOAP. JOSEPH BIECHELE, Canton, Ohio.
Filed December 17, 1907. Serial No. 31,788. PUBLISHED OCTOBER 5, 1909.

76,041. REMEDIES FOR CERTAIN DISEASES. WILLIAM F. EDWARDS, Orangeburg, S. C.
Filed August 9, 1909. Serial No. 44,051. PUBLISHED OCTOBER 5, 1909.

76,042. CERTAIN BEVERAGES. ALBERT GILKA, Berlin, Germany.
Filed March 25, 1908. Serial No. 33,605. PUBLISHED OCTOBER 5, 1909.

76,043. FIBER OF THE ISTLE SPECIES. GRAHAM, HINKLEY & CO., New York, N. Y.
Filed June 29, 1909. Serial No. 43,317. PUBLISHED OCTOBER 5, 1909.

76,044. MILK MODIFYING AND PASTEURIZING APPARATUS AND PARTS THEREOF. THE LACTOMODE CO., Wheeling, W. Va.
Filed August 19, 1909. Serial No. 44,228. PUBLISHED OCTOBER 5, 1909.

76,045. SPOON FISHING-BAIT. WILLIAM T. J. LOWE, Buffalo, N. Y.
Filed March 1, 1909. Serial No. 40,862. PUBLISHED APRIL 27, 1909.

76,046. RUBBER WATER-BOTTLES AND SYRINGES. THE MERCANTILE RUBBER COMPANY, New York, N. Y.
Filed September 20, 1907. Serial No. 30,116. PUBLISHED OCTOBER 5, 1909.

76,047. PHOTOGRAPHIC DEVELOPING-POWDER. CHARLES L. MITCHELL, Philadelphia, Pa.
Filed August 4, 1909. Serial No. 43,958. PUBLISHED OCTOBER 5, 1909.

76,048. CERTAIN HEATING APPARATUS. THE TAPLIN, RICE-CLERKIN COMPANY, Akron, Ohio.
Filed December 26, 1908. Serial No. 39,519. PUBLISHED APRIL 13, 1909.

76,049. PENCILS AND ERASERS. A. W. FABER, Stein, near Nuremberg, and Berlin, Germany.
Filed May 5, 1909. Serial No. 42,236. PUBLISHED OCTOBER 5, 1909.

76,050. STRAIGHT WHISKY. JIM MCCOY DISTILLING CO., Louisville, Ky.
Filed March 1, 1909. Serial No. 40,865. PUBLISHED AUGUST 3, 1909.

76,051. CARBONATED BEVERAGE TO BE DISPENSED AT SODA-FOUNTAINS. ALBERT DAVID LEWIS, Atlanta, Ga., assignor to Albert D. Lewis and Charles P. Byrd, Atlanta, Ga.
Filed June 10, 1909. Serial No. 42,932. PUBLISHED SEPTEMBER 7, 1909.

76,052. REMEDY FOR CERTAIN DISEASES. HERMANUS ROLFF PLANTEN, New York, N. Y.
Filed July 3, 1909. Serial No. 43,383. PUBLISHED OCTOBER 5, 1909.

76,053. MEN'S, WOMEN'S, AND CHILDREN'S SHOES MADE IN WHOLE OR IN PART OF LEATHER. RICE & HUTCHINS, INCORPORATED, Boston, Mass.
Filed May 3, 1909. Serial No. 42,203. PUBLISHED SEPTEMBER 21, 1909.

76,054. LAXATIVE. SHARP & DOHME, Baltimore, Md.
Filed June 23, 1909. Serial No. 43,198. PUBLISHED OCTOBER 5, 1909.

76,055. CERTAIN MACHINERY. SUMNER IRON WORKS, Everett, Wash.
Filed April 25, 1908. Serial No. 34,386. PUBLISHED DECEMBER 8, 1908.

76,056. CERTAIN CHEMICALS. BADISCHE ANILIN & SODA FABRIK, Ludwigshafen-on-the-Rhine, Germany.
Filed July 1, 1908. Serial No. 35,897. PUBLISHED JANUARY 5, 1909.

76,057. CERTAIN TEXTILES. CHINA & JAPAN TRADING COMPANY, LIMITED, New York, N. Y.
Filed August 20, 1909. Serial No. 44,250. PUBLISHED OCTOBER 5, 1909.

76,058. CIGARS. HENRY TRAISER & CO., Boston, Mass.
Filed January 7, 1909. Serial No. 39,757. PUBLISHED JUNE 15, 1909.

76,059. REMEDY FOR STOMACH TROUBLES, INDIGESTION, AND BILIOUSNESS. AUGUST SCHMIDT, Norfolk, Nebr.
Filed August 27, 1908. Serial No. 36,992. PUBLISHED SEPTEMBER 21, 1909.

76,060. DIAPER-CLOTH. ALBERT D. SMITH, New York, N. Y.
Filed June 18, 1909. Serial No. 43,091. PUBLISHED OCTOBER 5, 1909.

76,061. PREPARATION FOR CLEANING AND RENEWING LEATHER AND SIMILAR GOODS. WHITTEMORE BROTHERS AND COMPANY, Cambridge, Mass.
Filed December 16, 1908. Serial No. 39,368. PUBLISHED SEPTEMBER 21, 1909.

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

COMMISSIONER'S DECISIONS.

IN RE IVES.

Decided November 22, 1909.

ASSIGNEE OF APPLICATION—BANKRUPT—TITLE OF TRUSTEE.

Where an application for patent is assigned and prior to the issuance of a patent thereon the assignee is declared a bankrupt, *Held* that the trustee in bankruptcy acquires no title to such application.

ON PETITION.

Mr. F. H. Stevens for the petitioner.

MOORE, *Commissioner:*

This is a petition by Howard R. Ives for access to certain applications filed by John S. Cantelo.

It appears that these applications were assigned by Cantelo to the Cantelo Manufacturing Company, such assignments being of the entire interest, with request that the patents issue to the assignee. According to the certificate of the clerk of the District Court of the United States for the District of Maine, which accompanies the petition, the Cantelo Manufacturing Company was declared a bankrupt and Howard R. Ives was appointed its trustee.

In the decision *in re McDonnell* (101 Fed. Rep., 239) it was held that where an inventor who had filed an application for patent was adjudged a bankrupt before the issuance of a patent on such application the interest of the bankrupt in such patent did not pass to the trustee in bankruptcy. This decision was based on the ground that the term "patents and patent rights" as used in section 70 of the Bankruptcy Act did not include pending applications for patents.

In the case of *in re Dann* (129 Fed. Rep., 495) the question certified to the court was:

> Can a bankrupt be compelled to assign to the receiver or to the trustee all his rights, title and interest in, to and under applications pending in the Patent Office for Letters Patent upon alleged inventions?

The court held that this question must be answered in the negative, citing with approval the decision *in re McDonnell, supra*, and also holding that such pending application could not be reached under the terms of section 70[a] (5) of the Bankruptcy Act as—

> property which prior to the filing of the petition he could by any means have transferred or which might have been levied upon or sold under judicial process against him.

In the former case the bankrupt was the applicant for patent; but it is not stated in the second case whether he was the applicant or an assignee, and neither the question certified nor the decision is limited to the case of an applicant for patent, nor is any reason seen for making a distinction between the case of an applicant and that of an assignee. If, as held in these decisions, the interest in a pending application does not under the terms of the Bankruptcy Act pass to the trustee, this is true whether the bankrupt was the owner of such pending application as the applicant or as an assignee.

It must therefore be held that the trustee in bankruptcy, Howard R. Ives, has no such title to the Cantelo applications as would justify granting his request for access to and copies thereof.

Whether he has such an interest in these applications as would justify his being allowed to inspect them can only be decided after a hearing upon a petition duly filed, with proof of service upon the owner of these applications, in accordance with the practice set out in the decisions in the cases of *in re Commercial Mica Company* (129 O. G., 479) and *in re Bullock Electric Manufacturing Company*, (129 O. G., 1611.)

The petition is denied.

EX PARTE COPELAND.

Decided October 25, 1909.

1. ABANDONMENT—FAILURE TO TAKE PROPER ACTION.

Where the Examiner rejected eight claims and just before the expiration of the year the applicant canceled four of these, amended one, pointed out wherein the other three avoided the references, and added two new claims without pointing out how these two were believed to distinguish over the prior art, *Held* that the application is abandoned.

2. SAME—SAME—LONG DELAYS.

Where an applicant relies upon his technical right to delay action as long as possible in each instance, he is entitled to no leniency in the application of the rule which provides that prosecution of an application to save it from abandonment must include such proper action as the condition of the case may require.

ON PETITION.

VEHICLE-BRAKE.

Mr. Gales P. Moore for the applicant.

BILLINGS, *Acting Commissioner:*

This is a petition from the action of the Examiner holding this case abandoned for lack of sufficient prosecution.

On December 4, 1906, the Examiner rejected eight claims, stating that the remaining claims appeared

to be allowable. On November 18, 1907, applicant presented an amendment directing the cancelation of four of these claims, amending one, pointing out wherein the three remaining claims were believed to be patentable over the references cited, and adding two new claims. On March 3, 1908, the Examiner held that as as no effort had been made to point out what patentable novelty the new claims were supposed to possess or how they avoided the references cited the communication of November 18, 1907, was not such action as the condition of the case required and that the application was therefore abandoned.

The action of the Examiner appears to have been an entirely proper one. He states in his letter of March 3, 1908, that the proposed new claims are much broader than any before presented, and the fact that these claims are broad claims is admitted by the applicant in his brief on this petition. Applicant now argues that he was not to be expected to present affidavits and sketches showing why he was entitled to these claims prior to their rejection by the Office. As, however, these claims were broader than claims before presented which had been rejected, it was clearly the duty of the applicant to show why these claims were allowable.

The facts in this case are almost identical with the case of *ex parte Richards*, (124 O. G., 2534.) In that case, after repeated actions on the part of the Office and the applicant, a claim was rejected for want of identity with the original invention. A few days before the expiration of the year within which the applicant could take action he presented an amendment directing the cancelation of the previously-rejected claim and substituting a claim therefor; but this claim was accompanied by no showing of why it was considered patentable further than the mere statement that—

applicant has amended claim 1 to cure the faults alluded to by the Examiner.

There, as here, the applicant argued that there were certain reasons why he was entitled to present this claim at that stage in the prosecution of the case. In answer to that contention the Commissioner said:

In this case a broadened claim is presented in the twenty-eighth action on the case, taken more than eight years after the case was filed. The invention is a simple one, the progress of the case has not been delayed by interference proceedings, and no new references have been cited for more than three years prior to the action in question. The applicant's reasons for presenting the new claim and for regarding it as allowable were capable of clear and brief statement, as is shown by the statement thereof in his brief upon this petition, and they would undoubtedly have been of considerable assistance to the Office in acting upon the case. But the applicant thinks that for the reasons given above he was exempt from the requirement of the rule for ordinary cases, and entitled to withhold his reasons for believing the new claim to be allowable until the Office had acted, and to extend the prosecution of the case another year before furnishing them, if he so desired. Clearly his position is without merit.

This statement is clearly applicable to the present case.

This application was filed in 1901, and its prosecution has apparently been delayed as much as possible, as the following statement of the dates of the rejections and amendments will show: Application filed February 4, 1901, rejected February 25, 1901; amended February 12, 1902, rejected March 11, 1902; amended February 28, 1903, rejected April 7, 1903; amended April 1, 1904, rejected May 20, 1904; amended May 20, 1905, rejected October 12, 1905; amended October 4, 1906, rejected December 4, 1906; proposed amendment filed November 18, 1907; letter holding the case abandoned March 3, 1908; letter requesting reconsideration of that holding March 1, 1909; holding of abandonment repeated April 13, 1909; petition to the Commissioner taken September 7, 1909. It is well settled that where an applicant relies upon his technical right to delay action as long as possible in each instance he is entitled to no leniency in the application of the rule which provides that prosecution of an application to save it from abandonment must include such proper action as the condition of the case may require. (*Ex parte Ries*, 113 O. G., 1147; *ex parte Naef*, 115 O. G., 2135.)

The petition is denied.

DECISIONS OF THE U. S. COURTS.

Court of Appeals of the District of Columbia.

MOORE *v.* UNITED STATES, *ex rel.* LINDMARK.

Decided November 2, 1909.

1. PATENT LEGISLATION — FUNCTION OF THE COMMISSIONER OF PATENTS.

"The Commissioner of Patents in passing upon applications or deciding controversies between rival applicants for patent of the same invention, exercises power that is essentially judicial. For that reason, Congress has the power to provide for a review of his decisions by appeal to the courts."

2. MANDAMUS.

The writ of mandamus cannot be used to perform the office of an appeal or writ of error or granted in any case where there is another adequate remedy..

3. SAME—FINAL ORDER—RIGHT OF APPEAL.

In an interference between F. and L. the decision of the Commissioner in favor of L. was reversed by the Court of Appeals of the District of Columbia. Thereafter L. filed with the Commissioner a petition that the interference be reopened for the purpose of taking further testimony. This petition was denied, but an order directing a patent to issue to F. was not entered. *Held* that mandamus would not lie to compel the Commissioner to reopen the case, since upon the entry of such final order L. would have the right of appeal to the court of appeals.

Mr. Webster S. Ruckman for the Commissioner of Patents.

Mr. George R. Hamlin, Mr. Frank S. Busser, and *Mr. George J. Harding* for the appellee.

SHEPARD, *C. J.*:

This is an appeal by the Commissioner of Patents from an order directing a writ of mandamus to issue commanding him to vacate a decision rendered in an interference proceeding in the Patent Office.

It is unnecessary to recite the allegations of the petition and return as there is no dispute concerning the facts which are matters of record.

Relator, Lindmark, filed an application for a patent for an exhaust-heater for compound motors on January 19, 1903. October 31, 1903, one de Ferranti filed an application for patent for an improvement in steam-turbines and on March 9, 1905, filed another application as a division of the first. Pending this rival application and without declaration of interference between the two, a patent was issued to Lindmark, November 1, 1904. On August 8, 1905, an interference was declared between the divisional application of de Ferranti and the patent to Lindmark. Lindmark's preliminary statement alleged that he had filed an application in Sweden for a patent on June 18, 1902, and had disclosed his invention to others in the United States on or about October 15, 1902. The statement of de Ferranti alleged, among other things, that he had applied for a patent in Great Britain on November 11, 1902.

Rule 114, of the Patent Office, provides that if a preliminary statement of the junior party in interference fails to overcome the *prima facie* case made by the respective dates of the applications, the party will be notified by the Examiner of Interferences that judgment will be entered against him on the record. The Examiner gave no such notice in this case but issued notice on March 2, 1906, to take testimony. On the same day the parties stipulated that they should have until May 1, 1906, to enter motions to dissolve—

or any other motions they may desire to make and that in the meantime all proceedings herein shall be stayed.

The Office then entered an order that no testimony be taken before May 1; that de Ferranti's testimony-in-chief closed July 2; that Lindmark's closed September 4; that de Ferranti's rebuttal closed September 19; and that final hearing be had on November 19, 1906. March 23, 1906, Lindmark moved for a judgment of priority on the record dates of Lindmark, and the allegations of de Ferranti's statements.

It seems that the Examiner of Interferences required a stipulation as to certain facts before passing on this motion. The following stipulations were then signed by the parties and filed:

It is hereby stipulated and agreed by and between the respective parties to the above-entitled interference that the parties de Ferranti and Lindmark are the same parties, de Ferranti and Lindmark, who filed the applications for foreign patents specified in the oaths attached to their respective United States applications, and in their preliminary statements, and that de Ferranti and Lindmark, named herein, are the same de Ferranti and Lindmark named in interference No. 25,459.

The Examiner of Interferences held that neither party was entitled to the filing date of his foreign application, under the provision of the act of Congress, approved March 3, 1903; and inasmuch as Lindmark was the first to file his application in the United States, he awarded priority to him on the motion aforesaid.

This decision was affirmed in succession on de Ferranti's appeal by the Examiners-in-Chief and the Commissioner. On appeal to the court of appeals, by de Ferranti, the decision of the Commissioner was reversed. The court of appeals was of the opinion that the act of March 3, 1903, had no retroactive effect so as to authorize Lindmark to claim the benefits of his foreign application in support of his United States application filed before the statute was enacted. Therefore, as de Ferranti had filed since the enactment, he was entitled to the benefits of the date of his foreign application, which was prior to the United States application of Lindmark. (*De Ferranti v. Lindmark*, 30 App. D. C., 417, decided February 11, 1908.)

On March 5, 1908, after the filing of the mandate, in the said case, Lindmark filed a motion to the effect that the motion having been decided adversely to him, the Examiner of Interferences shall set times for taking testimony in the interference proceedings. This motion was denied on March 12, 1908, by the Examiner of Interferences, whose conclusion was that the decision of the court of appeals was upon the merits, and final, and the Patent Office was without authority to reopen the case for further evidence. An appeal from this decision was taken to the Commissioner, Lindmark contending that the decision of the court of appeals was—

not that de Ferranti was the first inventor but simply that he had the right to tie his United States application to his British application under the statute of March 3, 1903.

The Commissioner in a decision reciting the history of the case, showing the order and agreements for taking testimony, the presentation of the motion for judgment in the record, the stipulation of the parties thereon, and the various orders and decisions therein, concluded that the effect of the decision of the court of appeals was a final declaration of priority in favor of de Ferranti and deprived the Office of power to reopen the case for a presentation of further evidence. Hence, the decision appealed from was affirmed. Thereafter, in May, 1908, Lindmark filed a petition in the court of appeals praying that court to instruct the Commissioner that its judgment was not a final judgment awarding priority to de Ferranti and that he allow petitioner to proceed with the taking of testimony to establish his right of priority over de Ferranti. The petition was dismissed on June 2, 1908, on the ground that said court had no original jurisdiction to direct and supervise the administration of the Patent Office. (32 App. D. C., 6.)

Thereafter, Lindmark filed a petition with the Commissioner in the nature of a petition for rehearing, asking him to vacate his former order denying the right to take testimony. This was dismissed October 3, 1908. No further proceeding appears to have been prosecuted in the Office and there is no record of any further order in an interference case.

November 14, 1908, this petition was filed in the Supreme court of the District, praying a writ of mandamus to compel the Commissioner to vacate his said orders and to issue a notice to the parties fixing times for the taking of testimony and for a final hearing in the interference proceeding.

This petition, and the return of the Commissioner thereunto, disclose the facts hereinbefore recited. The plaintiff moved for an order issuing the writ notwithstanding the return.

On the record, the court granted the motion and entered a judgment directing the writ to issue. From that order the Commissioner of Patents has prosecuted this appeal.

The Commissioner of Patents in passing upon applications or deciding controversies between rival applicants for patent of the same invention, exercises power that is essentially judicial. For that reason, Congress has the power to provide for a review of his decisions by appeal to the courts. (*U. S.* v. *Duell*, 172 U. S., 576.) And in the exercise of that power an appeal has been given to this court from his order finally rejecting an application for a patent and from his final orders in interference proceedings.

When the decision of the Commissioner, in favor of Lindmark, was reversed by this court and certified to him, he construed it to be a final determination of the controversy between the parties and in fact an award of priority to de Ferranti. The contention of Lindmark that the decision was merely on the merits of his motion for judgment was overruled, and his motion to set a time for taking testimony on other issues in the case, and for a final hearing thereon, was consequently denied.

Nothing is better settled than that the writ of mandamus cannot be used to perform the office of an appeal or writ of error, or granted in any case where there is another adequate remedy. (*U. S.* v. *Duell*, 172 U. S., 576, 586; *in re Key*, 189 U. S., 84; *ex parte Newman*, 14 Wall., 152, 165; *Seymour* v. *U. S., ex rel. South Carolina*, 2 App. D. C., 240, 245; *Seymour* v. *U. S., ex rel. Brodie*, 10 App. D. C., 567, 569.)

In *ex parte Newman, supra*, the circuit court had reversed a decree of the district court sustaining a libel for wages due certain foreign seamen, and dismissed all libel for want of jurisdiction. The amount involved was not sufficient to authorize an appeal to the Supreme Court, and the libellants filed a petition for a mandamus in that court. In an opinion denying the writ, Mr. Justice Clifford said, (pp. 165–169:)

> Applications for a mandamus to a subordinate court are warranted by the principles and usages of law, in cases where the subordinate court having jurisdiction of a case, refuses to hear and decide the controversy, or where such a court, having heard the cause, refuses to render judgment or enter a decree in the case, but the principles and usages of law do not warrant the use of the writ to reëxamine a judgment or a decree of a subordinate court in any case, nor will a writ be issued to direct what judgment or decree, such a court shall render in any pending case, nor will the writ be issued in any case, if the party aggrieved may have a remedy by writ of error or appeal, as the only office of the writ when issued to a subordinate court as to direct the performance of a ministerial act, or to command the court to act in a case where the court has jurisdiction and refuses to act, but the supervisory court will never prescribe what the decision of the subordinate court shall be nor will the supervisory court interfere in any way to control the judgment or discretion of the subordinate court in disposing of the controversy. Superior courts may by mandamus command an inferior court to perform a legal duty where there is no other remedy and the rule applies to judicial as well as to ministerial acts but it does not apply at all to a judicial act to correct an error as where the act has been erroneously performed. If the duty is unperformed, and it be judicial in its character, the mandate will be to the judge, directing him to exercise his judicial discretion or judgment, without any direction as to the manner in which it shall be done or if it be ministerial the mandamus will direct the specific act to be performed.

In this case the Commissioner did not refuse to entertain the motion. He gave the party a hearing and then rendered his decision denying the motion. But the interference was not then finally disposed of. No order was entered denying the application of Lindmark and directing patent to issue to de Ferranti. All that remained to be done by the Commissioner to give effect to the conclusion expressed in his decision on the motion was to render such a final order or decision. Had this been done, Lindmark would have had a right of appeal to this court, in which the action of the Commissioner in the premises could be reviewed. But he did not wait for the entry of the final order and seeks to review the action of the Commissioner on his motion through this proceeding by mandamus. He should have awaited that order, which has apparently been postponed by this proceeding, and then appealed. (*Conn. Mut. Life Ins. Co.*, petitioner, 131 *U. S.*, Appendix clxxx. The case is directly in point. The court below had refused leave to the petitioner to file a petition in a pending suit to compel the master to show cause why he should not be ordered to make a certain deed in accordance with the sale that had been made by him under the order entered in that suit. He applied for a writ of mandamus to compel the execution of the deed. In denying the petition, Chief Justice Waite said:

> From the whole case, as presented by the parties, we infer that the court below as constituted when the application was made thought the deed ought not to be executed, and it is possible the order now complained of may be the equivalent of a final decree in the cause to that effect, from which an appeal to this Court may be taken. But whether that be so or not, we will presume the court below will not hesitate, on a proper application, to put the record in a shape to enable us to pass on that question in the ordinary course of proceeding to obtain our review. Mandamus can only be resorted to when other remedies fail. It is an extraordinary writ and should only be used on extraordinary occasions. Here the parties have ample remedy by appeal if they put their case in a condition for such a form of proceeding. As the relator presents his case, on this application, he must avail himself of that remedy. We cannot under the facts he states expedite the determination of his cause by mandamus.

It has been urged on behalf of the appellant that the relator has another complete remedy in the case. Having a patent, it is said, he could attach a patent to de Ferranti by virtue of the provisions of section 4918, Revised Statutes. The conclusion reached renders a decision of this point unnecessary, though it may be doubted if this is such an adequate remedy as would prevent relief by mandamus in a case where otherwise the party might show himself entitled to it.

In view of the disposition to be made of this case, it would be improper to express or intimate an opinion in respect of the finality and conclusiveness of the decision of this court in the appeal in the case of *de Ferranti* v. *Lindmark*, (30 App. D. C., 417.)

It is proper to say, however, that the dismissal of the petition for a construction of the decision, entered in that case, was not intended as a determination of the question involved. The time had then elapsed within which a motion for rehearing, or to amend the order, could be entertained and the mandate had been issued and delivered to the Commissioner. All that was decided on that petition was as disclosed in the brief opinion delivered by Mr. Justice Van Orsdel—

> that this court has no original jurisdiction to direct and supervise the administration of the affairs in the Patent Office. The allowance of this petition and the issuance of the order, such as prayed for therein, would be an assumption of power such as this court does not possess. (32 App. D. C., 6.)

For the reason given, the judgment will be reversed, with costs, and the cause remanded with direction to dismiss the petition.

ADJUDICATED PATENTS.

The Selden patent, No. 549,160, for a road-locomotive, claims 1, 2, and 5 *Held* valid and infringed. *Electric Vehicle Co.* v. *C. A. Duerr & Co.*, (C. C.,) 172 Fed. Rep., 923.

Modified Order Relating to Executors and Administrators.

(ORDER NO. 1,827.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 22, 1909.

Order No. 1,792, dated January 20, 1909, published in volume 138 of the OFFICIAL GAZETTE, page 970, is modified by directing that whenever the right of applying for and obtaining a patent for an invention devolves upon an executor or administrator of a deceased inventor, or when the executor or administrator intervenes in the prosecution of an application, the proof of authority of such executor or administrator referred to in said order shall in all cases be recorded in the assignment records of this Office. A reference to this record should be placed in each application involved. This order will apply also to cases arising under section 4896, Revised Statutes.

(Signed) C. C. BILLINGS,
Acting Commissioner.

Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., December 1, 1909.

Davidson & Knowles Company, its assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The Warren Paint Company, of Warren, Ohio, for registration of a trade-mark and trade-marks registered to C. A. Reeve & Company, of 251–252 West Fayette street, Syracuse, N. Y., and Davidson & Knowles Company, of 51 Barclay street, New York, N. Y., respectively, and the notice of said declaration sent by the Patent Office by registered mail to the said Davidson & Knowles Company having been returned by the Post-Office Department, notice is hereby given to the said Davidson & Knowles Company, its assigns or legal representatives, that if they or any of them desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents in order that the notice of declaration heretofore sent by and returned to the Office may be forwarded to them.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall be entered at the expiration of the period of publication, the interference will be proceeded with as in case of default.

EDWARD B. MOORE, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., November 23, 1909.

Tourist Cycle Company, its assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Melvin J. Foyer, of Toledo, Ohio, for registration of a trade-mark and trade-marks registered to the Tourist Cycle Company, of Syracuse, N. Y., and George R. Bidwell Cycle Company, of New York, N. Y., respectively, and the notice of said declaration sent by the Patent Office by registered mail to the said Tourist Cycle Company having been delivered to Roy Porter as agent for E. C. Stearns, and neither of these names appearing of record in the Tourist Cycle Company's registration, and no evidence having been furnished, within a time allowed by the Office for that purpose, that E. C. Stearns and Roy Porter are authorized to accept service for this company, notice is hereby given that if the said Tourist Cycle Company, its assigns or legal representatives, desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents in order that the notice of declaration heretofore sent by and returned to the Office may be forwarded to them.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall be entered at the expiration of the period of publication, the interference will be proceeded with as in case of default.

EDWARD B. MOORE, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., November 22, 1909.

Percy Warren Noble, his assigns or legal representatives, take notice:

An interference having been declared by this Office between a patent granted to Percy Warren Noble, of New York, N. Y., on March 24, 1908, No. 883,146, application for which was filed November 23, 1907, No. 403,493, for bearing for supporting radiators in automobile-frames, and applications for patents filed by James E. Woodbridge, of Bridgehampton, N. Y., and Giovanni Enrico, of Turin, Italy, respectively, and the notice of said declaration sent by the Patent Office by registered mail to the said Percy Warren Noble at New York, N. Y., having been returned by the Post-Office Department, notice is hereby given to the said Percy Warren Noble, his assigns or legal representatives, that if they or any of them desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents in order that the notice of declaration heretofore sent by and returned to the Office may be forwarded to them.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall be entered at the expiration of the period of publication, the interference will be proceeded with as in case of default.

E. B. MOORE, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., November 17, 1909.

Edward M. Wilcox and William Jay Hopkins, their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Orville Simpson, of 1956 West Sixth street, Cincinnati, Ohio, for registration of a trade-mark and a trade-mark registered to Edward M. Wilcox and William Jay Hopkins, of Whitewater, Wis., and the notice of said declaration sent by the Patent Office by registered mail to the said Edward M. Wilcox and William Jay Hopkins having been returned undelivered, notice is hereby given to said Edward M. Wilcox and William Jay Hopkins, their assigns or legal representatives, that if they or any of them desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents in order that the notice of declaration heretofore sent by and returned to the Office may be forwarded to them.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall be entered at the expiration of the period of publication, the interference will be proceeded with as in case of default.

EDWARD B. MOORE, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., November 12, 1909.

Harry H. Schuster, his assigns or legal representatives, take notice:

An interference having been declared by this Office between an application for patent filed by Charles H. J. Dilg and Jonathan O. Fowler and a patent granted to Harry H. Schuster and David Maier as joint inventors, and the notice of said declaration sent by registered mail by the Patent Office to said Harry H. Schuster, one of the joint patentees, having been returned by the Post-Office Department, notice is hereby given to said Harry H. Schuster, his assigns or legal representatives, that if they or any of them desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents in order that the notice of declaration heretofore sent by and returned to the Office may be forwarded to them.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall be entered at the expiration of the period of publication, the interference will be proceeded with as in case of default.

EDWARD B. MOORE, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., November 10, 1909.

Johannes Dönitz, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Reginald A. Fessenden, of Brant Rock, Mass., for patent on an electrical measuring instrument and the patent granted to Johannes Dönitz, of Berlin, Germany, on June 21, 1904, No. 763,164, and the notice of said declaration sent by the Patent Office by registered mail to the said Johannes Dönitz having been returned undelivered, notice is hereby given to the said Johannes Dönitz, his assigns or legal representatives, that if they or any of them desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents in order that the notice of declaration heretofore sent by and returned to the Office may be forwarded to them.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall be entered at the expiration of the period of publication, the interference will be proceeded with as in case of default.

EDWARD B. MOORE, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., November 4, 1909.

The Wolff Chemical Company, its assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Edna S. Frisbie, of Crystal Lake, Ill., for registration of a trade-mark and a trade-mark registered to The Wolff Chemical Company, of 145 North Fourth street, Philadelphia, Pa., and the notice of said declaration sent by the Patent Office by registered mail to The Wolff Chemical Company having been delivered to Leatherford Company and said Leatherford Company having failed to comply with the requirement of the Office letter of September 11, 1909, to either call attention to an assignment from The Wolff Chemical Company of record in the Office prior to the declaration of the interference or to file an application for registration, notice is hereby given The Wolff Chemical Company, its assigns or legal representatives, that if they or any of them desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents in order that the notice of declaration may be sent to them.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall be entered at the expiration of the period of publication, the interference will be proceeded with as in case of default.

EDWARD B. MOORE, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 30, 1909.

William McGlaughlin, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The Crystalene Mfg. Company, of 3100 Archwood avenue, Cleveland, Ohio, for registration of a trade-mark and trade-marks registered to William McGlaughlin, of Sharpsburg, Pa., and the Crystal Tablet Company, of Rochester, N. Y., and the notice of said declaration sent by registered mail to the said William McGlaughlin having been returned undelivered, notice is hereby given to the said William McGlaughlin, his assigns or legal representatives, that if they or any of them desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall have been entered at the expiration of the period of publication, the interference will proceed as in case of default.

C. C. BILLINGS, *Acting Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 30, 1909.

Crystal Tablet Company, its assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The Crystalene Mfg. Company, of 3100 Archwood avenue, Cleveland, Ohio, for registration of a trade-mark and trade-marks registered to William McGlaughlin, of Sharpsburg, Pa., and the Crystal Tablet Company, of Rochester, N. Y., and the notice of said declaration sent by registered mail to the said Crystal Tablet Company having been returned undelivered, notice is hereby given to the said Crystal Tablet Company, its assigns or legal representatives, that if they or any of them desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall have been entered at the expiration of the period of publication, the interference will proceed as in case of default.

C. C. BILLINGS, *Acting Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 25, 1909.

J. A. Meierdiercks and Sons, their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of L. Pickert Fish Company, of Boston, Mass., for registration of a trade-mark and a trade-mark registered to Yzermans & Company, of Vlaardingen, Netherlands, and also a trade-mark registered to J. A. Meierdiercks and Sons, of 710 Water street and 36 Harrison street, New York, N. Y., and the notice of said declaration sent by the Patent Office by registered mail to the said J. A. Meierdiercks and Sons having been returned by the Post-Office Department, notice is hereby given to the said J. A. Meierdiercks and Sons, their assigns or legal representatives, that if they or any of them desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents in order that the notice of declaration heretofore sent by and returned to the Office may be forwarded to them.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall be entered at the expiration of the period of publication, the interference will be proceeded with as in case of default.

C. C. BILLINGS, *Acting Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 23, 1909.

James K. Neagley, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of G. H. Mullen, of Guyandotte, W. Va., for registration of a trade-mark and trade-marks registered to George W. Prangle, of 555 Broadway, Council Bluffs, Iowa, and James K. Neagley, of Wilkes-Barre, Pa., and the notice of said declaration sent by the Patent Office by registered mail to the said James K. Neagley having been returned by the Post-Office Department, notice is hereby given to the said James K. Neagley, his assigns or legal representatives, that if they or any of them desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents in order that the notice of declaration heretofore sent by and returned to the Office may be forwarded to them.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall be entered at the expiration of the period of publication, the interference will be proceeded with as in case of default.

C. C. BILLINGS, *Acting Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 23, 1909.

George W. Prangle, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of G. H. Mullen, of Guyandotte, W. Va., for registration of a trade-mark and trade-marks registered to George W. Prangle, of 555 Broadway, Council Bluffs, Iowa, and James K. Neagley, of Wilkes-Barre, Pa., and the notice of said declaration sent by the Patent Office by registered mail to the said George W. Prangle having been delivered to Mrs. G. W. Prangle, and the attorney of record for said George W. Prangle having advised the Office that said Prangle is deceased and that his widow does not desire to take further account of this matter, notice is hereby given to the said George W. Prangle, his assigns or legal representatives, that if they or any of them desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents in order that the notice of declaration of this interference may be forwarded to them.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall be entered at the expiration of the period of publication, the interference will be proceeded with as in case of default.

C. C. BILLINGS, *Acting Commissioner.*

THE
OFFICIAL GAZETTE
OF THE
United States Patent Office.

[*BY AUTHORITY OF CONGRESS.*]

VOL. 149—No. 2. TUESDAY, DECEMBER 14, 1909. PRICE—$5 per year.

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ISSUE OF DECEMBER 14, 1909.

Patents	765	No. 942,876 to No. 943,640 inclusive.
Designs	14	No. 40,392 to No. 40,405, inclusive.
Trade-Marks	72	No. 76,062 to No. 76,133, inclusive.
Labels	1	No. 15,071.
Prints	1	No. 2,556.
Reissues	3	No. 13,055 to No. 13,057, inclusive.
Total	856	

TO CITIZENS OF THE UNITED STATES.

States.	Patents and Designs.	Trade-Marks, Labels, and Prints.	States.	Patents and Designs.	Trade-Marks, Labels, and Prints.
Alabama	4	.....	Ohio	72	9
Arkansas	2	.....	Oklahoma	7	1
California	19	5	Oregon	11	.....
Colorado	6	.....	Pennsylvania	77	2
Connecticut	26	1	Rhode Island	4	.....
Delaware	.....	.....	South Carolina	2	1
Florida	1	.....	South Dakota	1	.....
Georgia	3	.....	Tennessee	4	.....
Idaho	1	.....	Texas	15	1
Illinois	66	5	Utah	5	.....
Indiana	17	4	Vermont	.....	.....
Iowa	19	.....	Virginia	4	.....
Kansas	10	4	Washington	13	.....
Kentucky	3	1	West Virginia	4	.....
Louisiana	2	.....	Wisconsin	8	1
Maine	5	.....	Wyoming	.....	.....
Maryland	7	2			
Massachusetts	42	8	Alaska, District of	.....	.....
Michigan	22	3	Arizona Territory	1	1
Minnesota	11	1	District of Columbia	10	.....
Mississippi	2	.....	Hawaii Territory	1	.....
Missouri	26	3	New Mexico Ter't'y	.....	.....
Montana	2	.....	Panama	.....	.....
Nebraska	6	.....	Philippine Islands	.....	.....
Nevada	1	.....	U. S. Army	.....	.....
New Hampshire	2	.....	U. S. Navy	.....	.....
New Jersey	38	5			
New York	92	11	Total to citizens of the United States	671	68
North Carolina	5	.....			
North Dakota	3	.....			

TO CITIZENS OF FOREIGN COUNTRIES.

Countries.	Patents and Designs.	Trade-Marks.	Countries.	Patents and Designs.	Trade-Marks.
Argentina	.....	1	Natal	.....	.....
Austria-Hungary	1	.....	Netherlands	1	.....
Belgium	.....	.....	Newfoundland	.....	.....
Brazil	.....	.....	New South Wales	.....	.....
British West Indies	.....	.....	New Zealand	.....	.....
Canada	5	1	Norway	.....	.....
Cape Colony	.....	.....	Persia	.....	.....
Chile	.....	.....	Queensland	.....	.....
China	.....	.....	Russia	.....	.....
Costa Rica	.....	.....	Scotland	2	.....
Cuba	.....	.....	South Australia	.....	.....
Denmark	.....	.....	Spain	2	.....
Ecuador	.....	.....	Sweden	4	.....
England	27	2	Switzerland	4	.....
France	9	1	Tasmania	.....	.....
Germany	37	1	Transvaal, South Africa	.....	.....
Haiti	.....	.....	Victoria	.....	.....
Ireland	1	.....	Western Australia	.....	.....
Italy	2	.....			
Japan	.....	.....	Total to citizens of foreign countries	94	6
Java	.....	.....			
Mexico	.....	.....			

Modified Order Relating to Executors and Administrators.

(ORDER No. 1,827.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 22, 1909.

Order No. 1,792, dated January 20, 1909, published in volume 138 of the OFFICIAL GAZETTE, page 970, is modified by directing that whenever the right of applying for and obtaining a patent for an invention devolves upon an executor or administrator of a deceased inventor, or when the executor or administrator intervenes in the prosecution of an application, the proof of authority of such executor or administrator referred to in said order shall in all cases be recorded in the assignment records of this Office. A reference to this record should be placed in each application involved. This order will apply also to cases arising under section 4896, Revised Statutes.

(Signed) C. C. BILLINGS.
Acting Commissioner.

Access to Pending Applications.

Hereafter no person except the applicant, the assignee whose assignment is of record, or the attorney of record will be permitted to have access to the file of any application, except as provided for under the interference rules, unless written authority from the applicant, assignee, or attorney, identifying the application to be inspected, is filed in the case to become a part of the record thereof, or upon the written order of the Commissioner, which will also become a part of the record of the case.

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business December 7, 1909.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended	No. of applications awaiting action.
313	1. Fences; Harrows and Diggers; Plows; Seeders and Planters; Trees, Plants, and Flowers.	Oct. 13	Nov. 2	425
128	2. Aeronautics; Bee Culture; Dairy; Label-Affixers; Paper Files and Binders; Pneumatic Despatch; Pneumatics; Presses; Store-Service; Tobacco.	July 1	Aug. 6	770
175	3. Annealing and Tempering; Coating with Metal; Electrochemistry; Metal-Founding; Metallurgy; Shaping Fluid Metal.	Nov. 8	Nov. 24	139
232	4. Bridges; Conveyers; Cranes and Derricks; Excavating; Hoisting; Hydraulic Engineering; Loading and Unloading; Metallic Building Structures.	Aug. 20	Oct. 29	677
167	5. Bookbinding; Harvesters; Jewelry; Music.	Sept. 11	Sept. 17	559
318	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Medicines; Preserving; Sugar and Salt.	Sept. 23	Oct. 8	348
312	7. Educational Appliances; Clutches; Games and Toys; Mechanical Motors; Nut and Bolt Locks; Optics; Velocipedes.	Oct. 20	Nov. 13	455
131	8. Beds; Chairs; Furniture; Kitchen and Table Articles; Store Furniture.	Aug. 14	Nov. 4	432
142	9. Air and Gas Pumps; Fire-Extinguishers; Hydraulic Motors; Pumps; Sewerage; Wind-Wheels.	Aug. 2	Nov. 15	413
332	10. Carriages and Wagons	Oct. 4	Oct. 22	579
154	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus.	Oct. 21	Oct. 6	317
324	12. Elevators; Journal-Boxes, Pulleys, and Shafting; Lubrication; Machine Elements.	Oct. 27	Oct. 30	475
329	13. Arms, Projectiles, and Explosive Charges, Making; Metal-Working, Etc.	Aug. 6	Nov. 4	480
307	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Metal-Ornamenting; Sheet-Metal Ware, Making; Tools; Wire-Working.	Sept. 7	Nov. 8	429
308	15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Sheets and Fabrics; Liquid Coating Compositions; Paper-Making; Plastic Block and Earthenware Apparatus; Plastic Compositions; Plastics.	Sept. 17	Nov. 26	540
109	16. Telegraphy; Telephony	Aug. 4	Oct. 9	206
303	17. Linotyping; Matrix-Making; Paper Manufactures; Printing.	Oct. 15	Nov. 12	226
327	18. Injectors and Ejectors; Steam and Vacuum Pumps; Steam-Boilers; Steam-Engines; Steam-Engine Valves.	Oct. 8	Sept. 20	328
236	19. Dampers, Automatic; Furnaces; Heat-Distributing Systems; Stoves and Furnaces.	Oct. 5	Sept. 25	341
179	20. Artificial Limbs; Builders' Hardware; Dentistry; Locks and Latches; Safes; Undertaking.	Oct. 12	Oct. 9	266
112	21. Brakes and Gins; Carding; Cloth-Finishing; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving.	Aug. 23	Nov. 2	474
249	22. Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Firearms; Marine Propulsion; Ordnance; Railway-Rails and Joints; Railway-Ties and Fasteners; Ships.	Aug. 19	Oct. 25	299
379	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Time-Controlling Mechanism.	Oct. 7	Oct. 19	418

Applications Under Examination—Continued.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended	No. of applications awaiting action.
144	24. Apparel; Apparel Apparatus; Electricity, Medical and Surgical; Sewing-Machines; Surgery.	Nov. 5	Nov. 8	410
315	25. Butchering; Mills; Threshing; Vegetable Cutters and Crushers.	Nov. 12	Nov. 15	215
106	26. Electric Heating and Rheostats; Electric Railways; Electricity, Generation; Motive Power.	July 8	Oct. 11	707
372	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus.	Oct. 26	Oct. 22	366
382	28. Internal-Combustion Engines; Miscellaneous Heat-Engine Plants.	Oct. 16	Oct. 28	353
147	29. Coopering; Fire-Escapes; Ladders; Roofs; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking-Tools.	Aug. 26	Oct. 21	485
152	30. Fluid-Pressure Regulators; Illuminating-Burners; Liquid and Gaseous Fuel Burners; Type-Writing Machines.	Oct. 2	Nov. 11	286
172	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue; Water Purification.	Sept. 27	Nov. 11	242
278	32. Carbonating Beverages; Dispensing Beverages; Dispensing-Cans; Fine Arts; Packaging Liquids; Refrigeration.	Oct. 11	Nov. 10	219
164	33. Cutlery; Domestic Cooking Vessels; Electric Signaling; Masonry and Concrete Structures; Paving; Tents, Canopies, Umbrellas, and Canes.	Sept. 15	Oct. 14	467
304	34. Railways; Railway-Brakes; Railway Rolling-Stock.	Oct. 25	Nov. 19	189
244	35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Garment-Supporters; Toilet.	Oct. 6	Oct. 30	722
264	36. Curtains, Shades, and Screens; Drafting; Driers; Engraving; Measuring Instruments; Photography.	Aug. 13	Sept. 1	872
107	37. Electric Lighting; Electricity, Conductors; Electricity, General Applications.	Aug. 17	Sept. 11	665
378	38. Artesian and Oil Wells; Bottles and Jars; Care of Live Stock; Fishing and Trapping; Stationery; Stone-Working.	Aug. 19	Oct. 19	826
321	39. Baths and Closets; Water Distribution.	July 17	Oct. 19	651
280	40. Baggage; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Lighting-Fixtures; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	July 9	Nov. 10	703
125	41. Railway Draft Appliances; Resilient Tires and Wheels.	July 12	Oct. 18	620
279	42. Railway Signaling; Signals	July 31	Nov. 20	204

Oldest new case, July 1; oldest amended, Aug. 6.

Total number of applications awaiting action..... 18,817

161	TRADE-MARKS AND DESIGNS: Trade-Marks	Nov. 6	Nov. 27	556
	Designs	Nov. 8	Dec. 2	87

Trade-Marks.

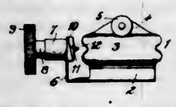
The publication of trade-marks under the act of February 20, 1905, in the OFFICIAL GAZETTE, commenced May 2, 1905, and will appear in each weekly number of the GAZETTE thereafter.

Extra copies of the trade-mark portion of the GAZETTE, which will be sold separately, may be obtained single or in quantities for five cents each. Coupons will be taken in payment thereof.

PATENTS

GRANTED DECEMBER 14, 1909.

942,876. CUE-TIP TRIMMER. PERCY ANSELL, Washington, D. C. Filed Mar. 8, 1909. Serial No. 482,093.



1. A device of the kind described comprising a holder bent from a single piece of spring steel, said holder comprising a longitudinal split sleeve to receive a cue, means for clamping the split edges of the sleeve together, an angled arm, a sleeve carried by said arm in alinement with the first mentioned sleeve, and means rotatably mounted in the last mentioned sleeve for operating upon parts held in the first mentioned sleeve.

2. A holder of the kind described struck from a single piece of spring metal, said holder comprising a hollow base, a longitudinal split sleeve mounted above and parallel to said base, upwardly extending flanges carried by the sleeve, a set screw working through said flanges and drawing them toward or away from each other, an angled arm extending from one end of the base, and a sleeve carried by said arm in alinement with the first mentioned sleeve.

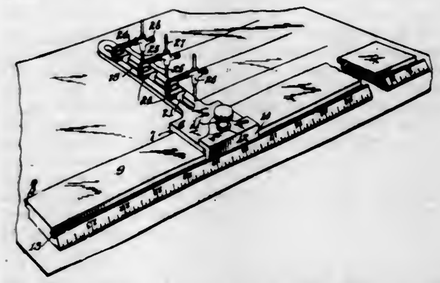
3. A device of the kind described comprising a holder consisting of a hollow base, a longitudinally split spring metal sleeve carried by and parallel to the base, means for clamping the edges of the sleeve together, an arm extending from the base, a sleeve carried by the arm and in alinement with the first mentioned sleeve, a shaft rotatably and slidably mounted in said sleeve, a milled head carried by the outer end of the shaft, and a cutter carried by the inner end of the shaft.

4. A device of the kind described comprising a base, a longitudinally split spring metal sleeve integrally connected with said base, upwardly extending flanges carried by the sleeve, a set screw working through said flanges, an angled arm extending from one end of the base, a sleeve carried by said arm and in alinement with the first mentioned sleeve, a smooth shaft loosely mounted in said second mentioned sleeve, a milled head carried by the outer end of said shaft, and a cutter carried by the inner end of the shaft, as and for the purpose set forth.

942,877. RULING DEVICE. EDWARD A. AUERBACH, New York, N. Y. Filed Feb. 18, 1909. Serial No. 478,569.

1. The combination with a rule of a support slidable along the rule and having a transverse slotted arm, a plurality of marking devices each comprising a block having a tongue projecting into the slot of the arm whereby the block can be moved along the arm, a clamping screw tapped into said tongue to clamp the block in adjusted positions, an arm pivoted on the upper portion of the block and extending transversely to the slotted arm, said arm having means for carrying a marker, and a spring between the arm and the block for pressing the arm downward to cause the marker to engage the surface upon which the rule is placed.

2. The combination with a rule, of a support slidable along the rule and having a transverse slotted arm, a marking device slidable along said arm, means for clamping the marking device in adjusted positions on the arm, and a clamping member carried by the marking device having a pair of opposed walls, and means for pressing the walls together to clamp a pair of markers therebetween.



3. The combination with a rule, of a support slidable along the rule and having a transverse slotted arm, a plurality of marking devices each comprising a block slidable along the arm, a clamping screw in each block arranged to clamp the block in adjusted positions, an arm pivoted on the block and extending transversely to the slotted arm, said arm having means for carrying a marker, and a spring between the arm and the block for pressing the arm downward to cause the marker to engage the surface upon which the rule is placed.

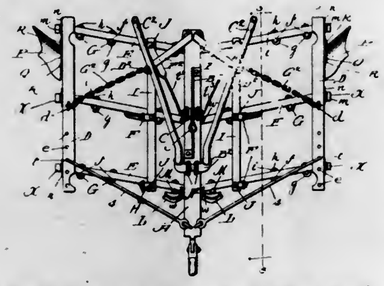
942,878. ANIMAL-TRAP. NELSON E. AUSTIN, Danbury, Conn. Filed Mar. 2, 1909. Serial No. 480,910.



1. An animal trap, comprising a base, an open mesh wire cage having an inlet at its top, an open mesh wire floor within said cage at a plane above the lower edge thereof, clips carried by said floor and depending therefrom, said clips receiving and engaging said lower edge of the cage whereby said floor is removably related to said cage, and means for securing said cage to said base, said means comprising hooked levers pivoted to said base and adapted to engage in the wire mesh, at the sides of said cage.

2. An animal trap, comprising a base, an open mesh wire cage seated upon said base, a removable floor within said cage, said floor being disposed in a plane above the lower edge of said cage, a plurality of U-shaped clips carried by said floor, one leg of each of said U-shaped clips being secured to the periphery of said floor, the other leg of each of said U-shaped clips formed at its free end with a beveled hook, the lower edge of said cage being received between the legs of the U-shaped clips, said beveled hooks impinging the outer sides of said cage.

942,879. HARROW. JOHAN C. BAUMGARTEN, Schulenburg, Tex. Filed July 23, 1909. Serial No. 509,216.



1. In a harrow, the combination with a frame comprising a longitudinal central bar, and handle bars fixed on said longitudinal central bar and having hooks, of a lever mounted on the longitudinal central bar of the frame, means for adjustably fixing the lever with respect to the frame, side bars each having a longitudinal row of apertures, rods loosely connected with the longitudinal central bar of the frame and having terminal portions positioned to enter the apertures of the side bars, transverse bars arranged at opposite sides of the longitudinal central bar and between the same and the side bars, teeth carried by said transverse bars, other teeth carried by the transverse bars and arranged in longitudinal rows at opposite sides of the longitudinal central bar, longitudinal bars connecting the teeth in said rows and disposed at opposite sides of the longitudinal central bar, bars connecting the said longitudinal bars with the lever, shafts journaled in the longitudinal central bar of the frame, shafts journaled in the side bars, knuckles interposed between the inner ends of the transverse bars and the longitudinal central bar, pintles pivotally connecting said knuckles to said shafts, pintles pivotally connecting the knuckles and the inner ends of the transverse bars and disposed at right angles to the first named pintles, knuckles interposed between the outer ends of the transverse bars and the shafts in the side bars, pintles pivotally connecting said knuckles and said shafts, pintles pivotally connecting the outer ends of the transverse bars to said knuckles, and chains connected to the side bars and adapted to be detachably connected to the hooks on the handle bars.

2. The combination in a harrow and with a frame comprising a longitudinal central bar, and handle bars fixed on said longitudinal central bar, of a lever mounted on the longitudinal central bar of the frame, means for adjustably fixing the said lever with respect to the frame, side bars, means connecting the longitudinal central bar of the main frame and the side bars, transverse bars arranged at opposite sides of the longitudinal central bar and between the same and the side bars, teeth carried by said bars, connections intermediate said bars and the lever, shafts journaled in the longitudinal central bar of the frame, shafts journaled in the side bars, knuckles interposed between the inner ends of the transverse bars and the longitudinal central bar, pintles pivotally connecting said knuckles to said shafts, pintles pivotally connecting the knuckles and the inner ends of the transverse bars and disposed at right angles to the first named pintles, knuckles carried at the outer ends of the transverse bars, pintles pivotally connecting said knuckles and the shafts in the side bars, and adjustable cables extending between and connected with the handle bars and the side bars.

3. In a harrow, the combination with a frame, and side bars; of transverse bars provided with teeth, combined rotary and knuckle joints intermediate the transverse bars and the frame, combined rotary and knuckle joints intermediate the transverse bars and the side bars, a lever mounted on the frame, means for adjustably fixing said lever, connections intermediate the transverse bars at opposite sides of the frame and the said lever, and means for adjustably connecting the side bars with the frame.

4. In a harrow, the combination with a frame, and side bars; of transverse bars equipped with soil-engaging means and interposed between and connected with the frame and the side bars and capable of turning about their axes between the frame and the side bars and also capable of swinging vertically and horizontally relative to the frame, and of swinging horizontally relative to the side bars, a lever mounted on the frame, means for adjustably fixing said lever, connections intermediate the transverse bars at opposite sides of the frame and said lever, and means for adjustably connecting the side bars with the frame.

5. In a harrow, the combination of a longitudinal central bar, a transverse shaft journaled therein, transverse bars disposed at opposite sides of said longitudinal central bar, knuckles interposed between the shaft and said transverse bar, pintles pivotally connecting the knuckles to said shaft, and pintles pivotally connecting the transverse bars to the knuckles and disposed at right angles to the first named pintles.

[Claims 6 to 9 not printed in the Gazette.]

942,880. RAZOR-STROPPING DEVICE. CHARLES F. BENEDICT, Brooklyn, N. Y., assignor to Samuel Kanner, New York, N. Y. Filed July 17, 1907. Serial No. 384,153.



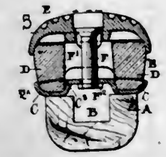
1. In a stropping device the combination of a holder, a blade carriage movably supported in the holder, a strop guided in the holder and located over the carriage, a presser plate over the strop, means to bear said plate against the strop with various amounts of pressure to connect the strop to the carriage, and at the same time allow the strop to be pulled through the holder.

2. In a stropping device the combination of a holder, a pair of side frames having guide openings in the holder, a reciprocating carriage supported in said openings, means to secure a blade to the carriage, a strop over the carriage and guided in the frame, a presser plate adjustably located over the carriage, a spring connected up with the carriage over the presser plate, means to exert the tension of the spring to the presser plate, so as to grip the strop between the plate and the carriage with sufficient pressure to reciprocate the carriage, when the directions of the movements of the strop are reversed.

3. In a stropping device the combination of a holder, a pair of side frames having guide openings in the holder, a carriage supported in said openings, jaws extending from the carriage to support a blade, guides extending between the frames, a strop bearing on the roof of the carriage and against said guides so as to enable said blade to bear against said strop at opposite sides of the device when the strop is reciprocated, brackets extending from the upper portion of the carriage, a presser plate guided by said brackets, a spring connecting the ends of the brackets, a screw extending up from the presser plate, a nut on the screw to bear up against the spring and thereby grip the strop between the carriage and presser plate, to alternately move the carriage across the frame when reciprocating the strop, the blade alternately bearing on the strop on the opposite sides of the device.

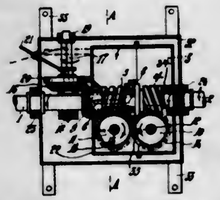
4. In a stropping device for a razor the combination of a holder, a pair of side frames having guide openings in the holder a bail extending from the frames, a blade carriage in the holder, cross-heads extending from the carriage and supported in said openings, spring jaws extending from the carriage to support a razor blade, upper guide rollers and central guide rollers journaled in said frames, two pairs of lower guides and tie rods extending between the frames, a strop bearing on the top of the carriage extending over the upper guide rollers and against the central guide rollers, and passing between each pair of the lower guides and tie rods, brackets extending from the upper portion of the carriage, a spring connecting the ends of said brackets, a presser plate having lugs straddling said brackets and bearing on the top face of said strop, a screw extending up from the presser plate through an opening in said spring, a nut on the screw to bear up against the spring and thereby grip the strop between the blade carriage and said presser plate, to alternately move the carriage across the frame when reciprocating, the blade bearing alternately on the strop at opposite sides of the device.

942,881. ELASTIC TIRE. ANTOINE BONNAZ, Lyon, France. Filed Jan. 17, 1908. Serial No. 411,290.



In an elastic tire the combination of a channeled rim raised and perforated at its center, an elastic cushion having bearing on said rim laterally of the central portion thereof, a plurality of metal elements bearing on the outside of said cushion, and metallic connecting pieces severally connecting the metal elements with the central portion of the channeled rim, said connecting pieces traversing the perforated portion of the rim and having sliding movement with respect thereto.

942,882. TRANSMISSION MECHANISM. EDME BONNEAU, Brest, France. Filed Jan. 17, 1908. Serial No. 411,293.



1. In a transmission gearing the combination of a driving shaft, a driven shaft, a worm fixed on the driving shaft, a second worm loosely mounted on said shaft, means connected with the driven shaft to transmit motion from one worm to another, and means for causing the loose worm to rotate relatively to the driven shaft.

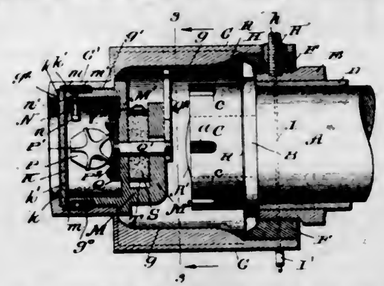
2. In transmission gearing the combination of a driving shaft, a driven shaft, a worm fixed on the driving shaft, a second worm loosely mounted on said shaft, a box rigidly connected to the driven shaft, means mounted in said box to transmit motion from one worm to another, and means for causing the loose worm to rotate relatively to the driven shaft.

3. In transmission gearing the combination of a driving shaft, a driven shaft, a worm fixed on the driving shaft, a second worm loosely mounted on said shaft, a box rigidly connected to the driven shaft, a worm wheel mounted in said box and engaging the fixed worm, a second worm wheel also mounted in the box and engaging the loose worm, gearing connecting the spindles of said worm wheels, and means for causing the loose worm to rotate relatively to the driven shaft.

4. In transmission gearing the combination of a driving shaft, a driven shaft, a worm fixed on the driving shaft, a second worm with a thread of opposite hand loosely mounted on said shaft, gearing connecting the two worms and carried on an extension of the driven shaft, a disk on the driven shaft, a second disk rotated by contact with the first disk, means for varying the position of the point of contact of the second disk, and means to transmit the motion of the second disk to the loose worm.

5. In transmission gearing the combination of a driving shaft, a driven shaft, a worm fixed on the driving shaft, a second worm with a thread of opposite hand loosely mounted on said shaft, a worm-wheel engaging with each worm, gearing connecting the two worm-wheels, a box rigidly connected to the driven shaft, spindles mounted in said box to carry the worm-wheels and gearing, a bevel wheel rigidly connected to the loose worm, a spindle mounted at right angles to the driving shaft, a second bevel wheel mounted thereon and engaging with the first named bevel wheel, a friction wheel rotating with said spindle but axially movable thereon, a disk on the driven spindle in contact with the friction wheel and means for moving the said friction wheel radially on the said disk.

942,883. HUB-ODOMETER. HARRY P. C. BROWNE, New York, N. Y. Filed Nov. 4, 1907. Serial No. 400,605.



1. In a hub-odometer, the combination with a fixed axle and a rotating hub of a hollow housing mounted over the end of said hub and axle, a supporting piece secured in said hollow housing, a spindle pivoted in said supporting piece, a cyclometer carried by said spindle, an arm also carried by said spindle, and a second arm held against rotation and engaging the first arm, substantially as described.

2. In a hub-odometer, the combination with a fixed axle and a rotating hub of a hollow housing mounted over the end of said hub and axle, a hollow supporting piece secured in said hollow housing, a spindle pivoted in said supporting piece, a cyclometer carried at the end of said spindle, and inclosed in said supporting piece, an arm carried at the other end of said spindle, and a second arm mounted on the axle and engaging the first arm, substantially as described.

3. In a hub-odometer, the combination with a fixed axle and a rotating hub of a hollow housing mounted over the end of said hub and axle, a supporting piece secured in said hollow housing, a spindle pivoted in said supporting piece, a cyclometer carried by said spindle, an arm also carried by said spindle, a second arm held against rotation and engaging the first arm, a plastic packing mounted over said spindle, and means for compressing said packing, substantially as described.

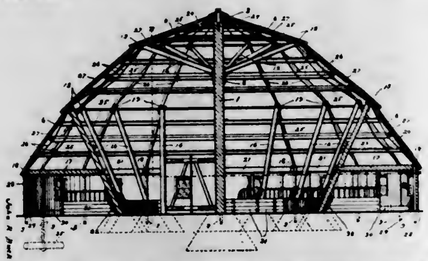
4. In a hub-odometer, the combination with a fixed axle and a rotating hub of a hollow housing mounted over the end of said hub and axle, a supporting piece secured in said hollow housing, a spindle pivoted in said supporting piece, a cyclometer carried by said spindle, an arm also carried by said spindle, and a second arm held against ro-

tation and engaging the first arm, a plastic packing mounted over said spindle, a hoop shaped spring inclosing the packing, and means for adjusting the compression of said spring, substantially as described.

5. In a hub-odometer, the combination with a fixed axle and a rotating hub of a hollow housing mounted over the end of said hub and axle, a hollow supporting piece secured in said hollow housing, a spindle pivoted in said supporting piece, a cyclometer carried by one end of said spindle, and inclosed in said supporting piece, an arm carried by the other end of said spindle, a second arm mounted on the axle and engaging the first arm, a plastic packing mounted over said spindle, and resilient means for compressing said packing, substantially as described.

[Claims 6 to 36 not printed in the Gazette.]

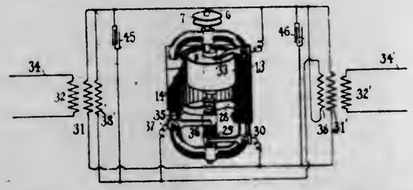
942,884. BARN CONSTRUCTION. JOHN R. BUCKWALTER, Palmyra, Mo. Filed Feb. 24, 1909. Serial No. 479,835.



1. A barn of the class described, comprising a central post, guy-cables radiating from said post and having their upper ends secured to said post and their lower ends anchored in the ground, braces having their inner ends secured to said central post and their outer ends secured to said guy-cables, supporting posts resting upon the ground with their upper ends secured to said guy-cables, roof-supporting beams secured to said guy-cables and roofing material secured upon said supporting beams.

2. In a circular barn of the class described, the combination with a central post, of guy-cables radiating from the upper end of said post and adapted to have their lower ends anchored within the ground, means for bracing said cables from said central post, means for bracing said cables from the ground, and means for securing a roofing material upon said cables.

942,885. METHOD OF AND APPARATUS FOR REPEATING TELEPHONE-CURRENTS. PERCY A. CAMPBELL, Bloomfield, N. J. Filed July 20, 1909. Serial No. 508,633.



1. The method of repeating telephone currents, which consists in charging a series of condensers in turn from an incoming circuit, mechanically separating the plates of the charged condensers in turn, and discharging the condensers in turn in an outgoing circuit, substantially as described.

2. The method of repeating telephone currents, which consists in charging a series of condensers in turn from an incoming circuit, mechanically separating the plates of the charged condensers in turn, discharging the condensers in turn in an outgoing circuit, and discharging the residual condenser charges in a discharge circuit, substantially as described.

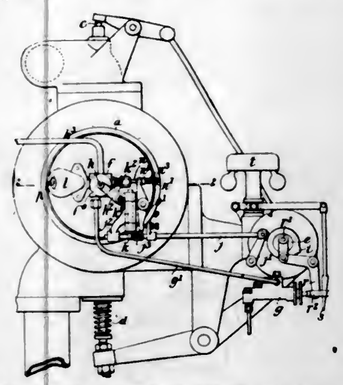
3. In a telephone repeater, the combination of incoming and outgoing circuits, plates forming a series of condensers, means for connecting the condensers in turn in the incoming circuit, means for separating the plates of the condensers in turn, and means for connecting the condensers in turn in the outgoing circuit, substantially as described.

4. In a telephone system, the combination of line-circuit sections, an incoming repeater circuit with branches connected to the line-circuit sections, an outgoing repeater circuit with branches connected to the line-circuit sections, plates forming a series of condensers, means for connecting the condensers in turn in the incoming circuit, means for separating the plates of the condensers in turn, and means for connecting the condensers in turn in the outgoing circuit, substantially as described.

5. In a telephone repeater, the combination of incoming and outgoing circuits, a circuit for discharging residual condenser charges, plates forming a series of condensers, means for connecting the condensers in turn in the incoming circuit, means for separating the plates of the condensers in turn, means for connecting the condensers in turn in the outgoing circuit, and means for connecting the condensers in turn in the discharge circuit, substantially as described.

[Claims 6 to 13 not printed in the Gazette.]

942,886. INTERNAL-COMBUSTION ENGINE. FRANK CARTER and EVERSHED CARTER, Stamford, England, assignors of one-third to Edward Christopher Blackstone, Stamford, England. Filed Mar. 6, 1909. Serial No. 481,676.



1. In an internal combustion engine, the combination with the explosion chamber, and a separate ignition chamber having a flame delivery passage communicating with the explosion chamber, of fuel supplying means provided with separate passages communicating with the explosion chamber and the ignition chamber, and means for independently controlling said separate passages.

2. In an internal combustion engine, the combination with the explosion chamber, and a separate ignition chamber having a flame delivery passage communicating with the explosion chamber, of fuel supplying means provided with separate passages communicating with the explosion chamber and the ignition chamber, and means for throttling the fuel supply to the explosion chamber without affecting the supply of fuel to the ignition chamber.

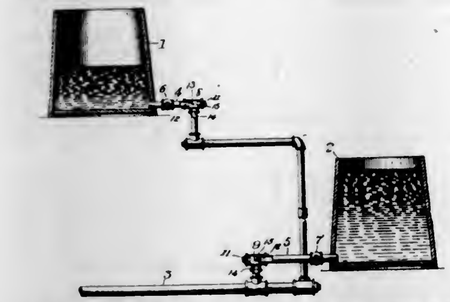
3. In an internal combustion engine, the combination with the explosion chamber, and a separate ignition chamber having a flame delivery passage communicating with the explosion chamber, of fuel supplying means provided with separate passages communicating with the explosion chamber and the ignition chamber, and governor controlled mechanism for throttling the supply of fuel to the explosion chamber without affecting the supply of fuel to the ignition chamber.

4. In an internal combustion engine, the combination with the explosion chamber, and a separate ignition chamber, having a flame delivery passage communicating with the explosion chamber, of fuel supplying means provided with separate passages communicating with the explosion chamber and the ignition chamber, and provided with a reservoir in communication with said separate passages, separate valves controlling said fuel supply passages, and a governor for controlling the fuel supply to said reservoir.

5. In an internal combustion engine, the combination with the explosion chamber, and a separate ignition chamber, communicating therewith, of a spray box located exteriorly to the said chambers, and provided with a fuel reservoir and separate passages from said reservoir to the said chambers, separate valves controlling said passages, a pump connected with said reservoir, and a governor controlling said pump.

[Claims 6 and 7 not printed in the Gazette.]

942,887. COMBINATION FLUID AND VACUUM CHECK. HARRY T. CASE, Franklin, Pa. Filed Mar. 29, 1909. Serial No. 486,503.



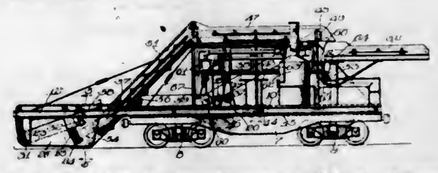
1. A combination fluid and vacuum check, comprising a tee having a seat and a flap valve thereon, and another seat and a ball valve therefor, the seats for the flap valve and the ball valve being arranged substantially at right angles, and the flap valve when under pressure serving to force the ball valve off of its seat.

2. In a combined fluid and vacuum check, a tee, a plug for closing one end, a pipe inserted in the other end and provided with a reamed-out end, a wedge-shaped valve seat wedged in said reamed-out end of the pipe, a flap valve thereon, and a pipe inserted in the intermediate portion of the tee, a wedge-shaped valve seat wedged in said pipe and a ball valve for said last mentioned seat, the flap valve and the ball valve seats arranged at substantially right angles in said tee.

3. In combination with tanks arranged at different altitudes, a main pipe line, connections between said tanks and said pipe line, and a combined fluid and vacuum check valve interposed in each tank connection and comprising a ball valve and a flap valve having seats arranged at substantially right angles, the combination being such that when the check valve of the higher tank is opened for the outflow of the fluid from the tank, the ball valve of the check valve in the lower tank will be automatically unseated and the flap valve closed against the escape of the fluid from said lower tank.

4. The combination with a tank and a pipe line, of a casing, a flap valve serving as a fluid check, and a ball valve operating as a vacuum check, said valves being arranged to seat at right angles to one another in said casing and working in conjunction with each other, the combination being such that so long as there is fluid passing the valves from the tank, the open fluid check holds the vacuum check off of its seat, allowing the fluid to pass through, and as soon as the last of the fluid leaves the tank and enters the pipe line, the vacuum thus created on said pipe line pulls the ball valve, or vacuum check, onto its seat, thereby preventing air from entering said line and thus maintaining the vacuum.

942,888. SNOW-SWEEPER. WILLIAM J. COOKE, Oak Park, Ill., assignor to McGuire-Cummings Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed July 25, 1908. Serial No. 445,318.



1. A snow sweeper comprising a carriage, a platform mounted thereon and extending beyond said carriage, sweeping means comprising a rotary broom and a conveyer carried by the extended portion of said platform, and means mounted on the platform for actuating said sweeping means.

2. A snow sweeper comprising a carriage, a platform mounted thereon and extending beyond said carriage, sweeping means comprising a rotary broom and a conveyer carried by the extended portion of said platform, means mounted on the platform for actuating said sweeping means, a conveyer carried by the platform for receiving snow from the sweeping means and conveying it away therefrom, and means for operating said conveyer

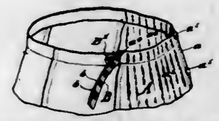
3. A snow sweeper comprising a carriage, a swinging platform mounted thereon and extending beyond said carriage, sweeping means comprising a rotary broom and a conveyer carried by the extended portion of said platform, and means mounted on the platform for actuating said sweeping means.

4. A snow sweeper comprising a carriage, a swinging platform mounted thereon and extending beyond said carriage, sweeping means comprising a rotary broom and a conveyer carried by the extended portion of said platform, means mounted on the platform for actuating said sweeping means, a conveyer carried by the platform for receiving snow from the sweeping means and conveying it away therefrom, and means for operating said conveyer.

5. A snow sweeper comprising a carriage, moving sweeping means carried thereby, and means coöperating with said sweeping means for receiving and compressing the snow.

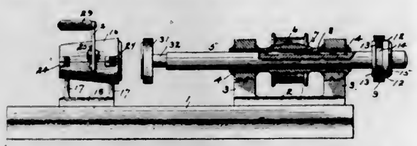
[Claims 6 to 26 not printed in the Gazette.]

942,889. ADJUSTABLE GARMENT. WILLIAM A. DIELHENN, Massillon, Ohio. Filed Feb. 1, 1909. Serial No. 475,315.



In an adjustable garment having a rear placket, the combination of a pocket adjacent to and parallel with the waistband of the garment and having one end terminating at the placket and the other end open and terminating substantially midway between such placket and the middle of the front of the garment; an adjusting band loosely placed in said pocket having one end fastened at the rear of the garment near said placket and the other end free and adapted to project from the open end of said pocket; and one or two complementary fastening members fixedly secured to the garment immediately adjacent to said open pocket end, said projecting end of the adjusting band being provided with a plurality of fixed fastening members each complementary to said first named fastening member.

942,890. CRIMPING-MACHINE. HARRY E. DILL and WILLIAM P. MARSH, Dayton, Ohio, assignors of one-third to said Dill, one-third to Malon P. Woody, and one-third to W. Allison Scott, Indianapolis, Ind. Filed Sept. 5, 1908. Serial No. 451,791.



1. In a machine as described, the combination of the main frame of a longitudinal movable revoluble shaft, means for reciprocating said shaft, and means for rotating said shaft during its reciprocatory movement, crimper head carried by said shaft comprising a disk having a peripheral rabbet, said rabbet having two plane faces and a semi-circular groove connecting the faces of said rabbet and extending below the plane of both faces thereof, substantially as specified.

2. In a machine as described, the combination of the means for holding the article to be operated upon, of a revoluble crimper head comprising a disk, a portion of reduced diameter projecting from the forward face of said disk having a slightly tapered periphery, a grooved depression in said disk forming with said tapered portion a peripheral shoulder, a means for moving said crimper head to and from the work, substantially as specified.

3. In a machine as described, the combination of means for holding the article to be operated upon, a revoluble crimper head comprising a disk having a peripheral rabbet at the forward edge thereof, said rabbet having two plane faces and a grooved depression joining the two faces of said rabbet, the outer periphery of said grooved depression being inclined to the axis of rotation, while the inner periphery of said grooved depression extends below the periphery of said annular rabbet and forms therewith a shoulder, substantially as specified.

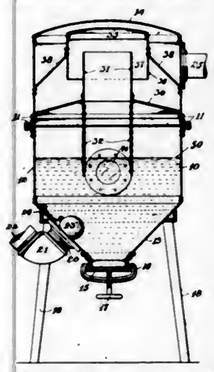
4. In a machine as described, the combination of the main frame, a longitudinal moving revoluble crimper head carried on said frame, a holder for the article to be operated upon comprising a hollow body the interior of which is shaped to conform to the contour of the article, said hollow body being divided longitudinally into halves, hinged connections between the respective halves, a hook shaped lever pivoted to the one of said halves, a projecting boss on the other half with which the said hook shaped lever engages, substantially as specified.

5. In a machine as described, the combination with a revoluble longitudinal movable crimper head, of a holder for the work to be operated upon, comprising a hollow body, the interior of which is shaped to conform to the contour of the article, said hollow body being longitudinally divided into two corresponding halves, hinged lugs on the respective halves of said holder, a hinge rod projecting through the hinge lug of the respective halves of the holder, one of the lugs of the upper half of said holder being projected beyond the pivotal point, a projection on the lower half of said holder extending into the path of travel of said projecting lug and adapted to limit the movement thereof, substantially as specified.

[Claims 6 to 8 not printed in the Gazette.]

942,891. WET SEPARATOR FOR DUST-REMOVING APPARATUS. RALPH F. DISBRENS, Bradford, Pa., assignor to The Blaisdell Machinery Company, Bradford, Pa., a Corporation of Pennsylvania. Filed May 14, 1907. Serial No. 373,548.

1. A separator for dust removing apparatus comprising a casing forming a water receptacle in the lower part thereof, an air inlet below the water level, an air outlet above the water level, and an apertured baffle disk arranged intermediate the air inlet and outlet and above the water receptacle, said baffle disk being provided with an annular flange surrounding its aperture and extending upwardly above the level of the air outlet.



2. A separator for a dust removing apparatus, comprising a casing having a water receptacle in the lower part thereof, an air inlet below the water level and a chain extending to a point below the water level and adapted to prevent the formation of large bubbles at or near the water level.

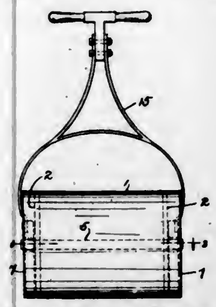
3. A separator for a dust removing apparatus, comprising a casing having a water chamber in the lower part thereof, an air inlet below the water level, an air outlet above the water level, an apertured baffle disk intermediate the air inlet and outlet, and means adapted to prevent the formation of large bubbles at or near the water level, consisting of chains reaching from above to a point below the water level.

4. A separator for a dust removing apparatus, comprising a casing having a water receptacle in the lower part thereof an air inlet below the water level, and means suspended from a point above the water level and adapted to swing loosely to a point below the surface of the water to prevent formation of bubbles at or near the water level.

5. A separator for a dust removing apparatus, comprising a casing having a water receptacle in the lower part thereof, an air inlet below the water level, and means adapted to prevent formation of large bubbles at or near the surface of the water, said means including members with an irregular outer surface suspended above the water level and adapted to swing loosely to a point below the surface of the water.

[Claims 6 to 8 not printed in the Gazette.]

942,892. LAND-ROLLER. WILEY J. DUNHAM, Berea, Ohio. Filed May 25, 1909. Serial No. 498,255.



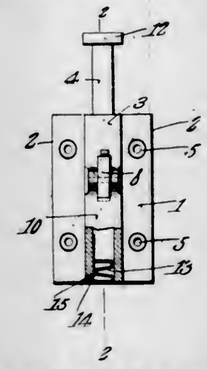
1. In a device of the character indicated, a roller having heads arranged at the ends and a distance in from the ends so as to leave recesses at the ends of the roller outside of said heads, an axle mounted centrally in said heads and extending beyond said heads, plates mounted on the ends of said axle within said recesses and a handle secured to said plates.

2. In a device of the character indicated, a roller having heads arranged at the ends and a distance in from the ends so as to leave recesses at the ends of the roller outside of said heads, an axle mounted centrally in said heads and extending beyond said heads, plates mounted on the ends of said axle within said recesses, a handle secured to said plates and means for counterbalancing said plates so as to hold said handle in an approximately vertical position.

3. In a device of the character indicated, a roller having heads arranged at the ends and a distance in from the ends so as to leave recesses at the ends of the roller outside of the heads, plates arranged in said recesses and provided with circular openings for receiving the ends of the axle, said openings being larger in diameter than the said axle, roller bearings arranged in said openings around the ends of said axle, washers arranged on the ends of said axle outside of said plates so as to hold said roller bearings against displacement and a handle secured to said plates.

4. In a device of the character indicated, a roller having heads arranged at the ends and a distance in from the ends so as to leave recesses at the ends of the roller outside of said heads, plates arranged in said recesses and provided with circular openings for receiving the ends of the axle, said openings being larger in diameter than the said axle, roller bearings arranged in said openings around the ends of the axle, washers secured on said axle outside of said plates so as to hold said roller bearings against displacement and a handle secured to said plates at a point such that the said plates will counterbalance the said handle, substantially as described and for the purpose set forth.

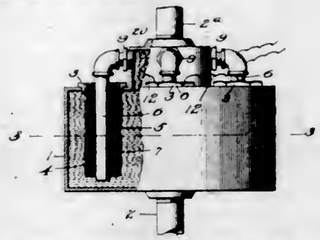
942,893. DOOR-STOP. CHARLIE W. ELLERBE, Lakeland, Fla. Filed July 8, 1909. Serial No. 506,520.



1. A device of the class described comprising a body provided with a door-engaging face; a plunger mounted for reciprocation and against rotation in the body; a flat strip of resilient metal mounted at its upper end upon the lower end of the plunger and disposed substantially at right angles to the door-engaging face of the body, the strip being folded transversely upon itself into zig-zag form to constitute a floor-engaging compression spring; and means for holding the plunger in depressed position.

2. A device of the class described comprising a body; a plunger mounted for reciprocation and against rotation in the body; a flat strip of resilient metal mounted at its upper end upon the lower end of the plunger and folded transversely upon itself into zig-zag form to constitute a floor-engaging compression spring, the lower end of the spring being extended laterally beyond the contour of the spring proper, the body being cut away adjacent its lower end to form a recess to engage the extended portion of the spring to limit the upward movement of the plunger and to dispose the lower end of the spring within the contour of the body; resilient means for lifting the plunger; and adjustable, body-carried means for holding the plunger in depressed position.

942,894. ELECTRIC HEATER. ROBERT FARREN and CHARLES T. CLARK, Cleveland, Ohio. Filed Dec. 3, 1908. Serial No. 465,809.

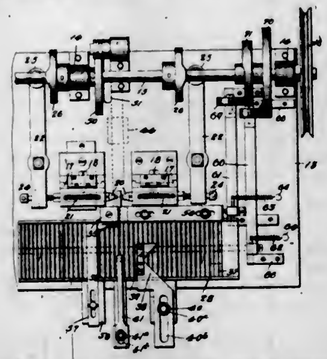


1. An electric heater comprising a chamber, a bushing tapped into a wall thereof, a tubular casing fastened to the bushing and projecting into the chamber, a pipe extending lengthwise through the bushing from the exterior of the chamber and opening into the same at both ends and having an exterior detachable coupling, and a resistance coil between the pipe and the casing.

2. An electric heater comprising a chamber having a central raised part or dome, and a plurality of heating devices projecting into the body of the chamber and including circulation pipes leading from the lower part of the chamber with exterior detachable couplings to the dome.

3. An electric heater comprising a chamber having at its top a central raised part or dome, and provided with inlet and outlet pipes leading into its said dome, and into its base, respectively, bushings tapped into the top of said chamber around said dome tubular casings fastened to, and having their upper ends closed by, said bushings, and projecting downwardly into the chamber, pipes extending outwardly from said dome and downwardly through said bushings and casings, and provided with exterior couplings located between said dome and said bushings, and resistance coils between said pipes and their casings, said coils being connected in series.

942,895. NEEDLE-FEED MECHANISM. ARTHUR G. FENN, Chicopee Falls, Mass. Filed Nov. 17, 1908. Serial No. 463,087.



1. In a blank feed mechanism, for needle forming machines, the combination of bodily transferable members, having means to receive and hold a plurality of needle

blanks, means for supporting one or more blank-carrying members for movement to feed its blanks successively into registry with the needle forming mechanism, and means to advance each blank into operative relation within the needle forming mechanism, as it is brought into registry therewith, and to withdraw the same from said needle forming mechanism after the operation thereof to its original position within the blank carrying members, substantially as described.

2. In a blank feed mechanism for needle forming machines, the combination of bodily transferable members, having means to receive and support needle blanks in spaced lateral relation, means for supporting one or more blank-carrying members for movement to feed its blanks laterally into successive registration with the needle forming mechanism, and means to advance each blank longitudinally into operative relation within the needle forming mechanism, as it is brought into registry therewith, and to withdraw the same from said needle forming mechanism, after the operation thereof to its original position within the blank carrying members, substantially as described.

3. In a blank feed mechanism, for needle forming machines, the combination of bodily transferable members provided with spaced grooves adapted to receive and support needle blanks, means for supporting one or more of said blank-carrying members for movement to feed its blanks successively into registry with the needle forming mechanism, and means to advance each blank into operative relation within the needle forming mechanism, from its holding groove, and as it is brought into registry therewith, and to withdraw the same from said needle forming mechanism, after the operation thereof, and to its original position within its said holding groove to its original position within the blank carrying members, substantially as described.

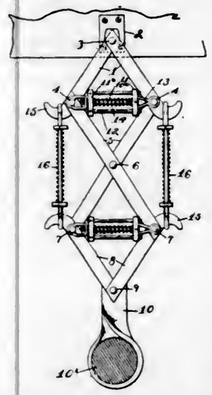
4. In a blank feed mechanism for needle forming machines, the combination of bodily transferable members, having means to receive and hold a plurality of needle blanks, means for supporting one or more of said blank carrying members for movement to feed its blanks successively into registry with the needle forming mechanism, and means to advance each blank into operative relation within the needle forming mechanism, as it is brought into registry therewith, and to withdraw the same from said needle forming mechanism after the operation thereof, comprising a movable feed arm having a cut-out portion in its lower face, into which the needle shank may engage, substantially as described.

5. In a blank feed mechanism for needle forming machines, the combination of bodily transferable members, having means to receive and hold a plurality of needle blanks, means for supporting one or more of said blank carrying members for movement to feed its blanks successively into registry with the needle forming mechanism, means to advance each blank into operative relation within the needle forming mechanism, as it is brought into registry therewith, and to withdraw the same from said needle forming mechanism after the operation thereof and to its original position within the blank carrying member, comprising a movable feed arm having a cut-out portion in its lower face, into which the needle shank may engage, and means in the path of movement of said needle blanks forwardly of said feed arm, to aline the said blanks for engagement of their shanks in said cut out portion of said feed arms, substantially as described.

942,896. SHOCK-ABSORBER. JACOB H. FRIEDENWALD, Baltimore, Md. Filed June 19, 1909. Serial No. 503,083.

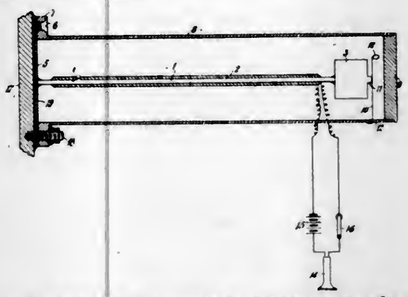
1. In a shock absorber, a pair of crossed arms pivotally connected together, links connecting the opposite ends of the arms with a vehicle axle and vehicle body respectively, and horizontally and vertically disposed springs connected to act at right angles to each other on said crossed arms, substantially as described.

2. In a shock absorber device, a pair of crossed arms pivotally connected together, links pivotally connecting the upper ends with a vehicle body, links connecting the lower ends of the crossed arms with the axle, horizontally disposed elastic devices extending across the toggle frames formed by said arms and links, and vertically disposed elastic devices extending between the extremities of the upper and lower links.



3. In a shock absorber, a pair of crossed arms pivotally connected together, links pivotally connecting the upper ends with a vehicle body, links for connecting the lower ends to the crossed arms with a vehicle axle, said links having extended hooked ends, horizontally disposed elastic devices extending across the toggle frames formed by said arms and links, and vertically disposed elastic devices extending between said hooked ends of the upper and lower links.

942,897. APPARATUS FOR RECEIVING SUBMARINE SOUNDS. THOMAS A. GARRETT, Reigate, and WILLIAM LUCAS, Crouch End, England. Filed Aug. 31, 1909. Serial No. 515,439.



1. In apparatus for receiving submarine sounds, the combination of a magnetized rod, means for connecting one end of the rod to the side of a vessel, a mass fixed to the other end of the rod, and means for detecting variations in the magnetism of the rod.

2. In apparatus for receiving submarine sounds, the combination of a magnetized nickel rod, means for connecting one end of the rod to the side of a vessel, a mass fixed to the other end of the rod, and means for detecting variations in the magnetism of the rod.

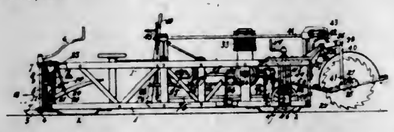
3. In apparatus for receiving submarine sounds, the combination of a magnetized rod, means for connecting one end of the rod to the side of the vessel, a mass fixed to the other end of the rod of such magnitude as to put the system into resonance with the sound to be received, and means for detecting variations in the magnetism of the rod.

4. In apparatus for receiving submarine sounds, the combination of a magnetized nickel rod, means for connecting one end of the rod to the side of a vessel, a mass fixed to the other end of the rod of such magnitude as to put the system into resonance with the sound to be received, and means for detecting variations in the magnetism of the rod.

5. In apparatus for receiving submarine sounds, the combination of a magnetized rod, a plate fixed to one end of the rod, means for fixing the plate to the side of a vessel, a layer of plastic material interposed between the plate and the side, a mass fixed to the other end of the rod, a coil surrounding the rod, and means for detecting variations of current in the coil.

[Claims 6 to 18 not printed in the Gazette.]

942,898. ICE-CUTTING MACHINE. ISAAC G. GILLESPIE, Oak Harbor, Ohio. Filed Apr. 15, 1907. Serial No. 368,435.



1. In an ice-cutting machine, a main frame for the machine, a frame movable upon said main frame, a shaft journaled upon said movable frame, saws upon said shaft, an engine secured to the main frame, a propelling mechanism for the machine connected with the engine, connections between the saw-shaft and the engine, and means for regulating the speed of the propelling mechanism independently of the speed of the saws combined with means for steering the machine comprising a rudder which, in part, supports the weight of the machine, and means for adjusting the distribution of the weight of the machine between the rudder and the propelling mechanism.

2. In an ice-cutting machine, a frame, a rudder at the forward end of the frame, propelling-wheels near the rear end of the frame, runners at opposite sides of the frame near the front and near the rear of the machine, means for varying the pressure of the frame upon the rudder, and means for varying the pressure of the machine upon the propelling-wheels combined with an ice cutting mechanism and an engine adapted for connection with said propelling-wheels and with said ice-cutting mechanism.

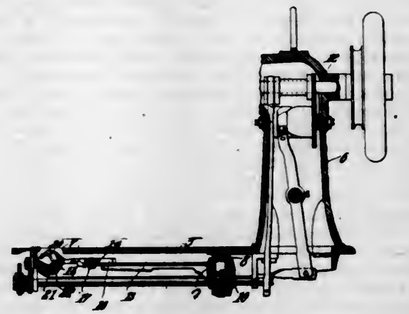
3. In an ice-cutting machine, a main frame, a rearwardly projecting saw-frame pivoted upon the main frame, a shaft journaled upon the main frame transversely of its rear end, arms secured to said shaft, connections between said arms and the saw-frame, a worm-wheel on said shaft, another shaft, a worm engaged with said worm-wheel at one end of said latter shaft, and a hand-wheel upon the other end of said latter shaft.

4. An ice-cutting machine comprising a frame, runners for the frame, a rudder, a propelling mechanism, means for adjusting the distribution of weight upon the runners, the rudder, and the propelling mechanism, an engine upon the frame, a gang of saws, means for raising and lowering the gang out of and into operative position, driving connections between the propelling mechanism and the engine, driving connections between the saws and the engine, a clutch interposed between the engine and the saw-driving mechanism, and means for regulating the speed of the propelling mechanism independently of the saw-driving mechanism.

942,899. SEWING-MACHINE. CHARLES F. GOFORTH and MARSHALL T. GOFORTH, Wichita, Kans. Filed Nov. 20, 1906. Serial No. 344,296.

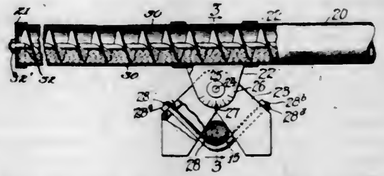
1. A sewing machine having a throat plate opening, a reciprocatory shuttle disposed beneath the opening, a shuttle actuator, and a shuttle basket pivotally carried by the actuator and arranged to be projected upward through the throat plate opening.

2. A sewing machine having a throat plate opening, a reciprocatory shuttle disposed beneath the opening, a shuttle actuator, a shuttle basket pivotally carried by the actuator and arranged to be projected upward through the opening, and means for limiting the downward movement of the basket relatively to the actuator.



3. In a sewing machine, a bed plate having an opening therein, a shuttle carrying lever, a shuttle basket pivotally connected thereto and movable upward through the opening in the bed plate to permit the insertion and removal of the shuttle, said basket having a pair of spaced lower arms, and a pair of spaced upper arms for engagement with the upper and lower portions of the shuttle, substantially as specified.

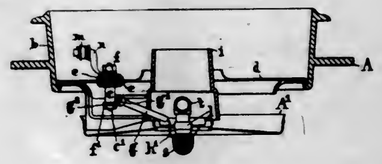
942,900. CENTRIFUGAL GOVERNOR. CHESTER P. HALL, Chicago, Ill. Filed Mar. 23, 1908. Serial No. 422,638.



1. An attachment for centrifugal governors, comprising a tube closed at both ends, a spiral baffle-means, and a mobile mass within the tube.

2. In a device of the character described, the tube 20, provided with interior baffles and a mobile mass, the bracket 22 provided with a scale 26, to which said tube is secured, a bifurcated angle-piece 23, adjustably secured to said bracket, and a bolt 28 for securing the device to a shaft.

942,901. APPARATUS FOR ELECTRICALLY IGNITING GAS-BURNERS. ALFRED J. HILL, Woodford Green, and FREDERICK C. D. MANN, Hayes, England. Filed Jan. 4, 1909. Serial No. 470,559.



1. An apparatus for electrically igniting gas lamps, comprising a pair of brackets secured in an insulated manner to the baffle plate of the lamp, tubular arms attached at one end to the lower extremities of said brackets, said arms extending at their other end to the vicinity of the burner,

electrodes within said arms connected at one end to said brackets and affording at their other ends the spark gap, and high tension leads connected respectively to the upper extremities of said brackets.

2. An apparatus for electrically igniting gas lamps comprising a pair of brackets, said brackets being arranged in a vertical position, screw threaded extremities to said brackets, insulating washers upon the upper of said extremities, said insulating washers being fitted into holes in the baffle plate of the lamp, clamping nuts upon said extremities, tubular arms attached at one end to the lower of said extremities, said arms extending at their other end to the vicinity of the burner, electrodes within said arms connected at one end to said brackets and affording at their other ends the spark gap, and high tension leads connected respectively to the upper extremities of said brackets.

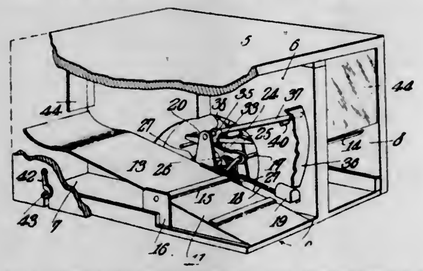
3. An apparatus for electrically igniting gas lamps comprising a pair of brackets secured in an insulated manner to the baffle plate of the lamp, tubular arms attached at one end to the lower extremities of said brackets, said arms being of insulating material and extending convergently through the uptake of the lamp to the vicinity of the burner, electrodes within said arms connected at one end to said brackets, and affording at their other ends the spark gap, and high tension leads connected respectively to the upper extremities of said brackets.

4. An apparatus for electrically igniting gas lamps, comprising a pair of brackets secured in an insulating manner to the baffle plate of the lamp, tubular arms attached at one end to the lower extremities of said brackets, said arms converging toward the burner, electrodes within said arms connected at one end to said brackets, and affording at their other ends the spark gap, a pair of insulators supported upon the baffle plate, a single insulator supported upon one of said brackets, and high tension leads guided by said pair of insulators and passing to said one bracket and over single insulator to the second of said brackets respectively.

5. An apparatus for electrically igniting gas lamps comprising a pair of brackets, said brackets being arranged in a vertical position, screw-threaded extremities to said brackets, insulating washers upon the upper of said extremities, said insulating washers being fitted into holes in the baffle plate of the lamp, clamping nuts upon the said extremities, tubular arms attached at one end to the lower extremities of said brackets, said arms converging toward the burner, electrodes within said arms connected at one end to said brackets and affording at their other ends the spark gap, a pair of insulators supported upon the baffle plate, a single insulator supported upon one of said brackets, and high tension leads guided by said pair of insulators and passing to said one bracket and over said single insulator to the second of said brackets respectively.

[Claims 6 to 10 not printed in the Gazette.]

942,902. CHICKEN-SEPARATOR. EARL HILL, Amsden, Ohio. Filed Sept. 30, 1908. Serial No. 455,414.



1. A poultry separator including a receptacle having an entrance passage and an exit, spaced ratchet wheels mounted for rotation within the receptacle, a gate forming a closure for the entrance passage, a gate actuating member, operating after a predetermined amount of travel of the ratchet wheels, pivoted platforms disposed within the receptacle, and pawls carried by the pivoted platforms and arranged to engage the teeth of the ratchet wheels, whereby a step-by-step movement is given the ratchet wheels when the platforms are tilted.

2. A poultry separator including a receptacle having an entrance passage and an exit, spaced ratchet wheels mounted for rotation within the receptacle, a gate forming a closure for the entrance passage, a gate actuating member secured to and mounted for rotation with the ratchet wheels, operating after a predetermined amount of travel of the ratchet wheels, pivoted platforms arranged within the receptacle, and pawls carried by the pivoted platforms and arranged to engage the teeth on the ratchet wheels whereby a step by step movement is given to the ratchet wheels when the platforms are tilted.

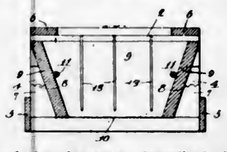
3. A poultry separator including a receptacle having an entrance passage and an exit, spaced ratchet wheels mounted for rotation within the receptacle, a gate forming a barrier for the entrance and provided with spaced fingers, a disk mounted for rotation with the ratchet wheels and provided with a lug arranged to alternately engage the fingers for moving the gate to open and closed positions, pivoted platforms, and pawls carried by the platforms and arranged to engage and rotate the ratchet wheels.

4. A poultry separator including a receptacle having an entrance passage and an exit, spaced ratchet wheels mounted for rotation in said receptacle, a gate operatively connected with said ratchet wheels, pivoted platforms disposed within the entrance passage and exit and provided with angularly disposed arms, and pawls pivotally mounted on said arms and arranged to engage the teeth on the ratchet wheels for effecting the opening and closing movement of the gate.

5. A poultry separator including a receptacle having an entrance passage and an exit, a rotating member, a gate forming a closure for one of said passages, means carried by the rotating member for moving the gate to open and closed positions at predetermined intervals, depressible members disposed within the entrance and exit passages, and means carried by said depressible members and arranged to engage and actuate the rotating member to effect the opening or closing movement of the gate.

[Claims 6 to 17 not printed in the Gazette.]

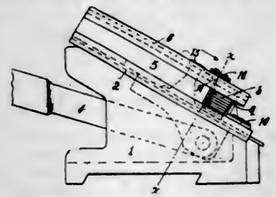
942,903. FLOUR-SHAKER. GEORGE A. HOOP, De Soto, Mo. Filed Dec. 14, 1908. Serial No. 467,511.



In a device of the character described the combination with a frame, trackways in said frame, a flour container having a reticulated bottom and adapted to be reciprocated on said trackways, a series of independently movable U-shaped agitators each pivotally mounted at its upper end on the frame and having its lower portion extending into the flour container, and means mounted on the frame and connected with the flour container to effect the reciprocation thereof.

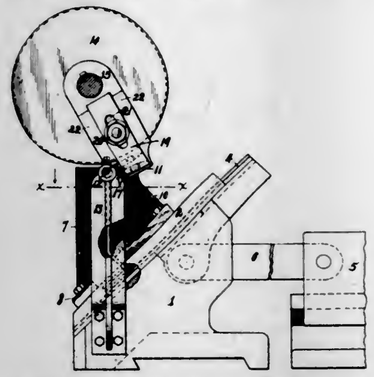
942,904. STAPLE FORMING AND DISCHARGING MECHANISM. VERNON HOXIE, Adrian, Mich. Filed Feb. 27, 1909. Serial No. 480,439.

1. In an apparatus of the class described, the combination of a holder having a staple-discharge way therein, a member movable to discharge a staple from said way, a reciprocatory female staple-forming member guided by said holder for movements in a plane which is spaced from said discharge-way and having its movements actuated by the movements of said discharging-member, an anvil carried by the holder and coöperating with the female forming-member to form a staple, said anvil serving as a magazine for holding a plurality of formed staples and having its lower end extended to a point immediately above the discharge-way whereby at each movement of the plunger in one direction the lower staple drops by gravity into said discharge-way in advance of the staple-discharging plunger.



2. In an apparatus of the class described, the combination of a holder, guide-bars secured to the top of said holder and forming a staple discharge-way, a plunger operative to intermittently discharge staples from said way, a second set of guide-bars spaced from said first set, a staple-forming member guided for reciprocatory movements by said second set of guide-bars, means connecting the plunger and said member whereby intermittent reciprocatory movements are imparted to said member, means coöperating with said member to form a staple from a section of wire fed therebetween, said means serving as a holder for a plurality of staples and as a means for guiding the formed staples from forming to discharging position, and means for preventing rearward movements of the staples when formed relative to said forming means.

942,905. STAPLE FORMING AND DISCHARGING MECHANISM. VERNON HOXIE, Adrian, Mich. Filed Mar. 22, 1909. Serial No. 485,013.



1. In an apparatus of the class described, the combination of a holder having a staple discharge-way therein, a plunger movable in said way to discharge a staple therefrom, a combined staple forming anvil and slide fixedly rising from the holder and adapted to guide the formed staples to discharging position, and means pivotally movable to coöperate with the anvil to form a staple from a section of wire fed to the apparatus, and fixed means for preventing rearward movement of the staples from the anvil.

2. In an apparatus of the class described, the combination of a holder having a staple discharge-way therein, a reciprocatory plunger movable in said way to discharge staples therefrom, an anvil rigidly rising from the holder and serving to hold a plurality of staples and guide them to said way, a member carried by the holder for preventing a rearward movement of the staples carried by the anvil, an apertured die through which lengths of wire are fed to the forming parts, said die being disposed at one side of the anvil, means pivotally movable to coöperate with the anvil to form a staple from a section of wire fed thereto, and a cutter member carried by said means for coöperating with said die to sever a length of wire fed to the forming parts at a predetermined point in the movement of said means.

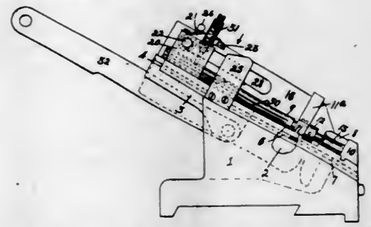
3. In an apparatus of the class described, the combination with a holder having a staple discharge way provided therein, and a staple discharge plunger movable in said way, of a staple guide rising from the holder immediately above said way and forming an anvil, a pivotally movable member coöperating with said anvil to form a section of wire fed therebetween into U-shape, means coöperating with said guide to guide formed staples to said way, and means for actuating the movements of the plunger and said pivotal member.

4. In an apparatus of the class described, the combination with a holder having a staple discharge way therein, and a staple discharging plunger movable in said way, of an oscillatory member mounted above said way, means rising from said holder and adapted to coöperate with said member to form a section of wire fed thereto into a staple and to guide the movement of such staple into said guide way, and means for actuating the movements of said oscillatory member.

5. In an apparatus of the class described, the combination with a holder having its top provided with a staple-discharge way, and a plunger movable in said way to discharge staples therefrom, of a member carried by said holder and having a part rising from immediately above said discharge way and forming an anvil, oscillatory means for coöperating with said member to form sections of wire fed thereto into staples, and means for actuating said oscillatory means.

[Claims 6 to 8 not printed in the Gazette.]

942,906. STAPLE FORMING AND DISCHARGING MECHANISM. VERNON HOXIE, Adrian, Mich. Filed May 29, 1909. Serial No. 499,206.



1. In an apparatus of the class described, the combination of a staple-discharging member, a rotary staple magazine, a shaft carrying said magazine and having longitudinally-extending grooves provided with laterally curved portions and with straight portions connected by such curved portions, each groove having one straight portion in longitudinal register with a straight portion of the succeeding groove, and a pin yieldingly carried by the discharging member and adapted to travel in a groove during one direction of movement of the discharging member and to coöperate with such groove to effect a partial rotation of the magazine and to move from such groove to the succeeding groove during the movement of such member in the opposite direction.

2. In an apparatus of the class described, a holder having a staple discharge-way therein, a shaft mounted adjacent to such discharge-way and parallel thereto, a magazine carried by such shaft and adapted to carry and move staples from forming to discharging position, means movable to coöperate with said magazine to form staples therein, and means movable in said discharge-way for discharging staples from such magazine and having a part adapted to coöperate with said shaft to impart intermittent movements to the magazine when said discharging means is operated.

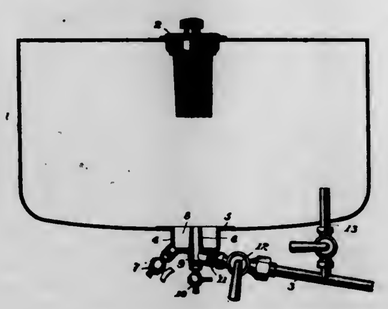
3. In an apparatus of the class described, the combination of a holder having a staple discharge-way therein, a rotary staple carrying magazine mounted adjacent to such discharge-way and having a part projecting axially therefrom in parallelism with such way, a member movable to coöperate with such magazine to form staples therein, a plunger movable in said discharge-way to discharge staples from such magazine and from said way, said plunger having connection with said member whereby to impart operative movements thereto and having a part which cooperates with the part projecting from such magazine to intermittently rotate the magazine as the plunger is operated whereby to successively move staples into register with such plunger.

4. In an apparatus of the class described, the combination of a holder having a staple discharge-way therein, a shaft mounted adjacent to such discharge-way in parallelism therewith, a staple magazine carried by such shaft, and mechanism operative to coöperate with said magazine to form staples therein and to coöperate with such shaft to intermittently rotate such magazine to move staples from forming to discharging position and having a part working in said discharge-way to discharge staples from the magazine.

5. In an apparatus of the class described the combination of a holder having a discharge-way therein, a staple magazine carried by such holder adjacent to such discharge-way and having peripheral grooves therein adapted to successively move into register with such discharge-way when the magazine is rotated, a part projecting axially from such magazine in parallelism with such discharge-way, a member operative to coöperate with said magazine to form staples in the grooves thereof, and a plunger movable in said discharge-way to discharge staples from such magazine and having means movable therewith and coöperating with said part to impart intermittent rotary movements to the magazine as the plunger is operated.

[Claims 6 to 10 not printed in the Gazette.]

942,907. GASOLENE-TANK FOR MOTOR-VEHICLES. RUSSELL HUFF, Detroit, Mich., assignor, by mesne assignments, to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed Aug. 26, 1907. Serial No. 390,224.



1. A sediment collector comprising a cup-shaped attachment having means at its top for securing it to a vessel, a central tube therein, the upper open end of which is above the bottom and does not extend above the top walls, means for connecting an outlet pipe with the lower end of the central tube, a drain cock in the bottom of the cup-shaped attachment, and a drain cock in the bottom of said tube.

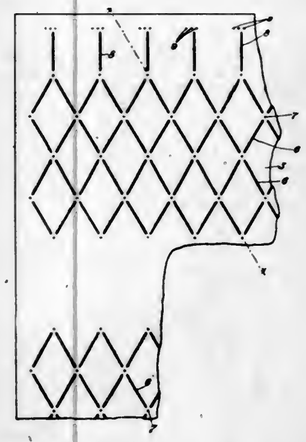
2. A sediment collector comprising a cup-shaped attachment in one piece having a flange at its top, a central tubular portion projecting upwardly from the bottom and not extending above the top, the said tubular portion being open at its lower end, a lateral opening near the bottom of said tubular portion adapted to be connected with an outlet pipe, and a screw-threaded drain opening in the bottom of said cup-shaped attachment.

3. A sediment collector comprising a cup-shaped attachment having a flange around its top, a central tube therein, the upper open end of which is on the same plane as the top walls of the attachment, means for connecting an outlet pipe with the lower end of the central tube, and a drain cock in the bottom of the cup-shaped attachment.

4. A sediment collector comprising a cup-shaped attachment having a flange around its top, a central tube therein the upper open end of which is on the same plane as the top walls of the attachment, means for connecting an outlet pipe with the lower end of the central tube, a drain cock in the bottom of the cup-shaped attachment, and a drain cock in the bottom of said tube.

5. A sediment collector comprising a cup-shaped attachment having a flange around its top, a central tube therein, the upper open end of which is in substantially the same plane as the top of the attachment, means for connecting an outlet pipe with the lower end of the central tube, and a drain cock in the bottom of the cup-shaped attachment.

942,908. UPHOLSTERY-GOODS-MARKING BOARD. JESSE G. HULSE and ADOLPH F. SCHRAMM, Columbus, Ohio, assignors to Tufting Machine Supply Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 18, 1909. Serial No. 518,351.



1. In a marking device for upholstery covering goods, the combination with a suitable board, of staple-like members driven therein to form ribs on intersecting lines demarking the portions of the goods to receive tufting material, and means on said board whereby the goods can be perforated for the reception of button holding devices.

2. In a marking device for upholstery covering goods, the combination with a suitable board, of staple-like members driven therein to form ribs on intersecting lines demarking the portions of the goods to receive tufting material, and pins on said board whereby the goods can be perforated for the reception of button holding devices.

3. In a marking device for upholstery covering goods the combination with a suitable board of staple-like members driven therein to form ribs on intersecting lines demarking the portions of the goods to receive tufting material and similar members driven on lines to be plaited at the margin of the goods, means on said board whereby the goods can be perforated for the reception of button holding devices, and means for perforating the margin of the goods for the reception of fastening devices.

942,909. EMERGENCY WHEEL-RIM. WILTON F. JENKINS and ROBERT L. JENKINS, Richmond, Va. Filed Sept. 25, 1908. Serial No. 454,693.



1. The combination with a wheel, of an auxiliary rim therefor, a standard on said rim having an outwardly turned flange having a curved portion constituting a socket, an extension bolt carried by said standard and provided with a hooked end, and means for clamping the rim of the wheel between said hooked end and said socket.

2. The combination with a wheel, of an auxiliary rim therefor, perforated flanges secured to said rim, a clamping bolt disposed in the perforations in said flanges, a sleeve loosely disposed on said bolt between said flanges, and means for locking said bolt in its extended position of disuse.

3. The combination with a wheel, of an auxiliary rim therefor, a plate secured to said rim and provided with perforated flanges, a clamping bolt provided with a pin disposed in the perforations in said flanges, a slotted collar disposed on said bolt between said flanges adapted to engage the pin on said bolt to lock the latter and arranged to be turned to permit the entrance of the pin in said slot.

4. The combination with a wheel, of an auxiliary rim therefor, a plate secured to said rim and provided with inwardly extending perforated flanges and an outwardly extending flange having a curved portion constituting a socket, a clamp provided with a pin disposed in the perforations in said flanges, and arranged to hold said rim against said curved flange, and means for extending said bolt thereby releasing the rim and for locking the bolt in its extended position of disuse.

5. The combination with a wheel, of an auxiliary rim therefor, a plate secured to said rim and provided with inwardly extending perforated flanges and an outwardly extending curved flange constituting a socket adapted to receive the edge of the auxiliary rim, a clamping bolt provided with a hook and a pin disposed in the perforations in said flanges, a slotted collar disposed on said bolt between said flanges and adapted to engage the pin on said bolt to lock the latter and arranged to be turned to permit the entrance of the pin in said slot, and means for clamping the rim between the hook of said bolt and said socket.

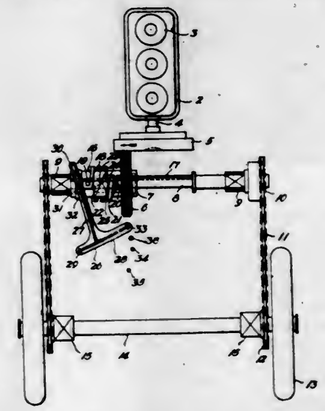
942,910. SPEED-CHANGING MECHANISM. EMIL E. KELLER, Pittsburg, Pa. Filed Nov. 14, 1905. Serial No. 287,312.

1. In combination with a motor-driven shaft, a shaft to be driven therefrom, a friction gear device between said shafts and means movable longitudinally of the shaft to be driven and the operation of which is dependent upon the torque encountered for varying the speed ratio of said friction gear device.

2. In combination with a motor-driven part, a shaft to be driven therefrom, a friction gear device between said shafts, torque-responsive means mounted on the driven shaft and movable longitudinally thereof for varying the speed ratio of said device and manually-operated means for limiting the operation of said torque-responsive means.

3. In combination in a speed change mechanism, a driving part comprising a friction wheel, and a driven part comprising a rotatable shaft, a sleeve secured thereto, a friction disk coöperating with said wheel and loosely mounted on said shaft, and a driving connection between said disk and said sleeve.

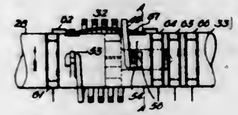
4. In a speed change mechanism, a driving member having a friction face, a driven element having a friction face, a rotatable shaft upon which said driven element is loosely mounted, a yielding connection between said shaft and said element and means whereby said element is moved longitudinally of said shaft under the restraint of said connection.



5. In a speed change device, a driving friction member, a rotatable shaft, a rotatable separable member, a portion of which is feathered to said shaft and a portion of which is free to revolve independently of said shaft, a yielding driving connection between the portions of said separable member and means for locking the feathered portion of said member in different positions along said shaft.

[Claims 6 to 11 not printed in the Gazette.]

942,911. SPEED-CHANGING MECHANISM. EMIL E. KELLER, Pittsburg, Pa. Filed Nov. 14, 1905. Serial No. 287,318.



1. In a power transmitting apparatus, a plurality of independently operable electrically controlled clutch devices, means by which said devices are caused to separately transmit power, and torque controlled mechanism upon which the operation of said means is dependent.

2. In a power transmitting apparatus, a plurality of electrically operated clutch devices, means by which said devices are caused to separately transmit power, and torque controlled mechanism upon which the operation of said means is dependent.

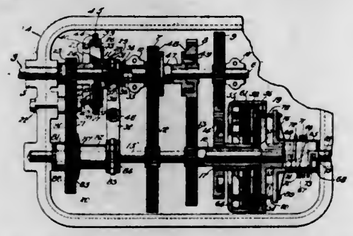
3. In a power transmitting apparatus, a plurality of independently operable electrically controlled clutch and gearing devices, means by which said devices are caused to separately transmit power and torque controlled mechanism upon which the operation of said means is dependent.

4. In a power transmitting apparatus, a plurality of electro-magnetically operated clutch devices, means by which said devices are caused to transmit power, and torque controlled mechanism upon which the operation of said means is dependent.

5. In a power transmitting apparatus, a plurality of magnetically operated clutch devices and a torque responsive device for controlling the operation of said devices.

[Claims 6 to 29 not printed in the Gazette.]

942,912. SPEED-CHANGING MECHANISM. EMIL E. KELLER, Pittsburg, Pa. Filed Aug. 2, 1909. Serial No. 510,737.



1. The combination of a driving element, a driven element, a set of speed change gears between said elements, a composite clutch device for controlling the operation of said set of gears and a torque responsive device between the speed change gears and the driven element for controlling the operation of said composite clutch device.

2. The combination of a driving element, a driven element, a plurality of sets of speed change gears between said elements, a composite clutch device for controlling the operation of said sets of gears and an elastic driving coupling between said gears and the driven element for controlling the operation of said composite clutch device.

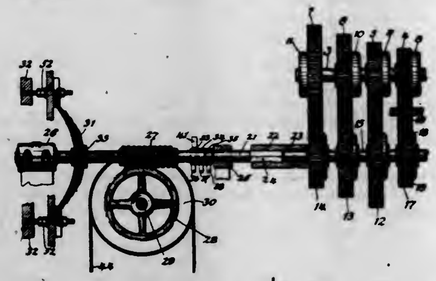
3. The combination of a driving element, a driven element, a set of speed change gears between said elements and a torque controlled composite clutch device responsive to the torque encountered by the driven element for controlling the operation of said speed change gears.

4. The combination of a driving element, a driven element, a set of speed change gears, a composite clutch device for controlling the operation of said gears, a torque responsive agent for controlling the operation of said clutch device and means for automatically rendering said clutch device effective when said driving element has attained a predetermined speed of rotation.

5. The combination of a driving part, a driven part, a plurality of sets of speed change gears, a torque controlled composite clutch device for controlling the operation of said speed change gears, a reversing gear set, a clutch between said driving part and said speed change gears, automatic means for controlling the operation of said clutch and means for rendering said clutch ineffective and for rendering said reversing gears effective.

[Claims 6 to 16 not printed in the Gazette.]

942,913. POWER-TRANSMISSION MECHANISM. EMIL E. KELLER, Pittsburg, Pa. Filed Dec. 13, 1905, Serial No. 291,512. Renewed Aug. 24, 1909. Serial No. 514,451.



1. In a power transmission mechanism, a plurality of power transmission gears, coöperating clutch devices, a load responsive device for controlling the operation of said clutches which comprises a driving member, a driven member, yielding means whereby said driven member is caused to move longitudinally in response to variations of load and means for rendering the motion of said driving member effective in controlling the operation of said clutches.

2. In a power transmission mechanism, a speed change device comprising a plurality of speed gears and coöperating clutch devices for controlling the operation of said gears, a load responsive device for controlling said clutch devices which comprises a driving part and a part to be driven therefrom, a yielding abutment for said driving part whereby said driven part is caused to move longitudinally in response to variations of load and means for rendering the longitudinal motion of said driving part effective in controlling the operation of said clutch devices.

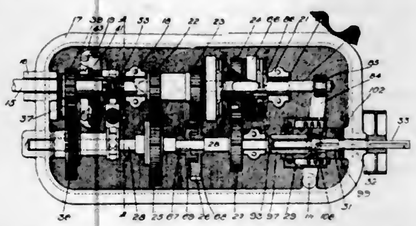
3. In a power transmission mechanism, a driving part, a driven part, a plurality of sets of speed change gears between said parts, means for causing the driven part to occupy different longitudinal positions corresponding to different resistances encountered, and means for rendering the changes in position of said part effective in controlling the operation of said gears.

4. In a power transmission mechanism, a speed change device comprising a plurality of sets of speed change gears and means for controlling the operation of said gears, a power delivery agent, a rotatable driving member therefor located between said agent and said speed change device, a yielding abutment for said member whereby it is permitted to move to different positions corresponding to different resistances encountered by said agent and means for rendering the motion of said member effective in controlling the operation of gear controlling means.

5. A power transmitting mechanism comprising a plurality of sets of transmission gears and coöperating clutch devices, in combination with a worm, a worm wheel, means for causing said worm to move longitudinally in response to variations of load while transmitting power to said worm wheel, and means for rendering the longitudinal motion of said worm effective in controlling the operation of said transmission gears and clutch devices.

[Claims 6 to 16 not printed in the Gazette.]

942,914. SPEED-CHANGING MECHANISM. EMIL E. KELLER, Pittsburg, Pa. Filed Nov. 14, 1905, Serial No. 287,311. Renewed Aug. 24, 1909. Serial No. 514,452.



1. In a power transmitting apparatus, a plurality of independently operable clutch devices, means by which said devices are caused to transmit power and torque controlled mechanism upon which the operation of said means is dependent.

2. In a power transmitting apparatus, a plurality of independently operable clutch and gearing devices, means by which said devices are caused to separately transmit power and torque responsive mechanism for controlling the operation of said means.

3. In a power transmitting apparatus, a plurality of independently operable clutch and gearing devices and torque responsive mechanism for operating said devices.

4. In a power transmitting apparatus, in combination with a power shaft, a member rotatable with said shaft and adapted to lag in relation thereto, a plurality of independently operable clutch devices and means whereby the operation of said clutch devices is dependent upon the degree of such lag.

5. In a power transmitting apparatus adapted for use in automobiles, the combination with a plurality of independently operable clutch devices of power transmitting gear trains and torque responsive means dependent upon the load or load resistance for controlling the operation of said clutch devices.

[Claims 6 to 41 not printed in the Gazette.]

942,915. PNEUMATIC MUSICAL INSTRUMENT. PAUL B. KLUGH, Chicago, Ill., assignor to The Cable Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 21, 1908. Serial No. 449,654.



1. In a pneumatic musical instrument, the combination with an air-passage, a port for connection with said passage, and a valve for controlling such connection, of a member positioned to afford a seat for the valve having an opening and a flange turned outwardly from and surrounding said opening upon which the said valve may rest, said flange having a flat valve-seating surface and a rounded inner edge.

2. In a pneumatic musical instrument, the combination with an air-passage, a port for connection with said passage, and a valve for controlling such connection, of a member positioned to afford a seat for the valve comprising a barrel having at one end an outwardly-turned annular flange upon which said valve may rest, said flange having a flat valve-seating surface and a rounded inner edge.

3. In a pneumatic musical instrument, the combination with an air-passage, a port for connection with said passage, and a valve for controlling such connection, of a member positioned to afford a seat for the valve comprising a barrel having at one end an outwardly-turned annular flange upon which said valve may rest and at the other end a second outwardly-turned annular flange by which the said member may be secured in position, the first-mentioned flange having a flat valve-seating surface and a rounded inner edge.

942,916. RED AZO DYE FOR LAKES AND PROCESS OF MAKING SAME. WILHELM KÖNIG, Ohrdruf, Germany. Filed Sept. 12, 1907. Serial No. 392,466.

1. The herein described process of manufacturing monoazo dyestuffs especially adapted for preparing red pigment colors insoluble in oil, consisting in causing 2.3-oxynaphthoic acid (having a melting point of 216° C.) to react with diazotized anilin carboxylic acids of the general formula $C_6X_4.NH_2.COOH$, wherein X means hydrogen atoms or Cl, Br, I, alkyl groups, oxalkyl groups, NO_2 and other indifferent substitutes.

2. As a new product the dyestuffs obtained by combining the diazotized anilin carboxylic acids of the general formula $C_6X_4.NH_2.COOH$, wherein X means hydrogen atoms or Cl, Br, I, alkyl groups, alkoxy groups, NO_2 and other indifferent substitutes with 2.3-oxynaphthoic acid having a melting point of 216° C. forming red pastes or red powders soluble in water to a red solution and soluble in concentrated sulfuric acid to a blue red solution from which the red brown free acids of the dyestuffs may be precipitated.

3. As a new product of manufacture, the pigment colors prepared by mixing the paste or the solution of dyestuffs of the general formula

$$C_6X_4.COOH.N_2.C_{10}H_5.OH.COOH;$$

wherein X means hydrogen atoms or Cl, Br, I, alkyl groups, alkoxy groups, NO_2 and other different substitutes, with solutions of metal salts, the pigment colors so obtained being completely insoluble in water, oil and alcohol and of an excellent resistance to light.

942,917. PROCESS AND APPARATUS FOR THE EXTRACTING OF OIL FROM WAX. JOSEPH C. KUEBLER, Wellsville, N. Y. Filed Aug. 25, 1909. Serial No. 514,506.



1. The improved process for separating oil and wax which consists of the following steps:—first, depositing the oil-bearing wax in melted condition on a body of water and around a tube; second, passing a cooling medium through said tube to solidify the wax; third, withdrawing the water from below the wax; fourth, passing a heating medium through the tube to raise the temperature of the wax sufficiently to sweat the oil from its pores; and fifth, passing a heating medium through the tube to melt the wax from which the oil has been extracted, substantially as set forth.

2. Apparatus for separating oil and wax comprising, an open topped pan, an outlet therefrom, a horizontal screen supported in the pan, a series of tubes lying on the screen, pipes connected with the tubes to provide for a circulation therethrough of water and steam, a water inlet communicating with the pan, and a pipe for admitting melted oil-bearing wax to the pan above the screen, combined substantially as set forth.

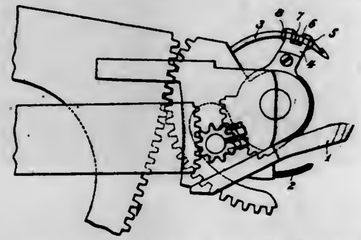
942,918. PLOW. CHARLES W. LANDERS and ALBERT W. LANDERS, Highland Home, Ala. Filed Feb. 1, 1909. Serial No. 475,348.



1. In a plow, a beam having a mold board and landside connected to the beam, a draft rigging connection back of the forward end of the beam and on the side thereof opposite the mold board, handles extending rearwardly and obliquely from the beam, and sidewise draft resisting means comprising a member attached to the beam in front of the point of connection of the draft rigging and having a rounded surface, a forked bracket having a joint connection with said member, a pin forming an axle, a wheel on the pin, the parts being assembled to permit the bracket to be adjusted at an angle with relation to the beam, and the pin forming the axle is inclined.

2. In a plow, a beam having a mold board and landside connected to it, a connection for drawing the plow stationed on the side of the beam back of the forward end of said beam, handles extending rearwardly and sidewise of the beam from the side containing the connection for drawing the plow, and sidewise draft resisting means standing at an incline toward the side containing the connection for drawing the plow, said draft resisting means comprising a member attached to the beam at a point in front of the connection for the draft rigging having a rounded surface, a forked bracket having a socket adjustable on the rounded surface of the member, means for adjustably connecting the forked bracket and member whereby the bracket is adjustable with relation to the beam and the axle of the wheel is inclined thereby.

942,919. NEEDLE-GUIDE. ALBERT LEACH, Campello, Mass., assignor, by direct and mesne assignments, to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Dec. 29, 1906. Serial No. 349,998.

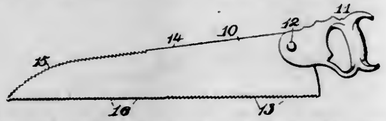


1. A needle guide for sewing machines, provided with a cutting edge arranged to extend close to the surface of a needle and remove scale from the needle during the passage of the needle therethrough.

2. A needle guide for sewing machines, provided with a perforation through which the needle passes and having a cutting edge arranged to extend close to the surface of the needle and remove scale from the needle during the passage of the needle therethrough and formed by a bevel surface sloping away from the needle.

3. A needle guide for sewing machines provided with a perforation to receive the needle, a slot dividing the perforated portion into two parts, and cutting edges at the ends of the perforation in each part arranged to extend close to the surface of the needle and formed by bevel surfaces sloping away from the needle.

942,920. SAW-BLADE. ROBERT E. MARTIN, Newark, N. J. Filed Apr. 13, 1909. Serial No. 489,689.



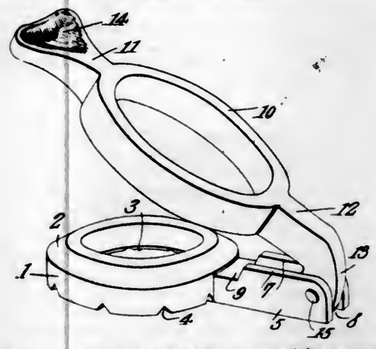
1. A saw comprising a blade having a main cutting edge straight for its entire length and provided with teeth, the back of the blade being devoid of teeth for a major portion of its length, and being curved and provided with teeth on its outer end whereby a curved sawing surface is provided on the outer edge of the back.

2. A blade for saws having a main cutting edge straight for its entire length and provided with teeth, the back edge of the blade being straight and devoid of teeth for a major portion of its length and slightly tapered or inclined toward the front edge, the back edge at its end being curved to meet at a point with the main cutting edge whereby a rounded sawing surface is provided on the outer end of the back.

942,921. RESIZER. FRANK W. MOORE, Brooklyn, Ill., assignor of one-half to John W. Thompson, Beardstown, Ill. Filed Jan. 27, 1909. Serial No. 474,538.

1. A device of the class described comprising a swage; and a follower conforming in shape to the periphery of the swage; each having an arm projecting beyond its periphery, the end of the swage arm being cut away, and the end of the follower arm being down-bent to register in the cut-away portion of the swage arm and being pivotally mounted therein, the swage arm being longitudinally cut away upon its upper surface to form shoulders arranged to receive the follower arm throughout its length, the said shoulders being cut away adjacent the body of the swage to receive the body of the follower.

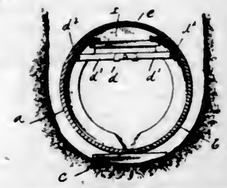
2. A device of the class described comprising a swage; and a follower conforming in shape to the periphery of the swage; each having an arm projecting beyond its periphery, the arm of the follower being terminally down-bent and being pivotally assembled with the arm of the swage, the arm of the swage being provided upon its upper face with upstanding arms arranged to receive the arm of the follower throughout its length.



3. A device of the class described comprising a swage; and a follower conforming in shape to the periphery of the swage; each having an arm projecting beyond its periphery, one of said arms being longitudinally slotted to form shoulders, and the other arm being pivoted between the shoulders to form a hinged connection between the swage and the follower, and being receivable there-between throughout its length to limit the lateral movement of the follower upon the swage.

4. A device of the class described comprising a swage, and a follower conforming in shape to the periphery of the swage; each being provided with an arm projecting beyond its periphery; the arm of the swage being longitudinally slotted to form upstanding shoulders to receive the arm of the follower, the arm of the follower being pivoted between the shoulders to form a hinged connection between the swage and the follower, the shoulders being cut away adjacent the body of the swage to receive the body of the follower.

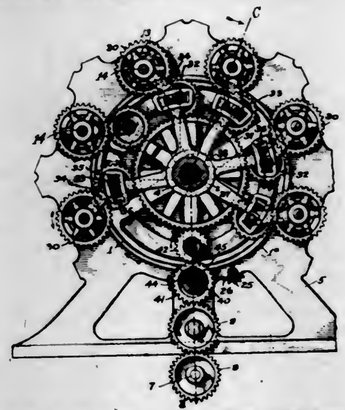
942,922. COLLAPSIBLE FORM OR CENTER. PHILIP O. O'CONNOR, Hartford, Conn. Filed Dec. 5, 1908. Serial No. 466,059.



In a form or center two sections hinged together, a rigid collapsible brace connecting the free edges of said sections and holding them a fixed distance apart, oppositely disposed shoulders formed on the free edges of said hinged sections, struts extending between said free edges and resting on said shoulders, and a removable section filling the space between said free edges and supported by said struts.

942,923. PRINTING-PRESS. GEORGE E. PANCOAST, Brooklyn, N. Y., assignor to American Lithographic Company, a Corporation of New York. Filed Nov. 15, 1900. Serial No. 36,604. Renewed Mar. 27, 1908. Serial No. 423,550.

1. In a printing press the combination with an impression member, of a printing member comprising a plurality of printing forms, one of said members being frictionally driven from the other, means for simultaneously separating or bringing together two or more of the printing forms and the impression member, and connections whereby the printing forms are at all times caused to operate in unison, substantially as described.



2. In a printing press the combination with an impression member, of a printing member comprising a plurality of printing forms, one of said members being frictionally driven from the other, means for simultaneously separating or bringing together two or more of the printing forms and the impression member, and means for driving said printing and impression members independently of each other when separated, substantially as described.

3. In a printing press the combination with an impression member consisting of a drum, of a printing member comprising a plurality of printing cylinders, one of said members being frictionally driven from the other, means for simultaneously moving the printing cylinders into or out of coöperative relation with the impression drum, and means for driving said printing and impression members independently of each other when out of coöperative relation, substantially as described.

4. In a printing press the combination with an impression member consisting of a drum having a circumferentially continuous impression surface, of a printing member comprising a plurality of circumferentially continuous printing cylinders, one of said members being frictionally driven from the other, means for simultaneously moving the printing cylinders into or out of coöperative relation with the impression surface, and means for driving said printing and impression members independently of each other when out of coöperative relation, substantially as described.

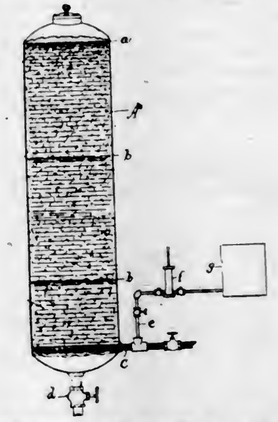
5. In a printing press the combination with an impression member consisting of a drum, of a plurality of printing forms arranged concentrically therewith and driven frictionally thereby, means for simultaneously moving the printing forms into or out of coöperative relation with the impression drum, and means for causing the printing forms to operate in unison whether in or out of coöperative relation with the impression drum, substantially as described.

[Claims 6 to 38 not printed in the Gazette.]

942,924. METHOD OF CHARGING PULP-DIGESTERS. EDWARD F. PARKER, Fairfield, Me. Filed Apr. 3, 1909. Serial No. 487,734.

1. The herein described method of cooking wood in the manufacture of wood pulp which consists of charging the digester with wood and caustic soda or other like liquor with a relatively strong solution at the bottom and a relatively weak solution at the top of the digester and finally injecting steam under pressure.

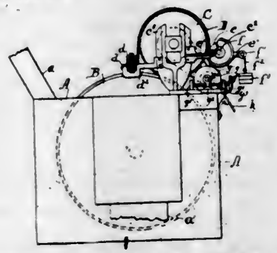
2. The herein described method of cooking wood in the manufacture of wood pulp which consists of charging the digester with wood and caustic soda or other like liquor with a relatively strong solution at the bottom and a relatively weak solution at the top of the digester, injecting steam under pressure and while the mass is cooking injecting an additional quantity of liquor at the bottom of the mass.



3. The herein described process of cooking successive quantities of wood in the manufacture of wood pulp which consists of charging the entire quantity to be treated into the digester with caustic soda or other like liquor, subjecting it to the action of steam under pressure and when the mass has reached substantially its normal cooking temperature injecting an additional quantity of liquor at the bottom of the mass.

4. The herein described process of cooking successive quantities of wood in the manufacture of wood pulp which consists of charging the entire quantity to be treated into the digester with caustic soda or other like liquor of normal strength, subjecting it to the action of steam under pressure and when the mass has reached substantially its normal cooking temperature injecting an additional quantity of liquor at the bottom of the mass.

942,925. MACHINE FOR SAVING WASTE PULP. EDWARD F. PARKER, Fairfield, Me. Filed Apr. 26, 1909. Serial No. 492,352.



1. In a machine for saving waste pulp the combination of a collecting member, adapted to collect the pulp in small particles on its surface, a yielding concentrating member having a flat face adapted to drag across the surface of the collecting member to gather the particles into bunches.

2. In a machine for saving waste pulp the combination of a movable collecting member adapted to collect the pulp in small particles on its surface, a yielding concentrating member having a flat face adapted to drag across the surface of the collecting member.

3. In a machine for saving waste pulp, the combination of a movable collecting member adapted to collect

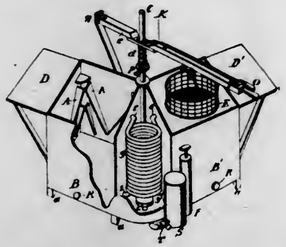
the pulp in small particles on its surface, a fixed and yielding concentrating member having a flat face adapted to drag across the surface of the collecting member.

4. In a machine for saving waste pulp, the combination of a roll adapted to pick up the pulp in small particles and a yielding concentrating member having a flat face adapted to drag across the surface of the roll to concentrate the particles.

5. In a machine for saving waste pulp, the combination of couch roll and a yielding concentrating member having a flat face coöperating with the couch roll and adapted to drag across its surface.

[Claims 6 to 14 not printed in the Gazette.]

942,926. DISH-WASHING MACHINE. WILLIAM J. PAUL, Cincinnati, Ohio. Filed Nov. 7, 1908. Serial No. 461,548.



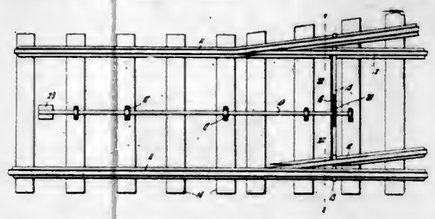
1. In a dish washing machine a plurality of adjacent fluid tanks, an upright supporting member secured thereto, an operating lever rotatably mounted thereon and extended on each side of said supporting member and adapted to slide thereon, a connection between the lower portion of said supporting member and one end of the operating lever, the free end of the operating lever extending over said tanks and a dish receptacle supported therefrom and adapted to be reciprocated in said tanks.

2. In a dish washing machine a plurality of adjacent fluid tanks, a supporting member secured thereto and extending thereabove, an operating lever rotatably mounted on said supporting member and adapted to slide thereon, a brace pivoted to one end of said operating lever and at the opposite end to the lower portion of said supporting member, a spring surrounding said supporting member and normally exerting the upward pressure upon said operating lever, a dish receptacle suspended from the free end of the operating lever and adapted to be reciprocated in said tanks, and means carried by said operating lever to engage said supporting member to secure said operating lever in its raised position.

3. In a dish washing machine, a fluid tank, a plurality of internal deflectors upon the inner side thereof, a support extending above said tank, an operating lever mounted on said support and extending on each side thereof, a connection between one end of the lever and the base of the support, the free end of the lever extending over the tank and adapted to reciprocate a dish receptacle therein.

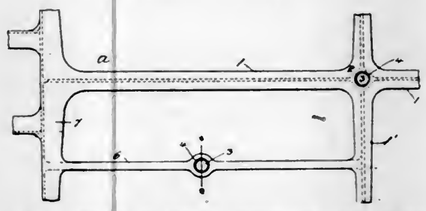
942,927. RAILWAY SWITCH MECHANISM. FRED P. PERKINS, Batesville, Miss. Filed June 11, 1909. Serial No. 501,566.

1. In a railway switch operating device, the combination of a railroad track provided with switch points; of a rack bar connecting said switch points, a rod supported longitudinally of said track, bearings on the ties of the track for said rod, a gear fixed on said rod and meshing with said rack bar, oppositely disposed cams held to extend longitudinally of the end of the rod, and a train supported device to engage said cam and rotate the rod in one direction or the other according to the cam engaged, said train supporting device comprising a pair of cam elements, a rock lever, and an operative connection between said cam elements and rock lever to depress one of said elements as the other is raised.



2. In a railway switch operating device, the combination of a railroad track provided with switch points; of a rack bar connecting said switch points, a bar connecting the rails of the track and lying beneath the rack bar, friction rollers between said bars, a rod supported longitudinally of said track and lying between the rails, a gear fixed on said rod and meshing with said rack bar, cam elements formed on the opposite sides of the ends of said rod and extending longitudinally thereof, a rolling stock supported standard, a handled rock lever carried by said standard, bars extending downward from the opposite end of said handled rock lever, and cam elements carried on the lower ends of said bars adapted to contact with one or the other of the cam elements on the rods according as the handle is moved to one side or the other.

942,928. METHOD OF CASTING METALLIC MEMBERS. HARRY M. PFLAGER, St. Louis, Mo., assignor to Commonwealth Steel Company, St. Louis, Mo. Filed July 8, 1909. Serial No. 506,544.



1. The method of casting intersecting metallic members, consisting in forming their intersecting portion around a collapsible core, substantially as described.

2. The method of casting intersecting metallic members, consisting in forming their intersecting portion around a hollow yieldable core, substantially as described.

3. The method of casting intersecting metallic members, consisting in forming their intersecting portion around a hollow yieldable metallic core, substantially as described.

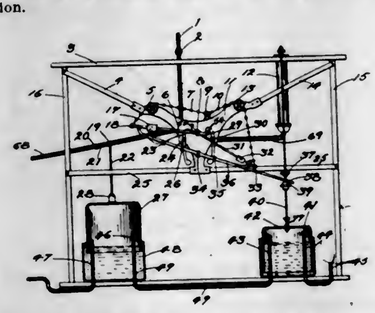
4. The method of casting a metallic member, consisting in forming a definite portion thereof around a yieldable core, substantially as described.

5. The method of casting which consists in providing a collapsible core at a critical shrinkage point, substantially as described.

[Claims 6 to 11 not printed in the Gazette.]

942,929. GAS APPARATUS. ARA P. RICKMIRE, Waterloo, Iowa. Filed Oct. 8, 1908. Serial No. 456,753.

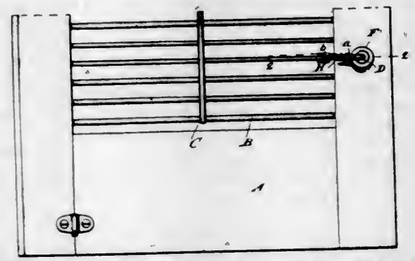
1. In a gas apparatus, in combination, a water-motor having a movable piston, a supply-pipe containing a fluid under pressure, a waste-pipe, both said supply- and waste-pipes having means of communication with one end of said water-motor by way of a valve-chamber, a suitable valve or valves in said chamber adapted to be shifted to govern the communication between said pipes and said water-motor, means for actuating said valve or valves, consisting of a pivoted lever one member of which is supplied with a linking-connection to said piston, oppositely-projected arms mounted to rock independently, means of connection between each of said arms and said valve or valve, each of said arms being adapted to be contacted and moved in one direction by the adjacent member of said pivoted lever below only when such adjacent member has arrived at a certain stage of its progress in one direction.



2. In a gas apparatus, in combination, a water-motor containing a movable piston, a supply-pipe containing a fluid under pressure, a waste-pipe, both said supply- and waste-pipes having means of communication with one end of said water-motor by way of a valve-chamber, a valve-chamber, a suitable valve or valves in said chamber adapted to be shifted to govern the communication between said pipes and water-motor, a shifting-arm operatively connected to said valve or valves, a chain or cord connected to said shifting-arm and having its opposite ends oppositely directed and supported, a pivoted lever connected by linking-means to said piston, oppositely-projected arms pivotally mounted above said pivoted lever, the outer end of each arm being connected to the adjacent end of said chain or cord, a weight secured to the outer member of each arm, each of said arms being adapted to be contacted and moved in one direction only by the adjacent end of said pivoted lever below at a certain stage only of the progress of the latter in one direction.

3. In a gas apparatus, in combination, a water-motor having a movable piston, a supply-pipe containing a fluid under pressure, a waste-pipe, both said supply- and waste-pipes being in communication with one end of said water-motor by way of a valve-chamber, a valve-chamber, a suitable valve or valves in said chamber adapted to be shifted to govern the communication between said pipes and water-motor, a shifting-arm operatively connected to said valve or valves, a chain or cord connected at its middle point to said shifting-arm, idler-pulleys, each part of said chain or cord being carried over and supported by the idler-pulley immediately adjacent thereto, a pivoted lever swiveled at one end to linking-means connected to said piston, upwardly-projecting forks or stirrups on each member of said pivoted lever, independently-movable pivoted levers mounted above said first-mentioned lever each with its outer end connected to the adjacent end of said chain or cord and the outer member of each of said levers adapted to be carried upward by the stirrup of the adjacent member of the first-mentioned lever only when such latter member has reached a certain stage of its progress in its upward course, a lug or pin projecting from the end of the inner member of each of the last or second-mentioned levers, a weight on the outer member of each of said second-mentioned levers, pendulums each hung to swing from a pivot located above its center of gravity and each provided with an inwardly-projecting catch on its upper member, the catch on each pendulum being adapted to engage and hold the pin on the inner end of the oppositely-located second-mentioned lever and slacken the chain connected thereto when the outer member of the latter is elevated to a certain height by the contacting fork or stirrup of the adjacent member of the first-mentioned lever, and a catch projecting from each member of said first-mentioned lever into the path respectively of the adjacent lower part of the nearest pendulum, each of said catches being located and adapted to engage and lift the lower member of the contacting pendulum only when said water-motor piston is nearing one limit of its stroke, to a point where the pin on the end of the oppositely-located second-mentioned lever will become suddenly detached from the catch on the upper member of said pendulum.

942,930. BLIND-SLAT FASTENER. JOHN B. RILEY, Austin, Tex. Filed Oct. 6, 1909. Serial No. 521,327.

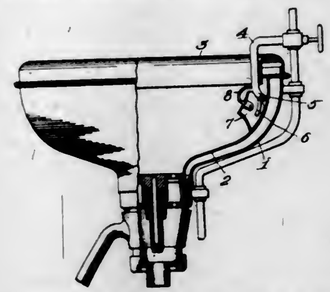


1. As a new article of manufacture, a blind slat fastener comprising a bracket adapted to be attached to and project from the face of a blind frame, and a swinging member pivoted on the outer portion of said bracket and having a bifurcated end adapted, when the member is swung inward, to receive the edge of an adjacent slat and hold the same against swinging.

2. As a new article of manufacture, a blind slat fastener comprising a bracket of angular form, one arm of which is adapted to be attached to the face of a blind frame, and a member fulcrumed on the other arm of said bracket and having a bifurcated inner arm adapted, in one position of the member, to receive the edge of an adjacent slat, and also having an outer arm forming a handle or finger-piece.

3. As a new article of manufacture, a blind slat fastener comprising a bracket, of angular form, one arm of which is threaded and equipped with a rose and the other arm of which is reduced at its end, a movable member formed of a single piece of sheet-metal bent upon itself and straddling the reduced end of the bracket, and having a handle arm and also having a bifurcated arm adapted in one position to receive the edge of an adjacent slat, and a pintle extending through and connecting the movable member and the reduced end of the bracket.

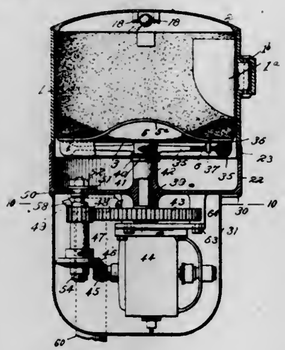
942,931. DENTAL SPITTOON. CARL E. RITCHEY, New London, Iowa. Filed Oct. 10, 1908. Serial No. 457,178.



In a dental spittoon, the combination of a stationary outer bowl, a revoluble inner bowl having an outlet in the center of its bottom, a rim carried by the outer bowl

and overhanging the inner one, a water supply pipe overhanging said rim and having an obliquely arranged injector nozzle for discharging a jet of water circumferentially in the inner bowl to rotate the latter and maintain a whirling or revolving sheet of water upon its inner surface, a longitudinally curved and downwardly and inwardly extending discharge pipe projecting laterally from said injector nozzle and in communication therewith, whereby it will continuously discharge a jet of water downwardly and inwardly in a radial direction toward the center of the inner bowl and across the whirling sheet of water in the same, to hasten the discharge of saliva and other matter upon said sheet of water, a curved arm carried by said water supply pipe and a governor plate fixed to said arm and disposed in rear of the injector nozzle, said governor plate being inclined downwardly and obliquely in a direction opposite to that of the nozzle and to the rotary movement of the whirling sheet of water, said governor plate being substantially inoperative under normal conditions but becoming effective to retard the rotary movement of the water upon an increase of water pressure and thereby govern the rotation of the bowl with respect to such variations in water pressure and to also direct the water contacting with the same inwardly in a substantially radial direction toward the center and outlet of the bowl.

942,932. VEGETABLE-PARING MACHINE. HENRY ROBINSON, Newark, N. J. Filed Nov. 12, 1908. Serial No. 462,286.



1. In mechanism of the character described, a rotary horizontal abradant member having a substantially flat abradant surface of broken crystalline material the surface being broken with a plurality of peripheral scoop-shaped humps or waves, said waves extending outwardly from a point intermediate of the center and periphery of the member.

2. In a machine of the character described, a rotary abrading member having a substantially flat surface and an upwardly projecting concave peripheral lip.

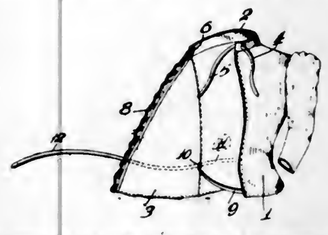
3. In a mechanism of the character described, the combination of a container, a water supply plug, means whereby water is supplied thereto, a barrel integral with said plug and a lid having a recessed portion to receive said plug and cheek pieces to receive said barrel between them, said cheek pieces pivotally attached to said barrel.

4. In a mechanism of the character described, the combination of a container, a water supply plug, means whereby water is supplied thereto, a barrel integral with said plug and a lid having a recessed portion to receive said plug and cheek pieces to receive said barrel between them, said cheek pieces pivotally attached to said barrel, and two jaws integral with said plug to receive the edge of the container between them for attaching the plug at any place at the edge of the container.

5. In mechanism of the character described, a water supply plug having means whereby a lid is hinged thereto, and a counterweighting spring for said lid, bearing with one end against said lid and with the other end against said plug.

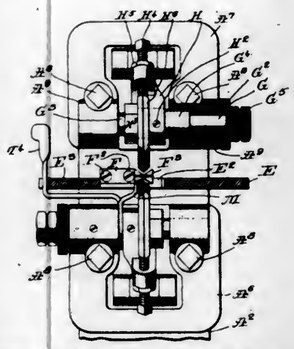
[Claims 6 to 20 not printed in the Gazette.]

942,933. WEARING-APPAREL. NANNIE J. ROLLER, St. Louis, Mo. Filed Mar. 15, 1909. Serial No. 483,631.



In a garment of the class described, a back portion, side portions, a front portion, one margin of which is secured to the margin of one of the side portions, the lowermost margin of which front portion is of greater length than the uppermost margin, said front portion arranged to overlap the opposite side portion, a tie carried by the garment for securing it about the waist of a wearer, a collar secured to the garment, there being an opening formed in said collar and a pair of ties secured to the collar which cooperates with the opening in the collar to form an adjustable means for securing the garment about the neck of the wearer.

942,934. BINDING-NICKING MACHINE. ELMER E. SANBORN, Lynn, Mass. Filed Dec. 16, 1908. Serial No. 467,797.



1. A binding nicking machine comprising, two oppositely disposed movable nicking cutters, two fixed cutters oppositely nicked to coöperate therewith, and means for simultaneously operating the movable cutters to cause them to catch the opposite edges of the binding, lay the edges against the fixed cutters, and cut from each a nick.

2. A binding nicking machine comprising, two oppositely disposed movable nicking cutters, two fixed cutters oppositely nicked to coöperate therewith, means for simultaneously operating the movable cutters to cause them to catch the opposite edges of the binding, lay the edges against the fixed cutters, and cut from each a nick, and means for positioning the binding with respect to the fixed cutters.

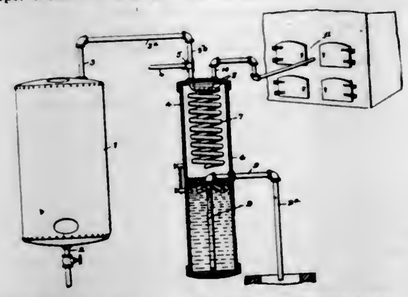
3. A binding nicking machine comprising, two oppositely disposed movable nicking cutters, two fixed cutters oppositely nicked to coöperate therewith, means for simultaneously operating the movable cutters to cause them to catch the opposite edges of the binding, lay the edges against the fixed cutters, and cut from each a nick, and a movable guide finger to abut against the unbound edge of the article being bound and define the position of the binding with respect to the cutter block.

4. A binding nicking machine comprising, two oppositely disposed movable nicking cutters, a cutter block nicked at opposite edges to coöperate therewith, and means for simultaneously operating the cutters to cause them to catch the opposite edges of the binding, lay the edges against the cutter block, and cut from each a nick.

5. A binding nicking machine comprising, a bed-plate having an opening therein and adapted to support the article being bound, a cutter block nicked at opposite sides to form cutters, and mounted to present said cutters at said opening, two movable nicking cutters, one above and the other below the bed-plate, and means for simultaneously operating the movable cutters to cause them to catch the opposite edges of the binding, lay the edges against the cutter block, and cut from each a nick.

[Claims 6 to 13 not printed in the Gazette.]

942,935. APPARATUS FOR DISPOSING OF NOXIOUS GASES. WILLIAM H. SABTAIN, Columbus, Ohio. Filed Apr. 10, 1909. Serial No. 489,198.



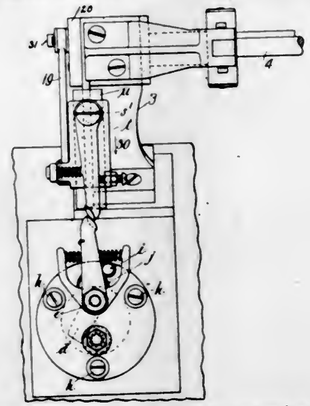
In an apparatus for the disposal of noxious gases, the combination with a rendering tank having a steam supply pipe, of a second water containing tank having an outlet pipe as described, a coiled tube within the upper portion of said second tank and having openings in its upper portion, a pipe connecting the upper end of the rendering tank and said second tank and connecting with said coiled tube, a water pipe leading into said connecting pipe, and a gas pipe leading from the upper end of said second tank to a fire containing structure.

942,936. TIMING AND IGNITION DEVICE. WILLIAM H. SAUNDERS, New London, Conn. Filed Aug. 31, 1908. Serial No. 451,073.

1. In combination with an internal combustion engine, a spark-plug, a make and break device engaging the same, a shaft for operating said device, a spring-actuated means for normally retaining the make and break device in contact with the plug, and spring-actuated means for moving said device away from the plug, and temporarily overcoming the action of the first spring-actuated means, said spring-actuated means including a U-shaped member, rigid with the shaft, and springs mounted in the arms of the U-shaped member, and an arm actuated from the engine for actuating the U-shaped member, whereby the make and break device is operated.

2. A sparking device for internal combustion engines, having in combination, a spark-plug, a make and break device engaging the same, a disk member adapted to be rotated from the engine, means for advancing or retarding the disk member with relation to the position of a crank-shaft of the engine, a cross-head operated from the disk-member, an arm carried by the cross-head, and adapted to actuate the make and break device, said arm being provided with an elliptical-shaped lug portion, and the make and break device being provided with a second arm, the lug portion of the first arm engaging said second arm.

3. A sparking device for internal combustion engines, having in combination, a spark-plug, a make and break device engaging the same, a disk-member adapted to be rotated from the engine, means for advancing or retarding the disk-member with relation to the position of the crank-shaft of the engine, a cross-head operated from the disk-member, an arm carried by the cross-head, a second arm engaging said arm, a U-shaped member rigid with the make and break device, and springs interposed between the second arm and the U-shaped member, whereby the make and break device is cushioned.



4. A sparking device for internal combustion engines, having in combination a finger, a spark-plug engaged by said finger, a shaft for supporting the finger, a U-shaped member rigid with the shaft, an arm rotatably mounted on the U-shaped member and resilient means interposed between the arm and said member, a lug on the outer end of the arm, a cross-head, an arm pivoted thereto and having a lug thereon adapted to engage the lug of the arm, means for reciprocating the cross-head, whereby when the cross-head is actuated the arm will place a tension on one of the springs of the U-shaped member, and upon the disengagement of the arms the stored energy of the spring will actuate the make and break finger, as described.

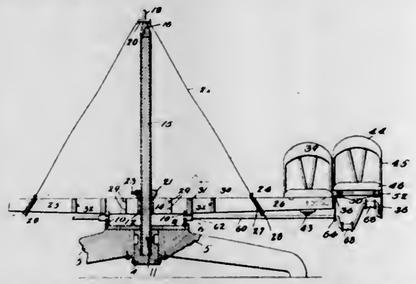
5. In combination with a make and break finger a spark-plug, and rotatable shaft of an internal combustion engine, a bearing-block, a sleeve, means for partially rotating the block from the sleeve, a cross-head connection between the finger and bearing-block, an arm thereon, a stop, a spring on the cross-head, for holding the arm thereagainst, a second arm, said arms having inter-engaging elliptical lugs, and resilient means for actuating the make and break finger from the second arm whereby when the bearing-block is actuated the timing of the spark may be changed.

942,937. MERRY-GO-ROUND. GEORGE SCHMID, Dubuque, Iowa, assignor of one-half to George Schmid, Jr., Dubuque, Iowa. Filed Apr. 14, 1908. Serial No. 427,055.

1. In a merry-go-round, a base, a mast removably secured in said base, sustaining arms adapted to travel around the mast, connections between said mast and arms for partially sustaining the arms, a track upon the base having a smooth upper surface, wheels provided with smooth peripheries adapted to travel on the track, means for permitting said wheels to yield away from said track, and means for driving said wheels.

2. In a merry-go-round, a base, a frame upon the base, a mast secured in the base, a circular track provided with a smooth upper surface set on the base, sustaining arms secured to the frame, a shaft yieldingly attached to each arm, a wheel on each shaft provided with a smooth periphery and adapted to travel on the smooth track, and means secured to the shafts for manually rotating the wheels on the track.

3. In a merry-go-round, a base, a head thereon, a track provided with a smooth upper surface upon the head, a frame on the head within the track, a mast rigidly secured in the base and passing through the frame, sustaining arms secured to the frame, connections between the arms and the mast, a driving shaft for each arm, spring connections between the arms and the shaft bearings, a wheel upon each shaft provided with a smooth periphery and adapted to travel on the track, and means connected with the shafts for manually operating the shafts to cause the wheels to travel around on the track and carry with them the merry-go-round.

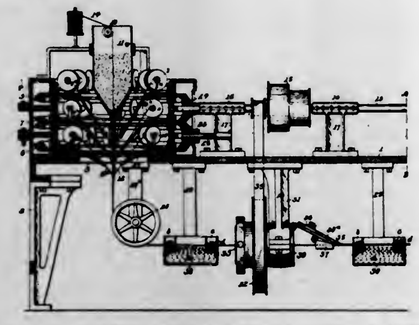


4. In a merry-go-round, a base, a track on the base provided with a smooth upper surface, a mast secured in the base, sustaining arms, connections between the mast and the arms, a shaft for each arm, a spring attached to each arm and to each shaft whereby the shafts are yieldingly connected to the arms, a wheel having a smooth periphery attached to each shaft, and means connected with the shaft for manually operating the shaft to cause the wheels to rotate upon the track.

5. In a merry-go-round, a base, a track upon the base provided with a smooth upper surface, a frame upon the base within the track, a mast rigidly secured in the base and passing through the frame, arms secured to the frame, a collar around the mast to hold down the frame with the arms attached thereto, guy-rods rotatably connecting the mast with the arms, a shaft yieldingly connected to each arm, a wheel provided with a smooth periphery attached to each shaft and adapted to slide or travel on the track and carry with them part of the weight of the arms with their burdens, and means secured to the shafts whereby the operator causes the wheels to travel upon the track and carry with them the arms and the burdens thereon.

[Claims 6 to 12 not printed in the Gazette.]

942,938. MACHINE FOR MAKING FUSES. CHARLES E. SCHMUNK, Pittsburg, Pa., assignor to Margaret Schmunk, Pittsburg, Pa. Filed Aug. 18, 1905. Serial No. 274,711.



1. A fuse-making machine having a hopper, a hollow stationary former in open communication with the hopper and adapted to receive the fuse-core materials, means for supporting a core thread and means for causing the core thread to be drawn down through the former together with other material constituting the fuse-core, an upper rotatable carrier having a central-opening, a lower rotatable carrier having a central-opening, an intermediate rotatable carrier having a central-opening, each arranged to revolve around the former, said hopper extending through the upper carrier and the former through the intermediate and lower carriers, a set of bobbins mounted on each carrier, downwardly extending arms attached to each carrier for guiding strands from the bobbins to former, means for revolving the upper and intermediate carriers in opposite directions, a casing inclosing the carriers and bobbins, and a reeling-mechanism.

2. A machine for making fuses having a hopper, a hollow stationary former leading from the hopper, a plurality of rotary carriers each formed with a central opening and arranged to revolve around the former, said carriers located in different horizontal planes, a set of bobbins mounted on each carrier, downwardly extending arms attached to each carrier and extending through the openings of the carriers for guiding strands from each set of bobbins to the former, means for revolving the carriers, a casing inclosing the carriers and bobbins, a fuse-reeling-mechanism, a tape-winding mechanism, and a common driving-shaft for the carrier, fuse-reeling-mechanism and tape-winding-mechanism.

3. A fuse-making machine having a hopper, a stationary former leading from the hopper, an upper geared rotatable carrier having a central opening, a lower geared rotatable carrier having a central-opening, an intermediate geared rotatable carrier having a central-opening all arranged to revolve around the former, said hopper extending through the upper carrier and the former through the intermediate and lower carriers, a set of bobbins mounted on each carrier, downwardly extending arms attached to each carrier for guiding strands from the bobbins to the former, means meshing with the gears of the carriers for revolving the upper and lower carriers in the same direction and the intermediate carrier in an opposite direction, a casing inclosing the carriers and bobbins, and a reeling-mechanism.

4. A fuse-making machine having a hopper, a stationary former leading from the hopper, an upper geared rotary-carrier, a lower geared rotary-carrier, an intermediate geared rotary-carrier, all arranged to revolve around the former, a set of bobbins mounted on each carrier, means for guiding the strands from the bobbins to the former, means meshing with the gears of the carriers for revolving the carriers, means for throwing the lower carrier and its bobbins into and out of operation, and a reeling mechanism.

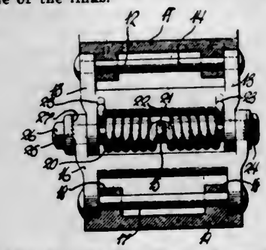
5. A fuse-making machine having a hopper, a stationary former leading from the hopper, a plurality of rotary-carriers arranged to revolve around the former, a set of bobbins mounted on each carrier, means for guiding strands from the bobbins to the former, means for revolving the carriers, tape winding mechanisms comprising a wheel, a friction clutch and a tape-carrier, means for revolving the tape-winding mechanisms in opposite directions, and a reeling mechanism for drawing the wound strands off the former and through the machine.

[Claims 6 to 8 not printed in the Gazette.]

942,939. VEHICLE-WHEEL. EDWIN J. SELLEY, New York, N. Y. Filed Mar. 16, 1908. Serial No. 421,382.

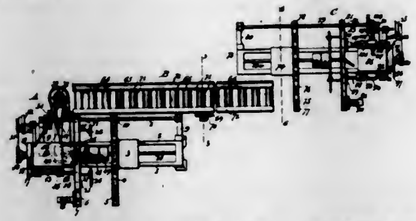
1. A vehicle wheel having an inner and outer felly, links pivoted to the inner felly and links pivoted to the outer felly, bolts for pivotally connecting the links together in pairs, hooks extending into the bolts, and springs having loops in their centers adapted to engage the hooks, said springs being coiled around the bolts and having their ends anchored to the links and adapted to move the said links on the bolts.

2. A vehicle wheel having an inner and outer felly, links pivoted to the inner felly and links pivoted to the outer felly, bolts for pivotally connecting the links together in pairs, hooks extending into the bolts, springs having loops in their centers adapted to engage the hooks, said springs being coiled around the bolts and having their ends anchored to the links and adapted to move the said links on the bolts, and a ratchet connection between the bolt and one of the links.



3. A vehicle wheel having inner and outer fellies, links arranged in pairs and pivotally connecting the two fellies, each pair of links being pivoted together, a spring coiled around the connecting pivot of each pair of links and arranged to normally straighten the links, ratchet teeth on one end of one link of each pair, and a ratchet on the bolt for engaging the teeth of the link.

942,940. WOODWORKING-MACHINE. EDWIN P. SHANK, Wells, Mich., assignor to I. Stephenson Company, Wells, Mich. Filed Apr. 8, 1909. Serial No. 488,682.



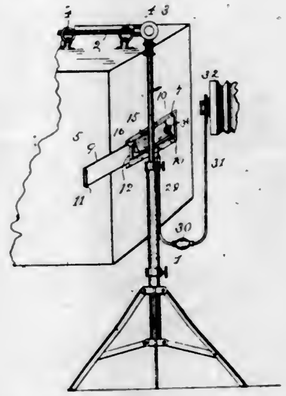
1. A machine of the class described, comprising a continuously moving feed table, a gage to determine the position of the material on the table, means for squaring the end of the material, means to hold the material on the table, a scraper carried by the holding means to dress the bur formed by the squaring means, and means to match the ends of the material.

2. A machine of the class described, comprising a continuously moving feed table, a gage to determine the position of the material on the table, means for squaring the end of the material, means to hold the material on the table, a spring scraper adjustably mounted on the holding means to dress the bur formed by the squaring means, means to match the ends of the material, and means to adjust one portion of the table.

3. A machine of the class described, comprising a base, a two-part continuously moving table mounted on said base, a shaft to drive both parts simultaneously, means for sliding one part of said table on the shaft, whereby it is adjustable toward and away from the other part, a gage to determine the position of the material on the table, means for squaring the ends of the material, means to hold the material on the table, a spring scraper adjustably mounted on the holding means to dress the bur formed by the squaring means, means to match the ends of the material.

942,941. FLASH-LIGHT APPARATUS. JAY A. SMITH, Chicago, Ill. Filed Feb. 6, 1909. Serial No. 476,577.

1. A flash-light apparatus in which is combined a normally closed receptacle for containing a flash-lamp, said receptacle having an opening in one of its walls, a slide for closing said opening a slidable flash-pan arranged to move in the pathway of said slide to displace the same without uncovering said opening, said flash-pan being provided with a rearwardly projecting horizontal ledge for the reception of flash-light material with a forwardly inclined wall extending upwardly therefrom for deflecting the flash away from the rear wall of the receptacle, and means for igniting flash-light material upon said ledge when said flash-pan is in position to cover the opening in said receptacle.



2. A flash-light apparatus, in which is combined a normally closed receptacle for containing a flash-lamp, said receptacle having an opening in one of its walls, a slide for closing said opening, a detachably interlocking slidable flash-pan arranged to engage said slide to displace and replace the same by moving in the pathway thereof while connected therewith without uncovering said opening, and means connected with said pan from without for igniting flash-light material therein.

3. A flash-light apparatus, in which is combined a normally closed receptacle for containing a flash-lamp, said receptacle having an opening in one of its walls, a slide for closing said opening, a flash-pan arranged to move in the pathway of said slide to displace it without uncovering said opening, an anvil within said pan opposite to an opening, a spring-controlled hammer outside of said pan in position to strike said anvil through said opening, a trigger for holding the hammer-controlling spring flexed, a pneumatic bulb, and means actuated thereby for releasing said trigger.

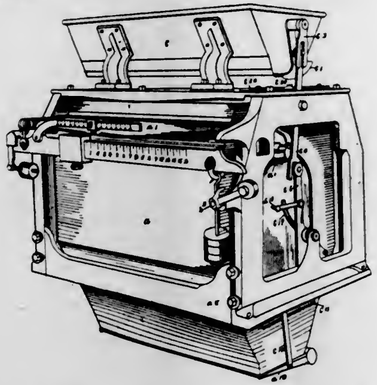
4. In a flash-light apparatus, the combination with a flash-pan having an anvil upon one of its walls opposite to an opening, of a hammer upon the opposite side of said wall in position to strike said anvil through said opening, a spring for actuating said hammer, a trigger for holding the spring flexed, said trigger having an arm extending across the open upper end of a stationary vertical tube, a disconnected plunger loosely fitted therein, said plunger being of lesser length than that of the tube to enable it to acquire momentum and velocity before striking the trigger, and a pneumatic bulb in connection with said tube, whereby a quick forceful blow as distinguished from a yielding pneumatic pressure, may be delivered against said trigger to insure its release.

5. In a flash-light apparatus, the combination with a flash-pan having a horizontal ledge for the reception of flash-light material for ignition, said flash-pan having a forwardly inclined wall extending upwardly from the rear of said ledge to deflect the flash away from the rear wall of the receptacle, an anvil above said ledge opposite to an opening therein, a spring actuated hammer beneath said ledge in position to strike said anvil, a trigger for releasing said hammer, a tube having an open end in operative proximity to said trigger, a pneumatic bulb in connection with said tube, and a loose plunger within and of shorter

length than the tube, whereby the compression of the bulb may cause the plunger to be shot against the trigger with sufficient force and velocity to insure its release.

[Claim 6 not printed in the Gazette.]

942,942. AUTOMATIC WEIGHING APPARATUS. ANDREW SONANDER, Springfield, Ohio, assignor to The American Grain Meter Company, Springfield, Ohio, a Corporation of Ohio. Filed Jan. 3, 1908. Serial No. 409,109.



1. In a weighing machine, the combination of a movable hopper capable of being loaded, movable means for supporting said hopper, a balancing lever member comprising two movable elements compounded together for weighing the major portion of the load and also the minor portion of said load, a movable device for retarding said member near the end of the weighing of the major portion and prior to the weighing of said minor portion, and means coöperating with said balancing member to automatically withdraw said movable device, substantially as specified.

2. In a weighing machine, the combination of a movable hopper capable of being loaded, movable means for supporting said hopper, a balancing member comprising two movable elements compounded together for weighing the major portion of the load and also the remainder of the said load, a movable device for retarding said member near the end of the weighing of the major portion and prior to the weighing of the remainder of said load, and means coöperating with said balancing member for disengaging it from said retarding device, and means on one of said movable elements for thereafter weighing the excess free from said retarding element.

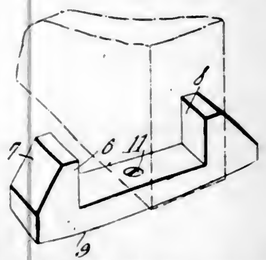
3. In a weighing machine, the combination of a movable hopper capable of being loaded, a movable frame supporting said hopper with a compound balancing lever member comprising two movable elements capable of weighing both the major portion of the load and also the remainder of said load, a movable device for retarding said member near the end of its preliminary movement and prior to the weighing of the remainder of said load, and means coöperating with said member for causing thereafter an additional movement of said retarding device whereby the remainder of the load will be weighed free from the influence of said retarding element.

4. In a weighing machine, the combination of a movable hopper capable of being loaded, with movable means supporting said hopper, a balancing member having main graduations and supplemental graduations thereon for weighing both the major portion of the load and also the remainder of the load, including a main and a supplemental beam compounded together, and means for causing said supplemental beam to give an initial impulse to the main beam, and a movable device for retarding said main beam after it has been given the initial impulse aforesaid, and means coöperating with said balancing member for automatically disengaging thereafter said retarding element and permitting said beam to weigh the remainder of the load free from the influence of said retarding element, substantially as specified.

5. In a weighing machine, the combination of a movable hopper capable of being loaded, with movable means for supporting said hopper, a main lever member additional to said supporting means and suspended therefrom, a supplemental lever member for giving to said main lever member an initial impulse, main graduations and supplemental graduations for weighing the major portion and the remainder of the load, and a movable device normally inactive but near the end of the weighing of the major portion coöperating with said main member for retarding it, substantially as specified.

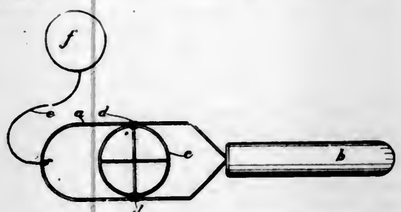
[Claims 6 to 13 not printed in the Gazette.]

942,943. DOOR STOP AND HOLDER. DAVID A. SOX, Columbia, S. C. Filed June 21, 1909. Serial No. 503,514.



A device of the class described comprising a block formed upon its upper face at each end with a shoulder, and midway of its ends with a pivot-receiving opening, the under surface of the block being convex.

942,944. BASKET-BALL TOY. ELISHA S. STAPLES, New Haven, Conn. Filed Apr. 12, 1909. Serial No. 489,391.



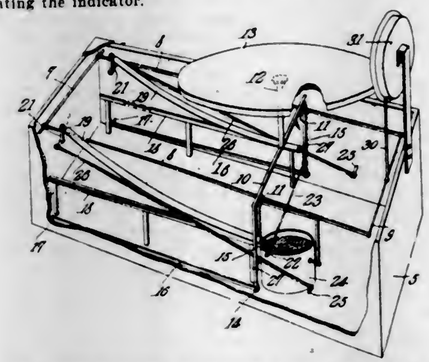
1. In combination, in a toy, a trunnioned basket, means for supporting said basket, a ball, and flexible means for connecting the ball with said supporting means.

2. In combination, in a toy, a frame including two parallel members, a basket trunnioned between said members, a ball, and flexible means for connecting the ball with said frame.

942,945. SCALE. DANIEL C. STAUFFER, Canton, Ohio. Filed Nov. 24, 1908. Serial No. 464,260.

1. A scale including a pivoted frame, a platform resting on the pivoted frame, load supporting bars operatively connected with the platform, rocking bars each having one end thereof connected with the load supporting bars, a transverse bar connecting the opposite ends of the rocking bars, a counter-balance suspended from the transverse bar, an indicator, and means carried by the pivoted frame for operating the indicator.

2. A scale including a pivoted frame, a yoke supported on said frame, a platform carried by the yoke, load supporting bars pivotally connected with the yoke, rocking bars operatively connected with the load supporting bars, a counter-balance carried by the rocking bars, an indicator, and means carried by the pivoted frame for operating the indicator.



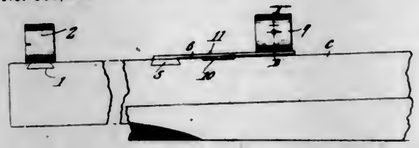
3. A scale including a platform, a track having a knife edge, a longitudinally grooved rocking bar mounted for tilting movement on the track and having a V shaped socket formed therein for the reception of the knife edge of said track, a weight supporting bar operatively connected with the platform and rocking bar, and tension wires seated in the longitudinal grooves and connecting the opposite ends of the rocking bar with said track for preventing accidental displacement of the rocking bar.

4. A scale including a platform, a track, a rocking bar mounted for tilting movement on the track and provided with spaced longitudinally disposed grooves, a load supporting bar operatively connected with the platform, and rocking bar, respectively, and tension wires extending between the opposite ends of the track and the rock bar and seated in the longitudinal grooves of the latter.

5. A scale including a platform, a pivoted frame, a yoke extending transversely across the frame and provided with bearings for the reception of the pivoted frame, spaced tracks, rocking bars mounted for tilting movement on said tracks, a transverse bar connecting the forward ends of the rocking bars, weight supporting bars pivotally connected with the rear ends of the rock bars and having their forward ends pivotally mounted on a support and their intermediate portions connected with the yoke, a weight suspended from the transverse bar, and an indicator operable from the pivoted frame.

[Claims 6 and 7 not printed in the Gazette.]

942,946. SIGHT FOR FIREARMS. JASPER M. STEPHENS, Lawton, Okla. Filed July 16, 1909. Serial No. 507,974.



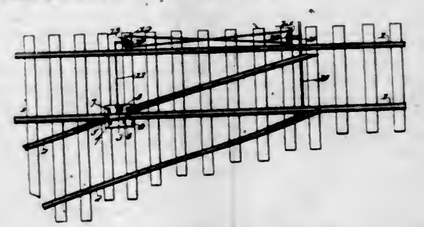
1. A rear sight for fire-arms including a spring strip, barrel-engaging means at one end of the strip, a sight element at the other end of the strip, and an eccentrically mounted cam pivotally connected to the strip at an intermediate point thereon, said cam being of variable thickness.

2. A device of the class described including a spring strip, means at one end thereof for engaging a gun-barrel, a sight element upon the other end of the strip, an eccentrically mounted disk upon one face of the strip and movable between the strip and gun barrel to which said strip is attached, said disk having an inclined graduated face.

3. A device of the class described including a spring strip, means at one end thereof for slidably engaging a gun barrel a, sight element at the other end of the strip, an eccentrically mounted disk connected to the strip at an intermediate point and movable between said strip and the barrel on which the device is mounted, said disk having an inclined graduated face and being of variable thickness.

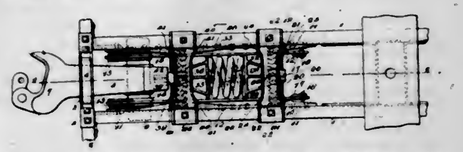
4. A device of the class described including a gun barrel, a spring strip, means upon one end of the strip for slidably engaging the barrel, a sight element upon the other end of the strip, a disk eccentrically mounted upon the strip, and movable between said strip and barrel, there being a recess in the barrel to receive the disk, said disk having a graduated inclined face movable into contact with the strip to elevate said strip with relation to the barrel.

942,947. CONTINUOUS RAIL-FROG. BERNARD F. SUVERKRUP and WILLIAM O. OWENS, Urbana, Ill. Filed June 21, 1909. Serial No. 503,441.



In a device of the character described, the combination with the inner rails of the main and switch tracks of a railway, said rails being cut away to form a space at their point of intersection, of a base plate secured in said space, a tapered frog rail section pivotally mounted at one end of said plate, stops arranged on said plate to limit the pivotal movement of said rail section, a pair of pivotally mounted T-shaped operating levers, an operating rod to connect one of said levers with said rail section, connecting rods crossing or intersecting each other and connecting opposite ends of said levers together, and a switch lever connected to the other of said T-shaped levers whereby the movement of said switch lever is imparted to said pivoted rail section to shift the same into engagement with one or the other of said inner rails.

942,948. DRAFT-GEAR. THOMAS H. SYMINGTON, Baltimore, Md. Filed Oct. 26, 1907. Serial No. 399,327.



1. In a draft gear for rolling stock, a draw-bar, a plurality of resilient cross-bars coöperating with the draw bar to transmit stress therefrom to the vehicle, single abutments coöperating with one of the cross-bars whereby stresses of compression only are transmitted directly from this cross-bar to the vehicle, double abutments coöperating with the other cross-bar whereby stresses both of compression and tension are transmitted directly to the vehicle from this cross-bar, a stop between the cross-bars, and means for applying stress of tension in the draw-bar to the first mentioned cross-bar at points remote from the said stop whereby such stress is trans-

mitted through this cross-bar and communicated by said stop to the other cross-bar through which such stress is transmitted to the vehicle.

2. In a draft gear for rolling stock, a draw bar, a plurality of resilient cross bars, means for transmitting stress from the draw bar to the extremities of one cross bar, means for communicating the stress from a point intermediate of that cross bar to another cross bar, and means at the extremities of the latter whereby the stress is communicated to the vehicle.

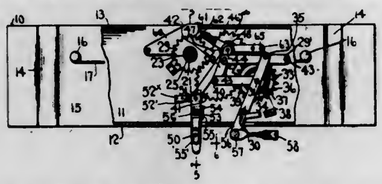
3. In a draft gear for rolling stock, a draw bar, a plurality of resilient cross bars, means for transmitting stress from the draw bar to the extremities of one cross bar, means for communicating stress from a point intermediate of that cross bar to another cross bar, consisting of resilient members and a coöperating stop and means at the extremity of the latter cross bar by which the stress in transmitted to the vehicle.

4. In a draft gear for rolling stock, a draw bar, a plurality of resilient cross bars, means for transmitting stress from the draw bar to the extremities of one cross bar, means for communicating initial stress from a point intermediate of that cross bar to another cross bar, consisting of resilient members, and means for communicating final stresses from a point intermediate of the first cross bar to the second cross bar, including a stop and means at the extremities of the second cross bar, by which stress is transmitted to the vehicle.

5. In a draft gear for rolling stock, a draw bar, a plurality of resilient cross bars, means for transmitting compression stress from the draw bar to one cross bar, means for transmitting part of this stress to the vehicle, and the remainder through another cross bar to the vehicle, means for transmitting all of the tension in the draw bar to the extremities of one cross bar, means consisting of a resilient member, and a coöperating stop for communicating stress from a point intermediate of that cross bar to another cross bar, and means at the extremity of the latter by which the stress is communicated to the vehicle.

[Claim 6 not printed in the Gazette.]

942,949. MUSIC-LEAF TURNER. ROMEO J. TRICE, Eufaula, Okla. Filed Nov. 14, 1908. Serial No. 462,639.



1. A music leaf turner comprising a plurality of interfitting rotatable shafts, gears fixed to said shafts and arranged in superposed relation to each other, a shiftable train of gearing, means for raising one of said gears of the train into successive engagement with the gears fixed to the shaft, and means for shifting said train of gears to effect alternate meshing of a pair of its gears with one of the shaft gears for reversing the direction of rotation of the shaft.

2. A music leaf turner comprising a plurality of interfitting rotatable shafts, gears fixed to said shafts and arranged in superposed relation to each other, a shiftable train of gearing, means for raising one of said gears of the train into successive engagement with the gears fixed to the shaft, means for shifting said train of gears to effect alternate meshing of a pair of its gears with one of the shaft gears for reversing the direction of rotation of the shaft, and means for driving said train of gearing.

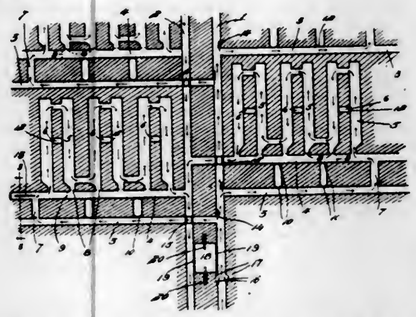
3. A music leaf turner comprising a plurality of interfitting rotatable shafts, gears fixed to said shafts and arranged in superposed relation to each other, a shiftable train of gearing, means for raising one of said gears of the train into successive engagement with the gears fixed to the shaft, means for shifting said train of gears to effect alternate meshing of a pair of its gears with one of the shaft gears for reversing the direction of rotation of the shaft, and spring wound means for driving said train of gearing.

4. A music leaf turner comprising a plurality of interfitting rotatable shafts, gears fixed to said shafts and arranged in superposed relation to each other, a shiftable train of gearing, means for raising one of said gears of the train into successive engagement with the gears fixed to the shaft, means for shifting said train of gears to effect alternate meshing of a pair of its gears with one of the shaft gears for reversing the direction of rotation of the shaft, spring wound means for driving said train of gearing, and means for locking said raising means in adjusted position.

5. A music leaf turner comprising a plurality of interfitting rotatable shafts, gears fixed to said shafts and arranged in superposed relation to each other, a shiftable train of gearing, means for raising one of said gears of the train into successive engagement with the gears fixed to the shaft means for shifting said train of gears to effect alternate meshing of a pair of its gears with one of the shaft gears for reversing the direction of rotation of the shaft, spring wound means for driving said train of gearing, means for locking said raising means in adjusted position, and supporting arms projecting from said shaft.

[Claim 6 not printed in the Gazette.]

942,950. VENTILATING SYSTEM FOR MINES. MARTIN WARD, Houtzdale, Pa. Filed Apr. 12, 1909. Serial No. 489,369.

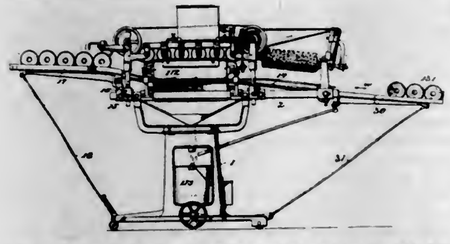


1. In a system of mine ventilation, a main air inlet passage, and a main air outlet passage, a series of branch air inlet and outlet passages connected with said main passages, series of rooms connected with each of said branch inlet and outlet passages, means whereby the air from said branch inlet passages is caused to independently circulate through each series of rooms and to be discharged therefrom into said branch outlet passage and to be conducted thereby to the main outlet passage, doors arranged in said main inlet passage, said doors being held open by the pressure of air entering through the passage and adapted to automatically close by the back pressure of air from an explosion in the mine, and means whereby the pressure of air caused by the explosion is released after said doors are closed.

2. In a system of mine ventilation, a main air inlet passage and a main air outlet passage, a series of branch air inlet and outlet passages connected with said main passages, series of rooms connected with each of said branch inlet and outlet passages, means whereby the air from said branch inlet passages is caused to independently circulate through each series of rooms and to be discharged therefrom into said branch outlet passage and to be conducted thereby to the main outlet passage, doors arranged in said main inlet passage, said doors being held open by the pressure of air entering through the passage and adapted to automatically close by the back pressure of air from an explosion in the mine, an air relief passage connecting said main inlet and outlet passages, a frame work to close the opposite ends of said passages and adapted to be blown out by the pressure of air and gas after said doors are closed, and temporary doors arranged in said relief passages to close the same after an explosion.

3. In a system of mine ventilation, a main inlet passage and a main outlet passage, a series of branch air inlet and outlet passages connected with said main air inlet and outlet passages, headings to connect said branch passages, stoppings or brattices arranged at each end of said headings to close the same and prevent the formation of gas accumulating pockets therein, a series of rooms connected to said branch passages, a series of cross cuts between certain of said rooms to provide for the circulation of air from the same, brattices arranged in each end of said cross cuts to close the same and prevent the formation of gas accumulating pockets, and doors arranged in said rooms and branch outlet passages to close the same thereby causing the air from the branch inlet passages to circulate through the rooms of each series and to be conducted to the main air outlet passage without entering the rooms of any other series.

942,951. CAN-LACQUERING MACHINE. FREDERICK W. WILD, Jr., Govans, Md., assignor to Burt Machine Company, a Corporation of Delaware. Filed Dec. 5, 1908. Serial No. 466,066.



1. In a machine for treating cans, ways, means for spacing the articles on the ways consisting of a plurality of radial fingers the extremities of which are deflected horizontally, a rock shaft to which the fingers are secured, a cam, a follower for the cam connected to the rock shaft, and means for rotating the cam to oscillate the fingers so that they move alternately into and out of the path of the cans.

2. In a machine for treating the surfaces of cylindrical packages, ways for the packages, means adjacent the ways for applying the coating material, a belt to impart rotary motion to the packages while being coated, a portion of the ways along which the packages move toward the coating means being inclined downward in the direction of travel of the packages, a spring in the path of the packages at the bottom of the incline, which is flexed by the packages as they descend and throws the packages upward against the belt.

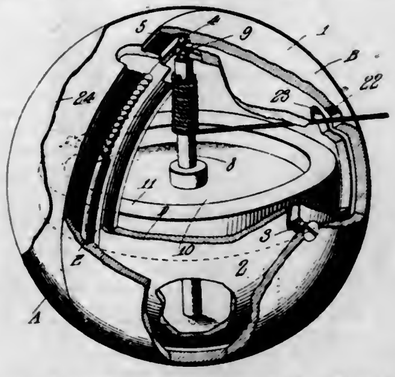
3. In a machine for coating the surfaces of cans, ways along which the cans roll, having an inclined portion and a horizontal portion, the feed end of the ways inclined in the direction of motion of the cans, a conveyer belt over the horizontal portion of the ways, a spring over the ways at the base of the incline whereby the cans, as they descend, compress the spring, and as their downward momentum is checked, the packages are thrown upward against the belt.

4. In a machine for applying liquid coating material to the surfaces of cans, ways, means for spreading the coating material over the surfaces of the cans, a belt over the ways for rotating the articles and moving them past the coating means, a depression near the forward end of the ways, a spring over the depression and in the path of the cans, and means for checking the advance of each can as it rests on the compressed spring.

5. In a machine for treating the surfaces of cans with liquid, ways, means adjacent the ways for applying liquid, a belt over the ways for rotating the cans and moving them by the coating means, a depression near the forward end of the ways, a spring in the depression to to be compressed by the cans entering the depression, the path of the cans, as they approach the depression, being inclined to give them a downward momentum, whereby the spring is compressed by the cans entering the depression and as they reach the bottom of the depression their momentum is checked and they are thrown upward by the recoil of the spring.

[Claims 6 to 34 not printed in the Gazette.]

942,952. BALL. WILLIAM W. WRATHER, Chicago, Ill. Filed May 5, 1908. Serial No. 431,031.



1. A ball comprising nested concentric independently movable spheres, and a wheel rotatably mounted within the inner sphere.

2. A ball comprising nested concentric independently movable spheres, and a wheel adapted to rotate in a diametrical plane within the inner sphere.

3. A ball comprising nested concentric spheres spaced from each other, anti-friction bearings in said space, a wheel adapted to rotate in a diametrical plane within the inner sphere, and means for rotating said wheel.

4. A ball comprising two concentric spheres separated by a narrow space, anti-friction bearings within said space, pivot bearings between the two spheres, and a wheel adapted to rotate in a diametrical plane within the inner sphere.

5. A ball comprising two concentric spheres, separated by a narrow space and independently rotatable, pivot bearings between said spheres, and a wheel fixed on an axle adapted to rotate in a diametrical plane within the sphere.

[Claims 6 to 9 not printed in the Gazette.]

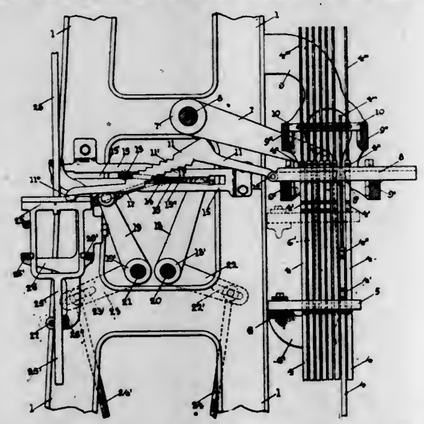
942,953. LOOM FOR WEAVING TUFTED FABRICS. HORACE WYMAN, Worcester, Mass., assignor to Crompton & Knowles Loom Works, a Corporation of Massachusetts. Filed Sept. 21, 1908. Serial No. 454,019.

1. In a loom for weaving tufted fabrics, yarn carrying needles arranged in sets, for yarns of different colors, each needle carrying a tufting yarn, and means to raise all of the needles with their ends above the warps, and means to select and lower a needle in each set, to carry its lower end into the warps, and means to support the unselected needles.

2. In a loom for weaving tufted fabrics having tufted yarn needles arranged in sets, a bar having means to select a needle in each set to be lowered, and means to move said bar back and forth across the sets of needles.

3. In a loom for weaving tufted fabrics having tufting yarn needles arranged in sets, a selecting bar, and means to move it back and forth across the needles to select a

needle in each set, combined with a fixed frame attached to the loom, to support said selecting bar and the unselected needles thereon, with their ends above the warp.

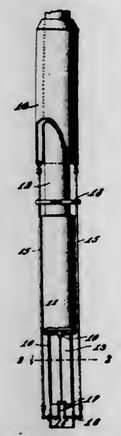


4. In a loom for weaving tufted fabrics having tufting yarn needles arranged in sets, a selecting bar movable back and forth across each set, and having means for selecting a needle, and a frame supported on the loom frame, and having guides for said selecting bar to move in.

5. In a loom for weaving tufted fabrics, a series of tufting yarn needles arranged in sets, and having lifting shoulders thereon, a lifter bar for each set of needles to contact with said shoulders and raise the needles into their elevated position, said needles having also selecting shoulders thereon, and a notched selecting bar for each set of needles, movable under said selecting shoulders.

[Claims 6 to 11 not printed in the Gazette.]

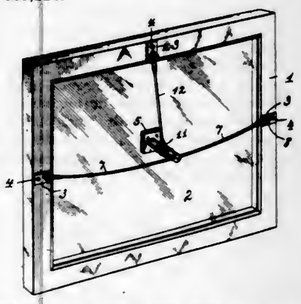
942,954. ATTACHMENT FOR OIL-PUMPS. CHARLES B. AGGAS and JOHN E. RABBITT, Fenelton, Pa. Filed May 24, 1909. Serial No. 498,023.



1. The combination with the working barrel of an oil-pump, of a foot-piece in the form of a hollow cylinder secured to the lower end of said working barrel, said foot-piece having a valve seat at its upper end, a valve slidable vertically within the foot-piece and adapted to coöperate with said valve seat to close the same by vertical movement, a float above the working barrel, and connections between the float and the valve to cause the unseating or seating of the valve when the float moves up or down.

2. The combination with an oil-well pump working barrel and tubing, of a foot-piece connected to the working barrel, a valve associated with the foot-piece to control the passage of fluid therethrough, a hollow cylindrical float surrounding the tubing above the working barrel, rigid rods extending downwardly from the float, and a set of levers and links coöperating with the foot-piece and constituting operative connections between said rods and said valve.

942,955. SAFEGUARD FOR WINDOW-GLASSES. EDWIN B. BAVE, Bayonne, N. J. Filed June 24, 1908. Serial No. 440,116.

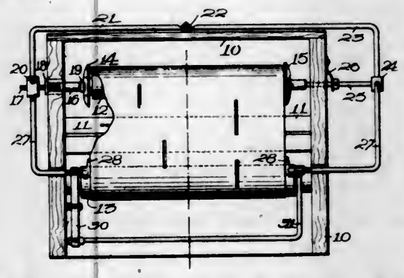


1. A safeguard for glass, comprising a foot adapted to rest against the glass, a fixed bracket, and a slender spring arm secured at one end to the foot and at the other end to the bracket, said arm being bowed.

2. A safeguard for glass, comprising a foot adapted to rest against the glass, a plurality of fixed brackets, and a plurality of slender spring arms secured at one end respectively to the foot, and at their other ends respectively to said brackets, said arms being bowed.

3. A safeguard for glass, comprising a foot adapted to rest against the glass, a fixed bracket, and a slender spring arm secured at one end to the foot and at the other end to the bracket, said arm being bowed, and a turn buckle connection between the end of the arm and the bracket.

942,956. MECHANISM FOR GUIDING MUSIC-SHEETS. THEODORE P. BROWN, Worcester, Mass., assignor to Simplex Piano Player Co., Worcester, Mass., a Corporation of Massachusetts. Filed June 7, 1909. Serial No. 500,648.



1. The combination with a tracker, of a longitudinally movable music spool having a relatively movable flange on one end, and means connected with the movable flange for shifting the music spool oppositely to the motion of the movable flange and to the same extent.

2. The combination with a tracker, of a longitudinally movable music spool having two flanges, one fixed thereto and the other movable thereon, and means connected with both of said flanges for transmitting the motion of each flange to the other in the opposite direction.

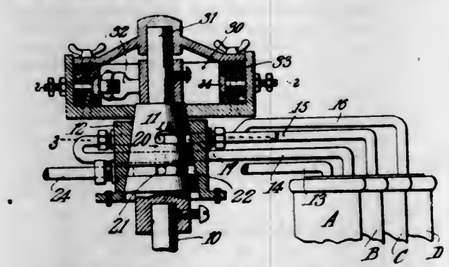
3. The combination with a tracker box and a tracker, of a music spool in the box having two flanges, one movable thereon and the other fixed thereto, said spool being movable with the latter flange, rods extending beyond the tracker box from the two flanges, and means outside the box for connecting the rods and transmitting motion from each one to the other in reversed direction.

4. The combination with a tracker box and a tracker, of a music spool in the box having two flanges, one movable thereon and the other fixed thereto, said spool being movable with the latter flange, rods extending beyond the tracker box from the two flanges, members engaging the rods, one of said members being adjustable, rods fixed to said members, and a lever connected at its ends with the last named rods, said lever being pivoted at the center.

5. The combination with a tracker box and a tracker, of a music spool in the box having two flanges, one movable thereon and the other fixed thereto, said spool being movable with the latter flange, rods extending beyond the tracker box from the two flanges, members engaging the rods, one of said members being adjustable, rods fixed to said members, a lever connected at its ends with the last named rods, said lever being pivoted at the center, and one of said members being adjustably mounted on its rod, and the other being loosely engaged by the end of its rod, and a spring for movably pressing the last named rod outwardly.

[Claims 6 to 9 not printed in the Gazette.]

942,957. STARTING DEVICE FOR INTERNAL-COMBUSTION ENGINES. PASCHAL G. CASPIAN, Chicago, Ill. Filed Nov. 6, 1908. Serial No. 461,390.



1. In starting devices for internal combustion engines, a valve plug connected to and operable by one of the engine shafts, a valve casing within which said valve plug is located, connections leading from the valve casing to the several cylinders, each of said connections being disposed in a common plane transversely of the valve casing, an arcuate port formed in the valve plug and arranged to consecutively register with the said connections, a supply port leading to the casing and arranged in a horizontal plane distant from that of the other connections, and a connecting port leading through the valve plug and communicating with the arcuate port.

2. In a device of the class described, a revoluble tapered valve plug, means for securing the same to the timing shaft of the engine, a stationary valve casing within which the plug is located, connections between the valve casing and a supply between the valve casing and the several cylinders of the engine, a spindle extending upward from the valve plug, a revoluble contact arm on said spindle, and a timer casing supported by the valve casing and having contacts with which the spindle carried contact is arranged to engage.

942,958. FLYING-MACHINE. THOMAS F. DUNN, New York, N. Y. Filed Sept. 4, 1908. Serial No. 451,645.

1. A flying machine provided with a transversely arranged propeller shaft, the opposite end portions of which are provided with radially extending wings or blades, and means for giving said shaft an oscillatory or vibratory movement comprising a motor, a main drive and clutch shaft geared in connection therewith and provided with a friction clutch member longitudinally movable thereon, a supplemental drive and clutch shaft provided with a supplemental clutch member, a crank connected with the supplemental drive and clutch shaft, a pitman connected with said crank, and a clutch device connected with said pitman and adapted to engage a wheel secured to the propeller shaft.



2. A flying machine provided with a transversely arranged propeller shaft having radially directed wings or blades at its opposite ends, a wheel secured to said shaft, a clutch device adapted to engage the rim of said wheel and to be adjusted into different positions thereon, a motor, and devices connecting the shaft of said motor with said clutch device and operating to give the propeller shaft a vibratory or oscillatory movement.

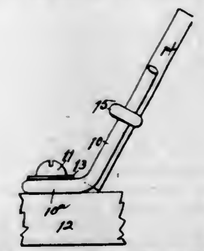
3. In a flying machine, an elongated balloon or gas container provided centrally of the bottom thereof with a neck, a box arranged transversely of the bottom of said balloon or gas container and adapted to receive said neck, a keel bar rigidly connected with said box and connected with and suspended from the bottom of the balloon or gas container and extending longitudinally thereof, a cage or car rigidly connected with and suspended from said keel bar, a propelling apparatus, and a steering device adapted to be operated from the cage or car.

4. In a flying machine, an elongated balloon or gas container provided with a network of cords, a keel bar extending longitudinally of the bottom thereof and with which said cords are connected, some of said cords being connected with the horizontal top portion of the keel bar and the others with the bottom web portion thereof, a cage or car connected with and suspended from said keel bar, and devices for propelling and guiding the machine.

5. A flying machine provided with a transversely arranged propeller shaft, the opposite end portions of which are provided with radially arranged blades or wings, all of which extend in the same direction, a motor, and a clutch device in operative connection with said shaft and with said motor, said clutch device being provided with a rotary shaft having a clutch member keyed thereto and provided with a fly wheel, and a brake device operating in connection with said fly wheel.

[Claims 6 to 9 not printed in the Gazette.]

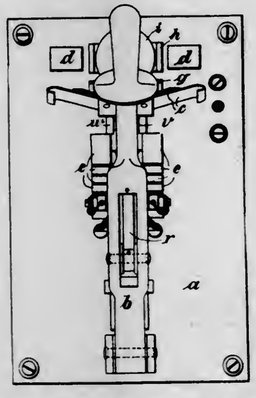
942,959. KNIFE-SHARPENER. BENJAMIN F. EMERY, Thayer, Iowa. Filed Mar. 3, 1908. Serial No. 418,951.



A knife-sharpener, comprising in combination a yoke member having parallel upwardly extending arms and angularly disposed foot formed from the lower ends of said arms, outwardly flared portions at the upper ends of said arms, a bar located between said arms along their entire length, said bar resting against said foot and forming

wedge-shaped slots with said flaring portions, and a resilient clamp expansibly inclosing said arms and bar, said arms and foot and flared portions being formed of a continuously conformed bar and providing a screw-hole centrally of said foot.

942,960. STARTING-SWITCH FOR ELECTRIC MOTORS. EDMUND GARSIDE, Darlington, England, assignor to Engineering Instruments Limited, Darlington, England, a Corporation of Great Britain and Ireland. Filed Sept. 8, 1909. Serial No. 516,680.

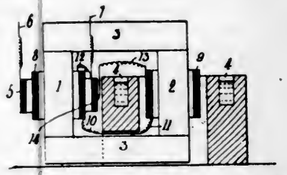


1. In a device of the class described, a base, a switch arm movable toward and away from the said base, and pivoted to the latter, main terminals on said base, a contact on said switch arm and arranged to engage with the main terminals when the arm is moved toward the base, a series of resistance terminals on the base, a dash pot superposed on the base directly above said resistance terminals, a piston working in said pot, a carriage fixed to the piston, a contact on said carriage and engageable with the resistance terminals, and means releasable to unite the carriage and the switch arm during the movement of the latter toward the base.

2. In a device of the class described, a base, main terminals mounted thereon, resistance terminals disposed on the base in substantial alinement with the main terminals, displaceable means traveling above the resistance terminals, a contact having connection with the displaceable means and engageable with the resistance terminals, and pivotal means on the base and having a contact for engagement with the main terminals upon movement in one direction of said pivotal means, and also having detachable connection with the displaceable means to effect engagement of the contact carried by the latter with the resistance terminals during said movement of the pivotal means.

3. In a device of the class described, a base, main terminals mounted thereon, resistance terminals disposed on the base in substantial alinement with the main terminals, displaceable means traveling above the resistance terminals, a contact having connection with the displaceable means and engageable with the resistance terminals, pivotal means on the base and having a contact for engagement with the main terminals upon movement in one direction of said pivotal means, and also having detachable connection with the displaceable means to effect engagement of the contact carried by the latter with the resistance terminals during said movement of the pivotal means, a lug on the displaceable means and engageable and disengageable by said connection between the pivotal means and said displaceable means, a stop to act upon the said connection for releasing it from the lug at a predetermined point of movement of said pivotal means, and means to restore the displaceable means to its primary position when released by the said connection.

942,961. TRANSFORMER-FURNACE. EUGEN A. A. GRÖNWALL, AXEL R. LINDBLAD, and OTTO STÅLHANE, Ludvika, Sweden. Filed May 2, 1907. Serial No. 371,370.



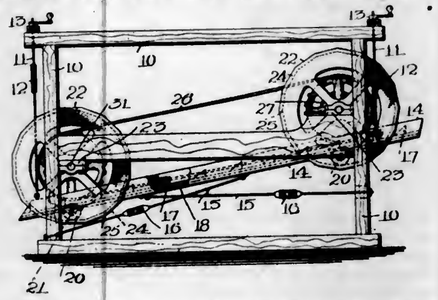
1. A transformer furnace having a primary coil, and provided with coils placed in the path of the leaking lines of force, so arranged that the magnetomotive force generated by the coils will counteract the leaking lines of force from the primary coil.

2. In a transformer furnace, a primary coil, a core having coils arranged around different parts thereof and connected with each other in such a way that from an electromagnetic point of view they will counteract each other, said coils being supplied with current whereby the magnetomotive force generated by the system of coils fully or partly overcomes the magnetic force which tends to force the leaking lines of force out of the iron core of the transformer furnace.

3. In a transformer furnace, a primary coil, a transformer core having coils arranged on different parts thereof, such coils being from an electromagnetic point of view connected with each other so as to counteract each other, and being supplied with current taken from a suitable number of windings of the primary coil.

4. In a transformer furnace, a core having a primary coil and a supplemental coil arranged around different parts thereof, one of said parts being surrounded by the smelting bath and the other said part by the primary coil, said coils being connected with each other in such a way that from an electromagnetic point of view they will counteract each other.

942,962. GOLD-SAVING MACHINE. JOHN HAMILTON, Seattle, Wash. Filed Feb. 9, 1909. Serial No. 476,902.



1. In a device of the character described, the combination of a movably mounted box, a plurality of rollers on each side thereof, and a plurality of rotatable hollow wheels on each side of the box, each having an axis above the bottom of the box and having a surface composed of plates meeting each other at an obtuse angle, said plates being in position to support the respective rollers upon their upper surfaces inside the wheel.

2. In a gold saving machine, the combination of a movably mounted sluice box, rollers at opposite edges thereof, and two pairs of wheels journaled above the bottom of the sluice box and projecting below it, each having a bottom inside surface below the sluice box for supporting one of said rollers, said surface being made up of a plurality of plates meeting each other at an angle.

3. In a gold saving machine, the combination of a movably mounted sluice-box, rollers at each end thereof, a pair

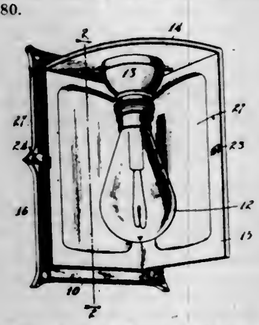
of wheels journaled above each end of the sluice-box, each having a surface extending below the sluice box for supporting one of said rollers made up of a plurality of plates meeting each other at an angle and forming a circumferential flange, and means for connecting said wheels to cause them to rotate together, said means being so arranged that when the rollers at one side of the sluice-box are at an angle between two of the plates on the wheels supporting them, those at the other side are at points between two angles on their wheels, whereby a vibrating and oscillating motion will be given to each side of the sluice-box.

4. In a gold saving machine, the combination of a movably mounted sluice-box, and a pair of wheels journaled above the bottom thereof for operating it, said wheels being connected to rotate in unison, and each having a surface formed of a plurality of plates perpendicular to the plane of the wheel, each making an angle with the next one, and each adapted to support one side of the sluice-box when below it, the two wheels being in such position that when one side of the sluice-box is supported at an angle on one wheel, the other is supported at a point between two angles.

5. In a gold saving machine, the combination of a frame, a sluice-box therein, yielding adjustable means for supporting the sides of the sluice-box in said frame, rollers mounted on the bottom of the sluice-box and projecting therefrom, hollow wheels journaled on said frame above the sides of the sluice-box, extending down below the sluice-box, and supporting said rollers on its inside surface, each wheel being of polygonal shape and of the same number of sides, the wheels being so placed with relation to each other that when the side of one at one end of the sluice box is in any certain position, an angle of one at the other end is in a corresponding position, and means for rotating said wheels in unison and maintaining said relative arrangement between them.

[Claims 6 to 9 not printed in the Gazette.]

942,963. BERTH-LAMP. WILLIAM S. HAMM, Hubbard Woods, and THOMAS A. LEGGE, Chicago, Ill., assignors to The Adams & Westlake Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 17, 1909. Serial No. 490,580.



1. In a lamp, in combination, a frame, a closure for the frame opening comprising two rigidly united leaves, and a lamp socket mounted upon the closure.

2. In a lamp, in combination, a frame, a two-leaved closure for the frame opening, a plate spanning the angle between the leaves, and a lamp socket carried by the plate.

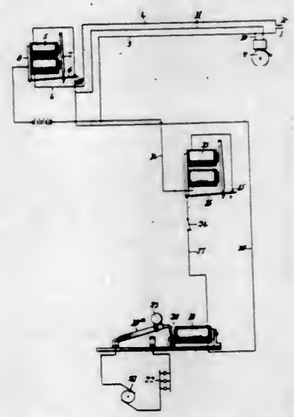
3. In a lamp, in combination, a frame, a two-leaved closure for the frame opening, a reflector formed on the contiguous faces of the leaves, and a lamp socket mounted upon the closure.

4. In a lamp, in combination, a frame, a two-leaved closure for the frame opening, a plate spanning the angle between the leaves, a reflector formed on the contiguous faces of the leaves and the surface of the plate, and a lamp socket carried by the plate.

5. In a lamp, in combination, a frame, a pair of closure plates for the frame opening arranged at an angle and rigidly united at their meeting edges and being pivoted to the frame at such edges, and a lamp socket carried between the plates.

[Claims 6 to 11 not printed in the Gazette.]

942,964. ELECTRIC-LIGHTING ATTACHMENT FOR BURGLAR-ALARM SYSTEMS. MAXIMILIAN F. JURUICK, New York, N. Y., assignor, by mesne assignments, to Electric Bank Protection Company, a Corporation of Delaware. Filed Aug. 16, 1907. Serial No. 388,789.



1. In combination, a burglar alarm circuit having an alarm signal in operative connection therewith, a source of electrical energy and an automatic drop located therein, said circuit being broken at the drop upon the operation of said drop, a second automatic drop and an electromagnet arranged in series with each other and in parallel with the alarm, and an electric lighting circuit having a switch controlled by said electro-magnet.

2. In combination, an alarm circuit, an electric lighting circuit independent of the alarm circuit, means whereby the electric lighting circuit is closed upon the operating of the alarm, and means for breaking that portion of the alarm circuit the operation of which closes the independent electric lighting circuit, as soon as the operation causes the closing of the electric lighting circuit, and for maintaining the said portion of the alarm circuit thereafter continuously broken, to prevent the connection of the electric lighting circuit with the alarm circuit after the electric lighting circuit is closed by the operating of the alarm circuit.

3. In combination, a low potential alarm circuit, a high potential electric lighting circuit independent of the alarm circuit, means whereby the electric lighting circuit is closed upon the operating of the alarm, and means for breaking that portion of the alarm circuit the operation of which closes the independent electric lighting circuit, as soon as the operation causes the closing of the electric lighting circuit, and for maintaining the said portion of the alarm circuit thereafter continuously broken, to prevent the connection of said high potential circuit with the low potential circuit after the high potential circuit is closed by the operating of the low potential circuit.

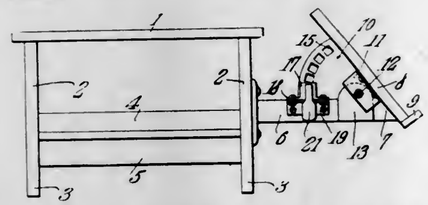
4. In combination, an alarm circuit, an electric lighting circuit, means whereby the electric lighting circuit is closed upon the operating of the alarm, and means for maintaining the alarm circuit continuously and at all times broken before and after the operation which causes the closing of the independent electric lighting circuit, whereby the connection of the electric lighting circuit with the alarm circuit is prevented either before or after the electric lighting circuit is closed upon the operating of the alarm.

5. In combination, a low potential burglar-alarm circuit, a high potential electric lighting circuit, said cir-

cuits being respectively independent of each other, means whereby the closing of the low potential alarm circuit causes the closing of the high potential electric lighting circuit, and automatic means for maintaining the low potential alarm circuit continuously and at all times broken before and after the operation which causes the closing of the high potential electric lighting circuit, to prevent the connection of said circuits so that the high potential current will at any time pass through the source of the low potential current.

[Claims 6 to 22 not printed in the Gazette.]

942,965. SHOE-FITTING STOOL. HENRY H. KRAMER, Terre Haute, Ind., assignor of one-half to John E. Peyton, Terre Haute, Ind. Filed May 5, 1909. Serial No. 493,991.



1. A shoe fitting stool having vertical ends constituting legs, a supporting arm projecting from one of said ends and terminating in a beveled end constituting a stop, a spring actuated foot rest pivoted on said arm near said stop, and means for yieldingly holding said foot rest in operative position.

2. A shoe fitting stool having a supporting arm adapted to secure a foot rest, a spring actuated foot rest pivotally secured adjacent one end of said arm, an apertured disk constituting a ratchet having terminal means for securing said foot rest, and a yieldingly held pawl adapted to engage said ratchet whereby to hold said foot rest in operative position.

3. A shoe fitting stool having a supporting arm provided with oppositely disposed plates adapted to pivotally secure a foot rest, a yielding foot rest having an oppositely positioned disk and angle iron adapted to pivotally secure said foot rest to and slidingly fit said plates, said disk having radial perforations constituting a ratchet, and a spring actuated pawl adapted to engage said ratchet whereby to hold said foot rest in operative position.

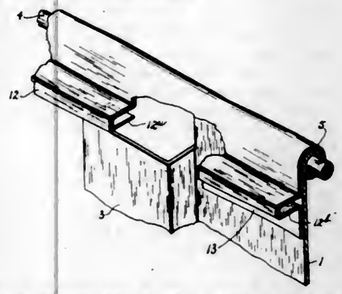
4. A shoe fitting stool having a supporting arm provided with lateral journals adapted to receive a pivot pin, a pivot pin seated in said journals, a spring seated on said pivot pin and exerting a pressure away from said supporting arm, a foot rest pivotally secured to said supporting arm by said pivot pin and normally held inclined by said spring, a ratchet combined with said foot rest, and a pawl operating with said ratchet for yieldingly holding said foot rest in operative position.

5. A shoe fitting stool having a supporting arm, an adjustable foot rest pivoted on said arm, said foot rest having a ratchet pivoted on and adapted to slidingly fit said arm, a spring actuated pawl adapted to be normally held in engagement with said ratchet, and a latch connected with said pawl whereby to release said pawl from engagement with said ratchet.

[Claim 6 not printed in the Gazette.]

942,966. PACKING-CASE. ALFRED T. KRUSE, Defiance, Ohio, assignor to The American Steel Package Company, Defiance, Ohio, a Corporation of Ohio. Filed May 27, 1907. Serial No. 375,776.

1. A packing-case, comprising walls each formed of a single blank of metal having a plurality of recesses cut along its margins and crimped into a plurality of panels extending between said recesses, a beading formed by the upper edges of said walls, and a strip of metal curled over and about said beading forming a second or double beading and crimped to form a horizontal flange abutting against the ends of said panels.



2. In a packing-case, a wall formed of a single blank having a plurality of notched recesses along its marginal edges and formed into a plurality of panels intermediate said recesses with a beading along said marginal edges, said wall being provided along one of its marginal edges with a reinforcing strip bent therewith into a double walled outwardly-extending horizontal flange abutting against the ends of said panels and terminating in one of said beadings.

3. In a packing-case, a wall formed of a blank of metal having a plurality of notched recesses along its margins and provided with a plurality of inwardly-extending panels intermediate said notched recesses and a beading about the upper marginal edges of said wall, and a second beading carrying a depending horizontal flange abutting against the upper ends of said panels.

4. A packing-case, comprising walls each formed of a blank having a plurality of notched recesses along its margins and a plurality of inwardly-extending panels extending between said notched recesses with a beading at the upper edges of said walls, and reinforcing strips crimped with the lower marginal edges of said walls into outwardly-extending bottom-supporting flanges abutting against the lower ends of said panels.

5. In a packing-case, a wall formed of a single blank having a plurality of notched recesses along its marginal edges and a plurality of panels intermediate said notched recesses, and a marginal reinforcing strip, crimped with the adjacent marginal edge into a horizontal flange abutting against the ends of said panels, said reinforcing strip terminating in a friction-bearing beading.

[Claims 6 to 10 not printed in the Gazette.]

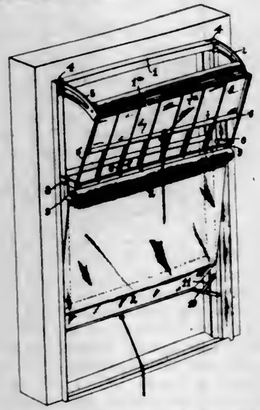
942,967. SHADE-SUPPQRTING DEVICE. EDMUND H. LUNKEN, Cincinnati, Ohio, assignor to The Lunken Steel Window Co., Cincinnati, Ohio. Filed Oct. 29, 1908. Serial No. 460,096.

1. In combination with a window, a shade roller, means for supporting the same at the top of the window on the inside at a suitable distance from the window, and means for causing the shade, when drawn down, to occupy a position inclining downwardly toward the window.

2. In combination with a window, a frame located at the top thereof inside the window, and having its upper portion spaced from the top of the window, said frame inclining downwardly toward the window, and a shade roller carried at the top of the frame and a shade carried by the roller, and sustained by the frame in a position inclining toward the window when the shade is drawn down.

3. In combination with a window, an inclined frame located at the top thereof on the inside of the window, the top of the frame being spaced from the top of the window and the frame inclining downwardly toward the window, said frame having two sets of guiding members, and a shade roller carried at the top of the frame and having a shade guided between said members.

4. In combination with a window, brackets carried at the top thereof, a shade roller and shade carried at the outer ends of said brackets, a guiding frame inclining downwardly and inwardly from said roller toward the window for guiding the shade.



5. In combination with a window, a shade roller carrying a shade located at the top thereof, a second shade roller carrying a shade and located at a portion of the window intermediate its top and bottom, and means for holding each of said shades in an inclined position.

[Claims 6 to 9 not printed in the Gazette.]

942,968. SAFETY DEVICE FOR ELEVATORS. JOHN A. MILLER, Baltimore, Md., assignor to John M. Thurston, trustee, Washington, D. C. Filed Mar. 5, 1907. Serial No. 360,753. Renewed Aug. 14, 1909. Serial No. 512,927.



In a safety mechanism for elevators, the combination of the shaft of an elevator controlling mechanism, a lock wheel mounted on said shaft and provided with a catch notch, a cushion in the base of said notch, a solenoid, a latching detent carried by the core of the solenoid, guiding means for holding the solenoid core against rotation, a temporary latch for supporting the solenoid core against downward movement, a series of door switches, and a normally closed safety circuit including said switches and said solenoid.

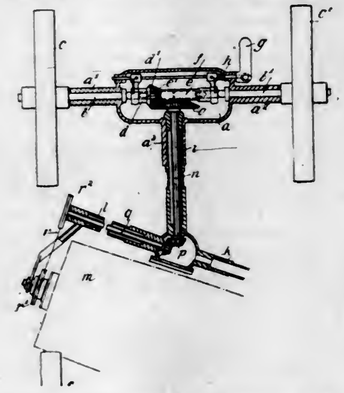
942,969. SEED-POTATO CUTTER. LEWIS F. MILLER, Bath township, Greene county, Ohio. Filed June 4, 1906. Serial No. 320,039.



1. In a device of the character described, a frame, suitable knives mounted therein, a swinging plunger adapted to force the article cut through said knives, a knife mounted upon the upper face of said swinging plunger, said swinging plunger adapted to convey the cuttings from said knife to a suitable receptacle provided at one extremity of said frame.

2. In a seed potato cutter, a suitable support, a framework, transverse and longitudinal knives carried thereby, a receptacle mounted at one extremity thereof, a bracket carried by said receptacle, a swinging plunger mounted on said bracket, the plunger being formed of sheet metal, and having integral projections stamped therefrom which pass between the knives, as and for the purpose set forth.

942,970. SWEEPING-MACHINE. BERNHARD NATHAN and GUSTAV HEUSER, Frankfort-on-the-Main, Germany. Filed Apr. 19, 1909. Serial No. 490,900.



1. In a sweeping machine, the combination of a pair of wheels, a sectional axle having two members connected respectively with said wheels, a rotary brush, a shaft geared to the brush and connected with a suitable driving gear, and two pinions each connected to turn with one of said sections of the axle and engaging said bevel gear.

2. In a sweeping machine, the combination of a pair of wheels, a sectional axle having two members connected respectively with said wheels, a rotary brush, a shaft geared to the brush and connected with a suitable driving gear, two pinions adapted to engage said gear and connected respectively to the sections of the axle, and means for simultaneously moving the pinions to and from engagement with the gear.

3. In a sweeping machine, the combination of a pair of wheels, a sectional axle having two members connected respectively with said wheels, a rotary brush, a shaft geared to the brush and connected with a suitable driving gear, two pinions connected respectively to the two members of the axle and arranged side by side and both adapted to engage said driving gear, and means for moving both pinions to and from engagement with the gear.

4. In a sweeping machine, the combination of a pair of wheels, a sectional axle having two members connected respectively with said wheels, a sleeve slidably mounted on each section of the axle and connected thereto to turn therewith, a pinion carried by each sleeve, a gear adapted to engage the pinions, a rotary brush connected with the gear, and means for moving the pinion supporting sleeves longitudinally of the axle to and from engagement with said gear.

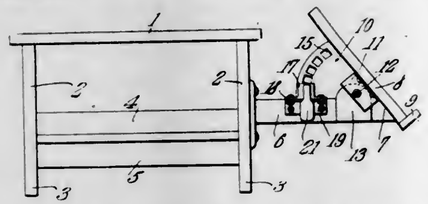
942,971. CLOTHES-PIN. JOHN F. NORMAN, Knoxville, Ark. Filed Oct. 29, 1908. Serial No. 460,084.

A clothes pin fashioned from a single strip of metal bent to form a pair of depending, U-shaped line clips, disposed substantially in a common plane and united at their adjacent extremities, the remote extremity of one of said line clips being bent to form a circular garment clip,

cuits being respectively independent of each other, means whereby the closing of the low potential alarm circuit causes the closing of the high potential electric lighting circuit, and automatic means for maintaining the low potential alarm circuit continuously and at all times broken before and after the operation which causes the closing of the high potential electric lighting circuit, to prevent the connection of said circuits so that the high potential current will at any time pass through the source of the low potential current.

[Claims 6 to 22 not printed in the Gazette.]

942,965. SHOE-FITTING STOOL. HENRY H. KRAMER, Terre Haute, Ind., assignor of one-half to John E. Peyton, Terre Haute, Ind. Filed May 5, 1909. Serial No. 493,991.



1. A shoe fitting stool having vertical ends constituting legs, a supporting arm projecting from one of said ends and terminating in a beveled end constituting a stop, a spring actuated foot rest pivoted on said arm near said stop, and means for yieldingly holding said foot rest in operative position.

2. A shoe fitting stool having a supporting arm adapted to secure a foot rest, a spring actuated foot rest pivotally secured adjacent one end of said arm, an apertured disk constituting a ratchet having terminal means for securing said foot rest, and a yieldingly held pawl adapted to engage said ratchet whereby to hold said foot rest in operative position.

3. A shoe fitting stool having a supporting arm provided with oppositely disposed plates adapted to pivotally secure a foot rest, a yielding foot rest having an oppositely positioned disk and angle iron adapted to pivotally secure said foot rest to and slidingly fit said plates, said disk having radial perforations constituting a ratchet, and a spring actuated pawl adapted to engage said ratchet whereby to hold said foot rest in operative position.

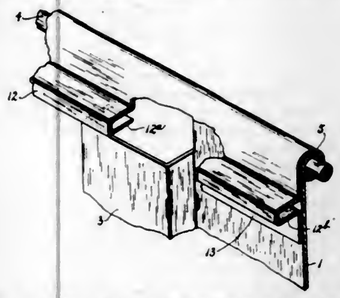
4. A shoe fitting stool having a supporting arm provided with lateral journals adapted to receive a pivot pin, a pivot pin seated in said journals, a spring seated on said pivot pin and exerting a pressure away from said supporting arm, a foot rest pivotally secured to said supporting arm by said pivot pin and normally held inclined by said spring, a ratchet combined with said foot rest, and a pawl operating with said ratchet for yieldingly holding said foot rest in operative position.

5. A shoe fitting stool having a supporting arm, an adjustable foot rest pivoted on said arm, said foot rest having a ratchet pivoted on and adapted to slidingly fit said arm, a spring actuated pawl adapted to be normally held in engagement with said ratchet, and a latch connected with said pawl whereby to release said pawl from engagement with said ratchet.

[Claim 6 not printed in the Gazette.]

942,966. PACKING-CASE. ALFRED T. KRUSE, Defiance, Ohio, assignor to The American Steel Package Company, Defiance, Ohio, a Corporation of Ohio. Filed May 27, 1907. Serial No. 375,776.

1. A packing-case, comprising walls each formed of a single blank of metal having a plurality of recesses cut along its margins and crimped into a plurality of panels extending between said recesses, a beading formed by the upper edges of said walls, and a strip of metal curled over and about said beading forming a second or double beading and crimped to form a horizontal flange abutting against the ends of said panels.



2. In a packing-case, a wall formed of a single blank having a plurality of notched recesses along its marginal edges and formed into a plurality of panels intermediate said recesses with a beading along said marginal edges, said wall being provided along one of its marginal edges with a reinforcing strip bent therewith into a double walled outwardly-extending horizontal flange abutting against the ends of said panels and terminating in one of said beadings.

3. In a packing-case, a wall formed of a blank of metal having a plurality of notched recesses along its margins and provided with a plurality of inwardly-extending panels intermediate said notched recesses and a beading about the upper marginal edges of said wall, and a second beading carrying a depending horizontal flange abutting against the upper ends of said panels.

4. A packing-case, comprising walls each formed of a blank having a plurality of notched recesses along its margins and a plurality of inwardly-extending panels extending between said notched recesses with a beading at the upper edges of said walls, and reinforcing strips crimped with the lower marginal edges of said walls into outwardly-extending bottom-supporting flanges abutting against the lower ends of said panels.

5. In a packing-case, a wall formed of a single blank having a plurality of notched recesses along its marginal edges and a plurality of panels intermediate said notched recesses, and a marginal reinforcing strip, crimped with the adjacent marginal edge into a horizontal flange abutting against the ends of said panels, said reinforcing strip terminating in a friction-bearing beading.

[Claims 6 to 10 not printed in the Gazette.]

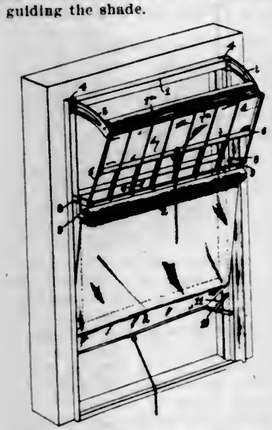
942,967. SHADE-SUPPORTING DEVICE. EDMUND H. LUNKEN, Cincinnati, Ohio, assignor to The Lunken Steel Window Co., Cincinnati, Ohio. Filed Oct. 29, 1908. Serial No. 460,096.

1. In combination with a window, a shade roller, means for supporting the same at the top of the window on the inside at a suitable distance from the window, and means for causing the shade, when drawn down, to occupy a position inclining downwardly toward the window.

2. In combination with a window, a frame located at the top thereof inside the window, and having its upper portion spaced from the top of the window, said frame inclining downwardly toward the window, and a shade roller carried at the top of the frame and a shade carried by the roller, and sustained by the frame in a position inclining toward the window when the shade is drawn down.

3. In combination with a window, an inclined frame located at the top thereof on the inside of the window, the top of the frame being spaced from the top of the window and the frame inclining downwardly toward the window, said frame having two sets of guiding members, and a shade roller carried at the top of the frame and having a shade guided between said members.

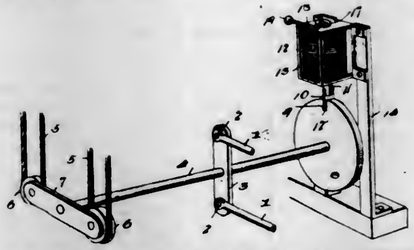
4. In combination with a window, brackets carried at the top thereof, a shade roller and shade carried at the outer ends of said brackets, a guiding frame inclining downwardly and inwardly from said roller toward the window for guiding the shade.



5. In combination with a window, a shade roller carrying a shade located at the top thereof, a second shade roller carrying a shade and located at a portion of the window intermediate its top and bottom, and means for holding each of said shades in an inclined position.
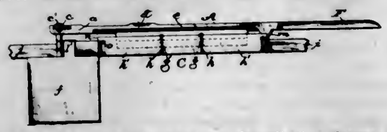
[Claims 6 to 9 not printed in the Gazette.]

942,968. SAFETY DEVICE FOR ELEVATORS. JOHN A. MILLER, Baltimore, Md., assignor to John M. Thurston, trustee, Washington, D. C. Filed Mar. 5, 1907. Serial No. 360,753. Renewed Aug. 14, 1909. Serial No. 512,927.



In a safety mechanism for elevators, the combination of the shaft of an elevator controlling mechanism, a lock wheel mounted on said shaft and provided with a catch notch, a cushion in the base of said notch, a solenoid, a latching detent carried by the core of the solenoid, guiding means for holding the solenoid core against rotation, a temporary latch for supporting the solenoid core against downward movement, a series of door switches, and a normally closed safety circuit including said switches and said solenoid.

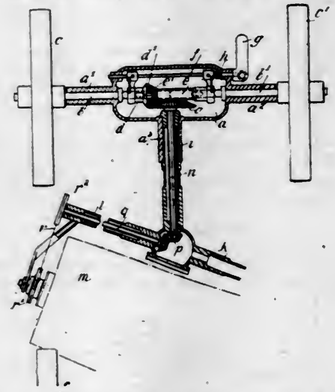
942,969. SEED-POTATO CUTTER. LEWIS F. MILLER, Bath township, Greene county, Ohio. Filed June 4, 1906. Serial No. 320,039.



1. In a device of the character described, a frame, suitable knives mounted therein, a swinging plunger adapted to force the article cut through said knives, a knife mounted upon the upper face of said swinging plunger, said swinging plunger adapted to convey the cuttings from said knife to a suitable receptacle provided at one extremity of said frame.

2. In a seed potato cutter, a suitable support, a framework, transverse and longitudinal knives carried thereby, a receptacle mounted at one extremity thereof, a bracket carried by said receptacle, a swinging plunger mounted on said bracket, the plunger being formed of sheet metal, and having integral projections stamped therefrom which pass between the knives, as and for the purpose set forth.

942,970. SWEEPING-MACHINE. BERNHARD NATHAN and GUSTAV HEUSER, Frankfort-on-the-Main, Germany. Filed Apr. 19, 1909. Serial No. 490,900.



1. In a sweeping machine, the combination of a pair of wheels, a sectional axle having two members connected respectively with said wheels, a rotary brush, a shaft geared to the brush and connected with a suitable driving gear, and two pinions each connected to turn with one of said sections of the axle and engaging said bevel gear.

2. In a sweeping machine, the combination of a pair of wheels, a sectional axle having two members connected respectively with said wheels, a rotary brush, a shaft geared to the brush and connected with a suitable driving gear, two pinions adapted to engage said gear and connected respectively to the sections of the axle, and means for simultaneously moving the pinions to and from engagement with the gear.

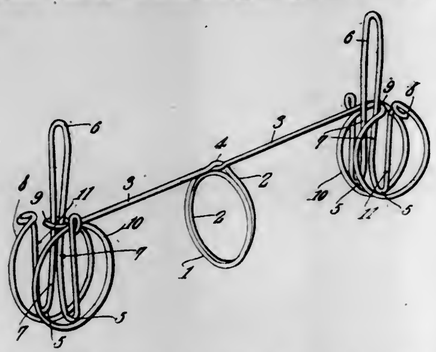
3. In a sweeping machine, the combination of a pair of wheels, a sectional axle having two members connected respectively with said wheels, a rotary brush, a shaft geared to the brush and connected with a suitable driving gear, two pinions connected respectively to the two members of the axle and arranged side by side and both adapted to engage said driving gear, and means for moving both pinions to and from engagement with the gear.

4. In a sweeping machine, the combination of a pair of wheels, a sectional axle having two members connected respectively with said wheels, a sleeve slidably mounted on each section of the axle and connected thereto to turn therewith, a pinion carried by each sleeve, a gear adapted to engage the pinions, a rotary brush connected with the gear, and means for moving the pinion supporting sleeves longitudinally of the axle to and from engagement with said gear.

942,971. CLOTHES-PIN. JOHN F. NORMAN, Knoxville, Ark. Filed Oct. 29, 1908. Serial No. 460,084.

A clothes pin fashioned from a single strip of metal bent to form a pair of depending, U-shaped line clips, disposed substantially in a common plane and united at their adjacent extremities, the remote extremity of one of said line clips being bent to form a circular garment clip,

disposed in a plane substantially normal to the plane of the line clips, the extremity of said garment clip being sharply bent upon itself to form a U-shaped compression member arranged to inclose, in gripping relation, the ad-



jacent sides of the line clips, the extremity of the compression member being bent to form a circular garment clip similar to the first-named garment clip, and disposed in a plane substantially parallel thereto.

942,972. REGULATING-VALVE. STEPHEN A. PALMER, Kansas City, Mo. Filed Aug. 28, 1908. Serial No. 450,671.



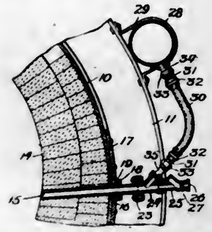
1. A regulating valve comprising a valve bonnet, a piston body having a projecting shank, adapted for travel in said bonnet, a spring surrounding said shank and supported by said body, a head on said piston body, and a plug adjustably mounted in said bonnet and adapted for constant engagement with said spring and for engagement by said shank when the piston is raised against the tension of said spring.

2. A regulating valve comprising a casing having a valve chamber provided with intake and outlet ports, a diaphragm in said casing, a valve bonnet projecting through said diaphragm, a piston comprising a body member adapted for travel in the lower portion of said bonnet and having a shank adapted for travel in the upper portion thereof and a head located exterior to said body and adapted for closing said intake port, a spring cup surrounding said shank and seated on said body member, a compression spring surrounding said shank and seated in said cup, and a regulating plug adjustably mounted in the upper end of said bonnet, said plug being provided with an interior head adapted for engagement with said shank and with a gripping head accessible from the exterior of the valve chamber.

942,973. METALLURGIC CONVERTER. WILLIAM H. PEIRCE, Baltimore, Md. Filed Oct. 15, 1909. Serial No. 522,704.

1. In metallurgic converters, the combination with the outer shell, of the inner lining therefor, shiftable relatively to the shell under the changing heat conditions, the independent bustle pipe for the air supply, the separate twyers flexibly sustained with relation to the outer shell and embedded in said lining to shift therewith, and flexible pipes connecting the twyers and bustle pipe.

2. In metallurgic converters, the combination with an outer shell, of an inner lining therefor, shiftable relatively to said shell, a set of twyers embedded in said lining and free to shift therewith, an air supply pipe, and flexible pipes connecting said air supply pipe and said twyers.



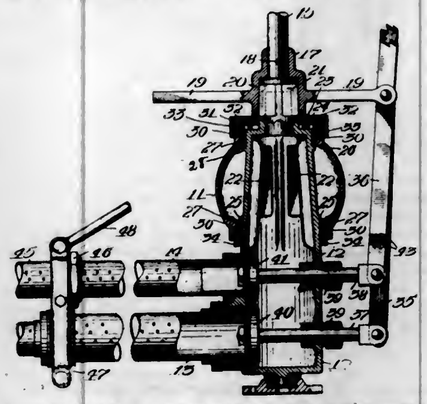
3. In metallurgic converters, the combination with an outer shell, of an inner, non-corrodible lining shiftable relatively to the shell under the changing heat conditions, a set of blast twyers extending loosely through said shell and embedded in and extending through said lining to participate in the shift thereof, an external bustle pipe for the air supply, and flexible coupling pipes having air-tight connections with said bustle pipe and the projecting inlet ends of said twyers.

4. In metallurgic converters, the combination with an outer shell, of a series of metal twyers extending loosely through the shell, an external bustle pipe formed independent of the wall of said shell, mounted thereon at one side of said twyers and having flexible air-tight connections with the projecting outer ends thereof, and an inner lining in which the inner ends of said twyers are embedded.

5. In metallurgic converters, the combination of an outer shell having an internal lining, of a set of metal twyers flexibly sustained from said shell and embedded in and extending through said lining, an external bustle pipe mounted on said shell and formed independent of the wall thereof, and flexible coupling pipes having air-tight connections with said bustle pipe and with the projecting inlet ends of said twyers.

[Claims 6 to 10 not printed in the Gazette.]

942,974. CAR-SPRINKLER VALVE. EDWARD C. PERRY, Worcester, Mass., assignor to American Car Sprinkler Company, Worcester, Mass., a Corporation of Massachusetts. Filed July 22, 1908. Serial No. 444,761.



1. In a street sprinkler valve construction, the combination of a casing mounted to turn, a main outlet pipe mounted thereon, a second outlet pipe adjacent to the main outlet pipe, a valve in said casing for the main outlet pipe, a valve in said casing for the second outlet pipe, a rod fixed to each valve, said rods being parallel and one being vertically above the other, a bearing for each rod, said bearings being opposite the pipes, and two vertical parallel levers for operating the two rods, said levers being disposed on opposite sides of the plane of said rods and being supported at a single point to turn with the casing.

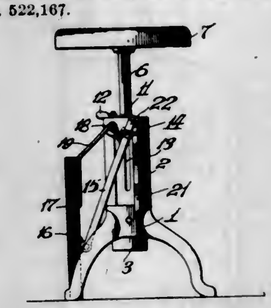
2. In a street sprinkler valve construction, the combination of a casing mounted to turn, a main outlet pipe mounted thereon, a second outlet pipe adjacent to the main outlet pipe, a valve in said casing for the main outlet pipe, a valve in said casing for the second outlet pipe, a rod for each valve, said rods being parallel, a bearing for each rod, said bearings being opposite the pipes, and means for operating the two rods, said means being supported at a single point to turn with the casing, said means comprising two vertical levers, the one connected with the lower rod having a bend where it passes the upper rod, and both extending upwardly parallel with each other at equal distances from the centers of said rods.

3. In a street sprinkler valve construction, the combination of a casing mounted to turn, a main outlet pipe mounted thereon, a second outlet pipe adjacent to the main outlet pipe, a valve in said casing for the main outlet pipe, a valve in said casing for the second outlet pipe, a rod fixed to each valve and passing through the casing, a pair of levers, one for operating each of said valves, a cross bar at the top of the casing and turning therewith, said levers being pivotally mounted on said cross bar, said cross bar having an integral hub provided with a non-circular socket, and the casing having a projection thereon fitting the socket, and means positively secured to the hub for turning the hub, levers, and casing.

4. The combination with a valve casing having two annular inwardly extending bearings, one larger than the other, of an inner casing adapted to turn with respect to the outer casing and having long vertical cylindrical bearing surfaces engaging the bearing surfaces on the outer casing whereby one casing may be adjusted along the other, packing rings outside said bearing surfaces, means for holding said packing rings in position, and a projection on the inner casing for limiting the downward motion of the outer casing.

5. The combination with an outer valve casing having two inwardly extending annular projections provided with cylindrical bearing surfaces, of an inner perforated casing having longer cylindrical bearing surfaces fitting the bearing surfaces on the outer casing, means for holding packings in contact with the outside of the bearing surfaces on the inner casing, and with the outer edges of the bearing surfaces on the outer casing, a cap fitting the top of the outer casing, ball-bearings between the cap and the top of the inner casing, and means for adjusting the outer casing with respect to said cap.

942,975. COMBINED STOOL AND FOOT-REST. MARVIN L. PORTER, Webb City, Mo. Filed Oct. 11, 1909. Serial No. 522,167.



1. In a combined stool and foot rest, a column, a stem supported in said column, a seat carried by said stem, a foot rest pivotally secured to the column and means whereby, when the seat is moved altitudinally, the foot rest will be either extended outwardly or toward the column.

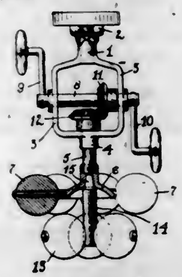
2. In a combined stool and foot rest, a support, a stem carried by the support, a seat carried by the stem, a spring acting on said stem, a foot rest pivoted to the support, means connecting the stem and foot rest whereby when the stool is depressed the foot rest will be automatically extended and means for locking the foot rest in said extended position.

3. In a combined stool and foot rest, a support, a stem carried by said support, a seat carried by the stem, a foot rest pivotally secured to the support, arms connecting said support and stem, means for locking the stem in an elevated position, means for locking the foot rest in an extended position and a spring which when released will elevate the seat and at the same time fold the foot rest.

4. In a combined stool and foot rest, a base section, a column supported by said base section, there being an opening formed longitudinally through the column, a stem embraced by said opening, a seat carried by said stem, a spring for elevating the seat, means for holding the seat in an elevated position, a foot rest, arms secured to the foot rest pivoted to said column, a pair of arms secured at their one end to the stem and at their opposite end to the foot rest and a catch for engagement with one of said arms to hold the foot rest in an extended position.

5. In a combined stool and foot rest, a base section, a column supported by said base section, there being parallel openings formed longitudinally through said column, a stem embraced by one of said openings, a seat carried by said stem, a spring occupying the second opening fixed at its one end to said stem and at its opposite end to the support, there being slots formed in the column communicating with the longitudinal opening occupied by the stem, a pin carried by said stem arranged for travel in said slots, a foot rest, means for pivotally connecting the foot rest to the column, arms pivoted at their one end to the foot rest and at their opposite end to said pin, means for holding the seat elevated and the foot rest folded and means for locking the foot rest when it is extended.

942,976. EXERCISING OR MASSAGE APPARATUS. ROBERT REACH, Philadelphia, Pa. Filed Jan. 11, 1909. Serial No. 471,784.



1. In combination in a massage apparatus, a support, a shaft journaled therein and extending forwardly in relation thereto, a rotary carrier on the front end of said shaft having its rotary movement in one direction, rollers mounted on said carrier and each rotatable on its own axis, a shaft mounted in the support and extending transversely in respect to the support and at right angles to the first shaft, gearing between the shafts and a handle mounted in the rear of the carrier and connected with the transverse shaft to rotate the same and the carrier with the rollers, substantially as described.

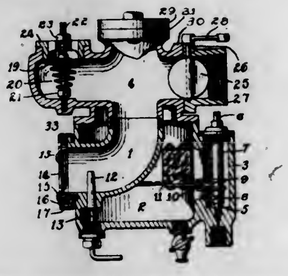
2. In combination in a massage apparatus, a support, a shaft journaled therein, a carrier on said shaft having its rotary movement in one direction, a series of rollers mounted on the carrier, a cross shaft mounted in the frame and geared to the shaft first mentioned, and a handle connected at each end of the cross shaft for operating the same, said cross shaft, with its handles, being in rear of the carrier, substantially as described.

3. In combination a frame, a rotary carrier journaled therein, means for rotating said carrier, a main massage device on the carrier, rotating in one plane with the carrier, and a removable supplemental massage device arranged in a plane in front of the main massage device to rotate in a plane parallel thereto, substantially as described.

4. In combination with a rotary carrier, a series of balls radially disposed in relation to the axis thereof, and a supplemental series of balls different in number from the balls of the main series arranged in front of the main series rotatable with and removably mounted in the carrier, substantially as described.

5. In combination in a massage apparatus, a carrier, a main massage member thereon, a pin having a conical end to fit a corresponding socket on the carrier, and a supplemental ball on the said pin, substantially as described.

942,977. CARBURETER. JOHAN C. SIMONSEN, Elkhart, Ind. Filed Dec. 28, 1908. Serial No. 469,598.



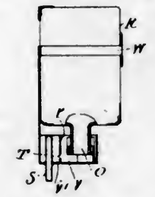
1. A carbureter including an L-shaped carbureting chamber, a diluting chamber above the carbureting chamber and communicating therewith, a hydro-carbon chamber surrounding the carbureting chamber, a valve chamber at one side of the last named chamber, a float controlled valve in the valve chamber, an iris diaphragm to adjust the intake opening to the carbureting chamber, a nozzle communicating with the hydro-carbon chamber and terminating near the axis of the diaphragm and also having its axis substantially at right angles to the axis of the diaphragm, a needle valve to the nozzle, a spring controlled valve to admit air to the diluting chamber, and a throttle valve to regulate the flow from the diluting chamber to the engine.

2. A carbureter including, a carbureting chamber, an iris diaphragm to adjust the air inlet to said chamber, a hydro-carbon chamber, a nozzle arranged with its axis at substantially right angles to the axis of the diaphragm communicating with the hydro-carbon chamber and located near the diaphragm and also terminating near the axis thereof, a float valve to control the supply of fluid to the hydro-carbon chamber, a diluting chamber, a spring controlled valve to admit air to the diluting chamber, and means for adjusting said spring.

3. A carbureter including, a diluting chamber, a bushing inserted in the chamber and having an open top to admit air, a valve engaging said bushing to close the same, a bolt extending through said bushing and valve and freely slidable therein and also longitudinally adjustable in a screw threaded opening in the bottom of the chamber, a spring surrounding the bolt and supporting the valve, a collar fixed on the bolt and supporting the spring, and a nut on the bolt engaging and holding the bushing in place.

4. A carbureter including an L-shaped carbureting chamber having an air inlet opening, a hydro-carbon chamber communicating with the carbureting chamber by a nozzle located near the air inlet opening and at right angles to the axis thereof, a diluting chamber above the carbureting chamber, and into which the carbureting chamber discharges, a spring-controlled valve to admit air to the diluting chamber, a throttle to control the flow from the diluting chamber to the engine, and an iris diaphragm to adjust the air inlet to the carbureting chamber and having its axis near the end of the nozzle and at right angles thereto.

942,978. FLUSHING APPARATUS. ALFRED C. SNELL, Saltash, England, assignor to William Hatfield Dodge, Montclair, N. J. Filed Oct. 5, 1907, Serial No. 396,006. Renewed Oct. 19, 1909. Serial No. 523,429.

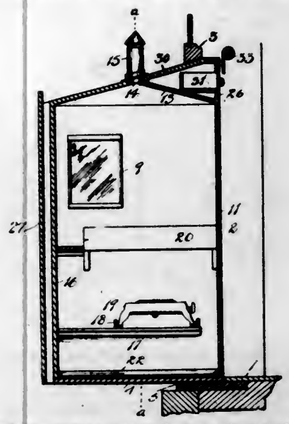


1. In a flushing apparatus, a reservoir adapted to contain a fluid, a distributing chamber and an intermediate chamber, means for sealing the reservoir by the rise of fluid in said intermediate chamber, a perforated partition separating said distributing intermediate chambers, and a siphon tube having one end immersed in the fluid in the distributing chamber, the other end of said tube adapted to connect with a flushing or similar tank.

2. In a flushing apparatus, a reservoir, an intermediate chamber communicating therewith said communication adapted to be sealed by the rise of fluid in the chamber, a distributing chamber communicating with the intermediate chamber, a siphon pipe having one end immersed in the fluid in the distributing chamber, the other end of said pipe communicating with a flushing or similar tank, and means carried by said pipe for adjustably regulating the depth of immersion of the end thereof in the fluid, thereby regulating the amount of liquid drawn therethrough at each operation.

3. In a flushing apparatus, a reservoir, an intermediate chamber communicating with the reservoir, said communication adapted to be sealed by the rise of fluid in the reservoir, a distributing chamber communicating with the intermediate chamber, a siphon tube having one end immersed in the fluid in the distributing chamber, and means coöperating with the other end of said tube for starting the siphon action.

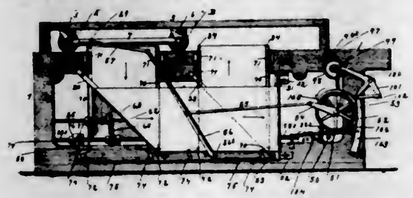
942,979. WINDOW-KITCHEN. ABRAM SOPER, Detroit, Mich. Filed Feb. 8, 1909. Serial No. 476,823.



1. A window kitchen adapted to be inserted and held in a window opening, means for producing a close engagement between the window sill and the floor of the kitchen, an inclined roof comprising a part of said kitchen adapted to engage closely under the window sash, and a curtain adapted to be drawn over and to conceal said kitchen, substantially as described.

2. In a window kitchen, in combination with the inclosing walls thereof, a screen wall spaced from the rear to simulate a bay window, substantially as described.

942,980. PRINTING-MACHINE. LOUIS W. SOUTHGATE, Worcester, Mass., assignor, by mesne assignments, to Detroit Trust Co., trustee, Detroit, Mich., a Corporation of Michigan. Filed Aug. 22, 1892. Serial No. 443,703.



1. In a printing press the combination of a form bed upon which a flat printing form may be placed, a reciprocating impression cylinder co-acting therewith on both forward and backward movements, an inking mechanism, and means for imparting independent reciprocating motions to the impression cylinder and inking mechanisms, respectively, substantially as described.

2. The combination in a printing press of two form beds arranged in substantially the same plane, an impression cylinder coacting with each form bed, means for moving the impression cylinders relatively to the form beds, guides adapted to lead a web laterally over one form bed, a turner around which the web is then led, and web guides adapted to direct the web over the other form bed, substantially as described.

3. The combination in a printing press of the form beds C and D, the reciprocating impression cylinders A and B coacting therewith, means for leading a web over the form bed C, the turner bar 30, roll 31 and turner bar 33 around which the web is then led, and guides for directing the web then over the form bed D, substantially as described.

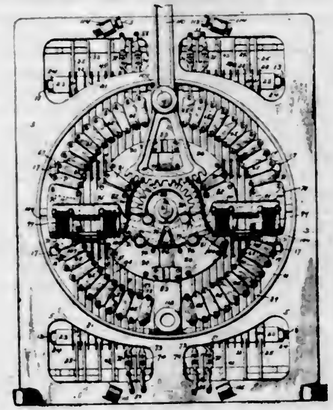
4. The combination of the beds C and D, reciprocating impression cylinders A and B coacting therewith, guides adapted to direct a web over the bed C, the turner 30 around which the web is then led, the roll 31 and turner 33, and web guides adapted to direct the web over the bed D, the roll 31 being adjustable for the purpose of obtaining register of the web between the two beds C and D, substantially as described.

5. The combination in a web perfecting printing press of the two beds C and D arranged in substantially the same plane, the impression cylinders A and B coöperating therewith, means for moving the impression cylinders relatively to the beds, guides adapted to direct a web over said beds, means for raising the web from said beds, and an inking mechanism consisting of a carriage carrying two sets of form rollers, distributing rollers arranged one between said beds, and one at the end of each bed, and means for drawing said form rollers over the form beds while the web is raised, whereby the form rollers will pass from one set of distributing rollers to the other, substantially as described.

942,981. ELECTRIC CONTROLLER. CLARENCE L. TAYLOR, Alliance, Ohio, assignor to The Morgan Engineering Company, Alliance, Ohio. Filed Mar. 6, 1909. Serial No. 481,656.

1. In an electric controller, the combination with a frame, of a series of conducting bars supported therein and provided with arms, and resistance elements sustained by said arms.

2. In an electric controller, the combination with a frame, of a series of conducting bars supported therein and provided with rearwardly projecting arms, resistance elements supported by said arms, and contact blocks carried by the front faces of said conducting bars.



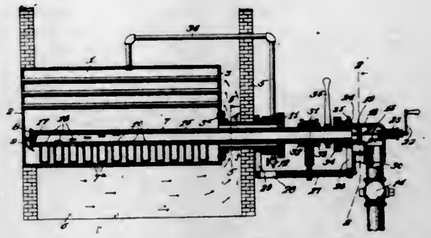
3. In an electric controller, the combination with a frame, of a series of conducting bars supported therein and provided with seats for contact blocks, contact blocks secured to said seats, and resistance elements electrically connected with said bars and mechanically supported thereby.

4. In an electric controller, the combination with a frame, of a series of rigid bars, means for removably supporting said bars within the frame, and resistance elements removably supported by and spaced rearwardly from said bars and electrically connected therewith.

5. In an electric controller, the combination with a frame, of shafts removably mounted therein, a series of conducting bars supported by and spaced rearwardly from said shafts, and resistance elements supported by said bars.

[Claims 6 to 24 not printed in the Gazette.]

942,982. BOILER-CLEANING DEVICE. ADOLPH THOMAS and EDGAR THOMPSON, Minnesota Lake, Minn. Filed Feb. 25, 1909. Serial No. 480,006.



1. In a device for cleaning boilers, in combination with a boiler, an outer tube rotatably mounted in the boiler and formed with a series of longitudinally spaced slots, a tube having a series of longitudinally spaced slots spirally disposed thereon mounted for rotation within the first tube, a lever connected with the first tube for rotating the same, a worm shaft for moving the first and second tube over the boiler bottom, a crank shaft connected with the second tube for rotating the same, and means for connecting the crank shaft to the second tube.

2. In a device for cleaning boilers, in combination with an outer tube having a series of longitudinally spaced slots, means for supporting the outer tube in a boiler, a

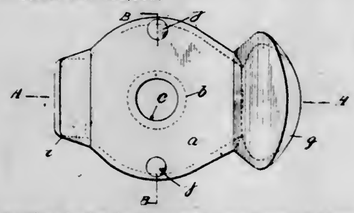
lever mounted on the tube for rotating the same, an arm loosely fixed to the outer tube, a worm shaft for moving the arm, means for supporting the worm shaft, an inner tube mounted within the outer tube and having a series of longitudinally spaced slots spirally disposed thereon and adapted to successively register with the slots of the outer tube, a crank for rotating the second tube within the first tube and means for supporting the crank.

3. In a device for cleaning boilers, in combination with a boiler, outer and inner tubes extending into the boiler and formed with co-acting openings, the inner tube being rotatably and slidably mounted, means for rotating the outer tube, means for rotating the inner tube, a worm shaft arranged parallel with said tubes, means for rotating said worm shaft, spaced stops upon the outer tube and an arm loosely arranged on the outer tube between said stops and actuated by said worm shaft.

4. In a device for cleaning boilers, in combination with a boiler, outer and inner tubes extending into the boiler and formed with co-acting openings, the inner tube being rotatable within the outer tube and the outer tube being rotatably and slidably mounted, means for rotating the outer tube, an elbow arranged on the outer end of the outer tube, a valve controlled discharge pipe projecting from said elbow, the outer end of the inner tube being formed with openings, a shaft rotatably mounted in the elbow and concentric with said tubes, a crank on the outer end of said shaft, a cross member on the inner end of said shaft and arranged in the openings of the inner tube, whereby the latter may be rotated and means for moving the outer tube longitudinally.

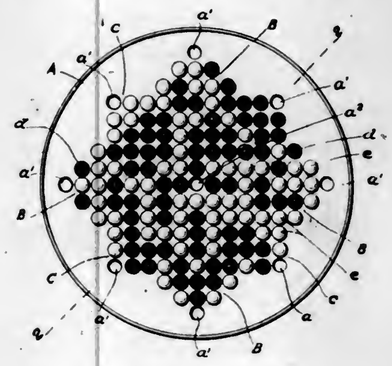
5. In a device of the character described, in combination with a boiler and a furnace wall, a tubular member extending through the furnace wall and having its inner end in communication with the boiler, a closure for the outer end of said tubular member, a circulating pipe having one end in communication with the upper portion of the boiler and its other end in communication with the outer portion of said tubular member, inner and outer tubes extending through the boiler and through said tubular member, the outer tube having longitudinal series of openings and the inner tube a spirally arranged series of slots, said inner tube being rotatable in the outer one and the outer tube being slidably and rotatably mounted, tubular extensions upon the outer tube and surrounding the openings therein, an elbow at the outer end of the outer tube, a valve controlled pipe projecting from said elbow, a crank shaft for rotating the inner tube, a lever for rotating the outer tube, a worm shaft mounted parallel with said tubes, means for rotating the worm shaft and an arm operatively connected with the outer tube and actuated by said worm shaft.

942,983. PROTECTING DEVICE FOR FOOTWEAR. THEODORE W. TUCKER, Spokane, Wash. Filed Mar. 12, 1909. Serial No. 482,985.



A protecting device for footwear, consisting of a bottom-plate formed with a hole; a side-plate which is integral with said bottom-plate and extends upwardly therefrom; a rib which extends upwardly from said bottom plate at the side thereof opposite from said side plate; and prongs which extend upwardly from said bottom-plate midway between said rib and side-plate, said prongs being on a line with and each side of the hole in the bottom plate and adjacent the unobstructed edges of the plate; said rib and prongs being adapted to enter the material and to coöperate with said side-plate in preventing the displacement of the device.

942,984. GAME APPARATUS. ZOE D. UNDERHILL, Bedford Station, N. Y. Filed Mar. 9, 1909. Serial No. 482,250.



1. In a game apparatus, a board containing a plurality of spaces arranged to form a star-shaped figure, with one of the spaces at each of the apexes, in combination with a plurality of sets of counters having distinguishing characteristics, the number in each set equal to the number in each of the other sets, and all the counters equalizing the number of said spaces less the sum of the spaces at the apexes of the star-shaped figure increased by one.

2. In a game apparatus, a board containing a plurality of spaces the preponderating number of which are arranged to form a square shaped figure comprising parallel rows, the number of rows equaling the number of spaces in a row, while the remainder are arranged at the sides of the square to form triangular shaped figures, one side of each of said triangular shaped figures adjoining the respective sides of the square shaped figure and whose spaces are arranged to form continuations of the rows comprised in the square-shaped figure, thereby forming an eight-pointed star shaped figure, in combination with a plurality of sets of counters having distinguishing characteristics, the number in each set equal to the number in each of the other sets, and all the counters equaling the number of spaces less nine.

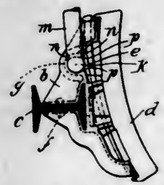
3. In a game apparatus, a board containing a plurality of holes arranged in rows to form a star-shaped figure with one of the holes at each of the corners, in combination with a plurality of sets of spherically shaped counters having distinguishing characteristics, the number in each set equal to the number in each of the other sets and all the counters equaling the number of said holes less the sum of the holes at the apexes of the star-shaped figure increased by one.

4. In a game apparatus, a board containing a plurality of spaces symmetrically arranged to form a star-shaped figure, in combination with a plurality of counters comprising sets each equal in number to the other and having distinguishing characteristics, all the counters being fewer in number, by a plurality of spaces, than the total number of spaces, and the counters in each set being greater in number than the number of spaces less the total number of counters and adapted to be initially distributed at random on all except predetermined initially unoccupied non-contiguous spaces.

5. In a game apparatus, a board containing one hundred and twenty-one spaces arranged in rows to form a square shaped figure, and nine additional spaces on each side of said square arranged to form triangular shaped figures, one side of each of said triangular shaped figures adjoining the respective sides of the square shaped figure, in combination with a plurality of sets of counters having distinguishing characteristics, the number in each set equal to the number in each of the other sets, and all the counters equaling the number of said spaces less the sum of the spaces at the apexes of the star-shaped figure increased by one.

[Claims 6 and 7 not printed in the Gazette.]

942,985. BRAKE-BEAM HANGER. SIDNEY S. UNDERWOOD, Montreal, Quebec, Canada. Filed Feb. 1, 1909. Serial No. 475,432.



1. The combination with a brake head having a transverse socket with a longitudinal mouth of less measurement transversely to the socket than the diameter of the said socket, of a hanger presenting means permitting the hanger to enter the socket longitudinally.

2. The combination with a brake head having a transverse socket with a longitudinal mouth of less measurement transversely to the socket than the diameter of the said socket, of a hanger presenting a portion permitting the hanger to enter the socket and be automatically held therein against other displacement than rotary.

3. The combination with a brake head having a transverse socket with a longitudinal mouth of less measurement transversely to the socket than the diameter of the said socket, of a hanger having means permitting the same to enter the socket longitudinally and means limiting the said longitudinal movement of the hanger.

4. The combination with a brake head having a transverse socket with a longitudinal mouth of less measurement transversely to the socket than the diameter of the said socket, of a hanger of U-form the horizontal portion whereof is equal in diameter to the socket, and having one of its legs formed with a neck permitting the insertion of such horizontal portion longitudinally into the socket.

5. The combination with a brake head having a transverse socket with a longitudinal mouth of less measurement transversely to the socket than the diameter of the said socket, of a hanger of U-form the horizontal portion whereof is equal in diameter to the socket, and having one of its legs formed with a neck permitting the insertion of such horizontal portion longitudinally into the socket, and the other leg adapted to act as a stop.

942,986. MARINE PROPELLER. DAVID URCH, Portsmouth, N. H. Filed Oct. 10, 1908. Serial No. 457,147.



1. In a marine propeller, a craft body, a casing suspended beneath the body, a propeller casing carried by the suspended casing, transmitting and propelling mechanism journaled within the casings, means embracing the moving parts adapted to maintain a lubricant in contact therewith and to divide the suspended casing, and means to conduct water from within the suspended casing.

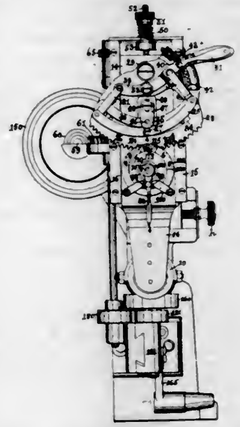
2. In a propeller, a craft body, a casing suspended beneath the craft body, a propeller casing carried by the craft body, means separating the suspended casing into oil and water compartments, and means to conduct water from the casing.

3. In a marine propeller, a craft body, a yoke carried by the body, a casing carried by the yoke and extending beneath the body and below the water line, a torpedo-shaped casing carried at the lower extremity of the suspended casing, means dividing the suspended casing into oil and water compartments, power transmitting mechanism journaled within the oil compartment, a propeller carried by the torpedo-shaped casing, means connecting the transmitting mechanism with the propeller, means to drive the transmitting mechanism, and a water pipe extending from the craft body into the water compartment of the casing.

4. In a marine propeller, a propeller casing, a propeller shaft journaled within and extending without the casing, a shaft extending within the propeller casing and intergeared with the propeller shaft, a casing embracing the last mentioned shaft and communicating with the propeller casing, and a casing surrounding the last-mentioned casing and not in communication with such casing or the propeller casing.

5. In a marine propeller, a propeller casing, a propeller shaft journaled within and extending without the casing, a casing communicating with the propeller casing, a transmission shaft rotating within the last mentioned casing, a casing surrounding the last mentioned casing and provided with perforations, and means to withdraw a fluid from the last mentioned casing.

942,987. SHOE-TRIMMING MACHINE. AMBROSE S. VOSE, Brookline, Mass., assignor to Ruth L. Vose, Brookline, Mass. Filed May 14, 1909. Serial No. 495,877.



1. In a machine of the class described, in combination, a rotary cutter, a rotatable guard coöperating therewith, a movable plate carrying said guard, a supporting plate for said guard carrying plate, a segmental gear pivoted to the guard carrying plate, a pattern movable with said segmental gear, means carried by the supporting plate and coöperating with said pattern to effect movement of said guard carrying plate, a hollow rotatable shaft extended through said guard carrying plate, a gear on said hollow shaft meshing with the segmental gear, a driving shaft, normally loose gears thereon, a gear on the hollow shaft meshing with said loose gears, a clutch member slidable on the driving shaft and coöperating with said loose gears, a clutch-operating shaft extended through said hollow shaft and connected with said clutch member, a handle on said clutch-operating shaft, means coöperating with said handle to retain the clutch in engagement with one of said loose gears, and means coöperating with said handle for disengaging the clutch member from the loose gear with which it is engaged, for the purpose specified.

2. In a machine of the class described, in combination, a rotary cutter, a rotatable guard coöperating therewith, means to rotate said guard, a movable support for said guard, a segmental gear mounted on said support, a pattern movable with said segmental gear, means coöperating

with said pattern for moving said support, a gear carried by said support and meshing with said segmental gear, a driving shaft carried by said movable support, normally loose gears on said driving shaft, gearing carried by said movable support for connecting the segmental gear with said loose gears, a clutch member on said driving shaft cooperating with said loose gears, a shaft to operate said clutch member, a handle on said shaft, means to hold said clutch member in engagement with one of the said loose gears, and means movable with said segmental gear for disengaging said clutch member from the loose gear with which it is engaged, substantially as described.

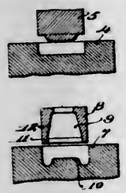
3. In a machine of the class described, in combination, a rotary cutter, a rotatable guard coöperating therewith, a sliding support for said guard, a sliding frame carrying said support, and a pivoted frame carrying said sliding support to permit said guard to be moved axially toward and away from said rotary cutter, means for rotating said guard, and a pattern to effect bodily movement of said guard with relation to said cutter, substantially as described.

4. In a machine of the class described, in combination, a rotary cutter, a rotatable guard coöperating therewith, a support for said guard, a pattern, a movable support for said pattern, means coöperating with said pattern for moving said guard with relation to said rotary cutter, a driving shaft carried by said support and rotatable in one direction, and power-operated mechanism carried by said support and operatively connected with said driving shaft for moving said pattern in opposite directions, substantially as described.

5. In a machine of the class described, in combination, a rotary cutter, a rotatable guard coöperating therewith, a support for said guard, a pattern, a movable support for said pattern, means coöperating with said pattern for moving said guard with relation to said rotary cutter, a driving shaft carried by said support and rotatable in one direction, power-operated mechanism carried by said support and operatively connected with said driving shaft for moving said pattern in opposite directions, and means carried by said support to automatically render said power-operated mechanism inoperative, substantially as described.

[Claims 6 to 12 not printed in the Gazette.]

942,988. METHOD OF MAKING EYELETS. GEORGE E. WARREN, Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Oct. 29, 1906, Serial No. 340,935. Renewed May 10, 1909. Serial No. 495,174.



1. The process of making eyelets which consists in severing a polygonal blank from a sheet of metal, placing said blank in a curvilinear die, applying pressure to the opposite sides of the blank to cause the metal to flow outwardly against the side wall of the die and form a curvilinear blank, and subjecting the curvilinear blank to such further operations as will convert it into an eyelet.

2. The process of making eyelets which consists in severing a polygonal blank from a sheet of metal, placing said blank in a curvilinear die, applying pressure to the opposite sides of the central portion of the blank to cause the metal to flow outwardly against the side wall of the die and form a curvilinear blank having a central depression, and subjecting said curvilinear blank to such further operations as will convert it into an eyelet.

3. The process of making eyelets which consists in subjecting a blank to pressure between flange shaping dies provided respectively with a recess and with a form concentric with but of less diameter than said recess, whereby the metal in excess of that required for the flange is forced into said recess to form the barrel of the eyelet.

4. The process of making eyelets which consists in subjecting a blank to pressure between flange shaping dies, forcing the excess of metal from between the dies to form the barrel of the eyelet, and then shaping and trimming the barrel of the eyelet by forcing a plunger therethrough while said barrel is held in a die.

5. The process of making eyelets which consists in subjecting a blank to pressure between flange shaping dies provided respectively with a tapering central recess and with a former concentric with but of less diameter than said recess, whereby the metal in excess of that required for the flange is forced into said recess to form a tapering barrel for the eyelet.

[Claims 6 to 9 not printed in the Gazette.]

942,989. DIE FOR USE IN THE MANUFACTURE OF EYELETS. GEORGE E. WARREN, Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed July 16, 1907, Serial No. 383,990. Renewed May 11, 1909. Serial No. 495,375.



1. The combination with a female flange shaping die provided with a concave flange shaping surface and with a central former projecting from the bottom of the die, of a male flange shaping die shaped to fit snugly within the side wall of the female die and provided with a recess to receive the metal forced from between the dies and cooperate with said former to produce a tubular shank or barrel.

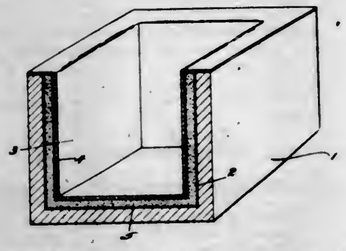
2. The combination with a female flange shaping die provided with a concave flange shaping surface and with a central former projecting from the bottom of the die, of a male flange shaping die shaped to fit snugly within the side wall of the female die and provided with a tapering recess to coöperate with said former to produce a tubular shank or barrel from the metal forced from between the dies and exert an inward pressure on the metal forming the barrel to reduce it to tapering form.

3. The combination with a female flange shaping die provided with a concave flange shaping surface and with a central former projecting therefrom shaped to exert a drawing or bending action on a blank forced into the die, of a male flange shaping die shaped to fit snugly within the side wall of the female die and provided with a recess to receive the metal forced from between the dies and coöperate with said former to produce a tubular shank or barrel.

942,990. STORAGE-BATTERY TANK. THEODORE A. WILLARD, Cleveland, Ohio. Filed May 14, 1907. Serial No. 373,586.

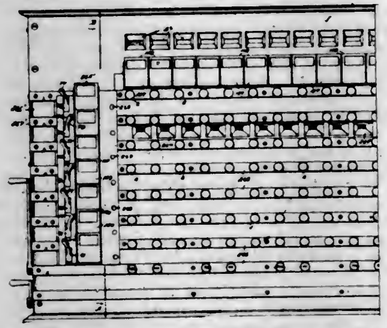
1. A storage battery tank comprising an exterior wooden casing having an internal adherent protective coating of high melting point, an internal lead lining having an external adherent protective coating of high melting point, and a layer interposed between the protective coatings of the lead and wooden parts and of relatively low melting point, whereby it can be softened to permit of their separation each retaining its coating of high melting point, substantially as described.

2. A storage battery tank comprising an exterior wooden casing having an internal coating of petrolyte, an internal lead lining having an external protective coating of petrolyte, and a layer of paraffin interposed between the coatings of the lead and wooden parts whereby they may be assembled and separated each retaining its coating of petrolyte, substantially as described.



3. A storage battery tank comprising an exterior wooden casing and an internal lead lining, and having a plurality of interposed layers of protective material between them, said layers being, with respect to each other, of relatively high and low melting points, substantially as described.

942,991. VOTING-MACHINE. ELMER E. WOLF, Springfield, Ohio, assignor, by mesne assignments, to Empire Voting Machine Company, Rochester, N. Y., a Corporation of New York. Filed Aug. 30, 1901. Serial No. 73,856.



1. A voting machine comprising registers for each candidate, said registers being arranged in office and party rows, operating mechanism and an actuator for each register, interlocking mechanism for each office row, a plurality of shafts each coöperating with the corresponding party row, an actuator accessible to the voter for each shaft, whereby said shaft may be operated in one direction to actuate all of the register operating mechanisms of that row, and means for operating said shaft in the opposite direction to re-set all of the register operating mechanisms of said row, substantially as described.

2. A voting machine comprising registers for each candidate, said registers being arranged in office and party rows, operating mechanism and an actuator for each register, interlocking mechanism for each office row, and a plurality of shafts, one coöperating with each party row, an actuator accessible to the voter for each shaft to operate the same in one direction to actuate all of the register operating mechanisms of that row, and means for simultaneously operating all of said shafts in the opposite direction to re-set all of the registers, substantially as described.

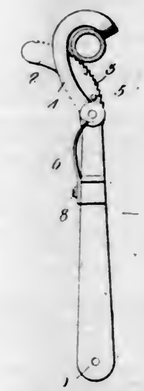
3. A voting machine comprising registers for each candidate arranged in office and party rows, actuating mechanism for each register comprising a projecting arm, an actuator for each register comprising a movable part adapted to engage said arm and move it in one direction only, whereby the operating mechanism is actuated, and a plurality of shafts, one for each party row, each shaft provided with two arms for each register operating mechanism, one arm adapted to engage the projecting arm of the operating mechanism to actuate it in one direction, and the other arm adapted to engage it when the shaft is moved in the opposite direction to re-set the register, an actuating device for each shaft accessible to the voter to operate the shaft in the first-named direction, and means for simultaneously operating all of the shafts in the opposite direction to re-set all of the register operating mechanisms, substantially as described.

4. In a voting machine, a push button provided with a stem, in combination with a register and an operating mechanism therefor having a projecting arm arranged in the path of the stem and a locking segment adjacent thereto, a shaft having means controlled by the voter for rocking it in one direction and other means for rocking it in the opposite direction, said shaft being provided with arms which engage the projecting arm of the register operating mechanism on opposite sides thereof to give said operating mechanism an actuating or resetting movement, substantially as described.

5. A voting machine, comprising registers for each candidate, arranged in office and party rows, operating mechanism and an actuator for each register, interlocking mechanism for each office row, and a straight vote shaft for each party row adapted to be actuated by the voter and to in turn actuate all of the registers of its row, each register operating mechanism being provided with a locking out device, whereby when any one register of a party row is operated the party shaft of that row is locked, substantially as described.

[Claims 6 to 46 not printed in the Gazette.]

942,992. SELF-ADJUSTING WRENCH. ROY H. ANDERSON, Watertown, S. D. Filed Apr. 15, 1909. Serial No. 490,048.

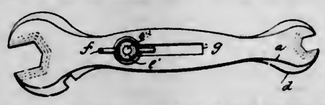


1. In a wrench of the character described, a handle, a curved stationary jaw formed on the outer end of said handle, a movable jaw consisting of a bar bent centrally upon itself to form parallel spaced members curved longitudinally, and a transverse gripping bite, connecting said members, said members straddling the stationary jaw and pivoted thereto with the bite adapted to engage the outer end of the stationary jaw to limit the movement of the movable jaw in one direction.

2. In a wrench of the character described, a handle, a curved stationary jaw formed on the outer end of said handle, a movable jaw consisting of a bar bent centrally upon itself to form parallel spaced members curved longitudinally, a transverse gripping bite, connecting said members, said members straddling the stationary jaw and pivoted thereto with the bite adapted to engage the outer end of the stationary jaw to limit the movement of the movable jaw in one direction, the pivotal end of one of said members having a shoulder forming notch, a spring

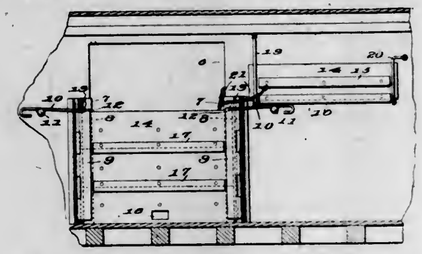
carried by the handle and bent laterally to engage the shoulder formed by said notch, whereby the movable jaw is normally retracted, and a pinion on the stationary jaw to limit the movable jaw in the opposite direction.

942,993. COMBINATION-WRENCH. LOUIS V. ARONSON, Newark, N. J. Filed July 12, 1909. Serial No. 507,053.



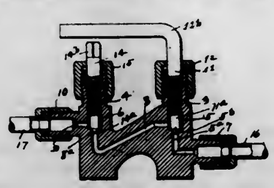
A combination wrench comprising a plurality of different wrench members having handle parts resting one upon the other for independent sliding movement and each being provided with alined elongated slots, a threaded bolt having a square stem portion fitting the slots and passing therethrough, and a clamping nut on the end of the bolt adapted to engage the outermost wrench member and to clamp the various members securely in their adjusted position, the squared portion preventing the members from turning one upon the other, substantially as deacribed.

942,994. GRAIN-CAR DOOR. WILLIAM H. ASCUE, Kiowa, Kans. Filed July 2, 1908. Serial No. 441,645.



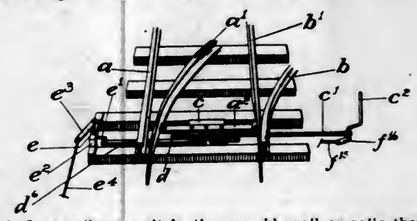
The combination with a door and door posts, of a vertical guide for the door having a swinging plate with a notch adjacent its upper end, and a spring extending from the door post and having a hooked end arranged to engage in the notch and to bear against the said plate, said spring being pivotally mounted on said post and said guide being cut away above its said notch whereby said spring may be rotated to disengage from the plate.

942,995. PRESSURE-CONTROLLING VALVE FOR AUTOMOBILE-LAMPS. FREDERICK C. BARGAR, Columbus, Ohio. Filed Mar. 22, 1909. Serial No. 485,053.



In a pressure controlling valve for automobile lamps, the combination with a valve casing body, having four externally threaded extensions thereon, there being a port extending between two of said extensions, a pair of separated valve seats located in said port, a cut off valve threaded into another of said extensions and engaging one of said valve seats, a packing nut threaded upon said extension, a controlling handle carried by said valve and extending through said packing nut, a regulating valve threaded into the remaining one of said extensions, and a packing nut through which said regulating valve extends, said packing nut being threaded upon the remaining one of said extensions, both the regulating valve and the cut-off valve being accessible and controllable from the exterior of the valve casing.

942,996. RAILWAY-SWITCH. FRANK BAYLESS, Springfield, Ohio, assignor to The Automatic Safety Device Company, Springfield, Ohio, a Corporation of Ohio. Filed Apr. 13, 1907. Serial No. 367,919.



1. In a railway switch, the movable rail or rails thereof, hand-operated devices normally connected to said rail or rails, train-operated devices for operating said rail or rails under certain conditions independently of said hand-operated devices, means operated by said hand-operated devices for placing said train-operated devices in operative position, and means operated by said train-operated devices for disconnecting said rail or rails from said hand-operated devices, substantially as specified.

2. In a railway switch, hand-operated devices for opening and closing said switch, train-operated devices for closing said switch when open independently of said hand-operated devices, means operated by said hand-operated devices to throw said train-operated devices into operative position upon the opening of the switch and into inoperative position upon the closing of the switch, and means operated by said train-operated devices for disconnecting said switch from said hand-operated devices upon the operation of said train-operated devices by a moving car or train, substantially as specified.

3. In a railway switch, hand-operated devices for opening and closing the movable rails of said switch, train-operated devices to operate the movable rail or rails of said switch under certain conditions, said train-operated devices comprising a pivoted lever normally lying in inoperative position, means operated by said hand-operated devices for throwing said lever to operative position and returning the same to inoperative position, and means when said lever is operated for disconnecting said rail or rails from said hand-operated devices, substantially as specified.

4. In a railway switch, hand-operated devices normally connected to the movable rail or rails thereof for opening and closing the same, train-operated devices for closing said rails when open, said train-operated devices comprising a pivoted lever normally lying in inoperative position, means operated by said hand-operated devices for throwing said lever to operative position upon the opening of the switch and returning same to inoperative position upon the closing of the switch, and means operated by said train-operated devices for disconnecting said rail or rails from said hand-operated devices, substantially as specified.

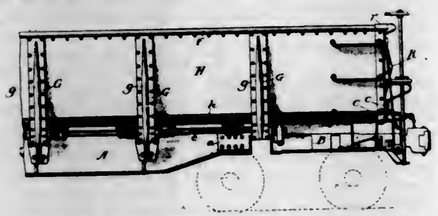
5. In a railway switch, the movable rail or rails, a hand switch detachably connected to said rails, devices, operated by a moving car or train and normally disconnected from said rails, for disconnecting said hand switch and operating said rails, and means, operated by the opening of the switch, for throwing said devices into operative position, substantially as specified.

[Claims 6 to 20 not printed in the Gazette.]

942,997. STEEL-CAR CONSTRUCTION. WILLIAM P. BETTENDORF, Davenport, Iowa. Filed May 23, 1908. Serial No. 434,670.

1. In a car a center-sill comprising a flanged metal beam, metal needle-beams extending from side to side of the car through the web connecting the flanges of said center-sill, posts suitably secured to the ends of said beams, and sheet metal side-walls connected to said posts.

2. A car comprising a single I-beam center-sill, metal needle beams extending from one side of the car through the web of said center-sill, posts suitably secured to the ends of said beams, and sheet metal side-walls connected to said posts.



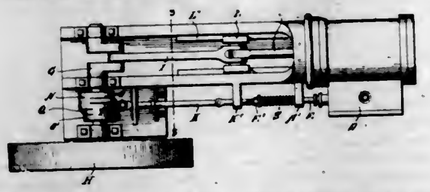
3. In a car a center-sill comprising a flanged metal beam, metal needle-beams extending from side to side of the car through the web connecting the flanges of said center-sill, posts suitably secured to the ends of said beams, and sheet metal side-walls connected to said posts the lower edges of which are inclined inward.

4. A car comprising a center-sill, metal needle-beams extending from side to side of the car through said center-sill, posts suitably secured to the ends of said beams, and sheet metal side-walls connected to said posts the upper edges of which are rolled back upon the body thereof.

5. A car comprising a center-sill, metal needle-beams extending from side to side of the car through said center-sill, posts suitably secured to the ends of said beams, and sheet metal side-walls connected to said posts the lower edges of which are inclined inward and the upper edges rolled into a tubular shape.

[Claims 6 to 34 not printed in the Gazette.]

942,998. REVERSING MECHANISM FOR ENGINES. BERNARD BREECK, Vevay, Ind. Filed May 7, 1909. Serial No. 494,678.



1. A valve gear for engines comprising, in combination with a cylinder, a cut-off valve with a stem attached thereto, a member adapted to be actuated by a crank shaft and provided with semi-circular tracks of less diameter than the diameter of said member and terminating in curved shoulders, a rod pivotally connected to the stem of the cut-off valve, an anti-friction wheel carried by said rod, a pivotal lever having a slot therein through which said rod passes and adapted to move the rod laterally, and a spring adapted to hold the anti-friction wheel upon said rod in contact with said member.

2. A valve gear for engines comprising, in combination with a cylinder, a cut-off valve with a stem attached thereto, a member adapted to be actuated by a crank shaft and provided with semi-circular tracks of less diameter than the diameter of said member and terminating in curved shoulders, a rod pivotally connected to the stem of the cut-off valve, an anti-friction wheel carried by said rod, a pivotal lever having a slot therein through which said rod passes and adapted to move the rod laterally, a coiled spring mounted upon the stem of the slide valve, an adjusting nut mounted upon the threaded portion of said stem and between which and a projection of the frame of the apparatus said spring is adapted to bear.

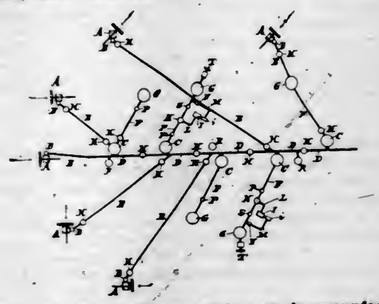
3. A valve gear for engines comprising, in combination with a cylinder, a cut-off valve with a stem attached thereto, a member adapted to be actuated by a crank shaft and provided with semi-circular tracks of less diameter than the diameter of said member and terminating in curved shoulders, a rod pivotally connected to the stem of the cut-off valve, a pivotal lever having a slot therein through which said rod passes and adapted to move the rod laterally, anti-friction rollers mounted one above and one below said rod and adapted to bear against the latter, an anti-friction wheel journaled in the forked end of said rod, and a spring adapted to hold said anti-friction wheel in contact with said member.

942,999. TUFT-YARN CARRIER FOR PILE-FABRIC LOOMS. CECIL C. BRINTON, Stourport, England. Filed May 1, 1908. Serial No. 430,390.



A yarn carrier of the type herein referred to formed essentially of a pair of thin metal side plates with upper and lower extensions and a series of divisional cross bars arranged at equal distances apart between said side plates and provided with lateral projections forming rivets which pass through holes in said side plates and are riveted over so as to secure the cross bars thereto, substantially as set forth.

943,000. SYSTEM OF UTILIZATION OF WINDMILL-POWER. HOMER C. BUSBY, Birmingham, Ala. Filed Apr. 9, 1909. Serial No. 488,928.



1. In a system of utilizing wind-power for manufacturing and analogous purposes, the combination of a series of windmills each of which is provided with an air-compressor operated by said windmill; an air-storage tank; piping connecting each air-compressor with said tank; a compressed-air motor connected by a supply-pipe with said storage tank and adapted to utilize the compressed air from the air-compressors at said windmills; a pressure regulator between the tank and the motor in said

supply pipe; a by-pass in said supply-pipe; a valve in said supply-pipe adapted to direct the compressed air either directly to said motor or indirectly through said by-pass, and an auxiliary compressed-air motor and auxiliary air-compressor in said by-pass.

2. A system of utilizing wind power, including, in combination, a series of windmills each of which is provided with an air-compressor operated by one of said windmills, main storage tanks; piping to connect these compressed air storage tanks with the air-compressors at the windmills; auxiliary compressed-air storage tanks; piping to connect the main storage tanks with the auxiliary storage tanks; a by-pass in said last-named piping; a compressed-air motor in said by-pass and an air-compressor operated by said motor; there being a valve in the said piping adapted to direct the flow of compressed air in said piping either directly into the auxiliary compressed air storage tank, or indirectly through the by-pass.

3. A system of utilizing wind power, including, in combination, a series of windmills each of which is provided with an air-compressor operated by said windmill; main air-storage tanks; piping connecting these storage tanks with the air-compressors at the windmills; auxiliary air storage tanks; piping to connect the auxiliary storage tanks with the main storage tanks; automatically operating valves in these pipes; a by-pass in each of these pipes, said automatically-operating valves being adapted to direct the flow of air from the piping into the by-pass; compressed-air motors in said by-passes and air-compressors connected with said motors and operated thereby; pressure regulators in said piping, and check-valves in the by-passes to prevent the auxiliary air-compressors from operating as motors, as described.

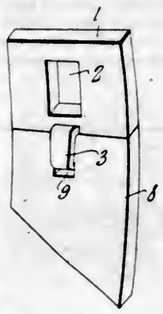
4. A system of utilizing wind power for manufacturing and analogous purposes, comprising, in combination, a series of windmills located at various points within a predetermined territory, each of said windmills being provided with an air-compressor operated by said windmill; main compressed-air storage tanks; piping connecting said main storage tanks with the air-compressors at the windmills; piping to connect these main storage tanks with each other; a series of consuming stations; auxiliary compressed air storage tanks at said consuming stations; branch-pipes connecting the auxiliary storage tanks with the main supply-pipes and tanks; compressed-air motors at each consuming station and adapted to be operated by the compressed air from the auxiliary storage tanks; by-passes in said branch-pipes; auxiliary compressed-air motors in said by-passes and auxiliary air-compressors operated by said auxiliary compressed-air motors to force compressed air into said auxiliary storage tanks; automatically-operating valves in said branch piping and connected with said by-passes to direct the flow of compressed air from the main supply into said by-passes; pressure-regulators in said piping, and check-valves in said by-passes to prevent the auxiliary air-compressors from being operated as motors when the flow of compressed air from the main supply is directly through the branch pipes to the local compressed-air motors.

943,001. PLOW-POINT ATTACHMENT. WILLIAM L. CAMP, Joppa, Ala., assignor of one-half to Lester H. Camp, Joppa, Ala. Filed July 28, 1909. Serial No. 510,047.

1. A plow point attachment comprising a plate having a bolt perforation and a tongue formed at its lower edge with a laterally disposed threaded extremity and plow point securing devices mounted upon said extremity of the tongue.

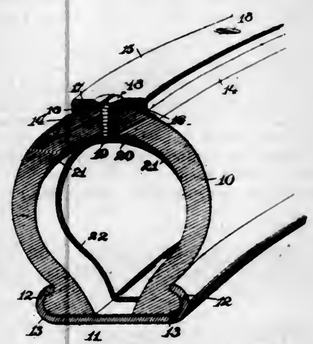
2. A plow point attachment comprising a plate having a bolt perforation and provided at its lower edge with a tongue lying beyond the plane of the plate and having a laterally disposed threaded extremity which traverses the plane of the plate, and plow point securing devices mounted upon the threaded extremity of the tongue.

3. A plow point attachment comprising a plate having an elongated opening and provided at its lower edge with a tongue lying beyond the plane of the plate and having a laterally disposed threaded extremity which lies transversely across the plane of the plate and plow point se-



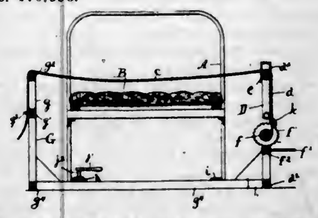
curing devices mounted upon the threaded extremity of the tongue.

943,002. ARMOR FOR TIRES. SAMUEL S. CHILDS, Bernardsville, N. J. Filed Mar. 12, 1909. Serial No. 482,887.



A tire comprising a shoe having a slightly raised tread, a metallic ring on the tread, the ring having its two edges provided with continuous flanges to form a channel to receive the tread, an inner metallic ring on the inside of the shoe and opposite the first ring, the outer ring having countersunk perforations, the inner ring having screw-threaded perforations, and screws having their heads in the countersunk portions of the outer ring and entering the screw-threaded perforations of the inner ring to secure the parts together.

943,003. DEVICE FOR HANDLING INVALIDS. EUDAVILLA CLEAVES, Searsport, Me. Filed Jan. 4, 1909. Serial No. 470,696.



1. The herein described device for handling invalids consisting of a pair of frames adapted to rest on the floor one at each side of the bed, a support for each of said frames extending beneath the bed, means for adjustably securing said supports together, a plurality of lifting straps suspended from said frames and extending laterally across and above the bed and a winch on one of said frames for tightening said lifting straps.

2. The herein described device for handling invalids adapted to be located one at each side of the bed each frame having a horizontal member resting on the floor beneath the bed and overlapping the horizontal member of the opposite frame, a clamp for adjustably securing said horizontal members together, a plurality of lifting straps suspended from said frames and extending laterally across and above the bed and a winch on one of said frames for tightening said lifting straps.

3. The herein described device for handling invalids consisting of a frame for one side of the bed including a pair of uprights having a cross bar at the top, horizontal supporting members for said frame, a corresponding frame for the opposite side of the bed having like supporting members and having a roller at the top, lifting straps adapted to be secured to the first mentioned frame and to be suspended between said cross bar and roller, a winch below said roller for tightening the supporting straps and a clamp for adjustably securing the supporting members of each frame.

4. The herein described device for handling invalids consisting of an upright frame for one side of the bed including a pair of uprights having a cross bar at the top, a horizontal supporting frame secured by one end to said upright frame, an upright frame for the opposite side of the bed, a roller, a bearing roller thereon, a horizontal supporting frame secured thereto, lifting straps adapted to be secured to said first mentioned frame and to be suspended between said cross bar and roller, a winch below said roller for tightening the supporting straps, the two supporting frames being adapted to telescope or overlap and a clamp for adjustably securing them together.

943,004. HEAT-RETAINER. WARREN T. CONVERSE, Aurora, Ill. Filed May 23, 1908. Serial No. 434,692.

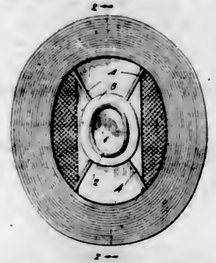


1. A device of the character described, consisting of a drum, adapted to be placed upon a stove lid, a non-conducting material secured to the inner side walls and top of said drum, a metallic band provided with an annular flange with straps thereon for securing said non-conducting material to the upper portion of said drum said straps passing through said non-conducting material and walls of said drum, and a handle secured to the top of said drum for the purpose shown and described.

2. A device of the character described, consisting of a drum, the lower portion of said drum being open, a non-conducting material completely covering the inner walls of said drum, a metallic band provided with an annular flange, straps on said metallic band, said straps passing through the non-conducting material and wall of said drum, securing said non-conducting material at the upper portion of said drum, a metallic band with straps thereon, said straps passing through said non-conducting material and walls of said drum at the lower portion thereof for the purpose of securing said non-conducting material to said drum and a handle secured to upper portion of said drum.
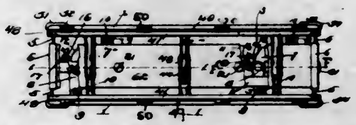
943,005. HAT-MIRROR. CURTIS L. CRUVER, Chicago, Ill. Filed Aug. 13, 1909. Serial No. 512,690.

1. A hat mirror comprising a mirror proper, a casing therefor, ears upon the rear side of said casing and integral therewith, resilient strips, the ends of which are adapted to engage the inner walls of a hat crown, said ears being bent to overlie said strips and secure said strips to said casing.



2. A mirror-retaining means for hats comprising a mirror casing having two pairs of ears upon its rear side, and two resilient strips, the ends of which are adapted to engage the inner vertical walls of a hat crown, said strips crossing each other and having openings therein, said ears extending through said openings and being bent to secure said strips to said mirror casing.

943,006. TEMPORARY BINDER. FREDERICK H. CURRY, Arlington Heights, and LA RUE R. COPPAGE, Boston, Mass., assignors to A. E. Martell Company, Boston, Mass., a Corporation of Maine. Filed June 2, 1908. Serial No. 436,300.



1. The combination with a pair of cover members movable relatively to each other, of a rotary device interposed between and connected with said cover members the movement of which rotates said device; locking means which engage and prevent the rotation of said device and thereby the movement of said cover members; mechanism which moves said cover members relatively to each other, when said locking means and rotary device are disengaged from each other; and a releasing device for disengaging said locking means and rotary device from each other.

2. The combination with a pair of cover members movable relatively to each other, of a rotary device interposed between and connected with said cover members the movement of which rotates said device; locking means which engage and prevent the rotation of said device and thereby the movement of said cover members; mechanism which moves said cover members relatively to each other, when said locking means and rotary device are disengaged from each other; a releasing device for disengaging said locking means and rotary device from each other; and a device for preventing the operation of said releasing device.

3. The combination with a pair of cover members movable relatively to each other, of a pair of links each of which is connected to one of said cover members; a rotary device connected with both of said links; locking means which engage and prevent the rotation of said device and thereby the movement of said cover members; and a releasing device for disengaging said locking means and rotary device from each other.

4. The combination with a pair of cover members movable relatively to each other, of a pair of links each of which is connected to one of said cover members; a rotary device connected with both of said links; locking means which engage and prevent the rotation of said device and thereby the movement of said cover members; a releasing device for disengaging said locking means and rotary device from each other; and mechanism for preventing the operation of said releasing device.

5. The combination with a pair of cover members movable relatively to each other, of a pair of links each of which is connected to one of said cover members; a rotary device connected with both of said links; locking means which engage and prevent the rotation of said device in one direction, while permitting its free movement in the opposite direction; and a releasing device for disengaging said locking means and rotary device from each other.

[Claims 6 to 34 not printed in the Gazette.]

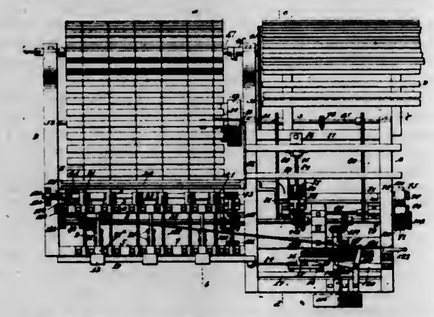
943,007. CAR. FREY A. DAHLIN, Chicago, and EMIL CARLSON, Waukegan, Ill. Filed Jan. 30, 1909. Serial No. 475,271.



1. In a car of the character described, the combination with a sheet metal body having entrances in its sides, and a partition across said body near one end forming a compartment for the motorman, sliding doors to close said entrances, endless cables at both sides of the car to which the doors on the sides are secured, and hand wheels in the motorman's compartment for operating each of the cables.

2. In a car of the character described, the combination with a sheet metal body having entrances in its side, of a channel bar secured entirely around the car body and registering with the lower ends of said entrances, sliding doors to close said entrances, endless cables at both sides of the car mounted in said channel bars, hand wheels in the car to move said cables, and the series of sliding doors at both sides of the car secured to the cables at their sides of the car, so as to permit the simultaneous operation of either series of doors by the operation of the hand wheels.

943,008. SLAT-FENCE MACHINE. JOSEPH M. DENNING, Cedar Rapids, Iowa. Filed Sept. 11, 1907. Serial No. 392,367.



1. In a fence machine adapted to intermittently unite separate pairs of strand wires, feed-rolls adapted to carry slats endwise between said strand-wires and crosswise thereof, starting rolls adapted to open intermittently to receive a slat laterally, and a slat carrier adapted to feed slats sidewise between said opened rolls.

2. In a fence machine adapted to intermittently unite separate pairs of strand-wires, feed-rolls adapted to carry slats endwise across said strand wires and between the separated pairs, a carrier adapted to bring slats successively in alinement with said feed-rolls, and an intermittent sweep adapted to force the slat endwise between the feed-rolls.

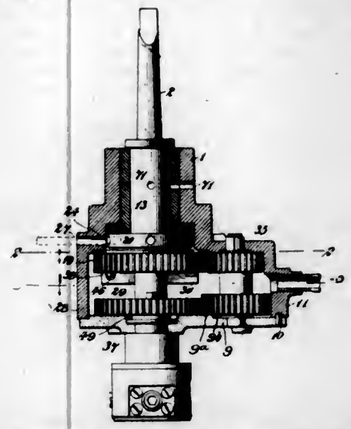
3. In a fence machine adapted to intermittently unite separate pairs of strand-wires, feed-rolls adapted to carry slats to interweaving position between said strand-wires, and a slat-carrier to bring the slats into successive alinement with said feed-rolls, comprising a pair of sprocket chains with flights thereon, driving and carrying sprockets for said chains, frictional driving mechanism to transmit motion to the driving sprockets, and means for intermittently actuating the friction drive.

4. Combined with the slat-carrier of a slat fence machine, a pair of driving pulleys, a belt therefor, a tightener for said belt, a rotating cam, and mechanism connecting said cam with the tightener.

5. Combined with the driving pulley and engaging clutch of a slat fence machine, feed-rolls adapted to carry the slats to weaving position, mechanism adapted to automatically break the clutch engagement except when the slat is carried to proper position, and an intercepting member near the end of the slat's movement adapted to be deflected by the end of the slat and prevent the breaking of the clutch engagement.

[Claims 6 and 7 not printed in the Gazette.]

943,009. TAPPING AND DRILLING TOOL. JOHN H. DORMAN, New York, N. Y. Filed Aug. 1, 1908. Serial No. 446,426.



1. In a tapping attachment for drill presses, the combination with a casing containing driving and reversing gears and provided with means for holding it against rotation, of a chuck-spindle having a longitudinal recess, a pivotal retaining pin therein, a transverse clutch-bar loosely held by the pin in said spindle recess, retaining shoulders on said bar, and oppositely projecting pins upon the driving and reverse gears adapted to be alternately engaged by the bar.

2. In a tapping tool, a clutch-bar provided with transverse concaved tapering recesses in its opposite ends, in combination with a perforated chuck-spindle in which the bar is loosely held, and driving and reversing mechanism provided with convex tapering lugs adapted to fit and slide in and out of said recesses and to equalize the lateral strain on said bar in the coupling and uncoupling operations.

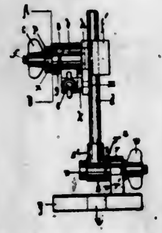
3. In a tapping tool, the combination with a spindle provided with a longitudinal bore in its upper end intersecting a transverse hole, a clutch bar loosely held in the transverse hole, a retaining screw at the upper end of said longitudinal hole, and a pin interposed between the screw and bar and loosely fitting in said bore, whereby the bar is allowed slight endwise play in said spindle, and whereby the pin has sidewise play to move with the bar.

4. A tapping tool or attachment provided with a recessed casing inclosing a friction-driven spindle and adjustable friction devices, in combination with a friction regulating nut having holes in its periphery registering with the recess in the casing, whereby a temporary bar can be removably inserted and the friction devices thereby regulated from the outside of the casing.

5. In a tapping attachment, a housing having an offset provided with intermediate reversing gears, two parallel shafts set in the housing, and on which said gears are centered, said shafts being provided with external segmental recesses, and an intermediate locking screw having a circular head, the opposite sides of which intersect the circumferences of the shafts and fit into said recesses.

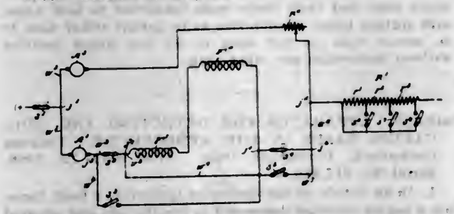
[Claims 6 and 7 not printed in the Gazette.]

943,010. SURFACE-GAGE FOR PARALLEL LINING. CARL O. DOST, Magdeburg, Germany. Filed Sept. 10, 1908. Serial No. 452,410.



In combination with the standard of a surface gage, a pair of grooved plates fitting thereon, an arm connected to one of said plates, and provided with screw threads and a nut for loosening or clamping the said plates on the said standard at will for vertical adjustment, a grooved collar and grooved disk adapted to turn on said arm and to be tightened or loosened by the same action of said nut which tightens the said plates on the standard, a needle held by said collar and disk, a supplemental adjusting screw, and a screw-threaded part, engaging the latter and carried by said collar, in order that the action of said adjusting screw and screw threads may turn the said collar and adjust the angular position of said needle, substantially as set forth.

943,011. CONTROL SYSTEM FOR ELECTRIC MOTORS. ARTHUR C. EASTWOOD, Cleveland, Ohio. Filed May 24, 1909. Serial No. 497,949.



1. In an electric motor system, the combination of two or more armatures arranged in parallel, and a field for each armature, said fields being arranged in series with each other and with only one of the armatures.

2. In an electric motor system, the combination of two or more armatures arranged in parallel, a field for each armature, said fields being arranged in series with each other and with one of the armatures, and a resistance in series with each armature not in the circuit with the said fields.

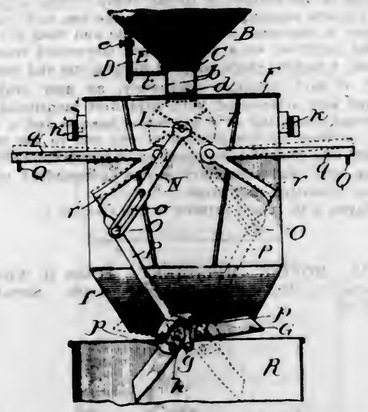
3. In an electric motor system, the combination of two or more armatures arranged in parallel, a field for each armature, said fields being arranged in series with each other and with one of the armatures, and means for reversing the direction of current flow through the said series fields to reverse the direction of rotation of the armatures.

4. Two or more motors having series windings and connected to operate in parallel, and a set of reversing switches arranged to be included in the circuit of only one of the motors.

5. Two or more armatures, series field-windings therefor, and reversing switches, each switch being connected so that only the current of one armature passes therethrough.

[Claims 6 and 7 not printed in the Gazette.]

943,012. AUTOMATIC WEIGHING-MACHINE. PETRONELLA EDTBAUER, Chicago, Ill. Filed Dec. 31, 1908. Serial No. 470,161.



1. A weighing machine comprising a balance-beam, a vertically vibratory bin divided by a vertical partition into two equal compartments having discharge openings in their bottoms, a rocking-chute adapted to open one and close the other of said openings alternately, an arm projecting upward from said chute at an angle striking midway between the oppositely inclined portions thereof and two independent trips each consisting of a horizontal branch and a downward inclined portion pivoted at their angle of convergence to the side of said bin and engaging the upper end of said arm to retain it at the limit of its movement and stationary means independent of said bin for actuating said trips.

2. A weighing machine comprising a balance beam, a bin carried thereby and divided by a vertical partition into two equal compartments each having a discharge opening in its bottom, a tilting chute having a journal that extends beyond its bearings in the bin, and which is adapted to discharge first on one side and then the other of said partition, an arm depending downward from said journal, a rocking-chute adapted to open one and close the other of said openings alternately, an arm projecting upward and articulated with said first mentioned arm, and trips pivoted to the side of said bin and engaging the upper end of said upwardly projecting arm, and means for actuating said trips.

3. A weighing machine comprising a balance beam, a bin carried thereby and divided by a vertical partition into two equal compartments each having a discharge opening in its bottom, a tilting chute having a journal that extends beyond its bearings in the bin, and which is adapted to discharge first on one side and then the other of said partition, an arm depending downward from said journal, a rocking-chute adapted to open one and close the other of said openings alternately, an arm projecting upward and articulated with said first mentioned arm and trips pivoted to the side of said bin and engaging the upper end of said upwardly projecting arm, and stationary means independent of said bin for actuating said trips.

4. A weighing machine comprising a balance beam, a bin carried thereby and divided by a vertical partition

into two equal compartments each having a discharge opening in its bottom, a tilting chute having a journal that extends beyond its bearings in the bin, and which is adapted to discharge first on one side and then the other of said partition, an arm depending downward from said journal, a rocking-chute adapted to open one and close the other of said openings alternately, an arm projecting upward and articulated with said first mentioned arm, and two independent trips pivoted to the side of said bin and engaging the upper end of said upwardly projecting arm, and means for actuating said trips.

5. A weighing machine comprising a balance beam, a bin carried thereby and divided by a vertical partition into two equal compartments each having a discharge opening in its bottom, a tilting chute having a journal that extends beyond its bearings in the bin, and which is adapted to discharge first on one side and then the other of said partition, an arm depending downward from said journal, a rocking-chute adapted to open one and close the other of said openings alternately, an arm projecting upward and articulated with said first mentioned arm, and trips consisting of a horizontal branch and a downward inclined portion pivoted at one end to the side of said bin and engaging the upper end of said upwardly projecting arm, and stationary means independent of said bin for actuating said trips.

[Claims 6 to 12 not printed in the Gazette.]

943,013. MOVING IMPLEMENT. JAMES H. FICHTER, Covington, Ky. Filed Nov. 18, 1908. Serial No. 463,163.

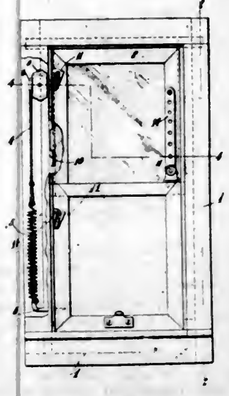


1. In a moving-implement, the combination of a load-engaging and a supported member, each consisting of spaced bars, links attached between the bars of each member whereby they are connected to each other to form a four sided frame beyond which, at opposite ends, one end of each of these members projects, such ends being pointed, a lever-handle to shift one member with reference to the other member, and a spacing block between the pointed ends of the bars comprising the load-engaging member to limit the action of these pointed ends.

2. In a moving-implement, the combination of two parallel working-members, one of which has braces connected to it between its ends, one on each side from which they extend laterally, the length of these braces being such that their free ends are in line with the end of this member between them to which they are connected, spacing means between the extended ends of these braces and this member, links, one at one end of each member connecting it to the other member between the ends thereof, the other end of each member including the extended ends of the braces on the one member being pointed so that the pointed end of either of the two members including the pointed ends of the braces may be used to engage the load, the other member serving meanwhile to support the implement, one of the links connecting the parallel members, being extended beyond the point of its attachment to one of the members, to form a lever-handle for manipulating the implement.

3. In a moving-implement, the combination of a load-engaging and a supported member, links whereby they are connected to each other to form a four-sided frame beyond which, at each end, one of these connected members projects, which projecting ends are pointed, one of the links connecting these members being also extended beyond the point where it connects to the supported member to form a lever-handle to permit moving of the load-engaging member, braces connected to each side of the supported member and laterally extending therefrom, the length of these braces being such that their free ends, which are also pointed, are in line with the pointed end of the supported member between them and spacing means between these ends and the member between them.

943,014. WINDOW-SASH BALANCE. WILLIAM B. GREEAR, EUGENE M. GREEAR, and DAVID COX, Honaker, Va.; said Cox assignor to said William B. Greear and Eugene M. Greear. Filed Feb. 25, 1909. Serial No. 480,039.



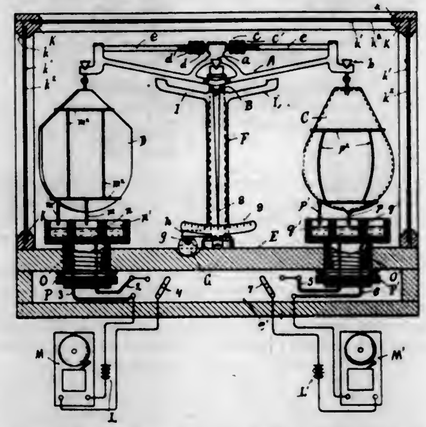
The combination of a window frame having its sides formed in their lower portions with vertical slots and in their upper portions with openings, upper and lower sliding sashes in said frame, horizontally projecting arms arranged on the lower side portions of the lower sash to move in said slots, guide pulleys journaled in the openings in the upper portions of the sides of the frame, and flexible elastic elements, each comprising a cord and a coil spring, said elements being passed over the guide pulleys and having their upper ends connected to the lower portions of the upper sash and their lower ends connected to said arms, said springs being of such size as to permit either sash to be moved from its full open to its full closed position without disturbing the other sash.

943,015. APPARATUS FOR DETECTING AND INDICATING GASES IN THE ATMOSPHERE. TELFORD GROESBECK, Cincinnati, Ohio. Filed May 19, 1906. Serial No. 317,816.

1. In an article of the character indicated, a body forming a sealed chamber suspended in equilibrium and adapted to be influenced by the specific gravity of its surrounding atmosphere, an alarm, an electric circuit adapted to actuate said alarm, a vertically adjustable standard carrying two cups, one located centrally beneath said body, and one encircling said first named cup, fluid conductors of electricity carried by said cups and forming the terminals of said circuit, and a contact carried by said body having one arm adapted to contact with the fluid in said central cup and another arm to contact with the fluid of said encircling cup to close said circuit and sound the alarm.

2. In a device of the type set forth, a balanced beam, a body forming an air-tight sealed chamber suspended from one end of said beam, a second body at the opposite end of said beam, a pair of spaced depending contacts carried by each body, and an adjustable cup for each body, each cup containing two chambers each chamber having a fluid conductor of electricity therein, said cups being rotatable and

having their chambers so arranged that they will underlie said contact points of the bodies in any position to which the cup may be turned.



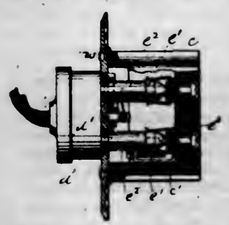
3. In a device of the type set forth, a balanced beam, a body forming an air-tight sealed chamber suspended from one end of said beam, a second body at the opposite end of said beam, a pair of contacts carried by each of said bodies, a cup for each body, each cup containing two concentric chambers arranged one within the other with a fluid conductor of electricity in each chamber, a signal and a battery for each cup, and wires in circuit with said signal and battery, one of said wires extending in one chamber and the other in the other chamber of said cup.

4. In a device of the type set forth, a balanced beam, a body forming an air-tight sealed chamber suspended from one end of said beam, a hollow shell on the other end of said beam having an opening therein whereby its interior communicates with the atmosphere, and alarms adapted for sounding by said body and shell.

5. In a device of the type set forth, a balanced beam, glass bodies on the beam ends, wire mesh secured to said bodies, spaced contact points depending from said wire mesh, an alarm for each body, and means to sound the alarm through said contacts.

[Claims 6 to 8 not printed in the Gazette.]

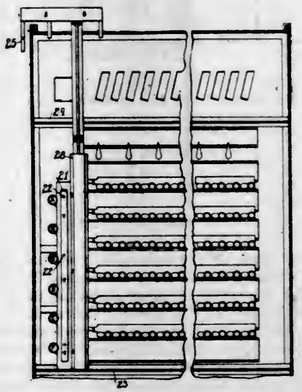
943,016. ELECTRIC SWITCH. MONROE GUETT, Hartford, Conn., assignor to The Hart & Hegeman Manufacturing Company, Hartford, Conn., a Corporation of Connecticut. Filed Feb. 7, 1906. Serial No. 299,929.



1. A face plate for plug receptacles and the like having separate apertures, a pair of shutter plates pivotally supported on a common axis between said apertures, each plate including two members movable transversely of and adapted to partly close said apertures, and means for normally causing said plates to close said apertures, substantially as described.

2. In an electric switch the receptacle, contacts therein, a face plate having separate apertures in alinement with said contacts, a plug, and separate contact fingers adapted to pass through said apertures and engage said contacts, and a pair of shutter plates located underneath the surface of said face plate and movable transversely of said apertures, a common pivotal support for said shutter plates located at a point between said apertures, and means for normally moving the end of one shutter plate toward the end of the other shutter plate to close said apertures, substantially as described.

943,017. VOTING-MACHINE LOCK-OUT. LOUIS T. HARKNESS, Jamestown, N. Y., assignor, by mesne assignments, to Empire Voting Machine Company, Rochester and Jamestown, N. Y., a Corporation of New York. Filed June 30, 1908. Serial No. 441,052.



1. The combination in a voting machine of a keyboard, keys mounted thereon and arranged in parallel rows, a sliding bar mounted adjacent to the keys in each row and supported thereby, each of said bars having projections thereon one projection for each key, said projections extending across their respective keys and engaging with said keys and hold them against movement, said bars being capable of movement to locking or unlocking position, to lock the keys against movement or release the keys for voting operation.

2. The combination in a voting machine of a keyboard of pivoted keys exposed thereon, said keys being arranged in parallel rows, a sliding bar arranged on the outside of the keyboard adjacent to each of said rows of keys, said sliding bars having projections thereon, one projection for each of said keys, said bars being movable to locking and unlocking position so as to engage the projections thereon with their respective keys or remove said projections from the keys, whereby the keys are either locked against movement or released for voting operation.

3. The combination in a voting machine of a keyboard of keys mounted thereon and extending therethrough, said keys being arranged in parallel rows, a bar mounted on the outside of said keyboard adjacent to the keys in each row, each of said bars being movable to locking and unlocking position, said bars engaging their respective keys while in locking position to hold them against voting operation, and releasing the keys while in unlocking position so as to permit the voting operation thereof.

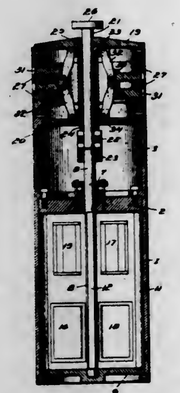
4. The combination of keyboard with keys mounted thereon arranged in parallel rows, a bar for each row of keys, said bar resting against one side of the keys, projections on said bar extending across the row of keys and engaging with the keys from the other side to prevent the movement thereof.

5. In a voting machine a keyboard with voting keys mounted thereon, said keys being movable into and out of voted position, a bar for locking said keys, said bar being removable from the keyboard of the machine when the

keys are placed in voted position, and said bar being held by the keys against removal from the keyboard of the machine when the keys are placed in reset position.

[Claims 6 to 17 not printed in the Gazette.]

943,018. DOUBLE-ACTING PUMP. RICHARD G. HOLEKAMP, Comfort, Tex. Filed Mar. 19, 1909. Serial No. 484,508.



1. In a pump of the character described, the combination of a casing, a pumping mechanism located within a portion of the casing, a packing mechanism arranged in a different portion of the casing, and a shaft common to both the pumping and the packing mechanisms and adapted to be moved to operate either as may be required.

2. In a pump of the character described, the combination of a casing, split packing rings fitted upon the casing and arranged with the split portion of one ring opposite the split portion of the adjacent ring, spreaders, a shaft having end portions oppositely threaded, nuts mounted upon the threaded ends of the shaft, and links connecting the nuts with the spreaders to effect radial movement of the latter both outwardly and inwardly.

3. In a pump of the character described, the combination of a casing, split rings mounted upon the casing and arranged with the split portion of one ring opposite the split portion of the adjacent ring, spreaders comprising wedge shaped members to come between the split terminals or rings, a shaft having end portions oppositely threaded, nuts mounted upon the threaded portions of the shafts, and links connecting said nuts with the spreaders.

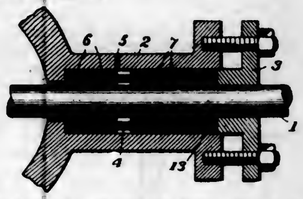
4. In a pump of the character described, the combination of a casing, expansible rings mounted upon the casing, spreaders coöperating with said rings, a shaft having oppositely threaded portions, nuts mounted upon the threaded portions of the shaft, links connecting the nuts with the spreaders, and a stay bar coöperating with the nuts to prevent their relative turning upon the shaft.

5. In a pump of the character described, the combination of a casing, a pumping mechanism located within a portion of the casing and including a shaft, a packing mechanism located within a part of the casing and including expansible rings, an operating mechanism for said rings including a threaded shaft, and an operating shaft mounted both to move longitudinally and to rotate and provided with a coupling to make engagement either with the shaft of the pumping mechanism or with the aforesaid shaft of the operating mechanism to actuate either as may be required.

[Claim 6 not printed in the Gazette.]

943,019. PACKING FOR PISTON-RODS AND THE LIKE. GUSTAV HUHN, Berlin, Germany. Filed Apr. 23, 1909. Serial No. 491,822.

1. A packing for piston-rods and the like, consisting of a hollow, soft-metal ring containing lubricant, substantially rectangular in cross-section but reduced in width near its inner periphery.



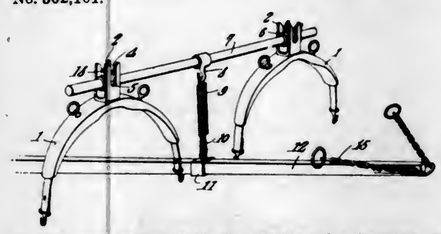
2. A packing for piston-rods and the like, comprising hollow, split metal rings closed at their ends and containing lubricant, said rings being substantially rectangular in cross-section but reduced in width near their inner periphery.

3. A packing for piston-rods and the like, comprising in combination hollow, metal rings containing lubricant, substantially rectangular in cross-section but reduced in width near their inner peripheries, and gaskets of elastic material interposed between a pair of adjacent rings within the space formed by their reduced portions.

4. In a packing for piston-rods and the like, the combination with a plurality of hollow, split metal rings, closed at their ends and containing lubricating material, said rings being substantially rectangular in cross-section but reduced in width near their inner peripheries and having perforations in the latter for the passage of the lubricant, of split rings or gaskets of elastic material interposed between each pair of metal rings within the space formed by their reduced portions.

5. In a packing for piston-rods and the like, the combination with a plurality of hollow, split, metal rings substantially rectangular in cross-section but reduced in width near their inner peripheries, gaskets of elastic material interposed between said rings within the space formed by their reduced portions, said rings containing lubricant and having openings in their inner peripheries for the passage thereof, and an expansion ring of elastic material bearing against the end one of said metal rings.

943,020. HARNESS. GRANVILLE A. HUMASON, Washington, D. C., assignor of one-half to James W. Chamberlain, Shreveport, La. Filed June 14, 1909. Serial No. 502,101.



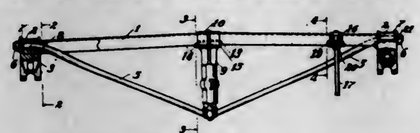
1. The combination with the saddles of a harness; of slotted yokes mounted thereon; a bar; collars mounted upon the extremities of the bar and provided with trunnions and arranged to be freely movable in the slots in the yokes; and resilient means arranged to be terminally connected with the bar and with a vehicle tongue.

2. The combination with the saddles of a harness; of slotted yokes mounted thereon; a bar; collars slidably and rotatably mounted upon the bar adjacent the ends thereof and provided with trunnions arranged to be freely movable in the slots of the yokes; and resilient means arranged to be terminally connected with the bar and with a vehicle tongue.

3. The combination with the saddles of a harness; of yokes mounted thereon; collars pivotally assembled with the yokes; a bar rotatably mounted in the collars; and resilient means arranged to be terminally connected with the bar and with a vehicle tongue.

4. The combination with the saddles of a harness, of yokes mounted thereon and provided with upright slots; a bar uniting the yokes and arranged to be freely movable in the slots thereof; latch mechanism assembled with the yokes for limiting the movement of the bar in the slots of the yokes; and resilient means arranged to be terminally connected with the bar and with a vehicle tongue.

943,021. BRAKE-BEAM. CHARLES F. HUNTOON, Chicago, Ill. Filed Aug. 26, 1909. Serial No. 514,668.



1. In a brake-beam, the combination of a substantially U-shaped compression member, a strut, a tension member, brake-shoe-heads mounted at the ends of said compression-member, each of said heads being formed of a single piece, and having therein a socket fitting the corresponding end of said compression member, and shoulders integral with said heads and fitting against the inner face of said compression member, and said heads being shaped to provide a passage between said shoulders for receiving the end of the tension member.

2. In a brake-beam, the combination of a substantially U-shaped compression member, a strut, a tension member, brake-shoe heads mounted at the ends of said compression-member, each of said heads being formed of a single piece and having therein a socket fitting the corresponding end of said compression member, and having shoulders integral with said heads and fitting against the inner face of said compression member, there being an aperture between said shoulders for receiving the end of the tension member, and said aperture extending through said head in a direction substantially parallel with said compression member.

3. In a brake-beam, the combination with a tension-member and a strut, of a cambered compression-member of U-shaped cross-section, whose back and legs are substantially straight, the legs being substantially parallel and of substantially the same width as the back, brake-shoe-heads mounted at the ends of said compression-member, each of said heads being formed of a single piece, and having therein a socket fitting the corresponding end of said compression member and shoulders integral with said heads and fitting against the inner face of said compression member, there being an aperture between said shoulders for receiving the end of the tension member, and said aperture extending through said head in a direction substantially parallel with said compression member.

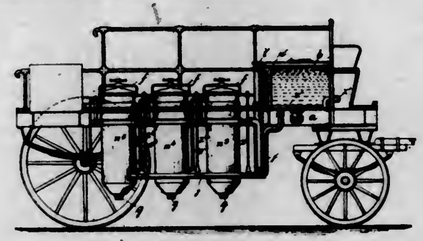
4. In a brake-beam, the combination of a U-shaped compression member and a strut having therein a transverse opening fitting the outside of said compression member, a filler block fitting the interior of said compression member, and a wedge or key bearing between said filler block and strut, for securing said strut against shifting along said compression member.

5. In a brake-beam, the combination of a U-shaped compression member and a strut having therein a transverse opening fitting the outside of said compression member, a filler block fitting the interior of said compression member, opposed key-ways in said filler block and strut, and a wedge or key seated in said key seats and bearing between said filler block and strut, for securing said strut against shifting along said compression member.

[Claims 6 to 9 not printed in the Gazette.]

943,022. HYDROGEN-GAS GENERATOR. GEORGE F. JAUBERT, Paris, France. Filed Aug. 22, 1907. Serial No. 389,721.

1. In an apparatus of the character described, a plurality of generating compartments, a liquid-supply pipe having a branch connecting with each generating compartment, a shut-off cock in each branch, a leading-off pipe for the gases and vapors extending from each compartment to the initial portion of the next succeeding compartment, a gas-collecting pipe, a branch from each leading-off pipe connecting with the gas-collecting pipe, and a shut-off cock in each of said branches whereby the generating compartments may be connected, isolated and operated in the manner described.



2. In an apparatus of the character described, a plurality of generating compartments, a liquid-supply pipe having a branch connecting with each generating compartment, a shut-off cock in each branch, a leading-off pipe for the gases and vapors extending from each compartment to the initial portion of the next succeeding compartment, a gas-collecting pipe, a branch from each leading-off pipe connecting with the gas-collecting pipe, a shut-off cock in each of said branches whereby the generating compartments may be connected, isolated, and operated in the manner described, and an apparatus connected with the gas collecting pipe for cooling the gases.

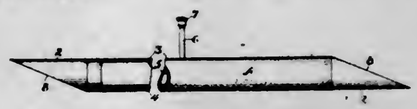
3. In an apparatus of the character described, a generating compartment comprising a casing having a discharge opening at one end and a removable cover for the other end, a plug for the discharge opening, a rod extending from the plug into the compartment, and perforated plates slidable on said rod for dividing the mass of material in the generating compartment; substantially as described.

4. In an apparatus of the character described, a generating compartment comprising a vertical casing having a central discharge opening at one end, and a removable cover for the other end, a plug supported in the discharge opening, a rod extending from the plug axially of the generating compartment, and perforated plates slidable on said rod for dividing the mass of material in the generating compartment, substantially as described.

5. In an apparatus of the character described, a generating compartment, comprising a vertical casing *n*, having a central discharge opening closed by the plug *g* at its lower end, a removable cover at its upper end, the rod *h* supported in the plug *g*, and the perforated plates *i* slidable on said rod for dividing the mass of material in the generating compartment; substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

943,023. PNEUMATIC PACKING. EDWIN S. JOHNSON, Oakland, Cal., assignor of one-half to William James Knight, Oakland, Cal. Filed Mar. 18, 1908. Serial No. 421,922.



1. In a stuffing-box packing a flexible tube having a transverse aperture in its wall and solid ends, a plurality of folds of flexible material in contact therewith, said folds being superimposed, and a covering of flexible material encircling said folds and said flexible tube.

2. In a stuffing-box packing, a flexible tube having a transverse tube opening therein provided with a feeding tube and valve and having solid ends, a plurality of super-

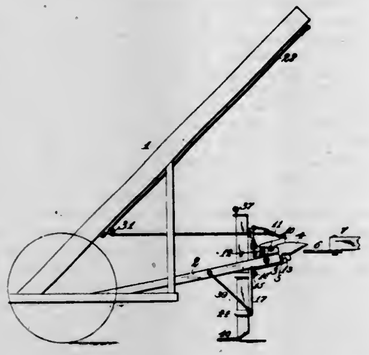
imposed folds of flexible material in contact therewith, and a covering of flexible material encircling said folds and said flexible tube.

3. In a stuffing-box packing a flexible tube having a transverse feeding tube opening therein provided with a nipple and valve, said flexible tube having solid ends with diagonal faces, a plurality of superimposed folds of flexible material in contact therewith, and a covering of flexible material encircling said folds and said flexible tube.

4. A packing for piston-rods having in combination with a stuffing box provided with a transverse opening, a cylindrical flexible tube having solid ends with diagonal faces, said faces engaging the ends of said box, a pliable feeding tube opening into said flexible tube having a nipple and valve, a plurality of superimposed folds of flexible material in contact with said flexible tube, and a covering of flexible material encircling said folds and said flexible tube.

5. A packing for piston-rods having in combination with a stuffing-box provided with a transverse opening, a cylindrical flexible tube having solid ends with diagonal faces, said faces engaging the ends of said box, means opening into said flexible tube for supplying air thereto, said means extending through said transverse opening, a plurality of superimposed strips of material of unequal width in contact with said flexible tube, and coverings of flexible material encircling said strips and said flexible tube.

943,024. HAY-LOADER COUPLING. WILLIAM T. JONES, Cedar Rapids, Iowa. Filed Jan. 24, 1908. Serial No. 412,523.

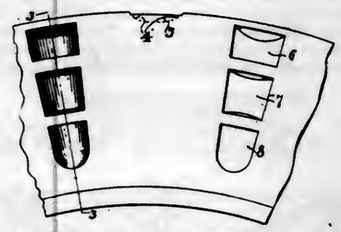


1. In a hay-loader, the combination with a coupling-head of a guide-plate attached thereto, a leg mounted to slide along said guide-plate, a pawl pivoted to said guide-plate and engaging with the guide-plate, means for engaging and disengaging said pawl, an auxiliary pawl pivoted to the guide-plate and adapted to engage the leg and means for engaging and disengaging said auxiliary pawl.

2. In a hay-loader, the combination of a coupling-head, having a coupling-hook and a pawl adapted to engage the same in coupling position, a guide-plate attached to said head, a leg adjustable along said guide-plate, means substantially as described to hold said leg at any desired position along said guide-plate, an auxiliary pawl adapted also to engage the leg and hold it in opposite position as regards the other pawl and means connecting with said auxiliary pawl and the coupling-hook pawl for releasing both thereof by a single act of the operator.

3. In a hay-loader, the combination of a coupling-head, a guide-plate attached thereto, a leg movable up and down along said guide-plate, a pawl to engage it and hold the guide plate at any desired elevation, a lever engaging the said pawl and a lift-rod connecting with said lever whereby the pawl may be disengaged and the leg lifted by the same act.

943,025. AUTOMOBILE-TIRE. IVA B. KEMPSHALL, Boston, Mass. Filed July 22, 1909. Serial No. 508,960.



1. An anti-skidding tire for automobiles provided with a rubber surface formed along the tread with a series of recesses, said surface upon each side of the tread being formed with a lineally arranged series of sets of recesses having substantially radial longitudinal walls and oppositely inclined transverse walls.

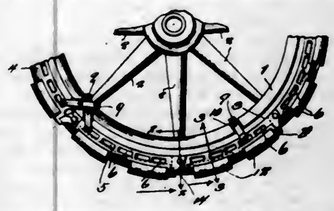
2. An anti-skidding tire for automobiles, provided with a rubber surface formed upon each side of the tread with a series of lineally arranged sets of cross recesses, said recesses having substantially radial longitudinal walls and oppositely inclined transverse walls.

3. An anti-skidding tire for automobiles provided with a rubber surface formed along its tread with a series of recesses having substantially radial longitudinal walls and oppositely inclined transverse walls, the said surface being formed upon each side of the tread with a lineally arranged series of sets of cross recesses, also having substantially radial longitudinal walls and oppositely inclined transverse walls, the tread recesses being staggered with the cross recesses.

4. An anti-skidding tire for automobiles provided with a rubber surface formed upon each side of the tread with a series of sets of cross recesses which diminish in depth toward the bead of the tire, the longitudinal walls of said recesses being substantially radial.

5. An anti-skidding tire for automobiles provided with a rubber surface formed with a series of recesses having substantially radial walls and oppositely inclined transverse walls.

943,026. TIRE-PROTECTOR. CLARENCE E. KING, Washington, D. C. Filed Jan. 30, 1909. Serial No. 475,132.



1. A tire protector consisting of a base member of pivotally united curved sections having perforations in their peripheral faces, and separately formed blocks retained within and projecting through perforations in said base member, said blocks being curved to conform to the curvature of the base member and having their inner faces curved to conform to the curvature of the tire.

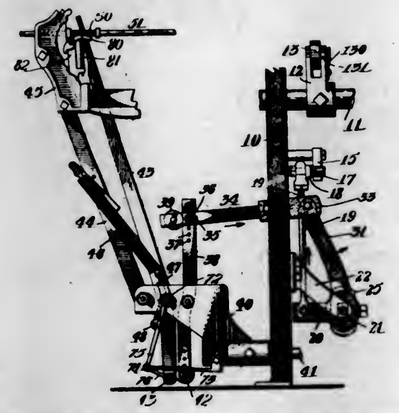
2. A tire protector embodying a base member of curved sections having overlapped ends, said overlapped ends being provided with coincident openings, and means passed through said openings for pivotally uniting said sections, said means being of greater length than the combined thickness of the overlapped portions of the sections and freely movable within said openings.

3. A tire protector composed of pivotally united sections curved to conform to the curvature of the tire, the pivots of said sections constructed to permit lateral expansion, said sections being peripherally perforated, and

flanged bearing blocks projecting through said perforations, the parallel portions of said sections being provided with longitudinally disposed slots.

4. A tire protector comprising a base member of curved overlapped sections with peripheral perforations, one end of each section being longitudinally cut away, means pivotally uniting the overlapped sections and allowing lateral expansion thereof, and flanged blocks inserted from the inner side of the base member and projecting through said perforations, said blocks being curved to conform to the curvature of the tire, the ends of the base member being provided with interlocking securing means.

943,027. PICKING-MOTION. LOUIS H. LANDRY, Uxbridge, Mass., assignor of one-half to Samuel B. Taft, Uxbridge, Mass., one-eighth to Udgil Larocque, and one-eighth to Louis Bousquet and Theodore Bousquet, Burrillville, R. I. Filed July 24, 1908. Serial No. 445,154.



1. In a picking motion, the combination of a rocking picking shaft, a sweep arm loosely mounted thereon and having a plurality of depressions, two brackets fixed to said picking shaft and having perforations in alinement, a plurality of rods slidably mounted in the perforations in said brackets and each having a beveled end projecting into a depression in the sweep arm, a spring surrounding each rod and bearing on one of the brackets for normally holding said rods in said depressions to connect the picking shaft with the sweep arm and transmit power thereto but capable of yielding in case of excessive strain to permit the rods to withdraw from the depressions, whereby the picking shaft can then turn without operating the sweep arm.

2. In a picking motion, the combination with a picking shaft, of rods slidably mounted thereon and having beveled ends, springs for holding said rods forward, a sweep arm loosely mounted on the picking shaft and having depressions of the same shape as said ends for receiving them.

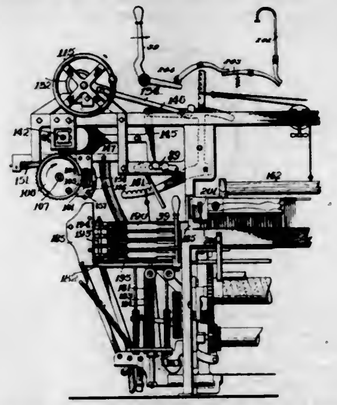
3. In a picking motion, the combination with a rocking sweep arm, of a sweep check lever pivoted near the center thereof, a sweep rod connected with the sweep arm and having roller connection with the sweep check lever on one end thereof, and a picking lever connected with the other end of the sweep check lever and pivoted at a point higher than the end of the sweep check lever with which the picker lever is connected.

4. In a picking motion, the combination with a rocking sweep arm, a pivoted sweep check lever, a sweep rod adjustably connected with the top of the sweep check lever, a roller mounted at the bottom of the sweep check lever, and a picker lever adapted to be operated by said roller and pivoted at a point substantially between the top and bottom of the sweep check lever.

5. In a picking motion, the combination of a pivoted sweep check lever, means for operating the sweep check lever connected therewith, a roller mounted at the bottom of the sweep check lever, and a picker lever pivoted above the bottom of the sweep check lever and in position to be operated at its lower end by the roller thereon.

[Claims 6 to 15 not printed in the Gazette.]

943,028. LOOM. LOUIS H. LANDRY, Uxbridge, Mass., assignor of one-half to Samuel B. Taft, Uxbridge, Mass., one-eighth to Udgil Larocque, and one-eighth to Louis Bousquet and Theodore Bousquet, Burrillville, R. I. Filed July 24, 1908. Serial No. 445,155.



1. In a loom, the combination of a driving member, a crank shaft driven thereby, a pick out motion for operating the harness of the loom operated by said crank shaft, an auxiliary shaft, means for operating the auxiliary shaft from the driving member independently of the crank shaft, and means for operating the pick-out motion from this auxiliary shaft.

2. In a loom, the combination of a head motion shaft, with means for operating said shaft when the loom is stopped said means comprising a second shaft, a tilting frame having means for connecting the head motion shaft with said second shaft, and a stud for operating said tilting frame.

3. In a loom, the combination of a head motion shaft, a second shaft adapted to operate when the loom is stopped, a tilting frame having means for connecting the head motion shaft with said second shaft, a stud for operating said tilting frame, a head motion reversing gearing for the head motion, and means connected with said stud for operating the reversing gearing.

4. In a loom, the combination of a movable stud, a head motion, means controlled by the stud for reversing the head motion, an auxiliary shaft adapted to be driven when the loom is stopped, means whereby said auxiliary shaft may be connected with the head motion for driving it, and means whereby the operation of the stud to reverse the head motion will connect the head motion with said auxiliary shaft so as to operate the head motion when the loom is stopped.

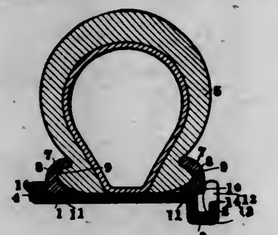
5. In a loom, the combination of a head motion, a shaft, means for turning said shaft when the loom is stopped, and means for reversing the head motion and connecting the same with said shaft to operate the head motion backwardly when the loom is stopped.

[Claims 6 to 20 not printed in the Gazette.]

943,029. VEHICLE-WHEEL RIM. PAUL W. LITCHFIELD, Akron, Ohio, assignor to The Goodyear Tire and Rubber Company, Akron, Ohio, a Corporation of Ohio. Filed Aug. 10, 1908. Serial No. 447,770.

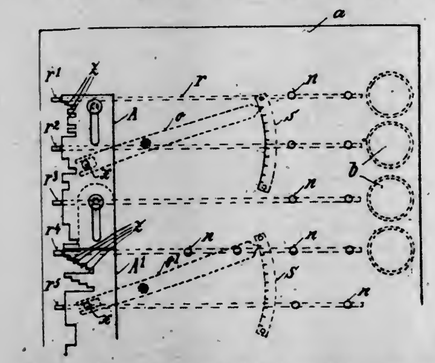
1. A vehicle wheel rim of the class described having a seat for a tire, an outwardly-extending flange along one side edge thereof and an offset extending inwardly from

said tire seat on the opposite side edge, the latter provided with a channel, a split locking ring adapted to be sprung into said channel provided with a rabbeted portion adjacent to said tire seat, the horizontal face of said rabbeted portion being approximately flush with said tire seat, and a pair of endless tire-retaining devices capable of lateral movement on and a reversal of position around said rim, one of said tire-retaining devices adapted to be engaged by said outwardly-extending flange, the other by said locking device and when positioned to lap the horizontal face of the rabbeted portion thereof when in either position, one of the sides of each of said tire-retaining devices fashioned to engage a clencher tire-shoe and the other an inextensible edge tire-shoe, respectively, substantially as and for the purpose described.



2. In combination, a vehicle wheel rim having a seat, a tire retaining means at one side thereof, an off-set at the other side of said seat, said off-set extending inwardly and provided with a channel, a split locking ring adapted to be sprung into said channel and provided with a rabbeted portion adjacent to said seat, a tire-shoe mounted on said seat and a reversible tire retaining means mounted at that side of the seat provided with the off-set and capable of lateral movement in either of its two positions whereby it will engage the rabbeted portion of the ring and retain in connection with said first mentioned tire retaining means, said tire shoe in position.

943,030. COIN-PAYING MACHINE. CARL MENCHEN, Munich, Germany, assignor to Ludwig Boehm, Munich, Germany. Filed June 25, 1908. Serial No. 440,331.



1. In a coin-paying machine, the combination of coin-tubes (*b*), a slide (*a*) arranged below said coin-tubes, having bolts (*n*) adjustable one after the other for the purpose of removing coins from the coin-tubes, means (*r*) for raising and returning said bolts (*n*), and stops (*s*) for the means (*r*), which stops can be adjusted at different distances from said means (*r*), in order to permit these means (*r*) to move more or less forward for the adjustment of the bolts (*n*).

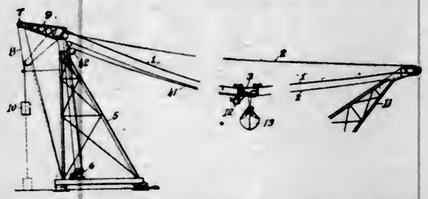
2. In a coin-paying machine, the combination of coin-tubes (*b*), a slide (*a*) arranged below said coin-tubes, having bolts (*n*) adjustable one after the other for the purpose of removing coins from the coin-tubes, sliding bars (*r*) with slanting slots (*w*), pins on the bolts (*n*) sliding in said slots, springs (*f*) for moving the sliding bars (*r*), and differently distanced stops (*s*) for the sliding bars (*r*), said stops being situated on plates (*A*) common to several bars (*r*), said plates being so adjustable that different stops can be one after the other brought opposite the slides (*r*), in order to permit the latter to move forward to a greater or lesser degree.

943,031. ATTACHMENT FOR BANGLES, BRACELETS, AND THE LIKE. SAM MENDEL, Manchester, England. Filed Mar. 14, 1904. Serial No. 198,104.



In combination, a chain bracelet, a pendant therefor in the form of a small metal casing, a fixed axis within the casing, a small barrel loosely mounted on said axis, a coiled spring within the barrel with one end connected to the axis and the other end to the barrel, and connecting means between the bracelet and barrel whereby the bracelet may be allowed to yieldingly pass over the wearer's hand, substantially as herein set forth.

943,032. CABLEWAY. THOMAS S. MILLER, South Orange, N. J. Filed May 21, 1908. Serial No. 434,068.



1. In a conveying apparatus, in combination, an elevated trackway, a load-carriage thereon, a conveyer-motor located off the load-carriage, a conveyer rope whereby the conveyer movements of the load-carriage are imparted from the conveyer-motor, a hoist-motor on the load-carriage, an operator station on the load-carriage and means whereby both the conveyer-motor and the hoist-motor may be controlled from said operator station.

2. In a conveying apparatus, in combination, an elevated trackway, a load-carriage thereon, an electrically controlled conveyer-motor located off the load-carriage and an electrical connection extending from the load-carriage along the trackway whereby said conveyer-motor is controlled.

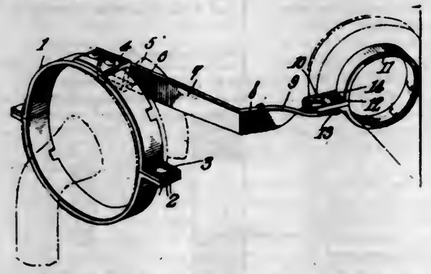
3. In a conveying apparatus, in combination, an elevated trackway, a load-carriage thereon, an electrically controlled conveyer-motor located off the load-carriage and an electrical connection extending from the load-carriage along the trackway whereby said conveyer-motor is controlled and a take-up whereby said electrical connection is taken up or paid out during the conveyer movements of the load-carriage.

4. In a hoisting and conveying apparatus, in combination, a trackway, a load-carriage thereon, a stationary conveyer-motor, a hoist-motor on the load-carriage, an operator station on the load-carriage provided with means for controlling both motors and a take-up whereby the connection from said operator station to said conveyer-motor is taken up and paid out during the conveyer movements of the load-carriage.

5. In a conveying apparatus, in combination, a trackway, a load-carriage, a stationary conveyer-motor, a traction cable and an electric cable extending from said motor to the load-carriage and means whereby they are hauled in and paid out at a determined relationship with each other.

[Claims 6 to 13 not printed in the Gazette.]

943,033. TELEPHONE-RECEIVER SUPPORT. WILLIAM J. MOGRIDGE, Spokane, Wash. Filed Sept. 28, 1908. Serial No. 454,985.



1. In a device of the class described, a clamp adapted to embrace the head of a telephone transmitter, a clamp adapted to embrace the hand-hold of a telephone receiver, and a supporting arm for the receiver clamp carried by the clamp for embracing the transmitter head and movable about an axis extending in the same direction as the longitudinal axis of the transmitter to maintain the active end of the receiver at all times toward the transmitter.

2. In a device of the class described, a clamp adapted to embrace the head of a telephone transmitter, a clamp adapted to receive the hand-hold of a telephone receiver, and a supporting arm for the receiver clamp carried by the clamp for embracing the transmitter head and hinged to the last named clamp to turn about an axis parallel with the central longitudinal axis of the transmitter head.

3. In a device of the class described, a clamp ring adapted to receive the head of a telephone transmitter, a bracket fast on said clamp ring and provided with an extended lip, an arm pivoted to the bracket and movable about the same on an axis parallel with the longitudinal axis of the transmitter, the movement of said arm being limited by engagement with the lip, and said arm having an angle extension, a supplemental arm hinged to the angle extension of the first named arm, and a clamp ring adapted to receive the hand-hold of a telephone receiver and having means for detachably securing said last named clamp ring to the hinged extension of the arm.

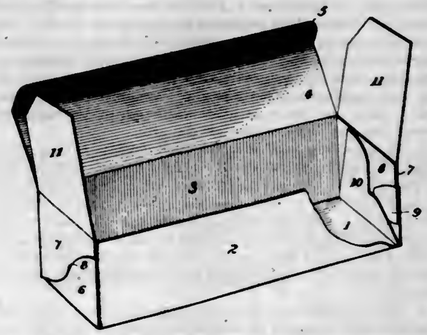
4. In a device of the class described, a clamp adapted to receive the head of a telephone transmitter, a clamp adapted to receive the hand-hold of a telephone receiver, a connection between the clamp for the receiver and the clamp for the transmitter and movable about an axis parallel to the longitudinal axis of the transmitter, and extension pieces introducable into the clamps for increasing their circumferential lengths.

943,034. PAPER BOX AND METHOD OF MAKING PAPER BOXES. BROOKS S. MORGAN, Atlanta, Ga. Filed Mar. 17, 1909. Serial No. 483,957.

1. In a device of the class described, the combination with a paper box, of a thin lining folded to fit therein, and means for yieldingly clamping a fold of said lining to said box permitting its withdrawal from the box in folded condition.

2. In a device of the class described, the combination with a paper box, of an interior upwardly projecting tongue against each end of said box, and a thin lining folded at its ends to fit in said box, one of the folds of said lining at each end embracing one of said tongues and fitting between it and the box.

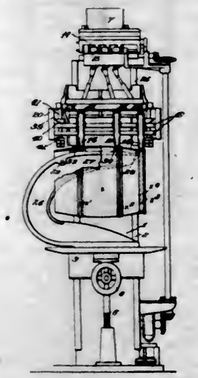
3. In a device of the class described, the combination with a paper box having ends formed by interlocking sections, of interior upwardly bent extensions of the bottom of said box lying freely against the ends of said box, and a thin lining folded at its ends to fit in said box having one of the folds at each end embracing one of the said bent extensions.



4. In a device of the class described, the combination with a paper box formed from a single piece of material, the ends of said box being formed by bent interlocking extensions of the sides, and an upwardly bent extension of the bottom lying freely against each end of a thin lining folded at its ends to fit in said box, one of the folds of said lining at each end embracing one of said upwardly bent extensions and fitting between it and the box.

5. In a device of the class described, the combination with a paper box formed from a single piece of material, the ends of said box being formed by bent interlocking extensions of the sides, and an upwardly bent extension of the bottom lying freely against each end, of a thin continuous lining within said box having side margins, and folds in said lining making it fit the ends of said box, one of the side folds at each end being being made inwardly so as to lie between the contents of the package and the free extension of the box and the other fold being made outwardly so as to extend around and behind the said free extension and to lie between it and the interlocked extensions.

943,035. NAILING-MACHINE. HENRY W. MORGAN, Rochester, N. Y. Filed June 19, 1905. Serial No. 265,907.



1. In a nailing machine, the combination with a work supporting arm formed to permit the turning of a keg or the like thereon and having a longitudinal series of stationary anvils over which the work is moved after each nailing operation, of a row of nailing devices extending longitudinally of the arm to coöperate with the anvils thereon and embodying nail holders coöperating with the

arm to clamp the keg prior to a nailing operation, and mechanism for effecting the separation of the nail holders and the arm after each nailing operation to permit the keg to be turned on the arm.

2. The combination with a work supporting arm having a plurality of stationary anvils thereon curved transversely of the arm to permit free movement of the work over the anvils, of a row of nailing devices extending longitudinally of the arm and embodying nail holders cooperating with the arm to clamp a keg prior to the nailing, and mechanism for effecting the separation of the nail holders and the arm after each nailing operation to permit the keg to be turned on the arm.

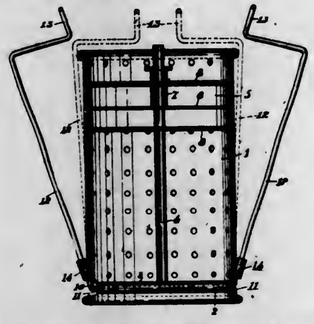
3. In a nailing machine, the combination with a work supporting arm having anvils thereon curved transversely of the arm to permit the turning of a keg or the like thereon, the end of said arm acting as a stop to engage the head of a keg and position the latter relatively to the anvils, of a row of nailing devices arranged longitudinally of the arm, one of said nailing devices being positioned to operate beyond the end of the arm to secure the head to the keg.

4. In a machine for securing hoops on kegs, the combination with a series of suitable nailing devices capable of being spaced at different distances, of a support for the keg having anvils thereon adapted to engage the inner side of the keg and provided with depressions arranged opposite to the nailing devices and extending in the direction of adjustment of the latter to accommodate kegs having hoops spaced at different distances and adapted to cooperate with the nails for clenching them at the inner side of the keg.

5. In a machine for securing hoops on kegs, the combination with a series of suitable nailing devices capable of being spaced at different distances, of a support having an arm to receive the keg, and anvils arranged on the said arm opposite to the nailing devices having grooves therein extending in the direction of adjustment of the nailing devices for clenching the nails.

[Claims 6 to 10 not printed in the Gazette.]

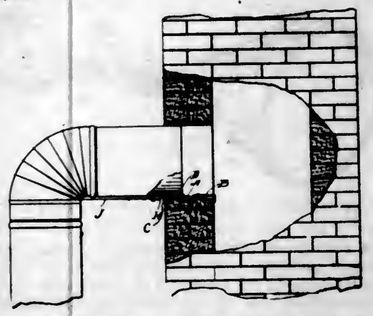
943,036. COFFEE-PERCOLATOR. CHAUNCEY C. MOWBRAY and WARREN F. GEIST, Chicago, Ill. Filed Feb. 8, 1909. Serial No. 476,724.



1. In a percolator, the combination of a tubular foraminated body, an internal channel formed at the lower edge of said body, a foraminated bottom member adapted to rest upon said ridge, a stem upwardly extending from said bottom member, a removable foraminated cover vertically slidable in said body, a sleeve upwardly projecting from said cover adapted to receive said bottom stem, substantially as described.

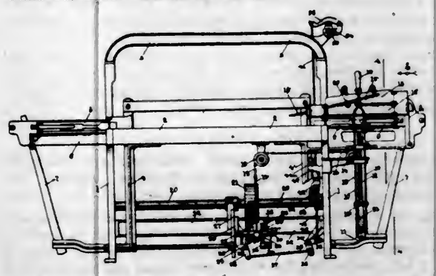
2. In a percolator, the combination of a tubular foraminated body, a circumferentially extending internal channel formed at the lower edge of said body, a foraminated bottom member adapted to rest upon said channel, a stem upwardly extending from said bottom member, a removable foraminated cover vertically slidable in said body, a sleeve upwardly projecting from said cover adapted to receive said stem, a wire formed supporting member, the lower portion thereof being circularly formed to engage said channel, and spring arms formed integrally with and upwardly and obliquely projecting from said circular portion of said supporting member, said arms being adapted to engage the inside surface of a containing vessel, substantially as described.

943,037. ANCHOR FOR STOVEPIPES. JAMES MURCHIE, Traverse City, Mich. Filed Feb. 25, 1909. Serial No. 480,003.



The combination with a chimney flue, a stove-pipe entering the same, and an elbow interposed in the said pipe, of an anchor comprising two flat sheet metal members, there being a longitudinal slot in one of said members and a perforation in the other thereof, a bolt passing through said perforation and said slot and adjustably connecting said members, a projection at the end of one of said members, a projection between the ends of the other of said members disposed parallel with said first-named projection, said projections being adapted to receive the wall of the chimney flue therebetween, a second projection on said longitudinally slotted member extending from the opposite face thereof and having its free end portion disposed parallel with the body of said member, both said projections being formed by folding said member upon itself, the free end portion of said slotted member constituting a tongue, and a wire secured to said tongue and passed around the stove pipe below the elbow.

943,038. SHUTTLE-CHANGING LOOM. BENJAMIN F. MCGUINESS, Worcester, Mass., assignor to Crompton & Knowles Loom Works, a Corporation of Maine. Filed June 18, 1908. Serial No. 439,141.



1. In a shuttle changing loom, the combination with the lay, and a shuttle box or cell at one end of the lay, of an upright swinging lever or support, carrying a cell for the spare shuttle, and a cell for the shuttle to be exchanged, the cell for the shuttle to be exchanged having a tilting shelf or plate, pivotally mounted, with its inner end adapted to extend in the path of the shuttle on the race-way, to cause the shuttle to pass up said tilting plate into the cell for the shuttle to be exchanged.

2. In a shuttle changing loom, the combination with the lay, and a shuttle box or cell at one end of the lay, and means for raising and lowering said shuttle box, of a swinging lever or support, carrying a cell for the spare shuttle, and a second cell for the shuttle to be exchanged, said cells moving with said swinging lever, and the cell for the shuttle to be exchanged having a tilting shelf or plate pivotally mounted, with its inner end adapted to extend in the path of the shuttle on the race-way, to cause the shuttle to pass up said tilting plate into the cell for the shuttle to be exchanged.

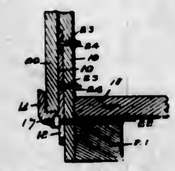
3. In a shuttle changing loom, the combination with a shuttle box or cell at one end of the loom, and a swinging lever or support carrying a cell for the spare shuttle, and a cell for the shuttle to be exchanged, and adapted to be moved to bring said two cells in vertical alinement with the first mentioned cell, to move with said cell on the movement of the lay, of means to indicate for the raising and lowering of said cells, and means for automatically raising and lowering said cells.

4. In a shuttle changing loom, the combination with a shuttle box or cell at one end of the loom, and a swinging lever or support carrying a cell for the spare shuttle, and a cell for the shuttle to be exchanged, and adapted to be moved to bring said two cells in vertical alinement with the first mentioned cell, to move with said cell on the movement of the lay, of manually operated means to indicate for the raising and lowering of said cells, and means for automatically raising and lowering said cells.

5. In a shuttle changing loom, the combination with a shuttle box or cell at one end of the loom, and a swinging lever or support carrying a cell for the spare shuttle, and a cell for the shuttle to be exchanged, and adapted to be moved to bring said two cells in vertical alinement with the first mentioned cell to move with said cell on the movement of the lay, of manually operated means to indicate for the raising and lowering of said cells, and means for automatically raising and lowering said cells, and means, combined with the indicating means, to automatically return said indicating means to their normal inoperative position.

[Claims 6 to 8 not printed in the Gazette.]

943,039. CAR-DOOR BRACKET. JOSEPH K. MCGUIRE, Valley Junction, Iowa, assignor of one-half to E. R. Bierce, Valley Junction, Iowa. Filed Feb. 8, 1909. Serial No. 476,604.



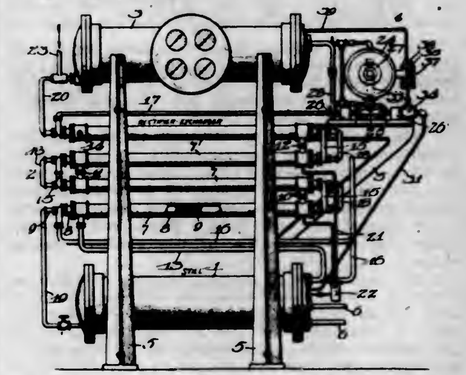
1. An improved car door bracket, comprising a body portion having a slot in its lower end portion, a part extended outwardly and upwardly from the body, said part being formed with a nut engaging shoulder thereon above and close to said slot, a bolt to extend through the slot, a nut thereon to engage said shoulders, and means for securing the body portion against upward movement.

2. An improved car door bracket, comprising a body portion having an integral part extended outwardly and then upwardly therefrom, said part being provided with a nut engaging shoulder having a recess formed therein at its base, said body portion being also provided with a slot below the nut engaging portion, and means for securing the body portion against upward movement.

3. A device of the class described, comprising a body portion having an integral part thereof extended outwardly and then upwardly, said body portion having a slot near its lower end and a bolt opening in its upper portion, a nut engaging shoulder arranged above said slot, a bolt passed through the slot, a nut thereon in engagement with said nut engaging shoulder, and a bolt passed through the bolt opening in the upper portion of the body portion, and a nut thereon, for the purposes stated.

4. A device of the class described, comprising a body portion having an integral part thereof extended outwardly and then upwardly, said body portion having a slot near its lower end and a bolt opening in its upper portion, a nut engaging shoulder arranged above said slot having a recess formed therein at its base, a bolt passed through the slot, a nut thereon in engagement with said nut engaging shoulder, a bolt passed through the bolt opening in the upper portion of the body portion, and a nut thereon, for the purposes stated.

943,040. AMMONIA REFRIGERATING APPARATUS. THOMAS C. MCKEE, Chicago, Ill. Filed Dec. 21, 1907. Serial No. 407,468.



1. An ammonia refrigerating apparatus comprising a source of ammonia gas and hot weak liquor, a unitary rectifier-exchanger, and a source of cold strong liquor, said rectifier-exchanger comprising three substantially concentric pipes, the outer and inner pipes forming conductors for the ammonia gas and the hot weak liquor and communicating with the source of gas and weak liquor, and the middle pipe forming a conductor for the cold strong liquor and being connected to said source of cold strong liquor.

2. An ammonia refrigerating apparatus comprising a source of ammonia gas and hot weak liquor, a unitary rectifier-exchanger, and a source of cold strong liquor, said rectifier-exchanger comprising three substantially concentric pipes, the outer one forming a conductor for the ammonia gas and being connected to the source of ammonia gas and weak liquor, the middle pipe forming a conductor for the cold strong liquor and being connected with the source of strong liquor, and the inner pipe forming a conductor for the hot weak liquor and being connected with the source of ammonia gas and weak liquor, and means for draining water from the outer pipe.

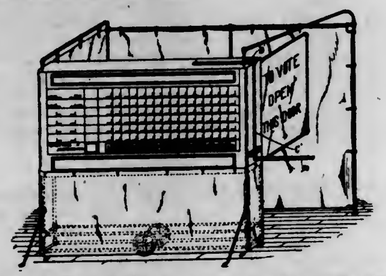
3. An absorption ammonia refrigerating apparatus comprising a still; an absorber; a trap structurally separate from and independent of and located outside of said still and said absorber; a liquor pipe and an equalizing pipe connecting the absorber and the trap; and a liquor pipe and an equalizing pipe connecting the still and the trap.

4. An ammonia refrigerating apparatus comprising a still; a rectifier; means for delivering a cooling liquid to said rectifier; and connections between said still and said delivering means, the rapidity of operation of said delivering means being governed by the flow from said still through said connections.

943,041. VOTING-MACHINE. ANGUS MCKENZIE, Jamestown, N. Y., assignor, by mesne assignments, to Empire Voting Machine Company, Rochester, N. Y., a Corporation of New York. Filed Sept. 11, 1899. Serial No. 730,140.

1. In a voting machine, means for locking out a given number of office voting mechanisms, means controlling

said means, means for voting for offices not locked out, and means to positively restore all of said means to normal to permit general voting.



2. In a voting machine, means for locking out a given number of office voting mechanisms, means for voting for offices not locked out, and means operative to positively restore both the lock out means and the voting means to normal, to permit general voting.

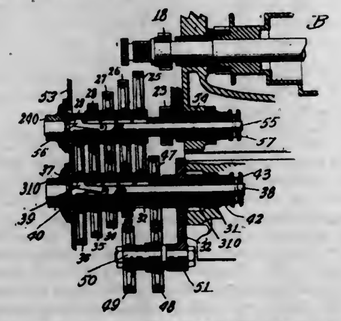
3. The combination in a voting machine of a plurality of indicators of a main resetting and locking means therefor of an auxiliary locking means independently movable to a position for locking a plurality of said indicators against movement, means operating to reset said indicators through said main locking means, said operating means causing the resetting of said auxiliary locking means.

4. The combination in a voting machine of indicators, means for resetting and locking said indicators, and auxiliary locking means to prevent the operation of a plurality of said indicators, said auxiliary locking means being thrown out of locking position by the operation of said resetting means.

5. The combination in a voting machine, of indicators, operating mechanism for the machine causing the resetting of said indicators when moved in one direction, means preventing the operation of a plurality of said indicators until said operating mechanism for the machine has reached a predetermined point in its movement in the reverse direction.

[Claims 6 to 53 not printed in the Gazette.]

943,042. GEARING. ALBERT E. NEWTON, Worcester, Mass., assignor to Prentice Bros. Company, Worcester, Mass., a Corporation of Massachusetts. Filed Aug. 19, 1904. Serial No. 221,330.



1. The combination with a variable speed mechanism for engine lathes and the like for imparting power to driven mechanism, comprising two series of intermeshing gears having key-ways, two slotted bushings on which said two series of gears are arranged, a rod fitted in each of said bushings, a key mounted on each rod and movable transversely thereon for engaging the said key-ways, and means connecting the rods so that their keys are kept in position for engagement with the coöperating gears of the two series, and for simultaneously moving the keys on their rods, of a casing containing said variable speed mechanism having a slot, and an adjusting handle on the yoke projecting through the slot.

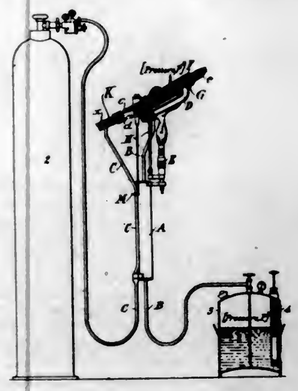
2. In an engine lathe, a variable speed mechanism comprising a support, driven mechanism, a driving pinion, a lever having a hub journaled in the support, two intermeshing gears carried by said lever and arranged so that either can be meshed with the driving pinion, a bushing fitted in the hub of said lever, a gear fixed on said bushing and meshing with one of the gears carried by said lever, a series of gears loosely journaled on the bushing, means for locking any one of said gears to said bushing, a second series of gears intermeshing with the first series and gearing therefrom to the driven mechanism.

3. In an engine lathe, a variable speed mechanism for imparting power to the means which actuates the carriage comprising a support having a slot cut therein, a bushing, a series of gear wheels loosely journaled thereon, means in said bushing for locking any one of the said gears to the bushing, a guide shaft fitting in the support, and an adjusting handle for operating said means and fitted to said slot and said guide shaft.

4. A variable speed mechanism for engine lathes, comprising a support, a driving pinion, a driven mechanism, a variable speed train, a bushing supporting a part of said variable speed train, means for adjusting the variable speed train, a transmitting gear on said bushing, a bracket supported to be turned on an axis concentric with the bushing, and an intermediate gear carried by said bracket for connecting the driving pinion with the transmitting gear.

5. In an engine lathe, a variable speed mechanism for imparting power to the means which actuates the carriage, comprising a support, a driving pinion, a bushing, a series of gear wheels journaled loosely thereon, means in said bushing for locking any one of said gears to the bushing, an adjusting handle extending out through the support and connected to shift the rod, a transmitting gear fastened on said bushing, a swinging piece turning on said bushing, and an intermediate gear on the swinging piece connecting the transmitting gear and driving pinion.

943,043. BLOWPIPE. EUGENE ODAM, Paris, France, assignor to Société des Applications de l'Acétylène, Paris, France. Filed Oct. 8, 1907. Serial No. 396,432.



1. A blow-pipe for fusing and welding metals, utilizing the vapor of a combustible liquid and oxygen or air as a comburant, including in combination a supply pipe B for the liquid, an annular reserve chamber adapted to carry a certain reserve of vapor of a combustible liquid so as to maintain an approximately constant pressure, and thus to insure a regular flow, an auxiliary heating chamber communicating with said annular chamber, and a Bunsen burner acting directly upon said heating chamber to heat the same, the said tube, annular reserve chamber and heating chamber constituting together a single compact device with the parts firmly connected to each other.

2. A blow-pipe for fusing and welding metals, utilizing the vapor of a combustible liquid and oxygen or air as a comburant, including in combination a supply pipe B for the liquid, an annular reserve chamber adapted to carry a certain reserve of vapor of a combustible liquid so as to maintain an approximately constant pressure, and thus to insure a regular flow, an auxiliary heating chamber consisting of a coil I, and a Bunsen burner acting directly upon said heating chamber to heat the same, the said tube, annular reserve chamber and heating chamber constituting together a single compact device with the parts firmly connected to each other.

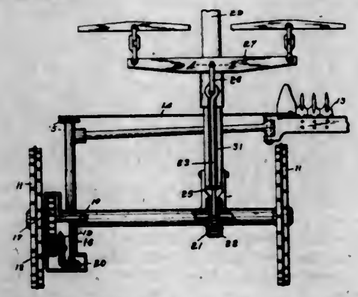
3. A blow-pipe for fusing and welding metals, utilizing a vapor of a combustible liquid with oxygen or air as a comburant, including in combination in a single body, a central tube or blow-pipe proper, an annular reserve chamber for the vapor, and an auxiliary heating chamber, a Bunsen burner arranged to heat said heating chamber directly, a tube c through which the annular reserve chamber communicates with the central tube, a small reservoir *i* between said tubular member c and said central tube, and a needle valve *j* controlling the passage of gas from said tubular member c to said small reservoir *i*, said reservoir being directly in communication with said central tube through an opening *h*.

4. A blow-pipe for fusing and welding metals, utilizing a vapor of a combustible liquid with oxygen or air as a comburant, including in combination in a single body a central tube or blow-pipe proper, an annular reserve chamber for the vapor, and an auxiliary heating chamber, consisting of a coiled pipe, a Bunsen burner arranged to heat said heating chamber directly, a tube c through which the annular reserve chamber communicates with the central tube, a small reservoir *i* between said tubular member c and said central tube, and a needle valve *j* controlling the passage of gas from said tubular member c to said small reservoir *i*, said reservoir being directly in communication with said central tube through an opening *h*.

5. A blow-pipe for fusing and welding metals, utilizing a vapor of a combustible liquid with oxygen or air as a comburant, including in combination in a single body a central tube or blow-pipe proper, an annular reserve chamber for the vapor, an auxiliary heating chamber, and a reservoir containing the combustible liquid under pressure of compressed air, in communication with said heating and annular reserve chambers, whereby the operation is continuous under the balanced pressures of the annular reserve chamber and the reservoir containing the combustible liquid.

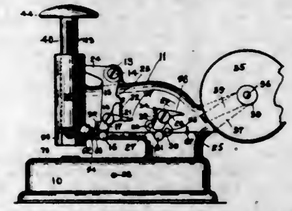
[Claim 6 not printed in the Gazette.]

943,044. STARTING DEVICE FOR MOWERS. JOHN C. OLIVA, Marengo, Iowa. Filed Mar. 25, 1909. Serial No. 485,595.



In a machine of the class described, the combination of a machine frame, a rotatable axle, traction wheels mounted upon the axle for rotating it when they are moved forwardly, mechanism carried by the machine frame and capable of being operated by power from said axle, a ratchet wheel fixed to the axle, a gear case connected to the frame and arranged to pass around the ratchet wheel, a slide-bar designed to extend through said gear case and having a ratchet tooth thereon to engage said ratchet wheel and also having an inclined lug in advance of the ratchet tooth designed to engage a part of said gear case, a clevis slidingly connected with the machine frame, said clevis being also connected with said slide-bar, and means for moving the clevis and slide-bar rearwardly, said parts being so arranged that when the clevis and slide-bar are at their rearward limit of movement, the pawl will engage the ratchet, and when the clevis and slide-bar are moved forwardly, the ratchet wheel will be rotated and the axle will be rotated until the lug on the slide-bar strikes the adjacent portion of the gear case, whereupon the pawl will be elevated out of engagement with the ratchet wheel.

943,045. WIRE-STAPLE FORMING AND SETTING MACHINE. WILLIAM C. OSTERHOLM, Chicago, Ill. Filed Jan. 7, 1909. Serial No. 471,149.



1. In a wire-staple forming and setting machine, the combination, with a base, arm and head, said head having a circular main bore and a circular auxiliary bore located a distance from said main bore and running parallel therewith and being closed at its lower end, of a circular plunger in said main bore; a circular rod in the auxiliary bore and in operative connection with said plunger; a spring in the auxiliary bore below said rod; there being a circular bore in said plunger; a hammer in said plunger and adapted to move vertically therein; means for suspending said hammer in said plunger; a spiral spring above said hammer, and means for releasing said hammer at a predetermined point in the descent of said plunger.

2. In a wire-staple forming and setting machine, a base, an arm, and a head, said head having a main bore open at both ends, an auxiliary bore running parallel therewith and closed at one end and a tubular branch bore at the lower end of said head; a plunger in the main bore and adapted to reciprocate therein; a rod in the auxiliary bore and in operative connection with the plunger, said rod being flattened to afford upper and lower shoulders thereon; a bell-crank pivoted at the upper end of said head and having one member entering the auxiliary bore at the flattened portion of said rod; a slidable forming block in the branch of the main bore and adapted to be moved into and out of the path of the plunger by said bell-crank, the second member of said bell-crank being in operative engagement with said forming block.

3. A wire-staple forming and setting machine including a base, an arm, and a head, said head having a circular bore provided with an angular longitudinal groove and an internally screw-threaded tubular branch bore at the lower end; an externally screw-threaded tubular die in said branch bore and adapted to be revolved and laterally moved therein; a plunger in said bore; a cutter having a hook at its upper end, there being a transverse groove on the outer periphery of said plunger adapted to engage said hook, said cutter being loosely placed in said transverse groove and adapted to move in the longitudinal groove in said bore.

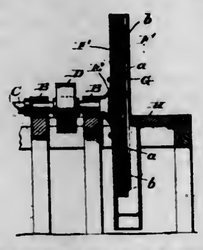
4. In a hand-operated wire-staple forming and setting apparatus, the combination, with the base, arm and head of said apparatus, of wire-feeding mechanism; means for cutting off a predetermined length of wire, and staple-

forming means, the latter comprising a plunger within said head; a downwardly-projecting rod on said plunger, said rod being flattened for approximately one-half of its diameter to afford upper and lower shoulders on said rod; a crank-lever pivoted to said head and having one member adapted for engagement with the flattened portion of said rod at said shoulders, and a slidable forming-block in the lower end of said head and in operative connection with said crank-lever, said slidable forming-block being slotted at the end which projects into the bore of said head to receive the wire which is to be formed into a staple, the engagement of one member of said bell-crank with the shoulders on said rod being such that said bell-crank is actuated in one direction after the plunger has commenced its downward movement, and in the opposite direction at the beginning of its upward movement.

5. In a hand-operated wire-staple forming and setting apparatus, the combination, with wire-cutting off mechanism, of staple-forming means, and staple-driving means, said forming means comprising a laterally-movable forming-block; means for reciprocating said forming-block; a plunger adapted to operate the means for reciprocating said forming-block; a hammer in said plunger; means for suspending said hammer in said plunger, comprising a pivoted catch and means on said plunger adapted to engage said clutch, and means for releasing said hammer, said means for releasing said hammer being part of the means for reciprocating said forming-block.

[Claims 6 and 7 not printed in the Gazette.]

943,046. MACHINE FOR DRESSING AND FINISHING WOOD, &c. JOHN W. SCHLEICHER, St. Louis, Mo., assignor to Mengel Box Company, Louisville, Ky., a Corporation of New Jersey. Filed Sept. 2, 1908. Serial No. 451,401.



1. In a machine for dressing and finishing wood, a disk or wheel having the entire annular working zone of its radial face closely studded with metallic points, the working ends of which stand in common plane.

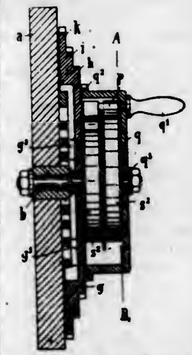
2. An abrading or smoothing disk having the entire working area of its flat side face provided with metallic points, the working ends of which are in a common plane perpendicular to the axis of rotation.

3. An abrading or smoothing disk having substantially its entire flat working area studded with metallic points arranged in radial lines with their working ends in common plane perpendicular to the axis of rotation, those of one line alternating with those of other lines.

4. An abrading wheel or disk comprising in combination a central hub; a metallic disk carried by said hub; a wooden wheel or disk secured to the face of the metallic disk; and metallic studs or stems passing through the wood and resting at their inner ends against the metallic disk, their outer or working ends being perpendicular to the axis of rotation and in common plane, and occupying substantially the entire working area of the disk.

943,047. APPARATUS FOR STARTING AND STOPPING ELECTRIC MOTORS. CARL SPANNAGEL, Mannheim, Germany, assignor to Zuckerfabrik Frankenthal, Frankenthal, Germany. Filed June 1, 1909. Serial No. 499,268.

1. In an apparatus for starting and stopping electric motors a control member, a switching member, two springs acting in opposite direction interposed between said two members, a solenoid, a double pawl operated by said solenoid and acting upon two notched rims rigidly connected with said switching members, substantially as and for the purpose set forth.



2. In an apparatus for starting and stopping electric motors a control member, a switching member, two springs acting in opposite direction interposed between said two members, a solenoid, a double pawl operated by said solenoid and acting upon two notched rims rigidly connected with said switching member, the double pawl being formed by two parts having a little free motion and one of said parts carrying a yielding tooth, substantially as and for the purpose set forth.

3. In an apparatus for starting and stopping electric motors a control member, a switching member, two springs acting in opposite direction interposed between said two members, a solenoid, a double pawl operated by said solenoid and acting upon two notched rims rigidly connected with said switching member, a second solenoid, a third pawl operated by said second solenoid and acting upon a third notched rim rigidly connected with said switching member, substantially as and for the purpose set forth.

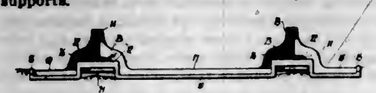
4. In an apparatus for starting and stopping electric motors a control member, a switching member, two springs acting in opposite direction interposed between said two members, a solenoid, a double pawl operated by said solenoid and acting upon two notched rims rigidly connected with said switching member, a second solenoid, a third pawl operated by said second solenoid and acting upon a third notched rim rigidly connected with said switching member, a relay controlling said two solenoids and being traversed by the armature current, substantially as and for the purpose set forth.

5. In an apparatus for starting and stopping electric motors a control member, a switching member, two springs acting in opposite direction interposed between said two members, a solenoid, a double pawl operated by said solenoid and acting upon two notched rims rigidly connected with said switching member, a second solenoid, a third pawl operated by said second solenoid and acting upon a third notched rim rigidly connected with said switching member, a relay controlling said two solenoids and being traversed by the armature current, the contact-piece of which in one of its end positions closes the circuit of the one solenoid and in the other end position that of the other solenoid while during normal running of the motor it rests against neither of its contacts, substantially as and for the purpose set forth.

[Claims 6 and 7 not printed in the Gazette.]

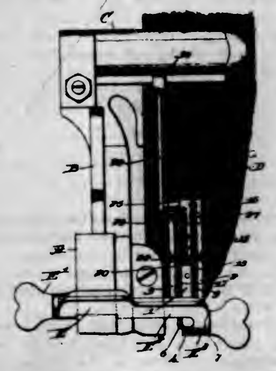
943,048. METAL RAILWAY-TIE. LOUIS J. SPARKS, Idaville, Ind., assignor of two-thirds to George Wm. Allen, Monon, Ind. Filed July 8, 1909. Serial No. 506,534.

1. A metal railway tie comprising a base plate having a longitudinal strengthening rib and with integral elevated rail supports extending upwardly therefrom and with an integral strengthening rib beneath the elevated rail supports.



2. A metal railway tie comprising a base plate having a longitudinal strengthening rib and with integral elevated rail supports extending upwardly therefrom and of greater thickness than the base, and an integral strengthening rib beneath each of the elevated rail supports.

943,049. PICK-COUNTER FOR LOOMS. MELVIN L. STONE, Lewiston, Me., assignor to Draper Company, Hopedale, Mass., a Corporation of Maine. Filed Apr. 23, 1909. Serial No. 491,721.



1. The combination, with a reciprocating temple, and its stand, of a pick counter mounted on said stand and comprising two instrumentalities arranged side by side, one instrumentality including a rotatable member operated by the cloth being woven, to indicate the length of cloth so woven, the other instrumentality including a rotatable member, to indicate the number of picks put into the cloth, and means connected with and operated by reciprocation of the temple to actuate the rotatable member of said latter instrumentality.

2. In a loom, in combination, a temple adapted to be moved at each pick, an instrumentality operatively connected with the temple to indicate the number of picks put into the cloth, and an instrumentality operated by the cloth being woven to indicate the length of the cloth woven in a given length of time, the indication of the former instrumentality when divided by the indication of the latter instrumentality giving the number of picks in the cloth per unit of length.

3. A mechanical pick counter for looms, comprising two separate and independent instrumentalities arranged side by side and operated contemporaneously, the one by the longitudinal movement of the cloth as it is woven, and the other by a moving part of the loom at each pick, respectively, said latter instrumentality being controlled wholly by such moving part, and a supporting frame on which both of said instrumentalities are mounted.

4. In a pick counter for looms, a frame adapted to be attached to a fixed part of the loom, two coaxial disks rotatably mounted on the frame, one of the disks having a toothed periphery to engage the cloth being woven, ratchet teeth on the other disk, a pawl coöperating therewith, a pawl-carrier, means to effect the actuation of the latter on each pick, and means whereby said disks indicate, respectively, the length of cloth woven and the number of picks therein, in a given period.

5. A pick counter for looms, comprising two coaxially mounted disks one of which is adapted to engage and be rotated by the cloth being woven, said disk being graduated in inches, a reciprocating temple moved on each pick, and means operatively connected with the temple to intermittently effect angular movement of the other disk, said other disk being graduated to indicate picks, the contemporaneous operation of the disks indicating the number of picks in the cloth and the length in inches of the cloth woven.

[Claim 6 not printed in the Gazette.]

943,050. TURPENTINE-HACK. NATHANIEL B. STONE, Outlook, Wash. Filed Mar. 12, 1908. Serial No. 420,726.



1. In a device of the character described, the combination with a handle having a head, of a pair of relatively movable jaws mounted on the exterior of the head transversely of the handle, a cutting blade having a shank that engages between the jaws, and means for drawing the jaws together and holding them to clamp said shank.

2. In a device of the character described, the combination with a handle having a head, of a pair of relatively movable jaws projecting from one side of the head and relatively movable longitudinally of the handle, a cutting blade having a shank that engages against the side of the head between the jaws, and means for drawing the jaws toward each other and holding them to clamp said shank.

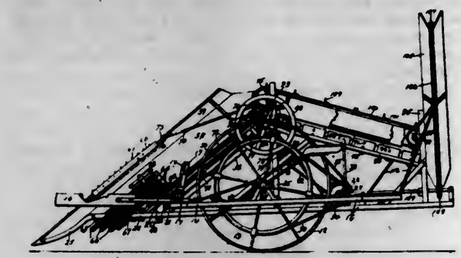
3. In a device of the character described, the combination with a handle having a head, of a fixed jaw carried by the head, a movable jaw associated with the head, said jaws being disposed transversely of the handle, a cutting blade having a shank that fits between the jaws, a bolt carried by the movable jaw and engaging in the head, and a clamping nut having a boss rotatably mounted in the head and having a threaded engagement with the bolt.

4. In a device of the character set forth, the combination with a handle having a head provided with outstanding flanges on its opposite sides, forming a stationary jaw, of a jaw plate having its margins projecting beyond the same sides as the flanges, a blade having shanks located on opposite sides of the head between the flanges and jaw plate, and means for drawing said plate longitudinally of the handle toward the head to clamp the shanks.

5. In a device of the character set forth, the combination with a handle having a head provided with outstanding flanges on its opposite sides, forming a stationary jaw, of a jaw plate having its margins projecting beyond the same sides as the flanges, a blade having shanks located on opposite sides of the head between the flanges and jaw plate, a bolt carried by the plate and engaging in the head, and a clamping nut having a boss rotatably mounted in the head and having a threaded engagement with the bolt.

[Claims 6 to 32 not printed in the Gazette.]

943,051. CORN-HUSKER. DANIEL H. TREE, Cartersville, Iowa. Filed June 5, 1906. Serial No. 320,905.



1. In a harvesting machine, the combination of a pair of stalk drawing rollers, a pair of stationary ear snapping boards above them, and toothed gathering rollers arranged forward of said snapping boards and above and parallel with said drawing rollers.

2. In a harvesting machine, the combination of a pair of stalk drawing rollers inclined rearwardly and upwardly and provided with longitudinal teeth, means for rotating them, a pair of ear snapping bars above said rollers and spaced apart from each other far enough to freely allow corn stalks to pass and also engage the ears of corn, and toothed gathering rollers arranged forward of said snapping bars and above and parallel with said drawing rollers.

3. In a harvesting machine, the combination of a pair of stalk drawing rollers, a pair of stationary ear snapping boards above said rollers, carrying arms arranged to move rearwardly and upwardly over said ear snapping bars to conduct the ears upwardly and rearwardly to a point of discharge, and toothed gathering rollers parallel with said drawing rollers and located forward of said snapping boards.

4. In a harvesting machine, the combination of a pair of stalk drawing rollers inclined rearwardly and upwardly and provided with longitudinal teeth, means for rotating said rollers, a pair of ear snapping bars above said rollers and spaced apart from each other far enough to freely allow corn stalks to pass through and to engage ears of corn, upright boards at the sides of the ear snapping-bars and conveyer chains having arms thereon arranged to move upwardly and rearwardly on the inner faces of said upright boards and having the arms projecting over the snapping bars and toothed gathering rollers parallel with said drawing rollers and mounted in said boards forward of said snapping bars.

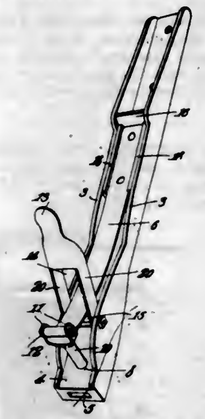
5. In a harvesting machine, the combination of a pair of stalk drawing rollers inclined upwardly and rearwardly and formed with longitudinal teeth, means for rotating the adjacent portions of said rollers downwardly, sliding bearings for the forward ends of said rollers, springs for normally holding said bearings in position with the forward ends of the rollers at their limit of movement toward each other, a pair of stationary, flat, snapping bars arranged directly above the rollers with their forward ends curved rearwardly and toward each other and their body portions spaced apart far enough to freely allow corn stalks to pass and to prevent the passage of ears of corn, and toothed gathering rollers parallel with said drawing rollers and located forward of said snapping bars.

[Claims 6 to 8 not printed in the Gazette.]

943,052. COUPLING. HOMER A. TUNIS, Ringwood, Okla. Filed Dec. 12, 1908. Serial No. 467,260.

1. In a device of the class described, a housing having outstanding side walls provided with beveled inner faces; a tongue disposed between the walls; a locking bolt carried by the tongue; a lever pivoted between the walls and being arranged to lift the tongue, the lever being provided with resilient flaring wings to engage the beveled faces of the walls.

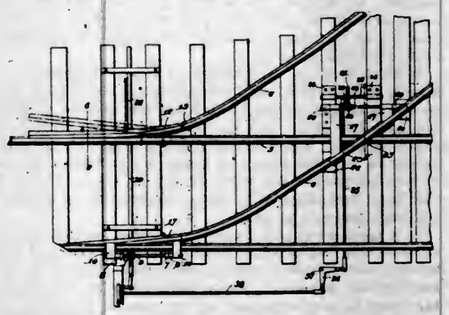
2. In a device of the class described, a housing having outstanding side walls provided with beveled inner faces; a tongue disposed between the walls; a locking bolt carried by the tongue; a lever pivoted between the walls and arranged to lift the tongue, the lever being provided with resilient wings to engage the beveled faces of the walls.



3. In a device of the class described, a housing having outstanding side walls; a tongue disposed between the walls; a locking bolt carried by the tongue; a lever pivoted between the walls and arranged to lift the tongue, the lever being provided with resilient flaring wings to engage the walls.

4. In a device of the class described a housing having outstanding side walls; a tongue disposed between the walls; a locking bolt carried by the tongue; a lever pivoted between the walls and arranged to lift the tongue, the lever being arranged to be wedged between the walls.

943,053. RAILWAY-SWITCH. PETER E. VAIL, Chariton, Iowa. Filed Mar. 25, 1909. Serial No. 485,567.



1. A railway switch having a switch point pivoted outside of the rails, means for operating the point to move the same in a vertical plane to throw it over the rail and against the inside thereof, a second switch point pivoted outside of the rail and means connecting said second switch point with said operating mechanism, whereby said latter switch point will be moved horizontally against the side of the adjacent rail.

2. A railway switch comprising a pair of switch points pivoted outside of the rails, the pivot of one of said switch points being horizontal and the other vertical, and means for operating the points to throw said vertically pivoted point against the outside of one rail and the horizontally pivoted point over the other rail and against the inside thereof.

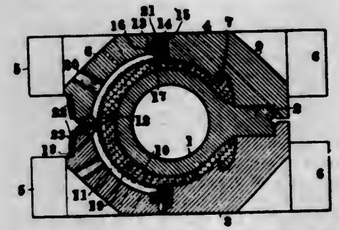
3. A railway switch having a split rail switch point pivoted in a horizontal plane outside of one rail and a stub rail pivoted in a vertical plane outside the other rail, means for operating said switch rails to throw said split rail over one of the track rails and against the inside thereof and simultaneously move the stub switch rail against the outside of the other track rail.

4. A railway switch comprising a pair of switch points adapted to be thrown into contact with the main line rails, of a cross over comprising a section of rail of standard design having a cut away portion in its base and web intermediate its ends, said cross over being pivoted adjacent one of the rails, and means connecting said cross over and switch points whereby they may be operated simultaneously.

5. A railway switch comprising a pair of switch points adapted to be thrown into contact with the main line rails, of a cross over comprising a section of rail of standard design having a cut away portion in its base and web intermediate its ends, a strengthening flange extending from the side of the web adjacent the cut away portion, said cross over being pivoted adjacent one of the rails, and means connecting said cross over and switch points whereby they may be operated simultaneously.

[Claim 6 not printed in the Gazette.]

943,054. APPARATUS FOR MANUFACTURING WHEEL-TIRES. JOHN K. WILLIAMS, Akron, Ohio, assignor of one-half to The Williams Foundry and Machine Company, Akron, Ohio, a Corporation of Ohio. Filed Apr. 1, 1909. Serial No. 487,272.



1. A vulcanizing apparatus comprising a mold formed of a plurality of sections, each of said sections having as a component part thereof a lining of pervious material to permit of the passage therethrough of a vulcanizing medium, each of said linings secured to its respective section.

2. A vulcanizing apparatus comprising a mold formed of a plurality of sections, each provided with a recess to constitute a steam space, and a lining of pervious material forming a component part of each section, each of said linings forming the wall of a steam space, and each lining secured to its respective section, and each of said linings furthermore constituting a means to prevent the distortion of the article being vulcanized.

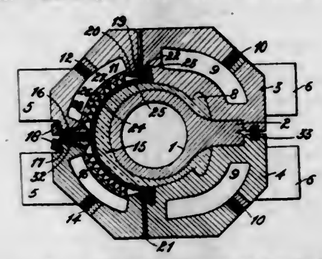
3. A vulcanizing apparatus comprising a pair of mold sections with registering cavities in their abutting faces to hold an article to be vulcanized, each of said sections provided with a recess communicating with the cavity therein, a layer of pervious material extending across each of said recesses and constituting approximately a continuation of the inner surface of said mold cavity and means to introduce a heating medium to said recesses.

4. An apparatus of the class described comprising a core or mandrel, mold sections provided with registering cavities arranged to surround a portion of an article mounted on said core, each of said mold sections provided with a recess communicating with the mold cavity thereof, a pervious covering for each of said recesses and means for introducing to each of said recesses a vulcanizing agent.

5. An apparatus of the class described comprising a core or mandrel provided with an inwardly-projecting flange, mold sections provided with registering cavities to inclose an article mounted on said mandrel arranged to engage a portion of said article on opposite sides of said flange, said mold sections each provided with a recess communicating with the cavity therein, a pervious member extending across each of said recesses for holding the portion of said article engaged thereby against distortion and means for introducing a vulcanizing agent to said recesses.

[Claims 6 to 23 not printed in the Gazette.]

943,055. VULCANIZING-MOLD. JOHN K. WILLIAMS, Akron, Ohio, assignor of one-half to The Williams Foundry and Machine Company, Akron, Ohio, a Corporation of Ohio. Filed Aug. 5, 1909. Serial No. 511,441.



1. A vulcanizing apparatus comprising a mold formed of a plurality of sections, each of said sections having as a component part thereof a permanently fixed lining of pervious material provided with a foraminous reinforcing medium and constituting means to permit of the passage of a vulcanizing medium and said reinforcement constituting means to prevent the distortion, of said lining during the vulcanizing operation, each of said linings and its reinforcing medium secured to its respective section.

2. A vulcanizing apparatus comprising a mold formed of a plurality of sections, each provided with a vulcanizing medium space having one wall thereof provided with openings and circumferentially extending ribs, each of said sections having as a component part thereof a lining of pervious material provided with a reinforcing medium arranged in proximity to said ribs, said pervious material constituting means to permit of the passage of the vulcanizing medium and said reinforcement for said pervious material constituting means to prevent the distortion of the pervious material during the vulcanizing operation, each of said linings and its reinforcement secured to its respective mold section.

3. A vulcanizing apparatus comprising a mold formed of a plurality of sections, each of said sections having as a component part thereof a permanently fixed reinforced lining of pervious material to permit of the passage of a vulcanizing medium, the reinforcing of said lining preventing the distortion thereof during the vulcanizing operation, each of said reinforcing linings secured to its respective mold section.

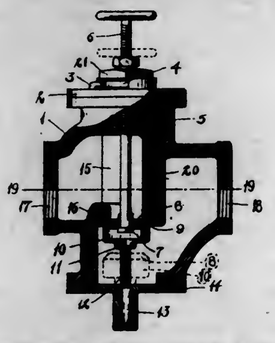
4. A vulcanizing apparatus comprising a mold formed of a plurality of sections, each of said sections having as a component part thereof a reinforced lining of pervious material to permit of the passage of a vulcanizing medium, the reinforcing of said lining preventing the distortion thereof during the vulcanizing operation, each of said reinforcing linings secured to its respective mold section, and each of said sections furthermore provided with a space constituting a chamber for a vulcanizing medium, one wall of said chamber formed of a plurality of openings and further provided with circumferentially extending ribs arranged in proximity to the reinforced lining of its respective section.

5. A vulcanizing apparatus comprising a mold formed of a plurality of sections, each of said sections provided with a recess, and further provided with a space to constitute a chamber for the reception of a vulcanizing medium, one wall of said chamber provided with openings and further having ribs, said openings establishing communication between said chamber and said recess, and a reinforcing lining of pervious material mounted in each of said recesses and in proximity to said ribs, said lining of pervious

material constituting means to permit of the passage of the vulcanising medium and the reinforcement of said lining preventing the latter from distortion during the vulcanising operation, each of said linings secured to its respective mold section.

[Claims 6 to 10 not printed in the Gazette.]

943,056. BLOW-OFF COCK. JOHN B. YOUNGBLOOD, Cleveland, Ohio. Filed Mar. 30, 1909. Serial No. 486,648.



1. In a device of the character described, the combination of an upwardly seating buoyant valve, and a stem controlling the same having longitudinal movement with relation thereto, and means relatively engaging between said valve and said stem to rotate the former before movement thereof away from its seat.

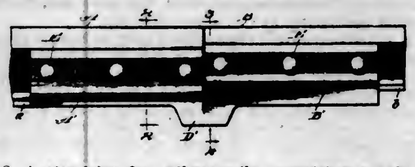
2. In a device of the character described, the combination of a casing having a diaphragm forming a horizontal valve seat, a plug extending downwardly against said seat having a central bore and an opening through its wall communicating with said bore and provided with means upon its upper outer end to control rotative movement thereof, a valve seated upwardly against said valve seat, a stem for controlling said valve, longitudinally movable with relation thereto, and relatively engaging means carried by said stem and said valve for rotating the latter upon its seat.

3. In a valve of the character described, the combination of a diaphragm embodying a valve seat, a valve disk for engagement upwardly against said seat, a cup-shaped member upon which said disk is secured to form a buoyant valve, a rotatable stem projecting centrally downwardly through said disk, and relatively engaging projections and recesses carried by said stem and the base of said cup-shaped member whereby to cause several rotations of said disk against said seat before moving therefrom.

4. A blow off cock comprising a casing having an inlet and an outlet and a diaphragm forming a valve seat, a plug extending downwardly upon said diaphragm, having a central bore and an opening through its wall communicating with said bore, and having external means for rotating the same, a buoyant check valve adapted to seat upwardly against said diaphragm, and a valve stem controlling said check having means to grind the same upon its seat.

943,057. STEP-JOINT FOR RAILS. JOHN H. ALLEN, East Orange, N. J., assignor to William R. Davis, trustee, New York, N. Y. Filed Mar. 25, 1907. Serial No. 364,818.

1. A step-joint for railway-rails comprising a pair of splice-bars adapted to be secured to opposite sides of the adjoining ends of rails of different cross-sectional area, each of said splice-bars being formed of a substantially vertical rail-supporting web enlarged or stepped up vertically for substantially half its length to support the head of the smaller rail, and with a downward and outward inclined flange along the lower edge of said vertical web, an inward-extending base-support adapted to extend under one of the rails, said base-support terminating substantially midway between the ends of the bars, and a lower chord projecting downwardly from the outer edge of the inclined flange midway between the ends of the bars.

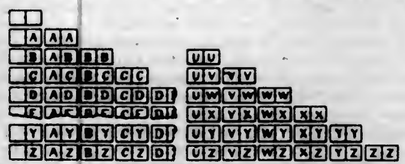


2. A step-joint for railway-rails comprising a pair of splice-bars adapted to be secured to opposite sides of the adjoining ends of rails of different cross-sectional area, each of said splice-bars formed with a substantially vertical rail-supporting web enlarged or stepped up vertically for substantially half the length to support the head of the smaller rail, and along the lower edge of said web with a downward and outward inclined flange adapted to extend over the base of the rails, one of said splice-bars being formed with an inward-extending base-support adapted to lie under the end of one of the rails, said base-support terminating substantially midway the ends of the splice-bar, and a lower chord projecting downwardly from the onter edge of the inclined flange midway between the ends of the bars.

3. A step-joint for railway-rails comprising a pair of splice-bars adapted to be secured to opposite sides of the adjoining ends of rails of different cross-sectional area, each of said splice-bars formed with a substantially vertical rail-supporting web enlarged or stepped up vertically for substantially half the length to support the head of the smaller rail and along the lower edge of said web with a downward and outward inclined flange adapted to extend over the base of the rails, one of said splice-bars being formed with an inward-extending base-support adapted to lie under the end of one of the rails, said base-support terminating substantially midway between the ends of the splice-bars, said base-support being corrugated, and each of said splice bars having a depending lower chord midway between the ends thereof.

4. A step-joint for railway-rails comprising a pair of splice-bars adapted to be secured to opposite sides of the adjoining ends of rails of different cross-sectional area, each of said splice-bars being formed of a substantially vertical rail-supporting web enlarged or stepped up vertically for substantially half its length to support the head of the smaller rail and with a downward and outward inclined flange along the lower edge of said vertical web, a base-support extending inward under the base of the rail below the enlarged part of the vertical web and substantially equal in length to the enlarged part of the web, whereby said base-support extends under and carries the smaller rail and being arranged to bring the upper surface of the said rail flush with the upper surface of the larger rail, and a lower chord depending from each of said splice bars between the ends thereof.

943,058. GAME-PIECE. ERNEST W. ASHENDEN, Minneapolis, Minn. Filed Feb. 15, 1909. Serial No. 477,992.



1. A series of blocks rectangular in form, some of said blocks having duplicate letters thereon, and other of said blocks each having a letter thereon which corresponds to one of the letters of said first-named blocks and matching

therewith when the blocks are placed together, and said second named blocks each also having a letter thereon different from the other letter thereon and adapted when combined with one of the letters of said first-named blocks to spell a word.

2. A series of blocks rectangular in form each having a single letter thereon at one end and a blank space at the other end, and a series of blocks having duplicate letters thereon, and a series of blocks each having a letter thereon which corresponds to one of the letters of said second named blocks and matching therewith when the blocks are placed together, and said third named blocks each also having a letter thereon different from the other letter thereon and adapted when combined with one of the letters of said second named blocks to spell a word.

943,059. AWNING-FIXTURE. JOHN W. BANCROFT, Norwalk, Conn. Filed Apr. 30, 1909. Serial No. 493,081.

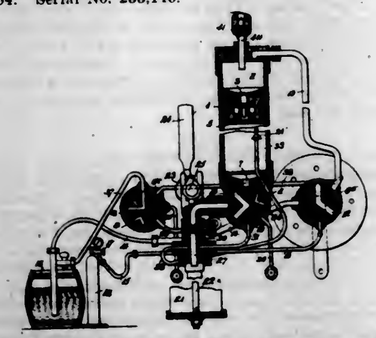


1. In an awning fixture, the combination with a body portion provided with a threaded transverse orifice having a recess in the face thereof, a laterally disposed depending hook, and a threaded bolt screwed into said threaded transverse orifice in said body portion and provided with a flanged head adapted to lap over a portion of said recess, substantially as described.

2. In an awning fixture, the combination with a body portion provided with a threaded transverse orifice adapted to be secured upon a building, and having a horizontal segmental groove in the face thereof, a depending hook carried on said body portion, and a threaded bolt screwed into said threaded transverse orifice in said body portion and provided with a flanged head adapted to lap over a portion of said segmental groove, substantially as described.

3. In an awning fixture, the combination with a body portion adapted to be secured upon a building, and having a horizontal segmental groove in the face thereof to form a seat for an awning head rod, and a thickened portion having a threaded transverse orifice above and adjacent to said groove, a laterally disposed depending hook adapted to support a sheave block and coact with said head rod to lock same thereon, a threaded bolt screwed into said transverse orifice in said thickened portion, and provided with an annular flanged head adapted to secure said head rod in the groove, substantially as described.

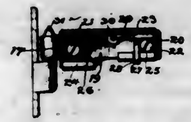
943,060. PROCESS OF CARBONATING LIQUIDS. JEAN BIENZ, Langenthal, Switzerland. Filed Nov. 17, 1904. Serial No. 233,145.



1. The herein-described process of carbonating and bottling liquids, which consists in filling a pressure chamber with liquid from a storage tank and filling a mixing chamber with carbonic acid under pressure, filling a storing vessel with carbonic acid from the mixing chamber whereby the pressure in the mixing chamber becomes reduced and introducing carbonic acid under pressure into the pressure chamber whereby the pressure of the carbonic acid in the pressure chamber causes the liquid to enter the mixing chamber to be saturated with the carbonic acid therein and pass from the mixing chamber into the storing vessel to displace the carbonic acid from the storing vessel into the mixing chamber, then conducting part of the carbonic acid in the pressure chamber to the storage tank to place the liquid therein under pressure, and finally reducing the pressure in the pressure chamber to atmospheric pressure.

2. The herein-described process of carbonating and bottling liquids, which consists in filling a pressure chamber with liquid from a storage tank and filling a mixing chamber with carbonic-acid under pressure, conducting part of the compressed carbonic acid from the mixing chamber into a storing vessel whereby the pressure in the mixing chamber becomes reduced and introducing carbonic acid under pressure into the pressure chamber whereby the pressure of the carbonic acid in the pressure chamber causes the liquid to enter the mixing chamber to be saturated with the carbonic acid therein and pass from the mixing chamber into the storing vessel to displace the carbonic acid from the storing vessel into the mixing chamber, then reducing the pressure in the storage tank and in the storing vessel to atmospheric pressure, then conducting part of the carbonic acid in the pressure chamber into another storing vessel to fill said vessel with carbonic acid, then conducting part of the carbonic acid in the pressure chamber to the storage tank to place the liquid therein under pressure, and finally reducing the pressure in the pressure chamber and in the storing vessel to atmospheric pressure.

943,061. SWINGING WINDOW. CHRISTIAN CASSLEMAN, Chicago, Ill., assignor of one-third to Clara E. Browne, Chicago, Ill. Filed Feb. 23, 1909. Serial No. 479,507.



1. The combination with a hinged window, of a stationary pintle upon the window frame, a horizontally movable socket upon the sash adapted to engage said pintle, a plate carrying the socket, a keeper having its upper and lower edges bent over and confining the socket plate, and a locking projection on the plate engaging the turned over edge of the keeper.

2. The combination with a hinged window, of a stationary pintle upon the window frame, a horizontally movable socket upon the sash adapted to engage said pintle, a plate carrying the socket, a keeper having its upper and lower edges bent over and confining the socket plate with sufficient freedom to permit vertical movement in locking and unlocking, and a locking projection on the plate engaging the turned over edge of the keeper.

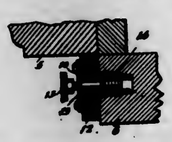
3. The combination with a hinged window, of a stationary pintle upon the window frame, a horizontally movable socket upon the sash adapted to engage said pintle, a plate carrying the socket, a keeper having its upper and lower edges bent over and confining the socket plate, a spring pressing against the edge of the plate, and a locking projection on the plate engaging the turned over edge of the keeper.

4. The combination with a hinged window, of a stationary pintle upon the window frame, a horizontally movable socket upon the sash adapted to engage said pintle, a plate carrying the socket, a keeper having its upper and lower edges bent over and confining the socket plate

with sufficient freedom to permit vertical movement in locking and unlocking, a spring pressing against the edge of the plate, and a locking projection on the plate engaging the turned over edge of the keeper.

5. The combination with a hinged window, of a stationary pintle upon the window frame, a horizontally movable socket upon the sash adapted to engage said pintle, a plate carrying the socket, a keeper having its upper and lower edges bent over and confining the socket plate, and a locking projection on the plate engaging both a notch formed in the turned over edge of the keeper and the end of said edge.

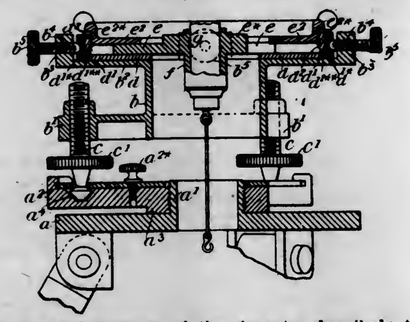
943,062. WINDOW-BEAD FASTENER. CHRISTIAN CASSLEMAN, Chicago, Ill., assignor of one-third to Clara E. Browne, Chicago, Ill. Filed June 28, 1909. Serial No. 504,645.



1. The combination with the removable section of the stop, of a thumb screw for attaching the same to the window frame, and a retaining plate secured to the stop, the screw being threaded through the plate and thereby prevented from dropping out of the removable section when the latter is removed.

2. The combination with the removable section of the stop strip of an attaching screw, a bushing inserted in the window frame and fitting the end of the screw, a retaining plate secured to the removable section through which the attaching screw is threaded.

943,063. THEODOLITE, &c. LEWIS H. COOKE, Wimbledon, England. Filed Mar. 17, 1906. Serial No. 306,671.



1. In an instrument of the character described; the combination with the tripod; of two members slidable relatively to each other and to the tripod; a spindle-socket carried by one of said members; and means for simultaneously clamping the several parts together.

2. In an instrument of the character described, the combination with the tripod having a tabular top provided with a central aperture; of a hollow member extending through said aperture; means connected with said hollow member for clamping it resiliently to said tabular top; and a spindle-socket carried by said hollow member.

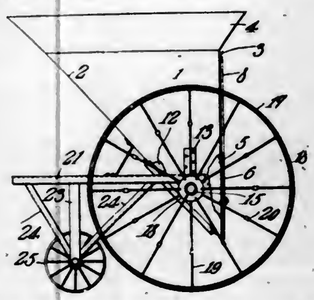
3. In an instrument of the character described the combination of the socket, the slidable member carrying the socket, a second slidable member on which the socket carrying member moves, one of said members being horizontally shiftable to roughly "center" the instrument, and the other member being horizontally shiftable to effect a fine adjustment of the instrument, and means for simultaneously clamping said movable parts.

4. In an instrument of the character described, the combination of the tripod having a tabular top, the spindle and its socket, a hollow bolt attached to the socket of the spindle, a sliding plate loosely mounted on the hollow bolt and bearing against the underside of the tabular top of the tripod, an adjustable nut at the lower end of said bolt, a loose washer upon the bolt, and a spring abutting against the nut and pressing against the washer.

5. In an instrument of the character described, the combination of the tripod having a tabular top, the socket carrying the spindle, the slidable member carrying the socket, a second slidable member on which the socket carrying member moves, one of said members being horizontally shiftable to roughly "center" the instrument and the other member being horizontally shiftable to effect a fine adjustment of the instrument, and means for simultaneously clamping said movable parts; said means consisting of a hollow bolt attached to the socket of the spindle, a sliding plate loosely mounted on the hollow bolt and bearing against the underside of the tabular top of the tripod, an adjustable nut at the lower end of said bolt, a loose washer upon the bolt and a spring abutting against the nut and pressing against the washer.

[Claim 6 not printed in the Gazette.]

943,064. CART. JAMES J. DEVINE, Philadelphia, Pa. Filed May 28, 1908. Serial No. 435,463.

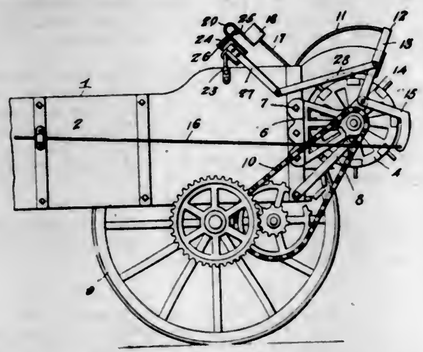


1. A cart having a body portion wide at the upper end with the front and rear faces plane and approaching from the top toward the bottom and there meeting at an acute angle, one of the faces having a discharge opening at its lower end, a door for said opening, a removable section at the lower end of the face opposite the face carrying the door, and a truck for the body having supporting wheels and journals for the latter in the form of stub axles attached directly to the exterior of the body on the door side of the vertical plane of the center of gravity taken parallel with the axis of the supporting wheels.

2. A cart having a body portion wide at the upper end with the front and rear faces plane and approaching from the top toward the bottom and there meeting at an acute angle, and one of the faces having a discharge opening at its lower end, a door for said opening, and a removable section at the lower end of the face opposite the face carrying the door.

943,065. FERTILIZER-DISTRIBUTER. EMIL DIERKS, Bryant, Iowa. Filed Feb. 6, 1909. Serial No. 476,537.

The herein described fertilizer distributer comprising a body having side walls, an endless apron arranged between the walls and forming a bottom for the body, a rotary toothed feed cylinder disposed transversely at the rear end of the body, a transversely curved hood for said cylinder, arms projecting from said hood and pivotally mounted, the arm at one end being angular, an operating rod connected to the last mentioned arm, an inverted U-shaped pivot rod having its horizontal portion extending across the top of the body and its depending ends secured to the side walls thereof, a transverse bar, pivot straps passed around the horizontal portion of said rod and having their ends secured to said bar, a toothed feed regulator, spring devices connecting the latter to said bar, an arm secured to, and projecting from, one end of said bar, and a link connecting the last mentioned arm to said angular arm of the hood.



943,066. ALLOY FOR ELECTRICAL RESISTANCE. WILBUR B. DRIVER, East Orange, N. J. Filed Apr. 6, 1906. Serial No. 310,369.

1. An alloy containing manganese, with sixty per cent. (60%) or more of nickel.

2. An electrical resistance element composed essentially of nickel and manganese.

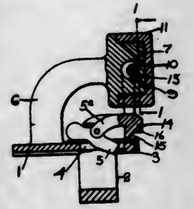
3. An electrical resistance element composed of an alloy containing five per cent. to forty per cent. (5%–40%) of manganese, with fifty per cent. (50%) or more of nickel.

4. An alloy composed essentially of nickel and manganese, having ten per cent. to thirty per cent. (10%–30%) of manganese.

5. An alloy composed essentially of nickel and manganese, having ten per cent. to forty per cent. (10%–40%) of manganese.

[Claims 6 to 44 not printed in the Gazette.]

943,067. CLOTH-CLAMP FOR TEXTILE MACHINERY. THOMAS W. FRANCE, Providence, R. I., assignor to H. W. Butterworth & Sons Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed June 11, 1908. Serial No. 437,889.



1. A cloth clamp for textile machinery comprising a lower fixed jaw, a supporting arm or standard provided with a reduced circular head, an upper jaw, and means rotatably mounted on said head for supporting said upper jaw, the latter being pivotally mounted in its supporting means.

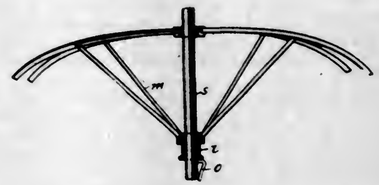
2. A cloth clamp for textile machinery comprising a lower fixed jaw, an upper jaw, a supporting arm, a pivot pin on said arm, a collar engaging said pivot and adapted to rotate thereon, and means for pivotally connecting said upper jaw to said collar.

3. A cloth clamp for textile machinery comprising a lower fixed jaw, an upper jaw, a supporting arm, a pivot pin on said arm, a collar engaging said pivot and adapted to rotate thereon, means for pivotally connecting said upper jaw to said collar, and means for locking said collar to said pivot.

4. A cloth clamp for textile machinery comprising a lower fixed jaw, an upper jaw, a supporting arm, a pivot pin on said arm, a collar engaging said pivot and adapted to rotate thereon, a pin passing through said collar and said pivot on which said upper jaw is adapted to swing, and means for locking said collar to said pivot.

5. A cloth clamp for textile machinery comprising a lower fixed jaw, an upper jaw, a supporting arm, a pivot pin on said arm, a collar engaging said pivot and adapted to rotate thereon, a pin passing through said collar and said pivot on which said upper jaw is adapted to swing, and means whereby said pin is adapted to lock said collar to said pivot.

943,068. UMBRELLA AND THE LIKE. ADOLF FRIEDLAENDER, Frankfort-on-the-Main, Germany. Filed Apr. 6, 1908. Serial No. 425,497.



1. A new article of manufacture comprising in combination an umbrella rib trough shaped in cross section, a part of such trough being doubled upon itself to form a reinforcement and a stretcher pivoted to such doubled over portion the wide portion of the rib extending continuously from the upper end thereof to the point at which the stretcher is attached to the rib.

2. A new article of manufacture comprising in combination an umbrella rib trough shaped in cross section, a part of such trough being doubled upon itself, a bar inserted between the overlapping surfaces to form a reinforcement and a stretcher pivoted to the reinforced portion the wide portion of the rib extending continuously from the upper end thereof to the point at which the stretcher is attached to the rib.

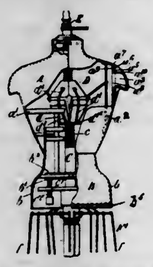
3. A new article of manufacture comprising in combination an umbrella rib trough shaped in cross section, a part of such trough being doubled upon itself, bars inserted between the overlapping surfaces to form a reinforcement and a stretcher pivoted to the reinforced portion the wide portion of the rib extending continuously from the upper end thereof to the point at which the stretcher is attached to the rib.

4. An improved umbrella frame, comprising in combination, a center support, a plurality of ribs pivoted to said support, a reinforcement extending over a part of each rib a runner slidably mounted on the center support and a plurality of stretchers each pivoted at one end to the reinforced part of a rib and pivoted at the other end to the runner the wide portion of the rib extending continuously from the upper end thereof to the point at which the stretcher is attached to the rib.

5. An integral umbrella rib formed of a blank which at the upper portion of the rib is wider than at the lower portion thereof, said blank being bent to trough like shape to thereby form a rib having deeper walls along the upper portion of its length than at the lower portion of its length, and a stretcher pivoted between the deepest portions of said walls the wide portion of the rib extending continuously from the upper end thereof to the point at which the stretcher is attached to the rib.

[Claims 6 to 10 not printed in the Gazette.]

943,069. LAY FIGURE AND SKIRT-STAND. JULIUS F. GEMS, London, England. Original application filed Sept. 18, 1903, Serial No. 173,706. Divided and this application filed Oct. 18, 1904. Serial No. 228,996.



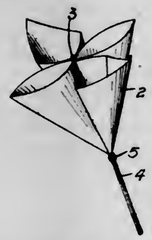
1. In a garment form, the combination with the abdominal sections, radial U-shaped slides connected to the sections, a support for the slides, a platform, and screw spindles passing through the platform and engaging the support for the slides to adjust the sections vertically.

2. The combination with the sections, of a support, slides rigidly secured to the sections and slidably engaging the support, a platform, and screws passing through the platform and engaging the support to adjust the sections vertically.

3. In a garment form the combination of a body, movable arm dummies thereon, a pivot for each arm dummy to enable it to be turned in one plane, and another pivot therefor for enabling said arm dummy, to be turned in a plane at an angle to the aforesaid plane all of said pivots being arranged in the same plane.

4. In a lay-figure, the combination with a body, of a universal coupling for connecting an arm to said body, said coupling consisting of two rings, one of said rings being trunnioned within the other and the other being trunnioned between parts rigid with the body of said lay-figure in such manner as to maintain all of the trunnions within the same plane.

943,070. HOLDER FOR ICE-CREAM CONES. WILLIAM H. HAIGHT, Minneapolis, Minn. Filed Mar. 8, 1909. Serial No. 482,177.



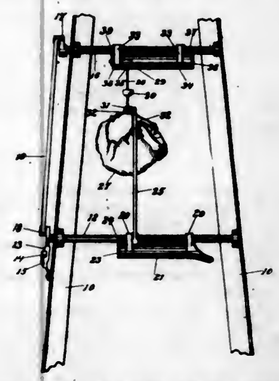
1. A device of the class described, comprising a series of pockets in the form of inverted cones and composed of flexible material capable of folding flatwise, a shank attached to the inner wall of each of said pockets and extending from the top to the bottom thereof and having a handle portion projecting below said pockets, and said pockets forming independent supports and adapted to receive articles such as ice cream cones, for the purpose specified.

2. A device of the class described, comprising a series of pockets composed of flexible material, a supporting shank extending lengthwise of said pockets and between the same and forming a support whereto the inner walls of said pockets are secured, said pockets being capable of folding independently of one another and forming independent receptacles, substantially as described.

3. A device of the class described, comprising a shank composed of wire, and a series of pockets carried by the upper portion of said shank, said shank extending to the top of said pockets, and said pockets having independent walls radiating outwardly from said shank and supported thereby, and the lower portion of said shank consisting of a series of wires adapted to be spread apart and support the shank and pockets in an upright position, substantially as described.

4. A device of the class described, comprising a shank, pockets composed of flexible material attached to said shank, the walls of said pockets radiating from said shank and supported thereby from the top to the bottom of the pockets, said pockets being independent of one another and forming receptacles for articles placed therein, substantially as described.

943,071. MAIL-BAG CATCHING AND DELIVERING APPARATUS. HANS J. HANSEN, Racine, Wis. Filed Aug. 20, 1908. Serial No. 449,566.



1. The combination of a frame, a shaft mounted in said frame and provided with a portion projecting therefrom at an angle thereto, an open ended tube carried at the outer end of said projecting portion, the said tube provided throughout its length and on its under side with a longitudinal slot.

2. The combination of a frame, a shaft mounted in said frame and provided with a portion projecting therefrom at an angle thereto, an open ended tube carried at the outer end of said projecting portion, the said tube provided throughout its length, and on its under side with a longitudinal slot, and a bag-holding arm extending from the shaft and provided with means for engaging the bag-suspending device.

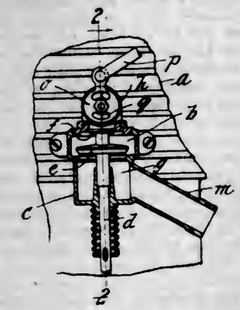
3. The combination of a frame, a shaft mounted in said frame and provided with a portion projecting therefrom at an angle thereto, an open ended tube carried at the outer end of said projecting portion, the said tube provided throughout its length and on its under side with a longitudinal slot, and one of said open ends being in the form of a flaring mouth.

4. The combination of a frame, a shaft mounted in said frame, said shaft provided with a portion projecting therefrom at an angle thereto, an open ended tube carried at the outer end of the projecting portion, the said tube provided throughout its length and on its under side with a longitudinal slot, a cap applied to one end of the tube, and means for moving said cap so as to adjust the same to open or close the end of the tube.

5. The combination of a frame, a shaft mounted in said frame, said shaft provided with a portion projecting therefrom at an angle thereto, an open ended tube carried at the outer end of the projecting portion, the said tube provided throughout its length, and on its under side, with a longitudinal slot, caps applied to the opposite open ends of the tube, and means for moving said caps so as to adjust the same to open or close the ends of the tube.

[Claims 6 to 20 not printed in the Gazette.]

943,072. INTERNAL-COMBUSTION ENGINE. CARL O. HEDSTROM, Springfield, Mass. Filed July 20, 1908. Serial No. 444,355.



1. In an internal combustion engine, a cylinder, a suitable air-throttling mechanism therefor for controlling the flow of air to the cylinder and communicating with the atmosphere, and a piston for the cylinder, there being a port through the wall of the cylinder near the lower end thereof past which the piston moves, a valve-casing in communication with the cylinder through said port, means for admitting atmospheric air into said casing, and an auxiliary air intake valve in said casing, together with means for actuating said valve, said air-throttling mechanism being adapted to control the flow of air past the auxiliary air-intake valve, whereby at one point in the cycle of the engine communication may be established with the cylinder through the port, whereby any partial vacuum created by the piston may be destroyed.

2. In an internal combustion engine, a cylinder, and a piston for the cylinder, there being a port through the wall of the cylinder near the lower end thereof past which the piston moves, a valve-casing having a chamber therein in communication with said port, an air in-take valve in said chamber, an exhaust chamber in communication with said port, an exhaust valve in the exhaust chamber, means to open and close said air in-take valve at proper times, an air-throttling admission valve for controlling the flow of air to the air-intake valve and communicating with the atmosphere, said intake valve being adapted to be closed when the exhaust valve is opened, whereby the exhaust gases are prevented from escaping through the air in-take valve.

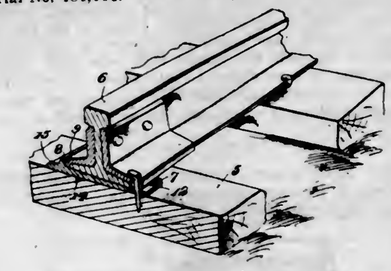
3. In an internal combustion engine, a cylinder, a piston therein, a port in the cylinder wall opened and closed by the movements of the piston, a throttling valve for admitting air at atmospheric pressure into the cylinder in any desired quantities or volume, and means for operating said valve, whereby should a partial vacuum occur in the cylinder behind the piston, the partial vacuum may be overcome and at the same time the explosive mixture varied by the admission of air to the cylinder, as described.

4. In an internal combustion engine, a cylinder, and a piston for the cylinder, there being a port through the wall of the cylinder near the lower end thereof past which the piston moves, and an air in-take valve to open and close said port, and an air-throttling admission valve for controlling the flow of air through the air in-take valve.

5. In an internal combustion engine, a cylinder, a suitable throttling mechanism therefor, and a piston for the cylinder, there being a port through the wall of the cylinder near the lower end thereof past which the piston moves, a valve-casing in communication with the cylinder through said port, means for admitting atmospheric air into said casing, and an auxiliary air in-take valve in said casing, together with means for actuating said valve whereby at one point in the cycle of the engine communication may be established with the cylinder through the port, whereby any partial vacuum created by the piston may be destroyed, and controlling means for the admission of air into said casing.

[Claims 6 to 8 not printed in the Gazette.]

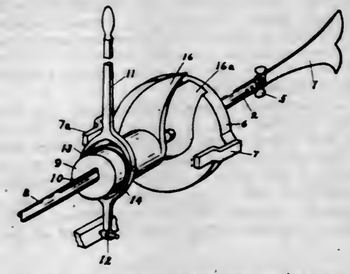
943,073. RAILWAY-TIE PLATE. THOMAS A. J. HENDRICKS, Board Tree, W. Va. Filed Mar. 3, 1909. Serial No. 481,016.



1. As a new article of manufacture, a railway tie plate including a wedge-shaped body portion having its upper surface formed with a transverse reinforcing rib defining a stop shoulder and its lower face provided with depending longitudinally corrugated anchoring ribs, there being a substantially V-shaped transverse anchoring rib depending from the bottom of the plate between the longitudinally corrugated ribs.

2. As a new article of manufacture, a railway tie plate including a wedge-shaped body portion having its upper surface formed with a transverse reinforcing rib having spaced openings formed therein and defining a shoulder, the lower surface of the plate being provided with spaced longitudinally corrugated anchoring ribs, and a transverse substantially V-shaped anchoring rib disposed between the longitudinal ribs, there being a single opening formed in the reduced end of the body portion between the spaced openings in the reinforcing ribs.

943,074. VIBRATING PROPELLER. ELLIETT HILDEBRANDT, Spokane, Wash., assignor of one-half to William W. Marsh, Spokane, Wash. Filed Mar. 29, 1909. Serial No. 486,606.



1. A vibrating propeller actuating mechanism, consisting of an auxiliary vibratory shaft, oppositely disposed lugs on the forward end of the shaft, a main shaft, and a cam on the main shaft adapted to engage the lugs on the auxiliary shaft.

2. A vibrating propeller actuating mechanism, consisting of an auxiliary vibratory shaft, a disk attached to the shaft, lugs oppositely disposed on the circumference of the disk, a main shaft, and a cam carried by the main shaft adapted to engage the lugs on the disk.

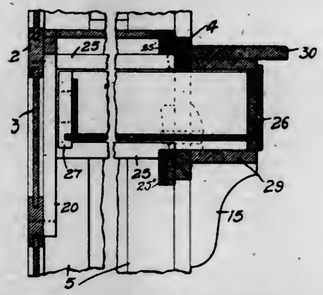
3. A vibrating propeller actuating mechanism, consisting of an auxiliary vibratory shaft, oppositely disposed lugs on the forward end of the shaft, a main shaft, an adjustable sleeve on the main shaft, and a cam on the sleeve adapted to engage the lugs on the auxiliary shaft.

4. A vibrating propeller actuating mechanism, consisting of an auxiliary shaft fulcrumed between its ends, a disk on the forward end of the shaft, lugs oppositely disposed on the circumference of the disk, the outer ends of the lugs being bent toward the center of the disk, a

main shaft, an adjustable sleeve on the main shaft actuated by a lever, and a cam on the sleeve adapted to engage the lugs and a depression in the face of the disk.

5. A vibrating propeller actuating mechanism, consisting of an auxiliary vibratory shaft, a disk on the forward end of the shaft, lugs oppositely disposed on the circumference of the disk and having their ends bent toward and parallel to each other, a main shaft, an adjustable sleeve on the main shaft, and a crescent shaped cam on the sleeve adapted to engage the lugs on the disk.

943,075. KNOCKDOWN CUPBOARD AND WARDROBE. JOSEPH H. HISCOCK, Minneapolis, Minn. Filed May 21, 1908. Serial No. 434,013.

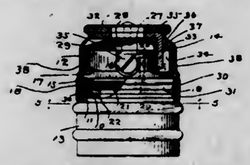


1. In a knock-down cupboard or wardrobe, the combination, with the rear wall, of a plate pivoted at its upper end thereon, forwardly projecting horizontal drawer guides carried by said plate, means supporting the forward ends of said guides, a drawer arranged to slide between said guides and having means engaging the same, and means for securing the lower end of said plate when said drawer is alined with the front of the cupboard.

2. The combination, with a wall, of a vertically arranged plate pivoted at one end thereon and free to move laterally at its opposite end, drawer guides carried by said plate, means supporting the forward ends of said guides, a drawer arranged to slide between said guides and having means engaging the same, and means for securing the free end of said plate when the desired alinement of the drawer has been obtained.

3. In a knock-down cupboard or wardrobe, the combination, with the rear wall, of a plate pivoted at one end thereon, bars fitting within sockets in said plate and projecting forwardly therefrom, means supporting the forward ends of said bars, a drawer arranged to slide between said bars and having means engaging the same, and means for securing the free end of said plate when said drawer has been alined with the front of the cupboard.

943,076. KEYLESS SOCKET. HARVEY HUBBELL, Bridgeport, Conn. Filed Jan. 2, 1909. Serial No. 470,294.



1. A socket comprising two metal members having a threaded connection, a base having an annular shoulder and having a screw shell secured to it, means whereby said annular shoulder is clamped when said members are screwed together, and an insulating lining interposed between said screw shell and one of said metal clamping members.

2. A socket comprising a socket shell and a cap secured together by male and female threads, a base having an annular shoulder clamped between portions of said shell and cap and having a screw shell secured to it and projecting into the socket shell, an insulating lining between said screw shell and socket shell, and means for locking the base and cap against independent rotation.

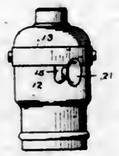
3. A socket comprising a socket shell and a cap secured together by male and female threads, a base having an annular shoulder which is engaged by the end of the male thread, a bushing secured in the cap and a lug extending from the bushing and engaging the base to retain said bushing and base against independent rotation.

4. A socket comprising a socket shell having a male thread, a cap having a female thread, a base having upper and lower portions and between said portions an annular shoulder which is engaged by the end of the male thread, a bushing in the cap having a lug engaging the base, an insulating disk between the bushing and the base and an insulating ring inclosing the upper portion of the base and lying between the insulating disk and the annular shoulder.

5. A socket comprising a socket shell and a cap secured together by male and female threads, a base having upper and lower portions and between said portions an annular shoulder, the end of the male thread inclosing the lower portion and engaging the shoulder, means for retaining the cap and base against independent rotation and an insulating ring inclosing the upper portion of the base and engaging the shoulder.

[Claims 6 and 7 not printed in the Gazette.]

943,077. DETACHABLE CHAIN-GUIDE FOR PULL-SOCKETS. HARVEY HUBBELL, Bridgeport, Conn. Filed July 23, 1909. Serial No. 509,220.



1. A detachable chain guide comprising a bell, a bar by which it is carried and which is provided with lugs and a bracket having attaching plates provided with sockets adapted to receive the lugs.

2. A detachable chain guide comprising a bell, a bar by which it is carried and which is provided with lugs and a bracket having attaching plates provided with sockets adapted to receive the lugs and recesses adapted to receive the tips of the lugs.

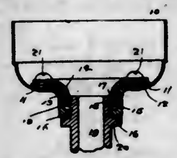
3. A detachable chain guide comprising a bell, a bar by which it is carried and which is provided with lugs and a bracket having attaching plates provided with sockets adapted to receive the lugs, the attaching plates being provided with bosses and the ends of the attaching plates forming spring arms which overhang the bosses to retain the guide in place.

4. The combination with insulating blocks and a bracket attached thereto and provided with sockets, of a bell, a bar by which it is carried and lugs upon the bar which are adapted to engage the sockets to retain the bell in place.

5. The combination with insulating blocks and a bracket comprising a bar and plates attached to the blocks and provided with sockets and spring arms, of a bell, a bar by which it is carried, and lugs upon the bar provided with bosses which are engaged by the spring arms to retain the bell in place.

[Claim 6 not printed in the Gazette.]

943,078. MEANS FOR LOCKING ELECTRIC SOCKETS TO FIXTURES. HARVEY HUBBELL, Bridgeport, Conn. Filed Sept. 4, 1909. Serial No. 516,209.

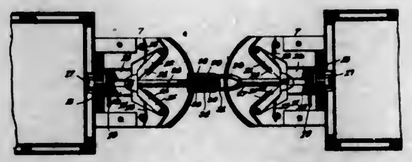


1. Means for locking a socket to a fixture, comprising a cap having a flange, bushing members lying on opposite sides of said flange and having female threaded flanges, a male threaded hub engaging the flanges of the bushing and means for drawing the members of the bushing toward each other, whereby the flange of the cap is clamped between the bushing members and the threaded flanges of said members are forced against the threads of the hub thereby locking the cap to the bushing and the bushing to the hub.

2. Means for locking a socket to a fixture, comprising a cap having a central depression and a circular flange, an outer bushing member lying in said depression and engaged by the flange, an inner bushing member engaging the opposite side of the flange, both members of the bushing having female threaded flanges, a male threaded hub engaging said flanges and means for drawing the bushing members toward each other.

3. The combination with a cap having a flange, of bushing members lying on opposite sides of said flange and themselves provided with female threaded flanges, a fixture hub having a male thread engaging said flanges and a screw passing through the bushing members and acting to draw them together.

943,079. CAR-COUPLING. JAMES E. HUDLER, Crumpler, N. C. Filed May 22, 1909. Serial No. 497,821.



1. In a car coupler, the combination with coacting coupler heads, of link head holding means thereon, a link comprising connected relatively rotatable heads that move out of interlocking relation with the holding-means on their rotation, rotatable devices mounted on the coupler heads and having intersecting angularly disposed seats for the reception of the link-heads, and means for maintaining each head against rotation in either of two positions and with either seat thereof in a position to receive the head of the link.

2. In a car coupler, the combination with coacting coupler heads, of link head-holding jaws pivotally mounted thereon and having link-receiving spaces between them, a link comprising connected relatively rotatable heads that move out of interlocking relation with the jaws on their rotation, rotatable devices mounted on the coupler heads and having intersecting angularly disposed seats for the reception of the link heads, said seats alternately alining with the link-receiving spaces between the jaws, and means for locking each device with either seat so alined.

3. In a car coupler, the combination with a coupler head, of jaws pivotally mounted thereon and movable toward each other, means for limiting the movement of the jaws to afford a space between them, a rotatable device arranged behind the jaws and having angularly disposed seats, one of which is arranged in angular relation to the space between the jaws, an arm fixed to the device, latches for engaging the arm to hold the device in different positions, and a link having an arrow head that moves inwardly between and engages behind the jaws, said head engaging in one of the seats of the device and being rotated thereby to a position to pass outwardly between the jaws.

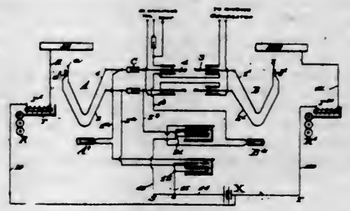
943,080. PUMP-ROD COUPLING. CLAYTON L. KENYON, Tama, Iowa. Filed Aug. 19, 1908, Serial No. 449,277. Renewed July 21, 1909. Serial No. 508,740..



1. A pump rod coupling, comprising two body portions detachably connected with each other, each body portion having a slot formed in each side, and metal straps for each side, each strap having an end bent at right-angles and inserted in said slot, and means for securing said straps to the body portion.

2. An improved pump rod coupling, comprising two body portions made of material that will bend without breaking, one of said body portions being provided with a screw threaded socket, and the other with a screw threaded extension designed to enter the socket, each body portion having a slot in each side, and a lug adjacent to the slot, each also having a rounded lug projecting outwardly from each side, two metal straps for each body portion, each strap having its end extended at right-angles and inserted in a slot, the adjacent lug being bent over the strap, and each strap also having an opening to receive the rounded lug, said lug having its end upset to form a rivet, said body portion and straps being shaped to receive pump rods, and bolts passed through said straps and through the pump rods for connecting them.

943,081. TELEPHONE-CALL-REGISTERING SYSTEM. WILLARD J. KIBBE, Canandaigua, N. Y. Filed Apr. 22, 1908. Serial No. 428,626.



1. In a mechanism for registering the total number of calls responded to on a telephone switch board, the combination with the answering and calling switch board cords having the conductors therein, of an electromagnetically operated call registering device common to said cords, a normally open circuit for said device one side of which comprises one of each of said cord conductors and their exterior terminals and a contact member forming the terminal of the other side of the circuit which is adapted to be engaged by said exterior terminals of the cord conductors.

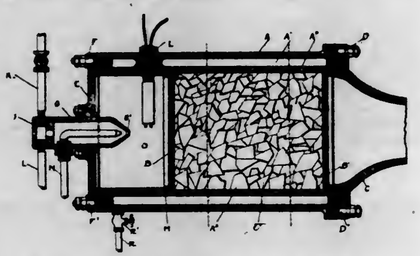
2. In a mechanism for registering the number of calls responded to on a telephone switch board, the combination with the answering and calling switch board cords having terminating plugs each provided with separate contact surfaces and with conductors connected to said surfaces, of a single electromagnetically operated call registering device common to all of said cords having a normally open circuit one side of which terminates in a stationary con-

tact member, the other side thereof comprising one conductor of each of the cord conductors and a source of current supply located between the two sides of the circuit.

3. The combination with a telephone switch board, comprising subscribers' line jacks and a plurality of answering and calling cords having conductors therein, of an electromagnetically operated register for recording any calls responded to which originate on any or all of the subscribers' lines, a normally open circuit for said register one side of which comprises one of the conductors in each of the cords and its exterior terminal and a single contact member forming the other terminal of the other side of the circuit which is arranged separate from the line jacks and adapted to be engaged by the terminals of said cord conductors.

4. The combination with a telephone switchboard, answering and calling cords having the plugs comprising the tip and sleeve contacts, the conductors connecting them and the condensers interposed in the conductors, of two separate registering devices, electromagnets for operating them and two stationary contact members, a source of current, conductors connecting one pole thereof with the electromagnets and terminating in the contact members and other conductors leading from the other pole thereof, to the inductively connected sections of the tip connecting conductor.

943,082. COMBUSTION-CHAMBER FOR GAS-ENGINES. OTTO KRAUS, New York, N. Y., assignor to Kraus Engine Company, New York, N. Y., a Corporation. Filed Dec. 27, 1907. Serial No. 408,280.

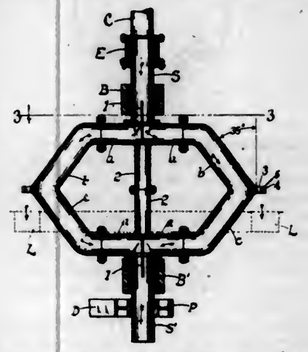


A combustion chamber comprising an ignition chamber; a second chamber to hold comminuted refractory material having perforated retaining plates interposed across the path of the combusted material; a water jacket surrounding said second chamber; a passage between said water jacket and said second chamber, said passage located between the said retaining plates; suitable means to provide a continuous flow of water to said jacket; suitable means to provide a flow of fuel to said ignition chamber; and suitable conductors to convey the heated gas and vapors away.

943,083. CENTRIFUGAL SLIME-SEPARATOR. OSCAR M. KUCHS, Anaconda, Mont., assignor of one-half to Frederick Laist, Anaconda, Mont. Filed June 30, 1909. Serial No. 505,207.

1. In a centrifugal separator, a conduit provided with branches disposed at an angle to one another and rotatable about a fixed axis opposite said angle, means for feeding the pulp to said conduit and subsequently discharging the tailings therefrom at points along said axis, means for discharging the concentrates from the conduit at the angle formed between the branches in a direction opposed to the direction of rotation of the conduit, and means for conforming the velocity of such discharge substantially to the peripheral speed at the point of discharge.

2. In a centrifugal separator, a conduit provided with branches disposed at an angle to one another and rotatable about a fixed axis opposite said angle, means for feeding the pulp to said conduit and subsequently discharging the tailings therefrom at points along said axis, means for discharging the concentrates from the conduit at the angle formed between the branches, in a direction opposed and tangential to, the direction of rotation of the conduit, and means for conforming the velocity of such discharge substantially to the peripheral speed at the point of discharge.



3. In a centrifugal separator, a hollow shaft having a feed and a discharge end, a conduit rotatable about the axis of the shaft and having outflowing and return branches disposed at an angle to one another and in free communication with the interior of the shaft, the outer or depositing surface of the outflowing branch being disposed at an angle not less than the angle of repose of the separated material lodging against said surface, means for discharging said separated material from the outer end of said outflowing branch in a direction opposed and tangential to the direction of rotation of the conduit, and means for conforming the velocity of such discharge substantially to the peripheral speed at the point of said discharge.

4. In a centrifugal separator, a rotatable hollow shaft having a feed and discharge end, a conduit provided with outflowing and return branches coupled to the shaft between the feed and discharge ends aforesaid, said branches making an angle with one another and rotatable with the shaft, means for discharging the concentrates at the angle between the branches in a direction opposed to that of the rotation of the shaft and conduit, and means for conforming the velocity of such discharge substantially to the peripheral speed at the point of discharge.

5. A centrifugal concentrator rotatable about a fixed axis, and provided with conduits having their opposite ends opening along said axis for respectively receiving the pulp and discharging the tailings therefrom, the conduit having an intermediate portion spaced a suitable distance from said axis and discharging the concentrates at such intermediate portion in a direction opposed to the direction of rotation of the concentrator and means for conforming the velocity of such discharge substantially to the peripheral speed at the point of discharge.

[Claims 6 to 9 not printed in the Gazette.]

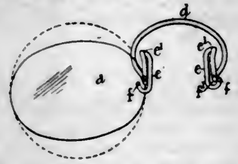
943,084. CLAMP FOR GARMENT-SUPPORTERS. BRUNO LAUCKNER, Olbernhau, Germany, assignor to G. F. Newhard, St. Louis, Mo. Filed Feb. 6, 1909. Serial No. 476,540.



1. A clamp of the character described comprising rectangular sides and ends, the ends being formed into tubes to encircle a bar, and the sides being outwardly curved to form a cylindrical opening to receive the end of a spiral spring, one of the sides being provided with a tongue to pass between the coils of said spring, and with a second tongue to close the end of the cylindrical opening, substantially as described.

2. A clamp of the character described comprising rectangular sides and ends, the ends being formed into tubes to encircle a bar, and the sides being outwardly curved to form a cylindrical opening to receive the end of a spiral spring, one of the sides being provided with a tongue to pass between the coils of said spring, a second tongue for closing the end of the cylindrical opening, and a plurality of tangs adapted to be bent around the other side to secure the parts in position, substantially as described.

943,085. SPECTACLES, EYEGLASSES, AND THE LIKE. SYDNEY S. LAWRENCE, London, England. Filed May 1, 1909. Serial No. 493,429.



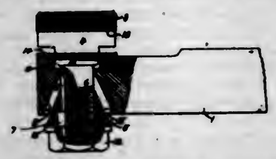
1. In means for attaching a bridge, temple and other fittings to a lens, the combination with a lens containing a hole, of two parts connected together by a spring, one part passing through said hole and the other gripping the edge of the lens, substantially as set forth.

2. In means for attaching a bridge, temple and other fittings to a lens, the combination with a lens containing a hole, of two parts connected together by a spring, one part passing through said hole and the other having a groove gripping the edge of the lens, substantially as set forth.

3. In means for attaching a bridge, temple and other fittings to a lens, the combination with a lens containing a hole, of two parts connected together by a spring, one part passing through said hole having a screw thread thereon, a nut on said screw thread, and the other part gripping the edge of the lens, substantially as set forth.

4. In means for attaching a bridge, temple and other fittings to a lens, the combination with a lens containing a hole, of two parts connected together by a spring, one part passing through said hole having a screw thread thereon, a nut on said screw thread, and the other part having a groove gripping the edge of the lens, substantially as set forth.

943,086. PLANER-TOOL. AUGUST F. LIDEN, Chicago, Ill. Filed Feb. 13, 1909. Serial No. 477,711.



1. A tool of the character described comprising a shank member, a bolt extending through the shank member, a cutting bit extending through the bolt, a tapered collar slidably placed on the said bolt and carried within a tapered recess in the shank member, and a nut on the said bolt engaging the said collar and forcing same into the said tapered recess to rigidly clamp the cutting bit against the shank member, for purposes substantially as described.

2. A tool of the character described comprising a shank member, a clamping member, a cutting bit carried by the said clamping member, a tapered collar slidably placed on the said clamping member, the said collar being carried within a tapered recess in the shank member, and means for drawing the said collar into the said tapered recess whereby the cutting bit is rigidly clamped in place by the said clamping member and the said shank member.

3. A tool of the character described comprising a shank member, a clamping bolt extending through the shank member, a cutting bit carried by the clamping bolt, a tapered collar on the clamping bolt, the said collar being carried within a tapered recess in the shank member, the said bolt having a key-way therein, a key carried by the said collar and fitting in the said key-way, and a nut on the bolt for drawing the said collar into the said tapered recess, for purposes substantially as described.

4. A tool of the character described having a shank member, a clamping bolt extending through the shank member, a cutting bit extending through the clamping bolt and bearing against a smooth surface on the shank member, a tapered collar slidably carried by the said bolt within a tapered recess in the shank member, and means for drawing the said collar into the said tapered recess whereby the cutting bit is rigidly clamped by the clamping bolt against the said smooth surface of the shank member at any desired angle.

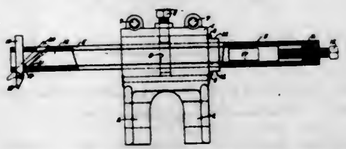
5. A tool of the character described comprising a shank member having a recess therein, a clamping bolt extending through the shank member, a cutting bit carried by the said bolt, a collar movably keyed on the said bolt, and a nut on the said bolt for forcing the said collar into the said recess, for purposes substantially as described.

943,087. TOOL-HOLDER. AUGUST F. LIDEN, Chicago, Ill. Filed Feb. 13, 1909. Serial No. 477,712.



A tool of the character described comprising a holder, a cutting blade carried by the holder, a clamping bar engaging the cutting blade throughout the length of the bar and having a flat beveled surface throughout its length engaging a flat beveled surface on the holder, a bolt carrying the said clamping bar and extending through a hole in the said holder, and a nut on the said bolt adapted to be tightened up thereon to draw the said beveled surfaces together for purposes substantially as described.

943,088. BORING-BAR. AUGUST F. LIDEN, Chicago, Ill. Filed Feb. 13, 1909. Serial No. 477,713.



1. A device of the character described comprising a carriage having a hub thereon, a bushing carried within the said hub, a boring bar extending through the said bushing, the latter having a transverse eccentric channel therein, and a set-screw carried by the said hub and cooperating with the said channel whereby any turning of the said bushing within the hub during the operation of the device tends to tighten the said set-screw against the said channel portion for purposes substantially as described.

2. A device of the character described comprising a carriage having a hub thereon, a bushing carried within the said hub, a boring bar extending through the said bushing eccentrically whereby the position of the said bar relatively to the carriage may be adjusted as desired, the said bushing having a transverse eccentric channel therein, and a set-screw carried by the said hub and cooperat-

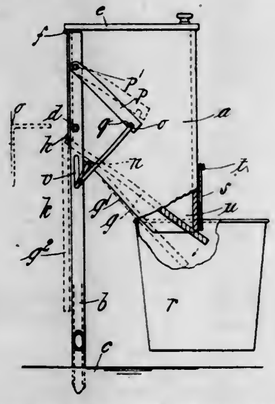
ing with the said channel whereby any turning of the said bushing within the hub during the operation of the device tends to tighten the said set-screw against the said channel portion for purposes substantially as described.

3. An adjustable support comprising a hub, a bushing carried within the hub, a transverse eccentric channel in the bushing, and a member carried by the hub and coöperating with the said channel whereby any turning of the said bushing within the hub tends to tighten the said member against the said channel portion for purposes substantially as described.

4. A boring bar comprising a tube having a plurality of holes through the wall thereof near one end thereof to accommodate a bit in a plurality of angular positions relatively to the tube, a bit adapted to be inserted through the said holes in each of the said positions, one of the said holes being common to each of the said positions, a rod carried within the said tube and having a nose adapted to bear against the said bit to clamp the latter in place in each of the said positions, and means for tightening the nose of the said rod against the said bit in each of its said positions for securely clamping the bit in place.

5. A boring bar comprising a tube having a plurality of holes through the wall thereof near one end thereof to accommodate a bit in either a square or an oblique position relatively to the tube, a bit adapted to be inserted through the said holes in each of the said positions, one of the said holes being common to both of the said positions, a rod carried within the said tube and having a nose adapted to bear against the said bit to clamp the latter in place in each of the said positions, and means for tightening the nose of the said rod against the said bit in each of its said positions for securely clamping the bit in place.

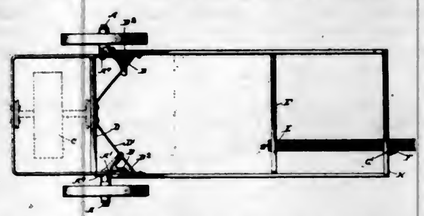
943,089. GARBAGE OR REFUSE RECEPTACLE. ALBERT F. LYMAN, Springfield, Mass. Filed June 9, 1909. Serial No. 501,144.



1. In a receptacle of the class described having a bottom portion inclined to the vertical axis of the receptacle, a closure for said bottom portion pivotally supported at the edge of the receptacle, supports for the receptacle, and a crank element provided with an off-set portion and pivotally mounted on the support, the offset portion of the crank engaging the under side of said closure, and a latch secured to a support to prevent the rotation of the crank element when the closure is swung against the bottom of the receptacle.

2. In a receptacle of the class described, the lower end of which is inclined relative to the vertical axis of the receptacle, a hinged bottom therefor adapted to swing against and away from said lower end, suitable supports to hold the receptacle above the ground, there being elongated slots oppositely located in two of said supports, and a crank provided with an off-set portion the axial portions of which are removably supported in said slots, the offset portion of said crank bearing against said hinged bottom to retain it in a closed position, or to permit it to swing downwardly.

943,090. SUPPORTING AND MOVING DEVICE FOR HARVESTERS, &c. JAMES MACPHAIL, Blue Island, Ill., assignor, by mesne assignments, to International Harvester Company, Chicago, Ill., a Corporation of New Jersey. Filed Dec. 31, 1900. Serial No. 41,598.



1. The combination with the frame of a machine of two independent wheel supports removably connected to the frame, detachable wheels connected with said wheel supports and upon which the machine may be supported, said supports provided with engaging parts which engage the sides of the frame of the machine, diagonal cross braces associated with the frame of the machine, and projecting parts on said supports engaging said diagonal cross braces.

2. A supporting and moving device for machines, comprising two independent wheel supports each wheel support consisting of a central piece having two projecting parts on opposite sides and at an angle thereto, one for receiving the wheel and the other having a part which projects below and another part which projects above a portion of the frame of the machine and between which said frame is received whereby said supports may be detachably attached directly to the main frame of the machine on opposite sides thereof.

3. A supporting and moving device for machines comprising a frame two independent wheel supports, means for detachably attaching said wheel supports directly to the sides of the frame of said machine, diagonal cross braces on said frame, a projecting piece on each of the wheel supports adapted when the wheel supports are in position to engage said diagonal braces.

4. A supporting and moving device for machines, comprising two independent wheel supports adapted to be detachably attached to the frame of said machine, each wheel support provided with three separated engaging parts one of which is intermediate the other two and which engage one of the side pieces of the frame, one of said engaging parts being adjustable.

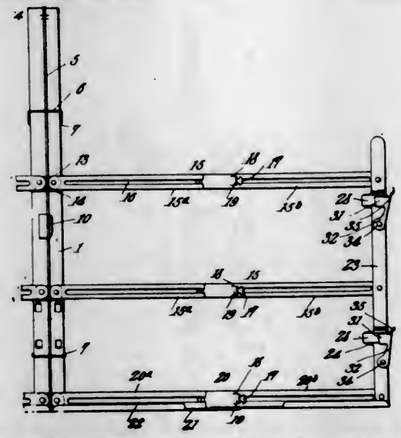
5. A supporting and moving device for machines, comprising two independent wheel supports adapted to be detachably attached to the frame of said machine, each wheel suport provided with three separated engaging parts one of which is intermediate the others and which engage one of the side pieces of the frame, one of said engaging parts being adjustable, a diagonal or inclined brace on the frame and a projecting piece on each wheel support which engages said diagonal or inclined brace.

[Claims 6 to 12 not printed in the Gazette.]

943,091. MUSIC-RACK. ROBERT W. MILLS, Chicago, Ill. Filed Mar. 8, 1909. Serial No. 482,028.

1. In a music rack the combination with main strips, of rack members connected thereto and each consisting of longitudinally slotted strips, each strip having a head at one end and slidably mounted in the slot of the other strip, each slot having an enlarged end portion for the reception of the head, there being a tongue integral with the strip for normally closing the enlarged portion of the slot.

2. In a music rack the combination with central and end main strips and collapsible pivoted connections therebetween; of a longitudinally extending retaining device carried by the central strip, and a clip pivotally mounted upon said central strip and shiftable into contact with the retaining device, said clip having means integral therewith and coöperating with the main strips to limit the movement of the clip.



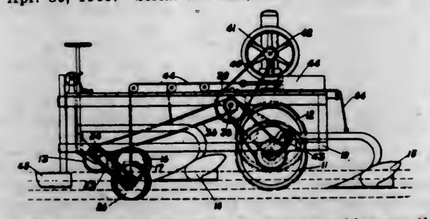
3. In a music rack the combination with central and end main strips and pivoted extensible connections therebetween, of a longitudinally extending yieldable retaining member carried by the central strips, a bail-like clip straddling and pivotally engaging the central strips and movable against the retaining device, and means integral with said clip and coöperating with the main strip for limiting the swinging movement of the clip with relation to the main strip.

4. In a music rack the combination with central and end main strips and connections there-between, of a clamping plate pivotally mounted upon the end strip and having an outstanding portion, a lever pivotally mounted upon the end strip, and a U-shaped clip embracing said strip and plate and having an inwardly directed portion in the path of said projection and coöperating therewith to transmit motion to the clamping plate.

5. In a music rack the combination with central and end strips and extensible pivoted connections there-between; of a clamping plate pivotally mounted upon the end strip and having an outstanding projection, a lever pivotally mounted upon the end strip, and a U-shaped clip carried by the lever and having inturned terminal portions, said portions coöperating with the projecting device to swing the clamping plate upon its lever, the pivot end of said plate projecting into the path of the other end portion of the clip and constituting a stop therefor.

[Claims 6 and 7 not printed in the Gazette.]

943,092. PLOW. HENRY MOORE, Indianapolis, Ind. Filed Apr. 30, 1909. Serial No. 493,153.



1. The combination, with means for breaking up the surface of the ground, of a plow transversely displacing said broken-up surface stratum, means for breaking up the sub-soil in the bottom of a preceding plow furrow preceding the delivery thereupon of the broken-up surface stratum, and means for compacting the surface stratum before turning, and means for compacting the two strata after the surface stratum has been turned.

2. The combination, with means for breaking up the surface of the ground, of a plow transversely displacing and overturning said broken-up surface stratum, means for breaking up the sub-soil in the bottom of a preceding plow furrow preceding the delivery thereupon of the broken-up and overturned surface stratum, and means for compacting the surface stratum before turning, and means for compacting the two strata after the surface stratum has been turned.

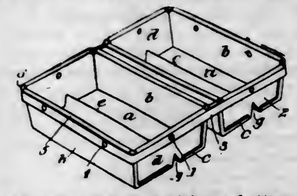
3. The combination, with means for breaking up the surface of the ground, of a plow transversely displacing said broken-up surface stratum, means for breaking up the sub-soil in the bottom of a preceding plow furrow preceding the delivery thereupon of the broken-up surface stratum, and a second plow arranged to deliver an intermediate stratum upon the preceding strata.

4. The combination, with means for breaking up the surface of the ground, of a plow transversely displacing and overturning said broken-up surface stratum, means for breaking up the sub-soil in the bottom of a preceding plow furrow preceding the delivery thereupon of the broken-up and overturned surface stratum, and a second plow arranged to deliver an intermediate stratum upon the preceding strata.

5. The combination, with means for breaking up the surface of the ground, of a plow transversely displacing said broken-up surface stratum, means for breaking up the sub-soil in the bottom of a preceding plow furrow preceding the delivery thereupon of the broken-up surface stratum, means for compacting the two strata, and a second plow arranged to deliver an intermediate stratum upon the preceding strata.

[Claims 6 to 11 not printed in the Gazette.]

943,093. BAKING-PAN. GEORGE MUELLER, Salt Lake City, Utah. Filed Aug. 7, 1909. Serial No. 511,791.



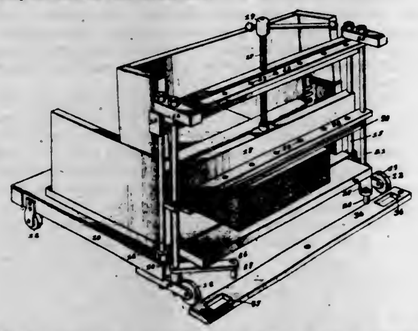
1. A bread baking pan comprising a bottom, sides and ends, the bottom having an inwardly directed ridge disposed longitudinally and centrally of the pan with its sides sloping downwardly and with its upper edge terminating short of a point midway of the center of the pan from top to bottom to form a groove in the lower crust of the loaf and cause the upper crust of the loaf to part along a line above and parallel to said groove in the lower crust.

2. A baking contrivance comprising a plurality of baking pans, each pan having an inwardly directed ridge disposed longitudinally and centrally thereof with its sides sloping downwardly and with its upper edge terminating short of the horizontal center of the pan to form a groove in the lower crust of the loaf and cause the upper crust of the loaf to part along a line above and parallel to said groove in the lower crust, and a strap embracing the pans to connect them together.

943,094. BINDING-MACHINE. CHARLES F. MCBEE, Athens, Ohio. Filed July 13, 1908. Serial No. 443,334.

1. A portable perforating and binding machine comprising a base; standards near the forward portion of said base and a cross bar between said standards; a pressure bar depended from said cross bar; rollers near the rear

end of said base; an arm projecting from each forward corner of the base; a roller at the extremity of each of said arms; a standard projecting upwardly from each of said arms; a cross bar, provided with perforations, near the upper extremity and between said standards; a cross bar mounted, for vertical movement, and provided with perforations, between said standards; a supporting lever mounted, for rotary movement, at the lower extremity of each of said standards, all arranged and combined substantially as shown and described.



2. A perforating machine comprising a base, provided with rollers on its under surface; standards near the forward portion of said base; a pressure bar and means to guide a drilling apparatus secured between the said standards; an assembly box provided with a forward portion adapted to double back and a forward hinged portion in its base; means for supporting the forward hinged portion of the base of the assembly box at a point in advance of the base of the machine, all arranged and combined substantially as shown and described.

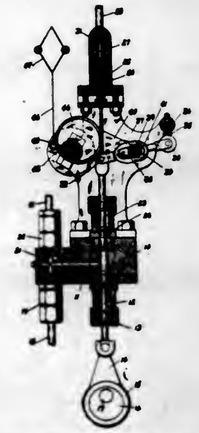
3. A perforating machine, adapted to receive an assembly box containing a book to be bound, provided with means to securely clamp the book and also provided with means for guiding a drilling apparatus designed to perforate the book; an assembly box, a hinged forward portion on the under surface of the assembly box, means for supporting the forward hinged portion of the base of the assembly box, on a plane with the base proper; means for withdrawing the support for the forward end portion of the base; all arranged and combined substantially as shown and described.

4. A perforating and binding machine comprising in combination a base provided with rollers; standards near the forward portion of said base; a pressure bar and guide bars mounted horizontally between the said standards; forwardly projecting lugs secured to the upper extremity of the standards on each lateral side of the machine; a cleat, provided with orifices, secured immediately in advance of the machine proper, all arranged and combined substantially as shown and described.

943,095. GOVERNED PUMP. NORMAN MCCARTY, Indianapolis, Ind., assignor to Atlas Engine Works, Indianapolis, Ind., a Corporation of Indiana. Filed Aug. 9, 1909. Serial No. 511,985.

1. The combination with a pump chamber, of a displacing plunger projectable into and out of the pump chamber, a compensating plunger projectable into and out of the pump chamber, a stop arranged to limit the outward movement of the compensating plunger, means, independent of the displacing plunger, for driving the compensating plunger inwardly, stop mechanism associated with the compensating plunger for limiting the inward movement thereof, and means by which said last mentioned stop mechanism may be adjusted to variably limit the inward movement of the compensating plunger.

2. The combination with a pump chamber having inlet and outlet valves, of a displacing plunger projectable into and out of the pump chamber, a compensating plunger projectable into and out of the pump chamber, a stop arranged to limit the outward movement of the compensating plunger, means, independent of the displacing plunger, for yieldingly driving the compensating plunger inwardly, stop mechanism associated with the compensating plunger for limiting the inward movement thereof, and means by which said last mentioned stop mechanism may be adjusted to variably limit the inward movement of the compensating plunger.



3. The combination with a pump chamber, of a displacing plunger projectable into and out of the pump chamber, a compensating plunger projectable into and out of the pump chamber, a stop arranged to limit the outward movement of the compensating plunger, means, independent of the displacing plunger, for yieldingly driving the compensating plunger inwardly, stop mechanism associated with the compensating plunger for limiting the inward movement thereof, and means by which said last mentioned stop mechanism may be adjusted to variably limit the inward movement of the compensating plunger.

4. The combination with a pump chamber having inlet and outlet valves, of a displacing plunger projectable into and out of the pump chamber, a compensating plunger projectable into and out of the pump chamber, a stop arranged to limit the outward movement of the compensating plunger, means, independent of the displacing plunger, for yieldingly driving the compensating plunger inwardly, stop mechanism associated with the compensating plunger for limiting the inward movement thereof, and means by which said last mentioned stop mechanism may be adjusted to variably limit the inward movement of the compensating plunger.

5. In a pump, the combination with a pump chamber, of a displacing plunger projectable into and out of said chamber, a compensating plunger projectable into and out of the chamber, means, independent of the displacing plunger, for driving the compensating plunger inwardly, a stop for uniformly limiting the outward movement of the compensating plunger, a lever connected at one end to the compensating plunger, a stop arranged to engage said lever, a fulcrum for said lever, and means for shifting said fulcrum relative to the lever to vary the relation between said lever and its stop.

[Claims 6 to 11 not printed in the Gazette.]

943,096. MECHANICAL TOY. EDWIN J. PEARCE, New Brighton, England. Filed Dec. 23, 1908. Serial No. 468,973.

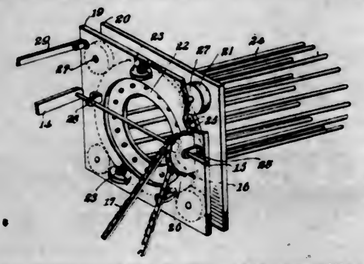
1. A mechanical toy comprising in combination a helically twisted wire, interlinked rings slidably and rotatably mounted thereon, a washer between said rings for rotating the same upon the thread formed on the wire and a sleeve for imparting longitudinal motion to said washer.

2. A mechanical toy comprising in combination a helically twisted wire, interlinked rings slidably and rotatably mounted thereon, a washer in frictional engagement with said rings for rotating the rings on the thread formed by the twisted wire, said rings being adapted to rotate more rapidly than said washer, and means for imparting longitudinal motion to said washer and said rings.



3. A mechanical toy comprising in combination, a threaded stem, rings rotatable and loosely mounted thereon, a washer frictionally engaging said rings and having threaded engagement with said stem for revolving said rings, and a member slidably mounted on said stem for moving the rings and washer along said stem to effect rotation thereof.

943,097. POTATO-SORTER. WALTER PERTZSCH, Onalaska, Wis. Filed Apr. 2, 1909. Serial No. 487,390.



1. In a device as specified, the combination with a digger of a pair of centrally apertured plates hingedly disposed at the rear end of said digger, an apertured disk rotatably disposed between said plates, a plurality of prongs rearwardly extended from the inner edge of said disk through the rear of said plates, means disposed between said disk and said digger for actuating said disk and rods disposed between said digger and said forward plate for tilting the same into various angles.

2. In a device as specified the combination with a potato digger of a pair of centrally apertured plates disposed at the rear end of the said digger and adapted to receive potatoes from said digger, and an apertured disk rotatably disposed between said plates, a plurality of prongs rearwardly projected from the inner edge of said disk through the rear of said plate, rollers mounted adjacent the opposite corners between said plates to support said disk, guide rollers disposed through said plates and engaged with said disk to secure the same centrally thereof, lugs forwardly extended from the intermediate portion of said first plate, a shaft rotatably disposed through said lugs, a gear mounted on said shaft and extended through said first plate, a rack formed on the face of said disk to mesh with said gear, a sprocket mounted on said shaft and connected to said digger to rotate said shaft and means carried by said digger for tilting said plates into various angles.

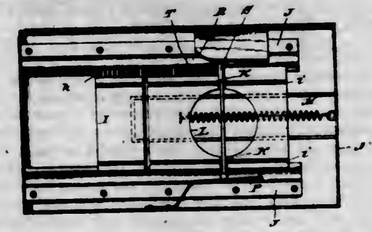
3. A device as specified comprising a pair of plates, rollers positioned adjacent the corners between said plates, a disk loosely mounted on said rollers, a plurality of prongs rearwardly extended in said disk, said disk and said plates having apertures centrally formed therethrough for the reception of potatoes from the digger, means carried to the forward of said plates to actuate said disk and means connected to said plates to adjust said plates in various angles.

4. In a device as specified the combination with a digger of a pair of spaced plates hingedly disposed in parallel at the rear end of said digger, means carried by said digger for retaining said plates in various angles, said plates being centrally apertured a disk centrally apertured and positioned between said plates adapted for rotation in such position, a plurality of prongs disposed in spaced relation adjacent the inner edge of said disk and extended rearwardly therefrom and means disposed between said digger and said disk for rotating said disk by the actuation of said digger.

5. In a device as specified the combination with a digger of a pair of plates vertically disposed in parallel transversely of said digger, a disk rotatably engaged between said plates, rollers carried by said plates to retain said disk in position, a plurality of prongs rearwardly extended from the inner edge of said disk, said plates and said disk being centrally apertured, a shaft transversely disposed across one of said plates, means carried by said shaft for engagement with said disk to rotate the same, means carried by said shaft and connected to said digger for rotating said shaft and rods carried by said plates and connected to said digger for moving said plates into various vertical angles.

[Claim 6 not printed in the Gazette.]

943,098. MATCH-SAFE. EARL POOLER and DON C. POOLER, Seattle, Wash. Filed Mar. 23, 1909. Serial No. 485,173.



1. In a match safe, the combination of a slide adapted to receive and carry a match, an igniter disposed at one side of the path of the slide, a cam shoe disposed at the opposite side of said path, and a follower carried by the slide and adapted on movement thereof to be pressed inwardly by the shoe and to press a match against the igniter.

2. In a match safe, the combination of a slide having a crosswise groove for the reception of a match, an igniter disposed at one side of the path of the slide, a cam shoe disposed at the opposite side of said path, a spring strip connected to the slide and a follower connected to said spring strip and disposed in the crosswise groove of the slide; said spring strip and follower being adapted on movement of the slide to be pressed inwardly by the shoe, and the follower being adapted to press a match against the igniter.

3. In a match safe, the combination of a slide having crosswise groove portions and also having an aperture arranged between the groove portions, a resilient igniter

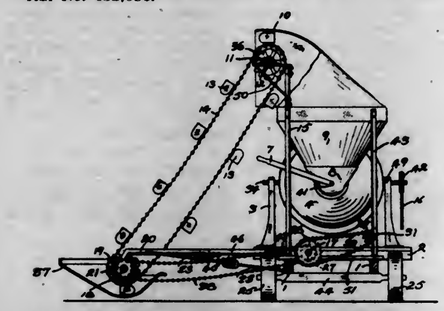
disposed at one side of the path of the slide and adapted after the passage and ignition of a match to spring inwardly into a position in which it is adapted to prevent retrograde movement of the match, a cam shoe disposed at the opposite side of said path, with reference to the igniter, a spring strip connected to the slide, and a follower connected to said spring strip and disposed in one crosswise groove portion of the slide; said spring strip and follower being adapted on movement of the slide to be pressed inwardly by the shoe, and the follower being adapted to press a match against the igniter.

4. In a match safe, the combination of a receptacle having an inclined back wall on the lower end of which are tongues, a slide adapted to receive and carry a match and having longitudinal grooves receiving said tongues, a roller disposed in the receptacle and adjacent the slide, and means for synchronously moving the slide and rotating the roller.

5. In a match safe, the combination of a receptacle, a slide having a crosswise groove to receive and carry a match and also having a longitudinal rack, a roller arranged in the receptacle and adjacent the slide and having a gear, and a suitably supported gear wheel intermeshed with the rack of the slide and the gear of the roller.

[Claim 6 not printed in the Gazette.]

943,099. FOLDABLE LOADER. CHARLES A. RADCLIFF, Waterloo, Iowa, assignor of one-half to William R. McLaughlin, Waterloo, Iowa. Filed May 13, 1908. Serial No. 432,686.

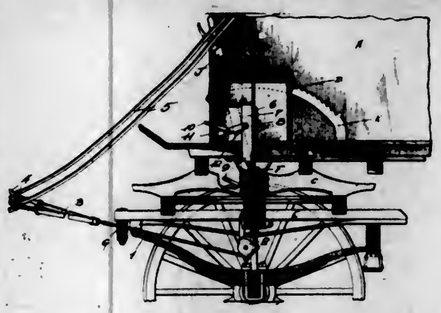


1. A foldable loader, comprising the combination with a transportable truck having a hopper thereon, of a receptacle, a conveyer adapted to transport materials from said receptacle to said hopper, supports for said receptacle composed of sectional arms hinged to said truck and protractile to one side thereof, the sections of said arms being prop-jointed together to permit the outer members thereof to fold upon the inner members and both to be folded back upon the top of the truck, without overhanging the latter.

2. A foldable loader, comprising the combination with a transportable truck having a hopper mounted thereon, of a conveyer adapted to deliver materials to said hopper, and a sectional frame upon which said conveyer is mounted, said frame being pivotally connected to the said truck on one side thereof, the sections of said frame being hinged together and adapted to be projected to one side of the truck, and to be folded back upon the truck without overhanging the latter, and means for detachably securing and supporting said sectional frame while in its outwardly extended position.

943,100. VEHICLE ATTACHMENT FOR DETAINING DRAFT-ANIMALS. CHARLES REIGER, St. Louis, Mo., assignor to Adolph Boettler and Henry F. W. Ruhe, St. Louis, Mo. Filed Nov. 5, 1908. Serial No. 461,169.

1. In a device of the character described, the combination with a vehicle, of a hollow king-bolt, a detention member loosely mounted in said vehicle, passed through the hollow king-bolt, and arranged for connection to the bridle of a draft animal, a guide box through which said detention member passes, and a dog loosely mounted in said guide box and adapted to engage said detention member to hold it from movement, substantially as set forth.



2. In a device of the character described, the combination with a vehicle, and a brake operating member carried thereby, of a hollow king-bolt, a detention member carried by said vehicle, passed through the hollow king-bolt, and arranged for connection to the bridle of a draft animal, means for engaging and holding said detention member, and means operable by said brake operating member for actuating said detention member engaging means, substantially as set forth.

3. In a device of the character described, the combination with a vehicle and a brake operating member carried by said vehicle, of a detention member carried by said vehicle and arranged for connection to the bridle of a draft animal, a dog for engagement with said detention member to hold it from movement, and an arm carried by said brake operating member for moving said dog out of engagement with said detention member, substantially as set forth.

943,101. APPARATUS FOR CLASSIFYING MINERALS. ROBERT H. RICHARDS, Boston, Mass. Filed July 25, 1907. Serial No. 385,502.



1. In an apparatus for grading, separating, and classifying ores, a structure provided with a series of vertically extended chambers or columns, communicating at their lower ends with one another, and provided also with a series of hutches or lower chambers, one beneath each upper chamber or column, each upper chamber after the first being provided with an overflow, and said overflows being placed at progressively lower levels from the receiving toward the discharging end of the apparatus; a perforate partition separating each upper chamber from the chamber beneath it; gates or cut-offs controlling the passageways between the upper chambers; a water supply conduit communicating with the several hutches or lower chambers; valves, one between said conduit and each lower chamber; a valve controlling the delivery of water to said conduit; and means for opening and closing said last mentioned valve with considerable frequency and regularity.

2. In an apparatus for classifying ores, a series of separable sections each comprising an upright chamber or column and a lower collecting chamber or compartment, each upper chamber after the first one provided with an overflow; a water conduit communicating with each lower chamber or compartment; adjustable gates controlling communication between the upright chambers or columns; valves for controlling the delivery of water to each lower chamber; a perforate floor or diaphragm separating the upper chambers or columns and the lower chambers; and means for delivering to the conduit a pulsating water current without back flow.

3. In an apparatus for separating, classifying, and concentrating ores, the combination of a series of separable sections each comprising an upper and a lower chamber, a foraminous diaphragm separating said chambers, a depending skirt extending downward from said diaphragm into the lower chamber, a water conduit at one side, and, (except in the case of the first section), a lateral extension communicating with the upper chamber or column and provided with an outlet, the water conduits of the several sections being joined to form a continuous conduit; and a valve controlling the supply of water to the common conduit, and serving to open and close communication with the source of supply with frequency and regularity, whereby a single valve is caused to produce a pulsating action in the chambers of the several sections.

4. The herein described grading, classifying and concentrating apparatus, comprising or containing a feed hopper, a series of upright columns or chambers communicating with each other at their lower ends and the first communicating with the hopper, and comprising, further, lower chambers, one beneath each upper chamber and the hopper; a perforate diaphragm or partition separating the upper and the lower chambers; gates controlling the passages of communication between the upper chambers and the feed hopper, said upper chambers being provided with overflow outlets at progressively lower levels toward the delivery end of the series; a conduit communicating with the several lower chambers; regulating valves between said conduit and the respective lower chambers, one for each; and a valve located between the head or source of water supply and the conduit and adapted to be opened and closed with considerable frequency, whereby water is caused to be delivered to the conduit in a series of pulsations without reflux and thence through the lower chambers to the upper chambers or columns under control of the valves between the conduit and the lower chambers.

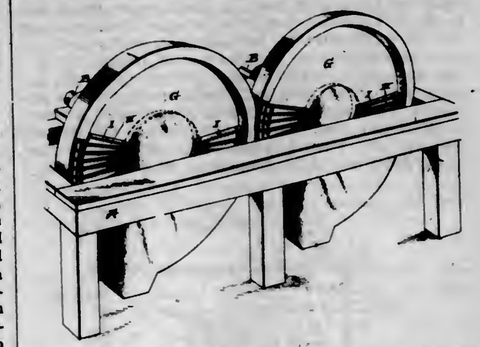
5. In an apparatus for separating, grading and classifying substances, a casting containing an upright chamber provided at one side with a lateral extension communicating with said chamber by an opening or passage, said extension also provided with an outlet opening; a water conduit at the opposite side; a perforate floor or diaphragm at the base of the upright chamber; a second casting secured to the lower end of the first and having a laterally extended top wall provided with an inlet opening, a depending skirt, an inclined bottom wall, and an outlet pipe; an adjustable dam controlling the passage of communication between the upper chamber and the lateral extension; a valve controlling the inlet opening from the conduit to the chamber within the lower casting; and a valve located between the source of water supply and the conduit and adapted to be rapidly opened and closed, whereby a pulsating current without reflux is produced in the respective chambers.

[Claims 6 to 8 not printed in the Gazette.]

943,102. MACHINE FOR DRESSING AND FINISHING WOOD, &c. JOHN W. SCHLEICHER, St. Louis, Mo., assignor to Mengel Box Company, Louisville, Ky., a Corporation of New Jersey. Filed Sept. 2, 1908. Serial No. 451,402.

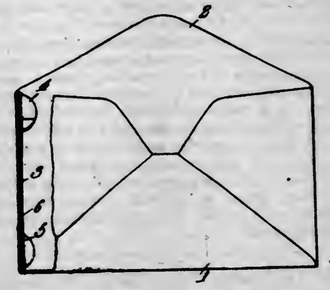
1. A machine for dressing wood and like substances, comprising a rotatable wheel or disk having its radial face armed with serrated sheet metal plates or strips perpendicular to the radial face of the disk, the ends of the teeth of said plates or strips being in common plane; and means for imparting rotation to said wheel.

2. In a machine for dressing and finishing wood, etc., an abrading wheel having its working face formed of a series of segments each having along one edge a strip of sheet metal with toothed or serrated edge, the ends of the teeth



of said plates or strips being in common plane, and the strip being perpendicular to the radial face of the wheel.

943,103. ENVELOP-OPENER. HARRY A. SMITH, Harrisburg, Pa. Filed Sept. 22, 1909. Serial No. 518,940.

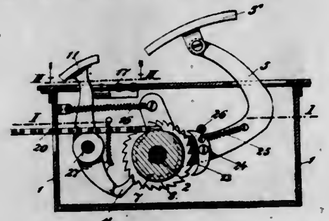


The combination with an envelop, of a retaining clip secured to the inner side of the envelop at one corner of the same and composed of fragile material doubled on itself, a severing loop having its bight passing around the edge of the clip and one strand passing between the plies of the clip, the said loop extending along one edge of the envelop and lying within the fold of said edge and the extremity of the loop projecting through the meeting edge of the envelop and doubled back against the edge within which it is inclosed, and a securing clip of fragile material folded over the edge of the envelop and the doubled back portion of the severing loop and secured to the sides of the envelop, the extreme end of the loop being free and projecting from that edge of said clip which is distant from the corner of the envelop.

943,104. CARRIAGE FOOT-BRAKE. CARL STROHKORB, Berlin, Germany. Filed Jan. 7, 1909. Serial No. 471,125.

1. In a foot brake for carriages in combination a frame, a drum turnably arranged in the said frame, a brake chain connected to the said drum, a ratchet wheel firmly fixed to the said drum, a foot-lever turnably arranged in the said frame, an operating pawl pivotally fixed to said foot lever and adapted to engage the said ratchet-wheel, and means to normally hold the said operating pawl out of engagement with the said ratchet wheel, a locking pawl adapted to engage the said ratchet wheel, and a second foot-lever adapted to disengage the said locking pawl from said ratchet wheel, substantially as and for the purpose set forth.

2. In a foot brake for carriages in combination a frame, a drum turnably arranged in the latter, a brake chain connected to the said drum, a ratchet wheel firmly fixed to the said drum, a foot-lever turnably arranged in the said frame, an operating pawl pivotally fixed to said foot lever and adapted to engage the said ratchet wheel, a stop fixed in the said frame and adapted to normally hold the said operating pawl out of engagement with the said ratchet wheel, a second foot-lever also turnably arranged in said frame, and a locking pawl fixed to the last said foot lever and adapted to engage the said ratchet wheel, substantially as and for the purpose set forth.



3. In a foot brake for carriages in combination, a frame, a spindle turnably arranged in said frame, a drum firmly fixed on said spindle, a brake chain connected to said drum, a ratchet wheel rigidly connected to said drum, a foot-lever turnably fixed on said spindle, a spring for holding the said foot-lever in its normal position, a spring controlled operating pawl pivotally fixed to said foot-lever and adapted to engage with the said ratchet wheel, a stop fixed in said frame and adapted to normally hold the said operating pawl out of engagement with the said ratchet wheel, a second foot-lever turnably arranged in said casing, a locking pawl fixed to the last said foot-lever and adapted to engage the said ratchet wheel, a spring for holding the said locking pawl in engagement with said ratchet wheel, and locking means to prevent unintentional disengagement of the said locking pawl, substantially as and for the purpose set forth.

943,105. TELEOBJECTIVE. ERNST WANDERSLEB, Jena, Germany, assignor to The Firm of Carl Zeiss, Jena, Germany. Filed Aug. 13, 1909. Serial No. 512,755.



Chromatically and spherically corrected tele-objective consisting of a positive cemented double lens in front and a negative cemented triple lens behind, the focal length of the positive lens exceeding that of the negative one, the median part of the negative lens being collective and the other two parts of it dispersive, and each of both lenses being chromatically corrected, but having a spherical aberration of the order of magnitude and of the sign of a simple lens, which has the same focal length positive and negative respectively.

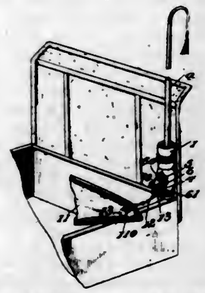
943,106. RAIN-SPOUT FILTER. JOHN E. WELLING, Cynthiana, Ky., assignor to R. M. Webster, Spokane, Wash., and H. C. Norris, Jr., Cynthiana, Ky. Filed Aug. 4, 1906. Serial No. 329,223.

In combination, a casing provided with an inlet at its top and an outlet at its bottom and also opposite side discharge openings near its top, the lower edge of each of these openings being provided with a horizontal bead extending outwardly, inwardly extending flanges on the inner walls of the casing and inclining from the middle downwardly and outwardly toward said beads, an A-shaped screen supported on said flanges and extending downwardly and outwardly in opposite directions from a point below the inlet, the outer edges of this screen being removably coiled downwardly around under said beads,



whereby said screen may be removed at will through either of said side discharge openings, and removable filtering devices below said screen.

943,107. COMBINATION WHIP AND ROBE LOCK. WILLIAM YORK, Dixon, Ill., assignor to Charles S. Palmer, Aurora, Ill. Filed Mar. 10, 1909. Serial No. 482,550.



1. A whip socket having a loop-like whip locking yoke arranged and movable transversely thereof and extending across the interior thereof to embrace the whip, and a screw carried by and moving with the yoke for forcing the same bodily outwardly and locking said yoke in outwardly projected locking position.

2. A whip socket provided with a transversely and bodily movable whip-encircling locking yoke extending to and operative from the exterior of the socket and extending transversely across the interior of the socket to embrace the whip and provided with an exterior head, an adjustable stop carried thereby, said yoke adapted to be moved outwardly and lock the whip against the inner wall of the socket, and a spring longitudinally arranged within the socket and entering said yoke and yieldingly holding the same in inoperative position within the socket.

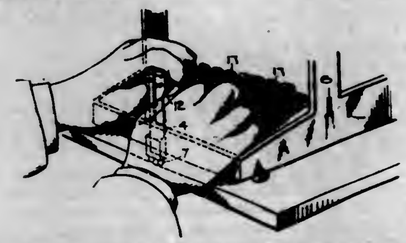
3. A whip socket having an interior annular recess, and provided with a transversely and outwardly movable whip locking yoke provided with an exterior head and having a vertical opening for the passage of the whip and extending to and operated from the exterior of the socket and fitting said recess and normally withdrawn thereinto to permit free vertical movement of the whip in the socket and through the yoke, and an adjustable stop carried by said head for holding said yoke in outwardly projected locking position.

4. A whip socket provided with an exterior face plate, and a transversely movable loop-like whip locking yoke embracing said face plate and extending into the socket to move transversely of the interior thereof to grip the whip in the socket against the face plate and having a head at the exterior of the face plate, and means for holding the yoke in outwardly projecting whip gripping position.

5. A whip socket provided with a whip locking rigid-wall yoke extending into and movable transversely of the interior of the socket to grip the whip between the inner end of the yoke and the opposite wall of the socket, and an adjustable stop operative from the exterior of the socket and carried by the yoke for maintaining the yoke in locking position.

[Claims 6 to 17 not printed in the Gazette.]

943,108. TOUCH KEY-FINDER FOR TYPE-WRITERS. GUSTAVUS A. CAGE, Denver, Colo. Filed Dec. 4, 1908. Serial No. 465,987.



1. The combination with a typewriting machine, of an upright placed at its front medially of the key board and in proximity to the space bar, whereby, when the thumbs of the operator engage opposite sides of said upright, the other fingers of the hand will extend in operative position over the keys.

2. The combination with a typewriting machine, of an upright having laterally extensible edges, disposed so as to be engaged by the thumbs of the operator, when the other fingers are in the operative position over the key-board of the machine.

3. The combination with a typewriting machine, of an upright having in its opposite sides depressions adapted to receive the thumbs of the operator when the other fingers are in the operative position over the key-board of the machine.

4. A device of the class described, comprising an upright and means to detachably secure the same in operative relation to a typewriting machine medially of its key-board and in proximity to its space bar, so that its opposite edges will engage the thumbs of the operator when the other fingers are in the proper position over the key-board of the said machine.

5. A device of the class described comprising an upright adapted to be detachably secured in operative relation to a typewriting machine medially of its key board and in proximity to its space bar and having in its opposite sides, means to determine the position of the thumbs of the operator when the other fingers are in the proper position over the key-board of the said machine.

[Claims 6 to 9 not printed in the Gazette.]

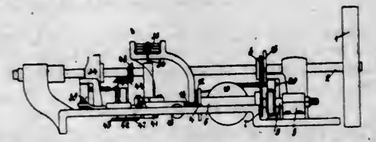
943,109. TELEMETER. OTTO EPPENSTEIN, Jena, Germany, assignor to The Firm of Carl Zeiss, Jena, Germany. Filed Nov. 24, 1908. Serial No. 464,308.



1. In a telemeter two pairs of objective parts, one at one end of the base-line and the other at the other, each pair comprising an objective lens and an optical square prism, two mark systems, one fixed to one of the objective parts of one pair and the other to one of the objective parts of the other pair, one of the images projected by the objective lenses lying in the field of one mark system and the other image in the field of the other mark system, and an ocular system for the two images.

2. In a telemeter two pairs of objective parts, one at one end of the base-line and the other at the other, each pair comprising an objective lens and an optical square prism, two mark systems, one fixed to one of the objective parts of one pair and the other to one of the objective parts of the other pair, a double mirror, the reflecting surfaces of which co-act with the objective lenses to project each image into the field of the mark system at that end of the base line where the rays forming the image entered, and an ocular system for the two images.

943,110. WIRE-CHAIN-MAKING MACHINE. MAX FESSLER, Pforzheim, Germany. Filed Aug. 22, 1907. Serial No. 389,700.



1. In a wire chain making machine, the combination with a die having a cross shaped opening, of means for intermittingly feeding a longitudinally slitted wire spiral into position to bring its forward coil into position above said opening, means for flattening, and opening the slit of the forward coil of the spiral to form of it an open link, means for consecutively forcing the links thus made into the opening in the die, and means for rotating the die a quarter revolution after each link is forced into the die.

2. In a wire chain making machine, the combination with a die having a cross shaped opening, of means for slitting longitudinally a wire spiral, means for intermittingly feeding said slitted spiral to bring its forward coil over the opening of the die, means for forcing said forward coil into the opening in the die, and means for rotating the die a quarter revolution after the insertion therein of each coil.

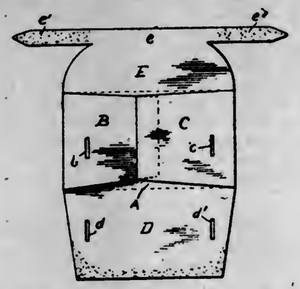
3. In a wire chain making machine, the combination with a die having a cross shaped opening, of a cutter, means for feeding the wire spiral longitudinally into contact with said cutter and thereby longitudinally slitting said spiral, means for intermittingly feeding said slitted spiral to bring its forward coil over the opening of the die, means for forcing said spiral coil into the opening in the die and means for rotating the die a quarter revolution after the insertion therein of each coil.

4. In a wire chain making machine, the combination with a die having a cross shaped opening, of a mandrel, means for winding wire thereon in the form of a spiral, a cutter, means for feeding the mandrel forward over said cutter and thus slitting the spiral longitudinally and bringing the forward coil of the spiral into position over the opening in the die, means for forcing said spiral coil in the opening in the die, and means for rotating the die a quarter revolution after the insertion therein of each coil.

943,111. SAFETY-ENVELOP. WILLIAM E. FISHER, Buck Creek, Ind. Filed Nov. 11, 1908. Serial No. 462,095.

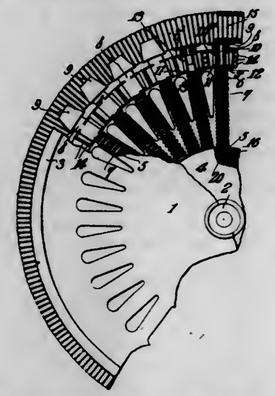
A safety envelop, in combination with a front member; a pair of side flaps arranged to be folded against the inner face of said member, each flap being formed with a slot located adjacent to and parallel with its inner edge; a bottom flap arranged to be folded against the outer faces of the side flaps and formed adjacent its side edges with a pair of slots arranged to register with the slots in said side flaps, when said bottom flap is folded in position, and a top flap arranged to be folded against the outer face of the bottom flap and formed at each end with longitu-

dinal projections extending outwardly beyond each side edge thereof to provide a pair of locking tongues, said tongues being adapted to be bent upon said top flap and inserted through the pairs of registered slots in the side



and bottom flaps, so that said tongues extend inwardly toward each other, whereby entrance to the space between each of said tongues of the side flaps is closed by said tongue.

943,112. VEHICLE-WHEEL. ANDREW GRAFF, Wellington, Kans. Filed June 2, 1908. Serial No. 436,297.



1. A wheel comprising a hub, spokes radiating therefrom, rim sections movably mounted upon the spokes, cushioning springs therefor, an elastic tire, and superposed anti-friction devices loosely supported by and interposed between the rim sections and spacing said sections apart in the direction of the circumference of the wheel, said devices extending transversely of the wheel.

2. A wheel comprising a hub, tubular spokes radiating therefrom, and a rim section movably mounted upon each spoke, each section comprising a sleeve surrounding the spoke, a stem projecting into the spoke, and oppositely projecting bearing extensions upon the sleeve, cushioning springs for the sections, and anti-friction devices interposed between said extensions and supported by them, said devices constituting means for spacing the sections apart in the direction of the circumference of the wheel.

3. A wheel comprising a hub, spokes radiating therefrom, a circular helix constituting an elastic tire, yokes constituting seats for the helix, separate means extending from each yoke for projecting into and for surrounding one of the spokes, separate springs within and around each spoke for bearing against said means, and oppositely projecting bearing extensions movable with each yoke and, with the yoke and the spoke engaging means, constituting a rim section, and anti-friction devices interposed between the rim sections.

943,113. MOUNTING FOR ARTIFICIAL TEETH. EDWIN J. GREENFIELD, Wichita, Kans. Filed Feb. 17, 1909. Serial No. 478,360.



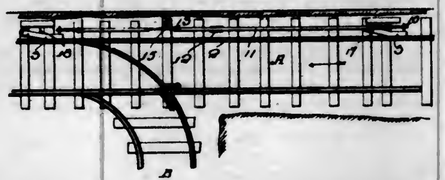
1. A bearing frame for an artificial tooth, comprising a disk, a plurality of arms secured to said disk and projecting upwardly therefrom and a head mounted on said arms for supporting a tooth.

2. A device as specified comprising a disk, a plurality of arms carried by said disk, cross braces positioned between said arms and a cap piece for holding a tooth detachably secured upon the outer extremities of said arms.

3. A device as specified comprising a base, arms upwardly extended from said base, ribs disposed across said arms at intermediate points thereof, a disk mounted upon the opposite ends of said arms, a head rotatably disposed on said disk, said head having a groove formed across the upper face of the same, a cap piece carried by a tooth, and a tongue formed on said cap piece for engagement in the groove in said head.

4. A device as specified comprising a base, arms upwardly extended from said base, a head rigidly carried upon the upper ends of said arms, said head having an undercut groove formed across the face thereof, a cap engaged on said head and secured to a tooth and a tongue formed on said cap for interlocking engagement with the groove in said head.

943,114. JUNCTION-SIGNAL FOR MINING-RAILROADS. WILLIAM KLEMAN, Portage, Pa. Filed May 15, 1909. Serial No. 496,136.



1. A junction signal for tracks comprising opposed bell crank levers, opposed track levers arranged adjacent to one rail of a track and adapted to be operated by the wheels of a car passing thereover, the free ends of said track levers being connected to said bell crank levers, a rod connecting the opposed bell crank levers and shiftable therewith, a light mounted to one side of said rod at the point of junction of the tracks, and a screen carried by said rod, this screen in one position of the rod concealing the light and in the other position permitting the light to be seen.

2. A junction signal for tracks comprising opposed bell crank levers, a rod connecting the bell crank levers, a screen carried by the rod and having an opening therethrough, a light mounted behind the screen and adapted to show through said opening when the screen is shifted, and track levers pivoted at one end to the track bed and at the other end having a pivotal laterally shiftable engagement with the ends of the bell cranks, said track levers being shiftable by the passage of a car wheel in one direction but depressible by the passage of a car wheel in the other direction.

3. A junction signal for tracks comprising opposed bell crank levers, a longitudinal rod connecting the bell crank levers, a screen carried by the rod having an opening, a light supported behind said screen to show through said opening when the rod and screen are shifted to one position, a track lever connected to one of said bell cranks and adapted to be depressed by a car wheel passing over

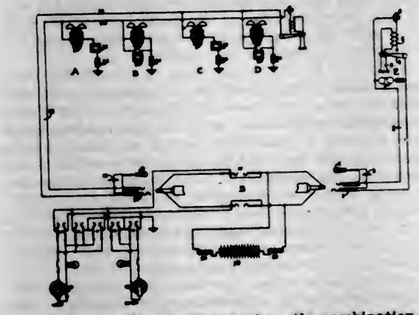
said lever to withdraw the screen and permit the light to be observed, and means on the other bell crank lever for returning the screen to its obscuring position.

4. A junction signal for tracks including opposed bell crank levers, a longitudinal rod connecting the bell crank levers, a screen carried thereby and having an opening, a light located behind this screen and observable through said opening when the screen is moved to one position, a track lever having its free end connected to one of said bell crank levers and mounted adjacent to the track to be operated by the wheels of a car passing in one direction to shift the screen to its open position, and a track lever mounted adjacent to the other bell crank lever and associated with the track, whereby on the passage of said car past the same, the wheels thereof shall operate the last named track lever to return the screen to its closed position.

5. In a junction signal for tracks, opposed bell crank levers, a longitudinally extending rod connecting the bell crank levers, a screen carried by the rod and having an opening therethrough, a light mounted behind the screen and adapted to be obscured when the screen is in one position, opposed track levers extending in the same direction and associated with each of the bell crank levers, said track levers having beveled upper faces and mounted for engagement in a horizontal and vertical plane, and springs forcing the track levers into contact with the track.

[Claims 6 and 7 not printed in the Gazette.]

943,115. SELECTIVE SIGNALING APPARATUS. OSCAR M. LEICH, Rochester, N. Y., assignor of one-third to J. G. Ihmsen and one-third to Max W. Zabel, Chicago, Ill. Filed Feb. 3, 1905. Serial No. 244,013.



1. In a selective signaling system, the combination with means for supplying alternating currents of different frequency, each to a different substation on the line, of an electric circuit, signal receiving apparatus associated with said circuit and responsive to alternating currents of a given frequency, said signaling apparatus comprising an impedance coil for causing the selective operation of the signal associated therewith, and electrically non-tuned signal receiving apparatus responsive to currents of a different frequency, said signaling apparatus having means associated therewith to prevent its operation on currents adapted to operate the first aforesaid signal receiving apparatus.

2. In a selective signaling system, the combination with means of supplying currents of different frequency, each to a different substation on the line, of an electric circuit, signal receiving apparatus adapted for association with said circuit, said apparatus comprising a signal and an impedance device whose serial impedance effect causes the selective operation of said signal between currents of different frequency, and electrically non-tuned signaling apparatus adapted for association with said electric circuit, said signaling apparatus being provided with a series impedance device causing it to operate on a different frequency from that which actuates the first aforesaid device and to prevent its operation on the current of the frequency which will operate the first aforesaid apparatus.

3. In a selective signaling system, the combination with means for supplying currents of different frequency, each to a different substation on the line, of an electric circuit, selective signaling apparatus adapted for association with said circuit and responsive to alternating currents of a given frequency, and electrically non-tuned signaling apparatus also adapted for association with said circuit, said second signaling apparatus being provided with a series impedance device causing it to operate on a frequency other than that which operates the first said aforesaid device and to be non-responsive to currents adapted to operate the first aforesaid device.

4. In a selective signaling system, the combination with means for supplying currents of different frequency, each to a different substation on the line, of an electric circuit, selective signaling apparatus adapted for association with the said circuit and responsive to alternating currents of a given frequency, and electrically non-tuned signaling apparatus also adapted for association with said circuit, said second signaling apparatus being provided with a condenser causing it to operate on a frequency other than that which operates the first aforesaid device and to be non-responsive to currents adapted to operate the first aforesaid device.

5. In a selective signaling system, the combination with means for supplying currents of different frequency, each to a different substation on the line, of an electric circuit, selective signaling apparatus adapted for association with said circuit and responsive to alternating currents of a given frequency, and electrically non-tuned signaling apparatus also adapted for association with said circuit, said second signaling apparatus being provided with a bridged impedance device causing it to operate on a frequency other than that which operates the first aforesaid device and to be non-responsive to currents adapted to operate the first aforesaid device.

[Claims 6 to 18 not printed in the Gazette.]

943,116. AUTOMATIC CAR-COUPLING. HENRY LESLIE, Birmingham, Ala., assignor to Edgar M. Kilby, Birmingham, Ala. Filed June 26, 1908. Serial No. 440,526.

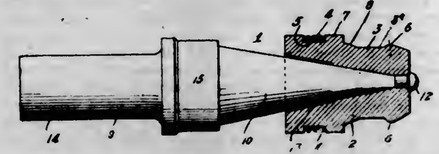


A car coupler, comprising a drawhead, a draw-bar connected to said drawhead, the draw-bar being formed contiguous to the head with a side recess and the drawhead being formed in its rear side with a slot communicating with said recess, a knuckle pivoted to swing laterally in the drawhead and formed with a beveled tail-piece, a knuckle locking and opening device designed to engage said tail-piece to lock the knuckle in closed position and swing the knuckle to open position, said locking and opening device being formed with an arm extending rearwardly through said slot into said recess, the arm being pivotally connected to the draw-bar at the rear end of the arm whereby to permit the knuckle locking and opening device to swing in a vertical plane and means for raising said device.

943,117. BOILER-FLUE EXPANDER. DANIEL A. LUCAS and GEORGE D. DE LONG, Havelock, Nebr., and ABRAM N. LUCAS, Milwaukee, Wis. Filed Oct. 17, 1907. Serial No. 397,932.

1. A flue expander comprising a head consisting of a series of separable segmental sections disposed about a common central axis and normally abutting against each other in annular arrangement and said sections being shaped upon their outer periphery to form an annular groove and having their inner surface shaped to conjointly form a tapered aperture of symmetrical cross section whose inte-

rior wall all the way around inclines to the axis in excess of the angle of repose, combined with a reciprocatable mandrel having its end symmetrically tapered all the way around to fit the taper of the expander head and having the angle formed between the outer tapered surface and the axis of the mandrel also greater than the angle of repose, throughout its entire circumference, the said parts co-acting so that the mandrel may be rapidly reciprocated within the expander head to expand it simultaneously in all directions without liability of sticking within the said expander head by frictional contact and whereby the expander may be freely turned about its axis at times between the blows upon the mandrel during the expanding operation.

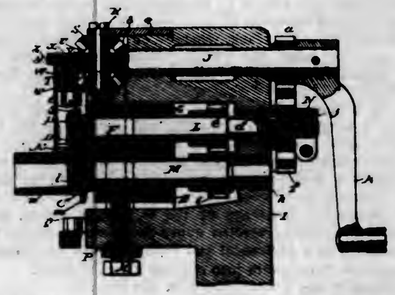


2. A flue expander comprising a head composed of a plurality of segmental sections abutting against each other to form an annular head and connected to yield radially in a plurality of planes and provided with a tapered bore of symmetrical cross section and the inner face of which all the way around is inclined to the axis thereof at a greater angle than the angle of repose and said head having an outer face provided with means to simultaneously expand the entire circumference of the flue and upset the end thereof, combined with a reciprocatable mandrel having its end symmetrically tapered all the way around to fit the taper of the expander head and in which the angle formed between the tapered surface and the axis of the mandrel is also greater than the angle of repose throughout its entire circumference, the said parts co-acting so that the mandrel may be rapidly reciprocated within the expander head to expand it simultaneously in all directions without liability of sticking within the said expander head by frictional contact, and whereby the expander head may be freely turned about its axis at times between the blows upon the mandrel during the expanding operation.

3. A flue expander comprising a head consisting of a plurality of segmental sections abutting against each other to form an annular head and radially yieldable in a plurality of planes and shaped on their outer parts to expand a flue simultaneously in all directions and formed upon their inner parts with tapered surfaces which conjointly form a tapered bore symmetrical all the way around, the angle formed by the inner surface of which with the axis of the bore being greater than the angle of repose throughout its entire circumference, and spring devices for normally holding the plurality of segmental sections compactly together on their radial faces while allowing of them to expand, combined with a reciprocating mandrel symmetrically tapered upon its end all the way around to fit the bore of the expander head and in which the inclination of the surface of the taper to the axis of the mandrel is greater than the angle of repose, throughout its entire circumference, the said parts coöperating so that the mandrel may be rapidly reciprocated within the expander head to expand it simultaneously in all directions without liability of sticking within the said expander head by frictional contact, and whereby the expander head may be turned about its axis at times between the blows upon the mandrel during the expanding operation.

4. A boiler flue expander comprising an expanding head formed of a plurality of normally abutting segmental sections, an annular expanding projection formed on the outer end of said head and with inclined walls formed on the inner side of the said sections to provide a tapered bore through said head, a spring adapted to hold said sections together, and an expanding pin having a tapered expanding end formed on said pin to engage the tapered bore of said head and a knob formed integral with the end of said pin to hold said head in place snugly upon the pin when the pin is withdrawn just sufficiently to allow the segmental sections to abut, whereby a continuation of the movement of the pin will carry the expanding head with it and at no time will the head be free to reciprocate loosely upon the pin.

943,118. MACHINE FOR WIRING SHEET METAL. WILBER R. MAGIE, Indianapolis, Ind. Filed July 8, 1909. Serial No. 506,526.



1. A machine for wiring the edges of sheet-metal, comprising a main frame, a sub-frame pivotally connected therewith and thereby adapted to swing thereon to accommodate itself to curves in the edge of a piece of sheet-metal, and pairs of opposed rolls adapted to receive and hold the sheet-metal and the wire between them and to gradually bend the metal around the wire to hold the latter within the folded edge of the metal; one of the said pairs of rolls being carried by the main frame, and another pair being carried by the sub-frame.

2. A machine for wiring the edges of sheet-metal, comprising a main frame, a sub-frame connected with and adapted to swing on the main frame, and a second sub-frame connected and movable with the first sub-frame and adapted to swing independently thereof, and pairs of rolls adapted to receive and hold the sheet-metal and the wire between them and to gradually bend the metal around the wire to secure the latter within the folded edge of the metal; the first of said pairs of rolls being carried by the main frame, the second of said pairs of rolls being carried by the first sub-frame, and the third of the pairs of rolls being carried by the second sub-frame.

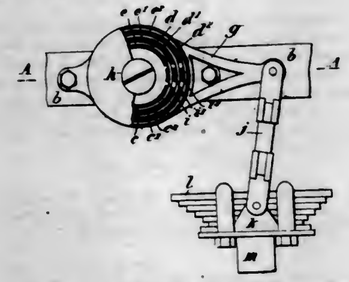
3. A machine for wiring the edges of sheet-metal, comprising a main frame, a primary driver therein, a sub-frame connected with and adapted to swing on the main frame, pairs of opposed rolls adapted to receive and hold the sheet-metal and the wire between them and to gradually bend the metal around the wire to hold the latter within the folded edge of the metal; one of the said pairs of rolls being carried by the main frame, and the other pair being carried by the sub-frame, a driving connection intermediate the primary driver and the pair of rolls in the main frame, and a driving connection intermediate the primary driver and the pair of rolls in the sub-frame and adapted to accommodate itself to the swinging movements of said sub-frame.

4. A machine for wiring the edges of sheet-metal, comprising a main frame, a primary driver therein, a sub-frame connected with and adapted to swing independently of the main frame, a second sub-frame connected with and adapted to swing independently of the first sub-frame, pairs of opposed rolls adapted to receive and hold the sheet-metal and the wire between them and to gradually bend the metal around the wire to secure the latter within the folded edge of the former, the first of said pairs of rolls being carried by the main frame, the second by the first sub-frame, and the third by the second sub-frame, driving connections intermediate the primary driver and the first pair of rolls for rotating the latter in opposite directions, and driving connections intermediate the primary driver and the second pair of rolls for rotating the latter in opposite directions, the last named driving connections being adapted to accommodate themselves to the swinging movements of the first sub-frame.

5. A machine for wiring the edges of sheet-metal, comprising a series of pairs of suitably supported rolls constructed to receive and hold the sheet-metal and the wire laid there against and to gradually bend the metal around the wire to secure the latter within the folded edge of the metal; one of the first pair of rolls being provided with a circumferential groove which receives said flange and be- a circuferential groove which receives said flange and being also provided, at the inner side of said groove, with a gage flange, and in its portion at the outer side of the groove with a circumferential groove that is opposed to the corner recess formed between the major portion and the circumferential flange of the first-named roll.

[Claim 6 not printed in the Gazette.]

943,119. SHOCK-DEADENER. ALEXANDER MAYESKY and HIPPOLYTE BOILEAU, Paris, France. Filed Mar. 30, 1908. Serial No. 424,136.



1. In a device of the kind described the combination of a relatively stationary member secured to one of the relatively moving parts to be connected, a plurality of annular concentric flanges on the said member, a plurality of frictional members arranged adjacent to the said annular flanges and adapted to frictionally engage the latter, a relatively movable member adapted to angularly but concentrically move with reference to the relatively stationary member, means provided on said relatively movable member adapted to cause the said frictional members to move relatively to the coöperating frictional surface, and means for connecting the said relatively movable member with the other part to be connected so that the relative motions of that part with reference to the first part are transmitted to the said relatively movable part in the form of angular oscillations, substantially as and for the purpose set forth.

2. In a device of the kind described the combination with two parts the oscillations of which are to be deadened, of a relatively stationary member secured to one of said parts, a plurality of concentric annular flanges projecting at right angles from the said member, a plurality of split circular spring blades inserted between the said flanges and leaving a free space between their ends, these springs being adapted to frictionally engage the said flanges, a frictional leather covering on the frictional surface of said springs, a relatively movable member adapted to concentrically move with reference to the said relatively stationary member, a plurality of abutments on the said relatively movable member and adapted to project between the said free ends of the said frictional springs and means for connecting the said relatively movable member with the other oscillating part so as to receive motion from the latter, substantially as and for the purpose set forth.

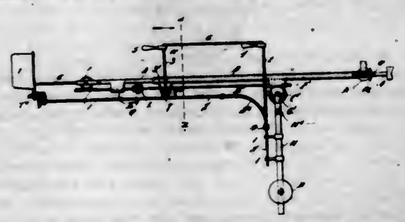
3. In a device of the kind described the combination with two parts the oscillations of which are to be deadened, of a relatively stationary box secured to one of the said parts, a plurality of split circular spring blades inserted between the said flanges and leaving between their free ends a free space increasing from one spring to the other, these springs being adapted to frictionally engage the said flanges, a leather covering secured to the frictional side of each spring, a cover rotatably held on the said box, a plurality of abutments secured to the said cover and projecting each between the free ends of the said springs and adapted to successively engage them, a certain lost motion being provided between the first abutment and the corresponding spring ends, and means for connecting the said cover with the other oscillating part, so as to transmit the motion of the latter to the said cover, substantially as and for the purpose set forth.

4. In a device of the kind described the combination with two parts the oscillations whereof are to be deadened of a relatively stationary box secured to one of these parts, a plurality of concentric annular flanges in said box, a plurality of split circular spring blades inserted between the said flanges and leaving between their free ends free spaces, these springs being each composed of a plurality of superposed blades, and adapted to frictionally engage the said flanges, a cover for said box, a central bolt adapted to rotatably hold the said cover on said box, a plurality of abutments secured to the said cover and projecting into the free spaces between the said spring ends, and means for connecting the said cover with the other oscillating part, so as to transmit the motion of the latter to the said cover, substantially as and for the purpose set forth.

5. In a shock deadener for motor cars the combination with the frame work and the axle of the car, of a box secured to the frame work of the car, a plurality of concentric flanges on the said box, a plurality of circular split spring blades frictionally engaged with said flanges and leaving free spaces between their ends, a cover for said box, means for rotatably holding this cover on said box, a plurality of abutments on said cover and freely projecting into the spaces between the said spring ends, a substantially horizontal arm on said cover, an angle piece secured to the said axle of the car and a connecting rod pivotally connected at one end with the free end of said arm and at the other with the said angle piece, substantially as and for the purpose set forth.

[Claim 6 not printed in the Gazette.]

943,120. AERIAL NAVIGATION. JAMES MEANS, Boston, Mass. Filed Mar. 10, 1909. Serial No. 482,484.



1. In a flying machine, the combination with independently operable lateral and longitudinal rudders of a pivoted lever having universal movement, operating-connections from said rudders to said lever, and a manually-operated device for actuating said lever, said device being secured to said lever at a point below the pivot thereof and terminating in a handle at a point above said pivot.

2. In a flying machine, the combination with independently-operable lateral and longitudinal rudders of a pivoted lever having universal movement, operating-connections from said rudders to said lever and a plurality of tandem-connected manually-operated devices for actuating said lever, one of said devices being secured to said lever at a point below the pivot thereof and each terminating in a handle at a point above said pivot.

3. In a flying machine, the combination with independently-operable lateral and longitudinal rudders of a pivoted weighted-lever having universal movement, operating-connections from said rudders to said lever, and a manu-

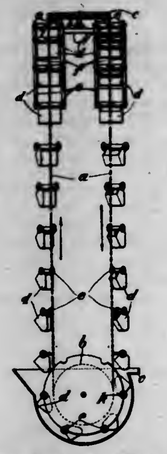
ally-operated device for actuating said lever, said device being secured to said lever at a point below the pivot thereof and terminating in a handle at a point above said pivot.

4. In a flying machine, the combination with independently-operable lateral and longitudinal rudders of a pivoted weighted-lever having universal movement, operating-connections from said rudders to said lever and a plurality of tandem-connected manually-operated devices for actuating said lever, one of said devices being secured to said lever at a point below the pivot thereof and each terminating in a handle at a point above said pivot.

5. In a flying machine, the combination with independently-operable lateral and longitudinal rudders of a vertical rudder, a pivoted lever having universal movement, operating-connections from said lateral and longitudinal rudders to said lever, a manually-operated device for actuating said lever, said device being secured to said lever at a point below the pivot thereof and terminating in a handle at a point above said pivot, and operating-connections from said vertical rudder to said device.

[Claims 6 to 14 not printed in the Gazette.]

943,121. ENDLESS-CHAIN CONVEYER. FRITZ MERIAN, Basel, Switzerland. Filed Apr. 28, 1909. Serial No. 492,805.

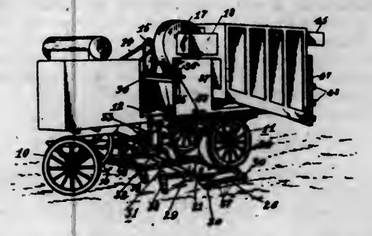


1. A conveyer, comprising an endless link chain, buckets secured at intervals to one side of said chain, means for leading said chain in horizontal parts of the chain-way, means for leading said chain at both ends of substantially vertical parts of the chain-way and for exerting a twist upon the chain in said substantially vertical parts, and pin-connections between the chain and the buckets which allow the buckets to hang freely underneath the chain when passing through said horizontal parts of the chain-way, and to lie against the chain while being in filling position.

2. A conveyer, comprising an endless link chain, buckets secured at intervals to one side of said chain, means for leading said chain in inclined parts of the chain-way, means for leading said chain at both ends of substantially vertical parts of the chain-way and for exerting a twist upon the chain in said substantially vertical parts, and pin-connections between the chain and the buckets which allow the buckets to hang freely underneath the chain when passing through said inclined parts of the chain-way, and to lie against the chain while being in filling position.

3. A conveyer, comprising an endless link chain, buckets secured at intervals of said chain, means for leading said chain at both ends of substantially vertical parts of the chain-way and for exerting a twist upon the chain in said parts of the chain-way, special links inserted in said chain, having each on one side only, a projection with a pin for the oscillatory suspension of said buckets, the three other sides of said special links being free, thus allowing the chain to run over chain-wheels in the direction of any one of these three sides.

943,122. STREET-SWEEPER. JOHN R. POLLOCK, Long-beach, Cal., assignor of one-half to E. S. Bruce, Long-beach, Cal. Filed Jan. 16, 1909. Serial No. 472,619.



In a pneumatic street sweeping machine a long narrow suction head having the sides and ends thereof composed of weighted flexible curtains and having a longitudinal channel near one side of said suction head, said channel being open at the top and terminating near and above the plane of the bottom of the suction head in combination with means to draw air through said channel and from said suction head.

943,123. NIPPLE-FLANGE. HOWARD W. REYNOLDS, New York, N. Y., and JOHN A. SMITH, Arlington, N. J. Filed Mar. 27, 1908. Serial No. 423,654.

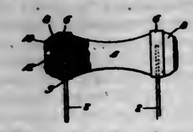


Means for connecting standard pipes and fittings, comprising an externally threaded conductor, an internally threaded conductor, an internally threaded ring flange engaging the external threads of the first-named conductor and having a plane outer abutting face projecting slightly beyond the end of the same, an externally threaded nipple engaging the internal threads of the other conductor, said nipple being provided with a plane outer end formed with a flange integral therewith and having a plane outer face flush with said end of the nipple and abutting flatly against the outer face of the ring flange beyond the circumference of the nipple, said nipple and integral flange being provided with a bore extending continuously therethrough and of uniform diameter from end to end and corresponding in diameter to the bore of the externally threaded conductor, a packing ring or gasket between the end of the externally threaded conductor and outer end of the nipple and resting against the projecting threaded portion of the ring flange, and bolts uniting said flanges.

943,124. SWITCH-HANDLE. CARL SCHUSTER, Bellevue, Pa. Filed Nov. 7, 1908. Serial No. 461,492.

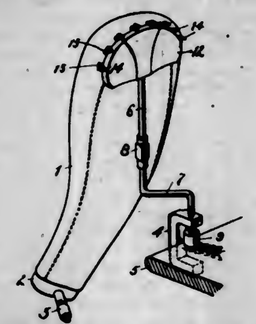
1. A handle for switch blades made of non-conducting material and provided entirely within its body portion with a laterally arranged socket adapted to receive a blade terminal, with means for securing the blade terminal therein, substantially as set forth.

2. The combination with a pair of switch blades having threaded screw holes in their terminals, of an insulating handle having enlarged bulbous countersunk ends, laterally arranged transverse sockets between the ends of the handle and its middle portion into which the blade terminals project, and securing screws extending centrally



through the countersunk ends and tapped into the blade terminals, substantially as set forth.

943,125. GARMENT-FORM. ANNESLEY DE LOS SMITH, Mount Vernon, N. Y. Filed Dec. 18, 1908. Serial No. 468,094.



1. A sleeve form comprising a standard, an inflatable arm removably carried thereby and a reversible pattern removably secured thereon.

2. A sleeve form comprising a plate having a series of fasteners around its upper portion and an inflatable arm detachably secured to said fasteners.
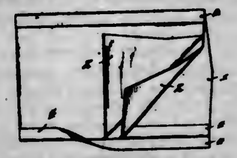
3. A sleeve form comprising an inflatable arm having a series of fasteners around its upper end and a reversible pattern detachably secured to said fasteners.

4. A sleeve form comprising a plate having a series of fasteners around the upper edge, and an inflatable arm and a reversible pattern detachably secured thereto.

5. A garment form support comprising a post, a plate carried thereby and having a curved upper edge and a plurality of fastening devices secured along said curved upper edge.

[Claim 6 not printed in the Gazette.]

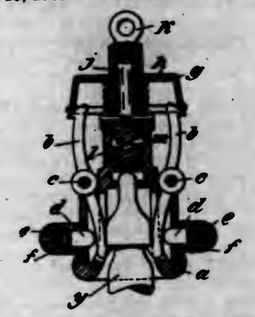
943,126. PAPER BAG. JOHN SOPER, Cincinnati, Ohio, assignor to The U. S. Paper Goods Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Sept. 11, 1909. Serial No. 517,258.



1. A paper bag formed of two blanks of the same marginal outline and dimension, each comprising two sides with a medial line of fold formed in the bottom of each bag, with the one blank placed over the other, securing flaps extended from one side of each bag and secured upon their respective opposing sides.

2. A paper bag formed from an outer blank and an inner blank, each blank comprising two sides of equal dimensions, with a medial line of fold, securing flaps extended from one of each bag sides, said inner and outer blanks being of the same marginal outline and dimension, with the securing flaps of the inner bag secured to the inner surface of the opposing bag side, and the flaps of the outer bag secured to the outer surface of the opposing outer bag side.

943,127. INDICATOR-COUPLING. LODEWYK B. VAN BOVEN, Watergraafsmeer, near Amsterdam, Netherlands. Filed Jan. 15, 1909. Serial No. 472,502.



1. An indicator coupling comprising a support, doubled arm levers pivoted to said support, said levers being provided on one of their arms with hooks to engage an indicator rod, yielding means arranged to press upon said arms of said levers to maintain the connection therewith the indicator rod, and a movable element arranged to engage the other arms of said levers to release the connection with the indicator rod.

2. An indicator coupling, comprising a support, doubled arm levers pivoted to said support, one arm of said levers provided with means to engage an indicator rod, yielding means engaging said arms to maintain the connection thereof with said rod, and a movable element coöperating with the other arms of said levers and adapted to release the engagement with the indicator rod.

3. An indicator coupling, comprising a support, doubled arm levers pivoted to said support, one arm of said levers provided with means to engage an indicator rod, spring pressed means engaging said arms of said levers to maintain connection with the indicator rod, a movable element arranged to act upon the other arms of said levers to release connection with the indicator rod, and means to project the indicator rod from the coupling when the lever arms are disengaged therefrom.

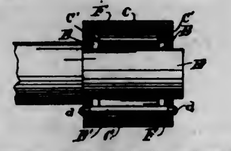
4. An indicator coupling comprising a support, doubled arm levers pivotally connected therewith and provided with hooked ends, spring pressure means acting upon one arm of said levers, a movable crown adapted to engage the other arms of said levers and the hooks thereof, and a projector arranged to eject an indicator rod from the coupling when the engagement of the hooked ends of the lever arms is released.

5. In combination with an indicator rod provided with a knob or head having a shoulder, of a coupling comprising a support, doubled arm levers pivoted thereto and having hooked ends to engage the shoulder of the indicator rod, spring pressure means acting upon said arms of said levers, a movable crown adapted to engage the hooked ends of the other arms of said levers to release engagement with the indicator rod, and an ejector set by the indicator rod when the latter is inserted between the hooked arms of the levers and adapted to project said indicator rod from the coupling when engagement of said arms therewith is released.

943,128. ROLLER-BEARING. WILLIAM VANMANEN, Grand Rapids, Mich. Filed June 5, 1907. Serial No. 377,440.

1. In combination with a shaft and hub, end supports mounted on the shaft inside of the hub, a series of small rollers revolubly mounted in the end supports and arranged to secure the end supports together, a series of

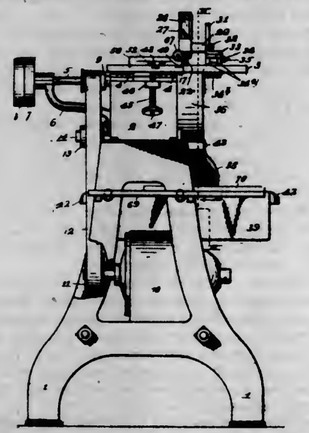
large rollers mounted alternately with the small rollers, there being tapering bearings at the ends of the large rollers, and supporting rings mounted between the end supports and the ends of the large rollers outside of the tapering bearings.



2. In combination with a shaft and a hub, end supports supported on the shaft within the hub, a series of small rollers revolubly mounted in the end supports and arranged to secure the end supports in position, a series of large rollers mounted alternately with the small rollers between the end supports and having journal bearings, and rings loosely mounted between the end supports and the ends of the large rollers and encircling the journal bearings.

3. In combination with a shaft and a hub, end supports loosely mounted on the shaft inside the hub, small rollers mounted to revolve freely in the end supports and to secure the end supports in position, and a series of large rollers mounted between the end supports alternating with the small rollers and arranged to form a roller bearing engaging the shaft and the hub.

943,129. MACHINE FOR SAWING AND TRIMMING TYPE, PLATES, &c. GEORGE H. VINING, Kansas City, Mo. Filed Nov. 25, 1907. Serial No. 403,586.

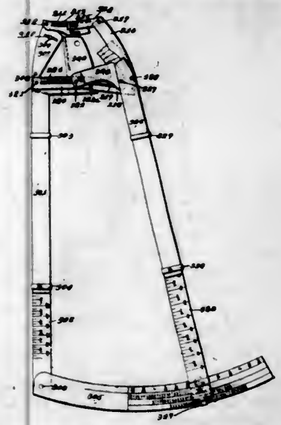


1. A machine for trimming metal plates, having in combination with a table, a shaft having a threaded end and a shoulder near said end, a saw mounted on said shaft and bearing against said shoulder, an externally threaded bushing loosely fitted on said shaft for clamping said saw against said shoulder, a clamping nut engaging the threaded end of said shaft to hold the bushing against said saw, a disk collared on said bushing and bearing against said saw, a nut engaging said bushing to secure said disk against said saw, and trimmers adjustably extending through said disk and saw, to coöperate with said saw in working sheet metal.

2. A machine for trimming metal plates, comprising with a table and a saw mounted for rotation therethrough, an adjustable hood supported by said table and carried over said saw, said hood comprising a semicylindrical boxing having a horizontal shaft near one end of its diametrical edge, a vertical standard secured to said table and having said horizontal shaft secured thereto for vertical adjustment.

3. A machine for trimming metal plates, comprising with a table and a saw mounted for rotation therethrough, an adjustable hood supported by said table and carried over said saw, said hood comprising a semicylindrical boxing having a horizontal shaft near one end of its diametrical edge, a slotted projection mounted on said table and a vertical standard having a slot mounted for horizontal adjustment on said projection, said horizontal shaft being secured in said vertical slot for vertical adjustment.

943,130. ADJUSTABLE CHART. FRANK D. WEBSTER, St. Louis, Mo. Filed Mar. 6, 1909. Serial No. 481,677.



1. In an adjustable chart, a skirt pattern containing the combination of the curved scale-member 311; the curved member 314 slidably mounted upon the scale-member 311; the member 307 pivotally connected to the scale-member 311; the vertical member 301 pivotally connected to the member 307; the extensible scale-member 302 slidably connected with the vertical member 301; the curved scale-member 305 pivotally connected to the member 302; the curved member 316 pivotally connected to the member 314; the vertical member 325 pivotally connected to the member 316; the extensible scale-member 328 slidably connected to the member 325, and having its lower extremity slidably mounted upon the scale-member 305, substantially as described.

2. In an adjustable chart, a back waist pattern comprising the central member 200; the neck measuring member 206 slidably mounted at its upper end upon the member 200; the arc-member 207 slidably connected to the member 200 and to the member 206; an arm-hole-measuring member 211 pivotally connected to the member 207; the member 215 slidably connected to the member 211; the member 216 slidably mounted upon the member 215 and having its extremity slidably mounted upon the member 200; the member 217 slidably mounted upon the member 200; the scale-member 227 slidably mounted upon the member 217 and upon the member 216; the member 229 having its upper extremity pivotally connected through the member 215 to the scale-member 227; the waist-line member 242 slidably mounted upon the member 229; the member 248 having its upper extremity pivotally mounted upon the member 242; the member 250 pivotally mounted to the lower extremity of the member 248; the scale-member 254 slidably mounted upon the member 250; the scale-member 252 slidably mounted upon the member 200 and pivoted at its lower extremity to the scale-member 254; the member 240 slidably mounted upon the member 229; the member 235 pivotally mounted upon the member 232; and the member 237 slidably connected to the members 235 and 240, substantially as described.

3. In an adjustable chart, a front waist pattern comprising a vertical member 100 provided toward its lower end with the longitudinal slot 101 and at its upper end with the longitudinal slot 102; the depending member 107 slidably mounted upon the member 100; the transverse member 109' pivotally connected to the lower extremity of the member 107; the socket-member 115 mounted upon the member 109'; the bar 113 pivotally mounted upon the socket-member 115; the bar 111 pivotally mounted upon the depending member 107 and having slidable engagement with the bar 113; the slotted bar 123 having pivotal engagement with the bar 111 and the bar 113; the slotted transverse member 119 slidably mounted in the slot 102 and having slidable engagement with the bar 123; the bar 124 slidably mounted on the member 119 and having slidable engagement with the depending member 130; the curved member 132 pivotally connected to the lower extremity of the depending member 130; the scale-member 135 slidably mounted upon the member 132; the member 147 pivotally connected to the scale-member 135 and provided with the tongue 149; the member 141 pivotally connected to the member 147 and slidably connected to the tongue 149; the front armhole curved member 158 slidably mounted upon the member 141; the member 117' slidably mounted upon the member 141 and slidably connected to the member 111; the member 152 pivotally connected to the member 119; the member 154 pivotally connected to the members 163 and 141 and having slidable connection with the member 152; the member 166 pivotally mounted on the member 163; the member 167 slidably connected to the member 166 and pivotally connected to the member 100; the member 171 slidably connected to the member 100; the member 176 slidably connected to the member 171 and pivotally connected to the member 100; the member 180 slidably mounted upon the member 171; the member 178 pivotally attached to the upper extremity of the member 163 and slidably connected to the member 180, substantially as described.

4. In an adjustable chart, the sleeve pattern comprising the upper arm member 400; the slotted member 403 slidably mounted on the member 400; the member 410 slidably mounted on the member 400; the member 413 pivotally mounted on the member 410 and slidably connected with the member 403; the member 406 slidably mounted upon the member 400; the rectangular member 417 pivotally mounted upon the member 410 and slidably connected to the member 406; the rectangular member 423; the member 425 pivotally mounted at its extremities to the members 421 and 423 respectively; the T-shaped member 428 slidably connected to the member 410; the clamp 432 mounted on the member 428; the member 423 slidably mounted in said clamp 432; the clamp 419 pivotally mounted upon the member 410 and having slidable engagement with the member 421; the member 445 pivotally mounted upon the member 428; the rectangular member 438 slidably mounted upon the member 423; the member 434 slidably connected to the member 428 and similarly connected to the rectangular member 438; the member 445 pivotally mounted upon the member 428 and the member 443 slidably mounted upon the member 445 and slidably connected to the rectangular members 438, substantially as described.

943,131. FLUSHING DEVICE. CARL H. ZWERMANN, Kalamazoo, Mich. Filed May 19, 1909. Serial No. 497,060.



1. The combination with a tank, of a valve; an operating means for said valve comprising a push rod; a supporting sleeve for said push rod arranged through the wall of said tank; a clamping nut for said sleeve; a swinging arm pivotally mounted on said nut, said nut being provided with a projecting arm bifurcated to receive said swinging arm and having its end rolled into a pivot knuckle; connections for said swinging arm to said valve; and a connecting link for said push button to said swinging arm, said link being bifurcated at its ends to engage said push rod and said arm and U-shaped in cross section, whereby said arm may swing into the same.

2. The combination with a tank, of a valve; an operating means for said valve comprising a push rod; a supporting sleeve for said push rod arranged through the wall of said tank; a clamping nut for said sleeve; a swinging arm pivotally mounted on said nut, said nut being provided with a projecting arm bifurcated to receive said swinging arm and having its ends rolled into a pivot knuckle; connections for said swinging arm to said valve; and a connecting link for said push button to said swinging arm, said link being bifurcated at its ends to engage said push rod and said arm.

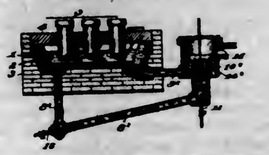
3. The combination with a tank, of a valve; an operating means for said valve comprising a push rod; a supporting sleeve for said push rod arranged through the wall of said tank; a clamping nut for said sleeve; a swinging arm pivotally mounted on said nut; connections for said swinging arm to said valve; and a connecting link for said push button to said swinging arm, said link being bifurcated at its ends to engage said push rod and said arm and U-shaped in cross section, whereby said arm may swing into same.

4. The combination with a tank, of a valve; an operating means for said valve comprising a push rod; a supporting sleeve for said push rod arranged through the wall of said tank; a clamping nut for said sleeve; a swinging arm pivotally mounted on said nut; connections for said arm to said valve; and a connecting link for said push button to said swinging arm, said link being bifurcated at its ends to engage said push rod and said arm whereby said push rod is held against rotation.

5. The combination with a tank, of a valve; an operating means for said valve comprising a push rod; a swinging arm; connections for said swinging arm to said valve; and a connecting link for said push button to said swinging arm, said link being bifurcated at its ends to engage said push rod and said arm and U-shaped in cross section, whereby said arm may swing into the same.

[Claim 6 not printed in the Gazette.]

943,132. PROCESS OF PRODUCING NITRIDS. CHARLES E. ACKER, New York, N. Y., assignor to The Nitrogen Company, a Corporation of New York. Filed Mar. 18, 1909. Serial No. 484,187.



1. The cyclic process of producing nitrids, which consists in repeatedly reacting with nitrogen on an alloy comprising an inert metal and a nitrid-forming metal, separating the resulting nitrid, and alloying more of the nitrid-forming metal with the residual inert metal.

2. The cyclic process of producing nitrids, which consists in repeatedly reacting with nitrogen on a molten alloy comprising an inert metal and a nitrid-forming metal, separating the resulting nitrid, and alloying more of the nitrid-forming metal with the residual inert metal.

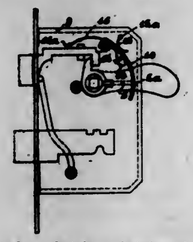
3. The cyclic process of producing nitrids, which consists in repeatedly reacting with nitrogen on a molten alloy comprising an inert metal and a nitrid-forming metal, separating the resulting nitrid, and alloying more of the nitrid-forming metal with the residual molten inert metal.

4. The cyclic process of producing nitrids, which consists in injecting a nitrogenous gas into a molten alloy comprising an inert metal and a nitrid-forming metal, separating the resulting nitrid, and alloying more of the nitrid-forming metal with the residual metal for further treatment.

5. The electrolytic process of producing nitrids, which consists in electrolysing a molten compound of a nitrid-forming metal, alloying the separated metal with an inert cathode metal, reacting on the molten alloy with nitrogen, separating the resulting nitrid, and reëmploying the residual inert metal in the cathode.

[Claims 6 to 8 not printed in the Gazette.]

943,133. DOOR-LOCK. FRIEDRICH ASSMANN, Leichlingen, Germany. Filed Nov. 28, 1908. Serial No. 464,838.



1. In a door lock, a latch, a latch retracting roll back, an outer handle adapted to operate the roll back, an inner handle, a loose connection therefrom to the roll back whereby the said handle is adapted to operate the roll back when turned in one direction, a latch arrester comprising the combination of a lever, 5, having a bent end 5^a, and a cam-lever 13, within the action of said bent end and having a detent end adapted to engage the tail-piece of the latch where the same is thrown forward, and a connection from said latch arrester to the inner handle operated by a movement of said inner handle in a direction opposite to the latch retracting movement whereby the latch is located in its forward position against movement by the outer handle, substantially as described.

2. In a door-lock, a latch-bolt arrester comprising the combination of door-handles, the axle of which is composed of two portions connected with each other by a clutch coupling, the door-handle on the indoor portion being movable upwardly, a lever 5, radiating from and rigidly connected with the said indoor portion of the said axle and having a bent end 5^a, a cam-lever within the action of the said bent end and having a detent-end adapted to engage the tail-piece of the latch-bolt, substantially as described.

3. In a door-lock, a latch-bolt arrester comprising the combination of a latch mechanism, a lever 5, having a bent end 5^a, guided in a curved slot, a cam-lever 13 within the action of the said bent end and having a detent-end adapted to engage the tail-piece of the latch-bolt, and a spring 16 secured in one of the cover-plates of the lock and adapted to act on the detent end of the cam lever when the handle is in horizontal position.

4. In a door-lock, a latch-bolt arrester comprising the combination of a latch mechanism, an intermediate plate, a lever 5, having a bent-end 5^a, guided in a curved slot in said intermediate plate, a cam-lever 13 within the action of said bent-end when traveling in the said slot, and having a detent-like end adapted to engage the tail-piece of the latch-bolt, and a spring 16 engaging said cam-lever and withdrawing the same from said tail-piece upon the withdrawal of the said detent-like end.

5. In a door-lock, a latch, a device for withdrawing same, a two-part axle, a controlling connection between one of said parts and said latch-withdrawing device, a clutch between the two parts of said axle adapted to permit the other part of the axle to operate the latch when moved in one direction and to have a limited free movement in the opposite direction, and a stop for the latch, and means for inserting same in the path of the latch operated by the other part of the axle in the said limited free movement.

[Claims 6 to 15 not printed in the Gazette.]

943,134. POST OR TELEGRAPH AND TELEPHONE POLE. HERBERT E. ATCHISON, Ogden, Utah, assignor to The American Post and Pole Company, a Corporation of Arizona. Filed Apr. 10, 1908. Serial No. 426,857.



1. An article of the class described comprising a bar having angularly disposed sides and flukes projecting upwardly from its lower extremity, substantially in a plane with the vertex of the angle.

2. An article of the class described comprising a bar having angularly disposed sides and flukes projecting from its lower extremity and formed by incising the said sides in proximity to their lower edges and bending the partly severed portions outwardly so as to extend in one plane approximately parallel to the longitudinal axis of the bar.

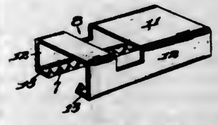
3. An article of the class described comprising a bar having angularly disposed sides and vertically successive prongs projecting therefrom alternately in opposite directions and in planes substantially parallel to the longitudinal axis of the bar.

4. An article of the class described comprising a bar having angularly disposed sides and vertically successive prongs projecting upwardly therefrom in planes substantially parallel to the longitudinal axis of the bar.

5. An article of the class described comprising a bar having angularly disposed sides and vertically successive prongs projecting therefrom and formed by cutting the said sides along spaced lines and bending the intermediate portions so as to extend in planes substantially parallel to the longitudinal axis of the bar.

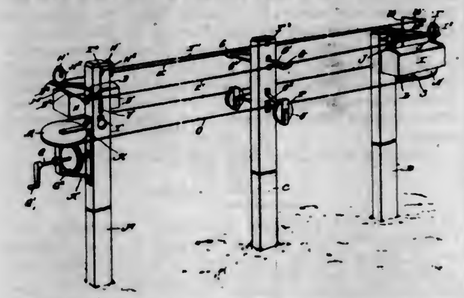
[Claim 6 not printed in the Gazette.]

943,135. LAP-FASTENER. FRANK A. BOYER, St. Louis, Mo. Filed Oct. 12, 1908. Serial No. 457,308.



A lap fastener comprising an elongated body having a top; two parallel side members; a bottom section; a strap mounted in said body, and overlapped upon itself; a series of teeth extending throughout the length of the body and formed on the inner edges of the bottom section, all bent inwardly and arranged at right angles to the bottom section, the top being provided with an elongated slot, the ends thereof extending into the side members; a loop so inserted in said slot that the ends thereof are securely fastened between the laps of said strap, substantially as specified.

943,136. MAIL-CARRIER. WILLIAM T. BUCK and GROVER C. WILLIS, Vlieta, Kans.; said Willis assignor to said Buck. Filed Feb. 13, 1909. Serial No. 477,703.



1. An apparatus of the kind described comprising supporting posts horizontal parallel tracks carried by said posts, carriers provided with wheels mounted on said tracks, an endless cable mounted on pulleys supported by said posts and spring actuated arms carried by the respective carriers connected to said endless cable and means for operating said cable.

2. An apparatus of the kind described comprising supporting posts parallel cable tracks supported by said posts, brackets secured to said posts for carrying grooved pulleys, an endless cable mounted on said grooved pulleys in vertical alinement with said cable tracks, carriers provided with grooved wheels mounted on said cable tracks, and spring actuated arms carried by said carriers connected to the respective lead ways of said endless cable whereby said carriers will move in opposite directions when said cable is operated.

3. An apparatus of the kind described comprising spaced cable tracks, an endless cable arranged under said cable tracks in vertical alinement therewith, carriers provided with wheels mounted on said tracks, spring actuated arms carried by said carriers connected to said endless cable, and means for operating said endless cable whereby said carriers will be moved in opposite directions upon the respective tracks.

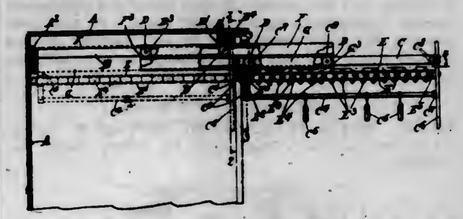
4. An apparatus of the kind described comprising posts having parallel cable tracks arranged upon opposite sides, carriers provided with wheels mounted on said tracks, said carriers being provided with doors and a shaft provided with a crank arm mounted on one of the posts adapted to be normally held in the path of said carriers, said shaft being provided with a crank and a bell connected to said crank by the cable whereby said bell will be sounded when the crank arm is operated for the purpose set forth.

5. An apparatus of the kind described comprising terminal and intermediate supporting posts, cable tracks carried by said posts upon opposite sides, carriers having hangers provided with wheels mounted on said tracks, an endless cable supported by said posts under said cable tracks, arms carried by the carriers connected to said cable and means for operating said endless cable so as to cause the carriers to travel in opposite directions upon the respective tracks.

[Claims 6 to 17 not printed in the Gazette.]

943,137. EXTENSION GARMENT-RACK. BENJAMIN J. BUCKINGHAM, Chicago, Ill., assignor to Buckingham-Rae Company, Chicago, Ill., a Corporation of Illinois. Filed June 1, 1908. Serial No. 435,946.

1. An extension garment rack comprising two oppositely opening channels with a fixed bar on which the upper is slidably mounted, and a garment holding bar which is slidably mounted on the lower.



2. An extension garment rack comprising a fixed bar, and a movable bar on which the garment holders are mounted, and an intermediate part which incloses both of said bars, the intermediate part movable on the fixed bar, and the movable bar movable on the intermediate part.

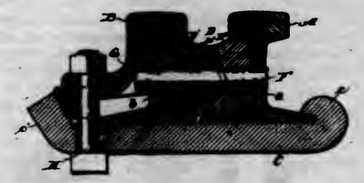
3. An extension garment rack comprising a fixed bar and a movable bar on which the garment holders are mounted, and an intermediate part which is open above and below to receive, and which incloses both of said bars, the intermediate part movable on the fixed bar, and the movable bar movable on the intermediate part.

4. An extension garment rack, the combination of a fixed bar with a movable bar, and an intermediate part consisting of an upwardly opening and a downwardly opening portion, the two secured together, the fixed bar projecting down inside the upper part, and the movable bar projecting into the lower part of such intermediate part, and means for connecting them so that the lower bar moves longitudinally on the intermediate part, and the intermediate part on the fixed bar.

5. An extension garment rack comprising a fixed bar with laterally disposed rollers mounted thereon, a movable bar with laterally disposed rollers mounted thereon, and an intermediate part which consists of an upper and lower hollow groove section to receive respectively the upper and lower bars and their rollers.

[Claim 6 not printed in the Gazette.]

943,138. GUARD-RAIL CLAMP. MOSES BURPEE, Houlton, Me. Filed Sept. 5, 1908. Serial No. 451,852.



1. In combination, a traffic rail and a guard rail, a base member underlying said rails and engaging with the bases thereof, a jaw integral with said member and overlying the base of the traffic rail, an upwardly and outwardly inclined projection on said member adjacent to the outer side of the guard rail, a spacing block between the rails, and a brace arranged between said inclined projection and the under side of the head of the guard rail.

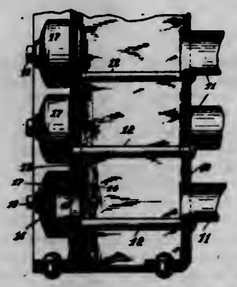
2. In a guard-rail clamp, a two-part space block, a dowel pin permanently-secured to one member of said block, and the other member of said block being perforated to receive said pin, said pin being long enough to project entirely through the latter member.

3. In a guard-rail clamp, a two-part space block, and a dowel pin extending through said block and projecting therefrom on opposite sides thereof, said dowel pin being permanently secured to one of the members of said block.

4. In combination, a traffic rail and a guard rail, a base member underlying said rails and engaging with the bases thereof, a jaw integral with said base member and overlying the base of the traffic rail, an upwardly and outwardly inclined projection on said base member adjacent

to the outer side of the guard rail, a spacing block between the rails, a brace arranged between said inclined projection and the outside of said guard rail and a bolt passing downwardly through said brace and said base member, said base member having an elongated opening through which said bolt passes so as to permit the brace to be adjusted transversely of the rails.

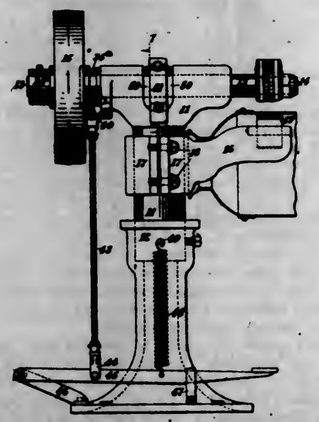
943,139. WATER-TUBE BOILER. EDWARD W. CLARK, Los Angeles, Cal. Filed Jan. 15, 1908. Serial No. 411,019.



1. In a boiler, an outer plate, having holes opposite the tubes; short thimbles swaged into the holes in said outer plate and having the outer ends thereof exteriorly threaded and of larger diameter than the hole in the plate; covers for the outer ends of said thimbles; cover caps screwed upon the ends of said thimbles; and tightening screws passing centrally through the cover caps and engaging the covers the opposed faces of said covers and thimbles being faced.

2. In a boiler, an outer surface having handholes opposite the tubes; short thimbles swaged into the holes in said outer surface and having cap engaging means on the outer ends thereof; covers for said thimbles the opposed faces of said covers and thimbles being faced; cover caps passed thereover and having means to engage the thimbles; and means carried by said cover caps to apply pressure upon the center of the covers.

943,140. CAN-MARKING MACHINE. JACOB B. CONOVER, Jersey City, N. J., assignor to Dairymen's Manufacturing Company, a Corporation of New York. Filed Sept. 23, 1907. Serial No. 394,154.



1. A can marking machine comprising marking means, and a plurality of work holders of different forms adapted to be brought into coöperative relation with the marking means interchangeably.

2. A can marking machine comprising marking means, and a plurality of interchangeable swinging work holders of different forms coöperative with the marking means.

3. A can-marking machine comprising marking means, a can-body support, and a can-cover support of different form, said supports being movable alternatively into cooperative relation with the marking means.

4. A can marking machine comprising marking means, a supporting roll for can cylinders, a supporting anvil for can covers, and means for bringing either the roll or the anvil into coöperative relation with the marking means.

5. A can marking machine comprising marking means, a swinging support for can cylinders, a swinging support for can covers, the two supports being formed substantially integral with each other, and means for bringing either support into coöperative relation with the marking means.

[Claims 6 to 24 not printed in the Gazette.]

943,141. TYPE-WRITING MACHINE. THOMAS J. COO, Toronto, Ontario, Canada, assignor to The Monarch Typewriter Company, Syracuse, N. Y., a Corporation of New York. Filed Nov. 28, 1906. Serial No. 345,511.



1. In a typewriting machine, the combination of a platen, two paper controlling devices for coöperation with different sheets of paper above the writing line and at the same end of the platen, one of said devices being arranged to act on one sheet and the other of said devices to act on another sheet while said sheets are being fed at the same time through the machine, and a common support for said paper controlling devices adjustable lengthwise of the platen.

2. In a typewriting machine, the combination of a platen, two paper controlling devices for coöperation with different sheets of paper at the same end of the platen, one of said devices being arranged to act on one sheet and the other of said devices to act on another sheet while said sheets are being fed at the same time through the machine, a common support for said paper controlling devices adjustable lengthwise of the platen, and means whereby one of said paper controlling devices may be moved away from the platen independently of the other.

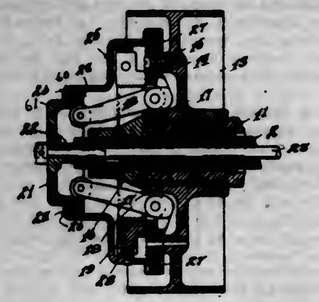
3. In a typewriting machine, the combination of a platen, two paper controlling devices for coöperation with the same end of the platen, a common support for said paper controlling devices adjustable lengthwise of the platen, and means whereby one of said paper controlling devices may be adjusted lengthwise of the platen on said support.

4. In a typewriting machine, the combination with a platen, of a paper controlling device for coöperation with a comparatively wide sheet of paper, a support for said paper controlling device adjustable lengthwise of the platen, a second paper controlling device for coöperation with a comparatively narrow sheet of paper, and a support for said second paper controlling device adjustably mounted on the first mentioned support.

5. In a typewriting machine, the combination with a platen, of two paper fingers for coöperation with the two sides of a comparatively wide sheet of paper, two paper controlling devices for coöperation with a comparatively narrow sheet of paper, and two supports one at each side of the paper, each of said supports carrying one of said paper fingers and one of said paper controlling devices and adjustable lengthwise of the platen.

[Claims 6 to 19 not printed in the Gazette.]

943,142. VARIABLE-SPEED DRIVING MECHANISM. ADOLPH L. DE LEEUW, Hamilton, Ohio, assignor to The Cincinnati Milling Machine Company, Cincinnati, Ohio, a Corporation. Filed Oct. 7, 1907. Serial No. 396,238.



1. In a device of the class described, a driving and a driven element, a member to be friction clutched on one of said elements, two independent friction clutching members on the other element adapted to alternately engage the member to be clutched, means for operating one of said clutches with a selective tension, and the other clutch with a definite tension, and a common actuating member controlling said means having an intermediate neutral position and operating in opposite directions of movement to independently control said friction clutches.

2. In a device of the class described, a driving and a driven member, a ring to be friction clutched on one of said members, a friction clutching member on the other member adapted to engage said ring with a selective tension, a lever clamping clutch mechanism adapted to engage said ring with a definite tension, means for shifting the selective tension clutching member, and connections between the selective and the definite clutching members, whereby they may be alternatively operated.

3. In a device of the class described, alternative friction clutches, a common controller therefor, having an intermediate neutral position and movable in opposite directions, means whereby one of the clutches is operated with a selective friction tension when the controller is moved in one direction and means whereby the other clutch is operated with a definite friction tension when the controller is moved in the opposite direction.

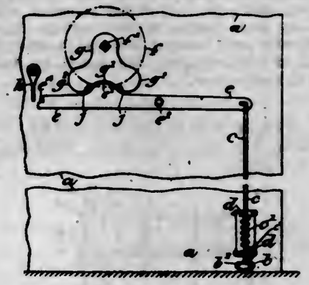
4. In a device of the class described, a wheel, a ring to be friction clutched thereon, a shaft to be connected to the wheel, a friction clutching member for the ring axially movable on the shaft, a lever friction clutching member rotatable with the shaft and adapted to clamp the ring, means whereby the axially movable member is caused to actuate said lever friction clutching member, and means for shifting said axially movable member in opposite directions.

5. In a device of the class described, a driving and a driven member, a ring to be clutched on one of said members, alternative clutching devices on the other element, one of said clutches comprising an axially moving member adapted to clutch the ring with selective tension, the other clutch device comprising a lever adapted to definitely clamp the ring, and means for independently actuating said clutches from an idle position to connect said wheel and shaft under a light or heavy tension.

[Claims 6 to 10 not printed in the Gazette.]

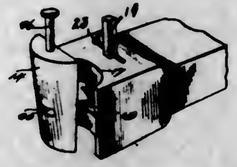
943,143. DOOR-HOLDER. THOMAS DRAPER, West Kilburn, London, England. Filed Nov. 6, 1908. Serial No. 461,289.

1. In combination with a door and knob, of a spring actuated stop movably mounted on said door in a position to engage the floor, a pivoted lever connected with said stop and provided with cam surfaces on one margin, and a cam member actuated by said knob and disposed above said lever and provided with cam surfaces on its margin adjacent said lever and acting downwardly on said lever cam surfaces to actuate the lever when the knob is turned.



2. In combination with a door and a knob therefor, of a spring actuated stop movably mounted on said door in a position to engage the floor, a pivoted lever connected with said stop and provided with a cam projection extending from one of its lateral margins, and a member located above said lever and provided with a recessed cam surface corresponding with said projection, and lateral cam surfaces having extensions of said recessed surface and acting downwardly on said projecting cam to actuate the lever when the knob is turned.

943,144. CAR-COUPLING. JAMES F. DURBIN and VOTAW S. DURBIN, Fort Scott, Kans. Filed June 25, 1908. Serial No. 440,247.



1. In combination, opposing coupling parts each having a head portion formed with a recess extending to its end face and formed with a second tapered recess in its end face, a locking knuckle in each head portion having a reduced shank pivoted and working in said first named recess, said knuckles engaging conformably in the tapered recess of the opposed coupling part, said shanks having extended shoulders at their inner ends, a locking pin engaged through each head portion and constructed to engage said shoulders and thereby prevent pivotal movement of said shanks and means for holding said pins against displacement.

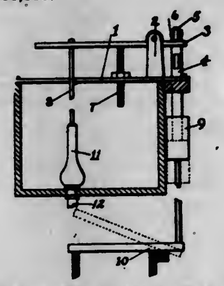
2. In combination two similarly constructed complementary coupling parts, each having a head portion formed with a recess extending to its end face and formed with a second recess in its end face, a locking knuckle having a reduced shank pivoted and working in said first named recess, and means detachably engaging the shank to hold the same against pivotal movement in the locked relation of the knuckles, said knuckles having curved tapering faces and engaging in said second named recesses, the latter having their faces curved and tapering conformably to the faces of said knuckles seating therein.

3. A car coupling comprising in combination opposing members, each comprising a head, a locking knuckle pivoted to said head, said knuckle having a rear vertical straight face and a front tapered face, and means to lock the knuckles of said opposing heads with their straight faces in engagement.

4. A car coupling, comprising in combination, opposing members, each comprising a head, a tapered knuckle pivoted to said head, means for engaging the knuckles of said opposing members, and means for locking said knuckles in engagement.

5. A car coupling comprising in combination, opposing members, each comprising a head, a tapered knuckle pivoted to said head, each of said knuckles having a face adapted to engage the face of the opposing knuckle, and each of said heads having a conformation adapting it to coöperate with said tapered knuckle to prevent vertical movement of said knuckles, and means for locking said knuckles in engagement.

943,145. DEVICE FOR FLUSHING TANKS. WITTON W. ELLERBECK, Salt Lake City, Utah. Filed Apr. 6, 1909. Serial No. 488,310.

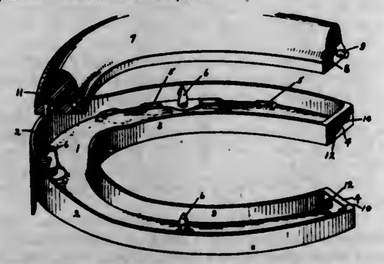


1. In combination with a tank having a flush valve in the bottom thereof, a lever one end of which is connected with the valve rod, a base supporting said lever, means for adjusting the throw thereof, with a vertically movable rod and guides therefor, a detent pivoted in the upper portion of said rod that engages said lever and positioned at right angles to said lever, and adapted to engage said lever only in descending, a short distance from its end.

2. In combination with a tank, a self adjusting detent positioned at right angles to and a short distance from the end of a lever, a vertically movable rod within which said detent is pivoted and whose lower end is connected to the seat, with a lever one arm of which is connected to the valve that closes the discharge opening in said tank, and the other arm adapted to be engaged by said detent a short distance from the end of said lever, and means for adjusting the movement of said lever, as and for the purposes described.

3. In combination with a tank, a base plate secured thereon having a guide opening near one end and an upwardly extending bifurcated bracket on said base, a lever pivoted therebetween, a valve rod detachably secured thereto and an adjusting screw therein; a vertical rod whose lower end is attached to the closet seat and movable in said guide opening, a weight on said rod, a detent pivoted in the upper end of said rod and positioned near one end and at right angles to said lever, as and for the purposes described.

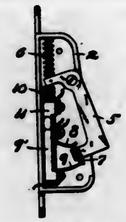
943,146. HORSESHOE. HERMAN J. FILLIEZ, Canton, Ohio, assignor of one-third to Augustus Vignos and one-third to Martin L. Keagy, Canton, Ohio. Filed Mar. 22, 1909. Serial No. 484,963.



1. In a horseshoe the combination of a shoe proper provided with heel flanges and hooks, each heel flange provided with an aperture and a screw threaded aperture, a cushion provided with a continuous, embedded wire extending from end to end and beyond the ends thereof, said cushion provided with apertures registering with the screw threaded apertures in the said heel flanges, the said hooks on the shoe proper engaging the embedded wire in the cushion, and separate, removable keys arranged in the screw threaded apertures of the heel flanges and extending into the apertures of the cushion registering therewith.

2. In a horseshoe the combination of a shoe proper, said shoe proper provided with a hoof engaging portion, an integral, continuous flange depending from said hoof engaging portion and comprising an outer flange, an inner flange and heel flanges, hooks connected to and rising from the hoof engaging portion between the outer and inner flanges, each heel flange provided with an aperture and a screw threaded aperture, a cushion adapted to conform to the space between said outer flange and inner flange, said cushion provided with a continuous, embedded wire extending from end to end and beyond the ends thereof, said cushion provided with apertures registering with the screw threaded apertures in the heel flanges, said cushion further provided with apertures in its base adapted to permit the said hooks to enter the body of the cushion and engage the said wire embedded therein, and separate, removable keys adapted to be arranged in the screw threaded apertures of the heel flanges and to extend into the apertures of the cushion registering therewith, all substantially as described.

943,147. WINDOW-SPRING. JAMES HAGERTY, Scott township, Allegheny county, Pa. Filed Dec. 21, 1908. Serial No. 468,426.



1. In a window spring, a closed casing carried by the inner exposed surface of the window frame alongside of the sash, an inclined lever extending therefrom and normally held in its depressed position, a pair of contacts insulated from one another and the casing in the path of and adapted to engage the free end of the lever therebetween, a member carried by the face portion of the window sash normally engaging with and retaining the lever in its depressed position, and a spring for placing tension upon the lever and causing it to adjust itself to its abnormal position between the contacts and retain engagement therewith when released by said member.

2. In a window spring, a casing carried by the window frame and provided with a removable portion, a lever extending therein and normally held under tension in its depressed position, a pair of contacts arranged in said casing in the path of the free end of said lever, a separate contact member retained in normal relation with one of the aforesaid contacts by the removable portion of the casing, and a member carried by the window sash normally engaging with and retaining the said lever in its depressed position.

3. In a window spring, a closed casing carried by the inner exposed surface of the window frame alongside of the sash, a lever pivotally arranged therein and normally held in its depressed position, an insulated contact carried by said lever, a pair of contacts insulated from one another and the casing arranged in said casing, a member carried by the window sash normally retaining said lever in its depressed position, and a spring for placing tension on said lever and causing it to adjust itself to its abnormal

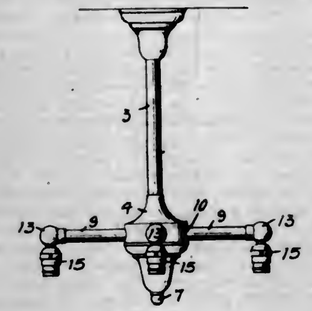
position to make and maintain engagement of the contact carried by the lever with the pair of contacts when released by said member.

4. In a window spring, a casing carried by the window frame and provided with a removable portion, a lever pivotally arranged therein and normally held under tension in its depressed position, a contact member insulatedly secured to the free end of said lever, a pair of contacts arranged in the path of the contact carried by the said lever, a separate contact member retained in its normal relation with one of the pair of contacts by the removable portion of the casing, and a member carried by the window sash normally engaging with and retaining the said lever in its depressed position.

5. In a window spring, a closed casing carried by the inner exposed surface of the window frame alongside of the sash the face portion of said casing being inclined, a lever pivotally arranged within one end of said casing and extending lengthwise thereof and projecting through its inclined face at a greater inclination and normally held in its depressed position, a pair of spaced contacts arranged in said casing and insulated from one another and from the casing the free end of the lever being disposed therebetween, a roller carried by the face portion of the window sash normally engaging with and retaining the lever in its depressed position, and a spring for placing tension on said lever and causing it to adjust itself to its abnormal position to make and maintain engagement of the end of the lever with the pair of contacts when released by said roller.

[Claim 6 not printed in the Gazette.]

943,148. CHANDELIER. LLOYD B. HORNBECK, Minneapolis, Minn. Filed Jan. 4, 1909. Serial No. 470,742.



1. A chandelier, comprising a hanger, a head supported thereon and having radial openings, tubes fitting within said openings and having notched inner ends, and a set screw arranged to engage said ends and lock them in said head, substantially as described.

2. A chandelier, comprising a hanger, a head supported thereon having radial openings, tubes fitting within said openings and having forked inner ends, a set screw mounted in said head and arranged to be straddled by the forked ends of said tubing, said set screw being adapted to be tightened to lock said ends in said head.

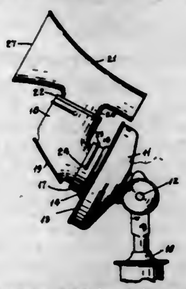
3. A chandelier, comprising a hanger, a head supported thereon having radial openings, tubes slidably fitting within said openings and radiating horisontally from said head, an ornamental casing inclosing said head and having openings through which said tubes project, said tubes forming lamp arms or brackets, and means comprising a set screw for clamping said tubes simultaneously within said head.

4. A chandelier, comprising a hanger, a head supported thereon having radial openings, a casing inclosing said head, tubes fitting within holes in said casing and within the radial openings in said head and forming lamp arms or brackets, said casing having an opening in its lower end, and means comprising a set screw adapted to engage the inner ends of said tubes and accessible through said opening for securing the inner ends of said tubes.

5. A chandelier, comprising a hanger, a head supported thereon and having radial openings, a casing inclosing said head and having holes to register with the openings in said head, tubes fitting within the holes in said casing, and the radial openings in said head, said hanger having an extension depending below said head, and registering with an opening in the lower end of said casing, and means including a single locking screw in said head and accessible through said extension for securing the inner ends of said tubes, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

943,149. MOUTHPIECE FOR TELEPHONE-TRANSMITTERS. JOHN A. JAMIESON, Harrison, N. J. Filed June 8, 1909. Serial No. 500,910.



1. A mouthpiece for telephone transmitters, comprising a trumpet member having a substantially straight tubular body portion open at both ends, and means intermediate of said ends for securing said body portion to a transmitter.

2. A mouthpiece for telephone transmitters, comprising a trumpet member having a substantially straight tubular body portion open at both ends and having a lateral opening intermediate of said ends, and means for securing said body portion to a transmitter with said opening leading thereto.

3. A mouthpiece for telephone transmitters, comprising a trumpet member having a straight tapering tubular body portion with open opposite ends, and a tubular connection projecting laterally from said body portion intermediate of said ends.

4. A mouthpiece for telephone transmitters, comprising a trumpet member having a substantially straight tubular body portion with a plurality of outlets opening directly into the atmosphere, and means for securing said body portion to a transmitter independent of said outlet.

5. A mouthpiece for telephone transmitters, comprising a trumpet member having a tubular body portion with open ends, and a tubular connection leading laterally from said body portion intermediate of said ends.

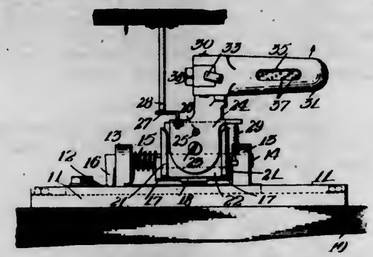
[Claims 6 to 18 not printed in the Gazette.]

943,150. LOOM-TEMPLE. LOUIS H. LANDRY, Uxbridge, Mass., assignor of one-half to Samuel B. Taft, Uxbridge, Mass., one-eighth to Udgil Larocque, and one-eighth to Louis Bousquet and Theodore Bousquet, Burrellville, R. I. Filed July 24, 1908. Serial No. 445,156.

1. The combination with the breast-beam of a loom, of a guide mounted thereon, a slide movable along the guide, having projections, means for securing the slide in adjusted positions, links extending upwardly from the projections, a support pivoted to the upper ends of said links, means adjustably connected with said support and slide for holding the support in horisontal position, and means connected with said support for holding a temple.

2. The combination with the breast-beam of a loom, of a guide mounted thereon and having a dove-tailed slot

along the side thereof, a slide having a projection of similar shape mounted to move in the guide, said guide having a pair of projections, a pair of links pivotally connected with said projections and extending upwardly therefrom, a support pivoted on the top of said links, a head mounted on said support, a hook and link connection between the front end of said support and the slide for holding the support and head in horizontal position, and a temple carried by said head.



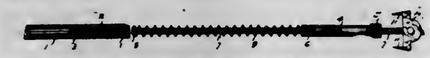
3. The combination with the breast-beam of a loom, of a guide mounted thereon, a slide movable along the guide, means for securing the slide in adjusted positions, links extending upwardly from the slide, a support pivoted to the upper ends of said links, means adjustably connected with said support and slide for holding the support in horizontal position, a plate carried by said support, a head mounted for angular movement horizontally on the plate, and a temple carried by said head.

4. The combination with the breast-beam of a loom, of a guide mounted thereon, a slide movable along the guide, links extending upwardly from the slide, a support pivoted to the upper ends of said links, means connected with said support and slide for holding the support in horizontal position, and means connected with said support for holding a temple.

5. The combination with the breast-beam of a loom, of links extending upwardly, a support pivoted to the upper ends of said links, means connected with said support for holding the support in horizontal position, a plate carried by said support, a head mounted for angular movement horizontally on the plate, and a temple carried by said head.

[Claims 6 to 12 not printed in the Gazette.]

943,151. CURTAIN-SUPPORT. ECTOR F. MARCHAU, East Hartford, Conn. Filed June 22, 1909. Serial No. 503,622.

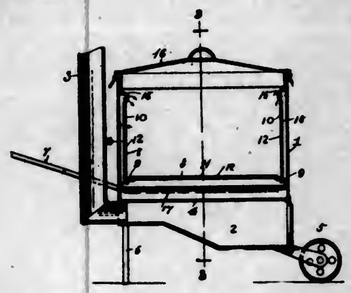


1. A curtain support having a tube, sleeves adjustably connected with the ends of the tube, rods extending through the sleeves, springs arranged between the ends of the rods and the ends of the sleeves, and plates applied to the ends of the rods and adapted to engage the outer edges of a casing.

2. A curtain support having a tube, a sleeve adjustably connected with the end of the tube, a rod extending through the sleeve, a spring thrusting between the end of the rod and the end of the sleeve, and means at the end of the rod for engaging the outer edge of a casing.

943,152. COMBINED WASHING, FRUIT-CANNING, AND COOKING MACHINE. MERIDETH W. MIRACLE, Ardmore, Okla., assignor of one-half to A. M. Sosbee, Ardmore, Okla. Filed Dec. 29, 1908. Serial No. 469,888.

1. In a device of the class described, a tank, a basket adapted to be received by said tank, said basket comprising two end walls and a bottom, all of which are provided with perforations, each of said side walls being composed of a straight portion, a step and a semi-circular portion, the exposed edge of said semi-circular portion extending far enough beyond the corresponding side wall so that it comes into contact with the adjacent side wall of said tank, said semi-circular portion provided with a plurality of rows of holes, and means to support said basket at a desired distance from the bottom of said tank, substantially as shown.



2. In a device of the class specified, a tank, a basket received by said tank, said basket comprising two end walls and a bottom, all of which are provided with perforations, each of said side walls being composed of a straight portion, a step and a semi-circular portion, said semi-circular portion being integral with said straight portion at the upper edge thereof, said step being formed at right-angles to the lower edge thereof, extending inwardly, the exposed edge of each semi-circular portion extending far enough beyond the corresponding side wall so that it will come in contact with the adjacent side wall of said tank, substantially as shown and described.

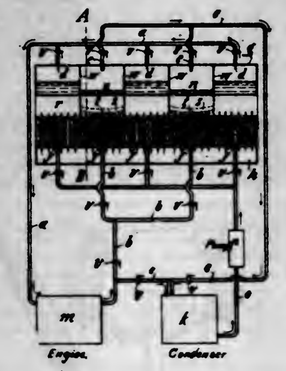
3. In a device of the class described, comprising a basket, and a tank, said basket consisting of two end walls and a bottom, all of which are provided with perforations, each of said side walls being composed of a straight portion a step and a semi-circular portion, said semi-circular portion being integral with said straight portion at the upper edge thereof, said step being formed at right angles to the lower edge thereof, and extending inwardly, the exposed edge of each semi-circular portion extending far enough beyond the corresponding side wall so that it will come into contact with the adjacent side wall of said tank, said straight portion of each side wall provided with a plurality of perforations, each of said semi-circular portions provided with a plurality of rows of holes, means to hold said basket at a desired distance from the bottom of said tank, said means comprising hooks secured to the basket at a suitable point, substantially as described.

943,153. STEAM-GENERATOR FOR SUBMARINE BOATS. RAYMOND D'EQUEVILLEY MONTJUSTIN, Kiel, Germany. Filed Nov. 27, 1907, Serial No. 404,075. Renewed Mar. 6, 1909. Serial No. 481,687.

1. A steam generator for submarine boats comprising a combustion chamber; a plurality of compartments for containing water for the generation of steam; and a plurality of compartments for containing steam-absorbing medium, the latter compartments being arranged alternately with the water compartments along the combustion chamber.

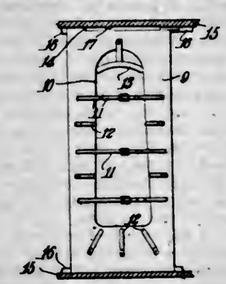
2. A steam generator for submarine boats comprising a combustion chamber and a plurality of compartments arranged along said combustion chamber, some of said compartments being adapted to contain water for the generation of steam, and others thereof being adapted to contain an absorbent medium and all of said compartments being arranged in such manner as to have each compartment for the absorbent medium between two adjacent water compartments.

3. A steam generator for submarine boats comprising steam-generating and steam-absorbing compartments having connections through which they may be connected up to opposite sides of a steam engine; a condenser into which the steam from the generator may be exhausted, said condenser having connections through which it may be connected up to the same side of the engine as the absorbing compartment; and means for conducting the steam from the engine to either the absorbing compartment or the condenser.



4. Steam-generating apparatus for submarine boats, comprising a fire-chamber, steam-generating and steam-absorbing compartments arranged alternately along said fire-chamber; a condenser for the exhaust steam from the engine; and means for directing the exhaust steam alternately into the condenser and said steam absorbing compartments.

943,154. SKIRT-SUPPORTING ATTACHMENT FOR WARDROBE-TRUNKS. ANNIE M. MOORMAN, Lynchburg, Va. Filed Feb. 19, 1908. Serial No. 416,785.



In combination with the top and bottom walls of a trunk or like structure, said walls being provided with guiding means, a vertical panel having its upper and lower edges in sliding engagement with said guiding means and provided with a longitudinal opening, means in said opening for supporting a shirt-waist therein, and means on each face of the panel for clamping a skirt over said opening, for the purpose set forth.

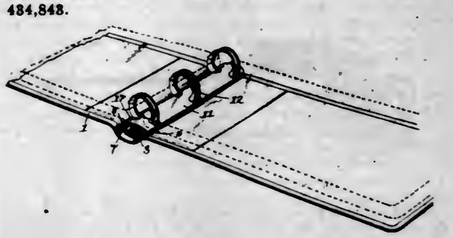
943,155. ELECTRIC MOTOR. LOUDEN A. MCCOURRIE and CHARLES F. RAYDURE, Philadelphia, Pa. Filed Apr. 29, 1909. Serial No. 493,061.

In an electric-motor, a commutator, brush-holders, each consisting of a hollow casting provided with a transverse partition having long and short slots therein, the slots of successive holders in relative positions alternating, brushes fitting said slots, each of the holders provided with a support, tongues on both sides of said support and coiled springs mounted on bearings of said tongues and having the ends respectively connected with said holders and tongues so as to maintain under spring tension said brushes in contact with the commutator to prevent rib



and other formations as well as sparking or arc drawing between said commutator and brushes thereof.

943,156. LOOSE-LEAF BINDER. JOHN L. MCMILLAN and CHARLES H. JOSLYN, Syracuse, N. Y., assignors to McMillan Book Company, Syracuse, N. Y., a Corporation of New York. Filed May 25, 1908. Serial No. 434,843.



1. In a loose-leaf binder, the combination of oppositely-disposed plates; a plurality of fingers carried by each plate; a fixed bearing for the outer edge of each plate; and a spring member carried directly by each of the plates, serving normally to throw the plates out of alinement but permitting the same to be swung upwardly and downwardly to carry the fingers into and out of contact with each other.

2. In a loose-leaf binder, the combination of oppositely-disposed plates, the adjacent edges of which have a rocking connection; a plurality of half-rings or fingers carried by each plate; a fixed bearing for the outer edge of each plate; and a spring member formed as an integral part of one of the plates, serving normally to throw the plates out of alinement and to permit the same to be swung upwardly and downwardly to carry the fingers into and out of contact with each other.

3. In a loose-leaf binder, the combination of a rigid trough-shaped member; a pair of plates having their outer edges fulcrumed upon said member, each of said plates being provided with a spring section; and means for holding the abutting edges of the plates in contact.

4. In a loose-leaf binder, the combination of a pair of plates, each plate having a spring section; means for holding the adjacent edges of the plates together; a fixed support or fulcrum for the outer edge of each plate; and a plurality of fingers carried by each plate.

5. In a loose-leaf binder, the combination of a non-yielding, trough-shaped member; a pair of plates having their outer edges fulcrumed upon said member, each plate having a spring section; means for holding the adjacent edges of the plates together; and a plurality of fingers carried by each of said plates.

[Claims 6 to 11 not printed in the Gazette.]

943,157. COMPOSITION OF MATTER. JOHN F. NORMAN, Lima, Ohio. Filed Feb. 8, 1909. Serial No. 476,837.

1. A composition of the class described consisting of bone, a heat resisting agent, cement and blood thoroughly incorporated in or about the proportions mentioned.

2. A composition of the class described consisting of finely divided bone, cement, and blood prepared by incorporating one with the other in or about the proportions mentioned.

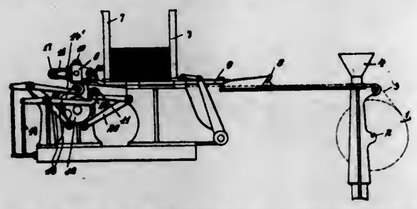
3. A composition of the class described consisting of a mixture of bone incorporated with, a heat resisting agent, cement and blood in or about the proportions mentioned.

4. A composition of matter consisting of a mixture of bone, asbestos, cement and blood, embodying as ingredients a fibrous material, a heat resisting material, cement, and blood mixed and solidified in or about the proportions mentioned.

5. A composition of the class described consisting of a bone base asbestos, cement and water in or about the proportions mentioned:

[Claims 6 to 8 not printed in the Gazette.]

943,158. MACHINE FOR PASTING THE INNER BOXES OR SLIDES OF MATCH-BOXES. CARL S. NYBERG, Mariedal, Södertelje, Sweden, assignor to Badische Maschinenfabrik & Eisengiesserei vorm. G. Sebold und Sebold & Neff, Durlach, Germany, a Corporation. Filed Oct. 19, 1906. Serial No. 339,735.



1. In a machine for making box parts such as the slides of match-boxes, the combination of an angular mandrel, means for feeding side chips to said mandrel, the presser-head arranged to coöperate with the mandrel, said presser-head comprising a piston with a rounded outer end, a bolt or socket with which said piston has a sliding engagement, a spring for pressing said piston outward from said socket and toward the mandrel, and means for fastening the bottom of the slide.

2. In a machine for making box parts such as the slides of match-boxes, a mandrel, means for forming the slide thereon, a reciprocating sleeve, spring arms mounted on opposite sides of said sleeve, and angular plates located at the ends of said arms and adapted to remove the slide from the mandrel.

3. In a machine for making box parts such as the slides of match-boxes, a mandrel, means for forming the slide thereon, a reciprocating member, arms carried by said member to reciprocate in unison therewith and adapted to remove the slide from the mandrel said arms being also movable transversely relatively to said member, and springs for pressing said arms toward each other.

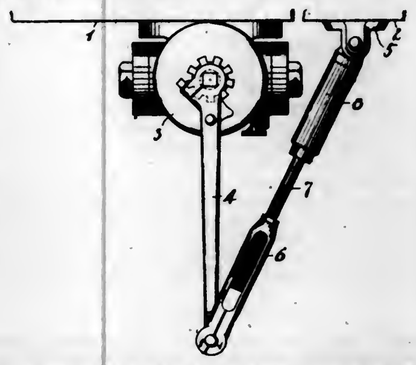
943,159. PRODUCTION OF ALLOYS OF COPPER, SUCH AS BRASS. SYDNEY C. PECK and WILLIAM R. HODGKINSON, London, England. Filed Sept. 11, 1909. Serial No. 517,263.

1. The hereinbefore described method of treating a copper alloy by the introduction thereto of another metal which consists in heating a portion of the alloy metal with a solid reducing agent and the phosphate of the metal to be introduced, collecting the metallic phosphid thus produced, heating a mass of the alloy to a molten state and adding to it the metallic phosphid.

2. The hereinbefore described method of treating a copper alloy by the introduction thereto of another metal which consists in heating a portion of the alloy metal with a solid reducing agent and phosphate of chromium, collecting the metallic phosphid thus produced, heating a mass of the alloy to a molten state and adding to it the metallic phosphid.

3. The hereinbefore described method of treating a copper alloy by the introduction thereto of another metal which consists in heating metallic brass with chromium phosphate and powdered charcoal, collecting the brass solution of chromium phosphid thus produced, heating a mass of the alloy to a molten state and adding to it the required amount of the phosphid solution.

943,160. DOOR CHECK AND CLOSER. JOHN A. PETERSON, New Britain, Conn., assignor to Russell & Erwin Manufacturing Company, New Britain, Conn., a Corporation of Connecticut. Filed Feb. 27, 1909. Serial No. 480,383.



1. A connecting arm for a door closer, comprising a link and including means for pivotally connecting said link at opposite ends to a movable and a fixed object and a yielding buffer arranged between said opposite ends.

2. A connecting arm for a door closer, comprising a link, means for pivotally connecting said link at its opposite ends to a movable and a fixed object, and means between the ends of said link to permit said link to yield endwise, said means including a cushioning device.

3. A connecting arm for a door closer, comprising an arm having connecting means at each end, said arm being formed of two members movable longitudinally relatively to each other and operably associated with each other and a buffer between said two members.

4. In a device of the character described, a door closer mechanism including a swinging arm, a second arm or link pivotally connected to the end of said swinging arm and arranged in turn to be pivotally connected with a fixed abutment, said second arm being telescopic and buffer means carried by the telescopic parts of said arm.

5. A connecting arm for door checks, comprising two telescopic members, one of said members slidably fitting within the other of said members and a buffer spring arranged inside the latter to project the former and to operate as a cushion therefor.

[Claims 6 to 9 not printed in the Gazette.]

943,161. METHOD OF PROTECTING MOLTEN METALS. WALTER S. ROCKEY and HILLIARY ELDRIDGE, New York, N. Y. Filed Mar. 5, 1909. Serial No. 481,434.

1. The method of protecting molten metals consisting in first reducing a suitable halogen salt to a fluid condition by heat and then reducing the metal to be protected to a fluid condition by heat beneath the surface of said halogen salts.

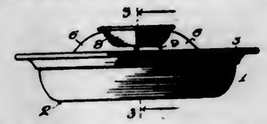
2. The method of plating iron or steel, cast or malleable, consisting in first reducing in a suitable crucible a suitable halogen salt to a fluid state by heat, then reducing below the surface of said salt the metal or metals to form a bath to a fluid condition by heat and protecting the same beneath the surface of the halogen salt and then immersing the metal to be plated first through the halogen salt into the said metal bath, and from the metal bath through the halogen salt to the atmosphere, substantially as set forth.

3. The method of protecting molten metals consisting in first reducing a suitable chlorid to a fluid condition by heat and then reducing the metal to be protected to a fluid condition by heat beneath the surface of the said chlorid.

4. The method of protecting molten metals consisting in first reducing chlorid of potassium to a fluid condition by heat and then reducing the metal to be protected to a fluid condition by heat beneath the surface of the said chlorid of potassium.

5. The method of simultaneous plating and brazing of iron or steel, cast or malleable, consisting in first reducing in a suitable crucible, a suitable halogen salt to a fluid state by heat, then reducing below the surface of said halogen salt, the metal or metals to form a bath to a fluid condition by heat and protecting same beneath the surface of the halogen salt then immersing the iron or steel to be plated and brazed, first through the halogen salt into the said metal bath and from the metal bath through the halogen salt to the atmosphere substantially as set forth.

943,162. VEGETABLE-DISH. LEO SCHLESINGER, New York, N. Y. Filed Sept. 8, 1909. Serial No. 516,659.



1. The combination in an article of the class described of the upright partitions, a supplemental dish smaller than the before mentioned dish, and means formed in said partitions for supporting said supplemental dish.

2. The combination in an article of the class described, of the dish, the upright partitions therein meeting at the proximate center of the dish, a recess formed in said partitions at the point of juncture, and a supplemental dish supported in said recess.

3. In an article of the class described, the combination of the dish, the partitions radiating from the center of the dish to the sides of the dish and of a height at said center greater than the depth of the dish, a recess formed in the meeting ends of said partitions, and a supplemental dish received in said recess.

943,163. AGAR-AGAR-CASCARA PRODUCT. ADOLPH SCHMIDT, Dresden, Germany, assignor to Chemische Fabrik Helfenberg, A. G., formerly Eugen Dieterich, a Corporation of Germany. Filed Oct. 10, 1906. Serial No. 338,271.

1. A product adapted to be taken as an internal remedy, comprising a dry mixture of ungelatinized agar-agar and cascara.

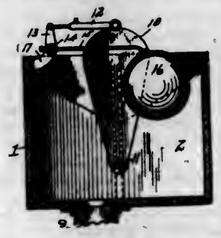
2. A product adapted to be taken as an internal remedy, comprising ungelatinized agar-agar and a laxative.

943,164. WELDING COMPOUND. MAX U. SCHOOP, Bois-Colombes, France. Filed June 18, 1908. Serial No. 439,245.

1. A compound for welding aluminum, comprising a mixture of haloid salts of alkaline metals one of which is a fluorid and glycerin, said mixture melting at substantially the melting point of aluminum.

2. A welding compound for aluminum, comprising haloid salts fused to form a compound whose melting point is substantially the melting point of aluminum, said compound ground and mixed to a paste with an aqueous solution of glycerin.

943,165. PULP-FEED REGULATOR. ALBERT SCHULTE, Dayton, Ohio. Filed Apr. 21, 1909. Serial No. 491,245.



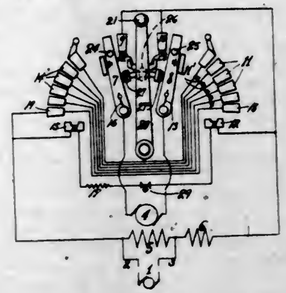
1. In a device of the type specified, a pulp box having entering, discharge, and over-flow compartments, the construction of said box being such as to allow the pulp to flow from the entering compartment into the discharge compartment and the over-flow compartment, a float in the entering compartment and a gate pivoted below its center controlled by said float, said gate controlling the flow of pulp from the entering compartment.

2. In a device of the type specified, a pulp box having an entering compartment, a discharge compartment, and an over-flow compartment, said box being constructed to allow the pulp to flow from the entering compartment into the discharge and over-flow compartments, a float within the entering compartment, an upright gate pivoted at its lower end to the wall which divides the entering compartment from the discharge and over-flow compartments, and a connection between said gate and said float whereby the gate is rocked to regulate the flow of pulp to the discharge or over-flow compartment.

3. In a device of the type specified, a pulp box having an entering compartment, and discharge and over-flow compartments, the wall separating the entering from the discharge and over-flow compartments having its upper edge tapered downwardly and converging at the center of said wall, a gate pivoted to the center of said wall, a float in the entering compartment, and a connection between said float and said gate, whereby the gate is automatically operated to regulate the feed of pulp from the entering compartment to the discharge or over-flow compartments.

4. In a pulp regulator for paper-making machines, a pulp box having a main partition the upper edge of which is substantially V-shaped, a swinging gate pivoted to said partition and coöperating with the V-shaped edge thereof in regulating the flow of pulp, a float, and connections between said float and the gate for varying the opening between the upper edge of the partition and the gate.

943,166. ELECTRIC CONTROLLING APPARATUS. WILLIAM SCHWAGERMANN, Yonkers, N. Y., assignor to Ward Leonard Electric Co., a Corporation of New York. Filed July 31, 1907. Serial No. 386,331.



1. The combination of a supply circuit, a translating device, two independently movable switches, connections

for connecting each of said switches to either of the supply mains, and means for insuring the connection of one of said switches to one supply main when the other of said switches is connected to the other of said supply mains.

2. The combination of a supply circuit, a translating device, two independently movable switches for connecting either supply main to either terminal of said device, and means for insuring the connection of one terminal of said device to one of said supply mains by one of said switches when the other terminal of said device is connected to the other of said supply mains by the other of said switches.

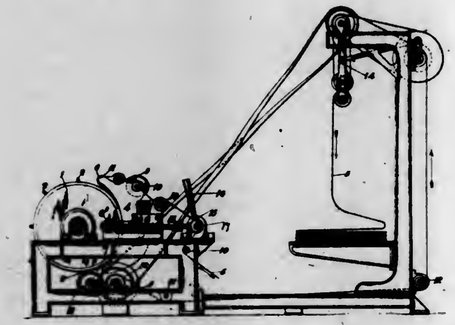
3. The combination of a supply circuit of constant electromotive force, an electric motor having a field winding energized independently of its armature current, and two spring actuated starting resistance controlling elements, the said elements being in series with each other and with the motor armature across said supply circuit, and means for reversing the current through said elements and through the motor armature.

4. The combination of a supply circuit, a translating device, a switch for connecting one terminal of said device to either of the supply mains, a second switch for connecting the other terminal of said device to either of the supply mains, and a resistance coöperating with each of said switches for controlling the current through said translating device.

5. The combination of an electric motor, and a reversing rheostat comprising two armature controlling independently movable elements controlling the direction of rotation of the motor armature, and two no-voltage protective windings connected in a closed circuit containing a field winding of the motor.

[Claims 6 to 14 not printed in the Gazette.]

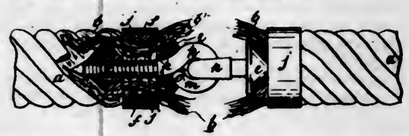
943,167. MACHINE FOR PEGGING VELVETS AND LIKE PILE FABRICS. FRED SHAW, Whitefield, near Manchester, England. Filed May 1, 1909. Serial No. 493,303.



1. In a machine for finishing pile fabric, the combination, with a revoluble drum provided with a series of spring-pressed pegs which project radially from its periphery, of a curved pegging-bed of rigid material arranged adjacent to the said drum, the middle part of the said bed being arranged nearer to the drum than its end portions, and means for sliding the fabric between the said bed and drum.

2. In a machine for finishing pile fabric, the combination, with a revoluble drum provided with a series of spring-pressed pegs which project radially from its periphery, of a curved pegging-bed of rigid material arranged adjacent to the said drum, the middle part of the said bed being arranged nearer to the drum than its end portions, a supporting frame for the drum and bed, slides carried by the frame and having the pegging-bed secured to them, springs interposed between the said slides and the frame, and means for sliding the fabric between the said bed and drum.

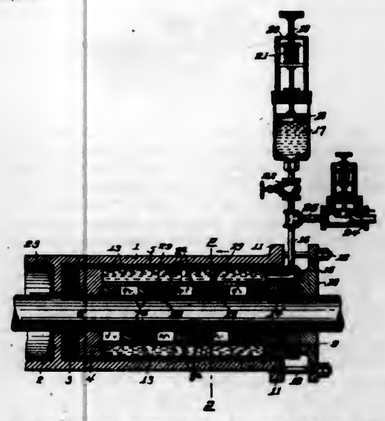
943,168. ROPE-COUPLING. WILLIAM SHUFFLEBOTTOM and THOMAS KENWORTHY, Ashton-under-Lyne, England. Filed Mar. 27, 1909. Serial No. 486,214.



1. The combination, with two ropes, of two screws inserted axially in the ropes and pivotally connected together, a conical nut and a conical collar on each screw, and ferrules having internal conical end portions, each ferrule being arranged between a nut and a collar and the strands of the ropes being clamped between the opposed conical surfaces.

2. The combination, with two ropes, of two screws inserted axially in the ropes and pivotally connected together, a conical nut and a conical collar on each screw, ferrules having internal conical end portions, each ferrule being arranged between a nut and a collar and the strands of the ropes being clamped between the opposed conical surfaces, and a tubular casing of soft material encircling the said ferrules.

943,169. PACKING FOR STUFFING-BOXES. GEORGE STRANCE, REECE S. BULL, and WILLIAM P. NORRIS, Sistersville, W. Va. Filed Mar. 26, 1908. Serial No. 423,340.



1. A stuffing-box comprising in combination with a piston-rod, a casing having an internal annular shoulder, a compressible gasket fitted against said shoulder; a cylinder fitted within said casing and bearing against said gasket, a plurality of packing rings fitted about the piston-rod within said cylinder, means for compressing said rings in axial alinement, fluid means for compressing said rings against said piston-rod, and means for securing said cylinder within said casing and against said gasket.

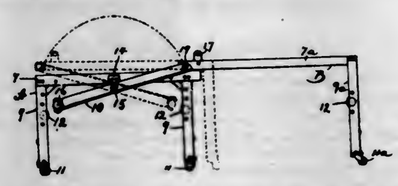
2. A stuffing box, comprising in combination with a piston-rod, a casing having an internal annular shoulder at its end, a compressible gasket fitted against said shoulder, a cylinder having its ends closed fitted within said casing and bearing against said gasket, a plurality of packing rings fitted about the piston-rod within said cylinder, there being an annular chamber formed between said rings and the interior of said cylinder, means for compressing said rings in axial alinement, fluid means in said chamber for radially compressing said rings, and means for regulating the pressure of said cylinder against said gasket.

3. A stuffing-box comprising in combination with a piston-rod, a casing having an internal annular shoulder at its inner end, a compressible gasket fitted against said shoulder, a cylinder fitted within said stuffing-box with its inner end against said gasket, a plurality of segmental packing-rings fitted about the piston-rod within said cylinder an annular chamber being formed between said rings and the interior of said cylinder, a plug threaded into the outer end of said cylinder and adjustable therein for compressing said rings in a direction in alinement with said piston-rod, fluid means in said chamber for compressing said rings against said piston-rod, and adjustable means engaging the outer end of said cylinder whereby the latter is held in gasket-compressing position.

4. A stuffing-box comprising in combination with a piston-rod, a casing having an internal annular shoulder at its inner end, a compressible gasket fitted against said shoulder, a cylinder fitted within said stuffing-box with its inner end against said gasket, a plurality of segmental packing-rings fitted about the piston-rod within said cylinder an annular chamber being formed between said rings and the interior of said cylinder, a plug threaded into the outer end of said cylinder and adjustable therein for compressing said rings in a direction in alinement with said piston-rod, adjustable fluid-compression means for entering a fluid into said chamber to cause said rings to closely embrace said piston rod, and adjustable means engaging the outer end of said plug whereby the latter is held in gasket-compressing position.

5. A stuffing box comprising in combination with a piston-rod, a casing having an internal annular shoulder, a compressible gasket fitted against said shoulder, a cylinder fitted within said casing and bearing against said gasket, a plurality of packing rings fitted about said piston-rod within said cylinder, means for compressing said rings in axial alinement, fluid means for compressing said rings against said piston-rod, and automatically regulating said compression, and means for securing said cylinder within said casing and against said gasket.

943,170. EXTENSION-BEDSTEAD. HARRY B. ARNOLD, New Britain, Conn., assignor to National Spring Bed Company, New Britain, Conn., a Corporation. Filed Jan. 30, 1909. Serial No. 475,163.



1. In an extension bedstead, the combination of a main bed section with an extension bed section comprising a pair of fabric supporting bars, a longitudinally extended supporting rail for the outer ends only of the said bars, leaving their inner ends unsupported and a mattress supporting fabric stretched on the said bars and tending to draw the unsupported inner ends of the said bars toward each other in the longitudinal direction of the bedstead, swinging arms, one each pivotally mounted on the said main bed section at its opposite ends, the said arms being connected by one on one side of their pivotal connection with the main bed section to the inner ends of the fabric supporting bars of the said extension bed section, and a longitudinally extended tie connecting the said arms at their opposite ends on the other side of their pivotal connection with the said main bed section.

2. In an extension bedstead, the combination of a main bed section with an extension bed section having fabric supporting bars, a pair of swinging arms one each pivotally mounted by their middle portion on the said main bed section at its opposite ends, the said arms being connected by one of their ends to the inner ends of the said fabric supporting bars of the said extension bed section, and a longitudinally extended counter balancing tie connecting the said arms at their opposite ends.

943,171. PROCESS OF MAKING STEEL. LOUIS M. ATHA, Newark, N. J. Filed Jan. 5, 1909. Serial No. 470,817.

1. The process of making steel which comprises the steps of charging a furnace with steel scrap and oil retort carbon, and boiling down the charge.

2. The process of making steel which comprises the steps of charging a furnace with steel scrap, iron, and oil retort carbon, and boiling down the charge.

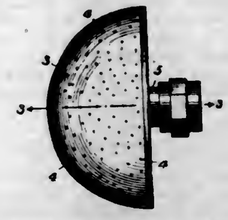
3. The process of making steel which comprises the steps of charging a furnace with steel scrap, a suitable flux, and oil retort carbon, and boiling down the charge.

4. The process of making steel which consists in charging a furnace with steel scrap, iron, a suitable flux, and oil retort carbon, and boiling down the charge.

5. The process of making steel which consists in charging a furnace with lime stone, steel scarp, pulverized oil retort carbon and cast iron, and then melting down the charge.

[Claims 6 to 8 not printed in the Gazette.]

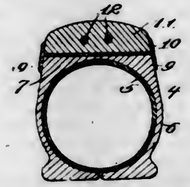
943,172. LAWN-SPRINKLER. CHARLES BALLREICH, Pueblo, Colo. Filed Aug. 14, 1908. Serial No. 448,570.



1. A lawn sprinkler embodying a hollow closed head having a flat bottom, and upright rear wall and a spheroidal upper portion, the inclination of which is downward from the rear wall, the said head being provided with an inlet in the rear wall, and the said upper portion only being provided with radial perforations.

2. A lawn sprinkler embodying a hollow closed head in the shape of a quarter of a sphere provided with an inlet for water and with discharge perforations in the curved portion only.

943,173. VEHICLE-TIRE. THEODORE H. BANKS, San Antonio, Tex. Filed Aug. 16, 1907. Serial No. 388,895.



1. The combination with a pneumatic tire having a widened tread portion, of a tire protector in the form of a continuous annular band surrounding the tread portion and formed at its sides with inwardly extending permanently secured lugs, circumferentially separated and having sufficient close association to frictionally engage the tread portion and retain the band thereon without the use of additional positive fastening means.

2. The combination with a pneumatic tire having a widened tread portion, of a band of annular form and of a single integral section of material surrounding said tread portion as a tire protector, said band having integral inwardly extending lugs circumferentially separated and engaging the sides of said tread portion to center and retain the band thereon, said band having integral out-

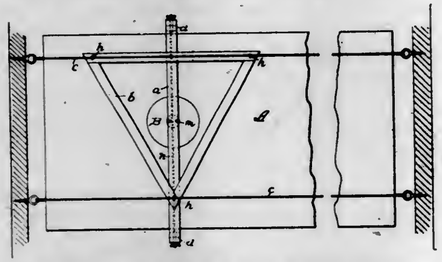
wardly projecting lugs circumferentially separated, and an outer tread portion surrounding the band and held between said outwardly projecting lugs.

3. The combination with a pneumatic tire having a widened tread portion, of an annular continuous integral band surrounding said tread portion as a tire protector and formed at its sides with inwardly extending circumferentially separated integral lugs engaging the sides of said tread portion and serving to center said band thereon, and with outwardly extending circumferentially separated integral lugs co-incident with said first named lugs, and an outer tread member surrounding said band and held between said outwardly extending lugs.

4. The combination with a pneumatic tire having a widened tread portion, of a continuous integral annular band surrounding said tread portion as a tire protector and having integral inwardly extending and diverging circumferentially spaced lugs engaging the sides of said tread portion and serving to center said band thereon and having integral outwardly extending and converging circumferentially spaced lugs and an outer tread portion surrounding said band and held between said last named lugs.

5. The combination with a pneumatic tire having a widened tread portion, of a tire protector in the form of a continuous integral annular band surrounding said tread portion and formed at its sides with inwardly extending circumferentially separated divergently related lugs arranged to engage the sides of the tread portion at the center of the band thereon, the said tread portion having a wedge-like engagement between said lugs by reason of pressure when the tire is inflated.

943,174. CARRIAGE FOR ELECTRIC LAMPS. ROBERT S. BEARD, Warwick, N. Y., assignor of one-half to L. A. Riley, 2d, Warwick, N. Y. Filed Apr. 26, 1909. Serial No. 492,409.

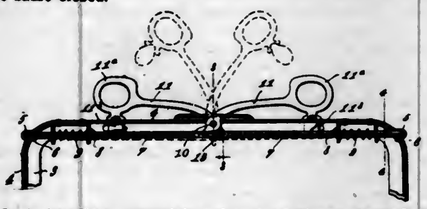


1. In combination with wire ways, a support adjustable longitudinally thereof, a way extending at right angles to the longitudinal supports and carried by said support, a lamp, and an intermediate support for the lamp laterally movable on the way, substantially as described.

2. In combination with parallel ways, a supporting frame carried thereby and adjustable longitudinally thereof, a transverse way carried by said support, an electric lamp, a support therefor moving on the way, said lamp being adjustably held by said support so as to be raised and lowered, substantially as described.

943,175. BAG-FASTENER. FLAVIUS J. BROWN, Plemons, Tex., assignor of one-fourth to A. M. Lasater, Plemons, Tex. Filed Apr. 20, 1909. Serial No. 491,017.

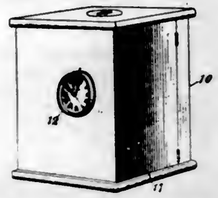
1. In combination, a handbag embodying frame sections adapted to open and close with respect to one another, latch bolts mounted for movement in opposite directions on one of the frame sections and adapted to engage the other section, a pair of levers each lever being connected with one of the bolts, a pivot common to both levers, means normally tending to hold the bolts in engagement with the sections to lock the same closed, and catches carried by the levers to engage the frame sections to lock the same closed.



2. A handbag comprising frame sections adapted to open and close with respect to one another, bolts mounted on one section and arranged to engage the other section to lock the two sections closed, levers for operation of said bolts, and catches carried by the levers exterior to the bag to engage and hold the frame sections together when both of said sections are engaged by the bolts.

3. A handbag comprising frame sections, oppositely sliding bolts on one section, the other section having sockets to receive said bolts, levers on the section carrying the bolts, a pivot common to said levers, pivotal connections between the levers and bolts, the levers being exterior to the frame sections and movable toward one another to release the bolts from their sockets, and U-shaped catches carried by the outer ends of the levers to embrace the frame sections and hold the same together.

943,176. LIGHT-EXTINGUISHER. JOSEPH H. BURDOCK, Albia, Iowa. Filed Aug. 8, 1908. Serial No. 447,624.



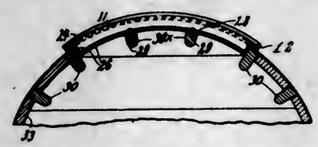
1. In a device of the character described, the combination with a casing, of a two-part drum journaled therein and having one face provided with means for engaging a controlling device, a flexible connection secured at one end to a part of the drum, a weight secured to the other end of said flexible connection, a second flexible connection connected at one end to the other part of the drum, a shaft, means carried by the shaft to which the other end of the flexible connection is held, and time mechanism for releasing the shaft.

2. In a device of the character described, the combination with a casing, of a drum journaled therein and having one face provided with means for engaging a controlling device, a weight for operating the drum in one direction, a flexible connection connected at one end to the drum, a shaft, means carried by the shaft to which the other end of the flexible connection is held, and time mechanism for releasing the shaft.

3. In a device of the character described, the combination with a gas cock, of a casing, of a two-part drum journaled therein and having a slot in which a part of the cock is adapted to fit, a flexible connection secured at one end to a part of the drum, a weight secured to the other end of said flexible connection, a second flexible connection connected at one end to the other part of the drum, a shaft, a spool carried by the shaft to which the other end of the flexible connection is held, and clock mechanism for releasing the shaft at a predetermined time to close the cock and extinguish the light.

4. In a device of the character described, the combination with a casing, of a two-part drum journaled therein and having one face provided with means for engaging a controlling device, a flexible connection secured at one end to one part of the drum, a weight secured to the other end of said flexible connection, a shaft, a second flexible connection secured at one end to said shaft and at the other end to the other part of said drum, and means for releasing the shaft at a predetermined time.

943,177. WASHING-MACHINE. GUSTAV A. CARLSON, Laurium, Mich. Filed Mar. 2, 1908. Serial No. 418,650.



A washing machine comprising a tub having an opening in a side thereof, agitating cleats projecting from the tub into the space surrounded thereby, and a cover for said opening comprising a plate adapted to fit into the same, a frame secured to the outer side of the plate at the edges thereof and formed with an offstanding flange adapted to overlap the tub aforesaid at the edges of the opening, said frame being formed with lugs projecting inwardly from the sides thereof, and brace means for the cover consisting of cleats arranged upon the inner side of the plate above mentioned and fastened to said plate and the lugs of the frame on the outer side of the plate, said cleats being parallel with the main agitating cleats before referred to and also constituting agitating means.

943,178. COMBINATION WOODWORKING-PLANE. MARDONIOUS L. CARTER, Glassport, Pa. Filed Feb. 18, 1909. Serial No. 477,535.



1. A bench plane, comprising a plane proper, an extension therefor, means for attaching the extension with its sole in line with the plane sole, or with the sole in contact with the inner sides of the main sole plate, and a handle adjustable along the extension.

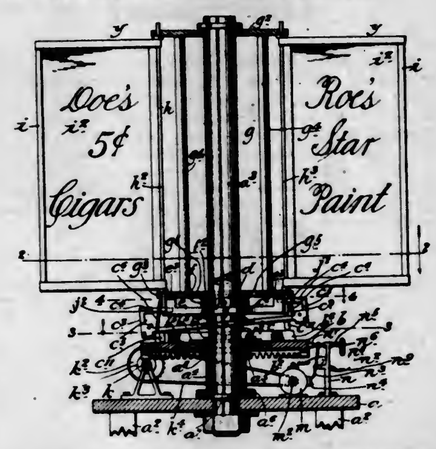
2. A bench plane, comprising a plane proper, a rearward extension therefor, means for attaching the extension with its sole in line with the plane sole, or with its sole in contact with the inner side of the main sole plate, and a handle adjustable along the extension, in combination with a forward extension, an adjustable knob carried by said extension, and means for locking said adjustable knob and extension to the plane proper.

943,179. ADVERTISING APPARATUS. JOSEPH V. CASEY, Brooklyn, N. Y. Filed Nov. 9, 1908. Serial No. 461,703.

1. In an advertising apparatus, a vertically arranged rotatable frame, a plurality of rods rotatably mounted therein around the axis thereof, sign frames connected with said rods, means for giving said frame an intermittent rotary movement, and means for throwing a part of said sign frames at the opposite sides of the rotary frame into a radial position at the end of each of said movements.

2. In an advertising apparatus, a rotary frame provided with a vertical shaft and comprising connected top and bottom members, vertically arranged rotatable rods mounted in said frame in a circle around the shaft thereof, sign frames connected with said rods, means for giving said frame an intermittent rotary movement, and means for throwing two of the sign frames at opposite sides of the rotary frame into a radial position at each intermittent movement of said rotary frame.

3. In an apparatus of the class described, a vertical shaft, a rotary disk mounted thereon, a rock bar arranged transversely of said shaft and adapted to swing in a vertical plane, a trip bar arranged in the same plane with the rock bar and above the same, a rotary frame mounted on said shaft above the trip bar and provided with rods which are rotatable in said frame and arranged in a circle around the shaft, sign frames connected with said rods, devices for giving the rotary frame an intermittent movement, and devices connected with the lower ends of said rods and with the ends of the rock bar and the trip bar for turning two of said rods and the sign frames thereon at the opposite sides of said rotary frame into a radial position at each intermittent movement of said frame.



4. In an advertising apparatus, a rotary frame provided with a vertical shaft, a plurality of vertical rods arranged in a circle around said shaft, sign frames connected with said rods, means for giving said frame a step by step movement, and means for throwing a plurality of said sign frames into a radial position at each movement of said frame.

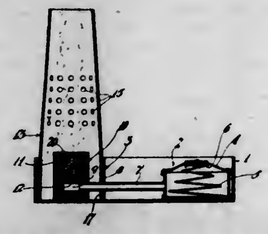
5. In an apparatus of the class described, a vertically arranged stationary shaft, a rotary disk mounted thereon and provided on the bottom thereof with a circular gear, a worm gear shaft operating in connection with said circular gear, a motor geared in connection with the worm gear shaft, a rotatable frame mounted on the shaft above said disk and provided with a bottom plate having circularly arranged apertures adapted to serve as a gear, rotatable rods mounted in said frame and in a circle around said shaft and extending downwardly through said plate, a gear wheel mounted on said shaft and the teeth of which operate in the circularly arranged apertures formed in said plate, said gear wheel being adapted to be operated by said rotary disk, trippers connected with the lower ends of said rods, a transversely arranged bar connected with said shaft and adapted to operate in connection with said trippers, a vertically movable rock bar mounted on said shaft between said last named bar and said rotary disk and adapted to be operated by said disk and provided with end devices adapted to operate in connection with said trippers, said rods being also provided with signs.

[Claim 6 not printed in the Gazette.]

943,180. INHALING APPARATUS. PETRASON H. CHEARY, Los Angeles, Cal. Filed Sept. 10, 1908. Serial No. 452,515.

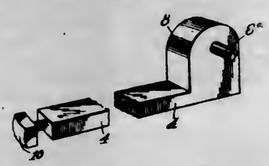
1. An inhaler comprising a support, an air draft means mounted on said support and consisting of a chamber having a flexible top, a spring for raising the top of said chamber, said top adapted to be manually depressed, a cup mounted on said support, a tube connecting said cup with

said air draft means, and a chimney removably attached to the support and extending upwardly from said cup, and having a perforate portion intermediate its upper and lower ends.



2. An inhaler comprising a support, an air draft means mounted on said support and consisting of a chamber having a flexible top, a spring for raising the top of said chamber, said top adapted to be manually depressed, a cup mounted on said support, a tube connected with said air draft means and detachably connected with said cup, and a chimney holder on said support, a chimney removably attached to the chimney holder and extending upwardly from said cup, said chimney having a portion perforate intermediate its upper and lower ends.

943,181. MOWING-MACHINE. WILLIAM CRAIN, Percy, Ill., assignor of one-half to William Moulic, Percy, Ill. Filed Sept. 14, 1908. Serial No. 453,005.

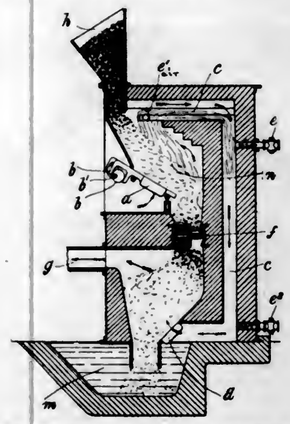


In a cutting mechanism for mowing machines, the combination of a cutter bar of rectangular shape in cross section and having a flat outer end formed with a screw threaded socket, the other end of said bar being formed with an integral upstanding lug, of substantially semi-cylindrical shape and adapted to serve as a stop and as a bearing, said lug having flat front and rear faces and being formed on its front face with a forwardly projecting cylindrical pivot pin, a plurality of removable cutting teeth, each formed from a single plate having its rear end bent upon itself to form a socketed body of rectangular shape for the reception of the rectangular cutter bar, the tooth at the inner end of said bar being engaged with said upstanding stop lug, a screw arranged in the threaded socket of one end of said cutter bar and having an enlarged head to bear against the outermost tooth to retain a series of teeth upon said bar, a finger bar adapted to receive the cutter bar and the teeth thereon, removable guard plates having apertured ears secured to the finger bar, and a forwardly projecting portion to rest upon the upper faces of the socketed body portions of the teeth, and a pitman engaged with said bearing lug and its pivot pin.

943,182. APPARATUS FOR THE MANUFACTURE OF PRODUCER-GAS. WILLIAM J. CROSSLEY and THOMAS RIGBY, Manchester, England. Filed Aug. 3, 1907. Serial No. 386,943.

1. A gas producer comprising a primary combustion device, a gas producer proper, means for continuously delivering the resulting coke from said device to the producer, and means for passing the products of combustion from the primary combustion device through the coke which is to be consumed in the gas producer proper.

2. A gas producer comprising a primary combustion device, a gas producer proper, means for continuously delivering the resulting coke from said device to the producer, means for passing the products of combustion from the primary combustion device through the coke which is to be consumed in the gas producer proper, and means for preventing the products of combustion from passing to the gas producer with the coke.



3. A gas producer comprising a primary combustion device, means for agitating the fuel in said device, a gas producer proper, said producer having a conduit for receiving the coke from the primary combustion device and delivering it to the producer proper, and means for passing the products of combustion from the primary combustion device through the coke which is to be consumed in the gas producer proper.

4. A gas producer comprising a casing having conduits therein, a primary combustion device at the upper end of the casing, a gas producer proper at the lower end of said casing, one of the conduits delivering the coke from the primary combustion device to the gas producer proper and the other conduit delivering the products of combustion from the primary combustion device through the coke in the gas producer proper, and an agitator in the first named conduit.

5. A gas producer comprising a casing having conduits therein, a primary combustion device at the upper end of the casing, a gas producer proper at the lower end of said casing, one of the conduits delivering the coke from the primary combustion device to the gas producer proper and the other conduit delivering the products of combustion from the primary combustion device through the coke in the gas producer proper, and an agitator and valve in the first named conduit.

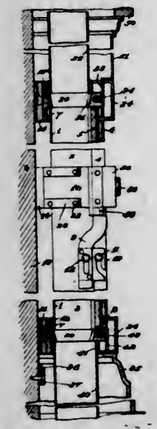
943,183. MAIL-CHUTE. JOSEPH W. CUTLER, Rochester, N. Y., assignor, by mesne assignments, to Cutler Mail Chute Company, Rochester, N. Y., a Corporation of New York. Filed Dec. 12, 1906. Serial No. 347,397.

1. A mail chute composed of superposed separately removable sections, each having a hinged panel at the front, in combination with bars extending transversely of the chute at adjacent ends of the sections and over the ends of the hinged panels and key locks for securing said bars in position.

2. A mail chute composed of superposed sections each having a movable panel for permitting access to the interior of the chute, in combination with cross bars engaging the adjacent ends of the sections and key locks for securing said cross bars in position.

3. A mail chute composed of superposed removable sections each having a movable panel for permitting access to the interior of the chute in combination with cross bars engaging the adjacent ends of the panels and key locks for securing said cross bars in position.

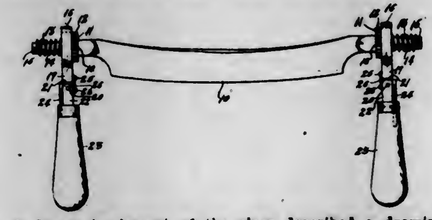
4. A mail chute composed of superposed sections each having a movable panel for permitting access to the interior of the chute, in combination with stationary brackets located at the adjacent ends of the sections, a removable cross bar extending over the ends of the panels and a key-controlled lock for controlling the removal of said bar.



5. A mail chute composed of superposed removable sections each having a movable panel for permitting access to the interior of the chute, in combination with stationary brackets located at the adjacent ends of the sections, a removable cross bar extending over the ends of the panels and a key-controlled lock for preventing the removal of said bar.

[Claims 6 to 44 not printed in the Gazette.]

943,184. KNIFE. THOMAS C. FRADSHAM, Carson City, Nev. Filed Dec. 19, 1908. Serial No. 468,880.



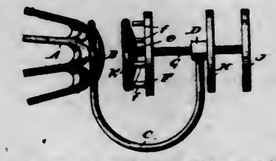
1. In an implement of the class described a drawing knife blade having cylindrical bearings at the ends, said bearings having spaced teeth in their peripheries and extending longitudinally thereof, handle heads having apertures engaging respectively over said bearings and with spaced lugs within the apertures and engaging the teeth of the bearings, and yieldable means for maintaining said heads in position upon said cylindrical bearings.

2. In an implement of the class described a drawing knife blade having cylindrical bearings at the ends, said bearings having spaced teeth in their peripheries and extending longitudinally thereof, handle heads having apertures engaging respectively over said bearings and with spaced lugs within the apertures and engaging the teeth of the bearings, yieldable means for maintaining said heads in position upon said cylindrical bearings, handles swinging from said handle heads, and means for locking said handles in longitudinal alinement with said handle heads.

3. In an implement of the class described a drawing knife blade having cylindrical bearings at the ends, and with reduced portions extending beyond the cylindrical portion, said cylindrical portions having longitudinally extending spaced teeth in their peripheries and extending longitudinally thereof, handle heads having apertures engaging respectively over said bearings and with spaced lugs within the apertures and engaging the teeth of the bearings, and springs upon said reduced portions and bearing against the handle heads.

4. In an implement of the class described a drawing knife blade having cylindrical bearings at the ends, said bearings having spaced teeth in their peripheries and extending longitudinally thereof, handle heads having apertures engaging respectively over said bearings and with spaced lugs within the apertures and engaging the teeth of the bearings, said handle heads having depending stocks terminating in a hinge member, said handle having a projecting stock provided with an opposing hinged member and movably coupled to the hinge member of the head stock, a resilient stop carried by the stock of the handle and engaging against the stock of the head, and a latch device swinging from one of said stock members and provided with a lateral slot at its free ends, and a pin extending from the other stock member in position to be engaged by the slots of the latch.

943,185. EAR-RING. MORRIS L. J. GIRDANY, Boston, Mass. Filed June 3, 1908. Serial No. 436,507.



1. In an earring, a reinforcing disk provided with lugs or pins and attached to a screw working through a fixed nut and carrying a loose ear gripping disk, for the purposes set forth.

2. In an earring, the combination of a screw, and an ear gripping disk on the end of the screw, and a nut through which the screw travels, and a reinforcing disk carrying lugs or pins, and a traveling lock-nut which travels on the screw, all substantially as described and for the purposes set forth.

943,186. EAR-RING. MORRIS L. J. GIRDANY, New York, N. Y. Original application filed June 3, 1908, Serial No. 436,507. Divided and this application filed Sept. 28, 1909. Serial No. 520,010.



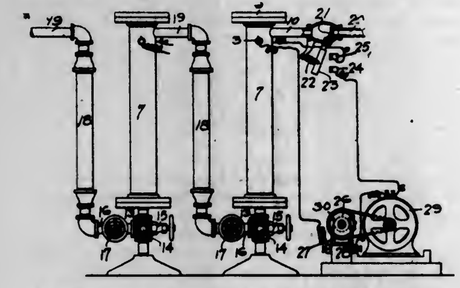
1. An earring consisting of the combination of a jewel setting connected with a sleeve by means of a loop of metal, said sleeve having a nut free to revolve therein said nut having shoulders to prevent it from working out of the sleeve, and a screw carrying a gripping disk on its inner end said screw being capable of travel back and forth by turning the nut through which it works, substantially as described.

2. In an earring, the combination of a screw, an ear gripping disk attached to the end of the screw, and a revolving nut through which the screw works, and a reinforcing disk attached to the screw and having lugs or pins attached to one face of it, substantially as described.

943,187. ELECTROLYTIC WATER-PURIFYING APPARATUS. HARRY B. HARTMAN, Pittsburg, Pa., assignor to McDowell Manufacturing Company, Pittsburg, Pa., a Corporation of Pennsylvania. Filed Mar. 2, 1908. Serial No. 418,744.

1. Electrolytic liquid purifying apparatus comprising a plurality of long straight metallic electrodes, means for

periodically reversing the current through said electrodes, and a casing inclosing said electrodes and arranged to cause all the liquid to flow between the electrodes and having inlet and outlet for the liquid, the cross sectional area of the space through said casing and electrodes being substantially equal to the cross sectional area of the inlet and of the outlet.



2. Electrolytic liquid purifying apparatus comprising a plurality of long, vertically arranged straight metallic electrodes, and a casing inclosing said electrodes and arranged to cause all the liquid to flow between said electrodes and having an inlet to its upper end and an outlet from its lower end, the cross sectional area of the space between the electrodes being substantially equal to the cross sectional area of the inlet and of the outlet.

3. Electrolytic liquid purifying apparatus comprising a plurality of long, vertically arranged electrodes, means for periodically reversing the current through said electrodes and a casing inclosing said electrodes and arranged to cause all the liquid to flow between the electrodes and having an inlet into its upper end, a valve-controlled service outlet from its lower end, and a valve-controlled flushing outlet from its lower end.

4. Electrolytic liquid purifying apparatus comprising a plurality of electrodes, electric terminals connected to the end electrodes of the series, leaving one or more intermediate bi-polar electrodes, and a casing inclosing said electrodes and arranged to cause all the liquid to flow between the electrodes and having an inlet and an outlet, the cross sectional area of the space between the electrodes being substantially equal to the cross sectional area of the inlet and of the outlet.

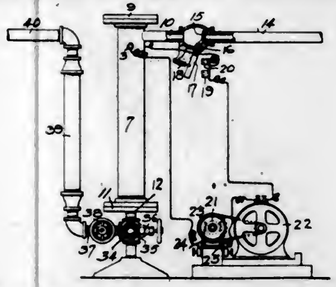
5. Electrolytic liquid purifying apparatus comprising a plurality of vertically arranged bi-polar electrodes, and a casing inclosing said electrodes and having an inlet at one end of the electrodes and an outlet at the opposite end of the electrodes, the cross sectional area of the passages between the electrodes in the casing being substantially equal to the cross sectional area of the inlet and of the outlet.

[Claims 6 to 21 not printed in the Gazette.]

943,188. METHOD OF PURIFYING WATER ELECTROLYTICALLY. HARRY B. HARTMAN, Pittsburg, Pa., assignor to McDowell Manufacturing Company, Pittsburg, Pa., a Corporation of Pennsylvania. Filed Mar. 2, 1908. Serial No. 418,745.

1. The method of purifying liquids, consisting in causing the liquid to flow between metallic electrodes, passing an electric current between said electrodes and through the liquid while flowing, the flow of the liquid and current being synchronously interrupted, periodically reversing said current, and maintaining said circuit in a manner to cause an equal quantity of current to flow between reversals notwithstanding interruption of liquid and current flow.

2. The method of purifying liquids, consisting in causing the liquid to flow between a series of parallel metallic electrodes, connecting an electric circuit to the end plates only of the series and causing the current to flow between the several plates and through the liquid while flowing, the flow of the liquid and current being synchronously interrupted, periodically reversing the current, and maintaining the circuit in a manner to cause an equal quantity of current to flow between reversals notwithstanding interruption of liquid and current flow.



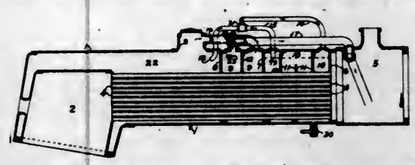
3. The method of purifying liquids, consisting in causing the liquid to flow downwardly between metallic electrodes, passing an electric current between said electrodes and through the liquid while flowing, the flow of the liquid and current being synchronously interrupted, periodically reversing said current, and maintaining the circuit in a manner to cause an equal quantity of current to flow between reversals notwithstanding interruptions of liquid and current flow.

4. The method of purifying liquids, consisting in causing the liquid to flow downwardly between long metallic electrodes contained in a closed chamber, passing an electric current between said electrodes and through said liquid, the flow of liquid and current being synchronously interrupted, periodically reversing said current, and maintaining a rapid flow of the liquid between the electrodes while current is flowing.

5. The method of purifying liquids, consisting in causing the liquid to flow between metallic electrodes having a space therebetween whose cross sectional area is substantially equal to the area of the supply and outlet openings, passing an electric current through said liquid between the electrodes, the flow of liquid and current being synchronously interrupted, periodically reversing said current, and maintaining the circuit in a manner to cause an equal quantity of current to flow between reversals notwithstanding interruptions of liquid and current flow.

[Claims 6 to 8 not printed in the Gazette.]

943,189. STEAM-GENERATOR, SUPERHEATER, AND FFED-WATER HEATER. FRANK A. HAUGHTON, New York, N. Y. Filed Mar. 13, 1909. Serial No. 483,146.



1. In a fire tube boiler, the steam generator, a feed water preheater, a steam superheater, connections from the feed water preheater to the steam generator and from the latter to the steam superheater, and fire tubes in the generator, superheater and feed water heater forming passages substantially continuous through all three of the same for the products of combustion.

2. In a fire tube boiler, a steam generator, a feed water preheater, and a steam superheater, each of these parts separable from the other and having means whereby each may be attached to the adjacent part, tube heads and fire tubes for each of the parts, the tubes being so positioned in each part as to register with the tubes of the next part to form continuous passages through the several parts when the same are assembled, connections from the feed water preheater to the steam generator, and from the latter to the steam superheater.

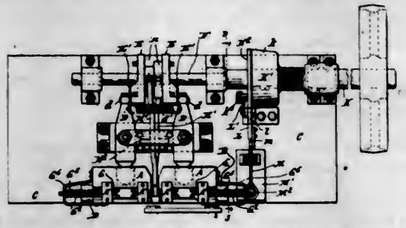
3. In a fire tube boiler, the steam generator, a feed water preheater, and a steam superheater intermediate the generator and the water preheater, an inlet to the water preheater remote from the generator, a water connection to the generator from a point of the water preheater intermediate the inlet thereof and the generator, a steam connection from the generator to a point of the superheater remote therefrom and a steam outlet to the cylinders from a point of the superheater intermediate the inlet thereof and generator.

4. In a fire tube boiler, transverse diaphragms dividing the boiler into three chambers arranged in tandem longitudinally of the boiler, one of said chambers being a steam generator, another a steam superheater, and a third a water preheater, and fire tubes in each of said chambers forming passages continuous through the three chambers for the products of combustion.

5. In a fire tube boiler, transverse diaphragms dividing the boiler into three chambers arranged in tandem longitudinally of the boiler, one of said chambers being a steam generator, another a steam superheater, and a third a water preheater, fire tubes in each of said chambers forming passages continuous through the three chambers for the products of combustion, and means in the steam superheater and in the water preheater for providing a circuitous path for the fluids passing therethrough.

[Claims 6 and 7 not printed in the Gazette.]

943,190. ELECTRIC CHAIN-LINK-WELDING APPARATUS. CARLTON L. HOFF, York, Pa., assignor to Standard Chain Company, York, Pa., a Corporation of New Jersey. Filed Dec. 5, 1907. Serial No. 405,245.



1. In an electric chain welder the combination with the welding jaws movable toward and from each other, of a guide between the jaws for positioning the link to be grasped by the jaws and means for moving said guide out of engagement with the link during the heating of the latter.

2. In electric chain welding apparatus, the combination with the welding jaws movable toward and from each other, of die sections movable toward and from each other between the welding jaws, for forming the weld, and means for holding one of said sections in position to form a guide for the link to be grasped by the jaws while the latter are separated and for moving the section out of engagment with the link during the heating of the latter.

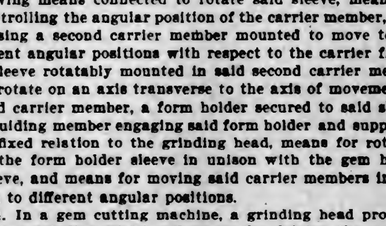
3. In an electric chain welding apparatus, the combination with the welding jaws movable toward and from each other to grasp a link and apply the heating current, of die sections movable toward and from each other between the jaws in a plane transverse to the movement of the latter, means for moving said sections to close the die and means for moving one of said sections independently of the movement of the other, whereby one section forms a guide for positioning a new link and is moved out of engagemnt with the link during the heating of the latter.

4. In an electric chain welding apparatus, the combination with the jaws movable toward and from each other to grasp a link and apply the welding current, of weld forming die sections movable toward and from each other between the jaws, one of said die sections having a projecting position forming a gage for positioning a link when the jaws are open and a cam for withdrawing said die section when the jaws grasp the link and the welding current is applied.

5. In an electric chain welding apparatus a die section for giving form to the weld, embodying a transverse weld forming groove having one wall of greater width than the other to form stop projections for the ends of the link.

[Claims 6 to 10 not printed in the Gazette.]

943,191. GEM-CUTTING MACHINE. CHARLES G. HULL, Los Angeles, Cal. Filed May 25, 1909. Serial No. 498,356.



1. In a gem cutting machine, a rocking frame, two carrier members mounted on said rocking frame to rotate on an axis transverse to the rocking axis of the frame, a form holder and a gem holder carried respectively by the said carrier members, operating means connected to said two carrier members to turn the same in unison with relation to the rocking frame, means operating on the form holder and gem holder to rotate the same in unison in their bearings in said members, grinding means movably mounted in proximity to the gem holder, and a guide member mounted in proximity to the form holder to control the position of the gem holder by engaging with a form on the form holder.

2. In a gem cutting machine, a grinding head provided with a grinding wheel and means for driving the same, a carrier frame mounted on the grinding head to rock toward and from the grinding wheel, a carrier member mounted on the carrier-frame to turn to different angular positions, a sleeve rotatably mounted in said carrier member to turn on an axis transverse to the axis of movement of the carrier member, a gem holder carried by said sleeve, driving means connected to rotate said sleeve, and means for controlling the angular position of the carrier member.

3. In a gem cutting machine, a grinding head provided with a grinding wheel and means for driving the same, a carrier frame mounted on the grinding head to rock toward and from the grinding wheel, a carrier member mounted on the carrier frame to turn to different angular positions a sleeve rotatably mounted in said carrier member to turn on an axis transverse to the axis of movement of the carrier member, a gem holder carried by said sleeve, driving means connected to rotate said sleeve, means for controlling the angular position of the carrier member, comprising a second carrier member mounted to move to different angular positions with respect to the carrier frame, a sleeve rotatably mounted in said second carrier member to rotate on an axis transverse to the axis of movement of said carrier member, a form holder secured to said sleeve, a guiding member engaging said form holder and supported in fixed relation to the grinding head, means for rotation of the form holder sleeve in unison with the gem holder sleeve, and means for moving said carrier members in unison to different angular positions.

4. In a gem cutting machine, a grinding head provided with a grinding wheel and means for driving the same, a carrier frame mounted on the grinding head to rock toward and from the grinding wheel, a carrier member mounted on the carrier frame to turn to different angular positions, a sleeve rotatably mounted in said carrier member to turn on an axis transverse to the axis of movement

of the carrier member, a gem holder carried by said sleeve, driving means connected to rotate said sleeve, means for controlling the angular position of the carrier member, comprising a second carrier member mounted to move to different angular positions with respect to the carrier frame, a sleeve rotatably mounted in said second carrier member to rotate on an axis transverse to the axis of movement of said carrier member, a form holder secured to said sleeve, a guiding member engaging said form holder and supported in fixed relation to the grinding head, means for rotation of the form holder sleeve in unison with the gem holder sleeve, and means for moving said carrier members in unison to different angular positions, comprising a bar pivotally connected to said carrier members, a guide engaging said bar to constrain its motion to a forward and rearward direction with respect to the grinding head, and means for reciprocation of the carrier frame.

5. In a gem cutting machine, the combination with a supporting means, two carrier members mounted to rotate on said means on parallel axes, means operating on said carrier members to move the same angularly in unison, a form holder and a gem holder mounted to rotate on parallel axes on said carrier members respectively, gearing connected to said form holder and gem holder to rotate the same in unison, grinding means in proximity to the gem holder, and guiding means mounted in proximity to the form holder to control the position of the gem holder in engagement with the form holder.

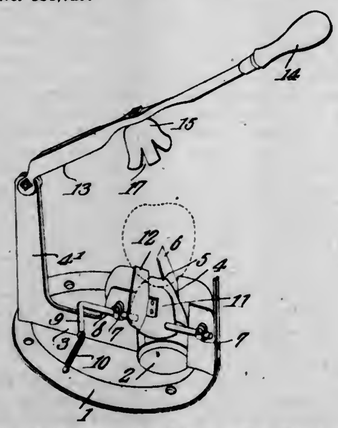
[Claims 6 to 10 not printed in the Gazette.]

943,192. REFINING STEEL. ERNEST HUMBERT, South Chicago, Ill. Filed Aug. 12, 1909. Serial No. 512,477.

1. The method of treating steel containing phosphorus, which consists in applying to it while molten an oxidizing slag to combine with the phosphorus and form a phosphate and adding a reducing material while maintaining a reducing atmosphere to convert the phosphate into phosphid.

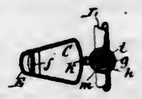
2. The method of treating steel containing phosphorus, which consists in maintaining it molten in an electric furnace, applying an oxidizing slag to combine with the phosphorus and form a phosphate, and adding a reducing material while maintaining a reducing atmosphere to convert the phosphate into phosphid.

943,193. PEACH PITTER AND SLICER. WILEY I. IRWIN, Sulphur Springs, Tex. Filed Mar. 16, 1909. Serial No. 483,729.



A fruit pitter comprising a fixed blade having an intermediate convexed portion with plane end portions, a plane blade mounted upon the convexed portion of the fixed blade and located approximately at right angles to the plane end portion of the fixed blade, a resiliently supported convexed blade juxtaposed with relation to the convexed portion of the fixed blade, and a blade mounted upon the said resiliently mounted convexed blade, the last said blade lying in the same plane as the blade upon the fixed convex portion of the first said blade.

943,194. FURNACE. MICHAEL KELLY, Buffalo, N. Y. Filed Apr. 18, 1908. Serial No. 427,879.

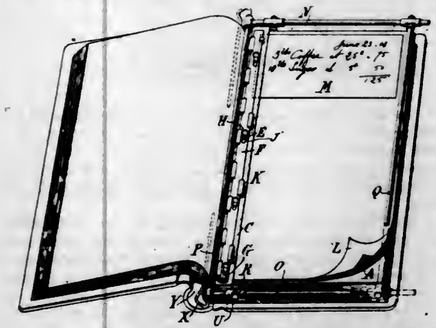


1. A boiler comprising a water leg, and a heater having an outer tubular shell and an inner tubular flue forming a water space between the same, connections between the upper and lower ends of said space and the water leg, and a burner arranged below the flue and a deflector arranged in the flue and having the form of a downwardly tapering cone.

2. A boiler comprising a water leg, and a heater having an outer tubular shell and an inner tubular flue forming a water space between the same, connections between the upper and lower ends of said space and the water leg, and a burner arranged below the flue and a deflector arranged in the flue and having the form of a cone which tapers downwardly and which is corrugated vertically.

3. A boiler comprising a water leg, and a heater having an outer tubular shell and an inner tubular flue forming a water space between the same, connections between the upper and lower ends of said space and the water leg, and a burner arranged below the flue, a downwardly tapering deflector arranged in the flue, a bridge arranged on top of said shell and flue, and a rod supporting the deflector from said bridge.

943,195. MANIFOLDING APPARATUS. ABRAHAM LEWIS, New York, N. Y. Filed July 1, 1908. Serial No. 441,346.

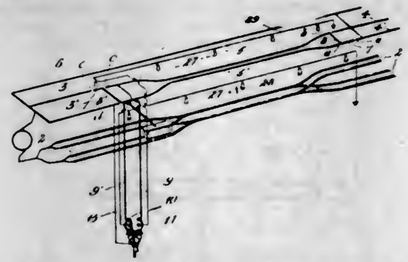


1. In combination, a frame having means for pivotally attaching it to a book so as to swing over one page or over the opposite page, and a clamp pivotally and slidingly supported in said frame so as to permit it to be shifted from one side to the other side thereof to maintain it always on the same side of the page when the frame is swung from one to the other.

2. In combination, means for holding a sheet of carbon paper over a page of a book, said means having a tubular part and attaching means including a hook X adapted to enter a tubular opening in the book, said attaching means having also a shank Y' adapted to enter said tubular part of the means for holding the carbon paper in position to hold said carbon-holding means attached to the book while permitting it to swing from one page to the other.

3. In combination, a frame having means for attaching it pivotally to a book so as to overlie either the right or the left hand page, a clamp for holding a sheet of carbon paper over the page, and slides on the upper and lower members of the frame, the clamp being pivotally supported from said slides.

943,196. ELECTRIC-RAILWAY SYSTEM. GEORGE H. MAIRE, Seattle, Wash. Filed Nov. 29, 1907. Serial No. 404,310.



1. In an electric railway system, a line circuit including a normally open section, a switch connected to have the current pass therethrough from the line circuit to said normally open feed section when a car passes onto said normally open section, means operated by a car entering and passing from said normally open section to open and close said switch, and electrically controlled means to limit the movement of said switch when it is opened.

2. In an electric railway system, a line circuit including a normally open feed section, a switch for connecting said normally open feed section with said line circuit, means operated by a car entering and passing from said normally open section to open and close said switch, and electrically controlled means for limiting the movement of said switch when it is opened.

3. In an electric railway system, line circuits including parallel normally open feed sections, a switch for connecting one or the other of said normally open feed sections in a line circuit, means operated by cars passing onto and off of said normally open feed sections to close and open said switch, and electrically controlled means for limiting the movement of said switch when it is opened.

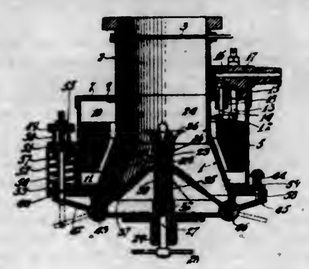
4. In an electric railway system, line circuits including parallel normally open feed sections, a switch arranged to connect one or the other of said normally open feed sections in circuit, contacts to be engaged by said switch, wires leading from said contacts each to a respective normally open feed section, means controlled by cars entering on and passing from said normally open feed sections to move said switch alternately into and out of engagement with one or the other of said contacts, and stop means controlled by cars passing from said normally open feed sections for limiting the movement of said switch to a neutral position between said contacts.

5. In an electric railway system, in combination with a single track, line circuits including two normally open feed sections arranged longitudinally of said track for engagement by the trolleys of cars traversing the same, said normally open feed sections being spaced laterally of the track whereby one can be engaged by the trolleys of cars traveling on said track in one direction and the other engaged by the trolleys of cars traveling on said track in the opposite direction, and electric controlling means operated by cars passing onto said normally open feed sections to connect one or the other in circuit.

[Claims 6 to 8 not printed in the Gazette.]

943,197. CARBURETER. HARRY A. MILLER, Los Angeles, Cal., assignor to Miller Carbureter & Manufacturing Company, Los Angeles, Cal., a Corporation of California. Filed Jan. 11, 1909. Serial No. 471,804.

1. A carbureter comprising a mixing chamber, oil supply means provided with an inlet into said mixing chamber, said mixing chamber having an air inlet provided with a plurality of valve members movable simultaneously in the direction of the motion of the fluid through the carbureter, and opening in such direction by the suctional effect of said fluid, to form a variable air passage around and adjacent to the oil inlet, said valve members overlapping to maintain the condition of closure except at said passage.



2. A carbureter comprising a mixing chamber, oil supply means, a tubular member communicating with said oil supply means and extending into the mixing chamber to form an oil inlet, a valve member movable in said tubular member to control the oil inlet, said mixing chamber having an air inlet surrounding said tubular member, and valve wings controlling said air inlet and mounted on horizontal hinges and extending upward and inward from said hinges to form a conoidal structure, said wings being movable on said hinges toward and from said tubular member to spread or contract the air inlet opening directly around the tubular member and the oil inlet, said valve members overlapping to maintain the condition of closure except at said passage.

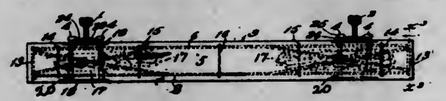
3. A carbureter comprising a mixing chamber, oil supply means having an oil inlet into said mixing chamber, said mixing chamber provided with an air inlet, and a plurality of movable valve wings at said air inlet, said valve wings extending in different radial positions relatively to the air inlet and being hinged to the walls of the air inlet at their outer ends and extending inward and upward from their hinges and adapted to move toward or from the oil inlet to spread or contract the size of the air inlet around the oil inlet, and said valve members overlapping to maintain the condition of closure except at said passage.

4. A carbureter comprising a mixing chamber, oil supply means provided with an inlet into said mixing chamber, said mixing chamber having an air inlet provided with a plurality of valve members movable simultaneously in the direction of the motion of the fluid through the carbureter, and opening in such direction by the suctional effect of said fluid, to form a variable air passage around and adjacent to the oil inlet, said valve members being movable automatically under control of the suction in the mixing chamber to expand the air inlet, and spring means tending to close said valve members, the spring means for each valve member comprising a plurality of spring devices brought successively into operation in the opening of the valve to produce cumulative resistance to such opening.

5. A carbureter comprising a mixing chamber, oil supply means, a tubular member communicating with said oil supply means and extending into the mixing chamber to form an oil inlet or valve member movable in said tubular member to control the oil inlet, said mixing chamber having an air inlet surrounding said tubular member, and movable valve means controlling said air inlet and movable toward and from said tubular member to spread or contract the air inlet opening directly around the tubular member and the oil inlet, said valve means formed as hinged wings overlapping one another and movable under the suction of the mixing chamber to expand the air inlet, and spring means operating on said valve means to close the same.

[Claim 6 not printed in the Gazette.]

943,198. RAILWAY CONSTRUCTION. ELIJAH D. McDONALD, Los Angeles, Cal. Filed Dec. 12, 1906, Serial No. 347,558. Renewed Aug. 6, 1907. Serial No. 387,366.



1. A sleeper comprising a concrete body and pipes forming tubular openings therethrough from side to side thereof to receive spikes.

2. A sleeper provided with a hard-metal pipe and an angular spike in said pipe, the corners of which spike are embedded in the inner wall of the pipe.

3. A sleeper comprising a concrete body, bed plates on opposite faces of the body, and hard-metal sleeves extending through said body and fastened to said bed-plates.

4. A sleeper comprising a concrete body, bed plates on opposite sides of said body, hard-metal sleeves extending through said body and fastened to said bed plates, and angular spikes in said sleeves, the corners of said spikes being embedded in the sleeves.

5. A sleeper comprising a reinforced concrete body, hard-metal sleeves fastened in said body, a rail on the sleeper, and spikes having angular bodies in the sleeves, the corners of said bodies being embedded in the walls of the sleeves, said spikes having heads for fastening the rails on the sleeper.

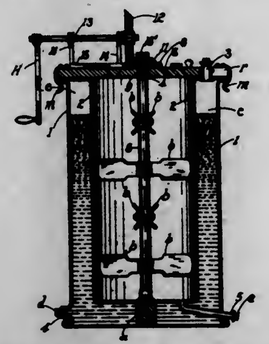
[Claims 6 to 11 not printed in the Gazette.]

943,199. CARPET-STRETCHER. GEORGE L. NOLL, Winchester, Kans. Filed May 27, 1909. Serial No. 498,667.



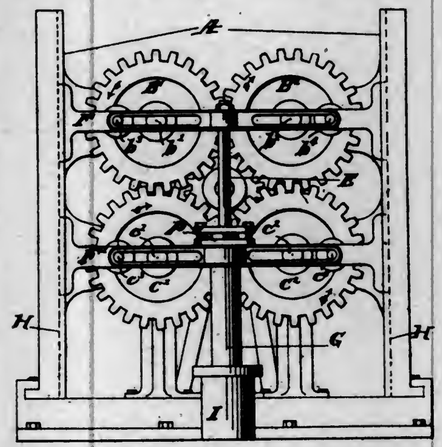
A carpet stretcher having terminal working heads and adjustable intermediate connecting members, one of said working heads being provided with a depending frame having spaced bearing portions constituting legs, the other having teeth adapted to engage a carpet, and an operating lever assembled with said connecting members and adapted to yieldingly hold the parts in operative position.

943,200. CHURN. FRED PETER, Anna, Ill. Filed June 11, 1909. Serial No. 501,537.



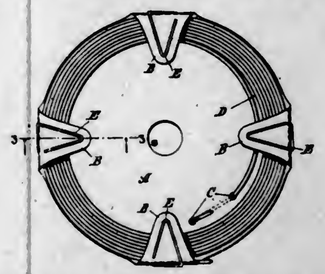
A churn comprising an outer vessel and an inner vessel spaced apart therefrom at the sides and bottom and forming a compartment between them, a buttermilk discharge tube leading from the bottom of the inner vessel through said compartment and tapping the side wall of the outer vessel, said tube being normally closed by a plug, a filling tube leading from the top of said compartment, a cover for the churn provided with a recess for the reception of the tube, a dasher shaft supported in the inner vessel, and suitable gearing for actuating said shaft, mounted on the cover and detachably engaging the upper end of the shaft.

943,201. OPERATING MECHANISM FOR DOUBLE-ACTING PUMPS. CHARLES F. PRESLAR, Norwood, Ohio. Filed June 15, 1908. Serial No. 438,563.



An improved mechanism for imparting an opposite simultaneous reciprocatory motion to pump rods, said mechanism comprising a supporting frame, two horizontal parallel slotted cross heads, two pairs of spur gears, one pair of said gears being arranged in a vertical plane above the other pair of gears, the gears of one pair being in mesh with each other and with the corresponding gears of the other pair, and crank pins carried by the gears and operating in the slots of said cross heads.

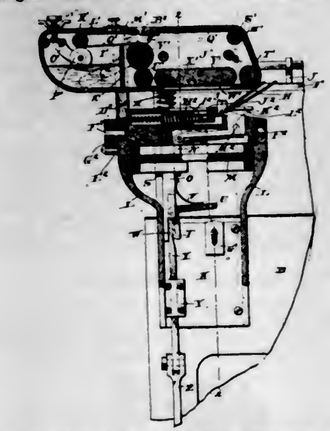
943,202. WIRE-PACKAGE. HENRY W. STRAUSS, New York, N. Y. Filed Apr. 24, 1908. Serial No. 428,929.



1. A wire package comprising a coil of wire, a disk-like back portion through which extends one end of the wire, said back portion being provided with spaced projections adapted to be bent over said wire, and clips adapted to be slipped over said projections.

2. A wire package comprising a coil of wire, a disk-like back portion provided with spaced projections adapted to be bent over said wire, and clips adapted to be slipped over said projections.

943,203. LAUNDRY-MARKING MACHINE. TOM L. TAYLOR, Atlanta, Ga., assignor to The Pearl Laundry Machinery Company, Atlanta, Ga., a Corporation of Georgia. Filed Feb. 23, 1906. Serial No. 302,476.



1. In a machine of the character specified, the combination of an oscillating chase; an inker arranged above the chase and movable toward and from the same in a right line; a platen; a clamping member for holding the goods upon the platen; and means for first moving the inker into contact with the type carried by the chase and the platen into operative relation with the clamping member, and thereafter oscillating the chase through an arc of approximately 90°, so as to bring said type into line with the platen, and moving the platen and the clamping member into printing relation with the type.

2. In a machine of the character specified, the combination of an oscillating chase; means for normally holding said chase in one position; an inker movable toward and from the chase in a right line while it is held in its normal inking position; a platen; a spring-pressed clamp coöperating and movable with said platen; and means for moving the platen toward the type carried by the chase after said type have been inked and the chase oscillated through an arc of approximately 90° to bring the type into alinement with the platen.

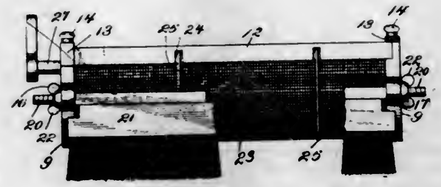
3. In a machine of the character specified, the combination of an oscillating chase; means for normally holding said chase in one position; an inker; means for moving said inker in a right line into and out of operative relation with the type carried by the chase previous to the movement thereof; means for oscillating said chase through an arc of approximately 90°; a platen; a clamp coöperating and movable with said platen to clamp the material being printed; and means for moving said platen and clamp into operative relation with the type.

4. In a machine of the character specified, the combination of an oscillating chase; means for moving the same about its axis through an arc of approximately 90°; an inker movable in a right line and arranged to act upon the type carried by the chase previous to its oscillation; a platen; a clamp coöperating and movable with said platen to hold the goods thereon; and means for moving said platen into operative relation with the type carried by the chase.

5 In a machine of the character specified, the combination of an oscillating chase movable through an arc of approximately 90°; an inker arranged above the same and movable in a right line toward and from the chase; a swinging platen; a spring-pressed clamp coöperating therewith; a treadle; and operative connections between said treadle, the inker, chase and platen for first causing the inker to be depressed and then released, and to thereafter oscillate the chase and swing the platen and clamp into operative relation with the type carried by the chase.

[Claims 6 to 15 not printed in the Gazette.]

943,204. FLOUR-DUSTER. FREDERICK TREISCHMAN and GEORGE RINGSTAD, Wadena, Minn. Filed Feb. 19, 1909. Serial No. 478,853.



1. The combination with a dough feeding machine having an oscillated arm adapted to operate the mechanism within the hopper of the machine, of a duster attachment for said machine, said duster comprising a semi-cylindrical reticulated member provided with an agitator, means provided by the rocker arm for oscillating the agitator, and a brush pivotally connected to and extending below the outer face of the duster.

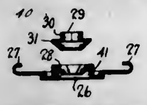
2. The combination with a dough feeding machine having a hopper provided with mechanism operated by a rocker arm and having an outwardly extending endless belt, of a duster, said duster comprising removable side members and a removable semi-cylindrical reticulated member, an agitator arm within the reticulated member, means for forcing the agitator against the inner face of the reticulated member, means connected with the rocker arm of the machine for oscillating the agitator, and a brush member connected with the duster and adapted to be positioned a slight distance above or in contact with the endless belt of the machine.

3. The combination with a dough feeding machine provided with a hopper, a rocker arm connected with levers operating the mechanism within the hopper and having an outwardly extending endless belt, of a flour duster, said duster comprising a pair of semi-cylindrical ends provided with oppositely disposed ears, a reticulated semi-cylindrical body portion between the ends, securing devices connected with the rear ears of the end members, a brush member provided with trunnions connected with the forward ears of the end members, a shaft upon the end member, adjustable collars upon the shaft, inclined links connected with the collars, a longitudinally extending agitator bar pivotally connected with the links and resting upon the inner face of the reticulated member, an offset link upon the shaft, and a connection between the link and rocker arm of the machine.

4. The combination with a dough feeding machine, provided with a hopper and an agitator arm operating the mechanism within the hopper and also having an outwardly extending delivery belt, of a duster, said duster comprising a pair of end members of a semi-cylindrical contour having their inner faces provided adjacent their periphery with channels, said ends being each provided with oppositely disposed slotted ears, upper bars at the outer edges of the tops of said ends provided with longitudinal recesses, a reticulated member for the grooves of the ends and the bars, semi-cylindrical supporting members for the reticulated member, a removable bar connecting the rear ears of the end members, a removable brush provided with trunnions connecting the forward ends of the end members, a longitudinally extending shaft for the end members, slidable collars upon the shaft, pivotal links upon the collars, a longitudinally extending rocker arm pivotally connected with the links, a slotted offset arm upon the shaft, and a slotted link connecting the offset arm and adjustably connected with the rocker arm of the machine.

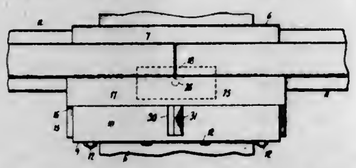
5. The combination with a dough feeding machine, of a reticulated duster removably secured thereto and provided with an agitator adapted to be oscillated by the operating parts of a machine, said duster being provided with a longitudinally extending brush, substantially as and for the purpose set forth.

943,205. ENVELOP. EDWARD WACHTERMANN, Alvarado, Cal. Filed Jan. 7, 1909. Serial No. 471,123.



A device of the class described comprising an annular channel shaped member having its inner wall of greater width than the outer wall and extending in advance of the same, said inner wall having a plurality of inwardly projecting resilient members converging toward the base of the channel shaped member and spaced therefrom, and a member having an annular flange and adapted to enter said annular member and to displace said resilient members and to engage beneath the free ends of the same, said last mentioned member being located wholly within the annular member, means for coupling the annular member to a flexible element, and means for coupling said flanged member to a flexible element.

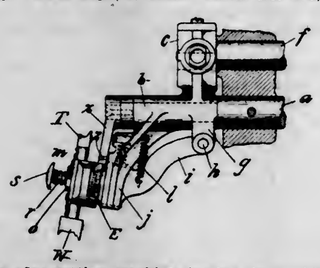
943,206. RAIL-CHAIR. ALBERT WARDLE, Toronto, Ontario, Canada. Filed Aug. 10, 1908. Serial No. 447,802.



1. The herein described chair comprising a base plate having an upwardly and inwardly inclined projecting flange, an oppositely positioned upstanding flange bent horizontally inward, and a downwardly dipped lip within said horizontal flange.

2. In a chair of the class described the combination with a base plate having an upwardly and inwardly inclined flange, of an oppositely positioned upstanding flange having an upper horizontal portion, a downwardly dipped lip within said horizontal portion, and a plug adapted to fit below said horizontal portion having a socket to receive said lip, all arranged as set forth.

943,207. EDGE-SETTING MACHINE. FRANK H. WARREN, Swampscott, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Sept. 5, 1905. Serial No. 276,996.



1. An edge setting machine, having, in combination, an edge setting tool; means for moving the tool; and a straight-line device for causing said tool to move in a substantially rectilinear path, said device comprising a relatively movable concave cam face and lug arranged to cooperate with each other.

2. An edge setting machine having, in combination, a tool-holder; two tools on the holder; means for moving the holder; and means for causing the holder to move in paths of different curvatures.

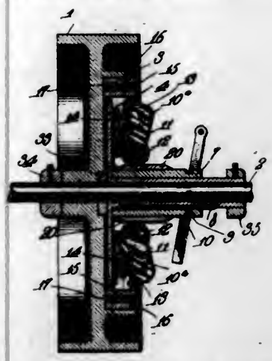
3. In an edge setting machine, the combination with a tool holder arranged for movement into different operative positions, of means for oscillating said holder when it is in one position, and means for causing said holder to reciprocate in a straight line when it is in another position.

4. In an edge setting machine, the combination with a tool holder arranged for movement into different operative positions, of a plurality of tools on said holder, means for imparting to said holder an oscillating movement when one tool is in operative position, and means for imparting to said holder a reciprocating movement when another tool is in operative position.

5. In an edge setting machine, the combination with a fixed support, of a tool holder, means for oscillating said holder about said support as a center, and a straight line device for causing said holder to move in a substantially rectilinear path, said device comprising a cam face secured to said fixed support and a coöperating lug mounted on said holder.

[Claims 6 to 9 not printed in the Gazette.]

943,208. CLUTCH. TILMAN WHITE, Portland, Oreg. Filed Mar. 9, 1909. Serial No. 482,331.



1. The combination with a shaft and a pulley thereon having depressions in its face, of a friction rim on the pulley, a friction shoe engageable with said rim, a rack connected to the shoe, a lever provided with a toothed segment engageable with the rack, a cam sleeve slidably mounted on the shaft and engageable with the lever for operating the same, pawls carried by the sleeve and engageable with the depressions in the pulley, and means for operating the sleeve.

2. The combination with a shaft, and a pulley thereon having depressions in its face, of a friction rim on the pulley, a friction shoe engageable with said rim, a rack connected to the shoe, a lever provided with a toothed segment engageable with the rack, a cam sleeve slidably mounted on the shaft, and engageable with the lever for operating the same, ears projecting from the sleeve, and having apertures, screws passing through said apertures, pawls carried by said screws, and engageable with the depressions in the pulley, springs coiled around said screws between the pawls and the ears, and means for operating the sleeve.

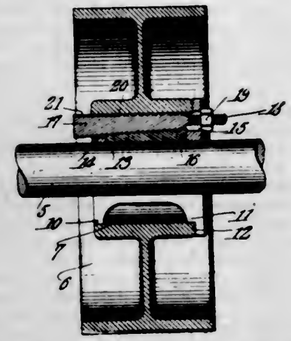
3. The combination with a shaft, and a pulley thereon having depressions in its face, of a friction rim on the pulley, a friction shoe engageable with said rim, a rack connected to the shoe, a lever provided with a toothed segment engageable with the rack, a cam sleeve slidably mounted on the shaft, and engageable with the lever for operating the same, apertured ears projecting from the sleeve, pawls engageable with the depressions in the pulley and slidably mounted in the apertures in the ears, resilient means for actuating the pawls, and means for operating the sleeve.

4. A device of the class described comprising a shaft; a pulley journaled for rotation upon the shaft; a bushing rigidly assembled with the shaft and provided with an outstanding disk; a rack slidably mounted upon the disk; a friction shoe carried by the rack and arranged to engage the pulley; a lever fulcrumed upon the disk and having teeth to engage the rack; a roller carried by the lever; a collar slidably mounted upon the bushing and arranged to engage the roller; and means for reciprocating the collar.

5. A device of the class described comprising a shaft; a pulley journaled for rotation upon the shaft; a bushing rigidly assembled with the shaft and provided with an outstanding disk; a rack slidably mounted upon the disk; a friction shoe carried by the rack and arranged to engage the pulley; a lever fulcrumed upon the disk and having teeth to engage the rack; a roller carried by the lever; a collar slidably mounted upon the bushing; a cam strip carried by the bushing and arranged to engage the roller; and means for reciprocating the collar.

[Claim 6 not printed in the Gazette.]

943,209. SHAFT OR PULLEY COUPLING. TILMAN WHITE, Portland, Oreg. Filed Mar. 23, 1909. Serial No. 485,253.

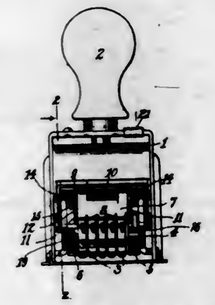


1. In a device of the class described, a body formed with a slot and to embrace a shaft, a wedge fitted in the slot in the body and bearing against the shaft, and an adjusting wedge carried by the body and coöperating with the first mentioned wedge, the said adjusting wedge having a face to engage with the wall of a hub bore, the said face of the said adjusting wedge being provided with alternately arranged long and short ribs.

2. In a device of the class described, a body formed with a slot and to embrace a shaft, a wedge fitted in the slot in the body and bearing against the shaft, and an adjusting wedge carried by the body and coöperating with the first mentioned wedge, the said adjusting wedge having a face to engage with the wall of a hub bore, long ribs formed upon the said face and shorter ribs formed upon the face and arranged in staggered relation with respect to the long ribs.

3. In a device of the class described, a body formed with a slot and to fit a shaft, a wedge disposed in said slot and bearing against the shaft, the body being formed at one end with a flange and the flange being formed with an opening, a wedge disposed upon the first mentioned wedge and held in position thereon by the body, the last mentioned wedge being formed with a threaded stud projecting through the opening in the flange, a nut threaded upon the stud and bearing against the flange and adjustable to draw the said last named wedge in the direction of the flange, the wedge being formed upon its face opposite to that one which bears against the first mentioned wedge with ribs extending from that end at which the stud is formed to a point adjacent the opposite end of the wedge and with shorter ribs extending from the said opposite end of the wedge to the point of termination of the first mentioned ribs at the respective end, the shorter ribs being alternated with the first mentioned ribs.

943,210. NUMBERING-MACHINE. FRANK WOSINSKI, Brooklyn, N. Y. Filed June 19, 1908. Serial No. 439,343.



1. In a numbering machine, the combination of numbering wheels, a pawl frame having pawls adapted to operate said numbering wheels, said frame being pivotally supported on a rod and having an end projection, an idle wheel, an idle pawl having an opening through its base through which it receives the aforesaid rod, said opening being adapted to permit the pawl to pivot about its basal end to and away from the projection on the pawl frame and in the direction of the length of said rod, said pawl having a series of adjustment apertures adapted severally to receive said projection, and a spiral spring surrounding said rod and having its end next the idle-pawl located in an opening in the side of the said pawl and toward its apertured end.

2. In a numbering machine, the combination of numbering wheels, a pawl frame having pawls adapted to operate said numbering wheels, said frame being pivotally mounted and having a projection therefrom, an idle wheel, an idle pawl adapted to engage said wheel and having apertures adapted to receive the pawl frame projection in different positions of adjustment, said idle pawl being pivotally supported to permit its apertured portion to be pivoted toward and away from the pawl frame projection to seat or unseat said projection into or out of an aperture of the pawl, said pawl being spring-pressed to give its apertured portion a normal tendency toward said projection.

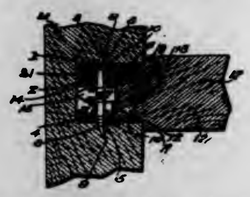
3. In a numbering machine the combination of numbering wheels, a pawl frame carrying pawls adapted to operate said numbering wheels, a plurality of idle wheels of different nature, a plurality of idle pawls adapted to engage said idle wheels and through connection with the pawl frame to determine the action or non-action of the numbering wheel pawls on the numbering wheels.

4. In a numbering machine the combination of numbering wheels, a pawl frame having pawls adapted to contact with and operate said wheels, a plurality of idle wheels one having an odd number of spaces and requiring an odd number of partial turns to the revolution, and the other having an even number of spaces and an even number of partial turns to the revolution, idle pawls adapted to engage said idle wheels and adapted to be connected with the pawl frame to control the contact of the pawls of said frame with the numbering wheels, the idle pawls permitting said contact and the operation of the numbering wheels only when the idle wheels simultaneously present spaces to the idle pawls.

5. In a numbering machine, the combination of numbering wheels, a pawl frame having pawls adapted when in engagement with the numbering wheels to operate them, a space-provided idle wheel, an idle pawl adapted to engage the idle wheel and to be connected with the pawl frame to permit the numbering wheel pawls to operate the numbering wheels depending upon whether the idle pawl is in or out of a space on the idle wheel, and a space-filling device removably insertible to fill a space in the idle wheel.

[Claims 6 and 7 not printed in the Gazette.]

943,211. JOINT FOR FURNITURE. PERCY G. ABRAMS, Philadelphia, Pa. Filed July 3, 1909. Serial No. 505,851.



1. In a device of the character described, a sleeve adapted to coöperate with an opening in a chair leg and having a plurality of openings therein, a tubular member adapted to fit over the end of a chair rung and telescope within said sleeve, means carried by said tubular member adapted, in telescoped position, to project through said sleeve openings and coact with the chair leg, and independent means constructed to lock said tubular member and chair leg together, said means being confined within said sleeve.

2. In a device of the character described, a sleeve adapted to coöperate with an opening in a chair leg and having a plurality of radial openings, a tubular member adapted to fit over the end of a chair rung and telescope with said sleeve, spring-pressed teeth carried by said tubular member adapted, in telescoped position, to project through said sleeve openings and be forced into the chair leg, and means movable with the tubular member and automatically engageable with means on said sleeve to lock said parts together.

3. In a device of the character described, a sleeve having a plurality of openings therein, a plate forming a partition in said sleeve and having a slot therein, a tubular member adapted to telescope with said sleeve, a plurality of pivoted teeth carried by said tubular member and adapted to project through said sleeve openings, springs to maintain said teeth in projecting position, and a head carried by said tubular member adapted to pass through said head to lock said sleeve and tubular member together.

4. A sleeve for insertion in an opening in a chair leg, a tubular member attachable to a chair rung, a plurality of independently movable spring pressed members carried by said tubular member, and a partition in said sleeve for engagement by said spring pressed members between their ends and their pivot a member carried by the tubular member adapted to pass through an opening in said partition and engageable with means upon the opposite side thereof to lock said parts together.

943,212. BUCKLE. GEORGE B. ADAMS, Irvington, N. J. Filed Oct. 9, 1908. Serial No. 456,864.



1. The combination with a web, of a buckle connected therewith, said buckle comprising a back and a front-plate pivotally connected with said back, said back being provided with an open part through which a portion of the web is passed and is secured to said back, said open part serving also to receive a looped portion of the web, and a series of projections extending at different angles from the marginal edge of the face-plate nearest its pivotal connection with said back, one of said projections constituting a deflector-member, and said other projections constituting clamping lugs, said clamping lugs being adapted to clamp the running portion of the web by penetration when the front-plate is closed, and said deflector-member acting in a cam-like manner upon said web to hold the said front-plate down upon the web, substantially as and for the purposes set forth.

2. The combination with a web, of a buckle connected therewith, said buckle comprising a back and a front-plate pivotally connected with said back, said back being provided with an open part through which a portion of the web is passed and is secured to said back, said open part serving also to receive a looped portion of the web, and a series of projections extending at different angles from the marginal edge of the face-plate nearest its pivotal connection with said back, one of said projections having a straight marginal edge-portion and said projection constituting a deflector-member, and said other projections having pointed portions and constituting clamping lugs, said pointed portions embedding themselves in the running portion of the web when the front-plate is closed, and the straight edge-portion of said deflector-member being in slidable engagement with said web and acting in a cam-like manner upon said web to hold the front-plate down upon the web, substantially as and for the purposes set forth.

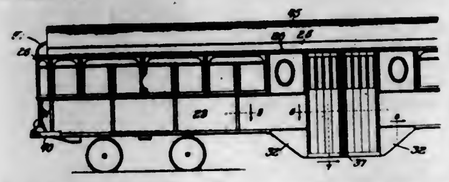
3. A buckle comprising a front-plate and back, a means of pivotal connection between the same, a deflector-member and a plurality of clamping lugs, said deflector-member and clamping lugs extending from the front-plate, said back comprising a back-car consisting of a multiplicity of connected members past which said deflector-member is adapted to be moved, but in front of which the said clamping lugs are adapted to be moved so as to clamp a web which is arranged between the said front-plate and back, and said connected portions of the back-bar serving as a support for the web, substantially as and for the purposes set forth.

4. A buckle comprising a front-plate and back, a means of pivotal connection between the same, a deflector-member and a plurality of clamping lugs, said deflector-member and the clamping lugs extending at different angles to the plane of the front-plate, the plane of the lugs being at a more acute angle to the plane of the front-plate than the plane of the deflector-member, said deflector-member and clamping lugs extending from the front-plate, said back comprising a back-bar consisting of a multiplicity of connected members past which said deflector-member is adapted to be moved, but in front of which the said clamping lugs are adapted to be moved so as to clamp a web which is arranged between the said front-plate and back, and said connected portions of the back-bar serving as a support for the web, substantially as and for the purposes set forth.

5. The combination with a web, of a buckle connected therewith, said buckle comprising a back and a front-plate pivotally connected with said back, said back being provided with an open part through which a portion of the web is passed and is secured to said back, said open part serving also to receive a looped portion of the web, and a series of projections extending at different angles from the marginal edge of the face-plate nearest its pivotal connection with said back, one of said projections constituting a deflector-member, and said other projections constituting clamping lugs, said back comprising a back-bar consisting of a multiplicity of connected members past which said deflector-member is adapted to be moved but in front of which said clamping lugs are adapted to be moved to clamp said looped portion of the web when the front-plate is closed, and said deflector-member acting in a cam-like manner upon said web to hold the said front-plate down upon the web, substantially as and for the purposes set forth.

943,213. STEEL CAR. CHARLES H. ANDERSON, Seattle, Wash. Filed July 7, 1909. Serial No. 506,375.

1. In a steel-car having a door-opening in the side, an underframing formed with an outer sill and a lower truss-plate both extending around the ends of the car and cut away at the door-opening, cross-sills, an upper truss-plate extending around the car and forming an upper chord above the door-opening, vertical truss-plates connecting the said upper and lower truss-plates at opposite sides of the doorway, steps in the doorway, horizontal plates secured to the sills at opposite sides of the doorway, and a lower chord connecting said horizontal plates at the back of the steps.

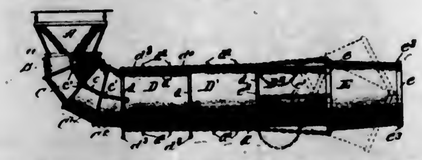


2. In a steel-car having a door-opening in the side, an underframing formed with an outer sill and a lower truss-plate both extending around the ends of the car and cut away at the door-opening, cross-sills, a series of arched T-bars forming the door-framing, an upper truss-plate extending around the car and forming an upper chord above the door-opening, vertical truss-plates connecting said upper and lower truss-plates at opposite sides of the doorway, steps in the doorway, horizontal plates secured to the sills at opposite sides of the doorway, and a lower chord connecting said horizontal plates at the back of the steps.

3. In a steel-car having a door-opening in the side, an underframing formed with an outer sill and a lower truss-plate both extending around the ends of the car and cut away at the door-opening, cross-sills, a series of arched T-bars forming the upper frame, bulk-head plates secured to the T-bars at opposite sides of the door-opening, an upper truss-plate extending around the car and forming an upper chord above the door-opening, vertical truss-plates connecting the said upper and lower truss-plates at opposite sides of the doorway, steps in the doorway, horizontal plates secured to the sills at opposite sides of the doorway, and a lower chord connecting said horizontal plates at the back of the steps.

4. In a steel-car having a door opening in the side, an underframing formed with an outer sill and a lower truss-plate both extending around the ends of the car and cut away at the door-opening, cross-sills, a series of diagonal braces extending between opposite sides of the underframing, an upper truss-plate extending around the car and forming an upper chord above the door-opening, vertical truss-plates connecting the said upper and lower truss-plates at opposite sides of the doorway, steps in the doorway, horizontal plates secured to the sills at opposite sides of the doorway, and a lower chord connecting said horizontal plates at the back of the steps.

943,214. GRAIN-SPOUT FOR PORTABLE ELEVATORS. GEORGE W. BAIER and CHRISTIAN D. BAIER, Cissna Park, Ill. Filed July 11, 1908. Serial No. 443,154.



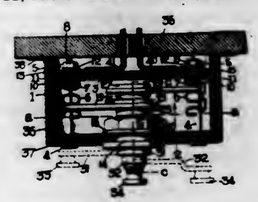
1. The combination with a hopper and a series of cylindrical sections adapted to be placed in a substantially horizontal position, of a series of conical sections connecting the same with the hopper and adapted to form a suitable curve for the deflection of material and a terminal section loosely fitting the final cylindrical section and capable of universal angular oscillation with respect thereto, for the purpose set forth.

2. The combination with a hopper and a series of cylindrical sections tightly fitting each other, of a series of conical sections connecting the cylindrical sections with the hopper and capable of forming together a deflecting curve for the purpose specified, a series of chains limiting the movement of the cylindrical sections upon each other and hooks on the sections adapted to engage the chain for adjusting the relative position of the cylindrical sections.

3. The combination with a hopper, of a cylindrical sleeve projecting from the lower end thereof and provided with an outwardly projecting bead, a cylindrical collar rotatable about said sleeve and provided with an inwardly projecting bead to engage therewith, a series of conical telescopic sections forming a flexible curved section, a series of cylindrical telescopic sections tightly fitting each other, chains attached to each conical telescopic section with ends secured to one of said cylindrical telescopic sections and secured at opposite ends to said cylindrical collar, and a terminal section loosely fitting the final cylindrical section and capable of angular oscillation with respect thereto.

4. The combination with a hopper, of a cylindrical sleeve projecting from the lower end thereof and provided with an outwardly extending bead, a cylindrical collar rotatable about the sleeve and provided with an inwardly projecting bead to engage therewith, a series of conical telescopic sections below the cylindrical collar forming a spout and flexibly secured thereto, a series of cylindrical telescopic sections secured to said conical sections, an adjustable terminal section detachably connected to said cylindrical sections, a chain attached to each cylindrical section and hooks fastened to said cylindrical sections, adapted to engage said chain to hold the spout in a contracted position.

943,215. ELECTRIC SWITCH. HENRY J. CARRIGAN and ARTHUR J. SANGSTER, Buffalo, N. Y., assignors to Auto Safety Specialty Company, a Corporation of New York. Filed Sept. 22, 1908. Serial No. 454,196.



1. An electric switch comprising an annular row of fixed contacts any two of which are adapted to be connected with opposite sides of an electric circuit, two rotatable contact arms which are adapted to engage with said fixed contacts independently of each other, an outer hollow shaft carrying one of said contact arms, and an inner shaft arranged within the outer shaft and carrying the other contact arm.

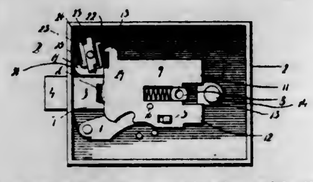
2. An electric switch comprising an annular row of fixed contacts any two of which are adapted to be connected with opposite sides of an electric circuit, two rotatable contact arms which are adapted to engage with said fixed contacts independently of each other, an outer hollow shaft carrying one of said contact arms, an inner shaft arranged within the outer shaft and carrying the other contact arm, and shifting arms connected with said shafts, respectively.

3. An electric switch comprising an annular row of fixed contacts any two of which are adapted to be connected with opposite sides of an electric circuit, two rotatable contact arms which are adapted to engage with said fixed contacts independently of each other, an outer hollow shaft carrying one of said contact arms, an inner shaft arranged within the outer shaft and carrying the other contact arm, shifting arms connected with said shafts, respectively, and a dial which corresponds to said fixed contacts and which is traversed by said shifting arms.

4. An electric switch comprising an annular row of fixed contacts, two rotatable contact arms adapted to engage said fixed contacts, shifting means for rotating said arms comprising a hollow outer shaft adapted to be con-

nected with one of said arms and an inner shaft arranged within the outer shaft and adapted to be connected with the other arm, and coupling means for connecting each shaft with its respective arm comprising a pawl mounted on one of the members to be coupled and adapted to engage with a shoulder on the companion member to be coupled, the pawls and shoulders of both coupling means being constructed to cause one arm and its shaft to be coupled upon turning the respective parts in one direction while the other shaft and its arm are coupled upon turning the last mentioned parts in the opposite direction.

943,216. NIGHT-LATCH. RAYMOND A. CHASE, Waterbury, Conn., assignor of one-half to Walter H. Whitney, Waterbury, Conn. Filed June 14, 1909. Serial No. 502,072.

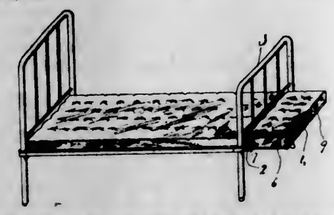


1. In a night latch, the combination with the latch plate and stump plate, of a locking-button adapted to be turned to engage with the stump to prevent the inward movement of the latch plate.

2. In a night latch, the combination with a latch plate carrying a spring dog having a nose at its outer end, a stump plate formed with a hook, a locking-button mounted in the case and having projections to engage with the nose of the dog, and shoulders to engage with said hook.

3. In a night latch, the combination with the latch plate carrying a spring dog having a nose at its outer end, a stump plate formed with a hook, a square locking button mounted in the case and formed at each corner with a projection adapted to be turned into engagement with the nose of said dog and with two shoulders adapted to engage with said hook, whereby in two positions of the button the latch plate is locked, and in intermediate positions free to be moved backward.

943,217. ATTACHMENT FOR BEDSTEADS. CLAUDE D. CLARK, Waterbury, Conn. Filed July 19, 1909. Serial No. 508,357.



In a bedstead, the combination with a footboard, of a transverse rail, a frame mounted thereon and connected thereto so as to be turned upward against the footboard, the ends of the frame extending inward beyond said rail and adapted to bear upon the end of the springs, or upon the frame upon which the springs rest.

943,218. INK-FOUNTAIN FOR PRINTING-PRESSES. ARTHUR M. COTTRELL, Westerly, R. I., assignor to C. B. Cottrell & Sons Company, New York, N. Y., a Corporation of New Jersey. Filed Apr. 27, 1909. Serial No. 492,485.

1. An ink fountain including a fountain roll, a blade and a series of adjusting screws removably interlocked to the blade for positively moving the different portions of the blade toward and away from the roll and also permitting the ready insertion and removal of the blade.



2. An ink fountain including a fountain roll, a blade provided with a series of lugs along its under face, and a series of adjusting screws removably interlocked with said lugs for positively moving the different portions of the blade toward and away from the roll and also permitting the ready insertion and removal of the blade.

3. An ink fountain including a fountain roll, a blade provided with a series of lugs along its under face having undercut slots, and a series of adjusting screws having heads located within said slots whereby the screws may positively move the different portions of the blade toward and away from the roll.

4. An ink fountain including a fountain roll, a blade provided with a series of lugs along its under face having open ended undercut slots and a series of adjusting screws having heads removably located within said slots whereby the screws may positively move the different portions of the blade toward and away from the roll and will also permit the ready insertion and removal of the blade.

943,219. INITIATION DEVICE. ULYSSES S. DE MOULIN, Greenville, Ill. Filed Mar. 3, 1909. Serial No. 481,128.



1. In an initiation device a wheel supported seat, and mechanism for moving the seat in a circle in a plane parallel with the surface on which the device is mounted, said mechanism including means for swaying the seat.

2. An initiation device comprising a wheel-supported frame, a seat, and means actuated by one of the wheels for moving the seat in a circle in a plane parallel with the surface on which the device is mounted.

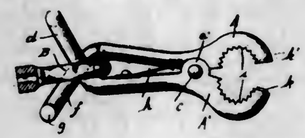
3. An initiation device comprising a wheel-supported frame, a seat carried thereby, means operated by one of the wheels for moving the seat in a circle, and means cooperating with the first mentioned means for holding said seat extended in the direction of the length of the machine at all times during such movement.

4. An initiation device comprising a wheel-supported frame, a seat supported thereby, means operated by one of the wheels for moving the seat bodily in a circle, and means coöperating with the first mentioned means for holding said seat parallel with the longitudinal center of the machine at all times during such movement.

5. An initiation device comprising a wheel-supported frame, a seat carried thereby, means for producing a simultaneous swaying and circular movement of the seat, and means coöperating with the first mentioned means for holding said seat parallel with the longitudinal center of the device at all times during such movement.

[Claims 6 to 15 not printed in the Gazette.]

943,220. DETACHABLE LINK. JOHN DUFOUR, The Dalles, Oreg. Filed May 20, 1908. Serial No. 433,900.



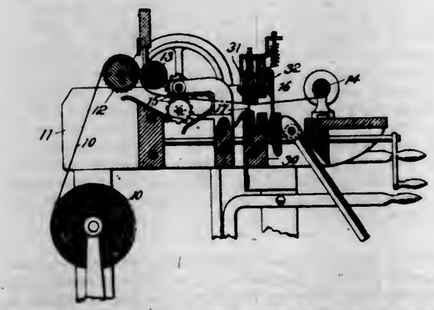
1. A device of the character described including a pair of gripping jaws, rearwardly extending arms carried thereby, one of said arms being provided with an opening adapted to receive the other of said arms, and a spring positioned between the arms and serving to hold said jaws normally closed.

2. A device of the character described including a pair of gripping jaws, rearwardly extending arms carried thereby, one of said arms being arranged to project constantly through an opening in the other arm.

3. A device of the character described including a pair of gripping jaws, rearwardly extending arms carried thereby, one of said arms being constantly in engagement with a slotted portion of the other arm, and an enlarged head carried by the first-mentioned arm.

4. A device of the character described including a pair of gripping arms, lugs carried by one of said jaws and embracing an ear on the other jaw, a spring for holding said jaws normally closed, rearwardly extending arms carried by the jaws, one of said arms being arranged to engage a slotted portion in the other arm, and an enlarged head carried by said first mentioned arm.

943,221. KNIFE FOR WINDOW-SHADE MACHINES. EPHRAIM O. ENGBERG, Salt Lake City, Utah, assignor to John Beecher Patton, Kent, Ohio. Filed Feb. 19, 1908. Serial No. 416,771.



1. The combination with means for supporting shade material, of loop-forming mechanism for the shade-slat, a carrier movable transversely of the machine, and a knife-bar removably held to the carrier.

2. The combination with means for supporting shade material, of loop-forming mechanism for the shade-slat, a carrier plate movable transversely of the machine, means for moving the carrier plate, a knife-bar removably held to the carrier plate, and a knife removably held to the knife-bar.

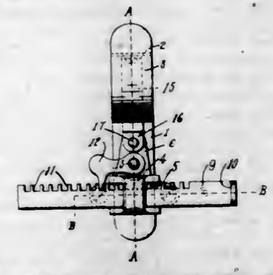
3. The combination with means for supporting shade material, of loop-forming mechanism for the shade slat, a carrier having posts thereon and means for moving the carrier, a knife-bar comprising two members removably held to the posts, and a knife clamped between the members of the knife-bar.

4. The combination with means for supporting shade material, of loop-forming mechanism for the shade slat, of a carrier movable transversely of the machine and having posts thereon and means for moving the carrier adjacent to said mechanism, a knife-bar comprising two members removably held to the posts, and a knife clamped between the members of the knife-bar.

5. The combination with means for supporting shade material, of loop-forming mechanism for the shade slat, a carrier having posts thereon and means for moving the carrier, a knife-bar comprising two members removably held to the posts, and a knife having a plurality of cutting edges clamped between the knife-bar.

[Claims 6 to 8 not printed in the Gazette.]

943,222. COMBINATION CURTAIN AND SHADE FIXTURE. EDWARD GABEL, Utica, N. Y. Filed Feb. 3, 1908. Serial No. 413,930.



1. In a curtain fixture, the combination of a curtain pole bracket, a fixed base member having a transverse passage, said base member being fixed to the bracket, a shade-supporting bar slidable in the passage and provided with teeth, and a locking part pivoted to the base member and coacting with said teeth, substantially as and for the purpose specified.

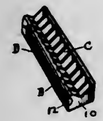
2. In a curtain fixture, the combination of a curtain pole bracket, a fixed base member having a transverse passage, said base member being fixed to the bracket and having shoulders engaged with the contiguous portions of the upright edges of the bracket, a shade-supporting bar slidable in the passage and provided with teeth, and a locking part pivoted to the base member and coacting with said teeth, substantially as and for the purpose described.

3. In a curtain fixture, the combination of a curtain pole bracket, a fixed base member having a transverse passage, said base member being fixed to the bracket and having an upwardly projecting arm above the passage, a shade-supporting bar slidable in the passage and provided with teeth, and a locking part pivoted to the upwardly projecting arm and coacting with said teeth, substantially as and for the purpose set forth.

4. In a curtain fixture, the combination of a curtain pole bracket, a fixed base member having a transverse passage, said base member having an upwardly projecting arm above the passage, a brace having one end secured to the horizontal arm of the bracket and its other end engaged with the upwardly projecting arm of the base member, means for securing said bracket, base member and brace together, a shade-supporting bar slidable in said passage, and a locking part pivoted to the base member and coacting with said bar, substantially as and for the purpose specified.

5. In a curtain fixture, the combination of a curtain pole bracket, a fixed base member having a transverse passage, said base member having its rear face provided with shoulders engaging the side edges of the upright arm of the bracket, and said base member also having an upwardly projecting arm above the passage, a brace having one end secured to the horizontal arm of the bracket and its other end engaged with the upwardly projecting arm of the base member, means for securing said bracket, base member and brace together, a shade-supporting bar slidable in said passage and provided with teeth, and a locking part pivoted to the upwardly projecting arm of the base member beneath the brace and coacting with said teeth, substantially as and for the purpose described.

943,223. PENCIL-SHARPENER. ALBERT W. GIFFORD, Worcester, Mass. Filed May 14, 1909. Serial No. 496,042.



1. A pencil-sharpener composed of a series or gang of flat blades, having V-shaped recesses with oppositely inclined cutting edges at their upper side, said blades arranged at intervals in transverse order, and a sheet metal inclosing case formed of a single piece folded and fitting against the bottom and side edges of said blades, and that is open at its top above the cutting edges.

2. A pencil-sharpener blade formed of thin flat metal, having an internal angular recess at one side thereof, with a sharp or cutting edge along the opposite sides of the recess; said cutting edges beveled upon one side of the plate, and the cutting edge turned over in a slightly outstanding lip at the side opposite the bevel.

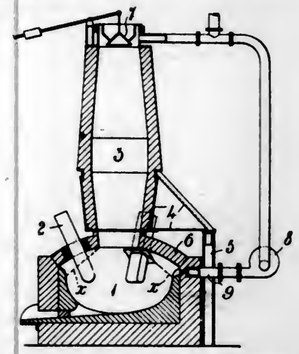
3. In a pencil-sharpener of the character described, the blade-plates having V-shaped cutting edges, and rounded corners with inwardly inclined edge portions at the ends of said cutting edges; in combination with means for sustaining said blades in separated relation, and the sheet metal casing having inwardly bent edges that lock or clench onto said inwardly inclined top points of the blade-plates.

4. In an instrument of the class described, the combination, of a longitudinal back-bar having a series of vertical slots in its upper edge, a series of blade-plates slotted at their lower edges, interlockingly engaging with said slotted back-bar, each blade having an approximately V-shaped recess with cutting edges at the opposite sides of said recess; and a sheet metal casing embracing the bottom and sides of the assembled back-bar and blade-plates, and having its edges clenched over the corners of said blade-plates adjacent to the V-shaped openings.

5. In an instrument of the character described, the combination, with a gang of thin flat metal blade-plates having V-shaped cutting portions, said blade-plates disposed in uniform alinement at short intervals apart, and a notched back-bar supporting said blade-plates in series; of the casing-box formed from a single blank of sheet metal and comprising the bottom portion, the upstanding sides and end sections, the latter confined by inwardly-bent clips formed on the side sections; the side sections embracing the ends of the blade-plates, and having their longitudinal edges clenched over the inwardly inclined top corners of the same, and corrugatedly depressed between the respective blade-plates, substantially as set forth.

943,224. ELECTRIC FURNACE. EUGEN A. A. GRÖNWALL, AXEL R. LINDBLAD, and OTTO STÅLHANE, Ludvika, Sweden. Filed July 28, 1909. Serial No. 509,960.

1. The combination in an electric furnace with the heating chamber and the stack communicating therewith, the chamber being organized to provide a free space between the charge and the top of the heating chamber when the charge is introduced into the chamber and into the lower portion of the stack, of electrodes entering through the wall of the chamber and extended to pass through the said free space with their end portions immersed in the charge, and means for drawing gas from the upper part of the furnace and passing such gas into said free space portion of the furnace.



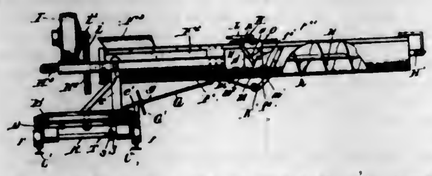
2. The combination in an electric furnace with the heating chamber and the stack communicating therewith, the chamber being organized to provide a free space between the charge and the top of the heating chamber when the charge is introduced into the chamber and into the lower portion of the stack, the electrodes arranged to enter through the top wall of the heating chamber and extended down into the heating chamber to pass through the said free space with their lower ends immersed in the charge, and means for introducing gas into said free space portion of the furnace.

3. Electric blast furnace consisting of an electric smelting chamber provided with electrodes and a shaft arranged on the said chamber and communicating with the same, the shaft being formed to expand upward and the smelting chamber to expand downward from the part through which said chamber and the shaft communicate with each other, the interior of the smelting chamber being so formed, that one or several free spaces always exist between the walls of said chamber and the charge and the electrodes being arranged in such a way that they enter into the charge at said free spaces, the furnace being also provided with means for introducing suitable gases into the said free spaces.

4. Electric blast furnace consisting of an electric smelting chamber, provided with electrodes and a shaft arranged on the said chamber and communicating with the same, the shaft being formed to expand upward and the smelting chamber to expand downward from the part through which said chamber and the shaft communicate with each other, the interior of the smelting chamber being so formed, that one or several free spaces always exist between the walls of said chamber and the charge and the electrodes being arranged in such a way that they enter into the charge at said free spaces, the furnace being also provided with means for introducing suitable gases into the said free spaces, the shaft being provided with means for leading off the gases and for reintroducing them into said free spaces.

943,225. LOADING-MACHINE FOR BOX-CARS. ALBERT J. GURNEY, Sunnyside, Ill., assignor of one-third to Theodore G. Warden, Chicago, Ill., and one-third to John Rollo, Murphysboro, Ill. Filed Dec. 30, 1908. Serial No. 469,965.

1. In a loader, a carriage, a turntable on said carriage, a trough pivotally supported on said turntable so as to be capable of movements about an axis transverse to the axis of the turntable, an adjustable strut between said trough and said turntable for holding the trough in different positions, and a conveyer in said trough, said trough and said conveyer having alined joints for permitting a portion thereof to be swung at an angle to the remainder.



2. In combination, a pair of separated main trough members, a hinge connecting said members and permitting them to be brought into alinement with each other or arranged at an angle to each other, an auxiliary trough of the same cross section as the main members for closing the gap between said members.

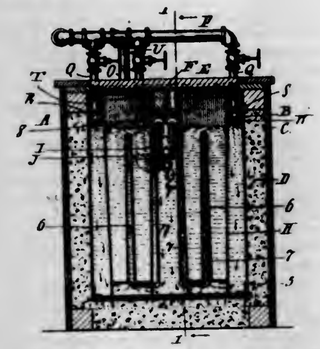
3. In combination, a pair of separated trough members, a hinge connecting said members, and an auxiliary trough section of a size to bridge the gap between said members, and means for supporting said auxiliary section so as to permit it to swing from a gap-bridging position into a position which will permit said members to swing relative to each other.

4. In combination, a pair of separated trough members, a hinge connecting said members so as to permit them to aline with each other or swing relative to each other in a plane transverse to the sides of the trough, and an auxiliary trough section movably mounted on one of said members so as to permit it to be brought into a position to bridge the gap between said members or into a position which leaves said members free to swing relatively to each other.

5. In combination, a pair of separated trough members, a hinge connecting said members, an auxiliary trough section for bridging the gap between said members, and links suspending said auxiliary section from one of said members so as to permit said section to swing from an operative position into an inoperative position.

[Claims 6 to 12 not printed in the Gazette.]

943,226. APPARATUS FOR MAKING CAN-ICE. CHARLES D. HAVENSTRITE, Newark, N. J. Filed Aug. 17, 1908. Serial No. 448,918.



1. In an apparatus for making can ice, a tank for containing refrigerating liquid, a freezing can having an internal hollow projection open at its lower end and extending upwardly from the bottom of said can, and a siphon device for causing a circulation of refrigerating fluid in said projection.

2. In an apparatus for making can ice, a tank for containing refrigerating liquid, a freezing can having an internal hollow projection open at its lower end and extending upwardly from the bottom of said can, a siphon device for causing a circulation of refrigerating liquid in said projection, and means for varying the speed of delivery of said siphon.

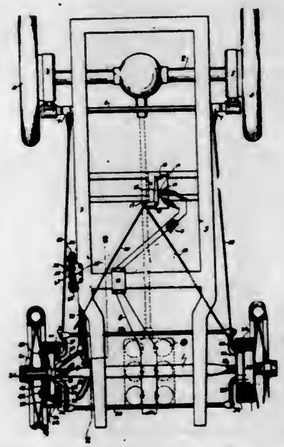
3. In an apparatus for making can ice, a tank for containing refrigerating liquid, a freezing can having an internal hollow projection open at its lower end and extending upwardly from the bottom of said can, a siphon device for withdrawing the fluid contents of said projection and a receptacle in said tank for receiving the discharge from said siphon.

4. In an apparatus for making can ice, a tank for containing refrigerating liquid, a freezing can having an internal hollow projection open at its lower end and extending upwardly from the bottom of said can, a siphon device for withdrawing the fluid contents of said projection, a receptacle in said tank for receiving the discharge from said siphon, and means for withdrawing liquid from said receptacle and delivering the same back to said tank.

5. In an apparatus for making can ice, a tank for containing refrigerating liquid, a freezing can having an internal hollow projection open at its lower end and extending upwardly from the bottom of said can, a siphon device for withdrawing the fluid contents of said projection, a receptacle in said tank for receiving the discharge from said siphon, and means for varying the level of the liquid in said receptacle.

[Claims 6 to 14 not printed in the Gazette.]

943,227. AUTOMOBILE SAFETY DEVICE. OTTO KARCHER, Canton, Ohio. Filed May 25, 1909. Serial No. 498,350.



1. An automobile safety device comprising, rear wheels provided with brakes, driving means for said rear wheels, means for discontinuing the operation of said driving means, adjustable front wheels, means for controlling the adjustment of said front wheels, a safety clutch provided with operative connections with said brakes and with said means for discontinuing the operation of said driving means, said safety clutch being adapted to be operated by said front wheels when said wheels are not controlled by said controlling means.

2. An automobile safety device comprising in combination with the front and rear wheels of an automobile and means for driving said rear wheels, means for discontinuing the operation of said driving means, brakes arranged upon said rear wheels, outer clutch members arranged upon said front wheels, inner clutch members arranged adjacent said outer clutch members, said front wheels adapted for pivotal movement for the purpose of steering, said inner clutch members adapted for pivotal movement for the purpose of maintaining a parallel relation between said outer clutch members and said inner clutch members,

said inner clutch members operatively connected to said brakes on the rear wheels and to the means adapted to discontinue the operation of the driving means, and means adapted to normally maintain said inner clutch members out of engagement with said outer clutch members by causing the simultaneous pivotal movement of said front wheels and said inner clutch members.

3. An automobile safety device comprising front and rear wheels, means for driving said rear wheels, means for discontinuing the operation of said driving means, brakes adapted to brake said rear wheels, said front wheels adapted for adjustment for the purpose of steering, controlling means connected to said front wheels for the purpose of adjusting the same, safety clutch members normally adapted to be maintained in a position parallel to the front wheels, clutch members connected to said front wheels, said clutch members adapted to engage said safety clutch members by the ungoverned swerving of said front wheels when the controlling means thereof is inoperative, and means operated by said safety clutch members for operating the means to discontinue the operation of the driving means and for applying said brakes.

4. In a device of the character described driving wheels, guiding wheels, means for braking said driving wheels, steering means for controlling said guiding wheels, safety clutches operatively connected to said braking means, said safety clutches adapted to be operated by said guiding wheels when permitted to come into contact therewith, and means operated by said steering means for the purpose of normally maintaining said safety clutches out of engagement with said guiding wheels.

5. In a device of the character described guiding wheels, driving wheels, operative driving means for driving said driving wheels, shut-off means for discontinuing the operation of said driving means, safety clutches, operative connection between said safety clutches and said shut-off means, and said safety clutches adapted to be operated by said guiding wheels.

[Claims 6 to 12 not printed in the Gazette.]

943,228. BELT. WILLIAM F. LOTT, Newark, N. J., assignor to Rubber & Celluloid Harness Trimming Co., a Corporation of New Jersey. Filed Feb. 26, 1908. Serial No. 417,827.

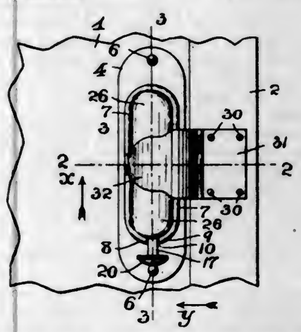


1. A belt comprising a main body or strap-portion of a uniform width, said body being provided with a tab-end having perforations, an end-element of greater width than said main body of the belt, said element consisting of a face-member and a back-member between which the other end-portion of said main body of the belt is arranged, said face and back-members being stitched together at their ends and sides to form a pocket, and the face-member being provided with a laterally extending opening forming an entrance into said pocket for the reception of the tab-end of the belt, said face-member being formed with a looped end, and a buckle connected with said looped end and secured by means of said end to said face-member, substantially as and for the purposes set forth.

2. A belt comprising a main body or strap-portion of a uniform width, said body being provided with a tab-end having perforations, an end element of greater width than said main body of the belt, said element consisting of a face-member and a back-member between which the other end-portion of said main body of the belt is arranged and secured, said face and back-members being secured together to form a pocket for the reception of the tab-end of the belt, a buckle connected with one of said members, and the face of said back-member within said pocket being enameled, substantially as and for the purposes set forth.

3. A belt comprising a main body or strap-portion of a uniform width, said body being provided with a tab-end having perforations, an end element of greater width than said main body of the belt, said element consisting of a face-member and a back-member between which the other end portion of said main body of the belt is arranged, said face and back-members being stitched together at their ends and sides to form a pocket, the face-member being provided with a laterally extending opening forming an entrance into said pocket for the reception of the tab-end of the belt, said face-member being formed with a looped end, a buckle connected with said looped end and secured by means of said end to said face-member, and the face of said back-member within said pocket being enameled, substantially as and for the purposes set forth.

943,229. BAG-FASTENER. CORNELIUS J. LYSAGHT, Newark, N. J., assignor to The R. Neumann Hardware Co., a Corporation of New Jersey. Filed Sept. 9, 1909. Serial No. 516,842.



1. A holding catch comprising a base-plate, said plate being formed with an upwardly extending rib or bead-like member, a shell or casing secured upon said base-plate, said rib or bead-like member forming a closure surrounding the marginal edge-portions of said shell or casing, and a hasp-retaining mechanism within said shell or casing.

2. A holding catch comprising a base-plate, said plate being formed with an upwardly extending rib or bead-like member, said base-plate being provided with lug-receiving openings, a shell or casing upon said base-plate, lugs extending from the marginal edge of said shell or casing, said lugs projecting into and through the openings in said base-plate and bent over against the bottom of said base-plate, said rib or bead-like member forming a closure surrounding the marginal edge-portions of said shell or casing, and a hasp-retaining mechanism within said shell or casing.

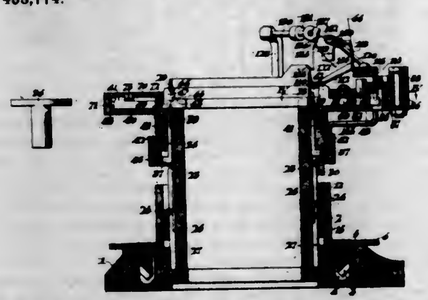
3. A holding catch comprising a base-plate, a shell or casing upon said base-plate, said shell or casing being provided in one end with an opening, a post forced out of said base-plate and extending in an upward direction, a forwardly extending tongue upon said post, and a bolt slidably arranged upon said base-plate, said bolt comprising a body and oppositely extending arms, one of said arms extending through the opening in the end of said shell or casing, a fingerpiece upon said arm, an upwardly extending post upon the other arm of said bolt, oppositely extending fingers upon said post, one of said fingers serving to engage a hasp-loop, and a spring connected with and located between said other finger and said tongue.

4. A holding catch comprising a base-plate, a shell or casing upon said base-plate, said shell or casing being provided in one end with an opening, a post forced out of said base-plate and extending in an upward direction, a forwardly extending tongue upon said post, and a bolt slidably arranged upon said base-plate, said bolt comprising a body and oppositely extending arms, one of said arms extending through the opening in the end of said shell or casing, a fingerpiece upon said arm, an upwardly extending post upon the other arm of said bolt, oppositely extending fingers upon said post, one of said fingers serving to engage a hasp-loop, a spring connected with and located between said other finger and said tongue, and guides pressed out of said base-plate between which said first-mentioned arm of the bolt is slidably disposed.

5. A holding catch comprising a base-plate, a shell or casing upon said base-plate, said shell or casing being provided in one end with an opening, a post forced out of said base-plate and extending in an upward direction, a forwardly extending tongue upon said post, and a bolt slidably arranged upon said base-plate, said bolt comprising a body and oppositely extending arms, one of said arms extending through the opening in the end of said shell or casing, a fingerpiece upon said arm, an upwardly extending post upon the other arm of said bolt, oppositely extending fingers upon said post, one of said fingers serving to engage a hasp-loop, a spring connected with and located between said other finger and said tongue, guides struck up out of said base-plate between which said first-mentioned arm of the bolt is slidably disposed, and marginal stops projecting from said first-mentioned arm of the bolt adapted to be brought in engagement with said guides to limit the movement of said bolt.

[Claims 6 to 13 not printed in the Gazette.]

943,230. KNITTING-MACHINE. ALBERT M. PIGEON, Philadelphia, Pa. Filed Sept. 19, 1908. Serial No. 453,774.



1. In a knitting machine, fitted with a series of spring beard needles, a series of individually-reciprocating beard pressers, each beard presser being adapted to reciprocate in a line parallel to the axis of the needle with which it is associated.

2. In a knitting machine, a grooved needle cylinder; a series of spring beard needles reciprocating within said grooves; and a similar series of individual beard pressers, corresponding to said needles, and reciprocating within said grooves.

3. In a knitting machine, a needle cylinder provided with grooves; a spring beard needle in each groove; a beard presser also inserted in each groove and overlying the shank of the needle; and means for simultaneously but independently imparting a motion of reciprocation to the needles and to the beard pressers.

4. In a knitting machine, the combination of a spring beard needle; a beard presser in contact with the outer face of the shank of the needle; a bit upon the upper end of the beard presser; and means for imparting reciprocation to the beard presser parallel to the needle whereby the point of the beard is closed as the needle sinks within each old loop to cast it off.

5. In a knitting machine, the combination of vertical spring beard needles; a beard presser in contact with the outer face of the shank of each needle; a bit upon the upper end of the beard presser; means for imparting vertical reciprocation to the beard pressers, whereby the point of each beard is closed as the needle sinks within each old loop to cast it off, such closure continuing after the point of the beard has passed down within the old loop.

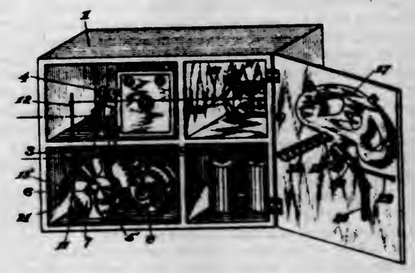
[Claims 6 to 8 not printed in the Gazette.]

948,231. BOTTLE-CLOSURE. ALBERT ADELSON, Oakland, Cal. Filed Jan. 25, 1909. Serial No. 473,989.



A new article of manufacture comprising a bottle having its neck formed with a thinned portion and a flange, a closure comprising a cylindrical portion and a plug in the same, and a cementitious body between the closure and neck to seal the joint between them.

943,232. COMBINED BURGLAR-ALARM AND AUTOMATIC CAMERA. JOSEPH C. ASHE, Montreal, Quebec, Canada. Filed Oct. 19, 1908. Serial No. 458,358.



1. A machine of the character described comprising a normally open electric circuit, a camera adapted to use photographic plates, means for operating the shutter mechanism of said camera, an arc in the aforesaid electric circuit, fusible means adapted to hold said shutter operating mechanism in inoperative position and extending in the path of said arc, and means for closing said circuit to complete the arc therein.

2. A machine of the character described comprising a normally open electric circuit, a camera adapted to use photographic plates, means for operating the shutter mechanism of said camera, an arc in the aforesaid electric circuit, fusible means adapted to hold said shutter operating mechanism in inoperative position and extending in the path of said arc, means for closing said circuit to complete the arc therein, and means for freeing the photographic plate to allow removal of the same as soon as the photograph has been taken.

3. In a machine of the character described, a normally open electric circuit, means for closing said circuit, a camera, an arc included in the aforesaid electric circuit and adapted to give a flash light for photography by the camera, means for holding the camera shutter normally closed, means for operating said camera shutter, a slide provided with openings and disposed in front of said camera and said arc, and means for operating said slide as the camera shutter is operated.

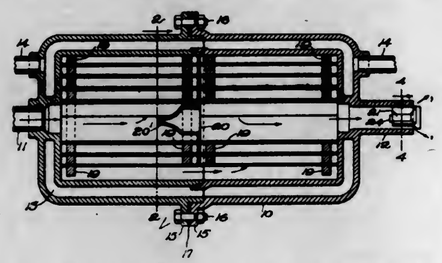
4. A machine of the character described, comprising a normally open electric circuit, a camera, means for closing said circuit, means actuated by the circuit for operating the shutter of said camera, and means for releasing the photographic plate as soon as the photograph has been taken.

5. A machine of the character described, comprising a normally open electric circuit including an arc, a camera, means for holding the shutter of said camera normally closed, means for operating said electric circuit, means for allowing the removal of the photographic plate automatically and immediately on completion of the photograph, a

second normally open electric circuit, and means for closing said second circuit to operate the photographic plate release mechanism.

[Claim 6 not printed in the Gazette.]

943,233. EXHAUST-MUFFLER. JOHN BOYLE, Peabody, Mass. Filed Aug. 28, 1909. Serial No. 515,032.

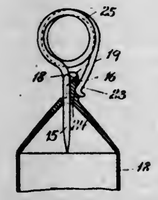


1. An exhaust muffler comprising a cylindrical casing having an inlet at one end, and an outlet at the other end, a series of flat strips of spiral form arranged edge to edge in said casing, said strips substantially filling the casing but being so curved as to provide spaces between their respective convolutions, and members engaging the adjacent edges of the spiral strips and constituting partitions closing the sides of the convolute spaces between said strips, said partition members, however, being cut away or omitted at such points as to leave a continuous unitary passage from said inlet to said outlet.

2. An exhaust muffler comprising a cylindrical casing having an inlet at one end and an outlet at the other end, and interengaged members so correlated with the interior of the casing as to form a closed unitary passage extending from said inlet to said outlet, said passage including a series of convolute portions and each portion including a series of convolutions.

3. An exhaust muffler comprising a casing having an inlet, an outlet, and means at the outlet for forming a continuous sheet of a portion of the exhaust, and for forming jets intersecting the continuous sheet.

943,234. COLLAPSIBLE TUBE. REUBEN BROOKS, Gloucester, Mass. Filed Mar. 3, 1909. Serial No. 481,184.



1. A collapsible tube having an outlet, and a projection at one side of the outlet, the outer end of said projection being formed to spread and limit the width of a stream of liquid issuing from the outlet.

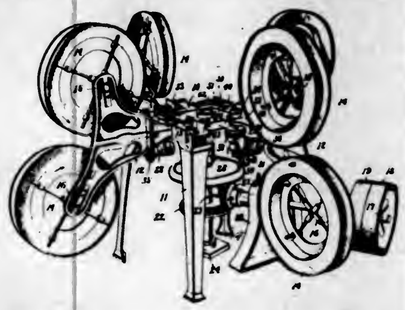
2. A collapsible tube having an outlet, and a projection on its delivering end at one side of the outlet, said projection having a stream spreading face and runners located at opposite ends of said face and projecting above the same.

3. A collapsible tube having an outlet, and a projection on its delivering end at one side of the outlet, said projection having a stream spreading face and runners located at opposite ends of said face and projecting above the same, the runners being formed to vary the height of the acting edge of the spreading face above the surface on which the runners bear.

4. A collapsing tube having a delivering end provided with a cavity which is separated from the interior of the tube by a puncturable septum, and a rigid projection on the said end at one side of the cavity, said projection being formed to engage and laterally support a pointed plug adapted to penetrate the septum and engage the projection.

5. A collapsible tube having a projection on its delivering end at one side of its outlet combined with a plug having a finger adapted to engage the outer side of said projection, the body of the plug bearing on the inner side of the projection.

943,235. STAPLE-MACHINE. JOHN BUCKLEY, Waterbury, Conn., assignor to Charles B. Schoenmehl, Waterbury, Conn. Filed Nov. 5, 1908. Serial No. 461,116.



1. In a staple forming machine, the combination with a shaft, of gear and roll connections for simultaneously feeding two wires, a stationary die having two wire passages therethrough, a cutting slide to operate in conjunction with the die, a pair of folding slides both adapted to receive the two blanks when severed, one slide having a central recess in its end and the other a reduced portion to operate in the recess to fold and shove the blank therethrough to form a staple.

2. In a staple forming machine, the combination with a shaft, of wire feeding devices connected to be operated by the shaft, for simultaneously feeding a pair of wires, a fixed and movable die for simultaneously cutting a pair of blanks from the two wires, a cam upon the shaft with connections for operating the sliding die, a second pair of slides for gripping the blanks and folding the staples, and cams mounted upon the shaft and connections for operating the two slides whereby the same are simultaneously operated.

3. In a staple machine, the combination with feeding and cutting mechanism, of a pair of folding slides, one constituting a male and the other a female slide, each having a pair of transverse grooves in their end faces to receive a pair of wire blanks, an opening in the end of one of the slides through which the other slide operates and forces the said blanks to fold the staple and having an enlargement of the opening within the inner portion of slide whereby the two staples are released from the dies and are discharged from the machine.

4. In a staple forming machine, the combination with a driving shaft, of wire feeding devices connected therewith for simultaneously feeding a pair of wires, a fixed and movable die for simultaneously cutting a pair of blanks from the two wires, a male and female holding slide adapted to receive, grip and bend a pair of straight wire blanks into U shaped staples, said slides both having a pair of cross and longitudinal grooves in their ends and side portions to receive and support the staple blanks.

5. In a staple forming machine, the combination with a main driving shaft, of wire feeding mechanism for simultaneously feeding forward two strands of wire, a fixed die having two longitudinal wire passages therein and a transverse recess across its end portion, a cutting slide fitted to engage the recess and adapted to operate at a right angle to the line of movement of the wire to cut therefrom two wire blanks, and a male and female die adapted to receive the said blanks and to simultaneously form two staples therefrom.

943,236. KNOCKDOWN DESK. JAMES W. CAMPBELL, Germantown, N. Y., assignor to Ferguson Bros. Mfg. Co., Hoboken, N. J., a Corporation of New Jersey. Filed Mar. 5, 1909. Serial No. 481,269.

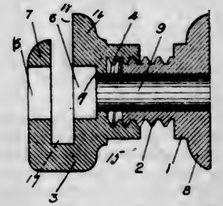


1. A knock-down desk comprising a back frame consisting of uprights and cross pieces connecting the uprights, spacing pieces at the front of the upper cross piece, a front strip connecting the spacing pieces, and a bottom strip, all firmly secured to form pockets, a table hinged to the frame immediately below the front piece of the pockets, and legs hinged to the back frame to swing into folded position beneath the strip which forms the bottom of the pockets.

2. A knock-down desk comprising a back frame, legs arranged to fold inwardly toward the back frame, a table arranged to fold downwardly over the folded legs, the table and the top of each leg being provided, the one with a keeper and the other with a tongue for retaining the table against vertical displacement and means for locking the leg to the table to prevent the leg from swinging laterally.

3. A knock-down desk comprising a back frame, legs hinged to the back frame to fold inwardly, a table hinged to the back frame to fold downwardly, the upper ends of the legs being provided with recesses, plate or bar springs secured to the under side of the table with their free ends projecting into said recesses, and pins projecting upwardly from the bottoms of the recesses to engage the springs, the under side of the table and the top of each leg being provided the one with a tongue and the other with a keeper arranged to come into locking engagement when the pin engages the spring, whereby the engagement of the springs with the pins simultaneously locks the legs against unintentional swinging movement and the table against vertical movement.

943,237. SUPPORT OR BRACKET. JOHN H. COOK, New York, N. Y., assignor to Henry B. Newhall, Plainfield, N. J. Filed July 1, 1908. Serial No. 441,280.



1. The combination of a plurality of door hanger brackets each comprising a hollow base and a hollow head, having coöperating engaging surfaces on the head and base, said head having an upturned apertured lip and a base plate provided with a seat, means adapted to be secured to a fixed support and to pass through the base and head and be seated in the seat in said head, and a track held between the lip and plate and resting in the seat of the head, the parts being so arranged that the base and head may be adjusted to true the track without removing it from the bracket or brackets.

2. A bracket or support comprising a plurality of members having coöperating engaging surfaces permitting the bracket to be lengthened or shortened while in operative position, one of the members being provided with a lip the other member being provided with a recess to substantially entirely receive the means for supporting the bracket.

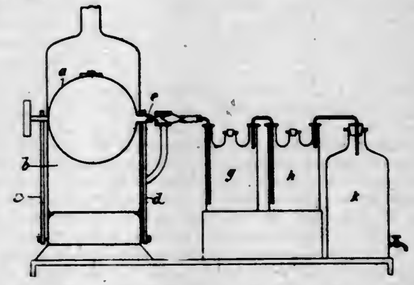
3. A bracket or support comprising a plurality of hollow members having coöperating engaging surfaces permitting the bracket to be lengthened or shortened while in operative position, one of said members having an upturned lip provided with an opening for the passage of a bolt, and also provided with a recess to receive the head of the bolt.

4. A bracket or support comprising a plurality of hollow members having coöperating engaging surfaces permitting the bracket to be lengthened or shortened while in operative position, and one of the members being provided with means for supporting an object upon one of the members without the aid of any locking means passing through or connecting with said supported object.

5. The combination of a bracket comprising a plurality of hollow members having coöperating engaging surfaces permitting them to be moved upon each other while in operative position, and means extending through the said members to support them, an object supported on one of the members and free of the supporting means upon which the hollow members are mounted.

[Claim 6 not printed in the Gazette.]

943,238. PROCESS OF ROASTING COFFEE. EMILIO DE MATTIA, Recoaro, Italy, and GIACOMO DE MATTIA, San Paolo, Brazil. Filed Apr. 9, 1907. Serial No. 367,297.



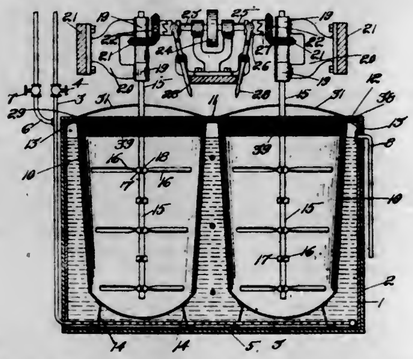
1. The process of roasting coffee, which consists in heating the same until the escaping vapors produce a violet color when passed through a solution of fuchsin mixed with sulfurous anhydrid, then cooling the roasted coffee in carbonic anhydrid under the exclusion of atmospheric air; substantially as described.

2. The process of roasting coffee, which consists in heating the same and leading escaping gases through a liquid until the latter assumes a color indicating the roasting of the coffee to the extent desired, and then cooling the roasted coffee in carbonic anhydrid under the exclusion of atmospheric air, substantially as described.

943,239. HEATING AND STORAGE SYSTEM FOR CHOCOLATE-COMPOSITION COATINGS. CHARLES J. DIONNE, Cambridge, Mass., assignor to United Drug Company, Boston, Mass., a Corporation of New Jersey. Filed Apr. 30, 1909. Serial No. 493,178.

1. In apparatus of the character described, a water supply, a water tank, a water pipe leading from said supply into the lower part of said water tank and extending for some distance into the tank and provided with a plurality of outlet orifices from said pipe into the tank, a steam

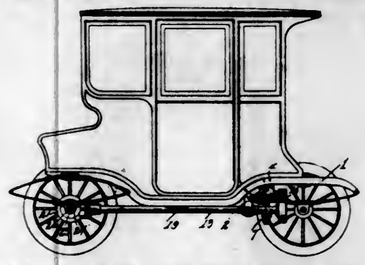
pipe connected with said water pipe outside of the water tank, means for regulating and controlling the flow of water from the water pipe into the tank, means for regulating and controlling the flow of steam into the water pipe, a discharge pipe leading from the water tank near the top thereof on the opposite side of the tank from the inlet, said tank being closed against discharge except at the upper part whereby the water tank may be kept full of running water of predetermined regulated temperature, a storage tank supported within the water tank, the storage tank being of less diameter than the interior of the water tank, the bottom of the storage tank being elevated above the bottom of the water tank, whereby a continuous free circulation of water of regulated temperature may be had into and out of the water tank and around the storage tank.



2. In apparatus of the character described, a water tank, a water pipe leading into the lower part of said water tank and extending for some distance into the tank and provided with a plurality of outlet orifices from said pipe into the tank, a steam pipe connected with said water pipe outside of the water tank, means for regulating and controlling the flow of water from the water pipe into the tank, means for regulating and controlling the flow of steam into the water pipe, a discharge pipe leading from the water tank near the top thereof on the opposite side of the tank from the inlet, said tank being closed against discharge except at the upper part, a storage tank supported within the water tank, the storage tank being of less diameter than the interior of the water tank, the bottom of the storage tank being elevated above the bottom of the water tank, whereby a continuous free circulation of hot water may be had into and out of the water tank and around the storage tank, and a valve controlled draw-off pipe leading from the lower part of the storage tank at one side thereof and passing through the wall of the water tank, a segmental cup-shaped strainer fitted within a portion of the rim of the storage tank and having a flange which rests upon the rim of said tank, a rotary shaft extending down into the storage tank provided with paddle blades, means for rotating said shaft and paddle blades, a two-part removable cover to the storage tank above the strainer, one member of which covers a portion of the top of the storage tank and the other member of which covers the remaining portion of the top of the storage tank and laps over onto said first member and is formed with a slot for the passage of said rotary shaft.

3. In apparatus of the character described, a storage tank, a rotary shaft extending down into the storage tank provided with paddle blades secured thereto, means for rotating said shaft, a segmental cup-shaped strainer fitted within a portion of the rim of the storage tank and having a flange which rests upon the rim of said tank, a rotary shaft extending down into the storage tank provided with paddle blades, means for rotating said shaft and paddle blades, a two-part removable cover to the storage tank above the strainer, one member of which covers a portion of the top of the storage tank and the other member of which covers the remaining portion of the top of the storage tank and laps over onto said first member and is formed with a slot for the passage of said rotary shaft.

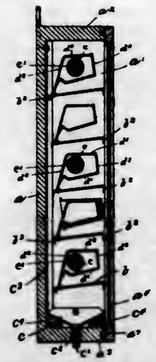
943,240. AUTOMOBILE-GEAR. HENRY P. DODGE and CASSIUS M. FOSTER, Toledo, Ohio. Filed Mar. 29, 1909. Serial No. 486,366.



1. An automobile gear comprising a motor, a rear axle, driving connections intermediate said motor and axle, casings for said motor, axle and connections, said several casings being rigidly connected as a unitary structure, side-bars, a downwardly bent cross-bar bridged between the side-bars, and an universal joint which supports the forward end of said connected casings upon the cross-bar.

2. In an automobile-gear, a transverse bar, a vertical shaft journaled on said bar and having at its top oppositely transversely spread arms, a sleeve having trunnions journaled upon said arms, another sleeve journaled in the sleeve first mentioned, a driving mechanism, a casing therefor, said casing being rigidly connected with said other sleeve, a driven mechanism, and operative connections intermediate said two mechanisms.

943,241. SANITARY CABINET FOR DRINKING-CUPS. LUKE W. FARMER, Somerville, Mass. Filed Apr. 30, 1909. Serial No. 493,075.



1. A cabinet for drinking-cups consisting of a case containing a plurality of declining-shelves, arranged horizontally, one above the other, the lowermost edge of each shelf projecting beyond the corresponding edge of the shelf below it but terminating a short distance in front of the back wall of the case to provide a passage between the back wall and shelves for the drippings from all the shelves, and cup-supports also contained in said case arranged to support the cups in draining position, substantially as described.

2. A cabinet for drinking-cups consisting of a case containing a plurality of declining-shelves, horizontally arranged, one above the other, each shelf of the set being made wider than the shelf below it and arranged with its lower edge projecting beyond the corresponding edge of the shelf below it, and cup-supports also contained in said case arranged to support the cups in draining position, substantially as described.

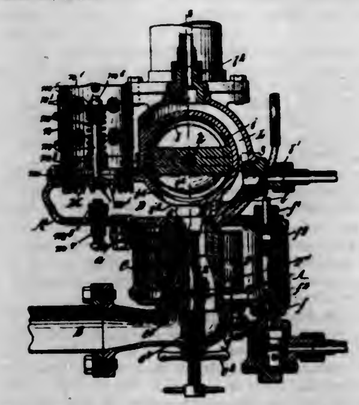
3. A cabinet for drinking-cups consisting of a case containing a plurality of declining-shelves, arranged horizontally, one above the other, the lowermost edge of each shelf projecting beyond the corresponding edge of the shelf below it, and cup-supports attached to said shelves and removable therewith and arranged to support the cups in draining position, substantially as described.

4. A cabinet for drinking-cups consisting of a case containing a plurality of declining-shelves, and cup-supports attached thereto comprising upright standards and forwardly extended cup-receiving portions, substantially as described.

5. A cabinet for drinking-cups consisting of a case containing a plurality of declining-shelves, arranged horizontally, one above the other, the lowermost edge of each shelf projecting beyond the corresponding edge of the shelf below it, cup-supports also contained in said case arranged to support the cups in draining position, and a drip-pan arranged at the bottom of the case to receive the drippings from the declining shelves, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

943,242. CARBURETER. DAVID FERGUSSON and CHARLES L. SHEPPY, Buffalo, N. Y., assignors to The George N. Pierce Company, Buffalo, N. Y. Filed June 7, 1907. Serial No. 377,769.



1. In a carbureter, the combination of a casing having a wall of circular cross-section forming a throttle valve chamber, said wall having in one side a hole for the passage of the explosive mixture, an air supply passage opposite to the hole in said valve chamber wall, and a mixing chamber having a portion which is located between said circular wall and said air supply passage and is relatively narrow in the direction of the length of the air supply passage whereby one end of the air supply passage is located close to said circular wall, a spray nozzle extending into said air passage and having a discharge orifice opposite and adjacent to said hole, an auxiliary air supply valve for admitting air to said mixing chamber, and a throttle valve in said valve chamber having a hole adapted to be moved into and out of register with the hole in said cylindrical wall by turning said valve, substantially as set forth.

2. In a carbureter, the combination of an air supply passage, a spray nozzle extending into said air passage and having a discharge orifice adjacent to the upper end thereof, a throttle valve chamber of circular cross-section arranged above and transversely with respect to said air passage and having an opening for the passage of the explosive mixture located opposite and in close proximity to the discharge orifice of the spray nozzle, and a mixing chamber having a portion located between the upper end of said air supply passage and said throttle valve chamber which is relatively narrow in the direction of the length of said air passage, a throttle valve arranged to turn in said valve chamber to place a hole in the valve into and out of register with the hole in said chamber, one of said holes having a V-shaped portion whereby the size of the opening for the explosive gas is controlled, and auxiliary air supply means for admitting air to said mixing chamber, substantially as set forth.

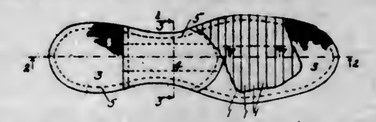
3. In a carbureter, the combination of a casing having a wall of circular cross section forming a throttle valve chamber, said wall having a hole for the passage of the explosive mixture, an air supply passage having one end located opposite to the hole in said valve chamber wall, and a mixing chamber between said circular wall and said air supply passage, a spray nozzle extending into said air passage and having a discharge orifice substantially opposite to one edge of the hole in said valve chamber wall, and a hollow throttle valve in said valve chamber and having a hole which coöperates with said hole in said valve chamber wall, one of said holes having a V-shaped portion whereby the size of the opening for the passage of the explosive mixture is gradually changed by turning said valve and said opening is always kept opposite to said spray nozzle, substantially as set forth.

4. In a carbureter, the combination of an air supply passage, a spray nozzle extending into said air passage and having a discharge orifice adjacent to the upper end thereof, an annular float chamber surrounding said air passage, an annular float in said chamber for regulating the feed of the fuel to said spray nozzle, a cylindrical throttle valve chamber arranged horizontally above said air passage with a hole in its bottom over and close to the discharge orifice of said spray nozzle, a mixing chamber between the upper end of said air supply passage and said throttle valve chamber, auxiliary air supply means for admitting air to said mixing chamber, a hollow cylindrical throttle valve in said valve chamber and having a hole in its cylindrical wall adapted to be placed into and out of register with a hole in the bottom of said valve chamber by turning said valve and also having a discharge hole, and a discharge passage connecting with the discharge hole of said throttle valve, substantially as set forth.

5. In a carbureter, the combination of a main air supply passage, a throttle valve chamber arranged transversely opposite to one end of said air supply passage and separated therefrom by a space forming a mixing chamber, said valve chamber having a hole in its wall opposite to said air passage, a throttle valve arranged to turn in said chamber to control said hole, a spray nozzle for the liquid hydrocarbon having a discharge orifice in said air passage opposite and adjacent to said hole in the wall of the throttle valve chamber, and automatic auxiliary air supply means consisting of a circular disk arranged to move in a serrated ring, thus controlling the inlet opening of said mixing chamber and gradually increasing the flow of air in proportion to the suction of the engine, substantially as set forth.

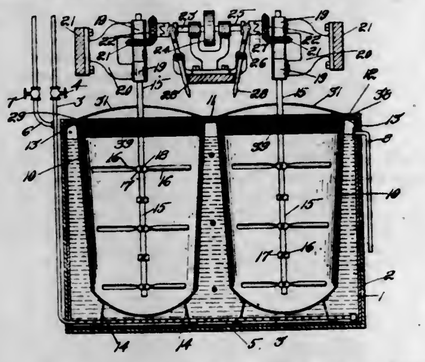
[Claim 6 not printed in the Gazette.]

943,243. INSOLE. OLOF F. FOGELSONG, Chicago, Ill. Filed Nov. 11, 1907. Serial No. 401,610.



1. An insole of the kind described, comprising a top and a bottom forming a cover, a plurality of thin wooden strips arranged transversely therebetween with their adjacent edges lapping upon each other, and a stiffening member arranged on the outside of the insole on one of the faces thereof.

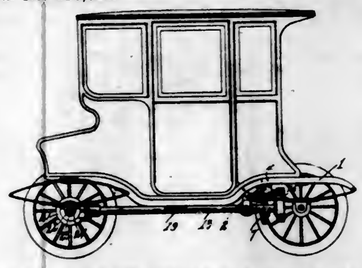
pipe connected with said water pipe outside of the water tank, means for regulating and controlling the flow of water from the water pipe into the tank, means for regulating and controlling the flow of steam into the water pipe, a discharge pipe leading from the water tank near the top thereof on the opposite side of the tank from the inlet, said tank being closed against discharge except at the upper part whereby the water tank may be kept full of running water of predetermined regulated temperature, a storage tank supported within the water tank, the storage tank being of less diameter than the interior of the water tank, the bottom of the storage tank being elevated above the bottom of the water tank, whereby a continuous free circulation of water of regulated temperature may be had into and out of the water tank and around the storage tank.



2. In apparatus of the character described, a water tank, a water pipe leading into the lower part of said water tank and extending for some distance into the tank and provided with a plurality of outlet orifices from said pipe into the tank, a steam pipe connected with said water pipe outside of the water tank, means for regulating and controlling the flow of water from the water pipe into the tank, means for regulating and controlling the flow of steam into the water pipe, a discharge pipe leading from the water tank near the top thereof on the opposite side of the tank from the inlet, said tank being closed against discharge except at the upper part, a storage tank supported within the water tank, the storage tank being of less diameter than the interior of the water tank, the bottom of the storage tank being elevated above the bottom of the water tank, whereby a continuous free circulation of hot water may be had into and out of the water tank and around the storage tank, and a valve controlled draw-off pipe leading from the lower part of the storage tank at one side thereof and passing through the wall of the water tank, a segmental cup-shaped strainer fitted within a portion of the rim of the storage tank and having a flange which rests upon the rim of said tank, a rotary shaft extending down into the storage tank provided with paddle blades, means for rotating said shaft and paddle blades, a two-part removable cover to the storage tank above the strainer, one member of which covers a portion of the top of the storage tank and the other member of which covers the remaining portion of the top of the storage tank and laps over onto said first member and is formed with a slot for the passage of said rotary shaft.

3. In apparatus of the character described, a storage tank, a rotary shaft extending down into the storage tank provided with paddle blades secured thereto, means for rotating said shaft, a segmental cup-shaped strainer fitted within a portion of the rim of the storage tank and having a flange which rests upon the rim of said tank, a rotary shaft extending down into the storage tank provided with paddle blades, means for rotating said shaft and paddle blades, a two-part removable cover to the storage tank above the strainer, one member of which covers a portion of the top of the storage tank and the other member of which covers the remaining portion of the top of the storage tank and laps over onto said first member and is formed with a slot for the passage of said rotary shaft.

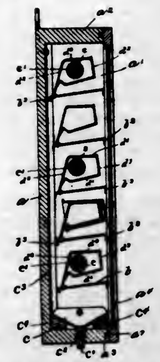
943,240. AUTOMOBILE-GEAR. HENRY P. DODGE and CASSIUS M. FOSTER, Toledo, Ohio. Filed Mar. 29, 1909. Serial No. 486,366.



1. An automobile gear comprising a motor, a rear axle, driving connections intermediate said motor and axle, casings for said motor, axle and connections, said several casings being rigidly connected as a unitary structure, side-bars, a downwardly bent cross-bar bridged between the side-bars, and an universal joint which supports the forward end of said connected casings upon the cross-bar.

2. In an automobile-gear, a transverse bar, a vertical shaft journaled on said bar and having at its top oppositely transversely spread arms, a sleeve having trunnions journaled upon said arms, another sleeve journaled in the sleeve first mentioned, a driving mechanism, a casing therefor, said casing being rigidly connected with said other sleeve, a driven mechanism, and operative connections intermediate said two mechanisms.

943,241. SANITARY CABINET FOR DRINKING-CUPS. LUKE W. FARMER, Somerville, Mass. Filed Apr. 30, 1909. Serial No. 493,075.



1. A cabinet for drinking-cups consisting of a case containing a plurality of declining-shelves, arranged horizontally, one above the other, the lowermost edge of each shelf projecting beyond the corresponding edge of the shelf below it but terminating a short distance in front of the back wall of the case to provide a passage between the back wall and shelves for the drippings from all the shelves, and cup-supports also contained in said case arranged to support the cups in draining position, substantially as described.

2. A cabinet for drinking-cups consisting of a case containing a plurality of declining-shelves, horizontally arranged, one above the other, each shelf of the set being made wider than the shelf below it and arranged with its lower edge projecting beyond the corresponding edge of the shelf below it, and cup-supports also contained in said case arranged to support the cups in draining position, substantially as described.

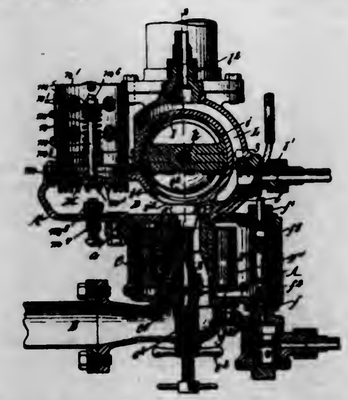
3. A cabinet for drinking-cups consisting of a case containing a plurality of declining-shelves, arranged horizontally, one above the other, the lowermost edge of each shelf projecting beyond the corresponding edge of the shelf below it, and cup-supports attached to said shelves and removable therewith and arranged to support the cups in draining position, substantially as described.

4. A cabinet for drinking-cups consisting of a case containing a plurality of declining-shelves, and cup-supports attached thereto comprising upright standards and forwardly extended cup-receiving portions, substantially as described.

5. A cabinet for drinking-cups consisting of a case containing a plurality of declining-shelves, arranged horizontally, one above the other, the lowermost edge of each shelf projecting beyond the corresponding edge of the shelf below it, cup-supports also contained in said case arranged to support the cups in draining position, and a drip-pan arranged at the bottom of the case to receive the drippings from the declining shelves, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

943,242. CARBURETER. DAVID FERGUSSON and CHARLES L. SHEPPY, Buffalo, N. Y., assignors to The George N. Pierce Company, Buffalo, N. Y. Filed June 7, 1907. Serial No. 377,769.



1. In a carbureter, the combination of a casing having a wall of circular cross-section forming a throttle valve chamber, said wall having in one side a hole for the passage of the explosive mixture, an air supply passage opposite to the hole in said valve chamber wall, and a mixing chamber having a portion which is located between said circular wall and said air supply passage and is relatively narrow in the direction of the length of the air supply passage whereby one end of the air supply passage is located close to said circular wall, a spray nozzle extending into said air passage and having a discharge orifice opposite and adjacent to said hole, an auxiliary air supply valve for admitting air to said mixing chamber, and a throttle valve in said valve chamber having a hole adapted to be moved into and out of register with the hole in said cylindrical wall by turning said valve, substantially as set forth.

2. In a carbureter, the combination of an air supply passage, a spray nozzle extending into said air passage and having a discharge orifice adjacent to the upper end thereof, a throttle valve chamber of circular cross-section arranged above and transversely with respect to said air passage and having an opening for the passage of the explosive mixture located opposite and in close proximity to the discharge orifice of the spray nozzle, and a mixing chamber having a portion located between the upper end of said air supply passage and said throttle valve chamber which is relatively narrow in the direction of the length of said air passage, a throttle valve arranged to turn in said valve chamber to place a hole in the valve into and out of register with the hole in said chamber, one of said holes having a V-shaped portion whereby the size of the opening for the explosive gas is controlled, and auxiliary air supply means for admitting air to said mixing chamber, substantially as set forth.

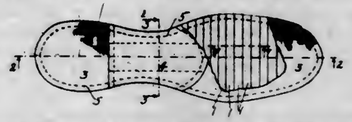
3. In a carbureter, the combination of a casing having a wall of circular cross section forming a throttle valve chamber, said wall having a hole for the passage of the explosive mixture, an air supply passage having one end located opposite to the hole in said valve chamber wall, and a mixing chamber between said circular wall and said air supply passage, a spray nozzle extending into said air passage and having a discharge orifice substantially opposite to one edge of the hole in said valve chamber wall, and a hollow throttle valve in said valve chamber and having a hole which coöperates with said hole in said valve chamber wall, one of said holes having a V-shaped portion whereby the size of the opening for the passage of the explosive mixture is gradually changed by turning said valve and said opening is always kept opposite to said spray nozzle, substantially as set forth.

4. In a carbureter, the combination of an air supply passage, a spray nozzle extending into said air passage and having a discharge orifice adjacent to the upper end thereof, an annular float chamber surrounding said air passage, an annular float in said chamber for regulating the feed of the fuel to said spray nozzle, a cylindrical throttle valve chamber arranged horizontally above said air passage with a hole in its bottom over and close to the discharge orifice of said spray nozzle, a mixing chamber between the upper end of said air supply passage and said throttle valve chamber, auxiliary air supply means for admitting air to said mixing chamber, a hollow cylindrical throttle valve in said valve chamber and having a hole in its cylindrical wall adapted to be placed into and out of register with a hole in the bottom of said valve chamber by turning said valve and also having a discharge hole, and a discharge passage connecting with the discharge hole of said throttle valve, substantially as set forth.

5. In a carbureter, the combination of a main air supply passage, a throttle valve chamber arranged transversely opposite to one end of said air supply passage and separated therefrom by a space forming a mixing chamber, said valve chamber having a hole in its wall opposite to said air passage, a throttle valve arranged to turn in said chamber to control said hole, a spray nozzle for the liquid hydrocarbon having a discharge orifice in said air passage opposite and adjacent to said hole in the wall of the throttle valve chamber, and automatic auxiliary air supply means consisting of a circular disk arranged to move in a serrated ring, thus controlling the inlet opening of said mixing chamber and gradually increasing the flow of air in proportion to the suction of the engine, substantially as set forth.

[Claim 6 not printed in the Gazette.]

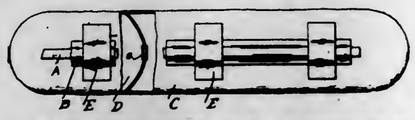
943,243. INSOLE. OLOF F. FOGELSONG, Chicago, Ill. Filed Nov. 11, 1907. Serial No. 401,610.



1. An insole of the kind described, comprising a top and a bottom forming a cover, a plurality of thin wooden strips arranged transversely therebetween with their adjacent edges lapping upon each other, and a stiffening member arranged on the outside of the insole on one of the faces thereof.

2. An insole of the kind described, comprising a top and a bottom forming a cover, a plurality of wooden strips arranged transversely and longitudinally therebetween, the adjacent edges of said transverse strips lapping upon each other, a stiffening member arranged on the insole, and means for securing the several parts together.

943,244. CUSHIONING DEVICE FOR TRUSS-FRAMES AND THE LIKE. JAMES S. E. FREEL, Newark, N. J. Filed Apr. 2, 1909. Serial No. 487,403.



1. In a truss, the combination with a supporting body-frame, of a pneumatic cushion adapted to receive the body-frame, said cushion being positioned between the body and the body-frame, and serving to hold the frame out of contact with the body.

2. The combination with a body-frame, of a surrounding tube, a pneumatic-cushion, and means for supporting said tube upon the cushion.

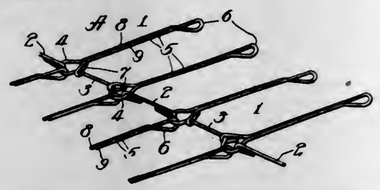
3. The combination with a body-frame, of a tube inclosing the same, a pneumatic-cushion, and loops carried by said cushion for retaining the aforementioned tube.

4. The combination with a body-frame, of a pneumatic-cushion, and loops carried thereby for retaining said frame upon the cushion.

5. In a truss, the combination with a metallic bar, of a pneumatic cushion for supporting the same upon the body.

[Claims 6 and 7 not printed in the Gazette.]

943,245. FABRIC FOR BEDS, COUCHES, &c. CHARLES H. GAIL, Kenosha, Wis. Filed Apr. 10, 1909. Serial No. 489,232.

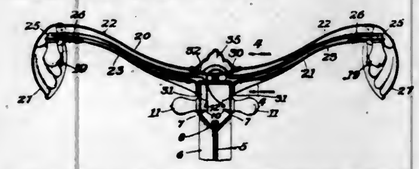


1. A wire-fabric comprising substantially U-shape links ranged in longitudinal rows, the links of each row being interlinked directly with each other and affording, in effect, two strands, each U-shape link comprising a wire bent to afford a transverse web and longitudinal arms with eyes at the junctions thereof, each arm having the wire thereof bent back upon itself and secured to the base-portion of a link, where y double strands are afforded.

2. A wire-fabric comprising U-shape links ranged in longitudinal rows, the links of each row being interlinked directly with each other and affording, in effect, two strands, and transverse links connecting said rows of links, each U-shape link comprising a wire bent to afford a transverse web and longitudinal arms with eyes at the junctions thereof, each arm having the wire thereof bent back upon itself and secured to the base-portion of the link, whereby double strands are afforded, said transverse links connecting adjacent eyes of the longitudinal rows of U-shape links.

3. A wire-fabric comprising U-shape links ranged in longitudinal rows, and transverse links connecting said rows of links, each U-shape link comprising a wire bent to afford a transverse web and longitudinal arms with the wire curved at the junction of said web and arms to afford unclosed eyes, each arm having the wire thereof bent back upon itself to form a loop at the extremity of the arm, the extremity of the wire having a hook engaging the web of the link adjacent to said eye, the loops at the extremities of the arms of one link engaging the eyes at the base of the adjacent link.

943,246. ELECTRICALLY-ILLUMINATED SIGN. JOHN H. GOEBEL, Chicago, Ill., assignor to Federal Electric Company, Chicago, Ill., a Corporation of Illinois. Filed June 11, 1909. Serial No. 501,478.



1. In an illuminated sign, in combination with the body portion and the frame thereof, a lamp for illuminating said body portion, a bracket arm for said lamp comprising an upper and a lower section secured together to form a tube, said sections being bent at their margins to form laterally projecting stiffening ribs, and means for securing said bracket arm upon the frame of the sign.

2. In an illuminated sign, in combination with the body portion and the frame thereof, a lamp, a bracket arm for said lamp comprising an upper and a lower section secured together to form a tube, the margins of said sections being extended laterally to form reinforcing ribs and said arm being widened at its inner end to form a supporting base adapted to be secured to the frame of the sign.

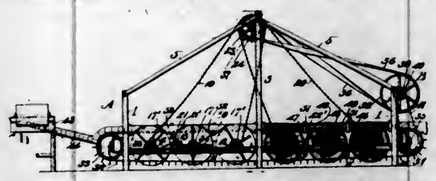
3. In an illuminated sign, in combination with the body portion and the frame thereof, a lamp for illuminating said body portion, a bracket arm for said lamp comprising an upper and a lower section secured together to form a tube, and a downwardly projecting web upon the inner end of said lower section adapted to be secured to the supporting frame.

4. In an illuminated sign, in combination with the body portion and the frame therefor, a lamp for illuminating said body portion, a bracket arm for said lamp comprising an upper and a lower section secured together to form a tube, and a web upon the inner end of said lower section of the arm which is attached to the sign frame, and said lower section being concaved or dished upwardly on its lower face adjacent to its inner end.

5. In an illuminated sign, in combination with the body portion and the frame thereof, a lamp bracket comprising sections which are secured together to form a tube, said bracket being supported upon said sign frame, a horizontally extending plate at the outer end of said bracket arm, a downwardly opening lamp socket on the outer end of said plate, a lamp in said socket, and an inwardly opening reflector depending from the outer end of said bracket arm.

[Claims 6 to 9 not printed in the Gazette.]

943,247. CAN-POLISHING MACHINE. CARL HEDIGER, Greenville, Ill. Filed Apr. 21, 1909. Serial No. 491,242.



1. The combination, in a can polishing machine, of an endless carrier having flights for conducting the cans to be polished, a rotary brush opposing said endless carrier and operable upon the ends of the cans, a runway in which said endless carrier is operable, a track within the runway having rails between which the endless carrier travels and on which the flights thereof and the cans are supported, and a movable guard at the side of the runway at which the brush is located.

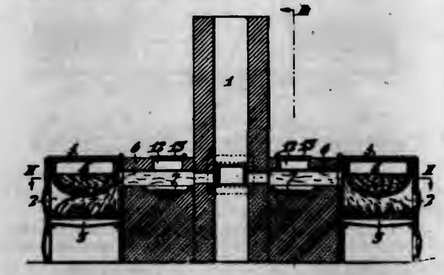
2. The combination, in a can polishing machine, of an endless carrier having flights for conducting the cans to be polished, a rotary brush opposing said endless carrier and operable upon the ends of the cans, a runway in which said endless carrier is operable, a track within the runway having rails between which the endless carrier travels and on which the cans are supported, and a guard hinged to said runway at its side at which the brush is located.

3. The combination, in a can polishing machine, of an endless carrier for conducting the cans to be polished, a rotary brush opposing said endless carrier and operable upon the ends of the cans, a runway in which said endless carrier is operable, a track within the runway having rails between which the endless carrier travels and on which the cans are supported, and a guard hinged to said runway at the side at which the brush is located, and a latch for holding said guard in position to partly confine the cans in the runway.

4. A can polishing machine comprising a frame, a pair of centrally arranged supporting bars extending longitudinally of the frame and spaced apart, a runway located between the supporting bars and having at its rear end an upwardly extending curved part or dip and a track provided with rails for supporting the cans and conforming to the curved part or dip of the runway, a transversely arranged traveling table, carrying the cans in vertical position, an inclined chute arranged transversely of the table in line with the runway and receiving the cans in transverse position and having an open bottom, and an endless carrier having flights receiving the cans in line with the bottom of the chute.

5. A can polishing machine comprising a frame, a pair of centrally arranged supporting bars extending longitudinally of the frame and spaced apart, a runway located between the supporting bars and having at its rear end an upwardly extending curved part or dip and a track provided with rails for supporting the cans and conforming to the curved part or dip of the runway, a transversely arranged traveling table, carrying the cans in vertical position, an inclined chute arranged transversely of the table in line with the runway and receiving the cans in transverse position and having an open bottom, an endless carrier having flights and receiving the cans in line with the bottom of the chute and so mounted that its working part travels forwardly on the track between the rails, oppositely arranged rotary polishing brushes having offset shafts mounted on the supporting bars and the working part of their faces operating toward the receiving end of the endless carrier, means for driving the latter and means for rotating the polishing brushes.

943,248. RECLAMATION OF PURIFIED METAL. WILLIAM C. HYZER, Philadelphia, Pa. Filed Apr. 11, 1906. Serial No. 311,026.

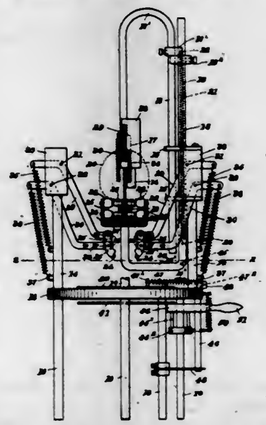


1. A furnace for melting metal and reclaiming it from its impurities which comprises a grate and combustion chamber, a main melting pot provided with a lid and situated within the combustion chamber; a supporting frame-work for the combustion chamber and melting pot, so closed that the removal of the lid of the melting pot affords no escape for the products of combustion; a horizontal flue leading to a stack through which the products of combustion are led away from the combustion chamber; and a supplemental dross melting pot interposed within the bottom of said horizontal flue, said supplemental melting pot being provided with a discharge pipe at the bottom, and said flue being provided with an opening directly over the supplemental melting pot, whereby the dross from the main melting pot may be readily skimmed and transferred to the supplemental melting pot wherein the metal is remelted and reclaimed.

2. A dross melting furnace comprising a combustion chamber, a horizontal flue, and a dross melting pot inserted on the lower side of said horizontal flue and provided with vertical walls and also with gently sloping walls, and with an aperture in a vertical wall having its bottom flush with the bottom of the melting pot.

3. The process of reclaiming purified metal from dross, which consists in placing dross in a suitable receptacle, and there subjecting it to the reverberatory action of heated products of combustion, led over the top of the dross, whereby the dross is heated from the top downward, and the melted metal permitted to escape through an aperture in the bottom of the receptacle.

943,249. PARING-MACHINE. GUSTAF JAHANSAN, Cranston, R. I., assignor of one-third to Lucius F. Arnold and one-third to George L. Titus, Providence, R. I. Filed Oct. 29, 1908. Serial No. 459,983.



1. A paring machine comprising a pair of clamping jaws movable in a predetermined path, means for yieldingly pressing said jaws against a body placed between them, and a plurality of pivoted paring blades arranged to substantially surround said path, and adapted to assume different angles relatively to the said path, means for yieldingly pressing said blades inwardly toward the path of the jaws, and means for conforming the blades to the varying inclinations of the surface of a body engaged by the jaws.

2. A paring machine comprising a pair of clamping jaws adapted to engage a body to be pared, and movable in a predetermined path, and a plurality of paring blades, arranged to substantially surround the said path, means for yieldingly pressing said blades inwardly toward the path of the jaws, means for conforming the blades to the varying inclinations of the surface of a body engaged by the jaws, and a pair of end paring blades movable crosswise of said path and adapted to remove the end portions of the body.

3. A paring machine comprising means for grasping a body to be pared at opposite parts of the surface and

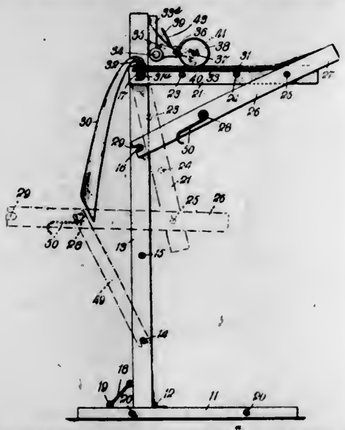
moving it in a predetermined path, and a plurality of paring blades arranged to substantially surround the body, each blade having arms at its ends, rods mounted in said arms and rolls journaled on said arms and adapted to bear on the surface of the body, the blade being yieldingly supported by a pair of spring-pressed pivoted levers connected with said rods.

4. A paring machine comprising a pair of clamping jaws adapted to engage a body to be pared and movable in a predetermined path, means for yieldingly pressing the jaws toward each other, means for paring a body held and moved by the jaws, and paring blades adapted to oscillate in unison across the path of the body, one of said blades being movable in a predetermined path, and the other in a path which is governed by the size of the body interposed between the jaws.

5. A paring machine comprising a pair of clamping jaws adapted to engage a body to be pared and movable in a predetermined path, means for yieldingly pressing the jaws toward each other, means for paring a body held and moved by the jaws, an upper end-paring blade mounted on an oscillatory head which is movable in a predetermined path, and a lower end paring blade mounted on an oscillatory head which is vertically movable with the lower clamping jaw.

[Claims 6 and 7 not printed in the Gazette.]

943,250. DISPLAY-RACK. FRANK JAQUES, Morristown, N. J. Filed June 12, 1909. Serial No. 501,752.



1. A device of the character described, comprising a vertical member, a horizontally-extending pivoted member, a member pivotally held to the horizontally-extending member and adapted to engage a part of the vertical member so as to support an object on the horizontally-extending member, and feeding means comprising a bracket located on each side of said horizontally extending pivoted member, an arm projecting from each bracket, and yieldingly held feeding wheels carried by the brackets.

2. A rack of the character described, comprising a vertical member, a member pivotally held thereto, a member pivotally held to the last-mentioned member and adapted to engage a part of the vertical member so as to support an object, a supporting plate, and feeding means located over said plate comprising a bracket located on each side of said second mentioned member, an arm projecting from each bracket, and yieldingly held feeding wheels carried by the brackets.

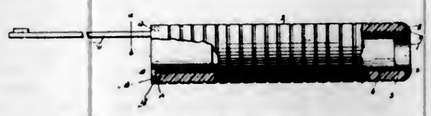
3. The combination with a supporting member having transversely-extending rods, a member pivotally held to one of the rods, a third member pivotally held to the last-mentioned member and adapted to engage a part of the first-mentioned member, and feeding means comprising a bracket located on each side of said first mentioned pivotally held member, an arm projecting from each bracket, and yieldingly held feeding wheels carried by the brackets.

4. The combination with supporting means adapted to hold a book, of feeding means adapted to move the leaves of a book and comprising a bracket located on each side of the supporting means, an arm projecting from each bracket, a spring normally forcing the arm in one direction, a shaft rotatably held in the arms, feeding wheels carried by the shaft, a handle for rotating the shaft, and a stop device carried by the arms.

5. The combination with supporting means adapted to hold a book, of feeding means adapted to move the leaves of a book and comprising a bracket located on each side of the supporting means, an arm projecting from each bracket, a spring normally forcing the arm in one direction, a shaft rotatably held in the arms, and feeding wheels carried by the shaft.

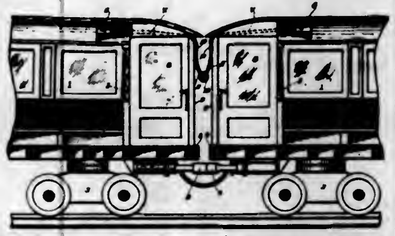
[Claims 6 to 11 not printed in the Gazette.]

943,251. FIREARM. THOMAS C. JOHNSON, New Haven, Conn., assignor to Winchester Repeating Arms Co., New Haven, Conn., a Corporation. Filed Apr. 19, 1909. Serial No. 490,949.



In a sliding operating-handle for tubular magazine firearms, the combination with a tubular wooden grip, of a sheet-metal shell inserted thereinto, a ferrule attached to the front end of the said shell and having the front edge of the grip inserted into it, a sheet-metal sleeve telescoped into the rear end of the said sheet metal shell and fastened thereto, an operating-bar rigid with the said sleeve and extending rearward therefrom for connection with the breech-mechanism of the gun, a flat annular flange rigid with the rear end of the sleeve and having the rear edge of the grip abutted against its flat front face, and positioning pins mounted in the said flange and extending forward at a right angle to the plane thereof into corresponding holes in the rear edge of the grip which they prevent from rotating and from spreading.

943,252. MEGAPHONE. HUBERT MEREDITH-JONES, New York, N. Y., assignor of one-half to Charles M. Mapes, New York, N. Y. Filed Oct. 9, 1908. Serial No. 456,905.



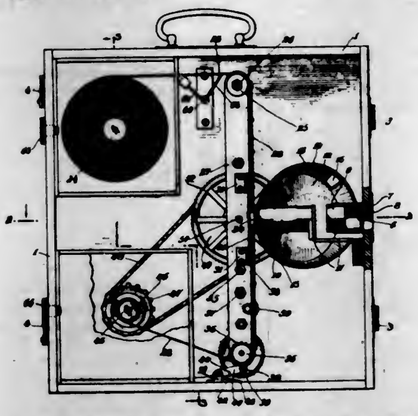
1. In a device of the character described, the combination of two adjacent cars, a megaphone in each car and a single transmitter connected to said megaphones.

2. In a device of the character described, the combination of two adjacent cars, a megaphone in each car and a single transmitter connected to said megaphones and located on the outside of the cars.

3. In a device of the character described, the combination of two adjacent cars, a megaphone in each car and a single transmitter connected to said megaphones and located at the outer edge of one of the cars.

4. In a device of the character described, the combination of two adjacent cars, a megaphone in each car and a single transmitter connected to said megaphones and located between said cars.

943,253. MOVING-PICTURE CAMERA. HUBERT MEREDITH-JONES, New York, N. Y., assignor of one-half to Charles M. Mapes, New York, N. Y. Filed Oct. 29, 1908. Serial No. 460,029.



1. In a device of the character described, the combination of a camera case, means for constantly moving a film therein and means for projecting an image of the object to be taken straight from the object to the film while moving.

2. In a moving picture camera, the combination of a camera case, means for moving a film therein constantly and at a variable speed, and means for exposing said film to the light while moving, to take a photograph.

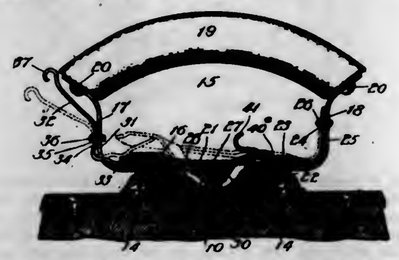
3. In a moving picture camera, the combination of a camera case, means for moving a film therein constantly and at a variable speed and means for exposing the film to the light during the slow movement thereof, to take a photograph.

4. In combination, a camera case, elliptical gearing for moving the film therein constantly and at a variable speed, and means for exposing said film to the light while moving, to take a photograph.

5. In combination, a camera case, elliptical gearing for moving a film therein constantly and at a variable speed, and means for admitting the light thereto during the slow movement thereof, to take a photograph.

[Claims 6 to 11 not printed in the Gazette.]

943,254. SAD-IRON. JOSEPH KADIERA, Chicago, Ill., assignor of one-half to T. J. Hruby, Chicago, Ill. Filed June 17, 1908. Serial No. 438,955.



1. A sad-iron handle formed of a plate of sheet-metal having upturned ends to which the handle-grip is attached and having a lug of curved shape in cross-section depending therefrom and formed by stamping it from the metal of said plate, thereby affording an opening therein, and a second plate of sheet-metal connected with said handle and adapted to be moved into and out of superposed position on said first-named plate, said second plate having a depending lug of curved shape in cross-section formed thereon by stamping it from the metal of said plate, and said last-named lug extending through the opening in said first-named plate when the parts are in normal position.

2. A sad-iron handle formed of a plate of sheet-metal having upturned ends to which the handle-grip is attached and having a lug of curved shape in cross-section depending therefrom formed by stamping it from the metal of said plate, thereby affording an opening therein, a second plate of sheet-metal connected with said handle and adapted to be moved into and out of superposed position on said first-named plate, said second plate having a depending lug of curved shape in cross-section thereon formed by stamping it from the metal of said plate, and said last-named lug extending through the opening in said first-named plate when the parts are in normal position, and a lever supported on the handle to extend at a portion thereof adjacent to the handle-grip and operatively engaging at its opposite end with said second-named plate, for the purpose set forth.

3. A sad-iron handle formed of a plate of sheet metal having upturned ends to which the handle-grip is attached and having a lug depending therefrom and formed by partially severing the metal of said plate between its sides and bending the said partially severed portion away from the plate, thereby affording an opening therein, and a second plate of sheet-metal connected with said handle and adapted to be moved into and out of superposed position on said first-named plate, said second plate having a depending lug formed thereon by partially severing a portion of the metal of said plate and bending such partially severed portion away from the plate, said last-named lug extending through the opening in said first-named plate when the parts are in normal position.

4. A sad-iron handle having a stationary lug and a movable lug for engaging with the handle-engaging rib of a sad-iron and a filler-plate pivoted to the handle in a manner permitting it to be moved into and out of superposed position on one of the lugs, for the purpose set forth.

5. A sad-iron handle having a stationary depending lug presenting an inclined upper surface, a movable lug cooperating with said stationary lug for engaging with the handle-engaging rib of a sad-iron, and a filler-plate constructed and arranged to be moved into and out of superposed position on the inclined surface of the stationary lug, for the purpose set forth.

943,255. SUPPORT FOR BOOKS AND OTHER ARTICLES. GEORGE J. KERNS, Chicago, Ill. Filed Dec. 16, 1908. Serial No. 467,861.

1. A support of the character described, comprising in combination, a standard, means for connecting said standard to a sustaining base, a rest and a vertically movable and revoluble part connected to said rest and arranged to interlock in different positions with said standard.

2. A support of the character described, comprising in combination a standard, means for connecting said standard to a sustaining base, a rest, a part connected to said rest and an interlocking pin and notch connection between said part and said standard, whereby the rest may be held in different positions.

3. A support of the character described, comprising in combination a standard, means for connecting said standard to a sustaining base, a rest, and a part connected to said rest, said standard being provided with a pin and said part being provided with a series of notches to engage said pin, whereby the rest may be held in different positions.

4. A support of the character described, comprising in combination a standard, means for connecting said standard to a sustaining base, a rest, a part connected to said rest and revoluble with respect to said standard, and a pin and slot connection between said standard and said part.

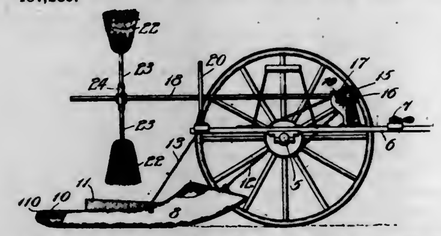
5. A support of the character described, comprising in combination a standard, means for connecting said standard to a sustaining base, a rest, an arm connected to said



rest and detachable from said standard, and a pin and notch connection between said arm and said standard.

[Claims 6 to 8 not printed in the Gazette.]

943,256. VERMIN-DESTROYING APPARATUS. LOUIS KREFT, Des Plaines, Ill. Filed Apr. 1, 1909. Serial No. 487,289.



1. In a vermin-destroying apparatus, the combination with a wheeled vehicle, of a shaft mounted on the frame parallel with and geared to the axle, broom-shafts adjustably journaled on the frame and geared at their forward ends to said first-named shaft to be rotated by movement of the vehicle, sockets adjustably mounted on said broom-shafts and adapted to be adjusted lengthwise thereon, brooms extending from said broom-shafts and adjustably secured in said sockets, and a partition-equipped vermin-receptacle flexibly connected with the vehicle to be dragged by its movement and extending behind it in the plane between the broom-shafts, for the purpose set forth.

2. In a vermin-destroying apparatus, the combination with a wheeled vehicle, of a shaft mounted on the frame parallel with and geared to the axle, broom-shafts adjustably journaled on the frame and geared at their forward ends to said first-named shaft to be rotated by movement of the vehicle, sockets adjustably mounted on said broom-shafts and adapted to be adjusted lengthwise thereon, brooms extending from said broom-shafts and adjustably secured in said sockets, a partition-equipped vermin-receptacle, and chains connecting said receptacle with said vehicle, for the purpose set forth.

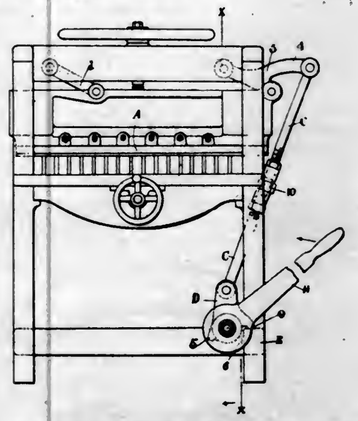
3. In a vermin-destroying apparatus, the combination with a wheeled vehicle having an axle and provided with a frame mounted thereon, of a shaft mounted on the frame parallel with and geared to said axle, broom-shafts adjustably journaled on the frame and geared at their forward ends to said first-named shaft to be rotated by movement of the vehicle, sockets adjustably mounted on said broom-shafts and adapted to be adjusted lengthwise thereon, brooms extending from said broom-shafts and adjustably secured in said sockets, a partition-equipped vermin-receptacle, a chain secured to said receptacle near its front end and to the axle, and chains secured to the opposite sides of said receptacle between its ends and to said frame, whereby said receptacle can be adjusted lengthwise of the vehicle by lengthening or shortening said chains and whereby said receptacle may be dragged behind the vehicle by its movement, for the purpose set forth.

943,257. SECTION FOR AUTOMOBILE-RADIATORS. HUGO KURTZNER, New Haven, Conn. Filed June 9, 1909. Serial No. 501,163.



A section for automobile radiators, the said section being composed of a number of independently formed transversely corrugated sheet-metal plates each extending from the top to the bottom of the section and each formed upon each edge with a continuous shoulder slightly larger than the corrugations, and the said corrugations and shoulders being circular in form, the plates being symmetrically assembled face to face in pairs so as to form circular horizontal air-passages, the pairs being assembled unsymmetrically so as to form tortuous vertically arranged contracting and expanding water-passages between the convex faces of the plates which are held apart for the formation of these passages by means of the said shoulders, and the edges of the corrugations and hence the plates being bound together by a continuous sheet of solder.

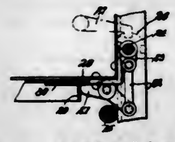
943,258. PAPER-CUTTING MACHINE. EUGENE A. LA DUE, Cleveland, Ohio, assignor to The Chandler & Price Company, Cleveland, Ohio, a Corporation. Filed June 28, 1909. Serial No. 504,891.



1. A paper cutting machine having a main frame, a cutter blade and rotatable shaft mounted therein, links suspending said blade and an arm fixed on said shaft, one of said links having an arm, an adjustable connection between said arms and a stop adapted to engage said main frame and limit the depression of said arms and thereby also limit the depression of said blade.

2. In paper cutting machines, a supporting frame, a cutter blade and mechanism to operate the blade comprising a projection D adapted to be rotated on a fixed axis, links suspending said blade from said frame and one of said links having a projection 4, a connection C uniting said projections and adjustable as to length thereof and a stop to limit the downward movement of said projection D, whereby the descent of the blade upon the cutting block is fixed at will.

943,259. DUMPING-CAR. CHARLES A. LINDSTRÖM, Allegheny, Pa., assignor to Pressed Steel Car Company, Pittsburg, Pa., a Corporation of New Jersey. Filed June 5, 1903. Serial No. 160,240.



1. In a dumping car, a series of drop doors, means for opening and closing the same, a series of pivoted locking latches for the doors, a cranked shaft, and links connecting the latches with the said shaft, said links, with the cranks of the shaft, forming locking toggles for holding the latches closed; substantially as described.

2. In a dump car, a drop-door and means for operating same, in combination with a lock for said door independent of said door operating means comprising a pivoted latch, means for operating said latch and a toggle connection between said latch and its operating means.

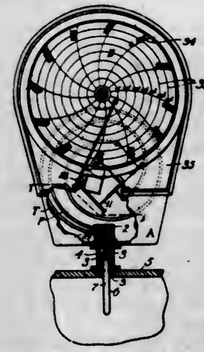
3. In a dump car, a drop-door and means for operating same, in combination with a lock for said door independent of said door operating means comprising a pivoted latch, means for operating same, a toggle connection between said latch and its operating means, and means for locking said latch operating means.

4. In a dump car, a drop-door and means for operating same, in combination with a lock for said door independent of said door operating means comprising a pivoted latch, a shaft for operating the same, a toggle connection between said latch and said shaft, and means for locking the said shaft against movement.

5. In a dump car, a central sill, a drop-door pivoted thereto, a floor plate mounted on said sill and projecting laterally beyond same and a drop-door pivoted to the outer edge of said plate over the car truck.

[Claim 6 not printed in the Gazette.]

943,260. SUPERHEAT-GAGE. THOMAS M. LOTHROP and GRANT D. BRADSHAW, Joliet, Ill. Filed June 6, 1907. Serial No. 377,498.



1. In a superheat gage, the combination, with a chamber for superheated gas, of a thermometric device inserted in the chamber, a pair of movable members connected one with the thermometric device and the other with the interior of the chamber, whereby said members are actuated independently, one by the heat and the other by the pressure of the therein contained gas, a dial calibrated for degrees of superheat, and an indicator working over the face of the dial, said movable members being operatively connected with the indicator so as to give it a resultant movement corresponding to the amount of superheat in the gas.

2. In a differential gage, the combination, with a pointer, of a pair of sliding pivot pins, a pair of pressure-actuated devices arranged to be acted upon by separate sources of pressure and oppositely connected with said pivot-pins, respectively, and parallel motion linkage connecting said pivot-pins with each other and with the pointer.

3. In a superheat gage, the combination, with a chamber for superheated gas, of a thermometric device inserted in the chamber, a pair of spring members connected one with the thermometric device and the other with the interior of the chamber, whereby said members are actuated independently, one by the heat and the other by the pressure of the therein contained gas, a dial calibrated for degrees of superheat, and an indicator working over the face of the dial, said springs being oppositely connected with the indicator so as to give the same a resultant movement corresponding to the amount of superheat in the gas.

4. In a superheat gage, in combination, a dial calibrated for degrees of superheat, an indicator working over the face of the dial, a pair of spring tubes closed at their outer ends, one of the tubes being open at its inner end and the other tube being closed at its inner end and containing an expansible fluid, both of the inner tube-ends being adapted to be inserted into a chamber of superheated gas, and the outer tube-ends being operatively connected with the indicator so as to impart to the same a resultant movement corresponding to the amount of superheat in the gas.

5. A superheat gage comprising a dial graduated in one direction for time periods and in another direction for degrees of superheat, an indicator working over the face of the dial, clockwork mechanism for moving the dial so as to carry the time-period graduations successively past the indicator, a chamber for superheated gas, a thermometric device inserted in said chamber, and a pair of movable members connected one with the thermometric device and the other with the interior of the chamber, whereby said members are actuated independently, one by the heat and the other by the pressure of the therein contained gas, said movable members being operatively connected with the indicator so as to give it a resultant movement corresponding to the amount of superheat in the gas.

[Claims 6 to 10 not printed in the Gazette.]

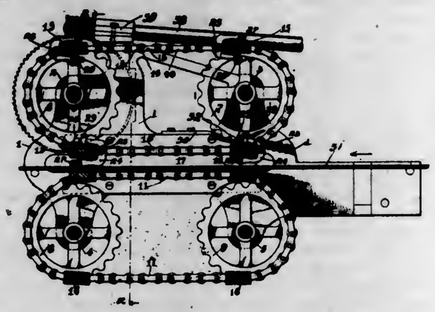
943,261. PAPER-FEED MECHANISM. PHILIP J. MEAHL, Bayonne, N. J. Filed Oct. 31, 1908. Serial No. 460,410.

1. In a paper feed device the combination with two sets of sprocket wheels and two sets of chains passing over the wheels, of bars connecting the chains of each set with each other, paper clamping devices mounted on the bars of one set of chains, springs for pressing the clamping devices upon the paper supported by the bars of the other set of chains, means for temporarily lifting the clamping devices against the tension of the springs and then releasing the clamping devices substantially as set forth.

2. In a paper feed device the combination with two sets of sprocket wheels and two sets of chains passing over the wheels, of bars connecting the chains of each set with each other, paper clamping devices mounted on the bars of one set of chains, guide tracks for guiding those parts of the chains parallel with and adjacent to the opposite faces of the sheets of paper being conveyed, an intermediate rail and a top and bottom rail forming said guide tracks between them substantially as set forth.

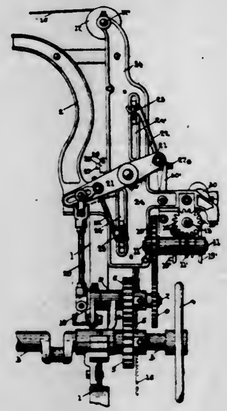
3. In a paper feed device the combination with two sets of wheels and a set of chains passing around each set of wheels of cross bars uniting the chains of each set, rock shafts mounted on the cross bars of one set, U shaped levers on these shafts, clamping rods attached to the

lower ends of the levers, lugs on the upper ends of the levers and cam tracks on the frames, and springs secured to the bars and acting on the levers, substantially as set forth.



4. In a paper feed device the combination with two sets of sprocket wheels and a set of endless chains passing over each set of wheels, of bars uniting the chains of each set, horizontal tracks for guiding those parts of the chains adjacent to opposite faces of the paper to be fed, the ends of said tracks extending a slight distance beyond the vertical plane through the axis of the sprocket wheels, paper clamping means on the bars of one set of chains, springs acting on the clamping devices, cams for raising the clamping device when the chains enter the horizontal tracks, said cams being constructed to release the clamping devices immediately after the chains have moved forward in the horizontal tracks.

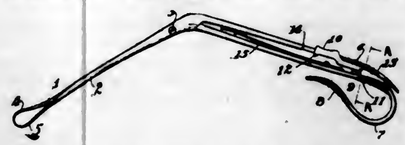
943,262. LOOM HARNESS-MOTION. DAVID D. MILLER, Middletown, Conn., assignor to Crompton & Knowles Loom Works, a Corporation of Massachusetts. Filed Apr. 12, 1907. Serial No. 367,884.



1. In a harness motion for operating the harnesses of a loom, the combination with the harnesses, and with a pattern surface and pattern indicators therefor, of two wires for each harness, each of said wires having an upper and a lower hook, and connections intermediate one wire and the upper side of the harness, connections intermediate the other wire and the lower side of the harness, and reciprocating lifter bars for moving said wires, each lifter bar having two blades or bars for engagement with said hooks, and connections intermediate said wires and the pattern indicators, to cause the upper hook of one wire to be moved into engagement with one lifter bar, and the upper hook of the other wire to be moved out of engagement with the other lifter bar.

2. In a harness motion for operating the harnesses of a loom, the combination with the harnesses and with a pattern surface and pattern indicators therefor, of two uprights or wires for each harness, each of said uprights or wires having an upper and lower hook, connections intermediate one wire and the upper side of a harness, connections intermediate the other wire and the lower side of a harness, and vertically reciprocating lift bars for moving said uprights or wires, each lift bar having two blades or bars for engagement with said hooks, and connections intermediate said uprights or wires and the pattern indicators, to cause the upper hook of one wire to be moved into engagement with one lift bar, and the upper hook of the other wire to be moved out of engagement with the other lift bar.

943,263. SURGICAL FORCEPS. ERNEST MORAWECK, Louisville, Ky. Filed May 6, 1909. Serial No. 494,330.



1. Surgical forceps, comprising a pair of pivotally connected levers, coacting gripping jaws at one end of said levers and handles at the other end, said handles being of relatively different lengths, constructed to lie close together and substantially parallel with each other throughout the entire length of the shorter handle, the longer handle being bent upon itself to form an open hook-shaped finger loop, and means for securing said jaws in their gripping position.

2. Surgical forceps comprising a pair of pivotally connected levers, coacting gripping jaws at one end of said levers, and handles at the other end, shoulders on said handles adapted to be sprung into interlocking engagement with each other for securing the jaws in gripping position, and a lock on one of said levers adapted to prevent accidental disengagement of said shoulders.

3. Surgical forceps comprising a pair of pivotally connected levers, coacting gripping jaws at one end of said levers, and handles at the other end, one of said handles being bent upon itself to form a hook-shaped finger loop and the other being shaped to lie close to and substantially parallel with the adjacent part of said hook-shaped handle, shoulders on said handles adapted to be sprung into interlocking engagement with each other for securing the jaws in gripping position, and a lock on one of said levers adapted to prevent accidental disengagement of said shoulders.

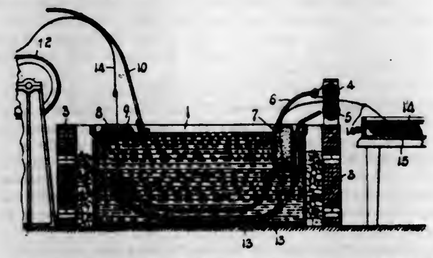
4. Surgical forceps comprising a pair of pivotally connected levers, coacting gripping jaws at one end of said levers, and handles at the other end, one of said handles being bent upon itself to form a hook-shaped finger loop and the other being shaped to lie close to and substantially parallel with the adjacent part of said hook-shaped handle, shoulders on said handles adapted to be sprung into interlocking engagement with each other for securing the jaws in gripping position, and a locking device slidably mounted on one of said handles and adapted to engage the other to prevent accidental disengagement of said shoulders.

5. In a surgical instrument the combination of a pair of levers pivoted together, coacting jaws on one end of said levers, handles on the other end, oppositely disposed hook-shaped shoulders on said levers adapted to spring into interlocking engagement with each other when said jaws are closed and adapted to be released by springing said levers apart in a direction transverse to the plane of the pivotal movement thereof, a U-shaped slide straddling one of said handles and having thereon an ear extending

along said handle into position for engaging said hook-shaped shoulder on the other handle to prevent accidental disengagement of said shoulders, a pin extending between the sides of said U-shaped slide for securing the same in position upon said one handle, a stop on said one handle for limiting the movement of said slide, and a shoulder on said one handle extending along the path of the movement of said ear and adapted to coöperate with said pin for securing said slide against tilting on said handle.

[Claims 6 and 7 not printed in the Gazette.]

943,264. GALVANIZING SHEET METAL. ALEXANDER NIEDRINGHAUS, St. Louis, Mo. Filed Mar. 11, 1909. Serial No. 482,770.

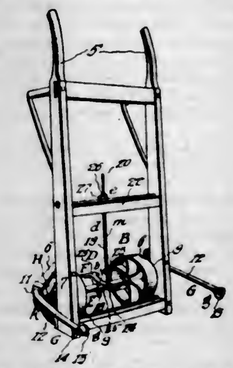


1. The art of coating sheet metal, which consists in introducing a sheet to be coated into the kettle, connecting another sheet to be coated to the rear end of the first sheet, and so on, making a train of sheets, and winding the coated sheets into reel form.

2. The art of coating sheet metal, which consists in introducing a heavy sheet into the metal bath, and successively connecting thinner sheets thereto in the form of a train.

3. The art of coating sheet metal, which consists in connecting the sheets together in reel form, and feeding the train of sheets through the metal bath.

943,265. HAND-TRUCK. GEORGE D. PARKER, Riverside, Cal. Filed Dec. 5, 1907. Serial No. 405,267.



1. In a hand truck, a gripping member and an axle for the truck wheels constituting a rock-shaft to move the gripping member to and from gripping position.

2. A hand truck provided with a gripping member mounted at one side of the same and embodying a pivotally mounted shaft, and operating means for said gripping member comprising the axle of the hand truck and operative connections between the axle and said shaft.

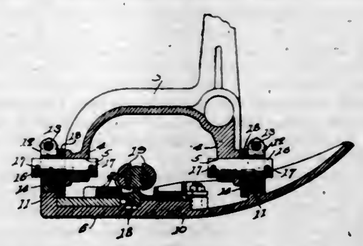
3. A hand truck provided with movable load-holding means, and an axle for the truck wheels constituting means to operate the load-holding means.

4. A hand truck provided with movable load-holding means, and operating means for the load-holding means comprising the axle of the hand truck and operative connections between the axle and the load-holding means.

5. A hand truck provided with movable load-holding means, and operating means for the load-holding means comprising the axle of the hand truck and gears between the axle and the load-holding means.

[Claims 6 to 9 not printed in the Gazette.]

943,266. MOWING-MACHINE. CHARLES H. PELTON, Springfield, Ohio, assignor to The Thomas Manufacturing Company, Springfield, Ohio, a Corporation of Ohio. Filed Nov. 12, 1908. Serial No. 462,198.



1. In a machine of the character described, the combination, with a frame, and a finger bar, of a bearing comprising a split collar carried by one of said members, an eccentric bearing block mounted in said split collar, means for clamping said collar about said bearing block, a part carried by the other of said members and journaled in said bearing block, and a knife adapted to coöperate with said finger bar.

2. In a machine of the character described, the combination, with a frame, and a finger bar, of a pair of bearings carried by said finger bar, each comprising a split collar, a bearing block rotatably mounted in said split collar and having an eccentrically arranged aperture therein, and means for clamping said split collar about said bearing block, a pair of arms supported from said frame, and pins carried by said arms and mounted in the apertures in said bearing blocks, and a knife adapted to coöperate with said finger bar.

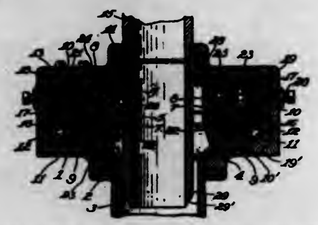
3. In a machine of the character described, the combination, with a frame, and a finger bar, of a pair of split bearing lugs carried by said finger bar, a bearing block rotatably mounted in each of said bearing lugs and having an eccentrically arranged aperture therein, means for rotating said bearing blocks, means for clamping said split bearing lugs about said bearing blocks to lock the same against rotation, a pair of arms carried by said frame, pins carried by said arms and journaled in the apertures in said bearing blocks, and a knife adapted to cooperate with said finger bar.

4. In a machine of the character described, the combination, with a frame, and a finger bar, of a pair of bearing lugs carried by said finger bar, a bearing block mounted in each of said lugs and having an eccentrically arranged aperture therein, a pair of arms carried by said frame, pins carried by said arms and loosely mounted in the apertures in said bearing blocks, a flange carried by the inner side of each of said bearing blocks to form a wrench grasp and arranged between said bearing lug and the adjacent arm, and means for locking said bearing blocks against rotation in said lugs.

5. In a machine of the character described, the combination, with a frame, and a finger bar, of an adjustable bearing block carried by one of said members, a pin carried by the other of said members and mounted in said bearing block, a split collar secured to one of said members and extending about said adjustable bearing block, and means for clamping said split collar about said bearing block to lock the same in its adjusted position.

[Claims 6 and 7 not printed in the Gazette.]

943,267. ROTARY STAND-PIPE JOINT. WALTER S. PHELPS, Muncie, Ind. Filed May 22, 1909. Serial No. 497,712.



1. A rotary pipe joint including an annular lower part having an annular oil-holding groove and also a ball-race therein adapted to hold oil, balls in the ball-race, and an annular upper part having an annular projection thereon extending into the oil-holding groove and also an annular projection extending into the ball-race onto the balls, the upper part having also an annular projection thereon adjacent to the inner side of the innermost wall of the oil-holding groove.

2. A rotary pipe joint including an annular lower part having two annular concentric oil-holding grooves therein, the innermost walls of the grooves being beveled at their extremities, and an annular upper part having an annular projection thereon extending into one of the two oil-holding grooves and also another annular projection extending into the other one of the oil-holding grooves, the upper part having also an annular projection thereon adjacent to the innermost wall of the innermost one of the grooves, the upper part being in proximity to the beveled extremities of the walls of the grooves.

3. A rotary pipe joint including an annular lower part having an annular joint face on its upper end and also an annular portion extending upward beyond the plane of the joint face, the lower part having also an annular groove therein extending downward from the top of the annular portion to hold oil, and an annular upper part having an annular projection thereon extending into the groove and also another annular projection extending opposite and substantially to the joint face, the lower part rotatively supporting the upper part.

4. A rotary pipe joint including an annular lower part having two annular concentric oil-holding grooves therein, the inner sides of the innermost walls of the grooves being beveled at their extremities, an annular upper part having an annular projection thereon extending into one of the two oil-holding grooves and also another annular projection extending into the other one of the oil-holding grooves, the upper part having also an annular projection thereon adjacent to the beveled side of the innermost wall of the innermost one of the grooves, the upper part being in proximity to the beveled extremities of the walls of the grooves, and a tube attached to the inner side of the upper part and extending through the lower part.

5. A rotary pipe joint incinding an annular lower part having a joint face in which is an annular packing groove, the lower part having also an annular oil-holding groove and also a ball-race therein adapted to hold oil, balls in the ball-race, a packing ring in the packing groove, an annular upper part having an annular projection thereon extending into the oil-holding groove and also an annular projection extending into the ball-race onto the balls, the upper part being provided with an annular projection opposite to said joint face and that has a groove therein receiving said packing ring, and a tube attached to the inner side of the upper part and extending through the lower part.

[Claims 6 to 8 not printed in the Gazette.]

943,268. RAILWAY-TIE. CHARLES A. REED, St. Paul, Minn. Filed Mar. 13, 1908. Serial No. 420,793.

1. In combination, a beveled railway tie, a compensatingly beveled rail-supporting shim, a rail seated on said shim, and means interconnecting the rail and tie and securing the rail from horizontal displacement while permitting its vertical adjustment.



2. In combination, a beveled railway tie, a compensatingly beveled shim adjustable on said tie, a rail supported on said shim, a rail-securing stud-bolt, and a spring clip engaged by the head of said bolt and engaging the rail base and shim.

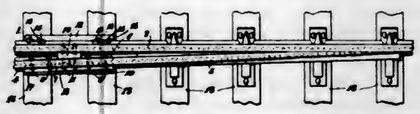
3. In combination, a beveled railway tie, a compensatingly beveled shim adjustable thereon, a rail seated on said shim, a rail-securing stud-bolt, and a spring clip engaged by the bolt head, one end thereof bearing upon the rail base and the other adapted to engage and hold the shim in adjusted position.

4. In combination, a beveled railway tie, a compensatingly beveled shim thereon, a vertically adjustable, rail-securing bolt, and a spring clip interposed between the bolt head and rail adapted to yield to the weight of a suspended tie and to indicate its displacement to the eye.

5. In combination, a beveled railway tie, a compensatingly-beveled rail-supporting shim, and a vertically adjustable channel-shaped yoke having depending ends engaging said tie.

[Claims 6 to 8 not printed in the Gazette.]

943,269. RAILROAD-SWITCH. CHARLES W. REINOEHL and BENT L. WEAVER, Steelton, Pa. Filed July 20, 1908. Serial No. 444,534.

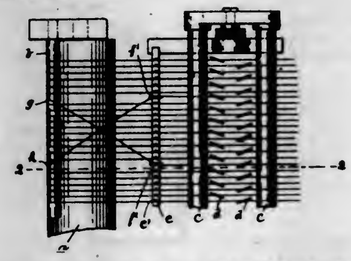


1. In a railroad switch, the combination of the main rail, the switch rail, the lead rail, means for holding the heel end of the switch rail adjacent the end of the lead rail and in spaced relation to the main rail, a plate supporting said rails and having an upwardly-projecting part preventing inward displacement of the switch and lead rails, the outer portion of said plate being provided with a spike hole having an outer wall arranged outwardly of and substantially parallel to the outer portion of the base of the main rail, a support for said plate, and a spike driven into said opening between said wall and the base of the main rail.

2. In a railroad switch, the combination of the main rail, the switch rail, the lead rail, means for holding the heel end of the switch rail adjacent the end of the lead rail and in spaced relation to the main rail, a plate supporting said rails and having an upwardly projecting part preventing inward displacement of the switch and lead rails, the outer portion of said plate being provided with spike engaging surfaces arranged at different distances from the center of the main rail, a support for said plate, and a spike driven into said support between one of said surfaces and the outer portion of the base of the main rail, substantially as described.

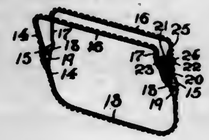
943,270. THREAD-GUIDE FOR LOOMS. JOSHUA ROBINSON, Lawrence, Mass. Filed May 13, 1909. Serial No. 495,684.

1. In combination with a loom having a warp beam provided with extra threads, a support extending transversely of and beneath the warp as it is drawn forwardly from the warp beam, and one or more guide pins adapted to extend through the warp and to be held in said support at different longitudinal points therein, to provide guiding means for an extra thread as it is drawn from points on the beam out of line with threads adjacent the point at which it enters the warp, to cause it to be drawn into the warp approximately parallel to the other threads, substantially as described.



2. In combination with a loom having a warp beam provided with extra threads, a support extending transversely of and beneath the warp as it is drawn forwardly from the warp beam and having a series of sockets arranged therein at different longitudinal points, and guide pins adapted to be removably supported in said sockets and to extend through the warp to provide guiding means for extra threads drawn from points on the beam out of line with threads adjacent the points at which the extra threads enter the warp and to cause said extra threads to be drawn into the warp approximately parallel to the other threads, substantially as described.

943,271. WATCH-GUARD. SOLOMON ROSOFSKY, Brooklyn, N. Y. Filed Mar. 26, 1909. Serial No. 486,042.



1. A safety-retainer for watches comprising a covered frame-work provided with a self-opening mouth, a spring-arm secured to said frame-work, means connected with said spring-arm for securing said mouth in its closed relation, a push-piece connected with said spring-arm for operating the same, and means for securing said covered frame-work within the pocket of wearing apparel, comprising an elongated plate, shanks upon said plate, heads upon said shanks, means for securing said plate to said frame-work, and a locking bar adapted to engage said shanks and retain a pocket and wearing apparel in holding engagement therewith, substantially as and for the purposes set forth.

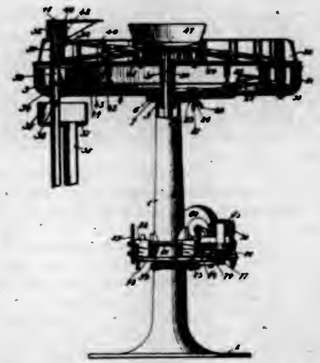
2. A safety-retainer for watches comprising a covered frame-work, means for securing said covered frame-work within the pocket of wearing apparel, comprising an elongated plate, shanks upon said plate, heads upon said shanks, means for securing said plate to said covered frame-work, and a locking-bar adapted to engage said shanks and retain a pocket and wearing apparel in holding engagement therewith, substantially as and for the purposes set forth.

3. A safety-retainer for watches comprising a covered frame-work provided with a self-opening mouth, means for locking said mouth in its closed relation, and means for securing said covered frame-work within the pocket of wearing apparel, comprising an elongated plate, shanks upon said plate, heads upon said shanks, means for securing said plate to said covered frame-work, and a locking bar adapted to engage said shanks and retain a pocket and wearing apparel in holding engagement therewith, substantially as and for the purposes set forth.

4. A safety-retainer for watches comprising a wire frame-work provided with side-frames, a pair of parallel frame-portions between said side-frames, and end-portions pivotally connected with said side-frames, a catch-member adapted to secure said frame-portions in their closed relation, a flexible covering secured upon said frame-work, comprising an elongated plate, shanks upon said plate, heads upon said shanks, means for securing said plate to said covered frame-work, and a locking bar adapted to engage said shanks and retain a pocket and wearing apparel in holding engagement therewith, substantially as and for the purposes set forth.

5. A safety-retainer for watches comprising a wire frame-work provided with side-frames, a pair of parallel frame-portions between said side-frames, and end-portions pivotally connected with said side-frames, the members of said frame-work being formed integrally one with the other, a spring-arm secured to one of said side-frames, a tongue connected with said spring-arm, said tongue being adapted to engage said side-frame, a catch-piece connected with said spring-arm for retaining the frame-sections in their closed relation with each other, a shank provided with a push-piece connected with said spring-arm and adapted to operate said spring-arm to release said catch-piece, a flexible covering secured upon said frame-work, and means for securing said covered frame-work within the pocket of wearing apparel, comprising an elongated plate, shanks upon said plate, heads upon said shanks, means for securing said plate to said covered frame-work, and a locking bar adapted to engage said shanks and retain a pocket and wearing apparel in holding engagement therewith, substantially as and for the purposes set forth.

943,272. ELECTRIC TEMPERING-FURNACE. VERNON ROYLE and VERNON E. ROYLE, Paterson, N. J. Filed May 12, 1908. Serial No. 432,415.



1. An electric tempering furnace comprising an endless receptacle for fusible salts, means for applying an electric current thereto and means for automatically passing tools one after another into and out of the receptacle.

2. An electric tempering furnace comprising an annular receptacle for fusible salts, means for applying an electric current thereto and means for automatically passing tools one after another along within the receptacle and out of the receptacle.

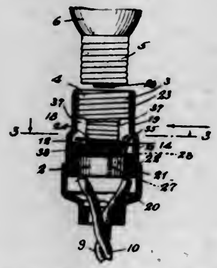
3. An electric tempering furnace comprising an annular receptacle for fusible salts, means for applying an electric current thereto, the said receptacle being provided with a central track along the bottom thereof, tool holders arranged to travel along the track and means for operating the tool holders.

4. An electric tempering furnace comprising an annular receptacle for fusible salts, means for applying an electric current thereto, tool holders arranged to travel consecutively along the bottom of said receptacle, means for lifting the tool holders at the limit of their travel and a receiver conduit through which the tools pass from the tool holders.

5. An electric tempering furnace comprising an annular receptacle for fusible salts, the said receptacle being provided with trap doors for gaining access to the interior thereof at frequent intervals, means for applying the electric current to the receptacle, open ended tool holders arranged to travel along within the receptacle, means for lifting the tool holders at the termination of their travel and a receiver conduit through which the tools pass from the tool holders.

[Claims 6 to 11 not printed in the Gazette.]

943,273. ELECTRIC-LIGHT SOCKET. RALPH A. SCHOENBERG, New York, N. Y., assignor to Ida S. Rosenheim, New York, N. Y. Filed Feb. 20, 1909. Serial No. 479,174.



1. An electric light socket formed of a solid integral insulating base, locking means carried by the base to cooperate with the locking surfaces carried by the lamp, the base being provided with rigid fixed means to removably hold the bared ends of the feed wires.

2. The combination in an electric light socket of a solid integral insulating base provided with apertures and grooves extending into the socket and adjacent to the contacts carried by the lamp, detachable locking means connected to the base to coöperate with detachable locking surfaces carried by the removable lamp, the bared ends of the feed wires being adapted to be located and removably held in the apertures and grooves adjacent to the contact carried by the lamp.

3. The combination in an electric light socket of a solid integral insulating base provided with apertures and grooves extending into proximity with the contacts carried by the lamp for the reception of the bared ends of the feed wires, detachable locking means connected with the base to coöperate with detachable locking surfaces carried by the removable lamp, and bared and bent feed wires firmly and removably connected to the base.

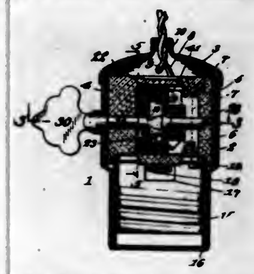
4. The combination in an electric light socket of a solid integral insulating base provided with apertures and grooves for the reception of the bared ends of the feed wires, locking means connected with the base to detachably coöperate with removable locking surfaces carried by the removable lamp, and feed wires having their bared ends removably held in proximity to the contacts carried by the lamp.

5. The combination of an electric light socket formed of a solid integral insulating base, locking means connected with the base to detachably coöperate with removable locking surfaces carried by the removable lamp, the base being provided with apertures and grooves to removably secure the bared ends of the feed wires, and one or more intermediate connecting members adapted to connect the bared ends of the wires with the proper contact or contacts carried by the lamp.

[Claims 6 to 15 not printed in the Gazette.]

943,274. MECHANICAL MOVEMENT. RALPH A. SCHOENBERG, New York, N. Y., assignor to Ida S. Rosenheim, New York, N. Y. Filed July 24, 1909. Serial No. 509,254.

1. In a mechanical movement, a driving and driven member, one adapted to have limited movement with relation to the other, oppositely inclined surfaces upon one of the members forming hills and valleys, and a compression member adapted to operate upon said oppositely inclined surfaces to actuate the driven member.



2. In a mechanical movement the combination of a driving member, a plurality of oppositely inclined surfaces forming hills and valleys adapted to be operated by said driving member, a driven member, and a compression member adapted to slide on the oppositely inclined surfaces to move the driven member.

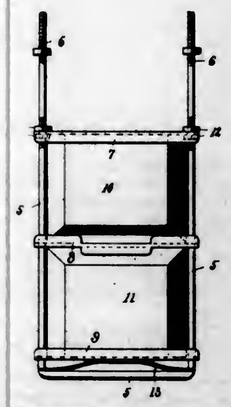
3. In a mechanical movement the combination of a driving member, a plurality of oppositely inclined surfaces forming hills and valleys mounted on and adapted to be operated by said driving member, a driven member, and a compression member adapted to slide on the oppositely inclined surfaces to move the driven member.

4. In a mechanical movement the combination of a driving member provided with oppositely inclined surfaces forming hills and valleys, a tapered driven member, and a compression member adapted to slide on the oppositely inclined surfaces of the driving member.

5. In a mechanical movement, the combination of a driving member provided with oppositely inclined wedge surfaces, a hollow tapering driven member, and a compression member mounted in the driven member and adapted to contact with the oppositely inclined surfaces of the driving member.

[Claims 6 to 11 not printed in the Gazette.]

943,275. BATTERY-ELEMENT SUPPORT. CHARLES B. SCHOENMEHL, Waterbury, Conn. Filed Apr. 1, 1909. Serial No. 487,114.



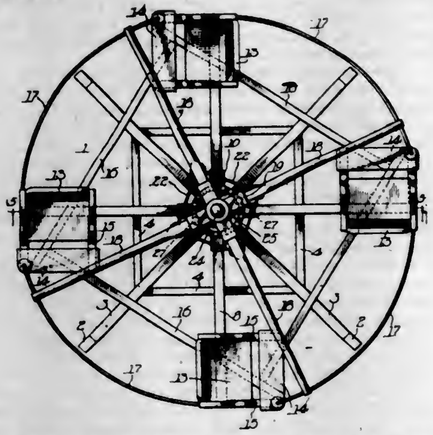
1. An electrode support for batteries, comprising a pair of guide wires, two or more transverse channel strips mounted upon the wires, and a sheet metal spring arranged beneath the lower channel strips to hold the plate intermediate of the said strips.

2. An electrode support for batteries, comprising a metal frame adapted to engage the edges of a negative electrode, and a sheet metal spring piece to bear against a part of said metal frame to clamp the plate edgewise to retain the same in position.

3. An electrode support for batteries, comprising in part a pair of wires arranged along the opposite edges of an electrode, cross pieces to engage the remaining two edges of the plate, and means yieldably pressing the said cross pieces against the edges of said plate to hold the same within the frame.

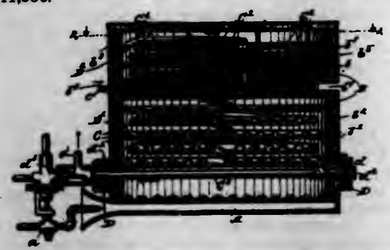
4. An electrode support for batteries, comprising a U shaped wire frame, a sheet metal spring seated within the lower portion of the frame, a channel strip resting upon said spring, a plate seated in the channel strip, a top strip to engage the top edge of the plate, and nuts upon the side wires to hold the top strip against the action of the spring.

943,276. MERRY-GO-ROUND. JOHN SETECKA and JAMES SETECKA, Chicago, Ill. Filed May 15, 1909. Serial No. 496,242.



A device of the character described, comprising a base, a vertical post supported by said base, a seat frame pivotally mounted on said post and rotatable therearound, a plurality of seats carried by said seat frame, each of said seats comprising a horizontal seat portion, and a foot rest portion located in a lower plane than the seat portion, a plurality of guard rails extending vertically from the outer corner of each foot rest portion and extending horizontally around the structure to the underside of the next succeeding seat portion, and means controllable from said seats for imparting rotation to said seat frame.

943,277. STEAM-GENERATOR. BENJAMIN F. SILLIMAN, Cleveland, Ohio. Filed July 6, 1908. Serial No. 441,936.



1. In a steam generator, the combination of heating means, a casing above the same having an upper portion of restricted cross-sectional area, and a plurality of connected coils of pipe disposed within said casing and about such restricted portion thereof, said coils being so arranged and connected that the direction of flow therethrough is upwardly from the water inlet through the coils disposed without said casing and thence downwardly through those within said casing to the steam outlet.

2. In a steam generator, the combination of heating means, a casing above the same having an upper portion of restricted cross-sectional area, a plurality of connected coils of pipe disposed within said casing and about such restricted portion, and a casing member inclosing such restricted portion and the coils thereabout, whereby the heating medium is conducted upwardly and then downwardly, said coils being so arranged and connected that the direction of flow therethrough is opposite to that of such heating medium.

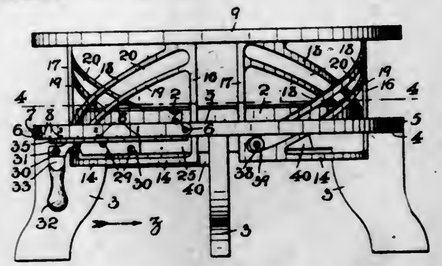
3. In a steam generator, the combination of heating means, a casing above the same having an upper portion of restricted cross-sectional area, and a plurality of coils of pipe connected serially and disposed in the respective portions of said casing, and about such restricted portion, said coils being so arranged that the direction of flow is upwardly from the water inlet through the coils disposed without said casing and thence downwardly in succession through those within the upper and lower portions of said casing to the steam outlet.

4. In a steam generator the combination of heating means, a casing above the same comprising a lower member having an upper portion of restricted cross-sectional area and an upper member inclosing such restricted portion of said lower member, whereby the heating medium is conducted upwardly and then downwardly, and a plurality of coils of pipe serially connected and disposed within the respective portions of said lower casing and in the annular chamber between the latter and said upper casing, the direction of flow through said coils being opposite to that of such heating medium.

5. In a steam generator, the combination of heating means, a casing above the same, and a plurality of coils of pipe connected serially and disposed in part within and in part without said casing, said coils draining freely from the point of junction between those coils located within and those located without said casing.

[Claims 6 to 11 not printed in the Gazette.]

943,278. SKIRT-MEASURING DEVICE. CLIFFORD W. SMITH, Newark, N. J. Filed May 25, 1909. Serial No. 498,279.



1. A skirt-measuring device comprising a fixed main body or platform, a stationary ring-shaped element surrounding the said main body or platform and forming with said body or platform an annular space, a measuring element movably disposed above said body or platform and said stationary ring-shaped element, and means extending from said measuring element and movably arranged in said annular space for moving said measuring element in an upward or downward direction.

2. A skirt-measuring device comprising a fixed main body or platform, a stationary ring-shaped element surrounding the said main body or platform and forming with said body or platform an annular space, a measuring element movably disposed above said body or platform

and said stationary ring-shaped element, means extending from said measuring element and movably arranged in said annular space for moving said measuring element in an upward or downward direction, and means for locking said measuring element in any one of its adjusted positions.

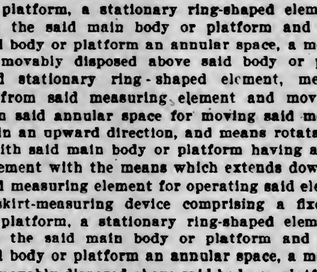
3. A skirt-measuring device comprising a fixed main body or platform, a stationary ring-shaped element surrounding the said main body or platform and forming with said body or platform an annular space, a measuring element movably disposed above said body or platform and said stationary ring-shaped element, means extending from said measuring element and movably arranged in said annular space for moving said measuring element in an upward direction, and means rotatably connected with said main body or platform having a portion in engagement with the means which extends downwardly from said measuring element for operating said element.

4. A skirt-measuring device comprising a fixed main body or platform, a stationary ring-shaped element surrounding the said main body or platform and forming with said body or platform an annular space, a measuring element movably disposed above said body or platform and said stationary ring-shaped element, means extending from said measuring element and movably arranged in said annular space for moving said measuring element in an upward or downward direction, means rotatably connected with said main body or platform having a portion in engagement with the means which extends downwardly from said measuring element for operating said element, and means connected with said rotatable means for locking said measuring element in any one of its adjusted positions.

5. A skirt-measuring device comprising a fixed main body or platform, a stationary ring-shaped element surrounding the said main body or platform and forming with said body or platform an annular space, a measuring element movably disposed above said body or platform and said stationary ring-shaped element, means extending from said measuring element and movably arranged in said annular space for moving said measuring element in an upward or downward direction, a rack attached to said stationary ring-shaped element, a pivoted lever, and a stud extending from said lever adapted to be brought in engagement with said rack for locking said measuring element in any one of its adjusted positions.

[Claims 6 to 18 not printed in the Gazette.]

943,279. PAPER-HOLDER. EDWARD C. SMITH, Chicago, Ill. Filed Mar. 19, 1908. Serial No. 422,161.



In a device of the character described, the combination with a two part hingedly connected casing, of a paper roll supporting spindle journaled therein, a resilient retarding strip secured to one of the inside walls of the casing and bearing against one end of the paper roll to retard the movement thereof, there being a paper feed opening formed between the abutting portions of the casing when closed, a pair of feed rolls located within the casing adjacent said opening, one of said feed rolls being yieldingly mounted with relation to the other, gearing for imparting movement to one of said feed rolls, a handle controllable from the exterior of the casing and connected to said gearing, means for preventing reverse movement of said gearing, longitudinally extending spring strips secured at one of their ends to the material spindle and engaging the inner periphery of the paper roll, a member surrounding the material roll and bearing against the opposite end of the paper roll from said retarding strip, and a spring surrounding said spindle and bearing between said member and the wall of the casing, said spring and said member serving to force said roll against said retarding strip and away from said gearing.

943,280. BESSEMERIZING OF COPPER MATTE. ELIAS A. C. SMITH, Baltimore, Md. Filed Oct. 1, 1909. Serial No. 520,565.

1. The method of bessemerizing copper matte in a converter having a non-corrodible lining with the employment of an acid flux, which consists in forming a molten bath of matte in the converter of such volume as to retain its fluidity as against losses by radiation during the blow, and so proportioning the amount and composition of the flux to the volume of air blast admitted that at the termination of the blow there will result a thin and fluent slag at a temperature insufficient to substantially attack the lining; substantially as described.

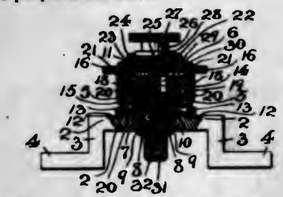
2. The method of bessemerizing copper matte in a converter having a non-corrodible lining, with the employment of an acid flux, which consists in forming in the converter an initial bath of molten matte, adding thereto a charge of acid flux containing matte-forming constituents, blowing the matte until a portion of the iron therein contained is fluxed and the matte-forming material from the acid flux has become incorporated with the initial body of molten matte and a thin and fluent slag has been formed at a temperature insufficient to substantially attack the lining; substantially as described.

3. The method of bessemerizing copper matte in a converter having a non-corrodible lining, with the employment of an acid flux, which consists in forming in the converter an initial bath of molten matte, adding thereto a charge of acid flux containing matte-forming constituents, blowing the matte until a portion of the iron therein contained is fluxed and the matte-forming material from the acid flux has become incorporated with the initial body of molten matte and a thin and fluent slag has been formed at a temperature insufficient to substantially attack the lining, pouring off the said thin and fluent slag, adding an additional charge of molten matte and of acid flux containing matte-forming materials, blowing the matte until a further quantity of iron is fluxed and the matte-forming material of the additional charge has been incorporated with the body of molten matte and a thin and fluent slag has been formed, as before, and repeating these operations successively, thus fractionally fluxing the iron and maintaining a substantially constant volume of matte in the converter, until the matte is in condition to be blown to blister copper; substantially as described.

4. The method of bessemerizing copper matte in a converter having a non-corrodible lining and with the employment of an acid flux, which consists in preventing foaming in the converter by leaving in the molten matte at the termination of the smelting blow and after the pouring off of the slag prior to the blow to blister copper, an amount of iron in excess of that sufficient to compensate for the silica contained in such portion of the slag as may have escaped the pouring off operation; substantially as described.

943,281. ELECTRICAL CONTACT DEVICE. JAMES M. SMITH, Philadelphia, Pa., assignor of one-half to Wilson D. Craig Wright, Philadelphia, Pa. Filed Jan. 13, 1909. Serial No. 472,099.

1. A contact device comprising a stationary element, a contact-piece slidably arranged in said stationary element, a revolving element encircling said stationary element, means connecting said revolving element with said contact-piece for raising and lowering the same in said stationary-element, and means for automatically holding or locking said revolving element at any point in its revolution, consisting of a flange upon said stationary element, and a flange upon said revolving element in frictional engagement therewith, and a coiled spring for maintaining the frictional engagement of said flanges, substantially as and for the purposes set forth.



2. A contact device, comprising a stationary element provided with a longitudinal rectangular opening, a rectangular contact-piece slidably arranged in said rectangular opening of said stationary element, a revolving element encircling said stationary element, means connecting said revolving element with said contact-piece for raising and lowering the same in said longitudinal rectangular opening of said stationary element, and means for automatically holding or locking said revolving element at any point in its revolution, consisting of a flange upon said stationary element, and a flange upon said revolving element in frictional engagement therewith, and a coiled spring for maintaining the frictional engagement of said flanges, substantially as and for the purposes set forth.

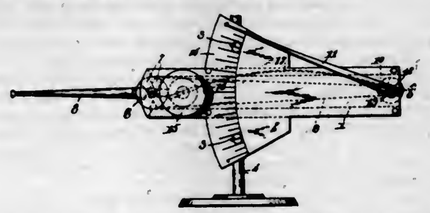
3. A contact device comprising a stationary element provided with a longitudinal rectangular opening, a rectangular contact-piece slidably arranged in said rectangular opening of said stationary element, a revolving element encircling said stationary element, an adjusting screw carried by said revolving element, said screw having a screw-threaded portion in engagement with said contact-piece to raise and lower said contact-piece in said longitudinal rectangular opening of said stationary element, and means for automatically holding or locking said revolving element at any point in its revolution, consisting of a flange upon said stationary element, and a flange upon said revolving element in frictional engagement therewith, and a coiled spring for maintaining the frictional engagement of said flanges, substantially as and for the purposes set forth.

4. A contact device comprising a stationary element provided with a longitudinal rectangular opening, an outwardly extending flange upon the upper end of said stationary element, a revolving element, an inwardly extending flange connected with said revolving element adapted to engage frictionally with said outwardly extending flange of said stationary element, a coiled spring arranged to maintain the frictional engagement of said outwardly and inwardly extending flanges, an adjusting screw carried by said revolving element, a rectangular contact-piece slidably arranged in the rectangular opening of said stationary element, and said screw having a screw-threaded portion in engagement with said contact-piece to raise and lower said contact-piece, substantially as and for the purposes set forth.

5. A contact device comprising a stationary element provided with a longitudinal rectangular opening, an outwardly extending flange upon the upper end of said stationary element, a revolving element, an inwardly extending flange connected with said revolving element adapted to engage frictionally with said outwardly extending flange of said stationary element, a coiled spring arranged to maintain the frictional engagement of said outwardly and inwardly extending flanges, a cap-piece secured to the upper end of said revolving element, an adjusting screw carried by said cap-piece, and a rectangular contact piece provided with a screw-threaded receiving socket adapted to receive said adjusting screw, said contact-piece being slidably arranged in the rectangular opening of said stationary element, substantially as and for the purposes set forth.

[Claim 6 not printed in the Gazette.]

943,282. TEST-INDICATOR. RALPH L. SMITH, Orange. N. J. Filed Feb. 17, 1906. Serial No. 301,594.



1. In a test-indicator, the combination of a scale-carrying member, a compound lever device including a feeler-carrying member and a needle member for multiplying the indications, and a reversible deflecting member including a spring acting directly on said needle member arranged to divert the needle-member to either end of the scale, substantially as described.

2. In a test-indicator, in combination, a scale-carrying frame, a compound-lever device including two lever members for multiplying the indications, suitably mounted on said frame, one of said lever-members constituting the indicator needle, and a reversible deflecting-spring acting directly upon said indicator needle and arranged to move the free end of said needle-member to either end of the scale; substantially as described.

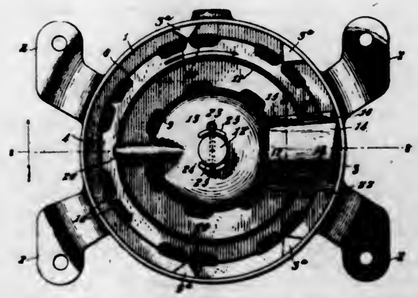
3. In a test-indicator, a supporting frame, a lever having a feeler-holder, said holder having means for supporting said feeler in any one of a plurality of positions, substantially as described.

4. In a test indicator, a compound lever device one member of which includes a holder having means for supporting a feeler in each of a plurality of positions, substantially as described.

5. In a test-indicator, a clamp comprising a member arranged to engage a stud on said indicator, a sleeve longitudinally movable on said member, said sleeve and member being provided with transverse orifices arranged to be brought into alinement to receive a supporting-rod, and means for clamping said sleeve and member upon said rod; substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

943,283. CORN-PLANTER. EMMANUELL H. SNYDER, Canton, Ohio. Filed Oct. 15, 1909. Serial No. 522,748.



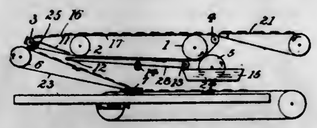
1. In a corn planter of the class described, a base provided with a post, a gear plate and dropping ring provided with outer and inner grain dropping notches, an annular partition rib located between said inner and outer grain dropping notches, inwardly extending deflecting grain guide flanges secured to the base and said base provided with beveled portions adjacent said inwardly extending flanges, a convexo-concave disk provided with a scraper head, scrapers carried by the head, said scrapers located upon and in contact with the gear plate and dropper ring, substantially as and for the purpose specified.

2. In a corn planter of the class described, a base provided with vertical concentric flanges, a gear plate and dropper ring rotatably mounted upon the base, said gear plate and dropper ring provided with inner and outer grain notches, a dividing rib located between the inner and outer grain dropping notches, a post secured to the base, a non-rotatable convexo-concave disk fixed to said post, said disk provided with an arm, said arm adapted to rest upon the rib dividing the outer and inner grain notches, a scraper head provided with scrapers, said scrapers located upon opposite sides of the rib dividing the grain notches, and means for rotating the gear plate, substantially as and for the purpose specified.

3. In a corn planter of the class described, a base provided with vertical concentric flanges, a gear plate and dropper ring rotatably mounted upon the base, said gear plate and dropper ring provided with inner and outer grain notches, a dividing rib located between the inner and outer grain dropping notches, a post secured to the base, a non-rotatable convexo-concave disk fixed to said post, said disk provided with an arm, said arm adapted to rest upon the rib dividing the outer and inner grain notches, a scraper head provided with scrapers, said scrapers located upon opposite sides of the rib dividing the grain notches and means for rotating the gear plate, said flange provided with grain deflecting flanges, substantially as and for the purpose specified.

4. In a corn planter of the class described, a base provided with vertical concentric flanges, a gear plate and dropper ring rotatably mounted upon the base, said gear plate and dropper ring provided with inner and outer grain notches, a dividing rib located between the inner and outer grain dropping notches, a post secured to the base, a non-rotatable convexo-concave disk fixed to said post, said disk provided with an arm, said arm adapted to rest upon the rib dividing the outer and inner grain notches, a scraper head provided with scrapers, said scrapers located upon opposite sides of the rib dividing the grain notches, means for rotating the gear plate, said flange provided with grain deflecting flanges, and a stop lug adapted to hold the convexo-concave disk against rotation, substantially as and for the purpose specified.

943,284. BISCUIT-COATING MACHINE. HEINRICH TIETJENS, Hamburg, Germany, assignor to Hannoversche Cakesfabrik H. Bahlsen, Hanover, Germany. Filed Apr. 8, 1909. Serial No. 488,690.

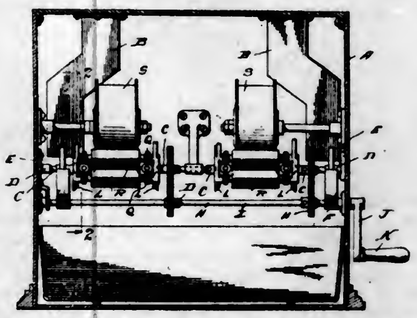


1. A machine of the character described, comprising a first pair of rollers, an endless feed apron engaging the same, a second pair of rollers placed at a greater distance from each other than the first pair of rollers, a series of longitudinally arranged endless threads engaging said second pair of rollers and extending beyond the upper run of the feed apron, and a coating roller engaging the apron.

2. A machine of the character described, comprising a first pair of rollers, an endless feed apron engaging the same, a second pair of rollers placed at a greater distance from each other than the first pair of rollers, a series of longitudinally arranged endless threads engaging said second pair of rollers and extending beyond the upper run of the feed apron, a coating roller engaging the apron, and a conveyer band arranged below the discharge ends of the threads and traveling in a direction opposite to that of the threads.

3. A machine of the character described, comprising a first pair of rollers, an endless feed apron engaging the same, a second pair of rollers placed at a greater distance from each other than the first pair of rollers, a series of longitudinally arranged endless threads engaging said second pair of rollers and extending beyond the upper run of the feed apron, a coating roller engaging the apron, and a series of stripping rollers arranged in proximity to the discharge ends of the threads.

943,285. STAMP-VENDING MACHINE. CHARLES W. TIMMONS, Wolcott, Ind. Filed Jan. 19, 1909. Serial No. 473,080.



1. In a vending machine, the combination of a lever having a stop, said lever being weighted at one end and having its opposite end adapted to be depressed by the impact of a coin, a wheel having a notch adapted to lock with said stop, a weight on said wheel opposite said notch, a shaft carrying said wheel, a crank and crank shaft, means carried by said first mentioned shaft for engaging said crank shaft whereby the shaft may be rotated after said notch is disengaged from said stop, and article delivery means actuated from said first mentioned shaft, substantially as described.

2. In a vending machine, the combination of a lever and a stop thereon, a wheel provided with notches for engaging said stop, means associated with said wheel for starting its rotation when one of the notches is disengaged from said stop, a shaft carrying said wheel, means for continuing the rotation of said shaft, a gear wheel on said shaft, article delivery mechanism actuated by said gear wheel, and disengaging mechanism between said gear wheel and the article delivery mechanism whereby the latter is not actuated until said first mentioned wheel has had its second notch engaged by the stop on said lever.

3. In a vending machine, the combination of a lever and a stop thereon, a wheel provided with notches for engaging said stop, means associated with said wheel for starting its rotation when one of the notches is disengaged from said stop, a shaft carrying said wheel, a crank and crank shaft, a pinion carried by said crank shaft, means on said first mentioned shaft engaging said pinion, a gear wheel on said first mentioned shaft, article delivery mechanism actuated by said gear wheel, and disengaging mechanism between said gear wheel and the article delivery mechanism whereby the latter is not actuated until said first mentioned wheel has had its second notch engaged by the stop on said lever.

4. In a vending machine, the combination of a lever and a stop thereon, a wheel having a weighted portion and notches for engaging said stop, a shaft carrying said wheel, a mutilated gear mounted on said shaft, a crank and crank shaft, a pinion carried by said crank shaft for engaging said mutilated gear, a second mutilated gear mounted on said first-mentioned shaft, a shaft carrying a worm, a gear wheel mounted on said shaft for engaging said second mutilated gear, and article delivery rollers actuated by said worm, substantially as described.

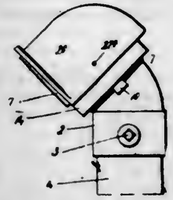
943,286. WRENCH. CHARLES E. TOWNSEND, Billings, Mont. Filed Apr. 15, 1908. Serial No. 427,251.

A wrench, consisting of the combination of an L-shaped body, comprising an outer jaw and an arm, substantially perpendicular to each other, an inner jaw having a socket adapted to embrace and slide upon said arm, a lever pivoted to the inner end of said arm, said lever comprising a handle and an arm at an angle to each other, and a link



pivoted to said lever arm and to said inner jaw the inner jaw when withdrawn being adapted to lie substantially contiguous to the arm of the lever.

943,287. CONDUIT-CAP FOR ELECTRIC INSTALLATION. WHEELER H. VIBBER, New London, Conn., assignor of one-half to The Gillette-Vibber Co., New London, Conn., a Corporation. Filed May 10, 1909. Serial No. 495,193.



1. In a conduit cap for use in electric installation, the combination with a frame having a hub extending from it in one direction and arms extending from it in the opposite direction, of a hood having its inner face formed with an opening for receiving the frame and its lower face with an opening for receiving the said arms, and means carried by the said arms for receiving and insulating the wires and closing the said opening in the lower face of the hood.

2. In a conduit cap for use in electric installation, the combination with a frame, of a hood adapted to be removably applied thereto, and an elbow-piece adapted to be fastened to a conduit or pipe and to have the said frame fastened to it and having an inclined bearing-face upon which the frame is rotated as required to convert the cap for use on horizontal or vertical conduits or pipes.

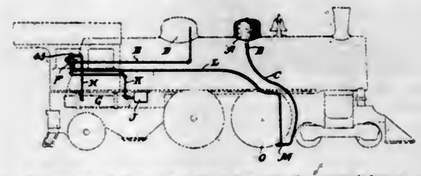
3. In a conduit cap for use in electric installation, the combination with a frame, of a hood adapted to be removably applied thereto, and an elbow-piece adapted to be fastened to a conduit or pipe and formed with a sector-shaped portion having an inclined bearing-face upon which the frame is rotated as required to convert the cap for use on horizontal or vertical conduits or pipes.

4. In a conduit cap for use in electric installation, the combination with a frame, of a hood adapted to be removably applied thereto, and an elbow-piece adapted to be fastened to a conduit or pipe and provided with an inclined bearing-face upon which the frame is rotated as required to convert the cap for use on horizontal or vertical conduits or pipes, and the said elbow-piece being also furnished with a wire-carrying flange located at a right angle to the said bearing-face and entering the frame.

5. In a conduit cap for use in electric installation, the combination with a frame, of a removable hood therefor, and an elbow-piece consisting of a sleeve, and a sector-shaped portion having an inclined bearing-face and a wire-carrying flange standing at a right angle thereto and adapted to enter the said frame which is rotated upon the said bearing-face as required to position the hood for use on horizontal or vertical conduits or pipes.

[Claims 6 and 7 not printed in the Gazette.]

943,288. TRACK-SANDER. HARRY VISSERING, Chicago, Ill. Filed Oct. 30, 1907. Serial No. 399,863.



1. A device of the character described comprising a receptacle for material, a steam reservoir, a main air reservoir, an auxiliary air reservoir, an ejector pipe, and connections and controlling means therefor whereby air may be supplied to the auxiliary reservoir from the main reservoir and whereby steam from the steam reservoir and air from the auxiliary reservoir may be supplied to the ejector.

2. In an apparatus of the character described, a sand dome, a trap connected thereto, an ejector connected to said trap, a steam reservoir, an air reservoir, a controlling valve, connections between said valve and said steam reservoir and air reservoirs.

3. In an apparatus of the character described, a sand dome, a trap connected thereto, an ejector connected to said trap, a steam reservoir, a main air reservoir, an auxiliary air reservoir, a controlling valve, connections between said valve and said steam reservoir and air reservoirs.

4. In an apparatus of the character described, a sand dome, a trap connected thereto, an ejector connected to said trap, a steam dome, an air reservoir, a controlling valve, connections between said valve and said steam dome and air reservoirs, and ports and passages in said valve, whereby communication may be established in turn between said steam dome and said ejector, and thereafter between said air reservoir and said ejector.

5. In an apparatus of the character described, a sand dome, a trap connected thereto, an ejector connected to said trap, a steam dome, a main air reservoir, an auxiliary air reservoir, a controlling valve, connections between said valve and said steam dome and air reservoirs, and ports and passages in said valve whereby communication may be established in turn between said steam dome and said ejector, and between said air reservoirs, and thereafter between an air reservoir and said ejector.

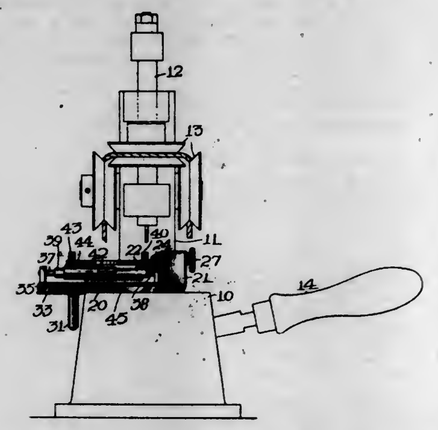
[Claims 6 to 23 not printed in the Gazette.]

943,289. LENS-DRILLING DEVICE. LOUIS WILHELM, Worcester, Mass., assignor to Globe Optical Company, Boston, Mass., a Corporation of Massachusetts. Filed Mar. 3, 1909. Serial No. 481,178.

1. In a lens drilling machine, the combination of a stationary support for one end or side of the work, a drill movable vertically toward said stationary support, and a movable work holder for the lens projecting under the end of the stationary support.

2. In a lens drilling machine, the combination of a stationary support for one end or side of the lens, a drill movable toward and from said stationary support, a work holder for the lens movable under the end of the stationary

support, and an adjustable gage for the edge of the lens carried by said stationary support and movable longitudinally toward and from the work-holder.



3. In a lens drilling machine, the combination of a base or standard, a drill movable vertically thereon, a support for one end or side of the lens adjustable about a vertical axis, a gage for the end of the lens movable longitudinally along the top of said support, and a screw on the support for adjusting the gage.

4. In a lens drilling machine, the combination of a base or standard, a drill movable vertically thereon, a support for one end or side of the lens, a gage for the end of the lens movable along the top of said support, a screw on the support for adjusting the gage, said support having a projecting end toward which said gage moves, and a work-holder movable longitudinally and laterally under said projecting edge.

5. In a lens drilling machine, the combination of a laterally movable plate having a scale on one end thereof, a stationary pointer adjacent to said scale, a longitudinal guide on the plate, a cross bar movable along the guide and having pins for engaging the edge of the lens, a second cross bar movable freely along said guide and having pins for engaging the opposite ends or sides of the lens, and an independent longitudinally adjustable gage adjacent to the first named cross-bar.

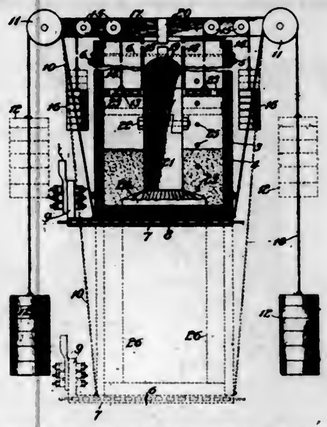
[Claims 6 to 8 not printed in the Gazette.]

943,290. ELECTRIC FURNACE. CHARLES E. WILSON, Hood River, Oreg. Filed Feb. 1, 1909. Serial No. 475,493.

1. In an electric smelter for reducing ore containing ferro-tungsten, or a like refractory metal, the combination of a furnace formed with an electrode-carrying base and removable and replaceable sides, means for raising and lowering the furnace, and a stationary electrode extending downward into the furnace.

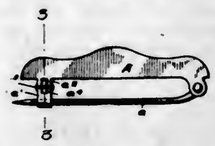
2. In an electric smelter for reducing ore containing ferro-tungsten, or a like refractory metal, the combination of a furnace formed with an electrode-carrying base and removable and replaceable sides, means for raising and lowering the furnace, a stationary electrode extending downward into the furnace, and a heat-resisting cover surrounding the upper electrode with means for raising and lowering the cover.

3. In an electric smelter for reducing ore containing ferro-tungsten, or a like refractory metal, the combination of a furnace formed with a base-plate, removable and replaceable sides with means for securing them together and an electrode on the base-plate, counter-weighted suspending means for the furnace, an upper stationary electrode extending downward into the furnace, a heat-resisting



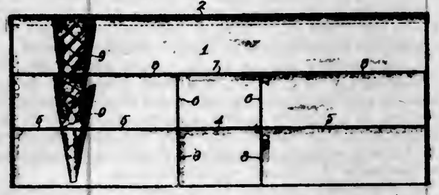
cover surrounding the upper electrode in the furnace, and counter-weighted suspending means for the cover.

943,291. JEWELRY. LOUIS ADLER, New York, N. Y. Filed Jan. 19, 1909. Serial No. 473,114.



In a brooch, or the like, provided with a pivoted pin, a hook-member designed to receive the pin and having a solid hook-portion and a bifurcated base, and a catch-member pivoted in said bifurcated base to swing toward and from the open side of the hook-member, said catch-member when closed barring said pin against downward or outward movement with reference to the hook-member, having a projection adapted to pass under the end of the hook-portion and to be forced past the under side of the pin and be housed within the rear part of the hook-member, and having also a finger adapted to close the open side of the hook-member and to bear against and extend upward along the outer surface of the said solid hook-portion, said finger serving also as means for opening the catch-member and as a stop to limit the inward movement thereof.

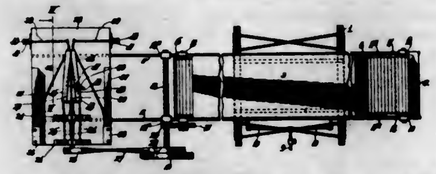
943,292. CONE-WAFFLE-PACKING CASE. ALEXANDER G. ANDALAFT and MICHEL ANDALAFT, Kansas City, Mo. Filed Apr. 7, 1908. Serial No. 425,788.



A cone waffle packing case, comprising a rectangular box 1, a cover 2 therefor, a pair of rectangular frames 3 having neither a bottom nor a top and in depth slightly exceeding half the length of the cones to be packed, resting on the bottom of the box and against the side walls there-

of, one of the frames also fitting against one end wall of the box and the other against the other end wall of the box, a horisontal support 4 fitting snugly in the box and resting on the side and end walls of said frames and provided with circular perforations 5, a second pair of rectangular frames 6 corresponding in form and size to frames 3, fitting snugly in the box vertically above the first pair and resting on said horizontal support, and a second horizontal support 7 fitting snugly in the box and resting upon the side and end walls of the frames 6 and provided with circular perforations 8 vertically alined with perforations 5 so that inverted cone waffles supported by and projecting down through the perforations 8 shall fit within but not come in contact with similarly-arranged cone waffles supported by and projecting down through the horizontal support 4.

943,293. CONE-WAFFLE MACHINE. ALEXANDER G. ANDALAFT and MICHEL ANDALAFT, Kansas City, Mo. Filed May 18, 1908. Serial No. 433,535.



1. A cone-waffle machine, comprising a steam chamber, means for conveying waffles therethrough to soften them, a rotating rough-faced roller, guides partly surrounding and inclosing the same, and means for moving said guides apart to permit the cone-waffle thus formed to be removed from the roller.

2. A cone-waffle machine, comprising a steam chamber, means for conveying waffles therethrough to soften them, a rotating rough-faced roller, guides partly surrounding and inclosing the same, and means holding the guides pressed yieldingly toward the roller.

3. A cone-waffle machine, comprising a steam chamber, means for conveying waffles therethrough to soften them, a rotating rough-faced roller, guides partly surrounding and inclosing the same, means holding the guides pressed yieldingly toward the roller, and lever-controlled means for separating said guides from the roller and each other.

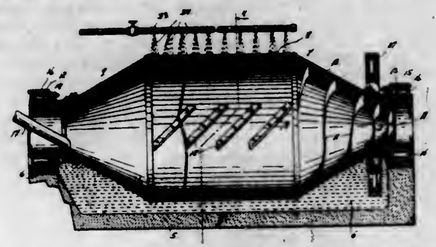
4. A cone-waffle machine, comprising a steam chamber, means for conveying waffles therethrough to soften them, a rotating rough-faced roller, guides partly surrounding and inclosing the same, and a gage-plate adjustable lengthwise of said guides to determine the position of the waffle as it is fed between the roller and under the said guides.

5. In a machine of the character described, a shaft suitably journaled provided at one end with a conical roller, a pair of guides at opposite sides of and underlying said roller and projecting beyond the apex of the same, and means holding said guides pressed yieldingly together.

943,294. ORE-COOLER. FRANK D. BAKER, Denver, Colo. Filed Nov. 7, 1908. Serial No. 461,481.

1. In ore cooling apparatus, the combination with a water containing receptacle, of an ore cooler mounted to rotate in said receptacle and having end supports only, the cooler being partly immersed in the water intermediate its extremities, whereby the buoyancy of the water serves as a support, means for feeding the ore to the cooler, the latter being equipped with means for continually advancing the ore from the inlet to the outlet extremity thereof, substantially as described.

2. In ore cooling apparatus the combination with a water containing receptacle, a cooler mounted to rotate in said receptacle in direct contact with the water in which it is partly immersed, the cooler having end supports only being open at its opposite extremities for the reception and discharge of the ore, the cooler being equipped with means for simultaneously stirring and advancing the ore during the cooling operation, substantially as described.



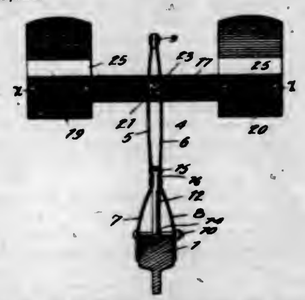
3. In ore cooling apparatus the combination with a water containing receptacle, of a cooler mounted to rotate therein, and comprising a cylindrical body part, equipped with flights for stirring and advancing the ore, the cooler having frusto-conical extremities for receiving and discharging the ore, the discharge extremity of the cooler having a spirally arranged blade for carrying the ore from the body of the cooler to the discharge end of the latter, substantially as described.

4. In ore cooling apparatus, the combination of a receptacle for the cooling water, a cooler partly immersed in the water intermediate its extremities, having end supports only, the cooler being mounted to rotate in the receptacle and equipped with means for stirring and advancing the ore, provision being made for continually supplying the receptacle with water, the said receptacle being constructed to permit the water to overflow therefrom, substantially as described.

5. In apparatus of the class described, the combination of a water containing receptacle, means for continually changing the water in said receptacle, a cooler mounted to rotate in the receptacle in direct contact with the water and having end bearings only, the cooler being equipped with means for stirring and advancing the ore, during the cooling operation, means for discharging water upon the top of the cooler, and means for imparting rotary movement to the latter, substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

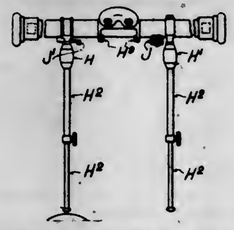
943,295. RAILWAY LINING-BLOCK. ADOLPH BARNHARD, Sherwood, Ohio. Filed Oct. 22, 1908. Serial No. 459,023.



A track lining gage or block comprising a pair of laterally spaced supporting legs each made from a separate piece of metal, said legs having bowed upper portions and outwardly bent lower ends adapted to receive the tread portion of a track rail, means for clamping the lower ends of the supporting legs against opposite faces of the track rail, a supporting bolt extending through the upper bowed ends of the supporting legs and provided with a U-shaped clip to receive same, with its side portions fitting against the outer faces thereof, a flag supporting arm mounted upon the bolt body, a nut screwing upon said bolt against

the flag arm, and rearwardly and forwardly extending legs secured to the lower ends of the supporting legs and provided at their lower ends with outwardly bent portions to rest upon the track-rails, the upper ends of the main supporting legs being bowed outwardly in opposite directions in order to exert pressure upon the head of the pivot bolt by self expansion, whereby said bolt will be retained in position and will not become loose.

943,296. MEANS FOR SUPPORTING AND WORKING HEADS OF RANGE-FINDERS. ARCHIBALD BARR and WILLIAM STROUD, Anniesland, Glasgow, Scotland. Filed June 19, 1909. Serial No. 503,045.



1. The combination with a rangefinder having eye-pieces at its center directed at right angles to its base length, of two handles projecting downward from the under-side of the rangefinder and positioned on opposite sides of the eye-pieces, in association with a working head located on the under-side of the rangefinder between one of the handles and the eye-pieces and adjacent to the said handle, for the purposes set forth.

2. The combination with a rangefinder having eye-pieces at its center directed at right angles to its base length, of two handles projecting downward from the under-side of the rangefinder and positioned on opposite sides of the eye-pieces, in association with working heads located on the under-side of the rangefinder between the handles and the eye-pieces and adjacent to the handles, for the purposes set forth.

3. The combination with a rangefinder having eye-pieces at its center directed at right angles to its base length, of two handles projecting downward from the outer casing of the rangefinder and positioned on opposite sides of the eye-pieces, in association with a cylindrical working head located on the under-side of the rangefinder between one of the handles and the eye-pieces mounted to rotate about an axis approximately parallel with and adjacent to the said handle, for the purposes set forth.

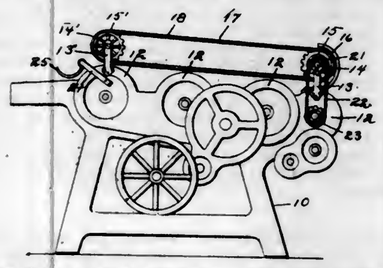
4. The combination with a rangefinder having eye-pieces at its center directed at right angles to its base length, of two handles projecting downward from the outer casing of the rangefinder and positioned on opposite sides of the eye-pieces, in association with a working head located on the under-side of the rangefinder between one of the handles and the eye-pieces and adjacent to the said handle together with means for supporting the rangefinder, for the purposes set forth.

5. The combination with a rangefinder having eye-pieces at its center directed at right angles to its base length, of two handles projecting downward from the outer casing of the rangefinder and positioned on opposite sides of the eye-pieces, in association with working heads located on the under side of the rangefinder between the handles and the eye-pieces and adjacent to the handles, together with means for supporting the rangefinder, for the purposes set forth.

[Claims 6 and 7 not printed in the Gazette.]

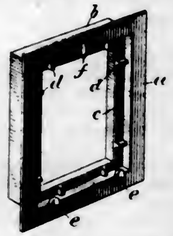
943,297. MANGLE-CONVEYER. ROY M. BOYCE, Evansville, Ind. Filed Nov. 3, 1908. Serial No. 460,974.

The combination with a mangle, of two upwardly extending standards secured to one end of said mangle, a shaft carried by said standards, a chain gear secured to each end of said shaft, two upwardly extending standards secured to the opposite end of said mangle, a shaft carried by said last mentioned standards, a gear secured to each end of said last mentioned shaft, two endless chains passing over said chain gear; connecting rods ex-



tending from one chain to the other to form an endless conveyer, and a holding rack secured near one end of said conveyer comprising a transverse rod having curved blades, as shown.

943,298. WALL-FRAME FOR AIR-REGISTERS. ROBERT C. BROWN, Lynchburg, Va. Filed Oct. 2, 1908. Serial No. 455,865.



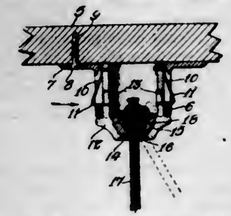
1. In an air register construction, the combination with a wall having an air opening, of a register frame comprising a box-like flange extending into said opening and seated therein, a rim about the outer edge of said box-like flange and extending at right angles to said flange, said rim lying flush with the surface of the wall, an inwardly extending flange or ledge formed integral with the box-like flange intermediate of the width of the latter and provided at its front face with outstanding lugs or ears, a register having a rearwardly extending flange resting against the flange or ledge on the box-like flange and provided with a rim which is supported by said outstanding lugs or ears, and lugs on the rim of the box-like flange to engage and removably lock the register in position in the frame.

2. A sheet metal frame for air registers comprising a box like body flange, a marginal rim about the outer edge of said flange, the said body flange being folded or crimped on its interior faces to form a U-shaped ledge, outwardly extending lugs struck from said ledge to receive and support the register, and lugs or ears struck from the marginal rim to hold the register in position.

943,299. DETACHABLE SWIVEL. DONALD M. COBSON and GEORGE T. GILKERSON, Los Angeles, Cal. Filed Jan. 25, 1909. Serial No. 474,090.

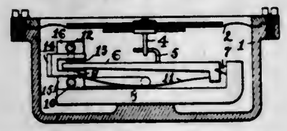
1. In a device of the class described, a stationary cylindrical member provided with a plurality of oppositely disposed lock engaging slots, a movable cylindrical member provided with an aperture in the lower end thereof, a pair of spring locking dogs secured to the movable member, said dogs adapted to engage the slots formed in the stationary member when the two members are forced together, and an apertured swivel member mounted in the movable member.

2. In a device of the class described, a stationary cylindrical member provided with slots, a movable member provided with spring dogs, said dogs adapted to engage the



slots formed in the stationary member when the movable member is forced into engagement with the stationary member, and an apertured swivel mounted in the movable member.

943,300. SIGNAL-LIGHT APPARATUS. GUSTAF DALÉN, Stockholm, Sweden, assignor, by mesne assignments, to American Gasaccumulator Company, Philadelphia, Pa. Filed Feb. 18, 1909. Serial No. 478,666.



1. In combination a reservoir, a diaphragm, an inlet pipe and an outlet pipe for gas connected to said reservoir, means actuated by the pressure of the gas within the reservoir, to alternately control the inflow and outflow of gas, and magnetic means to accelerate the action of said means in controlling both the inflow and outflow.

2. The combination of a reservoir, a diaphragm, an oscillating valve lever connected with said diaphragm, a magnet for said lever, valve seats coacting with the oscillating valve lever, an inlet pipe connected with the port extending from one of the said valve seats and an outlet pipe connected with the port formed with the other valve seat, substantially as described.

3. The combination of a reservoir, a diaphragm, a valve lever actuated by said diaphragm, a spring opposing the action of said diaphragm and connected with said valve lever, a permanent magnet for said lever, a pole piece for the magnet, valve seats coacting with said valve lever, and communicating pipes connected with the valve seats, substantially as described.

4. The combination of a reservoir, a diaphragm, a valve actuated by a spring opposing the action of said diaphragm, a permanent magnet for said valve, a pole piece for the magnet, valve seats at opposite sides of said valve and inlet and outlet pipes connected with the valve seats.

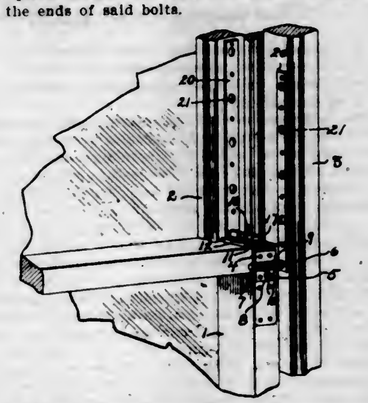
5. The combination of a diaphragm, an oscillating valve lever connected with said diaphragm, a spring opposing the action of said diaphragm and connected with the oscillating valve lever, oppositely located valve seats coacting with said oscillating valve lever, a permanent magnet connected with said valve seats and communicating pipes connected to said valve seats.

[Claims 6 to 13 not printed in the Gazette.]

943,301. SASH-FASTENER. JASPER A. DILLOW, Dongola, Ill. Filed Aug. 31, 1909. Serial No. 515,421.

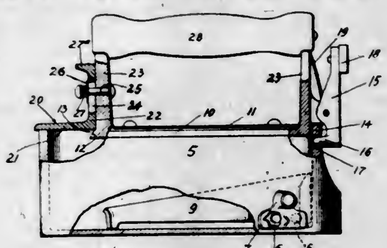
1. A sash fastener comprising a plate adapted to be secured on the side of a window sash, the upper portion of said plate extending transversely across the top of the sash, an adjustable locking bolt casing carried by the transverse portion of said plates and a bolt reciprocable therein, a locking bolt carried by the vertical portion of said plate, and keeper plates formed with a plurality of openings to receive the ends of said bolts.

2. A sash fastener comprising a plate adapted to be secured to the side of a window sash, the upper portion of said plate extending transversely across the top of the sash, longitudinal slots being formed in said transverse portion, a plate slidably mounted thereon having openings therein registering with said slots, means to secure said plate in its adjusted position, a locking bolt longitudinally movable upon said plate, a laterally adjustable locking bolt carried by the vertical portion of said plate, and keeper plates formed with a plurality of openings to receive the ends of said bolts.



3. In a sash fastener, the combination with the window sashes and frame therefor, an angular sash plate secured to the lower sash and extending transversely across the top thereof, slots being formed in the transverse portion, a plate adjustably mounted thereon, said plate having its edges turned under the sash plate and extending across the slots formed therein, openings being formed in the top and bottom portions of said adjustable plate registering with said slots, a plate secured to the vertical portion of said sash plate, barrels formed integral with said adjustable and stationary plates, bolts longitudinally movable in said barrels, and keeper plates formed with a plurality of openings secured to the upper sash and to the frame to receive the ends of said bolts.

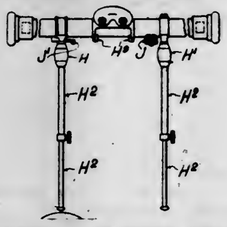
943,302. SAD-IRON. FREDERICK W. EMERSON, Los Angeles, Cal. Filed June 1, 1908. Serial No. 435,931.



A sad iron comprising, a fuel containing body having draft openings therein, a removable draft flue wall mounted on the inside of said body, a cover for said body closing a portion of the top thereof, said cover having upright standards thereon and a handle carried between said standards, an adjustable cover for the remainder of said body portion carried by one of said standards, said adjustable cover being mounted for sliding and rotative movement and having a lug portion adjacent the end of said handle, said lug portion being adapted to be engaged by the thumb of the operator to regulate the draft through said body portion of the iron.

the flag arm, and rearwardly and forwardly extending legs secured to the lower ends of the supporting legs and provided at their lower ends with outwardly bent portions to rest upon the track-rails, the upper ends of the main supporting legs being bowed outwardly in opposite directions in order to exert pressure upon the head of the pivot bolt by self expansion, whereby said bolt will be retained in position and will not become loose.

943,296. MEANS FOR SUPPORTING AND WORKING HEADS OF RANGE-FINDERS. ARCHIBALD BARR and WILLIAM STROUD, Anniesland, Glasgow, Scotland. Filed June 19, 1909. Serial No. 503,045.



1. The combination with a rangefinder having eye-pieces at its center directed at right angles to its base length, of two handles projecting downward from the under-side of the rangefinder and positioned on opposite sides of the eye-pieces, in association with a working head located on the under-side of the rangefinder between one of the handles and the eye-pieces and adjacent to the said handle, for the purposes set forth.

2. The combination with a rangefinder having eye-pieces at its center directed at right angles to its base length, of two handles projecting downward from the under-side of the rangefinder and positioned on opposite sides of the eye-pieces, in association with working heads located on the under-side of the rangefinder between the handles and the eye-pieces and adjacent to the handles, for the purposes set forth.

3. The combination with a rangefinder having eye-pieces at its center directed at right angles to its base length, of two handles projecting downward from the outer casing of the rangefinder and positioned on opposite sides of the eye-pieces, in association with a cylindrical working head located on the under-side of the rangefinder between one of the handles and the eye-pieces mounted to rotate about an axis approximately parallel with and adjacent to the said handle, for the purposes set forth.

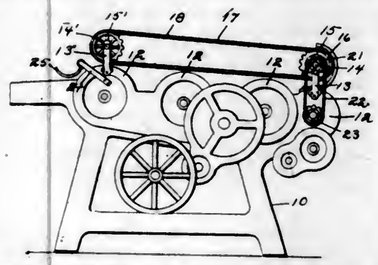
4. The combination with a rangefinder having eye-pieces at its center directed at right angles to its base length, of two handles projecting downward from the outer casing of the rangefinder and positioned on opposite sides of the eye-pieces, in association with a working head located on the under-side of the rangefinder between one of the handles and the eye-pieces and adjacent to the said handle together with means for supporting the rangefinder, for the purposes set forth.

5. The combination with a rangefinder having eye-pieces at its center directed at right angles to its base length, of two handles projecting downward from the outer casing of the rangefinder and positioned on opposite sides of the eye-pieces, in association with working heads located on the under side of the rangefinder between the handles and the eye-pieces and adjacent to the handles, together with means for supporting the rangefinder, for the purposes set forth.

[Claims 6 and 7 not printed in the Gazette.]

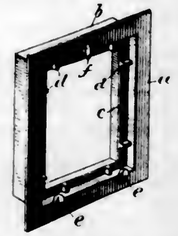
943,297. MANGLE-CONVEYER. ROY M. BOYCE, Evansville, Ind. Filed Nov. 3, 1908. Serial No. 460,974.

The combination with a mangle, of two upwardly extending standards secured to one end of said mangle, a shaft carried by said standards, a chain gear secured to each end of said shaft, two upwardly extending standards secured to the opposite end of said mangle, a shaft carried by said last mentioned standards, a gear secured to each end of said last mentioned shaft, two endless chains passing over said chain gear; connecting rods ex-



tending from one chain to the other to form an endless conveyer, and a holding rack secured near one end of said conveyer comprising a transverse rod having curved blades, as shown.

943,298. WALL-FRAME FOR AIR-REGISTERS. ROBERT C. BROWN, Lynchburg, Va. Filed Oct. 2, 1908. Serial No. 455,865.



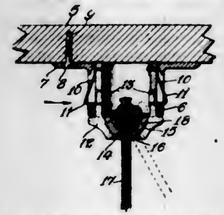
1. In an air register construction, the combination with a wall having an air opening, of a register frame comprising a box-like flange extending into said opening and seated therein, a rim about the outer edge of said box-like flange and extending at right angles to said flange, said rim lying flush with the surface of the wall, an inwardly extending flange or ledge formed integral with the box-like flange intermediate of the width of the latter and provided at its front face with outstanding lugs or ears, a register having a rearwardly extending flange resting against the flange or ledge on the box-like flange and provided with a rim which is supported by said outstanding lugs or ears, and lugs on the rim of the box-like flange to engage and removably lock the register in position in the frame.

2. A sheet metal frame for air registers comprising a box like body flange, a marginal rim about the outer edge of said flange, the said body flange being folded or crimped on its interior faces to form a U-shaped ledge, outwardly extending lugs struck from said ledge to receive and support the register, and lugs or ears struck from the marginal rim to hold the register in position.

943,299. DETACHABLE SWIVEL. DONALD M. CORSON and GEORGE T. GILKERSON, Los Angeles, Cal. Filed Jan. 25, 1909. Serial No. 474,090.

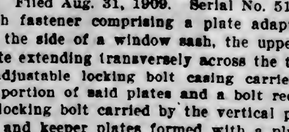
1. In a device of the class described, a stationary cylindrical member provided with a plurality of oppositely disposed lock engaging slots, a movable cylindrical member provided with an aperture in the lower end thereof, a pair of spring locking dogs secured to the movable member, said dogs adapted to engage the slots formed in the stationary member when the two members are forced together, and an apertured swivel member mounted in the movable member.

2. In a device of the class described, a stationary cylindrical member provided with slots, a movable member provided with spring dogs, said dogs adapted to engage the



slots formed in the stationary member when the movable member is forced into engagement with the stationary member, and an apertured swivel mounted in the movable member.

943,300. SIGNAL-LIGHT APPARATUS. GUSTAF DALÉN, Stockholm, Sweden, assignor, by mesne assignments, to American Gasaccumulator Company, Philadelphia, Pa. Filed Feb. 18, 1909. Serial No. 478,666.



1. In combination a reservoir, a diaphragm, an inlet pipe and an outlet pipe for gas connected to said reservoir, means actuated by the pressure of the gas within the reservoir, to alternately control the inflow and outflow of gas, and magnetic means to accelerate the action of said means in controlling both the inflow and outflow.

2. The combination of a reservoir, a diaphragm, an oscillating valve lever connected with said diaphragm, a magnet for said lever, valve seats coacting with the oscillating valve lever, an inlet pipe connected with the port extending from one of the said valve seats and an outlet pipe connected with the port formed with the other valve seat, substantially as described.

3. The combination of a reservoir, a diaphragm, a valve lever actuated by said diaphragm, a spring opposing the action of said diaphragm and connected with said valve lever, a permanent magnet for said lever, a pole piece for the magnet, valve seats coacting with said valve lever, and communicating pipes connected with the valve seats, substantially as described.

4. The combination of a reservoir, a diaphragm, a valve actuated by a spring opposing the action of said diaphragm, a permanent magnet for said valve, a pole piece for the magnet, valve seats at opposite sides of said valve and inlet and outlet pipes connected with the valve seats.

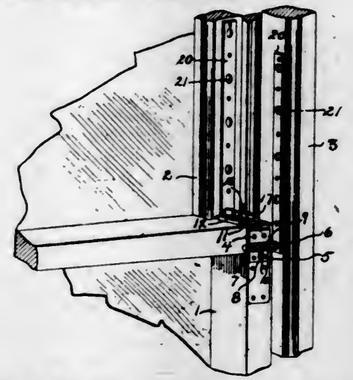
5. The combination of a diaphragm, an oscillating valve lever connected with said diaphragm, a spring opposing the action of said diaphragm and connected with the oscillating valve lever, oppositely located valve seats coacting with said oscillating valve lever, a permanent magnet connected with said valve seats and communicating pipes connected to said valve seats.

[Claims 6 to 13 not printed in the Gazette.]

943,301. SASH-FASTENER. JASPER A. DILLOW, Dongola, Ill. Filed Aug. 31, 1909. Serial No. 515,421.

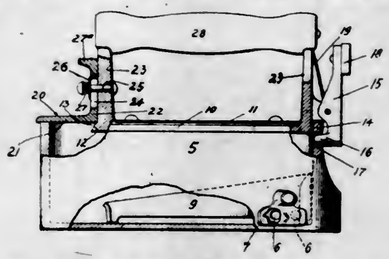
1. A sash fastener comprising a plate adapted to be secured on the side of a window sash, the upper portion of said plate extending transversely across the top of the sash, an adjustable locking bolt casing carried by the transverse portion of said plates and a bolt reciprocable therein, a locking bolt carried by the vertical portion of said plate, and keeper plates formed with a plurality of openings to receive the ends of said bolts.

2. A sash fastener comprising a plate adapted to be secured to the side of a window sash, the upper portion of said plate extending transversely across the top of the sash, longitudinal slots being formed in said transverse portion, a plate slidably mounted thereon having openings therein registering with said slots, means to secure said plate in its adjusted position, a locking bolt longitudinally movable upon said plate, a laterally adjustable locking bolt carried by the vertical portion of said plate, and keeper plates formed with a plurality of openings to receive the ends of said bolts.



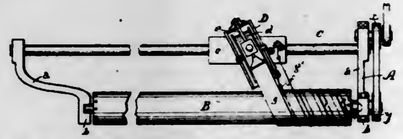
3. In a sash fastener, the combination with the window sashes and frame therefor, an angular sash plate secured to the lower sash and extending transversely across the top thereof, slots being formed in the transverse portion, a plate adjustably mounted thereon, said plate having its edges turned under the sash plate and extending across the slots formed therein, openings being formed in the top and bottom portions of said adjustable plate registering with said slots, a plate secured to the vertical portion of said sash plate, barrels formed integral with said adjustable and stationary plates, bolts longitudinally movable in said barrels, and keeper plates formed with a plurality of openings secured to the upper sash and to the frame to receive the ends of said bolts.

943,302. SAD-IRON. FREDERICK W. EMERSON, Los Angeles, Cal. Filed June 1, 1908. Serial No. 435,931.



A sad iron comprising, a fuel containing body having draft openings therein, a removable draft flue wall mounted on the inside of said body, a cover for said body closing a portion of the top thereof, said cover having upright standards thereon and a handle carried between said standards, an adjustable cover for the remainder of said body portion carried by one of said standards, said adjustable cover being mounted for sliding and rotative movement and having a lug portion adjacent the end of said handle, said lug portion being adapted to be engaged by the thumb of the operator to regulate the draft through said body portion of the iron.

943,303. MEANS FOR PREPARING CORE-BARS FOR THE CASTING OPERATIONS. MORDECAI H. FLETCHER, Cincinnati, Ohio. Filed July 19, 1909. Serial No. 508,520.



1. In a machine for winding a strip of combustible material upon core bars, means actuated by the portion of the strip already wound for automatically advancing the feed along the core bar.

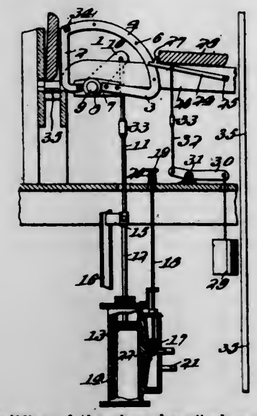
2. The improved means for applying and retaining a strip of combustible material embodies a storage reel for the material to be wound; a traveling reel-carriage; a spool, carried therein; and a projecting arm of the carriage adapted to rest upon the core bar in contact with the advancing edge of the material to be wound, and advance the carriage coincidently with the winding of the material, and at the same time feed a string from the spool upon the strip being wound to retain the same upon the bar.

3. In combination with a supporting frame adapted to carry a core bar in rotation; a fixed trackway, parallel to the axis of the core bar; a traveling carriage free to move thereon; a storage reel mounted on said carriage and adapted to carry and feed a strip of combustible material; and a guide projection of the carriage adapted to rest upon the core bar in sliding contact with the free advanced edge of the strip already wound thereon.

4. In combination with a stand, a supporting frame adapted to carry a core bar in rotation; a fixed trackway, parallel to the axis of the core bar; a traveling carriage free to move thereon; a storage reel mounted on said carriage and adapted to carry and feed a strip of combustible material; a guide projection of the carriage adapted to rest upon the core bar in sliding contact with the free advanced edge of the strip already wound thereon; and an adjustable tension brake bearing upon the reel.

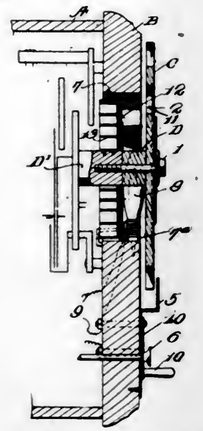
5. In combination with a supporting frame adapted to carry a core bar in rotation; a fixed bar contiguous to and parallel with the core bar when in position; a reel carriage having a traveling support upon the fixed bar; and a projecting arm of the carriage having a sliding rest upon the core bar as one of the supports of the carriage.

943,304. STOCK-LIFTER FOR SAWMILLS. EDWIN J. GIBSON, Charleston, Miss., assignor of one-half to Walter B. Burke, Charleston, Miss. Filed Apr. 22, 1909. Serial No. 491,538.



In a stock-lifter of the class described, a pair of laterally spaced stock lifting arms, means under the control of the operator for swinging said arms into either raised or lowered position, pivoted catches having outwardly extending projections at their free ends arranged in advance of the lifting arms, transfer chains for carrying the stock to the lifting arms, means for normally holding the free ends of the catches in raised or stock-engaging position, and means formed on the lifting arms for swinging the projections of the catches out of engagement with a piece of stock when the lifting arms are caused to swing into lowered or stock-receiving position.

943,305. ILLUMINATED TELEPHONE-DIAL. RUFUS B. HALLOCK, Portland, Oreg. Filed Feb. 18, 1909. Serial No. 478,600.



1. The combination of a telephone instrument of the automatic type, the instrument being provided with a dial, of a lamp, a support therefor, said support being formed with a mortise in which the lamp is located, and the dial being formed with a slot in registry with said mortise, and means for supplying said lamp with current.

2. The combination with a telephone instrument of the automatic type, the same being provided with a dial, and a translucent indicator disk, of a lamp mounted in the instrument and designed to shine through the dial, the instrument being provided with a recess in which said lamp is located, means for supplying the lamp with current, and a reflector mounted within and designed to cover the rear side of said recess back of the lamp.

3. The combination with a telephone instrument of the automatic type, the same being provided with a dial and a translucent indicator disk, the instrument being also formed with a mortise, of a boss located centrally of the mortise at the rear side thereof, a spring secured to said boss and arranged to return the dial to normal position, a reflector disk secured to said boss in front of the spring, and a lamp interposed between the reflector disk and the rear face of the dial.

943,306. CORRUGATED SHEET-METAL CULVERT. HUGH W. HARRY, Kansas City, Mo. Filed Apr. 29, 1909. Serial No. 493,035.

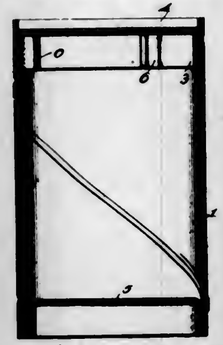


1. A culvert section of cylindrical form circumferentially corrugated and provided with flanges having finer corrugations or crimps extending in the same general direction as the circumferential corrugations; said crimped flanges bearing an articulated relation.

2. A culvert section, comprising a circumferentially corrugated cylindrical member provided with outwardly-projecting crimped flanges fitting together with an articulated relation and provided with staggered extensions or tongues bent in opposite directions around and against the companion flanges to clamp the same rigidly together.

3. In a culvert section, a cylindrical member, provided with crimped or finely corrugated edges and provided also with circumferential corrugations extending from the inner ends of the crimps of one of such edges to the inner ends of the crimps of the other edge; said corrugations being fewer in number and of much greater size than the crimps of such edges.

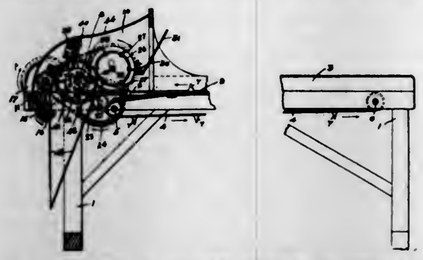
943,307. CLOSURE FOR PAPER PACKAGES. CHARLES F. JENKINS, Washington, D. C., assignor to Single Service Package Company, a Corporation of New Jersey. Filed May 4, 1909. Serial No. 493,913.



1. In a bottle the combination with a body portion; a bottom closure; and a top closure consisting of a disk and a ring forming a seat for said disk, said ring being of the same size as said body portion and provided with a crinkled portion permitting the same to enter said body portion, substantially as described.

2. In a bottle the combination with a cylindrical spirally wound body portion; an inverted flanged cup shaped bottom closure; a disk closing the top of said body portion; and a ring forming a seat for said disk, said ring being cylindrical and of the same diameter as said body portion, and provided with a crinkled portion 6 permitting it to enter said body portion, substantially as described.

943,308. ALFALFA-CUTTER. JORGEN JORGENSEN, South Omaha, Nebr. Filed Dec. 2, 1908. Serial No. 465,727.



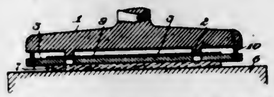
1. In a machine of the class described, in combination, cutting devices comprising a toothed cylinder and ledger-blades arranged in shearing relation thereto, a feed-table, means for actuating materials over said table toward the cutting devices, a toothed feed-cylinder arranged over the feed-table adjacent to the cutting devices, flexible driving means for said feed-cylinder arranged to permit a raising and lowering thereof relative to the feed-table, a shoe-plate arranged adjacent to the feed-cylinder for directing materials thereunder, and means connecting the shoe-plate and cylinder whereby when the cylinder is raised the shoe-plate will be maintained in the same position relative to the cylinder.

2. In a machine of the class described, the combination with feeding devices of a cutting cylinder consisting of a series of plates each having teeth formed on the periphery thereof, the plates being arranged in pairs, the teeth of each pair of plates coinciding in position longitudinally of the cylinder and forming in effect single teeth having concave front faces and inclined cutting edges, the teeth of the different pairs of plates being in non-alined positions longitudinally of the cylinder, and ledger-blades of a form adapting each of the same to extend between the teeth of adjoining pairs of the plates and in shearing relation to the cutting edges of said teeth, each of said ledger-blades being independently adjustable in a direction substantially radial to the cylinder.

3. In a machine of the class described, a cutting-cylinder consisting of a series of plates each having on the periphery thereof a plurality of raking or overhanging teeth with inclined cutting edges, the plates being arranged in pairs, the teeth of each pair of plates coinciding in position longitudinally of the cylinder, each of the plates having a series of holes formed therein and in constant relation to the cutting edges of the teeth, and connecting bolts passing longitudinally of the cylinder through some of the holes in each of the plates.

4. In a machine of the class described, a cutting cylinder consisting of a series of knife-plates, end-plates, and bolts passing longitudinally of the cylinder through said end-plates and knife-plates, a wheel secured to the cylinder shaft adjoining one of said end-plates, and a break-pin connecting said wheel and end-plate for the purpose set forth.

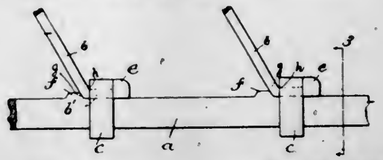
943,309. METHOD OF MANUFACTURING TARSIA-WORK. FELIX KOHN, Vienna, Austria-Hungary. Filed Sept. 3, 1908. Serial No. 451,545.



1. The method of manufacturing tarsia work, which consists in punching at one operation the inlay from a sheet of material through a properly shaped matrix or die, while the die is in contact with the object to be inlaid, into the object to be inlaid.

2. The method of manufacturing tarsia work, which consists in punching at one operation the inlay from a sheet of material through a properly shaped matrix or die, while the die is in contact with the object to be inlaid, into the object to be inlaid until the upper surface of the inlay is flush with the object.

943,310. REINFORCING CONSTRUCTION FOR CONCRETE. JOHN W. LINZEE, Jr., Boston, Mass. Filed Dec. 12, 1907. Serial No. 406,167.



1. A metallic reinforcing construction for concrete work, consisting of a longitudinal tension bar, a shear

bar having one portion inclined relatively to the longitudinal bar and a second portion lying along-side and in contact therewith, a collar surrounding the adjacent portions of the bars to hold them together, and an enlargement on the longitudinal bar preventing movement of the shear bar in the direction of its inclined portion.

2. A metallic reinforcing construction for concrete work, consisting of a longitudinal tension bar, a shear bar extending longitudinally a short distance beside said longitudinal bar and bent away from the same, a collar surrounding the adjacent portions of the bars, an enlargement on the longitudinal bar between which and said collar the shear bar extends, and an offset on the shear bar to prevent withdrawal thereof from said collar.

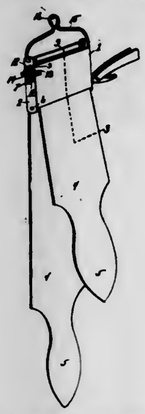
3. A metallic reinforcing construction for concrete work, consisting of a longitudinal tension bar, a tension shear bar extending at an inclination to said longitudinal bar and in the same plane therewith, means for clamping said bars together, and means for preventing relative movement between the bars lengthwise of the longitudinal bar.

4. A metallic reinforcing construction for concrete work, consisting of a longitudinal tension bar, a tension shear bar extending at an inclination to said longitudinal bar and in the same plane therewith, means for clamping said bars together, and positive means for preventing relative movement of the shear bar in one direction along the longitudinal bar.

5. A metallic reinforcing construction for concrete work, consisting of a longitudinal tension bar, an inclined shear bar having a bend and lying beside the longitudinal bar adjacent the bend, with the portion at one side of the bend extending at an acute angle from the longitudinal bar, a collar surrounding the adjacent portions of the bars, and a wedging enlargement on the longitudinal bar located in the acute angle between the bars.

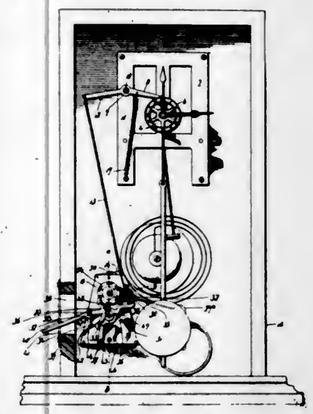
[Claims 6 to 10 not printed in the Gazette.]

943,311. STROPPING-MACHINE. JENS LORENZEN, Fremont, Ohio, assignor to Henrie Clauss, Fremont, Ohio. Filed Jan. 19, 1906. Serial No. 296,738.



A blade stropping device comprising an inclosing case having straight parallel sides, a roller journaled between said sides at the top of the case, a similar roller journaled between said sides at the bottom of the case, said rollers being disposed within the case an equal distance from the sides thereof, a strop looped through the case over the upper roller in a manner to cause the opposed portions thereof within the case to lie in parallel relation contiguous to said straight sides and to occupy the space between said sides and said rollers, the ends of the strop passing out of the case between the sides thereof and the periphery of the lower roller, a blade-holder journaled in the case between the upper and lower rollers equidistant from said sides, said blade-holder being adapted to swing to carry the blade from side to side into contact with the sides of the strop lying against the straight side walls of the case, and means connecting said blade-holder with the upper roller to effect a movement of the holder by the rotation of the roller as the strop is drawn thereover.

943,312. EIGHT-DAY ALARM-CLOCK. PAUL LUX, Waterbury, Conn., assignor to Waterbury Clock Co., Waterbury, Conn., a Corporation. Filed June 9, 1909. Serial No. 501,032.



1. In an eight-day alarm-clock, the combination with the time-movement thereof, of an independently organized alarm-mechanism connected therewith for operation thereby once in twenty-four hours for eight days, the said alarm-mechanism including a rack provided with means for manually stopping the sounding of the alarm without shutting off the alarm-mechanism from further automatic action.

2. In an eight-day alarm clock, the combination with the time-movement thereof, of an independently organized alarm-mechanism connected therewith for operation thereby once in twenty-four hours for eight days, the said alarm-mechanism including a rack formed with an operating-lever for manually stopping the sounding of the alarm without shutting off the alarm from further automatic action.

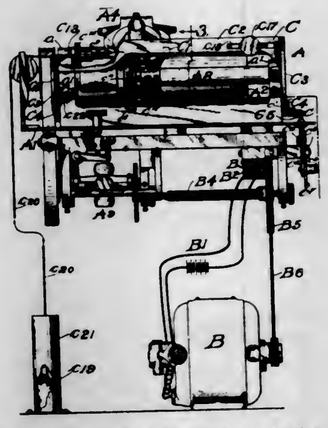
3. In an eight-day alarm clock, the combination with the time-movement thereof, of an independently organized alarm mechanism connected therewith for operation thereby once in twenty-four hours for eight days, the said alarm-mechanism including a rack provided with an operating-lever extending through the clock-case for manually stopping the sounding of the alarm, and means for engagement by the said lever, whereby the alarm is cut off altogether.

4. In an eight-day alarm clock, the combination with the time-movement thereof, of a twelve-hour alarm-set dial frictionally mounted upon the center-arbor of the said time-movement and furnished with a twelve-hour alarm-cam, and a separately organized alarm-mechanism operated every twelve hours through the medium of the said cam but effectively operated only once in twenty-four hours and including two wheels of which one has half as many teeth or operating members as the other.

5. In an eight-day alarm clock, the combination with the time-movement thereof, of a twelve-hour alarm-set dial and a twelve-hour alarm-cam frictionally mounted upon the center-arbor of the said time-movement, and a separately organized alarm-mechanism, including a lifting-lever, a pawl suspended therefrom, a star-wheel, an action-cam having half the number of teeth of the said wheel, a locking-lever operated by the said action-cam, a locking-pin carried by the said locking-lever, a rack, a gathering-hub coacting with the said rack with which the said locking-pin also coacts, and connection between the alarm-cam of the time-movement and the lifting-lever of the alarm-mechanism.

[Claims 6 to 9 not printed in the Gazette.]

943,313. PHONOGRAPH. HERBERT S. MILLS, Chicago, Ill. Filed Aug. 24, 1907. Serial No. 389,933.



1. The combination with a phonograph having a record-carrier, a reproducer-carrier and a feed-screw for the reproducer-carrier, of a follower for said screw, a follower-retracting member, a spring tending to move said follower-retracting member, latching-means for the follower-retracting member, a latch-releasing member actuated by the reproducer as the reproducer nears the end of its traverse, means for locking said latch-releasing member, and means carried by the reproducer for releasing said latch-releasing member as the reproducer returns to its starting position.

2. The combination with a phonograph having a record-carrier, a reproducer-carrier and a feed-screw for the reproducer-carrier, of a follower for said screw, a rotary cam for retracting said follower, yielding means tending to rotate said cam to retract said follower, locking-means for said rotary cam, a cam-equipped shiftable bar actuated by said reproducer and adapted to release said locking-means, means for locking said bar in its shifted position, and means carried by the reproducer for releasing said last-named locking-means when the reproducer-carrier resumes its starting position.

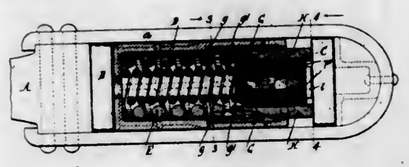
3. The combination with a phonograph, of means for throwing the follower of the feed-screw into and out of engagement with the feed-screw, comprising a shiftable member actuated by the reproducer as it nears one end of its traverse, a locking-member for said shiftable member, and adjustable means carried by the reproducer and serving to disengage said locking-member as the reproducer approaches the other end of its traverse.

4. The combination with a reproducer-carrier of a phonograph and its feed-screw, of a rotary cam, a follower for said feed-screw, retracted by said cam, a spring tending to rotate said cam, a shiftable bar equipped with a cam actuated by the reproducer-carrier, an arm on the rotary cam adapted to be engaged by said bar to restore the cam to its normal position, and means for locking the cam in its normal position.

5. The combination with a reproducer-carrier of a phonograph and its feed-screw, of a rotary cam, a follower for said feed-screw retracted by said cam, a spring tending to rotate said cam, a latch connected with said cam and engaging the reproducer-carrier, an arm connected with said cam, a shiftable bar adapted to be actuated by the reproducer-carrier and serving to release said latch in one position of the reproducer-carrier and to restore said cam to its normal position in another position of the reproducer-carrier, means for locking said bar in its shifted position, and means carried by the reproducer for releasing said bar.

[Claims 6 to 10 not printed in the Gazette.]

943,314. FRICTION DRAFT-GEAR. THOMAS L. MCKEEN, Scranton, Pa. Filed Jan. 21, 1909. Serial No. 473,488.



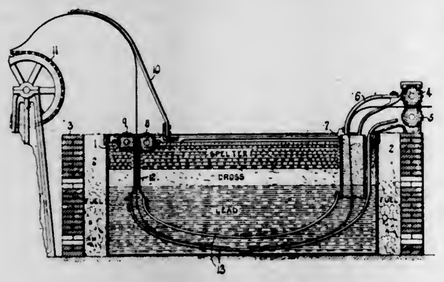
1. The combination of a barrel, friction blocks which are slidable longitudinally in said barrel, a coil spring in said barrel which resists the movement of said friction blocks, wedges which extend into said barrel and have inclined faces bearing against inclined faces on said friction blocks, leaf springs which are arranged lengthwise between said wedges and press said wedges against said friction blocks, said friction blocks, wedges and leaf springs all bearing directly against one end of said coil spring, and means for causing a relative longitudinal movement between said barrel and said wedges, substantially as set forth.

2. The combination of a barrel, friction blocks in said barrel, a coil spring in said barrel, wedges which are located in said barrel and have inclined faces bearing against inclined faces on said friction blocks, leaf springs which are arranged lengthwise between said wedges and press said wedges against said friction blocks, filler plates in said barrel at opposite sides of said leaf springs, said wedges, leaf springs and filler plates all bearing against one end of said coil spring, and means for causing a relative longitudinal movement between said barrel and said wedges, leaf springs and filler plates, substantially as set forth.

3. The combination of a drawbar, a barrel adapted to remain stationary when the drawbar is moved in one direction, a follower which is movable with the drawbar, friction blocks in said barrel, a coil spring in said barrel, wedges which bear at their ends against said follower and have inclined faces which bear against inclined faces on said friction blocks, leaf springs which are arranged lengthwise between said wedges and press said wedges against said friction blocks, and filler plates in said barrel at opposite sides of said leaf springs and having bearing pieces located between the ends of said leaf springs and said follower, said wedges, leaf springs and filler plates being movable with said follower, and said filler plates acting to transmit pressure from said follower to said coil spring, substantially as set forth.

4. The combination of a drawbar, a barrel and a follower, each of which moves in one direction with the drawbar and is held from movement when the drawbar is moved in the opposite direction, a coil spring in said barrel, wedges which bear at opposite ends against said follower and said coil spring and have inclined faces which bear against coöperating inclined faces located in said barrel, leaf springs which are arranged lengthwise between said wedges and press said wedges against said inclined faces in the barrel, and filler plates which are arranged in said barrel at opposite sides of said leaf springs and bear at opposite ends against said follower and said coil spring and have bearing pieces arranged between said follower and the adjacent ends of said leaf springs, substantially as set forth.

943,315. GALVANIZING APPARATUS. ALEXANDER NIEDRINGHAUS, St. Louis, Mo. Filed Mar. 11, 1909. Serial No. 482,769.



1. In a galvanizing apparatus, a flux box having a plug in its bottom, which plug will exclude substances floating on top of the lead bath during the time that the flux box is being introduced into position.

2. In a galvanizing apparatus, a flux box having a fusible plug in its bottom.

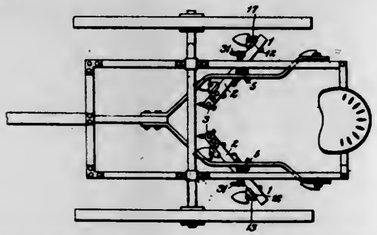
3. In a galvanizing apparatus, a flux box having a destructible plug in its bottom.

4. In a galvanizing apparatus, a galvanizing box having a plug in its bottom, which plug will exclude particles floating on the surface of the molten lead during its introduction into position.

5. In a galvanizing apparatus, a galvanizing box having a fusible plug in its bottom.

[Claims 6 to 10 not printed in the Gazette.]

943,316. CULTIVATOR ATTACHMENT. EDGAR L. ROSS, Hico, Tex. Filed July 28, 1909. Serial No. 509,970.



In an attachment for cultivators, a pair of frames comprising longitudinally spaced bars, adjustable cuffs having plow feet secured thereto, eye bolts for securing said feet and cuffs to the bars, and means for attaching said bars to the forward end of the cultivator beams.

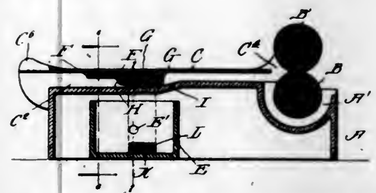
943,317. PROCESS OF TREATING GOLD. JOHN B. ROSSMAN, St. Paul, Minn. Filed Aug. 17, 1900. Serial No. 27,308.

1. The process of cleaning and separating gold occurring in refractory ores in which the gold particles are surrounded by physical coatings of base substances and greases and oils, which consists in loosening such coatings and acting upon the greases and oils by treating the ground ore with a solution of a cyanid and an alkali and synchronically therewith removing the coatings and grease and amalgamating the cleaned gold by subjecting the material to attrition between opposed surfaces exterior to the body of ore in the presence of mercury, then washing the cyanid and alkali from the pulp, and finally further loosening the coatings by treating the pulp with dilute sulfuric acid and synchronically therewith completing the removal of the coatings and the amalgamation of the cleaned gold by subjecting the material to attrition between opposed surfaces exterior to the body of ore in the presence of mercury.

2. The process of cleaning gold occurring in refractory ores in which the gold particles are surrounded by physical coatings of base materials, which consists in treating the ground ore with a solution of potassium cyanid and an alkali and synchronically therewith subjecting the material to severe attrition, then washing such solution from the pulp, and finally synchronically subjecting the pulp to further attrition and the action of an acid.

3. The process of cleaning gold occurring in refractory ores in which the gold particles are surrounded by physical coatings of base materials, which consists in treating the ground ore with a solution of potassium cyanid and an alkali and synchronically therewith subjecting the material to severe attrition, then washing such solution from the pulp, and finally synchronically subjecting the pulp to further attrition and the action of dilute sulfuric acid.

943,318. ENVELOP MOISTENER AND SEALER. FREDERICK ROTH, New York, N. Y. Filed Apr. 27, 1908. Serial No. 429,495.



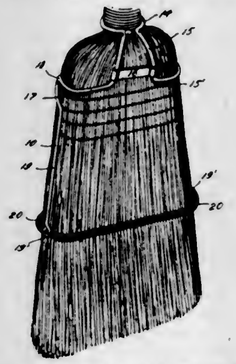
1. An envelop moistener and sealer comprising a base carrying a roll at one end, a water tank arranged within the base and connected thereto, a guide plate connected with said water tank and extending over the base, a moistening strip arranged upon the under side of the guide plate and extending into the water tank, an upper guide having a rear flange connected to the base, said upper guide carrying a roll adapted to contact with the roll carried by the base together with means for holding said rolls in position, as set forth.

2. In an envelop moistener and sealer, a base carrying a roll, a combined cover and guide also carrying a roll, said cover being pivotally connected to the base, a spring for holding the base and cover apart at one end, and the rolls in contact at the other end, and a combined lower guide and moistener arranged between the base and cover, said lower guide having a water tank, said tank being arranged in and connected with the base.

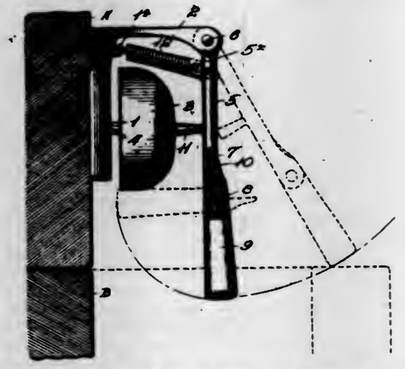
3. An envelop moistener and sealer comprising a hollow base having a trough at one end and a roller journaled in said trough, a top guide plate tapering toward the forward end and curved upwardly and carrying a roll at its rear end, said plate being pivotally supported above the base, a lower guide plate arranged between the base and top guide plate, a water tank to which said guide plate is connected, said water tank being arranged in and connected with the base, the lower guide plate tapering toward its rear free end, and provided with a channel in its lower face, and a moistening strip arranged in said channel and extending into the water tank, as set forth.

943,319. BROOM-BRIDLE. CHRISTIAN F. SCHULZ, Chicago, Ill. Filed Sept. 17, 1909. Serial No. 518,252.

The herein described broom bridle comprising a body portion formed of spring wire, said wire being bent at its middle portion into a vertical loop, thence into a horizontal clamping ring, thence into a downwardly extending arms terminating in shoulders, thence into outwardly extended hooks, and thence extending downwardly and terminating in substantially parallel legs, a pair of hasps for maintaining the parts of said body in proper position, one of the hasps being placed adjacent the top of said vertical loop and the other hasp being connected to said downwardly extending arms, and a pair of coiled springs connected to the lower ends of the said legs.



943,320. DOOR-BELL. FELIX SEXAUER, St. Louis, Mo. Filed Nov. 2, 1908. Serial No. 460,668.

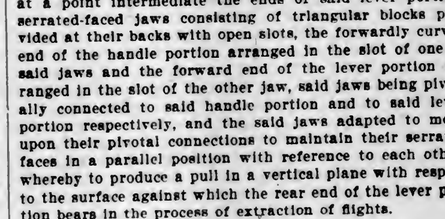


A door bell comprising a supporting bracket formed with a body having an outwardly projecting hook at the upper part thereof, a forwardly projecting horizontal arm, and a horizontal stem beneath the horizontal arm, a gong mounted upon the horizontal stem, a pendent arm pivoted to and suspended from the horizontal arm and having an inwardly projecting hook at the upper part thereof, and an inwardly projecting horizontal stop stem adapted to impinge against the gong, a depending hammer for striking the gong pivoted to the lower end of the pendent arm and having an upwardly extending finger adapted to bear against the outer face of the pendent arm, and a spring having its ends connected to the hooks.

943,321. HAIR-STRAIGHTENER. ISAAC K. SHERO, Okemah, Okla. Filed Mar. 8, 1909. Serial No. 482,063.

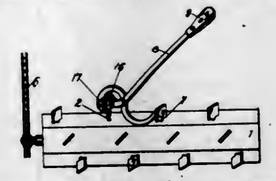
1. A device as specified comprising an arm, a helix formed at the rear end of said arm, a second arm extended forwardly upon said helix in parallel with said first arm, a loop formed intermediately on said second arm and engaged with said first arm for guiding the same, a pair of pressing irons disposed upon the outer ends of said arms and handles disposed on said arm between the loop and said helix.

2. A device as specified comprising a portion of wire bent to form an arm, a helix at one end of said arm, a second arm extended in parallel to said first arm and a loop intermediately formed on said second arm and engaged with said first arm, a pair of pressing irons engaged upon the outer extremities of said helix and a pair of handles disposed rearwardly on said arms.



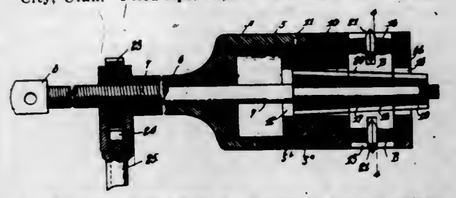
3. A hair straightening device comprising a portion of wire bent to form an arm, a helix at one end of said arm, a second arm extended from said helix in parallel to said first arm, a loop formed intermediately of said second arm and engaged with said first arm, a pair of handles disposed on said arms between said loop and said helix and a pair of rectangular plates having smooth inner opposite faces rigidly disposed in registered relation upon the outer extremities of said arm.

943,322. FLIGHT-EXTRACTOR. OTTO SOLES, Louisville, Ohio. Filed Mar. 19, 1908. Serial No. 422,004.



In a flight extractor of the character described the combination of a handle portion provided with a grip at one end and forwardly curved at the other end, a lever portion pivotally connected to said handle portion, the two ends of said lever portion being reversely curved with reference to each other, the forward end of said lever portion being curved downwardly and the rear end of said lever portion being curved upwardly, the point of pivotal connection between said handle portion and said lever portion being at a point intermediate the ends of said lever portion, serrated-faced jaws consisting of triangular blocks provided at their backs with open slots, the forwardly curved end of the handle portion arranged in the slot of one of said jaws and the forward end of the lever portion arranged in the slot of the other jaw, said jaws being pivotally connected to said handle portion and to said lever portion respectively, and the said jaws adapted to move upon their pivotal connections to maintain their serrated faces in a parallel position with reference to each other, whereby to produce a pull in a vertical plane with respect to the surface against which the rear end of the lever portion bears in the process of extraction of flights.

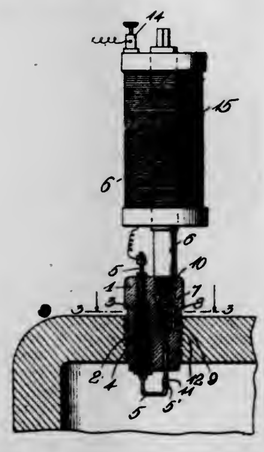
943,323. FLUE-CUTTER. JAMES P. SORENSEN, Salt Lake City, Utah. Filed Apr. 17, 1908. Serial No. 427,598.



A flue-cutter comprising a cylindrical socket having a rearwardly-extending tubular shank internally threaded

at its forward end, a feed screw extending through and having a threaded engagement with the shank and provided at its front end with a reduced portion defining a shoulder, a longitudinally-dovetailed mortised and tapered expanding member having a bore extending longitudinally therethrough for the passage of the reduced portion of the feed screw with which the expanding member is freely connected for rotation, the member being in engagement with the shoulder, a head member having a reduced externally-threaded rear portion engaging the internally-threaded front end of the socket, means for securing together the socket and the head member, the latter member being provided with a longitudinal aperture of a cross section corresponding with that of the expanding member which latter is guided therethrough and with a plurality of radial slots at its outer end, cutting members fitted for radial movement in the slots and having dovetailed tenons engaging the mortises of the expanding member, a face plate detachably secured upon the head member, and retaining the cutting members in place and means for rotating the tubular shank and parts connected therewith.

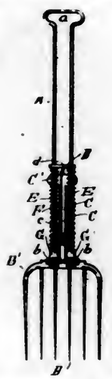
943,324. SPARKING DEVICE FOR GAS OR OIL ENGINES. WALDEMAR M. STEMPEL, Urbana, Ill. Filed Mar. 1, 1909. Serial No. 480,617.



1. A sparking device of the class described comprising an exteriorly threaded plug provided in its outer end with a longitudinal socket, a fixed insulated conductor extending longitudinally through the plug, and provided at its inner end with a sparking tip, an armature movable in the socket of the plug and provided with a sparking piece, a core screwing in the socket of the plug, a coiled spring in the socket of the plug around the inner end of the core to hold the sparking piece of the armature in contact with that of the fixed conductor and connections to magnetize the core when the circuit is completed through the timing mechanism of the engine.

2. A sparking device of the class described comprising an exteriorly threaded plug provided in its outer end with a longitudinal socket, a fixed insulated conductor extending longitudinally through the plug and provided at its inner end with a sparking tip, a core screwing into the socket of the plug and provided at its inner end with a reduced longitudinal extension, an armature movable longitudinally in the socket of the plug and having a sparking piece to contact or engage that of the fixed conductor, a spring in the socket of the plug around the extension of the core to normally hold the sparking point of the armature in contact with that of the fixed conductor, and connections to complete the circuit through the timing mechanism of the engine and magnetize the core.

943,325. POTATO-DIGGER. HORACE P. STEWART, Grand Rapids, Mich. Filed Sept. 20, 1909. Serial No. 518,710.

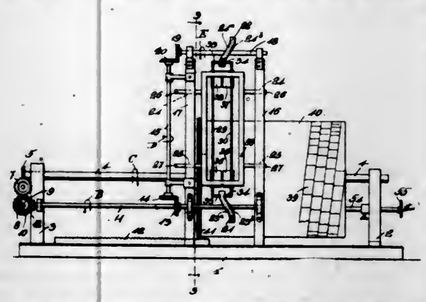


1. A potato digger consisting of a tined fork having a long shank projecting upward therefrom, bifurcated handles pivotally attached to the fork, heads formed on the handle near the pivotal bearings, a slide placed upon the handle and having an ear thereon, an ear on the shank, a link secured in the ears on the slide and the shank, and springs on the handle with one end pressing against the heads on the handle and the other end pressing against the slide on the handle.

2. A potato digger consisting of a tined fork having a long shank integral therewith, cross head at the end of the shank, a handle pivotally attached to the fork, a slide placed upon the handle and having an ear thereon, a corresponding ear on the shank near the fork, a link pivotally secured in the ear on the slide and the ear on the shank, heads on the handle near the pivotal bearing with the fork, springs encircling the handle and bearing at one end against the heads and at the other end against the slide.

3. A potato digger consisting of a fork having tines, a long shank integral with the fork, a cross head, a guard and an ear on the shank, a handle pivotally attached to the fork and having heads near the pivotal bearing, a slide on the handle, a link secured to the ear on the slide and to the ear on the shank, and springs encircling the handle and bearing against the heads at one end and against the slide at the other end, substantially as, and for the purpose set forth.

943,326. ART OF PROJECTING CONTINUOUS PHOTOGRAPHIC PICTURES. LOUIS L. THURSTONE, Jamestown, N. Y. Filed Oct. 12, 1908. Serial No. 457,329.



1. Means for projecting continuous photographic pictures comprising a transparent supporting body having a continuous picture record carried thereby, means for rapidly moving the supporting body, means for illuminating

the predetermined portions of said picture record from the interior of the transparent supporting body, means for reflecting the projected picture, and means for rendering said reflecting means inoperative.

2. Means for projecting a continuous picture record comprising illuminating means arranged to illuminate two of the pictures continuously, a plural set of reflecting mirrors angularly disposed and arranged to alternately receive the pictures projected from the record, and means for moving the mirrors so that the pictures will be projected in rapid succession and in the order of their exposure upon the screen.

3. Means for reflecting continuous photographic pictures comprising a transparent supporting body, means for illuminating the pictures carried by the body and projecting said pictures in a horizontal direction, means for rapidly reflecting the pictures in a vertical direction in the order of their exposure, means for reflecting the pictures from the vertical to a horizontal direction and over a course parallel to the original direction of projection.

4. Means for feeding a continuous picture record, illuminating means arranged to illuminate two of the pictures continuously, a plural set of reflecting mirrors angularly disposed and arranged to alternately receive pictures projected from the record and means for moving the mirrors so that the pictures will be projected in rapid succession and in the order of their exposure upon a screen.

5. Means for projecting continuous photographic pictures comprising means for moving a continuous picture record, a plurality of angularly disposed mirrors, means for projecting pictures in a horizontal direction on to the mirrors in rapid succession, angularly disposed reflecting mirrors arranged to receive the reflected pictures from the first mentioned mirrors, means for moving one set of mirrors into the light path and the other set of mirrors out of the light path, and means for enlarging the pictures reflected by the mirrors.

[Claims 6 to 34 not printed in the Gazette.]

943,327. PROCESS OF TREATING PORTLAND-CEMENT SURFACES AND PRODUCT. MAXIMILIAN TOCH, New York, N. Y. Filed Apr. 18, 1908. Serial No. 427,858.



1. The process of treating Portland-cement surfaces, which consists in first superficially hardening the cement by converting calcium therein into an organic-acid salt, and simultaneously providing the cement with a rough surface, and then applying a finishing coating.

2. The process of treating Portland-cement surfaces, which consists in first applying to the cement a mixture containing a dissolved organic acid and a suspended finely-divided inert solid, thereby simultaneously superficially converting calcium in the cement into a hard organic-acid salt and providing the cement with a rough surface, and then applying a finishing coating.

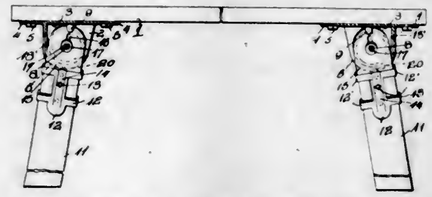
3. The process of treating Portland-cement surfaces, which consists in first applying to the cement a mixture of a vegetable oil containing a dissolved free acid and a suspended finely-divided inert solid, thereby simultaneously superficially converting calcium in the cement into a hard organic-acid salt and providing the cement with a rough surface, and then applying a finishing coating.

4. A Portland-cement construction having a rough surficial layer containing a calcium organic-acid salt, and a finishing coat superposed upon and adhering to said rough layer.

5. A Portland-cement construction having a rough surficial layer containing a calcium oil soap, and a finishing coat superposed upon and adhering to said rough layer.

[Claims 6 and 7 not printed in the Gazette.]

943,328. FOLDING TRESTLE. EZEKIEL F. WHITEHEAD, Newark, Ohio, assignor to Matilda Whitehead, Newark, Ohio. Filed May 17, 1909. Serial No. 496,376.



1. In a trestle of the class described, a pair of leg attaching members, each comprising a base plate having downwardly extending leg attaching ears adapted to engage the inner faces of the legs, leg attaching plates secured to the legs of the trestle and provided with offset upper ends adapted to fit against said ears, means to pivotally and slidably secure said offset ends to said ears whereby the legs may be swung into an extended or folded position, and means to fasten said plates in their adjusted positions.

2. In a folding trestle, a pair of leg attaching members, each of which comprises a base or securing plate having downwardly extending outwardly inclined leg attaching ears, said ears having formed therein locking notches, leg attaching plates, means to secure said plates to the top bar of the trestle, offset slotted members formed on the upper ends of said plates and to form a space between the same and the inner sides of the legs to receive said leg attaching ears, said offset members having formed therein elongated slots, fastening bolts arranged through said ears, and the slots in said fastening members, whereby said members and legs are slidably and pivotally secured to the ears, and locking lugs formed on the inner sides of said members and adapted to be engaged with the notches of said ears to assist in holding said legs in operative position.

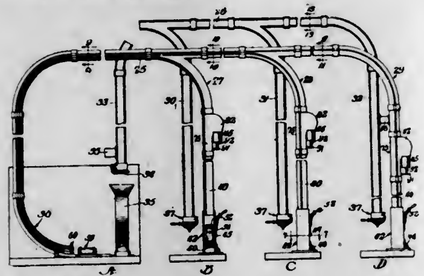
3. In a trestle of the character described, a top bar, a pair of leg attaching members each comprising a base plate adapted to be bolted to said top bar, downwardly extending inclined ears formed on the opposite side edges of said base plates, means to brace said ears, fastening lugs formed on said base plate and the inner sides of said ears, leg attaching plates secured to the inner sides of the trestle legs, leg engaging lugs formed on said plates, slotted attaching members formed on the upper ends of said plates, said members having notches adapted to be engaged with the fastening lugs on said base plate, and locking lugs formed on the inner sides of said extensions and adapted to be engaged with the notches in the edges of said ears when the legs are swung to an operative position, and fastening bolts to pivotally connect said fastening plates and legs to said ears.

4. In a trestle of the class described, a pair of leg attaching members, each comprising a base plate having downwardly extending leg attaching ears adapted to engage the inner faces of the legs, leg attaching plates secured to the legs of the trestle and having offset upper portions adapted to fit against said ears, means formed on the leg attaching ears, and leg attaching plates to hold the latter in operative or extended position, and means passing through the ears and leg attaching plates to hold the legs in an inwardly folded position.

943,329. PNEUMATIC-DESPATCH-TUBE SYSTEM. FRANKLIN H. WOLEVER, Chicago, Ill., assignor of one-half to Samuel Feist, Chicago, Ill., and one-half to The Illinois Pneumatic Transmission Co., a Corporation of South Dakota. Filed Aug. 10, 1908. Serial No. 447,733.

1. In a pneumatic despatch tube system, a despatch tube and its branches, the tube being provided with a sending terminal and provided at its sides with longitudinal, internal guides, arranged in pairs, with the guides of

each pair located at opposite sides of the tube, said guides originating at the sending terminal, and each pair of guides extending continuously from said sending terminal into one of said branches.



2. In a pneumatic despatch tube system, a despatch tube and its branches, the tube being provided with a sending terminal and provided at its sides with longitudinal, internal guides, arranged in pairs, with the guides of each pair located at opposite sides of the tube, said guides originating at the sending terminal, and each pair of guides extending continuously from said sending terminal into one of said branches, said guides being directed from the tube to the branches in a simple curve and occupying the walls in the branches corresponding to the walls occupied thereby in the tube.

3. In a pneumatic despatch tube system, the combination with a despatch tube provided with a sending terminal and with delivery terminals, and provided at its opposite side with longitudinal, internal guides originating at said sending terminal and extending continuously therefrom to the delivery terminals, said guides being arranged in pairs with the ends of each pair arranged vertically one over the other at said sending terminal, of a carrier provided at its opposite sides with lateral guides adapted for guiding engagement with the guides in the tube.

4. In a pneumatic despatch tube system, the combination with a despatch tube provided with a sending terminal and with delivery terminals, and provided in two opposite walls with internal guide grooves originating at said sending terminal and extending continuously therefrom to the delivery terminals, said grooves being arranged in pairs with the grooves of each pair located in opposite walls of the tube and the open ends of the grooves of said terminal bearing the same relation to each other as they do in the body of the tube.

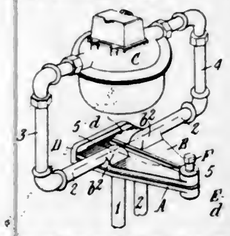
5. In a pneumatic despatch tube system, a despatch tube and its branches made of rectangular cross section and provided with a sending terminal, the tube being provided in its vertical walls with a plurality of internal, vertically separated guide grooves, the grooves of the two opposing walls being arranged in pairs, said grooves originating at said sending terminals and extending continuously therefrom to the branches, and each pair of grooves extending into one of said branches and occupying the side walls thereof.

[Claims 6 to 15 not printed in the Gazette.]

943,330. PIPE-COUPLING. JOHN C. YEARKE, Buffalo, N. Y., assignor of one-half to Albert F. Yearke, Buffalo, N. Y. Filed Feb. 15, 1909. Serial No. 477,973.

1. A pipe coupling or connection for meters comprising a lower horizontal member, an upper horizontal member adapted to rest upon the lower member and forming a supporting base for the meter, service pipes connected to the lower member, pipes connecting the upper member with the meter and registering with the service pipes, and detachable interlocking connections between the upper and lower members which are arranged on opposite sides of said pipes, one of said connections being exposed at one side of said meter, substantially as set forth.

2. A pipe coupling or connection for meters comprising a lower horizontal member, an upper horizontal member adapted to rest upon the lower member and forming a supporting base for the meter, service pipes connected to the lower member, pipes connecting the upper member with the meter and registering with the service pipes, and means for detachably connecting said members which is exposed on the upper side of the upper member at one side of said meter, substantially as set forth.

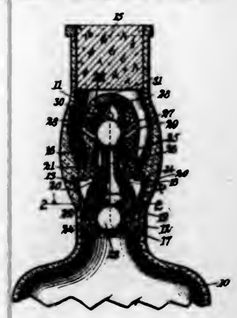


3. A pipe coupling or connection for meters comprising a lower horizontal member, an upper horizontal member adapted to rest upon the lower member and forming a supporting base for the meter, service pipes connected to the lower member, pipes connecting the upper member with the meter and registering with the service pipes, and detachable interlocking connections between the opposite ends of the upper and lower members, substantially as set forth.

4. A pipe coupling or connection for meters comprising a lower horizontal member, an upper horizontal member adapted to rest upon the lower member and forming a supporting base for the meter, service pipes connected to the lower member, and pipes connecting the upper member with the meter and registering with the service pipes, said members having integral interlocking portions at one end and a detachable connection at the opposite end which is exposed upon the upper side of the upper member, substantially as set forth.

5. A pipe coupling or connection for meters comprising a lower horizontal member, an upper horizontal member adapted to rest upon the lower member and forming a supporting base for the meter, service pipes connected to the lower member, and pipes connecting the upper member with the meter and registering with the service pipes, said lower member being provided at one end with an upturned lug having an opening therein and said upper member having at its corresponding end a tongue which is adapted to fit within said opening for locking said ends together, and means for detachably connecting the opposite ends of said members, substantially as set forth.

943,331. NON-REFILLABLE BOTTLE. HIRAM C. ANDERSON, Unionport, and FRANK S. ASH, New York, N. Y. Filed Feb. 4, 1909. Serial No. 475,965.

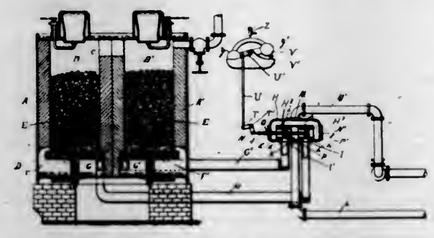


1. In a non-refillable bottle having an outlet, a plug in said outlet, said plug having chambers therein, a passage connecting said chambers and movable members within said chambers and adapted to close the same when in predetermined positions, to prevent the flow of fluid through said chambers, said plug having openings for one of said chambers above and below said movable member therein, said plug further having passages constituting by-passes and communicating interiorly with one of said chambers at separated points thereof.

2. In a non-refillable bottle, an outlet neck, a plug in said neck and having open-ended chambers therein, the first chamber having an outlet tube discharging in said second chamber, and independent valve members loosely arranged in said chambers and adapted to close respectively the open end of said first chamber and said outlet tube in said second chamber, said plug having openings for said second chamber above and below said valve member therein.

3. In a non-refillable bottle, an outlet neck, a plug in said neck and having a chamber therein, said chamber being open at the lower end, said plug having a second chamber therein, said first chamber having an outlet tube projecting into said second chamber, and unconnected and independent valve members movably arranged in said chambers respectively, said second chamber having a constricted part whereby the movement of said valve member in said second chamber is more limited than the movement of said valve member in said first chamber, said plug having passages constituting by-passes and communicating interiorly with said first chamber at separated points thereof, said plug further having openings for said second chamber above and below said valve member of said second chamber.

943,332. GAS-PRODUCER VALVE. BAXTER M. ASLAKSON, Salem, Ohio. Filed Jan. 16, 1908. Serial No. 411,049.



1. A valve of the character described comprising a casing having a second casing formed therein, in which are formed annular chambers to serve as cooling chambers, ports formed in said second casing, a valve controlling said ports, and means for automatically actuating said valve.

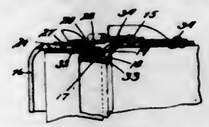
2. A valve of the character described, comprising a casing having a second casing formed therein, in which are formed annular chambers to serve as cooling chambers, ports formed in said second casing, a valve controlling said ports, and having a cooling chamber formed therein: and means for conducting a cooling fluid from the exterior of said casing to within said last named chamber and causing same to circulate therein and to conduct said fluid therefrom through a separate outlet.

3. A valve of the character described, comprising a casing having a second casing formed therein in which are formed annular chambers to serve as cooling chambers, ports formed in said second casing, a valve controlling said ports, and having a cooling chamber formed therein: and a tube extending into said chamber and forming an annular passage provided with an outlet from said chamber.

4. A valve of the character described, comprising a casing having a second casing formed therein, in which are formed annular chambers to serve as cooling chambers, ports formed in said second casing, a valve controlling said ports, and having a cooling chamber formed therein: and means for operating said valve automatically at predetermined intervals of time.

5. A valve of the character described, comprising a casing having a second casing formed therein, in which are formed annular chambers to serve as cooling chambers, ports formed in said second casing, a valve controlling said ports, and having a cooling chamber formed therein; and means for operating said valve automatically at predetermined intervals of time.

943,333. SUIT-CASE. BENJAMIN F. BECKER, Glencoe, Ill. Filed June 24, 1909. Serial No. 504,030.



1. In a receptacle the combination with a body part of flexible material, of a rigid frame to give a bevel to the edge of said body part, the sides of said frame being perpendicular to the plane of its outer edge relative to the receptacle, means at said outer edge of said frame for securing thereto the edge of the body part, and a projection on the frame inwardly thereof, the edge of said body part extending diagonally across the space between the sides of the frame and the projection so as to form the bevel.

2. In a receptacle the combination with a body part of flexible material, of a sheet metal frame to give a bevel to the edge of said body part, said frame being perpendicular to the plane of the outer edge thereof relative to the receptacle, and the metal at the outer edge of said frame being turned over so as to engage the edge of the body part; and a projection on said frame inwardly of the outer edge thereof, the edge of said body part extending diagonally across the space between the sides of the frame and the projection so as to form the bevel.

3. In a receptacle the combination with a body part of flexible material, of a sheet metal frame to give a bevel to the edge of said body part, the sides of said frame being perpendicular to the plane of the outer edge thereof relative to the receptacle, and means at the outer edge of the frame for securing thereto the edge of the body part; the inner edge of said frame being bent outwardly so as to constitute a rib, the edge of said body part extending diagonally across the space between the sides of the frame and the projection so as to form the bevel.

4. In a receptacle the combination with a body part of flexible material, of a sheet metal frame to give a bevel to the edge of said body part, the sides of said frame being perpendicular to the plane of the outer edge thereof relative to the receptacle, the metal at the outer edge of said frame being turned over so as to engage the outer edge of said body part and the inner edge of said frame being bent outwardly so as to constitute a projecting rib the edge of said body part extending diagonally across the space between the sides of the frame and the projection so as to form the bevel.

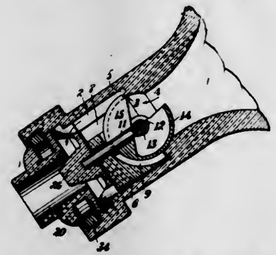
5. In a receptacle the combination with a body part of flexible material, of a sheet metal frame to give a bevel to the edge of said body part, the sides of said frame being perpendicular to the plane of the outer edge thereof relative to the receptacle, the metal at the outer edge of said frame being turned over so as to engage the outer edge of said body part, and the inner edge of said frame being bent outwardly and back upon itself so as to constitute a rib having a smooth edge, the edge of said body part extending diagonally across the space between the sides of the frame and the projection so as to form the bevel.

[Claims 6 and 7 not printed in the Gazette.]

943,334. NON-REFILLABLE BOTTLE. JOSEPH BIRNER, Elizabeth, and EDWARD J. HEIL, Carteret, N. J. Filed Aug. 20, 1909. Serial No. 513,848.

1. A non-refillable bottle having a neck and a valve chamber formed therein, a plug mounted in said valve chamber and presenting a pocket with a concavely curved

face on the under side thereof; a curved valve rotatably mounted below said pocket and having a face guided along the said curved face of said pocket, said valve having its center of gravity removed from the axis of rotation thereof, and means mounted in said bottle neck beyond said plug obstructing the mouth of the bottle, said bottle having a duct by means of which a fluid may pass said plug.



2. A non-refillable bottle having a neck with a valve chamber therein, a fixed plug mounted in said valve chamber and having a duct formed at the side thereof, a substantially hemispherical valve rotatably mounted below said plug, normally closing said neck and having its center of gravity removed from its axis of rotation, whereby said valve tends to rotate when the neck of the bottle is disposed in an inclined position, and means in said neck beyond said plug for obstructing the neck.

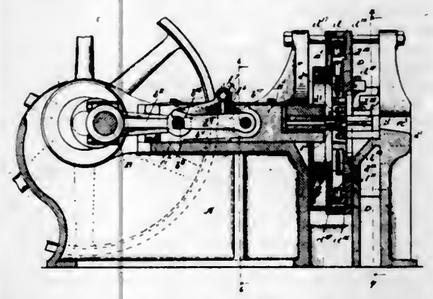
3. A non-refillable bottle having a neck and a valve chamber formed therein, a plug received in said valve chamber, presenting a duct on one side and having a pocket on the under side thereof, presenting a concave wall constantly on the under side thereof, a valve in the form of a hemispherical shell having upwardly extending guide members at one side thereof normally received in said pocket, said valve having its center of gravity removed from the axis of rotation thereof, whereby said valve may open when said bottle neck is tilted to pour from the bottle, and a crown mounted in the bottle neck above said plug and affording means for supporting said valve.

4. A non-refillable bottle having a valve chamber in the neck thereof, a plug mounted in said neck and presenting a duct at the side thereof, a crown mounted in said neck above said plug, a stem passing downwardly from said crown, and a substantially hemispherical valve supported on said stem to rotate on a horizontal axis, the center of gravity of said valve being removed from the axis of rotation thereof, whereby said valve tends to rotate to its open position when the bottle neck is tilted to pour from the bottle.

5. A non-refillable bottle having a neck with a valve chamber formed therein, said valve chamber having a guide lip in the bottom thereof, a plug seating on said guide lip having a pocket formed and constantly maintained on the under side thereof, a substantially hemispherical valve rotatably mounted below said plug and having its upper portion received in said pocket, said valve having its center of gravity removed from the axis of rotation thereof, whereby said valve tends to rotate when the bottle neck is inclined to pour from said bottle, a crown mounted in the bottle neck above said plug, means for supporting said valve from said crown, and a tubular mouth piece mounted in said neck beyond said crown.

943,335. BOLT-HEADER. JOHN R. BLAKESLEE, Cleveland, Ohio, assignor to The Ajax Manufacturing Company, Cleveland, Ohio, a Corporation of Ohio. Filed Aug. 15, 1907. Serial No. 388,610.

1. In a machine of the class described, the combination of a reciprocable upsetting-die; a transversely reciprocable die for gripping the stock; transversely reciprocable header-dies; a transversely disposed rotatable shaft; means connecting the transverse shaft with the upsetting-die; a longitudinally disposed rotatable shaft; means borne by the longitudinal shaft adapted to reciprocate the gripping die; means connecting the longitudinal shaft with the header-dies; and means operated by the rotation of the longitudinal shaft adapted to interrupt connection between said shaft and the header-dies.



2. In a machine of the class described, the combination of a reciprocable upsetting-die; a transversely reciprocable die for gripping the stock; transversely reciprocable header-dies; a transversely disposed rotatable shaft; means connecting the transverse shaft with the upsetting-die; a longitudinally disposed rotatable shaft; means borne by the longitudinal shaft and respectively adapted to reciprocate the gripping die and to interrupt the connection between the transverse shaft and the upsetting die; means connecting the longitudinal shaft with the header-dies; and means operated by the rotation of the longitudinal shaft and adapted periodically to interrupt connection between said shaft and the header-dies.

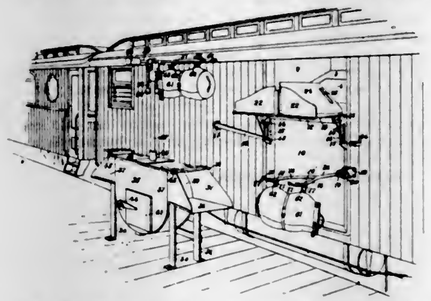
3. In a machine of the class described, the combination of a reciprocable upsetting-die; a transversely reciprocable die for gripping the stock; transversely reciprocable opposed header-dies; a transversely disposed rotatable shaft; means connecting the transverse shaft with the upsetting-die; a longitudinally disposed rotatable shaft; cams borne by the longitudinal shaft and respectively adapted periodically to reciprocate the gripping die and to interrupt the connection between the transverse shaft and the upsetting-die means connecting the longitudinal shaft with the header-dies; and means operated by the rotation of the longitudinal shaft and adapted periodically to interrupt connection between said shaft and the header-dies.

4. In a machine of the class described, the combination of a reciprocable upsetting die; a transversely reciprocable die for gripping the stock; transversely reciprocable opposed header-dies; a transversely disposed rotatable shaft; means connecting the transverse shaft with the upsetting-die; a longitudinally disposed shaft geared to the transverse shaft; cams borne by the longitudinal shaft and respectively adapted periodically to reciprocate the gripping-die and to interrupt the connection between the transverse shaft and the upsetting-die; means connecting the longitudinal shaft with the header-dies; and a cam controlled clutch borne by the longitudinal shaft and adapted periodically to interrupt connection between said shaft and the header-dies.

5. In a machine of the class described, the combination of a transversely rotatable shaft; a longitudinal shaft geared to the transverse shaft; a transversely reciprocable gripping-die; a cam on the longitudinal shaft and adapted periodically to close the gripping-die; a longitudinally reciprocable upsetting-die; means connecting the transverse shaft with the upsetting-die and adapted to reciprocate said die subsequently to the closing of the gripping-die; a cam on the longitudinal shaft and adapted to periodically interrupt the connection between the transverse shaft and the upsetting-die; transversely reciprocable opposed header dies; means connecting the longitudinal shaft with the header-dies; and means operated by the rotation of the longitudinal shaft and adapted to interrupt connection between said shaft and the header-dies during the reciprocation of the gripping-die and the upsetting-die.

[Claims 6 to 9 not printed in the Gazette.]

943,336. MAIL-CATCHER. ARTHUR M. BRIDGEWATER, Denver, Colo., assignor of one-third to William C. Lyons and one-third to Charles E. Shuffelbarger, Denver, Colo. Filed Apr. 28, 1909. Serial No. 492,636.



1. In a mail catcher, the combination with a car, of an apron, a pair of guides for said apron, a deflector for said guides, a receptacle connected to said apron, and a door on the under side of said receptacle.

2. In a mail catcher, the combination with a car, of an apron pivoted to said car, a pair of guides for said apron, a deflector for said guides, pivoted between said guides, and means adapted to lock said deflector in working relation with either of said guides.

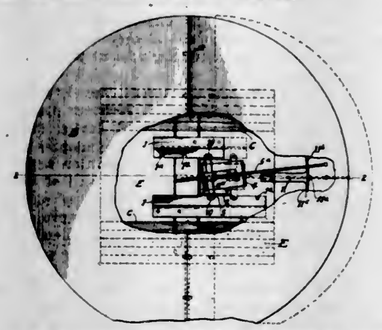
3. In a mail catcher, the combination with a car, of an apron pivoted to said car, a pair of guides on said apron, a deflector pivoted to said apron between said guides, locking means on said apron adapted to hold said deflector in working relation with either of said guides, a receptacle on said car, and a door in the bottom of said receptacle.

4. In a mail catcher, the combination with a car, of an apron pivoted to said car, a link pivoted to said apron, having a sliding engagement with said car, and a lever pivoted to said car and connected to said link.

5. In a mail catcher, the combination with a car, of an apron pivoted to the car, a lever adapted to operate said apron, a spring adapted to operate said lever, and means for locking said lever to the car.

[Claims 6 to 31 not printed in the Gazette.]

943,337. EXTENSION-TABLE. CHARLES S. BURTON, Oak Park, Ill., assignor to Emil Tyden, Hastings, Mich. Filed Mar. 20, 1909. Serial No. 484,762.



1. In an extension table having top members movable relatively to a supporting member for admission of fillers, in combination with such supporting and top members, an escapement device comprising a feeding element having two back-and-forth movements, one longitudinal of the table and the other transverse thereto; means for limiting the longitudinal movement to half a filler-width distance and for preventing such movement except at the limits of the transverse movement, and means on the top members respectively for engagement by such feeding element at the respective limits of the transverse movement.

2. In an extension table having top members movable relatively to a supporting member for admission of fillers, in combination with such supporting and top members, an escapement device comprising a feeding element having two back-and-forth movements, one longitudinal of the table and the other transverse thereto; means for limiting the longitudinal movement to a half filler-width distance; an obstruction in the path of the transverse movement which is cleared only at the limits of the longitudinal movement, and means on the top members respectively for engagement by such feeding device at the respective limits of the transverse movement.

3. In an extension table having top members movable relatively to a supporting member for admission of fillers, in combination with such supporting and top members, an escapement device comprising a feeding element mounted for longitudinal reciprocation on the supporting member and adapted at the opposite limits of its rocking movement to engage the opposite top members respectively; means for limiting the reciprocation of such element to a half filler-width distance and for preventing the rocking except at the limits of said reciprocating movement.

4. In an extension table having top members movable relatively to a supporting member for admission of fillers, in combination with such supporting and top members, an escapement device comprising a feeding element mounted on the supporting member for three back-and-forth movements, the first longitudinal of the table, the second rocking about a longitudinal axis, and the third swinging about a vertical axis; means for limiting the longitudinal movement to half a filler-width distance and for preventing the rocking movement except at the limits of such longitudinal movement; means on the top members respectively for engagement by such feeding device at the respective limits of the rocking movement adapted to be both engaged by said device midway in the rocking movement, and means for swinging the device about the vertical axis when thus engaged with both top members.

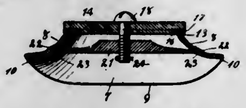
5. In an extension table having top members movable relatively to a supporting member for admission of fillers, in combination with such supporting and top members, an escapement device comprising a feeding element mounted on the supporting member for three back-and-forth movements;—the first, longitudinal of the table; the second, rocking about a longitudinal axis, and the third, swinging about a vertical axis; means for limiting the longitudinal movement to half-filler-width distance and for preventing the rocking movement except at the limits of such longitudinal movement; means on the top members respectively for engagement by such feeding device at the respective limits of the rocking movement adapted to be both engaged by said device midway in the rocking movement; means for swinging the device about the vertical axis when thus engaged with both top members, and means for releasably locking said device at one limit of its said swinging movement.

[Claims 6 to 13 not printed in the Gazette.]

943,338. REMOVABLE CAP FOR PIPES. EPHRAIM J. CARTER and LOUIS J. HOULE, East Concord, N. H. Filed Apr. 28, 1909. Serial No. 492,801.

1. In a device for the purpose stated, the combination with a pipe having an aperture therein, of a collar surrounding said aperture and overlapping the edges thereof, a cover for the collar, and removable means for locking the cover on the collar, said locking means comprising an adjustable member passing through the cover and a bar engaging the inner walls of the collar, and engaged by said adjustable member.

2. In a device for the purpose stated, the combination with a pipe having an aperture therein, of a collar surrounding said aperture, and conforming to the walls of the pipe adjacent the aperture, a cover engaging the collar and means for removably securing said cover on said collar, said means comprising a screw passing through the cover, a locking bar engaged by said screw and having its ends engaging the inner walls of the collar.

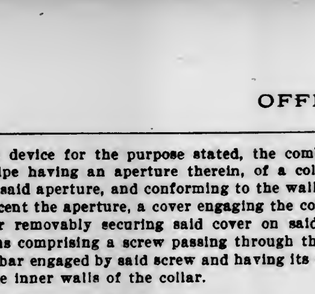


3. A device for the purpose specified, comprising a collar adapted to be attached to a pipe, a grooved cover seated on the collar, a gasket engaging said groove and means for retaining the cover on its seat, said means comprising a screw passing through said cover, and a lock bar attached to the screw within the collar, the ends of the said bar engaging recesses in the walls of the collar.

4. In a device for the purpose stated, the combination with a pipe having an aperture therein, of a collar surrounding the aperture, and attached to the pipe by soldering, a cap engaging the collar, a gasket for the cap, and clamping means for removably securing the cap to the collar, said clamping means comprising a screw passing through the cap, a clamping bar extending longitudinally within the collar and having its ends engaging the walls of the collar, and means for retaining the bar on said screw.

5. In a device of the character described, a collar having outwardly flaring walls conforming in part to the shape of the pipe to which it is secured and having its free edges projecting from the surface of the pipe, a cover seated on the free edges of said collar, means for effecting a tight joint between the collar and cover, and means for removably connecting the cover and collar.

943,339. SOUND-BOX. WILLIAM A. CHAPMAN, Smithville, Ark. Filed Oct. 28, 1908. Serial No. 459,887.



1. In a sound box, a diaphragm, a stylus bar controlling said diaphragm and having a yoke at substantially right angles thereto, and a fulcrum engaging said yoke, whereby said bar is mounted to swing transversely of the plane of said diaphragm, said fulcrum being at an acute angle with the direction of the length of said bar, said bar lying in a plane substantially parallel to that of said diaphragm.

2. In a sound box, a casing, a diaphragm therein, a stylus bar lying in a plane substantially parallel to that of said diaphragm, a fulcrum point at each side of said bar and rigid with said casing, said stylus bar having seats adapted to receive said points, said seats and said points having the directions of their lengths at angles of 45° with the direction of the length of said bar, and resilient members engaging said stylus bar at both sides thereof to hold the same in engagement with said points, said points lying on a line at substantially right angles with the length of said bar.

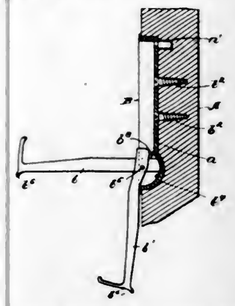
3. In a sound box, a casing having rigid laterally inclined fulcrum points, a stylus bar intermediate said points and having a laterally extended yoke at substantially right angles to said bar and presenting seats adapted to receive said points, said seats being laterally inclined, a diaphragm in said casing, a stylus arm secured to said diaphragm and rigid with said stylus bar, and resilient members engaging said stylus bar whereby an inward and upward pressure is exerted thereagainst, said bar lying in a plane substantially parallel to that of said diaphragm.

4. In a sound box, a casing, a stylus bar pivotally carried by said casing, a diaphragm within said casing and controlled by said stylus bar, a resilient keeper carried by said casing, and a member loosely positioned between said keeper and said stylus bar and engaging both of the same.

5. In a sound box, a casing, a diaphragm therein, a stylus bar pivoted upon said casing and having lateral extensions, spring keepers carried by said casing and each having an end adjacent to the end of one of said extensions, and rollers between said extensions and said keepers and engaging the same whereby said stylus bar is loosely held in place.

[Claims 6 to 14 not printed in the Gazette.]

943,340. GARMENT-HANGER. CHRISTOPHER CLIFT, New York, N. Y., assignor to The Clift Company, Cleveland, Ohio, a Corporation of Ohio. Filed May 4, 1907. Serial No. 371,775.



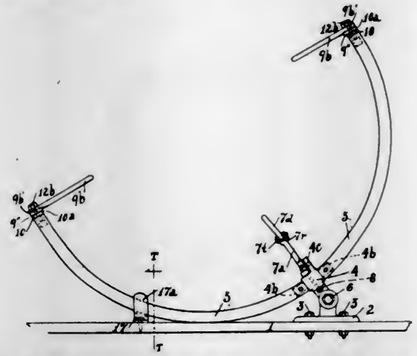
1. A hanger comprising a supporting member; hanger members pivotally mounted in said supporting member; means adapted to engage one of said hanger members to retain the same in an outwardly projecting position; and means adapted to engage the other of said hanger members to support the same in a pendent position, the said hanger members being adapted in their inoperative positions to lie substantially flush with said supporting member.

2. A hanger comprising a supporting member; two hanger members pivotally mounted side by side in said supporting member, said hanger members being adapted in their inoperative positions to lie substantially flush with said supporting member; and a lug on the rear wall of the latter for limiting the downward movement of one of said hanger members to hold the same in an outwardly projecting position, the movement of the other of said members being limited only by its engagement with the edge of the supporting member.

3. A hanger comprising a housing adapted to be secured to a suitable support; two hanger members disposed side by side in said housing, said members having their lower ends pivotally secured thereto and being adapted normally to be retained by gravity in a closed position with respect to said housing; and a lug on the rear wall of said housing for limiting the downward movement of one of said members to hold the same in an outwardly projecting position, the movement of the other of said members being limited only by its engagement with the edge of the housing.

4. A hanger comprising a housing adapted to be secured to a suitable support and having a curved recess formed in the lower portion, and a transverse slot in the upper portion, of its rear wall; two independent hanger members disposed side by side in said housing, said members being pivotally secured near their lower ends on a transverse axis in front of such recess, such axis being disposed to allow said members normally to be held by gravity in a closed position with respect to said housing, and the hooks of said members when thus closed being received in the slot in said housing; and a lug on the rear wall of said housing just above such recess adapted to engage the lower end of one of said members to retain the latter in an outwardly projecting position, the movement of the other member being limited only by its engagement with the edge of the housing.

943,341. TIRE-SUPPORTER. SAMUEL T. COATE and JOHN T. SARIS, Springfield, Ill. Filed Dec. 24, 1908. Serial No. 469,135.



1. In a tire supporter, the combination of a base, a block pivotally mounted on said base, a tire holder mounted on said block, an arch fixed on said block, and tire holders mounted on said arch.

2. In a tire supporter, the combination of a standard, a hinge block pivotally supported on said standard, an arch-section secured on said hinge block, a tire holder detachably connected with said hinge block, and tire holders detachably connected with said arch-section respectively.

3. In a tire holder, the combination of a stationary member having branching arms, a movable member having branching arms complemental to the arms of said stationary member, means pivotally connecting one arm of said movable member with one arm of said stationary member, detachable means for connecting the free ends of said members, and means adapted to press said members apart to prevent rattling.

4. The combination of a main structure, a vertical member fixed on the main structure and having a serrated face and a transverse hole, a tire holder having serrations matching the serrations on said vertical member, and a connecting device fitting the hole in said vertical member and connecting said tire holder with said vertical member.

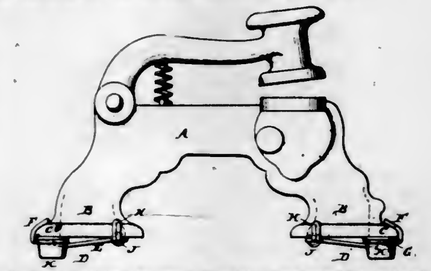
5. In a tire supporter, the combination of a base attachable to the running board of the vehicle, a main structure having a hinge connection with said base and adapted to turn in a plane parallel to the side of the vehicle on which the tire supporter is mounted, and adjustable tire holders on said tire supporting structure adapted to support a plurality of tires parallel to the vehicle body.

[Claims 6 to 8 not printed in the Gazette.]

943,342. CUSHIONED SUPPORT FOR STAMPING DEVICES. JOSEPH DUBISEE, Philadelphia, Pa., assignor of one-half to Francis J. Lambert, Philadelphia, Pa. Filed June 5, 1909. Serial No. 500,272.

1. In a cushion support for stamping machines, a wire frame having upwardly extending overhanging clamping jaws, combined with a plurality of downwardly extending yielding feet secured to said frame.

2. In a cushion support for stamping machines, a wire frame having upwardly extending overhanging clamping jaws and also having a plurality of looped portions, combined with a plurality of downwardly extending yielding feet secured to the looped portions of said frame.



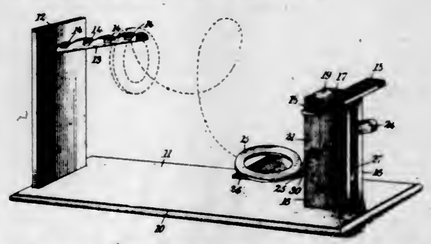
3. In a cushion support for stamping machines, a wire frame having a plurality of upwardly extending clamping jaws and looped portions intermediate of the jaws, combined with downwardly extending cushion feet having annular grooves to receive the looped portions of the frame and having flanged portions extending above the looped portions of the frame.

4. In a cushion support for stamping machines, a wire frame having a plurality of upwardly extending clamping jaws and looped portions intermediate of the jaws, combined with downwardly extending cushion feet having annular grooves to receive the looped portions of the frame and having flanged portions extending above the looped portions of the frame, and a spring device for drawing two of the clamping jaws toward each other.

5. In a cushion support for stamping devices, a wire frame bent into substantially U shape and having its middle portion bent into an upwardly extending jaw and its end portions also bent into upwardly extending jaws, combined with elastic portions secured to the frames intermediate of the jaws and extending downward and away from the jaws.

[Claims 6 to 9 not printed in the Gazette.]

943,343. GAME. PIERRE V. ERICSON, New York, N. Y. Filed June 16, 1909. Serial No. 502,474.

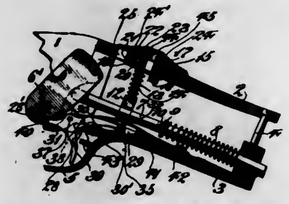


1. A game, comprising a projecting device, a projectile having an opening and adapted to be advanced by said projecting device, and an elongated receiving member formed to extend through and arranged to hold said projectile at any one of a plurality of points representing different denominations.

2. A game, comprising a projecting device, a ring-shaped projectile adapted to be advanced by said projecting device and to turn while in flight, and an elongated receiving member formed to extend through and adapted to hold said projectile at any one of a plurality of points having different denominations.

3. A game, comprising a receiver, consisting of an inclined member having a plurality of notches representing different denominations, a projecting device, and an annular projectile adapted to be advanced by said projecting device toward said receiver.

943,344. MOVEMENT FOR FIREARMS. HENRY B. FEBIGER, New Orleans, La. Filed July 16, 1909. Serial No. 507,883.



1. In a device of the character stated, a trigger having a sear, an auxiliary sear, a trigger spring rod, a trigger spring, and pivoted means between the trigger spring rod and the auxiliary sear adapted to disengage the auxiliary sear when the trigger is released.

2. In a device of the character stated, a trigger having an integral sear, an auxiliary sear pivoted concentrically with the trigger pivot, an auxiliary sear release lever cooperating with said auxiliary sear, and means pressing the trigger normally forward and engageable with movement of the trigger to disengage the auxiliary sear by pressure upon the auxiliary sear release lever.

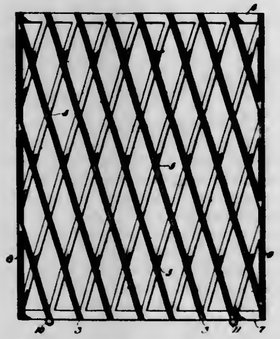
3. In a device of the character stated, a trigger having a sear, an auxiliary sear pivoted concentrically with the trigger pivot, an auxiliary sear release lever, and means for normally pressing the trigger forward and operating the auxiliary sear release lever.

4. In a device of the character stated, a trigger having a sear on one side and a lever arm on the other side of its pivotal point, an auxiliary sear having a lever arm upon the other side of the pivotal point thereof from the sear, a pivoted auxiliary sear disengaging lever having one end engaging the lever arm of the auxiliary sear and the other end extending upon the opposite side of its pivot and in proximity to the lever arm of the trigger, and means for normally pressing upon the trigger lever arm, to disengage the auxiliary sear with forward movement of the trigger.

5. In a device of the character stated, a trigger having an integral sear, an auxiliary sear, and means engageable with the trigger to force it downwardly and to release the auxiliary sear by engagement with a portion of the trigger.

[Claims 6 to 15 not printed in the Gazette.]

943,345. STORAGE BATTERY. LOUIS H. FLANDERS, Wilkinsburg, Pa., assignor, by mesne assignments, to Westinghouse Storage Battery Company, a Corporation of New York. Filed Feb. 23, 1905. Serial No. 246,041.



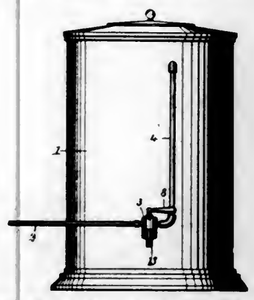
1. A separator comprising superimposed and diagonally extending intersecting members provided with a binding and mounting frame, each diagonal member being approximately one-half the thickness of the frame.

2. A separator comprising superimposed and diagonally extending intersecting members provided with an integrally formed binding and mounting frame, each diagonally extending member being one-half the thickness of the frame.

3. A separator comprising superimposed and diagonally extending intersecting members provided with a binding or mounting frame comprising flanged members and relatively thin end binding strips formed between the ends of the superimposed members.

4. A separator comprising superimposed obliquely extending and intersecting members and a binding or mounting frame comprising laterally formed members provided with integrally formed holding lugs located between the ends of the superimposed members.

943,346. FAUCET. HERMAN FORSMAN, Fresno, Cal. Filed Dec. 18, 1907. Serial No. 407,006.



1. A faucet having a plurality of inlets, a plurality of outlets, a plug having passages adapted simultaneously to effect communication between said inlets and said outlets respectively, one of said passages having guides, a valve member slidable in said guides and adapted to regulate the flow of fluid through said passage having said guide, a rack carried by said valve member, a pinion adapted to engage said rack, and means for manually controlling said pinion from the outside of said faucet.

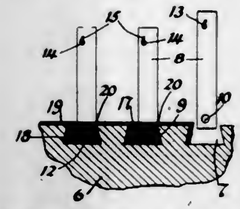
2. A faucet, having a filling inlet and a filling outlet, a discharge inlet and a discharge outlet, a plug having a plurality of passages therethrough, certain of said passages being adapted simultaneously to effect communication between said respective inlets and outlets, one of said passages being adapted to effect communication between said filling inlet and said filling outlet when said other passages are closed and means for limiting the movement of said plug, whereby the registering of said inlets and said outlets with said passages is insured.

3. A faucet, having a filling inlet and a filling outlet, a discharge inlet and a discharge outlet, and a plug having a plurality of independent passages therethrough, certain of said passages being adapted simultaneously to effect communication between said respective inlets and outlets when said plug is in a predetermined position, one of said passages being adapted to effect communication between said filling inlet and said filling outlet in a second predetermined position of said plug such that said other passages are closed, and means for regulating the flow through the passage which is operative when the other of said passages are closed.

4. A faucet, having a filling inlet and a filling outlet, a plug having a plurality of passages therethrough, means for adjusting one of said passages, means for operating said means from the outside of the faucet, said passages being adapted simultaneously to effect communication between said inlets and said outlets respectively, said adjustable passage being adapted to connect said filling inlet and said filling outlet, said plug having a third passage adapted to effect communication between said filling inlet and said filling outlet when said other inlet and said other outlet are closed, and removable means for limiting the movement of said plug.

5. A faucet, having a filling inlet and a filling outlet, a discharge inlet and a discharge outlet, a plug having a plurality of passages therethrough, a valve in one of said passages, means operable from the outside of the faucet for adjusting said valve to control the flow through said passage, said passages being adapted simultaneously to effect communication between said inlets and said outlets respectively, said passage having said valve being adapted to connect said filling inlet and said filling outlet, said plug having a third passage independent of said first passages and adapted to effect communication between said filling inlet and said filling outlet when said other inlet and said other outlet are closed, and a removable stop limiting the movement of said plug, said stop preventing the movement of said plug into a position such that said third passage is operative.

943,347. BLADING FOR TURBINES. FRANCIS HODGKINSON, Edgewood Park, Pa., assignor to The Westinghouse Machine Company, a Corporation of Pennsylvania. Filed May 26, 1908. Serial No. 435,076.



1. The combination of the turbine element provided with a slot, blade securing means in said slot, a protector element for the turbine element having a portion in the slot and wedges interposed between the protector element and the blade-securing means, the wider portion of said wedges being at the bottom of the slot whereby the blade holding means, the wedges and the protector element are held against displacement.

2. A turbine element provided with an undercut slot, blade holding means in said slot, a lining, having a portion extending into the slot, and wedges interposed between the lining and blade holding means.

3. A turbine element having an undercut slot, a plurality of alternately arranged blades and spacing pieces in said slot, said blades and spacing pieces having an aligning opening and binding member passing through said opening, a lining for the turbine element having a portion extending into the slot and wedges interposed between the blades and spacing pieces and the lining member, said wedges being in a slot.

943,348. BLADE-HOLDING MEANS. FRANCIS HODGKINSON, Edgewood Park, Pa., assignor to The Westinghouse Machine Company, a Corporation of Pennsylvania. Filed May 26, 1908. Serial No. 435,077.



1. A motor element having a slot, alternately arranged blades and spacing pieces in the slot and a row of staggered fastening devices for securing the blades and spacing pieces together in said slot.

2. A turbine blading comprising a plurality of alternately arranged blades and spacing pieces and a row of staggered pins for securing said blades and spacing pieces together.

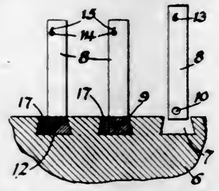
3. A turbine blading comprising a plurality of alternately arranged blades and spacing pieces and a row of staggered pins for securing said blades and spacing pieces together, each spacing piece having two pins passing therethrough and each blade having one pin passing therethrough.

4. A plurality of alternately arranged blades and spacing pieces for turbines, and a staggered row of fastening devices for securing the blades and spacing pieces together, said fastening devices being parallel to each other.

5. Turbine blading, comprising alternately arranged blades and spacing pieces and pins passing through the blades and spacing pieces, each pin being out of line with the pin adjacent to it.

[Claims 6 and 7 not printed in the Gazette.]

943,349. ELASTIC-FLUID TURBINE. FRANCIS HODGKINSON, Edgewood Park, Pa., assignor to The Westinghouse Machine Company, a Corporation of Pennsylvania. Filed May 26, 1908. Serial No. 435,079.



1. In combination in an elastic fluid turbine, a blade-holding element provided with an undercut mounting slot, alternately arranged blades and spacing pieces located in said slot and compound tapered wedges located in said slot for securing said blades and spacing pieces in place.

2. In combination in an elastic fluid turbine, a blade-holding element provided with a blade-mounting slot, alternately arranged blades and spacing pieces located in said slot, a binding wire for said blades and spacing pieces and compound tapered wedges for securing said blades in place in said slot.

3. In combination in an elastic fluid turbine, a blade-holding element provided with an undercut slot, alternately arranged blades and spacing pieces located in said slot, means for securing said blades and said pieces together and wedges arranged in pairs for securing said blades in said slots.

4. A blade-mounting strip comprising blades provided at one end with a hole extending transversely therethrough, spacing pieces provided with an inclined and a vertical lateral face, and means extending through the holes provided in said blades and said pieces for securing said blades and said pieces together.

5. In combination with a blade-mounting element provided with blade-mounting slots, blades located in said slots and spacing pieces provided with one vertical and one inclined lateral face located between said blades.

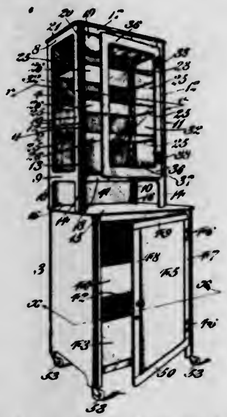
[Claims 6 to 10 not printed in the Gazette.]

943,350. METALLIC CABINET. GEORGE HOLDEN, Merchantville, N. J., assignor to Bernstein Mfg. Co., Philadelphia, Pa., a Corporation of Pennsylvania. Filed Apr. 3, 1909. Serial No. 487,802.

1. As a new article of manufacture, a cabinet having a plurality of sides formed of a single piece of material, a top, a bottom, the corners of said cabinet being rounded, a door forming one side, angular bars at the interior corners, and spacing means between said bars and the adjacent walls of the cabinet forming recesses for the reception of panels.

2. As a new article of manufacture, a cabinet having a plurality of sides formed of a single piece of material, a top and a bottom, the corners of said cabinet being rounded, a door forming one side, angular bars at the interior corners, spacing means between said bars and the adjacent walls of the cabinet forming recesses and panels in certain of said sides in said recesses.

3. As a new article of manufacture, a cabinet having a plurality of sides formed of a single piece of material, panels in certain of said sides, a door forming another side, a top, a bottom, the corners of said cabinet being rounded, and angularly disposed means extending vertically at the corners upon the interior of the cabinet and spaced therefrom and having means for supporting adjustable shelf-supporting devices.

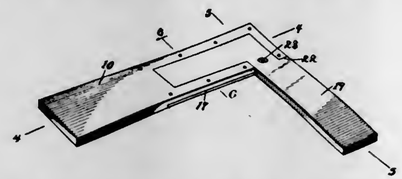


4. A cabinet having its back, sides and a portion of the front of one piece of material, a door forming the remainder of the front, angularly disposed bars within the cabinet at the corners, spacers between said bars and the walls of the cabinet forming recesses for the reception of panels and panels in said recesses and coöperating with said spacers.

5. A cabinet having its back, sides and a portion of the front of one piece of material, a door forming the remainder of the front, angularly disposed bars within the cabinet at the corners, spacers between said bars and the walls of the cabinet forming recesses for the reception of panels, and removable shelf-supporting means supported by said bars.

[Claim 6 not printed in the Gazette.]

943,351. SQUARE. THOMAS C. HOWLAND, Long Branch, N. J. Filed July 10, 1908. Serial No. 442,861.



1. A square comprising two separable arms, one of the arms provided with a longitudinal slot adjacent to its inner end and isolated from its outer edges, the other arm having an approximately inflexible end portion extending at an angle thereto and fitting within said slot of the first arm, with the outer edges of said end portion engaging with the edges of the slot substantially the full thickness of the square.

2. A square comprising two arms, one of which is provided with a longitudinal channel having a branch at one end extending to the side edge of the arm, and with the bottom of the channel provided with a slot forming flanges, and the other arm having a portion closely fitting the channel and the slot and seated on said flanges.

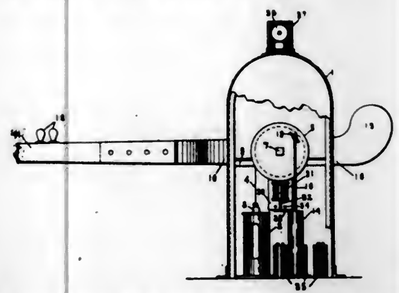
3. A square comprising two arms, one of said arms having a channel formed in one face thereof, and a slotted plate formed as a separate part and secured to the opposite face of the arm, forming the bottom of the channel, and the other arm having a portion fitting within said channel and slot of the plate.

4. A square comprising two arms, one of which is provided with an L-shaped channel having an under-cut end wall, and the other arm having a counterpart portion fitting within said channel, and a screw securing the two arms together adjacent to the opposite end wall of the channel.

5. A square comprising two arms, one of which is provided with an approximately L-shaped channel having a projection on the bottom thereof, and the other arm having a portion adapted to fit within said channel and provided with a recess for receiving the projection, and a screw connecting the two arms together, threaded into the projection.

[Claim 6 not printed in the Gazette.]

943,352. ELECTRICALLY-OPERATED RAILWAY-CROSSING GATE. THOMAS HUMMEL, Dallas, Tex. Filed Mar. 6, 1909. Serial No. 481,759.



1. In a device of the character described, the combination with rotatable arms, of a shaft to which said arms are attached, a pulley upon said shaft, an iron core suspended from the rim of said pulley and actuating the same by its motion and a solenoid within which said core is suspended and which actuates said core.

2. In a device of a character described, the combination with rotatable arms, of shafts upon which said arms are mounted, a grooved pulley mounted on one of said shafts and rotating therewith, a rope or cable suspended from the groove of said pulley, and transmitting motion to it, and a metal core suspended from said rope or cable and transmitting motion to it, a solenoid within which said metal core is suspended and which actuates the same, means for counter balancing the weight of said arms and returning them to an upright position, and means for checking the velocity of the arms and regaining their vertical positions.

3. In a device of the character described, the combination with rotatably mounted arms, of rotatable means upon which said shafts are mounted, means for transmitting the rotation of such means, from one rotating member to another, a hollow electrical solenoid and means for lowering said arms and closing the gate, weights to counter balance the weight of said arms and return them to an upright position, a dash-pot, to check the velocity with which the arms regain their upright position, a circuit breaking device to be opened by the rotation of a rotating member as the arms reach a horizontal position, a small solenoid, connected in series with said circuit breaker and having a freely suspended core by the motion of which two points may be electrically connected, an electrical circuit, containing a bell and batteries, whose circuit is broken at said two points and a circuit containing lights in parallel with the circuit containing the circuit breaker and the small solenoid, said lamps having a higher resistance than said small solenoid.

4. In a railway crossing gate, the combination with rotatably mounted arms, of shafts upon which said arms are mounted, a pulley mounted on one of said shafts, rotating therewith, an electrical solenoid, which on closing the circuit in which it is placed causes said arms to rotate from an upright to a horizontal position, a metal core suspended within said hollow solenoid, and vertically actuated by the same, means for suspending said metal core from said pulley, by which means said pulley may be rotated, a dash-pot whereby the velocity of the ascending arms is restricted, means for connecting said dash pot to said pulley, restricting the velocity with which the same rotates, means for returning the arm automatically from a horizontal to a vertical position, a circuit breaking device in series with a small solenoid which cuts out said solenoid as the arm reaches a horizontal position, means attached to a rotating member whereby said circuit breaking device is operated, an electric circuit including a bell and batteries, which circuit is open or closed by the action of said small solenoid, means for applying the energy of said small solenoid to the opening or closing of said circuit containing bell and battery, and a circuit containing electric lights in parallel with said circuit containing the said circuit breaking device and the small solenoid and of greater resistance than that circuit.

5. In an electrically operated railway gate, a solenoid magnet whereby the gate is lowered, a counter weight to return the gate to a vertical position, an electrical circuit, including a source of electromotive force, a switch, a light and said solenoid, a shunt circuit in parallel with said light, containing a circuit breaker, adapted to be mechanically opened when the gate is down, and containing an automatic switch whereby a third circuit is closed when the shunt circuit is electrified, and a third circuit, containing an electric bell and source of electro-motive force, whose source is normally broken by said automatic switch.

943,353. MATRIX-RETAINER. JAMES W. IVORY, Philadelphia, Pa. Filed Sept. 15, 1908. Serial No. 453,101.



In a matrix clamp, arms, means for moving them toward and from each other, terminals upon said arms to bring tension upon the matrix, and supplemental jaws extending transversely to the plane of movement of the jaws and adapted to press against the matrix.

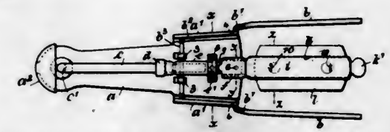
943,354. ARTIFICIAL TOOTH. JAMES W. IVORY, Philadelphia, Pa. Filed May 12, 1909. Serial No. 495,534.



An artificial tooth having in the lingual or palatal portion thereof a recess having lateral walls with grooves extending in the longitudinal direction of the tooth, said grooves terminating in a deeper recess in the body of the tooth, the end of said recess being closed by walls integral with the biting edge of the tooth, said recess being open on the lingual or palatal face of the tooth, and a staple-like member having its cross bar occupying a position between the lateral walls in said recess and its legs sprung into the recess and grooves of the tooth and occupying the grooves in the lateral walls, the terminals of said legs being outturned and embedded in the material of the tooth at an angle to said legs.

943,355. RAZOR-BLADE-STROPPING DEVICE. OTTO KAMPFE, New York, N. Y. Filed Feb. 20, 1909. Serial No. 479,176.

1. A razor blade stropping device for thin flexible normally flat blades, comprising a frame to be grasped by the hand, an arm pivotally mounted in said frame and adapted for a swinging movement, a sleeve connected to and revoluble upon the free end of said rod, jaws adapted to receive a thin flat flexible blade, means for holding the blade between the jaws, means for removably connecting the jaws to the end of said sleeve, means for locking the said jaws to the end of said sleeve, and devices connected to the frame and adapted to bear upon the surface of a strop.



2. A razor blade stropping device for thin flexible normally flat blades, comprising a frame to be grasped by the hand, an arm pivotally mounted to said frame and adapted for a swinging movement, a sleeve connected to and revoluble upon the free end of said rod, jaws adapted to receive a thin flat flexible blade, means for holding the blade between the jaws, means for removably connecting the jaws to the free end of said sleeve, means for locking the said jaws to the end of said sleeve, devices connected to the frame and adapted to bear upon the surface of a strop, and means for imparting a limited swinging movement to said jaws and blade.

3. A razor blade stropping device for thin flexible normally flat blades, comprising a frame to be grasped by the hand, an arm pivotally mounted to said frame and adapted for a swinging movement, a sleeve connected to and revoluble upon the free end of said rod, means connected to the rod and adapted to hold the same down to a predetermined position, a roller connected to said sleeve at its free end and adapted to bear upon the surface of the frame with a rolling motion, means for limiting this motion, a sleeve adapted to pass over the free end of the aforesaid sleeve, and a spring acting device for holding the parts together and preventing accidental displacement, and jaws formed with the sleeve and adapted to receive between them a thin flexible normally flat blade to be sharpened.

4. A razor blade stropping device for thin flexible normally flat blades, comprising oppositely disposed slightly curved spring jaws receiving a blade, a swinging support for said jaws and means for removably connecting the same therewith, a frame to which said support is connected and a plate having parts adapted to engage the blade to be sharpened and to fit with the blade between the jaws.

5. A razor blade stropping device for thin flexible normally flat blades, comprising a frame, a pivotally connected swinging arm secured to said frame, a revoluble member upon the free end of said arm, spring catches on the free end of said sleeve, jaws adapted to receive the blade to be sharpened, a sleeve at one end of said jaws adapted to fit over the free end of the aforesaid sleeve and having recesses adapted to engage the catches thereof, and means acting to prevent the accidental separation of said jaws and sleeve from the revoluble sleeve.

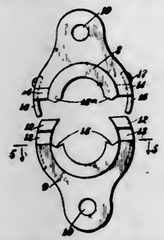
[Claims 6 to 8 not printed in the Gazette.]

943,356. STUFFING-BOX GLAND. FREDERICK KEELER, White Plains, N. Y. Filed June 17, 1909. Serial No. 502,723.

1. A gland divided longitudinally into separable sections, a lug rigid with one section of the gland and having a notch, and a projection carried by the other section of the gland and arranged to move into and out of said notch by a relative longitudinal movement between the gland sections.

2. A gland divided longitudinally into separable sections and provided with an intermediate flange, the gland sections at the inner side of the flange having a tongue and grooved joint, and means to prevent the lateral separation of the two sections of the gland, arranged at the outer side of the flange to be engaged by a relative longitudinal movement between the gland sections.

3. A gland divided longitudinally into separable sections and having an intermediate flange provided with recesses in the edges at each side, with the recesses extending over the joint between the two gland sections, and straps securing the gland sections together, detachably secured to the flange and fitting within said recesses.

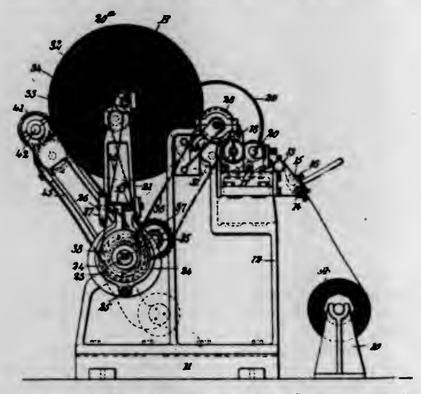


4. A gland divided longitudinally into separable sections, lugs extended over the joint between the sections of the gland, with each lug rigid with one of the gland sections and provided with notches in its inner side edge, and projections adapted to pass into and out of the said notches and secure the sections of the gland against lateral separation, with each projection carried by the opposite gland section to that carrying its engaging lug.

5. A gland having a body portion provided with an intermediate flange, with the flange and body portion divided longitudinally into separable half sections, and notched lugs and projections, with a lug and a projection arranged at each side of the flange, each of said lugs being rigid with the body portion of one of the gland sections, each of said projections being rigid with the body portion of the opposite gland section and arranged to move into and out of the notches of the lugs by a relative longitudinal movement of the gland sections, and the body portion of the gland sections at the opposite and inner side of the flange having a tongue and grooved joint.

[Claim 6 not printed in the Gazette.]

943,357. PAPER-SLITTER. SAMUEL M. LANGSTON, Camden, N. J. Filed May 29, 1909. Serial No. 499,161.



1. In combination, a cutting mechanism for subdividing a strip of paper or the like longitudinally, and rewinding mechanism including a reel for receiving the material and a plurality of friction drums for engagement with the rewound material upon opposite sides of the reel, one of said drums receiving the subdivided strip and delivering the same to the reel, said drums and reel being relatively movable.

2. In combination, a cutting mechanism for subdividing a strip of paper or the like longitudinally, and rewinding mechanism including a reel for receiving the material and a plurality of friction drums for engagement with the rewound material upon opposite sides of the roll, one of said drums receiving the sub-divided strip and delivering the same to the reel.

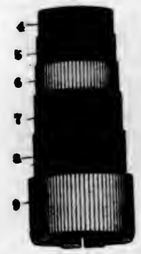
3. In combination, a cutting mechanism for subdividing a strip of paper or the like longitudinally, and rewinding mechanism including a drum and a reel, and upwardly extending pivoted arms for supporting said reel and maintaining the material in frictional engagement with said drum.

4. In combination, a cutting mechanism for subdividing a strip of paper or the like longitudinally, and rewinding mechanism, including a friction drum, a reel for receiving the material and maintaining the surface of the material in engagement with said drum, upwardly-extending pivoted arms for supporting said drum, a second pair of upwardly-extending pivoted arms, and a second drum carried by said last-mentioned arms and in frictional engagement with the material on said reel.

5. In combination, a cutting mechanism for subdividing a strip of paper or the like longitudinally, and rewinding mechanism, including a friction drum, a reel for receiving the material and maintaining the surface of the material in engagement with said drum, upwardly-extending pivoted arms for supporting said drum, a second pair of upwardly-extending pivoted arms, a second drum carried by said last-mentioned arms and in frictional engagement with the material on said reel, and means for positively rotating said drums and reel.

[Claims 6 and 7 not printed in the Gazette.]

943,358. TIRE. PAUL W. LITCHFIELD, Akron, Ohio, assignor to The Goodyear Tire and Rubber Company, Akron, Ohio, a Corporation of Ohio. Filed May 9, 1908. Serial No. 431,879.



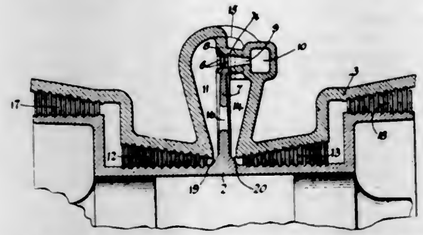
1. A pneumatic tire comprising a set of superposed, contiguous layers of thread-fabric having the respective warp-threads approximately parallel, and another set of superposed, contiguous layers of thread-fabric having their respective warp-threads approximately parallel but at an angle to the warp-threads of the first set of layers, substantially as described.

2. A pneumatic tire comprising a set of contiguous, superposed layers of thread-fabric, having their respective warp-threads approximately parallel and at an angle to the plane of the tire, and another set of contiguous, superposed layers of thread-fabric having their respective warp-threads approximately parallel and at an angle to the warp-threads first mentioned, substantially as described.

3. A pneumatic tire composed of a set of contiguous, superposed layers of thread-fabric, having their respective warp-threads approximately parallel, a second set of contiguous, superposed layers of thread-fabric, having their respective warp-threads approximately parallel but at an angle to the warp-threads first mentioned, and a tread portion; whereby the tire may be repaired without destroying its thread-fabric character, substantially as described.

4. A pneumatic tire comprising a set of contiguous, superposed layers of thread-fabric, having their resepctive warp-threads approximately parallel, a set of contiguous, superposed layers of thread-fabric, having their respective warp-threads approximately parallel but at an angle to those first mentioned, and a friction-reducing layer between the sets, substantially as described.

943,359. ELASTIC-FLUID TURBINE. WILLIAM J. A. LONDON, Edgewood Park, Pa., assignor to The Westinghouse Machine Company, a Corporation of Pennsylvania. Filed Aug. 8, 1907. Serial No. 387,662.



1. In combination with an elastic fluid turbine, a plurality of working stages and a longitudinally shiftable rotor element for the turbine adapted to control the delivery of motive fluid to said stages.

2. In combination in an elastic fluid turbine, a plurality of working stages and a rotor element for the turbine adapted to variably proportion the delivery of motive fluid to said stages.

3. In combination with the bilaterally symmetrical sections of a double flow turbine, a rotor element shiftable longitudinally of the turbine and adapted to proportion the delivery of motive fluid to said sections.

4. In an elastic fluid turbine, in combination with the rotor, a working stage and a thrust relieving device for said stage and means, dependent on the rotor, for varying the axial thrust of said stage and causing the thrust of said relieving device to preponderate.

5. In an elastic fluid turbine, in combination with a rotor capable of shifting longitudinally in its bearings, a working stage, a thrust relieving device for said stage and means, dependent on said rotor, for throttling the supply of motive fluid to said stage and causing the axial thrust of said relieving device to preponderate.

[Claims 6 to 14 not printed in the Gazette.]

943,360. BILLIARD-CUE TIP AND FASTENER. CONRAD MARX, New York, N. Y. Filed Mar. 27, 1908. Serial No. 423,502.

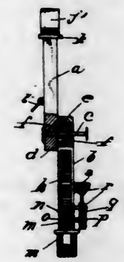


A billiard cue having at the tip end thereof an undercut recess, and a bore in axial alinement with the recess, an elastic bushing in the recess, and a shank extending through the bushing into the bore, the outer end of the shank being provided with separated prongs upon which the tip may be forced to cause the prongs to diverge said shank having within the bushing laterally extending lugs for the purpose set forth.

943,361. MOUTH-BRACE. CLARENCE MAYER, New York, N. Y. Filed Aug. 6, 1909. Serial No. 511,539.

1. A mouth brace consisting of a pair of pivoted legs; a bar slidably mounted in one of said legs; and actuating mechanism carried by the last-named leg for moving said bar therein in opposite directions.

2. In a mouth brace, the combination with a leg; of a toothed bar extendibly mounted therein; and actuating toothed mechanism which engages said bar and which is movable; the actuation of said mechanism serving to displace positively said bar in said leg in opposite directions.

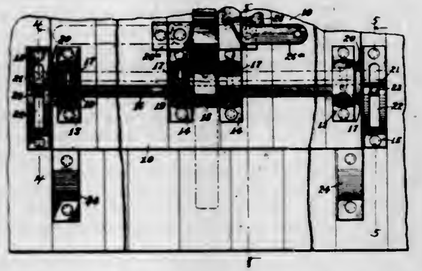


3. In a mouth brace, the combination of a leg; a rack-bar mounted therein; a pinion for actuating the latter; and means for locking said rack-bar against movement in one direction.

4. A mouth brace consisting of a pair of legs pivotally fastened together and adapted to be folded upon each other; said legs being slidable lengthwise of their pivotal axis from each other and being formed with coöperating means for holding said legs against rotation, when the same are extended.

5. A mouth brace consisting of a pair of legs pivotally fastened together and formed one with a stud and the other with a socket, the stud on one leg being shaped to fit in the socket in the other leg.

943,362. SLIDING-DOOR FASTENER. FRED J. S. MIELY, Gunnison, Colo. Filed June 3, 1909. Serial No. 499,834.



1. In a door fastener, brackets, keepers, and a shaft having eccentrics journaled in the brackets to move it into and out of the keepers to respectively lock and unlock the door.

2. In a door fastener, brackets, a shaft having eccentrics journaled in the brackets, keepers, each having an outwardly-projecting hook and provided with a longitudinal slot terminating a slight distance below the top of the hook, pins extending laterally from the end portions of the shaft adapted to register with the slots of the keepers, and a hand-lever to revolve the shaft and the pins, respectively into and out of the hooks and slots.

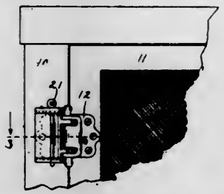
3. In a door fastener, brackets, keepers, a shaft having eccentrics journaled in the brackets, a hand-lever to revolve the shaft into and out of locking engagement with the keepers, and a locking lever pivotally supported to swing in a plane at right-angles to the plane of movement of the lever and move into locking position at the outer side thereof.

4. The combination of a sliding door mounted to swing outwardly at the bottom, brackets fixed to the door, fixed keepers arranged at the opposite sides of the door, a shaft having eccentrics journaled in the brackets, and a hand-

lever fixed to an intermediate point of the shaft to revolve it into and out of locking engagement with the keepers.

5. The combination of a door, brackets secured to the lower portion of the door, a shaft having eccentrics journaled in the brackets, fixed keepers arranged at opposite sides of the door when the door is in both open and closed positions, means to revolve the shaft into and out of locking engagement with the keepers, and means slidably supporting the door, adapting it to be swung outwardly at the bottom out of the path of the intermediate keeper in moving the door to and from a closed position.

943,363. DETACHABLE-HINGE HOLDER. CHARLES E. MORRISON, Indianapolis, Ind. Filed Jan. 14, 1909. Serial No. 472,224.

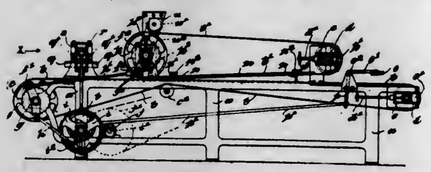


1. The combination with a hinge of a door of a holder for removably securing a hinge in place, said holder consisting of a plate upon which a leaf of the hinge may be placed, one of said members being provided with a hole or recess and the other with a lug projecting into said hole, and means slidingly engaging said holder for holding the hinge against the plate.

2. The combination with a hinge of a door, which hinge is provided with a screw-hole, of a holder for detachably securing the hinge in place, which is provided with a lug to enter the screw-hole of the hinge, outwardly extending flanges that meet at the upper and lower end of said holding plate with holes therethrough, a clamping plate adapted to fit against said hinge and between the flanges of said holding plate and having a longitudinal recess in the outer surface thereof, and a pin extending through the holes in said flanges and resting in the recess in said plate.

3. The combination with a hinge of a door provided with a screw-hole, of a holding-plate provided with a lug projecting in said screw hole, flanges on said plate that are horizontally grooved, a clamping plate adapted to be placed over the hinge with its ends slipped in the grooves in the flanges of said holding plate, and means for preventing the lateral movement of said clamping plate against said holding plate.

943,364. MACHINE FOR USE IN MANUFACTURE OF PLAIN BREAD, &c. SAMUEL MCCONNELL and JAMES E. WILSON, Belfast, Ireland. Filed Mar. 3, 1909. Serial No. 481,152.



1. A machine for performing the operation of rolling and pinning, in the manufacture of plain bread, fancy bread and pastry, having in combination, a framework, upper and lower endless traveling bands fitted in connection with the framework, means for intermittently actuating the traveling bands, adjustable means acting on the upper band, means for feeding the dough or paste to the bands, and means for cutting or dividing the dough or paste after it has been operated on.

2. A machine for performing the operation of rolling and pinning, in the manufacture of plain bread, fancy bread and pastry, having in combination, a framework, upper and lower endless traveling bands fitted in connection with the framework, means for actuating the traveling bands, a movable board for adjusting the upper traveling band to different angles relatively with the lower band, and a bottomless receptacle actuated from the driving mechanism of the machine for feeding the dough or paste to the bands.

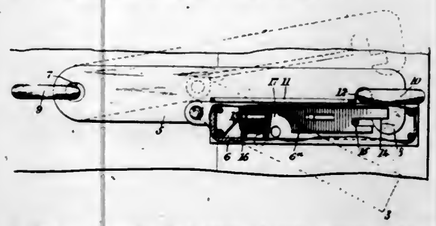
3. A machine such as described for performing the operation of rolling and pinning, in the manufacture of plain bread, fancy bread and pastry, having in combination, a framework, upper and lower endless traveling bands fitted in connection with the framework, means for actuating the traveling bands, adjustable means acting on the upper band, and a bottomless receptacle for feeding the dough or paste to the bands actuated by means of a cam on the machine driving shaft through the medium of an adjustable horizontal lever supported at one end by a vertical swinging lever and connected at the other end with a bell crank lever fitted on a transverse horizontal shaft carrying the bottomless receptacle.

4. A machine such as described for performing the operation of rolling and pinning, in the manufacture of plain bread, fancy bread and pastry, having in combination, a framework, upper and lower endless traveling bands fitted in connection with the framework, means for actuating the traveling bands, a movable board for adjusting the upper traveling band to different angles relatively with the lower band, a bottomless receptacle actuated from the driving mechanism of the machine for feeding the dough or paste to the bands, and cutting mechanism actuated from the driving mechanism of the machine for cutting up or dividing the pieces of dough or paste after being operated on.

5. In a machine for performing the operation of rolling and pinning in the manufacture of plain bread, fancy bread and pastry, having upper and lower endless traveling bands fitted in connection with a framework such as described, means for vertically adjusting one end of the upper band comprising a roller, vertically moving sliding blocks, adjusting screws and springs and means for adjusting the angle of the upper band relatively with the lower band comprising a movable board having transverse straps, adjusting screws, washers and nuts.

[Claims 6 to 10 not printed in the Gazette.]

943,365. HASP-LOCK. PETER MCMENAMIN, Jersey City, N. J. Filed Apr. 9, 1909. Serial No. 488,818.



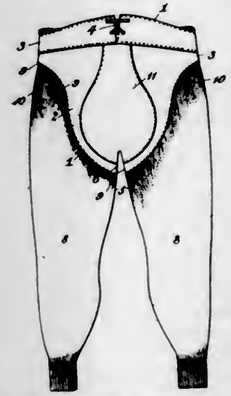
1. The combination of a keeper, a hasp pivoted to swing into and out of engagement with the keeper at one side of a plane passing through the keeper and the point of pivotal support of the hasp, and a lock to lock the hasp to the keeper, pivoted to the hasp to move in a plane approximately parallel to the plane of the hasp, to and from locking position at the opposite side of the first-named plane when the hasp and keeper are engaged.

2. The combination of a hasp having means adjacent to one end by which it is adapted to be pivotally supported and provided with a keeper-engaging portion at its opposite end, and a lock having a bolt to engage with the keeper-engaging portion of the hasp and hinged to the body of the hasp to move therewith and move independently thereof to and from locking position.

3. The combination of a hasp having means adjacent to its inner end portion by which it is adapted to be pivotally supported and provided with a keeper hook at its opposite end portion, said hasp having an outwardly-extending flange to move the hook into and out of engagement with the keeper, and a lock having a bolt to engage with the hook and shielded by said flange when in locking position.

4. The combination of a hasp having a keeper-engaging hook and provided with an outwardly-extending flange, and a lock hinged to the hasp to swing against and be protected by the flange and provided with a bolt to engage with said hook.

943,366. NETHER GARMENT. WALTER P. MCQUILLEN, Philadelphia, Pa. Filed Jan. 29, 1908. Serial No. 413,301.



A nether garment having an upper part formed from woven fabric and comprising a seat portion adapted to extend across the buttocks of the wearer, straps extended from opposite sides of the upper part of the seat portion and adapted to be passed about the waist to form a waist band, and a crotch portion extended downward and forwardly from said seat portion and adapted to be extended through the crotch, and leg portions each formed from elastic knitted fabric and connected at their upper edges with the opposite sides of the crotch portion, and comprising portions adapted to be extended over the hips of the wearer and which are extended above the woven crotch portion and are connected with the opposite edges of the seat portion and with the lower ends of said oppositely extended straps.

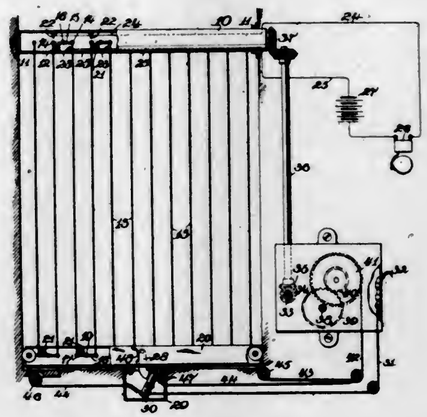
943,367. PICTURE-FRAME. ERNEST OLDENBUSCH, New York, N. Y. Filed June 22, 1909. Serial No. 503,606.



1. A frame for pictures or the like, consisting of a frame proper formed of sheet metal and substantially T-shaped in cross section, the leg of said T constituting a rearwardly-extending flange, a glass front, and an inner back carried by said frame proper and secured to the latter upon the inner side of said flange, an outer back secured to said frame proper upon the outer side of said flange.

2. A frame for pictures or the like, comprising a frame proper formed of sheet metal substantially T-shaped in cross section, the leg of said T constituting a rearwardly-extending flange, a glass front fitting within said rearwardly-extending flange, an inner back having its peripheral portion in engagement with the rear side of the peripheral portion of said glass front and fitting within said flange, portions of said flange being bent into engagement with said inner back to retain the latter in position, and an outer back spaced from said inner back and independent thereof, and fitting friction tight in engagement with the outer surface of said flange, concealing the latter from view.

943,368. BURGLAR-ALARM SCREEN. PETER ORANCE, Newark, N. J. Filed Aug. 4, 1908. Serial No. 446,863.

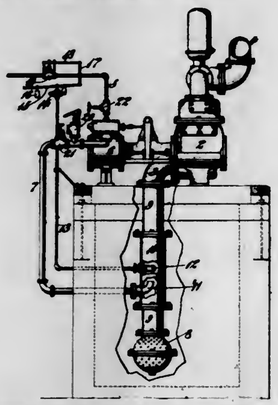


1. An alarm screen comprising a roll or the like having levers therein, wires having their ends secured to the ends of the levers, a strip having means therein for securing the other ends of the wires, an electric circuit having a signal therein, contacts in the circuit adapted to make the circuit by means of the levers when a wire is broken, and means connected with the levers for maintaining them in normal position to cause the wires to be under a constant tension.

2. An alarm screen comprising a roll having a series of levers therein, electrical contacts opposite the ends of the levers means for tilting the levers, an electric circuit connecting the contacts with a signal, the levers when tilted causing a closing of the circuit between the contacts, a series of wires having their ends connected to the ends of the levers to keep the levers from the contacts, a movable strip to which the free ends of the wires are connected, means for rotating the roll, and means for locking the strip in its extended position when the wires are taut.

3. An alarm screen comprising a roll having a series of levers therein means for tilting the levers, electrical contacts opposite the ends of the levers, an electric circuit connecting the contacts with a signal, the levers when tilted causing a closing of the circuit between the contacts, a series of wires having their ends connected to the ends of the levers to keep the levers from the contacts, a movable strip to which the free ends of the wires are connected, means for rotating the roll, means for locking the strip in its extended position when the wires are taut, and means for releasing the latch to allow the strip to move toward the roll when the roll is rotated.

943,369. AUTOMATIC DEVICE FOR CONTROLLING THE OPERATION OF PUMPS. WILLIAM F. OTTO, Wilkes-Barre, Pa., assignor to The Eynon-Evans Mfg. Co., Philadelphia, Pa., a Corporation of Pennsylvania. Filed May 27, 1909. Serial No. 498,756.



1. In a device of the character described, a pump, a suction pipe connected thereto, a steam exhaust pipe communicating with said suction pipe, a steam supply for said pump, and means controlled by the height of water in said suction pipe to cut off said steam supply.

2. In a device of the character described, a pump, a suction pipe connected thereto, a pipe section adapted to form a part of said suction pipe, a steam exhaust pipe communicating with said pipe section, a steam supply for said pump, and means controlled by the height of water in said suction pipe to cut off said steam supply.

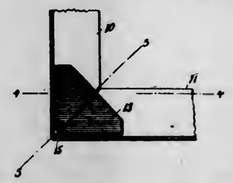
3. In a device of the character described, a suction pipe connected thereto, a steam exhaust pipe communicating with said suction pipe, a steam supply for said pump, and a pressure regulating mechanism controlled by the height of water in said suction pipe, adapted to cut off said steam supply.

4. In a device of the character described, a pump, a suction pipe connected thereto, a pipe section forming a portion of said suction pipe, a steam exhaust pipe communicating with said pipe section, a steam supply for said pump, and a pressure regulating mechanism controlled by the height of water in said suction pipe adapted to cut off said steam supply.

5. In a device of the character described, a pump, a suction pipe connected thereto, a steam exhaust pipe communicating with said suction pipe, a steam supply for said pump, a fitting projecting into said suction pipe adjacent said exhaust pipe, a pressure regulator connected to said fitting, and means in said fitting adapted to operate said regulator at a predetermined height to cut off said steam supply.

[Claim 6 not printed in the Gazette.]

943,370. FRAME-JOINT AND METHOD OF SOLDERING THE SAME. LOUIS B. PRAHAR, New York, N. Y. Filed Aug. 11, 1909. Serial No. 512,341.



1. The process of securing together the ends of metal channels, consisting in inserting within said channels at their abutting ends, a channel member having a web narrower than the distance between the sides of the metal channels and with its sides spaced from the sides of the metal channels to leave capillary spaces, and depositing molten solder within the inner channel member, the solder being free to flow out of the inner member and be drawn upwardly by capillary attraction into said capillary spaces.

2. A frame including two channels having abutting ends, an inner channel member overlapping said abutting ends and having its edges holding the sides of said channels in alinement, and solder intermediate the sides of the inner member and the sides of the channels.

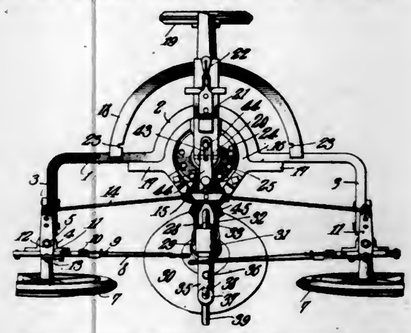
3. A frame including two channels having abutting ends, an inner channel member overlapping said abutting ends and having its edges holding the sides of the channels in alinement and having its web narrower than the space between the sides of the channels to form capillary spaces between the sides of the inner channel member and the sides of said channels, and solder filling said capillary spaces.

943,371. PNEUMATIC TIRE. ACHILLES F. ANGELICOLA, New York, N. Y. Filed Aug. 5, 1907, Serial No. 387,028. Renewed Feb. 18, 1909. Serial No. 478,620.



In a tire, a series of plates having at their adjacent edges oppositely curved lugs with the adjacent ends of adjacent lugs overlapping each other and extending in opposite directions substantially parallel with the body portions of the plates and in the direction of the length of the tire, said adjacent overlapped ends being oppositely notched to allow a portion of the rubber of the tire to extend unbrokenly therethrough.

943,372. SCRAPER FOR REVERSIBLE-DISK PLOWS. HORACE S. AUSTIN, Chattanooga, Tenn., assignor to Volunteer Disc Plow Company, Chattanooga, Tenn., a Corporation of Tennessee. Filed Mar. 9, 1908, Serial No. 420,049. Renewed Nov. 8, 1909. Serial No. 526,915.



1. In combination with a reversible disk, a reversible scraper mounted for synclinal and pivotal movement during the act of reversal.

2. In combination with a reversible disk, a reversible scraper mounted for simultaneous synclinal and pivotal movement during the act of reversal.

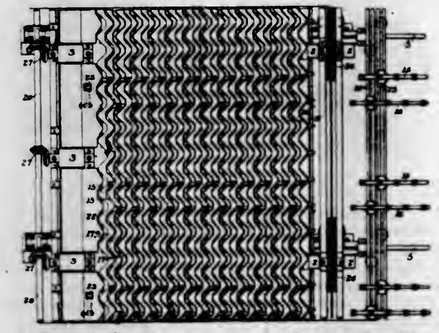
3. In combination with a reversible disk, a reversible scraper mounted for movement to engage the disk in its work facing positions and means for adjusting the extent of movement of the scraper without changing its path of movement.

4. In combination with a reversible disk, a reversible scraper having a single scraping edge which moves in an approximately vertical arc to engage the disk in its work facing positions.

5. In combination with a reversible disk, a reversible scraper mounted for movement in a synclinal arc to engage the disk in its work facing positions.

[Claims 6 to 17 not printed in the Gazette.]

943,373. HOTBED. GEORGE H. BARBOUR, Pittsburg, Pa. Filed Mar. 6, 1909. Serial No. 481,565.



1. Bar handling apparatus comprising a plurality of rows of members having flat bar-supporting portions and overlapping side edges, means on which said surfaces are pivotally mounted, and mechanism arranged to tilt the pivoted bar-supporting portions into planes at an angle to a horizontal plane, and transfer bars from row to row of the supporting members; substantially as described.

2. Bar handling apparatus comprising a plurality of rows of members having flat bar-supporting portions and overlapping side edges, means on which said bars are pivotally mounted, and mechanism arranged to tilt adjoining rows of pivoted bar-supporting portions into planes at opposite angles to a horizontal plane, and transfer the bars from row to row of said members; substantially as described.

3. Bar handling apparatus comprising a plurality of rows of members having flat bar-supporting portions and over-lapping side edges, means on which said bars are pivotally mounted, and mechanism arranged to tilt adjoining rows of said portions into planes at opposite angles to a horizontal plane, and transfer the bars from row to row of said members, substantially as described.

4. Bar handling apparatus comprising a plurality of rows of members having flat bar-supporting portions and overlapping side edges, means on which said bars are pivotally mounted, and mechanism arranged to tilt adjoining rows of said portions into angularly opposite planes to a horizontal plane, and transfer the bars from row to row of said members; substantially as described.

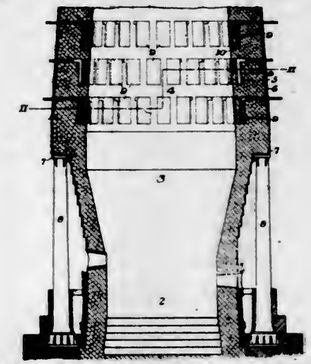
5. Bar handling apparatus comprising a plurality of rows of members having flat bar-supporting portions and overlapping side edges, means on which said bars are pivotally mounted, and mechanism arranged to tilt adjoining rows of said portions into angularly opposite planes to a horizontal plane, the said members being tilted alternately in an opposite direction, and transfer bars from row to row across the width of said hot bed; substantially as described.

[Claims 6 to 12 not printed in the Gazette.]

943,374. BLAST-FURNACE CONSTRUCTION. JACOB C. BARRETT, Youngstown, Ohio. Filed May 19, 1909. Serial No. 496,942.

1. In a blast furnace, a refractory lining, and a cooling plate embedded in said lining, the cooling plate having cooling surfaces extending at an angle to each other, the opposite walls of the cooling surfaces being in contact with the lining, and connections for circulating a fluid within passages in said plate; substantially as described.

2. In a blast furnace having a refractory lining, a cooling plate having a vertically extending leg formed integral with a horizontally disposed leg, the opposite walls of the vertical and horizontal legs being in contact with the lining, hollow passages in said plate and means for circulating a cooling fluid in said passages; substantially as described.



3. In a blast furnace having a refractory lining, a cooling plate embedded therein having a vertically extending leg formed integral with a horizontally disposed leg, the opposite walls of the vertical and horizontal legs being in contact with the lining, hollow passages in the vertical leg of said plate and means for circulating a cooling fluid in said passages; substantially as described.

4. In a blast furnace, a refractory shaft lining and cooling plates embedded in said lining having integral horizontally and vertically extending water cooled surfaces, the opposite walls of the horizontal and vertical surfaces being in contact with the lining, said plate having hollow passages therein and connections for circulating water through said passages; substantially as described.

5. In a blast furnace, a refractory shaft lining and a plurality of encircling cooling plates embedded in said lining having integral horizontally and vertically extending water cooled surfaces, the opposite walls of the horizontal and vertical surfaces being in contact with the lining, said plates having hollow passages therein and connections for circulating water through said passages; substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

943,375. PROCESS OF VAT-DYEING WITH GALLOCYANIN DYESTUFFS. JOSEPH BIEDER and HERMAN LORÉTAN, Basel, Switzerland, assignors to The Firm of Dye Works formerly L. Durand, Huguenin & Co., Basel, Switzerland. Filed May 24, 1907. Serial No. 375,453.

1. The described process for dyeing gallocyanin dyestuffs on vegetable, animal or artificial substance, consisting in treating the said substance at a temperature lower than 50° C. in a slightly acid vat prepared so as to contain a leucoderivative of a gallocyanin dyestuff and a small quantity of a reducing agent for preserving the vat and then developing and fixing the dyestuff thus applied to the said substance by its oxidation on the same.

2. The described process for dyeing gallocyanin dyestuffs on vegetable, animal or artificial substance, consisting in mordanting the said substance, then treating it at a temperature lower than 50° C. in a slightly acid vat prepared so as to contain a leucoderivative of a gallocyanin dyestuff and a small quantity of a reducing agent for preserving the vat and finally developing and fixing the dyestuff thus applied to the said substance by its oxidation on the same.

3. The described process for dyeing gallocyanin dyestuffs on vegetable, animal or artificial substance, consisting in treating the said substance at a temperature lower than 50° C. in a slightly acid vat prepared so as to contain a leucoderivative of a gallocyanin dyestuff and a small quantity of a reducing agent for preserving the vat and then developing and fixing the dyestuff thus applied

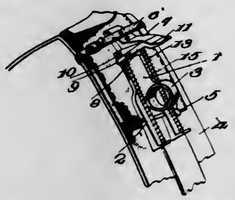
to the said substance by passing it through an oxidizing bath.

4. The described process for dyeing gallocyanin dyestuffs on vegetable, animal or artificial substance, consisting in mordanting the said substance, then treating it at a temperature lower than 50° C. in a slightly acid vat prepared so as to contain a leucoderivative of a gallocyanin dyestuff and a small quantity of a reducing agent for preserving the vat and finally developing and fixing the dyestuff thus applied to the said substance by passing it through an oxidizing bath.

5. The described process for dyeing gallocyanin dyestuffs on vegetable, animal or artificial substance, consisting in treating the said substance at a temperature lower than 50° C. in a slightly acid vat prepared so as to contain a leucoderivative of a gallocyanin dyestuff and a small quantity of a reducing agent for preserving the vat and then developing and fixing the dyestuff thus applied to the said substance by passing it through an oxidizing bath containing a metallic salt for modifying the dyeing.

[Claim 6 not printed in the Gazette.]

943,376. REIN-HOLDER. ARNOLD BING, Canby, Minn. Filed Oct. 24, 1908. Serial No. 459,373.

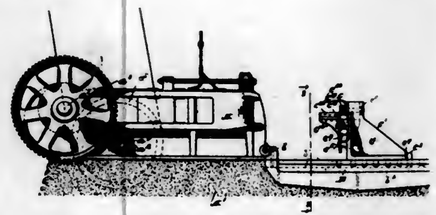


1. A rein holder comprising a body portion or support provided with a forked end adapted to fit over a saddle terret, a transverse bolt connecting the two legs of the forked end, an outwardly projecting jaw fixedly secured to the upper end of said support, a clamping jaw slidingly mounted on said support, and means on the support acting to force the movable clamping jaw into engagement with the fixed jaw.

2. A rein holder comprising a body portion or support curved to conform to a saddle and provided with a forked lower end adapted to engage over a saddle terret, a clamp screw secured transversely across said forked end portion, a fixed clamping jaw supported on the upper end of the support, an outwardly projecting clamping jaw slidingly mounted on the support and adapted to engage with the lower face of the fixed clamping jaw, legs projecting from the movable clamping jaw and extending longitudinally of the support, guides on the support through which said legs pass, and springs surrounding the legs and bearing against the guides at one end and against the movable clamping jaw at the other end, whereby said clamping jaw is forced upwardly into engagement with the fixed clamping jaw.

3. A rein holder comprising a slightly curved body portion or support, the lower end of which is forked to engage over a saddle terret, the intermediate portion of the body being provided with longitudinal lateral grooves, a transverse clamping bolt connecting the two legs of the forked portion of the body, a strap attached to the upper end of the body and adapted to be passed around an adjacent portion of the harness, a fixed angular jaw, the projecting flange of which is rigidly attached to said support or body portion, a movable jaw having inwardly turned projections on its inner end engaging with the lateral grooves on the intermediate portion of the body, the outer end of said jaw being downwardly and outwardly deflected to form a handle, longitudinally extending parallel rods attached to the under face of the fixed jaw and passing through flanges projecting from the ends of the forked portion of the body, and springs surrounding the rods and resisting the depression of the movable jaw.

943,377. BACK-STOP FOR FORGING-MACHINES. JOHN R. BLAKESLEE, Jr., Cleveland, Ohio, assignor to The Ajax Manufacturing Company, Cleveland, Ohio, a Corporation of Ohio. Filed Mar. 18, 1907. Serial No. 362,881.



1. The combination with a forging machine or the like; of a slide-way terminally contiguous to the base of said machine, said slide-way lying substantially on a level with the floor on which said machine rests, and being supported by means disposed below said level; and a back-stop adjustably secured in said slide-way and projecting upwardly to the working level of said machine, the upper end of said back-stop being adapted to support the outer end of the stock being operated upon by said machine.

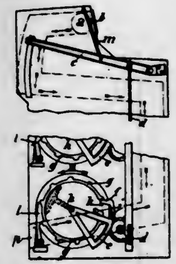
2. The combination with a forging machine or the like; of a back stop, comprising a stand having a substantially vertical front formed with a projecting arm, a slide-way thereabove and a longitudinally disposed slot intersecting such slide-way, a bracket mounted in said slide-way, means interposed between said arm and bracket for adjustably positioning the latter, a rest borne by said bracket, and a bolt secured in said slot and adapted to be secured with its head adjacent to said rest, said rest being adapted to support the outer end of the stock being operated upon and said head serving to retain said stock against end-wise movement.

3. A back-stop for forging machines or the like comprising a stand having a substantially vertical front formed with a projecting arm, a slide-way thereabove, and a longitudinally disposed slot intersecting said slide-way, a bracket mounted in said slide-way, a screw mounted in said arm and engaging said bracket to adjustably position the same, a rest borne by said bracket, and a bolt secured in said slot and adapted to be secured with its head adjacent to said rest, said rest being adapted to support the outer end of the stock being operated upon and said head serving to retain such stock against end-wise movement.

4. A back-stop for forging machines or the like comprising a stand having a substantially vertical front formed with a projecting arm, a slide-way thereabove, and a longitudinally disposed slot of T cross-section intersecting said slide-way, a bracket mounted in said slide-way, a screw mounted in said arm and engaging said bracket to adjustably position the same, a rest borne by said bracket, and a bolt having its nut secured in said slot and its head disposed adjacent to said rest, said rest being adapted to support the outer end of the stock being operated upon and said head serving to retain such stock against end-wise movement.

5. The combination of a back-stop for forging machines or the like with a bed-plate, said bed-plate being formed with two parallel longitudinally disposed slots of T cross-section and with a series of holes lying intermediately of said slots, and said back-stop being mounted upon said bed-plate and projecting upwardly to the working level of the forging or like machine; bolts, with their heads secured in such T slots for securing said back-stop to said bed-plate, a pin in the rear of said back-stop adapted to engage said holes, respectively, to retain said stop in place, and means borne by said stop for supporting the outer end of the stock being operated upon by said machine, said supporting means being vertically adjustable and also longitudinally adjustable within a distance equal to the distance between adjacent holes in said bed-plate.

943,378. AUTOMATIC VOTE-REGISTERING MACHINE. EUGENIO BOGGIANO, Rome, Italy. Filed Jan. 3, 1906. Serial No. 294,438.



1. An automatic vote registering machine comprising a casing having a rear opening for the insertion of the hand of the voter and a plurality of inclosed slots extending entirely through the machine and to which the opening gives access, a plurality of counters adapted to be operated by tickets inserted in the slots, said tickets adapted to pass entirely through the slots and out of the machine whereby to be used again, a totalizing counter, and mechanism whereby the movement of each of the first named counters is partaken of by the totalizing counter.

2. An automatic vote registering machine comprising a casing having a rear opening for the insertion of the hand of the voter and a plurality of inclosed slots extending entirely through the machine and to which the opening gives access, a plurality of counters one for each slot and each consisting of a units drum, a tens drum, a hundreds drum and a thousands drum, mechanism whereby a ticket inserted in one of the slots causes the corresponding counter to be operated to register the vote, said ticket adapted to pass through said slot and out of the machine casing whereby to be used over again, a totalizing counter, and means whereby the votes registered on each of the first-named counters is simultaneously registered on the totalizing counter.

3. An automatic vote registering machine comprising a casing having a rear opening for the insertion of the hand of the voter, a plurality of tubular members forming closed channels within the casing, said channels communicating with said rear opening and the outside of the casing, registering mechanism for each of said channels and means for operating the same, said register operating mechanism comprising a swinging arm geared to the register mechanism and having a member projecting into the channel, said arm adapted to be moved by a ticket passing through the channel, whereby to actuate the register mechanism, said tickets adapted to pass entirely through the channels and out of the casing whereby to be used over again, and a totalizing register intergeared with and actuated by the said register actuating arms.

943,379. PADLOCK. ISIDOR M. BREMER, New York, N. Y. Filed June 1, 1909. Serial No. 499,325.



1. A padlock comprising in combination two hinge-connected members; a hook springing integrally from one member toward the other and arching down in close proximity to said other member when the members are together, thereby closing the open side of the hook; a locking member adapted releasably to engage the end of the hook of the hook-provided member, and being movably mounted on the opposite member.

2. A padlock comprising in combination two members hinged together, the first being a hollow member with a bottom and sides, the second being a plate hinged to the first member to form a lid to its top; releasable locking means adapted to lock said members together; and a hook springing integrally from the second member toward the first and arching down over an end of the first member in close proximity therewith when the members are together.

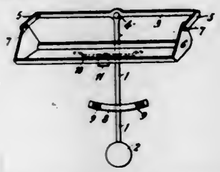
3. A padlock comprising in combination two members hinged together, the first being a hollow member with a bottom and sides, and also having a top portion extending across between its sides, the second member being a plate with a display opening through it, said plate being hinged to the first member to form a lid over its top; releasable locking means adapted to lock said members together and located in the interior of the first member; and suspension means on one of the members.

4. A padlock comprising in combination two hinge-connected members which inclose a space when the members are together; a hook springing integrally from one member and arching down in close proximity with the other member when they are together, thereby closing the open side of the hook; a bolt slidable in said space to and away from the hook into respectively a locking and an unlocking position, said bolt being mounted on the opposite member from that having the hook, and when in its locking position projecting beyond the free end of said hook adjacent its inner side.

5. A padlock comprising in combination two hinge-connected members which inclose a space when the members are together; a hook springing integrally from one member and arching down in close proximity with the other when the members are together, thereby closing the open side of the hook; a key-actuated bolt slidable in said space to and away from the hook into respectively a locking and an unlocking position, said bolt being mounted on the opposite member from that having the hook, and when in its locking position projecting beyond the free end of said hook adjacent its inner side, and being key-actuated out of said locking position; and a spring acting upon the hinge-connected members tending to open them, and further acting on the bolt tending to move and retain it in its locking position.

[Claim 6 not printed in the Gazette.]

943,380. SWINGING BERTH FOR SHIPS. VICTOR BRIDGMAN, London, England. Filed Mar. 2, 1909. Serial No. 480,940.



1. In swinging berths, the combination of a pivotally mounted bar; a berth pivotally mounted at its ends to the extremities of said bar to swing transversely thereto; an arm extending at right angles to said bar from the central portion thereof; and a pendulum connected with said arm to retain the same normally vertical.

2. In swinging berths, the combination of a bar pivotally mounted at its center, and having its end portions bent outward at right angles to its main portion; a berth pivotally suspended at its ends on said angular end portions; an arm depending from the central portion of said bar at right angles thereto, and a pendulum connected with said arm to retain it normally in a vertical position.

3. In swinging berths, the combination of a bar pivotally mounted at its center and having its end portions bent outward at right angles to its main portion; a berth

pivotally suspended at its ends on said angular end portions; an arm depending from the central portion of said bar at right angles thereto, and a pendulum connected with said arm by a parallel motion link-work to retain it normally in a vertical position.

4. In swinging berths, the combination of a bar pivotally mounted at its center and having its end portions bent outward at right angles to its main portion; a berth pivotally suspended at its ends on said angular end portions; an adjusting weight slidably mounted on said berth; an arm depending from the central portion of said bar at right angles thereto, and a pendulum connected with said arm to retain it normally in a vertical position.

5. In swinging berths, the combination of a plurality of bars each pivotally mounted at its center and having its end portions bent outward at right angles to its main portion; a berth pivotally suspended at its ends on said angular end portions; an arm depending from the central portion of each such bar at right angles thereto, and a pendulum connected by parallel motion link-work to said arms to retain them normally vertical.

[Claim 6 not printed in the Gazette.]

943,381. PLIERS. PETER BROADBOOKS, Batavia, N. Y. Filed Mar. 22, 1909. Serial No. 485,000.



1. A pliers comprising a pair of similar complemental members each having an integral handle, a pivotal portion and a jaw, and provided at the side with a laterally projecting cutter adjacent the pivotal portion, and a notch in the pivotal portion adjacent the inner end of the cutter, substantially as described.

2. A pliers comprising a pair of similar complemental members each having a handle, a pivotal portion, a jaw recessed on its inner face next the pivotal portion, an integral laterally projecting cutter on the side of the jaw adjacent the pivotal portion, and a notch in the pivotal portion adjacent the inner end of the cutter, substantially as described.

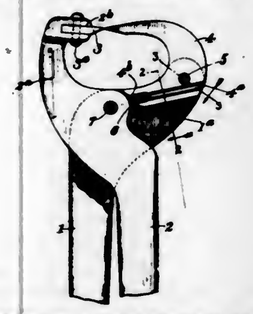
3. A pliers comprising opposite similar complemental members each having a handle, a pivotal portion, a jaw recessed on its inner face adjacent the pivotal portion, a laterally projecting cutter adjacent the pivotal portion, and a notch in the pivotal portion adjacent the inner end of the cutter, one of said cutters being arranged in advance of the opposed cutter on the opposite jaw.

4. A pair of pliers comprising two similar complemental members each having a handle, a pivotal portion and a main jaw, said pivotal portions being jointly recessed into one another, each member being provided with integral laterally projecting cutters on its sides, one of said cutters being arranged in advance of the other, and a notch adjacent the inner end of said cutters to increase their shearing capacity, whereby the pliers are adapted to shear wire placed lengthwise of the pliers or placed crosswise of the pliers, substantially as described.

5. A pliers comprising a pair of similar complemental members each having an integral handle, a pivotal portion and a jaw, said jaw being transversely and longitudinally recessed on its inner face and having laterally projecting cutters on its sides adjacent the pivotal portion, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

943,382. HOOF-PARER. PETER BROADBOOKS, Batavia, N. Y. Filed May 19, 1909. Serial No. 497,069.



1. A hoof parer comprising a bifurcated member having a handle, and an opposed member comprising a handle pivoted in the bifurcation of the first member and a jaw above the pivot provided with a cutter; with a detachable combined cutter and jaw having a shank and a long curved neck terminating in a cutting edge, devices for locking the inner end of said shank to the sides of the bifurcation of the bifurcated member to prevent oscillation of the combined cutter and jaw, and a bolt transfixing the bifurcation and the shank of said combined cutter and jaw to fasten the latter to the bifurcation; and whereby upon removing said bolt the combined cutter and jaw may be removed.

2. In a hoof parer the combination of a handle having an integral jaw, a cutter attached to said jaw, and a bifurcated handle pivoted to the first handle, its bifurcation projecting beyond the pivot; with a removable combined cutter and jaw placed between the bifurcation of said handle and having a long curved neck terminating in a cutting edge adjacent the opposite cutter, and having a shank fitted between the members of the bifurcated handle, interlocking devices between the shank and said members to prevent oscillation of the cutter and jaw, and a bolt transfixing the extremities of the bifurcation and the shank of said combined cutter and jaw, by removing which bolt the jaw may be removed or replaced.

3. A hoof parer comprising a bifurcated member having a handle, an opposed member comprising a handle, and a head portion pivoted in the bifurcation of the first member, and an integral jaw above the pivot provided with a cutter; with a detachable combined cutter and jaw having a shank engaged in the bifurcation above the pivot and having a long curved neck terminating in a cutting edge opposite the cutter on the other jaw, a slot in the inner end of said shank engaging a pin transfixing the bifurcation, and a bolt transfixing the extremities of the bifurcation and the shank of said combined cutter and jaw by removing which the jaw may be removed or replaced.

4. In a hoof parer the combination of a bifurcated member having a handle, an opposed member comprising a handle, a head portion pivoted in the bifurcation of the first member and having an integral jaw above the pivot formed with a groove in its inner face and a cutter fastened in said groove; with a detachable combined cutter and a jaw having a shank fitted in the bifurcation and having a long curved neck terminating in a cutting edge opposite the cutter on the other jaw, devices for locking the shank to the members of the bifurcations to prevent oscillation of the jaw, and a bolt transfixing the extremities of the bifurcation and the shank, by removing which the jaw may be removed or replaced.

943,383. APPARATUS FOR FIRING EXPLOSIVES IN WELLS. LUKE H. BROADWATER, Findlay, Ohio, assignor to The E. I. du Pont de Nemours Powder Company, Wilmington, Del., a Corporation of New Jersey. Filed Dec. 30, 1908, Serial No. 470,098. Renewed Nov. 3, 1909. Serial No. 526,107.



1. A wire severing device for an apparatus for firing wells, comprising the combination with the firing electric wires, of severing cutters adapted to sever said firing wires, an electric device for controlling the action of said severing device, said electric device being in circuit with the firing wires.

2. A wire severing device for an apparatus for firing wells, comprising the combination with the firing electric wires, of severing cutters adapted to sever said firing wires, an electric device for controlling the action of said severing device, electric wires in shunt with the firing wires, said shunt circuit including said electric device and extending in the path of said severing cutters.

3. A wire severing device for an apparatus for firing wells comprising the combination with the firing electric wires, of severing cutters adapted to sever said firing wires, an electric device for controlling the action of said severing device, electric wires in shunt with the firing wires, said shunt circuit including said electric device and extending in the path of said severing cutters, said shunt being included in the firing wire circuit beyond said cutters.

4. A wire severing device for an apparatus for firing wells, comprising the combination with the firing electric wires, of severing cutters adapted to sever said firing wires, an electric device for controlling the action of said severing device, said electric device being in circuit with the firing wires, said firing wires being connected to said severing device so that said severing device may be lifted by said wires.

5. A wire severing device for an apparatus for firing wells, comprising the combination with the firing electric wires, of severing cutters adapted to sever said firing wires, an electric device for controlling the action of said severing device, electric wires in shunt with the firing wires, said shunt circuit including said electric device and extending in the path of said severing cutters, said firing wires being connected to said severing device so that said severing device may be lifted by said wires.

[Claims 6 to 25 not printed in the Gazette.]

943,384. ELECTRIC HEATER. ROY W. BROWN, Amsterdam, N. Y. Filed Oct. 22, 1908. Serial No. 459,097.



1. In an electric heater, the combination of, an oblong cement body, slate located at one end of the said cement body, asbestos located at the other end of said body, a handle, a rod for tying the said parts together and embedded in said cement body, an electric heater helix surrounding the said rod and embedded in the said cement body.

2. In an electric heater, the combination of, a reinforced cement body, a helicoidal heater embedded in the said cement body, a metallic prism surrounding the said cement body, a receptacle having holes for receiving the said prism.

3. In an electric heater, the combination of, a reinforced cement body, a helicoidal heater embedded in the said cement body, a metallic prism surrounding the said cement body, a receptacle having holes for receiving the said prism, the said prism being securely fastened in the said holes and passing through the interior of the said receptacle.

4. In an electric heater, the combination of a cement body an iron rod passing through the said cement body, heads located at one end of the said cement body, one of said heads being made of slate and the other of said heads being made of asbestos, a handle, the said parts being joined together by the said rod, wire wound around the said cement body, pure Portland cement covering the said wire.

943,385. PROCESS AND APPARATUS FOR BURNING OXYGEN WITH OTHER GASES. ARTHUR R. BULLOCK, Cleveland, Ohio. Filed Jan. 11, 1908. Serial No. 410,349.



1. The process of burning oxygen and gas which consists in mingling oxygen under pressure with gas in a mixer, supplying oxygen at substantially atmospheric pressure to the mixture beyond the mixer, and igniting said mixture.

2. The process of burning gas and oxygen which consists in projecting a relatively fine jet of oxygen under high pressure into the mixing chamber of a burner, entraining by said jet of oxygen gas at a pressure slightly above that of the atmosphere, mixing the oxygen under pressure and the gas in a mixing chamber, and enveloping the mixture at a point beyond the mixing chamber with an atmosphere of oxygen under substantially atmospheric pressure.

3. The process of burning oxygen and acetylene which consists in projecting a jet of oxygen under high pressure into a mixing tube, entraining thereby a supply of acetylene at a substantially atmospheric pressure, and supplying oxygen at substantially atmospheric pressure at a point beyond the outlet end of the mixing tube.

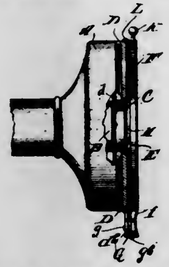
4. The process of burning acetylene and oxygen which consists in forming within a mixing chamber a mixture of acetylene with oxygen under pressure, said mixture containing less oxygen than necessary for the complete combustion of acetylene, and supplying to said mixture, beyond the mixing chamber, a sufficient quantity of oxygen at substantially atmospheric pressure to complete the combustion of the aforesaid mixture.

5. The process of burning oxygen and gas which consists in projecting oxygen under high pressure into a mixing tube, entraining thereby a quantity of gas in excess of that with which said oxygen will combine to produce com-

plete combustion, and admitting to the mixture of oxygen beyond the mixing tube an additional supply of oxygen at substantially atmospheric pressure to complete the combustion of said gas.

[Claims 6 to 10 not printed in the Gazette.]

943,386. SANITARY TELEPHONE-TRANSMITTER. MARVIN Y. CALCUTT, Seattle, Wash. Filed Apr. 12, 1909. Serial No. 489,246.



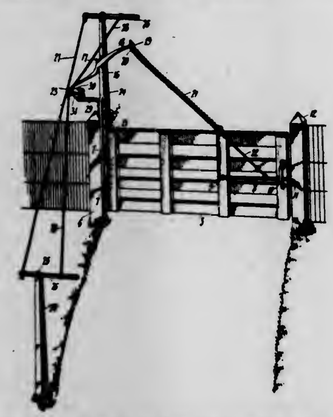
1. In a telephone, a transmitter casing, an auxiliary diaphragm secured thereto, a cover for said auxiliary diaphragm and a cleaning pad carried by said cover and adapted to be brought into contact with said diaphragm.

2. In a telephone, a transmitter casing, an auxiliary diaphragm secured thereto, a cover for said auxiliary diaphragm and a disinfectant pad carried by said cover and adapted to be brought into contact with said diaphragm.

3. In a telephone, a transmitter casing, an auxiliary diaphragm secured thereto, a cover for said auxiliary diaphragm pivotally secured to said casing, a resilient pad carried by said cover and arranged to be moistened with disinfectant solution and to be moved across the face of said auxiliary diaphragm when the cover is turned on its pivot.

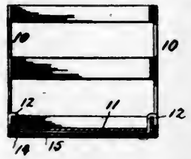
4. In a telephone, a transmitter casing, an auxiliary diaphragm secured thereto, a cover for said auxiliary diaphragm pivotally secured to said casing, a resilient pad carried by said cover and arranged to be moistened with disinfectant solution, a switch hook, a receiver carried thereby and means connecting said hook and said cover for shifting the pad away from or into contact with said auxiliary diaphragm when the receiver is lifted from or replaced on the hook.

943,387. GATE. ELMER E. CANNON, Waukomis, Okla. Filed May 12, 1909. Serial No. 495,448.



A device of the class described comprising a staff fixed vertically to the hinged post of a gate and terminating at its upper end in an angularly disposed pintle, a rocking lever pivoted centrally to the pintle and having a forwardly curved extremity and a rearwardly and downwardly curved opposite extremity, an arm fixed to said staff, a rotatable pulley mounted upon said arm out of the path of movement of the rocking lever, resilient connection between the forward extremity of the lever and the gate, manually operable levers disposed a distance removed from the rocking lever at opposite sides thereof, means connecting the manually operable levers together, and connections between the rocking lever and said manually operable levers.

943,388. KNOCKDOWN CRATE. HENRY E. CLEMENT, Cheraw, S. C. Filed Sept. 14, 1909. Serial No. 517,733.

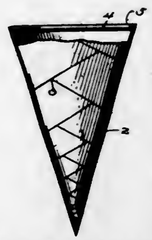


1. In a knock-down crate, the combination of the side and end walls of the crate, a bottom within the crate walls, and hangers pivoted to the bottom to engage portions of the crate walls the wall-engaging portion of the hangers consisting of outwardly turned hooks thereon.

2. In a knock-down crate, the combination of the side and end walls of the crate, a bottom within the crate walls, and hangers pivoted to the bottom to engage portions of the crate walls, the hangers being arranged in pairs connected to a common pivot rod or shaft the wall-engaging portion of the hangers consisting of outwardly turned hooks thereon.

3. In a knock-down crate, the combination of the side and end walls of the crate, a bottom within the crate walls, hangers pivoted to the bottom to engage portions of the crate walls, the hangers being arranged in pairs connected to a common pivot rod or shaft, and a cleat on the bottom extending over said shaft and journaling the same the shaft being confined between the cleat and the bottom.

943,389. PAPER RECEPTACLE. BESSIE C. COCKRELL, Washington, D. C. Filed June 4, 1908. Serial No. 436,687.



1. A paper receptacle having a tapering wall, said wall being formed with a tape, which is folded upon itself at every lap, substantially as specified.

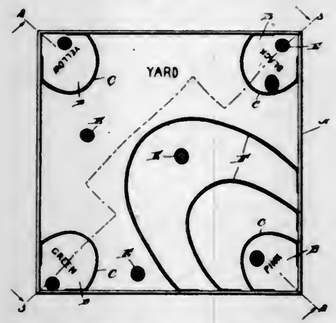
2. A paper receptacle having a tapering wall, said wall being formed with a tape, which is folded upon itself at every lap, said tape being sized, substantially as specified.

3. A paper receptacle having a tapering wall, said wall being formed with a sheet of paper having a tape wound thereupon, said tape being folded upon itself at every lap, substantially as specified.

4. A paper receptacle having a tapering wall, said wall being formed with a sheet of paper, a tape wound upon said sheet of paper, said tape being folded upon itself at every lap and a sizing covering the said sheet of paper and tape, substantially as specified.

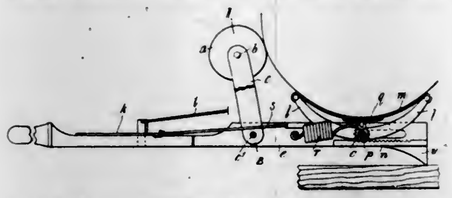
5. A paper receptacle having a tapering wall, said wall being formed by a sheet of paper, a tape wound upon said sheet of paper, said tape being folded upon itself at every lap, the said tape ending at a distance from the top of the said sheet, so that said sheet may be folded in the same, so as to form a closure, substantially as specified.

943,390. PUZZLE. JOHN F. COLLINS, Philadelphia, Pa. Filed Mar. 5, 1909. Serial No. 481,297.



An open top rectangular box, strips, one bent at each corner and secured to the sides of the box so as to form inclosures, said strips each provided with an opening facing the central portion of the box, said inclosures distinguished from each other by color designations, additional strips bent around one of the inclosures, said additional strips each provided with an opening facing said central portion, pairs of balls or marbles, each pair being colored alike and colored differently from the other pairs, the respective colors corresponding to the color designations of the inclosures, as and for the purpose specified.

943,391. DYNAMOMETER. ARTHUR E. S. CRAIG, West Ealing, England. Filed Nov. 2, 1908. Serial No. 460,745.



1. A dynamometer of the absorption type comprising, in combination, means for ascertaining the tangential pull of the flywheel or pulley at the periphery, a single scale or dial, and means for ascertaining the peripheral speed of the said flywheel or pulley, means for conveying said indications of pull and speed to said scale or dial, said scale or dial having means for ascertaining from said scale or dial without calculation on the part of the operator the brake horse-power of the machine being tested.

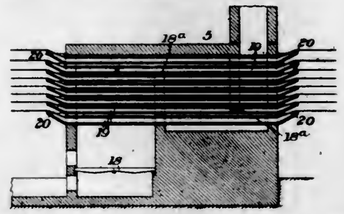
2. A dynamometer of the absorption type comprising, in combination, a lever, a cradle located thereon and capable of a limited movement, a flexible friction band on said cradle, said cradle automatically embracing a segment of the wheel or pulley when pressed in contact therewith by said lever, means connected to said cradle to ascertain the tangential pull of the flywheel or pulley at the periphery, means for ascertaining the peripheral speed of the said flywheel or pulley, a single scale or dial, and means for conveying said indications of pull and speed to said scale or dial, said scale or dial having means for ascertaining from said scale or dial without calculation on the part of the operator the brake horse-power of the machine being tested.

3. A dynamometer of the absorption type comprising, in combination, a lever, means for ascertaining the tangential pull of the flywheel or pulley at the periphery, spring-controlled arms pivoted to said lever, a friction wheel carried by said arms adapted to contact with the periphery of the said flywheel or pulley, speed-indicating apparatus actuated by the friction wheel, a single scale or dial, and means for conveying said indications of pull and speed to said scale or dial, said scale or dial having means for ascertaining from said scale or dial without calculation on the part of the operator the brake horse-power of the machine being tested.

4. A dynamometer of the absorption type comprising, in combination, a lever of the second order normally lying clear and adapted to be pulled up at the actuated end into contact with a flywheel or pulley, means for ascertaining the tangential pull of said flywheel or pulley at the periphery, means for ascertaining the peripheral speed of the said flywheel or pulley, a single scale or dial, and means for conveying said indications of pull and speed to said scale or dial, said scale or dial having means for ascertaining from said scale or dial without calculation on the part of the operator the brake horse-power of the machine being tested.

5. A dynamometer of the absorption type comprising, in combination, means for ascertaining the tangential pull of a flywheel or pulley at the periphery, a single scale or dial, and means for ascertaining the peripheral speed of the said flywheel or pulley, means for conveying said indications of pull and speed to said scale or dial, said scale or dial having means for enabling the resultant horse-power of the machine to be seen at a glance without calculation.

943,392. METHOD OF ANNEALING FLATS AND OTHER SHAPES. FRED H. DANIELS, Worcester, Mass. Filed Dec. 8, 1908. Serial No. 466,471.



1. The method of treating flats and the like, which consists in drawing the flat through an annealing furnace, and then into and through a cooling chamber in which the flat is gradually cooled in a carbonaceous atmosphere, the flat being drawn continuously through said furnace, and through the cooling chamber, and being protected from oxidizing influences while passing through the furnace to and through the cooling chamber; substantially as described.

2. The method of treating flats and the like, which consists in drawing the flat through an annealing furnace and thence into and through a cooling chamber in which the flat is gradually cooled in a carbonaceous atmosphere, and then winding the flat into a coil or bundle, the flat being drawn continuously through said furnace and through the cooling chamber, and being protected from oxidizing influences while passing through the furnace to and through the cooling chamber; substantially as described.

3. The method of treating flats and the like, which consists in supplying a plurality of coils or bundles of flats in different planes, simultaneously drawing said flats through an annealing furnace from which air and steam are excluded and thence into and through a cooling chamber in which the flats are gradually cooled in a non-oxidizing atmosphere, and then winding the flats into a coil or bundle, the flats being drawn continuously through said furnace, and through the cooling chamber, and being protected from oxidizing influences while passing through the

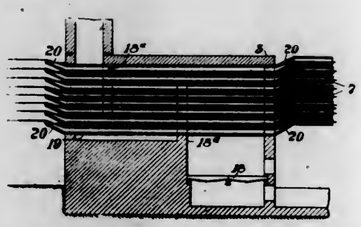
furnace to and through the cooling chamber, substantially as described.

4. The method of annealing flats and the like, which consists in supporting a plurality of coils or bundles of flats in different planes, simultaneously drawing the flats from the bundles or coils through an annealing furnace in substantially parallel lines and thence through a cooling chamber in which the flats are gradually cooled in a non-oxidizing atmosphere, the flats passing through the furnace in the same vertical plane and being drawn continuously through said furnace and through the cooling chamber and are protected from oxidizing influences while passing through the furnace to and through the cooling chamber, and then passing the flats to a set of reeling devices arranged in different planes and re-reeling the flats into bundles thereon: substantially as described.

5. The method of treating flats and the like, which consists in drawing the flats through an annealing furnace from which air and steam are excluded and then into and through a cooling chamber containing a mass of carbonaceous material in which the flats are cooled in a non-oxidizing atmosphere the flats being drawn continuously through said furnace and through the cooling chamber, and being protected from oxidizing influences while passing through the furnace to and through the cooling chamber; substantially as described.

[Claims 6 to 12 not printed in the Gazette.]

943,393. METHOD OF ANNEALING FLATS. FRED H. DANIELS, Worcester, Mass. Filed Dec. 8, 1908. Serial No. 466,472.



1. The method of treating flats and the like, which consists in drawing the flat through a lead annealing bath, and then into and through a cooling chamber in which the flat is gradually cooled in a nonoxidizing atmosphere, the flat being drawn continuously through said bath and through the cooling chamber, and being protected from oxidizing influences while passing through the bath to and through the cooling chamber; substantially as described.

2. The method of treating flats and the like which consists in simultaneously drawing a plurality of flats through a lead annealing-bath, thence into and through a cooling chamber in which the flats are gradually cooled in a non-oxidizing atmosphere, the flats being drawn continuously through said bath into and through the cooling chamber, and being protected from oxidizing influences while passing from the bath to and through the cooling chamber; substantially as described.

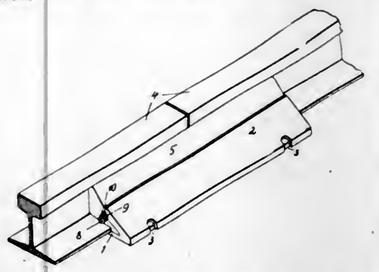
3. The method of annealing flats and the like, which consists in simultaneously drawing a plurality of flats through a lead annealing bath out of contact with each other, and thence through a cooling chamber, protecting the flats while cooling from oxidizing influences, and then passing the flats to a set of reeling devices arranged to draw and to reform the flats into bundles thereon; substantially as described.

4. The method of treating flats and the like, which consists in drawing a plurality of flats through a lead annealing bath out of contact with each other and then into and through a cooling chamber in which the flats are gradually cooled in a non-oxidizing atmosphere out of contact with each other, the flats being drawn continuously through said bath and through the cooling chamber, and being protected from oxidizing influences while passing from the bath to and through the cooling chamber; substantially as described.

5. The method of treating flats and the like, which consists in drawing the flat through a lead annealing bath and then into and through a cooling chamber containing a mass of carbonaceous material in which the flat is cooled in a non-oxidizing atmosphere, the flat being drawn continuously through said bath and through said cooling chamber, and being protected from oxidizing influences while passing from the bath to and through the cooling chamber, substantially as described.

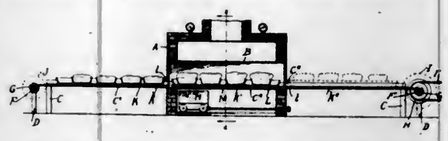
[Claim 6 not printed in the Gazette.]

943,394. RAIL-JOINT. LAFAYETTE DEER and FRENCH SMITH, Etna, Pa. Filed May 28, 1909. Serial No. 498,992.



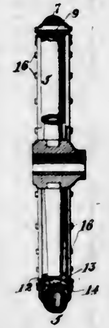
In a rail joint, a chair for supporting the rails and embodying a base plate and upwardly and inwardly extending inclined flanges formed integral with the longitudinal edges of the plate, said base plate of greater width than the width of a base of a rail and positioned to project from each longitudinal edge of the base of the rail, the splice bars engaging the webs and bases of the rails and provided with a shouldered extension engaging the longitudinal edges of the rail bases and the portions of the base plate which project beyond the edges of the rail bases, each of said splice bars formed on its periphery with a longitudinally extending shoulder against which abuts the free edges of said flanges, said flanges inclosing the lower portion of the splice bars, an apertured lug projecting from each of said flanges and arranged at a point in proximity to the free edge of its respective flange, said lugs oppositely disposed with respect to each other, an apertured lug formed integral with each of the splice bars and arranged in proximity to the shoulder of its respective splice bar, the lugs of the bars being oppositely disposed with respect to each other and arranged below the lugs of the flanges, and means extending through the lugs for connecting the splice bars to the flanges.

943,395. BAKER'S OVEN. WILLIAM D. DE VAUGHN, Baltimore, Md. Filed July 21, 1909. Serial No. 508,776.



The combination in an oven, a bottom plate having a longitudinal channel formed therein brick-work provided with thermometric gages having vertical slidable doors located therein, a detachable cable slidably passed within said channel, trays located and detachably secured to and carried by the cable, pans located in the trays, guide-rails for supporting and guiding the trays, uprights for supporting the crank and pulley shafts, crank shafts, wheels pulleys and a movable fire box located within the brick-work and below the oven.

943,396. AUTOMOBILE-TIRE. WALTER G. DICKER, Gilby, N. D. Filed Jan. 25, 1909. Serial No. 474,049.

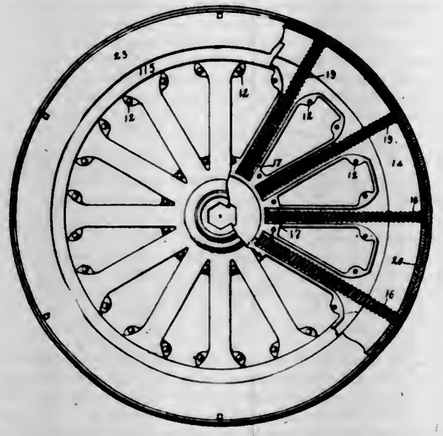


1. The combination with a U shaped wheel felly, of a cushion tire having a plurality of air chambers and intermediate solid portions, yieldable supports for said tire, said supports being mounted within and extending transversely of said felly, fastening devices for said supports, said devices extending through the sides of the felly, and means on the outer terminals of said devices for adjusting the tension of said supports.

2. The combination with a U shaped felly, of a cushion tire having a plurality of air chambers and intermediate solid portions, coil springs for supporting said tire, said springs being mounted within and extending transversely of said felly, eye-bolts extending through opposite sides of said felly and having their inner ends connected to said springs, and means on the outer ends of said bolts for adjusting the tension of said springs.

3. The combination with a U shaped wheel felly, of a cushion tire having air chambers and intermediate solid portions, yieldable supports for said tire, said solid portions having slots arranged medially and transversely thereof, pins connected to opposite sides of said felly and extending through said slots, and means for adjusting the tension of said supports.

943,397. SPRING-WHEEL. JOHN A. DIETERICH, Cleveland, Ohio, assignor of one-half to George Blumenstock, Cleveland, Ohio. Filed Nov. 12, 1908. Serial No. 462,191.

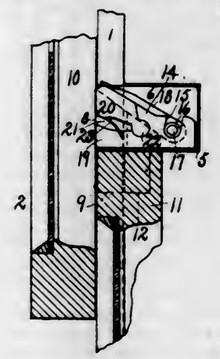


1. A spring wheel comprising a hub and a plurality of spokes, the hub and spokes being formed in symmetrical halves, the said spokes being hollow, when the halves are assembled, the outer end of the spokes being joined by parallel flanges, a tread portion coöperating with the flanges, said tread being capable of moving independently of the hub and spokes, springs within the spokes and extending throughout the length thereof, the outer ends of said springs being secured to the tread portion, the outer portions of the spokes being rounded, the said springs being deflected over said rounded portion when the wheel is in operation.

2. A spring wheel comprising a hub and a plurality of hollow spokes, the said hub and spokes being formed in two symmetrical halves and of a single piece of metal, the outer ends of the spokes being joined by parallel flanges, a tread portion coöperating with the flanges, said tread portion being capable of rotary movement independent of the hub and spokes, springs within the spokes and secured at their outer ends to the tread portion.

3. A spring wheel comprising a hub and a plurality of hollow spokes, the said spokes being joined at their outer ends by continuous webs forming flanges, the said hub and spokes being formed in two symmetrical halves formed from a single sheet of metal, a tread portion formed with depending flanges which coöperate with the flanges before mentioned, said tread portion being capable of rotary movement independent of the hub and spokes, springs within the hollow spokes and secured at their outer ends to the tread portion.

943,398. WINDOW-FASTENER. NAPOLEON DION, Springfield, Mass. Filed July 26, 1909. Serial No. 509,508.



1. A window fastener comprising a suitable support adapted to rest on the meeting-rail of a lower window and to be attached to an adjacent parting-strip, dogs on opposite sides of such support, and an arm mounted in operative relation to such dogs and adapted to actuate them backward and forward.

2. A window fastener comprising a suitable support adapted to rest on the meeting-rail of a lower window and to be attached to an adjacent parting-strip, dogs on opposite sides of such support, such dogs being provided with movable jaws, and an arm mounted in operative relation to said dogs and adapted to actuate them backward and forward.

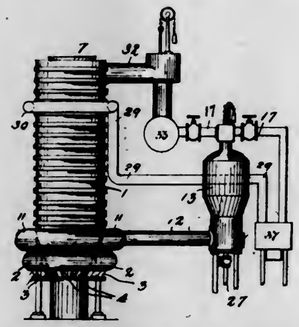
3. A window fastener comprising a suitable support adapted to rest on the meeting-rail of a lower window and to be attached to an adjacent parting-strip, dogs on opposite sides of such support, such dogs having fixed jaws and being provided with movable jaws, and an arm mounted in operative relation to said dogs and adapted to actuate them backward and forward.

4. The combination, in a window fastener, with a suitable support adapted to rest on the meeting-rail of a lower window and to be attached to an adjacent parting-strip, and an operating arm provided with a hub mounted in such support and with an eccentric stud, of dogs on opposite sides of said support in operative connection with said stud, one of such dogs being shorter than the other.

5. The combination, in a window fastener, with a suitable support adapted to rest on the meeting-rail of a lower window and provided with a lip adapted to be inserted between an adjacent parting-strip and the upper window associated with said lower window, and with a lip adapted to be inserted between such strip and the lower window, of dogs arranged on opposite sides of such support and adapted respectively to engage said parting-strip and the upper window sash, and means to force such dogs into engagement with the parting-strip and said sash and to release them from such engagement.

[Claims 6 to 8 not printed in the Gazette.]

943,399. PROCESS OF MAKING AND RECOVERING AMMONIA, &c. WILLIAM J. DUNNACHIE, Coatbridge, Scotland. Filed Apr. 3, 1908. Serial No. 425,079.



1. The process of recovering ammonia and other by-products which consists in taking off, at the hotter regions, the hot gases from blast furnaces, gas producers and similar appliances consuming a mixture of carbo-nitrogenous fuel, in treating these hot gases immediately after removal from the furnace with an aqueous fluid and thereafter with sulfuric acid; in introducing them again to the cooler part of the furnace at a point above the level from which they were drawn; in collecting the converted gas from the top of the furnace; and finally in absorbing the ammonia therefrom.

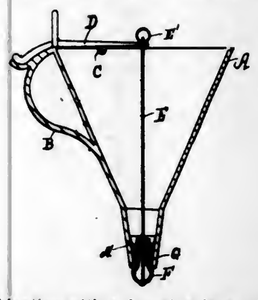
2. The method of recovering ammonia and other by-products from carbo-nitrogenous substances which consists in taking off, at the hotter regions, a portion of the furnace gases from blast-furnaces, gas-producers and similar appliances consuming carbo-nitrogenous fuel, in treating said gases with an aqueous fluid immediately after removal from the furnace, and thereafter with sulfuric acid; and finally reintroducing the gases into the cooler and upper region of the furnace.

3. The process for the recovery of ammonia which consists in drawing off, at the hotter region, a portion of the gases from blast-furnaces, gas producers and similar appliances consuming a mixture of carbo-nitrogenous fuel, in treating said portion with an aqueous fluid immediately after removal from the furnace, to convert the cyanids into ammonia and thereafter with sulfuric acid to absorb said ammonia; in reintroducing the gases so treated into the upper and cooler region of the furnace and finally in collecting the gases from the top of the furnace.

4. The process for the manufacture of ammonia which consists in taking cyanogen-containing gas from the hotter regions of blast-furnaces, gas-producers and similar appliances consuming carbo-nitrogenous fuel, in treating the same with an aqueous fluid in the presence of an intermittent blast of air to convert the cyanid into ammonia; and in absorbing the ammonia.

5. The process of recovering ammonia from the gases of blast-furnaces, gas-producers and similar appliances, consuming carbo-nitrogenous fuel, which process consists in drawing off, at the hotter regions, portions of the hot gases; in submitting such gases immediately after removal from the furnace to the action of an aqueous fluid in the presence of an intermittent blast of air; in recovering the fixed alkalies formed by such action; and finally in absorbing the ammonia.

943,400. FUNNEL. LEVI E. EDMUNDS, Philadelphia, Pa. Filed Sept. 14, 1908. Serial No. 452,919.

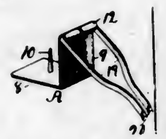


1. In combination with a funnel, a lever pivoted to the upper end thereof, a wire having one end passed through the inner end of the lever, a ring secured to said end of the wire, so as to abut the upper face of the lever, a hollow approximately pear-shaped member, the opposite end of said wire passing through said pear-shaped member, and having its extreme end headed to engage the outer face of the head of said pear-shaped member, and an annular elastic cover which surrounds said pear-shaped member and is disposed between the head and the inner end of the neck thereof.

2. In combination with a funnel, a lever pivoted to one end thereof, a wire passing through the funnel and having one end secured to the inner end of the lever, a pear-shaped member through which the opposite end of said wire passes, and is secured, and a hollow member secured on the interior of the funnel to coöperate with said pear-shaped member, said hollow member having its central inner surface enlarged and tapering toward each end thereof.

3. In combination with a funnel, a lever pivoted to one end thereof, a wire passing through the funnel and having one end secured to the inner end of the lever, a pear-shaped member to which the opposite end of the wire is connected, an elastic covering engaging about said pear-shaped member so as to extend throughout the length of the neck thereof and to extend partly over and onto the head, and a hollow member on the interior of the funnel shaped to conformably receive the pear-shaped member and to engage with the covering at the end thereof which extends onto the head of said pear-shaped member.

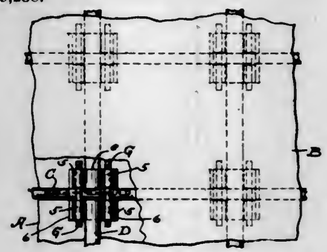
943,401. COMBINED SASH AND DOOR CHECK. GEORGE F. EHEMANN, Chicago, Ill. Filed Oct. 31, 1908. Serial No. 460,446.



1. In a device of the character described, the combination with a T-shaped shank, of a floor engaging head carried thereby, and a hinge member carried by the door and in which said T-shaped shank is pivotally mounted, said hinge member comprising a vertical slotted body portion, roll portions formed upon said body portion, and cam members formed upon said roll portions which engage said shank and hold said shank at either of its limits of movement.

2. In a device of the character described, the combination with a floor engaging member, of a hinge member with which said floor engaging member is pivotally engaged, said hinge member comprising a vertical slotted body portion and a rolled portion, said rolled portion having cam surfaces formed thereon which engage the floor engaging member to hold the same at either of its limits of movement.

943,402. METAL REINFORCEMENT FOR METAL-REINFORCED CONCRETE CONSTRUCTION. WILLIAM S. FERGUSON, Cleveland, Ohio, assignor to The National Concrete Specialty Company, Sandusky, Ohio, a Corporation of Ohio. Filed Dec. 26, 1908. Serial No. 469,238.



1. In metal reinforcement for metal-reinforced concrete construction, the combination, with two intersecting rods crossing each other, one of the rods affording bearing to the other rod of means for locking the rods together at their intersection, said locking means comprising a metal piece contoured to permit contact between the rods and having a bearing which is engaged by one of the rods, a securing device arranged transversely of and in position to clamp the other rod against the bearing-engaging rod in the direction of the said bearing, and the aforesaid metal piece having a member formed thereon and engaged by and coöperating with the said securing device in causing the rods to be clamped together between the said bearing and the said securing device.

2. In metal reinforcement for metal-reinforced concrete construction, the combination, with two intersecting rods crossing each other, one of the rods affording bearing to the other rod of means for locking the rods together at their intersection, said locking means comprising a metal piece having two suitably spaced end members and a bearing which is engaged by one of the rods and arranged between the said end members, and a plurality of securing devices arranged transversely of and in position to clamp the other rod against the bearing-engaging rod in the direction of the said bearing, and the aforesaid metal piece being contoured to permit contact between the intersecting rods and having members which are formed thereon and coöperate and coöperating with the said securing devices in causing the rods to be clamped together between the said bearing and the said securing devices.

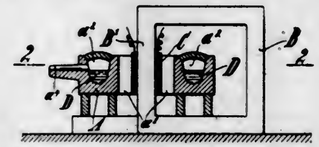
3. In metal reinforcement for metal-reinforced concrete construction, the combination, with two intersecting rods crossing each other, one of the rods affording bearing to the other rod of means for locking the rods together at their intersection, said locking means comprising a metal piece which is contoured to permit contact between the rods and has two suitably spaced end members and a member which is engaged by and forms a bearing for one of the rods between the said end members; two securing devices extending transversely and spaced longitudinally of and engaging the other rod and arranged substantially equidistantly from the bearing-engaging rod in opposite directions respectively and in position to clamp the rod engaged by the said securing devices against the bearing-engaging rod in the direction of the aforesaid bearing, and the aforesaid metal piece having members formed thereon and coöperating with the said securing devices in causing the rods to be clamped together between the said bearing and the said securing devices.

4. In metal reinforcement for metal-reinforced concrete construction, the combination, with two substantially horizontal intersecting rods crossing each other and arranged one next above and seated on the other, of a sheet-metal piece contoured to permit the upper rod to rest upon the lower rod, said sheet-metal piece having two laterally spaced legs and a saddle intermediate the legs and forming a seat for the lower rod, said legs being arranged at opposite sides respectively of the lower rod and provided at their lower ends with laterally projecting members which form the lowermost portions of the legs, and means whereby the upper rod is clamped to the lower rod.

5. In metal reinforcement for metal-reinforced concrete construction, the combination, with two intersecting rods crossing each other in substantially horizontal planes and in position to be clamped, of a chair or stand contoured to permit the upper rod to rest on the lower rod and comprising two legs and a saddle intermediate the legs, said legs being spaced longitudinally of the upper rod and arranged at opposite sides respectively of the lower rod, and the saddle being arranged to form a seat for the lower rod, and means whereby the upper rod is clamped downwardly against the lower rod.

[Claims 6 to 16 not printed in the Gazette.]

943,403. MELTING-HEARTH FOR ELECTRIC INDUCTION-FURNACES. CARL GRUNWALD, Bredeney, Germany. Filed May 7, 1909. Serial No. 494,620.



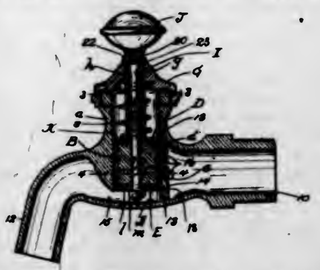
1. A melting hearth for electric induction furnaces having a melting trough provided with lateral serving openings, said trough being of a shape permitting inspection of and access to the entire surface of the bath in the trough through said serving openings.

2. A melting hearth for electric induction furnaces having a melting trough the center line of which forms a rhomb, and lateral serving openings located at the acute angles of the rhomb.

3. A melting hearth for electric induction furnaces having a melting trough of substantially rhomboidal shape.

4. A melting hearth for electric induction furnaces having a melting trough of substantially rhomboidal shape and a lateral serving opening at each of the corners forming the acute angles of the rhomb.

943,404. FAUCET OR VALVE DEVICE FOR WASH-BASINS AND THE LIKE. TOM A. HASEK, Cleveland, Ohio, assignor of one-half to Mike J. Hasek, Cleveland, Ohio. Filed Mar. 5, 1909. Serial No. 481,504.



1. A faucet or the like comprising a valve-casing having a body which has a water-receiving passageway and a spout which are suitably spaced; a chamber having an

end-portion thereof formed by and within the said body between the said passageway and the spout, which chamber has an inlet and an outlet spaced endwise of the chamber and communicating with the said passageway and spout respectively; a tubular neck formed on the body of the valve-casing and forming the other end-portion of the said chamber; a cap attached to the outer end of the neck and provided centrally with a hole extending therethrough; a valve-body arranged centrally of the chamber and enough smaller transversely than the chamber to form a space circumferentially of the valve-body; two elastic and compressible washers arranged at opposite end faces respectively of the valve-body and provided each with a wing which loosely surrounds the contiguous end of the valve-body; a rod arranged centrally of and extending endwise through and beyond the ends of the valve-body and through the aforesaid hole in the cap; a nut screwed onto the inner end of the rod; a metal washer interposed between the nut and the adjacent elastic and compressible washer and being enough smaller transversely of the chamber than the latter to form a space circumferentially of the said metal washer; a tube embracing the rod within the aforesaid neck and extending through the hole in the cap and from the cap inwardly toward the adjacent elastic and compressible washer, a metal washer interposed between the last mentioned elastic and compressible washer and the inner end of the tube, and a nut screwed onto the outer end of the rod and tightly against the outer end of the tube.

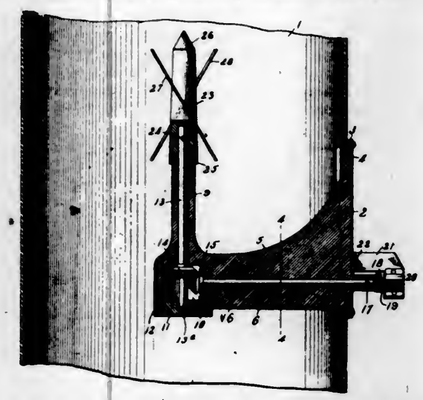
2. A faucet or the like comprising a valve-casing having a body which has a water-receiving passageway and a spout which are suitably spaced; a cylindrical chamber having an end-portion thereof formed by and within the said body between the said passageway and the spout, which chamber has an inlet and an outlet spaced endwise of the chamber and communicating with the said passageway and spout respectively; a tubular neck formed on the body of the valve-casing and forming the other end-portion of the said chamber; a cap removably attached to the outer end of the neck and provided centrally with a hole extending therethrough; a cylindrical valve-body arranged centrally of the chamber and enough smaller diametrically than the chamber to form an annular space around the valve-body; two elastic and compressible washers arranged at opposite end faces respectively of the valve-body and provided each with an annular wing which loosely surrounds the contiguous end of the valve-body; a rod arranged centrally of and extending endwise through and beyond the ends of the valve-body and through the aforesaid hole in the cap; a nut screwed onto the inner end of the rod; a metal washer interposed between the nut and the adjacent elastic and compressible washer and being enough smaller in diameter than the aforesaid chamber to form an annular space around the said metal washer; a tube embracing the rod within the aforesaid neck and extending through the hole in the cap and from the cap inwardly toward the adjacent elastic and compressible washer; a metal washer interposed between the last-mentioned elastic and compressible washer and the inner end of the tube, and a nut screwed onto the outer end of the rod and tightly against the outer end of the tube.

943,405. DEVICE FOR MEASURING GRANULAR MATERIALS. OLIVER D. HAVARD, Scranton, Pa. Filed May 3, 1909. Serial No. 493,727.

1. In a device for measuring granular material, the combination with a conduit through which the material is adapted to pass, of a meter in said conduit, and comprising a single pedestal secured in said conduit and carrying the movable parts of said meter, said pedestal constituting the sole support for said parts.

2. In a device for measuring granular material, the combination with a conduit through which the material is adapted to pass, of a meter in said conduit, said meter comprising a plurality of diagonally extending blades, a shaft on which said blades are mounted, and a single pedestal in which said shaft is journaled, said pedestal constituting the sole support for said parts.

3. In a device for measuring granular material, the combination with a conduit through which the material is adapted to pass, of a pedestal secured in said conduit and having an arm extending therefrom longitudinally of said conduit, a shaft journaled in said arm, a plurality of meter blades, and a hub to which said blades are attached secured to the end of said shaft beyond said arm, said hub having a flange surrounding the end of said arm.



4. In a device for measuring granular material, the combination with a conduit through which the material is adapted to pass, of a pedestal secured to said conduit and projecting inwardly to the center thereof, a shaft journaled in said pedestal, an arm extending from said pedestal longitudinally of said conduit, a second shaft journaled in said arm, intermeshing bevel gears carried by said two shafts, meter vanes mounted on said second shaft, inside the conduit, and a registering device connected with said first shaft, outside said conduit.

5. In a device for measuring granular material, the combination with a conduit through which the material is adapted to pass, of a pedestal secured in said conduit and having an arm extending longitudinally of said conduit and substantially centrally thereof, said pedestal having a closed chamber formed therein adjacent the arm, a shaft journaled in said arm and another shaft journaled in said pedestal, intermeshing bevel gears secured to said shafts and located in said chamber, meter vanes carried by the first shaft, and a registering mechanism operated by the second shaft.

[Claims 6 and 7 not printed in the Gazette.]

943,406. COMBINED DISK AND SHOE SEEDING DEVICE. NOAH L. HECKMAN, Marion, Ind. Filed Sept. 3, 1908. Serial No. 451,475.



1. In a seeding device a disk, a hub secured thereto and provided with a passage therethrough, an upper conduit located on one side of the disk and communicating at its lower end with the passage through the hub, and an inclosed lower conduit or shoe having a rounded lower end and located at the opposite side of the disk, the upper end of said inclosed conduit communicating with the passage through said hub, said lower conduit closed at its lower end and having a rear discharge opening above the lower periphery of the disk.

2. In a seeding device, a disk, a hub secured thereto and provided with a passage therethrough, a lower seed conduit comprising a closed shoe having its lower end closed and rounded and having a discharge opening at its rear, said shoe communicating at its upper end with the passage through the hub, and means for adjustably securing said lower seed conduit to the hub whereby the lower conduit may be moved in an arc and held.

3. A combined seed dropping shoe and furrow-opener consisting of a disk and a hub, the shoe consisting of inner and outer walls connected at their front edges and at their lower ends and separated at their rear edges to form a discharge opening, said lower end being rounded, and said hub having a passage communicating with the interior open space of the shoe at its upper end.

4. A combined seed dropping shoe and furrow opener consisting of a disk and hub having a passage therethrough and a lower conduit comprising front and rear walls connected at their front and lower edges, the said lower edge being curved, the rear edges of the front and rear walls being separated at a point above their lower edge to form a rear discharge opening for said lower conduit.

5. A combined seed dropping shoe and furrow-opener consisting of a disk having a hub having an opening therethrough forming the upper portion of a seed conduit, the shoe forming a lower seed conduit and comprising an inner wall curved to correspond to the curvature of the disk and a bulged outer wall, said lower conduit communicating with the hub portion and formed on a curve to discharge rearwardly.

[Claim 6 not printed in the Gazette.]

943,407. WATER-CURB-BOX LID. JOHN J. HEIMBUECHER, Pittsburg, Pa. Filed Mar. 3, 1909. Serial No. 481,039.

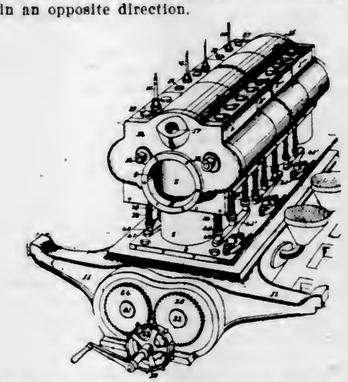


A box lid adapted for use substantially as described and comprising segmental sections hinged together at one edge, and having fastening means at an opposite point and provided with depending hook like portions or lugs to underlie a flange on the box the sections combining to form a circular plate adapted to cover a curb box when the original lid is lost or displaced all substantially as and for the purposes set forth.

943,408. INTERNAL-COMBUSTION ENGINE. JOHN O. HEINZE, Jr., Lowell, Mass. Filed July 16, 1908. Serial No. 443,755.

1. A group of two or more abutting cylinders for an internal combustion engine, each cylinder having therethrough suitable gas passages and cooling water passages which, when the cylinders are secured together and abut, form continuous gas passages and water passages through the group; means on one end cylinder of the group, to close each open gas passage, and means to separate the water passages; means on the other end cylinder, to close each of the open gas passages, and means to connect the openings of the water passages.

2. A group of two or more abutting cylinders for an internal combustion engine, each cylinder having suitable cooling water passages, which when the cylinders are secured together and abut, form continuous water passages through the group; means on one end cylinder of the group, to separate the water passages; and means on the other end cylinder, to connect the openings of the water passages; all designed so that cooling water may flow by the cylinders in one direction, and then turn and flow back in an opposite direction.



3. A group of two or more abutting cylinders for an internal combustion engine, each cylinder having suitable cooling water passages, which when the cylinders are secured together and abut, form continuous water passages through the group; a cap for one end cylinder of the group, to separate the water passages; and a cap for the other end cylinder to connect the openings of the water passages; all designed so that cooling water may flow by the cylinders in one direction, and then turn and flow back in an opposite direction by said cylinders.

4. A group of two or more abutting cylinders for an internal combustion engine, having therethrough suitable gas passages and cooling water passages which, when the cylinders are secured together and abut, form continuous gas passages and water passages through the group; a cap for one end cylinder of the group to close the open gas passages, and separate the water passages; and a cap for the other end cylinder to close the open gas passages and connect the openings of the water passages.

5. A unit cylinder and head, all cast in one piece; said head having two parallel side surfaces, and parallel water passages and gas passages extending through said head, at right angles to said parallel side surfaces; said water passages surrounding portions of said cylinder within said head, and lying between the walls of said cylinder and the gas passages.

943,409. RAILWAY-TIE. HENRY L. HOLLIS, Chicago, Ill. Filed Oct. 26, 1908. Serial No. 459,657.



1. In a railway tie, the combination of a wooden plank, bars extending longitudinally along the plank and secured thereto, there being loops formed in said bars at the ends thereof, and wooden rail supporting blocks held in said loops.

2. In a railway tie, the combination of a wooden plank, bars extending along the length of the plank and secured thereto, rectangular pockets formed in said bars at the ends thereof and rectangular rail supporting blocks secured in said pockets.

3. In a railway tie, the combination of a wooden plank, a wooden rail supporting block at each end of the plank, said blocks having grooves in their top side running parallel with the plank, bars extending along the length of the plank and secured thereto and bent to form rectangular pockets for receiving said blocks, said bars passing through said grooves in the blocks and disposed below the upper surface of said blocks so that rails on said blocks will not be in contact with said bars.

943,410. RAILWAY-TIE. HENRY L. HOLLIS, Chicago, Ill. Filed Jan. 11, 1909. Serial No. 471,593.



1. In a built-up railway tie, the combination of a substantially flat wooden supporting plank, wooden rail blocks secured to the top of the plank near its ends, and wooden end blocks secured to the top of the plank between its ends and the rail blocks and serving to prevent lateral displacement of the rail blocks.

2. In a built-up railway tie, the combination of a substantially flat wooden plank, a wooden rail block secured to the top of the plank near each end thereof and serving to receive the rails to be supported, clamping members engaging at the top of the rail blocks, clamping members engaging the underside of the plank, bolts connecting between the ends of the clamping members, said clamping members and bolts serving to secure the rail blocks to the plank, and a wooden end plate secured at each end of the plank and engaging the adjacent rail block to prevent lateral displacement of said block.

3. In a built-up railway tie, the combination of a wooden plank, a rail block on top and at each end of said plank for receiving a rail to be supported, clamping members engaging the top of the rail blocks and the rail flanges, clamping members at each rail block engaging at the underside of the plank, and bolts connecting said rail clamping members and said lower clamping members, said bolts and clamping members coöperating to clamp the rails to the rail blocks and to secure said rail blocks to the plank.

4. In a built-up railway tie, the combination of a substantially flat wooden plank, a rail block on top and at each end of said plank for receiving a rail to be supported, clamping members engaging the top of the rail blocks and the rail flanges, clamping members at each rail block, engaging at the underside of the plank, bolts connecting said rail clamping members and said lower clamping members, said bolts and clamping members coöperating to clamp the rails to the rail blocks and to secure said rail blocks to the plank, and wooden end plates secured to the top of the plank and abutting against the end of the rail blocks to prevent lateral displacement of said rail blocks.

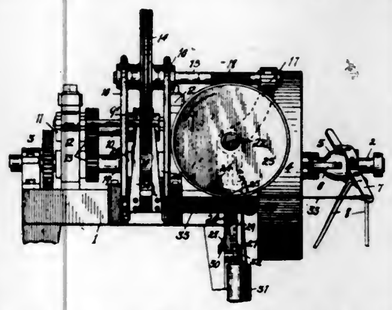
5. In a built-up railway tie, the combination of a substantially flat wooden plank, a wooden rail block secured to the top of the plank near each end thereof and serving to receive the rails to be supported, clamping members engaging at the top of the rail blocks, clamping members engaging the underside of the planks, bolts connecting between the ends of the clamping members, said clamping members and bolts serving to secure the rail blocks to the plank, and abutment members secured at the ends of the plank for preventing lateral displacement of the rail blocks.

[Claim 6 not printed in the Gazette.]

943,411. AUTOMATIC STOP MECHANISM. VERNON HOXIE, Adrian, Mich. Filed Jan. 22, 1909. Serial No. 473,704.

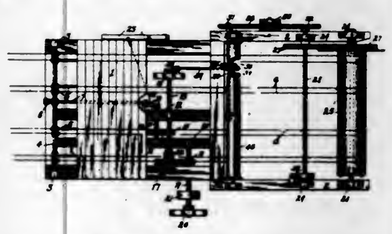
1. The combination with means for feeding a wire or similar article, and a controlling clutch therefor, of a rotatable member which is actuated by the movement of the article being fed, a pin projecting from such member, an oscillatory element which is engaged and oscillated by the pin at each revolution thereof, means normally holding said member in one position, a weight capable of being supported by said element when in normal position and to be released therefrom when the element is moved, and connection between the clutch and said weight which is adapted to be moved to disengage the clutch when the weight is released.

2. In combination, a set of feed-rolls, a drive-shaft for one of said rolls, a drive-pulley loosely carried by said shaft, a clutch associated with the shaft and pulley, a wheel having rotation communicated thereto by the article fed between said rolls, a worm-shaft carrying said wheel, a worm-gear associated with said shaft and having a lateral projection on one side thereof, a member movable by said projection at each revolution of the gear, a weight



capable of being supported by said member and released therefrom by a movement of the member whereby to permit it to drop by gravity, and connection between the weight and clutch for disengaging the clutch and pulley when the weight is released.

943,412. WIRE-FENCE LOOM. VERNON HOXIE, Adrian, Mich. Filed Jan. 30, 1909. Serial No. 475,224.



1. In a loom, a rocking warp wire spreading cradle having two relatively angled sets of arms, each of which arms has its outer end angled in the direction of the other set and provided with a warp wire receiving eye the inner and outer walls of which diverge from each other in the direction of movement of the wires therethrough, and mechanism for rocking the cradle to reverse the positions of the sets of wires threaded through the cradle arms.

2. In a loom, a wire spreading cradle, a continuously revolving member, a shaft, a single revolution clutch movable to impart a single revolution to said shaft from said member, a second shaft, means for communicating a partial revolution thereto from a revolution of said first shaft, means connecting said second shaft and cradle for rocking the cradle when the second shaft and the cradle is actuated, a fabric winding reel, and means for imparting a predetermined movement to the reel at each revolution of said first shaft.

3. In a loom, the combination of a rocking warp wire spreading cradle, a drum on which the fabric winds, a continuously driven shaft, a second shaft, means operative to communicate a single revolution to the second shaft from said continuously driven shaft, a crank carried by said second shaft, a ratchet mechanism intermittently actuated by a revolution of said crank, means actuated by said ratchet mechanism for imparting intermittent movements to said drum, a third shaft, means for communicating a partial revolution thereto from a revolution of said second shaft, a crank carried by said third shaft, a crank carried by said cradle, and a pitman connecting said two cranks for imparting a rocking movement to said cradle when said third shaft has movement imparted thereto.

943,413. BARBED WIRE. VERNON HOXIE, Adrian, Mich. Filed May 21, 1909. Serial No. 497,493.



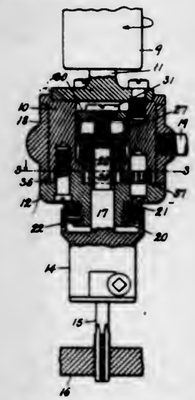
1. A barbed wire having its strand comprising a base and a covering therefor, which covering is of softer material than the base and shaped to form protuberant portions thereon.

2. A barbed wire having its strand comprising a base and a metallic coating for such base which is of a softer nature than the base, said coating having portions compressed at intervals longitudinally of the wire, but the base remaining intact.

3. A barbed wire having its strand crimped and comprising a base and a coating therefor, said coating having a side thereof thinned longitudinally of the strand and formed at intervals with protuberances.

4. A barbed wire having its strand crimped and comprising a base and a coating therefor, said coating having opposite sides thereof thinned and formed at intervals with protuberances.

943,414. REVERSING-CHUCK AND TOOL-HOLDER. MARSHALL N. JARVIS, Portland, Conn. Filed Feb. 28, 1907. Serial No. 359,741.



1. The combination, in a reversing chuck or tool holder, of a frame or body mounted for rotation, a tool spindle journaled in the body for rotation and longitudinal movement, clutch members for connecting the body and the spindle to drive the latter in one direction, a train of reversing gearing including a non-rotating internally toothed gear, and a reversing gear mounted for rotation upon and around the tool spindle, and clutch members for connecting the reversing gear and the tool spindle, whereby the latter, by its longitudinal sliding movement in the body and in the said reversing gear is clutched for forward or reverse rotation.

2. The combination, in a reversing chuck or tool holder, of a frame or body mounted for rotation, a reversing train of gearing carried by the body, including a non-rotating internally toothed gear, and a centrally mounted reversing gear, a forward driving clutch appurtenant to the body, a reversing driving clutch appurtenant to the reversing gear, and a tool spindle mounted for rotary and longitudinal movement in the body and in the reversing gear, and provided with clutch members disposed in coacting relation to the said clutch members of the body and of the reversing gear.

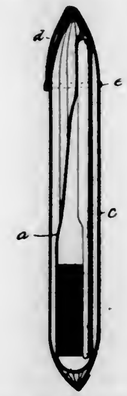
3. The combination, in a reversing chuck or tool holder, of a frame or body mounted for rotation, a reversing chain of gearing carried by the body, including a non-rotating internally toothed gear, and a reversing gear mounted for rotation concentrically with the body, pinions mounted for rotation in the body and revolving therewith, and connecting the non-rotating internal gear with the reversing gear to rotate the latter continuously in its reversing direction, a tool spindle mounted for rotation and for longitudinal sliding movement within the body and the said reversing gear, forward driving clutch devices between the spindle and the body, and reverse driving clutch devices between the said reversing gear and the spindle, whereby either clutch device is made operative by the longitudinal movement of the spindle.

4. The combination, in a reversing chuck or tool holder, of a frame or body mounted for rotation, a clutch member appurtenant to the body, a reversing gear journaled for rotation within and concentrically with the body, and provided with a clutch member, a non-rotating internal toothed gear journaled around the periphery of the body concentrically with the said reversing gear, and a plurality of intermediate gear pinions journaled for rotation in and for revolution with the body and permanently meshing with the reversing gear, the internal gear, and with each other.

5. The combination, in a reversing chuck or tool holder, of a frame or body mounted for rotation, a reversing gear journaled for rotation concentrically with the body, and provided with a clutch member, an internal toothed gear mounted upon the outside of the body to permit rotation of the body, means for holding the internal gear permanently stationary while the body rotates within it, intermediate gears journaled for rotation in and for revolution with the body, and connecting the internal gear with the reversing gear to rotate the latter continuously in a direction reverse to that of the rotation of the body, and a tool-carrying spindle journaled in the body for rotary and longitudinal movement and extending through the reversing gear, the spindle being provided with clutch members situated in co-acting relation to the clutch members of the body and of the reversing gear, respectively, whereby either set of clutch members may be brought into engagement by the longitudinal movement of the spindle.

[Claims 6 and 7 not printed in the Gazette.]

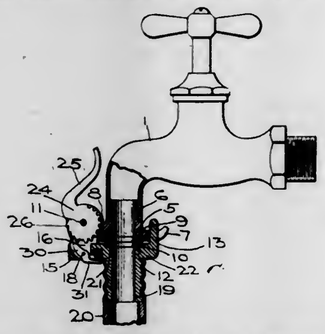
943,415. TOOTH-BRUSH HOLDER. ORCISCO E. JONES, Fremont, Ohio. Filed July 27, 1909. Serial No. 509,903.



A tooth brush holder or container consisting of an inner pocket or casing of thin elastic water proof material closed at its lower end and open at its upper end and having a length greater than the brush, and an outer pocket like casing adapted to receive the said elastic casing and having its upper end extended beyond the elastic casing and adapted to be folded over to close the upper end of the outer casing, the upper collapsed end of the elastic casing

being inclosed in said fold and clamped against the outer wall of the outer casing to thereby seal the inner casing, and the said folded end of the outer casing being provided with means for fastening it.

943,416. HOSE-COUPLING. CHARLES E. JUDKINS, Coeur d'Alene, Idaho. Filed Mar. 23, 1909. Serial No. 485,276.

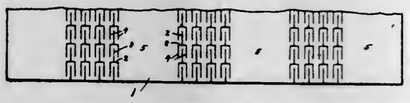


1. A coupler having in combination, a carrying member provided with a supporting ear and a gear lug, a shackle member having a flange provided with an opening to engage said ear and also carrying an ear, a lever pivotally secured to said last mentioned ear having a gear sector arranged to be brought into engagement with said gear lug, and a pawl carried by said shackle member arranged to engage said gear sector.

2. A coupler comprising a carrying member having an extended ear, and a gear lug, a shackle member having a flange provided with an opening to receive said ear, a lever provided with a gear sector pivotally secured to said shackle member, a pawl carried by said shackle member and engaging said gear sector, and a gasket carried by said last mentioned member.

3. A hose coupler having in combination, a carrying member provided with an annular seat, a supporting ear, and a gear lug, of a gasket within said seat, a shackle member having a recessed flange, a gasket seat and an ear, a gasket within said last mentioned seat, the recess within said flange being arranged to receive the ear of said carrying member, a lever pivoted to the ear of said shackle member, said lever having a head in the form of a gear sector arranged to mesh with said gear lug, and a pawl pivoted to said shackle member, and meshing with said gear head.

943,417. PROCESS FOR FORMING RIBBED EXPANDED METAL. JULIUS KAHN, Detroit, Mich., assignor to Trussed Concrete Steel Company, Detroit, Mich., a Corporation of Michigan. Filed Apr. 5, 1909. Serial No. 488,103.

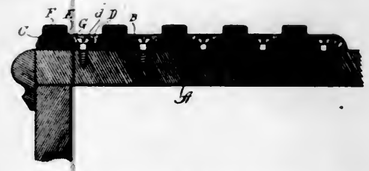


1. The process of forming ribbed expanded metal, consisting in slitting the same to form parallel bands of slitted portions separated by parallel grooved bands of entire portions, the slitting being along longitudinal lines so as to form tongues split through their bases; then striking up the tongues so that the main portions will extend at practically right angles to the sheet, the ends being parallel to the sheet; then separating adjacent entire portions to cause the tongues to open; and then passing the sheets through grooving dies to form the entire portions into U-shaped ribs, at the same time preventing the sheet from contracting generally, whereby the expanding of the slitted bands is completed.

2. The process of forming ribbed expanded metal which consists in forming a sheet with longitudinal series of slits and bands of entire metal alternately, then separating the bands of entire metal to laterally expand the slitted portions, and then forcing all the bands of entire metal into the grooves of a die simultaneously, thereby completing the expansion of the slitted portions.

3. The process of forming expanded sheet metal reinforced by longitudinal ribs extending from one face of the same, which consists in first slitting the sheet so as to form parallel bands of slitted metal separated by bands of entire metal, then striking up portions of the slitted metal to form parallel rows of split tongues and forming small grooves down the middle line of the bands of entire metal, then laterally separating the bands of entire metal thereby opening the tongues, and then placing the sheet between dies having grooves and projecting tongues in such a manner that a tongue on the dies will enter each groove in the entire portion of the sheet, and operating the dies to form ribs, the drawing in of the edges of the entire portions of the sheet completing the expansion of the slitted portions.

943,418. STAIR-TREAD. ROMAN T. KANSKI, New York, N. Y., assignor of one-half to Cyril De Wyrall, Ridgefield Park, N. J. Filed June 22, 1909. Serial No. 503,635.



1. A stair tread, comprising strips arranged side by side, each strip having one edge turned upwardly, and each strip having a portion folded inwardly upon itself and having an edge of the said folded portion turned upwardly forming, with the said upwardly-turned edge first mentioned, a channel lengthwise of the strip, and means for securing the said folded portion of the strip to a step.

2. A stair tread, comprising strips arranged side by side, each strip having an edge turned upwardly and inclined inwardly, and each strip having a portion folded inwardly upon itself, the edge of the said folded portion being turned upwardly forming, with the said upwardly-turned edge first mentioned, a channel lengthwise of the strip, means for securing the said folded portion of the strip to a step, and a cement filling located between the said upwardly turned edges of the strip.

3. A stair tread, comprising strips arranged side by side, each strip having one edge turned upwardly and inclined inwardly, and each strip having a portion folded inwardly upon itself, the edge of the said folded portion being turned upwardly forming, with the said upwardly-turned edge first mentioned, a channel lengthwise of the said strip, a rod of suitable material to prevent slipping located in the said channel, and means for securing the said folded portion of the strip to a step.

4. A stair tread, comprising strips arranged side by side, each strip having an edge turned upwardly and inclined inwardly, and each strip having a portion folded inwardly upon itself, the edge of the said folded portion being turned upwardly forming, with said upwardly-turned edge first mentioned, a channel lengthwise of the strip, a rod of suitable material to prevent slipping located in said channel, means for securing the said folded portion of the strip to a step, and a cement filling arranged to cover the said folded portion of the strip.

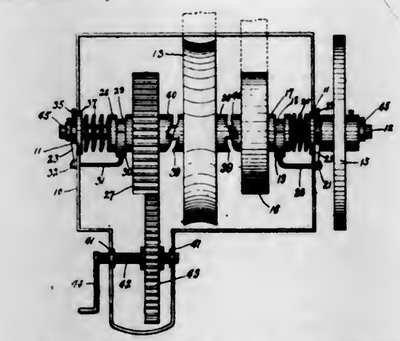
5. The combination with a concrete step having a plate secured lengthwise in its upper surface, of strips arranged side by side upon the said plate, each strip having an edge turned upwardly, and each strip having a portion folded inwardly upon itself, the edge of the said folded portion being turned upwardly forming, with said upwardly-turned edge first mentioned, a channel lengthwise of the strip, and means for securing the said strips upon the said plate.

943,419. BOWLING-ALLEY. HENRY V. KEEFER, Fort Wayne, Ind. Filed June 11, 1909. Serial No. 501,567.



A device of the class described comprising an alley formed of foldable hinged sections, legs connected near opposite ends of the sections and adapted to fold inwardly against the same flush with the outer faces thereof, a detachable box, means detachably connecting the box to one end of the alley, a folding prop hinged to the bottom of said box, brackets disposed at one side of the alley, trough sections detachably mounted in the brackets, said alley containing a pocket at its mouth and communicating with the trough, and an inverted U-shaped member mounted across the alley near the mouth portion thereof.

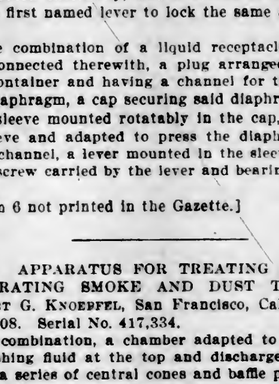
943,420. MOTOR FOR MAGNETOS. CHARLES S. KERSHNER, Westphalia, Kans. Filed Mar. 9, 1909. Serial No. 482,265.



In a motor for magnetos, a rotatably supported shaft, a drive pulley fixed thereon to rotate therewith a fly-wheel fixed on said shaft, a manually operable gear slidably and rotatably mounted on the shaft, a belt pulley adapted for connection to an engine, clutch elements adapted to connect the drive pulley with either the gear or belt pulley, springs normally forcing said belt pulley and gear into engagement with the drive pulley, shipper forks engaging the hubs of said belt pulley and gear, a stem projecting laterally from each of said shipper forks, arcuate cams each provided with a slot adapted to receive one of said stems, said cams being pivoted on said shaft, collars on said stems bearing against said cams, and a handle on each of said cams adapted to rotate the same and force the belt pulley and gear away from the drive pulley.

943,421. SIPHON FOR DISPENSING LIQUIDS. ARTHUR KLEINFELDT, Hoboken, N. J., assignor to Adam E. Schatz, Mount Vernon, N. Y., and George P. Kato, Jr., and C. William Wenner, Jersey City, N. J. Filed Nov. 30, 1908. Serial No. 465,157.

1. The combination of a liquid receptacle having an outlet, a gas container connected therewith, a valve to control the delivery of the liquid from the receptacle, a valve to control the passage of the gas from the container to the receptacle and opening outwardly under the pressure of the gas, an operating lever to control the valve for the delivery of liquid from the receptacle and operating connections between the gas valve and said lever whereby as the lever is moved to open the liquid valve, the gas valve is permitted to open and as the lever is moved to close the valve the gas valve is closed.



2. The combination of a liquid receptacle, a gas container, a valve to control the delivery of liquid from the receptacle, a valve to control the delivery of gas from the container to the receptacle and opening outward under the pressure of the gas, an operating lever to control both of said valves simultaneously and a regulating valve to regulate the flow of gas from the container to the receptacle when the controlling valve is open.

3. The combination of a liquid receptacle, a gas container connected therewith, a gas valve to control the passage of gas from the container to the receptacle and opening outward under the pressure of the gas, means to control said valve and a regulating valve to regulate the passage of the gas from the container to the receptacle when the controlling valve is open.

4. The combination of a liquid receptacle, a gas container connected therewith, a plug arranged in the wall of the container and having a channel for the passage of the gas, a plunger coöperating with the outer end of said channel to close the same against the pressure of the gas, a lever to control said plunger, an adjusting screw mounted in said lever and bearing against the plunger with its head exposed externally, and a second lever coöperating with the first named lever to lock the same against movement.

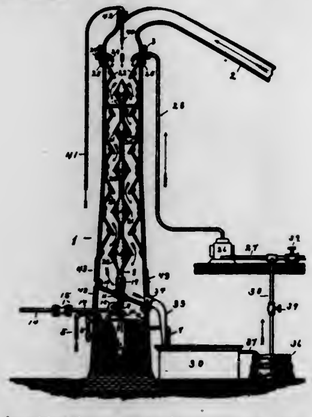
5. The combination of a liquid receptacle, a gas container connected therewith, a plug arranged in the wall of the container and having a channel for the passage of gas, a diaphragm, a cap securing said diaphragm upon the plug, a sleeve mounted rotatably in the cap, a plunger in said sleeve and adapted to press the diaphragm against the gas channel, a lever mounted in the sleeve and an adjusting screw carried by the lever and bearing against the plunger.

[Claim 6 not printed in the Gazette.]

943,422. APPARATUS FOR TREATING GASES AND SEPARATING SMOKE AND DUST THEREFROM. ERNEST G. KNOEPFEL, San Francisco, Cal. Filed Feb. 24, 1908. Serial No. 417,334.

1. In combination, a chamber adapted to receive gases and washing fluid at the top and discharge them at the bottom, a series of central cones and baffle plates between them, said cones discharging the liquid passing over them onto the baffle plates and the baffle plates discharging onto the next succeeding cones, and means for rotating the cones.

2. In combination, a chamber, means for supplying gases and liquid to said chamber at the top thereof, means for discharging said chamber at its bottom, a series of central cones and funnel shaped baffle plates between them in said chamber, said cones and baffle platea having serrated lower edges.



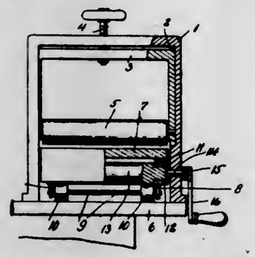
3. In combination, a chamber, means for supplying gases and liquid to said chamber at the top thereof, means for discharging said chamber at the bottom, a series of central cones and funnel shaped baffle plates between them in said chamber, said cones and baffle plates having serrated lower edges, and means for rotating said cones.

4. In combination, a chamber, means for supplying gases and liquid to said chamber at its top, means for inducing a downward draft of the gases in said chamber, means for discharging said chamber at its bottom, and a settling tank connected with said discharge, said settling tank divided into compartments by partitions of successively lower height, each compartment having a mutilated partition reaching short of the bottom thereof.

5. In combination, a tower shaped chamber adapted to receive gases and washing fluid at its top and discharge them at its bottom, an upright shaft therein, a series of central cones mounted on said shaft in said chamber, a reservoir containing liquid at the bottom of said chamber, a float floating in said liquid, and means for rotating said shaft, said shaft supported by said float.

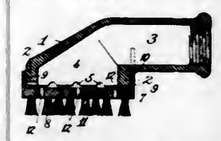
[Claims 6 and 7 not printed in the Gazette.]

943,423. DOUGH-ROLLING DEVICE. DANIEL KRAPF and JOHN F. SACHS, Millvale, Pa. Filed May 28, 1909. Serial No. 498,879.



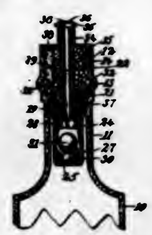
A dough rolling machine comprising a housing provided with vertical grooves, an inverted U-shape yoke having the arms therein positioned in said grooves, a roller journaled in the lower ends of said arms, a reciprocatory platform extending through the housing, rollers for supporting the platform, racks carried by the platform, rotatable means engaging with said racks for reciprocating the platform, an adjusting screw threaded in the housing and connected to the yoke for adjusting the latter and maintaining it in its adjusted position, and a lubricant arresting means carried at each end of the platform.

943,424. VACUUM CLEANING APPARATUS. JOHN F. LACOCK, Boston, Mass., assignor to Vortex Vacuum Company, a Corporation of Massachusetts. Filed Mar. 17, 1909. Serial No. 484,005.



A suction nozzle comprising a chambered body having a depending flange surrounding the same, and a tubular outlet, combined with a removable brush head having an upstanding flange adapted to fit over the depending flange of the nozzle, said brush head being provided with rows of bristles, and slots disposed in parallel relation to said rows of bristles, and between the same, substantially as set forth.

943,425. NON-REFILLABLE BOTTLE. ADOLPH LA ROSE, New York, N. Y., assignor to La Rose Hair Compound Manufacturing Company, New York, N. Y. Filed May 21, 1908, Serial No. 434,089. Renewed Nov. 9, 1909. Serial No. 527,074.



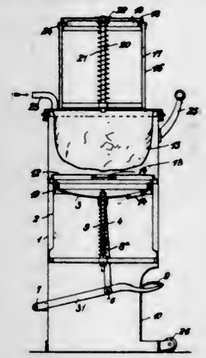
In a non-refillable bottle, the combination of a bottle neck, an annular stopper for engaging said bottle neck, said annular stopper being provided with a channel extending around it, a plurality of spherical bodies disposed partially within said channel and partially within said bottle neck, a tubular stem fitted into said annular stopper and provided with a flange engaging the same, said tubular stem being provided with lugs, a casing mounted upon said tubular stem and provided with lugs, and also provided with a seat, a ball mounted loosely within said casing and adapted to engage said first-mentioned lugs, so as to permit a liquid to pass said ball when the bottle is inverted, and a ball of smaller diameter mounted loosely within said casing and adapted to engage said seat when the bottle is upright, said casing having an internal surface which is substantially conical and disposed intermediate said seat and said first-mentioned lugs.

943,426. SUCTION APPARATUS. MAX LEBENBERG, Berlin, Germany. Filed Feb. 13, 1908. Serial No. 415,705.

1. In combination, a casing having a suction-chamber, a main piston in said casing, and means for operating said piston, a relief-chamber connected with the suction chamber, and a spring-controlled piston in said relief chamber.

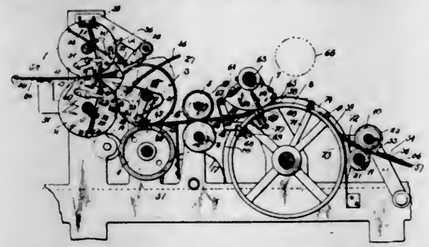
2. In combination, a casing having a suction chamber a main piston in the said casing, and means for operating said piston, a relief-chamber connected with the suction chamber, and a spring controlled piston in said relief chamber.

3. In suction apparatus, the combination of a casing, a suction-chamber therein, a main piston in one end of said chamber, means for reciprocating said piston, a relief-chamber communicating with the suction chamber, a piston in said relief-chamber adapted to be operated inwardly by the suction in the suction-chamber, and means for returning said relief-piston to normal position.



4. In suction apparatus, the combination of a casing, a suction chamber therein, a main piston in one end of said chamber provided with a valve, means for reciprocating said piston, a relief chamber communicating with the suction-chamber, a piston in said chamber adapted to be operated inwardly by the suction in the suction-chamber, and means for returning said relief piston to normal position.

943,427. BAG-MACHINE. WILLIAM LIDDELL, New York, N. Y., assignor, by mesne assignments, to Simplex Bag Company of Long Island City, a Corporation of New York. Filed June 26, 1907. Serial No. 380,936.



1. In bag machines, coöperating opening rolls to receive a bag tube and having creasers to form the initial crease therein, spring-pressed pivoted impaling grippers mounted in said opening rolls to engage and hold the bag lip and flap, tuckers, tucker rods secured to said tuckers and mounted on said opening rolls, means to project said tuckers beyond the treads of said rolls and means to cause said tuckers to simultaneously approach each other and enter the side tucks of the diamond fold, a disk feeder coöperating with said opening rolls, a clip mounted on said feeder to engage the bag portion released by one of said grippers, a pivoted impaling retainer coöperating with one of said opening rolls, a cam and connections to cause said retainer to engage the bag seam and prevent opening thereof and to move substantially in unison therewith, a folder rod mounted on said feeder, spring-operated resilient folder arms mounted on said folder rod and yielding folders mounted on said arms and operating on either side of said feeder, a folder roll and cam to operate said folders and complete the diamond fold when engaged by said tuckers, said resilient folders feeding forward the bag tube in connection with said feeder and coöperating opening rolls, a drum having clamping means thereon to engage the bag bottom and maintain the alinement thereof, pasting and indenting means coöperating with the bag bottom, an oscillating and a stationary closer to fold the bag flap and lip, and means to seal the bag bottom in position.

2. In bag machines, coöperating opening rolls to receive a bag tube and having means to form the initial crease therein, spring-pressed pivoted impaling grippers mounted in said opening rolls to engage and hold the bag lip and flap, tuckers, tucker rods secured to said tuckers and mounted on said opening rolls, means to intermittently project said tuckers beyond the treads of said rolls and means to cause said tuckers to simultaneously approach each other and enter the side tucks of the diamond fold, a disk feeder coöperating with said opening rolls, a clip mounted on said feeder to engage the bag portion released by one of said grippers, an impaling retainer coöperating with one of said opening rolls and means to cause said retainer to engage the bag seam and prevent opening thereof and to move substantially in unison therewith, a folder rod mounted on said feeder, spring-operated resilient folder arms mounted on said folder rod and yielding folders mounted on said arms to operate on either side of said feeder, means to operate said folders and complete the diamond fold when engaged by said tuckers, said folders feeding forward the bag tube in unison with said feeder and coöperating opening rolls, a drum having clamping means thereon to engage the bag bottom and pasting, indenting, folding and sealing means to seal the bag bottom in position.

3. In bag machines, coöperating opening rolls to receive a bag tube, grippers mounted in said opening rolls to engage and hold the bag lip and flap, tuckers, tucker rods secured to said tuckers and mounted on said opening rolls, means to intermittently project said tuckers beyond the treads of said rolls and means to cause said tuckers to simultaneously enter the side tucks of the diamond fold, a disk feeder coöperating with said opening rolls, means on said feeder to engage the bag seam and prevent the opening thereof, a folder rod mounted on said feeder, a spring-operated resilient folder arm and yielding folder mounted on said rod and means to operate said folder to complete the diamond fold when engaged by said tuckers, and means to paste and seal the bag bottom.

4. In bag machines, coöperating opening rolls to receive a bag tube, grippers mounted in said opening rolls to engage and hold the bag lip and flap, tuckers, tucker rods secured to said tuckers and mounted on said opening rolls, means to intermittently cause said tuckers to enter the side tucks of the diamond fold, a disk feeder coöperating with said opening rolls and provided with means to engage the bag portion released by one of said grippers, and resilient folding means to complete the diamond fold when engaged by said tuckers.

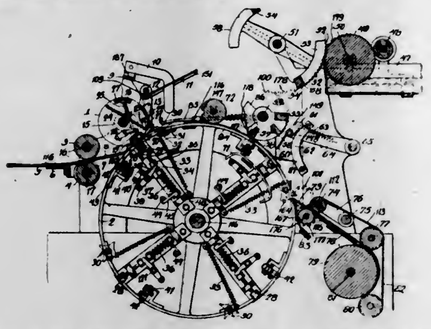
5. In bag machines, coöperating opening rolls to receive a bag tube, grippers mounted in said opening rolls to engage and hold the bag lip and flap, tuckers on said opening rolls to enter the side tucks of the diamond fold, a disk feeder coöperating with said opening rolls and provided with means to engage the bag portion released by one of said grippers and resilient folding means carried by said feeder to complete the diamond fold when engaged by said tuckers.

[Claims 6 to 22 not printed in the Gazette.]

943,428. PAPER-BAG MACHINE. WILLIAM LIDDELL, New York, N. Y., assignor, by mesne assignments, to Simplex Bag Company of Long Island City, a Corporation of New York. Filed June 15, 1908. Serial No. 438,497.

1. In bag machines, a carrier drum, a plurality of spaced sets of clamping and forming devices mounted on said carrier, said devices comprising a pivoted gripper to engage a bag lip, carrier tuckers to engage and form the side folds and clips to hold the folded bag upon said carrier, means to successively operate said devices as said carrier rotates past the several stations, an opener roll mounted to cooperate with said carrier at one of said stations, a pivoted gripper mounted on said opener roll to engage the bag lip and open the end of the bag and tuckers on said roll to

enter the side folds of the bag substantially simultaneously with the carrier tuckers, aliners coöperating with said carrier to aline and hold the bag folds adjacent said carrier and insure the coöperation of the carrier tuckers therewith, stationary deflector blades mounted adjacent said carrier and opener roll to engage and guide inward the opening sides of the bag, a pivoted sectional folder provided with edge flanges mounted adjacent said deflector and operating means to swing said folder intermittently downward to engage and form the diamond fold in the bag end, a folder roll mounted at another station to coöperate with said carrier and complete the diamond folds in bags held by said carrier, a rotating combined paster and indenter mounted at another station to coöperate with said carrier and paste and indent the bags held thereby, means to supply paste to said paster, a swinging and oscillating closer mounted at another station to engage the flaps of bags held by said carrier and bend them downward toward the bag bottom and delivery and closer devices mounted at another station to coöperate with said carrier to receive the bags from said carrier and close and seal the pasted bottoms thereof.



2. In bag machines, a carrier drum, a plurality of spaced sets of clamping and forming devices mounted on said carrier, said devices comprising a gripper to engage a bag lip, carrier tuckers to engage the side folds of the bag and clips to hold the folded bag upon the carrier, means to successively operate said devices as said carrier rotates past the several stations, an opener roll mounted to coöperate with said carrier at one of said stations, a gripper mounted on said carrier roll to engage the bag lip and open the end of the bag and tuckers on said roll to enter the side folds of the bag, stationary deflector blades mounted adjacent said carrier and opener roll to engage and guide inward the opening sides of the bag, a pivoted sectional folder provided with edge flanges mounted adjacent said deflector and means to swing said folder downward to engage and form the diamond fold in the bag end, a folder roll mounted at an adjacent station to coöperate with said carrier and complete the diamond folds in the bags held by said carrier, a paster and indenter to coöperate with said carrier and paste and indent the bags held thereby, a closer to engage the flaps of bags held by said carrier and bend them downward toward the bag bottom and delivery and closer devices mounted to coöperate with said carrier to receive the bags therefrom and close and seal the bottoms thereof.

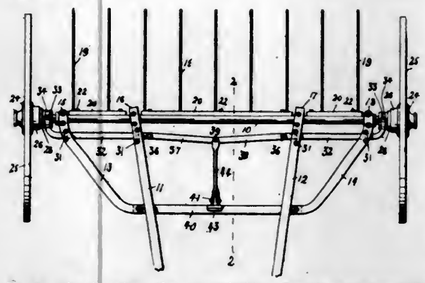
3. In bag machines, a moving carrier, a plurality of spaced sets of clamping and forming devices mounted on said carrier, said devices comprising a gripper to engage the bag lip, carrier tuckers to engage the side folds and clips to hold the folded bag upon said carrier, means to operate said devices as said carrier moves past the several stations, an opener mounted to coöperate with said carrier at one of said stations, a pivoted gripper mounted on said opener to engage the bag lip and open the end of the bag and tuckers on said opener to enter the side folds of the bag, deflectors and a moving folder mounted adjacent said opener to engage and form the diamond folds in bags held by said carrier, a paster to coöperate with said carrier and paste the bags held thereby, a closer mounted at another station to engage the flaps of bags held by said carrier and delivery and closer devices mounted at another station to coöperate with said carrier to receive the bags from said carrier and close and seal the pasted bottoms thereof.

4. In bag machines, a moving carrier, a plurality of spaced sets of clamping devices mounted on said carrier to hold the bags in engagement therewith as said carrier moves past the several stations, an opener mounted to coöperate with said carrier at one of said stations and open the end of the bag, stationary deflectors and a coöperating moving folder mounted adjacent said opener to engage and form the diamond fold in bags held by said carrier, a paster coöperating with said carrier to paste the bags held thereby and delivery and closer devices mounted to coöperate with said carrier to receive the bags therefrom and close the pasted bottoms thereof.

5. In bag machines, a moving carrier, a plurality of spaced sets of clamping devices mounted on said carrier to hold the bags in engagement therewith as said carrier moves past the several stations, an opener mounted to coöperate with said carrier at one of said stations and open the end of the bag, stationary deflecting means in the path of the bottoms of said opening bags to deflect the same inward, a coöperating moving folder to engage and form diamond folds in said opened bags and having edge flanges alining the lateral edges of the diamond fold and pasting and closing devices coöperating with said carrier.

[Claims 6 to 34 not printed in the Gazette.]

943,429. SELF-DUMPING HAY-RAKE. GUY G. LOWRY, Sherwood, Oreg. Filed Aug. 17, 1908. Serial No. 448,937.

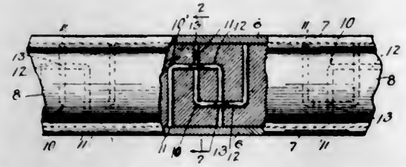


In a wheel rake, the combination with a supporting frame including spaced longitudinal members, a cross bar connecting the members and rearwardly extending divergent braces secured to the cross bar, of bearing boxes connected to the rear ends of the longitudinal members and the braces, an axle journaled in the bearing boxes, rake teeth carried by the axle, wheels loosely journaled on the ends of the axle, friction clutch elements slidably mounted on the axles between the braces and wheels and movable into and out of engagement with said wheels, boxes secured to the braces and longitudinal members in advance of the axle, alined reciprocatory rods slidably mounted in the latter boxes and having their outer ends connected directly to the clutch elements, and toggle links pivotally connected to the inner ends of the rods and to each other, a lever fulcrumed between its ends on the cross bar, said lever having a treadle on its upper end, and a link connected to the lower end of the lever and to the toggle links.

943,430. VEHICLE-TIRE. THOMAS W. LUCKE, Chicago, Ill. Filed Dec. 6, 1906. Serial No. 346,539.

1. In a tire, the combination of a tire body, interlaced U-shaped retaining wires embedded therein extending transversely of the tire body, and each having an end projecting beyond the side edge of the tire body, of coacting retaining means comprising side wings and inturned flanges carried by said wings whereunder the projecting ends of the wires engage.

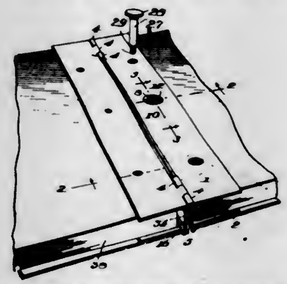
2. In a tire of the character described, a channel having upturned sides terminating in inturned flanges, combined with a tire comprising a body portion, an extended base portion, and interlaced U-shaped retaining wires in the upper plane of said base portion, said U-shaped wires extending transversely of the tire in opposite directions through less than the full width of the tire base, and at their ends disposed for engagement directly under the opposite flanges of the channel portion.



3. In a tire of the character described, the combination of a tire body, a channel rim having inturned flanges, 7, and retaining means in the tire comprising couples of U-shaped wires, arranged in interlaced relation with their free ends oppositely projecting, each wire having a kink in its yoke-part and one leg lying in the kink in the yoke of the other wire, said couples being embedded in the tire body with their free ends arranged for engagement under the flanges of the rim.

4. In a tire, the combination of a tire body, retaining wires embedded in said body each having a portion extending transversely of the tire body with an end arranged in relation to one side of the body for engagement with a rim-part, said transverse portion of the wire stopping short of the opposite side edge of the body and being suitably deflected to form an abutment which coacts with the solid rubber portion of the body laterally beyond it to prevent permanent shifting of the wire in relation to the tire body, while permitting the rim-engaging end of the wire to yield inward as the solid cushioning part of the tire body is compressed, and a coacting rim having inturned flanges for engagement with the rim-engaging ends of the wires.

943,431. LOOSE-LEAF BINDER. JOHN M. LULL, Wausau, Wis. Filed Feb. 16, 1909. Serial No. 478,240.

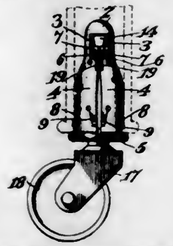


1. A loose leaf binder comprising a plurality of channel shaped leaves, each leaf being hinged to the adjacent leaf by one corner, each leaf consisting of a plurality of plates spaced apart from each other, and each provided with a lateral flange hinged to the plate, the flange of each plate projecting toward and overlapping the flange of the other plate, one of the plates having secured thereto the inner sections of a plurality of telescoping binding posts and the other the outer sections, a stud provided with resilient arms having lateral heads on one of the plates, and a socket rotatably mounted on the other plate and provided with longitudinal passages for receiving the heads and with a series of ratchet teeth between the passages and means for rotating the head.

2. A loose leaf binder comprising a plurality of channel shaped leaves, each consisting of a plurality of plates having lateral flanges, the flanges of one plate overlapping the flanges of the other plate, each leaf being hinged to the adjacent leaf by one edge, a plurality of clamps in connection with the plates, each of said clamps consisting of a socket connected with one plate and having longitudinal passages, and ratchet teeth between the passages, and a stud on the other plate having resilient arms provided with heads for engaging the teeth.

3. In a device of the class described, a plurality of leaves each consisting of plates spaced apart from each other, and having lateral flanges, the flange of one plate overlapping the flange of the other plate, one of said plates having spring arms between which and the flange the flange of the other plate is received.

943,432. CASTER-RETAINING SOCKET. DUNCAN A. MACCUAIG, Nebraska City, Nebr. Filed May 24, 1909. Serial No. 497,995.



1. A caster retaining socket comprising an approximately hollow hemispherical cap, a tubular body diametrically split into two sections, the edges of which are disposed in meeting relation, connecting members integrally connected with the cap and sections of the body, and inwardly-bent spring pintle-engaging lugs disposed along the members toward the cap with their free ends spaced from the latter, the lugs being arranged contiguous with the edges of the body sections and integrally connected therewith.

2. A caster retaining socket comprising an approximately hollow hemispherical cap, a tubular body diametrically split into two sections, the edges of which are disposed in meeting relation, connecting members integrally connected with the cap and sections of the body, inwardly-bent spring pintle-engaging lugs disposed along the members toward the cap with their free ends spaced from the latter, the lugs being arranged contiguous with the edges of the body sections and integrally connected therewith, and outwardly-bent spring anchoring lugs on the body sections extending in the opposite direction from the pintle-engaging lugs and located along the edges of the said sections.

3. A caster retaining socket comprising an approximately hollow hemispherical cap, a tubular body diametrically split into two sections, the edges of which are disposed in meeting relation, connecting members integrally connected with the cap and sections of the body, inwardly-bent spring pintle-engaging lugs disposed along the members toward the cap with their free ends spaced from the latter, the lugs being arranged contiguous with the edges of the body sections and integrally connected therewith, outwardly-bent spring anchoring lugs on the body sections extending in the opposite direction from the pintle-engaging lugs and located along the edges of the said sections, and laterally projecting non-resilient lugs formed on the body sections at the edges thereof at points between both-mentioned lugs.

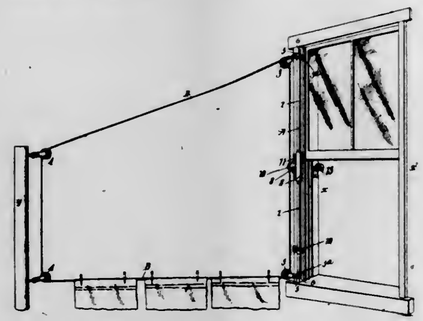
4. A caster retaining socket comprising an approximately hollow hemispherical cap, a tubular body diametrically split into two sections, the edges of which are disposed in meeting relation, connecting members integrally connected with the cap and sections of the body, inwardly-bent spring pintle-engaging lugs disposed along the members toward the cap with their free ends spaced from the

latter, the lugs being arranged contiguous with the edges of the body sections and integrally connected therewith, outwardly-bent spring anchoring lugs on the body sections extending in the opposite direction from the pintle-engaging lugs and located along the edges of the said sections, an annular flange at the larger end of the socket provided with an annular seat, and a pintle-centering member engaging in the seat and of less diameter than the latter whereby the body sections can be compressed toward each other.

5. A retaining socket made of a sheet metal blank doubled into opposing transversely curved sections that form, when together, a tubular socket, said socket being of relatively smaller diameter at its upper end and of relatively larger diameter below the upper end, the edges of said sections contacting above and below the enlarged portion of the socket, and outwardly projecting portions on the two members adapted to contact with each other, said portions being located at the points where the opposed sections contact with each other, said edges having incisions to provide outstanding anchoring lugs.

[Claims 6 to 17 not printed in the Gazette.]

943,433. WINDOW CLOTHES-LINE SUPPORT. THOMAS A. MACDONALD, Clifton, N. J. Filed Mar. 15, 1909. Serial No. 483,521.



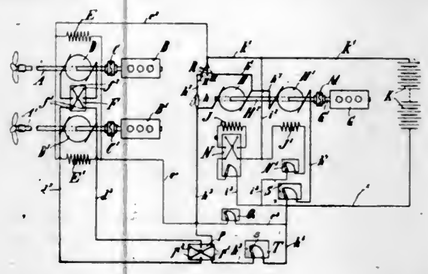
1. In a clothes-line support of the type indicated, the hanger comprising alined tubular sections and a connecting tee, means for pivotally mounting said tee, hooks applied rotatably to the ends of the sections, and screw-caps for holding the hooks in place in the manner described.

2. In a clothes-line support of the type indicated, the improved hanger comprising alined tubular sections and a tee connecting them and having a laterally extended pivot, and a keeper in which such pivot is journaled and adapted to rotate, and means for securing the pivot and thereby the hanger proper, detachably, as shown and described.

3. The combination, with a clothes-line support, comprising a bar pivoted and adapted to swing vertically and provided with pulleys for carrying a line, of combined stops and holders consisting of open spring hooks secured to the window-frame and constructed to embrace the bar and grip the same elastically, substantially as described.

943,434. SHIP'S-SCREW-DRIVING MECHANISM FOR SUBMARINE BOATS. WILHELM MAIER, Stuttgart, Germany, assignor to Fried. Krupp Aktiengesellschaft Germaniawerft, Kiel-Gaarden, Germany. Filed Aug. 15, 1908. Serial No. 448,756.

1. In a screw-driving power plant for submarine boats, the combination with the propeller shafts; a driving engine for each shaft; an electro-motor for driving each shaft, said engines and motors being adapted to act together or separately to drive their respective shafts; an auxiliary engine; a generator driven by said auxiliary engine and connected up to drive said electro-motors; an electric accumulator adapted to provide current for said generator said generator comprising two direct-connected generator elements connected in series and being provided with connections adapting one of said generator elements to be operated as a motor for driving the other generator element.



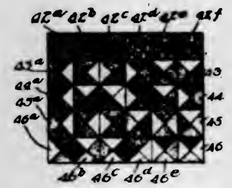
2. In a screw-driving power plant for submarine boats, the combination with the propeller shafts; of a driving engine and an electric motor for each shaft; means adapting said engine and motor to act separately or together upon the propeller shaft; an auxiliary power plant comprising two generators connected in series and an engine for driving the same; an electric accumulator for exciting the fields of all the aforesaid electric machines; a circuit through which said accumulator can be made to drive the first mentioned motors; another circuit through which said accumulator can be made to drive one of the generators as a motor; and a switch for closing and opening said circuits.

3. In a screw-driving power plant for submarine boats, the combination of two propeller shafts; a motor mounted on each shaft; a combustion engine adapted to be brought into driving relation with each shaft; a releasable clutch for connecting said combustion engine to its own propeller shaft; generators for supplying current to said motors; a combustion engine detachably connected in driving relation with said generators; an accumulator for exciting the fields of said motors and generators; a circuit for connecting said accumulator in driving relation with said motors; a circuit for connecting said accumulator with one of said generators to adapt it to run as a motor; and a switch by means of which either of said circuits may be opened and closed.

4. In a screw-driving power plant for submarine boats the combination with the motor-driven propeller shafts; of combustion engines adapted to be connected with said driving shafts; an auxiliary power plant for supplying current to the motors on said propeller shafts, said auxiliary plant comprising two generators connected in series and a combustion engine for driving said generators; an accumulator for energizing the fields of said motors and said generators; a circuit for connecting one of said generators to said accumulator to act as a motor and a switch for closing and opening said circuit to adapt said generator-motor to start the combustion engine of the auxiliary plant, said switch being also adapted to close the field energizing circuits.

5. In a power plant for operating the screw-driving propeller shafts of submarine boats, the combination with the propeller shafts, motors carried thereon, and combustion engines detachably connected therewith; of a generator plant for supplying current to said motors; a combustion engine for driving said generators, said engine being detachably connected with the generators; an accumulator for energizing the fields of said motors and generators; means for connecting the generators with said accumulator in such manner as to adapt one of said generators to act as a motor for starting the explosion engine connected therewith; and means for charging said accumulator from the generators when driven by the combustion engine.

943,435. GAME APPARATUS. MAXIMILIEN MARIS, Chicago, Ill. Original application filed Sept. 18, 1906, Serial No. 335,066. Divided and this application filed Jan. 28, 1907. Serial No. 354,373.



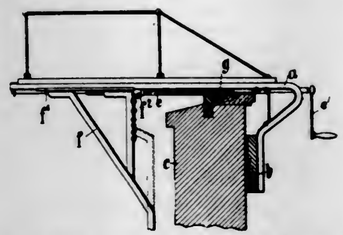
1. A set of game pieces comprising a plurality of marked rectangular objects and being divided into a plurality of groups by a different selection of markings for each group, each of said objects having a surface divided by diagonals into triangular spaces, said spaces being differently marked in such manner that each of the pieces may be matched at two or more sides, and the pieces in each of the said groups being similarly marked with respect to the selection of markings employed.

2. A set of game pieces comprising a plurality of rectangular objects and being divided into a plurality of groups by a different selection of colors for each group, each of said objects having a surface divided by diagonals into triangular spaces, said spaces being differently colored in such manner that each of the pieces may be matched at three sides, and the pieces in each of the said groups being similarly marked with respect to the selection of colors employed.

3. A set of game pieces consisting of thirty rectangular pieces, each having a surface divided by diagonals into triangular spaces, said spaces being differently colored in such manner that the pieces may be matched at two or more sides, and the said pieces being divided into five groups by a different selection of colors for each group, having six pieces in each group, the selection of colors employed in marking the pieces in each of said groups being identical.

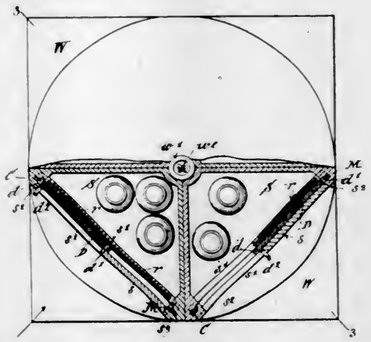
4. A set of game pieces comprising a plurality of rectangular objects provided with markings on their horizontal faces by having said horizontal faces divided into a plurality of fields adjacent their edges, each of said fields being provided with a mark or designation, said objects being divided into a plurality of groups by a different selection of markings for each group, each of said objects of each group having their horizontal faces bearing the marks in a different order of arrangement, whereby each piece may be matched at two or more sides, and the pieces in each of the said groups being similarly marked with respect to the selection of markings employed.

943,436. FLYING SCAFFOLD. HANS MARTENS and WILHELM SCHULZ, Oldenburg, Germany. Filed Aug. 31, 1909. Serial No. 515,478.



A flying scaffold comprising two parallel flanged girders having downwardly bent clamping ends, connecting cross rods at the rear and near the front ends of said girders, a spindle journaled in said cross rods having a male screw thread formed on its central portion, slides mounted on the underside of the girders taking over the flanges thereof, a cross-bar connected to the underside of said slides, a nut on the cross-bar having a female thread engaging the thread on the spindle, and depending brackets secured to the slides.

943,437. PROTECTING-SAFE. FREDERICK C. MARTIN and JOSEPH W. SMITH, New York, N. Y. Filed Sept. 20, 1909. Serial No. 518,644.



1. In a protecting safe of the character described, a compartment formed with a door opening, a slidable door adapted to close said opening, lock mechanism arranged to lock said door in its open position, and locking mechanism arranged to lock said door in its closed position, substantially as and for the purpose set forth.

2. In a protecting safe of the character described, a compartment formed with a door opening, a slidable door adapted to close said opening, locking mechanism arranged to lock said door in its open position, and locking mechanism arranged to lock said door in its closed position, and means for automatically retracting the door and locking it in its open position, when released from its closed position, substantially as and for the purpose set forth.

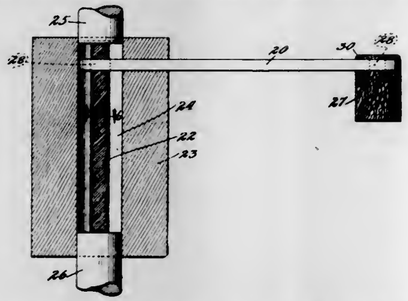
3. In a protecting safe of the character described, a plurality of compartments, each formed with a door opening, a slidable door adapted to close said opening, locking mechanism arranged to lock said door in its closed position, an individual key for releasing said locking mechanism, locking mechanism arranged to lock said door in its closed position, and a key common to all the compartments and adapted to release any and all of the doors from their open positions, substantially as and for the purpose set forth.

4. In a protecting safe of the character described, a plurality of compartments, each formed with a door opening, a slidable door adapted to close said opening, means for automatically retracting and opening the door when released from its closed position, locking mechanism arranged to lock said door in its closed position, an individual key for releasing said locking mechanism, locking mechanism arranged to lock said door in its closed position, and a key common to all the compartments and adapted to release any and all of the doors from their open positions, substantially as and for the purpose set forth.

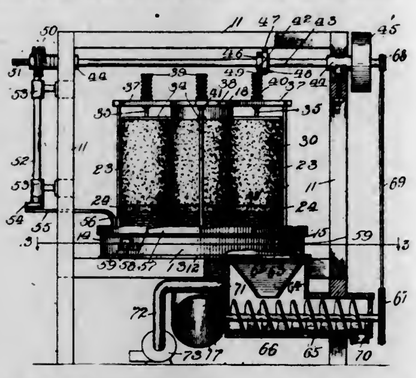
943,438. MANUFACTURE OF RAIL-BONDS. GEORGE A. MEAD, Mansfield, Ohio. Filed Nov. 2, 1906. Serial No. 341,689.

1. The improved method of making rail bonds which first consists in forming the body portion, then shaping a separate stranded piece into approximately the desired shape of the terminal, then assembling the body portion and terminal, then subjecting the terminal and the extremity to a welding heat, and finally compressing the same into a solid homogeneous mass.

2. The improved method of making rail bonds which first consists in forming the body portion then forming an aperture adjacent the extremity, then inserting a stranded piece into the aperture, then upsetting said piece to approximately the shape of the terminal, then subjecting said extremity of the body and the terminal to a welding heat, and finally compressing the same into a solid homogeneous mass.



943,439. DUST-COLLECTOR. ORVILLE M. MORSE, Jackson, Mich. Filed Jan. 9, 1905. Serial No. 240,348.



1. In a dust collector, a structure having an opening in its bottom for the reception of air, and providing a peripheral wall and a top having therein a plurality of outlet openings, a like plurality of fabric tubes, each closed, free, and weighted at its lower end, suspended from the top in positions, respectively, to cover the several outlet openings in said top, the tubes being arranged within striking distance of one another, and means for jarring the fabric members to cause them to strike one another.

2. In a dust collector, an air chamber having an outlet opening in its top, an air receiving structure above and communicating with said outlet opening, said structure comprising a peripheral wall surrounding said outlet opening and a top provided with a plurality of apertures; a like plurality of fabric tubes each opening endwise to one of the apertures in said top, said tubes being suspended side by side from said top within striking distance of one another, and free, closed and weighted at their lower ends, and means for jarring the tubes to cause their free, weighted ends to dance about and strike one another.

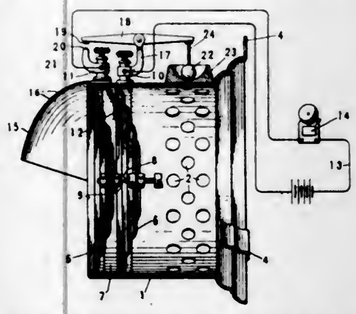
3. In a dust collector, a deck having an aperture through which dust-laden air passes; a fabric collector element comprising a support above the deck aperture, said support having an outlet opening therein, a fabric member loosely connecting the support and deck and surrounding said deck aperture, a weight intermediate the ends of the fabric member, suspended by said member, a fabric tube within the said fabric member, surrounding and opening into the outlet in the support, said tube being suspended from said support, and free, closed and weighted at its lower end; and means for jarring the element.

4. In a dust collector, an air directing part having an aperture therein through which dust-laden air passes; a fabric collector element comprising a support above said aperture, said support having a plurality of outlet openings therein, a like plurality of fabric tubes suspended side by side from said support within striking distance of one another, each of said tubes at its upper end opening into one of said outlets and at its lower end closed, free and weighted, a fabric member surrounding said support and the aperture in the air directing part, and connecting said elements, and means for jarring the fabric collector element.

5. In a fabric dust collector, a plurality of fabric tubes, each open at its upper end, and suspended from said upper end, a block at the lower end of each tube closing said tube and projecting beyond the bottom thereof to give blows to and receive blows of the blocks of the other tubes, means for supplying dust laden air to said tubes and means for jarring the tubes.

[Claims 6 and 7 not printed in the Gazette.]

943,440. ALARM APPARATUS. FRANK P. MOYER, Utica, N. Y. Filed Jan. 22, 1909. Serial No. 473,718.

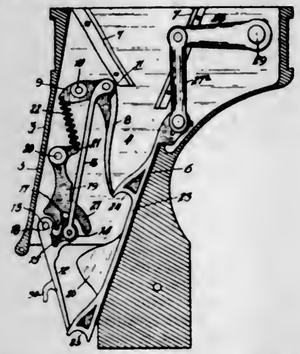


1. A device of the class described, comprising a casing having therein a chamber, the opposed walls of said chamber comprising diaphragms, a coating of catalytic substance applied exteriorly to one of said diaphragms, a shield carried by the casing and covering a portion of said coated diaphragm and adapted to direct gases against the catalytic substance carried by said diaphragm and means coöperating with said diaphragms whereby an alarm mechanism is operated.

2. A device of the class described, comprising a casing, a pair of opposed diaphragms carried by said casing, one of said diaphragms having a coating of catalytic material thereon, a shield carried by the casing covering a portion of said coated diaphragm in such manner as to direct gases against the catalytic substance carried by said diaphragm, said shield having small perforations in the upper portion thereof and means coöperating with the diaphragms whereby an alarm mechanism is operated.

943,441. VALVE MECHANISM FOR CORN-PLANTERS. FRANK P. MURPHEY, Decatur, Ill. Filed Apr. 13, 1909. Serial No. 489,679.

1. In valve mechanism for corn planters, the combination of a chute, two valve gates pivoted within the chute, a plunger adapted to coöperate with said valve gates in discharging grain retained thereby, a connection between said valve gates for operating them in unison, a pivoted locking lever adapted to engage one of the valve gates and hold it in non-operative position, a spring connecting the locking lever with the other valve gate for normally holding both of the valve gates in closed position, and a lug on the plunger adapted to engage the locking lever and throw it to a position to release the locked valve gate, substantially as described.



2. In valve mechanism for corn planters, the combination of a chute, an intermediate valve gate of inverted L formation and pivoted to the chute through its short arm, a discharging valve gate, a link connecting the discharging valve gate with the elbow of the intermediate valve gate, a pivoted locking lever adapted to lock the discharging valve gate and hold both valve gates out of commission, a spring connecting the rear or nonacting end of the intermediate valve gate with the locking lever for normally holding the valve gates in closed position, and a plunger coacting with the valve gates, substantially as described.

3. In valve mechanism for corn planters, the combination of a chute, an intermediate valve gate of inverted L formation and pivoted to the chute through its short arm, a discharging valve gate, a link connecting the discharging valve gate with the elbow of the intermediate valve gate, a pivoted locking lever adapted to lock the discharging valve gate and hold both valve gates out of commission, a spring connecting the rear or nonacting end of the intermediate valve gate with the locking lever for normally holding the valve gates in closed position, a plunger coacting with the valve gates, and provided with a lug adapted to engage the locking lever when in locking position and throw it to a position to release the engaged valve gate, substantially as described.

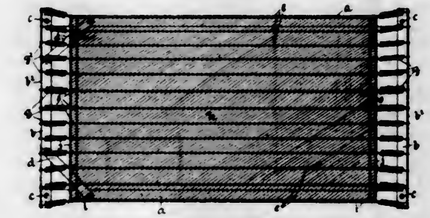
4. In valve mechanism for corn planters, a valve gate, a pivoted locking lever adjacent thereto and adapted to engage and hold the valve gate out of commission, a spring and connections between the locking lever and the valve gate for normally holding the valve gate closed, a plunger coacting with the valve gate and provided with a lug adapted to engage the locking lever when in locking position and throw back said lever and release the gate, substantially as described.

5. In valve mechanism for corn planters, the combination of a chute, an intermediate lever pivoted within the chute and provided with an arm projecting rearwardly of the pivotal point, a discharging valve gate pivoted to the chute and provided with a tongue extending forwardly of the pivotal point, a link connecting both of the valve gates forwardly of their pivotal points, a locking lever adapted to engage and lock the discharging gate when thrown to non-operative position, and a spring connecting the locking lever with the arm on the intermediate gate to the rear of its pivotal point, substantially as described.

[Claim 6 not printed in the Gazette.]

943,442. BED-BOTTOM. JAMES F. MCCLATCHEY, Kenosha, Wis. Filed Oct. 18, 1907. Serial No. 398,080.

1. In combination with a helical wire-fabric, a pair of wires transverse to the wires constituting said fabric and parallel at a short distance from each other, the unselvaged ends of said fabric being turned first over one wire and then over the other forming three interengaging laps, the wire ends in the intermediate lap engaging between the wires of the two outer laps.



2. In a bed-bottom and the like, a fastening for the unselvaged end of the wire-fabric comprising a transverse wire over which a lap of the unselvaged edge is turned, and a plurality of longitudinal wires underlying said lap and holding it in position.

3. In a bed-bottom and the like, a fastening for the unselvaged edge of a wire-fabric comprising a transverse wire over which a lap of the unselvaged edge is turned, a second transverse wire over which said lap, said first wire, and also a second lap of the edge are turned, and a plurality of longitudinal wires underlying both said turned laps and holding them in position.

4. In a bed-bottom and the like, a fastening for the unselvaged edge of a wire-fabric comprising a transverse wire over which a lap of the unselvaged edge is turned, a second transverse wire over which said lap, said first wire, and also a second lap of the edge are turned, and a plurality of longitudinal wires underlying both said turned laps and holding them in position, the ends of said first transverse wire having hooks engaging around the outside longitudinal wires whereby said transverse wire and elastic fabric engaged thereby are held in position.

5. In a bed-bottom, a frame comprising longitudinal bars and transverse angle bars having each an upstanding flange on the outside edge thereof, a plurality of coiled springs engaging in holes in each of said upstanding flanges, a plurality of longitudinal wires connecting the respective pairs of springs at opposite ends of the bed, a helical wire-fabric having longitudinal interlinked helically wound wires through the coils of some of which said longitudinal wires pass, and a pair of transverse wires crossing the ends of said longitudinal wires and engaged by said springs, the unselvaged edge of said helical wire-fabric being engaged with and held by said transverse wires.

[Claims 6 to 8 not printed in the Gazette.]

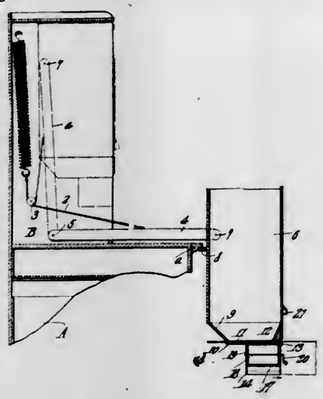
943,443. FLOUR-BIN. HENRY E. MCCLURE, Marion, Ind. Filed Mar. 5, 1909. Serial No. 481,224.

1. The combination with a supporting structure and a housing, of spring-controlled arms pivotally mounted therein, a bin pivotally supported by the arms and movable therewith into and out of the housing, and coöperating means upon the bin and structure for holding the bin in position outside of and below the housing.

2. The combination with a housing, of supporting members pivotally mounted within the housing, a bin pivotally mounted upon said members and movable therewith into and out of the housing, spring-controlled means for moving the supporting members into the housing, a supporting structure for the housing, coöperating means upon the bin and supporting structure for holding the bin in lowered position and against the stress of the springs.

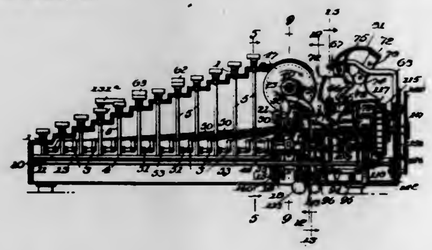
3. The combination with a supporting structure having a housing, of a pair of arms pivotally mounted within the housing, a bin supported by and mounted to oscillate between said arms, means for automatically drawing the arms and bin into the housing, and gravity operated

means upon the bin and coöperating with the supporting structure for holding the bin in position beyond the housing.



4. The combination with a supporting structure and a housing, of spring controlled arms pivotally connected to and normally mounted within the housing, and a bin pivotally supported by and between the arms and movable therewith into and out of the housing, said arms constituting means for holding the bin in position outside of and below the housing, and means connected to the arms for automatically elevating the same to raise the bin into the housing.

943,444. TYPE-WRITING MACHINE. HENRY G. McCOOL, Carmichaels, Pa. Filed Feb. 13, 1909. Serial No. 477,487.



1. The combination of a printing cylinder adapted to reciprocate, and movable keys, rock-shafts connected with the keys and operated thereby, the same being arranged transversely of the keyboard, a rack-bar connected with the cylinder for sliding it, a gear in mesh with said rack, a spring-actuated segment gear operatively connected with such rack gear, a device for locking the segment gear, and automatic releasing mechanism connected with the shafts operated by the keys, substantially as described.

2. The combination of a printing cylinder adapted to reciprocate, movable keys divided into two groups transversely of the machine, rock-shafts arranged beneath and connected with the keys of the respective groups and operated thereby, the same being arranged transversely of the keyboard, a rack-bar connected with the cylinder for sliding it, a gear in mesh with said rack, two spring-actuated segment gears, a shaft whereon such segment gears are mounted and two pinions also keyed thereon, and meshing with said segment gears by which they are operated in opposite directions, devices for locking such segment gears, and automatic releasing mechanism connecting the respective gears with the groups of keys on opposite sides of the keyboard, whereby the depression of a key in one group moves the printing cylinder in one direction and the depression of a key in the other group moves the same in the opposite direction, substantially as described.

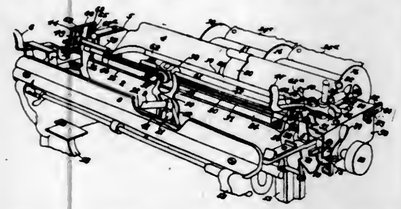
3. The combination of a printing cylinder adapted to reciprocate, movable keys and rock-shafts arranged transversely beneath the same and operatively connected therewith, a rack-bar connected with the printing cylinder for sliding it, a gear in mesh with said rack, a spring-actuated segment gear operatively connected with such rack-bar, a pivoted dog adapted to engage the segment gear for locking it in the normally retracted position, a spring bearing on said dog and holding it in normal engagement with the segment, a trip bar having retracting springs and arranged for releasing the dog from the segment, such bar being operatively connected with the transverse shafts before named, substantially as described.

4. The combination of a printing cylinder adapted to slide, movable keys, rock-shafts arranged beneath the same and connected therewith, a rock shaft arranged at the front of the keyboard parallel thereto, such shaft and the transverse shafts being provided with engaging prongs, a third rock shaft arranged at the end of the machine parallel thereto and in operative engagement with the front shaft, a sliding bar with which such end rock-shaft is connected, a rack-bar connected with the cylinder, spring-actuated gearing for operating the same, a pivoted dog for locking such gearing, the aforesaid bar being connected with the dog whereby, when a key is depressed, the bar is slid and the gearing tripped, substantially as described.

5. The combination of a printing cylinder adapted to slide endwise, catches for holding it in normal median position, rock-shafts arranged transversely beneath the keyboard and operatively connected with such catches whereby when the shafts are rocked a catch is released, and depressible keys operatively connected with such rock-shafts, substantially as described.

[Claims 6 to 17 not printed in the Gazette.]

943,445. TYPE-WRITING MACHINE. HARRY S. McCORMACK, New Rochelle, N. Y., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of New Jersey. Filed June 18, 1908. Serial No. 439,227.



1. In a typewriting machine, the combination with a platen and a letter-feeding carriage, of a paper cutter normally ineffective, a shaft mounted upon the carriage to control said paper cutter, means to turn the shaft to move the paper cutter to effective position, and means to coöperate with the cutter at the movement of the carriage to sever the web.

2. In a typewriting machine, the combination with a platen and a letter-feeding carriage, of a lever mounted upon the carriage, a paper cutter normally ineffective, a shaft mounted upon the carriage to control said paper-cutter, and means connected to said lever to turn the shaft to move the paper-cutter to effective position.

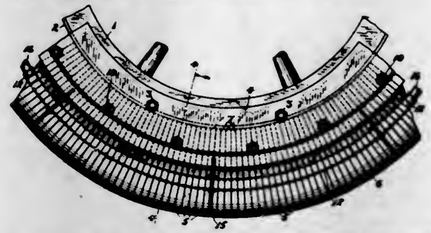
3. In a typewriting machine, the combination with a revoluble platen and a letter-feeding carriage, of a paper cutter normally ineffective, means to support said paper cutter, means to move the paper cutter to effective position, and a bar having a slit to receive the edge of the paper cutter; said cutter and bar mounted one upon the carriage and the other upon the framework.

4. In a typewriting machine, the combination with a platen and a letter-feeding carriage, of a paper-cutter normally ineffective, a shaft mounted upon the carriage to control said paper cutter, means to move the paper cutter to effective position, and means mounted upon the machine frame to prevent the paper-cutter from traveling with the carriage.

5. In a typewriting machine, the combination with a platen and a letter-feeding carriage, of a paper-cutter normally ineffective, a shaft mounted upon the carriage to control said paper cutter, means to move the paper cutter to effective position, means mounted upon the machine frame to prevent the paper cutter from traveling with the carriage, and a device upon the carriage to coöperate with said cutter to sever the web.

[Claims 6 to 99 not printed in the Gazette.]

943,446. WHEEL-TIRE. HENRY L. McDUFFEE, Gilroy, Cal. Filed Dec. 2, 1908. Serial No. 465,687.

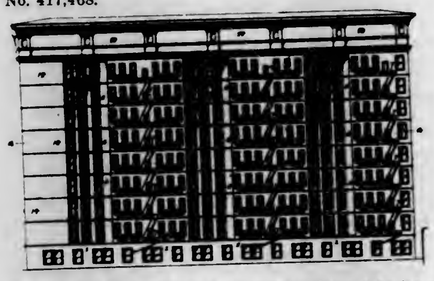


1. A vehicle wheel tire consisting of sections, each comprising a plurality of similar units, each having a central aperture, a tube passed through all of said apertures, the ends of the tubes being swaged outward, and a curved rod within the tube of each section, extending also into the tube of an adjacent section, substantially as described.

2. A vehicle wheel tire consisting of sections, each comprising a plurality of similar units, each having a central aperture, and similarly apertured metallic end plates, a tube passed through all of said apertures, the end of the tubes being swaged outward, and a curved rod within the tube of each section and extending also into the tube of an adjacent section, substantially as described.

3. A vehicle wheel tire consisting of sections, each comprising a plurality of similar units, each having a central aperture, and similarly apertured metallic end plates, a tube passed through all of said apertures, the end of the tubes being swaged outward, and a curved rod within the tube of each section and extending also into the tube of an adjacent section, and having an annular enlargement nearer one end than the other, substantially as described.

943,447. BUILDING CONSTRUCTION. THOMAS McFEELY, Philadelphia, Pa. Filed Feb. 24, 1908. Serial No. 417,468.



1. A building comprising a rectangular base, a series of semi-detached structures surmounting said base and disposed diagonally with respect to the general contour of the same, said semi-detached structures paralleling each other, and an intermediate structure having walls paralleling the base to which said semi-detached structures are connected and with which they communicate, the arrangement of said structures providing air spaces or courts between the same.

2. A building comprising a series of semi-detached structures disposed diagonally and paralleling each other, an intermediate structure having parallel walls to which the semi-detached portions are connected and with which they communicate, the arrangement of said structures providing air spaces or courts between the same, and provision for communication between opposite air spaces through said intermediate structure.

3. A building comprising a rectangular base, a series of semi-detached structures surmounting said base and disposed diagonally with respect to the general contour of the same, said semi-detached structures paralleling each other, and an intermediate structure having walls paralleling the base to which said semi-detached structures are connected and with which they communicate, the arrangement of said structures providing air spaces or courts between the same, and provision for communication between opposite air spaces through said intermediate structure.

4. A building having a rectangular base structure, a series of semi-detached structures above said base structure and disposed diagonally with respect to the same, the arrangement of said structures providing air spaces or courts between the same, and an intermediate structure having walls paralleling the base to which said semi-detached structures are connected on opposite sides.

5. A building having a central rectangular structure with parallel walls, diagonally disposed semi-detached portions connected to and extending from opposite sides of said rectangular structure and providing air spaces between the same, rooms in said diagonally diposed portions, and bay windows arranged in said rooms whereby the view in front of said building may be seen from each of said rooms.

[Claims 6 to 12 not printed in the Gazette.]

943,448. RESILIENT SLED. FRANK G. McPHERSON, Beaver Falls, Pa., assignor of one-half to Thomas C. McPherson, Beaver Falls, Pa. Filed Nov. 12, 1908. Serial No. 462,319.



1. A sled having runners thereon, each of said runners being formed of a resilient bar provided with an upwardly projecting supporting portion adapted to support a sled bottom and each provided with an inwardly extending coil formed therewith one end of said coils supporting the downward pressure on the sled and said coils adapted to be contracted by a movement of the bottom toward the runners.

2. A sled having runners thereon made of one resilient bar, each of said runners being formed with an outwardly projecting upwardly extending forward portion, a coil at the extremity thereof and an inwardly bent arm engaging beneath the bottom of the sled, the rear part of each runner being formed with an inwardly projecting portion, a coil thereon, and a continuation forming a support for the rear end of the sled bottom, said coils supporting the downward pressure on the sled bottom.

3. A sled having spring runners formed of resilient bars, each of said runners consisting of a portion forming the runner proper, then upwardly and forwardly extended, then formed into a helical coil, and then extended rearward beneath a sled bottom said coils supporting the downward pressure on the sled bottom.

4. In a sled, a bottom, helical spring coils forward of the bottom, one arm of each coil extending rearward to support the forward end of the bottom by the resiliency of the coil, the other arm of said coil extending downward

and rearward to form a runner proper and then extending upward to support the rear end of the bottom.

5. In a sled, a bottom, spring coils located forward of the bottom on opposite sides thereof, one arm of each coil extending rearward and supporting the forward end of the bottom, the other arm of said coil extending downward and rearward to form a runner proper to a point rearward of the bottom, then extended upward and inward, then formed into a coil, and then extended upward forward and attached to the rear end of the bottom of the sled said coils supporting pressure on the sled bottom.

[Claims 6 to 8 not printed in the Gazette.]

943,449. MANUFACTURE OF LENSES FOR SPECTACLES OR EYEGLASSES. HENRY ORFORD, Philadelphia, Pa., assignor of one-half to Samuel J. Taylor, Philadelphia, Pa. Filed Jan. 30, 1909. Serial No. 475,111.



1. A lens for spectacles or eyeglasses, provided with a convex surface having a spherical curvature, and a concave surface having a parabolic curvature.

2. A lens for spectacles or eyeglasses, provided with a convex surface having a spherical curvature, and a concave surface having a parabolic curvature, the two surfaces being so related to each other as to cause a constant variation in the focal length of the lens as the line of vision passes from one edge to the other.

3. A spectacle lens provided with a convex ground surface having a spherical curvature, and a concave molded surface having a parabolic curvature, the latter surface being so related to the former as to cause a gradual variation of the focal length of the lens as the line of vision passes from the upper edge to the lower edge.

943,450. FISHING-FLOAT. ARTHUR A. OWENS, Springfield, Mo. Filed Apr. 6, 1909. Serial No. 488,196.



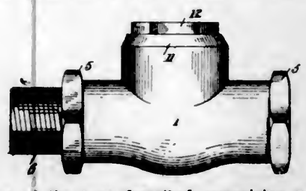
1. In a fishing float, a body or float proper having an opening therethrough, a stem in the opening having its ends projecting from the ends of the float, a strip of material having its ends coiled, the distance between the coils being equal to the length of the float, the said stem extending through the coils and through the float.

2. In a fishing float, a body having an opening therein and longitudinally thereof, a stem therein, a member having its ends coiled and designed to receive the stem, the said member engaging the external surface of the float and deflected ends for the coils designed to coact with the stem.

3. In a fishing float, a body or float proper having an opening therethrough, a stem in the opening having its ends projecting from the ends of the float, a strip of material having its ends coiled, the strip of material extending longitudinally of the outer surface of the body with the coils thereof in engagement with the stem.

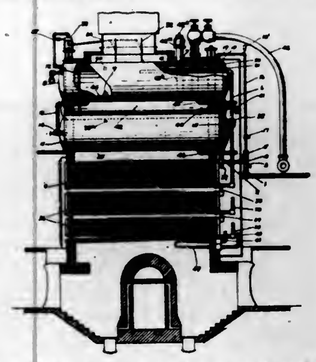
4. In a fishing float, a body having an opening therein longitudinally thereof, a stem in the opening, a member having its ends coiled, the said coils being designed to receive the stem, the said member engaging the external surface of the float and capable of being turned with or independently of the said float.

943,451. CHECK-VALVE. JAMES G. PARKER, Washington, Pa. Filed Dec. 9, 1904. Serial No. 236,213.



A valve of the type described comprising a T-shaped casing provided with an inlet and an outlet, said outlet flaring at its inner end, said inlet port being of the same diameter throughout and opening into the flaring inner end of the outlet port, the inner terminus of the wall of the inlet port constituting a valve seat slantingly positioned rearwardly, a cleansing port opening into the flared inner end of the outlet port, the wall of said cleansing port at its outer terminus provided with internal screw threads and an annular interior shoulder, said shoulder formed with a pair of journaling recesses, said recesses arranged at opposite points in a vertical plane passing through the valve seat, pins pivotally mounted in said recesses, a hollow cap with a depending flange abutting against said shoulder for maintaining the pins in the recesses, a valve adapted to engage said seat and having a weighted stop lug at one edge thereof, a yoke depending from said pins, an upwardly-extending lug formed integral with said yoke and projecting into said hollow cap, and an arm formed integral at its lower end with said valve and pivotally connected at its upper end to said yoke.

943,452. STEAM-BOILER. JOHN C. PARKER, Philadelphia, Pa. Filed Mar. 21, 1907. Serial No. 363,540.



1. In a steam boiler, a generator, a superheater connected with said generator and supplied with steam therefrom, a thermal storage chamber connected with said superheater and supplied with steam therefrom, means for supplying water to said chamber and means for conveying water from said chamber to said generator.

2. In a steam boiler, a thermal storage chamber, a superheater having a chamber connected with and discharging into said storage chamber, a generator connected with and supplying steam to said superheater, and means for supplying water to said storage chamber.

3. In a steam boiler, a generator having a collecting chamber, a storage chamber, a passage from said collecting chamber to said storage chamber, a feed water heater delivering water to said storage chamber, and means for delivering water from said storage chamber to said generator.

4. In a steam boiler, an economizer, a storage chamber to which water is delivered by said economizer, a generator having a chamber from which steam is delivered to said storage chamber, and means for delivering water from said storage chamber to said generator.

5. In a steam boiler, an economizer, a storage chamber to which water is delivered by said economizer, a generator having a chamber connected with said storage chamber, means for delivering water from said storage chamber to said generator, and a superheater to which steam is delivered from said generator.

[Claims 6 to 14 not printed in the Gazette.]

943,453. OBSTETRICAL BED. WILBUR B. PEAK, Pinhook Landing, Tenn. Filed Dec. 12, 1908. Serial No. 467,227.



1. In a device of the character described, the combination of two separable U-shaped frame members having the ends of their parallel arms beveled and formed in their bottom edges adjacent said beveled ends with notches, coupling sleeves to receive the arms of the U-shaped body members and having their ends beveled and their central portions open at the top, whereby the arms of the frame members may be inserted in said beveled ends of the sleeves when disposed in angular relation thereto, and keeper pins in the bottom portions of said sleeves to enter the notches in the arms of the frame members when said arms are swung into longitudinal alinement.

2. In a device of the character described, the combination of a rectangular body frame having its end bars formed adjacent to its corners with the spaced openings 15 and its side bars formed with the openings 19, detachable supporting legs having upright body portions and inwardly inclined integral brace portions, the upper ends of said body and brace portions of the legs being formed with the outwardly bent hooks 14 with bent extremities, said hooks being adapted to be passed through the openings 15 in an outward direction, the lower portions of said upright legs being formed with openings, diagonal braces having their upper ends formed with the hooks 18 to enter said openings 19 and their lower ends bent angularly and passed outwardly through the openings in the legs, and removable keeper pins for retaining the bent lower ends of the braces in said legs.

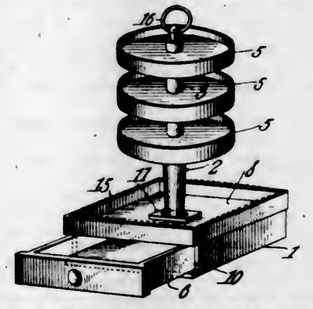
3. In a device of the character described, the combination with a horizontally disposed rectangular frame having side and end bars, of a removable rest to bear upon one of the end bars and having its inner edge provided with downwardly extending arms to enter between and engage the inner faces of the side bars of the frame, said arms terminating in outwardly and upwardly turned hooks to engage under the bottom edges of the side bars of the frame.

4. In a device of the character described, the combination of a frame having separable members, a sectional bed bottom removably arranged on said frame, a hip support upon one of said bed bottom sections, a receptacle support arranged beneath the hip support and detachably connected to the frame, supporting legs detachably connected to the frame members, foot supports adjustably and detachably arranged upon said supporting legs, knee caps and flexible connections engaged with said knee caps and connected to said foot supports.

5. In a device of the character described, the combination of a frame having separable members, a sectional bed bottom removably arranged on said frame, a hip support upon one of said bed bottom sections, a receptacle support arranged beneath the hip support and detachably connected to the frame, supporting legs detachably connected to the frame members, foot supports adjustably and detachably arranged upon said supporting legs, a supporting member detachably connected to the frame beyond said hip support and having an open portion, and a deflector removably arranged in said open portion of the supporting member.

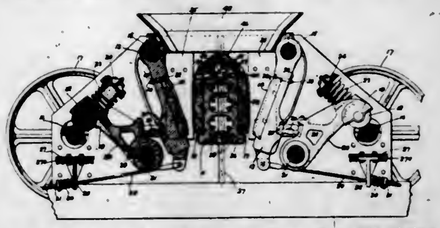
[Claims 6 to 10 not printed in the Gazette.]

943,454. WORK BOX AND STAND. STEPHEN PECOY, Cresco, Iowa. Filed June 4, 1909. Serial No. 500,142.



In a device of the class described, a base provided with an upstanding peripheral flange; a plate secured to the base; a pin-cushion provided with an opening therethrough and arranged to bear against the flanges and to cover the ends of the plate; a standard axially mounted in the opening in the cushion and terminally threaded to engage the plate; a sleeve slidably mounted upon the standard and tapered from its upper to its lower end and arranged to fit closely at its lower end in the opening in the cushion; a hollow post slidably and rotatably mounted upon the standard and provided at its lower end with a shelf to bear upon the upper end of the sleeve; and a handle carried by the upper end of the standard and spaced from the upper end of the sleeve.

943,455. ROCK-CRUSHER. EDWIN S. PHILIPS, Kennett Square, Pa., assignor to The American Road Machine Company, Kennett Square, Pa., a Corporation of Pennsylvania. Filed June 4, 1908. Serial No. 436,565.



1. In a rock-crusher, the combination with side plates, of shafts between the side plates, movable jaws pendulous from the shafts, a fixed jaw between the movable jaws, a cap surmounting the fixed jaw and having sides sloping toward the movable jaws, said cap being located below the

level of the tops of the movable jaws, and a hopper above the cap having side walls extending in front of the pendulous upper ends of the movable jaws and forming with said cap a plurality of passages for the delivery of material to be crushed on opposite sides of the fixed jaw.

2. In a rock crusher, the combination with a fixed crushing jaw having a die recess in the side thereof, and a key-way through its side wall at the upper end of said recess, of a cap overlying said jaw and extending downward to said die recess, said cap having a cut-away portion above said key-way and into which the upper end of the fixed jaw extends, a die seated in said recess, and a key extending through said key-way and abutting along its upper side against said jaw and the part of the cap not cut-away.

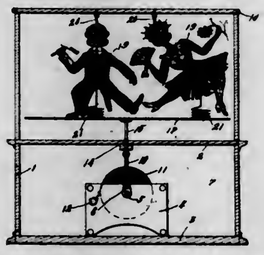
3. In a rock-crusher, the combination of movable jaws, dies carried thereby on their opposing faces, a fixed jaw between said movable jaws having die-recesses in opposite sides thereof, a cap overlying the fixed jaw and extending downwardly to said die-recesses, a die seated in each recess, and grooved across its upper edge, there being an orifice through said jaw and grooves in the part of the jaw overhanging the die-recess and in the contiguous lower end of said cap, said grooves in the cap and jaw alining with the upper part of said orifice, and a wedge-shaped key extending into said grooves and orifice, and means to draw said key inwardly, thereby confining the same between the jaw and die and holding the die in its recess.

4. In a rock-crusher, the combination with a fixed jaw having die-recesses and dies seated in said recesses, of movable jaws located on opposite sides thereof, there being completely inclosed pockets in the upper part of the fixed jaw and orifices through the fixed jaw between said pockets and the die-recesses respectively, and keys in said orifices confined between the walls thereof and the dies.

5. In a rock-crusher, the combination with a fixed jaw having die-recesses and dies seated in said recesses, and grooved across their upper edges, of movable jaws located on opposite sides thereof, there being pockets in the upper part of the fixed jaw and orifices through the fixed jaw between said pockets and the die-recesses respectively, grooves in the parts of the fixed jaws overhanging said die-recesses, said grooves alining with the upper parts of said recesses, tapered keys in the grooves of the jaw and dies and extending through said recesses, and means in said pockets to draw the keys inwardly, thereby pressing said dies downwardly against the bottom of the die-recesses.

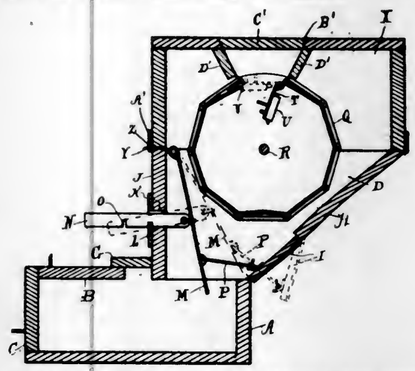
[Claims 6 and 7 not printed in the Gazette.]

943,456. TOY. PEPE PHILLIPS, CRESCENZIO DIPIERNO, and STEVE MONGELL, Newhaven, Pa. Filed Mar. 6, 1909. Serial No. 481,666.



A toy of the type described, comprising a box having one half of the front wall thereof open, a horizontal partition located in said box and providing said box with a compartment, a housing located in the compartment of said box, a winding arbor journaled in said housing, a spiral spring attached to said winding arbor and to said housing, a crank carried by said winding arbor, a vertical plunger loosely mounted in said partition, a pitman connecting said crank with said plunger, a platform carried by said plunger above said partition, jointed figures arranged above said platform, elastics connecting the heads of said figures to the top of said box, and springs carried by said platforms for movably supporting said figures.

943,457. ASH-SIFTER. SAMUEL J. PHREANER, Olney, Pa. Filed Mar. 5, 1909. Serial No. 481,469.



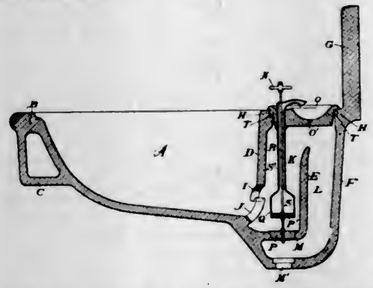
1. In an ash sifter, a deposit box having a door hinged to the top thereof and another door hinged to one end thereof, a casing, one end of which is formed on an angle, the opposite end having an opening formed therein, a metallic strip secured to the casing in proximity to the opening formed in the end thereof, a door hinged to the lower portion of the angular end of the casing, a metal band having a slot formed therein secured about the upper end of the casing, a polyhedrous sieve, a shaft running through the center thereof by means of which the sieve is journaled to the casing, a door hinged to one side of the sieve, a latch attached to the door, a catch fastened to the sieve with which the latch is adapted to engage for holding the door closed, means for diverting the ashes from the sieve to the deposit box and the coal from the sifter and a top attached to the casing, as shown and described.

2. In an ash sifter, a deposit box having a door hinged to the top thereof and another door hinged to one end thereof, a casing, one end of which is formed on an angle, the opposite end having an opening formed therein, a metallic strip secured to the casing in proximity to the opening formed in the end thereof, a door hinged to the lower portion of the angular end of the casing, a metal band having a slot formed therein secured about the upper end of the casing, a polyhedrous sieve, a shaft running through the center thereof by means of which the sieve is journaled to the casing, a door hinged to one side of the sieve, a latch attached to the door, a catch fastened to the sieve with which the latch is adapted to engage for holding the door closed, a guide hinged to the upper portion of one end of the casing, a lever having notches formed therein secured to the guide, said lever adapted to pass through the opening formed in the casing so that the notches engage with the metal strip about said opening, a link one end of which is fastened in proximity to the lower end of the guide, the opposite end to the door hinged to the angular side and a top attached to the upper portion of the casing, substantially as shown and described.

3. In an ash sifter, a deposit box having a door hinged to the top thereof and another door hinged to one end thereof, a casing, one end of which is formed on an angle, the opposite end having an opening formed therein, a metallic strip secured to the casing in proximity to the opening formed in the end thereof, a door hinged to the lower portion of the angular end of the casing, a metal band having a slot formed therein secured about the upper end of the casing, a polyhedrous sieve, a shaft running through the center thereof by means of which the sieve is journaled to the casing, a door hinged to one side of the sieve, a latch attached to the door, a catch fastened to the sieve with which the latch is adapted to engage for holding the door closed, a guide hinged to the upper portion of one end of the casing, a lever having notches formed therein secured to the guide, said lever adapted to pass through the opening formed in the casing so that the notches engage with the metal strip about said opening, a link, one end of which is fastened in proximity to the lower end of the guide, the opposite end to the door hinged to the angular side, a top attached to the upper portion of the casing, a tongue secured to said top adapted to pass through the slot formed in the metal band, a door hinged to the said top, wings attached to the top at two sides of the door for guiding the ashes into the sieve and means for revolving the sieve, as specified.

4. In an ash sifter, a deposit box having a door hinged to the top thereof and another door hinged to one end thereof, a casing, one end of which is formed on an angle, the opposite end having an opening formed therein, a metallic strip secured to the casing in proximity to the opening formed in the end thereof, a door hinged to the lower portion of the angular end of the casing, a metal band having a slot formed therein secured about the upper end of the casing, a polyhedrous sieve, a shaft running through the center thereof by means of which the sieve is journaled to the casing, a door hinged to one side of the sieve, a latch attached to the door, a catch fastened to the sieve with which the latch is adapted to engage for holding the door closed, a guide hinged to the upper portion of one end of the casing, a lever having notches formed therein secured to the guide, said lever adapted to pass through the opening formed in the casing so that the notches engage with the metal strip about said opening, a link, one end of which is fastened in proximity to the lower end of the guide, the opposite end to the door hinged to the angular side, a top attached to the upper portion of the casing, a tongue secured to said top adapted to pass through the slot formed in the metal band, a door hinged to the said top, wings attached to the top at two sides of the door for guiding the ashes into the sieve, a crank detachably secured to the shaft for revolving the sieve, a holder pivoted to the top adapted to engage with the handle of the crank for holding the door of the sieve at the top while being filled.

943,458. LAVATORY. WILLIAM PODMORE, Trenton, N. J., assignor to Trenton Potteries Company, Trenton, N. J., a Corporation of New Jersey. Filed May 31, 1907. Serial No. 376,487.



1. A lavatory having a bowl with an outlet therefrom, said outlet having an unobstructed upper portion, and a lower portion narrowed to obstruct the passage of small articles; substantially as described.

2. In a lavatory, a bowl having an outlet consisting of a lower narrow vertical slot leading to an enlarged hole in the upper portion of the outlet; substantially as described.

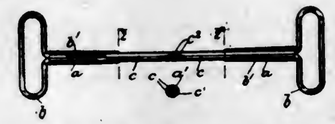
3. A lavatory having a bowl provided with a T-shaped outlet, the horizontal portion thereof having a greater cross-sectional area than the vertical portion; substantially as described.

4. A lavatory having a soap dish removably secured thereto and a tube with means for forcing water through the tube to clean the dish; substantially as described.

5. A lavatory having a soap receptacle, a flush spout for said receptacle, and a pump arranged to force water from the spout; substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

943,459. KEY FOR REMOVING LIDS FROM SARDINE-TINS AND THE LIKE. WILLIAM A. READ and HENRY J. MILES, London, England. Filed Mar. 23, 1909. Serial No. 485,261.



1. A key for repeated use in removing lids from sardine tins and the like, comprising two parallel fingers adapted to engage the tongue of a lid between them, means for holding the fingers together at their adjacent extremities, and handles one at each end of the device for rotating the fingers and rolling the lid on the device, said holding means and said fingers being separable so as to permit of the rolled lid being readily slid endwise from off the device, substantially as described.

2. A key for repeated use in removing lids from sardine tins and the like, comprising two members each of which consists of a socket, a handle at one end of the socket, and a finger projecting from the other end of the socket, said fingers having flat inner sides, and the finger of each member being adapted to be engaged in the socket of the other member so that the two fingers will be held parallel together to receive the tongue of a lid between them, and the fingers being adapted to be separated from one another endwise to enable the rolled lid to be slid off the device.

3. A key for repeated use in removing lids from sardine tins and the like, comprising two members each of which consists of a socket, a handle at one end of the socket, and a finger projecting from the other end of the socket, said fingers being of different lengths and having flat inner sides which are formed with depressions, and the finger of each member being adapted to be engaged in the socket of the other member so that the two fingers will be held parallel together with the depressions opposite one another so as to form an eye to receive the tongue of a lid, and the fingers being adapted to be separated from one another endwise to enable the rolled lid to be slid off the device.

4. A key for repeated use in removing lids from sardine tins and the like, comprising two members each of which consists of a socket which is tapered externally toward one end, a handle at one end of the socket, and a finger projecting from the other end of the socket, said fingers being of different lengths and having flat inner sides which are formed with depressions and having tapered extremities, and the finger of each member being adapted to be engaged in the socket of the other member so that the two fingers will be held parallel together with the depressions opposite one another so as to form an eye to receive the tongue of a lid, and the fingers being adapted to be separated from one another endwise to enable the rolled lid to be slid off the device.

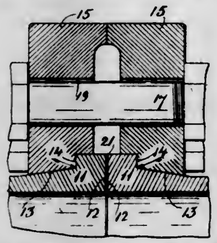
943,460. FERTILIZER. BRUNO REICHELT, Newark, N. J., assignor to Beta Fertilizer Company, Newark, N. J. Filed Apr. 5, 1909. Serial No. 488,006.

A fertilizer consisting of crushed talc containing potash and lime mixed with ground oyster shells containing ammonia and ground phosphate rock, substantially as described and for the purpose specified.

943,461. PIPE-COUPLING. GEORGE H. REYNOLDS, Mansfield Depot, Conn.; Abby E. Reynolds, administratrix of George H. Reynolds, deceased, assignor to General Fire Extinguisher Company, a Corporation of New York. Filed Oct. 8, 1906. Serial No. 338,020.

1. In a pipe coupling the combination with the flared flanged ends of pipe sections, of sectional clamping ring-

dovetailed with the said flanged ends, the members of one sectional ring breaking joints with the members of the other sectional ring, the members of each ring separated sufficiently to allow them to clamp the pipe sections tightly together, the said rings having flared surfaces and shoulders at right angles to said flared surfaces.

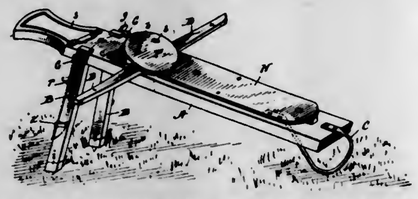


2. In a pipe coupling the combination with flared flanged ends of pipe sections, of sectional clamping rings dovetailed with the said flanged ends, the members of each sectional ring separated from each other and breaking joints with members of the other sectional ring, annular projections extending from the abutting accompanying faces of the rings and at the outer edges thereof, the rings having flared surfaces and shoulders at right angles to said flared surfaces, bolts joining the rings located between the said projections and bearing surfaces between the rings and said flanged ends, and packing between end faces of the pipe sections.

3. In combination with pipe-sections each provided with a smooth-faced end-flange formed at substantially a right-angle to its length, said pipe-sections being arranged in alinement with the faces of the flanges abutted and each having its periphery adjacent to said flange thickened or increased in diameter; a plurality of sectional clamping-members arranged in pairs around the pipe-sections and applied directly to the backs of said flanges, the engaging surfaces of the clamping members being grooved and formed to conform to said flanges and pipe-sections; and bolts passing through the clamping-members for forcing the same together and upon the opposed flanges so as to forcibly drive the abutting ends of the pipe-sections and faces of the flanges tightly together.

4. In combination with pipe-sections arranged with their ends abutted, said sections each having an angular flange which, when the pipe-sections are together, form a dove-tail-flange; a plurality of clamping-members, applied directly to the backs of said flanges, having their engaging surfaces grooved to conform to said dove-tail flange; means applied directly to said clamping-members for forcing them together upon said dove-tail flange; and means compelling the clamping-members to apply their clamping force upon said dove-tail flange in a direction at an angle to its surfaces and to the length of the pipe-sections.

943,462. CORN-SHOCKING HORSE. WILLIAM H. RICE, Mechanicsburg, Pa., assignor of one-half to John J. Milleisen, Mechanicsburg, Pa. Filed July 23, 1909. Serial No. 509,224.



1. A corn shocking horse, comprising a bar with supporting legs, said bar having on the upper side a separate housing, a pair of foldable arms hinged within the housing in a plane above the bar and a spring means within the housing for holding each arm in a laterally extended position with respect to the bar.

2. A corn shocking horse, comprising a bar with supporting legs, said bar having on the upper side a separate housing, a pair of foldable arms hinged within the housing in a plane above the bar and a spring means within the housing for holding each arm in a laterally extended position with respect to the bar, said housing being constructed with an opening in its rear portion and a closed front portion forming at the sides stops to limit the movement of and define the angular position of the arms.

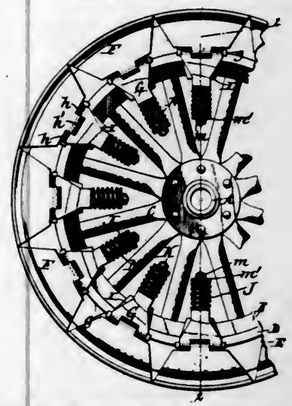
3. A corn shocking horse, comprising a bar with supporting legs, said bar having on the upper side a separate housing, a pair of foldable arms hinged within the housing in a plane above the bar and a spring means within the housing for holding each arm in a laterally extended position with respect to the bar, said spring means being connected to the bar at one end and to the arm at the other and arranged to throw the arm outwardly.

4. A corn shocking horse, consisting of a bar having articulated arms at the sides thereof, a housing covering the point of articulation of the arms, a spring means arranged within the housing to hold the arms in a laterally extended position with respect to the bar and a second longitudinal housing extending along the top of the bar into which the arms may be folded.

5. A corn-shocking horse, consisting of a bar having corn supporting arms at the sides, a pair of legs at one end of the bar and a curved runner support for the other end of the bar for maintaining the bar in elevated position and allowing it to move freely over the ground when the horse is withdrawn from the shock.

[Claims 6 and 7 not printed in the Gazette.]

943,463. TIRE-PROTECTOR. JASON RICHARDSON, Buffalo, N. Y. Filed May 28, 1909. Serial No. 498,818.

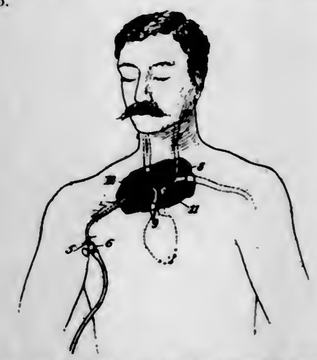


1. A tire protector comprising a plurality of channel shaped bearing sections or shoes which are adapted to engage their concave sides with the tread of the tire, and each provided on its opposite lateral sides with tangential eyes, a plurality of yokes adapted to extend over the inner side of the felly of the wheel and each provided on its opposite sides with tangential eyes, tangential bolts passing through the eyes of the yokes and the eyes on the corresponding sides of the bearing sections, and a spring bearing against each yoke and operating to hold the respective bearing section yieldingly in its outermost position.

2. A tire protector comprising a plurality of channel shaped bearing sections or shoes which are adapted to engage their concave sides with the tread of the tire, a plurality of yokes adapted to extend over the inner side of the felly of the wheel and each connected at its opposite sides with the opposite sides of an adjacent shoe, a plurality of saddles adapted to straddle the inner side of the felly, a guide stem or post extending inwardly from each saddle and through an opening in the adjacent yoke, and a spring surrounding each of said stems and operating on the adjacent yoke for holding the respective bearing section yieldingly in its outermost position.

3. A tire protector comprising a plurality of channel shaped bearing sections or shoes which are adapted to engage their concave sides with the tread of the tire, a plurality of yokes adapted to extend over the inner side of the felly of the wheel and each connected at its opposite sides with the opposite sides of an adjacent shoe, a plurality of saddles adapted to straddle the inner sides of the felly, a guide stem or post extending inwardly from each saddle and through an opening in the adjacent yoke, a plurality of tie bolts each passing through the rim and felly of the wheel and through one of the guide stems, and a spring surrounding the inner end of each stem and bearing at its inner end against the adjacent yoke and at its inner end against a shoulder on the adjacent stem.

943,464. EMBALMING INSTRUMENT. THOMAS F. RILEY, Troy, N. Y. Filed July 8, 1909. Serial No. 506,485.



1. In an embalming instrument, a tubular member having fluid-tight walls adapted to be passed to the junction of the branches of the innominate vein, and provided with openings for respectively draining the blood simultaneously from this point and from the junction of the internal jugular and subclavian veins.

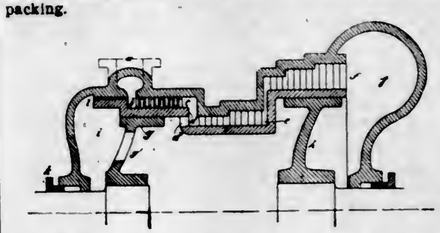
2. In an embalming instrument, an inflexible tubular member adapted to be inserted into and conform to the axillary vein, having a flexible end adapted to conform to the innominate vein and pass to the junction of the branches thereof, and provided with openings for respectively draining the blood from said juncture and from the juncture of the internal jugular and sub-clavian veins.

3. In an embalming instrument, an inflexible tubular member insertible in the circulatory organs and having a curved outer end to conform thereto, and a flexible tube joined onto the inner end of the inflexible tube.

943,465. ELASTIC-FLUID TURBINE. CARL ROTH, Munich, Germany, assignor to Meims & Pfenninger, G. M. B. H., Munich-Hirschau, Bavaria, a Company. Filed Oct. 18, 1906. Serial No. 339,580.

1. In an elastic fluid turbine, the combination of a casing, a hollow rotor, a packing between them at the high pressure end exposed on one side to the head of live motive fluid, and orifices within the walls of the rotor for admitting partially expanded motive fluid to the other side of said packing.

2. In an elastic fluid turbine, the combination of an admission chest, a packing communicating therewith, and a hollow drum rotor comprising high and low pressure parts, said high pressure part connecting at its exit end and within the rotor with the interior of said hollow drum; and means for conveying the partially expanded motive fluid from the interior of the rotor to the other side of said packing.



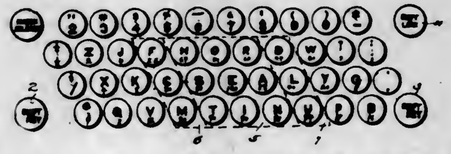
3. In an elastic fluid turbine the combination of a casing, a chamber at the high pressure end thereof, a drum provided with orifices by means of which it communicates with said chamber and with a low pressure part of the casing, blades on said drum, a packing between said blades and the aforesaid chamber, and an exhaust chamber at the low pressure end shut off from the interior of the drum.

4. In an elastic fluid turbine the combination of a casing, a drum therein open at one end, blades carried by said drum, a packing between said blades and the casing at the open end of the drum, means for enabling the motive fluid from said blades to pass into and through the open end of the drum, means for preventing said fluid from passing through the other end of the drum, and means for counterbalancing axial thrust.

5. In an elastic fluid turbine the combination of a casing, a drum, blades thereon, packing between said blades and one end of of the casing, said drum being adapted to form a channel interiorly between said end of the casing and a low pressure part of the casing, and a shoulder on the drum forming a pressure surface for the motive fluid.

[Claim 6 not printed in the Gazette.]

943,466. TYPE-WRITER KEYBOARD. SIDNEY W. ROWELL, Albany, N. Y. Filed July 3, 1909. Serial No. 505,820.



1. A typewriter key board so arranged that the group of letters

H O R
S E A
T I N

is positioned approximately at the center of the key board.

2. A typewriter key board so arranged that the line letters most commonly used are grouped approximately at the center of the key board and the groups

F D
C L
M U

arranged upon opposite sides of such center group.

3. A typewriter key board so arranged that the group of letters

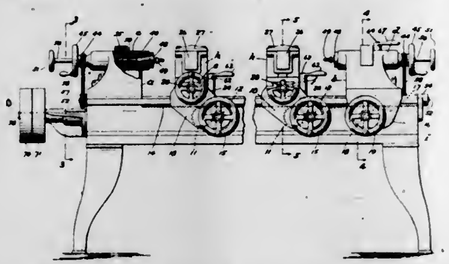
F H O R D
C S E A L
M T I N U

is positioned approximately at the center of the key board.

4. A typewriter key board so arranged that the letters H, S, T, O, E, I, R, A and N appear in a group of three rows of three letters each.

5. A typewriter key board so arranged that the letters H, S, T, O, E, I, R, A, N appear in a group of three rows of three lines each positioned approximately at the center of the key board.

943,467. CENTERING-MACHINE. WILLIAM T. RUTH, Kennett Square, Pa., assignor to The American Road Machine Company, Kennett Square, Pa., a Corporation of Pennsylvania. Filed May 12, 1908. Serial No. 432,442.



1. The combination, with the drill head, of a non-rotatable nut slidable thereon, a rotatable sleeve slidable on the drill head and with said nut, a rotatable and non-slidable shaft on which said nut is threaded, and means to independently rotate the sleeve and threaded shaft.

2. The combination with a carriage, of a drill-head thereon, a tool-holding sleeve within the drill-head, a threaded shaft within said sleeve, means engaging the drill-head, sleeve and shaft to convert the turning movement of the shaft into a longitudinal movement of the sleeve, means to turn said shaft and means to rotate said sleeve.

3. The combination with a frame, of a carriage mounted thereon, a drill-head mounted on the carriage, a sleeve rotatable within the drill-head, a gear splined on the sleeve, a driving shaft, driving connections from the driving shaft to the gear whereby the sleeve is rotated, a threaded shaft within the sleeve, a nut threaded on the shaft, provided with an annular groove, and longitudinally movable in a key-way on the drill-head, a pin on the sleeve engaging the nut, and means to rotate the threaded shaft.

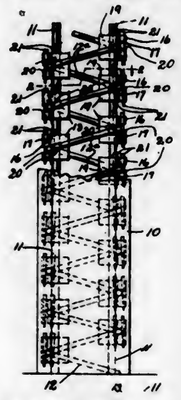
4. The combination with the drill head, of a rotatable and slidable sleeve carried thereby, a rotatable and non-slidable sleeve also carried thereby and extending within the first sleeve, a slidable and non-rotatable nut threaded on the second sleeve and connected to the first sleeve so as to permit the latter to rotate, but not to slide, relatively to the nut, a collet inserted in the forward end of the first sleeve, a shaft extending through both sleeves and engaging the collet, a driving shaft, connections therefrom to the first sleeve, means to rotate the second sleeve, and means to rotate said shaft.

5. The combination with a carriage, of a drill-head thereon, a rotatable sleeve within the drill-head, a hollow threaded shaft within said sleeve, a nut on said shaft held from rotation with respect to said drill-head, means connecting the nut and sleeve whereby the sleeve partakes of the longitudinal movement of the nut, a collet carried in the forward end of said sleeve and threaded at its inner end, a threaded shaft engaging said collet and extending rearwardly through and beyond said sleeve and said hollow shaft, and means to turn both shafts to secure a drill in position and advance it.

[Claims 6 to 14 not printed in the Gazette.]

943,468. METAL-REINFORCED-CONCRETE COLUMN, POST, AND THE LIKE. GEORGE J. SCHADE, Sandusky, Ohio. Filed Jan. 29, 1909. Serial No. 474,914.

1. A metal-reinforcement for concrete columns comprising a plurality of substantially parallel spaced rods, a rod arranged spirally about said parallel rods, and means securing said spirally arranged rod to said parallel rods and comprising a plurality of metal clips each of which is looped about the inner side and receives one of the parallel rods and has its sides extending outwardly and thence bent inwardly forming side loops, the outer portions of the clip having open inwardly extending slots which are inclined to correspond with and receive a portion of the spiral rod, and securing devices inserted between said portion of the spiral rod and the central portions of the side loops.



2. A metal reinforcement for concrete columns comprising a plurality of substantially parallel spaced rods, a rod arranged spirally about said parallel rods, and means securing the convolutions of said spiral rod to said parallel rods and comprising a plurality of metal clips, each having a central loop which receives one of the parallel rods and has side portions extending outwardly and thence doubled inwardly forming side loops, the outer portions of the clip having open inclined slots which extend inwardly and receive a portion of the spiral rod, and devices arranged to coöperate with the side loops in securing the said portion of the spiral rod to the rod received by the first-mentioned loop.

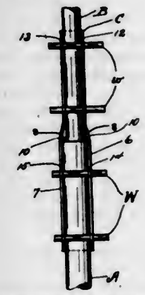
3. In combination, a concrete section having a metal reinforcement comprising a plurality of spaced rods extending longitudinally thereof, a rod arranged spirally about said longitudinal rods, and means securing the convolutions of the spiral rod to the longitudinal rods and comprising a plurality of clips, each having a central portion which is looped about one of the longitudinal rods and has sides extending outwardly and thence returning inwardly forming side loops, the outer portions of the clip having open inwardly extending slots in which a portion of the spiral rod is received, and devices coöperating with the side loops in securing the said portion of the spiral rod to the adjacent longitudinal rod.

4. In combination, a concrete section having a metal reinforcement comprising a plurality of substantially parallel spaced rods extending longitudinally of the column, a spiral rod arranged about the said parallel rods, and means securing said spiral rod to the said parallel rods and comprising a plurality of metal clips, each having a central portion looped about one of the said parallel rods and having its sides extending outwardly and thence doubled or returned inwardly, forming side loops which have open inwardly extending slots which are inclined with respect to the corresponding parallel rod and receive a portion of the spiral rod, and devices arranged to coöperate with the side loops of the different clips in holding the convolutions of the spiral rod firmly against the aforesaid parallel rods.

5. In combination, a concrete column having a metal reinforcement comprising a plurality of substantially parallel spaced rods which extend vertically of the column, a spiral rod arranged about said vertical rods, and means securing the convolutions of the spiral rod to the different vertical rods and comprising a plurality of metal clips each of which receives one of the vertical rods and has substantially parallel side portions which extend substantially radially outwardly and thence return inwardly, forming side loops which have open slots which are inclined and receive a portion of the spiral rod.

[Claims 6 to 9 not printed in the Gazette.]

943,469. METAL REINFORCEMENT FOR METAL-REINFORCED COLUMNS, POSTS, AND THE LIKE. GEORGE J. SCHADE, Sandusky, Ohio. Filed Mar. 5, 1909. Serial No. 481,476.



1. In a metal reinforcement for metal-reinforced concrete construction, the combination, with two substantially vertically arranged rods mounted the one upon the upper end of the other, and the upper rod being smaller in cross section than the lower rod, of means securing the said rods together and comprising the following:—a metal clip which extends up and down the adjacent portions of the rods and is looped about the said portions of the rods, said clip being offset laterally and inwardly over the upper end of the lower rod and has the upper portion and lower portion of its loop or bend embracing the upper rod and lower rod respectively, means whereby the upper rod and the upper portion of the loop or bend of the clip are clamped together, and means whereby the lower rod and the lower portion of the loop or bend of the clip are clamped together.

2. In metal reinforcement for metal-reinforced concrete construction, the combination, with two substantially vertically arranged rods mounted the one upon the upper end of the other, and the upper rod being smaller in cross section than the lower rod, of means securing the said rods together and comprising the following:—a metal clip which extends up and down the adjacent portions of the rods and is offset laterally and inwardly over the upper end of the lower rod and has its upper portion and lower portion embracing the upper rod and lower rod respectively, said clip being provided with inwardly projecting lugs resting upon the upper end of the lower rod; means whereby the upper rod and the upper portion of the clip are clamped together, and means whereby the lower rod and the lower portion of the clip are clamped together.

3. In metal reinforcement for metal-reinforced concrete construction, the combination, with two substantially vertically arranged rods mounted the one upon and centrally of the upper end of the other, both rods being circular in cross section and the upper rod being smaller in cross section than the lower rod, of means securing the said rods together and comprising the following:—a metal clip which extends up and down the adjacent portions of the rods and is looped or bent about the said portions of the rods at one and the same side, said clip being offset laterally and inwardly over the upper end of the lower rod and having its upper portion and lower portion embracing the upper rod and lower rod respectively, means whereby the upper rod and the upper portion of the loop or bend of the clip are clamped together, and means whereby the lower rod and the lower portion of the loop or bend of the clip are clamped together.

4. In metal reinforcement for metal-reinforced concrete construction, the combination, with two substantially vertically arranged rods mounted the one upon and centrally of the upper end of the other, both rods being circular in cross section and the upper rod being smaller in cross section than the lower rod, of means securing the said rods together and comprising the following:—a metal clip which extends up and down the adjacent portions of the rods and is looped or bent about the said portions of the rods, said clip being offset laterally and inwardly over the upper end of the lower rod and having its upper portion and lower portion embracing the upper rod and lower rod respectively and provided with inwardly projecting lugs spaced circumferentially of the lower end of the upper rod and resting upon the upper end of the lower rod; means whereby the upper rod and the upper portion of the loop or bend of the clip are clamped together, and means whereby the lower portion of the loop or bend of the clip and the lower rod are clamped together.

5. In metal reinforcement for metal-reinforced concrete construction, the combination, with two substantially vertically arranged rods mounted the one upon the upper end of the other, of means securing the said rods together and comprising the following:—a metal clip which extends up and down the adjacent portions of the rods and is looped or bent about the said portions of the rods at one and the same side and has perforated side portions arranged at opposite sides respectively of the rods and projecting from opposite ends respectively of the loop or bend of the clip, a wedge extending through the perforations of said side portions of the clip above the joint between the rods and clamping the upper rod and the upper portion of the loop or bend of the clip together, and a wedge extending through the side portions of the clip below the said joint and clamping the lower rod and the lower portion of the loop or bend of the clip together.

943,470. RED DISAZO DYE AND PROCESS OF MAKING SAME. ARNOLD SCHEDLER, Basel, Switzerland, assignor to Society of Chemical Industry in Basle, Basel, Switzerland. Filed Apr. 28, 1909. Serial No. 492,629.

1. The herein described process for the manufacture of red disazo-dyestuffs, which consists in first diazotizing the monoazo-dyestuff, obtained by the combination of one molecule of an aminoaryl-1:2-naphthimidazol-5-oxy-7-sulfonic acid with one molecule of a monodiazo compound and subsequently combining the thus obtained diazo-azo compound with one molecule of an aminoaryl-5-pyrazolone-3-carboxylic acid.

2. The herein described process for the manufacture of red disazo-dyestuffs, which consists in first diazotizing the monoazo-dyestuff resulting from the combination of one molecule of an aminophenyl-1:2-naphthimidazol-5-oxy-7-sulfonic acid with one molecule of a monodiazo compound and combining subsequently the thus obtained diazo-azo derivative with one molecule of an aminophenyl-5-pyrazolone-3-carboxylic acid.

3. As new products, the red disazo-dyestuffs, which may be obtained by diazotizing the monoazo-dyestuff, resulting from the combination of one molecule of an aminophenyl-1:2-naphthimidazol-5-oxy-7-sulfonic acid with one molecule of a mono-diazo compound and combining the thus obtained diazo-azo derivative with one molecule of an aminophenyl-5-pyrazolone-3-carboxylic acid, the said disazo-dyestuffs constituting in dry state red to brown-red powders, soluble in water with a yellowish red to blue-red coloration and dyeing unmordanted cotton clear yellow-red to blue-red shades, yielding by further diazotizing on the fiber and subsequent development with beta-naphthol valuable red tints fast to washing.

943,471. LOCK. REINHOLD SCHOELL, Stamford, Conn., assignor to The Yale & Towne Manufacturing Company, Stamford, Conn., a Corporation of Connecticut. Filed Aug. 19, 1908. Serial No. 449,317.

1. The combination with a lock casing, bolt and deadlocking means for the bolt, of devices operable from the inner side of the door for shifting the deadlocking means, and two cylinder locks operated by keys from the outer side of the lock for operating the deadlocking means and also for retracting the bolt.

2. The combination with a lock casing, bolt and deadlocking means for the latter, of means operable through the inner side of the lock for actuating the deadlocking means, to lock and release the bolt, means operable through the outer side of the lock for actuating the deadlocking means and two cylinder locks actuated by keys

through the outer side of the lock, one of said cylinder locks adapted to move the deadlocking means to release the bolt when the latter has been locked either from the outside or the inside, and the other adapted to operate the deadlocking means only when the latter has been set by a key from the outside.



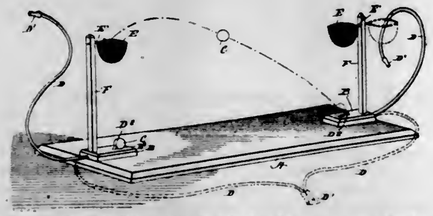
3. The combination with a lock casing, a bolt and means for deadlocking the bolt, of knob and key mechanism operable from the outer side of the lock, means operable from the inner side of the lock for deadlocking the bolt against said knob and key mechanism, and a second key mechanism adapted by a single partial rotation to release the deadlocking mechanism and retract the bolt.

4. The combination with a lock casing, a bolt and means for deadlocking the latter, of a knob and a key mechanism operable from the outer side of the lock, and means operable from the inner side of the lock for deadlocking said bolt against the knob and key mechanism, and a second mechanism and connections for releasing the bolt when the latter has been deadlocked from the inner side.

5. The combination with a lock casing, a bolt and means for deadlocking the latter, of two independent key mechanisms operable through the outside side of the lock casing, means directly actuated by one of said key mechanisms for retracting the bolt, the other key mechanism being connected to and operating to retract the bolt through the means actuated directly by the first mentioned key mechanism.

[Claims 6 to 18 not printed in the Gazette.]

943,472. GAME APPARATUS. HENRY O. SCHREIBER and CHARLES A. GEISZ, East Liverpool, Ohio; said Geisz assignor to said Schreiber. Filed Jan. 2, 1909. Serial No. 470,377.



1. A toy basket ball game apparatus comprising a board, opposite blocks thereon, each having a longitudinal passage for a blowing tube and having an opening leading thence upwardly to the upper face of the block, the latter having a depression adjacent to said opening and forming a ball seat, blow pipes, one fitting in each of said longitudinal passages and openings and projecting at its nozzle end above the block and having said end sloped adjacent to the ball seat, goal posts journaled in their respective blocks whereby they may be given a half turn to change the position of goal baskets carried thereby relatively to the board, and goal baskets, one carried by each of said posts, substantially as set forth.

2. The combination in a basket ball game apparatus of a board, a block mounted on the board and having in its upper face a depression forming the ball seat, and having in its under side a groove opening at one end at the edge of the block and communicating at its other or inner end with the ball seat in the upper face of the block, a tube held in said groove, a post mounted on the board, and a basket carried by the post, substantially as set forth.

3. A basket ball game apparatus comprising a board, a pair of ball seats oppositely disposed, a pair of goal baskets corresponding to their respective ball seats and a pair of blow pipes having their discharge ends in fixed relation to and adjacent to their respective ball seats whereby jets of air discharged therefrom may project the balls toward their respective goal baskets, the blow pipes being of sufficient length to permit their mouth piece ends to be brought sufficiently close together to adapt them to be blown simultaneously by the same person, substantially as set forth.

4. The combination in the game apparatus substantially as described, of a base, a block thereon and having a ball seat in its upper face, an opening adjacent thereto and a longitudinal groove in its under side communicating at its inner end with said opening, and a blow pipe fitting in said groove and having its nozzle end extending up through the opening in the block and terminating adjacent to the ball seat, substantially as set forth.

5. A toy basket ball game apparatus comprising a board, a block thereon having a longitudinal passage for a blow tube, and an opening leading thence upwardly to the upper face of the block and having in said face adjacent to said opening a depression forming a ball seat, a blow pipe fitting in said longitudinal passage and opening, a journaled goal post, and a basket carried thereby, substantially as set forth.

[Claim 6 not printed in the Gazette.]

943,473. SHOCK-LOADER. JAMES B. SCHUMAN, Indianapolis, Ind., assignor to The Schuman Company, Indianapolis, Ind., a Corporation of Maine. Filed May 22, 1906, Serial No. 318,165. Renewed Feb. 8, 1908. Serial No. 414,982.



1. The combination of a portable platform, a swinging structure mounted thereon to swing on a substantially horizontal axis and consisting in part of a longitudinal beam, means for holding said structure upon either side of the vertical, and lifting mechanism supported on said beam and having lifting action independent of the movement of the said swinging structure.

2. The combination of a portable platform, a substantially inverted U-shaped structure, means for supporting said structure on the platform with the longitudinal beam thereof upon either side of a medial line of the platform, and lifting mechanism supported on said longitudinal beam.

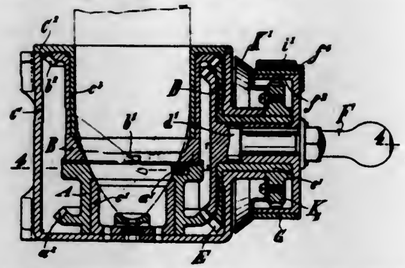
3. The combination of a portable platform, a swinging structure mounted thereon to swing on a substantially horizontal axis and consisting in part of a longitudinal beam, means for holding said structure upon either side of the vertical, lifting mechanism supported on said beam and having lifting action independent of the movement of the said swinging structure, end walls arranged at each end of the platform, detachable side rails, and means for supporting said rails at either side of the vehicle.

4. The combination of a portable platform, a substantially inverted U-shaped structure, means for supporting said structure on the platform with the longitudinal beam thereof upon either side of a medial line of the platform, lifting mechanism supported on said longitudinal beam, end walls arranged at each end of the platform, detachable side rails, and means for supporting said rails at either side of the vehicle.

5. The combination of a portable platform, a swinging structure mounted thereon to swing on a substantially horizontal axis and consisting in part of a longitudinal beam, means for holding said structure upon either side of the vertical, lifting mechanism supported on said beam, and guide rails arranged at each side of the platform below the level thereof and pivotally supported to project from the platform.

[Claims 6 to 16 not printed in the Gazette.]

943,474. FUSE-ADJUSTING MACHINE. WILHELM SCHWARTZ, Bredeney, Germany, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Filed Dec. 9, 1908. Serial No. 466,722.



1. A fuse adjusting machine comprising a pair of coaxial and relatively rotatable adjusting members, means for relatively rotating the adjusting members to adjust the fuse, and means for imparting relative rotary movement to said members to vary the initial angular position of said members; said last-named means having a gearing in common with said first-named means, which gearing is operated both in adjusting the fuse and in varying the initial angular position of said adjusting members.

2. A fuse adjusting machine comprising a pair of coaxial and relatively rotatable adjusting members, a driving gear for each of said members, an operating member, a connection between said operating member and said gears for operating said gears to cause them to rotate the adjusting members simultaneously and in opposite directions to adjust the fuse, and means for rotating only one of the adjusting members to vary the initial angular position of the adjusting members, said last-named means having a gearing in common with said first-named means, which gearing is operated both in adjusting the fuse and in varying the initial angular position of said adjusting members.

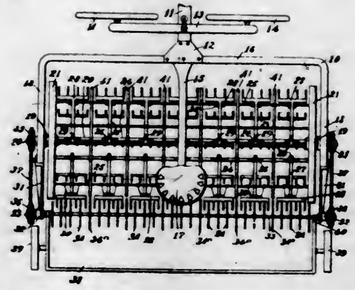
3. A fuse adjusting machine comprising a pair of coaxial and relatively rotatable adjusting members, a driving gear for each of said members, an operating member, a connection between said operating member and said gears for operating said gears to cause them to rotate the adjusting members simultaneously and in opposite directions to adjust the fuse, means for rotating only one of the adjusting members to vary the initial angular position of the adjusting members, said means comprising a gear co-axial with said operating member, and means for securing said last-named gear in any desired angular position relatively to the operating member.

4. A fuse adjusting machine comprising a pair of coaxial and relatively rotatable adjusting members, a driving gear for each of said members, an operating member, a connection between said operating member and said gears for operating said gears to cause them to rotate the adjusting members simultaneously and in opposite directions to adjust the fuse, means for rotating only one of the adjusting members to vary the initial angular position of the adjusting members, said means comprising a gear co-axial with said operating member, and a self locking gearing in the connection between the operating member and said last-named gear.

5. A fuse adjusting machine comprising a pair of coaxial and relatively rotatable adjusting members, a driving gear for each of said members, an operating member, a connection between said operating member and said gears for operating the gears to cause them to rotate the adjusting members simultaneously and in opposite directions to adjust the fuse, a self-locking gearing in the connection between the operating member and one of said gears whereby the adjusting member may be rotated to the angular position corresponding to the distance of the bursting point, and a second self-locking gearing in said connection whereby the adjusting member may be rotated to correct the distance of the bursting point.

[Claims 6 to 10 not printed in the Gazette.]

943,475. WEED-ERADICATING MACHINE. BENJAMIN F. SCOTT and JOHN A. SCOTT, Jasper, Minn. Filed July 13, 1909. Serial No. 507,333.

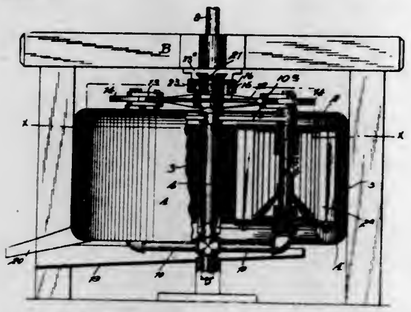


1. A weed eradicating machine, comprising a plurality of forks slidably mounted in a rotary frame, a yielding member adapted to extend the said forks upon the periphery of the carrying wheels for said frame, a plurality of rods fixedly mounted in said frame adapted to impinge upon said forks when the same are in contact with the earth to bury the tines thereof within the said earth, and rotary means for extracting the material carried by the tines of said forks therefrom to deliver the same away from said forks.

2. A weed eradicating machine, comprising a plurality of forks slidably mounted in a rotary frame, a yielding member adapted to extend the said forks upon the periphery of the carrying wheels for said frame, a plurality of rods fixedly mounted in said frame adapted to impinge upon said forks when the same are in contact with the earth to bury the tines thereof within the said earth, rotary means for extracting the material carried by the tines of said forks therefrom to deliver the same away from said forks, and a receptacle mounted on carrying wheels and connected with said machine to receive the material when extracted from the said forks.

3. A weed eradicating machine, comprising a plurality of forks slidably mounted in a rotary frame, a yielding member adapted to extend the said forks upon the periphery of the carrying wheels for said frame, a plurality of rods fixedly mounted in said frame adapted to impinge upon said forks when the same are in contact with the earth to bury the tines thereof within the said earth, a shaft transversely mounted on said machine and having a plurality of arms adapted to extend between the tines of said forks and a driving connection with the axle of the carrying wheels of said frame, and a receptacle mounted on carrying wheels and connected with said machine to receive the material from the said arms when extracted from the said forks.

943,476. CENTRIFUGAL PULP FILTER AND STRAINER. HARRY T. SEDGLEY and ALFRED M. SEDGLEY, Dimond, Cal. Filed May 15, 1908. Serial No. 433,016.



1. An apparatus for separating and filtering liquid from associated pulp, said apparatus including open-sided drums mounted and revoluble about a common center, and having an independent revolution about their own centers, a filter disposed around said drums, and means for supplying pulp and solution within the drums to be discharged by centrifugal force against the inner surface of the filter, said means including tubular shafts for the drums having side discharge openings, and a feed device connecting with said shafts.

2. In a pulp and liquid filter, vertically journaled open drums, a porous filter disposed around said drums, a vertical tubular shaft located between the drums and about which the entire structure is revoluble, tubular connections between said shaft and the interior of the drums, openings through which pulp is delivered from said tubes against the inner surface of the filter, and means for advancing the filter intermittently to receive the pulp.

3. In a filtering apparatus of the character described, vertically journaled open-sided drums, a filter disposed around said drums, a vertical tubular shaft located between the drums having tubular connections whereby associated pulp and liquid may be delivered within the drums, means for revolving the apparatus to throw the pulp outwardly against the inner surface of the filter, and means actuated in unison, by which the filter drum is advanced by successive intermittent steps.

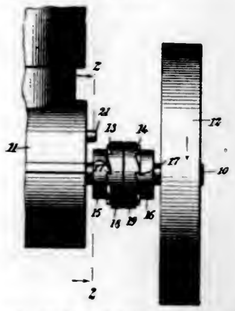
4. In a filtering apparatus of the character described, vertically journaled open-sided revoluble drums, with a filter belt inclosing them, a common center about which said drums are revoluble, means for supplying pulp and liquid to be thrown outward against the interior of the belt, and a mechanism by which the drums are intermittently rotated upon their own axes to advance the belt and present new surfaces, and an exterior stationary casing to receive the separated liquid.

5. In an apparatus of the character described, vertical open-sided rotatable drums, a filter belt inclosing said drums, a tubular central shaft upon each side of which the drums are supported, connections between said shaft with the interior of the drums to supply material, and discharge it against the interior of the belt by centrifugal force, wheels fixed to the drum shafts, an arm, clutch members carried at the ends thereof, a centrally located grooved eccentric, and connections between said eccentric and the arm whereby the revolution of the apparatus produces an intermittent advance movement of the drums.

[Claim 6 not printed in the Gazette.]

943,477. REVERSING MEANS FOR SHAFTS. HARVEY F. SEYBERT, Perry township, Armstrong county, Pa. Filed June 11, 1908. Serial No. 437,855.

1. A reversing means for internal combustion engines, comprising a shaft normally positively rotated by the engine, a spring normally inactive and normally relaxed, connections between one end of the spring and said shaft, a substantially stationary member, connections between the opposite end of the spring and said substantially stationary member, one of said connections being normally out of operation, and means for throwing said last-mentioned connection into operation during the stopping of the engine and shaft, whereby energy will be stored in the spring during the stopping of the shaft and the shaft will be automatically started rotating in the reverse direction by the stored energy of the spring.



2. The combination with a shaft and means for rotating it, of a reversing mechanism comprising a spring coiled about said shaft and normally relaxed, a substantially stationary member, one end of said spring being connected to the shaft and the opposite end of the spring being connected to said substantially stationary member when said spring is in operation, and manually-controlled means for throwing one of said connections into or out of operation during the stopping of the shaft whereby energy will be stored in the spring until the engine stops and the stored energy will be immediately utilized in automatically starting the shaft rotating in the reverse direction.

3. The combination with an internal combustion engine having a shaft positively rotated by the engine, of a coil spring encircling the same and having one end connected to said shaft, and controllable means for engaging with one end of said spring whereby the spring is coiled during the stopping of the engine, said shaft being free to start rotating in the reverse direction immediately after stopping and under the action of the stored energy of the coiled spring.

4. In combination, a shaft, means for rotating it, a coil spring having one end thereof secured to said shaft, and a wheel loosely mounted on said shaft and adapted to engage with said spring to coil the same when said wheel is held against rotation, the coiled spring serving to start the shaft rotating in the reverse direction immediately after the stopping of the shaft.

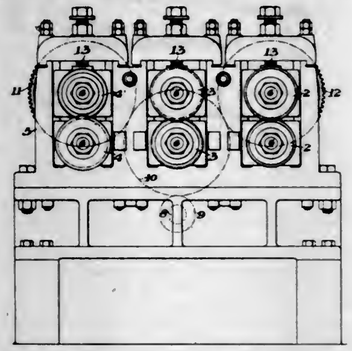
5. In combination, a shaft, means for rotating it, two wheels loosely mounted thereon and having oppositely-disposed ratchet teeth, two coil springs, each having one end thereof secured to said shaft and having the opposite end thereof in engagement with the teeth of the corresponding wheel, and means for holding said wheels against rotation to coil the springs, stop the shaft from rotating and start it rotating in the reverse direction.

[Claims 6 and 7 not printed in the Gazette.]

943,478. HOOP-BEADING MACHINE. EDWIN E. SLICK, Pittsburg, Pa. Filed Apr. 27, 1906. Serial No. 313,968.

1. Apparatus for beading metal hoops comprising rolls having a series of bending passes, the first pass being arranged to bend one edge of a flat metal strip to form a flange portion, the second bending pass being arranged to further bend the flat body portion of the strip between the flanged edge and the opposite edge of the strip and a third grooved bending pass arranged to form the bent portion of the strip into a marginal bead, substantially as described.

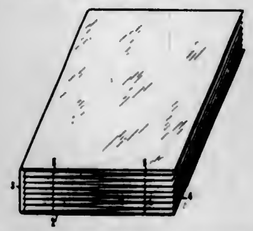
2. Apparatus for forming beads on metal hoops, comprising rolls having a bending pass arranged to bend one edge of a flat metal strip, a second bending pass arranged to further bend the flat body portion of said strip between the bent edge and the opposite edge of the strip and a third bending pass having a grooved portion in which the bent edge of the strip is further bent and is curved into and forms a hollow marginal bead, substantially as described.



3. Apparatus for beading metal hoops comprising a series of sets of horizontal rolls arranged in tandem to receive the metal strip at the same time, the first set of rolls having a pass arranged to bend a flange on the edge of the hoop, a second set of rolls having a pass arranged to bend the hoop between the flange and the opposite edge of the strip, and a third set of rolls having a grooved pass arranged to form the bent portion of the hoop into a bead; substantially as described.

4. Apparatus for beading metal hoops comprising bending rolls having a bending pass in which one edge of a flat metal strip is bent and a second bending pass arranged to further turn the bent edge of the strip and form a hollow marginal bead thereon, substantially as described.

943,479. MAGAZINE. FRANK SMITHSON, New York, N. Y. Filed Aug. 8, 1908. Serial No. 447,525.



1. In a magazine, in combination, a cover, a single sheet of paper folded to form a plurality of leaves and attached to said cover, each leaf being provided with a crease substantially parallel with one of its folded edges, the portions of the leaf on the opposite sides of said crease lying normally in the same plane.

2. In a magazine, in combination, a cover, a single sheet of paper folded to form a plurality of leaves and attached to said cover, each leaf being provided with a crease substantially parallel with its folded outer edge.

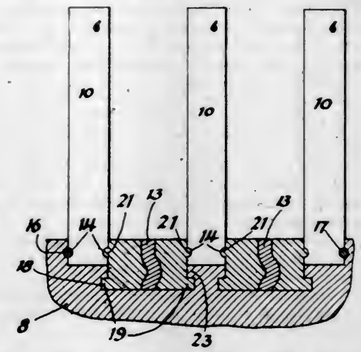
3. In a magazine, in combination, a cover, a single sheet of paper folded to form a plurality of leaves and attached to said cover, each leaf being provided with means whereby when the magazine is opened and its portions folded back upon themselves a portion of one of the exposed leaves may be folded to extend over the edges of the remaining leaves.

4. In a magazine, in combination, a cover, a single sheet of paper folded back and forth upon itself to form a plurality of leaves and having one of its ends attached to said cover, a plurality of said leaves being each provided with a crease adjacent one of the edges of said leaves.

5. In a magazine, in combination, a cover, a single sheet of paper folded back and forth upon itself to form a plurality of leaves and having one of its ends attached to said cover, each leaf being provided with a crease adjacent one of its folded edges.

[Claims 6 to 9 not printed in the Gazette.]

943,480. BLADE-MOUNTING MEANS. JOHN E. SNYDER, Swissvale, Pa., assignor to The Westinghouse Machine Company, a Corporation of Pennsylvania. Filed May 16, 1908. Serial No. 433,250.

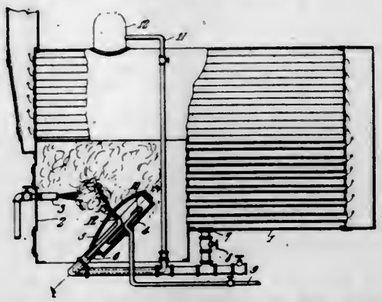


1. In combination with a blade-carrying element provided with a slot, a plurality of rows of blades, spacing pieces between the rows of blades and calking pieces between the spacing pieces.

2. In combination with a blade-carrying element provided with a slot, of a plurality of rows, blades, spacing pieces, the adjacent edges of which are irregular, and a calking piece interposed between the irregular adjacent faces of said spacing pieces.

3. In combination with a blade-carrying element provided with a slot, a plurality of rows of blades in the slot spacing pieces between the rows of blades and having irregular faces and a distortable calking piece interposed between the irregular faces of the spacing pieces to secure the spacing pieces and the blades to the blade-carrying element.

943,481. OIL-BURNING AND STEAM-GENERATING APPARATUS. JOHN W. SPURRIER, Beaumont, Tex. Filed Nov. 27, 1908. Serial No. 464,627.



1. A device of the class described comprising an oil discharge nozzle, a feed water heater disposed in the path of the jet discharged from the oil nozzle, and means for directing steam through said heater in the direction of said oil jet.

2. A device of the class described comprising an oil discharge nozzle, a hollow feed water receiving member disposed in the path of the jet discharged from the nozzle, and means for directing steam through said target along lines intersecting the jet discharged from the nozzle.

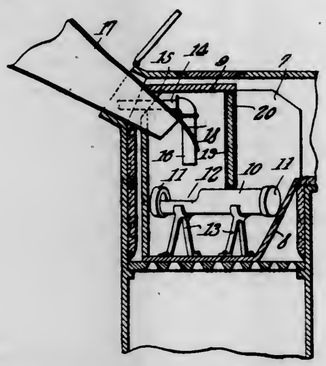
3. A device of the class described comprising an oil nozzle, a hollow target inclined relative thereto and disposed in the path of the jet discharged from the nozzle, said target having a rounded face presented to the jet, means for directing feed water into the target, said target having an outlet for the water, and means for directing steam through the target and along a line intersecting the jet discharged from the nozzle.

4. A device of the class described comprising a hollow member, means for directing water into said member and for conducting it therefrom, means for conveying steam through said member and discharging it in a jet beyond one face of said member, and means for directing a jet of fuel along lines intersecting the steam jet and in the direction of the hollow member.

5. A device of the class described comprising a hollow target having a convex face, said target being provided with a feed water outlet, means for directing said water into the target and along a circuitous path therein, means for conveying steam through said target and discharging it in a jet beyond the convex face, and means for directing a jet of fuel toward the target and along lines intersecting the steam jet.

[Claims 6 to 8 not printed in the Gazette.]

943,482. LIQUID-FUEL BURNER. ARTHUR E. STEVENS, Sycamore, Kans. Filed Aug. 25, 1909. Serial No. 514,608.

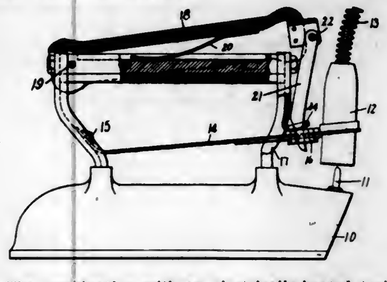


1. A liquid fuel burner, comprising a casing, a horizontal burner tube in the casing spaced from the bottom thereof, and having a top opening, fuel supply and adjustable draft pipes entering the casing, and discharging downwardly in the direction of the burner tube, and means for deflecting the products of combustion upwardly as they leave the burner.

2. A liquid fuel burner comprising a casing, a burner tube therein having a top opening, draft and fuel supply pipes entering the casing, and discharging in the direction of the opening in the burner tube, a partition in the casing extending between the top thereof and the burner tube, the tube opening and the draft and fuel supply pipes being located to one side of the partition, and a deflector on the opposite side of the partition extending upwardly from the bottom of the casing.

3. A liquid fuel burner comprising a casing, a horizontal burner tube in the casing extending obliquely between the front and rear thereof, and having a top opening, draft and fuel supply pipes entering the casing and discharging downwardly in the direction of the opening in the burner tube, and means for deflecting the products of combustion upwardly as they leave the burner.

943,483. ELECTRICALLY-HEATED TOOL. GEORGE E. STEVENS, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed Aug. 4, 1908. Serial No. 446,842.



1. The combination with an electrically-heated tool, of a circuit controlling switch therefor arranged to be moved to operative position when the handle of said tool is grasped, a device for latching said switch in operative position, and means whereby said latch is released when all the pressure is removed from the handle while permitting partial removal of the pressure without affecting the latch.

2. The combination with an electrically-heated tool, of a normally open switch therefor, a device for latching said switch closed when the handle of said tool is grasped, and means whereby said latch is tripped to open the switch when the handle is released but remains latched during the application of any slight pressure.

3. The combination with an electrically heated tool, of a switch spring-pressed to open position, a latch for holding the switch in closed position and a tripping device for moving the latch in two directions, said device being movable independently a predetermined amount before moving the latch in a direction to trip the same.

4. The combination with an electrically heated flat iron, of a circuit controlling switch spring-pressed to open position, a latch for locking the same in closed position and a spring pressed member for moving said latch in two directions to lock and release said switch, said member being movable a predetermined amount in response to the spring tension before moving the latch to release the switch.

5. The combination with an electrically heated flat iron provided with terminal pins, of a spring member secured thereto, an attaching plug carried by said member and normally out of engagement with said pins, a latch movable upon said member into and out of engagement with a fixed part of the iron to lock and release the same, and a spring pressed member associated with the handle for moving said latch.

943,484. ARTICLE OF EARTHENWARE. EDWARD C. STOVER, Trenton, N. J., assignor to The Trenton Potteries Company, Trenton, N. J., a Corporation of New Jersey. Filed Aug. 11, 1906. Serial No. 330,176.



1. A new article of manufacture consisting of a single fired tub of earthenware having passaged walls and finished both inside and out by one firing operation.

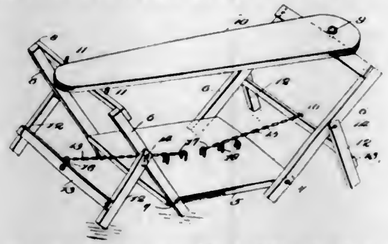
2. An article of vitreous earthenware having passaged walls and finished on both the inside and the outside by one firing operation.

3. A single fired article of vitreous earthenware having passaged walls.

4. The herein described process of manufacturing articles of earthenware which consists in firing and finishing an article of earthenware with passaged walls on both the inside and outside by one firing operation.

5. The herein described process of manufacturing articles of earthenware which consists in molding an article of earthenware with passaged walls and in firing and finishing the said article both inside and out by one firing operation.

943,485. IRONING-BOARD. LORENZO STOWE, Knoxville, Tenn. Filed May 24, 1909. Serial No. 497,844.



1. An ironing stand including a base, having a plurality of spaced fastening devices secured thereto, supporting frames pivotally connected with the base, an ironing board having a pivotal connection with one of the supporting frames, means carried by the other supporting frame for preventing side movement of the ironing board, braces pivotally mounted on the supporting frames, and connecting elements secured to said braces and having means at their inner ends for engagement with the fastening devices for holding the frames in different positions of angular adjustment.

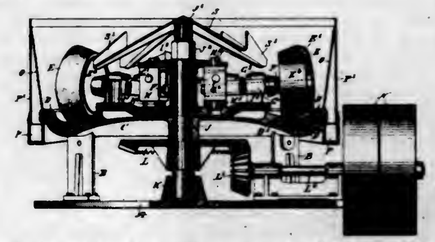
2. An ironing stand including a base, supporting frames pivotally connected with the opposite ends of the base, inclined braces pivotally connected with the supporting frames, an ironing board resting on said frames, staples secured to the upper surface of the base, eyes carried by the inclined braces, and chains connected with the eyes and provided with hooked terminals adapted to engage the staples for retaining the pivoted frames in different positions of angular adjustment.

3. A folding ironing stand including a base, supporting frames pivotally mounted on the base and including spaced longitudinal bars connected by transverse bars, the lower ends of the longitudinal bars of the supporting frames being extended below the pivot points of said frames to form depending feet, inclined braces pivotally connected with the supporting frames, a flexible connection between each brace and the base, a pin extending vertically from the transverse connecting bar of one of the pivoted frames for engagement with an ironing board, and spaced stop pins carried by the transverse connecting bar of the other pivoted frames for preventing lateral movement of said ironing board.

4. A folding ironing stand including a base, having fastening devices secured thereto, supporting frames pivotally connected with the opposite ends of the base and adapted to support an ironing board, braces pivotally connected with the frames, a connection between each brace and the adjacent fastening devices, one of said frames being foldable downwardly on top of the base and the other frame being foldable into engagement with the bottom of said base.

943,486. ORE-GRINDING MACHINE. JOHN C. TATMAN, Denver, Colo. Filed Jan. 28, 1908. Serial No. 412,964.

1. An ore grinding machine, comprising an annular grinding die whose upper surface has an abrupt outer slope and a gradual inner slope, mullers mounted to travel in and shaped to fit the die, said mullers having a radial shaft inclined downwardly, bearings for the shafts, a rotatable carrier, a universal joint connection between the carrier and the shaft bearings, and means for limiting the movement of the bearings with respect to the carrier in a horizontal direction.



2. An ore grinding mill, comprising a fixed die, having an annular channel appearing in cross section, inclined downwardly and outwardly and sharply curved upwardly at the outer portion, the upper end of the outer portion rising above the inner end, revoluble mullers mounted to travel in the said channel and having their peripheral surface of the shape of a frustum of a cone, rounded at its base and fitting the said die, the radial shafts of the mullers being inclined downwardly and inwardly, a central revoluble carrier for the inner ends of the said shafts, an annular screen upwardly and outwardly inclined from the top of the outer portion of the die, and an annular receiving trough outside the channel and having its outer wall rising to meet the upper end of the said screen.

3. An ore grinding machine, comprising an annular die, a muller adapted to travel in the said die, a shaft for the said muller, and having a reduced portion between its ends, a bearing for the shaft and provided with slots, and wearing blocks extending through the said slots and engaging the reduced shaft portion.

4. An ore grinding machine, comprising an annular die, a muller adapted to travel in the said die, a shaft for the said muller and having a reduced portion between its ends, a bearing for the shaft and provided with slots, wearing blocks extending through the said slots and engaging the reduced shaft portion, and a yoke straddling the bearing and engaging the outer ends of the said wearing blocks.

5. An ore grinding machine, comprising an annular die, a muller adapted to travel in the said die, a shaft for the said muller, a revoluble carrier, a block having vertical trunnions journaled in the said carrier, and a bearing for the said muller shaft and having transverse trunnions journaled in the said block.

[Claims 6 and 7 not printed in the Gazette.]

943,487. TRACK-SANDER. DONATO TAURIELLO, Newport, R. I. Filed Oct. 4, 1909. Serial No. 520,794.



1. The combination with the car of a plurality of sanding devices, one at each corner of the car and delivering

in front of the adjacent wheel, each of said devices comprising a substantially cylindrical container having a flaring mouth, a cover hinged to the free edge of the mouth for closing the same, a hasp on the cover and a staple on the container for engagement by the hasp, a distributer at the lower end of the container, said distributer comprising a plate having a flange at one end, and flanges at its sides, and being contracted laterally toward the open end, a hinge connecting the plate to the container, a bail pivoted to the side flanges of the plate, springs connected to the bail and to the pipe, a handle having a fork where arms are pivoted to the flanges, and a foot plate connected with the handle and extending above the platform of the car, the flaring mouth of the container extending above the roof of the car.

2. The combination with the car, of a container at each corner thereof and having a flaring mouth extending above the roof of the car, a cover hinged to the container and normally closing the mouth, the lower end of the container extending in front of the adjacent wheel and a distributer at the bottom of each container, each of said distributers comprising a plate hinged to the lower end of the container, said plate being extended toward the wheel and contracted laterally, the sides and opposite end of the plate being flanged outside of the container, springs normally retaining the distributer closed, and a handle having a foot plate extending above the platform for opening the same.

3. The combination with the car, of a container at each corner thereof, and having a flaring mouth extending above the roof of the car, a cover hinged to the container and normally closing the mouth, the lower end of the container extending in front of the adjacent wheel, and a distributer at the bottom of each container, each of said distributers comprising a plate hinged to the container and normally closing the container, springs retaining the plate closed, and a handle having a foot plate extending above the platform for opening the same.

4. The combination with the car, of a container at each corner thereof, and having a flaring mouth extending above the roof of the car, a cover hinged to the container and normally closing the mouth, the lower end of the container extending in front of the adjacent wheel, and a distributer at the bottom of each container.

943,488. INCANDESCENT MANTLE. THOMAS TERRELL, London, England. Filed Mar. 18, 1907. Serial No. 363,055.

1. The process of manufacturing a soft incandescent mantle which contains the organic fabric but which can be incinerated on an ordinary burner, consisting in producing a mantle containing the original organic fabric impregnated with a high proportion of oxids of illuminating metals and coating the same with an inflammable oxygen-yielding stiffening substance.

2. The process of manufacturing a soft incandescent mantle which contains the organic fabric but which can be incinerated on an ordinary burner, consisting in producing a mantle containing the original organic fabric impregnated with a high proportion of oxids of illuminating metals, coating the same with an inflammable oxygen-yielding stiffening substance and shaping the mantle on a heated former.

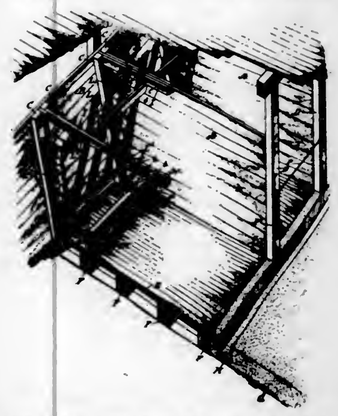
3. The process of manufacturing a soft incandescent mantle which contains the organic fabric but which can be incinerated on an ordinary burner, consisting in soaking fibers of natural cellulose in a concentrated solution of salts of the illuminating metals, drying the fibers, immersing them in a concentrated solution of ammonia to transform the salts into hydrated oxids, washing out the ammonia, drying the fibers, forming a mantle therefrom, coating the mantle with an inflammable oxygen-yielding stiffening substance and shaping the mantle on a heated former.

4. The process of manufacturing a soft incandescent mantle which contains the organic fabric but which can be incinerated on an ordinary burner, consisting in mercerising fibers of natural cellulose, soaking them in a concentrated solution of salts of the illuminating metals, drying the fibers, immersing them in a concentrated solution of ammonia, washing out the ammonia salts, drying the fibers, forming a mantle therefrom, coating the mantle with an inflammable oxygen-yielding stiffening substance, and shaping the mantle on a heated former.

5. The process of manufacturing a soft incandescent mantle which contains the organic fabric but which can be incinerated on an ordinary burner, consisting in producing a mantle containing the original organic fabric impregnated with a high proportion of oxids of illuminating metals, and coating the same with collodion.

[Claims 6 to 9 not printed in the Gazette.]

943,489. COW-STALL. CHARLES S. TORREY, Bellevue, Mich. Filed Nov. 18, 1908. Serial No. 463,182.



1. A cow stall comprising a floor, two parallel side walls, and a transverse front wall that also forms the front wall of a feed rack, an adjustably supported rear wall for said feed rack formed of spaced slats, abutment strips secured on said side walls and extending rearwardly from the front of the stall, the said slatted rear wall of the feed rack being arranged to be rocked into engagement with the underside of the abutment strips, whereby upward displacement of said slatted wall is prevented, and means for holding the said slatted rear wall of the feed rack in an inclined position.

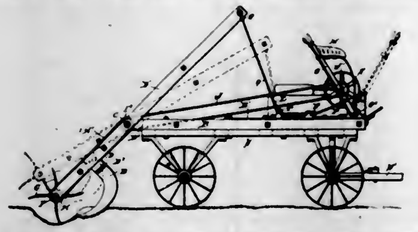
2. A cow stall embodying a floor, two parallel side walls, and a front wall, said walls also constituting corresponding walls for a manger and for a feed rack, an angular rear wall for the manger, spaced and parallel with the front wall thereof, two notched keeper strips secured on the side walls above the manger, two abutment strips secured on said side walls above and parallel with the keeper strips, a slatted rear wall for the feed rack seated in opposite notches in the keeper strips, and adapted to be swung into engagement with the under side of the said abutment strips to prevent the upward displacement of said rear wall of the feed rack, and link rods connected with the upper end of the slatted rack wall and adapted for adjustable connection with the side walls thereof for holding said slatted wall inclined rearward.

3. In a cow stall, a transverse front wall that also forms the front wall for a feed rack and for a manger, a triangular shaped transverse wall spaced from the front wall and forming the rear wall for the manger, an adjustably supported slatted rear wall for the said feed rack located above the manger and adapted to be inclined, the said triangular rear wall of the manger and the rear wall of the feed rack serving to prevent the animal from stepping too far forward, a transverse trench at the rear open end of the stall, two side walls extending from the front wall to the trench and forming the corresponding walls for the feed rack and the manger, abutment strips secured on said side walls and extending rearwardly from the front of the stall, the said slatted rear wall of the feed rack being arranged to be moved into engagement with the said abutment strips, whereby upward displacement of said slatted rear wall is prevented, means for holding the said slatted rear wall of the feed rack in an inclined position, and means at the rear end of the stall for preventing the animal from stepping backward into the trench.

4. In a cow stall of the character described, the combination with the spaced side walls of the stall, and the manger at the front end of the stall, of the pair of notched keeper strips secured oppositely on the side walls above and adjacent to the manger and extending rearwardly beyond the rear wall of the manger, the slatted rear wall of a feed rack adapted to be seated in opposite notches in the keeper strips, and horizontal abutment strips rigidly secured on the side walls of the stall opposite each other and extending rearwardly from the front wall of the stall, the said slatted rear wall of the feed rack having a portion adapted to be swung into engagement with the abutment strips, whereby the upward displacement of the said slatted rear wall is prevented, and means for holding the slatted rear wall of the feed rack in an inclined position.

5. A cow stall, comprising a floor, an outwardly inclined front wall, parallel side walls, said walls also constituting corresponding walls for a feed rack and for a manger, a triangular transverse wall forming the rear wall of the manger, notched keeper strips secured on the side walls above the manger, a slatted rear wall for a feed rack having a plurality of spaced slats, a transverse spacing strip secured across the slats at their lower ends and a second transverse spacing strip secured to the slats a suitable distance from the upper ends thereof, the said spacing strips projecting at their ends beyond the slats, the lower edge of the lowermost spacing strip at the ends thereof being arranged to be seated in opposite notches in said keeper strips, two abutment strips oppositely secured on the side walls and extending rearwardly and terminating at their rear ends above the keeper strips, the projecting ends of the uppermost spacing strip being arranged to pass beneath the rear ends of said abutment strips and to be moved into engagement with the under side thereof when the said slatted rear wall is rocked, and means for holding the said slatted rear wall in an inclined position.

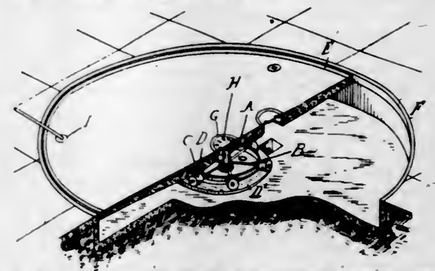
943,490. LAND-PULVERIZER. LORENZ TRAUB, Kilbourn, Wis. Filed Feb. 16, 1909. Serial No. 478,192.



1. In a land pulverizer, the combination with a truck, of a platform frame mounted on said truck provided with parallel bars, bolts fixed in the outside parallel bars, a pulverizing frame mounted on said bolts carrying a shaft, teeth fixed on said shaft, a sprocket secured on said shaft, a sprocket carried by a shaft mounted in the platform frame, a sprocket chain passing over said sprockets, a second sprocket fixed on the shaft in the platform frame, and a power driving shaft mounted on the platform carrying a sprocket having a sprocket chain mounted thereover passing over the sprocket wheel arranged on the shaft mounted in the platform frame.

2. In a land pulverizer, the combination with a truck carrying a platform frame, of a gas engine mounted on said platform provided with a power shaft carrying a sprocket, a pivoted pulverizing frame carried by said platform, a shaft carried by said frame having a plurality of teeth and provided with a sprocket wheel, and sprocket chains connecting the sprocket of the power shaft to the sprocket of the shaft carrying the teeth through the medium of sprocket wheels mounted on a shaft arranged on the platform frame.

943,491. TURN-TABLE. GEORGE A. TRUE, Detroit, Mich., assignor of one-half to Northern Engineering Works, Detroit, Mich., a Corporation of Michigan. Filed May 7, 1909. Serial No. 494,673.



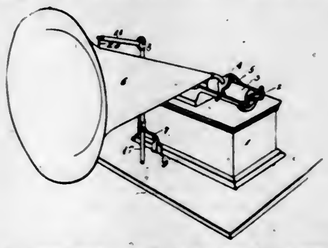
1. A turntable, comprising a supporting bearing, and a platform of reinforced concrete construction thereupon.

2. A turntable, comprising a supporting bearing and a platform of larger diameter formed of concrete reinforced to form trusses for carrying the stresses into the supporting bearing.

3. A turntable, comprising an annular track, a roller bearing thereon, a platform consisting of an annular metallic member supported on said roller bearing, and a reinforced concrete construction extending outward beyond said annular member.

4. A turntable, comprising a concrete base and platform, and a roller bearing having annular track members embedded respectively in said base and platform.

943,492. MEANS FOR SUPPORTING PHONOGRAPH-HORNS. HENRY H. TURNER and HARRY M. R. GLOVER, Rochester, N. Y. Filed July 8, 1907. Serial No. 382,725.



1. The combination, with a phonograph comprising a box, of a horn, means for supporting said horn, said means comprising a plate, a member projecting from said plate and provided with a shank and a head, a bracket having a slot adapted to receive the shank of the member just mentioned, the head of the said member engaging the bracket upon the side of the slot, a supporting member carried by said bracket, a crane support coöperating with the supporting member, and connections between the horn and the crane support.

2. The combination, with a phonograph comprising a box, of a horn, means for supporting said horn, said means comprising a plate attached to the phonograph box, an integral member projecting from said plate and provided with a shank and a head, a bracket having a slot adapted to receive the shank of said member, the head of the member engaging the slot upon opposite sides thereof, there being flanges formed upon the lower part of said plate for engaging the ends of the bracket adjacent the

slot, a supporting member carried by said bracket, a crane support coöperating with said supporting member, the crane support being provided at its lower end with a buffer of suitable material, and connections between the horn and the crane support.

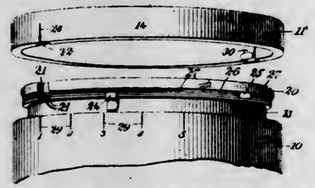
3. The combination, with a phonograph comprising a box, and a horn, of means for supporting said horn, said means comprising a plate carried by said box, said plate having at the upper end thereof a shouldered projection and at the lower end thereof a projection in alinement with the shank of the former projection and a pair of upstanding flanges, one on each side of the bottom projection, a bracket having a plate provided with a central slot adapted to receive the shank of the upper projection and also the lower projection, said plate having a lower edge adapted to be embraced by the upstanding flanges, and a crane supporting member carried by said bracket.

4. A crane for phonograph horns comprising a pair of arms each having a plate, said plates being in engagement, one of said plates being provided with a slot, a rack carried by said plate adjacent the slot, and means including a member which is clamped in position upon the rack for holding the plates in adjusted position.

5. A crane for phonograph horns comprising a pair of arms each having a plate, said plates being in engagement, one of said plates being provided with a slot and a toothed rack carried by said plate adjacent both sides of the slot, means comprising a member having teeth thereon which coöperate with the rack above mentioned, and means for clamping said member in contact with the rack for holding the plates in adjusted position.

[Claims 6 to 13 not printed in the Gazette.]

943,493. COMBINATION LOCKING MECHANISM. HENRY VAN HOEVENBERG, Lake Placid, N. Y. Filed Mar. 1, 1909. Serial No. 480,644.



1. In combination, two separate telescoping cylindrical box sections rotatable in respect to each other, a plurality of tumbler rings intermediate the sections at their telescoping portions and carried by one section, and yielding catches carried by the other section and having engagement with said rings.

2. In combination, two separate telescoping cylindrical box sections rotatable in respect to each other, a plurality of tumbler rings intermediate the sections at their telescoping portions and carried by one section, and yielding catches carried by the other section and having engagement with said rings, said rings being movable relatively to each other by the rotation of one section in respect to the other section.

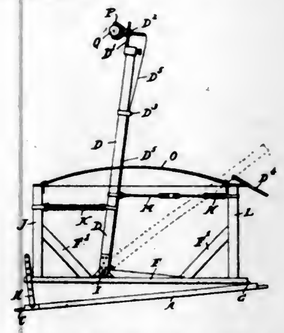
3. In combination, two relatively revoluble, detachably associated box sections, a ring carried by one of said sections and revoluble in respect thereto, and a yielding or resilient catch carried by the other section and in engagement with said ring, said ring being revoluble in respect to its section by a predetermined rotation of one section in respect to the other.

4. In combination, two relatively revoluble, detachably associated box sections, a tumbler ring carried by one of said sections and revoluble in respect thereto and normally concealed from view within one of said sections, and means carried by the other section for normally retaining the sections in engagement with each other and also serving to rotate said tumbler ring in respect to its section.

5. In combination, two relatively revoluble, detachably associated telescoping box members, and two locking members for normally retaining said box sections in engagement with each other, one of said locking members being curved and carried by one section and movable in respect thereto, and the other of said members being carried by the other section and serving to move the first-mentioned member in respect to its section.

[Claims 6 to 13 not printed in the Gazette.]

943,494. BOWLING-MACHINE. JOHN VENN and JOHN A. VENN, Cambridge, England. Filed May 20, 1909. Serial No. 497,318.



1. In a ball throwing machine, a base, a framework mounted on the base, a throwing arm hinged to the framework, a clutch on the free end of said throwing arm, and flexible means for releasing the ball from the clutch at a predetermined instant said flexible means being drawn taut and releasing the clutch when said throwing arm has traveled a certain distance.

2. In a ball throwing machine, a base, a framework mounted on the base, a throwing arm hinged to the framework, a ball-holding device on the free end of said throwing arm, said ball-holding device so connected to said throwing arm as to be pivotally adjustable vertically and laterally, and means for releasing the ball from said ball-holding device.

3. In a ball throwing machine, a base, a lever member hinged to the base, a throwing arm hinged to said lever member, springs for setting said throwing arm in motion, a ball-holding device on the free end of said throwing arm, means for automatically releasing the ball from said holding device, and means for rotating said device before the ball is released.

4. In a ball throwing machine, a base, a lever member hinged to the base, a throwing arm hinged to said lever member, guide-ways for said throwing arm, said guide ways extending longitudinally of said base, a catch for holding the throwing arm at the rear end of the guide-way, and means for moving said throwing arm to the other end of the guide way, when the catch is released.

5. In a ball throwing machine, a base, a lever member hinged to the base, means for adjusting one end of said lever member in various positions, a throwing arm hinged to said lever member, guide-ways for said throwing arm, a catch for holding the throwing arm at the rear end of the guide-way, and means for moving said throwing arm to the other end of the guide-way when the catch is released.

[Claims 6 to 8 not printed in the Gazette.]

943,495. BOLSTER FOR LOG-WAGONS. JOHN T. WARREN, Hemphill, Tex. Filed July 11, 1908. Serial No. 443,057.

1. The combination of a bolster having spaced side portions forming a longitudinal opening and provided at intervals with bearings, a chocking device provided with a pivot adapted to be arranged in the said bearings, whereby the chocking device may be adjusted along the bolster, and a support arranged in the opening of the bolster and located below the said bearings for limiting the downward movement of the chocking device to hold the same within reach in any adjustment of the said device.



2. The combination of a bolster having spaced side portions, a pivoted chocking device mounted between the spaced side portions of the bolster, a transverse supporting plate or member bridging the space between and supported directly by the side portions of the bolster and receiving and supporting the chocking device, a pin mounted on the bolster and connected with the plate or member and forming a pivot for the same, and means for securing the plate or member in its supporting position.

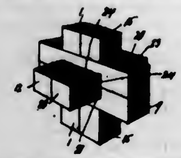
3. The combination of a bolster having spaced side portions, a pivoted chocking device mounted between the side portions, a plate or member extending across the space between the side portions of the bolster and receiving and supporting the chocking device, a vertical pin connected with and forming a pivot for one end of the supporting plate or member to enable the same to swing horizontally away from its supporting position, and a fastening device detachably engaging the other end of the plate or member for holding the same in its supporting position.

4. The combination of a bolster having spaced sides, each side being provided with a series of duplicate bearings consisting of recesses, which extend from the top part way down the side, a chocking device fitting in the space between the sides and having pivots adapted to engage in any two of the said recesses, said chocking device being removable and insertible from the top, and a locking device for the said chocking device.

5. The combination of a bolster open at the top and provided at intervals with bearings, a chocking device fitting in the opening and removable from the top and adapted to be arranged in any of the said bearings, and a locking device adjustable on the bolster to correspond with the adjustment of the chocking device.

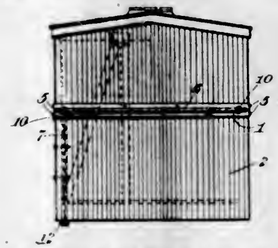
[Claims 6 to 12 not printed in the Gazette.]

943,496. PUZZLE. ALBERT WEIGT, New York, N. Y. Filed June 22, 1909. Serial No. 503,610.



A puzzle comprising foundation blocks, a tie block, inner blocks, and a locking block, each of said blocks being of the same length and cross-sectional area, one of said foundation blocks provided with intersecting transverse grooves forming said blocks with a web and a shank, and the other of said foundation blocks having transverse grooves in one side and a transverse groove in another side approximately three times the width of one of the other grooves of said block and said last mentioned groove receiving said shank, one of said inner blocks having transverse grooves disposed at right angles, one of which receives said web and the other of which receives a part of the second foundation block, the locking block having a transverse groove for the reception of said second foundation block and further having a transverse groove alining with one of the transverse grooves of the first foundation block, and said locking block further provided in one side with a longitudinally extending groove and a transverse groove intersecting the longitudinal groove, the other of said inner blocks provided with transverse grooves disposed at right angles and intersecting each other for receiving said locking block, and said tie member provided with a pair of transverse grooves forming a tongue and further having a transverse groove at right angles with respect to the pair of grooves and receiving said inner blocks, said pair of grooves receiving said first foundation block and the locking block, and said tongue extending between the last mentioned blocks.

943,497. STRENGTHENING DEVICE FOR THE ENDS OF RAILWAY BOX-CARS. GEORGE L. WEISS, Cleveland, Ohio, assignor to Cleveland Car Specialty Company, Cleveland, Ohio, a Corporation of Ohio. Filed Feb. 15, 1909. Serial No. 478,049.



1. A device for bracing the end of a box car consisting of a metallic bar extending across the end of the car, with ends overlapping the sides of the car, said bar having a solid strengthening rib at its central portion, and means passing through the end of the car and through the rib portion of the bar for securing said bar in place.

2. A device for bracing the end of a box car, consisting of a metallic bar extending across the end of the car, and having ends overlapping the sides of the car, and secured thereto, and truss rods secured to the car, and said bar.

3. A device for bracing the end of a box car, consisting of a metallic bar extending across the end of the car and having bent ends secured to the sides of the car, and truss rods each of which is secured at one end to said bar and at the other end to the bottom of the car.

4. A device for bracing the end of a box car, consisting of a metallic bar extending across the end of the car, and having bent ends overlapping the corners of the car and detachably secured to the sides of the car, and truss rods detachably secured at one end to said bar, and detachably secured at the other end to the bottom of the car.

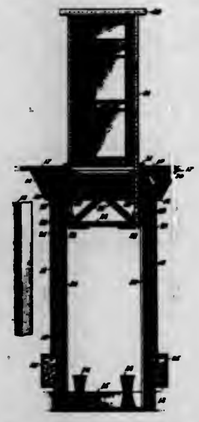
5. A brace for the end of a box car comprising a metallic member of a length to extend across the end of the car, and having bent ends adapted to overlap the corners and sides of the car and adapted to be secured to the car, said member having a solid longitudinal rib formed at its central portion and extending across the end of the car and perforated through its rib portion.

943,498. ELEVATOR-CUPBOARD. CHARLES H. WELLER, Canton, Pa. Filed June 11, 1909. Serial No. 501,510.

1. The combination of an elevator shaft frame having vertical grooved guides, a cupboard movable within the frame, having vertical grooved guides, rollers secured to the opposite sides of the lower portion of the cupboard and projecting into the grooves of the shaft frame guides, sheaves journaled in the upper portion of the shaft frame and projecting into the grooves of the guides of the cupboard, and counterweights for the cupboard having attached flexible members passing over the sheaves.

2. The combination of an elevator shaft frame, a cupboard vertically movable within the frame having guiding devices at the lower portion thereof, sheaves carried at the upper portion of the frame at the opposite sides of the cupboard and arranged to operate in connection with said devices to prevent the cupboard from tilting within the frame, counterweights, and flexible members attached to the lower portion of the cupboard and passing over the sheaves to the counterweights.

3. The combination of an elevator shaft frame, a cupboard vertically movable within the frame, a spring-pressed latch lever carried by said frame, catch blocks attached to the cupboard and arranged to be respectively engaged by the latch lever when the cupboard is in its elevated and depressed positions, and a manually-actuated device for releasing the latch lever from the catch blocks.



4. In combination with a floor having an opening, an elevator shaft frame arranged beneath the floor around said opening, a cupboard vertically guided in the elevator shaft frame and passing through said opening, a bell-crank latch lever carried by the shaft frame, a spring arranged under the tail of the lever, normally forcing the upper portion of the lever inwardly to the cupboard, catch members attached to the cupboard and arranged to be engaged by the latch lever when the cupboard is respectively in its uppermost and lowermost positions, a foot-actuated device to release the lever from said catch members, connected to the tail of the lever over the spring and passing through the floor, and means for adjusting the elevation of said device relatively to the tail of the latch lever.

943,499. TOOL-HOLDER. CYRUS B. WELLS, Scranton, Pa. Filed Apr. 6, 1909. Serial No. 488,317.



1. In a holder for lathe tools, a body adapted for attachment to the tool post or equivalent fixture of a lathe, a tool supporting lever pivoted to said body, said body and lever having opposed surfaces forming walls of a tool slot, and means upon the body for pressing a tool against the lever in advance of its pivotal point, whereby when the tool extends to the rear portions of the slot, the rear end of the tool becomes gripped by said walls.

2. In a holder for lathe tools, a body adapted for attachment to the tool post or equivalent fixture of a lathe, a tool supporting lever pivoted to said body, said body and lever having opposed surfaces forming walls of a tool slot, and means upon the body for pressing a tool against the lever in advance of its pivotal point, whereby when the tool extends to the rear portions of the slot, the rear end of the tool becomes gripped by said walls, said body and lever having co-acting stop surfaces for holding said walls a definite distance apart, in the outer positions of the tool.

3. In a holder for lathe tools, a body adapted for attachment to the tool post or equivalent fixture of a lathe, said body having a tool-receiving groove, a tool-supporting lever pivoted to said body near the forward end of said groove, and means for pressing a tool against said lever in advance of its pivotal point.

4. In a holder for lathe tools, a body adapted for attachment to the tool post or equivalent fixture of a lathe, said body having a tool-receiving groove, a tool-supporting lever pivoted to said body near the forward end of said groove and means for pressing a tool against said lever in advance of its pivotal point, said lever and body having co-acting stop surfaces for limiting the movement of the lever.

5. In a holder for lathe tools, a body adapted for attachment to the tool-post or equivalent fixture of a lathe, said body having a tool-receiving groove, a tool-supporting lever pivoted to said body near the forward end of said groove and projecting beyond said forward end, and means for pressing a tool against said lever in advance of its pivotal point.

[Claims 6 to 12 not printed in the Gazette.]

943,500. KNOCKDOWN CRATE. EDWARD B. WESTON, Dayton, Ohio. Filed June 21, 1906. Serial No. 322,706.



1. A knock down crate, comprising a front and a rear frame, with links for hinging the two frames together at one end, flexible metal strips rigidly secured across the upper ends of the frames at the other end, with means for flexing toward each other and detachably securing said strips together to close the crate.

2. A knock down crate, comprising a front and a rear frame, with links for hinging the two frames together at one end, flexible metal strips rigidly secured across the upper ends of the frames at the other end, and a locking bar shorter than the distance between the metal strips hinged to one of said strips, and detachably secured to the other for securing said strips together to lock the crate.

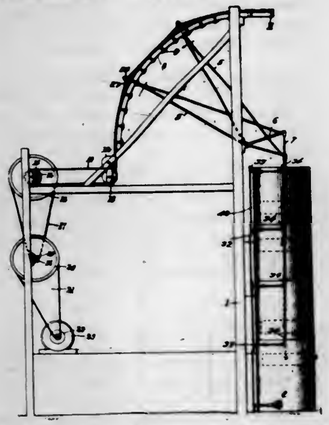
3. A knock down crate, comprising a front and a rear frame, with links for hinging the two frames together at one end, flexible metal strips rigidly secured across the upper ends of the frames at the other end, and a hook shorter than the distance between the metal strips, and permanently mounted and hinged to one of said strips and hooked over the other strip to secure said strips together to lock the crate.

4. A knock down crate, comprising a front and a rear frame, with links for hinging the two frames together at one end, and a flat bar connecting the two sets of links and mounted on the corresponding link of each pair so as to maintain a fixed position relative thereto, and take a flat position across the end of the crate when the links are open, and a position on edge when the links are closed, with means for detachably connecting the two frames together at the other end.

943,501. WATER-MOTOR. WILLIAM J. WHITE, Oyster Bay, N. Y. Filed Aug. 15, 1906. Serial No. 448,728.

1. In a water motor, in combination, a plurality of tanks, means for supplying water thereto, floats in said tanks and adapted to rise and fall with the change of water level therein, a plurality of valves controlling the flow to and from said tanks, a plurality of endless cables corresponding with said tanks, automatic means for actuating said valves, and mechanism connecting said floats respectively with said cables for advancing said cables.

2. In a water motor, in combination, a plurality of tanks, means for supplying water thereto, means for draining said tanks whereby the water level therein will rise and fall, floats mounted in said tanks respectively, a plurality of cables corresponding with said tanks, sweeps connected with said floats and actuated thereby, and grips carried by said sweeps for engaging said cables.



3. In a water motor, in combination, a plurality of tanks, means for supplying water thereto, means for draining said tanks whereby the water level therein will rise and fall, floats mounted in said tanks respectively, a plurality of cables corresponding with said tanks, sweeps connected with said floats and actuated thereby, grips carried by said sweeps for engaging said cables, and a common shaft to which all of said cables connect, said common shaft being rotated thereby.

4. In a water motor, in combination, a plurality of tanks, means for supplying water thereto, means for draining said tanks whereby the water level in said tanks will rise and fall, a plurality of sweeps corresponding to said tanks, a plurality of endless cables, means for guiding said endless cables adjacent to said sweeps, grips carried by said sweeps and adapted to engage said cables with either direction of movement of said sweeps, and mechanism driven by said endless cables.

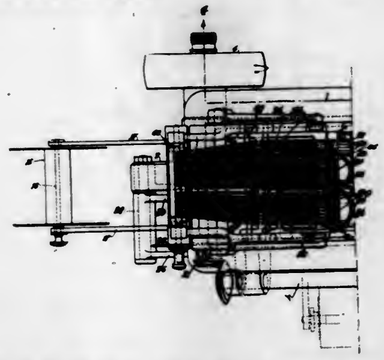
5. In a water motor, in combination, a plurality of tanks, means for admitting water to said tanks, means for draining said tanks whereby the water level will rise and fall therein, a plurality of floats mounted respectively in said tanks, a plurality of sweeps connected respectively with said floats, a plurality of endless cables corresponding to said tanks, means for guiding said endless cables adjacent to said sweeps, and clutches carried by said sweeps and engaging one side of said cables for one direction of movement for said sweeps and engaging the other side of the said cables for the other direction of movement of said sweeps.

[Claims 6 to 12 not printed in the Gazette.]

943,502. JUSTIFYING TYPE-WRITER. WOOLMAN G. WHITE, Washington, D. C., assignor to Linotype and Machinery Limited, London, England. Filed Apr. 22, 1907. Serial No. 369,541.

1. In a justifying typewriter the combination of a set of movable types, a carrier for the material to be printed on, a plunger for impressing the types one at a time, a mechanical controller, means controlled thereby for selecting the types to be impressed, a driving shaft, a composite cam thereon, means for positively connecting said cam with said carrier, means for positively connecting said cam with said plunger so as to impress a type directly by a thrust of said plunger and a driving clutch on said shaft.

2. In a justifying typewriter the combination of a perforated controller, spaced feeding disks therefor, a shaft supporting said disks at its opposite ends and fast therewith, a stationary arch located between said disks and having a cavity, a plurality of selecting pins directed toward said cavity, there being a space between the said arch and the selecting pins through which the controller travels, a movable type carrier, and means operatively connecting said type carrier with the selecting pins to move it into type selecting position.



3. In a justifying type-writer, the combination of a controller having feeding holes adjacent its lateral edges; disks with pins on their peripheries to engage said feeding holes; a shaft having said disks fast thereon adjacent its opposite ends and having the intervening space between the disks clear; a stationary, convexly curved, supporting surface for the controller, overarching said clear part of the shaft and having a slit immediately over and parallel with said shaft; means for driving said shaft step by step; a plurality of longitudinally slidable selecting pins having one end directed toward said slit but so spaced from the supporting surface as to permit the controller to pass over the convex side of the latter; guides for said pins; a movable type-carrier; and means operatively connecting said type-carrier with the selecting pins to move it into type selecting position.

4. In a justifying typewriter the combination of a mechanical controller, means for feeding it step by step, selecting pins adapted to be controlled thereby, rocking pins adapted to coöperate with them, coördinate wheels, pins therein, means coöperating with the rocking pins for selecting a wheel pin, a movable type carrier, types therein, means for operatively connecting said type carrier with the coördinate wheels, and means for protruding a wheel pin.

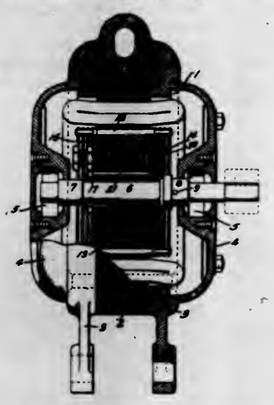
5. In a justifying typewriter the combination with a mechanical controller and means for feeding it, of a movable frame, type therein, slides connected with said frame, coördinate wheels, means for connecting them with the slides, means for rotating the coördinate wheels, means for transmitting the control of the controller to the coordinate wheels to determine the degree of their respective rotation, a paper carrier, and means for impressing one of the aforesaid types.

[Claims 6 to 56 not printed in the Gazette.]

943,503. DYNAMO-ELECTRIC MACHINE. JOHN B. WIARD, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed Dec. 6, 1905. Serial No. 290,560.

1. A dynamo electric machine comprising a shaft, a sleeve rotatably mounted thereon, a core comprising end members secured to said sleeve and punchings assembled between said end members, said core having axially extending channels formed in it, a friction member longitudinally slidable but non-rotatably mounted on said sleeve, a coöperating friction member secured to the shaft, and helical springs located in said channels, one end of each spring engaging the friction member mounted on the

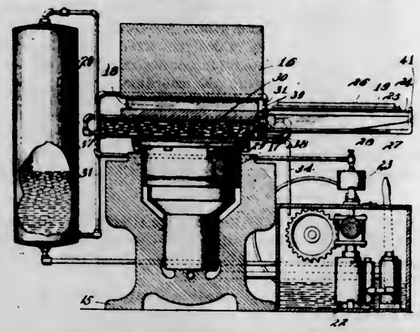
sleeve, and means engaging one of said end members for regulating the tension of said springs.



2. In combination, a shaft, a sleeve rotatably mounted thereon, a core comprising end members secured to said sleeve and punchings assembled between said end members, said core having axially extending channels formed in it, a friction member longitudinally slidable but non-rotatably mounted on said sleeve, a coöperating friction member secured to the shaft, and helical springs located in said channels one end of each spring engaging the friction member mounted on the sleeve, and means for regulating the tension of said springs, comprising bolts in threaded engagement with one of the end members, one end of each bolt engaging one end of each spring.

3. In combination, a shaft, a core comprising end members rotatably mounted on said shaft and punchings assembled between said end members, said core having axially extending channels formed in it, means for preventing axial movement of the core relative to the shaft, a friction member axially but not rotatably movable with respect to said core, a coöperating friction member secured to the shaft, and helical springs located in said channels, one end of each spring engaging the friction member secured to the core, and means for regulating the tension of each spring comprising a bolt in threaded engagement with one of the end members, one end of which engages one spring.

943,504. MOLDING-PRESS. EDWARD C. WILLIAMS, Chicago, Ill. Filed Aug. 24, 1907. Serial No. 389,998.



1. In a molding press, in combination, a plunger, a carrier movable onto and off from the plunger, a fluid motor for actuating the carrier, a four-way valve for controlling the motor, a hand lever for operating the valve, the carrier being provided with appurtenances for engaging the valve to close it.

2. In a molding press, in combination, a plunger, a carrier movable onto and off from the plunger, a fluid motor for actuating the carrier, a four-way valve for controlling the motor, a hand lever for operating the valve, and lugs projecting from the carrier to engage the valve to close it.

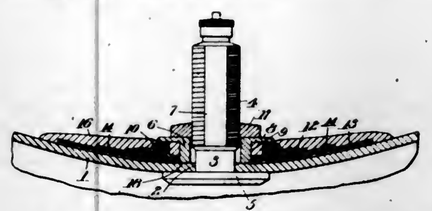
3. In a molding press, in combination, a plunger, a carrier movable onto and off from the plunger, a fluid motor for actuating the carrier, a valve for controlling the motor, and a hand lever for operating the valve, the carrier being provided with appurtenances for engaging the valve to close it.

4. In a molding machine, in combination, a platen, a bed, a carrier movable over the bed and platen, power-actuated means for moving the carrier, and means controllable by the carrier for automatically disconnecting the moving means.

5. In a molding machine, in combination, a platen, a receiving bed in line with the platen, a carrier movable over the bed and platen, means for moving the carrier from the bed to the platen and from the platen to the bed, and a trip mounted on the carrier for throwing the moving means out of action.

[Claims 6 to 9 not printed in the Gazette.]

943,505. AUTOMOBILE-TIRE. CHARLES E. W. WOODWARD, Chicopee Falls, Mass., assignor to Fisk Rubber Company, Chicopee Falls, Mass., a Corporation. Filed Oct. 24, 1906. Serial No. 340,300.



1. In a securing means for inflation valves for the inner tubes of tires for automobiles, an inelastic ring secured to the same adjacent the valve-opening therein and having an internal diameter greater than that of said opening, means on the valve-stem for retaining the tube and said ring in place, whereby the opening in the tube is prevented from assuming a shape other than circular when the valve-stem is in place, and whereby the inelastic ring is permitted to assume a form other than circular when the valve-stem is removed from the tire, as described.

2. An improvement in inner tubes for automobile tires comprising a non-stretchable ring secured to the same and concentric with the valve-stem opening thereof, said ring having an internal diameter greater than that of said opening, means on the stem for maintaining said ring in place and in a circular form, whereby said opening is prevented from assuming an oval shape when the stem is in place, when undue outward strain is exerted upon the valve-stem, as described.

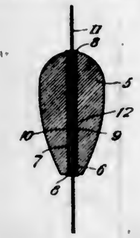
3. As an improvement in inner tubes for pneumatic tires, an inelastic ring, layers of fabric inclosing said ring, means for securing said layers of fabric to the tube, the ring being arranged concentric to the opening in the tube, a valve-stem, means thereon for clamping the tube to the same whereby the opening in the tube is maintained in circular form, and whereby the head of the valve is prevented from withdrawal by outward strain on the same.

4. Means to secure the inflation valve to inner tubes of pneumatic tires comprising a pliable inextensible ring permanently secured to the tube concentric to the valve-stem opening in the latter, the internal diameter of said ring being greater than said opening, a valve-stem extending through the opening, the head of the valve being inside the tube, and a washer on the valve-stem to prevent lateral movement of the ring and to compress the wall of the tube around the valve-stem opening to seal the latter.

5. An improvement in inner tubes for pneumatic tires consisting in securing an inextensible pliable ring to the tube concentric with the valve-stem opening therein and inclosing a certain area of the wall of the tube around said opening, said ring constituting a raised abutment extending around said opening; a valve-stem having a head on the inner end thereof, and a washer on the stem to compress the area of the tube inclosed by the ring.

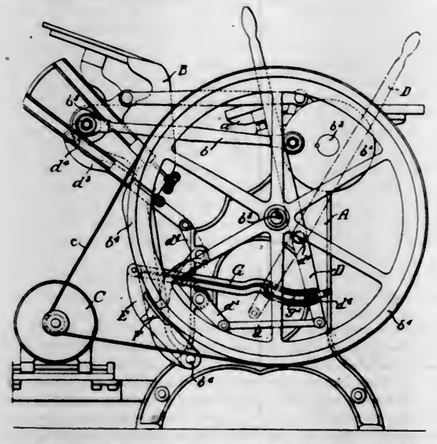
[Claims 6 to 11 not printed in the Gazette.]

943,506. FISHING-BOB. FLOYD F. WOOTON, Milford, Mich. Filed June 17, 1908. Serial No. 438,988.



A device of the character described, comprising a bob having a longitudinal bore, a tubular member arranged in the bore of the bob and having an annular inwardly extending rib intermediate its ends and the ends of the bob, a line extending through the tubular member, and an obstructing member mounted upon and slidably connected with the line for engagement with the rib upon the tubular member, said rib and slidable member being normally disposed within and intermediate the ends of the bob.

943,507. BRAKE FOR PRINTING-PRESSES. CHARLES A. WRIGHT, Philadelphia, Pa. Filed Sept. 8, 1909. Serial No. 516,714.



1. The combination of a press of the bed and platen type, having a fly wheel, and mechanism including a throw off lever for moving the bed into and out of operative relation with the platen; with a brake operative on the fly wheel, and including a lever the line of whose fulcrum is coincident with the line of the pivot between the bed and platen; and means for connecting said brake lever with the throw off lever; the same being arranged to cause application of the brake after the bed has been thrown out of operative relation with the platen.

2. The combination of a printing press having a fly wheel and a throw-off lever, an arm pivoted to the frame of the press, a shoe carried by said arm and placed to be operative on the fly wheel, a slotted link connecting said arm with the throw-off lever, with means for yieldingly connecting the arm and the link.

3. The combination of a printing press having a frame, a fly wheel, a throw-off lever mounted between said frame and said wheel, a link connected to the throw-off lever, an arm pivoted to the frame and connected to the link so as to lie adjacent to the plane of the lever and link, and a brake shoe carried by the arm so as to be brought into engagement with the face of the fly wheel when the lever is moved to one extremity of its throw.

4. The combination of a printing press having a frame, and an oscillatory portion, a pivot pin connecting said portion to said frame, an arm mounted on said pivot pin, a brake shoe carried by said arm, a throw-off lever for the press, and means for connecting said arm and said throw off lever.

5. The combination of a printing press having a fly wheel, a throw off lever, a pivot bolt connecting said lever with the frame of the press, a link having a slot formed concentrically with said pivot, a bolt passing through the slot and normally connecting the link to the lever, an arm pivoted to the frame of the press, and connected to one end of said link, with a brake shoe carried by said arm and placed to be operative on the face of the fly wheel.

[Claim 6 not printed in the Gazette.]

943,508. PROCESS OF DETINNING TIN SCRAPS AND PRODUCING TIN COMPOUNDS. OTTO K. ZWINGENBERGER, New York, N. Y. Filed July 16, 1909. Serial No. 508,041.

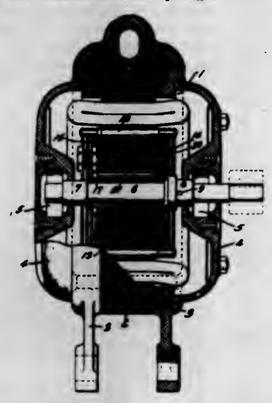
1. Process of detinning tin-scrap and the like raw-material and recovering the tin in form of chemical compounds and the iron in form of iron-scrap, consisting in treating the tin-scrap or the like material with dry chlorin gas in receptacles, in giving the chlorin gas the largest possible surface of tin by delivering simultaneously the chlorin gas in as far as possible equal quantities into all of said receptacles by equally and simultaneously maintaining a partial vacuum in said receptacles during the time the action of chlorin gas on tin takes place, in removing the chlorin gas and the tin-tetrachlorid out of the receptacles and in afterward washing the iron-scrap for recovering the last traces of tin-tetrachlorid and removing the chlorid of iron from the iron-scrap.

2. Process for detinning tin-scrap and the like raw-material and recovering the tin in form of chemical compounds and the iron in form of iron-scrap, consisting in treating the tin-scrap or the like raw-material with dry chlorin gas in receptacles, in giving the chlorin gas the largest possible surface of tin by delivering simultaneously the chlorin gas in as far as possible equal quantities into all of said receptacles by maintaining equally and simultaneously a partial vacuum in said receptacles, in joining said receptacles in parallel for maintaining the partial vacuum simultaneously in all vessels, in removing the chlorin gas and the tin-tetrachlorid out of the receptacles and afterward washing the iron-scrap for collecting the last traces of tin-tetrachlorid and removing the chlorid of iron from the iron-scrap.

3. Process for detinning tin-scrap and the like raw-material, consisting in treating the tin-scrap with dry chlorin gas in a receptacle, removing afterward the chlorin gas and the residue of tin-tetrachlorid by compressed air and washing the iron-scraps with a solution of sodium-sulfate to collect the last traces of tin-tetrachlorid and removing the chlorid of iron adhering to the detinned iron-scrap.

4. Process for detinning tin-scrap and the like raw-material, consisting in treating the tin-scrap with dry chlorin gas in a receptacle and removing the chlorin gas and the residue of tin-tetrachlorid by compressed air, washing the iron-scrap by sprinkling them in the receptacle with a solution of sodium sulfate, treating them afterward in a separate vessel with a solution of sodium-sulfate and agitating the sodium-sulfate solution either to completely collect the last traces of tin-tetrachlorid and removing the chlorid of iron from the detinned iron-scrap.

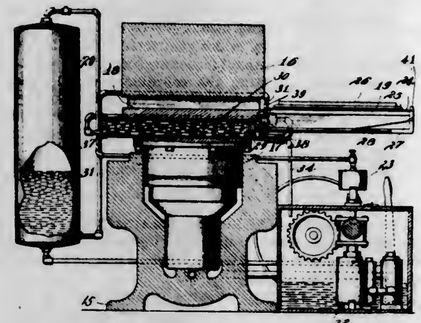
sleeve, and means engaging one of said end members for regulating the tension of said springs.



2. In combination, a shaft, a sleeve rotatably mounted thereon, a core comprising end members secured to said sleeve and punchings assembled between said end members, said core having axially extending channels formed in it, a friction member longitudinally slidable but non-rotatably mounted on said sleeve, a coöperating friction member secured to the shaft, and helical springs located in said channels one end of each spring engaging the friction member mounted on the sleeve, and means for regulating the tension of said springs, comprising bolts in threaded engagement with one of the end members, one end of each bolt engaging one end of each spring.

3. In combination, a shaft, a core comprising end members rotatably mounted on said shaft and punchings assembled between said end members, said core having axially extending channels formed in it, means for preventing axial movement of the core relative to the shaft, a friction member axially but not rotatably movable with respect to said core, a coöperating friction member secured to the shaft, and helical springs located in said channels, one end of each spring engaging the friction member secured to the core, and means for regulatng the tension of each spring comprising a bolt in threaded engagement with one of the end members, one end of which engages one spring.

943,504. MOLDING-PRESS. EDWARD C. WILLIAMS, Chicago, Ill. Filed Aug. 24, 1907. Serial No. 389,998.



1. In a molding press, in combination, a plunger, a carrier movable onto and off from the plunger, a fluid motor for actuating the carrier, a four-way valve for controlling the motor, a hand lever for operating the valve, the carrier being provided with appurtenances for engaging the valve to close it.

2. In a molding press, in combination, a plunger, a carrier movable onto and off from the plunger, a fluid motor for actuating the carrier, a four-way valve for controlling the motor, a hand lever for operating the valve, and lugs projecting from the carrier to engage the valve to close it.

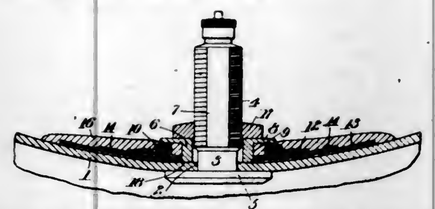
3. In a molding press, in combination, a plunger, a carrier movable onto and off from the plunger, a fluid motor for actuating the carrier, a valve for controlling the motor, and a hand lever for operating the valve, the carrier being provided with appurtenances for engaging the valve to close it.

4. In a molding machine, in combination, a platen, a bed, a carrier movable over the bed and platen, power-actuated means for moving the carrier, and means controllable by the carrier for automatically disconnecting the moving means.

5. In a molding machine, in combination, a platen, a receiving bed in line with the platen, a carrier movable over the bed and platen, means for moving the carrier from the bed to the platen and from the platen to the bed, and a trip mounted on the carrier for throwing the moving means out of action.

[Claims 6 to 9 not printed in the Gazette.]

943,505. AUTOMOBILE-TIRE. CHARLES E. W. WOODWARD, Chicopee Falls, Mass., assignor to Fisk Rubber Company, Chicopee Falls, Mass., a Corporation. Filed Oct. 24, 1906. Serial No. 340,300.



1. In a securing means for inflation valves for the inner tubes of tires for automobiles, an inelastic ring secured to the same adjacent the valve-opening therein and having an internal diameter greater than that of said opening, means on the valve-stem for retaining the tube and said ring in place, whereby the opening in the tube is prevented from assuming a shape other than circular when the valve-stem is in place, and whereby the inelastic ring is permitted to assume a form other than circular when the valve-stem is removed from the tire, as described.

2. An improvement in inner tubes for automobile tires comprising a non-stretchable ring secured to the same and concentric with the valve-stem opening thereof, said ring having an internal diameter greater than that of said opening, means on the stem for maintaining said ring in place and in a circular form, whereby said opening is prevented from assuming an oval shape when the stem is in place, when undue outward strain is exerted upon the valve-stem, as described.

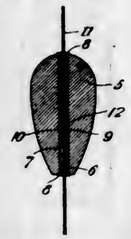
3. As an improvement in inner tubes for pneumatic tires, an inelastic ring, layers of fabric inclosing said ring, means for securing said layers of fabric to the tube, the ring being arranged concentric to the opening in the tube, a valve-stem, means thereon for clamping the tube to the same whereby the opening in the tube is maintained in circular form, and whereby the head of the valve is prevented from withdrawal by outward strain on the same.

4. Means to secure the inflation valve to inner tubes of pneumatic tires comprising a pliable inextensible ring permanently secured to the tube concentric to the valve-stem opening in the latter, the internal diameter of said ring being greater than said opening, a valve-stem extending through the opening, the head of the valve being inside the tube, and a washer on the valve-stem to prevent lateral movement of the ring and to compress the wall of the tube around the valve-stem opening to seal the latter.

5. An improvement in inner tubes for pneumatic tires consisting in securing an inextensible pliable ring to the tube concentric with the valve-stem opening therein and inclosing a certain area of the wall of the tube around said opening, said ring constituting a raised abutment extending around said opening; a valve-stem having a head on the inner end thereof, and a washer on the stem to compress the area of the tube inclosed by the ring.

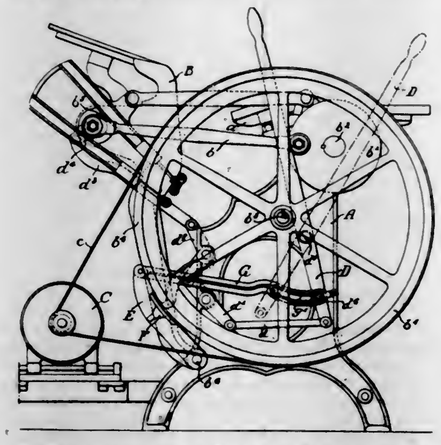
[Claims 6 to 11 not printed in the Gazette.]

943,506. FISHING-BOB. FLOYD F. WOOTON, Milford, Mich. Filed June 17, 1908. Serial No. 438,988.



A device of the character described, comprising a bob having a longitudinal bore, a tubular member arranged in the bore of the bob and having an annular inwardly extending rib intermediate its ends and the ends of the bob, a line extending through the tubular member, and an obstructing member mounted upon and slidably connected with the line for engagement with the rib upon the tubular member, said rib and slidable member being normally disposed within and intermediate the ends of the bob.

943,507. BRAKE FOR PRINTING-PRESSES. CHARLES A. WRIGHT, Philadelphia, Pa. Filed Sept. 8, 1909. Serial No. 516,714.



1. The combination of a press of the bed and platen type, having a fly wheel, and mechanism including a throw off lever for moving the bed into and out of operative relation with the platen; with a brake operative on the fly wheel, and including a lever the line of whose fulcrum is coincident with the line of the pivot between the bed and platen; and means for connecting said brake lever with the throw off lever; the same being arranged to cause application of the brake after the bed has been thrown out of operative relation with the platen.

2. The combination of a printing press having a fly wheel and a throw-off lever, an arm pivoted to the frame of the press, a shoe carried by said arm and placed to be operative on the fly wheel, a slotted link connecting said arm with the throw-off lever, with means for yieldingly connecting the arm and the link.

3. The combination of a printing press having a frame, a fly wheel, a throw-off lever mounted between said frame and said wheel, a link connected to the throw-off lever, an arm pivoted to the frame and connected to the link so as to lie adjacent to the plane of the lever and link, and a brake shoe carried by the arm so as to be brought into engagement with the face of the fly wheel when the lever is moved to one extremity of its throw.

4. The combination of a printing press having a frame, and an oscillatory portion, a pivot pin connecting said portion to said frame, an arm mounted on said pivot pin, a brake shoe carried by said arm, a throw-off lever for the press, and means for connecting said arm and said throw off lever.

5. The combination of a printing press having a fly wheel, a throw off lever, a pivot bolt connecting said lever with the frame of the press, a link having a slot formed concentrically with said pivot, a bolt passing through the slot and normally connecting the link to the lever, an arm pivoted to the frame of the press, and connected to one end of said link, with a brake shoe carried by said arm and placed to be operative on the face of the fly wheel.

[Claim 6 not printed in the Gazette.]

943,508. PROCESS OF DETINNING TIN SCRAPS AND PRODUCING TIN COMPOUNDS. OTTO K. ZWINGENBERGER, New York, N. Y. Filed July 16, 1909. Serial No. 508,041.

1. Process of detinning tin-scrap and the like raw-material and recovering the tin in form of chemical compounds and the iron in form of iron-scrap, consisting in treating the tin-scrap or the like material with dry chlorin gas in receptacles, in giving the chlorin gas the largest possible surface of tin by delivering simultaneously the chlorin gas in as far as possible equal quantities into all of said receptacles by equally and simultaneously maintaining a partial vacuum in said receptacles during the time the action of chlorin gas on tin takes place, in removing the chlorin gas and the tin-tetrachlorid out of the receptacles and in afterward washing the iron-scrap for recovering the last traces of tin-tetrachlorid and removing the chlorid of iron from the iron-scrap.

2. Process for detinning tin-scrap and the like raw-material and recovering the tin in form of chemical compounds and the iron in form of iron-scrap, consisting in treating the tin-scrap or the like raw-material with dry chlorin gas in receptacles, in giving the chlorin gas the largest possible surface of tin by delivering simultaneously the chlorin gas in as far as possible equal quantities into all of said receptacles by maintaining equally and simultaneously a partial vacuum in said receptacles, in joining said receptacles in parallel for maintaining the partial vacuum simultaneously in all vessels, in removing the chlorin gas and the tin-tetrachlorid out of the receptacles and afterward washing the iron-scrap for collecting the last traces of tin-tetrachlorid and removing the chlorid of iron from the iron-scrap.

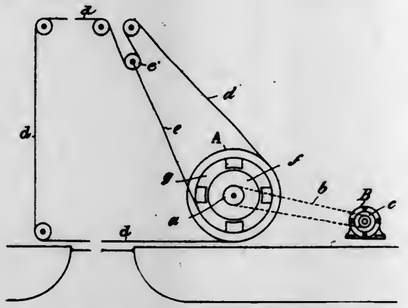
3. Process for detinning tin-scrap and the like raw-material, consisting in treating the tin-scrap with dry chlorin gas in a receptacle, removing afterward the chlorin gas and the residue of tin-tetrachlorid by compressed air and washing the iron-scraps with a solution of sodium-sulfate to collect the last traces of tin-tetrachlorid and removing the chlorid of iron adhering to the detinned iron-scrap.

4. Process for detinning tin-scrap and the like raw-material, consisting in treating the tin-scrap with dry chlorin gas in a receptacle and removing the chlorin gas and the residue of tin-tetrachlorid by compressed air, washing the iron-scrap by sprinkling them in the receptacle with a solution of sodium sulfate, treating them afterward in a separate vessel with a solution of sodium-sulfate and agitating the sodium-sulfate solution either to completely collect the last traces of tin-tetrachlorid and removing the chlorid of iron from the detinned iron-scrap.

5. Process for detinning tin-scrap and the like raw-material, consisting in treating the tin-scrap with dry chlorin gas in a receptacle, removing the chlorin gas and the residue of tin-tetrachlorid by compressed air, washing the detinned iron-scraps with a solution of sodium-sulfate and afterward washing the detinned iron-scraps with water for removing the sulfate washing-fluid from the detinned iron-scraps.

[Claims 6 to 9 not printed in the Gazette.]

943,509. ELECTRICAL CABLEWAY SYSTEM. OTTO ADAM, Dresden, Germany. Filed Apr. 20, 1908. Serial No. 428,035.



1. In an electric cable-way system, the combination of an endless traveling cable, a straining rope to maintain a substantially uniform tension on said cable, an electric motor for operating the cable and straining rope, and a compensating dynamo electric machine in circuit with said motor operating concurrently with the actuating of the straining rope.

2. In an electric cable-way system, the combination of an endless traveling cable, a straining rope to maintain a substantially uniform tension on said cable, an electric motor for operating the cable and straining rope, and a compensating generator driven by the straining rope operating element of the motor, and energizing a compensating winding in the motor circuit.

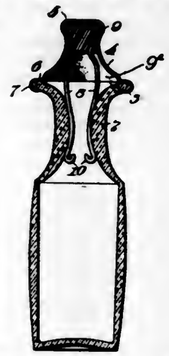
3. In an electric cable-way system, the combination of an endless traveling cable, a straining rope to maintain a substantially uniform tension on said cable, an electric motor having independently rotatable field and armature elements for actuating the traveling cable and the straining rope, and a generator driven by the motor element operating the straining rope and energizing a compensating winding in the motor circuit.

943,510. BOTTLE-CAP. GEORGE L. BEAT, Charlotte, N. C. Filed June 23, 1909. Serial No. 503,863.

1. A bottle cap comprising a portion adapted to engage the mouth of a bottle, a reduced upwardly projecting knob adapted to be grasped for placing the cap on and removing it from a bottle, and resilient arms depending from said cap and adapted to engage the interior of a bottle neck for holding said cap in place thereon, said arms being secured in a filling of solder arranged in said knob and also serving to add weight to the cap and prevent said knob from being dented.

2. A bottle cap comprising a portion adapted to engage the mouth of a bottle, a reduced upwardly projecting knob adapted to be grasped for placing the cap on and removing it from a bottle, and resilient arms depending from said cap and adapted to engage the interior of a bottle neck for holding said cap in place thereon, said arms being secured in a filling of solder arranged in said knob, an open space being left in the cap between the solder filling and the portion for engaging a bottle mouth for the purposes specified.

3. The combination, with a bottle having a flared mouth and a restricted neck, of a cap comprising a portion to engage the upper portion of the bottle mouth, a flange to fit over and protect the edge of said mouth, a reduced knob for grasping to place the cap on or remove it from



the bottle, and resilient arms secured in the knob and having their free ends arranged so as to be guided into the bottle neck by the flared mouth and to engage said neck below the restricted portion thereof for retaining the cap on the bottle.

943,511. EXTENSION STEP-LADDER. NICKOLAUS BINGER and ERNST F. BURGSTALLER, San Antonio, Tex. Filed Mar. 31, 1909. Serial No. 486,875.



1. An extension ladder comprising a main ladder section having pivoted step and prop portions, the latter being provided with guideways and spaced recesses communicating therewith, an extension ladder section having pivoted step and prop portions, the former provided with locking notches and the latter with projections to engage the said guideways and interlock with the said recesses of the prop portion of the main section, and pivoted locking elements on the step portion of the main section forming guides for the step portion of the extension portion, said locking elements being provided with spaced projections to engage the notches in the step portion of said extension section.

2. An extension stepladder comprising a main ladder section embodying pivoted step and prop portions, the bars of the prop portion being provided with longitudinal guide grooves and spaced locking recesses communicating therewith, pivoted locking bars upon the bars of the step portion provided each with a pair of spaced guiding and locking lugs, and an extension ladder section embodying

pivoted step and prop portions, the bars of the step portion being slidably engaged with the lugs of said locking bars and provided in their front and rear edges with reversely inclined locking notches for engagement therewith, and the prop portion of said extension section being provided with projections engaging said grooves in the bars of the prop portion of the main section and adapted to interlock with the recesses thereof.

3. An extension ladder comprising a main stepladder section having its prop portion provided with guide grooves and locking recesses and its step portion provided with swinging locking devices having engaging members, and an extension step ladder section having its prop portion provided with projections to engage said guide grooves and locking recesses and its step portion provided with reversely inclined sets of locking notches for sliding and interlocking engagement with the engaging members of said locking devices.

943,512. COFFEE-POT. CYRUS F. BLANKE, St. Louis, Mo. Filed Mar. 31, 1909. Serial No. 486,941.

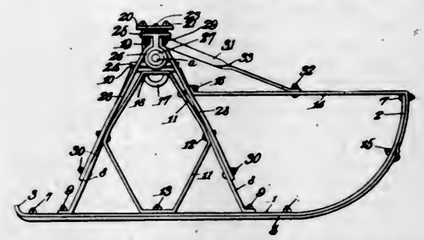


1. The combination with a coffee pot having an inwardly extending ledge arranged at a point below the upper edge thereof so as to leave a surrounding flange, of a lid adapted to rest upon the ledge within the said flange and provided with a depending annular flange increasing in diameter toward its lower edge, the greatest diameter of the flange being slightly less than the interior diameter of the coffee pot at the said ledge, and a fabric percolator bag supported on and by the said ledge and depending within the pot around the flange of the lid, thereby cushioning the space between the ledge and the said lid and providing a cushioned frictional engagement between the ledge and the flange so as to retain the lid on the coffee pot.

2. The combination with a coffee pot having an inwardly extending annular ledge arranged at a point below the upper edge thereof so as to leave a surrounding flange, of a lid provided with a projecting peripheral portion adapted to be supported by the said ledge and confined within the said flange, said lid being also provided at the inner edge of the projecting peripheral portion with a depending exteriorly tapered annular flange increasing in diameter from the top to the bottom and extending into the coffee pot a considerable distance below the ledge, the exterior diameter of the lower edge of the depending flange being slightly less than the interior diameter of the said coffee pot at the said ledge so as to engage beneath the latter to retain the lid on the coffee pot when the same is inverted, said depending flange being of uniform diameter at its lower end so that the lid may be arranged in any position with relation to the ledge.

3. The combination with a coffee pot having an inwardly extending annular ledge arranged at a point below the upper edge thereof so as to leave a surrounding flange, of a lid provided with a projecting peripheral portion adapted to be supported by the said ledge and confined within the said flange, said lid being also provided at the inner edge of the projecting peripheral portion with a depending exteriorly tapered annular flange increasing in diameter from the top to the bottom and extending into the coffee pot a considerable distance below the ledge, the exterior diameter of the lower end of the depending flange being slightly less than the interior diameter of the coffee pot at the ledge so as to barely enter the coffee pot, whereby when a fabric percolator bag is suspended from the ledge it will constrict the space between the ledge and the depending flange and provide a cushioned frictional engagement to retain the lid positively on the coffee pot.

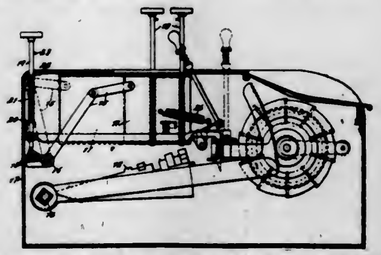
943,513. SLED-RUNNER. DANIEL L. BLOCHER, Bordulac, N. D. Filed Mar. 3, 1909. Serial No. 481,051.



1. A sled runner comprising a runner, a shoe connected thereto, a knee, a reinforcing bar connected to said runner and knee, a brace connected to said bar and to said knee, an axle clip connected to said knee and brace, an axle and a rocker connected to said axle and provided with reduced opposite ends, said rocker bearing upon the upper surface of the knee to permit the runner to rock under the axle.

2. A sled comprising a pair of runners, a shoe connected to each runner, a knee consisting of a bar connected to the runner and having a flat upper surface, a brace within the knee, said brace being connected to the runner and knee, a reinforcing bar connected to said runner and knee, an axle clip connected to said knee and to said brace, an axle and a rocker provided with oppositely reduced ends bearing upon the upper surface of the knee to permit the sled to rock under the axle.

943,514. CALCULATING-MACHINE. JOHN BRICKEN, Chicago, Ill., assignor, by direct and mesne assignments, of one-third to Harry Marks, Chicago, Ill., and one-third to Reuben Marks, Des Moines, Iowa. Filed Mar. 18, 1909. Serial No. 484,078.



1. A calculating machine having figure keys and factor keys for shifting said figure keys to different positions to thereby produce multiplication by different factors.

2. In a calculating machine, carrying mechanism, differential mechanism for operating the same, figure keys for operating said differential mechanism, and key connections for shifting said keys relatively to said differential mechanism for the purpose described.

3. In a calculating machine, computing mechanism, differential members connected thereto for operating the same, figure keys for operating said differential members,

said differential members being so constructed as to produce different effects upon the computing mechanism depending upon the position of the figure keys relatively to said differential members, a shiftable key-board wherein said figure keys are mounted, a rotatable member connected to said key-board for shifting said keys, and means for rotating said rotatable member.

4. In a calculating machine, computing mechanism, differential members connected thereto for operating the same, figure keys for operating said differential members, said differential members being so constructed as to produce different effects upon the computing mechanism depending upon the position of the figure keys relatively to said differential members, a shiftable key-board wherein said figure keys are mounted, a rock shaft connected to said key-board for shifting said keys and means for rotating said rock shafts.

5. In a calculating machine, computing mechanism, differential members connected thereto for operating the same, figure keys for operating said differential members, said differential members being so constructed as to produce different effects upon the computing mechanism depending upon the position of the figure keys relatively to said differential members, a shiftable key-board wherein said figure keys are mounted, a rock shaft connected to said key-board for shifting said keys, and key operating mechanism for rotating said rock shaft.

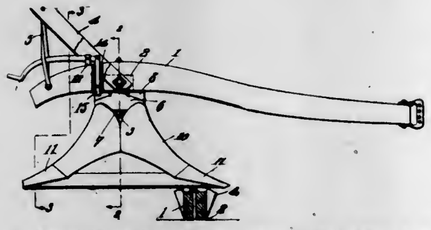
[Claims 6 to 8 not printed in the Gazette.]

943,515. DOOR-CHECK. ALBERT BROWN, Rockford, Iowa. Filed July 22, 1909. Serial No. 508,995.



A door check consisting of a keeper member and a coacting catch member, the latter being formed from a single strip of resilient material bent upon itself adjacent its center to provide parallel portions, the outer end of one of said portions being bent angularly to provide a V-shaped catch projection and the extremities of said parallel portions being bent oppositely at right angles to provide attaching flanges.

943,516. REVERSIBLE MOLDBOARD-PLOW. JAMES W. BUCHANAN, Asheville, N. C. Filed Apr. 13, 1909. Serial No. 489,598.



A reversible moid-board plow comprising a beam, a pin fixed to the beam, a head journaled upon the pin and having at its opposite ends upwardly extending flanges, a frog attached to the head and carrying a double mold-board and share, a keeper slidably mounted in the beam and having at its lower end inclined wings with spaced inner ends adapted to engage the flanges provided upon the head, a lever fulcrumed upon the beam and being operatively connected with said keeper.

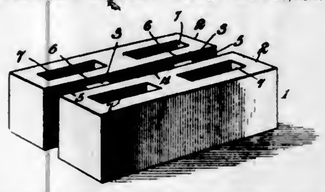
943,517. FORK AND SPOON HOLDER. WILLIAM W. BUTLER, Austinburg, Ohio. Filed May 19, 1909. Serial No. 497,050.

1. A holder of the character described formed from a single piece of wire bent to provide a clasp comprising spaced parallel U-shaped jaws having connecting portions at their upper ends, and an arm extending obliquely from one of said jaws and provided at its free end with a clip.



2. A holder of the character described formed from a single piece of wire bent to provide a clasp, said clasp consisting of two U-shaped jaws having their outer arms joined by a connecting portion and forming a loop therewith, one of said jaws having its inner arm provided with a hook bearing against the inner arm of the other jaw and forming a companion loop, a supporting arm extending at an oblique angle from the latter-named arm, and a U-shaped clip at the free end of said supporting arm.

943,518. BUILDING-BLOCK. SAMUEL BUTZ, Easton, Pa. Filed Nov. 10, 1908. Serial No. 461,934.



1. A building block including a plurality of duplicate hollow integral sections, each section being provided with a plurality of vertical openings, the openings of each section being arranged in parallel relation with the openings of the other section, an integral connecting web uniting the sections at a point intermediate of the parallel openings and spaced mid-way of the said openings and being of less height and width than the block, whereby connected vertical and horizontal openings are formed between the sections.

2. A building block including a plurality of duplicate hollow integral sections, each section being provided with a plurality of vertical openings, the openings of each section being arranged in parallel relation with the openings of the other section, and integral connecting webs uniting the sections at a point intermediate of the parallel vertical openings and spaced mid-way of the said openings and being of less height and width than the block, whereby connected vertical and horizontal openings are formed between the sections.

3. A building block including a plurality of spaced parallel sections of corresponding size and shape, each section being provided with a plurality of vertical openings, the openings of each section being arranged in alinement with each other and in parallel relation with the openings of the other section, and a plurality of integral connecting webs uniting the sections at a point intermediate of the parallel vertical openings and spaced mid-way of said openings and being of less height and width than the block, whereby connected horizontal and vertical openings are formed between the sections.

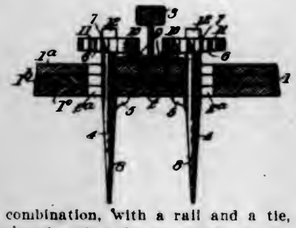
943,519. CONCRETE TIE AND RAIL-FASTENING. ARTHUR O. COFFIN, Springfield, Mo. Filed July 24, 1909. Serial No. 509,415.

1. A tie of the class described comprising a body of concrete, reinforcing rods embedded longitudinally therein, and rail fastening devices having rail-flange engaging heads at their upper ends and provided at their lower ends with heads lying within the concrete body and engaged beneath the reinforcing rods.



2. A tie of the character set forth, comprising a body of concrete, reinforcing rods embedded longitudinally therein, said body having longitudinally disposed slots in line with the spaces between certain of the reinforcing rods, and rail-fastening devices capable of swinging movement in the slots and having heads at their upper ends that engage over the base flanges of the rails, said fastening devices also having rounded heads at their lower ends that are engaged beneath the reinforcing rods.

943,520. RAILWAY-FASTENER. CHARLES H. CORNELL, Valentine, Nebr. Filed Jan. 26, 1909. Serial No. 474,225.



1. The combination, with a rail and a tie, the latter having an opening therethrough, of a rotatable bolt comprising a shank arranged in said opening in the tie, a head clamping the foot of the rail to the tie, a lug engaging the bottom of the tie, and a long downward extension from the shank engaging the roadbed for the purpose specified.

2. A bolt, for fastening a rail to a tie, having a laterally projecting lug adapted to engage the bottom surface of the tie, a cam-shaped head adapted to clamp upon the foot of the rail, and a downward extension adapted to engage the roadbed.

3. The combination, with a rail and a tie having a key slot therein, of a bolt having a laterally projecting lug adapted to be inserted through said key slot and engage the bottom surface of the tie, said bolt also having a head adapted to clamp upon the foot of the rail, and a downward extension adapted to engage the roadbed.

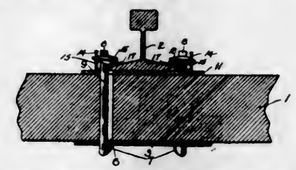
4. The combination, with a rail and a tie having a key slot therein, of a bolt having a laterally projecting lug adapted to be inserted through said key slot and engage the bottom surface of the tie, said bolt also having a head provided with a cam-shaped under face adapted to clamp upon the foot of the rail, and a downward extension adapted to engage the roadbed.

5. The combination, with a rail and a tie having a key slot therein, of a bolt having a laterally projecting lug adapted to be inserted through said key slot and engage the bottom surface of the tie, said bolt also having a head adapted to clamp upon the foot of the rail, and a downward extension adapted to engage the roadbed, the head of the bolt being serrated around its periphery, and a washer having a portion thereof adapted to engage said serrations to lock the bolt against reverse turning.

[Claims 6 to 12 not printed in the Gazette.]

943,521. RAILWAY-FASTENER. CHARLES H. CORNELL, Valentine, Nebr. Filed Apr. 9, 1909. Serial No. 488,909.

1. The combination, with a rail and a tie, of a plate arranged at the bottom of the tie and having a key slot therein, said tie being provided with a passage therethrough larger than the key slot in the plate, and a rotatable bolt having a head engaging the foot of the rail, a shank extending through the passage in the tie and the key slot in the bottom plate, and a lateral lug engaging the under surface of said plate.



2. The combination, with a rail and a tie, of a plate arranged at the bottom of the tie and having a key slot therein, said tie being provided with a passage therethrough larger than the key slot in the plate, and a rotatable bolt having a head provided with a cam-shaped under surface engaging the foot of the rail, a shank extending through the passage in the tie and the key slot in the bottom plate, and a lateral lug engaging the under surface of said plate.

3. The combination, with a rail and a tie, of a plate arranged at the bottom of the tie and having a key slot therein, said tie being provided with a passage therethrough larger than the key slot in the plate, a rotatable bolt having a head provided with a cam-shaped under surface engaging the foot of the rail, a shank extending through the passage in the tie and the key slot in the bottom plate, and a lateral lug engaging the under surface of said plate, and means to lock said bolt against reverse turning.

4. The combination, with a rail and a tie, of a plate arranged at the bottom of the tie and having a key slot therein, said tie being provided with a passage therethrough larger than the key slot in the plate, and a rotatable bolt having a head provided with a cam-shaped under surface engaging the foot of the rail, a shank extending through the passage in the tie and the key slot in the bottom plate, and a lateral lug engaging the under surface of said plate, the periphery of the head of said bolt being notched, and a spike driven into the top of the tie and engaging one of said notches for the purpose specified.

5. The combination, with a rail and a tie, of a plate arranged on the bottom of said tie and having a key slot therein, said tie being provided with a passage larger than the key slot in said tie, a plate arranged between the tie and rail and having a slot registering with the passage in the tie, a rotatable bolt having a head provided with a notched periphery and a cam-shaped under surface engaging the foot of the rail, a shank extending through the slot in the upper plate, the passage in the tie and the key slot in the bottom plate, and a lateral lug engaging the under surface of said bottom plate, said upper plate having an opening therein adjacent to its slot and a spike extending through said opening into the tie and engaging one of the notches in the head of the bolt for the purpose specified.

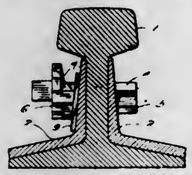
[Claims 6 to 10 not printed in the Gazette.]

943,522. RAILWAY-FASTENING. CHARLES H. CORNELL, Valentine, Nebr. Original application filed May 16, 1908, Serial No. 433,243. Divided and this application filed Nov. 6, 1908, Serial No. 461,404. Renewed July 30, 1909. Serial No. 510,414.

1. The combination, with two rails and fish plates having registering key slots therein, of rotatable bolts having their shanks extended through said slots, laterally projecting lugs on the ends of said bolts, heads on the other ends thereof having cam-shaped inner faces whereby a clamping action is had by turning said bolts, said heads also provided with serrations in their edges, and means adapted to engage said serrations to lock said bolts against reverse turning.

2. The combination, with two rails and fish plates having registering key slots therein, of rotatable bolts having

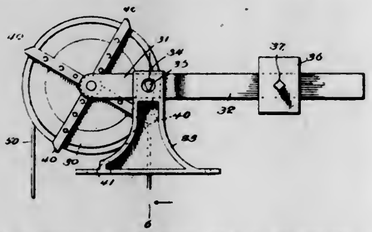
their shanks extended through said slots, laterally projecting lugs on the ends of said bolts, heads on the other ends thereof having cam-shaped inner faces whereby a clamping action is had by turning said bolts, said heads also provided with serrations in their edges, and washers adapted to have portions thereof bent up into engagement with serrations for the purpose specified.



3. The combination, with two rails and fish plates having registering key slots therein, of rotatable bolts having their shanks extended through said slots, laterally projecting lugs on the ends of said bolts, heads on the other ends thereof, said fish plates being tapered upwardly whereby a clamping action is had by turning said bolts, and means to lock said bolts against reverse turning.

4. The combination, with two rails and fish plates having registering key slots therein, of rotatable bolts having their shanks extended through said slots, laterally projecting lugs on the ends of said bolts, heads on the other ends thereof, said fish plates being tapered upwardly whereby a clamping action is had by turning said bolts, said heads having serrations in their edges, and washers adapted to have portions thereof bent up into engagement with said serrations for the purpose specified.

943,523. GRAVITY SPEED-GOVERNOR FOR ELEVATOR SAFETY MECHANISMS. JOHN CUNNINGHAM, Dayton, Ohio. Filed Sept. 11, 1909. Serial No. 517,255.



1. A governor for elevator safety mechanism, comprising a movable sheave, a counterbalance therefor, a cable passing over said sheave and operatively connected with the safety mechanism on the car and means for arresting said sheave constructed to be thrown into operation by the movement of the sheave against its counterbalance.

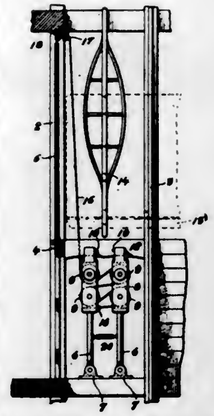
2. A governor for elevator safety mechanism, comprising a vertically movable sheave, a counterbalance therefor, a cable passing over said sheave and operatively connected with the safety mechanism on the car, a stop for arresting said sheave and a part on the sheave normally out of operative relation with said stop but adapted to be brought into line therewitn when the sheave is moved vertically against its counterbalance.

3. A governor for elevator safety mechanism, comprising among its members, a sheave, a pivoted lever supporting said sheave, a counterbalance for said sheave, connected with said lever, a cable passing over said sheave and connected with the safety mechanism on the elevator car, a stop for arresting the sheave, and a stop engaging projection on the sheave, normally out of operative relation with said stop.

4. A governor for elevator safety mechanism, comprising among its members, a supporting frame, a horizontal lever pivotally mounted in said frame between its ends, a sheave mounted in said lever adjacent to one end, a counterbalance connected to the other end of the lever, a fixed stop for arresting the sheave, a stop engaging projection on the sheave normally out of operative relation with the fixed stop but adapted to be brought into line therewith by the downward movement of the sheave, and a cable passing over said sheave, and connected with the safety mechanism on the car.

5. A governor for elevator safety mechanism, comprising among its members, a supporting frame, a horizontal lever provided with laterally extending pivot lugs V-shaped in cross section, engaging bearings in the frame, said lever having a forked portion at one end, a sheave mounted in said forked portion and provided with a V-shaped peripheral groove, a counterbalance weight movably connected to the other end of said lever, a fixed stop for said sheave, stop engaging projections on said sheave normally out of operative relation with said stop, and a cable engaging the groove in said sheave, and operatively connected with the safety mechanism.

943,524. SAFETY-GATE MECHANISM FOR ELEVATORS. JOHN CUNNINGHAM, Dayton, Ohio. Filed Sept. 13, 1909. Serial No. 517,392.

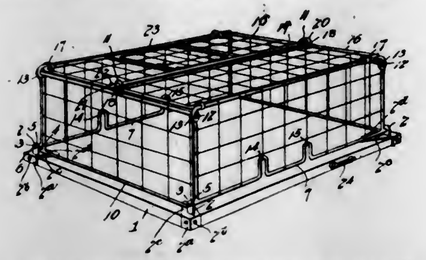


1. The combination with an elevator car, of a double wedge gate actuating cam mounted thereon, a vertically movable gate for the elevator well, a pair of vertically disposed pivoted arms adjacent to said gate, a plurality of pulleys mounted on each arm and located one above another in the same vertical plane, a laterally projecting device secured to each arm in position to engage the said cam, a flexible connection passing around the pulleys on said pivoted arms and having one end connected to one of said arms and the other end connected to said gate, and means for limiting the movement of said arms toward each other, whereby said arms are held in position to cause the double wedge cam to enter between the cam engaging lateral projections thereof.

2. The combination with an elevator car of a gate actuating device, a vertically movable gate for the elevator well, a pair of vertically disposed pivoted arms adjacent to said gate, a pair of pulleys mounted on each arm, and located one above the other, in the same vertical plane, laterally projecting devices secured to said arms, in position to engage the gate actuating device on the car, a flexible connection passing around the pulleys on said pivoted arms, and having one end connected to one of said arms, in a line vertically with the pulleys thereof, and the other end secured to the gate, intermediate pulleys engaging said rope and located above the gate and said arms, stops for limiting the movement of said arms toward each other, and holding the laterally projecting devices thereof in line with the actuating device on the car, and yielding means for normally holding said arms in engagement with said stops.

3. The combination with an elevator car of a gate actuating device, a vertically movable gate for the elevator well, a pair of vertically disposed pivoted arms adjacent to said gate, a pair of pulleys mounted on each arm, and located one above the other, in the same vertical plane, laterally projecting devices on each arm in position to engage the gate actuating device on the car, a flexible connection passing around the pulleys on said pivoted arms, and having one end connected to one of said arms, in a line vertically with the pulleys thereof, and the other end secured to the gate, intermediate pulleys engaging said rope and located above the gate and said arms, stops for limiting the inward movement of said arms, and holding the laterally projecting devices thereof in operative relation with the actuating device on the car, a spring connecting said arms, and intermediate pulleys above the gate and arms engaging the said flexible connection, the intermediate pulley adjacent to said arms being pivotally supported and receiving the flexible connection directly from one of the pulleys thereof.

943,525. FOLDING CRATE. WILLIAM H. DRAKE, Asheville, N. C. Filed Jan. 4, 1908. Serial No. 409,298.



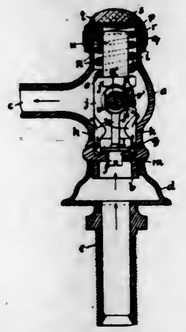
1. In a folding crate, the combination, with the base, of side and end pieces hinged thereto, said end pieces having horizontally extending studs, said side pieces having eyes adapted to receive said studs, said side pieces also provided with offsets in their lower edges to permit clearance of said studs when the parts are folded, and top pieces adapted to be secured in place.

2. In a folding crate, the combination, with the base, of side and end pieces hinged thereto and comprising bent wire rims or frames covered with wire netting, said end pieces having horizontally extending studs, said side pieces having eyes formed by suitably bending the wire forming their rims and adapted to receive said studs, said side pieces also having offsets in their lower edges formed by bending up portions of their rims for providing clearance for said studs when the parts are folded, and top pieces adapted to be secured in place.

3. In a folding crate, the combination, with the base, of side and end pieces hinged thereto, said end pieces having upwardly extending loops on their upper edges, top sections hinged to said side pieces and having loops adapted to engage the loops on said end pieces, links fastened to the lateral edges of said base, a rod adapted to be passed through the loops on said end pieces above the other loops to secure said loops together when the crate is erected, said rod also adapted to be passed through said links from side to side above the parts when folded to retain them in that position, and means to lock said rod in either said loops or links.

943,526. FAUCET. AUGUST ENGEL, Milwaukee, Wis., assignor to Milwaukee Brass Manufacturing Company, a Corporation of Wisconsin. Filed July 24, 1908. Serial No. 445,143.

1. In a valve or faucet, the combination of a body having a valve-seat and a bore of uniform cross section surrounding said valve-seat on the outer side thereof, a valve-plug resting on said seat and having guide means cooperating with said bore and opening in the direction of pressure, said plug having a shoulder and an upward extension above the same, a spring resting on said shoulder for normally maintaining said plug upon said seat, said extension fitting neatly within said spring, and means for guiding said spring, whereby the spring and extension mutually guide each other.



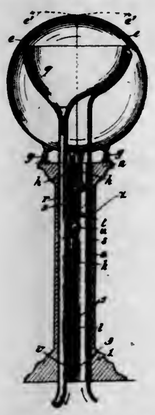
2. In a valve or faucet, the combination of a body or casing having an internal valve-seat, and an opening opposite said seat, a reciprocating valve-plug adapted to close said seat, guiding surfaces adapted to hold the lower end of said plug central, a removable cap closing said opening opposite the seat and having a central internal recess, and a coiled compression-spring centered in said recess and guided by the walls thereof and pressing upon said valve-plug, the upper end of said plug fitting and having frictional contact with the internal bore of said spring and being guided thereby.

3. In a valve or faucet, the combination of a body or casing and a spout leading off from an intermediate point thereof, said casing having a valve-seat at one end and an opening at the other and being provided with a cylindrical bore at each end; a reciprocating valve-plug fitting in the bore in the lower end of said casing, a coiled compression-spring fitting in the bore at the open end of said casing, and a removable cap closing the open end of said casing and forming an abutment for said spring; said plug having its upper end reduced cylindrically to fit within said spring leaving an abutment shoulder for the end of said spring at the base of the reduced portion; the upper end of said plug being guided by frictional contact with the internal bore of said spring and the outer surface of said spring being guided by the internal bore of said body or casing.

4. In a valve or faucet, the combination of a body having a valve-seat at its lower end and a bore of uniform cross section surrounding said valve-seat above the same, a valve-plug resting on said seat and opening upwardly and formed with longitudinal ribs and an annular water-space near its lower end, a spring mounted on the upper end of said plug and pressing downwardly thereon, said plug having a longitudinal slot in the middle and said plug being cut away at one side of said slot to leave bearing-surfaces f^2 and f^3, a transverse shaft passing through said slot and having a lateral projection thereon with two cam faces which act on the respective surfaces f^2 and f^3, and means for oscillating said shaft.

5. In a valve or faucet, the combination of a body having a valve-seat at its lower end and a bore of uniform cross section surrounding said valve-seat above the same, a valve-plug resting on said seat and opening upwardly, a spring mounted on the upper end of said plug and pressing downwardly thereon, said plug having a longitudinal slot in the middle and said plug being cut away at one side of said slot to leave bearing-surfaces f^2 and f^3, a transverse shaft passing through said slot and having a lateral projection thereon with two cam faces which act on the respective surfaces f^2 and f^3, said shaft having a ring collar formed thereon at one end of said lateral projection and formed integrally therewith and serving to strengthen the same, and means for oscillating said shaft.

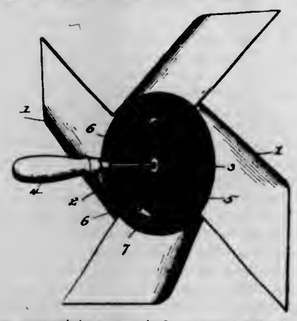
943,527. SPITTOON. JUAN ESCUDER, Barcelona, Spain. Filed Mar. 9, 1907. Serial No. 361,565.



1. In a spittoon, the combination of a hollow column, a bowl terminating in a delivery pipe passing through said column, a supply pipe delivering into the upper part of said bowl, hemispherical cover sections mounted on the top of said column and adapted to swing toward each other to cover said bowl, said cover sections being cut away to allow the passage therethrough of said pipes, a valve located in said supply pipe, and means for simultaneously swinging said covers away from each other to expose said bowl and for opening said valve, substantially as described.

2. In a spittoon, the combination of a hollow column, a bowl terminating in a delivery pipe passing through said column, a supply pipe delivering into the upper part of said bowl, hemispherical cover sections mounted on the top of said column and adapted to swing toward each other to cover said bowl, said cover sections being cut away to allow the passage therethrough of said pipes, a valve located in said supply pipe, means for simultaneously swinging said covers away from each other and for opening said valve, and spring operated devices for restoring the parts to their normal conditions, substantially as described.

943,528. TOY. BENA B. EXLINE, MARCUS P. EXLINE, and ALBERT S. EXLINE, Dallas, Tex.; said Marcus P. Exline and Albert S. Exline assignors to said Bena B. Exline. Filed Aug. 25, 1908. Serial No. 450,218.



1. A toy comprising a wind rotated wheel, a roughened plate carried by the wheel, and points positioned to bear upon the roughened plate.

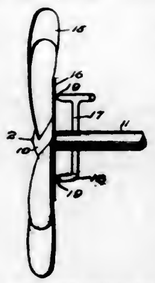
2. A toy comprising a handle, a wind wheel journaled upon the handle, a roughened disk carried by the wind wheel, and points carried by the handle positioned to bear upon the roughened disk.

3. A toy comprising a handle member, a wind wheel journaled concentrically of the handle member, resilient arms carried by the handle member, a roughened disk carried by the wind wheel, and points carried by the arms bearing upon the roughened disk.

4. In a toy, a wind wheel, a roughened disk secured to the rear side of and concentric with the wind wheel, a handle member forming the axis of the wheel, and points carried by the handle member and bearing upon the roughened disk.

5. A toy comprising a wind wheel composed of a flexible sheet having its points folded over, a roughened disk carried upon the rear side of the wind wheel and concentric therewith, a handle member disposed at the axis of the wheel, and points carried by the handle member positioned to bear upon the roughened disk.

943,529. SOUNDING TOY. MARCUS P. EXLINE, BENA B. EXLINE, and ALBERT S. EXLINE, Dallas, Tex. Filed Sept. 17, 1908. Serial No. 453,447.



1. In a device of the class described, a handle, a rotating member carried by the handle, a cross piece carried by the handle, points carried by the cross piece in engagement with the rotating member, and means to adjust the positions of the points.

2. In a device of the class described, a handle, a rotating member journaled upon the handle, a roughened disk carried by the rotating member, a cross piece carried by the handle, points carried by the cross piece positioned for engagement with the roughened disk, and means to move the cross piece and points relative to the handle.

3. In a device of the class described, a handle member, a rotating roughened member carried by the handle, and adjustable contact points carried by the handle in engagement with the roughened member.

943,530. TOOL FOR REMOVING DIAMONDS FROM SETTINGS. OLIVER M. FARRAND, New York, N. Y. Filed Feb. 10, 1909. Serial No. 477,147.



1. A tool for removing diamonds from settings, said tool having a pair of members adapted to be pressed together, and having upon said members means for engaging the setting and means for engaging the diamond to force the same out of its setting by springing the setting open.

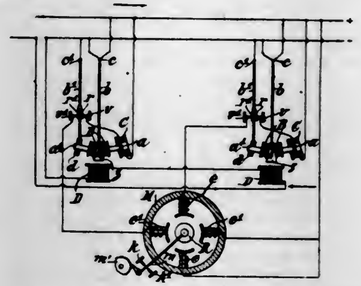
2. A tool of plier type for removing diamonds from settings having a pair of members pivotally connected to each other and provided with handles by which they may be pressed together, and having upon said members means for engaging the setting and means for engaging the diamond to force the same out of its setting by springing the setting open.

3. A tool of plier type for removing diamonds from settings having a pair of members pivotally connected to each other and provided with handles by which they may be pressed together, and having upon said members means for engaging the setting, and means for engaging the diamond to force the same out of its setting by springing the setting open, said handles extending in a direction transverse to the axis of the diamond when the tool is in operative position.

4. A tool for removing diamonds from settings, said tool being adapted to engage a set diamond upon opposite faces, and having wedge-shaped portions adapted to wedge the diamond forcibly out of its setting by springing the setting open.

5. A tool of plier type for removing diamonds from settings consisting of a pair of thin arms adapted to enter between the claws of a setting and pivoted to each other, and the ends of which are provided with portions E engaging parts of the setting and coöperating portions D adapted to engage the diamond and to force the same from its setting by springing the claws apart.

943,531. PENDULUM ELECTRICITY-METER. CHARLES FÉRY, Paris, France. Filed Jan. 12, 1909. Serial No. 471,089.



1. A pendulum electricity meter comprising in combination two substantially frictionless electric pendulums having metallic connections at their points of suspension only, an auxiliary pendulum to each of the said pendulums, mechanism whereby the auxiliary pendulum is oscillated by the main pendulum without contact therewith, contacts adapted to be closed by the said auxiliary pendulum during its oscillations and mechanism whereby the oscillations of the main pendulum are maintained owing to current traversing the said contacts, substantially as described.

2. A pendulum electricity meter comprising in combination two electric pendulums adapted to be started automatically, an auxiliary pendulum to each of the said pendulums, mechanism whereby the said auxiliary pendulum is oscillated by the main pendulum without contact therewith, contacts adapted to be closed by the said auxiliary pendulum during its oscillations, mechanism whereby the oscillations of the main pendulum are maintained by current traversing the said contacts, a small rotary field motor, means for transmitting to the stator thereof current impulses from both pendulums and an integrating registering device connected with the rotor of the said motor.

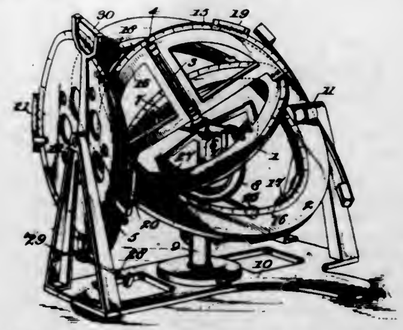
3. In an electricity meter having current-actuated pendulums, a magnet pole carried by each of said pendulums, a ring of good conducting material adapted to form a closed circuit about each of said poles and to give rise to a magnetic damping due to the displacement of the magnet poles in the rings, and mechanism controlled by said damping to close the circuits of the currents which actuate the pendulums.

4. In a pendulum electricity meter, a magnetic device comprising a suspended curved piece of soft iron, coils of fine wire carried by the said piece, connections bridging said coils across the mains of the circuit so as to cause a current therein proportional to the volts of the circuit, the said coils being wound so as to produce a consequent pole in the portion of the said piece comprised between the coils, and a coil D in position to influence said portion and traversed by a current proportional to the amperes, substantially as described.

5. In a pendulum electricity meter, a magnetic device comprising a suspended curved piece of soft iron, coils of fine wire carried by the said piece, connections bridging said coils across the mains of the circuit so as to cause a current therein proportional to the volts of the circuit, the said coils being wound so as to produce a consequent pole in the portion of the said piece comprised between the coils, a fixed coil C surrounding without touching one of the poles of the said piece and means for passing currents through said coil C to maintain the movements of the pendulum, substantially as described.

[Claim 6 not printed in the Gazette.]

943,532. APPARATUS FOR SOLVING SPHERICAL TRIANGLES. WILLARD FRENCH and CHARLES W. FREDERICK, Washington, D. C., assignors, by direct and mesne assignments, to John D. Spreckels, San Francisco, Cal. Filed July 1, 1909. Serial No. 505,432.



1. In an apparatus for solving spherical triangles, the combination of an altitude circle in two parts hinged together and adapted to swing on an axis; an azimuth circle provided with an axis at right angles to the axis of said altitude circle; a declination circle provided with an axis perpendicular to said last mentioned axis; a right ascension circle; and suitable marking verniers on said circles, substantially as described.

2. In an apparatus for solving spherical triangles, the combination of an altitude circle; an azimuth circle; a declination circle formed in two parts hinged together and capable of independent movement; said circles provided with axes at right angles to each other on which they swing; a right ascension circle; and a vernier rigid with each part of the declination circle adapted to play over said right ascension circle, substantially as described.

3. In an apparatus for solving spherical triangles, the combination of an altitude circle in two parts hinged together; an azimuth circle; a declination circle in two parts also hinged together; said circles provided with axes at right angles to each other on which they swing; a right ascension circle; a marking vernier on each part of the altitude circle; a marking vernier on each part of the declination circle; verniers 20 and 21 also on said declination circle adapted to independently play over the right ascension circle; and means for imparting a slow motion to said last named verniers, substantially as described.

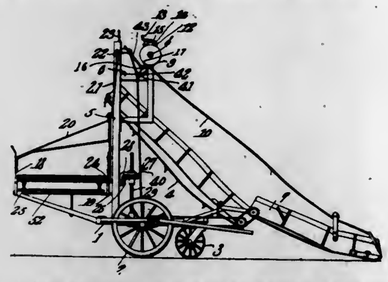
4. In an apparatus for solving spherical triangles, the combination of an altitude circle in two parts hinged together; an azimuth circle; a declination circle in two parts also hinged together; said circles provided with axes at right angles to each other on which they swing; a right ascension circle; a slidable marking vernier on each part of the altitude circle; a slidable marking vernier on each part of the declination circle; verniers 20 and 21 also on said declination circle adapted to independently play over the right ascension circle; means for imparting a slow motion to said last named verniers; and

means to impart a slow motion to said right ascension circle, substantially as described.

5. In an instrument for solving spherical triangles, the combination of an altitude circle comprising two quadrants hinged together; sliding marking verniers on said circle; an azimuth circle; verniers 19' rigid with said altitude circle and playing over said azimuth circle; said circles provided with axes at right angles to each other on which they swing; a sector 27 rigid with said azimuth circle; and means for imparting a slow motion to said sector, substantially as described.

[Claim 6 not printed in the Gazette.]

943,533. HAY-GATHERER. NICHOLAS FRYMAN, Bowdon, N. D. Filed July 17, 1909. Serial No. 508,122.



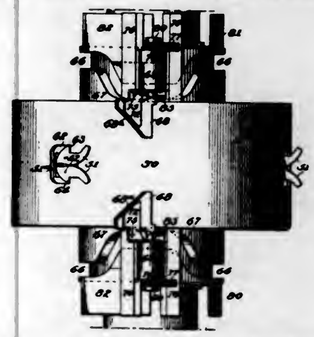
1. A hay gatherer comprising an elevator, a receptacle pivotally mounted below the delivery end of the elevator, means for raising the receiving end portion of the receptacle, a conveyer arranged to move along the bottom of the receptacle, a shaft journaled in the receptacle for actuating the conveyer, a vertically disposed shaft journaled for rotation upon the frame of the hay gatherer, means operatively connecting the vertically disposed shaft with the shaft journaled upon the receptacle, and a traction means supporting the gatherer, and means for operatively connecting the said traction means with the vertically disposed shaft.

2. A hay gatherer comprising an elevator, a pivotally mounted receptacle located below the delivery end of the elevator, a conveyer arranged for movement along the bottom of the receptacle, means for raising the receiving end portion of the receptacle, a shaft journaled in the receptacle and adapted to operate the conveyer, a vertically disposed non-circular shaft journaled for rotation upon the frame of the gatherer, intermeshing gear-wheels, one of which is fixed to the shaft upon the receptacle, and the other of which is slidably mounted upon the vertically disposed non-circular shaft, a traction means supporting the gatherer, and means for operatively connecting the vertically disposed shaft with the traction means.

3. A hay gatherer comprising an elevator, a receptacle pivotally mounted below the delivery end of the elevator, means for raising the receiving end portion of the receptacle, a conveyer arranged to move along the bottom of the receptacle, a shaft journaled in the receptacle and adapted to operate the conveyer, a vertically disposed non-circular shaft journaled for rotation upon the frame of the gatherer, intermeshing gear wheels, one of which is fixed to the shaft upon the receptacle, and the other slidably engaging the vertically disposed non-circular shaft, a traction means supporting the hay gatherer, and a manually operable clutch mechanism for operatively connecting the vertically disposed shaft with the said traction means.

943,534. PAPER-BAG MACHINE. WILLIAM C. FULLER, Philadelphia, Pa., assignor to Union Paper Bag Machine Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Jan. 23, 1908. Serial No. 412,315.

1. The combination, in bag forming mechanism, of two sets of feed rolls, cutting means disposed between said feed rolls, a rotating cylinder carrying the bag blanks, means carried by said cylinder for making the diamond fold to form the bottom of the bag, means for moving such mechanism into and out of the operative position with relation to the cylinder, means for driving said cylinder at a higher rate of speed than the last pair of feed rolls, and cams carried by said rolls for separating the portion engaging the blanks when the latter are to be released.



2. The combination, in bag forming mechanism, of two sets of feed rolls, cutting means disposed between said rolls, guides extending from such cutting means for the sides of the bellows-folded tube, means carried by the guides for opening said bellows-folded sides, and means for keeping said tube in alinement during the opening operation.

3. The combination, in bag forming mechanism, of a cylinder carrying the bag blanks, folding mechanism to form the bottom of the bag bodily movable toward and from the blanks, said mechanism comprising a fixed wing to hold a portion of the blank, a wing movably mounted to effect the folding of the bottom and an auxiliary wing actuated by the movable wing and between which and said movable wing one of the side folds of the blank is confined, a support or carrier for said wings, means for holding said auxiliary wing against the movable wing, means for actuating said movable wing, and a pivoted wedging member lying in the path of the wings when moved over to fold the bottom for separating the movable wing and the auxiliary wing to permit their withdrawal from the side folds of the blank.

4. The combination, in bag forming mechanism, of a rotating cylinder for carrying the blanks having apertures cut in its face, shoulders formed by said apertures, pivotally mounted gripping fingers carried by said cylinder and projecting through said apertures, means for holding said fingers against the blanks, and projections carried by said fingers and disposed in engagement with the shoulders of the cylinder whereby said fingers are locked against movement while confining the blanks to the cylinder.

5. The combination, in bag forming mechanism, of a rotating cylinder, pivotally mounted gripping fingers carried thereby, means for feeding bag blanks to said cylinder, means for shifting said fingers to engage the underply of the forward end of the blanks, means for forming the diamond-fold in the end of said blanks, said fingers serving to define the angular creases at one side of the bottom, means for carrying the blank forward, a pivoted frame carrying said fingers, an arm carried by said frame, and an internal cam for engaging said arm to displace the gripping fingers and release the bag blank.

[Claims 6 to 11 not printed in the Gazette.]

943,535. ALUMINO-SILICATE OR ARTIFICIAL ZEOLITE. ROBERT GANS, Pankow, near Berlin, Germany, assignor to J. D. Riedel Aktiengesellschaft, Berlin, Germany, a Corporation of Germany. Filed Feb. 18, 1907. Serial No. 357,997.

1. The herein described process for the manufacture of zeolites in a crystalline form, which consists in melting together an alumina-compound and an alkali-carbonate with the addition of as much quartz as may be necessary to insure that the whole of the alkali will combine with the silicic acid and the alumina, and subsequently extracting the melt with water.

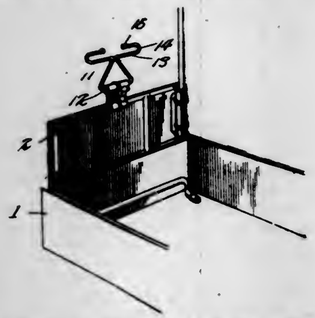
2. The herein described process for the manufacture of zeolites in a crystalline form, which consists in fusing together alumina-silicate and an alkali-carbonate, with the addition of the quantity of quartz necessary for converting the whole of the alkali into compounds of silica and alumina, and subsequently extracting the melt with water.

943,536. MORDANT-DYEING AZO DYE. HUGO GELDERMANN, Gross-Lichterfelde-Ost, near Berlin, Germany, assignor to Actien Gesellschaft für Anilin Fabrikation, Berlin, Germany. Filed Aug. 2, 1909. Serial No. 510,718.

1. The herein-described azo-dyes which can be obtained by diazotizing ortho-chloro-para-nitraniliin and combining the diazo compound thus obtained with an ortho-oxycarbonic acid of the benzene series which new dyestuffs dye wool from an acid bath orange shades, which shades on a subsequent treatment with chromium compounds are converted into brick-red tints, these tints being distinguished by a great fastness and which coloring matters form when pulverized reddish-brown powders dissolving in water to a reddish-orange solution and in alcohol to a reddish-brown solution and in concentrated sulfuric acid to a dark orange solution.

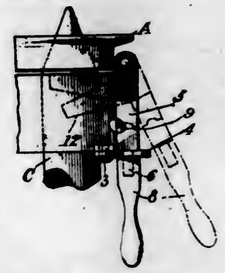
2. The herein-described azo-dye which can be obtained by diazotizing ortho-chloro-para-nitraniliin and combining the diazo compound thus obtained with salicylic acid, which new dyestuff dyes wool from an acid bath an orange shade, which shade on a subsequent treatment with chromium-compounds is converted into a brick-red tint, this tint being distinguished by its great fastness and which coloring matter forms when pulverized a reddish brown powder dissolving in water to a reddish-orange solution, which on the addition of concentrated soda-lye turns to cherry-red, and which solution on addition of diluted hydrochloric acid separates orange-brown flakes, and which coloring matter dissolves in alcohol to a reddish-brown solution and in concentrated sulfuric acid to a dark orange solution.

943,537. REIN-HOLDER. HENRY GREEN, Griggsville, Ill., assignor to Rhoda E. Dimmitt, Griggsville, Ill. Filed Sept. 29, 1908. Serial No. 455,252.



In a rein holder for the dash board of a vehicle a pair of plates, each of said plates being provided with a central opening, one of the plates being threaded, a securing element for this threaded opening, the plates having their lower portions concaved and their upper portions provided with a V-shaped longitudinally extending depression, a rein retaining element positioned within the V-shaped depressions of the plates, said element being constructed of a single strand of wire having its sides bent upwardly from its engagement with the clamp so that the said side members contact each other central of the clamp, the sides of the said element being also bent in opposite directions to provide horizontal portions and having their ends bent and projected toward each other directly above the horizontal portions and the said ends being provided with enlargements, substantially as described.

943,538. SPRAG REMOVER AND RETAINER. JAMES T. HARCARIK, Wilkes-Barre, Pa. Filed Sept. 29, 1909. Serial No. 520,192.



1. The combination with a journal box and a wheel revolubly mounted thereupon, of a removable sprag adapted to be inserted between the spokes of the wheel and journal box respectively, and a member mounted upon the said journal box and adapted for frictional engagement with the said sprag to hold the same against removal.

2. The combination with a journal box and revoluble wheel therefor, of a removable sprag adapted to be inserted between the spokes of the wheel, and means upon the journal box adapted to be engaged with the sprag to hold the same against removal.

3. The combination with a journal box and wheel revolubly mounted upon the said box, of a removable sprag adapted to be inserted between the spokes of the wheel, a lever upon the journal box, and means upon the lever adapted to be engaged with the sprag to hold the same against removal to prevent rotation of the said wheel.

4. The combination with a wheel and a journal box for revolubly supporting the same, of removable means adapted to be inserted between the spokes of the wheel, and means for coöperation with the first named means to hold the same against removal.

5. The combination with a journal box and a revoluble wheel therefor, of a removable sprag adapted to be engaged with the wheel to hold the same against rotation, and means upon the journal box adapted to be engaged with the sprag to hold the same against removal.

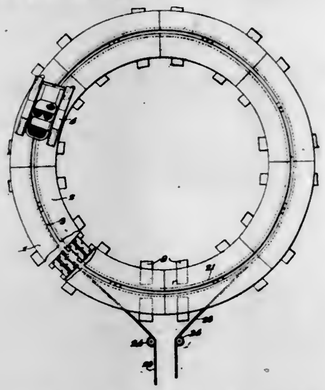
[Claim 6 not printed in the Gazette.]

943,539. MECHANICAL AMUSEMENT APPARATUS. WALTER HARLING, Tanner, Wash. Filed May 15, 1909. Serial No. 496,128.

1. Mechanical amusement apparatus comprising a circular track embodying concentric floor sections spaced apart leaving an intervening circular slot, a revolving annular rim operating in a plane beneath the floor sections and under said slot, a vehicle actuating post on the rim working in said slot, means for actuating said revolving rim, upper and lower circular series of ties, circular frame pieces connected by the ties, circular rails supported by the ties, and wheels on the rim engaging said rails and one of the circular frame pieces.

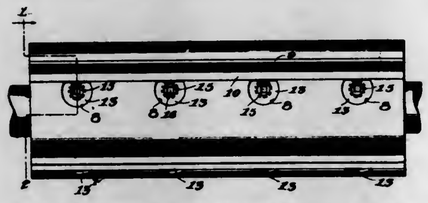
2. Mechanical amusement apparatus comprising a circular track embodying concentric floor sections spaced apart leaving an intervening circular slot, a revolving annular rim operating in a plane beneath the floor sections and under said slot, a shoe on said rim, a cable operatively engaging said shoe for driving the rim, and means for connecting a wheeled vehicle supported on the floor sections to said rim.

3. Mechanical amusement apparatus comprising a circular track embodying concentric floor sections spaced apart leaving an intervening circular slot, upper and lower series of ties, circular frame pieces connecting said ties, upper and lower circular rails carried by the ties, a revolving annular rim operating in a plane beneath the floor sections and under said slot, wheels on said rim running on said rails, means for imparting rotary motion to said rim and means for connecting a wheeled vehicle supported on the floor sections to said post.



4. Mechanical amusement apparatus comprising a circular track embodying concentric floor sections spaced apart leaving an intervening circular slot, a revolving annular rim operating in a plane beneath the floor sections and under said slot, means for imparting rotary motion to said rim, a post on said rim working in the slot, and means for connecting a wheeled vehicle supported on the floor sections to said post, including a longitudinally extensible steering connection between said post and one of the steering wheels of the vehicle.

943,540. CUTTER-HEAD. ELMER HARROLD, Leetonia, Ohio. Filed Aug. 11, 1909. Serial No. 512,398.



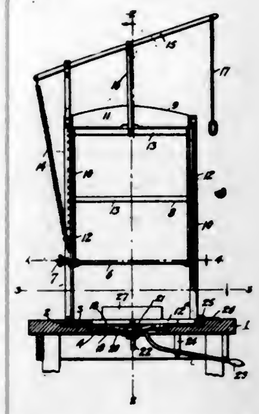
1. In a structure of the character set forth, the body having a knife-receiving seat disposed substantially tangential to the axis of the body, a knife blade located in said seat, a holding bar arranged in the seat alongside of the knife blade, said body also having an outwardly tapered socket lying in a plane substantially radial to the axis of the body, an outwardly tapered wedge-block located in the socket and bearing against the bar, and means carried by the block for forcing the latter in an outward direction to wedge it between the holding bar and one wall of the socket.

2. In a structure of the class described, the combination of a body having a longitudinal knife-receiving seat disposed substantially tangential to the axis of the body, and a plurality of sockets opening into said seat and lying in a plane substantially radial to the axis of the body, a holding bar arranged in the knife seat, a knife blade seated within and against the holding bar, a plurality of clamping wedges located in the sockets and each having a flat side bearing against the holding bar, and thrust screws threaded through the wedges and stepped against the bottoms of the sockets.

3. In a structure of the character described, the combination with a body having a knife-receiving seat and the knife blade therein, of a throat piece arranged in the seat at one side of the blade and having a flange portion underlying the inner edge of the knife blade, and blade adjusting means carried by said flange portion, and fastening means for the throat piece.

4. In a structure of the character set forth, the combination with a body having a knife-receiving seat and a plurality of sockets opening into the seat, of a knife arranged in the seat, a holding bar also arranged in the seat and provided with laterally-extending adjustably-mounted knife adjusting pins, a plurality of clamping wedges located in the sockets and having flat sides bearing against the holding bar, and thrust-screws threaded through the wedges and bearing against the bottoms of the sockets.

943,541. BRICK-CUTTING MACHINE. WILLIAM R. HASSELBACK, Falls Creek, Pa. Filed Apr. 7, 1909. Serial No. 488,418.
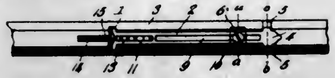


1. In a brick cutter, the combination of a table having a circular opening, a slotted member revolubly mounted therein and flush with the surface of the table, an upright guide frame rising from said member, a reciprocatory slide in said guide frame, a cutting wire on said slide and adapted to enter the slot in said member, means for operating said slide, a friction clutch for said member arranged beneath it and including a slidable operating head having an annular groove, and a lever fulcrumed intermediate its ends beneath the table and having a slotted end engaged with the grooved head of the clutch for the purpose set forth.

2. In a brick cutter, the combination of a table having a circular opening, a slotted member revolubly mounted therein and flush with the surface of the table, an upright guide frame rising from said member, a reciprocatory slide in said guide frame, a cutting wire on the slide and adapted to enter the slot in said member, a hand lever upon the frame for depressing said slide, a spring for elevating said slide, a scale upon the table adjacent its opening, a pointer upon said member to co-act with said scale, a friction clutch ring upon the table beneath said member, friction clutch jaws to co-act with said ring and carried by the bottom of said member, a clutch head operatively connected to said jaws, and a clutch lever fulcrumed beneath the table and operatively connected to said head.

3. In combination, a table, a revolving member set therein, a stationary ring embedded in the table for supporting said member, a pin concentric with said member and depending therefrom, clutch dogs slidable upon said member and adapted to frictionally engage said ring, a grooved clutch head slidable upon said pin, links connecting said dogs and head, a clutch lever fulcrumed upon the table and having a slotted portion to engage the groove in said head, a movable cutter carried by said member, and means for operating said cutter.

4. In a brick cutter, the combination of a table, a revolving member therein, a cutter carried by said member, a friction clutch ring upon the table beneath said member, friction clutch jaws to co-act with said ring and carried by the bottom of said member, a clutch head operatively connected to said jaws, and a clutch lever fulcrumed beneath the table and operatively connected to said head.

943,542. REAR SIGHT FOR RIFLES. WILLIAM R. HATFIELD, Meskill, Wash. Filed Mar. 16, 1909. Serial No. 483,785.

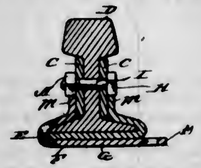


1. A fire arm having a barrel, a guiding and supporting block attached thereto provided with a guide groove longitudinally of the barrel, in combination with a rear-sight having a shank disposed longitudinally with respect of the barrel and in said guide groove and means coacting with said block to secure said shank and hence such sight at any desired longitudinal adjustment.

2. A fire arm having a barrel provided with a guide block detachably secured to the barrel and provided with a guide groove, a rear-sight having a longitudinal shank, said shank bearing in said guide groove and being longitudinally slotted, a set device operating in a slot of said shank and coacting with said block to secure said shank at a desired longitudinal adjustment of the barrel and an elevator to raise and lower the sight with respect to the barrel.

3. A rifle barrel having a guiding and adjusting device thereon in combination with a sight having a longitudinal shank engaged by said guiding and adjusting device, said shank being further provided with laterally extending arms bearing on the barrel and coacting with the guiding and adjusting device to hold the shank of the sight parallel with the barrel.

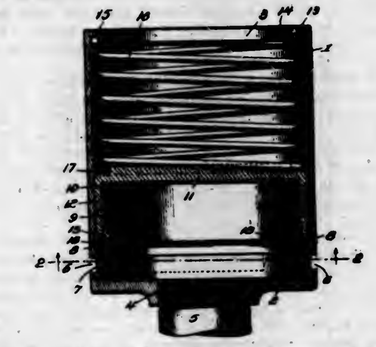
943,543. NUT-HOLDER AND JOINT-SUPPORTER FOR RAILROAD-RAILS. GEORGE W. HENRY, Sr., McLean county, Ill. Filed Nov. 26, 1907. Serial No. 403,984.



1. In a nut-holder and joint-supporter, the combination of two metal bars or shoes, an inner and an outer, one of which is provided with a notched edge adapted to fit under and on two sides of the nuts of the bolts used for fastening railroad rails, each provided with an angular prolongation so as to permit it to pass over the lower edge of the railroad rail and under its entire width at each joint.

2. In a nut-holder and joint-supporter, a device of the character described, comprising two metal bars or shoes one having a notched edge adapted to fit under and on two sides of the nuts used for fastening railroad rails, an angular prolongation on each bar passing over the edges of the railroad rails at its joint and across its entire width on the under side, with notches in the lower part of each bar adapted to receive fastening spikes.

943,544. EXHAUST-MUFFLER. CHARLES L. HENSLEY, White Bluffs, Wash. Filed Apr. 21, 1909. Serial No. 491,406.



1. An exhaust muffler comprising a receiving chamber having outlet ports, a valve adapted to open and close said ports, and an exhaust pressure-operated piston adapted to shift said valve.

2. An exhaust muffler comprising a receiving chamber having outlet ports, a valve adapted to open and close said ports, an exhaust pressure-operated piston adapted to shift said valve, and means for returning the valve to a closed position after the exhaust gas has escaped.

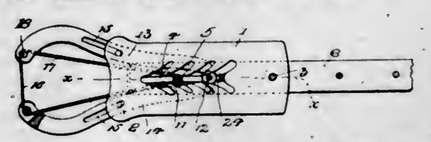
3. An exhaust muffler comprising a receiving chamber having outlet ports, a valve adapted to open and close said ports, and an exhaust pressure-operated piston adapted to shift said valve, the valve and piston being provided with coöperating shoulders.

4. An exhaust muffler comprising a receiving chamber having outlet ports, a valve adapted to open and close said ports, and an exhaust pressure-operated piston adapted to shift said valve, the valve and piston having a limited free relative movement in the direction of pressure of the exhaust.

5. An exhaust muffler comprising a receiving chamber having outlet ports at the same end as that at which the exhaust enters, a valve adapted to open and close said ports, and an exhaust pressure-operated piston adapted to shift said valve.

[Claim 6 not printed in the Gazette.]

943,545. WRENCH. STEPHEN A. HOLMAN, Santa Maria, Cal. Filed Jan. 14, 1909. Serial No. 472,366.



1. A tool of the nature and for the purposes herein specified, the same comprising a head, a handle connected to the head and movable with reference thereto, coöperating jaws fitted to the head and having both a pivotal and a sliding connection therewith, means coöperating with said jaws to effect a closing of the same upon the work when applying properly directed pressure to the handle, and means for locking the jaws, and jaw closing means to the wrench head and actuated by said handle and thrown into and out of operative position thereby.

2. In a tool of the nature set forth the combination of a head, a handle in coöperative relation with said head, coöperating jaws pivotally mounted upon the head and having a sliding movement with reference thereto, and a flexible or linked connection between the free ends of said jaws and adapted to effect a closing thereof upon the work by properly directed force applied to the handle.

3. In a tool substantially as set forth the combination of a head provided with a handle, coöperating jaws mounted upon the head, a flexible connection coöperating with said jaws to effect a closing thereof upon the work upon application of properly directed force to the handle, and a spring connection between the said flexible connection and the handle of the tool.

4. In combination a head having an operating handle, coöperating jaws slidably mounted upon the head, coöperating means between said jaws and head to effect a closing of the jaws simultaneously with a relative sliding movement thereof, a flexible connection between the jaws and adapted to engage with the work and supplement the action of the aforesaid jaw closing means, and a spring connection between said flexible connection and the handle of the tool.

5. In combination a head provided with an operating handle, jaws mounted upon the head and adapted to have a relative sliding movement, coöperating means between the jaws and head to effect a closing of the jaws when moved rearward, a spring connection between the jaws and head to normally exert an outward pressure upon the jaws, a flexible connection between said jaws to make positive engagement with the work and supplement the action of the jaw closing means, and a spring connection between said flexible connection and the handle to normally exert a rearward force upon said flexible connection.

[Claims 6 to 11 not printed in the Gazette.]

943,546. OVEN-DOOR. ERNST H. HUENEFELD, Cincinnati, Ohio. Filed Apr. 16, 1909. Serial No. 490,349.



1. In an oven door, the combination with a cast metal main frame provided with a series of lugs and having seats, of two sheet metal frames secured to the rear side of the main frame, one of said sheet metal frames being located between said lugs and against said seats of the main frame, and a transparent panel having its edges confined between said sheet metal frames and without contact with the cast metal frame, said sheet metal frames constituting the sole attaching means of the transparent panel to the cast metal main frame and separating the transparent panel from contact with the said main frame.

2. In an oven door, the combination with a main frame, of a sheet metal frame seated against the rear face of the main frame and provided at its edges with flanges, a transparent panel seated against the rear face of the sheet metal frame, spacing strips disposed between the edges of the transparent panel and the flanges of said sheet metal frame, and a rear frame plate covering the edges of the transparent panel, the spacing strips and the sheet metal frame and secured to said main frame.

3. In an oven door, the combination with a main frame, of a sheet metal frame seated against the rear face thereof and provided at its outer edges with flanges, a transparent panel seated against said sheet metal frame, sheet metal strips disposed between the flanges of the sheet metal frame and the edges of the transparent panel, each of said strips being provided at its longitudinal edges with flanges, and a rear sheet metal frame plate covering the edges of the glass panel, the spacing strips and the sheet metal frame, and fastening devices securing said rear frame plate to the main frame.

4. In an oven door, the combination with a cast metal main frame provided on its rear face with bosses, of a sheet metal frame seated against the main frame and held against displacement by said bosses, a glass panel seated against said sheet metal frame, means around the edges of the glass panel for holding said glass panel against displacement, a rear frame plate covering the edges of the glass panel and the sheet metal frame, rods extending across the opening of said frame plate and the glass panel in said opening, and fastening devices securing said frame plate and said rods to bosses of the main frame.

943,547. OVEN-DOOR. ERNST H. HUENEFELD, Cincinnati, Ohio. Filed Apr. 16, 1909. Serial No. 490,350.



1. In an oven door, the combination with a main frame, of two sheet metal frames spaced apart to form an air chamber and secured to the main frame, a glass panel confined between said sheet metal frames and engaging the opposing faces thereof, and one of said sheet metal frames having lugs projecting toward the other sheet metal frame beyond the edges of the glass panel.

2. In an oven door, the combination with a main frame, of two sheet metal frames secured to the main frame, one of said sheet metal frames having grooves or recesses in its rear face near its edges, a glass panel confined between said sheet metal frames, and the other sheet metal frame having lugs which engage the edges of the glass panel and enter said grooves or recesses of the first mentioned sheet metal frame.

943,548. OVEN-DOOR. ERNST H. HUENEFELD, Cincinnati, Ohio. Filed Apr. 16, 1909. Serial No. 490,351.

1. In an oven door, the combination with a main frame, of two sheet metal frames secured to the main frame, a glass panel confined between said sheet metal frames and one of said sheet metal frames provided with lugs projecting toward the other sheet metal frame and having lips at their free edges overhanging the edge portions of the glass panel.

2. In an oven door, the combination with a main frame, of two sheet metal frames, one of said sheet metal frames having grooves or recesses in its rear face, a glass panel confined between said sheet metal frames, and the other sheet metal frame having lugs provided at their free ends with lips which engage the edge portions of the glass panel and enter the grooves or recesses of the first mentioned sheet metal frame.

3. In an oven door, the combination with a main frame, of two sheet metal frames, a glass panel confined between said sheet metal frames, one of said sheet metal frames provided with lugs near the upper and lower edges and one end of the inner portion of said frame, each of said lugs provided at its free end with a lip which overhangs the adjacent edge portion of the glass panel, and a re-



movable stop near one inner edge of said sheet metal frame and adapted to engage one end of the glass panel.

943,549. OVEN-DOOR. ERNST H. HUENEFELD, Cincinnati, Ohio. Filed Apr. 16, 1909. Serial No. 490,352.



1. An oven door, comprising a sheet metal frame provided with a seat at the inner edge of its rear face, a glass panel having its edge portions resting on said seat, and strips secured to said frame and each having a shoulder forming an abutment for the edge of the glass panel, and also having a lip projecting inwardly from said shoulder and toward the glass panel and forming at its edge a seat engaging the rear face of the glass panel a short distance from the edge of the latter.

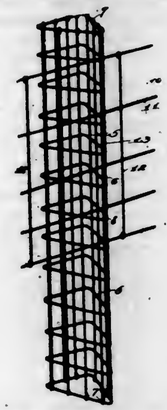
2. An oven door, comprising a sheet metal frame provided at the inner edges of its rear face with seats, a glass panel having its edge portions mounted on said seats, a series of sheet metal strips having overlapping end portions secured to said frame, each of said strips provided at its inner edge with a flange constituting an abutment for the adjacent edge of the glass panel, and a lip at the free edge of each of said flanges, each of said lips projecting toward the glass panel and forming at its edge a seat engaging the rear face of the glass panel a short distance removed from the edge of the latter.

3. An oven door, comprising a sheet metal frame having a seat at the inner edge of its rear face, a glass panel resting against said seat and a sheet metal fastening device having an abutment for the adjacent edge of the glass panel and a lip projecting from said abutment toward the glass panel and forming at its edge a seat engaging the rear face of the glass panel a short distance removed from its edge.

4. An oven door, comprising a sheet metal frame having seats at the inner edges of its rear face, a glass panel resting against said seats, and fastening means for said glass panel, said fastening means comprising a sheet metal frame having shoulders along the edge of its respective members to form abutments for the edges of the glass panel and lips projecting inwardly from the shoulders and toward the glass panel and forming at their edges seats engaging the rear face of the glass panel short distances removed from the free edges of the latter.

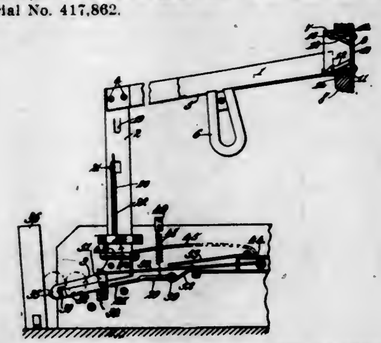
943,550. FENCE-POST. WALLACE B. HUGHES, Dallas, Tex. Filed Apr. 16, 1909. Serial No. 490,417.

A fence post constructed of wire fabric comprising horizontal wires and vertical stay wires, the horizontal wires being bent into the form of continuous uninterrupted bands, each having its adjacent ends secured together, said bands having straight sided portions and curved apices, the stay wires intersecting the straight sided portions and being secured thereto, the apices being without stay wires



and being arranged in vertically alined series and projecting in the form of loops through the spaces between the adjacent stay wires on each side thereof.

943,551. COIN-CONTROLLED MECHANISM FOR VENDING-MACHINES. ALONZO JACOBS, Kansas City, Mo., assignor to Jacobs Cigar Vendor Co., Kansas City, Mo., a Corporation of Missouri. Filed Feb. 26, 1908. Serial No. 417,862.



1. A coin controlled mechanism for vending machines comprising a coin chute having an upper inclined coin receiving section, a lower coin discharging section, and an intermediate vertical section, said vertical section having the upper part thereof projecting outside of the plane of the lower part of said section whereby a coin of less diameter will be thrown out of the chute and a pivoted member in said lower part of the section to impel outward any coins that may pass the offset upper portion.

2. A coin controlled mechanism for vending machines comprising a coin chute embodying an upper, a lower and an intermediate section communicating with said upper and lower section, said intermediate section formed with a pair of flanges constituting means for retaining the coins of a predetermined diameter during their passage through the chute, said intermediate section further provided with means for discharging coins of a diameter less than the predetermined diameter of the coin, and means associating with said lower section for discharging the coin therefrom.

3. A coin controlled mechanism for vending machines comprising a coin chute embodying an upper, a lower and an intermediate section communicating with said upper

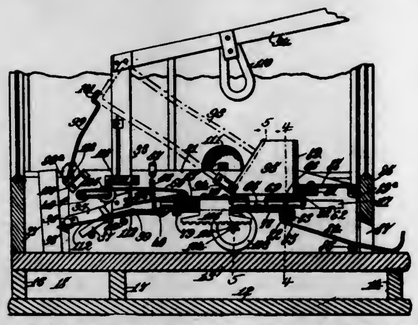
and lower sections, said intermediate section formed with a pair of flanges constituting means for retaining coins of a predetermined diameter during their passage through the chute, said intermediate section further provided with means for discharging coins of a diameter less than the predetermined diameter of the coin, means associating with said lower section for discharging the coin therefrom, and means arranged at one end of the upper section for impelling a coin down the chute.

4. A coin controlled mechanism for vending machines comprising a coin chute, said chute having a stop portion at the lower end thereof against which a coin abuts, an oscillatory lever adapted to engage in the lower portion of the chute thereby positively dislodging a coin therefrom, an elongated reciprocatory yoke adapted to engage with said lever for shifting it in one direction, a rock shaft provided with a releasing arm for a delivery slide actuating mechanism, a trip arm projecting from said rock shaft and extending in the path of the coin traveling through the chute, adapted to be engaged by the coin whereby said trip arm is shifted and said shaft actuated to remove the releasing arm to release the actuating mechanism for the delivery slide, a guide arm for said yoke, and means for returning the trip arm to normal position after the coin has passed off the same.

5. A coin controlled mechanism for vending machines comprising a coin chute provided with a rearwardly extending lower portion having side walls which support the coin and having a stop at the end of said portion and a notch, said stop adapted to arrest the coin, and a lever adapted to engage in said notch for dislodging the coin from the lower portion of said chute and raising it above and beyond said stop.

[Claims 6 to 11 not printed in the Gazette.]

943,552. COIN-CONTROLLED VENDING-MACHINE. ALONZO JACOBS, Kansas City, Mo., assignor to Jacobs Cigar Vendor Co., Kansas City, Mo., a Corporation of Missouri. Filed Feb. 26, 1908. Serial No. 417,863.



1. A delivery member comprising, in combination, pairs of connected longitudinal and transverse bars constituting a frame; a pair of sections mounted upon the frame and formed with down-turned flanges engaged with the longitudinal bars, said sections being spaced apart from each other to provide a pocket; a member carried by one of the cross-bars; and a member connecting the first-named member with one of the flanges of the adjacent section, for moving said section toward and from the other section, to vary the size of the pocket.

2. The combination of a reciprocatory delivery slide; a rotatable retarding member; and a member carried by the slide and operatively connected with the retarding member, for rotating the latter during the movements of the slide.

3. The combination of a reciprocatory delivery slide; a fly wheel; and a member carried by the slide and operatively connected with the fly wheel, for rotating the latter during the movements of the slide, to control such movements.

4. A vending machine comprising, in combination, a reciprocatory delivery member; automatically-operated mechanism for actuating the same; trip mechanism for holding said actuating mechanism normally locked; means for operating said trip mechanism, to release said actuating mechanism and effect a single reciprocation of the delivery member; and separate means for operating the trip mechanism to effect two successive reciprocations of said member.

5. A vending machine comprising, in combination, a delivery member; a crank shaft connected with said member for reciprocating the same; a normally locked automatically-operated drive shaft connected with the crank shaft for rotating the latter when unlocked; means for unlocking the power shaft to effect a single revolution of the crank shaft; and separate means for unlocking said power shaft, to effect two successive revolutions of said crank shaft.

[Claims 6 to 9 not printed in the Gazette.]

943,553. CARD-CASE. GEORGE JENNER, Vancouver, British Columbia, Canada. Filed Jan. 2, 1909. Serial No. 470,488.



1. A card case comprising a card holding receptacle having a slit at one end in alinement with the underside of the top of the receptacle through which slit a card may be passed, a bearing plate within the case, crossed springs connected to said plate and to the bottom of the box to press the cards against the underside of the top of the case and cause the front end of said plate to be tilted upwardly as the rear end of said plate is pressed downwardly and a finger engageable device for pressing down on the top card toward the back and slide such card forwardly to project said card through said slit and simultaneously to elevate the front end of said plate as the rear end is depressed.

2. A card case comprising, in combination, a card holding receptacle, having a slit through which a card may be passed, said slit being in alinement with the under side of the top plate of the case, a plate conforming to the general dimensions of the card which the case is designed to hold said plate being connected to the bottom of the box by two light wire springs bent to a rectangular shape one end of each spring being attached to an opposite end of the plate and the other end of each slidably connected to opposite ends of the bottom of the box so that the sides of the springs diagonally cross one another about the middle of the box, and provision toward the end of the box opposite to the slit by which the finger may press down and slide forward the top card to project it through the slit.

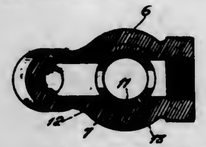
3. A card case comprising in combination a card holding receptacle having a slit in alinement with the underside of the top through which a card may be passed, a resiliently pivoted means for pressing a card against the underside of the top, and a resiliently mounted finger engaging device toward the back of the box projected through said box to bear on the upper surface of the top card and cause said pressing means to undertake a pivotal movement to cause one end of said pressing means to force the top card in alinement with the slit as the other end of said pressing means is depressed and the top card slid out through the slit.

4. A card case comprising a card holding receptacle having a slit in alinement with the underside of the top, a follower for said cards to press the cards against the underside of the top and in alinement with the slit, and means for causing said follower to effect an increased pressure at the slit end when pressure is applied at the end opposite the slit, and a resiliently mounted finger engagement toward the end opposite the slit to press on the upper surface of the top card, said finger engagement being endwise slidable toward the slit, and means for returning said finger engagement to its initial position.

5. A card case comprising a card holding receptacle having a slit through which a card may be projected in alinement with the underside of the top, a plate conforming to the general dimensions of the card which it is designed to hold, crossed springs secured to said plate and to the bottom of said receptacle, said springs crossing from each end of the plate to the opposite ends of the bottom of the box, a slide plate endwise slidable in the top of the box toward the card delivery slit, and a finger engaging device resiliently connected to the underside of the slide plate and passing through said slide plate and the cover of said box to bear on the surface of the top card toward the back to depress the back end of said plate and elevate the front end of said plate.

[Claim 6 not printed in the Gazette.]

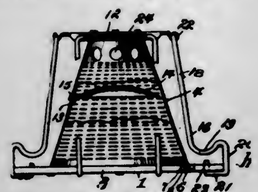
943,554. ANGLE-COCK. WILLIAM D. KENDRICK, Globe, Ariz. Filed May 11, 1909. Serial No. 495,257.



1. A cock comprising a casing with a port therein, and a turning plug in the casing provided, in addition to its main port, with a port which opens to the main passage in the casing on one side when the plug is turned toward closed position, and another port which registers with the port in the casing when the plug is so turned, the latter ports being closed when the plug is turned to fully closed position.

2. An angle cock comprising a casing and a hollow turning plug therein having communicating passages, said plug having a port through its wall to communicate with said casing passage when said plug has been turned to register the same, and said plug and said casing having ports through their walls, adjacent the bottom of the former, which register after the registration of said first named plug port with said casing passage said last named ports being closed when the plug is turned to fully closed position.

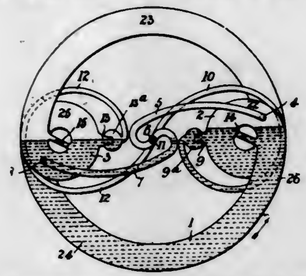
943,555. TOASTER. HENRY P. KNOBLOCK, Pittsburg, Pa. Filed Apr. 16, 1909. Serial No. 490,256.



1. A toaster comprising a base, a radiator secured to the base, a head plate secured to the upper end of the radiator, and material supports removably connected to the head plate and to the base, each of said supports comprising a single length of material bent to form a cross bar adapted to removably engage the head plate, projected from the cross bar to form material rests, and projected from said rests to form hooks to be passed around the edge of the base plate and engage openings formed in said base plate from beneath.

2. A toaster comprising a base having an upstanding edge flange, a radiator secured on the base, a head plate secured to the upper end of the radiator, and material supports removably connected to the head plate and to the base, each of said supports including a vertically extending portion terminating in a hook, said hook being adapted to be passed around the edge of the base to engage openings formed in said base plate from beneath, the vertical portions of the supports bearing directly against the outer surface of the base flange.

943,556. VACUUM-PUMP. TOM W. LOWDEN, London, England. Filed Nov. 16, 1908. Serial No. 462,901.



1. In a vacuum pump the combination of an endless rotatable main tube having a loop formed integrally therein, a tube adapted to connect said loop with the device that is to be exhausted and means including a tube for connecting said loop with the medium into which the exhaust air is to pass, said last named tube being broken or interrupted and provided at the point of interruption with a bulb or chamber adapted to imprison small quantities of air gases or vapors during a part of the rotation of the main tube and prevent them passing back, and so injuring the vacuum formed, said main tube containing a liquid whereby its interior is divided into compartments as the apparatus is rotated.

2. In a vacuum pump the combination of an endless rotatable main tube having a plurality of loops, formed integrally therein, a central exhausting tube adapted to be connected with the device that is to be exhausted, a tube adapted to connect said central exhausting tube with the aforesaid loops, a second central tube adapted to be open to or connected with the medium into which the exhaust air is to pass, a tube broken or interrupted at a point and adapted to connect said second central tube with the aforesaid loops, and a bulb or chamber surrounding the said point of interruption and adapted to imprison small quantities of air, gases or vapors during a part of the rotation of the main tube so as to prevent them passing back and injuring the vacuum formed; said main tube containing a liquid whereby its interior is divided into compartments as the apparatus is rotated.

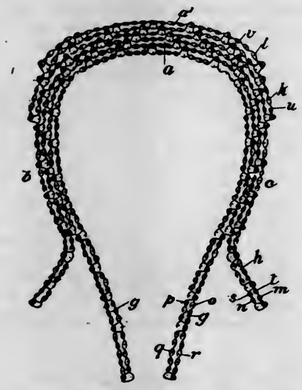
943,557. WOVEN WRAPPER FOR TIRES. JUAN MARCET Y MARTI, Tarrasa, Spain. Filed Sept. 4, 1907. Serial No. 391,749.

1. A substantially U shaped tire cover of a continuous woven fabric, having a woven reinforcing ply overlying the tread portion of the cover and thereby thickening the same, and having cloths *g* and *h* at one extremity of the cover, substantially as described.

2. A substantially U shaped tire cover composed of a continuous woven fabric, having woven reinforcing plies overlying the tread portion of the cover, and forming a thickened zone tapered toward its edges, and having at its extremities a plurality of woven cloths *g* and *h*, substantially as described.

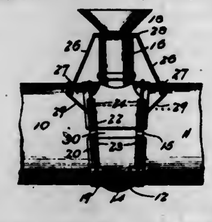
3. A substantially U shaped tire cover composed of a continuous woven fabric having a greater amount of cloth at the center, or tread portion, than at the sides, and provided at one of its edges with means for securing said cover to the tire, consisting of woven cloths one of which is longer than the other, substantially as described.

4. A substantially U shaped tire cover composed of a continuous woven fabric having a plurality of woven reinforcing piles overlying the tread portion, and fastening



means at its edges, consisting of a plurality of woven cloths two of which are longer than the others, substantially as described.

943,558. MOLDING APPARATUS FOR PIPE-JOINTS. JOHN F. MILAM, Rome, Ga., assignor of one-half to William C. England, Rome, Ga. Filed Oct. 2, 1908. Serial No. 455,817.



1. A molding apparatus for pipe joints, comprising a flexible strip of textile material having an opening therein between its ends through which the material is introduced, separate bands for clamping the margins of the strips to the pipes on opposite sides of the joint between such pipes, and means connecting the ends of the respective bands for drawing the same together to effect their clamping action.

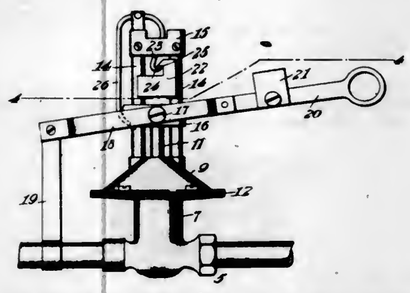
2. A molding apparatus for pipe joints comprising a strip of flexible material, and adjustable clamping bands encircling said pipe ends and engaging opposite edge portions of the said strip, said bands converging toward the underside of the strip to form an annular molding casing the size of which decreases as the bottom of the strip is approached.

3. A molding apparatus for pipe joints comprising a flexible strip, means for holding said strip in annular form about the pipe ends to provide a mold casing, a filling tube communicating with said casing, and a funnel support surrounding said filling tube and resting upon the pipe ends.

4. A molding apparatus for pipe joints comprising a flexible strip, means for holding said strip in annular form about the pipe ends to provide a mold casing, a filling tube communicating with said casing, and a funnel support surrounding said filling tube and provided with side legs the bottoms of which are curved to conform to the contour of the pipe ends and the upper portion of which is provided with a funnel-engaging ring.

5. A molding apparatus for pipe joints comprising a flexible strip, means for holding said strip in annular form about the pipe ends to provide a mold casing, a filling tube communicating with said casing, a funnel support surrounding said filling tube and provided with side legs the bottoms of which are curved to conform to the contour of the pipe ends and the upper portion of which is provided with a funnel-engaging ring, and holding hooks carried by said side legs and adapted to detachably engage with the strip holding means to retain the funnel support in position.

943,559. AUTOMATIC CUT-OFF VALVE. JULIUS MILLER, Youngstown, Ohio. Filed June 12, 1909. Serial No. 501,815.



1. In mechanism of the character set forth, the combination with a conduit, of a reciprocatory controlling valve therein, a pressure chamber, a diaphragm in the pressure chamber, a valve stem connected to the diaphragm and projecting from the pressure chamber, guides carried by the pressure chamber, a pivotally supported arm, a weight adjustably mounted on the arm, a slide block pivotally connected to the arm and connected to the valve stem, and a latch pivoted on one of the guides and engaging over the slide block when the valve is in its closed position.

2. In mechanism of the character set forth, the combination with a valve, of a swinging arm for moving the same to closed position, a reciprocatory device connected to the arm and to the valve, an auxiliary hammer that strikes the reciprocatory device to seat the valve, and a latch normally holding the hammer against movement and automatically operated by the reciprocatory device.

3. In mechanism of the character set forth, the combination with a conduit, of a controlling valve therein, a pressure chamber, a valve stem connected to the valve and projecting from the pressure chamber, a diaphragm located in the pressure chamber and connected to the valve stem, guides located on opposite sides of the projecting portion of the valve stem, a slide block connected to the valve stem and operating on the guides, a pivotally mounted weighted arm connected to the slide block, a hammer slidably mounted on the guides and arranged to strike the valve stem, and a latch pivoted on one of the guides and detachably engaging the hammer, said latch having an actuating arm disposed in the path of movement of the slide block.

4. In mechanism of the character set forth, the combination with a valve, of means for automatically closing the same, an auxiliary device for tightly seating the valve, and common means for automatically effecting the operation of the auxiliary device to seat the valve and locking the valve in seated position.

5. In mechanism of the character set forth, the combination with a valve, of automatic closing means therefor, a hammer for tightly seating the valve, and automatic means for releasing the hammer when the valve is closed, said means also constituting a lock for holding the valve in closed position.

[Claims 6 to 8 not printed in the Gazette.]

943,560. THIOSALICYLIC COMPOUND AND PROCESS OF MAKING SAME. EDUARD MÜNCH, Ludwigshafen-on-the-Rhine, Germany, assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany, a Corporation. Filed Sept. 1, 1908. Serial No. 451,249.

1. The process of producing acetylene-bis-thiosalicylic acid compounds by acting with symmetrical dihalogenethylene on a hereinbefore defined thiosalicylic acid compound substantially as hereinbefore described.

2. The process of producing acetylene-bis-thiosalicylic acid by acting with symmetrical dichlorethylene on the potassium salt of thiosalicylic acid.

3. The process of producing acetylene-bis-thiosalicylic acid by acting with symmetrical dichlorethylene on the potassium salt of thiosalicylic acid in the presence of caustic potash.

4. As new articles of manufacture the acetylene-bis-thiosalicylic acid compounds which can be produced by acting with symmetrical dihalogenethylene on a hereinbefore defined thiosalicylic acid compound which new compounds consist of from white to slightly yellow powders and in the form of their free acids are difficultly soluble in the usual organic solvents and which on treatment with an acid condensing agent are converted directly into coloring matters of the thioindigo group.

5. As a new article of manufacture acetylene-bis-thiosalicylic acid which consists of a white amorphous powder, is difficultly soluble in most organic solvents, yields a yellowish red solution in concentrated sulfuric acid and which on treatment with an acid condensing agent is converted directly into coloring matters of the thioindigo group.

943,561. THIOSALICYLIC COMPOUND AND PROCESS OF MAKING SAME. EDUARD MÜNCH, Ludwigshafen-on-the-Rhine, Germany, assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany, a Corporation. Filed Sept. 1, 1908. Serial No. 451,250.

1. The process of producing omega-dihalogen-vinyl-thiosalicylic acid compounds by acting with trihalogenethylene on a hereinbefore defined thiosalicylic acid compound substantially as described.

2. The process of producing omega-dichlor-vinyl-thiosalicylic acid by acting on thiosalicylic acid with trichlorethylene in the presence of caustic potash.

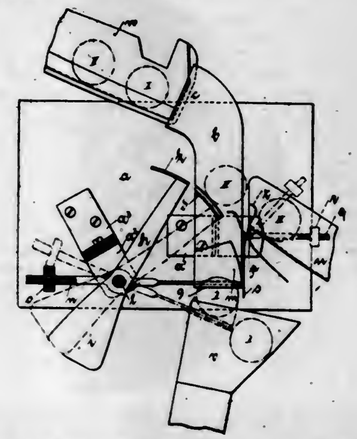
3. As new articles of manufacture omega-dihalogen-vinyl-thiosalicylic acid compounds which can be obtained by acting with trihalogenethylene on a hereinbefore defined thiosalicylic acid compound which new compounds are colorless or only slightly colored, are easily soluble in alcohol and in benzene, more difficultly soluble in ligroin and very difficultly soluble in water, and on treatment with an alkaline condensing agent yield leuco compounds of thioindigo coloring matters.

4. As a new article of manufacture omega-dichlor-vinyl-thiosalicylic acid which consists of colorless crystals which melt at about 173° C., are easily soluble in alcohol and benzene, more difficultly soluble in ligroin, very difficultly soluble in water and on treatment with an alkaline condensing agent gives rise to a leuco compound of a thioindigo coloring matter.

943,562. COIN-SWITCH FOR VENDING-MACHINES. OSCAR OEHRING, Berlin, Germany, assignor to American Stamp and Ticket Vending Machine Company, Washington, D. C. Filed Sept. 30, 1909. Serial No. 520,391.

1. In check-controlled apparatus operable only by the insertion of more than a single check, means including a movable element permanently carried by the apparatus and intersecting the path of a selected check for positioning such selected check in operative-release position after the remaining checks to complete the number required have been deposited.

2. In check controlled apparatus operable only by the insertion of more than a single check, means for positioning one of the checks in apparatus-release position after the remaining checks to complete the number required have been deposited, said means including two pivoted members having a common axis and movements in unison, one of said members determining the movement of the apparatus-release check.



3. In check controlled apparatus operable only by the insertion of more than a single check, means for positioning one of the checks in apparatus-release position after the remaining checks to complete the number required have been deposited, said means including two pivoted members having a common axis and movements in unison, one of said members determining the movement of the apparatus-release check, the other member normally extending into the path of movement of the remaining deposited checks.

4. In check controlled apparatus operable only by the insertion of more than a single check, means for positioning one of the checks in apparatus-release position after the remaining checks to complete the number required have been deposited, said means including two pivoted members having a common axis and movements in unison, one of said members determining the movement of the apparatus-release check, the other member normally extending into the path of movement of the remaining deposited checks, and means carried by the latter member for determining the time of release of the apparatus-release check.

5. In check-controlled apparatus, a main coin chute, a pivoted coin cup normally positioned at the outlet end of said chute, a coin switching member movable into and out of the coin chute, means being provided whereby said member is operated by the movement of the coin cup, and an auxiliary chute adapted to receive a coin when said member is in switching position.

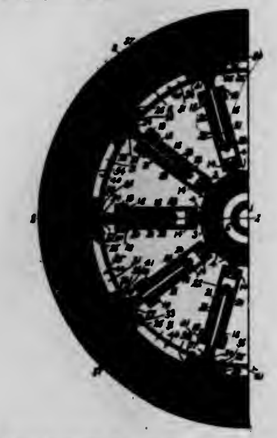
[Claims 6 to 9 not printed in the Gazette.]

943,563. VEHICLE-WHEEL. HARTWIG O. PECK, Portland, Oreg., assignor to The H. O. Peck Automobile Wheel Co. Incorporated, Portland, Oreg. Filed May 13, 1909. Serial No. 495,582.

1. In a vehicle wheel, a spoke having an apertured pivot head, a member having a pocket, and an integrally formed pin held centrally in said pocket, said pivot head being held in said pocket with said pin projected through the aperture in said pivot head, and a cap member for closing said aperture, said cap member having a depression to receive the projecting end of said pin.

2. In a vehicle wheel, a spoke having an apertured pivot head, a member having a pocket, and an integrally formed pin held centrally in said pocket, said pivot head being held in said pocket with said pin projected through the aperture in said pivot head, a cap member for closing said aperture, said cap member having a depression to re-

ceive the projecting end of said pin, said pivot head having ring receiving portions, and washer rings held in said ring receiving portions.



3. In a vehicle wheel a rim formed of a channeled member to receive a tire, spaced angle irons secured to said channeled member, blocks secured between said angle irons at intervals and adapted to receive a spoke end, and filler plates secured to said blocks between said angle irons.

4. In a vehicle wheel a rim structure comprising an annular channeled member to receive a tire, annular angle members secured to said channeled member and spaced apart, pivot blocks secured at intervals between said angle members, each of said pivot blocks having pivot pins surrounded by pockets to receive a pivot head of a spoke, a closure member for said pockets having recesses to receive projecting ends of said pivot pins, and spokes having pivot heads held on said pins in said pockets.

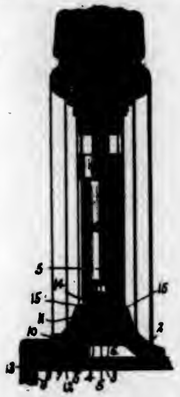
5. In a vehicle wheel a rim structure comprising an annular channeled member to receive a tire, annular angle members secured to said channeled member and spaced apart, pivot blocks secured at intervals between said angle members, each of said pivot blocks having pivot pins surrounded by pockets to receive a pivot head of a spoke, a closure plate for said pockets having recesses to receive projecting ends of said pivot pins, spokes having pivot heads held on said pins in said pockets, and filler plates secured to said blocks between said angle members to form chambers.

[Claim 6 not printed in the Gazette.]

943,564. VEHICLE-WHEEL. HARTWIG O. PECK, Portland, Oreg., assignor to H. O. Peck Automobile Wheel Company, Incorporated, Portland, Oreg. Original application filed May 13, 1909, Serial No. 495,582. Divided and this application filed Oct. 22, 1909. Serial No. 524,088.

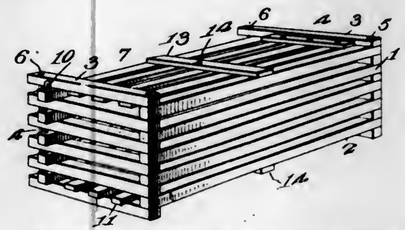
1. In a vehicle wheel, a hub having a series of pockets, and pins integrally formed with said hub projected centrally through said pockets, spokes having pivot heads held in said pockets and apertured to permit passage of said pins, said hub having a threaded projection, a hub cap mounted thereon to close said pockets and having depressions to receive the projecting ends of said pins, a nut cap threaded on said threaded projection to retain said hub cap in position, and means for locking said nut to said threaded projection of said hub.

2. In a vehicle wheel a hub having a series of pockets and pins integrally formed with said hub projected centrally through said pockets, spokes having pivot heads held in said pockets and apertured to permit passage of said pins, said hub having a threaded projection, a hub flange mounted thereon to close said pockets and having depressions to receive the projecting ends of said pins, a nut cap threaded on said threaded projection to retain said hub flange in position, means for locking said nut to



said threaded projection of said hub, said hub having an internal chamber, and having capillary apertures to afford communication between said pockets and said chamber.

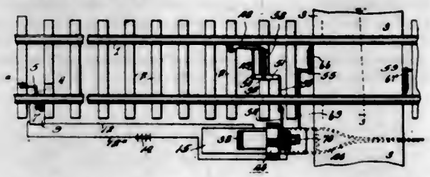
943,565. CRATE. WILLIAM J. PUCKETT, Mancelona, Mich., assignor of one-half to Frederick Waldie, Mancelona, Mich. Filed Apr. 29, 1909. Serial No. 492,931.



1. A structure of the class described, comprising a fixed side wall and end walls each composed of a series of slats, those of the end walls alternating with those of the fixed side wall, so that spaces are formed between the slats, rods extending through the ends of the fixed side wall slats and also through the corresponding ends of the end wall slats forming pivot connections between the said fixed side wall and said end walls, rods connecting the outer ends of the spaced slats of the end walls and forming stops, and a movable side wall formed of slats disposed in the spaces between the slats of the pivoted end walls and rods connecting the ends of the spaced slats of said movable side wall and also forming stops.

2. A structure of the class described, comprising a fixed side wall and end walls each composed of a series of slats, those of the end walls alternating with those of the fixed side wall, so that spaces are formed between the slats, rods extending through the ends of the fixed side wall slats and also through the corresponding ends of the end wall slats forming pivot connections between the said fixed side wall and said end walls, rods connecting the outer ends of the spaced slats of the end walls and forming stops, and a movable side wall formed of slats disposed in the spaces between the slats of the pivoted end walls and rods connecting the ends of the spaced slats of said movable side wall and also forming stops, and a bottom for insertion between the side and end walls and adapted to bear on the bottom slats of said end walls, said cover provided with a pivoted locking bar adapted to be turned into and out of engagement with the bottom slats of the side walls.

943,566. RAILWAY-CROSSING GATE. HENRY J. RICHENDRFER, Lime Ridge, Pa. Filed June 29, 1909. Serial No. 505,019.



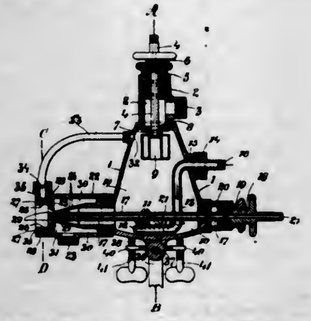
1. In a railway crossing gate, the combination of a pivoted gate, means for holding said gate in vertical position, electrical means for releasing said holding means, a platform mounted at the crossing between the tracks, and means operated by said platform to stop the movement of the gate when weight is placed thereon.

2. A railway crossing gate comprising a housing, a dome mounted on the housing, a gate pivoted in the dome, gearing in the dome actuated by the movements of the gate, a two armed lever actuated by the movements of the gate, a rod connected to one arm of said lever for actuating a plunger mounted in a dash-pot, a rod connected to the other arm of said lever, a weight connected to said rod, a lever mounted in the housing and connected to said weight, a counterweight connected to said lever, and means operated by the passing train for raising said counterweight and restoring the mechanism to its initial position.

3. A railway crossing gate comprising a pivoted gate, means for counterbalancing said gate, means for locking said gate in a vertical position, electrical means actuated by the passing train for releasing the means for holding the gate in vertical position, a platform mounted between the tracks at the crossing, and means actuated by the platform when depressed for stopping the movement of the gate during its descent.

4. A railway crossing gate comprising a counterbalanced gate, means for holding said gate in vertical position, electrical means adapted to be actuated by a passing train for releasing said means, a platform mounted between the tracks at the crossing, and connections between said platform and gate, whereby the latter is stopped during its descent when the platform is depressed.

943,567. SPRAY-BURNER. AUGUST ROHRBACH, Erfurt, Germany, and WILHELM DIECKMANN, ANTON GRIBLING, and LUDWIG GROTE, London, England. Filed Feb. 27, 1909. Serial No. 480,443.

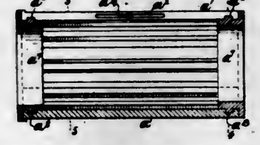


1. In an apparatus of the class specified, the combination of a casing provided with a hydro-carbon inlet; a valve seat located within the casing below said inlet; an air-supply pipe opening into said casing and having its outlet end arranged for reception in said seat, to control the flow of hydro-carbon into the body portion of said casing; an air-supply pipe opening into said body portion; a nozzle attached to said body portion; an air-supply pipe extending through said body portion and nozzle; a mouthpiece arranged at the outlet end of the nozzle and surrounding the same; a perforated ring arranged against the outer face of said mouth-piece; means for supporting said mouth-piece and ring; and a pipe for supplying air to the perforations in said ring.

2. In an apparatus of the class specified, the combination of a casing; air and hydro-carbon supply pipes opening into the casing; a nozzle attached to said casing; a ring arranged at the outlet end of the nozzle and formed with inwardly-opening tangential conduits; means for supporting said ring; and a pipe communicating at one end with the top of the casing and at the other end with said conduits, for supplying carbureted air through the latter tangentially against the flame at the mouth of the nozzle.

3. In an apparatus of the character specified, the combination of a casing having a tubular extension opening thereinto and provided with a hydro-carbon inlet; a member movable within said extension below said inlet and provided with an opening forming a means of communication between said extension and casing; an air supply pipe projecting into said extension and having its outlet end arranged to seat itself in said opening upon movement of said member in one direction to close such communication; and a float attached to said member and controlled by the level of the liquid in said casing, for moving said member.

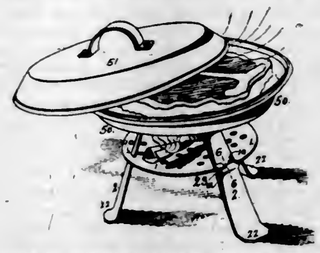
943,568. MANDREL FOR PHONOGRAPH-RECORDS. WALTER C. RUNGE, Camden, N. J., assignor to Royal Phone and Phonogram Company, Boston, Mass., a Corporation of Maine. Filed Apr. 21, 1909. Serial No. 491,224.



1. A phonograph record mandrel having in combination an expansible tubular body composed of longitudinal segments having cam shaped surfaces in their interiors, and means at the ends of the body for coacting with said cam shaped surfaces.

2. A phonograph record mandrel having in combination an expansible tubular body composed of longitudinal segments having cam shaped surfaces in their interiors, and rings at the ends of the body provided with means for coacting with said cam shaped surfaces.

943,569. POCKET-STOVE. BENJAMIN SCAMARDI, Williamsport, Pa. Filed Aug. 26, 1909. Serial No. 514,671.



1. A portable pocket stove that comprises a perforated fuel holding plate having a plurality of peripherally arranged slots, leg members slidable through the slots and tightly engaging the ends of said slots, and provided with off-sets that form seats for the plate, and a pan removably mounted on the top of the leg members.

2. A portable pocket stove that comprises the following elements in combination; a perforated fuel holding

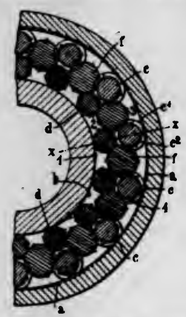
plate having a plurality of peripherally arranged slots, wedge shaped leg members slidable through and engaging the ends of the slots and provided with off-sets that form seats for the plate to rest upon, the upper and lower ends of the legs being bent outwardly and a pan removably mounted on the out-turned upper ends of the legs.

3. A portable pocket stove comprising a sheet metal perforated plate having a plurality of peripherally arranged slots, leg members slidable through the slots and tightly engaging the ends of the slots, the upper and lower ends of said legs being bent outwardly, said leg members being transversely bent midway their ends to form seats for the perforated plate to rest upon, and a pan removably mounted on the legs as set forth.

4. A portable pocket stove comprising a sheet metal perforated plate having a plurality of peripherally arranged slots, leg members slidable through the slots whose upper and lower ends are bent outwardly, said leg members being transversely bent midway their ends to form seats for the perforated plate to rest upon, and a stew pan removably mounted on the legs, a cover for the said pan, the rim edges of the pan and the cover being arranged to interlock, substantially as shown and described.

5. A pocket stove comprising a griddle or fuel holding member having slots, a tripod stand therefor, consisting of tapered or wedge-like legs slidably movable through said slots and engaging the ends of said slots to support the griddle at a suitable point relatively to the upper ends thereof, and having the upper ends formed to removably support a frying or stew pan.

943,570. ROLLER-BEARING. MAX SCHLUSS, Bredeney, Germany. Filed Apr. 27, 1907. Serial No. 370,724.

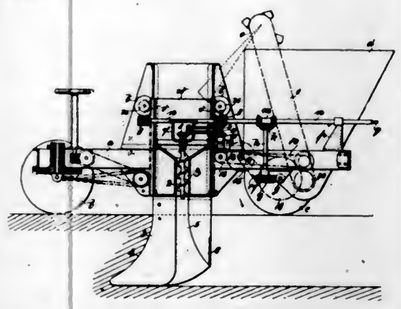


1. A roller bearing comprising a journal element and an outer bearing element, said elements being provided with inner and outer tracks, sets of inner and outer rollers cooperating with the respective tracks, the rollers of one set having portions of different diameters and a set of intermediate rollers coöperating with the peripheries of the rollers of one set and the relatively smaller portions of the other set of rollers for transmitting motion between the inner and outer sets of rollers, and maintaining the rollers of each set separated relatively to each other.

2. A roller bearing comprising a journal element and an outer bearing element, said elements being provided with inner and outer tracks, sets of inner and outer rollers coöperating with the respective tracks, the rollers of one set being provided with portions of relatively smaller diameters than other portions thereof, and a set of intermediate rollers coöperating with the relatively smaller portions of the outer rollers and with the peripheries of the inner rollers, the said intermediate rollers serving to transmit motion between the inner and outer sets of rollers, and also maintaining the rollers of each set in separated relation.

3. A roller bearing comprising a journal element and an outer bearing element, said elements being provided with inner and outer tracks, a set of inner rollers coöperating with the inner track, a set of outer rollers coöperating with the outer track, the outer rollers being each provided with portions of smaller diameter than other portions thereof arranged at its opposite ends, and two sets of intermediate rollers coöperating with the reduced or smaller portions of the outer set of rollers and with the inner set of rollers, the intermediate sets of rollers serving to separate the inner and outer sets of rollers and to transmit rotary motion between them.

943,571. MECHANICAL LAND-DRAINER. JOHN SCOTT, Hammersmith, England. Filed Feb. 6, 1909. Serial No. 476,454.



1. In a machine for forming drains the combination of a hopper; a hollow colter located to one side of said hopper; means for conveying material from said hopper to said colter; and means for automatically raising or lowering said colter; substantially as described.

2. In a machine for forming drains the combination of a hopper; a hollow colter; a receptacle to which said colter is attached; means for feeding material from said hopper to said receptacle; and means for feeding material from said receptacle to said colter; substantially as described.

3. In a machine for forming drains, the combination of a hopper; a hollow colter; a receptacle to which said colter is attached; means for raising and lowering said receptacle; means for feeding material from said hopper to said receptacle; means for feeding material from said receptacle to said colter; and means for rotating said last mentioned feeding means; substantially as described.

4. In a machine for forming drains the combination of a hopper; a receptacle; a conveyer for transporting material from said hopper to said receptacle; a colter below said receptacle; means for adjusting the said colter to regulate the depth of the cut; automatic means for causing said colter to slowly rise when it nears the end of the cut; and means for feeding material from said receptacle to said colter; substantially as described.

5. In a machine for forming drains, the combination of a hollow colter; a receptacle; a screw for conveying material from said receptacle to said colter; means for raising and lowering said colter; and means for regulating the delivery of material from said colter; substantially as described.

[Claim 6 not printed in the Gazette.]

943,572. AERIAL ELEVATOR. JOHN A. SCOTT, Roosevelt, Okla. Filed July 16, 1909. Serial No. 508,067.

1. An aerial elevator comprising a buoyant carrier, a supporting element adapted to engage an elevated structure, means for directing the carrier from a remote point, means for connecting said supporting element to the carrier, and means for releasing the connecting means from a remote point.

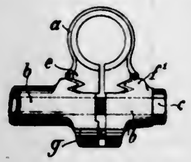
2. An aerial elevator comprising a buoyant carrier, means for directing said carrier from a remote point, a structure engaging supporting element, and means operable from a remote point for removably connecting said element and carrier.

3. An aerial elevator comprising a buoyant carrier, a ring connected therewith, guide cables extending from the ring, a structure engaging supporting element, means for removably connecting said element to the ring and carrier, and cable sheaves carried by the element.



4. An aerial elevator comprising a buoyant carrier, directing cables secured to the carrier to direct the latter from a remote point, a structure engaging supporting element, cable sheaves carried by the element, cables passed through said sheaves, and a cable securing the supporting element to the carrier, said cable being operable from a remote point to release the cable from the carrier.

943,573. UNIVERSAL-JOINT DEVICE. JULIEN SIMON, Vincennes, France. Filed Sept. 2, 1908. Serial No. 451,381.



1. The combination in a universal joint of a split sleeve *a* the tail of which is fitted with a circular collar *e* for turning around a transverse axis of symmetry of the sleeve, and a vise *b* b^1 bearing circular blockheads *f* f^1 whose profile corresponds to that of the collar *e*; the two portions of this vise being brought together by suitable means to simultaneously fix the organ intended to turn around the longitudinal axis of the sleeve *a* and inside of it, the organ integral with the vise, which latter is made to turn around the transverse axis of the sleeve *a* and consequently in relation to the first organ.

2. The combination in a universal joint of a split sleeve having its tail provided with a circular collar, a vise having circular blockheads of a profile corresponding to that of the collar and between which the collar fits, and means for moving the blockheads toward each other whereby to simultaneously fix the members connected by the joint.

943,574. METALLURGY OF IRON AND STEEL. WILLIAM S. SIMPSON and HOWARD OVIATT, London, England. Filed Mar. 19, 1909. Serial No. 484,540.

1. A process of producing iron and steel directly from iron ores which consists in intimately associating a cellulose carbo-hydrate with the ore, and heating the charge to effect its reduction.

2. A process of producing iron or steel directly from ore which involves mixing with the ore water and a cellulose carbohydrate reducing agent, and heating the charge to effect its reduction.

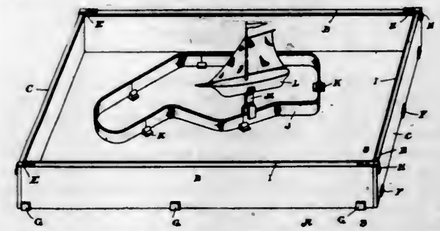
3. A process of producing iron or steel directly from ore which consists in mixing with the ore a cellulose carbohydrate associated with sufficient water to bring the same into intimate contact with the ore, and heating the charge thus prepared to effect its reduction.

4. A process of producing iron or steel directly from ore which consists in mixing with the ore a cellulose carbohydrate reducing agent in the form of a pulp associated with sufficient water to bring the same into intimate contact with the ore, and heating the charge thus prepared to effect its reduction.

5. The herein described art of producing iron or steel directly from ore which consists in intimately associating with the ore a carbonaceous substance consisting of a cellulose carbo-hydrate or a compound in which cellulose carbo-hydrates predominate, and heating the charge to effect its reduction.

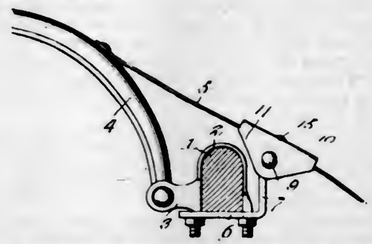
[Claims 6 to 11 not printed in the Gazette.]

943,575. TOY. JOHN G. SINCLAIR, East Orange, N. J. Filed Nov. 28, 1905. Serial No. 289,440.



In a collapsible tank of the character described the combination of a bottom, side pieces, end pieces, two right angular clips having vertical legs, said clips being spaced near each corner of the bottom and secured thereto at right angles to each other, the vertical legs of said clips engaging the outer faces of said side pieces, right angle spring clips having vertical legs, one of said clips being secured to the upper edge of each side piece at each end thereof, the vertical legs of said spring clips adapted to engage or disengage the end pieces and having openings in their vertical legs, a pin located near each end of the end pieces and adapted to engage said openings, and a collapsible rubber lining located within the tank to prevent leakage.

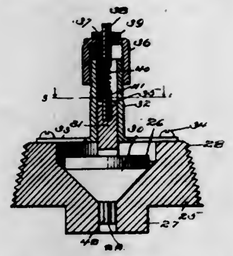
943,576. SHAFT-SUPPORT. GEORGE E. STANSBURY and HARRY H. HUTCHISON, Catlin, Ill. Filed June 4, 1909. Serial No. 500,101.



1. In combination with an axle provided with the usual clip and a thill hingedly connected with the clip, of a rearwardly extending plate upon the thill, a member pivotally connected with the axle having its upper portion provided with a compartment, said compartment having its opposite ends provided with openings adapted for the reception of the plate, and resilient means for retaining the plate in an adjusted position within the compartment.

2. The combination with an axle provided with a hinged thill, a rearwardly extending plate secured to the thill, an L-shaped member upon the axle, said member having its vertical arm provided with an eye, a member having spaced sides pivotally secured to the eye, said member having its upper portion provided with a compartment, a compartment having its opposite ends provided with openings adapted for the reception of the plate of the thill, and a flattened resilient element secured to the top of the compartment and adapted to have its opposite ends engage the plate of the thill.

943,577. DRAIN-VALVE. ELZA S. STOTTS, Marion, Iowa. Filed June 29, 1908. Serial No. 440,968.



1. In a device of the character described, a drain valve comprising a base formed with a seat, a valve member engaging said seat, a guide for said valve member for causing a proper engagement thereof with said seat, a spring for normally holding said valve member off its seat, a plurality of means for varying the tension of said spring, said means being a plurality of threaded bolts arranged to be varied in position by the rotation thereof, and an adjustable cap carrying one of said bolts.

2. In a device of the character described, a base removably secured in position and formed with a seat, a valve member engaging said seat, a stem for said valve member formed with a slot, and a sleeve provided with radiating arms for holding the same in position for guiding said stem, said valve member being designed to be ground against said valve by the rotation of said valve member upon the insertion and rotation of a tool in said slot.

3. In a device of the character described, a drain valve comprising a base formed with means for removably securing the same in position, a valve member proper in said base to engage its seat when pressure is applied thereto said valve member being formed with a stem, a sleeve arranged to receive one end of the stem projecting from said valve member proper and for guiding the same, an adjustable bolt connected with the valve stem fitting in said sleeve, a spring connected with said bolt, a second bolt connected with said spring, a nut engaging said second mentioned bolt for holding the same in position, and varying the position of the same and the tension of said spring, and a cap threaded onto said sleeve for supporting said second mentioned bolt whereby the position of said bolt may be varied for varying the tension of said spring, said cap and said nut forming independent means for adjusting the position of said second mentioned bolt and the tension of said spring.

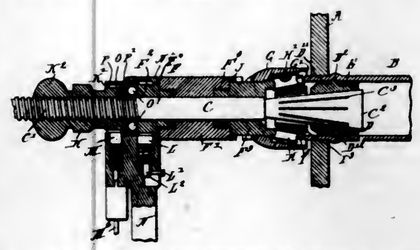
4. In a drain valve, the combination of a base adapted to be inserted from without in the wall of the chamber to be drained having a valve seat facing toward the interior of said chamber, a valve adapted to seat on said seat having an inwardly projecting stem, a member secured to said base having a bore adapted to form a guide for said stem, a spring acting upon said stem and said member to lift the valve from its seat, and an element adjustable with reference to said member through which said spring acts thereon.

943,578. DIGITALIS EXTRACT. RUDOLF TAMBACH, Ludwigshafen-on-the-Rhine, Germany, assignor to The Firm of Knoll and Company, Ludwigshafen-on-the-Rhine, Germany. Filed Apr. 3, 1908. Serial No. 425,013.

1. The herein described process for the manufacture of a permanent preparation from digitalis leaves, which consists in preparing an extract of the drug by means of highly concentrated alcohol and adding to the said extract ether as long as a precipitate is produced by this addition.

2. A permanent preparation from digitalis leaves, containing the therapeutically important constituents of the drug, without the inactive and injurious substances contained in the same, the said preparation not being completely soluble in cold and hot water, but dissolving immediately on the addition of a 2 per cent. sodium carbonate solution with the aid of heat, hydrochloric acid separating from the solution thus obtained a substance which is insoluble in chloroform, easily soluble in alcohol and alkalies, substantially as described.

943,579. BOILER-TUBE EXPANDER. JOE C. TABBEY, Nashville, Tenn., assignor of one-fourth to Richard B. Salmons, Bowling Green, Ky., one-fourth to Stephen A. Holt, and one-fourth to Leslie E. Holt, Nashville, Tenn. Filed Apr. 2, 1909. Serial No. 487,420.



1. A tube expander substantially as described comprising a bolt, expanding devices operating on the bolt, a body portion turning upon the bolt, a cover sleeve turning upon the end of said body portion and movable longitudinally along the said body portion whereby it may be advanced or retracted, beading rolls within the cover sleeve and in position to be operated upon by the end of the body portion, and a frame carrying the said beading rolls and having segmental plates operating on opposite sides of the said rolls, and provided at their ends with inwardly projecting portions overlapping and operating as keepers for said rolls substantially as and for the purposes set forth.

2. The combination in an expander substantially as described of beading rolls, and a frame therefor, having plates on opposite sides of the rolls, and provided with inwardly projecting portions spaced apart distances less than the diameters of the rolls and overlapping the rolls, and operating as keepers therefor, substantially as set forth.

3. In an expander substantially as described the combination with the grooved beading rolls, of a frame receiving the same and having plates operating at their edges in the grooves of the rolls, and provided at their ends with laterally extending portions overlapping the rolls, and a cover sleeve fitting over the rolls substantially as set forth.

4. The combination in a tube expander of a main plate and expanding devices operating in connection therewith, a body portion on the main plate, beading rolls at the end of the body portion, and a cover sleeve movable longitudinally along the body portion at the end thereof, and over the beading rolls and adapted to be advanced and retracted with respect to the beading rolls substantially as set forth.

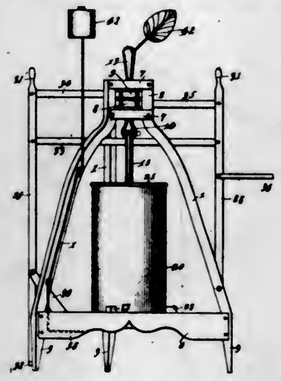
5. The combination in a tube expander with the beading rolls and a body portion, of a cover sleeve movable longitudinally upon the body portion and over the beading rolls, and cam devices for advancing the cover sleeve over the beading rolls substantially as set forth.

[Claims 6 to 16 not printed in the Gazette.]

943,580. CHURN-MOTOR. JOHN T. WALSTON, Asheville, N. C. Filed Jan. 29, 1909. Serial No. 474,922.

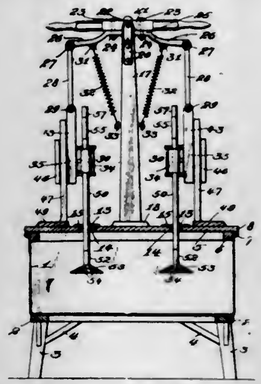
A motor of the character set forth comprising a triangular series of standards inclined upon each other, the lower ends of the standards terminating in supporting legs having horizontally disposed shoulders, the upper ends of the standards terminating in vertically disposed and relatively spaced extensions, a triangular shelf secured at its corners to the legs and resting upon the shoulders, a pair of relatively spaced bearing blocks secured to

the vertical extensions, a vertically disposed drum provided at its upper and lower ends with journals mounted in the bearings of the blocks, the upper journal terminating in an upwardly extending handle, the lower journal terminating in a downwardly extending socketed bead, a hand lever pivotally secured at its lower end to one of the standards, a bracket arm secured at its lower end to



and rising vertically from the shelf, another lever pivotally secured at a point between its ends to the upper end of the bracket arm, said other lever extending below the shelf and provided with a horizontally disposed pedal extension, a rod secured at its ends to the levers, and straps secured to and wound in opposite directions about the drum, said straps being also secured to the levers.

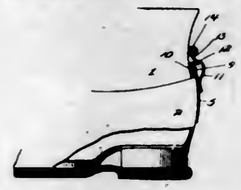
943,581. WASHING-MACHINE. EDWARD C. WARING, Huntsville, Mo. Filed Mar. 12, 1908. Serial No. 420,676.



1. In a washing machine, in combination, a receptacle having a cover, a vertical standard projecting from the cover, an operating handle pivoted to the standard, a vertical guide standard projecting from the cover, a coupler element associated with the guide standard and movable vertically thereof, a link connecting the handle and said coupler element, a reciprocatory pounder and means for detachably clamping the pounder to the coupler element.

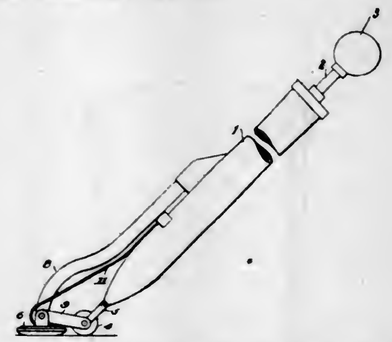
2. In a washing machine, in combination, a receptacle having a cover, a standard projecting upwardly therefrom and having a vertical guide slot, a coupler element having a T-shaped head, the web of which fits in the guide slot and having also a projecting clamping portion at one side of the head and which is formed with a vertical groove and a vertical bead, a clamping member having a hook-shaped portion for engagement with the bead and having also a vertical groove, a screw connecting the clamping portion and the clamping member, a pounder having a body portion which is clamped in the aforesaid grooves and means for reciprocating the coupler element and therewith the pounder.

943,582. OVERSHOE-HOLDER. HERMAN G. F. WESSELS and CHARLES B. INGRAHAM, Laurel, Iowa. Filed May 21, 1909. Serial No. 497,514.



An overshoe provided at its rear with a clasp, said clasp comprising a folded piece of sheet metal bent to form jaws engaging the opposite sides of the heel of the overshoe and secured thereto, the upper ends of said jaws extending above the over-shoe and being longitudinally slitted to provide outer looped bearing members and an intermediate spring tongue, and a buckle pivoted to said bearing members and in contact with the spring tongue, said buckle being adapted for engagement with a keeper on a shoe.

943,583. VACUUM-CLEANER. JOHN N. WHITEHOUSE, New York, N. Y., assignor to The Dusto-Mfg. Co., New York, N. Y., a Corporation of New York. Filed Feb. 13, 1909. Serial No. 477,770.

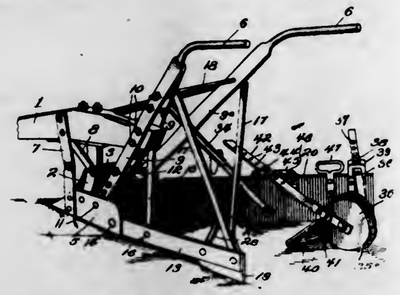


1. A vacuum cleaner comprising the combination of a hand operated pump; a roller at the lower end of the pump bearing upon the surface cleaned; a mouth-piece pipe-connected with the pump; and links connecting the mouth-piece and the lower end of the pump and having pivotal connection with each.

2. A vacuum cleaner comprising the combination of a hand operated pump; a roller at the lower end of the pump bearing upon the surface cleaned; a mouth-piece pipe-connected with the pump; a flexible connection between the mouth-piece and the lower end of the pump; and a spring attached to the pump yieldingly pressing the mouth-piece downward.

3. A vacuum cleaner comprising the combination of a hand operated plunger pump; a roller mounted on the lower end of the pump-barrel and bearing upon the surface cleaned; a mouth-piece; a flexible pipe connecting the mouth-piece with the pump; a flexible connection between the mouth-piece and the pump barrel; and a spring on the pump-barrel bearing slidingly and resiliently down upon the mouth-piece.

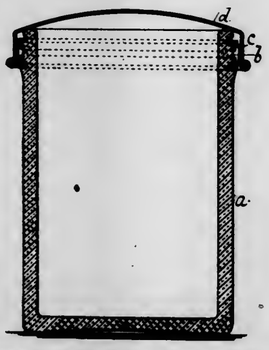
943,584. PLOW. CHARLES C. WHITTINGTON, Lake Providence, La. Filed Apr. 21, 1909. Serial No. 491,323.



1. In an attachment for plows, a removable mold board extension pivotally connected to the mold board of a plow, a landside bar connected to the landside of a plow, means for holding said parts in adjusted positions, and a guide wheel provided on one side thereof with a cutter disk of greater diameter than the wheel, said wheel being mounted upon an adjusting bar inside the mold board extension for holding the plow in draft line.

2. A plow attachment comprising a mold board extension, a guide wheel inside the mold board having an extended disk having a cutter secured to said wheel, said cutter being of larger diameter than the wheel, an adjusting bar to which said wheel is journaled, a keeper through which said bar extends, a scraper connected to an adjusting bar, said scraper being disposed in front of said guide wheel to bear upon the ground, and means for adjusting said bar upon the mold board extension.

943,585. JAR OR RECEPTACLE. RAPHAEL H. WOLFF, New York, N. Y. Filed May 20, 1909. Serial No. 497,224.

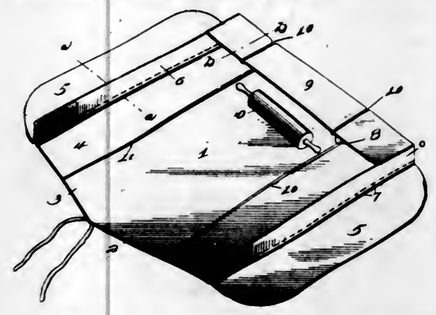


1. A receptacle of suitable material having a recess about its upper portion below the mouth, an elastic band seated in the recessed portion and a cover adapted to engage the elastic to close the receptacle air tight, said band being doubled about its edge portions and the doubled portions being spaced between their edge portions.

2. A receptacle of suitable material having a recess at its upper part below the mouth to form a seating groove combined with an elastic ring adapted to seat itself in the groove, said ring having its edges doubled and spaced to be open in the direction toward the receptacle so as to give the ring a hollow shape in cross section to form an air tight closure.

3. A receptacle of suitable material having a recess about its upper portion below the mouth, an elastic band seated in the recessed portion and a cover adapted to engage the elastic to close the receptacle air tight, said band being doubled about its edge portions and the doubled portions being spaced between their edge portions, said doubled edge portions being made to act as shoes to hold the ring firmly seated in position in the recess.

943,586. BREAD-ROLL. PETER S. WOOD, Burton, Wash. Filed June 22, 1909. Serial No. 503,709.



1. A bread roll of flexible fabric comprising a body portion, cover flaps at opposite sides thereof, guard flaps at the outer edges of the cover flaps and a pocket at one end of the body portion, said pocket including a transverse flap at said end of the body portion, the ends of the said transverse flap being attached to the guard flaps to hold the latter in upright position when the roll is unfolded and in use.

2. A bread roll of flexible fabric comprising a body portion, cover flaps at opposite sides thereof, guard flaps at the outer edges of the cover flaps and a pocket at one end of the body portion, said pocket including a transverse flap at said end of the body portion, the ends of the said transverse flap being attached to the guard flaps to hold the latter in upright position when the roll is unfolded and in use, and extension plates at the outer edges of said cover flaps.

3. A bread roll of flexible fabric comprising a body portion, cover flaps at opposite sides thereof, guard flaps at the outer edges of the cover flaps and a pocket at one end of the body portion, said pocket including a transverse flap at said end of the body portion, the ends of the said transverse flap being attached to the guard flaps to hold the latter in upright position when the roll is unfolded and in use, and extension flaps at the outer edges of said cover flaps and united thereto at the points where said guard flaps join the cover flaps.

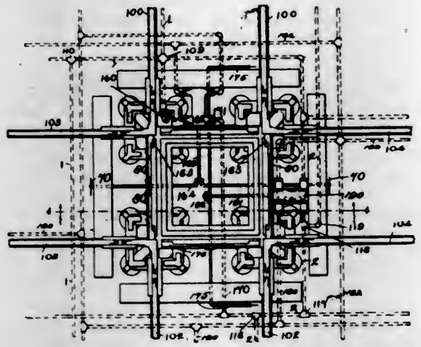
4. A bread roll of flexible fabric comprising a body portion having a pocket at one end and cover flaps at its sides, said cover flaps having guard flaps extending upwardly therefrom when the roll is spread out in position for use.

943,587. AUTOMATIC SIGNAL SYSTEM. POWELL O. ADAMS, Cameron, Tex. Filed Mar. 22, 1909. Serial No. 485,117.

1. In a signaling system the combination of a plurality of blocks constituting a continuous track; a source of compressed air; a semaphore and a depressible tread associated with each block; an engine in each block adapted to move said semaphore into its danger position and to move said tread out of its normal position; and connections controlled by said treads between said engines and said source of compressed air whereby said semaphores and said treads will be held more tightly in their normal or unoperated positions when said treads are depressed, substantially as described.

2. In a signaling system the combination of a pair of blocks constituting a continuous track; a third block; a source of compressed air; a semaphore and a depressible tread in each block; an engine in each block connected with and adapted to move the semaphore and tread of its own block to their danger positions; and pipe connections controlled by said treads extending between said source of air and each of said engines whereby when the treads in said pair of blocks are depressed the engines associated therewith will cause their respective semaphores and treads to be held more tightly in their safety positions, while the engine associated with said third block will cause its semaphore to be moved to its danger position and its tread to be laterally moved to its danger position, substantially as described.

3. In a signaling system the combination of a pair of blocks constituting a continuous track; a third block; a source of compressed air; a semaphore and a depressible and laterally movable tread in each block; an engine in each block connected with and adapted to move the semaphore and tread of its own block to their danger positions; and pipe connections controlled by the depression of said treads extending between said source of air and each of said engines whereby when the treads in said pair of blocks are depressed the engines associated therewith will cause their respective semaphores and treads to be held more tightly in their safety positions, while the engine associated with said third block will cause its semaphore to be moved to its danger position and its tread to be laterally moved to its danger position, substantially as described.

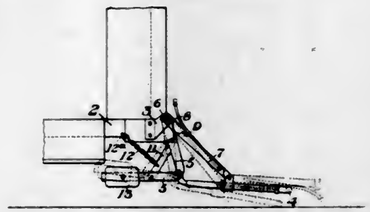


4. In a signaling system the combination of a pair of blocks constituting a continuous track; a third block; a fourth block; a source of compressed air; a semaphore and a depressible tread in each block; an engine in each block connected with and adapted to move the semaphore and tread of its own block to their danger positions; and pipe connections controlled by said treads extending between said source of air and each of said engines whereby when the treads in said pair of blocks are depressed, the engines associated therewith will cause their respective semaphores and treads to be held more tightly in their safety positions, while the engines associated with said third block and the engine associated with said fourth block will cause its semaphore to be moved to its danger position, substantially as described.

5. In a signaling system the combination of a pair of blocks constituting a continuous track; a third block, a fourth block; a source of compressed air; a semaphore and a laterally movable depressible tread associated with each of said blocks; an engine mechanically connected with said semaphore and tread in each block and adapted to move the same into and out of their danger positions; pipes connected with said source of compressed air; means whereby said connections are controlled by said treads; and connections between said pipes and said engines whereby when the treads in said pair of blocks are depressed the engines belonging to said blocks will hold their semaphores and treads in their safety positions, and the engines in the said third and fourth blocks will move their semaphores and treads to their danger positions, substantially as described.

[Claims 6 to 16 not printed in the Gazette.]

943,588. CAR-FENDER. CHESTER B. ALBREE, Allegheny, Pa., assignor to Chester B. Albree Iron Works Company, Pittsburg, Pa., a Corporation of Pennsylvania. Filed Dec. 7, 1908. Serial No. 466,248.



1. A car fender pivotally attached to a car, depending rigid side braces, pivotally connected to the sides of the fender basket, a counterweight connected to the fender arranged to hold it in normal position, said fender and counterweight being free to swing rearwardly and downwardly, and means for preventing the fender from swinging upwardly and forwardly from its normal position, the entire device being arranged to swing about a single pivotal axis; substantially as described.

2. A car fender pivotally attached to a car, depending rigid side braces, pivotally connected to the sides of the fender basket, said braces being arranged to allow folding up of the basket, a counterweight connected to the fender and arranged to hold it in normal position; said fender and counterweight being free to swing rearwardly and downwardly, and means for preventing the fender from swinging forwardly and upwardly from its normal position, the entire device being arranged to swing about a single pivoted axis; substantially as described.

3. A car fender pivotally attached to a car, depending rigid side braces, pivotally connected to the sides of the fender basket, said braces being arranged to allow folding up of the basket, a counterweight connected to the fender and arranged to hold it in normal position, said fender and counterweight being free to swing rearwardly and downwardly, and means for preventing the fender from swinging forwardly and upwardly from its normal position, the entire device being arranged to swing about a single pivoted axis, said counterweight being also arranged to act to retain the fender in its folded-up position; substantially as described.

4. A car fender having fixed pivotal non-sliding connection to a car, an upwardly extending apron separably attached to the fender, and a counterweight device for normally holding the fender and apron in a normal position, said fender and apron being free to swing rearwardly and downwardly on its pivots when striking an object; substantially as described.

5. A car fender having fixed pivotal non-sliding connection to a car, an upwardly extending apron separably attached to the fender, and a counterweight device for normally holding the fender and apron in a normal position, said fender and apron being free to swing rearwardly and downwardly on its pivots when striking an object, and having positive means for preventing oscillation of the fender and apron upwardly and forwardly from such normal positions; substantially as described.

[Claim 6 not printed in the Gazette.]

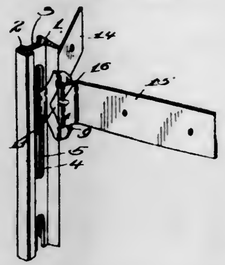
943,589. EXPLOSIVE. LEAVITT N. BENT and HERBERT TALLEY, Carthage, Mo., assignors to Independent Powder Company of Missouri, Joplin, Mo., a Corporation of Missouri. Filed Apr. 17, 1909. Serial No. 490,600.

1. An explosive comprising ammonium nitrate, another solid inorganic oxidizing agent, and comminuted zinc.

2. An explosive comprising ammonium nitrate, manganese dioxid, and comminuted zinc.

3. An explosive comprising ammonium nitrate, dioxid of manganese, comminuted zinc, and a nitrated compound.

943,590. CLIP OR ANCHOR FOR CORNER BEADS OR STRIPS. AUGUST P. DIESCHER, Pittsburg, Pa. Filed Sept. 14, 1908. Serial No. 452,951.



1. The combination of a corner bead having an aperture, a saddle having an intermediate portion extending through said aperture and straddling a portion of the bead, the ends of the saddle being apertured and projecting rearwardly from the bead, and a part having an intermediate portion extending transversely at the rear of the bead and through said apertured ends of the saddle, the said part thereby locking the saddle to the bead, and attaching arms formed by the opposite ends of said part.

2. The combination of a corner bead and a clip comprising a saddle having an intermediate portion straddling a portion of the bead and having its ends apertured and projecting to the rear of the bead, and an attaching member embodying a strip having an intermediate portion extending through the apertured ends of the saddle and interlocking the saddle and bead, and attaching arms formed by the opposite ends of said strip.

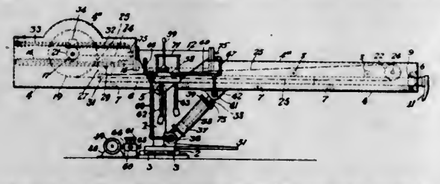
3. The combination of a corner bead and a clip comprising a saddle having an intermediate portion cooperating with the bead and having apertured ends projecting to the rear of the bead, and an attaching member extending through the apertured ends of the saddle and having arms for securing it to a wall.

4. A clip or anchor for corner beads composed of two parts, one part engaging the bead and having a pair of apertured ends and the other interlocked therewith by the passing of said part through the apertured ends of the other and securing its ends whereby the clip is secured to the bead and the interlocked part having a pair of attaching arms formed by its ends whereby the bead is supported by the clip upon a wall.

5. A clip or anchor for corner beads and the like composed of two separate detachable parts, one part engaging the bead and having apertured ends and the other part passing through said apertured ends and interlocked therewith to secure the part first mentioned to the bead, and a pair of attaching arms formed by the ends of the interlocking part for supporting the bead upon a wall or other structure.

[Claims 6 to 20 not printed in the Gazette.]

943,591. CANE-UNLOADER. CHRISTIAN BOSSE, Waipahu, Hawaii. Filed Oct. 15, 1908. Serial No. 457,958.



1. In a cane unloader, the combination of a housing, a rake bar movable longitudinally within the housing, a series of rollers located longitudinally of the housing beneath the rake bar and upon which the latter travels, and a similar series of rollers bearing against the upper surface of the rake bar, the rollers of the two series being arranged in staggered relation.

2. In a cane unloader, the combination of an elongated housing of substantially rectangular cross section, a rake bar within the housing, upper and lower series of rollers in contact with the rake bar at its upper and lower faces, said series of rollers being inclosed within the housing and arranged longitudinally of the latter, and other rollers in the housing which engage the rake bar at its side faces.

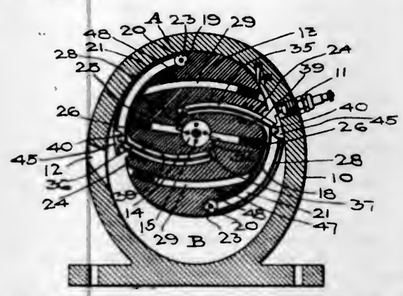
3. In a cane unloader, a housing, a rake attached to a bar, means for moving said bar longitudinally in said housing, and means for automatically counterbalancing the bar.

4. In a cane unloader, the combination of a standard, a housing supported intermediate of its length on said standard, a reciprocatory rake bar guided in the housing, a counterweight for the rake bar, and means for moving the rake bar and the counterweight in opposite directions.

5. In a cane unloader, the combination of a standard, a housing supported intermediate of its length on said standard, a reciprocatory rake bar guided in the housing, a sliding counterweight in the housing, and means for automatically moving the counterweight in rearward direction when the rake bar is advanced, and vice versa.

[Claims 6 to 9 not printed in the Gazette.]

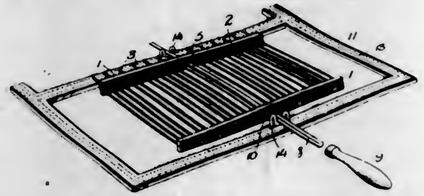
943,592. ROTARY GASOLENE-ENGINE. THOMAS E. BRADLEY, Horton, Kans. Filed June 26, 1909. Serial No. 504,522.



1. A rotary gas engine comprising a casing having curved walls, a rotor mounted eccentrically of the casing, an igniting means carried by the casing, said casing having an exhaust port spaced from the igniting means, reciprocating members carried by the rotor adapted to create a vacuum spaced inwardly thereof upon operation, said rotor having gas intake passages therethrough opening under the reciprocating members, said rotor having also outlet passages opening at one end inwardly of the reciprocating members, and at the other end intermediately of the reciprocating members; valves disposed in the intake passages to prevent escape of gas therethrough, and valves disposed in the outlet passages to prevent ingress of gas therethrough, said reciprocating members being constructed and adapted to draw in gas from said inlet passage upon movement in one direction and to compress and expel the gas through said outlet passage upon reverse movement.

2. A device of the class described comprising a casing having curvate inner walls, and having igniting means at one side and having an exhaust port spaced therefrom, a rotor mounted eccentrically within the casing, vanes pivoted upon the rotor, said rotor having curved compression chambers formed in an arc centered on the pivotal points of the vanes, slidable piston members carried in said chambers and pivotally connected with the outer ends of the vanes, said vanes and pistons being adapted to form an airtight chamber inwardly thereof when the vane is spaced outwardly of the rotor, gas inlet passages communicating with the compression chamber and spaced inwardly of the vanes, an opening through the side of the rotor, a gas inlet passage formed in the casing and communicating with the inlet passage in the rotor and a conducting passage communicating with the space inwardly of the vanes and opening outwardly of and adjacent the pivoted end of another vane, and check valves in said inlet and conducting passages constructed and arranged to check pressure from the direction of the explosion space.

943,593. BROILER. MORRIS M. DRESDNER, New York, N. Y. Filed June 8, 1909. Serial No. 500,823.



1. A broiler comprising similar members each consisting of front and rear bars and transverse rods or wires, means hingedly connecting the rear bars of the members, and a stout wire or rod passed centrally through the front and rear bars of one of the members and forming a handle and a projection for pivotally supporting the broiler, the transverse rods or wires of the member supporting said stout wire projecting rearwardly from the rear bar thereof to form supporting means and stops.

2. A broiler comprising companion members, each consisting of front and rear bars and transverse wires or rods, a wire supported in the front and rear bars of one of the members and having a rear portion extended and bent to overlap the joint formed between the two members when closed and engaging the front bars thereof, and having the bent portion thereof extended outward to form a catch-piece, a stem projecting forwardly from the other member, and a link slidable upon the stem and adapted to engage said catch-piece to hold the members of the broiler in position, when closed.

3. In combination, a supporting frame, lugs extended upwardly from the front and rear bars of said frame and depressed in their upper ends, a broiler comprising hingedly connected members, each member consisting of front and rear bars and transverse rods, the rods of one member extending from the rear bar thereof to engage the rear bar of the frame and hold the broiler steady, and a rod supported centrally in the front and rear bars of the broiler member having the rear pojections and having its ends extended to engage the lugs of the supporting frame to admit of the broiler tilting, when the rear projections are disengaged from the rear bar of said supporting frame.

943,594. SAFETY-HEADBOARD FOR FOLDING BEDS. JAMES H. EDMONDS, Los Angeles, Cal. Filed Jan. 10, 1908. Serial No. 410,189.



1. In combination, a folding bed, a head board pivotally connected therewith and adapted to be actuated thereby, said connection being adapted to be inseparably locked when the bed is open and to be easily separable by pressure against the inner side of the head board when the bed is closed.

2. In combination, a folding bed, a head board pivotally connected therewith and adapted to be actuated thereby, one member of the pivot being provided with a seat and an inclined shoulder leading therefrom, and the other member being provided with a pivot portion which is adapted to rest in said seat and be inseparable therefrom when the bed is lowered but which can be easily moved up said incline by pressure against the inner side of the head board and separated from the seat member when the bed is raised.

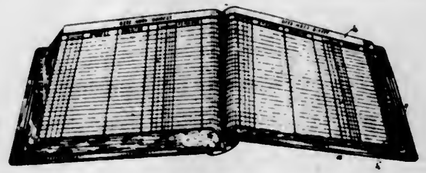
3. In combination, a folding bed, a head board therefor adapted to be actuated by the movement of the bed to open and close the bed receiving recess, a pivot rest on the head of the bed, a pivot carried by the head board seated in such pivot rest, a guide rail mounted to guide the head board when the same is actuated by the movement of the bed and adapted to release the head board to the rear when the pivot is unseated from the pivot rest.

4. In combination, a folding bed, a head board therefor adapted to be actuated by the movement of the bed to open and close the bed receiving recess, a pivot rest on the head of the bed, a shoulder sloping outwardly from such pivot rest, a pivot carried by the head board seated in such pivot rest, a guide rail mounted to guide the head board in its movement when actuated by the bed and adapted to release the head board to the rear when the pivot is unseated from the pivot rest.

5. In combination, a folding bed, a head board, pivoted means connecting the head board with the bed, such means being adapted to allow the lower end of the head board to become disconnected from the bed when the bed is elevated, and means for guiding the upper end of the head board, said board being adapted to be disengaged from said guiding means when its lower end is disconnected from the bed.

[Claims 6 to 9 not printed in the Gazette.]

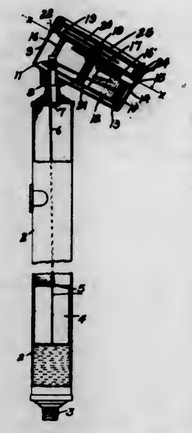
943,595. BLANK BOOK. CHARLES R. FARGO, Portland, Oreg. Filed Oct. 13, 1908. Serial No. 457,564.



1. In a blank-book, the combination of a series of main or index leaves, each of said leaves having a projection, a tab attached to each projection and leaf and forming a marginal reinforcement which extends a short distance of the length of each leaf, the tabs being disposed one in advance of the other, whereby the successive tabs are exposed to view along the edge of the book and a filler leaf or leaves interposed between adjacent main or index leaves, the thickness of which equals the thickness of the tabs above the surface of the main or index leaf, each filler leaf terminating short of the edges of the tabs.

2. In a blank book, the combination of a series of main or index leaves, each of said leaves having a stiffened tab attached to the edge of its respective leaf and forming a marginal reinforcement which extends a short distance of the length of each leaf, the stiffened tabs being disposed one in advance of the other, the successive stiffened tabs being exposed to view along the edge of the book, and a filler leaf or leaves interposed between adjacent main or index leaves, the thickness of which equals the thickness of the stiffened tabs above the surface of the main or index leaves.

943,596. LIQUID-INDICATOR. EDMUND E. HANS, Minneapolis, Minn. Filed Apr. 20, 1908. Serial No. 427,990.



1. A liquid indicator comprising a float chamber having means for connection with a liquid supply pipe, a float slidably arranged within said chamber, a wire looped around said float and arranged to contact with the wall of said chamber and prevent the float from sticking therein, a flexible connection for said float, a drum whereto said flexible connection is attached, a spring for said drum, an indicator and a dial, and a casing inclosing said drum and operating mechanism.

2. A liquid indicator, comprising a float chamber having means for connection with a supply pipe, an indicator casing having a hollow stud fitting within one end of said float chamber, said casing being inclined with respect to the longitudinal axis of said float chamber, a spring actuated drum mounted in said casing, an indicator hand having a post geared to said drum, said drum being located to one side of the passage leading from said casing to said float chamber, anti-friction roller mounted in said casing in line with said passage, a float provided within said float chamber and flexible means connected at one end to said float and passing over said anti-friction roller and attached at its other end to said drum, substantially as described.

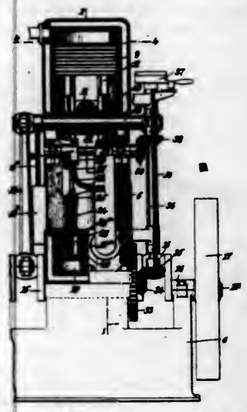
3. In a liquid indicator, a suitable casing, plates 13, 14 and 15 arranged parallel with one another therein and posts connecting them, a revolving drum interposed between said plates 13 and 14 and guarded at the ends thereby, and a cord attached to said drum and adapted to be wound thereon and held in place by said plates.

4. A liquid indicator, comprising a float chamber, a spring actuated drum and a casing therefor, said drum being mounted out of line with the longitudinal axis of said chamber, an indicator hand having a post geared to said drum, a float provided in said chamber, flexible means attached at one end to said drum and at its other end to said float, said float chamber having means provided with a passage communicating with said casing, and an anti-friction roller mounted in said passage and with which said flexible means contacts, substantially as described.

5. A liquid indicator comprising a float chamber, a float adapted to move vertically therein, an indicator operating mechanism having flexible connection with said float and means whereby the level of the liquid is maintained in said chamber on an incline as well as on level ground said means including a gravity ball and seats therefor having tapered walls and a curved surface between them whereon said ball normally rests, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

943,597. DOUBLE-ACTING INTERNAL-COMBUSTION ENGINE. HENRY O. HORNER and JOHN P. BOYLAND, New York, N. Y. Filed Jan. 18, 1909. Serial No. 472,947.



1. In a double-acting internal combustion engine, a cylinder having slots at opposite sides intermediate its length, a piston in the cylinder, a driving-shaft, a cross-shaft passing through the piston and slots of the cylinder and connected with the piston to swing in a plane passing longitudinally through the driving-shaft, with the center of oscillation arranged at one side of the cross-shaft, and means operatively connecting the cross-shaft with the driving-shaft.

2. In a double-acting internal combustion engine, a cylinder having slots in the sides thereof, a working piston in the cylinder, a hanger pivotally supported intermediate the ends of the cylinder, a cross-shaft passing through the hanger and the slots of the cylinder below the point of pivotal support of the hanger, a driving-shaft, and means operatively connecting the outer end portions of the cross-shaft with the driving-shaft.

3. In a double-acting internal combustion engine, a cylinder having slots in the sides thereof, a piston having heads fitting the cylinder, a cross-pin in the piston arranged between the heads, a member journaled on the cross-pin, a cross-shaft passing through the member at approximately right-angles to the cross-shaft, a driving-shaft having cranks, and pitmen operatively connecting the outer end portions of the cross-shaft with the cranks of the driving-shaft.

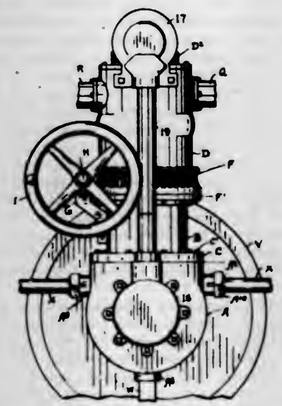
4. In a double-acting internal combustion engine, a cylinder having slots in the sides thereof, a piston having heads fitting the cylinder, a cross-pin carried by the piston between the piston-heads, a hanger journaled on the cross-pin, a cross-shaft passing through the hanger and the slots of the cylinder and locking the cross-pin to the piston, a driving-shaft, and means operatively connecting the cross-shaft to the driving-shaft.

5. In a double-acting internal combustion engine, a cylinder having slots in the side thereof, a driving-shaft, a piston having heads fitting the cylinder, with the heads provided with internal ribs extended to form the intermediate portion of the piston and rigidly connect the heads together, a cross-pin carried by said heads, a hanger journaled on the cross-pin, a cross-shaft passing through the hanger and slots of the cylinder, and means operatively connecting the cross-shaft with the driving-shaft.

[Claim 6 not printed in the Gazette.]

943,598. INTERNAL-COMBUSTION ENGINE. INGLE HOVEY, Newcastle, Ind. Filed Nov. 27, 1908. Serial No. 464,619.

1. In an internal combustion engine, the combination of a working cylinder having a reciprocatory piston therein, a crank case, a support cylinder in which the working cylinder is slidingly secured, the support cylinder being detachably secured to the crank chamber, an annular member carried by the support cylinder and free to move rotatively but not vertically thereon, said annular member being so connected with the working cylinder that with the movement of the annular member the working cylinder will be raised or lowered, means supported adjacent the support cylinder to move and to hold the annular member in different adjusted positions.

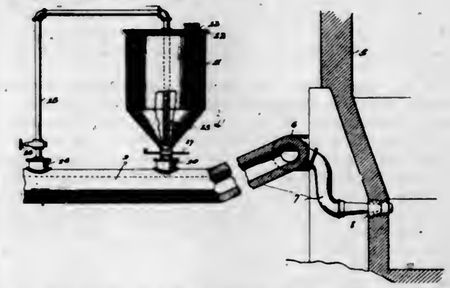


2. In an internal combustion engine, the combination of a working cylinder having a reciprocatory piston therein, and cam tripped valves in the combustion end of said working cylinder, a crank case, a shaft carried by said working cylinder provided with cams to operate said valves, a support cylinder secured to the crank case and in which support cylinder the working cylinder is slidingly disposed, means carried by the support cylinder and to engage the working cylinder so that the working cylinder may be moved to and sustained in different positions with reference to the axial line of the crank shaft, adjustable power transmitting connections between the crank shaft and the said shaft that is carried by the working cylinder, substantially as described.

3. In an internal combustion engine of the kind described, the combination of a working cylinder having a reciprocatory piston therein, the external face of the working cylinder being threaded and the open end portion of said working cylinder being externally machined, a crank case, a support cylinder secured to said crank case and in which the open end portion of the working cylinder is slidingly disposed, a gear collar internally threaded to engage the threads on the working cylinder, said gear collar being supported by a flange that is loosely retained in an annular recess in the support cylinder, a hand controlled worm wheel carried by the support cylinder and adapted to mesh with the gear collar, substantially as described.

4. In an internal combustion engine, the combination of a working cylinder having a reciprocatory piston therein the open end portion of said working cylinder being of reduced diameter, a crank case having a lateral opening therein, a support cylinder adapted to retain slidingly the open end portion of the working cylinder and having an annular flange adapted to reside on the face of the opening in the crank case, the other end of the support cylinder having an annular groove therein, means to secure the support cylinder to the crank case, a gear collar internally threaded and adapted to be screwed on the working cylinder, a segmental flange bolted to the bottom of the gear collar and adapted to move slidingly in the groove of the support cylinder, a shaft journaled on a boxing supported by the support cylinder, a worm gear thereon to engage the gear collar, substantially as and for the purpose described.

943,599. METHOD OF AND APPARATUS FOR RETURNING FLUE-DUST TO BLAST-FURNACES. WILLIAM B. HUBBARD, Chicago, Ill. Filed Apr. 12, 1909. Serial No. 489,317.



1. The herein described method of effecting the return of flue-dust to a blast furnace, which consists in introducing said flue-dust into the presence of the hot blast on its way to the twyer openings of the furnace, substantially as described.

2. The herein described method of effecting the return of flue-dust to a blast furnace, which consists in subjecting a confined body of flue-dust to a pressure substantially equal to that of the hot blast, and permitting the flue-dust to flow under the influence of gravity into the presence of the latter, substantially as described.

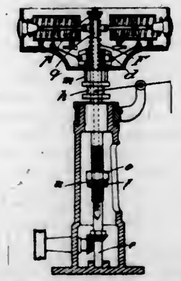
3. The herein described method of effecting the return of flue-dust to a blast-furnace, which consists in introducing into the presence of a confined body of flue-dust a body of air drawn from and having substantially the pressure of the hot blast, and permitting the flue-dust to flow under the influence of gravity into the presence of the latter, substantially as described.

4. In an apparatus for effecting the return of flue-dust to a blast furnace, the combination with an air-blast conducting pipe leading into the furnace, of a flue-dust hopper mounted thereon and communicating therewith, and means for creating in said hopper a pressure substantially equal to that existing in said air-blast conducting pipe, substantially as described.

5. In an apparatus for effecting the return of flue-dust to a blast furnace, the combination with an air-blast conducting pipe leading into the furnace, of a flue-dust hopper mounted thereon and communicating at its lower end therewith, and a pipe connecting said air-blast conducting pipe with the interior of said hopper at a point above the communication of the latter with said air-blast conducting pipe, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

943,600. CENTRIFUGAL REGULATOR. WILHELM JAHNS, Offenbach-on-the-Main, Germany. Filed Oct. 12, 1906. Serial No. 338,649.

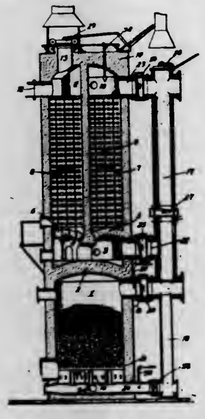


1. In a centrifugal regulator, the combination with a hollow regulator shaft, a slide element, and the usual an-

gle lever connections with the latter, of a drawing rod sliding within the shaft, a cross pin carried by the rod and slidably projecting through the shaft, an adjusting nut mounted on the shaft and coöperating with said pin, an abutment arranged at the upper end of the drawing rod, and an auxiliary spring arranged concentrically on the regulator shaft and turning therewith, said spring being interposed between said abutment and said slide element.

2. In a centrifugal regulator, the combination with a hollow regulator shaft provided with a slitted portion, a slide element, and the usual angle lever connections with the latter, of a drawing rod sliding within the shaft, a cross pin carried by the rod and slidably projecting through the slitted portion of said shaft below said slide element, a nut mounted on said shaft adjacent to said pin and coöperating therewith to adjust said slide element, an abutment arranged at the upper end of the drawing rod, and an auxiliary spring arranged concentrically on the regulator shaft and turning therewith, said spring being interposed between said abutment and said slide element.

943,601. GAS-GENERATOR. JAMES H. JOURDAN, New York, N. Y. Filed Mar. 14, 1908. Serial No. 421,180.



1. In a structure of the class described, the combination of a fire chamber, a carbureter and a superheater, the latter being in communication with one another at one end only, a main passage leading from the fire chamber to the non-communicating end of the carbureter, said passage being further provided with a direct discharge outlet, an intermediate passage leading from the first mentioned passage to the communicating end of the carbureter, valves in said passages for controlling the flow to either end of the carbureter, and a valve for controlling the direct discharge from the main passage, substantially as described.

2. In a structure of the class described, the combination of a fire chamber, a carbureter and a superheater, the latter being in communication with one another at one end only, a main passage leading from the fire chamber to the non-communicating end of the carbureter, said passage being further provided with a direct discharge outlet, an intermediate passage leading from the first mentioned passage to the communicating end of the carbureter, valves in said passages for controlling the flow to either end of the carbureter, a valve for controlling the direct discharge from the main passage, and a valve in the main passage intermediate the connection thereof with opposite ends of the carbureter for enabling either the carbureter or superheater to be by-passed, substantially as described.

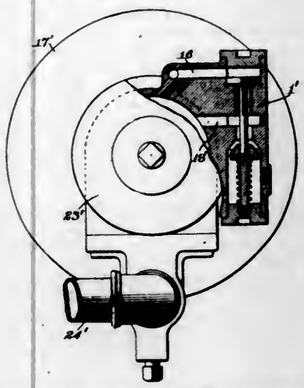
3. In a structure of the class described, the combination of a fire chamber, a carbureter and a superheater, an intermediate chamber between the fire chamber and the carbureter and superheater, said intermediate chamber being in communication with the carbureter and superheater and affording a passage from one to the other, a mixing chamber at the receiving end of the carbureter, a main passage leading from the fire chamber to the mixing chamber, an intermediate passage leading from the main passage to the intermediate chamber, a valve in the main passage controlling the flow to the mixing chamber, and a valve for controlling the flow from the main passage to the intermediate chamber for permitting the carbureter to be by-passed, substantially as described.

4. In a structure of the class described, the combination of a fire chamber, a carbureter and a superheater, an intermediate chamber between the fire chamber and the carbureter and superheater, said intermediate chamber being in communication with the carbureter and superheater and affording a passage from one to the other, a mixing chamber at the receiving end of the carbureter, a main passage leading from the fire chamber to the mixing chamber, an intermediate passage leading from the main passage to the intermediate chamber, a valve in the main passage controlling the flow to the mixing chamber, a valve for controlling the flow from the main passage to the intermediate chamber for permitting the carbureter to be by-passed, a valve in the main passage intermediate the aforesaid valves, and a purge valve for permitting direct discharge from the main passage, substantially as described.

5. In a structure of the class described, a fire chamber, an intermediate chamber and a passageway located above said fire chamber, a carbureter located above said intermediate chamber, a superheater located above said passageway, a mixing chamber located above said carbureter, and a discharge chamber located above said superheater, in combination with a main passage leading from the fire chamber to the mixing chamber, an intermediate passage leading from the main passage to the intermediate chamber, a valve in the main passage controlling the flow to the mixing chamber, a valve in the intermediate passage controlling the flow from the main passage to the intermediate chamber, for permitting the carbureter to be by-passed, a valve in the main passage intermediate the aforesaid valves, and a purge valve for permitting direct discharge from the main passage, substantially as described.

[Claim 6 not printed in the Gazette.]

943,602. AUTOMATIC AIR-BRAKE RETAINING AND RELEASE VALVE. DANIEL F. KNERR, Newark, Ohio. Filed Mar. 29, 1909. Serial No. 486,635.



1. The combination with an air brake system having an auxiliary reservoir and brake cylinder, of a pressure retaining device, comprising a valve casing having a chamber opening through a duct into the said auxiliary reservoir, a piston movable in said chamber and subject to pressure on one side from said auxiliary, said casing having a port on the other side of said piston communicating with the exhaust from said brake cylinder and opening to atmosphere, a valve controlling said last named opening, means coöperating with said piston to move said valve off its seat, and means exerting a pressure having a tendency to seat said valve to close said opening, the said piston when said valve is closed being subject to pressure from the auxiliary tending to move it in one direction and to pressure from the exhaust of the brake cylinder tending to move it in an opposite direction, substantially as described.

2. The combination with an air brake system having a brake cylinder, auxiliary reservoir and triple valve, of a pressure retaining device comprising a valve casing forming an integral part of the casting of the triple valve stem and having a chamber opening through a duct into the said auxiliary reservoir, a piston movable in said chamber and subject to pressure on one side from said auxiliary, said casing having a port on the other side of said piston communicating with the exhaust from said brake cylinder and opening to atmosphere, a valve controlling said last named opening, means coöperating with said piston to move said valve off its seat and means exerting a pressure having a tendency to seat said valve to close said opening, the said piston when said valve is closed being subject to pressure from the auxiliary tending to move it in one direction and to pressure from the exhaust of the brake cylinder tending to move it in an opposite direction, substantially as described.

3. The combination with an air brake system comprising an auxiliary reservoir and brake cylinder, of a pressure retaining device comprising a casing having two chambers opening into a port or recess common to both, said port being connected by a duct to the exhaust from said brake cylinder, one of said chambers being open to atmosphere through said casing and the other chamber connecting with the said auxiliary reservoir, a valve controlling the opening from the exhaust chamber to said common port, a spring the tension of which is exerted to seat said valve, and close said port to atmosphere, a piston movable in the chamber connected to said auxiliary reservoir and subject to pressure both from said auxiliary and from said port, means coöperating with said piston to unseat the said pressure retaining valve, against the tension of said spring, substantially as described.

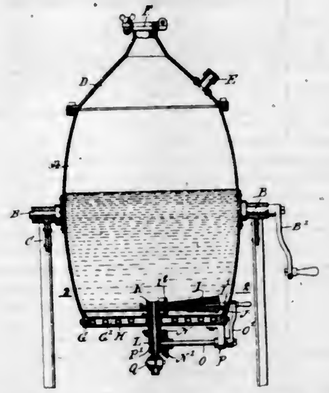
4. The combination with an air brake system comprising an auxiliary reservoir and brake cylinder, of a pressure retaining device comprising a casing having two chambers opening into a port or recess common to both, said port being connected by a duct to the exhaust from said brake cylinder, one of said chambers being constantly open to atmosphere through said casing and the other chamber being in constant connection with the said auxiliary reservoir, a valve controlling the opening from the exhaust chamber to said common port, a spring the tension of which is exerted to seat said valve, a piston movable in the chamber connected to said auxiliary reservoir and subject to pressure both from said auxiliary and from said port, said piston being provided with a stem adapted to engage and unseat the said pressure retaining valve, substantially as described.

943,603. APPARATUS FOR MAKING AND PACKAGING BUTTER. JUSTIN DE LISLE, New York, N. Y. Filed Feb. 15, 1909. Serial No. 477,869.

1. A churn, comprising a vessel sterilized interiorly and adapted to contain the cream, the vessel being mounted to turn to churn the cream into butter globules, a kneading device within the said vessel for kneading the butter globules into a mass, and separate outlets for the buttermilk and the butter.

2. A churn, comprising a vessel for containing the cream and mounted to turn to churn the cream into butter globules, a kneading device within the said vessel for kneading the butter globules into a mass, and means for cooling the portion of the vessel in which the kneading operation is carried on.

3. A churn, comprising a vessel having trunnions at the sides for turning the vessel over end, a kneading device in one end of the said vessel and capable of being actuated from the outside, and cooling means at the end of the vessel containing the said kneading device for cooling this end of the kneading device.

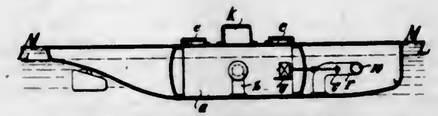


4. A churn, comprising a vessel mounted to turn and provided at one end with a normally closed outlet for the butter and at the other end with a normally closed outlet for the buttermilk, a kneading device in the said vessel at the buttermilk outlet, and capable of being actuated from the outside of the vessel, and a cooling device for the end of the vessel having the said kneading device.

5. A churn, comprising a vessel mounted to turn, means for cooling one end of the vessel, a buttermilk outlet at the cooled end of the vessel, and a butter outlet at the opposite end of the said vessel.

[Claims 6 to 10 not printed in the Gazette.]

943,604. SUBMARINE BOAT. RAYMOND D'EQUEVILLEY-MONTJUSTIN, Kiel, Germany. Filed May 12, 1908. Serial No. 432,547.



1. A submarine boat having a conduit in communication with the outer water and through which water is made to circulate to develop the diving action, the lower portion of said conduit leading in a substantially vertical direction from the bottom of the boat, and means causing a flow of water through said conduit, acting upon the water within said conduit in a direction substantially transverse to the diving direction whereby the reaction of said means is not exerted in a direction to influence the diving action.

2. A submarine boat having a conduit communicating with the outer water, the lower portion of said conduit extending vertically from the bottom of the boat, and the upper portion of said conduit terminating in opposed horizontally presented openings at the sides of the boat, and means for causing a circulation through the conduit, acting upon the water therein in a direction substantially transverse to the diving direction whereby the reaction of said means is exerted in a direction that does not influence the diving action.

3. A submarine boat having a conduit communicating with the outer water and through which the water is caused to circulate in developing the diving action of the boat, said conduit extending for a portion of its length

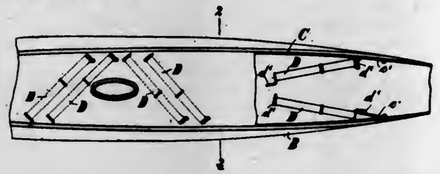
vertically from the bottom of the boat and for a portion of the way in a substantially horizontal direction, terminating in two opposed openings presented in a substantially horizontal direction at the sides of the boat, and two opposed means acting upon the water in the conduit, in a direction substantially transverse to the diving direction, whereby the reactions of said means not only take place in a direction that does not affect the diving operation but are balanced.

4. In a submarine boat, a conduit communicating with the outer water and through which the water is made to circulate in developing the diving action of the boat; said conduit extending in part in a substantially vertical direction from the bottom of the boat and in part in a substantially horizontal direction and terminating in two opposed openings presented in a substantially horizontal direction at the sides of the boat; and means in the horizontal portion of the conduit, acting upon the water therein in a direction substantially transverse to the direction of diving and thereby presenting its reaction against the boat in a direction that does not affect the diving.

5. In a submarine boat, a conduit through which water is caused to flow in developing the diving or counter-diving action of the boat; said conduit communicating with the outer water through a plurality of openings in the bottom of the boat and extending in part vertically from the bottom openings and in part in a substantially horizontal direction and terminating in opposed laterally presented openings through which it communicates with the outer water at the sides of the boat and a plurality of means reacting against one another, acting upon the water in the horizontal portions of the conduit, and in a direction substantially transverse to the diving direction.

[Claims 6 to 8 not printed in the Gazette.]

943,605. SUBMARINE BOAT. RAYMOND D'EQUEVILLEY-MONTJUSTIN, Kiel, Germany. Filed June 11, 1908. Serial No. 437,911.



1. A submarine boat having an inner hull, an outer hull inclosing said inner hull and spaced therefrom, a housing arranged above and exterior to said outer hull, and torpedo tubes arranged within and inclosed by said housing.

2. A submarine boat having spaced inner and outer hulls, a superstructure on said outer hull, and a plurality of torpedo tubes arranged within the superstructure at different oblique angles to the longitudinal axis of the boat, whereby torpedoes may be discharged in a plurality of directions.

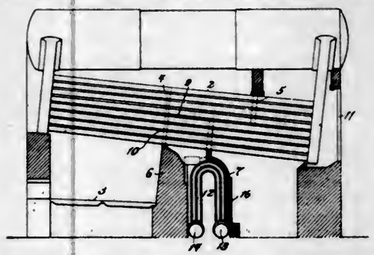
3. In a submarine boat, the combination with the inner hull; of an outer hull inclosing said inner hull and spaced therefrom; a superstructure mounted upon said outer hull and adapted to be filled with sea water when the boat is submerged; torpedo tubes mounted within the superstructure at oblique angles to one another and to the longitudinal axis of the boat, said tubes being adapted to store the torpedoes in positions ready for firing.

4. In a submarine boat, the combination with the inner hull; of an outer hull containing said inner hull; a water containing superstructure extending throughout the length of the boat and conforming to said outer hull; and tubes for storing and ejecting torpedoes mounted in said superstructure, so as to cause them to fill with sea water to replace the torpedoes ejected therefrom.

5. A submarine boat having inner and outer hulls, a superstructure surmounting the outer hull and extending throughout the length of the hull, and torpedo tubes arranged within and inclosed by the superstructure.

[Claims 6 to 11 not printed in the Gazette.]

943,606. SUPERHEATER. FREDERICK D. POTTER, Linden, N. J. Filed Oct. 26, 1905. Serial No. 284,539.

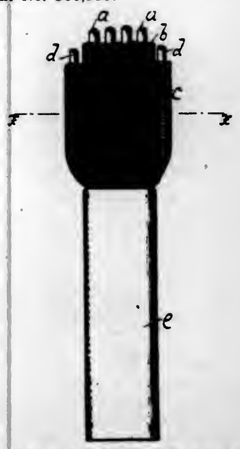


1. A boiler and furnace in combination with a superheater chamber back of the furnace wall below the boiler, separating means between the furnace and said space extending along the entire length of the furnace wall from side to side under the boiler except for an opening near one side of the furnace, said chamber also having an exit opening near the opposite side and at the back of said chamber, superheater devices within said heater and steam pipes for leading steam to and from said superheater devices, substantially as described.

2. In a superheater a group of branch superheater tubes, a common supply pipe with which said tubes communicate at different points along its length, a main steam pipe for leading steam to said common supply pipe and an interior open ended transmitting pipe within said common supply pipe and shorter than the same, communicating with said main steam pipe all arranged so that steam passes from the main steam pipe into said common supply pipe both through and around said interior transmitting pipe, substantially as described.

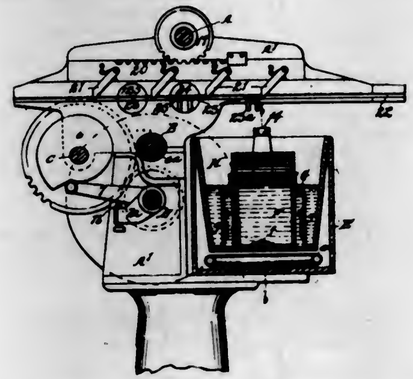
3. A boiler and a furnace under the same in combination with an inclosed superheater chamber, superheater tubes therein connected with the steam space of said boiler, a passage for uncooled gases leading from the fire space below the boiler into the top and at one end of said chamber and a second passage leading from the opposite end of said chamber directly to a point between a part of the boiler and the chimney, whereby the natural draft is made available to carry uncooled gases through the superheater chamber, substantially as described.

943,607. SHOE-LACE AND THE LIKE. HERMANN F. SCHELLING, Weehawken Heights, N. J. Filed June 9, 1909. Serial No. 500,995.



As a new article of manufacture, a shoe-lace comprising elastic strands suitably united to one another by weaving, and a tubular covering for the lace, said covering having each of its edges provided with an elastic strand.

943,608. APPARATUS FOR FORMING CAPSULES. BURTON W. SCOTT, Detroit, Mich., assignor to Arthur Colton Company, Detroit, Mich., a Corporation of Michigan. Filed Sept. 25, 1908. Serial No. 454,731.



1. In an apparatus of the kind described, the combination of a plunger adapted to contain gelatin, so constructed that an excess of gelatin shall pass therefrom, means for reciprocating said plunger, a pin for forming the capsule located above said plunger, said plunger being adapted to be raised until said pin is immersed in the gelatin therein, and means whereby the reciprocation of said plunger acts to force gelatin thereinto.

2. In an apparatus of the kind described, the combination of a plunger adapted to contain gelatin, so constructed that an excess of gelatin shall pass therefrom, means for reciprocating said plunger, a pin for forming the capsule located above said plunger, said plunger being adapted to be raised until said pin is immersed in the gelatin therein, and means whereby the reciprocation of said plunger acts to force gelatin thereinto beneath the surface of the gelatin in said plunger.

3. The combination of a reservoir of gelatin, a plunger adapted to contain gelatin, and means for reciprocating said plunger in said reservoir, said plunger being provided with an inwardly opening valve adapted to permit the entrance of gelatin into said plunger, a pin for forming the capsule located above said plunger, said plunger being adapted to be raised until said pin is immersed in the gelatin therein.

4. The combination of a reservoir of gelatin, a casing G, therein, an inwardly opening valve in said casing, a plunger adapted to fit and reciprocate in the mouth of said casing, an inwardly opening valve in said plunger, a pin for forming the capsule located above said plunger, said plunger being adapted to be raised until said pin is immersed in the gelatin therein.

5. The combination of a reservoir of gelatin, a plunger adapted to reciprocate vertically therein, means for reciprocating said plunger, bars having forming pins therein adapted to slide in ways above said plunger, means for giving said bars an intermittent step by step motion, said plunger being adapted to rise so that the pins on said bars shall be immersed in the gelatin therein at one position of said bars, and means for rotating said bars after they have passed over said plunger.

[Claims 6 to 9 not printed in the Gazette.]

943,609. COKING-FURNACE. LELAND L. SUMMERS, Chicago, Ill. Filed Mar. 19, 1909. Serial No. 484,354.

1. In a coking furnace, means for moving material therethrough from end to end, means for maintaining said material at a progressively increasing temperature from the charging to the discharge end of the retort, and means intermediate the ends of said retort for compelling gases distilled from the less highly heated part of said material to pass through the more highly heated part, in a direction parallel to the radiation of heat thereto.



2. In a coking furnace a retort, means for moving material therethrough from end to end, means for heating said retort, means intermediate the ends of said retort for compelling gases distilled from the cooler freshly charged material to pass through previously charged hotter material having a temperature sufficiently high to decompose said gases and cause the deposition in said material of cementing carbonaceous substances, said means compelling said gases to move through said material in a direction parallel to the radiation of heat thereto.

3. A coking furnace comprising a retort, means for maintaining the discharge end of the retort at a higher temperature than the charging end, means for feeding material into said retort at its cooler end, and means for compelling the gases distilled in the retort from the less highly heated portion of the material to pass through the more highly heated portions in a direction parallel to the radiation of heat thereto.

4. A coking furnace comprising a retort, means for heating said retort to progressively higher temperatures from the charging to the discharge end, means for feeding material to the charging end of said retort and means for conveying said material to the discharge end, and means for compelling the gases distilled at the charging end to pass through the material adjacent the discharge end.

5. In a coking furnace, a retort, a movable floor in said retort, a support for said movable floor, said movable floor being provided adjacent the discharge end of the retort with apertures for the escape of distilled gases.

[Claims 6 to 23 not printed in the Gazette.]

943,610. COKING-FURNACE. LELAND L. SUMMERS, Chicago, Ill. Original application filed Mar. 19, 1909, Serial No. 484,354. Divided and this application filed Oct. 4, 1909. Serial No. 520,929.



1. A coking furnace comprising a retort, a reciprocable floor in said retort, means for feeding material to one end of said floor and for restraining the material against movement except in a direction toward the retort.

2. A coking furnace comprising a retort, a reciprocable floor in said retort, means for feeding material to one end of said floor, means for retaining a body of material above the point at which it is fed to said floor and for restraining the material against movement except in a direction toward the retort.

3. A coking furnace comprising a retort, a reciprocable floor extending through the retort from end to end, means for feeding material to one end of said floor and for restraining the material against movement except in a direction through the retort from the point at which the material is fed thereto.

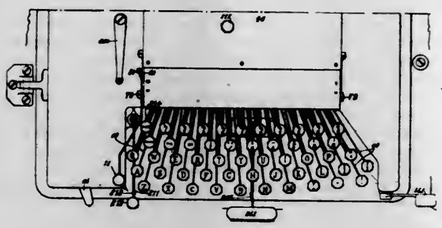
4. A coking furnace comprising a retort, a reciprocable floor extending through the retort from end to end, means

for feeding material to one end of said floor, means for retaining a body of material above the point at which it is fed to said floor and for restraining the material against movement except in a direction toward the retort.

5. In a coking furnace, a retort, a reciprocable floor in said retort, said floor extending throughout the length of said retort and projecting beyond the end of the retort at the charging end, and a retaining and stripping wall above the projecting end of said floor.

[Claims 6 and 7 not printed in the Gazette.]

943,611. MECHANICAL-CONTROLLER COMPOSING-MACHINE. WOOLMAN G. WHITE, Washington, D. C., assignor to Linotype and Machinery Limited, London, England. Filed Sept. 11, 1905. Serial No. 277,878.



1. The combination of a plurality of pricker rollers in alinement with each other; a ribbon roller turning loosely in suitable bearings, the peripheries of both the said rollers adapted to touch and to receive the ribbon between them; and prickers projecting radially from the pricker roller and adapted to pierce the ribbon and the surface of the ribbon roller.

2. The combination of a plurality of pricker rollers in alinement with each other; a ribbon roller turning loosely in rocking bearings, the peripheries of said ribbon roller and of said pricker rollers adapted to touch and to receive the ribbon between them; prickers projecting radially from the pricker rollers and adapted to pierce the ribbon and the surface of the ribbon roller; and yielding means for holding the ribbon roller and the pricker rollers in peripheral contact.

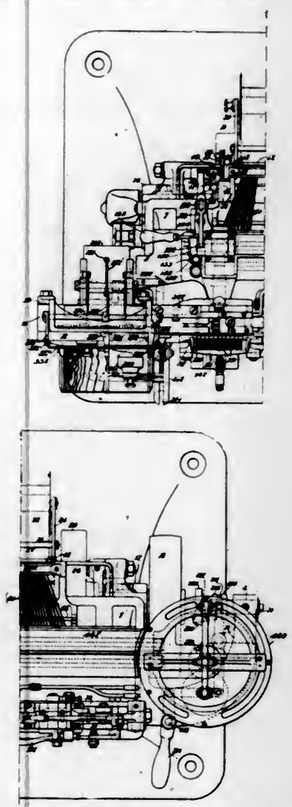
3. The combination of a plurality of pricker rollers in alinement with each other, a ribbon roller parallel therewith, yielding means to keep the ribbon roller in peripheral contact with both the pricker rollers; prickers projecting radially from each of the pricker rollers and adapted to pierce the ribbon and the surface of the ribbon roller; and a ribbon guide in the path of the ribbon adapted to conduct it fairly between the ribbon roller and the pricker rollers.

4. The combination of a plurality of alined pricker rollers; a mechanically operated pawl common to them and adapted to rotate them; an independent detent to lock it; a mechanically reciprocated slide to coöperate with the said pawl by one motion, the other leaving it free; and manual means for then turning the pricker rollers by hand.

5. The combination of key levers, bars working in suitable guides in the key box, adapted to be raised by the depression of the respective keys, to be returned by respective springs; and carrying sets of three pins; sets of three permutation bars adapted to be raised by the rise of the respective sets of pins; sets of three slides reciprocating from front to rear in guides in the key box to engage the respective sets of three intermediate pins; and sets of three bell crank levers fulcrumed within the key box on fixed fulcra, operatively connected with the sets of three slides respectively and capable of moving them to the rear when the respective set of three permutation bars rises.

[Claims 6 to 41 not printed in the Gazette.]

943,612. TYPE CASTING AND COMPOSING MACHINE. WOOLMAN G. WHITE, Washington, D. C., assignor to Linotype and Machinery Limited, London, England. Filed Sept. 17, 1906. Serial No. 335,004.



1. The combination of a pair of feed disks having feed pins; a pivoted plate in which the said disks can turn; a latch to hold the said plate in working position, a spring tending constantly to disengage the latch from the plate; and a finger cam to engage it therewith in opposition to the resistance of said spring.

2. The combination of a pair of feed disks and ratchet wheel; a longitudinally reciprocating slide; a spring finger carried by the said slide to turn the said wheel intermittently by pushing on its teeth successively a beveled nose on the same slide to engage between two adjacent teeth on the wheel; a locking pawl adapted to engage the same ratchet wheel; a spring holding the said pawl in engagement with the said wheel and means for reciprocating the said slide.
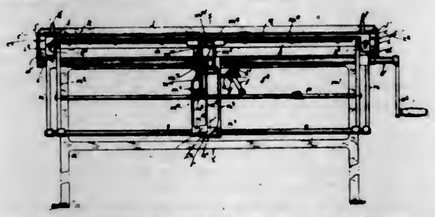
3. The combination of a pair of feed-disks and ratchet wheel; a longitudinally reciprocating slide; a spring finger carried by the said slide to turn the said wheel intermittently by pushing on its teeth successively; a beveled nose on the same slide to engage between two adjacent teeth on the wheel; a locking pawl adapted to engage the same ratchet wheel; a spring holding the said pawl in engagement with the said wheel; means for reciprocating the said slide; and a finger key on said pawl on the side of its pivot opposite to the nose thereof.

4. The combination of selecting pins; springs to engage them in the perforations presented by the controller; levers engaging with the respective selecting pins to disengage them from the said perforations; a rod coöperating with all the said levers and automatic means to make it disengage the engaged selecting pins from the respective perforations; vertical pins in the rocking frame respectively in touch with the said levers to be raised in the said frame by the engagement of the respective selecting pins in the controller; horizontal intermediate pins held by springs in contact with the top ends of the respective vertical pins; coördinate wheels and wheel pins alined with the respective intermediate pins.

5. The combination of selecting pins, a vertical plate, coördinate wheels rotatably mounted therein, longitudinally movable wheel pins carried by said coördinate wheels, and provided with slots, means for operatively connecting the wheel pins with the selecting pins and means engaging with the slots in the wheel pins for lim-

[Claims 6 to 111 not printed in the Gazette.]

943,613. MACHINE FOR REMOVING NAP FROM CARPET-SEAMS. SIMON ZWALD, Portland, Oreg. Filed Feb. 13, 1909. Serial No. 477,805.



1. A nap removing machine comprising a supporting table, a clamping base slidable thereon, means for advancing the clamping base, means for returning the clamping base to its normal position, a clamping bar at the front end of the clamping base, means holding the clamping bar vertically movable, means forcing the clamping bar upon the clamping base, a reciprocating forcep-holder, a plurality of forceps carried thereby, means for reciprocating the forcep-holder, and means operating to bring the members of the forceps together and apart during the reciprocation of the forcep-holder.

2. A nap removing machine comprising a supporting table, a clamping base slidable thereon, means for advancing the clamping base, means for returning the clamping base to its normal position, a clamping bar at the front end of the clamping base, means holding the clamping bar vertically movable, means forcing the clamping bar upon the clamping base, a plurality of pins on the front end of the clamping bar, a reciprocating forcep-holder, a plurality of forceps carried thereby, means for reciprocating the forcep-holder, and means operating to bring the members of the forceps together and apart during the reciprocation of the forcep-holder.

3. A nap removing machine comprising a supporting table, a clamping base slidable thereon, a rock shaft journaled on the table, arms on the ends thereof connected at their extremities with said slidable clamping base, means for rocking the rock-shaft, means for returning the clamping base to its normal position, a clamping bar at the front end of the clamping base, means holding the clamping bar vertically movable, means forcing the clamping bar upon the clamping base, a reciprocable forcep-holder, a plurality of forceps carried thereby, means for reciprocating the forcep-holder, and means operating to bring the members of the forceps together and apart during the reciprocation of the forcep-holder.

4. A nap removing machine comprising a supporting table, a clamping base slidable thereon, means for advancing the clamping base, means for returning the clamping base to its normal position, a roller and bearings in which the same is eccentrically journaled over the clamping base, a clamping bar and staples affixed thereon embracing said roller, means for rotating the roller, a reciprocating forcep-holder, a plurality of forceps carried thereby, means for reciprocating the forcep-holder, and means operating to bring the members of the forceps together and apart during the reciprocation of the forcep-holder.

5. A nap removing machine comprising a supporting table, a clamping base slidable thereon, means for advancing the clamping base, means for returning the clamping base to its normal position, a clamping bar at the front end of the clamping base, means holding the clamping bar vertically movable, means forcing the clamping bar upon the clamping base, a reciprocable forcep-holder movably mounted thereon, a plurality of two-membered forceps carried by said forcep-holder, one of the forcep-members being rigid and the other pivoted, means for operating the pivoting forcep-members as a unit, a crank element, connections arranged to reciprocate the forcep-holder and relatively operate the pivoting forcep-members thereof, and means arranged to impart limited lateral travel to the forcep-holder and then to return the same to its initial position.

[Claims 6 to 26 not printed in the Gazette.]

943,614. TYPOGRAPH APPARATUS. CASSIUS F. BLACKLIDGE, Washington, D. C. Filed July 8, 1909. Serial No. 506,552.



1. A typograph apparatus, comprising a casing, a sensitized photographic sheet contained therein, a flexible negative, a shutter, and means actuated by the movement of the shutter to cause a portion of the negative to flex against the sensitized sheet as an exposure is made.

2. A typograph apparatus, comprising a casing having an exposing aperture, a flexible negative mounted within the casing and adjacent to said aperture, a transparent block movable within said aperture, a shutter, and means actuated thereby and adapted to press the block against the negative and flex a portion thereof temporarily against the printing sheet as an exposure is made.

3. A typograph apparatus, comprising a casing having an exposing aperture, a flexible negative mounted within the casing and adjacent to said aperture, a transparent block movable within said aperture, a shutter, springs actuated by the movement of the shutter and adapted to move said block against the sensitized sheet of paper as the shutter is opened.

4. A typograph apparatus, comprising a casing having an exposing aperture, a flexible negative mounted within the casing and adjacent to said aperture, a transparent block movable within said aperture, a shutter, springs fastened to the casing and adapted to bear yieldingly against the outer face of said block as the shutter presses against said spring to cause the block to be moved against the negative and flexed temporarily a portion thereof against the printing surface of said sheet as the shutter is opened.

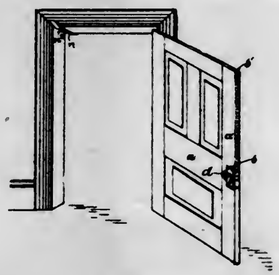
5. A typograph apparatus, comprising a casing having an exposing aperture, a flexible negative mounted within the casing and adjacent to said aperture, a transparent block mounted within said aperture, means for retaining said block within the latter, a spring fastened to the casing and projecting into said opening, a shutter engaging said spring and causing the block to be depressed against the negative to flex temporarily a portion thereof against the sensitized surface of said sheet as the shutter is moved to make an exposure.

[Claims 6 to 15 not printed in the Gazette.]

943,615. LATCH-LOCK FOR SWINGING DOORS. ROBERT BUETIKOFER and GOTTLIEB HOFFMAN, Portland, Oreg. Filed Mar. 6, 1909. Serial No. 481,845.

1. The combination of a door casing, a keeper on the top cross-member thereof, said-keeper comprising two re-

silient inclined members, the opposing free ends of which are arranged to provide an intermediate bolt-space, a swinging door hinged to the casing, a vertically reciprocable latch-bolt on the outer edge of the door and arranged to be projected above the top of the latter, a lock in the door, into the case of which lock the lower end of the latch-bolt extends, said lock including a spindle and a knob and operating connections to retract the latch-bolt, a spring in the lock arranged to normally project said latch-bolt, and means for temporarily holding the latch-bolt against projection by said spring.

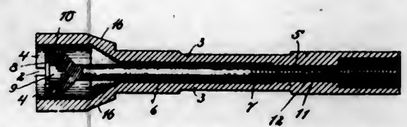


2. The combination of a door casing, a keeper on the top cross-member thereof, said keeper comprising two resilient inclined members, the opposing free ends of which are arranged to provide an intermediate bolt-space, a swinging door hinged to the casing, a vertically reciprocable latch-bolt on the outer edge of the door and arranged to be projected above the top of the latter, a lock in the door, into the case of which lock the lower end of the latch-bolt extends, said lock including a spindle and a knob and operating connections to retract the latch-bolt, a spring in the lock arranged to normally project said latch-bolt, means for temporarily holding the latch-bolt against projection by said spring, said holding means including and being operable by a push bolt, and means to lock the latch-bolt against retraction by operating the door spindle.

3. The combination of a door casing, a keeper on the top cross-member thereof, said keeper comprising two resilient inclined members, the opposing free ends of which are arranged to provide an intermediate bolt-space, a swinging door hinged to the casing, a vertically reciprocable latch-bolt on the outer edge of the door and arranged to be projected above the top of the latter, a lock in the door, into the case of which lock the lower end of the latch-bolt extends, said lock including a spindle and a knob and operative connections to retract the latch-bolt, a spring in the lock arranged to normally project said latch-bolt, means for temporarily holding the latch-bolt against projection by said spring, said holding means including and being operable by a push bolt, a reciprocating locking bolt arranged to be engaged with the lower end of the latch-bolt to prevent the retraction of the latter by the rotation of the spindle, and means controllable by a key for securing the locking bolt in its projected and retracted positions.

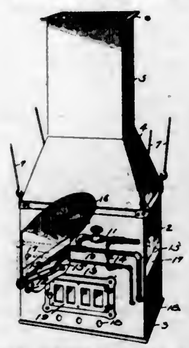
4. The combination of a door casing, a keeper on the top cross-member thereof, said keeper comprising two resilient inclined members, the opposing free ends of which are arranged to provide an intermediate bolt-space, a swinging door hinged to the casing, a vertical reciprocable latch-bolt lying in a groove in the outer edge of the door and adapted to project above the top of the latter, and means retaining said bolt in said groove, a lock in the door, into the case of which lock the lower end of the latch-bolt extends, said lock including a spindle and a knob and operative connections to retract the latch-bolt, a spring in the lock arranged to normally project said latch-bolt, means for temporarily holding the latch-bolt against projection by said spring, said holding means including and being operable by a push bolt, a reciprocating locking bolt arranged to be engaged with the lower end of the latch-bolt to prevent the retraction of the latter by the rotation of the spindle, and means controllable by a key for securing the locking bolt in its projected and retracted positions.

943,616. CHUCK. LOUIS W. HOLUB, New York, N. Y., assignor to Holub-Dusha Co., New York, N. Y., a Corporation of New York. Filed Nov. 23, 1908. Serial No. 463,969.



A chuck having jaws and a cylindrical bore open at both ends and leading from the space between the jaws to the rear of the chuck, said bore being internally screw-threaded, a stem within said bore which is screw-threaded to engage the threads of the bore, and being adjustable lengthwise of the bore to recess its head end to a greater or less extent within the mouth of the chuck, said head end forming a backing for the object held between the jaws, and a pointed screw plug engaging the threads of the bore with its point directed toward the rear end of the stem and adapted to abut against it.

943,617. GAS HEATING APPARATUS. WILLIAM E. LAWSON, Homestead, Pa., assignor to Lawson Manufacturing Company, Homestead, Pa., a Corporation of Pennsylvania. Filed May 14, 1908. Serial No. 432,863.

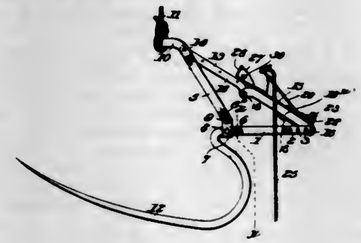


1. A gas furnace comprising a casing open at the top to deliver heated air to a register, imperforate deflectors extending inwardly from the walls of the casing and sloping upwardly whereby air can flow upward only around the inner edges of the deflectors, gas burners beneath the deflectors, and means above the deflectors for laterally deflecting heat currents flowing upwardly around the deflectors, the casing above the deflectors having lateral air inlets, substantially as described.

2. Gas heating apparatus comprising a casing, deflectors inclined inwardly and upwardly from opposite walls of the casing with the ends and lower edges thereof meeting the walls of the casing whereby air from beneath can pass upwardly only around the upper edges of the deflectors, the casing above the deflectors being open immediately above the lower edges of the deflectors for the admission of external air, gas burners beneath and adjacent to the deflectors, and a baffle plate spaced upwardly from the deflectors.

943,618. HORSE HAY-FORK. MARVIN D. MAIN, Cortland, N. Y.; Ellen D. Main administratrix of said Marvin D. Main, deceased. Filed Mar. 2, 1908. Serial No. 418,698.

1. In a hay-fork of the class described, the combination of a frame comprising pivotally connected members, a pair of tines rigidly secured to two of said frame-members, a brace pivotally connected to the frame and composed of two hinged sections adapted to be set in position to maintain the frame-members in rigid condition for holding the tines in operative position, and a trip-lever pivoted at one end to one brace-section and having its free end provided with means for connecting it with a lost-motion to the hinged portion of the brace as and for the purpose set forth.



2. In a hay-fork of the class described, the combination of two frame-members consisting of forwardly divergent bars having the tines rigidly connected to the forward ends and having their adjacent ends rigidly united by a transverse portion, a bail pivoted to the forward ends of said frame-members, a brace composed of two hinged sections, one section pivoted to the central portion of the bail, and the other section pivoted to the aforesaid transverse uniting portion of the frame-members, said brace-sections being adapted to be set in alinement or approximate alinement to effect a rigid connection between the frame-members and bail to hold the tines in operative position, a trip-lever pivoted at one end to the brace adjacent to its connection with the two frame-members and adapted to lie over the brace, and means connecting the free end of the lever to the brace as and for the purpose set forth.

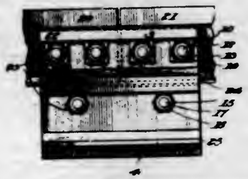
3. In a hay-fork of the class described, the combination of two frame-members rigidly united at one end, a bail pivotally connected to the other ends of said frame-members, a pair of tines connected to the respective frame-members, an adjustable brace connecting the frame-members and bail for the purpose stated, and a tripping-device mounted on the brace as set forth.

4. In a hay-fork of the class described, the combination of two frame-members consisting of bars arranged divergently from each other and adapted to lie in substantially horizontal planes, a pair of metal straps rigidly secured to the adjacent ends of the frame-members and united by an integral plate having its central portion formed round in cross-section, a bail pivotally connected to the opposite ends of said frame-members, a pair of tines formed integral with said latter ends, a brace composed of two hinged sections, one section pivoted to the bail, and the other section provided with a metal strap formed with a transverse eye by which said section is pivoted to the central portion of the aforesaid plate, a trip-lever pivoted at one end to said strap adjacent to the eye, and means connecting the free end of the lever to the brace adjacent to the hinge thereof as and for the purpose set forth.

5. In a hay-fork of the class described, the combination of two frame-members, the tines rigidly connected to the frame-members, a bail pivotally connected to said frame-members, a brace composed of two hinged sections pivoted respectively to the bail and frame-members and adapted to be set substantially in alinement to maintain a rigid connection between the parts for holding the tines in operative position, a metal strap secured to one of the brace-sections and extending beyond the hinge and terminating in a deflected apertured portion, said strap being formed with a pair of ears adjacent to the pivot of the section, a trip-lever pivoted between said ears and adapted to extend over the strap when the brace-sections are in the aforesaid position, and means connecting the free end of the lever to the deflected portion of the strap for the purpose set forth.

[Claim 6 not printed in the Gazette.]

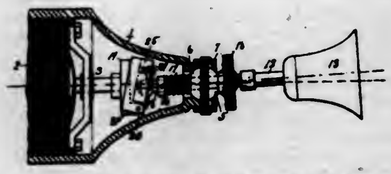
943,619. RAILWAY-RAIL SPLICE. ISRAEL N. PERNOVICH, New York, N. Y. Filed Apr. 15, 1907. Serial No. 368,322.



1. In combination with the abutting ends of railway-rails, the two splice-plates, herein described, each plate comprising integrally a top-flange, fitting against the tread of the top flanges of the rails, an upright-member, continuous with the top-flange, a middle flange, consisting of an oblique member, continuous with the upright member, and adapted to rest on the inclined surfaces of the bottom flanges of the rails, and a horizontal member, continuous with and turned under the oblique member, having the continuous rib 2, and adjacent to the latter, the continuous notch 5, an upright member, continuous with and turned downwardly at right angles to, the horizontal member of the middle flange, and a bottom flange, continuous with the last described upright-member, substantially as specified.

2. In combination with the abutting ends of railway-rails, the two splice-plates, herein described, each plate comprising integrally a top-flange, fitting against the tread of the top flanges of the rails, and having the continuous rib 3, an upright member, continuous with the top flange, a middle flange, consisting of an oblique member, continuous with the upright member, and adapted to rest on the inclined surfaces of the bottom flanges of the rails, and a horizontal member, continuous with and turned under, the oblique member, having the continuous rib 2, and adjacent to the latter, the continuous notch 5, an upright member, continuous with and turned downwardly at right angles to, the horizontal member of the middle-flange, and a bottom flange, continuous with the last described upright member; the bolts 10, having the heads 11; the nuts 14, the frames 13, and the washers 12; the bolts 15, having the heads 16; the nuts 18 and the frames 17; and the tap-bolts 23, substantially as specified.

943,620. VIBRATOR. ALFRED J. STECKEL, Detroit, Mich., assignor to Eureka Vibrator Co., Detroit, Mich., a Corporation of Michigan. Filed Apr. 1, 1909. Serial No. 487,371.



1. In a vibrator, a frame, a rotary member thereon, a socket member hinged to said rotary member, a pivotal joint on said frame, a pivoted arm mounted in said joint to move longitudinally therethrough, an applicator on the outer end of said arm, a ball on the inner end of said arm lying in the socket of said hinged member, and means for moving said arm longitudinally.

2. A vibrator, comprising a frame, a rotary member thereon, a socket member hinged to the rotary member

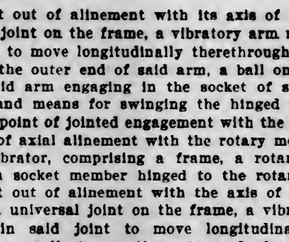
at a point out of alinement with its axis of rotation, a universal joint on the frame, a vibratory arm mounted in said joint to move longitudinally therethrough, an applicator on the outer end of said arm, a ball on the inner end of said arm engaging in the socket of said hinged member, and means for swinging the hinged member to carry the point of jointed engagement with the arm therewith out of axial alinement with the rotary member.

3. A vibrator, comprising a frame, a rotary member thereon, a socket member hinged to the rotary member at a point out of alinement with the axis of the rotary member, a universal joint on the frame, a vibratory arm mounted in said joint to move longitudinally therethrough, an applicator on the outer end of said arm, a ball on the inner end of said arm engaging in the socket of the hinged member, and means for adjusting said arm longitudinally through the universal joint to adjust said hinged member.

4. A vibrator, comprising a frame, a universal joint on the frame, a vibratory arm mounted in said joint to move longitudinally therethrough, an applicator on the outer end of said arm, a rotary member on the frame, a member having a hinged connection with the rotary member at a point out of axial alinement therewith, the inner end of said arm having a jointed connection with said hinged member, and means for moving the arm longitudinally through the universal joint to adjust the connection between the hinged member and said arm.

5. A vibrator, comprising a frame, a universal joint on the frame, a vibratory arm mounted in said joint to move longitudinally therethrough, an applicator connected with the outer end of said arm, a rotary member on the frame, a member hinged to the rotary member at a point out of axial alinement therewith, said hinged member having a socket therein normally in axial alinement with said rotary member, a ball upon the inner end of the vibratory arm engaging in the socket of the hinged member, and means exterior of the frame for adjusting the vibratory arm longitudinally through said universal joint to move the point of jointed connection between said arm and the hinged member out of axial alinement with said rotary member.

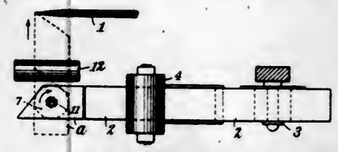
943,621. CHANGE-SPEED GEARING. LARZ W. ANDERSON and ARISTIDES R. MURRAY, Cincinnati, Ohio. Filed Jan. 3, 1908. Serial No. 409,215.



In combination with the initial shaft of a machine and a journal for said shaft projecting beyond the outer wall of said machine, a speed box mounted on said journal, a bracket secured to the wall of said machine supporting said speed box, a driving shaft, and a shaft intermediate of said shafts, said speed box having bearings formed therein for said shafts, and gearing mounted on said three shafts with mechanism adapted to change the relations of said gearing, substantially as and for the purpose described.

943,622. PAPER-FEED MECHANISM. WOLFF BENJAMINOWITSCH, Berlin, Germany, assignor of one-half to Albert Lohmann, Berlin, Germany. Filed Feb. 11, 1908. Serial No. 415,375.

1. In a paper feed mechanism such as described, the combination of means to initially feed pieces of paper, an oscillating table adapted to receive the pieces from the feeding means, means for turning said table alternately in opposite directions through an angle of substantially only 90°, and means for removing the pieces from the table.

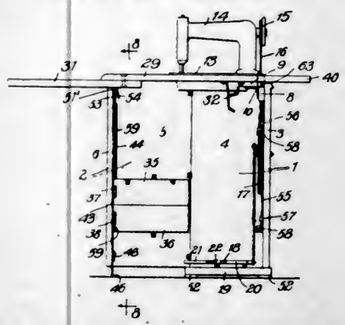


2. In a paper feed mechanism such as described, the combination of means to initially feed pieces of paper, an oscillating means adapted to receive the pieces of paper from the feeding means, means for turning said oscillating means alternately in opposite directions through an angle of substantially 90°, and means for removing the pieces from the oscillating means.

3. In a paper feed mechanism such as described, having means for supporting pieces of cardboard, means for turning said supporting means at an angle of substantially 90° only, alternately in opposite directions.

4. In a paper feed mechanism, the combination, with a mandrel, of means for feeding pieces of cardboard in a direction parallel to the axis of the mandrel, a table adapted to receive the pieces from the feeding means, means for turning said table alternately in opposite directions through an angle of substantially only 90°, and means for removing the pieces from the table.

943,623. SEWING-MACHINE STRUCTURE. VICTOR BLOOM, Chicago, Ill. Continuation of application Serial No. 383,809, filed July 15, 1907. This application filed Jan. 11, 1909. Serial No. 471,583.



1. In a structure of the class described, the combination of two angular sections hinged together, a base member for one of said sections, said sections being adapted to be swung to open position to form an open compartment and to be swung to a closed position to form a closed compartment with said base member, a machine table hinged to one of said sections, shelf members pivoted to the front edge of said table, a machine head supported by the table and adapted to be swung from a vertical to a reclining position, said table being adapted to be swung downwardly into vertical position before the sections are folded together, a hook member carried by one of the shelf members, said hook member serving to receive and to support the machine head when the table has been swung into vertical position, and a cover hinged to one of the sections for closing the compartment formed by the folded together sections.

2. In a structure of the class described, the combination of two frame sections hinged together to be swung to an open position and to a closed position, a base member for one of said sections, said sections when in open position forming an open compartment, and said sections when in closed position forming a cabinet with said base, a machine table hinged to a top edge of one of said sections and adapted when in horizontal operative position to rest on a top edge of the other section, a machine head on said table, a U-shaped frame pivoted at its ends to the machine head and at its base being pivoted in a slot formed in the machine table, said machine head being adapted to be swung with said pivot frame from a vertical position to a position parallel to the table, a shelf member extending forwardly from the front edge of the table, said table being adapted to be swung downwardly into one of said sections to assume a vertical position therein, and a hook carried by the shelf member for receiving and supporting the head when the table is swung to a vertical position.

3. In a structure of the class described, the combination of a vertical supporting frame, a machine table pivoted at one end to the supporting frame and adapted to be swung downwardly into said frame to assume a vertical position, a machine head on said frame, a shelf member extending from the front edge of said table and a hook on said shelf member for receiving and supporting the machine head when the table is swung into vertical position.

4. In a structure of the class described, the combination of a vertical supporting frame, a machine table pivoted at one end to the upper edge of said supporting frame and adapted thereby to assume a horizontal operative position or a vertical position within the supporting frame, a machine head supported by the table when in its horizontal position, a shelf member pivoted to the front edge of said table, a hook member carried by the shelf member, said shelf member being adapted to be swung against the table to carry the hook member into position adjacent the machine head, said head being received and supported by the hook when the table is swung to its vertical position.

5. In a structure of the class described, the combination of a vertical supporting frame, a machine table pivoted at one end to the upper edge of said supporting frame and adapted thereby to assume a horizontal operative position or a vertical position within the supporting frame, a machine head supported by the table when in its horizontal position, a shelf member pivoted to the front edge of said table, a hook member carried by the shelf member, said shelf member being adapted to be swung against the table to carry the hook member into position adjacent the machine head, said head being received and supported by the hook when the table is swung to its vertical position, and an additional framework for cooperating with the supporting framework to form an inclosing cabinet for the machine table and head.

[Claims 6 to 10 not printed in the Gazette.]

943,624. RIBBON-FEEDING MECHANISM. ROBERT B. CRAIG and ALBERT COFFMAN, Kansas City, Mo., assignors to Automatic Vending Machines Company, Kansas City, Mo., a Corporation of New Mexico. Original application filed Nov. 30, 1908, Serial No. 465,182. Divided and this application filed Apr. 12, 1909. Serial No. 489,456.



1. A ribbon feeding mechanism comprising winding spools, ratchets having driving connection therewith, a reciprocating bar carrying pawls loosely mounted thereon and adapted to intermittently engage the ratchets and drive the spools, means connecting the active ends of the pawls whereby to effect positive alternate operative and inoperative positions thereof, and means for effecting such positions of the pawls upon the unwinding of one of the spools.

2. A ribbon feeding mechanism comprising winding spools, ratchets having driving connection therewith, a reciprocating bar carrying pawls loosely mounted thereon and adapted to intermittently engage the ratchets, means connecting the operative ends of the pawls for keeping the active pawl in positive engagement with its ratchet and the inactive pawl out of engagement with its ratchet, and means for causing the active pawl to over-ride its ratchet and bring the inactive pawl into operation to effect reverse winding of the ribbon.

3. A ribbon feeding mechanism comprising winding spools, ratchets having driving connection with said spools, pawls adapted to drive said ratchets, a reciprocating bar carrying said pawls, the pawls and ratchets being oppositely acting, said pawls being yoked together at their active or engaging ends so that when either ratchet resists driving motion of its pawl, the pawl yields and trips on the ratchet for the purpose of shifting the position of the pawls and reversing the wind of the ribbon.

4. In a ribbon feeding mechanism, the combination of the spools, the driving ratchets for the spools, the pawls coöperating with said ratchets, the bar connecting the pawls at their active or engaging ends and the reciprocating bar upon which the pawls are mounted; the pawls being connected directly to the bar through the medium of slots and pins, and the bar being provided with springs for depressing the pawls into engagement with their ratchets.

5. In combination with the spools, their ratchets, and the coöperating pawls; the reciprocating bar upon which the pawls are directly mounted, the bar connecting the pawls at their active or engaging ends, the parallel arms supporting said reciprocating bar, the rock shaft from which said arms project and a crank arm extending from one of said shafts and having suitable connection with driving mechanism for the purpose set forth.

[Claim 6 not printed in the Gazette.]

943,625. APPARATUS FOR ANNEALING FLATS AND OTHER SHAPES. FRED H. DANIELS, Worcester, Mass. Original application filed Dec. 8, 1908, Serial No. 466,471. Divided and this application filed Mar. 6, 1909. Serial No. 481,593.



1. Apparatus for annealing flats and other metal sections, comprising an annealing furnace, unreeling apparatus at one end of the furnace, a mass of carbonaceous material beyond the furnace, means to exclude the air from the flats during their passage from the furnace to and through the carbonaceous material, and re-reeling or take-up apparatus beyond the carbonaceous material; substantially as described.

2. Apparatus for annealing flats and other metal sections comprising an annealing furnace, unreeling apparatus at one end of the furnace, an inclosed cooling chamber containing carbonaceous material at the opposite end of the furnace, and re-reeling or take-up mechanism beyond the cooling chamber, and means to exclude the air from contact with the flats during their passage through the apparatus; substantially as described.

3. Apparatus for annealing flats and other metal sections, comprising an annealing furnace, unreeling apparatus at one end of the furnace, re-reeling or take-up apparatus at the other end of the furnace, a cooling chamber containing a mass of carbonaceous material intermediate of the re-reeling or take-up apparatus and the adjacent end of the furnace, and closed guides for guiding the flats or other sections from the furnace into the cooling chamber; substantially as described.

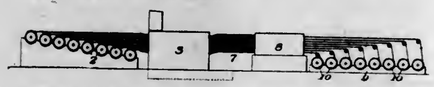
4. In apparatus for annealing flats and other metal sections, an annealing furnace having a longitudinally extending series of sectional bricks therein, said bricks having

longitudinal openings therethrough formed between the sections of said bricks to provide passages for the articles to be annealed, and also having transverse openings between adjacent bricks; substantially as described.

5. In apparatus for annealing flats and other metal sections having therein a longitudinally extending series of sectional bricks having longitudinal openings between the sections of said bricks placed one upon another and forming therein a plurality of longitudinally extending passages one above the other for the articles to be annealed, said bricks also having transverse openings between adjacent bricks for conducting heat over and under said passages; substantially as described.

[Claims 6 to 16 not printed in the Gazette.]

943,626. APPARATUS FOR ANNEALING FLATS AND OTHER SHAPES. FRED H. DANIELS, Worcester, Mass. Original application filed Dec. 8, 1908, Serial No. 466,472. Divided and this application filed Mar. 6, 1909. Serial No. 481,594.



1. In apparatus for annealing flats or other metal sections, an annealing furnace having a longitudinally extending series of lead containing receptacles, said receptacles having openings at their ends through which the articles to be annealed enter, means to cool the flats beyond the furnace, and means to surround the flats with a non-oxidizing atmosphere during their passage from the lead bath through the apparatus; substantially as described.

2. In apparatus for annealing flats or other metal sections, an annealing furnace having a longitudinally extending series of closed lead-containing receptacles therein, each of said receptacles having upwardly extending open ends provided with guides to receive the articles to be annealed, means to cool the flats beyond the furnace, and means to prevent the flats from contacting with the air during their passage from the lead bath through the cooling apparatus; substantially as described.

3. In apparatus for annealing flats or other metal sections, an annealing furnace having a longitudinally extending series of closed lead containing receptacles therein, each of said receptacles having upwardly extending open ends provided with guides to receive the articles to be annealed, means to cool the flats beyond the furnace, and means to surround the flats with a non-oxidizing atmosphere during their passage through the apparatus, substantially as described.

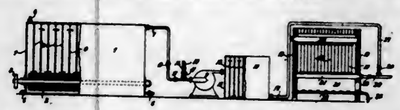
4. In apparatus for annealing flats and other metal sections, an annealing furnace containing a lead bath, means for guiding the articles to be annealed into and out of the bath, means to cool the flats beyond the furnace, and means to surround the flats with a non-oxidizing atmosphere during their passage through the apparatus beyond the lead bath; substantially as described.

5. Apparatus for annealing flats and other metal sections, comprising an annealing furnace containing a lead bath, means to cool the flats beyond the furnace, means to retain flats from contacting with the atmosphere during their passage from the lead bath through the cooling means, unreeling apparatus at one end of the furnace and re-reeling or take-up apparatus beyond the cooling means; substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

943,627. MANUFACTURE OF GAS FOR ILLUMINATING, HEATING, OR POWER PURPOSES. HERBERT S. ELWORTHY, St. Albans, England; Ellen Gertrude Elworthy administratrix of said Herbert S. Elworthy, deceased. Filed May 15, 1905. Serial No. 260,401.

1. A process for the manufacture of gas rich in methane for illuminating, heating or power purposes, said process consisting in production of a gas produced by destructive distillation of carbonaceous material, separating therefrom hydrocarbons other than methane and afterward passing the gas over metallic nickel at a suitable temperature to produce methane and water, the methane produced becoming mixed with the residue of the gas.



2. A process for the manufacture of gas for illuminating, heating or power purposes, said process consisting in the production of a gas produced by destructive distillation of carbonaceous material, separating therefrom hydrocarbons other than methane and afterward passing the gas over metallic nickel in the presence of hydrogen in substantially theoretical proportion for the conversion of oxid of carbon present into methane and water, and at a suitable temperature for such conversion.

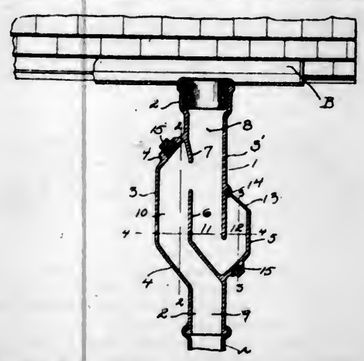
3. A process for the manufacture of gas for illuminating, heating or power purposes, said process consisting in the production of a gas produced by destructive distillation of carbonaceous material, separating therefrom hydrocarbons other than methane, mixing therewith a combustible gas rich in oxid of carbon and passing the mixture of gases over metallic nickel at a suitable temperature for the production of methane and water the methane produced becoming mixed with the residue of the gas.

4. A process for the manufacture of gas for illuminating, heating or power purposes, said process consisting in the production of a gas by destructively distilling carbonaceous material, separating therefrom hydrocarbons other than methane, blending therewith any form of water gas and passing the mixture of gases over metallic nickel at a suitable temperature to convert oxid of carbon and hydrogen present therein into methane and water.

5. A process for the manufacture of gas for illuminating, heating or power purposes, said process consisting in the production by destructively distilling carbonaceous material, of a gas containing carbon monoxid and carbon dioxid, separating therefrom hydrocarbons other than methane and afterward passing the gas first over metallic nickel at a suitable temperature to convert the monoxid and a portion of the hydrogen present into methane and water and passing the resulting gas over a further quantity of nickel at a suitable temperature for the conversion of the dioxid and a further quantity of hydrogen, substantially as described.

[Claims 6 to 21 not printed in the Gazette.]

943,628. TAR AND DEBRIS TRAP. GEORGE R. EVANS, Berkeley, Cal. Filed Apr. 16, 1909. Serial No. 490,225.

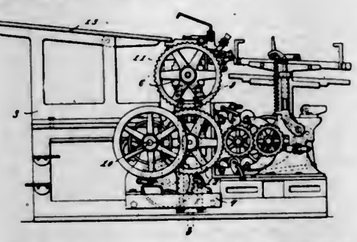


1. A trap of the character described comprising a water inlet, a deflecting plate projecting into said inlet, a debris cup formed integral with said trap and extending beyond the body thereof, said trap being located beneath said water inlet, the side plate of the body of said trap extending into said debris cup to form a water seal, a closure plate for said cup pivoted upon the side of the body of the trap, and a water outlet, substantially as and for the purpose set forth.

2. A trap of the character described comprising a substantially rectangular body portion, an upper and lower water inlet and outlet, a deflecting plate formed integral with the body of said trap and projecting into said inlet opening, a debris cup located within said inlet and projecting beyond the body of said trap, one side of said trap projecting into said debris cup to form a water seal, the inner wall of said cup being disposed beyond the lower edge of said deflecting plate, a pivoted closure for said cup, and cleanout openings formed in the bottom of said cup and in said trap, substantially as and for the purpose set forth.

3. A trap of the character described comprising a substantially rectangular body portion having upper and lower cylindrical inlet and outlet openings, the lower portion of the body of said trap being disposed at an angle, a partition plate extending in parallel relation to the wall of said trap, a deflecting plate projecting into said inlet opening, the lower edge of said plate being disposed out of vertical alinement with said partition plate, a laterally and upwardly extending plate formed integral with the body of said trap and disposed beyond the side thereof, the side wall of said trap projecting below the top of said last mentioned plate and said partition plate, closure plates for said debris cup pivoted to one side of the body of said trap and normally disposed at an angle thereto, and cleanout plugs in the bottom of said debris cup and the side of said trap, substantially as and for the purpose set forth.

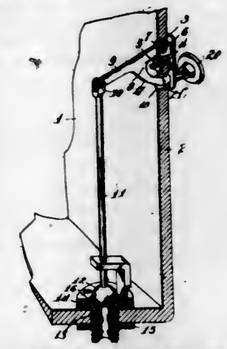
943,629. PRINTING-PRESS. WILLIAM F. S. FERRY, Philadelphia, Pa. Original application filed July 15, 1908, Serial No. 443,694. Divided and this application filed Apr. 5, 1909. Serial No. 487,994.



In a printing press, in combination a form cylinder, an impression cylinder mounted above the form cylinder, lifting springs, supporting the impression cylinder, boxes in which the form cylinder is journaled, impressing rods connected with the impression cylinder and passing through the boxes of the form cylinder, means for exerting a downward pull on the said rods to lower the impression cylinder into operative relation to the form cylinder, the form and impression cylinders being provided in the peripheral portions thereof with matching depressions or recesses, ends of which are inclined to the larger peripheral portions, the said depressions being caused to approach one another just before the printed sheet reaches the form, and inking mechanism.

943,630. PUSH-BUTTON MECHANISM FOR FLUSH-VALVES. WALTER J. FROST, Kenosha, Wis., assignor to The Frost Manufacturing Company, Kenosha, Wis., a Corporation of Wisconsin. Filed May 26, 1909. Serial No. 498,432.

1. The combination with a flushing tank having a discharge outlet, of a valve controlling said outlet, a connecting rod for said valve, a supporting bracket, an actuating lever pivoted at one end to said rod, at its other to said bracket, a downwardly projecting push rod integrally connected with said lever intermediate the ends of the latter, said push rod extending through the side wall of the tank whereby the valve may be operated from the outer side of said tank.

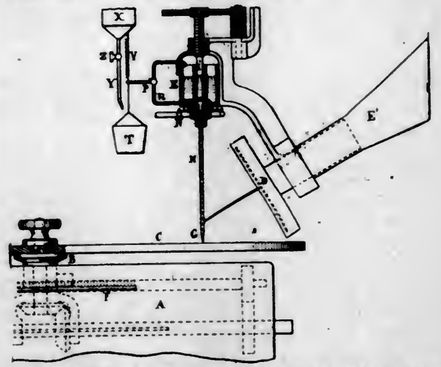


2. The combination with a flushing tank having a discharge outlet, of a valve controlling said outlet, a connecting rod for said valve, an actuating lever pivoted at one end of said rod and at its other pivotally connected to the tank, a downwardly projecting push rod integrally connected with said lever, said push rod extending through the side wall of the tank, whereby the valve may be operated from the outer side of said tank.

3. The combination with a flushing tank, of a valve member, a lifter rod therefor, an actuating lever pivotally connected at one end to the tank, and at its other to said rod, and a push rod rigidly connected to said lever at one end extending downwardly, and having its other end extending through the tank whereby the valve may be operated from the outer side of said tank.

4. The combination with a flushing tank having a discharge outlet, of a valve controlling said outlet, a lifter rod for said valve, a supporting bracket secured to the outer side of said tank, an actuating lever pivotally connected at one end to said rod and at its other to said tank, a downwardly extending curved push rod rigidly secured to said lever intermediate the ends of the latter, said rod having its free end extending through the side to the tank, and a push button for said rod.

943,631. MANUFACTURE OF RECORDS FOR SOUND-REPRODUCING MACHINES. ROBERT L. GIBSON, Philadelphia, Pa. Original application filed June 14, 1907, Serial No. 379,712. Divided and this application filed Aug. 17, 1907. Serial No. 398,001.



1. As a new article of manufacture, an original metal master sound record formed of an electroplated disk with a record groove.

2. As an article of manufacture, a metallic sound record tablet in which the record groove is of increasing cross section throughout its length.

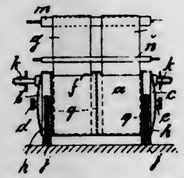
3. As an article of manufacture, a sound record tablet in which the record groove is of increasing width throughout its length.

4. As an article of manufacture, a sound record tablet in which the record groove is in spiral form of even depth and laterally undulating and of increasing width throughout its length.

5. A master record having a sound groove of increasing width throughout its length.

[Claims 6 to 10 not printed in the Gazette.]

943,632. APPARATUS FOR TREATING FABRICS WITH FLUIDS. EMIL GMINDER, Reutlingen, Germany. Original application filed June 24, 1908. Serial No. 440,191. Divided and this application filed Mar. 23, 1909. Serial No. 485,286.



1. An apparatus of the kind described comprising a holder having curved walls and an opening in said curved walls, means for oscillating said holder about a substantially horizontal eccentric axis parallel with said curved walls, a cover for said opening and an inlet and outlet to said holder arranged at opposite ends of the same, substantially as described.

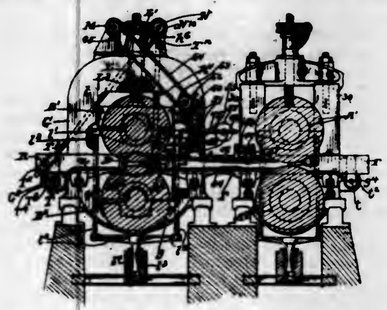
2. An apparatus of the kind described for use in treating spread out fabrics comprising a cylindrical shell having an opening therein in the curved walls for the admission of the spread out fabric, a pivot eccentrically arranged with regard to the axis of said vessel and about which the vessel may be oscillated, means for oscillating said vessel about said eccentric pivot and a cover for closing said opening in the curved walls, substantially as described.

3. An apparatus of the kind described for use in treating spread out fabrics comprising a cylindrical shell having openings therein for the admission of the spread out fabric, a substantially horizontal pivot arranged eccentrically to said cylinder and about which said cylinder may oscillate, perforated cross division walls dividing said vessel into compartments into each of which an opening in the curved side walls opens, means for oscillating said vessel about its pivot, an inlet and outlet at opposite ends of said cylindrical vessel and covers for said openings in the side walls.

943,633. ROLLING-MILL. HENRY GREY, New York, N. Y., assignor to American Universal Mill Company, New York, N. Y., a Corporation of West Virginia. Filed Nov. 28, 1902. Serial No. 133,098.

1. In a rolling mill, the combination, with a slideway; a slide engaging the said slideway and consisting of two parts or members; a reducing-roll carried by one of the said slide-members; a lateral bearing for the roll and carried by the other slide-member, and the last-mentioned slide-member being attached to but adjustable independently of and toward or from the roll-bearing slide-member and operatively engaged by means for shifting the slide, and suitably applied means acting to yieldingly retain the independently adjustable slide-member in its inner position so as to maintain the aforesaid lateral bearing constantly in contact with the roll.

2. The combination, with a slideway; a slide engaging the said slideway and consisting of two parts or members; a reducing-roll carried by one of the said slide-members; a lateral bearing for the roll and carried by the other slide-member and the last-mentioned slide-member being attached to but adjustable independently of and toward or from the roll-bearing slide-member, and suitably applied springs acting to retain the independently adjustable slide-member in its inner position so as to maintain the aforesaid lateral bearing in contact with the roll.



3. The combination, with a slideway; a slide engaging the said slideway and consisting of two parts or members; a reducing-roll supported from one of the said slide-members; rollers sustaining the roll and carried by the other slide-member, and the roller-bearing slide-member being adjustable independently of and toward or from the roll-bearing slide-member; screw-threaded rods extending easily through the independently adjustable part and attached to the roll-bearing part; nuts upon the said rods at the outer end of the said adjustable part, and elastic means on the said rods between the said nuts and the said outer end of the said adjustable part, substantially as shown, for the purpose specified.

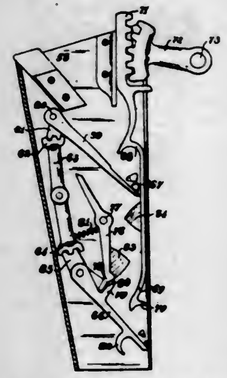
4. The combination, with a slideway; a slide engaging the said slideway and consisting of two parts or members; a reducing-roll supported from one of the said slide-members; rollers sustaining the roll and carried by the other slide-member, and the roller-bearing slide-member being adjustable independently of and toward or from the roll-bearing slide-member; screw-threaded rods extending easily through the independently adjustable part and attached to the roll-bearing part; nuts upon the said rods at the outer end of the said adjustable part, and spiral springs mounted and confined upon the said rods between the said nuts and the said outer end of the said adjustable part, substantially as shown, for the purpose specified.

5. The combination, with a pair of horizontal web-reducing rolls arranged one above the other and in position to operate upon opposite sides respectively of the web of a blank having a web between two flanges and upon the inner sides of the said flanges, vertical rolls arranged to operate upon the outer sides of the flanges, and horizontal rolls arranged a suitable distance from and parallel with the aforesaid web-reducing rolls in position to operate upon the edges of the flanges, of a passage-way for the work between the pair of web-reducing rolls and the rolls arranged to operate upon the edges of the flanges, which passage-way has a vertically adjustable cover which is a little less in width than the web of the blank and practically extends from a point in close proximity to the web-reducing rolls to a point in close proximity to the flange-reducing rolls, and mechanism for shifting the said cover vertically, and the said cover being immovable except by the operation of the said mechanism.

[Claims 6 to 19 not printed in the Gazette.]

943,634. CORN-PLANTER VALVE MECHANISM. FRANK P. MURPHEY, Decatur, Ill. Original application filed Nov. 3, 1908, Serial No. 460,954. Divided and this application filed Jan. 15, 1909. Serial No. 472,473.

1. In corn planter valve mechanism, a chute, an intermediate valve gate pivoted obliquely therein, a discharge valve gate pivoted obliquely therein below the intermediate valve gate, a discharging bar adjacent to the free ends of the valve gates, and provided with shoulders or abutments adapted to carry down the grain arrested by the gates, a member engaging both of the gates for regulating their movements, such member being in the form of a double-ended rack bar pivoted intermediate the gates and provided with teeth at each end, and rack teeth on each of the gates in mesh with the teeth of said bar, substantially as described.

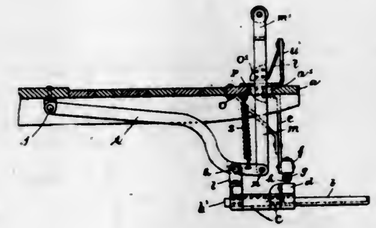


2. In corn planter valve mechanism, a chute, an intermediate valve gate pivoted obliquely therein, a discharge valve gate pivoted obliquely therein below the intermediate valve gate, a discharging bar adjacent to the free ends of the valve gates, and provided with shoulders or abutments adapted to carry down the grain arrested by the gates, a member engaging both of the gates for regulating their movements in unison with one another, a double-ended rack bar pivoted intermediate the gates and provided with teeth at each end, rack teeth on each of the gates in mesh with the teeth of said bar, and a lock bar adapted to engage one of the gates for holding both of the gates in retracted position to afford an uninterrupted discharge for the grain, substantially as described.

3. In corn planter valve mechanism, a chute, an intermediate valve gate pivoted obliquely therein, a discharge valve gate pivoted obliquely therein below the intermediate valve gate, a discharging bar adjacent to the free ends of the valve gates, and provided with shoulders or abutments adapted to carry down the grain arrested by the gates, a double ended rack bar pivoted intermediate the gates and provided with teeth at each end, rack teeth on each of the gates in mesh with the teeth of said bar, a pivoted lock bar, a stop finger on said gate adapted to engage the free end of the lock bar for holding both of the gates in retracted position to provide an uninterrupted discharge for the grain, substantially as described.

4. In corn planter valve mechanism, a chute, an intermediate valve gate pivoted obliquely therein, a discharge valve gate pivoted obliquely therein below the intermediate valve gate, a discharging bar adjacent to the free ends of the valve gates, and provided with shoulders or abutments adapted to carry down the grain arrested by the gates, a member engaging both of the gates for regulating their movements, such member being in the form of a double-ended rack bar pivoted intermediate the gates and provided with teeth at each end, rack teeth on each of the gates in mesh with the teeth of said bar, a lock bar pivoted adjacent to one of the gates, a stop finger on said gate adapted to engage the end of the lock bar for holding both of the gates in retracted position to provide an uninterrupted discharge for the grain, and lugs on the lock and on the discharging bar adapted to co-act with one another to throw back the lock bar out of engagement with the gate, substantially as described.

943,635. CAR-FENDER. JOHN MYLOTT, North Andover, Mass., assignor of one-half to George W. Pratt, Haverhill, Mass. Continuation of application Serial No. 487,542, filed Apr. 2, 1909. This application filed Aug. 26, 1909. Serial No. 514,710.



1. In combination with the car body, a holder pivotally suspended, at its front end, from said body to swing about a fixed axis, a fender apron slidably mounted on said holder, a locking device connected to said holder, in the rear of its pivot, for holding the apron in raised position, and means permitting the release of said locking device to permit the apron to be lowered, substantially as described.

2. In combination with a car body, a holder pivotally connected thereto to swing about a fixed axis, a spring normally acting on said holder to move the same from raised to lowered position, a fender apron slidably mounted on said holder, a locking-device connected to said holder and adapted to engage the body to hold the apron in raised position, and means permitting disengagement of said locking device and the body to permit the apron to be lowered, substantially as described.

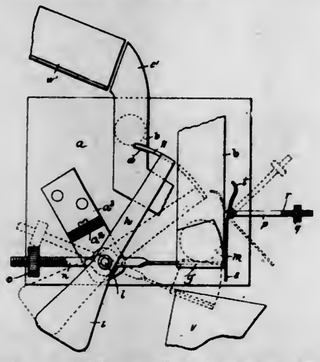
3. In combination with a car body, a fixed bracket depending therefrom, a holder pivotally suspended from said bracket and held thereby from movement longitudinally of the body, a fender apron slidably mounted in said holder, a spring normally acting to move said apron and holder from raised to lowered position, a locking device connected to said holder and having means for engaging said body to hold said apron and holder in raised position and to permit the apron to be slid in the holder between its operative and inoperative positions, and means permitting disengagement of said body and said locking device to permit movement of the apron to lowered position, substantially as described.

4. In combination with a car body, a fender holder comprising a pair of guideways, a pair of cross bars rigidly connected to said guideways at different longitudinal points, means for pivotally connecting one of said cross bars to the body, a locking device connected to the other cross bar and having means for engaging the body to lock the holder in raised position, and means permitting disengagement of said locking device and said body to permit said holder to be moved to lowered position, substantially as described.

5. In combination with a car body, a fender holder comprising a pair of guideways, a pair of cross bars rigidly connected to said guideways at different longitudinal points and extending above said guideways to permit a fender apron to be slid thereon beneath said cross bars, means at the upper side of one of said cross bars for pivotally connecting the same to the body, and a locking device disposed above the other cross-bar and connected thereto at an intermediate point, said locking device being adapted to extend through the car body and having means permitting engagement with, and disengagement from said body to lock and release the holder, substantially as described.

[Claims 6 to 16 not printed in the Gazette.]

943,636. COIN-SWITCH FOR VENDING-MACHINES. OSCAR OEHRING, Berlin, Germany, assignor to American Stamp & Ticket Vending Machine Company, Washington, D. C. Original application filed Sept. 30, 1909, Serial No. 520,391. Divided and this application filed Nov. 8, 1909. Serial No. 526,744.



1. In coin or check-controlled apparatus, two coin paths, each adapted to receive a coin, and means intersecting both paths for normally obstructing the passage of a coin therethrough and operably connected together to move in unison in a manner whereby the insertion of a coin in one path will operate to release the other path from obstruction.

2. In coin or check-controlled apparatus, two coin paths, each adapted to receive a coin, and means intersecting both paths for normally obstructing the passage of a coin therethrough and operably connected together to move in unison in a manner whereby the insertion of a coin in one path will operate to release the other path from obstruction, said paths being of different cross-sectional area one with respect to the other whereby coins of different denomination may be combined in series to provide release of the apparatus.

3. In coin or check-controlled apparatus, two coin paths each adapted to receive a coin, a coin cup at the outlet end of one path, and a member movable into and out of the other path, said cup and member serving to normally obstruct the passage of coins through the paths and being operably connected together to move in unison in a manner whereby the positioning of a coin within the coin cup will move said member out of obstructing position.

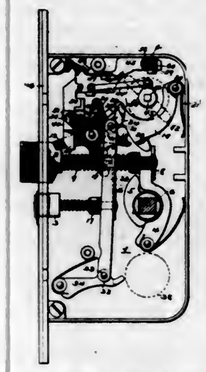
4. In coin or check-controlled apparatus, two coin paths each adapted to receive a coin, a coin cup at the outlet end of one path, and a member movable into and out of the other path, said coin cup and member having a common axis and being movable pivotally in unison, whereby the deposit of a coin in the coin cup will release either path from obstruction by said member.

5. In coin or check-controlled apparatus, two coin paths, each adapted to receive a coin, a coin cup at the outlet end of one path, and a member movable into and out of the other path, said coin cup and member having a common axis and being movable pivotally in unison, whereby the deposit of a coin in the coin cup will release either path from obstruction by said member, the release of the apparatus by the passage of a coin through the member-obstructed path releasing the coin within the coin cup to permit the return of the parts to normal position.

[Claim 6 not printed in the Gazette.]

943,637. LOCK. REINHOLD SCHOELL, Stamford, Conn., assignor to The Yale & Towne Manufacturing Company, Stamford, Conn. Original application filed Aug. 19, 1908, Serial No. 449,317. Divided and this application filed Mar. 24, 1909. Serial No. 485,446.

1. In a lock, the combination with a bolt and a deadlocking lever, of a slide for shifting said lever, a thumb piece operable from the inner side of the door for shifting said slide and an indicator actuated by the thumb piece and showing through a slot in the outer escutcheon plate.



2. The combination with a bolt, a deadlocking lever, a slide for shifting said lever, and means operable from the inside of the door for actuating the slide, of an indicator plug actuated by the slide, the said plug normally projecting into the outer escutcheon plate, and adapted to have its outer end projected beyond the outer face of said escutcheon plate, when the slide is in one position.

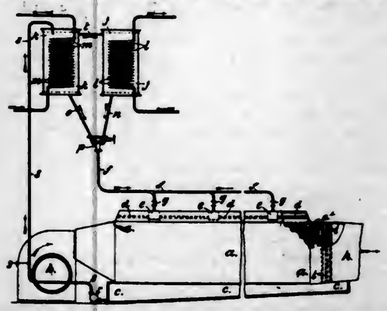
3. In a lock, the combination with a bolt, a dogging lever therefor and means for shifting said lever, of a thumb piece operable from the inside of the door for actuating said lever shifting means, an indicator movable in a slot in the outer escutcheon plate, and means intermediate the thumb piece and indicator whereby the latter is actuated by the former.

4. In a lock, the combination with a bolt, a dogging lever therefor and means for shifting said lever to a position to release the bolt, of a longitudinally movable indicator plug passing through the outer escutcheon plate, and actuated, in one direction by the dogging lever shifting means.

5. In a lock, the combination with a bolt, a dogging lever for same, means for shifting said lever to a position to release the bolt and a thumb piece for operating said shifting means, of inside and outside indicators actuated by said thumb piece for indicating on both sides of the door the condition of the lock.

[Claims 6 to 17 not printed in the Gazette.]

943,638. APPARATUS FOR AIR-MOISTENING. WALTER H. WEBB, WILLIAM G. BRETTELL, and ALEXANDER J. ADAMSON, Liverpool, England. Original application filed July 3, 1906, Serial No. 324,658. Divided and this application filed Aug. 17, 1907. Serial No. 389,000.



1. In apparatus for attempering air and saturating it with moisture, a structure filled chamber, means for supplying artificially heated and cooled water at the same time to the structures in the chamber, means for heating and cooling the water, a fan for blowing air through the chamber, baffles for removing the suspended moisture from the moisture saturated and attempered air, and means for removing the collected moisture from the baffles.

2. In apparatus for attempering air and saturating it with moisture, a structure filled chamber, means for enabling warm and cold liquid to flow over the structures in the chamber, a tank for holding the liquid to be heated, a coil contained in the heating tank for the passage of a heating medium, a tank for holding the liquid to be cooled, a coil contained in the cooling tank for the passage of a cooling medium, a mixing chamber connected with the heating and cooling tanks and the structure filled chamber, a fan for blowing air through the structure filled chamber, and means for removing suspended moisture, in the form of spray, from the attempered and moisture saturated air.

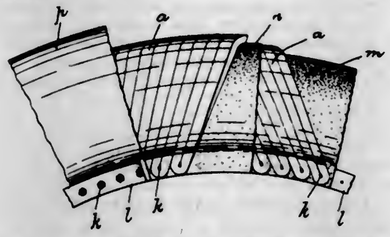
3. The apparatus for attempering air and saturating it with moisture for furnace plant, comprising a chamber filled with wooden framework structures, a tank for holding the liquid to be heated, a coil contained in the heating tank for the passage of the heating medium, a tank for holding the liquid to be cooled, a coil contained in the cooling tank for the passage of a cooling medium, a mixing chamber connected with the heating and cooling tanks and the structure filled chamber, pipes for conveying the attempered water directly to the surface of the structures, a fan for blowing air through the chamber and structures, vertical or nearly vertical baffles for removing the suspended liquid, in the form of spray, from the attempered and moisture saturated air, a collecting trough for receiving from the baffles the suspended liquid removed by the baffles, and a pump for returning the removed liquid to the said tanks.

943,639. METHOD OF PROTECTING MOLTEN METALS. WALTER S. ROCKEY and HILLIARY ELDRIDGE, New York, N. Y. Original application filed Mar. 5, 1909, Serial No. 481,434. Divided and this application filed Apr. 23, 1909. Serial No. 491,832.

1. The method of protecting molten metal consisting in first reducing boron trioxid (B_2O_3) to a fluid condition by heat and then reducing the metal to be protected to a fluid condition by heat beneath the surface of said boron trioxid.

2. The method of protecting molten metals consisting in first reducing a suitable borate to a fluid condition by heat and then reducing the metal to be protected to a fluid condition by heat beneath the surface of the said borate.

943,640. PNEUMATIC TIRE. ALEXANDER LATIMER, London, England. Filed June 8, 1907. Serial No. 377,883.

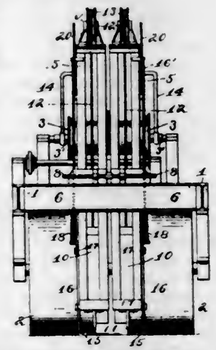


1. A pneumatic tire cover comprising a foundation fabric composed of rubbered cord-units each formed with a closed loop at each end and extending once across the cover, the cord-units being arranged side by side in one or more layers, inextensible rings at the edges of the cover, and removable pins or bolts passing through and anchoring the respective loops to the respective rings so that any cord-unit damaged by puncture or otherwise can be removed and replaced without disturbing the anchorages or tension of adjacent cord-units, substantially as set forth.

2. A pneumatic tire cover comprising a foundation fabric composed of rubbered cord-units each having a closed loop at each end and extending once across the cover, the cord-units being arranged side by side in one or more layers, a pair of inextensible metal disk rings at each edge of the cover, the rings of each pair engaging between them one loop of each cord-unit, and removable pins or bolts and coacting nuts uniting the rings of each pair and passing through and independently anchoring the loops therebetween so that any cord-unit damaged by puncture or otherwise can be removed and replaced without disturbing the anchorages or tension of adjacent cord-units, substantially as set forth.

REISSUES.

13,055. APPARATUS FOR CUTTING ROAD-BEDS. LEE D. CRAIG, San Francisco, Cal. Filed Oct. 21, 1909. Serial No. 523,928. Original No. 916,676, dated Mar. 30, 1909, Serial No. 438,873.



1. In apparatus for the described purpose, the combination with a portable supporting platform, of a vertically disposed guide frame carried thereby, a gravity cutting tool guided by said frame, means for operating the cutting tool, and a device acting against the surface of the roadbed adjacent the cutting tool to prevent the surface of the roadbed being disturbed adjacent the line of cut.

2. In apparatus for the described purpose, the combination with a portable supporting frame, of a plurality of vertically disposed parallel guide frames carried thereby, and adjustable toward and from each other, gravity cutting tools guided by the said frames, means for operating the cutting tools, and devices one for each cutting tool, acting against the surface of the roadbed adjacent the tool to hold the surface against disturbance, adjacent the cutting tools.

3. In an apparatus for the described purpose, the combination with a portable supporting platform, of devices carried thereby for cutting the surface of a roadbed along the line of trench work, mechanism for actuating said cutting devices under pressure to cause the same to penetrate the surface of the roadbed, and means for acting against the surface of the roadbed adjacent the line of work during the action of the cutting devices, said means preventing the surrounding or adjacent surface of the roadbed being disturbed as the cutting devices are withdrawn.

4. In an apparatus for the described purpose, the combination with a portable supporting carrier, of cutters carried thereby one at each side of the line of trench work, mechanism for operating the said cutters to cause the same to penetrate the roadbed, and devices one for each cutter, on the outer side thereof acting on the sur-

face of the roadbed adjacent the cut to prevent the adjacent surface of the roadbed being disturbed, substantially as described.

5. In an apparatus for the described purpose, the combination with a portable carriage, of a plurality of vertically disposed parallel guide frames thereon, cutters guided by said frames and means for operating the cutters, said parallel guide frames being adjustable toward and from each other in accordance with the width of the trench to be cut in the roadbed, substantially as described.

6. In apparatus for the described purpose, the combination with a portable supporting frame, of a plurality of vertically disposed parallel guide frames carried thereby, and adjustable toward and from each other, gravity cutting tools guided by the said frames, means for operating the cutting tools, and shoes, one for each cutting tool, acting against the surface of the roadbed adjacent the cutting tools, each of said shoes being adjustable with the cutter and guide frame to which it belongs, substantially as described.

7. In combination in a machine of the class described, a portable carrier, an upright guide, a weighted cutter movable thereon, means for operating the cutter, and a shoe mounted on the guide, said guide, with the cutter and shoe, being adjustable, substantially as described.

8. In combination in a machine of the class described, a portable carrier, an upright guide mounted thereon, a cutter movable on the guide, with operating means therefor, and a spring pressed shoe to bear on the surface of the roadbed adjacent the cutter, substantially as described.

9. In apparatus for cutting asphalt, concrete and the like of roadbeds, a frame having carrying wheels, a vertical guide, a weighted drop cutter movable thereon having its cutting edge extending parallel with the line of the trench and directed downwardly to penetrate the material, and operating means for the cutter, substantially as described.

10. In a machine of the class described, a portable carrier, a pair of weighted drop cutters arranged opposite each other, one for each side of the trench to be cut, guide means to control the vertical movement of the cutters and operating means for the cutters, substantially as described.

11. In apparatus of the character described, a frame having carrying wheels, guides, a pair of weighted cutters movable vertically thereon and at opposite sides of the space to be cut, said cutters being independently operable to work in unison or in alternation, substantially as described.

12. In combination in apparatus of the class described, the combination of a frame having carrying wheels, vertically extending guide means, a pair of weighted beveled edge cutters movable thereon and at opposite sides of the space to be cut, and pressure shoes, one for each cutter, and adjacent thereto on the outer side for holding the asphaltum on the outer edges of the trench leaving the intermediate portion free to yield to the disturbing influence of the beveled cutters, substantially as described.

13. In combination in apparatus for cutting roads of asphalt, concrete or the like, a portable carriage, a pair of upright guides on the carriage, a drive shaft on the carriage, a pair of weighted cutters movable on the guides, and connections from the drive shaft for elevating the weighted cutters, substantially as described.

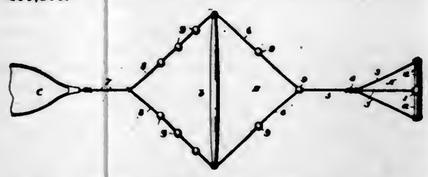
14. In combination in apparatus for cutting roads of asphalt, concrete or the like, a portable carriage, guide means thereon, a pair of weighted cutters movable on the guide means, and arranged substantially opposite each other with their cutting edges extending substantially parallel with the line of trench work, and operating connections for raising the weighted cutters, substantially as described.

15. In combination in apparatus for cutting roads of asphalt, concrete or the like, a portable carriage, a pair of upright guides on said carriage, weighted cutters guided thereby, said guides being adjustable toward and from each other to vary the width of the trench, a drive shaft on the carriage and driving connections therefrom to the upper ends of the adjustable guides for elevating the weighted cutters, substantially as described.

16. In combination in apparatus for cutting roads of asphalt, concrete or the like, a portable carriage, upright guides on the carriage, a pair of wheels or drums with a space between them and on opposite sides of the center line of the trench, a weighted cutter for each guide, and means for elevating the cutters, substantially as described.

17. In a machine for cutting the asphalt surface of roadways, a portable carriage, a vertically operating cutter, operating means for the cutter, and a device arranged adjacent the cutter on the outer side thereof to prevent disturbance of the asphalt which is to remain, substantially as described.

13,056. WAVE-BREAKER. JOHN A. ROSVOLD, Nome, Alaska. Filed Aug. 21, 1909. Serial No. 514,077. Original No. 898,266, dated Sept. 8, 1908, Serial No. 400,800.



1. A safety device for vessels comprising a spar adapted to float upon the surface of the water, connections for maintaining said spar transverse to a line between a vessel and its anchor, and a plurality of floats arranged at intervals on a part at least of said connections adapted to support the same the proper depth below the surface of the water and to coöperate with said spar to break the waves, substantially as described.

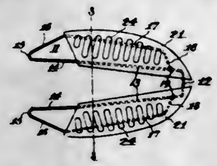
2. In a safety device for vessels, the combination with an anchor, of a spar adapted to float upon the water, connections from each end approximately of said spar on one side to said anchor, and on the other side to connecting means for a vessel, and a plurality of floats arranged at intervals along said connections adapted to support the same the proper depth below the surface of the water and to coöperate with said spar to break the waves, substantially as described.

3. In a safety device for vessels, the combination with a sea anchor or drag operative at a depth below the surface of the water, of a spar adapted to float upon the surface of the water, connections from each end approximately of said spar on one side to said sea anchor or drag, and on the other side to a connecting means for a vessel, and a plurality of floats arranged at intervals along said connections adapted to support the same the proper depth below the surface of the water and to coöperate with said spar to break the waves, substantially as described.

4. In a safety device for vessels, the combination with a sea anchor or drag operative at a depth below the surface of the water and consisting of a collapsible frame having a lower weighted bar, side-bars pivotally attached to the ends thereof and making detachable engagement with each other at their opposite ends, and a covering or drag surface for said frame; of a spar adapted to float upon the surface of the water, connections from each end approximately of said spar on one side to said sea anchor or drag, and on the other side to a connecting means for a vessel, and a plurality of floats arranged at intervals along said connections adapted to support the same the proper depth below the surface of the water and to coöperate with said spar to break the waves, substantially as described.

13,057. SHOE-TREE. AUGUSTUS H. TAFT, Troy, N. Y. Filed Nov. 15, 1909. Serial No. 528,250. Original No. 938,615, dated Nov. 2, 1909, Serial No. 462,690.

1. A shoe tree comprising side portions resiliently connected together at their forward ends and normally springing apart, each of said side portions including a wire frame portion and a resilient curved plate secured thereon, said plates being adapted to conform to and press outwardly against the vamp of a shoe in which the tree is inserted.



2. A shoe tree comprising side portions resiliently connected together and normally springing apart, each of said sides including a wire frame portion and a resilient curved plate secured to and substantially covering said frame portion, said plates being adapted to conform to and press outwardly against the vamp of a shoe in which the tree is inserted.

3. A shoe tree comprising an integral wire bent to form side frame portions resiliently connected together, and curved thin metal plates, one secured to and substantially covering each of said side portions, said plates being adapted by their resiliency to conform to and press outwardly against the vamp of a shoe in which the tree is inserted.

4. A shoe tree comprising side portions resiliently connected together and normally springing apart, each of said sides including a wire frame portion and a curved thin metal plate secured to and substantially covering said frame portion, said frame portions extending rearwardly of said plates to form handles, and said plates being adapted by their resiliency to conform to and press outwardly against the vamp of a shoe in which the tree is inserted.

5. A shoe tree comprising side portions resiliently connected together and normally springing apart, each of said sides including a wire frame portion and a resilient foraminous curved plate secured to and substantially covering said frame portion, said plates being adapted to conform to and press outwardly against the vamp of a shoe in which the tree is inserted.

6. A shoe tree comprising a resilient wire frame and resilient plates secured to and substantially covering said frame, said plates being shaped to conform substantially to the vamp portion of a shoe and adapted to be pressed outwardly thereagainst by the resiliency of said frame.

7. A shoe tree comprising side portions resiliently connected together and normally springing apart, each of said side portions including a wire frame portion and a plurality of resilient curved plates secured to and substantially covering said frame portion, said plates being adapted by their resiliency to conform to and press outwardly against the vamp of a shoe in which the tree is inserted.

8. A shoe tree comprising side portions resiliently connected together and normally springing apart, each of said sides including a wire frame portion and a resilient transversely slotted plate secured to and substantially covering said frame portion, said plates being adapted to conform to and press outwardly against the vamp of a shoe in which the tree is inserted.

DESIGNS.

40,392. FOB. FRANK ERBEN, Cleveland, Ohio. Filed Sept. 13, 1909. Serial No. 517,537. Term of patent 3½ years.



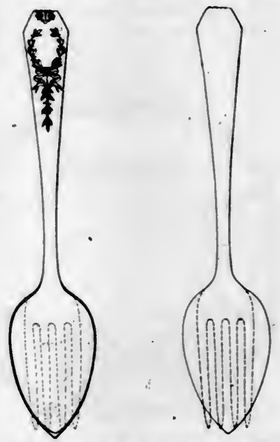
The ornamental design for a fob, as shown.

40,393. WATCH-DIAL. EDWIN HART, Waterbury, Conn., assignor to The New England Watch Co., Waterbury, Conn., a Corporation. Filed Oct. 11, 1909. Serial No. 522,206. Term of patent 14 years.



The ornamental design for a watch dial, as shown.

40,394. HANDLE FOR SPOONS, FORKS, OR SIMILAR ARTICLES. CHARLES OSBORNE, New York, N. Y., assignor to Whiting Manufacturing Company, New York, N. Y., a Corporation of New York. Filed Sept. 17, 1909. Serial No. 518,296. Term of patent 14 years.



The ornamental design for a handle for a spoon, fork or similar article, as shown.

40,395. STEIN. CHARLES P. NUTTER, Malden, Mass., assignor to N. G. Wood & Sons, Boston, Mass., a Firm. Filed Aug. 13, 1909. Serial No. 512,931. Term of patent 7 years.



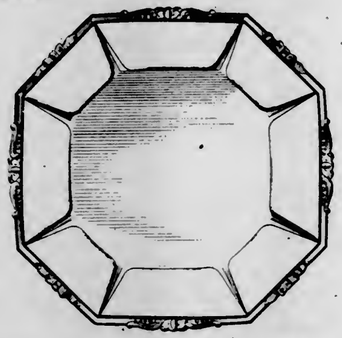
The ornamental design for a stein, as shown.

40,396. GLASS RECEPTACLE. BENJAMIN W. JACOBS, Follansbee, W. Va., assignor to Jefferson Glass Company, Follansbee, W. Va. Filed Aug. 9, 1909. Serial No. 512,081. Term of patent 14 years.



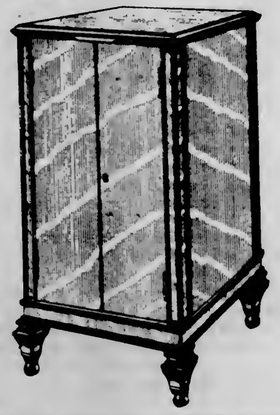
The ornamental design for a glass receptacle as shown.

40,397. PLATE OR SIMILAR ARTICLE. CHARLES ZIEGLER, Limoges, France, assignor to The J. Pouyat Company, New York, N. Y., a Corporation of New York. Filed Oct. 25, 1909. Serial No. 524,583. Term of patent 7 years.



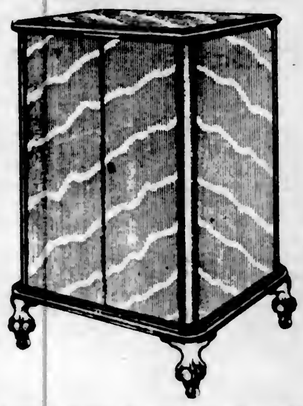
The ornamental design for a plate or similar article, as shown.

40,398. TALKING-MACHINE-RECORD CABINET. LOUIS F. GEISSLER, Philadelphia, Pa., assignor to Victor Talking Machine Company, a Corporation of New Jersey. Filed Oct. 19, 1909. Serial No. 523,546. Term of patent 14 years.



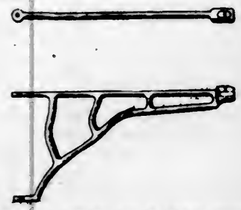
The ornamental design for a cabinet for talking machine records as shown.

40,399. TALKING-MACHINE-RECORD CABINET. LOUIS F. GEISSLER, Philadelphia, Pa., assignor to Victor Talking Machine Company, a Corporation of New Jersey. Filed Oct. 19, 1909. Serial No. 523,547. Term of patent 14 years.



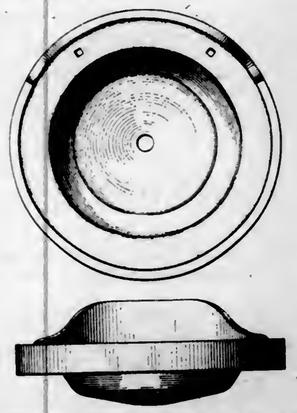
The ornamental design for a cabinet for talking machine records as shown.

40,400. BASIN-SUPPORTING BRACKET. MICHAEL J. MCNAMARA and FREDERICK E. CANTNER, Philadelphia, Pa. Filed Sept. 13, 1909. Serial No. 517,505. Term of patent 7 years.



The ornamental design for a basin supporting bracket, as shown.

40,401. LAVATORY-BOWL. RAYMOND E. CRANE, Cameron, W. Va. Filed Dec. 22, 1908. Serial No. 468,875. Term of patent 14 years.



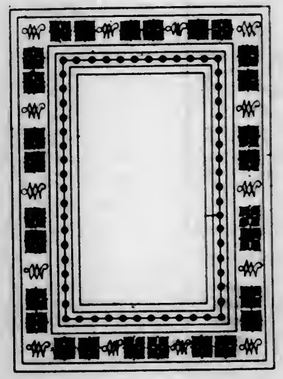
The ornamental design for a lavatory bowl, as shown and described.

40,402. FLUSH-TANK. BERT O. TILDEN, New York, N. Y., assignor to American Sanitary Works, New York, N. Y., a Corporation of New Jersey. Filed May 11, 1909. Serial No. 495,370. Term of patent 14 years.



The ornamental design for a flush-tank, as shown.

40,403. BOOK-COVER. LOUISE AVERILL COLE, Boston, Mass., assignor to G. & C. Merriam Company, Springfield, Mass., a Corporation. Filed Oct. 25, 1909. Serial No. 524,584. Term of patent 14 years.



The ornamental design for a book-cover, as shown.

40,404. QUILL-HOLDER FOR LADIES' HATS. HENRY W. SCHWALB, New York, N. Y. Filed Oct. 21, 1909. Serial No. 523,932. Term of patent 3½ years.



The ornamental design for a quill holder for ladies' hats as shown.

40,405. BOW. HARRY FEDER, New York, N. Y. Filed June 23, 1909. Serial No. 503,967. Term of patent 7 years.



The ornamental design for a bow, as shown.

TRADE-MARKS

PUBLISHED DECEMBER 14, 1909

The following trade-marks have been adjudged entitled to registration under the act of February 20, 1905, and are published in compliance with section 6 of said act. Said section provides:

"Any person who believes he would be damaged by the registration of a mark may oppose the same by filing notice of opposition, stating the grounds therefor, in the Patent Office within thirty days after the publication of the mark sought to be registered, which said notice of opposition shall be verified by the person filing the same before one of the officers mentioned in section two of this act. If no notice of opposition is filed within said time the Commissioner shall issue a certificate of registration therefor, as hereinafter provided for."

Marks which are stated to have been "Used ten years" are registrable under the last proviso of section 5 of said act, which is as follows:

"And provided further, That nothing herein shall prevent the registration of any mark used by the applicant or his predecessors, or by those from whom title to the mark is derived, in commerce with foreign nations or among the several States, or with Indian tribes, which was in actual and exclusive use as a trade-mark of the applicant or his predecessors from whom he derived title for ten years next preceding the passage of this act."

Section 14 of said act provides for the following fee:

"On filing notice of opposition to the registration of a trade-mark, ten dollars."

Ser. No. 10,195. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) FABRIKATION FÜR LESSIVE PHÊNIX, PATENT J. PICOT, PARIS, L. MINLOS & Co., Koln-Ehrenfeld, Germany. Filed July 12, 1905.



Particular description of goods.—Washing-Powder and Soap.

Ser. No. 22,478. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CARLO ERBA, Milan, Italy. Filed Oct. 4, 1906.



Particular description of goods.—Extract of Tamarind.

Ser. No. 22,479. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CARLO ERBA, Milan, Italy. Filed Oct. 4, 1906.



Particular description of goods.—Extract of Tamarind.

Ser. No. 27,991. (CLASS 28. JEWELRY AND PRECIOUS-METAL WARE.) THE D. L. AULD COMPANY, Columbus, Ohio. Filed June 10, 1907.



Particular description of goods.—Emblems of Fraternities, Societies, Organizations, and Associations, Made Up in the Form of or Mounted on Pins, Badges, Buttons, Buckles, Brooches, Lockets, Fobs, Pendants, and Finger-Rings.

Ser. No. 30,058. (CLASS 27. HOROLOGICAL INSTRUMENTS.) BYRON L STRASBURGER & Co, New York, N. Y. Filed Sept. 18, 1907.

EVINGTON

Particular description of goods.—Watches and Watch-Movements.

Ser. No. 31,656. (CLASS 48. MALT EXTRACTS AND LIQUORS.) THE LEISY BREWING COMPANY, Peoria, Ill. Filed Dec. 10, 1907.

MALT-EASE

Particular description of goods.—Malt Extract.

Ser. No. 33,255. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ELEANOR GRIFFITH PHIBBS, London, England. Filed Mar. 9, 1908.

GANESH

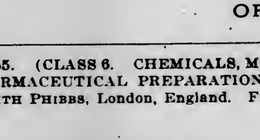
Particular description of goods.—Medicated Toilet Waters, Creams, Lotions, Toilet Oils, Wrinkle-Plasters, Medicated Dentifrices, Medicated Eye-Drops, Medicated Hair-Stains, Medicated Toilet and Medicated Face Rouges.

Ser. No. 34,479. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NEW ORLEANS COFFEE COMPANY, LIMITED, New Orleans, La. Filed Apr. 30, 1908.

ROBIN HOOD

Particular description of goods.—Cane-Syrup, a Compound of Cane and Corn Syrup, Molasses, a Compound of Molasses and Corn-Syrup, Imitation Sorghum Composed of Molasses and Corn-Syrup, Roasted Coffee, and a Compound of Roasted Coffee and Chicory.

Ser. No. 34,516. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HICKS & GRIFFITH, Newark, N. J. Filed May 1, 1908. Used ten years.



The central vertical band is red.

Particular description of goods.—Smoked Chipped Beef.

Ser. No. 37,751. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WAL-TALK MEDICINE CO., Malvern, Ark. Filed Oct. 1, 1908.



Particular description of goods.—A Remedy for Eczema.

Ser. No. 38,096. (CLASS 33. GLASSWARE.) A. H. HEISEY & CO., INC., Newark, Ohio. Filed Oct. 17, 1908.





No claim being made for the representation of the jug and shaker.

Particular description of goods.—Molasses-Jugs, Salt, Pepper, and Sugar Shakers.

Ser. No. 38,566. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WILLIAM H. CONSTABLE, Los Angeles, Cal. Filed Nov. 10, 1908.

BELL KOW

Particular description of goods.—Butter.

Ser. No. 38,800. (CLASS 39. CLOTHING.) B. RICH'S SONS, Washington, D. C. Filed Nov. 20, 1908.



No claim is made to the words, "If they're Rich's shoes they're proper."

Particular description of goods.—Leather and Cloth Boots, Shoes, Oxfords, and Slippers.

Ser. No. 38,907. (CLASS 38. PRINTS AND PUBLICATIONS.) HERMAN B. MEYERS, Chicago, Ill. Filed Nov. 27, 1908.

THE AMERICAN FOOD JOURNAL

Particular description of goods.—A Monthly Magazine.

Ser. No. 39,110. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) NORWAY MEDICINE COMPANY, Norway, Me. Filed Dec. 4, 1908. Used ten years.

BROWN'S RELIEF

Particular description of goods.—A Remedy for Sore Throat, Toothache, Coughs, Colds, Chills, Chilblains, Burns, Stings, Cramps, Colic, Cholera Morbus, Dysentery, and Scalds.

Ser. No. 39,272. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) ALWIN MANUFACTURING COMPANY, Chicago, Ill. Filed Dec. 12, 1908.

WONMO

Particular description of goods.—Children's Carriages, Go-Carts, and Sleds.

Ser. No. 39,280. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) THE AMERICAN MANUFACTURING COMPANY, Charleston, W. Va. Filed Dec. 14, 1908. Used ten years.

FARMERS

Particular description of goods.—Jute Bagging for Baling Cotton.

Ser. No. 40,580. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) RICARDO LYNCH, Buenos Ayres, Argentina. Filed Feb. 16, 1909.

SARITONA

Particular description of goods.—A Vermifuge, Digestive, Fattening, and Tonic Remedy for Cattle, Horses, Sheep, and other Animals.

Ser. No. 40,585. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE WHITMAN & BARNES MANUFACTURING COMPANY, Akron, Ohio, and Chicago, Ill. Filed Feb. 16, 1909.

DIAMOND

Particular description of goods.—Cultivators, Hay-Carriers, and Fixtures Therefor.

Ser. No. 41,515. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MALTET CHEMICAL COMPANY, New York, N. Y. Filed Mar. 31, 1909.



Particular description of goods.—A Powder Used for the Extermination of Cockroaches and Similar Insects.

Ser. No. 41,652. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) PARK & TILFORD, New York, N. Y. Filed Apr. 7, 1909.

P&T
1840

Particular description of goods.—Blended Coffee, Chocolate, Spices, Flake Tapioca, Shredded Cocoanut, Rice, Nuts, Candies, and Cherries.

Ser. No. 41,720. (CLASS 10. FERTILIZERS.) STANDARD GUANO AND CHEMICAL MANUFACTURING COMPANY, New Orleans, La. Filed Apr. 12, 1909. Used ten years.

CHAMPION
FARMERS
CHOICE
FERTILIZER

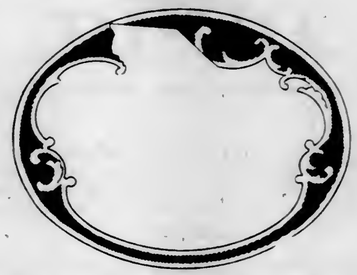
Particular description of goods.—Fertilizers.

Ser. No. 42,077. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE SEARS & NICHOLS COMPANY, Chillicothe and Frankfort, Ohio. Filed Apr. 28, 1909. Used ten years.

EVERGREEN

Particular description of goods.—Canned Fruits, Vegetables, Pork and Beans, and Baked Beans with Tomato Sauce.

Ser. No. 42,132. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) A. P. WARD BROODER CO., Calistoga, Cal. Filed Apr. 29, 1909.



Particular description of goods.—Brooders.

Ser. No. 42,595. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) H. B. WIGGIN'S SONS COMPANY, Bloomfield, N. J. Filed May 22, 1909.

Anchor brand

Particular description of goods.—Woven Fabrics for Wall-Coverings.

Ser. No. 42,792. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) OTTO WALTER-OBRECHT, Mümliswil, Switzerland. Filed June 2, 1909.

KROKO

Particular description of goods.—Combs.

Ser. No. 42,848. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE GUARANTEED REMEDIES CO., Pocomoke City, Md. Filed June 5, 1909.

Theo Allen

Which consists of the name of "Theo Allen" as written by Joseph T. Hambrick.

Particular description of goods.—A Remedy for Indigestion, Dyspepsia, and Sour Stomach.

Ser. No. 42,915. (CLASS 37. PAPER AND STATIONERY.) CADY PAPER COMPANY, Chicago, Ill. Filed June 9, 1909.

OLD MILL

Particular description of goods.—Bond-Paper and Writing-Paper.

Ser. No. 43,038. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE SEARS & NICHOLS COMPANY, Chillicothe and Frankfort, Ohio. Filed June 16, 1909.

RICO BRAND



The portrait being that of Master Jean Desborde, deceased.

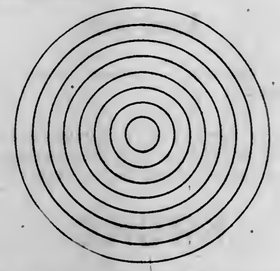
Particular description of goods.—Canned Vegetables.

Ser. No. 43,188. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) MERRIMACK MANUFACTURING COMPANY, Lowell, Mass. Filed June 22, 1909. Used ten years.

MERRIMACK

Particular description of goods.—Printed and Dyed Calicoes, Cloth Made from Carded and Combed Cotton Yarns, Printed and Dyed Flannels, Corduroys, Velveteens, and Fustians.

Ser. No. 43,227. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CLOSSET & DEVERS, Portland, Oreg. Filed June 24, 1909.



Particular description of goods.—Tea.

Ser. No. 43,239. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) SAMUEL A. MAGEE, Bowling Green, Mo. Filed June 25, 1909.



Particular description of goods.—A Washing Compound.

Ser. No. 43,244. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WILLIAM H. TEAS, Ridgway, Pa. Filed June 25, 1909.



Particular description of goods.—Hide-Powder, Consisting of Ground Hide Used as a Reagent by Chemical Laboratories for the Determination of Tannic Acid.

Ser. No. 43,252. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ROSWELL WOOL & HIDE COMPANY, Roswell, N. Mex. Ter. Filed June 25, 1909.

CERNO

Particular description of goods.—Alfalfa-Meal and Alfalfa-Meal Stock Food.

Ser. No. 43,282. (CLASS 17. TOBACCO PRODUCTS.) THE STANDARD CIGAR COMPANY OF PITTSBURGH, PA., Pittsburg, Pa. Filed June 26, 1909.

Dry Slitz

Particular description of goods.—Cigars, Tobies, and Cheroots.

Ser. No. 43,361. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ZIEGLER & LIEBENDORFER, Pittsburg, Pa. Filed July 2, 1909.

MARATHON

Particular description of goods.—A Liniment.

Ser. No. 43,621. (CLASS 37. PAPER AND STATIONERY.) PERKINS-GOODWIN COMPANY, New York, N. Y. Filed July 17, 1909.

ALDUS

Particular description of goods.—Book-Paper.

Ser. No. 43,713. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) TILTON MILLS, Tilton, N. H. Filed July 23, 1909. Used ten years.

T

Particular description of goods.—Tweeds, Cassimeres, Meltons, Serges, and Broadcloths.

Ser. No. 43,774. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MINNESOTA MERCANTILE COMPANY, Stillwater, Minn. Filed July 24, 1909.

PEERS

Particular description of goods.—Tea, Coffee, Flavoring Extracts, Spices, and Mince-Meat.

Ser. No. 43,790. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) FRANKFURTER MUSIKWERKE-FABRIK J. D. PHILIPPS & SÖHNE, Frankfort-on-the-Main, Germany. Filed July 26, 1909.

DUCA

Particular description of goods.—Orchestrions and Pianofortes Mechanically Operated.

Ser. No. 43,817. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CHEMISCHE WERKE KIRCHHOFF & NEIRATH, G. M. B. H., Berlin, Germany. Filed July 27, 1909.

Enka

Particular description of goods.—Superoxids, Perborates, Persulfates, and Percarbonates, Bleaching, Washing, and Oxidizing Substances, and Antiseptic and Disinfecting Preparations.

Ser. No. 43,879. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CASTLE BROTHERS INCORPORATED, San Francisco, Cal. Filed July 29, 1909.

SEQUOIA

Particular description of goods.—Dried Fruits and Raisins.

Ser. No. 43,935. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) DULUTH SUPERIOR MILLING COMPANY, Duluth, Minn. Filed Aug. 2, 1909.



Particular description of goods.—Wheat-Flour.

Ser. No. 43,992. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) UNITED DRUG COMPANY, Boston, Mass. Filed Aug. 6, 1909.

Rexall

Particular description of goods.—Playing-Cards.

Ser. No. 44,085. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CHARLES EDGAR JONES, Springfield, Mo. Filed Aug. 11, 1909.

"PI-NO"

Particular description of goods.—Medicinal Capsules to be Taken as a Remedy for Dyspepsia, Indigestion, and Headaches.

Ser. No. 44,170. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) EUGENE E. NICE, Philadelphia, Pa. Filed Aug. 16, 1909. Used ten years.

NICE

Particular description of goods.—Paints, Varnishes, Fillers, Colors, Enamel Paints, Stains, and Japans.

Ser. No. 44,175. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) PALMER & CO., Sioux City, Iowa. Filed Aug. 16, 1909.



Particular description of goods.—Candy and Popcorn Confections.

Ser. No. 44,189. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MURRAY CHEMICAL CO., San Francisco, Cal. Filed Aug. 17, 1909.



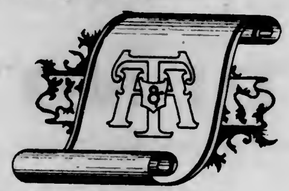
Particular description of goods.—A Lotion for Cuts, Burns, Bruises, Scalds, Sunburn, Insect-Bites, Neuralgia, Earache, Throat Troubles, Sore Eyes, Bowel-Urinary Troubles, Piles, Indigestion, Stomach Trouble, Toothache, Cold in the Head, Catarrh.

Ser. No. 44,198. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) GIRARD A. MAVON, Chicago, Ill. Filed Aug. 18, 1909.

REVOLUTION

Particular description of goods.—Soap and Scouring and Washing Powders.

Ser. No. 44,232. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) TOUSLEY & HERTEL, Cleveland, Ohio. Filed Aug. 19, 1909.



The scroll shown being printed in red.
Particular description of goods.—Wheat-Flour.

Ser. No. 44,258. (CLASS 39. CLOTHING.) NORTHERN SHOE CO., Duluth, Minn. Filed Aug. 20, 1909.

Independent

Particular description of goods.—Boys' and Girls' Leather Boots and Shoes.

Ser. No. 44,274. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE MARIENHOFF COMPANY, Charleston, S. C. Filed Aug. 21, 1909.

KING COTTON

Particular description of goods.—Biscuits, Crackers, and Candies.

Ser. No. 44,308. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) KEYSTONE STEEL & WIRE COMPANY, South Bartonville, Ill. Filed Aug. 23, 1909.

Blue Ribbon

Particular description of goods.—Wire Fence and Barbed Wire.

Ser. No. 44,320. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE G. B. FARRINGTON COMPANY, New York, N. Y. Filed Aug. 24, 1909.



The portrait shown being that of the explorer, Henry Hudson.
Particular description of goods.—Roasted Coffee.

Ser. No. 44,352. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE ANTI-VERMIN CO., New York, N. Y. Filed Aug. 25, 1909.



Particular description of goods.—Vermin-Destroyers in Liquid, Powder, and Solid Form, Insecticides, Disinfectants, and Antiseptics.

Ser. No. 44,367. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) THE NEW YORK MILLS, New York Mills, N. Y. Filed Aug. 26, 1909.



Consists of the word "Rival," no claim being made to the representation of the scroll.
Particular description of goods.—Sheetings in the Piece and Sheets, Pillow-Cases, and Bolster-Cases Made Therefrom.

Ser. No. 44,441. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WALDO MASON WATTLES, Ann Arbor, Mich. Filed Aug. 30, 1909.

MYRLENE

Particular description of goods.—Molasses to be Used in the Feed of Horses and Cattle.

Ser. No. 44,499. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) H. T. COTTAM & CO LTD., New Orleans, La. Filed Sept. 2, 1909.

EL TORO

Particular description of goods.—Soap.

Ser. No. 44,501. (CLASS 15. OILS AND GREASES.) H. T. COTTAM & CO LTD., New Orleans, La. Filed Sept. 2, 1909.

EL TORO

Particular description of goods.—Illuminating-Oil.

Ser. No. 44,528. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SEBASTIAN TRAUTH, New Orleans, La. Filed Sept. 3, 1909.

P

Particular description of goods.—A Vegetable Composition Adapted to be Blended with Coffee.

Ser. No. 44,565. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE BEE BEE CONFECTION CO., Dayton, Ohio. Filed Sept. 7, 1909.

HONEY BEE

Particular description of goods.—Chewing-Gum.

Ser. No. 44,578. (CLASS 39. CLOTHING.) HOOD RUBBER CO., Boston, Mass. Filed Sept. 8, 1909.



The narrow upper band being printed in red.
Particular description of goods.—Rubber Boots and Shoes.

Ser. No. 44,627. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) WILLIAMS, HARVEY & CO LIMITED, Hayle, Cornwall, England. Filed Sept. 10, 1909.

MELLANEAR

Particular description of goods.—Tin.

Ser. No. 44,640. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) ROGERS & THOMPSON, West New York, N. J., and New York, N. Y. Filed Sept. 11, 1909.



Particular description of goods.—Broad Silk in the Piece, Cotton Piece Goods, and Silk and Cotton Piece Goods.

Ser. No. 44,652. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) LONE STAR BLACKING & MFG CO., Dallas, Tex. Filed Sept. 13, 1909.



Particular description of goods.—Polish for Leather and Shoes.

Ser. No. 44,654. (CLASS 15. OILS AND GREASES.) STANDARD OIL CO. OF NEW YORK, New York, N. Y. Filed Sept. 13, 1909. Used ten years.

PRATT'S ASTRAL OIL NEW-YORK

Particular description of goods.—Refined Petroleum for Illuminating, Heating, and Power Purposes.

Ser. No. 44,664. (CLASS 39. CLOTHING.) DETROIT OVERALL COMPANY, Detroit, Mich. Filed Sept. 13, 1909.

FAST LIMITED

Particular description of goods.—Overalls and Workingmen's Coats.

Ser. No. 44,681. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) LOCKWOOD, BRACKETT & COMPANY, Boston, Mass. Filed Sept. 14, 1909.



Particular description of goods.—Olive-Oil and Orange-Flower Water Suitable for Flavoring Foods.

Ser. No. 44,703. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ENAN M. DEAL, Philadelphia, Pa. Filed Sept. 15, 1909.



Particular description of goods.—Compound for Removing Scale in Steam-Boilers and for Preventing the Formation of Scale in Steam-Boilers.

Ser. No. 44,709. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) BROCTON FRUIT JUICE CO., Tonawanda, N. Y. Filed Sept. 15, 1909.



Particular description of goods.—Cider.

Ser. No. 44,750. (CLASS 39. CLOTHING.) HARRY KITZINGER, New York, N. Y. Filed Sept. 17, 1909.

HALF MOON

Particular description of goods.—Coats, Capes, Dresses, and Outer Suits for Children, Misses, and Ladies.

Ser. No. 44,760. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) F. R. CROTHERS & CO., Sparta, Ill. Filed Sept. 18, 1909. Used ten years.

SPARTA PLOW WORKS

Particular description of goods.—Plows, Double-Shovel Plows, Single-Shovel Plows, Harrows, Rolling-Colters, Hand-Cultivators, Walking-Cultivators, and Riding-Cultivators.

Ser. No. 44,823. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) THOMAS HILL, New York, N. Y. Filed Sept. 20, 1909.

RETAW

Particular description of goods.—Distilled Water, Natural and Artificial Mineral Water, and Carbonated Flavored Tonic Beverages.

Ser. No. 44,835. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE S. P. POND COMPANY, Keokuk, Iowa. Filed Sept. 21, 1909.

Pond Lily

Particular description of goods.—Butter.

Ser. No. 44,859. (CLASS 5. ADHESIVES.) ROBISON BROS., Paris, Ill. Filed Sept. 22, 1909.



Particular description of goods.—Adhesive Cement.

Ser. No. 44,880. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NEPTUNE PACKING COMPANY, Boothbay Harbor, Me., and Boston, Mass. Filed Sept. 23, 1909.



Particular description of goods.—Canned Sardines.

Ser. No. 44,881. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NEPTUNE PACKING COMPANY, Boothbay Harbor, Me., and Boston, Mass. Filed Sept. 23, 1909.



Particular description of goods.—Canned Sardines.

Ser. No. 44,887. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) FREEMAN SARDOU, Topeka, Kans. Filed Sept. 23, 1909.

Madam Caesar



The picture being fanciful.

Particular description of goods.—Canned Fruits and Vegetables.

Ser. No. 44,892. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ONTARIO-CUCAMONGA FRUIT EXCHANGE, Upland, Cal. Filed Sept. 23, 1909.



Particular description of goods.—Citrus Fruits.

Ser. No. 44,893. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ONTARIO-CUCAMONGA FRUIT EXCHANGE, Upland, Cal. Filed Sept. 23, 1909.



Particular description of goods.—Oranges, Lemons, and Grape-Fruit.

Ser. No. 44,920. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SHARP & DOHME, Baltimore, Md. Filed Sept. 23, 1909.

SANAX

Particular description of goods.—Disinfecting Fluid.

Ser. No. 44,965. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) BAER BROS, New York, N. Y. Filed Sept. 25, 1909.

BRUIN

Particular description of goods.—Paints, Enamels, Bronze Powders, and Bronzing Liquids.

Ser. No. 44,976. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) PURITAN REMEDY CO., Reno, Nev. Filed Sept. 27, 1909.



Particular description of goods.—A Nerve-Tonic.

Ser. No. 45,018. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) THE CINCINNATI RUBBER MANUFACTURING CO., Cincinnati, Ohio. Filed Sept. 30, 1909.

DELTA

Particular description of goods.—Hose Composed of Rubber or Rubber and Fabric.

Ser. No. 45,044. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) JOSEF BAUMGARTEN, Arlington, N. J. Filed Oct. 1, 1909.



Particular description of goods.—Tongue-Cleaners.

Ser. No. 45,045. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) C. A. POPP, New York, N. Y. Filed Oct. 1, 1909.



Particular description of goods.—Herb Tea.

Ser. No. 45,114. (CLASS 39. CLOTHING.) CHAS. A. STEVENS & BROS., Chicago, Ill. Filed Oct. 4, 1909.

Elysian

Particular description of goods.—Corsets.

Ser. No. 45,117. (CLASS 9. EXPLOSIVES, FIREARMS, EQUIPMENTS, AND PROJECTILES.) WINCHESTER REPEATING ARMS CO., New Haven, Conn. Filed Oct. 4, 1909.

W

Particular description of goods.—Telescope Rifle-Sights, Reticules for Telescope Rifle-Sights, Rear and Front Mounts for Telescope Rifle-Sights, and Screws and Parts for Telescope Rifle-Sights.

Ser. No. 45,152. (CLASS 39. CLOTHING.) ROSE OPPENHEIM, New York, N. Y. Filed Oct. 5, 1909.

Oppe's

Particular description of goods.—Men's, Women's, and Children's Leather Shoes.

Ser. No. 45,153. (CLASS 39. CLOTHING.) SALLYE FRAZIN, New York, N. Y. Filed Oct. 5, 1909. Used ten years.

Frazin's

Particular description of goods.—Men's, Women's, and Children's Leather Shoes.

Ser. No. 45,171. (CLASS 8. SMOKERS' ARTICLES, NOT INCLUDING TOBACCO PRODUCTS.) BRAUNSTEIN & CIE, Paris, France. Filed Oct. 7, 1909.



Particular description of goods.—Cigarette-Paper.

Ser. No. 45,173. (CLASS 8. SMOKERS' ARTICLES, NOT INCLUDING TOBACCO PRODUCTS.) BRAUNSTEIN & CIE, Paris, France. Filed Oct. 7, 1909.



Particular description of goods.—Cigarette-Paper.

Ser. No. 45,211. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) B ALTMAN & Co., New York, N. Y. Filed Oct. 9, 1909.

Barbarossa

Particular description of goods.—Silk Piece Goods.

Ser. No. 45,234. (CLASS 39. CLOTHING.) SEARS, ROEBUCK AND Co., Chicago, Ill. Filed Oct. 9, 1909.

Equity

Particular description of goods.—Men's Dress-Shirts and Negligée Shirts.

Ser. No. 45,258. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) THE PITTSBURGH DRY GOODS COMPANY, Pittsburg, Pa. Filed Oct. 12, 1909. Used ten years.

POLAR

Particular description of goods.—Wool Blankets.

Ser. No. 45,272. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) LINDSAY PRODUCERS ASSOCIATION, Lindsay, Cal. Filed Oct. 12, 1909.

SPHINX BRAND



Particular description of goods.—Oranges.

Ser. No. 45,325. CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) THE CUSHMAN & DENISON MANUFACTURING COMPANY, New York, N. Y. Filed Oct. 14, 1909.

FINDING THE POLE

Particular description of goods.—A Game.

Ser. No. 45,338. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) THE SIEBERT-WELCH Co., Columbus, Ohio. Filed Oct. 15, 1909.

INSTO

Particular description of goods.—Electric Heating and Discharging Devices for Treatment of the Skin and Electrically-Operated Massaging Devices.

Ser. No. 45,341. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) FOSTER, CALDARERA & Co., Fort Smith, Ark. Filed Oct. 15, 1909.

ARKOMA

Particular description of goods.—Coffee.

Ser. No. 45,342. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) JAMES H. BOUFORD, Elgin, Ill. Filed Oct. 15, 1909.

QUAKER

Particular description of goods.—Chewing-Gum.

Ser. No. 45,345. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) JAMES H. BOUFORD, Elgin, Ill. Filed Oct. 15, 1909.

PURITAN

Particular description of goods.—Chewing-Gum.

Ser. No. 45,346. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) JAMES H. BOUFORD, Elgin, Ill. Filed Oct. 15, 1909.

YOGURT

Particular description of goods.—Chewing-Gum.

Ser. No. 45,348. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) C. A. GAMBRILL MANUFACTURING COMPANY, Baltimore, Md. Filed Oct. 15, 1909. Used ten years.

BALDWIN

Particular description of goods.—Wheat-Flour.

Ser. No. 45,359. (CLASS 39. CLOTHING.) BROWN DURRELL Co., Boston, Mass. Filed Oct. 16, 1909.



Particular description of goods.—Kid Gloves.

Ser. No. 45,362. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) SELIG POLYSCOPE Co., Chicago, Ill. Filed Oct. 16, 1909.

PROJECTAPHONE

Particular description of goods.—Phonographs to be Used in Connection with Moving-Picture Apparatus.

Ser. No. 45,368. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) BENOIST BROS., MFG., Co., St. Louis, Mo. Filed Oct. 16, 1909.



Particular description of goods.—Storage Batteries.

Ser. No. 45,369. (CLASS 39. CLOTHING.) ELY & WALKER DRY GOODS Co., St. Louis, Mo. Filed Oct. 16, 1909.

Ivanhoe Mills

Particular description of goods.—Men's, Women's, and Children's Knit Underwear.

Ser. No. 45,371. (CLASS 39. CLOTHING.) CHAS CHIPMANS SONS, Easton, Pa. Filed Oct. 16, 1909.

TIGER



Particular description of goods.—Hosiery.

Ser. No. 45,435. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) THE UNITED STATES PHONOGRAPH Co., Cleveland, Ohio. Filed Oct. 20, 1909.

PHONOLA

Particular description of goods.—Cabinets for Talking-Machines.

Ser. No. 45,446. (CLASS 39. CLOTHING.) CHAS CHIPMANS SONS, Easton, Pa. Filed Oct. 21, 1909.

PIRATE



Particular description of goods.—Hosiery.

Ser. No. 45,447. (CLASS 39. CLOTHING.) CHAS CHIPMANS SONS, Easton, Pa. Filed Oct. 21, 1909.



Particular description of goods.—Hosiery.

Ser. No. 45,462. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) J. D. CHISHOLM CHEMICAL COMPANY, Vicksburg, Miss. Filed Oct. 22, 1909.



Particular description of goods.—Headache Remedies.

Ser. No. 45,510. (CLASS 39. CLOTHING.) THE PITTSBURGH DRY GOODS COMPANY, Pittsburg, Pa. Filed Oct. 25, 1909.

AJAX

Particular description of goods.—Overalls.

Ser. No. 45,525. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HINGSTON AND BRENDLINGER, Pottstown, Pa. Filed Oct. 25, 1909.

EUREKA

Particular description of goods.—Poisoned Fly-Paper.

Ser. No. 45,547. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) KATTMANN & KNEELAND TENT CO., Houston, Tex. Filed Oct. 25, 1909.

K & K

Particular description of goods.—Canvas Hammocks.

Ser. No. 45,571. (CLASS 32. FURNITURE AND UPHOLSTERY.) A. HOSPE CO, Omaha, Nebr. Filed Oct. 27, 1909.

F.C.S.

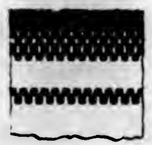
Particular description of goods.—Picture-Frames.

Ser. No. 45,574. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MORTON, SHARP & BEELER, Maynardville, Tenn. Filed Oct. 27, 1909.

M S B

Particular description of goods.—Hog and Chicken Cholera Remedy.

Ser. No. 45,577. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) WILLIAM ALSBERG & CO., New York, N. Y. Filed Oct. 27, 1909.



Particular description of goods.—Lining-Canvas.

Ser. No. 45,619. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) THE PITTSBURGH DRY GOODS COMPANY, Pittsburg, Pa. Filed Oct. 30, 1909.

FAIRY

Particular description of goods.—Wool Blankets.

Ser. No. 45,634. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CONTINENTAL SPECIALTY CO., Dayton, Ohio. Filed Oct. 30, 1909. Used ten years.

Continental

Particular description of goods.—An Ointment for the Treatment of Cuts, Bruises, Bites, Burns, Scalds, Sunburn, Boils, Eczema, Sore Throat, Sore Gums, Chapped Hands, or Any Injury or Irritation of the Skin or Flesh, and for Veterinary Use.

TRADE-MARKS

REGISTERED DECEMBER 14, 1909.

76,062. CANNED CLAMS. THE ANDREW KEER CO., INC., Somerville, Mass.
Filed June 22, 1909. Serial No. 43,176. PUBLISHED OCTOBER 12, 1909.

76,063. BLENDED TEA. AUSTIN, NICHOLS & CO., New York, N. Y.
Filed July 12, 1909. Serial No. 43,484. PUBLISHED OCTOBER 12, 1909.

76,064. CERTAIN FOODS. AUSTIN, NICHOLS & CO., New York, N. Y.
Filed July 12, 1909. Serial No. 43,485. PUBLISHED OCTOBER 12, 1909.

76,065. OVERSHIRTS, OVERALLS, PANTS, AND COATS. L. S. BAUMGARDNER & COMPANY, Toledo, Ohio.
Filed August 13, 1909. Serial No. 44,132. PUBLISHED OCTOBER 12, 1909.

76,066. PREPARED STARCH FOR ALIMENTARY PURPOSES. THE CLASSIC PRODUCTS CO., New York, N. Y.
Filed July 22, 1909. Serial No. 43,695. PUBLISHED OCTOBER 12, 1909.

76,067. ROASTED COFFEE. THE CLIMAX COFFEE & BAKING POWDER COMPANY, Indianapolis, Ind.
Filed August 7, 1909. Serial No. 44,018. PUBLISHED OCTOBER 12, 1909.

76,068. CERTAIN CLOTHING. WILLIAM DANENBAUM, New York, N. Y.
Filed May 25, 1909. Serial No. 42,659. PUBLISHED OCTOBER 12, 1909.

76,069. WHEAT-FLOUR. DETROIT MILLING COMPANY, Detroit and Adrian, Mich.
Filed July 25, 1908. Serial No. 36,326. PUBLISHED OCTOBER 12, 1909.

76,070. COFFEE. DWINELL-WRIGHT COMPANY, Boston, Mass.
Filed May 2, 1908. Serial No. 34,556. PUBLISHED OCTOBER 12, 1909.

76,071. WOODEN PICTURE-FRAMES. FRANK W. WILLIAMS COMPANY, Chicago, Ill.
Filed April 9, 1909. Serial No. 41,702. PUBLISHED OCTOBER 12, 1909.

76,072. LADIES' OUTER SKIRTS, PETTICOATS, SHIRT-WAISTS, CLOAKS, AND OUTER SUITS. GILBERT MFG. CO., New York, N. Y.
Filed August 10, 1909. Serial No. 44,057. PUBLISHED OCTOBER 12, 1909.

76,073. NOODLES. EMIL GOEPFERT, Pittsburg, Pa.
Filed July 26, 1909. Serial No. 43,786. PUBLISHED OCTOBER 12, 1909.

76,074. WHEAT-FLOUR. THE KANSAS MILLING COMPANY, Wichita, Kans.
Filed March 27, 1909. Serial No. 41,432. PUBLISHED OCTOBER 12, 1909.

76,075. WHEAT-FLOUR. THE KANSAS MILLING COMPANY, Wichita, Kans.
Filed March 27, 1909. Serial No. 41,433. PUBLISHED OCTOBER 12, 1909.

76,076. WHEAT-FLOUR. THE KANSAS MILLING COMPANY, Wichita, Kans.
Filed March 27, 1909. Serial No. 41,434. PUBLISHED OCTOBER 12, 1909.

76,077. CERTAIN CLOTHING. KOHN & BABB, New York, N. Y.
Filed July 15, 1909. Serial No. 43,552. PUBLISHED OCTOBER 12, 1909.

76,078. RUBBER HOSE, BELTING, PACKING, AND VALVES. L. M. RUMSEY MANUFACTURING COMPANY, St. Louis, Mo.
Filed August 7, 1909. Serial No. 44,022. PUBLISHED OCTOBER 12, 1909.

76,079. WHEAT-FLOUR. THE NATIONAL MILLING COMPANY, Toledo, Ohio.
Filed July 24, 1909. Serial No. 43,765. PUBLISHED OCTOBER 12, 1909.

76,080. BLENDED COFFEE. NORTON & CURD COFFEE Co., Louisville, Ky.
Filed August 5, 1909. Serial No. 43,983. PUBLISHED OCTOBER 12, 1909.

76,081. RUBBER VEHICLE-TIRES. SHAWMUT TIRE Co., Boston, Mass.
Filed April 20, 1909. Serial No. 41,882. PUBLISHED OCTOBER 12, 1909.

76,082. CANNED VEGETABLES. THE SPRING VALLEY CANNING COMPANY, Spring Valley and Lebanon, Ohio.
Filed June 30, 1909. Serial No. 43,331. PUBLISHED OCTOBER 12, 1909.

76,083. CERTAIN CLOTHING. THE STANDARD KNITTING COMPANY, Cleveland, Ohio.
Filed November 30, 1908. Serial No. 38,975. PUBLISHED OCTOBER 12, 1909.

76,084. FLOOR AND WALL REGISTERS. THE UNITED STATES REG. CO. LTD., Battle Creek, Mich.
Filed August 4, 1909. Serial No. 43,964. PUBLISHED OCTOBER 12, 1909.

76,085. TEA. THOMAS WOOD & CO., Boston, Mass.
Filed January 28, 1909. Serial No. 40,182. PUBLISHED OCTOBER 12, 1909.

76,086. STEREOPTICONS, PROJECTORS, MAGIC LANTERNS, AND LANTERN-SLIDES. THE BUCKEYE STEREOPTICON CO, Cleveland, Ohio.
Filed July 23, 1909. Serial No. 43,709. PUBLISHED OCTOBER 12, 1909.

76,087. TEAS. THE CAMPBELL & WOODS COMPANY, Pittsburg, Pa.
Filed November 23, 1908. Serial No. 38,856. PUBLISHED MAY 25, 1909.

76,088. TEA. EPPENS, SMITH COMPANY, Hoboken, N. J. and New York, N. Y.
Filed March 16, 1909. Serial No. 41,222. PUBLISHED JUNE 1, 1909.

76,089. BAKING-SODA. GRIGGS, COOPER & CO., St. Paul, Minn.
Filed July 28, 1909. Serial No. 43,861. PUBLISHED OCTOBER 12, 1909.

76,090. COURT-PLASTER. SAMUEL E. HOWE, Boston, Mass.
Filed July 29, 1909. Serial No. 43,868. PUBLISHED OCTOBER 12, 1909.

76,091. SOAP FOR TOILET, LAUNDRY, AND GENERAL PURPOSES. THE PROCTER & GAMBLE COMPANY, Ivorydale and Cincinnati, Ohio; Kansas City, Kans., and New York, N. Y.
Filed July 31, 1909. Serial No. 43,902. PUBLISHED OCTOBER 12, 1909.

76,092. SOAP FOR LAUNDRY AND GENERAL PURPOSES. THE PROCTER & GAMBLE COMPANY, Ivorydale and Cincinnati, Ohio; Kansas City, Kans., and New York, N. Y.
Filed July 31, 1909. Serial No. 43,907. PUBLISHED OCTOBER 12, 1909.

76,093. SOAP FOR LAUNDRY USE. THE PROCTER & GAMBLE COMPANY, Ivorydale and Cincinnati, Ohio; Kansas City, Kans., and New York, N. Y.
Filed July 31, 1909. Serial No. 43,908. PUBLISHED OCTOBER 12, 1909.

76,094. BAKING-POWDER. THE SEA GULL SPECIALTY COMPANY, Baltimore, Md.
Filed July 20, 1909. Serial No. 43,645. PUBLISHED OCTOBER 12, 1909.

76,095. MILK COOLERS AND AERATORS. CHARLES SKIDD, Kenosha, Wis.
Filed July 30, 1909. Serial No. 43,895. PUBLISHED OCTOBER 12, 1909.

76,096. PATENT AND ENAMELED LEATHER. JAMES T. SMITH, Newark, N. J.
Filed April 12, 1909. Serial No. 41,746. PUBLISHED AUGUST 31, 1909.

76,097. CERTAIN TEXTILES. AMERICAN FIBRE MATTING COMPANY, Lawrence, Mass., and New York, N. Y.
Filed August 2, 1909. Serial No. 43,924. PUBLISHED OCTOBER 12, 1909.

76,098. BITUMINOUS AND CONCRETE PAVEMENTS AND SIDEWALKS. THE AMERICAN PAVING & MANUFACTURING COMPANY, Indianapolis, Ind.
Filed June 25, 1909. Serial No. 43,256. PUBLISHED OCTOBER 12, 1909.

76,099. WOOLEN CLOTH. AMERICAN WOOLEN COMPANY, Boston, Mass.
Filed August 26, 1909. Serial No. 44,369. PUBLISHED OCTOBER 12, 1909.

76,100. CITRUS FRUITS. AZUSA - COVINA - GLENDORA FRUIT EXCHANGE, Azusa, Cal.
Filed July 17, 1909. Serial No. 43,617. PUBLISHED OCTOBER 12, 1909.

76,101. CITRUS FRUITS. AZUSA - COVINA - GLENDORA FRUIT EXCHANGE, Azusa, Cal.
Filed July 17, 1909. Serial No. 43,618. PUBLISHED SEPTEMBER 14, 1909.

76,102. BEER. BERGHOFF BREWING ASSOCIATION, Fort Wayne, Ind.
Filed June 23, 1908. Serial No. 35,692. PUBLISHED OCTOBER 12, 1909.

76,103. PILLS, TABLETS, AND LIQUID COMPOUNDS. J. ERNEST BROOKE, Antioch, Ill.
Filed December 21, 1908. Serial No. 39,467. PUBLISHED OCTOBER 12, 1909.

76,104. FISH-LINES. CHAFFEE MANUFACTURING COMPANY, Willimantic, Conn.
Filed August 6, 1909. Serial No. 44,001. PUBLISHED OCTOBER 12, 1909.

76,105. SOAPS AND SOAP POWDERS. COLGATE & CO., Jersey City, N. J., and New York, N. Y.
Filed June 19, 1909. Serial No. 43,115. PUBLISHED OCTOBER 12, 1909.

76,106. VARNISH. CROWN VARNISH AND ENAMEL COMPANY, Chicago, Ill.
Filed August 14, 1909. Serial No. 44,146. PUBLISHED OCTOBER 12, 1909.

76,107. CASES TO RECEIVE FLAXSEED OR THE LIKE TO FORM A POULTICE. HYDE JOHN DUNN, Oakland, Cal.
Filed May 17, 1909. Serial No. 42,476. PUBLISHED AUGUST 31, 1909.

76,108. BRAKES FOR VELOCIPEDES AND OTHER ROAD-VEHICLES. E. M. BOWDEN'S PATENTS SYNDICATE LTD., London, England.
Filed August 6, 1909. Serial No. 44,003. PUBLISHED OCTOBER 12, 1909.

76,109. LIQUID DENTIFRICE AND ANTISEPTIC. ELETO COMPANY, New York, N. Y.
Filed December 3, 1908. Serial No. 39,066. PUBLISHED OCTOBER 12, 1909.

76,110. RUBBER BANDS. A. W. FABER, Stein, Germany.
Filed December 4, 1908. Serial No. 39,104. PUBLISHED OCTOBER 12, 1909.

76,111. TONIC. THE FATHER MORRISCY MEDICINE COMPANY LIMITED, Chatham, New Brunswick, Canada.
Filed January 20, 1909. Serial No. 40,035. PUBLISHED MAY 25, 1909.

76,112. CIDER, ROOT-BEER, SARSAPARILLA, BIRCH-BEER, GINGER-ALE, AND CHERRY-PHOSPHATES. FRANKLIN MACVEAGH & CO., Chicago, Ill.
Filed August 16, 1909. Serial No. 44,158. PUBLISHED OCTOBER 12, 1909.

76,113. CERTAIN FOODS. FRED. ECKART PACKING COMPANY, Fort Wayne, Ind.
Filed July 24, 1909. Serial No. 43,767. PUBLISHED OCTOBER 12, 1909.

76,114. ELECTRIC MOTORS, DYNAMOS AND THEIR PARTS, AND CONTROLLERS FOR THE SAME. GARWOOD ELECTRIC COMPANY, Garwood, N. J.
Filed July 31, 1909. Serial No. 43,921. PUBLISHED OCTOBER 12, 1909.

76,115. COKE. GIRVIN & EYRE, San Francisco, Cal.
Filed June 30, 1909. Serial No. 43,337. PUBLISHED OCTOBER 12, 1909.

76,116. JUTES. CHIESA HERMANOS, Rosario, Argentina, and New York, N. Y.
Filed October 5, 1908. Serial No. 37,804. PUBLISHED OCTOBER 12, 1909.

76,117. CIRCULAR SAWS. HUTHER BROS. SAW MFG. CO., INC., Rochester, N. Y.
Filed June 21, 1909. Serial No. 43,135. PUBLISHED JULY 27, 1909.

76,118. CERTAIN MACHINERY. INTERNATIONAL HARVESTER COMPANY OF AMERICA, Chicago, Ill.
Filed June 24, 1909. Serial No. 43,233. PUBLISHED OCTOBER 12, 1909.

76,119. BEER. IROQUOIS BREWING CO., Buffalo, N. Y.
Filed March 30, 1908. Serial No. 33,736. PUBLISHED OCTOBER 12, 1909.

76,120. CERTAIN BUILDING MATERIALS. J. B. KING, & Co., New York, N. Y.
Filed July 15, 1908. Serial No. 36,128. PUBLISHED MARCH 9, 1909.

76,121. CHLORODYNE. J. T. DAVENPORT, LIMITED, London, England.
Filed September 28, 1908. Serial No. 37,644. PUBLISHED OCTOBER 12, 1909.

76,122. POULTRY MEDICINE. GUSTAV A. JANNELL, Cleveland, Ohio.
Filed July 15, 1909. Serial No. 43,549. PUBLISHED OCTOBER 12, 1909.

76,123. COVER-PAPER. KEITH PAPER COMPANY, Turners Falls, Mass.
Filed May 20, 1909. Serial No. 42,554. PUBLISHED OCTOBER 12, 1909.

76,124. SPARKLING BURGUNDY WINE. LOUIS LEGRAND, Nuits, Côté d'Or, France.
Filed July 31, 1908. Serial No. 36,412. PUBLISHED OCTOBER 12, 1909.

76,125. REMEDIES FOR HEADACHE. ROBERT W. NIX, Charleston, S. C.
Filed May 14, 1908. Serial No. 34,735. PUBLISHED NOVEMBER 17, 1908.

76,126. ENAMELED METAL WARE. NORVELL-SHAPLEIGH HARDWARE COMPANY, St. Louis, Mo.
Filed November 14, 1905. Serial No. 14,627. PUBLISHED OCTOBER 12, 1909.

76,127. CERTAIN SPORTING GOODS. NORVELL-SHAPLEIGH HARDWARE COMPANY, St. Louis, Mo.
Filed August 13, 1909. Serial No. 44,117. PUBLISHED OCTOBER 12, 1909.

76,128. REMEDY FOR MALARIA, CHILLS, FEVER, AGUE, AND GRIPPE. POMERAN CHEMICAL CO., Newark, N. J.
Filed May 22, 1909. Serial No. 42,599. PUBLISHED OCTOBER 12, 1909.

76,129. REMEDY FOR INDIGESTION. SHARP & DOHME, Baltimore, Md.
Filed June 23, 1909. Serial No. 43,200. PUBLISHED OCTOBER 12, 1909.

76,130. SOAP. JOEL F. SHIPLEY, Bogky Depot, Okla.
Filed June 21, 1909. Serial No. 43,142. PUBLISHED OCTOBER 12, 1909.

76,131. PETROLEUM PRODUCTS. THE TEXAS COMPANY, Beaumont and Houston, Tex., and New York, N. Y.
Filed May 22, 1909. Serial No. 42,619. PUBLISHED OCTOBER 12, 1909.

76,132. CERTAIN FOODS. U. S. HORSE RADISH CO, Saginaw, Mich.
Filed March 26, 1908. Serial No. 33,680. PUBLISHED JULY 14, 1908.

76,133. POKER-CHIPS. THE UNITED STATES PLAYING CARD COMPANY, Cincinnati, Ohio.
Filed August 2, 1909. Serial No. 43,933. PUBLISHED OCTOBER 12, 1909.

TRADE-MARKS CANCELED

53,299. CANNED FRUITS AND VEGETABLES. WAYNE COUNTY PRESERVING CO., Newark, N. Y.
Registered May 29, 1906. Canceled November 24, 1909.

LABELS

REGISTERED DECEMBER 14, 1909.

15,071.—*Title:* "WOLF'S CATARRH REMEDY." (For Medicine for Catarrh.) HERMAN WOLF, Globe, Ariz. Ter. Filed January 23, 1908.

PRINTS

REGISTERED DECEMBER 14, 1909.

2,556.—*Title:* "SEMOLA." (For an Insecticide.) SEMOLA MANF'G CO., Los Angeles, Cal. Filed May 11, 1909.

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

DECISIONS OF THE U. S. COURTS.

Supreme Court of the District of Columbia.

DILG *v.* MOORE, (SUBSTITUTED FOR ALLEN,) COMMISSIONER OF PATENTS OF THE UNITED STATES.

Decided January 28, 1909.

PATENTABILITY—BILL UNDER SECTION 4915, REVISED STATUTES.

The evidence presented considered and *Held* insufficient to overcome the rulings of Patent Office and the Court of Appeals of the District of Columbia that the claims are unpatentable.

Messrs. Warfield & Duell for the complainant.

Mr. Fairfax Bayard for the Commissioner of Patents.

This is a bill in equity filed under section 4915 Revised Statutes of the United States to compel the Commissioner of Patents to issue Letters Patent to the plaintiff, Dilg. The section under which the suit is brought reads as follows:

Whenever a patent on application is refused, either by the Commissioner of Patents or by the Supreme Court of the District of Columbia upon appeal from the Commissioner, the applicant may have remedy by bill in equity; and the court having cognizance thereof, on notice to adverse parties and other due proceedings had, may adjudge that such applicant is entitled, according to law, to receive a patent for his invention, as specified in his claim, or for any part thereof, as the facts in the case may appear. And such adjudication, if it be in favor of the right of the applicant, shall authorize the Commissioner to issue such patent on the applicant filing in the Patent Office a copy of the adjudication, and otherwise complying with the requirements of law. In all cases, where there is no opposing party, a copy of the bill shall be served on the Commissioner; and all the expenses of the proceeding shall be paid by the applicant, whether the final decision is in his favor or not.

The plaintiff's application relates to rings for holding balls used in ball-bearings and keeping them properly spaced. The device specifically involved in the bill consists of a flat hollow ring, upon each of the two edges of which are projections or standards, and on the top of the outer edge triangular flaps projecting over to the top of the corresponding inner projections, thus forming what may be termed a pocket into which the balls are sprung. It will be noticed that plaintiff's claims show two series of retaining-standards, each series springing from opposite sides of the ring.

The original application of plaintiff for a patent was filed in 1897 and another in 1900. These applications disclose substantially the same subject-matter. In 1903, he inserted three claims, which are numbered fourteen, fifteen and sixteen, which were taken from a patent issued to another party. These claims read as follows:

14. A ball-retaining device for ball-bearings consisting of a ring-shaped portion or base having a series of standards springing from one edge thereof only and provided with sector-shaped or flaring angularly-arranged extensions, whereby suitable spaces are formed for receiving and confining the balls between adjacent standards.

15. A ball-retainer consisting of an annular base portion and a series of integral parts extending from one edge only of said base and having flaring portions arranged at an angle thereto, whereby suitable spaces are formed for receiving balls which are sprung into said spaces and confined between said parts.

16. A ball-retaining device for ball-bearings, consisting of a ring-shaped portion or base having a series of standards springing axially from one edge thereof only and terminating in sector-shaped or flaring angularly-arranged flanges or extensions, whereby suitable spaces are formed for receiving and confining the balls between adjacent standards.

The question involved is whether these claims describe anything disclosed in his original applications.

The law is well settled to the effect that patents must be restricted as to matters of substance to what was disclosed in the original application. (*Railway Co.* v. *Sayles*, 97 U. S., 554; *in re Dilg*, 25 App. D. C., 9.)

So that the question here involved is whether Dilg's application for a retaining-ring having a series—

of inner and outer flaps * * * to confine the balls—

that is, one series of projections which arise from both the inner and outer edges of the base-ring, warrants an amendment which refers to a series of standards springing from one edge only.

It seems to me this is entirely a question for expert testimony. And in this conclusion I am sustained by the action of the plaintiff in this case. In the only testimony of any importance which he has added to the record heretofore made is that of an expert to the effect that plaintiff's original claims warranted the inclusion of the contested claims, Nos. 14, 15, and 16.

But if the question is one for experts, I should feel that I stood on more solid ground if I accepted the disinterested views of the Primary Examiner, the Examiners-in-Chief, the Commissioner of Patents, and the court of appeals (Mr. Justice Duell writing the opinion) all of whom held that the contested claims were not covered by either of plaintiff's original claims, rather than the unsupported views of Mr. Day, who was the plaintiff's expert, and the sole witness upon this crucial point in the case.

All these disinterested experts hold that plaintiff's original application gave him no right to include the claims of Keiper's patent.

I will therefore sign a decree dismissing plaintiff's bill.

Supreme Court of the United States.

STEWARD *et al. v.* AMERICAN LAVA COMPANY *et al.*
KIRCHBERGER *et al. v.* AMERICAN LAVA COMPANY *et al.*

Decided November 29, 1909.

PATENTABILITY—NEW MATTER—CLAIMS BASED ON THEORY OF OPERATION NOT ORIGINALLY DISCLOSED.

Where an application as originally filed did not differentiate from the prior art either in construction or theory of operation and an amendment thereto was filed, without verification by the inventor, introducing a new theory of operation and containing process claims covering such theory, such claims are invalid as covering new matter.

Mr. Louis C. Raegener for the petitioners.
Mr. Charles Neave for the respondents.

Mr. Justice HOLMES delivered the opinion of the Court.

These are bills in equity brought by the petitioners to restrain the infringement of Letters Patent No. 589,342, issued to the assignee of Edward J. Dolan, and dated August 31, 1897. The patent was held invalid by the Circuit Court of Appeals for the Sixth Circuit. (155 Fed. Rep., 731 and 740; 84 C. C. A., 157 and 166.) It had been sustained by the Circuit Court of Appeals for the Second Circuit, (*Kirchberger* v. *American Acetylene Burner Co.*, 128 Fed., 599; 64 C. C. A., 107,) and a writ of certiorari was granted by this Court to the first-mentioned circuit court of appeals.

The patent, so far as it comes in question here, is for a tip for acetylene-gas burners and for the process of burning acetylene gas in the mode set forth. The court below held that the tip was not new, that the description was too indefinite, that the amended specifications brought in entirely new matter not sworn to, and that the claims for processes so called were only claims for the functions of the tip described.

A few words as to the conditions and knowledge at the time of the alleged invention will help to make the discussion plain. Acetylene gas began to be produced on a large scale for commercial purposes about 1895. It is very rich in carbon, and therefore has great illuminating power, but for the same reason coupled with the relatively low heat at which it dissociates and sets carbon free, it deposited soot or unconsumed carbon and soon clogged the burners then in use. It was possible to secure a complete consumption of carbon by means of the well-known Bunsen burner. This consists of a tube or cylinder pierced on the sides with holes for the admission of the air, into one end of which a fine stream of gas is projected through a minute aperture and from the other end of which it escapes and then is burned. A high pressure is necessary for the gas in order to prevent its burning back. The ordinary use of the Bunsen burner is to develop heat and to that end a complete combustion of course is desired. But with an immediately complete combustion there is little light. The yellow light of candles and gas-jets is due to free particles of carbon at a red heat, but not yet combined with oxygen, or, as we commonly say, consumed. On the appearance of acetylene gas inventors at once sought to apply the principle of the Bunsen burner with such modifications as would produce this result. In doing so they found it best to use duplex burners, that is, burners the outlets of which were inclined toward each other so that the meeting of the two streams of gas formed a flat flame, and to let in less air.

In this state of things Dolan filed his application on February 18, 1897. The object was said to be—

> to provide a burner the use of which will result in perfect combustion of the gas and the production of a flame which will afford the greatest possible degree of light from a given amount of gas consumed.

A duplex burner on the Bunsen plan was described, but with no indication of any patentable device. The drawings were merely diagrams, and, with reference to what is to follow, we may mention that two of them show two sets of air-holes, one above the other, and that the specification even now expressly allows "two or more" sets. The claims were rejected on April 6, 1897, and in the same month Dolan changed his attorney. On May 20 a new specification and new claims were filed by the new attorney, but not sworn to by Dolan, and on these, with no material change, the patent was granted. In this specification, as in the former, though in different words, it is said that—

> in order to prevent the deposit of carbon within the burner or at the burner-top and thereby insure a perfect combustion and a smokeless flame at the point where the same is formed, I provide a series of inclined air-passages, *a*, *a*, which lead into the enlarged passage, E, above the point at which the contracted opening, C, is provided.*

*The following are copies of Dolan's Fig. 1, and Fig. 2.

Fig. 1.

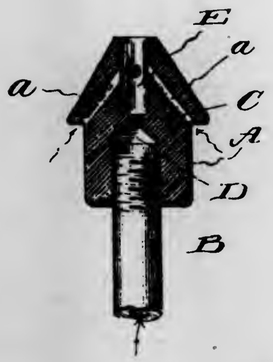
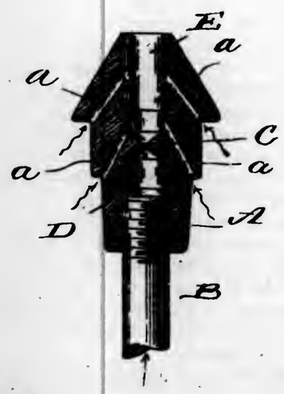


Fig. 2.



The inclined air-passages are the holes in the sides of the Bunsen burner, E is the cylinder, or tube, and the contracted opening, C, is the point at which the gas enters the tube. This device, and nothing else, is pointed out as the means for preventing the clogging of the tips. A preference is stated for a burner in duplex form.

In the new specification, however, it was said that the operation "seems to be" that the gas draws in on all sides an envelop of air through the openings *a*, &c., so far stating the Bunsen principle, but adding that—

> the result of this arrangement seems to be to so cool the outside of the flame as to prevent any deposit of carbon at the point of egress.

And another paragraph was as follows:

> The structure of my burner is such that if all of the burner were cut off in a horizontal plane immediately above the outlet C [the point where the gas enters the upper chamber] the general shape and condition of the flame would not be modified, but in this case an immediate combustion would occur at the outlet. Under the conditions of this burner the point where the gas reaches its kindling temperature is carried upward, but the general shape of the escaping gas-body is not materially modified.

It was stated earlier that—

> the result here accomplished would not be accomplished in an ordinary air-mixing burner in which the air was mingled generally with the body of the gas—

and that—

> in my burner an absolutely unobstructed passage is provided for the escape of the original jet of gas formed by the constricted opening C. By reason of this fact it is substantially necessary to have two jets if a flame of considerable candle-power is desired.

The claims allowed and in controversy here are as follows:

1. The process of burning acetylene gas, which consists in projecting a small cylinder of gas, in surrounding the same with an envelop of air insufficient to cause combustion of all the gas, and in finally supplying the gas with an additional amount of oxygen by allowing the stream of gas to expand above the burner-tip into contact with the air, thereby burning the same, substantially as described.
2. The process of burning acetylene gas, which consists in projecting toward each other two cylinders of acetylene gas, in surrounding the same with envelops of air insufficient to produce combustion of all the gas, and in finally causing the cylinders of gas to impinge upon each other and produce a flat flame, substantially as described.
3. The combination in an acetylene-burner of the block A having the minute opening C, the cylindrical opening E, opening without obstruction to the atmosphere, and the air-passages *a*, substantially as described.

The ground upon which these claims are maintained is the theory indicated in one of the passages that we have quoted, to the effect that the gas emerges to the air surrounded by a mainly-unmixed flow of air carried with it from the cylinder containing the holes *a*, *a*, and that this so cools the outside of the flame as to prevent a deposit of carbon. If this theory is not true and if all there is to the Dolan tip or burner is to provide for a mixture of air with the gas in the cylinder sufficient to secure complete combustion of all that is burned near the point of emergence, but insufficient to burn all the gas, the patent must fail. For this latter contrivance was well known, and if the shortness of the Dolan tip, which we are about to mention, has no other effect than to diminish the amount of air received it does nothing new. Moreover, unless the theory of the cooling-envelop so dominates the specification as to explain what is doubtful and ambiguous in it, the claim would not be for what now is said to be the characteristic of the Dolan tip. The characteristic of the Dolan tip now is said to lie in the fact that the cylinder is very short, as, it is said, it must be for it to be true that the shape of the flame would not be modified by cutting it off. The shortness of the cylinder is supposed to prevent the mixing of the air and to produce the result desired.

But this theory of cooling not only is disputed in the testimony and treated as speculative and highly doubtful by the courts below, but is discredited by the patent itself. The fourth claim is for a combination in an acetylene-burner of two "air-mixing" burners. The theory was not that upon which Dolan was working, or in which he even now believes. He was a witness in the case and testified that it was his lawyer's contrivance, and while of course a mechanical device may be patentable although the true theory of it is not understood, here the words relied upon to show that the cylinder was to have this characteristic shortness also were the insertion of the lawyer, and would have had little importance apart from that newly-adopted point of view. We should regret to be compelled to decide a case by the acceptance or rejection of a theoretic explanation upon which it still is possible that authorities in science disagree. But the uncertainty indicated even by the language of the patent is important in determining whether it describes a new invention in terms sufficiently precise to be upheld.

As we have said, the only passage indicating, even by indirection, the length of the cylinder, if that does, is the paragraph stating that if the burner were cut off the general shape and condition of the flame would be the same, which is thought to reproduce more exactly a suggestion in Dolan's specification as to a funnel-shaped flame, said by him to result from the issue of gas with pressure through a small opening. But if the relative shortness of the cylinder had been understood to be an essential thing the patent naturally would have said so. It is suggested that the shortness is implied by the word tip in the patent, but the patent equally is said to relate to an improvement in burners, and the length of burners depends on the principle involved. In fact, all that directly bears upon length is the statement, which we have not yet mentioned, that the contracted opening for the gas into the cylinder is at or near the longitudinal center of the block constituting the tip. As the block may be longer or shorter, with no limits fixed, while the cylinder extends from the longitudinal center to the outlet where the gas is burned, obviously the length of the cylinder, or one-half the block, may be greater or less, so far as we are informed by this portion of the patent. And when this is taken with the language as to mixing in the fourth claim; with the allowance of two or more sets of air-holes, one above another; with the uncertain statement of the theory ("the operation seems to be," "the result seems to be;") and with the statement of the air-holes alone as the feature that prevents the deposit, it seems to us impossible to say that sufficient instructions are

given on the supposed vital point. Again, no proportions are indicated; the number, size and position of the air-holes, except that they enter the cylinder above the gas, are left at large, and if the plaintiffs' theory is the true one, the public are told little more than to try experiments until they find a burner that works. The plaintiffs say that a burner with a distance of four-fifths of an inch or over between gas and discharge-orifice is a Bunsen burner, and that for the burner to be effective for illuminating purposes the distance should be only a few millimeters. But if experiment had proved the contrary we cannot doubt that they equally would have claimed the successful burner as the one Dolan had contrived.

If, as now is said, a rat-tail flame is the mark of Dolan's burner, the words "funnel-shaped" in the original application were not apt to describe it, and did not purport to indicate a test. They were used merely to show how the perfect combustion was achieved which is the declared object throughout. The cause assigned was not peculiar to Dolan's tip. The amendment, in the passage as to the unaltered shape of the flame when the burner is cut off, goes on to say that "of course" the shape, though cylindrical as it issues from the round hole, increases in diameter, "approximating in some degree to the form of an inverted cone." This of itself almost excludes the notion that the rat-tail shape is the test, and no reader would draw that or any similar notion from the specification as a whole.

We appreciate the difficulties that would beset an attempt to make the directions more precise, but it certainly was possible to indicate with greater clearness the specific object to be attained, and that in any ordinary burner the tip must be very short. Vacillation in theory led to uncertainty of phrase. If, however, we are wrong, then it appears to us plain that Dolan's attorney introduced not merely the theory but the mode of applying it, for the first time, in the amended specification, or, in other words, then for the first time pointed to an invention, the essence of which was to have so short a chamber or cylinder as to prevent the mixing of the air taken into it and to emit the current of gas surrounded by the greater part of such air as an envelop or film. Of course, Dolan desired to produce the result which the patented article is said to produce, but beyond that desire his specification did not give a hint of the means by which it now is said to be achieved. It spoke, it is true, as we have said, of producing a hollow-shaped funnel-flame by reason of the gas being forced through contracted openings at very great pressure. But this did not disclose the invention and was dropped in the amendment. He made no claim for a process and disclosed no invention of a device. This being so, the amendment required an oath that Dolan might have found it difficult to take, and for want of it the patent is void. (Rev. Stats., sec. 4892; *Chicago & Northwestern Ry. Co.* v. *Sayles*, 97 U. S., 554; *Eagleton Manufacturing Co.* v. *West, Bradley & Cary Manufacturing Co.*, 111 U. S., 490; *Kennedy* v. *Hazleton*, 128 U. S., 667; *De La Vergne Refrigerating Machine Co.* v. *Featherstone*, 147 U. S., 209, 229.)

The patent was held void below on the further ground that it had been anticipated. We turn to this last because the question is complicated with the theory that we have mentioned. If the Dolan patent had unreservedly committed itself to the notion of a cooling-envelop with a contrivance made very short for the purpose of securing that result, the argument in defense of it would be that the leading earlier patents proceeded upon the opposite theory of mixture and admitted, if they did not contemplate, a longer tube, however similar otherwise they might be. They, at least, exhibit the state of the art at the date of the supposed invention, and show within what narrow and precise limits Dolan had to move if he was to produce anything new. So much may be said to be undisputed, and we have mentioned some of the facts that cannot be denied. But on the view that we have taken of Dolan's specification, they anticipate all that he can be said to have disclosed to the public. We think it unnecessary to go over much of the disputed ground and shall mention but two of the patents put in evidence. The most important of these is one issued in France to Bullier. This also was for a tip (*bec*) for acetylene gas. This tip was structurally similar to Dolan's, admitting the gas through a very small orifice and having the same slanting air-passages entering the cylinder above and around the gas, and, in one drawing at least, entering it very near its upper end. Bullier definitely adopted the theory of mixture and stated the proportions—forty per cent. of air to sixty per cent. of gas—and, after stating his preference for a duplex burner, he added that in this manner the illuminating portion of the flames is relatively far from the orifice by reason of the air introduced, and that for the same reason the combustion of the carbon is complete between the orifice and the point where the flame flattens, the flame as it issues from the orifices being blue and not illuminating. In this way, he said, he avoided any deposit of carbon. The degree of mixture is affected by the length of the cylinder or tube, and when mixture is desired naturally a longer tube would be employed than when it is to be prevented. The drawings, which are admitted to be only diagrams, indicate a longer cylinder than Dolan's, and although Bullier does not state the length it will be perceived without more that if the plaintiffs' theory and construction of their patent were adopted the distinction insisted upon by them might be held to exist. Otherwise the anticipation is complete. It is significant that some of the plaintiffs manufacture under a Bullier license in France.

The other patent to be mentioned is another French one, to Letang. He also states, as means to prevent clogging, the removal of the outlet-opening sufficiently far from the point of ignition and the cooling of the burner by a current of air. This current was produced by separate plates above the gas-nozzle so arranged that a certain quantity

of air would be carried along by the gas. It would seem from the diagram that the distance intended to exist between the nozzle and the flame was very short. We do not dwell upon the earlier patents in more detail, because we believe that we have said enough to show that the plaintiffs' cannot be sustained.

Decrees affirmed.

Mr. Justice McKENNA dissents.

ADJUDICATED PATENTS.

The Gardner patent, No. 563,157, for a paper-shell cartridge, construed and *Held* not infringed. *Winchester Repeating Arms Co.* v. *Peters Cartridge Co.*, (C. C.,) 173 Fed. Rep., 86.

The Wright patent, No. 596,730, for a piano-player, construed and *Held* not infringed. *Aeolian Co.* v. *Simpson-Crawford Co.*, (C. C.,) 173 Fed. Rep., 83.

The Corrington patent, No. 762,282, for a fluid-pressure brake apparatus, *Held* not anticipated, valid, and infringed. *Corrington* v. *Westinghouse Air-Brake Co.*, (C. C.,) 173 Fed. Rep., 69.

Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., December 9, 1909.

Kuhn Bros., their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The Feder Silberberg Company, of 30 and 32 West Third street, Cincinnati, Ohio, for registration of a trade-mark and a trade-mark registered to Kuhn Bros., of 945–947 Fifth street, San Diego, Cal., and the notice of said declaration sent by the Patent Office by registered mail to the said Kuhn Bros. having been returned undelivered, notice is hereby given to the said Kuhn Bros., their assigns or legal representatives, that if they or any of them desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents in order that the notice of declaration heretofore sent by and returned to the Office may be forwarded to them.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall be entered at the expiration of the period of publication, the interference will be proceeded with as in case of default.

EDWARD B. MOORE, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., December 1, 1909.

Davidson & Knowles Company, its assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The Warren Paint Company, of Warren, Ohio, for registration of a trade-mark and trade-marks registered to C. A. Reeve & Company, of 251–252 West Fayette street, Syracuse, N. Y., and Davidson & Knowles Company, of 51 Barclay street, New York, N. Y., respectively, and the notice of said declaration sent by the Patent Office by registered mail to the said Davidson & Knowles Company having been returned by the Post-Office Department, notice is hereby given to the said Davidson & Knowles Company, its assigns or legal representatives, that if they or any of them desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents in order that the notice of declaration heretofore sent by and returned to the Office may be forwarded to them.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall be entered at the expiration of the period of publication, the interference will be proceeded with as in case of default.

EDWARD B. MOORE, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., November 23, 1909.

Tourist Cycle Company, its assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Melvin J. Foyer, of Toledo, Ohio, for registration of a trade-mark and trade-marks registered to the Tourist Cycle Company, of Syracuse, N. Y., and George R. Bidwell Cycle Company, of New York, N. Y., respectively, and the notice of said declaration sent by the Patent Office by registered mail to the said Tourist Cycle Company having been delivered to Roy Porter as agent for E. C. Stearns, and neither of these names appearing of record in the Tourist Cycle Company's registration, and no evidence having been furnished, within a time allowed by the Office for that purpose, that E. C. Stearns and Roy Porter are authorized to accept service for this company, notice is hereby given that if the said Tourist Cycle Company, its assigns or legal representatives, desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents in order that the notice of declaration heretofore sent by and returned to the Office may be forwarded to them.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall be entered at the expiration of the period of publication, the interference will be proceeded with as in case of default.

EDWARD B. MOORE, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., November 22, 1909.

Percy Warren Noble, his assigns or legal representatives, take notice:

An interference having been declared by this Office between a patent granted to Percy Warren Noble, of New York, N. Y., on March 24, 1908, No. 883,146, application for which was filed November 23, 1907, No. 403,493, for bearing for supporting radiators in automobile-frames, and applications for patents filed by James E. Woodbridge, of Bridgehampton, N. Y., and Giovanni Enrico, of Turin, Italy, respectively, and the notice of said declaration sent by the Patent Office by registered mail to the said Percy Warren Noble at New York, N. Y., having been returned by the Post-Office Department, notice is hereby given to the said Percy Warren Noble, his assigns or legal representatives, that if they or any of them desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents in order that the notice of declaration heretofore sent by and returned to the Office may be forwarded to them.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall be entered at the expiration of the period of publication, the interference will be proceeded with as in case of default.

E. B. MOORE, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., November 17, 1909.

Edward M. Wilcox and William Jay Hopkins, their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Orville Simpson, of 1956 West Sixth street, Cincinnati, Ohio, for registration of a trade-mark and a trade-mark registered to Edward M. Wilcox and William Jay Hopkins, of Whitewater, Wis., and the notice of said declaration sent by the Patent Office by registered mail to the said Edward M. Wilcox and William Jay Hopkins having been returned undelivered, notice is hereby given to said Edward M. Wilcox and William Jay Hopkins, their assigns or legal representatives, that if they or any of them desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents in order that the notice of declaration heretofore sent by and returned to the Office may be forwarded to them.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall be entered at the expiration of the period of publication, the interference will be proceeded with as in case of default.

EDWARD B. MOORE, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., November 12, 1909.

Harry H. Schuster, his assigns or legal representatives, take notice:

An interference having been declared by this Office between an application for patent filed by Charles H. J. Dilg and Jonathan O. Fowler and a patent granted to

Harry H. Schuster and David Maier as joint inventors, and the notice of said declaration sent by registered mail by the Patent Office to said Harry H. Schuster, one of the joint patentees, having been returned by the Post-Office Department, notice is hereby given to said Harry H. Schuster, his assigns or legal representatives, that if they or any of them desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents in order that the notice of declaration heretofore sent by and returned to the Office may be forwarded to them.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall be entered at the expiration of the period of publication, the interference will be proceeded with as in case of default.

EDWARD B. MOORE, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., November 10, 1909.

Johannes Dönitz, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Reginald A. Fessenden, of Brant Rock, Mass., for patent on an electrical measuring instrument and the patent granted to Johannes Dönitz, of Berlin, Germany, on June 21, 1904, No. 763,164, and the notice of said declaration sent by the Patent Office by registered mail to the said Johannes Dönitz having been returned undelivered, notice is hereby given to the said Johannes Dönitz, his assigns or legal representatives, that if they or any of them desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents in order that the notice of declaration heretofore sent by and returned to the Office may be forwarded to them.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall be entered at the expiration of the period of publication, the interference will be proceeded with as in case of default.

EDWARD B. MOORE, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., November 4, 1909.

The Wolff Chemical Company, its assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Edna S. Frisbie, of Crystal Lake, Ill., for registration of a trade-mark and a trade-mark registered to The Wolff Chemical Company, of 145 North Fourth street, Philadelphia, Pa., and the notice of said declaration sent by the Patent Office by registered mail to The Wolff Chemical Company having been delivered to Leatherford Company and said Leatherford Company having failed to comply with the requirement of the Office letter of September 11, 1909, to either call attention to an assignment from The Wolff Chemical Company of record in the Office prior to the declaration of the interference or to file an application for registration, notice is hereby given The Wolff Chemical Company, its assigns or legal representatives, that if they or any of them desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents in order that the notice of declaration may be sent to them.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall be entered at the expiration of the period of publication, the interference will be proceeded with as in case of default.

EDWARD B. MOORE, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 30, 1909.

William McGlaughlin, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The Crystalene Mfg. Company, of 3100 Archwood avenue, Cleveland, Ohio, for registration of a trade-mark and trade-marks registered to William McGlaughlin, of Sharpsburg, Pa., and the Crystal Tablet Company, of Rochester, N. Y., and the notice of said declaration sent by registered mail to the said William McGlaughlin having been returned undelivered, notice is hereby given to the said William McGlaughlin, his assigns or legal representatives, that if they or any of them desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall have been entered at the expiration of the period of publication, the interference will proceed as in case of default.

C. C. BILLINGS, *Acting Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 30, 1909.

Crystal Tablet Company, its assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The Crystalene Mfg. Company, of 3100 Archwood avenue, Cleveland, Ohio, for registration of a trade-mark and trade-marks registered to William McGlaughlin, of Sharpsburg, Pa., and the Crystal Tablet Company, of Rochester, N. Y., and the notice of said declaration sent by registered mail to the said Crystal Tablet Company having been returned undelivered, notice is hereby given to the said Crystal Tablet Company, its assigns or legal representatives, that if they or any of them desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall have been entered at the expiration of the period of publication, the interference will proceed as in case of default.

C. C. BILLINGS, *Acting Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 28, 1909.

J. A. Meierdiercks and Sons, their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of L. Pickert Fish Company, of Boston, Mass., for registration of a trade-mark and a trade-mark registered to Yzermans & Company, of Vlaardingen, Netherlands, and also a trade-mark registered to J. A. Meierdiercks and Sons, of 710 Water street and 36 Harrison street, New York, N. Y., and the notice of said declaration sent by the Patent Office by registered mail to the said J. A. Meierdiercks and Sons having been returned by the Post-Office Department, notice is hereby given to the said J. A. Meierdiercks and Sons, their assigns or legal representatives, that if they or any of them desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents in order that the notice of declaration heretofore sent by and returned to the Office may be forwarded to them.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall be entered at the expiration of the period of publication, the interference will be proceeded with as in case of default.

C. C. BILLINGS, *Acting Commissioner.*

THE
OFFICIAL GAZETTE
OF THE
United States Patent Office.

[BY AUTHORITY OF CONGRESS.]

VOL. 149—No. 3. TUESDAY, DECEMBER 21, 1909. PRICE—$5 per year.

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ISSUE OF DECEMBER 21, 1909.

Patents	608—No. 943,641 to No. 944,248,	inclusive.
Designs	9—No. 40,406 to No. 40,414,	inclusive.
Trade-Marks	57—No. 76,134 to No. 76,190,	inclusive.
Reissues	2—No. 13,058 to No. 13,059,	inclusive.
Total	676	

TO CITIZENS OF THE UNITED STATES.

States.	Patents and Designs.	Trade-Marks.	States.	Patents and Designs.	Trade-Marks.
Alabama	4	1	Ohio	39	3
Arkansas	3	.....	Oklahoma	7	.....
California	20	5	Oregon	5	.....
Colorado	9	.....	Pennsylvania	62	3
Connecticut	18	2	Rhode Island	2	.....
Delaware	1	.....	South Carolina	.....	.....
Florida	2	.....	South Dakota	3	.....
Georgia	6	.....	Tennessee	2	.....
Idaho	3	.....	Texas	10	.....
Illinois	66	1	Utah	1	1
Indiana	13	1	Vermont	3	.....
Iowa	13	3	Virginia	4	1
Kansas	8	.....	Washington	2	.....
Kentucky	2	1	West Virginia	1	.....
Louisiana	5	.....	Wisconsin	15	1
Maine	2	1	Wyoming	2	.....
Maryland	7	2			
Massachusetts	40	8	Alaska, District of	.....	.....
Michigan	14	1	Arizona Territory	3	.....
Minnesota	11	.....	District of Columbia	3	.....
Mississippi	2	.....	Hawaii Territory	.....	.....
Missouri	20	.....	New Mexico Ter'y	.....	.....
Montana	.....	.....	Panama	.....	.....
Nebraska	7	.....	Philippine Islands	.....	.....
Nevada	.....	.....	U. S. Army	1	.....
New Hampshire	.....	.....	U. S. Navy	.....	.....
New Jersey	31	6			
New York	83	14	Total to citizens of the United States	552	54
North Carolina	5	.....			
North Dakota	2	.....			

TO CITIZENS OF FOREIGN COUNTRIES.

Countries.	Patents and Designs.	Trade-Marks.	Countries.	Patents and Designs.	Trade-Marks.
Argentina	.....	.....	Netherlands	1	1
Austria-Hungary	3	.....	Newfoundland	.....	.....
Belgium	1	.....	New South Wales	1	.....
Brazil	.....	.....	New Zealand	2	.....
British West Indies	.....	.....	Norway	.....	.....
Canada	14	.....	Persia	.....	.....
Cape Colony	.....	.....	Queensland	.....	.....
Chile	1	.....	Russia	.....	.....
Costa Rica	.....	.....	Scotland	1	.....
Cuba	.....	.....	South Australia	.....	.....
Denmark	.....	.....	Spain	.....	.....
Ecuador	.....	.....	Sweden	2	.....
England	11	1	Switzerland	2	.....
France	6	.....	Tasmania	.....	.....
Germany	12	1	Transvaal, South Africa	3	.....
Guatemala	1	.....	Victoria	1	.....
Haiti	.....	.....	Western Australia	.....	.....
India	1	.....			
Italy	1	.....	Total to citizens of foreign countries	65	3
Japan	.....	.....			
Mexico	1	.....			

Modified Order Relating to Executors and Administrators.

(ORDER No. 1,827.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 28, 1909.

Order No. 1,792, dated January 20, 1909, published in volume 138 of the OFFICIAL GAZETTE, page 970, is modified by directing that whenever the right of applying for and obtaining a patent for an invention devolves upon an executor or administrator of a deceased inventor, or when the executor or administrator intervenes in the prosecution of an application, the proof of authority of such executor or administrator referred to in said order shall in all cases be recorded in the assignment records of this Office. A reference to this record should be placed in each application involved. This order will apply also to cases arising under section 4896, Revised Statutes.

(Signed) C. C. BILLINGS,
Acting Commissioner.

Changes in Classification.

(ORDER No. 1,830½.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., November 24, 1909.

In accordance with the ruling of my decision rendered this day it is directed that the title of class 199, Linotyping, be changed to class 199, Type Bar Making, and that the titles of subclasses 2, Linotypes, and 3, Linotype making, therein be changed to read 2, Type bars, and 3, Type-bar making, respectively.

EDWARD B. MOORE,
Commissioner.

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business December 14, 1909.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended	No. of applications awaiting action.
313	1. Fences; Harrows and Diggers; Plows; Seeders and Planters; Trees, Plants, and Flowers.	Oct. 18	Nov. 5	416
128	2. Aeronautics; Bee Culture; Dairy; Label-Affixers; Paper Files and Binders; Pneumatic Despatch; Pneumatics; Presses; Store-Service; Tobacco.	July 1	Aug. 20	769
175	3. Annealing and Tempering; Coating with Metal; Electrochemistry; Metal-Founding; Metallurgy; Shaping Fluid Metal.	Nov. 16	Nov. 30	158
232	4. Bridges; Conveyers; Cranes and Derricks; Excavating; Hoisting; Hydraulic Engineering; Loading and Unloading; Metallic Building Structures.	Aug. 28	Nov. 3	680
167	5. Bookbinding; Harvesters; Jewelry; Music.	Sept. 20	Sept. 22	569
218	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Medicines; Preserving; Sugar and Salt.	Oct. 1	Oct. 9	358
312	7. Educational Appliances; Clutches; Games and Toys; Mechanical Motors; Nut and Bolt Locks; Optics; Velocipedes.	Oct. 27	Nov. 15	486
131	8. Beds; Chairs; Furniture; Kitchen and Table Articles; Store Furniture.	Aug. 19	Nov. 18	398
142	9. Air and Gas Pumps; Fire-Extinguishers; Hydraulic Motors; Pumps; Sewerage; Wind-Wheels.	Aug. 2	Nov. 23	430
332	10. Carriages and Wagons.....	Oct. 9	Oct. 30	563
154	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus.	Nov. 4	Oct. 8	322
324	12. Elevators; Journal-Boxes, Pulleys, and Shafting; Lubrication; Machine Elements.	Nov. 3	Nov. 8	459
320	13. Arms, Projectiles, and Explosive Charges, Making; Metal-Working, Etc.	Aug. 28	Nov. 4	474
307	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Metal-Ornamenting; Sheet-Metal Ware, Making; Tools; Wire-Working.	Sept. 8	Nov. 16	426
396	15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Sheets and Fabrics; Liquid Coating Compositions; Paper-Making; Plastic Block and Earthenware Apparatus; Plastic Compositions; Plastics.	Oct. 4	Dec. 8	553
109	16. Telegraphy; Telephony.....	Aug. 4	Oct. 15	208
303	17. Linotyping; Matrix-Making; Paper Manufactures; Printing.	Oct. 19	Nov. 26	250
327	18. Injectors and Ejectors; Steam and Vacuum Pumps; Steam-Boilers; Steam-Engines; Steam-Engine Valves.	Oct. 16	Oct. 4	319
236	19. Dampers, Automatic; Furnaces; Heat-Distributing Systems; Stoves and Furnaces.	Oct. 5	Sept. 25	333
179	20. Artificial Limbs; Builders' Hardware; Dentistry; Locks and Latches; Safes; Undertaking.	Oct. 12	Nov. 4	253
112	21. Brakes and Gins; Carding; Cloth-Finishing; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving.	Aug. 30	Nov. 10	473
349	22. Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Firearms; Marine Propulsion; Ordnance; Railway-Rails and Joints; Railway-Ties and Fasteners; Ships.	Sept. 20	Nov. 17	305
379	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Time-Controlling Mechanism.	Oct. 8	Oct. 15	419

Applications Under Examination—Continued.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended	No. of applications awaiting action.
144	24. Apparel; Apparel Apparatus; Electricity, Medical and Surgical; Sewing-Machines; Surgery.	Nov. 8	Nov. 15	394
312	25. Butchering; Mills; Threshing; Vegetable Cutters and Crushers.	Dec. 15	Nov. 20	213
106	26. Electric Heating and Rheostats; Electric Railways; Electricity, Generation; Motive Power.	July 9	Oct. 13	720
372	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus.	Nov. 1	Nov. 1	382
382	28. Internal-Combustion Engines; Miscellaneous Heat-Engine Plants.	Oct. 28	Nov. 2	339
147	29. Cooperage; Fire-Escapes; Ladders; Roofs; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking-Tools.	Sept. 1	Nov. 1	480
182	30. Fluid-Pressure Regulators; Illuminating-Burners; Liquid and Gaseous Fuel Burners; Type-Writing Machines.	Oct. 2	Nov. 22	264
172	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue; Water Purification.	Oct. 7	Nov. 12	259
278	32. Carbonating Beverages; Dispensing Beverages; Dispensing-Cans; Fine Arts; Packaging Liquids; Refrigeration.	Oct. 21	Nov. 20	224
164	33. Cutlery; Domestic Cooking Vessels; Electric Signaling; Masonry and Concrete Structures; Paving; Tents, Canopies, Umbrellas, and Canes.	Sept. 22	Oct. 29	461
304	34. Railways; Railway-Brakes; Railway Rolling-Stock.	Nov. 3	Nov. 26	171
344	35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Garment-Supporters; Toilet.	Oct. 11	Nov. 11	736
264	36. Curtains, Shades, and Screens; Drafting; Dress; Engraving; Measuring Instruments; Photography.	Aug. 18	Sept. 18	852
167	37. Electric Lighting; Electricity, Conductors; Electricity, General Applications.	Sept. 23	Sept. 11	647
378	38. Artesian and Oil Wells; Bottles and Jars; Care of Live Stock; Fishing and Trapping; Stationery; Stone-Working.	Aug. 24	Nov. 3	864
231	39. Baths and Closets; Water Distribution.	July 17	Oct. 23	657
280	40. Baggage; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Lighting-Fixtures; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	July 20	Nov. 10	710
125	41. Railway Draft Appliances; Resilient Tires and Wheels.	July 27	Oct. 25	629
279	42. Railway Signaling; Signals....	July 3	Nov. 5	215

Oldest new case, July 1; oldest amended, Aug. 30.

Total number of applications awaiting action..... 18,908

161	TRADE-MARKS AND DESIGNS:			
	Trade-Marks.....	Nov. 17	Dec. 6	682
	Designs.....	Nov. 18	Dec. 9	72

Trade-Marks.

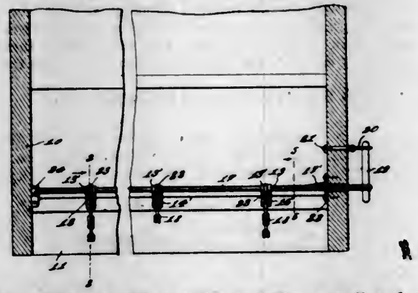
The publication of trade-marks under the act of February 20, 1905, in the OFFICIAL GAZETTE, commenced May 2, 1905, and will appear in each weekly number of the GAZETTE thereafter.

Extra copies of the trade-mark portion of the GAZETTE, which will be sold separately, may be obtained single or in quantities for five cents each. Coupons will be taken in payment thereof.

PATENTS

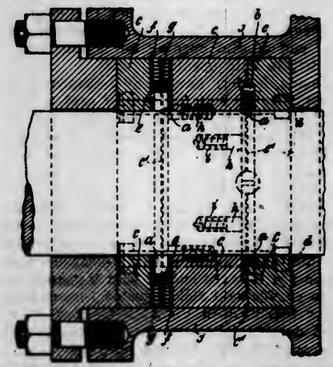
GRANTED DECEMBER 21, 1909.

943,641. DETACHING DEVICE FOR LIVE STOCK. CHRISTIAN I. AGGERBECK, Washington, D. C. Filed June 23, 1909. Serial No. 503,918.



In combination with a stable including a wall and a manager rail, a series of hasps secured in alinement to said rail, a series of chains and rings coöperating with the respective hasps, a solid securing bar introduced through said wall from the outside into and through all of said hasps and rings from one end of the series to the other, a plate having a key-hole slot secured on the inner face of said wall, said rod having a catch coöperating with said plate to prevent outward displacement of the bar, a handle permanently connected to the outer end of said bar for manipulation thereof, and locking means coöperating with the said handle to prevent rotation of the bar.

943,642. METALLIC PACKING FOR STUFFING-BOXES, &c. ROBERT ALLEN, Caversham, England. Filed July 28, 1908. Serial No. 445,820.



1. A metallic packing for piston rods and the like comprising a sleeve having an internal annular groove and radial pockets in the sleeve communicating with the groove at their inner ends, a packing ring seated in the groove, and composed of segments having notches forming inclines near the ends of the segments, wedges seated in the radial pockets and adapted to engage the inclined surfaces formed by the notches in the ends of the segments and springs arranged to force the wedges or chokes inward.

2. A metallic packing for piston rods and the like comprising a sleeve having an internal annular groove, and radial pockets in the sleeve communicating with the groove at their inner ends, a packing ring seated in the groove, and composed of segments having notches forming inclines near the ends of the segments, wedges seated in the radial pockets adapted to engage the inclined surfaces formed by the notches in the ends of the segments, extensions on the sides of the wedges arranged to cover and effectually close the joints between the segments, and springs arranged to force the wedges or chokes inward.

3. In a metallic packing for piston rods and the like, the combination with a sleeve provided with an internal seating groove, of a segmental packing ring located in the seating groove, radially disposed wedges adapted to engage the contiguous ends of the segments to contract the packing ring, and means for forcing the packing ring against one side of the seating groove.

4. In a metallic packing for piston rods and the like, the combination with a sleeve provided with an internal seating groove, of a segmental packing ring located in the seating groove, radially disposed wedges adapted to engage the contiguous ends of the segments to contract the packing ring, and laterally disposed spring plungers arranged to maintain the packing ring against one side of the seating groove.

5. In a metallic packing for piston rods, comprising a sleeve formed of several parts, said parts having a tongue and groove connection and also having grooves at their meeting faces, forming an interior annular groove, a packing ring seated in the groove, the meeting faces of the several portions of the sleeve having radial grooves therein forming pockets communicating with the annular groove, wedges seated in the pockets and engaging the packing ring to force the same against the piston.

943,643. TYPE-WRITING MACHINE. JOHN H. BARR, Syracuse, N. Y., assignor to The Smith Premier Typewriter Company, Syracuse, N. Y., a Corporation of New York. Filed Mar. 16, 1905. Serial No. 250,444.



1. In a typewriting machine, the combination of a type bar support having a race way formed therein, a type bar having an eye comprising an integral peripheral strap, two rings threaded into said eye and together forming an adjustable race-way, means for tightening said strap about said rings, and anti-friction rollers running in said race ways.

2. In a typewriting machine, the combination of a type bar support having a race-way formed therein, a type bar having an eye surrounding said race-way, two rings threaded into said eye and together forming a race-way, and anti-friction rollers running in said coöperating race-ways, said eye in the type bar comprising a strap which at a point at an angle with the shank of the type bar is cut

across, and a screw passing through one end of said strap and threaded into the other whereby said strap may be tightened about said rings.

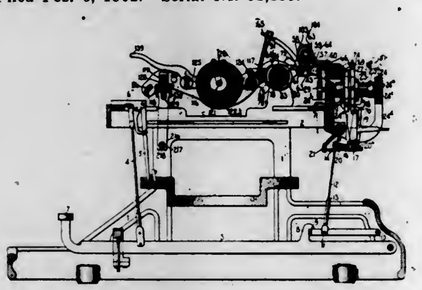
3. In a typewriting machine, the combination of a segmental type bar support having a plurality of race-ways formed therein, a plurality of type bars each having an eye encircling one of said race-ways, two rings threaded into each of said eyes and both wholly within said eye, said rings together forming a race-way which coöperates with a race-way in the type bar support, means for adjusting said rings with relation to each other, and means for clamping said rings in adjusted position.

4. In a typewriting machine, the combination of a type bar support having a race-way formed therein, a type bar having an internally threaded eye comprising a strap which at one point is cut through, two rings threaded into said eye and together forming a race-way, said rings being capable of being turned to adjust them toward and away from each other, anti-friction rollers running in said coöperating race-ways, said strap having outstanding lugs 7 and 8, and a screw passing through said lugs whereby said strap may be tightened about said rings to retain them in adjusted position.

5. The combination of a type bar segment having a series of race-ways formed in its periphery, a series of type bars, each having an integral interiorly threaded eye encircling said segment, two rings screwed into each of said eyes and both wholly within the eye, said two rings together constituting a race-way which coöperates with one of said race-ways in the segment, and anti-friction rollers running in said coöperating race-ways.

[Claims 6 to 9 not printed in the Gazette.]

943,644. TYPE-WRITING MACHINE. WALTER J. BARRON, New York, N. Y., and HENRY W. MERRITT, Springfield, Mass., assignors to Densmore Typewriter Company, Syracuse, N. Y., a Corporation of New York. Filed Feb. 6, 1902. Serial No. 92,839.



1. In a typewriting machine, the combination of a carriage, a rod to which said carriage is connected and upon which it is adapted to travel, and independent adjustable rigid means for affording a vertical adjustment of both ends of said rod and for positively securing the rod against movement in any direction.

2. In a typewriting machine, the combination of a machine frame and its top plate, a carriage, supports upon said top plate, a rod secured to said supports and to which said carriage is connected and upon which it is adapted to travel, independent means for vertically adjusting both ends of said rod upon its supports, and means for positively and rigidly securing the rod against movement in its adjusted position.

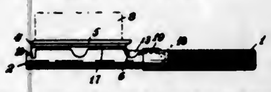
3. In a typewriting machine, the combination of a carriage, supports, a traverse rod secured to said supports and to which said carriage is connected and upon which it is adapted to travel, a vertically disposed adjusting screw which coöperates with said rod at each end thereof and with one of said supports for providing an independent vertical adjustment at each end of the rod, and independent adjustable rigid securing means that coöperate with said rod and with each of said screws to secure the rod against movement in its adjusted position.

4. In a typewriting machine, the combination of a machine frame and its top plate, a carriage, supports upon said top plate, a traverse rod secured to the supports and to which said carriage is connected and upon which it is adapted to travel, an adjusting screw which passes into the rod at each end thereof and into one of said supports for providing an independent adjustment at each end of the rod, and a screw which engages with each of said adjusting screws and with the rod to secure the rod to the adjusting screws.

5. In a typewriting machine, the combination of a machine frame and its top plate, a carriage, supports upon said top plate, a traverse rod secured to the supports and to which said carriage is connected and upon which it is adapted to travel, an externally and internally threaded adjusting screw which passes into said rod at each end and bears against an internal shoulder thereof, for providing an independent adjustment at each end of the rod, and a screw which coöperates with the internal threaded portion of each of said adjusting screws to secure the rod thereto.

[Claims 6 to 42 not printed in the Gazette.]

943,645. HOLDER FOR DETACHED CUTTING-BLADES. ARTHUR W. BEAMAN, Worcester, Mass. Filed Apr. 27, 1908. Serial No. 429,572.



1. A blade holder, having a V-shaped member with its sides at the base bent inward terminating in gripping surfaces, a member provided with an opening closed at each end of less width than the base of the V-shaped member, with said V-shaped member arranged to be inserted transversely into said opening.

2. A blade holder, having an elastic V-shaped member with its sides at the base bent inward terminating in gripping surfaces, rigid surfaces separated by a distance less than the width of the base of the V-shaped member, an extension at the forward end of said V-shaped member, and means connecting said rigid surfaces arranged to engage said extension.

3. A blade holder, having an elastic V-shaped member with its sides at the base bent inward terminating in gripping surfaces, a member having a longitudinal opening of less width than the base of said V-shaped member, with said V-shaped member arranged to be inserted transversely into said opening leaving the base of said V-shaped member projecting from said opening, and means at either end of said opening for holding said V-shaped member within said opening.

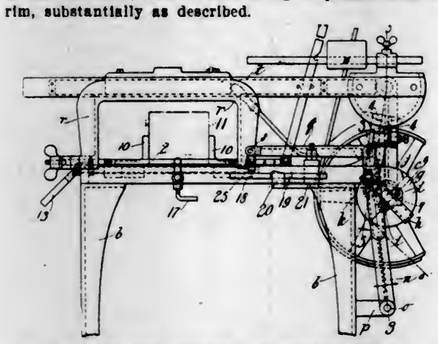
4. A blade holder, having a V-shaped member with elastic gripping jaws at the base of said V, a cylindrical member having an opening of less width than the base of said V, with said V-shaped member arranged to be inserted transversely into said opening, and a detachable handle arranged to engage a portion of said cylindrical member and cover one end of said opening.

5. A blade holder, having an elastic V-shaped member with its sides at the base bent inward terminating in gripping surfaces, a rigid member having a longitudinal opening of less width than the base of said V-shaped member, an extension on the forward end of said V-shaped member arranged to engage said rigid member beyond said opening, means for rocking said V-shaped member on said extension, and detachable means for holding the rear end of said V-shaped member in said opening.

[Claims 6 to 8 not printed in the Gazette.]

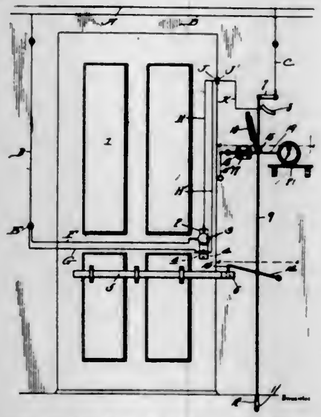
943,646. HACKSAW-MACHINE. EDWARD S. BRADFORD, Jr., Springfield, Mass., and MAURITZ OLSON, Bridgeport, Conn., assignors to Massachusetts Saw Works, Chicopee, Mass., an Association of Massachusetts. Filed Oct. 13, 1908. Serial No. 457,470.

1. In combination with the saw-supporting frame, a shaft, a sector-shaped member rotatably supported thereon and provided with an arc-shaped rim, an arm attached to said member for supporting said frame, a drive-shaft, a cam carried thereby, a member operable from the cam and provided with jaws for gripping said rim when operated in one direction, said member being suspended from the rim, substantially as described.



2. In a hack-saw machine, the combination with the main frame thereof, a main shaft supported in said frame, a second shaft, a saw frame proper, adjustable connecting means between the saw-frame and the main shaft for varying the length of stroke, a sector-shaped member rotatably supported on the second shaft and provided with an arc-shaped rim, an arm for supporting the saw-frame and attached to said sector-shaped member, a member with spaced-jaw elements for gripping said rim and operable from the main shaft, whereby the frame may be elevated on the return stroke.

943,647. BURGLAR-PROOF LOCK. ISAAC L. BRIDGES, Powersville, Mo. Filed Apr. 10, 1909. Serial No. 489,195.



1. The combination with a lock, of an electric circuit normally open and including the lock, a movable step, means operated by movement of the step for closing the circuit, a bolt for locking the circuit closing means in an inoperative position, means for actuating said bolt at a predetermined time, and means for returning the parts operated by the step to their normal positions.

2. The combination with a lock, an electric circuit including an accessible portion of said lock, said circuit being normally open, a switch for closing said circuit, a movable door step operated by the weight of a person standing thereon, means connecting said switch and said door step for moving the switch into closed position, a spring for returning the parts to their normal positions when the step is relieved of its extra weight, a slidable bolt for holding said movable parts in their normal position, and means including the winding stem of an alarm clock for drawing said slidable bolt into operative position.

3. The combination with a door having a lock, and a metal knob, an electric circuit including said knob, said circuit being normally broken, a bar carried by the door and having a projecting perforated end portion, a pivoted hook lever for engaging said end portion, a switch for closing the electric circuit, a downwardly movable door step, a rod pivoted to the switch and connected to the door step, said rod being movable downward upon depression of the step, said rod being pivotally connected to the hook lever, downward movement of the rod throwing said lever into engagement with the perforate bar, and a spring secured to a fixed support at one end and at the other end to said rod and drawing the same upwardly after depression of the door step.

4. The combination with a door having a lock, an electric circuit including the exterior portion of said lock, a pivoted switch for closing said circuit, the circuit being normally open, a movable door step, a rod connected at one end to the door step and at the other end to the switch, the rod being drawn downwardly upon depression of the step, a collar fixed upon the rod, a bolt slidable beneath said collar, an alarm clock having a winding stem, and a cord connected at one end to said stem and winding thereupon and at the other end to said bolt.

943,648. CONCRETE FENCE-POST. WILLIAM A. BRYANT, Wetumpka, Ala., assignor of nine-twentieths to John A. Lancaster, Walter W. Wilken, and John R. Gamble, Wetumpka, Ala. Filed Aug. 2, 1909. Serial No. 510,864.

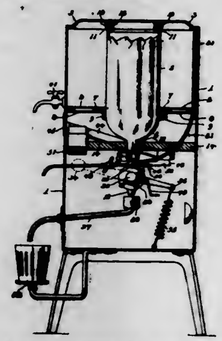


The combination of a plastic body, a metallic reinforcement embodied therein and having sides connected by tie wires, and a shouldered tie wire engaging between the sides of the reinforcement and having its shoulders secured thereto and having its ends projecting through and beyond the sides of the body and provided with openings whereby said ends may be secured to a fence rail.

943,649. COIN-CONTROLLED APPARATUS FOR DISPENSING LIQUIDS. MARTIN L. BUCK, Lansing, Mich. Filed Nov. 29, 1907. Serial No. 404,446.

1. In an apparatus for vending liquid, a supply tank and an automatic measuring valve therefor consisting of a tapered cylinder having a radial inlet, radial outlet and air vent, a hollow conical closure rotatable in the cylinder provided with an intake port and air outlet vent adapted to register simultaneously with the cylinder inlet and air vent respectively, and with a discharge port and air inlet vent adapted to register simultaneously with the cylinder outlet and air vent respectively, a head removably secured in the larger end of the closure, a displacement plug longitudinally adjustable in an aperture in the

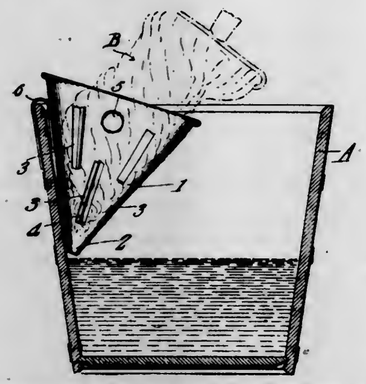
head, an axial stem extending from the closed smaller end of the closure, a flanged spindle journaled independently of the closure in axial alinement and detachable engagement with the stem, a handle operating the spindle and a coin controlled lock for the handle.



2. An apparatus for vending liquid consisting of an outer casing divided by a horizontal partition, a supply tank in the upper compartment having a funnel outlet extending through the partition, an automatic measuring valve connected to the funnel mouth, a vent pipe from the valve to the tank level open to the valve interior when the latter is filling and discharging, a delivery pipe from the valve discharging outside the casing having an air vent close to the valve, and a handle operatively secured on the casing for manipulating the valve.

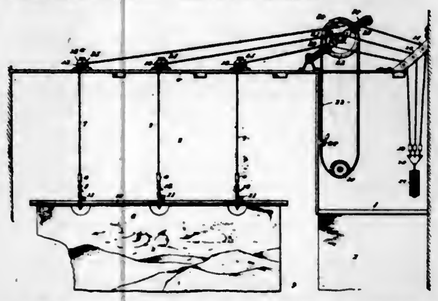
3. In an apparatus for dispensing liquid, a casing, a supply tank, an automatic measuring valve therefor consisting of a cylinder having a radial inlet, a radial outlet and an air vent, a hollow closure rotatable in the cylinder provided with an intake port and air outlet vent adapted to register simultaneously with the cylinder inlet and air vent respectively, and with a discharge port and air inlet vent adapted to register simultaneously with the cylinder inlet and air vent respectively, a head closing an end of the cylinder, a displacement plug longitudinally adjustable in an aperture in the head, an axial stem extending from the other end of the closure, a spindle journaled in the casing wall in axial alinement with the closure and adapted to detachably engage the stem, and a handle outside the casing on the spindle.

943,650. MOP-WRINGER. CHARLES CALLIS and WILL D. FULBRIGHT, Springfield, Mo. Filed May 1, 1909. Serial No. 493,349.



A mop wringer comprising a conical body having an outlet opening in the apex thereof and a series of inwardly struck, longitudinally extending mop-engaging blades disposed in staggered relation and along the longitudinal edges of discharge openings, there being overflow openings within the body and adjacent the top thereof, and a support engaging device upon the upper portion of the body.

943,651. THEATRICAL APPLIANCE. RICHARD CHANDLER and CHARLES F. AUTENRIETH, Brooklyn, N. Y. Filed Jan. 20, 1908. Serial No. 411,861.



1. In a scenery manipulating mechanism, a plurality of counterbalanced lines or cables attachable to a single piece of scenery, in combination with a head block provided with a plurality of driving pulleys placed one ahead of and slightly above the other, and a train of gears connecting said pulleys whereby all the lines and pulleys may be driven simultaneously and at the same speed.

2. In a theatrical apparatus, a headblock provided with a series of driving pulleys arranged one above the other, and counterbalanced suspension lines driven by the pulleys, in combination with a train of driving gears, and a master pulley geared to and actuating all of the gears.

3. In a theatrical apparatus, a headblock provided with a series of driving pulleys, and counterbalanced suspension lines driven by the pulleys, in combination with gears on the journals of said driving pulleys, intermediate idle gears, and a master pulley.

4. In a theatrical apparatus, a plurality of pulley-driven suspension lines attachable to a single piece of scenery, each of said lines being coiled entirely around so as to simultaneously reel on and off and to grip its separate driving pulley, in combination with said driving pulleys and a counterweight for each line.

5. In a theatrical apparatus, a headblock provided with a series of driving pulleys, in combination with a plurality of individual suspension lines collectively attachable to a single piece of scenery each line being coiled around to wind on and off one of the driving pulleys, counterweights at the opposite ends of said lines, means for driving the pulleys, and means for adjusting the lines.

943,652. POCKET-STRIP FOR USE IN VENDING-MACHINES. SARA L. W. COE and HENRIETTA WERDEN, New York, N. Y. Filed Oct. 21, 1908. Serial No. 458,838.
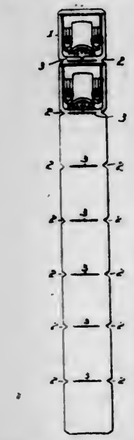


1. A flexible pocket strip comprising a connected series of pockets, each comprising receptacles at respective edges of the strip and said strip having notches in its side edges at the intersection of the receptacles of adjacent pockets for the accommodation of feeding means.

2. A flexible pocket strip comprising a connected series of removable pockets for the reception of postage stamps, each of said pockets comprising receptacles at respective edges of the strip, said strip being weakened at the intersection of the pockets and also provided in its side edges at the intersection of the receptacles of adjacent pockets with notches for the accommodation of feeding means.

3. A flexible pocket strip comprising a connected series of detachable pockets, each of said pockets comprising a section of the strip having its side edges folded over, each of said bent over portions being secured at its ends and forming receptacles for diametrically opposite portions of a stamp.

4. A flexible strip having notches at intervals in each of its edges and weakened transversely of the strip between said notches, the portions of the sides of the strip between the notches being bent partially over the body portion of the strip and secured at their ends, said bent over portions forming receptacles for the edge portions of stamps or tickets at respective edges of the strip between the notches and weakened portions of the latter.

943,653. STAMP-STRIP. SARA L. W. COE, New York, N. Y. Filed Nov. 9, 1908. Serial No. 461,817.

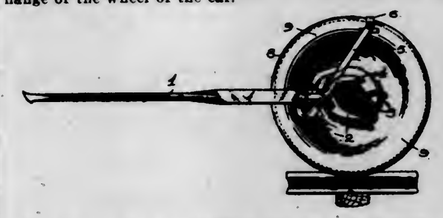


A stamp or ticket strip having transverse slits disposed at right angles to the side edges of the strip between the stamps or tickets, each of said slits terminating at its ends inwardly removed from the side edges of the strip, and said strip having notches in its side edges in line with and removed short distances from the respective ends of said transverse slits, said notches being adapted to receive lugs on a feed device for advancing the strip predetermined distances and also to coöperate with said slits to insure the proper severance of a stamp or ticket from the strip, the portions of the paper between the ends of a slit and the adjacent notches serving to secure two stamps or tickets together equal distances at respective sides of the longitudinal center of the strip.

943,654. CAR-MOVING DEVICE. WILLIAM H. COLYAR, San Francisco, Cal., assignor to Parr-Colyar Warehouse Supply Company, San Francisco, Cal., a Corporation of California. Filed Jan. 28, 1909. Serial No. 474,763.

1. In a tool for the described purpose, the combination with an operating lever provided at its inner end with a jaw for engaging the axle of a car to be moved, an arm extending at an inclination to the lever, and connected thereto, a pawl mounted for swinging movement on said arm and a lip on the pawl to engage over the flange of the wheel of the car.

2. In a tool for the described purpose, the combination with an operating lever provided at its inner end with a jaw for engaging the axle of a car to be moved, an arm extending at an inclination to the lever and means for immovably securing the arm to the lever, a pawl having a swinging support on said arm and a lip to engage over the flange of the wheel of the car.



3. In a tool for the described purpose, the combination with an operating lever provided at its inner end with a jaw for engaging the axle of a car to be moved, an arm extending at an inclination to the lever, means for immovably securing the arm to the lever, a pawl having a swinging support on said arm, a lip to engage over the flange of the wheel of the car, and guides for limiting the swinging movement of the pawl.

4. In a tool for the described purpose, the combination with an operating lever provided at its inner end with a jaw for engaging the axle of a car to be moved, an arm extending at an inclination to the lever, means for immovably securing the arm to the lever, a pawl having a swinging support on said arm, a lip to engage over the flange of the wheel of the car, and stops carried by the pawl arranged to engage over opposite sides of the arm.

943,655. VEHICLE-TOP-JOINT BRACE. JAMES C. COSS, Cleveland, Ohio. Filed Aug. 28, 1908. Serial No. 450,617.



1. A vehicle top-joint brace, comprising brace members pivotally connected at their knuckle ends with a bearing-pin provided with shoulders extending beyond the planes of said knuckle ends and washer bearing-heads supported upon said shoulders by riveting the ends of said bearing-pin.

2. A vehicle top-joint brace, comprising brace members carrying in their knuckle ends a bearing-pin provided with reduced stem ends forming shoulders extending beyond said knuckle ends, and washer bearing-heads mounted on said shoulders and riveted on said reduced end portions.

3. A vehicle top-joint brace, consisting of brace members provided with a knuckle joint comprising overlapping knuckle leaves provided with bearing openings, a bearing-pin mounted in said knuckle leaves and provided with reduced stem ends extending beyond the planes of said knuckle leaves, and washer heads riveted on said reduced stem ends.

4. A vehicle top-joint brace, comprising brace members having their leaf ends pivotally connected by means of a double headed bearing-pin provided with an inner peripheral shoulder bearing interposed between said leaf ends.

5. A vehicle top-brace joint, comprising overlapping brace-leaf ends carrying a bearing-pin provided with an inner peripheral shoulder bearing and heads mounted on reduced stem ends extending beyond the planes of said leaf ends.

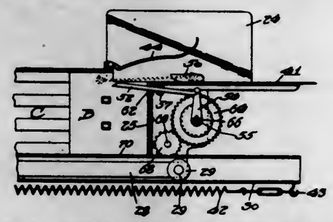
[Claims 6 to 11 not printed in the Gazette.]

943,656. HAY-PRESS. JOSEPH DAIN, Ottumwa, Iowa. Filed Jan. 28, 1905. Serial No. 243,105.

1. In a hay-press, a plunger, hay-folding means mounted thereon and traveling therewith and acting to fold the hay down in advance of the plunger as the plunger advances, and means for actuating said hay-folding means.

2. In a hay-press, a plunger, hay-folding means mounted thereon and traveling therewith, and means operated by

the reciprocation of the plunger for actuating said hay-folding means, to fold the hay down in advance of the plunger as the plunger advances.



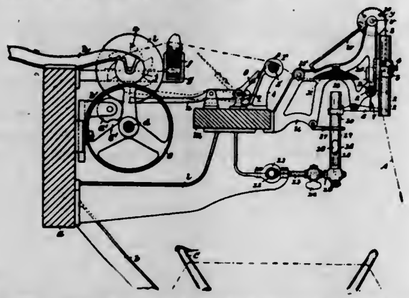
3. In a hay-press, a plunger, and swinging hay-folding means mounted thereon and traveling therewith, and acting to fold the hay down in advance of the plunger as the plunger advances.

4. In a hay-press, a plunger, swinging hay-folding means mounted thereon and traveling therewith, and means operated by the reciprocation of the plunger for actuating said hay-folding means, to fold the hay down in advance of the plunger as the plunger advances.

5. In a hay-press, a plunger, pull-mechanism for actuating said plunger to compress the hay, hay-folding means mounted on said plunger and traveling therewith, and acting to fold the hay down in advance of the plunger and means for actuating said hay-folding means.

[Claims 6 to 50 not printed in the Gazette.]

943,657. SINGEING-MACHINE. DAVID DAVIS and ARTHUR O. BERRY, Paterson, N. J., assignors to Benjamin Eastwood Company, Paterson, N. J. Filed Sept. 16, 1908. Serial No. 453,329.



1. The combination of a suitable support, thread-guide and singeing members arranged in said support in position to coöperate with each other for singeing, one of said members being normally movable out of said position, a part normally holding the movable member in said position and being itself movable to release the same, and means normally operative to move said part, said means being adapted to be withheld against movement from the thread being singed, substantially as described.

2. The combination of a suitable support, a thread-guide member arranged in said support, a singeing member also arranged in said support in position to coöperate with the thread-guide member for singeing, said singeing member being gravity-actuated and normally movable out of said position, and means, controlled from the thread being singed, for holding said singeing member in said position, substantially as described.

3. The combination of a suitable support, a thread-guide member arranged therein, a singeing member also arranged in said support in position to coöperate with the thread-guide member for singeing, said singeing member being normally drawn out of said position, and means controlled from the thread being singed, for normally holding said singeing member in said position, substantially as described.

4. The combination of a suitable support, a thread-guide member arranged therein, a singeing member movable in said support and standing in position to coöperate with the thread-guide member for singeing, said singeing member being normally drawn out of said position, a holding member normally retaining said singeing member in said position, and mechanism, controlled by the thread being singed, for causing said holding member to release the singeing member, substantially as described.

5. The combination of a suitable support, a thread-guide member arranged therein, a singeing member movable in said support and standing in position to coöperate with the thread-guide member for singeing, said singeing member being normally drawn out of said position, a holding member normally retaining said singeing member in said position, and gravity-actuated mechanism, normally restrained by the thread being singed, for causing said holding member to release the singeing member, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

943,658. MANUFACTURE OF PRODUCTS CONTAINING INDIA-RUBBER AND CELLULOSE. PIERRE DE FAUCAMBERGE, Paris, France, assignor to Societe Francaise de la Viscose, Paris, France, a Corporation of France. Filed Mar. 22, 1909. Serial No. 485,090.

1. A process of manufacturing products containing cellulose and india rubber, which consists in combining the india rubber latex with cellulose.

2. A process of manufacturing products containing cellulose and india rubber, which consists in mixing a solution of cellulose with the india rubber latex.

3. A process of manufacturing products containing cellulose and india rubber, which consists in combining viscose with the india rubber latex.

4. A process of manufacturing products containing cellulose and india rubber, which consists in mixing the india rubber latex and cellulose, coagulating the mixture, and then washing the product, as described.

5. A process of manufacturing products containing cellulose and india rubber, which consists in mixing the india rubber latex with a solution of viscose, coagulating the mixture by fixation baths, washing the product, and finally vulcanizing the same.

943,659. COUNTERWEIGHT. MYRON H. DETRICK, Chicago, Ill. Filed Dec. 7, 1908. Serial No. 466,346.



1. In a counterweight the combination of a casing, and an end piece secured thereto, the said end piece being provided with a crest or rim slanted downwardly and outwardly to act as a fender and inwardly to provide an eye seat.

2. In a counterweight, the combination of a casing and end pieces secured thereto and having a recessed portion uniformly curved inwardly and then outwardly, and an eye secured in the recess transversely of the said curved portion of the recess wall.

3. In a counterweight the combination of a casing narrowed at the end, and an end piece having a slanting rim fitted over the narrowed end of the casing and secured thereto.

4. In a counterweight the combination of a casing, an end piece provided with a crest secured outside the casing and provided with a recess inwardly and downwardly sloped from said crest toward the center of said end piece, an eye seated in the recess and protected by the rim of the end piece, and weighting material inclosed in said casing.

943,660. FEEDER FOR CONCRETE-MIXERS. OSCAR J. DUNHAM, Ames, Iowa. Filed Aug. 10, 1908. Serial No. 447,840.



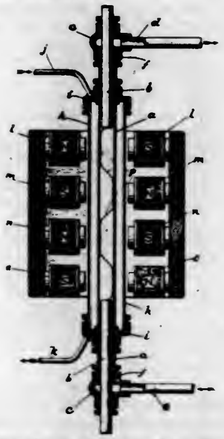
1. In a device of the class described, the combination of a frame comprising a hopper, a rotatable shaft mounted in the frame, a number of walls arranged radially on the shaft, a stationary partition at one end of the shaft, a stationary partition between the ends of the shaft, and an adjustable head mounted on the end of the shaft opposite from the stationary partition and capable of movement toward and from the central partition, said parts being so arranged that the space between the two stationary partitions is in communication with the hopper, and also the space between the central partition and the movable one is in communication with the hopper so that by adjusting the movable partition the proportionate delivering capacity of the compartments on opposite sides of the central partition may be varied, a scraping and leveling bottom member for the hopper, and a spring for yieldingly holding it against the walls and partitions of the shaft.

2. In a device of the class described, the combination of a frame comprising a hopper, a rotatable shaft, a number of segmental compartments connected with the shaft, a disk shaped partition, and an adjustable head mounted on one end of the shaft, and capable of movement toward and from said disk shaped partition for regulating the length of the segmental compartments between the central partition and said head, and a yielding scraping and leveling bottom member for the hopper with its lower end in position in engagement with the outer portion of said segmental chambers, and a yielding segmental plate arranged to engage the outer portions of the chambers below said scraping and leveling bottom member.

3. In a device of the class described, the combination of a frame, a stationary inclined bottom member at one side of the frame, a segmental plate fixed to the lower edge thereof, a stationary inclined bottom member at the other side of the frame, a central partition in the hopper, two hinged bottom members connected to the lower edges of the last mentioned bottom member, springs for yieldingly holding them toward the longitudinal center of the hopper, two segmental plates, means for yieldingly holding them toward the longitudinal center of the hopper below said yielding bottom members, a rotatable shaft mounted within the hopper, a number of radial walls fixed thereto and spaced apart equidistant from each other, a disk shaped head at one end thereof, a disk shaped partition between the ends of said walls and in line with the transverse partition in the hopper, and an adjustable head at the other end of the shaft comprising a hub, a set-screw in the hub to engage the shaft, a disk fixed to the hub, and a series of segmental blocks fixed to the disk and arranged between said radial walls, substantially as and for the purposes stated.

943,661. PRODUCTION OF OXIDS OF NITROGEN FROM THE AIR. FRANCIS I. DU PONT, Wilmington, Del., assignor to The E. I. du Pont de Nemours Powder Company, Wilmington, Del., a Corporation of New Jersey. Filed Dec. 18, 1908. Serial No. 468,107.

1. An apparatus for producing oxids of nitrogen from the air, comprising in combination a cooling surface, which is a non-conductor of electricity, in contact with which the air to be acted on is adapted to pass, electrodes between which an arc longitudinally with respect to said surface is adapted to be produced, and a plurality of oppositely placed rotary magnetic fields extending longitudinally between the electrodes.



2. An apparatus for producing oxids of nitrogen from the air, comprising in combination a container, which is a non-conductor of electricity, means to subject said container to the action of a cooling medium, electrodes, between which an arc longitudinally with respect to the inner surface of said container is adapted to be produced, and a plurality of oppositely placed rotary magnetic fields exterior of the container in the arc space, and extending longitudinally of the container.

3. An apparatus for producing oxids of nitrogen from the air, comprising in combination a surface, which is a non-conductor of electricity, in contact with which the air to be acted on is adapted to pass, electrodes between which an arc longitudinally with respect to said surface is adapted to be produced, and a plurality of oppositely placed rotary magnetic fields extending longitudinally between the electrodes.

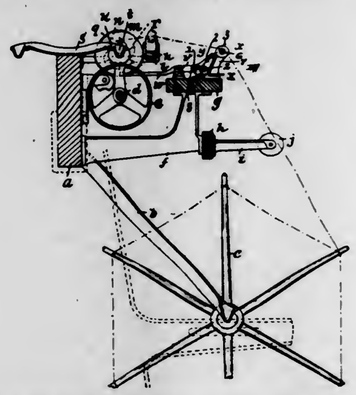
4. An apparatus for producing oxids of nitrogen from the air, comprising in combination a container, which is a non-conductor of electricity, electrodes, between which an arc longitudinally with respect to the inner surface of said container is adapted to be produced, and a plurality of oppositely placed rotary magnetic fields exterior of the container in the arc space, and extending longitudinally of the container.

943,662. MEANS FOR DETECTING ENLARGEMENTS IN THREAD. JAMES EASTWOOD, Paterson, N. J., assignor to Benjamin Eastwood Company, Paterson, N. J. Filed Sept. 16, 1908. Serial No. 453,308.

1. In a mechanism for detecting undue enlargements in thread, the combination of a support, means for drawing the thread lengthwise comprising a rotary part, a lever fulcrumed in said support and movable into engagement with said part to stop the rotation thereof, and a thread-detector operatively connected to said lever and pivoted in said support on a substantially horizontal axis, said detector projecting upwardly from its pivot and having limited movement on its pivot to an inclined position relatively to a perpendicular plane coinciding with its axis of pivotal movement, substantially as described.

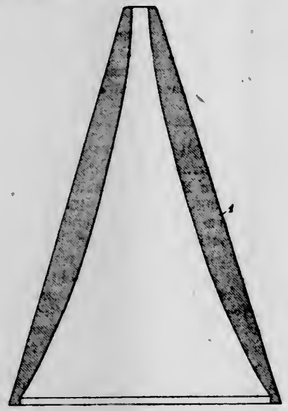
2. In a mechanism for detecting undue enlargements in thread, the combination of a support, means for drawing the thread lengthwise comprising a rotary part having an abutment thereon, a lever fulcrumed in said support and movable into the path of movement of said abutment to stop the rotation of the rotary part, and a thread-detector pivoted in said support on a substantially horizontal axis and operatively connected with said lever, said detector

projecting upwardly from its pivot and being limited by said lever to move on its pivot to an inclined position relatively to a perpendicular plane coinciding with its axis of pivotal movement, substantially as described.



3. In a mechanism for detecting undue enlargements in thread, the combination of a support, means for drawing the thread lengthwise comprising a rotary part having an abutment thereon, a lever fulcrumed in said support and movable into the path of movement of said abutment to stop the rotation of the rotary part, a thread-detector pivoted in said support on a substantially horizontal axis and operatively connected with said lever, a bar forming a guide for the thread and arranged substantially parallel with the axis of movement of said detector, said detector projecting upwardly from its pivot and being limited by said bar to move to an inclined position relatively to a perpendicular plane coinciding with its axis of pivotal movement, substantially as described.

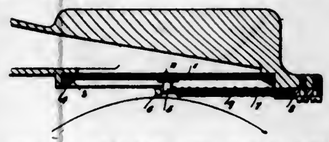
943,663. HORN FOR TALKING-MACHINES. THOMAS A. EDISON, Llewellyn Park, Orange, N. J. Filed May 24, 1905. Serial No. 261,951. Renewed June 10, 1909. Serial No. 501,413.



1. A funnel for talking machines, the walls of which are of maximum thickness at a point between its ends, substantially as set forth.

2. A funnel for talking machines, which is of maximum thickness at a point intermediate its ends and whose thickness decreases gradually toward each end, substantially as set forth.

943,664. SOUND-RECORDING APPARATUS. THOMAS A. EDISON, Llewellyn Park, Orange, N. J., assignor to New Jersey Patent Company, Orange, N. J., a Corporation of New Jersey. Filed Nov. 18, 1903, Serial No. 181,590. Renewed June 10, 1909. Serial No. 501,414.



1. A composite diaphragm, comprising an elastic member and a permanently semi-liquid material of great internal friction or viscosity applied over the surface thereof, whereby said member is rendered practically incapable of sympathetic vibration, substantially as set forth.

2. A composite diaphragm comprising two or more elastic members and means applied over the adjacent surfaces thereof for rendering said members practically incapable of sympathetic vibration, substantially as set forth.

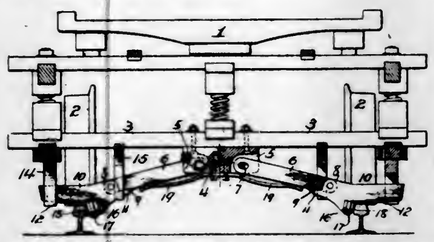
3. A composite diaphragm comprising two or more elastic members and a permanently semi-liquid material characterized by great internal friction or viscosity applied to said members over the surfaces thereof, whereby said members are rendered practically incapable of sympathetic vibration, substantially as set forth.

4. A composite diaphragm comprising two or more rigid disks secured together with a viscous semi-liquid between the disks, substantially as set forth.

5. A composite diaphragm comprising two or more rigid disks of different thicknesses secured together with a viscous semi-liquid between the disks, substantially as set forth.

[Claims 6 to 15 not printed in the Gazette.]

943,665. DERAILMENT-GUARD FOR RAILROAD-CARS. RICHARD J. EDWARDS, Galena, Ill. Filed June 14, 1909. Serial No. 502,160.



1. The combination with a truck and derailment-guard-arms pivotally supported thereby, of a shoe hinged to the outer end of each of said arms and adapted to engage a rail.

2. The combination with a truck, and derailment-guard-arms pivotally supported thereby, of shoes pivotally connected with the free ends of said arms and adapted to engage railroad rails, and means for limiting the downward movement of each shoe relatively to the arm to which it is pivotally connected.

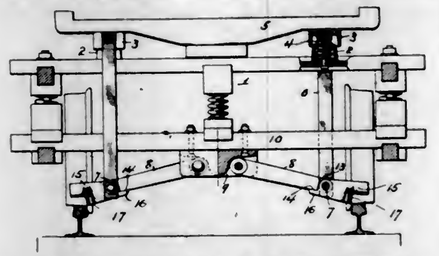
3. The combination with a truck and derailment-guard arms pivotally supported thereby and provided at their outer ends with lugs, of shoes pivoted to said lugs and provided with lips to engage the under faces of the arms for limiting the downward movement of the shoes relatively to the arms, and springs engaging said arms and maintaining the shoes normally elevated slightly above the treads of the rails.

4. The combination with a truck, of guard-arms pivotally supported thereby, shoes carried by said guard-arms and having their lower faces beveled upwardly from their inner ends outwardly and projecting over the treads of the rails, and a flange depending from each shoe at the inner end of said beveled portion and adapted to engage the side of the adjacent rail.

5. The combination with a truck, of guard-arms pivotally supported thereby, a shoe carried by each guard-arm and adapted to project over the rails and a flange depending from each shoe and adapted to engage the inner side of the adjacent rail, the flange of each shoe being elongated in form and having wedge-shaped ends.

[Claim 6 not printed in the Gazette.]

943,666. CAR-TRUCK. RICHARD J. EDWARDS, Galena, Ill. Filed Aug. 28, 1909. Serial No. 515,102.



1. The combination in a car truck, of a yieldable bearing against which the weight of the car body falls, a derailment guard having a depending flange adapted when the guard is lowered to rest adjacent to and in the horizontal plane of the track rail, and means connecting the derailment guard and yieldable bearing, whereby the position of the guard with relation to the track rail is regulated and controlled by the yieldable bearing.

2. In a car truck, the combination with yieldable bearings against which the weight of the car body falls, and derailment guards carried by said truck and overhanging the track rails, of means connecting the yieldable bearings and derailment guards whereby the latter will be lowered to a position to engage the track rails, when the yieldable bearings are depressed by the car.

3. The combination with a car truck and yielding bearings thereon adapted to receive the weight of the car body of guard arms pivoted to the truck, shoes carried by the outer ends of the arms, each shoe having a depending flange to engage the inner face of the rail and means connecting said arms and shoes with the yielding bearings whereby the positions of the shoes with relation to the rails are regulated and controlled by the yielding bearings.

943,667. COMPOSITION FOR LAYING ROAD-DUST AND HARDENING ROAD-BEDS. CARLETON ELLIS, Larchmont, N. Y., assignor to Ellis-Foster Company, a Corporation of New Jersey. Filed Apr. 25, 1908. Serial No. 429,227.

1. A composition for laying road dust and hardening road beds, comprising an emulsion of oil and calcium chlorid, said composition having a neutral reaction and containing a proteid emulsifier.

2. A composition for laying road dust and hardening road beds, comprising an emulsion of petroleum oil, and a deliquescent salt in aqueous solution, all incorporated by means of a proteid emulsifier.

3. A composition for laying road dust and hardening road beds, comprising mineral oil, a chlorid of an alkaline earth of a deliquescent character, Irish moss and water.

4. A composition for laying road dust and hardening road beds, consisting of mineral oil, calcium chlorid, Irish moss and water.

5. A composition for laying road dust and hardening road beds, comprising an emulsion consisting of about equal parts of oil and a concentrated solution of calcium chlorid thickened with Irish moss, said composition being in the form of an emulsion.

[Claims 6 and 7 not printed in the Gazette.]

943,668. BORATED FERTILIZER. CARLETON ELLIS, Larchmont, N. Y., assignor to Ellis-Foster Company, a Corporation of New Jersey. Filed Mar. 26, 1909. Serial No. 486,049.

1. As a fertilizer the herein described waste material derived from the production of borax, and an alkaline compound; whereby its boric acid content is rendered non-toxic to vegetation.

2. A fertilizer containing the herein described waste material derived from the production of borax, an alkaline compound; whereby its boric acid content is rendered non-toxic to vegetation and soluble fertilizing salts.

3. A fertilizer consisting of the herein described waste material derived from the production of borax, a lime compound; whereby its boric acid content is rendered harmless to vegetation and soluble fertilizing salts including compounds of potash, ammonia and phosphoric acid.

4. A fertilizer comprising lime, the herein described waste material derived from the production of borax and soluble fertilizing salts.

943,669. BORATED INSECTICIDE FERTILIZER. CARLETON ELLIS, Larchmont, N. Y., assignor to Ellis-Foster Company, a Corporation of New Jersey. Filed Mar. 26, 1909. Serial No. 486,050.

1. An insecticide comprising the herein described waste lime borax material and an arsenical.

2. An insecticide consisting of the herein described waste lime borax material and an arsenical, all in a pulverulent form.

3. An insecticide comprising the herein described waste lime borax material, a metallic arsenate and a soluble fertilizing body, all in a powder form.

943,670. STEEL-PRESERVATIVE PAINT. CARLETON ELLIS, Larchmont, N. Y., assignor to Ellis-Foster Company, a Corporation of New Jersey. Filed May 7, 1909. Serial No. 494,702.

1. An iron preservative composition consisting of blue sublimed white lead, zinc chromate, zinc dust, graphite, linseed oil, wood oil and a thinning agent.

2. An iron preservative composition comprising blue sublimed white lead, a chromic acid compound, a neutralizer for the impurities therein, and a paint vehicle.

3. An iron preservative composition comprising zinc chromate, zinc dust, and a paint vehicle of an oily character.

4. An iron preservative composition comprising a white lead basis, a chromic acid rust inhibiting compound, a metallic body as a neutralizer for the impurities therein and an oily paint vehicle.

5. An iron preservative composition comprising blue sublimed white lead, a salt of chromic acid, a neutralizing agent for the impurities therein and a paint vehicle consisting largely of linseed oil.

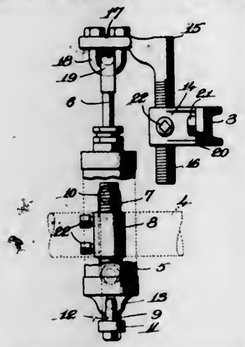
[Claim 6 not printed in the Gazette.]

943,671. HANGER FOR SHOCK-ABSORBERS. ERNST FLENTJE, Cambridge, Mass. Filed Sept. 27, 1909. Serial No. 519,776.

1. In a shock absorber, the combination with a cylinder and a piston therein, of a clip adapted to be secured to the axle of a car, a hanger member having a stem swiveled to said clip and provided with a laterally-extending foot which is connected to the cylinder, a bracket secured to the frame of the car, and another hanger device provided with a stem which is swiveled to the bracket and provided with an overhanging portion that is connected to the piston rod.

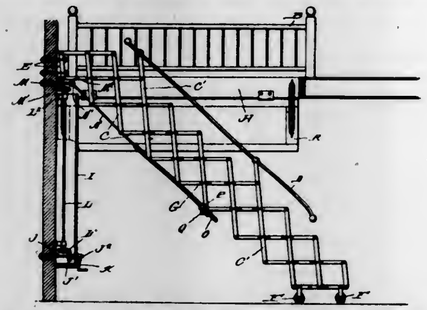
2. In a shock absorber, the combination with a cylinder and a piston therein, of a clip adapted to be secured to the axle of a car, a hanger member having a stem screw-threaded to said clip and provided with a laterally-extending foot which is connected to the cylinder, a bracket

secured to the frame of the car, and another hanger device provided with a stem which is screw-threaded to the



bracket and provided with an overhanging portion that is connected to the piston rod.

943,672. FOLDING STAIR. JOHN A. FLYNN, Council Grove, Kans. Filed Nov. 3, 1908. Serial No. 460,909.



1. In a structure of the kind described, the combination with spaced lazy tongs connected together by steps, a nut carried by said tongs, a hollow shaft carried by said nut, a second shaft working in said hollow shaft and means for operating the last mentioned shaft.

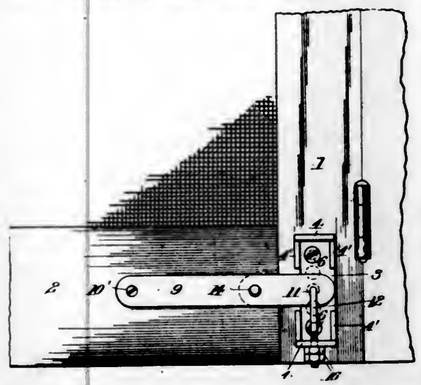
2. The combination with a stair opening, of adjustable wedge-shaped members secured above said opening, lazy tongs provided with rails connected to said wedges, steps connecting said lazy tongs, a brace connecting said tongs provided with a nut, an externally and internally threaded tubular shaft member mounted within said nut, a threaded shaft working within said tubular shaft, a shaft provided with a beveled gear a universal joint connecting said threaded shaft to the shaft with the beveled gear and means for operating the shaft with the beveled gear.

3. The combination with a stair opening, of adjustable wedge-shaped members secured above said opening, spaced lazy tongs connected to said wedge-shaped members comprising a plurality of cross levers pivotally connected together, two of said levers being of a greater length than the others, rails carried by the last mentioned levers, spring actuated doors for closing said stair opening and means for operating said lazy tongs whereby said doors will be opened by said tongs when thrown into an extended position.

4. The combination with spaced lazy tongs carrying rails and connected together by steps, a brace connecting said tongs provided with a nut, internally and externally threaded hollow shaft on said nut, a threaded shaft working in said hollow shaft, means for operating the last mentioned shaft, said means comprising a series of gears.

5. The combination with a pair of wedge-shaped members, spaced lazy tongs pivotally connected to said wedge-shaped members provided with rubber rollers at their lower ends, said lazy tongs being connected together by steps, of a brace provided with a nut arranged between said lazy tongs, and an externally and internally threaded shaft working on said nut, a threaded shaft working in said shaft provided with a universal joint member at its upper end, a shaft provided with a universal joint member connected to said member, a beveled gear carried by the last mentioned shaft, a shaft provided with a beveled gear meshing with said beveled gear, a shaft provided with a beveled gear and a crank, said beveled gear meshing with the beveled gear carried by the shaft, for the purpose described.

943,673. DOOR-BRACE. CHARLES FRIBERG, El Paso, Tex. Filed May 19, 1909. Serial No. 497,113.

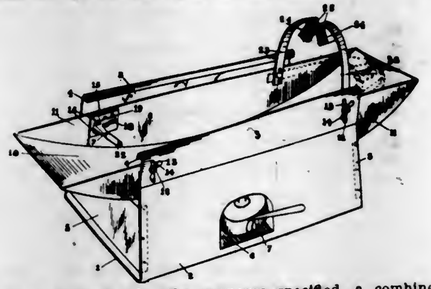


1. In an adjustable brace, a base plate adapted to be secured to a door or the like, having lateral flanges bent outwardly at right angles to the main body and reinforced by braces, each flange provided with a central opening, in combination with a bar with approximately central and end openings, one end adapted to be secured to a door the other end engaging an adjusting bolt, and centrally pivoted to the base plate; an adjusting bolt, curved at one end to enter and engage an opening in the bar, the other end being threaded and adapted to be inserted in an opening in the flange, and provided with a movable nut, substantially as and for the purposes described.

2. The combination with a door of a reversible brace, adjustable in its parts, comprising a base plate adapted to be secured to a door and having lateral outwardly extending flanges provided with central openings, and lugs on the rear of the base plate, a bar with approximately central and end openings, and adapted to pivotal attachment to the base plate; an adjusting bolt curved at one end and threaded at the other adapted to vertically engage said bar and an opening in a flange on the base plate, and a movable nut on the threaded end of the bolt abutting the lower surface of a flange on the base plate, substantially for the purposes described.

943,674. APPARATUS FOR OILING FELLIES. DANIEL D. FAISBEE, Detroit, Mich. Filed Apr. 10, 1909. Serial No. 489,235.

1. In a device for the purposes specified, a combined heating chamber and stand consisting of a sheet metal base with upturned inbent sides whose upper portions are parallel and are provided with vertical slots near each end and with inrolled upper margins, end pieces secured across the inbent sides at an interval above the base, a tank with longitudinally concave bottom between the stand sides, bolts through the tank walls passing through the side slots, nuts on the bolts clamping the parts together, a yieldingly vibratable stop on the inner side of the tank wall secured by one of the bolts, wipers adjustably secured by the bolts over the tank and means for heating the tank adapted to be removably inserted on the stand through an opening in one side thereof.



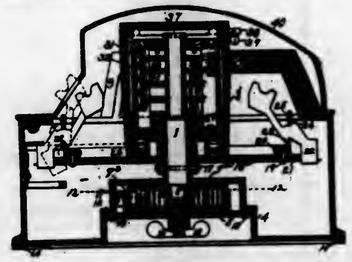
2. In a device for the purposes specified, a combined heating chamber and stand consisting of a sheet metal base with upturned inbent sides whose upper portions are parallel and are provided with vertical slots near each end and with inrolled upper margins, end pieces secured across the inbent sides at an interval above the base, a tank with longitudinally concave bottom, between the stand sides, bolts through the tank walls passing through the side slots, nuts on the bolts clamping the parts together, a base plate secured against the inner side of one of the tank walls by the bolt, a bell crank pivoted therein to oscillate in a horizontal plane, a spring interposed between one of the crank arms and the plate, a flexible tube secured on the outer arm of the crank, wipers adjustably secured by the bolts over the tank, and removably secured means in the stand for heating the tank.

3. In a device for the purposes specified, a combined heating chamber and stand consisting of a sheet metal base with upturned inbent sides whose upper portions are parallel and are provided with vertical slots near each end, end pieces secured across the inbent sides at an interval above the base, a tank with longitudinally concave bottom, between the stand sides, bolts through the tank walls passing through the side slots, nuts on the bolts clamping the parts together, a yieldingly vibratable stop on the inner side of the tank wall secured by one of the bolts and provided with a flexible arm extending laterally into the tank, a pair of incurved spring arms adjustably secured above the tank by the clamping bolts, the upper ends thereof being bent inwardly into parallel relation, a wiping brush on each inbent portion, and means removably secured in the stand for heating the tank.

4. In a device for the purposes specified, a combined heating chamber and stand consisting of a sheet metal base with upturned, inbent sides whose upper portions are parallel and are provided with vertical slots near each end, end pieces secured across the inbent sides at an interval above the base, a tank with longitudinally concave bottom, between the stand sides, bolts through the tank walls passing through the side slots, nuts on the bolts clamping the parts together, a base plate secured against the inner side of one of the tank walls by the bolt, a bell crank provided thereon to oscillate in a horisontal plane, a spring interposed between one of the crank arms and the plate, a flexible tube on the outer arm of the crank extending laterally into the tank, a pair of incurved spring arms adjustably secured above the tank by clamping bolts, the upper ends thereof being bent inwardly into parallel relation, a wiping brush in each inbent portion and means removably secured in the stand for heating the tank.

943,675. VENDING-MACHINE. WILLIAM H. FULTON, Albany, N. Y., assignor to Automatic Service Company, Albany, N. Y., a Corporation of New York. Filed Mar. 13, 1907. Serial No. 362,207.

1. In a vending machine, a casing provided with a vending opening, a carrier within the casing, a plurality of receptacles carried thereby, mechanism for moving the carrier in a step by step manner to present the receptacles before the vending opening in succession, and hand-operated mechanism for imparting a separate movement to each receptacle to present it at the vending opening after it has been brought into position before the opening by the step by step movement of the carrier.



2. In a vending machine, a casing provided with a vending opening, a rotary disk within the casing, a plurality of arms pivotedly supported on said disk, a receptacle carried by each of the said arms, mechanism for rotating the disk in a step by step manner to present the receptacles before the vending opening in succession, and hand-operated mechanism for turning each receptacle-carrying arm on its pivot to present the receptacle at the vending opening after it has been brought into position before the vending opening by the rotation of the disk.

3. In a vending machine, a casing provided with a vending opening, a rotary disk within said casing provided with a plurality of radial slots, an up-standing ring on said disk provided with a corresponding number of vertical slots, a plurality of receptacle carrying arms resting in the vertical slots and guided by the horizontal slots, a closure for the vertical slots in the upstanding ring above the receptacle carrying arms, stops on the receptacle carrying arms so constructed and arranged as to allow a limited pivotal movement of the said arms in their supporting slots, mechanism for rotating said disk in a step by step manner to present the receptacles before the vending opening in succession, and means for imparting a pivotal movement to each receptacle carrying arm to present the receptacle at the vending opening after it has been brought into position before the opening by the rotation of the disk.

4. In a vending machine, a casing provided with a vending opening, a carrier within the casing, a plurality of receptacle carrying arms mounted on said carrier, a stop adapted to engage the receptacle carrying arms in succession, means for rotating the disk normally restrained by the engagement of an arm with the stop, mechanism for releasing each arm from the stop, thereby permitting the movement of the carrier until the next succeeding arm engages the stop, whereby the receptacles are presented before the vending opening in succession, and hand operated mechanism adapted to impart a separate movement to each receptacle carrying arm to present the receptacle at the vending opening after it has been brought into position before the opening by the movement of the carrier.

5. In a vending machine, a casing provided with a vending opening, a carrier within the casing, a plurality of receptacle carrying arms mounted on said carrier, a stop adapted to engage the receptacle carrying arms in succession, means for rotating the disk normally restrained by the engagement of an arm with the stop, mechanism for releasing each arm from the stop, thereby permitting the movement of the carrier until the next succeeding arm engages the stop, whereby the receptacles are presented before the vending opening in succession, hand operated mechanism adapted to impart a separate movement to each receptacle carrying arm to present the receptacle at the vending opening after it has been brought into position before the opening by the movement of the carrier, and an interlock between the releasing mechanism and hand operated mechanism, whereby each can be operated only when the other is in proper position.

[Claims 6 to 8 not printed in the Gazette.]

943,676. THERMOMETER-CASE AND INSTRUMENT-HOLDER. MAX P. HERMANN, Philadelphia, Pa. Filed Aug. 22, 1908. Serial No. 449,851.



1. In a device of the character described, a bar, a disk member thereon having an opening therein, a flange adjacent said member, a casing inclosing said bar, and a split ring on said flange to close said opening to support an instrument.

2. In a device of the character described, a bar, a disk member thereon having a plurality of openings therein, a flange adjacent said member, a casing inclosing said bar, and a split ring on said flange to close said openings to support a plurality of instruments.

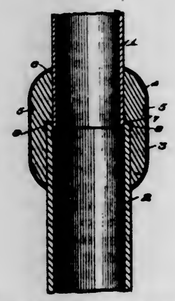
3. In a device of the character described, a bar, a disk member thereon, a flange adjacent said disk member having a plurality of radial openings therein, a casing inclosing said bar, and a split ring on said flange adapted to close said openings to support a plurality of instruments in said openings.

4. In a device of the character described, a bar, a plurality of disk members thereon, a flange adjacent each member having a plurality of radial openings therein, a casing inclosing said bar, and a split ring on said flange to close said openings to support a plurality of instruments in said openings.

5. In a device of the character described, a bar, a plurality of flanges on said bar each provided with a plurality of openings, a split ring on each flange adapted to close said openings to support suitable instruments and a disk adjacent each flange having means to hold one end of each instrument.

[Claim 6 not printed in the Gazette.]

943,677. PIPE CONNECTION. ALFRED HOLLOWAY, Rochester, N. Y. Filed Sept. 15, 1909. Serial No. 517,840.



1. A casing for pipe connections having a chamber for holding binding material about a piping and comprising two members connected on a line transverse to the piping and each having an opening for the passage of a pipe section.

2. A casing for holding binding material about a piping comprising a cup-shaped member having a central opening with diameter less than the internal diameter of the cup-shaped member to provide a space about the pipe section for a binder, and a member coöperating with said cup-shaped member and having a central opening adapting the member to surround another pipe section.

3. A casing for pipe connections comprising two cup-shaped members, one of which fits within the other and each of which has a central opening of less diameter than the internal diameter of the cupped portion thereof.

4. The combination with a pair of pipe sections, of a casing having a chamber for holding binding material about the proximate ends of the sections, said casing comprising two members connected on a line transverse to the piping, and a binding material within the casing uniting the latter to the piping.

5. In a pipe connection, the combination with a vertical piping embodying two sections, of a cup-shaped member surrounding the lower section and having its upper edge above the upper edge of the lower section.

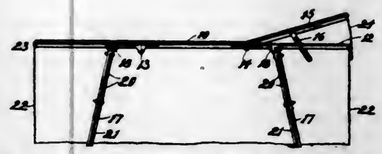
[Claim 6 not printed in the Gazette.]

943,678. LEUCO BODY CONTAINING SULFUR AND PROCESS OF MAKING SAME. BENNO HOMOLKA, Frankfort-on-the-Main, and ROBERT WELDE, Höchst-on-the-Main, Germany, assignors to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany, a Corporation of Germany. Filed Mar. 23, 1909. Serial No. 485,268.

1. The process for manufacturing leuco bodies containing sulfur by condensing dioxindoles with alpha-oxythionaphthenes.

2. As a new product, a leuco body containing sulfur, obtainable by condensing a dioxindole with an alpha-oxythionaphthene, being a white or reddish crystalline powder which is slightly soluble in water, soluble in alcohol and acetone and also in diluted caustic alkalies, its solution in caustic alkalies separating, on exposure to the air, an insoluble dyestuff.

943,679. EMBALMING-TABLE. GOTTLOB F. HONOLD, Sheboygan, Wis. Filed July 16, 1908. Serial No. 443,784.

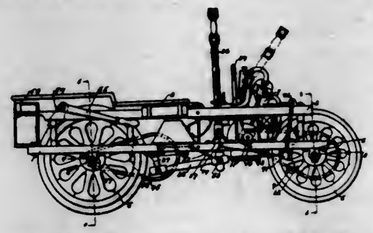


1. An embalming table, comprising an intermediate section and head and foot sections hinged together, sockets on the head and foot sections, leg members removably engaged in the sockets, and a brace rod pivotally connected to each leg member and adapted to engage the opposite leg member, each leg member having a groove therein to receive the brace rod attached thereto when the same is disconnected from the opposite leg member.

2. An embalming table, comprising an intermediate section and head and foot sections hinged together, sockets projecting from the head and foot sections, and leg members removably engaged in the sockets, the hinges for the head and foot sections having their pivotal points at different distances from the surface of the intermediate section whereby one end section may be folded against the intermediate section and the other end section may be folded thereagainst, the first mentioned end section being provided with openings to receive the projecting sockets of the other end section when folded.

943,680. MOTOR-CAR. WILLIAM S. HOVEY and CHARLES B. STEBBINS, Three Rivers, Mich., assignors to Sheffield Car Company, Three Rivers, Mich. Filed May 1, 1909. Serial No. 493,373.

1. The combination with the frame, of wheels; an engine; driving connections for said engine to said wheels comprising a clutch, means for shifting said clutch; a hand power driving mechanism comprising a hand lever; a foot power driving mechanism comprising foot rests; driving connections for said hand and foot mechanisms to one of said wheels comprising a ratchet mechanism whereby power may be delivered by said hand and foot power mechanism, or either of them, to propel the car in connection with or independently of said engine and movement of the wheel independently of said hand lever or foot rest is permitted; means for disconnecting said foot rests from the said driving connections; and means for securing said hand lever in a fixed position.



2. The combination with the frame, of wheels; an engine; driving connections for said engine to said wheels comprising a clutch, means for shifting said clutch; a hand power driving mechanism comprising a hand lever, a foot power driving mechanism comprising foot rests; driving connections for said hand and foot power mechanisms to one of said wheels comprising a ratchet mechanism whereby power may be delivered by said hand and foot power mechanism, or either of them, to propel the car in connection with or independently of said engine and movement of the wheel independently of said hand lever or foot rest is permitted; and means for disconnecting said foot rests from the said driving connections.

3. The combination with the frame, of wheels; an engine; driving connections for said engine to said wheels comprising a clutch, means for shifting said clutch; a hand power driving mechanism comprising a hand lever; a foot power driving mechanism comprising foot rests; driving connections for said hand and foot power mechanisms to one of said wheels comprising a ratchet mechanism whereby power may be delivered by said hand and foot power mechanism, or either of them, to propel the car in connection with or independently of said engine and movement of the wheel independently of said hand lever or foot rest is permitted; and means for securing said hand lever in a fixed position.

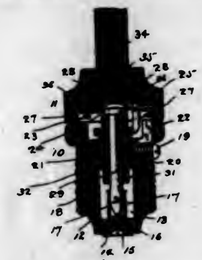
4. The combination with the frame, of wheels; an engine; driving connections for said engine to said wheels comprising a clutch, means for shifting said clutch; a hand power driving mechanism comprising a hand lever; a foot power driving mechanism comprising foot rests; and driving connections for said hand and foot power mechanisms to one of said wheels comprising a ratchet mechanism whereby power may be delivered by said hand and foot power mechanism, or either of them, to propel the car in connection with or independently of said engine and movement of the wheel independently of said hand lever or foot rest is permitted.

5. The combination with the frame, of wheels; an engine; driving connections for said engine to said wheels comprising a friction clutch; means for shifting said clutch; a hand power driving mechanism comprising a hand lever; a foot power driving mechanism comprising foot rests; and driving connections for said hand and foot power mechanisms to one of said wheels comprising a roller clutch mechanism whereby power may be delivered by said hand and foot power mechanism, or either of them, to propel the car in connection with or independently of said engine and movement of the wheel independently of said hand lever or foot rest is permitted.

[Claims 6 to 15 not printed in the Gazette.]

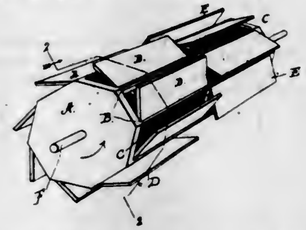
943,681. SEPARABLE ATTACHMENT-PLUG. HARVEY HUBBELL, Bridgeport, Conn. Filed June 5, 1908. Serial No. 436,829.

In a device of the character described, an insulating cap having in its upper side a recess, a cable having its end seated on the bottom of said recess and having wires extending therefrom and passing through the cap, brackets secured to the under side of said cap to which the wires are connected, said wires being drawn tightly to hold the cable end seated as described, a stem carried by one of said brackets, an insulating sleeve surrounding said stem



and a contact sleeve carried by the other bracket exterior to the insulating sleeve.

943,682. CYLINDER FOR WASHING-MACHINES. CHRISTIAN JENSEN, Palmyra, N. J. Filed Jan. 22, 1907. Serial No. 353,460.



1. In a cylinder for washing machines, two cylinder heads an axle passing centrally through said heads, a plurality of braces attached to the cylinder heads near to their circumference and parallel to the axle, said braces spaced equally apart and dividing the convex surface of the cylinder so formed into a plurality of rectangular spaces, a metallic openwork screen parallel to the cylinder heads and midway between them, metallic openwork screens covering each of the rectangular spaces, means for removing certain particular screens, a series of wings tangentially disposed to the convex surface of that portion of the cylinder lying between the transverse screen and one of the heads and adapted on rotation of the cylinder to scoop water into said cylinder when properly inclosed and revolved in a counter clock-wise direction, a series of wings similarly placed on the opposite half of said cylinder and adapted when properly inclosed and revolved in a clock-wise direction to scoop water into said cylinder, substantially as described.

2. In a cylinder for washing machines, two cylinder heads, an axle passing centrally through said heads, a series of braces spaced equally apart and attached to the opposite heads, a central division partition between the heads parallel thereto, and having a centrally disposed opening within said divisional partition, an open-work wire screen attached to the partition and to the spaces bounded by the parallel braces, means of access to the interior of the cylinder, tangentially disposed wings in the first half of the cylinder between the head and the central partition, said wings of equal size and attached to the corresponding long sides of each rectangular space, similar wings similarly disposed on the second half of the cylinder and attached to the corresponding opposite sides of the rectangular spaces, substantially as described.

3. A washing machine cylinder comprising a rotatable frame of polygonal form in cross section consisting of a pair of end closed heads and a central perforated partition dividing the cylinder into two sections, said frame having a series of openings along the peripheral surface of each section, vanes coöperatively held adjacent to said

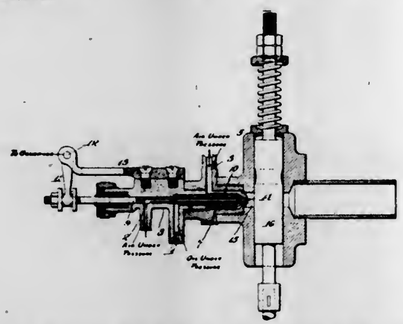
openings, and arranged in sets, one for each section, the vanes of one set being directed in the same general direction while those of the other set are oppositely directed, said vanes being rigidly secured to said cylinder.

943,683. RECOIL-PAD. JOSEPH S. JOHNSON, Lodi, Ohio. Filed Sept. 11, 1909. Serial No. 517,231.



A recoil-pad, comprising a base heel-plate provided with a plurality of alternately reversed conical shaped helical springs carrying a flexible heel-plate independently of said base heel-plate, and an independently formed detachable boot covering said heel-plates and removably holding said base heel-plate to the heel of the gun-stock.

943,684. VAPORIZER FOR INTERNAL-COMBUSTION ENGINES. PHILIP D. JOHNSTON, Cold Spring, N. Y., assignor to American Oil Engine Company, a Corporation of New York. Filed July 7, 1906. Serial No. 325,112.



1. A vaporizer having an oil passage, and an air passage outside of it and an air passage inside of it, with a mixing chamber into which the said passages enter, the said chamber having a passage for water entering it at an angle to the other passages.

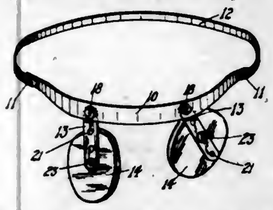
2. A vaporizer having an oil passage, and an air passage outside of it, and an air passage inside of it, with a mixing chamber into which the said passages enter, the said chamber having a passage for water entering it at right angles to the other passages.

3. A vaporizer having means for introducing oil into a closed chamber, means for introducing air, the said latter means including a hollow spindle, means controlled by the sliding of the spindle for varying the amount of oil introduced, and means for introducing water into the chamber at an angle to the air.

4. A vaporizer having an oil passage, and an air passage outside of it, and an air passage inside of it, in combination with means for injecting water at an angle into the issuing jets of air and oil.

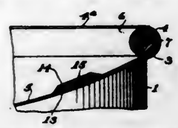
943,685. TRUSS. ALBERT A. KLUG, Merrill, Wis. Filed Nov. 13, 1908. Serial No. 462,369.

1. A truss, comprising a belt member of stiff spring metal with ends forming compound curves to fit the hips of the wearer, means for securing the belt member to the waist of the wearer, a pair of arms pivotally mounted on the belt member at a distance apart and having engaging lugs and notches to lock the arms in angular adjustment with relation to the belt member, said arms being provided with a number of openings at different distances from their pivotal connections, and pads pivotally mounted in said openings and having engaging lugs and notches between them and the arms to lock them in their angular adjustments on the arms, the pivotal connections between the arms and the belt member and between the pads and the arms comprising bolts with thumb nuts for clamping the parts together, and said arms being adapted to be bent to adjust the position of the pads toward or away from the wearer.



2. A truss, comprising a belt member formed in sections overlapping each other and adjustably connected together, a strap connecting the ends of the belt member for securing it to the waist of the wearer, arms pivotally mounted on the sections of the belt member with engaging lugs and notches for locking them in their angular adjustments with relation to the belt member, there being a series of openings in the arms at different distances from their pivotal connections, and pads pivotally mounted in said openings of the arms with engaging lugs and notches for locking them in their angular adjustments on the arms, said pads comprising blocks having recesses or cavities in their faces, yielding coverings stretched over the cavities of the blocks and secured to the opposite sides of the blocks, metal plates secured to the blocks over the edges of the covering, said connections between the sections of the belt member comprising bolts fitting in slots of the said sections and having nuts threaded therein, and said connections between the arms and the belt member and between the pads and the arms comprising bolts with thumb nuts threaded thereon to clamp the parts together and to secure the engagement of the lugs and notches.

943,686. CONSTRUCTION OF RECEPTACLES. ALFRED T. KRUSE, Defiance, Ohio, assignor to The American Steel Package Company, Defiance, Ohio, a Corporation of Ohio. Filed Aug. 1, 1908. Serial No. 446,380.



1. A barrel, comprising a body provided with annular shoulders terminating in outstanding chime flanges, and heads provided with annular beadings resting on said shoulders, said beadings being partially inclosed by said chime flanges and welded to the edges thereof.

2. A barrel, comprising a body provided with annular shoulders having outstanding welding flanges bent inwardly and terminating in welding edges above said shoulders, and heads having their edges curled inwardly forming annular beadings resting within and partially covered by and welded to said welding flanges.

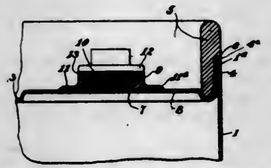
3. A barrel, comprising a body provided at its ends with annular shoulders terminating in outstanding head-securing chime flanges, and heads having their edges curled about a wire forming annular beadings resting on said annular shoulders and partially covered by and welded to said welding flanges.

4. A barrel, comprising a body provided at its ends with annular shoulders terminating in outstanding semi-cylindrical shaped welding flanges presenting inwardly extending welding edges, heads provided with annular beadings resting on said shoulders and partially covered and seated within said welding flanges, and a welding uniting said welding edges to said beadings.

5. In a barrel, the combination with the body thereof; of a convex-concavo-faced head provided at one side with a depressed drain-pocket having its bottom extending from one side of said head and at right angles to the longitudinal axis of said body.

[Claims 6 to 8 not printed in the Gazette.]

943,687. METALLIC BARREL. ALFRED T. KRUSE, Defiance, Ohio; Curtis M. Willock and A. M. Kruse, executors of said Alfred T. Kruse, deceased, assignors to The American Steel Package Company, Defiance, Ohio, a Corporation of Ohio. Filed Aug. 3, 1908. Serial No. 446,526.



1. In a metallic barrel, a cylindrical body, a head provided with an upturned rim abutting against the marginal end of said cylindrical body one of said abutting members being provided with an annular outwardly-extending portion taking over and extending flush with the other or opposite member, and a chime-band provided with an off-set recess containing said abutting members and secured to the edges of said outwardly-extending portion and opposite member by a peripheral welding formed along the base portion of said off-set recess.

2. A metallic barrel, comprising a cylindrical body, heads mounted therein and provided with upturned rims terminating in radially-extending portions resting upon the marginal ends of said cylindrical body, and inner chime-bands provided with peripheral off-set recesses containing said marginal ends and radially-extending portions and united thereto by a peripheral welding extending along the base portions of said peripheral recesses.

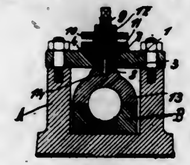
3. In a metallic barrel, a main body portion, a head having an upturned rim mounted within the marginal end of said main body portion and terminating in a peripheral outwardly-extending portion resting on said marginal end and extending flush with the outer periphery thereof, and an inner chime-band extending in a plane with said marginal end and provided with a peripheral off-set recess containing said upturned rim and marginal end, said outwardly-extending portion abutting against the base of said off-set recess and having its exposed edge united thereto and to said marginal end by a peripheral welding.

4. In a metallic barrel, a main body portion, a head having an upturned flange within the marginal end of said main body portion and provided with a radially extending portion abutting against said marginal end and extending flush with the outer periphery thereof, and a chime-band provided with a peripheral off-set recess containing said upturned flange and marginal end, said radially-extending portion and marginal end being united to each other and to said chime band by a peripheral welding.

943,688. SHAFT-BEARING. GUILLERMO KÜPFER, Santiago, Chile. Filed Apr. 22, 1908. Serial No. 428,494.

1. The combination with a bearing body or box, of a bearing sleeve supported in the body by a triangular bearing, a bearing piece at the apex of the triangle adjustable longitudinally in the body, a conical clamping sleeve adapted to be compressed by movement in the line of adjustment of the latter about the bearing piece, and means for adjusting the clamping sleeve.

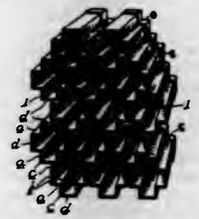
2. The combination with a bearing body or box and a bearing sleeve supported therein by a triangular bearing, of a set-screw 9 forming the bearing at the apex of the triangle, a compressible cone 4 inclosing the set-screw in the body, and a sleeve 10 screw threaded in the body and inclosing the set screw 9, for adjusting the cone.



3. The combination with a bearing body or box and a bearing sleeve supported therein by a triangular bearing, of a set-screw 9 forming the bearing at the apex of the triangle, a compressible cone 4 inclosing the set-screw in the body, a sleeve 10 screw threaded in the body and inclosing the set screw 9, for adjusting the cone, and lock nuts for the screw and sleeve.

4. The combination with a bearing body or box and a bearing sleeve supported therein by a triangular bearing, of a set-screw 9 forming the bearing at the apex of the triangle, a compressible cone 4 inclosing the set-screw in the body, a sleeve 10 screw threaded in the body and inclosing the screw 9 and screw threaded to co-act with screw 9, and lock nuts for the screw and sleeve.

943,689. RADIATOR. SAMUEL LAVINE, Detroit, Mich. Filed July 6, 1909. Serial No. 506,248.



1. A radiator comprising tubes of cruciform in cross section arranged in rows with the laterally projecting portions of the tubes of one row projecting into the spaces between the laterally projecting portions of the tubes of the adjacent rows with spaces between the rows forming tortuous passages.

2. A radiator comprising tubes each grooved longitudinally to form projecting portions between, said projecting portions forming the four sides of the tube, and said tubes being spaced apart to form tortuous passages between the tubes.

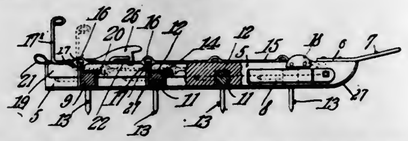
3. A radiator comprising tubes each grooved longitudinally, forming four inwardly projecting right angle corners and eight outer right angle corners, the spaces between the grooves forming the four sides of the tube and said tubes being spaced apart to form tortuous passages between the tubes, the turns of which passages are right-angle bends.

4. A radiator comprising tubes each grooved longitudinally to form projecting portions between the grooves, which projecting portions form the four sides of the tube, and said tubes set with spaces between the corresponding projecting adjacent portions and spaces of an equal width between the walls of the grooves and the projecting portions of tubes adjacent to said walls.

5. A radiator comprising a series of tubes each formed with longitudinal grooves forming four inwardly projecting right-angle corners and eight outer right-angle corners, the projecting portions between the grooves forming the four sides of the tube, and said tubes secured together at their ends with a space of uniform width entirely around each tube, said tubes being arranged in rows with

spaces between the tubes of each row, and the projecting portions of the tubes of each row projecting laterally from said rows into adjacent grooves of adjacent rows with a space between said portions and the walls of said grooves.

943,690. HARROW. JOHN H. LINDSEY, Kevil, Ky. Filed June 5, 1909. Serial No. 500,256.



1. In a harrow, a plurality of oscillatory tooth bars, a swinging locking bar engaging with the tooth bars to hold the same in one position or another, and means for holding the said locking bar against disengagement from the tooth bars.

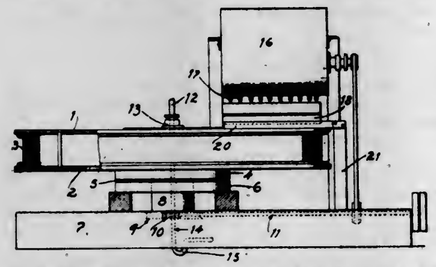
2. In a harrow, a plurality of oscillatory tooth bars, a swinging locking bar having seats engaging with the tooth bars to hold the same in one position or another, means for holding the said locking bar against disengagement from the tooth bars, and means whereby the tooth bars may be simultaneously oscillated.

3. In a harrow, a plurality of oscillatory tooth bars, means for simultaneously oscillating said bars, a pivoted locking bar engaging with the tooth bars to hold the same in one position or another, and a latch bar coöperating with the said locking bar whereby to hold the same against disengagement from the tooth bars.

4. In a harrow, a plurality of oscillatory tooth bars, means for simultaneously oscillating said tooth bars, the said tooth bars being polygonal in cross section, a locking bar having polygonal recesses engaging with the tooth bars whereby to hold the same in one position or another, and means for holding the said locking bar against disengagement from the tooth bars.

5. In a harrow, a plurality of oscillatory tooth bars, a swinging locking bar having seats engaging with the tooth bars to hold the same in one position or another, means for holding the said locking bar against disengagement from the tooth bars, and means whereby the tooth bars may be simultaneously operated, said means comprising brackets secured upon the tooth bars and having upstanding apertured ears, and a rod provided at points in its length with eyes having pivotal connection with the ears, the said rod being provided at one end with an upstanding handle portion.

943,691. DRYING-MACHINE. JOHN P. MARSHALL, St. Louis, Mo., assignor of one-half to F. H. Ludington, St. Louis, Mo. Filed Apr. 20, 1909. Serial No. 491,036.



1. In a machine of the class described, a drying disk comprising a pair of solid parallel plates spaced apart, a wall uniting the edges of said plates, means whereby said drying disk is rotated, an inlet pipe leading through the top plate and a discharge pipe leading from the chamber between said plates through the bottom plate.

2. In a machine of the class described, a drying disk comprising a pair of solid parallel plates spaced apart, a wall uniting the edges of said plates, an inlet pipe leading through the top plate and a discharge pipe leading from the chamber between said plates through the bottom plate, and means whereby said disk is rotated.

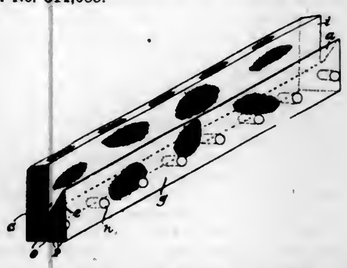
3. In a machine of the class described, a drying disk comprising a pair of solid parallel plates spaced apart, a wall uniting the edges of said plates, an inlet pipe leading through the top plate and a discharge pipe leading from the chamber between said plates through the bottom plate, means whereby said disk is rotated, and means whereby the material to be dried is fed onto the surface of the top plate of the disk.

4. In a machine of the class described, a drying disk comprising a pair of solid parallel plates spaced apart, a wall uniting the edges of said plates, an inlet pipe leading through the top plate and a discharge pipe leading from the chamber between said plates through the bottom plate, means whereby said disk is rotated, means whereby the material to be dried is fed onto the surface of the top plate of the disk, and means whereby the dried material is removed from the surface of the top plate.

5. In a machine of the class described, a hollow disk, means whereby fluid-heating medium is delivered to the chamber within said disk, a bearing ring carried by the underside of said disk, a fixed bearing ring, and a series of anti-friction members interposed between the bearing rings.

[Claims 6 to 10 not printed in the Gazette.]

943,692. PACKING AND METHOD OF MAKING THE SAME. CHARLES I. E. MASTIN, Midland Park, and EDWARD L. PERRY, Paterson, N. J. Filed Aug. 23, 1909. Serial No. 514,088.



1. As an article of manufacture, a packing for joints comprising alternating layers of rubber compound and tough pliable material secured together by the adhesion of the rubber compound, the edges of said layers together forming substantially plane surfaces, substantially as described.

2. As an article of manufacture, a packing for joints consisting of a core comprising alternating layers of rubber compound and tough pliable material secured together by the adhesion of the rubber compound, the edges of said layers together forming substantially plane surfaces, and a casing lying in adhering contact with the outer face of an exposed or outermost layer and with edges of said layers forming one of said plane surfaces, substantially as described.

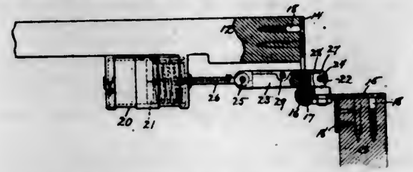
3. As an article of manufacture, a packing for joints consisting of a core comprising alternating layers of rubber compound and tough pliable material secured together by the adhesion of the rubber compound, the edges of said layers together forming substantially plane surfaces, and a casing closely enveloping said core and adhering to the exposed surfaces thereof, substantially as described.

4. As an article of manufacture, a packing for joints comprising a yielding core having an elongated lip formed substantially wedge-shaped in cross-section and a reinforcing casing lying in covering relation to all of the exposed surfaces of said lip and adhering to both surfaces thereof, substantially continuously of the latter, substantially as described.

5. As an article of manufacture, a packing for joints comprising a yielding core having an elongated lip formed substantially wedge-shaped in cross-section and forming in said core a longitudinal depression, and a reinforcing casing lying in enveloping relation to the core and adhering to substantially all portions of the surfaces of said core, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

943,698. CONTROLLER FOR DOORS, &c. MILO C. MILLER, Boston, Mass. Filed May 31, 1907. Serial No. 376,489. Renewed May 6, 1909. Serial No. 494,506.



1. In a controller for doors, etc., in combination, a hinge having a fixed member and a movable member, a hinge-closing motor, and a jointed connection between the motor and the movable member, said connection being composed of two sections, one affixed to the movable member and provided with a shoulder, while the other is connected with the motor and provided with a spring detent adapted to engage said shoulder when the hinge is opened.

2. In a controller for doors, etc., in combination, a hinge having two members jointed together at their outer portions and adapted at their inner portions for attachment respectively to a fixed support and a swinging part, such as a door, a cylinder adapted for attachment to a fixed support, a piston movable in said cylinder, a spring interposed between the piston and one head of the cylinder, and provided with a rod extending through the said spring and head, and a jointed connection between the piston rod and the movable hinge member, said connection being composed of two sections, one affixed to the movable hinge member, and provided with a shoulder, while the other is connected with the piston rod and is provided with a spring detent adapted to engage said shoulder when the hinge is opened, the cylinder being provided with means for admitting air when the hinge is being opened, and for permitting a retarded escape of air when the hinge is being closed by the spring.

943,694. COLLIER AND COAL-HANDLING APPARATUS. THOMAS S. MILLER, South Orange, N. J. Filed Dec. 26, 1903. Serial No. 186,552.



1. In a boat, in combination, two masts, a line between the tops thereof, a hoisting-rope-sheave secured to said line, a hoisting-rope and a guide whereby said hoisting-rope is swung toward one of said masts.

2. In a boat, in combination, two masts, a pair of compartments in the hull between said masts, a line between the tops of said masts, a hoisting-rope-sheave secured to said line, a hoisting-rope, a receiver above the partition between said compartments and a fore and aft moving guide whereby said hoisting-rope may be swung from said receiver over either of said compartments.

3. In a boat, in combination, two masts, a line between the tops thereof, a hoisting-rope, a hoisting-rope-sheave secured to said line, a swinger guide whereby said hoisting-rope is swung toward one of said masts, ropes extending from said guide toward each mast and an actuator for said rope.

4. In a boat, in combination, the deck containing hatchways, a hoisting-engine located on the deck between two hatchways, an elevated hoisting-rope-sheave, a delivery apparatus between other hatchways and a fore and aft moving swinger guide whereby said hoisting-rope is swung between the hatchways and the delivery apparatus.

5. In a boat, in combination, a hoisting and conveying apparatus extending from the hold above the deck and thence horizontally, a hopper at the delivery point of said apparatus extending between decks and delivering into bags, and a bag-carrying-trolley between decks.

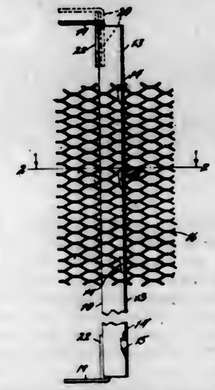
[Claims 6 to 56 not printed in the Gazette.]

943,695. OAR-LOCK. EDWARD L. MONTAGUE and EDSON A. STEWART, Baldwinsville, N. Y., assignors to said Edward L. Montague, Stephen F. Montague, Samuel M. Stuart, and Gale S. Northrop, Baldwinsville, N. Y. Filed Sept. 23, 1908. Serial No. 454,480.



The combination of an oar fork having an attachment pin, a pair of clamping members, a pair of long clamping screws, the opposite ends of said members being provided with corresponding transverse perforations to receive said clamping screws, the perforations in one member being plain and the perforations in the other member being threaded to engage the threads of said screws, one of said members being provided with a hub having a vertical perforation adapted to receive said pin of the oar fork, and each of said clamping members and said hub having means adapted to grip the edges of the gunwale of a boat.

943,696. METALLIC STUDDING. CHARLES S. MOONEY and JOSEF JANTUSEK, Chicago, Ill., assignors to Northwestern Expanded Metal Company, a Corporation of Illinois. Filed Aug. 3, 1908. Serial No. 446,544.



1. A sheet metal studding provided with a portion for holding a lath or siding spaced from the face of the stud-

ding and a prong cut from the said portion and twisted so that its base is at a substantially right angle thereto with its end projecting beyond the edge of the said portion and adapted to be bent longitudinally of the studding for engaging and securing the lath to the studding.

2. A sheet metal studding having a portion of its face deflected at an angle thereto to form a narrow edge for holding a metal lath spaced from said face, a prong cut from said portion and twisted so that its base is at a substantially right angle thereto and with its extremity projecting beyond the said edge for securing the lath or siding in position.

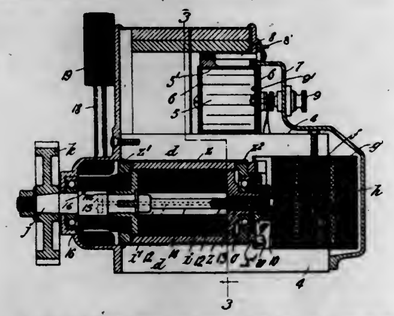
3. A sheet metal studding having a portion of its face bent at an angle thereto to form a narrow edge extending longitudinally of the face for holding a metal lath spaced from said face, said bent portion being cut to form fastening prongs adapted to engage and be bent around a portion of the lath or siding for securing the latter in position, said prongs being twisted out of the plane of the said bent portion so that their bases will be at substantially right angles to the said portion and with their extremities extending beyond the edge thereof whereby they may be bent longitudinally of the studding.

4. A sheet metal studding having a portion of its face bent at an angle thereto to form a narrow edge for holding a metal lath spaced from said face, said bent portion being cut to form fastening prongs for the lath, and said prongs being twisted to project beyond the said edges and with their bases at substantially right angles to the said bent portions so that the prongs may be bent longitudinally of the studding and around a portion of the lath.

5. A sheet metal studding of channel-shaped formation, the extremities of the sides of which are bent away from each other and at angles to the outer faces of the respective sides to form narrow edges against which the metallic laths rest and which hold the laths spaced from the respective faces of the sides of the studding, the said bent portions being cut to form fastening prongs for the laths and said prongs projecting beyond the edges thereof and being twisted so that their bases will be at substantially right angles to the said portions and being adapted to be bent longitudinally of the studding and into engagement with the laths for securing the latter.

[Claim 6 not printed in the Gazette.]

943,697. MAGNETO-ELECTRIC MACHINE. THEODOR M. MUELLER, Dalton, Mass. Filed Feb. 25, 1909. Serial No. 480,038.



1. A magneto-electric machine having in combination with the permanent field magnets thereof, a rotatable inductor element, an adjustable, but normally stationary element, located between the field magnets and the inductor element for varying the magnetic flux through the inductor element, an induction coil, the core of the same being included in the magnetic circuit, and means carried by the inductor element for making and breaking the primary circuit.

2. In a magneto-electric machine, permanent magnets, a magnetizable core element, an induction coil located thereon, an inductor element for periodically varying the flow of magnetic flux from the permanent magnet to the core element, and means for changing the density of magnetic flux passing from the permanent magnets to the core element, whereby the wave form of the current and voltage generated in the induction coil may be changed.

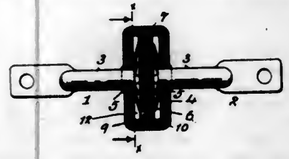
3. In a magneto-electric machine of the inductor alternator type, in combination, permanent magnets, magnetizable elements spaced therefrom and provided with an induction coil, an inductor element for periodically changing the magnetic condition of the magnetizable element, and adjustable means for varying the flow of the magnetic flux through said elements, said means comprising a series of soft iron bars spaced from each other, whereby an alternating current of electricity is produced.

4. In a magneto electric machine of the inductor alternator type, in combination, permanent magnets, magnetizable elements spaced therefrom and provided with an induction coil, an inductor element for periodically changing the magnetic condition of the magnetizable element, and adjustable means for varying the magnetic flux through said elements, said means comprising a series of bars spaced from each other, the inductor element having an arc-shaped outer surface.

5. In a magneto-electric machine, in combination, permanent magnets, and magnetizable elements having poles arranged substantially 90° apart, a coil having a primary and secondary, arranged on the magnetizable element, a rotatable inductor member comprising magnetizable members spaced from each other, and located within said poles, whereby alternating currents having two complete cycles per revolution for the inductor may be generated in the coil, means for changing the density of the flux in the magnetizable element, and a make and break carried by said means, as described.

[Claims 6 to 9 not printed in the Gazette.]

943,698. ELECTRIC FUSE. THOMAS E. MURRAY, New York, N. Y. Filed Feb. 8, 1909. Serial No. 476,704.



1. In combination with two separated members constituting circuit terminals, a loose partition of insulating material disposed between said members, and a plurality of strips connected at their ends to and radially diverging from each of said members and extending over the peripheral edge of and forming a cage inclosing and supporting said partition.

2. In combination with two separated members constituting circuit terminals, a loose partition of insulating material in disk-form disposed between said members and having recesses in its circumferential periphery, and a plurality of strips, connected at their ends to and radially diverging from each of said members, disposed in said recesses and forming a cage inclosing and supporting said partition.

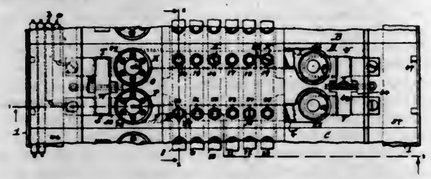
3. In combination with two separated members constituting circuit terminals, a loose partition of insulating material in disk-form disposed between said members and having recesses in its circumferential periphery, a plurality of strips connected at their ends to and radially diverging from each of said members and disposed in said recesses, and bodies of insulating material disposed on opposite sides of said partition and having projections on their opposing faces entering the intervals between said radiating strips.

4. In combination with two separated circuit terminals, an interposed partition of insulating material and of greater area than the opposed face of either terminal, a fuse strip extending between said terminals, and a cover inclosing said fuse strip and partition and formed in two parts respectively supported on said terminals.

5. The combination of an electric fuse comprising two sleeves of metal and strips radially diverging from said sleeves and extending between them, and two flanged covers unitedly inclosing said fuse strips and having central openings receiving said sleeves.

[Claim 6 not printed in the Gazette.]

943,699. SWITCHBOARD AND CUT-OUT. THOMAS E. MURRAY, New York, N. Y. Filed June 1, 1909. Serial No. 499,314.



1. A block of refractory insulating material, mutually crossing circuit conductors, each separately inclosed in said block, and means operable from the exterior of said block for electrically connecting said conductors within said block and at their crossing points.

2. A block of refractory insulating material, mutually crossing circuit conductors, each separately inclosed in said block, and removable means operable through openings in said block and located at the crossings of said conductors for electrically connecting said conductors at their crossing points.

3. A block of refractory insulating material having separate tubular passages mutually crossing and openings located at the crossing points and extending inward from a surface of the block to the innermost passages, circuit conductors in said passages, and removable means disposed in said openings for electrically connecting said conductors at said crossing points.

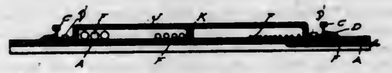
4. A solid block of refractory insulating material, a plurality of transverse circuit conductors separately inclosed in tubular passages in said block, two longitudinal circuit conductors also separately inclosed in tubular passages in said block and crossing said first named conductors, removable means disposed in openings in said block, located at the crossing points of said conductors, for electrically connecting said conductors at said points, metallic sockets disposed in separate recesses in said block, each connected to an end of one of said longitudinal conductors and also to a circuit terminal, and removable fuse plugs in said sockets.

5. A block of refractory insulating material, a plurality of transverse circuit conductors separately inclosed in said block, two longitudinal circuit conductors separately inclosed in said block and crossing said first named conductors, removable means disposed in openings in said block located at the crossing points of said conductors for electrically connecting said conductors at said points, two metallic sockets disposed in separate recesses in said block and each connected to one end of one of said longitudinal conductors, two spring clips disposed in a separate recess in said blocks, one arm of each clip being electrically connected to one of said sockets and the other arm to a circuit terminal, a removable plug of refractory material entering said clip recess, and contact plates on opposite edges of said plug respectively crossing circuit between the arms of said spring clips.

[Claims 6 to 10 not printed in the Gazette.]

943,700. COMBINED RAILWAY-TIE AND VIADUCT FOR WIRES. ALEXANDER MCARTHUR, Forbes, Mo. Filed June 21, 1909. Serial No. 503,439.

1. A combination railway road bed comprising railway rails, a continuous support formed of tie-plates in juxtaposition provided with flanges to engage the outer flanges of the bases of the rails, an elevated separate plate on the top of said tie plate spaced from said rails and forming a conduit, spikes to engage the inner flanges of the rails and the flanges on said elevated plates to hold them rigidly on said tie plate, central supports for said elevated plates and the wires carried within the spaced chambers between the tie plates and elevated plates, and a tie-plate having a depressed section for switches, a switch plate having shoulders to engage with said tie plate at the points of depression forming a lower conduit for wires and a support for said switch plate, substantially as shown and described.

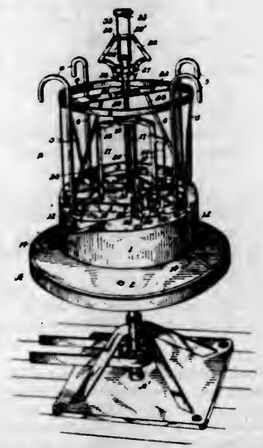


2. A combination railway road bed comprising a series of tie plates in juxtaposition serving as a carrier for wires, a plurality of elevated plates fastened rigidly on said tie plates, a depression in said series of railway tie plates at switches and a separate plate provided with shoulders adapted to engage at each end with said tie-plates and span said depression, substantially as set forth and shown.

3. A combination railway road bed comprising a continuous support formed of a series of tie plates, a continuous elevated plate rigidly fastened at its downwardly turned edges to said tie plates forming a carrier conduit for wires, substantially as shown and described.

4. A combination railway road bed comprising a continuous support formed of a series of tie-plates in juxtaposition, a depression thereof and a separate plate provided with shoulders and adapted to engage at each end with said tie plates and span said depression forming a conduit at switches for wires, substantially as shown and set forth.

943,701. WIRE REEL AND BUNDLE REMOVER. SAMUEL A. MCCULLOUGH, Fallston, Pa., assignor of one-fourth to Albert H. Miller, Fallston, Pa., and one-fourth to John Read Miner, Ambridge, Pa. Filed Mar. 16, 1909. Serial No. 483,672.



1. The combination with a bundle forming block, of a bundle removing apparatus comprising bundle supporting elements, a vise for clamping the end of the wire being wound on the block, and means for simultaneously releasing the elements and vise for depositing the bundle.

2. An apparatus of the class described comprising a supporting frame, a plurality of bundle carrying elements mounted thereon, a lock for holding the elements in supporting position, a device comprising a movable support-

ing member for lifting the apparatus, and means carried by the member for releasing the lock.

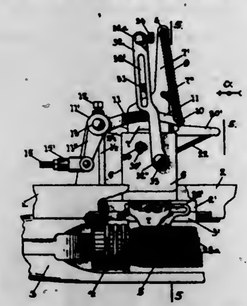
3. An apparatus of the class described comprising a plurality of bundle supporting elements adapted to swing inwardly toward each other to permit the bundle to pass off the same, a supporting structure for the elements, a locking device for holding the elements in supporting position, a shiftable supporting device carrying means for releasing the locking device, and means for returning the elements to normal position.

4. An apparatus of the class described comprising a supporting frame, radially disposed levers fulcrumed thereon having bundle engaging members, a reciprocating element, links connecting the levers with the element, means acting on the element for returning the levers to normal position, a locking device for preventing the levers from tilting while supporting the bundle, and a movable supporting member for engagement with the frame carrying means for releasing the locking device.

5. An apparatus of the class described comprising a supporting frame, and cylindrical bundle forming block, means for removably holding the frame on the bundle forming block, bundle engaging elements mounted on the frame, means acting on the elements for holding the same in normal position, a locking device for holding the elements in position for supporting the bundle after the same is removed from the block, and a movable supporting member for engagement with the frame carrying means for releasing the said locking device.

[Claims 6 to 15 not printed in the Gazette.]

943,702. FILLING-DETECTOR MECHANISM FOR WEFT-REPLENISHING LOOMS. BENJAMIN F. McGUINESS, Worcester, Mass., assignor to Crompton & Knowles Loom Works, a Corporation of Massachusetts. Filed Sept. 25, 1908. Serial No. 454,748.



1. In a filling detector mechanism for weft replenishing looms, a slide having a movement in a direction at right angles to the axis of the bobbin in the shuttle, and adapted to enter an opening through the shuttle and to engage the filling on the bobbin, and a second slide mounted on and moving with said first mentioned slide, and adapted to enter an opening through the shuttle, and to engage the filling on the bobbin, and also having a movement in a direction at right angles to the direction of movement of the first mentioned slide.

2. In a filling detector mechanism for weft replenishing looms, a slide having a movement in a direction at right angles to the axis of the bobbin in the shuttle, and adapted to enter an opening through the shuttle and to engage the filling on the bobbin, and a second slide mounted on and moving with said first mentioned slide, and adapted to engage the filling on the bobbin, and also have a movement in a direction at right angles to the direction of movement of the first mentioned slide, and means for yieldingly moving the first mentioned slide to cause it to enter the shuttle and engage the filling, and means to positively withdraw said slide from the shuttle.

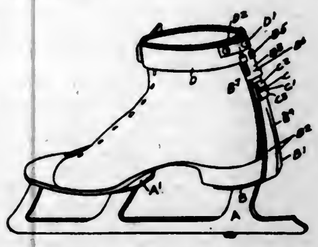
3. In a filling detector mechanism for weft replenishing looms, a slide having a movement in a direction at right angles to the axis of the bobbin in the shuttle, and adapted to enter an opening through the shuttle and to engage the filling on the bobbin, and a second slide mounted on and moving with said first mentioned slide, and adapted to enter an opening through the shuttle and to engage the filling on the bobbin, and also have a movement in a direction at right angles to the direction of movement of the first mentioned slide, and means for moving the second mentioned slide relatively to the first mentioned slide, and in a direction lengthwise of the bobbin, and connections intermediate said second mentioned slide and mechanism connected with the weft replenishing mechanism, to put into operation said weft replenishing mechanism.

4. In a filling detector mechanism for a weft replenishing loom, the combination with a slide having a reciprocating movement, in a direction at right angles to the axis of the bobbin in the shuttle, and means for moving said slide in and out through an opening in the shuttle, to engage and be disengaged from the filling, of a second slide mounted on said first mentioned slide, and movable therewith, to engage the filling and to be disengaged therefrom, and also on the substantial exhaustion of filling to be moved in a direction lengthwise of the bobbin and at right angles to the direction of movement of the first mentioned slide, and mechanism connected with said second mentioned slide to put into operation the weft replenishing mechanism.

5. In a filling detector mechanism for a weft replenishing loom, the combination with a slide having a reciprocating movement in a direction at right angles to the axis of the bobbin in the shuttle, and means for moving said slide in and out through an opening in the shuttle, to engage and be disengaged from the filling, of a second slide mounted on said first mentioned slide and movable therewith, to engage the filling and be disengaged therefrom, and also on the substantial exhaustion of filling to be moved in a direction lengthwise of the bobbin and at right angles to the direction of movement of the first mentioned slide, and mechanism connected with said second mentioned slide, to put into operation the weft replenishing mechanism, and mechanism to move both slides away from and out of the shuttle, when a bobbin is being transferred.

[Claims 6 to 9 not printed in the Gazette.]

943,703. ANKLE-SUPPORT. WILLIAM J. McLINDEN, Owen Sound, Ontario, Canada. Filed Feb. 15, 1909. Serial No. 478,115.

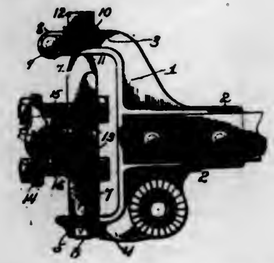


1. An ankle support comprising a heel plate, a standard connected at one end to said plate and adapted to extend up the back of a shoe, a double hinge intermediate the length of the standard, and means carried by the upper end of the standard adapted to secure the same to the top of the shoe.

2. An ankle support comprising a heel plate, a standard connected at one end to said plate and adapted to extend up the back of a shoe, a double hinge located intermediate of the length of the standard, a plate slidably connected to the top of the standard above said hinge and a strap carried by said plate.

3. In combination with a skate and its heel plate, of a standard extending upwardly from the rear of the plate, a double hinge located intermedate the ends of said standard, a plate slidably connected with the upper end of the standard, said plate and the upper end of the standard having lugs thereon bent over each other to form a sliding connection, and a strap carried by said plate.

943,704. COUPLING FOR THE BEAMS OF CULTIVATORS OR GANG-PLOWS. WILLIAM L. PAUL, South Bend, Ind., assignor to Oliver Chilled Plow Works, South Bend, Ind. Filed July 22, 1909. Serial No. 509,051.

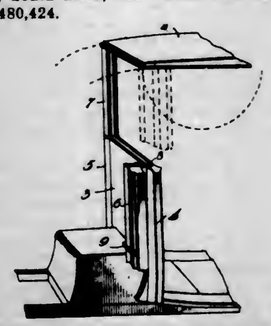


1. A coupling of the character described, comprising a bracket adapted for attachment to a cultivator or plow beam and provided with forwardly projecting arms, one of said arms having a conical bearing, a bearing member adjustable in the other arm and having a conical bearing, a shaft mounted in said conical bearings, and means for attaching a bar to said shaft.

2. A coupling of the character described, comprising a bracket adapted for attachment to a cultivator or plow beam and provided with forwardly projecting arms, one of said arms having a conical bearing, a bearing member adjustable in the other arm and having a conical bearing, a shaft mounted in said conical bearings, means for locking the adjustable bearing member, and means for attaching a bar to said shaft.

3. A coupling of the character described, comprising a bracket adapted for attachment to a cultivator or plow beam and provided with forwardly projecting arms, one of said arms having a conical bearing and the other of said arms being bifurcated, a threaded bearing member in the bifurcated arm and provided with a conical bearing, a screw bolt for locking the bearing member in position, a shaft having conical ends mounted in said conical bearings and provided with arms, and means for securing a bar or beam to the arms of the shaft.

943,705. FOLDING POST FOR LANDAUS. WILLIAM B. POND, South Bend, Ind. Filed Feb. 27, 1909. Serial No. 480,424.



1. A convertible vehicle provided with a front dashboard and a top, a foldable portion hinged to said top, supporting posts at each end of the dashboard and composed of two sections having abutting edges and having a hinge connection, means having an angular arm to engage the folded section of the post a detachable connection between one of said sections of each post and the foldable top portion, and supporting brackets carried by the dashboard and forming a seat for the sections when the same are folded.

2. A convertible vehicle comprising a body having a dashboard and a folding top or roof, said top or roof having a supplemental front foldable portion, posts carried by the body at each end of the dashboard, said posts being formed of an upper and a lower section having abutting edges and having a hinge connection adjacent to the top edge of the dashboard whereby said sections may be folded relatively to one another, and supporting brackets carried by the dashboard and having angular portions with inturned ends for holding the folded sections of the supporting posts.

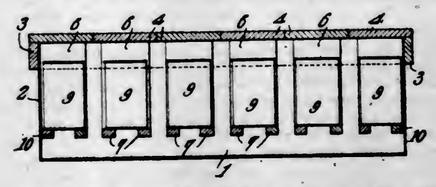
3. A convertible vehicle comprising a body having a dashboard and a foldable top, said top being provided with an independently foldable front portion, supporting posts at each end of the dashboard, said posts being formed in sections having abutting edges and a hinge connection adjacent to the top edge of the dashboard, one of the sections of each post having a detachable latching engagement with the corner of the foldable portion of the top, and supporting brackets provided with angular arms with inturned ends forming rest arms for holding one section of the posts in a plane below the upper edge of the dashboard.

4. A convertible vehicle comprising a foldable top provided with a supplemental foldable front portion, a dashboard, a sectional post at each end of the dashboard, said sections having a hinge connection whereby they may be folded relatively to each other, one of the sections of each post having a detachable engagement with the supplemental foldable portion of the roof, and supporting brackets carried by the dashboard and having angular arms having inturned ends for receiving and holding the folded sections of the posts.

5. A convertible vehicle comprising a top provided with a foldable portion, a dashboard, a two-part post at each end of the dashboard, one part being movable, a hinge connection between the parts of the post, the movable part of the post having a detachable engagement with the foldable portion of the vehicle top, and supporting brackets carried by the dashboard and provided with a stationary rest arm for receiving the movable part of the posts and a movable arm for holding the same on the rest arm.

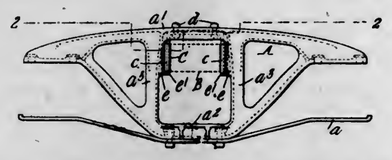
[Claims 6 and 7 not printed in the Gazette.]

943,706. CANNING OUTFIT. JAMES M. PONDER, Ruston, La. Filed Feb. 18, 1909. Serial No. 478,585.



A device of the class described comprising a vat; a rim circumscribing the edge of the vat; a series of can racks each comprising a top arranged to rest upon the rim and extended terminally therebeyond, to form handles; end pieces, narrower than the top and depending therefrom, the said end pieces being arranged to engage the sides of the vat throughout their length; and spaced bottom pieces terminally assembled with the lower faces of the end pieces and flush with the edges thereof; the tops of the can racks being arranged to abut, to form a tight closure for the vat extending upon the rim at the ends of the vat; the end can racks of the series being arranged to abut against the ends of the vat to maintain the integrity of the closure.

943,707. RAILWAY-CAR TRUCK. WILLARD F. RICHARDS, Lancaster, N. Y., assignor to Gould Coupler Company, New York, N. Y. Filed Mar. 9, 1909. Serial No. 482,330.



1. The combination of a truck side frame having a bolster opening, a portion of which is of greater width than the bolster measured over its column guides, and a bolster guide consisting of upright legs located in said bolster opening at opposite sides thereof and a top bar connecting the upper ends of said legs, said guide and side frame having interlocking portions, and securing means connecting the top bar of said guide to the upper portion of said side frame, substantially as set forth.

2. The combination of a truck side frame having a bolster opening, a portion of which is of greater width than the bolster measured over its column guides, and an upper chord which is of inverted U-shape in cross-section above said opening, and a bolster guide consisting of upright legs located in said bolster opening at opposite sides thereof and a top bar which connects said legs and is secured between the flanges of said upper chord of the side frame, said legs of the guide and the side frame having interlocking portions, substantially as set forth.

3. The combination of a truck side frame having upright columns with converging upper portions and an upper chord of inverted U-shape in cross-section connecting the upper ends of said columns, a bolster guide consisting of opposite legs which bear against said converging portions of said columns and a top bar connecting said legs which is located between the flanges of said upper chord, and means connecting said upper chord and top bar of the guide for wedging the guide between said converging portions of said columns, substantially as set forth.

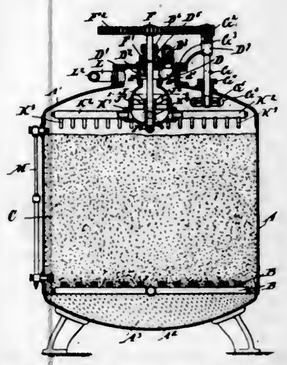
4. The combination of a truck side frame having upright columns with converging upper portions and an upper chord of inverted U-shape in cross-section connecting the upper ends of said columns, a bolster guide consisting of opposite legs which bear against said converging portions of said columns and a top bar connecting said legs which is located between the flanges of said upper chord, said columns and guide legs having interlocking parts, and means for securing said guide to the side frame and wedging the guide between said converging portions of said columns, substantially as set forth.

5. The combination of a truck side frame having a bolster opening, a portion of which is of greater width than the bolster measured over its column guides, and an upper chord which is of inverted U-shape in cross-section above said opening, and a bolster guide consisting of upright legs located in said bolster opening at opposite sides thereof and a top bar which connects said legs and is secured between the flanges of said upper chord of the side frame, said legs of the guide and the side frame having interlocking portions, and said legs having opposite side faces which are substantially flush with the opposite sides of said side frame, substantially as set forth.

[Claims 6 and 7 not printed in the Gazette.]

943,708. FILTER. JOHN S. ROAKE, New York, N. Y. Filed Feb. 17, 1909. Serial No. 478,368.

1. In a filter, a closed tank, a filter bed therein, a cement bed beneath the filter bed, a system of pipes supported upon said cement bed, a discharge pipe communicating with said system of pipes, a rotary shell above the filter bed provided with lateral pipes and discharge nozzles, means for admitting water to the tank outside the shell, means for admitting water under pressure to said shell, a rotary motor, means for projecting water against the buckets of said motor connections between the same and said shell whereby the latter is rotated, and a semi-spherical casing having a support for the shaft of said shell and with which casing said shell forms a close joint yet allowing it to revolve.



2. In a filter, a closed tank, a cover therefor having a depending flange, a semi-spherical casing supported from said flange, a shaft extending through said flange and casing, a shell mounted upon the shaft below the casing and forming a tight joint therewith, radial pipes carried by the shell and having jet nozzles, a gear wheel on the shaft outside of the tank, a shaft parallel with the first-mentioned shaft, a jet motor on said shaft, and disposed within said tank, a pipe for projecting water against the buckets of said motor, and a gear on said shaft meshing with the shaft of the shell.

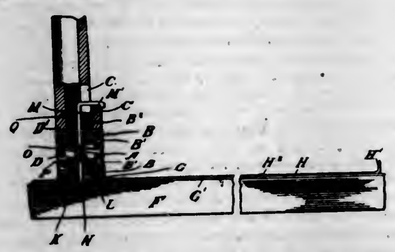
3. In a filter, a closed tank, a cover therefor having a depending flange, a semi-spherical casing supported from said flange, a shaft extending through said flange and casing, a shell mounted upon the shaft below the casing and forming a tight joint therewith, radial pipes carried by the shell and having jet nozzles, a gear wheel on the shaft outside of the tank, a shaft parallel with the first-mentioned shaft, a jet motor on said shaft and disposed within said tank, a pipe for projecting water against the buckets of said motor, a gear on said shaft meshing with the shaft of the shell, means for admitting water under pressure to the tank outside of said shell and casing, and independent means for admitting water under pressure to the interior of the shell.

4. In a filter, a closed tank, a vertical main-shaft therein extending to the exterior of said tank, a shell attached to said main-shaft to rotate therewith within said tank, radial pipes from said shell, jet-nozzles on said pipes, a gear-wheel on said main-shaft exterior to said tank, a bucket-wheel in said tank, a nozzle arranged to throw a stream of water on said bucket-wheel to rotate it, a motor-shaft from said bucket-wheel extending to the exterior of said tank, a pinion on said motor-shaft in mesh with said gear-wheel, and means for supplying water under pressure to said shell.

5. In a filter, a tank, a cover therefor, a fixed chamber on said cover within said tank, a main-shaft in said chamber extending to the exterior of said tank, a revolving shell below said fixed chamber, an inlet passage leading from the exterior of said cover to said fixed chamber, radial pipes on said shell, jet-nozzles on said pipes, a gear-wheel on said main-shaft exterior to said cover, a bucket-wheel in said tank, a nozzle arranged to throw a stream of water on said bucket-wheel to rotate it, a motor-shaft from said bucket-wheel extending to the exterior of said tank, a pinion on said motor-shaft in mesh with said gear-wheel, and means for supplying water under pressure to said passage and to said nozzles.

[Claim 6 not printed in the Gazette.]

943,709. VIBRATION-ABSORBING FOOT. WILLIAM H. SHERWOOD, New York, N. Y. Filed July 20, 1909. Serial No. 508,592.



1. In apparatus of the class described, the combination with a metallic spring coil, of yielding non-metallic pads abutting the ends of the coil, respectively, and an elastic non-metallic sleeve inclosing the coil and pads.

2. The combination with a metallic spring coil, of rubber pads covering the ends, respectively, of the coil and provided with bosses fitting therein, and a longer and normally smaller soft rubber sleeve stretched over the coil and pads and forming annular bearing flanges upon the outer faces of the latter.

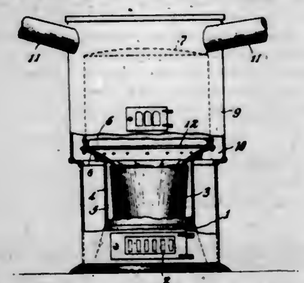
3. The combination with a vibration-absorbing foot, of a longer rod sliding in the axis of the foot, having its upper end adapted to engage the structure to be supported, and its normally projecting lower end adapted to be engaged and held by devices secured to a table or the like.

4. The combination with a table, of a vibration-absorbing foot, devices projecting above the foot to engage the structure to be supported and below the foot to be engaged by retaining devices, and retaining devices carried by the table and adapted to be moved into and out of engagement with the devices projecting from the foot.

5. The combination with a vibration-absorbing foot, of an axial rod sliding longitudinally in the foot and provided at its upper end with a hook for engaging the structure to be supported and at its projecting lower end with a disk to be engaged by devices carried by a table, and a light spring yieldingly holding said disk below the body of the foot.

[Claims 6 and 7 not printed in the Gazette.]

943,710. HOT-AIR FURNACE. CHARLES A. SIMONTON, Crestline, Ohio. Filed Oct. 12, 1908. Serial No. 457,273.



In a hot air furnace, a fire-pot, and a steel jacket surrounding said fire-pot, in combination with a radiator head comprising an annular casting resting upon the upper edge of said jacket, the upper edge of said jacket being outwardly flared, a pair of depending annular concentric ribs depending from the under face of said head forming an annular channel between them and the outer face of the inner rib being shaped to conform to the flared edge of said jacket, a ring arranged in said channel, bolts securing said ring in position and asbestos packing interposed between said ring, said flared edge and the adjacent face of said head, and the inner face of said outer rib being inwardly and upwardly inclined to wedge said ring against said flared edge, substantially as described.

943,711. HOT-AIR FURNACE. CHARLES A. SIMONTON, Crestline, Ohio. Filed Feb. 15, 1909. Serial No. 478,099.

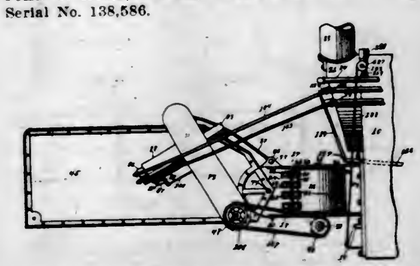


1. In a hot air furnace, a fire pot, in combination with a steel jacket surrounding the same and forming a jacket space between them, said jacket extending above the level of the top of said fire pot, a radiator head comprising an annular casting resting upon the upper edge of said jacket, a gas tight joint between said head and said upper edge, the inner edge of said head over-hanging the walls of said fire pot, and spaced a slight distance above the upper edge thereof forming a communication between said jacket space and the interior of the drum, substantially as described.

2. In a hot air furnace, a fire-pot, in combination with a steel jacket surrounding the same, and extending above the level of the top of said fire pot, and forming a jacket space between them, a radiator head comprising an annular casting resting upon the upper edge of said jacket, a gas tight joint between said head and the upper edge of said jacket and a detachable annular extension on the inner edge of said head, over-hanging the walls of said fire-pot and spaced a slight distance above the same, said extension being formed of a plurality of segmental sections detachably connected, substantially as described.

3. In a hot air furnace, a fire-pot, in combination with a steel jacket surrounding the same and forming a jacket space between them, a radiator head comprising an annular casting resting upon the upper edge of said jacket, said jacket extending above the level of the top of said fire pot, a gas tight joint between said head and the upper edge of said jacket, and a detachable annular extension on the inner edge of said head over-hanging the walls of said fire-pot and spaced a slight distance above the same, said extension comprising a plurality of similar segmental sections each having a lug at one end extending beneath the adjacent end of the next section and bolts extending through said lugs and said adjacent ends for detachably securing said sections together, substantially as described.

943,712. MECHANICAL STOKER. HOWARD SNYDER and JOHN T. HUME, Newton, Iowa. Filed Jan. 10, 1908. Serial No. 138,586.



1. The combination of a straw burning engine, wheels mounted adjacent to the mouth of the fire box of the engine having a number of series of slots in the periphery of them, pivots rotatably mounted in the wheels adjacent to each series of slots, teeth mounted on said pivots capa-

ble of swinging outwardly and partially through the slots, means for rotating the wheels, means for rotating the pivots to swing said teeth outwardly and inwardly through the slots as the wheels are rotated, for the purposes stated.

2. The combination of a straw burning engine, wheels mounted adjacent to the fire box of said engine having slots in their peripheries, teeth mounted on the inside of said wheels and adjacent to said slots, means for swinging said teeth outwardly and inwardly through said slots in such a way that straw or other substance will be drawn between them and thrown rearwardly as the wheels are rotated in opposite directions, means for rotating said wheels in opposite directions, for the purposes stated.

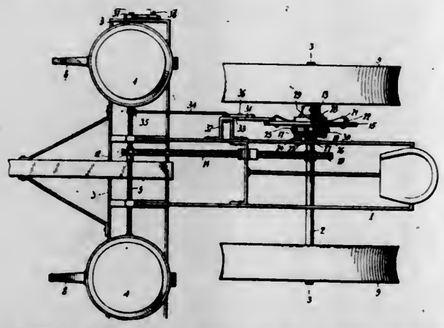
3. The combination of an engine, a frame attached near the fire box thereof, wheels having slots in their peripheries, pivots in said wheels adjacent to said slots, teeth on the pivots adapted to swing through the slots, a lug attached to each of said pivots, projections on the frame for engaging each of said lugs as the wheels are rotated and so arranged as to throw the teeth to their outer limit of movement relative to the wheels and maintain the teeth in that position until the rear portions of the frame engage the teeth and throw them to their inner limit of movement.

4. The combination of a straw burning engine, a frame attached to the engine and near the fire box thereof, sides in said frame flaring outwardly from their points of attachment to the engine, wheels rotatably mounted in said frame and in each side thereof, means mounted on the frame for rotating the wheels in opposite directions and in a horizontal plane, pivots mounted in the wheels, teeth mounted on said pivots, means for rotating the pivots to swing the teeth partially outside the periphery of said wheels as the teeth move toward each other in the rotation of the wheels.

5. The combination with a straw burning engine, a frame, sides flaring outwardly from their points of attachment to the engine, toothed wheels mounted at the opposite sides of the frame having slots in their peripheries, pivots mounted in the wheels adjacent to the slots, teeth mounted on the pivots, a lug on the top portion of each of said pivots, a substantially semi-circular projection attached to the lower portion of the top of said frame to engage said lugs as the wheels are rotated and to act in throwing the teeth outwardly through said slots and maintain them at their outer limit of movement throughout a part of each rotation of the wheels, rear portions in said sides to engage said teeth and force them inside the wheels as the wheels are rotated, for the purposes stated.

[Claims 6 to 51 not printed in the Gazette.]

943,713. CHECK-ROW CORN-PLANTER. ABRAHAM STAYMAN, Pleasant Hope, Mo. Filed Sept. 10, 1908. Serial No. 452,434.



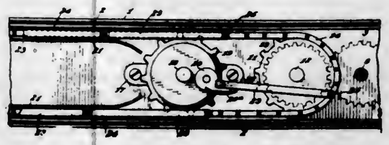
1. In a planter, the combination of a frame; an axle and an operating shaft carried by the frame; a disk carried by the axle and provided with radially disposed elongated slots, lugs adjustably connected in said slots; a bell-crank lever pivotally connected with the frame, a trip arm pivoted to one of the arms of the lever and normally extending to the path of movement of the lugs, for actuation thereby, during the rotation of the disk in one direction; an arm secured to the operating shaft; and a member connected at its opposite ends to the last-mentioned arm and the other arm of the lever, for actuating the operating shaft when the lever is rocked.

2. In a planter, the combination of a frame; an axle and an operating shaft carried by the frame; a clutch member fast upon the axle; a disk slidable upon the axle and having one face thereof formed with a clutch surface and provided with radially disposed slots; lugs adjustably connected in said slots; means for shifting the disk upon the axle, to move its clutch surface into and out of engagement with said clutch member; a bell-crank lever pivotally connected with the frame and having one of its arms extending into the path of movement of the lugs, for actuation thereby during the rotation of the disk; an arm secured to the operating shaft; and a member connected at its opposite ends to the last mentioned arm and the other arm of the lever, for actuating the operating shaft when the lever is rocked.

3. In a planter, the combination of a frame; an axle and an operating shaft carried by the frame; fast and loose clutch members carried by the axle, the loose clutch member being formed on one face with a series of lugs and on the other face with a toothed hub; a toothed member secured to the frame directly opposite said hub; a lever for shifting said loose clutch member into engagement with the fast clutch member or with said toothed member, to rotate said loose clutch member or hold the same against rotation; a two-armed rocking member pivotally connected with the frame, and having one of its arms extending into the path of movement of the lugs, for actuation thereby, during the rotation of the disk; an arm secured to the operating shaft; and a member connected at its opposite ends to the last-mentioned arm and the other arm of the lever, for actuating the operating shaft when the lever is rocked.

4. In a planter, the combination of a frame, an axle and an operating shaft carried by the frame; fast and loose clutch members carried by the axle, the loose clutch member being formed on one face with a series of lugs, and on the other face with a toothed hub; a laterally-projecting bolt secured to the frame directly opposite said hub, said bolt being formed with a toothed head; a lever for shifting said loose clutch member into engagement with the fast clutch member or with the toothed head of said bolt, to rotate said loose clutch member or hold the same against rotation; a two-armed rocking member pivotally connected with the frame, and having one of its arms extending into the path of movement of the lugs, for actuation thereby, during the rotation of the disk; an arm secured to the operating shaft; and a member connected at its opposite ends to the last-mentioned arm and the other arm of the lever, for actuating the operating shaft, when the lever is rocked.

943,714. ADVERTISING DEVICE. WELCOME F. SWEET, Philadelphia, Pa., assignor to Barclay Johnson, Philadelphia, Pa. Filed Dec. 5, 1908. Serial No. 466,058.



1. In a device of the character described, the combination with an endless conveyer, of a series of signs one behind the other and pivotally connected at their forward ends to said conveyer, and means for engaging the rear ends of said signs to move them rearwardly simultaneously with the rearward movement of the forward ends of the signs by the conveyer.

2. In a device of the character described, the combination with sprocket wheels and an endless chain around said sprocket wheels, of a series of signs disposed one behind the other and pivotally connected at their forward ends to the sprocket chain, a sprocket wheel driven by said sprocket chain, and a dog on the sprocket wheel adapted to engage the rear ends of the signs and move them rearward simultaneously with the rearward movement of the forward ends of the signs by the sprocket chain.

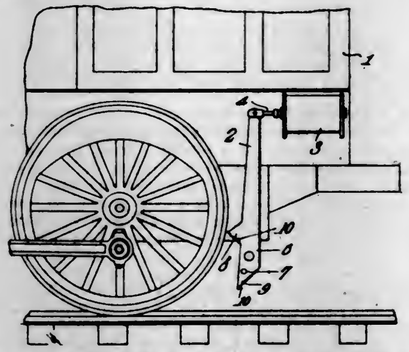
3. In a device of the character described, the combination with sprocket wheels and an endless sprocket chain mounted to turn on said sprocket wheels, of a series of upright posts secured on said sprocket chain, signs pivotally connected at their forward ends to the posts, depending pins on said signs at their rear ends, a sprocket wheel driven by said chain and located adjacent to one of the first mentioned sprocket wheels, a dog on said last mentioned sprocket wheel movable in the arc of a circle and in the path of said pins on the signs to move the rear ends of the signs rearward simultaneously with the rearward movement of the post end of the signs as the posts pass around the sprocket wheel.

4. In a device of the character described, the combination with endless sprocket chains located one above the other, and means for driving said chains simultaneously in the same direction, upright posts connecting said chains, of signs pivotally secured at their forward ends to said posts, depending pins on the rear ends of said signs, a sprocket wheel driven by the lower of said chains, a dog on said sprocket wheel adapted to engage the pins and move the signs rearwardly as the forward ends of the signs are moved rearwardly by the sprocket chains.

5. In a device of the character described, the combination with a casing, endless sprocket chains supported in the top and bottom of said casing and located one above the other, posts connecting said sprocket chains, and means for moving said chains, of signs pivotally connected at their forward ends to said posts, depending pins on the rear ends of said signs, means at one end of the casing for engaging said pins to move the rear ends of the signs rearwardly simultaneously with the rearward movement of the forward ends of the signs, and means at the other end of the casing for guiding the pin-end of the sign forwardly as the post ends are moved forwardly.

[Claims 6 to 8 not printed in the Gazette.]

943,715. ENGINE-MOVING BRAKE-LEVER. JAMES A. TAYLOR, Birmingham, Ala. Filed Feb. 19, 1909. Serial No. 478,978.



1. The combination with the driver brake lever of a locomotive, of means operable by said lever for moving the locomotive.

2. The combination with the driver brake lever of a locomotive, of means operable by said lever for moving the locomotive independently of the means for turning the driving wheels thereof.

3. The combination with the driver brake lever of a locomotive, of means operable by said lever for moving the locomotive independently of the motive mechanism of the locomotive.

4. In a locomotive, a track-engaging strut, and a driver brake lever to engage said strut.

5. In a locomotive, a track-engaging strut, and a driver brake lever arranged to receive the terminal of the strut.

[Claims 6 to 20 not printed in the Gazette.]

943,716. SHELL-CRIMPER. LEONARD E. THOMPSON, Fodvang, Minn. Filed Jan. 16, 1909. Serial No. 472,673.



1. In a shell crimper, the combination of a member having a normally expanded working portion; a recessed head slidably connected with said portion; and means for contracting said portion independent of its engagement with the shell.

2. In a shell crimper, the combination of a member having a normally expanded working portion; a recessed head slidably connected with said portion; and means carried by said member for contracting said portion.

3. In a shell crimper, the combination of a member having a normally expanded working portion; a recessed head slidably connected with said portion; and means independent of its engagement with the shell slidable upon said member into engagement with said portion, to contract the same.

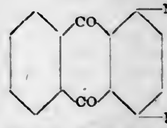
4. In a shell crimper, the combination of a member having the working portion thereof split to form a series of crimping fingers; a recessed head slidably connected with said portion; and means for forcing said fingers toward each other, to contract said portion independent of the engagement of said fingers with the shell.

5. In a shell crimper, the combination of a member having the working portion thereof split to form a series of crimping fingers; a recessed head slidably connected with said portion; and a slide fitted upon said member and movable thereupon into binding engagement with said fingers, for forcing the same toward each other, to contract said portion.

[Claim 6 not printed in the Gazette.]

943,717. BROWN ANTHRAQUINONE DYE AND PROCESS OF MAKING SAME. RUDOLF UHLENHUTH, Höchst-on-the-Main, Germany, assignor to Farbwerke vorm. Meister Lucius & Bruning, Höchst-on-the-Main, Germany, a Corporation of Germany. Filed Mar. 24, 1909. Serial No. 485,516.

1. The process for producing new anthraquinone dyestuffs, which consists in melting with alkalies the dianthraquinonyl.1.4-diamidoanthraquinones of the general formula:



and then isolating the resulting dyestuff from the reaction mixture, substantially as hereinbefore described.

2. The process for producing a new anthraquinone dyestuff which consists in melting with alkalies di-alpha-alpha-anthraquinonyl.1.4-diamidoanthraquinone and then isolating the resulting dyestuff from the reaction mixture, substantially as hereinbefore described.

3. As new products, the herein described new dyestuffs, obtainable by melting dianthraquinonyl.1.4-diamidoanthraquinones with alkalies, which dyestuffs, when dry, are dark powders insoluble in water, in alkalies and in diluted acids, and very little soluble in the usual organic solvents, dyeing cotton from the vat fast brown shades, substantially as hereinbefore described.

4. As a new product, the herein described new dyestuff, obtainable by melting di-alpha-alpha-anthraquinonyl.1.4-diamidoanthraquinone with alkalies, which dyestuff, when dry, is a dark powder, being insoluble in water, in alkalies and diluted acids, and very little soluble in the usual organic solvents; being dissolved by concentrated sulfuric acid (of 66° Bé.) yielding a brown solution from which the dyestuff separates out in brown flakes on the addition of water, dyeing cotton in the hydrosulfite vat Havana-brown shades which are very fast to the light and resist very well chlorin and alkalies, substantially as hereinbefore described.

943,718. TABLE. CLIFFORD VAN HORNE, Chicago, Ill. Filed Sept. 3, 1908. Serial No. 451,495.



1. In combination in a device of the class described, a base, a non-rotatable shaft hinged to the base, means for maintaining the shaft in upright position, a cylinder mounted rotatably upon the shaft and provided with longitudinally extending tables, and a scale extending longitudinally of the cylinder adjacent its surface and secured to the shaft.

2. In combination in a device of the class described, a base, a non-rotatable shaft hinged to the base, yielding means for maintaining the shaft in upright position, a cylinder mounted rotatably upon the shaft and provided with longitudinally extending tables, and a scale extending longitudinally of the cylinder adjacent its surface and secured to the shaft.

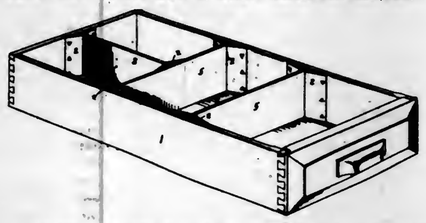
3. In combination in a device of the class described, a base, a shaft hinged to the base and non-rotatable with respect to the base, a releasable catch for maintaining the shaft in upright position, a cylinder mounted rotatably upon the shaft and provided with longitudinally extending tables, and a scale extending longitudinally of the cylinder adjacent its surface and secured to the shaft.

4. In combination in a device of the class described, a cylinder provided with removable information strips, a transparent cylinder fitting over the strips for maintaining them in position, and means for maintaining the transparent cylinder releasably in position.

5. In combination in a device of the class described, a cylinder provided with removable information strips, a transparent cylinder fitting over the strips for maintaining them in position, and caps fitting over the ends of the cylinders for maintaining the transparent cylinder in position.

[Claims 6 to 10 not printed in the Gazette.]

943,719. PARTITION-HOLDER. ROLLO M. VICK, Alliance, Ohio. Filed Mar. 8, 1909. Serial No. 482,158.

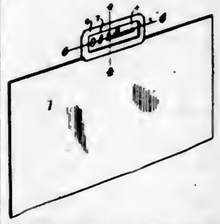


1. As an improved article of manufacture, a partition holding plate formed of spring material, said plate provided with a partition holding recess and wings or blades extended at an angle other than a right angle from the partition holding recess, substantially as and for the purpose specified.

2. As an improved article of manufacture, a partition holding plate formed of spring material, said plate provided with a partition holding recess and wings or blades extended at an angle other than a right angle from the partition holding recess, and the wings or blades provided with piercing tangs, substantially as and for the purpose specified.

3. As an improved article of manufacture, a partition holding plate provided with a centrally located recess, integral convex-concave wings or blades located upon opposite sides of the recess, said wings or blades provided with piercing points, substantially as and for the purpose specified.

943,720. GUIDE-CARD. ROLLO M. VICK, Alliance, Ohio. Filed Apr. 16, 1909. Serial No. 490,388.



1. A guide card comprising a card proper, a name plate, an integral plate-holding tab extending from one of the edges of said card proper, said plate-holding tab provided with spaced portions adapted to receive said name plate between them, and a removable retaining frame adapted to be arranged upon said plate-holding tab and to engage the spaced portions thereof for the purpose of holding the same against separation and in engagement with said name plate.

2. A guide card comprising a card proper provided with an integral plate-holding tab adapted to removably hold a separate name plate and a retaining frame adapted to be removably arranged upon said tab and to prevent the accidental removal of said name plate from said tab.

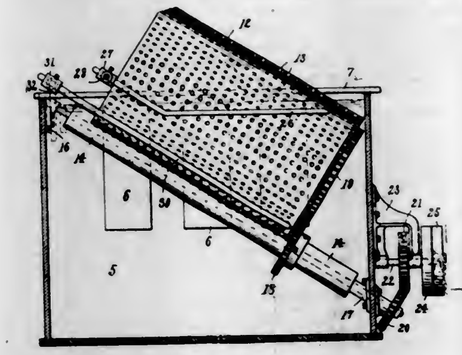
3. A guide card comprising a card proper, an integral plate-holding tab extending from one edge of said card, said tab consisting of a frame arranged in a plane with the body of the card and an integral back spaced from said frame and connected to the said card proper by an integral offset portion, a retaining frame provided with a front frame and a retaining back, the front frame adapted to overlie the frame portion of the plate-holding tab, the retaining back provided with a locking flange adapted to engage the said offset portion, whereby the said retaining frame is removably maintained in position upon and connected to the said plate-holding tab.

4. A guide card provided with an integral plate-holding tab consisting of a frame arranged in a plane with the body of the card and an integral back spaced from said frame and connected to the body of the card by an offset portion, a retaining frame provided with a front frame portion and an integral retaining back, the front frame portion adapted to overlie the frame portion of the plate-holding tab, and the said retaining back provided with an integral locking flange adapted to elastically engage the said offset portion, whereby the said retaining frame may be removably arranged upon and connected to the said plate-holding tab.

5. A guide card comprising a card proper provided with an integral plate-holding tab, a name plate, and a retaining frame, the said plate-holding tab provided with spaced means adapted to include and engage the said name plate, and the said retaining frame adapted to be removably arranged upon said plate-holding tab and when so arranged to engage the spaced portions of the said tab to hold the said portions in engagement with said name plate.

[Claims 6 to 10 not printed in the Gazette.]

943,721. ELECTROPLATING-TANK. GEORGE L. WALLACE, Bridgeport, Conn. Filed Apr. 1, 1909. Serial No. 487,318.



1. In an electro-plating device, the combination with a tank, of longitudinally disposed supporting rolls located within the tank, a cylindrical receptacle mounted upon said rolls and adapted to be turned thereby, means for operating the rolls and receptacle to tumble articles when placed therein, a cathode and anode within the tank and adapted to be suspended within a solution when contained therein.

2. In an electro-plating device, the combination with a tank, of a pair of angularly disposed supporting rolls located within the tank, a perforated cylindrical receptacle mounted upon said rolls, means for rotating the rolls and receptacle, a suitable cathode and anode arranged within the receptacle and adapted to be submerged within a solution when contained therein.

3. In an electro-plating device, the combination with a tank, of a pair of angularly disposed supporting rolls located within the tank, gear connections intermediate the rolls and receptacle to operate the latter from the former, means for rotating the rolls and receptacle, a cathode and anode arranged within the tank and solution when contained therein.

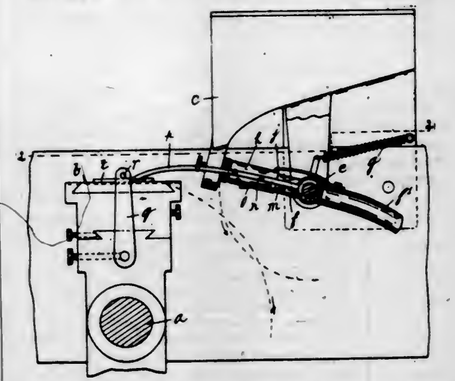
4. In an electro-plating device, the combination with a tank, of a pair of elongated rolls angularly mounted within the tank and provided with a supporting means, a perforated cylindrical receptacle arranged with its side against the rolls and its bottom end portion against said supporting means, mechanism for rotating the rolls, barrel and supporting means, and an anode and cathode mounted within the tank and adapted to be contained in a plating solution when placed therein.

943,722. PROCESS OF CONDITIONING AND TEMPERING CORN FOR DEGERMINATION AND MILLING. JOHN B. WATKINS, St. Louis, Mo., assignor of one-half to Essmueller Mill Furnishing Company, a Corporation of Missouri. Filed Dec. 31, 1908. Serial No. 470,238.

1. The process of conditioning and tempering corn for degermination and milling comprising the following steps: subjecting the grains or kernels of corn to a bath of steam; almost instantaneously thereafter subjecting the grains or kernels to a bath of cold water; removing the hulls by frictional means; degerminating the grains or kernels when hulled; drying the grains or kernels thus degerminated; and milling the product when dried, substantially as described.

2. The process of conditioning and tempering corn for degermination and milling comprising the following steps: subjecting the grains or kernels of corn to a bath of live steam; almost instantaneously thereafter subjecting the grains or kernels to a bath of cold water; removing the hulls by frictional means; degerminating the grains or kernels when hulled; drying the grains or kernels thus degerminated; and milling the product when dried, substantially as described.

943,723. CEMENTING ATTACHMENT FOR HEEL-NAILING MACHINES. EDWIN A. WEBSTER and CHARLES R. TOWLE, Haverhill, Mass., assignors, by direct and mesne assignments, to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Oct. 3, 1904. Serial No. 226,960.



1. In combination with a heeling machine turret bearing a top lift holder, a movably mounted cement carrier adjacent said holder and means for moving the same simultaneously with the turret into engagement with the lift as it is carried by the turret in said holder, substantially as described.

2. In combination with a heeling machine turret, bearing a top lift holder, a movably mounted cement carrier and means for moving the same simultaneously with the turret in a path which converges with and meets the path of movement of the lift as it is carried by the turret in said holder, substantially as described.

3. In combination with a heeling machine turret, bearing a top lift holder, a pad and means for supplying cement thereto, and means for moving said pad, simultaneously with the turret, into engagement with the lift as it is carried by the turret, in said holder, substantially as described.

4. In combination with a heeling machine turret bearing a top lift holder, a rotatably mounted cement carrier, means, carried by the turret, for causing rotation of said carrier toward the turret, when the latter is rotated toward the carrier to move said pad into engagement with the lift carried by said turret in said holder, substantially as described.

5. In combination with a turret for carrying a heel lift, a yieldingly supported, and rotatably mounted pad and means for supplying cement thereto, and means for causing said pad to engage the lift carried by the turret when they are rotated toward each other, substantially as described.

[Claims 6 to 23 not printed in the Gazette.]

943,724. PROCESS OF BRIQUETING METALLIC IRON. LUDWIG WEISZ, Budapest, Austria-Hungary. Original application filed Oct. 21, 1905, Serial No. 283,784. Divided and this application filed Feb. 8, 1908. Serial No. 415,005.

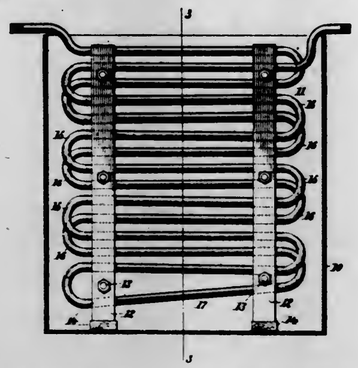
1. The method of briqueting metallic iron, consisting in mixing metallic iron with carbonaceous material and lime water, and pressing the mixture into the form of briquets.

2. The method of briqueting metallic iron, consisting in mixing metallic iron with carbonaceous material moistened with lime water, and pressing the mixture into the form of briquets.

3. The method of briqueting metallic iron, consisting in mixing metallic iron, fluxing material and with carbonaceous material, moistening said material with an alkaline aqueous solution capable of acting as an electrolyte between the carbonaceous and the iron particles, and thereafter forming the mixture into briquets.

4. The method of briqueting metallic substances electropositive to carbon, consisting in mixing such substances with fluxing material and with carbonaceous material, moistening the mixture with an alkaline aqueous solution capable of acting as an electrolyte between the carbonaceous material and said metallic substances, and thereafter forming the mixture into briquets.

943,725. EXPANSION-COIL FOR REFRIGERATING AND ICE-MAKING PLANTS. RICHARD WHITAKER, New Brunswick, N. J., assignor to The Brunswick Refrigerating Company, New Brunswick, N. J., a Corporation of New Jersey. Filed July 1, 1907. Serial No. 381,640.



1. An expansion-coil comprising two substantially corresponding parts of piping coiled back and forth in opposite directions and on corresponding radii, the lengthwise members of one part being between and on the same plane with the corresponding members of the other part and said parts forming a continuous passage through them from one terminal to the other of the coil; substantially as set forth.

2. An expansion-coil comprising two substantially corresponding parts of piping coiled back and forth in opposite directions and on corresponding radii, the lengthwise members of one part being between and on the same plane with the corresponding members of the other part and said parts forming a continuous passage through them from one terminal to the other of the coil, and the curved ends of the members of said parts where they cross one another being oppositely bowed; substantially as set forth.

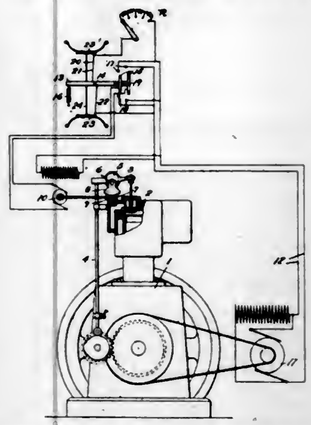
3. An expansion-coil comprising two substantially corresponding parts of piping coiled back and forth in opposite directions and on corresponding radii, the lengthwise members of one part being between and on the same plane with the corresponding members of the other part and said parts forming a continuous passage through them from one terminal to the other of the coil, combined with clamping bars applied to opposite sides of the coil and connected together; substantially as set forth.

4. An expansion-coil comprising two substantially corresponding parts of piping coiled back and forth in opposite directions and on corresponding radii, the lengthwise members of one part being between and on the same plane with the corresponding members of the other part and said parts forming a continuous passage through them from one terminal to the other of the coil, and the curved ends of the members of said parts where they cross one another being oppositely bowed, combined with clamping bars applied to opposite sides of both end portions of the coil and connected together; substantially as set forth.

5. An expansion coil comprising two substantially corresponding side by side parts of piping coiled back and forth in opposite directions on parallel lines and corresponding radii, the lengthwise parallel members of one part alining with the spaces between the lengthwise parallel members of the other part and said parts forming a continuous passage through them from one terminal to the other of the coil, both of said terminals being at the same end of the coil; substantially as set forth.

[Claims 6 to 8 not printed in the Gazette.]

943,726. REGULATOR FOR INTERNAL-COMBUSTION ENGINES. MAURICE J. WOHL and HARRY HERTZBERG, New York, N. Y., assignors to Abbot A. Low, Horseshoe, N. Y. Filed Mar. 4, 1908. Serial No. 419,107.



1. In combination with a gas engine, means for regulating the speed thereof, comprising a circuit including a conductor adapted to expand by reason of the heat generated by a current passing therethrough, connection between said conductor and the inlet valve of the engine whereby the expansion and contraction of said conductor varies the degree of opening of the valve, means whereby the speed of the engine varies the current in said circuit, and means for varying the current in said circuit at will.

2. In combination with a gas engine, means for regulating the speed thereof, comprising a dynamo driven by the engine, a motor adapted to be supplied with current from said dynamo, connection between said motor and the inlet valve of the engine whereby the degree of opening thereof is increased or diminished according to the direction of rotation of the motor, a reversing switch for the motor, and a conductor in shunt from the dynamo circuit adapted to expand by reason of the heat generated by current passing therethrough, said conductor being connected to the reversing switch to operate the same through its expansion and contraction.

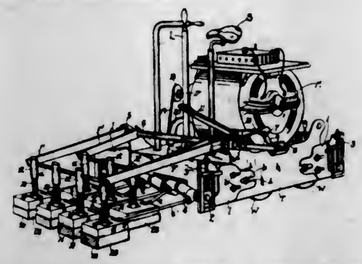
3. In combination with a gas engine having its inlet valve operated by a rocker-arm, means for regulating the speed of the engine, comprising an eccentrically journaled pivot for said rocker-arm, a motor connected with said pivot to turn the latter, a reversing switch for the motor, a circuit including a conductor adapted to expand by reason of heat generated by current passing therethrough, said conductor being connected with the reversing switch to operate the same, and means whereby the current in this conductor circuit is varied according to the speed of the engine.

4. In combination with a gas engine having its inlet valve operated by a rocker-arm, means for regulating the speed of the engine, comprising an eccentrically journaled pivot for said rocker-arm, a worm gear connected to said pivot, a worm meshing with said gear, a motor for driving the worm, a reversing switch for the motor, a circuit including a conductor adapted to expand by reason of heat generated by a current passing therethrough, said conductor being connected with the reversing switch to operate the same, and means whereby the current in this conductor circuit is varied according to the speed of the engine.

5. In combination with a gas engine, means for regulating the speed thereof, comprising a motor connected with the inlet valve of the engine to vary the degree of opening thereof, a reversing switch for said motor, a circuit including a conductor adapted to expand by reason of the heat generated by current passing therethrough, connection between said circuit and the engine whereby variations in speed of the latter varies the current in the circuit, spring supports to which the ends of said conductor are secured, the conductor being connected intermediately to the reversing switch to operate the latter through expansion and contraction, and a compensating wire connecting said spring supports, being adapted to be affected equally with the conductor by atmospheric temperature.

[Claim 6 not printed in the Gazette.]

943,727. FLOOR-SURFACING MACHINE. HERMAN ALBERS and PHILIP FRUEH, St. Louis, Mo. Filed Apr. 12, 1909. Serial No. 489,416.



1. In a floor surfacing machine, a vertically yielding frame, a series of oscillating tool-shanks depending therefrom and terminating in tools for operating over the surface of the floor, a crank-shaft, and connections between the tools and shaft for reciprocating the tools over the floor.

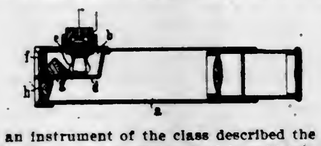
2. In a floor surfacing machine, a vertically oscillating frame, a series of tool-shanks depending from the free end thereof and oscillating in planes at right angles to the axis of oscillation of the frame, tools movably connected to the lower ends of the tool-shanks, a crank-shaft, and connections between the shaft and tools for reciprocating the latter over the surface of the floor engaged by the tools.

3. In a floor-surfacing machine, a vertically oscillating frame, a series of hollow plungers pivotally suspended from the free end thereof, tool-shanks loosely operating within the plungers, tool-heads hinged to the lower ends of the shanks, a crank-shaft, connections between the shaft and tool-heads for reciprocating the latter over the surface to be finished, and yielding connections between the plungers and tool-heads.

4. In a floor-surfacing machine, a vertically oscillating frame, a series of hollow plungers pivotally suspended from the free end thereof, tool-shanks loosely operating within the plungers, tool-heads hinged to the lower ends of the shanks, a crank-shaft, connecting rods between the shaft and tool-heads for reciprocating the latter over the floor surface, and springs encircling the shanks and bearing against the plungers and tool-heads respectively.

5. In a floor-surfacing machine, a truck, a rock-shaft at one end thereof, a pair of frames oscillating about the axis of the rock-shaft, the one frame being inclosed within the other, a series of hollow plungers pivotally suspended from the free ends of the respective frames, a tool-shank yieldingly operating in each plunger, a tool-head hinged to the bottom of each shank, a crank-shaft having series of crank-arms arranged 180 degrees apart, and intermediate connections between each set of crank-arms and the tool-heads of the respective frames, whereby the tool-heads of one frame reciprocate simultaneously in opposite directions to those of the other frame.

943,728. OPHTHALMOSCOPE. FRITZ BAUM, Paris, France. Filed Feb. 15, 1909. Serial No. 478,135.



1. In an instrument of the class described the combination with a tube, of a partition wall in said tube, adapted to divide the same in two separate chambers, an illuminating body, an opaque screen at one end of one of said chambers, said screen being provided with a slot, and means for discharging the light rays of said illuminating body through said slot in a direction parallel to said partition wall.

2. In an instrument of the class described the combination with a tube, of a partition wall in said tube, adapted to divide the same in two separate chambers, a portion of said partition wall being parallel to the longitudinal axis of said tube, a source of light within one of said chambers, a prism within the same chamber, a screen at the end of said chamber, said screen being provided with a slot and said prism being adapted to deflect the rays issuing from said source of light through said slot in a direction parallel to said portion of the partition wall.

3. In an instrument of the class described the combination with a tube, of a partition wall in said tube, adapted to divide the same in two separate chambers, a portion of said partition wall being parallel to the longitudinal axis of said tube, an illuminating body within one of said chambers, a prism resting with one side on said portion, a screen at one end of said chamber, said screen being provided with a slot parallel to said portion of said partition wall, said prism being adapted to deflect the light issuing from said illuminating body through said slot in a direction parallel to said portion and a condensing lens system for converging certain of the rays of light and directing them through the slot.

943,729. WHIP-LOCK. WALTER H. BEACH, Wyncote, Wyo. Filed Aug. 31, 1909. Serial No. 515,458.

1. A whip lock comprising two similar members, each having a groove near the lower end and two mutually adjacent cam edges for coengagement, each member having a tapering half-socket upon the inside and near the lower end extending above said groove, a spring secured to one of said members having an outstanding lip arranged to be

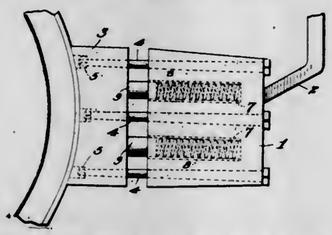
held within the socket formed by said two members, a securing annulus held within said grooves to movably connect said two members, and a cone-shaped plunger held within said tapering socket having a circumscribing chamfer engaged by said lip.



2. A whip lock comprising two similar members each having a groove near the lower end and two mutually adjacent cam edges for coengagement, each member having a tapering half-socket upon the inside and near the lower end extending above said groove, a spring secured to one of said members having an outstanding lip arranged to be held within the socket formed by said two members, a stop collar carried by one of said members, a securing bolt extending from said stop collar, a securing annulus held within the grooves of said members to movably connect said members, and a cone-shaped plunger held within said tapering socket having a circumscribing chamfer engaged by said lip.

3. A whip lock comprising two similar members, each having a groove near the lower end and two mutually adjacent cam faces for coengagement, each member having a tapering half-socket near the lower end, a securing annulus held within said grooves provided with two extending threaded ends, a spring secured to one of said members having an outstanding lip arranged to be held within the socket formed by said two members, and a cone-shaped plunger held within said tapering socket having a circumscribed chamfer all arranged substantially as and for the purpose set forth.

943,730. BRAKE-SHOE. JOHN F. BEATTY, Morton, Pa. Filed Dec. 26, 1908. Serial No. 469,407.



1. A brake shoe comprising a body block having recesses therein, a wearing block, bolts secured in alined openings in said blocks, plungers secured to the wearing block and projecting into the recesses in the body block, and springs in said recesses bearing against said plungers.

2. A brake shoe comprising a body block, a wearing block, bolts secured in alined openings in said blocks, tubes secured in recesses in the body block, springs in said tubes, and plungers in said tubes between the ends of the springs and the wearing block.

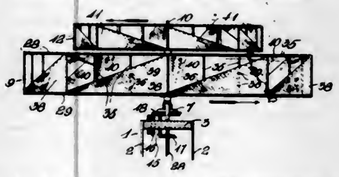
3. A brake shoe comprising a body block, a wearing block, bolts located in alined openings in the blocks, devices at the ends of the bolts limiting the separation of the wearing block from the body block and the movement of the bolts, said body block having recesses in its edge adjacent the wearing block, plungers on the wearing block movable in said recesses, and coiled springs in said recesses bearing against the plungers.

943,731. MANURE-SPREADER. JOSEPH H. BLOOM, Freeport, Ill. Filed Feb. 20, 1909. Serial No. 479,279.



The combination of a box of a manure spreader, a movable floor, supports for the floor, and a distributing head located adjacent to the delivery end of the box, the support for the floor comprising a substantially horizontal portion and a declining portion, the declining portion located between the horizontal portion and the distributing head, the floor conforming to the supports whereby the mass of material to be distributed is broken up and delivered to the distributing head.

943,732. AIR-SHIP. AMIEL BRATSCHIE, New Castle, Pa. Filed Feb. 4, 1909. Serial No. 475,988.



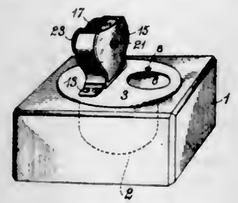
1. In an air ship, upper and lower revolubly mounted wind wheels, means to operate said wheels in opposite directions, a series of wings arranged in said wheels, said wings comprising an outer wall, an upper inclined wall, and a rear wall extending above said upper inclined wall.

2. In an air ship, a lower revolubly mounted wind wheel, an upper revolubly mounted wind wheel of less diameter than said lower wheel, means to revolve said wheels in opposite directions, a series of wings arranged in said wheels, said wings comprising substantially triangular walls, an upper inclined wall connected to the upper edge of said triangular wall, a rear wall connected at its lower edge to the inner edge of the upper wall, and a closing flap hinged to swing downwardly between the ends of the inclined walls of said wings when the wheels cease to revolve, thereby forming parachutes of said wings.

3. In an air ship, a lower wind wheel and an upper wind wheel smaller than said lower wheel, said wheels comprising upper and lower circular frames, upper and lower centrally disposed hubs, radially-disposed spokes connecting said frames with said hubs, oppositely inclined brace rods also connecting said frame with the hubs, a series of vertically disposed spacing rods between said frames, a series of wings arranged in said wheels, said wings comprising an outer wall connected at its lower edge to said lower circular frame and at its end with one of said spacing bars, an inclined upper wall connected at its lower end to one of the inclined brace bars of the wheels, and at its upper end to one of the upper spokes of the wheel, and at its outer edge to the upper edge of the front wall, and a rear wall connected at its lower edge to the inner edge of the upper wall and at its opposite ends to the upper spokes of the wheel, said rear wall forming a chute to direct the upper air currents into the open ends of the next adjacent wings, hinged flaps adapted to drop by gravity and to close the openings between the wings when the wheels cease to revolve, and means whereby said wheels are driven in opposite directions.

4. In an air ship, an outer tubular operating shaft and an inner operating shaft in said tubular shaft, an upper smaller wind wheel mounted on said inner shaft, a lower larger wind wheel mounted on said outer tubular shaft, a small operating gear on said inner shaft, a larger operating gear on said outer shaft and power transmitting gears engaged with said operating gears whereby said wind wheels are driven in opposite directions and said smaller wheel driven at a greater speed than the larger wheel.

943,733. INK-WELL COVER. RICHARD H. BROWN, Sheepshead Bay, and ROBERT J. BROWN, Tottenville, N. Y. Filed Mar. 24, 1909. Serial No. 485,365.

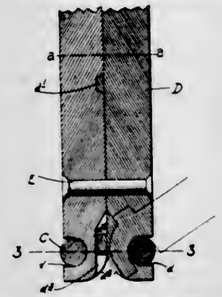


1. An ink well cover comprising a rotatable plate having an opening near one side, a tongue attached thereto near the other side, a casing having an opening adapted to receive said tongue, and fibrous material carried by said casing and constituting a pen wiper.

2. An ink-well cover comprising a lower plate having a pen opening near one edge and a circular retaining flange on its lower face and near the same edge, an upper plate mounted and adapted to rotate on the lower plate and having near one edge an opening adapted to register with said pen opening, and near the other edge a pen-wiper, substantially as described.

3. In combination with an ink well cover, a casing carried thereby, a wheel of fibrous material located within said casing, a shaft passing through said casing and wheel for rotating the latter, a bearing on the end of said shaft, having recesses therein, and a spring carried by said casing, having one end adapted to engage said recesses, for holding said shaft and wheel in position within said casing.

943,734. CHAIN CONVEYER. THOMAS A. COLEMAN, Longville, La., assignor to C. T. Patterson Company, Ltd., New Orleans, La., a Corporation of Louisiana. Filed Mar. 11, 1909. Serial No. 482,751.



1. A flight for conveyer chains comprising a carrying member divided substantially throughout its entire length, the adjacent faces of the parts thereof having registering recesses and projections, whereby the parts are prevented from movement in all directions except a pivotal movement about the link of the chain on which they are mounted, and means for fastening said parts together against said pivotal movement.

2. In a conveyer-chain, the combination with the chain proper, a flight comprising two castings, both of which are provided with link-receiving recesses, the ends of said castings being cut away so that the parts may be swung on said links, and means for holding said parts in position against movement, when assembled within a link.

3. In a conveyer-chain, the combination with the chain proper, of a flight divided longitudinally and having interlocking means at the division line, the ends of said flight being recessed to receive a link, and being cut away, whereby the parts of said flight may be swung on said link, and a rivet for securing said parts together.

943,735. MECHANISM FOR FREEZERS. JESSE D. COLLINS, Chicago, Ill., assignor, by mesne assignments, to The Creamery Package Mfg. Company. Filed Feb. 28, 1906. Serial No. 303,383.



1. The combination with a freezer can of spiders rotative therein one at the bottom and one at the top, scraper knives pivotally engaged at the ends of the corresponding arms of said spiders and comprising a relatively soft bar having a thin sharp edge adapted to engage against the can in the direction of rotation, a stop limiting the outward swing of said knives, the front faces of said knives being partly concave and partly convex.

2. The combination with a containing can of a spider at the bottom and at the top thereof, that at the bottom having arms, thin edged on the front side thereof and running close to the bottom, knives pivotally engaged to corresponding arms of said spiders and adapted to bear against the inner faces of the can, complemental stops on said knives and said arms to limit the outward swing of the edges thereof, the front surface of said knives being compoundly curved transversely and at the rear edge directed outwardly and a longitudinal concave face at the rear side of each knife.

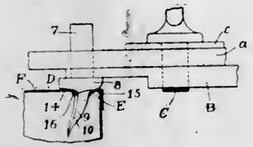
3. In a freezer the combination with the can, of a scraper knife adapted to be moved around the periphery thereof, stops limiting the outward movement of the edge of the knife, the face of said knife being curved rearwardly and backwardly and affording a thin rear edge and having a concave face at the rear side thereof, and an obliquely inclined rounded bar carried by said spiders and curved to fit to the periphery of the can and acting to force the cream downwardly.

4. In a device of the class described, a can, upper and lower spiders revoluble therein, scraping knives carried on the outer ends of corresponding arms on diametrically opposite sides of the spiders, rounded bars carried on alternate arms of the spiders and at the upper ends inclining forwardly and shaped for their length to fit to the periphery of the can and acting to wipe the can and press the cream therein downwardly.

5. In a device of the class described the combination with a can of upper and lower spiders revoluble therein, the lower spider having arms relatively thin on their front edges, scraping knives pivoted in corresponding spider arms and movable therewith against the surface of the can, rounded bars carried on alternate arms of the spider and inclining forwardly at their upper ends and shaped to fit to the sides of the can and to force cream downwardly therefrom, a beater revoluble oppositely from the spiders and embracing a vertical shaft, relatively broad blades alternately arranged on opposite sides thereof and inclining downwardly at their edges in the direction of rotation and concave transversely, said blades presenting rounded edges and ends and rounding upwardly and downwardly from their surfaces onto the shaft and mechanism for rotating the spider and beaters oppositely.

[Claims 6 to 9 not printed in the Gazette.]

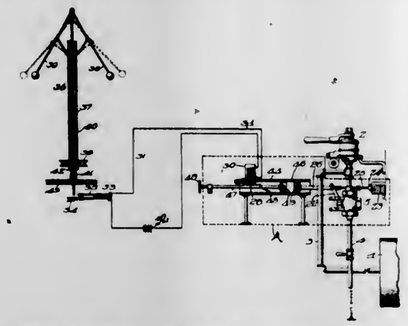
943,736. CAN-OPENER. LOUIS DICKERHOFF, Brooklyn, N. Y. Filed Mar. 8, 1909. Serial No. 482,024.



In a can-opener, the combination, with a rod and an adjustable slide parallel with and longitudinally movable thereon; of a knife fixed to said slide and depending downwardly therefrom, said knife embodying a horizontal base extended at right angles across the bottom of the said slide, a blade having a sharp point and an oblique edge and being of tapering and compound-curved contour in vertical section and of substantially elliptical cross sectional shape, said blade extended obliquely across the bottom of said base, and having a lateral groove across its face at the line of intersection between the knife and its base, substantially as shown and described.

943,737. RAILWAY-BRAKE. CHARLES E. DUFFIE, Omaha, Nebr. Filed July 15, 1908. Serial No. 443,643.

1. The combination, with brake-applying and releasing means, of speed-controlled means for preventing a releasing operation of said means.



2. In air-brake apparatus, in combination, a train line; means for opening the train line to the atmosphere; means for holding said first mentioned means in the inoperative position; and means for locking said first mentioned means in the operative position.

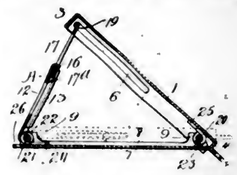
3. In air-brake apparatus, in combination, a train line; means for opening the train line to the atmosphere; means for holding said first mentioned means in the inoperative position; and speed-controlled means for locking said first mentioned means in the operative position.

4. In air-brake apparatus, in combination, a valve arranged to be automatically operated to apply the brakes; and means for locking said valve to prevent a brake-releasing operation.

5. In air-brake apparatus, in combination, a valve arranged to be automatically operated to apply the brakes; and speed-controlled means for locking said valve to prevent a brake-releasing operation.

[Claims 6 to 10 not printed in the Gazette.]

943,738. CIGAR-CUTTER. ROBERT FISCHER, New York, N. Y., assignor to C. P. Goldsmith & Co., New York, N. Y., a Firm. Filed Mar. 16, 1908. Serial No. 421,507.



1. In an article of the class described, the combination of two sections pivoted together, and a third section comprising an apertured plate and a cutting blade adapted to be moved on said plate past said aperture, the cutting section being pivoted to the free end of one of the first mentioned sections and movably connected with the free end of the other section.

2. In an article of the class described, the combination of two sections pivoted together, a spring combined with said sections operating to separate their free ends, a third section comprising an apertured plate and a cutting blade adapted to be moved on said plate past said aperture, the cutting section being pivoted to the free end of one of the first mentioned sections and movably connected with the free end of the other section.

3. In an article of the class described, the combination of two inter-pivoted sections, a cutting-section comprising a cutting blade and an apertured pocket plate in which the cutting blade moves pivoted to the free end of one of said sections and movably connecting the free end of the other section, and springs combined with said pivotal connections for opening the sections, and means for limiting the downward movement of the free end of one section and the cutting blade.

4. In an article of the class described, the combination of the two inter-pivoted sections, a third section comprising an apertured plate and a cutting blade adapted to be moved on said plate past said aperture, the cutting section being pivoted to the free end of one of the first mentioned sections and movably connected with the free end of the other section, and means for detachably securing the free ends of the first two sections together.

5. In an article of the class described, the combination with the incasing section B, the section C pivoted to section B at one end, and section A pivoted at one end to the other end of section C and movably engaging section B, cutting instrumentalities carried by section A, the section B being adapted to incase sections A and C.

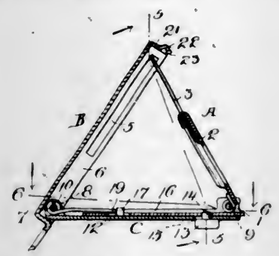
[Claims 6 to 13 not printed in the Gazette.]

943,739. CIGAR-CUTTER. ROBERT FISCHER, New York, N. Y. Filed June 13, 1908. Serial No. 438,290.

1. The combination, in an article of the class described, of the three interpivoted sections, one of the sections carrying a spring-pressed sliding bolt-plate, coöperating sections and a recessed flange for engagement therewith.

2. The combination of the sections B, C, united to fold flat against each other a pivot pin connecting them at one end, a sliding bolt-plate carried by section C, means on section B for engaging said bolt-plate, and a pivot spring bearing on said sections and against said bolt-plate.

3. The combination of the pivoted sections B, C united to fold flat against each other, the sliding bolt-plate, the pivot spring 10 bearing on the section B, and engaging the bolt-plate, and means on section B for engaging said bolt-plate.



4. The combination of the pivoted sections B, C united to fold flat against each other, the pivot pin 7, the sliding bolt-plate, the coil spring 10 having an arm bearing on the section B, and transverse arm bearing against the bolt-plate.

5. The combination of the pivoted sections B, C united to fold flat against each other, a spring interposed in said pivotal connection, the bolt-plate having a lug engaging an extension from the pivot spring, a knob on the plate, and a slot in the section C through which said knob extends.

[Claims 6 to 9 not printed in the Gazette.]

943,740. KNOB ATTACHMENT. JAMES R. FLETCHER, New Britain, Conn., assignor to P. & F. Corbin, New Britain, Conn., a Corporation of Connecticut. Filed Aug. 28, 1909. Serial No. 515,012.

1. In a device of the character described, a spindle, a knob adapted thereto, a pin arranged to hold said knob on said spindle, a bearing arranged to be secured to a door or the like, a take-up sleeve carried by said bearing and adjustable relatively thereto, a portion of said sleeve overstanding a portion of the knob and arranged to be moved in a direction to cover said pin and to take an end bearing against said knob, and means to lock said sleeve against movement relatively to said bearing.

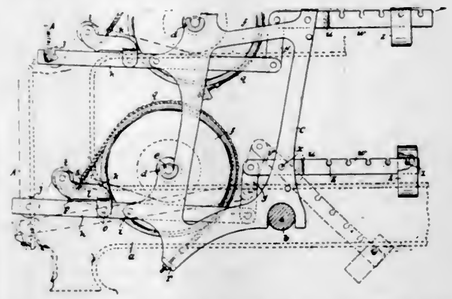
2. In a device of the character described, a spindle, a knob, means to secure the knob to the spindle, a bearing device for said knob comprising a non-adjustable portion and an adjustable portion, and a threaded annulus carried by and mounted upon said adjustable portion and arranged to engage said non-adjustable portion to lock the former rigidly in an adjusted position relatively to said knob to take up end play of the latter.

3. In a device of the character described, a spindle, a knob slidable but non-rotatable thereon, means for attaching said knob on said spindle, said means comprising a device passing transversely through the shank of the knob and said spindle, a knob supporting and adjusting sleeve arranged to overstand the shank of the knob and said knob attaching device, a supporting plate for said adjusting sleeve and means for rigidly holding said sleeve in any desired position of adjustment relatively to said plate, said means being mounted on said sleeve.

4. In a device of the character described, a spindle, a knob slidable but non-rotatable thereon, a base or rose, means to secure said knob on said spindle, a sleeve located between said knob and base and adjustably mounted in an opening in the latter and operating to limit the end play of said knob relatively to said base, an external annulus threaded upon said sleeve and arranged to lock the latter against movement when once adjusted.

5. In a device of the character described, a spindle, a knob adjustable thereon, means for locking said knob thereon in an adjusted position, a support or bearing arranged to be secured to a door, a sleeve, a screw-thread connection between said sleeve and said bearing and including a screw-thread on the external surface of said sleeve toward its inner end, said knob being directly supported by said sleeve, a threaded ring mounted on the threaded portion of said sleeve external of said bearing, the outer end of said ring projecting outwardly on said sleeve beyond the threaded portion thereof, said ring being arranged to jam against said bearing to prevent said sleeve from rotating after the same has been adjusted.

943,741. LET-OFF MECHANISM FOR NARROW-WARE LOOMS. JAMES C. GAYNOR, Pompton, N. J., assignor of one-half to A. C. Kluge, Pompton, N. J. Filed May 25, 1909. Serial No. 498,276.



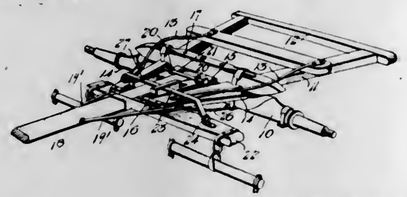
1. In a let-off mechanism for looms, the combination of a support, a warp-beam journaled in said support, means for opposing a warp-controlled resistance to the rotation of the warp-beam comprising two coöperative warp-engaged lever-structures, one of which is fulcrumed in the support, and a weight-lever also fulcrumed in the support and normally holding said means in rotation-resisting relation to the warp-beam, substantially as described.

2. In a let-off mechanism for looms, the combination of a support, a warp-beam journaled in said support, means for opposing a warp-controlled resistance to the rotation of the warp-beam comprising two coöperative warp-engaged lever-structures, one of which is fulcrumed in the support between its ends and is engageable with the other at one side of its fulcrum, and a weight-lever fulcrumed in said support and operatively connected to the first-named lever-structure at the other side of its fulcrum, substantially as described.

3. In a let-off mechanism for looms, the combination of a support, a warp-beam journaled in said support, a warp-engaged lever-structure fulcrumed in said support, means for exerting a braking influence upon the warp-beam comprising another warp-engaged lever-structure fulcrumed in the first-named lever-structure at one side of the fulcrum thereof and extending over and adapted to contact with the first-named lever-structure, and a weight-lever also fulcrumed in the support and operatively connected with the first-named lever-structure at the other side of the fulcrum thereof, substantially as described.

4. In a let-off mechanism for looms, the combination of a support, a warp-beam journaled in the support, coöperative lever-structures one of which is fulcrumed in the support, a braking device operatively connected to one of said lever structures, a weight-lever also fulcrumed in the support and operatively connected to the latter lever-structure, and an adjustable weight arranged on said weight-lever, substantially as described.

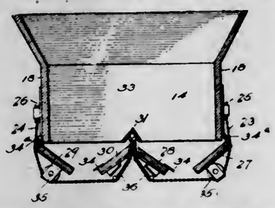
943,742. RUNNING-GEAR FOR WAGONS. CHARLES M. HAESKE, South Bend, Ind. Filed Apr. 29, 1907. Serial No. 370,847.



1. The combination with the hounds and axle of a wagon, of supplemental hounds comprising spaced strips arranged between the forward continuous ends of the hounds and secured thereto with the rear ends secured to the axle, a pole fitted between the parallel inner faces of the supplemental hounds, means passed transversely through the hounds and the supplemental hounds, and through the pole, forwardly and rearwardly extending braces having overlapped ends secured by said bolt, a bolt extended over the rear end of the tongue and having its ends secured to the supplemental hounds, a doubletree, a yoke bar having its ends rotatably mounted upon the doubletree, whereby the latter may have a rocking movement, said yoke bar extending over the hounds and the supplemental hounds, and keepers on the supplemental hounds beneath which said yoke bar is free to slide lengthwise of the tongue.

2. The combination with the hounds and axle of a wagon, of supplemental hounds comprising spaced strips arranged between the forward contiguous ends of the hounds and secured thereto with the rear ends secured to the axle, a pole fitted between the parallel inner faces of the supplemental hounds, means passed transversely through the hounds and the supplemental hounds, a bolt extended over the rear end of the tongue and having its ends secured to the supplemental hounds, a doubletree, a yoke bar having its ends rotatably mounted upon the doubletree, whereby the latter may have a rocking movement, said yoke bar extending over the hounds and the supplemental hounds, keepers on the supplemental hounds beneath which said yoke bar is free to slide lengthwise of the tongue, braces extending from the upper faces of the hounds and extended above the axle, braces extending from the sides of the hounds and connected to the top of the axle and forwardly extending braces, the rear ends of which overlap the forward ends of the last-named braces, the transversely extended means passing also through the pole and through said overlapped end.

943,743. DUMP-WAGON. CHARLES M. HAESKE, South Bend, Ind. Filed Oct. 13, 1908. Serial No. 457,548.



1. A dumping body for wagons provided with hinged bottom sections, closing means for all of said sections, means carried by one of each pair of sections for covering the joint between them, means for causing the last-named sections to assume their closed position slightly in advance of the other sections, the same comprising an angular leafspring on the first-closing sections over which the closing means passes.

2. A dumping body for wagons provided with hinged bottom sections, closing means for all of said sections, means carried by one of each pair of sections for covering the joint between them, means for causing the last-named sections to assume their closed position slightly in advance of the other sections, the same comprising an angular leafspring on the first-closing sections over which the closing means passes, a winding drum for said closing means, means for controlling the movement thereof in one direction, and independent auxiliary means for controlling its movement in the other direction.

3. A dumping body for wagons provided with hinged bottom sections, means carried by one of each pair of sections for covering the joint between them, means for causing the last-named sections to assume their closed position slightly in advance of the other sections, the same comprising an angular leafspring on the first-closing sections over which the closing means passes, said spring serving to hold the closing means at a greater angle with relation to the first-closing section than to the last-closing section.

4. A dumping wagon comprising a body provided with complemental bottom sections constructed to open by gravity, means for closing said sections, and means carried by one section arranged to be engaged by the closing means in advance of the engagement of the latter with the complemental section.

5. A dumping wagon comprising a body provided with complemental bottom sections constructed to open by gravity, means for closing said sections, and a depending member carried by one section and arranged to be engaged by the closing means in advance of the engagement of the latter with the complemental section.

[Claims 6 to 9 not printed in the Gazette.]

943,744. AUTOMOBILE DRIVING MECHANISM. CHARLES B. HATFIELD, Jr., Oshkosh, Wis. Filed Aug. 3, 1908. Serial No. 446,698.



1. In driving mechanism for a self-propelled vehicle, the combination, with the driving road wheels of such vehicle, of an axle on which such wheels are mounted to rotate, reversely arranged ratchets mounted to rotate and correspondingly reversed pawls operatively connected to said wheels on their inner faces, means for driving said ratchets, and means for shifting said ratchets to engage one or the other set of pawls; substantially as described.

2. In driving mechanism for a self-propelled vehicle, the combination, with the driving road wheels of such vehicle, of an axle on which such wheels are mounted to rotate, reversely arranged sets of ratchets mounted to rotate and located parallel to each other and in juxtaposition, and correspondingly reversed sets of pawls arranged in parallel planes but separated from each other to permit engagement of one set of ratchets and the simultaneous disengagement of the other set, said pawls being operatively connected with said wheels on their inner faces, means for rotating said ratchets, and means for shifting the latter to engage one or the other set of pawls; substantially as described.

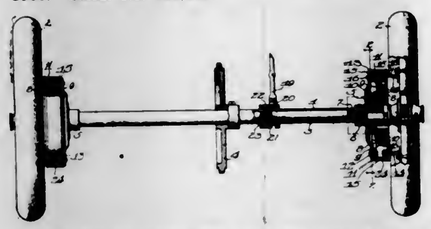
3. In driving mechanism for a self-propelled vehicle, the combination with the road wheels, of a shaft or axle on which the road wheels of the vehicle are mounted to rotate, a ratchet carrier or support at each end of the axle, means for driving said ratchet carriers, a pair of ratchets on each carrier, said ratchets having reversely pitched ratchet teeth, a pawl carrier secured to the inside of each road wheel, sets of pawls mounted on the pawl carriers, the pawls being reversed to coöperate with their respective ratchets, and means for shifting the ratchets to engage one or the other set of pawls, substantially as described.

4. In driving mechanism for a self-propelled vehicle, the combination with the road wheels, of a shaft or axle on which the road wheels of the vehicle are mounted to rotate, a ratchet carrier or support at each end of the axle, means for driving said ratchet carriers, a pair of ratchets on each carrier, said ratchets having reversely pitched ratchet teeth, a pawl carrier secured to each road wheel, a pair of pawls mounted on each pawl carrier, the pawls of each pair being reversed to coöperate with their respective ratchets, and means for shifting the ratchet carriers longitudinally of the axle, said ratchets and pawls being located between said road wheels; substantially as described.

5. In driving mechanism for a self-propelled vehicle, the combination with the driving road wheels of such vehicle, of an axle on which said wheels are mounted to rotate, a casing secured to each wheel, a driving sprocket wheel arranged toward each end of the axle and having an extended hub encircling the axle, ratchet carriers or supports encircling said hubs, a shaft arranged within the axle, means for securing the shaft and ratchet carriers together, said shaft being arranged for longitudinal movement, reversely arranged ratchet wheels secured to said ratchet carriers and encircling the axle, and correspondingly reversely arranged pawls on said casings to coöperate with the ratchet wheels.

[Claims 6 to 11 not printed in the Gazette.]

943,745. AUTOMOBILE DRIVING MECHANISM. CHARLES B. HATFIELD, Jr., Oshkosh, Wis. Filed Aug. 3, 1908. Serial No. 446,699.



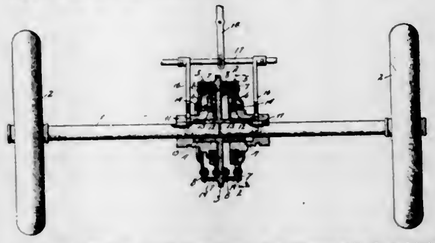
1. In a driving mechanism for a self-propelled vehicle, the combination, with the driving road wheels of such a vehicle, of a live axle on which the wheels are mounted to rotate, a ratchet carrier at each end of the axle and secured directly thereto, a pair of reversely acting ratchets secured to each carrier, pawls for said ratchets, a pawl carrier or support secured to each vehicle wheel, and means for shifting the ratchet carrier longitudinally of the axle for disconnecting one set of ratchets and pawls and connecting another set thereof at each end of the axle; said ratchets and pawls performing both driving and differential functions; substantially as described.

2. In a driving mechanism for a self-propelled vehicle, the combination, with the driving road wheels of such a vehicle, of a live axle on which the wheels are mounted to rotate, a ratchet carrier at each end of the axle and having a central hub portion fitting upon the axle and secured thereto for rotary movement therewith and also for independent longitudinal movement in respect thereto, ratchets secured to each carrier, a pawl carrier secured to each vehicle wheel, separate pawls arranged on said pawl carrier and adapted to coöperate with the ratchets, and means for shifting the ratchet carrier longitudinally of the axle for disconnecting one set of ratchets and pawls and connecting another set thereof at each end of the axle at the will of the operator, said pawl carriers being formed as casings for inclosing the pawls and ratchets and for also serving as a brake drum; substantially as described.

3. In a driving mechanism for a self-propelled vehicle, the combination, with the driving road wheels of such a vehicle, of a live axle on which the wheels are mounted to rotate, a ratchet carrier at each end of the axle and having a central hub portion fitting upon the axle and secured thereto for rotary movement therewith and also for independent longitudinal movement in respect thereto, ratchets secured to each carrier and arranged in parallel planes but in juxtaposition, a pawl carrier secured to each vehicle wheel, separate pawls arranged on said pawl carrier and adapted to coöperate with the ratchets, and means for shifting the ratchet carriers longitudinally of the axle for disconnecting one set of ratchets and pawls and connecting another set thereof at each end of the axle for driving forwardly or backwardly as the case may be; substantially as described.

4. In a driving mechanism for a self-propelled vehicle, the combination, with the driving road wheels of such a vehicle, of a live axle on which the wheels are mounted to rotate, a ratchet carrier at each end of the axle and having a central hub portion fitting upon the axle and secured thereto for rotary movement therewith and also for independent longitudinal movement in respect thereto, ratchets secured to each carrier and arranged in parallel planes but in juxtaposition, a pawl carrier secured to each vehicle wheel, separate pawls arranged on said pawl carrier and adapted to coöperate with the ratchets, and means for shifting the ratchet carriers longitudinally of the axle for disconnecting one set of ratchets and pawls and connecting another set thereof at each end of the axle for driving forwardly or backwardly as the case may be; substantially as described.

943,746. AUTOMOBILE DRIVING MECHANISM. CHARLES B. HATFIELD, Jr., Oshkosh, Wis. Filed Aug. 3, 1908. Serial No. 446,700.



1. In a driving mechanism for a self-propelled vehicle, the combination, with the driving road wheels of such a vehicle, of a divided live axle connected to such wheels, ratchet carriers arranged at the proximate ends of the members of such axle and mounted to rotate with but move longitudinally thereof, a pawl support adapted to be driven by a prime mover, sets of pawls thereon, ratchets mounted on said carriers and having reversed ratchet teeth, said ratchets being adapted to coöperate with said pawls, and means for disconnecting one set of ratchets and pawls and connecting another set thereof; substantially as described.

2. In a driving mechanism for a self-propelled vehicle, the combination with the driving road wheels of such a vehicle, of a divided live axle connected to such wheels, ratchet carriers mounted to rotate with said axle, a pawl support adapted to be driven by a prime mover thereon, rotatable ratchets having reversed ratchet teeth, said ratchets being mounted on said carriers and adapted to coöperate with said pawls, and means for disconnecting one set of ratchets and pawls and connecting another set thereof, substantially as described.

3. In a driving mechanism for a self-propelled vehicle, the combination, with the driving road wheels of such a vehicle, of a divided live axle connected to rotate with such wheels, ratchet carriers arranged at the proximate ends of the members of such axle and mounted to rotate with but move longitudinally thereof, a pawl support comprising a wheel driven by a prime mover and provided with flanges forming a casing, sets of oppositely acting pawls,

mounted on said pawl support, ratchets mounted on said carriers and having reversely pitched teeth, said ratchets being adapted to coöperate with said pawls, and means for disconnecting one set of ratchets and pawls and connecting another set thereof; substantially as described.

4. In a driving mechanism for a self-propelled vehicle, the combination, with the driving road wheels of such a vehicle, of a divided live axle connected to rotate with such wheels, ratchet carriers arranged at the proximate ends of the members of such axle and adapted to be operatively connected therewith, a pawl support driven by a prime mover and having a hub surrounding the proximate ends of the members of the axle, sets of oppositely acting pawls on such support, ratchets secured to said carriers and adapted to coöperate with the pawls, and means for disconnecting one set of ratchets and pawls and connecting another set thereof; substantially as described.

5. In a driving mechanism for a self-propelled vehicle, the combination, with the driving road wheels of such a vehicle, of a divided live axle connected to such wheels, ratchet carriers arranged at the proximate ends of the members of such axle and adapted to be operatively connected therewith, a pawl support driven by a prime mover and having a hub surrounding the proximate ends of the members of the axle, said ratchet carriers being counterbored at their inner ends to fit over said hub, sets of oppositely acting pawls on such support, ratchets secured to said carriers and adapted to coöperate with the pawls, and means for disconnecting one set of ratchets and pawls and connecting another set thereof; substantially as described.

943,747. COMPOSITE SUPPORT FOR POSTS AND POLES. JOHN F. HICKMAN, Tampa, Fla. Filed Jan. 13, 1909. Serial No. 472,104.



1. Means for supporting posts and poles, comprising a stem with a rod having one end embedded therein and the other end projecting therefrom and threaded; a cap, of larger area than the cross section of the stem, located upon the top end of the stem and provided with a hole through which the aforesaid end of the rod is passed; an integral fastening device having a perforated foot, a perforated upright to receive bolts and a brace; and a nut; the projecting end of the said threaded rod being passed through the perforated foot and the nut applied to said threaded end of the rod.

2. Means for supporting a post or pole, comprising a stem of greater length than thickness having a rod with one end embedded therein and the other end projecting therefrom and threaded; a perforated cap of larger area than that of the end of the stem; a fastening device having a perforated foot, a perforated upright and a brace; and a nut; the free end of the rod being passed through the perforation in the cap and the perforation or slot in the foot and the nut applied to the threaded end of the rod; and the bolts being located within the perforations of the upright.

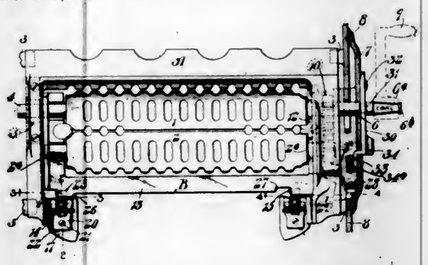
3. The combination with a concrete stem having a rod with one end embedded therein and the other end threaded and projecting therefrom, of a fastening device for a post or pole comprising an integral perforated foot, upright, and brace; and a nut; the threaded end of the rod being passed through the perforation in the foot and the nut applied to the threaded end of the rod for clamping the parts together; and said upright of the fastening device being disposed at right angles to the plane of the foot, and the brace disposed at right angles to the plane of the foot and the face of the upright.

4. A base for supporting post and poles, comprising a stem with a rod having one end embedded therein and the other end projecting therefrom, and a concrete cap with strengthening material, as metallic gauze, embedded therein; and provided with a hole through which the rod passes when the parts are assembled.

5. The combination with a base, of an integral metallic fastening device consisting of a foot, an upright and a brace each disposed at right angles to the planes of the others, and means for securing the fastening device to the base; a post in connection with the upright; and means for securing the post to the upright.

[Claims 6 to 8 not printed in the Gazette.]

943,748. DUMPING-GRATE. HENRY C. HOENER and FREDERICK ANDREAS, St. Louis, Mo., assignors to Bridge & Beach Manufacturing Company, St. Louis, Mo., a Corporation of Missouri. Filed Feb. 23, 1909. Serial No. 479,375.



1. A grate comprising a movable frame provided with means for supporting fuel, means for normally sustaining said frame in a certain position, said frame being adapted to be shifted to disengage it from said sustaining means so that it can move into a position to discharge the load thereon, and means for automatically shifting said frame in the opposite direction so that when it is returned to normal position it will be engaged by said sustaining means.

2. A grate comprising a swinging frame provided with means for supporting fuel, a movable device that supports said frame in a horizontal position, said frame being adapted to be shifted to disengage it from said device so that it can swing downwardly to discharge its load, and means for causing said frame to shift automatically in the opposite direction as it swings downwardly, said supporting device being so conatructed that the frame can move upwardly past same.

3. A grate comprising a swinging frame provided with means for supporting fuel, a movable device coöperating with said frame to sustain it in a certain position, said frame being adapted to be shifted bodily and having a notch or cut-out portion that is brought into alinement with said device when the frame is shifted in a certain direction, thus permitting the frame to swing downwardly to discharge its load, and said sustaining device being so constructed that it will permit the frame to swing upwardly back to normal position even though said notch or cut-out portion is not in alinement with same.

4. A grate comprising a swinging frame provided with means for supporting fuel, pivotally mounted devices cooperating with said frame to sustain it in approximately

horiontal position, said frame being provided with notches or cut-out portions adjacent said devices and being adapted to be shifted so as to bring said notches into alinement with said devices and thus permit the frame to swing downwardly to discharge the load thereon, and means for automatically shifting the frame in the opposite direction as it swings downwardly, said frame being adapted to be thereafter swung upwardly to its normal position.

5. A grate comprising a pivotally mounted frame provided with means for supporting fuel, movable devices that sustain said frame in a certain position, means for locking said frame, said frame being adapted to be shifted out of engagement with said sustaining means when it is unlocked so that it can swing downwardly and discharge the load thereon, and means for automatically shifting said frame in the opposite direction so that it will be engaged by said sustaining means when it is returned to its normal position.

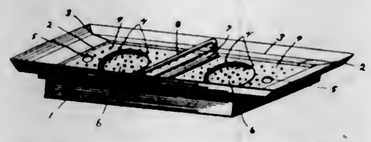
[Claims 6 to 13 not printed in the Gazette.]

943,749. CURLING-TOOL. BERTHOLD KATZENBERG, New York, N. Y. Filed Feb. 18, 1909. Serial No. 478,674.



A curling tool comprising a shank, a handle, and a curved enlarged and flared head, the outer edge of which is concaved and beveled and arranged in line with the shank of the tool.

943,750. COMBINED DISH PAN AND DRAINER. HARRY D. LEEKING, Lancaster, Pa. Filed June 28, 1909. Serial No. 504,714.

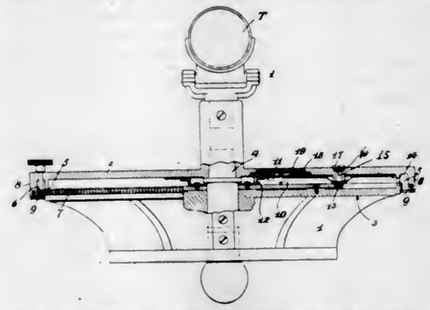


A device of the class described, comprising a pan formed with a strainer supporting ledge in the sides thereof, and a dish retaining flange formed in the sides thereof above said ledge, a removable strainer formed with perforations in the body thereof and designed to rest upon said ledge, perforated depressions formed in the body of said strainer and designed to extend below the surface of the water within said pan, and a transverse rib extending upward from the surface of said strainer for the purpose of supporting the dishes.

943,751. AZIMUTH-INDICATOR. ISAAC N. LEWIS, U. S. Army, assignor to Albert W. Erdman, Waterbury, Conn. Filed June 6, 1908. Serial No. 437,054.

1. In an azimuth indicator, two coördinated and relatively rotary dials respectively bearing scales of angular measurement, and a table or casing fenestrated to expose portions of said scales therethrough, in combination with a reference device adjacent to the exposed portion of one of said dial scales, consisting of a scale representing fractions of the divisions of said dial scale.

2. In an azimuth indicator, a fixed dial and a rotary table concentric therewith, in combination with a planetary dial carried by said table and coördinated with said fixed dial to indicate fractions of the divisions thereof and a reference device for said planetary dial consisting of a scale indicating fractions of the divisions thereof.

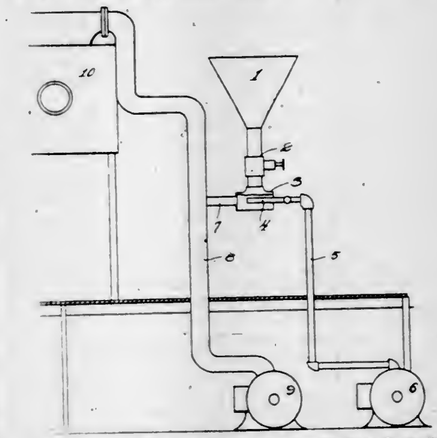


3. In an azimuth indicator, a base having a sun-gear and a main dial fixed thereto, a rotary table on said base, a pinion carried thereby in mesh with said gear and a planetary dial actuated by said pinion, the divisions of said planetary dial representing fractions of the divisions of said main dial, in combination with a reference index for said planetary dial fixed to the table and consisting of a scale indicating fractions of the divisions of said planetary scale.

4. In an azimuth indicator, the combination with a rotary table of two relatively rotary dials disposed in the same plane beneath said table and coördinated to indicate the angular position thereof, said table being fenestrated above the proximate portions of said two dials.

5. In an azimuth indicator, a fixed dial, and a fixed sun-gear, in combination with a planetary dial operated thereby and disposed in substantially the same plane as said fixed dial, said planetary dial bearing a scale representing fractions of the divisions of said fixed dial and the divisions of said planetary scale being of greater arcuate length than the divisions of which they represent fractions.

943,752. PROCESS OF RECLAIMING OR RECOVERING VALUES FROM DUST. NATHAN H. LIVINGSTON, Globe, Ariz. Filed Aug. 16, 1909. Serial No. 513,155.

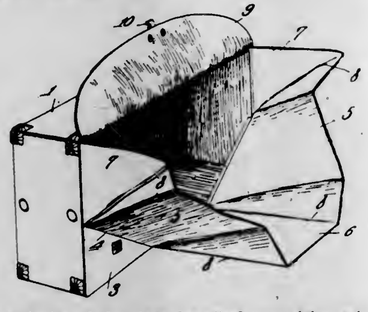


1. The improved process of recovering values from flue dust which consists in conveying said dust to a converter to cause the values therein to be melted, and the other particles of the dust to be mixed with the matte.

2. The improved process of recovering values from flue dust which consists in conveying the dust to a converter through the injecting action of a high and a low pressure air blower to cause said dust to mix with the matte in the converter, and reduce the values to molten metal, substantially as described.

3. The improved process of recovering values from flue dust, comprising the delivery of dust by gravitation to a chamber, then subjecting the delivered dust in said chamber to distinct currents of air under high and low pressures for conveying the dust to the converter, for mixing with the molten matte, substantially as and for the purpose specified.

943,753. SUIT-CASE AND THE LIKE. ENGELBERT LUDESCHER, Baltimore, Md. Filed Nov. 14, 1908. Serial No. 462,653.



1. A device of the class described comprising a body of non-flexible material and a closure constituting one wall of the body, said closure consisting of a stiffened central flap and flexible flaps integral with and extending from opposite edges of the stiffened flaps and foldable relative thereto and upon the outer face thereof to constitute one wall of the body, and means for securing the flaps in folded positions.

2. A device of the class described comprising a body of non-flexible material and a flexible closure therefor consisting of folds forming a stiffened central flap and flexible side flaps disposed to lap the side portion of the outer face of the central flap, the flexible flaps being integral with and extending from opposite edges of the stiffened flap, said closure when folded constituting a flat wall of the body.

3. A device of the class described comprising a body of non-flexible material, and a flexible closure therefor consisting of connected flaps foldable together to constitute a flat wall of the receptacle, one of said flaps being stiffened and constituting an interior backing for the other flaps, and means engaging the stiffened flap for securing the flaps in folded positions, the flexible flaps being integral with and extending from opposite edges of the stiffened flap.

4. A device of the class described comprising a body of non-flexible material, and a flexible closure integral therewith and having one free edge, said closure being arranged in folds and comprising a central stiffened backing flap and flaps integral with and extending from opposite edges of the backing flap and foldable relative thereto, all of said flaps constituting a flat wall of the body, and means engaging the backing flap for securing the flaps in folded position.

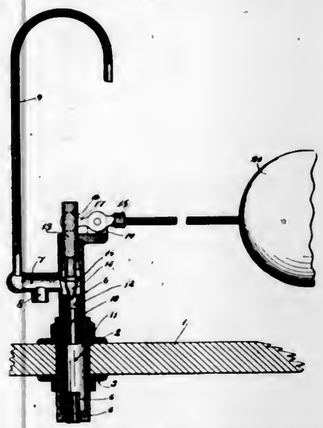
5. A device of the class described comprising a body of non-flexible material having an opening therein substantially coextensive with one wall of the body, and a closure for said opening and consisting of a stiffened flap and flexible connected flaps all formed in one piece and integral with the body and foldable together into a flat wall, said closure being separate from one wall of the opening and means for securing the flaps of the closure in folded positions said flap being extended from opposite edges of the stiffened flaps.

[Claims 6 to 14 not printed in the Gazette.]

943,754. HARNESS-DRESSING. REUBEN F. MEADER, Solon, Me. Filed May 6, 1909. Serial No. 494,366.

The herein described composition of matter consisting of petroleum, black oil, castor oil, gum tragacanth, ivory black, logwood, and glue prepared in the manner and in substantially the proportions specified.

943,755. TANK-VALVE. JOHN T. MORRISON, Minneapolis, Minn. Filed Apr. 19, 1909. Serial No. 490,901.



1. In a valve mechanism, the combination with a tubular valve casing, having an internal axially located tube, of a tubular valve seat in said valve casing telescoped around said internal tube, and a valve mounted in said casing for reciprocating movements, and provided with a pointed end engageable with one end of said tubular valve, substantially as described.

2. A valve mechanism comprising a tubular valve casing having a rigidly secured internal externally threaded tube, of a pliable tubular valve seat in said casing placed around the threaded exterior of said threaded tube, and a float controlled valve mounted for endwise movements in said casing, and provided with a pointed end insertible into the adjacent end of said pliable tubular valve seat, substantially as described.

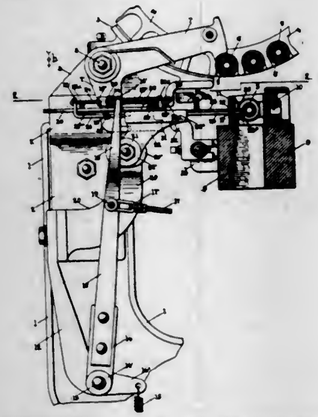
3. In a valve mechanism, the combination with an intake sleeve having in its lower end, an intake tube with a lateral discharge passage, of a tubular valve casing connected to the upper portion of said sleeve, a valve seat in said casing, said casing having a lateral discharge orifice, and a float actuated plunger-like valve mounted in the upper portion of said casing and provided with a pointed end engageable with the adjacent upper end of said valve seat, substantially as described.

4. The combination with a tank, of an intake sleeve extending through the bottom thereof, a tubular valve casing connected at its lower end to the upper end of said intake sleeve, said casing having a lateral discharge orifice, of a metal tube axially secured within said valve casing, a pliable tubular valve seat surrounding the upper end portion of said internal tube and fitting the interior of said casing, and a float actuated plunger-like valve seated in the upper portion of said casing, and provided with a pointed lower end engageable with the upper end of said pliable tubular valve seat, substantially as described.

5. The combination with a tank, of an intake sleeve having in its lower end, an intake tube with a lateral discharge passage within said sleeve, of a valve casing connected to the upper portion of said sleeve, a valve seated in said casing, said casing having a discharge orifice, and a float actuated valve for opening and closing the passage through said casing, substantially as described.

[Claim 6 not printed in the Gazette.]

943,756. WEFT-REPLENISHING LOOM. BENJAMIN F. MCGUINESS, Worcester, Mass., assignor to Crompton & Knowles Loom Works, a Corporation of Massachusetts. Filed Mar. 3, 1909. Serial No. 481,030.



1. In a filling detector mechanism for weft replenishing looms, a feeler slide located on the stationary part of the loom, and having a movement in a direction at right angles to the axis of the bobbin in the shuttle, and adapted to enter an opening through the shuttle and to engage the filling on the bobbin, and also to engage a stud or pin on the shuttle to position the shuttle, and means for causing said movement.

2. In a filling detector mechanism for weft replenishing looms, a slide located on the stationary part of the loom, and having a movement in a direction at right angles to the axis of the bobbin in the shuttle, and adapted to enter an opening through the shuttle and to engage the filling on the bobbin, and also to engage a stud or pin on the shuttle to position the shuttle, and a second slide mounted on and moving with said first-mentioned slide, and adapted to enter an opening through the shuttle and to engage the filling on the bobbin, and also having a movement in a direction at right angles to the direction of movement of the first-mentioned slide and separate means for causing the movement of each of said slides.

3. In a filling detector mechanism for weft replenishing looms, a slide mounted on a stationary part of the loom, and moving in a direction at right angles to the axis of the bobbin in the shuttle, and adapted to enter an opening through the shuttle and to engage the filling on the bobbin, and means for yieldingly moving said slide to engage the bobbin, and means to positively move said slide to disengage it from the filling, and a second slide mounted on and movable with the first-mentioned slide, and adapted to enter an opening through the shuttle and to engage the filling on the bobbin, and also having a movement in a direction at right angles to the direction of movement of the first-mentioned slide, and a lever for moving said slide, and also for moving a connection to a bunter connected with the transferring mechanism, and said bunter, adapted to be moved into and out of the path of a dagger on the lay, and said dagger.

4. In a filling detector mechanism for weft replenishing looms, located on the stationary part of the loom frame, a slide having a reciprocating movement toward and away from a bobbin in the active shuttle, and adapted to enter through an opening in the shuttle and to engage the filling, and means for moving said slide, and a second slide mounted on and moving with the first-mentioned slide, and adapted to enter an opening in the shuttle and to engage the filling on the bobbin, and also having a movement on the first-mentioned slide in the direction of the length of the shuttle, and means for moving said second-mentioned slide, and a bunter connected with the transferrer mechanism, and connections to said bunter, to move it into the path of a dagger on the lay, to cause the operation of the transferrer mechanism.

5. In a filling detector mechanism for weft replenishing looms, a slide located on the stationary part of the loom, and having a movement in a direction at right angles to the axis of the bobbin in the shuttle, and adapted to enter an opening through the shuttle and to engage the filling on the bobbin, and means to move said slide and a second slide mounted on and moving with the first-mentioned slide, and adapted to enter an opening through the shuttle, and to engage the filling on the bobbin, and also having a movement in a direction at right angles to the direction of movement of the first-mentioned slide, and means for moving said second-mentioned slide.

[Claims 6 and 7 not printed in the Gazette.]

943,757. WRENCH. HARRY E. STEPHENS, Elgin, Ill. Filed Nov. 10, 1908. Serial No. 461,917.



1. A wrench comprising a handle provided with a longitudinal pocket in one end, arms projecting from opposite sides of said pocket, one of said arms being integral with said handle, the other arm having a hinge connection with said handle and being provided with an opening, a pivot pin carried by the integral arm and having a spring mounted on one end over which said hinged arm snaps when in a closed position, a spring seated in said pocket, a dog mounted on said spring and adapted to be guided longitudinally by said arms, and a head pivotally mounted between said arms and adapted to be engaged by said dog.

2. A wrench comprising a handle provided with a longitudinal pocket in one end, arms projecting from opposite sides of said pocket, one of said arms being integral with said handle, the other arm being hinged to said handle, a pivot pin carried by the integral arm and having a recess in one end, a shouldered spring seated in said recess and over which said hinged arm snaps when in a closed position, a spring seated in said pocket, a dog mounted on said spring and adapted to be guided longitudinally by said arms, and a head pivotally mounted between said arms and adapted to be engaged by said dog.

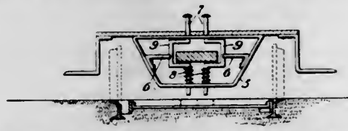
3. A wrench comprising a handle provided with a longitudinal pocket in one end, arms projecting from opposite sides of said pocket, one of said arms being integral with said handle and the other hinged thereto and provided with a latching opening, a pivot pin carried by the integral arm, and with which said hinged arm engages, a nut-engaging head carried by said pivot pin, and a spring-pressed dog for retaining said head in various positions relative to said handle.

4. A wrench comprising a handle provided with a pocket in one end, arms projecting from opposite sides of said pocket, one of said arms being hinged thereto and provided with a latching opening, a pivot pin carried by the other arm and carrying a latch which engages with the opening in the hinged arm, a nut-engaging head carried

by said pivot pin, and a spring-pressed dog seated in said pocket and guided longitudinally by said arms to engage with said head.

5. A wrench comprising a handle, arms projecting from opposite sides thereof, one of said arms being hinged thereto and provided with an opening, a pivot pin carried by the other arm and carrying a latch which engages with the opening in the hinged arm, a nut-engaging head carried by said pivot pin, and means carried by said handle for engaging with said head.

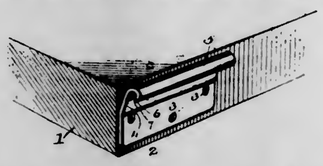
943,758. AUTOMATIC SWITCH. JAMES W. THOMPSON, Monroe, La., assignor of one-fourth to Guy P. Stubbs, Monroe, La. Filed Dec. 30, 1908. Serial No. 469,957.



1. In combination with a railway switch and a cam connected with the movable part of the switch, a frame secured to the car and having oppositely spaced openings formed therein, transversely spaced trip bars mounted for vertical movement in said openings and provided with offset portions spanning the draw bar, and springs surrounding the trip bars and bearing against the frame and offset portion of said trip bars for exerting an upward pressure thereon to normally hold the trip bars out of action.

2. In combination with a railway switch and a cam connected with the movable part thereof, a frame attached to the platform of the car and comprising upper and lower members, and arms extended inward from the end portions of said frame, trip bars mounted to move vertically in said frame and transversely spaced, each embodying a crank or offset portion in its length, said offstanding portions engaging the arms projected inward from the frame and spanning the draw bar, and springs mounted upon the lower portion of the trip bars and confined between the lower cross bars of the frame and the opposite portions of said trip bars.

943,759. BOTTLE-OPENER. HARRY L. VAUGHAN, Chicago, Ill. Filed Apr. 24, 1909. Serial No. 492,015.



1. In a bottle opener, means for removing a cap from a bottle, comprising a base, a semi-cylindrical portion formed with an edge for engaging the under surface of a cap, an inclined portion connecting the semi-cylindrical portion with the base, and a cushioning member positioned on said inclined portion.

2. In a bottle opener, means for removing a cap from a bottle comprising a base, a semi-cylindrical portion formed with an edge for engaging the under surface of a cap, and an inclined portion connecting the semi-cylindrical portion with the base.

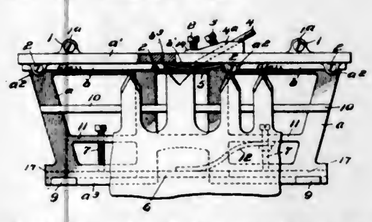
3. In a bottle opener, means for removing a cap from a bottle, comprising a base, means for securing the base to a support, a member extending at an angle to said base, and a semi-cylindrical member extending from said first mentioned member, said semi-cylindrical member being formed with a beveled edge for engaging the under surface of a cap for removing the cap when the bottle is moved pivotally.

4. In a bottle opener, means for removing a cap from a bottle comprising a base, and a turned over portion forming a semi-cylindrical edge, and a cushioning member positioned so as to extend beneath said edge.

5. In a bottle opener, means for removing a cap from a bottle, comprising a base, and a turned over semi-cylindrical portion formed with notches for receiving the neck of a bottle.

[Claim 6 not printed in the Gazette.]

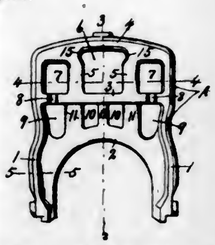
943,760. GAGE FOR CROSSCUT-SAWS. EUGENE S. WARD and JAMES A. HAMILTON, Portland, Oreg. Filed Jan. 23, 1907. Serial No. 353,684.



1. In a gage for cross cut saws of the character described the combination with the body of the gage, having a lateral extension and a smooth traversing surface separated midway, whereby to form a gap, of a bow shaped spring metal gage member that straddles the gap in the smooth traversing surface, and an adjusting device therefor.

2. In a gage for cross cut saws of the character described, the combination with the body of the gage having a lateral extension and a smooth traversing surface separated midway to form a gap; of a pin diagonally mounted in the frame to project into the gap, and means for adjustably securing said pin in position.

943,761. STEAM AND HOT-WATER BOILER. THOMAS WHEATLEY, Syracuse, N. Y. Filed July 27, 1908. Serial No. 445,549.



1. A section for upright sectional boilers, comprising upright water legs, an upwardly arched conduit connecting the upper ends of said legs, a horizontal conduit also connecting said legs some distance below the first named conduit, upright conduits spaced apart from each other and from the water legs and connecting the upper and lower conduits, the upper ends of the upright conduits adjacent the upper arched conduit being deflected laterally toward the water legs.

2. A section for upright sectional boilers, comprising upright water legs, cross conduits connecting the upper portions of said legs and spaced some distance apart, the portions of said section between the cross conduits being provided with a central fire passage and additional fire passages at opposite sides of the central passage, the upper end of the central fire passage being enlarged laterally in a plane above the upper sides of the opposite fire passages.

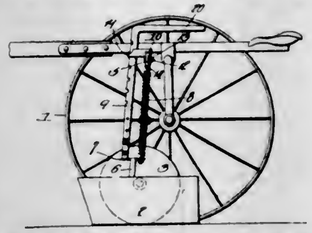
3. A section for sectional boilers, comprising upright water legs, a cross conduit connecting the upper ends of the water legs, an additional cross conduit connecting said water legs some distance below the first named conduit, upright water conduits connecting the intermediate portions of the cross conduits and spaced apart to form an intervening fire passage, the upper ends of the inner sides of the upright water conduits adjacent to the upper cross conduits being deflected laterally toward the water legs.

4. A hollow section for sectional boilers, comprising upright water legs, a conduit connecting the upper ends of said legs, an additional conduit connecting said water legs some distance below the first named conduit and having its opposite faces provided with narrow vertical fire passages, and a hollow web connecting the water legs below the second named conduit and of less depth from front to rear than the corresponding depth of the legs and conduits, said web and portion of the section between the conduits being provided with fire passages therethrough.

5. A hollow section for sectional boilers, comprising upright water legs, a water conduit connecting the upper ends of said legs, a second conduit connecting said legs some distance below the upper conduit and provided with narrow vertical channels in at least one of its opposite faces, upright conduits connecting the intermediate portions of the first named conduits and having their upper ends deflected laterally toward the water legs, said upright conduits being spaced apart from each other and from the water legs forming intervening fire passages, and a hollow web connecting the water legs below the second named conduit and provided with fire passages therethrough.

[Claim 6 not printed in the Gazette.]

943,762. PLOW ATTACHMENT. CYRUS WILLIAMS, Turney, Mo. Filed Feb. 24, 1909. Serial No. 479,732.



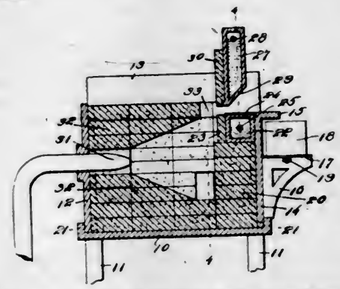
1. The combination with a fender, of a notched bar for adjusting the fender, a casting having a vertical slot through which the bar passes, the front end of the slot forming a tooth to engage the notches of the bar, and a spring pressed bolt working in the casting and engaging the rear face of the bar.

2. The combination with a cultivator having an arched bar, of a fender, a casting secured to the arch, said casting being angled, a spring connected at one end to the depending portion of the casting, means connecting the other end of the spring to the fender, a notched bar connected also to the fender, said bar working loosely through a horizontally extending portion of the casting, a tooth carried by the casting and engaging said notched bar, and locking means carried by the casting for holding said bar in engagement with the tooth.

3. The combination with a cultivator having an arch, of a fender, an angled casting detachably secured to the arch, a spring connected to said casting, a notched bar working vertically through the casting, means carried by the casting for engaging said bar, a spring pressed bolt working in the casting and engaging the bar and holding the same in engagement with the locking means, and means connecting the notched bar and the spring to the fender.

943,763. FURNACE. EDWIN ALLS, Baltimore, Md., assignor to The Monarch Engineering and Manufacturing Company, Baltimore, Md. Filed Dec. 3, 1908, Serial No. 465,829. Renewed Nov. 5, 1909. Serial No. 526,470.

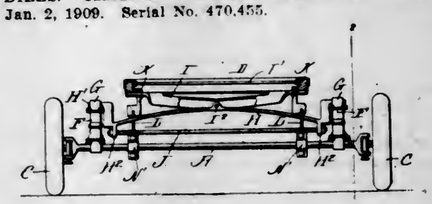
1. A furnace of the class described, comprising a rectangular frame having front and back plates and sides extended above the front and back plates, an integrally formed flange extending outwardly from the upper edge of said front plate, a shelf longitudinally mounted upon the front plate, an adjustable support at each extremity of said shelf, a hollow table secured to the inner face of said front plate, a plurality of transverse grooves formed in the upper surface of said table, a protector supported on the sides of said frame in vertical spaced relation to said table and a burner positioned through the back of said frame.



2. A furnace of the class described, comprising a rectangular frame having front and back plates and sides extended above the front and back plates, an integrally formed flange extending outwardly from the upper edge of said front plate, spaced brackets secured to said front plate, a shelf mounted upon said brackets, an adjustable support at each extremity of said shelf, a hollow table secured to the inner face of said front plate at the top thereof, a plurality of transverse grooves formed in the upper surface of said table, a hollow protector supported on the sides of said frame in vertical spaced relation to said table and a burner positioned through the back of said frame.

3. A furnace of the class described, comprising a rectangular frame having front and back plates and sides extended above the front and back plates, an integrally formed flange extending outwardly from the upper edge of said front plate, spaced brackets secured to said front plate, a shelf mounted upon said brackets, an adjustable support at each extremity of said shelf, a hollow table secured to the inner face of said front plate, a plurality of transverse grooves formed in the upper surface of said table, a hollow protector supported on the sides of said frame in vertical spaced relation to said table and a burner positioned through the back of said frame, a fire brick lining for said table and protector, fire bricks disposed within said frame, means for producing a circulation of water through said table and said protector, and a burner positioned through the back of said frame.

943,764. SPRING RUNNING-GEAR FOR AUTOMOBILES. CLARENCE P. BOOMER, Muncie, Ind. Filed Jan. 2, 1909. Serial No. 470,455.



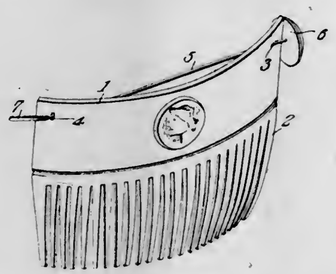
1. The combination with a pair of axles provided with double bowed springs, of a bolster mounted on the springs of one of the axles, an arched bar pivotally mounted on the springs of the other axle, an arched bar pivotally connected to said arched bar, and a frame mounted on the last mentioned arched bar and the bolster.

2. The combination with a front and rear axle, of double bowed springs secured on said axles, a bolster mounted

on the springs of the rear axle, bearing plates secured on the springs of the front axle, an arched bar provided with angled ends mounted in said bearing plates, an arched bar carried by said bar, a frame mounted on the last mentioned arched bar and bolster and truss rods connecting said axles to said frame.

3. The combination with a pair of axles, provided with double-bowed springs, of bearing plates secured on the springs of one of said axles, a bolster secured on the springs of the other axle, an arched bar having angled ends mounted in the bearing plates of the springs of one of the axles, a rod connecting the ends of said arched bar, a reversed arched bar pivotally mounted on the first mentioned bar, a frame mounted on the bolster and last mentioned bar, brackets carried by said frame, and truss rods connecting said brackets with the respective axles, for the purpose described.

943,765. COMB. MARY E. BORDAS, Dunkirk, N. Y. Filed Jan. 25, 1909. Serial No. 474,140.



1. A comb provided adjacent to each end with an elongated orifice, one of which extends in the direction of the length of the back and the other approximately at right angles thereto, and a pin having its point flattened and deflected at an angle to its length and adapted to lock the pin in the orifices.

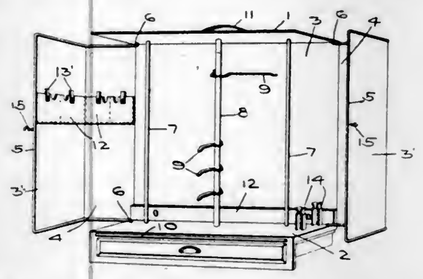
2. A comb provided adjacent to each end with an elongated orifice, one of which extends in the direction of the length of the back and the other approximately at right angles thereto, the side walls of the latter orifice being disposed practically at right angles to the longitudinal axis of the back to provide diagonally arranged clamping shoulders, and a pin having its point flattened and deflected at an angle to its length and adapted to lock the pin in the orifices.

3. The combination with a comb, of a retaining pin inserted through the back of the comb and having its point deflected at an angle to its length, the deflected portion lying beyond the back of the comb and in a plane approximately parallel therewith.

943,766. MAIL-DELIVERY CASE. ROY BROWN, Beaver, Okla. Filed July 7, 1909. Serial No. 506,321.

1. A mail delivery case comprising a top and bottom member and side and end members, one of said side members and the end members being integrally formed and pivoted to said top and bottom members, supporting rods secured to said top and bottom members, clamps arranged on a central rod secured in said top and bottom members, a sliding panel mounted in said bottom member, and a drawer slidably secured in the bottom thereof.

2. A mail delivery case comprising a rectangular casing, one side and the ends of said casing being integrally formed and pivoted to the top and bottom thereof, supporting rods secured to the top and bottom of said casing, pockets secured to each of said end and side members, resilient clamping plates slidably disposed between the top and bottom of said casing, vertically disposed resilient clamping members secured in the bottom of said casing, a sliding panel mounted in said bottom member, and a drawer slidably supported upon the bottom of said casing.



3. A mail delivery case comprising a rectangular casing, one side of said casing comprising two sections integrally formed with the ends thereof, reinforcing strips secured to the edges of said ends and side and having their extremities angularly disposed and mounted in the top and bottom of said casing, pockets secured to each of said side and end members, means for closing said pockets, vertical supporting rods secured to the top and bottom of said casing, a centrally positioned rod secured in the top and bottom of said casing, resilient clamping plates slidably disposed upon said rod having their ends upwardly curved and contacting therewith, a sliding panel mounted in the bottom of said casing, and a drawer arranged upon the under side of said casing beneath said panel.

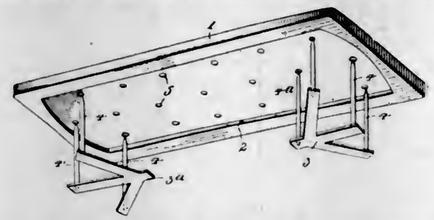
4. A mail delivery case comprising a rectangular casing, a handle secured to the top of said casing, one side of said casing comprising two sections integrally formed with the ends thereof, said sections being pivotally mounted in the top and bottom of said casing, means for securing the opposed edges of said pivoted sections in closed position, supporting rods secured to the top and bottom adjacent to either end of said casing, spring clamping members secured to the bottom of said casing and having their upper extremities upwardly curved toward each other, a central vertically disposed rod within said casing, resilient clamping members adjustably mounted upon said rod, one end of said members being upwardly curved and contacting therewith, the outer extremities of said members being downwardly disposed and adapted to bear upon the matter placed beneath the same, and a drawer provided with a plurality of partitions slidably arranged on the bottom of said casing.

5. A mail delivery case comprising a rectangular casing, the ends and one side of said casing being integrally formed and pivotally mounted between the top and bottom members thereof, the other side of said casing being rigidly secured to said top and bottom members, a reinforcing strip secured to the inner surface of said side, openings formed through the same adjacent to either end thereof, resilient clamps slidably arranged within said casing and disposed in spaced relation to each other, vertical clamping members secured to the bottom of said casing, a panel slidably mounted in the bottom thereof, and a drawer arranged upon the under side of said casing, and provided with a plurality of compartments.

[Claim 6 not printed in the Gazette.]

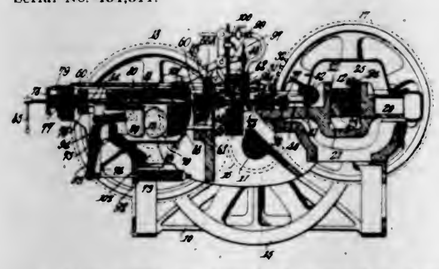
943,767. CARVING-BOARD. WILL E. BULLARD, Belmond, Iowa. Filed Aug. 3, 1908. Serial No. 446,660.

A carving device of the character described, comprising a base formed with a recess in its lower face and with a plurality of openings extending therethrough in communication with the recess, separate holders accommodated in the recess and resting on the same supporting surface as the base, and sets of prongs carried by the holders and passing through the respective openings and projecting upwardly beyond the opposite face of the base, the prongs being retained frictionally in the openings, and the base being formed with a number of openings over and



above the number of prongs, to admit of the sets of prongs being quickly shifted to vary the distance therebetween.

943,768. NUT-MAKING MACHINE. WILLIAM L. CLOUSE, Tiffin, Ohio, assignor to The National Machinery Company, Tiffin, Ohio. Filed Sept. 23, 1908. Serial No. 454,311.



1. In a hot pressed nut machine, a reciprocatory slide, a pair of clamping blocks thereon, a hollow male die between the clamping blocks, a pair of clamping bars engaging the said clamping blocks, a wedge block arranged at one end of the clamping block, and means for adjusting the wedge block.

2. In a hot pressed nut machine, a crowner, a crowner carrying slide, and a filling key between the crowner and slide and removable to permit rearward movement of the crowner from the female die.

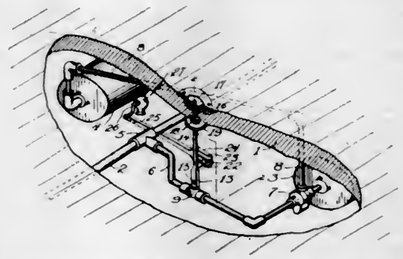
3. In a hot pressed nut machine, a frame, a stationary female die, a male die coacting therewith, a crowner slide, a block carried thereby, a clamping bar for the block, a removable filling bar, a key between the block and bar, a crowner chuck adapted to a threaded opening in the block, and a crowner having a threaded connection with said chuck.

4. In a hot pressed nut machine, a sectional die, a recessed carrier therefor having opposite inclined walls, wedges arranged between the inclined walls and the die sections, and of a width not less than the width of the die sections to form a backing for the entire surfaces thereof, and means for adjusting said wedges.

5. In a hot pressed nut machine, a die comprising upper and lower sections, a recessed support for the die, the upper and lower walls of the recess being inclined, wedges arranged between the inclined walls and the adjacent surfaces of the die sections, such wedges being of a width not less than the width of the die sections and forming backing for the entire horizontal surfaces thereof, adjusting screws engaging said wedges, and adjustable side bearing screws extending through the support and engaging the vertical walls of said die sections.

943,769. CUT-OUT OR RELEASE FOR AIR-BRAKE APPARATUS. SIMON P. COTA, Dickinson, N. D. Filed Aug. 7, 1909. Serial No. 511,756.

1. In an air brake system, the combination with a car provided with a main service pipe, auxiliary reservoir and brake cylinder, of a branch pipe communication between the main pipe and auxiliary reservoir, a valve carried by said branch pipe, a valve carried by said auxiliary reservoir, and a shaft projecting into the car and adapted to simultaneously close the branch line pipe and open the auxiliary reservoir valve.



2. In an air brake system, the combination with a car, the service pipe, brake cylinder and auxiliary reservoir, and branch pipe connection between said service pipe and auxiliary reservoir, of means operated within the car for simultaneously closing the branch pipe and releasing the pressure of the auxiliary reservoir.

3. In an air brake system, the combination with a car having a main service pipe, brake cylinder, auxiliary reservoir, and pipe connection between said service pipe and cylinder and reservoir, of a valve for the branch pipe, a relief valve for the auxiliary reservoir, and a shaft projecting into the car for simultaneously opening the relief valve and closing the branch line valve.

4. In an air brake system, the combination with a car, having a main service pipe, brake cylinder and auxiliary reservoir, and branch pipe connection between the service pipe and cylinder and reservoir, a cut-out valve for said branch pipe, a relief valve for said auxiliary reservoir, and means operated from within the car for simultaneously closing the cut-out valve and opening the relief valve.

5. In an air brake system, the combination with a car and its service pipe, brake cylinder and auxiliary reservoir, and branch pipe, of a valve for the branch pipe, a relief valve for the auxiliary reservoir, a shaft having one end projecting into the car and its other end connected to the branch pipe valve, an arm carried by said shaft, an arm carried by the relief valve, and a connecting rod for said arms whereby said valves may be simultaneously operated by said shaft.

[Claims 6 to 8 not printed in the Gazette.]

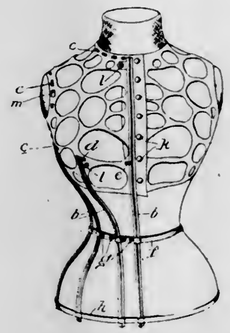
943,770. APPARATUS FOR DRAFTING GARMENT-PATTERNS. EDWARD J. CURRAN, Sydney, New South Wales, Australia, assignor of one-half to David H. Ackerman, New York, N. Y. Filed Jan. 26, 1907, Serial No. 354,293. Renewed Oct. 9, 1909. Serial No. 521,952.

1. An apparatus for the purpose described comprising an elastic jacket having comparatively large openings distributed over its surface for augmenting its elasticity, and relatively hard though pliable delineating ribs disposed wholly upon and attached to the external surface of the jacket and arranged in lines corresponding to the intended seam lines of the garment, said ribs providing continuous smooth lines on which pattern-material can be marked by passing a marking substance over said material on said lines.

2. An apparatus for the purpose described comprising an elastic jacket, rubber strips applied to the external face of the latter and having projecting vulcanized rib portions forming relatively hard though pliable delineating lines arranged in lines corresponding to the intended seam lines of the garment.

3. An apparatus of the type described comprising a jacket composed of open work elastic webbing, pliable rubber strips attached to and wholly upon the external

face of the jacket and having projecting vulcanized portions forming comparatively hard though pliable delineating lines corresponding to the intended seam lines of a garment.

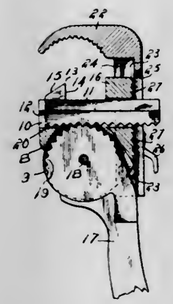


4. An elastic jacket formed to fit the bust portion of a female figure and having flexible or pliable delineating strips corresponding to the seam lines of a garment, said strips of a length to project below and depend loosely from said jacket, and a vertically sliding waist-band connected and arranged for movement on the depending portions of said strips.

5. An apparatus of the type described comprising an elastic jacket formed to fit the bust portion of the human figure, relatively hard though pliable delineating strips attached to said jacket along lines corresponding to the intended seam lines of the garment, said strips being of a length to project below and depend loosely from said jacket, and waist and hip bands slidably connected with the depending portions of the strips for movement upward or downward thereon.

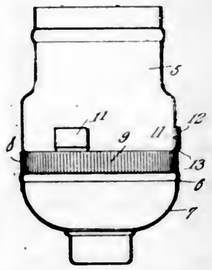
[Claims 6 and 7 not printed in the Gazette.]

943,771. WRENCH. ARTHUR D. DAVIS and WILLIAM A. THOMPSON, Cleveland, N. C. Filed Jan. 21, 1909. Serial No. 473,493.



A wrench of the class described comprising a head having spaced parallel cheeks and containing a transverse groove, a movable jaw member mounted in said groove and having rack teeth, a handle pivotally connected between the cheeks and having ratchet teeth in mesh with the rack teeth of the movable jaw, a stationary jaw formed on said head, a toothed rack formed at one edge of the head, a slidable jaw detachably connected to the head, and locking dogs pivotally connected to said slidable jaw and adapted to engage the rack teeth on the head for holding the slidable jaw in adjusted position.

943,772. INCANDESCENT-LAMP SOCKET. LEO DORNER and GEORGE H. NORQUIST, Denver, Colo.; said Norquist assignor, by mesne assignments, to Robert S. Willoughby, Denver, Colo. Filed Dec. 11, 1908. Serial No. 467,012.

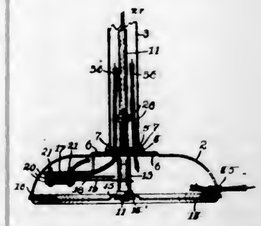


1. An incandescent lamp socket comprising a shell having outstanding locking tongues, and a lug, a cap removably connected to the shell, a ring rotatably mounted on the cap, hooks on the cap engageable with the aforesaid tongues, and a spring tongue on one of the hooks having an opening to snap over the aforesaid lug.

2. An incandescent lamp socket comprising a shell having locking members formed by making angular slits therein, and bending the tongues thus formed outwardly from the body of the shell, whereby a stop is formed by the body of the shell at the inner end of the tongues, a cap connected to the shell, and a ring rotatably mounted on the cap, and having hooks engageable with the aforesaid locking members.

3. An incandescent lamp socket comprising a shell having outstanding locking tongues, and corrugated at one of its ends, a cap fitting at one end the corrugated portion of the shell, and having crimps engageable with the corrugations, a ring carried by the cap on the outside thereof, and rotatable thereon, and hooks on the ring engageable with the aforesaid tongues.

943,773. TELEPHONE DESK SET. CLAUDE D. ENOCHS, La Crosse, Wis., assignor to The Vote-Berger Co., a Corporation of Wisconsin. Filed Apr. 10, 1908. Serial No. 426,205.



1. A device of the class set forth, comprising, in combination, a stand having a hollow standard and base, a head separable from said standard and having a stud extending down into said base, a holder in said base through which said stud projects, a push piece mounted alongside of said stud and projecting down through said holder and means on said stud impinging against said holder for clamping said head in said standard.

2. A device of the class set forth, comprising, in combination, a hollow standard, a hollow base unitable with said standard, a head having a plug in the upper end of said standard, a holder in said base, a tie-rod between said holder and head and clamping said parts together, switch springs mounted upon said holder and connected in the circuit of the instrument, a receiver hook pivoted in said head and a push rod adjacent to said bolt and extending between said switch springs and receiver hook to operatively associate them together.

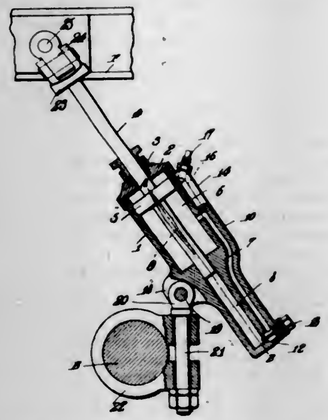
3. A device of the class set forth, comprising, in combination, a hollow standard, a hollow base unitable with said standard, a head on the upper end of said standard, a bolt connected with said head and clamping said parts together, a switch hook pivoted in said head, switch springs carried in said base, and a push piece slidably supported below said switch hook and operatively associated with said switch springs.

4. A telephone set, comprising, in combination, a hollow standard, a hollow base, a transmitter and a unit associated with said parts and upon which said transmitter is carried, comprising a head, a transmitter support pivoted upon said head, a tie-rod in said standard and extending between said head and base, a switch hook pivoted upon said head, a push piece impinging upwardly against said switch hook and extending downwardly into said base, a support at the lower end of said standard and in said base, switch springs carried by said support and adapted to be operated when said push piece is raised or lowered, means for raising said push piece into superior position and means for clamping said unit, standard, support and base together for the purposes specified.

5. A device of the class set forth, comprising, in combination, a hollow stand, a head on said stand, a receiver hook pivoted in said head, a support in said stand, a tie-rod between said head and support, switch springs upon said support, a push rod sliding below said receiver hook and operatively associated with said switch springs and means for raising said rod to lift said hook into superior position and open said springs.

[Claims 6 to 15 not printed in the Gazette.]

943,774. SHOCK-ABSORBER FOR AUTOMOBILES AND THE LIKE. ROBERT B. EWART, New York, N. Y., assignor of one-half to Benjamin A. Seitz, Kansas City, Mo. Filed Mar. 10, 1909. Serial No. 482,439.



1. A shock absorber comprising a fluid containing casing having main and auxiliary compartments, connected reciprocatory elements in the respective compartments, means for permitting displacement of the fluid from one compartment to the other, means for permitting displacement of the fluid from one end to the other of the main compartment, and separate fluid-controlling devices carried by said means.

2. A shock-absorber comprising a casing having main and auxiliary compartments therein, said main compartment constituting a liquid-container, elements mounted for reciprocation within the compartments, a by-pass for establishing communication between the two compartments, means for preventing back-flow from the by-pass to the auxiliary compartment, said main compartment having means for permitting variable displacement of fluid within said compartment during the movement of the elements in either direction.

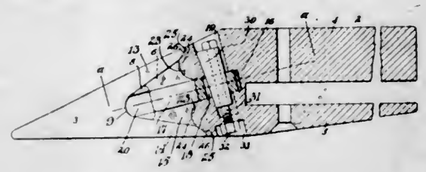
3. A shock-absorber comprising a casing having main and auxiliary compartments therein, elements mounted for reciprocation within the respective compartments, means for permitting flow of fluid from the auxiliary compartment to the main compartment, but for preventing back-flow of said fluid, said main compartment constituting a fluid-container, valved means for permitting displacement of fluid within the main compartment and past the reciprocating element therein.

4. A shock-absorber comprising a casing having main and auxiliary compartments therein, elements mounted for reciprocation within the respective compartments, means for permitting flow of fluid from the auxiliary compartment to the main compartment, but for preventing back-flow of said fluid, said main compartment constituting a fluid-container, valved means for permitting displacement of fluid within the main compartment and past the reciprocating element therein, said main compartment having means for permitting variable displacement of liquid during the movement of said element in either direction.

5. The combination with structures movable with relation to each other, of a shock-absorber comprising a casing having a main compartment and an auxiliary guide compartment, a universal joint constituting a connection between said casing and one of the structures, a piston rod mounted to reciprocate within the two compartments and constituting a piston within the auxiliary compartment, a piston carried by said rod and mounted to reciprocate within the main compartment, a universal joint constituting the connection between the piston rod and the other structure, said main compartment of the casing constituting a fluid-container and having means for permitting variable displacement of the fluid irrespective of the pressure to which the piston is subjected, and a valved by-pass for maintaining communication between the two compartments, said by-pass constituting means for permitting the flow of fluid in one direction but preventing back-flow thereof.

[Claim 6 not printed in the Gazette.]

943,775. TOOTH FOR EXCAVATING BUCKETS OR SHOVELS. ALFRED H. EXTON, High Bridge, N. J., and JOHN M. SHERRERD, Easton, Pa. Filed Dec. 16, 1908. Serial No. 467,825.



1. A wedge-shaped, detachable and reversible point having intermediate its top and bottom walls a rearwardly extending shank for the reception of a fastening device in the rear of the rear ends of such walls.

2. A wedge-shaped point having centrally of its top and bottom walls a rearwardly extending horizontally located shank for the reception of a fastening device.

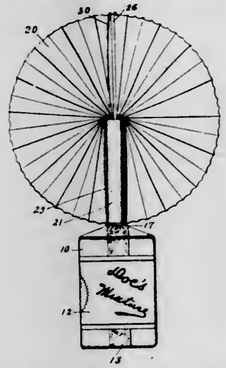
3. A detachable and reversible point having a rearwardly extending shank for the reception of a fastening device beyond the rear end of the point body.

4. A point having a pair of web-connected jaws and a shank extending rearwardly of such web for the reception of a fastening device in the rear of such web.

5. A point having a pair of web-connected jaws and a shank extending rearwardly of the web and of greater width than such web.

[Claims 6 to 38 not printed in the Gazette.]

943,776. ADVERTISING NOVELTY. LEOPOLD FEIST, Far Rockaway, N. Y., assignor to The American Tobacco Company, New York, N. Y., a Corporation of New Jersey. Filed June 2, 1909. Serial No. 499,670.

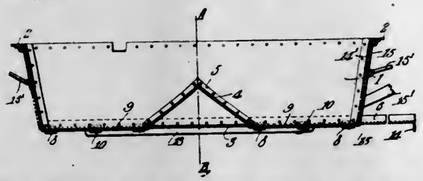


1. An advertising novelty comprising a flexible bag or container constituting a fan handle, means within the same for maintaining the bag or container distended to simulate a filled original package of merchandise, and a foldable fan having a telescopic connection with said bag or container.

2. An advertising novelty comprising a handle consisting of a flexible bag or container, means within the same for maintaining the bag or container distended to simulate a filled original package, a tube arranged centrally within and secured to said distending means, and a fan having a telescopic connection with said tube.

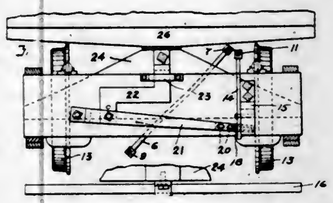
3. An advertising novelty comprising a handle consisting of a flexible bag or container bearing indicia indicative of the supposed contents thereof, means within the same for maintaining the bag or container distended to simulate a filled original package, a tube arranged centrally within and secured to said distending means, a fan having a telescopic connection with said tube, and a drawstring attached to the upper end of the fan, said string having free portions that extend from the neck of the container when the fan is collapsed and concealed therein to simulate closure means for the container.

943,777. ASH-PAN FOR LOCOMOTIVES. JOHN H. GEE, Palestine, Tex. Filed July 16, 1909. Serial No. 508,045.



An ash pan including a body open at the bottom, L-shaped guide rails secured upon the sides of the body and extending beyond one end thereof the lower portions of said rails being disposed above the bottom of the body and each rail having a depending stop projection upon the projecting end thereof, spaced slides bearing upwardly against the bottom of the body and against the guide rails, supporting members extending transversely under the slides and having hooked terminals projecting upwardly therefrom and engaging the guide rails, the projections upon said rails extending into the path of the slides to limit the movement thereof in one direction, ears extending laterally beyond the slides, connecting devices detachably engaging the ears, and a pitman for actuating the slides.

943,778. AIR-BRAKE-ADJUSTING DEVICE FOR LOADED AND EMPTY CARS. ALVA L. GOODKNIGHT, Mena, Ark. Filed Feb. 19, 1909. Serial No. 478,993.



1. In an automatic-air-brake mechanism for railway cars, the combination with a rod-and-lever system connecting the brake-cylinder and brake-shoes, of means connected with said rod-and-lever system and automatically operated by compression and expansion of the truck-springs for varying the relation of the brake-shoes and the wheels of the car, the said varying means operating to retain the brake-shoes close to the wheels when the truck-springs are compressed beyond a predetermined amount and to leave the brake-shoes more distant from the wheels when the truck-springs are not compressed beyond said predetermined amount.

2. In an automatic-air-brake mechanism for railway cars, the combination with the means for connecting the brake-cylinder and brake-shoes, of a lever connected with said connecting means, said lever being arranged so that movement thereof will vary the relation of the brake-shoes and the wheels of the car, and means for automatically actuating said lever by the compression and expansion of the car-truck springs, the said actuating means operating the lever to retain the brake-shoes close to the wheels when the car-truck springs are compressed beyond a predetermined amount and to leave the brake-shoes more distant from the wheels when said springs are not compressed beyond said predetermined amount.

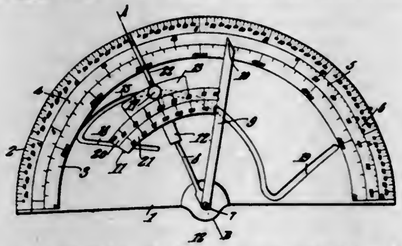
3. In an automatic-air-brake mechanism for railway cars, the combination with the means connecting the brake-cylinder and brake-shoes, of a lever arranged with said connecting means so that movement of said lever will vary the relation of the brake-shoes and the wheels of the car, and means for actuating said lever, said actuating means being controlled by relative movement of the truck-bolster and transom and operating to retain the brake-shoes close to the wheels when the truck-bolster is depressed beyond a predetermined amount and to leave the brake-shoes more distant from the wheels when the truck-bolster is not depressed beyond said predetermined amount.

4. In an automatic-air-brake mechanism for railway cars, the combination with the mechanism connecting the brake-cylinder and brake-shoes, of a lever arranged with said connecting mechanism so that by movement of said lever the brake-piston-travel necessary to apply the brakes will be varied, and means automatically controlled by the loading of the car for actuating said lever, said means operating to require a short brake-piston-travel when the car is loaded beyond a predetermined amount and to permit a longer brake-piston-travel when the car is not loaded beyond said predetermined amount.

5. In an automatic-air-brake mechanism for railway cars, the combination with the mechanism for connecting the brake-cylinder and brake-shoes, of a lever arranged with said connecting mechanism so that by movement of the said lever the slack between the brake-shoes and car wheels may be varied, and means controlled by the loading of the car for actuating said lever, the said actuating means operating to cause a minimum amount of slack when the car is loaded beyond a certain minimum and to permit an increased slack when the car is not loaded beyond said minimum.

[Claims 6 to 12 not printed in the Gazette.]

943,779. CALCULATOR. GEORGE W. GOSS, Orla, Tex., assignor of one-half to Charles M. Acrey, Carlsbad, N. Mex. Filed June 16, 1909. Serial No. 502,571.



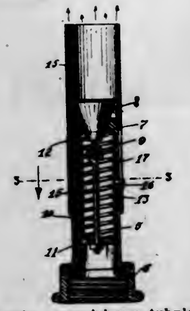
1. In a calculator, a tablet with indices thereon and provided with a guide on its face, an arm pivoted to the tablet, an index member on and movable along the arm and constrained by the guide in its relation to the arm, and a pointer arm also pivoted to the tablet and adapted to coact with the indices on the arm-carried index member and the indices on the tablet.

2. In a calculator, a tablet with indices thereon and provided with a guide on its face, an arm pivoted to the tablet, an index strip on and movable along the arm and provided with a projecting member engaging the guide, and constrained thereby to determine the relation of the strip to the arm, and a pointer arm also pivoted to the tablet at the same point as the first-named arm and adapted to co-act with the indices of the arm-carried index strip and the indices of the tablet.

3. In a calculator, a tablet having a series of indices thereon and also provided with a guide having a curved projection progressing away from the indices and continuations at the ends in different relations to said indices, an arm pivoted to the tablet and adapted to coact with the indices thereon, an index strip on and movable along the arm and provided with means engaging the guide, and another arm pivoted to the tablet and movable into operative relation to both the index strip and the indices of the tablet.

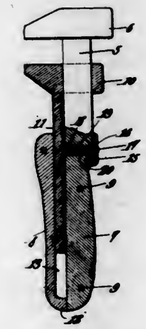
4. In a calculator, a tablet having a series of indices thereon, and also provided with a guide having a curved projection progressing away from the indices and continuations at the ends in different relations to the said indices, an arm pivoted to the tablet and adapted to coact with the indices thereon and also provided with index designations, an index strip on and movable along the arm and provided with means engaging the guide, and another arm pivoted to the tablet and movable into operative relation to both the index strip and the indices of the tablet.

943,780. SPRINKLER-NOZZLE. WILLIAM G. HUGHES, Norwalk, Cal., assignor to Samuel K. Elliott and Henry George Millier, Los Angeles, Cal. Filed Apr. 6, 1909. Serial No. 488,232.



A sprinkler nozzle, comprising a tubular body having a valve seat formed on its outer end, a valve stopper held in spring pressed engagement with said seat, said stopper adapted to discharge the water passing through said nozzle in the form of a spray, and a sleeve slidably mounted on said nozzle, the end of said sleeve adapted to be projected beyond the nozzle valve stopper, whereby to change the configuration of the stream of water issuing from said nozzle.

943,781. WRENCH. WILLIAM N. JAY, Moscow, Idaho, assignor of one-half to G. P. Mix, Moscow, Idaho. Filed Jan. 22, 1909. Serial No. 473,695.



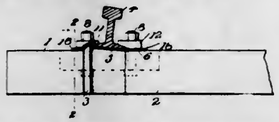
1. A wrench including a shank having a stationary jaw and provided with a longitudinal extension, a substantially U shaped handle embracing the extension of the shank and having its inner wall spaced from the extension to form an intermediate compartment, the upper end of the handle being provided with an angular portion having a segmental recess formed therein, a movable jaw slidably mounted on the shank and provided with a depending rack, the teeth of which are arranged next to the shank, a face plate secured to the handle and having an inwardly extending lug provided with a segmental recess arranged to register with the recess in the extension of the handle, and a spring pressed locking pawl having one end thereof provided with a toothed head arranged to engage the teeth on the rack and its opposite end provided with a cylindrical portion operating in the segmental recesses.

2. A wrench including a shank having a stationary jaw secured to one end thereof and provided at its opposite end with a longitudinally disposed shank, a substantially U-shaped handle embracing the extension of the shank and having its inner wall spaced from the adjacent longitudinal edge of the extension to form an intermediate compartment, one end of the handle being formed with an annular portion having a segmental recess formed therein, a detachable face plate secured to the handle and having an inwardly extending lug, the inner face of which is formed with a segmental recess arranged to register with the segmental recess in the angular portion of the handle, there being an elongated slot formed in the face plate, a movable jaw slidably mounted on the shank and provided with a depending rack, the teeth of which are disposed adjacent the inner face of the shank, a locking pawl having a cylindrical extension operating in the segmental recesses, a finger piece extending laterally from one side of the pawl and projecting through the slot in the face plate, and a coiled spring surrounding the cylindrical extension of the pawl for normally and yieldably holding the latter in engagement with the teeth on the rack.

943,782. METALLIC TIE. EDWARD F. KENNEY, Moores, Pa. Filed June 3, 1907. Serial No. 376,977.

1. A railway tie formed by bending up a metal plate in box form and having circumferential ribs adjacent to the ends thereof.

2. A railway tie formed of a metal plate having reinforced portions at the end thereof, said plate being bent into U shaped form, said reinforced portions extending entirely around the exterior of said end.



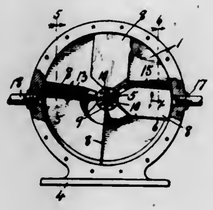
3. A railway tie formed by bending a rolled metal plate into a box form, having reinforcing circumferential ribs adjacent the ends thereof, said ribs on the upper side of said box form being adapted to form a rail base.

4. A railway tie formed of a rolled metal plate, bent into U shaped form and having reinforced portions at the ends thereof, said reinforced portions extending entirely around the exterior of said ends.

5. A railway tie formed of a metal plate, rolled with reinforced ribs, said plate being bent to form an open box with the said reinforced ribs on the exterior thereof at the ends of said box, said reinforced ribs extending entirely around the exterior portions of said ends.

[Claims 6 to 10 not printed in the Gazette.]

943,783. ROTARY MOTOR. RHODA MCGRAW, Syracuse, N. Y. Filed May 9, 1908. Serial No. 431,787.



1. A rotary motor comprising a casing having a motive fluid inlet and an outlet, a hollowed driven shaft journaled in the walls of said casing and projecting therefrom, a pair of rotatable spindles journaled in said shaft, said spindles disposed at right angles with respect to each other and each of said spindles having an off-set portion arranged within said shaft to provide clearances during the rotation of the spindles, a blade fixed to each end of the spindle, the blade upon one end of the spindle extending at right angles with respect to the blade upon the other end of the same spindle, and means within the casing and adapted to engage the blades for rotating the spindles whereby the position of a blade upon one end of a spindle will be changed with respect to the blade upon the other end of the same spindle.

2. A rotary motor comprising a casing having a motive fluid inlet and an outlet, a hollowed driven shaft journaled in the walls of said casing and projecting therefrom, a pair of rotatable spindles journaled in said shaft, said spindles disposed at right angles with respect to each other and each of said spindles having an off-set portion arranged within said shaft to provide clearances during the rotation of the spindles, a blade fixed to each end of the spindle, the blade upon one end of the spindle extending at right angles with respect to the blade upon the other end of the same spindle, means within the casing and adapted to engage the blades for rotating the spindles whereby the position of a blade upon one end of a spindle will be changed with respect to the blade upon the other end of the same spindle, and means carried and operated by the driven shaft for controlling the supply of motive fluid through said inlet, said inlet being independent of said driven shaft.

3. A rotary motor comprising a casing provided in its lower portion with a chamber and in its upper portion with a chamber, said chambers communicating with each other, a hollowed shaft extending through said casing, spindles journaled transversely of said shaft, said spindles extending at right angles with respect to each other and rotatable, each of said spindles approximately centrally thereof off-set to provide a clearance to permit the spindles to rotate relatively to each other and maintain the axes in the same plane at right angles to said shaft, a blade connected to each end of a spindle, the blade upon one end of the spindle disposed at right angles upon the other end of the same spindle, said blades adapted to extend through said chambers, said upper chamber of a width slightly greater than the thickness of a blade, and said lower chamber of a width slightly greater than the width of a blade, said casing provided with a motive fluid inlet and a motive fluid outlet, a deflector arranged in said casing and above said outlet and adapted to be engaged by a blade thereby rotating the spindle carrying such blade and changing the positions of the blades upon said spindle, and a deflector arranged within said casing above said inlet and adapted to be engaged by a blade upon the spindle thereby rotating the spindle and changing the position of the blades carried by the spindle, and said casing provided with means constituting clearances to allow of the shifting of the blades when engaged by the deflectors.

4. A rotary motor comprising a casing provided in its lower portion with a chamber and in its upper portion with a chamber, said chambers communicating with each other, a hollowed shaft extending through said casing, spindles journaled transversely of said shaft, said spindles extending at right angles with respect to each other and rotatable, each of said spindles approximately centrally thereof off-set to provide a clearance to permit the spindles to rotate relatively to each other and maintain the axes in the same plane at right angles to said shaft, a blade connected to each end of a spindle, the blade upon one end of the spindle disposed at right angles upon the other end of the same spindle, said blades adapted to extend through said chambers, said upper chamber of a width slightly greater than the thickness of a blade, and said lower chamber of a width slightly greater than the width of a blade, said casing provided with a motive fluid inlet and a motive fluid outlet, a deflector arranged in said casing and above said outlet and adapted to be engaged by a blade thereby rotating the spindle carrying such blade and changing the positions of the blades upon said spindle, and a deflector arranged within said casing above said inlet and adapted to be engaged by a blade upon the spindle thereby rotating the spindle and changing the position of the blades carried by the spindle, and said casing provided with means constituting clearances to allow of the shifting of the blades when engaged by the deflectors, and means operated by said shaft for regulating the supply of motive fluid through said inlet.

5. A rotary motor comprising a casing provided in its lower portion with a chamber and in its upper portion with a chamber, said chambers communicating with each other, a hollowed shaft extending through said casing, spindles journaled transversely of said shaft, said spindles extending at right angles with respect to each other and rotatable, each of said spindles approximately centrally thereof off-set to provide a clearance to permit the spindles to rotate relatively to each other and maintain the axes in the same plane at right angles to said shaft, a blade connected to each end of a spindle, the blade upon one end of the spindle disposed at right angles upon the other end of the same spindle, said blades adapted to extend through said chambers, said upper chamber of a width slightly greater than the thickness of a blade, and said lower chamber of a width slightly greater than the width of a blade, said casing provided with a motive fluid inlet and a motive fluid outlet, and means within said casing and adapted to engage the blades to rotate the spindles to change the positions of the blades of each pair with respect to each other.

943,784. SLIDING-DOOR HANGER. DEXTER L. PHIPPS, Chicago, Ill. Filed Dec. 26, 1908. Serial No. 469,361.

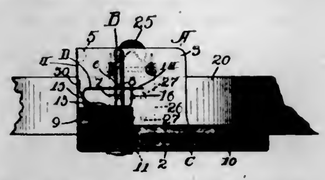


1. Supporting means for a sliding door comprising an overhead track and hangers adapted to be secured to the upper part of a door, each having a pair of upwardly extending arms with inwardly extending portions at their upper ends, a bearing bolt in the arms below the inwardly extending portions, a cylindrical bearing on the bolt and a roller engaging the track rotatably mounted on the bearing.

2. Supporting means for a sliding door comprising an overhead track, hangers adapted to be secured to a door, each having a pair of arms with inwardly extending flanges on their upper ends, a bolt passing through the arms below the flanges, a cylindrical bearing secured between the arms on the bolt, and a roller journaled on the bearing engaging the track, the arm flanges being adapted to retain the bearing and roller when the latter are released by the bolt.

3. Supporting means for a sliding door comprising an overhead track, hangers adapted to be secured to a door, each having a pair of upwardly extending arms with inwardly extending flanges on the upper ends, a bolt passing through the arms below the ends, a tubular bearing on the bolt consisting of a pair of abutting cylinders each having an end thrust flange on the outer end, the bearing forming a space between the arms and the inner flanges on the arms above the bearing being adapted to retain the bearing when released by the bolt, and a roller journaled on the bearing engaging the track.

943,785. HOLDER FOR SALES-CHECKS. CHARLES T. RASCHICK, St. Paul, Minn., assignor to National Checking Company, a Corporation of Minnesota. Filed Sept. 21, 1908. Serial No. 454,070.

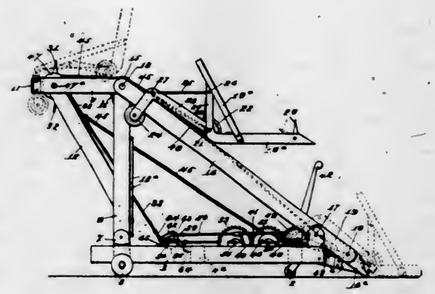


1. A device of the class set forth, comprising, in combination, a case having a side end and floor, a spindle mounted upon said floor having a set of rack teeth thereon, a retainer adapted to engage the teeth and hold checks upon said spindle and means carried by said case for attaching the device to a support, said retainer having a spring pressing against the end of the case to hold the retainer in engagement with the teeth and permitting the retainer to be disengaged from said teeth and removed from said spindle.

2. A device of the class set forth, comprising, in combination, a case for holding a stack of checks, a spindle mounted in said case over which the checks are passed and a retainer through which said spindle is inserted and adapted to hold said checks down under spring pressure, said spindle having a set of rack teeth and said retainer having a presser element bearing down upon the checks, a spring engaging the teeth and exerting downward force upon said presser element and an auxiliary spring holding the first mentioned spring in engagement with said teeth and permitting it to be disengaged to allow the retainer to be raised.

3. A device of the class set forth, comprising, in combination, a case adapted to hold a stack of checks, a spindle mounted in said case over which the checks are passed and a retainer through which said spindle is inserted and adapted to hold said checks down under spring pressure, said spindle having a set of rack teeth and said retainer having a presser plate, a spring extending above said presser plate to engage below said teeth, a stop to limit the downward movement of said spring and an auxiliary spring pressing against said case to hold the first mentioned spring in engagement with said teeth.

943,786. AUTOMATIC HAY-STACKER. HARRY N. RENNER, Star, Nebr. Filed June 25, 1909. Serial No. 504,299.



1. In an automatic hay stacking machine, the combination with a truck, a knock down track frame carried by the truck, and a traveling hay fork, of a trip at one end of the travel of the fork, a trip at the other end thereof, means for propelling the fork, and mechanism connecting said trips for automatic operation by the fork.

2. In a hay stacker having an inclined track for a traveling hay fork, means for propelling the fork, a trip at each end of the track and operated by the fork, a slidable pinion coöperating with the propelling means, and mechanism connecting the trips within the pinion to slide it.

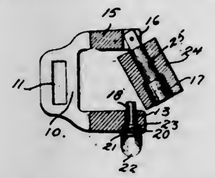
3. In a hay stacker having a frame forming a track, a traveling hay fork operated over the track, means for propelling the fork, a trip at each end of the track and operated by the fork, a slidable pinion coöperating with the propelling means, an eccentric shaft connected with and operated by the trips, and means connecting the shaft with the pinion to slide it.

4. In a hay stacker having a frame forming a track, a traveling hay fork operated over the track, means for propelling the fork, a trip at each end of the track and operated by the fork, a slidable pinion coöperating with the propelling means, an eccentric shaft connected with and operated by the trips, a spiral spring having lever connections with the shaft to limit its movement, and means connecting the shaft with the pinion for sliding it.

5. In a hay stacker having a frame forming a track, a traveling hay fork operated over the track, means for propelling the fork, a trip at each end of the track and operated by the fork, a slidable pinion coöperating with the propelling means, an eccentric shaft connected with and operated by the trips, a spiral spring having lever connections with the shaft to limit its movement, connections from the trip to the shaft, and means connecting the shaft with the pinion to slide it.

[Claims 6 to 12 not printed in the Gazette.]

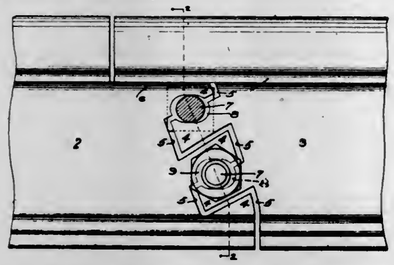
943,787. LINE-ROLLER. WILLIAM REUTER, Berlin, Nebr. Filed May 11, 1909. Serial No. 495,273.



1. A device of the class described comprising a substantially U-shaped member provided with parallel supporting arms, a trunnion member pivoted upon the extremity of one of the arms, said trunnion member being enlarged at its outer end and provided with an axial recess opening upon its outer end, the opposite arm having a transverse perforation therein, the trunnion member being adapted to be moved between said arms with the axial recess in registration with the perforation, a roller carried upon the trunnion, and a retaining pin slidably engaged through the second named arm and the trunnion.

2. A device of the class described comprising a substantially U-shaped member, a trunnion member pivotally engaged upon one side of the U-shaped member, said trunnion member being adapted to be moved into close proximity with the opposite side of the U-shaped member, the outer end of the trunnion being enlarged and provided with an axial recess, the side of the U-shaped member opposite the trunnion being provided with a transverse passage enlarged at its outer end and provided with an inwardly projecting lug spaced from the inner extremity of the enlarged portion, a pin member slidably engaged through the passage and the axial opening, said pin member having a peripheral flange provided with a notch adapted to receive the lug therethrough for locking of the pin against casual detachment, and a roller member carried upon the trunnion, said roller having a channel therein of the same contour as that of the trunnion.

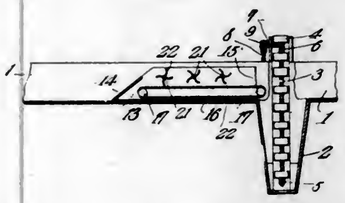
943,788. TIE-JOINT FOR RAILS AND BEAMS. ANTONIO RISTUCCIA, Pittsburg, Pa. Filed June 21, 1909. Serial No. 503,357.



1. In tie joints for rails and beams, the combination of the abutting ends of the members to be secured, the opposing faces of which are provided with a plurality of tongues adapted to interlock with one another; the opposing horizontal face of the respective tongues being provided with notches or recesses adapted to receive a key member, substantially as shown and described.

2. In tie joints for rails and beams, the combination of the abutting ends of the members to be secured, the opposing faces of which are provided with angularly disposed tongues, the tongues of one face being adapted to interlock with the tongues of the opposing face, recesses formed in the opposing top and bottom faces of the tongues, the recess in one face registering with the recess of the next adjacent face, and binding members adapted to be received by the recesses.

943,789. MACHINE FOR SAVING GOLD. FRANK B. ROBERTS, Salem, Oreg. Filed Jan. 14, 1909. Serial No. 472,317.



1. A separator comprising a sluice, transversely extending inclined means and transversely extending perpendicular means therein for maintaining a quiescent body of water below the moving body of water within the sluice, a series of revoluble riffles actuated by said movable body of water for collecting values and depositing them within the quiescent body of water, a receiver, and means actuated by the riffles for conveying the deposited values to the receiver.

2. A separator comprising a sluice, spaced transversely extending means upstanding from the bottom thereof for maintaining a quiescent body of water within the sluice and below the movable body of water therein, one of said means constituting a screen, a series of revoluble riffles projecting above the quiescent body and actuated by the movable body for collecting values and depositing them between said upstanding means, and value-conveying means actuated by the riffles.

3. A separator comprising a structure having an inclined wall at one end, an upstanding screen at the other end of said structure, said end wall and screen being disposed to maintain a substantially quiet body of water within the structure, means for directing a current of water over said wall and screen, a revoluble series of riffle-plates within said structure and projecting above the end wall and screen.

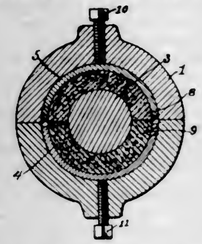
4. A separator comprising a structure having an inclined wall at one end and an upstanding screen at its other end, means for directing a current of water over said structure, said end wall and screen maintaining a substantially quiet body of water therebetween, a revoluble series of riffle-plates mounted within the structure and movable into position above the end wall and screen and into the current of water passing thereover, each of said blades having a pocket.

5. A separator comprising a structure having an inclined wall at one end and an upstanding screen at its other end, means for directing a current of water across said structure, said end wall and screen maintaining a practically quiet body of water therein, a revoluble series of riffle-plates mounted within the structure and movable successively into the water-current above said structure and into the quiet body of water within the structure, conveying means within said structure, and means operated by the riffle-plates for actuating the conveying means.

943,790. PACKING-RING. KIM ROSHOLT, Eau Claire, Wis. Filed May 15, 1909. Serial No. 496,229.

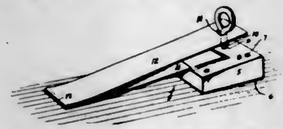
1. In combination with an internal combustion engine having a compression chamber and a crank shaft working therein, a journal box having an internal groove mounted on the shaft, a sectional ring having tongue and groove engaging ends disposed in the groove, and an inner ring having a greater diameter than the first ring disposed therein.

2. In combination with an internal combustion engine having a compression chamber and a crank shaft working therein, a journal box for the crank shaft having an internal groove, an outer sectional ring having tongue and groove ends disposed in the groove, an inner ring of flexible packing material formed in sections, each section being of greater circumference than the circumference of the respective sections of the outer ring, disposed between



the outer ring, and adjusting screws extending into the journal box engaging the outer ring.

943,791. DOOR-CHECK. FRANK C. RUSSELL, Canton, Ohio, assignor to John H. Sponseller, Canton, Ohio. Filed Apr. 10, 1909. Serial No. 489,210.



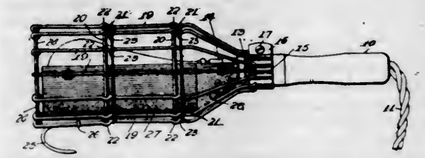
1. A device of the character herein described comprising a block, frictional means arranged upon said block and adapted to engage the floor, and a folded spring, one end of said spring connected to said block and the other end of the spring lying normally in vertically spaced relation with reference to said block, the folded portion of said spring being adapted to normally rest against the floor and to enter the space between the door and the floor when the said door is swung toward the device.

2. The herein described device comprising a block adapted to be placed upon the floor, frictional means on the bottom of said block adapted to engage the floor and prevent sliding movement of said block thereon, and a spring connected to said block and adapted to frictionally engage the bottom edge of a door when the said door is swung into engagement with the same.

3. A device of the character described comprising a block, a frictional pad arranged upon the under surface of said block and adapted to frictionally engage the floor, the upper surface of said block arranged in inclined relation with reference to the said under surface, a sheet metal cap arranged upon and connected to said block upon its upper surface, an aperture in said metal cap, and a spring consisting of two portions, the one lying above the other and in spaced relation thereto and connected by an integral folded portion, the end of the lower portion opposite the folded portion arranged between said sheet metal cap and said block, the end of the upper portion opposite said folded portion provided with an aperture and a screw-eye extending through the aperture in said spring, the aperture in said sheet metal cap and into the said block for the purpose of preventing undue separation between said upper and lower portions of said spring while permitting a downward movement of said upper portion with reference to said block.

943,792. PORTABLE LAMP-GUARD. WILLIAM T. RUSSELL, Wellesley, Mass. Filed Oct. 7, 1907. Serial No. 396,176.

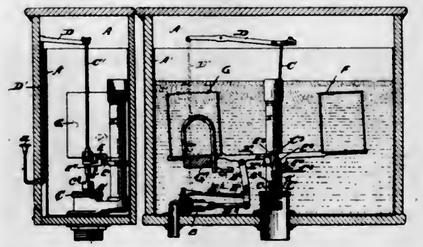
1. As an article of manufacture, a portable lamp-guard comprising a handle, a wire frame mounted at one end opposite the handle, continuous longitudinal wires extending from said end ring to the handle, and means for holding said longitudinal wires in position, a shade or reflector mounted on said frame, and a hook projecting from said frame near said end ring but located entirely between the end ring and handle and extending outwardly and then toward the handle therefrom, whereby the guard may be hung by means of said hook or placed on end resting on said end ring.



2. As an article of manufacture, a portable lamp guard comprising a handle having means on the end thereof for supporting a lamp, a metal frame removably clamped on the end of the handle in position to surround the lamp, and having an open end ring, a main cylindrical portion, a conical portion at the handle end thereof, and a reverse hook on the end of the frame at one side thereof near said end ring and located entirely between said end ring and the handle, whereby the guard may be set in upright position on the end ring as a base or hung in the opposite position from said hook.

3. As an article of manufacture, a portable lamp guard comprising a handle having means on the end thereof for supporting a lamp, a metal frame on the end of the handle in position to surround the lamp, and having an open end ring, and a reverse hook on the end of the frame at one side thereof near said end ring and located entirely between said end ring and the handle, whereby the guard may be set in upright position on the end ring as a base or hung in the opposite position from said hook.

943,793. FLUSHING-TANK FOR CLOSETS. FREDERICK A. SCHOSSOW, Detroit, Mich. Filed Dec. 21, 1907. Serial No. 407,580.



1. In a flushing device, a tank having an inlet and an outlet, an operating lever, a valve for said outlet having its stem connected to said lever, a tilting lever mounted in the tank, a variable float mounted at one end of the lever, and a fluid chamber adapted to serve as a weight whose function is lessened as a weight by the rising of the water in the tank, said tilting lever having engagement with the stem of said valve when the lever moves in one direction to effect a lowering of the valve into engagement with the outlet.

2. In a flushing tank, an outlet valve, a manually operated lever, a valve stem engaging said lever having a universal joint connection with the valve to insure proper seating of the latter, said stem also provided with a shoulder to assist in supporting the valve when raised, a suitable platform to receive the projecting shoulder of the valve stem, a weighted tilting lever provided with tripping means to force the valve stem from its support, a float mounted on one end of the lever, and means for filling said float with water and for discharging the same into the tank, substantially as described.

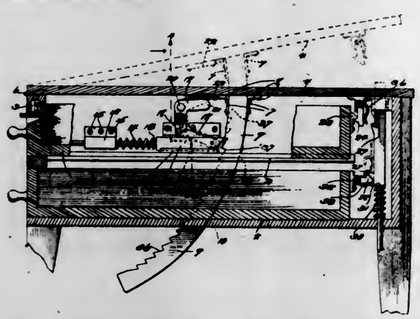
3. In a flushing device, a tank having an inlet and an outlet, a manually operated lever, a valve for said outlet

having its stem connected to said lever, the stem having a shoulder, a platform to receive the shoulder of the stem, a weighted tilting lever, a curved arm carried by the lever and operable upon movement of the latter in one direction to engage the stem and move the latter from engagement with said platform, and a float carried by the tilting lever.

4. In a flushing device, a tank having an inlet and an outlet, a tilting lever mounted in the tank, a permanent weight mounted at one end of the lever, a fixed weight mounted at the opposite end of the lever and lighter than the first-mentioned weight, a combined weight and float cooperating with the second-mentioned weight to provide for an alternate raising and lowering of the opposite ends of the lever, a second lever, a valve for said outlet, a stem connection between said valve and the second-méntioned lever, means whereby the second lever may be operated manually, a valve for said inlet, means between the inlet valve and the tilting lever whereby the inlet may be closed automatically by the tilting of said lever, an overflow pipe, a platform, said outlet valve stem having an enlargement to rest upon said platform when the outlet valve is opened and adapted to leave the platform to permit the outlet valve to close said outlet automatically when the tank has been emptied.

5. In a flushing device, a tank having an inlet and an outlet, a manually operated lever, a valve for said outlet having its stem connected to said lever, the stem having a shoulder, a platform to receive the shoulder of the stem, a weighted tilting lever, means operable upon movement of the tilting lever in one direction to force the stem from engagement with said platform, a hollow float carried by the tilting lever, and a siphon communicating with the float.

943,794. COMBINED TABLE AND DESK. NICKOLOUS W. SCHRUNNER, San Diego, Cal. Filed June 24, 1909. Serial No. 504,152.



1. In a device as set forth, a frame having a hingedly connected top and provided with one or more drawers, said top having segment racks, spring tensioned bolts to engage the racks, said bolts having links pivoted thereto, angle levers manually depressed for a partial movement of the top when the same is in the act of lowering and when the manual pressure is relieved thereupon, the same is again depressed by further movement of the top in order to disengage the bolts from the said segment racks, the uppermost of the drawers having stationary lugs and spring-retained means carried by the top to engage said stationary lugs to hold the top fully depressed.

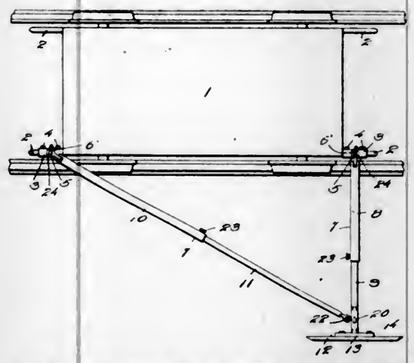
2. In a device as set forth, a frame having one or more drawers, a partially spring-actuated top hingedly connected to the frame, the uppermost of the drawers and the top having coöperating devices, whereby, when disengaged by the opening action of the said uppermost of the drawers, the top is allowed to partially rise.

3. In a device as set forth, a frame having one or more drawers, a partially spring-actuated top hingedly connected to the frame, the uppermost of the drawers and the top having coöperating devices, whereby, when disengaged by the opening action of the said uppermost of the drawers, the top is allowed to partially rise, said frame having spring-actuated sliding bolts, links connected thereto, manually depressed angle levers pivoted to the links and segment racks carried by the top to be engaged by the bolts.

4. In a device as set forth, a frame having one or more drawers and provided with a hingedly connected top, vertically movable spring-actuated members for partially raising the top, the uppermost of the drawers and the top having coöperating devices whereby, when disengaged by the opening action of the said uppermost of the drawers, the top is allowed to partially rise by the action of the spring-actuated members.

5. In a device as set forth, a frame having one or more drawers and provided with a hingedly connected top, vertically movable spring-actuated members for partially raising the top, the uppermost of the drawers and the top having coöperating devices whereby, when disengaged by the opening action of the said uppermost of the drawers, the top is allowed to partially rise by the action of the spring-actuated members, said frame having horizontally disposed spring-actuated sliding bolts, links connected thereto, angle levers adapted to be manually depressed for a partial movement of the top when the same is in the act of lowering connected to the links and when manual pressure is relieved thereupon, the same are again depressed by further movement of the top in order to operate said last-named bolts, segment racks carried by the top to be engaged by the last-named bolts.

943,795. SOD AND DITCH LINE MARKER FOR RAILWAY-TRACKS. HERMAN J. SCHWEITZER, Putney, S. D. Filed Mar. 3, 1909. Serial No. 481,035.



1. The combination with a car, of arms each consisting of telescoping sections, mounted upon bearings carried by said car, one end of one of said arms carrying a marking disk having a centrally extending pin provided with a head formed on the outer end thereof, a removable bearing box secured to the outer end of said arm and adapted to provide a seat for said pin to prevent the longitudinal movement thereof, a hook secured to said bearing box adjacent to said disk and a ring upon the other of said arms engaged by said hook to support said disk carrying arm.
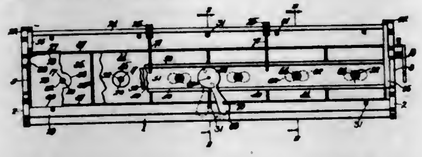
2. The combination with a car, of arms each consisting of telescoping sections mounted on said car, means for securing said sections in their adjusted positions, one of said arms carrying a marking disk having a centrally extending bearing pin with a head formed on the outer end thereof, a seat for said pin in the outer end of said arm to prevent the longitudinal movement thereof, a removable cover therefor, a lubricating passage in said cover, a hook secured to said bearing adjacent to said disk and means upon the other of said arms engaged by said hook to support said disk carrying arm.

3. The combination with a car of arms each consisting of telescoping sections mounted on vertical spindles carried by said car one of said arms carrying a marking disk having a centrally extending bearing pin with a head formed on the outer end thereof, a screw threaded socket on the outer end of said arm, a bearing box provided with a screw threaded shank adapted to be secured in said socket said bearing box forming a seat for said pin to maintain the disk in its adjusted position, a hook adjacent to said disk, secured to the bearing box and a ring upon the end of the other of said arms adapted to engage with the hook upon the end of said first mentioned arm and support the same.

4. The combination with a car, of clamps carried upon said car, set screws provided with enlarged heads with projections thereon and adapted to secure said clamps in position, vertical spindles on said clamps, arms each consisting of telescoping sections, a marking disk rotatively mounted on the end of one of said arms, rings pivotally mounted in the inner ends of said arms and adapted to engage over said spindles said disk carrying arm being supported by the other of said arms, and means for locking said arms upon said spindles.

5. The combination with a car, of clamps carried upon said car, thumb screws provided with enlarged heads having projections thereon and adapted to secure said clamps in position, vertical spindles on said clamps, arms each consisting of telescoping sections, a marking disk rotatively mounted in the outer end of one of said arms, said disk carrying arms being supported by the other of said arms, rings provided with inwardly extending shanks pivotally mounted in the inner ends of said arms, diametrically opposed recesses in the ends of said arms, and means for locking said arms upon said spindles.

943,796. ARTIFICIAL-FLOWER-MAKING DEVICE. LEONARD SHOGRAN, Kansas City, Kans. Filed Aug. 12, 1908. Serial No. 448,173.



1. A device of the character described, comprising a plurality of forming-plates having registering openings and spaced apart, a plate having an opening registering with the openings of the forming-plates and spaced therefrom, and movable means carried by the last-named plate to be operated across the opening of the same for the purpose of pinching the calyx of an artificial flower to permit the part of the calyx at the opposite side of said pinching means from the forming-plates to be twisted or otherwise handled.

2. A device of the character described, comprising a plurality of forming-plates having registering openings and spaced apart, a plate having an opening registering with the openings of the forming-plates and spaced therefrom, and a pair of movable calyx-pinching plates fitting flatly together and adapted to be moved simultaneously in opposite directions partially across the opening of said last-named plate.

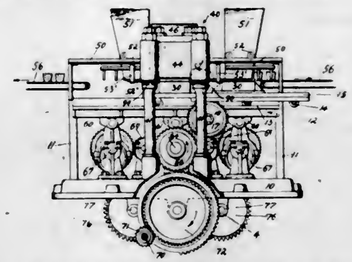
3. A device of the character described, comprising a plurality of forming-plates having registering openings and spaced apart, a plate having an opening registering with the openings of the forming plates and spaced therefrom, movable means carried by the last-named plate to be operated across the opening of the same for the purpose of pinching the calyx of an artificial flower to permit the part of the calyx at the opposite side of said pinching means from the forming-plates to be twisted or otherwise handled, and rotary means for imparting movement in one direction or the other to said pinching means.

4. A device of the character described, comprising a plurality of forming-plates having registering openings and spaced apart, a plate having an opening registering with the openings of the forming plates and spaced therefrom, a pair of longitudinally-movable plates arranged flatly together and against the last-named plate and provided with registering openings which are reduced in width at their opposite ends, and means to impart simultaneous sliding movement in opposite directions to said plates to cause their reduced ends to move toward each other and partially across the opening of the last-named plate.

5. A device of the character described, comprising a plurality of forming-plates having registering openings and spaced apart, a plate having an opening registering with the openings of the forming-plates and spaced therefrom, a pair of longitudinally-movable plates arranged flatly together and against the last-named plate and provided with registering openings which are reduced in width at their opposite ends, and provided with longitudinal slots and with openings of variable length at opposite sides of said slots, the longer opening of each of said plates registering with the shorter opening of the other, a rotary handle having a pivot extending through the plate carrying the slide-plates and through the longitudinal slots of the latter, and cylindrical bosses movable with said handle and disposed at diametrically opposite sides of said pivotal point, each of said bosses engaging one of the longer openings and the registering short opening of said slide plates.

[Claims 6 to 15 not printed in the Gazette.]

943,797. BRICK-PRESS. WALTER C. SHORT, Los Angeles, Cal. Filed June 17, 1908. Serial No. 438,894.



1. In a brick machine, a reciprocating carriage, brick molds carried by said carriage, movable hoppers adapted to supply material to said molds, and means to move said hoppers in the same direction as the motion of said reciprocating carriage.

2. In a brick machine, a reciprocating carriage, brick molds mounted on said carriage, a reciprocating hopper adapted to supply material to said molds, and means to move said hoppers at the same rate of movement and in the same direction as said reciprocating mold, after said mold has been charged.

3. In a brick machine in combination, a brick mold, said mold being formed with parallel walls in one portion of said mold, and inclined in another portion of said mold, compressing pistons operating in the portion of the mold having parallel walls, and means for driving said piston, means for causing said mold to have a reciprocatory movement, a reciprocating hopper adapted to supply the material to said molds, and means to move said hopper at the same rate of speed as said reciprocating mold after said mold has been charged.

4. In a brick machine, a reciprocating carriage, brick molds on said carriage, a reciprocating hopper adapted to supply material to said molds, means to move said hopper at the same rate of speed and in the same direction as said reciprocating mold after said mold has been charged, means for compressing brick in said mold, and means for ejecting brick from said molds, said compressing means and said ejecting means being geared together in such manner as to have a simultaneous cycle of operation.
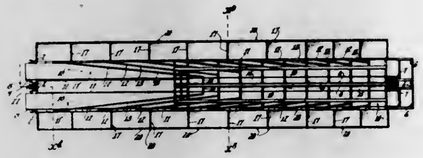
943,798. REEL FOR REELING-MACHINES. ALEXANDER MCLANE, Lansford, Pa., and GRANT SIPP, Paterson, N. J. Filed Dec. 12, 1908. Serial No. 467,181.



1. In a reel, the combination of the reel body having forked portions, blades arranged in said forked portions, one of said blades being movable radially of the reel body, adjusting means arranged in the reel body and bearing against the inner face of the movable blade and also engaging the inner faces of said forked portions, and means for clamping the forked portions into contact with the blade and the adjusting means, substantially as described.

2. In a reel, the combination of the reel body having forked portions, blades carried by the reel body substantially parallel with its axis and one of them being arranged in said forked portions and movable radially of the reel body, and adjusting devices arranged in said forked portions and bearing against the inner face of said blade, said devices and the forked portions having serrations engaged with each other, substantially as described.

943,799. DISTRIBUTING APPARATUS. FRED STEBLER, Riverside, Cal. Filed May 12, 1908. Serial No. 432,548.



1. The combination with a fruit grading element constructed to deliver fruit at different longitudinal portions, of traveling supporting and distributing means extending laterally from the grading element and inclined downwardly away therefrom, the longitudinal extension of the delivery portion of the said distributing means being greater than the longitudinal extension of the grading element.

2. In combination with a grading element constructed to deliver fruit at different longitudinal portions, a distributing apparatus therefor comprising a conveyer traveling longitudinally of the grading element, and guiding means arranged along the conveyer forming chutes to guide the fruit and bins arranged along the length of said conveyer and at the sides thereof.

3. The combination with a grading element adapted to deliver graded fruit at different longitudinal portions of the element, a traveling conveyer extending longitudinally under said grading element and extending beyond the end thereof a series of bins whose longitudinal extension is greater than the longitudinal extension of the grading element arranged along the side of said conveyer, and guiding means for guiding the fruit along said conveyer and from the grading element to the series of bins.

4. The combination with a grading element and a series of bins, of a conveyer traveling longitudinally under the grading element and along the side of the series of bins, and guiding means arranged along the conveyer to guide the fruit to the bins, said guiding means diverging toward the bins.

5. In combination with a fruit grader comprising a suitably mounted member and a traveling belt arranged adjacent to said member so as to form the way or chute, for the fruit, a series of bins whose longitudinal extension is greater than the longitudinal extension of the grader, a traveling conveyer arranged under said fruit grader and extending at the side of said series of bins, guiding means for guiding the fruit along said conveyer to said bins, and means for adjusting the longitudinal position of the outer ends of said guiding means, and thereby determine the portion of said bins to which the graded fruit is delivered.

[Claims 6 to 20 not printed in the Gazette.]

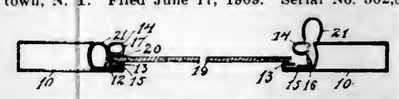
943,800. GUIDE-STRIP FOR SLIDING SCREENS. HENRY W. WATSON and WILLIAM W. WATSON, Jamestown, N. Y. Filed June 17, 1909. Serial No. 502,733.



1. A guide strip for sliding screens and the like comprising a U-shaped sheet metal strip, cross braces for the inner sides of said U-shaped sheet metal strip at the attaching points, said strip having notches in the outer edge thereof, the walls of said notches formed of sheet metal soldered to said strip, and means for attaching said strip to a support.

2. A guide strip for sliding screens and the like comprising a U-shaped strip 12 having turned out edges 14, a cross brace 15 attached to the inner sides of said strip, a wooden base portion 10 having a lengthwise tongue to fit within said U-shaped strip and receive said turned out edges on each side of said tongue, strip 12 having holes therein for attaching to the base portion, substantially as and for the purpose specified.

943,801. WINDOW-SASH. WILLIAM W. WATSON, Jamestown, N. Y. Filed June 17, 1909. Serial No. 502,807.



1. In a window sash, the combination of the frame having a groove lengthwise of the frame side, a movable side for said groove adapted to receive the edge of the glass, and a filling strip for said groove.

2. In a window sash, the combination of a frame having a groove lengthwise of the frame side, the inner side of said groove movably attached to the frame side and adapted to form a second groove to receive the edge of the glass, and a filling strip for the first groove.

3. In a window sash, the combination of the frame having two grooves, one of said grooves adapted to receive the edge of the window glass and the other groove enlarged inwardly, and a filling strip for said enlarged groove.

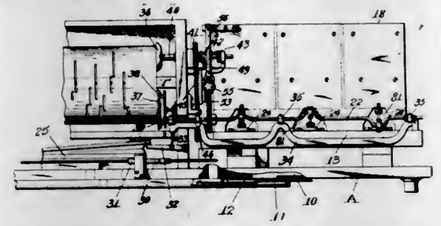
4. In a window sash, the combination of the frame, a movable holding strip on said frame, said holding strip adapted to form a groove on each side thereof with said frame, one of said grooves adapted to receive the edge of the glass, and a resilient filling strip adapted to be inserted in the other groove to hold the parts in place.

5. In a window sash, the combination of the frame with groove enlarged inwardly, a side of said groove movable, said movable side adapted to receive the edge of the glass, and a resilient tube forming a filling piece adapted to be inserted in said groove.

[Claims 6 to 8 not printed in the Gazette.]

943,802. PAPER-WINDING MECHANISM FOR MUSICAL INSTRUMENTS. PETER WELIN, Worcester, Mass., assignor, by mesne assignments, to The Krell Auto-Grand Piano Co. of America, Connersville, Ind., a Corporation of Indiana. Filed Feb. 24, 1903, Serial No. 144,676. Renewed June 15, 1909. Serial No. 502,332.

1. In a paper winding mechanism for automatic musical instruments, the combination of a tracker-board, a motor, having a shifting crank-shaft, a winding train comprising a winding roll and gears connecting the winding roll with the crank-shaft, a re-winding train comprising a chain and sprocket wheels driven from the motor crank-shaft, and means for moving the crank shaft to uncouple the driving train, and to connect the driven sprocket wheel of the re-winding train with the re-winding shaft.



2. In a paper-winding mechanism for automatic musical instruments, the combination of a tracker-board, a motor, a flexible tension belt and means whereby said belt places the music-sheet under tension and prevents unevenness of operation of the motor when the music-sheet is being wound in one direction, and whereby said belt is relaxed when the music-sheet is being re-wound.

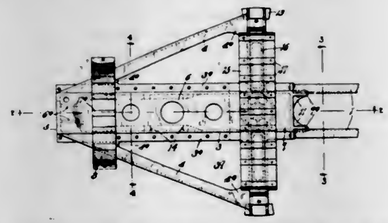
3. In a paper winding mechanism for automatic musical instruments, the combination of a tracker-board, a motor, having a shiftable crank-shaft, a tensioning belt, and means for shifting the motor crank-shaft for re-winding the paper and simultaneously relaxing the tensioning belt.

4. In a paper winding mechanism for automatic musical instruments, the combination of a tracker-board, a motor, a re-winding train operated by said motor, and comprising a chain and sprocket-wheels, and means for tightening the chain when the perforated paper is being re-wound.

5. In a paper winding mechanism for automatic musical instruments, the combination of a tracker-board, a motor having a shiftable crank-shaft, a re-winding train comprising a chain and sprocket-wheels, a spring pressed roller engaging the driving chain, and means for shifting the crank-shaft when the paper is to be re-wound, the shifting of said crank-shaft operating to tighten the chain.

[Claims 6 to 11 not printed in the Gazette.]

943,803. TANK-CAR. HERBERT W. WOLFF, St. Louis, Mo., assignor to American Car & Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed Mar. 1, 1909. Serial No. 480,698.



1. In a tank car, an underframe provided with bolsters, a removable tank resting freely on said underframe, and members connected to the tank on opposite sides of the longitudinal center of the frame and projecting into pockets in the bolsters for preventing the tank from shifting longitudinally.

2. In a tank car, an underframe provided with a bolster, a removable tank resting freely on said underframe, and a rigid lug or projection on said tank that fits in a socket or recess in the bolster to prevent longitudinal movement of the tank.

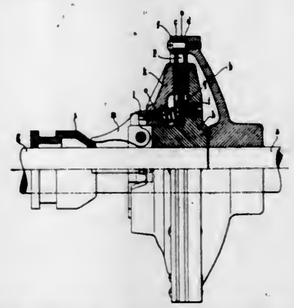
3. In a tank car, an underframe provided with a bolster, a removable tank resting freely on said underframe, and rigid members depending from the tank and engaging the bolster on opposite sides of the longitudinal center of the car for preventing the tank from shifting longitudinally.

4. In a tank car, a tank provided with a rigid projection, and a bolster constructed to receive said projection so as to prevent the tank from shifting longitudinally of the underframe of the car, said projection having no direct connection with the bolster.

5. In a tank car, a removable tank provided on its under side with lugs or projections, and an underframe provided with bolsters which have pockets that receive said lugs or projections when the tank is mounted on the underframe and thus prevent the tank from shifting longitudinally.

[Claims 6 to 25 not printed in the Gazette.]

943,804. FLEXIBLE FRICTION-COUPLING. HUGO BAUMGARTNER-MICA, Basel, Switzerland. Filed Apr. 13, 1907, Serial No. 368,084. Renewed June 5, 1909. Serial No. 500,430.



In a flexible friction coupling, a driven member comprising flexible friction disks and a distance ring between them secured to the said member, a driving member comprising a rigid disk having a boss, a flexible friction disk secured to the said disk projecting between the said flexible disks, a slidable rigid disk and means on the said boss for moving the said slidable disk toward the said bossed disk for clamping together the said flexible disks, all substantially as and for the purpose set forth.

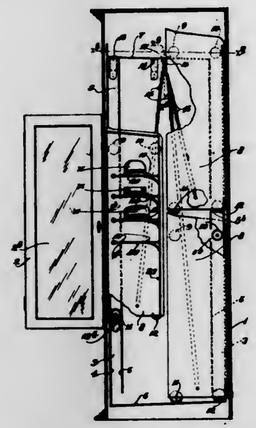
943,805. HAT-DISPLAY RACK. ALEXIS E. BEZOIER, Minneapolis, Minn. Filed Feb. 19, 1909. Serial No. 478,819.

1. The combination with a suitable cabinet, having front and rear runways and upper and lower supporting rails, of a multiplicity of display racks having upper and lower front rollers and upper and lower rear rollers, said front rollers being arranged to work in said front runways, said rear rollers being arranged to work in said rear runways, said upper rollers being arranged to run on said upper rails, and the said lower rollers being arranged to run on said lower rails, and the said vertical runways and upper rails having suitable roller clearing passages whereby the said racks may be moved one after the other on endless paths.

2. The combination with a suitable cabinet, having endless approximately rectangular runways, of a multiplicity of display racks having rollers for coöperation with said runways, the upper portions of said runways being rearwardly inclined, and the lower portions of said runways being forwardly inclined to cause said display racks when raised, to travel backward and when lowered, to travel forward under the action of gravity, substantially as described.

3. The combination with a suitable cabinet, having approximately rectangular runways, the upper portions of which are rearwardly inclined and the lower portions of

which are forwardly inclined, of a multiplicity of display racks having rollers coöperating with said runways, and having inclined upper portions adapted to be engaged by rollers of an overlying rack, substantially as described.

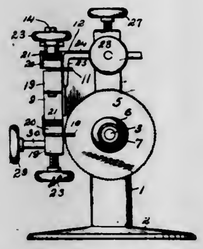


4. The combination with a suitable cabinet, having endless runways, of a multiplicity of display racks having rollers coöperating with said runways, and counter balancing devices supporting said racks, at least in part, and arranged to clear each other under movements of said rack.

5. The combination with a suitable cabinet, having approximately rectangular runways, the upper portions of which are provided with roller clearing passages and spring latches therein, of a multiplicity of display racks having rollers coöperating with said runways and spring latches, the latter serving to hold the racks in uplifted positions, substantially as described.

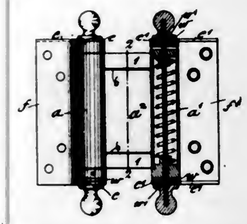
[Claims 6 to 8 not printed in the Gazette.]

943,806. KEY-CUTTING MACHINE. WILLIAM F. BILLINGS, Kansas City, Mo. Filed Mar. 16, 1908. Serial No. 421,349.



In a key cutting machine, the combination with a stand, of a cutter shaft rotatively mounted thereon, a cutter carried by said shaft, a link pivoted to said stand so as to swing in a plane parallel with said shaft, a key support pivoted to said link so as to swing in a plane parallel to said shaft, said key support being adapted to support a pattern key and a key blank, two clamping devices carried by said key support for securing thereto a pattern key and a key blank, a rod adjustable lengthwise on said stand parallel with said shaft, and a guide adjustable on said rod transversely to said shaft for coöperating with the pattern key.

943,807. DOUBLE-ACTING SPRING-HINGE. EMIL BOMMER, New York, N. Y. Filed Feb. 27, 1909. Serial No. 480,371.



1. In a double-acting spring-hinge, a web-connection for the barrels of the hinge made of a plurality of layers and formed of a first layer connecting one of the meeting edges of the barrels and having oppositely-disposed vertical extensions at the upper and lower ends, an intermediate layer and a front-layer overlapping each other and forming extensions of the opposite meeting edges of each of the two barrels, the layers and barrels being made in one integral piece and united by folding over the vertical extensions of the upper and lower ends of the first layer.

2. In a double-acting spring-hinge, a web-connection for the barrels of the hinge made of three layers and formed of a first or rear layer connecting one of the meeting edges of each of the two barrels, said layer being provided with oppositely disposed vertical extensions above and below the barrels, an intermediate layer and a front layer overlapping each other and forming extensions of the opposite meeting edges of the barrels, the intermediate and front-layers being provided with recesses and projections at their upper and lower ends over which the extensions of the first or rear layer are folded.

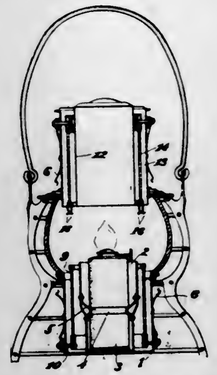
3. In a double-acting spring-hinge, a web-connection for the barrels of the hinge made of three layers and formed of a rear layer connecting one of the meeting edges of the barrels, said rear layer being provided with oppositely disposed vertical extensions above and below the barrels, an intermediate layer and a front layer overlapping each other and forming extensions of the opposite meeting edges of the barrels, the intermediate and front layers being provided with recesses and projections, the recesses and projections of the front layer being offset and interlocked with the projections and recesses of the intermediate layer, to lie in the plane of the intermediate layer, thereby forming lateral depressions on the face of the front-layer at the upper and lower ends thereof into which the extensions of the rear-layer are folded and seated.

4. In a double-acting spring-hinge, a web-connection for the barrels of the hinge made of three layers and formed of a rear-layer connecting one of the meeting edges of the barrels and provided with oppositely disposed vertical extensions at the upper and lower ends, an intermediate layer and a front layer overlapping each other and forming extensions of the opposite meeting edges of the barrels, said extensions of the rear layer being folded over the projections and recesses of the intermediate and front layers, and a slot or slots located at the junction of the barrel and the intermediate layer interlocking with a projection or projections at the edge of the front-layer for preventing buckling of the front layer.

5. A blank for the web-connection of the barrels of a double-acting spring-hinge, formed of an oblong piece of metal having extensions at the middle portion and recesses and projections at the upper and lower portions of the outer ends registering with each other on folding the blank into two barrels and a three-ply web-connection between the same.

[Claims 6 to 9 not printed in the Gazette.]

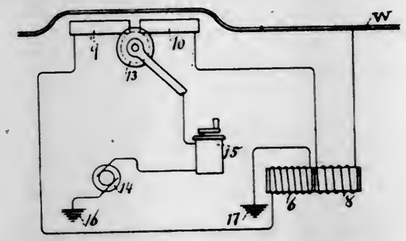
943,808. SIGNAL-LANTERN. GEORGE P. BROWNE, Montreal, Quebec, Canada, assignor of one-half to James H. Callahan, Montreal, Canada. Filed Mar. 1, 1909. Serial No. 480,700.



1. The combination with a lantern of the character described having a frame and a globe mounted in the frame, a lamp well carried by the frame below the globe and adapted to support a burner, a grooved ventilator chimney supported by the frame above the globe, a slide movably mounted in the ventilator chimney and adapted to be moved into and withdrawn from the globe, a ring slidably mounted on the ventilator chimney, rods connecting the ring and slide and adapted to travel in the grooves, and means for holding the slide in adjusted position.

2. In combination with a lantern of the character described having a frame and a globe mounted in the frame, a lamp well carried by the frame below the globe and adapted to support a burner, a grooved ventilator chimney supported by the frame above the globe, a slide movably mounted in the ventilator chimney and adapted to be moved into and withdrawn from the globe, a ring slidably mounted on the ventilator chimney, rods connecting the ring and slide and adapted to travel in the grooves, means for holding the slide in adjusted position, a second slide mounted in the lamp well and means for holding the slides in alined position.

943,809. RAILWAY ELECTRIC SWITCH. ROY B. BRYANT, Nashville, Ark. Filed Feb. 11, 1908. Serial No. 415,454.



1. The combination of a railway switch, electro magnetic means, a first coil of said means for operating the switch in one direction; a second coil of said means for operating said switch in the opposite direction, the first coil being of few turns, and the second coil being of more turns, and the first coil being in circuit with the car motor, and the second coil being in circuit with the first coil, a trolley wire and a trolley wheel and motorman's controller for opening and closing said circuits between the ground and said trolley wire, and through said coils.

2. The combination of a railway switch, a trolley wheel, a motorman's controller and two coils, whose energizing currents are applied differentially to said solenoids by the action of said controller and trolley wheel, said coils being in series circuit with each other, and a device for permitting a current to pass through one coil before the other.

3. The combination of a railway switch, a link 23 connected thereto, a solenoid plunger 2, a stem 3 for the plunger, an arbor 22, two cranks 20 and 21 for said arbor, a link 19 joining said stem 3 to the crank 20, and the other crank 21 being connected to the link 23, and a water tight box, having two divisions, one of which contains the plunger, and the other, the link 19, crank 20, and part of the stem 22; and solenoids 6 and 8, in the watertight box for actuating said plunger 2.

4. In an electric switch, the combination of a magnet for throwing the switch tongue in one direction, a magnet for throwing the switch tongue in the opposite direction, one of the magnets being adapted to develop a stronger field than the other, and means to reduce the current in the said one of the magnets relatively to the other.

5. In an electric switch, the combination of a magnet for throwing the switch tongue in one direction, a magnet for throwing the switch tongue in the opposite direction arranged in series with the first named magnet and adapted to develop a stronger field than the first named magnet with the same amount of current, and connections whereby the current through the second named magnet may be relatively decreased.

[Claims 6 to 11 not printed in the Gazette.]

943,810. TRANSPORTATION SYSTEM. WILLIAM C. CARR, Buffalo, N. Y. Filed Dec. 10, 1908. Serial No. 466,761.



1. A transportation system consisting of a single track having a return loop at at least one end thereof; said track and return loop being of immovable and rigid construction throughout and a single switch rail located between the rails of the return loop.

2. A transportation system consisting of a single track having a return loop at each of its opposite ends; said track and return loop being of immovable and rigid construction throughout and a single switch rail located between the rails of the return loop.

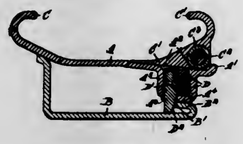
3. A transportation system consisting of a single track having a return loop at at least one end thereof of pyriform outline; said track and return loop being of immovable and rigid construction throughout and a single switch rail located between the rails of the return loop.

4. A transportation system consisting of a single track having a return loop at each of its opposite ends of pyriform outline; said track and return loop being of immovable and rigid construction throughout, a single switch rail located between the rails of the return loop and a single switch rail pivoted at the apex of the inner rail of the return loop and adapted to be swung in either direction into contact with the outer rail.

5. A transportation system consisting of a single track having a return loop at at least one end thereof of pyriform outline with the ends of the outer rail of the loop merging in the rails of the single track; said track and return loop being of immovable and rigid construction throughout and a single switch rail located between the rails of the return loop.

[Claims 6 to 11 not printed in the Gazette.]

943,811. DETACHABLE RIM FOR VEHICLE-WHEELS. PHILIP G. CHALLISS, Forest Hill, England. Filed Nov. 23, 1907. Serial No. 403,445.

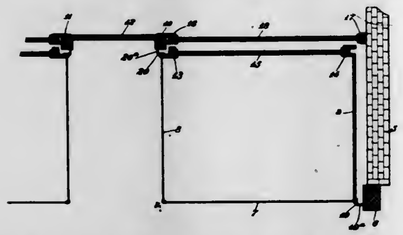


1. An attachment for vehicle wheels comprising an annular member adapted to be applied to a wheel-felly and having opposed tire-retaining flanges, said annular member also having a lateral annular groove, and a locking ring arranged in said annular groove and provided with latches adapted to have a locking action or engagement with said felly-member.

2. An attachment for vehicle wheels including an annular member having opposed tire retaining flanges, said annular member having a lateral annular groove, a felly-member having an inturned overlying portion upon which the bottom of said grooved portion of said annular member rests, and a locking ring arranged in said groove and provided with latches with their effective portions passing through apertures in the bottom of the groove and having beveled surfaces engaging the inner edge of said inturned portion of the felly-member.

3. An attachment for vehicle wheels comprising an annular member adapted to be applied to a wheel-felly and having opposed tire retaining flanges and a lateral annular groove having one wall provided with cams, and a locking ring arranged in said groove and provided with pivoted latches engaging said cams and passing through the bottom of said groove and engaging said felly-member, and means for actuating said locking ring and accordingly effecting the synchronous locking action of its latches.

943,812. STORE-WINDOW. WILLIAM E. W. CHERRY, Columbus, Ohio. Filed Apr. 7, 1909. Serial No. 488,356.



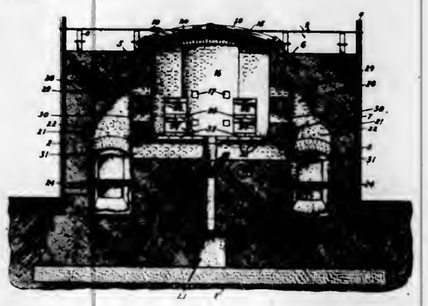
1. In combination with a building having a vertical side or partition wall, 5, an inclosed window of dust-tight construction throughout built adjacent said side or partition wall, and means for insulating said window from the heat of the building including an inclosed air space between the said window and the side or partition wall, said air space communicating with the atmosphere.

2. In combination with a building having a vertical side or partition wall, 5, an inclosed window of dust-tight construction throughout built adjacent said side or partition wall, and means for insulating said window from the heat of the building including an inclosed air space between said window and said side or partition wall said air space communicating with the atmosphere, and an air space at the rear of the window, the latter communicating with the first mentioned air space.

3. In combination with a building having a vertical side or partition wall, 5, an inclosed window of dust-tight construction throughout built adjacent said side or partition wall, 9, insulatedly separated from the said side or partition wall.

4. A store window of dust tight construction having at its rear a double wall forming an air space and including an inner vertically sliding wall or door, means whereby street air is admitted to said space combined with a closure moved by the door to close the opening at the upper portion of said air space.

943,813. FURNACE. WILLIAM A. CLARKE, Rockford, Ill., assignor to Pioneer Steel Company, Rockford, Ill., a Corporation of Maine. Filed Jan. 4, 1909. Serial No. 470,730.

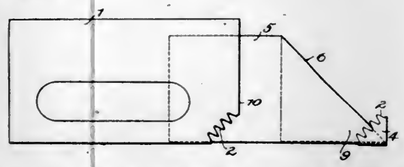


1. A furnace comprising an oven, removable bungs for the top of the oven, a door for one end of the oven, descending flues through the bottom of the oven, a flue connecting the upper ends of the descending flues, a flue connecting the lower ends of the descending flues, a combustion chamber located along each side of the oven, and openings from the combustion chambers into the oven.

2. A furnace comprising an oven, removable bungs for the top of the oven, a door for one end of the oven, descending flues through the bottom of the oven, a flue connecting the upper ends of the descending flues, a flue connecting the lower ends of the descending flues, a combustion chamber located along each side of the oven, openings from the combustion chambers into the oven above the bottom thereof and openings from the combustion chambers communicating with the flue connecting the upper ends of the descending flues.

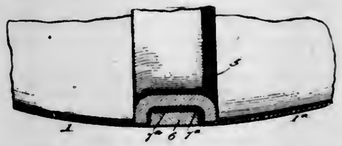
3. A furnace comprising an oven, removable bungs for the top of the oven, a door for one end of the oven, descending flues through the bottom of the oven, a flue connecting the upper ends of descending flues, a flue connecting the lower ends of the descending flues, a combustion chamber located along each side of the oven, and two series of openings from each combustion chamber into the oven above the bottom thereof.

943,814. MEANS FOR OPENING ENVELOPS. ERNEST E. COLE, Chicago, Ill. Filed Nov. 26, 1906. Serial No. 345,023.



The combination with an envelop provided with perforations at one corner thereof to form a readily detachable portion adapted to be grasped and torn from the envelop, of an inclosure having one corner thereof folded over to present a folded cutting edge extending obliquely into said detachable portion, whereby the inclosure may be engaged at the detachable portion and removed therewith from the envelop, said folded edge serving to cut the end of the envelop as the inclosure is withdrawn.

943,815. BARREL OR KEG. JAMES F. CRAVEN, Pittsburg, Pa. Filed Nov. 2, 1908. Serial No. 460,689.



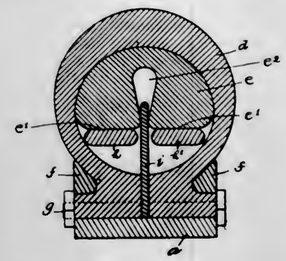
1. A barrel or other receptacle composed of a plurality of transverse sections, contiguous ends of the sections being provided with inturned flanges, and means for connecting said sections consisting of an annular hoop or ring arranged within the sections and grooved for the reception of the flanges of the latter, and a continuous unbroken non-resilient annular key contracted peripherally and completely filling the groove in the ring and the space between the flanges.

2. A barrel or other receptacle composed of a plurality of transverse sections, contiguous ends of the sections being provided with inturned flanges and overlapping lip portions, an integral ring provided with a groove for the reception of said flanges and lips, and a continuous unbroken non-resilient annular key contracted peripherally into the groove in the ring and between the flanges and forcing the overlapping lips into contact.

3. A barrel or other receptacle composed of a plurality of transverse sections, an internal ring grooved on its outer face, contiguous ends of said sections being provided with inturned flanges having at their edges overlapping lips supported in the groove of said ring, and an unbroken annulus contracted peripherally into said groove between the flanges and forcing the overlapping portions into tight contact with each other and with the bottom of the groove.

4. A barrel or other receptacle composed of a plurality of transverse sections, an internal ring grooved on its outer face, contiguous ends of said sections being provided with inturned flanges and with lips of substantially the width of the groove in said ring, the lips of the two sections overlapping in said groove and a continuous unbroken annular key contracted peripherally into said groove between the flanges of the sections and forcing the overlapping lips into tight contact with each other and with the bottom of the groove.

943,816. WHEEL-TIRE. JOSIAH S. CUSHING, Norwood, Mass. Filed Jan. 20, 1908. Serial No. 411,567.



1. In a resilient wheel, a felly having vertical guiding means extending continuously therearound, a flexible tire attached to said felly having radially and inwardly extending guiding means therein, said tire-guiding means extending inwardly beyond and being at all times in engagement with said felly-guiding means, whereby the tire is radially guided and laterally supported, and continuous circular bands arranged within the tire at opposite sides of the felly-guiding means, which surround the felly, at a distance therefrom, and which transmit the weight of the load to the tread portion only of the tire, substantially as described.

2. In a resilient wheel, a felly having vertical guiding means extending continuously therearound, a flexible tire attached to said felly having radially and inwardly extending guiding means therein, said tire-guiding means extending inwardly beyond and being at all times in engagement with said felly-guiding means, whereby the tire is radially guided and laterally supported, and two continuous circular bands arranged within the tire at opposite sides of the felly-guiding means, which surround the felly, at a distance therefrom, and which transmit the weight of the load to the tread portion only of the tire, said bands being of lesser diameter than the felly-guiding means and disposed adjacent thereto whereby they are radially guided and laterally supported, substantially as described.

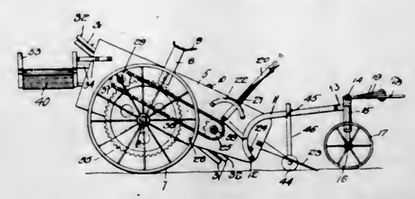
3. In a resilient wheel, a felly having an annular disk extending continuously therearound, a flexible tire attached to said felly having an internal recess which continuously receives said disk, whereby the tire is radially guided and laterally supported, and two circular bands arranged within the tire, at opposite sides of said disk, which surround the felly, at a distance therefrom, and which transmit the weight of the load to the tread portion only of the tire, substantially as described.

4. In a resilient wheel, a felly having vertical guiding means extending continuously therearound, a flexible tire attached to said felly having radially and inwardly extending guiding means, which continuously engages said felly-guiding means, and also having a pair of flat engaging faces arranged at opposite sides of said felly-guiding means, and two circular bands in engagement with said flat faces which surround the felly, at a distance therefrom, and which transmit the weight of the load to the tread portion only of the tire, substantially as described.

5. In a resilient wheel, a felly having an annular disk extending continuously therearound, a flexible tire attached to said felly comprising an outer case and a circular portion arranged within it at its tread side, said circular portion having a recess which receives continuously said disk and also having a pair of flat engaging faces at opposite sides of said recess, and two circular bands engaging said flat faces which surround the felly, at a distance therefrom, and which transmit the weight of the load to the tread portion of the tire, substantially as described.

[Claim 6 not printed in the Gazette.]

943,817. WEED-DIGGER. RICHARD R. DAMOUDE, Plainview, Minn. Filed June 29, 1908. Serial No. 440,919.



1. In a machine of the character described, a tiltingly supported box frame, a digger at the forward end of said frame, means for supporting and effecting vertical adjustment at the forward end of the frame, an endless carrier supported between the sides of the box frame and extended forwardly beneath the digger, a carrier comprising crank shafts supported in the sides of the frame and vibratory bars supported upon the cranks of the shafts the forward ends of said bars being extended beneath the rear end of the endless carrier, and means for imparting rotary motion to one of the crank shafts and to the endless carrier.

2. In a machine of the character described, a tiltingly supported box frame, a digger at the forward end of said

frame, an endless carrier supported in rear of and extended beneath the digger, crank shafts supported in the sides of the box-frame, vibratory carrier bars supported upon the cranks of the shafts and extended downwardly and forwardly beneath the rear portion of the endless carrier, means for actuating the latter and one of the crank shafts, a chute supported transversely below the discharge ends of the carrier bars, a driven endless carrier in said chute, and means for supporting and effecting vertical adjustment of the forward end of the box-frame.

3. In a machine as set forth, a tiltingly supported box frame, a digger at the forward end of said frame, an endless carrier supported in rear of and extended beneath the digger, crank-shafts supported in the sides of the box-frame, vibratory carrier bars supported upon the cranks of the shaft and extended downwardly and forwardly beneath the rear portion of the endless carrier, said machine having rear traction wheels having a shaft provided with a gear wheel, one of said crank shafts having a gear meshed with the first named gear and provided with a sprocket wheel, said endless carrier having shafts one of which is provided with a sprocket having a sprocket chain connection with the first named sprocket, a chute supported transversely below the discharge ends of the carrier bars, a driven endless carrier in said chute, and means for supporting and effecting vertical adjustment of the forward end of the box frame.

943,818. BLACKSMITH'S TONGS. WILLIAM L. DAVIS, Georges Creek, Tex., assignor of one-half to William B. Pruitt, Georges Creek, Tex. Filed Apr. 7, 1909. Serial No. 488,422.



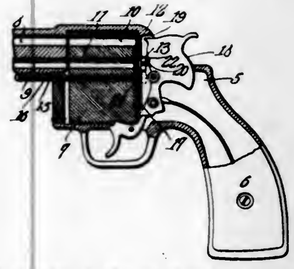
1. A device of the class described comprising a pair of crossed handles pivotally connected at their point of intersection; a pair of jaws pivoted at opposite ends to one handle upon opposite sides of the pivotal connection between the handles, and having sliding connection at opposite ends with the other handle upon opposite sides of the pivotal connection between the handles.

2. A device of the class described comprising a pair of crossed handles pivotally connected at their point of intersection; a pair of jaws pivoted at opposite ends to one handle upon opposite sides of the pivotal connection between the handles, and having sliding connection at opposite ends with the other handle upon opposite sides of the pivotal connection between the handles, the terminals of the jaws being overbent at right angles to their body portions.

3. A device of the class described comprising a pair of crossed handles, each provided upon both sides of their point of intersection with a plurality of openings; jaws slidably mounted upon the exterior of the handles for parallel movement; and retaining members extending through the jaws and arranged to be mounted successively in the openings of the handles.

4. A device of the class described comprising a pair of crossed handles, each provided upon both sides of their point of intersection with a plurality of openings; jaws slidably mounted upon the exterior of the handles for parallel movement; and retaining members extending through the jaws and arranged to be mounted successively in the openings of the handles, the terminals of the jaws being extended laterally to overhang the handles.

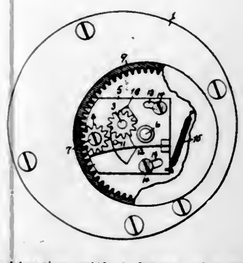
943,819. REVOLVER. THOMAS M. DU BOSE, Hattiesburg, Miss. Filed Mar. 30, 1909. Serial No. 486,662.



1. In a revolver, a pair of barrels, a cylinder having two sets of cartridge chambers registering respectively with the barrels, a sliding block mounted in the stock, and carrying a firing pin, means for moving said block to aline the firing pin with one set of cartridge chambers, a hammer for the other set of cartridge chambers, and means on the hammer for actuating the firing pin when in alinement with its set of cartridge chambers.

2. In a revolver, a stock having a slot in one of its side walls, a pair of barrels, a cylinder having two sets of cartridge chambers registering respectively with the barrels, a sliding block mounted in the stock, and carrying a firing pin, a pin carried by the block and projecting through the aforesaid slot, whereby the block may be adjusted to aline the firing pin with one set of cartridge chambers, a hammer for the other set of cartridge chambers, and means on the hammer for actuating the firing pin when in alinement with its set of cartridge chambers.

943,820. FISHING-REEL. CARSON DURKEE and CLARENCE C. BRIGGS, Vicksburg, Mich. Filed May 27, 1907. Serial No. 375,920.



1. The combination with a frame, of a spool journaled therein; a pinion secured to said spool, an internal driving gear arranged eccentrically relative to said spool pinion; a spindle for said driving gear; a transfer pinion arranged to mesh with said driving gear; a swinging support for said transfer pinion mounted on said driving gear spindle, whereby the said pinions are brought into mesh by the forward movement of said pinion support; means for limiting the movement of said pinion support; a spring for holding said pinion support yieldingly in its rearward position; a spring carried by said pinion support, arranged to bear on said transfer pinion when said pinion support is in its rear position; and a pin adapted to engage said spring to hold it from engagement with said transfer pinion when it is in mesh with said spool pinion.

2. The combination with a frame, of a spool journaled therein; a pinion secured to said spool; an internal driving gear arranged eccentrically relative to said spool pinion; a spindle for said driving gear; a transfer pinion arranged to mesh with said driving gear; a swinging support for said transfer pinion mounted on said driving gear spindle, whereby the said pinions are brought into mesh by the forward movement of said pinion support; means for limiting the movement of said pinion support; and a spring for holding said pinion support yieldingly in its rearward position.

3. The combination with a frame, of a spool journaled therein; a pinion secured to said spool; an internal driving gear arranged eccentrically relative to said spool pinion; a spindle for said driving gear; a transfer pinion arranged to mesh with said driving gear; a swinging support for said transfer pinion mounted on said driving gear spindle, whereby the said pinions are brought into mesh by the forward movement of said pinion support; a spring for holding said pinion support yieldingly in its rearward position; a spring carried by said pinion support, arranged to bear on said transfer pinion when said pinion support is in its rear position; and a pin adapted to engage said spring to hold it from engagement with said transfer pinion when it is in mesh with said spool pinion.

4. The combination with a frame, of a spool journaled therein; a pinion secured to said spool; an internal driving gear arranged eccentrically relative to said spool pinion; a spindle for said driving gear; a transfer pinion arranged to mesh with said driving gear; a swinging support for said transfer pinion mounted on said driving gear spindle, whereby the said pinions are brought into mesh by the forward movement of said pinion support; and a spring for holding said pinion support yieldingly in its rearward position.

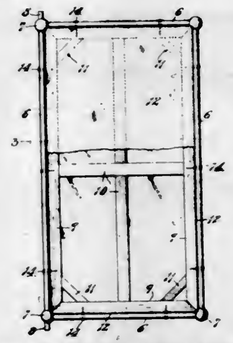
5. The combination with a frame, of a spool journaled therein; a pinion secured to said spool; an internal driving gear arranged eccentrically relative to said spool pinion; a spindle for said driving gear; a transfer pinion arranged to mesh with said driving gear; a swinging support for said transfer pinion mounted on said driving gear spindle, whereby the said pinions are brought into mesh by the forward movement of said pinion support; means for limiting the movement of said pinion support; a spring carried by said pinion support arranged to bear upon said transverse pinion when said pinion support is in its rear position; and a pin adapted to engage said spring to hold it from engagement with said transfer pinion when it is in mesh with said spool pinion.

[Claim 6 not printed in the Gazette.]

943,821. PANEL FOR SWINGING DISPLAY-RACKS. LOUIS FELDMANN, Jr., St. Louis, Mo., assignor to Multiplex Display Fixture Company, St. Louis, Mo., a Corporation of Missouri. Filed May 15, 1909. Serial No. 496,151.

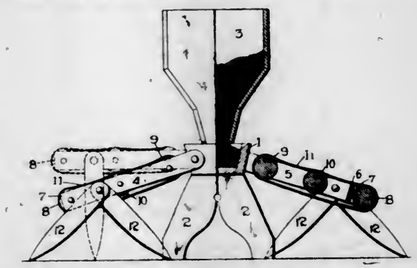
1. A panel for displaying wall-paper or the like, the same comprising an outer frame, an inner frame adapted to be detachably mounted in said outer frame, a bag of fabric adapted to receive paste loosely fitting around said inner frame and adapted to be shrunk thereupon, and means adapted to detachably hold said inner frame in said outer frame; substantially as described.

2. A panel for displaying wall-paper or the like, the same comprising an outer supporting-frame, an inner frame adapted to be removably mounted in said outer frame, a shrinkable fabric bag adapted to receive paste fitting around and covering both sides of said inner frame and upon which said wall-paper or the like is adapted to be displayed, said bag being adapted to be slipped over and loosely secured around said frame and to be shrunk tightly thereupon by said paste, and means adapted to removably hold said inner frame in said outer frame; substantially as described.



3. In a panel for displaying wall-paper or the like, the combination with an outer metallic supporting-frame, of inner wooden frames adapted to be removably and interchangeably mounted in said supporting-frame, each of said inner frames comprising a panel formed of side and end rails 9 and cross-connecting members 10 and a shrinkable fabric bag 12 adapted to receive paste fitting around and covering both sides of said panel and upon which said wall-paper or the like is adapted to be pasted, said bag being adapted to be slipped over and loosely secured around said panel and to be shrunk tightly thereupon by said paste, and means adapted to removably hold said inner frames in said supporting-frame; substantially as described.

943,822. POULTRY FEEDER AND EXERCISER. EDWARD W. FRANKLIN, Sheridan, N. Y. Filed Dec. 11, 1908. Serial No. 466,984.



1. The combination with a central feed trough, of two exercising mechanisms pivoted at their inner ends to opposite sides of the trough and means for supporting the outer ends of said exercising mechanisms.

2. The combination with a feed trough, of two tread mills located on opposite sides of the trough and pivoted thereto and means for varying the angle of inclination of the tread mills.

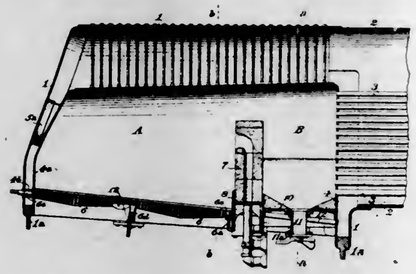
3. The combination with a feed trough, of a tread mill mechanism consisting of a frame pivoted to the feed trough, rolls journaled in the frame, and a loop of flexible material supported by the rolls.

4. In a device of the class described, a trough, legs supporting said trough and an exercising mechanism having a frame pivoted to the trough.

5. In a device of the class described, a trough, legs supporting said trough and an exercising mechanism having a frame pivoted at its inner end to the trough, and legs for supporting the outer end of said frame.

[Claims 6 to 8 not printed in the Gazette.]

943,823. LOCOMOTIVE-BOILER FURNACE. FREDERICK F. GAINES, Savannah, Ga. Filed Aug. 28, 1909. Serial No. 514,986.



1. The combination, with a locomotive boiler firebox, of a bearer extending across the firebox near the bottom thereof and attached at its ends thereto, a bridge wall of refractory material supported on said bearer and dividing the interior of the firebox into a rear fire chamber space and a forward combustion chamber space, a bar grate extending longitudinally at the bottom of the fire chamber space, and a plurality of water grate tubes, alternated in position with the bars of the grate and extending from the rear to the front water wall of the firebox and below the combustion chamber space.

2. The combination, with a locomotive boiler firebox, of a bearer extending across the firebox near the bottom thereof and attached at its ends thereto, a bridge wall of refractory material supported on said bearer and dividing the interior of the firebox into a rear fire chamber space and a forward combustion chamber space, a plurality of grate bars extending from the bridge wall to the rear wall of the firebox, and a plurality of water grate tubes, alternated in position with the grate bars and extending from the rear to the front water wall of the firebox and below the combustion chamber space.

3. The combination, with a locomotive boiler firebox, of a bearer extending across the firebox near the bottom thereof and attached at its ends thereto, a bridge wall of refractory material supported on said bearer and dividing the interior of the firebox into a rear fire chamber space and a forward combustion chamber space, a plurality of rocking or vibratable grate bars extending from the bridge wall to the rear water wall of the firebox, and a plurality of water grate tubes, alternated in position with the grate bars and extending from the rear to the front water wall of the firebox and below the combustion chamber space.

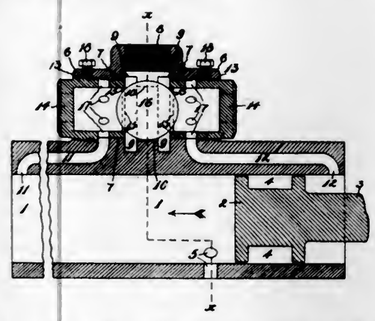
4. The combination, with a locomotive boiler firebox, of a bearer extending across the firebox near the bottom thereof and attached at its ends thereto, a bridge wall of refractory material supported on said bearer and dividing the interior of the firebox into a rear fire chamber space and a forward combustion chamber space, sockets or thimbles fixed in the rear water wall of the firebox, grate bar bearers fixed to the bridge wall bearer, a plurality of grate bars having end trunnions supported on the grate bearers and in the sockets or thimbles, and a plurality of water grate tubes, alternated in position with the grate bars and extending from the rear to the front water wall of the firebox and below the combustion chamber space.

943,824. VALVE. JAMES GARVIE, Cleveland, Transvaal. Filed Apr. 19, 1909. Serial No. 490,737.

1. A valve of the class described comprising a ball or sphere and oppositely disposed hollow members providing annular valve seats, and means for adjusting said members relative to one another.

2. A valve of the class described comprising a ball or sphere and oppositely disposed hollow members providing annular valve seats, means for adjusting said members relative to one another and means for securing said members in their adjusted positions.

3. A valve of the class described comprising a valve chest having a bore and an inlet for the motive fluid communicating with said bore, a ball or sphere located in the bore opposite the inlet, two hollow plugs screwed into the bore, said plugs being beveled off on the inside at their inner and open ends to form opposing seatings for the valve and having passages through which the motive fluid can pass from their interiors, and means for securing said plugs in their adjusted positions.

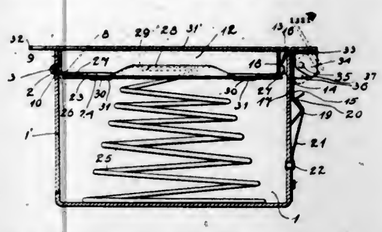


4. A valve of the class described comprising a valve chest having a bore and a central inlet for the motive fluid communicating with said bore and two recesses in the bore, a ball or sphere located in the bore opposite the inlet and in a projection formed between the aforesaid recesses, the said projection forming a guide for it, two hollow plugs open at their inner ends and screwed into the bore, said plugs being beveled off on the inside at their inner ends to form oppositely disposed valve seats, said plugs having passages through which the motive fluid can pass from their interiors and means for securing the plugs in their adjusted positions.

5. A valve of the class described, comprising a valve chest having a longitudinal bore, a transverse inlet for the motive fluid leading into said bore and two annular recesses in the bore at opposite sides of the inlet, a ball or sphere arranged in the bore opposite the inlet and adapted to move in a guiding projection formed between the recesses aforesaid, two hollow plugs open at their inner ends provided with exterior screw threads and having polygonal heads for screwing them into or out of the valve chest, said plugs being beveled off on the inside at their inner and open ends to form oppositely disposed seats for the valve, and having passages through which the motive fluid can pass from their interiors and set screws screwed into the valve chest and engaging the plugs for retaining the latter in position after adjustment.

[Claims 6 and 7 not printed in the Gazette.]

943,825. RECEPTACLE. FRANKLIN HARDINGE, Chicago, Ill. Filed Oct. 23, 1907. Serial No. 398,817.



1. In a device of the class described, the combination of a receptacle, ledges formed on the inner sides of the walls of the receptacle near the mouth thereof, a removable frame for engaging within the mouth to rest on said ledges, means for locking said frame to said ledges, there being an entrance opening through said frame, a trap lid within the receptacle below said frame, and a compression spring for tending to hold said lid against said frame to seal the entrance opening.

2. In a device of the class described, the combination of a receptacle, a perforated movable frame entirely within the mouth of the receptacle, said frame forming a seat about the opening therethrough, a trap lid within the receptacle below said frame, a coiled spring tending to press said trap lid against the frame to close the opening, and spring clip mechanism for locking said frame to the receptacle.

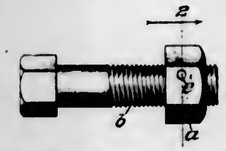
3. In a device of the class described, the combination of a receptacle, a removable frame inserted within the receptacle at the mouth thereof and having an opening therethrough, a trap lid, spring means within the receptacle tending to close said trap lid to close the opening, a removable locking frame for engaging said receptacle and for locking said frame thereto, and a main cover for the receptacle hinged to said locking frame.

4. In a device of the class described, the combination of a receptacle, a frame supported at the mouth of said receptacle and having an opening therethrough, a trap lid for said opening, a frame adapted to be detachably clamped to the receptacle, a cover for the receptacle pivoted to said clamped frame, and a spring member on said clamped frame for engaging with the removable frame to lock said removable frame in position.

5. In combination, a receptacle, a cover for the receptacle, a locking frame to which the cover is pivoted, said locking frame engaging against the outside of one wall of the receptacle, and a spring secured at one end to said wall and at its other end having clamping engagement with said locking frame.

[Claims 6 to 9 not printed in the Gazette.]

943,826. NUT-LOCK. FRANK A. HEADSON, La Fayette, Ind. Filed June 25, 1906. Serial No. 323,280.

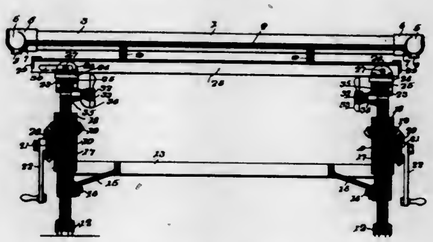


In a device of the class described, a bolt, a nut thereon having a recess extending transversely through one side of it, an intermediate part of said recess being contracted and the recess on one side of the contracted portion intercepting the channel between adjacent threads of the nut, a ball in the same part of the recess, a screw plug in the end of the same recess, a coil spring between the plug and the ball, a screw plug in the opposite end of the recess, and a stem therefrom projecting through the contracted portion of the recess.

943,827. POST-MORTEM TABLE. THOMAS B. HENNESSY, Chicago, Ill., assignor to The Champion Chemical Company, Springfield, Ohio, a Corporation of Ohio. Filed Sept. 11, 1907. Serial No. 392,320.

1. In a table of the character described, a table top comprising a frame consisting of side members having supports on the inner sides thereof, end members connecting the ends of said side members and having supports on the inner sides thereof, one of said end members being trough-shaped, and a plate engaging the supports on said side members and said end members and occupying such a position relatively to said trough-shaped end member that it may be caused to drain into said trough-shaped end member.

2. In a table of the character described, a table top comprising a frame consisting of tubular side and end members having supports on the inner sides thereof, one of said tubular end members having its upper side open to form a trough-shaped member, and a plate engaging the supports on said frame members and occupying such a position relatively to said trough-shaped member that it may be caused to drain into the same.

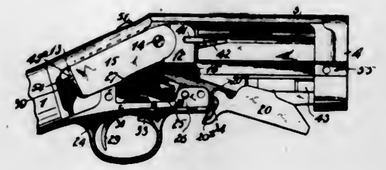


3. In a table of the character described, a table top comprising a frame consisting of side members having supports on the inner sides thereof, trough-shaped end members connecting the ends of said side members and having supports on the inner sides thereof, and a plate engaging the supports on said side members and said end members and lying in such a position that the ends of the plate lie above the level of the inner edges of said end members so as to drain into the same at each end.

4. In a table of the character described, a table top comprising a frame consisting of tubular side members having longitudinal slots in the inner sides thereof, trough-shaped members connecting the ends of said side members, each having an outlet therein, and a plate supported in said slots and on said trough-shaped members and forming a supporting surface.

5. In a table of the character described, a table top comprising tubular side members, substantially semicircular end members extending between said side members and each having an outlet in the lower portion thereof, elbows at the opposite ends of said semicircular members adapted to engage said tubular side members, a plate forming the supporting surface, and means for supporting said plate on said tubular side members and said end members in such a position that the ends of the plate lie above the level of the lower portions of said end members so as to drain into the same at each end.

943,828. MAGAZINE-FIREARM. LEWIS L. HEPBURN, New Haven, Conn., assignor to The Marlin Firearms Company, New Haven, Conn., a Corporation of Connecticut. Filed May 12, 1909. Serial No. 495,481.



1. In a forearm action magazine firearm having a barrel, a receiver, an action slide operating a jointed breech-bolt of an intermediate link, the rear end of which is pivoted in a raceway in the receiver, the middle to the rear arm of the breech bolt, the front end open to receive the cam of the handle slide to change the movement of locking from downward to upward in the receiver.

2. In a firearm, a receiver, a two-part jointed breech-bolt, the rear part being arranged to tilt to lock with the receiver, a side opening for ejecting the shells, an ejecting hole cover pivoted to the breech-bolt near its forward end

and traveling therewith on its forward and rearward excursion.

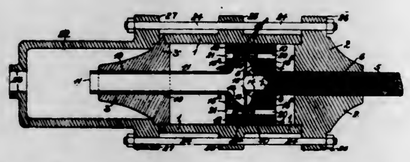
3. A recoil operated locking device consisting of a locking arm and an unlocking arm, a spring for the two always forcing them outward into engagement with a shoulder, an action rod coöperating therewith and so arranged that when rearward pressure is brought to bear on said rod, it puts a pressure on the locking arm and holds it against the tension of the spring when the hammer falls and, until the shock of recoil or release of the handle slide permits it to operate itself.

4. In a firearm, a receiver, a breech block movable to and fro, a breech block locking member carried by said breech block, a safety locking device carried by said breech block locking member, a supporting ledge for said safety locking device, a finger piece mounted in the receiver and carrying a longitudinally extending limb having an incline to push said safety locking device out of engagement with said ledge to release said breech block locking member when the gun is to be opened.

5. An automatic trigger lock consisting of a sliding piece mounted on the trigger plate and operated back and forth by a rocker, an arm of said rocker extending into the path of the carrier as it swings up and down, whereby when the carrier is depressed to its low limit, it strikes the arm of the rocker and forces the slide rearward under the trigger and pulls it out again at the last end of the closing lift, whereby said trigger cannot be pulled at any time before the gun is firmly locked.

[Claims 6 to 12 not printed in the Gazette.]

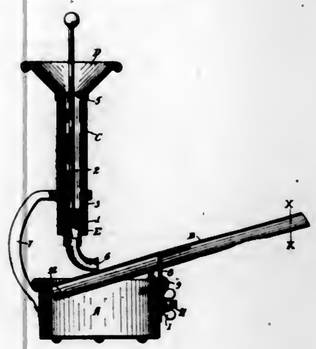
943,829. RECIPROCATING ENGINE. JOHN HOLGATE, Luipaardsvlei, Transvaal. Filed Oct. 10, 1908. Serial No. 457,123.



1. In a reciprocating engine in combination with the piston a tubular member having a head connected to the rear of the piston said head being made hollow and placed in communication with the bore of the tubular member and having ports formed therethrough from the back of the head to an annular groove around the hollow part a disk valve positioned between the head of the tubular member and piston, the piston having passages placing the tubular member in communication with the front of the valve and ports in the piston from the front of the piston to an annular groove formed in the piston at the front of the valve, substantially as described.

2. In a reciprocating engine in combination a cylinder having an exhaust port or ports in the wall thereof a piston in the cylinder, covers for the ends of the cylinder, a chamber fixed to the cylinder at the rear of the back cover said rear cylinder forming the actuating fluid chamber a tubular member constructed with a hollow head portion connected with the piston said tubular member working through the cylinder back cover and being in communication with the rear cylinder a disk valve positioned between the piston and the hollow head of the tubular member the piston having a hollow annular projection upon which the valve is adapted to move in either direction, the piston also having ports placing the tubular member in communication with the front of the valve and with front inlet ports leading from the front of the valve to the front of the piston and the head of the tubular member having back inlet ports leading from the back of the valve to the back of the head, the contiguous faces of the piston and head having flat annular concentric valve faces around the front and back inlet ports, substantially as described.

943,830. DEVICE FOR TESTING THE CONSISTENCY OF CATSUP, TOMATO-PULP, AND OTHER THICK LIQUIDS. RUDOLPH W. HUSS, Chicago, Ill., assignor of one-half to Fred C. Elder, Chicago, Ill. Filed Aug. 16, 1907. Serial No. 388,892.



1. In a device for testing the consistency of thick liquid such as set forth, an inclined plane and a chamber arranged above the inclined plane, said chamber being adapted to receive a quantity of the thick liquid and having a lower discharge duct or port arranged to discharge the thick liquid from the reservoir upon the lower portion of the inclined plane in direction upwardly along the latter, whereby the consistency of the thick liquid is determined by the extent to which it will ascend the inclined plane.

2. A device for testing the consistency of thick liquids such as set forth, consisting of a reservoir for containing a quantity of the thick liquid to be tested and having a valved discharge opening; and an inclined plane for receiving the thick liquid discharged from the reservoir, the discharge opening of the reservoir being arranged to discharge upon the lower portion of the inclined plane in direction upwardly along the latter when the valve is opened, and the consistency of the thick liquid being determined by the extent to which it will thus ascend the inclined plane.

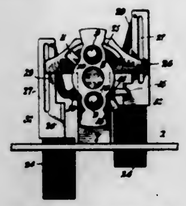
3. A device for testing the consistency of thick liquids such as set forth, consisting of a reservoir for containing a quantity of the thick liquid to be tested and having a valved discharge opening; and an inclined plane for receiving the thick liquid discharged from the reservoir, the discharge opening of the reservoir being arranged to discharge upon the lower portion of the inclined plane in direction upwardly along the latter when the valve is opened, and the consistency of the thick liquid being determined by the extent to which it will thus ascend the inclined plane, said inclined plane being provided with a graduated scale.

4. A device for testing the consistency of thick liquids such as set forth, consisting of a reservoir for containing a quantity of the thick liquid to be tested and having a valved discharge opening; and an inclined plane for receiving the thick liquid discharged from the reservoir, the discharge opening of the reservoir being arranged to discharge upon the lower portion of the inclined plane in direction upwardly along the latter when the valve is opened, and the consistency of the thick liquid being determined by the extent to which it will thus ascend the inclined plane, said inclined plane being adjustable.

5. A device for testing the consistency of thick liquids, such as set forth, comprising a reservoir having a valved outlet, a drip cup upon which the reservoir is supported, and an inclined plane supported upon the cup and arranged to extend under the valved outlet of the reservoir, said valved outlet being arranged to direct the discharge therefrom upwardly along the incline.

[Claims 6 to 9 not printed in the Gazette.]

943,831. TWO-POLE SNAP-SWITCH. LOUIS KELLNER, New York, N. Y., assignor to Metropolitan Switchboard Co., a Corporation of New Jersey. Filed Nov. 17, 1908. Serial No. 463,037.

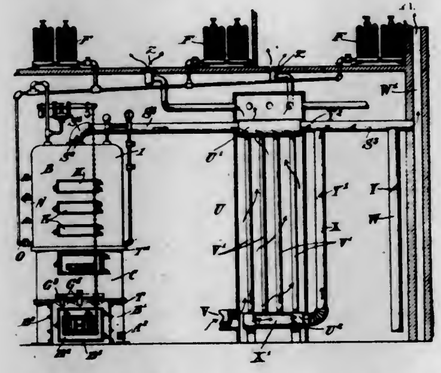


1. In a switch of the class described, a standard having ears 28, push buttons having slotted stems engaging said ears, switch mechanism having a rocker-plate, and link connections from said push buttons to said rocker plate.

2. In a switch of the class described, a standard having ears 28, push buttons having slotted stems engaging said ears, switch mechanism having a rocker plate, link connections from said push buttons to said rocker plate, and integral ears on said stems for temporarily resisting movement of the switch elements, whereby they move abruptly to their alternate positions of throw at each actuation.

3. In a switch of the class described, a T-shaped standard having ears 28 at its outer extremities and having an intermediate curved slot, push buttons having slotted stems engaging said ears, switch mechanism having a rocker plate with an arm entering the curved slot of said standard, and link connections from said push buttons to said rocker plate.

943,832. HEATING APPARATUS. JOSEPH M. W. KITCHEN, East Orange, N. J. Filed Apr. 17, 1907. Serial No. 368,636.



1. In a heating apparatus, the combination of (1) a boiler, (2) a furnace for generating heat for said boiler, (3) a pipe distributing and heat radiating system for distributing the heat absorbed into said boiler, (4) an economizer of waste heat, said furnace, boiler and economizer being constructed and arranged to secure an up draft for gases through said furnace and boiler and a horizontal draft from said boiler to said economizer, and for the downward travel of said gases through said economizer, and for the exit of the gases through a waste gas conduit at the bottom of said economizer, (5) a chimney, (6) a smoke pipe connecting said boiler, economizer and said chimney, (7) means for securing the conveyance of the heating gases from said boiler, either directly to said chimney or for diverting said gases through said economizer, (8) means for absorbing the heat of the gases passing through said economizer by heating air passing through said economizer, and (9) means for distributing the heated air to places where said air may be used for respiratory or adjunct heating purposes, the gas passages of said apparatus being arranged in relation to each other to secure an equilibrious balance of the gases in said apparatus and to prevent the escape of said gases against the pressure of the atmosphere.

2. In a heating apparatus, the combination of (1) an up draft furnace, (2) a boiler, (3) an economizer of the lower degrees of heat generated in said furnace, (4) a chimney for said apparatus, (5) a dependent chimney check draft for reducing the chimney draft acting through said apparatus, and (6) a smoke pipe connecting said boiler, economizer and chimney, said furnace, economizer and check draft being constructed and arranged in such relation one to the other as to secure an equilibrious balance of gases of relatively equal temperatures at equal levels in the passages of said furnace, economizer and check draft, and to prevent the undesired escape of said gases from the passages of said apparatus.

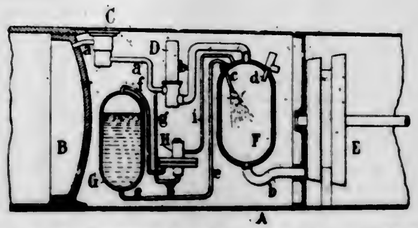
3. In a heating apparatus, the combination of (1) a boiler, (2) an air heating heat economizer for economizing low degrees of heat generated in the furnace of said apparatus which pass out from the boiler of said apparatus, said economizer comprising means for transferring heat from waste gases to fresh air traveling vertically upward in said economizer, said waste gases traveling in a downward plunging travel in said economizer, (3) means for controlling the passage of gases through said economizer, and (4) means for regulating the intensity of chimney draft acting in said apparatus.

4. In a heating apparatus, the combination of (1) a boiler, (2) a system of pipe conduits and radiating surfaces for radiating the heat generated in said boiler, (3) a chimney, (4) an economizer located in the line of the travel of the heating gases between said boiler and said chimney, said economizer being located outside of said boiler, and having for its purpose the heating of air with the heat remaining in the heating gases that have passed through and out of said boiler, and (5) means for utilizing the heated air for purposes of respiration and heating.

5. In a heating apparatus, the combination of (1) a boiler, (2) a system for distributing the heat transmitted by said boiler, (3) a chimney, (4) a smoke pipe connecting said boiler and said chimney, and (5) a combined air heater and economizer of the heat of the gases passing through said smoke pipe and said boiler to said chimney, said economizer being located between said boiler and said chimney, said economizer being constructed to pass the gases therethrough from a high level to a low level, and for passing therethrough the air to be heated from a low level to a high level in counter-current to the travel of the gases passing through said economizer.

[Claims 6 and 7 not printed in the Gazette.]

943,833. AIR-HEATER FOR AUTOMOBILE TORPEDOES. FRANK M. LEAVITT, New York, N. Y., assignor to E. W. Bliss Company, Brooklyn, N. Y., a Corporation of West Virginia. Filed Aug. 27, 1907. Serial No. 390,690.



1. In an automobile torpedo the combination with the reservoir of air under high pressure, the engine, the con-

and traveling therewith on its forward and rearward excursion.

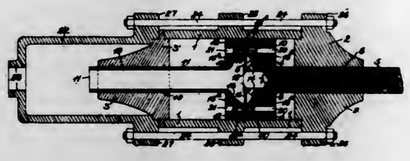
3. A recoil operated locking device consisting of a locking arm and an unlocking arm, a spring for the two always forcing them outward into engagement with a shoulder, an action rod coöperating therewith and so arranged that when rearward pressure is brought to bear on said rod, it puts a pressure on the locking arm and holds it against the tension of the spring when the hammer falls and, until the shock of recoil or release of the handle slide permits it to operate itself.

4. In a firearm, a receiver, a breech block movable to and fro, a breech block locking member carried by said breech block, a safety locking device carried by said breech block locking member, a supporting ledge for said safety locking device, a finger piece mounted in the receiver and carrying a longitudinally extending limb having an incline to push said safety locking device out of engagement with said ledge to release said breech block locking member when the gun is to be opened.

5. An automatic trigger lock consisting of a sliding piece mounted on the trigger plate and operated back and forth by a rocker, an arm of said rocker extending into the path of the carrier as it swings up and down, whereby when the carrier is depressed to its low limit, it strikes the arm of the rocker and forces the slide rearward under the trigger and pulls it out again at the last end of the closing lift, whereby said trigger cannot be pulled at any time before the gun is firmly locked.

[Claims 6 to 12 not printed in the Gazette.]

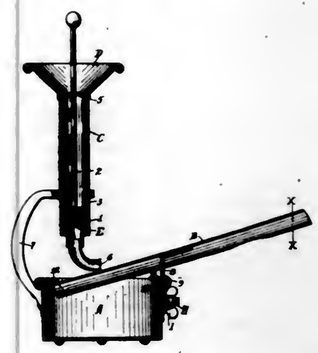
943,829. RECIPROCATING ENGINE. JOHN HOLGATE, Luipaardsvlei, Transvaal. Filed Oct. 10, 1908. Serial No. 457,123.



1. In a reciprocating engine in combination with the piston a tubular member having a head connected to the rear of the piston said head being made hollow and placed in communication with the bore of the tubular member and having ports formed therethrough from the back of the head to an annular groove around the hollow part a disk valve positioned between the head of the tubular member and piston, the piston having passages placing the tubular member in communication with the front of the valve and ports in the piston from the front of the piston to an annular groove formed in the piston at the front of the valve, substantially as described.

2. In a reciprocating engine in combination a cylinder having an exhaust port or ports in the wall thereof a piston in the cylinder, covers for the ends of the cylinder, a chamber fixed to the cylinder at the rear of the back cover said rear cylinder forming the actnating fluid chamber a tubular member constructed with a hollow head portion connected with the piston said tubular member working through the cylinder back cover and being in communication with the rear cylinder a disk valve positioned between the piston and the hollow head of the tubular member the piston having a hollow annular projection upon which the valve is adapted to move in either direction, the piston also having ports placing the tubular member in communication with the front of the valve and with front inlet ports leading from the front of the valve to the front of the piston and the head of the tubular member having back inlet ports leading from the back of the valve to the back of the head, the contiguous faces of the piston and head having flat annular concentric valve faces around the front and back inlet ports, substantially as described.

943,830. DEVICE FOR TESTING THE CONSISTENCY OF CATSUP, TOMATO-PULP, AND OTHER THICK LIQUIDS. RUDOLPH W. HUSS, Chicago, Ill., assignor of one-half to Fred C. Elder, Chicago, Ill. Filed Aug. 16, 1907. Serial No. 388,892.



1. In a device for testing the consistency of thick liquid such as set forth, an inclined plane and a chamber arranged above the inclined plane, said chamber being adapted to receive a quantity of the thick liquid and having a lower discharge duct or port arranged to discharge the thick liquid from the reservoir upon the lower portion of the inclined plane in direction upwardly along the latter, whereby the consistency of the thick liquid is determined by the extent to which it will ascend the inclined plane.

2. A device for testing the consistency of thick liquids such as set forth, consisting of a reservoir for containing a quantity of the thick liquid to be tested and having a valved discharge opening; and an inclined plane for receiving the thick liquid discharged from the reservoir, the discharge opening of the reservoir being arranged to discharge upon the lower portion of the inclined plane in direction upwardly along the latter when the valve is opened, and the consistency of the thick liquid being determined by the extent to which it will thus ascend the inclined plane.

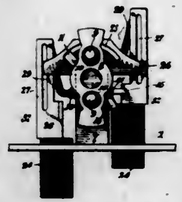
3. A device for testing the consistency of thick liquids such as set forth, consisting of a reservoir for containing a quantity of the thick liquid to be tested and having a valved discharge opening; and an inclined plane for receiving the thick liquid discharged from the reservoir, the discharge opening of the reservoir being arranged to discharge upon the lower portion of the inclined plane in direction upwardly along the latter when the valve is opened, and the consistency of the thick liquid being determined by the extent to which it will thus ascend the inclined plane, said inclined plane being provided with a graduated scale.

4. A device for testing the consistency of thick liquids such as set forth, consisting of a reservoir for containing a quantity of the thick liquid to be teated and having a valved discharge opening; and an inclined plane for receiving the thick liquid discharged from the reservoir, the discharge opening of the reservoir being arranged to discharge upon the lower portion of the inclined plane in direction upwardly along the latter when the valve is opened, and the consistency of the thick liquid being determined by the extent to which it will thus ascend the inclined plane, said inclined plane being adjustable.

5. A device for testing the consistency of thick liquids, such as set forth, comprising a reservoir having a valved outlet, a drip cup upon which the reservoir is supported, and an inclined plane supported upon the cup and arranged to extend under the valved outlet of the reservoir, said valved outlet being arranged to direct the discharge therefrom upwardly along the incline.

[Claims 6 to 9 not printed in the Gazette.]

943,831. TWO-POLE SNAP-SWITCH. LOUIS KELLNER, New York, N. Y., assignor to Metropolitan Switchboard Co., a Corporation of New Jersey. Filed Nov. 17, 1908. Serial No. 463,037.

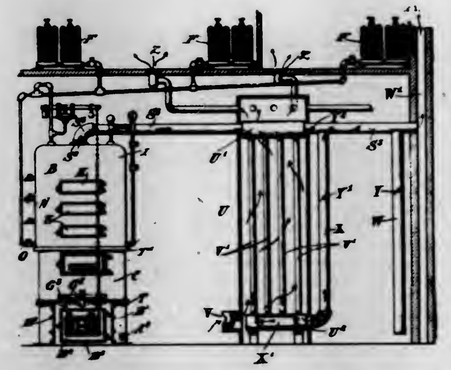


1. In a switch of the class described, a standard having ears 28, push buttons having slotted stems engaging said ears, switch mechanism having a rocker-plate, and link connections from said push buttons to said rocker plate.

2. In a switch of the class described, a standard having ears 28, push buttons having slotted stems engaging said ears, switch mechanism having a rocker plate, link connections from said push buttons to said rocker plate, and integral ears on said stems for temporarily resisting movement of the switch elements, whereby they move abruptly to their alternate positions of throw at each actuation.

3. In a switch of the class described, a T-shaped standard having ears 28 at its outer extremities and having an intermediate curved slot, push buttons having slotted stems engaging said ears, switch mechanism having a rocker plate with an arm entering the curved slot of said standard, and link connections from said push buttons to said rocker plate.

943,832. HEATING APPARATUS. JOSEPH M. W. KITCHEN, East Orange, N. J. Filed Apr. 17, 1907. Serial No. 368,636.



1. In a heating apparatus, the combination of (1) a boiler, (2) a furnace for generating heat for said boiler, (3) a pipe distributing and heat radiating system for distributing the heat absorbed into said boiler, (4) an economizer of waste heat, said furnace, boiler and economizer being constructed and arranged to secure an up draft for gases through said furnace and boiler and a horizontal draft from said boiler to said economizer, and for the downward travel of said gases through said economizer, and for the exit of the gases through a waste gas conduit at the bottom of said economizer, (5) a chimney, (6) a smoke pipe connecting said boiler, economizer and said chimney, (7) means for securing the conveyance of the heating gases from said boiler, either directly to said chimney or for diverting said gases through said economizer, (8) means for absorbing the heat of the gases passing through said economizer by heating air passing through said economizer, and (9) means for distributing the heated air to places where said air may be used for respiratory or adjunct heating purposes, the gas passages of said apparatus being arranged in relation to each other to secure an equilibrious balance of the gases in said apparatus and to prevent the escape of said gases against the pressure of the atmosphere.

2. In a heating apparatus, the combination of (1) an up draft furnace, (2) a boiler, (3) an economizer of the lower degrees of heat generated in said furnace, (4) a chimney for said apparatus, (5) a dependent chimney check draft for reducing the chimney draft acting through said apparatus, and (6) a smoke pipe connecting said boiler, economizer and chimney, said furnace, economizer and check draft being constructed and arranged in such relation one to the other as to secure an equilibrious balance of gases of relatively equal temperatures at equal levels in the passages of said furnace, economizer and check draft, and to prevent the undesired escape of said gases from the passages of said apparatus.

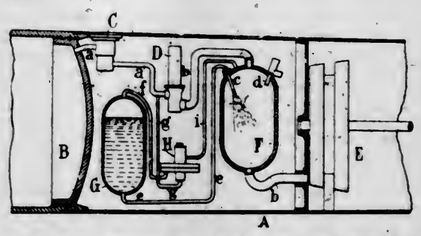
3. In a heating apparatus, the combination of (1) a boiler, (2) an air heating heat economizer for economizing low degrees of heat generated in the furnace of said apparatus which pass out from the boiler of said apparatus, said economizer comprising means for transferring heat from waste gases to fresh air traveling vertically upward in said economizer, said waste gases traveling in a downward plunging travel in said economizer, (3) means for controlling the passage of gases through said economizer, and (4) means for regulating the intensity of chimney draft acting in said apparatus.

4. In a heating apparatus, the combination of (1) a boiler, (2) a system of pipe conduits and radiating surfaces for radiating the heat generated in said boiler, (3) a chimney, (4) an economizer located in the line of the travel of the heating gases between said boiler and said chimney, said economizer being located outside of said boiler, and having for its purpose the heating of air with the heat remaining in the heating gases that have passed through and out of said boiler, and (5) means for utilizing the heated air for purposes of respiration and heating.

5. In a heating apparatus, the combination of (1) a boiler, (2) a system for distributing the heat transmitted by said boiler, (3) a chimney, (4) a smoke pipe connecting said boiler and said chimney, and (5) a combined air heater and economizer of the heat of the gases passing through said smoke pipe and said boiler to said chimney, said economizer being located between said boiler and said chimney, said economizer being constructed to pass the gases therethrough from a high level to a low level, and for passing therethrough the air to be heated from a low level to a high level in counter-current to the travel of the gases passing through said economizer.

[Claims 6 and 7 not printed in the Gazette.]

943,833. AIR-HEATER FOR AUTOMOBILE TORPEDOES. FRANK M. LEAVITT, New York, N. Y., assignor to E. W. Bliss Company, Brooklyn, N. Y., a Corporation of West Virginia. Filed Aug. 27, 1907. Serial No. 390,690.



1. In an automobile torpedo the combination with the reservoir of air under high pressure, the engine, the con-

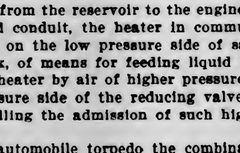
duit leading from the reservoir to the engine, the reducing valve in said conduit, the heater in communication with said conduit on the low pressure side of said valve, and the fuel tank, of means for feeding liquid fuel from said tank to the heater by air of higher pressure than that on the low-pressure side of the reducing valve comprising a valve controlling the admission of such high-pressure air to the tank.

2. In an automobile torpedo the combination with the reservoir of air under high pressure, the engine, the conduit leading from the reservoir to the engine, the reducing valve in said conduit, the heater in communication with said conduit on the low pressure side of said valve, and the fuel tank, of a valve controlled by the relative pressures in the heater and fuel tank, and controlling the flow of high pressure air to said tank.

3. In an automobile torpedo the combination with the reservoir of air under high pressure, the engine, the conduit leading from the reservoir to the engine, the reducing valve in said conduit, the heater in communication with said conduit on the low pressure side of said valve and the fuel tank, of means for feeding liquid fuel from said tank to the heater by air of higher pressure than that on the low-pressure side of the reducing valve, comprising a pressure-actuated part receiving heater-pressure on one side and tank-pressure on the other, and a valve controlled thereby for admitting high pressure air to the tank.

4. In an automobile torpedo the combination with the reservoir of air under high pressure, the engine, the conduit leading from the reservoir to the engine, the reducing valve in said conduit, the heater in communication with said conduit on the low pressure side of said valve and the fuel tank, of means for feeding liquid fuel from said tank to the heater by air of higher pressure than that on the low-pressure side of the reducing valve, consisting of a diaphragm valve with connections for admitting heater and tank pressures to opposite sides of its diaphragm, and a conduit controlled by said valve for conveying high pressure air from the reservoir to said tank.

943,834. SEAL. ANTHONY W. LOSHBOUGH, Detroit, Mich., assignor to Automatic Seal Company, Detroit, Mich., a Corporation of Michigan. Filed Aug. 4, 1909. Serial No. 511,219.



1. In a device of the class described, a flexible sealing strip slotted at its ends to receive a rotatable locking member, an outer case slotted to receive the ends of said strip, a rotatable locking member inclosed within said case slotted for the passage of the flexible strip and provided with hooks adapted to enter the slots in said strip, means initially supported partially within the outer case for rotating said locking member, said means adapted to be automatically released from said case upon actuating the locking member to lock the ends of the strip within the case.

2. In a device of the class described, a flexible sealing strip slotted at its ends to receive a rotatable locking member, an outer case slotted to receive the ends of said strip, a rotatable locking member inclosed within said case slotted for the passage of the flexible strip and provided with hooks adapted to enter the slots in said strip, and a key adapted to be initially supported partially within said case for rotating said locking member and to be released therefrom only upon a predetermined rotation of the locking member.

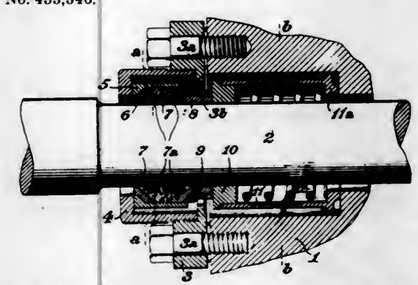
3. In a device of the class described, a flexible sealing strip slotted at its ends to receive a rotatable locking member, an outer case slotted to receive the ends of said strip, a rotatable locking member inclosed within said case slotted for the passage of said strip and provided with hooks adapted to enter the slots in said strip, a key adapted to be initially supported partially within said case, and a cup-shaped portion secured to the locking member and provided with a kerf adapted to receive the end of said key, said outer case adapted to release said key from the kerf of the cup-shaped portion only upon a predetermined rotation of the locking member.

4. In a device of the class described, a flexible sealing strip slotted at its ends to receive a rotatable locking member, an outer case slotted to receive the ends of said strip, the rotatable locking member inclosed within said case, slotted for the passage of the flexible strip and provided with hooks adapted to enter the slots in said strip, a cup-shaped portion secured to the rotatable locking member its wall formed with a kerf designed to receive a key, and the key adapted to be supported in said kerf to be released therefrom only upon a predetermined rotation of the locking member.

5. In a seal, a flexible strip slotted at each end, a cylindrical case having an opening in its end wall adapted to receive the ends of the strip, a rotatable locking member inclosed in said case, said member provided with hooks adapted to enter the slots in said strip whereby said strip may be locked within the case, a cup-shaped portion secured to said locking member and provided with a kerf to receive the ends of an operating key and means whereby said operating key may be initially supported in said case and subsequently released upon the rotation of said locking member.

[Claims 6 to 14 not printed in the Gazette.]

943,835. METALLIC ROD-PACKING. GEORGE B. MALTBY, Cleveland, Ohio. Filed Sept. 30, 1908. Serial No. 455,546.



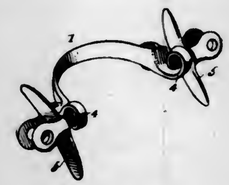
1. In a metallic rod packing, the combination, with a stuffing box, of a gland having a packing chamber and an internally projecting abutment flange, a segmental packing ring in the packing chamber of the gland, a packing ring follower bearing on said packing ring, a spring cage comprising an annular follower fitting in a cylinder in the stuffing box and bearing on the packing ring follower, the traverse of said annular follower being limited by the abutment flange, and a spring bearing on an end stop in the cylinder and on the annular follower.

2. In a metallic rod packing, the combination, with a stuffing box, of a gland having a packing chamber and internally projecting flange, a segmental metallic packing ring located in said packing chamber and having a plurality of sections of lubricating material inserted in its inner face, and means for compressing the segments of the packing ring upon a rod, said means being limited in its movement by engaging the internally projecting flange.

943,836. EYEGLASSES. EMIL B. MEYROWITZ, New York, N. Y., assignor to The Meyrowitz Manufacturing Co., a Corporation of New Jersey. Filed Mar. 27, 1909. Serial No. 486,085.

1. In a pair of eyeglasses, a bridge, nose engaging clips mounted in a fixed position on said bridge, spiral posts extending from said bridge beyond or outside of the points of attachment of said clips, and lenses fixed to said posts.

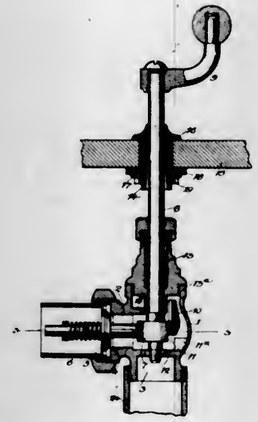
2. In a pair of eyeglasses, a substantially rigid bridge, nose-engaging clips mounted in a permanent position on said bridge, spiral posts of ductile but non-resilient material fixed to said bridge beyond or outside of the points of support of said clips, and lenses fixed to said posts.



3. In a pair of eyeglasses, a bridge, clips mounted on said bridge, flat spiral posts integral with said bridge and extending therefrom at points beyond or outside the location of said clips, and lenses fixed to the extremities of said posts.

4. In a pair of eyeglasses, a bridge, clips mounted on said bridge, flat spiral posts comprising material of rectangular transverse section fixed to said bridge at an outside convolution of the spirals, straps secured to an inner extremity of the spirals, and lenses attached to said straps.

943,837. VALVE DEVICE. JOHN MILLER, Chicago, Ill., assignor to James B. Clow & Sons, Chicago, Ill., a Corporation of Illinois. Filed July 20, 1908. Serial No. 444,429.



1. A valve device having, in combination a casing, a valve, a valve-stem, a valve-rod located at right angles to the valve-stem, an eccentric carried by the valve-rod and engaging the valve-stem, a primary support having an opening through which the valve rod passes, freely, so as to be freely end-wise movable therein, and means interposed between the primary support and the casing for supporting the latter, the primary support and casing being independent of and movable relatively to each other.

2. A valve-device having, in combination, a casing, a valve, a valve-stem, a valve-rod located at right angles to the valve-stem, an eccentric carried by the valve-rod and engaging the valve-stem, stops for limiting the movement of the eccentric in each direction, a primary support, means interposed between the primary support and the casing for supporting the latter, said supporting means being movable relatively to one of the two parts between which it is interposed and said primary support and casing being independent of and movable relatively to each other.

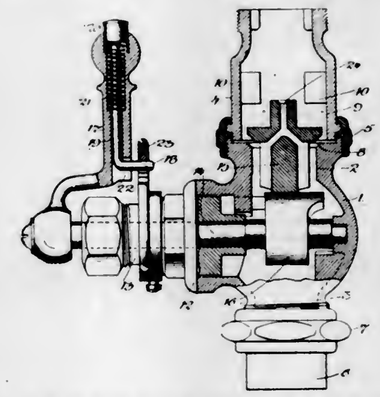
3. The combination with a primary support, of a valve device having a casing, said primary support and casing being independent of and movable relatively to each other, and means interposed between the primary support and casing for supporting the latter, said supporting means being supported by the primary support and movable relatively to one of the two parts aforesaid between which it is interposed, whereby the relative movement of the primary support and casing is permitted.

4. The combination with a primary support, of a valve device having a casing, said primary support and casing being independent of and movable relatively toward each other, and means interposed between the primary support and casing for supporting the latter, said supporting means being supported by the primary support and movable relatively to one of the two parts aforesaid between which it is interposed, whereby the relative movement of said primary support and casing is permitted.

5. The combination with a primary support of a valve device having a casing, said primary support and casing being independent of and relatively movable both toward and from each other and means interposed between the primary support and casing for supporting the latter, said supporting means being supported by the primary support and movable relatively to one of the two parts aforesaid between which it is interposed, whereby the relative movement of said primary support and casing is permitted.

[Claims 6 to 9 not printed in the Gazette.]

943,838. VALVE DEVICE. JOHN MILLER, Chicago, Ill., assignor to James B. Clow & Sons, Chicago, Ill., a Corporation of Illinois. Filed July 20, 1908. Serial No. 444,430.



1. In a valve device, the combination of a casing having an inlet port, a valve seat surrounding said port, a valve adapted to said seat and seating inward, a valve rod, means for transmitting movement from the valve rod to the valve for unseating the valve, a handle secured to the valve rod, a dog carried by the handle and having a laterally projecting portion, a spring exerting its pressure in one direction upon the handle and in the other direction upon the dog, and a sector having a series of ratchet teeth, with which the dog engages, for holding the valve in any position in which it may be set for regulating the flow of water past it.

2. In a valve device, the combination of a casing having an inlet port, a valve seat surrounding said port, a valve adapted to said seat and seating inward, a valve rod, means for transmitting movement from the valve rod to the valve for unseating it, a handle secured to the valve rod, a dog carried by the handle and having a laterally projecting portion provided with a rounded working surface, a spring exerting its pressure in one direction upon

the handle and in the other direction upon the dog, and a sector having ratchet teeth provided with rounded working surfaces with which the rounded working surface of the dog is adapted to engage.

3. In a valve device, the combination of a casing having an inlet port, a valve-seat surrounding said port, a valve adapted to said seat and seating inward, a valve rod, means for transmitting movement from the valve rod to the valve for unseating it, a handle secured to the valve rod, a dog having a laterally projecting portion, a spring exerting its pressure outwardly upon the dog and inwardly upon the handle and a sector having ratchet teeth arranged on its internal surface with which the dog engages for holding the lever and consequently the valve in any position in which it may be set for regulating the flow of water past the valve.

4. In a valve device, the combination of a casing having an inlet port, a valve seat surrounding said port, a valve adapted to said seat and seating inward, a valve rod, an eccentric carried by the valve rod and engaging the valve for unseating it, a handle secured to the valve rod, a spring actuated dog carried by the handle, and a sector having ratchet teeth with which said dog is adapted to engage for holding the valve at any desired distance from its seat, for regulating the flow of water past it.

943,839. BOAT-PROPELLER. FRANKLIN P. MCELFRESH, Shelby county, Iowa. Filed Aug. 16, 1909. Serial No. 513,055.



1. In a boat-propeller of the class described, the combination with a crank, of a pair of longitudinally adjustable arms secured to said crank, a float interposed between the terminals of said arms, and a paddle carried on the under face of said float and adapted to be propelled by the reciprocation thereof.

2. In a boat-propelling mechanism of the class described, the combination with a crank, of a pair of adjustable rearwardly extending arms, swiveled to said crank, a float rigidly interposed between the terminals of the said arms, a paddle pivoted to the under surface of said float, and adapted to be alternately retained in an operative and in an inoperative position, and means whereby the entire device may be swung into the boat.

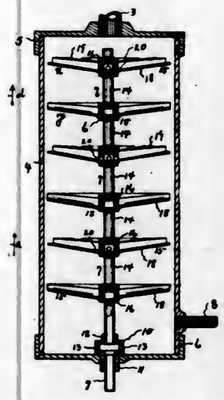
3. In a boat-propeller of the class described, the combination with gunwale engaging means, of a clevis pivotally secured to said means, a shaft journaled in said clevis, having an adjustable crank arm at one extremity, and a handle at the other, and a pair of longitudinally adjustable rearwardly extending operating arms swiveled to said crank arm, a float rigidly interposed between the operating arms and having a blade pivotally secured to the under surface thereof, and means whereby said clevis may be retained in a rigid position.

4. In a boat-propeller of the class described, the combination with gunwale engaging means, of a clevis pivotally secured to said means, a shaft journaled in said clevis, having an adjustable crank arm at one extremity, and a handle at the other, and a pair of longitudinally adjustable rearwardly extending operating arms swiveled to said crank arm, a float rigidly interposed between the operating arms and having a paddle pivotally secured to the under surface thereof, and means whereby the clevis may be retained in an operative position, comprising a pivoted lock at the forward extremity thereof.

5. In a boat-propeller of the class described, the combination with gunwale engaging means, of a clevis pivotally secured to said means, a shaft journaled in said clevis, having an adjustable crank arm at one extremity, and a handle at the other, and a pair of longitudinally adjustable rearwardly extending operating arms swiveled to said crank arm, a float rigidly interposed between the operating arms and having a paddle pivotally secured to the under surface thereof, whereby the propelling motion thereof may be reversed.

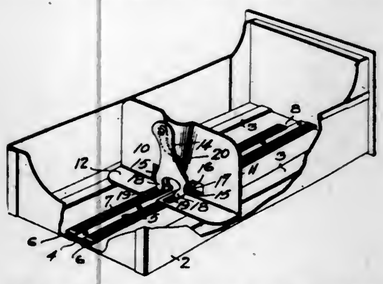
[Claims 6 to 8 not printed in the Gazette.]

943,840. STEAM-DRIER. CHARLES H. NOYES, Omaha, Nebr. Filed Aug. 9, 1909. Serial No. 511,870.



In a device of the character described, the combination with a steam boiler, of a receptacle located exteriorly thereof, an exit from said receptacle, a drain pipe centrally arranged in said receptacle and leading to said exit way, a return pipe leading from said exit way to the boiler, a steam pipe leading from the receptacle, and a plurality of superimposed, concave, imperforate drain baffles supported from the drain pipe and having ribbed upper faces, there being ports formed in the drain pipe to establish separate communication between the interior of the drain pipe and each of the drain baffles, the outer edges of said baffles being spaced from the inner wall of the receptacle and said baffles being supported entirely by the drain pipe.

943,841. DRAWER FOR FILING-CASES. ENOCH OHNSTRAND, Jamestown, N. Y., assignor to Art Metal Construction Company, Jamestown, N. Y., a Corporation of New York. Filed May 15, 1909. Serial No. 496,252.



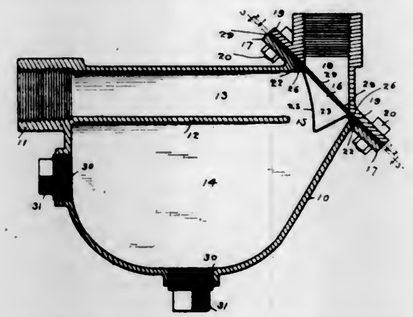
1. The combination of a drawer or other receptacle, a strip extending longitudinally thereof forming guideways at each side thereof, a follower, guide-lugs struck up from said follower and forming openings in the follower, a locking member on said follower, jaws on said locking member entering said openings and engaging said strip.

2. The combination of a drawer or other receptacle, a strip extending longitudinally thereof forming guideways at each side thereof, a follower, guide-lugs struck up from said follower and forming openings in the follower, said guide-lugs engaging said guideways, a locking member pivoted on said follower, and jaws on said locking member entering said openings and engaging said strip.

3. The combination of a drawer or other receptacle, a strip extending longitudinally thereof and forming guideways at each side thereof, a follower, guide-lugs struck up from said follower engaging said guideways and forming openings in said follower, a spring actuated locking member pivotally mounted on said follower, and jaws on said locking member engaging said strip through said openings.

4. The combination of a drawer or other receptacle, a strip extending longitudinally thereof having a roughened face, a follower engaging said strip and slidable thereon, and bearings on the bottom at opposite sides of said strip with which the follower engages and extending above said strip.

943,842. EEL-TRAP. GENNARO G. PASSARO, Stamford, Conn. Filed Mar. 16, 1909. Serial No. 483,722.



1. An eel trap comprising a body having incoming and outgoing pipe connections, a wall extending from the incoming connection but leaving a passage at the end thereof, a pocket below the wall into which the passage opens and a guard acting to deflect eels and other solid matter into the pocket and to prevent the passage of eels and other solid matter from the trap, said guard having one portion opposite the end of the incoming passage and another portion at an angle thereto and inclined relatively to the wall of the pocket.

2. An eel trap comprising a body having incoming and outgoing pipe connections, a wall extending from the incoming connection and forming a water passage across the body, a pocket below the wall, a passage leading from the water passage into the pocket and a guard acting to deflect eels and other solid matter into the pocket and to prevent the passage of eels and other solid matter from the trap, said guard having one portion opposite the end of the incoming passage and another portion at an angle thereto and inclined relatively to the wall of the pocket.

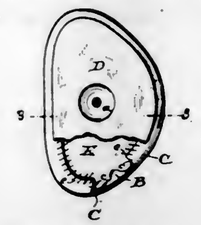
3. An eel trap comprising a body having incoming and outgoing pipe connections, a wall extending from the incoming connection but leaving a passage at the other end thereof, a pocket below the wall into which the passage opens and a guard consisting of parallel wires connected at the ends, said wires being bent intermediate their ends to form two portions at an angle to each other, substantially as described, for the purpose specified.

4. An eel trap comprising a body having an incoming water connection and a water passage leading therefrom, a pocket below the water passage, a passage leading from the water passage into the pocket, an outgoing water opening surrounded by a flange lying at an angle to the plane of the water passage, an outgoing water connection having a flange corresponding with the flange on the body, means for securing the flanges together and a guard held between the flanges, said guard having one portion opposite the end of the incoming passage and another portion at an angle thereto and inclined relatively to the wall of the pocket.

5. An eel trap comprising a body having an incoming water passage, below said passage a pocket, a passage leading from the water passage into the pocket, an outgoing water opening surrounded by a flange having opposite recesses, a guard comprising wires lying parallel and secured together, the ends lying in the recesses and an outgoing water connection having a flange secured to the flange on the body and retaining the guard in place.

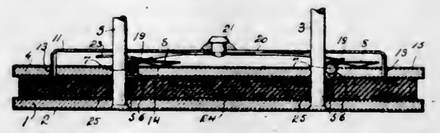
[Claim 6 not printed in the Gazette.]

943,843. TRUSS-PAD. ISAAC M. PEASE, Cincinnati, Ohio. Filed Oct. 12, 1908. Serial No. 457,243.



In the manufacture of truss-pads, a lining of fabric placed on the back of the pad proper, a front-covering placed over the front of the same and drawn smoothly around and over the edge thereof to an extent sufficient to cause its edge to overlap the edge of the lining mentioned, the superposed edges being permanently connected by being sewed together thereat, in a manner that the resulting seam is located exclusively on the back of the pad, and a back-covering of leather glued in place so as to cover the lining, the overlapping edges of the front-cover and the stitches whereby both are connected.

943,844. LOOSE-SHEET BINDER. WILLIAM P. PITT, Kansas City, Mo., assignor to Irving-Pitt Manufacturing Company, Kansas City, Mo., a Corporation of Missouri. Filed Nov. 26, 1907. Serial No. 404,000.



1. In a loose sheet binder, the combination with a base, of a post secured thereto, a follower on said post, and a roller movable to and from a position in which it will lock the follower against movement from but will permit its movement toward the base.

2. In a loose sheet binder, the combination with a base, of a post secured thereto, a follower on said post provided with an abutment inclined toward the post, and a wedge movable to and from a position in which it will have contact with said inclined abutment and said post, the inclination of the abutment being toward the end of the post which is secured to said base.

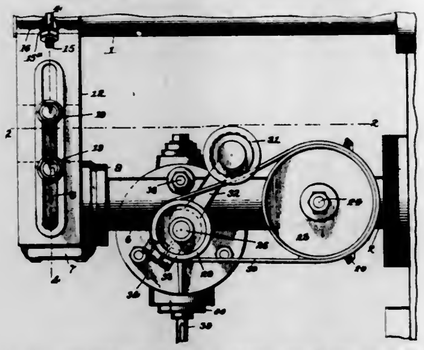
3. In a loose sheet binder, the combination with a base, of a post secured thereto, a follower on said post having an abutment inclined toward the end of the post secured to the base, and a roller movable to and from a position in which it will have contact with said inclined abutment and said post.

4. In a loose sheet binder, the combination with a base, of a post secured thereto, a follower on said post, a rolling wedge and a lever carrying said wedge and movable to and from a position in which the rolling wedge will lock the follower against movement on the post from said base but will permit its movement toward the base.

5. In a loose sheet binder, the combination with a base, of a post secured thereto, a follower on said post having an abutment inclined toward the end of the post which is secured to the base, a wedge, and a lever carrying said wedge and movable to and from a position in which the wedge will have contact with said inclined abutment and said post.

[Claims 6 to 27 not printed in the Gazette.]

943,845. UNIVERSAL MILLING ATTACHMENT. GEORGE G. PORTER and FRANK E. CABLE, Syracuse, N. Y., assignors to The Porter-Cable Machine Company, Syracuse, N. Y., a Corporation of New York. Filed Mar. 22, 1909. Serial No. 485,101.



1. In combination with a frame; an arbor rotatably mounted therein and provided at one end with means to connect it to or with the spindle of a milling machine; an adjustable member adapted to be secured to the overhanging arm of the machine for supporting the frame aforesaid; a tool-holder carried by the frame; and a driving mechanism for said tool-holder.

2. In combination with a frame; an arbor rotatably mounted therein and provided at one end with means to connect it to or with the spindle of a milling machine; an adjustable supporting and clamping member at the outer end of the frame adapted to be secured to the overhanging arm of the milling machine and to hold said frame in its adjusted position; a tool-holder supported by the frame; and means carried by the frame for imparting motion from the arbor to the tool-holder.

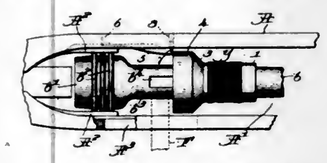
3. In combination with a frame; an arbor rotatably mounted therein and provided at one end with means to connect it to or with the spindle of a milling machine; an adjustable supporting member for the frame adapted to be secured to the overhanging arm of the machine, said frame being adjustable about its axis within the supporting member; a tool-holder supported by the frame; and means carried by the frame for imparting motion from the arbor to the tool-holder.

4. In combination with a frame; an arbor rotatably mounted therein and adapted to be connected to the spindle of a milling machine; an extensible supporting member for one end of the frame; means for clamping the same to the overhanging arm of the milling machine; a tool-holder; means for securing a universal adjustment of the same; and means for rotating the tool-holder.

5. In combination with a frame; an arbor rotatably mounted therein and adapted to be connected to the spindle of a milling machine; an adjustable supporting member for the outer end of the frame, the frame being adjustable about its axis in said member; adjustable means for securing the supporting member to the overhanging arm of the milling machine; a tool-holder adjustably mounted on the frame; the plane through which the adjustment may be made being at right angles to the axial adjustment of the frame; and means actuated from the arbor for rotating the tool-holder.

[Claims 6 to 17 not printed in the Gazette.]

943,846. FILLING-EXHAUSTION-INDICATING MEANS FOR LOOMS. ALONZO E. RHOADES, Hopedale, Mass., assignor to Draper Company, Hopedale, Mass., a Corporation of Maine. Filed Apr. 6, 1909. Serial No. 488,165.



1. In combination, a loom-shuttle having a feeler-opening in one wall and provided with a normally inoperative detent at its opposite wall, and a filling-carrier provided with a longitudinally-movable feeler-controller, itself controlled by the wound filling, said detent coöperating with the controller to maintain it in abnormal position when the filling has been exhausted to a predetermined extent, said controller having a cylindrical, continuous yarn-carrying portion.

2. In combination, a loom-shuttle having a feeler-opening in one wall and provided at its opposite wall with a detent, and a filling-carrier provided with a longitudinally-movable feeler-controller having a yarn-carrying portion and a hood, said controller itself held by the main mass of filling in the feeler-path, the detent coöperating automatically with the hood to maintain the controller out of the feeler-path when the filling has been exhausted to a predetermined extent.

3. In combination, a loom-shuttle slotted to receive a feeler and provided with a normally inoperative detent at a distance from such slotted portion, and a filling-carrier provided with a controller movable longitudinally thereon and having a cylindrical body, a conical extension at the inner end thereof, and an annular flange on the base of the extension, projecting therefrom in a direction opposite to the body, the main winding of yarn preventing movement of the controller until predetermined exhaustion of the yarn, said detent coöperating with the flange when the controller is freed and maintaining it out of the feeler-path.

4. In combination, a loom-shuttle slotted for the free entrance of a feeler and provided with a normally inoperative detent, at a distance from the slotted portion, and a filling-carrier provided with a longitudinally-movable controller having at its inner end an annular hollow enlargement held around the enlarged head of the filling-carrier by the wound filling, exhaustion of the latter to a predetermined extent releasing the controller and permitting longitudinal movement thereof out of the feeler-path, the detent coöperating with the controller when freed by the unwinding of the filling permitting the functional movement of the feeler.

5. In combination, a loom-shuttle having a feeler-opening and provided with a detent at a distance from such opening, a filling-carrier in the shuttle provided with a longitudinally-movable controller having at its inner end an annular flange normally embracing the head of the filling-carrier, a preliminary winding of filling on the controller, and a main winding of filling on said controller and the filling-carrier, holding said controller from longitudinal movement and with the flange surrounding and protecting the head of the filling-carrier, the detent coöperating with the controller when the latter is freed by exhaustion of the main winding and changes its position, to retain said controller in such changed position and wholly out of the feeler-path.

[Claims 6 to 12 not printed in the Gazette.]

943,847. JOIST-HANGER. HENRY C. SEIPP, Coraopolis, Pa. Filed Feb. 20, 1909. Serial No. 479,051.

1. As a new article of manufacture, a hanger having a vertical body portion, an anchoring portion at the upper end of said body portion, and a carrying portion bent out at a right angle from the lower end of said body portion and having a portion comprising spaced arms bent up at an angle toward said body portion, the bend being on a line parallel to the faces of said carrying portion and attached to said body portion.



2. As a new article of manufacture, a hanger having a vertical body portion, an anchoring portion at the upper end of said body portion, a carrying portion bent out at a right angle from the lower end of said body portion and having a portion comprising spaced arms bent up at an angle toward said body portion, the bend being on a line parallel to the faces of said carrying portion, and means attaching said armed portion to said body portion.

3. As a new article of manufacture, a hanger having a vertical body portion, an anchoring portion at the upper end of said body portion, a carrying portion bent out at a right angle from the lower end of said body portion and having a portion comprising spaced arms bent up at an angle toward said body portion, the bend being on a line parallel to the faces of said carrying portion, and lugs on said armed portion for being attached to said body portion.

4. As a new article of manufacture, a hanger having a vertical body portion, an anchoring portion at the upper end of said body portion, a carrying portion bent out at a right angle from the lower end of said body portion and having a portion comprising spaced arms bent up at an angle toward said body portion, the bend being on a line parallel to the faces of said carrying portion, and lugs on said armed portion for being attached to said body portion by passing through openings in said body portion and clenched against the same.

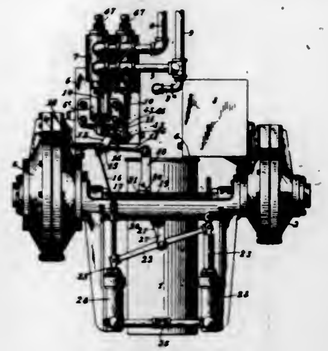
5. As a new article of manufacture, a hanger having a vertical body portion, an anchoring portion at the upper end of said body portion, a carrying portion bent out at a right angle from the lower end of said body portion and having a portion comprising spaced arms bent up at an angle toward said body portion, the bend being on a line parallel to the faces of said carrying portions, a vertical cross-portion connecting the ends of said arms, and means attaching said cross-portion to said body portion.

[Claims 6 and 7 not printed in the Gazette.]

943,848. VACUUM-PUMP. FRANK A. SIMONDS, Grand Rapids, Mich., assignor to Simonds Heating and Specialty Company, Fremont, Mich., a Corporation of Michigan. Filed July 6, 1908. Serial No. 442,145.

1. The combination of, a pressure motor having a chamber and a movable member dividing the chamber into two separate compartments, a water chest having separate compartments communicating with the respective compartments of the motor and adapted to contain sufficient water to prevent access of steam to the motor, a valve for each compartment of the chest to admit and exhaust steam to and from said compartment, a rocker bar to operate the valves, a pivoted T-shaped lever to operate the rocker bar, a sleeve pivoted to the lever, a rod slidable in the sleeve, collars on the rod engaging the sleeve, means for connecting the rod to the pressure motor to move the rod, and a spring connected to the lever to shift the same.

2. The combination of, a pressure motor having a reciprocating flexible diaphragm and a lenticular case divided into two separate compartments by the diaphragm, a water chest having separate compartments each communicating with the case at the respective sides of the diaphragm and adapted to contain sufficient water to prevent access of steam to the motor, a valve to control the flow of steam to and from each compartment of the chest, a rocker bar pivoted at the middle and connected to the valves at its respective ends, a T-shaped lever engaging the rocker bar at opposite sides of its pivot, a sleeve pivoted to the lever, a rod slidable in the sleeve, means for connecting the rod to the motor, collars on the rod and engaging the respective ends of the sleeve, a thrust rod pivoted to the lever, and a spring engaging the thrust rod.



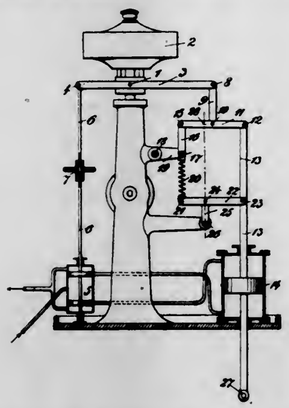
3. The combination of, a pressure motor having a reciprocating member, a chest communicating with the motor at one side of said member and adapted to contain sufficient water to prevent access of steam to the motor, an inlet chamber and an exhaust chamber spaced apart a distance equal to the stroke of the valve and projecting into said chest, each chamber having parallel walls spaced apart communicating with the motor at one side of said member, a tubular bushing extending through both chambers and having ports within said chambers and also between the same, a piston valve reciprocable in said bushing and having three heads spaced apart the same distance as the walls of each chamber, and means for reciprocating said valve.

4. In a pressure motor, the combination of a lenticular case, a flexible diaphragm reciprocable in said case, and dividing the same into two separate chambers, two steam chests communicating with the interior of the case at the respective sides of the diaphragm, a water chest interposed between each steam chest and the case, a balanced piston valve in each steam chest, a rocker bar pivoted at the middle and connected at its respective ends to the respective valves to oppositely shift the same, lugs on the side of said bar, a T-shaped lever alternately engaging the lugs, a sleeve pivoted to the lever, a rod slidable in the sleeve, means for connecting the rod to the reciprocable diaphragm to move the rod, collars on the rod to engage the respective ends of the sleeve, a push rod engaging the lever, and a spring engaging the push rod to yieldingly force the same toward the lever.

5. The combination of, a diaphragm pump and a diaphragm pressure motor, a piston rod connecting the same, a water chest to the pump and a water chest to the motor, each chest having a separate compartment communicating with the respective sides of the pump and the motor and adapted to contain sufficient water to prevent access of steam to said pump and motor, valves to control the flow of steam to and from the chest of the motor, an arm on the piston rod connected to the valves to operate the same, a tank to receive water from the pump, a feed pump communicating with the tank, a lever to operate the feed pump, and a stud on the piston rod to operate the lever.

[Claim 6 not printed in the Gazette.]

943,849. INDIRECTLY-ACTING GOVERNOR FOR GROUPS OF POWER-ENGINES. DIETER THOMA, Gotha, Germany, assignor to The Firm of Briegleb, Hansen & Co., Gotha, Duchy of Gotha, Germany. Filed June 22, 1907. Serial No. 380,367.



1. In an indirectly acting governor for groups of power engines, servomotor, an oscillating sleeve, a distributing mechanism and a member to which the governors being connected, is compelled to move in the same sense, a plurality of levers connecting the servomotor with the oscillating sleeve and the latter with the distributing mechanism, substantially as described.

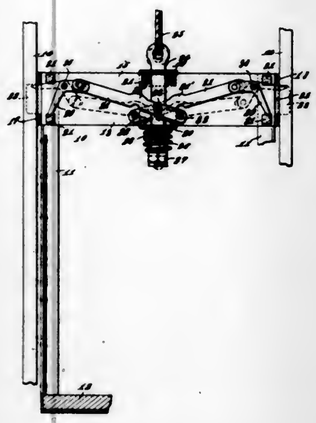
2. In an indirectly acting governor for groups of power engines, a servomotor an oscillating sleeve, a distributing mechanism and a member, including a lever arm which is secured to the common shaft of the governors of the group, this lever arm being connected with the oscillating sleeve and the servomotor by a plurality of levers substantially as described.

3. In an indirectly acting governor for groups of power engines, a servomotor an oscillating sleeve, a distributing mechanism and a lever arm secured to the common shaft of the governors of the group, the lever arm being connected with the prolonged piston rod of the servomotor and the oscillating sleeve by means of levers, a spring being arranged between the lever arm of the shaft of the governors and the lower lever connecting the spring with the prolonged piston rod, substantially as described.

4. In an indirectly acting governor for groups of power engines, a servomotor an oscillating sleeve, a distributing mechanism, a lever arm secured to the common shaft of the governors of the group, a plurality of levers connecting the oscillating sleeve with the servomotor, and adjustable hand wheel arranged between the sleeves and the distributing device on a rod, connecting the lever of the sleeve with the distributing device, the hand wheel regulating the spring arranged between the lever arm and the lower lever of the prolonged piston rod substantially as described and shown and for the purpose set forth.

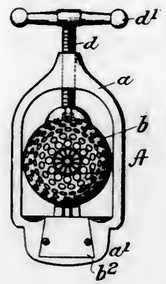
943,850. SAFETY APPLIANCE FOR ELEVATORS. ERNST TROIKE, Sandusky, Ohio, assignor of one-fourth to Paul Troike, Sandusky, Ohio. Filed July 12, 1909. Serial No. 507,151.

1. In a safety appliance, the combination with a pair of guides and an elevator car comprising a head piece embracing and slidable along said guides, of a pair of dogs pivoted in said head piece and adapted to coöperate with the guides, a shackle extending vertically through the head piece, a spring tending to normally force the shackle downwardly with respect to the head piece, a pair of sleeves pivoted at their inner ends to the head piece closely adjacent to and on opposite sides of the shackle and extending thence past the shackle and having their outer ends pivotally connected to said dogs, and a pin passed through the shackle and said levers, whereby the position of the levers and dogs is determined by that of the shackle.



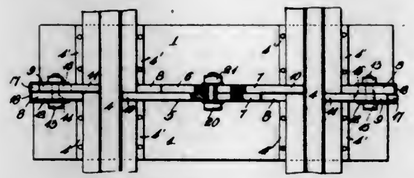
2. In a safety appliance of the character set forth, the combination of a head piece comprising a pair of metallic side plates, a pair of shoes connected to the ends of the side plates, and a pair of braces spanning the upper and lower edges of the same, said shoes and braces being permanently secured to the side plates and constituting spacing means therefor, each of said shoes being slitted at its central portion and portions of the metal adjacent thereto being bent outwardly to form guiding means, a pair of guides coöperating with the said head piece and embraced by said shoe guiding means, and movable dogs housed within the head piece and adapted to be projected through the shoes into engagement with said guides, substantially as set forth.

943,851. GOLF-BALL-MARKING DEVICE. WILLIAM T. WEST, Camden, N. J. Filed Apr. 29, 1909. Serial No. 493,014.



A device of the character described comprising a frame provided with a vertically movable threaded handle bar having a concave end adapted to engage a ball when inserted in the field of said frame, said frame recessed to receive type in a vertical position in the base of said frame, means in the ends of said base below said frame to tighten or loosen the type of said bed and a removable cover-plate on one side of said base, substantially as and for the purposes described.

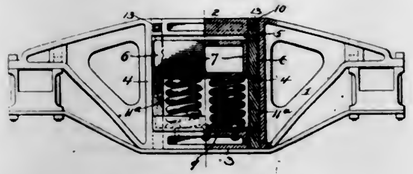
943,852. METALLIC RAIL TIE AND CHAIR. EZEKIEL WHEELER, Kingfisher, Okla. Filed June 28, 1909. Serial No. 504,854.



1. A railway tie and chair, comprising a flat tie plate, hollow rail supports at each end thereof, and a pair of corresponding reversely arranged chair members extending between the rail supports at each end of the tie and provided with rail engaging portions with means for adjusting the chair members longitudinally in opposite directions.

2. A railway tie and chair, comprising a flat tie plate, a pair of transverse hollow rail supports at each end thereof, a pair of longitudinal corresponding reversely arranged chair members mounted upon the tie plate and extending between the rail supports at each end of the tie, said members having rail engaging portions and means for adjusting the chair members longitudinally in opposite directions to compensate for wear upon the rail engaging portions thereof, said means comprising clips each having a pivotal connection with one end of one of the chair members, and a slotted connection with the adjacent end of the other chair member, and wedges arranged between the central portions of the clips and the outer ends of opposite chair members.

943,853. CAR-TRUCK. JOHN C. WHITRIDGE and CHARLES B. GOODSPEED, Columbus, Ohio, assignors to The Buckeye Steel Castings Co., Columbus, Ohio. Filed Apr. 3, 1909. Serial No. 487,614.

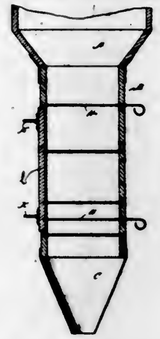


1. In a car truck, a side frame having a bolster opening provided with straight parallel sides from the top to the bottom thereof, the said opening being as wide as the outside dimensions of the end of said bolster at the projecting column guides, and a bolster guide removably secured against one of the columns and wholly within the bolster opening throughout the length of the latter.

2. In a car truck, a side frame having a bolster receiving opening provided with straight parallel sides from the top to the bottom thereof, the said opening being as wide as the outside dimensions of the end of said bolster at the projecting column guides, and bolster guides removably secured against the adjacent faces of the columns and wholly within the bolster opening throughout the length of the latter.

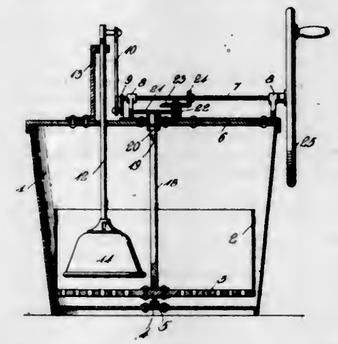
943,854. AUTOMATIC MEASURING-MACHINE. EDGAR WHITTEN, Jr., and ATTIE A. HARRELL, Grand View, Tex. Filed May 6, 1907. Serial No. 372,203.

A measuring vessel having a plurality of cut-offs operable transversely thereof, one of the walls of said vessel being laterally adjustable to vary the size of the compartments formed by said cut-offs, a U-shaped rod engaged with said wall and having its ends slidably mounted on



the sides of said vessel, and jam nuts for locking said rod in adjusted position.

943,855. WASHING-MACHINE. WILLIAM WITT, Ripon, Wis. Filed Dec. 14, 1908. Serial No. 467,406.

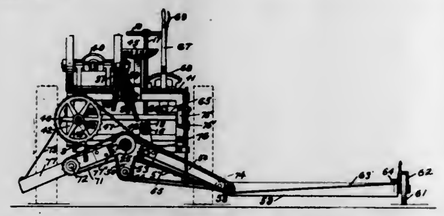


A washing machine of the class described, comprising an outer vessel, an inner vessel revolubly mounted therein, a vertical operating shaft connected to the inner vessel, a cover for the outer vessel, a stub shaft extending through the cover, a bearing plate on the cover, a gear at the outer end of said shaft, a horizontal drive shaft mounted upon the bearing plate above said gear, a gear connection between said gear and the drive shaft, a vertical plunger extending through the cover, a guide mounted upon the cover for the plunger, a pounder at the lower end on the plunger, a crank connection between the plunger and drive shaft for reciprocating the pounder, and a separable connection between the stub shaft and operating shaft, whereby the cover and the operating mechanism for the pounder and operating shaft may be removed without removing the inner vessel.

943,856. REAPER AND BINDER. CHARLES O. WYMAN, Anoka, Minn. Filed July 17, 1905. Serial No. 270,052.

1. The combination, with a frame and the forward and rear axles and wheels therefor, of a hollow reach, a driving shaft therein geared to said axles, a hollow roll having a roller bearing on said reach and operatively connected with said driving shaft, an engine connected with said shaft, a series of sprockets secured on said hollow roll, and a knife bar and a platform belt and elevator operatively connected with said sprockets, substantially as described.

2. The combination, with a frame and the forward and rear axles and wheels therefor, of a hollow reach, a driving shaft therein geared to said axles, a hollow roll having an anti-friction bearing on said reach and connected with said driving shaft to be operated thereby, an elevator driven from said roll, and a frame rearwardly turned at one end and detachably connected at its forward end to said roll, and a belt carried by said frame and driven from said roll.



3. The combination, with a frame, of a hollow reach mounted therein, axles mounted on said frame and provided with traction wheels, a driving shaft arranged in said reach and geared to said axles, an engine mounted on said frame and connected with said driving shaft, a second shaft having a clutch provided with a belt connection with said driving shaft, a gear secured on said second shaft, and an elevating apron or belt operated from said gear.

4. The combination, with a frame and the forward and rear axles and wheels therefor, of a hollow reach, a driving shaft therein geared to said axles and composed of two sections, a compensating gear mounted on said driving shaft sections, an engine geared to one side of said compensating gear, a second shaft having a clutch provided with a belt connection with the other side of said compensating gear, and a cutter bar and an apron or belt shaft driven from said second shaft, substantially as described.

5. The combination, with a wheeled frame, of a hollow reach mounted therein, a driving shaft within said reach and geared to the axles of said frame, a roll having an antifriction bearing on said reach and operatively connected with said driving shaft, an elevator frame mounted on said roll and provided with a belt and extending laterally on the grainward side of the machine, and a second frame also mounted on said roll to receive the material from said elevator belt and extending laterally on the stubble side of the machine, and means for driving said belt from said roll.

[Claims 6 to 10 not printed in the Gazette.]

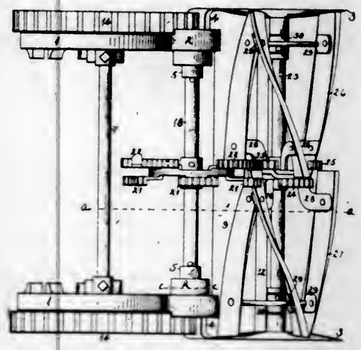
943,857. LAWN-MOWER. HARRY H. BENSON, Rockford, Ill., assignor to Benson Lawn Mower Co., Rockford, Ill., a Corporation of Illinois. Filed Mar. 7, 1908. Serial No. 419,704.

1. A lawn mower comprising a frame having dished ends, a shaft supported by the ends, cutting knives supported by the shaft having their ends conforming approximately with the inner faces of the ends, and means for rotating the knives.

2. A lawn mower comprising a frame having dished circular ends, a shaft supported by the ends, cutting knives supported by the shaft having their ends conforming approximately with the inner faces of the ends, and means for rotating the knives.

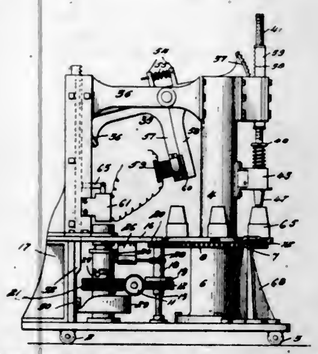
3. In a lawn mower, the combination of a frame, traction wheels supporting the frame, a shaft having a gear connection with each wheel, a spur gear secured to the shaft, a rotatable cutter, a spur gear supported by the cutter, and meshing with the spur gear on the shaft, the spur gear supported by the shaft having discharge passage ways between the teeth and extending through the side of the gear.

4. A lawn mower comprising a main frame having forwardly extending surfaces concentric with the driving wheels, driving wheels supporting the main frame, a rotatable cutter supported by the main frame, a roller located between the cutter and driving wheels, a frame in which the roller is journaled and having a curved surface adjustably connected to the curved surface of the main frame, and a knife carried by the roller supporting frame.



5. A lawn mower comprising cutting knives in two sections, the inner ends of the knives of the two sections overlapping, a spur pinion comprising a central web with offset sections adapted to rotate the knives, and a spur gear comprising a central web with offset sections meshing with the sections of the spur pinion.

943,858. PRESS. CHARLES L. BETZ and WALTER E. WALLACE, Rochester, Pa. Filed Nov. 12, 1908. Serial No. 462,329.



1. A glass press comprising a two-part walking beam, means for connecting the parts of the beam together, means for automatically releasing said holding means, a plunger carried by one end of the beam, and means for operating the beam.

2. A glass press or forming machine comprising a plunger, a two-part walking beam for operating the same, and a magnet for holding the parts of the beam together.

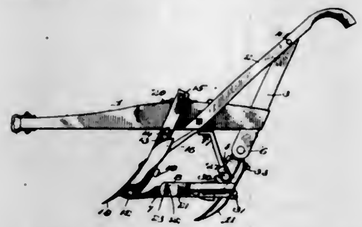
3. A glass press or forming machine comprising a plunger, a two-part walking beam for operating the same, means for holding the parts of the beam together, and automatic means for releasing said holding means.

4. A glass press or forming machine comprising a plunger, a two part walking beam for operating the same, a magnet for holding the parts of the beam in alinement, means for automatically deenergizing said magnet and means for holding the parts of the beam together.

5. A glass press comprising a plunger, a walking beam for operating the plunger, means controlled by the operator for operating the walking beam, and a magnetically acting releasing device operating in conjunction with the walking beam.

[Claims 6 and 7 not printed in the Gazette.]

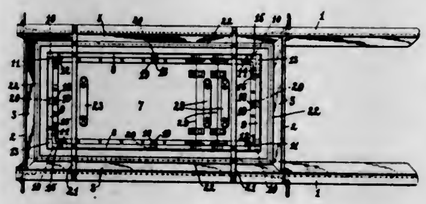
943,859. PLOW. GEORGE W. BRISTOW and GEORGE O. DOTY, Guntown, Miss. Filed Sept. 30, 1908. Serial No. 455,402.



1. In a plow the combination with a beam and rear bars, of a bifurcated clip pivotally connected with the lower end of the bars, a standard, a runner connected with the standard and having an upturned slotted terminal disposed between the bifurcated members of the clip and sweeps adjustably secured to the runner, the forward portion of the sweeps being flat and deflected from the rear portion and the latter portion being V-shaped in cross-section.

2. In a plow, the combination with a beam and rear bars of a bifurcated clip pivotally connected with the lower end of the bars, a standard, a runner connected with the standard and having an upturned slotted terminal disposed between the bifurcated members of the clip, sweeps adjustably carried by the runner, the forward portion of the sweeps adjustably carried by the runner, the forward portion of the sweeps being flat and deflected from the rear portion, and the latter portion being V-shaped in cross section.

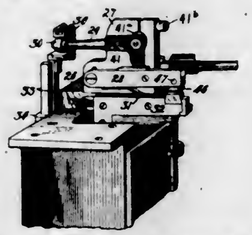
943,860. MOLD FOR MAKING SARCOPHAGI. GEORGE W. BROWN, Madison, Ohio. Filed Oct. 28, 1908. Serial No. 459,916.



In combination an outer mold box, a core comprising upper and lower side bars 8 and cross bars 9 with sheet metal sides and ends attached thereto respectively, reinforcing strips 20 secured to the inner faces of the sheet metal sides and ends, and having inwardly turned ears 19 at their lower ends, a bottom consisting of bars 17 having beveled outer edges inclining downwardly and inwardly, and having their upper outer edges set in some distance from the outer edges of the bars 8, and screw 18 passing through the ears 19 for drawing the bottom bars 17 against the lower faces of said bars 8, substantially as described.

943,861. ELECTRIC-WELDING MACHINE. ALVIN E. BUCHENBERG, Toledo, Ohio, assignor to The Toledo Electric Welding Company, Toledo, Ohio, a Corporation of Ohio. Filed Mar. 26, 1909. Serial No. 485,957.

1. In a machine of the class described, the combination of a plurality of work-gripping levers, and mechanism movable to effect a positive oscillation of the levers in unison to grip the work and capable of permitting differential movements of the levers as the varying thickness of the work may require.



2. In combination in an electric-welding apparatus, a pair of levers, work-gripping jaws movable by a movement of said levers, controlling means for said levers, and means connecting said levers and controlling means for communicating movements to the former from the latter and permitting said levers to have differential movements as the thickness of the work acted on may require.

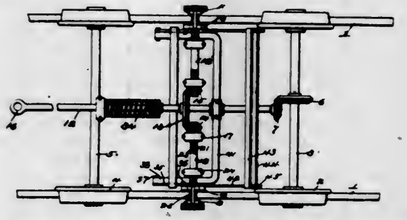
3. In a machine of the class described, the combination of a plurality of work-gripping levers, and mechanism movable to effect a positive oscillation of the levers in unison to grip the work and capable of permitting differential movements of the levers as the varying thickness of the work may require, said mechanism being also adapted to permit relative to and fro movements of the levers.

4. In a machine of the class described, the combination of a plurality of work-gripping levers, and loop means movable to effect a positive oscillation of the levers in unison to grip the work and capable of permitting relative to and fro movements of the levers.

5. In a machine of the class described, the combination of a set of relatively movable tables, a work-gripping lever carried by each table, loop means coöperating with said levers to oscillate the same and to permit relative movement thereof, and means for moving said loop means to oscillate the levers.

[Claims 6 to 8 not printed in the Gazette.]

943,862. SAFETY DEVICE. CHARLES W. BURRIS, Black Diamond, Wash. Filed Mar. 10, 1909. Serial No. 482,556.



1. In a safety appliance, a pair of gripping members, means for normally holding the same out of operation, and a revolving and reciprocating shaft for throwing the same into operation.

2. In a safety appliance for cars, a gripping member for engaging the rail upon which the car is mounted, revolving and reciprocating means for causing the gripping members to engage said rail, and means for normally holding said first mentioned means out of operation.

3. In a safety appliance for cars, a clamping member formed of a plurality of parts for gripping the rail upon which the car is mounted, a reciprocating shaft acting upon said clamping member for causing the same to grip said rail, and means connecting said shaft with the wheels of the car, whereby upon the rearward movement thereof said clamping member will be operated for engaging said rail.

4. In a safety appliance for cars, a pair of gripping members, a shaft connected to said gripping members for operating the same, a draw bar, means mounted on the draw bar and connected with said shafts for rotating the same when the draw bar has been disconnected from its motive power, and means for connecting said draw bar with the wheels of the car for rotating the draw bar when the motive power has been removed from the draw bar, whereby power is transmitted from the wheels of the car to said shafts for operating said gripping members.

5. In a safety appliance for cars, gripping members for engaging the rails upon which the car is mounted, means for connecting the gripping members with some of the wheels of the car, said means being designed to so connect the gripping members and the wheels of the car as to cause the gripping members to clamp said rails upon the rearward movement of said car, and means for moving the gripping members above said rails when the car is moved forward.

[Claims 6 to 8 not printed in the Gazette.]

943,863. NUT-TAP SOCKET. WILLIAM L. CLOUSE, Tiffin, Ohio, assignor to The National Machinery Company, Tiffin, Ohio, a Corporation of New Jersey. Filed Mar. 11, 1907. Serial No. 361,668.

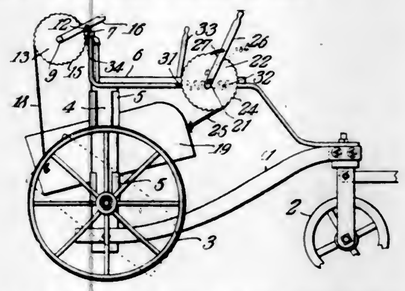


1. The combination with a tap socket of a tap provided with a groove, a pin extending through an opening in said socket and adapted to enter the groove in the tap and means for retaining and releasing said pin comprising a spring plate secured to the socket and bearing on said pin, said spring plate being formed with an outwardly extending bend and a ring movable on said socket and formed with a groove on its inner surface arranged to receive the bent portion of said spring when the ring is shifted to release the tension on said spring.

2. The combination with a tap socket of a tap provided with an annular groove, a pin extending through an opening in said socket and adapted to enter the groove in the tap and means for retaining and releasing said pin comprising a spring plate secured to the socket and bearing on said pin, said spring plate being formed with an outwardly extending bend and a ring movable on said socket and formed with an annular groove on its inner surface arranged to receive the bent portion of said spring when it is desired to release the tension of said spring, substantially as described.

943,864. WHEEL-MOUNTED SCRAPER. LEWIS C. FASIG, Ashland, Ohio. Filed July 10, 1908. Serial No. 442,959.

1. In a scraper, a frame, winding drums mounted in the frame, a bucket, cables connected to the bucket at the front and rear thereof and with the drum whereby to support said bucket and to provide means whereby either end of the bucket may be raised and lowered, a pawl and ratchet for normally holding against rotation the drum from which the forward end of the bucket is supported, and means whereby the said pawl may be moved from engagement with the ratchet to permit of free rotation of the said drum to unwind the cable.



2. In a scraper, a frame, winding drums mounted in the frame, a bucket, cables connected to the bucket at the front and rear thereof and with the drums whereby to support the said bucket and to provide means whereby either end of the bucket may be raised or lowered, means whereby the drums may be rotated to wind the cables thereon, a pawl and ratchet mechanism associated with each drum to hold the same normally against rotation to unwind the cables, the means for rotating the drums being capable of simultaneous operation whereby to elevate the bucket bodily without materially changing its angle, and means whereby the pawl or the ratchet of the two drums may be moved from engagement with the said ratchet to permit of unwinding of the cables and lowering of the bucket bodily.

3. In a scraper, a bucket mounted to be rocked and to be moved vertically, and manually operable means connected with each end of the bucket for raising and lowering either end thereof, said means being capable of simultaneous operation to raise and lower the bucket bodily without materially changing the angle of inclination thereof, the two means being in juxtaposition to permit of such simultaneous actuation.

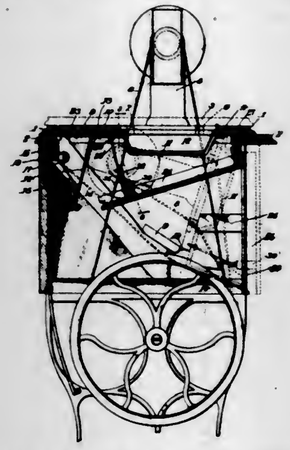
4. In a scraper, a frame, winding drums mounted in the frame, a bucket, cables connected to the bucket at the front and rear thereof and with the drum, whereby to support said bucket and to provide means whereby either end of the bucket may be raised and lowered, a pawl and ratchet for normally holding against rotation the drum from which the forward end of the bucket is supported, a pawl and ratchet for normally holding against rotation the drum from which the rear end of the bucket is supported, and a foot lever operable to disengage the pawl of one pawl and ratchet mechanism, and a hand lever operable to disengage the pawl of the other pawl and ratchet mechanism, the said levers being in juxtaposition.

943,865. BOOK MARK AND SUPPORT. CHARLES E. FLANDERS, West Brookfield, Mass. Filed Apr. 5, 1909. Serial No. 487,984.



A device of the class described, comprising a pair of sections, arms on each section, clips on said arms adapted to take over the co-acting arm, depending legs formed on said sections, and spring leaf clamps forming a continuation of said legs and lying over said arms.

943,866. SEWING-MACHINE CABINET. WILLIAM C. FREE, Chicago, Ill., assignor to Illinois Sewing Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Oct. 9, 1902. Serial No. 126,490.



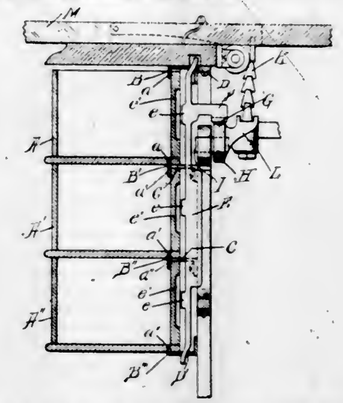
In a device of the class described, the combination with the top having an opening through it, a platform hinged at one side of said opening and comprising a main portion and the leaf hinged to the free side of said main portion, stops for positively arresting the upward movement of the platform and leaf and a hinged extension leaf adapted to cover the opening in the top, of means for transmitting movement from said hinged extension leaf to the platform, said transmitting means comprising a bar attached to the under side of the platform and having an intermediate portion 11 deflected downward, a rigid portion 13, attached to the platform proper and projecting beyond the free side thereof and engaging the under side of the hinged leaf thereof, and a portion 14 projecting downward and rearward and forming an elastic arm, a cable attached at one end to said elastic arm and at the other end to the hinged extension leaf, and means engaging the cable at an intermediate point for guiding it, substantially as described.

943,867. SEWING-MACHINE CABINET. WILLIAM C. FREE, Chicago, Ill. Filed Nov. 19, 1906. Serial No. 343,982.

1. In a sewing machine cabinet, the combination of a plurality of drawers, a hinged extension leaf, a vertically movable locking bar having means for engaging the drawers, a cam, means deriving its movement from the extension leaf for operating the cam and means interposed between the cam and the locking bar for operating the latter, substantially as described.

2. In a sewing machine cabinet, the combination of a plurality of drawers, a hinged extension leaf, a locking bar movable laterally and having means for engaging the drawers and means deriving its movement from the extension leaf moving the locking bar laterally, substantially as described.

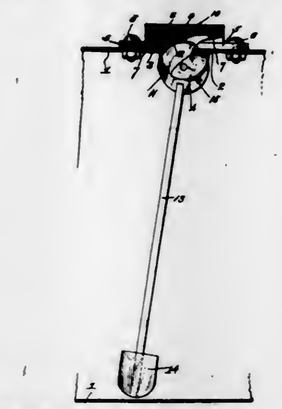
3. In a sewing machine cabinet, the combination of a plurality of drawers, a hinged extension leaf, a vertically movable locking bar having means for engaging the drawers, said locking bar having diagonal ends, supporting rails secured to the cabinet and having openings in which said diagonal ends are adapted to slide, and means deriving its movement from the hinged extension leaf for moving the locking bar endwise, its diagonal ends causing it to move laterally, substantially as described.



4. In a sewing machine cabinet, the combination of a plurality of drawers, a hinged extension leaf, a shaft having a cam, means actuated by the extension leaf for turning said shaft, and a locking bar having a portion engaging said cam and having tongues or projections adapted to engage the drawers, substantially as described.

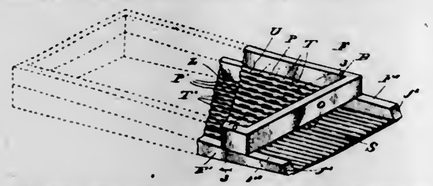
5. In a sewing machine cabinet, the combination with two drawers located one above the other, of a rail made of sheet metal and having supporting arms joining it about its transverse center, thereby leaving a flange projecting upward and a flange projecting downward said arms being formed by slitting the strip, of which the rail is made, transversely to about its transverse center and deflecting the portions between the slits, substantially as described.

943,868. LIQUID-GAGE. ARTHUR S. GARLICK, Meriden, Conn. Filed July 19, 1909. Serial No. 508,283.



In a tank gage, a supporting frame, a transparent cover plate arranged in said frame, an indicating wire arranged below said plate, an indicating cylinder pivotally mounted in said frame below said wire, a dial plate arranged on said cylinder, said plate having thereon a series of indicating marks adapted to be brought in line with said indicating wire to designate the quantity of liquid in the tank, a float rod secured to said cylinder, a float on the opposite end of said rod, and a stop pin arranged in said cylinder and adapted to engage a fixed part of the frame to limit the movement of the float and the cylinder in one direction.

943,869. CORN-GRADER. JAMES E. GASTON, Cochranton, Pa. Filed Sept. 28, 1909. Serial No. 519,988.



1. A hand seed corn grader comprising two rectangular screens converging toward one end, the upper having perforations elongated in the direction of convergence and the lower having perforations of the same width but shorter, and a frame surrounding the lower screen and having an opening where it stands nearest the upper screen and surrounding the upper screen on all sides and forming a hopper-like receptacle above it, for the purpose set forth.

2. A hand seed corn grader comprising two rectangular screens converging toward one end and corrugated in the direction of their convergence, both having perforations in their valleys and those in the upper screen being longer than those in the lower, and a frame surrounding both screens and rising above the upper in a hopper-like receptacle, the frame having an opening between the screens at the point where they stand nearest each other.

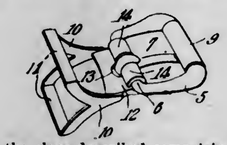
3. A hand seed corn grader comprising a frame in two parts, the uppermost being rectangular and of equal depth throughout, and the lowermost having one deep end piece, two side pieces tapering in depth toward the other end, and the latter omitted beneath that end of the uppermost part; and two screens, one clamped between the frame-parts and having elongated perforations, and the other carried beneath the lowermost frame-part so as to converge toward the first screen at the open end of this part and having perforations of the same width as but shorter than those in the upper screen, for the purpose set forth.

4. A hand seed corn grader comprising a frame in two parts, the uppermost being of equal depth throughout, and the lowermost having one deep end piece, two side pieces decreasing in depth to and projecting beyond the other end of the uppermost, and the other end piece omitted; and two screens of different mesh, the coarser carried by the uppermost frame-part and the finer carried by the lowermost and having a perforated area coincident with that of the coarser and an imperforate area connecting its projections and forming a spout.

5. A hand seed corn grader comprising a frame in two parts, the uppermost being rectangular and of equal depth throughout, and the lowermost having one deep end piece, two side pieces decreasing in depth to and projecting beyond the other end of the uppermost, and the other end piece omitted; and two screens of different mesh, the coarser clamped between the frame-parts, and the finer secured beneath the pieces of the lowermost frame-part and having a perforated area coincident with that of the coarser and an imperforate area connecting its projections and forming a spout.

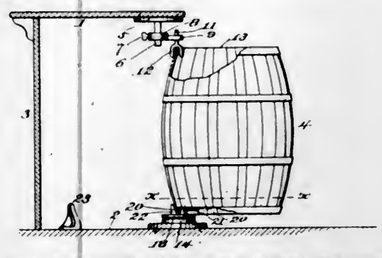
[Claims 6 to 8 not printed in the Gazette.]

943,870. BUCKLE. WILLIAM P. GELABERT, Fulton, Mo. Filed Jan. 6, 1909. Serial No. 470,996.



A device of the class described comprising a buckle having a tongue bar, a tongue pivoted to the bar, a loop having a web portion which is bifurcated and has its furcations bent over and around the tongue bar, one to each side of the tongue thereon with their ends terminating against the web, and a strap formed at its ends with a loop embracing the said furcations, the loop being formed with an opening for the passage of the tongue of the buckle, and rivets passed through the loop immediately adjacent the edge of the web opposite that edge in which the furcations are formed.

943,871. BARREL-SWING FOR STORE-COUNTERS. CHARLES C. GIMBEL, San Antonio, Tex. Filed May 27, 1909. Serial No. 498,734.

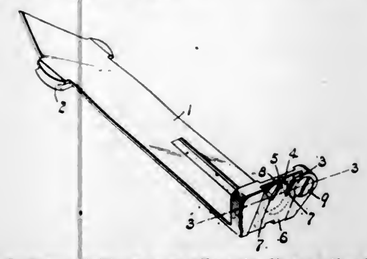


1. In a store counter support for barrels, the combination, with a collar having a lateral arm, means for vertically adjusting the collar, and a fork adapted to fit over the top chime of the barrel and having a stem turnable in the arm, of a circular base fixed centrally under the fork, a disk working in the base and having a seat for the bottom chime and adapted to be rotated on the base by turning the barrel, and a floor stop for holding the barrel under the counter.

2. In a store counter attachment for swinging barrels, the combination, with a pivoted fork adapted to fit over the top chime of a barrel, and means for suspending the fork, of a base fixed to the counter floor, a disk revoluble on the base, a pair of lugs projecting from the base and forming a seat for the bottom chime, and a spring controlled stop slidably secured to the floor and engaged by the barrel to hold it under the counter.

3. In a revoluble barrel support, the combination with a fixed base having a circular groove therein, and ball-bearings in the groove, of a revoluble disk having a depending rim projecting into the groove and engaging said balls, chime engaging lugs projecting from the disk, and suitable means engaging the top of the barrel for holding it on the disk.

943,872. GUN-SIGHT. CARL H. GORDON, Grand Junction, Colo., assignor of two-ninths to William M. Van Buren, two-ninths to John Arentsen, and two-ninths to George Bullock, Mesa county, Colo. Filed Apr. 15, 1909. Serial No. 489,991.



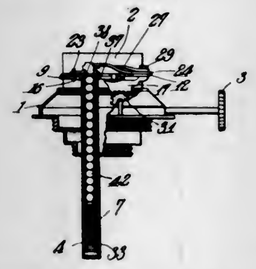
1. In a gun sight, an upwardly extending portion having a slot therein, a plate supported by said upwardly extending portion, and a point on said plate registering or coinciding with said slot, substantially as specified.

2. In a gun sight, an upwardly extending portion having a slot at its upper edge, a plate supported by said upwardly extending portion, and a point on said plate registering or coinciding with said slot below the upper edge of said upwardly extending portion, substantially as specified.

3. In a gun sight, the combination with a spring plate attached to the gun barrel and provided with an upturned portion having a slot therein, of a plate connected to said upturned portion having a point registering with said slot, and means for holding said plate in different adjustments on said upturned portion, substantially as specified.

4. In a gun sight, the combination with a spring plate having an upturned portion in which there is a hole and a slot leading from said hole to the upper edge, of a sight plate movably connected to said upturned portion and provided with a point registering or coinciding with said slot, and means for binding said movable plate in different adjustments on said upturned portion, substantially as specified.

943,873. AUTOMATIC LAMP-LIGHTER. LUTHER J. GRAHAM, Richmond, Cal. Filed May 27, 1909. Serial No. 498,616.



1. The combination with a burner, of a tube mounted therein; an ignition element disposed in the tube; resilient means for feeding the ignition element; a slide arranged to reciprocate at the top of the tube, to cover and to disclose, alternately, the ignition element; means carried by the slide for striking the ignition element when the same is disclosed and for limiting the movement of the ignition element under the action of the resilient means; and means for operating the slide.

2. The combination with a burner, of a tube mounted therein; a series of ignition elements disposed in the tube; resilient means for feeding the ignition elements; a reciprocating member located at the top of the tube and arranged to permit the passage of a single ignition element to the top of the tube and to house it from the others of the series; means carried by the reciprocating member for striking the segregated ignition element and for limiting the movement of the same under the action of the resilient means; and means for operating the reciprocating member.

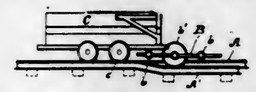
3. The combination with a burner, of an imperforate tube mounted therein; a foraminous tube located within the imperforate tube; an ignition element inclosed by the foraminous tube; resilient means located within the foraminous tube for feeding the ignition element; and means for striking the ignition element.

4. The combination with a burner, of a tube mounted therein and closed at the bottom; a second tube located within the first and open at the bottom; an ignition element inclosed by the second tube; a compression spring for feeding the ignition element, mounted in the second tube and provided with a head to engage the end thereof and to bear upon the bottom of the first tube; and means for striking the ignition element.

5. The combination with a burner, of an imperforate tube mounted therein; a foraminous tube slidably mounted in the imperforate tube and provided with an open bottom; a spring slidably mounted in the foraminous tube and arranged to engage at its lower terminal, the bottom of the imperforate tube; an ignition element located in the foraminous tube and engageable by the spring; means for locking the tubes together; and means for striking the ignition element.

[Claims 6 to 12 not printed in the Gazette.]

943,874. CAR-HAUL. FRANK C. GREENE, Cleveland, Ohio. Filed June 10, 1907. Serial No. 378,160.



1. In a car haul, the combination with a track, of means for moving a car therealong, said means being arranged and constructed positively to raise one end of such car off of such track.

2. In a car haul, the combination with a track, of cable means for moving a car therealong, said means being arranged and constructed to engage and sustain one end of such car.

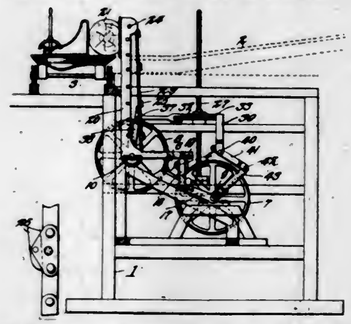
3. In a car haul, the combination with a track, of means for moving a car therealong, comprising a supplementary track, and means, apart from such car, movable upon said supplementary track and adapted to engage and sustain one end of such car.

4. In a car haul, the combination with a track, of means for moving a car therealong, comprising a car engaging member movable along said track and upwardly with respect to the same, and means adapted to move said member upwardly upon engagement with such car to raise one end of the latter off said track.

5. In a car haul, the combination with a track, of a cable running along said track and adapted to engage and move a car placed thereon, said cable being arranged and constructed to raise one end of such car off said track pending such engagement.

[Claims 6 to 14 not printed in the Gazette.]

943,875. LOG-TURNER. FRED G. HARRINGTON, Hollins, Ala. Filed Sept. 15, 1908. Serial No. 453,140.

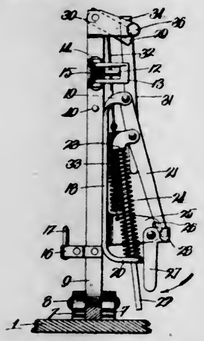


A log turner comprising a supporting frame, a nigger bar journaled thereon and movable toward and away from the work, an angle arm or L-shaped extension on said nigger bar, a shaft provided with a crank operatively connected by a pivoted link to the arm of the nigger bar for swinging said nigger bar toward and away from the work with a positive movement, a log turning chain carried by the nigger bar, a second shaft for driving said chain, a main drive shaft, a friction drive wheel fast on the drive shaft, other friction wheels mounted on the first named shafts, and hand-controlled eccentric connections for effecting a relative shifting movement and engagement between the friction wheels and the friction drive wheel on the main drive shaft.

943,876. MAIL-BAG-DELIVERING APPARATUS. HENRY J. HEDRICK, Lacon, Ill. Filed Oct. 14, 1909. Serial No. 522,592.

1. In a mail bag deliverer for cars, a U-frame pivotally supported within the car and adapted to be swung to a horizontal position with its arms projecting through the door-opening of the car adjacent to one side of the same,

a pin projecting rearward from each arm of said frame, a rearwardly-projecting bag retainer-loop pivotally carried by each arm of the frame, and means for holding said loops yieldingly against said pins.



2. In a mail bag deliverer for cars, a U-frame pivotally supported within the car and adapted to be swung to a horizontal position with its arms projecting through the door-opening of the car adjacent to one side of the same, a pin projecting rearward from each arm of said frame, a rearwardly-projecting bag retainer-loop pivotally carried by each arm of the frame, means for holding said loops yieldingly against said pins, and a pair of pins carried by each arm and projecting rearward therefrom and disposed one above and the other below the plane of the first-named pins.

3. In a mail bag deliverer for cars, a U-frame pivotally supported within the car and adapted to be swung to a horizontal position with its arms projecting through the door-opening of the car adjacent to one side of the same, a pin projecting rearward from each arm of said frame, a rearwardly-projecting bag retainer-loop pivotally carried by each arm of the frame, and means for holding said loops yieldingly against said pins in combination with a pair of suitably-connected brackets fitting loosely upon said pins and pressed in the same direction against their respective pins by the adjacent retainer-loops.

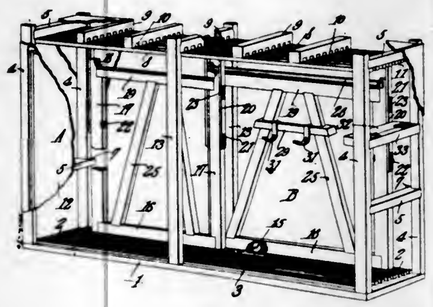
4. In a mail bag deliverer for cars, a U-frame pivotally supported within the car and adapted to be swung to a horizontal position with its arms projecting through the door-opening of the car adjacent to one side of the same, a pin projecting rearward from each arm of said frame, a rearwardly-projecting bag retainer-loop pivotally carried by each arm of the frame, means for holding said loops yieldingly against said pins, and a pair of pins carried by each arm and projecting rearward therefrom and disposed one above and the other below the plane of the first-named pins in combination with a pair of brackets fitting loosely upon the first-named pins and between the adjacent pairs of pins and held by said retainer-loops against the first-named pins.

5. A mail bag deliverer for cars, comprising a U-shaped frame pivoted to and within the car, and adapted to be swung outward the door-opening of the car, to a horizontal position, a pair of clamping-jaws pivotally carried by one of the arms of said frame to clamp between them one or more mail bags, and means for detachably connecting the mail bag near its extremities to said arms near the free ends of the same to hold the bag in a vertical position at the side of the car when the frame is swung through the door-opening.

[Claims 6 to 12 not printed in the Gazette.]

943,877. DISPLAY-CABINET. NICHOLS HOLLAND and ANDREW J. KIDD, Brazil, Ind., assignors of one-third to The Sherfey & Kidd Company, Brazil, Ind. Filed July 13, 1909. Serial No. 507,393.

1. A device of the class described comprising a cabinet; carriages mounted for parallel reciprocation in the cabinet; and adjustable means carried by the cabinet to engage one of the carriages terminally, to maintain the adjacent ends of the carriages in overlapped relation.



2. A device of the class described comprising a cabinet; carriages mounted for parallel reciprocation in the cabinet; and a stop hinged to the cabinet and operable to engage one of the carriages terminally, to maintain the adjacent ends of the carriages in overlapped relation.

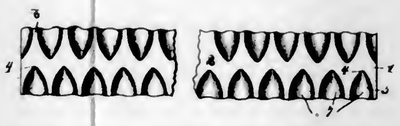
3. A device of the class described comprising a rug carriage having converging braces; a removable bracket arranged to engage the remote faces of the braces in wedging relation; and supports carried by the brackets for receiving a rolled-up rug.

4. A device of the class described comprising a rug carriage having converging braces; a removable bracket arranged to engage the remote faces of the braces in wedging relation; supports carried by the brackets for receiving a rolled-up rug; and a clamping means located at the top of the carriage, and arranged to retain the free end of the rug.

5. A device of the class described comprising a rug carriage having converging braces; a removable bracket arranged to engage the remote faces of the braces in wedging relation; supports carried by the bracket for receiving a rolled-up rug; a beam extending transversely of the carriage at the top thereof, and arranged to receive the free end of the rug; and a rod arranged to be superposed upon the beam to constitute a clamp for the free end of the rug, the rod being terminally provided with elements adapted to interlock with the carriage.

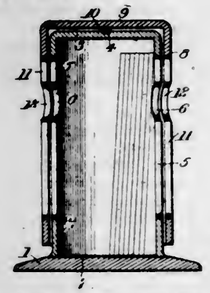
[Claims 6 to 14 not printed in the Gazette.]

943,878. REINFORCEMENT-BAR. WILLIAM G. HUGHES, Pittsburg, Pa. Filed Sept. 12, 1905. Serial No. 278,128.



A tension bar for composite beams, comprising a substantially rectangular bar having a central web of uniform thickness and provided on two opposite faces along its marginal edges with V-shaped depressions having side walls leading to a meeting point contiguous to the web, the depressions along one marginal edge being staggered with respect to the depressions along the other and parallel marginal edge on the same face of the bar, and the depressions along the marginal edges on one face of the bar being staggered with respect to the depressions along the corresponding marginal edges on the opposite face of the bar, the size of said depressions being greatest at the edges of the bar and uniformly diminishing toward and merging with the said central web.

943,879. DUST-PROOF RECEPTACLE FOR TUBULAR STRAWS. JOHN HURLEY, Little Falls, N. Y. Filed Apr. 15, 1909. Serial No. 490,177.



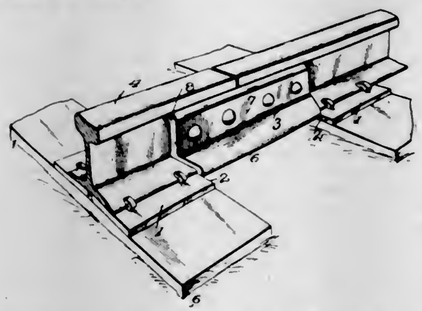
1. A tubular straw holder comprising a fixed hollow inner member, and an enveloping outer member rotatably mounted upon the inner member, each member having oppositely disposed slots, each slot being enlarged intermediate its ends, the inner member having a stop and the outer member having a projection for engagement with said stop to limit the rotative movement of the outer member when the slots of the members are brought into alinement.

2. A tubular straw holder comprising a fixed hollow inner member, and an enveloping outer member rotatably mounted upon the inner member, each member having a slot which is enlarged intermediate its ends, the inner member having a stop and the outer member having a projection for engagement with said stop to limit the rotative movement of the outer member when the slots of the members are brought into alinement.

3. An article holder comprising a receptacle composed of inner and outer members, one member being rotative with respect to the other member and each member having a comparatively narrow vertical slot which is enlarged intermediate its ends nearer the top than at the bottom of the slots whereby a single straw at a time may be withdrawn from the receptacle when the slots of the two members are brought into alinement and whereby the receptacle is rendered dust-proof when the slots of the two members are out of alinement.

4. A tubular straw holder, comprising a fixed hollow inner member, and an enveloping outer member, rotatably mounted upon the inner member; each member having oppositely disposed slots, adapted to be brought into and out of alinement, to permit of the withdrawal of the straws, when the slots are in alinement; each of said slots having an enlarged portion intermediate its ends.

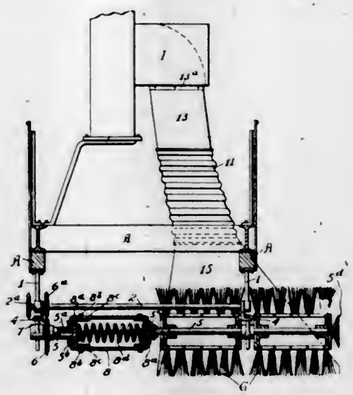
943,880. COMBINED RAIL JOINT AND CHAIR. ZACHARY T. HOSKINS, Chicago, Ill. Filed Feb. 20, 1909. Serial No. 479,214.



1. A combined rail joint and chair comprising a pair of plates each of which is a duplicate of the other extending beneath the meeting ends of the rails and having struck up portions intermediate their ends adapted to embrace the flanges and to extend up into contact with the under side of the treads of the rails at their meeting ends, said struck up portions being of a length equal to the distance between adjacent ties and adapted to span the space between said ties, as set forth.

2. A combined rail joint and chair comprising a pair of plates each of which is a duplicate of the other extending beneath the meeting ends of the rails and having struck up portions intermediate their ends adapted to embrace the flanges and to extend up into contact with the under side of the treads of the rails at their meeting ends, bolts securing said plates and rails together, and spikes securing said plate to the ties, said struck up portions being of a length equal to the distance between adjacent ties and adapted to span the space between said ties, as set forth.

943,881. STREET-SWEEPING MACHINE. BERNARD KERN, Jr., Toledo, Ohio, assignor to Kern Auto Street Sweeper Corporation, New York, N. Y., a Corporation of New York. Filed Jan. 27, 1905. Serial No. 242,831.



1. In a street-sweeper, the combination with the dust conduit, of a mouth-piece at the receiving end thereof, said mouth-piece having its inlet end broadened to form an elongated opening of greater length than the diameter of the conduit, and a plurality of partitions in the mouth-piece for causing an equalization of the air current throughout its width, said partitions extending from top to bottom of the mouth-piece and having their lower ends spaced farther apart than their upper ends, substantially as described.

2. A mouth-piece of the class described having a substantially round upper end and a broad, flat lower or inlet end provided with a long, narrow inlet opening, the cross-sectional area of the mouth-piece remaining substantially the same throughout its length, and partitions extending through the mouth-piece for the purpose of dividing it into a plurality of channels of substantially equal cross-sectional area throughout its length.

3. In a street sweeper, in combination, a rotary-broom mounted for adjustment transversely of the machine, a dust conduit having a part shiftable to suit the position of adjustment of the broom, and a mouth-piece for the conduit having a broad, inlet or lower end provided with a long, narrow inlet opening, substantially as described.

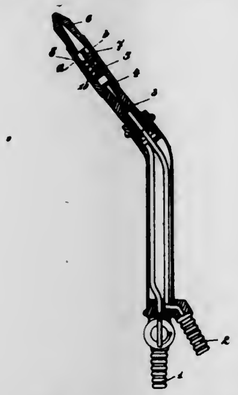
4. The combination in a street-sweeper, of a shaft having a portion of its length extended beyond the side of the machine, bearing-arms carrying the shaft, means for extending the shaft and permitting a yielding movement thereof, a broom carried by the shaft between its bearings and a second broom carried by the extended end thereof, a dirt receptacle, a conduit leading thereto from the brooms and having its outer or inlet end laterally adjustable to

suit the position of the brooms, and a mouth-piece at the inlet end of the conduit having its mouth or intake broadened and in juxtaposition to the brooms.

5. In a street sweeper, a broom, a shaft on which said broom is mounted, means for longitudinally adjusting said shaft whereby a portion of said broom may be positioned at the side of the machine, a fan, a conduit leading from the broom to the fan, said conduit having its outer or broom end laterally adjustable to suit the position of adjustment of the broom, and a mouth-piece for the conduit.

[Claims 6 to 13 not printed in the Gazette.]

943,882. WELDING-BURNER. JACOB KNAPPICH, Augsburg, Germany. Filed Feb. 1, 1909. Serial No. 475,473.

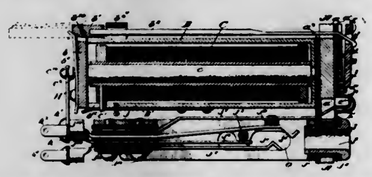


1. In a welding burner, the combination, with the burner-tube having a mixing chamber, of a worm or spiral having a plurality of threads in said chamber, and means in said burner-tube at an adjustable distance in front of said worm or spiral for stopping the eddying motion of gases passing through the latter.

2. In a welding burner, the combination with the burner-tube having a mixing chamber, of a worm or spiral having a plurality of threads in said chamber, and walls arranged transversely in said burner-tube in front of said worm or spiral for stopping the eddying motion of gases passing through the latter.

3. In a welding burner, the combination with a burner tube having a mixing chamber, of a worm or spiral having a plurality of threads inserted in said chamber, and a wall arranged at the back of said worm or spiral, thereby providing straight passages for the gases.

943,883. ELECTRICAL SIGNALING AND SWITCHING APPARATUS. RAY H. MANSON, Elyria, Ohio, assignor to The Dean Electric Company, Elyria, Ohio, a Corporation of Ohio. Original application filed June 14, 1905, Serial No. 265,242. Divided and this application filed May 29, 1907. Serial No. 376,424.



1. An annunciator comprising a frame, an energizing winding supported within said frame, an armature pivoted to the frame, a signal device carried on the frame and controlled by the armature, said winding being removable from the armature end of the frame without removing the armature or signal from the frame.

2. In an annunciator, the combination with a signal device, of a signal operating magnet, an armature therefor, means mounted on said armature for controlling the signal device and resilient means mounted on said armature for securing the first named means to the armature in an operative or inoperative position as desired.

3. In an annunciator, the combination with a signal device, of an operating magnet therefor, a jointed two-part armature controlled by current in said magnet, means carried by one part of said armature for controlling the signal device, and a spring carried by the other part of said armature for constant engagement with the part carrying the signal controlling device, so that the last named part may be held in or out of operative relation with the core of said magnet.

4. In an annunciator, the combination with a signal device, of an operating magnet therefor, projecting terminals for said magnet, an armature in operative relation with the core of said magnet, means operated by the armature for controlling the signal device, means for holding one part of the armature in variable mutual relation with the other part, and detachable line connecting links for the magnet terminals which lock the armature in operating relations with the core of the magnet.

5. An annunciator comprising a magnetic shell and a detachable magnet spool therein, a signal device, and a jointed armature composed of two members, one member associated with the signal device, the other member movable to an inoperative position with respect to the first, said spool being removable from the shell without changing the adjustment of the signal device and the associated member of the armature.

[Claims 6 to 19 not printed in the Gazette.]

943,884. DENTAL INSTRUMENT. WILLIAM B. MILLER, Altoona, Pa. Filed May 13, 1909. Serial No. 495,828.



1. A flexible point for the application of liquids to infected parts, consisting of a strip of film celluloid having one end rounded and enlarged and the other pointed so that the curving of the large end will produce a curve all along to the point.

2. The combination with a flexible point for the application of liquids to infected parts, said point consisting of a strip of flexible material having one end rounded and the other end V-shaped, of a clamp for the same, comprising coöperating concave and convex jaws, whereby the clamping of the large end of the point will produce a curve longitudinally of the same to the small end.

943,885. DEVICE FOR CLEANING WELLS. FRANK A. MONROE, Bemus Point, N. Y. Filed Dec. 8, 1908. Serial No. 466,515.

1. In a device for cleaning oil wells, a tubular casing, a removable metal billet in said casing having a spiral projection on its outer side to detain fluid thereon, a reservoir for fluid in said casing, and means for permitting the passage of said fluid on to said billet.

2. In a device for cleaning oil wells, a tubular casing composed of two parts, a metal connection for said parts having a partition therein to form a reservoir for liquid in the upper part of said casing, and means for the passage of the liquid through said partition.

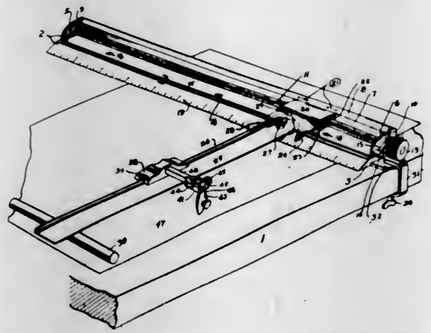
3. In a device for cleaning oil wells, a tubular casing composed of two parts, a connective casting for said parts having a partition therein to form a reservoir of the upper part of the casing, a tubular nozzle inserted through said partition, and a screw valve on the under side of said nozzle.

4. In a device for cleaning oil wells, a tubular casing composed of two parts, a connective casting for said parts having a partition therein to form a reservoir of the upper part of the casing, a tubular extension on the under side of said partition having a small opening through said partition, a screw valve in the lower end of said tubular extension having a valve seat in the lower end of said small opening, said tubular extension having openings through the sides thereof, and a tubular shield to control the liquid from said openings.



5. In a device for cleaning oil wells, a tubular casing composed of two parts, a connective casting for said parts having a partition therein to form a reservoir of the upper part, a tubular nozzle extending through said partition and having a small opening therein, a screw valve in the lower end of said tubular nozzle having a valve seat at the lower end of said opening in said nozzle, said tubular nozzle having openings through the sides thereof, a tubular shield to guide the liquid from said openings, said screw valve having a flange on its lower end, and a central squared nut, substantially as and for the purpose specified.

943,886. DRAFTING AND ENGRAVING MACHINE. HENRY S. NUNAMAKER, Cleveland, Ohio. Filed Feb. 13, 1909. Serial No. 477,673.



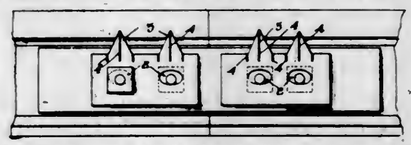
1. The herein described drafting and engraving machine comprising a guide and scale, said guide and scale provided with a way arranged longitudinally thereon, a ruler support provided with portions adapted to be located in said way and to slide longitudinally therein, means for sliding said ruler support with reference to said guide and scale, a ruler adjustably connected to said ruler support, means for holding said ruler in fixed adjustment with reference to said ruler support, an instrument guide adapted to engage said ruler and to slide longitudinally thereon, a pen yoke fixedly attached to said instrument guide, said pen yoke provided with spaced portions adapted to be adjusted with reference to each other and to clamp an instrument between them and means for adjusting said portions with reference to each other.

2. The herein described drafting and engraving machine comprising a guide and scale, said guide and scale provided with a way arranged longitudinally thereon, a ruler support provided with portions adapted to be located in said way and to slide longitudinally therein, means for sliding said ruler support with reference to said guide and scale, a ruler connected to said ruler support, an instrument guide adapted to engage said ruler and to slide longitudinally thereon, a pen yoke fixedly attached to said instrument guide, said pen yoke provided with spaced portions adapted to be adjusted with reference to each other and to clamp an instrument between them, and means for adjusting said portions with reference to each other.

3. The herein described drafting and engraving machine comprising a guide and scale consisting of a bar and a guide formed of sheet metal attached to said bar, said guide provided with end flanges and with a side flange, said side flange provided with an integral flange spaced from said side flange, a screw threaded rod journaled in said end flanges, a ratchet wheel and thumb piece fixedly attached to said screw threaded rod at one end thereof, said ratchet wheel provided with notches, a spring fixedly attached to one of the end flanges and adapted for engagement with the said ratchet wheel, a ruler support formed of a single piece of metal and provided with flange engaging portions adapted to be located between the said side flange and the spaced integral flange of said guide and with screw rod engaging flanges, said rod engaging flanges adapted to bear upon said screw rod and provided with screw threads adapted to engage the screw threads on the said screw rod, said bar provided with a graduated scale said ruler support provided with an index adapted to move along said graduated scale, a ruler pivotally connected to said ruler support and adjustable with reference thereto said ruler support provided with a protractor scale, said ruler provided with an index adapted to move over said protractor scale when said ruler is moved upon its pivotal connection, means for holding said ruler in fixed pivotal adjustment with reference to said ruler support, said ruler provided with a roll, an instrument guide provided with a groove adapted to engage said roll and to slide longitudinally thereon, a pen yoke fixedly attached to said instrument guide and said pen yoke provided with means for attachment to an instrument for drawing or engraving.

4. In a drafting and engraving machine, a guide provided with a way, a screw rod mounted upon said guide and arranged parallel with said way, a ruler support provided with portions adapted to be located in said way and to slide longitudinally therein, said support also provided with screw rod engaging flanges provided with screw threads adapted to engage the screw threads on the said screw rod, a ruler attached to said ruler support, said guide arranged upon a bar for elevating it above the surface of a drafting board, said screw rod arranged at a point between said way and the said ruler supported by the said ruler support, whereby the weight of said ruler will press said ruler support against said screw rod.

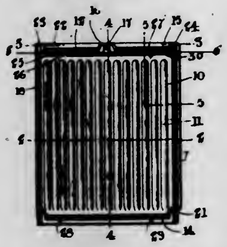
943,887. NUT-LOCK. GEORGE A. PATTILLO, Cartersville, Ga. Filed Jan. 14, 1909. Serial No. 472,318.



A nut lock comprising a washer plate of uniform width having a plurality of closed oval bolt receiving apertures, said apertures having a minor axis greater than the diameter of the bolts which pass therethrough so as to permit vertical and longitudinal adjustment of the washer

plate, triangular shaped lugs extending from its upper edge at points immediately above said apertures, said lugs being formed by an extension of the body and each having a slot extending from its apex to a point below the upper edge of the plate, and the upper edge of the plate being slit on opposite sides of the lugs whereby the latter may be bent downwardly and outwardly in a horizontal position against the upper edge of the nuts but may be bent out of nut engaging position by unscrewing the nut with a wrench.

943,888. INTERLOCKING METALLIC SHINGLE. GEORGE H. PEDLAR, Oshawa, Ontario, Canada. Filed Jan. 2, 1909. Serial No. 470,543.



1. A metallic shingle formed with interlocking side joints, the flanges of which extend below the face of the shingle, and having the top edge of the shingle formed with a depression on the upper surface forming a projection on the lower surface adapted to space the shingle from the roof, and a suitable interlocking means formed along the top and bottom of the shingle.

2. A metallic shingle formed with interlocking side joints, the flanges of which extend below the face of the shingle, and having the top edge of the shingle formed with a projection formed by a depression pressed in the edge of the shingle, adapted to abut the roof and support said edge in the same plane as the face of the shingle, and suitable interlocking means formed along the top and bottom of the shingle.

3. A metallic shingle formed at the side with interlocking flanges and having the bottom formed with an underturned flange and the top formed with an overturned flange, the ends of the upper part of which are pressed into engagement with the side flanges, the said overturned flanges having an outer portion extending only to the edge of the side joints, and disconnected from said side joints.

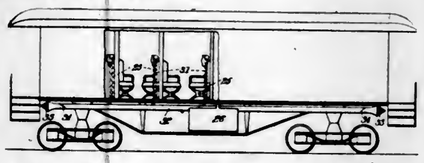
4. A metallic shingle having suitable interlocking top and bottom joints and having interlocking side joints formed by an undercurved flange on one side, and a trough-shaped flange on the opposite side, the said trough-shaped flange extending down sufficiently to form a support for the face of the shingle by bearing on the bottom of the undercurvede flange, whereby the faces of the two abutting shingles may be supported in the same plane, the upper edge of the said shingle being provided with a depression on the upper surface forming a projection on the lower surface adapted to bear against the roof and thus space the face of the shingle from the roof.

5. An interlocking metallic shingle having an overturned interlocking flange at the edge thereof, the said flange being formed with a plurality of corrugations extending longitudinally thereof and adapted to strengthen the same.

[Claim 6 not printed in the Gazette.]

943,889. VENTILATING DEVICE FOR VEHICLES. FREDERICK B. POPE, Augusta, Ga., and WILLIAM J. LESTER, Boston, Mass. Filed Mar. 30, 1908. Serial No. 424,127.

1. Ventilating devices for vehicles, including in combination, a fan, a motor for operating said fan, means for operating said motor from stored power, means for operating said motor by power generated by the movement of the vehicle, and automatic mechanism for shifting from one power to the other when said vehicle is at rest or moving at a slow speed.



2. Ventilating devices for vehicles, including in combination, a fan, a motor for operating the same, means for operating said motor by atmospheric pressure when the vehicle is moving above a certain speed, and automatic means for operating said motor from compressed air when said vehicle is at rest or moving at a slow speed.

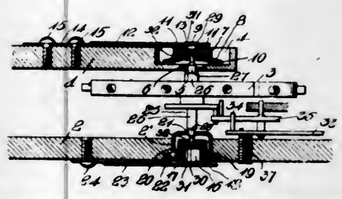
3. Ventilating devices for vehicles, including in combination, a fan, a motor for operating the same, means for operating said motor by atmospheric preasure when the vehicle is moving above a certain speed, automatic means for operating said motor from compressed air when said vehicle is at rest or moving at a slow speed, and mechanism for controlling said operating means.

4. Ventilating devices for vehicles, including in combination, a fan, a motor for operating said fan, a compressed air tank, a pipe leading therefrom to said motor, a collecting pipe, and pipes leading therefrom to said motor, and automatic mechanism whereby said motor is operated from said compressed air when the car is moving at or below a predetermined speed.

5. Ventilating devices for vehicles, including in combination, a fan, a motor for operating said fan, a compressed air tank, a pipe leading therefrom to said motor, a collecting pipe, pipes leading therefrom to said motor, automatic mechanism whereby said motor is operated from said compressed air when the car is moving at or below a predetermined speed, and mechanism whereby said motor may be operated for a given time and automatically stopped.

[Claims 6 to 33 not printed in the Gazette.]

943,890. WATCH-BALANCE-STAFF SUPPORTER. LOUIS PAISANT, Albany, Ga., assignor of one-half to B. Cohn, Albany, Ga. Filed Aug. 25, 1909. Serial No. 514,572.



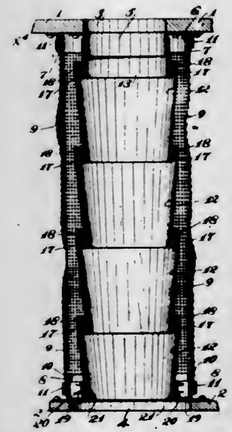
1. In a watch movement, the combination with the side plates of a watch work having a balance wheel and its staff mounted therein, one of said plates having a recess in its outer face with an aperture extending through the inner wall thereof, a jewel setting loosely mounted in said aperture and composed of a cylindrical member having an annular flange projecting outwardly from one end thereof, a concavo-convex cap member closing the other end of said cylindrical member, jewels arranged in said cylindrical member for engagement by one end of said staff and a plate spring secured at one end to the outer face of said recessed plate and having an aperture in its free end to fit over said cap to hold said setting yieldingly in operative position.

2. In a watch movement, the combination with the side plates of a watch work having a balance wheel and its staff mounted therein one of said plates having a recess in its outer face with an aperture extending through the inner wall thereof, a jewel setting loosely mounted in said recess and composed of a cylindrical member having an annular flange projecting outwardly from one end thereof, a concavo-convex cap member closing the other end of said cylindrical member, jewels arranged in said cylindrical member for engagement by one end of said staff, a plate spring secured at one end to the outer face of said recessed plate, and having an aperture in its free end to fit over said cap to hold said setting yieldingly in operative position, the inner edge of the aperture in said spring being beveled to form a seat for said cap.

3. In a watch movement, the combination with the side plates of a watch work having a balance wheel and its staff mounted therein one of said plates having a recess in its outer face with an aperture in the bottom thereof, a jewel setting loosely mounted in said recess and composed of two detachably connected members, one of said members being cylindrical and having an annular flange arranged at one end thereof, said flange being concave on its inner face and convex on its outer face, a concavo-convex cap member closing the outer end of said cylindrical member, jewels arranged in said cylindrical member for engagement by one end of said staff, and a flat plate spring secured at one end to the outer face of said recessed plate and arranged in contact therewith, said spring having an aperture in its free end extending over the recess in said plate the inner edge of the spring aperture being beveled to fit snugly over said cap, the end of the cap extending approximately flush with the outer edge of the spring.

4. In a watch movement, the combination of spaced side plates having recesses in their outer faces, one of said plates having an aperture in the inner wall of said recess, the outer edges of said aperture being beveled, a jeweled setting loosely mounted in said recess and resilient means for holding said setting in operative position, the other side plate having a large aperture extending through the bottom of the recess thereof, an apertured inverted cup-shaped shield arranged in said aperture, a jeweled setting arranged in said cup-shaped shield, resilient means for holding said setting in said shield, and a balance wheel arranged between said plates and having the staff thereof shouldered and provided with reduced extensions adapted to extend through the aperture in one plate and through the aperture in said shield.

943,891. FLEXIBLE FEED-SPOUT. LEWIS V. RATHBUN, Rochester, N. Y. Filed Aug. 17, 1908. Serial No. 448,793.



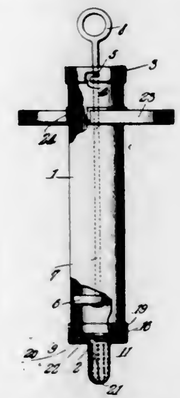
1. The combination with upper and lower bodies, one of which is capable of movement in respect to the other, of a pair of concentric annular collars on said upper part, a collar on said lower part, a flexible outer tube connecting the outer collar of said upper part to the collar of said lower part, a centering ring secured within but spaced apart from said lower collar, and a yieldingly mounted inner tube loosely connected to the inner sleeve of said upper part, and to the centering ring of said lower part substantially as described.

2. The combination with upper and lower bodies one of which is capable of movement in respect to the other, a pair of concentric annular collars on the upper part and a collar on the lower part, of a flexible spout comprising a flexible outer tube detachably connected to the collar of said lower part and to the outer collar of said upper part, and an inner tube made up of flexibly connected metallic sections flexibly connected to each other and detachably connected to the inner collar of said upper part.

3. The combination with an upper member having concentric inner and outer collars, and a lower member having a collar, one of which collars is capable of movement in respect to the other, the said lower collar having a skeleton tube spacing member, of a flexible tube comprising an outer tube of flexible material detachably connected to the collar of said lower member and to the outer collar of said upper member, and an inner tube made up of metallic sections flexibly connected to each other, the upper section thereof being detachably interlocked to the inner collar of said upper member, and the lower section thereof being held in position by said skeleton tube spacing device.

4. The combination with upper and lower members both having stock passages, and one of which is capable of movement in respect to the other, of a flexible outer tube connecting the stock passages of said two members, and a yieldingly mounted inner tube arranged to deliver the body of stock from the passage of the upper to the passage of the lower member, the said inner and outer tubes being spaced apart to form an annular chamber which has a discharge passage that opens at its bottom into the stock passage of the lower member, substantially as described.

943,892. CREAM-PUMP AND EGG-BEATER. JOHN H. REED, Lancaster, Wis. Filed Oct. 24, 1908. Serial No. 459,354.



A device of the character described comprising a cylinder having an opening at one end, a piston working therein, a valve pivoted within the cylinder and seating over the opening, said valve having an opening co-axial with, but of less diameter than the opening of the cylinder.

943,893. ADVERTISING APPARATUS. WILLIAM J. RIDER, Wimbledon, England. Filed Dec. 20, 1906. Serial No. 348,711.

1. An advertising device comprising a case, sprocket wheels therein, chains on said wheels, advertising cards carried by said chains, electric lamps for illuminating said cards, an electric motor for driving the sprocket wheels, an automatic switch device alternately placing the motor

and the lamps in circuit and means for operating the switch from the chains.



2. In advertising apparatus of the type set forth, an intermittent driving mechanism comprising an electric motor, sprocket wheels and chains actuated thereby, projecting pins on said chains, a rod mounted to slide in bearings connected with one pole of a source of electricity, a catch lever pivoted on said rod and adapted to engage said projecting pins, an electrical contact piece on said catch lever, a contact plate with which said contact piece is adapted to engage, said plate being connected with the other pole of the source of electricity through the motor, automatic disengaging means for said catch lever, and means governing the speed of descent of said rod, as set forth.

3. In advertising apparatus of the type set forth, an intermittent driving mechanism, comprising an electric motor, sprocket wheels and chains actuated thereby, projecting pins on said chains, a rod mounted to slide in bearings connected with one pole of a source of electricity, a catch lever pivoted on said rod and adapted to engage said projecting pins, an electrical contact piece on said catch lever, a contact plate with which said contact piece is adapted to engage, said plate being connected with the other pole of the source of electricity through the motor, automatic disengaging means for said catch lever, means governing the speed of descent of said rod, a stop lever arresting the motion of the chain and automatic disengaging means for said stop lever, as set forth.

4. In advertising apparatus of the type set forth, an intermittent driving mechanism comprising an electric motor, sprocket wheels and chains actuated by said motor, projecting pins on said chains, a rod mounted to slide in bearings connected with one pole of a source of electricity, a catch lever pivoted on said rod and adapted to engage said projecting pins, an electric contact piece on said catch lever, a contact plate with which said contact piece is adapted to contact, said plate being connected with the other pole of the source of electricity and through the motor and lamp circuit, automatic disengaging means for said catch lever, means governing the speed of descent of said rod, a stop lever arresting the motion of the chain, automatic disengaging means for said stop lever, an electric illuminating device, and a contact plate with which said contact piece is adapted to engage, said plate being connected in the lamp circuit, as set forth.

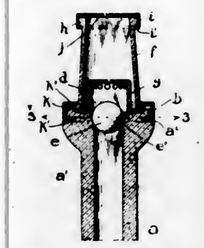
943,894. DEVICE FOR TREATING CUTANEOUS DISEASES. FRANKLIN RIGHTMIRE, Paterson, N. J. Filed Sept. 22, 1905. Serial No. 279,610.

1. In a device of the class described, in combination, a tubular section of elastic material having therein a plurality of openings, said tubular section being adapted to be positioned about a portion of the body, and a flanged cup adapted to be inserted underneath a portion of said elastic material so as to interlock with said elastic tubular section.



2. In a device of the class described, in combination, a section of rubber tubing having therein a plurality of irregularly arranged openings, said tubing being adapted to be positioned about a portion of the body, and a flanged, substantially cup-shaped member adapted to be inserted between a portion of the body and said tubing, the convex portion of said cup-shaped member entering one of the openings in said tubing, the edges of said opening being adapted to engage the flange upon said member to hold the same firmly in position upon the body.

943,895. NON-REFILLABLE BOTTLE. ISAAC A. ROSENFELD, Washington, D. C.; Bella Rosenfeld administratrix of said Isaac A. Rosenfeld, deceased. Filed Aug. 31, 1908. Serial No. 451,014.



1. The combination with a bottle having a valve seat at the upper end of its neck, of a ball valve fitting in said seat, a cylinder-form valve chamber cap extending above the valve seat to about the extent of the diameter of said valve and having perforations in its side walls adjacent to its top, said valve chamber cap being capable of direct stop engagement with said valve in the raised position thereof, and a guard device having an internal diameter slightly greater than the external diameter of and extending above said cap.

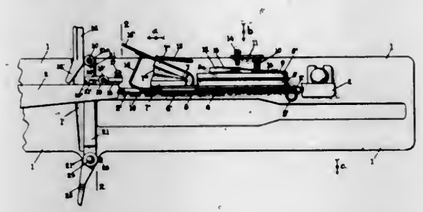
2. In a non-refillable bottle, a ball valve at the top of the bottle neck, a valve-chamber cap for said valve having perforations in its side wall, a guard device for said cap having an internal diameter slightly greater than the external diameter of and extending above said cap, a cap closure for said guard device, and hidden inaccessible spring means for locking said valve chamber cap and guard device in position.

3. In a non-refillable bottle, a ball valve at the top of the bottle neck, a valve chamber cap for said valve having perforations in its side wall and a bottom flange, a guard device for said cap having an internal diameter slightly greater than the external diameter of and extending above said cap, and having a bottom flange overlying the bottom flange of said cap, a locking collar having hidden inaccessible spring locking means and a flange overlying the bottom flanges of said cap and guard device, and a cap closure for said guard device.

4. The combination with a bottle having an annular groove, the vertical wall of said groove having outward extending radial projections, of a valve at the top of the bottle neck, a valve chamber cap for said valve having perforations in its side wall and a bottom flange, a guard device for said cap having an internal diameter slightly greater than the external diameter of and extending above said cap, and having a bottom flange overlying the bottom flange of the cap, a locking collar having a flange overlying the bottom flanges of said cap and guard device and having inward extending radial projections having engagement with the radial projections of the bottle neck, and hidden inaccessible means for locking said collar against rotary movement in either direction.

5. The combination with a bottle having radial projections, a valve, and a guard device thereover, of a locking collar for said guard device provided with radial projections having cam engagement beneath the radial projections of the bottle, and hidden inaccessible spring locking means for preventing rotary movement of said collar in either direction.

943,896. WEFT-REPLENISHING LOOM. EPPA H. RYON, Worcester, Mass., assignor to Crompton & Knowles Loom Works, a Corporation of Massachusetts. Filed Feb. 4, 1909. Serial No. 476,066.



1. In a weft replenishing loom, an automatic filling detector mechanism, comprising a member to engage the filling in the active shuttle, and means, operative through air pressure, to operate said member and cause it to engage the filling.

2. In a weft replenishing loom, an automatic filling detector mechanism, comprising a member to engage the filling in the active shuttle, and means, operative through air pressure, to operate said member, and cause it to engage the filling, said means put into operation by the boxing of the shuttle.

3. In a weft replenishing loom, an automatic filling detector mechanism, comprising a reciprocating member to engage the filling in the active shuttle, and means to operate the same to cause it to engage the filling, said means including a shuttle, and mechanism operative by air pressure.

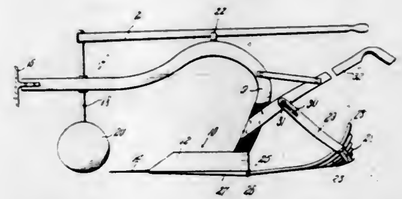
4. In a weft replenishing loom, an automatic filling detector mechanism, comprising a reciprocating member to engage the filling in the active shuttle, a shuttle, and means, operative by said shuttle, through the medium of air pressure, to cause the movement of said member.

5. In a weft replenishing loom, an automatic filling detector mechanism, comprising a member to engage the filling in the active shuttle, a dagger, a spring connected with said dagger, mechanism to hold said dagger against the action of said spring, and means, operated through air pressure, to cause said member to release said dagger, and allow the spring to move the same into operative position.

[Claims 6 to 20 not printed in the Gazette.]

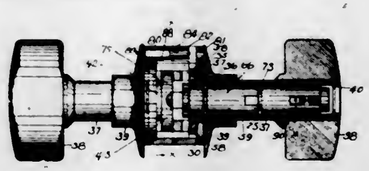
943,897. DITCHING-PLOW. CHARLES F. SEDELL, Sutherland, Iowa. Filed Jan. 14, 1909. Serial No. 472,351.

An implement of the class described comprising a scoop having a flat bottom and spaced vertical sides provided with forwardly inclined beveled cutting edges, a cutting edge formed on the front of the bottom, tapering shoes fixed to the outer face of the bottom near the longitudinal side edges thereof, a mold board having a curved free end adapted to discharge earth to one side of the line of draft, a removable pin passed through the shoes and inner end of the mold board to pivotally connect the latter to the



scoop, a draft beam fixed to the scoop, and means for adjusting the mold board in raised or lowered position.

943,898. LOCK. HENRY W. SIMPSON, Ithaca, N. Y., assignor to Marcus E. Calkins, Ithaca, N. Y. Filed Sept. 24, 1907. Serial No. 394,268.



1. In a lock, a normally projected latch bolt, independent latch bolt operating members mounted on opposite sides of the door for retracting said latch bolt, the plane of the axis of said members intersecting the path of movement of the latch-bolt, said members being spaced apart to permit movement of the latch-bolt therebetween, means for locking one of said members against movement, and a key-operated member carried by the locked member for retracting the bolt.

2. In a lock, a normally projected latch bolt, independent operating members mounted on opposite sides of the door for retracting said latch bolt, means for locking one of said members against movement, and a key-operated longitudinally-movable member carried by the locked member for retracting the bolt, the key-operated member being movable to retract the bolt when the member is at one extreme of its longitudinal movement, the movements of the lockable member and the key-operated member being independent of each other.

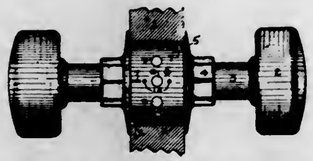
3. In a lock, a reciprocating latch-bolt normally retained in a projected position, and independent members for retracting the latch-bolt from one side of a door, said members being mounted one within the other, one of said members being positively held against any movement other than that imparted to it by a key, said member being normally out of bolt-retracting position and movable longitudinally to position it in retracting position.

4. In a lock, a reciprocating latch-bolt normally retained in a projected position, and independent members for retracting the latch-bolt from one side of a door, said members being mounted one within the other, one of said members being normally out of bolt-retracting position and movable longitudinally to position it in such retracting position, the movement of either member being independent of the movement of the other member.

5. In a lock, a reciprocating latch-bolt normally retained in a projected position, and independent members for retracting the latch-bolt from one side of a door, said members being mounted one within the other, one of said members being normally out of bolt-retracting position and movable longitudinally to position it in such retracting position, each of said members being lockable, the retracting movement of the members being pivotal, the pivotal movements being in either direction.

[Claims 6 to 22 not printed in the Gazette.]

943,899. LOCK-CASING. HENRY W. SIMPSON, Ithaca, N. Y., assignor to Marcus E. Calkins, Ithaca, N. Y. Filed Feb. 24, 1909. Serial No. 479,797.



1. A lock casing comprising separable tube sections, removably secured together, complemental means on said sections for permitting the sections to have relative endwise and rotary movements, the rotary movements being solely in a single peripheral plane, and means movable with respect to the casing for securing said sections against relative rotary movement at predetermined points.

2. A lock casing comprising separable tube sections, removably secured together, complemental means on said sections for permitting the sections to have relative endwise and rotary movements, the rotary movements being solely in a single peripheral plane, and means for automatically securing said sections against relative rotary movement at predetermined points.

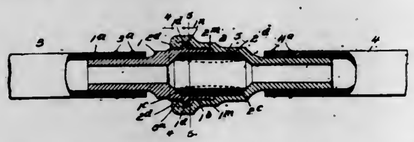
3. A lock casing comprising separable tube sections, removably secured together, complemental means on said sections for permitting the sections to have relative endwise and rotary movements, the rotary movements being solely in a single peripheral plane, and means movable with respect to the casing for securing said sections against relative rotary movement at predetermined points, said means providing a locking stop in contact with the sections having the relative movement.

4. A lock casing comprising separable tube sections removably secured together, complemental means on said sections for permitting the sections to have relative endwise and rotary movements, the rotary movements being solely in a single peripheral plane, and means movable with respect to the casing for securing said sections against relative rotary movement at predetermined points, said means providing a removable locking stop in contact with the sections having the relative movement.

5. A lock casing comprising separable tube sections removably secured together, complemental means on said sections for permitting the sections to have relative endwise and rotary movements, the rotary movements being solely in a single peripheral plane, means movable with respect to the casing for securing said sections against relative rotary movement at predetermined points, said means including an element extending through the wall of one casing into the casing to be connected thereto, said element being yieldable.

[Claims 6 to 8 not printed in the Gazette.]

943,900. PIPE-COUPLING. CLARK J. SMITH, Ottumwa, Iowa, assignor to Hardsocg Wonder Drill Co., Ottumwa, Iowa, Incorporated. Filed Jan. 2, 1907. Serial No. 350,515.



1. In a pipe coupling of the character described, a male and a female section, each of said sections having a ferrule receiving bore terminating in a ferrule stop wall, an elastic ferrule held within said sections, said female section having a plurality of diametrically projecting lugs, said male sections having likewise a plurality of lugs spaced apart to permit passage of the lugs of the female section, said male section lugs each comprising a curved projection merging with a curved seat, and a second curved projection also merging with the curved seat substantially as shown and described.

2. In a pipe coupling of the character described, a male and a female section, each of said sections having a ferrule receiving bore terminating in a ferrule stop wall, an elastic ferrule held within said sections, said female section having a plurality of diametrically projecting lugs, said male sections having likewise a plurality of lugs spaced apart to permit passage of the lugs of the female section, said male section lugs each comprising a curved projection merging with a curved seat, a second curved projection also merging with the curved seat, said second projection being greater than the first curved projection to form stops substantially as shown and described.

3. In a pipe coupling of the character described, a male and a female section, each of said sections having a ferrule receiving bore terminating in a conical ferrule stop wall with the portion of smallest diameter away from the mouth of the sections, an elastic ferrule held within said sections, said female section having a plurality of diametrically projecting lugs of cylindrical form, said male section having likewise a plurality of lugs spaced apart to permit passage of the lugs of the female section, said male section lugs each comprising a semi-circular curved projection merging with a semi-circular seat, which seat in turn merges with a second semi-circular projection, said second projection being greater than the first projection to form a stop, substantially as shown and described.

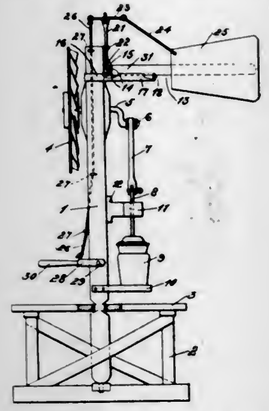
4. In a pipe coupling, a male and a female section, each of said sections having a ferrule receiving bore terminating in a conical ferrule stop wall with the portion of smallest diameter away from the mouth of said sections, an elastic ferrule held within said sections, said female section having a plurality of diametrically projecting lugs of cylindrical form and projecting inwardly from the inner surfaces of the sections, said male section having likewise a plurality of lugs on its outer surfaces, spaced apart to permit passage of the lugs of the female section, said male section lugs each comprising a semi-circular curved projection merging with a semi-circular seat, which seat in turn merges with a second semi-circular projection, said second projection being greater than the first projection to form a stop for the lugs of the female section substantially as shown and described.

5. A pipe coupling, a male and a female section, an elastic ferrule held within said sections, each of said sections having interlocking lugs, the lugs of one section being formed with seats for the lugs of the other section, and having curved cam like portions merging with said seats whereby the axial rotation of the sections will force the sections toward one another until the lugs of the one section engage the seat portion of the other section, and said flexible ferrule serving to force the sections away from each other to seat the lugs of the one section into the seat portion of the lugs of the other section, substantially as shown and described.

943,901. WIND-MOTOR. HIRAM W. SMITH, Woolsey, Okla. Filed June 11, 1909. Serial No. 501,576.

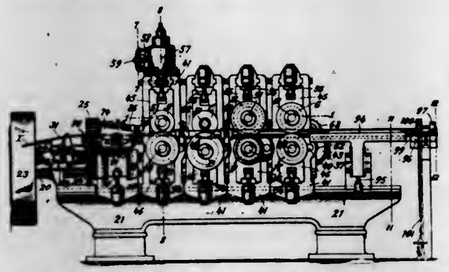
1. In a device of the class described, a tower, a wind wheel mounted thereon, a horizontal locking frame mounted at the upper end of the tower and comprising an arc-shaped portion formed in its upper edge with a plurality of spaced notches, a weather vane pivoted to the tower above the locking frame and adapted to engage any one of the notches of the latter, and manually operable connections for raising the weather vane out of engagement with the notches of the locking frame and for turning the tower to bring any one of the notches of the locking frame into position to be engaged by the vane whereby the wind wheel may be adjusted at different angles with the vane.

2. In a device of the class described, a supporting frame, a tower rotatably mounted thereon, a wind wheel mounted at the upper end of the tower, a horizontal locking frame secured to the upper end of the tower and comprising a curved portion provided with a plurality of spaced notches, a weather vane pivoted to the upper end of the tower immediately above the locking frame, a supporting rod rotatably mounted at the upper end of the tower, a horizontal operating link pivoted to the upper end of said rod, a link between one end of the operating link and the vane, an operating lever pivoted to the lower end of the tower, and a flexible connection between the other end of the operating link and said operating lever.



3. In a device of the class described, the combination with the tower and wind wheel, of a horizontal locking frame having an arc-shaped portion provided with three notches which are spaced equi-distances apart, a weather vane pivoted to the upper end of the tower immediately above the locking frame and adapted to engage any one of the notches of the latter, and manually operable connections for raising the vane out of engagement with any one of said notches and for turning the tower to bring any one of the notches of the locking frame in position to be engaged by the vane, whereby the wind wheel may be adjusted at an angle of 45° or at right angles to the vane to cause it to run at half speed or to throw it out of gear, said connections comprising a vertical supporting rod rotatably mounted at the upper end of the tower, an operating link pivoted to the upper end of said rod, a second link between one end of the pivoted link and the vane, an operating lever pivoted to the lower end of the tower, and a flexible connection between the other end of the operating link and said lever.

943,902. MACHINE FOR FORMING TUBES. ELISHA J. STEELE, Torrington, Conn., and THORVALD H. C. HANSEN, Kenosha, Wis., assignors to The Coe Brass Manufacturing Company, a Corporation of Connecticut. Filed June 9, 1905. Serial No. 264,538.



1. A tube forming machine comprising a guide, means for scarfing the edges of the strip passed through the guide, a pair of rolls one of which has a plano-convex and the other a plano-concave surface, with means for giving one roll a quick vertical movement relative to the other roll, a series of pairs of shaping rolls, the last pair of rolls having concave surfaces.

2. A tube forming machine comprising a guide, means for scarfing the sides of the strip fed through the guide, a pair of rolls one of which has a plano-convex surface and the other a piano-concave surface, means for reciprocating one of said rolls relative to the other, a second pair of rolls, one of which is disk-shaped and the other has a V-shaped concavity upon its surface, a third pair of rolls one of which is concave on its surface and the other provided with a U-shaped concavity on its surface, a fourth pair of rolls, each provided with a concavity on its surface and said concavities conjointly forming an ellipse.

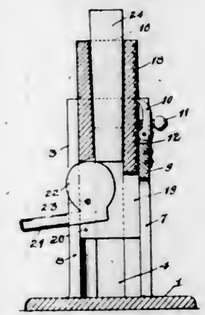
3. A tube forming machine comprising an adjustable guide, a pair of oppositely placed, angularly disposed rotary scarfing knives, a pair of rolls, one of which is vertically movable relative to the other, together with successive pairs of shaping rolls, the last pair of which have concavities on their surfaces and of such shape that pressure will be exerted upon the top and bottom of the shaped tube fed between them.

4. A tube forming machine comprising a guide, means for scarfing the sides of the strip fed through the guide, a series of pairs of rolls, with the rolls of each pair relatively adjustable, means for imparting a quick vertical movement to one of the rolls of the first pair and for exerting pressure by said roll upon the strip, together with adjustable power transmission means interposed between the rolls and the source of power.

5. A tube forming machine comprising a guide, means for scarfing the edges of a metal strip fed through the guide, a series of pairs of rolls, means for reciprocating one roll of the first pair relative to the opposite roll and making pressure thereby, and said successive pairs of rolls shaped to give the strip fed between them the forms indicated and to finally produce a closed tube.

[Claims 6 to 16 not printed in the Gazette.]

943,903. LIFTING-JACK. FRED W. STICE and WILLIAM M. STICE, Ardon, Iowa. Filed Dec. 17, 1908. Serial No. 468,031.



1. In a device of the class described, a guide frame, an adjustable support movable within the guide frame, a self locking lever pivoted to the adjustable support, and a lifting bar operated by the lever movable within said adjustable support.

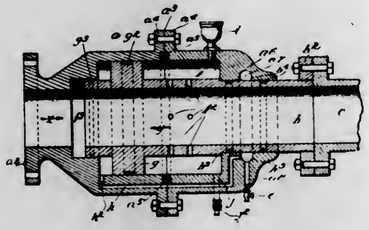
2. In a device of the class described, a base, an upstanding guide frame arranged on the base, an adjustable support movable within the guide frame, a self locking lever pivoted to the adjustable support, and a lifting bar operated by the lever arranged within said support.

3. In a device of the class described, a base, a guide frame arranged on the base, an adjustable support provided with ratchet teeth movable within the guide frame, a pawl pivoted to the guide frame for controlling the

movement of the adjustable support a lifting bar slidably mounted in the support and lifting self locking means arranged on the adjustable support to support said bar.

4. In a device of the class described, a base, a guide frame arranged on the base, an adjustable support movable within the guide frame, said adjustable support being formed with ratchet teeth, a pawl pivoted to the guide frame arranged to control the movement of the adjustable support, a lever pivoted to the adjustable support provided with a cam arranged thereon, and a lifting block movably arranged within the adjustable support and adapted to be engaged by the cam.

943,904. SLIP-JOINT FOR STEAM-PIPES. JULIUS E. STRUEB, Brooklyn, N. Y. Filed Mar. 11, 1909. Serial No. 482,853.

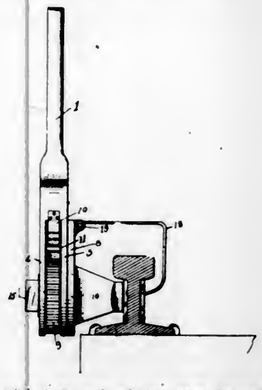


1. In a slip joint for pipes, a main outer casing provided at one end with a neck and at the opposite end with an attaching flange, said casing being divided centrally into two detachably connected parts, a pipe passing into the neck end of said casing and movable longitudinally therein, said casing being also provided with an annular piston chamber through which said pipe passes, and said pipe being provided with an annular member forming a piston movable in said chamber, the neck of the casing being also provided with a deep annular groove around said pipe, the main casing being also provided in one side thereof with a longitudinal passage which communicates at one end with said annular groove and at the opposite end with the piston chamber, said annular groove and the end of the piston chamber adjacent thereto being provided with discharge passages or ports.

2. In a slip joint for pipes, a main outer casing provided at one end with a neck and at the opposite end with an attaching flange, said casing being divided centrally into two detachably connected parts, a pipe passing into the neck end of said casing and movable longitudinally therein, said casing being also provided with an annular piston chamber through which said pipe passes, and said pipe being provided with an annular member forming a piston movable in said chamber, the neck of the casing being also provided with a deep annular groove around said pipe, the main casing being also provided in one side thereof with a longitudinal passage which communicates at one end with said annular groove and at the opposite end with the piston chamber, said annular groove and the end of the piston chamber adjacent thereto being provided with discharge passages or ports, and said pipe being provided with means for limiting the outward movement thereof.

943,905. SOCKET REVERSIBLE RATCHET-WRENCH. DAVID F. VOLLMER, Monroe, La. Filed Apr. 12, 1909. Serial No. 489,545.

1. In a wrench of the class described comprising a bifurcated handle, a revoluble element mounted for rotation between the extensions of the bifurcated portion, said element provided with a neck formed on each face thereof, which necks are received by holes in the extensions, one of the necks extending beyond the surface of that extension through which it passes, a collar loosely mounted on th last-mentioned neck, a socket extending through the center of said element and rotated thereby, the collar being held on said last-mentioned neck by the socket, a clamp connected to the collar at the periphery thereof, said clamp assisting in holding the head of a bolt in place while said socket is turning a nut upon its other end.



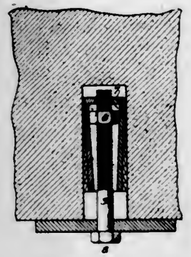
2. In a ratchet wrench of the class described comprising a bifurcated handle, a ratchet wheel rotating between the extensions of said bifurcated portion, said wheel provided with a neck formed on each side thereof, which necks are received by suitable holes in said extensions, one of said necks extending beyond the surface of the extension through which it passes, a collar loosely mounted on said last-mentioned neck, a socket passed through the center of said wheel, rotated thereby, and holding said collar in place, a right-angular clamp pivoted to said collar at its periphery, said clamp holding the head of a bolt in place while said socket is turning a nut upon the other end thereof, substantially as shown.

3. In a ratchet wrench of the class described comprising a bifurcated handle, a ratchet wheel rotating between the extensions of said bifurcated portion, said wheel provided with a neck formed on each side thereof which are received by suitable holes in said extensions, one of said necks extending beyond the surface of the extension through which it passes, a collar loosely mounted on said last-mentioned neck, a socket passed through the center of said wheel, rotated thereby, and holding said collar in place, a right-angular clamp pivoted to said collar at its periphery, said clamp holding the head of a bolt in place while said socket is turning a nut upon the other end thereof, said clamp having a horizontal portion and a vertical portion, the lower end of said vertical portion being inwardly turned, the inner end of the horizontal portion being the point at which said clamp is pivoted to said collar, substantially as shown.

943,906. ANCHOR-LOCK FOR BUILDING STRUCTURES. LOTHAR R. ZIFFERER, San Francisco, Cal. Filed Dec. 26, 1907. Serial No. 407,991.

1. In a locking attachment for walls and the like, a shell composed of two opposed members separated in a plane through the axis of the complete shell, said shell having a hexagonal interior, the opposed surfaces of which approach each other from the rear toward the front and each of which surfaces has an equal width from end to end, and the surfaces which meet the dividing line being convergent, a bolt guided and turnable longitudinally within the shell, a hexagonal nut upon said bolt, two opposed sides of which are adapted to travel upon the equal interior and opposed surfaces of the shells whereby said shells are separated and caused to bind within an inclosing hole.

2. In a device of the character described, a hollow shell composed of two segments having the edges meeting in a plane through the longitudinal axis of the shells, each segment having toothed exterior surfaces midway between the meeting edges, and having a hexagonal interior, the two sides which correspond with the toothed surfaces inclining toward each other from the rear to the front and each of which sides is of equal width from end to end, and the sides which register with the meeting edges of the shells being convergent from one end to the other, a hexagonal nut fitting said shells having the sides of a length corresponding with the two straight interior sides whereby the nut may be moved from end to end without binding, said nut acting to separate the shells and cause the exterior teeth to bind in a containing chamber, and a screw-threaded bolt passing through the nut and adapted when turned to draw the nut from the wider to the narrower end, and cause the members of the shell to be separated.



3. In a device of the character described, segmental hollow shells having the interior hexagonal with the sides which correspond with the meeting edges of the shells made tapering, and the opposing sides approaching each other from the rear to the front and having the edges parallel from end to end, a nut slidable and guided within the shells, a screw-threaded bolt extending axially through the nut and shells, and adapted to draw the nut outwardly and expand the shells, teeth formed upon the exterior of the shells corresponding with the straight interior sides, said teeth having broad reinforcing bases convergent to their points, and adapted to engage the interior of the chamber in which the shells are fitted.

4. An anchor lock including half shells with opposed serrated projections upon the backs of said shells, longitudinal interior channels, the bottoms of which have parallel edges and correspond in position with the exterior teeth, said shells being gradually thickened from one end to the other to correspondingly decrease the depth of the channel, a nut, two opposed sides of which fit and travel upon the inclined bottoms, and a threaded screw passing through the nut and turnable to advance the nut and separate the shell sections.

943,907. FLUE-EXPANDER. GEORGE AUSTIN, Arkansas City, Kans. Filed July 16, 1908. Serial No. 443,893.

1. In a flue expander, a tapered head, two longitudinal grooves on opposite sides of the head, each of the said grooves having a uniform cross section along its length and the two said grooves converging together toward the point of the tapered head, and opposed coöperating expanding members mounted to slide in said grooves.

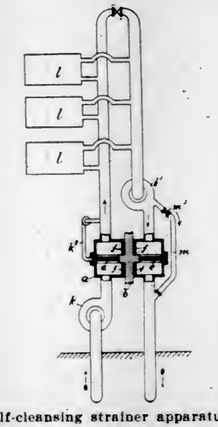
2. In a flue expander, a tapered head, longitudinal grooves on opposite sides thereof, each groove having overhanging edges and being uniform in cross section throughout its length, the two grooves converging together toward the extremity of the tapered head, and opposed coöperating expanding members adapted to slide along said grooves and being confined therein by said overhanging edges.

3. In a flue expander, a tapered head, longitudinal guide grooves on said head, opposed coöperating expanding members adapted to reciprocate in said guide grooves but confined against lateral escape therefrom, a collar fastened near the larger end of the head so as to prevent the escape



of the said members from the grooves at that end, and a cap attached to the smaller end of the tapered head and covering the other ends of the grooves.

943,908. APPARATUS FOR STRAINING LIQUIDS. FRANK BAILEY and FREDERICK H. JACKSON, Bankside, London, England. Filed Nov. 30, 1908. Serial No. 465,204.



1. In a self-cleansing strainer apparatus, the combination with a casing, of partitions in said casing dividing the interior thereof into two compartments, and movable screening mechanism arranged to move between the partitions from one compartment to the other, said casing having exit and inlet openings into each compartment, and pumps connected to each of the inlets.

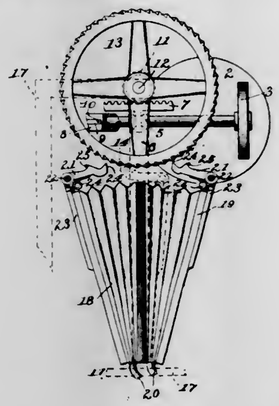
2. In a self-cleansing strainer apparatus, the combination with a casing, of partitions in said casing dividing the interior thereof into two compartments, a movable screening mechanism arranged to move between the partitions from one compartment to the other, an annular chamber formed in said casing into which the rim of the movable screening device projects, exit and inlet openings into each compartment of the casing, pumps connected to each of the inlets, and a third pump connected to deliver water to said annular chamber.

3. In a self-cleansing strainer apparatus, the combination with a casing, of partitions in said casing dividing the interior thereof into two compartments, a movable screening mechanism arranged to move between the partitions from one compartment to the other, inlet and exit tubes connected to each compartment, and a bypass conduit arranged to connect the inlet and delivery pipes of the second compartment.

4. In a self-cleansing strainer apparatus, the combination with a casing, of partitions in said casing dividing the interior thereof into two compartments, and movable screening mechanism arranged to move between the partitions from one compartment to the other, said casing having exit and inlet openings into each compartment, and pumps arranged to deliver water in opposite directions connected to the casing on opposite sides of the partitions, whereby the pressure in the two compartments is equalized.

5. In a self-cleansing strainer, the combination with a casing, means for dividing the casing into two compartments, movable screening mechanism constructed and arranged to move from one compartment to the other, inlets and outlets in the casing into each compartment, and pumps connected to the casing on opposite sides of the dividing means and arranged to deliver water in opposite directions, whereby the pressure in the two compartments is equalized.

943,909. AUTOMATIC MUSICAL INSTRUMENT. PATRICK A. BAYLESS, Oklahoma City, Okla. Filed July 11, 1908. Serial No. 443,027.



1. In an automatic musical instrument, the combination with a music sheet, and a tracker bar, of sheet-music driving means, a shaft, a cog-wheel secured to said shaft, means adjustably connecting the driving-means to said cog-wheel, whereby when said cog-wheel is rotated, the speed of travel of said driving-means will be varied, and means for automatically rotating said cog-wheel, as a sheet of music is passed by the tracker bar.

2. In an automatic musical instrument, the combination of sheet-music driving means, a gear-wheel, a ratchet wheel positioned contiguous to said gear wheel, means connecting said gear-wheel to said sheet-music driving means, means associated with said sheet music driving-means, whereby when said gear-wheel is rotated, the speed of travel of the sheet-music driving means will be varied, a bellows or pneumatic, and a dog or pawl carried by said bellows and capable of engaging the ratchet of said wheel for imparting rotary movement thereto.

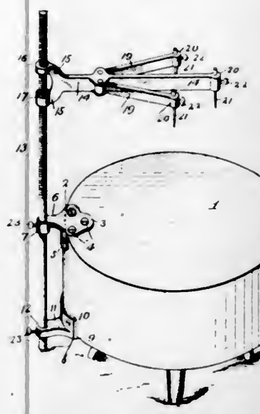
3. In an automatic musical instrument, the combination with sheet-driving means, of a ratchet-wheel, means connecting said ratchet-wheel to said sheet-driving means, means associated with said sheet driving means whereby when said ratchet-wheel is rotated, the speed of the sheet-driving means will be varied, and means for rotating said ratchet wheel in opposite directions.

4. In an automatic musical instrument, the combination with movable sheet-driving means, of a wheel provided with peripherally-arranged right and left ratchet-teeth, means connecting said wheel to the sheet-driving means, means associated with said sheet-driving means, whereby when said wheel is rotated, the speed of movement of the sheet-driving means will be varied, bellows or pneumatics positioned contiguous to said wheel, and means carried by each bellows for engaging some of the teeth of the ratchet-wheel.

5. In an automatic musical instrument, the combination of movable sheet-driving means, a ratchet-wheel, means connecting said ratchet-wheel to said sheet-driving means, means associated with said sheet-driving means, whereby when said ratchet-wheel is rotated, the speed of movement of said driving means will be varied, a bellows or pneumatic positioned contiguous to said wheel, a spring-pressed pawl or dog pivotally mounted upon said bellows and adapted to engage a tooth of said ratchet-wheel when said bellows is collapsed.

[Claims 6 to 11 not printed in the Gazette.]

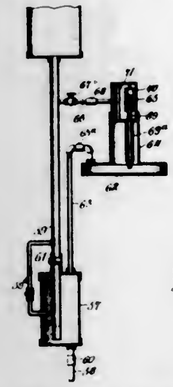
943,910. MEAT-HOLDING DEVICE. JAMES W. BREEDLOVE, Muldrow, Okla. Filed Mar. 16, 1909. Serial No. 483,872.



1. A meat-holding device, consisting of a block; a keeper, consisting of upper and lower flanges, and vertical sleeve, secured to the upper end and periphery of said block; a keeper consisting of an upper and lower flange and perforated arm secured to the lower end of said block; a corrugated rod, slidably secured in said keepers; an arm divided at its rear end into two short arms, one above the other, terminating in sleeves, the forward faces of the inner walls of said sleeves having upwardly extending teeth; the rear faces of the inner walls of said short arms having downwardly extending teeth; the forward end of said arm provided with a sleeve; swinging fingers, hinged to said arm, the free ends of said fingers and said arm terminating in sleeves, and pins adjustably secured in said sleeves, substantially as shown and described and for the purposes set forth.

2. A meat-holding device, consisting of a block; an upper keeper secured to the upper end and periphery of said block; a lower keeper secured to the lower end and periphery of said block; a corrugated rod, vertically and slidably secured in said keepers by thumb screws, an arm provided with rear short arms, sleeves in each short arm, inwardly, upwardly and downwardly extending teeth, in said sleeves, its front end provided with fingers and sleeves, and pins adjustably secured in said sleeves, substantially as shown and described.

943,911. STEAM AND VACUUM PUMP. ROBERT E. CECIL, Ambridge, and CLIFFORD R. WASSELL, Sewickley, Pa. Filed Nov. 4, 1908. Serial No. 461,014.



1. A steam and vacuum pump including a pump chamber, inlet and discharge pipes communicating with said pump chamber having check valves, a steam generator, a steam pipe connecting the generator with the chamber, a water conductor carrying water to the generator, and automatic means for intermittently directing into the generator a predetermined quantity of water less than the cubical contents of the generator to instantaneously flash the whole of such water into steam.

2. A steam and vacuum pump including a pump chamber, inlet and discharge pipes communicating with said pump chamber having check valves, a steam generator, a steam pipe connecting the generator with the chamber, a reservoir located above and connected with the generator to supply the same, and a valve-controlled by-pass between the discharge pipe of the pump and reservoir to supply water to the latter.

3. A steam and vacuum pump including a pump chamber, inlet and discharge pipes communicating with said pump chamber having check valves, a steam generator, a steam pipe connecting the generator with the chamber, a water conductor leading to the generator, and a reservoir arranged to intermittently receive a predetermined quantity of water and to automatically discharge through the said conductor when the water reaches a predetermined level in the reservoir.

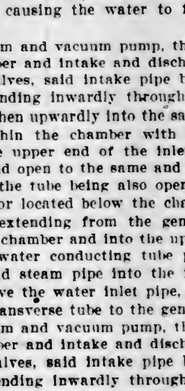
4. A steam and vacuum pump including a pump chamber, inlet and discharge pipes communicating with said pump chamber having check valves, a steam generator, a steam pipe connecting the generator with the chamber, a water conductor leading to the generator, and automatic means for intermittently directing a definite quantity of water into said generator by way of said conductor, said means located above the generator to feed the water by gravity thereto and automatically started into operation by the water reaching a predetermined level.

5. A steam and vacuum pump including a pump chamber, inlet and discharge pipes communicating with said pump chamber having check valves, a steam generator, a steam pipe directly connecting the generator with the chamber, a water supply pipe carrying water to the generator, a reservoir connected to the upper end of the supply pipe, and an automatic valve admitting water to said reservoir.

[Claims 6 to 21 not printed in the Gazette.]

943,912. STEAM AND VACUUM PUMP. ROBERT E. CECIL, Ambridge, and CLIFFORD R. WASSELL, Sewickley, Pa. Filed Nov. 4, 1908. Serial No. 461,015.

1. In a steam and vacuum pump, the combination with a pump chamber and intake and discharge pipes connected thereto and provided with upwardly opening check valves, of a steam generator located below the bottom of the pump chamber, a steam conducting pipe extending from the top of the steam generator through the bottom of the chamber and into the upper portion thereof and having its upper and lower ends communicating with the chamber and generator, respectively, and means located in the steam-conducting pipe for conducting water from the upper portion of the chamber into the generator.



2. In a steam and vacuum pump, the combination with a pump chamber and intake and discharge pipes connected thereto and provided with upwardly opening check valves, of a steam generator located below the same, an upstanding steam pipe connecting the chamber and generator and extending to the upper end of and communicating with the latter, and a water supply conductor for the generator extending longitudinally downward within the steam pipe and connected to the exterior thereof to conduct water in the chamber downward into the generator, the upper end of the conductor being arranged below the upper end of the steam pipe to receive water from the pump chamber before the latter reaches the top of the steam pipe.

3. In a steam and vacuum pump, the combination with a pump chamber and intake and discharge pipes connected therewith, of a steam generator located below the same, a steam conducting pipe extending from the top of the generator through the bottom of the chamber and into the upper portion of the latter, a water conductor extending from the generator upwardly and centrally within said steam pipe, and an inlet tube extending through the wall of the steam pipe and having its inner end connected to said conductor for causing the water to flow down the conductor.

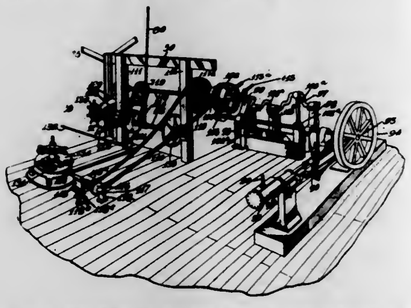
4. In a steam and vacuum pump, the combination with a pump chamber and intake and discharge pipes provided with check valves, said intake pipe being provided with a branch extending inwardly through the bottom of the chamber and then upwardly into the same, an upright tube supported within the chamber with its lower end contiguous to the upper end of the inlet pipe and immediately above and open to the same and to the chamber, the upper end of the tube being also open to the chamber, a steam generator located below the chamber, a steam conducting pipe extending from the generator through the bottom of the chamber and into the upper portion thereof, a transverse water conducting tube projecting from the interior of said steam pipe into the interior of the pipe supported above the water inlet pipe, and means for connecting the transverse tube to the generator.

5. In a steam and vacuum pump, the combination with a pump chamber and intake and discharge pipes provided with check valves, said intake pipe being provided with a branch extending inwardly through the bottom of the chamber and then upwardly into the same, of an open ended tube supported within the chamber with its lower

end contiguous to the upper end of the inlet pipe and immediately above the same, a steam generator located below the chamber, a steam conducting pipe extending from the generator through the bottom of the chamber into the upper portion thereof, a transverse water conducting tube projecting from the interior of said steam pipe into the interior of the pipe supported above the water inlet pipe, and a water conducting wire disposed in the first-mentioned tube and extending from the last-mentioned tube to said generator.

[Claims 6 to 8 not printed in the Gazette.]

943,913. WELL-SINKING APPARATUS. MATTHEW T. CHAPMAN, Aurora, Ill., assignor to The American Well Works, Aurora, Ill., a Corporation of Illinois. Filed Sept. 26, 1906. Serial No. 336,269.



1. In a well-sinking apparatus, the combination of an engine, means operated thereby adapted to engage and rotate the pipe, an air compressor operated by said engine, means for conducting compressed air from said compressor to the well-tube and independent means for controlling the operation of said pipe-rotating means.

2. In a well-sinking apparatus, the combination of an engine, means operated thereby adapted to engage and rotate the pipe, an air compressor operated by said engine, means for conducting compressed air from said compressor to the well-tube and independent clutch mechanism for controlling the operation of said pipe-rotating means.

3. In a well-sinking apparatus, the combination of an engine, pumping-mechanism operated thereby, means adapted to engage the pipe for rotating the same, means for driving said rotating-mechanism from said engine, means for independently controlling the operation of said rotating-mechanism, an air-compressor, and means for operating said air-compressor from said engine.

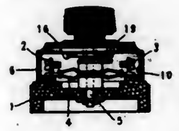
4. In a well-sinking apparatus, the combination of means for engaging and rotating the pipe, means for hoisting the pipe, an air-compressor for supplying compressed air to the pipe, pumping-mechanism for supplying water to the pipe, an engine for operating said mechanisms, and means for controlling the operation of said rotating-mechanism independently of the other mechanisms.

5. In a well-sinking apparatus, the combination of means for engaging and rotating the pipe, means for hoisting the pipe, an air-compressor for supplying compressed air to the pipe, pumping-mechanism for supplying water to the pipe, an engine for operating said mechanisms, and means for controlling the operation of said hoisting-mechanism independently of the other mechanisms.

[Claims 6 to 15 not printed in the Gazette.]

943,914. SWITCH-INDICATOR. CHARLES A. CLARK, Hartford, Conn., assignor to Trumbull Electric Manufacturing Company, Plainville, Conn., a Corporation of Connecticut. Filed Sept. 21, 1908. Serial No. 453,974.

1. An indicator dial for switches comprising a disk, a rotary bar upon said disk extending transversely thereof, and with a different color than the disk, and an actuator plate secured to rotate with said bar and having means of attachment to the switch mechanism at a point to one side of the center of rotation thereof.



2. An indicator for switches comprising a spider forming a support and adapted for insertion within a switch cover, and bearing an indicator rotarily mounted thereon and provided with operative means for engaging a movable part of the switch mechanism.

3. In an electric switch a cover therefor, a lining for the cover, a spider supported within the cover and provided with a central bearing, an indicator journaled upon said bearing and an actuator plate connected therewith on the opposite side of said spider and adapted for connection with a rotary member of the switch mechanism.

4. In an electric switch, a cover therefor, a spider adapted for insertion within the cover, a disk appurtenant to the spider, an indicator bar extending across said disk and rotarily supported upon the disk, and an actuator plate secured to said transverse bar, and provided with means of attachment to a movable part of the switch.

5. In an electric switch, in combination a circuit making and breaking mechanism including a rotary commutator, a cover inclosing said mechanism, a spider adapted for insertion within the cover, an indicator rotarily supported by said spider, and means appurtenant to said indicator and extending through the spider for engaging with a rotatable member of the make and break device.

[Claim 6 not printed in the Gazette.]

943,915. MULTIPLEX TRANSMITTER. JOHN J. COMER, Baltimore, Md., assignor to George R. Webb, Baltimore, Md. Filed Apr. 7, 1909. Serial No. 488,431.



1. A telephone instrument comprising a vibrating member to receive vibrations from a record, an electrode to receive vibrations communicated from said vibrating member, and a lever for reducing the amplitude of the vibrations transmitted from the vibrating member to the electrode, substantially as described.

2. A telephone instrument comprising a member to receive vibrations from a record, an electrode to receive vibrations communicated from said vibrating member, a lever for reducing the amplitude of the vibrations transmitted from the vibrating member to the electrode, and an inertia bar carrying said member, electrode and lever, substantially as described.

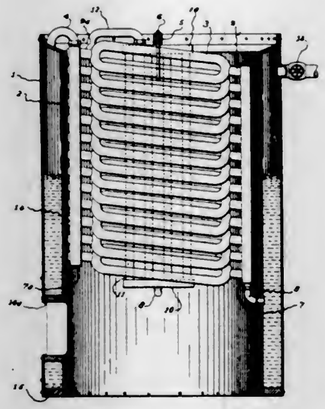
3. In a telephone instrument, a holder for granular carbon, a bar carrying a tracer to receive vibrations from a record, and means for reducing in amplitude and transmitting to the carbon in the holder vibrations derived from the record.

4. In a telephone instrument, a holder for granular carbon, and means for reducing in amplitude and transmitting to the carbon in the holder vibrations derived from a record.

5. A telephone instrument including an inertia bar and a lever connected therewith for reducing the amplitude of received vibrations during their transmission by the instrument, substantially as described.

[Claims 6 to 15 not printed in the Gazette.]

943,916. STEAM-GENERATOR. MILES CONNOR, Pueblo, Colo. Filed May 20, 1908. Serial No. 433,860.



1. In a boiler of the character described, the combination with an outer and an inner shell of two series of vertical manifold headers within said inner shell, one series connected at the bottom with the space between said shells through said inner shell and the other series connected at the top with the space between said shells through said inner shell, and a multiplicity of horizontally disposed pipes in clusters, each cluster connected at each end by a common pipe to the respective vertical manifold, all substantially as set forth.

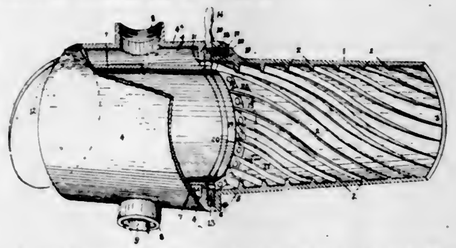
2. In a circular upright boiler of the character described, the combination with an outer and an inner shell of two series of vertical manifold headers within said inner shell, one series connected at the bottom with the space between said shells through said inner shell and the other series connected at the top with the space between said shells through said inner shell, a multiplicity of horizontally disposed pipes in clusters, each cluster connected at each end by a common pipe to the respective vertical manifold, and separate vertical tubes connected by manifolds with the bottom and top space between said shells filling space on interior of inner shell on each side of horizontally disposed pipes; all substantially as set forth.

3. In a vertical sectional water tube boiler of the character described, the combination with vertically disposed manifolds carrying horizontally inclined tubes, a beam across the top of the boiler and hook hold means attached to said beam supporting said inclined tubes, all substantially as set forth.

4. In a circular upright boiler of the character described having an outer and an inner shell with space between same, the combination of two series of vertical manifold headers within said inner shell, one series connected at the bottom with the space between said shells through said inner shell and the other series connected at the top with the space between said shells through said inner shell, a multiplicity of horizontally disposed pipes in clusters, each cluster connected at each end by a common pipe to the respective vertical manifold, and a threaded plug in every vertical manifold on the opposite side thereof to the position of said pipe forming connections with one end of said clusters of horizontally disposed pipes; all substantially as set forth.

943,917. BURNER. RICHARD D. CONRAD and JOSEPH GEHRING, Pittsburg, Pa.; said Gehring assignor, by mesne assignments, to Winner Natural Gas Burner Company, Pittsburg, Pa., a Corporation of Pennsylvania. Filed May 25, 1908. Serial No. 434,796.

1. In a burner, the combination of an air tube, a gas reservoir surrounding said air tube and having circumferential perforations adjacent one end of said air tube, a mixer tube attached to said end of the air tube, and an annular disk provided with series of perforations adapted to be selectively alined with the perforations in the gas reservoir, substantially as described.

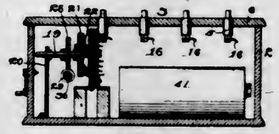


2. In a burner, the combination of an air tube, a gas reservoir surrounding said air tube and having perforations adjacent one end of said air tube, a mixer tube attached to said end of the air tube and having tapered spiral ribs forming separate channels extending from said perforations, and an annular disk provided with series of perforations adapted to register with the perforations in the gas reservoir, substantially as described.

3. In a burner, a mixer-tube or tip, an air tube delivering centrally of said tip, a gas reservoir delivering circumferentially of and substantially parallel with the inner wall of said tip, and an annular disk surrounding said air tube and having openings of different sizes to vary the gas supply.

4. In a burner, a mixer-tube or tip, an air tube delivering centrally of said tip, a gas reservoir delivering a plurality of jets circumferentially of said tip, an annular disk having openings of different size to vary the flow of gas, and means in said tip to control the directional flow of the gas jets and impart a whirling motion thereto.

943,918. ELECTRICAL MEDICAL APPLIANCE. BENJAMIN R. DAVENPORT, Philadelphia, Pa., assignor to Electric Couch Company, a Corporation of Delaware. Filed May 15, 1908. Serial No. 433,062.



1. The combination of a support provided with a surface adapted to receive the body of a person, a pair of electrically separated contact parts projecting from said surface, an open electric circuit, and automatic means for connecting said pair with said circuit at predetermined intervals, one part to one terminal of the open circuit, and the other part to the other terminal of the open circuit.

2. The combination of a support provided with a surface adapted to receive the body of a person, a pair of electrically separated yielding contact parts projecting from said surface, an open electric circuit, and automatic means for connecting said pair with said circuit at predetermined intervals, one part to one terminal of the open circuit, and the other part to the other terminal of the open circuit.

3. The combination of a support provided with a surface adapted to receive the body of a person, a series of pairs of electrically separated contact parts projecting from said surface, an open electric circuit, and automatic means for connecting said pairs with said circuit in pre-

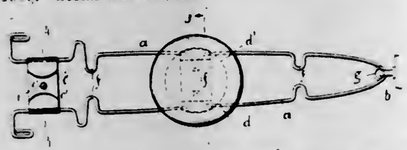
scribed order, one part of a pair to one terminal of the open circuit, and the other part of a pair to the other terminal of the open circuit.

4. The combination of a support provided with a surface adapted to receive the body of a person, a series of pairs of electrically separated, yielding contact parts projecting from said surface, an open electric circuit, and automatic means for connecting said pairs with said circuit in prescribed order, one part of a pair to one terminal of the open circuit, and the other part of a pair to the other terminal of the open circuit.

5. The combination of a support provided with a surface adapted to receive the body of a person, a pair of electrically separated contact parts projecting from said surface, an open electric circuit, automatic means for connecting said pair with said circuit at predetermined intervals, one part to one terminal of the open circuit and the other part to the other terminal of the open circuit, and means for regulating the intensity of the electric current.

[Claim 6 not printed in the Gazette.]

943,919. DEVICE FOR PACKING HATS IN TRUNKS. BENJAMIN DICKENSON, New York, N. Y. Filed Feb. 10, 1909. Serial No. 477,201.



1. A device for packing hats, comprising a rack, composed of two arms connected by a spring, tongues formed opposite each other on each arm of the rack; a hat cushion, a lug thereon, slots in the lug in position to be engaged by the tongues of the rack, means for attaching the rack in place, and means for holding the arms of the rack together.

2. A device for packing hats, comprising a rack, composed of two arms connected by a spring, tongues formed at intervals on each arm of the rack, the tongue of each arm being located opposite the tongues of the other arm; hat cushions, having slotted lugs in position to be engaged by the tongue of the rack, means for attaching the rack in place, and means for holding the arms of the rack together.

3. A device for packing hats, comprising a two-armed rack, a spring in the joint of the arms set to spread the arms apart, tongues formed opposite each other on each arm of the rack; a hat cushion, a lug thereon, slots in the lug in position to be engaged by the tongues of the rack, means for attaching the rack in place, and means for holding the arms of the rack together.

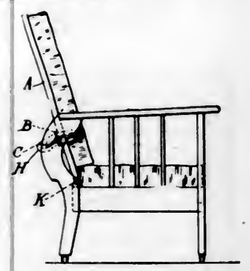
4. A device for packing hats, comprising a two-armed rack, a spring in the joint of the arms set to spread the arms apart, tongues formed at intervals on each arm of the rack, the tongues of each arm being located opposite the tongues on the other arm; hat cushions, having slotted lugs in position to be engaged by the tongues of the rack, means for attaching the rack in place, and means for holding the arms of the rack together.

5. A device for packing hats, comprising a two-armed rack, tongues formed opposite each other on each arm of the rack; a hat cushion, a lug thereon, slots in the lug in position to be engaged by the tongues of the rack; means for attaching the rack in place at the joint of the arms, and a clamp, affixed in place and adapted to inclose and hold the free ends of the rack together.

[Claim 6 not printed in the Gazette.]

943,920. ADJUSTABLE CHAIR. ALBERT B. DISS, Newark, N. J., assignor to Universal Caster & Foundry Company, a Corporation of New Jersey. Filed Apr. 24, 1909. Serial No. 491,998.

1. In combination in a Morris or like chair having a pivoted or hinged back, a double lever consisting of a single bent rod and comprising a combined handle, connecting bar and weight for actuating the catches, two rock-shaft fulcrums pivoted in bearings on the said back forward of the said handle, and two catch arms projecting forward from the said fulcrums and having outturned catches, and two catch plates secured to said chair and having slots and catch teeth, said slots receiving and guiding the said catches toward the said teeth, for substantially the purposes set forth.



2. In combination in a Morris or like chair having a pivoted or hinged back, a double lever pivoted to the said back at either side thereof and comprising a combined handle, connecting bar and weight which is disposed in the rear of the fulcrums or pivotal points, and catch arms provided with catches at the respective ends of the lever, and two catch plates mounted on the said chair and engaging the said catches, for substantially the purposes set forth.

3. In combination in a Morris chair and the like having a pivoted or hinged back, catch plates having series of downward directed teeth secured to the chair and a double lever provided with upward acting catches for engaging the said teeth, said lever being pivoted to the said back and comprising a connecting bar disposed in the rear of the fulcrums or pivotal points for actuating the two catches simultaneously, for substantially the purposes set forth.

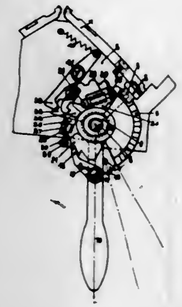
4. In combination in a Morris chair and the like having a pivoted or hinged back, a pair of connected catches movably mounted on the back and having means for actuating them in direction to engage with coöperating catch plate teeth, and a catch plate for each said catch mounted on the neighboring parts of the chair and each having a slot for the catch, a series of teeth for engaging and holding the catch in the backward adjustment of the chair back, an open forward end for permitting the catch to pass out and a reverse tooth or stop for engaging the catch near the open end, for substantially the purposes set forth.

5. In combination in a Morris chair and the like, having a pivoted or hinged back, a series of catch teeth mounted on the chair at either side and a double lever pivoted to the said back, comprising a middle portion, portions extending forward and then outward, forming rock shafts or fulcrums by which the said lever is pivoted to the back, and catch portions extending forward from the said fulcrums for engaging the said catch teeth.

943,921. RACKING DEVICE FOR FLAT-BED KNITTING-MACHINES. EDOUARD DUBIED and BRUNO POPP, Couvet, Switzerland, assignors to Edouard Dubied & Cie., Couvet, Switzerland. Filed Nov. 6, 1908. Serial No. 461,354.

1. In a racking appliance for knitting machines, the combination of a needle bed having two guiding bolts, a shogging cam turning between the said guiding bolts, the depths of the steps of the said shogging cam corresponding to the divisions of the needle bed, a switch lever for turning the cam by one division, means for returning said switch lever automatically to its mid position when having turned the cam by one division, and pawls and ratchets for allowing said cam to move but one step at a time.

2. In a racking appliance for knitting machines, the combination of a needle bed having two guiding bolts, a turning axle fixed on the frame of the machine, a shogging cam loosely mounted on the said turning axle and engaging between the two guiding bolts, the depths of the steps of the said cam corresponding to the divisions of the needle bed, a toothed segment arranged on the axis of the cam, a spring controlled pawl for securing the cam in the desired positions, and engaging with the teeth of the said segment, a switch lever for turning the cam by one division, substantially as described.



3. In a racking appliance for knitting machines, the combination of a needle bed having two guiding bolts, a turning axle fixed on the frame of the machine, a shogging cam loosely mounted on the said turning axle and engaging between the two guiding bolts, the depths of the steps of the said cam corresponding to the divisions of the needle bed, a toothed segment arranged on the axis of the cam, a spring controlled pawl for securing the cam in the desired positions, and engaging with the teeth of the said segment, two ratchets rigidly connected to the cam, the teeth of the said ratchets being inclined in opposite directions, a switch lever also loosely mounted on the axis of the cam, and two pawls pivoting on the said switch lever and serving to engage with the ratchets, substantially as described.

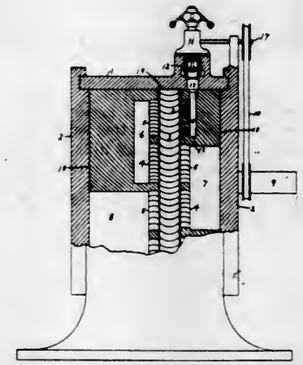
4. In a racking appliance for knitting machines, the combination of a needle bed having two guiding bolts, a turning axle fixed on the frame of the machine, a shogging cam loosely mounted on the said turning axle and engaging between the two guiding bolts, the depths of the steps of the said cam corresponding to the divisions of the needle bed, a switch lever for turning the cam by one division, the said lever carrying two piston chambers furnished with pistons, which latter being pressed outwardly by springs, and an abutment lying in the path of the said pistons and between the same, substantially as described.

5. In a racking appliance for knitting machines, the combination of a needle bed having two guiding bolts, a turning axle fixed on the frame of the machine, a shogging cam loosely mounted on the said turning axle and engaging between the two guiding bolts, the depths of the steps of the said shogging cam corresponding to the divisions of the needle bed, a switch lever having two pawls, two ratchets, the teeth of which being inclined in opposite directions, and means for disengaging one pawl from its ratchet while the other pawl is in engagement with its ratchet when the switch lever is returned to its mid-position.

[Claim 6 not printed in the Gazette.]

943,922. STEAM-TURBINE. ELLIS F. EDGAR, Woodbridge, N. J. Filed Aug. 25, 1909. Serial No. 514,480.

1. A steam turbine engine composed of a driving shaft, a driving wheel secured thereto, said driving wheel having blades on its outer periphery and a steam chest on each side of said driving wheel blades, one, the high pressure steam chest having guides leading to the said driving wheel blades, the other steam chest having reacting blades located therein, the said driving wheel blades being longer and spaced farther apart than said guides or reacting blades, all substantially as set forth.



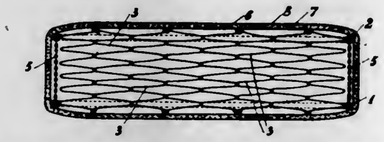
2. A steam turbine engine composed of a driving shaft, a driving wheel secured thereto, said driving wheel having blades on its outer periphery and a steam chest on each side of said driving wheel blades, one, the high pressure steam chest having guides leading to the said driving wheel blades, the other steam chest having re-acting blades located therein, the said driving wheel blades being longer and spaced farther apart than said guides or re-acting blades, all substantially as set forth.

3. A steam turbine engine composed of a driving shaft, a driving wheel secured thereto having blades on its outer periphery, a high pressure steam chest, said steam chest having an inlet chamber containing a balanced cylinder puppet valve, said steam chest having connections to fan shaped guides terminating in a long narrow opening whereby the steam is directed on aforesaid blades in a sheet form all substantially as set forth.

4. A steam turbine engine composed of a driving shaft, a driving wheel secured thereto, said driving wheel having blades on its outer periphery said blades being surrounded by a circular cylinder having blocks located therein, containing more than one steam chest on each side of said driving wheel blades, the smallest steam chest, the high pressure steam chest having a puppet cut-off valve, and guides leading to said driving wheel blades the second steam chest, the first increase in area having reacting blades in one end and guides in the other end leading to the driving wheel blades, the third steam chest the second increase in area having reacting blades at one end and guides in the other end leading to the driving wheel blades and the fourth steam chest the third increase in area having reacting blades at one end and an exhaust at the other it being over one hundred times the area of the first and high pressure steam chest, the driving wheel blades being longer longitudinally with the shaft than the guides or reacting blades, said driving wheel blades having packing strips between the high pressure steam chest and the exhaust steam chest, all substantially as set forth.

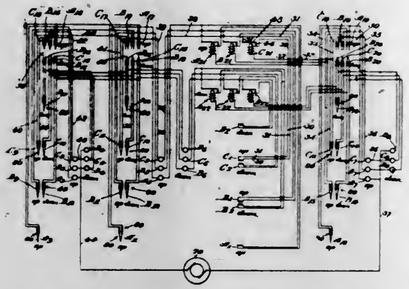
5. A steam turbine composed of a driving shaft, a driving wheel secured thereto, said driving wheel having blades on its outer periphery, a row of steam chests on each side of said driving wheel blades, said steam chests having guides spaced closer together and not so long as said driving wheel blades, said steam chests guides and driving wheel blades being surrounded by a casing forming a steam tight circular cylinder having packing strips so arranged as to press against plates secured to said driving wheel, said cylinder having an exhaust port and inlet port, said inlet port having a puppet cut-off valve all substantially as set forth.

943,923. CUSHION AND MATTRESS. JULES ETOT, Mer, France. Filed Mar. 11, 1909. Serial No. 482,724.



A spring mattress or like article, consisting of an upper metallic border or frame, a lower metallic border or frame, interposed means connecting said borders together and a number of helical springs filling the space within said borders, all the coils of each spring being connected with the corresponding coils of all the proximate springs and the outer springs being connected to the borders or frames, substantially as set forth.

943,924. ELEVATOR-SIGNAL. BURTON E. FANNING, Los Angeles, Cal. Filed Sept. 11, 1907. Serial No. 392,285.



1. In an elevator signal system, a source of electrical energy, an elevator signal, a push button and a normally closed switch connected in series with each other and with said source of electrical energy; and means to automatically open said switch when said signal is answered.

2. In an elevator signal system, a source of electrical energy, a signal, a push button and a normally closed switch connected in series with each other; a relay adapted to form a shunt around said push button; and means to open said normally closed switch upon the opening of the elevator door at the floor indicated by said signal.

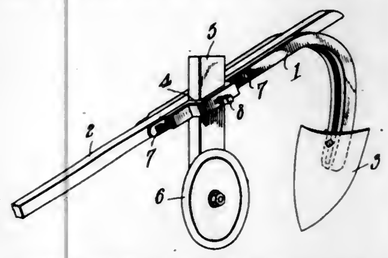
3. In an elevator signal system, a source of electrical energy, a signal, a push button and a normally closed switch connected in series with each other; a relay adapted to form a shunt around said push button upon the closure of the circuit therethrough; and a second switch connected in parallel with said normally closed switch, said second switch adapted to be opened and closed by the up and down operation of the elevator cage.

4. In an elevator signal system, a source of electrical energy, a signal, a push button and a normally closed switch connected in series with each other, said switch adapted to be opened when the elevator door corresponding to said signal is opened; a relay adapted to form a shunt around said push button upon the closure of the circuit therethrough; and a second switch connected in parallel with said normally closed switch, said last named switch adapted to be opened and closed by the vertical movements of an elevator cage.

5. In an elevator signal system, a source of electrical energy; an elevator signal, a push button, and a normally closed switch connected in series with each other and with said source of electrical energy; a relay adapted to form a shunt around said push button; and means to automatically open said switch when the signal is answered.

[Claims 6 to 9 not printed in the Gazette.]
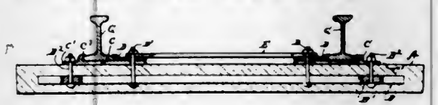
943,925. PLOW-FOOT. ROBERT M. FREDERICK, Bear Creek, Ala. Filed July 22, 1909. Serial No. 509,015.



1. A plow comprising a beam, a standard secured thereto and formed from a strip of material doubled back upon itself and having its side portions spaced from each other, one of the side portions of the standard having a recess formed therein which recess is adapted to receive the standard of a colter.

2. A plow comprising a beam, a standard secured thereto and formed from a strip of material having its end portions bent back upon each other and spaced forming side portions, the beam being located in the space between the side portions, one of the side portions of the standard having a recess formed therein which recess is adapted to receive the standard of a colter, and means located at the recess of the side portion of the standard for forcing the colter standard in close contact with the side of the beam.

943,926. RAILWAY-TIE. CHARLES L. FREVERT, Minier, Ill. Filed Mar. 15, 1909. Serial No. 483,534.



1. A concrete cement railway tie provided with a reinforcing bar within said concrete cement tie, chairs on top of said concrete cement tie, bolts connecting said chairs to said reinforcing bar, tie rods attached to said chairs, as specified.

2. A concrete cement railway tie provided with a reinforcing bar, ears on said reinforcing bar, bolts extending through said ears, said bolts attached to chairs, tie bars connecting said chairs, as specified.

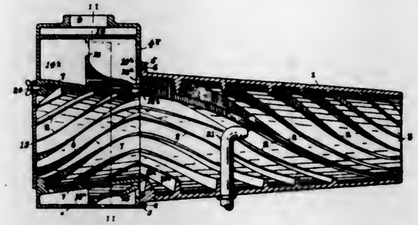
3. A concrete cement railway tie, a reinforcing metal bar within said concrete cement railway tie, in combination with chairs, removably secured side plates on said chairs, tie bars attached to said chairs and removably secured side plates, as specified.

4. A concrete tie provided with a reinforcing bar embedded therein, chairs positioned on said tie, bolts extending through the chairs and reinforcing bar having springs thereon, said chairs being formed in two parts, the lower parts having serrations on their upper surfaces and the upper parts having serrations on their lower surfaces engaging with the serrations of the lower parts, and a tie bar bolted to the chairs and the reinforcing bar.

943,927. BURNER. JOSEPH GEHRING and RICHARD D. CONRAD, Pittsburg, Pa.; said Gehring assignor, by mesne assignments, to Winner Natural Gas Burner Company, Pittsburg, Pa., a Corporation of Pennsylvania. Filed Apr. 3, 1908. Serial No. 425,028.

1. In a burner, the combination of a gas reservoir having a wall forming an air tube, and a mixer tube provided with tapering spiral ribs forming tapering channels in communication with said gas reservoir.

2. In a burner, the combination of a gas reservoir having an inner wall forming an air tube, a mixer tube attached to said reservoir in line with the air tube and in communication with said gas reservoir by means of openings, and spiral ribs on the inner surface of said mixer tube separating said openings and forming tapering spiral channels extending from the perforations in the gas reservoir to the end of the mixer tube.



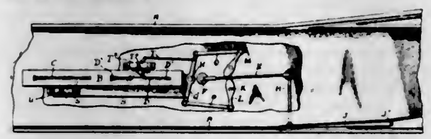
3. In a burner, the combination of a gas reservoir divided into two compartments and having an inner wall forming an air tube, a mixer tube attached to said reservoir and in line with the air tube, the compartments of said gas reservoir communicating with the mixer tube by independent perforations arranged in pairs, and spiral projections on the inner surface of said mixer tube separating said pairs of perforations and forming tapering spiral channels in said mixer tube.

4. In a burner, the combination of a gas reservoir divided into two compartments and having an inner wall forming an air tube, a mixer tube attached to said reservoir and in line with said tube, the compartments of said gas reservoir communicating with the mixer tube by independent perforations arranged in pairs, spiral projections on the inner surface of said mixer tube separating said pairs of perforations and forming tapering spiral channels in said mixer tube, and means for selectively admitting gas to said compartments, substantially as described.

5. In a burner, the combination of an air tube, a gas reservoir surrounding the same, and a mixer tube having tapered spiral ribs forming separate channels communicating with the gas reservoir.

[Claims 6 to 23 not printed in the Gazette.]

943,928. DEVICE FOR OPERATING SWITCHES. WILLIAM N. GLOSSER, Decatur, Ill. Filed Aug. 31, 1909. Serial No. 515,468.



1. In combination with a switch point, a pivotal resilient bar, link connections between said bar and switch point, pivotal cam levers mounted one upon either side of said resilient bar and adapted to bear alternately against the same to cause the bar to tilt and throw the switch point, and means actuated by a moving car for operating said cam levers.

2. In combination with a switch point, a pivotal resilient bar, link connections between said bar and switch point, pivotal cam levers mounted one upon either side of said resilient bar and adapted to bear alternately against the same to cause the bar to tilt and throw the switch point, an oscillatory lever, link connections between the same and said cam levers, means carried by a car and adapted to oscillate said lever to cause one cam lever or the other to contact with said resilient bar and, through its connection with the switch point, to move the same.

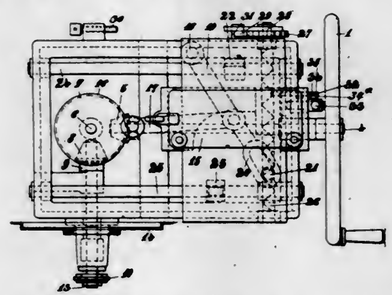
3. In combination with a switch point, a pivotal resilient bar, link connections between said bar and switch point, pivotal cam levers mounted one upon either side of said resilient bar and adapted to bear alternately against the same to cause the bar to tilt and throw the switch point, an oscillatory lever, trip levers, rod connections between the same and said oscillatory lever, and means carried by a car adapted to actuate said trip levers.

4. In combination with a switch point, a pivotal resilient bar, link connections between said bar and switch point, pivotal cam levers mounted one upon either side of said resilient bar and adapted to bear alternately against the same to cause the bar to tilt and throw the switch point, an oscillatory lever, trip levers, rod connections between the same and said oscillatory lever, a pivotal hook adapted to be mounted upon the bottom of a car, and means for tilting said hook to throw the same into engagement with one or another of said trip levers.

5. In combination with the rails of a railway, a pivotal switch point, a housing intermediate the rails, a resilient bar pivotally mounted between said rails, link connections between said bar and switch point, pivotal cam levers mounted one upon either side of said resilient bar and adapted to alternately bear against the same, an oscillatory lever, links connecting the same with said cam levers, pivotal trip levers, rods connecting the same with the arms of said oscillatory lever, said housing having vertical slots adapted to be intersected by the inner free ends of said trip levers, and a hook adapted to be carried by a car, and means for throwing said hook into the vertical slots in said housing to engage said trip levers.

[Claim 6 not printed in the Gazette.]

943,929. MACHINE FOR CUTTING MEAT INTO SLICES. FRIEDRICH GRAFF, Witten, Germany. Filed May 6, 1908. Serial No. 431,238.



1. A circular revoluble dished knife of a meat slicing machine, said circular knife having a trough adjacent its outer edge and a ridge at the inner edge of said trough.

2. A circular knife for meat slicing machines having a cutting edge and a circular ridge separated by a circular trough, said cutting edge being formed by the outer edge of said trough and said circular ridge forming the inner edge of said trough substantially as set forth.

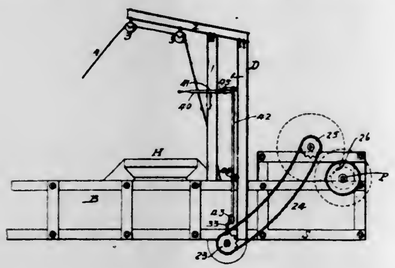
3. A circular knife for meat cutting machines provided with cutting edge, and having a circular trough adjacent said cutting edge, and a circular ridge forming the inner edge of said trough and in the same plane with the cutting edge substantially as set forth.

4. A circular knife for meat slicing machines provided with a cutting edge, and having a circular trough adjacent said cutting edge and a circular ridge forming the inner edge of said trough, said cutting edge, trough and circular ridge being integral with said circular knife.

943,930. HAY-PITCHER. WILLIAM C. GRAUER, Palmer, Ill. Filed Dec. 12, 1908. Serial No. 467,288.

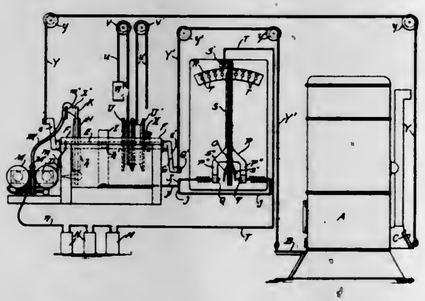
The combination with a baling press having a feed table and hopper; of a derrick mounted on the framework

of the press and having a fixed arm extending over the hopper and carrying a pulley, a windlass journaled in the framework of the press, a driving pulley mounted loosely on its shaft and connected with a constantly re-



volving pulley of the baling mechanism, a clutch between said driving pulley and shaft, a lever for moving the clutch, a distant rake, and a rope leading from the windlass over said pulley to the rake.

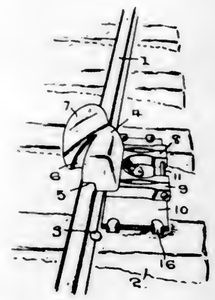
943,931. DAMPER-REGULATOR. FREDRICK C. GUPTILL, Elgin, Ill., assignor of one-half to William F. Lynch, Elgin, Ill. Filed Nov. 9, 1908. Serial No. 461,681.



1. A plurality of electric circuits and a thermostatic member in said circuits, in combination with an electromagnet, a vibratory hammer, an armature to the magnet mounted on the hammer, a rotatable shaft provided with a plurality of radial arms, a damper connection on said shaft, a latch, the arms on the shaft arranged to be successively brought into engagement with the latch and such hammer arranged so that on the vibration thereof blows are delivered thereby on the latch to force the latch from such engagement, a plurality of electric terminals adjacent to the shaft, an electrical conductor on the shaft arranged to be successively brought into electrical contact with the terminals adjacent thereto, the conductor on the shaft and the hammer and coils of the electromagnet arranged to form elements common to said plurality of electric circuits, and the terminals on the pivoted lever and adjacent to the rotatable shaft arranged to respectively form elements in said circuits; substantially as described.

2. The combination of a thermostatic member, electric terminals arranged so that the expansible element of the thermostatic member is successively brought into contact therewith, an electromagnet, a vibratory hammer, an armature to the magnet mounted on the hammer, a rotatable shaft provided with a plurality of radial arms, a damper connection on said shaft, a latch, the arms on the shaft arranged to be successively brought into engagement with the latch, and such hammer arranged so that on the vibration thereof blows are delivered thereby on the latch to force the latch from said engagement, a plurality of electric terminals adjacent to the shaft, an electrical conductor on the shaft arranged to be successively brought into electrical contact with the terminals adjacent thereto, the conductor on the shaft and the coils of the electromagnet arranged to form elements common to a plurality of electric circuits, and the terminals adjacent to the expansible member and to tbe rotatable shaft arranged to respectively form elements in said circuits.

943,932. DERAILING DEVICE. DONALD L. HACKLEMAN, Wellington, Colo. Filed Mar. 30, 1909. Serial No. 486,737.



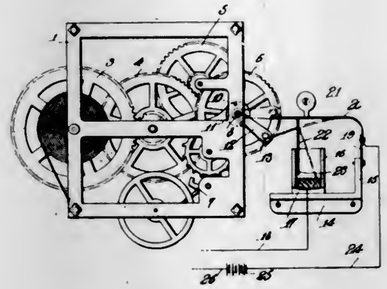
1. A derailing device, comprising a head of general stepped outline having at its lower end right angled integral arms, and a base member provided with upraised lateral bars, said right angled arms being received between said bars, and means for effecting pivotal connection between said arms and said bars, a connection between said arms and said bars being effected at the otherwise free ends of said arms and the outer ends of said bars, said arms having their upper surfaces resting flush with the correponding surfaces of said bars, thus being adapted to cause the lower end of said head to rest near the surface when said head is in normal position.

2. A device of the character described, comprising a head having a stepped lower surface, the lower stepped-like portion thereof being formed with integral right angled arms, said lower stepped-like portion having a notch with its lateral walls diverging downwardly and outwardly and a base member having upraised lateral bars, said right angled arms having pivotal connection with said bars and said lateral right angled arms being adapted to fit in between said bars, said base member being provided with an upstanding tongue received within said notch, said tongue being adapted to receive means for its effective retention in connection with said head.

943,933. ELECTRIC CLOCK SYSTEM. HARRY O. HARRISON, Wichita, Kans., assignor of one-half to Samuel McCreary, Wichita, Kans. Filed Mar. 16, 1909. Serial No. 483,786.

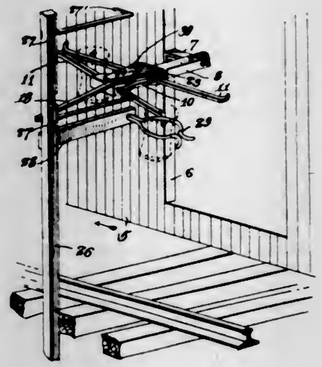
1. In an electric clock system, a master clock, an elastic switch arm, a contact member carried by the switch arm and adapted to close an electric circuit, a pivoted arm movable into direct engagement with the free end of the elastic switch arm and past the same by gravity, and means in the master clock for rotating the pivoted arm and periodically releasing the same to the action of gravity to cause the momentary active movement of the switch arm.

2. In an electric clock system, a master clock, an elastic switch arm having a normal tendency to the inactive position, a contact member carried by the switch arm, a mercury cup entered by said contact member in a normal position out of contact with the mercury, a pivoted gravity arm movable into direct engagement with the free end of the elastic switch arm and past the same by the action of gravity, and means in the master clock for rotating the pivoted arm and periodically releasing the same to the action of gravity to cause the momentary active movement of the switch arm.



3. In an electric clock system, a master clock, an electric circuit controlled thereby, and local clocks controlled by impulses sent over said electric circuit, each local clock comprising an electro-magnet, an armature lever actuated thereby, a ratchet wheel, a clock-hand carrying arbor actuated by said ratchet wheel, a pawl for moving said ratchet wheel actively, means for engaging said pawl and preventing the movement of the ratchet wheel beyond the point to which it was actuated by the pawl, a pivoted hanger carrying the pawl and adjustable connections between the armature lever and the hanger carrying the pawl.

943,934. MAIL-DELIVERY APPARATUS. SMITH HENRY, Lilesville, N. C. Filed Oct. 25, 1909. Serial No. 524,460.



1. In a device of the character described, the combination with a car having a doorway, of an outwardly extending arm pivotally mounted within the doorway and transversely movable therein, a housing on the outer end of said arm, bars centrally pivoted in said housing extending parallel to the car, means disposed within said housing adapted to transversely move the bars on their pivotal center to engage the corresponding ends thereof, and an operative lever adapted to engage with a stationary post in juxtaposition to the car track to operate said means.

2. In a device of the character described, the combination with a car having a doorway, of a bracket secured in said doorway, an arm pivoted on said bracket for transverse swinging movement in said doorway, said arm having an enlarged outer end provided with a horizontal opening therein, a pair of bars centrally pivoted in said opening and extending horizontally from the opposite sides of said arm, a rack segment integrally formed with the pivoted center of said bars, a lever pivoted on said arm, means carried by said arm, operable by said lever, adapted to move the rack segments and open and close the corresponding ends of said bars, and means for limiting the pivotal movement of said lever.

3. In a device of the class described, the combination with a car having a doorway, of a bracket secured to one side of said doorway, a transversely movable arm pivoted on said bracket, the outer end of said arm being slotted to provide a housing, pouch delivering and receiving bars pivoted in said housing, each of said bars having a central rack segment integrally formed therewith, an inwardly extending block rigidly secured upon the pivot of one of said bars and having a bifurcated inner end, an operating lever loosely pivoted upon the pivot of the other of said bars, means carried by said lever engaging with said block adapted to move the bars in opposite transverse directions to engage their corresponding ends, and means for limiting the pivotal movement of said lever.

4. In a device of the class described, the combination with a car having a doorway, of an arm pivotally mounted in said doorway for transverse swinging movement, the outer end of said arm being enlarged and having a horizontal slot to form a housing, bars pivoted in said housing centrally of their ends and adapted to be transversely moved in opposite directions to engage their corresponding extremities, the rear ends of said bars being adapted to hold a pouch between them to be delivered, and the forward ends of said bars being separated to receive a pouch, an operating lever pivoted in said housing adjacent to one end, means for normally holding the lever to retain the bars in their adjusted positions, and means adapted to be actuated by said lever to open and close the corresponding ends of said bars.

5. In a device of the class described, the combination with a car having a doorway, of an arm pivotally mounted in said doorway for transverse movement, a housing on the outer end of said arm, bars centrally pivoted in said housing and extending laterally from opposite sides of the arm, the upper portion of said housing having its center cut away, an arcuate rack segment integrally formed with each of said bars at their pivotal points extending inwardly to the center of the housing, a block rigidly secured upon the pivot of one of said bars, an operating lever independently movable upon the pivot of the other of said bars, said block having a bifurcated inner end, a depending pin carried by said lever disposed in the bifurcated end of said block, said pin being adapted to engage with and move said block upon the pivotal movement of the lever, such movement engaging the teeth of the rack segments and moving the bars in reverse transverse direction to open and close their corresponding ends, and means disposed in juxtaposition to the line of movement of the car adapted to receive and deliver a mail pouch from and to the opposite ends of said bars.

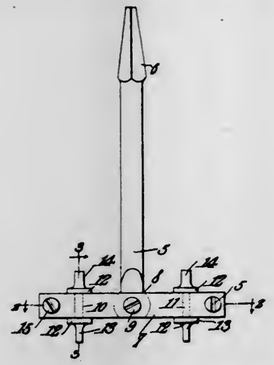
[Claims 6 to 9 not printed in the Gazette.]

943,935. SPANNER-WRENCH. LLOYD R. HOFFMAN, Oil City, Pa. Filed Apr. 12, 1909. Serial No. 489,336.

1. A spanner wrench comprising a shank, a pair of spaced plates between which the shank is received, a pivotal connection between the plates and the shank, and pins adjustably mounted between the plates, and projecting therefrom in opposite directions.

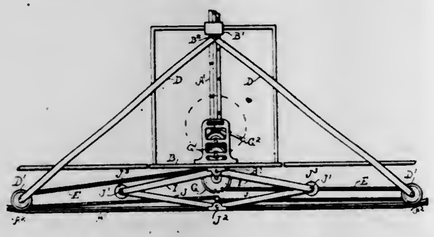
2. A spanner wrench comprising a shank, a pair of spaced plates between which the shank is received, a

pivotal connection between the plates and the shank, pins adjustably mounted between the plates, and clamping



means passing transversely through the plates for securing the pins in adjusted position therebetween.

943,936. ELEVATING DEVICE. WILLIAM H. HUNT, New York, N. Y. Filed Jan. 21, 1909. Serial No. 473,478.



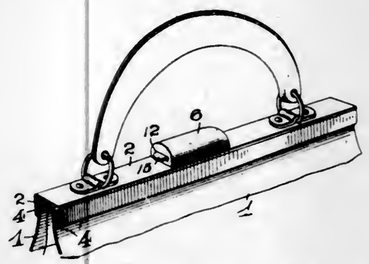
1. A hoisting mechanism comprising a load holding device, a pair of variably inclined links and bearing wheels on each side of said load holding device arranged to act toggiewise, a pulley on each link, ropes running on said pulleys, a single windlass mounted on the load holding device, and with which the ropes are connected, and means for operating said windlass.

2. A hoisting apparatus comprising a load receiving device, means for guiding said device, a set of oblique links, and means for actuating them to induce a portion of the required movement, a second set of oblique links, means for transferring the load automatically to the second set of oblique links and for operating said second set of links.

3. A hoisting mechanism comprising the combination of two sets of oblique acting links arranged to serve in succession, and a single operating means for both.

943,937. BAG-FASTENER. JOSEPH S. ISIDOR, Newark, N. J., assignor to The R. Neumann Hardware Co., a Corporation of New Jersey. Filed Sept. 22, 1909. Serial No. 518,985.

1. In a holding or locking catch for bags and similar articles, the combination with a casing, of a bolt-carrier having a finger-piece extending from one end of said casing, said carrier having a slidable movement longitudinally within said casing, and also a laterally rotatable movement therein, a bolt-portion connected therewith, means within said casing for retaining said bolt-portion in its unlocked relation with a hasp-plate, and means for automatically returning said bolt-portion to its locked relation with the hasp-plate when the bag or similar article is closed, substantially as and for the purposes set forth.



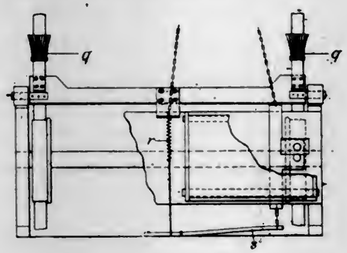
2. In a holding or locking catch for bags and similar articles, the combination with a casing, of a bolt-carrier having a fingerpiece extending from one end of the casing, said carrier having a longitudinally slidable and a laterally rotatable movement within said casing, a downwardly extending bolt-portion integrally connected with said bolt-carrier, means within said casing for retaining said bolt-portion in its unlocked relation with a hasp-plate, and means for automatically returning said bolt-portion to its locked relation with the hasp-plate when the bag or similar article is closed, substantially as and for the purposes set forth.

3. In a holding or locking catch for bags and similar articles, the combination with a casing provided at one end with an elongated opening, of a bottom-plate, said plate being provided with a cut out portion, a bolt-carrier slidably arranged within said casing, a finger-piece connected therewith and adapted to project through and beyond said elongated opening of said casing, a downwardly extending bolt-portion integrally connected with said bolt-carrier, a spring in engagement with and adapted to retain said bolt-carrier and said bolt-portion normally in locked relation with a hasp-plate, means connected with said bottom-plate for retaining said bolt-portion in its unlocked relation with said hasp-plate, and means for automatically returning said bolt-portion to its locked relation with said hasp-plate when the bag or similar article is closed, substantially as and for the purposes set forth.

4. In a holding or locking catch for bags and similar articles, the combination with a casing provided at one end with an elongated opening, of a bottom-plate, said plate being provided with a cut out portion, a bolt-carrier slidably arranged within said casing, a finger-piece connected therewith and adapted to project through and beyond said elongated opening of said casing, a downwardly extending bolt-portion integrally connected with said bolt-carrier, a spring in engagement with and adapted to retain said bolt-carrier and said bolt-portion normally in locked relation with a hasp-plate, means connected with said bottom-plate for retaining said bolt-portion in its unlocked relation with said hasp-plate, comprising a projecting portion in the peripheral edge of the cut out portion of said bottom-plate adapted to engage said bolt-portion, and means for automatically returning said bolt-portion to its locked relation with said hasp-plate when the bag or similar article is closed, substantially as and for the purposes set forth.

5. In a holding or locking catch for bags and similar articles, the combination with a casing provided at one end with an elongated opening, of a bottom-plate, said plate being provided with a cut-out portion, a bolt-carrier slidably arranged within said casing, a finger-piece connected therewith and adapted to project through and beyond said elongated opening of said casing, a downwardly extending bolt-portion integrally connected with said bolt-carrier, a spring in engagement with and adapted to retain said bolt-carrier and said bolt-portion normally in locked relation with a hasp-plate, means connected with said bottom-plate for retaining said bolt-portion in its unlocked relation with said hasp-plate, comprising a projecting portion in the peripheral edge of the cut out portion of said bottom-plate adapted to engage said bolt-portion, and means for automatically returning said bolt-portion to its locked relation with said hasp-plate, when the bag or similar article is closed, comprising an extension connected with said hasp-plate adapted to engage said bolt-portion and release it from engagement with said projecting-portion in the peripheral edge of said cut-out portion of said bottom-plate, substantially as and for the purposes set forth.

943,938. AUTOMATIC SWITCH-THROWING, TRACK SANDING, AND SWEEPING DEVICE. SQUIRE A. JOHNSON, Grogan, Ohio, assignor to The Johnson-Adams Switch Device Company, Columbus, Ohio. Filed May 1, 1909. Serial No. 493,422.



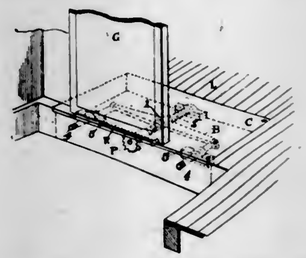
1. In a switch throwing, track sanding and sweeping device, a hollow brake shaft, inclosing and operating with the shaft of the switch throwing, track sanding and sweeping device, forming one complete device substantially as set forth.

2. In a switch throwing, track sanding and sweeping device, operating within a hollow brake shaft, two brooms, operated from the same shaft substantially as described.

3. In a switch throwing, track sanding and sweeping device, operating within a hollow brake shaft, and having two brooms operated from the same shaft, a sand box resting on the car truck and also operated from the same shaft substantially as shown.

4. In a switch throwing, track sanding and sweeping device, operating within a hollow brake shaft, and having two brooms and a sand box operated from the same shaft, a box between the rails containing an arm attached to the switch point and a depressible post, which is operated by the foot piece on the car, substantially as set forth.

943,939. SAFETY DEVICE FOR ELEVATORS. AUGUST KAMPFE, Cleveland, Ohio. Filed Aug. 21, 1909. Serial No. 513,925.

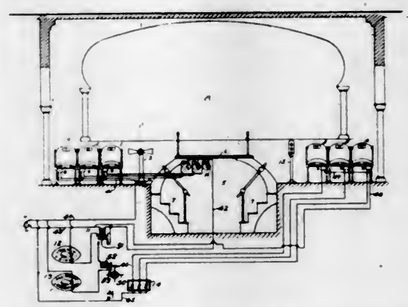


1. In safety attachments for elevator cars, an elevator car having openings in its side and a gate having a rack at its bottom, and locking mechanism comprising bolts to engage said openings and a bar carrying the same, a screw on which said bar is operatively mounted and a pinion on said screw engaged by said rack.

2. An elevator gate having a rack on its bottom, a pinion engaged by said rack and a screw carrying said pinion, a cross bar threaded on said screw and bolts mounted on the ends of said bar, in combination with an elevator car having holes in its side adapted to be engaged by said bolts.

3. In elevators, a safety device comprising a hollow casing adapted to be set into an elevator landing and covered across its top, a threaded shaft supported in said casing and a pinion on one end thereof, and a cross bar having a threaded hub mounted on said shaft and a bolt on each end of said bar projecting through the front of said casing, said pinion being exposed through the top of said casing.

943,940. THEATER-CHAIR-SIGNAL SYSTEM. PAUL T. KENNY, New York, N. Y. Filed Nov. 24, 1908. Serial No. 464,293.



1. In a theater signaling system, the combination with a group of chairs, of a group of visual, occupancy-indicating electric signals corresponding thereto, and chair-related switches each pertaining to a chair and connected with a signal and adapted to be operated, involuntarily with reference to the occupant of the chair, through the occupying and vacating thereof to display its signal diversely throughout vacation and occupation.

2. In a theater signaling system, the combination with a group of chairs, of a group of electric lights corresponding thereto and in the vicinity thereof within the theater, and chair-related switches each pertaining to a chair and connected with a light and adapted to be operated, involuntarily with reference to the occupant of the chair, through the occupying and vacating thereof to illuminate and extinguish its light throughout vacation and occupation respectively.

3. In a theater signaling system, the combination with a group of chairs, of a group of visual, occupancy-indicating signals corresponding thereto, and chair-related switches each pertaining to a chair and connected with a signal and adapted to be operated, involuntarily with reference to the occupant of the chair, through the occupying and vacating thereof, to display its signal diversely throughout vacation and occupation; together with a manual, operator's switch common to all the signals.

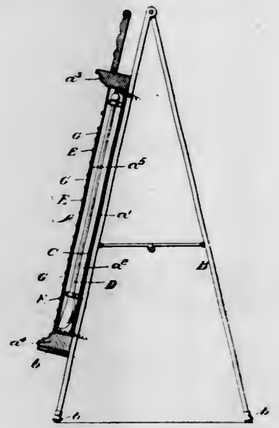
4. In a theater signaling system, the combination with a group of chairs within the theater, of a group of visual, occupancy-indicating signals corresponding thereto located in the box-office of the theater, and chair-related switches each pertaining to a chair and connected with a signal and adapted to be operated, involuntarily with reference to the occupant of the chair, through the occupying and vacating thereof, to display its signal diversely throughout vacation and occupation.

5. In a theater signaling system, the combination with a group of chairs, of visual electric signaling means adapted to indicate in the vicinity of the chairs their condition with reference to occupation or vacation, chair-related switches connected with said signaling means and

adapted to be operated, involuntarily with reference to the occupant of the chair, through the occupying and vacating thereof, a gate controlling the access to all of said chairs, locking means therefor, and electrical connections between all the switches and said locking means, whereby the gate is locked when all the chairs are occupied and released when one or more are vacated.

[Claims 6 and 7 not printed in the Gazette.]

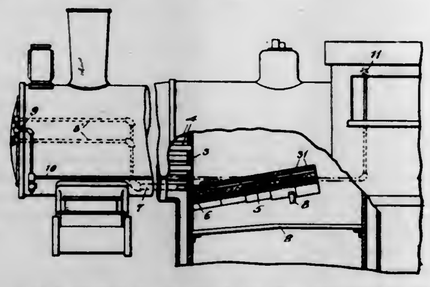
943,941. ANNOUNCEMENT-BOARD. WILLIAM N. KING, New York, N. Y. Filed Mar. 18, 1908. Serial No. 421,775.



1. In a device of the class described, a reflector, a translucent plate separated from the reflector, vertical and horizontal strips dividing the plate into sections, the horizontal strips having projections thereon, translucent cards having opaque letters, said cards located between said horizontal strips and held in place by said projections, and a source of light between the plate and reflector.

2. In a device of the class described, a reflector, a translucent plate separated from the reflector, horizontal strips secured to the plate, one edge of each strip being plain and the other having an undercut part forming a flange, translucent cards having opaque characters thereon between said strips and removably held in place by said flange, and a source of light between the plate and reflector.

943,942. LOCOMOTIVE AND OTHER FURNACE. ALBERT F. KINGSLEY, New York, N. Y., assignor to Locomotive Equipment Company, a Corporation of Maine. Filed Aug. 27, 1908. Serial No. 450,464.



1. In a furnace, a fire-box, a fire arch mounted within the fire-box having an interior air passage terminating at one edge of the arch and openings therefrom through the walls of the arch into the fire-box, the arch having a step edge adjacent the mouth of said passage to form a lip or extension which rests against one wall of the fire-box to hold the mouth of said passage from said wall of the fire-box, the wall of the fire-box having an air passage therein opposite the edge of the arch, and a tubular connection from the air passage in the wall of the fire-box to the mouth of the passage in the arch.

2. In a furnace, a fire-box, a plurality of tubes extending into the boiler from one wall of the fire-box, some of said tubes being flues and one or more being tubes for delivering air to the fire-box, a fire arch having a continuous stepped edge resting against said fire-box wall in alinement with some of said tubes in the latter, the offset formed by the step providing a space or clearance between the tubes and the arch, the arch having one or more air passages from said space or clearance discharging into the fire-box, and one or more tubular connections across said space or clearance from the air tube or tubes to the passage or passages in the arch.

3. In a furnace, a fire-box, a fire arch projecting into the fire-box from one wall of the fire-box and having an air passage therethrough from that edge of the arch which rests against the wall to suitable points in the surface of the arch within the fire-box, the wall from which the arch projects having therein opposite the edge of the arch an air inlet, a tubular connection from the air passage in the fire-box wall to the air passage in the arch, and the edge of the arch being cut away at the mouth of the air passage to permit of a bend in said tubular connection when the opening in the fire-box wall does not register with the mouth of the passage in the arch.

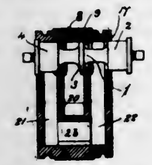
4. In a furnace, a fire-box, a grate therein, a flue sheet forming the front wall of the fire-box, flues terminating at the flue sheet, a fire arch for the products of combustion located between the grate and the flues, the forward end of the arch being at the level of certain of the flues at the flue sheet, the lower portion of the front edge of the arch resting against the flue sheet immediately below said certain flues, and the upper portion of the front edge being cut away to provide passage for the products of combustion from the fire-box to those flues at the level of the arch, the arch having one or more air or gas delivering passages therethrough opening to the rear into the fire-box and to the front into the space formed by the cutaway portion of the arch, and tubular connections across said space from one or more of the flues into the passage or passages through the arch.

5. In a furnace, a fire-box, a fire arch in the fire-box in the path of the products of combustion from the fire, an opening in the wall of the fire-box for delivering air into the latter, the arch being cut or formed to have a step therein at one edge, the outermost portion of said edge of the arch resting against the wall of the fire-box immediately adjacent the air opening therein, the arch having an air passage therethrough opening at one end into the fire-box and at the other end into the space formed by the step in the edge of the arch, and a tubular connection across said space from the opening in the fire-box wall to the air passage in the arch, the step forming said space being elongated to permit the bending of said tubular connections in event the passage in the arch fails to register with the opening in the fire-box wall.

[Claims 6 and 7 not printed in the Gazette.]

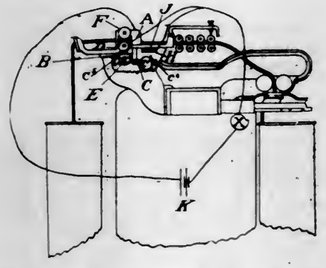
943,943. HYDRAULIC MOTOR. ALDERIC O. LAVOIE, Montreal, Quebec, Canada. Filed Apr. 26, 1909. Serial No. 492,256.

In a water motor, the combination, with a piston provided with three water chambers arranged side by side, an inlet pipe connected to the middle chamber, and an outlet pipe connected to one of the end chambers, said piston having also openings for the valves to slide in; of two piston valves slidable longitudinally in the said openings and controlling the end chambers, one of the valves having a projection at one end and the other valve being formed with a socket in its adjacent end in which said projection is secured, and a disk secured on the said



projection between the said valves and controlling the middle chamber of the piston.

943,944. STOP-MOTION FOR DRAWING-FRAMES. JOSEPH T. LEACH, Fall River, Mass. Filed July 23, 1906. Serial No. 327,260.



1. In an electric stop motion, an electric circuit, a movable roll supported by a lever counterweighted to retain said roll in an operative position, a counterweighted lever pivoted on a bracket carried by the frame of the machine, a contact plate in the path of said lever and insulated therefrom, and means actuated by said circuit for stopping the machine when said lever contacts with said contact plate.

2. In an electric stop motion, an electric circuit, an electric roll in circuit with one pole of the battery, a clearer roll, a lever in circuit with the other pole of the battery engaging said clearer roll and adapted to contact with said electric roll when said clearer roll is removed, and means for stopping the machine actuated by said circuit when completed by the contact of said lever with said electric roll.

3. In an electric stop motion an electric circuit, a roll supported upon a counterweighted lever, said lever being adapted to touch an electric roll and thereby to complete said circuit when the roll carried by said lever is removed, a contact piece insulated from said lever and adapted to be touched thereby when the roll supported by said lever is removed, and means actuated by said circuit for stopping the machine.

4. In an electric stop motion an electric circuit, a roll, a lever engaging said roll and adapted to be moved by said roll when the sliver wraps on said roll and make a contact completing said circuit and also adapted to make a contact completing said circuit when said roll is removed, and means actuated by said circuit for stopping the machine.

943,945. LIQUOR-CONTAINING CONFECTION. JULIUS LIEBICH, Görlitz, Germany. Filed Sept. 3, 1907. Serial No. 391,182.

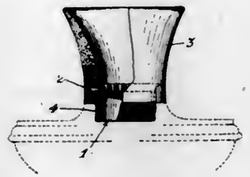
1. A liquor containing confection the body of which has extension pieces adapted to be broken off for admitting air through one and exhausting the liquor from the other extension piece, substantially as and for the purpose set forth.

2. In a liquor containing confection the body of which has extension pieces adapted to be broken off, a cover of eatable substance upon the body of the hollow confection, substantially as and for the purpose set forth.



3. In a liquor containing confection the body of which has extension pieces the combination with the body of the confection, of a cover of eatable substance surrounding the body of the confection, an extension piece of the hollow body of the confection projecting on one side of the cover and an extension piece of the hollow body of the confection projecting at the opposite side of the cover, substantially as and for the purpose set forth.

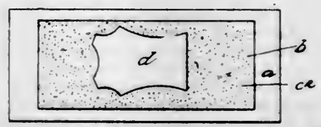
943,946. TELEPHONE-MOUTHPIECE. EDWARD H. LONG, Los Angeles, Cal. Filed Dec. 10, 1908. Serial No. 466,863.



1. A mouth-piece for a telephone transmitter, comprising a cylindrical member formed of an electrical insulating material and having one of its ends flared outwardly, and a metallic cylindrical screw-threaded transmitter attachment means secured to the end opposite the flared end of the cylindrical member, said means having attaching prongs formed on the end that engages the cylindrical member, whereby to maintain the two members in rigid engagement with each other.

2. A mouth-piece for telephone transmitters, comprising an exteriorly screw-threaded tubular base member formed of metal and provided on the upper end thereof with a plurality of attaching prongs formed integrally therewith and extending at right angles thereto, and a body member formed of an insulating material rigidly secured to said base member, the attaching prongs rigidly securing the two members together.

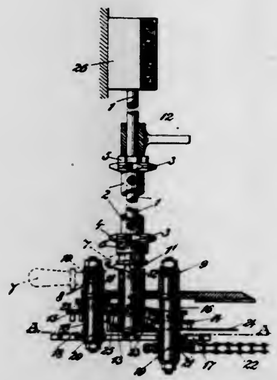
943,947. PROCESS FOR MARKING AND CUTTING GOODS FOR GARMENTS. FRANK P. MACKENZIE, New York, N. Y. Filed Jan. 19, 1909. Serial No. 473,104.



1. The herein described process of marking and cutting goods for garments, which consists in placing a thin layer of wax on the goods, then placing a paper or other pattern of the garment on the goods over the wax, then removing the wax around the paper or other pattern so as to leave a copy in wax of the said pattern on the goods, then removing said paper or other pattern and cutting out the garment or that part thereof represented by the pattern in wax.

2. The herein described process of marking and cutting goods for garments, which consists in placing a thin layer of wax on the surface of the goods, then placing a paper or other pattern of the goods over the wax, then applying heat to remove the wax around said paper or other pattern, then removing the pattern so as to leave a copy thereof in wax on the goods, and then cutting out the garment or that part thereof represented by the pattern in wax.

943,948. DEVICE FOR PREVENTION OF ARBITRARY REGISTRATION IN COUNTERS FOR MECHANICAL LOOMS. SAMUEL MARSCHIK, Brünn, Austria-Hungary. Filed Mar. 6, 1908. Serial No. 419,491.



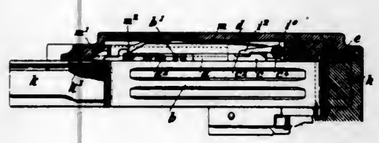
1. A device of the kind described comprising, in combination, a pattern cylinder spindle of a mechanical loom, a counter of any construction driven by said spindle, a pattern cylinder loosely turnable on the said spindle, means to connect the said pattern cylinder with the said spindle, means for impelling the said spindle from a rotating part of the loom, and means for reversing the movement of the said spindle, substantially as and for the purpose set forth.

2. A device of the kind described comprising, in combination, a pattern-cylinder spindle of a mechanical loom, a counter of any construction driven by said spindle, a pattern-cylinder loosely turnable on the said spindle, means for connecting the said pattern cylinder with the said spindle, a star wheel rigidly fixed on the said spindle, two pin wheels turnably arranged in the frame of the loom and adapted to engage with the said star wheel, means for rotating the said two pin-wheels in opposite directions, and means for alternately engaging the said two pin wheels with the said star wheel, substantially as described and for the purpose set forth.

3. A device of the kind described comprising, in combination, a pattern cylinder spindle of a mechanical loom, a counter of any construction driven by said spindle, a pattern cylinder loosely turnable on the said spindle, coupling means rigidly connected with the said pattern cylinder, a coupling sleeve shiftably fixed on the said spindle and adapted to coöperate with said coupling means, and means for shifting the said coupling sleeve, a star wheel rigidly fixed on the said cylinder spindle, two bolts fastened on the frame of the loom, two toothed wheels loosely turnable on said bolts and meshing with each other, means for turning the said two toothed wheels, a pin wheel shiftably fixed on the hub of each of the said two toothed wheels, the said pin wheels adapted to engage with the said star wheel, and means for alternately throwing the said two pin wheels into engagement with the said star-wheel, substantially as described and for the purpose set forth.

4. A device of the kind described comprising, in combination, a pattern cylinder spindle of a mechanical loom, a counter of any construction driven by said spindle, a pattern cylinder loosely turnable on the said spindle, coupling means rigidly connected with the said pattern cylinder, a coupling sleeve shiftably fixed on the said spindle and adapted to coöperate with said coupling means, and a spring-governed hand lever for shifting the said coupling sleeve, a star wheel rigidly fixed on the said cylinder spindle, two bolts fastened on the frame of the loom, two toothed wheels loosely turnable on said bolts and meshing with each other, a chain wheel rigidly connected to one of the said toothed wheels, and means for turning the said chain wheel, a pin wheel shiftably fixed on the hub of each of the said two toothed wheels, the said pin wheels adapted to engage with the said star wheel, a three-armed spring governed shifting-lever having two arms connected to the said two pin wheels, and means for turning the said shifting-lever, substantially as described and for the purpose set forth.

943,949. RECOIL-LOADER WITH FIXED BARREL. PAUL MAUSER, Oberndorf-on-the-Neckar, Germany. Filed Nov. 9, 1908. Serial No. 461,670.



1. A recoil loading firearm having a fixed barrel, a breech block, pivotal locking levers for said breech block moving inwardly and outwardly, a slotted plate for actuating said levers, and an actuating device for said slotted plate driving the latter forwardly to the unlocking position upon the discharge of the firearm.

2. A recoil loading firearm having a fixed barrel, a breech block, pivotal locking levers for said breech block moving inwardly and outwardly, a slotted plate for actuating said levers, an actuating device for said slotted plate driving the latter forwardly to the unlocking position upon the discharge of the firearm, and a catch for holding said actuating device in its initial position before the discharge of the firearm.

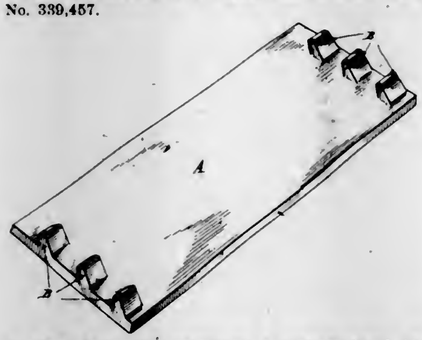
3. A recoil loading firearm having a fixed barrel, a breech block, pivotal locking levers for said breech block moving inwardly and outwardly, a slotted plate for actu ating said levers, an actuating device for said slotted plate driving the latter forwardly to the unlocking position upon the discharge of the firearm, a spring for moving said actuating device, means for compressing said spring, a catch for holding said actuating device, and a pivotally mounted weighted lever for operating said catch, said lever being adapted to oscillate upon the recoil of the firearm and thereby to release said catch.

4. A recoil loading firearm having a fixed barrel, a breech block, pivotal locking levers for said breech block moving inwardly and outwardly, a slotted plate for actuating said levers, an actuating device for said slotted plate driving the latter forwardly to the unlocking position upon the discharge of the firearm, and a spring for said actuating device, said breech block being adapted to compress said spring upon the return of said breech block.

5. A recoil loading firearm having a fixed barrel, a breech block, pivotal locking levers for said breech block moving inwardly and outwardly, a slotted plate for actuating said levers, a counter spring for actuating said slotted plate, said counter spring being compressed by the forward movement of said plate, an actuating device for moving said plate forwardly, and a spring for driving said presser part.

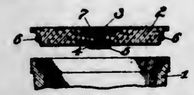
[Claim 6 not printed in the Gazette.]

943,950. TILE AND TILE-FACED SURFACE. WILLIAM P. MEEKER, Newark, N. J. Filed Oct. 18, 1906. Serial No. 339,457.



A glass facing-tile embodying a plain-surfaced back provided at each end with a plurality of short, stout but relatively thin holding-flanges each having two converging sides and two parallel sides and all of said flanges being laterally inclined in the same direction.

943,951. JAR CLOSURE OR COVER AND THE LIKE. JOHN W. MOODY, Chicago, Ill., assignor to The Chicago Vacuum Jar Co., Chicago, Ill. Filed Mar. 22, 1906. Serial No. 307,330.



1. In a device of the kind described, a receptacle, a closure for the same, comprising a cover provided with means for hermetically closing the juncture between the two, said cover being provided with a vent aperture, in combination with a flexible plug for said aperture, comprising a head constructed to cover the aperture, a neck adapted to loosely extend through said aperture, and a transverse extension at the inner end of the plug, adapted to extend across the aperture to prevent accidental withdrawal of the plug.

2. In a device of the kind described, a receptacle, a closure for the same, comprising a cover provided with means for hermetically closing the juncture between the two, said cover being provided with a vent aperture, in combination with a flexible expansible plug for said aperture, comprising a head adapted to cover the aperture, a neck adapted to loosely extend through said aperture, and a transverse neck at the inner end of the plug adapted to extend across the aperture to prevent accidental withdrawal of the plug during the exhausting process, said plug provided with a longitudinal recess extending partially through the plug, and an expanding pin adapted to be forced into the recess to expand the plug and force the same against the wall of the aperture.

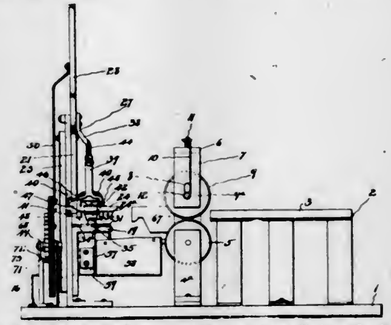
3. In a device of the kind described, a receptacle, a closure for same, comprising a cover provided with means for hermetically closing the juncture between the two, said cover being provided with a vent aperture, in combination with a flexible plug for said aperture, comprising a head adapted to cover the aperture, a neck adapted to loosely extend through said aperture, and a transverse extension at the inner end of the plug, adapted to extend across the aperture to prevent accidental withdrawal of the plug, said plug provided with a longitudinal recess extending partially through the plug, and an expanding pin provided with an enlarged end and adapted to be forced into the recess to expand the plug and force the same against the wall of the aperture.

4. In a device of the kind described, a receptacle, a closure for same, comprising a cover provided with means for hermetically closing the juncture between the two, said cover being provided with a vent aperture, in combination with a flexible plug for said aperture, comprising a head adapted to cover the aperture, a neck adapted to loosely extend through the said aperture, and a transverse extension at the inner end of the plug, adapted to extend across the aperture to prevent the accidental withdrawal of the plug during the exhausting process, said plug provided with a longitudinal recess extending partially through the plug, and an expanding pin provided with an enlarged end and a cap, said pin adapted to be forced into the recess to expand the plug and force the same against the wall of the aperture.

5. In a device of the kind described, a receptacle, a closure for the same, comprising a cover provided with means for hermetically closing the juncture between the two, said cover being provided with a slightly tapered vent aperture, in combination with an expansible plug for said aperture, comprising a head adapted to cover the aperture, a neck adapted to loosely extend through said aperture, and a transverse extension at the inner end of the plug, adapted to extend across the aperture, to prevent the accidental withdrawal of the plug, said plug provided with a longitudinal recess extending partially through the plug, and an expanding pin provided with an enlarged end, said pin adapted to be forced into the recess to expand the plug and force the same against the wall of the aperture.

[Claims 6 to 14 not printed in the Gazette.]

943,952. STAMP-AFFIXING MACHINE. JOSEPH W. MCCANN, Washington, D. C. Filed Oct. 23, 1908. Serial No. 459,195.



1. In a stamp-affixing machine, the affixing device, a stamp-table suitably supported adjacent to the affixing device, a rocking arm, a rod pivotally secured to said arm, prongs extending from said rod to engage the stamps, and means to hold said prongs from engagement with the stamps when the prongs are moved away from the affixing device, substantially as shown and described.

2. In a stamp-affixing machine, the affixing device, a stamp-table suitably supported adjacent to the affixing device and delivering thereto, a guide secured to said stamp-table having a central integral tongue and cut-away portions on each side of said tongue, a rocking arm, a rod pivotally secured to said arm, prongs extending from said rod to enter said cut-away portions, and means secured to said prongs and engaging said tongue to hold the prongs out of engagement with said cut-away portions, substantially as shown and described.

3. In a stamp-affixing machine, the affixing device, a stamp-table suitably supported adjacent to said affixing device and delivering thereto, a guide secured to said stamp-table having a central integral tongue and cut-away portions on each side thereof, a rocking arm, a rod pivotally secured to said arm, prongs extending from said rod to enter said cut-away portions, and a block pivotally secured to said prongs and engaging said tongue to hold the prongs out of engagement with said cut-away portions, substantially as shown and described.

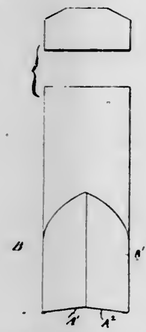
4. In a stamp-affixing machine, the affixing device, a

pan supported adjacent to said affixing device, a crank-shaft journaled in said pan, a roller journaled on said crank-shaft, a wheel suitably journaled, means to simultaneously actuate the affixing device and rock said wheel, and operative connections between said wheel and the roller-shaft to elevate said roller, substantially as shown and described.

5. In a stamp-affixing machine, the affixing device, a pan supported adjacent to said affixing device, a crank-shaft journaled in said pan, a roller journaled on said crank-shaft, a wheel suitably journaled, means to simultaneously actuate the affixing device and rock said wheel, a projection on said wheel, and a shaft having an arm engaging the roller-shaft and an arm engaging the projection on the wheel to actuate the said roller; substantially as shown and described.

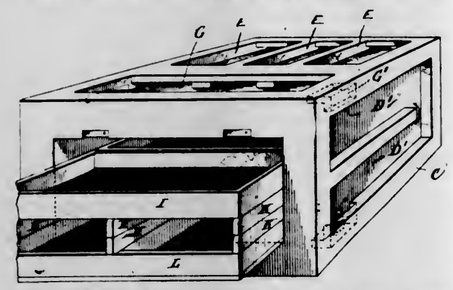
[Claims 6 to 13 not printed in the Gazette.]

943,953. TOOL FOR CUTTING ABRASIVE FILES. JAMES NEILL, Sheffield, England. Filed July 23, 1909. Serial No. 509,140.



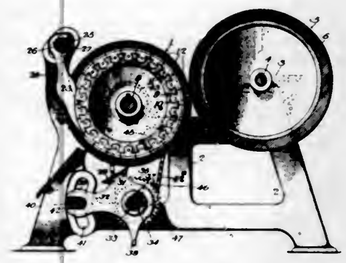
A file cutting tool having its front face formed by two plane surfaces extending inwardly at an angle to meet and form a channel, the bottom or cutting edge being formed of two plane surfaces that extend upwardly from the outer edge to meet at the center, and which surfaces are also angularly disposed to give a negative rake to the cutting edge.

943,954. INCUBATOR. ALEXANDER NOBLE, Rock Springs, Wyo. Filed Jan. 11, 1909. Serial No. 471,709.



An incubator having communicating channels formed upon the sides, top, bottom and end thereof, a casing about said incubator and spaced apart therefrom, a flue formed in said casing and leading to the space underneath the incubator, an exit pipe leading from an opening in the top of the casing, the forward end of the incubator having a laterally projecting flange, a flanged rack upon which said casing rests and recessed for the reception of said flue leading into the casing, a door frame at one end of the casing, and a recessed guard plate extending over and about the ends of said door frame.

943,955. MACHINE FOR SEEDING FRUIT. BASIL H. PAUL and MADELEINE PAUL, Los Angeles, Cal. Filed May 24, 1909. Serial No. 498,071.



1. In a fruit seeder, the combination of a drum comprising a plurality of members each having grooves on its periphery, with a plurality of impaling units adapted to be held in said grooves, each of said units provided with an extended portion on each side thereof abutting contiguous units.

2. In a fruit seeder, an impaling unit comprising a plurality of elements in parallel and joined together to form a block, each of said elements consisting of a thin portion provided with teeth and extensions beyond the end teeth and an integral thicker portion offset from the wall of the thinner portion at a short distance below the bottom of the teeth.

3. In a fruit seeder, an impaling unit comprising a plurality of elements in parallel and joined together to form a block, each of said elements consisting of a thin portion provided with teeth and extensions beyond the end teeth and a thicker portion offset from the side walls of the thinner portion at a short distance below the bottom of the teeth and provided with a dovetail, said offsets and extensions equal in width to substantially one-half of the spaces between the teeth, substantially as described and for the purpose set forth.

4. In a fruit seeder, the combination of a drum, with impaling means thereon, a seed stripping knife having its edge arranged longitudinally of the drum, and means for removing material accumulating on said knife, including a plurality of rotatively mounted tooth disks.

5. In a fruit seeder, the combination of a drum, with impaling means thereon, a seed stripping knife having its edge arranged longitudinally of the drum, said knife adjustable circumferentially of the drum.

[Claims 6 to 10 not printed in the Gazette.]

943,956. HOISTING MECHANISM FOR CRANES. HARRY SAWYER, Muskegon, Mich. Filed June 8, 1909. Serial No. 500,876.

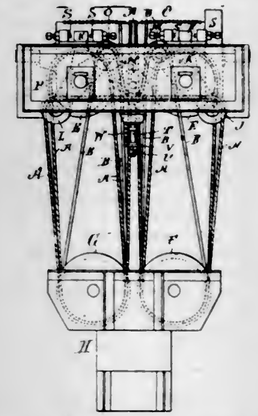
1. In a hoisting mechanism, a main and auxiliary or safety hoisting cable, and means for transferring at will the load from the one to the other of said cables, and for automatically distributing the load between them.

2. In a hoisting mechanism, a main and an auxiliary safety cable, one of said cables being arranged to take a hoisting load, and the other to normally run idle, in combination with means for transferring the load from the one to the other of said cables, and to automatically distribute the load between them.

3. In a hoisting mechanism, a main and an auxiliary safety cable, one of said cables being arranged to take the hoisting load, and the other to remain idle, in combination with a yielding connection for the idle cable whereby said cable is relieved of any increase in load by reason of the stretching of the load carrying cable.

4. In a hoisting mechanism, a main and an auxiliary safety cable, pulleys over which said cables respectively operate, levers carrying said pulleys at the respective ends thereof, and means for adjustably rocking said levers

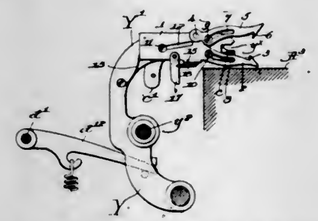
5. In a hoisting mechanism, a main and an auxiliary hoisting cable, pulleys over which said cables respectively operate, angularly arranged levers carrying said pulleys



at the respective ends thereof, and means for adjusting the angular relations of said levers with reference to each other.

[Claims 6 and 7 not printed in the Gazette.]

943,957. THREAD-PARTING MECHANISM FOR LOOMS. WILLAM H. SPENCER, Methuen, and ALFRED HURST, Lawrence, Mass., assignors to William L. Barrell, Lawrence, Mass. Filed June 22, 1909. Serial No. 503,616.



1. In a loom, a shuttle-feeler having a notched end, a device on the feeler to part the filling when positioned in the notch, a plate slidably mounted on the feeler and having a rearwardly extended lower jaw to pass under the filling, an upper jaw pivoted on the plate and adapted to pass over the filling, and means, acting upon forward movement of the plate relatively to the feeler, to close the outer ends of the jaws behind the filling and move it positively into the notch in position to be parted.

2. In a loom, a shuttle-feeler having a notched end, a device on the feeler to part the filling when positioned in the notch, a plate slidably mounted on the feeler and having a rearwardly extended lower jaw to pass under the filling, an upper jaw pivoted on the plate and adapted to pass over the filling, and means, acting upon forward movement of the plate relatively to the feeler, to close the outer ends of the jaws behind the filling and move it positively into the notch in position to be parted, combined with a spring to normally maintain the plate in position with the jaws open, and a moving part of the loom to effect movement of the plate in opposition to the spring.

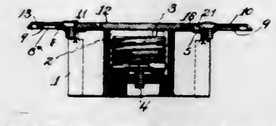
3. In a loom, a shuttle-feeler, a device thereon to part the filling when properly positioned, a jaw-carrier longitudinally movable on the feeler and having relatively movable jaws normally extended beyond the parting device and adapted to receive the filling between them, means to move the jaw-carrier forward on the feeler as the lay beats up, and a device to close said jaws and entrap the filling and move the latter positively into position to be acted upon by the parting device.

4. In a loom, a shuttle-feeler, a device thereon to part the filling when properly positioned, a jaw-carrier longitudinally movable on the feeler and having relatively movable hooked jaws normally extended beyond the parting device, to receive the filling between them, and means operative by forward movement of the jaw-carrier as the lay beats up to close the hooked ends of the jaws behind the filling and carry the latter forward positively into position to be parted.

5. In a loom, in combination, an instrumentality movable bodily into position to act upon and part the filling end near the shuttle, and means to position the filling end to be acted upon by said instrumentality, said means including relatively movable jaws to close automatically behind and entrap the filling end and move it positively into position to be parted.

[Claims 6 and 7 not printed in the Gazette.]

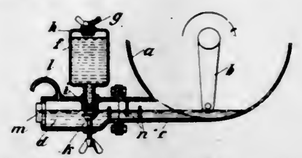
943,958. FLUSH PLATE FOR FLUSH RECEPTACLES. FRANK T. WHEELER, Plainville, Conn., assignor to The Trumbull Electric Manufacturing Company, Plainville, Conn., a Corporation of Connecticut. Filed Dec. 7, 1906. Serial No. 346,729.



1. As an article of manufacture, a face plate having a hinged trap, said trap being pressed out of the body of the face plate, and leaving an opening therein conforming substantially to the general outline of the trap, said opening having a lug projecting thereinto and pressed out of the metal of the face plate and forming a stop for the trap, said trap being of substantially circular form with an integral projection, the latter pivoted in the opening of the face plate.

2. As an article of manufacture, a face plate for flush receptacles having a hinged trap, said trap being of substantially circular form with an integral projection, the whole pressed out of the face plate and pivoted in the opening thus formed, a transverse hinge pivot intermediate the projection and face plate and a series of independent lugs pressed out of the metal of the face plate at the edge of the opening and projecting into said opening adjacent to the under surface of the plate forming a stop for the trap.

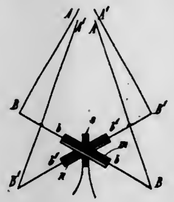
943,959. LUBRICATING DEVICE. REINIER F. O. G. VAN ZOELEN, Helder, Netherlands. Filed May 15, 1907. Serial No. 373,792.



1. The combination of a case in which a machine works, with an oil chamber, a channel connecting said oil chamber with said case, transverse partitions in said channel, said transverse partitions having openings, a dropping vessel adapted to supply lubricant to the oil chamber, a sight glass for ascertaining the height of the lubricant in the oil chamber, an air tube connected with the oil chamber, and an adjustable seal adapted to regulate the outlet of the dropping vessel, substantially as set forth.

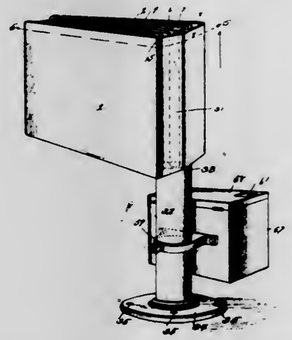
2. The combination of a case in which a machine works, with an oil chamber, a channel connecting said oil chamber with said case, transverse partitions in said channel, said transverse partitions having openings, a dropping vessel adapted to supply lubricant to the oil chamber, said dropping vessel being adjustable in height, and detachable from the oil chamber, a sight glass for ascertaining the height of the lubricant in the oil chamber, an air tube connected with the oil chamber, and an adjustable seal passing through the bottom of the oil chamber, adapted to regulate the outlet of the dropping vessel, substantially as set forth.

943,960. SYSTEM OF DIRECTED WIRELESS TELEGRAPHY. ETTORE BELLINI and ALESSANDRO TOSI, Paris, France. Filed Oct. 1, 1907. Serial No. 395,366.



A system of directed transmission for wireless telegraphy stations, comprising for the aerial part of the transmitting station several dirigible aerials in a fixed position, combined with fixed windings inserted in the conducting part of the aerials, a wave generator and a rotary device which is connected to the wave generator and which excites the fixed windings, substantially as described and for the purpose set forth.

943,961. REVOLVABLE ACCOUNT-REGISTER. JOSEPH E. BENJAMIN, Rochester, N. Y. Filed Apr. 7, 1908. Serial No. 425,697.



1. In a device of the character described, a book having a plurality of separately hinged leaves and a tubular member having flanges, the hinges of the leaves being supported on said tubular member, and covers hinged to said flanges eccentric to the hinges of the leaves to the rear of said member approximately in line with the center of the book.

2. In a device of the character described, a book comprising a tubular member with flanges at the ends rigid therewith and extending rearward at the center of the book, covers hinged to the rearward extensions of said flanges, and leaves hinged to said members eccentric to the hinges of the covers.

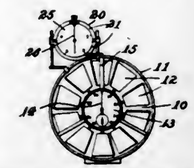
3. In a device of the character described, a book comprising a tubular member with flanges at the ends rigid therewith and extending rearward at the center of the book, covers hinged to said flanges, and leaves hinged to said member, the hinge members being separately sleeved upon said tubular support and offset combined with means for rotatably mounting said book and holding it against endwise displacement.

4. In a device of the character described, a book comprising a tubular member with integral flanges at the ends and having extensions rearward at the center of the book, rods held in said extensions and connecting the same, and a cover having back portions mounted to turn on said rods to the rear of said member approximately in line with the center of the book.

5. In a device of the character described, a book comprising a tubular member with integral flanges at the ends and having extensions rearward at the center of the book, rods held in said extensions and connecting the same, a cover having back portions mounted to turn on said rods to the rear of said member approximately in line with the center of the book, and leaves separately hinged upon said tubular member.

[Claims 6 to 14 not printed in the Gazette.]

943,962. ANEMOMETER. CARL M. BERNEGAU, Hoboken, N. J. Filed Oct. 10, 1905. Serial No. 282,102.



1. An anemometer comprising movable vanes and a registering mechanism, said vanes and registering mechanism being normally disconnected, in combination with a timing mechanism, means for holding an element thereof from movement, and means for simultaneously connecting the vanes with the registering mechanism and releasing said holding means.

2. An anemometer comprising movable vanes and a registering mechanism, said vanes and registering mechanism being normally disconnected, in combination with a timing mechanism, means for holding an element thereof from movement, means for simultaneously connecting the vanes with the registering mechanism and releasing said holding means.

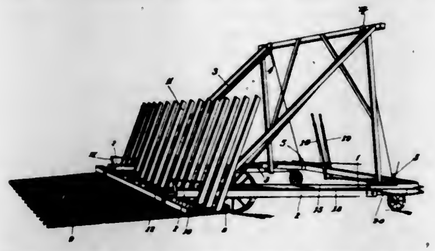
3. In an anemometer, the combination of a driving shaft, a registering mechanism, connecting means between said shaft and mechanism, a lever for controlling said connecting means, a timing mechanism comprising a driving shaft and indicating means, and connecting means between the said last mentioned driving shaft and said indicating means, also controlled by the aforesaid lever.

4. In an anemometer, the combination of a driving shaft, a registering mechanism, connecting means between said shaft and mechanism, a lever for controlling said connecting means, a timing mechanism comprising a driving shaft and indicating means, connecting means between the said last mentioned driving shaft and said indicating means, also controlled by the aforesaid lever, whereby the registering mechanism is simultaneously connected with and disconnected from the anemometer after the lapse of a predetermined time, and means for varying the extent of such running time.

5. In a mechanism of the character described, the combination with a gear carrying a disk provided with a single notch on its periphery, of a dog provided with a tooth adapted to engage with said notch, a lever adapted to carry the dog, a second lever pivoted on the first lever and provided with means comprising a spring, whereby it is normally pressed against the dog, and a stop for limiting the movement of the second lever induced by the spring.

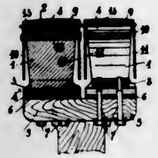
[Claim 6 not printed in the Gazette.]

943,963. HAY-PITCHER. ALBERT H. BOSWORTH, Fall River Mills, Cal. Filed May 11, 1908, Serial No. 432,301. Renewed July 12, 1909. Serial No. 507,263.



The combination of a frame, pivoted arms thereon, a buck pivotally mounted on said arms, and means on said arms for moving said buck on its pivotal point.

943,964. ELASTIC WHEEL-TIRE. JULES DHEYNE and ALBERT BOVY, Brussels, Belgium. Filed Feb. 3, 1909. Serial No. 475,785.



1. In an elastic wheel-tire, the combination of circular series of rubber cushions, vulcanized flanges formed at opposite ends of said cushions, metal plates embedded in said vulcanized flanges, an outer metal rim fitted around the cushions, and means for attaching the same on the wheel-rim, substantially as set forth.

2. In an elastic wheel-tire, the combination of circular series of rubber cushions, vulcanized flanges formed at opposite ends of said cushions, metal plates embedded in said vulcanized flanges, an outer metal rim fitted around the cushions, and annular disk-plates at opposite sides of said rim.

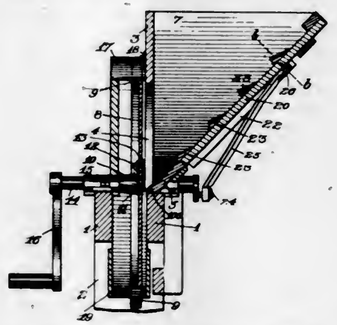
3. In an elastic wheel-tire, a wheel, a felly therearound, an outer rim, a compressible tire formed with a succession of cushions and disposed between said felly and rim, said tire having vulcanized flanges, metallic plates embedded in said flanges, annular disk-plates attached vertically to opposite sides of said rim, nut blocks arranged between successive cushions and adapted to be engaged by said annular disks under lateral strain, and screw-bolts passing through the felly and engaging the nut blocks.

943,965. FRUIT AND VEGETABLE SLICING OR CHOPPING MACHINE. WILLIAM H. BOUTELL, Rochester, N. Y., assignor of one-half to Boutell Manufacturing Company, Rochester, N. Y., a Corporation of New York. Filed Sept. 7, 1909. Serial No. 516,395.

1. In a fruit and vegetable slicer or chopper, the combination with a hopper and a cutter adapted to operate on material discharged therefrom, of a feeder for moving the material toward the cutter, embodying a plurality of parallel strips movable in a plane parallel with and in proximity to one side wall of the hopper so that the charging of the latter is facilitated.

2. The combination with a hopper provided with a discharge and having an upright wall with a cut away portion, of a cutter adapted to operate on the material from the discharge, a slide mounted in the cut-away portion of the hopper and movable upwardly and downwardly in said cut-away portion and transversely extending strips carried by the slide.

3. In a fruit and vegetable slicer or chopper, the combination with a hopper and a cutter adapted to operate on material discharged from the hopper, of a reciprocatory feeder embodying a slide guided up and down on one of the upright walls of the hopper and operating away from the center of the latter to carry material downwardly therein toward the cutter.

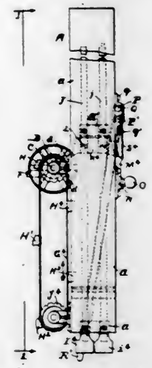


4. In a fruit and vegetable slicer or chopper, the combination with a hopper having a discharge in one of the side walls thereof, and a cutter adapted to operate on material passing from the discharge, of a reciprocatory feeder embodying a slide and transversely extending strips, said feeder being guided upwardly and downwardly on the said wall of the hopper and in a plane parallel with said wall, and connections between the cutter and the feeder for causing their simultaneous operation.

5. In a fruit and vegetable slicer or chopper, the combination with a hopper having an upright wall provided with a discharge, and a rotary cutter adapted to operate on material from the discharge, of a reciprocatory feeder guided up and down an upright wall of the hopper, a crank connected to the rotary cutter, and a pitman connecting the crank with the feeder.

[Claims 6 to 11 not printed in the Gazette.]

943,966. TAMPING-MACHINE. CLAUS O. BRANDELL, Chicago, Ill. Filed Dec. 28, 1908. Serial No. 469,616.



1. The combination of a frame, a plurality of shanks respectively arranged to move longitudinally in the frame, said shanks arranged to form a plurality of series, a hammer to each of said shanks, means to raise the shanks, latching mechanisms corresponding in number with the number of shanks and arranged in series to correspond with the series of shanks, movable mechanisms corresponding in number with the number of latching mechanisms and arranged in series corresponding with the series of latching mechanisms, and independent means

to move each series of movable mechanisms and force the corresponding series of latching mechanisms into place to maintain the corresponding series of shanks raised.

2. The combination of a frame, a plurality of shanks respectively arranged to move longitudinally in the frame, said shanks arranged to form a plurality of series, a hammer to each of said shanks, means to raise the shanks, latching mechanisms, corresponding in number with the number of shanks and arranged in series to correspond with the series of shanks, springs corresponding in number with the number of latching mechanisms and arranged in series corresponding with the series of latching mechanisms, shafts corresponding in number with the number of series of springs with all the springs of a given series attached to a given shaft, and means to rock the shaft and bring the series of springs thereon against the corresponding series of latching mechanisms to force said latching mechanisms into place to automatically engage with and maintain the shanks of the corresponding series raised.

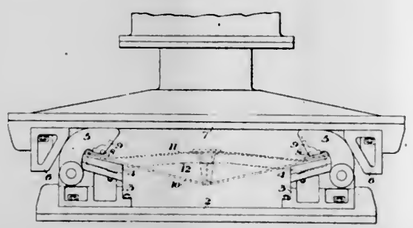
3. The combination of a frame, a plurality of series of tampers mounted thereon for vertical movement, lifting mechanism for each tamper, a latching device for each tamper to hold it elevated, said latching devices arranged in a plurality of series corresponding to the series of tampers, and a manually operated controlling mechanism for each series of latches.

4. The combination of a frame, a plurality of series of hammers, shanks to the hammers, such shanks longitudinally movable in the frame, a plurality of means respectively arranged to raise corresponding shanks, a plurality of series of latching mechanisms respectively arranged to latch corresponding shanks in a raised position, and means to force one of the series of latching mechanisms into an operative position independently of the position of the latching mechanisms of the remaining series.

5. The combination of a frame, a plurality of hammers, shanks to the respective hammers, such shanks arranged to move longitudinally in the frame, abutments rigidly secured to the shanks, rotatable shafts, sprocket wheels on the shafts, chains on the sprocket wheels, abutments secured to the chains, the abutments on the chains arranged to engage with the abutments on the hammer shanks, a plurality of series of mechanisms to latch the shanks in a raised position, said latching mechanism arranged to be normally in an inoperative position, and means to force the latching mechanisms of a determined series into an operative position.

[Claims 6 to 8 not printed in the Gazette.]

943,967. BENDING APPARATUS. FRANK DITCHFIELD, Bellevue, Pa., assignor to Pressed Steel Car Company, Pittsburg, Pa., a Corporation of New Jersey. Filed Feb. 27, 1907. Serial No. 359,547.



1. In a bending machine, a press member, a rigid and a movable die adjustably mounted on said member and a second press member adapted to operate said movable die.

2. In a bending machine, a press member, a die block or support adjustably mounted on said member, a rigid die and a movable die mounted on said block or support, and a second press member for operating said movable die.

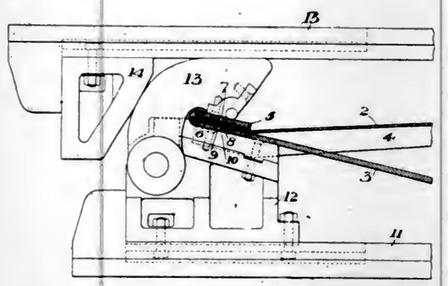
3. In a bending machine, an adjustably mounted die block or support, a rigid die and a movable die mounted thereon and adjustable means for operating said movable die.

4. In a bending machine, an adjustably mounted die block or support, a movable die mounted thereon, a press member and an adjustable cam for operating said die, mounted thereon.

5. In a bending machine, a press member, a die block or support adjustably mounted thereon, a rigid die and a movable die mounted on said block or support, a second press member and a cam adjustably mounted on said second press member for operating said movable die.

[Claims 6 to 10 not printed in the Gazette.]

943,968. METHOD OF MAKING BOLSTERS AND SIMILAR ARTICLES. FRANK DITCHFIELD, Bellevue, Pa., assignor to Pressed Steel Car Company, Pittsburg, Pa., a Corporation of New Jersey. Filed Feb. 27, 1907, Serial No. 359,546. Renewed Feb. 15, 1908. Serial No. 416,111.



1. The method of making bolsters and similar articles, consisting in fitting together the tension and compression members at their ends and simultaneously doubling back the two layers upon themselves; substantially as described.

2. The method of making bolsters and similar articles, consisting in fitting together the tension and compression members at their ends and simultaneously doubling back the two layers upon themselves while the metal is cold; substantially as described.

3. In the manufacture of bolsters or similar articles, the steps consisting of providing the tension and compression members with rivet holes in their end portions, fitting said members together, and simultaneously bending their end portions to form a doubled back joint; substantially as described.

4. In the manufacture of bolsters or similar articles, the steps consisting of providing the tension and compression members with rivet holes in their end portions, fitting said members together, and simultaneously bending their end portions to form a doubled back joint while the metal is cold; substantially as described.

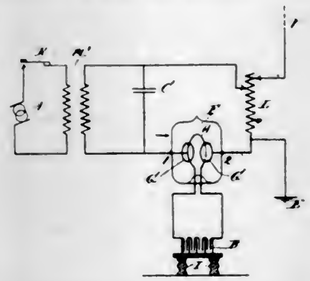
5. In the manufacture of bolsters and similar articles, the steps consisting of forming each member with two rivet holes in longitudinal alinement, fitting said members together, and then doubling back both members simultaneously at their ends to bring the holes of the four layers into alinement; substantially as described.

[Claims 6 to 12 not printed in the Gazette.]

943,969. SPACE TELEGRAPHY. LEE DE FOREST, New York, N. Y., assignor, by mesne assignments, to De Forest Radio Telephone Co., a Corporation of New York. Filed Jan. 29, 1907. Serial No. 354,663.

1. The combination with a source of electrical energy and a circuit including an electrical capacity, of a discharger comprising an evacuated vessel, two electrodes sealed therein, and means maintaining a heated gas in said vessel.

2. The combination with a source of electrical energy and a circuit including an electrical capacity, of a discharger comprising an evacuated vessel, two electrodes sealed therein and means for maintaining a condition of ionic conductivity between said electrodes.



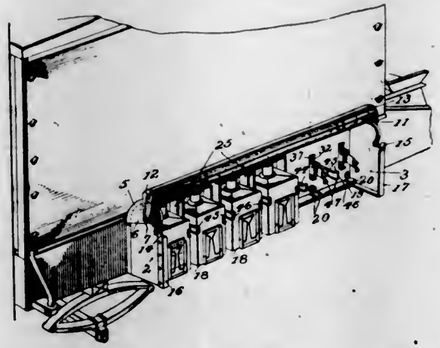
3. The combination with a source of electrical energy and a circuit including an electrical capacity, of a discharger comprising an evacuated vessel, two electrodes sealed therein, a conducting member sealed within said vessel and located in proximity to said electrodes and means for heating said member.

4. The combination with a source of electrical energy and a circuit including an electrical capacity, of a discharger comprising an evacuated vessel, two electrodes sealed therein, a conducting member sealed within said vessel and located in proximity to said electrodes, means for heating said member, and magnetic means for deflecting toward said electrodes the ionic stream produced by so heating said member.

5. The combination with a source of electrical energy and a circuit including an electrical condenser, of a discharger comprising an evacuated vessel, two electrodes sealed therein and means maintaining a heated gas in said vessel.

[Claims 6 to 12 not printed in the Gazette.]

943,970. DELIVERY APPARATUS. ALBERT GOLDENETZ, Defiance, Ohio. Filed Sept. 21, 1908. Serial No. 454,084.



1. In apparatus of the character described, a rack for cans comprising a wall, a ledge on said wall only partially supporting the cans, spring clips projecting from said wall and located and constructed to retain the cans releasably in position with respect to said wall and ledge, the width of the ledge being such that the center of gravity of the filled cans is forward of the edge of the ledge whereby the weight of the cans aids in their removal.

2. In apparatus of the character described, a rack for holding cans comprising a wall, a ledge projecting from said wall, clips projecting from said wall and spaced to correspond with the cans, said clips being provided with substantially right angular portions at substantially the thickness of the can from the wall to spring over the front corners of said cans and take against the front thereof.

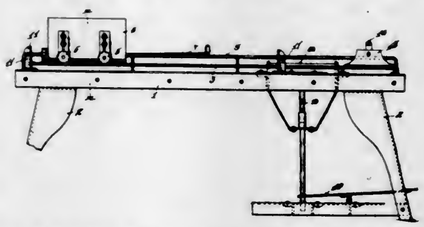
3. In apparatus of the character described in combination, a wall, a support beneath the cans, clips projecting from the wall in pairs, spaced apart slightly more than the width of a can, each clip of each pair being provided with a portion extending transversely at substantially the thickness of the can from the wall in the direction opposite to that of the corresponding portion of the other member of the pair, said transverse portions being so located with respect to the wall and can as to spring over the front corners of the can to retain it in position with its back against the wall.

4. Apparatus of the character described comprising in combination, a wall, a ledge projecting therefrom and provided with grooves or slots spaced apart the width of a can to receive the lower edges of the sides thereof to assist in holding the cans in position, and spring clips projecting from said wall spaced apart substantially the width of a can and provided with means to take against the front of the cans to retain the same in position.

5. Apparatus of the character described comprising in combination, a back wall, end walls, a narrow ledge on said back wall beneath the rear portion of the bottoms of the cans and only partially supporting the cans, spring clips to retain the cans in position with respect to the back wall and ledge, and a cover pivoted to the end walls and constructed to be turned back to allow free access to the cans.

[Claims 6 to 21 not printed in the Gazette.]

943,971. MACHINE FOR MAKING CEMENT TILES. THOMAS P. HACKETT, Cincinnati, Ohio, assignor to Architectural Stone Company, Cincinnati, Ohio, a Corporation. Filed June 7, 1909. Serial No. 500,706.

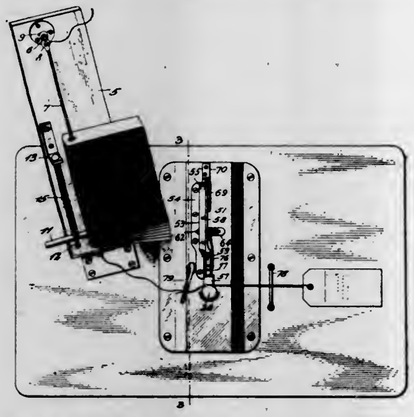


In a machine for forming cement tiles, a bed formed with a hopper-way and mold, a plunger adapted to reciprocate in said mold, a hopper movably mounted on said way and formed with a door having the conformation of the article to be formed, a pallet shaped to conform to the under surface of the tile removably supported on the plunger, a trowel movably mounted on said way and formed with the working surface corresponding in shape to the door, means for locking said trowel on said hopper-way, and a hopper stop located in said way and adapted to register the hopper door with the mold.

943,972. TAG HOLDER AND STRINGER AND LOOP-KNOTTER THEREFOR. WILLIAM A. HAYWOOD, Denver, Colo. Filed Dec. 11, 1908. Serial No. 467,031.

1. In a device as specified, the combination with a table having a tag holder and stringer mounted thereon, of a knotting device adjacent to said tag holder and stringer, comprising a shaft mounted in said table to extend above and below the same; a clamp in sliding engagement with the shaft and adapted to contact with its upper end, and means for normally holding it out of contact with the top of the shaft, said clamp being provided with a depending loop-holding member, which partially surrounds the upper end of the shaft; a loop clamp on the shaft; means for partially rotating the shaft and loop holding member with

the loop; a pusher for placing the loose ends of the loop between the slide clamp and shaft, and means for operating the pusher and for depressing the clamp at predetermined periods.



2. In a device as specified, the combination with a table having a tag holder and stringer mounted thereon, of a knotting device arranged upon the table, comprising a rotatable member, a clamp in sliding engagement with the rotatable member, and resilient means for normally holding said clamp away from said chamber; a gear wheel on said member; a rack bar in engagement with the gear wheel, and means for operating the rack; a pusher adjacent to the rotatable member to be moved to extend in between the clamp and the rotatable member; a loop holder on the rotatable member; and means connected with the rack bar for operating the pusher, and for depressing the clamp upon the rotatable member at predetermined periods.

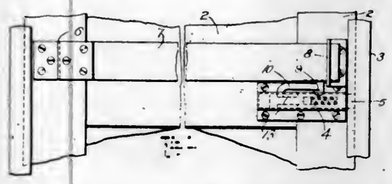
3. In a device as specified, the combination with a table of a vertical shaft mounted therein, having a gear wheel on its lower end; a rack bar in mesh with the wheel; a vertical slide on the shaft having a step on its lower end; a clamp upon the upper end of the slide, having a depending loop receiver which partially encircles the upper end of the shaft; a loop holder on the shaft; a lever, one end of which lies adjacent to the shaft; a finger on the rack bar in the path of the lever, and means for operating the rack bar whereby the shaft is partially rotated, and the slide step brought beneath the forward end of the lever, and the lever operated by contact therewith of the finger to depress the slide and bring the clamp in contact with the end of the shaft.

4. In a device as specified, the combination with a rotatable member, having a loop holder, and a hood in sliding engagement therewith, having a clamping face adapted to contact with the said member, but normally out of engagement therewith; of means for partially rotating the rotatable member and hood to bind a loop about the end of said member and hood; means for automatically pushing the loose ends of the loop between the clamp and rotatable member; and means for depressing the clamp to hold the loose ends of the loop while the same is slipped over the top of the hood.

5. In a device as specified, the combination with a rotatable member having a loop holder and hood in sliding engagement therewith, having a clamping face adapted to engage the end of the rotatable member, but normally out of engagement therewith; and means for partially rotating the member and hood, to wind the loop around the said member and hood; of means comprising an automatically operated finger for pushing the loose ends of the loop between the rotatable member and clamping face of the hood, after the said member and hood have been partially rotated, and an automatically operated lever for depressing the hood to clamp and hold the loose ends of the loop, while the same is being slipped over the top of the hood.

[Claims 6 to 18 not printed in the Gazette.]

943,973. SAFETY DOOR-LATCH. ARCHIBALD C. HOPE, FRANK FARQUHAR, and CHARLES A. HILCHEY, Vancouver, British Columbia, Canada. Filed Oct. 12, 1909. Serial No. 522,261.

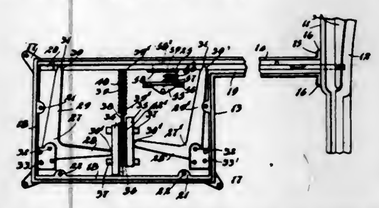


1. In a device of the class described, the combination with a spring latch bolt, of a bar flexibly connected to the hinged stile of the door and extending horizontally across it to a position adjacent to the latch, and a short rod pivotally attached to the free end of this bar and connecting it to the latch bolt in a manner that when the horizontal bar is pressed toward the latch it will withdraw the latch bolt from its engagement with the door frame.

2. In a device of the class described the combination with the latch bolt endwise slidable within a casing against the resistance of a spring said latch bolt having an endwise elongated recess and the latch bolt casing an aperture adjacent to the recess but elongated backward from it, a bar flexibly connected to the hinge stile of the door and extending across it to a position adjacent to the latch, means for supporting this bar while permitting movement of it toward the door, and a connection pivotally mounted at the free end of the bar said connection having a downwardly turned end that will pass through the aperture of the casing and into engagement with the end of the recess in the latch bolt.

3. In a device of the class described the combination with a spring latch bolt 5 having a recess 13 said latch bolt endwise slidable in a casing 4 having an elongated aperture 14 in the upper side relatively narrower than the thickness of the bolt, the bar 7 flexibly connected at 6 to the hinge stile of the door and supported by a member 8 affording it limited movement toward the door, the connection 10 pivotally mounted at 9 at the free end of the bar 7 and having a downwardly turned end 11 with projections 12 that will retain the end of 10 within the latch bolt casing.

943,974. SWITCH-RAIL-CONTROLLING DEVICE. ALFRED JOBIN, Winnipeg, Manitoba, Canada. Filed Feb. 16, 1909. Serial No. 478,274.



1. In a device of the class described, the combination with the frog located at the juncture of the main and branch line rails, of an inclosing casing located between the tracks; a bar pivotally secured to the frog and slidably movable within the casing; means for moving the bar longitudinally and depressible self resetting means for actuating the latter means, said actauting means being designed to be operated from the exterior of the casing and permitting the frog to be moved without operating the depressible means, as and for the purpose specified.

2. In a device of the class described, the combination with the switch point located at the juncture of the main and branch line rails, of an inclosing casing located between the tracks; a bar pivotally secured to the switch point and entering the casing in which it is slidably supported; opposing bell cranks pivotally secured within the casing and having each an arm engaging with the bar; independent slidable means connected to the remaining ends of the bell cranks; engaging means slidably interposed between such latter means and designed to engage alternately with said sliding means when passing in one direction and to be free of the same when passing in the opposite direction; and means for operating said engaging means, such latter means being designed to be actuated from the exterior of the casing, as and for the purpose specified.

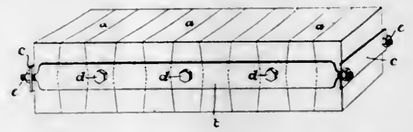
3. In a device of the class described, the combination with the switch point located at the juncture of the main and branch line rails, of an inclosing casing interposed between the rails; a bar pivotally secured to the switch point and passing within the casing being longitudinally slidable therein; opposing bell cranks pivotally secured to the bottom of the casing and having each an arm engaging with the bar; a set of similar opposing slidable blocks having similar transverse openings therein with longitudinally extending recesses continuous with the openings, said openings receiving the free ends of the bell cranks; a slidable spring pressed block interposed between the former blocks and having a dog with a set of opposing teeth pivotally secured therein, the teeth of said dog in its central position within the block extending beyond the opposing faces thereof and entering the openings in the adjoining blocks; and means designed to be actuated from the exterior of the casing for moving the central block in one direction and against the pressure of the spring, as and for the purpose specified.

4. In a device of the class described, the combination with the switch point located at the juncture of the main and branch line rails, of an inclosing casing interposed between the rails; a bar pivotally secured to the switch point and passing within the casing being longitudinally slidable therein; opposing bell cranks pivotally secured to the bottom of the casing and having each an arm engaging with the bar; a set of similar opposing slidable blocks having similar transverse openings therein and recesses continuous with the openings, the recesses having an inclined end wall, and said openings receiving the free ends of the bell cranks; a slidable block interposed between said former blocks and having a rod extending therefrom and being provided with a transverse opening; a second rod extending from the casing and abutting at its end the former rod in the active position of the central block; a spring encircling the rods and secured at its ends to each of them, said spring holding the rods normally in engagement; a dog pivotally secured within the opening in the central block and having opposing teeth formed at its free end, said teeth extending in the central position of the dog into the openings in the adjoining blocks, and being designed to engage with the walls of the openings alternately, the dog being reciprocated by the teeth engaging the inclined walls of the recesses alternately; and means for moving the central block in one direction and against the pressure of the spring, said means consisting in a pinion pivotally secured within the top of the casing and engaging with a rack formed on the central block, said pinion having a portion thereof extending above the top of the casing and formed with a shoulder thereon whereby the pinion can be rotated, as and for the purpose specified.

5. In a device of the class described, the combination with the switch point controlling bar, said bar having teeth thereon forming a rack, and the inclosing casing, of a gear engaging with the rack; a crank shaft extending from the gear and supported at its free end within a suitable bearing; and a spring secured to the crank shaft and to the bottom of the casing, as and for the purpose specified.

[Claim 6 not printed in the Gazette.]

943,975. SHOE-BLOCK. WYMAN W. KIMBLE, Honesdale, Pa. Filed Jan. 18, 1909. Serial No. 472,925.



1. A supporting structure comprising a series of blocks one set having enlarged centers and reduced ends and the other set reduced centers and enlarged ends whereby displacement of one block in relation to the other is prevented, substantially as described.

2. A supporting structure comprising a series of blocks one set having reduced centers and the other set correspondingly enlarged centers whereby locking engagement is effected between adjacent blocks and means for holding series of blocks together, substantially as described.

943,976. SUSPENDERS. SAMUEL S. KORNREICH, Warren, Pa. Filed Mar. 11, 1909. Serial No. 482,748.



1. The combination with suspender button ends made in two pieces, of a binding clip composed of sheet metal having spurs at the center and also at opposite edges adapted to penetrate the suspender ends when bound therearound, whereby to hold the parts together and serve to reinforce the suspender button ends at the point of support.

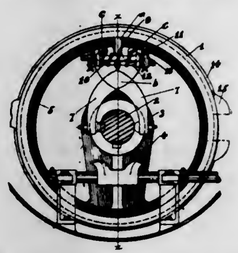
2. The combination with suspender button ends made in two parts, of a sheet metal binding clip having a V-shape bend through the center, said portion slotted, spurs struck up from the ends of the slots and teeth at the opposite ends of the plate, said binding clip adapted to be bent around the adjacent ends of the suspender button end pieces and caused to penetrate the material of which the latter is composed.

943,977. FRICTION-CLUTCH. JOHN M. KROYER, Stockton, Cal., assignor to Samson Iron Works, Stockton, Cal., a Corporation. Filed June 14, 1909. Serial No. 502,029.

1. A friction clutch comprising a friction drum, an internal friction ring split at one point, levers fulcrumed to the free ends of said ring and crossing each other, a lug on the inner side of each lever, such lugs being opposed and normally impinging one upon the other in a plane lower than the pivotal points of said levers and said ring.

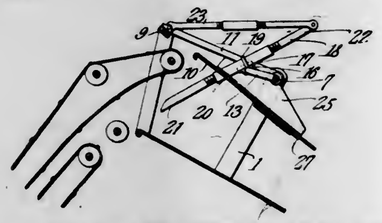
2. A friction clutch comprising a friction drum, an internal friction ring split at one point and levers pivoted to the free ends of said ring, said levers having mutual

contact points in a plane lower than the plane of the pivotal points of said levers and said ring, said levers crossing



each other at a point below said contact points, as described.

943,978. FEEDER FOR GRAIN-BINDERS. JOHN LINDNER, Waconia, Minn. Filed July 6, 1909. Serial No. 506,141.

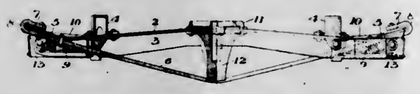


1. In combination with a binder a cross-bar mounted upon the binder-head, a crank-shaft journaled for rotation upon the binder and slidably mounted in its bearings, means connecting the crank-shaft with the cross-bar to cause the same to move longitudinally simultaneously, a longitudinally extensible bar pivoted upon the crank of the shaft, and a member operatively connecting one end of the said bar with the first said bar.

2. In combination with a binder a cross-bar mounted upon the head of the binder, a crank-shaft journaled for rotation upon the binder, and slidably mounted in its bearings, means connecting the crank-shaft with the cross-bar to cause the same to move longitudinally simultaneously, a longitudinally extensible member pivotally mounted upon the crank of the said shaft, and a longitudinally extensible member operatively connecting one end of the first said extensible member with the said cross-bar.

3. In combination with a binder a cross-bar mounted upon the binder-head, a crank shaft journaled upon the binder and slidably mounted in its bearings, means connecting the crank-shaft with the cross-bar to cause the same to move longitudinally simultaneously, a bearing mounted upon the crank of said shaft, a longitudinally extensible member adjustably connected with said bearing, and a longitudinally extensible bar connected at one end with one end of the said longitudinally extensible member, and at its other end with the said cross-bar.

943,979. BOLSTER. CHARLES A. LINDSTRÖM, Allegheny, Pa., assignor to Pressed Steel Car Company, Pittsburg, Pa., a Corporation of New Jersey. Filed Apr. 8, 1907. Serial No. 366,914.



1. In a bolster, a compression member having its end portions bent over upon itself and said portions being thinned; substantially as described.

2. In a bolster, a compression member of channel form having the end portions of its web reduced in thickness and bent over upon itself; substantially as described.

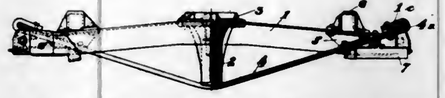
3. In a bolster, a pressed steel compression member having its web tapered at the ends, and a tension member, substantially as described.

4. In a bolster, a compression member of channel form having a web with narrowed end portions having deeper flanges than at the center of this section, and a tension member, substantially as described.

5. In a bolster, a truss member of channel form having its web shaped to form hollow upwardly projecting parallel reinforcing ribs or ridges therein.

[Claims 6 to 10 not printed in the Gazette.]

943,980. BOLSTER. CHARLES A. LINDSTRÖM, Pittsburg, Pa., assignor to Pressed Steel Car Company, Pittsburg, Pa., a Corporation of New Jersey. Filed Oct. 28, 1908. Serial No. 459,857.



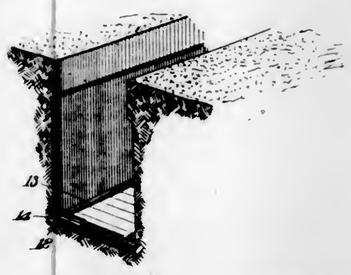
1. A bolster having a member divided longitudinally and the portions thus produced brought together and a side bearing securing said portions together.

2. A bolster having a member divided longitudinally and the portions thus produced brought together and a side bearing and end casting securing said portions together.

3. A bolster having a member divided longitudinally and the portions thus produced brought together in combination with a second member wrapped about the divided portions of the first-mentioned member and riveted thereto to secure said divided portions to each other.

4. A bolster having a member divided longitudinally and the portions thus produced brought together, a side bearing and end casting securing said portions together, and a second member wrapped about the divided portions of said first-mentioned member and riveted thereto to further secure said divided portions against separation.

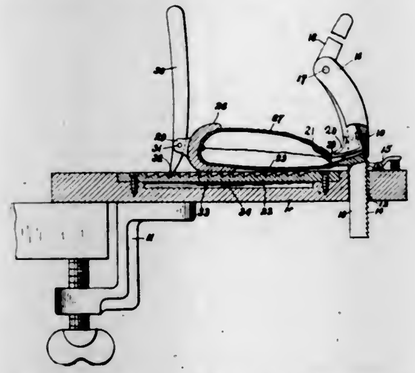
943,981. BURIAL-VAULT. WALTER LIVINGSTON and ALBERT E. LIVINGSTON, Hastings, Nebr. Filed Feb. 4, 1909. Serial No. 476,013.



1. A concrete burial vault built within an excavation constituting a grave and provided with an interior chamber, a receptacle forming the interior walls of the chamber and including a bottom section, water proof material covering the bottom section and over-lapping the longitudinal and transverse edges of said section, cleats forming fastening devices for the water proof material and constituting braces for the side and end walls of the receptacle, water proof material surrounding the body of the receptacle and folded over the edges of said receptacle for contact with the water proof material covering the bottom section, and a slab forming the cover of the grave.

2. A concrete burial vault built within an excavation constituting a grave and provided with an interior chamber, a receptacle forming the interior walls of the chamber and including a bottom section, water proof material covering the bottom section and over-lapping the longitudinal and transverse edges of said section, cleats forming fastening devices for the water proof material and constituting braces for the side and end walls of the receptacle, and water proof material surrounding the body of the receptacle and folded over the edges of said receptacle for contact with the water proof material covering the bottom section.

943,982. SHELL-FISH OPENER. JOHN A. LLOYD, Clark Fork, Idaho. Filed June 21, 1909. Serial No. 503,446.



1. In a device of the class described an adjustable support, a lever mounted to swing, and a shoe carried by said lever and provided with a flat lower side and an inclined upper side and with a chisel shaped terminal, whereby the upper shell of an oyster may be detached and the lower shell retained in position.

2. In a device of the class described an adjustable support, a lever mounted to swing, means for adjusting said lever, and a shoe carried by said lever and provided with a flat lower side and an inclined upper side and with a chisel shaped terminal.

3. The combination with a base, of an adjustable support, a lever mounted to swing upon said base, means for adjusting said lever relative to said base, a shoe carried by said lever and provided with a flat lower side and inclined upper side and with a chisel shaped terminal.

4. The combination with a base, of an adjustable support, a lever mounted to swing upon said base, means for adjusting said lever relative to said base, a shoe carried by said lever and having a chisel shaped terminal.

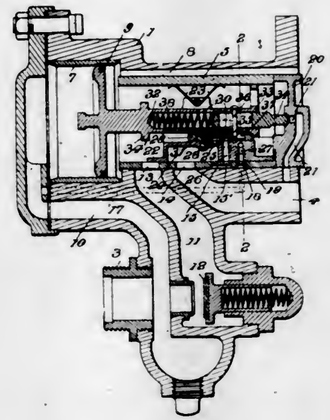
5. The combination with a base, of a socket for supporting an oyster at one end, means for adjusting said socket, a lever mounted to swing upon said base, means for adjusting said lever relative to said base, and a shoe carried by said lever and having a chisel shaped terminal.

[Claims 6 to 12 not printed in the Gazette.]

943,983. TRIPLE VALVE FOR AIR-BRAKES. WILLIAM B. MANN, Baltimore, Md., assignor to Philip Mauro and S. T. Cameron, trustees, Washington, D. C. Filed July 31, 1906. Serial No. 328,576.

1. In a triple-valve, a valve having a normal or exhaust and a non-exhaust position, a graduating valve controlling the passage of auxiliary reservoir air to the brake cylinder, a piston for operating both of said valves with lost motion between said valves and piston, and a spring reacting between said graduating valve and piston whereby said first-mentioned valve is moved from non-exhaust to exhaust position.

2. In a triple-valve, a piston having a partial traverse for service applications and a full or farther traverse for emergency applications of the brakes, a valve moving with said piston only on emergency applications and through which the brake cylinder exhausts, a graduating valve independent of said first named valve and moving with said piston on both emergency and service applications, and an exhaust valve moving on the first valve and having an exhaust position thereon and two non-exhaust positions one on either side of said exhaust position, said exhaust valve being operably connected to said piston.



3. In a triple-valve, an exhaust valve, and a triple-valve-operating piston operated by variations in train-pipe pressure, said exhaust valve and piston each having a release position and two non-release positions one on either side of said release position, and a spring carried by said piston and tending through it to throw said valve from one non-release position to release position.

4. In a triple-valve, the combination of an exhaust valve, an emergency valve and a valve-operating piston engaging both of said valves, said exhaust valve and piston each having a release position and two non-release positions one on either side of said release position, and said emergency valve moving only on emergency applications, and a spring acting on said piston and tending to throw it from one of said non-release positions to said release position.

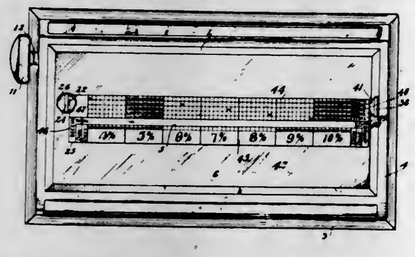
5. In a triple-valve, the combination of a valve through which exhaust from the brake cylinder passes to release the brakes, an exhaust valve controlling said exhaust, a valve-operating piston operatively connected to said first named and exhaust valves, said exhaust valve and piston each having a release position and two non-release positions one on either side of said release position, and a spring acting on said piston and tending to throw it from one of said non-release positions to said release position.

[Claims 6 to 20 not printed in the Gazette.]

943,984. CALCULATING-MACHINE. CARL A. MEILICKE, Hanley, Saskatchewan, Canada. Filed Mar. 27, 1908. Serial No. 423,758.

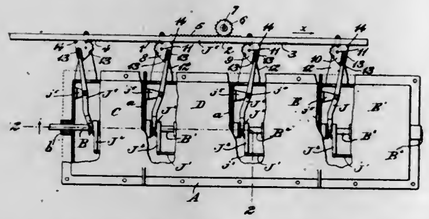
In a machine of the class described, the combination with a horizontal support, of a rectangular casing formed with an open bottom and having a longitudinal slot in its face; a set of hangers fastened to and extending downwardly from the support; a drum having a tabulated chart thereon mounted on a horizontal shaft carried by the hangers, the ends of the drum being toothed, a thumb head having a shank passing into and through the casing, a train of gears inter-connecting the thumb head shank with the drum shaft; a set of disk wheels rotatably

mounted on the drum shaft, one at each end of the drum; said wheels having each a calendar strip thereon adapted to coöperate with the drum chart; a spring fastened to the face of the disk wheels adjacent the drum, the said



springs being adapted to have their free end operate on the teeth of the drum; and means which will allow of pressure to be applied to the faces of the disk wheels, as and for the purpose specified.

943,985. VARIABLE-SPEED TRANSMISSION-GEAR APPARATUS. CHARLES A. MORRIS, Bloomfield, N. J., assignor of three-eighths to Charles M. Dimm and three-eighths to Leonard Brooks, Brooklyn, N. Y. Filed June 10, 1907. Serial No. 378,209.



1. In an apparatus of the class described, a driving member, a driven member, a fluid pump normally free with respect to said members, a gear train having certain gears thereof fast, respectively, with the driving and driven members, other gears of said train being mounted for rotation with said pump, means for locking the gear train from rotation through the action of said pump and causing said train and the pump to rotate as a unit with said driving and driven members, fluid-operated brake mechanism coöperating with the pump for restraining it from rotation, thereby permitting the gears of the train to rotate for transmitting the motion of one member to the other member, and means for retaining the brake mechanism in a substantially fixed position relative to the fluid pump, said brake mechanism being released by the action of the fluid in said pump.

2. In an apparatus of the class described, a driving member, a driven member, a train of gears intermediate said members, a rotatable fluid pump coöperating with said members and the gear train, said pump having means for restraining the fluid from circulating therein and causing the aforesaid gear train to be locked in fixed relation to the two members for rotation simultaneously and at equal speed therewith, and brake mechanism controllable by the fluid in the pump and operating to lock said pump in fixed position while permitting the fluid to circulate in said pump, whereby the gear train operates to transmit motion, at a different rate of speed, from one member to the other member.

3. In an apparatus of the class described, a driving member, a driven member, a train of gears intermediate said members, a fluid pump coöperating with said gear train and with the driving and driven members, said pump being adapted for rotation with the gear train and with said members at substantially the same speed, means for controlling the circulation of fluid in said pump, thereby locking and releasing the gear train whereby the latter when released operates to transmit motion at variable speed from one member to the other member, and a brake mechanism controllable by the fluid in the pump, said brake mechanism operating to lock said fluid pump in a substantially fixed position and to release said pump for rotation as a unit with the gear train and the aforesaid shafts.

4. In an apparatus of the class described, driving and driven members, a gear train intermediate said members, a rotatable casing normally free with respect to both members, means adapted to contain a fluid resistance for opposing the rotation of the individual gears of said train, whereby the gear train locks or couples the aforesaid members for rotation simultaneously at the same speed, said resistance-containing means being adapted for unitary rotation with said casing, the gear and the driving and driven members, and fluid operated brake mechanism in fluid communication with the resistance containing means and adapted to lock said casing against rotation, whereby the resistance is removed from the gear train and the latter is free to transmit the motion of one member to the other member, said brake mechanism embodying means, controllable by the fluid, for restraining the rotary motion of said casing.

5. In an apparatus of the class described, driving and driven members, a rotatable casing normally free with respect to both members, a gear train intermediate said members and adapted to rotate as a unit with the casing and said members, means carried by said casing and adapted to contain a variable fluid resistance for opposing the rotation of the individual gears of said train, whereby the gear train locks or couples the aforesaid members for rotation simultaneously, said resistance-containing means being adapted for unitary rotation with the gear train, the casing, and driving and driven members, and fluid operated brake mechanism in fluid communication with said resistance containing means and adapted to lock said casing from rotation, whereby the resistance is removed from the gear train and the latter is free to transmit the motion of one member to the other at a different speed.

[Claims 6 to 49 not printed in the Gazette.]

943,986. PROCESS OF TREATING DETINNED IRON AND RESIDUES. WILLIAM W. MURRAY, Baltimore, Md., and HARRY M. FERNBERGER, Philadelphia, Pa. Original application filed Jan. 17, 1906, Serial No. 296,569. Divided and this application filed Feb. 1, 1909. Serial No. 475,424.

1. The process of treating detinned iron and residues, which consists in washing the material with an anhydrous liquid capable of dissolving stannic chlorid.

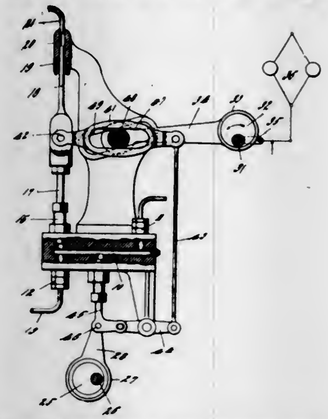
2. The process of removing stannic chlorid from the surfaces of detinned iron and residues, which consists in washing the material with carbon tetrachlorid.

3. The process of treating detinned iron and residues, which consists in washing the material with an anhydrous liquid solvent of the methane series.

4. The process of treating detinned iron and residues, which consists in washing the material with a liquid capable of dissolving stannic chlorid and then heating the same.

943,987. GOVERNED PUMP. NORMAN MCCARTY, Indianapolis, Ind., assignor to Atlas Engine Works, Indianapolis, Ind., a Corporation of Indiana. Filed Dec. 18, 1908. Serial No. 468,169.

1. The combination, with a pump chamber having an inlet valve, an outlet valve and a piston coöperating with the pump chamber, of a compensating piston also coöperating with the pump chamber, a positive reversing driving connection between the pump piston and the compensating piston whereby movement of the pump piston will produce opposite movement of the governing piston relative to the pump chamber, and means for adjusting said driving connection to vary the effect of the movement of the pump piston upon the compensating piston.



2. The combination, with a pump chamber having an inlet valve, outlet valve and a piston coöperating with the pump chamber, of a compensating piston also coöperating with the pump chamber, a lever engaging the compensating piston, a reversing connection between said lever and the pump piston, and means for varying the lever ratio and for shifting the lever to vary the effect of movement of the pump piston on the compensating piston.

3. The combination, with a pump chamber having an inlet valve, outlet valve and a piston coöperating with the pump chamber, of a compensating piston also coöperating with the pump chamber, a lever engaging the compensating piston, a reversing connection between said lever and the pump piston, and means for varying the lever ratio to vary the effect of movement of the pump piston on the compensating piston.

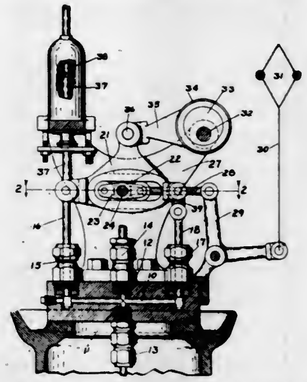
4. The combination, with a pump chamber having an inlet valve, an outlet valve and a piston coöperating with the pump chamber, of a compensating piston also coöperating with the pump chamber, a reversing driving connection between the pump piston and the compensating piston whereby movement of the pump piston may produce opposite movement of the governing piston relative to the pump chamber, and means for adjusting said driving connection to vary the effect of the movement of the pump piston upon the compensating piston, and means for applying a partial balancing force upon the compensating piston in opposition to the force resulting thereon within the pump chamber said balancing force being equal to half the internal force.

5. The combination, with a pump chamber having an inlet valve, an outlet valve and a piston coöperating with the pump chamber, of a compensating piston also coöperating with the pump chamber, a reversing driving connection between the pump piston and the compensating piston whereby movement of the pump piston may produce opposite movement of the governing piston relative to the pump chamber, and means for adjusting said driving connection to vary the effect of the movement of the pump piston upon the compensating piston, and means for applying a partial balancing force upon the compensating piston in opposition to the force resulting thereon within the pump chamber.

[Claims 6 to 19 not printed in the Gazette.]

943,988. PUMP. NORMAN MCCARTY, Indianapolis, Ind., assignor to Atlas Engine Works, Indianapolis, Ind., a Corporation of Indiana. Filed Mar. 13, 1909. Serial No. 483,161.

1. In a pump, the combination with a pump chamber, of a pair of plungers projected into said chamber, means for reciprocating the said plungers simultaneously in opposite directions relative to the pump chamber, and means for inversely varying the movement of both said plungers.



2. In a pump, the combination with a pump chamber, of a pair of plungers projected into said pump chamber, an operating lever connecting said plungers, a fulcrum for said lever arranged between said plungers, and means for varying the relation between the fulcrum and lever to inversely vary the relation between said lever and the two plungers.

3. In a pump, the combination with a pump chamber, of a pair of plungers projected into said chamber, a lever connecting said plungers, a fulcrum for said lever engaging the lever between the plungers, and means for shifting said fulcrum with relation to said lever toward and from the medial line of said lever between the two plungers.

4. In a pump, the combination with a pump chamber, of a pair of plungers projected into said chamber, a lever connected at its opposite ends to the two plungers, a fulcrum for said lever, and means for simultaneously inversely varying the lever ratio relative to the two plungers.

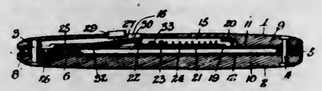
5. In a pump, the combination with a pump chamber, of a pair of plungers alternately projectable into said chamber, a lever connected to the two plungers, and means for shifting the fulcrum to and from the medial line of the lever between the plungers, whereby the output of the pump is proportional to the difference in stroke of the two plungers.

943,989. SPIKED ROLLER FOR AGRICULTURAL PURPOSES. ROBERT NACKE, Langenhof, near Bielefeld, Germany. Filed Mar. 24, 1909. Serial No. 485,404.



A roller having holes therein, interior annular projections surrounding said holes, said holes flaring outwardly, spikes having a tapered portion adapted to engage with the flaring portion of the hole, and a screw threaded end, a nut adapted to engage with said screw threaded end and resting against the interior projection to removably hold the spike in position, and flat headed bolts located in some of the openings, said bolts having tapered heads engaging with the flaring portions of the openings and a screw threaded end, and a nut engaging with said end and resting upon the interior projection.

943,990. POCKET-KNIFE. JAMES A. NELL, Walden, N. Y. Filed Apr. 6, 1909. Serial No. 488,201.



1. A pocket knife comprising a handle, having a hollow portion, a blade pivotally mounted in said handle, a lever mounted in the hollow of said handle and engaging said blade in its open and closed positions, a longitudinally movable and depressible button to release said lever, and a spring controlled latch engaging said lever and releasable upon the longitudinal movement of said button, substantially as described.

2. A pocket knife comprising a handle having a hollow portion, a blade pivotally mounted in said handle, a lever mounted in the hollow of said handle and engaging said blade in its open and closed positions said lever being releasable, by depression thereon, from said blade, a latch engaging said lever to normally prevent movement thereof, and a longitudinally movable button carried by said lever to engage and release said latch by its longitudinal movement before depressing said lever, substantially as described.

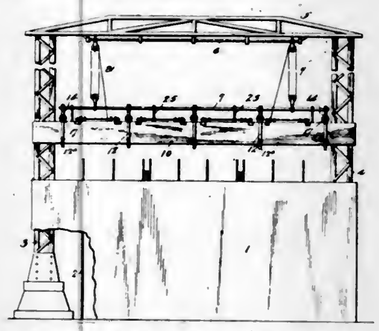
3. A pocket knife comprising a handle having a hollow portion, a blade pivotally mounted in said handle, a lever mounted in the hollow of said handle and engaging said blade in its open and closed positions said lever being releasable, by depression thereon, from said blade, a spring controlling said lever, a spring controlled longitudinally movable latch bar engaging said lever to normally prevent movement thereof, and a longitudinally movable button carried by said lever to engage and move said latch bar free of said lever upon its longitudinal movement, before depressing said lever, substantially as described.

4. A pocket knife comprising a handle, having a hollow portion, a blade pivotally mounted in said handle, a depressibly releasable lever mounted in the hollow of said handle and engaging said blade in its open and closed positions, a spring controlled longitudinally movable latch bar engaging said lever to normally prevent movement thereof, a spring plate having one end thereof secured to said lever, to control the same, and provided with a curved slotted opposite end forming a guide for said latch bar, and a longitudinally movable button carried by said lever to engage and move said latch bar therefrom, upon its longitudinal movement, before the depression of said lever to release the blade, substantially as described.

5. A pocket knife comprising a handle having a hollow portion, a blade pivotally mounted in said handle and provided with openings therethrough upon opposite sides of its pivot, a lever mounted in the hollow of said handle and provided with a pin to enter either of the said blade openings, and having an angular depressible portion, a button extending outwardly through an opening in said handle, and connected to said angular portion of said lever for movement with relation thereto, a spring controlled latch bar in engagement with said lever and movable toward and away from the same, and a member carried by said button for movement against said latch bar to release said lever and permit the depression.

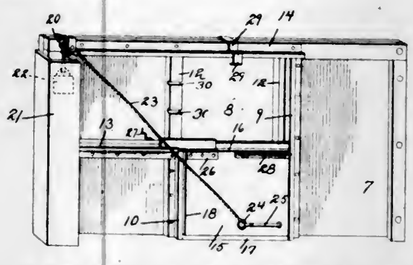
943,991. APPARATUS FOR MOLDING HOLLOW CONCRETE WALLS. WILLIAM E. NELSON, San Angelo, Tex. Filed June 17, 1909. Serial No. 502,643.

1. A device of the character described, adapted to mold a hollow plastic wall in successive vertical layers, comprising an adjustably supported single shaft arranged above the said wall and in a vertical plane passing through the central longitudinal axis of said wall, side walls pivotally suspended from said shaft by means of upwardly and inwardly extending members which engage each upon said shaft and form a hinged joint, means arranged upon said members below the hinged joint therefor for holding said side walls in a vertical position, a core suspended from said shaft to assume a vertical position between said side walls, and means for vertically moving said single shaft without moving the same out of said vertical plane passing through the central longitudinal axis of said plastic wall.



2. A device of the character described, adapted to mold a hollow plastic wall in successive vertical layers, comprising an adjustably supported single shaft arranged above said wall and in a vertical plane passing through the central longitudinal axis of said wall, side walls pivotally suspended from said shaft by means of upwardly and inwardly extending members which engage each other upon said shaft and form a hinged joint, means arranged upon said members below the hinge joint thereof for holding said side walls in a vertical position, a core suspended from said shaft to assume a vertical position between said side walls, inwardly projecting lugs arranged upon the lower portions of said side walls for aiding in the support of the same, and means for vertically moving said single shaft without moving the same out of said vertical plane passing through the central longitudinal axis of said plastic wall.

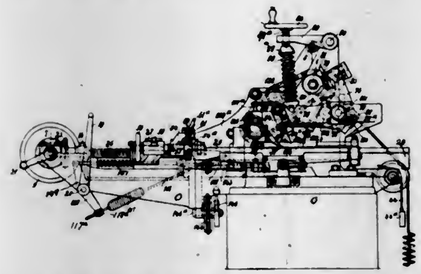
943,992. GRAIN-DOOR. GEORGE G. NEWMAN and WESLEY ROWE, Bismarck, N. D. Filed Sept. 10, 1908. Serial No. 452,430.



1. In a door structure, the combination with parallel vertical guides, one of said guides terminating short of the top of the other guide, of an outwardly extending horizontal guide located at the upper end of the shorter vertical guide, a horizontal guide located at the upper end of the longer vertical guide, and extending across the space between the vertical guides and outwardly in parallel relation to the first named horizontal guide, a door member movable to lie at times between the horizontal guides and at times between the vertical guides, a plate carried by the door member and arranged to lie in the upper horizontal guide, said plate extending laterally beyond the door member and arranged to lie in the lower horizontal guide when the door member is between the lower portions of the vertical guides, and a latch movable into and out of position to extend across the laterally extending plate when the door member is between the vertically extending guides.

2. A door comprising vertical parallel guides, one of said guides terminating short of the upper end of the other guide, a horizontal guide located with one end adjacent to the upper end of the longer vertical guide and extending across the space between the vertical guides and laterally beyond the shorter vertical guide, the second horizontal guide located with one end adjacent to the upper end of the shorter vertical guide, and extending outwardly therefrom in parallel relation to the first named horizontal guide, a door member having upper and lower flanges engaged in the respective horizontal guides, said door member having vertical side flanges arranged for engagement in the vertical guides, a depending bracket member carried by the upper horizontal guide and an inwardly extending plate carried by the door member and arranged for engagement at times with the bracket, said plate being arranged to lie out of engagement with the bracket when one of the flanges of the door member is in the longer vertical guide, and means for holding the door member yieldably between the horizontal guides.

943,993. FILE AND RASP CUTTING MACHINE. GOTTLIEB PEISELER, Charlottenburg, Germany. Filed Mar. 1, 1905. Serial No. 247,871.



1. In a file cutting machine, a longitudinally movable blank carrier and a cross slide on which it is mounted to slide therewith, in combination with a screw shaft arranged to move said carrier and cross-slide transversely, means for automatically rotating said screw-shaft to cause such transverse motion, and a longitudinally reciprocating slide 28 adapted to engage and actuate the said means only just before the said carrier and cross-slide reach the forward limit of their longitudinal movement substantially as set forth.

2. In a file cutting machine, a longitudinally movable blank carrier and cross-slide on which it is mounted to slide therewith, a transverse screw-shaft 32 and nuts engaging therewith arranged to operate said carrier and cross-slide, a ratchet wheel turning with said screw-shaft, a lever carrying a pawl which engages said ratchet, means for adjusting the throw of said lever at will and means for automatically operating said lever at one point of the longitudinal travel of said carrier and slide to cause the step by step transverse feeding of these two last named parts substantially as set forth.

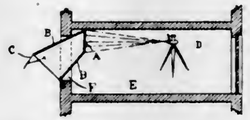
3. In a file cutting machine, a blank carrier, in combination with a cross-slide on which said carrier is mounted to slide therewith transversely of the machine, a pair of nuts fitting the sides of said slide but allowing limited play of the latter between them, a transverse screw-shaft engaging the said nuts for laterally feeding said cross-slide and carrier, resilient means for cushioning the lateral movement of said slide and means for automatically turning said screw-shaft with a step by step motion as said carrier and cross slide travel forward longitudinally.

4. In a file cutting machine, a blank carrier, in combination with a cross-slide on which it is mounted to slide therewith, a transverse screw-threaded shaft arranged and adapted to feed said cross-slide and blank carrier automatically, means for turning said screw-shaft at intervals, a pattern bar for turning the same and a part interposed between said pattern bar and slide and held against said pattern bar under resilient pressure substantially as set forth.

5. In a file-cutting machine, a longitudinally movable blank carrier 29 and the cross-slide 31 on which it is mounted to slide therewith, in combination with a screw-shaft adapted to move said slide and carrier transversely, a ratchet wheel 39 fast on said screw-shaft, a pawl engaging said ratchet wheel, a lever 40 on which the said pawl is pivotally mounted, a weighted replacing chain or cord drawing on said lever, a stop for limiting the consequent pivotal movement of the latter, a slide 28, carrying a projection arranged to engage the said lever, and means for reciprocating the said slide 28 and the said blank-carrier 29 together longitudinally of the machine, the parts being constructed and arranged for such action of such projection only when the blank-carrier approaches the end of its forward movement and such action, overcoming the pull of said weighted chain serving to turn said screw-shaft to the extent of one tooth of said ratchet wheel substantially as and for the purpose set forth.

[Claims 6 to 25 not printed in the Gazette.]

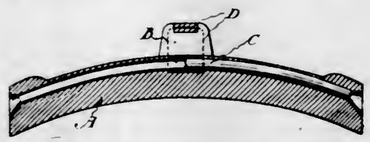
943,994. ADVERTISING OR DISPLAY APPARATUS. AUGUSTE QUENTIN, Paris, France. Filed Aug. 15, 1907, Serial No. 388,710. Renewed June 29, 1909. Serial No. 505,070.



1. In an advertising or display apparatus a chamber for projecting pictures on a screen provided with an opening, a box inserted in said opening, with walls inclined to each other in shape of a truncated pyramid, having its central axis inclined to the horizon, being open at the wider front end and projecting with this wider open part beyond the opening of the chamber, a vertical wall of the box at the narrower rear end adapted to receive pictures, letters, signs and similar display.

2. In an advertising or display apparatus a chamber for projecting pictures on a screen provided with an opening, a box inserted in said opening, with walls inclined to each other in shape of a truncated pyramid, having its central axis inclined to the horizon, being open at the wider front end and projecting with this wider open part beyond the opening of the chamber, a vertical wall of the box at the narrower rear end, adapted to receive pictures, letters, signs and similar displays, said rear wall, being arranged in the projection chamber at some distance in the rear of its opening.

943,995. BRAKE-SHOE. ANDREW H. REID, Toronto, Ontario, Canada, assignor of one-sixth to Norman K. Reid, one-sixth to Hugh Reid, Sr., and one-sixth to Hugh S. Reid, Toronto, Canada. Filed May 1, 1909. Serial No. 493,354.



1. A brake shoe comprising a cast metal body and a tubular reinforcement cast therein.

2. A brake shoe comprising a cast metal body and a tubular reinforcement cast therein, and having its ends opening through the body of the shoe.

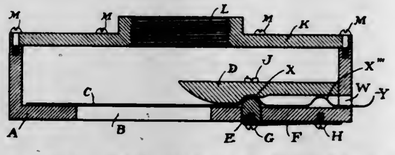
3. A brake shoe comprising a cast metal body and a metal reinforcing tube cast in the body lengthwise of the same and adjacent to the back.

4. A brake shoe comprising a cast metal body and a plurality of metal reinforcing tubes cast in the body side by side, lengthwise of the body and adjacent to the back thereof.

5. A brake shoe comprising a cast metal body and a metal reinforcing tube cast in the body lengthwise of the same and adjacent to the back, the ends of the tube opening through the ends of the shoe.

[Claims 6 and 7 not printed in the Gazette.]

943,996. REED AIR-INTAKE REGULATOR FOR CARBURETERS. FREDERICK C. REINEKING, Jersey City, N. J. Filed Apr. 13, 1909. Serial No. 489,646.



1. In reed air intake regulators for carbureters; in combination, a casing, said casing being pierced by an air intake slot; a removable reed coöperating with said slot, said reed having a flexible bent portion near its fixed end; a stop over the fixed end of said reed, said stop being slotted on its lower face to register with the sides of said reed, and holding said reed in alinement with said air intake slot; a lug on said casing acting in conjunction with said flexible bent portion of said reed for holding said reed in place longitudinally.

2. In reed air intake regulators for carbureters; in combination, a casing, said casing being pierced by an air intake slot; a removable reed coöperating with said slot, said reed having a bent portion near its fixed end; a stop over the fixed end of said reed, said stop being slotted on its lower face to register with the sides of said reed and holding said reed in alinement with said air intake slot; automatic spring means acting in conjunction with said bent portion of the reed for holding said reed in place longitudinally.

943,997. HINGE. TIMOTHY G. RIORDAN, Chicago, Ill. Filed Feb. 6, 1909. Serial No. 476,445.



1. In combination, a wall, a swinging member, a hinge connecting said member to said wall and a clip connected to said wall and extending in the opposite direction from the axis of the hinge from that in which the member of the hinge secured to the wall extends, said clip having a shoulder near its inner end in position to be engaged by and support said swinging member at one end of its swinging movement.

2. In combination, a wall, a swinging member, a hinge connecting said member to said wall, and a clip connected to said wall and extending in the opposite direction from the axis of the hinge from that in which the member of the hinge secured to the wall extends, said clip having a projection near its inner end in position to lie between the two members of the hinge so as to support the said swinging member at one end of its swinging movement and at the same time press laterally on the member of the hinge secured to said wall.

3. In a hinge, a pair of pivotally connected members, a clip lying behind one of said members on one side of the pivotal axis and having a shoulder extending to the opposite side of the hinge in position to engage with both of said members and be clamped between them when they approach to within a predetermined distance of each other in their relative angular movement toward each other.

4. In a hinge, a pair of pivotally connected members, a clip lying behind one of said members and having a projection extending in front of both of said members in position to be clamped between them when they approach to within a predetermined distance of each other in their relative angular movement toward each other.

5. In a hinge, a pair of pivotally-connected members, a clip lying behind one of said members, the other member having an opening therethrough, and said clip having a hook extending through said opening from behind the hinge and surrounding the joint between said members, the end of the hook lying in position to engage with and support the member behind which the clip lies when said members are at the limit of their relative movement.

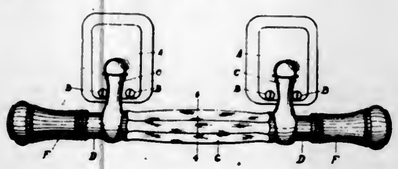
[Claims 6 to 10 not printed in the Gazette.]

943,998. FLEXIBLE AND ELASTIC BAND FOR PNEUMATIC TIRES. PHILIPPE ROUSSILLON, Argenteuil, France. Filed Jan. 14, 1908. Serial No. 410,843.



A flexible and elastic band for pneumatic tires comprising a strip of flexible material having a plurality of elements secured thereto, each element consisting of a core of flexible material, a plurality of fine metallic threads having each a sheath of textile material coated with a solution of india rubber and wound about said core, and a layer of elastic material surrounding said core and threads, said elements extending one next to each other and obliquely with regard to the length of the strip, substantially as described and for the purpose set forth.

943,999. CASKET-HANDLE. EDWARD R. SARGENT, New Haven, Conn., assignor to Sargent & Company, New Haven, Conn., a Corporation of Connecticut. Filed May 25, 1909. Serial No. 498,143.



1. In a handle for caskets or similar articles, the combination with a core; of a superimposed tubular portion formed of a plurality of substantially similar parts adapted to overlap each other on longitudinal lines, substantially as described.

2. In a handle for caskets or similar articles, the combination with the arm of the handle; of a bar consisting of a tubular portion formed of a plurality of substantially similar parts adapted to overlap each other on longitudinal lines; and means for supporting said bar by said arm, substantially as described.

944,000. LADDER. HEINRICH SCHÖNICH and JOHANN LANGER, Vienna, Austria-Hungary. Filed Aug. 1, 1908. Serial No. 446,368.

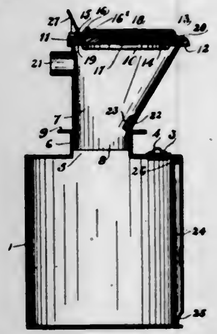
1. In a ladder, the combination with two wooden side-rails, of a hollow metal step having one central and two lateral attachment lugs forming a fork at each end, means for securing the lugs at one end of the step to one side-rail, and means securing the lugs at the other end of the step to the other side-rail, substantially as described.



2. In a ladder, the combination, with two side-rails, of a case-like part of a hinge at the end of one side-rail, a like case-like part of a hinge at the end of the other side-rail, said case-like parts each having a lug provided with a hole, one of said parts having an annular roll around said hole, the other part having a corresponding annular hollow, and a bolt passing through said holes in said case-like parts, substantially as described.

3. In a ladder, a hollow step, substantially as shown, having at each end one central and two lateral lugs, substantially as described.

944,001. CHEMICAL-CLOSET. WALLACE O. SHEAFOR, Winnipeg, Manitoba, Canada. Filed May 29, 1907. Serial No. 376,390.

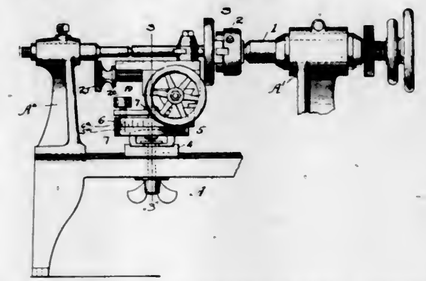


1. In a device of the class described the combination with the lower member of the lid and the cross piece, to which it is hinged, of an intermediate cross strip adapted when the lid is shut to form a close joint between the lower member of the lid and the cross piece, as and for the purpose specified.

2. In a device of the class described the combination with the bowl, the cross piece, and the lower portion of the lid hinged to the cross piece, of a cross strip extending from the rear edge of the lower member of the lid and adapted to close within a groove in the adjoining side of the cross strip when the lid is closed, as and for the purpose specified.

3. In a device of the class described the combination with a bowl of a lid formed from a stationary member and a hinged movable member, both of such members having the portion of the under face adjacent the bowl cut away to receive the bowl and make an air tight joint with the bowl, and a strip carried by the hinged member and adapted to enter the stationary member when the hinged member is closed thereby making an air tight joint between the members, as and for the purpose specified.

944,002. VALVE-DISK-CUTTING MACHINE. FRANK L. SMITH, Chicago, Ill., and THOMAS B. WILLIAMS, Orange, Mass., assignors to The Leavitt Machine Company, Orange, Mass., a Corporation of Massachusetts. Filed Dec. 12, 1908. Serial No. 467,306.



1. In a machine of the character indicated, in combination with a rotatable work holder, a tool carrier; a traveler and means for propelling it along the tool carrier; a tool holder mounted for sliding on the traveler transversely of its travel on the carrier; a spring reacting between the holder and the traveler to retract the holder from the work; a cam on the carrier and an abutment on the holder which is held against the cam by such retracting spring.

2. In a machine of the character indicated, in combination with a rotatable work holder, a tool carrier; a traveler and means for propelling it along the tool carrier; a tool holder mounted for sliding on the traveler transversely of its travel on the carrier; a spring reacting between the holder and the traveler to retract the holder from the work; a cam on the carrier and an abutment on the holder which is held toward the cam by such retracting spring; means for forcing the holder in its slide-way on the traveler in opposition to the spring to carry the abutment out of range of the cam.

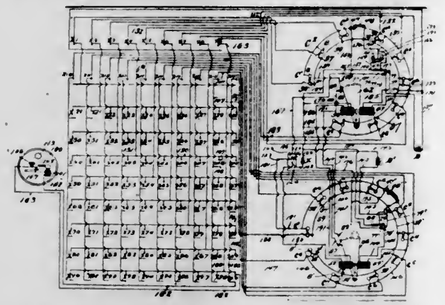
3. In a machine of the character indicated, in combination with a rotatable work holder, a tool carrier; a traveler and means for propelling it along the tool carrier; a tool holder mounted for sliding on the traveler transversely of its travel on the carrier; a spring reacting between the holder and the traveler to retract the holder from the work; a cam on the carrier and an abutment on the holder which is held toward the cam by such retracting spring; a screw engaging the traveler and having a shoulder impinging against the rear of the holder for forcing the holder in its slide-way on the traveler in opposition to the spring to carry the abutment out of range of the cam.

4. In a machine of the character indicated, in combination with a rotatable work holder; a tool holder base mounted for adjustment transversely of the work holder axis; a tool carrier mounted on the base for adjustment angularly with respect to such axis; a traveler and means for propelling it along the tool carrier; a tool holder mounted for sliding on the traveler transversely of its travel on the carrier; means operating on the holder to retract it yieldingly along the traveler from the work, and coöperating means on the carrier and holder for resisting such retraction and forcing the holder in the opposite direction.

5. In a machine of the character indicated, in combination with a rotatable work holder, a tool carrier mounted for angular adjustment with respect to the axis of the work holder; a traveler and means for propelling it along the tool carrier; a tool holder mounted for sliding on the traveler transversely of its travel on the carrier; means operating on the holder to yieldingly retract it along the traveler away from the work, and coöperating devices on the carrier and holder for resisting such retraction and forcing the holder in the opposite direction by the movement of the traveler on the carrier.

[Claims 6 and 7 not printed in the Gazette.]

944,003. ELECTRIC SIGNAL SYSTEM. ALFRED L. SOHM, Los Angeles, Cal. Filed Sept. 24, 1907. Serial No. 394,385.



1. An electric signal system comprising a plurality of signal stations and a signal indicator in circuit therewith, means operable by a signal current from any signal station in the system from which a signal is sent, to open said circuit and simultaneously close a local circuit in the signal indicator and means in said local circuit to indicate the station from which the signal is sent.

2. An electric signal system comprising a plurality of signal stations and a station indicator in circuit therewith, means, operable by a signal current from any signal station in the system from which a signal is sent, to open the circuit between all signal stations in the system and the station indicator and simultaneously close a local circuit in the signal indicator, and electrically operated means in said local circuit to indicate the station from which the signal is sent.

3. An electric signal system comprising a plurality of signal stations and a signal indicator in circuit therewith, means operable by a signal current from any signal station in the system from which a signal is sent, to open the said circuit and simultaneously close a local circuit in the signal indicator, means in said local circuit to indicate the station from which the signal is sent, and means to open said local circuit when the said station is indicated.

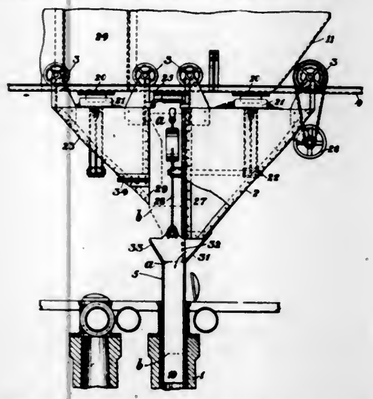
4. An electric signal system comprising a plurality of signal stations and a signal indicator in circuit therewith, means operable by a signal current from any signal station in the system from which a signal is sent, to open the said circuit and simultaneously close a local circuit in the signal indicator, means in said local circuit to indicate the station from which the signal is sent, means to open said local circuit and simultaneously close a second local circuit and shutter operating means in said second local circuit.

5. An electric signal system comprising a plurality of signal stations and a signal indicator in circuit therewith, means operable by a signal current from any signal station in the system from which a signal is sent, to open the said circuit and simultaneously close a local circuit in the signal indicator, means in said local circuit to indicate the station from which the signal is sent, and manually operated means to momentarily close the circuit between each of the signal stations and the signal indicator and to close a local circuit adapted to reset the signal indicator ready for use.

[Claims 6 to 29 not printed in the Gazette.]

944,004. CHARGING OF GAS-RETORTS. HERBERT J. TOOGOOD, Elland, England, assignor to Robert Dempster & Sons, Limited, Elland, England. Filed Apr. 26, 1909. Serial No. 492,294.

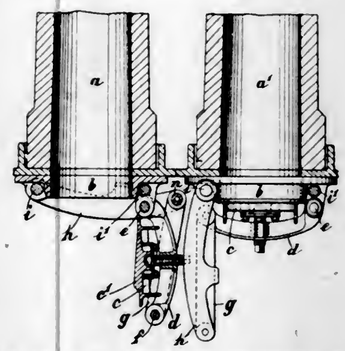
1. Means for charging a gas retort to a predetermined level independent of the capacity of the said retort, such means comprising a hopper, and a chute forming a sliding door on the face of the said hopper, the said chute having a receiving aperture which coincides with the discharging outlet of the said hopper only when the said chute is in its operative position, substantially as described.



2. The combination of a gas retort, a movable chute adapted to enter and to be withdrawn from the said retort the said chute having an open receiving aperture and a traveling hopper having an open discharge outlet which when the said chute is lowered into an operative position, coincides with the said receiving aperture, and which discharging outlet is adapted to be closed by the said chute in its rising movement for purposes described.

3. The combination of a gas retort, a movable chute adapted to enter and to be withdrawn from the said retort, and two hoppers each hopper having an open discharging outlet, the said discharging outlets being at different heights, and the said chute being adapted to communicate when lowered into an operative position with the said discharging outlets in succession and to close both the said outlets when raised to its highest position, for purposes described.

944,005. LID FOR GAS-RETORTS. HERBERT J. TOOGOOD, Elland, England, assignor to Robert Dempster & Sons, Limited, Elland, England. Filed Apr. 27, 1909. Serial No. 492,434.



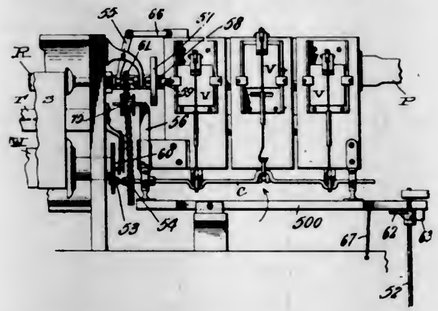
1. In a gas-retort closure, the combination, with a mouthpiece, of a crossbar having one end portion pivoted to one side of the mouthpiece, a toggle-lever having one end portion pivoted to the other side of the mouthpiece from the pivot of the said crossbar, a toggle-arm pivotally connected to the free end portions of the said crossbar and toggle-lever, a lid for closing the mouthpiece, and a clamping device arranged between the said lid and the middle part of the crossbar.

2. In a gas-retort closure, the combination, with a mouthpiece, of a crossbar comprising two pairs of radially-arranged arms, one pair of arms being pivoted to one side of the mouthpiece, a pair of toggle-levers pivoted at one end to the other side of the mouthpiece from the pivot of the crossbar, a pair of toggle-arms pivotally connected to the free end portions of the toggle-levers and the remaining arms of the crosspiece, a lid for closing the mouthpiece, and a clamping device arranged between the said lid and the central part of the crossbar from which its arms radiate.

3. In a gas-retort closure, the combination, with a mouthpiece, of a crossbar having one end portion pivoted to one side of the mouthpiece, a toggle-lever having one end portion pivoted to the other side of the mouthpiece from the pivot of the crossbar, a toggle-arm pivotally connected to the free end portions of the said crossbar and toggle-lever, an operating-lever pivoted concentric with the said toggle-lever, a link pivoted between the free end portion of the operating-lever and the middle part of the said toggle-arm, a lid for closing the mouthpiece, and a clamping device arranged between the said lid and the middle part of the crossbar.

4. In a retort closure, the combination, with a mouthpiece, of a crossbar having one end portion pivoted to one side of the mouthpiece, a toggle-lever having one end portion pivoted to the mouthpiece adjacent to its mouth and on the other side thereof from the pivot of the said crossbar, a toggle-arm pivotally connected to the free end portions of the said crossbar and toggle-lever, and a lid for closing the mouthpiece connected with the middle part of the said crossbar.

944,006. PAPER-WINDING MECHANISM FOR MUSICAL INSTRUMENTS. PETER WELIN, Newcastle, Ind., assignor, by mesne assignments, to Krell Auto-Grand Piano Co. of America, Connersville, Ind., a Corporation of Indiana. Filed May 16, 1905, Serial No. 260,616. Renewed Apr. 26, 1909. Serial No. 492,312.



1. In a paper winding mechanism for musical instruments, the combination of winding rolls, a tracker-board, a motor, and means for moving the motor to change the connections from said motor to wind the paper over the tracker board or to rewind the paper onto the music-spool.

2. In a paper winding mechanism for musical instruments, the combination of winding rolls, a tracker-board, a pivotally mounted motor, and means for tipping or tilting the motor to change its connection with the winding rolls.

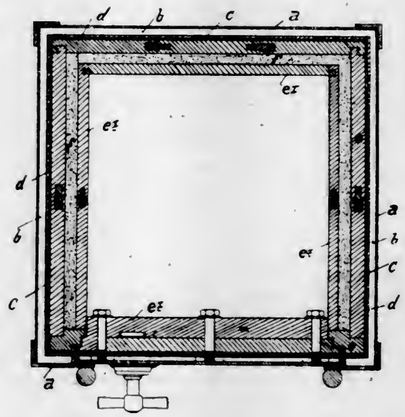
3. In a paper winding mechanism for musical instruments, the combination of the winding rolls, a tracker-board, a pivotally mounted motor, a gear and pinion connection between the crank-shaft of the pivotally mounted motor and the winding rolls, and means for tipping or tilting the motor to disconnect said gear and pinion connection when the paper is to be rewound.

4. In a paper winding mechanism for musical instruments, the combination of winding rolls, a tracker-board, a pivotally mounted motor, a gear and pinion connection between the crank-shaft of the motor and the winding rolls, and a chain and sprocket-wheel connection between said crank-shaft and the normally disconnected clutch upon the shaft of the music-spool, and means for tipping or tilting the motor to disconnect said gear and pinion connection, and to throw the clutch into operation during rewinding.

5. In a paper winding mechanism for musical instruments, the combination of winding rolls, a tracker-board, a pivotally mounted motor, a chain and sprocket connection between the crank-shaft of the motor and a normally disconnected clutch, and means operated by the tilting of the motor to tighten the sprocket chain, and throw the clutch into operation when the paper is to be rewound.

[Claims 6 and 7 not printed in the Gazette.]

944,007. FIREPROOF SAFE. PETER ADOLPHS, Ratingen, near Dusseldorf, Germany. Filed Apr. 29, 1908. Serial No. 430,032.



A fire-proof safe, comprising an outer metallic casing, linings of impregnated wood, impregnated insulating material filling the space between said linings, and a covering of incombustible material outside the outer lining with an air space between the same and the outer casing.

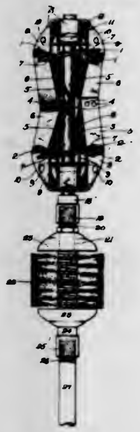
944,008. TUBE-CLEANER. GILBERT C. BEMIS, Lynn, Mass., assignor to Worcester Brush & Scraper Company, Worcester, Mass., a Corporation of Massachusetts. Filed May 26, 1909. Serial No. 498,470.

1. A flue cleaner, having a scraper portion provided with a central longitudinal support and longitudinal scraper members each having transverse end blades and longitudinal divergent connections, all points of all their scraping edges being at the same radial distance from the longitudinal axis, said connections comprising a plurality of sections of different lengths with relation to the same end blade.

2. A flue cleaner, having a scraper portion provided with a central longitudinal support and longitudinal scraper members having transverse end blades and longitudinal divergent connections, all points of all their scraping edges being at the same radial distance from the longitudinal axis, said connections comprising a plurality of sections of different lengths arranged at angles with relation to the same end blade.

3. A flue cleaner, having a scraper portion provided with a central longitudinal support and longitudinal scraper members having transverse end blades, and longitudinal connections secured to the opposite ends of said end blades and joining the same in pairs, said connections extending obliquely to said support.

4. A flue cleaner, having a scraper portion provided with a central longitudinal support and longitudinal scraper members having transverse end blades, and longitudinal connections secured to the opposite ends of said end blades and joining the same in pairs, said connections extending obliquely to said support, each connection being angularly bent intermediate its ends so as to extend at different angles with relation to said support.



5. A flue cleaner, having a scraper portion provided with a central longitudinal support and longitudinal scraper members having transverse end blades, and longitudinal connections secured to the opposite ends of said end blades and joining the same in pairs, said connections extending obliquely to said support, each connection being angularly bent intermediate its ends so as to extend at different angles with relation to said support, said connections being overlapped and immovably secured together adjacent their said intermediate bends.

[Claims 6 to 9 not printed in the Gazette.]

944,009. BUTCHER'S-BLOCK SCRAPER. GILBERT C. BEMIS, Lynn, Mass., assignor to Worcester Brush & Scraper Company, Worcester, Mass., a Corporation of Massachusetts. Filed May 26, 1909. Serial No. 498,471.



1. A block scraper, comprising a series of resilient teeth spaced apart and rigidly held together, holding means therefor, and a removable cover having depending spring-engaging portions for springing into holding engagement with the scraper over the upper ends of said resilient teeth, said cover having outwardly bulging longitudinal portions adjacent the opposite upper corners of the scraper, and the latter having projecting portions adapted to fit snugly into said bulging portions.

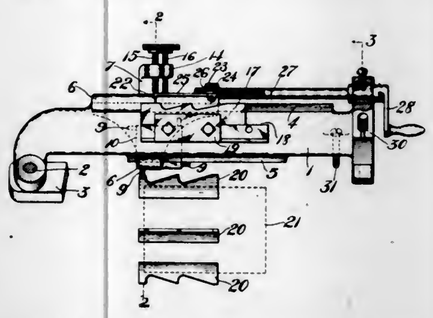
2. A block scraper, composed of a plurality of separate sections braced apart, each section comprising a series of separate teeth integrally united at their base by a plate-like portion of the section, said teeth being thin, freely resilient, extending upwardly about two-thirds the depth of the section, and all the teeth of all the sections terminating in wide transverse scraping ends all lying in one and the same plane.

3. A block scraper, composed of a plurality of separate sections braced apart, and provided lengthwise of the scraper with hand-hold means for being moved longitudinally, each section comprising a series of separate teeth integrally united at their base by a plate-like portion of the section extending transversely of the length of the scraper, said teeth being uniform in thickness lengthwise, long and tapered, larger at the base where they join said plate-like portion, and composed of spring material having their greatest resiliency adjacent their free ends, the latter being square and lying all in one level for simultaneously cutting and scraping a butcher's block to a level surface.

4. A block scraper, having longitudinal hand holds along its opposite sides to be grasped by the hand for pulling and pushing the scraper lengthwise to cut and scrape a butcher's block to a level surface, a series of parallel plate-like sections braced apart and extending transversely of said scraper and hand holds, each section containing similar resilient teeth extending upwardly for the greater part of the height of said section and having square-ended cutting extremities all lying in one and the same horizontal plane, the successive sections having their said square cutting ends arranged in staggered order with relation to each other viewing the scraper lengthwise, whereby when the scraper is pulled or pushed in the direction of its hand holds, the ends of all of said teeth unite in scraping the entire area simultaneously to an even surface.

5. A block scraper, composed of a plurality of separate sections braced apart, each section comprising a series of separate teeth integrally united at their base by a plate-like portion of the section, said teeth being longer than the depth of the plate-like portion, tapered, larger at the base where they join said plate-like portion, uniform in thickness throughout their length, and having wide transverse cutting ends, all lying in one and the same plane, and a removable cover having transverse end-stiffeners 12 spaced apart to prevent relative longitudinal movement of the cover and scraper while permitting the cover to be crowded straight down upon the top of the scraper, said cover having depending spring edges shaped to engage and clamp over the longitudinal sides of the scraper for holding the brush in place.

944,010. TRUING DEVICE FOR TRUING SHAPED CUTTERS IN RUNNING CUTTER-HEADS. CHARLES W. H. BLOOD, Boston, Mass., assignor to S. A. Woods Machine Company, Boston, Mass. Filed Sept. 22, 1909. Serial No. 518,986.



1. In a wood planer, a truing apparatus for truing a shaped cutter having an indented edge, comprising a truing tool, supporting means for said truing tool movable longitudinally of said cutter, and controlling mechanism for guiding the engaging end of said tool in and out transversely of said longitudinal movement in accordance with the required shape to which said cutter is to be trued.

2. In a wood planer, a truing apparatus, comprising a truing tool to engage the indented edge of a shaped cutter, supporting means for said truing tool movable longitudinally of said cutter, and controlling mechanism including a pattern member for giving said tool a transverse movement simultaneously with said longitudinal movement, in accordance with the desired shape of the cutterhead.

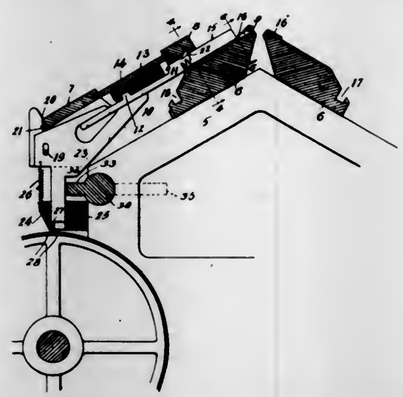
3. In a wood planer, a truing apparatus, comprising a truing tool to engage the indented edge of a shaped cutter, supporting means for said truing tool movable longitudinally of said cutter, and controlling mechanism including a profile plate having an edge corresponding in shape to the desired shape of the cutter, and means movable with said tool for engagement with said shaped edge to correspondingly move the tool as the latter is moved longitudinally of the cutter.

4. In a wood planer, guiding means extending lengthwise of a cutterhead whose cutters are to be trued, a carriage mounted to move on said guiding means, a truing tool carried by said carriage, and means providing said tool with a predetermined movement on said carriage transversely of said guiding means in accordance with the desired shape of the cutters.

5. In a wood planer, guiding means extending lengthwise of a cutterhead whose cutters are to be trued, a carriage mounted to move on said guiding means, a tool carrier transversely movable on said carriage, a truing tool mounted on said carrier, and controlling means for moving said carrier and tool toward and from the cutterhead as the carriage reciprocates longitudinally thereof.

[Claims 6 to 11 not printed in the Gazette.]

944,011. KNITTING-MACHINE. WILSON W. BURSON, Rockford, Ill. Filed Sept. 10, 1908. Serial No. 452,464.



1. In a straight knitting machine, the combination with the needles, the jacks and the pattern cylinder, of controllers normally in contact with the pattern cylinder and into which controllers the jacks enter and by which they are positioned, and means independent of the pattern cylinder for lifting said controllers vertically from the cylinder at each stroke of the yarn guides.

2. In a straight knitting machine, the combination with the needles, the jacks and the pattern cylinder, of controllers normally in contact with the pattern cylinder and into which controllers the jacks enter and by which they are positioned, and means independent of the pattern cylinder for lifting said controllers vertically from the cylinder at each stroke of the yarn guides, the controllers having springs for forcing them to the cylinder.

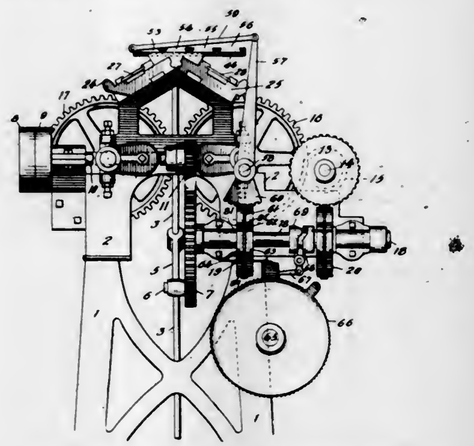
3. The combination with the needles, the jacks, and the pattern cylinder adapted to be engaged by the controllers, of vertically moving controllers receiving the jacks and positioning them, means other than the cylinder for lifting the series of controllers vertically from the cylinder, and individual springs for forcing the controllers to the cylinder.

4. The combination with the needles, the jacks, and the pattern cylinder adapted to be engaged by the controllers, of vertically moving controllers receiving the jacks and positioning them, a rock shaft operated intermittently and independently of the cylinder, and adapted to lift the controllers vertically from the cylinder, and individual springs for forcing the controllers to the cylinder.

5. The combination with the needles, the jacks and a pattern cylinder adapted to be engaged by controllers having a vertical movement and acting to receive the jacks and to position them by such vertical movement, of said controllers, means other than the cylinder for momentarily lifting all of the controllers vertically to free them from the cylinder, and means for retracting them toward the cylinder.

[Claims 6 to 8 not printed in the Gazette.]

944,012. YARN-CHANGING MECHANISM FOR KNITTING-MACHINES. WILSON W. BURSON, Rockford, Ill. Filed Nov. 6, 1908. Serial No. 461,274.



1. The straight knitting machine wherein are combined a plurality of latch opening yarn carriers, a transfer bar having a series of spaces each adapted to admit one of the carriers, and each adapted to be stationed in register with the ways in which the carriers travel, and means for moving said bar transversely in a straight line of said ways, so as to carry one carrier out of and another into action.

2. The straight knitting machine wherein are combined a plurality of latch opening yarn carriers, a transfer bar having a series of spaces each adapted to admit one of the carriers, and each adapted to be stationed in register with the ways in which the carriers travel, and automatic means for moving said bar in a straight line transversely of said ways, so as to carry one carrier out of and another into action.

3. The straight knitting machine wherein are combined a plurality of latch opening yarn carriers, a transfer bar having a series of spaces each adapted to admit one of the carriers, and each adapted to be stationed in register with the ways in which the carriers travel, and also adapted to receive the carriers at the ends of their strokes, and means for moving said bar in a straight line transversely of said ways so as to carry one carrier out of and another into action.

4. The straight knitting machine wherein are combined a plurality of latch opening yarn carriers, the actuating devices of such carriers, a transfer bar having a series of spaces each adapted to admit one of the carriers, and

each adapted to be stationed in register with the ways in which the carriers travel, and means for moving said bar in a straight line transversely of said ways, so as to carry one carrier out of and another into action.

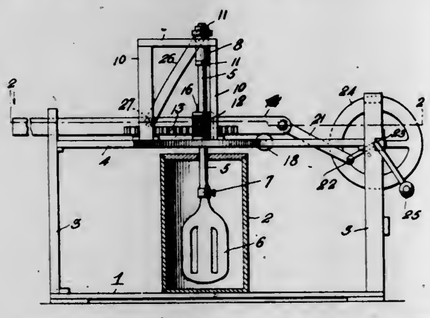
5. The straight knitting machine wherein are combined a plurality of latch opening yarn carriers, the actuating devices of such carriers, a transfer bar having a series of spaces each adapted to admit one of the carriers, and each adapted to be stationed in register with the ways in which the carriers travel, and automatic means for moving said bar in a straight line transversely of said ways, so as to carry one carrier out of and another into action.

[Claims 6 to 11 not printed in the Gazette.]

944,013. PROCESS FOR THE FERMENTATION OF MILK. JOHN P. CABANNE, St. Louis, Mo. Filed July 9, 1909. Serial No. 507,018.

The improved process for the fermentation of milk consisting of the following steps: pasteurizing whole milk; reducing the temperature of the pasteurized whole milk to about 90° F.; the addition to said whole milk at a temperature of 90° F. of the culture of Bulgarian bacillus in the proportion of about one pint of said culture to eight gallons of pasteurized milk; maintaining the temperature of the pasteurized milk containing said culture, at about 90° F., until the production of about one per cent. of lactic acid has resulted; arresting the fermentation of the fermented product by reducing its temperature to between 35° F. and 40° F.; and maintaining the product at said temperature until it is consumed.

944,014. CHURN. THOMAS H. CHAPPELEAR, Lavonia, Ga. Filed May 13, 1909. Serial No. 495,610.



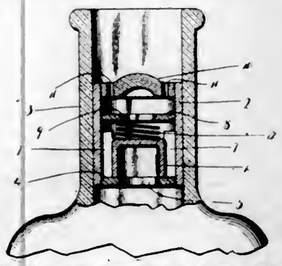
1. The combination of a support, a shaft slidably and rotatably mounted, a pinion rotatably mounted on the support and in which the shaft is longitudinally slidable but non-rotatably arranged, a reciprocatory slide bar disposed at right angles to the shaft and carrying a rack to mesh with said pinion, means for reciprocating said slide bar and a link pivoted to said slide bar and having an operative connection with said shaft, whereby the latter will be reciprocated longitudinally as it is rotated alternately in opposite directions by the rack on said slide bar.

2. The combination of a support, a shaft slidably and rotatably mounted, a pinion rotatably mounted on the support and in which the shaft is longitudinally slidable but non-rotatably arranged, guides, a rack bar slidable in said guides and disposed in a plane at right angles to said shaft, said rack being in mesh with the pinion, whereby the latter and the shaft will be reciprocated alternately in opposite directions by said rack bar, means for reciprocating said rack bar, a sleeve slidably and rotatably mounted and in which the shaft is rotatably mounted, a link pivoted at one end to said rack bar and having a slot and pin connection at its other end with said sleeve and means for guiding said link.

3. A churn comprising a support, a dasher shaft slidably and rotatably mounted, a pinion rotatably mounted on the support and in which the dasher shaft is longitudinally slidable but non-rotatably arranged, a reciprocatory rack in mesh with the pinion, means for operating said rack, a sleeve slidably and rotatably mounted and in which the shaft is rotatably mounted, a link connected at one end to the rack and having a slot and pin connection with said sleeve and means for guiding said link.

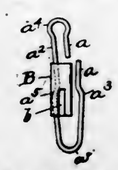
4. A churn comprising a frame having a base, uprights rising therefrom and a horizontal support uniting said uprights, an elevated frame on said support, a slidably and rotatably mounted sleeve in said elevated frame, a vertical dasher shaft rotatably but non-slidably mounted in said sleeve, a rotatable pinion in which the shaft is slidably but non-rotatably arranged, a reciprocatory bar, means for supporting and guiding said bar, a rack upon said bar to coact with said pinion, a crank shaft, a pitman connecting the crank of said shaft to said bar, means for rotating the crank shaft, a link pivotally connected at its lower end to said bar and mounted for sliding and swinging movement in said elevated frame, the upper end of said link having a slot and pin connection with said sleeve, a churn body upon the base and a dasher in said body and fixed to said dasher shaft.

944,015. NON-REFILLABLE BOTTLE. THOMAS G. CLIFFORD, New York, N. Y., assignor of two-thirds to William Cranstoun, Stratford, Conn., and Garrett F. Rose, New York, N. Y. Filed June 21, 1909. Serial No. 503,300.



A non-refillable bottle comprising a sleeve adapted to be fitted within the neck of a bottle, a valve seat secured to the lower end of said sleeve and formed with a central opening, a top plate secured to the outer end of said sleeve, bowed in transverse section and formed near its periphery with an annular series of perforations, a partition between the valve seat and top plate, said partition formed with a central opening, an inverted cup-shaped valve located between the valve seat and partition and adapted to rest upon the seat around said opening to close the same, said valve formed with a series of rigidly extending wings which bear against the inner walls of the sleeve and project above the top of the valve to limit the upward movement of said valve.

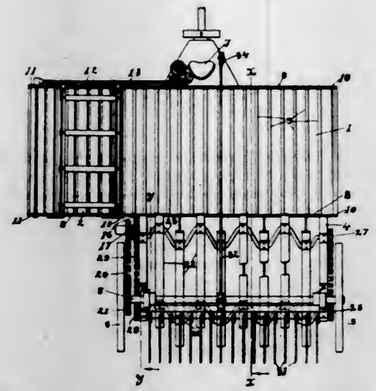
944,016. DETACHABLE LINK. JOHN B. COCHRAN, Cleveland, Ohio. Filed Nov. 18, 1908. Serial No. 463,157.



1. A detachable link comprising a single piece of wire bent to form an elongated link having one side parted to form two flexible tongues and having widened out loops at both ends, combined with a sleeve-like lock embracing and slidably mounted upon the unparted side of the link, and having in its side a slot through which the lower tongue may be introduced into the embrace of said sleeve,—the width of said sleeve being less than the width of the two loops at the ends of the link whereby the removal of the locking sleeve from the link is not possible.

2. A detachable link comprising a single piece of wire bent to form an elongated link having one side parted to form two flexible tongues and having widened out loops at both ends, combined with a sleeve like lock embracing and slidably mounted upon the unparted side of the link, and having in its side a slot through which the lower tongue may be introduced into the embrace of said sleeve,—the width of said sleeve being less than the width of the two loops at the ends of the link whereby the removal of the locking sleeve from the link is not possible, and the lower spring tongue having a shoulder in position to engage with the lower end of said sleeve when the same is embracing both spring tongues.

944,017. HAY-LOADER. FRANCIS W. COMPTON, Lamport, Colo. Filed Mar. 16, 1908. Serial No. 421,378.



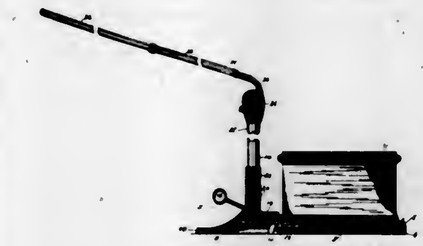
In a hay loader, a frame comprising a horizontal plate forming a platform, a second plate connected to the rear edge thereof and inclined downwardly and rearwardly therefrom and a third plate hingedly connected to one side of said horizontal plate and extending upwardly and outwardly therefrom, in combination with a single endless conveyer arranged on said horizontal plate portion and said third plate portion and means for gathering the hay, moving the same upwardly on said second plate portion and depositing it upon said conveyer, substantially as described.

944,018. HORN-CRANE. JOHN H. B. CONGER, Newark, N. J., assignor to The Tea Tray Company of Newark, N. J., a Corporation of New Jersey. Filed May 28, 1906. Serial No. 319,040.

1. In a horn crane, the combination of a base-piece having a stepped recess in its bottom, a strap secured in the lower part of said recess and adapted to extend under a talking-machine cabinet, a clamping member having a foot slidable in the upper part of the recess of the base-piece and a head adapted to engage the cabinet, a screw working through said base-piece into engagement with said clamping member, and horn supporting means.

2. In a horn crane, the combination of a base-piece having a recessed bottom, a strap adapted to project from said base-piece under the cabinet of a talking-machine, a clamping member having a foot slidable in said recess of the base-piece and a head adapted to engage the cabinet, a screw working through said base-piece into engagement with said clamping member, and horn supporting means.

3. In a horn crane, a strap adapted to extend under a talking machine, a base-piece having a recessed bottom and side, a clamping member slidably mounted in said recess of the base piece and adapted to engage the talking-machine cabinet, an adjusting screw in the said base-piece adapted to engage the clamping-member, and horn-supporting means.

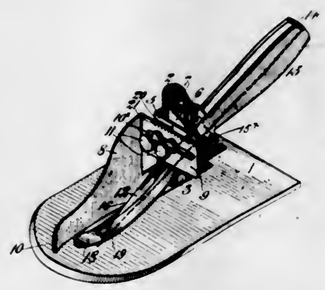


4. In a horn crane, a strap adapted to extend under a talking machine, a base-piece having a recess at its side adapted to face the talking-machine cabinet, a clamping member having a head adapted to lie in said recess, an adjusting screw in the said base-piece adapted to engage the clamping-member, and horn-supporting means.

5. In a horn crane, the combination of a strap adapted to engage at one end a talking machine, a base-piece at the other end of said strap having a hollow upper end providing a vertical socket, a horn-supporting post in said socket, a clamping member slidably held between said strap and base-piece, and an adjusting screw mounted in the base-piece below its said socket and adapted to engage said clamping member.

[Claims 6 to 11 not printed in the Gazette.]

944,019. STRIPPER OR CUTTER FOR EMBROIDERY, TUCKING, AND SIMILAR MATERIAL. LOUIS T. CONROW, Philadelphia, Pa. Filed Feb. 13, 1909. Serial No. 477,571.



1. In a device of the character stated, a plate having a longitudinally disposed opening therein, a standard rising from the plate, a vertically disposed guide having a lateral portion adjustably secured to said standard, a presser foot supported from said standard and a relatively fixed knife supported from said standard and coöperating with said presser foot and the opening in the plate.

2. In a device of the character stated, a plate having a longitudinally disposed opening therein, a standard rising from the plate, a vertically disposed guide having a lateral portion adjustably secured to said standard, a presser foot supported from said standard and a relatively fixed knife supported from said standard and coöperating with said presser foot and the opening in the plate and extending through an opening in the presser foot, said knife being supported in an inclined position.

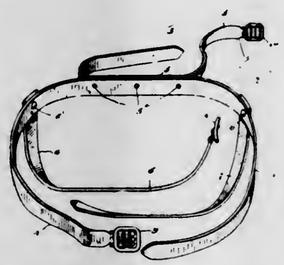
3. In a device of the character described, a plate having an opening therein, a guide having a vertical portion with a curved end, a presser foot having an upwardly curved end portion, means for supporting the same from said plate, and an inclined relatively fixed knife having its end projecting into the opening of said plate and extended beneath the presser foot, said presser foot having a slot through which the knife extends.

4. In a device of the character described, a plate having an opening therein, a guide having a vertical portion with a curved end, a presser foot having an upwardly curved end portion, means for supporting the same from said plate, and an inclined relatively fixed knife having its end projecting into the opening of said plate and extended beneath the presser foot, said presser foot having a slot through which the knife extends, means for adjusting said guide, and means for adjusting the knife.

5. In a device of the character described, a plate, a standard rising therefrom, a knife adjustably supported upon said standard in an inclined position, a presser foot connected with said standard and beneath which said knife passes, and a guide supported upon said standard substantially parallel with the presser foot and having a curved point and adjustably mounted with relation to the knife and presser-foot.

[Claims 6 to 8 not printed in the Gazette.]

944,020. CHILD'S-CHAIR SAFETY DEVICE. BESSIE W. DE CAMP, Chicago, Ill. Filed Mar. 15, 1909. Serial No. 483,384.

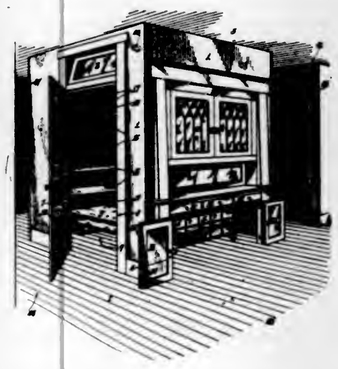


In a device of the class described, the combination of a child's high chair, a central back panel having recesses in its edges at about the height of a child's waist, a buckle strap adapted to embrace said back panel and engage said recesses, a waist buckle strap riveted at its rear central portion to said buckle strap, and side straps secured to said waist strap and extending downwardly therefrom and under the chair seat, one of said straps being provided with a buckle to receive the end of the other, substantially as and for the purposes set forth.

944,021. LIVING-APARTMENT. JAMES H. EDMONDS, Los Angeles, Cal. Filed Mar. 24, 1909. Serial No. 485,538.

1. In a living apartment, a built-in casing having a bed receiving chamber with an opening at one side thereof adjacent the floor of the apartment, adapted to permit the movement of a bed horizontally into and out of said receiving chamber, said casing being provided at another portion thereof with means for access into the said chamber within the interior of the casing, said means extending from the level of the floor of said apartment upward and affording access to the bed when in said bed receiving chamber and to the space within said chamber above said bed, said chamber within said built-in casing being free and unobstructed from floor to ceiling.

2. In a living apartment, a casing having a floor provided with a ventilating opening and having ventilating means at the upper portion of the casing, a movable closure for said opening, said casing having a bed receiving space adjacent said floor, in combination with a bed removably inserted in said bed receiving space and provided with means engaging the said closure of the opening in the floor to open the said opening when the bed is inserted within the casing and to close the said opening when the bed is removed from the casing.



3. In a living apartment, a casing having a floor provided with a ventilating opening, a movable closure for said opening, said casing having a bed receiving space adjacent said floor, in combination with a bed removably inserted in said bed receiving space and provided with means engaging the said closure of the opening in the floor to open the said opening when the bed is inserted within the casing and to close the said opening when the bed is removed from the space.

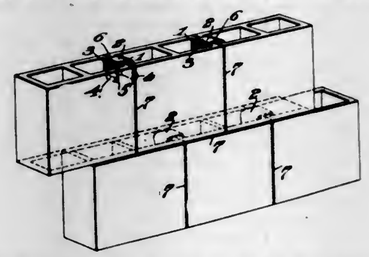
4. In a living apartment having a single common floor, a built-in casing forming a central chamber within said apartment and dividing said apartment into two spaces, said casing provided at one side of the floor level with an opening for the movement of a horizontal bed into and out of said central apartment, and provided with an opening extending upward from substantially the floor level into said central chamber from the room or space formed at another side of said casing, said second opening affording access both to the bed when in said central chamber and to the space of said central chamber above said bed, and removable means for closing said first opening.

5. In a living apartment, the combination of a casing extending from the floor to the ceiling to form a closet, an opening through a partition wall at the lower front end of said casing and adjacent the floor thereof, a horizontal bed removably inserted in said closet through said opening, a guide secured upon the floor within said casing, downwardly extending guide means attached to and carried by the bed, and arranged to engage with and move along said guide, whereby the bed is guided into and out of said closet, and a secondary opening through another portion of the casing extending from the floor of said closet upward, affording a passage way to admit the entrance of a person into the closet or access to the bed when in said closet, the said closet provided with a single unitary chamber free and unobstructed from floor to ceiling.

944,022. BUILDING-CLIP FOR TILES. ANDREW J. EKEN, San Francisco, Cal., assignor of one-half to Wilbur S. Sample, San Francisco, Cal. Filed Apr. 30, 1909. Serial No. 493,143.

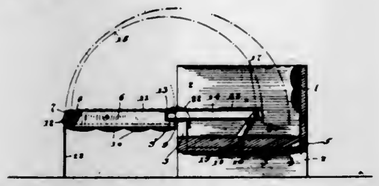
1. As a new article of manufacture, a clip for hollow tiles consisting of a body portion having side wings spaced apart to receive the walls of two adjacent tiles and spring means integral with each side wing to form a jaw adapted to grip the wall of a tile.

2. As a new article of manufacture, a clip for hollow tiles consisting of a body portion having integral converging side wings spaced apart to receive the walls of



two adjacent tiles, and a gripping jaw on each side wing formed by turning back the end of each side wing to a point adjacent the surface of each wing.

944,023. DAVENPORT. FRED E. FERGUSON and CHARLES A. KNOCHE, Naperville, Ill. Filed May 3, 1909. Serial No. 493,687.



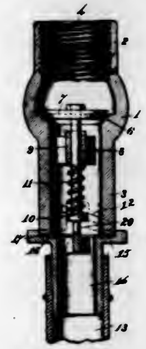
1. In a device of the class described, a back and a front member connected by end portions provided in the device, a bottom member, supporting ledges on said end pieces above said bottom, a seat frame hinged to said front member and provided with folding supporting legs, an inner bed frame hinged to said seat frame and adapted to rest upon said supporting ledges when in collapsed position, and means for supporting said inner bed frame when in distended position, substantially as described.

2. In a device of the class described, a back and a front member connected by end portions, provided in the device, a seat frame hinged to said front member and provided with folding supporting legs, an inner bed frame hinged to said seat frame, supporting pins in said end portions, swinging outwardly inclined bifurcated arms pivoted to said inner bed frame and means for positioning said arms to engage said pins, upon the collapsing movement of said frame, substantially as described.

3. In a device of the class described, a back and a front member connected by end portions provided in the device, a bottom member, supporting members on said end pieces above said bottom, a seat frame hinged to said front member and provided with folding supporting legs, an inner bed frame hinged to said seat frame and adapted to rest upon said supporting members when in collapsed position, supporting pins in said end portions, swinging outwardly inclined bifurcated arms pivoted to said bed frame, and means for positioning said arms to engage said pins upon the collapsing movement of said frame, substantially as described.

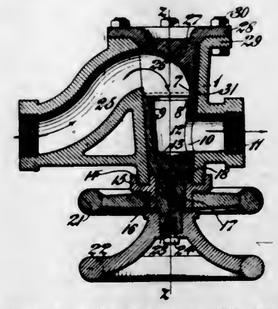
4. In a device of the class described, a back and a front member rigidly connected together by means of rectangular end portions, reinforcing inwardly projecting portions in said end portions having a bottom secured thereto for receiving bed clothing, a seat frame comprising a longitudinal member and end portions secured thereto, reduced portions in said last named end portions hinged to said front member, a rectangular member hinged to said last named portions adjacent said reduced portions thereof, said rectangular member being adapted to fold over said front frame to provide access to said clothing, and obliquely disposed arms having bifurcated ends pivoted to said rectangular frame and adapted to support the same by engaging pins provided in said reinforced portions, substantially as described.

944,024. AIR-VALVE. HUGH A. FITZPATRICK, Chicago, Ill. Filed May 27, 1907. Serial No. 375,802.



In a device of the class described, a spherical valve casing having a valve seat formed in the walls thereof, and provided with cylindrical extensions arranged upon opposite sides and in axial alinement, one of said portions being internally threaded and the other extension being elongated and provided near its end with a pair of segmental cam-flanges upon its outer face, a valve stem arranged within the last said portion and having a valve at one end to engage said valve seat and a collar upon the opposite end, a bearing for said stem formed in said extension, a spring interposed between said bearing and said collar, and a hose coupling comprising a disk portion and a cylindrical portion adapted to receive the hose, said disk portion having a shallow recess to receive the end of the elongated extension, a washer in said recess, a pair of lugs extending upwardly a considerable distance from said disk forming guides for said extension and having grooves near the outer ends to receive said cam-flanges, said lugs below said grooves fitting snugly against the sides of said elongated extension and a pin fixedly arranged within the cylindrical portion of the hose coupling and extending above said disk portion to engage the end of the valve stem as the device is coupled, substantially as described.

944,025. BLOW-OFF VALVE OR COCK. WILLIAM T. FOWDEN, Chester, Pa. Filed Mar. 26, 1909. Serial No. 485,959.



1. In a valve, a casing having an inlet and an outlet and provided with a conical seat therebetween, a hollow valve having an open end and a conical seat co-acting with

the conical seat of the casing and provided with an outlet through its side adapted to register with the casing outlet, a lifting nut for seating and unseating said valve, actuating means for said nut, and means for rotating said valve.

2. In a valve, a casing having an inlet and an outlet and provided with a conical seat therebetween, a hollow valve open at one end and having a conical seat co-acting with the conical seat of the casing and provided with an outlet registering with the casing outlet and having a curved bottom in alinement with the valve outlet, a lifting nut co-acting with said valve to seat and unseat the same, actuating means for said nut, and means for rotating said valve.

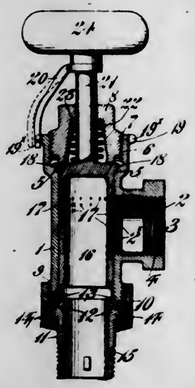
3. In a valve, a casing having an inlet and an outlet and provided with a conical seat therebetween, a hollow valve having a conical seat co-acting with the conical seat of the casing and provided with an outlet registering with the casing outlet, a lifting nut co-acting with said valve to unseat the same, actuating means for said nut, said valve having its upper end beveled, a coupling secured to said casing and having its inner end beveled, and actuating means for said valve.

4. In a valve, a casing having an internal conical seat and an outlet at an angle to said seat, a conical shaped hollow valve within said casing open at one end and having an outlet registering with the casing outlet, a lifting nut movably carried by said casing and co-acting with said valve to seat and unseat the latter, actuating means for said nut, and means for rotating said valve.

5. In a valve, a casing having a conical seat and an outlet extending at an angle to said seat, a hollow valve within said casing open at one end and having an outlet through one side thereof registering with the casing outlet, a lifting nut having threaded engagement with said casing and provided with an extension adapted to engage said valve and on which the valve has a bearing, actuating means for said nut, and means for rotating said valve.

[Claims 6 to 14 not printed in the Gazette.]

944,026. VALVE. WILLIAM T. FOWDEN, Chester, Pa. Filed Apr. 22, 1909. Serial No. 491,481.



1. In a valve, a casing having an inlet and an outlet, a partition in said inlet having a plurality of ports therein, a valve mounted within said casing and having a plurality of ports adapted to co-act with the ports in said partition, said valve having a ground joint connection with said casing, a cap secured to said casing and adapted to adjustably engage said valve, an actuating handle for said valve, and means for locking said valve in adjusted position.

2. In a valve, a casing having an inlet and an outlet, said inlet being provided with a plurality of ports therethrough, a cup-shaped valve mounted within said casing and having ports in the side thereof adapted to co-act with said inlet ports, a portion of said valve having a ground joint connection with the casing, a valve stem for said valve, a closure through which said stem extends, adjustably carried by the casing and engaging said valve, and a spring intermediate said closure and said valve.

3. In a valve, a casing having an inlet and an outlet, said inlet being provided with a plurality of ports therethrough, a cup-shaped valve mounted within said casing and having ports in the side thereof adapted to co-act with said inlet ports, a portion of said valve having a ground joint connection with the casing, a valve stem for said valve, a closure through which said stem extends, adjustably carried by the casing and engaging said valve, a spring intermediate said closure and said valve, an arm carried by said stem, and means on said casing co-acting with said arm to indicate the position of the valve.

4. In a valve, a casing having an inlet and an outlet, a partition in said inlet having vertically arranged ports therein, a cup-shaped valve sleeve rotatably mounted in said casing and having a series of ports therein adapted to co-act with said partition ports, the upper portion of said valve sleeve having seats co-acting with the casing, a closure having threaded engagement with the casing adapted to engage the upper portion of said valve sleeve, a valve stem for the valve passing through said closure, and a spring surrounding said stem and located intermediate said closure and valve.

5. In a valve, a casing having an inlet and an outlet, a partition in said inlet having a plurality of ports therein, a cup-shaped valve sleeve rotatably mounted in said casing and having a series of rows of ports adapted to co-act with the partition ports, the upper portion of said valve sleeve having seats co-acting with the casing, a closure having threaded engagement with the casing adapted to engage the upper portion of said valve sleeve, a valve stem for the valve passing through said closure, and a spring surrounding said stem and located intermediate said closure and valve.

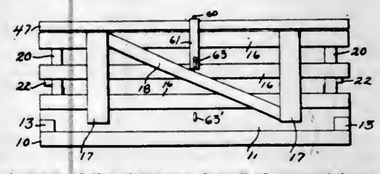
944,027. PRESERVATION OF BIVALVES. ALBERT A. FREEMAN, Atlantic City, N. J. Filed Mar. 13, 1909. Serial No. 483,121.



1. A method of preserving a bivalve consisting in holding the shell thereof in closed condition, and retaining the liquor-life therein by incasing the shell only at the hinge end thereof with a mass of hard-setting material and leaving the bill of the shell uncovered and the breathing-opening thereat unobstructed.

2. A bivalve having only on the hinge end of the shell thereof hard-setting material tightly incasing said end, keeping the shell from opening and preserving the liquor-life of the oyster therein, and leaving the bill of the shell uncovered and the breathing-opening thereat unobstructed.

944,028. FOLDING CRATE. ELMER GARVEN and NEUTE OSBORN, Coulterville, Ill. Filed May 5, 1909. Serial No. 494,073.



1. A crate of the character described, comprising a bottom, a front and a rear batten secured near the edges of said bottom, two end battens held between said front and rear battens said end battens being of a height less than said front and rear battens, two end crate sections having their lower ends hinged to said bottom and held against said end batten, a front crate section hinged at its lower edge upon the side to the upper edge of said front batten, two transverse stay bars secured to the front batten upon the inside and arranged to have their lower ends stopped against the outer faces of said front batten, a rear crate section hinged at its lower edge upon the inside to the upper edge of said rear batten, stay bars secured transversely to the outside of said rear crate section, runners secured to said rear stay bars, a lid, and two ear plates carried by said lid, the ears of said plate being slidably held within said runners.

2. A crate of the character described, having in combination a base provided with skirting edged battens, a front crate section provided with two stay bars having their ends projecting beyond the front crate section and resting against the face of said base batten, two similar end crate sections, said end sections having two end bars which at their lower end are held against the inner faces of the end batten of said base, hinges to secure said end bars to the base of said crate, a rear crate section, slotted stay bars secured to the outside of said rear crate section and extending below the lower end thereof, hinges to secure said crate section to the upper edge of the batten of said base, slotted plates held to each slotted stay bar, a lid, and two ear plates secured to said lid, each plate having an ear slidably held within the slot of said stay bars and below said slotted plate, as and for the purpose set forth.

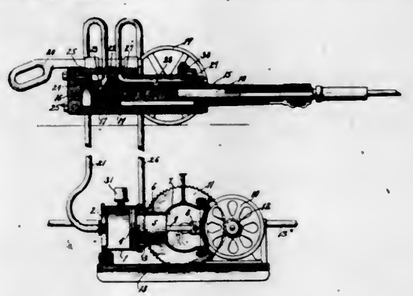
3. A crate having in combination, a base, a front and a rear batten secured to said base, two end battens secured to said base, said end battens being of a height less than said front and rear battens, a front crate section, hinges to secure said front crate section at its lower end to the upper edge of said front batten, stay bars secured to said front crate section and arranged to lie against the outer face of said front batten, two similar end crate sections, end bars secured to said end sections, said end bars having their lower ends held adjacent to the inner faces of said end base battens, hinges to secure said end bars to said base, a rear crate section, two slotted stay bars secured to said rear crate section the lower end of said slotted stay bars projecting below the lower end of said rear crate section and being held adjacent to the outer faces of said rear base batten, slotted plates secured to each slotted stay bar each having its end bent over the ends of said slotted stay bars, said rear crate section provided along its upper edge with recesses, a lid having two end cleats, ear plates secured to said lid, a stem extending from each ear plate, and ear bars secured to each stem, said ear bars being arranged to be held within the slots of said stay bars and below said slotted plates, and means to lock said lid to said front crate section, said instrumentalities being so arranged that when said lid is folded, said lid and cleat will be held within said recesses, said end bars being held against said end cleats, all arranged substantially as and for the purpose set forth.

944,029. COAL-MINING MACHINE. ARTHUR H. GIBSON, Easton, Pa., assignor to The Ingersoll-Sergeant Drill Company, New York, N. Y., a Corporation of West Virginia. Filed July 28, 1905. Serial No. 271,603.

1. In combination with the cylinder of a coal mining machine and its piston, said cylinder having a main front port spaced a considerable distance from the front end of the cylinder, a main back port spaced a short distance from the rear end of the cylinder and an auxiliary front port adjacent to the front end of the cylinder, of a check valve between the auxiliary front port and the main front port, air tubes connected to the main front and back ports and an air pressor for reciprocating columns of air in the said tubes.

2. In combination with the cylinder of a coal mining machine and its piston, said cylinder having a main front port spaced a considerable distance from the front end of the cylinder, a main back port spaced a short distance from the rear end of the cylinder and an auxiliary back port located adjacent to the back end of the cylinder, of a check valve interposed between the said auxiliary back port and the main back port, air tubes connected to the main front and back ports and an air pressor for reciprocating columns of air in the said tubes.

3. In combination with the cylinder of a coal mining machine and its piston, said cylinder having a main front port spaced a considerable distance from the front end of the cylinder, a main back port spaced a short distance from the rear end of the cylinder and an auxiliary front port adjacent to the front end of the cylinder of a check valve between the auxiliary front port and the main front port, said cylinder also having an auxiliary back port located adjacent to the back end of the cylinder, a check valve between said auxiliary back port and the main back port, air tubes connected to the main front and back ports and an air pressor for reciprocating columns of air in the said tubes.

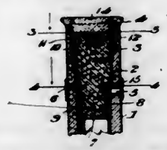


4. A pressor cylinder and its piston, a coal mining machine cylinder and its piston, air tubes connecting the two cylinders, the mining machine cylinder having passages leading from the said tubes, and having front and back ports opening from said passages into the piston chamber at predetermined distances from the ends of the cylinder, said mining machine cylinder also having an auxiliary front port communicating with the front passage and a check valve interposed between said auxiliary front port and the main front port, the said front and back ports being arranged to be opened and closed by the movement of the piston.

5. A pressor cylinder and its piston, a coal mining machine cylinder and its piston, air tubes connecting the two cylinders, the mining machine cylinder having passages leading from the said air tubes, and having front and back ports opening from said passages into the piston chamber at predetermined distances from the ends of the cylinder, said mining machine cylinder also having an auxiliary back port opening into the piston chamber at the rear end thereof and communicating with the back passage and a check valve interposed between the auxiliary back port and the main back port, the said ports being arranged to be opened and closed during the reciprocating movement of the piston.

[Claim 6 not printed in the Gazette.]

944,030. NON-REFILLABLE BOTTLE AND BOTTLE-VALVE. MARSHEL F. GIFFIN, Cove, Oreg. Filed Sept. 8, 1909. Serial No. 516,752.
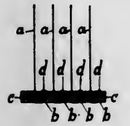


1. In a non-refillable bottle or the like, the combination with the bottle mouth provided with dispensing and air openings therein, of a movable valve in said mouth which is provided with ports adapted to be made to communicate with the openings aforesaid, and means for permanently retaining said valve in said bottle mouth comprising means on the bottle mouth and a collar in the bottle mouth engaged with said means.

2. In a non-refillable bottle or the like, the combination with the bottle mouth provided with dispensing and air openings therein, of a movable valve in said mouth which is provided with ports adapted to be made to communicate with the openings aforesaid, and means for permanently retaining said valve in said bottle mouth comprising a shoulder in the bottle mouth and a collar in the mouth which is expanded into engagement with the shoulder.

3. In a non-refillable bottle or the like, and valve, the combination with the bottle mouth having dispensing and air openings, of a rotatable valve in said mouth which is provided with ports adapted to be brought into communication with the openings aforesaid, said mouth being provided with an annular shoulder, and an annular collar within the mouth which is expanded under said shoulder and serves to retain the valve in the mouth without interfering with the rotation thereof.

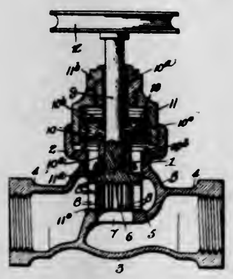
4. In a non-refillable bottle or the like, the combination with the bottle mouth provided with dispensing and air openings therein, of a movable valve in said mouth which is provided with ports adapted to be made to communicate with the openings aforesaid, means for permanently retaining said valve in said bottle mouth, and sealing material in the mouth above the valve.

944,031. CARD-CLOTHING. JOSEF J. GILLET, Aix-la-Chapelle, Germany. Filed Feb. 24, 1909. Serial No. 479,739.



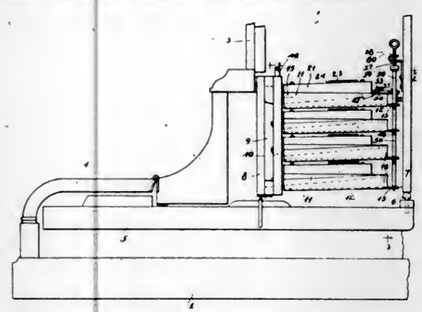
A card clothing comprising teeth each standing independently from the others, being bent in U shape at the end to be secured, having a limb (*b*) standing in the cloth parallel to the main limb *a* and a bend (*d*) lying on the surface of the cloth and at right angles to the limbs *a* and *b*, substantially as described.

944,032. CIRCULATING-PUMP. EDUARD GUENTHER, West New York, N. J. Filed Jan. 6, 1909. Serial No. 470,055.



In a circulating pump of the character described, the combination of a liquid supply pipe having a tubular extension, and an apertured dividing web adjacent the said extension, a centrifugal member rotatively mounted within said web, to draw liquid from one side thereof, and deliver it upon the opposite side, and having a projecting stem extending through said pipe extension, a bonnet closing the outer end of said extension and forming a bearing for said stem, opposing plates within said bonnet having tubular portions through which said stem extends, packing disposed between said plates, and springs within said bonnet for forcing said plates toward one another, substantially as described.

944,033. PNEUMATICALLY-OPERATED PIANO. AXEL G. GULBRANSEN, Chicago, Ill., assignor to Gulbransen & Dickinson Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 20, 1909. Serial No. 484,633.



1. In a pneumatically operated piano, the combination with the abstract rods of the piano, of a plurality of pneumatic actuating units arranged in rows in front of the abstract rods, a plurality of supporting frames secured one to each abstract rod and all arranged in a row above the top row of units, adjustable abutment members carried by the frames, means providing clamping engagement between the frames and abutment members carried thereby, and connecting members extending from the units and engaging the abutment members.

2. In a pneumatically operated piano, the combination with the piano abstract rods, of a plurality of pneumatic actuating units arranged in rows in front of the abstract rods, a supporting frame secured to each abstract rod and having a forwardly extending U part, a screw threading through both limbs of the U part, said limbs being sprung when the screw is first threaded therethrough to thereby exert clamping action on said screw, an abutment carried by each screw, said frames with the abutments being arranged in a row above the top row of units, and a pitman rod extending from each unit and engaging with one of said abutments.

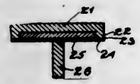
3. In a pneumatically operated piano, the combination with the piano abstract rods, of a plurality of pneumatic actuating units arranged in rows in front of the abstract rods, a supporting frame secured to each abstract rod and having a forwardly extending U part, a screw threading through both limbs of the U part, said limbs being sprung when the screw is first threaded therethrough to thereby exert clamping action on said screw, an abutment carried by each screw, said frames with the abutments being arranged in a row above the top row of units, each abutment connecting with one of said units whereby actuation of the unit will result in actuation of the abstract rod from which the abutment is supported.

4. In a pneumatically operated piano, the combination with an abstract rod of the piano, of a pneumatic actuating unit having a vertically movable actuating member disposed adjacent the abstract rod, a U supporting frame of spring material secured to the abstract rod adjacent the movable member, a screw threading through both limbs of the U frame, said limbs being sprung when the screw is primarily threaded therethrough to thereby exert clamping action on said screw to rigidly hold it in adjusted position, and an abutment carried by the screw and having connection with the vertically movable member of the unit.

5. In a pneumatically operated piano, the combination with an abstract rod of the piano, of a pneumatic actuating unit having an actuating member disposed adjacent said abstract rod, a U frame of spring material having one limb secured to the abstract rod, an adjusting screw threading through both limbs of the U frame and clampingly held by the spring action thereof, and an abutment piece carried by the screw and having connection with the actuating member of the unit.

[Claims 6 to 9 not printed in the Gazette.]

944,034. PNEUMATIC ACTUATING UNIT. AXEL G. GULBRANSEN, Chicago, Ill., assignor to Gulbransen & Dickinson Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 20, 1909. Serial No. 484,634.



1. In a pneumatic actuating device of the class described, the combination with a valve having an opening and a diaphragm secured over said opening, of a seat for engaging said diaphragm within the edge of said opening.

2. In a pneumatic actuating device of the class described, the combination of a frame forming a valve chamber, a valve in said chamber having a cavity and a diaphragm secured over said cavity, a diaphragm chamber below the valve chamber, a diaphragm in said chamber, a valve stem having connection at one end with the diaphragm in said diaphragm chamber and at its other end being connected with the valve diaphragm, and a passageway controlled by said valve.

3. In a pneumatic actuating device of the class described, the combination with a valve comprising a disk having a cavity, cushioning material filling the cavity, and a diaphragm closing the cavity, of a frame forming a valve chamber for said valve, a stem secured to the diaphragm and extending therefrom, actuating mechanism for said valve connected with said stem, and a passageway controlled by said valve.

4. In a pneumatic actuating device of the class described, the combination with a valve comprising a disk having a cavity, cushioning material in said cavity, and a diaphragm covering the cavity and secured to the disk, of a stem secured at one end to the diaphragm, actuating mechanism having flexible connection with the other end of said stem, and a passageway controlled by said valve.

5. In a pneumatic actuating device of the class described, the combination of a disk having a rim forming a cavity with said disk, an air tight diaphragm secured to the rim over the cavity, a reinforcing diaphragm also secured to the rim on top of the first mentioned diaphragm, said disk and diaphragms constituting a valve structure, a seat for said valve structure, a stem secured at one end to the reinforcing diaphragm, and actuating mechanism having flexible connection with the other end of said stem.

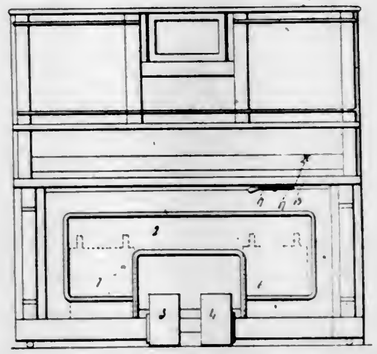
[Claims 6 to 13 not printed in the Gazette.]

944,035. STEAM-ENGINE. ELMER J. HAMILTON, Indiana Harbor, Ind. Filed July 14, 1909. Serial No. 507,619.



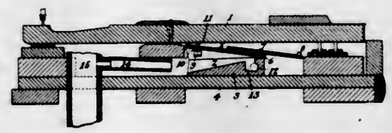
In a steam engine, the combination of a base; a cylinder mounted to reciprocate on straight horizontal guides on said base; a piston mounted to reciprocate in said cylinder; a crank shaft; an operative connection between said cylinder and said piston and said crank shaft; stationary and substantially horizontal supply and exhaust pipes located above said cylinder; horizontally disposed connecting pipes swiveled to said supply and exhaust pipes at substantially right angles thereto; vertically disposed connecting pipes swiveled to said first mentioned connecting pipes and adapted to swing in vertical planes at right angles thereto; and swiveled connections between the lower ends of said vertically disposed pipes and the supply and exhaust connections of said cylinder, substantially as described.

944,036. PIANO-CASE. CHARLES H. HUBBELL, Derby, Conn., assignor to The Sterling Co., Derby, Conn., a Corporation. Filed May 13, 1909. Serial No. 495,792.



A piano case comprising a lower front formed with a treadle opening, a longitudinal rod mounted on the inner face of the lower front above said opening, doors hung upon said rod and adapted to slide longitudinally thereon, a lever pivotally connected above said treadle opening, links connected with opposite ends of said lever and with the respective doors, a link connected to said lever above the pivot, a second lever, said link connected to the lower end of said second lever, an operating rod connected with said last named lever, and means for moving said operating rod whereby the doors are opened or closed.

944,037. KEY-HOLDING DEVICE. JOSEPH P. HULDER, New York, N. Y., assignor to Ludwig & Company, a Corporation of New York. Original application filed Mar. 20, 1909. Serial No. 484,628. Divided and this application filed May 6, 1909. Serial No. 494,297.



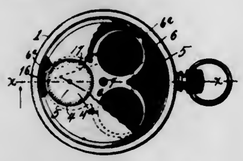
1. In a pneumatic action for musical instruments the combination with the manual keys of two or more pneumatics placed under the keys and provided with air connection with the exhaust bellows, lever arms fastened to the movable walls of said pneumatics and extending beyond them, and a rod carried by said lever arms extending longitudinally under the keys, adapted to support said keys and to hold them immovable when the air is exhausted from said pneumatics.

2. In a pneumatic action for musical instruments the combination with the manual keys of two or more pneumatics having hinged movable and immovable walls, placed under said keys and provided with air connection with the exhaust bellows, lever arms fastened to the

movable walls of said pneumatics extending forwardly beyond the hinges, and carrying near their free ends a rod which extends longitudinally below the keys and is adapted to support said keys and to hold them immovable when the air is exhausted from said pneumatics.

3. In a pneumatic action for musical instruments the combination with the manual keys of two or more pneumatics having hinged movable and immovable walls, placed under the keys, and provided with air connection with the exhaust bellows, lever arms fastened to the movable walls and extending beyond the hinges, regulating checks adjustable in the movable walls, and a rod carried on said lever arms and extending longitudinally under all the keys.

944,038. TOY SAVINGS-BANK. FRANCIS P. HUYCK and JOHN D. R. LAMSON, Toledo, Ohio. Filed Jan. 27, 1908. Serial No. 412,706.



1. In a device of the described character, a box formed in similitude of a watch-case and having an aperture corresponding to the seconds-dial of the watch, and spring-actuated means for conveying a coin from said aperture to the chamber of the box.

2. In a device of the described character, a box having upon one side an imitation of a watch-face and having therethrough an opening corresponding to the seconds-dial of the watch, such opening leading indirectly to the cavity of the box.

3. In a device of the described character, a box having upon one side an imitation of a watch-face, such face having therethrough an aperture corresponding to the seconds-dial thereof, said box having a coin-passage leading from said aperture to the chamber of the box, a closure for such coin-passage, and means for actuating said closure.

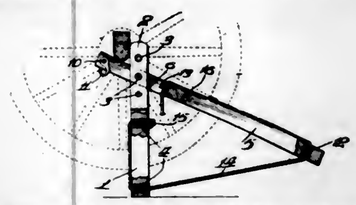
4. In a device of the described character, a box having upon one side an imitation of a watch-face, such face having an aperture therethrough corresponding to the seconds-dial thereof, an inner plate parallel to such face and having thereon an imitation of a seconds-dial, said dial being exposed through said aperture, having also an opening leading directly into the cavity of the box, and means for conveying a coin between said face and said plate from said aperture to said opening.

5. In a device of the described character, a box having an aperture in one of its sides adapted to receive a coin flatwise, in the box a plate spaced from said side to permit the edgewise movement of such coin therebetween, there being an opening leading from the outer to the inner side of said plate and out of alinement with said aperture, and a member movable between said side and said plate and having coin recesses adapted respectively to receive such coin, combined with a spring which controls said movable member, and a detent for said movable member, which detent is released by the introduction of a coin into the coin-aperture.

[Claims 6 to 12 not printed in the Gazette.]

944,039. LIFTING-JACK. EDWARD J. JUTZ, St. Louis, Mo. Filed Mar. 25, 1909. Serial No. 485,733.

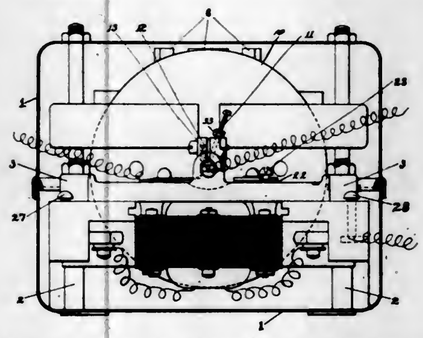
1. A lifting jack, comprising a standard, a lifting lever provided with a bifurcated end mounted on said standard and vertically adjustable thereon, a cable passing through the lower end of said standard and through said lever adjacent one end thereof, means carried by said lever and disposed on said lever between the standard and the point where the cable passes through said lever for engaging the free end of said cable for maintaining said lever in its desired inclination.



2. A lifting jack, comprising a standard, provided with a reduced upper end, a lifting lever provided with a bifurcated end mounted on said reduced upper end and vertically adjustable thereon, a cable passing through said standard at two points spaced apart from each other and through the lifting lever at a point adjacent one of its ends, a chain secured to the free end of said cable, and a hook carried by said lifting lever with which the links of said chain may be engaged.

3. A lifting jack, comprising a standard, provided with a reduced upper end, a lifting lever provided with a bifurcated end mounted on said reduced upper end and vertically adjustable thereon, a cable passing through said standard and through the lifting lever at a point adjacent one end of said lifting lever, a chain secured to the free end of said cable, a hook carried by said lifting lever with which the links of said chain may be engaged, a hook carried by the bifurcated end of said lever, and a loop carried by said hook which may be applied to the hub of the wheel to be elevated.

944,040. OVERLOAD AND REVERSE CURRENT RELAY. PIERRE O. KEILHOLTZ, Baltimore, and FORREST E. RICKETTS, Derwood, Md. Filed Aug. 5, 1908. Serial No. 447,082.



1. In an overload and reverse current relay, the combination of an unbalanced rotor, a system of electro-magnets and an electrical contact, means for producing a reaction between the rotor and the system of electro-magnets proportional to the resultant phase composition of the current and voltage elements of the circuit to be controlled, which current and voltage elements are in multiple relation to each other.

2. In an overload and reverse current relay, the combination of an unbalanced rotor, a system of electro-magnets and an electrical contact, means for producing a reaction between the rotor and the system of electro-magnets proportional to the resultant phase composition of the current and voltage elements of the circuit to be controlled; which consists of a derived current and voltage circuit encircling the magnets and responding to variations of electrical conditions on the working circuit.

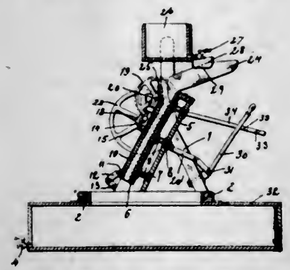
3. In an overload and reverse current relay, the combination of a current transformer in the main line, a pair of twin electro magnets in series with the secondary of the transformer, a single electro magnet having its pole set opposite the poles of the twin magnets and in series with the twin magnets and the secondary of the current transformer, a potential transformer across the main line the secondary of which is in a closed circuit containing an ohmic resistance device, and a second transformer the secondary of which is in shunt relation to the circuit of the current transformer and including the single electro magnet coil, a rotor mounted upon a shaft set at an angle to the vertical and arranged to rotate in the fields of the twin and single magnets, the rotor being unbalanced, and an electrical contact adapted to be closed by the rotation of the rotor.

4. In an overload and reverse current relay, the combination of a current transformer in the main line, a pair of twin electro magnets in series with the secondary of the transformer, a single electro magnet having its pole in magnetic relation to the poles of the twin magnets and in series with the twin magnets and the secondary of the current transformer, a potential transformer across the main line the secondary of which is in shunt relation to the circuit of the current transformer and including the single electro-magnet coil, a rotor mounted upon a shaft set at an angle to the vertical and arranged to rotate in the magnetic field of the system of magnets, the rotor being unbalanced and an electrical contact adapted to be closed by the rotation of the rotor.

5. In an overload and reverse current relay, the combination of a current transformer in the main line, a pair of twin electro magnets in series with the secondary of the transformer, a single electro magnet having its pole in magnetic relation to the poles of the twin magnets and in series with the twin magnets and the secondary of the current transformer, a potential transformer across the main line the secondary of which is in shunt relation to the circuit of the current transformer and including the single electro-magnet coil, a rotor mounted upon a shaft set at an angle to the vertical and arranged to rotate in the magnetic field of the system of magnets, the rotor being unbalanced, and an electrical contact adapted to be closed by the rotation of the rotor, the pole of the single magnet being in such magnetic relation to the poles of the twin magnet as will induce currents in the rotor which will react upon the system of electro magnets and cause rotation of the rotor.

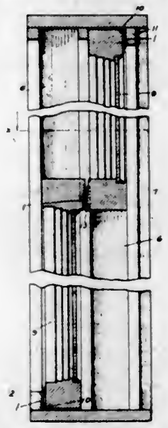
[Claims 6 to 9 not printed in the Gazette.]

944,041. WASHING-MACHINE. BALÁZS KISS, New York, N. Y. Filed Sept. 19, 1907. Serial No. 393,657.



In a washing machine, the combination with a frame, of an inclined table supported thereby and provided with a plurality of holes, a corrugated wash board arranged parallel thereto, a plurality of stems secured to the underside of said wash board and engaging the holes in said table, a spring arranged on each stem between said table and wash board, whereby the same is yieldingly supported, a corrugated working board arranged parallel to said wash board upon said frame, means for imparting a curvilinear motion to the working board relative to said wash board, and means for engaging one of said stems to increase the normal distance between said boards and keep the said boards in such position against the action of said springs, substantially as and for the purpose set forth.

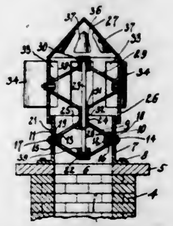
944,042. WEATHER-STRIP. JOHN E. LEDTERMAN, Chicago, Ill., assignor of one-half to Harry McCorkle, Chicago, Ill. Filed Mar. 1, 1909. Serial No. 480,587.



1. A weather strip comprising an angular strip of metal substantially L-shaped in cross section, the wider of the angularly disposed portions of said strip being provided at its outer free edge with a flat bearing surface, and intermediate of its edges with a longitudinally extending ridge semi-ovoidal in cross section, the highest portion of said ridge being adjacent the inner edge, substantially as described.

2. A weather strip comprising an angular strip of metal substantially L-shaped in cross section, the wider of the angularly disposed portions of said strip being provided at its edges with flat bearing surfaces, and intermediate of its edges with a longitudinally extending ridge semi-ovoidal in cross section, the highest portion of said ridge being adjacent the inner edge, substantially as described.

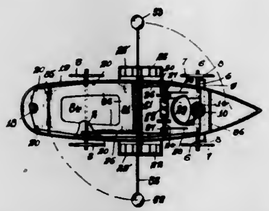
944,043. CHIMNEY COWL OR VENTILATOR. JACOB MARCUS, New York, N. Y. Filed Aug. 11, 1909. Serial No. 512,374.



In a chimney cowl, the combination with a stationary tubular member secured to the top of the chimney and being provided with two holes,, of a diamond shaped bracket arranged in said tubular member, means for securing said bracket to said tubular member, lugs upon those corners of the bracket which contact with said tubular member engaging said holes whereby said bracket is prevented from turning relatively to said tubular member, a spindle rotatively carried by said bracket, means for preventing the vertical movement of said spindle, a tubular member closed at its upper end by a conical cap and having a plurality of longitudinal slots in its tubular

portion and its conical cap, a diamond shaped bracket therein and secured to the same in the same manner as said first bracket is secured to said stationary tubular member, said second bracket engaging said spindle whereby said second tubular member is adapted to rotate upon said spindle, and vanes arranged adjacent to said slots and extending radially outward from said tubular portion and cap, the outer ends of the vanes upon said tubular portion being slightly bent to present a surface to the wind to act upon.

944,044. LAND AND WATER VEHICLE. JOHN MATTHEWS, Chicago, Ill. Filed July 1, 1909. Serial No. 505,489.



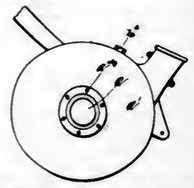
1. A vehicle of the class described, comprising a boat body, traction wheels at the stern and steering wheels at the bow of said body and supporting the same, a rudder mounted at the stern of said body, means for actuating said rudder and said steering wheels, paddle wheels mounted at the sides of said body intermediate the extremities thereof, driving means carried in the body operatively connected with said paddle wheels and said traction wheels, a centrally positioned transversely extending balancing rod carrying balancing weights at its extremities, and seats provided in the cock pit of said body, substantially as described.

2. A vehicle of the class described, comprising a boat body, a traction axle carrying traction wheels journaled in the stern of said body, steering wheels mounted for oscillation under the bow of said body, a rudder rockingly mounted at the stern of said body, a steering shaft rockingly mounted in the bow of said body, operative connections between said steering shaft and said rudder, and said steering shaft and said steering wheels, an operator's seat arranged adjacent said steering shaft, a transversely disposed shaft journaled in the sides of said body intermediate the extremities thereof, paddle wheels carried at the extremities of said shaft, a stationary housing inclosing the upper portion of each of said paddle wheels, a driving motor arranged in said body, flexible means operatively connecting said traction axle and the power shaft of said motor, and said paddle shaft and said motor power shaft, clutches interposed in said power shaft whereby said traction axle and said paddle shaft may be independently driven, and a transversely extending centrally positioned balancing rod mounted over said body carrying balancing weights at its extremities, substantially as described.

944,045. BEARING FOR FURROW-OPENING DISKS. FRANK R. PACKHAM, Springfield, Ohio, assignor to The American Seeding Machine Company, Springfield, Ohio, a Corporation of Ohio. Filed Apr. 2, 1909. Serial No. 487,438.

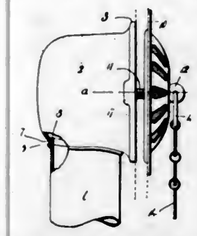
1. In a disk bearing, the combination of a disk and a disk supporting cap, of an intermediate stationary support, a grooved socket encircling the support and formed in the body of the same, a washer located within the socket, a wearing plate projecting alongside the groove socket, means for securing the cap to said plate and means for securing the plate to said disk, and a main support for said intermediate support, substantially as specified.

2. In a disk bearing, the combination of a concavo-convex disk, a solid cap secured to the concave face of the disk, an intermediate support between the cap and the concave face of the disk, a wearing plate with yieldable central portion, said plate projecting below the upper or flange portion of the cap and between the intermediate support and the disk, a groove formed in the body portion of the intermediate support and absorbent material inserted therein, a central oil passageway formed in the support, and a main support with an oil conduit registering with the first mentioned oil passageway, and means for securing the main support to the intermediate support, substantially as described.



3. In a disk bearing, the combination of a concavo-convex disk, a solid cap secured to the concave face of the disk, an intermediate support between the cap and the concave face of the disk, a wearing plate projecting below the upper portion or flange of the cap and between the intermediate support and the disk, a groove formed in the body portion of the intermediate support, and absorbent material inserted therein, a central oil passageway formed in the support, a main support with an oil conduit registering with the first mentioned oil passageway, a socket formed in said main support, and means for drawing the intermediate support within said socket, substantially as specified.

944,046. WROUGHT-METAL FITTING FOR PLUMBERS' USE. WALTER H. PERKINS, Cheshire, Conn., assignor to Waterbury Mfg. Co., Waterbury, Conn., a Corporation. Filed Mar. 22, 1909. Serial No. 485,100.

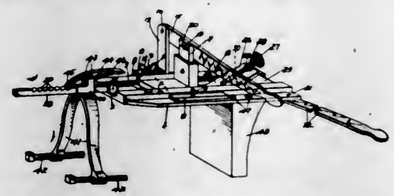


1. In a wrought-metal fitting for plumbers' use, the combination with a flaring wrought-metal cup having an opening formed directly in its side and also having a hollow flange, of a pipe entered into the said opening and formed with a winding, circumferential abutment-shoulder conforming in curvature to the contour of the cup at the point where the pipe enters the same, and a coupling-piece inserted into the hollow flange of the cup and held in place against rotation therein by indentations in the said flange.

2. In a wrought-metal fitting for plumbers' use, the combination with a flaring wrought-metal cup having a hollow flange indented at opposite points in its circumference, of a cross-bar inserted at its ends into the said flange and set into the said indentations therein, a screw entering the said bar, a strainer carried by the said screw, and a stopper-chain depending from the said screw.

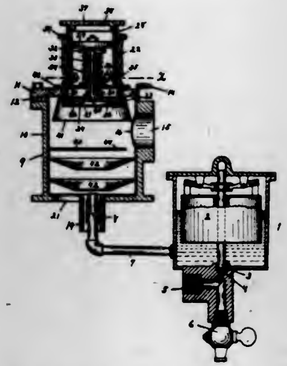
944,047. GAINING-MACHINE. CARL PETERMAN, Fond du Lac, Wis. Filed June 1, 1909. Serial No. 499,404.

1. In a gaining machine, the combination of a horizontally extending support, a slidably adjustable blade holder in tongue and groove connection with said support, a cutting blade mounted for vertical reciprocation in said holder, a pivoted lever for operating said blade, a second horizontally reciprocatory blade holder in tongue and groove connection with said support, a cutting blade held in adjustable obliquely disposed position in said holder, cutting flanges provided at the cutting end of said blade disposed at right angles to the body thereof, means for reciprocating said last named holder, and means for securing said support for operation of said blades.



2. In a gaining machine, the combination of a horizontally extending support, a blade holder in tongue and groove connection with said support, a cutting blade mounted for vertical reciprocation in said holder, means for operating said blade, a second horizontally reciprocatory blade holder in tongue and groove connection with said support, an obliquely disposed blade adjustably held in said second named holder, means for reciprocating said second named holder, and means for clamping said support to a door or door frame, said means comprising a stationary jaw member depending from said member, a toothed bar extending from one extremity of said support, and a movable jaw member slidable upon said bar held thereon by engagement with the teeth of said bar, substantially as described.

944,048. CARBURETER. JOHN R. PRICE, Newark, N. J. Filed Feb. 26, 1906. Serial No. 302,968.



1. In a carbureter, a vaporizing chamber casing having a lateral throttle opening, a bottom central aperture and an auxiliary air inlet, a rotatable throttle tube fitting said casing and having an extension fitting the bottom aperture, said tube having ports one adapted to turn into coincidence with the auxiliary air inlet as the other passes out of registration with the throttle opening, a cover for the vaporizing chamber casing provided with air inlet means adapted to be automatically operated by suction through the throttle, and a gasolene feed tube in the said throttle tube extension providing a surrounding air space.

2. In a carbureter, a vaporizing chamber casing having a lateral throttle opening and a lower auxiliary air inlet, a throttle tube fitting said casing and having ports one adapted to turn into coincidence with the auxiliary air inlet as the other passes out of registration with the throttle opening, a cover for the casing segmentally recessed or cut away at its periphery to expose the upper edge of the throttle tube, handle means upon said exposed portion of the throttle tube for turning the same, air inlet means upon the said cover adapted to be operated by suction through the throttle, and gasolene feed means.

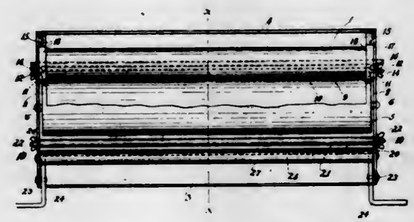
3. The combination with a carbureter body portion having a throttle and gasolene feed means, of a sleeve mounted in said body portion and being interiorly threaded and forming at its inner end a valve seat, an inner sleeve screwing within said outer sleeve, a valve for said valve seat having a stem provided with a head slidably fitting the inner sleeve, and a spring supported at one end on said inner sleeve and adapted to engage said valve to seat the same, said sleeves forming an air inlet to the carbureter controlled by said valve.

4. The combination with a carbureter body portion having a throttle and gasolene feed means, of a sleeve mounted in said body portion and being interiorly threaded and forming at its inner end a valve seat, an inner sleeve screwing within said outer sleeve, a valve for said valve seat having a stem provided with a piston head fitting the inner sleeve, a cap upon the end of said inner sleeve adapted to confine the air and form a cushion for said piston, and a spring supported at one end on said inner sleeve and adapted to engage said valve to seat the same, said inner and outer sleeves having between the said valve and its piston head apertures for the admission of air.

5. The combination with a carbureter body portion having a throttle and gasolene feed means, of a sleeve mounted in said body portion and being interiorly threaded and forming at its inner end a valve seat, an inner sleeve screwing within said outer sleeve, a valve for said valve seat having a stem provided with a piston head fitting the inner sleeve, a cap upon the end of said inner sleeve adapted to confine the air and form a cushion for said piston, and a spring supported at one end on said inner sleeve and adapted to engage said valve to seat the same, the said outer and inner sleeves having between the piston and the carbureter body portion circumferential series of holes in their walls, unequal in number, and some of which always register.

[Claims 6 to 9 not printed in the Gazette.]

944,049. WALL-PAPER-HANGING MACHINE. NATHAN M. PURVIANCE, Chicago, Ill. Filed Nov. 9, 1908. Serial No. 461,713.

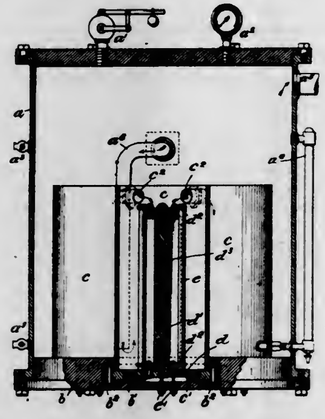


1. In a paper pasting machine, a paste receptacle having parallel side walls, a roller mounted in said receptacle between said walls, means for supporting a roll of paper adjacent said roller, and a paste distributer arranged adjacent said roller and beneath said paper supporting means, said distributer comprising a metal strip having its ends bent at right angles thereto and perforated and adjusting screws extending through said perforated ends, said side walls being provided with slots arranged substantially radially to said roller to receive said adjusting screws, substantially as described.

2. In a paper pasting machine, a paste receptacle, a roller mounted therein means for supporting a roll of paper adjacent thereto, a member arranged parallel and about which the paper passes before leaving the machine, said member being provided with a longitudinal recess, a knife mounted adjacent said member and adapted to co-

act with said recess to sever the paper and an adjustable roller mounted between the first said roller and said member, substantially as described.

944,050. ELECTRICAL STEAM-GENERATOR. ELEAZER I. RAINS, New York, N. Y. Filed Feb. 11, 1909. Serial No. 477,391.



1. An electrical steam generator, comprising a common shell or casing, a plurality of independent water containers therein, each adapted to receive and hold a body of water separate from and independent of that in each of the other containers, and communicating with a common steam space, and a plurality of independent electrical heating elements distributed in the several water containers, whereby the water in each container may be heated independently of that in the other containers.

2. An electrical steam generator, comprising a common shell or casing, a plurality of independent water containers therein, each adapted to receive and hold a body of water separate from and independent of that in each of the other containers, and communicating with a common steam space, connections whereby water is supplied to one of said containers and from one to another and a plurality of independent electrical heating elements distributed in the several water containers, whereby the water in each container may be heated independently of that in the other containers and whereby water may be passed from one container to another in series.

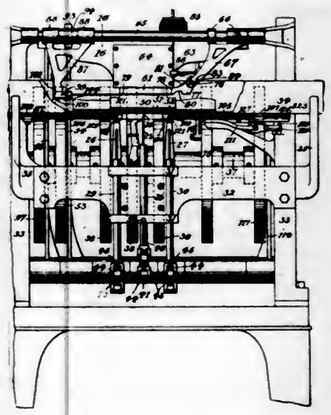
3. An electrical steam generator, comprising a common shell or casing, a plurality of independent water containers therein, each adapted to receive and hold a body of water separate from and independent of that in each of the other containers, and communicating with a common steam space, and a plurality of independent electrical heating elements distributed in the several water containers, each of said heating elements comprising an insulating support, a heating rod mounted on said support and electrical connections extended through the outer wall of the shell or casing.

4. An electrical steam generator, comprising a common shell or casing, a plurality of independent water containers therein, each adapted to receive and hold a body of water separate from and independent of that in each of the other containers, and communicating with a common steam space, and a plurality of independent electrical heating elements distributed in the several water containers, each of said heating elements comprising an insulating support, a plurality of heating rods mounted on said support and insulating walls between said rods to prevent the jumping of the current from one to another.

5. An electrical steam generator, comprising a common shell or casing, a plurality of independent water containers therein, each adapted to receive and hold a body of water separate from and independent of that in each of the other containers, and communicating with a common steam space, a plurality of independent heating elements distributed in the several water containers, each of said heating elements consisting of a base plate with a vertical pillar and radially extending insulating wings, heating rods mounted on said support and connected in series and electrical connections to said rods.

[Claims 6 and 7 not printed in the Gazette.]

944,051. THREAD-STITCHING MACHINE FOR PAMPHLETS AND SIMILAR ARTICLES. HORACE L. ROBERTS, New York, N. Y. Filed Dec. 21, 1908. Serial No. 468,415.



1. A stitching machine, comprising a support adapted to receive the article to be stitched, means for stretching a length of thread along said support, a center needle adapted to engage said thread and loop the same through said article, a pair of flanking needles adapted to separately pass the thread through said article, and a pair of loopers adapted to engage said thread and draw the same through the loop.

2. A stitching machine, comprising a support adapted to receive the article to be stitched, means for stretching a length of thread along said support, a center needle adapted to engage said thread and loop the same through said article, a pair of flanking needles adapted to draw the thread through the article, means for distending the loop below the article, and a pair of loopers adapted to engage the thread and draw the same through the loop.

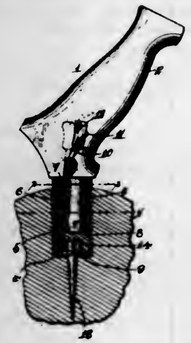
3. A stitching machine, comprising a center needle, a pair of flanking needles, a thread holder, a combined thread clamp and cutter adapted to engage the thread holder, means for rocking said holder and clamp, and a pair of reciprocating loopers adapted to coöperate with the needles.

4. In a stitching machine, a center needle, a pair of flanking needles, a rock shaft, a thread holder secured thereto, a spring-influenced finger pivoted to said holder, a thread carried slidable on the rock shaft, a combined thread clamp and cutter secured to the carrier and adapted to be operatively engaged by the finger, and a pair of reciprocating loopers adapted to coöperate with the needles.

5. In a stitching machine, a center needle, a pair of flanking needles, a pair of loopers coöperating with the needles, a rock shaft, a thread holder secured thereto, a perforated spring-influenced finger pivoted to said holder, a thread carrier slidable on the rock shaft, a jaw rigidly secured to the carrier, a coöperating spring-influenced movable jaw adapted to be engaged by the finger, and a pair of cutting blades secured to the jaws.

[Claims 6 to 10 not printed in the Gazette.]

944,052. GRIPPING DEVICE. WILLIAM D. ROOP, Marion, Ind. Filed July 14, 1909. Serial No. 507,609.



1. In a device of the class described, the combination of a handle, a shank projecting therefrom, a rock shaft mounted on said handle and shank, a gripping jaw at the outer end of and angularly disposed with respect to said rock shaft, a gripping jaw adapted to coöperate with said first mentioned gripping jaw, and means at said handle for rocking said rock shaft, substantially as described.

2. In a device of the class described, the combination of a handle, a shank projecting therefrom, a pair of rock shafts mounted on said handle and shank, gripping jaws at the outer ends of and angularly disposed with respect to said rock shafts, and means at said handle for rocking said rock shafts, substantially as described.

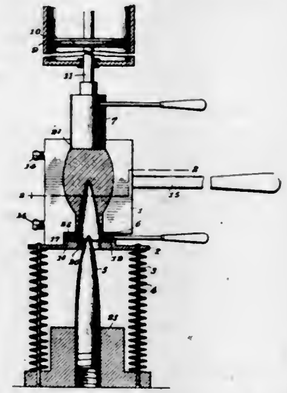
3. The combination with a bowling ball having a headed stud provided at the bottom of the thumb hole thereof, of a handle having a shank adapted for insertion into said hole, grasping jaws provided at the lower extremity of said shank adapted to grasp said stud below its head, and rearwardly extending actuating stems rockingly secured to said shank terminating in projecting portions adapted for engagement by a finger and thumb, and means for normally holding said jaws in disengaging position, substantially as described.

4. The combination with a bowling ball having a headed stud provided at the bottom of the thumb hole thereof, of a handle having a shank adapted for insertion into said hole, a recess provided in the lower extremity of said shank for the reception of the head of said stud, coacting grasping jaws mounted for oscillation transversely of the lower extremity of said shank, said jaws being adapted to engage said stud below its head to lock said ball to said handle, integral stems rearwardly extending from said jaws rockingly secured to said shank, said stems terminating at opposite sides of said handle in projecting finger engaging portions, and resilient means engaging said last named portions for normally holding said grasping jaws in disengaging position, substantially as described.

944,053. MACHINE FOR MAKING BOTTLE-BLANKS. WALTER E. SAVAGE, Baltimore, Md. Filed July 21, 1909. Serial No. 508,790.

1. In an apparatus for making bottle blanks, a press mold open at both ends and mounted to move in the direction of its axis, a neck mold to coöperate with the neck end of the press mold, a former adapted to enter the neck of the mold and disposed toward the same, a plunger to enter the bottom end of the press mold, and means for pressing the plunger toward the former, whereby the glass is compressed and the former caused to enter the neck of the mold, forming the neck of the bottle.

2. In an apparatus for making bottle blanks, a press mold open at both ends, mounted to move in the direction of its axis and placed with the bottom end up, a neck mold, an upright internal former supported in the line of the axis of the neck, and means entering the bottom end of the press mold to compress the charge and move the molds downward along the line of the axis, causing the former to enter both molds to form the bottle neck.



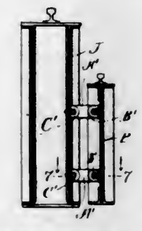
3. In an apparatus for making bottle blanks, a press mold open at both ends, mounted to move in the direction of its axis and placed with its bottom end up, a separate neck mold, an internal former supported in line with the neck, and means entering the bottom end of the mold to compress the charge and move the molds along the line of the axis toward the former, causing the latter to enter both molds to form the bottle neck, and means for returning to press and the neck molds to normal position.

4. In an apparatus for making bottle blanks, a press mold open at both ends, mounted to move in the direction of its axis and placed with its bottom end up, a separate neck mold, an internal former supported in line with the neck, and means entering the bottom end of the mold to compress the charge and move the mold along the line of its axis toward the former, causing the latter to enter both molds to form the bottle neck, and yielding means for returning the mold and withdrawing the former.

5. In an apparatus for making bottle blanks, a press mold open at both ends, mounted to move in the direction of its axis and placed with the bottom end up, a separate, manually operable neck mold, an internal former supported in line with the axis of the neck, a manually movable plunger entering the bottom end of the press mold, and means for actuating the plunger to compress the charge and move the mold along the line of its axis to cause the plunger to enter the neck.

[Claims 6 to 8 not printed in the Gazette.]

944,054. OVERHEAD TRAVELING CRANE. HARRY SAWYER, Muskegon, Mich. Filed Apr. 14, 1909. Serial No. 489,873.



1. A crane having a bridge including main girders and auxiliary girders, a main hoisting trolley mounted upon the main girders, an auxiliary trolley mounted upon the auxiliary girders, and connection between said main and auxiliary girders to permit relative vertical deflecting

movement, but preventing relative lateral movement thereof.

2. A crane having a bridge including main and auxiliary girders, arranged in pairs, the auxiliary girders being arranged inside the main girders, the adjacent members of said pairs respectively having connections with each other, said connections permitting relative vertical movement thereof, but preventing relative lateral movement and trolleys respectively carried by said pairs of girders.

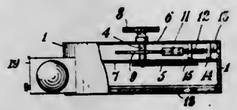
3. A crane having a bridge including main and auxiliary girders, the auxiliary girders being arranged inside the main girders, and having connection thereto to permit relative vertical movement thereof, but preventing relative lateral movement, main and auxiliary trolleys operating on the said respective girders, the hoisting cables of the main trolley depending outside of the main girders.

4. A crane having a bridge including main girders, auxiliary girders, a main hoisting trolley mounted on the main girders, an auxiliary trolley mounted upon the auxiliary girders, the auxiliary girders being mounted between the main girders, and means connecting the same to the main girders, said means permitting vertical relative deflection of said girders, but preventing relative lateral movements thereof.

5. A crane having a bridge including main and auxiliary girders, the auxiliary girders being located intermediate the main girders, means connecting each auxiliary girder to the adjacent main girder, said means permitting relative vertical deflection of said girders, but preventing relative lateral movements thereof, a main trolley carried by the main girders, an auxiliary trolley carried by the auxiliary girders, the hoisting cables of the main girder depending outside of the main girders, and the hoisting cable of the auxiliary trolley depending between the auxiliary girders.

[Claims 6 and 7 not printed in the Gazette.]

944,055. COURSE-POINTER. ARON L. SÖDERSTRÖM, Sundsvall, Sweden. Filed Dec. 1, 1908. Serial No. 465,498.



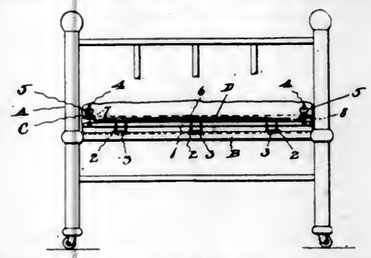
1. In a course-pointer, the combination of a dial, a pointer journaled in the center of the said dial, a spindle or axle upon which said dial and pointer are mounted, a locking device for the pointer adapted to engage the said axle, and a removable key for operating the said locking device from without the apparatus, substantially as and for the purpose set forth.

2. In a course-pointer, the combination of a dial, a pointer journaled in the center of the said dial, a spindle or axle upon which said dial and pointer are mounted, a disk on the said axle, a clamp adapted to engage the edge of the said disk, and a removable key for operating the said clamp from without the apparatus, substantially as and for the purpose set forth.

3. In a course-pointer, the combination of a dial, a pointer journaled in the center of the said dial, a spindle or axle upon which said dial and pointer are mounted, a disk on the said axle, a nut situated at the side of the said disk, a spindle having threads engaging the threads of the said nut, a clamp carried by the said spindle and adapted to engage the edge of the said disk, and a removable key for turning the said spindle from without the apparatus, substantially as and for the purpose set forth.

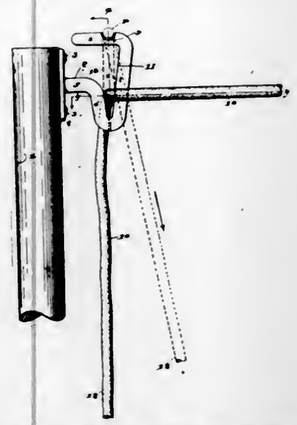
944,056. CLOTHES-CLAMP FOR BEDSTEADS. FANNIE L. TAYLOR, Tyler, Tex. Filed June 3, 1909. Serial No. 500,014.

In combination with a bed, and a spring on the bed, having a bar at its end, a clamp for holding the bed-clothes on the bed consisting of a rod having screw-bolts pivotally secured to its ends, another rod having a hole in one end to engage one of the bolts and a notch in the other end to engage the other bolt, the bed-clothes clamped between said rods, the relative positions of said rods when



in a clamping position being adjustable by the screw-bolts aforesaid to accommodate different thicknesses of bed-clothes, loops secured to one of the rods, and extending laterally of the clamping surfaces of the two rods, and hooks pivotally secured to the loops and engaging the bar on the spring, substantially as shown and described.

944,057. CLOTHES-LINE HOOK. LAMBERT G. THELEN and JOHN FLOOD, Chicago, Ill. Filed Mar. 1, 1909. Serial No. 480,629.

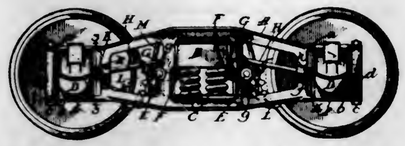


1. In a device of the class described, a vertical perforated portion adapted to be secured to a post or other object by means of screws, a horizontal portion extending from said vertical portion, a portion extending downwardly and outwardly from said last named portion, a portion disposed obliquely to said downwardly extending portion and extending upwardly and outwardly therefrom, a horizontal portion extending inwardly from said upwardly extending portion having a notch formed in the upper side thereof located vertically over the junction of said downwardly extending portion and the portion disposed obliquely thereto, substantially as and for the purposes specified.

2. In a device of the class described, a hook comprising a horizontal shank and a V-shaped portion integral therewith, the outer leg of said V-shaped portion being longer than the inner leg over which the line may be drawn tight and thence while still tight be shifted and gripped in said V-shaped portion, and means vertically over the vertex of said V-shaped portion over which the line may be drawn for releasing the same, substantially as and for the purposes specified.

3. In a device of the class described, a hook having a horizontally extending portion or shank and a line gripping means consisting of two portions disposed obliquely to each other, a horizontal portion disposed parallel to said first named portion having a notched portion formed therein, and a curved surface in said notched portion over which the line may be drawn with a minimum of friction, substantially as and for the purposes specified.

944,058. BRAKE-EQUALIZING MECHANISM. FRANK D. THOMASON, Chicago, Ill. Filed Mar. 10, 1909. Serial No. 482,540.



1. Brake equalizing mechanism for cars comprising braking apparatus, and a pair of car wheels movable transversely to their axis.

2. Brake equalizing mechanism for cars comprising braking apparatus, and a pair of car wheels automatically adjustable to and from the brake element of said apparatus.

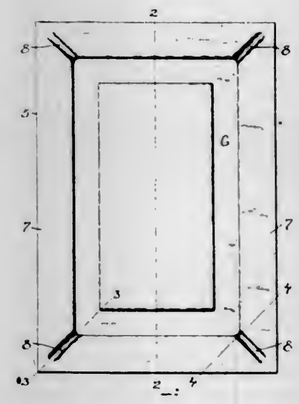
3. Brake equalizing mechanism for cars comprising the braking apparatus, a suitable car-truck and wheels therefor having a movement independent of said car-truck to and from the contacting brake element of said apparatus.

4. Brake equalizing mechanism for cars comprising the braking apparatus, a suitable car-truck, and wheels therefor that are automatically adjustable to and from the contacting brake element of said apparatus independent of said car-truck.

5. Brake equalizing mechanism for cars comprising braking apparatus, a pair of car-wheels and axle therefor, journal-boxes for said axle, and means actuated by the load for moving said journal-boxes to and from the brake element of said apparatus independent of the medium through which the weight of said load is transmitted to said boxes.

[Claims 6 to 15 not printed in the Gazette.]

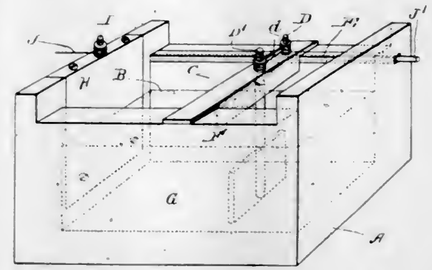
944,059. SHEET-METAL PANEL. ALBERT J. THORNLEY, Pawtucket, R. I. Filed Feb. 15, 1909. Serial No. 478,119.



1. In a sheet metal panel having a countersunk central portion, means for eliminating the twisting of the panel caused by the metal tending to concentrate at the corners of the panel in forming the countersunk portion of the panel, consisting of forming integral hollow radial ribs at the corners of the panel on a line on which the metal tends to concentrate, said ribs having their greatest depth at the point where the metal tends to have the greatest concentration and gradually diminishing in depth to a point where the metal tends to have the least concentration.

2. A sheet metal panel constructed integral to have the countersunk central portion 6 forming the flat border 7 and the semi-circular radial ribs 8 8 formed on the back of the panel at each corner of the panel, each rib 8 having its greatest depth adjacent the countersunk portion 6 or at the point where the metal has the greatest concentration in forming the countersunk portion 6 and gradually diminishing in depth to a point where the metal has the least concentration in forming the countersunk portion of the panel.

944,060. RHEOSTAT. HERBERT L. TRUESDALE, Somerville, Mass. Filed Aug. 20, 1909. Serial No. 513,762.



1. A fluid rheostat comprising a vessel, an electrically conductive and resistant fluid in said vessel, a pair of electrodes having their terminals submerged in said fluid, a slide movably mounted on said vessel, supporting one of said electrodes and adapted to move the same relatively to the other electrode, a bar of conductive material secured to said vessel and insulated from the last named electrode and from said fluid, and a contacting part carried by said slide, connected with the electrode carried by the slide and having a movable engagement with said bar.

2. A fluid rheostat comprising a vessel, an electrically conductive and resistant fluid in said vessel, a pair of electrodes having their terminals submerged in said fluid, a slide movably mounted on said vessel, consisting of a cross bar spanning said vessel, supporting one of said electrodes and adapted to move the same relatively to the other electrode, a bar of conductive material secured to the margin of said vessel and insulated from the last named electrode and from said fluid, and a contacting part carried by said slide, connected with the electrode carried by the slide and having a movable engagement with said bar.

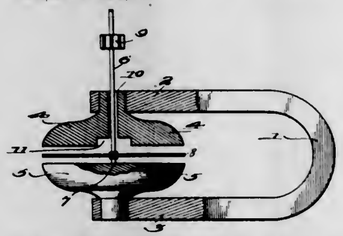
3. A fluid rheostat comprising a vessel, an electrically conductive and resistant fluid in said vessel, a pair of electrodes having their terminals submerged in said fluid, a slide movably mounted on said vessel, supporting one of said electrodes and adapted to move the same relatively to the other electrode, the other electrode consisting of a metal plate lining the wall of the vessel, a bar of conductive material secured to said vessel and insulated from the last named electrode and from said fluid, and a contacting part carried by said slide, connected with the electrode carried by the slide and having a movable engagement with said bar.

4. A fluid rheostat comprising a vessel, an electrically conductive and resistant fluid in said vessel, a pair of electrodes having their terminals submerged in said fluid, a slide movably mounted on said vessel, supporting one of said electrodes and adapted to move the same relatively to the other electrode, a bar of conductive material secured to said vessel and insulated from the last named electrode

and from said fluid, and a contacting part carried by said slide, connected with the electrode carried by the slide and having a movable engagement with said bar, said electrode carried by the slide being provided with a weight adapted to hold said contacting part in close engagement with said bar.

5. A fluid rheostat comprising a vessel, an electrically conductive and resistant fluid in said vessel, a pair of electrodes having their terminals submerged in said fluid, a slide, consisting of a cross bar of non-conductive material spanning said vessel and movably mounted thereon, one of said electrodes depending from said cross bar, a binding post at the top of the last named electrode, a contact bar of conductive material secured to the margin of said vessel, a binding post on said cross bar having sliding engagement with said contact bar, and a fuse wire connecting said binding posts, and the other electrode fixed in said vessel relatively to the electrode supported by said sliding cross bar.

944,061. ELECTRICAL MEASURING INSTRUMENT. THOMAS W. VARLEY, New York, N. Y., assignor of one-half to Walter S. Rugg, New York, N. Y. Filed Feb. 3, 1906. Serial No. 299,367.

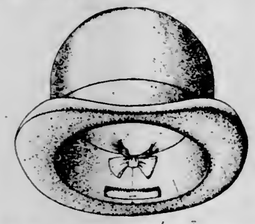


1. In an apparatus of the character described a substantially constant magnet, a coil adapted to weaken one part of the field caused by said magnet and strengthen another proportionally, the total magnetism of the changing field of the magnet remaining constant, and a winding forming a disk armature in the field caused by said magnet adapted to respond to the changing thereof.

2. In an apparatus of the character described a substantially constant magnet, a coil adapted to shift or distort the field caused by said magnet, and a winding forming a disk armature in said field adapted to respond to the shifting or distorting thereof.

3. In an apparatus of the character described a substantially constant magnet, a coil adapted to weaken one part of the field caused by said magnet and strengthen another, and a winding forming a disk armature in said field adapted to respond to the weakening and strengthening thereof.

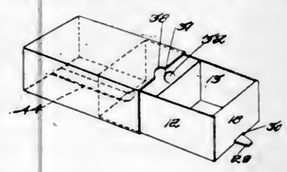
944,062. SAFETY DEVICE FOR GENTLEMEN'S HATS. EDWARD R. VASCONCELLOS, Chicago, Ill. Filed Oct. 30, 1908. Serial No. 460,369.



1. A device of the class described comprising a member curved to conform to a portion of the inside of a hat, teeth formed along one edge of said member, the serrations between said teeth being V shaped, and there being narrow slots extending downwardly from the vertices of said serrations, and means for securing said member within a hat, substantially as described.

2. A device of the class described comprising a rectangular plate member curved so as to conform to the rear portion of the inside of a hat, teeth formed in one of the longitudinal edges of said member, the serrations between said teeth being V shaped, and there being narrow slots downwardly extending from the vertices of said V shaped serrations, said teeth being slightly obliquely disposed, and means for securing said member upon the sweat-band of a hat substantially as and for the purpose specified.

944,063. FOLDING BOX. PETER R. WARREN, Lowell, Mass. Filed Aug. 31, 1909. Serial No. 515,487.



1. The combination with a tubular cover closed at one end by flaps and having a strap integral with one of said flaps, of a box slidably contained within said cover, said strap engaging said box at its free end.

2. The combination with a tubular cover closed at one end by flaps and having a strap integral with one of said flaps, of a box slidably contained within said cover, said strap having a hook-shaped free end engaging a slit in said box and permitting the partial withdrawal but preventing the complete withdrawal of the box from the cover.

3. A folding box provided with a tubular cover and having an open and a closed compartment, the ends of said box being formed of three layers of material, the bottom of the closed compartment being formed of two layers of material and the bottom of the open compartment of three layers of material.

4. A folding box having an open compartment and a compartment permanently closed except for a hole through the top, said box being provided with a tubular cover and having a connection fast at one end to the box and at the other end to the cover, said connection being of a length less than that of the box but long enough to permit the box to be withdrawn far enough to uncover the hole in the closed compartment.

944,064. FLUID-PRESSURE ENGINE. JOEL W. WEST, Omaha, Nebr. Filed Aug. 7, 1907. Serial No. 387,454.



1. A fluid pressure engine comprising, in combination, cylinders, synchronously movable pistons, means for controlling a motive fluid, clutches each having a driven member rigidly connected to a common shaft, helically-grooved rods connected with the driving members of said clutches, and means connecting each of the pistons with one of the helically-grooved rods whereby a rectilinear motion of said piston will operate to rotate the shaft.

2. A fluid pressure engine comprising, in combination, a plurality of cylinders, pistons movable in said cylinders and rigidly connected with each other, means for controlling a motive fluid for actuating said pistons, a screw-shaft connected with each of the said pistons and rotated thereby alternately in opposite directions, a driven shaft, and means connecting said driven shaft with the screw shafts so that a rotation of the latter in one direction will be communicated to the driven shaft.

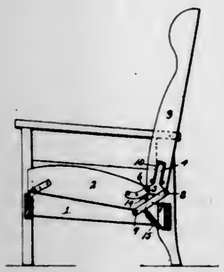
3. A mechanism of the nature disclosed comprising, in combination, a pair of alined cylinders, pistons having piston rods protruding from said cylinders, a cross head fixed to the rods from each piston a guide connecting said cylinders and forming a seat for said cross-head, a screw-shaft rotatively mounted on said guides and in mesh with said cross-head whereby a reciprocation of the latter will produce a rotation of said screw-shaft, a drive shaft arranged substantially parallel with said piston rods, and a mechanical connection between said drive shaft and said screw-shaft.

4. A mechanism of the nature disclosed comprising, in combination, a pair of cylinders, pistons arranged to reciprocate in said cylinders, a pair of cross-heads each mounted in operative relation with one of said pistons, a screw-shaft in operative relation with each of said cross-heads, a shaft, clutch mechanism between said shaft and each screw-shaft and arranged whereby said screw-shafts may alternately act to rotate said shaft in a predetermined direction, and means for causing said screw-shafts to rotate in opposite directions during the reciprocations of said pistons.

5. A mechanism of the nature disclosed comprising, in combination, a driving shaft, a two-part screw-shaft, clutch mechanism for enabling said screw-shaft to rotate said shaft in a predetermined progressive direction, reciprocatory means adapted to rotate one portion of said screw-shaft in a right handed direction and other portion in a left handed direction during the advance of said means and adapted to cause a reverse movement of said part during the retreat of said means, and a fluid pressure mechanism for alternately advancing and retreating said means.

[Claims 6 to 16 not printed in the Gazette.]

944,065. ADJUSTABLE RECLINING-CHAIR. JOHN F. WILMOT, Detroit, Mich. Filed Jan. 11, 1908. Serial No. 410,403.



1. An adjustable chair comprising a frame, a seat movable upward and downward at the rear, a back having front and rear lower angles spaced apart, means for pivotally connecting the back near its front angle to the rear of the seat, a link pivoted at one end to the back near the rear angle thereof and pivoted to the frame at the other end.

2. An adjustable chair comprising a frame, a seat movable upward and downward at the rear, a back, an inverted T-head attached to the back and having its forward arm pivoted to the seat and a link pivoted to the rear arm of the head at one end and pivoted at the other end directly to the frame.

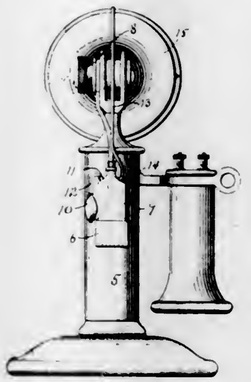
3. An adjustable chair, comprising a frame, a seat movable upward and downward at the rear, a back having front and rear lower angles spaced apart, means for pivotally connecting the back near its front angles to the rear edge of the seat, a link pivoted at one end to the back near the rear angle thereof and pivoted to the frame at the other end, and means to limit the upward and downward movement of the seat.

4. An adjustable chair, comprising a frame, a seat movable upward and downward at the rear, a back, an inverted T-head detachably secured to the back and having the respective ends of the arms at the lower corners of the back, one arm thereof being pivoted to the rear upper corner of the seat, a link pivoted to the other arm of the head at one end and pivoted directly to the frame at the other end.

5. An adjustable chair, comprising a frame, a seat vertically movable at the rear, a back having front and rear lower angles spaced apart and pivoted to the seat at the front angle, a strap on the frame, a link pivoted to the strap at one end and pivoted to the rear angle of the back at the other end, and a stop on the strap engaging the link to limit its upward movement.

[Claim 6 not printed in the Gazette.]

944,066. DISINFECTING ATTACHMENT FOR TELEPHONES. RUSSELL B. ADAMS and LLEWELLYN ADAMS, Westerville, Ohio. Filed May 1, 1909. Serial No. 493,253.



The combination with a telephone, of a receptacle holding device clamped in position by the adjusting screw of said telephone, a receptacle seated therein, a spraying tube leading from said receptacle into the mouth piece of the telephone, means for spraying liquid disinfectant from said receptacle through said tube, and a wire clip, one portion of which engages and supports said tube and the other portion of which engages the mouth piece of the telephone.

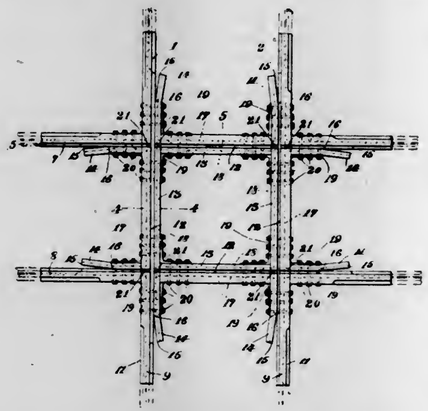
944,067. RAILROAD-CROSSING. CHARLES A. ALDEN, Steelton, and GILBERT S. VICKERY, Harrisburg, Pa. Filed Nov. 30, 1908. Serial No. 465,016.

1. In a railroad crossing, a rolled steel rail having end portions shaped to mate with the adjacent trackrails and a central portion wider than the end portions, said central portion having a flangeway in the top thereof and longitudinal channels in the side walls thereof and being constructed of solid rolled steel between said channels.

2. In a railroad crossing, a rolled steel rail having end portions shaped to mate with the adjacent track rails and a central portion wider than the end portions, said central portion having a flangeway in the top thereof, the inner wall of the flangeway forming a guard, and the end portion of the guard being cut and bent away from the main body of the rail.

3. In a railroad crossing, a rolled steel rail having end portions shaped to mate with the adjacent track rails and a central portion wider than the end portions; said central portion having longitudinal channels in the side

walls thereof, and a flangeway in the top thereof and being constructed of solid rolled steel between said channels, the inner wall of the flangeway forming a guard and the end portions of the guard being cut and bent away from the main body of the rail.



4. In a railroad crossing a main rail; a cross rail including a rolled steel section having an outer end portion shaped to mate with an adjacent track rail, an inner end portion wider than the outer end portion and having a flangeway in the top thereof and longitudinal channels in the side walls thereof and being constructed of solid rolled steel between said channels, the inner end of said section being fitted against the side of the main rail; and means for securing said main rail and said section together.

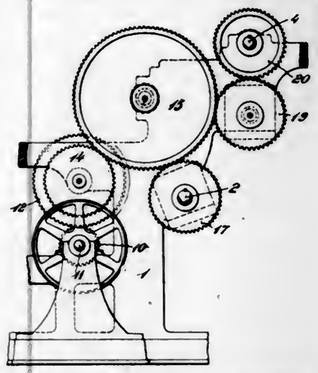
5. In a railroad crossing a main rail, a cross rail including a rolled steel section having an outer end portion shaped to mate with an adjacent track rail, an inner end portion wider than the outer end portion and having a flangeway in the top thereof and longitudinal channels in the side walls thereof and being constructed of solid rolled steel between said channels, the inner end of said section being fitted against the side of the main rail, and the inner wall of the flangeway forming a guard and the outer end portion of the guard being cut and bent away from the main body of said section; and means for securing said main rail and said section together.

944,068. DRIVING MECHANISM FOR PRINTING-PRESSES. ELMER E. BABCOCK, Stonington, Conn., assignor to C. B. Cottrell & Sons Company, New York, N. Y., a Corporation of New Jersey. Filed Sept. 29, 1908. Serial No. 455,240.

1. A driving mechanism for printing presses comprising intermeshing loose gears, means for driving one of them, plate cylinder gears respectively driven directly from said loose gears and impression cylinder gears driven directly from their respective plate cylinder gears.

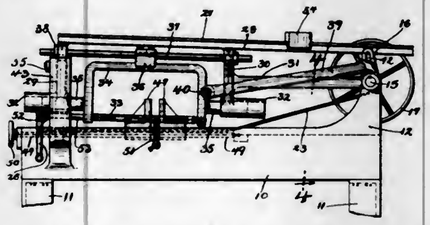
2. A driving mechanism for printing presses comprising a first impression cylinder shaft, fast and loose gears thereon, a second impression cylinder shaft, fast and loose gears thereon, means for driving the loose gears, a first plate cylinder gear meshing with the fast and loose gears on the first impression cylinder shaft and a second plate cylinder gear meshing with the fast and loose gears on the second impression cylinder shaft.

3. A driving mechanism for printing presses comprising a first impression cylinder shaft, fast and loose gears thereon, means for driving the loose gear, a second impression cylinder shaft, fast and loose gears thereon, the said loose gear meshing with the loose gear on the first impression cylinder shaft, a first plate cylinder gear meshing with the fast and loose gears on the first impression cylinder shaft and a second plate cylinder gear meshing with



the fast and loose gears on the second impression cylinder shaft.

944,069. POWER-HACKSAW. CHARLES W. BERGMANN, Cleveland, Ohio. Filed Jan. 13, 1908. Serial No. 410,491.



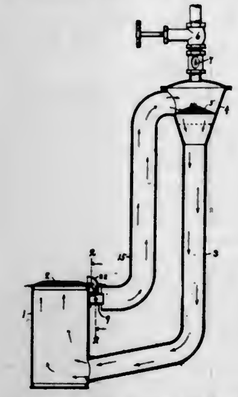
1. In a hack saw, a table, a driving shaft mounted on said table, a vertically arranged supporting frame comprising a top bar provided with a pair of downwardly extending arms having openings in their lower ends, an arm rigidly connected at one end to one of said downwardly extending arms, and at its other end pivotally supported on said table, a yoke shaped saw carrying frame provided at its lower end with studs adapted to fit into and slide freely in the openings in the arms of the supporting frame, means for holding said saw carrying frame against lateral displacement, and means operatively connecting said saw frame with the driving shaft.

2. In a hack saw, a table, a driving shaft mounted on said table, a vertically arranged frame comprising a top bar provided with a pair of downwardly extending arms having openings in their lower ends, an arm rigidly connected at one end to one of said downwardly extending arms and at its other end pivotally supported on said table, a yoke shaped saw carrying frame provided at its lower end with studs adapted to fit into and slide freely in the openings in the arms of the supporting frame, means for holding said saw carrying frame against lateral displacement within said supporting frame, means operatively connecting said saw carrying frame with the driving shaft, and a pair of guides arranged to receive the end of the supporting frame between them, one of said guides being rigidly mounted on said table, and the other guide being adjustable toward the rigid guide for the purpose set forth.

944,070. HYDROCARBON-BURNER. WILLIAM J. BEST, Detroit, Mich. Filed Nov. 23, 1908. Serial No. 464,163.

1. A hydrocarbon burner comprising a main burner chamber, a main burner at the upper end of the same, an evaporator connected to the main burner chamber, a sub-burner connected to the main burner chamber, an air and heat conductor leading from the sub-burner to the evaporator, and a pilot burner adjacent to the sub-burner and the main burner to transfer a flame to the sub-burner.

2. A hydrocarbon burner comprising a main burner, an evaporator connected thereto, a sub-burner, a connector for conveying heated air from the sub-burner to the evaporator, and a pilot burner adjacent the main burner and sub-burner to transfer a flame from one to the other.



3. A hydrocarbon burner comprising a main burner and chamber, an evaporator, an evaporator channel connecting the evaporator with said chamber, a sub-burner outside the main burner chamber, a foraminous portion or wall separating the sub-burner from said chamber through which said chamber communicates with the sub-burner, and an air and heat conducting pipe leading to the evaporator having its base in proximity to the sub-burner, whereby flame and heat from the sub-burner will enter the base of said pipe.

4. A hydrocarbon burner comprising a main burner chamber, an evaporator, an evaporator channel connecting the evaporator with said chamber, an air and heat conducting pipe leading to the evaporator, a sub-burner located between the main burner chamber and the evaporator to heat the air inside the air and heat conducting pipe, and a foraminous portion separating the sub-burner from said chamber and through which said chamber communicates with the sub-burner.

5. A hydrocarbon burner comprising a main burner cap and chamber, an evapprator, an evaporator channel connecting the evaporator with said chamber, a sub-burner, a foraminous portion separating the sub-burner from said chamber and through which said chamber communicates with the sub-burner, an air and heat conducting pipe leading to the evaporator having its base in proximity to the sub-burner whereby flame and heat from the sub-burner will enter the base of said pipe, and a pilot channel leading from the main burner to the sub-burner.

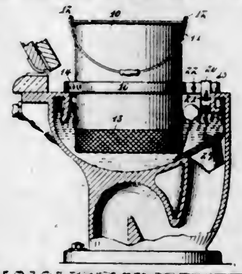
[Claims 6 to 10 not printed in the Gazette.]

944,071. RECEPTACLE FOR BABY-CLOTHS. CHARLES BARWEA, New York, N. Y. Filed Aug. 10, 1909. Serial No. 512,150.

1. A receptacle for baby cloths comprising a solid body portion adapted to rest within the bowl of a water closet and having a perforated bottom; and means for closing the exhaust pipe of said closet.

2. A receptacle for baby cloths comprising a perforated body adapted to rest within the bowl of a water closet; means for holding the said receptacle in guided relation with said bowl; and means for closing the exhaust pipe of said closet.

3. A receptacle for baby cloths, comprising a solid body portion forming the sides and having secured thereto an open wire bottom adapted to form a bottom and a portion of the sides of said receptacle; lateral projections depended from the solid body portion and adapted to rest upon the upper edge of a water closet bowl to support the bottom of said receptacle off the bottom of the bowl; and depended arms extending from said projections adapted to rest against the inner side of said edge of the bowl.

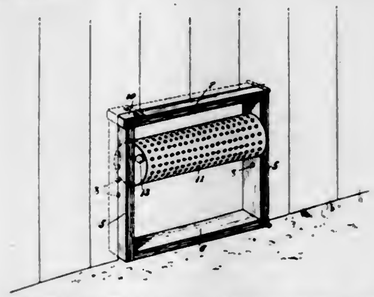


4. A receptacle for baby cloths, comprising a solid body portion forming the sides and having secured thereto an open wire bottom adapted to form a bottom and a portion of the sides of said receptacle; lateral projections depended from the solid body portion and adapted to rest upon the upper edge of a water closet bowl to support the bottom of said receptacle off the bottom of the bowl; depended arms extended from said projections adapted to rest against the inner side of said edge of the bowl; and adhesive coverings for said depended arms adapted to adhere to the surface of said edge.

5. A receptacle for baby cloths, comprising a solid body portion forming the sides and having secured thereto an open wire bottom adapted to form a bottom and a portion of the sides of said receptacle; lateral projections depended from the solid body portion and adapted to rest upon the upper edge of a water closet bowl to support the bottom of said receptacle off the bottom of the bowl; depended arms extended from said projections adapted to rest against the inner side of said edge of the bowl; and a movable depended arm adapted to be extended from the said receptacle against the edge of said bowl to form adjustable contacts for the inner surface of said edge.

[Claims 6 to 13 not printed in the Gazette.]

944,072. AUTOMATIC FOWL-DUSTER. OSCAR E. BUFFUM, Enumclaw, Wash. Filed June 22, 1909. Serial No. 503,611.



1. In a fowl duster, a support, and a container for dusting material movably mounted on said support and arranged to be driven by the frictional contact of the fowl in passing under it.

2. In a fowl duster, a support, and a perforated container for the dusting material, revolubly mounted on the support and arranged to be driven by the frictional contact of the fowl in passing under it.

3. The combination in a duster for fowls, of a structure having an opening through which the fowls pass, and a

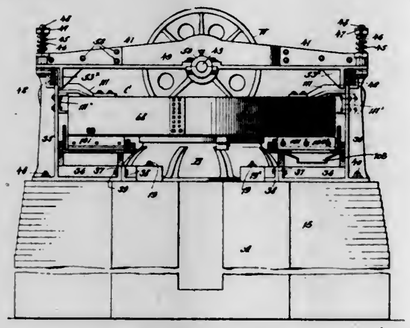
dusting device revolubly mounted adjacent to said opening and arranged to be driven by the frictional contact of the fowl in passing through said opening.

4. The combination in a duster for fowls, of a support having an opening through which the fowls pass, and a perforated container for the dusting material, revolubly mounted in said support and arranged to be driven by the frictional contact of the fowls in passing through said opening.

5. In a fowl duster, a perforated container for the dusting material, revolubly mounted in the support and arranged to be driven by the frictional contact of the fowl, and means adapting the container to be adjusted to different elevations.

[Claims 6 and 7 not printed in the Gazette.]

944,073. PULVERIZING OR GRINDING MILL. EDWARD H. CALLAWAY, Westfield, N. J., assignor to The American Clay Machinery Company, Bucyrus, Ohio, a Corporation of Ohio. Filed Mar. 18, 1907. Serial No. 362,835.



1. In a grinding mill, a horizontally rotating web having an upper grinding surface, upright beam-supports upon the outside of said rotary web, a horizontal beam bridging and extending beyond said web and surface and connected to rise and fall at both ends in relation to said supports, guides at the opposite ends of the beam, said beam having a central oblong loop, a grinding wheel journaled to said beam and revolving in said loop, follower springs at the opposite ends of the beam for forcing it downwardly, and cushioning springs for the beam.

2. In a grinding mill, a rotary grinding element, supports parallel to the axis of said element, a beam bridging said element and having a central oblong loop from which its opposite ends extend to overlap and be supported by said supports, a centrally disposed grinding element fixed to turn within the loop on an axle mounted on and crosswise of said beam, downward forcing springs at the opposite ends of said beam, and weaker cushioning springs interposed between the beams and their supports.

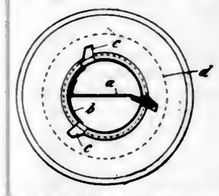
3. The combination with a rotary grinding web and the means for rotating it, of the upright standards arranged in pairs, of beams bridging said web and provided with suitable bearings, one of which beams being supported by each pair of standards, angular means on the beams engaging opposing faces on the standards, other angular means on the beams engaging other faces on the standards, and grinding wheels journaled in the said beams.

4. In a grinding mill the combination with the base and the rotary pan having coöperating raceways, of balls running in said raceways, a freely rotatable ring, and rollers rotatably mounted on said ring and interposed between adjacent balls.

5. In a grinding mill the combination with the fixed base and rotary pan having coöperating raceways, of balls running in said raceways, a ring carrying radial spindles, rollers mounted on said spindles and interposed between the balls, and means for guiding and sustaining the ring.

[Claims 6 to 8 not printed in the Gazette.]

944,074. DEVICE FOR FACILITATING REINSERTION OF DISKS FORMING LINERS OF CENTRIFUGAL DRUMS. ALGOT L. CHRISTENSON, Stockholm, Sweden. Filed Jan. 29, 1908. Serial No. 413,201.



1. A device for facilitating re-insertion of disks forming the liner of a centrifugal drum, after removal, comprising a sheet-metal strip adapted to project, when the device is inserted into the central openings of the disks, into the series of notches at the inner edges of the said disks corresponding to one of the longitudinal flanges of the central tube of the drum, and a second strip placed at an angle to the former and adapted to bear on the inner edges of the disks so as to form a guide therefor, substantially as and for the purpose set forth.

2. A device for facilitating re-insertion of disks forming the liner of a centrifugal drum, after removal, comprising a sheet metal strip adapted to be inserted through the central openings of the said disks in such a manner as to extend across the said openings and project into the series of notches at the inner edges of the disks corresponding to one of the longitudinal flanges of the central tube of the drum, said strip having, at its opposite side, a part curved to correspond to the curvature of the inner edges of the disks, substantially as and for the purpose set forth.

3. A device for facilitating re-insertion of disks forming the liner of a centrifugal drum, after removal, comprising a sheet metal strip adapted to be inserted through the central openings of the said disks in such a manner as to extend across the said openings and project into the series of notches at the inner edges of the disks corresponding to one of the longitudinal flanges of the central tube of the drum, said strip having, at its opposite side, a curved part adapted to bear on the inner edges of the disks, at both sides of the part of the strip extending across the openings of the disks, substantially as and for the purpose set forth.

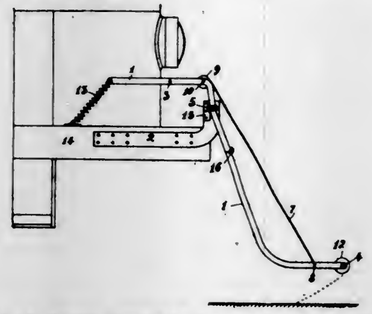
4. A device for facilitating re-insertion of disks forming the liner of a centrifugal drum, after removal, comprising a sheet metal strip folded at one edge, said strip being adapted to be inserted through the central openings of the said disks in such a manner as to extend across the said openings and project, with the folded edge, into the series of notches at the inner edges of the disks corresponding to one of the longitudinal flanges of the central tube of the drum, said strip having, at its opposite side, a curved part adapted to bear on the inner edges of the disks so as to form a guide therefor, substantially as and for the purpose set forth.

5. A device for facilitating re-insertion of disks forming the liner of a centrifugal drum, after removal, comprising a sheet metal strip adapted to be inserted through the central openings of the said disks in such a manner as to extend across the said openings and project into the series of notches at the inner edges of the disks corresponding to one of the longitudinal flanges of the central tube of the drum, said strip having, at its opposite side, a part adapted to bear on the part of the inner edges of the disks remote from the said series of notches and to catch into a second series of notches of the disks, substantially as and for the purpose set forth.

[Claim 6 not printed in the Gazette.]

944,075. CAR-FENDER FOR TRAMWAYS AND THE LIKE. SILVIO CIRI, Rome, Italy. Filed June 12, 1909. Serial No. 501,774.

1. A car fender for tramways and the like comprising two rocking arms provided on the front end of the car, cross bars connecting the said two arms, an extensible apron stretched between them and opposing springs which normally keep the arms in such a position that their ends are somewhat raised from the ground and allow them to yield resting with the said lower ends against the ground when a heavy body falls upon the cloth yieldingly stretched between said two arms, for the purposes set forth in the specification.



2. A car fender comprising two rocking arms provided on the front end of the car, cross bars connecting said arms, elastic rollers on the cross bar which connects the lower ends of the two arms and comes into contact with the bodies which obstruct the track, an apron which can be wound up and which is stretched between the two oscillating arms and opposing springs which connect the upper ends of the oscillating arms with the frame of the car, for the purposes set forth in the specification.

3. A car fender for tramways and the like comprising two rocking arms connected together by means of cross bars, opposing springs which connect the upper ends of the rocking arms to the frame of the car, an apron which can be wound up stretched between the two oscillating arms, a winding hollow shaft for said apron loose upon a cross bar and springs connecting the cross bar with hollow shaft on which the apron is wound, in such a way that the apron is normally kept stretched, and only unwinds when a heavy body falls upon same.

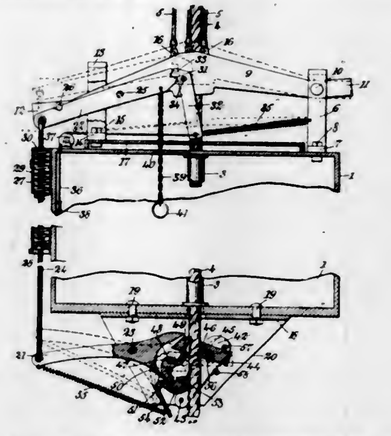
4. A car fender for tramways and the like comprising two rocking arms connected by means of cross bars, an apron which can be wound up and which is secured between said arms, opposing springs which connect the said two arms with the frame of the car and hinges provided in the two arms which allow of the apparatus being raised up when the car is coupled to a tractor, for the purposes set forth in the specification.

944,076. SAFETY DEVICE FOR ELEVATORS. ZACHARIAH T. DANSEY, Topeka, Kans. Filed Mar. 3, 1909. Serial No. 481,112.

1. The combination, with an elevator well having the usual guides, a car arranged to travel in said well, and hoisting means for said car, of an emergency support, a member mounted upon said car and having a limited movement, said hoisting means being secured to said member, a movable lever controlled by said member, means tending to move said lever, a controlling lever member operated by the movement of said lever, and a grip controlled by said controlling lever member and adapted to coact with said support to stop said car.

2. The combination, with an elevator well having the usual guides, a car arranged to travel in said well, and hoisting means for said car, of an emergency support for said car and distinct from said guides, a member movably mounted upon said car, a stop limiting the movement of said member, said hoisting means being secured to said member, a movable lever controlled by said member, resilient means tending to move said lever, a controlling lever member connected with the lever, and a grip controlled by said controlling lever member and adapted to coact with said support to stop said car.

3. The combination, with an elevator well having the usual guides, a car arranged to travel in said well, and hoisting means for said car, of an emergency support for said car and distinct from said guides, a yoke pivotally mounted upon said car, a stop for limiting the movement of said yoke, said hoisting means being secured to said yoke, a swinging lever controlled by said yoke, a spring secured to said lever and serving to actuate said lever when said yoke is released, and a grip controlled by said lever and adapted to be actuated by the same to engage said support to stop said car.

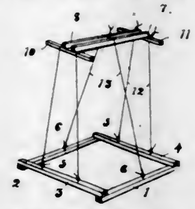


4. A device of the class described, comprising an emergency support, a car movable longitudinally of said support, a member pivotally mounted upon said car, a stop limiting the movement of said member, hoisting means for said car secured to said member, a swinging lever engaged by said member, resilient means for actuating said lever, a grip adapted to co-act with said support to stop said car, a controlling lever member for controlling said grip, and a connection between said swinging lever and the controlling lever member to operate the latter when the said swinging lever is actuated.

5. A device of the class described, comprising an emergency support, a car movable longitudinally of said support, a yoke pivotally mounted upon said car, a stop for limiting the movement of said yoke, hoisting means for said car secured to said yoke, a swinging lever controlled by said yoke, a spring secured to said lever and serving to actuate said lever when said yoke is released, and a grip controlled by said lever and adapted to be actuated by the same to co-act with said support to stop said car.

[Claims 6 to 12 not printed in the Gazette.]

944,077. CRATE. MORDECAI O. DAVIS, Duluth, Minn., assignor of one-half to Clarence E. Peaslee, Duluth, Minn. Filed Apr. 15, 1909. Serial No. 490,087.



1. A crate, comprising a bottom, a top having a slot adapted to allow the handles of the baskets to pass therethrough and a flexible connection between the top and bottom and adapted to clamp the baskets between the same and engage the sides of the baskets.

2. A crate, comprising a bottom, a top having a slot adapted to allow the handles of the baskets to pass therethrough, and a flexible connection between the top and bottom and wires secured to the bottom and passing over the top and twisted together.

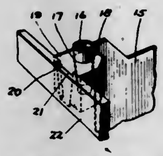
3. A crate comprising a bottom composed of bed plates and cross plates upon which the baskets are adapted to rest, said bed and top composed of two strips spaced a distance apart to allow the handle of the basket to pass between the same, cross pieces connecting the ends of the strips, wires secured to the bottom and extending over the strips and the cross pieces and twisted together and clamping the baskets between the top and bottom.

4. A crate, comprising a bottom composed of bed plates upon which the basket rests, cross plates connecting the ends of the bed plates, a top composed of two strips spaced a distance apart to allow the handle of the basket to pass between the same, cross pieces connecting the ends of the strips and extending a distance on either side, wires secured to the cross plates of the bottom and extending over the cross pieces of the top on the outside of the strips and secured together and wires secured to the bed plates and extending over the strips of the top on the outside of the before mentioned wires.

5. A crate, comprising a bottom, a top having a central longitudinal opening to allow the handles of the baskets to pass therethrough, and wires secured to the bottom and extending over the top and hoisted together and clamping the baskets between the top and bottom.

[Claims 6 and 7 not printed in the Gazette.]

944,078. COUPLING FOR BATTERY ELEMENTS. FRANK A. DECKER, Philadelphia, Pa., assignor to Decker Electrical Manufacturing Company, Wilmington, Del., a Corporation of Delaware. Filed Oct. 5, 1906, Serial No. 337,544. Renewed Nov. 11, 1909. Serial No. 527,568.



1. A coupling for battery parts comprising, in combination with an electrode, a device having a tapered bearing fixed to said electrode, a holder having a tapered bearing for receiving said device, and an insulating casing for said holder.

2. A coupling for battery parts comprising, in combination with an electrode, a device fixed to said electrode, a holder for engaging said device, and a support for said holder, said holder and support having tapering bearings engaged one by the other.

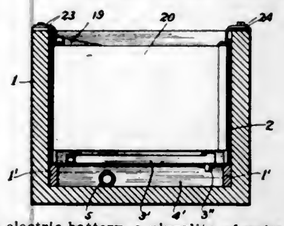
3. A coupling for battery parts comprising, in combination with an electrode, a device having a tapered bearing fixed to said electrode, a holder having a tapered bearing for engaging the tapered bearing of said device, and a support for said holder, said holder and support having tapering dovetail bearings engaging one with the other.

4. A coupling for battery parts comprising, a conducting bar having a downwardly tapering bearing, a holder having a downwardly tapering bearing engaging said first bearing, and an electrode engaged and supported by said holder.

944,079. ELECTRIC BATTERY. FRANK A. DECKER, Philadelphia, Pa., assignor to Decker Electrical Manufacturing Company, Wilmington, Del., a Corporation of Delaware. Filed June 20, 1907, Serial No. 379,834. Renewed Nov. 11, 1909. Serial No. 527,569.

1. In an electric battery, a vessel and in said vessel a plurality of removable cells each having a resistance duct connecting its interior and the interior of said vessel, said vessel and cells being adapted for holding a solution communicating from one to the other through said ducts.

2. In an electric battery, a vessel containing a plurality of cells each having a resistance passage, a liquid compartment communicating with said passages, a liquid reservoir connected with said compartment, and a fluid pressure reservoir connected with said liquid reservoir.



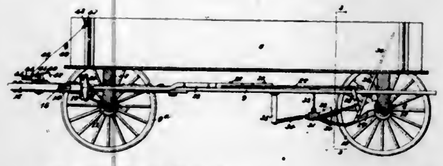
3. In an electric battery, a plurality of units, each comprising a compartment and a plurality of cells having resistance ducts communicating with said compartment, means for connecting said compartments, and means for filling and emptying said cells through said compartments.

4. In an electric battery, a plurality of units, each comprising a bottom compartment and a plurality of cells having resistance ducts connecting them with said compartments, resistance ducts connecting said compartments, and means connected with said compartments for filling and emptying said cells therethrough.

5. In an electric battery, a pair of vessels, a resistance duct connecting said vessels and in each of said vessels a set of removable cells each having a resistance duct connecting its interior and the interior of the vessel containing it whereby intercommunication is effected between the respective vessels and the cells contained therein.

[Claims 6 to 11 not printed in the Gazette.]

944,080. WAGON-BRAKE. EBEN G. DOLAND, Starksboro, Vt. Filed May 29, 1909. Serial No. 499,168.



1. The combination with a wagon, of a brake for said wagon, a reach for said brake, a slidable tongue for said wagon, and co-acting beveled rollers on said tongue and said reach, whereby said tongue is adapted to operate said brake.

2. The combination with a wagon, of a brake for said wagon, a reach for said brake, a slidable tongue for said wagon, and co-acting crown rollers on said tongue and said reach, whereby said tongue is adapted to operate said brake.

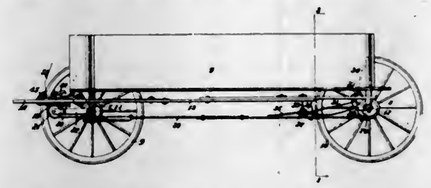
3. The combination with a wagon, of a brake for said wagon, a reach for said brake, a slidable tongue for said wagon, co-acting crown rollers on said tongue and said reach, whereby said tongue is adapted to operate said brake, means for preventing said tongue from sliding, and means for automatically releasing said brake.

4. The combination with a wagon, of front and rear trucks for said wagon, a tongue slidingly connected to said front truck, a brake for said wagon, a reach-bar for operating said brake, a beveled roller pivoted to said tongue, a beveled roller pivoted to said reach-bar and engaging said first-mentioned beveled roller, and a lock adapted to prevent the sliding motion of said tongue.

5. The combination with a wagon, of front and rear trucks for said wagon, a tongue slidingly connected to said front truck, a brake for said wagon, a reach-bar for operating said brake, a beveled roller pivoted to said tongue, a beveled roller pivoted to said reach-bar and engaging said first-mentioned beveled roller, a lock adapted to prevent the sliding motion of said tongue, and a spring adapted to automatically release said brake.

[Claims 6 to 9 not printed in the Gazette.]

944,081. WAGON-BRAKE. EBEN G. DOLAND, Starksboro, Vt. Filed May 29, 1909. Serial No. 499,169.



1. The combination with a wagon, of a brake for said wagon, a slidable tongue, means for operating said brake from said tongue, and a spring connection between said brake and said last-mentioned means, whereby said brake and said means are simultaneously drawn in opposite directions.

2. The combination with a wagon, of a forward truck for said wagon, a tongue slidingly secured to said truck, a lock-engaging member on said tongue, a lock on said truck, normally spring-pressed away from said lock-engaging member, and a spring-pressed latch adapted to engage said lock to hold said lock in engagement with said lock-engaging member.

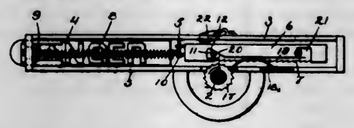
3. The combination with a wagon, of a tongue slidingly secured to said wagon, a lock-engaging member on said tongue, a lock on said wagon, normally held out of engagement with said lock-engaging member, and a pivoted latch on said wagon, adapted to retain said lock in engagement with said locking member.

4. The combination with a wagon, of a slidable tongue for said wagon, a lock-engaging member on said tongue, a lock on said wagon, normally held out of engagement with said lock-engaging member, a latch on said wagon, and a slide on said lock adapted to engage said latch, to hold said lock in engagement with said locking member.

5. The combination with a wagon, of a slidable tongue for said wagon, a lock-engaging member on said tongue, a spring-pressed lock pivotally secured to said wagon, normally held out of engagement with said lock-engaging member, a spring-pressed latch on said wagon, and a spring-pressed slide on said lock adapted to engage said latch to hold said lock in engagement with said locking member.

[Claims 6 to 9 not printed in the Gazette.]

944,082. REAR GUARD FOR TRACTION-CARS. ROBERT DRESSMANN, Covington, Ky., assignor of one-half to Charles C. Carter, Cincinnati, Ohio. Filed Nov. 23, 1908. Serial No. 464,179.



1. In a traction car signaling device to be projected beyond the rear of the car, mechanism for normally retaining the device underneath the car, means for releasing the retaining mechanism under control of the motorman, spring for propelling the device from under the car body, rack to which the device is attached, and ratchet wheel to engage said rack and withdraw the device underneath the car.

2. In a traction car signaling device to be projected beyond the rear of the car, mechanism for normally retaining the device underneath the car, means for releasing the retaining mechanism under control of the motorman, spring for propelling the device from under the car body, ratchet wheel mounted on the car axle to rotate therewith, rack bar to which the signaling device is attached normally disengaged from the ratchet wheel, and means for throwing said bar and wheel into engagement with each other to withdraw the signaling device underneath the car body with the advance of the car.

3. In a traction car signaling device to be projected beyond the rear of the car, a retaining pin to hold the device underneath the car body, means for releasing the pin under control of the motorman, spring for propelling the device from under the car, ratchet wheel mounted on the car axle to rotate therewith, rack bar to which the signaling device is attached, provided with a slot engaged by the retaining pin to hold the rack bar out of engagement with the ratchet wheel, with spring arm to enforce such engagement, and connection for said spring arm with the rack bar releasing device whereby the spring arm may be disengaged simultaneously with the retaining pin.

944,083. WEED-EXTERMINATOR. EDGAR A. FRANCIS, Marshalltown, Iowa, assignor of one-half to George A. Howe, Marshalltown, Iowa. Filed Apr. 9, 1909. Serial No. 488,838.



1. In a device of the class described, a hollow body having an outlet, means for normally closing said outlet, and further means movable in the body for engaging said first-mentioned means to move the same whereby a fluid can be discharged through said opening.

2. In a device of the class described, a body adapted to contain a fluid, an end member located at one of the extremities of said body, a penetrator removably arranged at the extremity of said end member, said end member further having an opening, resilient means for normally closing said opening, and a manually operable rod within the body for actuating said means whereby the liquid within said body can be discharged.

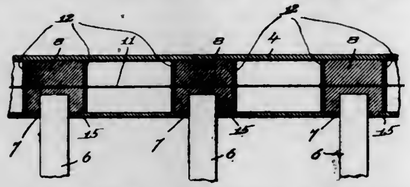
3. In a device of the class described, a casing having a passage therethrough, a penetrator removably arranged at one of the ends of said casing, a cap arranged over the other end of said casing, means for securing said cap in place, said casing further having an opening adjacent to said penetrator and connecting with said passage, a resilient guard mounted on said casing and normally closing said opening, and means within the body for operating said guard to allow the discharge of a liquid from said casing.

4. In a device of the class described, a body having a passage extending therethrough and having its lower end tapered, a penetrator located at the lower end of said body and having a base of larger diameter than the end of said body, said body being provided with an outlet, and a resilient guard normally closing said outlet and having its free end terminating adjacent to the base of said penetrator whereby said guard is protected.

5. In combination, a body, handles secured to said body adjacent one end thereof and having outwardly-extending portions resiliently mounted in respect to said body, and a cap or cover for said body having a flange terminating adjacent said handles and held in position by the latter.

[Claims 6 to 13 not printed in the Gazette.]

944,084. BEDSTEAD. FRANCIS G. GALE, Waterville, Quebec, Canada. Filed Mar. 5, 1909. Serial No. 481,320.



1. In a bed frame, the combination with a tubular member having an opening, of separate partitions situated within the tubular member and extending transversely thereof, said partitions forming between them a compartment with which the opening communicates, a second member extended into said member, and a chill filling said compartment and uniting the two members together.

2. In bed frame construction, the combination with a tubular member having openings, of a plurality of separate partitions situated within and extending transversely of said tubular member and forming compartments therein into which said openings lead, other members extending into said openings, and chills filling said compartments and uniting said members together.

3. The method of making bed frames which consists in forming a tubular member with an opening, connecting together a pair of partitions, drawing said partitions into the tubular member until they form between them a compartment into which said opening leads, inserting another member into said opening, and pouring molten metal into the compartment formed between the partitions.

4. The method of making bed frames which consists in forming a tubular member with a plurality of openings, connecting together a plurality of pairs of partitions by means of a flexible connection, drawing said partitions into said tubular member until each pair of partitions is positioned to form a compartment between them into which an opening in the tubular member leads, inserting the ends of other members into said opening, and pouring molten metal into said compartments.

944,085. BED-FRAME. FRANCIS G. GALE, Waterville, Quebec, Canada. Filed Mar. 8, 1909. Serial No. 481,886.

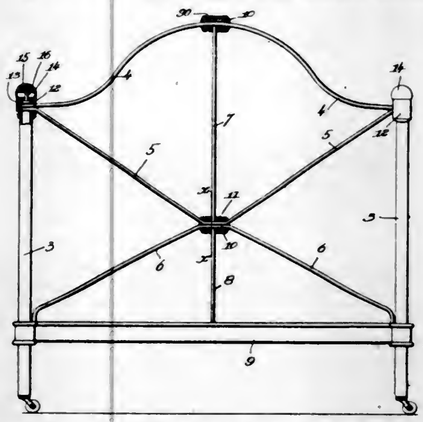
1. In a bedstead, the combination with pillars or posts, of rods connecting said posts, and other rods connecting the first-named rods, chills connecting the meeting portions of the rods, and a protecting member inclosing and protecting each chill and within which said chill is formed.

2. In a bedstead, the combination with pillars or posts, of rods connecting said posts, other rods connecting the first-named rods, a tubular protecting member inclosing the rods at the points where they meet, and a chill connecting the rods at their meeting points and inclosed in and filling said protecting member.

3. In a bedstead, the combination with pillars or posts, of a rod connecting said posts, a tubular protecting member encircling each post at the point where said rod meets the same, and a chill filling the space between said tubular protecting member and post and uniting the rod thereto.

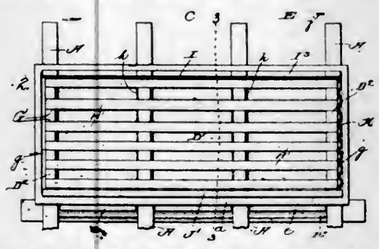
4. In a bedstead, the combination with meeting members extending at an angle to each other and forming part of a bed frame, of a chill connecting said members at the meeting point, and a protecting member inclosing the chill and within which the chill is formed.

5. In a bedstead, the combination with meeting members extending at an angle to each other and forming part of a bed frame, of a tubular protecting member through which one of said first-named members extends,



said protecting member having an aperture in one end through which the end of the other of said first-named members is inserted, and a chill formed in the protecting member and uniting the first-named members together.

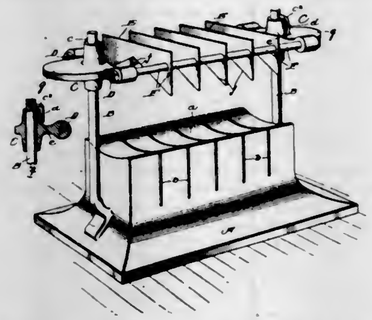
944,086. AIR-COOLING APPARATUS. JOHN E. GLOEKLER, Pittsburg, Pa. Original application filed Aug. 20, 1908, Serial No. 449,455. Divided and this application filed June 23, 1909. Serial No. 503,938.



A grating for the purpose described, comprising a suitably supported metallic frame having longitudinally disposed seats, of U-shape in cross-section, at its ends and at intervals of its length, and longitudinal, metallic bars, of inverted U-shape in cross-section and uniform height throughout their lengths, extending from end to end of the metallic frame and each snugly fitting in end and intermediate seats of the frame and adapted to be individually removed from the frame and replaced therein.

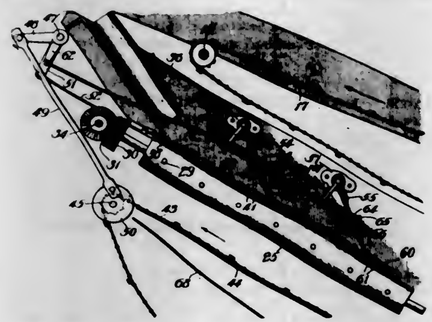
944,087. VEGETABLE-CUTTER. JOHN E. GLOEKLER and ALFRED B. STAHL, Pittsburg, Pa. Filed July 28, 1909. Serial No. 510,125.

The combination in a corn cutter, of a base having an upper side concave in cross-section and also having a plurality of transverse kerfs at intervals of its length extending downwardly from said side, uprights fixed with respect to and rising from the end portions of the base, a resilient catch on the upper portion of one of the uprights, and a rectilinearly movable cutter comprising end members slidable up and down on the said uprights; one of the said end members being provided with means adapted on upward movement of the cutter to be engaged with the catch and also adapted when the cutter is forcibly moved downward to be released by said forcible movement from the catch, and blades connected with the end members and alined with the transverse kerfs in the base and having depending portions at opposite sides of the



longitudinal center of the cutter, whereby the blades are enabled to make drawn cuts and prevent lateral displacement of an ear of corn from the base.

944,088. CORN-HUSKING MACHINE. JAMES E. GOODHUE, St. Charles, Ill. Filed Mar. 24, 1909. Serial No. 485,473.



In a corn-husking machine, the combination with a frame provided with side-bars, of a pair of inclined and co-acting husking-rolls journaled on said frame and along which rolls the ears to be husked are moved, a bearing on one of said side-bars provided with a stop, an ear gripping and releasing presser-device over the bite of the rolls provided with a crank extending through said bearing and confined to rock freely therein, a crank-arm on said crank beyond the side-bar adapted to engage said stop, a rod engaging said crank-arm, provided with a stop at one side of the arm, a spring surrounding the rod at the other side of the arm, means on the rod for adjusting the tension of the spring, and means for oscillating said rod to press said device intermittingly into gripping engagement with the ears on the rolls to hold the ears during such engagement against movement upon the rolls, for the purpose set forth.

944,089. CHERRY-PITTER. FRED E. GREENE, Courtland, Cal. Filed Sept. 18, 1909. Serial No. 518,403.

1. In a cherry pitter, a handle, a tube mounted thereon, which is adapted to have its terminal inserted in a cherry at the place from which the stem of the cherry has been removed, a plunger disposed in the tube adapted to remove the pits therefrom, there being a slot in the handle, a thumb piece secured to the plunger disposed through the slot, and a spring adapted to hold the plunger away from the terminal of the tube.

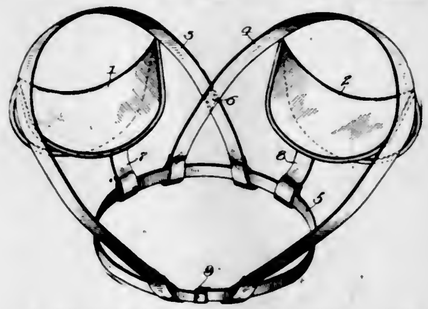
2. In a cherry pitter, a handle, a tube made of resilient material mounted thereon, having a longitudinal slot therein which permits pits to expand the tube, and the pits to be held within the tube by the resilient properties of the tube, the tube being adapted to have its terminal inserted in a cherry, a plunger disposed in the tube adapted to remove pits therefrom, and means adapted to operate the plunger.



3. In a cherry pitter, a handle, a tube made of resilient material mounted thereon, having a longitudinal slot therein which permits pits to expand the tube, and the pits to be held within the tube by the resilient properties of the tube, the tube being adapted to have its terminal inserted in a cherry, a plunger disposed in the tube adapted to remove pits therefrom, there being a slot in the handle, a thumb piece secured to the handle disposed through the slot, and a spring adapted for holding the plunger yieldingly in a predetermined position.

4. In a cherry pitter, a handle, a tube mounted thereon which is adapted to have its terminal inserted in a cherry, a plunger disposed in the tube adapted to remove pits therefrom, there being a slot in the handle, a thumb piece secured to the handle disposed through the slot, and a spring adapted for holding the plunger yieldingly in a predetermined position.

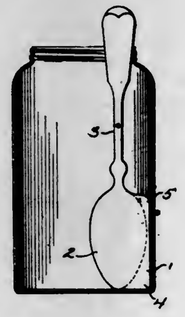
944,090. DRESS-SHIELD DEVICE. ROSA T. GRUND, Chicago, Ill. Filed May 13, 1909. Serial No. 495,598.



1. A device of the class specified comprising a pair of dress shields, a pair of straps arranged to pass over the shoulders and down the front and back of the party wearing the shields, said shields being attached to said straps and the straps being attached to one another and crossed in the back, and a belt to which said straps are attached front and back.

2. A device of the class specified comprising a pair of dress shields, a pair of straps arranged to pass over the shoulders and down the front and back of the party wearing the shields, said shields being attached to said straps and the straps being attached to one another and crossed in the back, a belt to which said straps are attached front and back, and a pair of supplemental straps extending down from the dress shields to the belt, all of said straps having sliding connections with the belt.

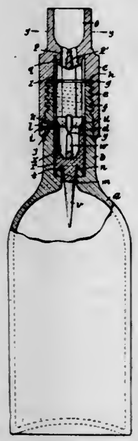
944,091. SPOON. IDA B. HARN, Hoopeston, Ill. Filed July 7, 1909. Serial No. 506,301.



1. An implement for removing material from jars and the like comprising an oval spoon bowl having a handle at one end, said bowl having a lateral extension integrally formed upon one edge thereof and extending the entire length of the bowl, said extension being of the same lateral curvature as the bowl, the side edge of the extension being longitudinally and concavely curved, and the outer end edge thereof extending at a right angle to the longitudinal center of the bowl to form a bottom-scraping edge.

2. An implement for removing material from jars and the like comprising an oval spoon bowl arcuate in transverse section and in longitudinal section, said bowl having an integral extension at one side thereof throughout its length, said extension being of the same curvature as the bowl, the longitudinal edge of the extension being concavely arcuate and forming a shoulder at the end of the bowl adjacent the handle, for engagement beneath the neck of jars and the like and forming a transverse bottom-scraping edge at its outer extremity for the purposes described.

944,092. NON-REFILLABLE BOTTLE. CHARLES HATOSSY, Passaic, N. J. Filed Sept. 18, 1909. Serial No. 518,312.



1. The combination of a bottle having a neck, said neck having a chamber and said chamber having a port of communication with the interior of the bottle and a port of communication with the exterior, and a valve arranged in said chamber and movable to close the first port, said valve being also adapted to close the second port and having a fragile part normally limiting the valve against assuming the closing relation with respect to the second port, substantially as described.

2. The combination of a bottle having a neck, said neck having a chamber and the upper and lower walls of said chamber being each formed with a port leading the one to the interior of the bottle and the other to the exterior, and a valve having vertical movement in said chamber into closing relation to the lower port and its upper end formed to close the upper port when the valve is free to impinge against the upper wall of said chamber, said valve having a fragile stem normally retaining it out of contact with the upper wall of the chamber, and said neck and valve having outlet means affording the escape of the liquid in the bottle when the valve is removed from sealing or closing contact with the lower wall of said chamber, substantially as described.

3. The combination of a bottle having an integral neck-portion and a separate neck portion screwed onto the integral neck-portion, interlocking means preventing the unscrewing of the separate neck-portion, said neck-portions forming a chamber and the separate neck-portion having a port leading from said chamber to the exterior and the integral neck-portion having a port leading from said chamber to the interior of the bottle, a valve movable vertically in said chamber and having its upper and lower ends formed to close or seal the corresponding port when in contact with the upper or lower end of said chamber and also having a fragile stem normally retaining the valve out of contact with the upper end of the chamber, and said valve and the chamber having outlet means affording the escape of the liquid in the bottle when the valve is removed from sealing or closing contact with the lower end of the chamber, substantially as described.

944,093. MOVABLE WEATHER-STRIP. JOHN HEMMERLING and JULIUS HEMMERLING, Paterson, N. J. Filed June 22, 1909. Serial No. 503,599.

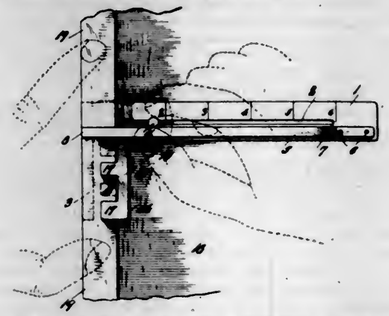


As an article of manufacture, the combination of a supporting strip having circular recesses in one face thereof, and an overhang projecting from said face immediately above said recesses, a weather-strip having a flat face lying squarely against the recessed face of said supporting strip under the overhang of the latter, disks fitting said recesses and each having one face thereof squarely contacting with the flat face of the weather-strip and also having a stud projecting into the weather-strip and forming a pivot therefor and another stud projecting from its opposite face into the supporting strip and serving as a bearing for the disk, a flat helical spring disposed flatwise in each recess and fitting between the disk and the supporting strip, one end of each spring being secured in the corresponding disk and the other end in the overhang, and headed devices introduced into the free ends of the studs and holding them in the weather-strip and supporting strip, substantially as described.

944,094. CLOTH-FOLDER OR HEM-GAGE. ISABEL HILTON, Philadelphia, Pa. Filed July 2, 1909. Serial No. 505,592.

1. A cloth folder or hem gage comprising a plate, a slide adjustable thereon, a lateral extension at one end of said plate, said slide having a lateral extension parallel with the extension of the plate, the lateral extension of the slide being provided with separated tongues and having its rear edge upturned, and a spring on the plate for exerting pressure on the material being operated upon.

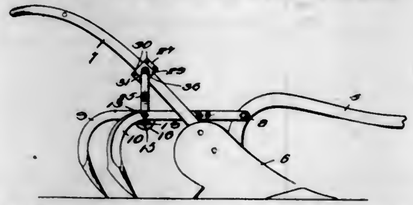
2. A cloth folder or hem gage comprising a plate having a longitudinal slot and a lateral extension, a slide movable along said plate, means for fastening the slide in adjusted position, said slide having a lateral extension provided with separated tongues, and a spring secured at one end to the plate and at the other end adapted to bear upon the material being operated upon.



3. A cloth folder or hem gage comprising a plate having a lateral extension at one end, a slide movable with relation to the plate and having lateral flanges at opposite sides for engagement with the opposite edges of the plate, and a lateral extension on said slide having an upturned edge and a spring on the plate extending beyond the extension of the slide.

4. A cloth folder or hem gage comprising a plate having a lateral extension at one end, a slide movable with relation to the plate and having lateral flanges at opposite sides for engagement with the opposite edges of the plate, and a lateral extension on said slide having an upturned edge at the side, its opposite side being slitted and provided with separated tongues and a spring on the plate extending beyond the extension of the slide.

944,095. SUBSOILER-PLOW. JAMES M. HODGES, Radford, Va. Filed Mar. 31, 1909. Serial No. 486,953.



1. The combination with a plow, of two shovel beams, a pivot pin carried by each beam, two slotted disks, each having an extending coupling arm ending in an ear, each ear being secured to one of said pins, and a bolt within the slots of said disks.

2. The combination with a plow, of two shovel beams, a pivot pin carried by each beam, two slotted disks, each having an extended coupling arm ending in an ear held parallel to the disks secured to the arms, each ear being secured to one of said pins, a bolt within the slot of said disk, and hangers extending from said bolt.

3. The combination with a plow, of a drag bolt secured to said plow, two shovel beams carried by said drag bolt, a pin secured to each shovel beam, two slotted disks each having an extending coupling arm ending in an ear, each ear being secured to one of said pins, a bolt within the slots of said disks, hangers extending from said last mentioned bolt, and means to adjustably secure said hangers to handle of said plow.

4. The combination with a plow, of a drag bolt, two shovel beams secured to said drag bolt, a pin secured to each shovel beam, two slotted disks each having an extending coupling arm ending in an ear, each ear being secured to one of said pins, a bolt within the slot of said disks, a spacing block held upon said bolt between said disks, hangers extending from said bolts, and means to secure said hangers to the handles of said plow.

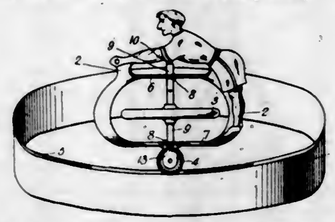
944,096. TOY. REGINALD KIRKBY, Leicester, England, assignor to Arthur Thomas Winkles, Leicester, England. Filed June 18, 1909. Serial No. 502,905.

1. The combination in a top, of a rotating member with a propelling member actuated by said rotating member for causing the top to travel or move along bodily.

2. In a gyroscopic top, the combination with the rotating member thereof, of a second rotary member actuated by the other rotating member to cause the top to travel or move along bodily.

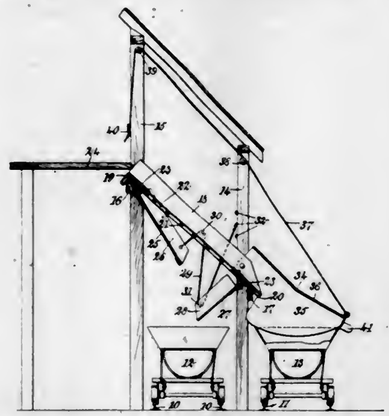
3. In a gyroscopic top, the combination with the rotating gyroscope wheel, of a wheel rotatably carried in the frame and driven by the spindle of the gyroscope wheel to cause the top to travel or move along bodily.

4. In a gyroscopic top, the combination with the rotating gyroscope wheel, of a wheel rotatably carried in the frame and arranged so that the lower end of the gyroscopic wheel spindle rests on and makes frictional contact with the periphery of said wheel to rotate the latter and cause the top to travel or move along bodily.



5. In a gyroscopic top, a rotatable wheel actuated by the rotating gyroscopic member of the top to cause the latter to travel bodily, and a frame or ring of fancy or other shape or configuration to carry said rotatable wheel and the driven member of the top, substantially as described.

944,097. SCREENING APPARATUS. JOHN H. LYNCH, Haverstraw, N. Y. Filed Mar. 9, 1909. Serial No. 482,362.

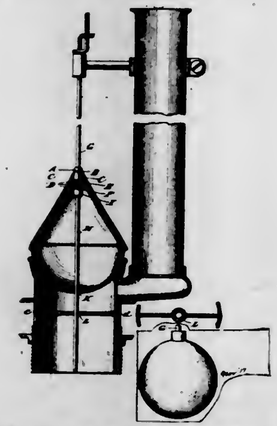


1. In combination, an inclined screen, a baffle pivotally secured adjacent the under side of the upper end of the screen and extending downwardly therefrom at an angle to the screen, a second baffle pivotally secured adjacent the under side of the lower end of said screen and extending toward the other baffle, and a cord connecting the free ends of said baffles and movable over a support intermediate the ends of the cord, whereby a downward movement of one baffle is accompanied by a corresponding upward movement of the other baffle.

2. In combination, an inclined screen, a baffle pivotally secured adjacent the under side of the upper end of the

screen and extending downwardly therefrom at an angle to the screen, a second baffle pivotally secured adjacent the under side of the lower end of said screen and extending toward the other baffle, and a cord having one end connected to the first-mentioned baffle and extending over a pulley on the side of the screen and over a second pulley on the end of the second baffle and having its other end adjustably supported.

944,098. FLUSHING-VALVE. MELVILLE B. MAHURIN, Muskingum township, Washington county, Ohio. Filed Dec. 28, 1907. Serial No. 408,366.



1. In a flushing valve, the combination of a grooved metal spud embedded in a portion of the valve and non-elastic material encircling said spud and united with said portion of the valve, substantially as and for the purpose described.

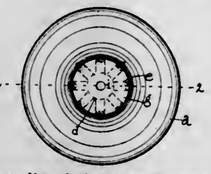
2. A rubber flushing valve of the floating type consisting of a hemispherical portion and a conical portion, the diameter of the conical portion being greater than that of the hemispherical portion.

3. In a flushing valve, the combination of a hemispherical part and a circular cone having a base of larger diameter than the hemispherical part, a metal spud embedded in a portion of the valve, and non-elastic material encircling said spud and united with said portion of the valve, substantially as and for the purpose described.

4. In a flushing valve, the combination of a grooved metal double spud embedded in a portion of the valve, and non-elastic material encircling said spud and united with said portion of the valve, substantially as and for the purpose described.

5. In a flushing valve, the combination of a hemispherical part and a circular cone having a base of larger diameter than the hemispherical part, a grooved metal double spud embedded in a portion of the valve and non-elastic material encircling said spud and united with the valve, substantially as and for the purpose described.

944,099. VALVE-HANDLE. WALTER P. MARBLE, Cambridge, Mass. Filed Sept. 21, 1908. Serial No. 454,012.

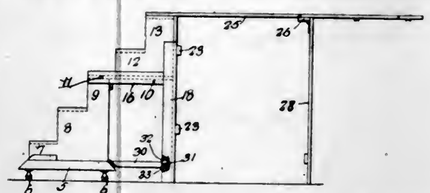


1. A valve handle of the class described, comprising a non-metallic member having an opening through it and provided with sockets which incline away from one end of said opening into said non-metallic member, and a bushing of a material hardened from a plastic state filling the said opening and sockets to form locking arms in the latter, and provided at one end with a flange integral with it and overlapping the walls of the opening in the non-metallic member to coöperate with the locking arms in resisting longitudinal movement of the handle with relation to the bushing and to form a bearing surface for the nut, said bushing having an opening for the reception of the valve stem, substantially as described.

2. A valve handle of the class described, comprising a non-metallic member having an opening through it and provided with sockets, which incline away from one end of said opening into said non-metallic member, and a bushing of a material hardened from a plastic state filling the said opening and sockets to form locking arms in the latter, and provided with an opening for the reception of the valve stem and at one end with an inwardly extended flange integral with the bushing and forming a hole of smaller diameter than the opening into which the valve stem is seated, substantially as and for the purpose specified.

3. A valve handle of the class described, comprising a non-metallic member having an opening through it and provided with sockets, which incline away from one end of said opening into said non-metallic member, and a bushing of a material hardened from a plastic state filling the said opening and sockets to form locking arms in the latter, and provided with an opening for the reception of the valve stem and at one end with an outwardly extended flange integral with the bushing and overlapping the walls of the opening in the non-metallic member and having at the same end an inwardly extended flange integral with the bushing and forming a hole of smaller diameter than the opening in the bushing, substantially as and for the purpose specified.

944,100. COMBINED HALL-STAND, STEP-LADDER, IRONING-BOARD, &c. VIGGO J. A. C. MENGERS and LORRENCE LARSEN, Chicago, Ill. Filed July 14, 1909. Serial No. 507,493.



1. A combination hall stand, step-ladder and ironing-board comprising in combination, a base, a set of steps rigidly secured thereto, a second set of steps pivotally secured to said first set and adapted to fold down thereon, horizontal and vertical frame members attached to said second set of steps, hat hooks removably supported in said vertical frame members, a back member slidably supported between said frame members, and a mirror removably supported upon said back member.

2. A combination hall stand, step-ladder and ironing-board comprising in combination, a base, a set of steps rigidly secured thereto, a second set of steps pivotally secured to said first set, horizontal and vertical frame members attached to said second set of steps and adapted to swing therewith, a back member slidably supported between said frame members, and a standard hinged to said back member, said standard being adapted to support one end of said back member when said back member is in a horizontal position.

3. A combination hall stand, step-ladder and ironing-board comprising in combination, a base, a set of steps secured thereto, a second set of steps pivotally supported on the first set and adapted to swing outwardly therefrom to form a ladder, vertical frame members secured to said second set of steps, said vertical members forming supports for said ladder, and braces connecting said vertical supporting members with said base.

4. A combination hall stand, step-ladder and ironing-board comprising in combination, a base, a set of steps rigidly secured thereto, a second set of steps pivotally supported upon said first set and adapted to swing outwardly and upwardly therefrom to form a ladder, vertical members attached to and swinging with said second set of steps, said vertical member being adapted to rest with one end upon the floor and being provided near their lower ends with slots, pins extending transversely of said slots, brace bars hinged to said base, and catch members upon the free ends of said bars adapted to engage said transversely extending pins.

944,101. HOOK-AND-EYE FASTENER. PETER MULOCK, Leadville, Colo. Filed June 19, 1907. Serial No. 379,735.



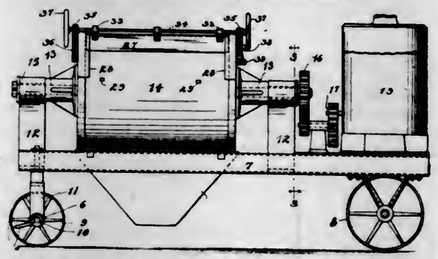
1. As an article of manufacture, a hook and eye fastening, the hook portion of which is composed of a single piece of material bent to form a resilient compressible bill, the bill end of the hook being provided with a double hump at the bend where it joins the main portion of the hook.

2. The combination with a resilient compressible hook having the usual bill, the outer side of the bill having abrupt outwardly extending humps located a distance away from the back of the hook corresponding to the width of the material of which the hook is composed, of an eye adapted to receive said hook.

3. The combination with a resilient compressible hook having the usual bill, the outer side of the bill having abrupt outwardly extending humps located a distance away from the back of the hook corresponding to the width of the material of which the hook is composed, of an eye adapted to receive said hook, said eye being of a length slightly less than the width through the hump of the hook, and of a width less than the width of any portion of the hook whereby the hook is precluded from turning widthwise in the eye.

4. A hook and eye fastener consisting of a spring metal eye and hook, the hook compressible and having the usual bill and provided on the outer surface of its bend with humps, said humps being located on the bill side of the bend whereby a seat or recess is formed between the humps and back of the hook corresponding in width to the thickness of the material composing the eye.

944,102. CONCRETE-MIXER. GLENN S. NOBLE, Chicago, Ill. Filed May 9, 1904. Serial No. 207,021.



1. In a concrete mixer, the combination of revoluble drum formed of imperforate material, and having a longitudinal opening therein, a curved door for said opening also formed of imperforate material, and a scraper strip along one edge of said opening over which the door is adapted to slide and which will scrape off material from the inner surface of said door.

2. In a concrete mixer, the combination of a drum having longitudinal opening in the side thereof, a curved slidable door for said opening, said drum and door being formed of imperforate material, a scraper strip along one side of said opening over which the door is adapted to slide, a means for sliding said door so that both ends will be given a positive uniform movement.

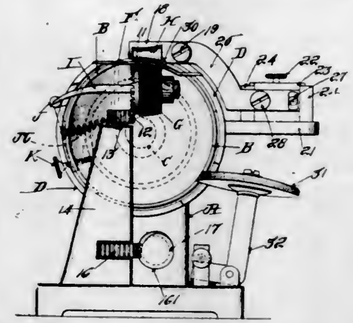
3. In a machine of the character set forth, the combination of a revoluble drum provided with a longitudinal opening, a curved slidable door for said opening, guides for said door, bearings on said door, a rod engaging with said bearings, pinions on said rod, racks secured to the end of said drum with which said pinions engage, and means for turning said rod.

4. In a machine of the character set forth, the combination of a revoluble drum provided with a longitudinal opening of substantially the same length as said drum, a slidable door for said opening, guides for said door, a shaft revolubly secured to said door, pinions on said shaft, racks secured to the ends of said frame with which said pinions engage, means for turning said shaft and means for holding said door in opened or closed positions respectively.

5. In a concrete mixer, the combination of a revoluble drum provided with a longitudinal opening of substantially the same length as said drum, a slidable door for said opening, guides for said door, a shaft revolubly secured to said door, pinions on said shaft, curved racks secured to the ends of said drum and meshing with said pinions, hand wheels on said shaft and catches on said drum for holding the door in open or closed positions respectively.

[Claims 6 to 9 not printed in the Gazette.]

944,103. SKIVING-MACHINE. WILLIAM A. PARMENTER and ARTHUR B. ALDEN, Brockton, Mass., assignors of one-third to Charles S. Pierce, Brockton, Mass. Filed Dec. 9, 1908. Serial No. 466,632.



1. In a skiving machine, the combination with a cylindrical knife, of a feed wheel internally disposed with relation thereto and having its effective surface at one side of a vertical line passed through the axis of the cylindrical knife, said side being that away from the main portion of the stock to be operated upon.

2. In a machine of the character described, the combination with a cylindrical knife and a feed wheel located internally with respect thereto, of a feed guide coöperating with said feed wheel, a support for said guide provided with a depending abutment adjacent the top side edge of the feed wheel, and a second abutment extending horizontally at the level of the edge of the work as it passes between the feed wheel and the feed guide.

3. In a machine of the character described, the combination with a cylindrical knife and a feed wheel located internally with respect thereto, of a feed guide coöperating with said feed wheel, a support for said guide provided with a depending abutment adjacent the top side edge of the feed wheel and a second abutment extending horizontally at the level of the edge of the work as it passes between the feed wheel and the feed guide, said second abutment flaring slightly away from said rolls.

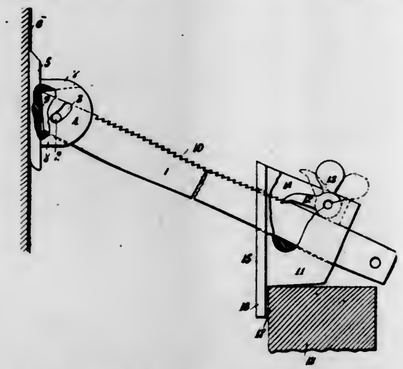
4. In a machine of the character described, the combination with a cylindrical knife, of a feed wheel internally disposed with relation thereto, a guide roll coöperating with said feed wheel to feed the work, means for support-

ing the said guide roll and an abutment on said supporting means adjacent the outside edges of both the feed wheel and the guide roll whereby the stock is prevented from running over the edge of the feed wheel.

5. In a machine of the character described, the combination with a cylindrical knife, of a feed wheel internally disposed with relation thereto, a guide roll coöperating with said feed wheel to feed the work, and means for supporting the said guide roll and swinging it in the plane of the axes of said feed wheel and said guide roll, said supporting means being provided with an abutment adjacent the outside edge of the feed wheel whereby the stock is prevented from running over the edge of the feed wheel.

[Claim 6 not printed in the Gazette.]

944,104. BRACE FOR BRICK-KILNS. ANATOLE PERUSSE, Kingston, N. Y. Filed July 21, 1909. Serial No. 508,696.



1. In a brace, an arm having teeth, a supporting member, pin and slot connections between the supporting member and the arm, a member having a longitudinal opening therethrough in which is disposed the arm, there being a second opening in the said member, which extends to the first opening, a pawl pivoted in the last named opening which is adapted to engage the teeth, and a flange on the member which is adapted to lie against a side of a frame on which the member is adapted to rest.

2. In a brace, an arm having teeth, a supporting member having a lug in which there is a curved slot, a pin on the arm which is disposed in the slot, a member having a longitudinal opening therethrough in which is disposed the arm, there being a second opening in the member which extends to the first opening, a pawl pivoted in the last named opening, which is adapted to engage the teeth, and a flange on the member which is adapted to lie against the side of a frame on which the member is adapted to rest.

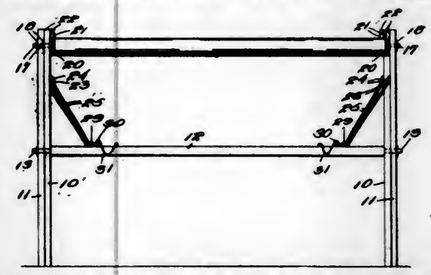
3. In a brace, an arm, a supporting member having a lug, pin and slot connections between the lug and the arm, the member having a longitudinal opening therethrough in which is disposed the arm, adjustable means for securing the member to the arm, and a flange on the member which is adapted to lie against a side of a frame on which the member is adapted to rest.

4. In a brace, an arm having teeth, a supporting member having a lug, pin and slot connections between the lug and the arm, a member having a longitudinal opening therethrough in which is disposed the arm, a pawl pivoted to the member, which is adapted to engage the teeth on the arm, and a flange on the member which is adapted to lie against a side of a frame on which the member is adapted to rest.

5. In a brace, an arm having teeth, a supporting member, an adjustable connection between the supporting member and one terminal of the arm, a member having a longitudinal opening therethrough in which is disposed the arm, there being a second opening in the member which extends to the first opening, a pawl pivoted in the last named opening, which is adapted to engage the teeth on the arm, and a flange on the member which is adapted to lie against a side of a frame on which the member is adapted to rest.

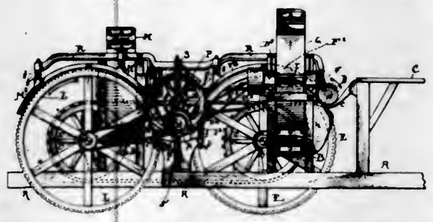
[Claims 6 to 11 not printed in the Gazette.]

944,105. QUILTING-FRAME. DAVID W. PHILLIPS, Spraggs, Pa. Filed June 23, 1909. Serial No. 503,810.



A quilting frame having in combination, a supporting bar, two supporting standards secured crosswise to each end of said supporting bar, two winding bars revolubly carried at the upper ends of said standards, a ratchet secured to each of said winding bars, a pawl carried by said supporting standards engaging said ratchet wheels, a brace-bar extending obliquely downward from each of said standards and being pivotally secured to said supporting bar, the lower end of each brace bar projecting beyond its pivot and having a pin opening registering with the pin opening in said supporting bar, and pins within said pin openings to secure the lower ends of said brace bars to said supporting bar, as and for the purpose set forth.

944,106. FIBER-CLEANING MACHINE. ANGEL PONS, New York, N. Y. Filed Apr. 25, 1904, Serial No. 204,678. Renewed May 17, 1909. Serial No. 496,648.



1. A machine for cleaning fibrous plants having a series of beaters or disintegrators acting at one period to commence the treatment of the plant, and another series of disintegrators acting at another period to complete the treatment, a moving carrier for moving the material to be treated to and across the path of movement of the first series of disintegrators, a moving carrier set out of alinement with the first named carrier for moving the material to be treated to and across the path of movement of the second series of disintegrators, an intermediate carrier out of alinement with the first acting carrier and having a movement of revolution in opposite direction thereto, adapted to engage the plant under treatment before it has been disengaged from the first acting main carrier, to move it with said main carrier until the plant has become disengaged therefrom, then to carry it across to the second acting main carrier until the plant has become engaged thereby, substantially as described.

2. A machine for cleaning fibrous plants, having a series of moving beaters or disintegrators acting at one period to commence the treatment of the plant, and another series of disintegrators oppositely disposed to the first and acting at another period to complete the treatment, carriers for moving the material to be treated to and past the path of movement of each of said disintegrators, and intermediate carrier wheels mounted on the same axis out of alinement with the first named carrier but parallel thereto and acting to present a cleaned portion of the plant to the second carrier, substantially as described.

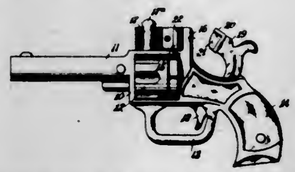
3. A machine for cleaning fibrous plants, having one series of moving beaters or disintegrators acting at one period to commence the treatment of the plant, a main rotary carrying wheel moving in a plane across the path of movement of said disintegrators, another series of disintegrators acting at a later period to complete the treatment of the plant, another main rotary carrying wheel for said last named disintegrators, and intermediate carrying wheels for transferring the plant from the first to the second named carrying wheel, one of said intermediate carrying wheels being set between the planes of the main carrying wheels and one beyond the plane of the carrying wheel of the finishing disintegrator, substantially as described.

4. A machine for cleaning fibrous plants having one series of moving beaters or disintegrators acting at one period to commence the treatment of the plant, and another series oppositely disposed to the first and acting at a later period to complete said treatment; main carriers entirely separated radially or laterally but parallel and in different vertical planes and moving in the same direction for carrying the material to and past the path of movement of said disintegrators, and an intermediate carrier out of alinement with the first acting main carrier and having a movement of revolution in an opposite direction thereto, the periphery of said intermediate carrier overlapping the peripheries of both of said main carriers, substantially as described.

5. A machine for cleaning fibrous plants having one series of moving beaters or disintegrators acting at one period to commence the treatment of the plant, and another oppositely disposed series acting at another period to complete said treatment, laterally separated main carriers parallel to but out of alinement with each other and adapted to move in the same direction, for carrying the material to and past the path of movement of each of said disintegrators, intermediate carriers out of alinement with said first acting main carrier and having a movement of revolution in an opposite direction thereto, and located one on each side of said last acting main carrier, the peripheries of the intermediate carriers overlapping the peripheries of the main carriers; and means for holding the material into engagement with the intermediate carriers, substantially as described.

[Claims 6 to 65 not printed in the Gazette.]

944,107. PISTOL. MILTON J. SHIMER, Bethlehem, Pa. Filed Sept 16, 1909. Serial No. 518,011.



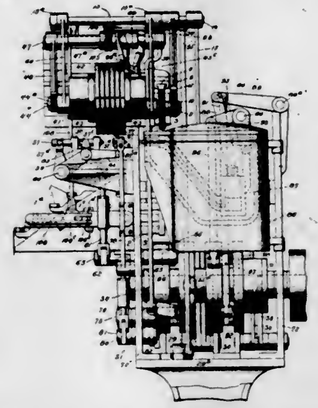
1. The combination in a toy pistol, of a barrel, a firing anvil extending upwardly at the rear of the barrel, and a cap-roll carrying-pin projecting upwardly from the barrel at the front of the anvil.

2. The combination in a toy pistol, of a firing anvil having a guard arranged at one side thereof, and a hammer having guards projecting from the hammer and arranged to overlap the top and other side of the anvil.

3. The combination in a toy pistol, of an anvil, a cap tape support arranged to admit of the feeding of the tape crosswise of the anvil from one side thereof, a guard arranged at this side of the anvil and spaced therefrom to provide a guide slot for the tape, and a hammer having guards projecting from the firing face thereof and respectively arranged to overlap the top of the anvil and the opposite side thereof.

4. The combination in a toy pistol, of a firing anvil, and an upwardly-extending cap-tape carrying-pin arranged in advance of the anvil at the outside of the pistol in a position for the tape to pass over the face of the anvil from one side to the other.

944,108. TYPE CASTING AND COMPOSING MACHINE. ODDUR V. SIGURDSSON, New York, N. Y., assignor to Oddur Manufacturing Company, New York, N. Y., a Corporation of West Virginia. Filed May 3, 1909. Serial No. 493,497.



1. In a type casting machine, a matrix disk carrying a set of character matrices in its side adjacent its periphery, means for rotating the disk to bring a selected matrix to desired position, a type casting mold, and means for bodily moving the disk in the plane of its rotation to bring the selected matrix in line with the type casting mold.

2. In a type casting machine, a plurality of matrix disks each carrying a set of character matrices in its side adjacent its periphery, means for moving any of the disks axially into a given plane, means for rotating the disk so located to bring a selected matrix thereon into desired position, a type casting mold, and means for bodily moving the disk in the plane of its rotation to bring the selected matrix in line with the type casting mold.

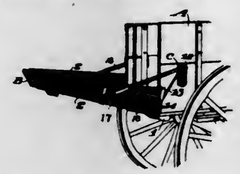
3. In a type casting machine, a matrix disk carrying a set of character matrices in its side adjacent its periphery, means for half-way rotating the disk in opposite directions to bring the matrices as selected in the two halves of the disk in one position, a type casting mold, and means for bodily moving the disk in the plane of its rotation to bring the selected matrix in line with the type casting mold.

4. In a type casting machine, a pair of matrix disks carrying a font of type distributed between them, means for axially moving either of the disks into a given plane, means for similarly imparting rotation to the disks, as to the upper and lower case type characters, so located in the given plane, a type casting mold, and means for bodily moving the set disk in the plane of its rotation to bring the selected character matrix in line with the type casting mold.

5. In a type casting machine, a plurality of pairs of matrix disks, each pair carrying a font of type, the lower case on one and the upper case on the other, means for axially moving any pair of disks and means for setting the disks of each pair in a given plane, a type casting mold, means for rotating the disk so located to bring the matrices as selected in one position, and means for moving the operative disk in the given plane to bring the selected matrix in line with the type casting mold.

[Claims 6 to 57 not printed in the Gazette.]

944,109. SHOVELING-BOARD. FRANK STEWART and ELI W. NEISWANGER, Washington, Iowa. Filed June 17, 1908. Serial No. 439,083.

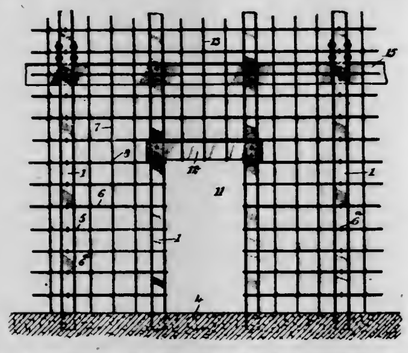


1. In a shoveling board, an adjustable bracket adapted to straddle the side of the wagon box, and a segmental bracket having pivotally and vertically adjustable connection at one point with the adjustable bracket, and means connected with the two parts for locking the segmental bracket in its various pivoted positions with respect to the adjustable bracket, said segmental bracket carrying a stud thereon.

2. An adjustable clamp and bracket for shoveling boards comprising a clamp constructed to fit over the edge of a wagon box, said clamp provided with perforations, a segmental bracket pivoted to the clamp, said bracket having a curved elongated slot therein and means connected to the clamp and extending through the slot whereby the bracket is adjusted.

3. An adjustable clamp and bracket for shoveling boards comprising a clamp constructed to fit over the edge of a wagon box, said clamp provided with a series of perforations, a segmental bracket pivoted to the clamp by means of a bolt passing through one of the perforations, said bracket provided with a curved elongated slot and a bolt adapted to pass through one of the perforations in the clamp and the slot in the bracket whereby the bracket is adjusted.

944,110. REINFORCED CONCRETE CONSTRUCTION. SAMUEL H. SUMMERSCALES, Winnipeg, Manitoba, Canada. Filed Sept. 22, 1908. Serial No. 454,235.



1. A reinforced concrete wall having reinforcing stringers each having a web and two flanges disposed transversely to the plane of the wall, said flanges having notches therein, wires received in said notches and extending transversely of said stringers, links anchoring said wires in said notches disposed between said flanges, and a cementitious material embedding said flanges and said wires.

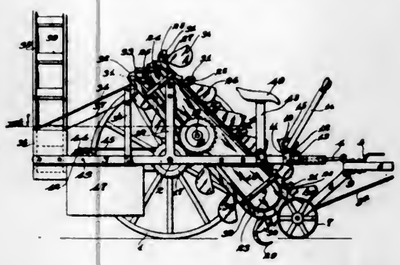
2. A reinforced concrete wall having reinforcing stringers formed with webs parallel with the plane of the wall and flanges extending at right angles to said webs and at right angles to the plane of the wall, said flanges having notches in the edges thereof, wires received in said notches and extending transversely of said stringers and connecting the same, said webs having openings therethrough, links connecting said wires through said openings and holding said wires in said notches, and a cementitious material embedding said stringers and said wires.

3. A reinforced concrete wall having metal columns with vertical webs disposed substantially in the plane of the wall, and laterally-projecting vertical flanges, said flanges having notches in the edges thereof, wires received in said notches links connecting said wires through said webs, and stretched between said columns, and a cementitious material, embedding said columns and said wires.

4. A reinforced concrete wall having metal columns with webs disposed substantially in the plane of the wall and laterally projecting vertical flanges, said webs having openings therethrough, said flanges having notches in the edges thereof, wires received in said notches, and stretched horizontally across the space between said columns, links passing through said openings and connecting said wires, and cross bars connecting said wires and forming a grill therewith in the planes of the outer edges of said columns.

5. A reinforced concrete wall construction having metal columns comprising vertical webs disposed substantially parallel with the plane of the wall and vertical flanges disposed transversely with respect to the wall, said flanges having notches in the edges thereof, said webs having openings therethrough, parallel wires received in said notches and forming grills at the front and rear sides of said columns substantially in the plane of the edges of said flanges, links connecting said wires and passing through said openings, and a cementitious body having a hollow space between said grills and enveloping said grills and said columns.

944,111. POTATO-PICKER. OLE SUTTER, Isanti, Minn. Filed Oct. 15, 1908. Serial No. 457,848.



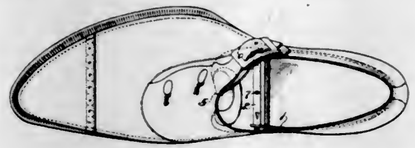
1. A potato picker comprising a portable frame, an elevator frame carried thereby, an endless conveyer on said elevator frame having a pick-up device adapted to pick up the potatoes under the forward travel of the machine and the motion of said conveyer, a clearing device, and a cam to which said pick-up device is subject, for holding the same at the proper angles for picking up and dumping the potatoes at different points in the traveling movement of said conveyer and for throwing said pick-up device backward so that it will pass through said clearing device after the main load of the potatoes has been delivered, substantially as described.

2. In a potato picker, the combination with a portable frame, of an elevator frame carried thereby, a power-driven endless conveyer on said elevator frame having a series of pivoted cross rods, each provided with a series of scoop-shaped teeth for picking up the potatoes, a fixed camway, crank arms on said cross rods engageable with said camway for holding the said teeth at the proper angles for their desired actions, at different points of their travel, and a clearing comb at the delivery end of the elevator, between the teeth of which comb the said scoop-shaped teeth are thrown backward by said camway, for clearing the same of vines and other foreign materials, substantially as described.

3. In a potato picker, the combination with a portable frame, of the elevator 16 carried thereby, the power-driven endless conveyer supported by said frame and having the chains 26 with bearing brackets 27, the cross rods 28 pivoted in said brackets 27, the scoop-shaped teeth 29 fixed to said rods 28, the roller-equipped crank arms 31, the camways 32 and the trips 33, all for coöperation, substantially as described.

4. In a potato picker, the combination with a portable frame, of the elevator 16 carried thereby, the power-driven endless conveyer supported by said frame and having the chains 26 with bearing brackets 27, the cross rods 28 pivoted in said brackets 27, the scoop-shaped teeth 29 fixed to said rods 28, the roller-equipped crank arms 31, the camways 32, the trips 33 and the clearing comb 33^a, all for coöperation, substantially as described.

944,112. SHOE-FILLER. EDRIC R. TAYLOR, Boston, Mass. Filed July 6, 1907. Serial No. 382,451.



1. A shoe filler, comprising a forepart, and a heel-part consisting of a thin band shaped to extend within the heel portion of the shoe flat against the lining thereof at the upper edge of the foxing, leaving the interior portion of the heel-part of the shoe entirely exposed to view, means holding the front ends of said band unyieldingly at a fixed distance apart, said band being at all other points capable of yielding laterally, said band having a width, thickness, and extent maintaining it practically concealed from casual observation when in the shoe.

2. A shoe filler, comprising a forepart, and a heel-part secured to the rear end of the forepart, said heel-part consisting of a thin band shaped to extend within the heel portion of the shoe flat against the lining thereof at the upper edge of the foxing so as to be concealed from view by the shoe when stretched taut by said band, the interior portion of the heel-part of the shoe being thereby left exposed to view, and fastening means pivotally securing the opposite ends of said band in rigid position apart, the rear part of said band from adjacent its pivots constituting a distending portion and being shaped to fit tightly against the lining of the shoe from a point adjacent the pivot on one side throughout the length of the band to the corresponding point on the opposite side of the heel-part, said band at all other points excepting its pivotal points being capable of yielding laterally, and having a width, thickness, and extent maintaining it practically concealed from casual observation when in the shoe.

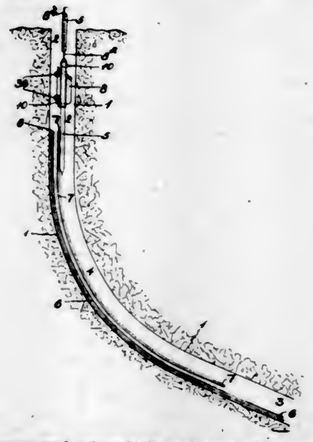
3. The herein described shoe filler attachment, including a thin narrow flexible band shaped to fit and distend the heel of a shoe around the top of the quarter, and a cross bar provided at its end with reduced retaining portions coöperating with the ends of said band in pivotally supporting the latter.

4. The herein described shoe filler attachment, comprising a flexible band and a cross bar provided at their ends with coöperating means for pivoting said band on the bar and compelling the band to bow outwardly and rearwardly beyond the ends of the bar.

5. The herein described shoe filler attachment, comprising a flexible band and a cross bar provided at their ends with coöperating means for pivoting said band on the bar, said coöperating means being constructed to permit the separation and assembling of said two parts only when the band is swung to an extreme and abnormal position with relation to the bar.

[Claims 6 and 7 not printed in the Gazette.]

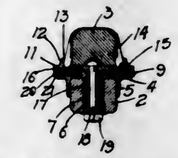
944,113. MINE-SHAFT EQUIPMENT. HENRY L. TEMPLER, Cleveland, Transvaal. Filed Aug. 21, 1906. Serial No. 331,494.



1. In compound mine-shaft equipment, the combination with main track rails in the inclined portion of the shaft extending into the vertical portion, and direct guiding and retaining rails in the inclined portion extending into the vertical portion, of slipper guides in the vertical portion overlapping the main and guiding rails, as set forth.

2. In compound mine-shaft equipment, in combination, main track rails and a direct guiding and retaining track in the inclined portion of the shaft, slipper guides in the vertical portion of the shaft overlapping said main or guiding and retaining tracks, a vehicle and slippers provided on the vehicle for engaging the slipper guides before the wheels leave the main and guiding tracks, as set forth.

944,114. SWINGLETREE. GEORGE F. THOMPSON, Minneapolis, Minn. Filed Aug. 29, 1908. Serial No. 450,884.



1. The combination, with an evener, of a plate fitting thereon and having a sleeve depending within a socket in said evener, means passing down through said plate into said evener and securing them together, a swingle tree, a plate fitting the under side of said swingle tree and having a broad bearing on said evener plate, and means for securing said plates together, a clip passing over said swingle tree and having its ends projecting through holes in said swingle tree plate, nuts provided on the ends of said clip, and said evener plate having recesses therein between the means which secure said plate to said evener, and said recesses extending only partially through said evener plate and being adapted to receive the ends of said clip and the nuts thereon, the ends of said recesses forming stops to engage said nuts and limit the oscillation of said swingle tree, and said swingle tree plate bearing on said evener plate securing means and holding the same in place in said evener, substantially as described.

2. The combination with an evener, of a plate fitting thereon and having a sleeve depending within a socket in said evener, said plate having a raised, flattened bearing surface around the open, upper end of said sleeve, means passing through said bearing surface into said evener and securing said plate on said evener, a plate fitting the under

side of a swingle-tree and having a broad, flattened under-surface arranged to bear on the flattened surface of said plate and said swingle-tree plate having a hollow, depending stud fitting within said sleeve and contacting therewith, a bolt having its head located between said swingle-tree plate and the swingle-tree and a shank fitting within said stud and having a nut on its lower end and a clip passing over the swingle tree and having means for securing it to said swingle-tree plate, substantially as described, the ends of said clip being included between said plates and concealed thereby, and said evener plate having means permitting the movement of said clip ends therein and the oscillation of said swingle tree.

3. The combination with an evener, of a plate fitting thereon screws passing through said plate into said evener, a swingle-tree, a plate fitting the under side of said swingle-tree and bearing on said evener plate above said screws and preventing them from working loose in said evener, means for securing said plates together, a clip passing over said swingle-tree and having its ends fitting in holes in said swingle-tree plate, nuts provided on the ends of said clip and said evener plate having recesses between the points where it is secured to said evener to receive said nuts and the ends of said recesses forming stops for limiting the oscillation of said swingle-tree, said recesses being of sufficient length to allow horizontal movement of the nuts and ends of the clip therein and extending only partially through the evener plate, whereby the clip ends and nuts will be entirely concealed.

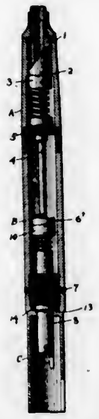
4. The combination, with an evener, of a plate fitting thereon and having a sleeve depending within a socket in said evener, and lugs depending from said plate on each side of said evener and contacting therewith, means for securing said plate to said evener, and said plate having curved recesses therein between said securing means, a second plate adapted to fit the under side of a swingle tree and having a depending flange that is adapted to inclose said evener plate, said swingle tree plate having a bearing surface on said evener plate above said securing means, and a stud fitting within said sleeve, and a bolt passing through said swingle tree plate and stud and securing said plates together, a clip passing over said swingle tree and having its ends fitting within holes in said swingle tree plate and projecting into the recesses in said evener plate, and said clip having nuts thereon within said recesses, and said nuts engaging the end walls of said recesses and limiting the oscillation of said swingle tree, substantially as described.

5. The combination, with an evener, of a plate fitting thereon and having a sleeve depending within a socket in said evener and extending entirely therethrough, a plate fitting the under side of a swingle tree and having a surface arranged to bear on the upper surface of said evener plate, and said swingle tree plate having a hollow depending stud fitting within said sleeve and contacting therewith and extending to the lower end thereof, a bolt having its head resting upon the top of said swingle tree plate and fitting within said hollow stud and extending below the same and provided with a washer, which contacts with the lower ends of said sleeve and stud, and a lock nut for the lower end of said bolt, the edge of said swingle tree plate forming a close joint with the edge of said evener plate, and means securing said swingle tree plate to a swingle tree, substantially as described.

944,115. DENTAL PLUGGER. CHARLES F. TULLY, Madera, Cal. Filed June 9, 1909. Serial No. 501,034.

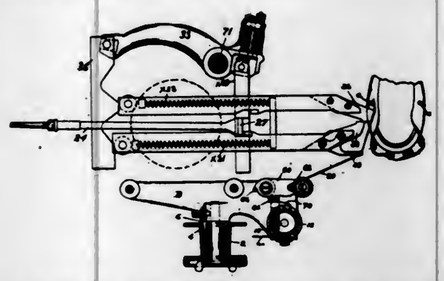
1. In a dental plugger, the combination with a casing, a plugger holder slidably mounted therein and having a cam on its inner end, of a shaft rotatably mounted in said casing, a cam on the shaft adapted to engage the cam of the plugger holder, a second cam on the shaft, an engine shaft journaled in the casing, and a cam loosely and removably mounted on the shaft adapted to engage the second cam of the first-named shaft.

2. In a dental plugger, the combination with a casing, a plugger holder slidably mounted therein and having a cam on its inner end, of a shaft rotatably mounted in said casing, a cam on the shaft adapted to engage the cam of the plugger holder, a second cam on the shaft, an engine shaft journaled in the casing having a split end, a spring-controlled cam loosely mounted on the engine shaft adapted to engage the second cam of the first-named shaft, and means on the cam adapted to enter the split end of the engine shaft for connecting the cam to the shaft.



3. In a dental plugger, the combination with a casing made in sections, a plugger holder mounted in one section having a cam thereon, of a shaft mounted in said section having a cam adapted to engage the cam of the plugger holder, a second cam on the shaft, an engine shaft, a cam loosely mounted thereon adapted to engage the second cam of the first named shaft whereby a rotary motion is transmitted to the first named shaft upon the rotation of the engine shaft in one direction, said shaft having a shoulder thereon, and a section of the casing having a shoulder adapted to engage the shoulder of the engine shaft for holding the parts in operative relation to each other.

944,116. LASTING-MACHINE. WILLIAM E. WADE, Rockland, Mass., assignor to The United Shoe Machinery Company, Boston, Mass., a Corporation of New Jersey. Filed Nov. 8, 1900. Serial No. 35,882.



1. A machine for working an upper over a last, comprising overworking mechanism, and mechanism for superimposing wire or like continuous material in position for binding the overworked upper, said machine having provision for advancing the wire at each operation of the overworking mechanism.

2. A machine for working an upper over a last, comprising mechanism for superimposing wire or like continuous material in position for binding the overworked upper, said machine having provision for automatically advancing the wire simultaneously with the operation of superimposing said wire.

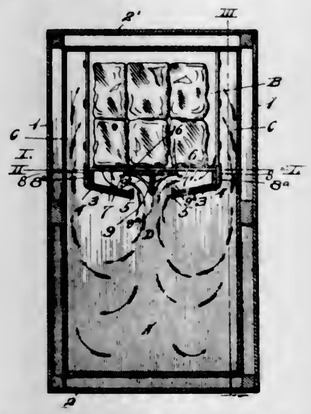
3. A machine for working an upper over a last, comprising overworking mechanism, and means for superimposing wire or like continuous material in position for binding the overworked upper, said machine having provision for advancing the wire intermittently in time relation with the operation of the overworking mechanism.

4. A machine for working an upper over a last, comprising overworking mechanism, mechanism for superimposing wire or like continuous material in position for binding the overworked upper, said machine having provision for advancing the wire at each operation of the overworking mechanism, and means for creating a tension on the line of wire supply.

5. A machine for working an upper over a last, comprising overworking mechanism, mechanism for superimposing wire or like continuous material in position for binding the overworked upper, said machine having provision for advancing the wire under tension at each operation of the overworking mechanism, and means for varying the degree of tension on the wire.

[Claims 6 to 39 not printed in the Gazette.]

944,117. REFRIGERATOR OR COLD-STORAGE ROOM. EDWARD J. WIRFS, Memphis, Tenn. Filed May 15, 1909. Serial No. 496,200.



A refrigerator comprising walls, transversely arranged supports secured to the front and rear walls, front and rear joists located on the supports parallel therewith, longitudinally arranged side joists spaced from the side walls and supported by their ends on the front and rear joists, lining pieces secured to the side joists, an ice rack mounted on the lining pieces, a pair of drip shelves secured to the lining pieces, spaced apart, and extending from front to rear beneath the ice rack, a rear drain trough with which the drip shelves are connected, a drain pipe extending from the drain trough to the exterior of the refrigerator, a centrally arranged support for the ice rack of T shape in cross-section extending from front to rear between the drip shelves and constructed with a head having sloping side edges, a vertical longitudinal strip and bracing brackets and providing down ducts in connection therewith, and gutters secured to the sloping side edges of the head and overhanging the inner edges of the drip shelves.

944,118. FALL-ROPE CARRIER. WILLIAM A. WOOD and CHARLES W. KAHLEATH, New York, N. Y. Filed Jan. 8, 1909. Serial No. 471,315.

1. In a cableway, fall-rope carrier ropes spaced from each other by a gradually increasing interval and spreaders between said ropes to hold them in position.

2. In a cableway, fall-rope carrier ropes spaced from each other by a gradually increasing interval and spreaders fastened in the strands of said ropes and extending between them to keep the ropes in a predetermined position.

3. In a cableway, a main cable, fall-rope carriers adapted to be supported thereon, ropes spaced from each other by a gradually increasing interval, spreaders between said ropes to hold them in position and means associated with said fall-rope carriers whereby said carriers are limited in their movement by said ropes.

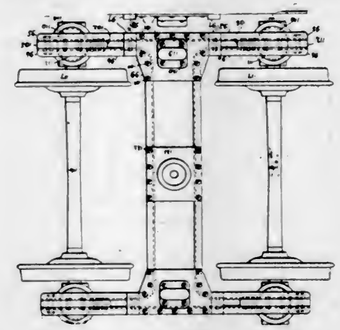


4. In a cableway, fall-rope carriers, a guide head on each of said carriers, each of said guide heads being wider than that on one side and narrower than that on the other side thereof, and ropes running through said guide heads and spaced from each other by a gradually increasing interval whereby the movement of said guide heads is limited.

5. In a cableway, fall-rope carriers, a guide head on each of said carriers, each of said guide heads being wider than that on one side and narrower than that on the other side thereof, vertically arranged roller bearings in said guide heads, and ropes running through said guide heads and spaced from each other by a gradually increasing interval whereby the movement of said guide heads is limited.

[Claims 6 to 8 not printed in the Gazette.]

944,119. CONSTRUCTION OF CAR-TRUCKS. RANSOM C. WRIGHT, Philadelphia, Pa., and FRANK E. STEBBINS, Washington, D. C. Filed Apr. 9, 1897. Serial No. 631,473. Renewed Nov. 6, 1908. Serial No. 461,383.



1. The combination in a truck, of flanged beams fashioned or bent to a U shape, constituting the transoms and portions of the side frames; plates forming other portions of the side frames; pedestals; and journal boxes; the ends of the said flanged beams and plates being extended over the journal boxes.

2. The combination in a truck, of flanged beams fashioned or bent to a U shape constituting the transoms and portions of the side frames; plates forming other portions of the side frames and secured to the flanged beams; pedestals; and journal boxes; the ends of the said flanged beams and plates being extended over the journal boxes.

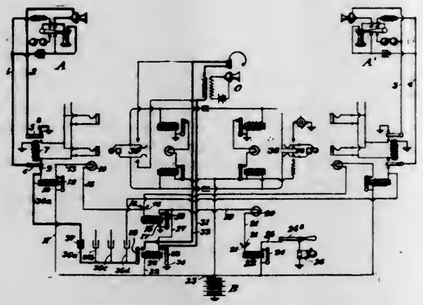
3. A metallic truck frame consisting of the following elements in combination, to wit: side pieces extending over the journal boxes; flanged transoms, each transom having its ends bent and each end extending parallel with a side piece and over a journal box; and pedestals for holding the journal boxes.

4. A metallic truck frame consisting of side pieces extending over the journal boxes; flanged transoms, each transom having its ends bent, and each end extending parallel with a side piece and over a journal box; means for securing the transoms to the side pieces; and pedestals for holding the journal boxes.

5. The combination in a truck, of flanged beams fashioned to a U-shape constituting the transoms and portions of the side frames; flanged beams forming other portions of the side frames; pedestals; and journal boxes; the ends of the side frames being extended over the journal boxes.

[Claims 6 to 55 not printed in the Gazette.]

944,120. TELEPHONE-EXCHANGE SYSTEM. WILLIAM A. WYNNE, Raleigh, N. C. Filed Mar. 9, 1909. Serial No. 482,329.



1. In a telephone exchange system, a plurality of subscribers' lines extending to a central office, with means therein to interconnect the lines, an operator's telephone circuit, an individual signal for each line, and a relay common to said lines acting when any line comes into use to connect them all directly with the operator's circuit.

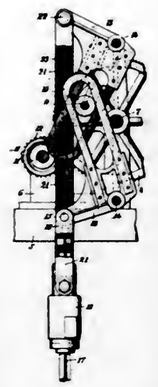
2. In a telephone exchange system, a plurality of subscribers' lines extending to a central office, plug and cord circuits for interconnecting the lines, a listening and ringing key and operator's circuit connections to each cord, an individual signal relay for each line, a common relay for all the lines adapted to be energized when any line is calling to connect them all to the operator's circuit, and a cut-off relay acting when a cord is connected with a line to disable the line signal and disconnect the special relay therefrom.

3. In a telephone exchange system a plurality of lines, a line relay for each line, a group of pilot signal means for all the lines, and a special relay with its windings in parallel with said pilot means, and with connections from its contacts on one side to all the lines in parallel and on the other to an operator's telephone circuit.

4. In a telephone exchange system, a plurality of lines, a central office terminal for each line, and operator's link circuits for interconnecting said terminals, a listening key for each line circuit, an operator's telephone connected in parallel to all the listening keys, a line relay and signal for each line, a common relay having its windings connected so as to be controlled by a plurality of said line relays, and having its contacts connected on one side in parallel to all of the lines by which it is thus controlled, and on the other side to the operator's telephone, whereby when any line in the group is calling, all the lines in that group will be simultaneously connected to the operator for immediate service.

5. In a telephone exchange system, a plurality of subscribers' lines, having line relays and terminal jacks at a central office, operator's cord circuits for interconnecting the several jacks, listening keys for the cord circuits, an operator's telephone connected in parallel to the listening keys, and a special service outfit comprising a listening relay common to and controlled by a plurality of the line relays, and having its contacts connected on one side through parallel branches containing condensers, to all of the lines by which it is controlled, and on the other side to the operator's telephone, whereby when any line in the special service group is calling, all the lines of that group will be connected to the operator's telephone without the insertion of a plug.

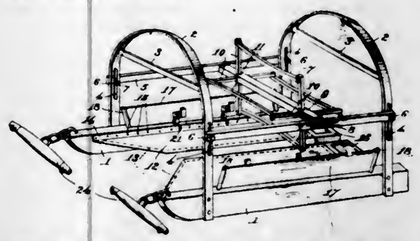
944,121. MECHANICAL MOVEMENT. WILLIAM S. ALLAN, Monterey, Mexico. Filed Oct. 7, 1908. Serial No. 456,652.



1. The combination of spaced gears having a common crank-pin, a driving shaft having pinions in mesh with said gears, bell-crank levers respectively fulcrumed above and below said gears and having overlapping slotted arms receiving the crank-pin, a rod pivotally connected to the other arm of one of said levers, and a head slidable on said rod having a connection with the corresponding arm of the other lever.

2. The combination of a revoluble member having a crank-pin, levers fulcrumed at opposite sides of said member having arms, with one arm of each lever overlapping and operatively engaged with the crank-pin, a rod pivotally connected to the other arm of one of said levers, and a head slidable on said rod, having a connection with the corresponding arm of the other lever.

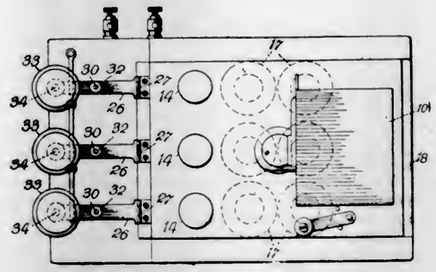
944,122. MACHINE FOR CATCHING INSECTS. JOHN M. ANDERSON, Franklin county, Tex. Filed Apr. 2, 1909. Serial No. 487,547.



1. In a machine of the character described, the combination with runners, of flexible platforms secured to the inner faces of said runners, wire frames strengthening said platforms and holding them in position, said platforms spaced apart and inclining downwardly from their inner to their outer edges, and means on said runners for agitating a plant, whereby insects and trash may be knocked on to said platforms.

2. In a machine of the character described, the combination with runners, of flexible platforms secured to the inner faces of said runners, wire frames strengthening said platforms and holding them in position, said platforms spaced apart and inclining downwardly from their inner to their outer edges, and means on said runners for agitating a plant, whereby insects and trash may be knocked onto said platforms, and receptacles carried by said runners at the rear of said platforms and into which said insects and trash are adapted to collect.

944,123. TAPE-PERFORATOR. HERBERT ANGEL, New York, N. Y. Filed Nov. 27, 1908. Serial No. 464,554.



1. In a device of the character described, the combination with a perforator having operating levers and means whereby said levers may be operated mechanically, of an armature for each operating lever, a plurality of coils for independently operating the levers, an electric circuit including said coils, a key lever for each perforator lever included in the electric circuit, and contacts one of which is movable with each lever whereby the circuit through the coils may be completed as the levers are operated and thereby operate the perforator levers.

2. In a device of the character described, the combination with a perforator having operating levers each provided with an armature and means whereby said levers may be operated mechanically, of an electric circuit, a plurality of key levers, one for each perforator lever included in the electric circuit, and means included in the electric circuit whereby the key levers may independently operate the perforator levers.

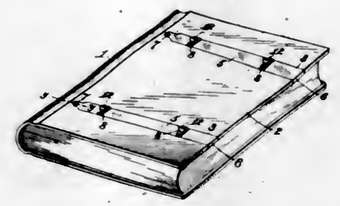
3. In a device of the character described, the combination with a perforator having operating levers and means whereby said levers may be operated mechanically, of an armature secured to each perforator lever, a plurality of coils for independently operating the levers, an electric circuit including said coils, a key lever provided with a fingering portion for each perforator lever and included in the electric circuit, and means whereby the circuit through the coils may be completed as the levers are operated and thereby operate the perforator levers.

4. In a device of the character described, the combination with a perforator having mechanical means for operating the same, said operating means including a plurality of levers each provided with an armature, together with electrically operated means whereby the levers may be made to operate independently of the mechanical means.

5. In a device of the character described, the combination with a perforator having mechanical means for operating the same, said operating means including a plurality of levers each provided with an armature, a key for each perforator lever, and electrically operated means connected to the keys whereby the levers may be made to operate independently of the mechanical means.

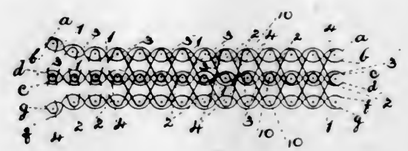
[Claims 6 and 7 not printed in the Gazette.]

944,124. BOOK-GUARD. JOHN B. BOATRIGHT, Del Rio, Tex. Filed Apr. 21, 1909. Serial No. 491,354.



An attachment for books comprising a metal strip bent double to embrace the cover of the book, the ends of said strip being perforated, spherical socket members provided with base flanges secured to said strip and ball rollers mounted in said socket members, substantially as described.

944,125. TEXTILE FABRIC. JOHN C. BROOKS, Paterson, N. J. Filed Apr. 6, 1907. Serial No. 366,749.



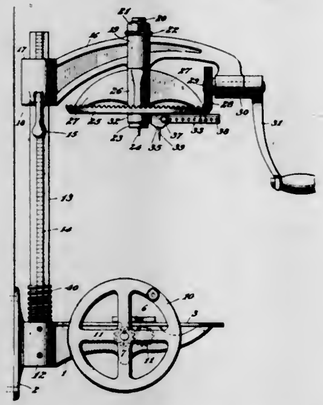
1. The process of producing textile fabrics which consists in separating binding warp threads into three separate sheds, one above the other, binding together the said sheds with pattern forming warp threads in any definite order or succession, and simultaneously inserting within each warp shed picks of weft.

2. The method of producing fabric blanks adapted to be cut apart to form pile fabrics, which consists of forming three or more binding warp sheds, one above the other, carrying pile forming warp threads within the center binding warp sheds, carrying, raising or lowering said thread to interweave with the said binding warp sheds and inserting simultaneously weft threads within each separate warp shed to bind together the said warp threads in any definite order or succession.

3. The method of producing fabrics, which consists in dividing the warp into substantially four parts; three to constitute the binding warp threads the other the pile or pattern forming threads, reeding the successive binding warp-threads into successive harnesses according to the structure of the fabric, reeding the remaining or pile-warp threads successively into as many harnesses as required for a pattern being woven; separating the binding-warp threads to form three separate warp-sheds; separating the pile-warp threads to mingle with the binding-warp threads; simultaneously inserting a pick of weft within each warp-shed; then closing and crossing the binding-warp threads to form new sheds, changing the pile warp threads to mingle with a different binding warp-shed, again inserting simultaneously in each of said sheds picks of weft; repeating the foregoing in any definite order or succession necessary to produce the desired fabric.

4. The process of producing textile fabrics which consists in simultaneously forming three or more warp sheds, one above the other, carrying a supply of pile forming warp threads within the center of the center warp sheds, selecting threads from said supply and interweaving them between the center and higher warp sheds and between the center and lower warp sheds, and binding the interweaving warp threads together with weft threads simultaneously inserted within the several warp sheds.

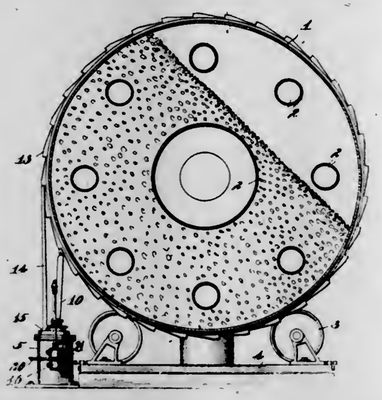
944,126. CAN-OPENER. MEDOS DESOTELL, Marquette, Mich. Filed Nov. 25, 1908. Serial No. 464,445.



1. In a machine of the character described, the combination with a base, a horizontal plate thereon having parallel slots, clamps on said plate, lugs on the clamps projecting through the slots, screws arranged beneath said plate and having bearings in the base, said lugs being threaded on said screws, intermeshing gears on said screws, and means for turning one of said screws.

2. In a machine of the character described, the combination with a base, means for supporting the base, a standard on said base, a bracket having vertical movement on the standard, a toothed rack on the standard, a dog on the bracket engaging the said rack, an outwardly extending weighted arm on said dog, a rotary cutter carried by said bracket, and a spring on the standard above the base to cushion the downward fall of the bracket.

944,127. MALTING APPARATUS. JOHN F. DORNFELD, Chicago, Ill. Filed Feb. 1, 1906. Serial No. 298,905.

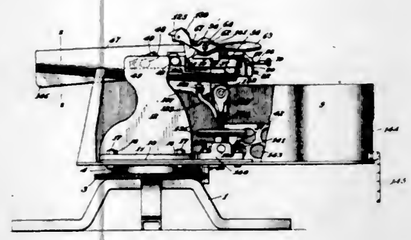


1. In a malting apparatus, in combination, a rotatory drum; means for intermittently rotating said drum through a partial revoluion, adapted to permit of a slow partial return movement of the drum; and means for supporting the unbalanced weight of the drum and its load during the intervals between rotations.

2. In a malting apparatus, in combination, a rotatory drum; an annular rack on said drum; a motor having a piston rod adapted to engage the teeth of said rack for rotating said drum; and a supporting member adapted to limit the back motion of said drum.

3. The combination with a malting receptacle, of means for imparting a progressive movement to said receptacle and to permit a slight return movement thereof, one of said movements being relatively slow at the beginning and speedier toward the end of the movement.

944,128. GUN. STANISLAUS FABER, Chicago, Ill. Filed Nov. 13, 1908. Serial No. 462,450.



1. A gun, a breech block fitting snugly the breech of said gun, a U-shaped support for said breech block pivotally mounted on said gun, means for elevating said U-shaped support and breech block, a firing pin carried by said breech block, a trigger adapted to hold said firing pin in cocked position and means whereby elevating said breech block causes said firing pin to be cocked, substantially as described.

2. In a gun, the combination of a breech block snugly fitting the breech of said gun, a U-shaped support for said breech block in hinged connection with said gun, segmental racks disposed in parallel vertical planes upon said gun, a shaft journaled in bearings provided in said breech block support, pinions fixed to said shaft in mesh with the teeth of said racks, a firing pin, means for withdrawing or cocking said pin, a shell extractor, means connected with said shaft whereby by rotating the latter causes the actuation of said firing pin cocking means and said shell extractor, substantially as described.

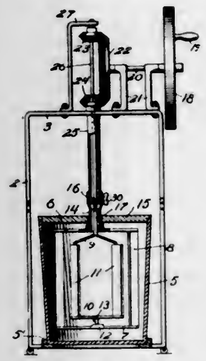
3. A gun, a breech block snugly fitting the breech thereof, a U-shaped support to said breech block hingedly mounted on said gun, a segmental rack on said gun, a shaft journaled in said breech block support, a pinion fixed to said shaft and in mesh with said rack, a firing pin, longitudinally slidable means on said breech block for cocking said firing pin, co-acting means on said longitudinally slidable means and said shaft for actuating the former when the shaft is rotated, substantially as described.

4. In a gun, the combination of a substantially cylindrical breech block snugly fitting the breech of said gun, a horizontally disposed U-shaped support for said breech block, the end portions of said support being in hinged connection with said gun, a firing pin snugly mounted in said breech block, a trigger coöperating with said firing pin, an arm adapted to engage a notch provided in the upper edge of said firing pin, means for elevating said breech block support which when actuated forces the last mentioned arm rearwardly into engagement with said notch, substantially as described.

5. In a gun, the combination of a breech block snugly fitting the breech of said gun, a horizontally disposed U-shaped support for said breech block, the end portions of said support being hingedly secured to the sides of said gun forward of the breech thereof, segmental racks forwardly extending from and fixed to said gun, a transverse shaft journaled in bearings in said breech block support, pinions fixed to said shaft in mesh with said racks, and an operating lever fixed to one of the extremities of said shaft, substantially as and for the purpose specified.

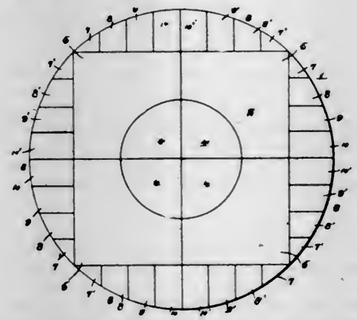
[Claims 6 to 8 not printed in the Gazette.]

944,129. CHURN. ELLIS E. FLOYD, Celeste, Tex. Filed Nov. 26, 1907. Serial No. 403,915.



A churn comprising a supporting frame for the churn body and for the operating mechanism, a churn body supported by and removable from said frame, reversely rotatable dashers one of which is formed at its bottom with a step, a pintle projecting from the other dasher to seat in the said step, a hollow stem projecting from one dasher and terminally enlarged at its upper end to form a socketed head, a stem projecting from the other dasher and housed within the said hollow stem, said stem terminating at its upper end below the upper end of the said hollow stem and being formed in said terminal to provide a square socket, two actuating shafts contained one within the other, the outer shaft fitting into the socketed head of the hollow stem, the inner shaft being terminally squared to fit within the socket of the other stem, means for supporting the said actuating shaft, means for operating the said shafts to revolve them in opposite directions, and means upon the socketed head of the hollow stem adapted to be engaged with the said outer actuating shaft whereby the said shaft and stem and the said inner shaft and inner stem can be operatively connected.

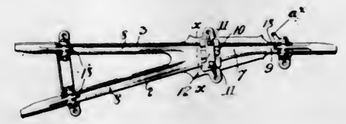
944,130. PUZZLE. ANNA GARLAND, Chicago, Ill. Filed Sept. 2, 1909. Serial No. 515,855.



1. In a puzzle, the combination of a plurality of flat pieces of irregular contour adapted to be fitted together to form a continuous flat body either circular or square in contour, said pieces when fitted together to form a circular body being arranged into an inner square portion and outer segmental portions arranged about the peripheral edges of said square portion, all of said segmental portions being identical, each being formed of an even number of sections, the base or inner edges of which are equal and the contiguous edges thereof disposed perpendicularly to said base edges, said sections being adapted to be arranged about the peripheral edges of said square portion with their curved edges adjacently arranged to form the square body.

2. In a puzzle, the combination of a plurality of flat pieces of irregular contour adapted to be fitted together to form a continuous flat body either circular or square in contour, said pieces when fitted together to form a circular body being arranged into an inner square portion and equal outer segmental portions arranged about the peripheral edges of said square portion, each of said segmental portions being formed of eight sections the inner or base edges of which are equal and the contiguous edges thereof disposed perpendicularly to said base edges.

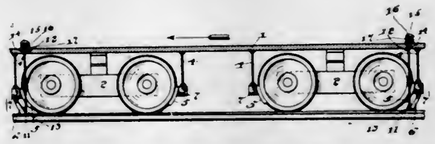
944,131. OVERHEAD SWITCH FOR ELECTRIC RAILWAYS. EDWARD E. GILMORE, Philadelphia, Pa. Filed Sept. 27, 1905. Serial No. 280,319.



1. An overhead switch for electric trolley systems comprising a body having side flanges, main and branch terminals for a trolley wheel, and an intermediate flange extending between the main line terminals parallel to one side flange and shaped in section so as to leave a groove on that side, and to have a gradual slope on the other, whereby trolley wheels on the main line will be guided through the switch without a break, and wheels entering or leaving by the branch terminal will be forced to pass diagonally across the body over the said slope, without slamming.

2. An overhead switch for electric trolley systems comprising the body 1 having side flanges 13 and 14, main terminals 3 and 4, branch terminals 2, and a continuous guide rib 15, having a groove 16 on one side, and a gradual slope 16ª on the other, as and for the purposes intended, substantially as described.

944,132. RAIL-CLEANER. JAMES P. GORMAN, Chicago, Ill. Filed Feb. 8, 1909. Serial No. 476,585.



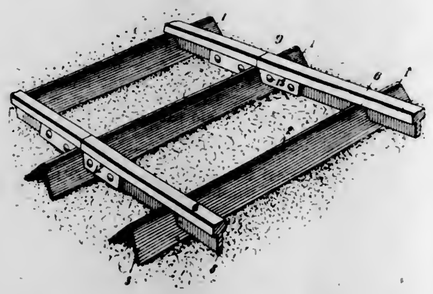
In a rail and a rail-groove cleaner, a car having a rail cleaning shoe pivoted to the brake bar thereof, said shoe being inclined to the rail on which it is adapted to bear and means for normally maintaining said arm out of engagement with said rail, substantially as and for the purposes specified.

944,133. RAILWAY TIE AND RAIL. ISAAC J. GRAY, Lawrence, Kans. Filed Aug. 25, 1909. Serial No. 514,532.

1. A railway tie formed of metal presenting oppositely disposed downwardly inclined flanges and presenting a meeting edge to said flanges, slots cut in said meeting edge and passing partly through said flanges, and rails having webs seating in said slots and having notches in the lower edges thereof engaging the edges of said slots.

2. A railway tie having a pair of oppositely disposed downwardly inclined flanges, said flanges having a meeting edge disposed upwardly, said meeting edge having slots therein passing partly through said flanges, rails

having webs seating in said slots, and base plates on the under sides of said ties under said rails having transverse flanges extending longitudinally with the rails, with notches engaging the edges of said first flanges to retain said base plates.



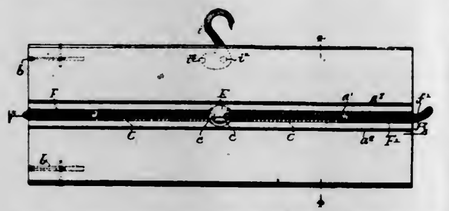
3. In combination, a railway tie having a pair of downwardly extending inclined flanges presenting a meeting edge on the upper side of said tie, said meeting edge having slots therein passing partly across the width of said flanges, said slots being of greatest width at their lower edges, rails having their ends abutting at said tie and having webs extending downwardly into said slots, wedge-shaped fish plates lying in said slots at the sides of said webs, and bolts passing through said fish plates and said webs and connecting the same.

4. A railway tie having a pair of downwardly inclined flanges with slots in the meeting edge of said flanges, rails having webs seating in said slots, said webs having notches receiving the ends of said slots to prevent the spreading of said flanges.

5. A railway tie having diverging downwardly projecting flanges with slots in the meeting edges thereof, rails having webs received in said slots and pins passing through said webs under said meeting edges and retaining said rails.

[Claim 6 not printed in the Gazette.]

944,134. TROUSERS HANGER AND PRESS. CLARENCE L. HARPER, Philadelphia, Pa. Filed July 14, 1909. Serial No. 507,526.



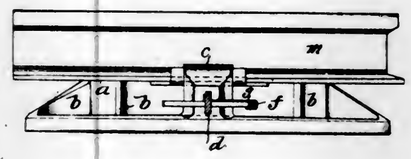
1. The combination in a trousers hanger and press, of a body portion, a leaf adjustably secured thereto, yielding fastenings at the opposite end thereof for confining the leaf to the body portion, said body portion having an open groove throughout its length for the reception of the yielding means, and an attachment whereby the yielding means is secured to the body portion.

2. The combination of a body portion, a leaf hinged thereto, a groove at the back of the body portion throughout its length, an attachment secured within the groove to the center of the body portion, two springs, one secured to each side of the attachment and adapted to the groove in the body portion, with means for connecting the spring with the leaf.

3. The combination of a body portion, a leaf hinged thereto, a channel at the back of the body portion extending throughout the length thereof, a deep groove connecting with the channel, springs mounted in the groove, means for attaching springs at the center of the body portion, and a cover adapted to the channel and secured to the body portion inclosing the springs, with means for connecting the springs and the leaf.

4. The combination of a body portion, a leaf pivotally connected thereto, said body portion having a longitudinal channel cut in its back, three grooves connecting with the channel and grooves on the end of the body portion, with a metallic cover having flanges adapted to two or more longitudinal grooves and having lipped flanges adapted to the end grooves, whereby the cover is secured to the body portion, springs mounted in the center channel, and means for attaching the springs to the leaf.

944,135. CAST-IRON SLEEPER. WALTER R. HAUGHTON, Sealdah, Calcutta, India. Filed Oct. 30, 1908. Serial No. 460,372.



1. An improved cast iron sleeper for railways comprising a body portion in the form of a box-like girder with its longitudinal axis parallel to the track and formed with a rail seat near each end and strengthening gussets at the sides of said seats.

2. An improved cast iron sleeper for railways comprising a body portion in the form of a box-like girder with its longitudinal axis parallel to the track and formed with a rail seat near each end and strengthening gussets at the sides and ends of said seats.

3. An improved cast iron sleeper for railways comprising a body portion in the form of a box-like girder with its longitudinal axis parallel to the track and formed with a rail seat near each end and strengthening gussets at the sides and ends of said seats, the end gussets extending angularly and from the outer ends of said seats.

4. The combination with a cast iron sleeper for railways having its body portion formed with a rail seat at each end, of jaws for engaging the base of a rail, and tie bar bearings disposed at opposite sides of the sleeper.

5. The combination with a cast iron sleeper for railways having its body portion formed with a rail seat at each end, of jaws for engaging the base of a rail, tie bar bearings disposed at opposite sides of the sleeper, and a tie bar connecting said bearings for keeping the sleeper level and preventing canting of the rail.

[Claims 6 to 8 not printed in the Gazette.]

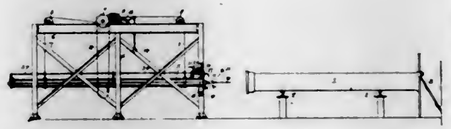
944,136. VAGINAL SYRINGE. WILLIAM HERSCHLAY, Chicago, Ill. Filed May 26, 1909. Serial No. 498,451.

A syringe comprising a barrel having an externally threaded reduced partially closed forward end provided with an annular series of outwardly inclined inlet and discharge ports, and having an integral tapered projection intermediate said ports and formed at its outer end with a partially spherical valve seat, a bulb upon the rear end of the barrel, a nozzle engaging the said reduced threaded forward end of the barrel and inclosing said projections and provided with a contracted outer end having a central inlet, an internal partially spherical valve seat, and a surrounding series of outwardly inclined discharge ports, and a ball valve in said nozzle movable therein between said tapered projection and terminal seat, said valve being adapted when engaged with said projection to permit of the inlet of the douche through the opening and sets of



ports and when in engagement with said terminal seat to close said opening without closing said surrounding ports.

944,137. CORE-CUTTING MACHINE. ALEXANDER E. HIGGINS and JOHN D. ORMROD, Emaus, Pa. Filed May 13, 1909. Serial No. 495,720.



1. The combination of a support for maintaining a pipe in a substantially horizontal position, a framework, a horizontally movable cutting tool carried by said framework and reciprocable in and out of said pipe, said tool being free to yield to any inequality of the wall of the pipe, and means for operating said tool.

2. The combination of a support for maintaining a pipe in a substantially horizontal position, a framework, a vertically adjustable cylinder suspended within said framework, said cylinder being substantially horizontally disposed, and a cutting tool operated by said cylinder and horizontally movable into and out of said pipe.

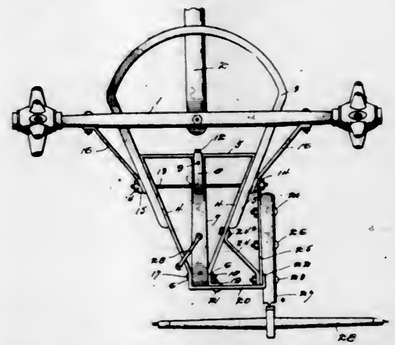
3. The combination of a pipe support, a framework, a cylinder within said framework, a guiding support for the forward end of said cylinder, and a cutting tool operable by said cylinder and movable into and out of said pipe, said cylinder being unconfined at its rear end whereby the cutting tool may readily follow any inequalities in the pipe.

4. The combination of means for supporting a pipe, a framework, a cylinder suspended within said framework and adjustable vertically therein, a cutting tool, a piston rod to which said tool is connected, and a piston within said cylinder for operating the rod to move the tool into and out of said pipe.

5. The combination of means for supporting a pipe, a framework, a cylinder disposed within said framework, means for raising and lowering said cylinder, a cutting tool, and a piston and piston rod within said cylinder to which said tool is connected and whereby it is operated.

[Claims 6 to 14 not printed in the Gazette.]

944,138. DRAFT APPLIANCE. CLIFFORD F. JOHNSTON, Milledgeville, Ill. Filed May 17, 1909. Serial No. 496,450.



A device of the character described comprising a body portion composed of an end member, converging side members, and straight forward end portions, said end member, side members and forward portions being integral, and one of said straight forward portions being provided with an angular elongated extension having an intermediate connection with the opposite straight portion and terminating in a rearwardly extending end, and a tongue plate connected with said rearwardly extending end.

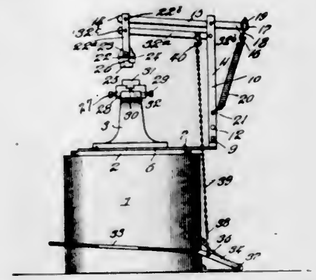
944,139. ELECTRODE FOR ELECTRIC-ARC LAMPS. ADRIAN D. JONES, Holloway, London, England. Filed Apr. 18, 1908, Serial No. 427,824. Renewed Oct. 11, 1909. Serial No. 522,124.



1. Compound electrodes for electric arc lamps carrying a mixture of calcium tungstate and calcium fluorid, as set forth.

2. Compound electrodes for electric arc lamps carrying a mixture of calcium tungstate, calcium fluorid and a steadying salt of an alkali metal, as set forth.

944,140. FOOT-POWER HAMMER. OTTO W. MIELENZ, Jenks, Okla. Filed Sept. 3, 1908. Serial No. 451,599.

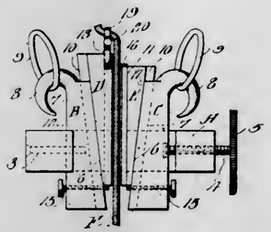


1. In a foot power hammer the combination of a pivoted treadle lever, a supporting bracket having an upwardly extending portion, an anvil, a standard pivoted to the upwardly extending portion of the bracket, a fastening means for holding said standard against pivotal movement, a hammer arm pivotally mounted between its ends upon the standard to provide a longer forward end

projecting above the anvil and a shorter rear end projecting in rear of the standard, a spring connecting said short rear end of the arm with the standard, a support pivoted to the long end of the hammer arm, a hammer carried by said support for coöperation with the anvil, a link pivotally connected with the standard and supported below the hammer arm, and a flexible connection between said link and the treadle lever.

2. In a foot power hammer, the combination, with an anvil block, and an anvil mounted thereon, of a bracket secured to the base of the anvil, a hammer mechanism supported by the bracket, and including a swinging operating member, a looped tread lever embracing the anvil block, said lever being provided with downwardly bent converging ends, a bracket fixed to the anvil block and to which the converging ends of the lever are pivotally connected, a bail attached to the converging ends of the lever, and a connection between the said bail and the hammer mechanism.

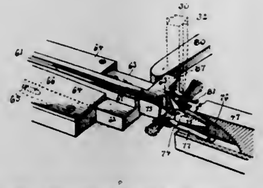
944,141. WIRE-ROPE CLAMP. CHARLES L. MOUNTS, Parkersburg, W. Va. Filed Feb. 2, 1909. Serial No. 509,770.



1. A clamping device of the character described, comprising relatively adjustable spaced guides, supporting means for the same, wedges slidable upon the guides and movable toward and away from each other, a finger upon one of the wedges extending toward and adapted to engage the opposite wedge, and a finger upon the latter wedge extending above and adapted to engage the guide member supporting said wedge.

2. In a clamping device of the character described, a pair of relatively adjustable guides, supporting means for the same, wedge members slidably engaging the guides, set screws engaging the guides and adjustable in the path of the lower ends of the wedges, a stop member upon one of the wedges to engage the opposite wedge, a stop member upon the latter wedge to engage the guide member supporting the said wedge, and a clamp connected with and extending laterally and upwardly from the first-named wedge.

944,142. BRUSH-MAKING MACHINE. GILFORD S. MURDOCK, Detroit, Mich. Filed Jan. 7, 1904. Serial No. 188,023.



1. In a brush making machine the combination with the actuating mechanism and frame, of a feed hopper mounted thereon, a two part slide mounted in guides in the frame and traveling across beneath the feed hopper, one part connected with the actuating mechanism and having a limited movement on the other part, a finger having a cut out portion pivotally mounted on the other part and riding on a rib on the frame to hold said finger in its elevated position, a trigger pivoted in said finger adjacent to said cut out portion to form a gripping jaw, a spring to normally hold said trigger to receive the material as it passes beneath the feed hopper, means for moving the part carrying the finger through the medium of the other part and the bunch and separate means for moving the part carrying said finger in advance of the other part to allow the finger to clear the rib and drop the bunch in front of the slide, a block to receive the end of said finger, a stop to trip said trigger to release the bunch and guides formed in the adjacent ends of said slide and block.

2. In a brush making machine the combination with the frame, actuating mechanism and feed hopper mounted thereon, of the means for feeding the wire, forming and driving the staple, of a two part slide mounted in guides on the frame and traveling across the feed hopper, one part connected with the actuating mechanism and having a limited movement on the other part, a finger pivotally carried by the other part and riding on a rib on the frame, a trigger pivotally mounted in a cut out portion of said finger to form a gripping jaw, a spring to normally close said jaw to grip the material as it passes across the hopper, means for moving the part carrying said finger in advance of the other part after the other part has reached its extreme forward movement to allow the finger to drop with the bunch in front of the slide and a stop on the frame to release the bunch.

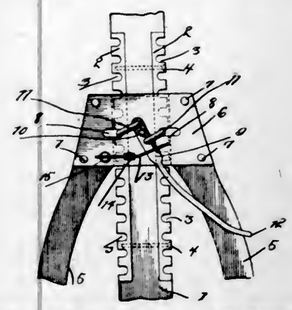
3. In a brush making machine, in combination with a receptacle for brush tuft material, a reciprocating tuft gatherer and carrier engaging with its edge against said material, there being a notch in said edge wherein a tuft is held during a portion of each reciprocation, means for causing the release of the tuft therefrom at its intended point of delivery, means for locating thereover a staple in position to be driven, and means for thereafter engaging the staple and tuft and forcing the same free from said staple-locating means and into the brush-back, substantially as described.

4. In a brush making machine, in combination with a reciprocating gatherer and carrier having two parts, one being carried by the other and being slidable with respect thereto, driving means engaging one of said parts, and a movable member engaging the other of said parts, adapted to cause relative movement of the two parts, substantially as described.

5. In a brush making machine, in combination, a reciprocating gatherer and carrier having two slidably connected parts, a lever to engage one of said parts, a second lever to engage the second of said parts, a shaft, cams on said shaft whereby an irregular motion is communicated to parts in contact therewith, and levers engaging said cams with one end and said levers with the other end, substantially as described.

[Claims 6 to 11 not printed in the Gazette.]

944,143. WAGON-REACH COUPLING. CURT MYERS, Springport, Mich. Filed July 27, 1909. Serial No. 509,770.

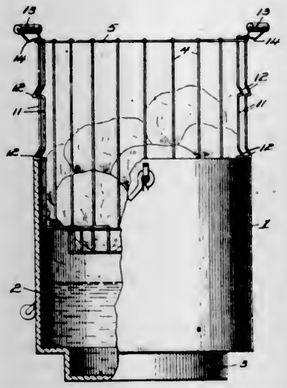


1. A wagon reach coupler comprising serrated plates connected to the opposite sides of the reach, plates connected to opposite sides of the hounds, a lever pivoted to said plates and carrying upon opposite sides of its pivot links to engage the notches in the serrated plates, and means for holding said lever in adjusted position.

2. A wagon reach and coupler comprising a reach having notched plates connected to the opposite edges thereof, hounds provided with plates connected to the opposite sides thereof, said plates being slotted in line with the notches, a lever pivoted to said hounds and provided with links connected thereto at opposite sides of the pivotal point, and a spring latch for holding said lever in adjusted position.

3. A wagon reach coupler comprising a reach having plates provided with notches upon opposite sides of said reach, a lever provided with links connected thereto upon opposite sides of its pivotal point, and means for holding said lever in adjusted position.

944,144. VEGETABLE-STRAINER. JOHN MCDONALD, North Sydney, Nova Scotia, Canada. Filed July 16, 1909. Serial No. 507,985.



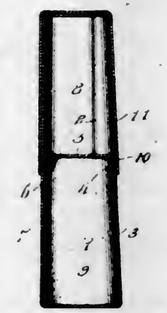
The herein described vegetable strainer comprising a series of wire strands connected at their lower ends to a ring, a ring to which the upper ends of said strands are connected, supporting members comprising resilient wire strands connected to the lower ring and disconnected from the upper ring, said supporting members being provided with handles for operating the same and said supporting members having outwardly projecting supports designed to engage the upper edge of the kettle or cooking utensil.

944,145. PAPER RECEPTACLE. WILLIAM NEMSEY, Brooklyn, N. Y. Filed July 27, 1909. Serial No. 509,803.

1. A receptacle of the class described having an opening in one side at one end, and further provided with an interiorly disposed partition bearing against the side opposite said opening, and adapted to close against the side having said opening to divide the receptacle into two compartments.

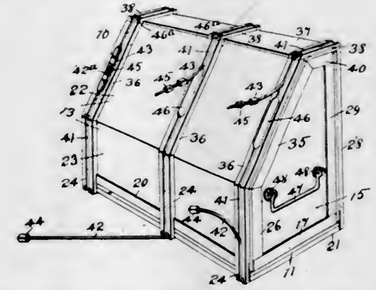
2. A receptacle of the class described having an opening in one side at one end, and further provided with an interiorly disposed partition bearing against the side opposite said opening, and adapted to close against the side having said opening to divide the receptacle into two compartments, the free side of the partition and that side of the receptacle having said opening being provided with means to support the partition in closed position.

3. A receptacle of the class described having an opening in one side at one end and further provided with an interiorly disposed partition bearing against the side opposite said opening, and adapted to close against the side having said opening to divide the receptacle into two compartments, and a cap to fit on one end portion of the receptacle and close the said opening.



4. A receptacle of the class described comprising a body portion, closed at its ends and having an opening in one side near one end; a partition having flaps on opposite sides, one bearing against the inner surface of the wall of the body portion opposite said opening and the other bearing on the outer side of the wall below said opening, and a cap to fit on one end of the body portion, close the side opening thereof and bear on the outer side of the last-mentioned flap of the partition.

944,146. KNOCKDOWN CRATE. FRANK V. NEUVILLE, New Rochelle, N. Y. Filed June 8, 1908. Serial No. 437,353.

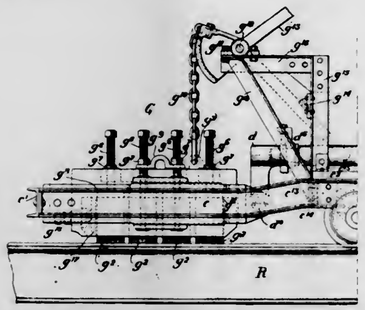


A knock-down crate, comprising a bottom member having a single U-shaped metallic bar at each edge thereof forming a groove, a front formed of two members angularly arranged with respect to each other and both provided with a single U-shaped metallic bar on their inner surfaces and at the ends thereof, a rear member adapted to fit one of the U-shaped bars of the bottom member at one edge and provided with a single U-shaped bar at each of two edges thereof, end-pieces fitting the U-shaped bars at the ends of the front, bottom, and rear members, a top member provided with U-shaped bars fitting the end members and the rear members, cleats extending around the members and carried thereby and provided with a groove, a flexible connection arranged in each groove, and a fastening device adapted to rigidly hold the ends of the flexible connection together.

944,147. GRINDING-MACHINE. HENRY B. NICHOLS, Philadelphia, Pa. Filed Aug. 21, 1908. Serial No. 449,674.

1. A grinding machine comprising guides supported over the work, a frame adapted to reciprocate in said guides in a plane parallel to the surface of the work, a body of abrasive material, and a holder therefor adjustable in the frame toward and away from the surface of the work to-

gether with a motor for reciprocating the frame, substantially as described.



2. A grinding machine comprising a pair of parallel supporting members or guides, a frame fitted to slide between and upon said members, a weight holder or carrier fitted on slides in said frame so as to have motion perpendicular to the plane thereof, and means for reciprocating the frame, substantially as described.

3. A machine for grinding horizontal surfaces comprising a pair of parallel guide members, a frame fitted to slide between said members, a holder or carrier of relatively large mass fitted to said frame so as to have free vertical movement relatively thereto but to travel horizontally therewith, a body of abrasive material in said holder, and means to reciprocate the frame on the guide members, substantially as described.

4. A machine for grinding horizontal surfaces comprising a main supporting frame having guideways, an auxiliary frame fitted to slide horizontally thereon, a relatively heavy holder or carrier moving horizontally with said frame but free to move vertically therein, a body of abrasive material supported in said holder, means to lift the holder in the frame, and means to reciprocate the frame, substantially as described.

5. A machine for grinding horizontal surfaces comprising a main supporting frame having parallel horizontal guideways, an open auxiliary frame adapted to slide thereon, a relatively heavy holder or carrier traveling with said auxiliary frame but having free vertical motion therein, a plurality of bodies of abrasive material carried by said holder with clamping and adjusting means for the same, and means for reciprocating said auxiliary frame, substantially as described.

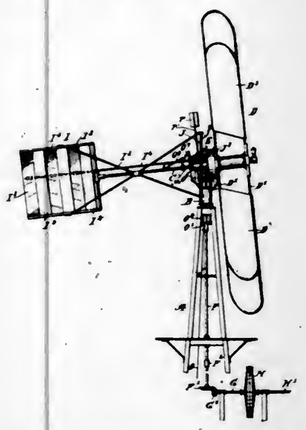
[Claims 6 to 21 not printed in the Gazette.]

944,148. WIND-MOTOR. ROBERTO F. E. OKRASSA, Antigua, Guatemala. Filed Sept. 17, 1907. Serial No. 393,303.

1. A wind motor comprising a wind wheel, a revoluble head on which the said wind wheel is mounted to rotate loosely, a plurality of vanes mounted on the said head for turning the latter, one of the vanes being arranged parallel to the axis of the wind wheel and the other vane standing transversely to the axis of the wind wheel, and means for increasing or decreasing the effective areas of the vanes.

2. A wind motor comprising a wind wheel, a revoluble head on which the said wind wheel is mounted to rotate loosely, a plurality of vanes mounted on the said head for turning the latter, one of the vanes being arranged parallel to the axis of the wind wheel and the other vane standing transversely to the axis of the wind wheel, the said vanes being slatted and provided with shutters for opening and closing the spaces between the slats, and means for operating the said shutters.

3. A wind motor comprising a wind wheel, a revoluble head on which the said wind wheel is mounted to rotate loosely, a plurality of vanes mounted on the said head for turning the latter, one of the vanes being arranged parallel to the axis of the wind wheel and the other vane standing transversely to the axis of the wind wheel, and manually controlled means for increasing and decreasing the effective areas of the said vanes.

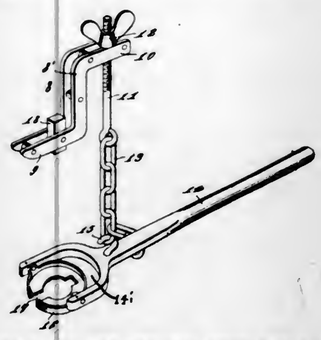


4. A wind motor comprising a wind wheel, a revoluble head on which the said wind wheel is mounted to rotate loosely, a plurality of vanes mounted on the said head for turning the latter, one of the vanes being arranged parallel to the axis of the wind wheel and the other vane standing transversely to the axis of the wind wheel, and storm-controlled means for increasing the effective area of one of the vanes and decreasing the effective area of the other vane to throw the wind wheel out of the wind.

5. A wind motor comprising a wind wheel, a revoluble head on which the said wind wheel is mounted to rotate loosely, a plurality of vanes mounted on the said head for turning the latter, one of the vanes being arranged parallel to the axis of the wind wheel and the other vane standing transversely to the axis of the wind wheel, and means controlled by the said wind wheel for increasing or decreasing the effective areas of the said vanes.

[Claims 6 to 14 not printed in the Gazette.]

944,149. VALVE-SPRING LIFTER. PETER PETERSON, South Bend, Ind. Filed June 8, 1909. Serial No. 500,913.



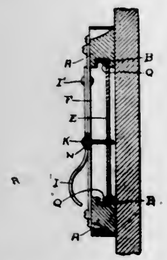
1. A tool of the class described comprising a standard having a foot at its lower end and an oppositely extending arm at its upper end, a flexible fulcrum member adjustable horizontally on said arm, and a spring engaging lever pivoted to said fulcrum member.

2. A tool of the class described comprising a standard having a foot at its lower end and an oppositely extending arm at its upper end, a flexible fulcrum member adjustable horizontally on said arm, a spring engaging lever pivoted to said fulcrum member, and an adjustable rest for direct engagement with a valve and mounted on the foot of the standard.

3. A tool of the class described comprising a standard having a foot at its lower end and an oppositely extending arm at its upper end, a flexible fulcrum member adjustable horizontally on said arm, a spring engaging lever pivoted to said fulcrum member, and a reversible rest for direct engagement with a valve and mounted on the foot of the standard.

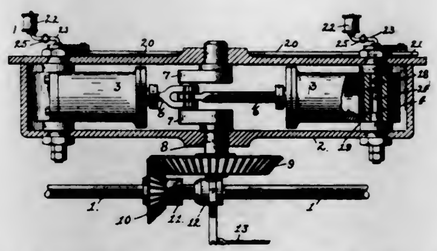
4. A tool of the class described comprising a standard, a supporting rod adjustable vertically and horizontally on the standard, a fulcrum member connected with said supporting rod, a spring engaging lever connected with the fulcrum member, and a rest pivoted between its ends to the standard for direct engagement with a valve and reversible on the standard, the pivot point of the rest being some distance from a point centrally of its length.

944,150. SIGN-HOLDING APPARATUS. CHARLES P. RALL, Williamsport, Pa. Filed July 23, 1909. Serial No. 509,243.



In combination with a rack adapted to be fastened to the side of a car or other object, said frame having an open end and its opposite inner edges grooved and adapted to receive a sign, resilient angled metal pieces mounted one in each of said grooves, one edge of said pieces adapted to bear against one of the walls of the grooves and its other edge against a sign to hold the latter against the opposite wall of the groove.

944,151. BRAKE MECHANISM. EMIL SANTSCHE, Eureka, Cal., assignor of two-fifths to John A. Prentice and one-fifth to Joseph Bagley, Eureka, Cal. Filed Oct. 12, 1908. Serial No. 457,246.



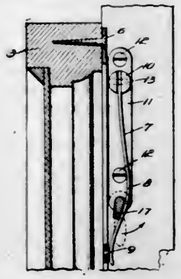
1. In combination with a rotatable driving shaft; a fluid-containing cylinder having a passage connecting its ends; a pivot connection at one end of the cylinder to permit its oscillation; a valve seated in the axis of oscillation of said cylinder, adapted to control said passage; a piston in the cylinder having a rod passing out through one head of the cylinder; a crank shaft to which said piston rod is connected; power transmitting devices from the rotatable shaft to operate the crank shaft, and means for throwing said transmitting devices into and out of action.

2. In combination with a rotatable driving shaft; a plurality of fluid-containing cylinders each having a passage connecting its ends; a pivot connection at the outer end of each cylinder to permit its oscillation; a valve seated in the axis of oscillation of each cylinder, adapted to control the passage therein; connections for operating said valves in unison; a piston in each cylinder having a rod passing out through the inner end thereof; a crank shaft to which all of said piston rods are connected in common; power transmitting devices from the rotatable shaft to operate the crank shaft, and means for throwing said transmitting devices into and out of action.

3. In combination with a rotatable driving shaft, a fluid-containing cylinder having a passage connecting its ends, a pin upon which one end of said cylinder is pivoted, said pin having ports registering with the interior of the cylinder and with its passage, whereby the fluid may pass from one end of the cylinder to the other and return, a valve-pin rotatably mounted in said pivot pin and having a port disposed to control the ports in said pivot-pin, a piston in the cylinder having a rod passing out through one head of the cylinder, a crank shaft to which said piston rod is connected, power transmitting devices from the rotatable shaft to operate the crank shaft, and means for throwing said transmitting devices into and out of action.

4. In combination with a rotatable driving shaft; a plurality of fluid-containing cylinders each having a passage connecting its ends; pins upon which the outer ends of the cylinders are pivoted, said pins having ports registering with the interior of the cylinders and with their passages, whereby the fluid may pass from one end of each cylinder to its other end and return; a valve-pin rotatably mounted in each pivot pin and having a port disposed to control the ports in said pivot pin; connections for operating said valve-pins in unison; a piston in each cylinder having a rod passing out through the inner end thereof; a crank shaft to which all of said piston rods are connected in common; power transmitting devices from the rotatable shaft to operate the crank shaft, and means for throwing said transmitting devices into and out of action.

944,152. SASH-LOCK. FRED C. SCHAURER, Wellington, Kans. Filed June 4, 1909. Serial No. 500,070.



1. A sash lock comprising a perforated metal strip secured to the sash, a spring dog connected to a base member secured to a window casing, said spring dog comprising a spring plate secured at one end to a stud projecting from the base member, said spring being curved and provided with a stud to engage any of the perforations in the strip, and a key mounted in the base member and provided with an extended bit to engage said spring for releasing the stud from the perforations.

2. A sash lock comprising a metal strip having a series of perforations therein, said strip being secured to the sash, a base member provided with an outwardly projecting slotted stud and an inwardly projecting socket, a spring dog secured in the slot in said stud and provided with a curved portion and an inwardly projecting stud to

engage said perforations, a key provided with a shank pivotally mounted in said socket, said key being provided with a bit adapted to engage said spring for releasing the stud from the perforations, and a handle for operating said key.

944,153. ROLL-UP PICTURE. MORRIS E. SCOTT, Boston, Mass. Filed Feb. 18, 1909. Serial No. 478,672.



1. A flexible sheet adapted to be rolled into a tubular scroll, and having a design on the portion which forms the exposed periphery of the scroll, and having also indicated thereon an annulus, which, when cut out, forms a confining member adapted to prevent the unwinding of the scroll beyond a predetermined diameter, said member constituting an adjunct of the said design.

2. A flexible sheet adapted to be rolled into a tubular scroll, and having a design on the portion which forms the exposed periphery of the scroll, said design including outlines, indicating portions to be cut out to form orifices representing certain features of the design, said sheet also having indicated thereon an annulus, which, when cut out, forms a confining member adapted to prevent the unwinding of the rolled sheet beyond a predetermined diameter, the portion of the sheet which forms the interior of the scroll being provided with an adjunct of said design so located as to register with the said orifice or orifices when the scroll is confined by said member.

3. A flexible sheet adapted to be rolled into a tubular scroll, and having a design on the portion which forms the exposed periphery of the scroll, and having also indicated thereon an annulus, which, when cut out, forms a confining member adapted to prevent the unwinding of the scroll beyond a predetermined diameter, said member constituting an adjunct of the said design, the sheet being provided with markings adapted to guide a cutter in the formation of members which project outwardly when the sheet is rolled.

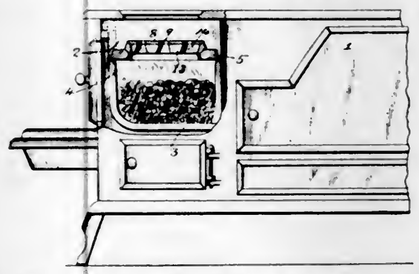
4. A flexible sheet adapted to be rolled into a tubular scroll, and having on the portion which forms the exposed periphery of the scroll, a design representing a human face, and a hat body above the face, and having also indicated thereon an annulus, which, when cut out, forms a confining member adapted to prevent the unwinding of the scroll beyond a predetermined diameter, and constituting the brim of the said hat body.

5. A flexible sheet adapted to be rolled into a tubular scroll, and having on the portion which forms the exposed periphery of the scroll, a design representing a human face with laterally extending ears, and a hat body above the face, and having also indicated thereon an annulus, which, when cut out, forms a confining member adapted to prevent the unwinding of the scroll beyond a predetermined diameter, and constituting the brim of the said hat body, the sheet being provided with curved markings adapted to guide a cutter in the formation of the ear outline, the latter projecting outwardly when the sheet is rolled.

[Claims 6 and 7 not printed in the Gazette.]

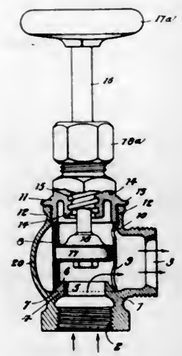
944,154. STOVE. WILLIAM G. SHOALS, Rochester, N. Y., assignor to Conlecon Company, Rochester, N. Y., a Corporation of New York. Filed June 12, 1909. Serial No. 501,831.

1. The combination with the casing and fire-pot of a fuel burning apparatus, of a perforated plate adapted to be placed over the fire-pot, and means for causing all the products of combustion to pass through said plate, including a ring supported by said fire-pot, the inner part of said ring being beveled toward the center and provided with a series of supporting lugs, said perforated plate resting upon said lugs and composed of two similarly shaped but oppositely located halves, each half being provided with a metal top, formed with sides and ends, said sides and one end being beveled off to fit the contour of the supporting ring, and each half being provided with means whereby it may be readily removed from the stove, said plates having perforated refractory material secured beneath the metal top, substantially as described.



2. The combination with the casing and fire-pot of a fuel burning apparatus, of a perforated plate supported above the fire-box, and means for causing all the products of combustion to pass through said plate, including a ring having its internal parts beveled and provided with lugs on the interior thereof, said perforated plate resting upon said lugs and composed of two similarly shaped but oppositely disposed halves adapted to fit against said ring and provided with means whereby said halves may be removed from the stove, each half being provided with a metal top, formed with sides and ends, said sides and one end being beveled off to fit the contour of the supporting ring, and refractory material supported thereby, the top of each of said halves and the refractory material being provided with a series of registering perforations, substantially as described.

944,155. VALVE. WILFRED SHURTLEFF, Moline, Ill., assignor of one-half to Moline Vacuum-Vapor Heating Company, Moline, Ill., a Corporation of Illinois. Filed Apr. 22, 1909. Serial No. 491,486.



1. A device of the class described, comprising a substantially cylindrical casing having at one end an inlet, and at the side an outlet, a perforated diaphragm separating the inlet from the body of the valve, an annular flange encircling the perforation of the diaphragm and forming a valve seat, a sleeve seated on the diaphragm and encircling the seat, said sleeve having at each end an opening one of which is of greater diameter than the other, a valve slidable in the sleeve and coöperating with the seat, and means for limiting the opening movement of the valve to prevent said valve uncovering its upper opening, and a nut threaded into the casing and carrying the valve, said nut being of greater diameter than the sleeve to permit the removal thereof, and engaging the end thereof to retain it in position.

2. A device of the class described, comprising a casing provided at one end with an inlet, and at its side with an outlet, a perforated diaphragm between the inlet end and the body of the casing, a sleeve resting on the diaphragm, and encircling the perforation, said sleeve being provided with a longitudinal series of side openings of different diameters and forming a communication between the inlet and the outlet, a valve movable in the sleeve for closing the perforation of the diaphragm, means for moving the valve, means for limiting the opening movement thereof for the purpose specified, and a nut threaded into the casing and carrying the valve and of greater diameter than the sleeve.

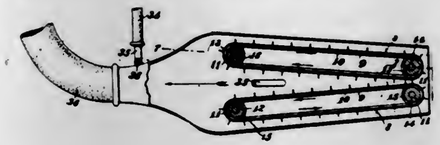
3. A device of the class described comprising a casing having an inlet and an outlet at right angles to each other, a sleeve encircling the inlet, and having a longitudinal series of side openings of different sizes communicating with the outlet, said casing having a threaded opening through which the sleeve may be removed, a nut closing the opening, a valve movable on the sleeve and having a stem passing through the nut and carried thereby, and means for limiting the movement of the valve for the purpose specified.

4. A device of the class described, comprising a valve casing provided with inlet and outlet ports, a sleeve reversibly mounted in the casing, and communicating by one end with one of said ports and provided with a longitudinal series of side openings of different areas communicating with the other of said ports, a valve movable in the sleeve for closing the port communicating with the end thereof, and means for limiting the movement of the valve to prevent it uncovering more than one opening.

5. A device of the class described, comprising a valve casing provided with an inlet and an outlet port at right angles to each other, a sleeve removably mounted in the casing, and registering with one of the ports and having a longitudinal series of different sized side openings registering with the other port, a valve for closing the sleeve, and means for limiting the movement of the valve to prevent the uncovering of more than one opening.

[Claims 6 and 7 not printed in the Gazette.]

944,156. COTTON-PICKER. GEORGE SICKEL, St. Joseph, Mo. Filed June 3, 1909. Serial No. 499,853.



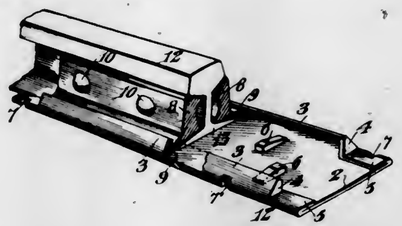
1. A cotton picker comprising a nozzle; a flexible conveyer pipe attached to said nozzle; a receptacle for the cotton adapted to receive the same from said conveyer; a plurality of rollers, two of which are closely and oppositely disposed at the inlet passage of said nozzle, and two of which are separated within said nozzle and to the rear of said inlet; a plurality of belts mounted upon said rollers; finger-like extensions mounted upon the outer surface of said belts, said extensions on each belt adapted to extend into the path of the extensions on the opposite belt; a driving mechanism to rotate said rollers; and a pneumatic propelling system to remove the cotton from said extensions and move the same along the said conveyer pipe to said receptacle.

2. A cotton picker comprising a nozzle; a flexible conveyer pipe attached to said nozzle; a receptacle for the cotton adapted to receive the same from said conveyer; a plurality of rollers, two of which are closely and oppositely disposed at the inlet passage of said nozzle, and two of which are separated within said nozzle and to the rear of said inlet; a plurality of belts mounted upon said rollers; finger-like extensions mounted upon said belts and extended from the surface thereof and adapted to intermesh when passing between said rollers at the inlet of said nozzle; a driving mechanism to rotate said rollers; and a pneumatic propelling system to remove the cotton from said extensions and move the same along the said pipe to said receptacle.

3. A cotton picker comprising a nozzle; a flexible conveyer pipe attached to said nozzle; a receptacle for the cotton adapted to receive the same from said conveyer; a plurality of rollers, two of which are closely and oppositely disposed at the inlet passage of said nozzle, and two of which are separated within said nozzle to the rear of said inlet; a plurality of endless belts mounted on said rollers; a plurality of finger-like extensions mounted upon the said belts and extended from the surface thereof, said extensions on each belt adapted to intermesh with the extensions on the other belt when passing between the rollers at the inlet passage; a driving mechanism to rotate said rollers embodying a suitable portable engine and transmission mechanism incorporating a flexible driving shaft and engaged miter gears mounted on said nozzle, one of which is fixedly attached to one of said rollers; and a pneumatic propelling system to remove the cotton from said extensions and move the same along the said pipe to said receptacle.

4. A cotton picker comprising a nozzle; a flexible conveyer pipe attached to said nozzle; a receptacle for the cotton adapted to receive the same from said conveyer; a plurality of rollers mounted in said nozzle, two of which are closely and oppositely disposed at the inlet passage of said nozzle, and two of which are separated within said nozzle to the rear of said inlet; a plurality of endless belts mounted upon said rollers; a plurality of finger-like extensions mounted upon said belts and extended from the surface thereof, said extensions adapted to intermesh when passing between the rollers at the inlet of said nozzle; a driving mechanism to rotate said rollers; a compressed air engine; and delivery tubes for compressed air connected with said engine, extended within said nozzle between said belts and opening toward the delivery end thereof.

944,157. RAILWAY-JOINT. JOHN S. SKAALA and EZEKIAL H. HILLIARD, Portland, Oreg. Filed Nov. 5, 1908. Serial No. 461,215.



1. In a rail joint, a chair plate having pockets on both edges closed at the ends and adapted to receive the outwardly projecting flanges of angular fish plates, said pockets being formed by bending the longitudinal edges of the plate inwardly from opposite sides.

2. In a rail joint, a chair plate consisting of a single thickness of sheet metal of such length as to rest at its ends on two adjacent ties and having opposed longitudinally extending inwardly turned lateral flanges extending the full length of the plate, and fish plates having an

gular outwardly projecting flanges adapted to extend beneath the said lateral flanges of the chair, each of said lateral flanges having a wall at both ends extending downward to the main body of the plate and adapted to engage against the ends of the fish plates.

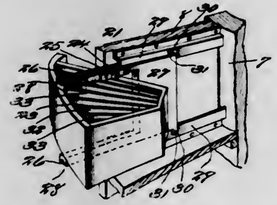
3. In a rail joint, fish plates having angular, outwardly projecting flanges, a chair plate longer than the fish plates having opposed longitudinally extending inwardly turned lateral flanges adapted to extend over the outwardly projecting flanges of the fish plates, each of said lateral flanges having a wall at its ends extending downwardly to the main body of the plate and adapted to engage against the end of the fish plate, rails resting on the chair plate, and members on the chair plate arranged to enter sockets in the bases of the rails.

4. In a rail joint, fish plates having angular outwardly projecting flanges, and a chair plate longer than the fish plates and having opposite marginal portions bent inwardly toward each other on two parallel lines to form opposed longitudinal inwardly turned lateral flanges, the ends of said flanges being forced downward into contact with the upper face of the chair plate to form pockets of the same length as and adapted to contain the angular flanges of the fish plates.

5. A chair plate for rail joints having opposed inwardly and upwardly turned lateral flanges, the ends of said flanges being forced downward against the upper face of the chair plate and the remaining portions of the flanges being spaced from the said upper face to form pockets adapted to engage with the base flanges of angular fish plates.

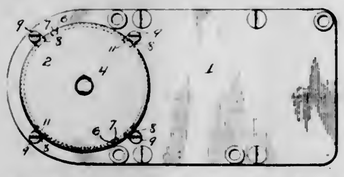
[Claims 6 to 11 not printed in the Gazette.]

944,158. REVOLVING CABINET. MATHIAS SMITH, Crabtree, Oreg. Filed Mar. 13, 1909. Serial No. 483,194.



A cabinet comprising a revolving frame having a plurality of compartments, said compartments having trackways provided with lateral extending pintles, U-shaped frames guided by said trackways, drawers pivoted in said frames, said frames having means adapted to engage said pintles to limit the outward movement of the frame.

944,159. TIME-MOVEMENT. WARREN H. TAYLOR, Stamford, Conn., assignor to The Yale & Towne Manufacturing Company, Stamford, Conn. Filed July 14, 1909. Serial No. 507,650.



1. In a time movement, the combination with a fixed frame, and a spring barrel, of means detachably connecting the barrel to the fixed frame, the said detachable connecting means adapted to be released from the barrel by an abnormal jar or shock.

2. In a time movement, the combination with a frame, a spring barrel and a spring within and connected to the latter, of means for detachably securing the barrel to the frame, the spring, when under tension, normally tending to assist in the separation of said barrel from the frame.

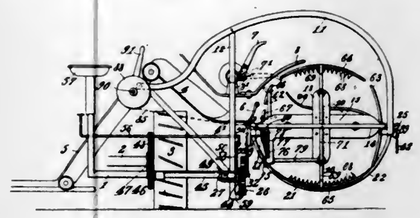
3. In a time movement, the combination with a frame, a spring barrel and a spring within and connected to the latter, of means for detachably connecting the barrel to the frame, the said connecting means adapted to be released from the barrel by an abnormal jar or shock, the spring normally tending to assist in the separation of said barrel from the frame.

4. In a time movement, the combination with a frame, main spring barrel, and engaging means on said parts for preventing the barrel when properly seated from turning, of clips pivotally mounted on the frame and entering slots or grooves in the barrel.

5. In a time movement, the combination with a frame, main spring barrel, and engaging means on said frame and barrel for preventing the barrel, when properly seated on the frame from turning, of clips loosely mounted on screws secured to the frame, and adapted when turned to enter slots or grooves in the barrel.

[Claims 6 and 7 not printed in the Gazette.]

944,160. SHOCKER ATTACHMENT FOR GRAIN HARVESTERS AND BINDERS. EUGENE A. WHITE, Oconomowoc, Wis. Filed Mar. 30, 1909. Serial No. 486,676.



1. A shocker embodying a supporting frame, a cradle carried by the frame and comprising outwardly swinging sections, a shock turning device mounted on the frame and provided with a plurality of grippers movable toward and from a common center, means for simultaneously opening and closing the sections of the cradle and moving said turning device to dump the shock, and back to normal position, and means for controlling said grippers.

2. A shocker embodying a supporting frame, a cradle carried by the frame and comprising sets of swinging arms, a tilting frame mounted on the supporting frame for movement from a horizontal to a vertical position, means for operating one of the sets of arms and the tilting frame, means for operating the other set of arms from the tilting frame, grippers carried by the tilting frame, and means for controlling said grippers.

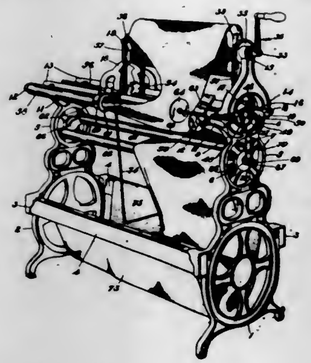
3. A shocker embodying a supporting frame, a cradle composed of outwardly and rearwardly swinging sets of oppositely disposed arms carried by the frame, said arms being provided with cranks, a tilting frame mounted on the supporting frame for movement from a horizontal to a vertical position and also provided with cranks, connections between the respective cranks of the tilting frame and the cranks of the opposite sets of arms, means for imparting motion to one of said connections to swing the arms and tilting frame in unison, grippers carried by the tilting frame, and means for controlling said grippers.

4. A shocker embodying a supporting frame, a cradle formed of swinging sets of arms mounted on the supporting frame, a tilting frame carried by the supporting frame for movement from a horizontal to a vertical position, means for simultaneously swinging the arms and tilting frame, a support adjustably mounted on the tilting frame, grippers carried by said support, and means for controlling said grippers.

5. A shocker, embodying a supporting frame, a cradle formed of swinging sets of arms carried by said frame, a tilting frame mounted on the supporting frame for movement from a horizontal to a vertical position, grippers carried by the tilting frame, means for controlling the grippers, and mechanism for simultaneously operating the cradle arms and tilting frame, said mechanism including a mutilated crank gear having oppositely arranged sets of teeth, a drive gear coöperating therewith, means for holding the gear in its normally inoperative positions, and means for shifting the gear to bring one or the other of its toothed portions into engagement with the driving gear.

[Claims 6 to 13 not printed in the Gazette.]

944,161. CLOTH-MEASURING MACHINE. BRINTON D. WIGHT, Toronto, Ontario, Canada. Filed June 3, 1908. Serial No. 436,437.



1. In a cloth measuring machine, the combination with a rigid frame and a suitable measuring device, of a suitable winding mechanism supported on said frame, means for supporting a bolt of cloth, tension means between said winding mechanism and supporting means, an adjustable spring attachment to said tension means for automatically regulating the proper tension of the cloth during the operation of the device.

2. In a cloth measuring machine, the combination with a rigid frame and a suitable measuring device, of a suitable winding mechanism supported on said frame, a frame suitably journaled within the aforesaid frame and having a plurality of bars or rolls extending thereacross, a spring at one end rigidly connected with said inner frame, and an arm or lever connected to the other end of said spring and suitably fulcrumed.

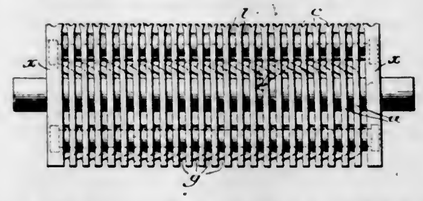
3. In a cloth measuring machine, the combination with a rigid frame and a suitable measuring device, of a suitable winding mechanism supported on said frame, a pair of arms having centrally arranged spindles extending therefrom and journaled in suitable bearings in said arm and supporting a plurality of bars or rolls extending across said machine, a spiral spring encircling the end of the spindle of one of said arms and secured thereto at one end, and an adjustable arm or lever suitably fulcrumed and secured to the other end of said spiral spring.

4. In a cloth measuring machine, the combination with a rigid frame having a pair of fixed journal bearings oppositely arranged, of a plurality of small orifices arranged in one end of said frame equidistant from the center of one of said fixed journal bearings, of a pair of arms having spindles centrally arranged therein and journaled in said bearings and supporting a plurality of bars or rolls extending across said machine, a spring adjusting arm or lever rotatably held on the projecting end of one of said spindles and having a pin secured in its outer end adapted to fit into the small orifices arranged in circular relation to said spindle, and a spiral spring encircling the projecting end of said spindle and secured thereto at one end, and to said spring adjusting arm at the other end.

5. In a cloth measuring machine, the combination with a rigid frame and means for supporting a bolt of cloth, of a cloth board holder journaled in a fixed bearing in said frame, an adjustable bracket slidably arranged on said frame, a cloth board holder journaled in a suitable bearing in said bracket, and a shaft rotatably secured in a suitable journal in said frame below said cloth board holder and slidably supported in a suitable journal in said bracket and operatively connected with said cloth board holder.

[Claims 6 to 9 not printed in the Gazette.]

944,162. GRATE-BAR. EDWARD A. WILDT, Scranton, Pa. Filed June 1, 1908. Serial No. 436,176.



1. A grate bar comprising a plurality of transverse interlocking sections, each section comprising a sheet metal stamping having a generally rectangular portion partially punched therefrom and bent laterally to form a lug, the lugs of successive sections overlapping each other and interlocking with the corresponding orifices, and a tie rod passing through the several sections.

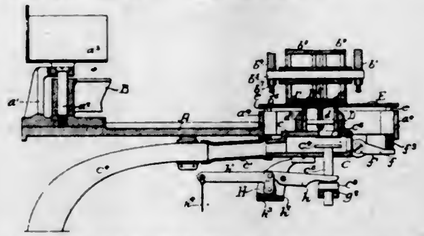
2. In a grate bar, the combination of adjacent sheet metal sections having openings formed therein and laterally extending rectangular lugs struck up from the stock at the lower portions only of said openings, the lug of one section extending into and interlocking with the opening in the adjacent section, and a tie rod extending through the openings and located above said lugs.

3. Grate bar sections each having bosses punched up therefrom at the upper portion of one side face and at opposite sides of the center, and washers freely seated on said bosses, and spacing said sections from each other.

4. In a grate bar, a plurality of sections located side by side and each provided at the bottom with an open ended slot and a lug bent up at the edge of said slot and interlocking with the slot of the adjacent section.

5. In a grate bar, the combination of a plurality of sections located side by side and each provided at the bottom with an open ended slot and a lug bent up at the edge of the slot and entering the slot of the adjacent section, a tie rod passing through the sections just above said lugs, and spacing washers surrounding said tie rod between the sections.

944,163. CIGAR-WRAPPER-CUTTING MACHINE. BENJAMIN A. WILLIAMS, Philadelphia, Pa., assignor of one-half to William F. Ruwell, Philadelphia, Pa. Filed Mar. 29, 1907. Serial No. 365,417.



1. In a wrapper cutting machine, the combination of a frame, a stationary exhaust box removably mounted there-

on, a stationary die loosely carried on the exhaust box so as to be freely removable thereon, a vertically movable rolling table fitting around said die, means for actuating said table, and means capable of co-acting with the die to cut out wrappers.

2. In a wrapper cutting machine, the combination of a frame, an exhaust box mounted thereon, a die loosely mounted upon the box and communicating with the interior thereof through an opening therein, means capable of co-acting with the die to cut out wrappers, a valve placed to coöperate with the under side of the top part of the exhaust box, a vertically movable rod connected to said valve, and means for moving the rod to cause the valve to close the opening in the exhaust box.

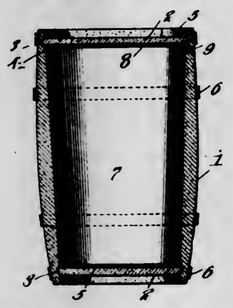
3. In a wrapper cutting machine, the combination of a supporting structure, a single plate forming a rolling table vertically movable thereon and provided with an opening, a stationary die having its hollow interior connected to an exhaust device and fitting in said opening in the table, a valve controlling the connection between the hollow die and the exhaust device, springs mounted to normally maintain the table depressed below the level of the cutting edge of the die, with means for raising said table and opening the valve, said means being arranged to transmit power from the springs to the valve so as to maintain the same closed.

4. The combination with a wrapper cutting machine having a cutting die, of means co-acting therewith to cut out a wrapper, a connection between the die and an exhaust device, a valve controlling the flow of air through said connection, means for operating said valve, springs tending to maintain it closed, a pair of co-acting levers operatively connected to the valve and pivotally connected to each other, with means for actuating said levers.

5. The combination with a wrapper cutting machine, of an exhaust box interposed between the die of said machine and an exhaust device, a valve for controlling the flow of air through the exhaust box, a lever having one arm operative upon the valve and pivoted to the frame of the machine, a second lever pivoted to said first lever, a cam on the frame of the machine placed to be engaged by an arm of said second lever, with means for actuating said second lever to control the operation of the valve, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

944,164. KEG OR CASK. OTWAY R. YEAZELL, Cincinnati, Ohio. Filed Jan. 20, 1909. Serial No. 473,315.

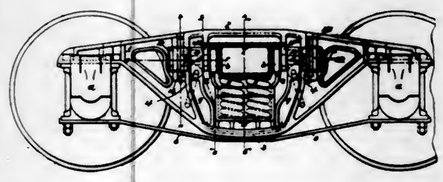


1. A keg or cask having an interior annular circumferential groove adjacent one of the crozes and further provided with an interior casing having a cover provided with a flange exterior of said inner casing and fitted in said groove, and a head in said croze, said croze widening inwardly and presenting an inclined side wall and said head having a beveled edge bearing against said inclined side wall and co-acting therewith to wedge said head against the outer side of said cover to hold the latter in place on said inner casing.

2. A keg or cask having a straight interior surface from end to end thereof and provided with a croze and an interior annular circumferential groove immediately adjacent said croze, an interior casing presenting a straight exterior surface from end to end and fitted in said keg or cask, a cover on said casing provided with a flange fitted in said groove and a head having its edge engaged in said croze, said head being held by said croze in contact with the outer side of said cover.

3. A keg or cask having a straight interior surface tapering toward one end and further provided at its larger end with a croze and an interior annular circumferential groove immediately adjacent said croze, a tapered casing fitted in the tapered interior of the keg or cask, a cover for the inner casing having a flange in said groove and a head having its edge engaged with said croze and held thereby as to contact with the outer side of said cover.

944,165. SWING-MOTION TRUCK FOR CARS. CHARLES D. YOUNG, Columbus, Ohio. Filed Aug. 6, 1909. Serial No. 511,634.



1. In a swing motion truck the combination with a truck frame, having a bolster opening therein, the lower wall of the bolster opening having a recess or pocket in its upper face, of a swinging yoke journaled within the bolster opening above said recess or pocket and a bolster carried by said yoke.

2. In a swing motion truck the combination with a side frame having a bolster opening therein, the lower wall of said opening having a recess or pocket therein, of a yoke journaled to the frame, a spring seat mounted on the yoke, springs carried by said seat and a bolster mounted at one end on the springs.

3. In a swing motion truck the combination with a side frame comprising upper and lower arches and columns, the lower arch being provided on its upper face between the columns with a depression or pocket to receive the yoke in the event of breakage of any of the suspending parts, of a spring seat journaled on the yoke, and a bolster carried by said springs.

4. In a swing motion truck the combination with a side frame having a bolster opening and a pocket at the base of said opening, of a yoke pivoted to the frame and suspended in a plane above the pocket, a spring seat journaled on the yoke and provided with upstanding members, springs on said seat, and a bolster seated on the springs and provided with guides embracing the upstanding members of the spring seat.

5. In a swing motion truck the combination with a side frame having a bolster opening, of a yoke mounted to swing in said opening, a spring seat carried by said yoke and having upwardly projecting members, springs on said seat and a bolster having guide flanges embracing the upwardly projecting members of the spring seat.

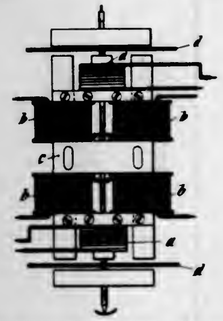
[Claims 6 to 11 not printed in the Gazette.]

944,166. BOTTLE AND STOPPER THEREFOR. JOSEPH M. ANSTEAD and HENRY BOLLMAN, Fort Meade, S. D. Filed Mar. 31, 1909. Serial No. 486,968.

The herein described bottle provided with a neck portion having a breaking groove therein, a shoulder on the inner side of the neck in line with said groove, the opening in the neck from said shoulder to the bottle body being of equal diameter from end to end and fitted with a cork stopper, the opening in the outer portion of the neck being larger at the shoulder than at the mouth of the bottle, a plug fitted within said opening, and a wire opener embedded in the neck of the bottle in line with the breaking groove, said opener having a finger loop extending outside the bottle neck.



944,167. INDUCTION SUPPLY-METER FOR POLYPHASE ELECTRIC CURRENTS. HERMANN ARON, Charlottenburg, Germany. Filed July 28, 1908. Serial No. 445,825.



1. In an induction supply meter for polyphase electric currents having two sets of driving coils disposed one above the other and comprising series coils and pressure coils for both sets, iron cores for the pressure coils of both sets, said cores of both sets consisting of one H-shaped body having a part which contitutes a passage for the lines of magnetic force of both of the said sets, and a driving disk for each set.

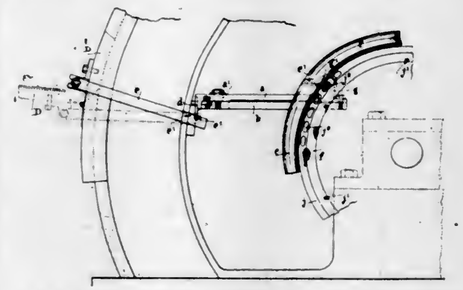
2. In an induction supply meter for polyphase electric currents having two sets of driving coils disposed one above the other and comprising series coils and pressure coils for both sets, an H-shaped iron body forming the cores for said pressure coils, the coils of one of the sets being carried on the two upper limbs of said H-shaped body and the coils of the other set on its two lower limbs, the cross-piece of said H-shaped body forming a portion through which the lines of magnetic force of both sets pass, and a driving disk for each set.

944,168. CARDING-ENGINE. ELIJAH ASHWORTH, Manchester, England. Filed Apr. 3, 1909. Serial No. 487,775.

1. Locking means for carding engine doors, comprising a locking lever, means intermediate of the same and the door to be locked, said means being engaged by said locking lever, belt shifting means in connection with said locking lever, and housed obstructing means normally resisting a full unlocking movement of the locking lever a masking device for masking said obstructing means as set forth.

2. Locking means for carding engine doors, comprising a movable locking lever, means connected with the door and engaged by said locking lever, a belt shifting device in connection with said lever, a housing, a device obstructing the said lever inclosed therein, a slotted masking ring safeguarding access to the obstructing device while the cylinder is in motion as set forth.

3. Locking means for carding engine doors comprising a movable locking lever, a movable bar connected with the door, said bar being engaged or disengaged by said locking lever to hold or entirely release the bar, belt engaging means on said locking lever, a projection on said lever, a device engaging with said projection for obstructing said lever, a housing for same, and a slotted ring in connection with the fast pulley preventing access to the obstructing device while the cylinder rotates, substantially as described.

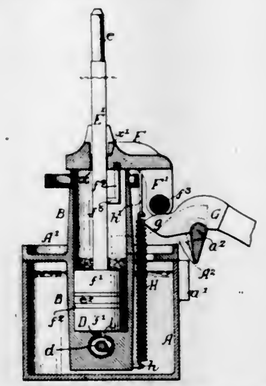


4. In mechanism for the indicated purpose, a locking lever belt engaging means on said lever, housed obstructing means resisting a full movement of the locking lever, and a masking ring preventing access to the obstructing means until the cylinder ceases to revolve, substantially as set forth.

5. Locking means for carding engine doors, having in combination, a locking lever, a pendent finger thereon, a slidable bar having a notch therein adapted to receive the finger, belt engaging means on said locking bar, a plate on the locking lever, supporting means for the lever, a housing, an obstructing device therein engaging with the plate, and a slotted masking device in connection with the fast pulley and revolving therewith preventing access to the obstructing device until the pulley stops substantially as set forth.

[Claim 6 not printed in the Gazette.]

944,169. MEANS FOR ELEVATING CHAIRS AND LIKE OBJECTS. JAMES BARKER, Philadelphia, Pa. Filed Dec. 12, 1908. Serial No. 467,186.



1. The combination in means for raising chairs or the like, of a reservoir having a cover, a cylinder, a plunger in the cylinder having a stem for supporting a movable portion of the chair, mechanical means for raising the plunger, means for admitting liquid under the plunger and trapping it in the cylinder to hold the chair in its ele-

vated position, and means for releasing the liquid from the cylinder, said cylinder with the liquid admitting and releasing means being mounted on and removable from the reservoir with, the cover thereof.

2. The combination in means for raising chairs or the like, of a cylinder, a plunger in the cylinder, said plunger having a stem, a pinch lever including an arm having an opening for the passage of said stem, means for actuating said lever to cause the sides of its opening to engage the stem to raise the plunger and the chair carried thereby, means for admitting liquid under the plunger and entrapping the liquid so as to hold the chair in the elevated position, and means for releasing the liquid under the plunger to lower the chair.

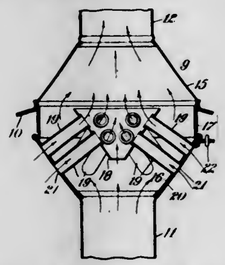
3. The combination in means for elevating chairs and like objects, of a reservoir for liquid, a cylinder, a passage forming communication between the cylinder and the reservoir, a valve in said passage, a plunger in the cylinder, the plunger having a stem supporting the chair or like object, a pinch lever having an opening for the reception of said stem and free to be moved to cause the sides of the opening to grip the stem for raising the plunger, and means for actuating the valve to lower the plunger independently of the pinch lever.

4. The combination of a reservoir, a cylinder, means connecting the cylinder with the reservoir, a valve for regulating the flow of liquid to and from the cylinder, a plunger in the cylinder, said plunger having a stem adapted to support the chair or other object to be raised and lowered, a pinch lever having an opening for the stem, jaws in said opening placed to engage the stem to raise it, and means for actuating the pinch lever.

5. In apparatus for lifting chairs, etc., the combination of a reservoir, a cap for the reservoir, a cylinder carried by the cap and extending into the reservoir, a plunger in the cylinder, a stem extending upward from the plunger, a pinch lever mounted on top of the cylinder through which the atem extends, a foot lever for actuating the pinch lever, a main valve for regulating the flow of liquid to and from the cylinder, and a plunger valve for actuating the main valve and allowing the liquid to escape from the cylinder into the reservoir.

[Claims 6 to 13 not printed in the Gazette.]

944,170. VENTILATOR AND HOOD FOR COOK-STOVES. PETER BERNSTEIN, Beachmont, Mass. Filed Jan. 16, 1909. Serial No. 472,612.

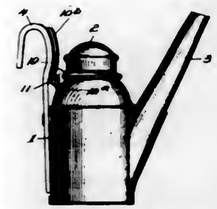


1. A ventilator having, in combination, a conical top and bottom adapted to be interposed between two sections of smoke pipe, the larger ends of said conical top and bottom being adjacent to each other, an inverted cone located within said bottom cone and opening at the top thereof into said smoke pipe, and tubes connecting said inverted and bottom cones and constituting flues extending from outside said bottom cone to inside said inverted cone, whereby the air taken in through said tubes may pass upwardly with the gases through said smoke pipe.

2. A ventilator having, in combination, a conical top and bottom adapted to be interposed between two sections of smoke pipe, the larger ends of said conical top and bottom being adjacent to each other, an inverted cone located within said bottom cone and opening at the top thereof into said smoke pipe, tubes connecting said inverted and bottom cones and constituting flues extending from outside said bottom cone to inside said inverted cone, whereby the air taken in through said tubes may pass upwardly with the gases through said smoke pipe, and means to open and close said tubes.

3. A ventilator having, in combination, a conical top and bottom adapted to be interposed between two sections of smoke pipe, the larger ends of said conical top and bottom being adjacent to each other, an inverted cone located within said bottom cone and opening at the top thereof into said smoke pipe, tubes connecting said inverted and bottom cones and constituting flues extending from outside said bottom cone to inside said inverted cone, whereby the air taken in through said tubes may pass upwardly with the gases through said smoke pipe, and a conical damper rotatably mounted upon said bottom cone and adapted to open and close said tubes.

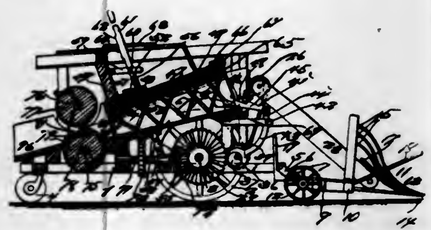
944,171. MINER'S LAMP. THOMAS A. BLACK, Shamokin, Pa. Filed Apr. 2, 1909. Serial No. 487,396.



1. A miner's lamp comprising a body having a supporting hook arranged in rear of the top portion thereof, and a ventilation tube communicating at one end with the upper rear portion of the body and having its other end extending upwardly and fastened to the hook, the intermediate portion of said tube being formed with a coil.

2. A miner's lamp comprising a body having a suspending hook, and a vent tube communicating therewith at one end and projecting upwardly and rearwardly therefrom and fixed at its upper end to the hook, said tube being provided at a point intermediate of its ends and below its upper outlet end with a bent portion forming a trap.

944,172. FEEDER FOR STRAW-CUTTING MACHINES. WILLIAM T. BOND, Belleville, Kans. Filed Apr. 21, 1909. Serial No. 491,267.



1. In an apparatus for treating alfalfa or hay, a revoluble cylinder having a spiral feed mechanism therein, a combined auxiliary feed and agitating means located at and partially extending into the mouth end of said cylinder, and means for simultaneously operating the first named mechanism, and the auxiliary feed and agitating means.

2. In an apparatus for treating alfalfa or hay, a revoluble cylinder, a pair of pivoted members one disposed on either side of the cylinder and at the discharge end of the cylinder so as to direct the hay to cutting and crushing rolls, and means for holding the members in their adjusted positions.

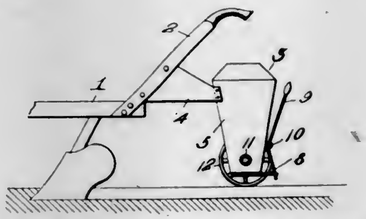
3. In an apparatus for treating hay, a revoluble cylinder, pivoted members upon either side of the cylinder and at the discharge end of the cylinder so as to direct the hay between cutting and crushing rolls, means for holding the members in their adjusted positions, said cylinder having a feed mechanism therein, a combined auxiliary feed and agitating means positioned at and partially extending into the mouth end of the cylinder, and means for simultaneously operating the first named feed mechanism, the auxiliary feed and the agitating means.

4. In an apparatus for treating hay, a revolving tapering cylinder, a spiral feed mechanism within the cylinder and rotatable independently thereof, and a combined auxiliary feed and agitating ratchet bar positioned at and partially extending into the mouth end of the cylinder.

5. In an apparatus for treating hay, a revolving tapering cylinder, a spiral feed mechanism within the cylinder and rotatable independently thereof, a combined auxiliary feed and agitating ratchet bar positioned at and partially extending into the mouth end of the cylinder, pivoted members upon either side of the cylinder at the discharge end thereof for directing the hay to cutting and crushing rolls, and means for holding the members in their adjusted positions.

[Claims 6 to 12 not printed in the Gazette.]

944,173. FERTILIZER-DISTRIBUTER. ALEXANDER A. BULLOCK, Dabney, N. C., assignor of one-half to Owen Davis, Henderson, N. C. Filed Aug. 16, 1909. Serial No. 513,042.

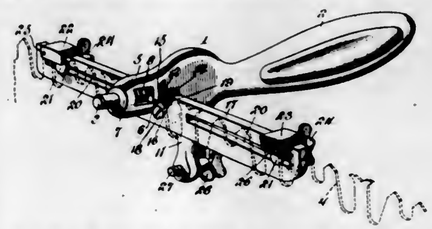


In a fertilizer distributer, a hopper, means for attaching the hopper to the handles of the plow, a slotted feed plate arranged in the lower end of the hopper with the slots extending longitudinally thereof, a gage plate mounted to slide longitudinally on said feed plate, an elbow-shaped operating lever pivoted at the bend thereof to said hopper and connected at its lower end to said gage plate, whereby the latter may be reciprocated to regulate the feed of the fertilizer from the hopper, a shaft revolubly mounted in the hopper and projecting laterally beyond one side thereof in the direction of the land side of the plow, a supporting and operating wheel fixedly mounted on the projecting end of said shaft and a toothed wheel fixed on said shaft within said hopper and adapted to force the fertilizer through the discharge slots in said feed plate.

944,174. SAW-SET. EMANUEL CHAINEY, Florence, Wis., assignor to Florence Mfg. Co., Florence, Wis., a Corporation of Wisconsin. Filed Jan. 17, 1908. Serial No. 411,291.

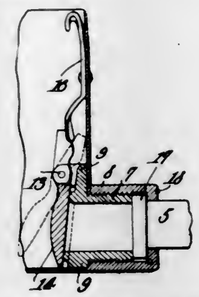
1. A saw set comprising a body, a punch mounted thereon, a gage-supporting member, and an approximately inverted U-shaped gage mounted on the said member and provided with an interiorly arranged pin disposed transversely of the gage in position for engaging the teeth of the saw.

2. A saw set comprising a body, a punch mounted thereon, a gage supporting member extending from opposite sides of the body, an approximately U-shaped gage mounted on the said member at one side of the body and having an outer or front side arranged at an angle and extending downwardly and inwardly to engage the teeth of a saw at the outer face thereof, and another approximately U-shaped gage mounted on the member at the opposite side of the



body and provided with an inwardly projecting portion arranged to engage the teeth of a saw at the cutting edges thereof to position the saw set on the saw.

944,175. VALVE FOR EVAPORATING-PANS. GEORGE G. CHASSE, North Craftsbury, Vt. Filed Oct. 20, 1908. Serial No. 458,692.



In apparatus of the class described a series of pans having pockets, tubular connections between the pockets of adjoining pans and constituting means for establishing communication between the pans, a valve adjacent each of said tubular connections for preventing the flow of liquid in one direction through the pans and permitting the flow of liquid in the opposite direction, and means for locking each valve to cut off all communication between the pans.

944,176. WEARING-APPAREL. CLARA C. COLLINS, New York, N. Y. Filed May 1, 1909. Serial No. 493,415.

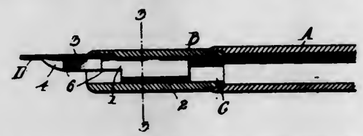


1. As an article of manufacture, a convertible head covering and neck piece comprising an arched portion of soft material and a collar, a collapsible frame secured to said collar and designed to normally support said material in the form of a hood or head cover or, when said collar is

loosened, to collapse and allow said material to fall upon the shoulders of the wearer to form a neck piece.

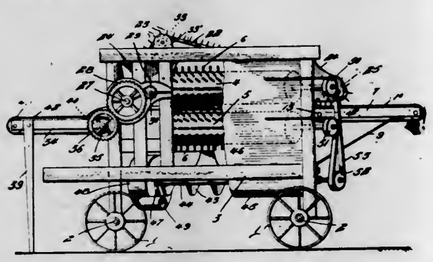
2. As an article of manufacture, a convertible head covering and neck piece comprising an arched portion and a collar, a series of approximately parallel sustaining wires in such arched portion and secured to said collar at spaced apart points, said wires permitting such arched portion to collapse and rest on the shoulders of the wearer and cover the back of the neck, and ties secured to the ends of said collar.

944,177. PEN-FEEDER. FRANK M. CONNOLLY, New Haven, Conn. Filed May 14, 1909. Serial No. 495,883.



In a fountain pen, a pen feeder comprising an elongated cylindrical body removably engaged in the barrel of the pen, a spreading head of arrow form, said head having a dished upper surface underlying the underside of the nib of the pen, said head being curved upwardly and outwardly so that its outer extremity will be engaged with the underside of the nib of the pen, and a tongue connecting the said spreading head with the said cylindrical body, said tongue being of less width than that of the spreading head to form ink-receiving recesses between the spreading head and the outer end of the said body, said body having a pair of spaced channels formed therein and opening at their inner ends into the barrel of the pen and at their outer ends onto the side faces of the said tongue.

944,178. BROOM-CORN SEEDER. JOHN W. COURTNEY and JOHN C. PORTER, Ringwood, Okla. Filed Mar. 19, 1908. Serial No. 422,097. Renewed Sept. 30, 1909. Serial No. 520,377.

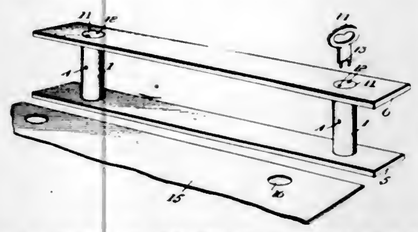


1. In a machine of the character described, a supporting frame, threshing cylinders operatively mounted therein, a feed chain, a pair of guide tracks to co-act with said chain, a track supporting bar adjustably mounted on said frame, a threaded adjusting bar connected to said track supporting bar, and adjusting nuts on said adjusting bar whereby the latter is raised and lowered to adjust said tracks with respect to said chain, substantially as described.

2. In a broom corn seeder, a wheeled supporting frame, a pair of obliquely disposed threshing cylinders revolubly mounted in said frame, a casing arranged around said cylinders, a trough formed by a continuation of said casing below said cylinders, a spiral conveyer arranged in said trough, a discharge fan mounted on the end of said conveyer and adapted to discharge the seed caught by said trough and carried to the fan by said conveyer, a feed table at one end of said frame, a delivery table at the opposite end, belts operatively mounted on said tables, a pair of adjustably mounted guide tracks, a feed chain arranged to travel over said tracks, teeth formed on the links of said chain and adapted to pass between said tracks when the lower stretch of the chain passes over the same, a supporting bracket and guide pulley arranged on the upper portion of the frame to support the upper stretch of the chain, and means whereby the operative parts of the machine are driven, substantially as described.

3. In a machine of the character described, a supporting frame, threshing cylinders operatively mounted therein, a pair of guide tracks, a feed chain to coöperate with said tracks, means to adjust the latter with respect to said chain, and a revolving cutter to sever the heads from the stalks of the material, substantially as described.

944,179. LOOSE-LEAF-BINDER POST. FRANK H. CRUMP, Los Angeles, Cal. Filed Aug. 14, 1909. Serial No. 512,896.



1. A device of the class described, comprising upper and lower binder plates having spaced threaded openings, the openings of the upper plate being threaded in the opposite direction to the openings of the lower plate and registering therewith, binder posts each having a threaded lug for engaging the opening of the lower plate, and a longitudinally threaded recess in its upper end, the threads of said recess running in the same direction as the threads of the opening in the lower plate, and a post head having a threaded stem for engaging the recess and a threaded head for engaging the opening of the plate, said head having spaced apertures in its outer face, and the post having radial openings intermediate its ends.

2. A device of the class described, comprising upper and lower binder plates, and posts for connecting the plates, each of said posts having at one end a threaded stem and at the other a threaded longitudinal recess, and a head for the post comprising a threaded stem for engaging the recess and a threaded head, the plates having threaded openings for engagement by the lug and head respectively, the thread of the lug and stem running in the same direction, and in the opposite direction to the thread of the head, said head and post having means whereby they may be rotated.

3. A device of the class described comprising upper and lower binder plates, and posts for connecting the plates, each of said posts having at one end a threaded stem, and at the other a threaded longitudinal recess, and a head for the post comprising a threaded stem for engaging the recess and a threaded head, the plates having threaded openings for engagement by the lug and head respectively, the thread of the lug and stem running in the same direction, and in the opposite direction to the thread of the head.

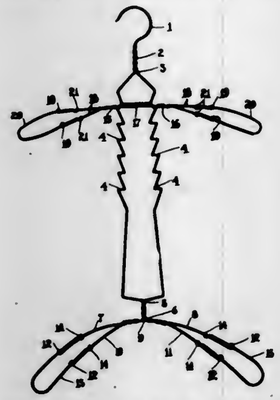
4. In a device of the class described, a binder post provided at one end with a threaded stem and at the other with a threaded recess, a head comprising a threaded stem for engaging the recess, and a head threaded in the opposite direction from the lug and recess, and binding plates having openings for engagement by the head and lug.

5. In a loose leaf binder, a post consisting of one part having a reduced externally right hand threaded portion at one end for engagement with the right hand threaded openings of a bottom binder plate, and an internally right hand threaded portion at the other end for engagement with a part provided with a right hand externally threaded portion at one end, the other end being externally left

hand threaded for engagement with the left hand screw threaded openings of a top binder plate.

[Claim 6 not printed in the Gazette.]

944,180. GARMENT-HANGER. JOHN DOVE, Litchfield, Conn. Filed May 15, 1908. Serial No. 433,006.

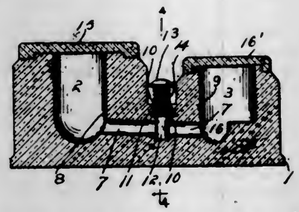


1. In a garment hanger, a pair of upper arms, a pair of lower arms, and a resilient stepped member adjustably supporting one pair of arms.

2. In a garment hanger, a pair of upper arms, a pair of lower arms, and a vertical member provided with a series of supports for one pair of arms.

3. In a garment hanger, a pair of upper arms, a pair of lower arms, and two resilient members provided with a series of supports for the adjustable positioning of one pair of arms.

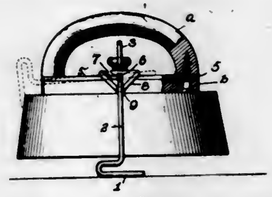
944,181. INK AND MUCILAGE STAND. DAVID H. EDWARDS, Chicago, Ill. Filed July 31, 1908. Serial No. 446,324.



1. In a device of the class described, a supply reservoir, a consuming well, a conduit connecting the reservoir and well, said conduit being provided with a wall having an aperture therein provided with an annular groove, a valve located in said aperture and a spring having one end thereof secured to the valve means and the other end fastened in said annular groove, for holding said valve normally closed.

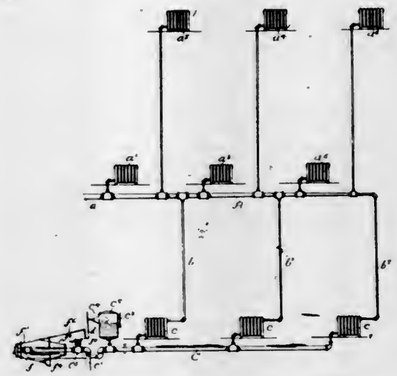
2. In a device of the class described, a supply reservoir, a consuming well, an interposed neck portion connecting said reservoir and well, having a passageway extending through said neck portion from said reservoir to said well, said neck portion being provided with a vertical aperture extending downwardly below said passageway and having an offset circular groove formed therein, and valve means fitted within said aperture, and comprising a rod provided with an enlarged head, a coil-spring wound about the upper portion of said rod, and having its upper end fastened to said head, and its lower portion seated within said circular groove to hold said valve normally closed.

944,182. SUPPORT FOR SAD-IRONS. GODFRIED ELLSTROM, Pittsburg, Pa. Filed Mar. 15, 1909. Serial No. 483,436.



A support for a sad-iron consisting of a resilient member straddling the iron-body and pivoted thereto, its free ends shaped to form supports, and lugs carried by the iron-body, said lugs having inclined guiding surfaces and notches coöperating with said resilient member, substantially as described.

944,183. HEATING SYSTEM. NORRIS M. FINLEY, Norristown, Pa. Filed Apr. 29, 1907. Serial No. 370,782.

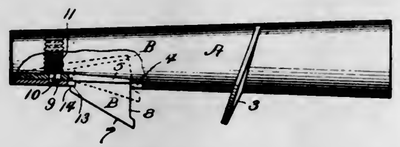


1. A heating system including a steam main, a series of steam radiators connected thereto, hot water radiators connected to receive water of condensation from said steam containing elements, means operated by the water and including a discharge valve for preventing rise of water in the system above a predetermined height, and temperature controlled means arranged to also act on said valve for causing discharge of water from said water radiators, when the temperature has fallen to a predetermined point.

2. A heating system including a steam supply main, steam radiators connected thereto, a series of hot water radiators connected to receive water of condensation from the steam radiators, a water main connected to the water radiators, a tank in communication with said water main, a valve in the main for controlling the flow of water therefrom, a float operative in said tank and connected to the valve for preventing rise of water in the system above a predetermined height, and a temperature responsive means placed to be acted on by water of condensation in the system and also operative on said valve.

3. A heating system consisting of a steam supply main, a steam radiator connected thereto, a water radiator connected to the steam radiator, a water main connected to the water radiator, a thermostat therein, a valve controlling the flow of water from said water main, mechanism operatively connecting said valve with said thermostat, with means actuated by changes in the level of the water in the system and also capable of operating said valve.

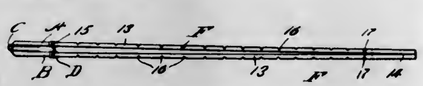
944,184. TIP FOR WAGON-POLES. ADOLF FISCHER, Chokio, Minn. Filed Jan. 18, 1909. Serial No. 472,866.



1. In combination with a pole tip having a longitudinal slot in a side thereof, a retainer arranged to operate through said slot and provided at its forward end with spaced projections to embrace opposite sides of the portion of the tip adjacent the forward end of the slot thereof, a fastening passed through an opening formed in the inner projection and a spring normally holding the retainer projected, the latter being secured or released by a longitudinal movement.

2. In combination, a pole tip having a longitudinal slot in a side thereof, a retainer through said longitudinal slot and provided at its forward end with an inner and an outer forwardly extending projection to embrace opposite sides of the part of the tip adjacent the forward end of the longitudinal slot, the inner projection having a longitudinally elongated opening, and a fastening supported in opposite sides of the tip and passed through the elongated opening of said inner projection, and a spring mounted upon said fastening and normally holding the retainer projected.

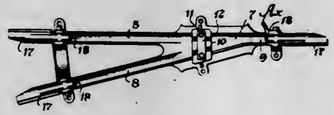
944,185. ROOF-BRACKET. WILLIAM T. GALLAGHER and JOSEPH W. BLILEY, Richmond, Va. Filed July 16, 1909. Serial No. 508,013.



1. A roofing bracket comprising two horizontally connected members, a sleeve slidably engaging one member and having a thumb screw, side rails pivotally connected with the sleeve and having notches, notch engaging lugs extending from the sides of the member carrying the sleeve, and a spacing block connecting the free ends of the rails.

2. A roofing bracket comprising two hingedly connected members having recesses in their meeting faces, a sleeve slidably engaging one member and having a thumb screw, side rails pivotally connected with the sleeve, and having notches, notch-engaging lugs extending from the sides of the member carrying the sleeve, and a spacing block connecting the free ends of the rails and having a recess and a scaffold having recess engaging hooks.

944,186. OVERHEAD CONSTRUCTION FOR ELECTRIC RAILWAYS. EDWARD E. GILMORE, Philadelphia, Pa. Filed July 18, 1907. Serial No. 384,449.

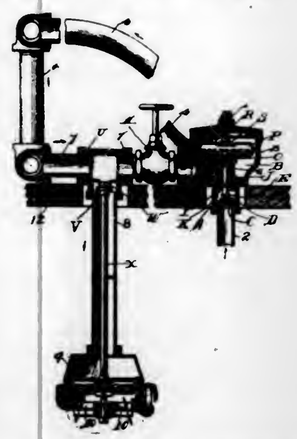


1. An overhead switch structure for electric railways comprising a body having main line and branch extensions with grooves in their upper faces for receiving and holding the trolley wires, supporting eyes on the body, and a hook extending downwardly and outwardly from the side of the body and receiving a curve trolley wire to hold the switch level and to assist in head guying the curve wire to a near pole.

2. An overhead switch structure for electric railways comprising a body having main line and branch extensions, with grooves for receiving and holding a main trolley wire and a branch trolley wire, guying lugs on the body, and a lateral hook extending from one side thereof for receiving a branch trolley wire to hold the switch level and to assist in head guying the branch wire to a near pole.

3. An overhead switch for branch connections of electric railways comprising a body, means for securing main and curve trolley wires thereto, and a lateral hook adapted to extend over and rest upon a curve trolley wire to hold the switch level and to assist in head guying the curve wire to a near pole.

944,187. HEATING SYSTEM. EGBERT H. GOLD, Chicago, Ill. Filed Jan. 27, 1905. Serial No. 242,921.



1. The combination with a radiating system having an outlet, of means for supplying a heating medium to said system, a thermostat adapted to be brought into free communication with said system and arranged to operate to shut off said supply, and means, independent of said thermostat, for closing said outlet.

2. The combination with a radiating system provided with an outlet, of a thermostat adapted to be continuously affected by the thermostatic condition of the heating medium within said system and arranged to control the inflow from said supply, and means, independent of said thermostat, for automatically opening and closing said outlet.

3. The combination with a radiating system provided with an outlet, of a thermostat actuated and adapted to be continuously acted upon by the condition of the heating medium in said system, and arranged to control the supply of the heating medium to said system, and thermostatically operated means, independent of said first-named thermostat, arranged to automatically open and close said outlet.

4. The combination with a radiating system provided with an outlet, of a thermostat actuated by and adapted to be continuously subjected to the thermostatic conditions in said system, and arranged to control the supply of the heating medium thereto, and means, independent of said thermostat, for automatically opening and closing said outlet, said means being actuated in part by thermostatic conditions externally of said system.

5. The combination with a radiating system provided with an outlet, of an expansion device arranged to be actuated by and adapted to be continuously subjected to thermostatic conditions in said system to control the inflow of the heating medium thereto, and an automatic trap, independent of said expansion device, arranged to control said outlet.

[Claims 6 to 25 not printed in the Gazette.]

944,188. AIR-GUN. WILLIAM A. HEILPRIN, Philadelphia, Pa. Filed Nov. 30, 1908. Serial No. 465,301.



1. In a gun of the type set forth, sheet-metal side casings one of the sides having permanently attached studs, a lever mounted upon one of the studs and a trigger mounted upon the other stud, the other side of the casing having in line with the studs apertures and means for attaching such side of the casing to the studs.

2. In a gun, a pair of sheet metal side casings, studs fixedly attached to one of the side casings said studs having internally threaded recesses, a side casing having apertures therethrough which register with the studs, and screws the heads of which overlie the casing about the apertures when in engagement with the studs.

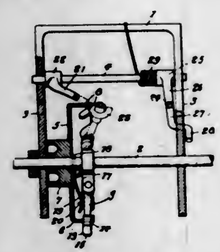
3. In a gun, a pair of sheet-metal side pieces which when connected constitute a casing having parallel portions, lugs on each of the side pieces which are bent inward to be out of line with the side pieces and to be nearer together than said side pieces, a stud attached to one of the lugs, the opposite lug having an aperture therethrough, a lever mounted upon the stud and means for connecting the apertured lug to the stud.

4. In a gun, sheet-metal side casings each having parallel sides from which depend lugs that extend inward and then downward to a point below the plane of the side casings, a stud which is fixedly attached to one of the lugs, a lever of a width to occupy the space between the lugs said lever being fulcrumed upon the stud and means for attaching the other lug to the stud.

5. In an air gun, a magazine tube, sheet metal side casings which are held together at their forward ends by the magazine tube, means for connecting the side casings one to the other at intermediate points and a stock to which the rear ends of the side casings are attached.

[Claims 6 to 36 not printed in the Gazette.]

944,189. TRIP MECHANISM FOR CORN-PLANTERS. HENRY E. HERBRANDSON, Alcester, S. D. Filed Aug. 12, 1909. Serial No. 512,594.



1. A device of the character specified, comprising a yoke shaped frame, a shaft journaled in the arms thereof, a rod journaled parallel with the shaft, a disk journaled loosely on the shaft, and having an annular lateral flange provided with inclined notches, said notches being at spaced intervals and including in the same direction, a collar secured to the shaft and having spaced ears, a pawl arm pivoted between the ears, a spring normally retaining the arm in engagement with the notches, a lever secured to the rod, and inclining downwardly and inwardly and adapted for engagement by the pawl arm, when the rod is oscillated to swing the lever toward the shaft, said lever having at its extremity a hook for receiving the arm and retaining it out of engagement with the notches, a spring engaging the rod and normally retaining the lever in engaging position, and a trip for oscillating the rod.

2. A device of the character specified, comprising a shaft, a disk loosely journaled thereon and provided with an annular lateral flange having spaced inclined notches, a rod journaled parallel with the shaft, a pawl arm secured to the shaft, and mounted for swinging movement toward and from the disk, a spring normally retaining the arm in engagement with the notches, a lever secured to the rod, and inclining downwardly and inwardly and adapted for engagement by the pawl arm, when the rod is oscillated to swing the lever toward the shaft, said lever having at its extremity a hook for receiving the arm and retaining it out of engagement with the notches, a spring engaging the rod and normally retaining the lever in engaging position, and a trip on the rod for oscillating the same.

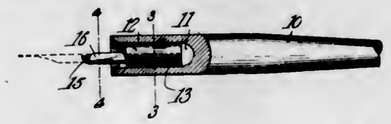
944,190. PENHOLDER. HARRY E. HOKE, Hanover, Pa., assignor of one-half to Edwin G. Eckert, Hanover, Pa. Filed Mar. 2, 1909. Serial No. 480,943.



1. In a penholder, a penholding means consisting of a blank rolled to form a substantially cylindrical body portion and having portions at each end of one edge extending inwardly of the body, and beyond one end thereof and overlapped to afford pen receiving tongues.

2. In a penholder, a penholding means consisting of a blank rolled to form a substantial cylindrical body, the blank being formed at each end of one edge with tongues so located as to extend generally coincident with the axis of the body and beyond one end thereof and overlapped to afford penholding tongues.

944,191. PENHOLDER. HARRY E. HOKE, Hanover, Pa., assignor of one-half to Edwin G. Eckert, Hanover, Pa. Filed June 30, 1909. Serial No. 505,257.



1. A device of the class described comprising a sheet metal blank having its body portion rolled into substantially S-form and having a pen-gripping portion integral with one end edge of its intermediate portion, the said pen-gripping portion and the said portion of the body of the blank being correspondingly transversely curved.

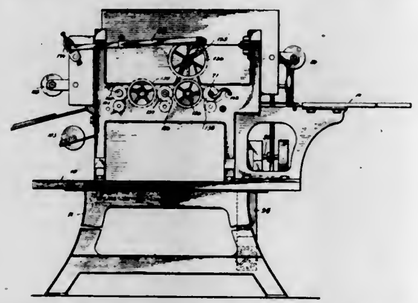
2. A device of the class described comprising a sheet metal body substantially of S-form in cross section and substantially of cylindrical contour exteriorly, and a pen-gripping portion integral with and projecting from one end edge of the body at the mid portion thereof, the mid portion of the body of the blank being transversely curved and lying substantially midway between the semi-cylindrical portions of the blank with its convex face presented toward one of said portions and its concave face toward the other.

3. A device of the class described comprising a body portion having substantially semi-cylindrical side portions, and an intermediate portion lying between the side portions, and a pen-gripping portion projecting from one end edge of the intermediate portion of the body, the said intermediate portion of the pen-gripping portion being correspondingly transversely curved.

4. A device of the class described comprising a body portion having substantially semi-cylindrical side portions, and an intermediate portion lying between the side portions, and a pen-gripping portion projecting from one end

edge of the intermediate portion of the body, the said intermediate portion and the pen-gripping portion being correspondingly transversely curved, the edge portions of the pen gripping portion being bent over in spaced relation thereto.

944,192. BRONZING-MACHINE. WILLIAM E. HOUGHLAND, Brooklyn, N. Y. Filed Mar. 21, 1907. Serial No. 363,733.



1. In a bronzing machine, the combination of means for feeding the paper, means for depositing powder on the paper, means for rubbing said powder over the paper, and means for raising said rubbing means during the feeding operation.

2. In a bronzing machine, the combination of means for depositing the powder on the paper, reciprocating means for rubbing it into the paper, and means for brushing off the excess of powder.

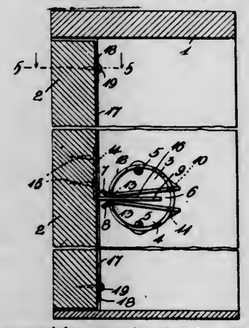
3. In a bronzing machine, the combination of a feeding mechanism for the paper, means for depositing powder upon the paper, means for rubbing it into the paper, means for removing the excess of powder, said means for rubbing and means for removing being both lifted from the paper during the feeding operation.

4. In a bronzing machine, the combination of feeding mechanism for the paper, powder depositing mechanism, laterally movable pads for rubbing in the powder, and plates projecting over the edges of the paper beneath said pads, to protect said edges.

5. In a bronzing machine, the combination of feeding mechanism for the paper, powder depositing mechanism, laterally movable pads for rubbing in the powder, plates projecting over the edges of the paper beneath said pads to protect said edges, and means for removing the excess of powder.

[Claims 6 to 20 not printed in the Gazette.]

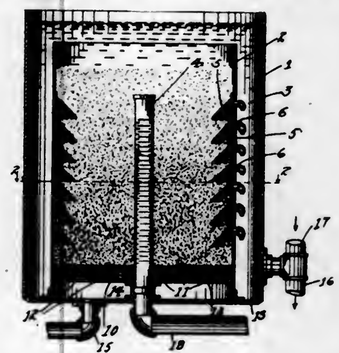
944,193. SCREEN-DOOR CATCH. HOMER HUNTER, Prescott, Ariz. Filed Mar. 8, 1909. Serial No. 482,085.



1. A latch comprising a pair of independently pivoted members arranged for operative movement, a ring-shaped spring passing through apertures in said members at the rear end of each and engaging sockets in said members at their forward ends, whereby said forward ends are held together, said forward ends being bent to form a flaring entrance, and a straight body member frictionally engaging between said members.

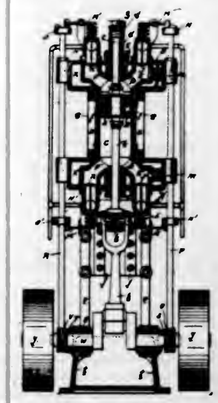
2. A latch comprising a pair of independently pivoted members, a spring passing therethrough and adapted to hold said members together at one end, and means to frictionally engage between said members.

944,194. FILTERING APPARATUS. IRA H. JEWELL, Chicago, Ill. Filed Feb. 4, 1907. Serial No. 355,549.



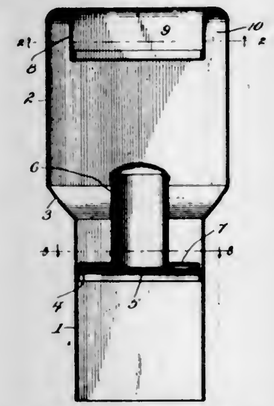
A filter comprising an outer receptacle and an inner receptacle open at the top, of a series of superposed, annular, and inclined hoods secured to the inner wall of the inner receptacle, a filling of filtering material for said inner receptacle, said hoods serving to maintain a series of annular pockets of the liquid to be filtered about the edge of the body of filtering material, said inner receptacle being spaced and separated from the outer receptacle at the bottom, a series of check valves located in the wall of the inner receptacle and adapted to permit the passage of fluid into the annular pockets but to prevent the passage of liquid therefrom.

944,195. DOUBLE-IMPULSE INTERNAL-EXPLOSIVE ENGINE. HUGH V. JOHANSEN, Devonport, near Auckland, New Zealand. Filed Dec. 2, 1907. Serial No. 404,818.



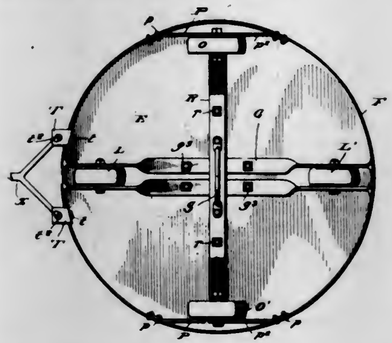
In an explosive engine of the type set forth, in combination, an engine cylinder, heads secured at the ends thereof and each provided with a pair of oppositely located ports, communicating with the cylinder, valve boxes fitted to the heads, in alinement with the ports, and extending in the direction of the axis of the cylinder, valves disposed in the boxes, movable axially thereof and having projecting stems, springs to maintain the valves normally closed, a two-armed lever pivoted adjacent each valve and having an end engaging the valve stem and a laterally projecting end, bearings provided at opposite sides of the cylinder heads, longitudinal shafts journaled in the bearings and extending parallel to the cylinder, cams provided on the shafts for engagement with the projecting ends of the adjacent levers, a transverse crank shaft and gearing between the crank shaft and each of the first-named shafts.

944,196. SMOKE-CONSUMER. ADOLPH KOHN, Omaha, Nebr. Filed Apr. 3, 1909. Serial No. 487,624.



A smoke consuming device embodying upper and lower chambers, one of greater diameter than the other, the upper chamber being provided with smoke retarding means, an annular supporting ledge within the lower chamber, a removable screen resting thereon and extending across said lower chamber, a dome having a flanged lower end resting on said screen and of less diameter than the same and extending into the upper chamber, and an annular auxiliary screen resting upon the first named screen and surrounding the flanged base of the dome.

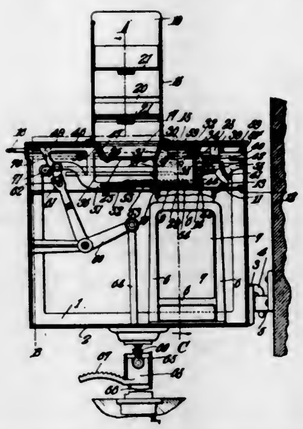
944,197. TRUCK STRUCTURE FOR GARBAGE OR ASH CANS. MATTHEW T. LYON, Salt Lake City, Utah. Filed Nov. 3, 1908. Serial No. 460,977.



1. In a truck structure for ash or garbage cans, an annular ring arranged to be attached to the can body, parallel wheel supporting members secured at their ends at opposite sides of said annular ring, said supporting members being also secured to the bottom of the can and being provided with bowed portions near their ends, wheels carried by said bowed portions, supporting members having similar bowed portions, a transverse member having its ends adjacent to said last mentioned bowed portions, and a pair of wheels journaled between the bowed portions of said supporting members and the ends of said transverse member.

2. In a truck structure for ash or garbage cans, an annular ring arranged to be attached to the can body, parallel wheel supporting members secured at their ends at opposite sides of said annular ring, said supporting members being also secured to the bottom of the can and being provided with bowed portions near their ends, wheels carried by said bowed portions, supporting members having similar bowed portions extending below the first mentioned bowed portions, a transverse member having its ends adjacent said last mentioned bowed portions, said transverse member being secured to the bottom of the can and having a portion bent around the first named wheel supporting members, a handle secured to said transverse member and a pair of wheels journaled between the bowed portions of said supporting members and the ends of said transverse member.

944,198. COLLECTION-SAFE. GEORGE L. MAW, Buffalo, N. Y. Filed May 18, 1908. Serial No. 433,544.



1. A collection safe comprising a relatively fixed housing, a slidable closure movably mounted thereon, a money box within the housing, a closure therefor, said closures being movable in parallel planes, and means operated by the opening of the housing and separate from said closure for automatically closing and locking the money box.

2. A collection safe comprising a relatively fixed housing, a slidable closure therefor, a money box removably mounted within the housing and separate from said closure, and means operated by the opening of the closure for closing and locking the money box.

3. A collection safe comprising a relatively fixed housing, a slidable closure therefor, a money box removably mounted within the housing and separate from the closure, a closure operated by the opening of the first mentioned closure for closing and locking the money box, and means for preventing access to the money box prior to the closing thereof.

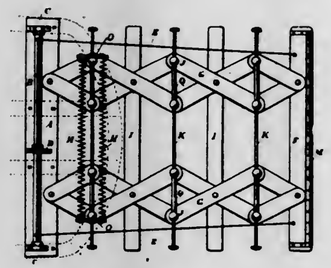
4. A collection safe comprising a relatively fixed housing, a slidable closure therefor having an inlet opening, said closure constituting the top of the housing, a money box removably mounted within the housing and below the inlet, a slidable closure therefor, the closure being mov-

able along parallel lines, means operated by the opening of the housing for closing and automatically locking the closure of the money box, and means for preventing access to the money box prior to the locking of its closure.

5. A collection safe comprising a relatively fixed housing, a money box removably mounted therein, a slidable closure for the housing and constituting the top of the housing, means carried by the closure for directing an object through the closure and into the money box, and a slidable closure operated by the movement of the first mentioned closure for closing and locking the money box, the two closures being movable along straight parallel lines.

[Claims 6 to 16 not printed in the Gazette.]

944,199. WHEEL-FENDER. THOMAS W. MAYSON and JOHN EDGAR, Auckland, New Zealand. Filed Oct. 31, 1908. Serial No. 460,527.



1. In a wheel fender, in combination, a pair of lazy tongs, frame parts associated therewith, retractile coil springs connecting the lazy tongs and having a normal tendency to extend the same and releasable means for holding the lazy tongs in folded relation.

2. In a wheel fender, in combination, a pair of lazy tongs, frame parts associated therewith, retractile coil springs connecting the lazy tongs, a shaft, a cord connecting the shaft and one of the frame parts, a ratchet wheel on the shaft and a pawl engaging the ratchet wheel and serving thereby to maintain the lazy tongs in folded relation against the tension of the springs.

3. In a wheel fender, in combination, a frame comprising a set of lazy tongs, means for automatically extending the same, a flexible catcher arranged above the frame, a shaft for winding the catcher, means for moving the lazy tongs to a folded position and means at the same time for causing the operation of the shaft to wind the flexible catcher thereon.

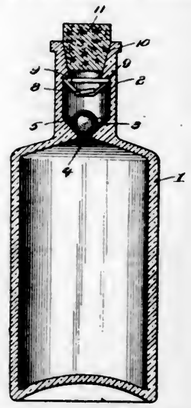
4. In a wheel fender, in combination, a frame including a set of lazy tongs, springs tending normally to hold the lazy tongs extended, a shaft, a part secured at one end of the lazy tongs, a cord connecting the shaft and said part, a ratchet wheel on the shaft and a pawl in engagement with the ratchet wheel to thereby hold the lazy tongs against extensible movement under the tension of the springs.

5. In a wheel fender, in combination, a frame including a pair of lazy tongs, eyes provided at the terminations of the arms of the lazy tongs and forming the mutual pivotal connections of the arms, and rods slidably passed through the eyes.

[Claim 6 not printed in the Gazette.]

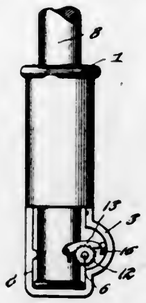
944,200. NON-REFILLABLE BOTTLE. CHARLES H. MENSCH, Shanesville, Pa. Filed Aug. 18, 1909. Serial No. 513,455.

The herein described non-refillable bottle provided with a neck having an interior valve, a ball valve in said neck, the mouth of said neck having a tapering opening into said neck, a shoulder formed on the inside of said neck, and a spring wire baffle having curved resilient arms upon opposite sides thereof, members extending inward from said arms and a coil connected to the inner



ends of said members, said baffle adapted to be forced into the mouth of the bottle and spring outward under said shoulder.

944,201. WHIP-SOCKET. JAMES A. MUSGROVE, Jr., Norton, Va., assignor of one-half to Camm H. Patteson, Norton, Va. Filed Sept. 29, 1908. Serial No. 455,293.

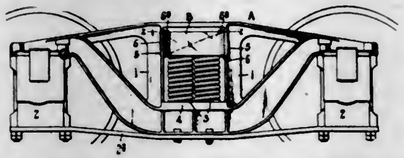


1. A whip socket comprising a holder, a bolt disposed transversely in said holder and formed with a bulging portion, said socket having secured therein a spring-pressed dog, said bolt carrying a ratchet adapted to coöperate with said dog, an operating head on said bolt provided with a lug, and means laterally projecting from said socket adapted to contact with said lug for permitting partial rotation of the bolt.

2. A whip socket comprising a holder, a bolt disposed transversely in said holder and formed with a bulging portion, said socket having secured therein a spring-pressed dog, said bolt carrying a ratchet adapted to coöperate with said dog, an operating head on said bolt provided with a lug, means laterally projecting from said socket adapted to contact with said lug for permitting partial rotation of the bolt, and means abutting against the operating head and the outer wall of the holder for throwing the said lug down when said dog is raised.

944,202. CAR-TRUCK. ALBERT J. MCCAULEY, St. Louis, Mo., assignor to American Steel Foundries, Chicago, Ill., a Corporation of New Jersey. Filed Feb. 1, 1909. Serial No. 475,461.

1. In a car truck, side frames having columns, a bolster spaced away from the inner faces of said columns, column guides which coöperate with said columns, said column guides being formed integral with the bolster, and removable fillers interposed between said bolster and columns; substantially as described.



2. In a car truck, side frames having columns, a bolster spaced away from the inner faces of said columns, column guides which coöperate with said columns, said column guides being rigidly secured to the bolster, and removable fillers interposed between said bolster and columns; substantially as described.

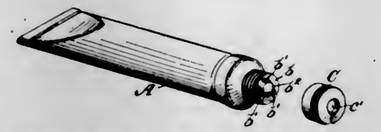
3. A car truck having side frames including columns, a bolster provided with column guides which coöperate with said columns, said bolster being spaced away from the inner face of the columns, and removable fillers interposed between said bolster and columns; substantially as described.

4. A car truck having side frames including columns, a bolster provided with column guides which coöperate with said columns, said bolster being spaced away from the inner face of the columns, and removable fillers interposed between said bolster and columns, said fillers being supported by the bolster; substantially as described.

5. In a car truck, side frames having columns, a bolster spaced away from the inner faces of said columns, column guides which coöperate with said columns, said column guides being formed integral with the bolster, and removable fillers loosely mounted between said bolster and columns; substantially as described.

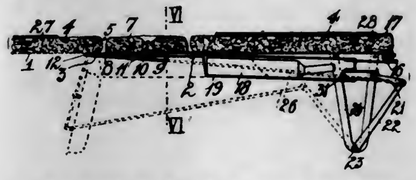
[Claims 6 and 7 not printed in the Gazette.]

944,203. SCREW-CAP FOR COLLAPSIBLE TUBES. FRANK MCINTYRE, New York, N. Y. Filed Feb. 19, 1909. Serial No. 478,859.



A collapsible tube having a cylindrical screw threaded neck closed at its outer end by a solid head provided with holes b' in the end thereof and a central knob b^2, and a screw threaded cap having in its top a central hole c' to receive the knob b^2, the arrangement being such that when the cap is screwed home it will close the holes b' in the head, while, in turn, its hole c' will be closed by the knob b^2, substantially as and for the purposes hereinbefore set forth.

944,204. BED AND BEDSTEAD FOR THE USE OF INVALIDS. JOHN MCKAY, Bendigo, Victoria, Australia. Filed May 11, 1909. Serial No. 495,290.



1. The combination, with a bed having an opening, and a pair of guide rails arranged beneath the bed; of a plug arranged for movement into and out of said opening; a carrier slidable upon said rails into and out of position beneath said opening; a vessel carried by the carrier; and mechanism for operating said plug and carrier simultaneously.

2. The combination, with a bed having an opening, and a pair of guide rails arranged beneath the bed; of a pair of rock-shafts connected with the bed; a plug carried by one of said shafts and movable into and out of said opening; a carrier slidable upon said rails into and out of position beneath said opening and operatively connected with the other shaft; a vessel carried by the carrier; connections between said shafts for effecting simultaneous movement thereof; and operating means carried by one shaft.

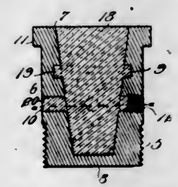
3. The combination, with a bed having an opening; of a rock-shaft journaled in the side rails of the bed and provided with a crank extending beneath said opening; a plug secured to said crank and movable into and out of said opening; a carrier slidable beneath the bed into and out of position in alinement with said opening; a vessel carried by the carrier; connections between said carrier and said shaft for effecting simultaneous movement thereof; and means for operating said shaft.

4. An invalid's bed comprising a bedstead having a mattress and a palliasse thereupon formed centrally with registering openings; a transversely-arranged crank shaft journaled in the side bars of the bedstead and provided with a lever and a catch therefor; a ring secured to said crank; a pad detachably secured to said ring and adapted to fit in said openings; longitudinal guide rails on the underside of said mattress; a carrier provided with side flanges adapted to slide on said guide rails; a removable vessel on said carrier; brackets depending from the side bars of the bedstead adjacent one end thereof; a transversely-arranged rock-shaft journaled in said brackets; an arm on said rock-shaft connected to the rear end of said carrier; a lever on said rock-shaft; and a rod connecting said lever to said crank.

5. In an invalid's bed, a bedstead, an extensible leg on either side and about the center thereof, wheels mounted on said legs, means to extend said legs and means to insure the whole bedstead rising bodily.

[Claims 6 to 8 not printed in the Gazette.]

944,205. BOILER-PLUG. CHARLES L. MCVOY, Pensacola, Fla. Filed Mar. 5, 1909. Serial No. 481,272.

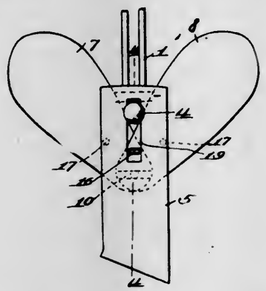


A plug shell to be fitted in an opening of the crown sheet of a steam boiler with the upper portion of said plug shell extending into the water space of the boiler, said plug shell having a bore extending downwardly from its upper end and terminating short of its lower end and provided with a split opening extending from said bore to one side of the plug shell at a point above the crown sheet, a fluid pressure operated signaling device, a pipe connected to the plug shell at a point on one side of the latter and also connected to said signaling device and a fusible core in the bore of the plug shell normally closing the inlet end of said pipe.

944,206. PLOW ATTACHMENT. PERCY NEUFVILLE, Vinings, Ga. Filed Feb. 15, 1909. Serial No. 477,985.

1. A plow attachment comprising a pair of wings capable of lying one immediately behind the other and also capable of occupying a relative angular relation, said wings having apertures arranged to register when said

wings occupy each of said positions, a pivot adjustably connecting the wings, and a locking device capable of insertion interchangeably in said apertures when brought into registration.



2. A plow attachment comprising a pair of wings capable of lying one immediately behind the other and also capable of occupying an angular relation, a pivot adjustably connecting said wings, and a device independent of said pivot and capable of locking the wings in either of the said two positions.

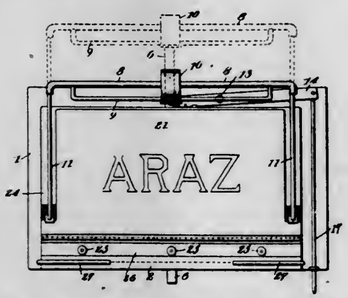
3. A plow attachment comprising a pair of wings, means for adjustably supporting them on a plow stock, and interlocking means connecting the wings for securing them in a given angular relation and also one behind the other.

4. A plow attachment comprising a foot-piece adapted for attachment to a plow stock, a pair of wings capable of lying one immediately behind the other and also capable of occupying an angular relation, a pivot movably connecting the wings to the foot-piece and permitting the wings to be adjusted into either of the two said positions, and means independent of said pivot for directly connecting the wings and thereby locking them positively in either of said two positions.

5. A plow attachment comprising a wing, means for supporting the same on a plow stock, and catches for holding the wing in predetermined angular relation to the plow stock, said catches being capable of being retained in locked position by the pressure of the soil against the wing.

[Claims 6 to 11 not printed in the Gazette.]

944,207. STATION-INDICATOR. EDWARD L. PITTS, Yuma, Ariz., assignor of one-third to Andrew J. Locke and one-third to Jacob E. Lady, Yuma, Ariz. Filed Mar. 10, 1909. Serial No. 482,472.

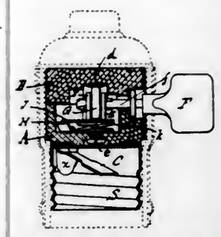


1. In a station indicator, a main plate, a rack carried thereby, spring arms secured to said rack, a series of leaves carried by said plate, each of said leaves having cut away portions on either side in alinement with said spring arms, and means for moving said rack to bring said arms in registration with the cut away portions of the sheets successively, thereby permitting the sheets to drop successively.

2. In a station indicator, a main plate provided with a slot, a rack carried by said main plate and arranged to slide in said slot, a lever for operating said rack, spring arms secured to said rack, a series of sheets carried by said plate and disposed in a normally inclined position, each of said sheets having a cut away portion at each end thereof in alinement with said spring arms, the cut away portions of each sheet being less in extent than those of the preceding sheet, and a handle for operating said lever to bring said spring arms into registration with the cut away portions of said sheets, thereby permitting the latter to tilt downwardly in succession.

3. In a station indicator, a main plate provided with a slot, a rack carried by said main plate and arranged to slide in said slot, a lever having a pivoted pawl for operating said rack, spring arms secured to said rack, a series of sheets carried by said plate and disposed in a normally inclined position, each of said sheets having a cut away portion at each end thereof in alinement with said spring arms, the cut away portions of each sheet being less in extent than those of the preceding sheet, a handle for operating said lever to bring said spring arms into registration with the cut away portions of said sheets, thereby permitting the latter to tilt downwardly in succession, and means for regulating the movement of the handle.

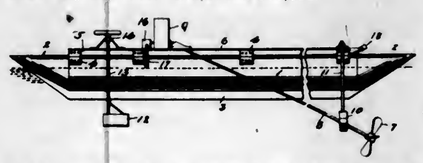
944,208. ELECTRIC-LAMP SOCKET. FREDERICK P. POOLE, Bridgeport, Conn., assignor to The Perkins Electric Switch Mfg. Company, Bridgeport, Conn., a Corporation of Connecticut. Filed Sept. 21, 1909. Serial No. 518,847.



1. An electric lamp socket, having an insulating body, lamp-receiving terminals, and a double break switch mechanism, comprising a contact, connected to one of said terminals, a spring-actuated contact piece to make connection therewith, a key spindle with a cam to act on the contact piece, a pair of binding posts and a contact arm for the cam, connected with one of said posts.
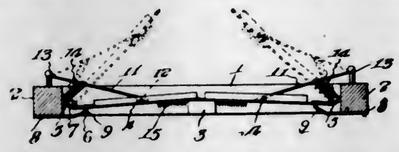
2. An electric lamp socket, having an insulating body, lamp-receiving terminals, and a double-break switch mechanism, comprising a contact, connected to one of said terminals, a guide frame, a key spindle with a cam, a movable contact piece guided on the frame to make electrical connection with the said contact, a spring to press the contact piece to the cam, a pair of binding posts and a contact arm for the cam connected to one of the binding posts.

944,209. BOAT. WILLIAM J. REED, Janesville, Wis. Filed July 20, 1909. Serial No. 508,612.



A boat comprising two tubes spaced apart and filled with compressed air, the ends of the tubes pointed, a keel secured to the underside of each tube and tapered to the pointed ends thereof, a deck secured to the upper sides of the tubes and clearing the plane of said upper sides, a propeller located midway between the tubes at the stern, and a rudder secured midway between the tubes near the head end of the boat.

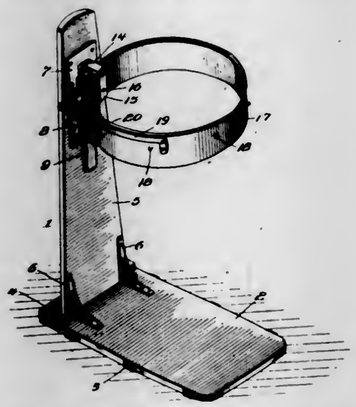
944,210. FLOOD-GATE. EDGAR F. RHODES, Sweet Springs, Mo. Filed Mar. 13, 1909. Serial No. 483,282.



1. A flood gate comprising a sill, posts projecting therefrom, a centrally disposed stop on said sill, gate members hinged to the post, fenders connected to said posts to protect the hinges, said fenders being bent inwardly at their ends, arms hinged to the rear sides of said posts and provided with rollers at their ends, guideways for said rollers secured to the gate members, and springs connected to said arms and to said posts for holding the rollers in the guideways to keep the gate closed against the tension of said spring.

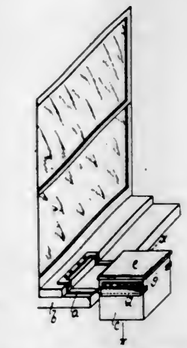
2. A flood gate comprising a sill, a hinged gate, fenders for said gate, said fenders being bent inward to protect the hinges, a spring-actuated arm having a roller journaled therein for bearing against the gate, a guideway for said rollers, and a stop for said gate.

944,211. SACK-HOLDER. JOHN RIX, Limestone, Me. Filed Mar. 5, 1909. Serial No. 481,311.



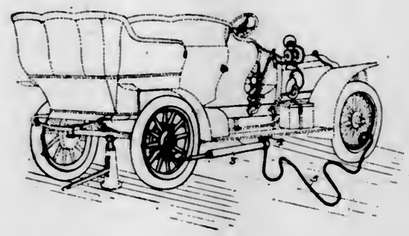
In a device of the class described, a suitably supported standard, a breast plate secured thereupon and having a vertically disposed socket open at its upper and lower ends and provided with a laterally extending housing communicating therewith, a ratchet bar vertically movable in the socket and having at its upper end a forwardly extending integral portion with a downturned terminal, a hoop secured upon the terminal and thereby spaced from the ratchet-bar and socket, said hoop being equipped with a plurality of hooks, and a spring-actuated bolt fitted in the socket, engaging the ratchet bar and having a thumb piece at its outer end; the upper edge of the front wall of the socket upon the breast plate being disposed in the path of the forwardly extending integral portion at the upper end of the ratchet bar.

944,212. WINDOW-RECEPTACLE. CLARENCE E. ROGERS, New York, N. Y. Filed Mar. 8, 1909. Serial No. 482,089.



A window receptacle and support therefor comprising a supporting portion of flat metal having a part bent to conform to a window sill to fit and sit flat thereon and extending portions made to form a receptacle support below the window and bent at right angle, and a receptacle having overhanging portions made to directly engage the extending portions, said receptacle having guides and ledges and a partition composed of sections beaded to one another and adapted to coöperate with the guides and ledges.

944,213. TIRE-PUMP ATTACHMENT. HARRY H. RUNG, Philadelphia, Pa., assignor of one-half to Robert F. Whitmer, Philadelphia, Pa. Filed Sept. 7, 1907. Serial No. 391,826.



1. The combination with a traction wheel of an automobile, of a crank arm detachably connected to the same, a pump cylinder detachably hinged to the automobile, a piston in said cylinder connected to said crank arm, and a hose leading from said pump to the tire of a wheel whereby said tire may be inflated by driving the wheel to which the crank arm is attached.

2. The combination with a traction wheel of an automobile, of a crank arm detachably connected to the hub of the same, a pump cylinder detachably hinged to the automobile, a piston in said cylinder operatively connected to said crank arm, and a hose leading from said pump to the tire of a wheel whereby said tire may be inflated by driving the wheel hub to which the crank arm is attached.

3. The combination with a traction wheel of an automobile having a detachable crank pin, a pump cylinder detachably hinged to the automobile, a piston in said cylinder connected to said crank pin, and a hose leading from said pump to the tire of a wheel of the automobile whereby said tire may be inflated by driving the wheel having the detachable crank pin.

4. The combination with a traction wheel of an automobile, of a crank pin detachably connected to the same,

a pump cylinder pivotally supported at a fixed distance from the axis of said wheel, a piston in said cylinder connected to said crank pin, and a hose leading from the pump to the tire of a wheel.

5. The combination with a traction wheel, of an automobile, of a crank pin detachably connected to the same, a pump cylinder pivotally supported on the automobile at a fixed distance from the axis of said wheel, a piston in said cylinder connected to said crank pin, and a hose leading from the pump to the tire of a wheel.

944,214. SHELF-TONGS. ADOLPH RYDQUIST, Rochester, N. Y. Filed Jan. 29, 1908. Serial No. 413,281.



1. In shelf tongs, a handle, a pair of gripping jaws pivotally mounted at one end, means for opening and closing said jaws, means independent of said first mentioned means for slightly moving said jaws after the same have been adjusted, and means for holding said last mentioned means against movement.

2. In shelf tongs, a handle, gripping jaws positioned at one end thereof, links secured to said gripping jaws, a rod secured to said links, means for moving said rod for opening and closing said jaws, and means for giving a slight additional closing movement to said jaws and locking the jaws against movement.

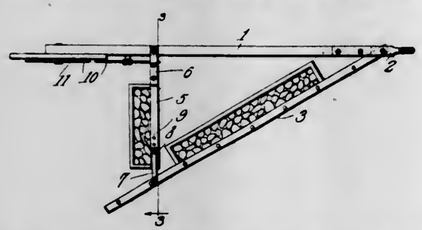
3. In shelf tongs, a handle, jaws pivotally mounted at one end, means for opening and closing said jaws, auxiliary gripping members secured to said jaws, a spring secured to said jaws and normally holding said auxiliary members in position against the outer end of said jaws, but permitting movement of the auxiliary members to conform to the contour of the article grasped.

4. In shelf tongs, a handle, gripping jaws mounted at one end thereof, means for moving said gripping jaws, a hand hold for moving said means, and means for giving an additional movement to said first mentioned means and means for locking said last mentioned means against movement.

5. In shelf tongs, a handle, gripping jaws mounted upon one end of said handle, means for moving said gripping jaws, means for giving additional squeezing action to said gripping jaws and means for locking said jaws against movement, said locking means comprising a bar for engaging said first mentioned means, a lever for moving said bar, and means for preventing a reverse movement of said lever.

[Claims 6 to 11 not printed in the Gazette.]

944,215. CULTIVATOR. WILLIS J. SANBORN, Palisades, Colo. Filed Nov. 9, 1908. Serial No. 461,749.



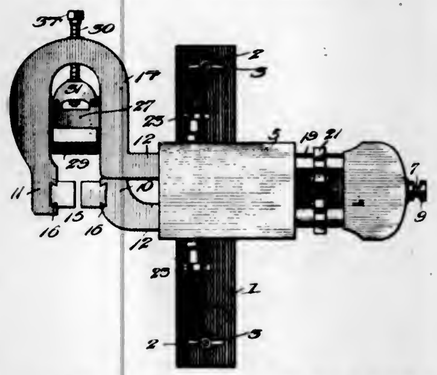
A cultivator of the class described including a draft beam, a diagonally disposed deflecting beam secured at its front end to the draft beam, means for spacing the rear end of the deflecting beam from the draft beam, earth engaging members carried by the deflecting beam and a combined guide and supporting disk journaled to the draft beam and arranged to rotate in a plane in the line of draft of the implement, and a handle attached to the draft beam and adjacent the disk.

944,216. REIN-HOLDER. HENRY F. SCHMECKPEPER, West Salem, Wis. Filed May 22, 1909. Serial No. 497,640.



In a device of the class described, an oblong frame medially provided with a cross piece, a rein loop having a body portion parallel with and spaced from the upper face of the frame and an end portion curved downwardly and extending parallel with the said body portion and fixedly secured to one end of the frame, the extremity of said end portion being downturned and having a tooth overlying the cross piece of the frame, the opposite end portion of said body being curved downwardly and thence extended inwardly and parallel with the said body portion and bearing on the opposite end of the frame.

944,217. SAW-GUIDE. CHARLES E. SEES, Danville, Pa. Filed May 16, 1907. Serial No. 374,021.



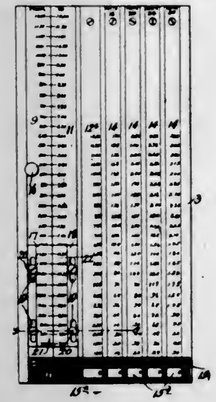
1. In a saw guide, comprising a yoke having guides extended inward from the ends of its side members, and having longitudinal slots in the inner sides of said members forming guide-ways, and having an opening in the end in communication with said guide-ways, a holder slidable in said guide-ways through the opening formed in said end, a cross piece pinned at its ends to opposite end portions of the holder and insertible through the aforesaid opening in the end of the yoke, and a screw threaded in the end of the yoke, and having a swivel connection at its inner end with said cross piece.

2. In a saw guide, the combination of a supporting body, comprising spaced parts forming abutments having longitudinally-alined openings, complemental jaws slidably mounted in said body, each having a screw projected from the inner end of its shank and passing through said longitudinally-alined openings formed in said spaced parts of the body and housed thereby, and hand nuts mounted upon the said screws between the said spaced parts of the body and obtaining bearings at their ends against said abutments.

3. A saw guide comprising a base plate, a sectional carriage mounted upon the base plate and adapted to be secured in an adjusted position thereon, said carriage comprising spaced portions forming abutments, having longitudinally-alined openings formed therein, jaws slidably mounted in the carriage, each having a screw extending

from the inner end of its shank and passing through the longitudinally-alined openings formed in the spaced portions of the body and housed thereby, one of said jaws being connected with its shank by means of a yoke, an adjustable truing member mounted in said yoke, and nuts mounted upon said screws and obtaining bearings at their ends against said abutments for adjusting the jaws, and set screws threaded into said carriage for securing the jaws in the required adjusted position.

944,218. CALCULATING DEVICE. PETER W. SOMMER, Peoria, Ill. Filed Mar. 23, 1908. Serial No. 422,854.



1. In a calculating device, the combination of a board having three scales, one denoting a work commencing time scale, one denoting a work ending time scale, and the other denoting an elapsed time scale, a movable bar on which said commencing time scale is carried, whereby any specified unit of time on said scale may be brought coincident with any specified unit of time on the time ending scale, and a guide movable with said bar adapted to indicate on the elapsed time scale a predetermined period of time.

2. In a calculateing device, the combination of a board having three scales, one denoting a work commencing time scale, one denoting a work ending time scale, and the other denoting an elapsed time scale, a movable bar on which said commencing time scale is carried, whereby any specified unit of time on said scale may be brought coincident with any specified unit of time on the time ending scale, and a guide movable with said bar adapted to indicate on the elapsed time scale the elapsed time between the designated coinciding units of time of the commencing and ending time scales, less a predetermined unit of time.

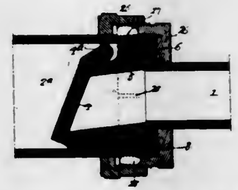
3. In a calculating device, the combination of a board provided with a plurality of scales, one having a plurality of scales, one having a plurality of units of time denoting a work commencing scale, one having a plurality of units of time denoting a work ending scale, one having a plurality of units of time denoting elapsed time between a specified time of commencing and ending a piece of work, and the remainder of said scales being tabulated scales of wages, a movable bar on which said commencing time scale is carried, whereby any specified unit of time on said scale may be brought coincident with any specified unit of time on the time ending scale, and a guide movable with said bar and time commencing scales and capable of coöperating with the other of said scales to indicate on the elapsed time scale a predetermined period of time, and to indicate on either of said tabulated scales of wages an amount due for the time shown on the elapsed time scale multiplied by a predetermined rate associated with said tabulated scales of wages.

4. In a calculating device, the combination of a board provided with a plurality of scales, one having a plurality of units of time denoting a work commencing scale, one having a plurality of units of time denoting a work ending scale, one having a plurality of units of time denoting a work ending scale, one having a plurality of units of time denoting elapsed time between a specified time of commencing and ending a piece of work, and the remainder of said scales being tabulated scales of wages, a movable bar on which said commencing time scale is carried, whereby any specified unit of time on said scale may be brought coincident with any specified unit of time on the time ending scale, and a guide movable with said bar and time commencing scale and capable of coöperating with said other of said scales to indicate on the elapsed time scale the elapsed time between the designated coinciding units of time of the commencing and ending time scales, less a predetermined unit of time, and also to indicate on either of said tabulated scales of wages an amount due for the time shown on the elapsed time scale multiplied by a predetermined rate associated with said tabulated scales of wages.

5. In a calculating device, the combination of a board containing a time commencing scale, a time ending scale and a time elapsed scale, a movable bar having said time commencing scale thereon, a guide movable with said bar and capable of coöperating with said last mentioned scale, and means for deducting certain units of time of the time commencing and ending scales, whereby when elapsed time between two predetermined units of time of the first and second mentioned scales has been computed such computation will automatically deduct such units of time, which is not displayed by said elapsed time scale.

[Claims 6 and 7 not printed in the Gazette.]

944,219. VALVE STRUCTURE. FRANK M. STINES, Paulsboro, N. J., assignor of one-half to Henry H. Lippincott, Riverton, N. J. Filed July 6, 1905. Serial No. 268,437.



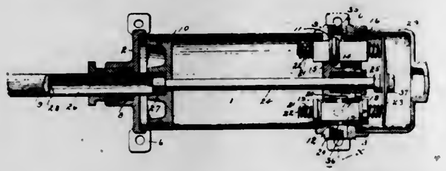
1. The combination of a pair of pipe sections having bores of different diameter, a sleeve mounted in the end of the larger section and having a through opening substantially the same diameter as the smaller section, an integral flange carried by said sleeve and interposed between the abutting ends of said pipe sections, means for holding said sections together, such means confining the sleeve in proper position relatively to the same, and a self-closing valve hung from said sleeve and disposed within the larger pipe section, said pipe sections being made of a compressible metal and the confining means including elements of a harder metal whereby a fluid-tight joint is assured.

2. The combination, in a valve structure, of a pair of pipe sections each having a flanged end, one of said sections having a greater internal diameter than the other, a sleeve mounted in the larger pipe section and having a flange disposed between the flanges of the pipe sections at the meeting ends of the same, said sleeve having a beveled end, a valve pivotally mounted to said beveled end of said sleeve and inclined in the direction of flow, and means for clamping the said pipe sections together and supporting the flanged sleeve between the same, said pipe sections, sleeve and valve being made of an acid-resisting metal capable of being compressed under the action of the clamping means which comprise elements of a different and harder metal.

3. As a new article of manufacture, a valve sleeve arranged to be mounted between a pair of pipe sections hav-

ing bores of different diameter and closely fit the internal wall of the larger section, said sleeve having an angularly disposed through opening registering with the bore of the smaller section with a flange at one end and having its opposite end beveled, the flange of said sleeve lying between the ends of said pipe sections, in combination with a self-closing valve pivotally hung from the sleeve at the beveled end of the same, said pipe sections, sleeve and valve being made of a compressible acid-resisting metal whereby they may be assembled in fluid-tight condition for use in conveying acid.

944,220. HYDRAULIC MOTOR. WILLIAM G. STOWELL, Dayton, Ohio, assignor to The W. G. Stowell Co., Dayton, Ohio, a Corporation of Ohio. Filed Oct. 26, 1908. Serial No. 459,487.

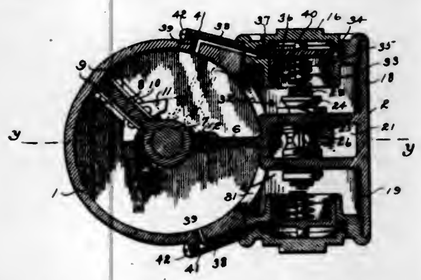


1. In a motor of the type specified, a cylinder inclosed at one end by a head united to a supporting base, a housing having inlet and outlet chambers inclosing the other end of said cylinder, a cap detachably secured to said housing and forming a continuation of the cylinder beyond said housing, bushings detachably connected within the chambers of said housing and providing valve seats, said bushings being detachable in the direction of the said cap, and one of said bushings having a series of ports at points intermediate the valve seats, double puppet inlet and double puppet exhaust valves mounted in said bushings and removable therewith, a piston within the cylinder, a hollow piston rod connected to said piston and extending in one direction therefrom, the hollow portion of said piston rod being of a length less than the effective stroke of the piston, a piston rod extension or trip rod extending into the hollow portion of the piston rod and through the axis of the valve housing, said trip rod having a head upon the end thereof which extends into the hollow piston rod, and a disk detachably secured to the other end of said trip rod and lying between the valve housing and the detachable cap, substantially as specified.

2. In a reciprocating water motor, a cylinder, a piston within said cylinder, a valve housing inclosing one end of said cylinder, a detachable cap secured to said valve housing and forming a continuation of the cylinder, said valve housing having inlet and exhaust chambers adapted to communicate with the chambers on each side of said housing, detachable bushings mounted in said chambers and providing one of the seats for the inlet valve and the two seats for the exhaust valve, the bushing providing the seats for the exhaust valve having a series of ports between said seats, the bushings and the valves being removable together from the housing, a piston rod connected to the piston and provided with a cavity therein, a reciprocating trip rod having a head extended into the cavity in the piston rod and adapted to alternately engage the piston and the terminal wall of the cavity in the piston rod, and to thus be actuated, said trip rod extending through the axis of the valve housing, and a disk mounted upon the end of said trip rod between the valve housing and the removable cap, substantially as specified.

944,221. WATER-MOTOR. WILLIAM G. STOWELL, Dayton, Ohio, assignor to The W. G. Stowell Co., Dayton, Ohio, a Corporation of Ohio. Filed Jan. 18, 1909. Serial No. 472,975.

1. In a motor of the type specified, a motor casing consisting of two cylindrical casings providing a main chamber and valve chambers, inlet and exhaust ports between said main chamber and valve chambers, and by-passes between the main chamber and the outer ends of the valve chambers, an oscillator and a septum in the main chamber dividing it into two non-communicating chambers, inlet and exhaust valves in said valve chambers controlling the inlet and exhaust ports, plungers actuated by the fluid entering the valve casing through the by-passes to initially move the valves, and springs carried by said plungers and adapted to impart the final movement to said valves after being thus initially moved, and to thereby reverse said valves.



2. In a motor of the type specified, a casing, an oscillator and a septum within said casing, a valve casing united to the said casing, inlet and exhaust ports between said casing and the valve casing, inlet and exhaust valves mounted in said valve casing and adapted to alternately change the direction of the flow of the motive fluid to and from said casing, heads inclosing the ends of the valve casing and provided with chambers which communicate with the main chamber of the motor by means of by-passes, plungers mounted in the said heads of the valve casing and adapted to be alternately actuated to initially move the valves, and springs supported on said plungers to impart the final movement of the valves and to thereby change the course of the motive fluid to and from the chamber in the main casing of the motor.

3. In a water motor, a casing, a prime mover within said casing, valves controlling the flow of water to the opposite sides of said prime mover, a valve casing within which said valves are located, heads in said valve casing having chambers therein, pistons mounted in said chambers, yokes connecting said valves, stems on said pistons adapted to engage said yokes and by the movement of the piston unseat the valves, springs carried by said pistons adapted to engage said yokes prior to the engagement of said stems, and to be placed under tension by the movement of said pistons, and further adapted to complete the movement of the valves after they have been unseated by the movement of the pistons, and means for admitting water to the piston chambers at predetermined times.

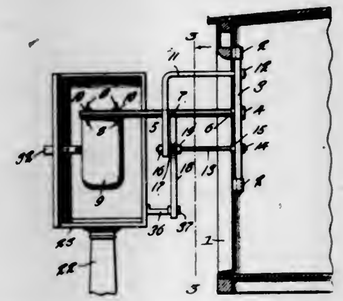
4. In a fluid motor, a casing, a prime mover, valves controlling the flow of water to and from the opposite sides of said prime mover, and means for unseating said valves by the water pressure as the prime mover approaches the limit of its stroke in either direction, in combination with springs for completing the movement of said valves after they have been unseated.

5. In a fluid motor, a casing, a prime mover, inlet and exhaust valves, pistons adapted to be moved by the water pressure at predetermined points in the prime mover's stroke and to unseat said valves, in combination with springs which complete the movement of said valves after said valves are unseated.

[Claim 6 not printed in the Gazette.]

944,222. MAIL-BAG DELIVERER. JAMES H. SWEENEY, Shelbyville, Tenn. Filed July 9, 1909. Serial No. 506,819.

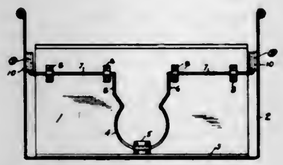
1. In a mail bag deliverer, the combination of a pivotally mounted delivery arm, a trip lever for holding said arm against rotation, a bar for supporting said delivery arm, said bar being pivotally mounted in the door of a car, a receptacle for catching the mail bag, a spring door on said receptacle, a spring-sustained false bottom, and means connected to said bottom for holding the spring door open.



2. A mail bag deliverer comprising a delivery arm pivotally mounted upon a bar adapted to be pivoted within the door of a car, said delivery arm being provided with outwardly projecting stop studs, a trip lever adapted to engage said studs to prevent the rotation of the delivery arm, supporting pins connected to the outer end of said arm for supporting a mail bag, means for moving said trip lever to permit the delivery arm to rotate and deposit the bag, and a receptacle for receiving the bag, said receptacle having a spring door, and means for closing said door actuated by the force of the bag thrown into said receptacle.

3. A mail bag deliverer comprising a delivery arm pivotally mounted in a frame pivoted within the door of a car, means for holding the delivery arm against rotation, means for suspending a mail bag upon the arm, means for tripping the delivery arm to deposit the mail bag, a receptacle for the mail bag provided with a spring actuated door, a false bottom mounted on springs within the receptacle, a latch carried by said bottom, and a keeper for engaging said latch carried by the door.

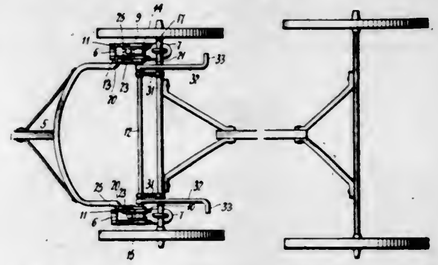
944,223. FOLLOWER-PLATE AND HOLDER FOR FILES. ANDREW J. TICE, Salem, Ohio, assignor to The American Case & Register Company, Salem, Ohio, a Corporation of Ohio. Filed Aug. 21, 1909. Serial No. 513,911.



1. A follower plate for files consisting of a plate having an angled support and provided with a spring, said spring formed of spring wire and the wire extended from its spring portion, said extended wire consisting of handles, bars provided with angled ends, the bar portions slidably mounted in bearings, substantially as and for the purpose specified.

2. A follower plate for files consisting of a plate having an angled support and provided with a spring, said spring formed of spring wire and the wire extended from its spring portion, said extended wire consisting of handles, bars provided with angled ends, the bar portions slidably mounted in bearings, and the angled portions provided with cushioned heads, substantially as and for the purpose specified.

944,224. POLE-DISCONNECTOR. JOHN VIET, Ackley, Iowa. Filed July 8, 1909. Serial No. 506,547.

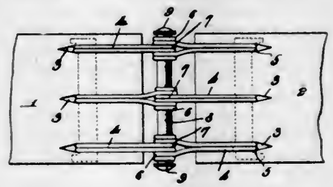


1. In a pole detacher, a support, a shaft journaled in said support, means for turning the shaft, a lifting dog on the shaft, means secured to the shaft for moving the dog, a keeper pivoted to the support and a link connection between the keeper and shaft whereby the keeper is moved simultaneously with the dog.

2. In a pole detacher, a support, a shaft journaled in said support, a keeper pivoted to the support and disposed in advance of the shaft, a plate keyed to the shaft and a link connection between the free end of said keeper and said plate.

3. In a pole detacher, a frame having vertical side walls provided on their upper sides with pole bolt receiving depressions, a shaft journaled in said frame, a lifting dog having one end combined with the shaft and its opposite end provided with a socket in alinement with the said depressions, a keeper pivotally combined with the frame and having a forwardly projecting finger in a plane with the upper side of the socket of the lifting dog and means combined with the shaft for simultaneously moving the socket of the lifting dog out of alinement with the recess and the keeper out of the plane of the upper side of the socket.

944,225. FASTENER. WILLIAM A. WALL, Marianna, Ark. Filed Apr. 24, 1908. Serial No. 429,091.



The combination with two sections of belting, each of said sections being provided with spaced alining openings positioned a distance from their meeting edges, resilient connecting members for the belting, said members each having one of their ends provided with a hook having a mouth portion normally contacting the body of the connecting member, eyes upon the opposite ends of the members, one of said members having its end provided with the eyes spaced apart to provide for the reception of the eye of the opposite member, a pintle connecting these eyes, the hooked ends of the members adapted to be inserted within the openings of the belting and for the reception of a flat key having its ends provided with offsets.

944,226. HAIR-CURLER. AUGUSTUS A. WEST, Brooklyn, N. Y., assignor to West Electric Hair Curler Company, Philadelphia, Pa., a Corporation of New York. Filed Apr. 20, 1907. Serial No. 369,296. Renewed Oct. 19, 1909. Serial No. 523,430.

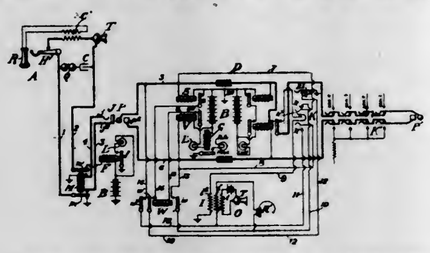
A hair curler comprising an elongated slender stem reduced at one end to form a tapering projection and an

oblique shoulder at the point of junction of said projection with the stem, the latter being formed at its opposite end with a longitudinal slot of uniform width and depth and extending transversely through the stem in a direction at right angles to the direction of extension of the oblique shoulder, a flat elastic tape of less length than



the stem, said tape being doubled or folded upon itself at one end and frictionally fitted and secured by adhesive material in said slot, and an eyelet upon the free end of the tape adapted when said tape is stretched to engage said tapered projection and seat at an angle against said shoulder, substantially as described.

944,227. TELEPHONE SYSTEM. WILLIAM A. WYNNE, Raleigh, N. C. Filed May 15, 1909. Serial No. 496,190.



1. In a telephone system, a plurality of subscribers' lines, operators' connective link circuits for interconnecting the lines, an operator's telephone set and talking circuit, means associated with a link circuit and adapted to be placed under the control of a calling subscriber, to enable said subscriber to connect his line with the operator's talking circuit, and a locking device controlled by said means in its actuation.

2. In a telephone system, a plurality of subscribers' lines, operators' connective link circuits for interconnecting the lines, an operator's telephone set and talking circuit, means associated with a link circuit and adapted to be placed under the control of a calling subscriber, to enable said subscriber to connect his line with the operator's talking circuit, a locking device controlled by said means to maintain the connection after the subscriber's control has ceased, and means controlled by the operator for unlocking the same.

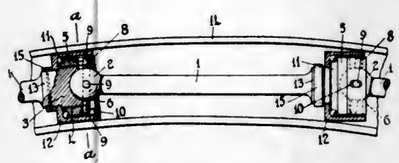
3. In a telephone system, subscribers' lines, an operator's cord circuit for interconecting said lines provided with supervisory relays, means controlled by the action of one of said relays for connecting the talking strands of the cord with the operator's telephone set, and a self-locking device controlled in the actuation of said means.

4. In a telephone system, subscribers' lines, an operator's cord circuit for interconnecting said lines, tip and sleeve supervisory relays in said cord circuit, an auxiliary relay controlled through the joint action of said tip and sleeve relays for connecting the operator's headset to the talking strands of the cord, and a locking circuit for said auxiliary relay closed when the same is energized.

5. In a telephone system, subscribers' lines, an operator's cord circuit for interconnecting said lines, tip and sleeve supervisory relays in said cord circuit, an auxiliary relay controlled through the joint action of said tip and sleeve relays for connecting the operator's headset to the talking strands of the cord, a locking circuit for said auxiliary relay closed when it is energized, and means under the control of the operator for breaking said locking circuit.

[Claims 6 and 7 not printed in the Gazette.]

944,228. FLEXIBLE SHAFT. WILLIAM G. BAMBRIDGE, Kettering, England, assignor to The Bambridge Patent Flexible Shaft Company Limited, Kettering, England. Filed Mar. 16, 1909. Serial No. 483,780.



1. A flexible driving shaft comprising a series of spindles, a series of universal joints to couple said series of spindles together consisting of ball and socket members integrally formed with said spindles and located in engagement one with the other, said socket members having slots therein, pins projecting from said ball members and extending into the slots in the socket members to transmit rotation from one spindle to another in either direction, ball races formed on said socket members, sleeves on the socket members and covering the slots therein, balls located between said sleeves and the ball races on the socket members, collars to hold said sleeves in position, and an outer flexible casing inclosing the before mentioned parts, substantially as described.

2. A flexible driving shaft comprising a series of spindles, a series of universal joints to couple said series of spindles together consisting of ball and socket members integrally formed with said spindles and located in engagement one with the other, split collars surrounding said ball members to screw upon the socket members to hold said ball and socket members together, nuts to screw upon said split collars to hold the split portions thereof together, said socket members and collars and nuts having slots therein, and pins projecting from the ball members and extending into the said slots, substantially as and for the purpose described.

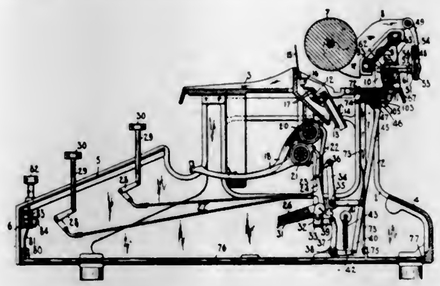
3. A flexible driving shaft comprising a series of spindles, a series of universal joints to couple said series of spindles together consisting of ball and socket members integrally formed with said spindles and located in engagement one with the other, split collars surrounding said ball members to screw upon the socket members to hold said ball and socket members together, nuts to screw upon said split collars to hold the split portions thereof together, said socket members and collars and nuts having slots therein, pins projecting from the ball members and extending into the said slots, ball races formed on said socket members, sleeves located thereover, balls located between said sleeves and the ball races on the socket members, collars to hold said sleeves in position, and an outer flexible casing inclosing the before mentioned parts, substantially as described.

944,229. TYPE-WRITING MACHINE. ARTHUR J. BRIGGS, Syracuse, N. Y., assignor to The Smith Premier Typewriter Company, Syracuse, N. Y., a Corporation of New York. Filed Oct. 12, 1908. Serial No. 457,401.

1. In a typewriting machine, the combination of a carriage, escapement mechanism for controlling said carriage, a universal bar for said escapement mechanism, a separate universal bar, line lock mechanism for locking said separate universal bar without affecting the first named universal bar, and means on the carriage for operating said locking mechanism, said means not being adapted to arrest the carriage.

2. In a typewriting machine, the combination of a carriage, printing instrumentalities, a universal bar for said printing instrumentalities, a lock for said universal bar, means moved by the carriage at the end of a line for operating said lock, said means not being adapted for arresting the carriage, and a spring connection between said means and said locking device to enable said means to be operated when the universal bar is out of normal position.

3. In a typewriting machine, the combination of a carriage, a cam mounted on said carriage, a rocking bar mounted on the main frame and adapted to be rocked by said cam, a line lock operated by such rocking of said bar, and a yielding connection between said line lock and said bar to enable said bar to be operated in case a key is in depressed position when said bar is operated.

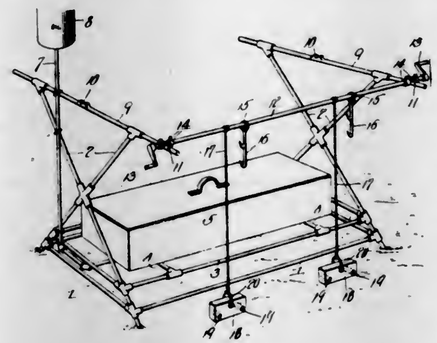


4. In a typewriting machine, the combination of a margin stop, a coöperating stop, a rocking bar on which said coöperating stop is slidably mounted, a key in the keyboard of the machine, and means operated by said key for sliding said stop on said rocking bar out of the path of said margin stop.

5. In a typewriting machine, the combination of a line lock device 103, a rocking device 62 on which said device 103 is mounted, a screw or pin 108 in one of said devices, and a spring 109 acting on said pin or screw and normally maintaining said devices in fixed relation.

[Claims 6 to 9 not printed in the Gazette.]

944,230. VAT FOR CLEANING HOGS. JOHN C. CARTMILL, Leadmine, Wis. Filed Apr. 21, 1909. Serial No. 491,340.



1. A device of the kind described comprising a rectangular base, a vat supported above said base, a burner for heating the vat, end frames carried by the base, bearings carried by each end frame, a windlass resting loosely in said bearings and movable from one to the other, cables winding upon the windlass, blocks having corner perforations, a clevis secured to each block, said blocks being supported by the cables, foot ropes having hooks adapted to engage the perforations of the blocks, rings mounted on the windlass and hooks carried by said rings for engagement with the clevises, as and for the purpose set forth.

2. A device of the kind described comprising a pipe frame consisting of two rectangular frames one above the other, an X-shaped upright frame at each end of the horizontal frames, the upright frames being connected to the horizontal frames, a vat mounted upon the upright horizontal frame, means for heating said vat, cross-members supported by the upright frames, said cross-members being transverse with respect to the horizontal frames, bearings carried by the cross-members adjacent their ends, a windlass turning loosely in said bearings and movable from one set of bearings to the other, means carried by said windlass for lifting a weight into an elevated position, and means for locking said weight in said elevated position, as and for the purpose set forth.

944,231. BUGGY-BODY. GEORGE H. BERTSCH, Freeport, Ill., assignor of one-half to Earl E. Sanders, Freeport, Ill. Filed Mar. 19, 1909. Serial No. 484,420.



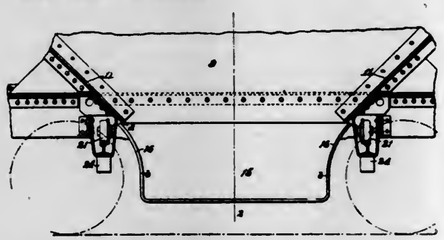
1. A vehicle body, comprising side and end panels, made from a single strip of sheet metal bent into rectangular form and having its ends secured in a slot in the corner of a wooden corner post; a wooden corner post in each of the other three corners; metal reinforcing bars inclosed by said posts in the said three corners; substantially as described.

2. A vehicle body, comprising side and end panels, made from a single strip of sheet metal bent into rectangular form and having its ends secured in a slot in the corner of a wooden corner post; inwardly bent flanges on the bottoms of said panels; floor sills secured on said flanges and provided with floor member notches; a floor made of floor members secured in said notches flush with said sills; a wooden corner post in each of the other three corners; metal reinforcing bars inclosed by said posts in said three corners; and an angle iron secured on the outside of each of the corners, substantially as described.

3. A vehicle body, comprising side and end panels, made from a single strip of sheet metal bent into rectangular form and having its ends secured in a slot in the corner of a wooden corner post, upwardly extending seat-risers on the side panels; a reinforcing strip consisting of a metal wire looped into the edges of said panels continuously from the upper forward edge of one riser and around the front of the body to the upper forward edge of the other riser; a reinforcing strip consisting of a metal wire looped into the edges of said panels from the upper rearward edge of one riser and around the rear of the body to the upper rearward edge of the other riser; a seat frame secured in said risers; a wooden corner post in each of the other three corners; and an angle iron secured on the outside of each of the corners, substantially as described.

4. A vehicle body, comprising side and end panels, made from a single strip of sheet metal bent into rectangular form and having its ends secured in a slot in the corner of a wooden corner post; upwardly extending seat risers on the side panels; a reinforcing strip consisting of a metal wire looped into the edges of said panels continuously from the upper forward edge of one riser and around the front of the body to the upper forward edge of the other riser; a reinforcing strip consisting of a metal wire looped into the edges of said panels continuously from the upper rearward edge of one riser and around the rear of the body to the upper rearward edge of the other riser; a seat frame secured in said risers; inwardly bent flanges on the bottoms of said panels; floor sills secured on said flanges and provided with floor member notches, a floor made up of floor members secured in said notches flush with said sills; a wooden corner post in each of the other three corners; metal reinforcing bars inclosed by said posts in said three corners; and an angle iron secured on the outside of each of the corners, substantially as described.

944,232. ORE DUMP-CAR. CHARLES H. CLARK, Crafton, Pa. Original application filed Oct. 5, 1908, Serial No. 456,277. Divided and this application filed Nov. 5, 1909. Serial No. 526,404.



1. A door for a dump car located beneath the hopper opening and having wall-forming portions extending upwardly to the hopper when the door is closed.

2. A door for a dump car located beneath the hopper opening and inclined when closed and having wall-forming end portions extending upwardly to the hopper when the door is closed.

3. Doors for a dump car closing together below the plane of the hopper opening and having upwardly extending portions forming walls for the door-closed space.

4. Oppositely inclined doors for a dump car located beneath the hopper opening and having wall-forming end portions extending upwardly to the hopper when the doors are closed.

5. Oppositely inclined doors for a dump car beneath the hopper opening and meeting at their lowermost edges when the doors are closed, the doors having wall-forming end portions extending upwardly to the hopper.

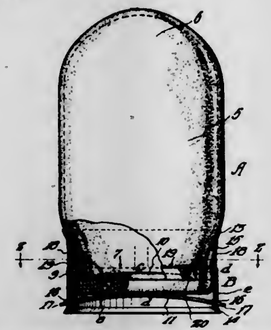
[Claims 6 to 11 not printed in the Gazette.]

944,233. WATERPROOFING COMPOSITION. LEWIS A. COLEMAN, Norfolk, Va., assignor of one-third to J. Emmett Sebrell and one-third to Harvey Abrames, Norfolk, Va. Filed Feb. 23, 1909. Serial No. 479,646.

1. A free flowing liquid waterproofing filler, comprising a mixture of gum rubber cement, spirits of turpentine and gasolene, in substantially the following proportions—12½ parts gum rubber cement, 6¼ parts spirits of turpentine, and 81¼ parts gasolene.

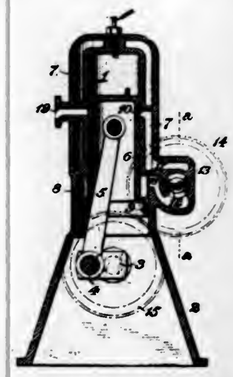
2. The herein described liquid waterproofing filler composition, comprising a mixture of 12½ parts of gum rubber cement, 6¼ parts spirits of turpentine, and 81¼ parts gasolene, the physical characteristics of which are a free flowing practically colorless fluid.

944,234. RECEPTACLE AND CLOSURE. GEORGE E. DECKER, Pomona, Cal. Filed Mar. 31, 1908. Serial No. 424,460.



A receptacle provided with a closure fitting the orifice of the same, and comprising a stopper, an annular member detachably connected with the receptacle and provided with slots, and a locking member consisting of a spring extending across and within the annular member and bearing against the stopper; said spring being of elongated form and having reduced end portions fitting said slots in the annular member; and said spring being maintained by said annular member in bowed engagement with the stopper.

944,235. GAS-ENGINE. CHARLES S. DUTTON, Jersey City, N. J., assignor of one-half to H. Herman Westinghouse, New York, N. Y. Filed Oct. 22, 1907. Serial No. 398,590.



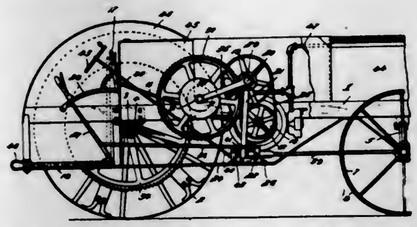
1. The combination, in a single gas engine casing, of a working cylinder, a pumping cylinder formed in the casing, a combustible mixture reservoir communicating with the working cylinder and pumping cylinder, and a valve for controlling communication between the pumping cylinder and reservoir and arranged to be opened during the compression in the pumping and working cylinders; whereby is controlled the alternate and successive traverse of combustible mixture from the pumping cylinder to the reservoir and from the reservoir to the working cylinder and preventing continuous communication between the pumping cylinder and the working cylinder.

2. The combination, in a single gas engine casing, of a working cylinder, a pumping cylinder formed in the casing, a combustible mixture reservoir communicating with the working cylinder and pumping cylinder, a continuously operating valve controlling communication between the pumping cylinder and reservoir and arranged to be opened during the compression in the pumping and working cylinders; whereby is controlled the traverse of combustible mixture from the pumping cylinder to the reservoir, and from the reservoir to the working cylinder and preventing continuous communication between the pumping cylinder and the working cylinder.

3. The combination, in a single gas engine casing, of a working cylinder, a pumping cylinder formed in the casing, a combustible mixture reservoir communicating with the working cylinder and pumping cylinder and surrounding said working cylinder, a valve controlling communication between the pumping cylinder and reservoir and arranged to be opened during the compression in the pumping and working cylinders, and mechanism for continuously rotating said valve.

4. The combination, in a single gas engine casing, of a working cylinder, a piston reciprocating therein and coupled to a crank shaft, a pumping cylinder of greater diameter than the working cylinder and located in line axially therewith and formed in the casing, a piston fitting said pumping cylinder and fixed to the piston of the working cylinder, a combustible mixture reservoir surrounding the working cylinder, a port or passage leading from the combustible mixture reservoir to the working cylinder, in position to be opened and closed by the piston of the latter, a port connecting the combustible mixture reservoir to the pumping cylinder, a valve for controlling communication between pumping cylinder and reservoir and arranged to be opened during the compression in the pumping and working cylinders, and mechanism for actuating said valve from the crank shaft.

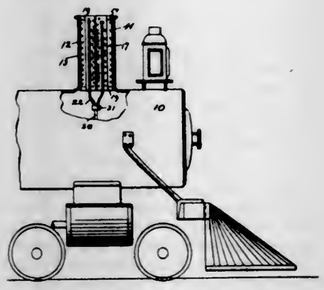
944,236. TRACTION-ENGINE. ALBERT O. ESPE, Crookston, Minn., assignor to Universal Tractor Company, Crookston, Minn., a Corporation. Filed Mar. 25, 1909. Serial No. 485,746.



1. In a traction engine, a motor, a drive shaft operated by said motor, a drive pulley loosely mounted on said shaft, a clutch mechanism to lock said pulley to the shaft, a crank shaft mounted in the frame of the engine, pulley supporting bars connected to said crank shaft, a friction pulley revolubly mounted in the upper ends of said supporting bars and adapted to be moved thereby into and out of frictional engagement with said drive pulley, a belt to connect said friction pulley with said drive pulley when out of frictional engagement therewith, an operating rod and lever connected to said crank shaft, a spur gear pinion operated by said friction pulley, a drive shaft, a compensating gear mounted on said shaft, a power transmitting gear connected to said shaft through said compensating gear, said power transmitting gear having an operative engagement with the pinion of said friction pulley, engine supporting and driving wheels, driving gears fixedly secured to said wheels, and pinions on the outer ends of said drive shaft to engage the drive gears on said driving and supporting wheels whereby the engine is propelled in a forward or backward direction.

2. In a traction engine, a motor, a drive shaft operated by said motor, a drive pulley loosely mounted on said shaft, a crank shaft having spaced uprights connected therewith, a friction pulley mounted in the free ends of said uprights, a belt arranged around said pulleys, an operating lever connected to actuate said crank shaft for raising and lowering said friction pulley to reverse the direction of the engine.

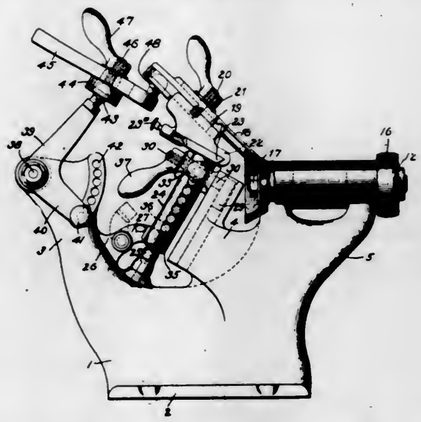
944,237. SPARK ARRESTER AND EXTINGUISHER. ANDREW W. GRAHAM, Bradford, Pa. Filed Jan. 27, 1909. Serial No. 474,441.



1. In a spark retarding device, the combination with a stack, of opposing surfaces arranged therein and provided with a multiplicity of baffle lugs, and a steam pipe, disposed between said surfaces, having a series of steam discharge openings, the lugs and steam jets being arranged to effect a constant to and fro movement of the sparks throughout approximately the full height of the stack.

2. In a spark retarding device, a stack, a lining therefor having a multiplicity of upwardly and inwardly inclined baffle lugs, diametrically disposed plates having their edges spaced from the lining and provided with upwardly inclined baffle lugs and steam pipes provided with a multiplicity of upwardly inclined slits held in the angles formed by said plates and in spaced relation thereto.

944,238. BREASTER-KNIFE-GRINDING MACHINE. JOHN J. HEYS, Lynn, Mass., assignor, by mesne assignments, to Thomas G. Plant, Boston, Mass. Filed July 17, 1906. Serial No. 326,537.



1. A blade sharpening mechanism comprising sharpening means, a blade support, said sharpening means and blade support having capacity for relative traverse, and means acting continuously during the traversing movement to vary the relative position of projection of the blade support and sharpening means.

2. A blade sharpening mechanism comprising curved sharpening means, a blade support constructed and arranged to support the blade with its cutting edge extending in the direction of curvature of said sharpening means, said blade support having capacity for traversing movement with respect to said sharpening means, and traverse modifying means including a member having a fixed point of support and connected to the blade support to impart to the blade varying positions of projection toward the sharpening means during the traversing movement.

3. A blade sharpening mechanism comprising sharpening means, a blade support, said blade support having capacity for traversing movement with respect to said sharpening means, and automatic traverse modifying means to project the blade support in the plane thereof toward the sharpening means in a curved path during said traversing movement.

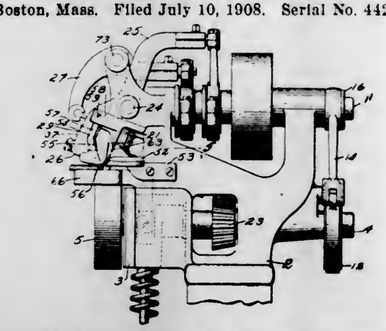
4. A blade sharpening mechanism comprising sharpening means, a blade support, said blade support and sharpening means having capacity for relative traverse, traverse modifying means acting continuously during the traversing movement to alter the amount of projection of the blade support relatively to the sharpening means and action varying means to vary the action of said traverse modifying means.

5. A blade sharpening mechanism comprising curved sharpening means, a blade support constructed and ar-

ranged to support the blade with its cutting edge extending in the direction of curvature of said sharpening means, said blade support having capacity for traversing movement with respect to said sharpening means, and traverse modifying means including a member having a fixed point of support and operatively connected to said blade support, and means to alter the effective length of said member.

[Claims 6 to 23 not printed in the Gazette.]

944,239. INSOLE-REINFORCING MACHINE. WILLIAM H. HOOPER, Lynn, Mass., assignor to Thomas G. Plant, Boston, Mass. Filed July 10, 1908. Serial No. 442,911.



1. In an insole reinforcing machine, the combination with tucking and trimming tools and means to feed successive portions of an insole to said tools, of means, other than said feeding means, engaging the lip of said insole for controlling the direction of movement of the same in its passage to said tools.

2. In an insole reinforcing machine, the combination with tucking and trimming tools and means to feed successive portions of an insole to said tools, of stationary means constructed and arranged to engage the lip of said insole for controlling the direction of movement thereof in its passage to said tools.

3. In an insole reinforcing machine, the combination with mechanism for applying reinforcing material and means to feed successive portions of an insole to said mechanism, of means independent of said mechanism and constructed and arranged to engage the lip of said insole for controlling the direction of movement thereof in its passage to said mechanism.

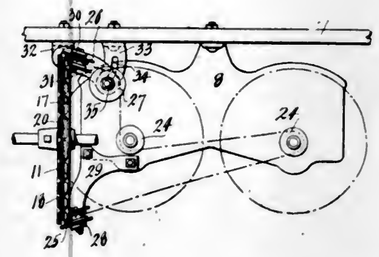
4. In an insole reinforcing machine, the combination with mechanism for applying reinforcing material to an insole and for trimming the same, of guiding devices, and means for holding said guiding devices in fixed position independent of said mechanism, for engaging and maintaining said reinforcing material in proper position for the operation of said mechanism thereon.

5. In an insole reinforcing machine, the combination with mechanism for applying reinforcing material and means to feed successive portions of an insole to said mechanism, of devices for holding the reinforcing material in proper position for the operation of said mechanism thereon and for guiding the insole in its passage to said mechanism.

[Claims 6 to 22 not printed in the Gazette.]

944,240. POWER-TRANSMITTING MECHANISM. JOHN L. JONES, Peoria, Ill. Filed Sept. 1, 1905. Serial No. 276,744.

1. In a device of the character described, the combination of a driving shaft and a driving wheel, a driven shaft and a driven wheel, the driving and driven shafts disposed at right angles to each other, a chain connecting the said driving and driven wheels, a pair of idler wheels, one to receive the chain from the driving wheel and the other for delivering the same thereto, a supplemental idler wheel disposed between the delivering idler and the driven wheel, the receiving and delivering idlers positioned so as to adapt the chain to leave the driving wheel and delivering idler wheel at right angles and an adjustable support for the said delivering and supplemental idler wheels.



2. In a device of the character described, the combination of a driving shaft and a driving wheel, a driven shaft and a driven wheel, the driving and driven shafts disposed at right angles to each other, a chain connecting the said driving and driven wheels, a pair of idler wheels, one to receive the chain from the driving wheel and the other for delivering the same thereto, a supplemental idler wheel disposed between the delivering idler and the driven wheel, the receiving and delivering idlers positioned so as to adapt the chain to leave the driving wheel and delivering idler wheel at right angles, a pivotal support adapted to carry the delivering and supplemental idlers, and a guide for the forward end of the said support.

3. In a device of the character described, the combination of a driving shaft and a driving wheel, a driven shaft and a driven wheel, a chain connecting the said driving and driven wheels, said chain composed of a series of interlooped twisted links, a pair of idler wheels, one to receive the chain from the driving wheel and the other for delivering the same thereto, a supplemental idler wheel disposed between the delivering idler and the driven wheel, the receiving and delivering idlers positioned so as to adapt the chain to leave the driving wheel and delivering idler wheel at right angles, a pivotally supported bracket upon which the delivering idler is supported, the pivot of the said bracket being in a vertical plane beneath the point at which the chain leaves the idler to engage the driving wheel.

4. In a device of the character described, the combination of a driving shaft and a driving wheel, a driven shaft and a driven wheel, the driving and driven shafts disposed at right angles to each other, a chain connecting the said driving and driven wheels, an idler for receiving the chain from the driving wheel and directing it to the driven wheel, an idler for receiving the chain from the driven wheel and delivering the same to the driving wheel, and a pivoted bracket supporting the delivering idler, the pivot of said bracket being in a vertical plane beneath the point at which the chain leaves the delivering idler to engage the driving wheel.

5. In a device of the character described, the combination of a driving shaft and a driving wheel, a driven shaft and a driven wheel, the driving and driven shafts disposed at right angles to each other, a chain connecting the said driving and driven wheels, an idler for receiving the chain from the driving wheel and directing it to the driven wheel, an idler for receiving the chain from the driven wheel and delivering the same to the driving wheel, a supplemental idler wheel between the delivering idler and the driven wheel, a pivotally arranged bracket supporting at opposite ends the delivering and supplemental idlers, the pivot of said bracket being in a vertical plane beneath the point at which the chain leaves the delivering idler to engage the driving wheel, and means for adjusting the forward end of said bracket and securing it.

[Claims 6 to 8 not printed in the Gazette.]

944,241. NUTMEG-GRATER. RODNEY JORDAN, Boston, Mass. Filed Oct. 16, 1909. Serial No. 523,027.



1. In a grinding and grating mill the combination with a cylindrical body, of revoluble grinding disks relatively adjustable within said body, operating shafts affixed to each of said disks extending longitudinally through said body, a projection between said grinding disks at the axial center thereof, and means for applying power to said shafts to rotate them.

2. In a grinding and grating mill the combination with a cylindrical body, of revoluble grinding disks relatively adjustable within said body, independent operating shafts telescopically arranged and affixed to their respective grinding disks, and means for rotating said shafts.

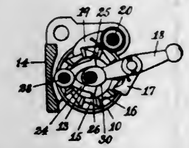
3. In a grinding and grating mill the combination with a perforated cylindrical body, of revoluble grinding disks relatively adjustable within said body, operating shafts affixed to each of said disks extending longitudinally through said body, a projection between said grinding disks at the axial center thereof, and hand wheels affixed to said shafts whereby they may be rotated.

4. In a grinding and grating mill the combination with a circumferentially-perforated cylindrical body, of parallel revoluble grinding disks relatively adjustable within said body, independent operating shafts telescopically arranged and affixed to their respective grinding disks, and hand wheels upon each of said shafts whereby they may be rotated.

5. In a grinding and grating mill the combination with a cylindrical body, of revoluble grinding disks relatively adjustable within said body, operating shafts affixed to each of said disks, a projection from one of said shafts between the grinding disks at the axial center thereof, removable closures for both ends of said body through which the operating shafts project, and hand-wheels for rotating said shafts reversely.

[Claim 6 not printed in the Gazette.]

944,242. STOP DEVICE FOR REGISTERING MECHANISMS. CHARLES F. LITTLEJOHN, New Haven, Conn., assignor, by mesne assignments, to The Recording Register & Fare Box Company, New Haven, Conn., a Corporation of Connecticut. Filed Nov. 28, 1905. Serial No. 289,387.



1. In a registering machine, the combination of an advanceable registering member provided with stop teeth, a stop pawl having projections mounted to swing into and out of the pathway of the teeth of the advanceable member, and arranged to have one or the other of its projections at all times in the said pathway, and means for advancing the registering member, provided also with means for moving the stop pawl to carry its projections alternately out of the pathway of the teeth of the advancing member.

2. In a registering machine, the combination of an advanceable member provided with teeth, a stop pawl provided with projections extending into the pathway of the said teeth, and means for advancing the advanceable member, provided also with means for moving the stop pawl to first carry one of its projections into, and then its other projection out of the pathway of the said teeth at each advancing movement.

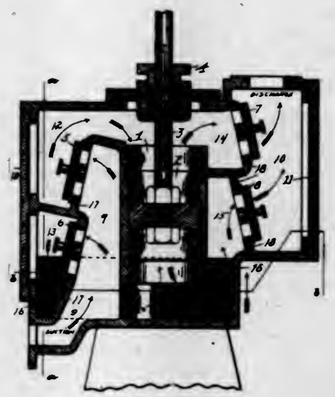
3. In a registering machine, means for controlling and limiting its advance movement, having in combination an advanceable member provided with teeth arranged in approximate conformity with the desired advance movement, a stop pawl provided with projections extending into the pathway of the said teeth, and means for advancing the advanceable member, provided also with means for engaging the pawl to move its projections alternately into and out of the path of the said teeth at each advancing movement, keeping one or the other of said projections at all times in the said pathway.

4. In a registering machine, means for positively controlling and limiting the advance movement, having in combination an index member provided with a circular series of teeth, a pivotally mounted stop pawl provided with projections having a distance between them less than the diameter of the circular pathway of the said teeth, an arm mounted for oscillation and provided with means for advancing the index member and with means for oscillating the stop pawl to carry the projections of the said pawl alternately out of the pathway of said teeth at each advance movement.

5. In a registering machine, means for positively advancing the registering devices, and limiting their advance movement, having in combination an index wheel mounted for rotation and provided with a series of teeth, a stop pawl mounted for oscillation, and provided with projections extending into the pathway of the revolving teeth, an arm mounted for oscillation, having means for advancing the index wheel, and provided also with a cam for oscillating the stop pawl to carry its projections alternately into and out of the pathway of the revolving teeth.

[Claims 6 to 9 not printed in the Gazette.]

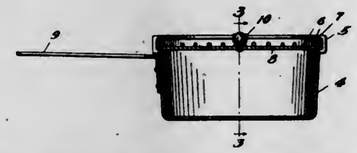
944,243. PUMP. CHARLES O. LUCAS, Dayton, Ohio, assignor to The Lucas Pump Company, Dayton, Ohio. Filed Dec. 7, 1908. Serial No. 466,279.



A pump comprising a casing, a cylinder joined thereto by decks which extend from opposite sides of one end of the cylinder and one of which provides seats for two outwardly-opening inlet valves, the said deck providing a main suction chamber on one side of the cylinder which communicates with the exterior of the casing at the lower extremity thereof, and lower and upper auxiliary suction chambers which communicate with said suction chamber through the inlet valves, the upper auxiliary suction chamber communicating directly with the upper end of the cylinder, and the lower auxiliary suction chamber communicating with the lower end of the cylinder through passage-ways on opposite sides of the lower end of the cylinder, the other of said decks providing seats for two outwardly-opening outlet valves, and an outlet chamber on the exterior of said valves, and upper and lower discharge chambers which communicate with said outlet chamber

through said valves, the lower discharge chamber communicating directly with the lower end of the cylinder, and the upper discharge chamber communicating directly with the upper end of the cylinder, substantially as shown and described.

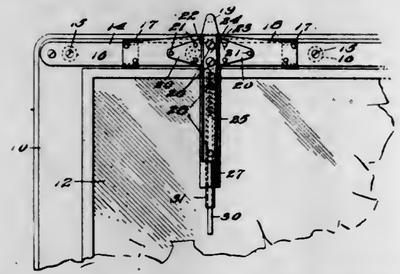
944,244. COOKING VESSEL. THERESA MOWER, Chicago, Ill., assignor to Theresa Mower and Clara Williams, Chicago, Ill. Filed Aug. 4, 1909. Serial No. 511,095.



1. The cooking vessel having a substantially semicircular raised rim 5 conforming to the body of the vessel but offset therefrom, such rim being provided with perforations whereby it may be drained, and being high enough to enable it to receive a lid, and having an inwardly extending flange 7 for confining the lid when the vessel is tipped.

2. The cooking vessel having a substantially semicircular raised rim 5 conforming to the body of the vessel but offset therefrom, such rim being provided with perforations whereby it may be drained, and being high enough to enable it to receive a lid, and having an inwardly extending flange 7 for confining the lid when the vessel is tipped, in combination with a lid acting to close the vessel while the cooking is being done, and to uncover the perforations when the vessel is tipped to drain off its fluid contents.

944,245. CLEANER FOR WINDOWS. THOMAS J. ROCHFORD, Chicago, Ill., assignor to Mary Bell Rochford, Chicago, Ill. Filed Dec. 26, 1908. Serial No. 469,203.



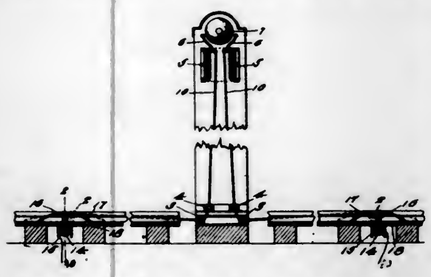
1. A cleaner for windows or the like, comprising a wiper extending across one side of the window, a support to which the wiper is attached, a track on the window frame, on which said support is slidable, a handle rigidly connected to the wiper and extending around the frame of the window to the opposite side thereof and having a bearing against said opposite side.

2. A cleaner for windows or the like, comprising a track extending along the edge of the window, a flexible support slidable along said track, a holder extending across the window and connected at one end to said flexible support, to allow the holder to be swung away from the window, and a wiper strip held by said holder.

3. A cleaner for windows or the like, comprising a wiper strip holder extending across one side of the window, a handle attached to one end of said holder and bent around the edge of the window to the opposite side thereof, and having a spring-pressed member bearing against the last-mentioned side, and a flexible support for the holder, connected to the end thereof, and mounted for lateral movement upon a track extending along the edge of the window.

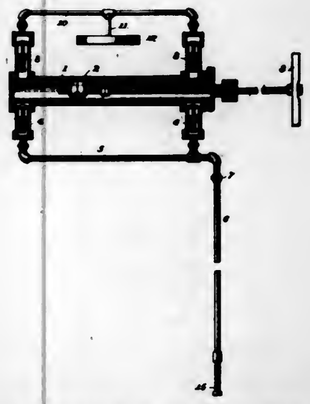
4. A cleaner for windows or the like, comprising a track extending along one edge of the window, spaced clips embracing said track and slidable along the same, a strip of thin flexible metal connecting the clips, a wiper holder, and a handle connected to said holder and strip.

944,246. RAILWAY-SIGNAL. WILLIAM J. SIMPSON, Hope, Idaho. Filed June 30, 1909. Serial No. 505,195.



A railway signal comprising in combination a base adjacent one of the rails, an arched spring resting at its ends on said base and having a stem depending from the middle thereof, a cross piece extending under the rail and having depending flanges, a lever connected to the lower end of the stem, and extending across under the said rail and fulcrumed between the said flanges, and a signal device operatively connected to the lever.

944,247. APPARATUS FOR TESTING MINE-GASES. JOSEPH SMITH, Trinidad, Colo. Filed June 11, 1909. Serial No. 501,509.



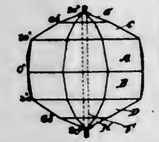
1. A portable apparatus for testing mine gases comprising a tubular chamber, a reciprocable plunger therein, a conduit, valved connections at either end of said chamber connected with said conduit, a socket adapted to hold a safety lamp, and a conduit connecting said socket with opposite ends of said chamber through valved unions.

2. A portable apparatus for testing mine gases comprising a tubular chamber provided with valved inlet and exhaust connections at either end, a plunger reciprocable within said chamber, and an annular socket connected with said exhaust connections and provided with a channel to connect with the inlet of a gas indicator.

3. A portable apparatus for testing mine gases comprising a tubular chamber provided with valved inlet and exhaust connections, a plunger reciprocable with said chamber, and an annular socket connected with said exhaust connections having a channel arranged to connect with the air-inlet of a safety lamp.

4. In a portable apparatus for the detection of combustible gases, a pump having valved inlet and exhaust connections, a pipe connected with said inlet connections, and a socket connected with said exhaust connections having a channel arranged to connect with the air-inlet of a safety lamp.

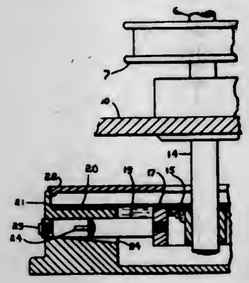
944,248. GEOGRAPHICAL MAP, GLOBE, AND OTHER GEOGRAPHICAL APPLIANCE. WILLIAM WILSON, Edinburgh, Scotland. Filed July 28, 1909. Serial No. 510,131.



A geographical map comprising a plurality of sections tapering in opposite directions and secured together at points intermediate the two ends thereof, and a tab fastened to the opposite ends of each section, and provided with an aperture.

REISSUES.

13,058. CONTROL DEVICE FOR SIFTERS. ALLEN C. BRANTINGHAM, Toledo, Ohio. Filed Nov. 16, 1909. Serial No. 528,398. Original No. 933,055, dated Sept. 7, 1909, Serial No. 332,582.



1. A gyratory sifter having an eccentrically movable driving shaft, bearings therefor, actuating means for the shaft and a submerged resistance offering control device effective as the shaft has eccentric movement.

2. A gyratory sifter comprising a container, a support for the container, a driving element or shaft for the container and a liquid steadying device for the element or shaft.

3. A gyratory sifter having a driving shaft, bearings therefor, actuating means for the shaft and liquid control means effective to resist eccentric movements of the shaft.

4. A container for the substance to be treated, a support therefor, a movably mounted rotary element or shaft for actuating the container, actuating means for the shaft and a steadying device for the shaft comprising a liquid dash pot.

5. A sifter comprising a movably mounted rotary shaft, bearings therefor, actuating means for the shaft and a plurality of liquid dash pots effective to resist eccentric movements of the shaft.

6. A sifter comprising a driven container, a support therefor, an eccentrically weighted shaft for driving the container, actuating means for the shaft and a liquid steadying device for the shaft.

7. A sifter comprising a gyratory shaft, bearings therefor, shaft actuating means and a non-reacting yielding device to limit the throw of the shaft.

8. A sifter comprising a driven container, supporting means for the container, eccentrically movable driving means for the container and a non-reacting device offering increasing resistance as the eccentric movements increase.

9. The combination with a body and means for gyrating the same, of a steadying device comprising an automatically-adjustable variable throw-crank arranged to rotate in a plane parallel to the plane of said body's gyration, and means applied to said crank for retarding the throw-increasing and throw-decreasing movements of said crank toward and from normal gyration, and which crank is arranged to control the gyratory motions of said body.

10. The combination with a body supported for gyratory motion, of a vertical shaft coacting with said body and carrying an unbalanced weight that rotates in a plane parallel to the plane of said body's gyration, a steadying device comprising an automatically-adjustable variable throw-crank, and means for retarding both the throw-increasing and throw-decreasing movements of said crank toward and from normal gyration, and which crank is arranged to control the gyratory motions of said body.

11. The combination with a body supported for gyratory motion of a control means for the gyratory motions of said body, and a steadying device automatically adjustable to the variable throws of the control means and comprising a pair of movably mounted rigid members having yielding coaction with each other, said members being arranged in a plane parallel to the plane of said body's gyration for retarding the throw-increasing and throw-decreasing movements of the control means, thus permitting the device to automatically adjust itself to the variable throws of the control means and steady the gyratory motions of said body.

12. The combination with a body and means for gyrating the same, of a steadying-device comprising an automatically-adjustable variable throw crank arranged to rotate in a plane parallel to the plane of said body's gyration, and a fluid-cushioned retarding device incorporated in said crank, and which crank is arranged to control the gyratory motions of said body.

13. The combination with a body and means for gyrating the same, of a steadying-device comprising an automatically-adjustable variable throw-crank having a double-ended fluid cushioned retarding device incorporated as a part of said crank, and arranged to control the adjustments of said crank in both directions, and which crank is arranged to control the gyratory motions of said body.

14. The combination with a body and means for gyrating the same, of a steadying device comprising an automatically-adjustable variable throw-crank having a fluid cushioned cylinder and piston retarding device incorporated as a part of said crank, and which crank is arranged to control the gyratory motions of said body.

15. A gyratory sifter comprising a container, a support for the container, a driving element or shaft for the container and a fluid steadying device for the element or shaft.

16. A gyratory sifter having a driving shaft, bearings therefor, actuating means for the shaft and fluid control means effective to resist eccentric movements of the shaft.

17. A container for the substance to be treated, a support therefor, a movably mounted rotary element or shaft for actuating the container, actuating means for the shaft and a steadying device for the shaft comprising a fluid dash pot.

18. A sifter comprising a driven container, a support therefor, an eccentrically weighted shaft for driving the container, actuating means for the shaft and a fluid steadying device for the shaft.

19. The combination with a body and means for gyrating the same, of a fluid-cushioned steadying-device arranged to restrict the gyratory motions of said body.

20. The combination with a body and means for gyrating the same, of a revoluble fluid-cushioned steadying de-

vice arranged to restrict the gyratory motions of said body.

21. The combination with a sifter and means for gyrating the same, of a revoluble fluid-cushioned steadying device arranged to restrict the gyratory motions of said sifter.

22. The combination with a gyratory sifter mechanism having a stem, of a steadying device, including radial and circumferential travel resistance members, engaging the stem to limit its orbital travel and so control, a plurality of said members being movable to slidably engage each other during abnormal operation and thereby bring about the controlling of the mechanism.

23. The combination with a self balancing mechanism comprising a container for the substance to be treated, a gyrator for the container, and a stem coacting with the mechanism and movable in an orbit, of a steadying device consisting of individually-rigid circumferential travel resistance members for controlling the stem, one of said members being movable to slidably engage another to resist abnormal travel of the mechanism.

24. The combination with a sifter and a gyrator to actuate the sifter in a plane, of mechanism coacting therewith and permitting abnormal travel of the sifter, said mechanism consisting of individually-rigid relatively movable members confined to travel parallel to the plane of gyration of the sifter, the coacting of said members being in intersecting directions during abnormal gyration.

25. The combination with a self balancing sifter and an independently supported gyrator therefor causing the sifter to travel in a plane, of a laterally coacting steadying device for the sifter consisting of individually-rigid relatively movable members confined to travel parallel to the plane of gyration of the sifter to resist abnormal travel of the sifter.

26. The combination with a self balancing mechanism comprising a body supported for gyration, and a gyrator for the body, of a steadying device for the body including members reciprocable in intersecting directions and interposed resistance offering means coacting to yieldingly oppose abnormal gyration of the mechanism.

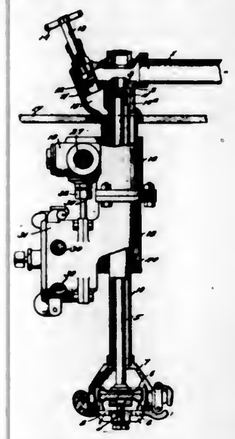
27. The combination with a self balancing mechanism comprising a body supported for gyration, and a gyrator for the mechanism, of a steadying device comprising reciprocable non-rotative members and coacting means for the members to minimize abnormal movements of the mechanism and thereby cause the mechanism in operation to approximate uniform gyration.

28. The combination of a body supported for gyration, a gyrator for the body, and a steadying device including an orbitally movable member, a reciprocable member and a fixed member, provided with means coacting to restrain abnormal movement of the body and thereby cause the body in operation to approximate uniform gyration.

13,059. HEATING SYSTEM. EGBERT H. GOLD, Chicago, Ill. Filed Aug. 13, 1909. Serial No. 512,762. Original No. 890,138, dated June 9, 1908, Serial No. 318,015.

1. The combination with a radiating system, a supply pipe and a trap communicating with the radiating system said trap comprising a drip pipe, a valve to close said drip pipe, a blow-off pipe, and a non-automatic valve for said blow-off pipe, of an attachment connected with said trap said attachment comprising a casing having therein a valve chamber communicating with said supply pipe and with the radiating system and an outlet chamber communicating with the blow-off pipe, an inlet valve in said valve chamber to shut off communication between the supply pipe and the radiating system, and a thermostatic device in the outlet chamber to control said inlet valve.

2. The combination with a radiating system, a supply pipe and a trap communicating with the radiating system said trap comprising a drip pipe, a valve to close said drip pipe, a blow-off pipe, and a non-automatic valve for said blow-off pipe, of an attachment connected with said trap said attachment comprising a casing having therein a valve chamber communicating with said supply pipe and with the radiating system and an outlet chamber connected with the blow-off pipe, an inlet valve in said valve chamber to shut off communication between the supply pipe and the radiating system, and a thermostatic device in the outlet chamber to control said inlet valve, said attachment rotatably connected with the trap.



3. The combination with a radiating system, a supply pipe and a trap connected with the radiating system and comprising an inner drip pipe and an outer blow-off pipe and valves for the same respectively, of an attachment comprising a casing surrounding said drip pipe and having a valve chamber communicating with the supply pipe and the radiating system and an outlet chamber communicating with the blow-off pipe, an inlet valve in the valve chamber to shut off communication between the supply pipe and the radiating system, and a thermostatic device in said outlet chamber to operate said inlet valve.

4. The combination with a radiating system of a supply pipe, an exhaust pipe, a drip pipe leading from the exhaust pipe, a valve to automatically close the drip pipe, a blow-off pipe leading from the exhaust pipe, a non-automatic valve to close said blow-off pipe, a casing attached to and having chambers in communication with the blow-off pipe and the inlet end of the radiating system, respectively, an inlet valve in said casing to control the flow of heating fluid from the supply pipe, and a thermostatic device in said casing and in communication with the blow-off pipe to operate the inlet valve.

5. The combination with a radiating system, of a supply pipe, an exhaust pipe, a drip pipe leading from the exhaust pipe, a valve to automatically close the drip pipe, a blow-off pipe leading from the exhaust pipe beyond the drip pipe, a non-automatic valve to close said blow-off pipe, a casing attached to and having chambers in communication with the blow-off pipe and the inlet end of the radiating system, respectively, an inlet valve in said casing to control the flow of heating fluid from the supply pipe, and a thermostatic device in said casing and in communication with the blow-off pipe to operate the inlet valve.

6. The combination with a radiating system, of a supply pipe, an exhaust pipe, a drip pipe leading from the exhaust pipe, a valve to automatically close the drip pipe, a blow-off pipe leading from the exhaust pipe, a manually operated valve to open and close the blow-off pipe without obstruction to the flow of heating fluid to the drip pipe a casing attached to and having chambers in communication with the blow-off pipe and the inlet end of the radiating system, respectively, an inlet valve in said casing to control the flow of fluid from the supply pipe, and a thermostatic device in said casing and in communication with the blow-off pipe to operate said inlet valve.

7. The combination with a radiating system, a supply pipe and a trap communicating with the radiating system and comprising a drip pipe, a thermostatic valve to close said drip pipe, a blow-off pipe, and a non-automatic valve for said blow-off pipe, of an attachment connected with said trap and comprising a casing having therein a valve chamber communicating with said supply pipe and with the radiating system, and an outlet chamber communicating with the blow-off pipe, an inlet valve in said valve chamber to shut off communication between the supply pipe and the radiating system, and a thermostatic device in the outlet chamber to control said inlet valve.

8. The combination with a radiating system, a supply pipe and a trap communicating with the radiating system, said trap comprising a drip pipe, a valve to close said drip pipe, a blow-off pipe and a non-automatic valve for said blow-off pipe; of an attachment connected with said trap and supply pipe said attachment comprising a valve chamber communicating with said supply pipe and with the radiating system, and an outlet chamber communicating with the blow-off pipe, an inlet valve in said valve chamber to shut off the communication between the supply pipe and the radiating system, and a thermostatic device arranged so as to be influenced by the fluid discharged into said blow-off pipe to control said inlet valve.

9. The combination with a radiating system, a supply pipe and a trap connected with said radiating system and comprising an inner drip pipe an outer blow-off pipe an automatic valve for said drip pipe and a non-automatic valve for said blow-off pipe, of an attachment connected with the blow-off pipe and supply pipe provided with a valve chamber communicating with the supply pipe and the radiating system and an outlet chamber communicating with the blow-off pipe, an inlet valve in said valve chamber to shut off communication between the supply pipe and the radiating system; and a thermostatic device arranged so as to be influenced by the fluid discharged into said blow-off pipe to operate said inlet valve.

10. The combination with a radiating system, of a supply pipe, an exhaust pipe, a drip pipe leading from the exhaust pipe, a valve to automatically close the drip pipe, a blow-off pipe leading from the exhaust pipe, a non-automatic valve to close said blow-off pipe, means attached to the supply pipe and the blow-off pipe comprising chambers in communication with the blow-off pipe and the inlet end of the radiating system, respectively, an inlet valve to control the flow of heating fluid from the supply pipe, and a thermostatic device arranged to be influenced by the fluid discharged into said blow-off pipe to operate the inlet valve.

11. The combination with a radiating system, of a supply pipe, an exhaust pipe, a drip pipe leading from the exhaust pipe, a valve to automatically close the drip pipe, a blow-off pipe leading from the exhaust pipe, a manually operated valve to open and close the blow-off pipe without obstruction to the flow of heating fluid to the drip pipe, means attached to the supply pipe and the blow-off pipe comprising chambers in communication with the blow-off pipe and the inlet end of the radiating system, respectively, an inlet valve to control the flow of the heating fluid from the supply pipe to the radiating system and a thermostatic device arranged so as to be influenced by the fluid discharged into the blow-off pipe to operate said inlet valve.

12. The combination with a radiating system, of a supply pipe, an exhaust pipe, an automatic trap in said exhaust pipe, an inlet valve to control the flow from the supply pipe into the radiating system, a blow-off pipe, a thermostatic device arranged so as to be influenced by the fluid discharged into said blow-off pipe and connected with the inlet valve so as to operate the same, and a non-automatic valve for closing the blow-off pipe.

13. The combination with a radiating system, of a supply pipe, an exhaust pipe, an automatic trap in said exhaust pipe, an inlet valve to control the flow from the supply pipe into the radiating system, a blow-off pipe, a thermostatic device arranged so as to be influenced by the fluid discharged into said blow-off pipe and connected with the inlet valve so as to operate the same, and a non-automatic valve to control the opening into the blow-off pipe without obstructing the flow of heating fluid to the trap.

14. The combination with a radiating system, of a supply pipe, an exhaust pipe having a drip opening, a valve to control said opening, an inlet valve to control the flow from the supply pipe into the radiating system, a blow-off pipe, a thermostatic device arranged so as to be influenced by the fluid discharged into said blow-off pipe and connected with the inlet valve so as to operate the same, and a non-automatic valve to close the opening into the blow-off pipe.

15. The combination with a radiating system, of a supply pipe, a drip pipe a valve arranged to control the passage through said drip pipe, an inlet valve to control the flow from the supply pipe into the radiating system, a blow-off pipe surrounding said drip pipe, a thermostatic device arranged so as to be influenced by the fluid discharged into said blow-off pipe, and connected with the inlet valve so as to operate the same, and a hand-operated valve to close the opening into said blow-off pipe.

16. The combination with a radiating system, of a supply pipe, an exhaust pipe, an automatic trap in said exhaust pipe, an inlet valve to control the flow from the supply pipe into the radiating system, a blow-off pipe which surrounds said automatic trap, a thermostatic device arranged so as to be influenced by the fluid discharged into said blow-off pipe and connected with the inlet valve so as to operate the same, a valve to close the opening into said blow-off pipe and hand operated means for operating said valve.

17. The combination with a car, of a heating system comprising a system of radiating pipes within the car, a supply pipe, an exhaust pipe, a drip pipe leading from said exhaust pipe, an automatic valve controlling said drip pipe, a blow-off pipe extending outside of the car, and a non automatic valve for opening and closing communication between the radiating system and the blow-off pipe, a thermostat adapted to be mounted upon said blow-off pipe externally of the car so as to be operatively influenced by heating fluid passing through the blow-off pipe from the radiating system, and an automatic valve adapted to be mounted in said supply pipe and operatively connected with said thermostat so as to regulate the supply of heating fluid to said heating system.

18. A device, adapted to be attached to a car heating system provided with a trap and a blow off pipe, surrounding the trap, and extending externally of the car to be heated, said device comprising a thermostat and a valve, in operative relation to each other, said thermostat being adapted to be mounted in operative relation to the externally located portion of said blow off pipe, and said valve being adapted to be interposed in the supply pipe of said system externally of the car.

19. The combination with a car, of a heating system comprising radiators within the car, a supply pipe, communicating with said radiators, an exhaust pipe leading from said radiators, a drip pipe communicating with said exhaust pipe, an automatic valve for controlling the escape of water of condensation through said drip pipe, a blow-off pipe surrounding the drip pipe and extending from a point inside of the car to a point outside of the car, a valve for opening and closing communication between the exhaust pipe and the blow-off pipe, and an attachment for converting the said system into an interchangeable system and comprising a thermostat adapted to be mounted upon the blow-off pipe outside of the car, but so as to be influenced by heating fluid escaping through said blow-off pipe, and a valve in operative relation with said thermostat adapted to be mounted in said inlet pipe and to be operated by said thermostat so as to control the flow of the heating fluid from said inlet pipe to said radiators.

20. The combination with a car, of a heating system comprising radiators within the car, a supply pipe communicating with said radiators, an exhaust pipe leading from said radiators, a drip pipe communicating with said exhaust pipe, an automatic valve for controlling the escape of water of condensation through said drip pipe, a blow-off pipe surrounding the drip pipe and extending from a point inside of the car to a point outside of the car, a valve for opening and closing communication between the exhaust pipe and the blow-off pipe, and an attachment for

converting said system into an interchangeable system, said attachment comprising a casing adapted to be mounted upon said drip pipe and in communication with said blow-off pipe, means for making a tight joint between said casing and said drip pipe, a thermostat arranged to be influenced by heating fluid passing from the radiating system through said blow-off pipe, and a valve in operative relation with said thermostat and adapted to be mounted in said inlet pipe so as to control the flow of a heating fluid therethrough.

21. The combination with a radiating system, of a supply pipe, an exhaust pipe having a drip opening, a valve to control said opening, an inlet valve to control the flow from the supply pipe into the radiating system, a blow-off pipe, a thermostatic device arranged so as to be influenced by the fluid discharged into said blow-off pipe and arranged in operative relation with said inlet valve, and a positive, hand-operated valve to open and close communication between the exhaust pipe and the blow-off pipe.

22. The combination with a car, of a heating system comprising a system of radiating pipes within the car, a supply pipe, an exhaust pipe, a drip pipe leading from said exhaust pipe, an automatic valve controlling said drip pipe, a blow-off pipe extending outside of the car, and a valve for opening and closing communication between the radiating system and the blow-off pipe, of an attachment for converting such a system into an interchangeable system, said attachment comprising a thermostat adapted to be mounted externally of the car so as to be operatively influenced by heating fluid passing through the blow-off pipe from the radiating system, and an automatic valve adapted to be mounted in said supply pipe and operatively connected with said thermostat so as to regulate the supply of heating fluid to said heating system, the connections between said thermostat and said last-named valve being entirely external to said blow-off pipe.

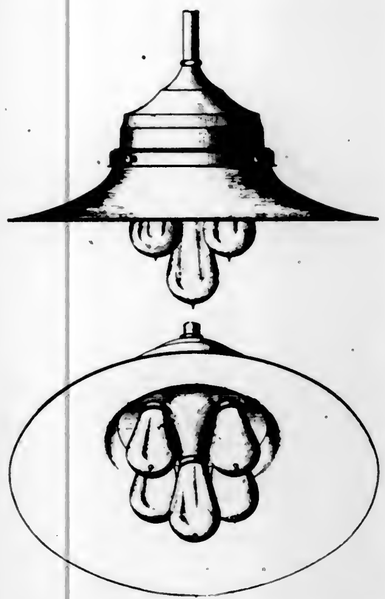
DESIGNS.

40,406. FOB. IRVING R. LEDERER, Providence, R. I. Filed Oct. 6, 1909. Serial No. 521,430. Term of patent 7 years.



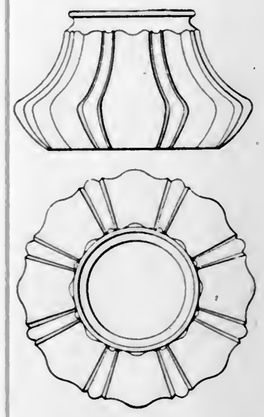
The ornamental design for a fob, as shown.

40,407. ELECTRIC-LIGHT CLUSTER. REUBEN B. BENJAMIN, Chicago, Ill., assignor to Benjamin Electric Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed May 19, 1908. Serial No. 433,796. Term of patent 7 years.



The ornamental design for an electric light cluster, as shown and described.

40,408. ARTIFICIAL-LIGHT SHADE. KRAFT BOOTH, Philadelphia, Pa., assignor to Gillinder & Sons, Inc., Philadelphia, Pa., a Corporation of Pennsylvania. Filed Nov. 3, 1909. Serial No. 526,153. Term of patent 14 years.



The ornamental design for an artificial light shade, as shown.

40,409. ADVERTISING-SIGN. JAMES M. LOUGHLIN, Chicago, Ill., assignor to Thomas Cusack Company, Chicago, Ill., a Corporation of New Jersey. Filed Sept. 7, 1909. Serial No. 516,029. Term of patent 7 years.



The ornamental design for an advertising sign, as shown.

40,410. REFRIGERATOR. HYMAN SILVER, Brooklyn, N. Y. Filed Sept. 22, 1909. Serial No. 519,103. Term of patent 7 years.



The ornamental design for a refrigerator, as shown.

40,411. DOOR FOR REFRIGERATORS. HYMAN SILVER, Brooklyn, N. Y. Filed Sept. 22, 1909. Serial No. 519,104. Term of patent 7 years.



The ornamental design for a door for a refrigerator, as shown.

149 O. G.—53

40,412. DOOR FOR REFRIGERATORS. HYMAN SILVER, Brooklyn, N. Y. Filed Sept. 22, 1909. Serial No. 519,105. Term of patent 7 years.



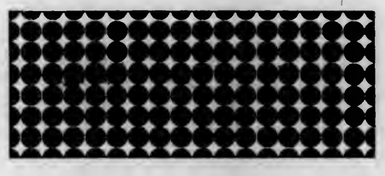
The ornamental design for a door for a refrigerator, as shown.

40,413. CLOTHES-RACK. JOHN H. WILSON, Philadelphia, Pa. Filed Aug. 22, 1908. Serial No. 449,883. Term of patent 14 years.



The ornamental design for a clothes rack, as shown.

40,414. FABRIC. DAVID VALENTINE, East Orange, N. J. Filed Oct. 21, 1909. Serial No. 523,934. Term of patent 3½ years.



The ornamental design for a fabric as shown.

TRADE-MARKS

PUBLISHED DECEMBER 21, 1909.

The following trade-marks have been adjudged entitled to registration under the act of February 20, 1905, and are published in compliance with section 6 of said act. Said section provides:

"Any person who believes he would be damaged by the registration of a mark may oppose the same by filing notice of opposition, stating the grounds therefor, in the Patent Office within thirty days after the publication of the mark sought to be registered, which said notice of opposition shall be verified by the person filing the same before one of the officers mentioned in section two of this act. If no notice of opposition is filed within said time the Commissioner shall issue a certificate of registration therefor, as hereinafter provided for."

Marks which are stated to have been "Used ten years" are registrable under the last proviso of section 5 of said act, which is as follows:

"And provided further, That nothing herein shall prevent the registration of any mark used by the applicant or his predecessors, or by those from whom title to the mark is derived, in commerce with foreign nations or among the several States, or with Indian tribes, which was in actual and exclusive use as a trade-mark of the applicant or his predecessors from whom he derived title for ten years next preceding the passage of this act."

Section 14 of said act provides for the following fee:

"On filing notice of opposition to the registration of a trade-mark, ten dollars."

Ser. No. 11,797. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HIPPOLYTE JEAN CLAUDE DEPERDUSSIN, Paris, France, assignor to The Pasteur Vaccine Company Limited, London, England, a Firm. Filed Aug. 19, 1905.



The same being a portrait of the late Doctor Louis Pasteur, no claim being made to the words "Vaccins, serums, virus, ferments."

Particular description of goods.—Remedial Vaccines, Serums, Virus, and Culture Products for Human and Veterinary Use, Together with Virus for Destroying Rodents and other Vermin.

Ser. No. 22,427. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) RUFUS N. JAY, Springfield, Mo. Filed Oct. 1, 1906.



Which consists of my portrait and a facsimile of my signature.

Particular description of goods.—A Remedy for Blood Diseases.

Ser. No. 25,418. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) BOWLES COMPANY, Seattle, Wash. Filed Feb. 19, 1907.

UNDINE

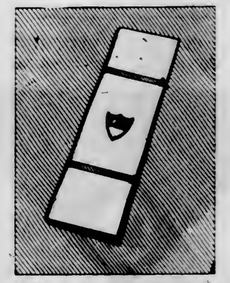
Particular description of goods.—Closet-Tanks.

Ser. No. 33,147. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) C. ALFRED FISCHER, Berlin, Germany. Filed Mar. 3, 1908.

Biocitin

Particular description of goods.—Lecithin Preparation.

Ser. No. 34,708. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) STRAWBRIDGE & CLOTHIER, Philadelphia, Pa. Filed May 12, 1908.



Where the field or body of the label and the bands across the package represented are shaded to indicate green.

Particular description of goods.—Muslins.

Ser. No. 35,123. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) EDOUARD DENIÉPORT, Suresnes, France. Filed June 3, 1908.

Ed. Nieuport

Which illustrates the facsimile-signature of applicant's professional name, "Ed. Nieuport."

Particular description of goods.—Magnetos, Ignition-Distributers, Ignition-Switches, Electric-Motor Ignition Cut-Offs, Dry and Wet Cells, Motor Ignition Storage Batteries, Sparking Plugs, and Induction-Coils.

Ser. No. 35,366. (CLASS 47. WINES, EXCEPT MEDICATED.) CALIFORNIA WINE ASSOCIATION, San Francisco, Cal. Filed June 15, 1908.

WINEHAVEN

Particular description of goods.—California Port-Type Wine.

Ser. No. 35,381. (CLASS 39. CLOTHING.) LACK MANUFACTURING COMPANY, New York, N. Y. Filed June 15, 1908

ROSEBUD

Particular description of goods.—Ladies' Undershirts, Outervests, and Outerwaists and Dresses.

Ser. No. 37,260. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE HEALTH RESTORER & PRESERVER CHEMICAL COMPANY, Hoboken, N. J. Filed Sept. 8, 1908.

OSFLO

Particular description of goods.—A Remedy for Stomach Troubles.

Ser. No. 38,294. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CONRAD RUNYON, Twin Branch, W. Va. Filed Oct. 27, 1908.

Conrad Runyon

The signature being that of the applicant.

Particular description of goods.—A Compound for Treating Heart Disease.

Ser. No. 38,545. (CLASS 39. CLOTHING.) BRADLEY & METCALF CO., Milwaukee, Wis. Filed Nov. 9, 1908.



Particular description of goods.—Leather Boots and Shoes.

Ser. No. 38,556. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HOLT & COMPANY, New York, N. Y. Filed Nov. 10, 1908.

CRYSTAL

Particular description of goods.—Wheat-Flour.

Ser. No. 39,994. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) SMITH, KLINE & FRENCH CO., Philadelphia, Pa. Filed Jan. 19, 1909.



Particular description of goods.—Chamois-Skins.

Ser. No. 41,097. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NEW JERSEY CIDER VINEGAR WORKS, Flemington, N. J. Filed Mar. 11, 1909

"CLOVER HILL" BRAND



Particular description of goods.—Apple-Cider Vinegar.

Ser. No. 41,393. (CLASS 12. CONSTRUCTION MATERIALS.) THE BARBER ASPHALT PAVING COMPANY, Philadelphia, Pa. Filed Mar. 25, 1909.



Particular description of goods.—Crude Asphalt; Refined Asphalt; Pavements and Paving Compounds Containing Asphalt; Roofing and Roofing Materials Containing Asphalt; and Sheathing Materials Containing Asphalt.

Ser. No. 41,502. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) JOHN BEDFORD & SONS, LIMITED, Sheffield, England. Filed Mar. 31, 1909.

IRRESISTIBLE

No claim being made to the word "Irresistible."

Particular description of goods.—Machine-Tools, Twist-Drills, Milling and other Cutters, Machine-Knives, Shear-Blades, All Being Parts of Machinery.

Ser. No. 41,894. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) STEEL PROTECTED CONCRETE COMPANY, Huron, S. D., and Philadelphia, Pa. Filed Apr. 20, 1909. Used ten years.

WAINWRIGHT GALVANIZED STEEL CORNER BAR

Particular description of goods.—Metal Corner-Bars for Concrete Curbs.

Ser. No. 42,666. (CLASS 39. CLOTHING.) GEORGE A. FORD, Chicago, Ill. Filed May 25, 1909.

UnaJama

Particular description of goods.—Bifurcated Night-Clothing.

Ser. No. 42,705. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) DUNCAN HINES & COMPANY, Chicago, Ill. Filed May 27, 1909.

FLOSPO

Particular description of goods.—Furniture-Polish.

Ser. No. 42,708. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) BURCH, BAILEY & CO., New York, N. Y. Filed May 27, 1909.

LINAIRE

Particular description of goods.—Cotton Piece Goods.

Ser. No. 43,004. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ELLEN G. KIDD, Richmond, Va. Filed June 14, 1909.

Pin Money

Particular description of goods.—Brandied Fruits, Fruits in Syrup, Fruit-Jelly, Marmalade, Fruit-Preserves, Vegetable-Preserves, Fruit-Butters, Crystallized Fruit, Mayonnaise Sauce, Mustard, Tabasco Sauce, Salad-Dressing, Catsups, Chilli Sauce, Celery Sauce.

Ser. No. 43,403. (CLASS 3. BAGGAGE, HORSE EQUIPMENTS, PORTFOLIOS, AND POCKET-BOOKS.) MENDEL & CO., Cincinnati, Ohio. Filed July 6, 1909.

M

Particular description of goods.—Trunks, Suit-Cases, Grips, and Valises.

Ser. No. 43,437. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MILBRIDGE PACKING CO., Milbridge, Me. Filed July 9, 1909.



Particular description of goods.—Canned Sardines.

Ser. No. 43,455. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BIRMINGHAM MACARONI COMPANY, Birmingham, Ala. Filed July 10, 1909.

MONARCH

Particular description of goods.—Macaroni, Spaghetti, Vermicelli, Noodles, Perciatelli, Maccaroncelli, and other Forms of Macaroni.

Ser. No. 43,509. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) INDEPENDENT COAL & COKE CO., Salt Lake City, Utah. Filed July 14, 1909.



Particular description of goods.—Coal and Coke.

Ser. No. 43,511. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) INDEPENDENT COAL & COKE CO., Salt Lake City, Utah. Filed July 14, 1909.



Particular description of goods.—Coal and Coke.

Ser. No. 43,590. (CLASS 11. INKS AND INKING MATERIALS.) BINNEY & SMITH COMPANY, New York, N. Y. Filed July 17, 1909.

PERMAGRAPH

Particular description of goods.—Marking Paste and Fluids.

Ser. No. 43,619. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) YOUNG, MAHOOD CO., Trenton, N. J., and Pittsburg, Pa. Filed July 17, 1909.



Particular description of goods.—Tea.

Ser. No. 43,950. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) EUREKA SUCTION CO., Loudonville, Ohio. Filed Aug. 3, 1909.



Consisting of the word "Eureka" displayed as shown in the accompanying drawing.

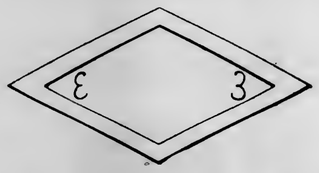
Particular description of goods.—Dental Suction-Cups.

Ser. No. 44,088. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) WARDLOW CUTLERY COMPANY, Walden, N. Y. Filed Aug. 11, 1909.

WARDLOW

Particular description of goods.—Pocket-Knives, Table-Knives, Forks, Shears, and Scissors.

Ser. No. 44,105. (CLASS 3. BAGGAGE, HORSE EQUIPMENTS, PORTFOLIOS, AND POCKET-BOOKS.) JOHN NARIES AND COMPANY, Ross, Iowa. Filed Aug. 12, 1909.



Particular description of goods.—Harness Sweat-Pads.

Ser. No. 44,256. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) J. F. HUMPHREYS & Co., Bloomington, Ill. Filed Aug. 20, 1909.

Cost Mark

Particular description of goods.—Canned Salmon, Sardines, and Blended Coffee.

Ser. No. 44,395. (CLASS 32. FURNITURE AND UPHOLSTERY.) WESSBORG-GAGE COMPANY, Saginaw, Mich. Filed Aug. 28, 1909.



Particular description of goods.—Chairs, Tables, Stands, Racks, Cabinets, Desks, and Chests.

Ser. No. 44,468. (CLASS 37. PAPER AND STATIONERY.) CARTER RICE & Co., CORPORATION, Boston, Mass. Filed Sept. 1, 1909. Used ten years.

OAK TAG

Particular description of goods.—Manila Tag Paper and Cardboard.

Ser. No. 44,524. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) STARK DISTILLERY CO., St. Louis, Mo. Filed Sept. 3, 1909. Used ten years.

Stone Hill

Particular description of goods.—Straight Sour-Mash Whisky.

Ser. No. 44,541. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) J. BOLGIANO & SON, Baltimore, Md. Filed Sept. 4, 1909.

SQUARE DEAL

Particular description of goods.—Chick-Starter, Chick Food, Poultry Food, and Pigeon Food.

Ser. No. 44,651. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE NATURAL FOOD CO., Niagara Falls, N. Y. Filed Sept. 13, 1909.

CHOCONEL

Particular description of goods.—A Cereal Breakfast Food.

Ser. No. 44,726. (CLASS 2. RECEPTACLES.) EPHRAIM WILLIAMS, New York, N. Y. Filed Sept. 16, 1909.

REMINDU

Particular description of goods.—Gasolene-Tanks.

Ser. No. 44,780. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) J. & C. FISCHER, New York, N. Y. Filed Sept. 20, 1909.

FISCHEROLA

Particular description of goods.—Mechanical Piano-Players.

Ser. No. 44,789. (CLASS 39. CLOTHING.) KABO CORSET COMPANY, Chicago, Ill. Filed Sept. 20, 1909.



Particular description of goods.—Maternity-Corsets.

Ser. No. 44,839. (CLASS 37. PAPER AND STATIONERY.) J. C. BLAIR COMPANY, Huntingdon, Pa. Filed Sept. 21, 1909.

BALBRIGGAN

Particular description of goods.—Paper for Writing and Printing Purposes, Drawing-Paper, Pencil-Paper, Envelops, Writing-Tablets, Pencil-Tablets, Drawing-Tablets, Spelling-Tablets, and Blank Books.

Ser. No. 44,848. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) NEW YORK STENCIL WORKS, New York, N. Y. Filed Sept. 21, 1909.



Particular description of goods.—Engraved Steel Letter, Number, and Character Stamps.

Ser. No. 44,873. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ROBERT G. THOMAS & SON, New York, N. Y. Filed Sept. 23, 1909.

AERO

Particular description of goods.—Tea and Coffee.

Ser. No. 44,900. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE DEWEY BROS. COMPANY, Blanchester, Ohio. Filed Sept. 23, 1909. Used ten years.

DEWEY'S

Particular description of goods.—Wheat-Flour.

Ser. No. 44,948. (CLASS 37. PAPER AND STATIONERY.) THE MEAD PULP AND PAPER CO., Dayton, Ohio. Filed Sept. 25, 1909.



Particular description of goods.—Print-Papers Suitable for Magazine, Catalogue, and Book Printing and Similar Classes of Printing.

Ser. No. 44,949. (CLASS 15. OILS AND GREASES.) PENNSYLVANIA OIL WORKS CO., New York, N. Y. Filed Sept. 25, 1909.

FIAT

Particular description of goods.—Lubricating Oils and Grease.

Ser. No. 44,952. (CLASS 17. TOBACCO PRODUCTS.) MOORE & CALVI, New York, N. Y. Filed Sept. 25, 1909. Used ten years.



Particular description of goods.—Smoking and Chewing Tobacco.

Ser. No. 44,998. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) NEW YORK BELTING & PACKING COMPANY, LIMITED, New York, N. Y., and Passaic, N. J. Filed Sept. 28, 1909.

MAGIC

Particular description of goods.—Hose Composed of Rubber, Fabric, and Rubber and Fabric and Combined with Metallic Reinforcing and Protecting Wire.

Ser. No. 45,006. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ALLEN BROTHERS COMPANY, Omaha, Nebr. Filed Sept. 29, 1909.

A.B.C

Particular description of goods.—Flavoring Extracts.

Ser. No. 45,033. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) PAUL BROTHERS MEDICINE CO., Alton, Ill. Filed Sept. 30, 1909.



The portrait on the left being that of Edward C. Paul and the portrait on the right being that of Arthur W. Paul.

Particular description of goods.—A Remedy for Constipation, Biliousness, and Torpidity of the Liver, La Grippe and Malaria.

Ser. No. 45,056. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE WESTERN COFFEE CO., El Paso, Tex. Filed Oct. 1, 1909.

AMBASSADOR

Particular description of goods.—Blended Coffee.

Ser. No. 45,097. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) MANNHEIMER BROS., St. Paul, Minn. Filed Oct. 2, 1909.

CONVENT

Particular description of goods.—Cotton Piece Goods.

Ser. No. 45,127. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE UNITED SOCIETY OF SHAKERS, New Lebanon and Mount Lebanon, N. Y. Filed Oct. 4, 1909. Used ten years.

SHAKERS

Particular description of goods.—Medicinal Vegetable Extracts.

Ser. No. 45,191. (CLASS 39. CLOTHING.) TRIANGLE HOSIERY MILLS, Philadelphia, Pa. Filed Oct. 8, 1909.



Particular description of goods.—Hosiery.

Ser. No. 45,202. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) LOUISVILLE COTTON OIL CO., Louisville, Ky. Filed Oct. 9, 1909.

"IDEAL"

Particular description of goods.—Cotton-Seed Oil.

Ser. No. 45,203. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) LONE STAR BLACKING & MFG CO., Dallas, Tex. Filed Oct. 9, 1909.

BLACK SILK

Particular description of goods.—Shoe and Leather Dressing.

Ser. No. 45,278. (CLASS 39. CLOTHING.) COHEN & PERLSTEIN, New York, N. Y. Filed Oct. 12, 1909.



Particular description of goods.—Women's and Misses' Bloomers and Dress-Waists, Dresses, and Dress-Skirts.

Ser. No. 45,326. (CLASS 15. OILS AND GREASES.) RICHARD CROMWELL CORNER, New York, N. Y. Filed Oct. 14, 1909.



Particular description of goods.—Refined Petroleum and Kerosene.

Ser. No. 45,331. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOHN SCHMELZER, Hoboken, N. J. Filed Oct. 14, 1909.



Consisting of my photograph.

Particular description of goods.—Stomach-Bitters.

Ser. No. 45,340. (CLASS 17. TOBACCO PRODUCTS.) FOSTER CALDARERA & CO., Fort Smith, Ark. Filed Oct. 15, 1909.

ARKOMA

Particular description of goods.—Cigars.

Ser. No. 45,343. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) JAMES H. BOUFORD, Elgin, Ill. Filed Oct. 15, 1909.

POST

Particular description of goods.—Chewing-Gum.

Ser. No. 45,376. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) APPEAL MANUFACTURING & JOBBING CO., Los Angeles, Cal. Filed Oct. 16, 1909. Used ten years.

APPEAL

Particular description of goods.—Bicycles.

Ser. No. 45,395. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BORDEN'S CONDENSED MILK COMPANY, Jersey City, N. J., and New York, N. Y. Filed Oct. 19, 1909.

BATTLESHIP



Particular description of goods.—Condensed Milk, Evaporated Milk, and Evaporated Cream.

Ser. No. 45,399. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BEATRICE POULTRY & COLD STORAGE CO., Beatrice, Nebr. Filed Oct. 19, 1909.

COMET

Particular description of goods.—Dressed Poultry.

Ser. No. 45,412. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CUMBERLAND SOUND PACKING COMPANY, Fernandina, Fla. Filed Oct. 19, 1909.



Particular description of goods.—Canned Oysters.

Ser. No. 45,413. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) C. A. GAMBRILL MANUFACTURING COMPANY, Baltimore, Md. Filed Oct. 19, 1909. Used ten years.

SEVERN MILLS

Particular description of goods.—Wheat-Flour.

Ser. No. 45,420. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) JONES-PADDOCK CO., San Francisco, Cal. Filed Oct. 20, 1909.

ALTA

Particular description of goods.—Fancy Flavored Tea.

Ser. No. 45,433. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE COLTON BROTHERS COMPANY, Bellefontaine, Ohio. Filed Oct. 20, 1909.

Olena

Particular description of goods.—Wheat-Flour.

Ser. No. 45,453. (CLASS 3. BAGGAGE, HORSE EQUIPMENTS, PORTFOLIOS, AND POCKET-BOOKS.) COVERT MFG. CO., Watervliet, N. Y. Filed Oct. 21, 1909.

JUMBO

Particular description of goods.—Harness.

Ser. No. 45,454. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) STANDARD VARNISH WORKS, New York, N. Y. Filed Oct. 21, 1909.

WALLCRETE

Particular description of goods.—A Preparation to be Used as a First-Coater over Cement, Concrete, and other Similar Materials.

Ser. No. 45,456. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) THE BECKLEY RALSTON CO., Chicago, Ill. Filed Oct. 21, 1909.

NEW CENTURY

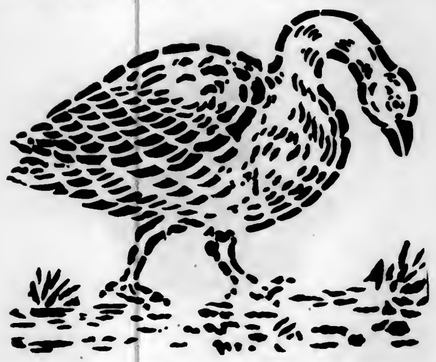
Particular description of goods.—Pneumatic Vehicle-Tires.

Ser. No. 45,461. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) WILLIAM H. ROGERS, Houston, Tex. Filed Oct. 21, 1909. Used ten years.

WILLIAM H. ROGERS

Particular description of goods.—Paints, Varnishes, Stains, and Finishes.

Ser. No. 45,490. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HABICHT BRAUN & CO., New York, N. Y. Filed Oct. 23, 1909.



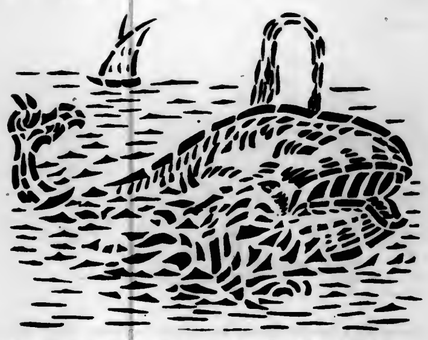
Particular description of goods.—Shelled Almonds.

Ser. No. 45,491. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HABICHT BRAUN & CO., New York, N. Y. Filed Oct. 23, 1909.



Particular description of goods.—Shelled Almonds.

Ser. No. 45,492. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HABICHT BRAUN & CO., New York, N. Y. Filed Oct. 23, 1909.



Particular description of goods.—Shelled Almonds.

Ser. No. 45,493. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HABICHT BRAUN & CO., New York, N. Y. Filed Oct. 23, 1909.



Particular description of goods.—Shelled Almonds.

Ser. No. 45,494. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HABICHT BRAUN & CO., New York, N. Y. Filed Oct. 23, 1909.



Particular description of goods.—Shelled Almonds.

Ser. No. 45,500. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) E. W. BENNETT AND COMPANY, San Francisco, Cal. Filed Oct. 23, 1909.

Rayosol

Particular description of goods.—Metal-Polish.

Ser. No. 45,506. (CLASS 37. PAPER AND STATIONERY.) ANTIETAM PAPER CO. INC., Hagerstown, Md. Filed Oct. 25, 1909.

GIBRALTAR

Particular description of goods.—Writing and Printing Papers and Envelops.

Ser. No. 45,513. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) INDIAN HILL CITRUS ASSOCIATION, North Pomona, Cal. Filed Oct. 25, 1909.

Morning Glory



Particular description of goods.—Citrus Fruits.

Ser. No. 45,515. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) FORT SMITH COFFEE COMPANY, Fort Smith, Ark. Filed Oct. 25, 1909.

PARADISE



Particular description of goods.—Coffee.

Ser. No. 45,528. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) C. A. GAMBRILL MANUFACTURING COMPANY, Baltimore, Md. Filed Oct. 25, 1909. Used ten years.

BEDFORD

Particular description of goods.—Wheat-Flour.

Ser. No. 45,529. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) C. A. GAMBRILL MANUFACTURING COMPANY, Baltimore, Md. Filed Oct. 25, 1909. Used ten years.

CHESAPEAKE

Particular description of goods.—Wheat-Flour.

Ser. No. 45,530. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) C. A. GAMBRILL MANUFACTURING COMPANY, Baltimore, Md. Filed Oct. 25, 1909. Used ten years.

PIMLICO

Particular description of goods.—Wheat-Flour.

Ser. No. 45,556. (CLASS 39. CLOTHING.) THE JOSEPH N. EISENDRATH COMPANY, Chicago, Ill. Filed Oct. 26, 1909.

ABNU

Particular description of goods.—Leather Gloves, Gauntlets, and Mittens.

Ser. No. 45,558. (CLASS 39. CLOTHING.) THE JOSEPH N. EISENDRATH COMPANY, Chicago, Ill. Filed Oct. 26, 1909.

KOZON

Particular description of goods.—Leather Gloves, Gauntlets, and Mittens.

Ser. No. 45,580. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) DR. HESS & CLARK, Ashland, Ohio. Filed Oct. 28, 1909.



Particular description of goods.—A Disinfectant.

Ser. No. 45,611. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WILLIAM LEROY KENNEDY, Stockbridge, Ga. Filed Oct. 29, 1909.



Being my portrait.
Particular description of goods.—A Remedy for Piles.

Ser. No. 45,652. (CLASS 39. CLOTHING.) CARSON GLOVE CO., San Francisco, Cal. Filed Nov. 1, 1909.

Velveta

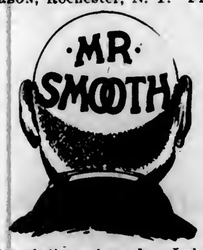
Particular description of goods.—Leather Gloves.

Ser. No. 45,654. (CLASS 39. CLOTHING.) WOODBURY SHOE COMPANY, Portland, Me., and Beverly and Boston, Mass. Filed Nov. 1, 1909.

RED COIN

Particular description of goods.—Boots and Shoes Made Wholly or Partially of Leather.

Ser. No. 45,661. (CLASS 15. OILS AND GREASES.) CHARLES GARBON, Rochester, N. Y. Filed Nov. 1, 1909.



Particular description of goods.—Lubricating-Oil.

Ser. No. 45,675. (CLASS 39. CLOTHING.) WOODBURY SHOE COMPANY, Portland, Me., and Beverly and Boston, Mass. Filed Nov. 2, 1909.

BLUE COIN

Particular description of goods.—Boots and Shoes Made Wholly or Partially of Leather.

Ser. No. 45,678. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) EDWARD COOK AND COMPANY, LIMITED, London, England. Filed Nov. 2, 1909.

COFECTANT

Particular description of goods.—Disinfectants.

Ser. No. 45,718. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) SUSQUEHANNA SILK MILLS, New York, N. Y. Filed Nov. 5, 1909.

Sola

Particular description of goods.—Silk Piece Goods and Silk-Mixed Piece Goods.

Ser. No. 45,724. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CHARLES FREMD, New York, N. Y. Filed Nov. 5, 1909.



Particular description of goods.—An Insecticide.

Ser. No. 45,738. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) CHICAGO CARBON COMPANY, Chicago, Ill. Filed Nov. 6, 1909.

JEWEL

Particular description of goods.—Dry Batteries.

Ser. No. 45,751. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) STAMFORD FOUNDRY COMPANY, Stamford, Conn. Filed Nov. 8, 1909.

TRAINMAN

Particular description of goods.—Heating-Stoves.

Ser. No. 45,754. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) THE BISHOP & BABCOCK CO., Cleveland, Ohio. Filed Nov. 8, 1909

VICTORY

Particular description of goods.—Tacks.

Ser. No. 45,755. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) THE BISHOP & BABCOCK CO., Cleveland, Ohio. Filed Nov. 8, 1909.

TERRIER

Particular description of goods.—Tacks.

Ser. No. 45,756. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) THE BISHOP & BABCOCK CO., Cleveland, Ohio. Filed Nov. 8, 1909.

SUNRISE

Particular description of goods.—Tacks.

Ser. No. 46,022. (CLASS 37. PAPER AND STATIONERY.) EAGLE PENCIL COMPANY, New York, N. Y. Filed Nov. 20, 1909. Used ten years.

EAGLE

Particular description of goods.—Pencil-Point Protectors, Lumber-Leads, Crayons, Stylographic Pens, Pencil-Sharpeners, Penholders, Fountain-Pens, Metallic Pens, Rubber Erasers.

TRADE-MARKS

REGISTERED DECEMBER 21, 1909.

76,134. ROLLS FOR WRINGERS. The American Wringer Company, New York, N. Y.
Filed October 14, 1905. Serial No. 13,622. PUBLISHED OCTOBER 19, 1909.

76,135. FUR WEARING-APPAREL AND FUR ARTICLES. Louis D. Baer, New York, N. Y.
Filed June 3, 1908. Serial No. 35,109. PUBLISHED OCTOBER 19, 1909.

76,136. ENAMELED, FRONT, PAVING, AND FIRE BRICK. Blue Ridge Enameled Brick Co., Newark, N. J.
Filed April 23, 1909. Serial No. 41,957. PUBLISHED OCTOBER 19, 1909.

76,137. ROLLED OATS. Beck Cereal Company, Detroit, Mich.
Filed July 8, 1909. Serial No. 43,423. PUBLISHED OCTOBER 19, 1909.

76,138. IRONING-WAX PADS. Ernst A. Bromund, New York, N. Y.
Filed April 14, 1909. Serial No. 41,765. PUBLISHED OCTOBER 19, 1909.

76,139. SMOKING-TOBACCO, CHEWING-TOBACCO, CIGARS, CIGARETTES, AND SNUFF. Carreras Limited, Aldgate, London, England.
Filed May 17, 1909. Serial No. 42,472. PUBLISHED OCTOBER 19, 1909.

76,140. CANNED FRUITS. Central California Canneries, San Francisco, Cal.
Filed July 23, 1909. Serial No. 43,725. PUBLISHED OCTOBER 19, 1909.

76,141. CANNED FRUITS. Central California Canneries, San Francisco, Cal.
Filed July 23, 1909. Serial No. 43,732. PUBLISHED OCTOBER 19, 1909.

76,142. NATURAL MINERAL WATER. Coyle & Caywood, Weedsport, N. Y.
Filed June 4, 1909. Serial No. 42,832. PUBLISHED OCTOBER 19, 1909.

76,143. RUBBER MACHINERY PACKING, HOSE, AND BELTING. Empire Rubber Mfg. Co., Trenton, N. J.; Chicago, Ill.; New York, N. Y., and Boston, Mass.
Filed May 21, 1909. Serial No. 42,580. PUBLISHED OCTOBER 19, 1909.

76,144. SYRUPS AND EXTRACTS FOR MAKING NON-ALCOHOLIC CARBONATED BEVERAGES. The Ex-Cel-O Company, Montgomery, Ala.
Filed March 29, 1909. Serial No. 41,457. PUBLISHED JUNE 22, 1909.

76,1 WRAPPING-MACHINES. Fellows & Hopkins, Middletown, N. Y.
Filed August 7, 1909. Serial No. 44,024. PUBLISHED OCTOBER 19, 1909.

76,146. WHEEL-TIRES COMPOSED OF RUBBER OR RUBBER AND FABRIC. The Hartford Rubber Works Company, Hartford, Conn., and New York, N. Y.
Filed April 4, 1907. Serial No. 26,471. PUBLISHED OCTOBER 19, 1909.

76,147. WHEAT-FLOUR. Haskell, Adams & Co., Boston, Mass.
Filed August 20, 1909. Serial No. 44,247. PUBLISHED OCTOBER 19, 1909.

76,148. REVOLVERS. The Hopkins and Allen Arms Company, Norwich, Conn.
Filed August 11, 1909. Serial No. 44,087. PUBLISHED OCTOBER 19, 1909.

76,149. TYPE-WRITERS AND PARTS THEREOF. International Textbook Company, Scranton, Pa.
Filed May 27, 1909. Serial No. 42,706. PUBLISHED OCTOBER 19, 1909.

76,150. WHEAT-FLOUR. The Isaac Harter Milling Company, Toledo and Fostoria, Ohio.
Filed August 13, 1909. Serial No. 44,127. PUBLISHED OCTOBER 19, 1909.

76,151. CHOCOLATE CANDY. The Lipps-Murbach Company of Baltimore City, Baltimore, Md.
Filed February 3, 1909. Serial No. 40,312. PUBLISHED OCTOBER 19, 1909.

76,152. BOILER-TUBE CLEANERS. M. H. Thompson Manufacturing Company, Portland, Me.
Filed August 14, 1909. Serial No. 44,148. PUBLISHED OCTOBER 19, 1909.

76,153. LEATHER GLOVES AND LEATHER MITTENS. Milwaukee Glove Co., Milwaukee, Wis.
Filed August 14, 1908. Serial No. 36,730. PUBLISHED OCTOBER 19, 1909.

76,154. BISCUIT. National Biscuit Company, Jersey City, N. J., and New York, N. Y.
Filed July 2, 1909. Serial No. 43,367. PUBLISHED SEPTEMBER 7, 1909.

76,155. STAPLE-LIKE METALLIC FASTENERS. Parker Manufacturing Company, Boston, Mass., assignor to Heaton-Peninsular Button Fastener Company, Boston, Mass., a Corporation of Maine.
Filed April 2, 1908. Serial No. 33,810. PUBLISHED OCTOBER 19, 1909.

76,156. SASH-CORD, TWINE, ROPE, BELL-ROPES, AND CLOTHES-LINE. Puritan Cordage Mills, Louisville, Ky.
Filed July 16, 1909. Serial No. 43,573. PUBLISHED OCTOBER 19, 1909.

76,157. FLAVORING EXTRACTS OF LEMON, VANILLA, AND PEPPERMINT. C. F. Sauer, Richmond, Va.
Filed May 21, 1909. Serial No. 42,591. PUBLISHED OCTOBER 19, 1909.

76,158. LEATHER SHOES. Sherry Shoe Co, Lynn, Mass.
Filed November 5, 1908. Serial No. 38,489. PUBLISHED OCTOBER 19, 1909.

76,159. CHALK. Sté. Anme. des Blancs Minéraux, Amsterdam, Netherlands.
Filed April 24, 1909. Serial No. 41,984. PUBLISHED OCTOBER 19, 1909.

76,160. RUBBER COMBS. The Vulcanized Rubber Co., New York, N. Y.
Filed June 9, 1909. Serial No. 42,918. PUBLISHED OCTOBER 19, 1909.

76,161. CERTAIN FOODS. Western Grocer Company, Marshalltown and Mason City, Iowa.
Filed March 26, 1908. Serial No. 33,648. PUBLISHED APRIL 6, 1909.

76,162. CERTAIN FOODS. WESTERN GROCER COMPANY, Marshalltown, Iowa.
Filed March 26, 1908. Serial No. 33,651. PUBLISHED JUNE 22, 1909.

76,163. CANNED FOOD PRODUCTS. THE CINCINNATI ABATTOIR CO., Cincinnati, Ohio.
Filed June 1, 1908. Serial No. 35,068. PUBLISHED OCTOBER 19, 1909.

76,164. SOAP. WILLIAM C. HATHAWAY, Plymouth, Mass.
Filed August 21, 1909. Serial No. 44,270. PUBLISHED OCTOBER 19, 1909.

76,165. REMEDY FOR INDUCING SLEEP. EVERETT JEROME, New York, N. Y.
Filed July 22, 1909. Serial No. 43,691. PUBLISHED OCTOBER 19, 1909.

76,166. EXTENSION ELECTRIC-LAMP HOLDERS. L. A. WILLIAMSON COMPANY, Boston, Mass.
Filed July 6, 1909. Serial No. 43,413. PUBLISHED OCTOBER 19, 1909.

76,167. CERTAIN SPORTING GOODS. LEE & UNDERHILL, New York, N. Y.
Filed July 26, 1909. Serial No. 43,785. PUBLISHED OCTOBER 19, 1909.

76,168. CANNED AND PRESERVED FRUITS AND VEGETABLES. NAPA CANNING CO., San Francisco, Cal.
Filed July 28, 1908. Serial No. 36,362. PUBLISHED OCTOBER 19, 1909.

76,169. REMEDIES FOR CERTAIN DISEASES. THE SYNVITA MEDICINE CO., Lima, Ohio.
Filed November 21, 1908. Serial No. 38,812. PUBLISHED APRIL 13, 1909.

76,170. CANVAS USED FOR INTERLINING GARMENTS. WM ALSBERG & CO., New York, N. Y.
Filed May 9, 1908. Serial No. 34,675. PUBLISHED OCTOBER 19, 1909.

76,171. STOCK-TONICS. THE ANGLO-AMERICAN STOCK FOOD COMPANY, Chicago, Ill.
Filed August 27, 1908. Serial No. 36,993. PUBLISHED APRIL 13, 1909.

76,172. CERTAIN TEXTILE FABRICS. ARNOLD PRINT WORKS, North Adams, Mass.
Filed May 24, 1909. Serial No. 42,646. PUBLISHED OCTOBER 19, 1909.

76,173. CANNED SALMON. AUSTIN, NICHOLS & CO., New York, N. Y.
Filed July 15, 1909. Serial No. 43,555. PUBLISHED SEPTEMBER 14, 1909.

76,174. CANNED FRUIT. CALIFORNIA FRUIT CANNERS ASSOCIATION, San Francisco, Cal.
Filed December 15, 1908. Serial No. 39,316. PUBLISHED FEBRUARY 16, 1909.

76,175. CANNED FRUITS. CODE-PORTWOOD CANNING CO., Fruitvale, Cal.
Filed March 10, 1909. Serial No. 41,044. PUBLISHED MAY 11, 1909.

76,176. TOILET EMOLLIENTS. CORALENE CURATIVE COMPANY, Boston, Mass.
Filed March 5, 1909. Serial No. 40,936. PUBLISHED OCTOBER 19, 1909.

76,177. ELECTRICAL REGULATORS FOR ELECTRICAL APPARATUS. FORT WAYNE ELECTRIC WORKS, Fort Wayne, Ind.
Filed June 17, 1909. Serial No. 43,057. PUBLISHED OCTOBER 19, 1909.

76,178. CERTAIN CHEMICALS. FUERST BROS. & CO, New York, N. Y.
Filed July 15, 1909. Serial No. 43,537. PUBLISHED OCTOBER 19, 1909.

76,179. REMEDIES FOR COUGHS, CANKERS, AND DIPHTHERIA. SELENA D. HALL, Salt Lake City, Utah.
Filed October 12, 1908. Serial No. 37,972. PUBLISHED JANUARY 12, 1909.

76,180. DRY BATTERIES. IRON CITY ENGINEERING COMPANY, Pittsburg, Pa.
Filed June 5, 1909. Serial No. 42,854. PUBLISHED OCTOBER 19, 1909.

76,181. LARD. JACOB DOLD PACKING COMPANY, Buffalo, N. Y.
Filed April 6, 1908. Serial No. 33,874. PUBLISHED DECEMBER 8, 1908.

76,182. CERTAIN METALS. LEDDELL-BIGELOW COMPANY, New York, N. Y.
Filed April 30, 1909. Serial No. 42,152. PUBLISHED OCTOBER 19, 1909.

76,183. TRADING-STAMPS. MCKELVEY COMPANY, Pittsburg and Scranton, Pa., and Minneapolis and St. Paul, Minn.
Filed April 21, 1909. Serial No. 41,905. PUBLISHED JUNE 22, 1909.

76,184. CERTAIN VEHICLES AND PARTS THEREOF. NECKARSULMER FAHRRADWERKE, ACT.-GES., Neckarsulm, Germany.
Filed July 20, 1907. Serial No. 28,910. PUBLISHED OCTOBER 19, 1909.

76,185. PEPPER, SPICES, AND TAPIOCA. PARRISH BROTHERS, INC., Baltimore, Md.
Filed May 21, 1909. Serial No. 42,593. PUBLISHED OCTOBER 19, 1909.

76,186. COLLAR-CLIPS AND COLLAR-BUTTONS. JOSEPH & SCHOEN, Cedar Rapids, Iowa.
Filed June 30, 1909. Serial No. 43,336. PUBLISHED OCTOBER 19, 1909.

76,187. CERTAIN FOODS. THE SQUIRREL BRAND COMPANY, Cambridge, Mass.
Filed February 7, 1907. Serial No. 25,189. PUBLISHED JULY 21, 1908.

76,188. REFINED PETROLEUM. STANDARD OIL CO. OF NEW YORK, New York, N. Y.
Filed August 13, 1909. Serial No. 44,124. PUBLISHED OCTOBER 19, 1909.

76,189. COTTON-SEED MEAL FOR FEEDING PURPOSES. THE UNION OIL COMPANY, West New York, N. J., and New Orleans, La.
Filed May 21, 1909. Serial No. 42,563. PUBLISHED OCTOBER 19, 1909.

76,190. SILK PIECE GOODS. THE VALENTINE & BENTLEY SILK CO., Newton, N. J., and New York, N. Y.
Filed May 6, 1908. Serial No. 34,603. PUBLISHED OCTOBER 19, 1909.

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

COMMISSIONER'S DECISIONS.

EX PARTE WAGNER.

Decided November 22, 1909.

REOPENING CASE AFTER APPEAL.

An inventor is presumed to know the essence of his invention before it is filed, certainly before it has been prosecuted through an appeal, and the mere statement that a certain feature has been found to be important is not a showing of sufficient cause to justify reopening the case to admit new claims.

ON PETITION.

INCUBATOR-THERMOMETER.

Mr. Fred B. Fetherstonhaugh and *Mr. Ellis Spear* for the applicant.

MOORE, *Commissioner:*

This is a petition requesting the admission and consideration of an amendment canceling the three claims now in the case and presenting one claim in lieu thereof.

The three claims were rejected by the Primary Examiner on May 7, 1909. An appeal was taken from this action to the Examiners-in-Chief, who rendered a decision affirming the action of the Primary Examiner. No appeal from the latter decision has been taken.

Rule 142 provides that cases which have been decided by the Examiners-in-Chief will not be reopened by the Primary Examiner except upon the written authority of the Commissioner—

and then only for the consideration of matters not already adjudicated upon, sufficient cause being shown.

As pointed out by the Primary Examiner in his statement responding to this petition, the subject-matter of the proposed claim is substantially embraced in the pending claims, particularly claim 2. It is at best but a colorable variation of the appealed claims and could in no sense be considered as matter "not adjudicated" within the meaning of Rule 142.

The rule also requires that a showing of sufficient cause for reopening the case be made. In this instance the only showing made is that—

* * * the applicant has found, since the appeal, that the important feature of the invention is in having the bulb or lower portion of the thermometer incased within a shell—

of a particular size. Why he did not find this out earlier does not appear. An inventor is presumed to know the essence of his invention before the case is filed, certainly before it has been prosecuted through an appeal.

Inasmuch as neither of the conditions necessary for the reopening of a case under the provisions of the rule quoted is found to be present, the petition must be denied.

DECISIONS OF THE U. S. COURTS.

Court of Appeals of the District of Columbia.

MOORE, COMMISSIONER OF PATENTS, *v.* HEANY, THE HEANY COMPANY, AND THE HEANY LAMP CO.

Decided November 2, 1909.

1. COMMISSIONER OF PATENTS—POWER TO INVESTIGATE THE CONDUCT OF HIS OFFICE.

The Commissioner of Patents is the official head of a great and important public office and has the power to institute investigations into the conduct of his Office generally, with a view to the efficiency of the service and the eradication of corrupt practice, if such are found to exist. The manner in which such investigation shall be conducted is a matter within his discretion, and no court is vested with supervisory authority over him.

2. SAME—SAME.

The Commissioner has the power, either in an *ex parte* or an interference case, to inquire and determine whether an application has been altered or substituted without authority. Whether such alteration shall have been made by the attorney of the applicant with the latter's connivance or consent is immaterial. The efficacy of the application would be destroyed by such alteration.

3. PRACTICE OF THE PATENT OFFICE—AUTHORITY OF THE COURTS THEREOVER.

The courts are vested with no power to interfere with or supervise the practice of the Patent Office. It is only in cases where a hearing is refused a party or the Commissioner refuses to perform a plain duty or where he undertakes to do an unwarranted act for which there is no other adequate remedy that the courts are authorized to interfere by mandamus or injunction.

4. ALTERATION OF APPLICATIONS—CRIMINAL PROCEEDING—RES ADJUDICATA.

The power of the Commissioner to declare as a result of investigation that an application has been destroyed by the reason of alteration is not affected by the fact that in a criminal prosecution against the applicant, his attorney, and another for conspiracy in the matter of such alterations the applicant was acquitted. The question adjudicated in the criminal proceedings was not whether the application had been altered, but whether the applicant was a guilty party thereto. The fact of alteration is not *res adjudicata*.

Mr. J. C. Adkins and *Mr. Frank C. Skinner* for the appellant.

Mr. C. A. Douglas, Mr. J. H. Hayden, and *Mr. Marcellus Bailey* for the appellees.

SHEPARD, *C. J.*:

This is an appeal from the decree of the equity court ordering a preliminary injunction restraining the Commissioner of Patents from further proceeding in an investigation of certain charges relating to tampering with applications for patents, that was about to be prosecuted by the Commissioner.

The motion for the injunction was heard on bill, answer to rule to show cause, and demurrer.

The undisputed facts are the following:

Between December 29, 1904, and November 19, 1901, John A. Heany filed twelve applications for patents, duly verified by oath, and paid the required fees.

The inventor's claims related to filaments for incandescent lamps, and to processes for making such filaments.

Certain of these applications had been assigned to the Heany Company and the Heany Lamp Company which joined in the bill.

On February 8, 1909, A. F. Kinnan, Principal Examiner, Division 37, of the Patent Office, addressed a communication to the Commissioner, in which he charged that fraudulent alterations had been made in the specifications of certain applications, and forgeries perpetrated in connection therewith. Without setting those out, it is sufficient to say that the alterations consisted in removing certain sheets of the specifications and substituting others differing in some essential particulars. The forgeries consisted of signatures to amendments, and filing dates and marks on the same, in certain cases that had become abandoned for failure to take action within a year, these forged filings, showing a date just before the lapse of the year, for the purpose of preventing the effect of abandonment. Some of these substitutions and changes were for the purpose of showing invention of processes for which patents had later been applied for by others. It was charged that these alterations and forgeries were committed by one Barton, then an Assistant Examiner, in said department, with the coöperation of one Everding, attorney for Heany, and that Heany abetted and connived at said acts.

Upon receipt of this communication, the Commissioner addressed a notice to Heany accompanied by a copy of the charges, requiring him to answer on or before March 1, 1909, as to the truth of the same, and to show cause why certain of the applications should not be stricken from the files of the Office and certain others held to be abandoned. The notice concluded as follows:

> Upon failure to make answer or to deny the truth of any charge, the same will be considered true and such action will be taken thereon as deemed proper. Upon receipt of your answer to the charges, times and places will be set for the taking of such testimony as may be necessary to prove the truth of said charges, and you will be notified thereof, and an opportunity will be given you to be present and cross-examine the witnesses, and to produce such witnesses as you may desire to testify in your behalf.

Heany appeared and filed an answer, signed by himself and counsel. The first paragraph is an exception to the Commissioner's power to strike an application from the files. The remaining paragraphs relate to the specific charges. They do not deny that the changes were made, but say that respondent is not sufficiently advised to form a belief as to the alleged acts of Barton and Everding; but that if done the act was without his knowledge, consent or connivance. In support of his want of knowledge and consent he avers a trial on a joint indictment against Barton, Everding and himself, and his acquittal of the said charge on December 23, 1908, which is *res adjudicata*. The Heany Company and the Heany Lamp Company also filed answers setting up their respective assignments, and denying any knowledge of the alleged frauds.

About April 3, 1909, Hans Kuzel, Just and Hanaman and one Von Bolton, parties to interferences that had been declared with Heany's applications, aforesaid, filed petitions in said proceedings, alleging substantially the same facts charged by Kinnan, asking that Heany's application No. 238,769, and division application No. 322,781, be stricken from the files and treated as nullities, and that the interferences be dissolved.

Hearing on these petitions, to which Heany was cited to answer on or before May 1, 1909, was appointed for the same day as that on Kinnan's charges, which had been postponed.

The Commissioner had caused investigation to be made of irregularities of the Heany application in February, 1908. As a result, indictments were presented in the supreme court of the District shortly thereafter, charging Heany, Barton and Everding in several counts, with conspiracy in the matter of altering and changing the applications aforesaid. Three of these indictments are set out in the records as exhibits. These had been consolidated for trial and resulted as follows: Barton pleaded guilty, Everding was tried and found guilty and Heany was acquitted. Judgment was entered in accordance therewith.

Before a hearing could be had on the charges and answers thereto, in the Patent Office, this bill was filed. The prayer was for a writ of injunction restraining the Commissioner from striking the said applications of Heany from the files, or—

> from otherwise proceeding as and in the manner contemplated by the several orders to show cause aforesaid.

From the order granting the injunction, the Commissioner obtained a special appeal on application. He also took a general appeal. There has been no motion to dismiss either appeal and they have been heard together.

John A. Heany, as the sole inventor, is the applicant for the patent in each case pending in the Patent Office and whether he has assigned his interests in the inventions or not, the applications must be prosecuted in his name. Whether his assignees are proper parties as complainants in this bill is a question that was not presented in the court below, and will not, therefore, be considered as involved here.

The injunction granted not only restrains the Commissioner of Patents from taking any action affecting the applications of Heany, but also prohibits him from prosecuting the investigation of the charge of corrupt practices in his Office relating thereto.

The Commissioner of Patents, is the official head and administrator of a great and important public office. The duties devolved upon him are both executive and judicial in their character. As an executive officer it is his duty to see that the business of the Office is carried on honestly, methodically and with reasonable despatch. As regards every application for a patent, there are two interests involved, that of the applicant and that of the public. It is the duty of the Commissioner to see that the formal requirements of the statutes relating to applications are complied with. When an application is found to be sufficient in form it then becomes his duty to inquire and determine if the applicant is justly entitled to the patent as claimed. The investigation of the claim involves the adjudication of disputed questions of fact, upon scientific or legal principles. The proceeding is essentially judicial in its character.

As a necessary incident of these general powers, the Commissioner has the power to institute investigations into the conduct of his Office generally with a view to the efficiency of the service and the eradication of corrupt practices, if such are found to exist.

In what manner such investigations shall be conducted and testimony elicited, is a matter within the discretion of the Commissioner, and no court is vested with supervisionary power over him. To the extent then, that the injunction restrains any inquiry into the charges of improper practices in relation to the pending applications, it is clearly erroneous. Whenever, as the result of such investigation, the Commissioner undertakes action that would injuriously affect an applicant's right of property, or tend to deprive him thereof, he must act by authority of, and according to due process of law.

In so far, however, as the proposed investigation of the charges of fraudulent alterations of Heany's applications might incidentally affect his interests, due process of law seems to have been pursued. Copies of the charges were delivered to him and notice was given also that testimony would be taken with an opportunity to hear and cross-examine the witnesses to be introduced, as well as to offer any testimony in opposition. Just and careful regard was had for the incidental rights and interests of Heany in these preliminary steps.

It does not follow from proceedings so begun that the charges would necessarily be sustained, and moreover that the Commissioner proposed to destroy inchoate rights of the applicant in such manner that he would be deprived of a right to appeal from this final order in the premises.

The injunction not only went farther than there is any warrant for, as above intimated, but in so far as it seeks to protect the ultimate rights of the applicant it is at least premature.

But assuming, as has been contended, that the avowed purpose of the proposed investigation was to furnish a foundation for striking the applications from the files, and that such would be its probable result, has the equity court the power to restrain the Commissioner?

The power to enjoin the action of an executive officer, or of a subordinate tribunal, in a given case, rests upon the same foundation as that to compel action by mandamus. As has been held recently in an analogous case, the writ of mandamus cannot be used to perform the office of an appeal by writ of error; nor will it lie where there is another plain and adequate remedy for the injury done. (*Moore v. Lindmark*, present term, 149 O. G., 310.)

It is not necessary to determine whether Rule 31 of the Patent Office, under which the Commissioner claims the power to strike from the files an application that has been fraudulently altered, is in its entire scope consistent with the statutes governing procedure in the Office. The question is a difficult one, and it may be conceded that it is doubtful if it is so to the full extent of the scope claimed for it. Clearly, however, the Commissioner has the power either in an *ex parte* or an interference case to inquire and determine whether an application has been altered or substituted without authority. Whether such an alteration shall have been made by the attorney of the applicant, with the latter's connivance or consent, is immaterial. The efficacy of the application would be destroyed by such alteration. It would no longer be the application contemplated by the statute as the foundation of the patent. Nor is the power to so declare, as the result of investigation, barred by the adjudication in the criminal case. The question adjudicated therein was not whether the application had been altered, but whether the applicant was a guilty party thereto. The fact of alteration is not *res adjudicata*.

It is conceded that if instead of striking the application from the files on account of an alteration, or unauthorized amendment, the Commissioner should reject it formally, an appeal would lie to this court from the order of rejection. But if instead of a formal rejection, the Commissioner should order the application stricken from the files, it seems to the writer that an appeal would also lie from that order.

A court would look to the substance, the necessary effect and operation of the order rather than to its formal recital merely. Surely the Commissioner may not, by striking an application from the files, when regularity required its rejection for the same cause, take away an applicant's right of appeal. No matter what the form of the order the effect is substantially the same, namely, the final refusal of a patent to which the party might justly be entitled. We do not decide this point, however, as our decision may be rested upon another and more satisfactory ground.

We cannot entertain a presumption that the Commissioner has predetermined the action to be taken as a result of his investigation. We must presume that if he finds the alterations to have been made,

but without the knowledge and consent of the applicant, he will permit it to be corrected so as to restore it to its condition as originally filed. In that event there will be nothing of which the applicant can complain.

If, on the other hand, he finds that it was tampered with by the connivance and approval of the applicant, he will probably enter an order rejecting the application, leaving the applicant his right to appeal therefrom. We cannot presume that he will not. Should he strike the application from the files, and it should transpire that no appeal could be prosecuted from that order, the applicant might then proceed by mandamus to compel him to vacate that order and give the applicant a hearing on his right to have his application entered. No such irreparable injury could result, under the conditions suggested, as would warrant the interposition of a court of equity.

The courts are invested with no power to interfere with or supervise the practice of the Patent Office. It is only in cases where a hearing is refused a party, or the Commissioner refuses to perform a plain duty, or where he undertakes to do an unwarranted act, for which there is no other adequate remedy that the courts are authorized to interfere by mandamus or injunction.

No such case is presented on this record. The decree for the injunction will be reversed, with costs, and the cause remanded with direction to dismiss the bill.

Supreme Court of the United States.

RUMFORD CHEMICAL WORKS *v.* HYGIENIC CHEMICAL COMPANY OF NEW JERSEY. HYGIENIC CHEMICAL COMPANY OF NEW YORK *et al. v.* RUMFORD CHEMICAL WORKS.

Decided November 29, 1909.

EVIDENCE—SUIT FOR INFRINGEMENT OF PATENT—FORMER SUIT—PRIVIES.

The mere fact that defendants in a suit for infringement of a patent contributed to the defense in a prior suit on the same patent against other parties, it not being shown that the present defendants had the right to intermeddle in any way in the conduct of that case, does not render them privies to such prior suit, and the testimony of a witness therein, since deceased, is inadmissible against them to establish infringement.

Mr. Philip Mauro and *Mr. C. A. L. Massie* for the Rumford Chemical Works.

Mr. Edwin T. Rice and *Mr. Willard Parker Butler* for the Hygienic Chemical Company.

Mr. Justice HOLMES delivered the opinion of the Court.

These are two suits in equity brought by the Rumford Chemical Company for the infringement of a patent for baking-powders; one, No. 9, brought in the third circuit, New Jersey, against the Hygienic Chemical Company, a corporation of that State; the other, No. 121, brought in the second circuit, New York, against a New York corporation of the same name. The two cases were tried on substantially the same record and evidence, with the result that in New Jersey the bill was dismissed by the circuit court of appeals, (154 Fed. Rep., 65; 83 C. C. A., 177,) but in New York the bill was sustained. (159 Fed Rep., 436; 86 C. C. A., 416.) Writs of certiorari were granted by this Court.

The defendants rested on the plaintiff's evidence and the question in both suits was whether a *prima facie* case had been made out. It did not appear that the defendants made or sold baking-powders as such, but the New Jersey company did make acid phosphates for baking-powders and other purposes, and the New York company sold the great part of its products. The plaintiff contended that this acid phosphate had the characteristics described in its patent, and was made and sold for use in baking-powders, and that the manufacture and sale were an infringement of its rights. A previous decision, (*Rumford Chemical Works* v. *New York Baking Powder Co.*, 134 Fed. Rep., 385; 67 C. C. A., 367,) establishing the patent, was relied upon as a test case by which the defendants were bound, but, except the final decree, entered after the beginning of the present suits, the record was not put in. It would seem, from a late case, that the plaintiff was correct in point of fact, (*Provident Chemical Works* v. *Hygienic Chemical Co.*, 170 Fed. Rep., 523,) but the question here must be discussed, of course, on the evidence before the court below. The question is material as bearing upon the admissibility of the evidence of one Clotworthy, since dead, given in the suit against the New York Baking Powder Company, upon which the plaintiff relied.

Clotworthy was the president and general manager of the Clotworthy Chemical Company and was a manufacturer of baking-powder. He testified to the purchase from the Hygienic Company of New York of a barrel of granular acid phosphate, shown to be similar to that described in the plaintiff's patent. A bill from the New Jersey company and a receipt from the New York company also were produced and put in. The courts in both circuits rightly regarded this as the most important, if not the only evidence to make out the infringement alleged. Therefore it was necessary that the plaintiff should prove that the defendants were privy to the New York Baking Powder Company's case.

To prove privity Heller, the president of the defendant companies, was called and asked as to his testimony on the former occasion. He admitted that he then had testified that—

> we are manufacturers of granulated acid phosphate and are selling to the trade in the same way as—

the former defendants; also that he had testified that—

> we have [undertaken to assist in bearing the burdens of this defense and have contributed to the defense] financially and otherwise.

By the natural interpretation of the word in the connection in which it was used "we" embraced the New Jersey company, and fairly may be argued to have meant both. Heller swore that these answers were true, but with the qualification that he did not think that the New Jersey corporation contributed financially, and that he did not remember whether it did otherwise. All the courts agree that the privity of the New Jersey corporation was

not made out. Probably all, and at least the circuit court of appeals and the circuit court for the third circuit, (148 Fed. Rep., 862,) agree that if Clotworthy's testimony is excluded infringement is not proved. We should not revise this finding of both courts on the facts, and therefore it follows that the New Jersey decree must be affirmed. The evidence on both sides is discussed in 148 Fed. Rep., 862.

It appears that the New York company contributed to the expenses of the former case. But that fact alone is not enough to warrant a different result. The agreement disclosed in 170 Fed. Rep., 523, was not before the court. We may reject as extravagant the suggestion that the contribution may have been made from charitable motives, and assume that it was induced by reasons of business and indirect interest, but it was not shown that as between the present and former defendants either Hygienic company had the right to intermeddle in any way in the conduct of the case. The Hygienic companies would have been glad to see the Rumford patent declared void and were willing to pay something to that end. That was all and that did not make them privies, and therefore the Clotworthy deposition was not admissible against them. (*Litchfield* v. *Goodnow*, 123 U. S., 549, 550.) Whether if it had been admitted, infringement could have been inferred from the sale of a barrel of granular acid phosphate to a manufacturer of baking-powder need not be considered. There was other evidence in the case.

Decree in No. 9 affirmed. Decree in No. 121 reversed.

ADJUDICATED PATENTS.

The Daugherty patent, No. 481,477, for a typewriter, claims 37 and 38 construed and *Held* not infringed. *Union Typewriter Co.* v. *L. C. Smith & Bros.*, (C. C.,) 173 Fed. Rep., 288.

The Lord patent, No. 548,074, for a trolley pole and rope controller, claim 4 construed and *Held* not infringed. *Wilson Trolley Catcher Co.* v. *Frank Ridlon Co.*, (C. C.,) 173 Fed. Rep., 308.

The Carroll patents, No. 561,485, for a load-dumping apparatus, and No. 595,236, for an improvement thereon, both *Held* valid and infringed. *Los Alamitos Sugar Co.* v. *Carroll*, (C. C. A.,) 173 Fed. Rep., 280.

The Gaines and Cox patent, No. 760,189, for plant for feeding metallurgical furnaces, *Held* not void on its face. *Gaines* v. *Alabama Consol. Coal & Iron Co.*, (C. C.,) 173 Fed. Rep., 303.

The Fullman patent, No. 771,774, for an apparatus for copying drawings, *Held* not anticipated, valid, and infringed. *Youngstown Car Mfg. Co.* v. *B. K. Elliott Co.*, (C. C.,) 173 Fed. Rep., 315.

The Soistmann patent, No. 873,908, for a horn for talking-machines, claim 3 construed and *Held* not infringed. *Excelsior Drum Works* v. *Sheip & Vandegrift*, (C. C.,) 173 Fed. Rep., 312.

The Conroy reissue patent, No. 12,789, (original No. 723,139,) for a machine for chipping the edge of glass articles, is valid. *Conroy* v. *Penn Electrical & Mfg. Co.*, (C. C.,) 173 Fed. Rep., 299.

Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., December 11, 1909.

John L. Rodgers & Co., their assigns or legal representatives, take notice:

An interference having been declared by this Office between the applications of Austin, Nichols & Co., of 61 Hudson street, New York, N. Y., and Roy A. Davis, of Gibbon, Nebr., for registration of a trade-mark and a trade-mark registered to John L. Rodgers & Co., of 218 Spears Wharf, Baltimore, Md., and the notice of said declaration sent by the Patent Office by registered mail to the said John L. Rodgers & Co. having been returned undelivered, notice is hereby given to said John L. Rodgers & Co., their assigns or legal representatives, that if they or any of them desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents in order that the notice of declaration heretofore sent by and returned to the Office may be forwarded to them.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall be entered at the expiration of the period of publication, the interference will be proceeded with as in case of default.

EDWARD B. MOORE, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., December 9, 1909.

Kuhn Bros., their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The Feder Silberberg Company, of 30 and 32 West Third street, Cincinnati, Ohio, for registration of a trade-mark and a trade-mark registered to Kuhn Bros., of 945–947 Fifth street, San Diego, Cal., and the notice of said declaration sent by the Patent Office by registered mail to the said Kuhn Bros. having been returned undelivered, notice is hereby given to the said Kuhn Bros., their assigns or legal representatives, that if they or any of them desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents in order that the notice of declaration heretofore sent by and returned to the Office may be forwarded to them.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall be entered at the expiration of the period of publication, the interference will be proceeded with as in case of default.

EDWARD B. MOORE, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., December 1, 1909.

Davidson & Knowles Company, its assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The Warren Paint Company, of Warren, Ohio, for registration of a trade-mark and trade-marks registered to C. A. Reeve & Company, of 251–252 West Fayette street, Syracuse, N. Y., and Davidson & Knowles Company, of 51 Barclay street, New York, N. Y., respectively, and the notice of said declaration sent by the Patent Office by registered mail to the said Davidson & Knowles Company having been returned by the Post-Office Department, notice is hereby given to the said Davidson & Knowles Company, its assigns or legal representatives, that if they or any of them desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents in order that the notice of declaration heretofore sent by and returned to the Office may be forwarded to them.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall be entered at the expiration of the period of publication, the interference will be proceeded with as in case of default.

EDWARD B. MOORE, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., November 23, 1909.

Tourist Cycle Company, its assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Melvin J. Foyer, of Toledo, Ohio, for registration of a trade-mark and trade-marks registered to the Tourist Cycle Company, of Syracuse, N. Y., and George R. Bidwell Cycle Company, of New York, N. Y., respectively, and the notice of said declaration sent by the Patent Office by registered mail to the said Tourist Cycle Company having been delivered to Roy Porter as agent for E. C. Stearns, and neither of these names appearing of record in the Tourist Cycle Company's registration, and no evidence having been furnished, within a time allowed by the Office for that purpose, that E. C. Stearns and Roy Porter are authorized to accept service for this company, notice is hereby given that if the said Tourist Cycle Company, its assigns or legal representatives, desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents in order that the notice of declaration heretofore sent by and returned to the Office may be forwarded to them.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall be entered at the expiration of the period of publication, the interference will be proceeded with as in case of default.

EDWARD B. MOORE, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., November 22, 1909.

Percy Warren Noble, his assigns or legal representatives, take notice:

An interference having been declared by this Office between a patent granted to Percy Warren Noble, of New York, N. Y., on March 24, 1908, No. 883,146, application for which was filed November 23, 1907, No. 403,493, for bearing for supporting radiators in automobile-frames, and applications for patents filed by James E. Woodbridge, of Bridgehampton, N. Y., and Giovanni Enrico, of Turin, Italy, respectively, and the notice of said declaration sent by the Patent Office by registered mail to the said Percy Warren Noble at New York, N. Y., having been returned by the Post-Office Department, notice is hereby given to the said Percy Warren Noble, his assigns or legal representatives, that if they or any of them desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents in order that the notice of declaration heretofore sent by and returned to the Office may be forwarded to them.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall be entered at the expiration of the period of publication, the interference will be proceeded with as in case of default.

E. B. MOORE, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., November 17, 1909.

Edward M. Wilcox and William Jay Hopkins, their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Orville Simpson, of 1956 West Sixth street, Cincinnati, Ohio, for registration of a trade-mark and a trade-mark registered to Edward M. Wilcox and William Jay Hopkins, of Whitewater, Wis., and the notice of said declaration sent by the Patent Office by registered mail to the said Edward M. Wilcox and William Jay Hopkins having been returned undelivered, notice is hereby given to said Edward M. Wilcox and William Jay Hopkins, their assigns or legal representatives, that if they or any of them desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents in order that the notice of declaration heretofore sent by and returned to the Office may be forwarded to them.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall be entered at the expiration of the period of publication, the interference will be proceeded with as in case of default.

EDWARD B. MOORE, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., November 12, 1909.

Harry H. Schuster, his assigns or legal representatives, take notice:

An interference having been declared by this Office between an application for patent filed by Charles H. J. Dilg and Jonathan O. Fowler and a patent granted to Harry H. Schuster and David Maier as joint inventors, and the notice of said declaration sent by registered mail by the Patent Office to said Harry H. Schuster, one of the joint patentees, having been returned by the Post-Office Department, notice is hereby given to said Harry H. Schuster, his assigns or legal representatives, that if they or any of them desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents in order that the notice of declaration heretofore sent by and returned to the Office may be forwarded to them.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall be entered at the expiration of the period of publication, the interference will be proceeded with as in case of default.

EDWARD B. MOORE, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 28, 1909.

J. A. Meierdiercks and Sons, their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of L. Pickert Fish Company, of Boston, Mass., for registration of a trade-mark and a trade-mark registered to Yzermans & Company, of Vlaardingen, Netherlands, and also a trade-mark registered to J. A. Meierdiercks and Sons, of 710 Water street and 36 Harrison street, New York, N. Y., and the notice of said declaration sent by the Patent Office by registered mail to the said J. A. Meierdiercks and Sons having been returned by the Post-Office Department, notice is hereby given to the said J. A. Meierdiercks and Sons, their assigns or legal representatives, that if they or any of them desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents in order that the notice of declaration heretofore sent by and returned to the Office may be forwarded to them.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall be entered at the expiration of the period of publication, the interference will be proceeded with as in case of default.

C. C. BILLINGS, *Acting Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., November 10, 1909.

Johannes Dönitz, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Reginald A. Fessenden, of Brant Rock, Mass., for patent on an electrical measuring instrument and the patent granted to Johannes Dönitz, of Berlin, Germany, on June 21, 1904, No. 763,164, and the notice of said declaration sent by the Patent Office by registered mail to the said Johannes Dönitz having been returned undelivered, notice is hereby given to the said Johannes Dönitz, his assigns or legal representatives, that if they or any of them desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents in order that the notice of declaration heretofore sent by and returned to the Office may be forwarded to them.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall be entered at the expiration of the period of publication, the interference will be proceeded with as in case of default.

EDWARD B. MOORE, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., November 4, 1909.

The Wolff Chemical Company, its assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Edna S. Frisbie, of Crystal Lake, Ill., for registration of a trade-mark and a trade-mark registered to The Wolff Chemical Company, of 145 North Fourth street, Philadelphia, Pa., and the notice of said declaration sent by the Patent Office by registered mail to The Wolff Chemical Company having been delivered to Leatherford Company and said Leatherford Company having failed to comply with the requirement of the Office letter of September 11, 1909, to either call attention to an assignment from The Wolff Chemical Company of record in the Office prior to the declaration of the interference or to file an application for registration, notice is hereby given The Wolff Chemical Company, its assigns or legal representatives, that if they or any of them desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents in order that the notice of declaration may be sent to them.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall be entered at the expiration of the period of publication, the interference will be proceeded with as in case of default.

EDWARD B. MOORE, *Commissioner.*

THE
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OF THE
United States Patent Office.
[BY AUTHORITY OF CONGRESS.]

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Patents	761	No. 944,249 to No. 945,009, inclusive.
Designs	9	No. 40,415 to No. 40,423, inclusive.
Trade-Marks	76	No. 76,191 to No. 76,266, inclusive.
Labels	2	No. 15,072 to No. 15,073, inclusive.
Reissues	6	No. 13,060 to No. 13,065, inclusive.
Total	854	

TO CITIZENS OF THE UNITED STATES.

States.	Patents and Designs.	Trade-Marks and Labels.	States.	Patents and Designs.	Trade-Marks and Labels.
Alabama	5	.....	Ohio	49	4
Arkansas	2	.....	Oklahoma	8	.....
California	31	2	Oregon	6	1
Colorado	11	.....	Pennsylvania	89	6
Connecticut	21	1	Rhode Island	3	.....
Delaware	2	.....	South Carolina	2	.....
Florida	3	.....	South Dakota	1	.....
Georgia	11	.....	Tennessee	3	1
Idaho	1	.....	Texas	16	2
Illinois	76	4	Utah	.....	.....
Indiana	20	2	Vermont	2	.....
Iowa	15	.....	Virginia	2	1
Kansas	7	.....	Washington	10	1
Kentucky	2	8	West Virginia	7	.....
Louisiana	6	.....	Wisconsin	15	1
Maine	1	1	Wyoming	1	.....
Maryland	4	1			
Massachusetts	42	2	Alaska, District of	.....	.....
Michigan	17	1	Arizona Territory	1	.....
Minnesota	13	3	District of Columbia	8	.....
Mississippi	1	1	Hawaii Territory	.....	.....
Missouri	20	5	New Mexico Ter't'y	1	.....
Montana	.....	.....	Panama	.....	.....
Nebraska	7	.....	Philippine Islands	.....	.....
Nevada	1	.....	U. S. Army	1	.....
New Hampshire	3	.....	U. S. Navy	.....	.....
New Jersey	25	2			
New York	97	23	Total to citizens of the United States	675	74
North Carolina	3	1			
North Dakota	3	.....			

TO CITIZENS OF FOREIGN COUNTRIES.

Countries.	Patents and Designs.	Trade-Marks.	Countries.	Patents and Designs.	Trade-Marks.
Argentina	1	.....	Natal	.....	.....
Austria-Hungary	6	.....	Netherlands	.....	.....
Belgium	1	.....	Newfoundland	.....	.....
Brazil	.....	.....	New South Wales	1	.....
British West Indies	.....	.....	New Zealand	.....	.....
Canada	9	.....	Norway	1	.....
Cape Colony	.....	.....	Persia	.....	.....
Chile	.....	.....	Queensland	.....	.....
China	.....	.....	Russia	1	.....
Costa Rica	.....	.....	Scotland	3	.....
Cuba	.....	.....	South Australia	.....	.....
Denmark	1	.....	Spain	.....	.....
Ecuador	.....	.....	Sweden	2	.....
England	22	1	Switzerland	6	.....
France	10	.....	Tasmania	1	.....
Germany	25	3	Transvaal, South Africa	1	.....
Haiti	.....	.....	Victoria	.....	.....
Ireland	.....	.....	Western Australia	.....	.....
Italy	3	.....			
Japan	.....	.....	Total to citizens of foreign countries	95	4
Java	1	.....			
Mexico	.....	.....			

Modified Order Relating to Executors and Administrators.

(ORDER No. 1,827.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 22, 1909.

Order No. 1,792, dated January 20, 1909, published in volume 138 of the OFFICIAL GAZETTE, page 970, is modified by directing that whenever the right of applying for and obtaining a patent for an invention devolves upon an executor or administrator of a deceased inventor, or when the executor or administrator intervenes in the prosecution of an application, the proof of authority of such executor or administrator referred to in said order shall in all cases be recorded in the assignment records of this Office. A reference to this record should be placed in each application involved. This order will apply also to cases arising under section 4896, Revised Statutes.

(Signed) C. C. BILLINGS,
Acting Commissioner.

Communications to the Patent Office.

RULE 9. A separate letter should in every case be written in relation to each distinct subject of inquiry or application. Assignments for record, final fees, and orders for copies or abstracts must be sent to the Office in separate letters.

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business December 21, 1909.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended	No. of applications awaiting action.
313	**1.** Fences; Harrows and Diggers; Plows; Seeders and Planters; Trees, Plants, and Flowers.	Oct. 18	Nov. 20	408
128	**2.** Aeronautics; Bee Culture; Dairy; Label-Affixers; Paper Files and Binders; Pneumatic Despatch; Pneumatics; Presses; Store-Service; Tobacco.	July 30	Sept. 1	767
175	**3.** Annealing and Tempering; Coating with Metal; Electrochemistry; Metal-Founding; Metallurgy; Shaping Fluid Metal.	Nov. 22	Dec. 8	191
232	**4.** Bridges; Conveyers; Cranes and Derricks; Excavating; Hoisting; Hydraulic Engineering; Loading and Unloading; Metallic Building Structures.	Sept. 3	Nov. 5	681
167	**5.** Bookbinding; Harvesters; Jewelry; Music.	Sept. 22	Sept. 24	596
318	**6.** Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Medicines; Preserving; Sugar and Salt.	Oct. 18	Oct. 18	338
312	**7.** Educational Appliances; Clutches; Games and Toys; Mechanical Motors; Nut and Bolt Locks; Optics; Velocipedes.	Nov. 1	Nov. 26	496
131	**8.** Beds; Chairs; Furniture; Kitchen and Table Articles; Store Furniture.	Sept. 22	Nov. 18	450
142	**9.** Air and Gas Pumps; Fire-Extinguishers; Hydraulic Motors; Pumps; Sewerage; Wind-Wheels.	Sept. 7	Dec. 3	383
332	**10.** Carriages and Wagons.....	Oct. 13	Nov. 4	550
154	**11.** Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus.	Nov. 5	Oct. 21	332
324	**12.** Elevators; Journal-Boxes, Pulleys, and Shafting; Lubrication; Machine Elements.	Nov. 9	Nov. 18	489
329	**13.** Arms, Projectiles, and Explosive Charges, Making; Metal-Working, Etc.	Sept. 8	Nov. 19	464
307	**14.** Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Metal-Ornamenting; Sheet-Metal Ware, Making Tools; Wire-Working.	Sept. 17	Nov. 22	468
308	**15.** Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Sheets and Fabrics; Liquid Coating Compositions; Paper-Making; Plastic Block and Earthenware Apparatus; Plastic Compositions; Plastics.	Oct. 6	Dec. 7	506
109	**16.** Telegraphy; Telephony.....	Aug. 4	Oct. 21	313
303	**17.** Linotyping; Matrix-Making; Paper Manufactures; Printing.	Nov. 1	Dec. 7	244
327	**18.** Injectors and Ejectors; Steam and Vacuum Pumps; Steam-Boilers; Steam-Engines; Steam-Engine Valves.	Oct. 23	Oct. 11	330
236	**19.** Dampers, Automatic; Furnaces; Heat-Distributing Systems; Stoves and Furnaces.	Oct. 12	Sept. 25	319
179	**20.** Artificial Limbs; Builders' Hardware; Dentistry; Locks and Latches; Safes; Undertaking.	Oct. 13	Nov. 13	234
112	**21.** Brakes and Gins; Carding; Cloth-Finishing; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving.	Sept. 7	Nov. 16	469
249	**22.** Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Firearms; Marine Propulsion; Ordnance; Railway-Rails and Joints; Railway-Ties and Fasteners; Ships.	Sept. 28	Nov. 24	296
379	**23.** Acoustics; Coin-Handling; Horology; Recorders; Registers; Time-Controlling Mechanism.	Oct. 18	Oct. 15	354

Applications Under Examination—Continued.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended	No. of applications awaiting action.
144	**24.** Apparel; Apparel Apparatus; Electricity, Medical and Surgical; Sewing-Machines; Surgery.	Nov. 15	Nov. 19	389
312	**25.** Butchering; Mills; Threshing; Vegetable Cutters and Crushers.	Nov. 26	Dec. 1	201
106	**26.** Electric Heating and Rheostats; Electric Railways; Electricity, Generation; Motive Power.	July 13	Oct. 12	725
372	**27.** Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus.	Nov. 15	Nov. 8	376
382	**28.** Internal-Combustion Engines; Miscellaneous Heat-Engine Plants.	Nov. 16	Nov. 11	336
147	**29.** Coopering; Fire-Escapes; Ladders; Roofs; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking-Tools.	Sept. 7	Nov. 3	499
152	**30.** Fluid-Pressure Regulators; Illuminating-Burners; Liquid and Gaseous Fuel Burners; Type-Writing Machines.	Oct. 11	Nov. 22	299
172	**31.** Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue; Water Purification.	Oct. 12	Nov. 12	257
278	**32.** Carbonating Beverages; Dispensing Beverages; Dispensing-Cans; Fine Arts; Packaging Liquids; Refrigeration.	Nov. 1	Dec. 1	224
164	**33.** Cutlery; Domestic Cooking Vessels; Electric Signaling; Masonry and Concrete Structures; Paving; Tents, Canopies, Umbrellas, and Canes.	Sept. 28	Nov. 5	485
304	**34.** Railways; Railway-Brakes; Railway Rolling-Stock.	Nov. 9	Nov. 30	183
244	**35.** Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Garment-Supporters; Toilet.	Oct. 18	Nov. 20	719
264	**36.** Curtains, Shades, and Screens; Drafting; Driers; Engraving; Measuring Instruments; Photography.	Aug. 18	Oct. 5	852
107	**37.** Electric Lighting; Electricity, Conductors; Electricity, General Applications.	Sept. 14	Sept. 15	637
378	**38.** Artesian and Oil Wells; Bottles and Jars; Care of Live Stock; Fishing and Trapping; Stationery; Stone-Working.	Aug. 27	Nov. 1	884
321	**39.** Baths and Closets; Water Distribution.	Aug. 26	Oct. 23	649
280	**40.** Baggage; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Lighting-Fixtures; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	July 31	Nov. 13	694
125	**41.** Railway Draft Appliances; Resilient Tires and Wheels.	July 28	Nov. 1	636
279	**42.** Railway Signaling; Signals....	Sept. 29	Nov. 26	227

Oldest new case, July 13; oldest amended, Sept. 1.

Total number of applications awaiting action..... 18,950

161	TRADE-MARKS AND DESIGNS:			
	Trade-Marks.....	Nov. 24	Dec. 10	637
	Designs.....	Nov. 22	Dec. 15	108

Trade-Marks.

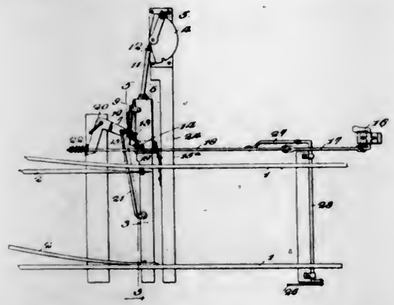
The publication of trade-marks under the act of February 20, 1905, in the OFFICIAL GAZETTE commenced May 2, 1905, and will appear in each weekly number of the GAZETTE thereafter.

Extra copies of the trade-mark portion of the GAZETTE, which will be sold separately, may be obtained single or in quantities for five cents each. Coupons will be taken in payment thereof.

PATENTS

GRANTED DECEMBER 28, 1909.

944,249. RAILWAY-SWITCH. ALFRED ANDERSON, Minneapolis, Minn., assignor to Nels J. Olsen and George C. Harper, Minneapolis, Minn. Filed Dec. 30, 1908. Serial No. 469,916.



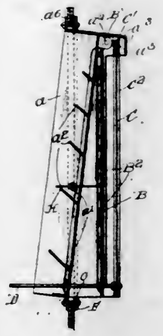
1. In a railway switch comprising movable switch points, a switch bar and switch operating means, the latter embodying a coupling head detachably fitted to the switch bar, a catch for connecting the coupling head to the switch bar, a trip pivotally mounted on the coupling head and provided with a crank arm operable by the engineer or operator of a train, and engaging said crank arm for releasing the catch and actuating the switch.

2. In a railway switch the combination of a movable switch point, a switch bar, a coupling head, an operating lever connected with said coupling head, a catch for connecting the coupling head to the switch bar, a trip pivotally mounted on the coupling head for releasing the catch and provided with a crank arm, a rod or bar provided with a cam adapted to engage the crank arm for tripping the catch releasing means, and an arm for connection with the rod or bar provided with the cam and adapted to be operated from the approaching train.

3. In a railway switch the combination of a movable switch point, a switch bar connected therewith, a coupling head, switch operating means connected with said coupling head, a catch for connecting the coupling head to the switch bar, a projection for releasing the catch and having a trip arm connected therewith, a rod or bar having a cam portion to engage with said trip arm to effect the release of the coupling head from the switch bar, means for operating said arm or bar, a bell crank having one arm or member connected with the switch bar and yielding means connecting the other member or arm of the bell crank with the said rod or bar provided with the cam.

4. In combination a movable switch point, a switch bar connected therewith, a coupling head detachably fitted to the switch bar, an operating lever connected with the coupling head, a spring actuated catch mounted upon the coupling head and adapted to connect it to the switch bar, catch releasing means mounted upon the coupling head and embodying a trip arm, a bell crank having one member connected to the switch bar, an operating rod having a cam to engage with the trip arm of the catch releasing means, a yielding connection between said rod and the opposite member of the bell crank, and an arm adapted to be operated from the approaching train and having connection with the rod provided with the cam.

944,250. VENTILATOR. ALFRED M. ARNESEN, Chicago, Ill. Filed Oct. 29, 1908. Serial No. 460,003.



1. In a ventilator, the combination of a body with openings and deflectors, a lid, with openings, fastened to the body, a screen, a snowshaker attached to the screen, a stopper with a spring pressing thereon attached to the body, a segment, a plate, with lug holes, attached to the lower extension of the body, a slotted ear plate attached to the plate, a lug extending through the slotted ear plate and into the lug holes in the plate, a chain attached to the lug, and a spring attached to the lid and fastened to the segment and lug, substantially as described.

2. In a ventilator, the combination of a body with openings and deflectors, a lid, with openings, a screen with a snowshaker, a segment, a plate, with lug holes, attached to the lower extension of the body, a slotted ear plate attached to the plate, a lug extending through the slotted ear plate and into the lug holes in the plate, a chain attached to the lug, and a spring attached to the lid and fastened to the segment and lug, substantially as described.

3. In a ventilator, the combination of a body with openings and deflectors, a lid with openings fastened to the body, a segment, a plate, with lug holes, attached to the lower extension of the body, a slotted ear plate, a lug extending through the slotted ear plate and into the lug holes, a chain attached to the lug, and a spring attached to the lid, segment and lug, substantially as described.

4. In a ventilator, the combination of a body with openings and deflectors, a lid, with openings, a screen with a snowshaker, a segment, a slotted ear plate attached to the lower extension of the body, a lug extending through the slotted ear plate and into the lug holes in the lower extension of the body, a chain attached to the lug, and a spring attached to the lid, segment and lug, substantially as set forth.

5. In a ventilator, the combination of a body with openings and deflectors, a lid, with openings, fastened to the body, a stopper with a spring pressing thereon attached to the body, a segment, a plate, with lug holes, attached to the lower extension of the body, a lug extending into the lug holes in the plate, and a spring attached to the lid and fastened to the segment and lug, substantially as set forth.

[Claims 6 and 7 not printed in the Gazette.]

944,251. POST FOR LINK-BUTTONS. CHARLES C. BALL, Newark, N. J., assignor to Shiman-Miller Mfg. Co., Newark, N. J., a Corporation of New York. Filed Apr. 5, 1909. Serial No. 487,873.



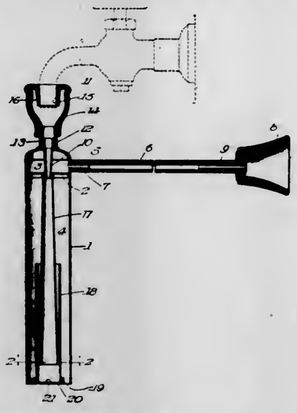
1. A post for link-buttons, made of V-shape of two bent-up legs of U-shaped cross-section, united at the apex, and by braces approximately at the middle-portion of the legs, said braces being bent up from one leg and attached to the inner edges of the other leg.

2. A blank for the posts of link-buttons consisting of a longitudinal strip of sheet-metal, recesses approximately at the middle-portion of the same, and inclined arms at opposite sides near one end of the same.

3. A V-shaped post for link-buttons made of a single piece of sheet-metal of suitable thickness comprising two longitudinally curved bent up legs of U-shaped cross-section, a narrow connecting strip holding the inner ends of said legs together and formed by recesses cut in said piece of sheet-metal, and laterally extending arms formed integral with one of said legs and rigidly secured to the other leg.

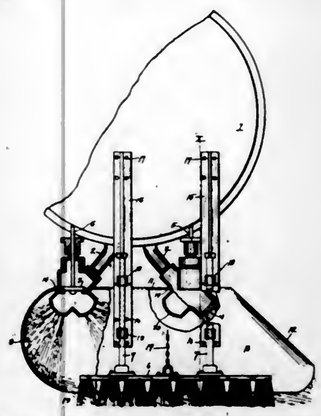
4. A link-button comprising a V-shaped post having bent up legs of U-shaped cross-section held together at their inner ends by a narrow-connecting strip integral with both of the legs, the intermediate part of said legs being held together by a pair of laterally extending spaced legs integral with one of said legs and soldered to the other, a small button soldered to said inner ends and said connecting strip, and a larger button to the diametrically opposite side of the rim of which the outer ends of said legs are secured.

944,252. MASSAGE APPARATUS. EDWIN M. BASSLER, Chicago, Ill. Filed Apr. 19, 1909. Serial No. 490,675.



In a massage apparatus, a suction generator, comprising a hollow shell or casing, a partition therein which divides the interior thereof into upper and lower compartments, the upper compartment being provided with an air admission opening and the lower compartment with a water discharge opening, a jet nozzle in said upper compartment, means for connecting the admission end of said jet nozzle with a source of supply of water under pressure, an induction tube in the lower compartment of said generator the upper end of which is in open communication with the upper compartment of said generator, the relation being such that said jet nozzle will discharge into the open end of said induction tube, a water seal for the discharge end of said induction tube, a flexible tube connected to the air admission opening of the apparatus, and an applicator at the end of said tube, substantially as described.

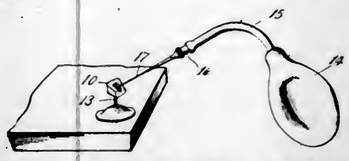
944,253. STREET-SPRINKLER. CHARLES F. BIEBACH, Milwaukee, Wis. Filed Feb. 27, 1909. Serial No. 480,477.



1. The combination with the discharge nozzles of a street sprinkler, of a deflecting shield closed at its sides and ends and open at its bottom, the end walls of the shield being both inclined in the same direction at an angle to the vertical and adapted to deflect the streams of water downwardly and toward one end of the shield.

2. The combination with the discharge nozzles of a street sprinkler, of a deflecting shield closed at its sides and ends and open at its bottom, one end wall of the shield being curved downwardly and inwardly and the opposite end being inclined downwardly and outwardly, whereby the discharge streams of water are deflected downwardly and toward one end of the shield and whereby the side impact of the deflected water is adapted to force the debris of the street toward the gutter.

944,254. PROCESS OF MAKING PATTERNS FOR CASTING HOLLOW DENTAL FILLINGS. EDGAR P. BINFORD, Chicago, Ill. Filed Oct. 19, 1908. Serial No. 458,507.



1. The process of forming a pattern for casting inlay fillings which consists in taking an impression of a cavity in fusible material, applying to said impression a heated tubular instrument to locally fuse the material of the impression, and causing the fused material to pass into said instrument.

2. The process of forming a pattern for casting inlay fillings which consists in taking an impression of a cavity in fusible material, applying to said impression a heated tubular instrument to locally fuse the material of the impression, and providing means for drawing the fused material into said instrument.

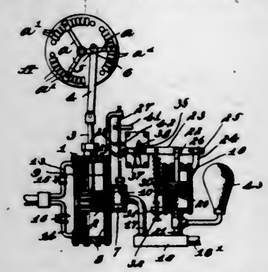
3. The process of forming a pattern for casting an inlay filling which consists in taking an impression of a cavity in fusible material and removing a portion of the material of said impression by locally fusing the material of the impression, applying thereto a tubular instrument and applying to said instrument suction producing means.

4. The process of forming a pattern for casting inlay fillings which comprises taking an impression in fusible material, applying thereto a heated tubular instrument to locally melt the material of the impression and subjecting said instrument to an influence which causes the melted material to pass into said instrument.

5. The process of forming a pattern for casting inlay fillings which consists in taking an impression of a cavity in fusible material, locally fusing the material of the impression and drawing the fused material away from the pattern.

[Claims 6 and 7 not printed in the Gazette.]

944,255. PRESSURE-REGULATOR. CLARENCE H. BONG, Chicago, Ill. Filed Sept. 2, 1908. Serial No. 451,345.



1. In a pressure regulator for a fluid supply system, the combination with a speed-controlling device for a fluid supply motor, of means for automatically operating said speed-controlling device controlled by the fluid pressure, whereby the speed of the motor will be increased as the pressure falls, and vice versa, and means rendered operative by an excessive initial variation of the fluid pressure from normal for disengaging said means for so controlling said motor speed-controlling device, thereby providing for an excessive final variation of the fluid pressure opposite to the initial excessive variation.

2. In a pressure regulator for a fluid supply system, the combination with a speed-controlling device for the fluid supply motor, of means for automatically operating said speed-controlling device controlled by the fluid pressure, whereby the speed of the motor will be increased as the pressure falls, and vice versa, and means rendered operative by an excessive initial variation of the fluid pressure from normal for disengaging said means for so controlling said motor speed-controlling device, thereby providing for an excessive final variation of the fluid pressure opposite to the initial excessive variation, and means rendered operative by a fluid pressure beyond a predetermined maximum or minimum fluid pressure for operating the motor speed-controlling device.

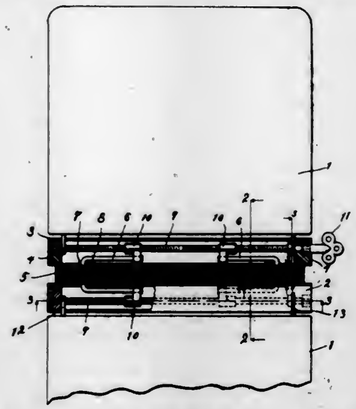
3. In a pressure regulator for a fluid supply system, the combination with a speed-controlling device for the fluid supply motor, of adjustable means for automatically operating said speed-controlling device controlled by the fluid pressure, whereby the speed of the motor will be increased as the pressure falls, and vice versa, and adjustable means rendered operative by an excessive initial variation of the fluid pressure from normal for disengaging said means for so controlling said motor speed-controlling device, thereby providing for an excessive final variation of the fluid pressure to the initial excessive variation.

4. In a pressure regulator for a fluid supply system, the combination with a speed-controlling device for the fluid supply motor, of means for operating said speed-controlling device controlled by the fluid pressure, whereby the speed of the motor will be increased as the pressure falls, and vice versa, said means comprising a double-acting cylinder, comprising a valve chest and a valve therein, said cylinder being provided with admission ports controlled by said valve and with discharge ports, a pipe adapted for connecting the valve chest with said fluid system, a piston in said cylinder, operative connection between said piston and the motor speed-controlling device, a valve stem rigidly secured to the valve of said cylinder, a single acting cylinder, a piston therein, a pipe adapted to connect said cylinder with said fluid system at one side of the piston therein, a piston rod secured in said piston, a lever pivotally connected to said piston rod and to a fixed support, means adapted for actuating said lever against the force of the fluid pressure on said piston and stops on the stem of the valve of the double-acting cylinder with which the free end of said pivoted lever engages.

5. In a pressure regulator for a fluid supply system, the combination with a speed-controlling device for the fluid-supply motor, of means for operating said speed-controlling device controlled by the fluid pressure, whereby the speed of the motor will be increased as the pressure falls, and vice versa, said means comprising a double-acting cylinder, comprising a valve chest, a valve therein, provided with admission ports controlled by said valve, and discharge ports, a pipe adapted for connecting the valve chest with the receptacle of said fluid system, a piston in said cylinder, operative connection between said piston and the motor speed-controlling device, a valve stem rigidly secured to the valve of said cylinder, a single acting cylinder, a piston therein, a pipe adapted to connect said cylinder with the receptacle of said fluid system at one side of the piston therein, a piston rod secured in said piston, a lever pivotally connected to said piston rod and to a fixed support, means adapted for actuating said lever against the force of said piston, and adjustable stops on the stem of the valve of the double-acting cylinder with which the free end of said pivoted lever engages.

[Claims 6 to 16 not printed in the Gazette.]

944,256. TEMPORARY BINDER OR LOOSE-SHEET HOLDER. HARRY F. BUSHONG, Kalamazoo, Mich., assignor to Kalamazoo Loose Leaf Binder Company, Kalamazoo, Mich. Filed Apr. 18, 1907. Serial No. 368,999.



1. In a temporary binder or loose sheet holder, the combination with the covers, of a pair of clamping bars comprising metal shells having end blocks secured therein, said clamping bars having openings formed in their inner or clamping faces; shafts having oppositely-threaded ends arranged in said clamping bars, said shafts being journaled in said end blocks thereof; binding cords arranged through the said openings in said clamping bars, the portion of the clamping bars punched out to form said openings being turned inwardly to form bearing-blocks for

said binding cords; nuts to which the ends of said binding cords are secured, threaded upon said shafts, and inwardly-projecting rigid hinge members at the inner ends of said covers, pivoted on said shafts, said clamping bars having transverse slots therein adapted to receive said hinge members.

2. In a temporary binder or loose sheet holder, the combination with the covers, of a pair of clamping bars comprising metal shells having end blocks secured therein, said clamping bars having openings formed in their inner or clamping faces; shafts having oppositely-threaded ends arranged in said clamping bars, said shafts being journaled in said end blocks thereof; binding cords arranged through the said openings in said clamping bars; nuts to which the ends of said binding cords are secured, threaded upon said shafts, and inwardly-projecting rigid hinge members at the inner ends of said covers, pivoted on said shafts, said clamping bars having transverse slots therein adapted to receive said hinge members.

3. In a temporary binder or loose sheet holder, the combination with the covers, of a pair of clamping bars comprising metal shells having end blocks secured therein pivotally connected to said covers, said clamping bars having openings formed in their inner or clamping faces; shafts having oppositely-threaded ends arranged in said clamping bars, said shafts being journaled in said end blocks thereof; binding cords arranged through the said openings in said clamping bars, the portion of the clamping bars punched out to form said openings being turned inwardly to form bearing-blocks for said binding cords, and nuts to which the ends of said binding cords are secured, threaded upon said shafts.

4. In a temporary binder or loose sheet holder, the combination with the covers, of a pair of clamping bars comprising metal shells having end blocks secured therein pivotally connected to said covers, said clamping bars having openings formed in their inner or clamping faces; shafts having oppositely-threaded ends arranged in said clamping bars, said shafts being journaled in said end blocks thereof; binding cords arranged through the said openings in said clamping bars, and nuts to which the ends of said binding cords are secured, threaded upon said shafts.

5. In a temporary binder or loose sheet holder, the combination with the covers, of a pair of clamping bars comprising metal shells having end blocks secured therein, pivotally connected to said covers, said clamping bars having openings formed in their inner or clamping faces; binding cords arranged through the said openings in said clamping bars, the portion of the clamping bars punched out to form said openings being turned inwardly to form bearing blocks for said binding cords, and adjusting means for said binding cords arranged in said clamping bars.

[Claims 6 to 15 not printed in the Gazette.]

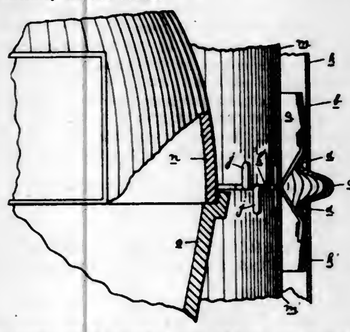
944,257. FURNACE-CASING RING. GEORGE E. CAMP, Utica, N. Y., assignor to International Heater Company, Utica, N. Y. Filed July 3, 1908. Serial No. 441,766.

1. A sheet metal furnace casing ring having oppositely extending flanges, an outwardly projecting embossed rib, and reverse grooves at the base of the flanges adjacent to the rib, substantially as set forth.

2. A sheet metal furnace ring having oppositely projecting flanges and embossed rib and an inwardly projecting bracket piece constructed and arranged to engage the outer surface of the inner section of a furnace casing and having means for engaging the inner surface of said section, substantially as set forth.

3. A sheet metal furnace ring having oppositely projecting flanges and embossed outwardly projecting rib, and inwardly projecting bracket pieces having means for engaging at both sides the edges of the upper and lower members of the inner section of a furnace casing, substantially as set forth.

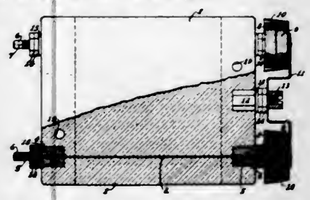
4. The combination with the inner and outer sections of a furnace casing, of a casing ring having oppositely extending flanges to engage the outer casing with intermediate outwardly projecting embossed rib and reverse curve grooves at the base of the flanges, and inwardly projecting brackets having means for engaging the upper and lower edges of the sections of inner furnace casing, substantially as set forth.



5. A sheet metal furnace ring having oppositely extending flanges, an outwardly projecting embossed rib, and interior bracket pieces opposite said rib, said bracket pieces each comprising an inwardly projecting portion adapted to engage the outer surface of the inner section of a furnace casing, and oppositely projecting ears carried by the inner end of said inwardly projecting portion and adapted to engage the inner surface of said section, substantially as set forth.

[Claim 6 not printed in the Gazette.]

944,258. INDIVIDUAL PROTECTOR. FRANK B. COOK, Chicago, Ill. Original application filed June 10, 1908, Serial No. 437,722. Divided and this application filed Feb. 18, 1909. Serial No. 478,641.



1. An individual protector of the character described, comprising a block of insulating material having small bores therethrough for accommodating fusible conductors, suitable terminal posts carried by the said block at the ends of the said bores and to which the fusible conductors are secured, a pair of lightning arresters at one end of the said block carried by a pair of the terminal posts, one electrode of each arrester making electrical connection with its terminal post, a ground terminal post carried by the said block near the arresters, and a spring member carried by the ground terminal post and making electrical connection with the pair of lightning arresters, substantially as described.

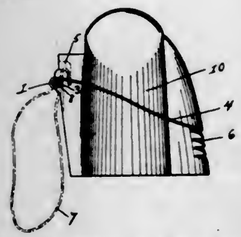
2. An individual protector of the character described comprising a block of insulating material having small bores therethrough for accommodating fusible conductors, suitable terminal posts carried by the said block at the ends of the said bores and to which the fusible conductors are secured, a pair of lightning arresters at one end of the said block carried by a pair of the terminal posts, one electrode of each arrester making electrical connection with its terminal post, a metallic cap for each of the arresters inclosing same and making electrical connection with one of the electrodes thereof, a ground terminal post carried by the said block near the arresters, and a spring member carried by the ground terminal post and making electrical connection with the said metallic caps, substantially as described.

3. An individual protector of the character described comprising a porcelain block having a pair of small bores extending longitudinally therethrough, terminal posts carried by said block at the ends of the said bores, each terminal post having a small bore extending longitudinally therethrough in alinement with its bore in the porcelain block, fuse wires extending through the said bores in the block and terminals and suitably secured to the terminal posts, a pair of lightning arresters at one end of the porcelain block carried by a pair of the said terminal posts, each arrester comprising a pair of carbon disks threaded on to its terminal post, one of the said carbon disks making electrical connection with its terminal post, a metallic cup-shaped portion for each of the arresters inclosing same and making electrical connection with one of the said carbon disks thereof, a ground post carried by the said porcelain block near the arresters, a spring member carried by the ground post and making electrical connection with the said pair of metallic cup-shaped portions, the said porcelain block being provided with holes therethrough for suitably mounting same and suitable passages on the underneath side thereof for accommodating electrical conductors extending beneath the block, substantially as described.

4. A block of insulating material having a small bore therethrough, a pair of terminal posts carried by the said block at the respective ends of the said bore, each terminal post having a bore therethrough in alinement with the bore in the said block, a fusible conductor extending through the bore in the said block and terminal posts and secured to the latter, a lightning arrester comprising a pair of carbon disks threaded over one of the said terminal posts, one of the said disks making electrical connection with its terminal post, a suitable ground connection for one of the carbon disks of the arrester, a cup-shaped member inclosing the lightning arrester, and suitable nuts and washers carried by the last mentioned terminal post underneath the lightning arrester for connecting a circuit conductor therewith.

5. A protector of the character described, comprising a block of insulating material having a bore therethrough, suitable terminal posts carried by said block at the ends of the said bore, a fusible conductor extending through the said bore and secured to the terminal posts, a lightning arrester carried by one of the terminal posts, a cup-shaped member placed over the lightning arrester and making connection with one electrode thereof and means for suitably connecting the fuse and lightning arrester as protectors for an electrical circuit.

944,259. INSULATOR. AUGUST G. DENNLER, East Hampton, Conn., assignor of one-third to William F. Quigg, East Hampton, Conn. Filed Feb. 23, 1909. Serial No. 479,476.



1. An insulator consisting of a body having a groove for a main line wire and converging slots intersecting said groove, means arranged in said slots for holding said main line securely in said groove.

2. An insulator consisting of a body having a groove for a main line wire and converging slots intersecting said groove, means for holding said main wire securely in said groove, said means consisting of a wire arranged in said converging slots and looped back over the body of the insulator.

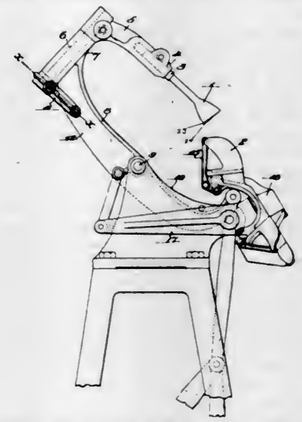
3. An insulator consisting of a body having a groove for a main line wire and converging slots intersecting said groove, means for holding said main wire securely in said groove, said means consisting of a wire arranged in said converging slots and looped back over the body of the insulator, and means for securing said looped wire back in place.

4. An insulator consisting of a body having a groove for a main line wire and converging slots intersecting said groove and meeting a downwardly projecting hole in the body of the insulator, means for holding said main wire securely in said groove, said means consisting of a wire arranged in said hole and in said converging slots and looped back over the body of the insulator, and means for securing said looped wire back in place.

5. An insulator consisting of a body having a projection on one side thereof, a seat for said main line wire directly beneath said projection, and means for holding said main wire securely in said seat, said means consisting of a single piece of wire arranged under the main line wire and looped back over the body of the insulator and means for securing said looped wire in place.

[Claim 6 not printed in the Gazette.]

944,260. SHOE-TURNING MACHINE. ANDREW EPPLER, Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Jan. 5, 1905. Serial No. 239,713.



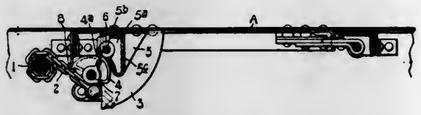
1. A machine for turning the rear or counter portion of a turn shoe, having, in combination, a form over which the shoe is turned, and a plunger movable into and out of the form, said plunger and form having provision for relative movement transversely of the sole of a shoe placed on the form as the plunger enters the form, substantially as described.

2. A machine for turning the rear or counter portion of a turned shoe, having, in combination, a form over which the shoe is turned and a plunger movable into and out of the form mounted to move transversely of the sole of a shoe placed on the form as the plunger enters the form, substantially as described.

944,261. CAR-DOOR-OPERATING MECHANISM. ROBERT E. FRAME, St. Louis, Mo., assignor to American Car & Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed Dec. 4, 1908. Serial No. 465,941.

1. In a car, a hinged door that forms part of the bottom of the car, means for closing said door, a shaft arranged under the door and adjacent the front edge of same, a plurality of cams on said shaft, brackets on the underside of the door provided with rollers which coöperate with said cams, and stops on said brackets that limit the movement of said cams in one direction.

2. A car door operating mechanism, comprising a hinged door, means for closing said door, a pivotally mounted device arranged underneath the door and adapted to be moved into position to support same when it is in its closed position, a bracket on the underside of the door provided with a roller that coöperates with said device, means separate and distinct from said door-actuating means for moving said device into and out of operative position, and a stop on said bracket that limits the movement of said device in one direction; substantially as described.



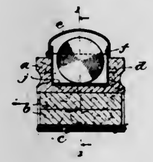
3. A car door operating mechanism, comprising a swinging door, means for closing said door, a shaft extending parallel to the front edge of the door and arranged out of the path of movement of same, approximately cam-shaped members on said shaft that move into position to lock the door in its closed position when said shaft is turned in one direction, and projections on said cam-shaped members that engage stationary stops when said shaft is turned in the opposite direction; substantially as described.

4. A car door operating mechanism, comprising a swinging door, means for closing said door, a shaft extending parallel to the front edge of the door and arranged out of the path of movement of same, an approximately cam-shaped member on said shaft that moves into position to lock the door in its closed position and exert upward pressure on said door when said shaft is turned in one direction, and means for limiting the movement of said shaft so as to properly position the cam-shaped member thereon; substantially as described.

5. A car door operating mechanism, comprising a horizontally disposed hinged door, a winding shaft arranged adjacent the front edge of the door underneath the floor of the car, a chain connected to said shaft and to a depending bracket on the underside of the door for closing said door, a pivotally mounted device arranged adjacent the front edge of the door and in a lower horizontal plane than the door lies in when it is closed, means independent of the door-actuating means for moving said device underneath the door when it is closed so as to lock same and relieve the strain on the door-actuating means, and means for limiting the movement of said device when it is moved into operative position; substantially as described.

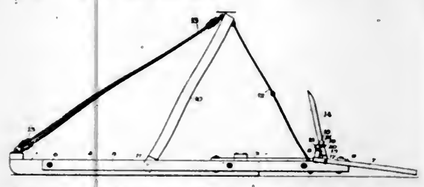
[Claims 6 to 8 not printed in the Gazette.]

944,262. SHOE-POLISHER. HENRY J. FRIEDRICH, Racine, Wis. Filed Aug. 11, 1906. Serial No. 330,109.



A shoe polisher having a recessed back and longitudinal grooves in the sides, a polishing face, and a dauber case fitting partially within the back and having an arched hinged cover lying above the top surface of the back and of materially less strength and width than the back, to form a rest for the palm of the hand when the thumb and fingers enter the grooved sides of the back, substantially as described.

944,263. HAY-STACKER. CLINTON A. HAGADONE, Western Springs, Ill., assignor to International Harvester Company, a Corporation of New Jersey. Filed June 7, 1909. Serial No. 500,524.

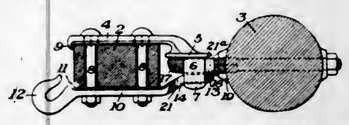


1. A hay stacker including, in combination, a swinging fork, said fork including a series of tines, a cross member secured to the rear ends of said tines, a series of guard fingers having their lower ends pivotally connected with said fork adjacent said cross member, a finger controlling bar, said bar having U-shaped members secured thereto, said fingers received by said U-shaped members in a manner permitting said bar to slide upward or downward along said fingers and to be interposed between said fingers and said cross member.

2. A hay stacker including, in combination, a swinging fork, said fork including a series of tines, a cross member secured to the rear ends of said tines, a series of guard fingers having their lower ends pivotally connected with said fork adjacent said cross member, brackets secured to said cross member, said brackets having angularly disposed portions at opposite ends thereof, a finger controlling bar, said bar having a slidable connection with said fingers, and means for securing said bar to either of the angularly disposed portions of said brackets.

3. A hay stacker including in combination, a swinging fork, said fork including a series of tines, a cross member secured to the rear ends of said tines, a series of guard fingers having their lower ends pivotally connected with said fork adjacent said cross member, a finger controlling bar, said bar having U-shaped members secured thereto, said fingers received by said U-shaped members in a manner permitting said bar to slide upward or downward along said fingers and to be interposed between said fingers and said cross member, brackets secured to said cross member, said brackets having angularly disposed portions at opposite ends thereof adapted to receive said finger controlling bar, and releasable means for securing said bar to said brackets.

944,264. EVENER AND WHIFFLETREE COUPLING. CHARLES A. HENNICKE, Buffalo, N. Y. Filed Dec. 29, 1908. Serial No. 469,798.



1. An evener coupling having a top member provided at its front end with a flange portion and carrying a draft pin having an interlocking flange or head at its lower end, the flange portion being rounded on its lower front side to admit of upward rocking movement of the whiffle tree coupling, substantially as described.

2. An evener coupler, consisting of upper and lower members secured to the evener bar, one of said members having an opening and the other of said members having a draft pin engaging said opening, said members having opposed separated flange portions, and a coupling member engaging the draft pin between said flange portions, said flange portions having carrying surfaces arranged to prevent downward movement of the coupling but to permit an upward rocking movement thereof; substantially as described.

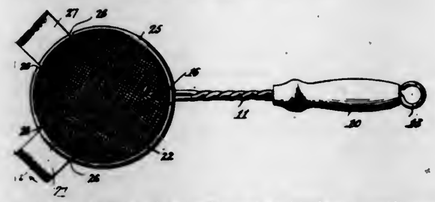
3. A whiffle tree coupling having a body portion formed with an opening therethrough for a draft pin, said body portion having a flat upper surface and having its lower surface beveled or rounded to permit of an upward rocking movement of said coupling to accommodate the coupling to different lines of draft, substantially as described.

4. An evener and whiffle tree coupling having upper and lower members, a coupling eye adapted to receive a draft pin carried by one of said members, and means for normally holding said eye in horizontal position while permitting upward rocking movement thereof to accommodate it to different lines of draft, substantially as described.

5. An evener and whiffletree coupler, comprising top and bottom members secured to the evener bar and having projecting opposed flange or bearing portions, one of said bearing portions having a draft pin which extends through the other member, and a coupling member having an eye which loosely engages the said pin, said eye having a rocking bearing between said bearing portions, the eye and the bearing portions having coöperating bearing and stop surfaces for permitting an upward movement of the eye from its normal position while preventing downward movement below its normal positions; substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

944,265. KITCHEN UTENSIL. ALBERT E. HUMPHREYS, Lowell, Mass., assignor to The Woods-Sherwood Company, Lowell, Mass., a Corporation of Massachusetts. Filed Sept. 14, 1909. Serial No. 517,611.



1. As an article of manufacture, a kitchen utensil comprising a handle having a shank formed of twisted wire provided with a downwardly bent loop at the end, a rim of sheet metal having overlapping ends, and a rivet extending through said loop at the bottom thereof and through the overlapped portion of said rim for securing the handle thereto.

2. As an article of manufacture, a kitchen utensil having a sheet metal rim, and a handle extending therefrom, said handle having a shank consisting of twisted wire provided with a loop at the end and secured to said rim by a fastening device extending through the loop and directly through the rim.

3. As an article of manufacture, a kitchen utensil comprising a sheet metal rim having its ends overlapping each other and riveted together, and a bottom supported by said rim.

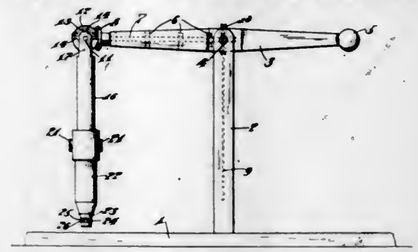
4. As an article of manufacture, a strainer comprising a sheet metal rim having its ends overlapping and riveted together, and a foraminous bottom, said rim having inwardly upturned flanges at the bottom thereof, and the bottom having a downwardly extending flange at the top inside the flange on the rim, said flanges being pressed together, whereby the parts are firmly united without the use of solder.

5. As an article of manufacture, a kitchen utensil comprising a sheet metal rim, and a foraminous bottom, said rim having inwardly upturned flanges at the bottom thereof, and the bottom having a downwardly extending flange at the top fitting inside the flange on the rim, said flanges being pressed together.

[Claims 6 to 10 not printed in the Gazette.]

944,266. CUTTING-MACHINE. PIERRE E. JACCARD, Camden, N. J. Filed June 22, 1909. Serial No. 503,596.

1. In a machine of the character described, the combination with a tube, a sleeve mounted to turn around the tube, a cutter in said sleeve, means in said tube and sleeve for reciprocating said cutter and means in said tube preventing rotary movement of the cutter operating means.



2. In a machine of the character described, the combination with a tube having an annular groove therein, a sleeve around the tube, screws in the sleeve projecting into the groove in the tube, a cutter at the lower end of said sleeve, means in said tube and sleeve for operating said cutter, and means in said tube preventing rotary movement of the cutter operating means.

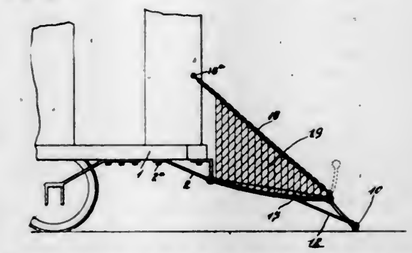
3. In a machine of the character described, the combination with a tube, a sleeve mounted to turn on the tube, a cutting plunger in said sleeve, a reciprocating rod connected to said plunger, and means for preventing rotary movement of the plunger in the sleeve.

4. In a machine of the character described, the combination with a tube, a sleeve mounted to turn on the tube, a reciprocating cutting plunger in the sleeve, a reciprocating rod in the tube and sleeve, and connected to said plunger, and a key in said sleeve engaging the plunger, and preventing rotary movement of the plunger in the sleeve.

5. In a machine of the character described, the combination with a tube having an annular groove, a sleeve on said tube, screws in said sleeve, lugs on said screws projecting into the groove in the tube, a foot in said sleeve, a cutting plunger in said sleeve, a head on said plunger having a recess, a reciprocating rod, a head on said rod in said recess, and means for preventing rotary movement of said head in said sleeve.

[Claims 6 and 7 not printed in the Gazette.]

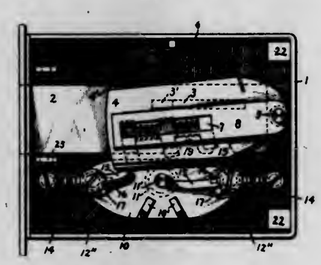
944,267. STREET-CAR FENDER. NICHOLAS JUHÁSZ, South Bend, Ind. Filed July 23, 1909. Serial No. 509,197.



1. The combination with a car fender, of a lifting frame including normally inclined arms having their inner ends bifurcated and pivotally connected to the forward end of the fender, a bearing rod connected to the forward end of said arms and forming a part of said lifting frame, rollers mounted upon said bearing rod, springs mounted upon the forward end of the fender and each having a pair of angular ends, one of the angular ends of each of the springs engaging the fender and the other angular end engaging an end of the lifting frame, said springs constituting means for maintaining the lifting frame in an elevated position, and releasable means connected to the ends of the lifting frame and detachably connected to the fender for maintaining the lifting frame in a lower position against the action of said spring.

2. The combination with a car fender, of a lifting frame including normally inclined arms having their inner ends bifurcated and pivotally connected to the forward end of the fender, a bearing rod, connected to the forward end of said arms and forming a part of said lifting frame, rollers mounted upon said bearing rod, springs mounted upon the forward end of the fender and each having a pair of angular ends, one of the angular ends of each of the springs engaging the fender and the other angular end engaging an end of the lifting frame, said springs constituting means for maintaining the lifting frame in an elevated position, releasable means connected to the ends of the lifting frame and detachably connected to the fender for maintaining the lifting frame in a lower position against the action of said spring, a netting connected to said frame and fender and extending above the fender, and means connected to the lower face of the lifting frame for shifting it from an elevated to a lowered position.

944,268. LOCK. STEPHEN KARSZ, Schenectady, N. Y. Filed Mar. 1, 1909. Serial No. 480,515.



1. In a lock, a key, a bolt adapted to be shifted by said key, a guard normally obstructing the operation of the bolt by the key, and a plurality of stops normally preventing said guard from being moved by the key but adapted to be successively engaged and moved by the key to release the guard step-by-step.

2. In a lock, a key, a bolt adapted to be shifted by said key, a guard normally obstructing the operation of the bolt by the key, a plurality of stops normally preventing said guard from being moved by the key but adapted to be successively engaged and moved by the key to release the guard step-by-step, and springs opposing the movements of said stops, said guard being adapted when moved step-by-step to lock the stops successively in releasing position.

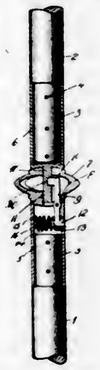
3. In a lock, a key, a bolt adapted to be shifted by said key, a guard normally obstructing the operation of the bolt by the key, a plurality of stops normally preventing said guard from being moved by the key but adapted to be successively engaged and moved by the key to release the guard step-by-step, and a spring for holding the guard in its normal position and for returning it to said position when moved.

4. In a lock, a key, a bolt adapted to be shifted by said key, a guard normally obstructing the operation of the bolt by the key, a plurality of stops normally preventing said guard from being moved by the key but adapted to be successively engaged and moved by the key to release the guard step-by-step, a spring opposing the movement of said guard, and springs opposing the movements of said stops, said guard being adapted when moved against the spring pressure step-by-step to lock the stops successively in releasing position.

5. In a lock, a key, a bolt adapted to be shifted by said key, a guard normally obstructing the operation of the bolt by the key, and a plurality of stops normally preventing said guard from being moved by the key but adapted to be successively engaged by the key in different positions thereof and moved by the key in different directions into positions to release the guard.

[Claims 6 to 9 not printed in the Gazette.]

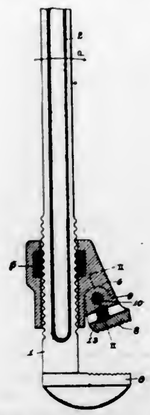
944,269. FLAGSTAFF. PAUL KOCSIS, Duquesne, Pa., assignor of one-half to Michael Madara, Duquesne, Pa. Filed June 25, 1909. Serial No. 504,305.



1. A flag staff comprising sections, said sections having the confronting ends thereof reduced, sleeves mounted upon the reduced ends of said sections, a bifurcated head carried by one of said sleeves, a lever pivotally supported by said sleeve and extending into said head, a tooth carried by said lever within said head, a button carried by said lever within said sleeve and extending into an opening provided therefor in said sleeve, means within said sleeve for normally maintaining said button within the opening of said sleeve, a tongue carried by the sleeve of the adjoining section, said tongue having the lower end thereof beveled for moving the tooth of said lever and provided with a recess to receive the tooth of said lever, and a transverse pin carried by said head for holding said tongue in engagement therewith, substantially as described.

2. A flag staff comprising sections, sleeves carried by said sections, a bifurcated head carried by one of said sleeves, a tongue carried by the other of said sleeves and pivotally mounted in the bifurcation of said head, a lever pivoted in the first mentioned sleeves and extending into said head for engaging said tongue, and means associated with the first mentioned sleeve for holding said lever in engagement with said tongue.

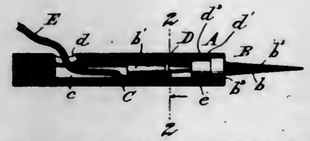
944,270. WRENCH. REUBEN MILLER, Jr., Pittsburg, Pa. Filed Feb. 15, 1909. Serial No. 477,968.



1. In a wrench the combination of a shank provided with a stationary jaw, a slide adjustably mounted on the shank, a jaw so pivotally mounted on the slide that in its movements the gripping face will move toward or from the face of the fixed jaw and the angular relation of such faces will be increased or decreased dependent upon the direction of movement of the pivoted jaw and a spring engaging the pivoted jaw and the slide and interposed between the inner face of the jaw and its pivotal point whereby the jaw is normally held in mid position.

2. In a wrench the combination of a shank provided with a stationary jaw, a slide adjustably mounted on the shank and provided with curved seats, a jaw provided with lugs having their ends curved and pivotally attached to the slide with the ends of the lugs bearing on the seats, the pivotal axis of the jaw being such that in its swing the face of the jaw will move toward and from the face of the fixed jaw and change its angular relation thereto, and a spring engaging the pivoted jaw and the slide and interposed between the inner face of the jaw and its pivotal point whereby the jaw is normally held in mid position.

944,271. CURRENT-TESTING DEVICE. HARRY H. MORRELL, New York, N. Y. Filed Sept. 22, 1908. Serial No. 454,204.



1. A current testing device comprising a single stem having a tapering member, a clamp slidable upon said tapering member and operating to secure a conductor thereto, and an insulated handle inclosing said stem for a part of its length, said handle being fastened to the stem independently of the conductor securing clamp, said stem being exposed for a part of its length beyond the handle and adapted for making electrical contact with the part or device to be tested.

2. A current testing device comprising a stem, means for detachably fastening a conductor to a part of said stem and exteriorly of the stem, and a handle composed of insulating material and fastened detachably to said stem at a point intermediate the ends thereof, said handle inclosing a part of the stem, and the conductor fastening means, and the remainder of the stem being exposed beyond said handle for the purpose of making electrical contact with the part or device to be tested.

3. A current testing device comprising a one-piece stem having an integral tapering member, means slidable upon said tapering member for clamping a conductor detachably thereto, and a detachable handle secured to the stem at a point intermediate its ends, said handle inclosing the tapering member and the conductor clamping means, the remainder of the stem being exposed beyond the handle for making electrical contact with the device to be tested.

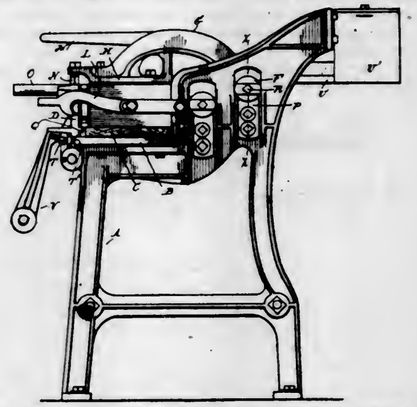
4. In a current testing device, a one-piece stem provided with an integral tapering member, a ring-like clamp slidable freely on said tapering member and adapted to fasten a conductor thereto, and a handle fastened to said stem at a point intermediate the ends thereof and independently of the clamp, said handle inclosing the tapering part of the stem and the clamp.

5. In a current testing device, a stem provided with a unitary tapering member, a handle, and means operating independently of the handle for detachably clamping a conductor to said stem, said handle being attached to the stem at a point intermediate its ends and operating to inclose the tapering member and the conductor-clamping means.

[Claims 6 to 11 not printed in the Gazette.]

944,272. CEMENT-BLOCK-MOLDING MACHINE. LEVI P. NORMANDIN, Jackson, Mich., assignor to William F. Cowham, Jackson, Mich. Filed Dec. 1, 1906. Serial No. 345,860.

1. In a machine for molding blocks, the combination with a mold, of a series of division plates engaging slots in said mold and extending across the same, a rockable member to which said division plates are secured, a series of top plates fitting between division plates, a rockable bar to which said top plates are secured constituting in connection with said plates a tamper for the plastic material, for the purpose described.



2. A machine for molding blocks comprising a bed, a pallet detachably supported thereon, a hinged plate forming the front of a mold box extending above said pallet, a parallel rear plate provided with a series of slots therein, a member rockable in relation to said bed and pivoted in rear of said pallet, a series of division plates secured to said rockable member, and registering with the slots in said rear plate whereby the entire series may be rocked out of or into engagement with the mold.

3. In a machine for molding blocks, the combination with a mold box having division plates therein for supporting the same, of a plurality of separate compartments, a detachable bar supported in an inclined position above said mold box alined with one edge thereof, said bar being reversible and notched on one edge, for the purpose described.

4. In a block molding machine, the combination with a mold box having tranverse slots in parallel sides thereof for the reception of division plates, and means for relatively adjusting said parallel sides longitudinally to aline said slots.

5. In a block molding machine, a mold comprising a stationary side and a parallel hinged side, both of said sides being transversely slotted, and means for adjusting said hinged side axially to aline the slots thereof with those of the stationary side.

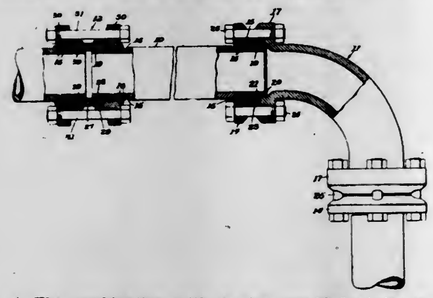
[Claims 6 to 13 not printed in the Gazette.]

944,273. EXPANSION-JOINT FOR PIPE-LINES. EUGENE F. OSBORNE, Chicago, Ill., assignor to Osborne Steam Engineering Company, Chicago, Ill., a Corporation of Illinois. Filed July 26, 1909. Serial No. 509,542.

1. The combination with a pipe, of a follower flange through which the end of the pipe extends and which is adapted to coöperate with the flange of an adjacent end to end pipe or fitting to compress a packing about the pipe, the pipe and its flange being provided with interfitting spiral grooves and abutments, and the abutments of one part being spaced from the abutments of the other part to permit endwise movement of the pipe relatively to its follower flange.

2. The combination with a pipe, of a follower flange through which the end of the pipe extends, means coöperating with the follower flange to produce a fluid tight joint around said pipe, the pipe having sliding movement in said joint, and interfitting spiral abutments on the pipe and follower flange arranged to afford limited endwise movement of the pipe relatively to said flange.

3. The combination with a pipe provided at its end with an exterior spiral groove and an intervening spiral abutment, and beyond said groove with a reduced smooth end portion, and a follower flange through which the end of the pipe extends, of a fitting into which said reduced end portion extends, a packing surrounding said reduced end portion and interposed between said fitting and flange, and means for compressing said packing between said flange and fitting, the flange being provided with an interior spiral groove and abutment arranged to interfit with the spiral groove and abutment of the pipe, the abutments being of less width than said grooves.



4. The combination with a pipe provided at its end with an exterior spiral groove and an intervening spiral abutment, and a follower flange through which the pipe end extends, of a fitting into which said pipe end extends, a packing surrounding said pipe end and interposed between said fitting and flange, and means for compressing said packing between said flange and fitting, the flange being provided with an interior spiral groove and abutment arranged to interfit with the spiral groove and abutment of the pipe, the abutments being of less width than said grooves, and the abutments of the pipe extending into the groove of the flange a distance at least one-half the depth of said groove.

5. The combination with a pipe provided at its end with an exterior spiral groove and an intervening spiral abutment, and a follower flange through which the pipe end extends, of a fitting into which the pipe end extends, a packing surrounding said pipe end and interposed between said fitting and flange, and means for compressing said packing between said flange and fitting, the flange being provided with an interior spiral groove and abutment arranged to interfit with the groove and abutment of the pipe, the abutments of the flange and pipe being laterally separated by spaces to permit endwise movement of the pipe relatively to said flange, and the base of the spiral abutment of the flange being arranged radially outside of the circumferential line of the pipe.

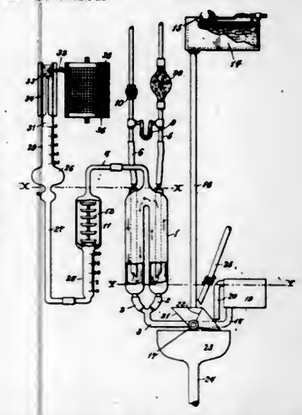
[Claims 6 to 8 not printed in the Gazette.]

944,274. AUTOMATIC GAS-ANALYZING APPARATUS. ERNEST H. PEABODY, New York, N. Y. Filed Sept. 21, 1906. Serial No. 335,643.

1. An apparatus for gas analysis comprising an intake chamber, an inlet and an outlet tube for gas terminating therein, a source of displacing liquid, an overflow and a valve adapted to operate in one position to establish communication between said chamber and source of liquid and in another position to establish communication between said chamber and overflow, substantially as described.

2. An apparatus for gas analysis comprising an intake chamber, means for conveying gas thereto, a source of displacing liquid, an overflow and a three-way valve adapted to connect said chamber with said source when in one position and with said overflow when in another position, substantially as described.

3. An apparatus for gas analysis comprising an intake chamber, means for conveying gas thereto, a source of displacing liquid, an overflow, a valve adapted to connect said chamber alternately with said source and said overflow, and means adapted to automatically operate said valve for producing said alternate connections, substantially as described.

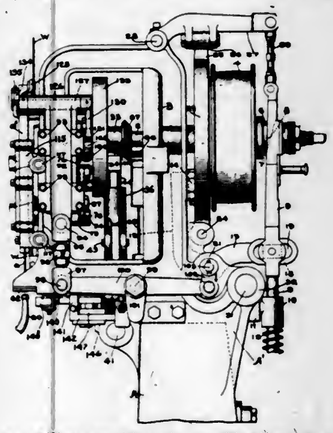


4. In combination with a combustion furnace, an apparatus for analysis of gas comprising an intake chamber, and two gas tubes leading therefrom to two points of different pressures in the normal path of movement of the furnace gases, substantially as described.

5. In combination with a combustion furnace, an apparatus for analysis of gas comprising an intake chamber, a tube leading from said furnace at a point relatively near the fire to said intake chamber, and a second tube leading from said furnace at a point relatively near the chimney outlet, to said intake chamber, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

944,275. MACHINE FOR INSERTING METALLIC FASTENINGS. MERTON D. PHELAN, Boston, Mass., assignor, by mesne assignments, to Manufacturers Machine Company, Montclair, N. J., a Corporation of New Jersey. Filed Aug. 10, 1906. Serial No. 330,022.



1. In a nailing machine, in combination, a movable head to beat down the work, an awl mounted on the head, and means to impart a variable operative movement to the awl relative to the head and dependent upon the amplitude of movement of the head.

2. In a machine for inserting metallic fastenings, in combination, a vertically movable head adapted to descend upon the work from a constant height, mechanisms carried by said head to feed wire-like material, sever a fastener therefrom, and drive the severed fastener into the work, a common primary operating member for said mechanisms, also carried by the head, and means set by the descent of the head to cause the feed mechanism to feed a variable length of the wire-like material according to the thickness of the work into which the fastener is to be driven.

3. A nailing machine comprising a movable head having a variable descending stroke, and a reciprocating awl mounted on the head and having a variable operating movement relative to the head and depending upon the descending stroke of the head.

4. In a machine for inserting metallic fastenings, in combination, a work beating and clamping head, intermittingly operated mechanisms carried thereby to feed wire-like material, sever measured fasteners therefrom, and drive the fasteners into the work, and means, governed by and acting upon operative movement of the head to engage the work, to set the feed mechanism to feed a measured length of wire-like material adapted to the thickness of the work, the feeding mechanism being constructed and arranged to prevent any movement thereof until after the setting means has operated.

5. A nailing machine comprising a movable head having a variable descending stroke, and a reciprocating awl mounted on the head and having an operating movement terminating at a substantially fixed point.

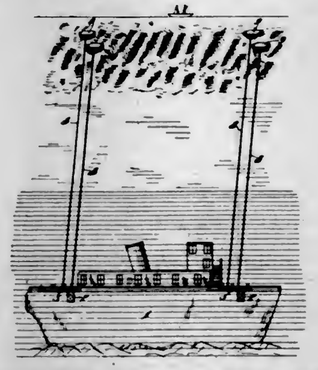
[Claims 6 to 53 not printed in the Gazette.]

944,276. COMPOSITION FOR LAYING, COLLECTING, OR ABSORBING DUST. SAMUEL C. PUNCH, DAVID T. PUNCH, and JACOB C. PUNCH, St. Louis, Mo., assignors to Cotto-Waxo Chemical Company, St. Louis, Mo., a Corporation of Missouri. Filed Mar. 15, 1909. Serial No. 483,506.

1. The composition of matter herein described, the same having as its base fine sawdust and comprising, in addition thereto, water, calcium chlorid, sodium chlorid, rosin, and paraffin oil; substantially as described.

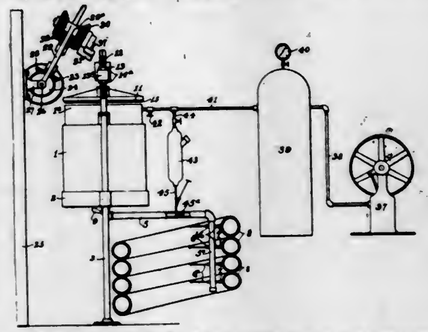
2. The composition of matter herein described, the same having as its base fine sawdust and comprising, to every six hundred pounds of said saw-dust, two hundred ten pounds of water, two hundred ten pounds of calcium chlorid, two hundred seventy pounds of sodium chlorid, one hundred fifty pounds of pulverized rosin, and eighteen gallons of paraffin oil having a specific gravity of 30, all said ingredients being thoroughly mixed and intermingled, substantially as described.

944,277. ATTACHMENT FOR VESSELS FOR FACILITATING THE LOCATION AND RAISING OF VESSELS WHEN SUNK. ROBERT W. RAMSDEN, Philadelphia, Pa. Filed Aug. 5, 1909. Serial No. 511,277.



In combination with a ship, plates riveted to the ship, and having eyes therein, racks on the ship, heavy chains secured at one end in the eyes of the plates, and wound on said racks, cables secured at one end to the end of the chains, and wound on said racks above the chains, vertical rods rigidly secured to the ship and disposed parallel to each other, a float having eyes at its ends mounted in said rods, said cables secured to said floats whereby when said floats move upward off the vertical rods, the end of the cable will be conveyed to the surface of the water, substantially as and for the purpose set forth.

944,278. APPARATUS FOR FILLING RUBBER TIRES WITH VISCOUS LIQUIDS. ALBERT D. RAY, Cleveland, Ohio, assignor of one-half to C. J. Callahan and one-half to Theodore Chester, Sunbury, Pa. Filed July 30, 1909. Serial No. 510,355.



1. In an apparatus for filling rubber tires, the combination with a charging vessel provided with an agitator and an air inlet pipe and a charge outlet pipe; of an auxiliary charging vessel adapted to be brought into communication with said air inlet pipe and provided with a valved discharge duct intersecting said charge outlet pipe and terminating in the median portion thereof.

2. In an apparatus for filling rubber tires, a charging vessel provided with an air inlet pipe and a charge outlet pipe, and an independent auxiliary charging vessel adapted to be thrown into and out of communication with said inlet pipe and provided with a discharge pipe intersecting said charge outlet pipe and having a discharge stem disposed at the median portion thereof and extending in the direction of the flow of filling material therein.

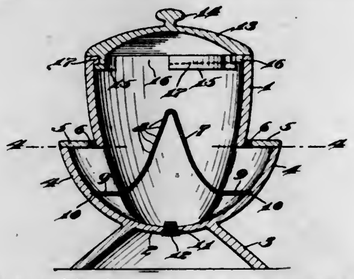
3. An apparatus for filling rubber tires, comprising a jacketed charging vessel, an air compression tank and inlet pipe communicating with the upper portion of said vessel, a valved outlet pipe leading from the lower portion of said vessel and terminating in a plurality of tire filling nipples, a plurality of oppositely-disposed oppositely-rotating stirring-blades mounted in said vessel, means for rotating said stirring-blades, an auxiliary charging vessel adapted to be brought into communication with said air inlet pipe independently of said main charging vessel and provided with a valved discharge-pipe terminating in a discharge stem disposed at the longitudinal center of said outlet pipe and extending in the direction of the flow of material therein.

944,279. CRACKER-JAR. EDWARD F. REIFF, Philadelphia, Pa. Filed Nov. 1, 1909. Serial No. 525,703.

1. As an article of manufacture, a device of the character described, comprising a body portion, having offset pockets at opposite sides, and at the bottom of the body, and an approximately inverted V-shaped perforated false bottom positioned in said body and projecting into the pockets, and adapted to direct the contents of the body into said pockets.

2. As an article of manufacture, a device of the character described, comprising a body portion, having offset pockets at opposite sides, and at the bottom of the body, and an approximately inverted V-shaped perforated false bottom positioned in said body and projecting into the

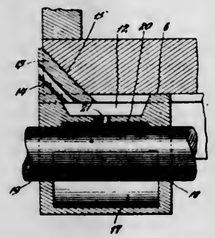
pockets, and adapted to direct the contents of the body into said pockets, and hinged covers on said pockets, said body of a shape to prevent said covers assuming a vertical position.



3. As an article of manufacture, a device of the character described, comprising a body circular in cross section and tapering outward from its lower to its upper end, a flaring apron or base on the lower end of said body, offset pockets at opposite sides and at the lower end of said body, an approximately inverted V-shaped false bottom in said body, projecting into said pockets, said body having an opening in its bottom and a plug normally closing said opening.

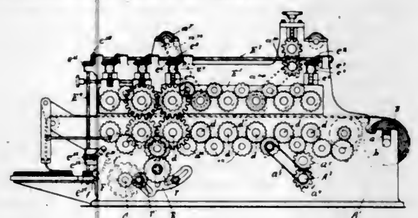
4. As an article of manufacture, a device of the character described, comprising a body circular in cross section and tapering outward from its lower to its upper end, a flaring apron or base on the lower end of said body, offset pockets at opposite sides and at the lower end of said body, an approximately inverted V-shaped false bottom in said body, projecting into said pockets, said body having an opening in its bottom, and a plug normally closing said opening, a series of inwardly projecting flanges in the upper end of the body, a cover, L-shaped flanges on the cover adapted to interlock with the flanges in the body, and said flanges having beveled or inclined contacting faces, substantially as and for the purpose set forth.

944,280. MINE-CAR TRUCK. WILLIAM W. ROSENSTEEL, Caldwell, Ohio. Filed Aug. 12, 1909. Serial No. 512,483.



In combination, a car bottom, two sets of transversely-extending angle bars arranged against the lower face of the bottom of the car and with the angle bars of each set spaced from each other, journal boxes arranged between the ends of the angle bars of each set and each provided with a lubricant reservoir and furthermore with a longitudinally-extending opening, axles extending through the openings of the journal boxes and said reservoirs, the top wall of said reservoir being recessed and arranged in proximity to said axles, each of said journal boxes having its outer face at the top thereof provided with a recess communicating with the first-mentioned recess by a vertically-disposed contracted opening, and a vertically-disposed enlargement carried by the end of each of said journal boxes at the top thereof and extending partly over the recess in the outer face of the box, said enlargement having an inclined port therein opening into the recess in the top of the journal box at one end of said recess.

944,281. CLOTH SHRINKING AND PRESSING MACHINE. LESTER ROTHSCHILD, Cincinnati, Ohio. Filed June 29, 1908. Serial No. 441,007.



1. In a cloth pressing and shrinking machine the combination of two series of rotatable cylinders, one of said series being located above and contacting with the other series, the cylinders of one series being hollow, a water pan mounted adjacent to each series, an endless apron for each series mounted to pass over the cylinders of the series and to pass through the correspondingly located pan, means for conveying steam into the interior of the hollow cylinders, means for rotating the cylinders of each series and means for actuating the aprons to pass through the pans and between the cylinders and to feed the cloth to be treated through the machine.

2. In a cloth shrinking and pressing machine the combination of a main frame, a row of cylinders mounted to rotate in the main frame, secondary frames mounted upon the sides of the main frame, hollow steam cylinders mounted to rotate in the secondary frame, means for moving the secondary frame toward and from the first row of cylinders to carry the second row of cylinders adjacent to the first row, pans mounted in the main frame adjacent to the second row of cylinders and an apron passing over each row of cylinders and through each pan.

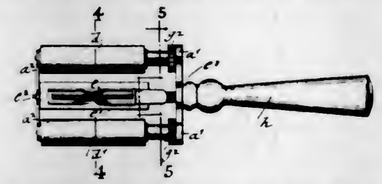
3. In a cloth shrinking and pressing machine the combination of a main frame, a row of cylinders mounted rotatably in the frame, a row of steam cylinders, means for mounting the row of steam cylinders in the main frame so as to be capable of movement toward and from the first row of cylinders, a series of gear wheels for imparting rotation to the two sets of cylinders, means for conveying the power simultaneously to the gear wheels for rotating the cylinders, and to the means of moving the steam cylinders, whereby the steam cylinders,are moved toward the first row of cylinders when the cylinders have rotation imparted to them, and the steam cylinders are moved away from said cylinders when the rotation of the cylinders is stopped.

4. In a cloth shrinking and pressing machine the combination of a main frame, a set of cylinders mounted rotatably in the frame, an auxiliary frame adapted to be moved upon the main frame toward and from the said cylinders, steam cylinders mounted in the secondary frame, a shaft, means for moving the shaft, means for coupling the secondary frame to the shaft so that by the movement of the shaft the secondary frame is moved toward and from the first set of cylinders, an auxiliary set of cylinders mounted in the frame adjacent to the first set of rollers, auxiliary steam cylinders, means for coupling them to the shaft so that the movement thereof carries the auxiliary steam cylinders toward and from their corresponding cylinders simultaneously with the movement of the first steam cylinders, and means for adjusting the auxiliary steam cylinders toward their adjacent cylinders independently of the movement of the first set of steam cylinders.

5. In a cloth pressing and shrinking machine the combination of a series of pressing cylinders, a series of heating cylinders adapted to move into and out of coöperative engagement with said pressing cylinders, means for rotating said cylinders, a device for rendering said means effective in driving said cylinders, and means actuated by said device for moving said heating cylinders into and out of coöperative engagement with said pressing cylinders.

[Claim 6 not printed in the Gazette.]

944,282. APPARATUS FOR STROPPING RAZOR-BLADES. WILLIAM SCHMIDT, Jersey City Heights, N. J., assignor to Simon Zinn, New York, N. Y., a Firm. Filed Sept. 15, 1909. Serial No. 517,790.



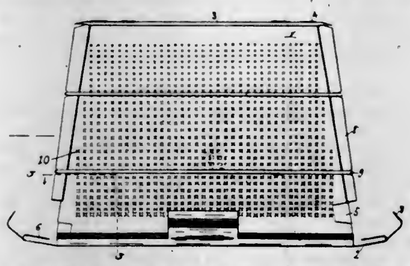
1. A razor-blade stropping apparatus comprising a supporting frame, a pair of driving and stropping rollers supported on said frame, an oscillating blade-holder, means for bringing the blade-holder back to upright position, and motion transmitting means between the shafts of the driving and stropping rollers for rotating the latter.

2. A razor-blade stropping apparatus comprising a supporting frame, an independently-oscillating blade-holder pivoted to said frame, a stop for arresting the oscillating motion of the blade-holder when moved in one or the opposite direction, a pair of driving rollers, a pair of stropping rollers and means for transmitting motion between the driving and stropping rollers for actuating the latter.

3. In a razor-blade stropping apparatus, the combination of a supporting frame, an independently-oscillating blade-holder pivoted to the frame, a roller supporting the blade-holder, a centering spring engaging the blade-holder and frame, means for arresting the motion of the blade-holder, driving-rollers supported in the frame, stropping rollers supported in the frame above the driving rollers, gear wheels for transmitting motion from the driving rollers to the stropping rollers and mechanism between the driving rollers and the stropping rollers for imparting rotary motion to the stropping rollers.

4. In a razor-blade stropping apparatus, the combination of a supporting frame, a pair of driving-rollers, one at each side of the frame, a pair of stropping rollers above and parallel with the driving-rollers, an independently oscillating blade-holder, a blade-holder supporting roller pivoted to the frame between the pairs of driving and stropping rollers, said supporting roller being of proper diameter, a centering spring between the rotary-shaft and frame, gear-wheels for transmitting rotary motion from the shafts of the driving-rollers to the stropping rollers, engaging pins on the shafts of the driving-rollers and a pair of pins on the gear-wheels of the driving-rollers, one on each side of the radial pins for permitting a certain lost motion before setting the trains of gear-wheels in motion when the apparatus is moved in either direction of motion.

944,283. BREAD-TOASTER. FRANK B. SCHUYLER, Berkeley, Cal. Filed June 20, 1907. Serial No. 379,843.



1. A bread toaster having a heat transmitting surface formed of perforated walls of sheet metal, each wall having a vertical edge extending outward at an angle with the wall to form a flange, and an outwardly extending base, a top connected with said walls, and a horizontal wire surrounding and engaging all of said flanges, substantially as described.

2. A bread toaster having perforated metallic walls, each having an outwardly extending base, and a vertical edge extending outward at an angle with the wall to form a flange wider at the top than at the bottom, a top connected with said walls, and a horizontal wire extending between the outer edges of the flanges in front of each of said walls, substantially as described.

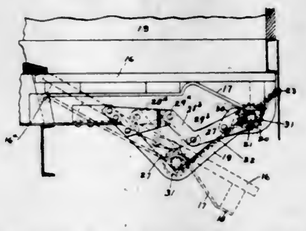
3. A bread toaster having perforated walls of sheet metal, each having a base extending outwardly from said walls, the outer portion of said base extending upward and then back on itself toward the wall to provide an air cooled support for the bread, and a top connected with said walls, substantially as described.

4. A bread toaster having perforated walls of sheet metal, each having a vertical edge extending outward at an angle with the wall to form a flange, and a base extending outwardly from said wall, the outer portion of said base extending upward and then back on itself toward the wall to provide an air cooled support for the bread, a top connected with said walls, and a horizontal wire extending between the outer edges of the flanges in front of each of said walls, substantially as described.

5. A bread toaster having perforated walls of sheet metal, each having a base extending outwardly from the wall, a portion of which base extends upward and then back on itself to provide an air cooled support for the bread, and another portion of which extends outward and then upward to form a retainer for the bread, and a top connected to said walls, substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

944,284. DUMP-DOOR-OPERATING MECHANISM. FREDERICK SEABERG, Chicago, Ill., assignor to National Dump Car Company, a Corporation of Maine. Filed Mar. 12, 1908. Serial No. 420,650.



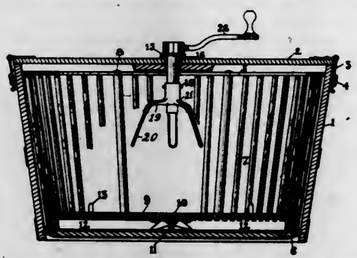
1. In a dump car, a door supporting shaft adapted to be reciprocated by rotation thereof, an inclined supporting track for said shaft, a ratchet wheel secured to said shaft, a creeper pivoted to said shaft, a link pivotally connected to said creeper and to a fixed part of the car, a detent pivoted to said creeper and adapted to engage said ratchet, and means for rotating said shaft.

2. In a dump car, a floor provided with hinged dump doors, a door supporting shaft, a ratchet wheel secured to said shaft, an inclined supporting track for said shaft, a chain secured to said shaft and to a fixed part of the car adjacent the upper end of said track, a creeper pivotally mounted on said shaft, a link pivotally connected to said creeper and to a fixed part of the car, a detent pivoted to said creeper and adapted to engage said ratchet, and means for rotating said shaft.

944,285. WASHING-MACHINE. AUGUSTUS W. SHANK, Detroit, Mich., assignor of one-half to Earle R. Kniffen, Detroit, Mich. Filed Sept. 2, 1909. Serial No. 515,843.

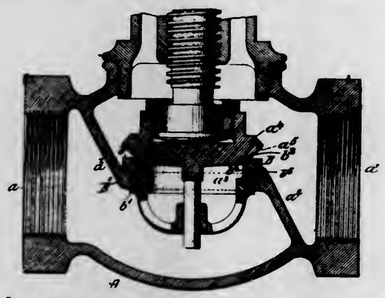
A washing machine comprising an outer casing, a cover therefor, a rotatable perforated suction plate removably journaled on the casing at an interval above the casing bottom, provided with substantially radial blades on its

lower side and projections on its upper side, a cage concentric in the casing around the plate consisting of an upper ring, a lower ring and rollers in spaced relation journaled at each end in the rings, a crank shaft rotatably secured on the cover in axial alinement with the suction



plate, a crank detachably secured on the upper end, and stirring members on the lower end extending toward the plate, a spider with radial arms, detachably secured on the lower end of the shaft and wire loop stirrers secured on the spider arms.

944,286. VALVE. CHARLES W. SHERBURNE, Boston, Mass. Filed Apr. 27, 1908. Serial No. 429,327.

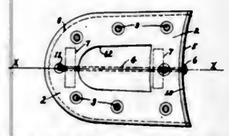


1. In a valve, the combination of a valve having a beveled edge, a valve seat having an interior beveled edge of like angular inclination as the beveled edge of said valve and against which beveled edge of the seat said valve is adapted to bear when closed, said seat having also an outer beveled edge having the same degree of angular inclination as the interior beveled edge thereof, and a base having an annular edge against which said seat is adapted to bear upon attaching the same to said base, said parts being arranged also whereby said valve may close against the annular edge of said base upon the removal of said detachable seat.

2. In a valve, the combination of a valve having a beveled edge, a valve seat having an interior beveled surface or edge against which said valve is adapted to bear, which valve seat, also, is made wedge-shaped by an outer beveled surface or edge, a base having a beveled surface or edge against which said wedge-shaped seat is adapted to be drawn upon affixing said seat to said base, all of which beveled surfaces have the same degree of angular inclination, and means for affixing said seat to said base.

944,287. INTERCHANGEABLE RUBBER HEEL. FRANK G. SHERMAN, Chicago, Ill. Filed Dec. 9, 1908. Serial No. 466,636.

1. A heel of the character described comprising a heel-plate, screws for securing the heel plate to a boot or shoe heel, said plate being formed to provide an inturned rim around the edge thereof, a rubber cushion, said cushion having a groove therearound adapted to fit the said rim when slid in place into the said plate, a pin carried by the said plate and extending through a hole in the said cushion when the latter is in place in the heel plate, a clamping plate placed across the front portion of the heel and over the free end of the said pin, and a nut for the free end of the said pin adapted to clamp the clamping plate to the heel, and thereby securely hold the several parts together.



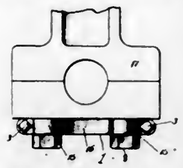
2. A heel of the character described comprising a cushion, a heel plate having a rim therearound for engaging the cushion and adapted to be attached to the heel of a boot or shoe, a pin permanently carried by the said plate and extending substantially horizontally through the said cushion, and means for removably holding the cushion on the pin.

3. A heel of the character described comprising a cushion, a heel plate adapted to be attached to the heel of a boot or shoe, a bolt carried by the said plate and extending through the said cushion, a clamping plate extending across the front of the heel and placed on the said bolt, and a nut on the said bolt whereby the said cushion and clamping plate are securely held in place.

4. A heel of the character described comprising mechanism adapted to be attached to the heel of a boot or shoe, a cushion adapted to fit the said mechanism, a clamping member extending across the front of the heel, and a member extending through the said clamping member and cushion and coöperating with the said mechanism for purposes substantially as described.

5. A heel of the character described comprising mechanism adapted to be attached to the heel of a boot or shoe, a cushion adapted to fit the said mechanism, a pin permanently carried by the said mechanism and extending substantially horizontally through the said cushion, and means for removably holding the cushion on the pin.

944,288. BOLT AND NUT LOCK. MERRITT W. SMITH, Troy, Pa. Filed Mar. 6, 1909. Serial No. 481,613.

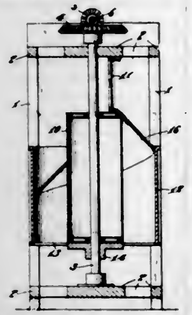


In a device of the character described, the combination of a plurality of screw-threaded shanks, a tightening member for tightening each of said shanks in its holding position, a cylindrical member attached to each said tightening member, and an expansible ring lock adapted to coöperate with each of the cylindrical members to prevent it from turning, said expansible rings being connected together.

944,289. DOUGH-SHAPER. EUGENE F. SOBERS, Bethlehem, Pa. Filed Apr. 20, 1909. Serial No. 491,081.

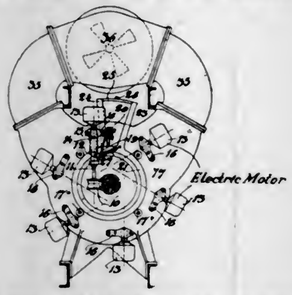
1. In a dough shaper, the combination with a rotary cylinder, of a stationary inner cylinder, a helical track-way fast to said inner cylinder and extending outward approximately from the inner to the outer cylinder, and a plate secured to the inner cylinder and extending across the ends of the helical track-way.

2. In a dough shaper, the combination with a frame, a vertical shaft mounted in the frame, means for transmitting motion to said vertical shaft, a cylinder secured to said shaft, an inner cylinder secured to the frame, a helical track-way fast to the inner cylinder, and extending approximately to the inner face of the outer cylinder, and a plate secured to the inner cylinder and extending across the ends of the helical track-way.



3. In a dough shaper, the combination with a frame, a vertical shaft mounted in the frame, means for transmitting motion to said vertical shaft, a cylinder secured to said shaft, an inner cylinder secured to the frame, and a helical track-way fast to the inner cylinder, and extending approximately to the inner face of the outer cylinder, and a plate secured to the inner cylinder and extending across the ends of the helical track-way.

944,290. WOOD-BARKING APPARATUS. GEORGE SPAAK, Bergvik, Sweden. Filed Apr. 6, 1908. Serial No. 425,515.



1. In a wood-barking machine and in combination, a frame, a plurality of cutters, a shaft upon which each cutter is mounted, means whereby each cutter shaft is so mounted in the said frame as to be longitudinally adjustable and movable transversely of the path of a log to be barked, and means for receiving, supporting and feeding a log during the barking operation.

2. In a wood-barking machine and in combination, a frame, a plurality of circularly disposed cutters, a shaft for each cutter, means for rotating each cutter shaft, means whereby each cutter shaft is so mounted in the said frame as to be longitudinally adjustable and movable transversely of the path of a log in the machine, and means for receiving, supporting and feeding a log through the machine.

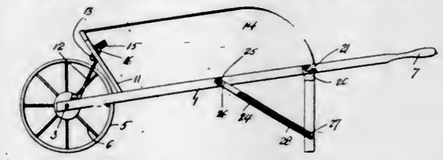
3. In a wood-barking machine and in combination, a frame, means for receiving, supporting and feeding a log to be barked, a plurality of cutters circularly disposed around the periphery of the log, a shaft for each cutter, a sleeve in which the said shaft is journaled, a second sleeve in which the aforesaid sleeve is longitudinally adjustable and means whereby the said second sleeve is pivotally mounted in the said frame so that the cutter shaft and cutter may swing toward and away from the log in the barking operation.

4. In a wood-barking machine and in combination, a frame, means for receiving, supporting and feeding a log through the machine, a plurality of cutters circularly disposed around the periphery of the log, a shaft for each cutter, a sleeve in which the said shaft is journaled, a motor secured to the said sleeve and connected to the said shaft, a second sleeve in which the aforesaid sleeve and its cutter shaft are longitudinally adjustable, means for determining and securing the aforesaid sleeve in position in the said second sleeve and means whereby the said second sleeve is pivotally mounted in the said frame so that the same together with the first aforesaid sleeve, the cutter shaft and its cutter may be given a swinging movement transversely of the log.

5. In a wood-barking machine and in combination, a frame, means for receiving, supporting and feeding a log through the machine, a plurality of cutters circularly disposed around the periphery of the log, a shaft for each cutter, a sleeve in which the said shaft is journaled, a motor secured to the said sleeve and connected to the said shaft, a second sleeve in which the aforesaid sleeve and its cutter shaft are longitudinally adjustable, an adjustable spring-link between the cutter shaft and the frame for guiding the said cutter shaft, means whereby the said second sleeve is pivotally mounted in the said frame so that the same together with the first aforesaid sleeve, the cutter shaft and its cutter may be given a swinging movement transversely of the log, and means for forcing the said cutters against the periphery of the log.

[Claims 6 and 7 not printed in the Gazette.]

944,291. WHEELBARROW. HARRY J. SPANGLER, Pittsburg, Pa. Filed July 23, 1909. Serial No. 509,126.



1. A wheelbarrow comprising side bars, a wheel revolubly supported by the forward ends of said bars, a bottom detachably connected to the inner sides of said bars, side boards adjustably connected to said bottom, an inclined front board engaging the forward end of said bottom and adjustably connecting with the forward ends of said side boards, braces detachably connected to said side bars and to the forward side of said front board, a rear board engaging the rear ends of said side boards, braces detachably connecting said rear board to said side bars, legs detachably connected to said side bars, and braces adjustably connected with said side bars and to said legs and adapted to clear said legs.

2. A wheelbarrow comprising side bars, a wheel revolubly supported by the forward ends of said bars, a bottom provided with depending brackets, means extending through the brackets for detachably-connecting the bottom to the inner sides of said bars, side boards adjustably connected to said bottom, an inclined front board engaging the forward end of said bottom and adjustably connected with the forward ends of said side boards, braces detachably connected to said side bars and to the forward side of said front board, legs detachably connected to said side bars, and braces adjustably connected with said side bars and to said legs and adapted to clear said legs.

3. A wheelbarrow comprising side bars, a wheel revolubly supported between the forward ends of said side bars, a bottom provided with depending brackets, means extending through the brackets for detachably-connecting the bottom to the said side bars, side boards adjustably connected to said bottom, an inclined front board adjustably connected to said side boards and resting upon said side bars, and detachable legs connecting with said side bars.

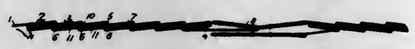
4. A wheelbarrow comprising side bars, a wheel revolubly supported by the forward ends of said side bars, a bottom provided with depending brackets, means extending through the brackets for detachably-connecting the bottom to the said side bars, front and rear boards detach-

ably connected to said side bars, and legs detachably connected to said side bars.

5. A wheelbarrow comprising side bars, a wheel revolubly supported between the forward ends of said side bars, a bottom provided with depending brackets, means extending through the brackets for detachably-connecting the bottom to the said side bars, an inclined front board detachably connected to said side bars, and legs adjustably connected to said side bars and adapted to fold in parallelism therewith.

[Claim 6 not printed in the Gazette.]

944,292. SHIRT-FRONT. RUTER W. SPRINGER, U. S. Army. Filed Aug. 13, 1909. Serial No. 512,645.

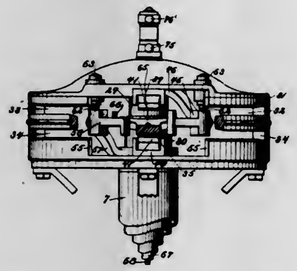


1. In a structure for shirt-fronts, shirt waists and the like, a piece of goods provided with a series of plaits wherein the free end of one plait overlaps the center of the next succeeding plait, in combination with an intervening connecting web having a width equal to not over one-half that of the plait.

2. In a structure for shirt-fronts, shirt-waists and the like, the combination with side and central connections, of a series of overlapping plaits formed of a continuous piece of material folded into plaits stitched at their bases, so that the stitching will lie approximately beneath the middle of each overlapping plait.

3. In a structure for shirt-fronts, shirt waists and the like, a piece of goods provided with a series of plaits wherein the free end of one plait overlaps the center of the next succeeding plait, in combination with an intervening connecting web composed of a single thickness of material and having a width equal to not over one-half that of the plait.

944,293. CONTROL FOR DRIVING MECHANISMS. CHARLES B. STEBBINS, Three Rivers, Mich., assignor to Sheffield Car Company, Three Rivers, Mich. Filed Nov. 13, 1908. Serial No. 462,442.



1. The combination with a hollow control post standard, of a pair of transmission clutch control posts; a pair of master clutch control posts; a throttle control post; a commutator control post, said several control posts being arranged one within another and within said standard; collars on said posts having bearing portions whereby said posts are revolubly supported; actuating levers mounted upon said clutch control posts; a pivoted shifting lever; jaws on said actuating levers adapted to be engaged by said shifting lever, the jaws of said transmission post levers being faced oppositely and the jaws of said master clutch levers being adapted to be engaged from above and below; a head having guide ways therein for said shifting lever and stops for said transmission and master clutch levers and said shifting lever arranged so that said master clutch levers are adapted, when in their initial positions, to be engaged by said shifting lever after the transmission clutch levers have been shifted thereby to their actuating position; and springs carried by said transmission control post levers for retaining them in their inoperative position, said springs being adapted to be disengaged by said shifting lever.

2. The combination with a hollow control post standard, of a pair of transmission clutch control posts; a pair of master clutch control posts; a throttle control post; a commutator control post, said several control posts being arranged one within another and within said standard; actuating levers mounted upon said clutch control posts; a pivoted shifting lever; jaws on said actuating levers adapted to be engaged by said shifting lever, the jaws of said transmission post levers being faced oppositely and the jaws of said master clutch levers being adapted to be engaged from above and below; a head having guide ways therein for said shifting lever and stops for said transmission and master clutch levers and said shifting lever arranged so that said master clutch levers are adapted, when in their initial positions, to be engaged by said shifting lever after the transmission clutch levers have been shifted thereby to their actuating position; and springs carried by said transmission control post levers for retaining them in their inoperative position, said springs being adapted to be disengaged by said shifting lever.

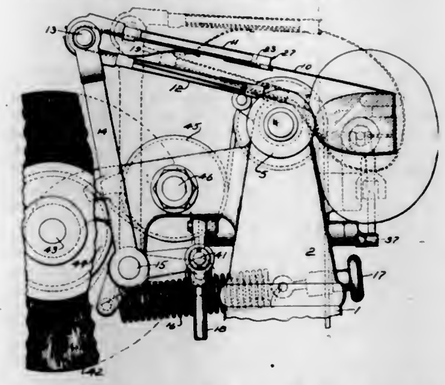
3. The combination with a hollow control post standard, of a pair of transmission clutch control posts; a pair of master clutch control posts; a throttle control post; a commutator control post, said several control posts being arranged one within another and within said standard; collars on said posts having bearing portions whereby said posts are revolubly supported; actuating levers mounted upon said clutch control posts; a pivoted shifting lever; jaws on said actuating levers adapted to be engaged by said shifting lever, the jaws of said transmission post levers being faced oppositely and the jaws of said master clutch levers being adapted to be engaged from above and below; a head having guide ways therein for said shifting lever and stops for said transmission and master clutch levers and said shifting lever arranged so that said master clutch levers are adapted, when in their initial positions, to be engaged by said shifting lever after the transmission clutch levers have been shifted thereby to their actuating position.

4. The combination with a hollow control post standard, of a pair of transmission clutch control posts; a pair of master clutch control posts; a throttle control post; a commutator control post, said several control posts being arranged one within another and within said standard; actuating levers mounted upon said clutch control posts; a pivoted shifting lever; jaws on said actuating levers adapted to be engaged by said shifting lever, the jaws of said transmission post levers being faced oppositely and the jaws of said master clutch levers being adapted to be engaged from above and below; and a head having guide ways therein for said shifting lever and stops for said transmission lever arranged so that said master clutch levers are adapted, when in their initial positions, to be engaged by said shifting lever after the transmission clutch levers have been shifted thereby to their actuating position.

5. The combination with a hollow control post standard, of a pair of transmission clutch control posts; a pair of master clutch control posts, said control posts being arranged one within another and within said standard; collars on said posts having bearing portions whereby said posts are revolubly supported; actuating levers mounted upon said clutch control posts; a pivoted shifting lever; jaws on said actuating levers adapted to be engaged by said shifting lever, the jaws of said transmission post levers being faced oppositely and the jaws of said master clutch levers being adapted to be engaged from above and below; a head having guide ways therein for said shifting lever and stops for said transmission and master clutch levers and said shifting lever arranged so that said master clutch levers are adapted, when in their initial positions, to be engaged by said shifting lever after the transmission clutch levers have been shifted thereby to their actuating position; and springs carried by said transmission control post levers for retaining them in their inoperative position, said springs being adapted to be disengaged by said shifting lever.

[Claims 6 to 38 not printed in the Gazette.]

944,294. HEEL-BEADING MACHINE. WILLIAM C. STEWART and WILLIAM H. HOOPER, Lynn, Mass., assignors, by mesne assignments, to Thomas G. Plant, Boston, Mass. Filed Nov. 20, 1907, Serial No. 403,026. Renewed Feb. 27, 1909. Serial No. 480,376.



1. A machine for operating upon the heels of boots and shoes, comprising a working tool, a flexible strap constructed and arranged to provide a loop for engaging the boot or shoe, and means for bodily moving the strap and the loop engaged boot or shoe toward said working tool.

2. A machine for operating upon the heels of boots and shoes, comprising a tool, a heel engaging member presenting a loop conformable to the shape of and to receive the heel, said heel engaging member being constructed and arranged to travel relative to the heel as the latter is moved by the operative to present different portions of the heel to the tool.

3. In a machine for acting upon the heels of boots and shoes, the combination of a working tool, a work supporting band or strap constructed and arranged to provide a loop for engaging and sustaining the work, means for moving the band or strap in one direction to permit the work to be placed within the loop, and means for moving it in the opposite direction to carry the work into operative relation with the tool.

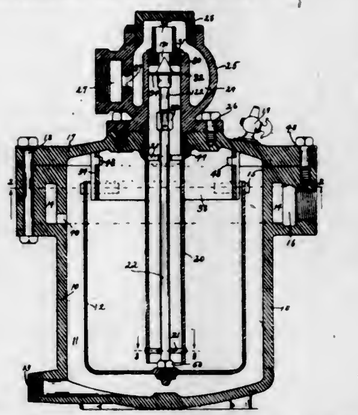
4. In a machine for acting upon the heels of boots and shoes, the combination of a working tool, a flexible band or strap constructed and arranged to provide a work receiving loop, and means for separating the parts of the loop to permit the work to be placed therein.

5. In a machine for acting upon the heels of boots and shoes, the combination of a working tool, a flexible band or strap, a carrier for said band or strap, means for separating the parts of the band or strap to permit the work to be engaged thereby, and means for moving the carrier and band or strap to place the heel in operative relation with respect to the working tool.

[Claims 6 to 27 not printed in the Gazette.]

944,295. STEAM-TRAP. COLE STICKLE, Indianapolis, Ind., assignor to The Open Coil Heater and Purifier Company, Indianapolis, Ind., a Corporation. Filed Apr. 29, 1909. Serial No. 492,854.

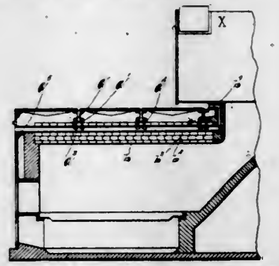
1. A steam trap including a casing provided with a bucket chamber and an outlet opening, a bucket in said chamber, a valve for closing said outlet opening, a rod centrally secured to the bottom of the bucket for controlling the operation of said valve, means for vertically guiding said rod, and means extending down from the top of the casing into proximity with the top of the bucket but normally out of engagement therewith so as to limit the lateral movement of the top of the bucket.



2. A steam trap including a casing provided with a bucket chamber and an outlet opening, a bucket in said chamber, a valve for closing said outlet opening, a spring rod centrally secured to the bottom of the bucket and at its upper end flexibly connected with said valve, means for vertically guiding said rod, and means extending down from the top of the casing that limits the lateral movement of the top of the bucket but is normally out of engagement with the bucket.

3. A steam trap including a casing provided with a bucket chamber and with an outlet opening, a bucket in said chamber, means controlled by the bucket for opening and closing the outlet, and an annular extension from the top of the casing into the bucket provided with external vertical ribs that prevents lateral movement of the upper end of the bucket, which extension is provided with steam ports through the upper part thereof for permitting steam into the upper part of the bucket, substantially as set forth.

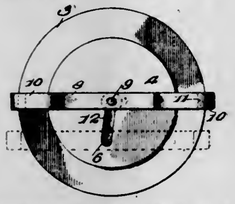
944,296. TOP FOR FURNACES. FREDERICK C. STIMMEL, Chattanooga, Tenn., assignor to The Casey-Hedges Company, Chattanooga, Tenn., a Corporation of Ohio. Filed Mar. 18, 1909. Serial No. 484,341.



1. In a top furnace wall, the combination of main supporting elements with intermediate supporting elements, said last mentioned elements being hollow and having openings extending to the interior thereof, connecting devices extending from said main supporting elements through the openings in said intermediate supporting elements and within the interior thereof, each having a head portion capable of being turned over after insertion leaving a passageway below said head portion and means adapted to close said openings, bricks having channels or grooves formed therein adapted to fit over said intermediate elements and inclose same, substantially as specified.

2. In a top furnace wall, the combination of main supporting elements with intermediate supporting elements, said last mentioned elements being hollow and having openings extending to the interior thereof, connecting devices extending from said main supporting elements through the openings in said intermediate supporting elements and within the interior thereof, each having a head portion capable of being turned over after insertion leaving a passageway below said head portion and means adapted to close said openings, bricks having channels or grooves formed therein adapted to fit over said intermediate elements and inclose same, said hollow members being adapted to have air passing therethrough, substantially as specified.

944,297. FASTENER FOR CAN-CLOSURES. SAMUEL B. THOMAS, Manchester, N. H. Filed Nov. 11, 1908. Serial No. 462,172.



1. The combination with a closure, of a clamping bar and a pivotal connection at the middle of the bar engaging with the closure and movable along a definite line to and from the rim of the closure, said bar having a rotative movement on said pivotal connection in a plane parallel to the plane of the closure, said pivotal connection permitting the bar to be turned at right angles to the direction of said line.

2. The combination with a closure, of a clamping bar pivotally connected to the upper face of said closure for rotative movement in a plane parallel therewith, and means for permitting a movement of said bar in a diametrical line transverse to the closure and in one direction only, whereby the bar may be turned to a position in alinement with said line, to prevent said movement, or into a direction at right angles to said line to permit a disengagement of the clamping bar with a vessel.

3. The combination with a receptacle and a closure therefor, of a clamping bar engageable with the receptacle to hold the closure in place, a pivotal stud on the bar engaging with the closure and means on the closure for guiding the stud along a definite radial line.

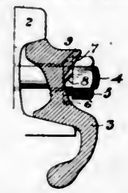
4. The combination with a receptacle and a closure therefor, of a clamping bar having its ends adapted to engage the receptacle, a stud mounted on the bar, and pivotally but shiftably connecting the clamping bar to the closure, and means for guiding the movement of the stud in its engagement with the closure toward or from the center of said closure to effect a clamping position of said bar, said means thereby permitting the relative positions of said bar.

5. The combination with a receptacle and a closure therefor, the latter provided with a radial slot, of a clamping bar, a stud mounted on the clamping bar and pivotally connecting the clamping bar to the closure, said stud projecting into the slot and being thereby guided radially over the face of the closure whereby an engaging and disengaging position of the clamping bar is effected.

[Claims 6 to 12 not printed in the Gazette.]

944,298. RAIL-JOINT. WILLIAM P. THOMSON and SAMUEL G. THOMSON, Philadelphia, Pa., assignors to Thomson-Thomson Company, a Partnership, Philadelphia, Pa. Filed Dec. 14, 1908. Serial No. 467,332.

1. A splice bar for rails having bolt holes therethrough and having a portion of its bolting face below a horizontal plane at the center of said holes slanting downwardly and outwardly, and a portion of said face above said plane projecting outwardly to a point outside of the outer edge of the rail head, a recess in said outwardly extending face and an abrupt projection above said recess, said bar to lie entirely below the lower outer edge of the rail head; substantially as described.



2. A splice bar for rails having holes for connecting bolts and an upper face inclined downwardly and outwardly from the lower outer edge of the rail head, said bar having portions of a bolting face which extends outwardly beyond the outer edge of the rail head above said holes and which is recessed to allow nuts to turn on vertical outer gripping faces, said gripping faces being also partly formed by an outer face lying in substantially the same plane and extending the full length of the bar; substantially as described.

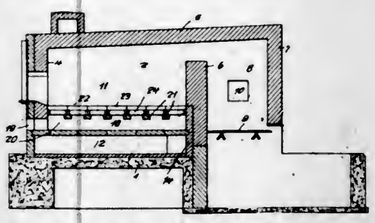
3. A splice bar for rails having an upper face slanting downwardly and outwardly from the lower outer edge of the rail head, said bar having holes for connecting bolts, and also having the upper portion of its bolting face extending outwardly beyond the head of the rail, said upper portion being recessed to form vertical faces adjacent to said bolt holes, and said vertical faces lying in substantially the same plane as an outer face which extends in substantially the same plane for the full length of the bar; substantially as described.

4. A splice bar for rails having holes for connecting bolts, and also having adjacent to said bolt holes vertical faces recessed from slanting portions and lying outside the head of the rail and each of sufficient area to permit a nut to turn freely into a tightened position, said bar having a portion of its outer face above a portion of said vertical face inclined upward and outward, and a portion of its outer face below a portion of said vertical face inclined downward and outward, substantially as described.

5. In a rail joint, a splice bar to stand free from the rail web and having bolt holes therethrough, and also having a portion of its bolting face lying in substantially the same plane for the full length of the bar adjacent to the center line of the bolt holes, said bar also having an outwardly inclined face intersecting a horizontal plane at the top of the bolt holes, portions of said face above the center line of the bolt holes being recessed adjacent to the bolt holes to form a clearance for a nut to turn into a tightened position; substantially as described.

[Claims 6 to 11 not printed in the Gazette.]

944,299. FURNACE. ALFRED TOMKINS, Pittsburg, Pa. Filed Oct. 13, 1909. Serial No. 522,430.

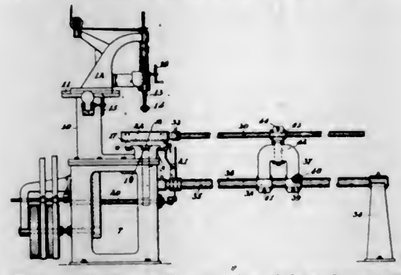


1. A furnace bottom having partitions, plates supported on said partitions, said partitions and plates forming draft channels, partitions mounted on said plates, spaced supports mounted on said last named partitions, and a flooring of tiles supported by said supports, said tiles having their adjacent edges recessed to provide openings communicating with the spaces between the last-named partitions.

2. The combination with a furnace having a heating chamber, of partitions arranged at the bottom of said chamber, and tiles supported upon said partitions and adapted to form furnace dirt chambers between said partitions, said tiles having the longitudinal edges thereof beveled and provided with recesses adapted to form openings for discharging matter from said tiles into the furnace dirt chambers of said furnace.

3. The combination with a furnace having a heating chamber, of longitudinal partitions arranged at the bottom of said chamber, transverse supports connecting said partitions, tiles arranged upon said supports and the upper edges of said partitions and adapted to provide a floor for supporting matter in said heating chamber, said tiles having the longitudinal confronting edges thereof beveled and recessed to provide openings adapted to discharge matter between said partitions.

944,300. RADIUS-GRINDER. ADRIAN O. VAN DERVORT, Troy, N. Y. Filed Sept. 14, 1909. Serial No. 517,553.



1. The combination with a driving slide and means for effecting a longitudinal traverse thereof, of a work-table slide mounted thereon, the work-table slide being provided with a guideway disposed transversely of the direction of traverse of the driving slide, a block pivotally carried by said driving slide and seated in said guideway, a radius bar rigid with the work-table slide, and a center pivot for the radius bar adjustable toward and from the driving slide.

2. The combination with a driving slide and means for effecting a longitudinal traverse thereof, of a work-table slide being provided with a guideway disposed transversely of the direction of traverse of the slide rest, a block pivotally carried by said driving slide and seated in said guideway, a radius bar rigid with the work table slide, a guide rail disposed transversely of the direction of traverse of the driving slide, a center support mounted on the rail, a clamp for holding the support in its position of adjustment on the rail, a pivot for the radius bar carried by the support, and a clamp for holding the pivot in its position of adjustment on the radius bar.

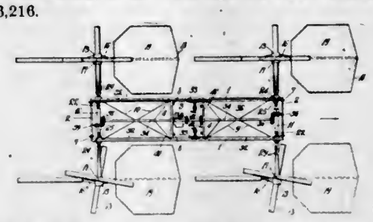
3. The combination with a machine frame provided with horizontally disposed ways, of a driving slide mounted on said ways and means for reciprocating the slide on the ways, a work table slide mounted on the driving slide, one of said slides being provided with a transverse groove and the other being provided with a projecting member seated in such groove, a radius bar projecting transversely from the work table slide, and a pivot for the radius bar.

4. The combination with a machine frame provided with horizontally disposed ways, of a driving slide mounted on said ways and means for reciprocating the slide on the ways, a work table slide mounted on the driving slide, one of said slides being provided with a transverse groove and the other being provided with a projecting member seated in such groove, a radius bar projecting transversely from the work table slide, a clamp mounted on the radius bar and a pintle carried by such clamp, a guide bar carried by the frame below the radius bar and projecting transversely to the ways and being provided longitudinally with a key-way, a support having a bearing for the pintle and provided with clamps mounted on the guide bar, and a key seated in the said key-way.

5. The combination with a machine frame provided with horizontally disposed ways, of a driving slide mounted on said ways and means for reciprocating the slide on the ways, a work table slide mounted on the driving slide, one of said slides being provided with a transverse groove and the other being provided with a projecting member seated in such groove, a radius bar projecting transversely from the work table slide, and a pintle mounted on the radius bar for longitudinal adjustment thereon, a guide bar carried by the frame below the radius bar and projecting transversely to the ways, and a center support having a bearing for the pintle and provided with a pair of widely spaced apart clamps mounted on the guide bar.

[Claims 6 and 7 not printed in the Gazette.]

944,301. FLYING-MACHINE. AARON W. H. WARSHAWSKY, New York, N. Y. Filed Apr. 18, 1905. Serial No. 256,216.



1. A flying machine comprising a main frame, rotatable shafts mounted thereon, means for rotating said shafts, members carried by said shafts and free to turn on their own axes, wings secured to each end of said members, pins revolving with said shafts, connections leading from the pins to said members, collars provided with cams fixed with relation to said shafts and adapted to act on said pins to move them inboard at predetermined periods during the rotation of the shafts, teeth on said collars, a chain passing over the collars on the same side of the machine and engaging with their teeth, an endless screw adapted to operate said chain to move the collars on one side of the machine an equal distance to maintain corresponding wings carried by the shafts on the same side of the machine in parallel planes.

2. A flying machine comprising a main frame, rotatable shafts mounted thereon, means for rotating said shafts, members carried by said shafts free to turn on their own axes, wings secured to each end of said members, sleeves secured to said shafts, pins movably carried by said sleeves, connections leading from the pins to said members, collars provided with cams fixed with relation to said sleeves and shafts, adapted to act on said pins to move them inboard at predetermined periods during the rotation of the shafts, teeth on said collars, chains passing over said collars engaging with the teeth, and means adapted to operate said chains to move the collars and thereby change the point at which the cams act upon said pins during the rotation of the shafts.

3. A flying machine comprising a main frame, rotatable shafts mounted thereon, means for rotating said shafts, members carried by the said shafts and free to turn on their own axes, wings secured to each end of said members, sleeves secured to said shafts, pins movably, carried by the opposite sides of said sleeves and revolving therewith, connections leading from the pins to said members, collars fixed with relation to said shafts and provided with cams adapted to act successively on said pins to move them inboard at predetermined periods during the rotation of the shafts, said collars having cut away por-

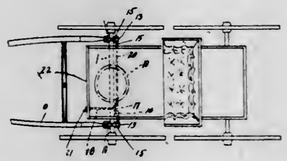
tions corresponding to said cams and on the side opposite thereto adapted to allow certain of said pins to move outboard to loosen the connections to certain of said members when the pins on the opposite sides of the sleeves act upon said cams.

4. A flying machine comprising a main frame, rotatable shafts mounted thereon, means for rotating said shafts, members carried by the shafts and free to turn on their own axes, wings secured to each end of said members, sleeves secured to said shafts, pins movably carried by the opposite sides of said sleeves and revolving therewith, connections leading from the pins to said members, collars fixed with relation to said shafts and provided with cams adapted to act successively on said pins to move them inboard at predetermined periods during the rotation of the shafts, said collars having cut away portions corresponding to the cams and on the side opposite thereto adapted to allow certain of said pins to move outboard to loosen the connections to certain of said members when the pins on the opposite sides of the sleeves act upon said cams, and means adapted to move the collars to vary the point at which the cams act on the pins during the rotation of the shafts.

5. A flying machine comprising a main frame, rotatable shafts mounted thereon, means for rotating said shafts, members carried by said shafts and free to turn on their own axes, wings secured to each end of said members, sleeves secured to said shafts, pins movably carried by the opposite sides of said sleeves and revolving therewith, connections leading from the pins to said members, collars fixed with relation to said shafts and provided with cams adapted to act successively on said pins to move them inboard at predetermined periods during the rotation of the shafts, said collars having cut away portions corresponding to said cams and on the sides opposite thereto adapted to allow certain of the pins to move outboard to loosen the connections to certain of said members when the pins on the opposite sides of the sleeves act upon the cams, teeth on the collars, chains passing over said collars and engaging with the teeth, and means adapted to operate said chains to move the collars and thereby change the point at which the cams act upon said pins during the rotation of the shafts.

[Claims 6 to 13 not printed in the Gazette.]

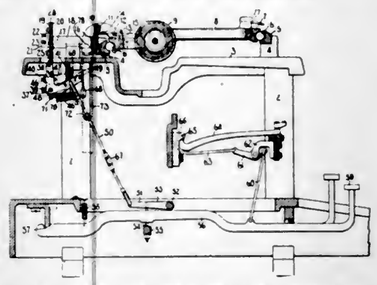
944,302. HORSE-DETACHER. HARRY J. WILLIAMSON, Mapletown, Pa. Filed Aug. 14, 1909. Serial No. 512,911.



1. In a horse detacher, the combination with the forward axle of a vehicle and a pair of shafts adapted to be attached to the same, of clevises carried by said axle and connecting with said shafts, each clevis comprising a base plate, a bracket connected to said base plate, a hinged member carried by said bracket, a pin for holding said hinged member and said base plate in engagement with said axle, a revoluble disk carried by said axle and adapted to loosely connect with the pins of said clevises, and a lever adapted to move said disk to move said pin and release said hinged members.

2. In a horse detacher, the combination with the forward axle of a vehicle, and shafts adapted to attach thereto, of clevises carried by said axle and connecting with said shafts, each clevis comprising a base plate having depending flanges, a bracket connected to said base plate, a hinged member connected to said bracket and adapted to extend between the flanges of said base plate, pins adapted to hold said member between said flanges, and means carried by said axle and adapted to connect with said pins for drawing said pins out of engagement with said hinged members, substantially as described.

944,303. TYPE-WRITING MACHINE. CLIO B. YAW, Arlington, N. J., assignor to Remington Typewriter Company, Ilion, N. Y., a Corporation of New York. Filed Oct. 13, 1908. Serial No. 457,498.



1. In a typewriting machine, the combination of a power driven carriage, a plurality of relatively adjustable feed racks which move together as one rack at all times during the operation of the machine and under all possible adjustments, means for securing said feed racks together in their adjusted relation, and a feed dog coöperative with said feed racks.

2. In a typewriting machine, the combination of a power driven carriage, a plurality of escapement wheels which move together as one wheel at all times during the operation of the machine and under all possible adjustments, said wheels being relatively adjustable around their axes to determine the amount of "drop" to be afforded, means for securing said wheels together in their adjusted relation, and a feed dog coöperative with said escapement wheels.

3. In a typewriting machine, the combination of a power driven carriage, a plurality of escapement wheels which are at all times secured together to move as one part during the operation of the machine and under all possible adjustments, a feed dog coöperative therewith, and means for effecting a relative adjustment between certain of the above mentioned parts and for maintaining them in their adjusted relation to afford an "ordinary" or "reverse" feed at will.

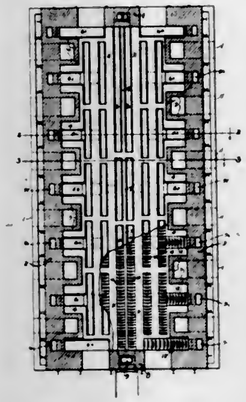
4. In a typewriting machine, the combination of a power driven carriage, escapement wheels arranged side by side and spaced apart, said escapement wheels being at all times when in operation secured together to turn as one part and having reëntrant bevels on non-working faces of the teeth thereof, means for affording a relative adjustment between said wheels to determine the amount of "drop," and a feed dog having a thickness which is greater than the space between said wheels, said feed dog having a reëntrant bevel on a non-working face thereof.

5. In a typewriting machine, the combination of a power driven carriage, escapement wheels at all times when in operation secured together to move as one part, means for affording relative rotative adjustments between said wheels up to an amount substantially equal to the distance between two teeth of one of said wheels to regulate the extent of "drop," and a feed dog coöperative with said escapement wheels.

[Claims 6 to 20 not printed in the Gazette.]

944,304. KILN. ABRAHAM H. YODER, Canton, Ohio. Filed Dec. 7, 1908. Serial No. 466,299.

1. A down-draft kiln having a series of flues including one or more longitudinal flues in the median line with a series of flues on each side thereof, all together underlying the whole area of the floor, partitions separating the flue or flues pertaining to the different zones of the floor including transverse partitions dividing the median-line flues into end sections and one or more intermediate sections, the intermediate sections of the median-line flues being connected with the adjacent side flues, and separate stacks leading from the flue or flues pertaining to each zone, with means for controlling the draft in the respective stacks.



2. A down-draft kiln having a series of flues including one or more longitudinal flues in the median line with a series of flues on each side thereof, all together underlying the whole area of the floor, partitions separating the flue or flues pertaining to the different zones of the floor including transverse partitions dividing the median-line flues into end sections and one or more intermediate sections, the intermediate sections of the median-line flues being connected with the adjacent side flues, and separate stacks leading from the flue or flues pertaining to each zone.

3. In a kiln, a fire-box extending through and beyond the kiln wall, and having an arch composed entirely of end-wedge bricks all laid as headers in series extending the whole length of the arch, the joints of each series being broken with the joints of adjoining series, a supplemental arch in the wall over the through arch and one or more face arches in the mouth of the box inside the through arch.

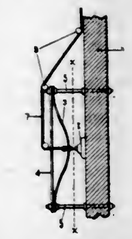
4. In a kiln, a fire-box extending through and beyond the kiln wall, and having an arch composed entirely of end-wedge bricks all laid as headers in series extending the whole length of the arch, the joints of each series being broken with the joints of adjoining series, and one or more face arches in the mouth of the box inside the through arch.

5. In a kiln, a fire-box extending through and beyond the kiln wall, and having an arch composed entirely of end-wedge bricks all laid as headers in series extending the whole length of the arch, the joints of each series being broken with the joints of adjoining series, and a supplemental arch in the wall over the through arch.

[Claims 6 to 8 not printed in the Gazette.]

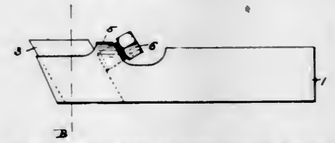
944,305. FIRE-ALARM. BOLIVOR C. ANDREWS, Mabank, Tex. Filed Apr. 10, 1909. Serial No. 489,061.

In an automatic fire alarm, the combination with an electric bell or bells, of a plate, a push button in circuit with said bell or bells, a bow-shaped spring held in tension in such a manner that release thereof will operate said push button, said spring being provided with slotted extremities, bolts connecting said spring to said plate passing through the slots in the extremities of said spring and restricting said spring to motion longitudinal with said plate, bolts attaching said plate to the wall of a room and permitting adjustment of said plate relative to said wall, an inflammable cord holding said spring in tension and



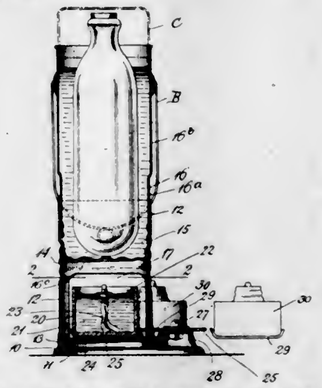
passing about a room or rooms protected, and rotatable means whereby said cord is restricted and supported.

944,306. TOOL. GEORGE A. BARNES, New Haven, Conn., assignor to The Ready Tool Company, New Haven, Conn., a Corporation of Connecticut. Filed Apr. 25, 1908. Serial No. 429,148.



A lathe tool, comprising in combination, a body member having a cutter socket rectangular in cross section formed by an opening provided in one end of said body, at an angle to the sides and bottom and projecting downwardly and rearwardly from the top of the body, a cutter comprising a flat strip of metal conformably fitted in the socket, said strip of metal having an upper cutting edge, a lug integral with the body and projecting upwardly from the top thereof, and a screw projecting through said lug at an angle thereto to impinge against the cutter.

944,307. MILK-WARMER. ISAAC BAUER, Middletown, Conn., assignor to The New England Enameling Company, Middletown, Conn. Filed Mar. 19, 1909. Serial No. 484,439.



1. The combination with a reservoir, of a base, a plate supported on said base and carrying a lamp, and means for shifting said plate to bring said lamp under the reservoir, and means for adjusting said reservoir relatively to the base.

2. The combination with a reservoir, and a base therefor, of a plurality of lamps, and a plate supporting said

lamps and movable on said base to bring said lamps into coöperation with said reservoir, alternately.

3. The combination with a reservoir, and a base therefor, of a plurality of lamps, and a plate supporting said lamps and pivoted on said base to bring said lamps into coöperation with said reservoir, alternately.

4. The combination with a reservoir, and a base therefor of a plurality of lamps, and a base supporting said lamps and pivoted on said base to bring said lamps into coöperation with said reservoir, alternately, and means for adjusting said reservoir relatively to the base.

5. The combination with a reservoir, having a screw thread, and a support therefor, and also having a screw thread for coöperation with the screw threads of the reservoir, of a base secured to said support, a plate pivoted on said base to swing in a horizontal plane, a lamp held on said plate, and means for limiting the movement of said plate to position said lamp relatively to the reservoir.

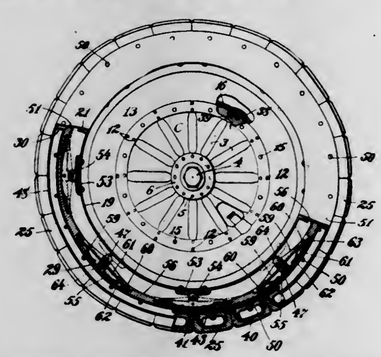
[Claims 6 to 8 not printed in the Gazette.]

944,308. AUTOMOBILE-TIRE. WILLIAM J. BAUER, New York, N. Y., assignor to Bauer Non-Collapsible Wheel Company, New York, N. Y., a Corporation of New York. Filed Aug. 28, 1908. Serial No. 450,697.



A tire adapted for attachment to the rim of a wheel, comprising a cushioning device, a channeled ring, surrounding said cushioning device but out of contact therewith, a filler carried by said channeled ring adapted to contact with said cushioning device, grooved rings embracing and supporting said cushioning device, flanges carried by said rings adapted to support said channeled ring, and sections of fibrous material carried by said flanges adapted to contact with said channeled ring, and a tread carried by said ring.

944,309. VEHICLE-WHEEL. WILLIAM J. BAUER, New York, N. Y., assignor to Bauer Non-Collapsible Wheel Company, New York, N. Y., a Corporation of New York. Filed Feb. 8, 1909. Serial No. 476,624.



1. A driving vehicle wheel comprising a hub section, a rim section, means to prevent the relative sidewise movement of the sections, a pneumatic cushion arranged between the sections, a locking device carried by the rim section, and means carried by the hub section adapted to interlock with the locking device on the rim section when the pneumatic cushion becomes deflated during rotation of the wheel under load.

2. A driving vehicle wheel comprising a hub section, a rim section, means to prevent the relative sidewise movement of the sections, a pneumatic cushion arranged between the sections, a plurality of latches carried by the rim section, and a plurality of rollers carried by the hub section adapted to interlock with the latches on the rim section when the pneumatic cushion becomes deflated during the rotation of the wheel under load.

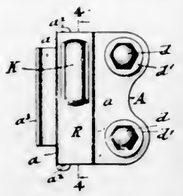
3. A driving vehicle wheel comprising a hub section, an independent rim section, a pneumatic cushion arranged between said sections normally adapted to keep said sections in a concentric relationship one with the other, and means adapted to restore said hub section to its concentric relationship with the rim section, should the pneumatic cushion become deflated during rotation of the wheel under load, to interlock and bind said sections together.

4. A driving vehicle wheel comprising a hub section, an independent rim section, a pneumatic cushion arranged between said sections, normally adapted to keep said sections in a concentric relationship one with the other, and means adapted to restore said hub section to its concentric relationship with the rim section, should the pneumatic cushion become deflated during rotation of the wheel under load, and to cause said sections to rotate in unison after the said hub section has been restored to its normal position.

5. A driving vehicle wheel, comprising a hub section, clamps carried by said hub section, said clamps being provided at the periphery thereof with outwardly extending flanges, a pneumatic tube carried by said clamps, a felly retained by said clamps and adapted for movement therebetween, a tread carried by said felly, clencher rings adapted to retain said tread in position on said felly, said clencher rings being adapted to contact the flanges on said clamps, whereby a dust-proof guard is formed, a rack carried by said felly and teeth carried by said pneumatic tube adapted to mesh with the teeth of said work.

[Claims 6 to 8 not printed in the Gazette.]

944,310. DOOR-STRIKE. EMIL BOMMER, New York, N. Y. Filed Oct. 30, 1908. Serial No. 460,242. Renewed Nov. 8, 1909. Serial No. 526,892.



1. A door-strike the front-wall of which is provided with a raised portion forming a recess on its inner side, said raised portion having a transverse slot or opening, and an invertible keeper inserted in said opening.

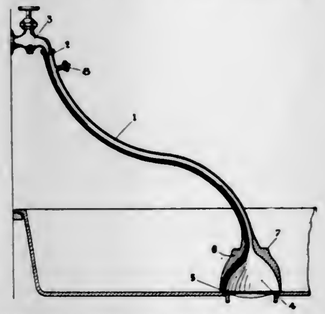
2. A door-strike the front-wall of which is provided with a raised portion forming a recess on its inner side, said raised portion having a transverse slot or opening, and an invertible keeper provided with a shank inserted in said opening and an exterior angular portion for receiving the free end of a door-latch.

3. A door-strike the front-wall of which is provided with a raised portion having a transverse slot or opening with concaved sides, and an invertible keeper provided with a flat shank and an exterior angularly-bent corrugated or convex portion.

4. A door-strike consisting of a box-shaped body the front-wall of which is provided with a transverse slot or opening, an invertible keeper provided with a shank for inserting it in said opening, and an exterior angular portion for holding the free end of a door-latch or similar article.

5. A door-strike consisting of a box-shaped body the front-wall of which is provided with a raised portion having a transverse slot or opening, and a keeper having an exterior angularly-bent portion to receive the free end of a latch and a flat shank for insertion through the slot or opening into the inner recess formed by the raised portion.

944,311. DRAIN-PIPE CLEANER. GEORGE M. BLOOM, Detroit, Mich. Filed Apr. 1, 1909. Serial No. 487,173.

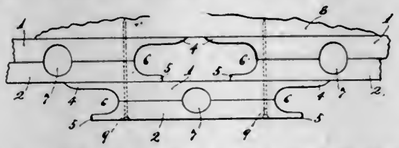


1. A drain and waste pipe cleaner comprising a hose of flexible material whose upper end is adapted to be secured to a service cock and whose lower end is enlarged into a bell mouth, the wall of the bell near the hose being thickened to form a non-collapsible zone, and the margin of the bell being reduced and softened to form a freely flexible lip, and a lateral air inlet nipple near the upper end.

2. A drain and waste pipe cleaner comprising a hose of flexible material fitted at one end for connection with a service cock and enlarged at the other into a bell mouth whose wall near the hose is thickened to form a non-collapsible zone, and whose margin is reduced in thickness to form a freely flexible lip, the bell wall at its thickened portion presenting a smoothly rounded interior and having an exterior annular shoulder forming a hand hold.

3. A drain and waste pipe cleaner comprising a hose of flexible material fitted at one end for connection with a service cock and enlarged at the other into a bell mouth whose wall near the hose is thickened to form a non-collapsible zone and whose margin is reduced in thickness to form a freely flexible lip, the bell wall at its thickened portion presenting a smoothly rounded interior and having an exterior annular shoulder forming a hand hold, and an air inlet nipple near the attachable end.

944,312. TOOL-RACK. MARTIN H. BREDE, Minneapolis, Minn. Filed Feb. 19, 1909. Serial No. 478,979.



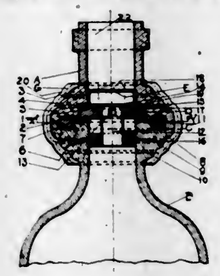
1. A rack made up of two bars and means for adjustably connecting the same, said bars having at their ends projecting prongs with curved bases, the prongs of the one bar having the same outline as the prongs of the other bar, except that the prongs of the one bar are longer than those of the other.

2. A rack made up of two wooden bars, and means for adjustably connecting the same, the said bars having at their central portions alined semi-circular seats, and having at their ends projecting prongs with curved bases, the prongs of the one bar having the same outline as the prongs of the other bar, except that the prongs of the one bar are longer than those of the other.

3. A rack made up of a multiplicity of devices arranged with a third device overlapping the ends of two longitudinally alined devices, each of the said devices comprising two wooden bars having projecting end prongs and means adjustably connecting the members of the said several devices, substantially as described.

4. A rack made up of two bars and means for adjustably connecting the same, the said bars having at their central portion alined semi-circular seats and having at their ends projecting prongs.

944,313. NON-REFILLABLE RECEPTACLE FOR FLUIDS. JACOB H. BROWN, New York, N. Y., assignor of one-tenth to Jacob Markewich, New York, N. Y. Filed Aug. 10, 1909. Serial No. 512,249.



1. In a non-refillable receptacle for fluids the combination of a reservoir section and neck section with external annular projections of decreasing diameter, decreasing from the line of jointure, with clamps to make a unit of the two sections, substantially holding a valve apparatus between them.

2. In a non-refillable receptacle for fluids the combination of a reservoir section and neck section, with external annular projections of decreasing diameter, decreasing from the line of jointure, with male and female clamps enshrouding and clamping them substantially as illustrated and described, holding a valve apparatus between them.

3. In a non-refillable receptacle for fluids the combination of a reservoir section and a neck section with a recess in the bottom of the neck section and top of the reservoir section, to hold a cork washer or packing ring for liquid-tightening the joint, with external annular projections of decreasing diameter, decreasing from the line of jointure, with male and female clamps enshrouding and clamping them substantially as illustrated and described, holding a valve apparatus of gravity design between them with a valve seat having a "V" annular recess on the top thereof, a valve with a hollow cylindrical body with a flanged solid top having a "V" annular projection on the underside thereof to mesh with the "V" annular groove of the valve seat, and discharge openings around the circumference of the hollow cylindrical body thereof, adjacenet to the flanged top, with a valve weight and stop to properly limit the valve movement and assist the valve to a firm seat in the event of dense fluidity of contents.

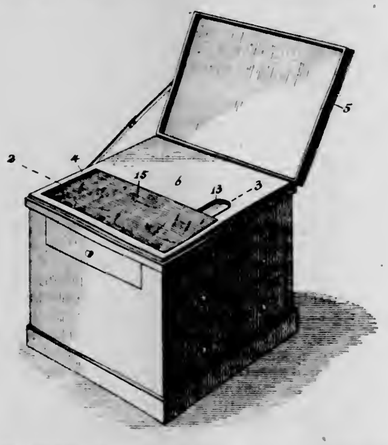
4. In a non-refillable receptacle for fluids the combination of a reservoir section and a neck section with a recess in the bottom of the neck section and top of the reservoir section, to hold a cork washer or packing ring for liquid-tightening the joint, with external annular projections of decreasing diameter, decreasing from the line of jointure, with male and female clamps enshrouding and clamping them substantially as illustrated and described, holding a valve apparatus of gravity design between them, with a valve seat having a "V" annular recess on the top thereof, a valve with a hollow cylindrical body with a

flanged solid top having a "V" annular projection on the underside thereof to mesh with the "V" annular groove of the valve seat, and discharge openings around the circumference of the hollow cylindrical body, adjacent to the flanged top, with a valve weight and stop to properly limit the valve movement and assist the valve to a firm seat in the event of dense fluidity of contents, and a valve guard to prevent the manipulation of the valve after the receptacle is assembled.

5. In a non-refillable receptacle for fluids the combination of a reservoir section and a neck section, with a recess in the bottom of the neck section and top of the reservoir section, to hold a cork washer or packing ring for liquid-tightening the joint, external annular projections of decreasing diameter to the reservoir section and the neck section, decreasing from the line of jointure, with male and female clamps enshrouding and clamping them substantially as illustrated and described, holding a valve apparatus of gravity design between them, with a valve seat having a "V" annular recess on the top thereof, a valve with a hollow cylindrical body with a flanged solid top having a "V" annular projection on the underside thereof to mesh with the "V" annular groove of the valve seat, and discharge openings around the circumference of the hollow cylindrical body adjacent to the flanged top; with a valve weight and stop to properly limit the valve movement and assist the valve to a firm seat in the event of dense fluidity of contents, and a valve guard to prevent manipulation of the valve after the receptacle is assembled, having discharge openings on the top thereof.

[Claims 6 to 8 not printed in the Gazette.]

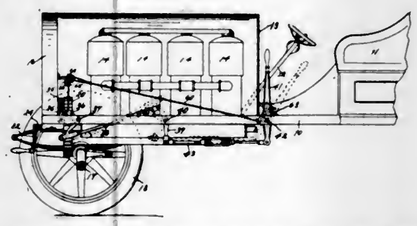
944,314. MEANS TO FACILITATE THE APPLICATION OF PASTE TO LABELS. CHARLES BUNCH, Johnson City, Tenn., assignor of one-half to Walter Wells, Baltimore, Md. Filed Oct. 8, 1908. Serial No. 456,826.



1. An apparatus for applying liquid paste to labels, comprising a pan provided at its vertical wall with a lateral extension, 13, whose bottom surface is in the same horizontal plane with the bottom surface of the said pan; a plate having a horizontal flat surface, 16, which partly covers said pan and said plate provided with a central hole, 17, which is surrounded by said flat surface; and a woven fabric, 15, laid flat and supported on said horizontal surface of the plate and also covering the hole where the fabric is unsupported, whereby a label may be caused to slide over the yielding part of the fabric where paste is applied, and then over the flat supported part of the fabric where an excess of paste is removed.

2. An apparatus for applying liquid paste to labels, comprising a flat level surface provided with narrow walls, 10, arranged to form four sides at right angles to each other; a shallow pan seated between said walls and having an outward horizontal flange, 14, resting on the walls; a rectangular plate having a central opening and a horizontal flat surface which rests on top of said walls and provided at its outer rim with a down-turned flange, 18, which takes outside of said walls, and a woven fabric which in part is supported on said horizontal flat surface and is unsupported over the central opening.

944,315. GAS-ENGINE STARTER. GEORGE BUBESS, Indianapolis, Ind., assignor of one-half to Robert W Long, Indianapolis, Ind. Filed Mar. 25, 1909. Serial No. 485,581.



1. In combination with the shaft of an explosive engine, of a gear secured thereon, oscillatory means pivoted away from the gear and its axis, a curved bar pivoted at one end to said oscillatory means and extending beside said gear, and an adjustable pawl on the other end of said bar for engaging the teeth at one side of the gear during the movement of said bar, whereby said gear will be actuated to start the engine.

2. In combination with the shaft of an explosive engine, of a gear secured thereon, oscillatory means pivoted away from the gear and its axis, a curved bar pivoted at one end to said oscillatory means and extending beside said gear, a pawl on the other end of said bar and having a body portion pivoted on said bar, a tooth projecting laterally therefrom in position to engage the teeth of said gear and cause the rotation thereof when said bar is actuated, a clamp extending through the body portion of said pawl, and a slot in said bar for holding the pawl in position to give the tooth the desired angular relation to the teeth of the gear.

3. In combination with the shaft of an explosive engine, of a gear secured thereon, oscillatory means pivoted away from the gear and its axis, a curved bar pivoted at one end to said oscillatory means and extending beside said gear, an adjustable pawl on the other end of said bar for engaging the teeth at one side of the gear during movement of said bar, whereby said gear will be actuated when the engine is started, and a gravity pawl in position to catch the teeth of said gear under the influence of gravity and prevent the backward movement thereof, and means for holding said pawl disengaged from said gear.

4. In combination with the shaft of an explosive engine, of a gear secured thereon, oscillatory means pivoted away from the gear and its axis, a curved bar pivoted at one end to said oscillatory means and extending beside said gear, an adjustable pawl on the other end of said bar for engaging the teeth at one side of the gear during movement of said bar, whereby said gear will be actuated when the engine is started, and a single means for holding both the actuating pawl and the pawl for preventing backward movement of said gear away from said gear after the engine has been started.

944,316. AUTOMATIC STARTING DEVICE FOR EXPLOSION-MOTORS, &c. EUGENIO CANTONO, Rome, Italy, assignor to The Firm of Società Anonima di Costruzioni Meccaniche Freni a Ricupero Cantono, Genoa, Italy. Filed June 22, 1907. Serial No. 380,208.

1. An automatic starting device comprising a frame carrying an endwise movable rack bar, a spring between

the frame and one end of the rack bar arranged to be compressed by endwise movement of the rack, a driving shaft, a pinion loose on the driving shaft and meshing with said rack, a ratchet wheel secured to said pinion, a pawl carried by the shaft and engaging the ratchet wheel whereby the endwise movement of the rack bar on expansion of the spring will through the pawl and ratchet wheel rotate the shaft in one direction, a second gear wheel rotated from said shaft, a support for the second gear wheel mounted to swing on the axis of the shaft whereby the gear can be shifted to engage the rack bar, means for shifting the member supporting said second gear to cause it to engage the rack and thereby cause endwise movement of the rack to compress the spring, means for retaining the rack with the spring compressed, and means for shifting said swinging member out of engagement with the rack when the said spring becomes compressed.



2. An automatic starting device comprising a frame carrying an endwise movable rack bar, a spring between the frame and one end of the rack bar arranged to be compressed by endwise movement of the rack, a driving shaft, a pinion loose on the driving shaft and meshing with said rack, a ratchet wheel secured to said pinion, a pawl carried by the shaft and engaging the ratchet wheel whereby the endwise movement of the rack bar on expansion of the spring will through the pawl and ratchet wheel rotate the shaft in one direction, a second gear wheel, a support for the second gear wheel mounted to swing on the axis of the shaft whereby the gear can be shifted to engage the rack bar, a large gear carried by said second gear, a pinion fast on said shaft and engaging said large gear, means for shifting the support for said gear to bring it to engage the rack and thereby cause endwise movement of the rack to compress the spring, means for retaining the rack with the spring compressed, and means for shifting said swinging member out of engagement with the rack when the said spring becomes compressed.

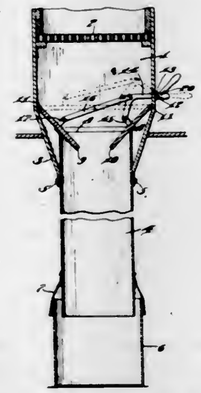
3. An automatic starting device comprising a frame carrying an endwise movable rack bar, a spring between the frame and one end of the rack bar arranged to be compressed by endwise movement of the rack, a driving shaft, a pinion loose on the driving shaft and meshing with said rack, a ratchet wheel secured to said pinion, a pawl carried by the shaft and engaging the ratchet wheel whereby the endwise movement of the rack bar on expansion of the spring will through the pawl and ratchet wheel rotate the shaft in one direction, a second gear wheel rotated from said shaft, a support for the second gear wheel mounted to swing on the axis of the shaft whereby the gear can be shifted to engage the rack bar, means for shifting said swinging member out of engagement with the rack when the said spring becomes compressed, a pair of links connecting with the swinging member carrying said gear and arranged to swing the gear to engage the rack bar when the links are brought into alinement, means for retaining the rack with the spring compressed, and means for shifting said swinging member out of engagement with the rack when the said spring becomes compressed.

4. An automatic starting device comprising a frame carrying an endwise movable rack bar, a spring between the frame and one end of the rack bar arranged to be compressed by endwise movement of the rack, a driving shaft, a pinion loose on the driving shaft and meshing with said rack, a ratchet wheel secured to said pinion, a pawl carried by the shaft and engaging the ratchet wheel whereby the endwise movement of the rack bar on expansion of the spring will through the pawl and ratchet wheel rotate the shaft in one direction, a second gear wheel rotated from said shaft, a support for the second gear wheel mounted to swing on the axis of the shaft whereby the gear can be shifted to engage the rack bar, a pair of links connecting with the swinging member carrying said gear and arranged to swing the gear to engage the rack bar when the links are brought into alinement, means for swinging said links out of alinement upon the spring becoming compressed, and a pair of links connected with the rack bar arranged to be brought into alinement upon the end of the movement compressing the spring to hold the spring under compression.

5. An automatic starting device comprising a frame carrying an endwise movable rack bar, a spring between the frame and one end of the rack bar arranged to be compressed by endwise movement of the rack, a driving shaft, a pinion loose on the driving shaft and meshing with said rack, a ratchet wheel secured to said pinion, a pawl carried by the shaft and engaging the ratchet wheel whereby the endwise movement of the rack bar on expansion of the spring will through the pawl and ratchet wheel rotate the shaft in one direction, a second gear wheel rotated from said shaft, a support for the second gear wheel mounted to swing on the axis of the shaft whereby the gear can be shifted to engage the rack bar, a pair of links connecting with the swinging member carrying said gear and arranged to swing the gear to engage the rack bar when the links are brought into alinement, a lug on the rack bar engaging the links to swing said links out of alinement upon the spring becoming compressed, and a pair of links connected with the rack bar arranged to be brought into alinement upon the end of the movement compressing the spring to hold the spring under compression.

[Claim 6 not printed in the Gazette.]

944,317. ATTACHMENT FOR STOVES. MAME CARNEY, Philadelphia, Pa. Filed Sept. 16, 1909. Serial No. 517,988.



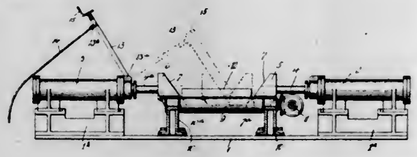
1. In a device of the character described, the combination with an ashpit having a hopper like bottom, a pipe or chute projecting up into the hopper like bottom, hinged doors forming a closure for the bottom of said ashpit, adapted when in open position to be supported on the upper end of said pipe, and means for moving said doors.

2. In a device of the character described, the combination with an ashpit having a hopper like bottom, of a pipe

or chute projecting up into and secured in the hopper like bottom, and having an outwardly flared upper end, doors hinged in the ashpit, and adapted when in open position to rest against the outwardly flared upper end of said pipe or chute, a receptacle into which the lower end of said pipe or chute projects, and a flexible curtain secured to said pipe or chute and overlapping said receptacle.

3. In a device of the character described, the combination with an ashpit, doors hinged in said ashpit, and forming a closure at the bottom thereof, means for conveying ashes from said pit into the room below, and the crank shaft mounted on said ashpit, arms connecting said crank shaft with one of said doors, links connecting said arms with the other of said doors, a handle on said shaft, parallel perforated ears on opposite sides of said handle, and a pin adapted to be positioned in said ears above the handle when the doors are in closed position to prevent the opening movement of said doors.

944,318. INGOT-TURNING DEVICE. FRANCIS B. CARAHER, Pittsburg, Pa. Filed July 16, 1909. Serial No. 508,077.



1. An ingot manipulating mechanism comprising a table, a pair of oppositely disposed ingot shifting heads above the table, each having its inner face inclined upwardly and outwardly, an arm pivoted to a support, said arm having its free end in coöperative relationship with said head, said free end being located above the table and so arranged that it can aid the heads in turning the ingot when the same is on the table.

2. An ingot manipulating mechanism comprising a table, a pair of oppositely disposed ingot shifting heads above the table, an arm pivoted to a support, said arm having its free end provided with an angle plate in coöperative relationship with said heads, said angle plate being located above the table and so arranged that it can aid the heads in turning the ingot when the same is on the table.

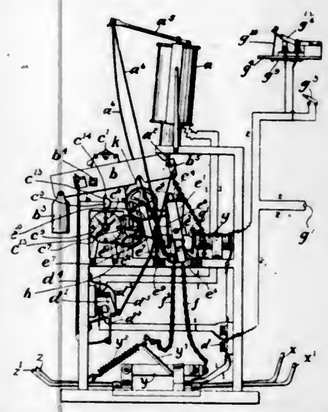
3. An ingot manipulating mechanism comprising a table, a pair of oppositely disposed ingot shifting heads above the table, each having its inner face inclined upwardly and outwardly, an arm pivoted at one end to a support, said arm having its free end provided with an angle plate in coöperative relationship with said heads, said angle plate being located above the table and so arranged that it can aid the heads in turning the ingot when the same is on the table.

4. An ingot manipulating mechanism comprising a table, a pair of oppositely disposed ingot shifting heads above the table, an arm pivoted to a support, said arm having its free end in coöperative relationship with said heads, said free end being located above the table and so arranged that it can aid the heads in turning the ingot when the same is on the table.

944,319. ELECTRIC TIME-SWITCH. GEORGE R. CLARK. Dayton, Ohio, assignor to Clark & Harvey, Dayton, Ohio, a Firm. Filed July 3, 1907. Serial No. 381,965.

1. In a timing switch, a timing mechanism for controlling the operation of the main switch, an electrically operating mechanism, such as a solenoid, for periodically winding said timing mechanism, and means controlled by the timing mechanism for causing the said operating mechanism to actuate the switch during one of the periods of winding, substantially as specified.

2. In combination with a main switch, a periodically operating electric device and a motor wound up by the periodical movements of said electric device, means connected with said motor for controlling an intermediate mechanism to cause said periodically-operating electric device to operate said switch when the motor has operated a predetermined time, substantially as specified.



3. In a circuit controlling device, a solenoid, a motor operated thereby so as to be periodically wound up by the operation of said solenoid, means for causing the solenoid at predetermined times to operate the main switch, and an air cushion connected with said solenoid to cushion the effect of said solenoid in winding, and a valve adapted to be opened when said solenoid is to operate the main switch and destroy the air cushion.

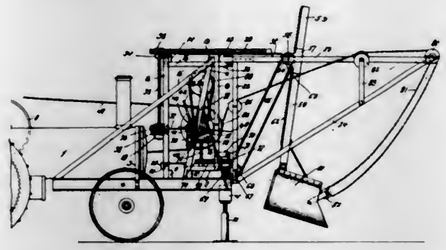
4. In combination with a motor, a main lever for operating the same, a solenoid connected to said main lever, normally inoperative plungers adjacent to the range of movement of said lever, engaging projections operated by said motor to trip the plungers at predetermined intervals and bring them in the path of said operating lever, said plungers being connected to the main switch, and engaging projections between said main lever and plungers, substantially as specified.

5. In a timing device for electric switches, a motor, a main winding lever, a solenoid for operating said lever, a circuit closer for establishing the circuit in said solenoid when the main lever reaches a predetermined position and for breaking said circuit when the solenoid has restored said lever to its normal position, intermediate tripping devices adapted when in operative position to engage said lever and cause it to move the main switch, and means connected with said motor for tripping said devices at predetermined intervals.

[Claims 6 to 23 not printed in the Gazette.]

944,320. EXCAVATING-MACHINE. LEROY P. CLUTTER, Deer Lick, Pa. Filed Mar. 3, 1909. Serial No. 481,042.

1. In an excavating machine, the combination with an engine, of a frame work carried by said engine, a jib pivotally supported by said frame work and adapted to be swung in a horizontal plane, an arm movably supported by said jib, a shovel carried by the lower end of said arm, a main shaft journaled transversely of said frame work and adapted to be driven by said engine, clutch wheels mounted upon said shaft, movable bearings supported by said frame work, an auxiliary shaft journaled in each of said movable bearings and each having a wheel for frictionally engaging one of said clutch wheels, a sprocket chain driven through the medium of one of said friction wheels for raising and lowering said shovel arm, a sprocket chain driven through the medium of the other of said friction wheels for swinging said jib in a horizontal plane, a movable clutch member for engaging one of said clutch wheels, a drum revolubly supported by said frame work and driven through the medium of said clutch member, and a chain or cable attached to said drum and extending over the outer end of said jib and connecting with said shovel for raising said shovel and a supporting arm thereof, substantially as described.

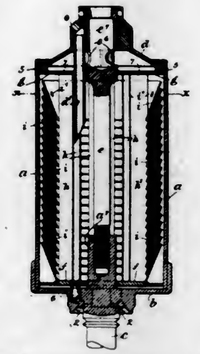


2. In an excavating machine, the combination with an engine, a frame work carried thereby, a horizontal movable jib pivotally supported by said frame work, an arm movably supported by said jib, and a shovel carried by said arm, of a mechanism for moving said jib, said arm, and said shovel, said mechanism comprising a revoluble main shaft supported by said frame work, clutch wheels mounted upon said shaft, movable bearings supported by said frame work, auxiliary shafts journaled in said bearings, friction wheels mounted upon said auxiliary shafts for engaging said clutch wheels, a sprocket chain actuated through the medium of one of said friction wheels for swinging said jib in a horizontal plane, a sprocket chain actuated through the medium of the other of said friction wheels for raising and lowering said shovel arm, a clutch member adapted to engage one of said clutch wheels, a drum revolubly supported by said frame work and adapted to be actuated through the medium of said clutch member, and a chain connecting with said shovel and extending upwardly through the outer end of said jib and connecting with said drum for moving said shovel, and means located at one side of said machine for shifting said movable bearings and said clutch member.

3. In an excavating machine, the combination with an engine, a frame work carried thereby, a horizontal movable jib pivotally supported by said frame work, an arm movably supported by said jib, and a shovel carried by said arm, of a mechanism for moving said jib, said arm and said shovel, said mechanism comprising a revoluble main shaft supported by said frame work, clutch wheels mounted upon said shaft, movable bearings supported by said frame work, auxiliary shafts journaled in said bearings, friction wheels mounted upon said auxiliary shafts for engaging said clutch wheels, a sprocket chain actuated through the medium of one of said friction wheels for swinging said jib in a horizontal plane, a sprocket chain actuated through the medium of the other of said friction wheels for raising and lowering said shovel arm, a clutch member adapted to engage one of said clutch wheels, a drum revolubly supported by said frame work and adapted to be actuated through the medium of said clutch member, and a chain connecting with said shovel and extending upwardly through the outer end of said jib and connecting with said drum for moving said shovel.

4. In an excavating machine, the combination with a portable frame work, a jib supported thereby and adapted to swing in a horizontal plane, a shovel arm movably supported by said jib, and a shovel carried by said arm, of means for moving said jib and shovel arm, said means including a driven shaft, clutch wheels carried thereby, frictional wheels adapted to be placed in engagement with said clutch wheels, a mechanism actuated by one of said friction wheels for moving said jib, mechanism actuated by the other of said friction wheels for moving said shovel arm, a clutch member adapted to engage one of said clutch wheels and a mechanism actuated by said clutch member for moving said shaft.

944,321. CENTRIFUGAL LIQUID-SEPARATOR. THOMAS COLLINS and ERNEST L. HARTMANN, Bainbridge, N. Y., assignors to American Separator Company, Bainbridge, N. Y., a Corporation of New York. Filed Aug. 6, 1908. Serial No. 447,276.



1. In a centrifugal liquid separator, a liner comprising rigidly connected end and intermediate members, and a series of loosely mounted nested conical liner plates or rings located between said end members and movable with said connected members.

2. In a centrifugal liquid separator, a liner comprising rigidly connected end and intermediate members, a series of loosely mounted nested conical liner plates or rings located between said end members and movable with the said connected members, and means for preventing the rotation of said conical plates or rings which at the same time permits a free longitudinal movement thereof.

3. In a centrifugal liquid separator, the combination with the bowl, the cover and a connecting bolt, of a liner comprising base and top annulus disks, a series of vertically arranged bars at their respective ends rigidly connected to the base and top annulus disks, a series of superposed nested annulus plates or rings surrounding the vertically arranged bars loosely and movable along the same to facilitate the cleansing of the liner and means for initially spacing apart the said annulus plates or rings a predetermined distance.

4. In a centrifugal liquid separator, the combination with the bowl, the cover and a connecting bolt, of a liner comprising base and top annulus disks, a series of vertically arranged bars at their respective ends rigidly connected to the base and top annulus disks, a series of superposed nested annulus plates or rings surrounding the vertically arranged bars loosely and movable along the same to facilitate the cleansing of the liner, and means for preventing said annulus plates or rings turning around on said bars.

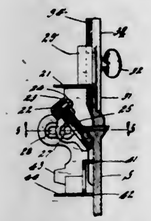
5. In a centrifugal liquid separator, the combination with the bowl, the cover and a connecting bolt, of a liner comprising base and top annulus disks, a series of vertically arranged bars at their respective ends connected to the base and top annulus disks, and the outer edge of one of said bars reaching a radius beyond the radius of the other bars and a series of superposed nested annulus plates or rings surrounding said bars and each notched to receive the outer edge of the aforesaid bar, whereby while said nested annulus plates are free to be moved along said bars, they are prevented by said outer edge and notch from rotating.

[Claims 6 to 8 not printed in the Gazette.]

944,322. SIDE FILE AND JOINTER FOR SAWS. LOUIS C. COOK, Indianapolis, Ind., assignor to E. C. Atkins & Company, Indianapolis, Ind., a Corporation of Indiana. Filed Mar. 12, 1909. Serial No. 482,930.

1. The combination, in a saw tool, of a frame adapted to lie along the side of the saw blade and provided with bearing surfaces on both sides, a file and its holder revo-

lubly mounted therein whereby it may be adjusted to a horizontal, vertical or angular position and arranged to operate upon the sides or ends of the saw tooth points, an adjustable gage secured to one side of the frame and adapted to bear upon the ends of the saw tooth points while the file is operating upon the sides thereof, and means for adjusting the several parts relatively to each other.



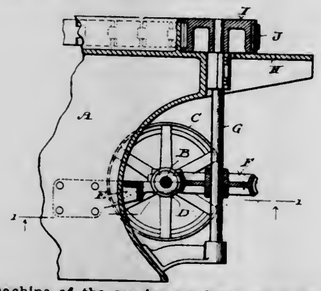
2. The combination, in a saw tool, of a frame having openings in its ends and bearing surfaces to rest against the sides of the saw, a file holder arranged in said frame above said bearing surfaces, clamping screws passing through the openings in said frame and engaging with said file holder, and a file in said file holder, said file and file holder being revoluble on said clamping screws whereby the file may be adjusted to use for either side filing or jointing the ends of the saw teeth.

3. The combination, in a saw tool, of a frame provided with bearing surfaces upon both sides against which the saw to be treated may rest, a file holder revolubly mounted in said frame whereby it may be adjusted to position to operate upon a saw when brought against the bearing surfaces upon either side of the frame and thereby adjusted to either a side filing or a jointing position, and a file carried by said file holder.

4. The combination, in a saw tool, of a frame provided with bearing surfaces upon both sides upon which the saw to be treated may rest and also provided with slots arranged transversely the plane of said bearing surfaces, a file holder mounted in said slots whereby it may be given either a transverse or rotary adjustment and adapted to either a side filing or a jointing position, and a file carried by said file holder.

5. The combination, in a saw tool, of a frame provided with bearing surfaces upon which the saw to be treated may rest and also provided with slots arranged transversely the plane of said bearing surfaces, a file holder mounted in said slots whereby it may be given either a transverse or rotary adjustment and adapted to either a side filing or a jointing position, and a file carried by said file holder.

944,323. GEARING. FRANK DIEHL, Sheboygan Falls, Wis., assignor to George P. Myers, Sheboygan, Wis. Filed Feb. 26, 1906. Serial No. 302,990.



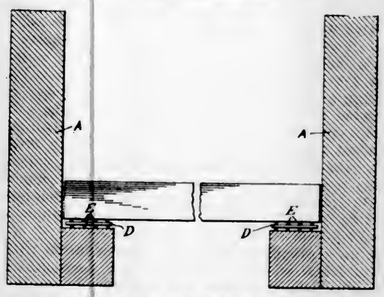
In a machine of the species set forth, the combination of the frame provided with vertical bearings and a bed-plate extension, a single bracket attached to the sides of the machine-frame below the bed-plate extension and having an offset right-angle arm, said arm and the bracket being provided with horizontal bearings, gear-connected vertical and horizontal shafts in the bearings aforesaid, a main driving pulley on the horizontal shaft between the bracket and said arm of same, and a feed-chain drive-pulley on the vertical shaft over said bed-plate extension.

944,324. BURNER. JOHN DLUGOPOLSZKY, Niles, Ohio. Filed Sept. 3, 1909. Serial No. 516,069.



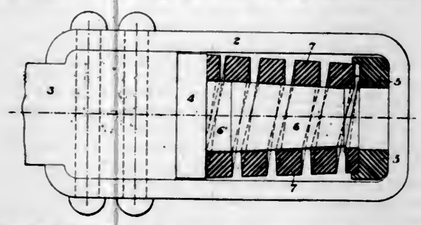
In a gas burner, the combination with a gas supply pipe, and an air mixer carried thereby, of a pipe connected to said mixer, said pipe having apertures formed therein, a collar carried by said pipe, a sleeve surrounding said pipe and adapted to be supported by said collar, said sleeve having slots formed therein adapted to register with the apertures of said pipe, and means in connection with the upper end of said sleeve and adapted to support a mantle, substantially as and for the purpose herein described.

944,325. LOCKING-PLATE FOR THE RAILS OF BEDSTEADS. GEORGE M. DONALDSON, Wynne, Ark. Filed May 26, 1909. Serial No. 498,484.



The locking plate for the slats of bedsteads provided with teeth upon the upper and lower surfaces of the plate and formed integral therewith, the points of the series of teeth upon the upper surface of the plate having a slight pitch in one direction to oppose the pull of the slat and those of the series upon the lower surface of the plate in an opposite direction to oppose the pull of the slat the said upper and lower series of teeth being in alinement with each other, substantially as described and for the purpose set forth.

944,326. RAILWAY DRAFT-GEAR. ROY A. FRENCH, Oakmont, Pa., assignor to Fort Pitt Spring & Manufacturing Co., Pittsburg, Pa., a Corporation of Pennsylvania. Filed July 28, 1906. Serial No. 328,157.



1. In a friction device for draft riggings and other purposes, a longitudinal spiral spring, a conical stem within the spring, and a follower arranged to actuate the conical stem, the cone being arranged to act upon the spring frictionally after a predetermined portion of the stroke; substantially as described.

2. In a friction device for draft riggings and other purposes, a longitudinal spiral spring of conical shape having spaced-apart coils, and a conical friction device coacting therewith; substantially as described.

3. In a friction device for draft riggings and other purposes, a longitudinal spiral spring of conical shape, and a follower having a cone stem within the spring; substantially as described.

4. In a friction device for draft riggings and other purposes, a longitudinal spiral spring, a conical device arranged to exert a bursting pressure therein, and a follower having a pocket to receive the cone device in the latter part of its stroke; substantially as described.

5. In a friction device for draft riggings and other purposes, a longitudinal conical spiral spring having spaced-apart coils, and a conical device arranged to exert a bursting pressure therein, said conical device being cut away in a portion thereof to give clearance; substantially as described.

[Claims 6 to 11 not printed in the Gazette.]

944,327. RAILWAY DRAFT-GEAR. ROY A. FRENCH, Oakmont, and LOUIS T. GIADLER, Sewickley, Pa., assignors to Fort Pitt Spring & Manufacturing Co., Pittsburg, Pa., a Corporation of Pennsylvania. Filed Oct. 24, 1906. Serial No. 340,345.



1. In a friction device for draft riggings and other purposes, a longitudinal spiral conical spring, and a conical device, one of said parts fitting over the other to exert a radial pressure upon the spring, the conical device having portions of its frictional surface of different pitch; substantially as described.

2. In a friction device for draft riggings and other purposes, a longitudinal spiral spring, and a conical device in position to engage the spring and arranged to exert a radial pressure thereon, said device decreasing in diameter in different ratios in different parts thereof to compensate for the greater stroke of some of the coils; substantially as described.

3. In a friction device for draft riggings and other purposes, a longitudinal spiral spring, and a conical core coacting therewith and arranged to exert a radial pressure thereon, said core decreasing in diameter to a greater extent at its larger portions than at its smaller portions to compensate for the greater stroke of the coils near its smaller end; substantially as described.

4. In a friction device for draft riggings and other purposes, a longitudinal spiral spring, and a conical core within the spring and coacting therewith to exert a radial pressure thereon, the face of said cone being curved longitudinally; substantially as described.

5. In a draft rigging, a pair of spiral springs having spaced-apart coils and arranged in tandem, and a pair of conical devices coacting with the springs to exert a radial pressure thereon both on buffing and pulling strains; substantially as described.

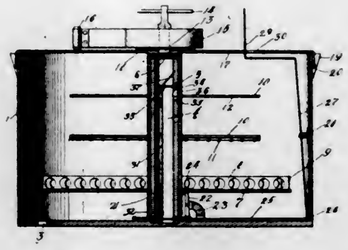
[Claims 6 to 13 not printed in the Gazette.]

944,328. DISAZO DYE. CARL HEIDENREICH, Vohwinkel, near Elberfeld, Germany, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed July 28, 1909. Serial No. 510,127.

1. The herein described new azo dyestuffs, obtainable from an amin, an ortho-aminobenzene-sulfonic acid compound of the above given formula and 1.8-aminonaphthol-3.6-disulfonic acid, which dyestuffs are, after being dried and pulverized, in the shape of their alkaline salts dark powders soluble in water with a blue to bluish-green color; yielding upon reduction with stannous chlorid and hydrochloric acid an amin, an ortho-aminobenzene-sulfonic acid of the above given formula and 1.2.7-triamino-8-naphthol-3.6-disulfonic acid; dyeing wool black shades fast to light, substantially as described.

2. The herein described new disazo dyestuff obtainable from para-nitranilin-ortho-sulfonic acid, anilin and 1.8-aminonaphthol-3.6-disulfonic acid, which dye is, after being dried and pulverized in the shape of its sodium salt a dark powder soluble in water with a blue color and soluble in concentrated sulfuric acid with a greenish-blue color; yielding upon reduction with stannous chlorid and hydrochloric acid para-phenylenediamin-sulfonic acid, anilin and 1.2.7-triamino-8-naphthol-3.6-disulfonic acid; and dyeing wool greenish-black shades fast to light, substantially as described.

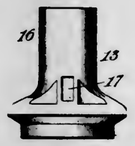
944,329. DISH-WASHING MACHINE. REBECCA A. HENRY, Irwin, Pa. Filed Mar. 12, 1909. Serial No. 482,891.



1. In a washing machine, the combination with a receptacle, of a central tubular post arranged in said receptacle, a sleeve movably mounted upon said post, a dish support carried by said sleeve, a transverse movable support arranged upon the upper end of said receptacle and adapted to be temporarily held in engagement therewith, an arbor carried by the upper end of said sleeve and extending through the said transverse support, a spiral spring carried by said transverse support and connecting with said sleeve for revolving said sleeve, a coil spring encircling the lower end of said post between said receptacle and said dish support for elevating said sleeve, a pawl pivotally supported within said receptacle for retaining said coil spring under tension, a rod connecting with said pawl, a lever connecting with said rod and extending through said transverse support to be actuated by an unwinding movement of said spiral spring for moving said pawl, and releasing said coil spring to elevate said sleeve and the dish support, and means arranged within said tubular post and actuated by said rod for retarding the elevation of said sleeve and the dish support, substantially as described.

2. In a washing machine, the combination with a receptacle, of a central tubular post arranged in said receptacle, a sleeve movably mounted upon said post, a dish support carried by said sleeve, a transverse movable support arranged upon the upper edges of said receptacle and adapted to be temporarily held in engagement therewith, means carried by said support for revolving said sleeve, a coil spring encircling the lower end of said post between said receptacle and said dish support for elevating said sleeve, a pawl pivotally supported within said receptacle for retaining said coil spring under tension, a rod connecting with said pawl and a lever connecting with said rod and extending through said transverse support to be actuated by said sleeve revolving means for moving said pawl and releasing said coil spring to elevate said sleeve and the dish support.

944,330. STEAM SAFETY-VALVE. MILTON A. HUDSON, Philadelphia, Pa., assignor to J. E. Lonergan Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Aug. 7, 1909. Serial No. 511,705.



1. A blank form for a tensioning cap or hood for safety-valves, consisting of a contracted top portion and a contracted bottom portion, and an enlarged intermediate portion having therein a series of vertically extending webs integral therewith, substantially as shown.

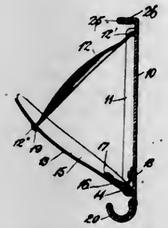
2. A blank form for a tensioning cap or hood for safety-valves, consisting of a contracted top portion and a contracted bottom portion, and an enlarged intermediate portion having therein a series of radially set vertically extending webs integral therewith, substantially as shown.

3. A tensioning cap or hood for safety-valves, consisting of contracted top and bottom portions, an enlarged intermediate portion, a series of vertical webs in said enlarged portion integral with said top and bottom portions, and a blow-off in said enlarged portion.

4. A tensioning cap or hood for safety-valves consisting of a contracted top portion closed at its upper end, a contracted bottom portion open at its lower end, an enlarged intermediate portion, a series of vertical webs in said enlarged portion integral with said top and bottom portions, and a circumferential blow-off in said enlarged portion.

5. In combination with a safety-valve, a tensioning cap or hood having contracted top and bottom portions, and an enlarged intermediate portion, a series of integral radially set webs therein, and a circumferential blow-off in said enlarged portion, and means in the bottom portion for securing said cap or hood in position on the safety-valve.

944,331. ATTACHMENT FOR CHAIRS. CORNELIA P. INGERSOLL, Hartford, Conn. Filed Mar. 20, 1909. Serial No. 484,664.



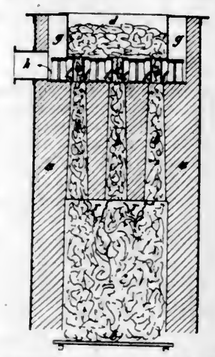
1. The combination with a base plate, and a mirror pivoted thereon with its upper edge, of a cover pivoted near the lower edge of said base plate, means for normally closing said cover, and means on said cover to engage the free edge of the mirror and for holding the same in its tilted position.

2. The combination with a base plate having side flanges, and a mirror pivoted with its upper edge on said flanges, of a cover pivoted with its lower edge in said flanges, a spring for normally closing said cover against the base plate for frictionally engaging the lower free edge of said mirror.

3. The combination with a base plate, a mirror pivoted with its upper edge at a point below said ledge, of a cover pivoted with its lower edge on the base plate and having a recess for receiving the lower edge of said mirror, and a spring for normally closing said cover against the base plate.

4. The combination with a base plate having an apertured ledge, and a mirror pivoted with its upper edge at a point below said ledge, of a cover pivoted with its lower edge on said base plate and having a bead recess adapted to receive the lower edge of said mirror and to hold the same in its tilted position, said bead having an indentation on its outside for coöperation with the aperture in said ledge to hold a hat pin or similar device.

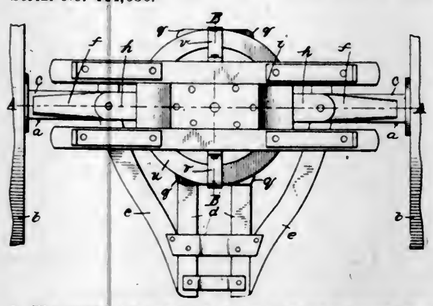
944,332. GAS-PRODUCER. ASMUS JABS, Zurich, Switzerland. Filed July 16, 1908. Serial No. 443,809.



1. In a shaft generator for producing gas from caking coal the combination of a lower combustion chamber *c*, a plurality of superimposed partial shafts *b*, a charging chamber *d* superimposed upon the partial shafts *b* and gas conduits *f* surrounding the upper ends of the partial shafts *b*, which conduits *f* are closed toward the charging chamber *d* and open to a gas collecting branch *h*.

2. In a shaft generator for producing gas from caking coal the combination of a lower combustion chamber *c*, a plurality of superimposed partial shafts *b*, a charging member *d* superimposed upon the partial shafts *b* and gas conduits *f* surrounding the upper ends of the partial shafts *b*, which conduits *f* are closed toward the charging chamber *d* and open to a gas collecting branch *h*, the sections of said partial shafts *b* increasing in diameter from the top to the bottom.

944,333. COUPLING DEVICE FOR VEHICLES. WILLIAM J. KRAMER, Jr., Oil City, Pa. Filed July 21, 1908. Serial No. 444,630.



1. The combination with an axle, of a plate formed with a ball-shaped member and fastened to said axle; a bolster; a socket-plate shaped to fit over said ball-shaped member and forming therewith a ball-and-socket joint; a circle fastened to said bolster; a pair of rocker-plates having inclined faces; and means for supporting said rocker-plates upon said axle; said circle resting upon said rocker-plates and being free to rock from side to side relatively thereto.

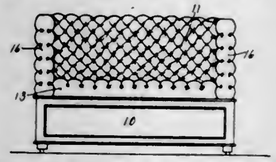
2. The combination with an axle and a bar supported thereby, of a bolster; mechanism for coupling said bolster to said bar; a circle fastened to said bolster; means for supporting said circle, the latter being free to rock thereon; and braces interposed between said means and bar, said braces being each formed with a shoulder which extends within said circle to take the pulling strain.

3. The combination of an axle and a bar supported thereby, of a bolster; a circle carried by said bolster; a pair of rocker-plates having inclined faces, said circle resting free to rock upon said rocker-plates; means for coupling said bolster to said bar; means for supporting said rocker-plates upon said axle; and braces interposed between said bar and the last-named means, said braces being formed each with a shoulder which extends within said circle to take the pulling strain.

4. The combination of a plate formed with a ball-shaped member and with contact faces on each side of said member; a bolster; a socket-plate fastened to said bolster and shaped to fit over said ball-shaped member, forming therewith a ball-and-socket joint; a circle fastened to said bolster; a pair of rocker-plates upon which said circle rests and is free to rock; and devices connecting the first-named plate and said rocker-plates, said devices extending within said circle to take the pulling strain.

5. The combination with an axle, of a bolster; a ball-and-socket coupling which connects said bolster and axle; a circle carried by said bolster; rocker-plates free from connection with said circle and upon which the latter is free to rock about said ball-and-socket coupling; and means supported by said axle for supporting said rocker-plates.

944,334. FOLDING BED-COUCH. GEORGE A. LAMBERT, Anderson, Ind. Filed Apr. 15, 1909. Serial No. 490,082.

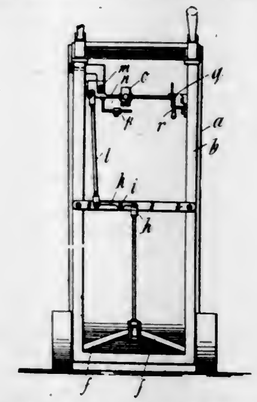


1. A convertible bed couch including a frame, a back member hinged to the frame so it can be turned outwardly to form one section of the bed, a seat member slidable forwardly to form another section of the bed, folding legs for supporting said seat and back members, end members hinged to the frame at their inner lower edges whereby they may be turned downwardly toward each other and their free ends abut each other to form the central section of the bed, and means for detachably uniting the end members with the back member when folded up to form a couch or lounge.

2. A convertible bed couch including a frame, a back member hinged to the frame so it can be turned outwardly to form one section of the bed, a seat member slidable forwardly to form another section of the bed, folding legs for supporting said seat and back members, hooks on the inner edge of said seat member for preventing said seat member from escaping from the frame, end members, a pair of hinges for securing the lower inner edge of each end member to the frame whereby the end members may be folded down toward each other and their free ends abut against each other to form the middle section of the bed, and means for detachably uniting the end members with the back member when folded up to form a couch or lounge.

944,335. BAG-WHEELBARROW WITH WEIGHING DEVICE. HANS LANGE, Berlin, Germany. Filed Nov. 11, 1907. Serial No. 401,650.

In a wheel-barrow the combination of a fixed truck-frame (*b*); a load-carrier-frame (*a*); a link with knife-edges (*c*) supporting and connecting the upper end of the load-carrier-frame to the truck-frame; two two-arm levers (*f*) being supported movably by the truck-frame and which levers (*f*) are combined on their one end and support by their other diverted ends, the lower end of the load-carrier-frame; two knife-edges (*e*) arranged at the lower part of the truck-frame and supporting the two-arm-levers (*f*); an intermediating two-arm-lever (*k*) hinged on the middle part of the truck-frame; a rod (*g*) connecting the combined ends of the two-arm-levers (*f*) to the one end of the intermediating two-arm-lever (*k*); a lever (*n*) with a sliding weight, said lever being hinged on the upper part of the truck arm; and a rod (*l*) connecting the other end of the intermediating two-arm lever (*k*) to the one end of the weighing lever (*n*).



944,336. CLUTCH-SHIPPING MECHANISM. JOHN W. LATIMER, Chicago, Ill., assignor to International Harvester Company, a Corporation of New Jersey. Filed Dec. 2, 1908. Serial No. 465,739.



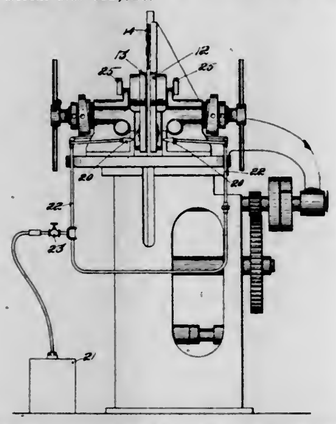
1. A clutch shipping mechanism for mowing machines including, in combination, a machine frame, a driving gear, a cutting apparatus, said cutting apparatus including a cutter bar, a clutch mechanism adapted to connect said driving gear with said cutting apparatus, a clutch shipping mechanism including a lever pivotally mounted upon said frame and adapted to control the movement of said clutch mechanism, a cutter bar adjusting mechanism including a hand lever mounted upon a fixed part of said machine frame, a clutch controlling arm forming part of said hand lever, said clutch controlling lever being provided with a lever operating member having one end connected therewith and its opposite end adapted to engage with said clutch controlling arm in a manner to unclutch said clutch mechanism when said cutter bar has reached a predetermined angle of elevation, said lever operating member having a yielding gate within the path of movement of said clutch controlling arm.

2. A clutch shipping mechanism for mowing machines including, in combination, a machine frame, a driving gear, a cutting apparatus, said cutting apparatus including a cutter bar, a clutch mechanism adapted to connect said driving gear with said cutting apparatus, a clutch shipping mechanism including a lever pivotally mounted upon said frame and adapted to control the movement of said clutch mechanism, a cutter bar adjusting mechanism including a hand lever mounted upon a fixed part of said machine frame, a clutch controlling arm forming part of said hand lever, said clutch controlling lever being provided with a lever operating member having one end connected therewith and its opposite end connected with the machine frame by means of a swinging link and adapted

to engage with said clutch controlling arm in a manner to unclutch said clutch mechanism when said cutter bar has reached a predetermined angle of elevation, and a yielding gate within the path of movement of said clutch controlling arm forming part of said lever operating member.

3. A clutch shipping mechanism for mowing machines including, in combination, a machine frame, a driving gear, a cutting apparatus, said cutting apparatus including a cutter bar, a clutch mechanism adapted to connect said driving gear with said cutting apparatus, a clutch shipping mechanism including a lever pivotally mounted upon said machine frame and adapted to control the movement of said clutch mechanism, a cutter bar adjusting mechanism including a hand lever mounted upon a fixed part of said machine frame, a clutch controlling arm forming part of said hand lever, said clutch controlling lever being provided with a lever operating member, said lever operating member consisting of a link having one end pivotally connected with the clutch controlling lever and its opposite end adjustably connected with a head piece, said head piece having a slotted portion adapted to receive said clutch controlling arm, the opposite walls of said slotted portion being connected at their forward ends in a manner to engage with said arm, and a yielding gate within the path of movement of said arm and pivotally connected with said lever operating member.

944,337. CRIMPING-MACHINE. ALFRED G. LEGG, Brockton, Mass., assignor to Lockett Crimping Machine Company, Brockton, Mass., a Firm. Filed Jan. 27, 1908. Serial No. 412,720.



In a leather crimping machine, a pair of crimping jaws having their operative faces parallel with each other, a reciprocable blade which is adapted to engage a sheet of leather intermediate its ends and carry it folded upon the blade between the said jaws, said blade being formed with recesses in its opposite faces to receive portions of the sheet, means for reciprocating said blade so as to carry the sheet folded thereon between said jaws, whereby the outer sides of the folded sheet, except the portions opposite said recesses, have rubbing contact with the operative faces of the jaws to stretch the sheet, said recesses being of sufficient depth whereby the said jaws are prevented from having crimping action upon the portions of the sheet which are opposite said recesses.

944,338. AIR-VALVE FOR RADIATORS. FRED W. LEUTHESSER, Chicago, Ill., assignor to Monash-Younker Company, Chicago, Ill., a Corporation of Illinois. Filed July 20, 1905. Serial No. 270,518.

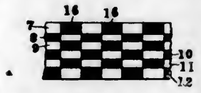
1. In an air valve for radiators, the combination of an expansible member or stem, an adjustable hollow plug, a yieldable seating cap within the chamber of the hollow plug, a stem for the seating cap slidable through the top wall of the hollow plug, and a spring controlling the yield of the seating cap, substantially as described.



2. In an air valve for radiators, the combination of an expansible member or stem, an adjustable hollow plug, a seating cap within the chamber of the hollow plug, a stem for the seating cap slidable through the top wall of the hollow plug, and a coil spring within the chamber of the hollow plug and abutting at its ends against the seating cap and the top wall of the plug and controlling the yield of the seating cap, substantially as described.

3. In an air valve for radiators, the combination of an expansible member or stem, an adjustable hollow plug having a cross groove in its top plate, a yieldable seating cap within the chamber of the hollow plug, and a stem for the seating cap slidable through the wall of the hollow plug and having in its outer end a cross groove to cooperate with the cross groove in the top wall of the plug, substantially as described.

944,339. VULCANIZING-MOLD. PAUL W. LITCHFIELD, Akron, Ohio, assignor to The Goodyear Tire and Rubber Company, Akron, Ohio, a Corporation of Ohio. Filed May 22, 1909. Serial No. 497,683.



1. A vulcanizing mold comprising complementary members having registering grooves in their abutting faces forming a mold cavity, each of said members provided with a recess communicating with said cavity and a plurality of rings mounted in said recesses, the inner faces thereof being recessed, the recesses in each ring alternating in position with respect to the recesses in the adjoining rings, the inner faces of said rings adapted to constitute a portion of the outer wall of said mold cavity and receive the outer surface of an article vulcanized therein for producing on the outer surface thereof the design formed on the inner faces of said rings.

2. A vulcanizing mold comprising an annular body formed with a mold cavity and furthermore provided with a circumferentially-extending recess opening into said cavity, a plurality of rings mounted in said recess and each provided in the edge thereof which opposes the mold cavity with a series of spaced recesses, the recesses of one ring being alternately disposed with respect to the recesses of the other ring.

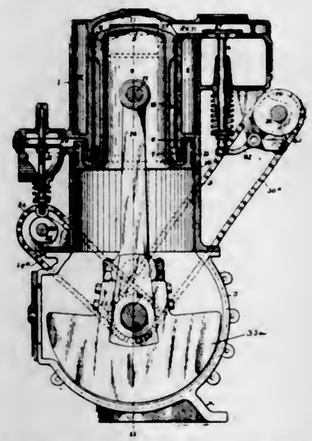
3. A vulcanizing mold comprising an annular body formed with a mold cavity and furthermore provided with a circumferentially-extending recess opening into said cavity, a plurality of rings mounted in said recess and each provided in the edge thereof which opposes the mold cavity with a series of spaced recesses, the recesses of one ring being alternately disposed with respect to the recesses of the other ring, each of said rings having that edge which opposes the mold cavity segment-shaped in cross-section and each of said rings having the inner wall of each of its recesses segment-shaped in cross-section, said rings having the edges which oppose the mold cavity flush with each other.

4. A vulcanizing mold comprising an annular body formed with a mold cavity and furthermore provided with a circumferentially-extending recess opening into said cavity, a plurality of rings mounted in said recess and each provided in the edge thereof which opposes the mold cavity with a series of spaced recesses, the recesses of one ring being alternately disposed with respect to the recesses of the other ring, and transversely-extending means for securing the rings to said body.

5. A vulcanizing mold comprising an annular body formed with a mold cavity and furthermore provided with a circumferentially-extending recess opening into said cavity, a series of rings mounted in said recess and each provided in the edge thereof which opposes the mold cavity with a series of spaced recesses, the recesses of one ring being alternately disposed with respect to the recesses of the other ring, the outer rings of the series being thicker than the intermediate rings.

[Claims 6 to 9 not printed in the Gazette.]

944,340. EXPLOSIVE-ENGINE. LLOYD F. LOFTUS, borough of Knoxville, Pa., assignor of one-third to Charles R. MacCann and one-third to John Sorlin, Allegheny county, Pa. Filed Nov. 17, 1908. Serial No. 463,078.



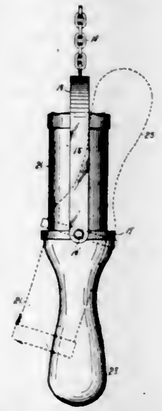
1. In an explosive engine, a cylinder having a larger and a smaller bore and a convex closed end, a two headed piston adapted to fit said bores, the inner head thereof being convex to correspond to said cylinder end, said structure providing an annular chamber between said piston and said cylinder in which the charge may be compressed before admission to the explosion chamber, a valve adapted to admit the fuel from the fuel supply to said annular chamber during the outward stroke of the piston, means for exhausting the products of combustion from the explosion chamber during the inward stroke of the piston, a pair of oppositely disposed valveless by-passes through the wall of the smaller cylinder bore in position to communicate with the annular chamber at the end of the inward stroke of the piston whereby the compressed charge is admitted to the explosion chamber at this point in the stroke, and sparking plugs extending into the explosion chamber at points one adjacent to each of said by-passes.

2. In an explosive engine, a cylinder having a larger and a smaller bore, a two headed piston adapted to fit said bores whereby an annular chamber is formed between said cylinder and said piston, a valve adapted to admit fuel from the fuel supply into said annular chamber during the outward stroke of the piston, a second annular chamber contained within the wall of the piston, ports in the wall of the piston for the passage of the charge from said first annular chamber to said second annular chamber during the inward stroke of the piston, ports leading from the upper portion of said second annular chamber, by-passes through the wall of said cylinder adapted to register with said last mentioned ports at the end of the inward stroke of the piston whereby the charge is admitted to the explosion chamber, and means for exploding the charge in the explosion chamber.

3. In an explosive engine, a cylinder having a larger and a smaller bore, a two headed piston adapted to fit said bores whereby an annular chamber is formed between said cylinder and said piston, a valve adapted to admit fuel from the fuel supply into said annular chamber during the outward stroke of the piston, a second annular chamber contained within the wall of the piston, ports in the wall of the piston for the passage of the charge from said first annular chamber to said second annular chamber during the inward stroke of the piston, ports leading from the upper portion of said second annular chamber, by-passes through the wall of said cylinder adapted to register with said last mentioned ports at the end of the inward stroke of the piston whereby the charge is admitted to the explosion chamber, means for exploding the charge in the explosion chamber, and means for expelling the products of combustion from the explosion chamber during the inward stroke of the piston.

4. In an explosive engine, a cylinder having a larger and a smaller bore and a convex closed end, a two headed piston adapted to fit said bores, the inner head thereof being convex to correspond to said cylinder end, said structure providing an annular chamber between said piston and said cylinder in which the charge may be compressed before admission to the explosion chamber, a valve adapted to admit fuel from the fuel supply to said annular chamber during the outward stroke of the piston, means for exhausting the products of combustion from the explosion chamber during the inward stroke of the piston, a valveless by-pass through the wall of the smaller cylinder bore in position to communicate with the annular chamber at the end of the inward stroke of the piston whereby the charge is admitted to the explosion chamber at the end of the inward stroke of the piston, means for exploding the charge in the explosion chamber, and a counter balanced crank shaft pivotally connected to said piston.

944,341. POWDER HOLDER AND SHAKER. MOSES MARX and JAMES L. RUDE, Denver, Colo. Filed Sept. 5, 1908. Serial No. 451,897. (Model.)



1. A powder holder and shaker comprising a receptacle having an extension handle, a yoke in which the shaker is trunnioned to cause it to assume normally a position with the receptacle uppermost, and flexible suspension means connected with the yoke to permit shaking.

2. An article of the class described, comprising a receptacle having an extension handle, a yoke having parallel side arms, a ring surrounding the shaker and trunnioned on the yoke arms to cause the shaker to assume normally a position with the receptacle uppermost, and flexible means connected with the yoke to permit shaking.

3. A holder comprising a suspended yoke having parallel side arms, a ring trunnioned on the arms at their lower extremities, a powder receptacle detachably connected with the ring and projecting upwardly therefrom,

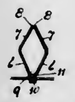
and a handle also connected with the ring and extending downwardly therefrom, substantially as described.

4. A holder of the class described comprising an inverted U-shaped yoke, means connected with the top of the yoke for supporting the same, and a device trunnioned upon the yoke and comprising a ring, a box detachably connected with the ring and extending upwardly therefrom between the yoke arms and a handle detachably connected with the ring and extending downwardly therefrom, substantially as described.

5. The combination of a U-shaped yoke normally occupying an inverted position, a ring trunnioned on the yoke and angular in cross section, whereby it consists of a top horizontal flange and a depending or vertical flange, the latter being interiorly threaded, a box whose bottom is provided with a circumferential horizontal flange, the box being of a size to pass through the ring, its bottom flange being adapted to engage the top flange of the ring, and a depending part whose upper extremity is adapted to screw into the depending flange of the ring to lock the box in place, substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

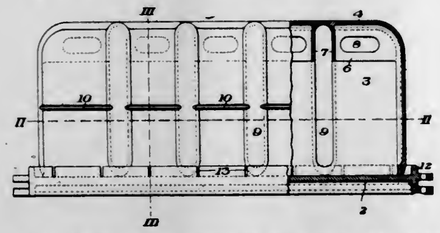
944,342. METALLIC FENCE-POST. ROYAL MATTICE, Wichita, Kans. Filed Aug. 29, 1908. Serial No. 450,917.



1. A hollow fence post formed of a single piece of thin metal bent to substantially diamond shape and having the edges of the metal closely adjacent at the rear side of the post, and having along its front angle a plurality of fastening devices for wire struck from the metal of the front angle, substantially as described.

2. A hollow fence post formed of a single piece of thin metal bent to substantially diamond shape and having its greatest dimension from front to rear and having the edges of the metal closely adjacent at the rear side of the post and having, along its front angle a plurality of fastening devices for wire outwardly struck from the metal of the front angle, substantially as described.

944,343. ANNEALING-BOX. FREDRICK E. MESTA, Pittsburg, Pa., assignor to Mesta Machine Company, Pittsburg, Pa., a Corporation of Pennsylvania. Filed Aug. 2, 1909. Serial No. 510,692.



1. An annealing box formed as an integral casting and having an arched roof, said roof being provided with interior trussing or bracing webs arranged both transversely and longitudinally of the box; substantially as described.

2. An annealing box formed as an integral casting and having an arched roof provided on its under side with a plurality of transversely and longitudinally arranged trussing or bracing webs, said webs being in pairs; substantially as described.

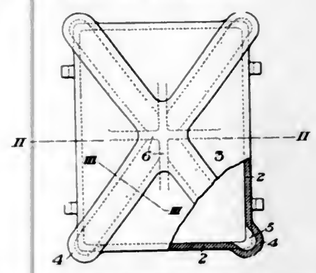
3. An annealing box formed as an integral casting and having an arched roof provided on its under side with a plurality of transversely and longitudinally arranged trussing or bracing webs, said webs being in pairs, and the transversely arranged webs extending entirely across the top portion of the arch and interrupting the longitudinal webs at intervals; substantially as described.

4. A cast steel annealing box having an integral arched roof provided with a plurality of transversely extending interior webs, said webs being arranged in pairs and above the line of junction of the arched roof and the side walls of the box; substantially as described.

5. A cast steel annealing box having an integral arched roof, and a plurality of interior transverse webs, said webs being arranged in pairs; substantially as described.

[Claims 6 to 17 not printed in the Gazette.]

944,344. ANNEALING-BOX. FREDRICK E. MESTA, Pittsburg, Pa., assignor to Mesta Machine Company, Pittsburg, Pa., a Corporation of Pennsylvania. Filed Aug. 2, 1909. Serial No. 510,693.



1. An annealing box having integral side, end and top walls, the corner portions of said box having projecting ribs or swells; substantially as described.

2. An annealing box having integral side, end and top walls, the corner portions of said box having projecting ribs or swells, said ribs or swells being of a thickness of metal substantially uniform with the thickness of the metal in the walls of the box; substantially as described.

3. An annealing box having integral side, end and top walls, the corner portions of said box having projecting ribs or swells, said ribs or swells extending upwardly at the corners and obliquely across the top or roof; substantially as described.

4. An annealing box having integral side, end and top walls, the corner portions of said box having projecting ribs or swells, said ribs or swells extending upwardly at the corners and obliquely across the top or roof and being brought together and united at the central portion of the roof; substantially as described.

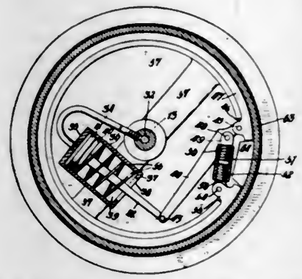
5. An annealing box having integral side, end and roof walls, and having its angles reinforced by exteriorly projecting hollow ribs or swells, said hollow ribs or swells also extending over the top of the box and united at the central portion thereof; substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

944,345. MECHANISM FOR OPERATING WIRE-BLOCKS. JUAN H. REECE, Joliet, Ill., assignor to Humphrey & Sons, Joliet, Ill., a Copartnership. Filed July 10, 1908. Serial No. 442,961.

1. In a wire block operating mechanism, the combination with a wire block of a driving shaft having a longitudinal passage therein, means for supplying a medium under pressure to the passage of the driving shaft, and a driver for actuating the wire block operated by the medium under pressure, substantially as described.

2. In a wire block operating mechanism, the combination with a wire block of a driving shaft having a longitudinal passage therein, means for supplying a medium under pressure to the passage of the driving shaft, a pipe leading from the passage in the shaft, a cylinder into which the pipe leads, a piston in the cylinder, a piston stem, a lever pivotally connected with the piston stem, an expansible band, and a coupling connecting the lever with the expansible band for expanding the band and driving the wire block, substantially as described.



3. In a wire block operating mechanism, the combination with a wire block of a driving shaft having a longitudinal passage therein, means for supplying a medium under pressure to the passage of the driving shaft, a pipe leading from the passage in the shaft, a cylinder into which the pipe leads, a piston in the cylinder, a piston stem, a lever pivotally connected with the piston stem, an expansible band, a coupling connecting the lever with the expansible band for expanding the band and driving the wire block, and a spring within the cylinder for returning the piston and lever to normal position and retracting the expansible band, substantially as described.

4. In a wire block operating mechanism, the combination with a wire block of a driving shaft having a longitudinal passage therein, means for supplying a medium under pressure to the passage of the driving shaft, a pipe leading from the passage in the shaft, a cylinder into which the pipe leads, a piston in the cylinder, a piston stem, a lever pivotally connected with the piston stem, an expansible band, and an adjustable coupling connecting the lever with the expansible band for expanding the band and driving the wire block, substantially as described.

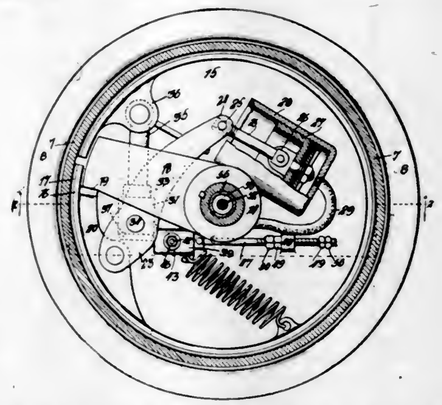
5. In a wire block operating mechanism, the combination with a wire block of a driving shaft having a longitudinal passage therein, means for supplying a medium under pressure to the passage of the driving shaft, a pipe leading from the passage in the shaft, a cylinder into which the pipe leads, a piston in the cylinder, a piston stem, a lever pivotally connected with the piston stem, an expansible band, an adjustable coupling connecting the lever with the expansible band for expanding the band and driving the wire block, and a spring operating to return the piston and lever to normal position and retract the expansible band, releasing and stopping the wire block, substantially as described.

[Claim 6 not printed in the Gazette.]

944,346. CLUTCH FOR WIRE-BLOCKS. JUAN H. REECE, Joliet, Ill., assignor to Humphrey & Sons, Joliet, Ill., a Copartnership. Filed May 1, 1909. Serial No. 493,434.

1. In a clutch, the combination of fixed and movable clutch elements, toggle mechanism adapted when spread to throw the movable clutch element into clutching position, a ratchet wheel on the toggle mechanism adapted when rotated to increase the spread of the toggle, and a dog mounted adjacent to said ratchet wheel and adapted to rotate the same when the throw of the toggle becomes excessive, substantially as described.

2. In a clutch, the combination of a fixed clutch element in the form of a cylindrical wall, a movable clutch element in the form of a split expansible ring having a friction surface adapted to engage the wall, a toggle mechanism connected with the ends of the split ring and adapted when spread to expand the ring to clutching position, means for actuating the toggle, and automatic means adapted to increase the length of the toggle when the movement thereof becomes excessive, substantially as described.



3. In a clutch, the combination of a fixed clutch element in the form of a cylindrical wall, a movable clutch element in the form of a split expansible ring having a friction surface adapted to engage the wall, a toggle mechanism connected with the ends of the split ring and adapted when spread to expand the ring to clutching position, means for actuating the toggle, a ratchet wheel connected with the toggle and adapted to increase the spread thereof to compensate for the wearing of the clutching surfaces, and a dog mounted adjacent to the ratchet wheel and adapted to impart rotation thereto when the movement of the toggle is increased to the extent of carrying a ratchet tooth past the dog, substantially as described.

4. In a clutch, the combination of a fixed element in the form of a cylindrical wall, a movable element in the form of a split ring having a clutching surface adapted to engage the wall, a rotating spindle, an arm connected with the spindle and adapted to engage the split ring, a toggle comprising an arm pivoted to the split ring near one end thereof and a rod pivoted to the other end of the split ring and pivotally connected to the arm, means for imparting movement to the free end of the arm, and means for automatically extending the toggle rod when the latter is subjected to excessive movement due to a wearing of the friction surfaces, substantially as described.

5. In a clutch, the combination of a fixed element in the form of a cylindrical wall, a movable element in the form of a split ring having a clutching surface adapted to engage the wall, a rotating spindle, an arm connected with the spindle and adapted to engage the split ring, a toggle comprising an arm pivoted to the split ring near one end thereof and a rod pivoted to the other end of the split ring and pivotally connected to the arm, means for imparting movement to the free end of the arm, a ratchet wheel adapted when rotated to impart an adjusting movement adapted to lengthen the toggle rod, and a dog adapted to engage the ratchet wheel and to rotate the same when said wheel is subjected to excessive lateral movement, substantially as described.

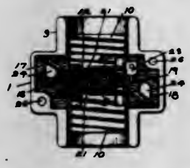
[Claims 6 to 10 not printed in the Gazette.]

944,347. DOUBLE-ENDED RECEPTACLE. HOWARD R. SARGENT and FRANK C. DE REAMER, Schenectady, N. Y., assignors to General Electric Company, a Corporation of New York. Filed July 9, 1907. Serial No. 382,891.

1. A double-ended receptacle for electric lamps, comprising a body and cover having semi-tubular projections on opposite sides forming sockets, said body and cover meeting on a plane which diametrically intersects said sockets.

2. A double-ended receptacle for electric lamps, comprising a body having semi-tubular projections on opposite sides, and a post midway between said projections.

3. A double-ended receptacle for electric lamps, comprising a body having semi-tubular projections on opposite sides, and a post midway between said projections having flat opposite faces transverse to the axis of said projections.

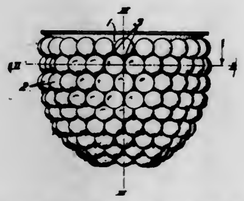


4. A double-ended receptacle for electric lamps, comprising a body having semi-tubular projections on opposite sides, a post midway between said projections having flat opposite transverse faces, and openings at the top and bottom parallel with the axis of said projections.

5. A double-ended receptacle for electric lamps, comprising a body having semi-tubular projections on opposite sides, and a post midway between said projections having a deep notch in its upper end and an opening in its base.

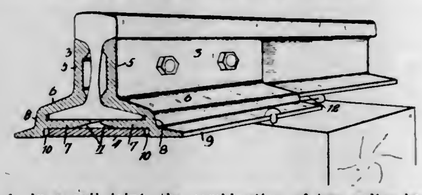
[Claims 6 to 18 not printed in the Gazette.]

944,348. LAMP-GLOBE. CHARLES T. SCHRADER, Kansas City, Mo., assignor of one-half to W. E. Kost, Kansas City, Mo. Filed Mar. 8, 1909. Serial No. 481,903.



A glass globe for lights, having its outer surface formed into numerous contacting hemispherical protuberances, arranged in staggering relation, and also provided in the triangular spaces between said protuberances with pyramidal points adapted to diffuse the light refracted by the protuberances; substantially as described.

944,349. RAIL-JOINT. ARTHUR L. STANFORD, Chicago, Ill. Filed Mar. 8, 1909. Serial No. 482,082.



1. In a rail joint, the combination of two splice bars, each comprising a body portion, a lateral flange and an inturned base flange, a supporting plate of greater length than the splice bars and underlying the base flanges, and having each of its ends of increased thickness to furnish a bearing surface for the rail and afford a stop or abutment to engage the ends of the adjacent base flanges to prevent longitudinal movement, substantially as described.

2. In a rail joint, the combination of two splice bars, each comprising a body portion, a lateral flange and an inturned base flange, a supporting plate of greater length than the splice bars and underlying the base flanges, and having each of its ends doubled back to afford a thickened portion adapted to support the rail and furnish an abutment for the adjacent ends of the base flanges for preventing longitudinal movement, substantially as described.

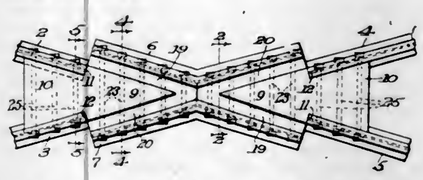
3. In a rail joint, the combination of a pair of splice bars, each comprising a body portion, a laterally extending flange and an inturned base flange, each of the splice bars having near its outer edge a depending portion adapted to bear upon the tie, leaving a groove or channel intermediate such depending portions, and a base plate entered in said groove or channel, substantially as described.

4. In a rail joint, the combination of a pair of splice bars, each comprising a body portion, a laterally extending flange and an inturned base flange, each of the splice bars having near its outer edge a depending portion adapted to bear upon the tie, leaving a groove or channel intermediate such depending portions, and a base plate entered in said groove or channel and of greater length than the splice bars, substantially as described.

5. In a rail joint, the combination of a pair of splice bars, each comprising a body portion, a laterally extending flange and an inturned base flange, each of the splice bars having near its outer edge a depending portion adapted to bear upon the tie, leaving a groove or channel intermediate such depending portions, and a base plate entered in said groove or channel and of greater length than the splice bars, and having its ends thickened throughout their width to furnish bearing surfaces for the rail and stops or abutments for preventing longitudinal movement, substantially as described.

[Claims 6 to 11 not printed in the Gazette.]

944,350. RAILWAY-FROG. EDWARD SWENBERG and ROBERT ENSTROM, Chicago, Ill. Filed Aug. 2, 1909. Serial No. 510,898.



1. A frog consisting of a single casting embracing a triangular point and a heel portion, the base of the former offset from the latter and providing shoulders for abutting convergent rails, and side extensions for spacing guard rails apart from said point portion.

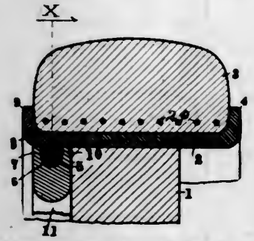
2. A frog consisting of a single member having a triangular point and a heel having sides or edges paralleling the sides or edges of said point in planes between the side planes of the point, integral spacers extending from the latter and means for securing said frog to adjacent rails.

3. The combination with a pair of divergent rails and a pair of guard rails of a frog, said frog having integral filling adapted to space said guard rails apart from the point of said frog, a heel portion integral with said point, said heel portion serving to space said divergent rails apart and bring the sides thereof into alinement with the sides of the point of the frog, lateral spacers or extensions extending from the sides of said point and adapted to space the guard rails apart from said sides, and means for securing said frog and rails together.

4. The combination with the track rails and guard rails, of a frog having point and heel portions, the sides of the point portion extending beyond the sides of the heel portion, said track rails being clamped to the sides of said heel portion, and said point portion having lateral extensions, or spacers, to which said guard rails are clamped and which provide a wheel-flange space between the point portion of said frog and said guard rails and between said track rails and guard rails.

5. The combination with a pair of divergent track rails and a pair of guard rails, of a frog comprising in a single member a point portion and a heel portion, the latter offset at its base from the former, said point portion having integral lateral extensions arranged below the upper surface of said frog, said extensions having recesses in their under sides adapted to let in the adjacent portions of the rail bases, said heel portions having similar recesses for the base of each said track rail and also recesses for the heads of said track rails, said frog having transversely extending bores therethrough and the bolts occupying said bores for clamping said track and guard rails to said frog.

944,351. VEHICLE-WHEEL RIM. JOHN M. ALDERFER, Sharon Center, Ohio. Filed Nov. 7, 1908. Serial No. 461,567.



1. The combination in a vehicle wheel, of a rim provided with a seat for a tire and a tire-retaining means along one side edge thereof, said rim provided with a depending or inwardly-extending flange along its opposite side edge having a notch formed therein, an annular-removable tire-retaining means coöperating with the tire-retaining means on said rim provided with an inwardly-extending flange having a notch therein adapted to register with the notch in the depending flange of said rim, said removable tire-retaining means adapted to be positioned with the depending flange thereof in abutting relation with the face of the depending flange of said rim and a locking element comprising a split, resilient ring having a circumferentially-arranged interrupted recess in the outer face thereof adapted to be sprung over and receive the abutting inwardly-depending flanges of said rim and removable tire-retaining means with the interrupted portion thereof positioned in the registering notches of said flanges, whereby said removable tire-retaining means is locked against circumferential movement.

2. The combination in a vehicle wheel, of a rim provided with a seat for a tire and a tire-retaining means along one side edge thereof, said rim provided with a depending or inwardly-extending flange having a laterally-projecting bead along its inner edge, the outer face of said bead constituting a seat, said flange and bead having a notch formed therein, an annular removable tire-retaining means coöperating with the tire-retaining means on said rim provided with an inwardly-extending flange having a notch therein adapted to register with the notch in the depending flange of said rim, said removable tire-retaining means adapted to be positioned with the depending flange thereof in abutting relation with the face of the depending flange of said rim and mounted on the seat on said bead and a locking element comprising a split, resilient ring having a circumferentially-arranged interrupted recess in the outer face thereof adapted to be sprung over and receive the abutting inwardly-depending flanges of said rim and removable tire-retaining means with the interrupted portion thereof positioned in the registering notches of said flanges, whereby said removable tire-retaining means is locked against circumferential movement.

3. The combination in a vehicle wheel, of a rim provided with a seat for a tire and a tire-retaining means along one side edge thereof, said rim provided with a depending or inwardly-extending flange along its opposite side edge having a notch formed therein, an annular removable tire-retaining means coöperating with the tire-retaining means on said rim provided with an inwardly-extending flange having a notch therein adapted to register with the notch in the depending flange of said rim, a split, resilient locking ring having the ends thereof spaced apart and provided with a circumferentially-arranged recess in the outer face thereof adapted to be sprung over and receive the abutting inwardly-depending flanges of said rim and removable tire-retaining means, a member provided with a recess to receive said abutting flanges adapted to be interposed between the separated ends of said ring, suitably mounted therebetween and a threaded element projecting therefrom adapted to engage one end of said locking ring when said threaded element is rotated in one direction for positively expanding said locking ring into clamping engagement with said flanges.

4. The combination in a vehicle wheel, of a rim provided with a seat for a tire and a tire-retaining means along one side edge thereof, said rim provided with a depending or inwardly-extending flange along its opposite side edge having a notch formed therein, an annular removable tire-retaining means coöperating with the tire-retaining means on said rim provided with an inwardly-extending notched flange, said removable tire-retaining means adapted to be positioned with the depending flange thereof in abutting relation with the face of the depending flange on said rim and with the notch therein in registering relation with the notch of the flange of said rim, a locking element comprising a split, resilient ring with the ends thereof normally spaced apart having a circumferentially-arranged interrupted recess in the outer face thereof adapted to be sprung over and receive the abutting inwardly-depending flanges of said rim and removable tire-retaining means and with the interrupted portion thereof positioned in the registering notches of said flanges, whereby said removable tire-retaining means is locked against circumferential movement and a detachable member provided with a recess to receive said abutting flanges and with an expansible element mounted therein arranged to be positioned between the spaced ends of said ring for forcing said ends apart and the balance of said ring into clamping engagement with the abutting flanges of said rim and tire-retaining means.

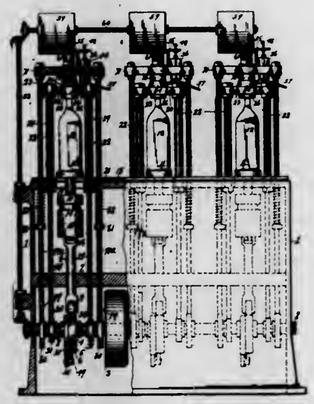
5. The combination in a vehicle wheel, of a rim provided with a seat for a tire and a tire-retaining means along one side edge thereof, said rim provided with a depending or inwardly-extending flange along its opposite side edge having a notch formed therein, an annular removable tire-retaining means coöperating with the tire-retaining means on said rim provided with an inwardly-extending notched flange, said removable tire-retaining means adapted to be positioned with the depending flange thereof in abutting relation with the face of the depending flange on said rim, with the notch therein in registering relation with the notch in the flange of said rim, a locking element comprising a split, resilient ring with the ends thereof normally spaced apart having a circumferentially-arranged interrupted recess in the outer face thereof adapted to be sprung over and receive the abutting inwardly-depending flanges of said rim and removable tire-retaining means with the interrupted portion thereof positioned in the registering notches of said flanges, whereby said removable tire-retaining means is locked against circumferential movement and a removable member comprising a body portion conforming exteriorly to the configuration of said locking ring, having a longitudinal recess to receive the abutting flanges of said rim and tire-retaining means and further provided with a threaded opening adapted to receive a threaded shaft arranged when extended to force the spaced ends of said locking element apart and into clamping engagement with the flanges of said rim and removable tire-retaining means.

[Claim 6 not printed in the Gazette.]

944,352. BOTTLE FILLING AND CROWNING MACHINE. HENRY A. ALLWARDT, Detroit, Mich., assignor of one-half to William J. Stapleton, Detroit, Mich. Filed Nov. 15, 1907. Serial No. 402,245.

1. In a bottle filling and crowning machine, the combination of a head, means for presenting a bottle to said

head, a movable collar around the lower portion of the head, a compressible ring confined between the head and collar, vertically reciprocatory rods connected with said collar, cams engaging the lower ends of said rods for moving the collar to compress the ring and force it against the mouth of the bottle, and means for filling and crowning the bottle.



2. In a bottle filling and crowning machine, the combination of a head having a filling chamber therein, a movable collar surrounding the opening in the head leading to said chamber, said collar having laterally extending arms, vertically movable rods attached to said arms, a compressible ring between said collar and head around said opening, means for presenting a bottle to the head to cause the mouth of the bottle to lie within said ring, means for actuating said rods to move the collar and compress the ring around the mouth of the bottle, means for filling the bottle, and means for crowning it.

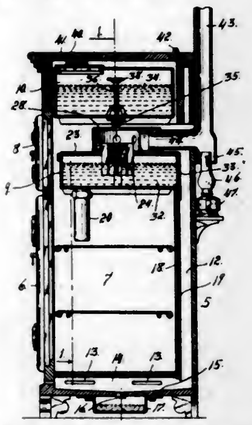
3. In a bottle filling and crowning machine, the combination of a head having a filling chamber therein, a movable collar on said head, a compressible ring within said collar around the opening leading to said chamber, means for presenting the mouth of a bottle within said ring, rods connected to said collar for actuating it to compress said ring around the mouth of the bottle, means for operating said rods, said head having in the wall thereof an induct port leading into said chamber whose inner end is flaring and through which the fluid contents enters the bottle, means for directing fluid through said port into said chamber, means for presenting a crown within said chamber above said port, and means for crimping said crown over the mouth of the bottle after the operation of filling.

4. In a bottle filling and crowning machine, the combination of a filler head, means for presenting a bottle to said head for filling, said head having a way therein communicating with the interior of the head for the passage of the crowns, means for feeding the crowns successively through said way, a vertically movable head block for closing the upper opening in said head, said head block having a depending flange adapted to close the way leading to the interior of the head through which the crowns are fed during the operation of filling, means for presenting the mouth of the bottle to the crown in the head, and means for crimping the crown onto the mouth of the bottle.

5. In a bottle filling machine, the combination of a head, means for presenting a bottle to said head for filling, a pump for conveying syrup to said head, a reciprocatory rod for actuating said pump, and means for locking said rod against movement when a bottle is not in position upon the machine to be filled.

[Claims 6 to 12 not printed in the Gazette.]

944,353. REFRIGERATOR. WILLIAM N. AMSBARY, Denver, Colo., assignor of five-twelfths to Lyman D. Denney and one-sixth to William Simpson, Denver, Colo. Filed Nov. 10, 1908. Serial No. 461,940.



1. A refrigerator comprising a casing, a cooling chamber therein and separated therefrom by an air space, a water-containing receptacle mounted in the casing, a metallic element fitted into an opening formed in said receptacle and protruding above the same, and means located within the casing for delivering water to the said metallic element, whereby it is allowed to pass downwardly therefrom to the wall of the cooling chamber.

2. A refrigerator comprising a casing, a cooling chamber therein separated therefrom by an air space, a water-containing receptacle mounted in the casing, a metallic element fitted into an opening formed in the top of the said receptacle and protruding above the same, a water-containing tank mounted above the said receptacle and provided with a valve-controlled opening to allow the water to drip downwardly upon the said metallic element and pass therefrom to the exterior wall of the cooling chamber.

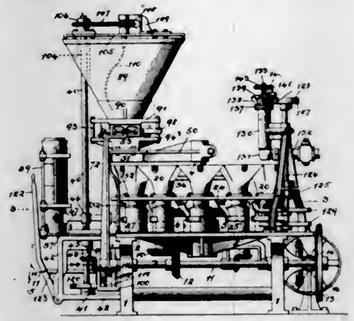
3. A refrigerator comprising a casing, a cooling chamber located therein and separated therefrom by an air space, a water-containing tank mounted on top of the cooling chamber, a metallic element fitted into an opening formed in the top of the said tank, and protruding above the same, the said element being provided with a number of wings or plates to form a relatively large surface, a second water-containing tank mounted above the first named tank and provided with a valve controlled opening to allow the water to drip downwardly upon the said metallic element and pass therefrom to the exterior wall of the cooling chamber, substantially as described.

4. A refrigerator comprising a casing, a cooling chamber therein separated therefrom by an air space, a water-containing receptacle mounted in the casing above the cooling chamber, a metallic element projecting into the said receptacle and protruding therefrom, the receptacle being closed around the said element, and a water-containing tank mounted above the receptacle and provided with a valve controlled opening to allow the water to drip downwardly upon the said metallic element.

5. A refrigerator comprising an outer casing, a cooling chamber located within the casing and separated therefrom by an air space, means for producing a forced current of air through the said air space, a water receptacle located above the cooling chamber, a metallic element protruding into the said water receptacle and projecting above the top of the same, the said element being closely fitted into a suitable opening formed in the top of the receptacle, an apertured housing covering the protruding portion of the said metallic element, a water containing tank located above the water receptacle and provided with a bottom port in communication with an opening formed in the top of the said housing, whereby the water is allowed to drip from the tank downwardly upon the metallic element and distribute itself over the outer surface of the water receptacle and cooling chamber, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

944,354. CAN-FILLING MACHINE. CHARLES H. AYARS, Salem, N. J., assignor to Ayars Machine Company, Salem, N. J., a Corporation of New Jersey. Filed July 3, 1906. Serial No. 324,588.



1. A can-filling machine having a device to sustain the cans; a plurality of individual hoppers; a reciprocating measuring receptacle above the hoppers; a stirrer in each hopper; a circular rack; means for operatively connecting the stirrer with the rack, and means whereby all the hoppers, stirrers, and rack may be raised or lowered simultaneously to adjust their position between the can-sustaining device and the reciprocating receptacle.

2. A can-filling machine having a stationary can-table; a post extending above the table; a vertically movable support on the post near the table and having circumferential screw-threads; a ring seated on the table and having screw-threads to engage the threads on the support, and a carrier and gear mounted on the post and sustained by the support.

3. A can-filling machine having a plurality of individual hoppers traveling in an endless path; means for sustaining the cans with their open ends adjacent the hopper outlets; a stirrer arm depending from the upper end of each of said hoppers, and means for operating said arms as the hoppers travel.

4. A can-filling machine having a plurality of individual hoppers traveling in an endless path; means for sustaining the cans with their open ends adjacent the hopper outlets; a vertical shaft in each hopper; a stirrer arm depending into the hopper from each shaft, and means for revolving said vertical shafts and arms as the hoppers travel.

5. A can-filling machine having a can table; a hopper carrier above the table; a plurality of hoppers sustained by said carrier; means for revolving said carrier; a stirrer arm in each hopper; means on the exterior of the hopper for operating the stirrer arms, and means for vertically adjusting the position of the hoppers with respect to the can table.

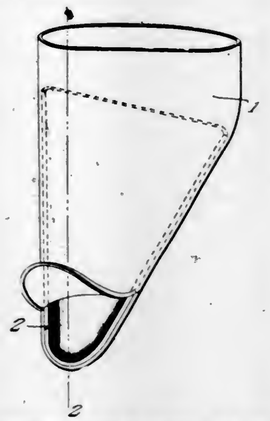
[Claims 6 to 17 not printed in the Gazette.]

944,355. HOLSTER. JOHN M. BEASLEY, Greensboro, N. C. Filed Apr. 5, 1909. Serial No. 488,062.

1. An attachment for holsters comprising a plate and a deflecting portion out-turned from the plate and extending across the lower portion thereof.

2. An attachment for holsters comprising a plate conforming to the contour of and insertible into a holster and having an outstanding deflecting portion extending across the bottom thereof.

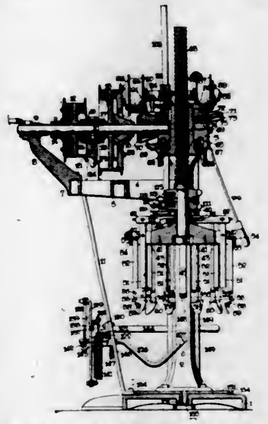
3. An attachment for holsters comprising a plate conforming in contour with and insertible into a holster, said plate having outstanding marginal portions extending across the bottom and along the sides thereof and constituting deflecting means.



4. The combination with a holster, of bullet-deflecting means upon one wall of the holster and having an outstanding marginal deflecting portion upon the bottom of the holster.

5. The combination with a holster, of a plate in one wall thereof and having an outstanding deflecting portion within and extending across the bottom of the holster.

944,356. VERTICAL HOOP-DRIVING MACHINE. EDWIN F. BEUGLER, Buffalo, N. Y., assignor to Edward B. Holmes, Buffalo, N. Y. Filed Jan. 13, 1906. Serial No. 295,906.



1. In a machine of the class described, the combination with hoop driving mechanism and means for raising and lowering said hoop driving mechanism, of means for imparting a partial rotation to said barrel after each operative movement of the hoop driving mechanism, whereby the hoops if more than one descent of the hoop driving mechanism is deemed necessary will not be pressed at the same points on successive descents.

2. In a machine of the class described, the combination with hoop driving mechanism and means for raising and lowering said hoop driving mechanism, of means for imparting a partial rotation to said barrel after each operative movement of the hoop driving mechanism, including a

supporting plate upon which said barrel is mounted and means for partially rotating said plate, whereby the hoops if more than one descent of the hoop driving mechanism is deemed necessary will not be pressed at the same point on successive descents.

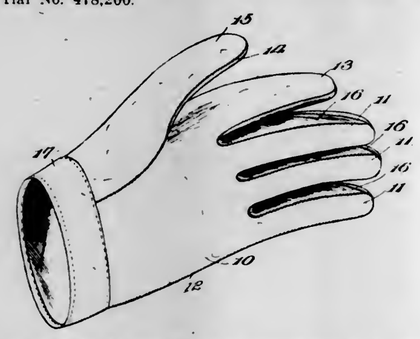
3. In a machine of the class described, the combination with hoop driving mechanism and means for raising and lowering said hoop driving mechanism, of means for imparting a partial rotation to said barrel after each operative movement of the hoop driving mechanism including a supporting plate upon which said barrel is mounted, and mechanism automatically operated by the movement of the hoop driving mechanism for partially rotating said plate, whereby the hoops if more than one descent of the hoop driving mechanism is deemed necessary will not be pressed at the same points on successive descents.

4. In a machine of the class described, the combination with hoop driving mechanism and means for raising and lowering said hoop driving mechanism, of means for imparting a partial rotation to said barrel after each operative movement of the hoop driving mechanism, including a supporting plate upon which said barrel is mounted and automatic means for partially rotating said plate, whereby the hoops if more than one descent of the hoop driving mechanism is deemed necessary will not be pressed at the same points on successive descents.

5. In a machine of the class described, the combination with hoop driving mechanism and means for raising and lowering said hoop driving mechanism, of means for imparting a partial rotation to said barrel after each operative movement of the hoop driving mechanism, including a supporting plate upon which said barrel is mounted having a ratchet part and a pawl engaging said ratchet.

[Claims 6 and 7 not printed in the Gazette.]

944,357. GLOVE. CHARLES E. CHADDOCK and RICHARD G. CHADDOCK, Canton, Ohio. Filed Feb. 16, 1909. Serial No. 478,200.



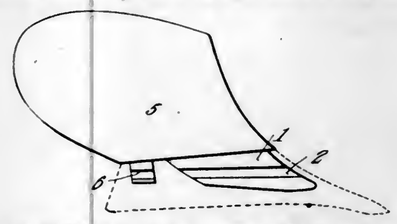
In a device as specified the combination of a blank, half fingers formed in one of the longitudinal edges of the same and adapted for overlapped registration, fourchettes of diamond formation stitched between said half fingers, a half fourchette stamped from said blank intermediately thereof and a thumb-piece stitched about the edges of said half fourchette and the inner edges of said blank.

944,358. PLOW. WILLIAM J. DOYLE, Jr., Sherwood, N. D. Filed July 21, 1909. Serial No. 508,751.

1. A plow comprising a frog having a recess longitudinally disposed along its mold-board supporting side portion and a share having upon its under side a rib adapted to slip longitudinally into the recess and fit snugly therein.

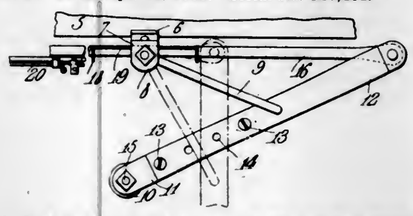
2. A plow comprising a frog having upon its mold-board supporting side portion a recess longitudinally disposed and provided with inclined side walls, a share having upon its under side a rib having inclined edges adapted to slip longitudinally into the recess and fit snugly therein.

3. A plow comprising a frog having upon its mold-board supporting side portion a recess longitudinally disposed, a share having upon its under side a rib adapted to



slip longitudinally into the recess and fit snugly therein, a mold-board mounted upon the frog and having a lug which lies behind the share and a screw adapted to enter the rib and bear against the rear edge of said lug.

944,359. BELT-SHIFTER. JOHN S. ELLIOTT, Mohall, N. D. Filed Sept. 13, 1909. Serial No. 517,401.



1. In a belt shifter, a support, arms pivotally mounted thereon, a roller, supporting arms carrying said roller, said supporting arms being pivotally connected to said first mentioned arms, and moving in the same plane, and an operating device connected to the supporting arms.

2. In a belt shifter, a support, arms pivotally mounted thereon, belt engaging means, supporting arms carrying said belt engaging means, said supporting arms being pivotally connected to the first mentioned arms, and swinging in the same plane, and an operating device connected to the supporting arms.

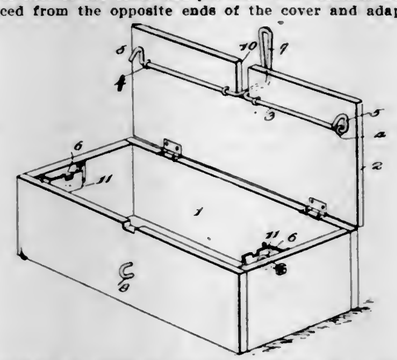
3. In a belt shifter, a bracket having spaced outstanding flanges, arms pivotally connected to said flanges, belt engaging means, supporting arms carrying said belt engaging means, said arms being pivotally connected to the first mentioned arms, and swinging in the same plane, a plate secured to the bracket and having apertured outstanding flanges, a slide rod mounted in the apertures of the flanges, and connected to the supporting arms, and means for operating the slide rod.

4. In a belt shifter, a support, arms pivotally mounted thereon, belt engaging means, supporting arms carrying said belt engaging means, said arms comprising adjustable sections, and being pivotally connected to the first mentioned arms, and swinging in the same plane, and an operating device connected to the supporting arms.

944,360. HOOK-AND-EYE BOX-FASTENER. WILLIAM GREGSON, Fort Worth, Tex. Filed Oct. 31, 1908. Serial No. 460,470.

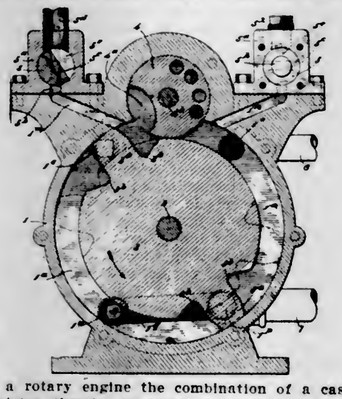
1. The combination with a receptacle having a pivoted cover, keepers disposed within the receptacle and secured to the opposite end walls thereof, eyes housed within the keepers and a locking member journaled on the lower face of the cover and formed of a single piece of wire having its opposite ends bent to produce terminal hooks adapted to engage the eyes for locking the cover in closed position and its intermediate portion bent laterally through the opening in the cover and thence bent at substantially right angles to the horizontal plane of the wire to produce a hasp for engagement with a staple.

2. The combination with a receptacle having a movable cover, keepers secured to the end walls of the receptacle and projecting within the same, fastening devices housed within the keepers, a locking member journaled on the lower face of the cover and provided with terminal hooks spaced from the opposite ends of the cover and adapted



to engage the fastening devices for locking the cover in closed position and a hasp forming part of the locking member and extending through an opening in the cover for engagement with a staple, there being recesses formed in the upper edges of the keepers for the reception of the hooked ends of the locking member.

944,361. ROTARY ENGINE. CLINTON GUYER, Muncy, Pa., assignor of one-half to William C. Crawford, Muncy, Pa. Filed June 7, 1909. Serial No. 500,752.



1. In a rotary engine the combination of a casing, a rotary piston therein, an annular working chamber surrounding the piston, an abutment on the piston within the working chamber, a rotary abutment beside the piston, normally blocking the working chamber and provided with a pocket to permit the passage of the piston abutment, gearing for rotating the rotary abutment in unison with the piston, a main inlet port, an exhaust port, and a channel in the side of the working chamber leading from the exhaust port toward the inlet port.

2. In a rotary engine the combination of a casing, a rotary piston therein, an annular working chamber surrounding the piston, diametrically opposite abutments on the piston within the working chamber, a rotary abutment beside the piston, and normally blocking the working chamber, provided with a pocket to permit the passage of the piston abutments, gearing for rotating the abutment in unison with the piston, an inlet port at one side of the rotary abutment, a vent at the opposite side of such abutment, an exhaust port intermediate the inlet port and vent, and a venting channel leading from the exhaust port toward the inlet port.

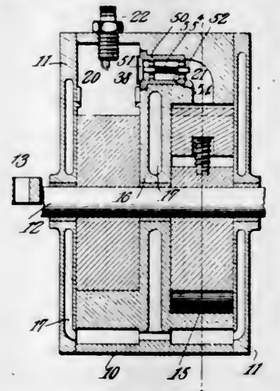
3. In a rotary engine the combination of a casing, a rotary piston therein, an annular working chamber surrounding the piston, diametrically opposite abutments on the piston within the working chamber, a rotary abutment beside the piston provided with a pocket to permit the passage of the piston abutments, gearing for rotating the abutment in unison with the piston, a main inlet port and a vent at opposite sides of the rotary abutment, and an exhaust port intermediate the inlet and vent; with a main shaft connected with the piston, a main inlet valve, an eccentric on the main shaft, and adjustable connections between the eccentric and said valve for operating the latter.

4. In a rotary engine the combination of a casing, having an annular working chamber, a rotary piston in said chamber having an abutment, a rotary abutment beside the piston blocking the working chamber and having a pocket to permit the passage of the piston abutment, gearing for rotating the rotary abutment in unison with the piston, a main inlet port at one side of the rotary abutment, a vent at the opposite side of the rotary abutment, an exhaust port intermediate the vent and inlet, a main shaft connected with the piston, a main valve connected to the inlet port, a lever on the valve stem, an eccentric on the main shaft, an eccentric strap, and adjustable connections between the eccentric strap and said lever for operating the main valve.

5. In a rotary engine the combination of a casing, a rotary piston therein, an annular working chamber surrounding the piston, an abutment on the piston within the working chamber; a rotary abutment beside the piston provided with a pocket to permit the passage of the piston abutment, gearing for rotating the abutment in unison with the piston, an inlet port at each side of the rotary abutment, means for closing either one of these ports, an exhaust port intermediate the inlet ports, a main shaft connected with the piston, an eccentric on the main shaft, a valve for each inlet port, and means for connecting either inlet valve with the eccentric.

[Claims 6 and 7 not printed in the Gazette.]

944,362. INTERNAL-COMBUSTION ENGINE. DALLAS C. HATHAWAY, Sheldon, Ill. Filed Oct. 2, 1908, Serial No. 455,846. Renewed Oct. 6, 1909. Serial No. 521,184.



1. In a rotary internal combustion engine, a pair of cylinders arranged side by side, and each having curved surfaces of different radii, pistons working in the cylinders, a shaft carrying both pistons, wings carried by the pistons, one of said cylinders, and the piston working therein operating as a pump, and the other cylinder having an explosion chamber in its wall past which chamber the piston of said cylinder travels, and a partition between the cylinders, said partition having a valved passage communicating at one end with the pump cylinder, and at the other end with the explosion chamber.

2. In a rotary internal combustion engine, a pair of cylinders arranged side by side, pistons working in the cylinders, a shaft carrying both pistons, wings carried by the pistons, one of said cylinders and the piston working therein operating as a pump, and the other cylinder having an explosion chamber in its wall past which chamber the piston of said cylinder travels, and a partition between the cylinders, said partition having a valved passage communicating at one end with the pump cylinder and at the other end with the explosion chamber.

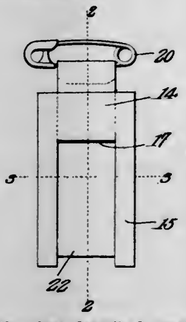
3. In a rotary internal combustion engine, a pair of cylinders arranged side by side, pistons working in the cylinders, a shaft carrying both pistons, wings carried by the pistons, one of said cylinders and the piston working therein operating as a pump, and the other cylinder having an explosion chamber in its wall past which the piston of said cylinder travels, a partition between the cylinders, said partition having a passage communicating at one end with the pump cylinder, and at the other end with the explosion chamber, and a valve in said passage, said valve being held in closed position when subjected to the action of the exploded gases.

4. In a rotary internal combustion engine, a pair of cylinders arranged side by side, and each having curved surfaces of different radii, pistons working in the cylinders, a shaft carrying both pistons, wings carried by the pistons, one of said cylinders and the piston working therein operating as a pump, and the other cylinder having an explosion chamber in its wall past which the piston of said cylinder travels, a rib extending over the discharge mouth of the explosion chamber, and a partition between the cylinders, said partition having a valved passage communicating at one end with the pump cylinder, and at the other end with the explosion chamber.

5. In a rotary internal combustion engine, a cylinder provided with curved portions of different radii, inlet and exhaust ports communicating with the cylinder, a piston drum, piston wings projecting from the drum, and an auxiliary exhaust port leading from the main exhaust port to the inner wall of the cylinder and terminating at the latter approximately at the juncture of the surfaces of larger and smaller radii.

[Claims 6 and 7 not printed in the Gazette.]

944,363. MATCH-SCRATCHER. JOHN H. HAVECOTTE and MAY STANLEY, Somerville, Tex. Filed Mar. 29, 1909. Serial No. 486,542.

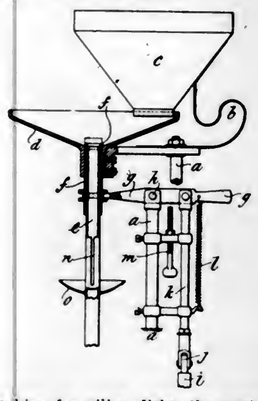


1. A device of the class described consisting of a sheet of material cut to form spaced side portions and an intermediate portion separated from the side portions but integral with the body of the sheet, said intermediate portion being bent back upon the body portion of the sheet and folded at its end, an attaching element pivotally connected with the folded end of the said intermediate portion of the sheet for the attachment to a garment, the said edge portions of the sheet being folded to receive between them a match igniting strip.

2. A device of the class described comprising a body portion, spaced portions projecting from the body portion in parallelism, the material of which the device is formed being folded back from the spaced portions and upon the body portion and an attaching means carried at the end of the back folded portion.

3. A device of the class described comprising spaced portions folded to form guide members adapted to receive the edges of a match igniting strip, the said folded portions being flattened at the lower ends whereby to support the strip and limit its downward movement.

944,364. MEANS FOR PILING DISKS. HOWARD D. HODGE, Waltham Abbey, England, assignor to Nobel's Explosives Company, Limited, Glasgow, Scotland. Filed Jan. 9, 1909. Serial No. 471,444.



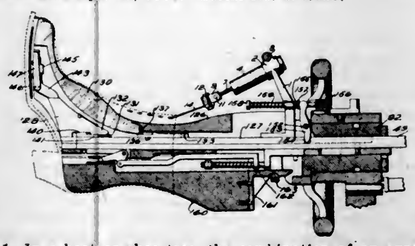
1. In a machine for piling disks, the combination of a hopper the bottom of which gradually slopes from its apex to its periphery, a tube extending downward from the apex of the hopper through which the disks are delivered, and a receptacle arranged above the hopper which delivers the disks on to the edge thereof.

2. In a machine for piling disks, the combination of a conical hopper the bottom of which slopes gradually from its apex to its periphery, a tube extending downward from the apex of the hopper, a sleeve surrounding the top of the tube and capable of an up-and-down movement thereon, and a receptacle for disks which delivers them onto the edge of the hopper.

3. In a machine for piling disks, the combination of a conical hopper, a feed hopper adapted to feed disks onto the edge of the conical hopper, and a spring support for the feed hopper.

4. In a machine for piling disks, the combination of a conical hopper, a tube extending downward from the apex thereof, and vibratory means for holding and delivering disks successively to the hopper near its edge.

944,365. BOOT AND SHOE TREE AND STRETCHER. WILLIAM H. HOOPER, Lynn, Mass., assignor to Thomas G. Plant, Boston, Mass. Original application filed Feb. 6, 1909, Serial No. 476,442. Divided and this application filed Apr. 15, 1909. Serial No. 490,038.



1. In a boot or shoe tree, the combination of an expansible foot piece, a stretcher provided with means for engaging a shoe-top, and means for expanding the foot piece and bodily moving the stretcher lengthwise of the tree.

2. In a boot or shoe tree, the combination of a leg portion, a foot movable toward and from the leg portion, a stretcher provided with means for engaging a shoe-top on said foot, and means for moving the foot and stretcher in a direction lengthwise of the tree.

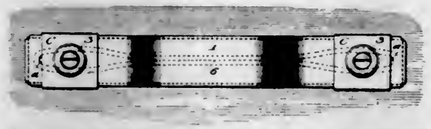
3. In a boot and shoe tree, the combination of a leg portion, a foot, means to move the foot toward and from the leg, a stretcher provided with means to engage the upper of a shoe on said foot, and means to bodily move the stretcher as the foot is moved toward the leg.

4. In a boot and shoe tree, the combination of a leg portion, an expansible foot, a stretcher for engaging the upper of a shoe on said foot portion, and means to expand said foot portion and bodily move the stretcher.

5. In a boot and shoe tree, the combination of a leg portion, a foot, a stretcher to engage the upper of a shoe on said foot, and means to move the foot and stretcher.

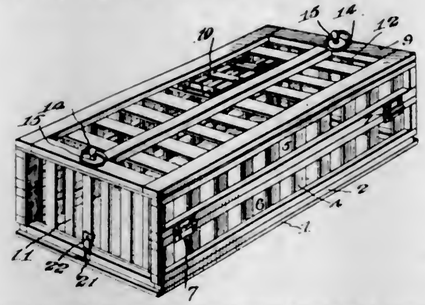
[Claims 6 to 14 not printed in the Gazette.]

944,366. HANDLE FOR TRUNKS. CHARLES F. KNAPP, Clintonville, Wis. Filed May 10, 1909. Serial No. 495,000.



In a trunk-handle of the class described, the combination of three or more layers, provided with slots, the slots in outer layers being at ends thereof and in alinement with each other, and slot in middle layer extending approximately the length of the layer for the reception of endless wire cable, endless wire cable situated within said slot and bolts passing through said slots and attaching to trunk, substantially as set forth and described.

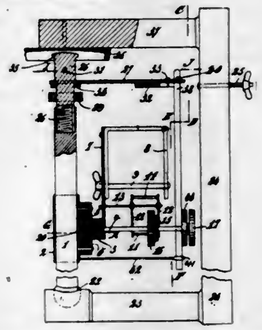
944,367. COOP. JOHN P. MANN, Ennis, Tex. Filed Apr. 15, 1909. Serial No. 490,102.



The combination with a coop having a top and a bottom and sides and ends adapted to be folded between the top and bottom, an eye upon each of the ends, an upright member provided with a depression forming a lip upon the bottom, handles upon the top, each of said handles being provided with a downwardly extending stud having its extremity provided with an offset finger, said offset finger adapted to engage the eye of the ends when the coop is in its raised position, and said offset finger being also adapted to engage the lip of the upright member upon the base when the coop is in its collapsed position.

944,368. APPARATUS FOR TEACHING SHOOTING. JOSEPH A. MARTENS, Ostende, Belgium. Filed Jan. 5, 1909. Serial No. 470,891.

1. In an apparatus of the character described, the combination with a fire-arm, of a support therefor having universal movement and mechanism directly connected to and operated by a movable member of the fire-arm to lock the support in a fixed position.



2. In an apparatus of the character described, the combination with a fire-arm, of a rigid support, a universally movable member mounted in and adapted to be connected with the support, a clamp for the fire-arm connected with the movable member, means to lock the movable member to the rigid support, means to lock the clamp to the movable member and means to connect said locking means with the firing mechanism of said fire-arm.

3. In an apparatus of the character described, the combination of rigid supporting members, a universally movable member mounted in one of said supports, a slide on the movable member, a clamp pivotally connected with the slide, means to lock the movable member to the rigid supporting members and means to lock the clamp and slide to the movable member.

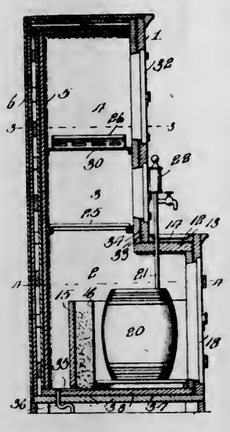
4. In an apparatus of the character described the combination with a fire-arm, of rigid supporting members, a universally movable support mounted in one of said members, a screw mounted in the support movable into engagement with the other supporting member, a spring for rotating the screw, a sleeve slidable and rotatably mounted on the support, a bearing connected with the sleeve, a screw-rod mounted in the bearing, a spring to rotate the screw-rod, a clamp slidable on the screw-rod, means to normally hold said spring under tension, means operated by the movement of the firing mechanism of the fire-arm to release the spring for rotating the screw-rod, and means operated by the movement of the screw-rod to release the spring for rotating the screw.

944,369. REFRIGERATOR. ELIAS W. MITCHEL, Beaumont, Tex. Filed Mar. 7, 1908. Serial No. 419,702.

1. A refrigerator having a rear wall, side walls, bottom wall, and a front wall to form a compartment, the front wall being formed with a door opening, the bottom wall being provided within the compartment with an upwardly extending wall arranged in spaced relation to the rear wall of the compartment, the ends of said upwardly extending wall being secured to the side walls of the compartment, and a wall arranged in spaced relation to and in advance of the upwardly extending wall, the ends of said advanced wall being secured to the front wall adjacent the door opening.

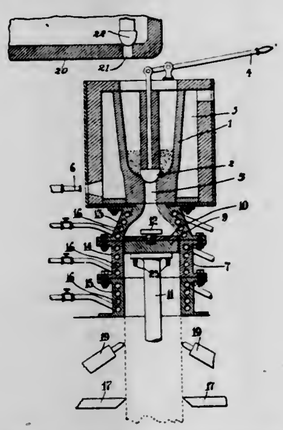
2. A refrigerator including a compartment inclosed by the walls of the refrigerator, one of said refrigerator walls being formed with means providing access to the compartment, an ice chamber arranged within the compartment and including spaced walls, one of said walls being arranged in spaced relation to the rear wall of the compartment with its ends connected to the side walls thereof, the other of said walls being arranged in advance of and in spaced relation to the first mentioned wall with its ends secured to the front wall of the compartment, the space included within the latter wall forming a provision chamber and the space included between the walls forming an ice chamber.

3. A refrigerator including bottom, sides, front and rear walls to inclose a compartment, said front wall being formed with a plurality of openings to provide access to the compartment, an ice chamber formed in the compartment and including spaced walls projecting vertically from the bottom of the compartment, one of said walls being arranged in spaced relation to the rear wall of the compartment with its ends secured to the side walls



thereof, the remaining walls being arranged in spaced relation to each other and in advance of the first mentioned wall, said remaining walls being of duplicate construction and extending vertically from the bottom of the compartment with their ends secured respectively to the front wall adjacent the openings therein, whereby to provide an ice chamber between said remaining walls and between said walls and the first mentioned wall, and to provide a provision chamber within each of said remaining walls.

944,370. PROCESS AND APPARATUS FOR MAKING METAL INGOTS. JOHN F. MONNOT, New York, N. Y., assignor to Monnot Metallurgical Company, New York, N. Y., a Corporation of New York. Filed June 15, 1908. Serial No. 438,679.



1. A process of casting metal ingots which comprises casting molten metal down through a layer of fused wiping material into one portion of a mold to form a molten body therein at one point and causing the metal to move through such mold and to emerge therefrom at another point in a solidified state.

2. A process of casting metal ingots which comprises casting molten metal down through a layer of fused wiping material into one portion of a mold to form a molten body therein at one point and causing the metal to move through such mold and to emerge therefrom in a solidified state at another point, and cutting the metal into lengths successively as it so emerges.

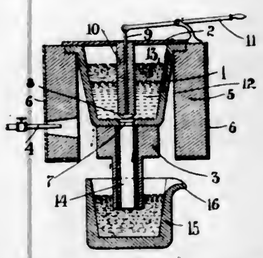
3. A process of casting metal ingots which comprises casting molten metal through a layer of wiping material into a mold and causing the metal to move through such mold during solidification and to emerge therefrom at another point.

4. A process of casting metal ingots which comprises casting molten metal through a layer of wiping material into a mold and causing the metal to move through such mold during solidification and to emerge therefrom at another point, and cutting the metal into lengths successively as it so emerges.

5. A process of casting metal ingots which comprises casting molten metal down through a layer of fused wiping material into one portion of a mold and causing the metal to move through such mold during solidification and to emerge therefrom at another point, and cooling the ingot as it passes through said mold.

[Claims 6 to 21 not printed in the Gazette.]

944,371. PROCESS OF MAKING AND CASTING ALLOYS. JOHN F. MONNOT, New York, N. Y., assignor to Monnot Metallurgical Company, New York, N. Y., a Corporation of New York. Filed July 16, 1908. Serial No. 443,795.



1. In the production of castings, the process which comprises producing a mass of molten metal under a deep layer of molten covering material and tapping metal from a point below such layer and flowing it through a deep layer of wiping material into a suitable mold.

2. In the production of castings, the process which comprises producing a molten mass of an alloy containing easily oxidizable or volatilizable components under a deep layer of molten covering material and tapping the metal from a point below such layer and flowing it through a deep layer of wiping material into a suitable mold.

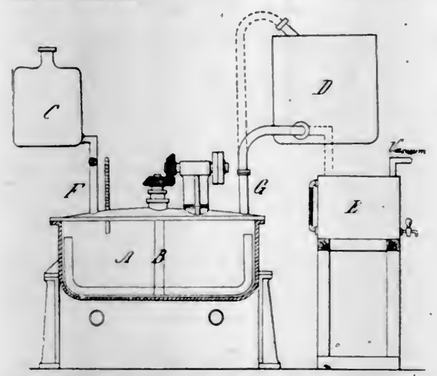
3. In the production of castings, the process which comprises producing a molten mass of a metal comprising zinc under a deep layer of molten covering material and tapping metal from a point below such layer and flowing it through a deep layer of wiping material into a suitable mold.

4. In the production of castings, the process which comprises producing a molten mass of brass under a deep layer of molten covering material and tapping the molten metal from a point below such layer and flowing it through a deep layer of fusible wiping material into a suitable mold.

5. In the production of castings, the process which comprises flowing a molten alloy or mixture containing a readily oxidizable or volatizable ingredient into a mold through a deep layer of fusible wiping material contained in said mold, without substantial contact with air.

[Claims 6 to 13 not printed in the Gazette.]

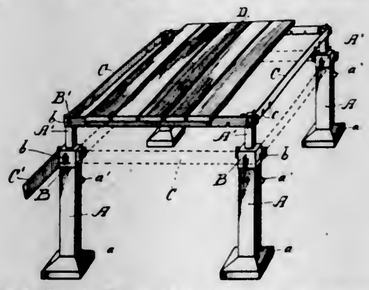
944,372. PROCESS OF PREPARING ORGANIC COMPOUNDS CONTAINING THE ACETYL GROUP. MARTIN MUGDAN, Nuremberg, Germany, assignor to The Firm of Consortium für Elektrochemische Industrie G. M. B. H., Nuremberg, Germany. Filed Mar. 18, 1909. Serial No. 484,324.



1. The process for the manufacture of organic compounds containing the acetyl group, which consists in allowing silicon tetrachlorid to react on a metallic acetate at normal pressure.

2. The process for the manufacture of organic compounds containing the acetyl group, which consists in allowing silicon tetrachlorid to react upon a metallic acetate at a temperature below 180° C.

944,373. ADJUSTABLE SCAFFOLD. BELA MÜLLER, Chicago, Ill. Filed Aug. 3, 1908. Serial No. 446,575.

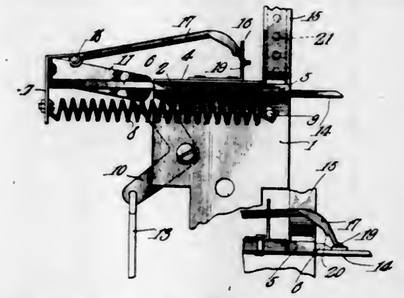


1. In a device of the class described the combination with a plurality of sectional posts each hexagonal in cross section, of a cap on each section, a plurality of hooks on each cap, each hook corresponding with one side of the post, notched rails adapted to be engaged on said hooks, and a platform on said rails.

2. In a device of the class described the combination with a plurality of posts comprising telescopic sections, and the adjacent sides of each section being in planes intersecting at an angle greater than a right angle, a removable cap seated on the top of each section, hooks on said caps corresponding to the sides of the section, notched bars connecting the hooks on adjacent posts, and a platform supported on said bars.

3. The combination with a plurality of sectional posts, each comprising telescoping sections, a removable cap on each lower section and having a central aperture therethrough through which the upper section extends, a plurality of outwardly directed hooks on each cap; a plurality of hooks on the upper end of each upper section, each arranged in vertical alinement with one of the hooks on the cap, notched bars adapted to be engaged on said hooks and a platform on said bars.

944,374. NUT-FEEDING ATTACHMENT FOR BOLTING-MACHINES. ALBERT H. MCCUTCHAN, Helena, Okla., assignor, by direct and mesne assignments, to The Helena Manufacturing Company, Helena, Okla., a Corporation. Filed Jan. 2, 1909. Serial No. 470,281.

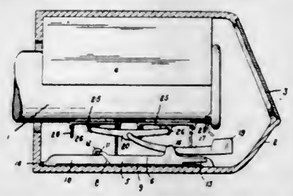


1. A device of the class described comprising a table, a guide strip outstanding therefrom, a magazine extending upwardly from one side of the table, the lower portion of the magazine being open and arranged to direct objects laterally onto the table and against the guide strip, a plunger mounted to reciprocate upon the table, a pivotally mounted object retaining device above and movable with the plunger, and fixed means supported above the table for supporting one end of said device and for positively directing the device onto the object in the path of the plunger to hold said object against displacement during its actuation by the plunger.

2. A device of the class described comprising a table, a guide strip upstanding therefrom, a plunger slidably mounted on the table, and a magazine extending upwardly from the table for directing nuts by gravity onto the table from one side thereof and into the path of the plunger, said magazine constituting means for producing a one-quarter turn of each nut during its movement onto the table, and said plunger constituting means for sliding nuts one at a time from one end of the table.

3. In a machine of the class described a table, a magazine for directing nuts one at a time onto the table, said magazine constituting means for depositing nuts upon the table with the bolt holes perpendicular to the bottom of the table, a plunger mounted to reciprocate upon the table to direct the nuts one at a time beyond one end of the table, a pivoted nut retaining device movable with the plunger and fixed means for supporting said device and for directing it onto the nut in the path of the plunger, said device having a shoulder for engagement with the plunger upon the completion of one stroke of the plunger.

944,375. LUBRICATOR FOR CAR-AXLE JOURNALS. JOHN C. NICHOL, Ottawa, Ontario, Canada. Filed Mar. 12, 1909. Serial No. 483,095.



1. The combination with a car axle journal and journal box, a jointed frame, a lateral trunnion extending from said frame, an arm pivotally mounted on said trunnion and having a weight at one end thereof, a trunnion projecting laterally from the light end of said arm, a yoke pivotally mounted on said arm trunnion, trunnions extending laterally from said yoke and lubricating means

pivotally mounted on said yoke trunnions and contacting with said journal.

2. The combination with a car axle journal and journal box, a jointed frame, a lateral trunnion extending from said frame, an arm pivotally mounted on said trunnion and having a weight at one end thereof, a trunnion projecting laterally from the light end of said arm, a yoke pivotally mounted on said arm trunnion, trunnions extending laterally from said yoke, grids pivotally mounted on said yoke trunnions and an absorbent material lining said grids and extending downwardly to the bottom of said journal box.

3. The combination with a car axle journal and journal box a frame comprising two sections secured one to the other by a suitable hinge joint, a trunnion extending laterally from one of said sections, an arm pivotally mounted on said trunnion and having a weight at one end thereof, a trunnion extending laterally from the light end of said arm, a yoke pivotally mounted on said arm trunnion, trunnions extending laterally from said yoke, grids having concave upper faces pivotally mounted on said yoke trunnions and an absorbent material lining said grids and extending downwardly to the bottom of said journal box.

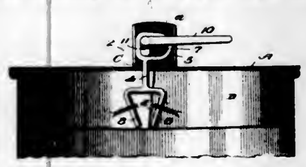
4. The combination with a car axle journal and journal box a skeleton frame of substantially rectangular formation and comprising two sections having both meeting faces jointed one with the other, spurs projecting from the sides of said frame, a trunnion projecting laterally from said frame, an arm pivotally mounted on said trunnion and having a weight at one end thereof, a trunnion projecting from the light end of said frame, a yoke pivotally mounted on said arm trunnion, trunnions projecting laterally from said yoke and having cross pieces intermediate of the length thereof, grids having concave upper surfaces and pivotally mounted on said yoke trunnions and having lateral slots therethrough and a strip of absorbent material lining said grids and extending through said slots toward the bottom of said journal box.

5. The combination with a car axle journal and journal box, a skeleton frame of substantially rectangular formation split laterally into major and minor sections and having beveled meeting faces, said major section having an upwardly extending portion on one side thereof, eyes extending from the beveled meeting faces of said major section at the top thereof, hooks extending from the top of said minor section adjacent to the beveled meeting face thereof and inserted through said eyes to form a hinged joint between said sections, spurs extending laterally from the sides of said frame, a trunnion extending inwardly and laterally from the upwardly extending portion of said major section, an arm having downwardly extending fingers intermediate of the length thereof encircling said trunnion, a weight secured at one end of said arm, a trunnion extending laterally from the other end of said arm, a yoke, an arm extending laterally and centrally from said yoke, fingers extending downwardly from said yoke arm and encircling said arm trunnion, trunnions extending laterally from the extremities of said yoke and parallelly arranged one with the other, cross pieces secured to said yoke trunnions intermediate of the length thereof, grids having concave upper faces and lateral slots adjacent to the edge thereof, fingers extending downwardly from said grids and encircling said yoke trunnions and felt strips covering the concave upper face of said grids and extending downwardly through said slots to the bottom of said journal box.

944,376. COVER. FRANK OHRMUNDT and JOHN KRAMER, Embarrass, Wis. Filed June 3, 1909. Serial No. 499,956.

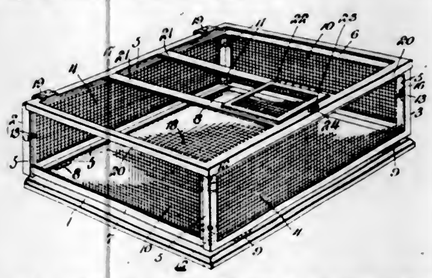
1. The combination, in a cover, with an angle-bracket provided with guide-ways, a cam-shaped head working in said guide-ways and the lower end of which passes through the cover and terminates in converging arms, ringed projections having converging arms passing therethrough, said ringed projections being located on the collar B, and means for operating the cam-shaped head said means consisting of an angle-lever pivoted to said angle-bracket, substantially as set forth and described.

2. In a cover, the combination with an angle-bracket provided with guide-ways, a cam-shaped head sliding in said guide-ways, an angle-lever pivoted to said angle-bracket and operating the cam-shaped head, ringed pro-



jections located on a collar B, a rod 4, terminating in a pair of arms, said arms being converging and passing down through the ringed projections, substantially as and for the purpose set forth.

944,377. FOLDABLE CHICKEN COOP OR CRATE. MAHLON PARSONS, Mangum, Okla., assignor to George E. Clark and Jesse F. Campbell, Mangum, Okla. Filed Apr. 16, 1909. Serial No. 490,356.



1. A collapsible crate comprising a bottom, foldable sides hinged to the bottom and provided with marginal flanges forming interior recesses, ends hinged to the sides of the crate and foldable within the said recesses and arranged to abut against the flanges of the said sides when the crate is arranged for use, and a top hinged to one of the sides.

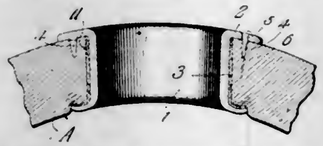
2. A collapsible crate comprising a bottom, foldable sides hinged to the bottom and provided with marginal flanges forming interior recesses, ends hinged to the sides of the crate and foldable within the said recesses and arranged to abut against the flanges of the said sides when the crate is arranged for use, and a top hinged at one of its side edges to one of the sides and provided at its other side edges and at its end edges with marginal flanges forming an inner recess and arranged to permit the top to fold over the other side of the crate when the latter is collapsed.

3. A collapsible crate including a bottom, sides hinged to the bottom and each composed of a marginal metallic frame of angle metal forming inwardly extending flanges and providing interior recesses, and a body portion of woven wire, ends hinged to the sides and arranged to fold within the recesses thereof when the crate is collapsed and to abut against the said flanges when the crate is arranged for use, means for securing the free terminals of the ends of the crate to the sides of the same, and a top hinged to one of the sides and consisting of a metallic frame having inwardly extending flanges and a woven wire body portion, the flanges of the top forming an inner recess to receive the other side of the frame.

4. A collapsible crate including a bottom, foldable sides provided with inwardly extending marginal flanges forming inner recesses, hinges connecting the flanges at the lower edges of the sides to the bottom of the crate and arranged to permit the sides to fold downward in one direction, the lower flanges of the sides being arranged to abut against the bottom of the crate to limit the swing of the sides in the opposite direction, ends carried by the sides and foldable in the said recesses, a top hinged to one of the sides, and means for detachably securing the free terminals of the ends of the crate to the sides thereof.

5. A collapsible crate including a bottom, foldable sides provided with inwardly extending marginal flanges forming lower recesses, hinges connecting the flanges at the lower edges of the sides of the bottom of the crate and arranged to permit the sides to fold downward in one direction, the lower flanges of the sides being arranged to abut against the bottom of the crate to limit the swing of the sides in the opposite direction, ends carried by the sides and foldable in the said recesses, a top hinged to one of the sides, horizontal studs projecting inwardly from the end flanges of the sides of the crate and arranged to extend through the openings of the ends of the crate, and keys for securing the ends of the crate to the studs.

944,378. BUNG-BUSHING. FRANK PFLUGER and EMIL CHRISTENSEN, Portland, Oreg. Filed Jan. 29, 1909. Serial No. 474,970.



1. A bushing for bungs comprising a tubular portion having an annular flange at one end, there being an inwardly struck prong upon the flange and perpendicular thereto and a fastener receiving opener adjacent each prong, that end of the tubular portion farthest removed from the flange being of reduced thickness, and a packing of heat non-conducting material extending around the tubular portion and extending from the flange to the reduced end of the tubular portion.

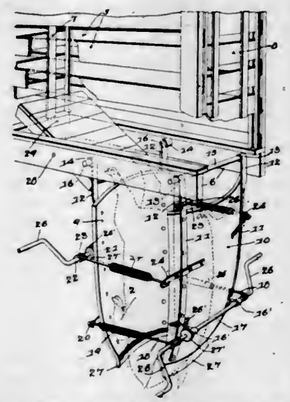
2. The combination with a structure having an opening therein, of a bushing comprising a tubular portion insertible into the opening, said portion having an integral annular flange bearing upon one face of the structure, one end of said tubular portion being of reduced thickness and flared and pressed into the other face of the structure and below the surface of said structure, and a packing upon the convex face of the tubular portion and filling the space between said portion and the wall of the opening, said packing being formed of heat non-conducting material, there being a fastener receiving aperture within the flange and a prong integral with the flange and adjacent the aperture.

944,379. HOG-CHUTE. JACOB RADA, Jennings, Kans. Filed Oct. 2, 1908. Serial No. 455,840.

1. A device of the class described comprising a runway; spaced, depending, clamping members independently pivoted at their upper ends to the run-way; a winding shaft transversely mounted upon one of the clamping members and terminally extended therebeyond, the said shaft being provided in its extended portions with operating means; and flexible elements uniting the other clamping member with the extended portions of the winding shaft.

2. A device of the class described comprising a runway; spaced, depending, clamping members independently pivoted at their upper ends to the run-way; a winding shaft transversely mounted upon one of the clamping members and terminally extended therebeyond, the said shaft being provided in its extended portions with operating means; and flexible, retractile elements uniting the other clamping member with the extended portions of the winding shaft.

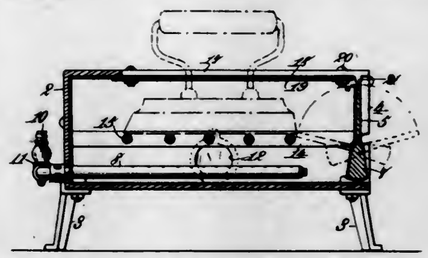
3. A device of the class described comprising a runway; spaced, depending, clamping members independently pivoted at their upper ends to the runway; a shaft transversely mounted upon one of the clamping members and terminally extended therebeyond, the said shaft being provided in its extended portions with operating means; retractile springs; flexible elements uniting the springs at one end with the extended portions of the shaft and elements uniting the other ends of the springs with the other clamping member.



4. A device of the class described comprising a pair of spaced beams; a pair of depending, coöperating clamping members; hangers pivotally uniting the upper ends of the clamping members with the beams; and a tilting trap pivotally mounted between the beams and arranged to swing between the hangers and one of the clamping members.

5. A device of the class described comprising a pair of spaced beams; a rod uniting the beams; pins projecting from the inner faces of the beams; a clamping member pivotally suspended from the rod; hangers depending from the pins; a clamping member suspended from the hangers; a tilting trap pivotally mounted between the beams and arranged to swing between the hangers; and means for connecting the clamping members.

944,380. FLAT-IRON HEATER. RICHARD W. ROBERTS, Washington, D. C. Filed Aug. 20, 1907. Serial No. 389,373.



1. In a heater of the class specified, a box closed at its sides, ends and bottom and having a closed flat top provided with a slot extending partially thereacross and opening out through one side, the slot adapted to receive the handle of a flat iron, means having automatic closing movement when opened by the handle of the flat iron and projecting across the slot in the top of the box for closing the latter, and means gravitatingly mounted in one side of the box adjacent to the said slot and opened by engagement therewith of the body of a flat iron and having a self closing movement to permit the flat iron body to be introduced into and withdrawn from the box.

2. In a heater of the class specified, a box closed at its sides, ends and bottom and having a slot in the top opening out through one side thereof, the slot adapted to re-

ceive the handle of a flat iron, and means having automatic closing movements when engaged by the handle of the flat iron and fully projecting across the slot in the top of the box for closing the latter.

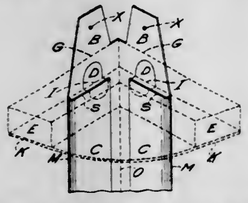
3. In a heater of the class specified, a box provided with interior heating means and fully closed on all sides and ends and having a top with a slot extending thereover and opening out through one side to receive and permit the handle of an iron to project above the said top and to inclose the body of the iron within the box, and means normally projecting across the slot and located wholly below the top surface of the box and movable when the handle of the iron is inserted in and withdrawn from the slot to automatically close the latter to prevent the escape of the heat from the interior of the box.

4. In a heater of the class specified, a box provided with heating means and having a slot in the top opening out through one side to receive the handle of an iron, and movable means in the end of the box through which the slot opens and coöperating with the slot and wholly located below the top of the box and respectively operative by the body and handle of the iron to open the one end of the box and the slot when the iron is inserted in and withdrawn from the box.

5. In a heater of the class specified, a box provided with interior heating means and a support above said means, the box having a slot in the top to receive the handle of a flat iron, and a plurality of movable members located wholly below the top of the box and extending across the slot from opposite walls of the latter, the free ends of the respective members having an overlapping assemblage and separated by the handle of a flat iron as the latter is inserted into or withdrawn from the box and automatically closed when the flat iron handle is at rest in the slot.

[Claims 6 to 18 not printed in the Gazette.]

944,381. CORNER-STAY FOR BOXES. RODRIGUE J. ROBILLARD, Ottawa, Ontario, Canada. Filed Apr. 12, 1909. Serial No. 489,519.



A corner stay for boxes, having folded side flanges, and provided with extended end flanges having therein flaps adapted to bend inwardly and downwardly over said folded side flanges to secure the sides and ends of the box, and to form in combination with said folded side flanges supports for the top and bottom of the box, all substantially as described.

944,382. THAWING DEVICE FOR FROZEN GROUND. WALTER T. ROSS, Vancouver, British Columbia, Canada. Filed Dec. 28, 1908. Serial No. 469,614.

1. As a means of thawing frozen ground, the combination with a metal tube having an anvil cap and a pointed lower end, of an electric heating coil toward the lower part of the tube, and means for connecting the wires of an external electric circuit to the heating coil and means for passing a fluid through said tube, said heating coil and said pointed lower end.

2. As a means for thawing frozen ground, a coil offering such resistance to the passage of an electric current through it that it will be sensibly heated thereby said coil being inclosed in an iron or steel tube pointed for entrance into the ground and means for passing a fluid through said pointed tube and said heating coil.

3. A means for thawing frozen ground comprising a tube having a plug at one end and a pointed cap secured to said plug, said tube having an anvil cap at its other end and a turning rod passed through said anvil cap, a heating coil within said tube and having a core threaded into said plug, means for maintaining said coil on said core, a current conducting wire connected with said coil and passed upwardly toward the top of said tube and an insulated bushing in the wall of said tube through which said wire passes, and electrical connections between said heating coil and said plug.

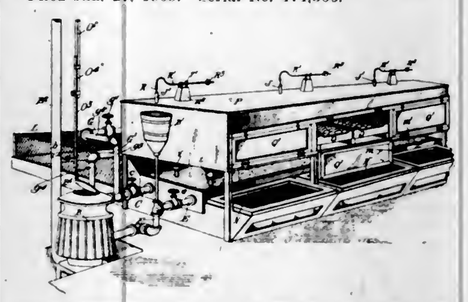


4. A means for thawing frozen ground comprising a tube having a plug in one end and a pointed cap secured to said plug, of a heating coil within the tube and having a core threaded into said plug, means for maintaining said coil on said core, said cap and said pointed member having a fluid passage and said core having a fluid passage, and means for passing a fluid into said tube to pass through said core and said fluid passages of said cap and core.

5. A device for thawing frozen ground comprising a tube having a threaded plug in its lower end and provided with a pointed member, said plug and said pointed member having fluid passages, a heating coil having a hollow core secured to said plug to register with said fluid passages, a pipe within said tube connected to said core and means for passing fluid through the wall of said tube into said pipe, substantially as shown and described.

[Claims 6 and 7 not printed in the Gazette.]

944,383. COMBINED INCUBATOR AND BROODER. ALBA A. SKINNER and FRED B. SKINNER, Greene, N. Y. Filed Jan. 27, 1909. Serial No. 474,366.



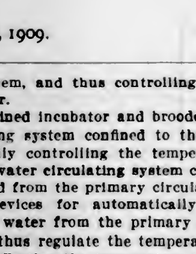
1. A combined incubator and brooder, the latter provided with a primary heat circulating system confined to the brooder and the former with a secondary heat circulating system confined to the incubator and drawn from the primary system, means for automatically and separately controlling the temperature in the brooder, and thermostatic devices in the incubator for controlling the passage of the heating fluid from the primary to the secondary circulating system, and thus controlling the temperature in the incubator.

2. In a combined incubator and brooder, a primary hot water circulating system confined to the brooder, means for automatically controlling the temperature thereof, a secondary hot water circulating system confined to the incubator supplied from the primary circulating system, and thermostatic devices for automatically controlling the passage of hot water from the primary to the secondary system and to thus regulate the temperature in the incubator without affecting the temperature in the brooder.

3. The combination of an incubator, a brooder beneath it, a hot water heater, circulating pipes passing through the brooder and connected with the hot water heater, a damper connected with the heater, connections between the circulating pipes in the brooder and said regulator whereby the expansion and contraction of said pipes control the position of said heat regulator, a secondary hot water circulating system in the incubator supplied from the primary system, valve mechanism controlling the passage of hot water from the primary system to the secondary system, and thermostatic devices in the incubator for operating said valve mechanism to regulate the passage of hot water from the primary to the secondary system and to thus control the temperature in the incubator without affecting the temperature in the brooder.

4. The combination of a brooder provided with a vertically adjustable platform, a hover above it, hot water circulating pipes for heating the hover, a removable cover above one end of the platform, an incubator above the brooder having a hinged floor whereby the young fowls may readily descend from the incubator to the brooder, hot water circulating pipes in the incubator which are supplied from the hot water circulating pipes in the brooder, valve mechanism controlling the passage of hot water from the pipes in the brooder to those in the incubator, thermostatic devices for regulating the temperature of the hot water circulating in the pipes of the brooder, and thermostatic devices in the incubator for operating the valve mechanism to control the passage of hot water from the pipes of the brooder to the pipes of the incubator, and to thus regulate the temperature in the incubator without affecting the temperature in the brooder.

944,384. BUSHING FOR BUNG-HOLES OF BEER-KEGS. ANTON SPEKER and GEORGE SCHNEIDER, Freeport, Ill. Filed Apr. 27, 1907. Serial No. 370,562.



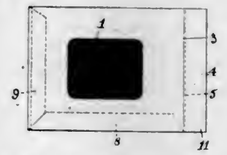
1. A bushing for bung-holes, comprising an outer ring having an inwardly projecting shoulder formed on one end thereof, and an inner ring having an outwardly projecting flange formed on one end thereof, the inner end and the inner edge of the shoulder of the outer ring respectively coacting with the flange and the inner end of the inner ring to secure the said rings together and at the same time form a closed annular space between the said rings.

2. A bushing for bung-holes, comprising an outer ring and an inner ring, the outer ring being provided at its outer end with a flanged portion constituting inwardly projecting and outwardly projecting shoulders, and the inner ring having an exterior diameter equal to the interior diameter of the inwardly projecting shoulder, and provided with an outwardly projecting flange at one end, the said flange being adapted to engage the inner end of the outer ring, and the inner end of the inner ring adapted to engage the inner edge of the inwardly projecting shoulder of the outer ring and thereby form a closed annular air space between the two rings.

3. A bushing for bung-holes, comprising an outer ring having an inwardly projecting shoulder formed on one end thereof, and an inner ring having an outwardly projecting flange formed on one end thereof, the inner end and the shoulder of the outer ring respectively coacting with the flange and the inner end of the inner ring to secure the said rings together and at the same time form an annular space between the said rings, the flange of the inner ring having a smaller periphery than the periphery of the outer ring, thereby permitting the withdrawal of both rings together.

4. A bushing for bung-holes, comprising an outer ring and an inner ring, the outer ring being externally threaded and provided at its outer end with a flanged portion constituting inwardly projecting and outwardly projecting shoulders, the inwardly projecting shoulder being threaded, and the inner ring having an exterior diameter equal to the interior diameter of the inwardly projecting shoulder, and provided with an outwardly projecting flange at one end, and an externally threaded portion at the other end, the said flange being adapted to engage the inner end of the outer ring, and the threaded end of the inner ring adapted to engage the threaded shoulder of the outer ring and thereby form a closed annular air space between the two rings.

944,385. PICTURE POST-CARD OR DISPLAY DEVICE. ALEXANDER S. SPIEGEL, Chicago, Ill. Filed Mar. 15, 1909. Serial No. 483,483.



1. A picture card or envelop having a screen carrying section and a picture carrying section, with a hinged connection between the sections whereby one may move in relation to the other while maintained by said hinge against lateral displacement, substantially as described.

2. A picture card or envelop having a screen carrying section and a picture carrying section integrally connected together, and one movable in relation to the other, but held against lateral displacement by the said connection, substantially as described.

3. A picture card or envelop having a display section and a picture carrying section, and a flap connecting them, said flap being scored and causing movement of the picture carrying section in relation to the display section when said flap is moved pivotally, substantially as described.

4. A picture card or envelop having a display section and a picture carrying section, with a flap connecting them, said flap having scores out of line whereby, when moved pivotally, it will cause the picture section to move in relation to the display section, substantially as described.

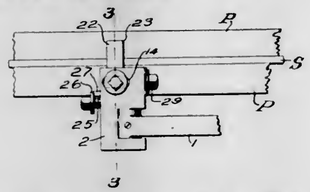
5. A picture card or envelop having a display section, a picture carrying section, and means for moving one in relation to the other, said means forming a connection between said members.

[Claims 6 to 11 not printed in the Gazette.]

944,386. KNIFE-MOUNTING FOR SOLE-ROUNDING MACHINES. CHARLES P. STANBON, Lynn, Mass., assignor to Thomas G. Plant, Boston, Mass. Filed Mar. 26, 1909. Serial No. 486,018.

1. A knife holder for sole rounding machines, comprising in its construction a pivotally mounted knife carrier block, a knife having a knife base provided with corrugations in one face, a knife washer having a corrugated face

and interposed between the knife base and the knife carrier block, and a screw engaging the knife base for drawing the knife base into holding relation with the knife washer and knife carrier block.



2. A knife holder for sole rounding machines, comprising in its construction a pivotally mounted knife carrier block, a knife having a knife base, a knife washer interposed between the knife base and knife carrier block, and means engaging said knife base to permit adjustment of the knife independent of the washer and for clamping the knife and washer in holding relation to the knife carrier block.

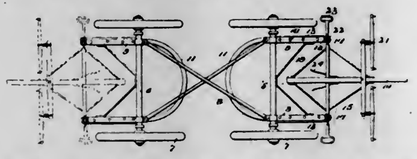
3. A knife holder for sole rounding machines, comprising in its construction a pivotally mounted knife carrier block having an elongated slot, a knife having a screw-threaded portion, a knife washer having an elongated slot, and a screw bolt engaging the threaded portion of the knife and passing through the slotted portions of the knife washer and knife carrier block.

4. A knife holder for sole rounding machines, comprising in its construction a pivotally mounted knife carrier block, a knife having a knife base, a knife washer interpsoed between the knife base and knife carrier block and provided with a projecting foot portion to engage the carrier block, and means engaging said knife base to permit adjustment of the knife independent of the washer and for clamping the knife and washer in holding relation to the knife carrier block.

5. A knife holder for sole rounding machines, comprising in its construction a pivotally mounted knife carrier block having a recessed portion, a knife having a knife base to support the knife, a knife washer having a projecting foot portion to engage the recessed portion of the knife carrier block, and means for clamping the knife base, the knife washer and knife carrier block in holding relation and permitting adjustment of the knife independent of the knife washer.

[Claims 6 and 7 not printed in the Gazette.]

944,387. DETACHABLE DRAFT-TONGUE FOR QUARRY-TRUCKS. LOWRY W. STATLER, Piqua, Ohio. Filed Apr. 23, 1909. Serial No. 491,708.



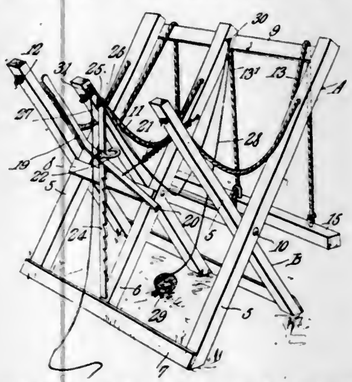
1. The combination with a wheeled truck, attaching arms secured to the axle of the truck and having their free ends projected longitudinally beyond the peripheral edges of the adjacent traction wheels and provided with sockets, a flat transverse bar secured to the draft tongue and having its intermediate portion twisted to produce spaced vertically disposed portions arranged to enter the sockets for detachably securing the draft tongue in position on the truck.

2. The combination with a wheeled truck, spaced arms secured to the axle of the truck and having their free ends projected longitudinally beyond the adjacent traction wheels, a plate secured to one side of each arm and having its free end bent upwardly to form a vertically disposed lug, a plate secured to the top of each arm and provided with a similar lug forming in conjunction with the mating lug a socket, a draft tongue detachably secured to the truck, and a transverse bar carried by the draft tongue and provided with terminal finger-pieces, the intermediate portions of the transverse bar being twisted to produce vertical portions arranged to enter the adjacent sockets.

3. The combination with a wheeled truck having hounds, the ends of which are extended beneath and beyond the adjacent axle, arms secured to the extended portions of the adjacent hounds, co-acting plates secured to each arm and having their free ends extended longitudinally beyond the adjacent traction wheels and bent upwardly to produce vertically disposed lugs, braces extending between the inner faces of the arms and the adjacent axle, a draft tongue, a transverse bar secured to the inner end of the tongue, and having its opposite ends twisted to form vertical portions arranged to fit between the lugs of the adjacent arms, said cross bar terminating in finger-pieces, and shoes depending from the tongue and having their lower portions curved laterally to produce bearing surfaces.

4. A draft device for vehicles, comprising a tongue, a transversely disposed bar secured to one end of the tongue and having its opposite ends provided with finger-pieces, braces extending between the transverse bar and the adjacent longitudinal edges of the tongue, and shoes depending from the tongue in advance of the bar and provided with curved contact faces, that portion of the transverse bar near the finger-pieces being twisted to produce vertically disposed portions for engagement with a vehicle.

944,388. BINDER. JOHN W. STEVENSON, North Bend, Nebr. Filed Jan. 7, 1909. Serial No. 471,175.



1. In a device of the class described, a cradle comprised of crossed pivoted frames, a plurality of binder straps connected to one of the frames and adapted to be passed about a bundle disposed in the cradle, a bar supported from the straps, one of the straps being detachably connected with the bar, and a pull device adapted for connection with the bar or with the said detachable strap.

2. In a device of the class described a cradle comprised of crossed pivoted frames, a plurality of binder straps connected to one of the frames and adapted to be passed about a bundle disposed in the cradle, a bar supported from the straps, and a pull device adapted for connection with the bar or with a single one of said straps.

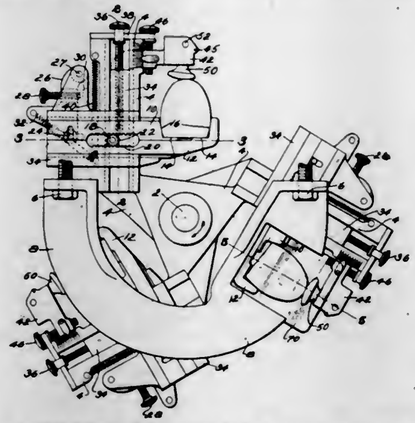
3. In a device of the class described a cradle comprised of crossed pivoted frames, a plurality of binder straps connected to one of the frames and adapted to be passed about a bundle disposed in the cradle, a bar supported from the straps, and a pull device adapted for connection with one of the straps, whereby to exert a pull upon all of the straps through the medium of the said bar.

4. In a device of the class described a cradle comprised of crossed pivoted frames, a plurality of binder straps connected to one of the frames and adapted to be passed about a bundle disposed in the cradle, a bar supported from the straps, and a pull device adapted for connection with one of the straps at a number of points in its length, whereby to exert a pull upon all of the said straps through the medium of the bar.

5. In a device of the class described, a cradle comprised of crossed pivoted frames, a plurality of binder straps connected to one of the frames and adapted to be passed about a bundle disposed in the cradle, a bar supported from the straps, and a lever adapted for connection with one of the straps at a plurality of points in its length, whereby to exert a pull upon all of the straps through the medium of the said bar.

[Claims 6 to 9 not printed in the Gazette.]

944,389. HEEL AND TOP-LIFT HOLDER. WILLIAM C. STEWART, Lynn, Mass., assignor, by mesne assignments, to Thomas G. Plant, Boston, Mass. Filed Jan. 3, 1908. Serial No. 409,142.



1. A heel holder for boot and shoe machines comprising automatically operating heel centering means, and heel positioning means including a back gage mounted for movement transversely with the heel during the centering operation.

2. A heel holder for boot and shoe machines comprising a breast gage, a transversely movable, self-centering back gage and means acting to relatively move said gages toward each other, the back gage acting during such relative movement to automatically center the heel.

3. A heel holder for boot and shoe machines comprising a breast gage, and a back gage constructed and arranged to permit centering of the heel relative to the breast gage and movable transversely with the heel in its centering movement, and means to yieldingly press the breast gage and back gage toward each other.

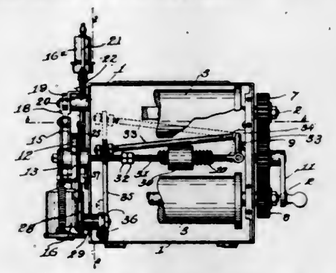
4. A heel holder for boot and shoe machines comprising a breast gage spring pressed toward the heel, and an anti-friction device arranged to gage the back of the heel and permit centering of improperly placed heels against the breast gage.

5. In a heel holder, breast and back gages for positioning the heel, one of said gages having an anti-frictionally-mounted bearing surface and means for maintaining one of said gages yieldingly pressed toward the other.

[Claims 6 to 22 not printed in the Gazette.]

944,390. ANNUNCIATOR FOR RAILWAYS. JOHN J. STAOBEL, Meridian, Miss., assignor of one-half to Eugene Spinner, Meridian, Miss. Filed Dec. 14, 1908. Serial No. 467,561.

1. In an annunciator, the combination with revoluble rolls, and a suitable sign sheet carried by the rolls, of a screw-shaft geared to the rolls, a rod parallel with the shaft and having stops thereon, a screw-block slidable by the shaft on the rod between the stops, a pawl and ratchet device on one end of the shaft, a crank-shaft connected with the rod, and mechanism connecting the pawl and ratchet device with the crank-shaft.

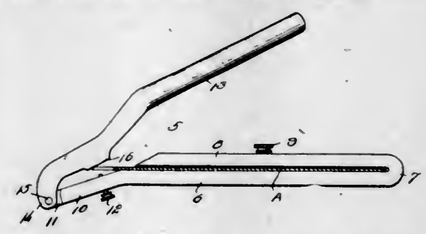


2. In an annunciator, the combination, with the sign sheet rollers, a screw-shaft for operating the rollers, and means for revolving the shaft, of mechanism for reversing the movement of the rollers through the shaft comprising a screw-rod having lock-nuts, a block carried by the shaft and slidable on the rod between the nuts, a crank-shaft connected to and operated by the screw-rod when the block engages the nuts, a ratchet wheel on the shaft, pawls co-operating with the wheel, and a series of levers connecting the pawls with the said crank-shaft.

6. In an annunciator, the combination, with the sign sheet rollers, a screw-shaft for operating the rollers, and means for revolving the shaft, of a screw-rod parallel with the screw-shaft, a block slidable by the shaft on the rod, stops on the rod to limit the movement of the block, a pawl and ratchet device on the shaft, a series of levers connected to the pawls, a trunnion projecting from one end of said levers, a crank-shaft having one end attached to the screw-rod, a lever depending from the other end of the crank-shaft, and a link connecting the depending lever with the trunnion.

4. In an annunciator, the combination, with the sign sheet rollers, a screw-shaft for operating the rollers, and means for revolving the shaft, of a screw-rod parallel with the screw-shaft, a block slidable on the rod through the operation of the shaft, stops on the rod to limit the movement of the block, a crank-shaft connected with the rod and operated by the block engaging the stops, a pawl and ratchet device on the screw shaft, and means connecting the crank-shaft with the pawl and ratchet device for reversing the shaft and the rollers.

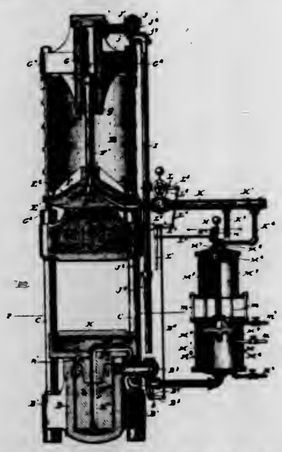
944,391. SAW-SET. OSCAR R. TAYLOR, Cantonment, Fla. Filed Jan. 14, 1908. Serial No. 410,811.



A saw set comprising a bar of metal bent upon itself to form a short upper arm and a longer spaced lower arm, the space between said arms forming an access slot adapted to snugly contain a saw blade, said longer arm forming a base, the end thereof projecting beyond said shorter arm and being angled away from said access slot and having a terminal pin opening, a lever having a curved end with a pin perforation, a pin securing said lever to the bent

end of said base arm, an integral presser head extending from said lever toward said angled end, a screw serving as a limiting stop extending through said bent end, said screw being positioned in the path of said presser head, and a clamping screw threading through said shorter arm and extending into said access slot, all arranged as disclosed.

944,392. PRESS. SAMUEL J. WEBB, Minden, La. Filed Mar. 11, 1899, Serial No. 708,775. Renewed Sept. 19, 1907. Serial No. 393,615.



1. In a press, the combination with a fixed platen, of a movable platen, a main hydraulic cylinder connected to the fixed platen, a plunger on the movable platen operating in said hydraulic cylinder, a steam cylinder mounted on and connected to the upper fixed platen, a hydraulic cylinder above the upper fixed platen and connected to the movable platen, and a piston for the steam cylinder carrying a piston operating in the movable hydraulic cylinder, substantially as described.

2. In a press, the combination with a fixed platen, of a movable platen, a main hydraulic cylinder connected to the fixed platen, a plunger on the movable platen operating in said hydraulic cylinder, a steam cylinder mounted on and connected to the upper fixed platen, a hydraulic cylinder above the upper fixed platen and connected with the movable platen, hydraulic connections between the movable hydraulic cylinder and the main hydraulic cylinder, and a piston for the steam cylinder carrying a piston operating in the movable hydraulic cylinder, substantially as described.

3. In a press, the combination with a fixed platen, of a movable platen, a main hydraulic plunger and cylinder operating directly on the movable platen, a hydraulic cylinder connected to move with the movable platen, a steam cylinder mounted on and connected to the upper fixed platen, and a steam piston for said steam cylinder carrying a piston coöperating with said movable hydraulic cylinder, substantially as described.

4. In a press, the combination with a fixed platen, of a movable platen, a hydraulic plunger and cylinder operating directly on the movable platen, a movable hydraulic cylinder connected with the movable platen, a steam cylinder connected with the stationary platen, a piston for said steam cylinder carrying a piston coöperating with said movable hydraulic cylinder, and a steam-operated ram hydraulically connected to both of the hydraulic cylinders, substantially as described.

5. In a press, the combination with a fixed platen, of a movable platen, a hydraulic plunger and cylinder operating directly on the movable platen, a hydraulic cylinder moving with the movable platen, a steam cylinder connected with the fixed platen, a piston for said cylinder carrying a piston for the moving hydraulic cylinder, hydraulic connections between the two hydraulic cylinders, a ram comprising a hydraulic cylinder, a steam cylinder and pistons therefor, and hydraulic connections between the said hydraulic cylinder of the ram and the hydraulic connections of the hydraulic cylinders, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

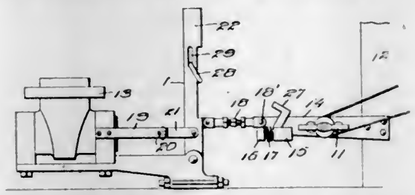
944,393. IMPLEMENT FOR DIGGING, TRANSPLANTING PLANTS, AND PULLING WEEDS. FRANK L. WHITNEY, Lincoln, Nebr. Filed May 29, 1909. Serial No. 499,120.



In an implement of the type described, a digging section, said digging section being composed of a cylindrically shaped, malleable cast head and a plurality of longitudinal steel blades riveted at their upper ends to, and positioned around the malleable head leaving uniform slots between the lower portions of the said blades, adapted to slidably engage ejector guides, the lower end of each blade being uniformly sharpened with an outward and an inward bevel, the central opening in the malleable cast head being threaded inside, a tubular metal section, said section being threaded on the outside at its ends to mate with and screw into the tubular metal section and a handle section respectively, a handle, said handle being formed of tubular metal in the shape of a lazy letter T one of the shorter ends thereof being provided inside with threads to mate with and screw on to the end of the tubular metal section, an ejecting device, said device consisting of a circular piece of metal having projecting guide portions adapted to slidably engage the slots between the blades and being provided with a transverse, threaded, central opening, an ejector rod, said rod being adapted to freely slide in the tubular section and in the handle and digging section and to operate the ejector, the lower end of said rod being threaded to mate with and screw into the ejector, the upper end of said rod terminating in a circular metal top cast integral therewith, the under portion of the metal top being provided with a shallow groove around the rod to receive the spiral spring and a spiral spring, said spring being adapted to encircle the upper portion of the ejector rod and having its upper end seated in grooved top prepared therefor and its lower end seated upon the upper end of the tubular metal section within the T part of the handle.

944,394. SPEED-REGULATOR. JOHN E. WHITTAKER, Hollidays Cove, W. Va. Filed July 28, 1909. Serial No. 510,096.

1. In a device of the character described the combination with an engine and reciprocating valves operated thereby, a bar secured to the valve casing, a transversely extending arm pivoted thereto, a vertically positioned oscillating regulator bar pivotally mounted between the engine and valves, a centrifugal governor mounted upon said engine, said bar being connected to the governor and to said transverse arm, and a manually operated lever removably connected to the upper end of said regulator bar.



2. In a device of the character described, the combination with an engine and reciprocating valves operated thereby, a bar secured to the valve casing, a vertically positioned oscillating regulator bar pivotally mounted between the engine and valves, an arm connected to said bar, a link pivoted to the end of said arm and to the regulator bar, a centrifugal governor mounted upon said engine, an arm connected thereto and oscillated thereby, and a turn-buckle removably connected to said arm and to the regulator bar.

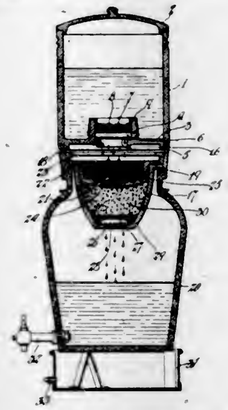
3. In a device of the character described, the combination with an engine and reciprocating valves operated thereby, a bar secured to the valve casing, a transversely extending arm pivoted to said bar, an oscillating regulator bar pivotally mounted between the engine and valves, a link connected to said bar and arm, a centrifugal governor supported upon said engine, an oscillatory arm connected to and operated by said governor, a link pivoted to said regulator bar and removably connected to said oscillating arm, and a link carried by said regulator bar to support the turn-buckle when disconnected from said arm.

4. In a device of the character described, the combination with an engine and reciprocating valves operated thereby, a transversely extending arm pivotally supported by the valve casing and connected to the valve stems, a vertically positioned regulator bar pivotally mounted between the engine and valves, a link connecting said bar to said transverse arm, a governor mounted upon said engine to control the operation of said valves, a turn-buckle pivoted to said regulator bar and removably connected to said governor, said turn-buckle being raised to a vertical position when disconnected and retained in such position by means of a link carried by said bar, and a socket formed on the upper extremity of said bar, and a lever removably positioned in said socket for manual operation.

5. In a device of the character described the combination with an engine and reciprocating valves operated thereby, a regulator bar pivotally mounted between the engine and valves, a governor mounted upon said engine, an oscillating arm connected to said governor and actuated thereby, a pivoted latch plate adapted to hold said arm against oscillatory movement, a transverse arm pivotally supported upon the valve casing and connected to said regulator bar, said arm being adapted to reciprocate the valves, a turn-buckle pivoted to said bar and adapted to have detachable engagement with the oscillating governor arm, a link carried by the regulator bar and adapted to hold said turn-buckle in elevated position, a socket formed upon the upper end of said bar, and a lever removably positioned in said socket to manually reciprocate said valves.

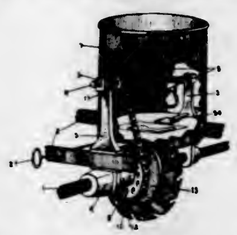
944,395. WATER-PERCOLATOR. GUIDO J. WIGGENHORN, Los Angeles, Cal. Filed May 8, 1909. Serial No. 494,930.

1. A filter comprising a cooler, a bowl resting on the cooler, filtering material in said bowl, an intermediate receptacle within said bowl, a reception reservoir resting on the upper rim of said bowl, filtering material within the intermediate receptacle, filtering material in the bottom of the reception reservoir, the bottom of the reception reservoir having an upwardly directed flange which confines the filtering material in the reception reservoir, a removable cap on said flange comprising a metallic ring the walls of which are slitted longitudinally and adapted to be wedged onto the flange of the reception reservoir, said ring having two inwardly directed flanges, and a disk of porous material engaged by said flanges and confining the filtering material.



2. In a filter, a reception reservoir, the bottom of which has an opening and is formed with an upwardly directed flange around said opening, a perforated disk over said opening at the bottom of said flange, a thick asbestos disk above said perforated disk, a screen above said asbestos disk, a series of thin sheets of asbestos above said screen, a removable cap frictionally engaging said flange, and a porous stone disk secured to said cap and confining the foregoing elements within said flange, a filtering bowl supporting said reception reservoir, an intermediate receptacle within the filtering bowl, the upper rim of said intermediate receptacle having an inwardly directed flange, filtering material in the intermediate receptacle, filtering material in the bowl, and a cooler supporting the bowl.

944,396. SEED-PLANTER. WILLIAM A. WILSON, De Leon, Tex., assignor of one-half to James M. Whaley, De Leon, Tex. Filed May 18, 1909. Serial No. 496,687.



1. In a seed planter the combination with the axle thereof, of a seed hopper mounted above the axle, having an apertured base, a disk adapted to rotate upon the axle, having a grooved rim, a closure adapted to be removably secured in the aperture of the hopper base, and containing an aperture into which the rim of said disk projects, a spring pressed plunger socketed in the aforesaid closure preventing the seed from passing between the disk and closure and a spring pressed plunger discharging the seed from the disk pockets exterior to the hopper.

2. In a seed planter, the combination with the planter axle, of a seed hopper mounted above the axle provided with an apertured base, a disk upon the axle, adapted to turn therewith, the rim of which contains grooves adapted to receive the seed, and forms a closure for the aperture in the hopper bottom, an agitator mounted to revolve within

the hopper, means whereby rotation is communicated to the agitator from the vehicle axle, and a clutch whereby said grooved wheel and said agitator may be made inoperative.

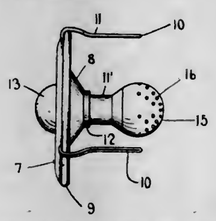
3. In a seed planter, the combination with the axle of the vehicle, of a seed hopper mounted above the axle, having an apertured base, a sleeve loose upon the axle, a clutch, making said sleeve normally rotative upon the shaft, and adapted to make it non-rotative, a circular seed plate, adapted to be made fast upon said sleeve, having a grooved rim forming a closure for the aperture of the hopper base, an agitator, rotating within the hopper, and mechanism communicating rotation to said agitator from said sleeve upon the axle.

4. In a seed planter, the combination with the axle of the planter, of a seed hopper mounted above the axle, having an apertured base, a sleeve loose upon the axle, a clutch, normally engaging said sleeve, whereby it may be made inoperative, a circular seed plate provided with a grooved rim adapted to be made fast upon said sleeve, a closure removably secured in the aperture in the hopper base, having an aperture into which the seed plate rim projects and closes the same, an agitator mounted to rotate within the hopper, consisting of a plurality of curved wires whose extremities are attached to a central spindle, and mechanism operating the agitator spindle from said sleeve upon the axle.

5. In a seed planter, the combination with the vehicle axle, of a seed hopper mounted there-above, provided with an apertured base, a sleeve loose upon the axle, a clutch controlling the rotation of said sleeve, means whereby a disk may be made fast upon said sleeve, a disk adapted to be made fast upon said sleeve and having a grooved rim projecting into the aperture of the hopper base, a closure adapted to be secured in said aperture of the hopper base, and containing an orifice permitting the seed to enter the grooves in the rim of seed wheel, the seed disk rim forming a closure for said orifice, an agitator, rotatably mounted within the hopper and means whereby rotation is communicated to said agitator from said sleeve upon the axle.

[Claims 6 to 8 not printed in the Gazette.]

944,397. STERILIZING ATTACHMENT FOR THE MOUTHPIECES OF SPEAKING INSTRUMENTS. WILLIAM WILLIAMS, Hopkinsville, Ky. Filed May 10, 1909. Serial No. 494,948.



1. In a disinfecting attachment for the mouth piece of a speaking instrument, the combination with a cap forming a closure for the mouth piece and having a peripheral perforated flange to bear on the outer edge of the mouth piece and a wire fastener bent upon itself and extended through the perforations of the flange, to provide clamp arms to bear on the outer face of the mouth piece.

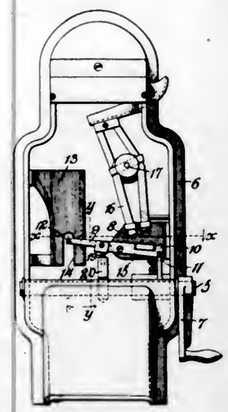
2. In a disinfecting attachment for the mouth piece of a speaking instrument, a closure cap having a tube, one end of which is disposed within the mouth piece and the opposite end provided with openings and extending beyond the plane of the cap.

3. In a disinfecting attachment for the mouth piece of a speaking instrument a tube provided at one end with a perforated bulb containing a disinfecting substance and provided at its outer end with a perforated button.

4. In a disinfecting attachment for the mouth piece of a speaking instrument, a tube having a perforated bulb on one end interiorly provided with a disinfecting substance and provided at its opposite end with an oblong button having openings adjacent said tube.

5. In a disinfecting attachment for the mouth piece of a speaking instrument a tube provided at one end with a perforated bulb containing a disinfecting substance, a perforated button at the opposite end of said tube and a closure plate disposed between said bulb and button.

944,398. LOCK FOR VENDING-MACHINES. SILAS E. WILMORE, St. Louis, Mo. Filed Apr. 7, 1909. Serial No. 488,357.



1. In check controlled mechanism, the combination with an actuating rock shaft having a shoulder, of a lever pivotally mounted between its ends, one end of the lever engaging behind the shoulder to hold the shaft, means for directing a check against the other end of the lever to carry the latch away from the shoulder, means for holding it away from said shoulder when so moved, and means operated by the rock shaft to swing the lever away from the holding means and cause the latch to reëngage behind the shoulder.

2. In check controlled mechanism, the combination with an actuating rock shaft having a shoulder and a finger, of a lever fulcrumed between its ends, one end of the lever constituting a latch that engages behind the shoulder, means for directing a check against the other end of the lever to swing said latch away from the shoulder, means for maintaining it out of engagement with the shoulder when so swung, and a swinging trip engaged by the finger of the rock shaft and swung in opposite directions thereby, said finger engaging the lever to swing the same away from its holding means upon the return movement of the rock shaft.

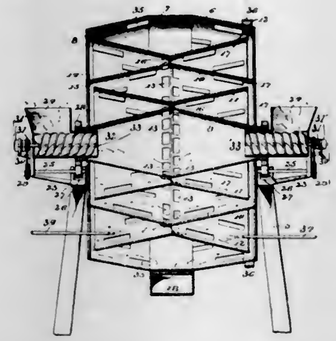
3. In check controlled mechanism, the combination with actuating means, of a lock for preventing its operative movement, a magnet for holding the lock in position to permit the movement of the actuating means, and check-controlled mechanism for relatively moving the lock and magnet to bring the former into the field of magnetism of the latter.

4. In check controlled mechanism, the combination with actuating means, of a lock for preventing its operative movement, a magnet for holding the lock in position to permit the movement of the actuating means, and check-controlled means for carrying the lock into the field of magnetism of the magnet and out of coöperative position with respect to the actuating means.

5. In check controlled mechanism, the combination with an actuator having a shoulder, of a latch that engages behind the shoulder, a magnet disposed in the path of movement of the latch, and check-controlled means for effecting the movement of the latch away from the shoulder and into the field of magnetism of said magnet.

[Claims 6 and 7 not printed in the Gazette.]

944,399. CEMENT AND CONCRETE MIXER. WILLIAM D. WISE, Detroit, Minn., assignor of one-half to Charles R. Stone, Fargo, N. D. Filed May 12, 1909. Serial No. 495,389.



1. A mixing machine including a revolving casing, a plurality of double cone shaped mixing drums disposed within and mounted for rotation with the casing, inverted double cone shaped drums interposed between the first mentioned drums, and means for feeding the material into one of the mixing drums.

2. A mixing machine including a revolving casing, a plurality of double cone shaped mixing drums disposed within and mounted for rotation with the casing, inverted double cone shaped drums spaced from the first mentioned drums, baffle plates secured to some of said drums, and means for feeding the materials to the central mixing drum.

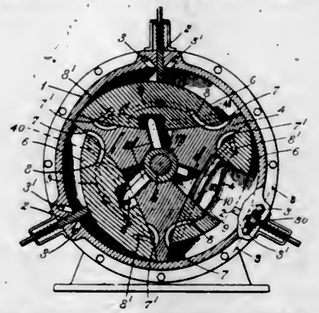
3. A mixing machine including a supporting frame, a casing mounted for rotation on said frame, a plurality of spaced mixing drums disposed within and mounted for rotation with the casing, some of said drums being provided with ports and others with baffle plates, hoppers disposed on opposite sides of the machine and extending within one of the mixing drums, means disposed within the hoppers for feeding the materials to said mixing drums, and a discharge spout mounted for rotation with the casing and extending tangentially from the periphery thereof.

4. A mixing machine including a supporting frame having spaced side members provided with lateral extensions, a casing mounted for rotation between the side members, a plurality of mixing drums disposed within and mounted for rotation with the casing, one of said drums being projected laterally beyond the adjacent sides of the casing to form oppositely disposed hubs, rollers mounted for rotation on the side members, hoppers carried by the extensions of the side members and projecting within the hubs of said mixing drum, feeding devices disposed within the hoppers, and means for transmitting motion from the rollers to the mixing devices.

5. A mixing machine including a supporting frame having spaced side members provided with lateral extensions, there being pockets formed in the side members, stub shafts journaled in the extensions and provided with rollers seated in said pockets, a casing mounted for rotation between the side members of the supporting frame, a plurality of mixing drums disposed within and mounted for rotation with the casing, the opposite ends of one of the mixing drums being projected beyond the adjacent sides of the casing to form hubs adapted to bear against the rollers, hoppers carried by the extensions of the side members and projecting within the hubs, feeding devices disposed within the hoppers, a connection between the stub shafts and feeding devices for transmitting motion from one to the other, and a discharge spout extending tangentially from the peripheral wall of the casing and communicating with the interior of the latter.

[Claims 6 to 12 not printed in the Gazette.]

944,400. ROTARY ENGINE. LOUIS B. WISHAAR, Giant, Cal. Filed May 11, 1909. Serial No. 495,361.



1. A rotary motor, having a piston provided with peripheral sections adjustable to opposite eccentric positions.

2. A rotary motor, having a piston provided with a peripheral section adjustable bodily to opposite eccentric positions, and with passage ways for motive fluid controlled by said section.

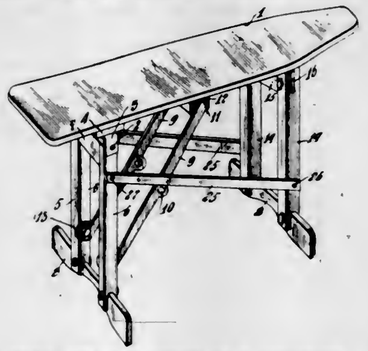
3. A rotary motor, having a piston provided with an adjustable peripheral section, and with passage ways controlled by said section for directing motive fluid in opposite directions.

4. A rotary motor, having a piston provided with independent adjustable sections, and with opposite passage ways for motive fluid controlled by respective sections.

5. A rotary motor comprising a casing provided with a head having extended intake ports, and with discharge ports adjacent the intake ports, a piston provided with eccentric peripheral surfaces and with passage ways for delivery of motive fluid from said intake ports, and movable abutments adjacent said discharge ports.

[Claims 6 to 8 not printed in the Gazette.]

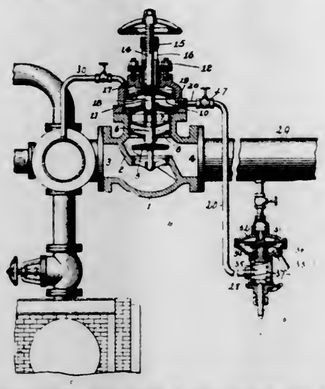
944,401. IRONING-BOARD. JAMES C. YEAKEL, Waynesville, Ill. Filed Mar. 5, 1909. Serial No. 481,280.



The herein described ironing table comprising a top board, a transverse cleat secured to the under side of the board intermediate its ends, a second transverse cleat secured to the under face of the board adjacent one of its ends, angle brackets upon the last mentioned cleat, a leg frame pivoted between said angle brackets, a pair of braces, each consisting of members connected together by rule joints, one end of each brace being pivoted to one end of the transverse cleat on the intermediate portion of the board, and the other end of said brace being pivoted to the lower portion of said leg frame, a pair of spaced cleats upon the under face of said board, a second leg frame adapted to enter between said spaced cleats, means for retaining said second leg frame in engagement with

said spaced cleats, and a pair of rigid one piece links adapted to cross said braces and having their upper ends pivoted to the upper portions of the first mentioned leg frame, and their lower ends pivoted to the lower portions of the second mentioned leg frame.

944,402. NON-RETURN VALVE. EDWARD V. ANDERSON, Monessen, Pa., assignor, by direct and mesne assignments, to Golden-Anderson Valve Specialty Company, Pittsburg, Pa., a Corporation of Pennsylvania. Filed Jan. 7, 1909. Serial No. 471,113.



1. A non-return valve having in combination a casing having a passage therethrough, a valve controlling said passage a cylinder, a piston arranged in said cylinder for closing said valve, a normally open port for admitting fluid from a source of pressure to that side of the piston where it will operate to close the valve, means for permitting an equalization of pressure on both sides of the piston and a normally open port on the other side of the piston connected to a line of pipe extending from the source of pressure at a point outside of the valve mechanism.

2. A non-return valve mechanism having in combination a casing having a passage therethrough a valve controlling said passage, a cylinder, a piston connected to the valve, said cylinder being provided with a normally open port on one side of said piston adapted to be connected to a source of pressure and with a normally open port on the opposite side of said piston adapted to be connected to a line of pipe extending from said source of pressure, and means for neutralizing the pressure to hold the valve in open position.

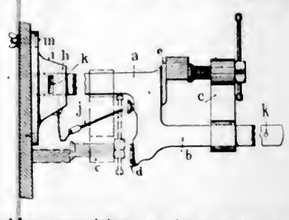
3. A non-return valve mechanism having in combination a casing having a passage therethrough, a valve controlling said passage, means operative by fluid pressure for closing said valve, means for applying fluid pressure for neutralizing such closing pressure, and means for reducing the efficiency of the neutralizing pressure.

4. A valve mechanism, a shell having a diaphragm provided with an opening connecting the chambers formed by the diaphragm, in combination with a cylinder portion having its outer end closed, an inwardly projecting flange partially closing the inner end of the cylinder, a cylindrical piston extending from the cylinder and adapted to seat around the opening in the diaphragm and provided at its upper end with a flange overlapping the flange at the lower end of the cylinder, and means permitting the flow of fluid from the outlet chamber of the valve casing to the space between the flanges on the cylinder and piston.

5. A valve mechanism, a shell having a diaphragm provided with an opening connecting the chambers formed by the diaphragm in combination with a cylinder portion having its axis in line with the axis of the opening through the diaphragm and having its upper end closed, an inwardly projecting flange partially closing the lower end of the cylinder, the opening formed by the flange being of a diameter greater than the diameter of the opening in the diaphragm, a cylindrical piston extending from the cylinder having its upper portion of an external diameter approximately equal that of the opening in the lower end of the cylinder, and its lower end contracted and adapted to close the opening through the diaphragm, a flange on the piston within the cylinder overlapping the flange on the cylinder, and means permitting the flow of fluid from the outlet chamber of the valve casing to the space between the flanges on the cylinder and piston.

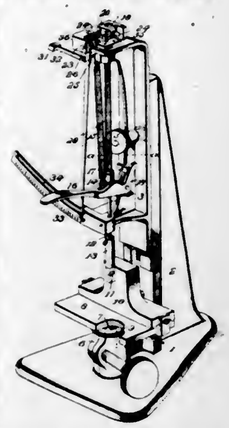
[Claims 6 and 7 not printed in the Gazette.]

944,403. HOLDER FOR CRAMPS, &c. HENRI ANTOINE, Paris, France. Filed Nov. 20, 1908. Serial No. 463,660.



A tool holder comprising; a plate having holes therethrough and a slot in one edge thereof, a raised portion around the edge of said slot, a box formed integral with said plate and having a plurality of mortises therein adapted for holding a tool and means attached to said box and adapted to enter a hole in the tool for preventing the premature escape of the latter.

944,404. COMPARATOR. JOHN S. BANCROFT, Philadelphia, Pa., assignor to Lanston Monotype Machine Company, Philadelphia, Pa., a Corporation of Virginia. Filed Nov. 6, 1906. Serial No. 342,236.



1. In an instrument such as described provided with measuring and indicating devices or members, the combination therewith of the following elements, to wit; a proportioning member or lever coupled with the indicating device and provided with a plurality of knife edge fulcrum bearings in the same plane and a reversed knife edge bearing located to one side of the fulcrum bearings; and a contact surface coupled with the measuring member and movable in a path intersecting said reversed knife edge bearing.

2. In an instrument such as described the combination of the following elements, to wit; a proportioning member provided with a plurality of knife edge fulcrum bearings and an intermediate reversed knife edge contact or power bearing; axial retainers for said proportioning member; fulcrum blocks for said proportioning member; a longitudinally movable measuring member provided with a lateral extension in the path of the contact or power bearing; and an indicating member coupled with said proportioning member.

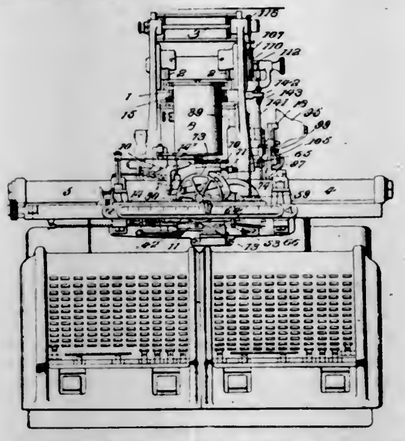
3. In an apparatus such as described, the combination of the following elements, to wit; a proportioning member or bar provided with reversed knife edge fulcrum and power bearings; a furcated support for said fulcrum bearings; retaining devices in axial alinement with the fulcrum bearings, for positioning the proportioning members; a contact surface guided to reciprocate in a plane perpendicular to and intersecting the power bearing; a measuring member coupled to said contact surface; and an indicating member coupled to the proportioning member.

4. In an apparatus such as described the combination of the following elements to wit:—a fixed abutment or support and an opposite movable measuring member; means for automatically retracting said measuring member; a proportioning member provided with fulcrum and contact bearings, and a contact surface carried by the measuring member and engaging said proportioning member during the advance of the measuring member but free to separate therefrom during the retracting movement of said measuring member.

5. In an apparatus such as described the combination of the following elements to wit: a support; a reciprocatory measuring member provided with a contact surface opposite said support; a proportioning member interposed between said contact surface and support and provided with reversed knife edge bearings; a spring for advancing the measuring member in a direction to engage its contact surface with the proportioning member; a lever arranged to intercept the advance of the measuring member; and a spring coupled with said lever and operating through the latter to retract the measuring member.

[Claim 6 not printed in the Gazette.]

944,405. RECORD-STRIP COMPOSING-MACHINE. JOHN S. BANCROFT and MAUTITZ C. INDAHL, Philadelphia, Pa., assignors to Lanston Monotype Machine Company, Philadelphia, Pa., a Corporation of Virginia. Filed June 5, 1908. Serial No. 436,965.



1. A composing machine such as described, embodying the following elements in combination, to wit; a line measuring mechanism including a reversing valve, an indicator motor and a controlling valve for the latter; a plurality of punch bars each equipped with a motor and a controlling valve; a universal bar coupled with the punch bars and provided with a motor in open communication with the pressure supply for the punch bar motors; a motor for the reversing valve of the line measuring mechanism; alternative pressure supply connections for said motor including a directing valve, a special valve coupled with a controlling member, and the control valve of a punch bar motor; a space registering mechanism provided with a motor controlled by the valve of one of the punch bar motors; a plurality of controlling members each provided with a movable shoulder for engaging a transmitting member and means for advancing and retracting said engaging shoulders; a motor for said last named means; and a valve controlling said last named motor and coupled with the space registering devices.

2. In a composing machine such as described and in combination with the motor of the reversing valve for the line measuring mechanism, means for actuating said motor from either the resetting key or a justification key, at will, the same including a directing valve controlling lines of communication between said motor and a valve controlled by the resetting key and the controlling valve of the justification designating punch bar.

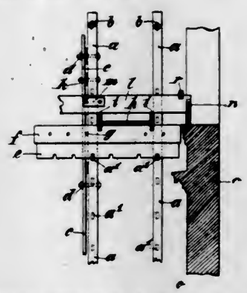
3. In a composing machine such as described and in combination with the control valve of the paper feed motor and the motor actuated universal bar engaging the punch bars and coupled with said control valve to actuate the latter, a pressure supply and connections between the latter and said universal bar motor and the inlet of the paper feed control valve.

4. In a composing machine such as described and in combination with the line measuring mechanism thereof, including a motor controlled reversing valve, a motor controlled holding pawl and a motor for restoring the signal devices, a supply conduit common to said motors connected to the pressure supply and controlled by a valve.

5. In a composing machine such as described, provided with a series of punch-bars, a universal bar adapted to be engaged by the punch-bars, and a paper feed mechanism provided with an actuating motor and a valve controlling said motor, and in combination therewith actuating devices intermediate said valve and universal bar, the same including a lever coupled with the valve and provided with a stud or pin, a pivoted link slotted to receive said stud or pin, and an arm on the universal bar shaft provided with opposed adjusting screws between which is received said pivoted link.

[Claims 6 to 95 not printed in the Gazette.]

944,406. SCAFFOLDING. DESIDERIUS BARCSAI and LUDWIG BARCSAI, Budapest, Austria-Hungary. Filed May 29, 1908. Serial No. 435,689.



1. A scaffolding comprising a number of parallel rows of poles arranged in pairs with a space between the poles of each pair, blocks located in said spaces and secured to the poles, transverse beams having a series of notches therein adapted to engage with said blocks, each of said beams connecting a pair of poles in each row, a platform supported by said transverse beams, ledge forming beams for the platform having notches in their lower edges engaging with the transverse beams, braces for the poles, and means for securing the platform to the building, substantially as described.

2. A scaffolding comprising a number of parallel rows of poles arranged in pairs with a space between the poles of each pair, blocks located in said spaces and secured to the

poles, transverse beams having a series of notches therein adapted to engage with said blocks, each of said beams connecting a pair of poles in each row, a platform supported by said transverse beams, ledge forming beams for the platform having notches in their lower edges engaging with the transverse beams, braces for the poles, means for securing the platform to the building, said means consisting of a transverse beam secured to the poles, means for securing the inner end to the building, and a bar r having notches therein engaging with the inner ends of the locking beams and extending longitudinally of the platform, substantially as described.

944,407. AMUSEMENT DEVICE. EDGAR C. BEEBE, Kansas City, Kans., assignor of one-half to W. T. Boyer, Kansas City, Mo., and E. J. Colgan, Kansas City, Kans. Filed Apr. 12, 1909. Serial No. 489,484.



1. An amusement device consisting of a hollow revolving outer member, an inner member arranged therein, and a universal connection between the outer and inner members whereby the equilibrium of the inner member is maintained.

2. An amusement device consisting of a hollow foraminous revolving outer member, an inner member arranged therein, and a universal connection between the outer and inner members whereby the equilibrium of the inner member is maintained.

3. An amusement device consisting of a hollow revolving sphere, an inner member arranged therein, and a universal connection between the sphere and said inner member whereby the equilibrium of the latter is maintained.

4. An amusement device consisting of a hollow revolving foraminous sphere consisting of two detachable sections, an inner member arranged within said sphere, and a universal connection between the sphere and said inner member whereby the equilibrium of the latter is maintained.

5. An amusement device consisting of a hollow revolving sphere, a door therein, an inner member arranged within said sphere, and a universal connection between the sphere and said inner member, whereby the equilibrium of the latter is maintained.

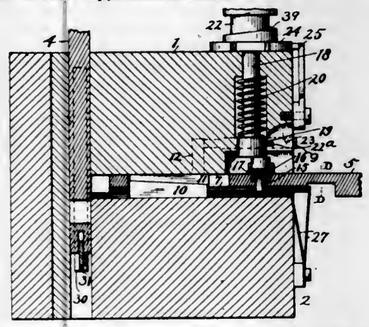
[Claims 6 to 11 not printed in the Gazette.]

944,408. UNIVERSAL TYPE-MOLD. BENJAMIN F. BELLOWS, Cleveland, Ohio, assignor to Electric Compositor Company, New York, N. Y., a Corporation of New Jersey. Filed Aug. 12, 1907, Serial No. 388,089. Renewed May 18, 1909. Serial No. 496,719.

1. A type mold comprising two blocks having parallel sides, a partition spanning the space between them at one end of said blocks, a main slide and one or more parallel supplemental slides fitted between said blocks, and means for connecting the main slide with any desired number of the supplemental slides.

2. In a type mold, a combination of two blocks having parallel faces, a slide movable across the ends of said blocks, and adapted to span the gap between them, a main slide and several thin supplemental slides parallel with the main slide,—said slides being fitted between the parallel faces of said blocks, and means for connecting and disconnecting the main slide and any desired number of said supplemental slides.

3. In a type mold, the combination of two blocks having parallel faces, a transfer slide movable across the ends of said blocks and adapted to span the gap between them,—said transfer slide having a type receiving recess adapted to be brought into alinement with the gap between said blocks, a main slide, and several thin supplemental slides parallel with the main slide,—said slides, being fitted between the parallel faces of said blocks, and means for connecting and disconnecting the main slide and any desired number of said supplemental slides.

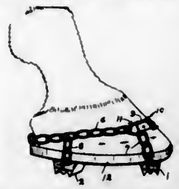


4. In a type mold, a combination of two blocks having parallel faces, a main slide and several thin parallel supplemental slides fitting the space between said blocks, said supplemental slides having holes through them, a connecting device carried by the main slide, and means for moving it into various positions whereby it may project into the holes in one or more or all of said supplemental slides.

5. In a type mold, a combination of two blocks having parallel faces, a main slide and several thin parallel supplemental slides fitting the space between said blocks, said supplemental slides having holes through them, a connecting device carried by the main slide, and means for moving it into any desired position whereby it may project into the holes in one or more or all of said supplemental slides, and a series of springs which severally engage with said supplemental slides and acting to move said slides to one end of the path of their permissible movement.

[Claims 6 to 12 not printed in the Gazette.]

944,409. OVERSHOE FOR HORSES AND OTHER HOOFED ANIMALS. CHARLES H. BENNETT, Dalton, Mass. Filed Feb. 18, 1909. Serial No. 478,648.



1. In overshoes, the combination with an open flexible tread composed of a plurality of articulated elements, of a contact member movable relatively to the hoof and having a solid body-portion provided with a depending calk.

2. In overshoes, a tread composed of a plurality of flexibly connected elements including a contact member provided with a plurality of wedge-like calks arranged in parallel.

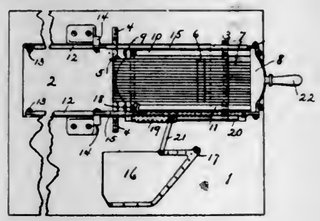
3. In overshoes, an open, flexible tread comprising a plurality of movably connected contact members, each of which members is flexibly supported on the hoof and provided with a solid body-portion having a plurality of spaced contacts tending to engage the surface trod upon.

4. A tread of spaced-chain structure comprising a plurality of contact members distributed around the margin of the hoof, each of said members having a solid body-portion provided with a plurality of depending contacts.

5. A flexible tread for horses, etc., extending across the hoof and over the edges thereof and comprising a plurality of articulated elements including a contact member having a rigid body-portion provided with a depending calk disposed across the hoof forwardly of the region of maximum width.

[Claims 6 to 10 not printed in the Gazette.]

944,410. APPARATUS FOR CUTTING LARD OR THE LIKE. ANDERS J. A. BERGMAN, Varamo, Sweden. Filed July 19, 1909. Serial No. 508,418.



1. In an apparatus of the character described, a series of cutting members and means to simultaneously impart a longitudinal and arcuate movement thereto.

2. An apparatus of the character described, comprising a stationary cutting member, a movable cutting member, supports for the latter mounted in parallel relation to each other adapted to impart a longitudinal and arcuate movement to the movable member.

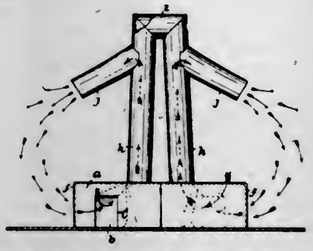
3. In an apparatus of the character described, a series of fixed blades, a series of movable blades, a frame for the latter, and pivoted supporting members for the frame mounted in parallel relation to each other.

4. In an apparatus of the character described, a series of fixed blades, a series of blades movable between the latter, a frame for the movable blades, rods pivoted to the frame, and means to support the rods in parallel relation to each other.

5. In an apparatus of the character described, a series of fixed blades, a series of movable blades, means to support the latter in angular relation to the fixed blades, and means to move the latter in the direction of their length and in the direction of the length of the fixed blades.

[Claims 6 to 8 not printed in the Gazette.]

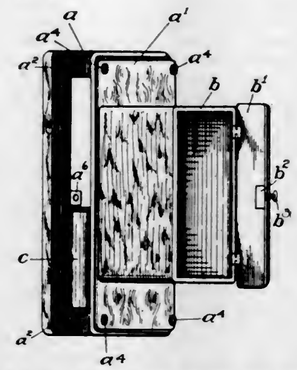
944,411. WASHBOILER ATTACHMENT. ANDREW J. BRADY, Passaic, N. J. Filed July 10, 1909. Serial No. 506,924.



1. A device of the character described comprising, in combination, a hollow base having an intake, two tubular structures each comprising an uptake, surmounting the base and communicating at its lower end with the interior of said base, and a discharge nozzle on the uptake, each tubular structure being imperforate from the base to the discharge end of its nozzle and said nozzles projecting in substantially opposite directions, and an imperforate tubular connection between the uptakes, substantially as described.

2. A device of the character described comprising, in combination, a hollow base having two intakes disposed relatively opposite to each other and each having its sides converging inwardly and downwardly, two tubular structures each comprising an uptake, surmounting the base and communicating at its lower end with the interior of said base, and a discharge nozzle on the uptake, each tubular structure being imperforate from the base to the discharge end of its nozzle and said nozzles projecting in substantially opposite directions, and an imperforate tubular connection between the uptakes, each tubular structure adjoining at its lower end the inner end of an intake, substantially as described.

944,412. TELEPHONE-BOX. WILLIAM M. BRUCE, JR., Springfield, Ohio, assignor, by mesne assignments, to The American Automatic Telephone Company, Rochester, N. Y., a Corporation of New York. Filed Apr. 4, 1907, Serial No. 366,364. Renewed May 26, 1909. Serial No. 498,569.



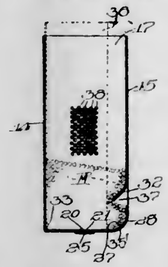
1. In a telephone box, a base portion, and means for attaching the same to an extraneous support, a hinged lid or cover for the base portion having openings registering with the base fastening devices to permit the base to be removed or secured without removing the said cover, a main telephone box on the lid or cover having a hinged door, and means for securing said telephone box to said base portion, as set forth.

2. In a telephone box or receptacle, a base portion adapted to be secured to a wall or other surface by means of fastening devices which pass through said base portion, a hinged lid or cover for said base portion having corresponding openings for the fastening devices, permitting the fastening devices to be inserted or removed without removing said cover, a main telephone box on said lid or cover, and a fastening for said lid or cover operated from the interior of said box, a hinged door for said box, and means for securing said hinged door in its position, substantially as specified.

3. In a box or receptacle for telephones, a base portion and a main box or receptacle, perforations in the corners of said base, and a cover having similar perforations through which the fastening devices may be inserted, the main box being mounted on said cover, and a fastening device for said cover accessible from the interior of said box, a hinged door for said box, and a lock for said door, the perforations in said base cover corresponding to the perforations in said base portion to permit the insertion and removal of the base fastening devices without opening either of said receptacles, substantially as specified.

4. The combination of a condenser box having stationary walls which form a base, and means for connecting said condenser box to an extraneous support, a telephone box or casing hinged at the bottom to one side of the condenser box and having at the top a lid or cover hinged thereto, the hinged connections from the base and lid respectively to the telephone box being on the same side of the telephone box so that the parts will swing in the same direction toward one side and render the condenser box and telephone box independently accessible, as specified.

944,413. MATCH-SAFE. JOOST DE BRUIN, Chicago, Ill. Filed Oct. 19, 1908. Serial No. 458,368.



1. As an article of manufacture, a blank for a match safe comprising a front and back and side portions, said front and back portions extending beyond one edge of the side portions, said front portion being provided with an elongated slot within its edges and extending into the extended portion of the front beyond the edges of the side sections, said front being also provided with slots extending transversely with respect to the elongated slot from points intermediate the ends of the slot toward the lines of fold of the portions adjoining the front portion, said front portion being also provided with slots extending parallel with the elongated slot from and communicating with the transverse slots, and flaps on the side portions for supporting the bottom formed by the extensions on the front and back portions.

2. As an article of manufacture, a blank for a match safe comprising a front and back and side portions, fastening flaps on the outer edges of the outermost portions, said front and back portions being spaced from each other and extending beyond one edge of the side portions, said front portion being provided with an elongated slot within its edges, extending into the extending portion and beyond the edges of the side portions, said front being also provided with slots extending transversely with respect to the elongated slot from points intermediate the ends of the slots and on each side thereof, said front portion being also provided with slots extending parallel with the elongated slot from and communicating with the transverse slots to form spaced supporting fingers for the matches, and projections extending from the side portions for supporting the bottom formed by the extensions on the front and back portions.

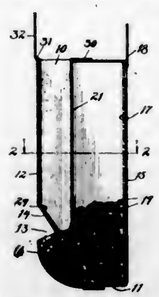
3. As an article of manufacture, a blank for a match safe comprising a front and back and side portions, fastening flaps on the outer edges of the outermost portions, said front and back portions being spaced from each other and extending beyond one edge of the side portions, said front portion being provided with an elongated slot within its edges, extending into the extended portion and beyond the edges of the side portions, said front being also provided with slots extending transversely with respect to the elongated slot from points intermediate the ends of the slots and on each side thereof, said front portion being also provided with slots extending parallel with the elongated slot from and communicating with the transverse slots to form spaced supporting fingers for the notches, and means on the side portions for supporting the extensions on the front and back portions to form an upwardly opening tray having an upwardly opening slot registering with the space between the said supporting fingers and extending into the bottom of the tray.

4. A match safe constructed of a single piece of material bent into shape to form front and back and side walls, means for securing the free edges of the blank together, two of said walls diametrically opposite each other being provided with portions extending below the lower edges of the other walls, said extensions being bent toward each other to form a bottom for the safe, and means on the said other walls for supporting and holding the bottom sections in position, one of the walls of the case being provided with a slot extending transversely of the wall above the said bottom, a portion of the wall above the slot being cut away to form spaced projections adapted to be deflected inwardly toward the opposite wall of the case, for supporting the matches and to form an opening through the wall of the case communicating with the space between the said projections.

5. A match safe constructed of a single piece of material bent into shape to form front and back and side walls, means for securing the free edges of the blank together, two of said walls diametrically opposite each other being provided with portions extending below the lower edges of the other walls, said extensions being bent toward each other to form a bottom for the safe with the edges thereof abutting, there being projections on the other portions adapted to be deflected beneath the bottom sections and extending across the abutting edges for supporting said sections, one of the walls of the case being provided with a slot extending transversely of the wall above the said bottom, a portion of the wall above the slot being cut away to form spaced projections adapted to be deflected inwardly toward the opposite wall of the case for supporting the matches and to form an opening through the wall of the case communicating with the space between the said projections.

[Claim 6 not printed in the Gazette.]

944,414. ATTACHMENT FOR MATCH-SAFES. JOOST DE BRUIN, Chicago, Ill. Filed Jan. 25, 1909. Serial No. 473,972.



1. The combination of a match holder having a discharge outlet and adapted to receive a box of matches from which the cover or a portion thereof has been removed, and a removable burned match receptacle within and fixed with relation to the holder, said receptacle forming a partial closure for the match box and extending into the opening to form an obstruction to the matches.

2. The combination of a match holder having an opening through which the matches are delivered, and a burned match receptacle within and fixed with respect to the holder, said receptacle serving to guide the matches to the delivery opening.

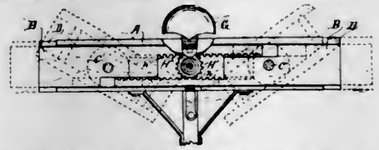
3. The combination of a match holder having an opening through which the matches are delivered, and a removable burned match receptacle within and fixed with relation to the holder, said receptacle projecting into the delivery opening of the holder to form an obstruction for the matches.

4. The combination of a match holder having an opening through which the matches are delivered, and a removable burned match receptacle within the holder, said receptacle projecting into the delivery opening of the holder to form an obstruction for the matches and also having an extended portion projecting beyond the holder for advertising matter.

5. The combination of a match holder having an opening through which the matches are delivered, and a burned match receptacle removably supported within and fixed with relation to the holder, said receptacle extending partially across the opening to form an obstruction to the matches and having open sides closed by the walls of the holder.

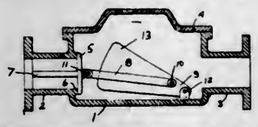
[Claims 6 to 13 not printed in the Gazette.]

944,415. HARROW. ETHAN A. CONKLIN, Shelby, Mich., assignor of one-half to Wesley Graham, Harrison Valley, Pa., and Amos M. Conklin, Grant, Mich. Filed Mar. 29, 1909. Serial No. 486,613.



The combination in a harrow, of a main frame having longitudinal parallel grooves that open toward each other, slides fitted to slide in opposite directions in said grooves, gear teeth on said slides, a gear wheel and an actuating wheel for actuating said slides, one half of a clutch secured to the under surface of each of said slides, auxiliary frames, one half of a clutch secured to the upper surface of each auxiliary frame in position to engage the half clutch on the slides, to hold the auxiliary frames to the desired angles, with the main frame, a shaft mounted on each auxiliary frame, and harrow disks mounted on said shafts.

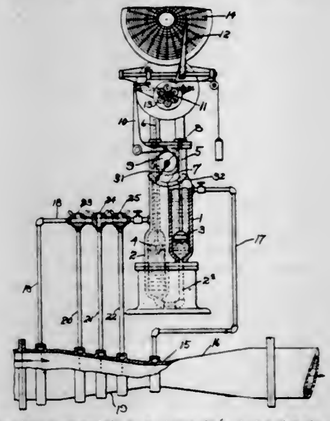
944,416. VALVE. FREDERICK N. CONNET and ARTHUR W. GRAHAM, Providence, R. I., assignors to Builders Iron Foundry, Providence, R. I., a Corporation of Rhode Island. Filed Nov. 21, 1907. Serial No. 403,135.



1. A check valve comprising a casing, a valve and seat in said casing, a weighted link operatively connected to said valve, the link being so disposed angularly that the effective action of said weight will be reduced as the valve is being opened.

2. A check valve comprising a casing, a valve and seat in said casing, a weight pivotally mounted in said casing, a link operatively connected at one end to said valve and its opposite end to said weight whereby the latter is adapted to act as one of the link members and exert a differential pressure on said valve as the same is being opened.

944,417. METER. FREDERICK N. CONNET, Providence, R. I. Filed June 14, 1909. Serial No. 501,895.



1. A meter comprising a tapering tube having a reduced portion or throat, a rate actuated instrument for showing the amount of water which passes through said tube, a pipe connecting said instrument with said throat, a plurality of pipes connecting said instrument with said tube along the tapering portion of the latter, and means for admitting the pressures from any of several combinations of pipes whereby the instrument is caused to operate and produce the desired result.

2. A meter comprising a tapering tube having a reduced portion or throat, a rate actuated instrument for showing the amount of water which passes through said tube, a pipe connecting said instrument with said throat, a pipe connecting said instrument with the enlarged upstream portion of said tube, one or more pipes connecting said instrument with said tube along the tapering portion of the latter, and valves for admitting the pressures from any of several combinations of said pipes to produce the desired effect upon said instrument.

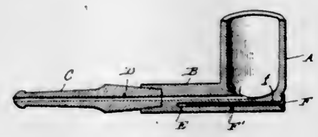
3. In a meter, the combination with a tapering tube having a reduced portion or throat, of a rate actuated instrument for showing the amount of water which passes through said tube, a pipe connecting said instrument with the enlarged or upstream portion of said tube, one or more pipes connecting said instrument with one or more intermediate points along the tapered portion of said tube, and valves for admitting the pressures from any of several combinations of said pipes whereby the desired effect upon said instrument may be obtained.

4. A meter comprising a tapering tube having a reduced portion or throat, a rate actuated instrument for showing the amount of water which passes through said tube, a pipe connecting said instrument with said throat, one or more pipes connecting said instrument with said tube along the tapering portion of the latter, and means for admitting the pressures from the different pipes to said instrument whereby the latter may be actuated by a great range of pressures to accurately show the rate through said tube.

5. A meter comprising a tapering tube having a reduced portion or throat, an annular chamber about and communicating with said throat portion, an annular chamber about and communicating with the enlarged upstream portion of said tube, one or more intermediate annular chambers about and communicating with the tapered portion of said tube, a rate actuated instrument for showing the amount of water which passes through said tube, a pipe connecting each of said chambers to said instrument, and valves in said pipes whereby the pressure from any of several combinations of said pipes may be used to produce the desired effect upon said instrument.

[Claim 6 not printed in the Gazette.]

944,418. PIPE FOR SMOKING TOBACCO. JACK DREW, Westwood, N. J. Filed Aug. 3, 1908. Serial No. 446,661.



A pipe comprising a bowl and sectional stem, the latter having a smoke passage therein communicating with the bowl and one of the sections of said stem being formed integral with the base of the bowl and having a chamber therein parallel with and separate from the smoke passage, and an integral tamping device having a substantially flat head, a transversely resilient bifurcated stem adapted to seat in and frictionally engage the walls of the chamber, one of the arms of said stem being provided with a transverse projection also adapted to frictionally engage the walls of the chamber whereby the tamping device will be held securely in place, substantially as described.

944,419. COMPOSITION FOR ERADICATING RODENTS. CARLETON ELLIS, Larchmont, N. Y., assignor to Ellis-Foster Company, a Corporation of New Jersey. Filed Nov. 7, 1907. Serial No. 401,083.



1. A rat eradicator comprising barium carbonate, zinc oxid and casein.

2. A rat eradicator comprising barium carbonate, zinc oxid and a baiting material.

3. A rat eradicator comprising barium carbonate, and a finely divided proteid as binding material and a baiting material; said eradicator being in the form of small seed shaped masses.

4. A rat eradicator comprising barium carbonate and a baiting and a finely divided proteid binding material; said eradicator being in the form of small masses having the shape and general appearance of squash seeds.

5. A rat eradicator comprising barium carbonate and zinc oxid, the former being present in substantially twice the amount of the latter.

[Claims 6 to 12 not printed in the Gazette.]

944,420. ANTIFOULING COMPOSITION. CARLETON ELLIS, Larchmont, N. Y., assignor to Ellis-Foster Company, a Corporation of New Jersey. Filed Dec. 26, 1908. Serial No. 469,298.

1. An antifouling paint composition comprising the condensation products of formaldehyde with phenol materials incorporated in a suitable vehicle carrying a binding material and a dissolved copper compound.

2. An antifouling paint composition comprising the condensation products of formaldehyde with organic material incorporated in a vehicle carrying a resinous binder and a dissolved copper compound.

3. An antifouling paint composition comprising the condensation products of formaldehyde with phenolic material incorporated with a dissolved copper compound, a resinous binding material and a volatile vehicle.

4. An antifouling paint composition comprising condensation products of formaldehyde, a dissolved copper compound, a resinous binding material and a volatile vehicle including solvent naphtha.

5. An antifouling paint composition comprising a formaldehyde condensation product, copper carbonate, copper oleate, and a binding material.

[Claims 6 to 8 not printed in the Gazette.]

944,421. CIRCULAR LOOM. ROBERT E. EVENDEN, Manchester, England. Filed Aug. 4, 1905. Serial No. 272,767.

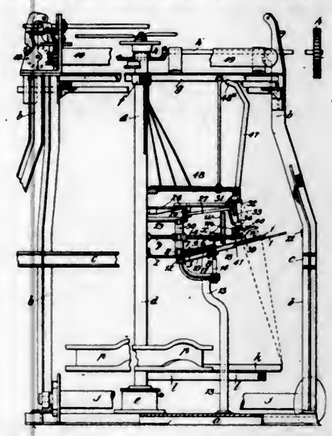
1. In a circular loom the combination with a warp beam, of a curved guide-member 1, the radius of which is greater than that of the radius of the harness and which is situated in proximity to a warp beam and which serves to preserve uniformity of length and tension in the warps, substantially as described.

2. In a circular loom the combination with the warp beams of a circular rail arranged horizontally in proximity to the warp beams, and a guide-member formed in sections and in arcs, each of the same radius but whose radius is greater than that of the circular guide-member.

3. In a circular loom the combination with the warp beams of the circular rail *k* situated in proximity to the warp beams and the compensating device *l* comprising a series of arc-shaped rails placed in proximity to the rail *k* and each of which has a curve or arc struck with a different radius from that of the rail *k*.

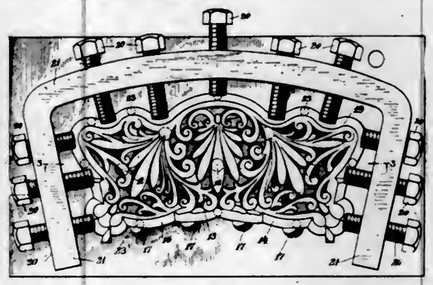
4. In a circular loom the combination with a warp beam of a curved rail *l* of greater radius than that of the harness and to which the warp is carried from the warp beam and the curved rail *k* of the same radius as that of the harness across which the warp passes from the compensating rail to the harness.

5. In a circular loom the combination of the healds, means for operating them in the ordinary way and devices adapted to act upon the outer warps to move a large section of them inward, radially out of the path of the weft-carrier.



[Claims 6 to 13 not printed in the Gazette.]

944,422. DIE FOR BARRETTES, COMBS, AND THE LIKE. MORRIS FALK, Leominster, Mass. Filed June 2, 1909. Serial No. 499,744.



1. In a die stamping machine: a base; a die mounted thereon comprising an ornamenting member, and a cutting member about the same; means securing one of said members to said base; means to adjust the other of said members with respect to the first, comprising adjustable supporting screws passing through said base and supporting said adjustable member upon their upper ends; and a press co-acting with said die.

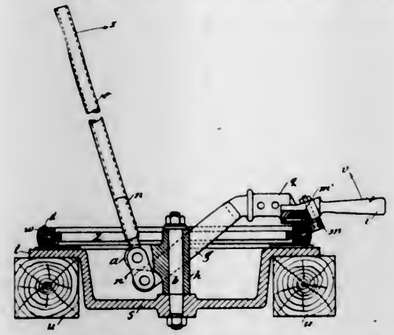
2. In a die stamping machine: a base; a die mounted thereon comprising an ornamenting member fixed to said base, and a cutting member about the same; means to adjust said cutting member with respect to the ornamenting member, comprising adjustable supporting screws passing through said base and supporting said cutting member upon their upper ends; and a press coacting with said die.

3. In a die stamping machine: a base; a die mounted thereon comprising an ornamenting member fixed to said base, and a cutting member about the same; means to adjust said cutting member with respect to the ornamenting member, comprising adjustable supporting screws passing through said base and supporting said cutting member upon their upper ends; means permitting such adjustment for holding the cutting member in engagement with the ornamenting member; and a press co-acting with said die.

4. In a die stamping machine: a base; a die mounted thereon comprising an ornamenting member, and a cutting member about the same, having an upper edge of the contour of the finished material and being of increasing cross-sectional area downwardly; means to hold said cutting member to said ornamenting member; screws passing through said base acting against the lower edge of said cutting member to adjust the same with respect to the ornamental member; and a press co-acting with said die.

5. In a machine for cutting or stamping backs or bodies of barrettes or combs: a base; a die mounted thereon comprising an ornamenting member fixed to said base, and a sectional cutting member; means to adjust the sections of said cutting member with respect to the ornamenting member, comprising adjustable supporting screws passing through said base and supporting said sections upon their upper ends.

944,423. METHOD OF SECURING RESILIENT PACKING IN THE GROOVES OF METALLIC FILTER-PRESS FRAMES. ERNST FEIX, Bodenbach, Austria-Hungary. Filed Feb. 19, 1909. Serial No. 478,905.



The method of securing resilient packing in the grooves of metallic filter press frames consisting in compressing one wall of the groove against the loosely introduced packing to insure an air-tight joint, substantially as set forth.

944,424. SHOE-PULL. THOMAS FERRY, Wilmington, Del. Filed Mar. 16, 1908. Serial No. 421,462.

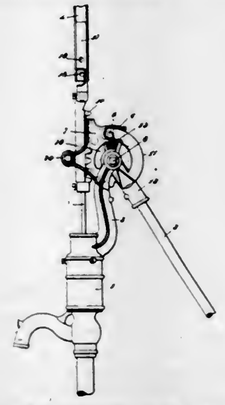


A shoe pull comprising a handle portion, diverging spring arms, shoe-engaging hooks, and a flexible casing or cover arranged over said handle portion and spring arms, substantially as described.

944,425. PUMP. ANTHONY A. FICENER, Mansfield, Ohio, assignor to Barnes Manufacturing Company, Mansfield, Ohio, a Corporation of Ohio. Filed May 3, 1909. Serial No. 493,499.

1. In a pump, the combination of the piston-rod, an oscillatory member operatively connected therewith, a casing for said oscillatory member adapted for attachment of a handle thereto, and means for detachably connecting said oscillatory member and casing.

2. In a pump, the combination of the piston-rod having a rack, an oscillatory toothed segment in mesh with the rack, a pivoted segment-case adapted for attachment of a pump handle thereto, and means for detachably connecting said segment and segment-case.



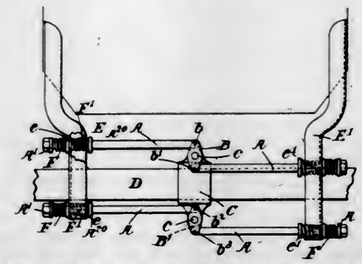
3. In a pump, the combination of a reciprocatory rack connected with the pump-rod, a toothed segment engaging the rack, a segment-case rigid with the pump-handle, and means for detachably-connecting said segment-case and segment, the said segment-case when disconnected adapted to drop back and allow oscillation of the segment therein when the pump-rod is reciprocated independently of the handle.

4. In a pump, the combination of a reciprocatory rack connected with the piston-rod, of a co-fulcrumed toothed segment and segment-case, the former in engagement with the rack and the latter operable by the pump-handle, and means for detachably connecting said segment-case with said segment in position to enable said segment to operate said rack.

5. In a pump, the combination with the pump-stock and piston-rod, of a rack connected with the piston-rod, a toothed segment engaging said rack, a segmental segment-case rigid with the pump-handle, and an arm on the pump-stock on which said segment and segment-case are fulcrumed with a common pivot-bolt, said arm provided with a housing for said segment and segment-case, said housing having a lateral slot, and a removable coupling-pin working in said slot and engaging registering holes in said segment and segment-case and thereby connecting them in position for operating the rack by said segment.

[Claim 6 not printed in the Gazette.]

944,426. MOUNTING OR SUSPENSION OF VEHICLE-BODIES. CHARLES W. FULTON, Paisley, Scotland. Filed Oct. 12, 1906. Serial No. 338,683.



1. The combination of a vehicle body, an axle, and means connecting the axle and body to prevent tilting of the latter relative to the axle, said means including oppo-

sitely extending parallel rods extending from brackets on the body to brackets supported by the axle, each rod being movable relative to one of the brackets connected by it, and yielding means arranged between an abutment on each rod and the adjacent bracket.

2. The combination of a vehicle body, an axle, two rods pivotally connected at one end with and extending in opposite directions from a member attached to the axle, the other ends of the rods extending through openings in brackets attached to the body, and yielding means arranged between the body and an abutment on each rod, for the purpose specified.

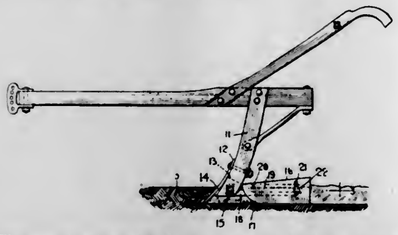
3. The combination of a vehicle body, an axle, two rods pivotally connected at one end with and extending in opposite directions from a member attached to the axle, the other ends of the rods extending through openings in brackets attached to the body, and a coiled spring surrounding each rod and bearing against the frame bracket and an abutment at the outer end of the rod, for the purpose specified.

4. The combination of a vehicle body, an axle, two rods pivotally connected at one end with and extending in opposite directions from a member attached to the axle, the other ends of the rods extending through openings in brackets attached to the body, and coiled springs surrounding each rod and bearing against the frame bracket and two abutments arranged on the rod on opposite sides of said bracket, for the purpose specified.

5. The combination of a vehicle body, an axle, a lever mounted on a support connected with the axle to rock about a horizontal axis at an intermediate point in its length, two oppositely extending rods respectively connected at their inner ends to the arms of the lever and having their outer ends extending through brackets attached to the vehicle body, and yielding means between the vehicle body and abutments on said rods.

[Claims 6 to 9 not printed in the Gazette.]

944,427. PLOW. WILLIAM W. GIDDENS, Adel, Ga. Filed Oct. 15, 1908. Serial No. 457,924.

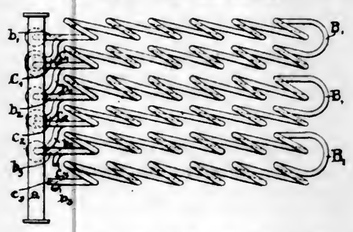


The combination with a plow stock, of a bar of uniform width and thickness throughout its length and containing an elongated slot, a bolt passed through the stock and one end of the bar for pivotally connecting the latter to the stock, a blade having a lug projecting from one face of the same near its forward end and slidably engaging in the slot in said bar, the said blade containing near its opposite end a vertically disposed arcuate-shaped slot, and an adjusting bolt engaged through the slots in the blade and bar respectively, to hold the said blade in angular adjustable position with respect to the ground.

944,428. SUPERHEATER. HEINRICH GÖHRIG, Darmstadt, Germany. Filed Mar. 2, 1906. Serial No. 303,809.

1. A superheater, comprising a plurality of heaters, an upper and a lower series of pipes of U-form in general outline, with intermediate bowed portions, said pipes having leg members formed with a plurality of coils arranged in zigzag form viewed in plan and right angular extended portions communicating alternately with the headers, each alternate angular extension entering each header being off-set.

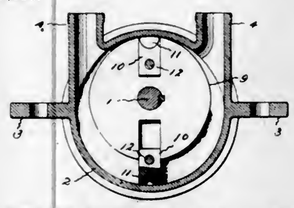
2. A superheater comprising an upper header, a lower header, an upper and lower series of U-tubes connecting said headers, the legs of each tube extending between the headers and being bent at right angles for attachment thereto, and the end of each tube of one series which enters the header adjacent the other series being off-set in the direction of the length of said headers to make room for the opposite tube of said other series.



3. A superheater comprising upper and lower pipes serving as headers, an upper and lower series of pipes of U-form in general outline, the receiving and discharging end portions of said pipes being extended at right angles upwardly and downwardly and alternately communicating with the upper and lower headers respectively, each of said alternate right angular extended portions of each pipe of one series being off-set to make room for the opposite pipe of the other series.

4. A superheater comprising a pair of headers, two series of U-tubes connecting said headers, the tubes of said series being arranged in pairs, the leg members of each tube being bent at right angles for attachment to the headers, said U-tubes being formed with coils and the end of each tube of a pair belonging to one series which enters the header adjacent the other series being off-set longitudinally to make room for the other tube of said pair.

944,429. HYDRAULIC BRAKE. FREDERICK H. HALSTEAD, Pittsfield, Mass. Filed Aug. 31, 1909. Serial No. 515,416.



1. An apparatus for retarding or stopping a rotating part, having a casing with a cylindrical chamber and a passage from one side of the chamber to the other, a stop valve arranged to control the flow of liquid through said passage, a shaft extending through the casing eccentrically with respect to the chamber, a disk mounted centrally on the shaft, pistons movable in the periphery of the said disk, switch fingers movable in the casing for guiding the pistons, and means for throwing the said fingers.

2. An apparatus for retarding or stopping a rotating part, having a casing with a cylindrical chamber and a passage from one side of the chamber to the other, a stop valve arranged to control the flow of liquid through said passage, a shaft extending through the casing eccentrically with respect to the chamber, a disk mounted centrally on the shaft, pistons movable in the periphery of said disk, switch fingers movable in the casing for guiding the pistons, and means connected with the valve and with the switch fingers whereby the movement of said means moves the valve and fingers simultaneously.

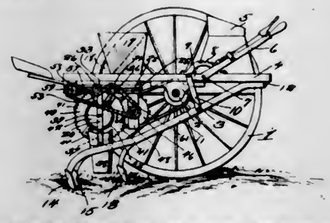
3. An apparatus for retarding or stopping a rotating part, having a casing with a cylindrical chamber and a passage from one side of the chamber to the other, a stop valve arranged to control the flow of liquid through said passage, a shaft extending through the casing eccentrically with respect to the chamber, a disk mounted centrally on the shaft, pistons movable in the periphery of the disk, switch fingers movable in the casing for guiding the pistons, levers connected with the fingers, a yoke movable on one face of the casing, and means connecting the yoke and the valve and the yoke and the switch levers.

4. An apparatus for retarding or stopping a rotating part, having a casing with a cylindrical chamber and a tangential inlet on one side and a tangential outlet on the other side, a stop valve, fittings connecting said valve with the casing inlet and outlet, a shaft extending through the casing eccentrically with respect to the chamber, a disk mounted centrally on the shaft, pistons movable in the periphery of the disk, means for guiding the pistons, and means connected with said guiding means and with the valve whereby they are moved coincidently.

5. An apparatus for retarding or stopping a rotating part, having a casing with a cylindrical chamber and a passage from one side of the chamber to the other, a stop valve arranged to control the flow of the liquid through said passage, a shaft extending through the casing eccentrically with respect to the chamber, a disk mounted centrally on the shaft, pistons movable in the periphery of the disk, switch fingers movable in the casing for guiding the pistons, a yoke movable on one face of the casing and connected with the valve, levers connected with the yoke, and springs connecting the levers with the switch fingers.

[Claim 6 not printed in the Gazette.]

944,430. POTATO CUTTER AND PLANTER. OLIVER L. HAWK, Yorktown, Ind. Filed May 15, 1909. Serial No. 496,224.



1. In a device as set forth, a planter platform, bearing blocks mounted on the under face thereof, a fixed feed roller mounted on the blocks, a slidable feed roller mounted on the blocks, a drum having pockets therein and provided with a saw movable therewith, a shield for the drum having an entrance mouth, located below the feed rollers and provided with a discharge opening with which and the mouth the said pockets alternately register, and cutting means movable with the saw.

2. A potato cutter and planter having a platform, a shaft having a rotary saw and provided with drums having pockets, bearings for the shaft, shields for the drums having entrance mouths and discharge openings registrable with the pockets, said platform having an opening in registration with the entrance mouths, and cutters carried by the saw to sever the potatoes as they pass from the said opening of the platform through the entrance mouths.

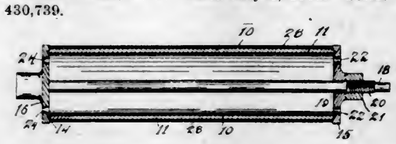
3. In combination, a planter platform, supporting means on the under side of the platform, a rotary saw mounted on the supporting means, cutting knives fixed on the periphery of the saw and extending at angles thereto, a drum having pockets therein mounted against the saw and movable therewith, a shield for the drum, a hopper supported on the supporting means, and feed rollers for feeding potatoes to the saw.

4. In combination, a planter platform, supporting bars on the under side of the platform, a shaft journaled on the bars, a rotary saw mounted on the shaft, knives mounted on the periphery of the saw and extending at angles thereto, a drum having pockets therein mounted on the shaft against the saw, said pockets being located slightly rearwardly of the knives, a shield for the drum having a potato guide formed on its upper end, and means for operating the saw and knife.

5. In combination, a planter platform, bearing blocks mounted on the under side of the platform, a fixed feed roller mounted on the bearing blocks, a feed roller slidable on the bearing blocks, a bracket, a guide rod mounted in said bracket and provided with an angular frame connected to the slidable roller, a spring interposed between the angular frame and the said bracket and adapted to hold the slidable feed roller adjacent to the fixed feed roller, a rotary drum having pockets oppositely arranged disposed below the feed rollers, a shield therefor having an entrance mouth and discharge opening, and potato cutting means rotatable with the said drum co-acting with the feed rollers.

[Claims 6 to 10 not printed in the Gazette.]

944,431. CYLINDRICAL SANDER. OSMER H. HAYWARD, Falconer, N. Y. Filed May 4, 1908. Serial No. 430,739.



1. A sanding cylinder comprising a slotted hollow spring cylinder having tapered ends, end pieces having tapered annular grooves to receive said tapered ends, sand-paper, and means for compressing said end pieces upon one another to close said slotted spring cylinder and hold said sand-paper.

2. A sanding cylinder comprising a slotted spring cylinder having ends beveled on their outer sides, end pieces for said cylinder having oppositely placed similarly beveled grooves to receive said cylindrical ends, a rod connecting said ends, sand-paper and means on said rod to compress said end pieces on said cylinder to close said slot and hold said sand-paper.

3. A cylindrical sander, a hollow spring cylinder having a lengthwise slot and tapered ends, end pieces for said cylinder having tapering grooves to receive said tapering cylinder end, a rod connecting said ends, and a thread and nut on said rod to compress said ends upon said cylinder to close said slot, said ends each having a hole adjacent to said slot, and a slotted key insertible in said holes to tighten the sanding material.

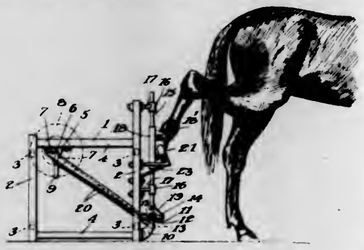
4. A cylindrical sander comprising a spring cylinder having a lengthwise slot therein, said cylinder having tapered ends on its outer side, end pieces having circular grooves to receive said cylinder ends, said grooves tapered on their outer side to correspond with the taper of said cylinder, a rod connecting said end pieces and having a thread and nut to compress said end pieces upon said cylinder to close said slot, substantially as and for the purpose specified.

5. A spring cylindrical sander comprising a cylinder 11 having a lengthwise slot 12 and tapered ends 14, end pieces 15 and 16 having circular grooves 17 on their inner faces to receive said tapered cylinder ends sand-paper, a rod 18 connecting said end pieces and having a threaded end and nut 21 to compress said end pieces upon said cylinder to close said slot on said sand-paper, a suitable key, and holes 22 and 24 in said end pieces to receive said key, substantially as and for the purpose specified.

944,432. DEVICE FOR PREPARING HORSES' HOOFS FOR SHOEING. MATTHEW B. HAYWOOD, Richmond, Ark. Filed July 31, 1909. Serial No. 510,544.

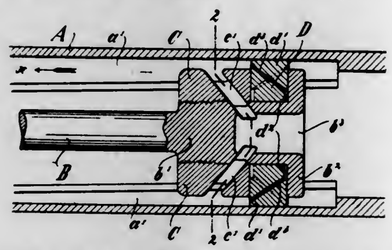
In a device of the class described, an upright supporting frame, a crank shaft mounted for rotation thereon,

means for the rotation thereof, a second crank shaft rotatably mounted to the forward part of said frame, means for the transmission of power from the first-mentioned shaft to said second-mentioned shaft, a reciprocating rod mounted to the forward part of said frame, coupling



means between the said reciprocating rod and said second crank shaft, said rod being provided with a file, means for the support of an animal's hoof so that it will come into contact with said file, said means comprising a concave plate.

944,433. FLUID-BRAKE. WALTER HEILEMANN, Essen-on-the-Ruhr, Germany, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Filed Apr. 21, 1909. Serial No. 491,351.



1. In a recoil-gun fluid-brake piston, having a part which rotates relatively to the piston and is subjected to the braking pressure; a fluid pressure counter-balance acting upon said relatively rotating part in opposition to the braking pressure.

2. In a fluid-brake for recoil guns, a brake cylinder, a piston working in said brake cylinder and having a part which rotates relatively to the piston and is subjected to braking fluid pressure; means supplying fluid under pressure to the side of said relatively rotating part opposite to that which encounters the braking pressure.

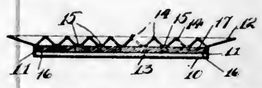
3. A fluid-brake having a brake-cylinder, a piston provided with a part engaging a part of the brake-cylinder and rotatable relatively to the piston, a surface forming a resisting bearing for said piston-part during the movement of the piston, a hollow space located on one side of the rotatable piston-part between said surface and the rotatable piston-part, and a passage providing communication between said hollow space and the space of the brake-cylinder on the other side of the rotatable piston-part.

4. A fluid-brake having a brake-cylinder, a piston provided with a part engaging a part of the brake-cylinder and rotatable relatively to the piston, a surface forming a resisting bearing for said piston-part during recoil, a hollow space adapted to receive brake-fluid and located between said surface and the rotatable piston-part, and means providing communication between said hollow space and that space of the brake-cylinder from which the brake-fluid is forced out during recoil.

5. A fluid-brake having a brake-cylinder, a piston provided with a part engaging a part of the brake-cylinder and rotatable relatively to the piston, a surface forming a resisting bearing for said piston-part during counter-recoil, a hollow space adapted to receive brake-fluid and located between said surface and the rotatable piston-part, and means providing communication between said hollow space and that space of the brake-cylinder from which the brake-fluid is forced out during counter-recoil.

[Claim 6 not printed in the Gazette.]

944,434. INSECT CATCHER OR PAPER HOLDER. BENJAMIN HELLER, Chicago, Ill. Filed June 23, 1906. Serial No. 323,027.



1. The combination of a receptacle, an absorbent sheet like pad impregnated with poison within the receptacle, means for holding the pad elevated from the bottom of the receptacle, whereby a space for liquid is formed below it, and a corrugated cover for the receptacle for preventing displacement of the pad, said cover being provided with apertures intermediate the corrugations.

2. The combination of a receptacle, an absorbent sheet like pad, impregnated with poison within the receptacle, means for holding the pad elevated from the bottom of the receptacle, whereby a space for liquid is formed below it, and a corrugated cover frictionally engaging the receptacle adjacent the edges of the pad to prevent displacement of the latter, said cover being provided with apertures intermediate the corrugations.

3. The combination of a receptacle, provided with projections extending upwardly from the base thereof, an absorbent sheet like pad impregnated with poison within the receptacle and resting upon the projections, and means removably engaging the walls of the receptacle for preventing displacement of the pad.

4. The combination of a receptacle, an absorbent sheet like pad impregnated with poison, within the receptacle, said pad being of a diameter smaller than the internal diameter of the receptacle, a cover for the receptacle having apertures therein and provided with a peripheral flange, said flange being adapted to stand between the periphery of the pad and the wall of the receptacle, when in position and frictionally engage the latter to hold the cover and prevent displacement of the pad.

5. The combination of a receptacle, supports projecting above the base thereof, an absorbent sheet like pad impregnated with poison within the receptacle and resting upon the supports, said pad being of a diameter somewhat smaller than the internal diameter of the receptacle, and a cover for the receptacle, having spaced apertures therein, and provided with a depending peripheral flange, said cover being adapted to be applied to the receptacle so that the flange thereon will stand between the periphery of the pad and the walls thereof and frictionally engage the latter, and with the apertures in close proximity to the pad.

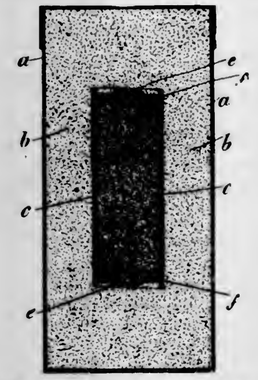
[Claims 6 and 7 not printed in the Gazette.]

944,435. STORAGE-RECEPTACLE. ERNST HERRMANN, Uster, Switzerland. Filed Dec. 28, 1908. Serial No. 469,541.

1. In combination, an exterior vessel containing washing powder, and an inner smaller box containing peroxid and embedded in the washing powder, said inner box having openings at both ends, a cover for each opening and a substance melting in warm water for securing the said covers to the box, said substance being separated from the peroxid by the said covers.

2. In combination, an exterior vessel containing washing-powder, an inner smaller box embedded in the washing-powder and containing alkali peroxid, the said inner vessel consisting of a shell of spirally wound wire, the coils of which are connected by tinning and have open ends, and a readily melting substance for closing said ends.

3. A vessel for alkali peroxid comprising an open ended shell of spirally wound wire, the coils of which are connected by tinning, a perforated disk fixed at each end of said shell, a cap covering the perforation in such disk and a readily melting substance retaining the said cap in position.



4. A vessel for alkali peroxid, comprising an open ended shell of spirally wound wire, the coils of which are connected by tinning, a perforated disk at each end of such shell the edges of which are held by two contiguous wire coils, a domed cap covering the perforation in the disk and a ring of readily melting substance retaining the cap in position.

944,436. METHOD OF TREATING ELECTRIC-FURNACE PRODUCTS. ALDUS C. HIGGINS and GEORGE N. JEPPSON, Worcester, Mass. Filed Apr. 23, 1909. Serial No. 491,728.

1. The method of improving the bonding qualities of abrasive and refractory materials produced in the electric furnace, which consists in subjecting such materials suitably subdivided, to the action of an alkaline reagent.

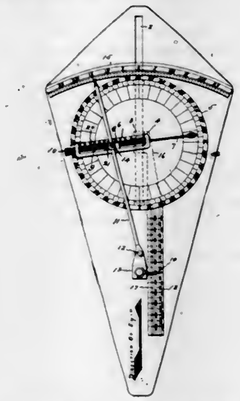
2. The method of improving the bonding qualities of artificially prepared aluminous materials which consists in subjecting such materials, suitably subdivided to the action of an alkaline reagent.

944,437. TIDE-SET-CALCULATING INSTRUMENT FOR NAVIGATORS. EBENEZER HILL, Jr., Norwalk, Conn. Filed Apr. 8, 1909. Serial No. 488,552.

1. A navigator's instrument having a base, a link representing unity pivoted to the base, a link pivotally connected with the first mentioned link and pivotally and slidingly connected with the base, means for adjusting the distance between the axes of the pivotal connections of said latter link with said former link and with said base, a rotatable scale mounted concentric with the axis of the pivotal connection of said latter link with the base and scales for reading the angular relations of the links, substantially as specified.

2. A navigator's calculating instrument having a base, a pointer pivoted on the base, a scale for indicating the degrees of movement of said pointer, said scale being fixed on the base and having its center coincident with the axis of the pointer, a compass rose pivoted on a movable axis, an arm pivoted on said movable axis, a swivel connection between said arm and said pointer, and a hand projecting from said arm and pointing to the graduations of the compass rose.

3. A navigator's calculating instrument having a base, a pointer pivoted on the base, a scale for indicating the degrees of movement of said pointer, said scale being fixed on the base and having its center coincident with the axis of the pointer, a compass rose pivoted on a movable axis, an arm pivoted on said movable axis, a scale on said arm, a swivel connection between said arm and said pointer, means for adjusting the swivel connection along said arm, and a hand projecting from said arm and pointing to the graduations of the compass rose.

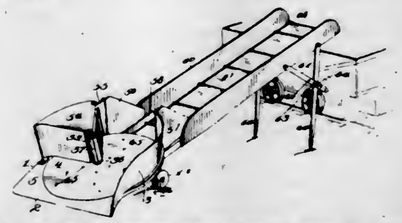


4. A navigator's calculating instrument having a base, a pointer pivoted on the base, a scale for indicating the degrees of movement of said pointer, said scale being fixed on the base and having its center coincident with the axis of the pointer, a compass rose on a movable axis, an arm pivoted on said movable axis, a swivel connection between said arm and said pointer, a hand projecting from said arm and pointing to the graduations on the compass rose, and a scale graduated to show the longitudinal movement of the movable axis of the arm and rose, said scale being connected with and carried by the movement of the said movable axis.

5. A navigator's calculating instrument having a base, a pointer pivoted on the base, a segmental scale for indicating the degrees of movement of the pointer, said scale being fixed on the base and having its center coincident with the axis of the pointer, a slot in the base, a block movable along the slot, a stud carried by said block, an arm pivoted on said stud, a hand projecting from said arm to the graduations of the compass rose, a block movable along said arm adjacent to a scale thereon, means for moving the block along the arm, a swivel connection between said arm block and the pointer, and a scale connected to and movable with the block that is mounted in the slot in the base.

[Claims 6 and 7 not printed in the Gazette.]

944,438. LOADING-MACHINE. FRANCIS K. HOLMESTED, Quinnimont, W. Va. Filed Dec. 31, 1908. Serial No. 470,234.



1. In a loading machine, a frame for receiving loose material, a feeding means mounted in the frame, and a conveying means coöperating with the frame and provided with means for rendering the same movable upwardly and downwardly and laterally in opposite directions independently of movement of said feeding means.

2. In a loading machine, a frame for receiving loose material, a revoluble feeding means mounted in the frame, and conveying means coöperating with the frame and provided with means for rendering the same movable upwardly and downwardly and laterally in opposite directions independently of movement of said feeding means.

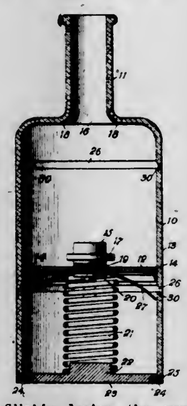
3. In a loading machine, a frame for receiving loose material, a feeding means mounted in the frame at an inclination, and conveying means coöperating with the frame and provided with means for rendering the same movable upwardly and downwardly and laterally in opposite directions independently of movement of said feeding means.

4. In a loading machine, a frame for receiving loose material, a revoluble feeding means mounted in the frame at an inclination, and conveying means coöperating with the frame and provided with means for rendering the same movable upwardly and downwardly and laterally in opposite directions independently of movement of said feeding means.

5. In a loading machine, a frame for receiving loose material, feeding means mounted in the frame, and a delivery conveying means for receiving material from the feeding means and provided with means for rendering the same movable in opposite lateral directions independently of movement of said feeding means.

[Claims 6 to 18 not printed in the Gazette.]

944,439. NON-REFILLABLE BOTTLE. JEREMIAH J. HOURIHAN, Troy, N. Y. Filed Nov. 23, 1908. Serial No. 464,144.



1. In a non-refillable device, the combination with a container adapted to hold a liquid, of a movable piston fitting within the body portion thereof, a rod carried by the piston and adapted to enter the mouth of the container and seal the same, and means carried by the piston for locking the same in this position.

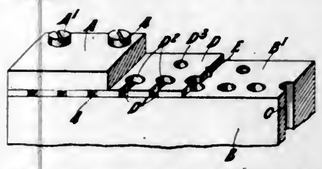
2. The combination with a container having a discharge opening, of a bottom held to the container, a piston movable within the container, a rod carried by the piston adapted to enter the discharge opening and seal the same, a spring normally forcing the rod and the piston inward, and a device carried by the piston and adapted to lock the same and prevent downward movement thereof.

3. The combination with a container having an interior annular groove in the body thereof and provided with a discharge opening, of a bottom held to the container, a piston movable within the container, a rod carried by the piston adapted to enter the discharge opening and seal the same, a spring normally forcing the rod and the piston inward, and a locking device having a plurality of arms carried by the piston and adapted to engage said groove and prevent downward movement of the piston.

4. The combination with a container having a discharge opening, of a piston provided with a packing movable within the container, means carried by the piston adapted to form a seal with the bottle neck, a spring normally forcing the piston inward, and means carried by the piston adapted to engage a part of the bottle and prevent downward movement thereof.

5. The combination with a bottle having a neck, of a piston movable within the bottle and provided with means to form a seal with said neck.

944,440. CONSTRUCTION OF JETS. ALEXANDER G. IONIDES, Leicester, England. Filed Jan. 26, 1909. Serial No. 474,355.



1. In a jet construction, the combination of a member having a plane surface, a second member having a plane surface and a passage therethrough terminating at one end in the plane surface and at the other communicating with a source of supply, a plate having a slot running inward from one edge of the plate and disposed between the plane surfaces of the aforesaid members, and means whereby the two members can be connected together with their plane surfaces opposed, and the slotted plate clamped between them substantially as set forth.

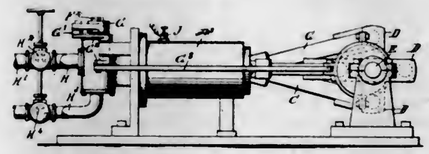
2. In a jet construction, the combination of a member having a plane surface, a second member having a plane surface and a plurality of passages therethrough terminating at one end in the plane surface and at the other communicating with a common source of supply, a plate having a plurality of slots running inward from one edge of the plate and disposed between the plane surfaces of the aforesaid members with the inner ends of the slots in registration with the openings in the plane surface, and means whereby the two members can be connected together with their plane surfaces opposed, and the slotted plate clamped between them substantially as set forth.

3. In a jet construction, the combination of a member having a plane surface, a second member having a plane surface, and a plurality of passages therethrough terminating at one end in the plane surface and at the other communicating with a common source of supply, a plurality of plates disposed between the plane surfaces, each plate having a plurality of slots running inward from one edge of the plate, the slots in adjacent plates being so disposed that each slot forms a separate jet orifice in communication with one of the openings in the plane surface, and means whereby the two members can be connected together with their plane surfaces opposed, and the slotted plates clamped between them, substantially as set forth.

4. In a jet construction, the combination of a member having a plane surface, a second member having a plane surface and a plurality of passages therethrough terminating at one end in the plane surface and at the other communicating with a common source of supply, a plurality of plates each having a plurality of perforations corresponding in number to and registrable with the passage openings in the plane surface of the second member, each plate having a plurality of slots running inward from one edge, each slot running to and terminating in one of the perforations, but the number of slots in any one plate being less than the number of perforations in that plate, and the slots being so disposed in the several plates that when these plates are superimposed the slots will alternate, and means whereby the two members can be connected together with their plane surfaces opposed, and the slotted plates clamped between them, substantially as set forth.

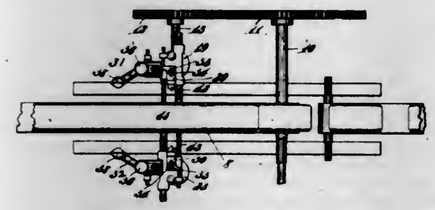
5. In a jet construction, the combination of a member having a plane surface, a second member having a plane surface and a plurality of passages therethrough terminating at one end in the plane surface and at the other communicating with a common source of supply, a plurality of removable and interchangeable plates each having a plurality of perforations corresponding in number to and registrable with the passage openings in the plane surface of the second member, each plate having a plurality of slots running inward from one edge, each slot running to and terminating in one of the perforations, but the number of slots in any one plate being less than the number of perforations in that plate, and the slots being so disposed in the several plates that when these plates are superimposed the slots will alternate, means for insuring the registration of the perforations in the plates with the passage openings in the plane surface of the second member, and means whereby the two members can be detachably connected together with their plane surfaces opposed, and the slotted plates clamped between them, substantially as set forth.

944,441. MOTOR. GOTTLIEB KELLER, New York, N. Y. Filed Dec. 2, 1905, Serial No. 289,969. Renewed May 19, 1909. Serial No. 496,936.



In an explosion engine, the combination with the shaft having four cranks, said cranks being arranged at right angles to each other, of two pair of cylinders, pistons in the cylinders, rods connecting the pistons and the cranks, the rods connecting the pistons of each pair with oppositely projecting cranks, a controlling valve for controlling the admission and exhaust for each pair of cylinders, said valve comprising a valve plug provided with an inlet chamber connected with the gas supply, and a port adapted to register alternately with the admission ports for the cylinders, said plug also having an exhaust chamber connected with an exhaust, and having ports adapted to alternately connect with the exhaust ports for the cylinders, and a check valve in each of the admission ports for the said cylinders.

944,442. BRICK-MACHINE, INDENTING. HOWARD K. KING, Philadelphia, Pa., assignor to Chambers Brothers Company, a Corporation of Pennsylvania. Filed Mar. 17, 1908. Serial No. 421,619.



1. In combination with mechanism for indenting a bar of plastic material, comprising an indenting die and operating means therefor, means for providing a coating of oil to said bar at separated points corresponding to the separated areas of engagement therewith of the indenting die, for the purpose specified.

2. In a brick machine, the combination of means for supporting and conveying a bar of clay, an indenting die, mechanism actuated in unison with the bar of clay for operating the indenting die, and means operating relatively to the indenting die for delivering a coat or film of oil to the clay bar prior to the engagement therewith of the die, for the purpose specified.

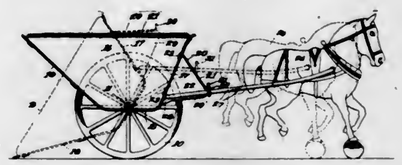
3. In a brick machine, the combination of a regulating belt for supporting and conveying a bar of clay, an indenting die for operating upon said bar of clay, mechanism, actuated from said regulating belt, for causing the indenting die to move toward and away from the bar and while in engagement with said bar to travel in unison therewith in the arc of a circle to which said bar is tangential, and means, operating relatively to the indenting die for delivering a coat or film of oil to the clay bar of area as great as the area of engagement with the bar of the indenting die, prior to said engagement.

4. In combination with mechanism for indenting bars of plastic material, comprising an indenting die and operating means therefor, means for providing a coat of oil on the surface of the bar prior to the engagement therewith of the die, said means comprising an oil receptacle of yielding porous material and means for actuating the same toward and away from the clay bar.

5. In combination with mechanism for indenting bars of plastic material, comprising an indenting die and operating means therefor, means for providing a coat of oil on the surface of the bar prior to the engagement therewith of the die, said means comprising a receptacle having a wall of yielding porous material, an oil reservoir delivering thereto, and means for moving the same to and away from the clay bar.

[Claims 6 and 7 not printed in the Gazette.]

944,443. TOY DUMPING-CART. HARRY T. KINGSBURY, Keene, N. H. Filed Apr. 20, 1909. Serial No. 491,099.



1. In a dump cart including a running gear, a bucket or hopper pivotally supported thereon and a pair of thills pivotally connected to the forward portion of the bucket or hopper.

2. In a dump cart, a wheeled axle, a bucket or hopper pivotally mounted thereon, and thills pivotally connected to the bucket or hopper.

3. In a dump cart, a wheeled axle, a bucket or hopper pivotally mounted thereon, and thills, the rear ends of which are pivotally connected to the forward portion of the bucket or hopper.

4. In a dump cart, a wheeled axle, a bucket or hopper pivotally mounted thereon, and a pair of thills pivotally connected to the forward portion of the bucket or hopper, the vertical plane of the thill pivots being in advance of the vertical plane of the axle in both positions of the bucket or hopper.

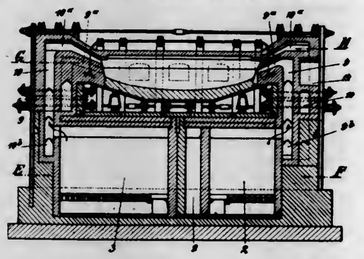
5. In a dump cart, a wheeled axle, a pivotally mounted bucket or hopper, thills pivoted to the bucket or hopper, and a locking means carried by the thills for maintaining the bucket or hopper in load carrying position.

[Claims 6 to 9 not printed in the Gazette.]

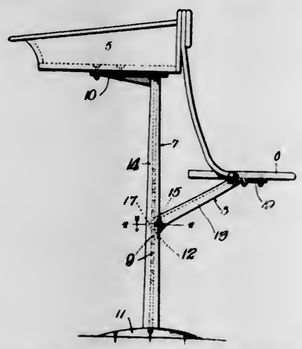
944,444. REGENERATIVE FURNACE. EMIL KIRCHBERG, Dortmund, Germany. Filed Oct. 6, 1908. Serial No. 456,454.

In a regenerator furnace, a hearth, an air regenerator below the hearth, a gas regenerator forward of the air regenerator, an air channel communicating with the air regenerator, a gas channel communicating with the gas

regenerator, a first dust chamber communicating at its upper end with the air channel, and a second dust chamber arranged forward of the first dust chamber and communicating with the gas channel.



944,445. SCHOOL FURNITURE. FRANK F. KOHLER, South Zanesville, Ohio. Filed Feb. 15, 1909. Serial No. 477,841.



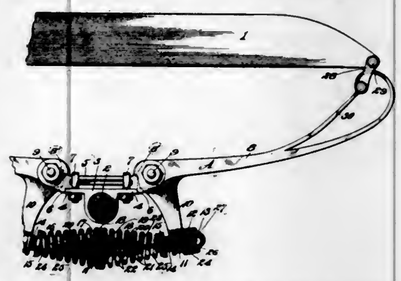
1. The combination with a desk of a vertical support therefor provided with a longitudinal series of perforations, a chair, a supporting bracket for said chair, a bolt adapted to pass through one of said perforations and to detachably engage the chair supporting bracket, and means for adjusting the chair supporting bracket without changing the position of the bolt with relation to the vertical support.

2. The combination with a desk, of a vertical support therefor constructed of channel-iron having its body portion formed with a longitudinal series of perforations, a chair, a channel-iron support for said chair having its lower end formed with an offset arranged at an angle thereto, a bolt adapted to pass through one of said perforations and to detachably engage the channel-iron support for the chair, whereby said chair and support may be adjusted with respect to said vertical support by the removal of the bolt from one perforation to another, and means for adjusting said chair and support with respect to said vertical support without removing said bolt from one perforation to another.

944,446. SHOCK-ABSORBER FOR VEHICLES. FRANK G. KOEHLER, St. Louis, Mo. Filed May 7, 1908. Serial No. 431,344.

1. In a shock absorber for vehicles, a pair of pivotally mounted bearers provided with arms, a spring element interposed between said arms, a take-up spring within said spring element, and means having connection with said arms controlled by said take-up spring, substantially as set forth.

2. In a shock absorber for vehicles, a pair of pivotally mounted bearers provided with arms, a pair of main springs interposed between said arms, a pair of take-up springs within said main springs, a spring seat member interposed between the main springs and take-up springs, and means having connection with said arms controlled by said take-up springs, substantially as set forth.



3. In a shock absorber for vehicles, a pair of pivotally mounted bearers provided with arms, a spring element interposed between said arms, adjustable spring seat members mounted in said arms and serving as resistance members for said spring element, a take-up spring within said spring element, and means having connection with said arms controlled by said take-up spring, substantially as set forth.

4. In a shock absorber for vehicles, a pair of pivotally mounted bearers provided with arms, spring seat members adjustably mounted in said arms, a pair of main springs interposed between said arms and seated at their outer ends against said spring seat members, a spring seat member interposed between said main springs, a pair of take-up springs within said main springs bearing at their inner ends against said central spring seat member, and means having connection with said arms controlled by said take-up springs, substantially as set forth.

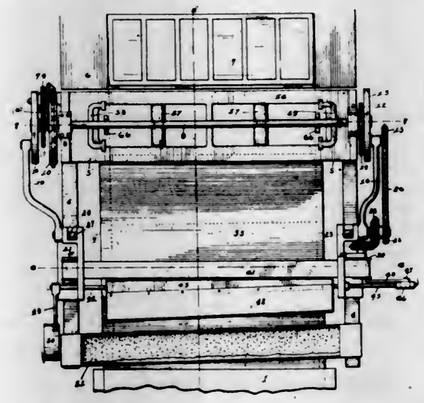
5. In a shock absorber for vehicles, a pair of pivotally mounted bearers provided with arms, a pair of main springs interposed between said arms, a central spring seat ring interposed between said main springs and provided with an external rib to receive the inner ends of said main springs, and with an internal rib, a pair of take-up springs within said main springs resting against the inner rib of said central ring, and means having connection with said arms controlled by said take-up springs, substantially as set forth.

[Claims 6 to 8 not printed in the Gazette.]

944,447. BRICK-STROKING-OFF MACHINE. HARRY C. KUNKLE, Canton, Ohio. Filed July 8, 1908. Serial No. 442,469.

1. The herein described stroking-off machine comprising a table adapted for the travel of molds containing bricks, guides arranged at the sides of the table, a head consisting of head pieces adapted for sliding movement upon said guides, a knife supported between said head-pieces upon rotatable transverse sliding supports, the said knife arranged with one end of its cutting edge in advance of the other end, a sand box having an opening, said box being arranged near the end of the forward stroke of the said knife, an endless conveyer belt arranged at the rear of said knife, means for sliding said head back and forth along said guides, means for imparting to the said knife a reciprocating motion transverse of the machine while said knife is being moved backward and forward with said head, means for actuating said conveyer belt, means for lifting the cutting edge of said knife to a position to enter the opening in the sand box and to return said edge to position for the performance of its work when the head recedes from the sand box.

2. The herein described stroking-off machine comprising a table adapted for the travel of molds containing bricks, guides arranged at the sides of the table, a head consisting of head pieces adapted for sliding movement upon said guides, a knife supported between said heads upon rotatable sliding supports the said knife arranged with one end of its cutting edge in advance of the other end, a sand box having an opening, said box being arranged near the end of the forward stroke of the said knife, an endless conveyer belt arranged at the rear of said knife, means for sliding said head back and forth along said guides, means for imparting to the said knife a reciprocating motion transverse of the machine while said knife is being moved backward and forward with said head, means for actuating said conveyer belt, means for lifting the cutting edge of said knife to a position to enter the opening in the sand box and to return said edge to position for the performance of its work when the head recedes from the sand box, a rapping table provided with mold supporting rollers, buffers arranged at the sides of said table and means for automatically engaging a mold on said rapping table and reciprocating it across said table so as to bring it in contact with said buffers and means for alternately operating said rapping mechanism and discontinuing said operation while the remainder of the machine continues its operation.



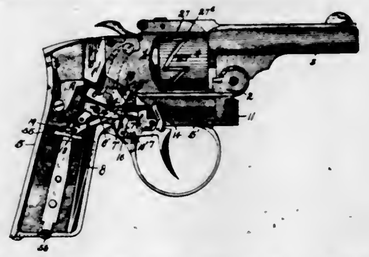
3. In a brick stroking-off machine, a table adapted for the travel of molds containing bricks, guides arranged at the sides of the table, a head consisting of head pieces adapted for sliding movement upon said guides, a knife supported between said heads and adapted for transverse reciprocating movement, means for moving the said head alternately backward and forward along said guides, and means for simultaneously reciprocating said knife in a direction substantially transverse to the line of travel of said head.

4. In a brick stroking-off machine of the character described, an alternately advancing and receding stroking-off knife, a table arranged beneath said knife and adapted for the support of molds containing bricks, the said knife adapted to scrape or stroke off the top edges of said bricks, a sand box arranged near the forward limit of the stroke of said knife, and means for raising the cutting edge of said knife from the said molds and bringing it into engagement with sand in the said sand box.

5. In a brick stroking-off machine of the character described, an advancing and receding stroking-off knife adapted to be reciprocated simultaneously in a direction substantially transverse to said advancing and receding motion, a table arranged beneath said knife and adapted for the support of molds of brick, a rapping table provided with mold supporting rollers adapted to receive said molds, mold engaging brackets, buffers arranged upon said rapping table and means for reciprocating said mold engaging brackets transverse of the machine whereby said molds are rapped against the buffers, substantially as described.

[Claim 6 not printed in the Gazette.]

944,448. FIREARM. CHARLES F. LEFEVER, Toledo, Ohio. Filed Jan. 9, 1908. Serial No. 410,000.



1. In a recoil fire-arm, the combination of the stock, a recoil part, a sear, a member disposed longitudinally of the stock and pivoted thereto, said member having one end disposed to coact with and be moved by the recoil part at a predetermined point in its forward movement and its other end disposed to trip the sear when said member is moved as aforesaid to permit an automatic discharge.

2. In a recoil fire-arm, the combination with the recoil parts and the sear, of a lever movable by one of said parts at a predetermined point in the forward movement thereof, and manually controlled means movable to either effect or prevent a releasing movement of the sear when the lever is moved by the recoil part.

3. In a recoil fire-arm the combination with the sliding breech-part, the stock, and the sear, of a lever pivoted to the stock in reclining position beneath the sliding breech-part and having its forward end fashioned to be engaged and moved by a coöperating portion of the breech-part at a predetermined point in its sliding movements and its rear end positioned adjacent the sear, and means actuated by a movement of said lever to impart a releasing movement to the sear.

4. In a recoil fire-arm, the combination with the sliding breech-part and the sear, of a lever adapted to be moved by said breech-part at a predetermined point in its sliding movements and having its rear end disposed in contiguous position to the sear, and a manually controlled member adapted to be moved intermediate the sear and rear end of the lever to communicate a releasing movement to the former from a movement of the latter.

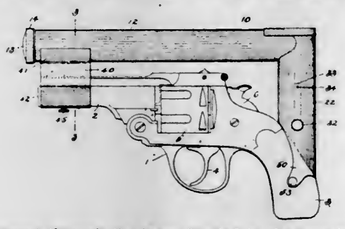
5. In a recoil fire-arm, the combination with the sliding recoil parts and the stock guide therefor, of an angled member pivoted to said guide to the rear of its end and having a part turned up at the forward end of the guide to coact with one of the recoil parts to limit the forward movement of said parts relative to the guide and provided with an inturned lip which coacts with one of the recoil parts to prevent a movement of the member on its pivot to permit a withdrawal of the recoil parts from the guide except when the recoil parts are moved slightly rearwardly from normal position.

[Claims 6 and 7 not printed in the Gazette.]

944,449. FLASH-LIGHT ATTACHMENT FOR GUNS. WILLIAM L. LONG, Marion, Ind. Filed Jan. 29, 1909. Serial No. 474,927.

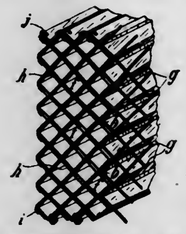
A flashlight-attachment for guns comprising an elongated case, a comparatively short section of which projects at right angles to the longer section, a lens and electric-lamp in the forward end of the longer section, a plurality of electric batteries located in the respective sections and arranged in series, means for detachably securing the case to the gun, with the longer section parallel with the gun-

barrel, and the shorter section projecting upwardly from the stock, and a contact-trigger, for establishing the elec-



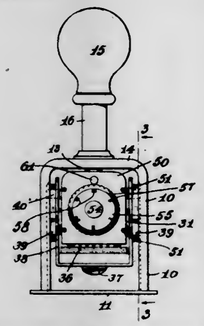
tric current through the lamp, located in the upright section of the case near the stock.

944,450. RADIATOR. LEON LOZIANO, Paris, France, assignor to La Société Loziano & Finet, Paris, France. Filed Nov. 1, 1907. Serial No. 400,314.



A honeycomb radiator comprising metal sheets bent in zag-zag form and having superposed angles and rods *g* passing crosswise through the holes *b* of the contiguous angles of the said sheets the ends *i*, *j*, of said wires being bent.

944,451. NUMBERING-MACHINE. ERIK A. LUNDVALL and WILLIAM OLSON, Brooklyn, N. Y., assignors to William C. Roberts, Brooklyn, N. Y. Filed Nov. 24, 1908. Serial No. 464,277.



1. The combination with the numeral printing wheels, the actuating handle, and the numeral printing wheel advancing mechanism including an actuating pawl, of a dial, a ratchet wheel yieldably rotatable therewith, means for holding the dial, means for moving the ratchet wheel once at each actuation of the handle, an interrupter adapted to disable the actuating pawl and means for moving the interrupter from the ratchet wheel.

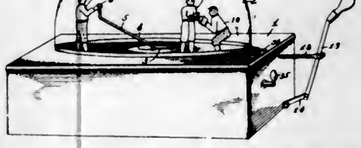
2. The combination with the numeral printing wheels, the actuating handle, and the numeral printing wheel advancing mechanism including an actuating pawl, of a dial, a ratchet wheel yieldably rotatable therewith, means for holding the dial, means for moving the ratchet wheel once at each actuation of the handle, an interrupter adapted to disable the actuating pawl and means for moving the interrupter from the ratchet wheel when the latter arrives at a predetermined point in its travel.

3. The combination with the numeral printing wheels, the actuating handle, and the numeral printing wheel advancing mechanism including an actuating pawl, of a dial, a ratchet wheel yieldably rotatable therewith, means for holding the dial, means for moving the ratchet wheel once at each actuation of the handle, an interrupter adapted to disable the actuating pawl and means for moving the interrupter from the ratchet wheel when the latter arrives at a predetermined point in its travel determined by the extent of rotation of the dial.

4. The combination with the numeral printing wheels, the actuating handle, and the numeral printing wheel advancing mechanism including an actuating pawl, of a dial, a ratchet wheel yieldably rotatable therewith, means for holding the dial, means for moving the ratchet wheel once at each actuation of the handle, an interrupter adapted to disable the actuating pawl and means for automatically moving the interrupter from the ratchet wheel to restore the function of the actuating pawl.

[Claims 6 to 33 not printed in the Gazette.]

944,452. AMUSEMENT DEVICE. CARL F. MACK, York, Pa., assignor of one-half to R. F. Strayer, New York, N. Y. Filed Dec. 28, 1908. Serial No. 469,617.



1. In an amusement device of the class described, the combination of a support, a ball, a batter, a pitcher, an operating device for actuating the pitcher and batter to cause the same to pitch and bat the ball, and an indicator comprising an arm pivoted to the support and connected with the ball.

2. In an amusement device of the class described, the combination of a support, a ball, a batter, a pitcher, an indicator connected with the ball, and means for operating the batter and pitcher so as to impart movement to the ball.

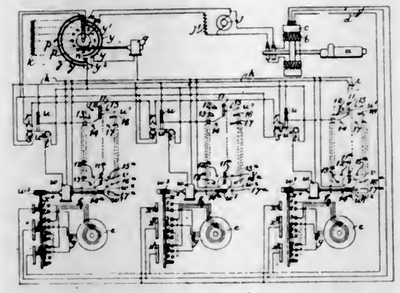
3. In an amusement device of the class described, the combination of a support, a ball, a batter, a pitcher, and means for initially placing the ball at the hand of the pitcher, and means for effecting subsequent movement of the pitcher and batter to cause movement of the ball thereby.

4. In an amusement device of the class described, the combination of a support, a ball, a batter, a pitcher, means for positively directing the movement of the ball in the path of movement of the batter, and mechanism for operating the pitcher and batter to effect movement of the ball thereby.

5. In an amusement device of the class described, the combination of a support, a ball, a batter, means for operating the batter, and movable connecting means between the ball and support, for causing the ball to move in the path of movement of the batter.

[Claims 6 to 11 not printed in the Gazette.]

944,453. CONTROL OF ELECTRIC MOTORS. HENRY A. MAVOR, Mile End, Glasgow, Scotland. Filed Sept. 4, 1909. Serial No. 516,285.



1. Electric motor controlling means, comprising, in combination with a generator and a motor, an exciter, a controller for the exciter, a controller for the motor, auxiliary motors for driving such controllers and interlocking means to insure that one such auxiliary motor can alone be in operation at a time.

2. Electric motor controlling means, comprising, in combination with a generator and a motor, an exciter for the generator, a field winding for the exciter, a resistance in connection with the field winding and means for altering the active length of such resistance, a controller for the motor, an auxiliary motor for operating the resistance varying means, an auxiliary motor operating the motor controller and a switch arrangement adapted to set the motor of the exciter field resistance varying means in action to alter the generator excitation before the auxiliary motor of the motor controller is set in action.

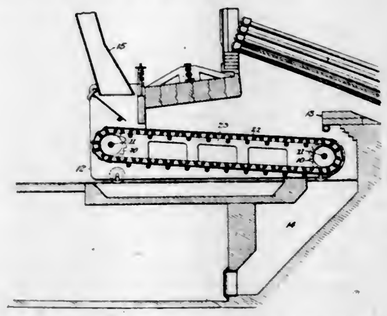
3. Electric motor controlling means, comprising, in combination with a generator and a motor, an exciter for the generator, a field winding for the exciter, a resistance in connection with the field winding and means for altering the active length of such resistance, an auxiliary motor for operating the resistance varying means, an auxiliary motor for operating the motor controller, and a switch and circuit breaker arrangement electrically connecting the auxiliary motors so that the auxiliary motor of the resistance varying means is set in action to produce generator variation before the other auxiliary motor can be set in action to move the motor controller to open position and the first named auxiliary motor prevented from being re-started to restore the original generator conditions before the auxiliary motor of the motor controller has moved the motor controller to closed position and stopped.

4. Electric motor controlling means, comprising, in combination with a generator and a motor, an exciter for the generator, a motor operated controller for the exciter, a motor operated controller for the motor, a source of electric energy common to both controllers, a circuit breaker for alternatively completing the electric circuit of both controller motors and a switch operated in one direction manually and in the same direction by the motor of the motor controller adapted to actuate the circuit breaker and bring the controller motors into use alternately.

5. Electric motor controlling means, comprising, in combination with a generator and a motor, an exciter for the generator, a motor operated controller for the exciter, a motor operated controller for the motor, a source of electric energy common to the motors of both controllers, a circuit breaker for alternatively completing the electric circuit of both motor controllers, an electromagnetic winding for operating the circuit breaker, a manually operated switch adapted to complete the circuit of the said winding and operate the circuit breaker to close at one point the circuit of the exciter controller motor or to interrupt the circuit of the said winding and operate the circuit breaker to open the previously closed point and to close the circuits of both controller motors at other points, and a switch operated by the motor of the motor controller for again completing the circuit of the circuit breaker winding.

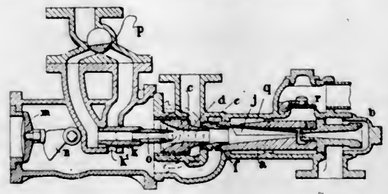
[Claims 6 to 9 not printed in the Gazette.]

944,454. CHAIN-GRATE FURNACE. LEROY H. MAXFIELD, Godfrey, Ill., assignor to Illinois Stoker Company, Alton, Ill., a Corporation of Illinois. Filed Dec. 24, 1908. Serial No. 469,059.



In a chain grate the combination of articulately connected links arranged side by side with their ends overlapping, said links having channeled heads formed at their upper portion adapted to contact each other when the links are assembled and the lower portion of the link being of reduced thickness, said heads being of substantially rectangular cross section except for the channels therein, said channels extending obliquely in the sides of the heads and the parts being so arranged that the channels nearest to each other in the assembled grate run in opposite directions, the top of the links being substantially plane surfaces.

944,455. INJECTOR. JAMES METCALFE, JAMES C. METCALFE, and RICHARD D. METCALFE, Fallowfield, England. Filed Dec. 9, 1908. Serial No. 466,672.



1. In injectors worked by exhaust steam or steam at about atmospheric pressure, an exhaust steam inlet conduit, an adjustable main exhaust steam inlet orifice leading from said inlet conduit, a combining nozzle, a delivery nozzle, the effective diameter of said steam inlet orifice being 2.8 to 3.4 times the diameter of the throat of the delivery nozzle, a slot between said combining and delivery nozzles, a preliminary mixing nozzle between said main steam inlet nozzle and said combining nozzle, an adjustable water admission aperture surrounding the exit end of said main steam nozzle and at the inlet end of said preliminary mixing nozzle, an annular exhaust steam admission aperture (also leading from said exhaust steam inlet conduit) at the exit end of said pre-

liminary mixing nozzle, an overflow chamber, a valve upon said chamber, and means adjacent the end of said preliminary mixing nozzle and between the latter and the aforesaid slot allowing a free escape of exhaust steam from the combining nozzle, substantially as herein set forth.

2. In injectors worked by exhaust steam or steam at about atmospheric pressure, a main exhaust steam inlet orifice, a combining nozzle, a delivery nozzle, the effective diameter of said steam inlet orifice being 2.8 to 3.4 times the diameter of the throat of the delivery nozzle, a preliminary mixing nozzle between said main steam inlet nozzle and said combining nozzle, an adjustable annular water admission aperture surrounding the exit end of said main steam nozzle and at the inlet end of said preliminary mixing nozzle, an annular steam admission aperture at the exit end of said preliminary mixing nozzle, a live steam nozzle co-axial with the combining nozzle, means allowing a free escape of steam from the combining nozzle, an overflow chamber, means preventing the pressure within said overflow chamber from obtaining access to the interior of said combining nozzle, a live steam inducer nozzle co-axial with the combining nozzle, a live steam inlet orifice co-axial with and adjacent said inducer nozzle, and means controlling the flow of steam to said inducer nozzle and live steam inlet, substantially as herein set forth.

3. In injectors worked by exhaust steam or steam at about atmospheric pressure, a main exhaust steam inlet orifice, a combining nozzle, a delivery nozzle, the effective diameter of said steam inlet orifice being 2.8 to 3.4 times the diameter of the throat of the delivery nozzle, a preliminary mixing nozzle, an adjustable annular water admission aperture surrounding the exit end of said main steam nozzle and at the inlet end of said preliminary mixing nozzle, an annular steam admission aperture at the exit end of said preliminary mixing nozzle, a live steam nozzle co-axial with the combining nozzle, means allowing a free escape of steam from the combining nozzle, an overflow chamber, means preventing the pressure within said overflow chamber from obtaining access to the interior of said combining nozzle, a live steam inlet orifice co-axial with and adjacent said inducer nozzle, means controlling the flow of steam to said inducer nozzle and live steam inlet, an exhaust steam inlet pipe, a back pressure valve on said pipe, and means closing said valve by hand, substantially as herein set forth.

944,456. VAPOR-BURNING APPARATUS. JACOB H. MIESS, Harlesden, England, assignor to Empire Light Limited, Charing Cross, England. Filed May 28, 1907. Serial No. 376,110.



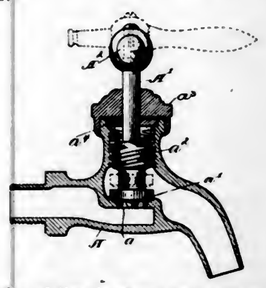
1. A cartridge adapted to fit in a vapor-burning-apparatus vaporizing tube or chamber and comprising a tubular envelop split longitudinally and having a wire-gauze end closure and containing adjacent to said closure a charge of loosely arranged refractory fibrous material.

2. A cartridge adapted to fit in a vapor-burning-apparatus vaporizing tube or chamber and comprising an envelop split longitudinally and a loosely made rope of refractory fibrous material fitting loosely in and retained within said envelop.

3. A vapor-burning-apparatus vaporizing tube or chamber containing a cartridge fitting therein and comprising a tubular envelop split longitudinally and having a wire-gauze end closure and containing adjacent to said closure a charge of loosely arranged refractory fibrous material.

4. A vapor-burning-apparatus vaporizing tube or chamber containing a cartridge fitting therein and comprising an envelop split longitudinally and a rope of refractory fibrous material fitting in and retained within said envelop.

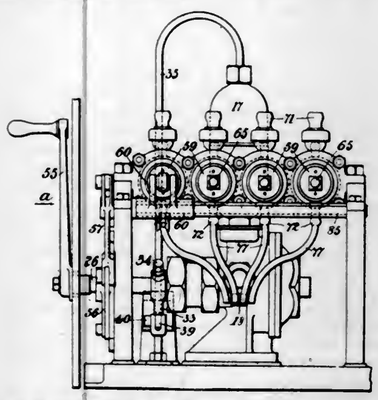
944,457. COMPRESSION-BIB. JOHN N. MORTIMER and EMILE L. STRAUSS, Cleveland, Ohio, assignors to The Central Brass Manufacturing Company, Cleveland, Ohio, a Corporation of Ohio. Filed Jan. 11, 1909. Serial No. 471,595.



1. In a device of the character described, the combination of a casing provided with a valve seat, a valve-stem, said valve-stem having an intermediate enlarged portion threaded in said casing and bearing a valve fitted to such seat, the pitch of the thread on said stem being such as to throw said valve full open, or full shut, upon approximately a quarter turn thereof, and a member disposed to engage the upper face of such enlarged portion, said member being of a thickness to stop further rotation of said stem when the valve is in its full open position.

2. In a device of the character described, the combination of a casing provided with a valve seat, a valve-stem, said valve-stem having an intermediate enlarged portion threaded in said casing and bearing a valve fitted to such seat, the pitch of the thread on said stem being such as to throw said valve full open, or full shut, upon approximately a quarter turn thereof, and a plate disposed between the upper face of such enlarged portion of said stem and the casing, such plate being of a thickness to stop further rotation of said stem when such valve is in its full open position.

944,458. DISPENSING APPARATUS. LESLIE J. MOSER, London, England, assignor, by mesne assignments, to The Cory Temperance Syndicate Limited, London, England, a British Joint Stock Company. Filed Nov. 3, 1905. Serial No. 285,752.

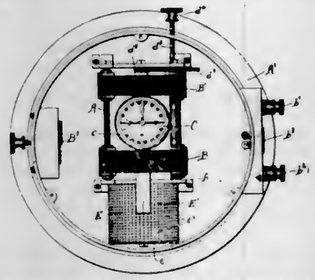


1. In a dispensing apparatus, the combination of a measuring vessel, a snifting pipe connected to the top of said vessel, inlet and outlet pipes for said vessel, a disk valve provided with openings and passages and governing the connections between said vessel and said inlet and outlet pipes, a rock shaft on which said valve is mounted, and means operated by the motion of said rock shaft for periodically opening the end of said snifting pipe, substantially as described.

2. In a dispensing apparatus, the combination of a casing, liquid inlet and outlet pipes connected thereto, a measuring vessel connected to said casing, a snifting pipe connected to said measuring vessel, a valve normally closing one end of said snifting pipe, a disk valve in said casing provided with a passage and a cut away portion, a rock shaft for operating said disk valve, said rock shaft being provided with devices for periodically opening the valve on the snifting pipe, and means operated by the movement of said rock shaft to allow a charge of syrup to flow into the discharge pipe, substantially as described.

3. In a dispensing apparatus, the combination of a casing, a liquid inlet and a liquid outlet pipe connected to said casing, a second outlet pipe in which said outlet pipe delivers, a measuring vessel connected to said casing, a snifting pipe connected to said measuring vessel, a spring-pressed valve normally closing the end of said snifting pipe, a disk valve provided with a passage and a cut away portion, located in said chamber, a rock shaft for operating said valve, means carried by said rock shaft for periodically opening the valve on the end of the snifting pipe, syrup pipes delivering into said second named outlet pipe, and means operated by the movement of said rock shaft for delivering a charge of syrup and a charge of aerated water through the main outlet pipe simultaneously, substantially as described.

944,459. INSTRUMENT FOR LOCATING GROUNDS AND BREAKS IN ELECTRIC CIRCUITS. MATTHEW J. MYERS, Syracuse, N. Y. Filed Oct. 13, 1902, Serial No. 127,021. Renewed May 19, 1909. Serial No. 496,933.



1. In an instrument for locating an unknown portion of a circuit to be tested, the combination of oppositely-acting magnetizing members adapted to be connected respectively to the branches of the circuit, a magnetizable member subject to the differential influence of the magnetizing members, said magnetizable member being movable automatically relatively to the magnetizing members, means for varying the relative position of the magnetizing and magnetizable members, and means controlled by the variation of the relative position of the magnetizing and magnetizable members for indicating the position of the unknown portion of the circuit, substantially as and for the purpose set forth.

2. The combination of a plurality of oppositely-acting magnetizing members adapted to be connected respectively in electric circuits, a support, a magnetizable member carried by the support and subject to the differential influence of the magnetizing members, said magnetizable member being movable automatically relatively to the support, means for moving the support relatively to the magnetizing members, and an indicating means carried by and movable with the support, substantially as and for the purpose specified.

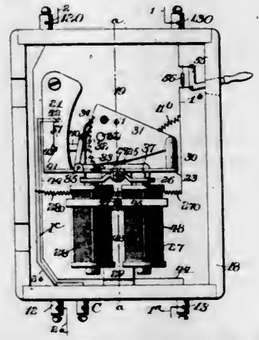
3. The combination of a plurality of oppositely-acting magnetizing members adapted to be connected respectively in electric circuits, a magnetizable member subject to the differential influence of the magnetizing members, and means for varying the relative position of the magnetizing and magnetizable members; with indicating means comprising an indicating surface and an indicator each movable relatively to the other, substantially as and for the purpose specified.

4. The combination of a plurality of oppositely-acting magnetizing members adapted to be connected respectively in electric circuits, a magnetizable member subject to the differential influence of the magnetizing members, said magnetizable member being movable automatically relatively to the magnetizing members, and means for varying the relative position of the magnetizing and magnetizable members; with indicating means comprising an indicating surface and an indicator each movable relatively to the other and controlled by the variation of the relative position of the magnetizing and magnetizable members, substantially as and for the purpose set forth.

5. The combination of a plurality of oppositely-acting magnetizing members connected respectively in electric circuits, a magnetizable member subject to the differential influence of the magnetizing members, means for moving one of said members relatively to the others for neutralizing the differential influence of said magnetizing members on the magnetizable member, an indicating surface, an indicator connected to said relatively-movable member and movable therewith relatively to the indicating surface, and means for simultaneously moving the indicating surface relatively to the indicator, substantially as and for the purpose described.

[Claims 6 to 11 not printed in the Gazette.]

944,460. SELECTING APPARATUS FOR TELEPHONE SYSTEMS. CHARLES E. NICHOLAS, Columbus, Ohio, assignor to Nicholas Telephone Selector Company, Rochester, N. Y., a Corporation of New York. Filed Dec. 18, 1901. Serial No. 86,372.



1. The combination with a main circuit, a continuous current generator, an alternating current generator either of which is adapted to be connected to the main circuit and a plurality of local circuits each embodying a signaling instrument responsive to alternating currents only, and each provided with a stationary contact, of a plurality of selectors one for each local circuit, each embodying a movably supported polarized electro-magnetic coil arranged in the main circuit, a movable switch arm adapted to coöperate with said contact, a member operated by the movement of the coil for adjusting the arm when it is moved in one direction by successive impulses of continuous current of one polarity, the contacts of different local circuits being arranged at different distances from a neutral or normal position, a retaining device for the member released by the movement of the coil in a different direction when acted upon by currents of opposite polarity.

2. The combination with a main circuit, a continuous current generator, an alternating current generator adapted to be connected to the main circuit and a plurality of local circuits each embodying a signaling instrument responding to alternating currents, of a plurality of selectors one for each local circuit each embodying a polarized elec-

tro-magnet arranged with its coils in the main circuit embodying a movable part moving in different directions when energized by continuous electrical impulses of different polarity, a progressively movable member adapted to engage the contact, a pawl actuated by said part and coöperating with the member when the current in the magnet is of one polarity, contacts controlled thereby connecting the signaling device to the main circuit, the contacts of different local circuits being arranged at different distances from a neutral or normal position and a retaining device for each member adapted to be released by the armature when the current in the magnet is of different polarity.

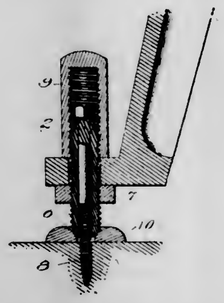
3. The combination with a main circuit, a generator and a local telephone circuit connected thereto, a switch for breaking the connection and means for retaining the latter in operated position, of a polarized electro-magnetic operating device comprising a movable coil, an arm actuated thereby and coöperating with the switch to move it into engagement with the retaining means to break the circuit when said coil is energized by currents of one polarity, said coil operating to actuate said means to release the switch when energized by currents of a different polarity.

4. The combination with a main circuit, a generator and a local telephone circuit connected thereto, a gravity operated switch in the local circuit for breaking it and a retaining device coöperating therewith to hold the switch in operated position, of a polarized electromagnetic operating device comprising a movable coil, an arm actuated thereby and coöperating with the switch to move it into engagement with the retaining device to break the circuit when said coil is operated in one direction by currents of one polarity, said coil operating it to release the switch when moved in the opposite direction by currents of a different polarity.

5. The combination with a main circuit, a continuous current generator and an alternating current generator either of which is adapted to be connected to the main circuit, of a plurality of stations, each having a signaling device responding to one kind of current arranged in a circuit having a contact, a selecting device for each station embodying a progressively movable member, a retaining device therefor, a pivoted electro-magnet having a polarized armature and arranged in the main circuit an arm actuated thereby and coöperating with said member to operate it by successive continuous current impulses of one polarity, into engagement with its respective contact, to connect the signaling device to the main circuit, said magnet being adapted to coöperate with and release the retaining device when acted upon by a continuous current of opposite polarity.

[Claims 6 to 24 not printed in the Gazette.]

944,461. FASTENING DEVICE. ALDEN C. OLANDER, Minot, N. D., and WALTER W. OLANDER, Waterville, Iowa. Filed Dec. 23, 1908. Serial No. 469,017.

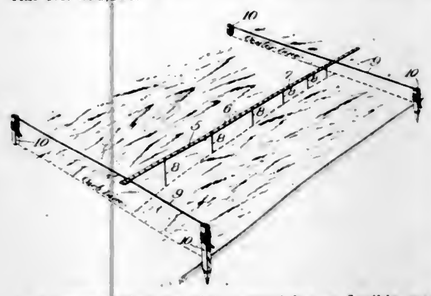


1. A fastening comprising an externally-threaded sleeve, a threaded pin extending through the sleeve and adapted to screw into the floor, a washer on which the lower end of the sleeve rests, and adjustable nuts on the sleeve, for clamping the article to be held.

2. The combination of a threaded pin adapted to screw into a floor or the like, a washer on the pin to rest against the floor, an externally-threaded sleeve fitting over the pin and having a rounded foot resting upon the washer, and clamping nuts upon the upper part of the sleeve.

3. The combination of a headed pin adapted to screw into a floor or the like, an externally-threaded sleeve fitting upon said pin, an adjustable nut on the sleeve, and a threaded cap adapted to fit upon the upper end of the sleeve and to clamp an article against the nut.

944,462. CROSS-SECTION TEMPLET. HENRY Z. OSBORNE, Jr., Los Angeles, Cal. Filed July 5, 1907. Serial No. 382,256.



1. A cross-section templet, comprising a flexible member, eyelets therethrough and spaced along its length, and a plurality of rigid headed gages adapted to be placed in said eyelets and to hang from said member.

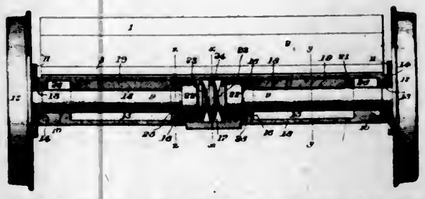
2. A cross-section templet, comprising a flexible member, spaced eyelets extending therethrough, and a plurality of rigid headed gages adapted to depend through said eyelets.

3. A cross-section templet, comprising a flat flexible member, spaced eyelets extending therethrough, and a plurality of rigid headed gages of varying lengths adapted to depend through said eyelets.

4. A cross-section templet, comprising a flat flexible member, spaced eyelets extending therethrough, a plurality of rigid headed gages of varying lengths adapted to depend through said eyelets, and means on said gages to secure them in said eyelets.

5. A cross-section templet, comprising a flat flexible member, spaced eyelets extending therethrough, a plurality of rigid headed gages of varying lengths adapted to depend through said eyelets, and detachable means on said gages to secure them in said eyelets.

944,463. CAR-WHEEL AXLE AND BEARING. GEORGE F. RENDALL, New York, N. Y. Filed May 21, 1907. Serial No. 374,835.



1. In a device of the character described, a sectional axle bearing having a plurality of oil chambers, semi-circular bearing blocks non-rotatably carried by the upper of said sections, a sectional axle engaging said bearing blocks, disks secured to the inner ends of said axles, a counterpoise on each axle in proximity to the disk thereon and located within one of the oil chambers and an independent disk frictionally engaging therewith.

2. In a device of the character described, the combination with an axle bearing having a central oil chamber and an oil chamber on opposite sides thereof and communicating by a port with said central oil chamber, of a semi-circular bearing block non-rotatably mounted in each of said bearing chambers, an axle section engaging each block and extending into said central chamber, a counterpoise mounted near the inner end of each axle section, a disk at the end of each axle section, and an independent disk frictionally engaging the disks carried by said axle sections.

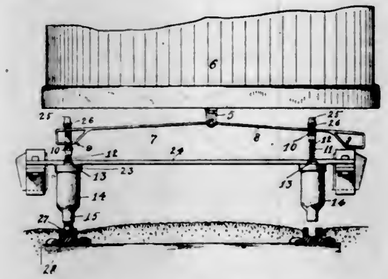
3. In a device of the character described, the combination with an axle bearing having a central oil chamber and an oil chamber on opposite sides thereof and communicating by a port with said central oil chamber, of a semi-circular bearing block non-rotatably mounted in the upper portion of each of said oil chambers, an axle section engaging each block and extending into said central chamber, collars mounted near the inner end of each axle section, a disk at the end of each axle section, an independent disk frictionally engaging the disks carried by said axle sections, and means including washers mounted on said axle sections for preventing the escape of lubricant from said bearing.

4. In a device of the character described, the combination with a sectional axle bearing having a centrally located oil chamber and an oil chamber on opposite sides of said first chamber, of a bearing block non-rotatably mounted in the upper portion of each of said chambers, lubricating material in said chambers, an axle composed of sections in said chambers, the inner ends of said axle terminating in said central chamber, a disk carried at the inner end of each axle, an independent disk having frictional engagement with said disks, and means for limiting the longitudinal movement of said axle sections.

5. In a device of the character described, the combination with a casing provided with a central oil chamber and end oil chambers, the upper portion of said end chambers having a slot therein, a bearing block having a projection engaging said slot, an axle composed of sections in said end chambers, the inner ends of said axles terminating in said central chamber, a disk carried at the end of each axle and an independent disk having frictional engagement with said disk.

[Claims 6 and 7 not printed in the Gazette.]

944,464. TRACK-OILING DEVICE. DAVID F. ROBINSON, Los Angeles, Cal. Filed Nov. 2, 1908. Serial No. 460,667.

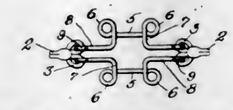


1. An automatic curve oiling device comprising a car; an oil reservoir secured to the car truck, said reservoir having an opening in the bottom thereof; a swab longitudinally movable through the opening in said reservoir; means adapted to hold the swab out of engagement with the rails of the track when the car is on a straight portion thereof; and means carried by the car body to cause the swab to engage the sides of the groove in the inner rail of track at the curve when the car is passing around said curve.

2. An automatic oiling device for track curves comprising a car, an oil reservoir having a depending open neck, said reservoir being secured to the car truck; a swab shaft longitudinally movable in said reservoir; a spiral spring surrounding said swab shaft and normally holding the same in an elevated position with the swab within the reservoir; a swab operating arm pivotally connected to the car body, said arm having a hand on the outer end thereof; a retaining bar passing over said arm and normally holding the same in engagement with the swab shaft.

3. An automatic oiling device for the curves of a railway track, comprising a car; an oil reservoir secured to the car truck; a swab carried by said reservoir; and means carried by the car body coacting with the swab and movable across the top of the swab by the transverse movement of the car body across the track whereby the swab is projected downwardly from the reservoir into contact with the rail when the car is rounding a curve.

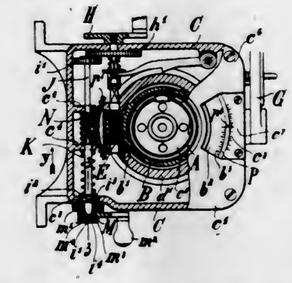
944,465. BOW-FASTENING DEVICE. ISADOR ROGGENBURG, New York, N. Y. Filed June 11, 1906. Serial No. 321,110.



1. A fastening device composed of wire formed into a flat, rectangular body-portion with a spring-loop at each angle, and having flexible extensions provided with terminal hooks, in combination with holding devices secured respectively to said hooks.

2. A fastening device consisting of a plurality of frames formed of wire, each having a central bar terminating at each end in spring-loops, and extended transversely across the said bar and bent to form the opposite extensions parallel with the said bar, the said frames being arranged with their extensions in parallelism, and holding means securing said extensions together at opposite ends of the frames.

944,466. FUSE-ADJUSTING DEVICE. WILHELM SCHWARTZ, Bredeney-on-the-Ruhr, and ULRICH WILCK, Essen-on-the-Ruhr, Germany, assignors to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Filed June 3, 1908, Serial No. 436,508. Renewed Oct. 13, 1909. Serial No. 522,488.



1. In a fuse adjusting device having a main adjustment and an adjustment for corrections, the combination with a main adjusting member mounted in a stationary casing, of a correction adjustment member also mounted in said stationary casing, means for moving said main adjusting member independently of said correction adjustment member, and means for bringing said correction adjustment member into geared relation with said main adjustment member whereby the correction adjustment can be effected through said main adjustment member.

2. In a fuse adjusting device having a main adjustment and an adjustment for corrections, the combination

with a main adjusting member mounted in a stationary casing, of a correction adjustment member also mounted in said stationary casing, means for moving said main adjusting member independently of said correction adjustment member, and means for bringing said correction adjustment member into geared relation with said main adjusting member, said last-named means comprising two gears adapted to be thrown into and out of engagement at will.

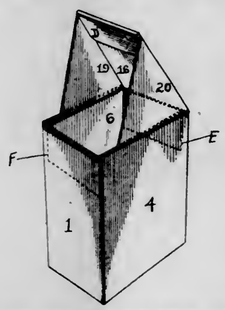
3. In a fuse adjusting device having a main adjustment and an adjustment for corrections, the combination with a main adjusting member mounted in a stationary casing, of a driving shaft for correction adjustment also mounted in said stationary casing, means for moving the main adjustment member independently of said driving shaft, means for bringing the driving shaft into geared relation with said main adjusting member, and means for holding said driving shaft against rotation until after it has been brought into geared relation with said main adjusting member.

4. In a fuse setting device having a main adjustment and an adjustment for corrections, the combination with a member to be adjusted; of a driving shaft through which the main adjustment is effected; a second driving shaft through which the correction-adjustment movement is imparted to the main adjustment drive shaft, said correction-adjustment shaft comprising two relatively movable parts; a gear mounted on the main-adjustment drive shaft; a gear carried by one part of the correction-adjustment drive shaft; a coupling between the parts of the correction-adjustment drive shaft said coupling being adapted to be thrown into and out of gear at will; and means whereby a positive connection is established between the driving shaft for the correction-adjustment and a part carrying correction-indicating means.

5. In a fuse setting device having a main adjustment and an adjustment for corrections, the combination of an adjustable member, a driving shaft through which the main adjustment is effected, a driving shaft through which the correction-adjustment is effected, said last-named shaft comprising two parts; a coupling between said parts, said coupling being adapted to be thrown into and out of gear at will; means establishing positive connection between the driving gear for the correction-adjustment and a part carrying correction indicating means; and means for holding the driving gear for the correction-adjustment non-rotatable until after the coupling is thrown into gear.

[Claims 6 to 9 not printed in the Gazette.]

944,467. CARTON. ABRAHAM L. SMITH, New York, N. Y. Filed Sept. 24, 1908. Serial No. 454,528.



1. A container formed from a single blank comprising a body of suitable shape, a scoop-like cover therefor, said cover having a forward reinforcing flap on its front edge and the body having a cut away portion in which said front edge and reinforcing strip lie when the cover is closed.

2. A container made from a single blank foldable into a rectangular body and a lid for the same oscillating as upon a hinge, said blank including extensions designed to act as braces across the body and under the lid, one forward and the other at the hinge.

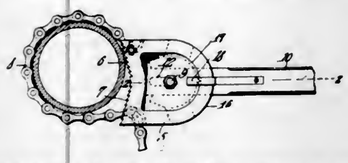
3. A container made from a single blank foldable into a suitably-shaped body with double front and side walls, fore and aft braces therefor, and a lid integral with the body, said body having cut-away portions on its inner walls which form with the braces a support for the lid.

4. A container of the kind described, comprising a body with double front and side walls, and an integral lid thereon, the inner walls being partly cut down to receive and support the edges of the lid within the outer walls, and the outer front wall similarly cut and lowered to form a ledge for the fore part of the lid to rest in.

5. A container made from a single blank, comprising a body with double walls, reinforcing strips formed from said blank for internally bracing said walls to hold them rigid at a suitable distance from one side to the other, and an oscillatory lid thereover, the inner walls and their braces also serving as supports for the lid.

[Claim 6 not printed in the Gazette.]

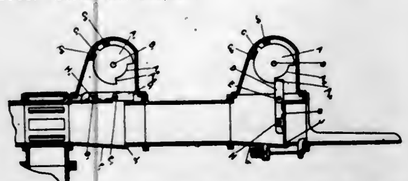
944,468. WRENCH. WILLIAM O. STANLEY, Alliance, Ohio. Filed June 17, 1909. Serial No. 502,771.



1. In a wrench, a head having a depression on one side, and also being formed with a slot having recesses extending at different angles, a handle pivotally mounted in the slot, and movable lengthwise with respect to its pivot, said handle having an enlarged portion movable into and out of the recess, and a catch carried by the handle and engageable with the edge of the aforesaid depression for locking the handle against the aforesaid longitudinal movement.

2. In a wrench, a head having a series of recesses, a handle pivotally connected to the head, and movable lengthwise with respect to its pivot, said handle having an enlarged portion movable into and out of the aforesaid recesses, and means for locking the handle against said longitudinal movement, comprising a catch carried by the handle, and a shoulder on the head engageable thereby.

944,469. PNEUMATIC-DESPATCH-TUBE APPARATUS. CHARLES F. STODDARD, Boston, Mass., assignor, by mesne assignments, to American Pneumatic Service Company, Dover, Del., a Corporation of Delaware. Filed July 25, 1908. Serial No. 445,290.



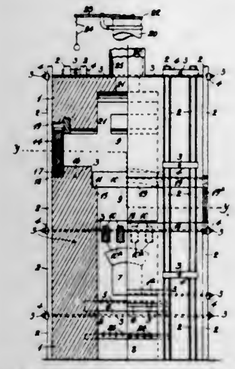
1. In pneumatic despatch tube apparatus, a transmission tube, a sender communicating with said transmission tube, a valve operating to close said sender to the atmosphere, and an inertia stop mounted to oscillate independently of said valve and operating to engage said valve to check the movement of the same.

2. In pneumatic despatch tube apparatus, a transmission tube, a sender communicating with said transmission tube, a valve operating to close said sender to the atmosphere, an inertia stop mounted to oscillate independently of said valve and operating to engage said valve to check the movement of the same, and means for limiting the oscillations of said inertia stop.

3. In pneumatic despatch tube apparatus, a transmission tube, a sender communicating with said transmission tube, a valve operating to close said sender to the atmosphere, and an eccentrically weighted inertia stop mounted to oscillate independently of said valve and operating to engage said valve to check the movement of the same.

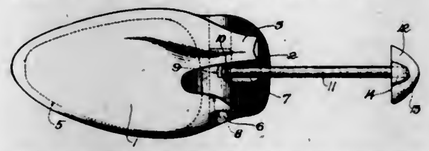
4. In pneumatic despatch tube apparatus, a transmission tube, a sender communicating with said transmission tube, a valve operating to close said sender to the atmosphere, an eccentrically weighted inertia stop mounted to oscillate independently of said valve and operating to engage said valve to check the movement of the same, and means for limiting the oscillations of said inertia stop.

944,470. ASSAY-FURNACE. BRUCE E. TENNENT, Knights, Transvaal. Filed Aug. 22, 1908. Serial No. 449,798.



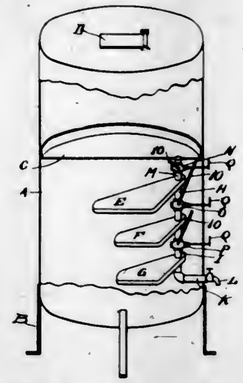
In an assay-furnace such as described, a plurality of bars of refractory material arranged in sets or tiers at right angles and directly above the firegrate, said bars being supported in recesses and opposing ledges in the walls of the furnace, an aperture for each set or tier, said apertures being arranged at right angles, working doors for closing said apertures, said doors being provided with rollers and the furnace with guides to permit of the door being opened horizontally, stops for limiting the movement of the door in either direction, and a rack in the ashpit of the furnace for gradually heating and cooling the crucibles by the waste heat, as set forth.

944,471. SHOE-FORM. ELLERY C. WRIGHT, Brockton, Mass. Filed Feb. 15, 1909. Serial No. 477,839.



The herein described wooden shoe form, comprising a forepart terminating substantially at the front end of the shank portion of the shoe, having at its lower rear end a relatively thick protuberance spanning the width of the last provided with a relatively large hole extending transversely of said forepart through said protuberance and another hole in said protuberance intersecting said first mentioned hole extending from the rear end of said protuberance longitudinally of the forepart and elongated vertically, a transverse rod fitting and adapted to turn in said first mentioned hole, containing a small transverse smooth-walled hole in line with said longitudinal hole, a relatively small rod having its front end snugly fitting said intersecting hole and adapted to extend loosely through said elongated longitudinal hole rearwardly into the heel portion of a shoe, and a short vertical heel-part containing adjacent its lower end a transverse smooth-walled hole in its front side snugly and removably fitting the rear end of said small rod.

944,472. DISPENSING-TANK. MORIS ZWIRMAN, Pittsburg, Pa., assignor of one-fourth to L. Kessler, Duquesne, Pa., and one-fourth to H. Marka, Pittsburg, Pa. Filed Apr. 8, 1909. Serial No. 488,648.



1. In combination, a tank; a plurality of measuring cans in series, one beneath the other below the bottom of the tank; an outlet from the bottom can provided with a valve; passages from the tank to the upper can and from each other can to the can above it; and a controlling means for each passage comprising a valve casing provided with a transverse passage and with an air inlet passage at an angle to the transverse passage, and a hollow rotary valve having a pair of openings through its opposite walls adapted to communicate with the transverse passage when the valve is in one position, and having a third opening through the wall of the valve adapted to register with the lower portion of the transverse passage when one of the pair of openings registers with the air inlet passage in the casing, the said openings in the valve communicating with the interior of the valve and with each other.

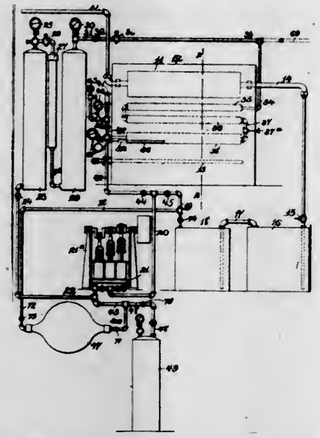
2. In combination, a tank; a plurality of measuring cans in series, one beneath the other, below the bottom of the tank; an outlet from the bottom can provided with a valve; passages from the tank to the upper can and from each can to the can above it; and a controlling means for each passage, comprising a casing 1 having an inlet 7, an outlet 8, and an air port 9, and a rotary hollow valve 2 mounted in the casing and provided with an inlet port 4, an outlet port 5, and an air port 6, all of said ports in the valve communicating with the interior of the valve and with each other.

3. In combination, a tank; a measuring can G therebeneath provided with an outlet K and valve L; a passage from the tank to the can; and controlling means for regulating the flow to and from the can comprising a casing 1 having an inlet 7, an outlet 8, and an air port 9, and a rotary hollow valve 2 mounted in the casing and provided with an inlet port 4, an outlet port 5, and an air port 6, all of the said ports in the valve communicating with the interior of the valve and with each other.

944,473. APPARATUS FOR MAKING OXYGEN. GEORGE VON ACH, Newark, N. J. Filed July 20, 1909. Serial No. 508,616.

1. An apparatus for extracting oxygen from air comprising a furnace, a vessel in the furnace containing material to absorb oxygen, a purifying apparatus, a pump,

connections between the pump and the vessel, connections between the pump and the purifying apparatus, pipe connections from the vessel to the purifying apparatus, a tank for receiving oxygen, connections from the pump to the tank, and means for conducting air from the atmosphere to the purifying apparatus, the said conducting means passing through the furnace for heating the air before it enters the purifying apparatus.



2. An apparatus for extracting oxygen from air comprising a furnace, a vessel in the furnace containing material to absorb oxygen, a purifying apparatus, a pump, pipe connections between the pump and the vessel, connections between the pump and the purifying apparatus, pipe connections from the vessel to the purifying apparatus, valves in the connections, the connections between the vessel and the purifying apparatus being formed into a coil above the vessel to receive the waste heat therefrom, a tank for receiving oxygen, connections from the pump to the tank, and means for conducting air from the atmosphere to the purifying apparatus, the said conducting means passing through the furnace for heating the air before it enters the purifying apparatus.

3. An apparatus for extracting oxygen from air comprising a furnace, a vessel in the furnace, the vessel having an opening for the insertion of material, the vessel being elliptical in cross-section, a purifying apparatus, a pump, connections between the pump and the vessel, connections between the pump and the purifying apparatus, pipe connections from the vessel to the purifying apparatus, a tank for receiving oxygen, connections from the pump to the tank, and means for conducting air from the atmosphere to the purifying apparatus, the said conducting means passing through the furnace for heating the air before it enters the purifying apparatus.

4. An apparatus for extracting oxygen from air comprising a furnace, a vessel in the furnace, the vessel having a substantially broad and flat shape, the vessel having an opening on one end for the insertion of material, a closure for the opening, tubes passing through the vessel to permit the passage of heat, a purifying apparatus, a pump, connections between the pump and the vessel, connections between the pump and the purifying apparatus, pipe connections from the vessel to the purifying apparatus, a tank for receiving oxygen, connections from the pump to the tank, and means for conducting air from the atmosphere to the purifying apparatus, the said conducting means passing through the furnace for heating the air before it enters the purifying apparatus.

5. An apparatus for extracting oxygen from air comprising a furnace, a vessel in the furnace, the vessel having a substantially broad and flat shape, the vessel having an opening on one end for the insertion of material, a closure for the opening, tubes passing through the vessel to permit the passage of heat, a tube for the reception of a pyrometer, a pyrometer in said vessel, an indicator for the pyrometer, a purifying apparatus, a pump, connections between the pump and the vessel, connections between the pump and the purifying apparatus, pipe connections from the vessel to the purifying apparatus, a tank for receiving oxygen, connections from the pump to the tank, and means for conducting air from the atmosphere to the purifying apparatus, the said conducting means passing through the furnace for heating the air before it enters the purifying apparatus.

[Claims 6 to 9 not printed in the Gazette.]

944,474. SOUND-RECORD COMPOSITION. JONAS W. AYLSWORTH, East Orange, N. J., assignor to New Jersey Patent Company, West Orange, N. J., a Corporation of New Jersey. Filed May 25, 1907. Serial No. 375,725.

1. A composition suitable for the manufacture of phonograph records which contains the fatty acid obtained from montan wax or spermatine, substantially as set forth.

2. As an ingredient for use in the make-up of sound record compositions, a metallic soap of the free fatty acid obtained from montan wax or spermatine, substantially as set forth.

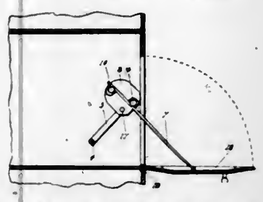
3. As an ingredient for use in the make-up of sound record compositions, a lead soap of the free fatty acid obtained from montan wax or spermatine, substantially as set forth.

4. An improved composition for sound records, comprising a mixture of asphalt and a metallic soap of the free fatty acid obtained from montan wax or spermatine, substantially as set forth.

5. An improved composition for sound records, comprising a mixture of asphalt and a lead soap of the free fatty acid obtained from montan wax or spermatine, substantially as set forth.

[Claims 6 to 9 not printed in the Gazette.]

944,475. STOVE-DOOR. BERRY A. BAXTER, Mansfield, Ohio. Filed June 15, 1909. Serial No. 502,386.



1. In a stove, a hinged door, links pivotally connected to the walls of the stove at one end, counter-weights pivotally secured to said links, connecting bars pivotally connected to the door and rigidly connected to the counter-weights.

2. In a stove, a hinged door, links pivotally connected to the walls of the stove at one end, counter-weights pivotally secured to said links, a yoke-shaped connecting bar pivotally connected to the door and rigidly connected to said counter-weights.

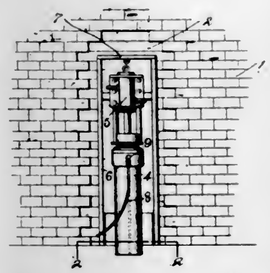
3. In a stove, a hinged door, a link pivotally secured by said stove, a counter-weight pivotally secured to said link, a connecting bar pivotally secured to said door and rigidly connected to said weight whereby the door is maintained in a closed or open position.

4. In a stove, the combination of an oven and a hinged door; of counter-weights; connecting bars pivotally secured to said door and rigidly secured to said counter-weights, links pivotally secured to the side walls of the oven and to said counter-weights whereby the counter-weights and operating mechanism serve to keep the door in close contact with the walls of the oven as described.

5. In a stove provided with a hinged door, a bar pivotally connected to said door, a weight secured to the free end of said bar, a link pivotally connected to the walls of the stove and to said weight, said weight being adapted to contact with the walls of the stove and maintain the door in open position.

[Claim 6 not printed in the Gazette.]

944,476. CONSTRUCTION OF SUPPORTS FOR BUILDING-WALLS, &c. JULES BREUCHAUD, Yonkers, N. Y., assignor to The Underpinning Company, New York, N. Y., a Corporation of New York. Filed Apr. 2, 1909. Serial No. 487,543.



1. The method of constructing foundations for a building wall or other structure, which consists in sinking a hollow column perpendicularly into the earth beneath said wall, in removing the soil from said column, in then sinking a second hollow column of greater length substantially concentrically within the first to a greater depth and sufficient to bring the upper edges approximately even, and again cleaning, and so on until the desired depth is reached.

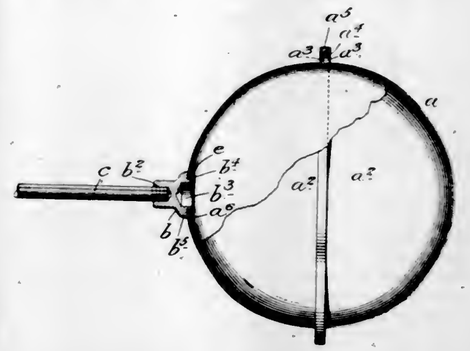
2. The method of underpinning a building wall or other structure, which consists in sinking a column perpendicularly into the earth beneath said wall, in removing the earth from said column, in then sinking a second column composed of superposed sections, concentric with and within the first, to a greater depth, and again cleaning, and so on until the desired depth is reached, and in then connecting the completed column to the wall.

3. The method of constructing a foundation for a building wall or other structure, which consists in constructing a recess in vertical alinement with the foundation of said wall, in locating a power hammer therein, in driving a column perpendicularly into the earth beneath said wall by impact of said hammer, in removing the soil from said column, in then sinking a second column within the first by the same means, to a greater depth, again cleaning, and so on until the desired depth is reached, and in then connecting the completed column to the wall.

4. The method of constructing a foundation for a building wall or other structure, which consists in sinking a column perpendicularly into the earth beneath said wall, in removing the soil from said column, in then sinking a second column composed of superposed sections within the first to a greater depth and again cleaning, and so on until the desired depth is reached, in then connecting the upper ends of said columns with beams and locating beams parallel with and above the same and adjacent to the wall, and driving wedges between said beams.

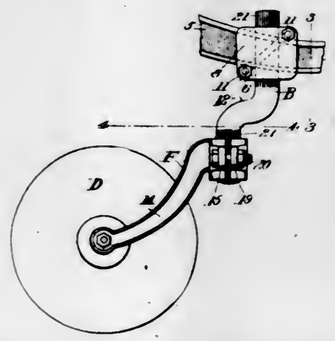
5. The method of underpinning a building wall or other structure, which consists in cutting a recess therein, in locating a power hammer therein, in sinking a column perpendicularly into the earth beneath said wall, in removing the soil from said column, in then sinking a second column composed of superposed sections within the first to a greater depth and again cleaning, and so on until the desired depth is reached, in then connecting the upper ends of said columns with beams, and locating beams parallel with and above the same and adjacent to the wall, and driving wedges between said beams.

944,477. VALVE-OPERATING FLOAT. WILLIAM BRIGGS, Brooklyn, N. Y. Filed Apr. 20, 1908. Serial No. 428,265.



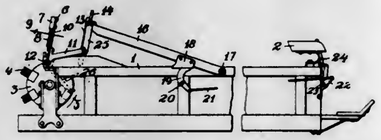
A float of the class described, said float being composed of two parts, one of which is provided in one side thereof with an aperture, and a rod connecting device having an annular flange or rim adapted to be passed inwardly through said aperture, said rod connecting device being provided with an annular flange or rim adapted to bear on the outer side of the float, and an annular washer placed on the inner side of the float and inclosing said aperture and of greater diameter than said aperture and over and around which the material of the float around said aperture is folded to form a flange which overlaps said washer on the inner side of the float, and the flange or rim of the connecting device which is passed inwardly through said aperture being expanded and folded over and compressed on said annular washer and over the flange or rim of the float which incloses said washer on the inner side, so as to form a reinforced, smooth and rounded connection or joint between the float and the rod connecting device.

944,478. PLOW-COLTER. EDWIN BROWN, Attica, Ind. Filed Jan. 28, 1909. Serial No. 474,720.



A device of the character designated, comprising a cranked shank, beam-attaching means for said shank, a fork, means for connecting the latter detachably and reversibly to said shank, a dished colter, having a bolt passing through its center journaled in the prongs of the fork, said prongs being curved laterally and following closely the contour of the dished colter.

944,479. MANURE-SPREADER. THEOPHILUS BROWN, Worcester, Mass., assignor to Richardson Manufacturing Company, Worcester, Mass., a Corporation of Massachusetts. Filed May 1, 1908. Serial No. 430,254.



1. A manure spreader, having a beater, a rake and a tailboard, said rake and said tailboard pivotally supported on independent centers and arranged to be swung upon said centers into and out of operative position with reference to said beater, and means for positively swinging said rake and said tailboard simultaneously into and out of operative position.

2. A manure spreader, having a rake and a tailboard, each capable of movement about independent centers, and a lever handle positively connected with said rake and said tailboard, whereby said rake and said tailboard are simultaneously moved both into and out of operative position by the movement of said lever handle.

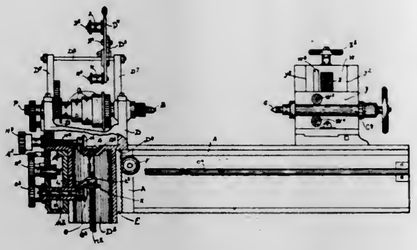
3. A manure spreader, having a beater, a rake and a tailboard, said rake and said tailboard pivotally supported on independent centers, a lever handle, and positive means for imparting the movement of said lever handle in one direction to raise simultaneously both said rake and said tailboard.

4. A manure spreader, having a rake and a tailboard pivotally supported upon independent centers, positive means for raising and lowering one of said members, and connecting means between said rake and said tailboard, whereby the positive movement of one is imparted positively to the other.

5. A manure spreader, having a rake and a tailboard pivotally supported upon independent centers, positive means for raising and lowering said rake, and a link connecting said rake and said tailboard, whereby positive movement of said rake is imparted positively to said tailboard.

[Claims 6 to 8 not printed in the Gazette.]

944,480. LATHE. MARTIN J. CUNNINGHAM, Springfield, Mo. Filed July 5, 1906. Serial No. 324,885.



In a lathe, the combination with a frame, of a head-block mounted for partial rotation in said frame, a spindle mounted upon said head-block, means for bodily elevating said head-block, a vertical shaft centrally located within the head-block, a sliding bevel pinion splined upon said shaft, a lead screw, a horizontally disposed shaft, connections between said shaft and said lead screw, and a bevel pinion upon the inner end of said shaft meshing with the first named bevel pinion.

944,481. PROCESS AND APPARATUS FOR ARTIFICIALLY AGING OR SEASONING PORTLAND CEMENT. THOMAS A. EDISON, Llewellyn Park, Orange, N. J., assignor to Edison Portland Cement Company, Stewartsville, N. J., a Corporation of New Jersey. Filed Mar. 23, 1908. Serial No. 422,649.



1. A process for artificially aging or seasoning Portland cement, which consists in moving a mass of the ground cement in one direction, agitating it, and passing therethrough a continuous current of heated moist air moving in the opposite direction, substantially as set forth.

2. A process for artificially aging or seasoning Portland cement, which consists in impelling a continuous current of heated moist air in one direction, showering continuously therethrough a mass of the ground cement, and feeding the same in the direction opposite to that of the air, substantially as set forth.

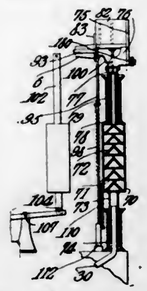
3. A process for artificially aging or seasoning Portland cement which consists in impelling a continuous current of air around a closed path and causing said air to pass over or through a body of ground cement during its travel around said path, substantially as set forth.

4. A process for artificially aging or seasoning Portland cement which consists in impelling a continuous current of air around a closed path, heating said current of air and causing the same to pass over or through a body of ground cement during its travel around said path, substantially as set forth.

5. A process for artificially aging or seasoning Portland cement which consists in impelling a continuous current of air around a closed path, heating and introducing water vapor into said current of air, and causing the same to pass over or through a body of ground cement, during its travel around said path, substantially as set forth.

[Claims 6 to 13 not printed in the Gazette.]

944,482. CARBURETER. ALEXANDER D. ELLIOTT, Viola, Ill. Original application filed Dec. 21, 1907, Serial No. 408,750. Divided and this application filed Aug. 4, 1908. Serial No. 446,991.



1. In combination, a carbureter casing, a counter-balanced scale beam supporting the same, a gasolene supply valve, means for operating the same, and means under the control of the casing for locking the valve operating means.

2. In combination, a carbureter casing, a counter-balanced scale beam supporting the same, a gasolene supply valve, a piston and cylinder for actuating said valve, a catch for engaging and locking the piston from movement, and means connecting said catch to the carbureter casing.

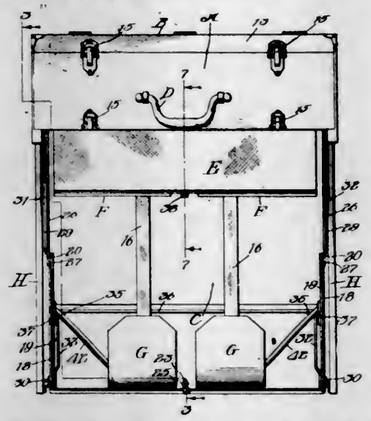
3. In combination, a vertically movable carbureter casing, a counter-balanced scale beam supporting the same, a gasolene supply valve, a cylinder, a plunger or piston arranged therein, and operating said valve, a bell crank lever, one arm of which is arranged to engage with and lock the piston or plunger from movement, and a link connecting the opposite arm of said bell crank lever to the casing.

4. In combination, a carbureter, a gasolene supply tank, a measuring casing in communication with the tank and the carbureter, and a valve mechanism controlling the flow of gasolene from the tank to the casing and from the casing to the carbureter, said valve mechanism being controllable by the weight of gasolene in the carbureter.

5. In combination, a vertically movable carbureter, a counter-balancing means therefor, a gasolene supply tank, a measuring casing communicating with the tank, and a carbureter, a rock shaft, a valve carried thereby and controlling the inflow of gasolene to the casing and its discharge therefrom, a valve actuating member, and a valve locking device controllable by the vertical movement of the carbureter.

[Claim 6 not printed in the Gazette.]

944,483. FOLDING ORGAN. HOMO FABER, Chicago, Ill. Filed Nov. 3, 1908. Serial No. 460,970.



1. The combination with the case of a folding organ having a hinged cover, of a collapsible stand to support the case comprising links pivoted together, which stand folds under the cover and interlocks with the same when it is unfolded.

2. The combination with the case of a folding organ having a hinged cover, of a collapsible stand to support the case comprising a set of pivoted links at each end of the case which fold up so as to lie parallel with each other and which engage with the cover when unfolded, and connections between said sets of links.

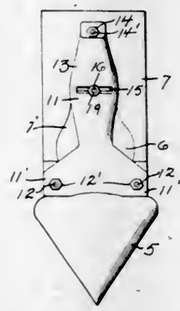
3. The combination with the case of a folding organ having a hinged cover, of a collapsible stand to support the case comprising a set of pivoted links at each end of the case which fold up so as to lie parallel with each other, and cross pieces connecting the same which lie parallel with each other when folded, said stand engaging with the cover when unfolded.

4. The combination with the case of a folding organ having a hinged cover, of a socket on said cover, and a collapsible stand to support the case having a projecting part which extends into said socket.

5. The combination with the case of a folding organ having a hinged cover, of a socket on said cover, a collapsible stand to support the case having a projecting part which extends into said socket, and a jointed bar for locking said projecting part in the socket.

[Claims 6 to 29 not printed in the Gazette.]

944,484. DETACHABLE POINT FOR CULTIVATOR-SHOVELS. THEODORE E. FRIEND, Saidora, Ill. Filed Aug. 31, 1909. Serial No. 515,413.



1. In a device of the class described the combination with a cultivator shovel, of a cultivator point attached thereto and arranged flush with the under surface of the shovel, a clamping plate disposed upon the shovel and point adapted to secure the point in position, an attaching bolt extending through said plate, said bolt being adapted to secure the shovel and point upon the bed plate of the cultivator, and a nut engaged upon the end of said bolt to secure the shovel in position.

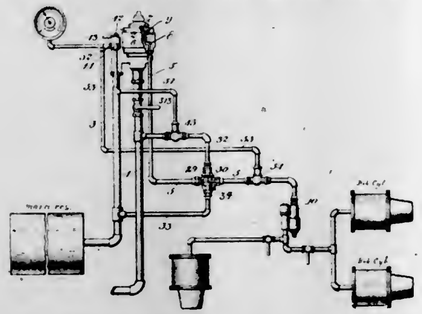
2. In a device of the class described the combination with a cultivator shovel having a groove formed in its under surface, of a cultivator point disposed in said groove flush with the surface of the shovel, a clamping plate disposed upon the shovel and point, said plate having lateral extensions integrally formed upon one end thereof, bolts disposed through said extensions and the shovel and point, securing nuts engaged upon the ends of said bolts, said clamping plate having a convexed rearwardly extending portion disposed in spaced relation to the shovel a bolt securing the rear end of the plate to the shovel, said plate having a transverse slot formed therein, the convex portion of said plate being mounted in grooves provided in a bed plate carried by the cultivator, said shovel and point having a transverse rocking movement in the bed plate, and a bolt extending through the slot in the clamping plate and through the bed plate to secure the point in its adjusted position.

3. In a device of the class described, the combination with a cultivator shovel of a shovel point adapted to be carried thereby, said shovel having a groove formed in its under surface, said point being provided with a reduced extension adapted to be seated in said groove, a clamping plate disposed upon the point and shovel and rigidly secured thereto, a bolt disposed through the rear end of the point and the shovel, a nut threaded upon the end of said bolt, a portion of the clamping point being spaced from the shovel and having an outer convexed surface, a bed plate having a concave groove formed therein to receive the convexed portion of the attaching plate, said attaching plate being provided with a transversely positioned slot, a bolt extending therethrough and through the bed plate, the shovel and point being adapted to have a transverse rocking movement and a nut threaded upon the end of the bolt to secure the point in its adjusted position.

944,485. FLUID-PRESSURE BRAKE SYSTEM. JAMES A. HICKS, Atlanta, Ga., assignor to Hicks Improved Engine Brake Company, Atlanta, Ga., a Corporation of Georgia. Filed Feb. 7, 1907. Serial No. 356,241.

1. In a fluid pressure brake system, a main reservoir, a straight air brake cylinder connection with said main reservoir, a train pipe, and a differential valve device normally closing said straight air brake cylinder connection and subject on opposite sides, respectively, to differential main reservoir and train pipe pressures.

2. In a fluid pressure brake system, a main reservoir, a straight air brake cylinder connection with said main reservoir, a train pipe, a differential valve device normally closing said straight air brake cylinder connection and opening automatically under main reservoir pressure, a train line pressure connection against the other side of said valve device to hold said valve normally closed with differential pressures on opposite sides thereof, and means to relieve train line pressure on said valve and permit it to open under main reservoir pressure.



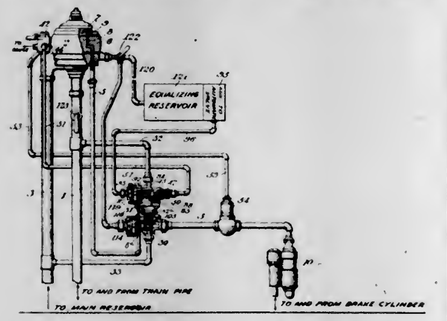
3. In a fluid pressure brake system, a main reservoir, a straight air brake cylinder connection with said reservoir, a train pipe, a differential valve device in said straight air brake cylinder connection opening automatically under main reservoir pressure, a train line pressure connection against the other side of said valve to hold said valve normally closed with differential pressures on opposite sides thereof, and manually operable means to relieve train line pressure on said valve and permit it to open under main reservoir pressure.

4. In a fluid-pressure brake system, a pressure supply, a brake-cylinder connection, a valve opening automatically under supply pressure in said connection, a train-line pressure connection to hold said valve normally closed, and means to relieve train-line pressure on said valve without reducing train line.

5. In a fluid-pressure brake system, a pressure supply, a brake-cylinder connection, a valve opening automatically under supply pressure in said connection, a train-line pressure connection to hold said valve normally closed, and manually-operable means to relieve train-line pressure on said valve without reducing train line.

[Claims 6 to 50 not printed in the Gazette.]

944,486. FLUID-PRESSURE BRAKE SYSTEM. JAMES A. HICKS, Atlanta, Ga., assignor to Hick's Improved Engine Brake Company, Atlanta, Ga., a Corporation of Georgia. Filed Sept. 24, 1907. Serial No. 394,373.



1. In a combined automatic and straight air brake system, a straight air pressure supply, a straight air brake cylinder connection, a valve in said connection opening automatically under supply pressure, and means for automatically graduating the action of said supply valve.

2. In a combined automatic and straight air brake system, a straight air pressure supply, a straight air brake cylinder connection, a valve in said connection opening automatically under supply pressure, a pressure controlled graduating valve for automatically controlling said supply valve, and manually operated means to control pressure on said graduating valve.

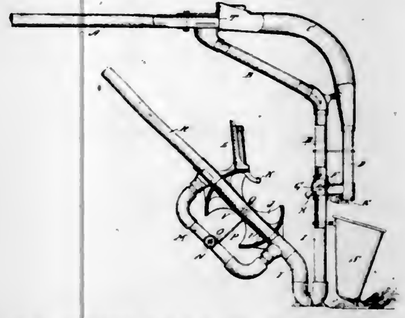
3. In a combined automatic and straight air brake system, a straight air pressure supply, a straight air brake cylinder connection, a valve in said connection opening automatically under supply pressure, a graduating valve subject to train-line pressure to control said supply valve, and train line pressure controlling means to control said graduating valve.

4. In a fluid pressure brake system, a straight air pressure supply, a straight air brake cylinder connection, a pressure-controlled valve in said connection opening automatically under supply pressure, a graduating valve subject to train-line pressure controlling said supply valve, and train line pressure controlling means to control said graduating valve.

5. In a fluid-pressure brake syatem, a straight air pressure supply, a straight air brake cylinder connection, a valve in said connection opening under supply pressure and normally closed by train-line pressure, a graduating valve controlling train-line pressure on said supply valve, and means for controlling said graduating valve.

[Claims 6 to 33 not printed in the Gazette.]

944,487. PNEUMATIC-DESPATCH-TUBE APPARATUS. CHESTER S. JENNINGS, Brookline, Mass., assignor to Lamson Consolidated Store Service Company, Newark, N. J., a Corporation of New Jersey. Filed Jan. 6, 1906. Serial No. 294,884.



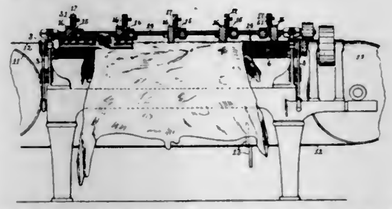
1. In a pneumatic despatch tube apparatus, a transmission tube, a double valve terminal connected therewith, a vacuum tube connected with said transmission tube adjacent to said terminal, and means for cutting off communication of said vacuum tube with said transmission tube, and switching the flow of air through said terminal.

2. In a pneumatic despatch tube apparatus, a transmission tube, a double valve terminal connected therewith, a vacuum tube connected with said transmission tube adjacent to said terminal, a by-pass connecting said vacuum tube with said terminal, and a valve normally closing said by-pass and adapted to cut off communication of said vacuum tube with said transmission tube thereby switching the flow of air from said transmission tube through said terminal and said by-pass and into said vacuum tube.

3. In a pneumatic despatch tube apparatus, a transmission tube, a supply pipe, a pivoted or movable carrier holder normally in alinement with said transmission tube and said supply pipe and maintaining an air circuit therethrough, means for supporting said pivoted holder, a stationary carrier holder, means for swinging said pivoted holder into alinement with said stationary holder whereby the carrier enters the pivoted holder by gravity, a by-pass connecting said transmission tube with said supply pipe and normally closed, means for automatically switching the air circuit through said by-pass when said pivoted carrier is out of alinement with said transmission tube, and automatically closing said by-pass and switching said air circuit through said pivoted holder upon return of said holder to normal position whereby said carrier is despatched into said transit tube.

4. In a pneumatic despatch tube apparatus, a transmission tube, a valved terminal connected therewith, a vacuum tube connected with said transmission tube adjacent to said terminal, a by-pass connecting said vacuum tube with said terminal, a valve normally closing said by-pass, pivoted means for introducing the carrier into said transmission tube, and connections between said pivoted means and said by-pass valve for opening said by-pass valve upon the movement of said pivoted means to receive a carrier for transmission.

944,488. SPLITTING-MACHINE FOR STRIPPING OFF FLESH FROM HIDES. ALEXANDER H. KEHRHAHN, Frankfort-on-the-Main, Germany. Filed Aug. 11, 1908. Serial No. 448,049.



1. In splitting machines for stripping off the flesh from hides in combination a supporting cylinder 1, a shaft 2, a rail 4 with steel segments 5, a conveyer roll 6 mounted in a swing frame 8 and weighted bent lever 9 with moving forward rod 10, a cleaver 12 made to pass over the disk 11 and edging contrivance 13, a series of arms 15 adapted freely to turn over a common shaft 14, on the said arms mounted scraping rollers as groping tools and means for making each scraping roller 16 bear against the hide and force its way through the parings, independently of the other scraping rollers, a number of slotted guides 18 close behind each scraping cylinder, arms 19 containing these guides and adapted to turn on the downwardly directed arms 20, screws 21 and 22 and means for forming during the operation a rigid system between the supporting arm 15 with scraping cylinder 16 and the arm 19 with guides 18, and set screw 23, the individual groping tools and blade guides adapted to be displaced on the shaft 14, all substantially as set forth.

2. In splitting machines for stripping off the flesh from the hides in combination a number of groping tools independent of one another, a narrow cleaver guide for each groping device adapted to operate on the hide all over its width and means for making each of the single blade guides to fit exactly the irregularities in the longitudinal direction of the hide, all substantially as and for the purpose set forth.

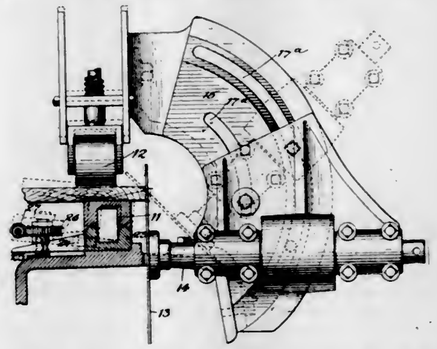
3. In a machine of the class described, in combination, a supporting roll for the hide or skin and a knife cooperating therewith, one of which parts is movable with relation to the other, and a groping device to penetrate the softer surface of the hide or skin and effect movement of said movable part so as to cause the softer portion to be acted upon by the knife in the immediate vicinity of the firm portion of the hide or skin, substantially as described.

4. In a machine of the class described, in combination, a support for the hide or skin, and a knife coöperating therewith, one of which parts is movable with relation to the other, and means for penetrating the fleshy side of the hide or skin and coöperating with the said movable part to cause the knife to cut the flesh side in the immediate vicinity of the firmer portion of the hide or skin, substantially as described.

5. In a machine of the class described, in combination, a bed roll, an endless belt knife coöperating therewith and movable longitudinally thereof, guides for said knife, groping tools capable of penetrating the flesh side of the hide or skin, and means for connecting said tools with said guides to cause the knife to be automatically raised and lowered with relation to the bed roll and the hide or skin thereon by variation in the depth to which the groping tools penetrate the softer portion of the flesh side of the hide or skin, substantially as described.

[Claim 6 not printed in the Gazette.]

944,489. EDGING ATTACHMENT FOR LUMBER-JOINING MACHINES. BERT A. LINDERMAN, Muskegon, Mich. Filed June 1, 1909. Serial No. 499,269.



1. The lumber joining machine embodying an edging saw mounted so as to be adjustable either to a vertical position, or to a position inclined to the vertical, means for cutting dovetails in the longitudinal edges of the stock which are adapted to be inclined correspondingly with the inclination given the edging saw, and means for feeding the stock to the edging saw and the dovetail cutters.

2. The combination in a lumber joining machine of a lumber carrier, an edger mounted so as to be adjustable to an inclined position, and dovetail cutters, the carrier being also adjustable to an incline corresponding to that of the edger.

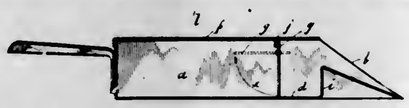
3. The combination in a lumber joining machine, of a lumber carrier, an edger mounted so as to be adjustable to a position inclined from the vertical and a motor belted to the edger and adjustable correspondingly with the edger.

4. The combination in an automatic lumber joining machine, of an endless carrier, and dovetail cutters acting on the edge of the stock and adjustable as to inclination, the carrier being also adapted to be inclined while presenting the stock to the cutters.

944,490. DUST-PAN. GEORG LOTZE, New York, N. Y. Filed Feb. 18, 1907, Serial No. 357,806. Renewed June 24, 1909. Serial No. 504,155.

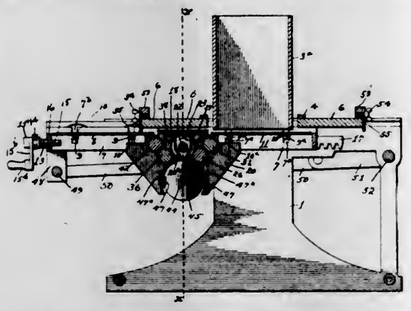
A dust pan comprising a receptacle having a bottom, top, sides, and a rear end wall, the bottom being bent upward near its forward end to form a dirt retaining shoulder and then sloped forward and downward, a transverse partition rotatively mounted in said recep-

tacle so that when hanging vertically it is positioned at a distance in the rear of said shoulder, a nose projecting from the top of the receptacle downward into the path



of said partition to prevent the lower portion of said partition from swinging forward, and a door at the rear of the receptacle.

944,491. VEGETABLE SLICING AND CUTTING MACHINE. HARLAND E. MADDEN, Hebron, Ohio. Filed July 27, 1908. Serial No. 445,454.



1. In a vegetable slicing and cutting machine, the combination with a fixed frame, a movable frame mounted therein, a fixed hopper, and a slicing blade carried by the movable frame, of a rotary cutter journaled beneath the slicing blade and traveling devices adapted to guide the slices from the lower end of the hopper into position to be severed by said rotary cutter.

2. In a vegetable slicing and cutting machine, the combination with a fixed frame, a movable frame mounted to slide therein, a fixed hopper and horizontal floor plates carried by said movable frame below said hopper, of a slicing blade carried by the movable frame between said floor plates, a rotary cutting device below said slicing blade and movable with the movable frame, and means for feeding the slices from beneath the hopper to said rotary cutter.

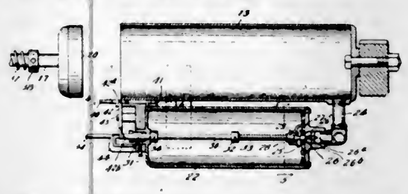
3. In a vegetable slicing and cutting machine, the combination with a fixed frame, a movable frame mounted therein, a hopper, a slicing blade carried by the movable frame, of a rotary cutter comprising separated cutting disks journaled beneath the slicing blade, traveling devices adapted to guide the slices from the lower end of the hopper into position to be severed by said rotary cutter, and a second rotary cutting device beneath said first mentioned rotary cutter, and having horizontal cutter bars adapted to sever the slices into lengths.

4. In a vegetable slicing and cutting machine, the combination with a fixed frame, a movable frame mounted therein, a fixed hopper, horizontal floor plates carried by said movable frame below said hopper, and means for adjusting said floor plates vertically, of a slicing blade carried by the movable frame between said floor plates, a rotary cutting device below said slicing blade and movable with the movable frame, and a series of rolls arranged on opposite sides of said rotary cutter and adapted to feed the slices from beneath the hopper to said rotary cutter.

5. In a vegetable slicing and cutting machine, the combination with a horizontally movable frame, a rotary cutting device comprising separated cutting disks journaled in said frame, and a horizontal slicing blade surmounting said frame, of rollers journaled on opposite sides of said rotary cutter and adapted to feed a vegetable slice severed from the body of the vegetable by the slicing blade into position to be severed by the blades of said rotary cutting device.

[Claims 6 to 11 not printed in the Gazette.]

944,492. CUSHIONING MECHANISM FOR RECIPROCATING BEDS. CYRUS A. MCCAIN, Oak Park, Ill., assignor to Miehle Printing Press & Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 18, 1909. Serial No. 484,100.



1. The combination with the valves for relieving the pressure of the air cushioning cylinders of a printing press, of governing mechanism regulating the resistance of said valves, and a device for controlling said mechanism such device being freely attached to the bed and permitted to move independently by momentum at the ends of the bed strokes.

2. The combination with the valves for relieving the pressure of the air cushioning cylinders of a printing press, of governing mechanism regulating the resistance of said valves, and a device for controlling said mechanism, such device being attached to the bed and free to move independently by momentum at the ends of the strokes.

3. The combination with the valves for relieving the pressure of the air cushioning cylinder of a printing press, of a governing mechanism regulating the resistance of said valves, said governing mechanism acting in accordance with the speed of the press and embracing a device carried by the bed and adapted to slide independently of the bed by momentum received from the bed.

4. The combination with the air cushion cylinders and plungers of a printing press, auxiliary cylinders communicating with the air cushion cylinders, valves controlling such communication, means for increasing the resistance to opening of such valves and governing mechanism determining the action of said means in accordance with the speed of the press, said governing mechanism embracing a device moving with the bed and also having freedom to continue its motion in obedience to momentum independently of the bed.

5. The combination with the air cushion cylinders and plungers of a printing press, of auxiliary cylinders communicating with the air cushion cylinders, valves controlling such communication, means for increasing the resistance to opening of such valves and governing mechanism determining the action of said means in accordance with the speed of the press, said governing mechanism embracing a device moving with the bed and having freedom to move also by momentum.

[Claim 6 not printed in the Gazette.]

944,493. TYPE-SETTING MACHINE. FRANK MCCLINTOCK, Grand Junction, Colo., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Sept. 7, 1907. Serial No. 391,840.

1. In a type-setting machine, the combination of means for discharging the type, an upright type case thereover, a tiltable support for the case, and means for automatically locking the case in the support when the latter is tilted, whereby accidental escape of the case is prevented.

2. In a type-setting machine, and in combination with horizontal type-ejectors, an upright type case thereover, an upright horizontally pivoted support for the case, means for lifting the case within the support above the operative position and means controlled by the tilting movement of the support for locking and unlocking the case.



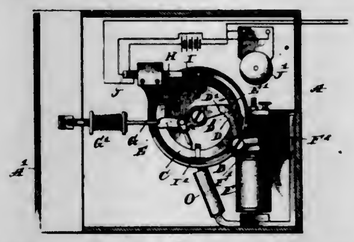
3. In a type-setting machine, the combination of type-ejectors, an upright type case thereover, a movable support for the type case, and means acting beneath the type case to lift the same within the support.

4. In a type-setting machine, the combination of a type-delivering mechanism, two parallel type cases above the same, a support for said cases, a horizontal axis for said support, means for moving said axis horizontally to bring one case or the other over a type-delivering mechanism, and means for raising and lowering the cases one at a time in said support.

5. In a typesetting machine, the combination of type-delivering devices, two parallel upright type cases, and means for moving said cases horizontally in unison, and for raising and lowering each case independently of the other.

[Claims 6 to 11 not printed in the Gazette.]

944,494. DOOR-CONTROLLING DEVICE. ADOLPHUS L. NOEL, Mason City, Iowa. Filed Dec. 15, 1902. Serial No. 135,242.



1. A door controlling device comprising a rotatable part, a stop device for said rotatable part, a two-part connection between the rotatable part and the door to be controlled, a spring interposed between said two-part connection whereby it may be lengthened.

2. A door controlling device comprising a box, a door therefor, a movable part adapted to be connected with the door to be controlled, a motor device associated with said movable part, a holding device for the movable part, said parts and motor device contained within the box, means for automatically releasing the movable part comprising an electric circuit, a circuit making and breaking device, and an electromagnetic device.

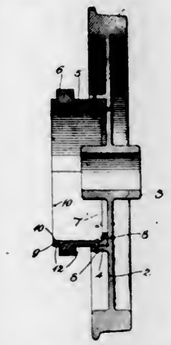
3. A door controlling device comprising a movable part adapted to be connected with the door, a motor device associated therewith, two projecting parts associated with the movable part, and a holding device comprising a movable piece adapted to engage one or the other of said projections in each of the positions of said holding device, a box in which said controlling mechanism is contained, the door when closed protecting said mechanism.

4. A door controlling device comprising a movable part, an actuating device therefor, a holding device for holding such movable part in a predetermined position, an electromagnet for retracting such holding device, said holding device acted upon directly by said electromagnet, a retracting device for returning the holding device when the magnet is deënergized, and means associated with the holding device operating when the holding device is retracted for engaging the movable part after it has been allowed a limited movement.

5. A door controlling device comprising a movable part adapted to be connected with a door, an actuating device therefor, a holding device provided with two engaging parts fixed in position with relation to each other, a projection on the movable part adapted to engage one of said engaging parts, and means for moving the holding device so that said projection will pass between the two engaging parts so as to be released.

[Claims 6 to 15 not printed in the Gazette.]

944,495. DRIVE-WHEEL. JOHN E. OSMER, Chicago, Ill. Filed Aug. 30, 1909. Serial No. 515,199.



1. A car wheel having thereon an annular flange formed integral with the wheel, a ring fitting within said flange, an annular rack upon the periphery of said ring, and fastening members extending through said flange and said ring and rigidly securing said flange and ring together.

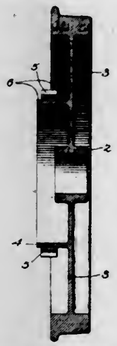
2. A car wheel having thereon an annular flange formed integral with the web of the wheel, a ring in the form of a short cylinder, said cylinder fitting within said flange and being rigidly secured in place, and an annular series of gear teeth on the periphery of said cylinder.

3. A car wheel having thereon an annular flange formed integral with the web of the wheel, a ring in the form of a short cylinder, said cylinder fitting within said flange and consisting of two semicircular sections, and fastening members extending through said flange and said ring and rigidly securing said ring in place, said flange opposing the action of centrifugal force upon the ring, said ring having gear teeth formed integral therewith and said ring being of sufficient width to provide space between the gear teeth and the web of the wheel for a gear case.

4. A car wheel having thereon an annular flange formed integral with the web of the wheel, a sectional ring fitting within said flange, the contacting surfaces of said ring and said flange being machined, said ring being rigidly secured to said flange, an annular flange on said ring and rigidly secured to the web of the wheel,

said ring having a circular rack formed integral therewith; and a ring fitting over and rigidly secured to the outer end of said ring for securing together the sections thereof, said sectional ring being of sufficient width to provide space for a gear case.

944,496. DRIVE-WHEEL. JOHN E. OSMER, Chicago, Ill. Filed Aug. 30, 1909. Serial No. 515,200.

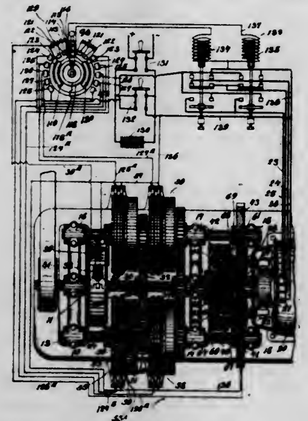


1. A car wheel provided with an annular flange of less diameter than the wheel and formed integral with said wheel, and a separately formed gear ring secured upon the periphery of said flange.

2. A car wheel having a hub of ordinary length, and provided with an annular flange of less diameter than the wheel and formed integral with said wheel, the periphery of said flange being machined, and a gear ring shrunk upon said flange, said flange being of sufficient width to provide beside said gear ring a space for the gear pan.

3. A car wheel having a hub of ordinary length, and provided with an annular flange, and a separately formed gear ring secured upon the periphery of said flange, said flange being of sufficient width to provide beside said gear ring a space for a gear pan.

944,497. ELECTROMAGNETIC ACCELERATOR. CHARLES O. PEARSON, New York, and AUGUST SUNDH, Yonkers, N. Y. Filed Aug. 17, 1908. Serial No. 448,905.



1. A driving shaft, a driven shaft, a plurality of electromagnetic clutches arranged to connect said shafts and to control the speed of the driven shaft, each of said clutches having a magnetic time element, and means for successively energizing said clutches at periods proportional to their time element.

2. A driving shaft, a driven shaft, a plurality of electromagnetic clutches arranged to connect said shafts and to control the speed of the driven shaft, each of said clutches having a magnetic time element, manual means for successively energizing said clutches, and means for preventing such successive energization of the clutches being made at a rate more rapid than that proportional to said time element.

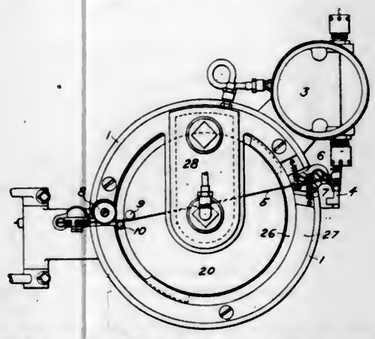
3. A driving shaft, a driven shaft, and a plurality of electromagnetic clutches arranged to be successively energized to connect said shafts, each of said clutches being of such a self-contained construction as to be gradually energized, and to be gradually deënergized while the next succeeding clutch is becoming energized, to thereby obtain a gradual acceleration of the driven member.

4. A driving shaft arranged to run at a constant speed, a transmission shaft arranged to be driven thereby at different speeds, a plurality of connecting mechanisms between said shafts, and an electromagnetic clutch for each of said connecting mechanisms, each of the clutches being of such a self-contained construction as to be gradually energized, and to be gradually deënergized while the next succeeding clutch is becoming energized, to thereby obtain a gradual acceleration of the driven shaft.

5. A driving shaft, a motor arranged to rotate said driving shaft at a constant rate of speed, a driven shaft, and a plurality of electromagnetic devices having magnetic time elements, each of said devices being arranged to cause the driven shaft to be connected with the driving shaft and to be driven thereby at a different rate of speed; a manually operated circuit closer for said devices, and automatic means for controlling the operation of said circuit-closer to correspond with the time elements of said devices.

[Claims 6 to 42 not printed in the Gazette.]

944,498. TAKE-UP FOR SEWING-MACHINES. BENJAMIN PHILLIPS, Lynn, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Feb. 10, 1904. Serial No. 192,894.



1. A take-up for sewing machines, having, in combination, two movable thread-engaging devices and means for moving them toward and from each other along continuous curved paths, substantially as described.

2. A take-up for sewing machines, having, in combination, two thread-engaging devices acting to engage the thread upon opposite sides, and means for moving the thread-engaging devices continuously along curved paths and in opposite directions, substantially as described.

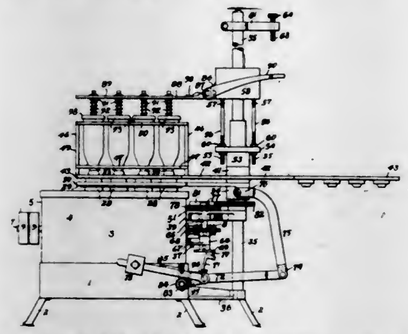
3. A take-up for sewing machines, having, in combination, two movable thread-engaging devices acting to first pull upon and then slacken the thread, and means for moving the thread-engaging devices continuously along curved paths in opposite directions, substantially as described.

4. A take-up for sewing machines, having, in combination, two thread-engaging devices revolving in opposite directions, and means for actuating the said devices, substantially as described.

5. A take-up for sewing machines, having, in combination, two thread-engaging devices revolving in opposite directions about a common center and engaging the thread upon opposite sides, means for actuating the thread-engaging devices, and means for disengaging the thread therefrom, substantially as described.

[Claims 6 to 14 not printed in the Gazette.]

944,499. BOTTLE-WASHING MACHINE. PAUL POLNISCH, Philadelphia, Pa., assignor to William C. Schwebel, Philadelphia, Pa. Filed July 15, 1909. Serial No. 507,826.



1. A bottle washing machine, comprising brushes carried by spindles provided with spouts and mounted on spindles revolvingly supported over spouts carried by taps of pipes supplied with water under a pressure to discharge water through the spouts of the brush carrying spindles, and a train of gears for producing the continuous rotation of the spindles, a rack provided with holes and cups suspended from the rack for the brush spindle to pass through extending from a collar, a collar mounted above the cup rack collar and provided with a series of radial racks provided with holes to coincide with the holes of the cup carrying rack when a radial rack is directly over the cup carrying rack, crates provided with means for supporting bottles over the holes of the radial racks, a plate provided with pins, coiled springs mounted on the pins, and disks suspended from the springs, of a lever provided with an arm, a collar provided with a pin for pivoting the lever, rods extending from the collar and provided with threaded ends passing through the collar mounted above the radial rack collar, a sleeve passing through the collar a fixedly mounted rod passing through the sleeve, a bracket mounted on the rod and provided with a check-bolt, a worm gear mounted on a shaft carrying a disk, a pin mounted on the disk, a rocking arm provided with a slot for the pin and mounted on a pin pivoted in brackets, an arm carrying a counter-balancing weight, mounted on the pivoted pin, a lever pivoted thereon and on the cup carrying rack collar, a gear mounted on the disk shaft, and a gear meshing therewith mounted on a shaft carrying an intermittent gear, and a gear provided by the sleeve passing through the collars meshing with the intermittent gear, and a driving shaft provided with a gear for transmitting motion to the train of gears causing the brushes to rotate and terminating in a worm meshing with the worm gear for the purposes set forth.

2. In a bottle washing machine, a base, a pedestal body mounted on the base and provided with bearings, a shaft mounted in the bearings carrying a gear and terminating in a worm, pipes mounted in the base, spouts tapped in the pipes, spindles mounted over the spouts, gears mounted on spindles, spindles provided with brushes carried by the gear spindles, a pin pivoted in brackets and provided with a slotted rocking arm, a driven shaft, a worm gear, a driving gear and a disk mounted on a driven shaft, a pin mounted on a disk engaging the slot of the rocking arm, a transmitter shaft, a gear meshing with the driving gear and an intermittent gear mounted on the transmitter shaft, a fixedly mounted rod, a sleeve mounted thereon provided with a gear meshing with the intermittent gear, a collar slidingly mounted on the sleeve, a rack provided with holes and cups suspended from the rack and under the holes for the brush spindles to pass through extending from the collar, a collar slidingly mounted on the sleeve and racks provided with holes to correspond with the holes of the cup rack extending from the collar, a collar slidingly mounted on the sleeve and provided with a rim having holes, a collar slidingly mounted on the sleeve rod, rods extending from the collar provided with threaded ends passing through the holes of the rim collar, a lever pivoted on the collar mounted on the rod and provided with an arm and with a plate, pins carried by the plate, coiled springs mounted on the pins, and disks suspended from the springs, a bracket mounted on the rod and a check bolt carried by the bracket.

3. A bottle washing machine comprising a base and a pedestal body mounted thereon and provided with bearings, a driving shaft mounted in the bearings and terminating in a worm, a vertical shaft, a gear mounted on the driving shaft, a gear meshing with the gear on the driving shaft and a driving gear mounted on the vertical shaft, pipes mounted in the base, spouts tapped in the pipes, tubular spindles revolvingly mounted over the spouts, gears mounted on the spindles meshing with each other and driven by the driving gear on the vertical shaft, tubular spindles carrying brushes and provided with spouts fixedly mounted on the gear carrying spindles, a pivoted pin, a rocking arm having a slot mounted thereon, a worm driven shaft, a worm gear meshing with the driving shaft worm, a driving gear and a disk mounted on said worm driven shaft, a pin mounted on the disk engaging the slot of the rocking arm, a transmitter shaft, a pinion meshing with the driving gear of the driven shaft and an intermittent gear mounted on the transmitter shaft, a rod vertically supported by brackets, a sleeve revolubly mounted on the rod, a gear provided by the sleeve and driven by the intermittent gear, a rack provided with holes, cups suspended from the rack and under the holes surrounding the brush spindles provided with a collar mounted on the sleeve, a lever pivotally connecting the bar mounted on the pivoted pin with the cup carrying collar, racks provided with holes to correspond with the cup rack holes radiating from a collar constrainedly mounted on the sleeve and over the cup rack collar, a collar provided with a rim having holes mounted on the sleeves and above the constrainedly mounted collar, a collar slidingly mounted on the rod, joining rods extending from the collar and provided with threaded ends passing through the holes of the rimmed collar and nuts for fixing the rimmed collar on the rod, a lever pivoted on the collar mounted on the rod and consisting of a plate carrying pins and of an arm, coil springs mounted in the pins and plates suspended from the springs, a clasp adjustably mounted on the rod and a check bolt carried by the clasp.

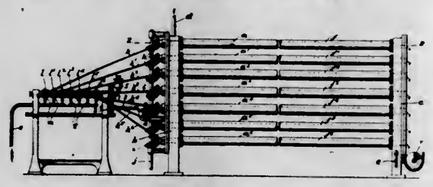
4. In a bottle washing machine the combination of a driving shaft mounted in bearings provided by a pedestal body, and mounted on a base supporting water pipes, spouts tapped on the pipes, spindles mounted over the spouts, and spindles carrying brushes, and provided with spout mounted on the spindles of the tapped spout, gears meshing with each other mounted on the tapped spindle, gears for transmitting the motion from the driving gear to the spindle gears for causing the brushes to rotate, a worm of the driving shaft, a worm driven shaft, a worm gear meshing with worm, a driving gear and a disk carrying a pin mounted thereon, a pin and a slotted arm mounted receiving an intermittent rocking motion from

the pin of the disk on the worm driven shaft, a transmitter shaft, a gear meshing with the gear on the worm driven shaft, and an intermittent gear mounted thereon, a rod, a sleeve revolubly mounted thereon, a collar slidingly mounted on the sleeve, a collar carrying a rack provided with cups, a collar, racks provided with holes radiating from said collar, a collar slidingly mounted on the sleeve rod and rod connected with a collar slidingly mounted on the sleeve, a lever pivoted on the rod collar and provided with an arm, and with plate provided with pins, springs mounted thereon and disks suspended from the springs, an arm carrying a counterbalancing weight and operating a water pipe valve, mounted on the rocker arm pin, an arm pivotally connecting the cup rack carrying collar with an arm mounted on the pivoted pin for causing the collars to slide upwardly for forcing the bottles of the brushes, and the cups over the brushes, a bracket, a bolt projecting through the bracket for causing the arm of the lever pivoted on the collar slidingly mounted on the rod to rock downwardly and its plate upwardly for releasing the bottles, a gear carried by the sleeve meshing between the intermittent gear to cause the sleeve to revolve causing a crate carrying rack to move away from the brushes, and to bring a similar rack over the brushes, when the rocker arm is stationary, said arm to cause the collars to move downwardly, for forcing the bottles over the brushes to be washed as the brushes continue to revolve when the sleeve gear is stationary, and for the brushes to wash the bottles as water is spurted from the brush carrying spindles when both the gear and rocker arm are stationary.

5. In a bottle washing machine a driving shaft terminating in a worm, a vertical shaft and revolving spindles provided with brushes, gears mounted on said shafts and spindles for causing the brushes to revolve, a worm driven shaft, a worm gear mounted thereon meshing with the driving shaft worm, a driving gear and a disk provided with a pin mounted thereon, a slotted arm to be caused to rock intermittingly by the pin of the disk of the worm driven shaft, a transmitter shaft, a gear mounted thereon meshing with the driving gear on the disk carrying shaft and an intermittent gear mounted thereon, a rod, a sleeve revolubly mounted thereon and provided with a gear, meshing with the intermittent gear to cause the sleeve to rotate when the slotted arm is stationary, two bars mounted on a pin carrying the slotted arm, a water valve linked with one of the arms, and a lever pivotally connecting a collar with the other arm for causing the collar to slide upwardly and operating the valve to shut up the water when the collars carrying sleeve is stationary, a collar slidingly mounted on a rod, a bracket carrying a check bolt adjustably mounted on the rod, a lever pivoted on the collar and provided with an arm and with a plate to be caused to rock for releasing bottles of a crate supported on a rack of a collar constrainedly mounted on the sleeve to revolve therewith.

[Claims 6 to 10 not printed in the Gazette.]

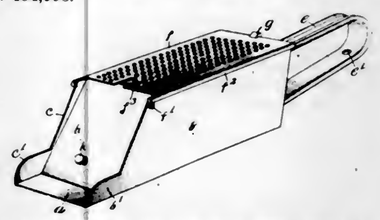
944,500. METHOD OF EVAPORATING EXPLOSIVE MIXTURES. FRANCIS I. DU PONT, Wilmington, Del., assignor to The E. I. du Pont de Nemours Powder Company, Wilmington, Del., a Corporation of New Jersey. Filed Nov. 18, 1908. Serial No. 463,248.



1. The herein described improvement in the process of evaporating explosive mixtures in a tube surrounded by a heating medium and containing a screw conveyer, which consists in rotating the conveyer so rapidly as to produce centrifugal force sufficient to drive the particles attaching or tending to attach to the screw toward the inner wall of the tube.

2. The herein described improvement in the process of evaporating explosive mixtures, which consists in subjecting the material in a tube to the action of centrifugal force sufficient to drive the particles to the periphery and heating and carrying said particles through said tube while subjected to a rubbing action.

944,501. COMBINED FIRE-SHOVEL AND ASH-SIFTER. IKE PORTNOY, Chicago, Ill. Filed May 10, 1909. Serial No. 494,998.



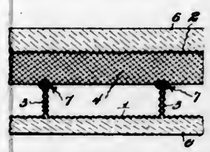
1. A shovel open at the front and having sides, a back, a sieve-like cover hinged to the sides near the top front edge thereof to permit the rear end of said cover to be raised, and a front door hinged at the top and adapted to form a closure for the front of the shovel.

2. A shovel open at the front and having sides, a back, a sieve-like cover hinged to the sides near the top front edge thereof to permit the rear end of said cover to be raised, and a front door adapted to form a closure for the front of the shovel and adapted to be slid back parallel to said cover.

3. A utensil of the class described, having a bottom, sides and back, rigidly fastened together, a front door and a top cover, said door and cover being pivotally connected together and adapted to slide one relative to the other and said cover being hinged to the sides of the utensil.

4. A utensil of the class described, having a bottom, sides and back, rigidly fastened together, a front door and a top cover, said door and cover being pivotally and slidingly connected together and said cover being hinged to the sides of the utensil, said cover being sieve-like, and fastening means for securing the door in closed position to the front of the utensil, and in open position adjacent to said cover.

944,502. FIREPROOF CONSTRUCTION. ARTHUR PAIDDLE, San Francisco, Cal. Filed Mar. 5, 1909. Serial No. 481,290.

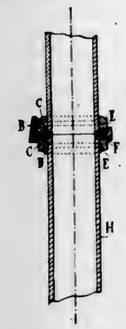


1. A fire-proof wall, partition or the like formed of sheets of metal lathing, means to secure said sheets together, laterally projecting ribs formed in said sheet, said ribs being arranged at right angles to each other on the opposite side of the partition, wall or the like, and concrete connecting each sheet to form the complete wall.

2. A fire-proof wall, partition or the like formed of sheets of metallic lathing, means for securing said sheets together, laterally projecting stiffening ribs formed by folding said material, the ribs on one side of said partition extending at right angles to the ribs on the opposite side, and concrete connecting each sheet to form the complete wall.

3. A hollow fire-proof wall, partition or the like formed of sheets of metallic lathing, stiffening ribs formed by folding sections of material, means for securing the outer edges of said ribs together, thereby forming spacing strips to support the sheets, which are thus spaced apart and form supports or lathing, and concrete secured to the pieces for forming the complete walls.

944,503. PIPE-JOINT. CLAUDE REVAILLOT, Nice, France. Filed Mar. 6, 1909. Serial No. 481,682.



1. A pipe joint or coupling comprising two parts, each with connecting lugs, one of which is longer and narrower than the other and provided near its end with a V-shaped recess, and wedges engageable in said recesses for tightening the joint.

2. A pipe joint or coupling comprising two parts, each with connecting lugs, one of which is longer and narrower than the other and provided near its end with a V-shaped recess, and wedges engageable in said recesses for tightening the joint, each part provided with two separated grooves, a ring in one groove and studs in the other.

3. A pipe joint or coupling comprising two parts, each with connecting lugs, one of which is longer and narrower than the other and provided near its end with a V-shaped recess, and wedges engageable in said recesses for tightening the joint, each part provided with two separated grooves, a ring in one groove and studs in the other, each part diametrically opposite the larger lug being provided with a flattened part for engagement with said wedges.

944,504. BASE-BALL GAME-BOARD. FOSE DE ROCHER, Chicago, Ill. Filed Sept. 23, 1909. Serial No. 519,285.



1. A base ball game board adapted for use in connection with a slidable ball or projectile, and provided with a first base, a second base, a third base, a home base, a pitcher's station, a goal arranged in front of the home base, a base hit line to the rear of the home base, double and triple play lines in the outer ball field, and two series of goals between the first and second bases and second and third bases, respectively, substantially as set forth.

2. A base ball game board adapted for use in connection with a slidable ball or projectile, and provided with a first base, a second base, a third base, a home base, a pitcher's station, a goal arranged in front of the home base, a base hit line to the rear of the home base, double and triple play lines in the outer ball field, a transverse balk line intermediate of second and home bases, and two series of goals between the first and second and second and third bases, respectively, substantially as set forth.

3. A base ball game board adapted for use in connection with a slidable ball or projectile, and provided with a first base, a second base, a third base, a home base, a pitcher's station, a goal arranged in front of the home base, a base hit line to the rear of the home base, double and triple play lines in the outer ball field, a transverse balk line intermediate of second and home bases, diagonal lines intersecting at the pitcher's station, and two series of goals between the first and second bases and second and third bases, respectively, substantially as set forth.

4. A base ball game board adapted for use in connection with a slidable ball or projectile, and provided with a first base, a second base, a third base, a home base, a pitcher's station, a goal arranged in front of the home base and having a segmental form and partitioned into sections, a base hit line to the rear of the home base, double and triple play lines in the outer ball field, and two series of goals between the first and second bases and second and third bases, respectively, substantially as set forth.

944,505. BUCKLE. FRIEND A. RUSS, Greenwich, Conn. Filed Feb. 5, 1908. Serial No. 414,334.



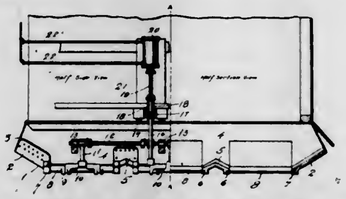
In a device of the character described, a two-piece buckle comprising a frame, a coöperating web clamping lever pivoted thereto, a web, said frame being slitted to a width corresponding substantially to the thickness of the web, one end of the web passing through the slitted portion of the frame and extending thence downwardly on the rear side of the frame, thence upwardly on the front side of the frame, thence over the upper edge on said frame, thence downwardly again at the rear side of the frame, thence upwardly through the space in front of the frame between said frame and said web clamping lever.

944,506. GRAVITY-SLIDE ASH-PAN. JOHN J. RYAN, Houston, Tex. Filed Sept. 8, 1908. Serial No. 451,993.

1. In combination with an ash pan having bottom openings separated by a member 5 arranged transversely of the pan between its ends having oppositely disposed guides 6, other guide members 7 at the ends of the pan, and two pairs of oppositely movable valve plates slidable in said guides to close the bottom openings of the pan, one pair of said plates being devoted to each opening.

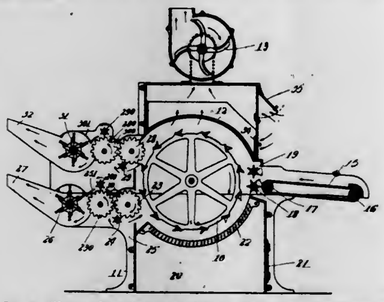
2. In combination with an ash pan having bottom openings separated by a member 5 arranged transversely of the pan between its ends having oppositely disposed guides 6, other guide members 7 at the ends of the pan, and two pairs of oppositely movable valve plates slidable in said

guides to close the bottom openings of the pan, one pair of said plates being devoted to each opening, the guides 6 and 7 inclining from the opposite ends thereof inwardly toward their centers, substantially as and for the purpose described.



3. In combination with an ash pan having bottom openings separated by a member 5 arranged transversely of the pan between its ends having oppositely disposed guides 6, other guide members 7 at the ends of the pan, and two pairs of oppositely movable valve plates slidable in said guides to close the bottom openings of the pan, one pair of said plates being devoted to each opening, the guides 6 and 7 inclining from the opposite ends thereof inwardly toward their centers, and the bridging portion between the guides 6 inclining downwardly in opposite directions toward the bottom openings of the pans.

944,507. FIBER-CLEANING MACHINE. CHARLES G. SARGENT, Westford, Mass. Filed Apr. 24, 1907. Serial No. 369,897.



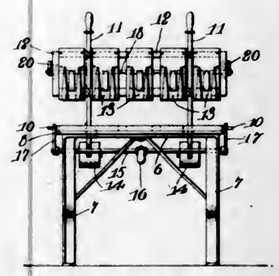
1. In a fiber cleaning machine, the combination with the picking cylinder, a plurality of primary bur cylinders each independently taking stock from the picking cylinder, and a guard for each primary bur cylinder, of a plurality of secondary bur cylinders each entirely out of contact with the picking cylinder and taking stock directly from the surface of one of the primary bur cylinders, whereby they work on opposite surfaces of the stock, a guard for each of said secondary bur cylinders, a separate stock escape for each secondary bur cylinder, means for receiving the burs after the same have been thrown from the stock by said last named guards and preventing the same from passing back into the stock, and means for rotating the secondary bur cylinder at a higher rate of speed than the primary bur cylinders, and in the opposite direction.

2. In a fiber cleaning machine, the combination with the picking cylinder, and two primary bur cylinders arranged one above the other, each independently taking stock from the picking cylinder, of two secondary bur cylinders arranged one above the other, and each in horizontal alinement with one of the primary bur cylinders, and entirely out of contact with the picking cylinder, each taking stock directly from one of the primary bur cylinders, and operating on the other side of the stock, a guard for each bur cylinder, and bur escapes for said guards, one of said bur escapes being below the lower pair of cylinders, one above the upper pair and one between the two pairs of bur cylinders.

3. In a fiber cleaning machine, the combination with the picking cylinder, a plurality of primary bur cylinders each independently taking stock from the picking cylinder, and a guard for each primary bur cylinder, of a plurality of secondary bur cylinders each entirely out of contact with the picking cylinder, and taking stock directly from the surface of one of the primary bur cylinders, whereby they work on opposite surfaces of the stock, a guard for each of said secondary bur cylinders, two brushes, each for taking stock from one of the secondary bur cylinders, and separate stock escapes for the two brushes.

4. In a fiber cleaning machine, the combination with a picking cylinder, of a primary bur cylinder, a second bur cylinder rotating out of contact with the picking cylinder and directly in contact with the first bur cylinder and in the opposite direction, means for rotating the second bur cylinder at a higher rate of speed than the first bur cylinder, whereby it will take stock directly therefrom, and operate on the other side of the stock, a guard for each bur cylinder, bur escapes for said guards, and a rotary brush for taking stock from the second bur cylinder and a stock escape, both bur cylinders, the brush, and stock escape being substantially in a horizontal plane.

944,508. CEMENT-SHINGLE MACHINE. LLOYD G. SATTERLEE, Rochester, Mich. Filed Oct. 7, 1907, Serial No. 396,263. Renewed July 10, 1909. Serial No. 507,007.



1. The combination of a table and removable pallet supported thereon, a mold frame on the pallet, a swinging die frame hinged to the table, and means to fasten the mold frame to either the table or the die frame.

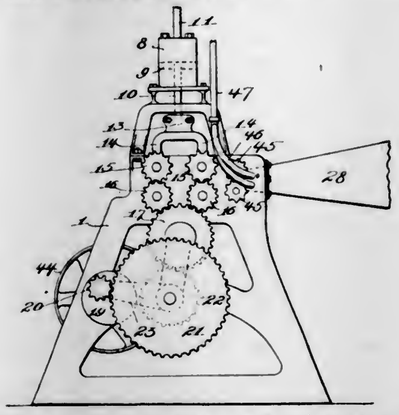
2. The combination of a table, a mold frame thereon having projecting lugs, a swinging die frame hinged to the table, and hooks carried by both the table and the die frame and engageable with the lugs.

3. The combination of a table with a pallet thereon and a pair of weighted levers hinged thereto, a frame on the pallet, a die frame carried by the levers, and rock shafts provided with handles and mounted upon the table and levers respectively, and having hooks engageable with the said frame.

944,509. FIBER-LIBERATING MACHINE OR BREAK. THOMAS G. SAXTON, Lexington, Ky., assignor of fifty-one one-hundredths to Charles J. Bronston, Lexington, Ky., and twelve one hundredths to John P. McKeever and twelve one-hundredths to Edward L. McKeever, Fayette county, Ky. Filed Oct. 1, 1907. Serial No. 395,442.

1. A machine of the class specified, comprising upper and lower pairs of crushing or breaking rolls, the upper pair of rolls being vertically movable with relation to the lower pair of rolls and a pressure element with pneumatic pressure means intermediately coöperating with the same, said element having a plurality of extremities at each end individually engaging the opposite extremities of the upper pair of rolls and having unrestricted movement with the rolls and uniformly transmitting and applying pressure to the extremities of the rolls from the intermediate pneumatic pressure means.

2. A machine of the class specified, upper and lower pairs of crushing or breaking rolls, the upper pair of rolls being vertically movable, a pressure element having extremities engaging the bearings of the upper pair of rolls, and a fluid pressure means movably secured to and disposed above the intermediate portion of said element and upper pair of rolls and imparting a uniformity of pressure to the extremities of the element from a single point of application of the pressure means whereby the bearings at the opposite ends of the upper pair of rolls have an equal pressure applied thereto.



3. In a machine of the class specified, upper and lower pairs of crushing or breaking rolls, the upper rolls being vertically movable, a rocking pressure element having a plurality of extremities engaging the opposite pairs of extremities of the upper pair of crushing or breaking rolls and a single fluid pressure controlled piston disposed over and engaging and coöperating with the intermediate portion of said element.

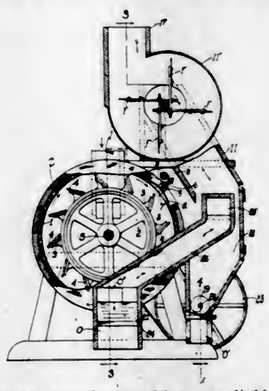
4. In a machine of the class specified, upper and lower pairs of crushing or breaking rolls, the upper rolls being vertically movable, operating mechanism for rotating the rolls, a pressure element disposed over and having a plurality of extremities engaging the opposite pairs of extremities of the upper pair of rolls, the opposite extremities of the pressure element having self-rising and falling movements, and a single fluid pressure controlled piston disposed over and to which the said element is movably attached at an intermediate point.

5. In a machine of the class specified, upper and lower pairs of crushing or breaking rolls, the upper rolls being vertically movable, a pressure element disposed over the upper pair of rolls and having a plurality of extremities at opposite sides of its center engaging the extremities of the upper rolls, and a fluid pressure means arranged over the said element and having a piston with a piston rod movably connected to and depending therefrom and movably attached to the intermediate portion of the said pressure element to impart to the extremities of the latter and the upper rolls a constant uniform pressure irrespective of the diameter or thickness of the material passing between the rolls.

[Claims 6 to 22 not printed in the Gazette.]

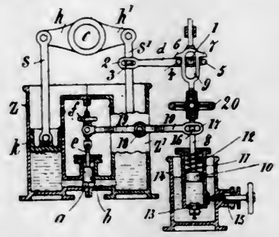
944,510. WHEAT-SCOURING MACHINE. MATYAS SCHIEBENDREIN, St. Louis, Mo. Filed Mar. 10, 1909. Serial No. 482,525.

1. In a grain scouring machine, a suitable cylindrical casing having an inlet and an outlet, and having a portion of its peripheral wall removed, a reticulated plate or sieve mounted in the opening left by said removed portion and curved in the arc of the cross-section of the inner surface of the casing, a rotating member confined within the casing, a series of tangentially disposed beaters on said member for scouring the grain, a series of adjustable ribs distributed along the inner surface of the sieve and curved to conform with the cylinder walls, and means for adjusting the angular disposition of the ribs relatively to the axis of the casing, whereby the grain is advanced at any predetermined rate of speed toward the outlet.



2. In a grain scouring machine, a suitable cylindrical casing having an inlet and an outlet, and having a portion of its peripheral wall removed, a reticulated plate or sieve mounted in the opening left by said removed portion and curved in the arc of the cross-section of the inner surface of the casing, a series of rotating tangentially disposed blades operating in proximity to the inner surface of the casing, a series of adjustable ribs distributed along the inner surface of the sieve and curved to conform with the cylinder walls, rock-stems connected to the centers of the ribs, a longitudinally disposed bar for supporting the stems, arms on the stems, a link or rod pivotally connected to the several arms, a suction fan or exhaust for removing the light impurities separated from the grain through the sieve and from the point of the charge from the casing, and an intermediate compartment between the exhaust and the point of discharge through which the impurities pass on their way to the exhaust.

944,511. APPARATUS FOR MINIMIZING THE OSCILLATORY MOVEMENTS OF SHIPS AND OTHER OSCILLATING BODIES. ERNST O. SCHLICK, Hamburg, Germany, and MAX WURL, Newcastle-upon-Tyne, England, assignors to Swan, Hunter & Wigham Richardson Limited, Newcastle-upon-Tyne, England. Filed Mar. 17, 1908. Serial No. 421,668.



1. The combination with gyroscope mechanism and devices for damping the oscillations thereof; of means actuated from the gyroscope mechanism to regulate and control the damping effect during the oscillations.

2. The combination with gyroscope mechanism and devices for damping the oscillations thereof; of means actuated from the gyroscope mechanism to regulate the damping effect in accordance with the degree of amplitude of the oscillations.

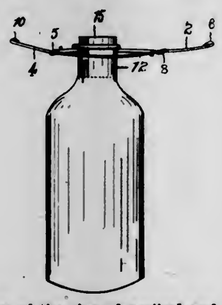
3. The combinations with gyroscope mechanism and hydraulic devices for damping the oscillations thereof; of means actuated from the gyroscope mechanism to control the action of said hydraulic mechanism.

4. The combination with a gyroscope mechanism and a cataract pump operatively connected thereto; of a valve mechanism controlled by the oscillation of the gyroscope to control the cataract.

5. The combination with a gyroscope mechanism; of a two-armed lever mounted on a trunnion thereof, a cataract pump comprising two cylinders and a by-pass connecting them, a piston in each cylinder and operatively connected to said lever, a valve to control said by-pass, and mechanism depending upon the amplitude of oscillation of the gyroscope to operate and control the valve.

[Claims 6 and 7 not printed in the Gazette.]

944,512. DEVICE FOR LOCKING CORKS IN BOTTLES. WILLIAM SCHROEDER, Dubuque, Iowa. Filed Mar. 5, 1909. Serial No. 481,517.



1. In a device of the class described and in combination with the neck of a bottle, two handles disposed on opposite sides of the neck of a bottle, and means secured to each handle adapted to be engaged by the handle on the opposite side of the neck of the bottle and by the handles drawn toward each other.

2. In a device of the class described, two handles adapted to be disposed on opposite sides of the neck of a bottle, and a loop at one end of each handle adapted to be engaged by the opposite handle and by the handles drawn toward each other upon opposite sides of the neck of the bottle.

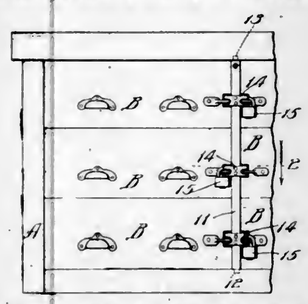
3. In a device of the class described, two handles adapted to contact with the opposite sides of the neck of a bottle, a loop at the end of each handle adapted to be engaged by the opposite handle, and a grasping device at the end of each handle whereby the handles are drawn along the opposite sides of the neck of the bottle and the loops toward each other on the opposite sides of the neck of the bottle.

944,513. LOCKING DEVICE. FRANK H. SELDEN, Chicago, Ill. Filed June 26, 1908. Serial No. 440,477.

1. In a locking device, in combination with a frame and movable members therein, a strip, a master lock adapted to lock said strip at the side of said members to said frame, and locking means on each of said movable members adapted to lock them to said strip, whereby independent dual lock control is provided for each movable member.

2. In a locking device, a frame and movable member, a removable locking strip, a master lock adapted to lock said strip to said frame at one side of said movable member and a lock on said movable member adapted to lock it to said strip, whereby said movable member is placed under independent dual lock control.

3. In combination with a frame and drawer slidable therein, a bar or upright strip having a lock under key control adapted to bring it into locking engagement with the frame, a fork on the bar or upright, a hook on the drawer, adapted to pass between the prongs of the fork as the drawer is pulled out and a padlock adapted to be slipped over the hook behind the fork to prevent said passage, whereby removal, either of said bar or said padlock permits opening of the drawer.

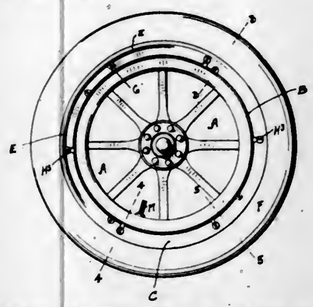


4. In a locking device, a frame, a movable member therein, a locking strip, a hook piece 10 and a fork piece 14, one of said pieces attached to said member and the other to said strip, said hook piece being placed to pass the prongs of said fork piece to permit said member to be drawn out from said frame, a padlock adapted to prevent said passage, and a lock adapted to lock said strip to said frame, whereby removal either of the padlock or of the lock will permit said member to be drawn out.

5. In a locking device, a frame with movable members therein, a reversible locking strip having means for locking it to said frame, in normal or reversed position, projections on said strip arranged in the path of each of said members, openings in said members adapted to register with said projections in the normal position of said strip, but not in reversed position, to permit said members to pass said projections, hooks on said members, and padlocks adapted to be slipped through said hooks behind said projections to prevent said passage, whereby said members are under dual lock control in the normal position of said strip and single lock control in the reversed position thereof.

[Claims 6 to 9 not printed in the Gazette.]

944,514. RIM FOR MOTOR-CAR WHEELS. DON C. SMITH and WILLIAM F. GORTON, Muncie, Ind. Filed Dec. 20, 1907. Serial No. 407,387.



1. In a wheel, the combination of the felly rim having its face beveled transversely, one of the edges of said beveled face being inclined upwardly and the other downwardly, a tire retaining rim composed of a pair of oppositely disposed rings their inner sides being transversely grooved to receive bolts for securing the sections together their vertical facing edges being provided with a rabbet joint having the ledge D^2 its internal face being so formed as to register with the beveled face and its edge inclined or beveled to register with the inclined edge of the felly rim, the said ledge being provided with radially disposed slots at proper intervals opening into semicircular recesses provided correspondingly in the face of each of said sections; the inner surface of the said tire-rim being so formed as to register with and to stand slightly apart from the beveled face, and to reside in contact with the upwardly and downwardly inclined edges of the felly rim, transverse grooves at suitable intervals to register with the corresponding grooves in the felly rim for the reception of means for securing the tire rim to the wheel, substantially as described.

2. In a wheel, the combination of the felly rim having its face beveled transversely one of the edges of said beveled face being inclined upwardly and the other downwardly, a tire retaining rim composed of a pair of oppositely disposed rings their inner sides being transversely grooved to receive bolts for securing the sections together their vertical facing edges being provided with a rabbet joint having the ledge D^2 its internal face being so formed as to register with the beveled face and its edge inclined or beveled to register with the inclined edge of the felly rim, the said ledge being provided with radially disposed slots at proper intervals opening into semicircular recesses provided correspondingly in the face of each of said sections; the inner surface of the said tire rim being so formed as to register with and to stand slightly apart from the beveled face and to reside in contact with the upwardly and downwardly inclined edges of the felly rim, transverse grooves at suitable intervals to register with the corresponding grooves in the felly rim for the reception of means for securing the tire rim to the wheel, countersunk bolts to connect the retaining rim sections together, and to secure the retaining rim to the tire rim, substantially as described.

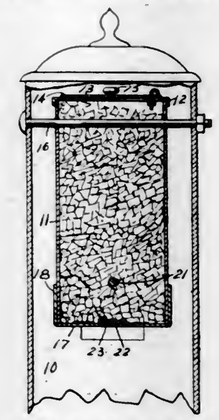
3. In a wheel, the combination of a felly-rim having its face beveled transversely one of the edges of said beveled face being inclined upwardly and the other downwardly, a tire retaining rim composed of a pair of oppositely disposed rings, their inner sides being transversely grooved to receive bolts for securing the sections together, their vertical facing edges being provided with a rabbet joint having a transverse ledge that has its internal face of form to register with the beveled face and its edge beveled to register with the beveled edge of the felly rim, the inner surface of the said tire retaining rim being so formed as to register with and to stand slightly apart from the beveled face, and to reside in contact with the upwardly and downwardly inclined edges of the felly rim, transverse grooves at suitable intervals to register with the corresponding grooves in the felly rim for the reception of means for securing the tire rim to the wheel, substantially as described.

944,515. HEAT-STORING ATTACHMENT FOR STOVES. LEVI R. SMITH, Latham, Kans. Filed Jan. 9, 1908. Serial No. 409,976.

1. The combination with a stove provided with a combustion chamber; of a container for heat retaining material held in said combustion chamber, said container being provided with an opening arranged for direct access of flame from said combustion chamber into the container, and a closure for said opening.

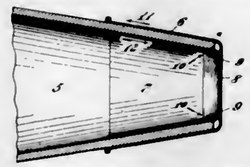
2. The combination with a stove provided with a combustion chamber; of a container for heat retaining material held in said combustion chamber, said container being provided with an opening arranged for direct access of flame from said combustion chamber into the container, said container being further provided with a second opening arranged to permit a draft through the container to draw the flame from the combustion chamber therethrough.

3. The combination with a stove provided with a combustion chamber; of a container for heat retaining material held in said combustion chamber, said container being provided with an opening arranged for direct access of flame from said combustion chamber into the container, said container being further provided with a second opening arranged to permit a draft through the container to draw the flame from the combustion chamber there-



through, and closures for the openings in the container to retain the heat in said container.

944,516. HORN. ADOLPH G. SOISTMANN, Philadelphia, Pa. Filed July 11, 1907. Serial No. 383,258.



1. In combination with a horn, a tapered sleeve surrounding the tapered end thereof, and a tapered sleeve fitting within said end, the outer sleeve having a lip turned around the edge of and projecting into the inner sleeve to lock the same therewith.

2. The combination of a horn, a tapered sleeve surrounding the tapered end thereof, and a tapered sleeve fitting within said tapered end, the outer sleeve being turned in around the edge of the horn and the edge of the inner sleeve.

3. In combination with a horn, a tapered sleeve surrounding the tapered end thereof, and a tapered sleeve fitting within said tapered end, each sleeve having curved inwardly turned lips at the small end thereof, the lip of the outer sleeve being spun around that of the inner sleeve after being assembled.

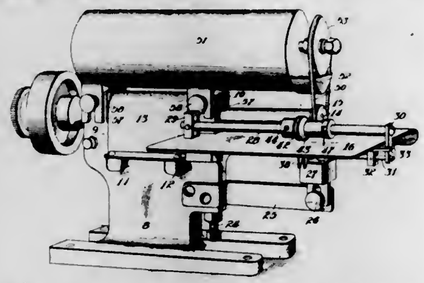
4. In combination with a horn, a tapered sleeve fitting over the tapered end of the horn, a tapered sleeve fitting within said tapered end, said sleeves having turned-in portions, one locking with the other, substantially as described.

5. In combination with a horn of fibrous material, a tapered sleeve surrounding the tapered end of the horn and a tapered sleeve fitting within said tapered end having a lip or ridge around its smaller margin, the tapered sleeve surrounding the horn having an inwardly curved lip at its smaller end projecting into the tapered sleeve within the horn and engaging with the lip thereof.

944,517. DAMPENING-MACHINE. GEORGE H. SPANSAIL, Chicago, Ill., assignor to Chicago Laundry Machinery Co., a Corporation of Illinois. Filed Aug. 14, 1907. Serial No. 388,457.

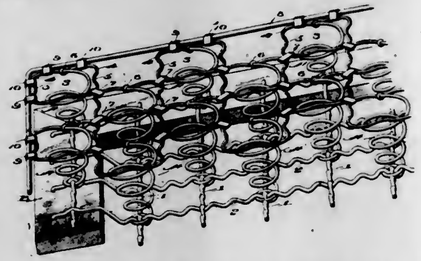
1. In a dampening machine, the combination of a table having a slot, a pivoted bar above the table, an oscillatory kick-off, means connected with the pivoted bar to move

the kick-off in one direction, and means for moving the kick-off in the opposite direction.



2. In a dampening machine, the combination of a table having a slot, a pivoted bar above the table, a seam-guide mounted on the bar, an oscillatory kick-off, means connected with the pivoted bar to move the kick-off in one direction, and means for moving the kick-off in the opposite direction.

944,518. SPRING SYSTEM FOR BEDS, &c. JOHN A. STAPLES, Newburgh, N. Y. Filed July 25, 1904. Serial No. 217,999.



1. A plurality of springs, one coil of each of which is bent so as to have four outwardly projecting portions, said portions being separated by inwardly extending projections similar in curvature and extent thereto, means adapted to connect said springs at said outwardly projecting portions, a frame, and sustaining wires dropped below said frame and adapted to support said springs thereon.

2. A plurality of springs, one coil of each of which is so formed as to have alternate portions concave and convex with respect to a point centrally positioned within said coil, said concave and convex portions being of substantially the same radius of curvature, a binding wire extending about said springs and connected to each of the outermost of said springs at two adjacent convex portions.

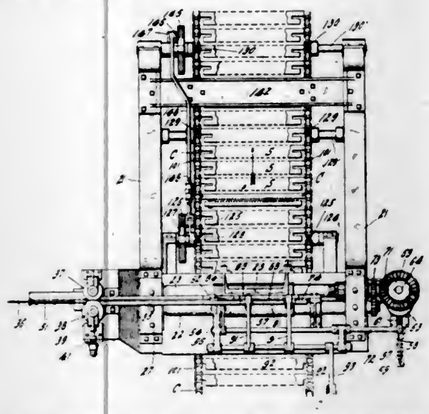
3. A plurality of springs, one coil of each of which is so formed as to have alternate portions concave and convex with respect to a point centrally positioned within said coil, said concave and convex portions being of substantially the same radius of curvature, a binding wire extending about said springs and connected to each of the outermost of said springs at two adjacent convex portions, said springs being connected one with another at their convex portions.

4. A plurality of springs, one coil of each of which is bent so as to have four outwardly projecting portions, said projecting portions being separated by inwardly extending portions similar in curvature and extent thereto, a binding wire extending about said coils and secured to the outermost of the same at the outwardly projecting portions thereof, and means adapted to connect said springs one with another at their outwardly projecting portions.

5. A plurality of springs, one coil of each of which is bent so as to have a plurality of outwardly projecting portions, said projecting portions being separated by inwardly extending portions similar in extent and curvature thereto, a binding wire extending about said coils, and secured to each of the outermost of the same at two consecutive outwardly projecting portions, a frame, sustaining wires secured to said frame and dropped below the plane of the same and adapted to support said springs thereon.

[Claims 6 to 11 not printed in the Gazette.]

944,519. MATCH-SPLINT MACHINE. EDWARD J. STERBA, Chicago, Ill., and JOHN H. BIRCH, Crawfordsville, Ind., assignors to Indiana Match Company, Crawfordsville, Ind., a Corporation of Indiana. Filed Feb. 4, 1909. Serial No. 475,981.



1. A match machine comprising, a pair of splint-forming rolls having interdigitated cutting flanges, a guide arranged above the crotch of said rolls and adapted to receive a length of splint material, a stop arranged in said guide to normally prevent the splint material from passing to the rolls, and means for positively projecting said splint material past said stop into engagement by the splint-forming rolls.

2. A splint-forming machine comprising, a pair of splint-forming rolls having interdigitated cutting flanges, a guideway arranged above the crotch of said rolls, a stop bar yieldingly projected into said guideway and arranged parallel with the axes of the rolls, and means for positively projecting lengths of splint material through said guide past said stop bar and into engagement with the splint-forming rolls.

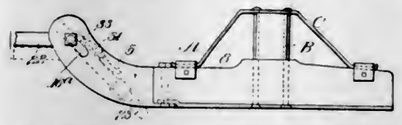
3. A splint-forming machine comprising, a pair of splint-forming rolls having interdigitated cutting flanges, a guideway arranged above the crotch of said rolls, a stop bar yieldingly projected into said guideway and arranged parallel with the axes of the rolls, means for intermittently feeding a ribbon of splint material into said guide, means for severing predetermined lengths from the inner end of such ribbon, and means for positively projecting such predetermined lengths of splint material through said guide past said stop bar and into engagement with the splint-forming rolls.

4. In a splint-forming machine, the combination, with a pair of splint-forming rolls comprising interdigitated cutting flanges, of a material guide arranged adjacent the receiving crotch of said rolls, said material guide comprising two opposed members one withdrawable from the other, a stop bar yieldingly mounted in and projected from the inner face of one of said members, and a movable support for said movable member whereby said member may be readily withdrawn to give free access to the receiving throat or crotch between the splint-forming rolls.

5. The combination, with a splint forming mechanism, of a carrier comprising a plurality of splint carrying members each comprising a pair of bars having interdigitated splint receiving fingers and means for clamping said bars together, a movable support comprising members for receiving the splint carrier, means for moving the splint carrier step by step to bring the successive members into alinement with splint forming mechanism, the said splint forming mechanism, means for moving the carrier support with its carrier toward and from the splint forming mechanism, means for separating the bars of each splint carrier lengthwise of its interdigitated fingers to receive the splints, and means for engaging, supporting and adjusting the splints relative to the splint carrier when the fingers are separated.

[Claims 6 to 12 not printed in the Gazette.]

944,520. SLED-BRAKE. WILLIAM H. STEVENSON, Kilbourn, Wis. Filed May 13, 1909. Serial No. 495,728.



1. In a device of the character described, a wooden runner body, a casing mounted upon the forward end of the body and provided with slots in its side walls at a distance from the upper end of the casing approximately equal to the length of the slots, a brake-prong slidably supported adjacent to the outer surface of the inner side wall of the casing, ribs provided with overhanging flanges and disposed upon the inner surface of the outer wall of the casing adjacent to the slots, a snow-excluding plate slidably mounted between the ribs, the flanges of the latter and the inner surface of the outer walls of the casing, and means for actuating the brake-prong and the snow-excluding plate.

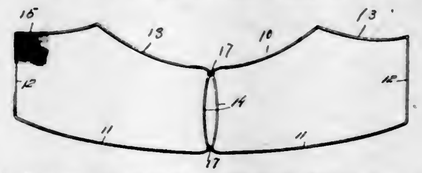
2. In a device of the character described, a wooden runner body, an arcuate sleeve or casing fitted and mounted securely upon the forward end of the wooden body, said casing being provided with slots in the side walls thereof at a distance from the upper end of the casing approximately equal to the length of the slots, a brake prong supported slidably adjacent to the outer surface of the inner side wall of the casing, ribs provided with overhanging flanges formed upon the inner surface of the outer side wall of the casing adjacent to the sides of the slot, an elongated snow-excluding plate fitted slidably between the ribs, the overhanging flanges of the latter and the inner surface of the outer side wall of the casing, and means for actuating the brake prong and the snow-excluding plate.

3. In a device of the character described, a sled bob comprising a pair of wooden runner bodies, arcuate casings fitted and mounted securely upon the forward ends of said wooden bodies and constituting the forward ends of the runners, said casings being provided with inclined slots formed in the side walls thereof at a distance from the upper extremities of said side walls approximately equal to the length of the slots, a draft rod extending through the slots and equipped with means whereby it will be retained against displacement, springs within the casings engaging the draft rod to force the latter upwardly and forwardly in the slots, means within the casings to support the lower ends of the springs, brake prongs mounted upon the draft rod adjacent to the outer surfaces of the inner side walls of the casings, keepers upon said side walls confining the brake prongs and supporting them slidably in alinement with the slots in said inner side walls, teeth or ratchets upon the brake prongs at a distance from the upper extremities thereof, pawls tilted upon the proximate side walls of the casings and adapted to engage the ratchets to support the brake prongs in inactive position.

4. In a device of the character described, wooden runner bodies, and actuate casings connected with the forward end of said wooden bodies and constituting the forward part of the runners, the side walls of said casings being provided with inclined slots, a draft rod extending through said slots, brake prongs connected with said draft rod adjacent to the outer surfaces of the inner side walls of the casings, snow-excluding plates connected with the draft rod and guided adjacent to the inner surfaces of the outer side walls of the casings in proximity to the slots therein, brackets supported within the casings and provided with upturned flanges and actuating the springs interposed between said brackets and the ends of the draft rod.

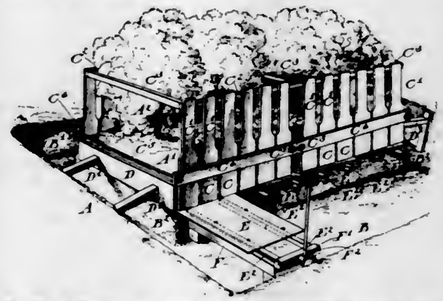
5. In a device of the character described, a sled bob comprising wooden runner bodies, suitably connected and provided at their forward ends with arcuate casings constituting the forward ends of the runners, the side walls of said casings being provided with inclined slots, a brake prong supporting the draft rod supported slidably in the slots, springs for actuating the draft rod to force it in an upward and forward direction, snow-excluding plates carried by the draft rod and operating adjacent to the inner surfaces of the outer side walls of the casings to cover the slots therein, teeth or ratchets upon the brake prongs which are supported adjacent to the upper surfaces of the inner side walls of the casings, and pawls pivoted upon said side walls and adapted to engage the ratchets of the prongs and support the latter in inactive position.

944,521. COLLAR-SUPPORT. MARY M. STILLMAN, New York, N. Y. Filed Mar. 30, 1908. Serial No. 424,135.



A support for neckwear, comprising two separate polygonal oppositely disposed neck-encircling wire frames, each comprising integral spaced end supports, and top portions, the top portions being resiliently spaced from the base portions said frames disposed in overlapped relation at their forward ends, their forward support portions being bowed for resilient engagement beneath the chin of the wearer, said frames being adapted to encircle the neck of the wearer.

944,522. APPARATUS FOR MOVING GROWING TREES AND THE LIKE. FREDERICK W. TAYLOR and HAROLD VAN DUZEE, Philadelphia, Pa. Filed May 1, 1905. Serial No. 258,310.



1. As a device for moving growing trees and the like, a substantially flat stiffened plate having a sharp front edge and adapted to be forced in a horizontal plane through the earth beneath the tree in combination with detachable trusses secured to the edges of the plate after it has penetrated the earth beneath the tree.

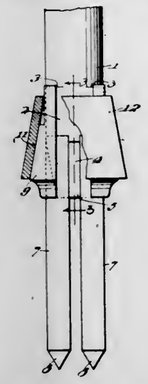
2. As a device for moving growing trees and the like, a substantially flat stiffened plate having a sharp front edge and adapted to be forced in a horizontal plane through the earth beneath the tree in combination with means for holding the earth in place above the plate

consisting of one or more pairs of clamps extending upward on both sides of the earth to be moved from at or about the level of the plate said clamps having struts extending between their upper ends and tie rods connecting them near the level of the ground.

3. As a device for moving growing trees and the like a substantially flat stiffened plate having a sharp front edge and adapted to be forced in a horizontal plane through the earth beneath the tree, in combination with detachable trusses secured to the edges of the plate after it has penetrated the earth beneath the tree with means for holding the earth in place above the plate consisting of one or more pairs of clamps extending upward on both sides of the earth to be moved from at or about the level of the plate said clamps having struts extending between their upper ends and tie rods connecting them near the level of the ground.

4. As a device for moving growing trees and the like, a substantially flat stiffened plate having a sharp front edge and longitudinally running ribs so placed as to engage the earth as the plate is drawn through it and thus to prevent lateral motion of the plate.

944,523. SURFACING-TOOL. CHARLES W. THOMPSON, Barre, Vt., assignor of one-half to FRED A. GREARSON, Barre, Vt. Filed Mar. 18, 1909. Serial No. 484,136.

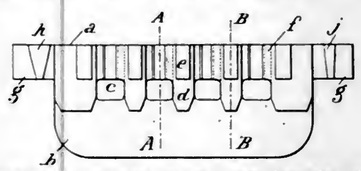


1. A tool holder having an angular head at one end thereof, a longitudinally extending member arranged at the end of said head and having laterally extending webs or flanges arranged at right angles to each other with seats formed therebetween at the inner ends thereof, wedge-like brace members having means for engagement with said head and adapted to engage the tool to be carried thereby, and a clamping band flaring outwardly toward one end and adapted to encircle said wedge members to securely clamp the tool in position.

2. In a surfacing tool the combination of a shank having a square head at one end thereof provided with an integral, longitudinally extending centrally disposed member having flanges extending laterally from the sides thereof with seats formed at their inner ends, cutters mounted on said seats, wedge members provided with means for engaging said head to prevent longitudinal movement in one direction and adapted to engage said cutters, and a clamping band tapering toward one end and arranged to encircle said wedge members, and cuts, to clamp the latter in operative position.

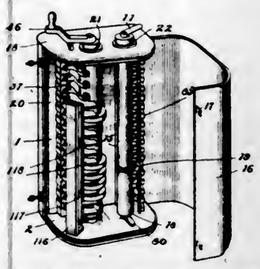
3. In a surfacing tool the combination of a shank having a square head arranged at one end thereof, said head having shoulders at its inner end, a centrally disposed, longitudinally extending member projecting from the front end of said head and having laterally extending webs arranged at right angles to each other and tapering toward their forward end, with seats formed at their inner ends, a plurality of tools arranged in said seats to form a square, wedge members having right angularly shaped inner faces adapted to engage the corners of said tools and provided with means at one end for engaging the shoulders of said head, and a hollow truncated pyramid shaped clamping band adapted to slide over said wedge members and tools to hold the latter in operative position.

944,524. GRATE. HEINRICH UNTIEDT, Cassel, Germany. Filed Nov. 25, 1907. Serial No. 403,798.



A grate-bar composed of an upper laterally sinuous part forming a fuel supporting platform, of a lower narrow edged part forming a girder-like strengthening rib, and a middle part between said rib and the platform having a number of horizontal transverse openings throughout its length, the top part being provided on the sides with deep vertical notches in communication with said transverse openings and being placed opposite each other in an alternating order to form the sinuosity of the platform and having on one side of the bar-faces alternately straight portions and concaved portions between said notches and on the opposite side of the bar straight portions and convex portions between said notches, the straight portions being opposite said notches, substantially as described.

944,525. ELECTRIC CONTROLLER. WILLIAM WALZ, Toronto, Ontario, Canada. Filed Feb. 10, 1909. Serial No. 477,089.



1. In an electric controller, the combination with a plurality of motors, of a plurality of circuit breakers each electrically connected individually with one of said motors and electrically connected together in series parallel and to an electric current supply, means for controlling the flow of current to said circuit breakers, and means independent of said controlling means for connecting all of said circuit breakers and their corresponding motors in parallel.

2. In an electric controller, a plurality of circuit breakers electrically connected to an electric current supply, a plurality of motors electrically connected individually to said circuit breakers, means interposed between said circuit breakers and the current supply for controlling the flow of current to said circuit breakers and motors, and means independent of said controlling means interposed between said circuit breakers for changing the electrical connections of all of said circuit breakers to parallel.

3. In an electric controller, the combination with a plurality of motors and an electric current supply, of a plurality of stationary contacts, a plurality of co-acting movable contacts, a plurality of circuit breakers individual respectively to said motors, wiring connecting a pair of said circuit breakers in multiple, wiring connecting a pair of said motors individually in series with said pair of circuit breakers through certain of said co-acting contacts, wiring connecting another pair of said circuit breakers in multiple to the return from the aforesaid pair of circuit breakers otherwise in series parallel, wiring connecting the latter pair of circuit breakers to another pair of motors individually in series, and means independent of said controlling means interposed in the wiring between said pair of circuit breakers for instantaneously connecting all of said motors in parallel.

4. In an electric controller, the combination with a plurality of motors and an electric current supply, of a plurality of stationary contacts, a plurality of co-acting movable contacts, a plurality of circuit breakers individual respectively to said motors, wiring connecting a pair of said circuit breakers in multiple, wiring connecting a pair of said motors individually in series with said pair of circuit breakers through certain of said co-acting contacts, a second pair of circuit breakers connected in multiple, wiring connecting the second pair of circuit breakers with a second pair of motors individually in series, a switch having a single contact co-acting with stationary contacts electrically connected to the return wire from the first pair of circuit breakers and to the lead to the second pair of circuit breakers and connecting all of said circuit breakers in series parallel, said switch also having a pair of contacts co-acting with two other pairs of stationary contacts, wiring connecting a pair of the latter stationary contacts with the electric current supply and with the latter pair of circuit breakers, and wiring connecting the other pair of said latter stationary contacts with the return from the first pair of circuit breakers and with the ground.

5. In an electric controller, the combination with a plurality of motors and an electric current supply, of a casing, a main roll rotatably mounted in said casing, a succession of contacts mounted on said main roll, a plurality of contacts mounted on said main roll in addition to said succession of contacts, a plurality of contact fingers supported from said casing and establishing an electrical connection between said succession of contacts and said additional contacts, a resistance, wiring from certain of said contact fingers to said resistance, a plurality of circuit breakers, wiring from certain of said contact fingers to said circuit breakers, a reverse roll, a plurality of contacts in groups on said reverse roll having pairs in each group electrically connected, a plurality of contact fingers supported from said casing and co-acting with the contacts on said reverse roll, a roll switch suitably supported in said casing, a single contact on said roll switch, a pair of contacts on said roll switch, a plurality of contact fingers supported from said casing and co-acting with the contacts on said roll switch, wiring from certain of said reverse roll contact fingers to said circuit breakers, wiring from other of said reverse roll contact fingers to said motors, wiring from said motors to said circuit breakers, wiring from certain of said roll switch contact fingers to said circuit breakers and to the ground, wiring from other of said roll switch contact fingers to the contact fingers co-acting with the additional contacts on said main roll including a ground wire, and a main electrical conductor connected to certain of said main roll contact fingers and leading from said electric current supply.

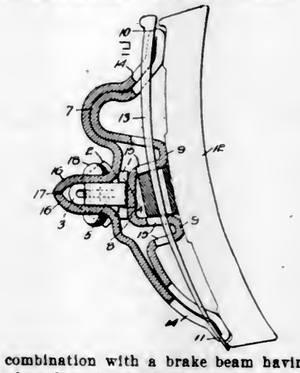
[Claims 6 to 11 not printed in the Gazette.]

944,526. BRAKE-HEAD. ALBERT WATCOTT, Cleveland, Ohio. Filed June 16, 1909. Serial No. 502,587.

1. A forged brake head formed of an integral plate of metal, said plate being bent upon itself to form brake shoe engaging means, and the ends of said plate being united to provide a securing means for said brake head.

2. A forged brake head formed of an integral plate of metal, said plate being bent upon itself to form brake shoe engaging means, and the ends of said plate being welded to provide a securing means for said brake head.

3. A forged brake head formed of an integral plate of metal, said plate being bent upon itself to form brake shoe engaging means, and the ends of said plate being bent and having its edges beveled and welded in a flush joint to provide securing means for said head.

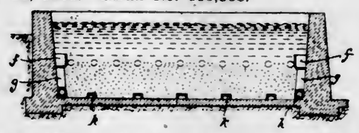


4. The combination with a brake beam having a truss bar, of a forged brake head therefor, said brake head formed of an integral plate of metal bent upon itself to form brake shoe engaging means, the ends of said plate being united and surrounding said beam and constituting a securing means for said head.

5. The combination with a brake beam comprising a bar having an abutment member, and a truss bar abutting against said member; of a forged brake head therefor formed of an integral plate of metal bent upon itself to form brake shoe engaging means, the ends of said plate being welded and overlying the truss bar, and bolts passing through the truss bar, the beam and the brake head.

[Claims 6 to 10 not printed in the Gazette.]

944,527. METHOD OF CLEANSING FILTER-BEDS. ZDENKO VON WESSELY, Prague, Austria-Hungary. Filed July 14, 1908. Serial No. 443,538.



1. A process of cleaning the sand in filter beds, which consists in applying alternate currents of cleansing fluid by means of alternately operated perforated pipes arranged in proximity to each other exactly at the level of the surface of the filter sand, so that the latter, by the action of the fluid under pressure, is alternately scooped out in proximity to the pipes which are in operation and accumulated over the pipes which are temporarily out of operation, the operation being reversed when the cleansing fluid is passed through the other perforated pipes, substantially as hereinbefore set forth.

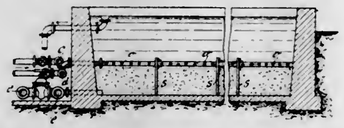
2. A process of cleaning the sand in filter beds which consists in applying currents of cleansing fluid to the sand so as to move the sand thereby, and causing said currents to flow alternately in opposite directions so as to give a to and fro movement to the sand substantially as described.

3. A process of cleaning sand in filter beds which consists in applying cleansing fluid to the sand in the form of parallel rows of jets and at intervals reversing the direction of the jets operating upon each part of the sand, so that the sand during the washing is constantly thrown to and fro by the jets, substantially as described.

944,528. APPARATUS FOR CLEANING FILTER-BEDS. ZDENKO VON WESSELY, Prague, Austria-Hungary. Filed July 14, 1908. Serial No. 443,539.

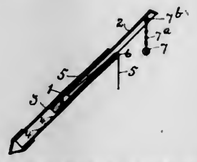
Apparatus for cleaning filter beds comprising separate headers, two sets of flushing pipes connected to said headers, and being alternately operable thereby, provided

with uniform lateral perforations at opposite sides only, approximately in the horizontal plane of the sand of the filter bed, and adapted to throw the sand into alternate
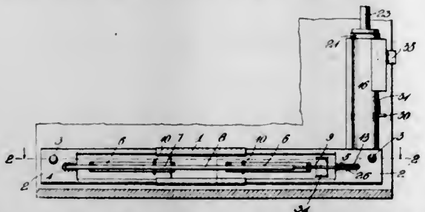


mounds and hollows, and means for supplying cleansing fluid alternately to said two sets of pipes, from the separate headers, substantially as described and shown.

944,529. PAINTER'S SCAFFOLD. WILLIAM W. WHEELER, Cloquet, Minn. Filed July 18, 1908. Serial No. 444,241. Renewed Nov. 11, 1909. Serial No. 527,575.



A scaffold leg comprising a cylindrical lower exterior section, an angular interior upper section adapted to slide in and extend from said lower section, inwardly extending steps formed on the wall of the lower section in front of said upper section, a dog pivotally secured to said upper section near the lower end thereof and adapted to hang vertically clear of said steps when said leg is in vertical position and to swing forward and engage one of said steps below the same when said leg is inclined forwardly.

944,530. COMBINED WHIP, REIN, AND LAP-ROBE LOCK FOR VEHICLES. OTTO W. WILDE, Wichita, Kans. Filed Apr. 22, 1909. Serial No. 491,569.



1. In a device of the character described, the combination with a base or casing, of a robe holding bar pivotally mounted in said casing, a whip socket casing arranged on said base, a whip socket arranged in said casing, spring whip holding fingers arranged on said socket, a combined finger clamping ring and robe bar fastening rod slidably mounted in said whip socket, a combined locking and operating bar secured to said clamping ring whereby the latter and said fastening rod are operated, and a locking mechanism to engage said locking bar and hold said clamping ring and fastening rod in operative position.

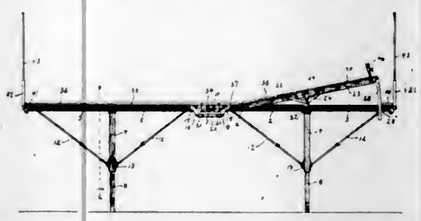
2. In a device of the class described the combination with a casing, of a lap robe holding bar, pivotally mounted in said casing, whip locking means, and a fastening rod operable to actuate said whip locking means and to lock and unlock said robe holding bar.

3. In a device of the character described, the combination with a base or casing, of a robe holding bar pivotally mounted therein, a slotted head on one end of said robe holding bar, a locking bracket having formed therein locking holes adapted to aline with the slot in said head when the robe holding bar is in an operative position, a whip socket casing formed on one end of said base or casing, a whip socket arranged in said casing, spring whip engaging fingers on said socket, a clamping ring operatively engaged with said spring fingers, a fastening rod connected with said ring and adapted to be projected through the alined locking holes and slot in said bracket and the head of the robe holding bar, thereby fastening said parts in an operative position, means to retract said clamping ring and fastening rod, and means to lock the same in operative position.

4. In a device of the character described, a longitudinally adjustable casing, means to secure said casing to a vehicle, a longitudinally adjustable robe holding bar pivotally mounted in said casing, a whip socket casing arranged on one end of said adjustable casing, a laterally yieldable whip socket in said socket casing, a fastening rod operable to secure said robe holding bar and whip holding socket in operative position, and a locking mechanism to secure said fastening devices in operative position.

5. In a device of the character described, an adjustable casing, an adjustable robe holding bar pivotally mounted in said casing, a whip socket casing arranged on said adjustable casing, said whip socket casing having formed therein a guide groove and a guide slot, a whip socket arranged in said casing, spring whip holding fingers arranged on said socket, a clamping ring slidably engaged with said fingers, a fastening rod carried by said clamping ring and adapted to slidably engage the groove in said whip socket casing and to be moved into and out of operative engagement with the robe holding bar to fasten the same, a combined locking and operating rod or lever secured to said clamping ring, said rod having formed therein a notch, an operating finger on one end of said rod or lever and projecting through the guide slot in said whip socket casing, a locking loop on the other end of said locking rod or lever, a lock casing secured to said whip socket casing and adapted to be engaged by the notch in said locking rod or lever to form a stop for the same, and a key operated locking mechanism in said casing and adapted to be engaged with the locking loop of said rod or lever to hold said clamping ring and locking rod in operative position.

944,531. COOLING-BOARD. CHARLES E. WINDOM, Sterling, Ill. Filed July 20, 1907. Serial No. 384,819.



1. A cooling board, comprising a central narrow section; two intermediate sections, foldably united with said central section; two end sections, foldably united with said intermediate sections; two pairs of plates, secured to the inner ends of said intermediate sections, and projected downwardly therefrom; a pair of folding braces, pivoted to the lower ends of said plates on opposite sides of the cooling board, so as to support the central joints thereof; and foldable means of support for said board, substantially as described.

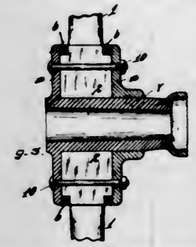
2. A device of the class named, comprising a central narrow section; two intermediate sections, foldably united with said central section; two end sections, foldably united with said intermediate sections; a pair of plates, secured to said central section, and provided on their ends with segmental gears; two pairs of plates, projecting downwardly from the inner ends of said intermediate sections, on opposite sides of said central section, and segmentally geared on their inner edges, to engage the gears on said central plates; folding braces, connecting said downwardly projecting plates, and adapted to hold said central section in horizontal alinement with the other sections of the board; and foldable means of support for said board, substantially as and for the purpose named.

3. In a cooling board, a frame, formed of a central short plate; intermediate plates, foldably attached to said central plate; end plates, foldably connected with said intermediate plates; a foldable auxiliary frame, pivotally secured to the main frame, and adapted to fold therewith; a plurality of sections, rigidly secured to said main frame; a pair of sections, secured to said auxiliary frame, and forming with said other sections a continuous board; means for rigidly supporting the frame of the device at the central point thereof, when in use; a downwardly folding brace, adapted to support said auxiliary frame at the point of folding thereof, when in use; means for limiting the upward movement of said brace; and foldable means for supporting the device in extended position, substantially as shown and set forth.

4. In a cooling-board, the combination, with a foldable frame therefor, and foldable supporting means for said frame; of an auxiliary frame, comprising a plate 22, pivotally secured to the frame at its inner end; a plate 23, provided at its outer end with means for supporting such frame in adjusted inclined positions; a plate 24, by means of which the plates 22 and 23 are knuckle-jointed to each other, the plate 24 having a downward projection 25; and a folding brace 26, pivoted at its ends to the plates 22 and 23, and provided with a recess 27, engaging the arm 25 when the plates are in extended position, substantially as shown and for the purpose named.

5. In a cooling board, the combination with a foldable frame and foldable means of support therefor, of an auxiliary frame, comprising plates 22 and 23, the inner end of the plate 22 being pivotally attached to said foldable frame; a foldable brace 26, secured to the plates 22 and 23, and provided with a recess 27; a plate 24, pivoted to the ends of the plates 22 and 23, and having a downwardly projecting arm 25; and means for moving the plate 24 into a position to permit the engagement of the arm 25 by the recess 27, upon the unfolding of the frame; substantially as described.

944,532. WHEEL. DAVID H. ALLEN, Miamisburg, Ohio. Filed May 10, 1909. Serial No. 495,089.

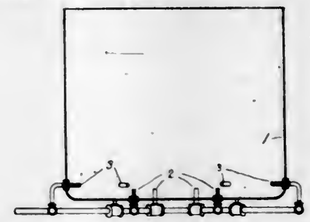


1. In a wheel, a series of spokes concentrically compressed together at their inner ends, a band secured upon a seat formed on the contacting ends of the spokes while held under compression and binding them securely together in wheel form, substantially as described.

2. A wheel composed of a series of spokes having thicker beveled inner ends compressed together concentrically, and a circumferential binding seated upon the contacted ends of the spokes while held under compression, substantially as described.

3. A wheel formed of a series of spokes having thicker beveled inner ends assembled and concentrically compressed, a seat being formed on each side of the thickened ends of the spokes while compressed, and a band shrunk upon each seat, thereby circumferentially binding the spokes together in their compressed position and forming a hub, substantially as described.

944,533. PROCESS OF RECOVERING MATERIALS FROM WASTE. WILLIAM H. ALLEN, Detroit, Mich. Filed Aug. 3, 1908. Serial No. 446,570.



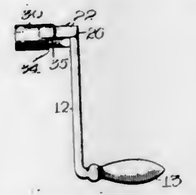
1. The process of treating an intimate mixture of metal, mineral grit, fats and fibers to recover the substances separately, which consists in agitating the mixture in an alkaline solution to permit the metal and grit to separate from the fibers by gravity, removing the metal and grit and treating with acid to dissolve the metal and then removing the grit.

2. The process of treating an intimate mixture of metal, mineral grit, fats and fibers to recover the substances separately, which consists in agitating the mixture in an alkaline solution to permit the metal and grit to separate from the fibers by gravity, and then treating the fibers with a solution of acid.

3. The process of treating fibers associated with metal and fats with a solution of alkali sufficient to neutralize the fatty acids and then treating said fibers and metals with a solution of acid to separate the fibers.

4. The process of treating fibers associated with metal and fats with an alkaline agent to cause the separation of free fatty acids, then treating the fibers with acid and an oxidizing agent to remove oleates, stearates and palmitates of the non-alkaline metals.

944,534. CRANK-HANDLE. ARTHUR W. BEAMAN, Worcester, Mass. Filed Dec. 10, 1908. Serial No. 466,736.



1. As an article of manufacture, a crank arm having a main body part of hollow sheet metal, a hollow handle at the end thereof constituting a continuation of the sheet metal of the body part, and a socket member integral with the main body part.

2. As an article of manufacture, a crank handle having a handle, a main portion, and a socket, said socket comprising a pair of sheet metal arms, and said body portion being formed of a single piece of sheet metal integral with said arms.

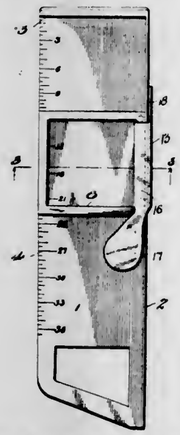
3. As an article of manufacture, a crank arm having a hollow handle, a hollow main or body part integrally connected with the handle and provided with a seam on the side opposite the handle, and a socket portion comprising arms integral with said main body portion.

4. As an article of manufacture, a crank handle having a socket, a main body portion, and a handle, said main body portion consisting of a piece of sheet metal bent up at the edges until said edges meet to form a longitudinal seam on one side thereof, and said handle constituting a continuation of said body portion having a seam on the outer side in continuation of the seam on said body portion.

5. As an article of manufacture, a crank handle comprising a hollow sheet metal body portion, a hollow handle and a socket, said socket comprising sheet metal arms integral with the body portion and having a passage between them constituting a socket, and a ferrule secured to said arms and body portion and surrounding the arms.

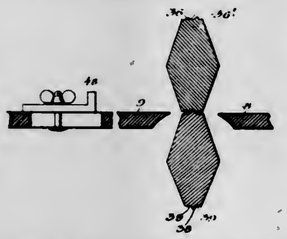
[Claims 6 to 14 not printed in the Gazette.]

944,535. PRINTER'S COMPOSING-STICK. SAMUEL H. BEAN, Atlanta, Ga. Filed May 5, 1909. Serial No. 494,043.



A composing stick, comprising a body having an upturned longitudinal edge, a skeleton slide having parallel sides mounted upon said body and in engagement with said upturned longitudinal side, a member adapted to engage said longitudinal side and one of the said parallel sides of said slide adjacent thereto, said member comprising a resilient U-shaped body portion comprising spaced sides, one of said sides being adapted to fit within said skeleton slide, the other of said sides extending forwardly beyond the first named side and terminating in a relatively narrow strip, said strip being bent inwardly to engage the bottom of said body portion, said inwardly bent strip being adapted for insertion under said body portion before said U-shaped body portion of said member engages said slide and said upturned side, said bent strip serving as a pivotal connection when said engaging member is being inserted within said skeleton slide, substantially as described.

944,536. CARDBOARD-CREASING MACHINE. EMMONS W. BONFIELD and JAMES E. FELLOWS, Chicago, Ill. Filed June 4, 1906. Serial No. 320,032.



1. In a creasing machine, a pair of creasing dies mounted to coöperate with a rolling movement, both having gear-tooth-like creasing ribs which in operation intermesh gear fashion, the peripheral surfaces of said dies immediately contiguous to the area occupied by the creasing and scoring parts, being formed to extend well inside of arcs struck from the axes of rotation of the respective die members and tangent at a point in a direct line between said axes.

2. In a creasing machine, a pair of creasing dies mounted to coöperate with a rolling movement, one die member having one central creasing rib and auxiliary scoring ribs along each side thereof, the other having two principal creasing ribs separated by a groove and arranged to mesh gear fashion with the first, the peripheral surface of said dies immediately contiguous to the areas occupied by the creasing and scoring parts being formed to extend well inside of arcs, struck from the axes of rotation of the respective die members and tangent at a point in a direct line between said axes.

3. In a creasing machine, a pair of creasing dies journaled upon parallel axes, one or both being of non-circular form in cross section throughout its acting length, and provided at both its opposite edges with creasing faces, the coöperative pairs of creasing faces comprising, the one, a creasing face or edge having salient creasing angles extending along and forming the side boundaries of, its creasing face at one or more intermediate creasing ribs, and the other provided with one or more creasing ribs arranged to intermesh with those of the opposed member, and provided also with creasing surfaces opposed to and adapted to coöperate with salient angles of the companion member.

4. In a creasing machine, a pair of creasing bars or members mounted side by side so that the creasing face of the one has rolling intermeshing movement with the creasing face of the other, one of said members being rotatably mounted, non-circular in cross section throughout its acting length, and provided with a creasing face forming a part of the periphery of maximum radius from its axis of rotation, and having another part of its periphery of substantially less radius and extending throughout the full acting length of the member, whereby at a time when the creasing portions are out of opposed register, an unobstructed passage is formed between said members of ample width to permit free feed adjustment of the stock.

5. In a creasing machine, a pair of creasing bars, one provided with a creasing face or edge comprising salient creasing ribs extending along, and forming the side boundaries of, said creasing face, and a single intermediate creasing rib, and the other bar provided with a coöperating creasing face portion comprising a pair of salient creasing ribs spaced to intermesh between the central and outer ribs of the opposed member, the lateral marginal boundaries of the creasing portions of both bars being formed abruptly divergent so that the stock being acted upon is free from restraint against the corrugating action of the creasing members.

[Claim 6 not printed in the Gazette.]

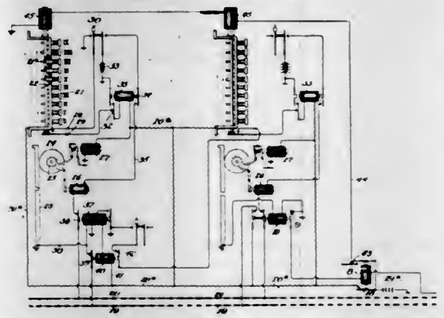
944,537. SEMI-MECHANICAL TELEPHONE SYSTEM. ALBERT M. BULLARD, New York, N. Y., assignor to Western Electric Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 19, 1908. Serial No. 416,703.

1. In a controller for an automatic telephone exchange system, the combination with a series of keys, of a movable member, and means associated with and actuated by the respective keys to positively stop said movable member.

2. In a controller for a semi-automatic telephone exchange system, the combination with a series of keys, of a movable member, stops for said member, each stop being adapted to be introduced in the path of said member by the depression of one of said keys to positively limit the movement of said movable member, and means controlled by the depression of any one of said keys for advancing the movable member to said stop.

3. A controlling device comprising a movable member, a series of movable stops adapted to limit the travel of said movable member, and keys corresponding to said stops for actuating the same to positively determine the extent of travel of said movable member.

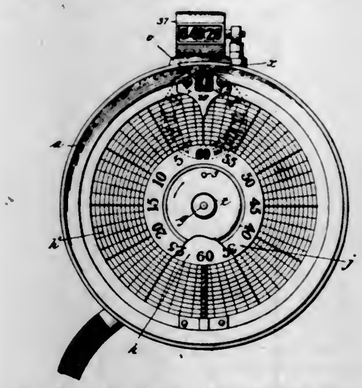
4. A controlling device comprising a movable member, a series of movable stops, a corresponding series of keys, each key being adapted to cause its corresponding stop to be moved into the path of said movable member to positively stop said movable member, motor mechanism for advancing said movable member, and means controlled by the coöperation of said movable member and any of said stops for controlling said motor mechanism.



5. A controlling device comprising a movable member, motor mechanism for advancing the same, a series of movable stops and corresponding keys adapted to cause said stops to be interposed in the path of said movable member, an electric circuit controlled by the engagement of said movable member and any of said stops, and means responsive to current in said circuit, adapted to stop the advance of said movable member.

[Claims 6 to 20 not printed in the Gazette.]

944,538. SPEEDOMETER. JAMES H. BULLARD, Springfield, Mass., assignor to Bullard Specialty Co., Springfield, Mass., a Corporation of Massachusetts. Filed Mar. 3, 1906. Serial No. 304,137.



1. An instrument of the class described comprising a support for a record-dial rotatable at minute-hand speed, an hour-dial, and a suitable clock movement to actuate the dials, the latter being readable together to indicate the time, means to mark the record dial to indicate successive occurrences, an odometer in proximity to said instrument, and a common actuating mechanism for the odometer and the record-dial marking means.

2. In an instrument of the class described, the combination with a suitable power mechanism, of a support for a record dial rotating continuously at minute-hand speed said disk receiving during its rotation the record of successive occurrences, and a time dial having partial rotary movement at periods, said time dial being arranged in complemental relation to the record disk on the same side or face of the instrument, and means to mark the record disk; together with an odometer located in proximity to the instrument, and one mechanism to actuate both the record-marking means and the odometer.

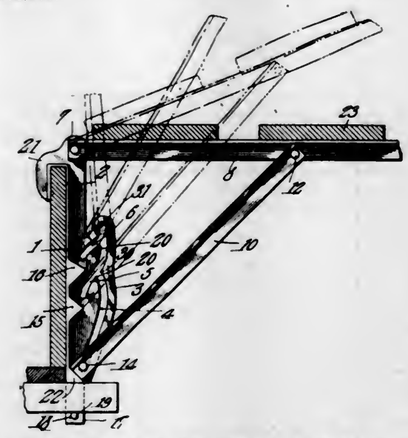
3. The combination in an instrument of the class described of a clock movement and the center arbor thereof, of a support for a record dial on said arbor rotatable at minute-hand speed, an hour-dial, a separate arbor therefor, means to rotate said hour-dial by the movement of the center-arbor, a device to mark successive occurrences on the record-dial, mechanism actuated by the clock movement to move said marking device radially of the record dial, and means to shift said actuating mechanism out of operative relation to the clock movement to arrest the radial movement of said marking device.

4. An instrument of the class described comprising a support for a record-dial rotatable at minute-hand speed, an hour-dial, and a suitable clock movement to actuate the dials, means to mark the record-dial to indicate successive occurrences, an odometer in proximity to said instrument, a common actuating mechanism for the odometer and the record-dial marking means, said clock movement and said actuating mechanism consisting of separate entities located in operative relation one to the other in the same casing.

5. An instrument of the class described comprising a support for a record dial rotatable at minute-hand speed, an hour dial, and a suitable clock movement to actuate the dials, means supported on the clock movement to mark the record dial, said dial-marking means being movable radially of the record-dial by the movements of the clock, together with means to adjust the marking means toward and from the axis of the record dial.

[Claims 6 to 8 not printed in the Gazette.]

944,539. WAGON-RACK STANDARD. LOUIS P. COOK, Clarendon, N. Y. Filed Mar. 29, 1909. Serial No. 486,379.



1. In a device of the class described, a hanger having a slot consisting of a plurality of vertically spaced downwardly extending ramifications, and being provided with a flat seat at the base of each ramification; an arm terminally pivoted to the hanger; and a brace having its upper end pivoted to the arm, its lower end being arranged to traverse the slot, and to engage the seats successively, the planes of the seats being normal to the brace when the latter is in contact therewith.

2. In a device of the class described, a hanger having a projecting flange provided with a slot consisting of a plurality of vertically spaced downwardly extending ramifications and with a flat transverse seat at the base of each ramification; an arm terminally pivoted to the hanger; a bipartite brace inclosing the arm and the flange

between its terminals and being pivoted to the arm, the lower end of the brace being arranged to engage the seats successively normal to the planes thereof; and a transverse element mounted in the lower end of the brace and being arranged to traverse the slot.

3. In a device of the class described, a hanger having a slot consisting of a main portion and a plurality of vertically spaced downwardly extending auxiliary branches laterally inclined to form pointed upstanding tongues between the auxiliary branches and the main portion, said hanger having a flat seat at the base of each part of the slot; an arm terminally pivoted to the hanger; and a brace having its upper end pivoted to the arm, its lower end being arranged to traverse the branches of the slot and to move downward to the rear of the tongues into engagement with the seats normal to the planes thereof.

4. In a device of the class described, a hanger having a slot consisting of a main portion and a plurality of vertically spaced, downwardly extending auxiliary branches laterally inclined to form pointed upstanding tongues between the auxiliary branches and the main portion, the hanger being provided with an inwardly extending pointed lug having its apex disposed opposite the mouth of one of the auxiliary branches, the hanger being provided with a seat at the base of each auxiliary branch; an arm terminally pivoted to the hanger; and a brace having its upper end pivoted to the arm, its lower end being arranged to traverse the branches of the slot and to move downward to the rear of the tongues into engagement successively with the seats, and to rest upon said seats normal to the planes thereof.

944,540. HEAT-COIL. WALTER L. COURSEN, East Orange, N. J., assignor to Western Electric Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 20, 1908. Serial No. 411,605.



1. In a protector for electrical circuits, the combination with a heat coil, of a member surrounded by said coil and projecting from one end thereof, said member being reversible with relation to said coil.

2. In a protector for electrical circuits, the combination with a non-reversible heat coil, of a reversibly mounted member projecting through said coil.

3. In a protector for electrical circuits, the combination with a spool, of a heat coil wound upon said spool, and a member passing through the spool and projecting from one end thereof, said member being reversible with relation to said spool.

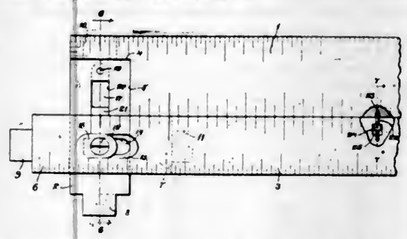
4. In a protector for electrical circuits, the combination with a heat coil, of a member surrounded by said coil and projecting from one end thereof, and means for reversibly mounting said member in said coil, said member being normally fixed with relation to said coil but adapted under the influence of heat developed by said coil to have a sliding motion relative thereto.

5. A heat cartridge comprising a spool, a heat coil wound thereon, a member surrounded by said spool and projecting from one end thereof, and means for reversibly mounting said member within said spool, said member being normally secured to the mounting means but sliding thereon under the influence of the abnormal heat developed by said coil.

[Claims 6 to 12 not printed in the Gazette.]

944,541. FOLDING SQUARE. WILLIAM N. CRAIG, Moline, Ill. Filed Jan. 25, 1909. Serial No. 473,984.

1. A folding square or the like, comprising two pivotally and slidably connected sections, each of said sections having an inclosed mortise and each having a tenon arranged to extend within the inclosed mortise of the other section, substantially as described.



2. A folding square comprising an L-section, a straight section pivotally and slidably connected to the short arm of said L-section, each of said sections having a mortise and each having a tenon arranged to extend within the mortise of the other section, and a releasable spring latch for preventing the withdrawal of said tenons from said mortises, substantially as described.

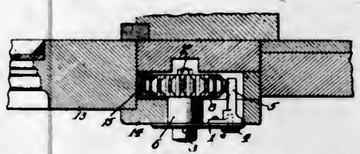
3. A folding square or the like comprising two sections having overlapping portions slidably and pivotally connected together, said overlapping portions being of reduced thickness with shoulders formed at the inner ends thereof and tenons at their outer ends, and said shoulders having inclosed mortises arranged to receive said tenons, substantially as described.

4. A folding square comprising an L-section and a straight section overlapping and pivotally and slidably connected to the short arm of said L-section, the overlapping portions of said straight section and said short arm being of reduced thickness with shoulders formed at the inner ends thereof and tenons further reduced in thickness at their outer ends, and said shoulders having inclosed mortises arranged to receive said tenons substantially as described.

5. A folding square comprising an L-section having a short arm of reduced thickness, a straight section having a portion of reduced thickness overlapping and pivotally and slidably connected to the short arm of said L-section, the reduced overlapping portions of said sections having tenons at their outer ends and shoulders at their inner ends provided with mortises for receiving said tenons, and a releasable spring-latch for holding said straight section against shift longitudinally of said short arm to disengage said tenons and mortises, substantially as described.

[Claims 6 to 13 not printed in the Gazette.]

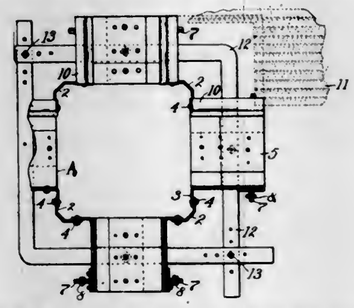
944,542. SASH-FASTENER. GEORGE H. CREASE-WILLIAMS, Buenos Ayres, Argentina. Filed Sept. 8, 1908, Serial No. 452,064. Renewed Nov. 17, 1909. Serial No. 528,595.



1. The combination with a window sash and frame, of a rack secured to the sash, a gear wheel mounted in the frame and meshing with the rack, said wheel having teeth provided with locking and releasing portions, a non-rotatively and longitudinally slidable plunger extending through said wheel, a locking finger mounted on the end of said plunger and engaging said teeth, and a spring normally holding said finger in engagement with said teeth.

2. The combination with a window sash and frame, of a rack secured to the sash, a plate mounted on said frame and provided with a journal, a gear wheel rotatably mounted on said journal and meshing with said rack, said gear wheel having teeth provided with locking and releasing portions, a plunger non-rotatively and slidably mounted in said journal and projecting therethrough, a finger on the end of said plunger engaging said teeth, and a spring normally holding said finger in engagement with said teeth.

944,543. MEANS FOR FORMING CONCRETE CEILINGS AND SUPPORTING-COLUMNS. PHILIPPE A. DESLAURIERS and LOUIS P. DESLAURIERS, St. Paul, Minn. Filed June 29, 1907. Serial No. 381,561.



1. Means for forming a concrete ceiling and connected columns, comprising a sheet metal mold shaped to form the top of each column, an outwardly bent supporting flange formed on the upper edge of said mold, and plates entirely surrounding said mold and overlapping said flange for the purpose of molding the adjacent portion of the ceiling.

2. Means for forming connecting concrete columns and ceiling, comprising a sheet metal mold for each column top carrying an outwardly directed ledge, mold plates supported upon said ledge and surrounding said column casing, and ceiling mold plates overlapping said supporting mold plate.

3. Means for forming a concrete ceiling and connected columns, comprising a sheet metal mold for forming the top of each column, an outwardly extending bracket carried by the upper end of said mold, supporting mold plates carried by said brackets, and ceiling mold plates overlapping said supporting mold plates, for the purpose set forth.

4. Means for forming concrete ceiling and connecting columns, comprising a longitudinal split casing for each column top, means securing the same closed, outwardly extending brackets arranged in connection with the top of said casing, supporting mold plates supported upon said brackets, and ceiling mold plates overlapping said supporting mold plates.

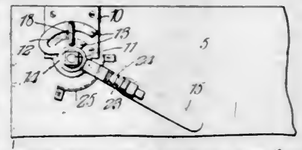
5. Means for forming concrete ceiling and supporting columns comprising a longitudinally split casing for each column top, means securing the same closed, beam molds extending outwardly from opposite sides of said casing, brackets extending outwardly between said column top and beam molds, mold plates supported upon said brackets, and ceiling mold plates overlapping said mold supporting plates.

[Claim 6 not printed in the Gazette.]

944,544. END-GATE FASTENER. THEA M. DICE, Paxico, Kans. Filed May 29, 1908. Serial No. 435,787.

1. The combination with a wagon body provided with opposed slots, of an end gate rod having a stop ear at one end and a bearing shoulder at the other, a cam head having an operating handle and a curved race pivotally held adjacent said rod, said cam head having a sloping face, said rod extending through said slots, said bearing shoulder being in frictional engagement with said sloping face, and means to adjustably secure said cam head.

2. The combination with a wagon body provided with opposed slots, of an end gate rod having a stop ear at one end and a bearing shoulder at the other, a cam head having an operating handle and a curved race pivotally held adjacent said rod, said cam head having a sloping face, said rod extending through said slot, said bearing shoulder being in frictional engagement with said sloping face, a quadrant and means to adjustably secure said handle to said quadrant.



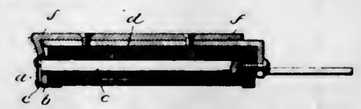
3. The combination with a wagon body provided with sides having oppositely disposed slotted openings; of an end gate rod provided with enlarged portions adapted to fit said slots, a reduced portion formed beyond one of said portions provided with an enlarged head, an enlarged handle loop on the other portion adapted to form a stop, and means to engage beneath the head and tension the rod.

4. The combination with a wagon body provided with sides having oppositely disposed slotted openings, of an end gate rod provided with enlarged portions adapted to fit said slots, a reduced portion formed beyond one of said portions provided with an enlarged head, an enlarged handle loop on the other portion adapted to form a stop, and means to engage beneath the head and tension the rod, said means comprising a handled cam engageable under the head.

5. The combination with a wagon body provided with sides having oppositely disposed slotted openings, of an end gate rod provided with enlarged portions adapted to fit said slots, a reduced portion formed beyond one of said portions provided with an enlarged head, an enlarged handle loop on the other portion adapted to form a stop, and means to engage beneath the head and tension the rod, said means comprising a handled cam provided with spaced cam surfaces to engage under the head on opposite sides of the reduced portion.

[Claim 6 not printed in the Gazette.]

944,545. ELECTRIC SIGNAL. AMOS F. DIXON, Chicago, Ill., assignor to Western Electric Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 6, 1907. Serial No. 360,947.



1. An electric signal having a target composed of two parts hinged together at their upper edges, one of said parts being movable and the other fixed, and electromagnetic means constructed and arranged to swing said movable part upwardly and outwardly upon its hinge, to display the inner faces of both parts.

2. An electric signal having a target composed of two iron parts hinged together and normally lying one over the other, in combination with means for magnetizing said parts to cause the same to repel each other and display the surfaces thereof which normally face each other.

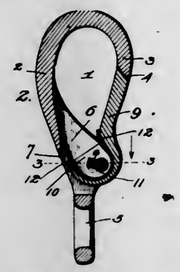
3. In an electric signal, the combination with an electromagnet, of a light iron shutter hinged at the end of the magnet core, and normally lying over said core, the free end of said shutter being adapted to be repelled from the face of the core when the magnet is excited, and a return pole piece for the magnet in position to attract said shutter and continue its movement beyond the point to which it was carried by repulsion from said core, whereby an extended arc of movement is secured.

4. In an electric signal device, the combination with an electromagnet, of a light shutter of magnetic material hinged at the end of the magnet core and normally hanging over the face of said core, and a stop to prevent the inner face of said shutter from directly contacting with the face of said core, the magnet being adapted when excited to move the free end of the shutter outwardly from the core.

5. In an electric signal device, the combination with an electromagnet, of a light iron shutter hinged from its upper edge at the end of the magnet core and normally hanging down over the face of said core, and a return pole piece for the magnet having its free end above the end of the core, in position to attract said shutter and swing it outwardly and upwardly to disclose its inner face and the face of said core in juxtaposition, when the magnet is excited.

[Claims 6 and 7 not printed in the Gazette.]

944,546. SELF-LOCKING SNAP-HOOK. ALBERT B. DOBRING, Le Mars, Iowa. Filed July 7, 1909. Serial No. 506,273.



A snap hook comprising a body portion, a bill formed on one end thereof, a square pivot bolt arranged in said body portion, a tongue having formed therein key-hole shaped slots adapted to receive said square pivot bolt, whereby when the larger ends of the slots are engaged with the bolt, the tongue may be opened and when the squared ends of the slots are engaged with the bolt, the tongue will be locked in a closed position, and a spring to close said tongue and force the same into locked engagement with said bolt.

944,547. HORSE HITCH AND CHECKING DEVICE. JAMES T. DOYLE, Auburn, N. Y. Filed Aug. 10, 1905. Serial No. 273,646.



1. In a horse hitch and checking device, in combination with a vehicle, a resilient operating bar secured at its forward end to one of the shafts of the vehicle, its free end adapted to move outwardly to engage one of the wheels, and means to retract said free end at will.

2. In a horse hitch and checking device, in combination with a vehicle, an operating bar secured at its forward end to a shaft of the vehicle, its free end adapted to move outwardly to engage one of the wheels between the spokes, means connecting the operating bar and the driving rein, and means to retract the free end of the operating bar at will.

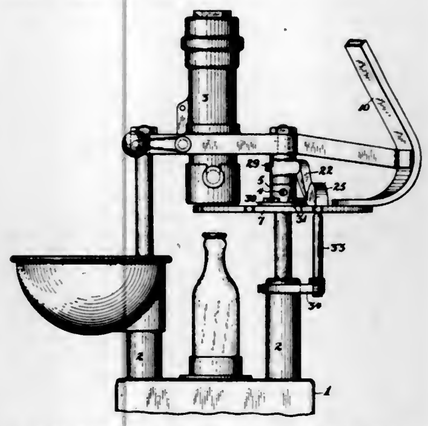
3. In a horse hitch and checking device, in combination with a vehicle, an operating bar secured at its forward end to a shaft of the vehicle, and substantially in parallelism therewith, its free end adapted to move outwardly to engage one of the wheels, and means to retract the free end at will.

4. In a horse hitch and checking device, in combination with a vehicle, an operating bar secured at its forward end to a shaft of the vehicle, its free end adapted to move outwardly to engage one of the wheels and to move downwardly as the wheel advances, means to retract said free end, and means to return said operating bar substantially to parallelism with the shaft.

5. In a horse hitch and checking device, in combination with a vehicle, an operating bar secured at its forward end to a shaft of the vehicle, its free end adapted to move outwardly to engage one of the wheels and to move upwardly or downwardly with the movement of the wheel, and a connection between the free end of the operating bar and one of the driving reins.

[Claims 6 to 20 not printed in the Gazette.]

944,548. CROWN-CORK-FEEDING ATTACHMENT. EGMONT R. FREYER, Sacramento, Cal. Filed Oct. 1, 1908. Serial No. 455,760.



1. In an apparatus of the character described, the combination of a rotary carrier formed with a circular series of pockets, an apertured piece of flexible material in each pocket forming a support at the bottom thereof, and means for removably securing said material in position, substantially as described.

2. In an apparatus of the character described, the combination of a rotary carrier formed with a circular series of pockets, individual pieces of flexible material each having a thin internal annular flange, to form a bottom for the pocket, and individual plates removably secured to the carrier for supporting said pieces in position, substantially as described.

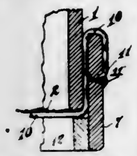
3. In an apparatus of the character described, a carrier plate having a series of pockets, each provided with individual annular means for supporting a cap therein, and having a central aperture of a size to receive the neck of a bottle adapted to be closed by said cap, substantially as described.

4. In an apparatus of the character described, capping mechanism, a carrier plate movable with said capping mechanism and having a series of pockets, provided with individual means carried on the plate for supporting a cap therein while permitting the neck of a bottle to pass therethrough, and means automatically actuated with the movement of said carrier plate for revolving the plate through the distance between successive pockets, substantially as described.

5. In an apparatus of the character described, capping mechanism, a carrier plate movable with said capping mechanism and having a series of pockets, provided with individual means carried on the plate for supporting a cap therein while permitting the neck of a bottle to pass therethrough, means automatically actuated with the movement of said carrier plate for revolving the plate through the distance between successive pockets, and means for preventing the escape of the caps from the pocket as they travel, substantially as described.

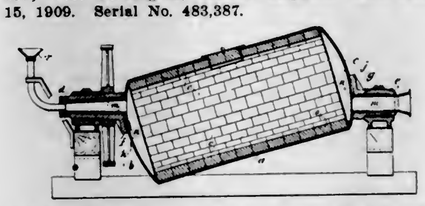
[Claims 6 and 7 not printed in the Gazette.]

944,549. SIEVE. HARRY F. FROHMAN, Cincinnati, Ohio. Filed Oct. 20, 1906. Serial No. 339,888.



A sieve composed of three hoop sections comprising body, base and strengthening hoops, a screen secured between the body and base hoops, in combination with a series of wires spanned beneath the screen with their ends extended upwardly between the body and base hoops, outwardly and downwardly over the base hoop and terminating inwardly into the base hoop, and means for retaining the ends of the wires in position, substantially as described.

944,550. GRINDING-MILL. CHRISTOPHER H. HAMILTON, West Kensington, London, England. Filed Mar. 15, 1909. Serial No. 483,387.



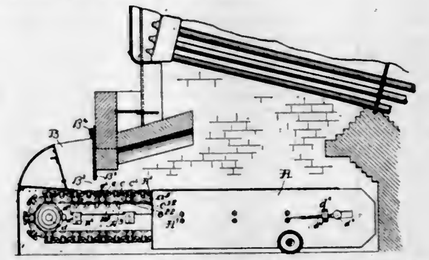
1. A grinding mill comprising in combination a metal shell lined with hard material, horizontal hollow trunnions whereon said shell is mounted, means for rotating the shell, and means for adjusting the shell eccentrically and obliquely relatively to said horizontal trunnions, whereby the shell can be adjusted obliquely without interference with the alinement of the horizontal trunnions, substantially as described.

2. A grinding mill comprising in combination a cylindrical metal shell lined with hard material, fixed horizontal hollow trunnions whereon said shell is mounted longitudinally, means for rotating the shell and means for adjusting the shell eccentrically and obliquely relatively to said hollow trunnions, substantially as described.

3. A grinding mill comprising in combination a cylindrical metal shell lined with hard material, spherical ends on said shell, horizontal hollow trunnions whereon the shell is mounted longitudinally, flanges on said trunnions and corresponding in contour to the ends of the shell, means for adjustably securing said flanges to the shell ends, slots in said shell ends and detachable filling pieces for closing said slots, substantially as described.

944,551. MECHANICAL STOKER. PETER J. HARLEMAN, Boston, Mass. Filed Aug. 16, 1906. Serial No. 330,785.

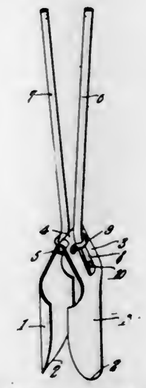
1. In a mechanical stoker, a traveling grate having a plurality of revoluble grate bars adapted to receive fuel fed by gravity thereon, and being provided with drive chains consisting of links alternately provided with double and single lugs, the width of the bodies of the links being substantially equal, and each link being provided with a bearing socket for one end of one of said revoluble grate bars; a cover or projecting member coöperating with said bearing socket to complete the bearing for the grate bar, said member being detachable from the link for the purpose of removing the grate bar; means for imparting travel to said grate; and means for revolving the grate bars during the travel of the grate.



2. In a mechanical stoker, a traveling grate comprising a series of cylindrical grate bars each of which is composed of a revoluble bar and a series of disks thereon separated from each other to afford draft spaces, said grate being provided with drive chains the links of which are provided with bearings for the grate bars each consisting of a bearing socket formed in the link and a detachable cover or projecting member having a corresponding socket to complete the bearing; means for imparting travel to said grate; and means for revolving the grate bars during the travel of the grate.

3. The combination with a fire box; of inclosing side members therefor; transverse supporting members extending from one side member to the other; longitudinal internal supports within said side members and mounted on said transverse supporting members, said internal supports being provided with bearings; rollers in said bearings; a traveling grate having driving chains at opposite sides resting on said rollers; means for imparting travel to said grate; rotatable grate bars having bearings in the links of said driving chains; sprocket wheels rigidly mounted on said grate bars; and stationary projections extending upward from said internal supports to coöperate with said sprocket wheels, whereby the grate bars are rotated during the travel of the grate.

944,552. POST-HOLE DIGGER. JOHN M. HEFNER, Bryans Mill, Tex. Filed July 14, 1909. Serial No. 507,577.



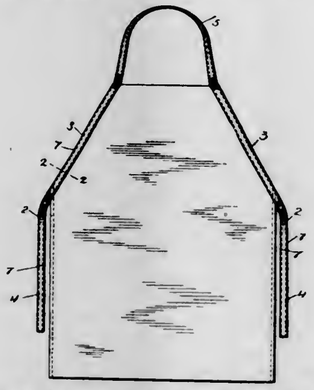
1. A post-hole digger comprising two similar shovel blades hinged together at their upper ends, the lower por-

tion of each being arched outwardly, and the upper portion being flattened and inclined inwardly, and handle levers connected to said blades below said hinge.

2. A post-hole digger comprising two relatively movable shovel blades hinged together at the upper ends, each of said shovel blades having an outwardly arched lower portion terminating in a rounded cutting edge, and an inwardly inclined upper portion terminating in a hinge lug, a pintle engaging said lugs, and handles connected at their lower ends to the upper ends of said blades below said hinge.

3. In a post-hole digger, two relatively movable shovel blades, each having an outwardly bulged lower portion terminating in a rounded cutting edge, and an inwardly inclined flattened upper portion slightly less in width than the width of the lower portion and terminating in a hinge lug, a pintle engaging said hinge lugs, and handle levers, the lower ends of which are offset outwardly and connected to the upper flattened portions of said shovel blades below the hinged lugs.

944,553. APRON. EDWIN L. HENDERSON, Norwood, Ohio, assignor to The Kemper-Thomas Company, Norwood, Ohio, a Corporation of New Jersey. Filed Mar. 1, 1909. Serial No. 480,546.



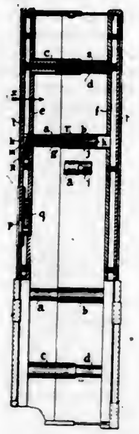
In an apron, the combination with the body piece, having the upper corners diagonally cut away, of a continuous binding strip for the diagonal edges of the body piece, with an intermediate portion to form a neck support and free ends to form tie strips for the waist.

944,554. LOOSE-LEAF BOOK, TEMPORARY BINDER, FILE, AND THE LIKE. JOHN H. HEWITT, Edgbaston, Birmingham, England, assignor of one-half to John Walker, Jr., London, England. Filed May 17, 1907. Serial No. 374,288.

1. A loose leaf book, temporary binder, file or the like having members moving relatively, one of which is adapted to frictionally clutch the other, a rod adapted to move axially and non-rotatively to operate said clutching member, and a cam for displacing said rod non-rotatively to frictionally clutch said members.

2. A loose leaf book, temporary binder, file or the like having members moving relatively, one of which is adapted to frictionally clutch the other, a rod adapted to move axially and non-rotatively to operate said clutching member, a cam for displacing said rod non-rotatively to frictionally clutch said members, and a sliding member adapted to operate said cam.

3. A loose leaf book, temporary binder, file or the like having a plurality of pairs of members, the members of each pair moving relatively and one being adapted to frictionally clutch the other, a plurality of rods adapted to move axially and non-rotatively to operate said clutching members, cams for displacing said rods non-rotatively to frictionally clutch said members, and means for simultaneously operating said cams.

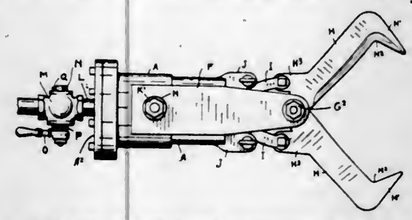


4. A loose leaf book, temporary binder, file or the like having a plurality of pairs of members, the members of each pair moving relatively and one being adapted to frictionally clutch the other, a plurality of rods adapted to move axially and non-rotatively to operate said clutching members, cams for displacing said rods non-rotatively to frictionally clutch said members and a single means for operating said cams.

5. A loose leaf book, temporary binder, file or the like having a plurality of pairs of members, the members of each pair moving relatively and one being adapted to frictionally clutch the other, a plurality of rods adapted to move axially and non-rotatively to operate said clutching members, cams for displacing said rods non-rotatively to frictionally clutch said members, sliding members adapted to operate said cams and a single means for operating said sliding members.

[Claims 6 to 15 not printed in the Gazette.]

944,555. SHEARING DEVICE. THOMAS J. HOLDEN, Muncie, Ind. Filed Oct. 14, 1908. Serial No. 457,619.

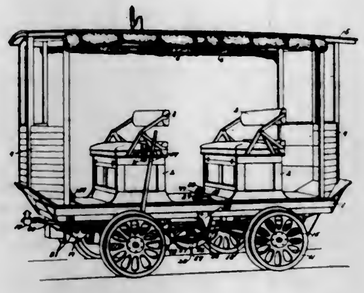


1. In a shearing device, the combination of a body provided with a working chamber, a piston therein having its head to move in said working chamber, a conduit leading into the said working chamber at the rear of said piston head there being a stop cock in said conduit, shear blades pivotally supported adjacent the said piston, power transmitting connections between the shear blades and said piston and means to urge the piston rearwardly and to normally retain the piston in rearward position.

2. In a shears, the combination of a cylinder, a piston therein, means to normally urge the piston to the rearward end of the cylinder, an inlet into and a vent at the rear end of the cylinder, a valve in said inlet arranged to simultaneously open the inlet and close the vent, an arm carried by and lugs formed on the forward end of the said cylinder, a pair of shear blades pivotally supported on said arm, each having an inturned nose, connecting bars to pivotally and detachably connect the legs of the shear blades to the piston or to the said lugs.

3. In a shears, the combination of a cylinder having a piston therein, a coil spring about the said piston to urge the latter rearwardly, an inlet into and a vent at the rear end of the cylinder, a valve in said inlet arranged to simultaneously open the inlet and close the vent an arm carried by and extending forwardly of the cylinder, complemental shear blades pivotally supported on said arm, a bifurcated lug on either side of said cylinder each having a removable pin therein, connecting bars adapted to pivotally and detachably connect the legs of the shear blades to the piston or to the said lugs.

944,556. MOTOR-VEHICLE. WILLIAM S. HOVEY and CHARLES B. STEBBINS, Three Rivers, Mich., assignors to Sheffield Car Company, Three Rivers, Mich. Filed Mar. 3, 1909. Serial No. 481,000.



1. In the structure of the class described, the combination with a body comprising a reversible seat; an engine; a throttle and timer therefor; controls for said throttle and timer, comprising a pair of rock shafts arranged one within the other to project at one end of the seat; opposed arms on said rock shafts; a pair of bell crank levers; connections for said bell-crank levers to said rock-shafts; comprising links having coupling yokes arranged to engage the opposed arms of said rock-shafts, whereby said bell crank levers are operated in the same relative directions by the shifting of said rock shaft levers in either direction to and from their neutral position; and connections for said bell crank levers to said throttle and timer.

2. In a structure of the class described, the combination with an engine; a throttle and a timer therefor; controls for said throttle and timer, comprising a pair of rock shafts; opposed arms on said rock shafts; comprising links having coupling yokes arranged to engage the opposed arms of said rock-shafts, whereby said bell crank levers are operated in the same relative directions by the shifting of said rock shaft levers in either direction to and from their neutral position; and connections for said bell crank levers to said throttle and timer.

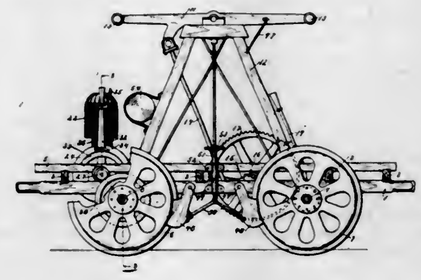
3. In a structure of the class described, the combination with a body comprising a reversible seat; an engine; a throttle and a timer therefor; controls for said throttle and timer, comprising a pair of rock shafts arranged one within the other to project at one end of said seat; opposed arms on said rock shafts; a pair of bell crank levers; connections for said throttle and timer to the opposed arms of said rock shaft, whereby said connections are operated in the same relative directions by shifting of said rock shaft levers in either direction to and from their neutral positions.

4. In a structure of the class described, the combination with an engine; a throttle and a timer therefor; controls for said throttle and timer, comprising a pair of rock shafts, opposed arms on said rock shafts; a pair of bell crank levers; connections for said throttle and timer to the opposed arms of said rock-shafts, whereby said connections are operated in the same relative directions by shifting of said rock levers in either direction to and from their neutral positions.

5. In a structure of the class described, the combination with a body comprising a reversible seat; an engine; a throttle and a timer therefor; controls for said throttle and timer, comprising hand levers; a pair of bell-crank levers; connections for said bell-crank levers to said hand levers, arranged so that bell crank levers are operated in the same relative directions by the shifting of said hand levers in either direction to and from their neutral position; and connections for said bell-crank levers to said throttle and timer.

[Claims 6 to 46 not printed in the Gazette.]

944,557. RAILWAY MOTOR HAND-CAR. WILLIAM S. HOVEY and MILTON H. RIX, Three Rivers, Mich., assignors to Sheffield Car Company, Three Rivers, Mich. Filed Mar. 11, 1909. Serial No. 482,786.



1. In a structure of the class described, the combination with a hand-car provided with the usual gallows frame and hand lever; means for throwing the said hand lever mechanism into and out of gear and locking the lever when disengaged; an explosion engine arranged in front of said gallows frame, centrally of the hand-car and between the front wheels thereof; a shaft containing a universal joint driven by said engine; a friction gear wheel secured to the hub of said traction wheel and arranged within the tread thereof having a V-shaped friction surface on its periphery, the interior of said car wheel being provided with an internal V-shaped friction gear formed in the flange or tread thereof; a friction driving gear or pinion on said shaft; an eccentric block embracing the said shaft and forming its bearing; and means consisting of a lever and adjusting latch and segment for adjusting the said eccentric block to throw the engine into and out of gear or reverse the same, coacting as specified.

2. In a structure of the class described, the combination with a hand-car provided with the usual gallows frame and hand lever; means for throwing the said hand lever mechanism into and out of gear; an explosion engine arranged in front of said gallows frame, centrally of the hand car and between the front wheels thereof; a shaft containing a universal joint driven by said engine; a friction gear wheel secured to the hub of said traction wheel and arranged within the tread thereof having a V-shaped friction surface on its periphery, the interior of said car wheel being provided with an internal V-shaped friction gear formed in the flange or tread thereof; a friction driving gear or pinion on said shaft; an eccentric block embracing the said shaft and forming its bearing; and means consisting of a lever and adjusting

latch and segment for adjusting the said eccentric block to throw the engine into and out of gear or reverse the same, coacting as specified.

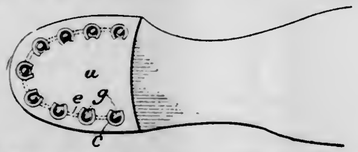
3. In a structure of the class described, the combination with a hand-car provided with the usual gallows frame and hand lever; means for throwing the said hand lever mechanism into and out of gear; an explosion engine arranged in front of said gallows frame, centrally of the hand-car and between the front wheels thereof; a shaft containing a universal joint driven by said engine; a friction gear wheel secured to the hub of said traction wheel and arranged within the tread thereof having a V-shaped friction surface on its periphery; a friction driving gear or pinion on said shaft; an eccentric block embracing the said shaft and forming its bearing; and means consisting of a lever and adjusting latch and segment for adjusting the said eccentric block to throw the engine into and out of gear, coacting as specified.

4. In a structure of the class described, the combination with a hand-car provided with the usual gallows frame and hand lever; means for throwing the said hand lever mechanism into and out of gear; an explosion engine arranged in front of said gallows frame, centrally of the hand-car and between the front wheels thereof; a shaft containing a universal joint driven by said engine, the interior of said car wheel being provided with an internal V-shaped friction gear formed in the flange or tread thereof; a friction driving gear or pinion on said shaft; an eccentric block embracing the said shaft and forming its bearing; and means consisting of a lever and adjusting latch and segment for adjusting the said eccentric block to throw the engine into and out of gear, coacting as specified.

5. In a structure of the class described, the combination with a hand-car provided with the usual gallows frame and hand lever; means for throwing the said hand lever mechanism into and out of gear and locking the lever when disengaged; an explosion engine arranged in front of said gallows frame, centrally of the hand-car and between the front wheels thereof; a shaft containing a universal joint driven by said engine; a friction gear wheel secured to the hub of said traction wheel and arranged within the tread thereof having a V-shaped friction surface on its periphery, the interior of said car wheel being provided with an internal V-shaped friction gear formed in the flange or tread thereof; a friction driving gear or pinion on said shaft; an eccentric block embracing the said shaft and forming its bearing; and means for adjusting the said eccentric block to throw the engine into and out of gear or reverse the same, coacting as specified.

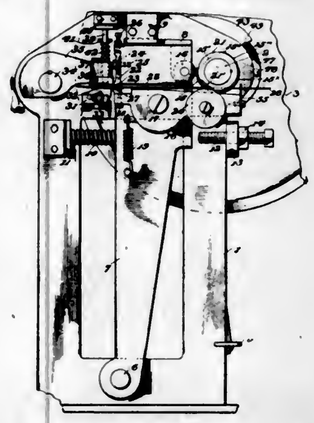
[Claims 6 to 32 not printed in the Gazette.]

944,558. ELASTIC HEEL FOR BOOTS OR SHOES. CHARLES M. JAGGERS, McAlester, Okla. Filed July 20, 1908. Serial No. 444,341.



A tread for heels and the like, comprising a series of wear pieces, each consisting of a tubular member provided with a laterally-extending base-flange, an upper portion open at the side, and an exterior shoulder intermediate of the height of such member, and a single connection between said wear pieces consisting of light bars connecting them into a unitary structure, said bars being secured to the side walls of the respective tubular members intermediate of the height of the latter, the interior of each of said members being free for the passage of a nail through the base flange thereof.

944,559. METAL-CRIMPING MACHINE. ALLEN JOHNSTON, Ottumwa, Iowa. Filed May 22, 1909. Serial No. 497,612.



1. In a machine for crimping sheet metal strips, the combination of two sets of gripping devices seizing the strip at two points, a shaping die on each of said sets of gripping devices, and means moving one of said sets of gripping devices toward the other.

2. In a machine for crimping sheet metal strips, the combination of two shaping dies which together have the contour of a crimp, two sets of gripping devices seizing the strip at two points, means moving one of said sets of gripping devices toward the other and closing said dies on the crimp.

3. In a machine for crimping sheet metal strips, the combination of two sets of gripping jaws seizing the strip at two points with sufficient of the strip between them to form a crimp, one member of each set of jaws having a shaping die, and means to bring the two sets of jaws together to close the shaping dies and form the crimp.

4. In a machine for crimping sheet metal strips, the combination of a pair of gripping jaws arranged to grip the strip of metal and hold it stationary, a shaping die on one of said jaws having the contour of one side of the crimp to be formed, a second pair of gripping jaws arranged to grip the strip of metal at a sufficient distance away from said first set to form a crimp, a shaping die on one of said second set of gripping jaws, and means moving said second set of jaws toward said first set to form the crimp.

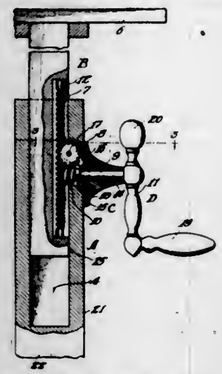
5. In a machine for crimping sheet metal strips, the combination of a shaping die having the contour of one side of a crimp, means reciprocating said die transversely to the strip, a second shaping die having the contour of the other side of said crimp, and means reciprocating said second die lengthwise of said strip.

[Claims 6 to 16 not printed in the Gazette.]

944,560. TABLE AND SUPPORT. PAUL E. JOSEPH, Waterman, Cal., assignor to Henry S. Cahn, Los Angeles, Cal. Filed Jan. 27, 1908. Serial No. 412,950.

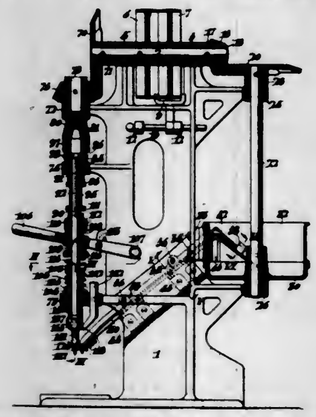
The combination, with two relatively movable members consisting of a pedestal and a standard slidably fitting a chamber in the same; of a rack secured to said standard at an angle to one face thereof; a bracket secured to said pedestal and provided with heads projecting angularly from the face of the bracket which contacts with the pedestal and into said chamber in the pedestal; a pinion mounted between the heads and meshing with the rack, and a shaft mounted in said bracket and provided with a worm meshing with said pinion, said shaft and said worm having a common axis, the axis of said

shaft extending at an angle to a line diametrical of said pinion equivalent to the pitch of the worm; whereby said



pinion has true mesh with both said worm and said rack; and operating means for said shaft.

944,561. SCREW-DRIVING MACHINE. JOHN J. W. KENAN, Philadelphia, Pa., assignor of three-fourths to Thomas W. Jenkins, Philadelphia, Pa., and one-fourth to Ralph Buffett, Colwyn, Pa., and Howard A. Gray, Millville, N. J. Filed Apr. 9, 1908. Serial No. 425,978.



1. A screw driving machine, including in combination a driver, means for rotating the driver and for moving the same longitudinally, a screw holder, means for moving said screw holder with said screw driver, means for holding said screw holder closed, means put under tension by the downward movement of the screw driver for lifting the screw holder and opening the same, and means for releasing said holder at a predetermined point in the longitudinal movement of the driver.

2. A screw driving machine including in combination a driver, means for rotating said driver and for moving the same longitudinally, screw holding jaws arranged to underlie the head and guide the screw, means for holding said jaws closed, means put under tension by the downward movement of the driver for opening said jaws, and means for releasing said jaws at a predetermined point in the longitudinal movement of the driver.

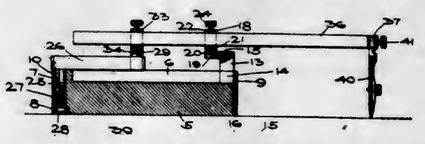
3. A screw driving machine including in combination a driver, means for rotating said driver, means for moving the driver longitudinally, a sleeve, screw holding jaws carried by said sleeve, a spring normally holding said jaws and said sleeve raised, means for holding said jaws closed, means carried by said driver for engaging and moving said jaws with the driver, and means for releasing the jaws, whereby they may be separated and raised by said spring.

4. A screw driving machine including in combination, a driver, means for rotating said driver, means for moving said driver longitudinally, a sleeve, screw holding jaws carried by said sleeve, a spring for normally holding said sleeve raised, means for holding said jaws closed when in raised position, means for locking said jaws closed, means for moving said sleeve and said jaws downward with the driver and means for releasing said jaws whereby they may be separated and lifted by said spring.

5. A screw driving machine including in combination a driver, means for rotating the driver, means for moving the driver longitudinally, a spring pressed sleeve carried by said driver for centering the screw, screw holding jaws, a sleeve carrying said screw holding jaws, a spring for holding said jaws and sleeve in raised position, means carried by the driver for engaging the jaws and moving the same downward, means for holding the jaws closed, and means for releasing the jaws at a predetermined point in the longitudinal movement of the driver.

[Claims 6 to 17 not printed in the Gazette.]

944,562. ELLIPSOGRAPH. JOHN P. KUNZ, Jr., St. Louis, Mo. Filed Mar. 31, 1909. Serial No. 486,936.



1. The combination with a slotted base, of a carrier sliding within said base, a union pivotally held by said carrier, an arm pivoted at one end to said base, and a bar pivotally and adjustably secured to said union and said arm.

2. The combination with a slotted base, of a carrier sliding within said base, a union pivotally held by said carrier, an arm pivoted at one end to said base, a yoke adjustably carried by said arm, and a bar adjustably and pivotally secured to said union and said yoke.

3. The combination with a slotted base having a socket, of a carrier held within the slot of said base, an arm having a projecting pivot pin held within said socket, a yoke adjustably secured to said arm, a collar pivotally carried by said yoke, a carrier slidably carried within said slot, a union pivotally carried by said carrier, a bar slidably held within said collar and said union, a marking point carried by said bar, and means limiting the movement of said arm.

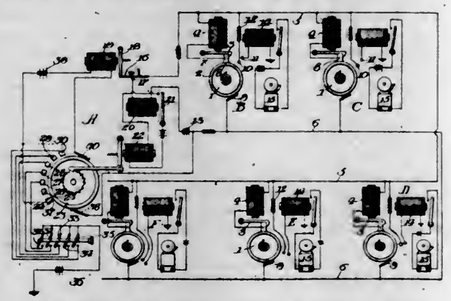
4. A base provided with a longitudinally positioned slot and a socket, of an arm having a pivot pin held within said socket, a yoke carried by said arm, a collar revolubly carried by said yoke, a carrier held within said slot, a union pivotally held by said carrier, a rod slidably held within said collar and said union, a marking point secured to said rod, and a plate having projecting stop ears limiting the movement of said arm.

944,563. SIGNALING SYSTEM. OTTO T. LADEMAN, Milwaukee, Wis. Filed Feb. 15, 1909. Serial No. 478,075.

1. A signaling system comprising a central station and sub-stations, a signal-controlling device at each sub-station, a step-by-step device at the central station, operating devices at the sub-stations for automatically operating said step-by-step device, means at the central station for causing said operating devices to start in motion, and switching devices at the central station associated with said step-by-step device for causing a selective operation of the sub-station signal-controlling devices.

2. A signaling system comprising a central station and sub-stations, a signal-controlling device at each sub-sta-

tion, a step-by-step device at the central station, operating devices at the sub-stations for automatically operating said step-by-step device, means at the central station for causing said operating devices to start in motion, and switching devices at the central station associated with said step-by-step device for causing the operation of any desired sub-station signal-controlling device.



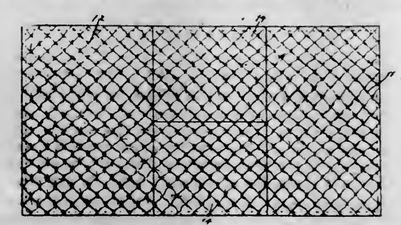
3. A signaling system comprising a central station and substations, a signal-controlling device at each sub-station, a step-by-step device at the central station, operating devices at the sub-stations for automatically operating said step-by-step device, means at the central station for causing said operating devices to start in motion, and switching devices at the central station associated with said step-by-step device for causing the operation of a plurality of desired or selected sub-station controlling devices during one complete cycle of the said step-by-step device.

4. A signaling system comprising a central station and substations, a signal-controlling device at each sub-station, a step-by-step device at the central station, operating devices at the sub-stations for automatically operating said step-by-step device, each sub-station operating device in its turn serving to effect an operative movement of step-by-step device, means at the central station for causing said operating devices to start in motion, and switching devices at the central station associated with said step-by-step device for causing a selective operation of the sub-station signal-controlling devices.

5. A signaling system comprising a central station and sub-stations, a signal-controlling device at each sub-station, a step-by-step device at the central station, operating devices at the sub-stations for automatically operating said step-by-step device, each sub-station operating device in its turn serving to effect an operating movement of said step-by-step device, means at the central station for causing said operating devices to start in motion, and switching devices at the central station associated with said step-by-step device for causing the operation of any desired sub-station signal-controlling device.

[Claims 6 to 22 not printed in the Gazette.]

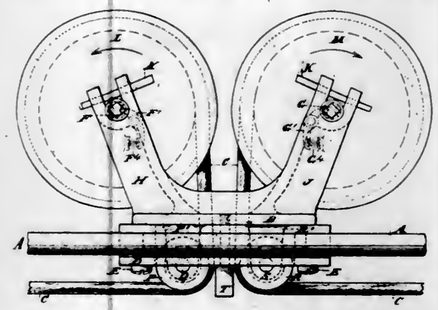
944,564. BED-COUCH. GEORGE A. LAMBERT, Anderson, Ind. Filed Mar. 18, 1909. Serial No. 484,134.



1. A convertible bed couch having a base portion, a back portion hinged at its lower edge to said base portion so it can be turned rearwardly from the vertical to a horizontal position, pivoted legs for supporting the outer edge thereof, a seat portion slidable horizontally upon said frame, means for limiting the outward movement of said seat portion, folding legs for supporting the outer edge of the seat portion, end portions adapted to be lowered between the back and seat portions when arranged for a bed, and means for holding said end portions in connection with said seat and back portions when forming a couch.

2. A convertible bed couch including a base frame with a back portion pivoted at its lower edge to said base frame so that it can be folded down to a horizontal position, folding legs for supporting the outer edge thereof, a seat portion slidable on said frame, lugs extending down from the rear edge of said seat portion, stops on the frame for engaging said lugs and limiting the outward movement of said seat portion, folding legs for supporting the outer edge of said seat portion, end portions adapted to be slipped in against each other and between the back and seat portions when formed into a bed, the bottom edges of said end portions having pins thereon and holes therein adapted to register with each other when brought together to form a bed, said seat portion having holes at the ends thereof to receive the pins in the end portions when forming a couch, and hooks and eyes for connecting the end portions with the back portion when forming the couch.

944,565. AUTOMATIC TRAVELING TAKE-UP FOR CABLE CONVEYING APPARATUS. CHARLES R. LIBBY, Lowell, Mass., assignor to Lamson Consolidated Store Service Company, Newark, N. J., a Corporation of New Jersey. Filed May 16, 1908. Serial No. 433,197.



1. In a cable conveying apparatus, a track or way, a driving cable adapted to propel carriers along said track or way, and means traveling on said track and adapted to take up the slack and maintain a tension on said cable.

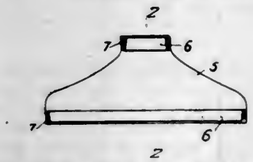
2. In a cable conveying apparatus, a track or way, a driving cable adapted to propel carriers along said track or way, and means connected with said cable and adapted to travel on said track or way for automatically taking up the slack and maintaining a tension on said cable.

3. In a cable conveying apparatus, a track or way, a driving cable adapted to propel carriers along said track or way, means connected with said cable and adapted to travel on said track or way for automatically taking up the slack and maintaining a tension on said cable, and means for regulating said tension.

4. In a cable conveying apparatus, a track or way, a driving cable adapted to propel carriers along said track or way, and spring actuated means connected with said cable and adapted to travel on said track or way for automatically taking up the slack and maintaining a tension on said cable.

5. In a cable conveying apparatus, a track or way, a driving cable adapted to propel carriers along said track or way, and means traveling along said track and interposed in and secured to each end of said cable for taking up and maintaining a tension on said cable.

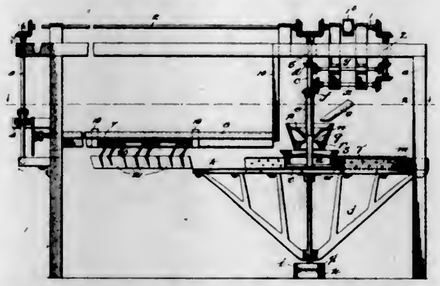
944,566. SHEET-METAL FOLDER. JOHN A. MASON, Newton, Mass. Filed Apr. 1, 1909. Serial No. 487,307.



1. A border folding tool formed of sheet metal and comprising a flat body portion having opposite reinforced and rounded folding edges of different lengths formed by backwardly folding the opposite margins of said body portion and an outwardly projecting work engaging lip adjacent to said folding edges and formed by returning the margins of said folded body portions outward in substantial parallelism therewith.

2. A border folding tool formed of sheet metal and comprising a flat body portion having opposite reinforced and rounded folding edges of different lengths formed by backwardly folding toward the same side the opposite margins of said body portion and an outwardly projecting work engaging lip adjacent to said folding edges and formed by returning the margins of said folded body portions outward in substantial parallelism therewith.

944,567. ORE-CONCENTRATOR. FRANK D. MELHUISH, Atlanta, Ga. Filed Feb. 3, 1909. Serial No. 475,848.



1. In an ore concentrator, the combination of a table, a plurality of parallel scrapers set at a sharp angle to a radius of the table, and means for continuously moving said scrapers back and forth over said table and radially thereto, substantially as described.

2. In an ore concentrator, the combination of a table, having a substantially flat surface, a plurality of parallel scrapers set at a sharp angle to a radius of the table, a carriage on which said scrapers are carried, said carriage being provided with anti-friction wheels, a frame supporting said carriage, and means for continuously moving said carriage back and forth over the surface of said table and radially thereto, substantially as described.

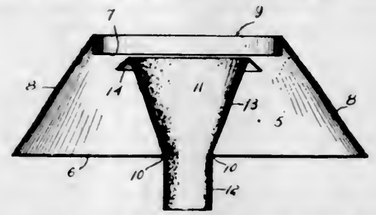
3. In an ore concentrator, the combination of a table, a carriage, a plurality of parallel scrapers carried by said carriage, said scrapers having their ends over-lapping and arranged at a sharp angle to a radius of the table, said carriage being provided with roller bearings, a frame supporting said bearings, means for continuously moving said carriage back and forth on said frame on the line of a radius of said table, and means for automatically stopping the movement of said carriage at a predetermined point, substantially as described.

4. In an ore concentrator, the combination of a table, a carriage arranged to travel in the direct center line from the circumference of said table toward and away from its center, and provided with a plurality of scrapers diagonally mounted thereon, said scrapers being parallel to each other and having their ends over-lapping, and means for moving said carriage, including a screw-shaft arranged radially with relation to said table, a friction wheel mounted on said screw-shaft, a friction disk adapted to engage said friction wheel, means for moving said disk into different positions relatively to said friction wheel, and means for automatically stopping the travel of said carriage at a predetermined limit in either direction, substantially as described.

5. In an ore concentrator, the combination of a table, a plurality of parallel, diagonally-arranged scrapers, a carriage to which said scrapers are pivotally attached, said carriage being provided with roller bearings, a frame comprising L-shaped bars supporting said carriage, means for moving said carriage radially over the surface of said table, and automatic trips and levers against which said carriage is adapted to strike as it moves, to automatically stop its movement in either direction at a predetermined limit, substantially as described.

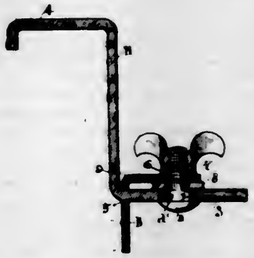
[Claims 6 to 8 not printed in the Gazette.]

944,568. ANT-TRAP. JOHN W. MERCER, Joshua, Tex., assignor to W. C. Hasha and W. N. Estes, Callahan county, Tex. Filed Mar. 26, 1909. Serial No. 485,990.



An ant trap comprising a hollow frusto conical shaped receptacle having a base plate centrally provided with an opening and its outer edge bent inwardly and vertically downward to provide a flange, a member provided with a hollow cylindrical portion slidingly fitted in the opening of the base, the lower end of said cylindrical portion extending considerably below the lower face of the base and the upper or opposite end terminating in a funnel-shaped extension, the upper edge portion of which is bent outwardly and downwardly to provide a flange spaced from the first-named flange with its upper side substantially in a plane with the lower side of the first-named flange.

944,569. SPRING BED-BOTTOM. JACOB L. MOORE, Bellevue, Ohio. Filed Sept. 17, 1908. Serial No. 453,378.



1. A bed-bottom having angle iron side rails provided with slots through their sides and holes in their top opposite said slots, and hangers having right angled lower ends projected through said slots and bolts through said ends and said holes in said side rails locking the hangers in place.

2. A spring bed-bottom having angle iron side rails and coincident slots and holes through its respective angles, and hangers having ends projected through said slots

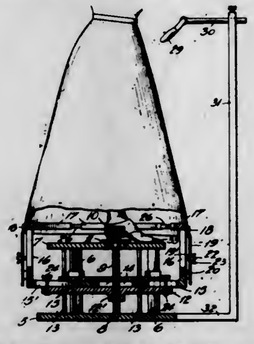
and provided with slots opposite said holes, and bolts and nuts locking said hangers adjustably in place.

3. The bed-bottom having angle iron side rails provided with slots through their sides below their upper edges and coincident holes through their top, and hangers engaged through said slots having slotted ends projecting through said slots, and bolts engaged through said slotted ends and in said holes in said side rails and means about said bolts between said rails and said hangers to maintain the level of the hangers in the rails.

4. A bed-bottom having angle iron side rails and slots lengthwise at intervals through the sides of said rails below their corner edges and holes through the tops of said rails corresponding to said slots.

5. A rectangular bed-bottom having angle iron rails arranged with one side horizontal and the other side vertical and on the outside of said frame, in combination with hangers having their ends bent at right angles to the body thereof and in opposite directions therefrom and one of said ends projected through the vertical side of said rail and adjustably engaged with the horizontal side of said rail at the bottom thereof.

944,570. SKIRT-MARKER. SAMUEL S. MORITZ, Dayton, Wash. Filed Apr. 9, 1909. Serial No. 488,948.



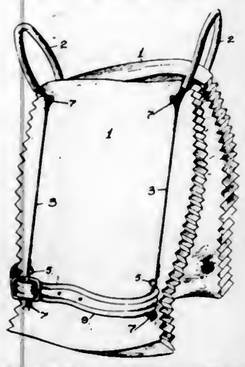
1. A skirt marker consisting of a frame comprised of a base, a superposed platform, and posts extending upwardly from the base for supporting said platform, in combination with an elevator positioned between said base and platform, means for effecting vertical movements to said elevator, bars connected for radial adjustments with the elevator, arms extending upwardly from said bars, arcuate conformers carried at the upper ends of the respective arms, an arcuate clamping jaw provided for each of said conformers and severally provided with a downwardly extending arm which is pivotally connected with the respective of the aforementioned arms, and screw devices for causing said jaws to be brought into clamping relation with the respective conformers.

2. In a skirt marker, the combination with a frame including a platform, an elevator connected with the frame for vertical movements with respect to said platform, means for accomplishing such movements of the elevator, of a plurality of conformers carried by said elevator and arranged for radial adjustments with respect to the elevator, arcuate jaws for the respective conformers, and means whereby the couples of jaws and conformers are caused to coöperate to afford clamping members.

3. A skirt marker consisting of a frame composed of a base, a superposed platform, and posts extending upwardly from the base for supporting said platform, in combination with an elevator positioned between said base and platform, screw devices for effecting vertical movements to said elevator, bars connected for radial adjustments with the elevator, means for securing the bars in adjusted positions to said elevator, arms extending upwardly from said bars, arcuate conformers carried at the upper ends of the respective arms, devices slidably connected within the adjacent ends of said conformers, an arcuate clamping jaw provided for each of said conformers and severally provided with a downwardly extending arm which is pivotally connected with the respective of the aforenamed arms, and screw devices for causing the said jaws to be brought into clamping relation with the respective conformers.

4. A skirt marker consisting of a frame composed of a base, a superposed platform, and posts extending upwardly from the base for supporting said platform, in combination with an elevator positioned between said base and platform, means for effecting vertical movements to said elevator, bars connected for radial adjustments with the elevator, arms extending upwardly from said bars, arcuate conformers carried at the upper ends of the respective arms, an arcuate clamping jaw provided for each of said conformers and severally provided with a downwardly extending arm which is pivotally connected with the respective of the aforenamed arms, and screw devices for causing said jaws to be brought into clamping relation with the respective conformers, an upright steady-rest connected with the frame base, and a block secured upon said platform and serving as a stop for the toes of a person occupying the platform.

944,571. SADDLE-PAD. THOMAS I. MORRISH, San Francisco, Cal. Filed Jan. 2, 1908. Serial No. 409,021.



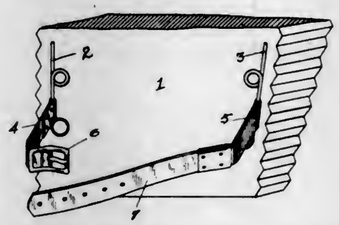
1. In a saddle-pad, the combination with the pads thereof, of a plurality of independent and unconnected securing frames to which the said pads are united, each frame consisting of a single piece of metal conforming in shape substantially to the back of an animal, the body portions of the said frames being formed with projections for the reception of securing means whereby the frames may be applied to the outer surface of said pad, and of devices extended through the said projections and the pads for uniting the pads to the securing frames.

2. In a saddle pad the combination of a pad member and a securing frame upon one side of the pad, the said frame having a supporting shoulder intermediate the top and bottom of the pad; means for securing the frame to the pad member, and a securing strap supported by said shoulder.

3. A saddle pad, the same comprising a pair of pad sections, a plurality of securing frames each composed of a single piece of wire substantially V-shaped, the central portions of which frames are projected upwardly to form loops, and means engaging said body portions of the frames for securing the latter directly to the outside of the pad sections, and a securing strap on the outside of the pads extending between the body portions of the respective frames.

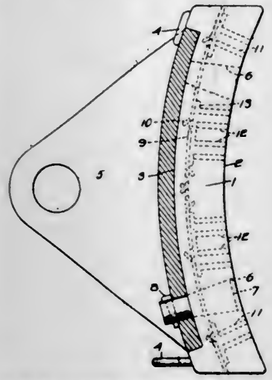
944,572. SECURING MEANS FOR SADDLE-PADS. THOMAS I. MORRISH, San Francisco, Cal. Filed July 21, 1909. Serial No. 508,732.

1. The combination with a saddle pad, of flexible metallic tongues secured to the edge portions thereof adjacent the bottom thereof, a buckle carried by one tongue, and a strap united to the opposite tongue, said strap connection with the buckle to unite the metallic tongues and hold the same to the edges of a saddle skirt.



2. A connection for uniting a saddle pad to the skirt of a saddle, the same comprising two flexible metallic tongues, a buckle carried by one of said tongues and a strap secured to the opposite tongue, the said strap being designed to interlock with the buckle to unite the flexible metallic tongues.

944,573. BRAKE-SHOE. HENRY H. MCALISTER, Fitzgerald, Ga. Filed June 21, 1909. Serial No. 503,416.



1. A brake-shoe provided at opposite ends with laterally extending members capable of being deflected for connecting the shoe to a brake-head, substantially as described.

2. A brake-shoe formed adjacent to each end with a bolt-hole for the passage of an attaching bolt and provided at opposite ends with laterally extending members capable of being deflected, said holes and extending members adapting the shoe to be reversed for attachment to a brake-head at either side of an engine or car, substantially as described.

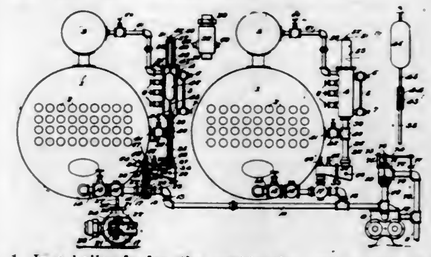
3. A brake-shoe having embedded therein a reinforcing plate, said plate being formed with spurs projecting from its opposite faces and engaging the metal of the shoe on both sides of the plate, substantially as described.

4. A brake-shoe having embedded therein a reinforcing plate, said plate being wholly contained within the body of the shoe below its rear face and formed with spurs projecting at an inclination from its face along the portion thereof lying back of the face or tread portion of the shoe and engaging the metal of the shoe, substantially as described.

5. A brake-shoe having embedded therein a reinforcing plate, said plate being wholly contained within the body of the shoe below its rear face and formed with spurs inclined in opposite directions along the portion thereof lying back of the face or tread portion of the shoe and engaging the metal of the shoe, substantially as described.

[Claims 6 to 13 not printed in the Gazette.]

944,574. BOILER-FEEDER. VINCEN P. MCVOY, Mobile, Ala. Filed Feb. 6, 1909. Serial No. 476,378.



1. In a boiler feeder, the combination with a boiler and the water column, of a float in said water column, balanced valves controlling the flow of water to the boiler, pivotally connected connections between the float and the valves, one of the members thereof being pivotally mounted, and means adjustable for engagement with the pivotally mounted member for holding said valves in their open position.

2. In a boiler feeder, the combination with a boiler and a water column, of a float in said water column, balanced valves controlling the flow of water to the boiler, a vertical stem carrying said valves, a pivotally mounted member pivotally connected at one end with said stem and at the other end with a vertical member connected with the float, and adjustable means engageable with said stem for holding said valves in their closed position and for limiting the movement of their stem.

3. In a boiler feeder, the combination with a boiler and a water column, of a float in said water column, balanced valves controlling the flow of water to the boiler, a stem carrying both of said valves, a horizontally disposed pivoted member pivotally connected at one end with said stem and at the other end with a stem connected with the float, adjustable means for engagement with said pivoted member upon one side of its pivot for holding said valves open, and adjustable means disposed upon the opposite side of said pivot for engaging the valve stem and holding the valves closed.

4. In a boiler feeder, the combination with the water column, the boiler and the feed pipe therefor, of a float in the water column, balanced valves controlled by said float to control the flow of water to the boiler, and means embodying a pivoted member connected with the valve stem and an adjustable rod connecting said pivoted member with the float for varying the time of movement of said valves.

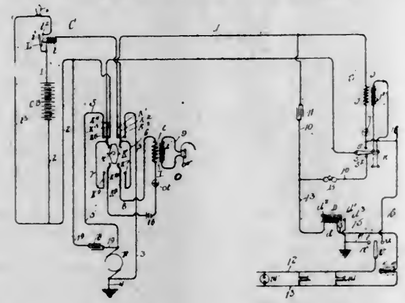
5. In a boiler feeder, the combination with the water column, the boiler and the feed pipe therefor, of a float in the water column, balanced valves for controlling the flow of water through the feed pipe to the boiler, a pivoted support for said valves connected with the float, means for varying the time of movement of the valves, and means adjustable for engagement with said pivoted support for holding the valves open.

[Claims 6 to 12 not printed in the Gazette.]

944,575. COMBINED TELEPHONE AND PROTECTIVE ALARM SYSTEM. JAMES G. NOLEN, Chicago, Ill., assignor to John E. Shepherd, Chicago, Ill. Filed Feb. 26, 1906. Serial No. 302,838.

1. The combination with a telephone system, involving a line connection from a central station to a subscriber's station, suitable means of current supply; at the central station an operator's set and a line signal, and at the subscriber's station a transmitter and a switch opening the transmitter circuit when the subscriber's line is not in use, of a protective system comprising a normally open protective circuit closer, a circuit normally open at said circuit closer and otherwise bridging the open switch connection of the transmitter, and otherwise closing a circuit including the transmitter the line signal and a source of

current supply, and an electrically initiated aural alarm device having its electro-responsive part operatively associated with the circuit closable by the protective circuit closer and energized by a central source of supply.



2. The combination with a telephone system, involving a line connection from the central station to a subscriber's station, suitable means of current supply; at the central station an operator's set and a line signal, and at the subscriber's station a transmitter and a switch opening the transmitter circuit when the subscriber's line is not in use; of a protective system comprising a normally open protective circuit closer, a circuit normally open at said circuit closer, and otherwise closing the circuit including the line signal and a source of current supply, an audible alarm device within effective distance of the transmitter, having an electro-responsive controlling part operatively associated with the protective circuit to initiate the activity of the alarm device, and means, responsive to the closing of the protective circuit, for closing an energized circuit excluding the said circuit closer and including the alarm device.

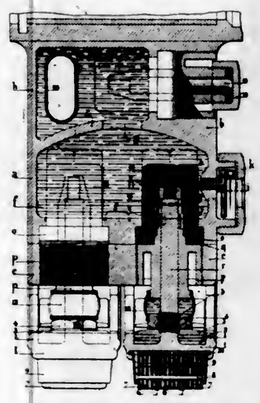
3. The combination with a telephone system, involving a line connection from the central station to a subscriber's station, suitable means of current supply; at the central station an operator's set and line signal appliances, and at the subscriber's station a transmitter and a switch opening the transmitter circuit when the subscriber's line is not in use; of a protective system comprising a normally open protective circuit closer, a circuit normally open at said circuit closer and otherwise bridging the open switch connection of the transmitter, and otherwise closing a circuit operatively including the line signal appliances and a source of current supply; an electric audible alarm within effective distance of the telephone transmitter, and means responsive to the operation of the circuit closer to initiate the operation of the alarm, arranged to permit the continued operation of said alarm independently of the condition of the protective circuit closer.

4. The combination with a telephone system, involving a line connection from the central station to a subscriber's station; suitable means of current supply; at the central station an operator's set and line signal appliances, and at the subscriber's station a transmitter and a switch opening the transmitter circuit when the subscriber's line is not in use; of a protective system comprising a normally open protective circuit closer, a circuit normally open at said circuit closer and otherwise bridging the open switch connections of the transmitter, and otherwise closing a circuit operatively including the line signal appliances, and a source of current supply; an electric audible alarm within effective distance of the transmitter, and means for automatically closing another energized circuit including said alarm device, operable upon the closing of said circuit closer.

5. In a system of the character described, the combination with a telephone system involving a line, a source of current supply therefor, and a ringing generator normally connected to said line, of an audible electro-responsive alarm device at the subscriber's station, and at the subscriber's station means for establishing a circuit including the ringing generator and the audible alarm device, such means including a protective circuit and a normally open protective circuit closer.

[Claims 6 to 12 not printed in the Gazette.]

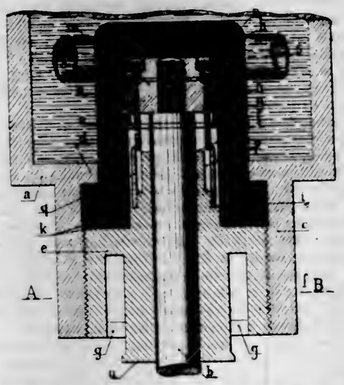
944,576. CUSHION-WHEEL. HENRI OUDINOT and CHARLES PUTOIS, Coudray Montceaux, France. Filed Dec. 22, 1908. Serial No. 468,878.



A cushion wheel comprising in combination with the hollow hub having a hollow extension communication with the main part of the hub, vertical flanges of said hub, an inner crown between said flanges having an opening through which the hollow extension communicates with the hollow main part, an outer crown between said lateral flanges having threaded openings, one for each spoke, a flange at the upper end of each of said openings, a nut screwed into said opening having a central boring, an india-rubber bag being fixed with the flanged edge of its open end between said nut and said flange so that its top part projects into the hollow hub, a piston guided in said nut, a stepped head of said piston penetrating into the correspondingly shaped top part of the india-rubber bag, metal rings inserted in the inner surface of said bag, each embracing one of the steps of the piston head, means for preventing a lateral deviation of the india-rubber bag, a shoe forming the outer end of the spoke, an upwardly directed flange at each of the long sides of said shoe and a downwardly directed flange having an internal groove at each of the long sides of said shoes, superposed rings of flexible material placed at each side of the spokes upon said shoes so as to form a flexible felly, means for securing said rings upon the shoes, a nut for each spoke to press said rings strongly upon its shoe, india-rubber sheaths fixed to the lower end of the hollow guide nut of the piston and to the upper end of said pressure nuts forming a lubricating chamber for each piston, the lubricant mainly consisting of castor oil filling said lubricating chamber and the hollow hub and its hollow extension, an air chamber in said hollow extension and a regulating piston in said extension for regulating the pressure in the hub, substantially as described and for the purpose set forth.

944,577. HYDROPNEUMATIC SPRING. HENRI OUDINOT and CHARLES PUTOIS, Coudray Montceaux, France. Filed Dec. 22, 1908. Serial No. 468,879.

1. A hydropneumatic spring comprising in combination a cylinder filled with suitable liquid, an air chamber filled with air under pressure inclosed in said cylinder, a piston adapted to penetrate into said cylinder, suitable means for guiding said piston in the bottom of the cylinder, an india-rubber bag coöperating with the head part of said piston, means for guiding said india-rubber bag upon said piston, and means for obtaining a perfect joint between the india-rubber bag, the piston and the cylinder substantially as described and for the purpose set forth.

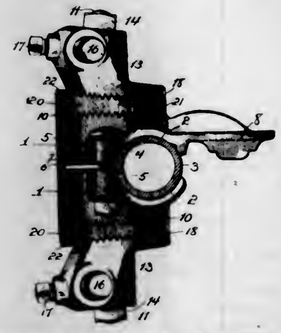


2. The piston comprising a rod, a threaded part at the upper end and a movable head screwed upon said threaded part, said head presenting steps which decrease in diameter toward the upper end, and an externally threaded part of the head at the bottom end of the same, substantially as described and shown.

3. The india-rubber bag comprising a thick head part profiled according to the profile of the piston-head provided with steps, three metal rings in said head part, one for each step of the piston head for guiding the bag upon the piston, a certain number of metal guide rings below said first mentioned guide rings, and a flange at the lower end by means of which the india-rubber bag is fixed between the cylinder and the device for guiding the piston.

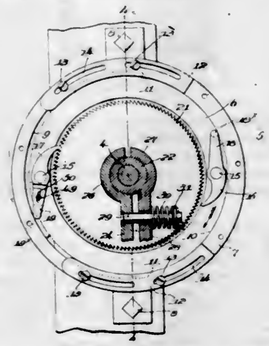
4. The device for guiding the piston consisting of a nut screwed into the lower end of the cylinder, a tubular extension of said nut projecting into the cylinder, an externally threaded flange at the bottom end of said tubular extension, a guide sleeve screwed upon said flange and a guide sleeve screwed upon the lower end of the piston head and guided in said first mentioned sleeve, substantially as described and for the purpose set forth.

944,578. SEEDING-MACHINE. WILLIAM L. PAUL, South Bend, Ind., assignor to Oliver Chilled Plow Works, South Bend, Ind. Filed June 29, 1908. Serial No. 440,925.



The combination with two castings provided with means for clamping the same to a seeding machine, each of said castings provided on its outer face with an annular series of radial teeth, a bolt attached to and projecting laterally from each of said castings, and holders adapted to receive the shanks of covering blades or shovels, said holders having holes for the passage of said bolts, and each of said holders provided on its inner face with an annular series of radial teeth, of beveled or wedge-shape disks interposed between the holders and castings and provided on their respective faces with annular series of radial teeth to mesh with the radial teeth on the casting and holders, and nuts on the free ends of said bolts.

944,579. TAKE-UP MECHANISM FOR LOOMS. ALONZO E. RHOADES, Hopedale, Mass., assignor to Draper Company, Hopedale, Mass., a Corporation of Maine. Filed Apr. 23, 1909. Serial No. 491,733.



1. In take-up mechanism for looms, in combination, a positively and continuously rotated driving disk, diametrically opposite pawls thereon, a ratchet, springs to throw the pawls into engagement therewith, an annular housing surrounding the disk and having a portion of its inner face cut away to allow each pawl to engage the ratchet when said pawl is moved past said cut-away portion, adjustable members on the housing at the ends of the latter to determine the time when a pawl shall engage and be disengaged from the ratchet, and a take-up roll intermittingly actuated by the ratchet at regularly recurring intervals.

2. In take-up mechanism for looms, a positively and continuously rotated driving member, a rotatable driven member, diametrically opposite devices on the driving member to intermittingly engage and effect step-by-step rotation of the driven member, adjustable means to determine when each of said devices shall engage and be disengaged from the driven member at each revolution of the driving member, separate means to effect a differential action of said devices, and a take-up device for the cloth, actuated by the driven member.

3. In take-up mechanism for looms, a continuously revolving pawl-carrier, oppositely located pawls thereon, a ratchet, a take-up roll operatively connected therewith and actuated thereby; means to cause each pawl to engage and effect a partial revolution of the ratchet on each revolution of the pawl-carrier, and separate means to effect a differential action of said pawls, whereby they engage the ratchet for periods differing in length.

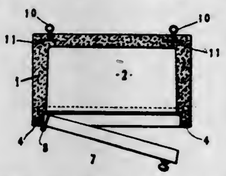
4. In take-up mechanism for looms, a continuously revolving pawl-carrier, oppositely located pawls thereon, a ratchet, a take-up roll operatively connected therewith and actuated thereby, relatively fixed means to cause the pawls successively to engage and effect a partial revolution of the ratchet on each revolution of the pawl-carrier, and means to effect an independent adjustment of one of said pawls and thereby cause a differential action of the pawls upon the ratchet.

5. In a loom, in combination, a take-up roll, a driving member continuously rotated and making one revolution for every two picks, a rotatable driven member, diametrically opposite devices on the driving member to successively engage and advance the driven member twice on each revolution of the driving member, means to cause

each of said devices to engage and be disengaged from the driven member as the driving member revolves, separate means to effect a differential action of said devices upon said driven member, and connections between the latter and the take-up roll.

[Claim 6 not printed in the Gazette.]

944,580. RECEPTACLE. ALLSTON SARGENT, New York, N. Y. Filed May 25, 1908. Serial No. 434,977.



1. A receptacle comprising an integral body formed of a composition of cementitious material and cork open on one side and provided on its interior with an impervious coating, reinforcing strips at the edges of the body having flanges embedded in the composition and a closure for said body.

2. A body for a receptacle formed of a composition of cementitious material and cork cast in one piece and provided with an interior coating impervious to water and gases and reinforcing means embedded in the edges thereof.

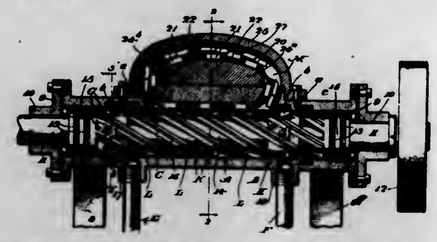
3. A closet comprising a body and shelf formed integrally of a composition of cementitious material and cork-like material provided on its interior with a coating of enamel impervious to moisture and gases.

4. A body for a receptacle formed of a composition of a cementitious substance and finely divided particles of a lighter substance of irregular size and reinforcing strips for the edges thereof having flanges secured to the composition.

5. A body for a receptacle comprising a composition of cementitious material and cork-like material cast integrally and reinforcing and protecting strips for the edges thereof, and an interior coating of a hard impervious enamel.

[Claims 6 to 8 not printed in the Gazette.]

944,581. ROTARY MOTOR. LAURENCE P. STEVENS, Los Angeles, Cal., assignor of one-third to Trube J. Lawrence, Los Angeles, Cal. Filed June 1, 1908. Serial No. 436,131.



1. An improved motor of the character described, comprising a cylindrical piston member, a casing for the piston member there being cylinder spaces between the casing and the piston member, inlet ports adapted to communicate with the cylinder spaces, exhaust ports, valve means regulating communication between the cylinder spaces and the exhaust ports, and a cylinder member movable with relation to the piston member and serving to confine the pressure medium within the cylinder spaces during the expansion of the pressure medium, said cylinder member comprising a plurality of separate heads.

2. An improved motor of the character described, comprising a cylindrical piston member, a casing for the piston member, there being cylinder spaces between the casing and the piston member, inlet ports adapted to communicate with the cylinder spaces, exhaust ports, valve means regulating communication between the cylinder spaces and the exhaust ports, and a cylinder member movable with relation to the piston member and serving to confine the pressure medium within the cylinder spaces during expansion of the pressure medium; said valve means comprising a plurality of valve bodies slidably fitting said cylinder spaces.
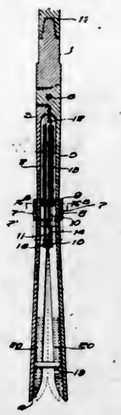
3. An improved motor of the character described, comprising a cylindrical piston member, a casing for the piston member, there being cylinder spaces between the casing and the piston member, inlet ports adapted to communicate with the cylinder spaces, exhaust ports, valve means regulating communication between the cylinder spaces and the exhaust ports, and a cylinder member movable with relation to the piston member and serving to confine the pressure medium within the cylinder spaces during expansion of the pressure medium; said valve means comprising a plurality of valve bodies slidably fitting said cylinder spaces, and means for shifting said valve bodies in the rotation of said piston member.

4. In an improved motor of the character described, a cylindrical piston member, a casing for the piston member, there being a cylinder space between the casing and the piston member, inlet ports adapted to communicate with the cylinder space, exhaust ports, and valve means for each of the exhaust ports, comprising a valve body slidable in said cylinder space, means limiting the shift of said valve body, and means causing the shift of said valve body in the operation of said piston member.

5. In an improved motor of the character described, a cylindrical piston member, a casing for the piston member, there being a cylinder space between the casing and the piston member, inlet ports adapted to communicate with the cylinder space, exhaust ports, and valve means for each of the exhaust ports, comprising a valve body slidable in said cylinder space, means limiting the shift of said valve body, and means causing the shifting of said valve body in the operation of said piston member; said shifting means comprising a head projecting inwardly of said casing, and a lug upon said valve body with which said head coöperates.

[Claims 6 to 9 not printed in the Gazette.]

944,582. WELL-DRILLER'S FISHING-TOOL. MATTHEW L. THORN, Hollywood, and WILLIAM M. MCGEE, Santa Monica, Cal. Filed July 8, 1908. Serial No. 442,584.



1. A fishing tool comprising a blade provided with a stem, a blade pivoted thereto, said blades having oppositely-arranged upwardly-tapering portions below the pivot, a sleeve around the blades at the tapering portion

thereof, a spring between the blades, and means connecting the spring with the sleeve to force the sleeve toward the larger end of the taper portion.

2. In a fishing tool, a set of jars, a stem connected to the lower member of the jars, a blade extending downwardly from the stem, a second blade pivoted to the upper end of the first blade, a rod mounted between the two blades, a cross-head upon the rod and movable along the blades, a spring pressing the cross-head downwardly, a sleeve attached to the cross-head and encircling the blades, and means for temporarily holding the lower ends of the blades spread apart to support the sleeve against the tension of the springs and for insertion into the well, said means being frictionally held between the blades so that such means may be displaced by an obstruction passing between the blades.

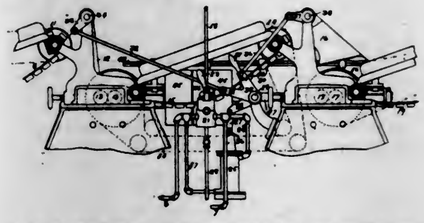
3. In a fishing tool, a stem adapted for connection to operating means, a blade rigid with the stem, a second blade pivotally mounted relative to the blade, a sleeve mounted upon the blades and movable lengthwise thereof for forcing the blades together as the sleeve descends, and means for temporarily holding the blades apart and the sleeve elevated, so that when the tool descends into the well and meets an obstruction the blades will be released and the sleeve will be allowed to descend to force the blades together to grip the obstruction.

4. In a fishing tool, a stem adapted for connection with means for operating the tool, a blade rigid with the stem, a second blade pivotally mounted relative to the stem, a prop for holding the blades apart, a rod pivoted between the blades, a cross-head upon the rod and movable along the blades, a spring upon the rod against the cross-head, and a sleeve carried by the cross-head and encircling the blades, so that when the tool descends into a well and meets an obstruction the obstruction will displace the prop allowing the spring to force the sleeve downwardly and force the jaws to engage the obstruction.

5. In a fishing tool, two blades of curved cross-section and rounded points pivoted together, a stem rigid with one of said blades and adapted for connection to means for operating the tool, a rod pivoted between said blades, a spring on said rod, a cross-head operable by said spring, and means carried by the cross-head to force the ends of the blades together.

[Claims 6 to 8 not printed in the Gazette.]

944,583. FIBER CONVEYING AND REVERSING APPARATUS. JUSTIN K. TOLES, Los Angeles, Cal. Filed Sept. 17, 1907. Serial No. 393,408.



1. In a machine of the class specified, in combination, two instrumentalities for scutching opposite ends of a fiber stalk, conveying means intermediate of said scutching instrumentalities, means for feeding one end of the stalk to one of the scutching instrumentalities, means to transfer the other end of the stalk to said conveying means, and means to reverse the feeding means.

2. In an apparatus of the class specified, in combination, two appliances for treating fiber, means for feeding one end of the fiber to one of the appliances, means to convey the fiber from said feeding means to the other of said appliances, mechanism to transfer the free end of the fiber to said conveying means, and means to reverse the feeding means.

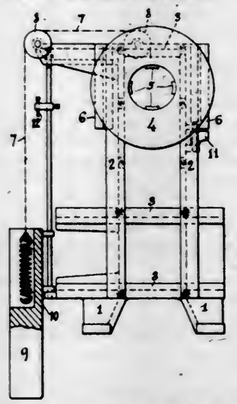
3. In combination, means for treating fiber comprising two instrumentalities for scutching opposite ends of fiber stalks, a conveyer, grip rolls, a second conveyer associated with said instrumentalities and having its receiving end contiguous to said grip rolls, and a cradle to receive material from said first-conveyer and guide it between said grip rolls; and also to deposit the free end of said material upon said second conveyer.

4. In an apparatus of the class specified, in combination, two appliances for treating opposite ends of fiber, a conveyer, means to feed one end of the fiber to one of said appliances, means for reversing the direction of operation of said feeding means, a second conveyer operative upon the reversal of direction of operation of the feeding means to receive and convey the fiber to the other of said appliances, and mechanism for guiding the fiber from said first conveyer to said feeding means and for transferring the free end of said fiber onto said second conveyer.

5. In combination, means for treating fiber comprising two instrumentalities for scutching opposite ends of fiber stalks, a conveyer, grip rolls, a second conveyer intermediate of said instrumentalities and having its receiving end contiguous to said grip rolls, mechanism for guiding material from said conveyer to said grip rolls and for transferring the free end of said material on to said second conveyer and manually controlled means for reversing the direction of rotation of said grip rolls.

[Claims 6 to 15 not printed in the Gazette.]

944,584. THREADING-DIE. MUNSON H. TREADWELL, New York, N. Y., and CARL P. ASTROM, Orange, N. J., assignors to Stoever Foundry & Manufacturing Company, Lebanon, Pa., a Corporation of Pennsylvania. Filed Aug. 1, 1908. Serial No. 446,365.



1. A die mechanism comprising a die head support, a die carrying head mounted to move vertically therein, means balancing the weight of the die head, a spring cooperating with said die head and said balancing means and side guides spaced apart from the sides of the die head to allow limited lateral movement of the die head.

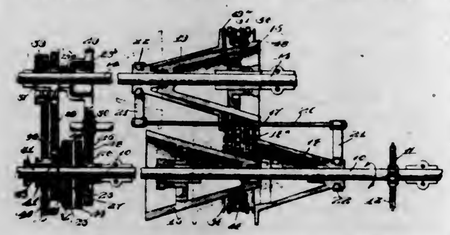
2. A floating die mechanism comprising a die head, a counterbalance weight flexibly connected with the die head, and side guides preventing longitudinal movement of the die head but spaced from the die head at the sides to permit limited transverse movement and rotation of the die head between the guides.

3. A die mechanism comprising a die carrying head, guides therefor permitting free reciprocatory movement but preventing longitudinal movement of the die head, and spaced from opposite sides of the die head to permit free transverse movement to a limited extent between the guides, and a counterbalance for the die head.

4. The combination with a die head mounted to move universally on its support, of guides permitting the die head to be slid vertically away from operative position, and a counterbalance attached to the die head, and holding the die head in either position.

5. A die mechanism comprising a die head, guides for said die head to prevent longitudinal movement of the same and spaced to permit free transverse and rotational movement to a limited extent when in operative position, and means substantially balancing the weight of said die head to permit unrestrained movement of the die head in response to eccentricity of the work.

944,585. DRIVING MECHANISM. HENRY F. WATSON, Oak Park, Ill. Filed Feb. 10, 1905. Serial No. 245,066.



1. In a driving-mechanism, the combination with toothed conical driving-members, of a truss-chain composed of engaging-members adapted to engage the teeth of said cones, and truss-members connecting said engaging-members and adapted to automatically adjust said engaging-members to said toothed cone, substantially as described.

2. The combination of conical driving-members each provided on its surface with teeth converging from the large end toward the small end of said conical driving-members, of a truss-chain composed of engaging-members adapted to engage the teeth of said cones, and truss-members connecting said engaging-members and adapted to automatically adjust said engaging-members of said toothed cones, substantially as described.

3. The combination of conical driving-members each provided on its surface with teeth converging from the large end toward the small end of said conical driving-members, of a truss-chain composed of engaging-members adapted to engage the teeth of said cones, truss-members connecting said engaging-members and adapted to automatically adjust said engaging-members of said toothed cones, and means for shifting said chain longitudinally of said conical driving-members, substantially as described.

4. The combination of conical driving-members each provided on its surface with teeth converging from the large end toward the small end of said conical driving-members, of a truss-chain composed of engaging-members adapted to engage the teeth of said cones, truss-members connecting said engaging-members and adapted to automatically adjust said engaging-members of said toothed cones, means adapted to prevent the spreading of said chain, and means for shifting said truss-chain longitudinally of said conical driving-members, substantially as described.

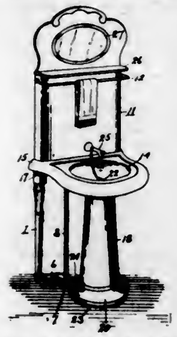
5. The combination of conical driving-members each provided on its surface with teeth converging from the large end toward the small end of said conical driving-members, of a truss-chain composed of engaging-members adapted to engage the teeth of said cones, truss-members connecting said engaging-members and adapted to automatically adjust said engaging-members of said toothed cones, a binding-chain adapted to prevent the spreading of said chain, and means for shifting said truss-chain longitudinally of said conical driving-members, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

944,586. LAVATORY. BENJAMIN F. WHEELER, Detroit, Mich. Filed Nov. 11, 1908. Serial No. 462,007.

1. A portable lavatory, comprising a supporting stand, a wash bowl mounted on said stand, a water supply tank upon said stand engaging the rear margin of said bowl and so associated therewith as to form a splash back therefor, and a waste water receptacle removably positioned below the bowl.

2. A lavatory comprising a portable stand, a water supply tank mounted thereon, a bowl below said tank supported on the stand to swing upwardly, and a waste water receptacle below the bowl having an opening at the top into which the bottom of the bowl normally depends.



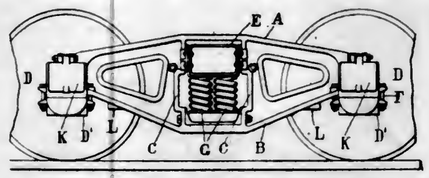
3. A lavatory comprising a portable stand, a water supply tank mounted thereon, a bowl below said tank supported on the stand to swing upwardly, a waste water receptacle below the bowl having an opening at the top into which the bottom of the bowl normally depends, and a floor mat forming a portion of the base of the stand for positioning said receptacle with respect to said bowl.

4. A portable lavatory comprising a stand, a cross piece at the top thereof, a bowl supported upon the stand and at its rear edge engaging under said cross piece, and a water supply tank removably seated over said cross piece and engaging with its lower edge the margin of said bowl.

5. A lavatory comprising a stand having legs, a cross piece connecting said legs, supporting rods connected with said cross piece, a bowl supported on said rods and jointedly connected with the stand to swing upwardly, and a water tank removably seated on said cross piece.

[Claims 6 to 10 not printed in the Gazette.]

944,587. CAR-TRUCK. CHARLES D. YOUNG, Columbus, Ohio. Filed Nov. 25, 1908. Serial No. 464,391.



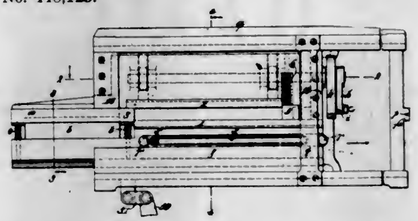
1. The combination with a metal side frame for a car truck, having the upper and both side portions of each journal box made integral therewith, of a separable bottom for each journal box, the meeting edges of the two parts of the box having correspondingly beveled surfaces and bolts for securing the lower member of the box to the upper portion of the latter.

2. The combination with a metal side frame for a car truck having the upper, both side portions, and part of the front of each journal box made integral therewith, the journal box lid opening being formed wholly in said front, of a separable bottom for each journal box and bolts for locking the lower member of the box to the upper portion of the latter.

3. The combination with a metal side frame for a car truck, having the upper, both side portions, and front of each journal box made integral therewith the journal box lid opening being formed wholly in the said front, of a separable bottom for each journal box, the meeting edges of the two parts of the box having correspondingly beveled surfaces, and bolts for securing the lower member of the box to the upper portion of the latter.

4. The combination with a metal side frame for a car truck, having the upper and both side portions of each journal box made integral therewith, of a separable bottom for each journal box, the meeting edges of the two parts of the box having correspondingly beveled surfaces, and both parts of the box having laterally projecting integral lugs, and bolts passing through said lugs for securing the lower member of the box to the upper portion of the latter.

944,588. LINE-CASTING MACHINE. FRITZ C. LUCKE, D'AIX, New York, N. Y. Filed Aug. 12, 1908. Serial No. 448,125.



1. In a linotype mold having one side member movable longitudinally in relation to the other for the purpose of changing the length of the mold slot, a spout closing member attached to and moving with said side member, substantially as and for the purposes herein set forth.

2. A linotype mold having two opposed jaws movable one relatively to the other to vary the length of the mold slot, a side member connected to one jaw for closing one end of the slot, a side member connected to the other jaw for closing the other end of the slot, and a spout closing member attached to and moving with one of the side members.

3. In combination with the upper mold jaw, the lower mold jaw movable lengthwise relatively to the upper jaw, the spring pressed side pieces carried by the upper and lower jaws respectively, and the spout closing member on and moving with the side piece carried by the lower jaw.

4. In a linotype mold the combination with a lengthwise movable lower jaw, a spring pressed side piece carried by the same, a spout closing member on and moving with said side piece, of an upper jaw having a tail piece or extension, which rests upon the spout closing member, and a spring pressed side piece carried by said upper jaw, substantially as and for the purposes set forth.

5. A traveling linotype mold having two opposed jaws relatively movable to vary the casting width of the slot, manually operated rack and pinion mechanism for thus positioning one of the jaws, in combination with means for automatically opening the thus positioned jaw after the casting and before the ejecting operation, and means for automatically returning said jaw to normal closed position after the ejecting and before the next succeeding casting operation.

[Claims 6 to 12 not printed in the Gazette.]

944,589. REINFORCING-BAR FOR CONCRETE STRUCTURES. DANIEL BAUM, Jr., Omaha, Nebr. Filed Sept. 24, 1907. Serial No. 394,415.



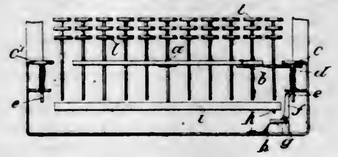
1. A reinforcing bar for concrete structures comprising a bar of uniform parallelogrammatic section having a series of waves made therein in planes parallel with two sides of the bar, and a second series of waves made therein in planes parallel with the other two sides of the bar.

2. A reinforcing bar for concrete structures comprising a bar of uniform rectangular cross section having two series of waves made therein in non-parallel planes, and being longitudinally and uniformly waved throughout its length.

3. A reinforcing bar for concrete structures comprising a bar of uniform rectangular cross section having a uniform series of waves made therein in planes parallel with two sides of the bar, and a second series of waves made therein in planes parallel with the other two sides of the bar.

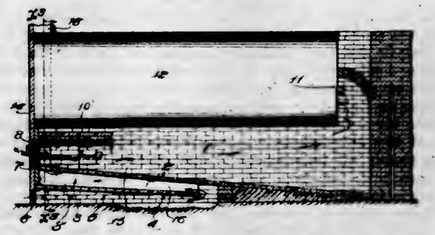
4. A reinforcing bar for concrete structures, comprising a bar of uniform quadrangular cross section having a series of waves made therein in planes parallel with two sides of the bar, and a second series of waves made therein in planes parallel with the other two sides of the bar, the waves of one series being of different length than the waves of the other series.

944,590. TYPE-WRITER. ANGELO BEYERLEN, Stuttgart, Germany. Filed Aug. 8, 1907. Serial No. 387,639.



In a typewriting machine, a spacing bar, carriage-shifting connections including a shift lever, means for locking said shift lever in depressed position, and a shift key and connections for operating both the spacing bar and the shift lever, in combination with letter-keys and with a bridge piece arranged for operation by any of said keys and with means, arranged for operation by the bridge piece, for releasing the shift lever.

944,591. FURNACE. HARRY P. BOBBITT, Los Angeles, Cal., assignor of one-third to Job Harriman and one-third to John A. Harriman, Los Angeles, Cal. Filed Nov. 20, 1907. Serial No. 403,069.



1. A furnace comprising a combustion-chamber, an outlet-flue at the back end of the combustion-chamber, an arch at the forward end of the combustion-chamber, abutments beneath the arch and intermediate the ends thereof to form a burner-chamber at the forward end of the combustion-chamber and an air-chamber forwardly of the burner-chamber, air-flues opening upwardly through the floor of said air-chamber in front of the abutments respectively, means underneath the combustion-chamber to supply air to said air-flues, an air-passage being provided from the air-chamber between the abutments to the burner-chamber, and a burner located in the burner-chamber between said air-passage and the combustion-chamber to discharge flame through the burner-chamber into the combustion-chamber.

2. A furnace comprising a combustion-chamber, an outlet flue at the back end of the combustion-chamber, an arch at the forward end of the combustion-chamber, rearwardly-diverging abutments beneath the arch and intermediate the ends thereof to form a rearwardly-flaring burner-chamber at the forward end of the combustion-

chamber and also forming an air-chamber forwardly of the burner-chamber, said abutments being spaced apart at their forward ends to form an air-passage between the abutments, flues opening into said air-chamber in front of the abutments respectively and at the sides of said air-passage, means to supply air to said flues, and a burner located in the burner-chamber between said air-passage and the combustion-chamber to discharge flame through the backwardly-expanding burner-chamber into the combustion-chamber.

3. A furnace comprising a combustion-chamber, an outlet-flue at the back end of the combustion-chamber, an arch at the forward end of the combustion-chamber, rearwardly-diverging abutments beneath the arch and intermediate the ends thereof to form a rearwardly-flaring burner-chamber at the forward end of the combustion-chamber and also forming an air-chamber forwardly of the burner-chamber, said abutments being spaced apart at their forward ends to form an air-passage between the abutments, flues opening into said air-chamber in front of the abutments respectively and at the sides of said air-passage, means to supply hot air to said flues, and a burner located in the burner-chamber between said air-passage and the combustion-chamber to discharge flame through the rearwardly-flaring burner-chamber into the combustion-chamber.

4. A furnace comprising side walls, an apron between the forward halves of the side walls, a heat-conducting floor above the apron, there being air-passages extending from the forward end of the furnace backwardly under the apron and upwardly and forwardly between the apron and the heat-conducting floor and to the extreme forward end of the furnace; a combustion-chamber above the heat-conducting floor, an outlet-flue at the back end of the combustion-chamber, an arch at the forward end of the combustion-chamber, abutments beneath the arch intermediate the ends thereof to form a burner-chamber at the forward end of the combustion-chamber and an air-chamber forwardly of and communicating with the burner-chamber; air-flues opening upwardly from said air-passages through the floor of said air-chamber in front of the abutments respectively, and a burner located in the burner-chamber to receive air from the air-chamber and to discharge flame through the burner-chamber into the combustion-chamber.

5. A furnace comprising a combustion-chamber, an outlet-flue at the back end of the combustion-chamber, an arch at the forward end of the combustion-chamber, abutments beneath the arch and intermediate the ends thereof to form a burner-chamber at the forward end of the combustion-chamber and an air-chamber forwardly of the burner-chamber; air-flues opening upwardly through the floor of said air-chamber in front of the abutments respectively, and two air-passages underneath the combustion-chamber to supply air respectively to said air-flues, an air-passage being provided from the air-chamber between the abutments to the burner-chamber, and a burner located in the burner-chamber between the last-mentioned air-passage and the combustion-chamber to discharge flame into the combustion-chamber.

[Claim 6 not printed in the Gazette.]

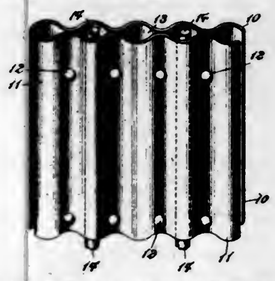
944,592. COMPOSITE BUILDING MATERIAL. SEYMOUR W. BONSALL, New York, N. Y. Filed Nov. 11, 1908. Serial No. 462,158.

1. A composite wall structure comprising two sheets of corrugated vulcanized fiber secured together with stiffening strips of relatively elastic material between them, substantially as described.

2. A composite wall structure comprising two sheets of corrugated vulcanized fiber, rivets securing the same together, and stiffening strips of relatively elastic material secured between said sheets, substantially as described.

3. A composite wall structure comprising two sheets of corrugated vulcanized fiber secured together, and stiffening strips occupying some of the channels of one of said sheets, substantially as described.

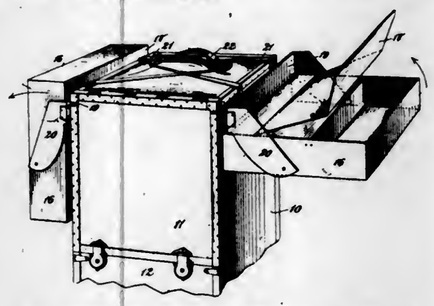
4. A composite wall structure comprising two sheets of corrugated vulcanized fiber secured together, and stiffening strips occupying some of the channels of both of said sheets, substantially as described.



5. A composite wall structure comprising two sheets of corrugated vulcanized fiber secured together with their corrugations making an angle with each other, and stiffening strips occupying some of the corrugations of one of said sheets, substantially as described.

[Claims 6 to 15 not printed in the Gazette.]

944,593. CONVERTIBLE TRUNK AND WARDROBE. SEYMOUR W. BONSALL, New York, N. Y. Filed Nov. 18, 1908. Serial No. 462,359.



1. A convertible trunk and wardrobe, comprising a trunk casing adapted to stand on end when open, a handle on one end of said casing, a divisible container composed of independent sections adapted to stand one on another within the front portion of the interior of the casing, and means on each section of said container for suspending the same from said handle against one side of said trunk casing, substantially as described.

2. A convertible trunk and wardrobe comprising a trunk casing adapted to stand on one end of said casing and having a handle on the opposite end thereof, a divisible container composed of independent sections adapted to stand one on another within the front portion of the interior of the casing, a supporting frame pivoted to each section of the container, and means attached to each supporting frame adapted to engage said handle, substantially as described.

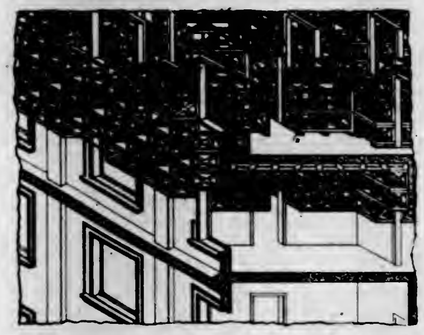
3. A convertible trunk and wardrobe comprising a trunk casing adapted to stand on end when open, a handle on one end of said casing, a divisible container composed of independent sections adapted to stand one on another within the front portion of the interior of the casing, a cover on each section of the container and a supporting frame pivoted to each of said sections adapted to hold down said cover, substantially as described.

4. A convertible trunk and wardrobe comprising a trunk casing adapted to stand on end when open, a container adapted to fit into said trunk, a supporting frame pivoted to said container, a handle on said trunk, and means whereby the container and frame may be suspended from said handle; the whole proportioned and arranged so that, when the container and its supporting frame are hung from said handle by said means, they will lie flat against the side of said trunk substantially as described.

5. A temporary wardrobe structure comprising a trunk body having a handle at the top, a supporting frame, a suspending means attached to said frame and engaging over said handle, and a container pivoted to said frame and engaging therewith so as to hang flat against the side of said trunk, substantially as described.

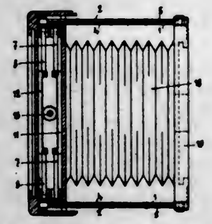
[Claims 6 to 8 not printed in the Gazette.]

944,594. METHOD OF FORMING CONCRETE BUILDINGS. PAUL H. BOSWORTH, San Francisco, Cal. Filed Mar. 25, 1908. Serial No. 423,276.



The method of erecting a concrete wall, which consists in forming a mold for the wall by means of frames spaced from each other by the thickness of the wall, and sufficiently broad for workmen to stand upon them when pouring the concrete, tying together said frames across the wall space, pouring the concrete into the mold cavity between the frames, then similarly placing on said frames similar frames, and, in like manner, tying said frames across the mold space, and pouring the concrete into the mold cavity between them, and continuing the above steps, while successively removing the lowest frames, as the wall above the same becomes sufficiently set to support the remaining frames, whereby the structure for supporting the workmen and also for forming the mold cavity is, in the upper portions of the wall, supported wholly by the wall itself, substantially as described.

944,595. PHOTOGRAPHIC CAMERA. ERNST BRAUBURGER, Friedenau, near Berlin, Germany, assignor to The Firm of Optische Anstalt C. P. Goerz Aktiengesellschaft, Friedenau, near Berlin, Germany. Filed May 26, 1906. Serial No. 318,804.



1. In a photographic camera comprising relatively movable frames connected together by means of a system of levers, slidably guided traction devices each in the form of a strip arranged in a plane substantially perpendicular to the objective axis and substantially surrounding one of said frames for operating said levers.

2. In a photographic camera, the combination of two frames, shear-like levers arranged at the sides of said frames, slidably guided traction devices each in the form of a strip surrounding one of said frames and movably connected to said levers, and an operating gear for moving said traction devices in opposite directions at the same time for adjusting the frames.

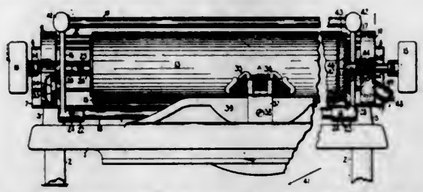
3. In a photographic camera, two frames, shear-like connections being provided at the sides thereof, and two slidably guided traction devices arranged side by side on one of said frames and movably connected to said shear-like connections, one member of the shear-like connections being movably connected to one of the traction devices and the other to the second traction device at each side of said frame.

4. In a photographic camera, two frames, shear-like connections arranged at the sides of said frames, traction devices movably connected to said shear-like connections and arranged side by side on one of said frames and surrounding the same, a rack inserted into each traction device, the teeth of one rack being opposite the teeth of the rack on the other traction device, and a pinion arranged between said racks and meshing therewith.

5. In a photographic camera comprising relatively movable frames connected together by means of a system of levers, traction devices each in the form of a continuous strip substantially surrounding one of said frames and arranged in a plane substantially perpendicular to the objective axis and adapted to operate said levers by longitudinal displacement.

[Claim 6 not printed in the Gazette.]

944,596. TYPEWRITING MACHINE. ALEXANDER T. BROWN, Syracuse, N. Y. Filed Apr. 25, 1906. Serial No. 313,604.



1. In a typewriting machine, the combination of a carriage truck, a platen frame, a platen having a shaft journaled in said platen frame, a pivot for said platen frame seated in a notch or open slot in said carriage truck back of the platen, said truck having also an open notch or slot in which said platen axle normally rests.

2. In a front-strike typewriting machine, the combination of a platen having the printing line at the front thereof and having a shaft, a platen frame, a carriage truck, and a pivotal, detachable connection between said platen frame and said truck adapted to allow said platen frame to be tilted about a center that is fixed with relation to the truck to raise the platen above its printing position, said shaft normally resting on said truck and limiting the downward motion of said platen frame about its pivot.

3. In a front-strike typewriting machine, the combination of a platen having a shaft, a platen frame, a carriage truck having fixed end pieces, a pivot pin connecting said platen frame with each of said end pieces, said platen frame being capable of an up and down tilting motion about said pivot pins as fixed centers, and said platen shaft normally resting on said end pieces and limiting the downward tilting motion of said platen frame.

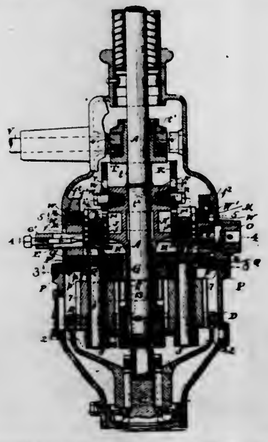
4. In a front-strike typewriting machine, the combination of a platen frame, a carriage truck, means for pivotally connecting one end of said platen frame with said truck, said means comprising a pivot pin working in a hole, means comprising a pivot pin working in a notch for pivotally connecting the other end of said platen frame with said truck, and means for limiting the up and down tilting motion of said platen frame about said pivot pins, the construction being so constructed that the platen

frame may be tilted up above its printing position, and so that the platen frame may be detached from the truck by first lifting the end thereof that is mounted by the pin and notch, and then moving said frame longitudinally to withdraw the other pin from its hole.

5. In a front-strike typewriting machine, the combination of a platen, a platen frame, a carriage truck, and a detachable pivotal connection between said platen frame and said truck comprising, at one end, a pivot pin working in a hole and a stop pin working in a slot, and at the other end a pivot pin working in a notch.

[Claims 6 to 9 not printed in the Gazette.]

944,597. PLANETARY TRANSMISSION MECHANISM. ALANSON P. BRUSH, Detroit, Mich. Filed Apr. 10, 1908. Serial No. 426,236.



1. In planetary gearing, the combination of a driving shaft, a concentric driven member, and intermediate mechanism including a rotatable transmission member which becomes effective only when its rotation is prevented, a fixed casing in which said mechanism is inclosed, and a multiple disk clutch for frictionally connecting said transmission member to the casing.

2. In planetary gearing, the combination of a driving shaft, a driven member, and intermediate mechanism including a rotatable transmission member which becomes effective only when its rotation is prevented, a fixed casing in which said mechanism is inclosed, a multiple disk clutch for frictionally clamping said transmission member to the casing, which clutch includes a pressure member which, when it moves longitudinally in the clamping direction, must also turn in the direction in which said transmission member seeks to turn, and vice versa, and mechanism for moving said pressure member.

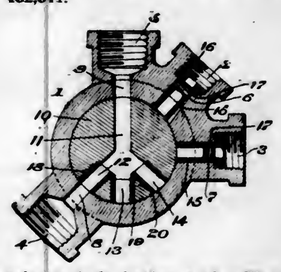
3. In planetary gearing, the combination of a driving shaft, a driven member and intermediate mechanism, including a rotatable transmission member which becomes effective only when its rotation is prevented, a fixed casing in which said mechanism is inclosed, a multiple disk clutch for frictionally clamping said transmission member to the casing, a ring mounted and adapted to turn in said casing, means whereby the ring as it turns is compelled to move longitudinally, and mechanism projecting from the casing whereby said ring may be turned.

4. In planetary gearing, the combination of a driving shaft, a driven member, and intermediate mechanism including a rotatable transmission member which becomes effective only when its rotation is prevented, a fixed casing in which said mechanism is inclosed, a multiple disk clutch for frictionally clamping said transmission member to the casing, a ring rotatably mounted in the casing and having in its outer periphery a plurality of inclined slots, studs fixed to said casing and projecting into said slots, and mechanism for turning said ring.

5. In planetary gearing the combination of a driving shaft, a driven member, and intermediate mechanism including a rotatable member which becomes effective only when its rotation is prevented, an inclosing casing and a multiple disk clutch, the disks of one series including one disk connected to said reversing member and having holes through it, and a disk having longitudinally extended fingers which enter said holes, and the disks of the other series including a disk intermediate of the disks of the first named series having longitudinally extended fingers which enter holes in a part fixed to the casing, and means for moving said disks longitudinally into frictional contact.

[Claims 6 to 15 not printed in the Gazette.]

944,598. VALVE. SAMUEL S. CASKEY, Philadelphia, Pa., assignor to Caskey Valve Company, Philadelphia, Pa., a Corporation of New York. Filed May 12, 1908. Serial No. 432,541.



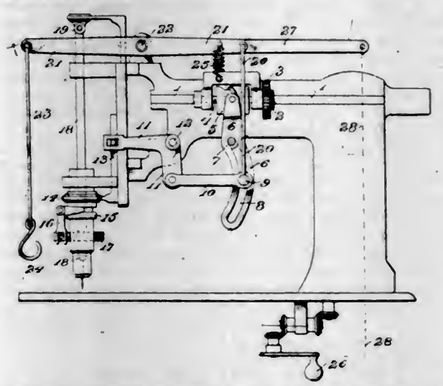
1. In a valve, a body having a plurality of pressure bores, a circular opening in said body, a rotatable cylindrical plug seated in said opening contacting with the walls thereof and having a bore therein, a plurality of branches leading from said bore, a sealing bushing in each of the bores of the pressure end of said body adapted to abut said plug and preventing leakage therebetween, and a sealing bushing in each of said branches adapted to abut the wall of said body, the bushing in one of said branches being situated between the exhaust and the discharge of the body when fluid under pressure is passing therethrough.

2. In a valve, a body having suitable pressure end bores, a circular opening in said body, a rotatable cylindrical plug seated in said opening, said plug having a suitable bore and branches leading therefrom, said body and plug being adapted for relative rotation, a sealing bushing in each of the pressure end bores of said body and abutting said plug for preventing leakage, and a sealing bushing in each of the branches of said plug abutting said body, the bushing in one of said branches being situated between the exhaust and the discharge of the body when fluid under pressure is passing therethrough.

944,599. SEWING AND EMBROIDERING MACHINE. ROBERT COANDLY, Paris, France. Filed May 12, 1909. Serial No. 495,513.

1. In sewing and embroidering machines, the combination of feed mechanism, an oscillating needle and needle oscillating means therefor, means normally held in a predetermined position for regulating the amplitude of said oscillations, and hand-operated means located near the needle whereby said means may be engaged by the operator's hand while in the act of conducting the material to be operated on for actuating said regulating means.

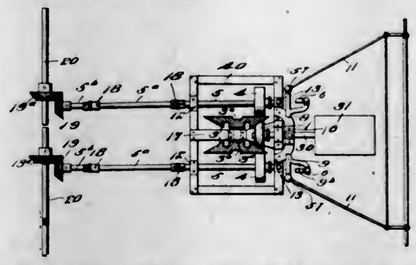
2. In sewing and embroidering machines, the combination of universal feed mechanism, an oscillating needle and needle oscillating means therefor, means normally held in predetermined position for regulating the amplitude of said oscillations, hand-operated means located near the needle whereby said means may be engaged by the operator's hand while in the act of conducting the material to be operated on for actuating said regulating means, and feed operating means independently hand-controlled from that of said hand-controlled amplitude regulating means.



3. In a universal feed sewing and embroidering machine, the combination of an oscillating needle and means for effecting the oscillations of said needle, a lever normally held in predetermined position having one arm in operative relation with said oscillating means for regulating the amplitude of said oscillations, and a hand-operated member engaging the other arm of said lever to actuate the same and affect the amplitude of said oscillations and positioned under the control of the operator's hand which conducts the material to be operated on, and a foot-operated connection with said first-named arm for actuating said lever to affect the amplitude of said oscillations in a sense opposite that produced by the hand-operated means.

4. In a universal feed sewing and embroidering machine, the combination of an oscillating needle and needle oscillating means therefor, a lever normally held in predetermined position having one arm in operative relation with said oscillating means for regulating the amplitude of said oscillations, and a hand-operated member depending from the other arm of said lever and located near the needle whereby said means may be engaged by the operator's hand while in the act of conducting the material to be operated on for actuating said lever for the purpose described.

944,600. DRIVING-GEAR FOR MOTOR-VEHICLES. ALDON R. CORRINGTON, Hartley, Iowa, assignor of one-half to G. E. Knaack, Hartley, Iowa. Filed June 14, 1909. Serial No. 502,074.



1. In a motor vehicle, the combination of driven axle sections, a driving-shaft, separate intermediate shafts geared to the axle sections and to said shaft and parallel to the latter, the gearing between the driving and intermediate shafts including friction wheels on the intermediate shafts and connected to the steering devices of the vehicle and shiftable thereby on said shafts to vary the speed of the respective intermediate shafts.

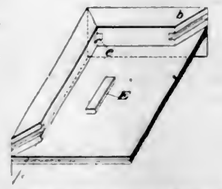
2. In a motor vehicle, the combination of driven axle sections, opposite flat-faced friction disks and means to drive the same, a pair of intermediate shafts geared to the axle sections and located at an angle thereto and extending across the faces of said disks, and friction wheels mounted on said intermediate shafts and manually slidable across the respective disks to vary the speed of the respective shafts, and means connected to and controlled by the steering devices of the vehicle to shift said friction wheels differentially according to the turn of the vehicle.

3. In a motor vehicle, the combination of driven axle sections, a pair of friction gears operatively connected to the sections respectively and located with their axes extending lengthwise of the vehicle, means to drive said gears, a rock shaft extending across the vehicle frame and connected at its opposite ends to the gears to shift the same and pivotally mounted to swing laterally and steering devices for the vehicle connected to said rock shaft to swing the same and shift the gears according to the turn of the vehicle.

4. In a motor vehicle, the combination of driven axle sections, a pair of friction gears operatively connected to the sections respectively and located with their axes at a right angle to that of the axle, means to drive said gears, a rock shaft extending across the vehicle parallel to the axle and connected at its opposite ends to the gears to shift the same and pivotally mounted to swing laterally, and steering devices for the vehicle, connected to said rock shaft to swing the same and shift the gears according to the turn of the vehicle, and manually operated means to turn the rock shaft on its axis to vary the speed.

5. In a motor vehicle, the combination of driven axle sections, intermediate shafts geared at one end to said sections respectively, a pair of friction disks located between the other ends of said shafts, friction wheels slidably mounted on said shafts and arranged to contact with the outer sides of said disks, a driving shaft, a friction wheel mounted on the driving shaft for contact with the inner sides of said disks, and steering devices for the vehicle, connected to said slidable friction wheels and arranged to shift the same differentially according to the turn of the vehicle.

944,601. PICTURE-FRAME. RALPH C. DAVISON, Plainfield, N. J. Filed Jan. 18, 1908. Serial No. 411,388.



1. A picture frame strip comprising a rigid border piece, a flexible member attached to said border piece and adapted to be bent to inclose the edges of the article to be framed.

2. In combination with a framed article, a rigid molding comprising a plurality of separate pieces, a strip of pliable material in part permanently affixed to said molding, and part of said pliable material inclosing the edges of the framed article, and means for attachment of the separate pieces to the framed article.

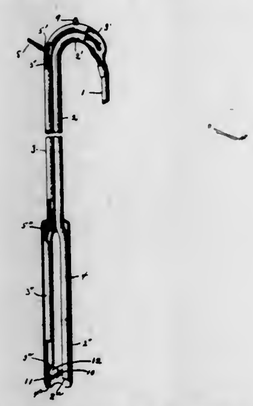
3. In combination with a framed article, a glass covering therefor, a multi-piece molding resting upon the border of said glass on one side, pliable material affixed to said molding and inclosing the border of said framed article, and means for securing the multi-piece molding to the framed article.

4. A rigid multi-piece mountable frame for pictures or the like, comprising molding resting on the border of the face and surrounding the field of view, means for joining the corners of the separate pieces of said molding, pliable material attached to the outer portion of said molding and inclosing and readily securable to the border of the back of said picture or its backing.

5. An article of manufacture comprising a rigid molding piece constituting a section of pastel or picture framing, a pliable edging extending from said molding, ready gum on one side of said pliable material.

[Claim 6 not printed in the Gazette.]

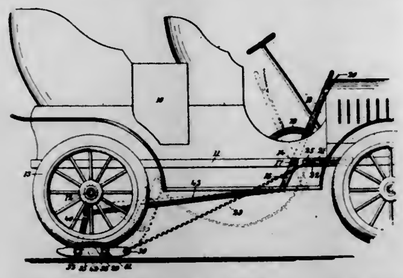
944,602. SIPHON. FRANK A. DECKER, Philadelphia, Pa., assignor, by mesne assignments, to Decker Electrical Manufacturing Company, Wilmington, Del. Filed Mar. 12, 1906, Serial No. 305,498. Renewed Nov. 11, 1909. Serial No. 527,567.



1. A siphon having a pair of branches, a chamber having a partition and a valve disposed between the inlets to said branches, and means for communicating pressure to the contents of said chamber.

2. A siphon comprising a pair of branches connected with a third branch, a chamber communicating with an inlet to one of said pair of branches, a valve between said inlet and an opening in the other of said pair of branches, and means for communicating pressure to the contents of said chamber.

944,603. VEHICLE-BRAKE. FREDERICK A. EIGENMANN, Newark, Ohio. Filed Oct. 22, 1908. Serial No. 459,082.



1. The combination with a vehicle having a driving axle and supporting wheels, of brackets carried by said vehicle and having a limited cushioned movement, arms pivoted upon said driving axle, shoes carried by said arms, rollers carried by said shoes and serving rotatably to support said wheels, a controlling lever, links connecting said arms and said controlling lever, and flexible members connecting said brackets and said shoes.

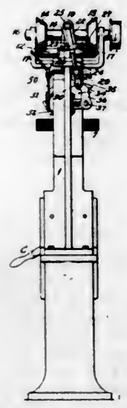
2. The combination with a vehicle having a frame, a driving axle and supporting wheels, of a rock shaft mounted upon said frame, a hand lever controlling said rock shaft, brackets slidably mounted upon said frame and having lugs, said frame having lugs, springs between said lugs of said frame and of said brackets, arms pivoted upon said axle, shoes carried by said arms and adapted to support said wheels rotatably, lever arms rigid with said rock shaft, links operatively connecting said lever arms and said first arms, and members connecting said brackets and said shoes.

3. The combination with a vehicle having a frame, a driving axle and supporting wheels, of a rock shaft mounted upon said frame, a hand lever controlling said rock shaft, means for holding said hand lever in a plurality of positions, said frame having slots, brackets slidably mounted in said slots and having lugs, said frame having lugs, cushioning means between said lugs of said frame and of said brackets, arms pivoted upon said axle, shoes carried by said arms and having rollers for rotatably supporting said wheels, lever arms rigid with said rock shaft, links operatively connecting said lever arms and said first arms, and flexible members connecting said brackets and said shoes.

4. A vehicle brake having a shoe adapted to be inserted under a vehicle wheel, said shoe comprising a body having a bottom, and a sole under said bottom and provided with lugs, said bottom having openings adapted to receive said lugs, and an inner sole of non-inflammable material between said bottom and said sole.

5. A vehicle brake having a shoe, means for controlling said shoe whereby the same can be inserted under a vehicle wheel, said shoe comprising a body, pintles journaled transversely of said body and carrying rollers, a sole arranged at the under side of said shoe and having lugs, said shoe having openings adapted to receive said lugs, and an inner sole between said sole and said shoe and consisting of heat-insulating material, said sole having cleats at the under side thereof.

944,604. AUTOMATIC REVERSING MECHANISM. EMIL EINFELDT, Davenport, Iowa, assignor, by mesne assignments, to G. Watson French, Nathaniel French, and Joseph L. Hecht, Davenport, Iowa, a Firm. Filed Apr. 16, 1906. Serial No. 311,865.



1. In a mechanism of the type described, the combination of a driving member, a driven member, a coöperating reversing mechanism, an arm operatively connected with the reversing mechanism, an oscillating finger operatively connected with the driven member and having one end disposed in juxtaposition to and having a sliding engagement with the arm, whereby said arm is adapted to have movement independently of the finger to actuate the reversing mechanism, and means controlled by the movement of the finger for effecting the independent movement of the arm.

2. In a mechanism of the type described, the combination of a driving member, a driven member, a shifting reversing mechanism, an oscillating arm operatively connected with the reversing mechanism to shift it, an oscillating finger operatively connected with the driven member, an engaging element shiftable longitudinally of and carried by the oscillating arm and having a sliding engagement with the finger, said arm being movable in its oscillations relatively to the finger, and means controlled by the oscillating movement of the finger for moving the arm to actuate the reversing mechanism.

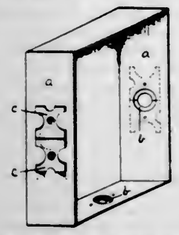
3. In a mechanism of the type described, the combination of a driven member, an oscillating finger operatively connected therewith, a reversing mechanism, an oscillating arm operatively connected with the reversing mechanism to actuate it, and an intermediate member movable with said arm in its oscillating movement and movable also longitudinally and independently of said arm and engaging the finger.

4. In a mechanism of the type described, the combination of a driven member, an oscillating finger operatively connected therewith and provided with inclined flat engaging surfaces, a reversing mechanism, an oscillating arm operatively connected with the reversing mechanism to actuate it, and a rocking member mounted on the arm and adapted to coöperate alternately with one or the other of the inclined surfaces on the finger.

5. In a mechanism of the type described, the combination of a driven member, an oscillating finger operatively connected therewith and formed with oppositely inclined surfaces, a reversing mechanism, an oscillating arm operatively connected therewith, an intermediate member sustained by and movable longitudinally of the arm and formed with a flat face to coöperate with the inclined surfaces of the finger, and a spring acting to maintain the engagement of said intermediate member with the finger.

[Claims 6 to 9 not printed in the Gazette.]

944,605. ELECTRIC SAFETY-BOX. HARRY A. FISHER, Plainville, Conn., assignor to Trumbull Electric Manufacturing Company, Plainville, Conn., a Corporation of Connecticut. Filed Sept. 30, 1908. Serial No. 455,488.



1. In an electric safety-box, a side of said box having an opening therein, two shutters pivotally secured to the side of said box on opposite sides of said opening, each shutter having a plurality of semi-circular cuts, means for arranging said shutters whereby the opposite corresponding cuts therein provide a circular opening smaller than the original opening in the side of said box.

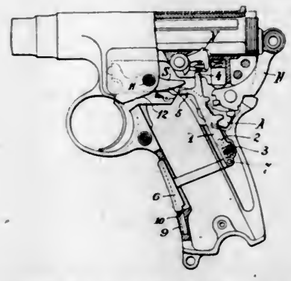
2. In an electric safety-box, a side of said box having an opening therein, two shutters pivotally secured to the side of said box on opposite sides of said opening, each shutter having a numerality of various sized semi-circular cuts, said semi-circular cuts of one shutter corresponding with the semi-circular cuts of the opposite shutter, means for adjustably securing the opposite shutters so that the corresponding semi-circular cuts will face each other whereby a circular opening of smaller size than the original opening is provided in the side of said box.

3. In an electric safety-box, a side of said box having an opening therein, two shutters pivotally secured adjacent said opening, said shutters being centrally cross-slotted whereby they may be moved vertically or horizontally, each shutter having a numerality of semi-circular cuts on their outer edges, and means for adjustably securing said shutters whereby the desired size of a circular opening smaller than the original opening may be provided in the side of said box.

4. In an electric safety-box, a side of said box having an opening therein, two shutters pivotally mounted and secured to the side of said box on opposite sides of said opening, each of said shutters having one straight-edged side adapted to face each other and close said original opening and a numerality of various sized semi-circular cuts near their other edges whereby said original opening in the side of said box may be either entirely closed or changed to a circular opening of a desired size smaller than said original opening in the side of said box substantially as described.

5. In an electric safety box, a side of said box having an opening therein, two shutters rotatably secured to the side of said box on opposite sides of said opening, each of said shutters having one straight edged side adapted to face each other and close said original opening, and having a plurality of semi-circular cuts adapted to be arranged opposite corresponding semi-circular cuts on the adjacent shutter.

944,606. AUTOMATIC SAFETY DEVICE FOR FIREARMS. RUDOLF FROMMER, Budapest, Austria-Hungary. Filed Sept. 27, 1909. Serial No. 519,831.



1. In automatic firearms a breech-block, means to check the same, a safety lever, means to operate this lever when the grip is seized, means on the safety lever for securing the firing devices as the sear, and the hammer, and means on the safety lever for securing the check-means of the breech-block substantially as and for the purpose described.

2. In automatic firearms a breech-block, means to check the same, a catch lever for holding the check-means of the breech-block when the magazine is empty, a safety lever, means to operate the same when the grip is seized, means on the safety lever for securing the firing devices, means on the safety lever for securing the check-means of the breech-block and means on the safety lever for securing the catch lever substantially as and for the purpose described.

944,607. TILE-COATING MACHINERY. FREDERICK E. GOLDSMITH, Hamilton Ohio, assignor to The Ceramic Machinery Company, Hamilton, Ohio. Filed Apr. 18, 1904, Serial No. 203,609. Renewed Apr. 6, 1909. Serial No 488,291.

1. The combination of a coating carrier having a pervious surface, a foraminous covering loosely mounted on the carrier, so that the cover and carrier may have relative rotary motion and means for supplying coating material to the carrier.

2. A coating carrier having a pervious surface, and a loosely-inclosing metallic foraminous covering therefor, combined with means for supplying coating to the carrier.



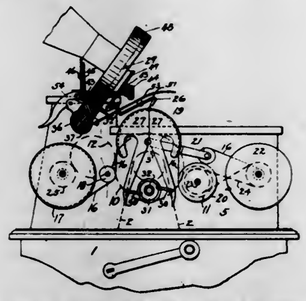
3. A coating carrier having a pervious surface, and a foraminous covering therefor in contact with a portion only of the surface.

4. The combination of a coating carrier, a movable coating surface passing over the same in contact only with a portion of the carrier, and means for exerting a pressure on the carrier in advance of its contact with the article to be coated.

5. The combination of a carrier, a loose pervious surface thereon, and means exerting a pressure on said surface in advance of contact with the article to be coated.

[Claims 6 to 24 not printed in the Gazette.]

944,608. SOUND-REPRODUCING MACHINE. FRANKLIN C. GOODALE, Tacoma, Wash. Filed June 26, 1908. Serial No. 440,468.



1. In a device of the class described, the combination of a record support, a flexible record-body engaging the same, and sound-producing means engaging said record-body, said record-support comprising connected members adapted to be brought together to form a continuous surface, or separated to form spaced-apart surfaces.

2. In a device of the class described, the combination of a record-support, a flexible record-body engaging the same, and sound-producing means engaging said record-body, said record-support including members pivoted together and adapted to be brought together to form a continuous surface or separated to form spaced-apart surfaces.

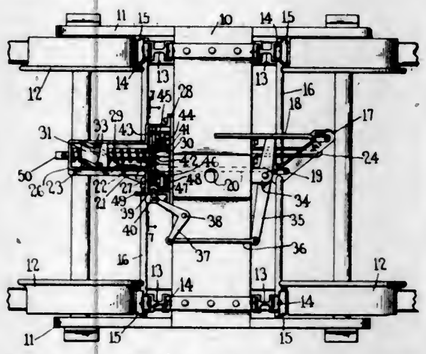
3. In a device of the class described, the combination of a record-support, a flexible record-body engaging said record-support, and sound-producing means engaging said record-body, said record-support embracing two pivoted together members having rounded upper surfaces, and means adapted to separate said members, or bring them together.

4. A device of the class described comprising a record-support formed of two pivoted-together members, a flexible record-body engaging said record-support, sound-producing means engaging said flexible record-body, a slidable sleeve carrying said sound-producing means, means for supporting said sleeve, and means for actuating said sleeve, said sleeve having applied thereto a spring-pawl and a rack engaged by said pawl.

5. A device of the class described comprising a record-support formed of two pivoted together members, a flexible record-body engaging said record-support, sound-producing means engaging said flexible record-body, a slidable sleeve, a spring-pawl attached to said sleeve, a rack engaged by said pawl, a lever having connected thereto a registering pointer, and means of connection between said lever and said sleeve.

[Claims 6 to 11 not printed in the Gazette.]

944,609. SLACK-ADJUSTER FOR RAILWAY-BRAKES. HARVEY G. HAMER, Hooversville, Pa. Filed Aug. 18, 1909. Serial No. 513,458.



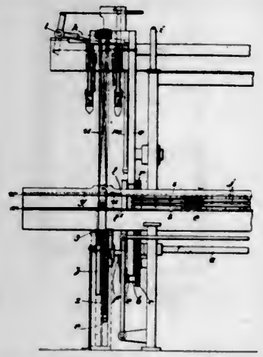
1. In a slack adjuster, a brake mechanism including a live lever, a fulcrum therefor, an operating lever operable by the movement of the live lever when the brake is slack, and a step by step mechanism actuated by the operating lever to move said fulcrum and tighten said brake mechanism, said step by step mechanism including a link connected to said fulcrum, a dead lever connected to said link, a sliding block operatively connected to one end of the dead lever, a screw on which said block is mounted for movement, a ratchet fixed to said screw, and pawls operatively connected to said operating lever and engaged with the ratchet.

2. In a slack adjuster, a brake mechanism including a live lever, a fulcrum therefor, an operating lever operable by the movement of the live lever when the brake is slack, and a step by step mechanism actuated by the operating lever to move said fulcrum and tighten said brake mechanism, said step by step mechanism including a link connected to said fulcrum, a dead lever connected to said link, a sliding block operatively connected to one end of the dead lever, a screw on which said block is mounted for movement, a ratchet fixed to said screw, a swinging arm on said screw, a pawl on said arm engaging the ratchet, a bell crank, a link connecting said bell crank and operating lever, a second link connecting said arm and bell crank, a fixed guide eye, a collar on said second link, and a spring between said guide eye and collar normally urging the pawl to rotate the ratchet.

944,610. RIBBON-LOOM. ARNOLD HANDSCHIN, Basel, Switzerland, and HANS KUNY, St. Ludwig, Germany. Filed Oct. 31, 1908. Serial No. 460,400.

1. In a ribbon loom, the combination with heals, shuttles and a lay of a driving mechanism for the said lay and driving mechanism for the said healds and shuttles adapted to open and shed twice and to lay the weft in twice for each to-and-fro movement of the lay.

2. In a ribbon loom, a main shaft, a lay, healds and shuttles, a device actuated from the said main shaft to give to the lay a to-and-fro movement at each revolution of the said main shaft, and devices operated by this latter to actuate the shuttles and healds twice at each revolution of the main shaft.



3. In a ribbon loom, a main shaft, a lay, healds, shuttles and shuttle drivers, a device actuated from the said main shaft to give to the lay a to-and-fro movement at each revolution of the said main shaft, two cams mounted on said main shaft, two treadles arranged respectively so as to be operated by these cams and connected to the shuttle drivers, said cams being so arranged relatively to one another that at each revolution of the main shaft they may produce a to-and-fro movement of the shuttles, a blade jacquard machine for controlling the healds, a driving mechanism for the said jacquard machine actuated from said main saaft and connected to the blade shaft of the said jacquard machine, said driving mechanism being so constructed that at each revolution of the main shaft said blade shaft may be operated so as to open twice the shed.

4. In a ribbon loom, a main shaft, a device actuated from this latter to drive the lay, two cams mounted on said main shaft, two treadles arranged respectively so as to be operated by these cams and connected to the shuttle drivers, said cams being so arranged relatively to one another that at each revolution of the main shaft they may produce a to-and-fro movement of the shuttles, a double blade jacquard machine, a drive gear for this latter actuated from said main shaft and connected to the blade shaft of the jacquard machine, said drive gear comprising a driving toothed wheel upon the main shaft, a driven toothed wheel connected by a crank pin and rod to the blade shaft of the jacquard machine and an intermediate gearing connecting said toothed wheels so as to transmit motion from the driving wheel to the driven wheel in such a manner that at each revolution of the driving wheel upon the main shaft the said driven wheel may be rotated once and thus cause the blade shaft of the jacquard machine to swing to-and-fro with the result that the shed is twice opened, substantially as hereinbefore described.

5. In a ribbon loom, a main shaft, a device actuated from this shaft to drive the lay, two cams mounted on said main shaft, two treadles arranged respectively so as to be operated by these cams and connected to the shuttle drivers, said cams being so arranged relatively to one another that at each revolution of the main shaft they may produce a to-and-fro movement of the shuttles, a double blade jacquard machine, a drive gear for this latter actuated from said main shaft and connected to the blade shaft of the jacquard machine, said drive gear comprising a driving toothed wheel upon the main shaft, an elliptical driven toothed wheel connected to the blade shaft of the jacquard machine, an intermediate spur wheel intermeshing with said driving wheel and having half a diameter thereof, and an eccentrically mounted intermediate toothed wheel firmly connected to the first intermediate wheel, gearing with the said elliptical driven toothed wheel and of which the number of teeth is half that of this latter wheel, so that at each revolution of the driving wheel upon the main shaft the said driven wheel may be rotated once and thus cause the blade shaft of the jacquard machine to swing to-and-fro with the result that the shed is twice opened by a rapid opening movement and with a relatively long open condition, substantially as hereinbefore described.

944,611. SPRAY OR NEEDLE BATH DEVICE. WILLIAM E. HOLMES, Seattle, Wash. Filed Apr. 23, 1908. Serial No. 428,874.



1. The combination with the hot and cold water pipes in a bath-tub, and the combination fixture attached thereto, of a bracket carried by said pipes intermediate the tub and fixture, and a needle shower attached to and supported by the bracket.

2. The combination with hot and cold water pipes in a bath-tub, and the combination fixture therefor, of a bracket carried by said pipes within the tub, and a vertical needle shower attached to and supported by said bracket and having its supply-pipe in communication with the mixing chamber of the fixture.

3. In a spray or needle bath device, in combination, perforated pipes, a combination bath cock, said pipes having a rigid water supply connection supporting them above the bath cock, and a brace for said pipes secured to the tub by the same means used to secure the bath cock in place.

4. In a spray or needle bath device, in combination, a perforated vertical pipe, a perforated, inverted-U-shaped pipe, connections between said pipe at their lower ends, and a water supply and supporting pipe for said perforated pipes adapted for connection with the cock of a bath tub.

5. A spray or needle bath device having an inverted-U-shaped pipe, a pipe lying between the arms of the other pipe, said pipes being perforated to discharge at one side, a water supply connection between said pipes at their lower ends and a bath cock, a junction member having supporting connection with said pipes at their upper end, and a brace connecting said junction member and the bath tub.

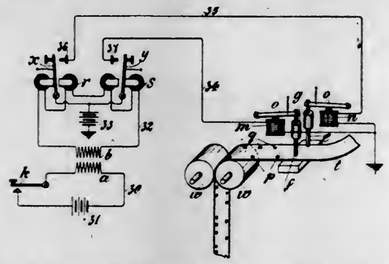
[Claims 6 and 7 not printed in the Gazette.]

944,612. PERFORATING APPARATUS. FERNAND E. D'HUMY, Englewood, N. J. Filed June 25, 1909. Serial No. 504,244.

1. In a perforating apparatus the combination of a suitable tape means for advancing the tape; two separate punching devices, an electro-magnet for each punch; a circuit including a Morse key and the primary of an induction coil and a circuit containing the secondary of said coil and said electro-magnets.

2. In a perforating apparatus the combination of a suitable tape or strip; a pair of punching devices, a magnet for each punch, a circuit including said magnets, a Morse key or transmitter, and means whereby the move-

ment of the key-lever throws induced impulses of opposite polarity into said magnet circuit.



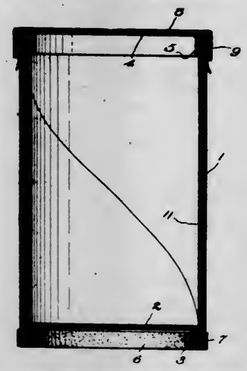
3. In a perforating apparatus a suitable tape or strip; in combination with a plurality of punching devices, a magnet for each punching device, a circuit including said magnets, a Morse key or transmitter, and means whereby the movement of the key-lever throws a single induced impulse into said circuit on its down-stroke and a single induced impulse of opposite polarity into said circuit upon its up-stroke, substantially as described.

4. In a perforating apparatus, the combination of a suitable tape or strip, a pair of punching devices, a magnet for each punch, a circuit including both said magnets, a vibrating lever and means whereby the movement of the lever throws induced impulses of successively opposite polarity into said circuit at the beginning and end of each vibratory movement of said lever.

5. In a perforating apparatus the combination of a suitable tape or strip, means for advancing it, suitable punching devices, electro-magnetic means for operating the punches, a circuit for said means, a Morse key, a separate circuit therefor and a device for establishing inductive relations between said circuits.

[Claims 6 to 8 not printed in the Gazette.]

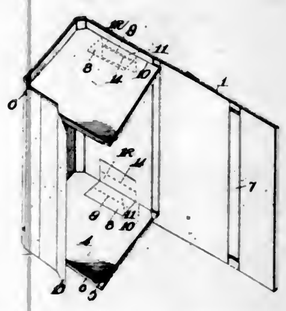
944,613. PAPER RECEPTACLE. CHARLES F. JENKINS, Washington, D. C., assignor to Single Service Package Corporation of America, a Corporation of New Jersey. Filed Apr. 8, 1909. Serial No. 488,752.



1. A paper vessel provided with an inverted cup shaped flanged closure flush with the top of, and the flange of which is frictionally held under compression inside of said vessel; and means independent of and exterior to said closure for securing the same in place, substantially as described.

2. A paper vessel provided with an inverted cup shaped flanged closure flush with the top of said vessel and having its flange frictionally held under compression inside the same; and an independent fastening means comprising a ring and material passing over said closure for holding the latter in place, substantially as described.

944,614. KNOCKDOWN BOX. CHARLES F. JENKINS, Washington, D. C., assignor to Single Service Package Company, a Corporation of New Jersey. Filed May 4, 1909. Serial No. 493,910.



1. In a knock down box, the combination of a body portion provided with weakened lines adapting the same to be folded and with slots through said body portion along opposite edges thereof; a pair of end closures composed of a plurality of thicknesses of material, one of said thicknesses being cut away to provide shoulders against which said body portion is adapted to rest and the other thickness being left intact to provide projections adapted to enter said slots; and hinges securing said end sections to said body portion inside said slots and permitting said closures to fold on top of each other, substantially as described.

2. In a knock down box, the combination of a body portion provided with parallel weakened lines dividing said body into side walls and into strip portions; said body portion also provided with a row of slots near each edge; a pair of end closures composed of a plurality of layers of material one of which is cut away to form shoulders against which said strip portions rest while another layer is left intact to provide projecting portions passing through said slots; and hinges secured to said closures leaving the spaces 11 on said closures, and the spaces 12 on said body portion, whereby said closures may fold on top of each other and between said slots, substantially as described.

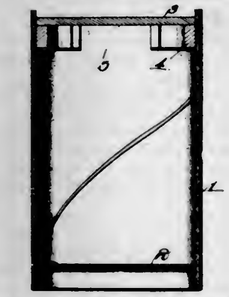
3. In a knock down box, the combination of a body portion provided with parallel weakened lines dividing said body into side walls and into strip portions; said body portion also provided with a row of slots near each edge; a pair of end sections consisting of two layers of material, one of which is cut away to provide shoulders against which said strip portions rest while the other is left intact to provide projecting portions passing through said slots; hinges secured to said sections leaving the spaces 11 on said sections, and the spaces 12 on said body portion; and a gummed fastening strip secured to said body portion, substantially as described.

944,615. CLOSURE FOR PAPER VESSELS. CHARLES F. JENKINS, Washington, D. C., assignor to Single Service Package Company, a Corporation of New Jersey. Filed May 4, 1909. Serial No. 493,911.

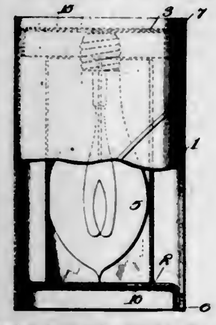
1. A paper vessel provided with a body portion, an inverted, cup-shaped, flanged, bottom closure; a disk like top closure fitting the interior surface of said body portion; and a ring against which said top closure seats leaving an unobstructed inside wall surface between said ring and the top edge of said body portion, and said ring provided with a cut away portion through which the liquid in the bottle may be drained, substantially as described.

2. A spirally wound paper vessel provided with an inverted, flanged, cup-shaped, bottom closure and having a disk like top closure fitting the unobstructed interior walls of said vessel and also a fixed ring seat, said ring

seat being of a sufficient thickness in a radial direction to partially obstruct the flow of liquid, and having a portion of its body cut away to form a pouring opening, substantially as described.

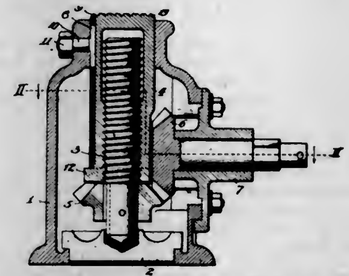


944,616. PACKAGE FOR FRANGIBLE ARTICLES. CHARLES F. JENKINS, Washington, D. C., assignor to Single Service Package Company, a Corporation of New Jersey. Filed May 4, 1909. Serial No. 493,912.



In a package for frangible articles the combination of a body portion; a pair of flanged, cup-shaped closures therefor having their flanges pointing in the same direction and fitting the interior surface of said body portion; and an angular container also fitting the interior of said body portion and resting between said closures, substantially as described.

944,617. LIFTING-JACK. MERRILL L. JENKINS, Harvey, Ill., assignor to Buda Foundry & Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 29, 1909. Serial No. 474,947.



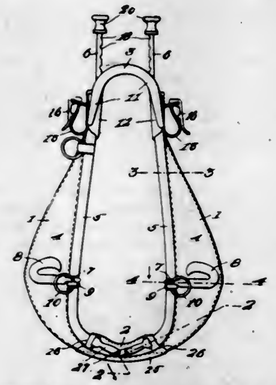
1. In combination in a lifting jack, a closed casing or shell provided at its upper portion with a guideway and having a removable portion to permit the insertion of a standard, a screw bearing upon the bottom of the casing, means for rotating the screw, and a standard inclosing the screw provided with a head adapted to pass through the guideway and having a stop member at its lower portion adapted to engage the casing beneath the guideway when the standard reaches its upward limit of movement.

2. In combination in a lifting jack, a closed casing or shell provided at its upper portion with a guideway and having a removable portion to permit the insertion of a standard, a screw bearing upon the bottom of the casing, means for rotating the screw, and a standard inclosing the screw provided with a head adapted to pass through the guideway and having an integral stop member at its lower portion adapted to engage the casing beneath the guideway when the standard reaches its upward limit of movement.

3. In combination in a lifting jack, a closed casing or shell provided at its upper portion with a guideway and having a removable portion to permit the insertion of a standard, a screw bearing upon the bottom of the casing, means for rotating the screw, and a standard inclosing the screw provided with a head adapted to pass through the guideway and having an integral stop collar at its lower portion adapted to engage the casing beneath the guideway when the standard reaches its upward limit of movement.

4. In combination in a lifting jack, a hollow casing provided with a bottom member and having a guideway at its upper end, a screw operated standard supported upon the bottom member, means for operating the standard, and a permanent fixed stop upon the lower portion of the standard, the casing having a portion removable to permit of the insertion of the standard into the guideway from beneath and the standard having a head of the same diameter as the shank of the standard to permit the head to pass through the guideway.

944,618. HORSE-COLLAR AND HAMES. PINKNEY L. JOHNSON, Easley, S. C. Filed May 20, 1909. Serial No. 497,182.



1. The combination of a collar having side pieces, each provided with padded portions and tubular portions, hames removably arranged in the tubular portions of the side pieces and having projecting upper and lower ends, means connecting the lower ends of the hames, a padded neck piece slidable upon the upper ends of the hames, and clamping means uniting said neck piece to the hames.

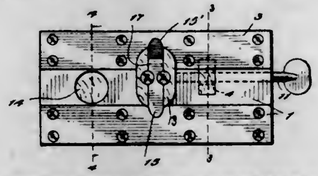
2. The combination of a collar having side pieces, each provided with padded portions and tubular portions, hames removably arranged in the tubular portions of the side pieces and having projecting upper and lower ends, means connecting the upper ends of the hames, a padded breast piece to receive the lower ends of the hames and clamping devices adjustably connecting the lower ends of the hames to said breast piece.

3. The combination of a collar having side pieces, each provided with padded portions and tubular portions,

hames removably arranged in the tubular portions of the side pieces and having projecting upper and lower ends, said tubular portions of the side pieces having openings, draft devices arranged in the openings of said tubular portions and engaged with the hames and means connecting the upper and lower ends of the hames.

4. The combination of a collar having side pieces, each provided with padded portions and tubular portions, hames removably arranged in the tubular portions of the side pieces and having projecting upper and lower ends, said projecting upper and lower ends of the hames being formed with seats, a slidable neck piece on the upper ends of the hames, clamping devices carried by the neck piece and having portions to engage the seats in the upper ends of the hames, a breast piece to receive the lower ends of the hames and clamping devices upon said breast piece and having portions to enter said seats in the lower ends of the hames.

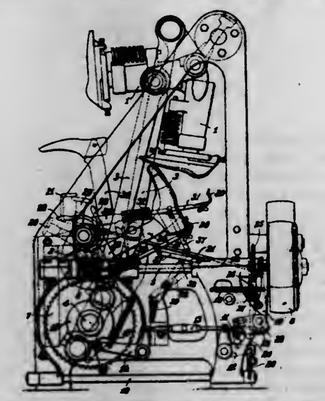
944,619. GAGE. WILLIAM M. JONES, Tarentum, Pa. Filed July 23, 1909. Serial No. 509,177.



1. The combination in a wood scribing gage of a block having disposed therethrough a plurality of beams, thumb screws for holding the beams to their set positions, fixedly and internally disposed nuts engaging the thumb screws, a scribing disk attached to one of the beams, a double pointed scribing member embedded into an end face of the other beam, one of the scribing points being offset with the end of the beam, for the purpose stated and substantially as specified.

2. The combination in a wood scribing gage of a metal faced block having a major beam therethrough carrying at one end a double pointed scribing member offset with the end of said beam, a minor beam disposed through the block, a metal scribing disk disposed upon an end of the minor beam, thumb screws engaging the beams and engaging with internally disposed nuts all substantially as specified.

944,620. SOLE-PRESSING MACHINE. THERON H. A. HOLT, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Mar. 14, 1907. Serial No. 362,254.



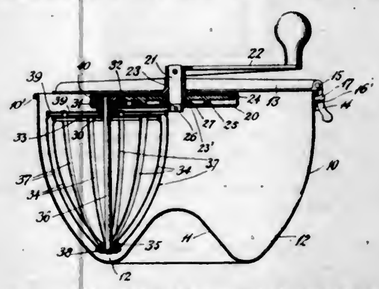
1. A sole pressing machine, having, in combination, a pivotally mounted last carrier, a form carrier coöperating therewith to subject the sole of a shoe to a rolling pressure, a heel clamp pivotally mounted on the last carrier, a spring pressed lever, and a link connecting said lever and clamp, said lever and link acting to move the clamp into and out of engagement with the shoe and to hold the clamp in engagement with the shoe while the forepart of the sole is being pressed.

2. A sole pressing machine, having, in combination, a pivotally mounted last carrier including a last post, a form carrier coöperating therewith to subject the sole of a shoe to a rolling pressure, a heel clamp mounted on the last post, and means acting automatically to move the clamp into and out of engagement with the shoe.

3. A sole pressing machine, having, in combination, a pivotally mounted last carrier, and form carrier coöperating therewith to subject the sole of a shoe to a rolling pressure, a heel clamp pivotally mounted on the last carrier, a spring pressed lever pivoted at the rear of the last carrier, and a link connecting said lever with a point on the clamp between its pivot and free end, said lever and link acting to move the clamp into and out of engagement with the shoe and to hold the clamp in engagement with the shoe while the forepart of the sole is being pressed.

4. A sole pressing machine, having, in combination, a pivotally mounted last carrier, a form carrier coöperating therewith to subject the sole of a shoe to a rolling pressure, a heel clamp, a rod carrying the clamp pivotally mounted on the last carrier and mechanism for moving the clamp into and out of engagement with the shoe and for holding the clamp in engagement with the shoe while the forepart of the sole is being pressed comprising a spring pressed lever pivoted at the rear of the last carrier, and a link connecting said lever to a point on the rod between its pivot and the clamp.

944,621. EGG-BEATER. FREDERICK J. LAROCK, Burnside, Conn., assignor to himself, and Edward M. Francis, Hartford, Conn. Filed May 7, 1909. Serial No. 494,646.



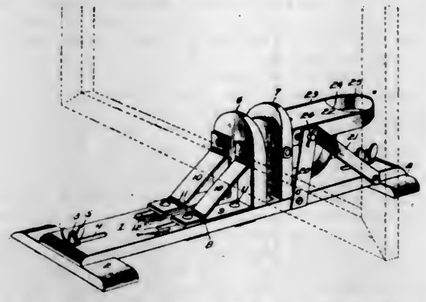
1. The combination with a support, a carrier, and means for moving the carrier, of a beater-spindle, means for rotating said spindle by the movement of the carrier, a beater connected with the lower end of said spindle for corotation therewith, a sleeve rotatable in the carrier, another beater connected for rotation with said sleeve, means for rotating said sleeve, and means for rotatably supporting the upper end of the second beater on the spindle of the first beater.

2. The combination with a carrier, and means for rotating said carrier, of a beater-spindle journaled in said carrier eccentrically of the rotation axis thereof, a beater rigidly secured to the lower end of said spindle, means for freely guiding the upper end of said beater on said spindle, and means for rotating said beater by the movement of the carrier.

3. The combination with a stationary support having a centrally disposed hub, a pair of stationary gears of different diameters concentrically secured to said hub, a shaft mounted for rotation in said hub, a carrier secured to said shaft, a pair of beaters both having the same axis of rotation and journaled in said carrier, a pinion secured to one beater and in direct engagement with one of said gears, a second pinion on the other beater, an intermediate pinion interposed between the second pinion and the second gear and in engagement with both of these elements, and means for rotating said carrier.

4. The combination with a stationary support a carrier rotatable thereon, and a pair of beaters both having the same axis of rotation and journaled on the carrier, means for rotating said carrier, a pair of stationary gears of different diameters on the support, and pinions on the beaters and engaging said gears for rotating said beaters in opposite directions by the rotation of said carrier, and at different speeds relatively to each other.

944,622. CLAMP. CORAL I. LENDER, Norfolk, Va. Filed Feb. 6, 1909. Serial No. 476,421.



1. A clamp including a base, a fixed jaw, brace frames for the jaw, means for adjustably connecting said frames to the base, a movable jaw hinged to the base, said base limiting the movement of the jaw to operative position, an operating member pivotally mounted on the base and adapted to engage the movable jaw to place the same to movable position, and means for retracting the movable jaw from operative position.

2. A clamp including a base, a fixed jaw, brace frames for the jaw, means for adjustably connecting said frames to the base, a movable jaw hinged to the base, said base limiting the movement of the jaw to operative position, frames secured to the base beyond the movable jaw, a U-shaped strip supported in said frames and adapted to operatively engage the movable jaw, and a spring secured in the base and connected to the movable jaw, said spring operating to retract said jaw from operative position.

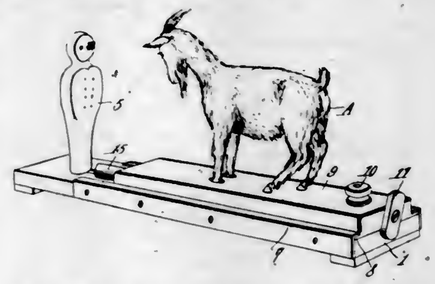
3. A clamp including a base, a fixed jaw, brace frames for the jaw, means for adjustably connecting said frames to the base, a movable jaw hinged to the base, said base limiting the movement of the jaw to operative position, frames secured to the base beyond the movable jaw, a U-shaped strip supported in said frames and adapted to operatively engage the movable jaw, a spring having one terminal secured in a recess formed in the base underlying the movable jaw, a rod connecting the opposing terminal and the movable jaw, said jaw being formed with a recess to receive one end of the rod, the operating member being formed with a recess to permit the operation of said member without regard to the rod.

944,623. TOY. JAMES S. LESTER, Atlanta, Ga., assignor of one-third to Benjaman F. Stockton, Atlanta, Ga. Filed Mar. 3, 1909. Serial No. 481,003.

1. A toy comprising a normally upright figure mounted for swinging movement, and a slidable and tiltable figure movable thereagainst to swing the same.

2. A toy comprising a normally upright figure mounted for swinging movement, and a slidable and tiltable figure movable thereagainst, and means for holding said figure in lowered position subsequent to such swinging action.

3. A toy comprising a normally upright pivotally supported figure, a slidable and tiltable figure movable thereagainst to force the same into lowered position, and means for holding said figure in lowered position.

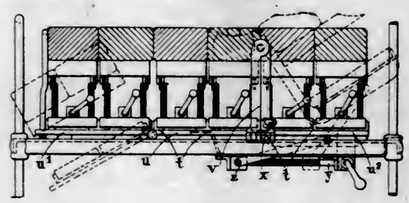


4. A toy comprising a normally upright tiltable figure, a slidable and tiltable figure movable there-against to lower the same, and means for automatically returning the lowered figure to its initial position upon removal of the sliding figure therefrom.

5. A toy comprising a normally upright tiltable figure, a slide movable in the direction thereof, a figure tiltably mounted upon the slide and having a portion thereof extending through the slide, means for actuating the slide, and means in the path of said projecting portion for tilting the figure upon the slide during the movement of said slide.

[Claims 6 to 11 not printed in the Gazette.]

944,624. INVALID'S MATTRESS. JOSEPH T. LUNN, Southampton, England. Filed Aug. 26, 1909. Serial No. 514,792.



1. An invalid's mattress comprising a plurality of sections forming the complete mattress, each section having an upper and lower portion movable in relation to each other.

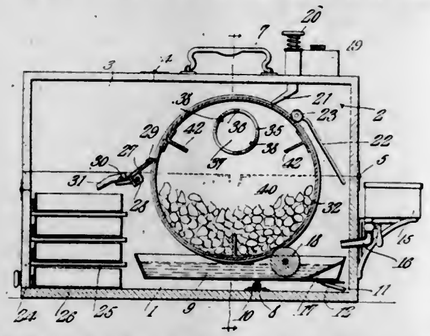
2. An invalid's mattress comprising a plurality of sections, each comprising a lower part and an upper part, a screw threaded rod carried by the lower part, and legs pivoted to the upper part and engaging with the screw threads of said rod.

3. An invalid's mattress comprising a plurality of sections, each having an upper and lower part, a screw threaded rod carried by the lower part, pairs of legs pivoted to the upper part, carriages secured to the bottom of the legs and engaging with the lower part, arms connecting the opposite carriages together, and nuts carried by said arms and engaging with the screw threads of the rod.

944,625. FREEZER. WILLIAM M. MILBURN, Denison, Tex. Filed Jan. 16, 1909. Serial No. 472,734.

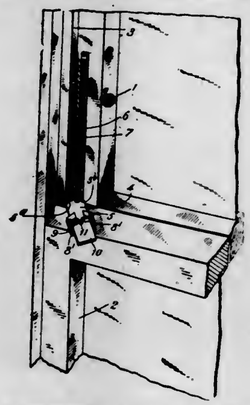
A freezer comprising a casing, a pan located in the casing, a roll journaled for rotation in the pan, a cylinder journaled for rotation in the casing and having the lower portion of its periphery in contact with the roll, a plurality of flavor-containing tanks located upon the casing and having outlets above the cylinder, a knife

mounted in the casing and having an edge coöperating with the periphery of the cylinder, and a series of re-



movable trays located in the casing below the discharge portion of the knife.

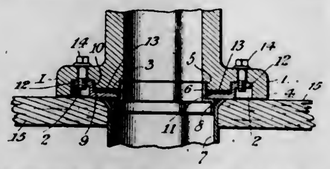
944,626. SASH-LOCK. PETER F. NISSEN, Seattle, Wash. Filed June 26, 1909. Serial No. 504,606.



1. A sash lock comprising a frame, a lock member slidably supported on said frame, said frame being formed with angularly disposed guide means, and a lever pivoted to said lock member and provided with a fulcrum means slidably engaged with the guide means of said frame.

2. A sash lock comprising a frame provided with upwardly projecting extensions formed with slots, a bolt slidably supported on said frame, and a lever pivotally connected with said bolt, said lever extending between the extensions of said frame and provided with pins engaged in the slots thereof.

944,627. WATER-CLOSET OUTLET CONNECTION. CHARLES H. MOORE, New York, N. Y. Filed Mar. 2, 1908. Serial No. 418,712.



1. The combination with an earthenware water closet and the soil pipe associated therewith, said closet having a base and a groove formed in the under side of it, of a metal floor-plate composed of two parts, one of the parts being soldered to the soil pipe and having the upper end extended up into the discharge limb of the closet, and the other part fitted over the first named part and secured thereto and having a flange extended up into the groove in the earthen base and in conjunction with a part of the base, form a trap, a compressible substance that will yield with slight pressure and not become hard in the groove in the floor-plate, and bolts for securing the closet to the floor-plate and soil pipe substantially as described.

2. The combination with an earthenware water closet and the soil pipe associated therewith, said closet having an earthen base and a groove made in the under side of it, of a metal floor-plate composed of two distinct parts, one of the parts being secured to the soil pipe and having the upper end extend up into the discharge end of the closet and the other part fitted over the first named part and secured thereto and having a flange extended up into the groove in the earthen base and in conjunction with a part of the base, form a trap, means provided for water to enter the trap in discharging through the closet, and bolts for securing the closet to the floor-plate and soil pipe.

3. The combination with a water closet and a soil pipe associated therewith, said closet having a grooved base and a depending ring within the grooved base and integral with the discharge end of the closet, a floor plate, a flange extending up from the outer edge of the floor plate, a flange extending up from the inner edge of the floor plate and having a connection with the soil pipe, a groove formed in the floor plate by the two flanges, a compressible substance within the groove under the depending ring, that will not become hard, a space in the floor plate between the inner flange and the depending ring, a liquid seal in the said space between the inner and outer flanges and the depending ring, and means to secure the closet to the floor plate.

4. In combination with a water closet and a soil pipe associated therewith, of the base of the closet prepared on the under surface to act in conjunction with a portion of the floor plate in forming a space to receive and retain a liquid that will submerge a portion of the closet base and form a trap, a floor plate, a compressible substance between the base and floor plate, a quantity of liquid retained in the space formed by a portion of the base and a portion of the floor plate independent of any water that may be forced into it while the closet is discharging, the floor plate secured to the soil pipe, and a means provided to secure the closet to the floor plate.

5. The combination with a water closet and a soil pipe associated therewith, of a closet base prepared on the under side to receive the flange of a floor plate, a floor plate having a flange extending up into said prepared place in the base and having a connection with the soil pipe, a compressible substance between the under side of the base of the closet and the floor plate, a space between the wall of the place that is prepared for the flange of the floor plate and the flange of the floor plate, to receive and retain a liquid above the compressible substance, a liquid in the said space submerging a portion of the base of the closet and forming a liquid seal between the base of the closet and the floor plate independent of any water that may be forced into it while discharging through the closet, and a means provided to secure the closet to the floor plate.

[Claims 6 to 12 not printed in the Gazette.]

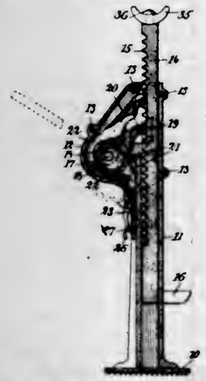
944,628. WINDOW-OPENER. HUGH MORRIS, Oklahoma, Okla. Filed Feb. 26, 1909. Serial No. 480,117.

1. A window opener comprising a pole, a toothed ratchet disk rotatably supported at one end of the pole, a polygonal key member movable with the ratchet disk and adapted to unlock a sash fastener having a corresponding recess, and a spring controlled locking pawl engaging the toothed ratchet disk to hold the same against movement in one direction.

2. A pole of the class described comprising a stick, a shank fitted in one end of said stick, a hub journaled in said shank, a toothed ratchet disk fixed to said hub, guide disks on opposite sides of said ratchet disk and of greater diameter than the latter, a squared projection formed centrally on one of said disks, and a spring controlled pawl mounted upon the stick and engaging the ratchet disk to hold the same against movement in one direction.



944,629. JACK. WILLIAM B. MCCAIN, Clearlake, Wash., assignor, by mesne assignments, of one-half to H. E. Graham and one-half to R. E. Farlow, Anacortes, Wash. Filed Dec. 24, 1908. Serial No. 469,106.

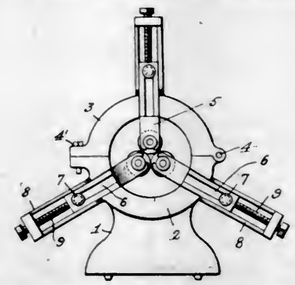


1. In a jack, a lifting-bar having teeth, a shaft, pawls carried by the shaft adapted to engage with the teeth of the lifting-bar, means for causing said pawls to move in reverse directions when the shaft is oscillated, whereby the lifting-bar is elevated and moved in one direction, a slide, springs attached to the pawls, and means for moving the slide into the path of the springs, operating to eject the pawls from the teeth of the lifting-bar preparatory to their upward movement, whereby the actuation of said shaft causes said bar to be successively lowered.

2. In a jack, a lifting-bar having teeth, a shaft, pawls carried by the shaft adapted to engage with the teeth of the lifting-bar, means for causing said pawls to move in reverse directions when the shaft is oscillated, whereby the lifting-bar is elevated and moved in one direction, a slide, springs attached to the pawls, means for moving the slide into the path of the springs, operating to eject the pawls from the teeth of the lifting-bar preparatory to their upward movement, whereby the actuation of said shaft causes said bar to be successively lowered, and means independent of said slide and springs for forcing said pawls from the path of the teeth of the lifting bar, whereby said bar is permitted to instantly drop.

3. In a jack, a casing having an expanded head, a shaft journaled transversely in said head, ribs formed on the expanded head of the casing and extending radially from the shaft, and a lever for oscillating the shaft, having a projection arranged in the path of said ribs, operating to limit the oscillatory movement of the lever in each direction.

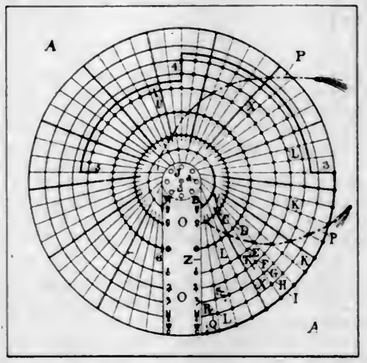
944,630. STEADY-REST. HARRY C. MCCULLOUGH, New Castle, Pa. Filed June 10, 1909. Serial No. 501,351.



1. A steady rest or follower, embodying an adjustable arm bifurcated at its outer end and provided in said bifurcation with open ended bearings at a right angle to said bifurcation, a roller mounted in said bifurcation and having projecting journals mounted in said bearings, said bearings being enlarged at their inner ends to receive said journals, and means for retaining said journals in said bearings.

2. A steady rest or follower, embodying an adjustable arm bifurcated at its outer end and provided in said bifurcation with open ended bearings at a right angle to said bifurcation, said bearings being enlarged at their inner ends, a roller having projecting journals removably mounted in said enlargements said roller being mounted in said bifurcation, and endwise movable bushings fitting the enlargements in said bearings to retain said journals in position.

944,631. ASTRONOMICAL GAME. ERNEST L. NEWSOME, Fairhaven, Lytham, England. Filed July 16, 1909. Serial No. 507,980.

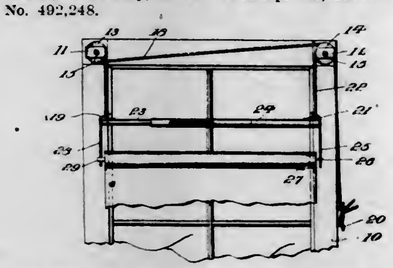


1. In game apparatus, consisting of a playing surface, the center of which represents the sun, concentric lines representing the orbits of the planets substantially radial lines K X intersecting the orbits, one set of which represents weeks of the earth's revolution around the sun and another set the lunar months, lines P crossing some of

the points where the radial lines and orbits intersect to represent the paths of comets, forming hazards, goal points on the respective orbits to illustrate the approximate periods, compared with the earth, that it takes for each planet to revolve around the sun, and a number of playing pieces having distinctive forms to designate the respective planets equal in number to the said orbits to stand at any of the places where the lines intersect, substantially as described.

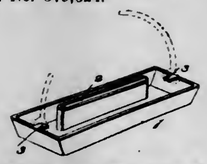
2. A game apparatus consisting of a playing surface having a designated center representing the sun and circular concentric lines representing orbits of the planets, and substantially radial lines intersecting the concentric lines representing the path of comets, a scoring device comprising a ball race extending half way across the said surface, and terminating in a circle, said circle being provided with a plurality of numbered holes into which objects are projected to determine the score, substantially as described.

944,632. ADJUSTABLE SHADE-SUPPORT. JAMES P. OLSON, Sioux City, Iowa. Filed Apr. 26, 1909. Serial No. 492,248.



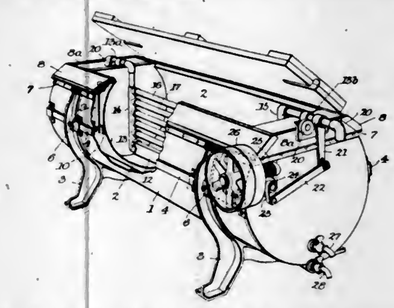
In a shade support, the combination with a window casing, of U-shaped brackets disposed upon the upper corners of said casing and having their ends arranged inwardly toward one another, pulleys journaled in said brackets, one of said pulleys having two grooves formed therein, cords engaged over said double-grooved pulley, one of said cords being depended from the inner side of the double grooved pulley, the other of the cords being extended across said casing and lapped about the opposite of said pulleys and depended inwardly therefrom, a cleat carried by said casing to engage the outer ends of said cords, a pair of telescopic tubes carried upon the inner ends of said cords, arms depended from the outer ends of said tubes and suitably apertured to receive a shade, and loops formed upon the outer ends of said tubes for engagement with the inner ends of said cords.

944,633. CRUDE-OIL BURNER. WILLIAM H. PAYNE and NEWTON M. RICE, Dalhart, Tex. Filed June 18, 1907. Serial No. 379,624.



The herein described oil burner comprising a shallow pan adapted to be arranged within the fire box of an ordinary stove, the walls of the pan being flared outwardly and provided at their upper edges with inwardly projecting lugs lying in the same horizontal plane as the upper or rim edge of the pan, the pan being provided in its bottom with an opening extending therethrough, an annular wall surrounding said opening and projecting upwardly beyond the above mentioned flared outer wall, and a bail detachably engaging the lugs for placing the pan in position within the stove.

944,634. APPARATUS FOR TREATING CREAM, MILK, &c. ALBAN H. REID, Philadelphia, Pa. Filed Aug. 10, 1908. Serial No. 447,767.



1. In an apparatus of the type described, the combination of sustaining legs or frames, a casing, and horizontal suspension bars fixed to the sides of the casing and extending longitudinally thereof and connected with the legs.

2. In an apparatus of the type described, the combination with a horizontal cylindrical casing, of horizontal suspension bars fixed to opposite sides of the casing, and sustaining legs or frames surrounding the casing and provided with sockets to receive the bars.

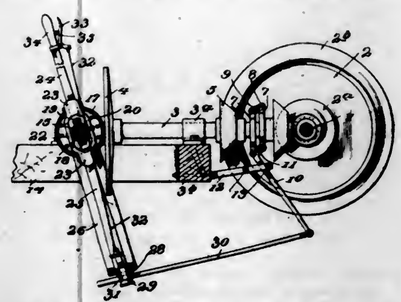
3. In an apparatus of the type described, the combination of an inclosing casing, a vat situated within the same with a space between the two, and vertical braces fixed at their upper ends to the casing and fastened at their lower ends to the sides of the vat.

4. In an apparatus of the type described, the combination of an inclosing casing, a cylindrical vat situated within the same with a space between them, horizontal supporting bars fixed to opposite sides of the vat and extending longitudinally thereof, and means for suspending said bars from the casing.

5. In an apparatus of the type described, the combination with an inclosing casing, of a cylindrical vat situated within the same with a space between them, horizontal longitudinally extending suspension bars fixed to opposite sides of the vat, and vertical braces fixed at their upper ends to the casing and fastened at their lower ends to the suspension bars.

[Claims 6 to 10 not printed in the Gazette.]

944,635. GEARING. CHESTER L. ROBBINS, East Thompson, Conn. Filed Feb. 11, 1909. Serial No. 477,313.



1. The combination of a main shaft, a wheel applied to the main shaft and formed with an inner beveled portion and an outer beveled portion, a counter shaft, a beveled gear wheel rigid with the counter shaft, a second beveled gear wheel having a feather and spline connection with the counter shaft, the said gear wheels being adapted to engage the beveled portions of the wheel upon the main shaft, a pair of members loose upon the counter shaft between the beveled gear wheels, and means for moving the members toward or away from each other to operate said second beveled gear.

2. The combination of a main shaft, a wheel applied to the main shaft and formed with an outer beveled portion and an inner beveled portion, a counter shaft, a beveled gear wheel rigid with the counter shaft, a second beveled gear wheel having a feather and spline connection with the counter shaft, the said beveled gear wheels being adapted to engage the beveled portions of the wheel upon the main shaft, a system of members arranged between the beveled gear wheels and loosely connected to each other so as to have a parallelogrammatic movement, and means for operating the said members to operate said second beveled gear.

3. The combination of a main shaft, a wheel applied to the main shaft and formed with an outer beveled portion and an inner beveled portion, a counter shaft, a beveled gear wheel rigid with the counter shaft, a second beveled gear wheel having a feather and spline connection with the counter shaft, the said beveled gear wheels being adapted to engage the beveled portions of the wheel upon the main shaft, a pair of collars loosely receiving the counter shaft and arranged between the beveled gear wheels, levers loosely connecting the collars at opposite sides thereof, and means for imparting a parallelogrammatic movement to the members for moving the collars toward or away from each other so as to throw said second beveled gear into an operative position.

4. The combination of a main shaft, a wheel mounted upon the main shaft and formed with an inner beveled portion and an outer beveled portion, a counter shaft, a beveled gear wheel rigid with the counter shaft, a second beveled gear wheel having a feather and spline connection with the counter shaft, the said beveled gear wheels being adapted to engage the beveled portions of the wheel upon the main shaft, a system of members arranged between the beveled gear wheels and loosely connected so as to have a parallelogrammatic movement, a lever for moving the said members to throw said second beveled gear into an operative position, a keeper for the lever, and screws applied to the keeper for holding the sides thereof in frictional engagement with the lever.

5. The combination of a main shaft, a wheel mounted upon the main shaft and formed with an outer beveled portion and an inner beveled portion, a counter shaft, a beveled gear wheel rigid with the counter shaft, a second beveled gear wheel having a feather and spline connection with the counter shaft, the said beveled gear wheels being adapted to engage the before mentioned beveled portions of the wheel upon the main shaft, means for forcing the beveled gear wheels apart or permitting them to come together to throw said second beveled gear into an operative position, a lever for actuating the said means, a second lever provided with a pair of coöperating shoes, and a rod connected to the first mentioned lever and adapted to be gripped between the shoes of the second mentioned lever to produce an operative connection between the levers.

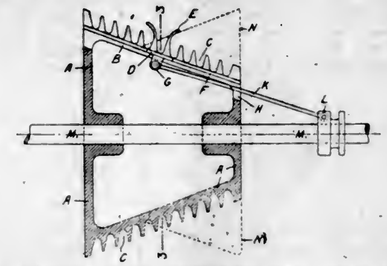
[Claims 6 to 8 not printed in the Gazette.]

944,636. CHANGE-SPEED CONE AND PULLEY. WILLIAM E. ROWLANDS and PERCY ROWLANDS, Liverpool, England. Filed Jan. 20, 1908. Serial No. 411,816.

1. A grooved conical change speed pulley, having a gap provided in, and common to, the whole of the groovings, adapted to provide a cross over path for the driving belt or rope and means adapted to engage with and deflect the driving belt or rope from one groove to another.

2. A grooved conical change speed pulley, having a gap provided in, and common to, the whole of the groovings, adapted to provide a cross over path for the driving belt or rope; and a fork adapted to engage with and deflect the driving belt or rope from one groove to another.

3. A grooved conical change speed pulley, having a gap in the grooving thereof, adapted to provide a cross-over path for the driving belt or rope; a piece adapted to slide lengthwise in said gap; and a fork connected with said piece, adapted to engage with and deflect the driving belt or rope from one groove to another.



4. A grooved conical change speed pulley, having a gap in the grooving thereof, adapted to provide a cross-over path for the driving belt or rope; a piece adapted to slide lengthwise in said gap; a fork connected with said piece adapted to engage with and deflect the driving belt or rope from one groove to another; and means adapted to effect the displacement of said piece and fork while the pulley is in motion.

5. In combination, a grooved conical change speed pulley; having a gap in the grooving thereof, adapted to provide a cross-over path for the driving belt or rope; a fork connected with said piece; an inwardly projecting eye; a shaft upon which said pulley is mounted; a bobbin movable longitudinally on said shaft; and a rod, one end of which is connected with said eye, and the other end with said bobbin.

[Claim 6 not printed in the Gazette.]

944,637. CROSS-TIE. JOHN S. SCHAEFFER, Phoenix, N. Y. Filed Oct. 6, 1908. Serial No. 456,412.



1. In a railway tie, a shell having grooves on its external surface and lugs on its internal surface, a binder wrapped around the shell and lying in the grooves, a composition filler, an external coating for the shell, prismoidal holders embedded in the composition within the shell, and means for securing rails to the cross tie.

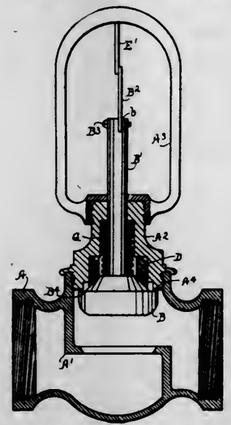
2. In a railway tie, a shell, a composition filler and cover for the shell, said shell having an opening in its upper surface, hollow prisms in the opening of the shell, tie plates above the shell, a cushion interposed between the tie plate and shell, and a rail securing device on the tie plate, means for securing the rail securing devices in place, said means extending into the hollow prisms and means for anchoring them.

3. In a railway tie, a shell having openings, spike anchoring means comprising hollow prisms having shoulders on their internal walls, a spike for each prism having a serrated shank adapted to engage the shoulders of a prism, and a spring engaging one of a series of serrations on the spike and one of a series of shoulders on the prism, whereby the said spike is held in engagement with the shoulders of the prism.

944,638. DEVICE TO CONTROL THE RECEPTION OF GAS IN BUILDINGS. FREDRICK SCHMIDT, New York, N. Y. Filed Mar. 20, 1909. Serial No. 484,800.

1. A valve for gas having provisions for automatically shutting in case of accidental fire, comprising a valve disk having two opposite faces, a valve stem therefor, a casing inclosing these parts and having two seats, one re-

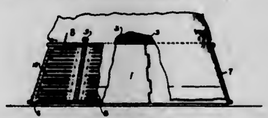
ceiving one face of the valve and thereby controlling the flow from the street main into the building, and the other controlling the flow around the unpacked valve stem, in combination with provisions for urging such valve disk when liberated toward the proper seat to stop the valve passage, two slender strips conditionally joining the yoke and the valve stem, and a quantity of fusible material uniting overlapping ends of these strips together.



2. A valve for gas having provisions for automatically shutting in case of accidental fire, comprising a valve disk having two opposite faces, a valve stem therefor, a casing inclosing these parts and having two seats, one receiving one face of the valve and thereby controlling the flow from the street main into the building, and the other controlling the flow around the unpacked valve stem, in combination with a bearing ring of elastic material surrounding said valve stem, thereby insuring a tight joint without frictional resistance to the closing movement and without requiring nicely finished surfaces, two slender strips conditionally joining the yoke and the valve stem, and a quantity of fusible material uniting overlapping ends of these strips together.

3. A valve for gas having provisions for automatically shutting in case of accidental fire, comprising a valve disk having two opposite faces, a valve stem therefor, a casing inclosing these parts and having two seats, one receiving one face of the valve and thereby controlling the flow from the street main into the building, and the other controlling the flow around the unpacked valve stem, in combination with a screw-threaded ring engaged adjustably on a screw-threaded portion of the casing and carrying a slender yoke which is thus adjustable in its distance from the last named valve seat, two slender strips conditionally joining the yoke and the valve stem, and a quantity of fusible material uniting overlapping ends of these strips together.

944,639. SKIRT-MARKER. SHERIDAN C. SELL, Canton, Ohio, and ARVILLA M. FILHOUR, McCords, Mich. Filed Mar. 8, 1909. Serial No. 482,150.



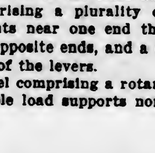
1. In a skirt marker, an inner and an outer frustum, said frustums formed in sections and the sections detachably connected together and the frustums adapted to be located one within the other and the outer frustum provided with slots, the edges of said slots bent outward, substantially as and for the purpose specified.

2. In a skirt marker of the class described, inner and outer frustums adapted to be located one upon the other, said frustums formed in sections and the sections detachably connected together and the outer frustum section provided with slots, substantially as and for the purpose specified.

3. In a skirt marker the combination of inner and outer frustums adapted to be located one within the other together, the inner frustum provided with supporting loops and the outer frustum provided with slots, substantially as and for the purpose specified.

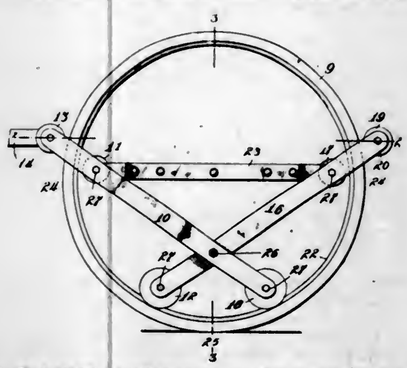
4. In a skirt marker of the class described, the combination of two frustums, one adapted to be located upon the other, the outer frustum provided with graduated slots, said frustums formed in sections and the sections adapted to be detachably connected together, substantially as and for the purpose specified.

944,640. PROCESS FOR SOLDERING CORD CHAINS. KARL F. UNGERER and EMIL BECKER, Pforzheim, Germany. Filed Sept. 29, 1908. Serial No. 455,328.



A process for soldering wire cord chains of the type in which each link consists of two entangled open rings one of the same being made of plain and the other of soldering wire, consisting in, piercing the outer shell of the ring of soldering wire of each link at those points where it touches the adherent ring of plain wire, arranging the links in such a way that the gap of the ring of soldering wire lies at the top and the gap of the ring of plain wire at the bottom when the chain thus formed hangs in vertical position, suspending the chain in said vertical position, and heating the chain to the melting point of the solder, for the purpose set forth.

944,641. VEHICLE-WHEEL. FREDERICK P. VAUGHAN, Chicago, Ill. Filed July 20, 1907. Serial No. 384,825.



1. In a wheel of the class described a load support comprising levers, means for rigidly connecting the long ends of the levers, anti-friction elements, and means for applying the draft to one of the levers.

2. In a vehicle wheel of the class described a shiftable load support comprising a plurality of levers carrying anti-friction elements near one end thereof and friction elements near the opposite ends, and a draft beam to connect the long ends of the levers.

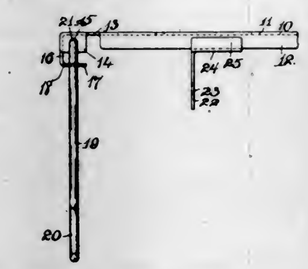
3. A vehicle wheel comprising a rotary tread member, a plurality of shiftable load supports normally on opposite sides of the vertical diameter of the wheel, and means for applying the draft to the wheel outside of the tread member.

4. A vehicle wheel comprising a rotary tread member, load supporting means capable of a fore and aft movement independent of the tread member, anti-friction elements, friction elements, and means for applying the draft to the wheel.

5. A vehicle wheel comprising a rotary tread member, a load support comprising means operated by the draft and gravity for oscillatory movement thereof, anti-friction elements, means for limiting oscillatory movement of the load support, and means for applying the draft one side of the vertical diameter of the wheel.

[Claims 6 to 8 not printed in the Gazette.]

944,642. SHADE-BRACKET. MARTIN VOSSELER and MARTIN SCHLENKER, Elizabeth, N. J. Filed July 7, 1909. Serial No. 506,299.

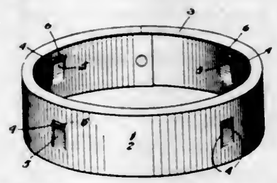


1. A shade-bracket comprising a body portion having a flat back and inclined edges at its top and bottom, the body portion having parallel perforated ears near one end, a rod supporter in the perforated ears the body portion being then bent into a right-angled part which is again bent into a wing parallel with the flat back, the wing having recesses in its top and bottom edges adapted to receive the rod supporter and prevent its swinging, and a plate having a right-angled leaf for supporting a shade-roller, the plate having inwardly turned flanges to engage the inclined edges of the body portion.

2. A shade-bracket comprising a body portion having a flat back bent into ears on one end, the ears being perforated, the perforations being in line, the body portion being also bent into a right-angled part which is again bent into a wing parallel with the back of the body portion, the wing having recesses in its top and bottom edges, a rod approximately hooked shaped on one end and being bent substantially at right-angles at the other end, the right-angled part being adapted to swing in the perforations in the ears and the rod being adapted to lie in one of the recesses in the wing, and a plate arranged in sliding relation on the body portion, the plate having a right-angled leaf for supporting a shade-roller.

3. A shade-bracket comprising a body portion having a flat back bent into ears on one end, the ears being perforated, the perforations being in line, the body portion being also bent into a right-angled part which is again bent into a wing parallel with the back of the body portion, the wing having recesses in its top and bottom edges, a rod approximately hooked shaped on one end and being bent substantially at right-angles at the other end, the right-angled part being adapted to swing in the perforations in the ears and the rod being adapted to lie in one of the recesses in the wing, the body portion having outwardly inclined edges, and a plate having inwardly turned flanges on the back of its top and bottom edge adapted to engage by frictional contact with the inclined edges of the body portion, the plate having a right-angled leaf, the leaf being perforated to receive the end of a shade-roller.

944,643. THREAD-PROTECTOR. BRUCE C. WHITE, Rochester, Pa., assignor, by mesne assignments, to Colona Manufacturing Company, Pittsburg, Pa., a Corporation of Pennsylvania. Filed Jan. 9, 1909. Serial No. 471,446.



1. A thread protector consisting of a ring of sheet metal having inwardly extending spring abutments adapted to spring over and engage the threads.

2. A thread protector consisting of a ring of sheet metal having inwardly extending spring abutments adapted to move radially with relation to the axial center of the ring.

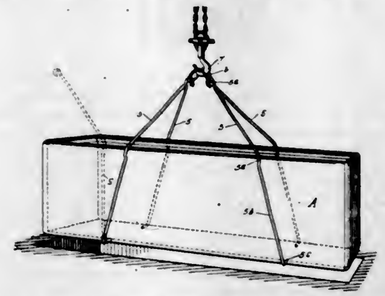
3. A thread protector consisting of a ring of sheet metal provided with inwardly extending spring abutments having freely movable terminals adjacent to the outer end of the ring to pass over the threads in applying the protector thereto.

4. A thread protector consisting of a ring of sheet metal having inwardly extending freely resilient abutments adapted to spring over and engage against the threads, and a terminal inwardly extending flange.

5. A thread protector consisting of a ring of sheet metal having one or more elongated elastic tongues partially severed from the metal and bent inwardly beyond the inner face of the ring.

[Claim 6 not printed in the Gazette.]

944,644. GRAPPLE. THOMAS H. WILLIAMS, Utica, N. Y. Filed Sept. 10, 1908. Serial No. 452,463.



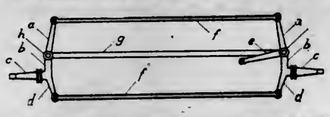
1. A grapple consisting of a set of four similar separable rigid parts 5, each consisting of a straight stem portion 5^b and angularly arranged converging portion, and having at the lower end inturned hook 5^c and connectible means for collectively handling the parts with which the upper ends of the converging portions are arranged to detachably engage, substantially as set forth.

2. A grapple consisting of a set of four similar separable rigid parts 5, each consisting of a straight stem portion 5^b, and angularly arranged converging portions having at the lower end an inturned hook 5^c and at the upper end an open hook 5^d, connectible means for collectively handling the parts with which the hooks 5^d are arranged to detachably engage, substantially as set forth.

944,645. WHEELED VEHICLE. RICHARD WOLFE, Denver, Colo. Filed Dec. 21, 1908. Serial No. 468,618.

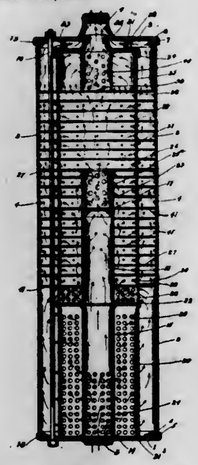
In a steering mechanism, an axle, laterally swinging levers centrally pivoted to and having arms of equal length extending in front and rear of the axle, wheel supporting spindles extending centrally at right angles from

the rear arms of the axle, a link connecting the front arms of the levers, a second link connecting the rear arms thereof, an upright shaft having a crank arm, an operat-



ing device therefor, a crank arm connected with one of the levers in line with its pivot point, and a link connecting said crank arms.

944,646. EXHAUST-MUFFLER. JOSEPH A. XARDELL and CHARLES A. XARDELL, Utica, N. Y. Filed Feb. 18, 1909. Serial No. 478,640.



1. In a device of the character described, a cylindrical chamber, a centrally disposed tube therein extending beyond the end of the chamber, said tube having lateral outlets to said chamber for a distance of about one-half the length of the chamber, substantially as described.

2. In a muffler, a series of transverse parallel plates each apertured whereby to provide a gas-passage through the series of plates, a headed imperforated tube projecting into said passage through a portion of the series and having a vent in the head opening into the passage and a transverse plate at the other end of the passage provided with a vent opening into the exhaust outlet, substantially as described.

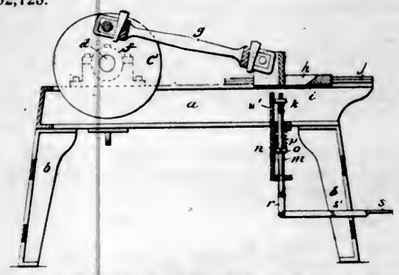
3. In a device of the character described, a plurality of concentric tubular members providing chambers of different length, apertures connecting them for the passage of currents, means deflecting the major volume of the currents through the central portion of the device for the major part of its length, substantially as described.

4. A device of the character described having a plurality of tubular members arranged concentrically, apertures for the passage of currents from the center outwardly, means deflecting the major volume of the currents toward the longitudinal center and disintegrating the same, the said deflecting means having apertures for the passage of a relatively small volume of current lengthwise the outermost chamber, the said outer chamber having an outlet adjacent that of the central passage whereby the force of the central current exhausts said outer chamber, substantially as described.

5. In a device of the character described, a plurality of concentric members, passages for currents therebetween, means deflecting the major volume of currents into a central passage, said means having edges extending transverse the line of said central passage and contacting with the edge of the current passing therethrough and separating thereby portions of said current in its passage, substantially as described.

[Claims 6 to 25 not printed in the Gazette.]

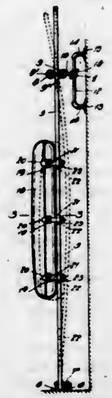
944,647. SPRAG-SHAVING MACHINE. REUBEN APPLEMAN, Luzerne, Pa. Filed Nov. 18, 1907. Serial No. 402,725.



1. In a sprag shaving machine, a horizontally reciprocating blade, operating means for said blade, a vertically sliding work rest, a treadle, and operative connections between the said work rest and said treadle.

2. In a sprag shaving machine, a horizontally reciprocating blade, operating means for said blade, a vertically sliding work rest, means to limit the movement of said work rest, a treadle, and operative connections between the said work rest and the said treadle.

944,648. STRIKING-BAG. ALONZO J. AUSTIN, Seattle, Wash. Filed Jan. 21, 1909. Serial No. 473,436.



1. In an apparatus of the class described, an upright board, means for fixedly securing said board at its lower end, means including two rollers for supporting the upper portion of the board therebetween, and a striking-bag secured to the board intermediate the two aforesaid means.

2. In an apparatus of the class described, a board, a striking-bag, strap connections for securing the bag to the board, and means for adjustably securing the board in an upright position.

3. In apparatus of the class described, an upright board, a striking bag detachably connected to said board, means for connecting the lower end of the board to a fixed support, and adjustable means for connecting the upper end of the board to a support.

4. In apparatus of the class described, an upright board which is fixedly secured at its lower end, a bracket arranged for securement to a wall and provided with an upright post, a frame slidably connected to said post, rollers rotatably carried by the frame and spaced apart to accommodate said board therebetween, a striking-bag, and means for securing said bag to the board.

5. In apparatus of the class described, an upright spring-board, a striking-bag detachably connected to said board, means for fixedly connecting the lower end of the board to a fixed support, and adjustable means which are located above the bag for preventing the tilting of the board from an upright position.

[Claims 6 to 8 not printed in the Gazette.]

944,649. RANGE-FINDER OR TELEMETER. ARCHIBALD BARR, Glasgow, Scotland, and WILLIAM STROUD, Leeds, England. Filed Dec. 2, 1903. Serial No. 183,506.



1. The combination in a rangefinder of the short base single observer type, of an outer casing, a compound reflector at each end of the outer casing, a shorter inner frame within the outer casing, a gimbal supporting the inner frame at one side of the center, a spherical bearing supporting the frame at the other side within the casing, an object glass at each end of the inner frame, and a set of reflecting prisms at the center of the inner frame, substantially as set forth.

2. The combination in a rangefinder of the short base single observer type, of an outer casing carrying at each end an optical square, a shorter inner frame supported within the outer casing, an object glass at each end of the inner frame, a set of prisms at the center of the length of the inner frame comprising reflecting surfaces approximately at right angles to the plane of triangulation and inclined at approximately 45° to the base line of the instrument for reflecting the beams of light in a direction approximately at right angles to the base line, and a separating edge at which the images are focused formed upon one part of the central reflecting combination, substantially as set forth.

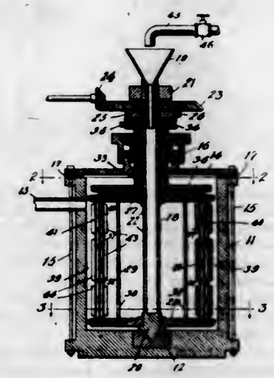
3. The combination in a rangefinder of the short base single-observer type, of an outer casing carrying at each end an optical square, a shorter inner frame supported in the outer casing, an object glass at each end of the inner frame, a set of prisms at the center of the length of the inner frame comprising reflecting surfaces approximately at right angles to the plane of triangulation and inclined at approximately 45° to the base line of the instrument reflecting the beams of light in a direction approximately at right angles to the base line, and a separate prism through which the beams of light pass on their way to the eye of the observer, said prism having a separating edge at which the images are focused, all substantially as set forth.

4. The combination in a rangefinder of the short base single observer type, of an outer casing carrying at each end a non-inverting optical square, a shorter inner frame supported in the outer casing, an object glass at each end of the inner frame, a set of prisms at the center of the length of the inner frame comprising reflecting surfaces approximately at right angles to the plane of triangulation and inclined at approximately 45° to the base line of the instrument for reflecting the rays at approximately right angles to the base line, a reflecting surface at an angle to the plane of triangulation adapted to erect the images, and a separating edge at which the images are focused formed upon one part of the central reflecting combination, substantially as set forth.

5. The combination in a rangefinder of the short base single-observer type, of an outer casing carrying at each end of non-inverting optical square, a shorter inner frame supported in the outer casing, an object glass at each end of the inner frame, a set of prisms at the center of the length of the inner frame comprising reflecting surfaces at right angles to the plane of triangulation and inclined approximately 45° to the base line of the instrument for reflecting the rays at approximately right angles to the base line, a reflecting surface at an angle to the plane of triangulation adapted to erect the images, and a separate prism through which the beams of light pass on their way to the eye of the observer said prism having a separating edge at which the images are focused substantially as set forth.

[Claims 6 to 8 not printed in the Gazette.]

944,650. ELECTROLYTIC APPARATUS. HARRY H. BATES and FOLGER ADAM, Joliet, Ill. Filed June 7, 1909. Serial No. 500,508.



1. An electrolytic cell for the production of chlorates from chlorids having moving anodes and cathodes mounted so as to move in the same direction upon a common axis.

2. An electrolytic cell for the production of chlorates from chlorids containing moving anodes and cathodes mounted so as to move in the same direction upon a common axis constructed to agitate the solution by their movement.

3. An electrolytic cell for the production of chlorates from chlorids in which the cathode is given a rotary movement in the solution and is constructed with vanes to agitate the solution by such movement.

4. An electrolytic cell for the production of chlorates from chlorids in which the anode is made without vanes and the cathode made with vanes, and the latter given a rotary movement through the solution to agitate the same and bring all parts thereof rapidly into contact with the electrodes.

5. An electrolytic cell for the production of chlorates from chlorids in which the anode is given a rotary movement and is formed of both sides of a thin sheet of metal and the cathode is made to face both sides of the anode sheet.

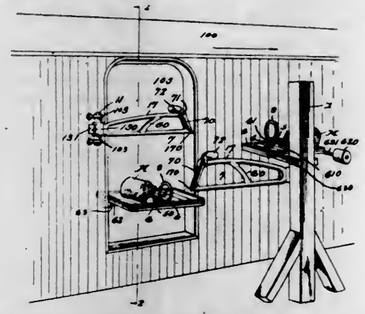
[Claims 6 to 8 not printed in the Gazette.]

944,651. MAIL-BAG HANDLER. JOHN L. ADAM, New Orleans, La. Filed Apr. 30, 1909. Serial No. 493,084.

1. In a mail bag catcher, the combination with an upright rotary shaft, means for retarding its rotation, and a hook projecting radially from it; of a bag holder comprising a ring adapted to be impaled by said hook, means for releasably supporting the ring in upright position, and a flexible connection between the ring and bag.

2. In a mail bag catcher, the combination with an upright rotary shaft, means for retarding its rotation, a hook projecting radially from it, and a movable catch automatically closing against the tip of the hook; of a bag holder comprising a ring adapted to be impaled by said hook, means for releasably supporting the ring in upright position, and a flexible connection between the ring and bag.

3. In a mail bag catcher, the combination with eyes projecting from a support, an upright shaft journaled in them, and a spring-actuated plunger between them; of a catching arm, and a cam supporting it and mounted on said shaft, the cam having faces either of which when engaged by the plunger will hold said arm yieldingly in a position oblique to the support.

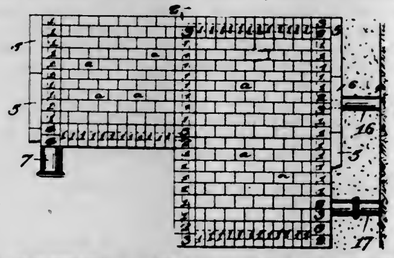


4. A mail bag transfer comprising a catching arm swinging a horizontal plane, a deliverer swinging in a vertical plane, means for causing it to automatically assume a vertical position, stops for holding it in horizontal position when depressed by the weight of the bag, and a bag holder releasably carried by said deliverer, the catcher on each device being disposed in a plane just above the deliverer on the other when said deliverer stands in its horizontal position.

5. In a mail bag transfer, the combination with a catching arm swinging in a horizontal plane, and a deliverer swinging in a vertical plane, the catcher on one device being disposed in a plane just above the deliverer on the other when said deliverer stands in its lowest position; of a bag holder comprising a ring adapted to be removably supported by the deliverer and impaled by a catcher, an eye at right angles to the ring, and a flexible connection between the eye and bag.

[Claims 6 to 10 not printed in the Gazette.]

944,652. PAVEMENT. WILLIAM H. BAKER, Sugarcreek, Ohio, assignor of one-half to Edward B. Baker, Sugarcreek, Ohio. Filed July 17, 1909. Serial No. 508,140.



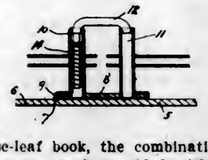
1. A pavement or roadway comprising the solid blocks "*a*", the longitudinal and transverse rows of blocks 1 arranged between certain of the blocks "*a*", said blocks 1 having alining bores whereby longitudinal and transverse drain passages are formed, and a pair of the blocks 2, 3, arranged at the junction of the longitudinal and transverse rows of blocks 1, said blocks 2, 3, having transverse bores to register with the bores in certain of the blocks 1, and also having in their opposing faces lateral communicating bores.

2. A pavement or roadway comprising the solid blocks "*a*", the longitudinal and transverse rows of blocks 1 arranged between certain of the blocks "*a*", said blocks 1 having alining bores whereby longitudinal and transverse drain passages are formed, a pair of the blocks 2, 3, arranged at the junction of the longitudinal and transverse rows of blocks 1, said blocks 2, 3, having transverse bores to register with the bores in certain of the blocks 1, and also having in their opposing faces lateral communicating bores, and upright curbing blocks, certain of the latter being formed with transverse bores to register with the opposing lateral bores in certain of the blocks 2, 3.

3. A pavement or roadway comprising the solid blocks "*a*", the longitudinal and transverse rows of blocks 1 arranged between certain of the blocks "*a*", said blocks 1 having alining bores whereby longitudinal and transverse drain passages are formed, a pair of the blocks 2, 3, arranged at the junction of the longitudinal and transverse rows of blocks 1, said blocks 2, 3, having transverse bores to register with the bores in certain of the blocks 1, and also having in their opposing faces lateral communicating bores, and laterally extending drain tiles communicating with the opposing lateral bores of the blocks 2, 3, in the outer longitudinal rows of the blocks 1.

4. A pavement or roadway comprising the solid blocks "*a*", the longitudinal and transverse rows of blocks 1 arranged between certain of the blocks "*a*", said blocks 1 having alining bores whereby longitudinal and transverse drain passages are formed, a pair of the blocks 2, 3, arranged at the junction of the longitudinal and transverse rows of blocks 1, said blocks 2, 3, having transverse bores to register with the bores in certain of the blocks 1, and also having in their opposing faces lateral communicating bores, a pair of the blocks 4 arranged at the junction of one of the transverse and longitudinal rows of blocks 1, said blocks 4 being formed with transverse bores to register with the bores in the blocks 1 and also with downwardly extending semicircular bores, the latter being formed in the opposing faces of the two blocks 4 and communicating with said transverse bores, and a drain tile arranged beneath the block 4 and having in its top an opening to register with said opposing semicircular bores.

944,653. LOOSE-LEAF BOOK. WILLIAM H. BAYLES, New York, N. Y. Filed Aug. 4, 1906. Serial No. 329,144.

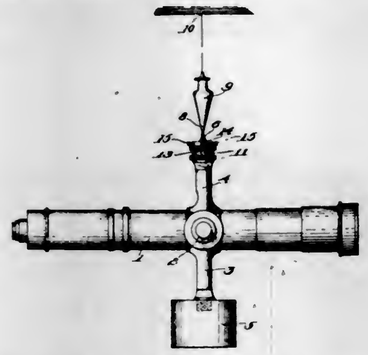


1. In a loose-leaf book, the combination of two posts secured to the cover, each provided with a hollow space, a staple with legs adapted to rest in said hollow spaces and a spring, connected to one leg of said staple and also to the post, whereby the staple will be removably retained in said recesses, except when leaves are to be inserted or removed, and will be automatically turned to the side when one leg of the staple is raised out of the recess in one post.

2. In a loose-leaf book the combination of a cover, a plate secured to said cover by an edge hinge, two posts secured to said plate each provided with a hollow space, a staple with legs adapted to enter and rest in said hollow spaces in the posts, and a spring connected to the post and to the staple, with its stress opposed to the lifting of the staple, and to the alinement of the staple in place from one post to the other, all substantially as set forth.

3. In a loose-leaf book, a cover with two sides, and a back joined thereto by two joints, a plate secured to said cover, at one joint, by an edge hinge, a hollow post secured to said plate, a second post with a socket recess at its upper end, secured to said plate in line with but at a distance from the first post, a flat topped staple provided with two legs, one of which is short and is adapted to rest removably in the socket recess of the second post and the second of which is adapted to rest in and turn within the first post, and a spring surrounding said second leg, within the hollow of the first post, and secured to the post and the leg, with its stress opposed to the lifting of the staple and to the alinement of the staple, all substantially as set forth.

944,654. MINING-TRANSIT-CENTER FINDER. WILLIAM A. BERGER, Boston, Mass. Filed Sept. 26, 1908. Serial No. 454,917.



1. The combination with a surveying instrument and its telescope, of a centering device, normally fixed with reference to said telescope, having a center-point indicating means for indicating the position of the center of the instrument with reference to the point of a plumb-bob.

2. The combination with a surveying instrument, of a centering device having a center-point recess capable of receiving the point of a suspended plumb bob or the like for determining the proper position of the instrument.

3. In a surveying instrument, a telescope, a center-determining device normally fixed with reference to said telescope, having a projecting point located in vertical alinement with the intersecting point of the optical axis of said telescope and the transverse pivotal axis of said telescope.

4. The combination with a surveying instrument and its telescope, of a centering device, normally fixed with reference to said telescope, having means for indicating to the touch and to the sight the center point of the instrument with reference to the point of a plumb-bob.

5. In a surveying instrument, a telescope, supporting means therefor having a vertical pivot to permit said telescope to move in a horizontal plane, and a center-finder having normal fixed relation with reference to the adjacent portion of the instrument and provided with a center point, distinguishable by touch, for indicating to the operator the position of the vertical center of the instrument with reference to a plumb-bob.

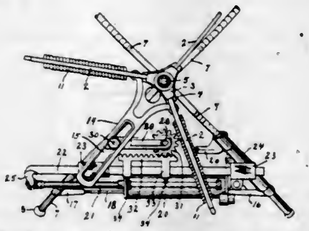
[Claims 6 to 13 not printed in the Gazette.]

944,655. GARMENT-SUPPORTER. GEORGE C. BIDDLE, Sharon, Pa., assignor of one-half to Michael L. Kraus, Sharon, Pa. Filed Apr. 19, 1909. Serial No. 490,722.



A device of the character described formed of a single piece of spring wire and comprising a substantially diamond shaped body portion, the wire at the ends of said body portion being bent to elongated U shape, the inner sides of said elongated portions being flattened and the free ends of said wire being interengaged with each other in such manner that they are hingedly connected.

944,656. DRIVING MECHANISM FOR WASHING-MACHINES. KENDRICK E. BILLS, Sterling, Ill., assignor, by direct and mesne assignments, to Arthur B. Cooling, Sterling, Ill. Filed Apr. 14, 1909. Serial No. 489,946.



1. A device of the class named, comprising a frame; a plurality of tub-supporting arms, pivotally mounted on said frame; a motor, mounted on said frame, and provided with a reciprocating piston-rod; a rod, mounted on said frame, and adapted to be reciprocated by said motor; a crank-arm, pivotally mounted on said frame; means for imparting the movement of said rod to said crank-arm, to oscillate the same; a slotted arm, pivotally mounted on said frame, and engaged by said crank-arm; and means for imparting the movement of said slotted arm to said tub-supporting arms, to cause the oscillation thereof.

2. A device of the class named, comprising a frame; a pivot, mounted centrally thereof; a plurality of tub-supporting arms, secured to the upper end of said pivot; a sleeve on said pivot, provided with a plurality of radial arms; springs connecting said arms with said tub-supporting arms; a water-motor, mounted on said frame, and provided with a reciprocating piston-rod; a rod, mounted in bearings on said frame, and adapted to be reciprocated by said piston-rod; a crank-arm, pivotally supported on said frame; means for imparting the movement of said rod to said crank-arm, to oscillate the same; and means for communicating the movement of said crank-arm to said sleeve, to impart an oscillating movement to the arms thereof.

3. A device of the class named, comprising a frame; a pivot, mounted centrally thereof; a plurality of tub-supporting arms, secured to the upper end of said pivot; a sleeve on said pivot, provided with a plurality of radial arms; spring connecting means uniting the outer ends of said arms with said tub-supporting arms; a water-motor, mounted on said frame, and provided with a reciprocating piston-rod; a rod, mounted in bearings in said frame, and adapted to be reciprocated by said piston-rod; a crank-arm, pivotally supported on said frame; means for imparting the movement of said rod to said crank-arm, to oscillate the same; means for communicating the movement of said crank-arm to said sleeve, to impart an oscillating movement to the arms thereof; and means for limiting the oscillation of said arms.

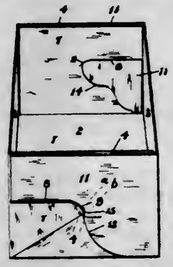
4. In a device of the class named, a frame, comprising a central hub and supporting legs therefor; a plurality of tub-supporting arms, pivotally mounted on said hub; a crank-arm, removably supported on said frame; a pair of bearings, detachably attached to said frame; a reciprocating rod, supported in said bearings; a water motor, detachably secured to said frame, and adapted to actuate said rod; means for imparting the movement of said rod to said crank-arm, to oscillate the same; and means for communicating the movement of said crank-arm to said tub-supporting arms.

5. In a device of the class named, the combination of a frame; a plurality of tub-supporting arms, pivoted thereon; a water-motor, supported on said frame; a re-

ciprocating bar, adapted to be actuated by said motor; a rack on said bar; a pinion, engaged by said rack; a crank-arm, actuated by said pinion; a plurality of radial arms, pivotally mounted on said frame; a slotted arm, connected with said last-named arms, and adapted to be actuated by said crank-arm; springs connecting said radial arms with said tub-supporting arms, and means for limiting the movement of said radial arms in each direction.

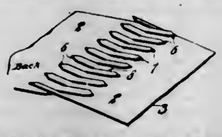
[Claim 6 not printed in the Gazette.]

944,657. PHONOGRAPH-RECORD TRAY. JOSEPH N BLACKMAN, East Orange, N. J. Filed Oct. 3, 1906. Serial No. 337,318.



The hereindescribed tray comprising in combination a bottom and integral sides having an open top; the bottom having an extension adapted to be bent upward and provided with a recess at one lateral edge; one side of the tray having an end flap adapted to be bent inward and provided with a slit extending for the greater portion of its length straight and horizontally from the bend of the flap toward the extremity thereof and having a short end portion curved downward to an arc struck around the lower outer corner of this flap; and the opposite side of the tray having an end flap also adapted to be bent inward and provided with a flared recess extending upward from its lower edge with its apex lying in an arc concentric with the first said arc when the flaps are folded flatwise together and of shorter radius, the edge wall of said recess toward the outer end of the flap being convexly rounded for its portion next said apex and this flap also having a straight vertical slit extending from said apex of said recess upward into its body beyond the smaller arc and to the larger arc at the said point where the slit 8, 9 terminates, when the flaps are superposed; the end portion or tongue of said last-mentioned flap beyond said recess adapted to enter the curved end portion of the said slit in the first-mentioned flap and pass thereinto until its outer edge is gripped between the edges of the straight portion of the slit and the said first-mentioned flap is simultaneously gripped between the edges of the said straight vertical slit of the said last-mentioned flap, all as and for the purposes set forth.

944,658. BELT-JOINT. JOHN C. BLEVNEY, Newark, N. J. Filed Dec. 29, 1908. Serial No. 469,769.

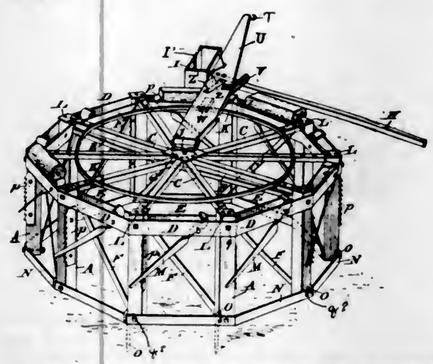


1. A flush-joint for abrasive belts, which joint consists of a plurality of embedded and back-lapped fingers at the attaching ends of the belt.

2. A joint for belts, which joint consists of a plurality of longitudinal fingers provided with points or tapered ends and separated by corresponding longitudinal spaces having tapered throats adapted to receive the bases of the fingers, said fingers being crossed and closed at the throats and lap-joined to and embedded to lie flush with the back of the ends of the belt.

3. A joint for abrasive belts impregnated with glue, which joint consists of oppositely projecting integral fingers crossed and closed at the throats, and folded down and lap-joined to the back of the contiguous ends of the belt by the adhesive substance in the belt.

944,659. SHINGLE-MACHINE. CHARLES J. BRANDT, Windemere, Minn. Filed Aug. 31, 1907. Serial No. 390,923.



1. The combination with a bed provided with an endless series of seats, of a horizontally revoluble sweep and a knife carried thereby, the sweep being so mounted as to be capable of a free vertical movement and means carried by the sweep arranged to engage the ends of the pieces of work mounted in the seats to bring the knife into the desired relation to the surface of said work, so that similar portions may be cut from each piece of work irrespective of variations in the thickness of several of said pieces.

2. In a shingle machine, the combination with a bed comprising a pair of concentric annular members arranged in spaced relation to each other and the space between being divided into a series of separate portions, the upper edges of the annular members in each portion forming a seat for the work; a revoluble sweep; a knife carried by the sweep for engagement during its rotation; and a holding device mounted in the spaces between the annular members for each seat including a lever provided with a serrated work-engaging end.

3. In a shingle machine, the combination with a pair of concentrically-arranged spaced annular bands, of a series of vertical posts to which the bands are secured, the posts having their upper ends projecting through the space between said bands, to divide such space into separate portions, the upper edges of the annular bands in each portion forming a seat for a block; a gripping device secured to the projecting end of each post; and gripping means movable within each seat, arranged for coöperation with the adjacent gripping devices, to retain the blocks in the seats.

4. In a shingle machine, the combination, with a pair of concentrically arranged spaced annular bands, of a series of vertical posts to which the bands are secured, the posts having their upper ends projecting through the space between said bands, to divide such space into separate portions, the upper edges of the annular bands in each portion forming a seat for a block; a gripping plate secured to the projecting end of each post; and a gripping member movable within each seat, said members being arranged for coöperation with the adjacent plates, to retain the blocks in the seats.

5. In a shingle machine, the combination, with a pair of concentrically arranged spaced annular bands, of a series of vertical posts to which the bands are secured, the posts having their upper ends projecting through the space between said bands, to divide such space into separate portions, the upper edges of the annular bands in each portion forming a seat for a block; a toothed gripping plate secured to the projecting end of each post; and a toothed gripping member movable within each seat, said members being arranged for coöperation with the adjacent plates, to retain the blocks in the seats.

[Claims 6 to 8 not printed in the Gazette.]

944,660. LEATHER-WORKER'S TOOL. JEAN B. BRASSARD, Holyoke, Mass. Filed Oct. 8, 1908. Serial No. 456,608.



1. In a leather worker's tool, a knife holder comprising an angular member, and a second angular member mounted in adjustable relation to the first and adapted with the latter to hold a knife by the edges and when adjusted to adjust such knife and change its angular relation to the face of the holder.

2. A leather worker's tool comprising a knife holder and means forming parts of the same to grasp a knife by the edges and tilt it transversely in said holder through the medium of the grip afforded thereby on the edge of said knife.

3. In a leather worker's tool, a knife holder comprising a perforated angular member, a second angular member having its terminals in the perforations in said first-mentioned angular member, and nuts on the ends of said second angular member which extend beyond said first angular member, said members being adapted to hold a knife by the edges between them and to retain it at different angles relative to the face of the holder, according to the manner of adjustment of said nuts.

4. A leather worker's tool comprising a sector provided with a forwardly-extending projection, a bent rod attached to said sector and its projection, such rod in conjunction with the sector and projection being adapted to hold a knife, and rotary means of adjustment for such sector whereby to position a knife so held.

5. A leather worker's tool comprising a sector provided with a forwardly-extending projection, a bent rod mounted in adjustable relation to said sector and its projection, such rod in conjunction with the sector and projection being adapted to hold a knife at different angles relative to the face of said sector, and rotary means of adjustment for such sector whereby to change the longitudinal direction of said knife.

[Claims 6 to 12 not printed in the Gazette.]

944,661. HAMMOCK-SUPPORT. GEORGE H. BUCK, New York, N. Y. Filed June 19, 1908. Serial No. 439,377.



1. In a device of the class described, end standards each formed of a single piece of resilient rod bent upon itself, and formed into a supporting hook at the central loop, the side pieces of the body portion of the standards extending downward, outward and forward from the hook, and ending in securing plugs formed integral therewith extending forward therefrom at an angle, a sheet metal base plate coiled at the edges to form end sockets for the reception of the securing plugs of the standards, and foot pieces coiled at the ends into feet, and provided adjacent to the center with securing coils through which the securing plugs of the standards pass into the end sockets of the base plate.

2. In a device of the class described, a base plate having end-sockets, foot pieces coiled at the ends into supporting feet, and provided adjacent to the center with hollow coils forming securing sockets adapted to register with the end sockets of the base plate, and end standards having upper supporting means, and ending at the lower end in securing plugs adapted to pass through the securing sockets of the foot pieces and into the end sockets of the base plate, so as to secure the same together into a support.

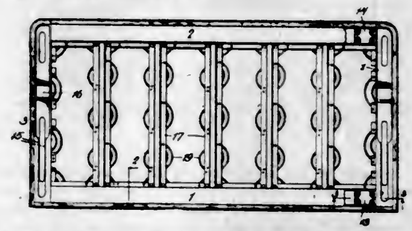
3. In a device of the class described, a base-plate having end-sockets, foot pieces having securing sockets adapted to register with the end-sockets of the base plate, and standards having adjacent to the upper end supporting means, and at the lower end securing plugs adapted to pass through the securing sockets of the foot pieces and into the end sockets of the base plate, so as to secure the same together into a support.

4. In a device of the class described, a base plate coiled into tubular form at the edges to form end sockets, foot pieces having securing sockets adapted to register with the end-sockets of the base plate, end standards each formed of a single piece of suitable rod or tubing doubled upon itself and bent into a supporting hook at the upper or loop end, the side pieces of which standards extend from the hooks, outward, downward and forward, and are provided at the lower end with securing plugs extending forward at an angle thereto adapted to pass through the securing sockets of the foot pieces and into the end sockets of the base plate, to secure the same together.

5. In a device of the class described, a base-plate, a standard formed of a single piece of resilient rod bent upon itself, and formed into a supporting hook at the central loop, the side pieces of the body portion of the standard extending downward, outward and forward from the hook and ending in securing-plugs formed integral therewith extending forward therefrom at an angle and into the base-plate.

[Claim 6 not printed in the Gazette.]

944,662. CUSHION. EDWARD G. BUDD, Philadelphia, Pa., assignor to Hale-Kilburn Metal Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Mar. 14, 1907. Serial No. 362,310.



1. In a cushion, a frame consisting of frame members secured together at their ends, certain of said members being of sheet-metal pressed to form a rectangular cross-section with open space between the opposite sides of the member and to provide an integral portion extending outwardly from the upper edge of the member and then downwardly to form a lengthwise groove open at the bottom of the member, substantially as set forth.

2. In a cushion, a frame consisting of frame members secured together at their ends, certain of said members consisting of two sheet-metal strips one having flanges at its lateral edges and the other having folds inclosing said flanges, said strips being bent longitudinally intermediate their edges to provide open space between them, an integral flange extending inwardly of the frame, and an integral flange extending outwardly from the upper edge

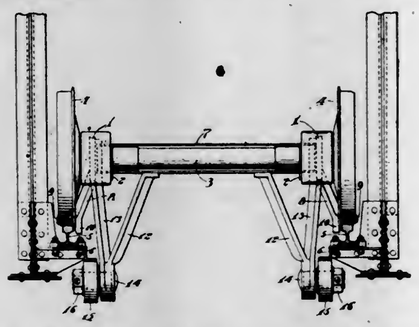
of the member and then downwardly to form a lengthwise groove open at the bottom of the frame, substantially as set forth.

3. In a cushion, the combination of a frame consisting of side and end members secured together at their ends, said end members being metallic castings each having a lengthwise groove and a depression in the under side thereof, springs supported on said frame, and a covering extending over said springs and secured at its edges to said frame, substantially as set forth.

4. In a cushion, the combination of a frame consisting of side and end members secured together at their ends, said side members being of sheet-metal and said end members being metallic castings each having a lengthwise groove and a depression in the under side thereof and ribs extending inwardly at the bottom of said groove, springs supported on said frame, and a covering extending over said springs and secured at its edges to said frame, substantially as set forth.

5. In a cushion, a rectangular frame consisting of side and end members, said side members being formed of sheet-metal strips pressed to provide open space between opposite sides thereof and said end members being castings each having integral offsets on one side thereof, one adjacent to each end, entering within and secured to the ends of said sheet-metal members, each of said members having a lengthwise groove therein for a tacking strip and each of said end members having a lengthwise groove and a depression in the under side thereof, tacking strips located in the grooves therefor, metallic slats extending across the frame and secured thereto, springs mounted on said slats and a covering yielding sustained by said springs and secured at its edges to said strips, substantially as set forth.

944,663. TRUCK. FRANK O. BUTLER, Philadelphia, Pa., assignor to The American Suspension Railway Company, Philadelphia, Pa. Filed Feb. 15, 1909. Serial No. 477,891.



1. A truck of the character described, comprising side frames and wheels supporting the same, outwardly and downwardly projecting rigid arms fixed to the side frames, said arms constructed to overlap the upper and inner sides of the rails to prevent lateral movement of the truck, relative to the rails.

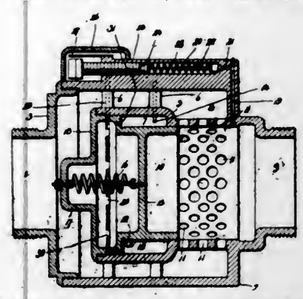
2. A truck comprising side frames, a bolster connecting the side frames, rollers supporting the side frames, outwardly and downwardly projecting arms on said side frames at their center, flanges at the ends of said arms at an angle to each other, other arms projecting downwardly from said side frames and rollers carried by said last mentioned arms in a plane below the plane of the flanged ends of said first mentioned arms substantially as and for the purpose set forth.

3. A truck comprising side frames, a bolster connecting the side frames, rollers supporting the side frames, outwardly and downwardly projecting arms on said side frames at their center, flanges at the ends of said arms at an angle to each other, other arms projecting downwardly from said side frames and rollers carried by said last mentioned arms in a plane below the plane of the flanged ends of said first mentioned arms, and inclined strengthening arms connecting the last mentioned arms with the bolster, substantially as and for the purpose set forth.

4. The combination with a suspension railway structure, having truck supporting rails thereon, and a second pair of rails on said structure in a plane below the truck supporting rails, of truck side frames, wheels supporting the side frames and adapted to run on the truck supporting rails, depending arms on said side frames, rollers carried by said arms and movable below the last mentioned pair of rails, and other arms secured to said side frames and projecting over the upper and inner faces of the first mentioned rails, substantially as and for the purpose set forth.

5. A truck of the character described, comprising side frames, depending arms on said side frames at their centers having depending flanges, and laterally projecting webs or rims, depending arms at both sides of said frame converging to a central point, and rollers carried by said frames at their lower ends constructed and adapted to move below fixed portions of the railway structure, and preventing vertical movement of the trucks on their rails.

944,664. REDUCING-VALVE. FRED M. CARROLL, New Haven, Conn. Filed Feb. 11, 1909. Serial No. 477,430.



1. In a reducing valve, the combination with a high and a low-pressure chamber one surrounding the other, of radial ports leading from the former to the latter, a valve sliding in one of the said chambers to open and close the said radial ports and having one of its ends larger than the other, an atmospheric vent located between the ends of the chamber containing the valve, and a passage leading from the smaller to the larger end of the valve.

2. In a reducing valve, the combination with a high and a low pressure chamber one surrounding the other, of radial ports leading from the former to the latter, a valve located in the low-pressure chamber, sliding to open and close the said radial ports and having one end enlarged, an atmospheric vent located between the ends of the said low-pressure chamber, and a passage leading from the smaller to the larger end of the valve and a spring connected with the said valve and tending to move the same so as to open the said radial ports.

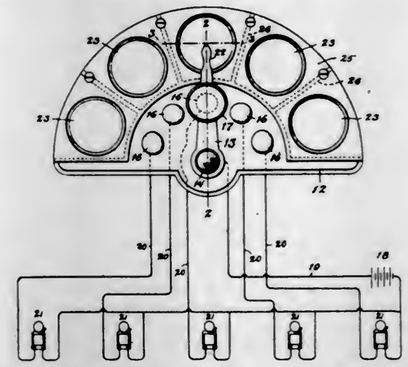
3. In a reducing valve, the combination with a high and a low pressure chamber one surrounding the other, of a circular series of radial ports connecting the said chambers, a valve located in one chamber and operating to open and close the said ports, means operating the said valve by low-pressure, and an atmospheric vent so situated as to allow the valve to operate.

4. In a reducing valve, the combination with a high and a low-pressure chamber one surrounding the other, of a circular series of radial ports connecting the said chambers, a sliding valve located in one of the said chambers, operating to open and close the said ports and larger at one end than the other, a spring connected with the said valve and tending to move the same so as to open the said ports, means operating said valve by low-pressure including a pilot-valve, a micrometer screw located in the outer wall of the outer chamber for the adjustment of the said pilot-valve, and an atmospheric vent so situated as to allow the valve to operate.

5. In a reducing valve, the combination with a high and a low-pressure chamber the former surrounding the latter, of a circular series of radial ports leading from the said high pressure chamber to the said low pressure chamber, a sliding valve located in the low-pressure chamber, operating to open and close the said radial ports and larger at one end than at the other, a passage leading from the outer to the inner end of the said low-pressure chamber, and formed in the outer wall of the said high pressure chamber, a pilot-valve located in the said passage and responding to the accumulation of pressure in the outer end of the low-pressure chamber, and a vent to the atmosphere located between the ends of the low-pressure chamber.

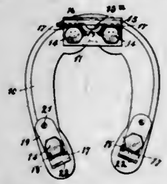
[Claims 6 to 10 not printed in the Gazette.]

944,665. SELECTIVE ELECTRIC SIGNALING APPARATUS. JOHN B. COE, Boston, Mass., assignor of one-fourth to Frank B. Lenzi, Boston, Mass. Filed Sept. 25, 1908. Serial No. 454,761.



A selective signaling apparatus, comprising a base or support, a plurality of open electrical circuits, a carrier free to move on said support, a movable terminal common to all of said circuits yieldingly supported in a retracted position on said carrier, said carrier and terminal being movable independently of each other, a spring pressed push piece mounted in said carrier and arranged with its lower end in engagement with said movable terminal and a plurality of fixed terminals arranged on said support in a series coinciding with the path of the movable terminal, whereby any one of said circuits may be closed independently of the others.

944,666. DETACHABLE HORSESHOE-CALK. WILLIAM H. COX, Bucyrus, Ohio, assignor of one-third to John A. Morrison and one-third to Buel W. Motter, Mansfield, Ohio. Filed Apr. 17, 1909. Serial No. 490,492.

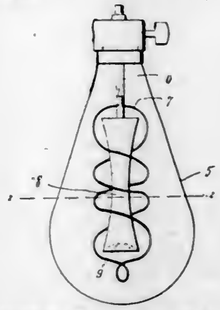


1. A horse-shoe calk comprising a base member and a tread member integrally formed, said base member having a bolt-receiving opening therein and said tread member having a groove therein, a bolt adapted to engage said opening, a key seated in said groove and adapted to engage the bolt head, and means on said calk for deflecting the end of the key when seated.

2. A horse-shoe calk comprising a base-member and a tread member integrally formed, said base member having slots therein and said tread member having a groove therein and having a boss on its inner face, bolts adapted to engage said slots and keys seated in said groove and adapted to engage the heads of the bolts and to have their ends deflected by said boss.

3. A horse-shoe calk comprising a base-member having a bolt receiving opening and a tread member having a boss thereon, said base and tread members being integrally formed and at right-angles to each other, means for securing said base member to a shoe, said means comprising a bolt adapted to engage said opening and a key adapted to engage the bolt-head and the boss, substantially in the manner set forth.

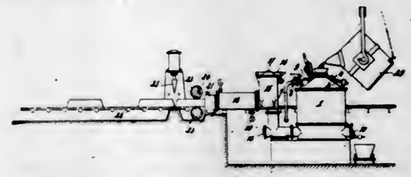
944,667. INCANDESCENT LAMP. CHARLES H. CRUTCHFIELD, New Boston, Tex., assignor of one-half to Andrew W. Deshong, New Boston, Tex. Filed Sept. 9, 1908. Serial No. 452,260.



1. In an incandescent lamp, a hollow body comprising a series of transparent concaved sides and a concaved end, said sides and end being coated interiorly with a reflecting medium.

2. In an incandescent lamp, a hollow body comprising a series of transparent concaved sides and a concaved end, said sides and end being coated internally with a reflecting medium, and a filament encircling the body and extending across the end thereof, said filament being provided with a looped portion beneath the concaved end of the reflector.

944,668. APPARATUS FOR THE CONTINUOUS PRODUCTION OF INGOTS. MATHIEU DOUTEUR, Ekaterinoslaf, Russia. Filed Sept. 9, 1908. Serial No. 452,325.



1. In combination a vessel adapted to contain a charge of molten metal, an ingot mold placed substantially at the normal level of the molten metal in said vessel, means for causing the molten metal to flow into the ingot mold, means for drawing or forcing the metal from the mold as it solidifies and means for solidifying the ingot while cutting the same after issuing from the mold.

2. In combination a vessel adapted to contain a charge of molten metal, an ascending conduit provided at the lower part of said vessel, a water cooled ingot mold con-

nected to said ascending conduit, the said ingot mold being substantially at the normal level of the molten metal in the vessel, means for causing the molten metal to flow into the ingot mold, means for drawing or forcing the metal from the mold as it solidifies and means for solidifying the ingot, while cutting the same after issuing from the mold.

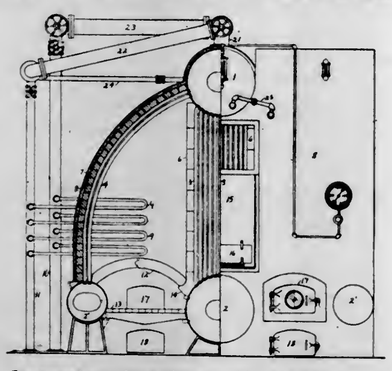
3. In combination a vessel adapted to contain a charge of molten metal, a cover adapted to close said vessel, a pipe connected to said vessel for the introduction of compressed air in said vessel, an ascending conduit in communication with the lower part of the vessel, a regulating chamber connected to said ascending conduit, a dam placed in said chamber, a water cooled ingot mold connected to said chamber, said ingot mold being substantially at the normal level of the molten metal in the vessel, means adapted to be inserted into the mold for drawing the ingot through the mold, and means for solidifying the ingot while cutting the same after issuing from the mold.

4. In combination a vessel adapted to contain a charge of molten metal, an ingot mold placed substantially at the normal level of the charge of molten metal in said vessel, a connection between said mold and the lower part of the vessel, whereby the molten metal can only reach the mold when acted upon by a pressure in the vessel, means for drawing the ingot through the mold and a water cooled hammer for cutting the ingot when issuing from the mold.

5. In combination a vessel adapted to contain a charge of molten metal, a water cooled ingot mold comprising a mass of metal having low melting point, said mold being placed substantially at the normal level of the charge of molten metal in the vessel, a connection between said mold and the lower part of the vessel, whereby the molten metal can only reach the mold when acted upon by a pressure in the vessel means for drawing the ingot through the mold and a water cooled hammer for cutting the ingot when issuing from the mold.

[Claim 6 not printed in the Gazette.]

944,669. STEAM-BOILER. ELLIS F. EDGAR, Woodbridge, N. J. Filed Mar. 6, 1908. Serial No. 419,415.

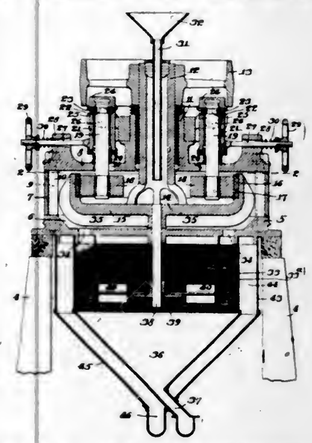


1. In a water tube boiler an oblong section composed of an upper and lower drum connected by water tubes of more than one size in diameter and a suitable draft exit, the tubes of smallest diameter being located next to the draft exit, adjustable draft baffles located at said draft exit, whereby the gases are checked in velocity to the extent of cooling sufficient to pass out under said adjustable draft baffles all substantially as set forth.

2. The combination in a water tube boiler of two oblong sections, each oblong section having one lower drum, the lower drums of both sections being connected to one upper drum by water tubes, each section having a draft exit at each end making four draft exits to the boiler, all substantially as set forth.

3. The combination in a water tube boiler of two oblong sections, each oblong section having one lower drum, the lower drums of both sections being connected to one upper drum by water tubes each section having a draft exit at each end making four draft exits to the boiler, said boiler having a furnace located between said sections containing a non-combustible arch all substantially as set forth.

944,670. GRINDING-MILL. GEORGE S. EMERICK, Nazareth, Pa. Filed Oct. 18, 1907. Serial No. 398,045.



In a grinding mill, walls forming the grinding chamber, grinding members within said chamber, means for actuating said members, a pair of vertically arranged circular screens located one within the other in spaced relation to each other, the wall of said chamber having an opening therein affording communication between said chamber and the space between said screens, a fan located adjacent one of said screens away from the space formed between said screens for blowing the ground material through one of said screens, and means for actuating said fan.

944,671. BOTTLE-STOPPER. FRANZ GERHARD, Traben-Trarbach, Germany. Filed Oct. 15, 1908. Serial No. 457,779.



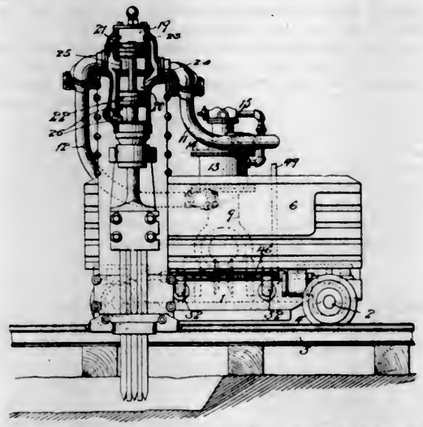
1. A bottle having a neck, combined with a stopper having a depending plug, a flexible metal cap separable from said stopper and adapted to be interposed between neck and stopper, the cap being normally spaced from the plug.

2. A bottle having a neck, combined with a stopper having a depending plug, a rubber gasket encircling the plug, and a flexible metal cap separable from the stopper and having a grooved upper section, said cap being adapted to be interposed between neck and stopper.

944,672. CHANNELING-MACHINE. ARTHUR H. GIBSON, Easton, Pa., assignor to Ingersoll-Rand Company, New York, N. Y., a Corporation of New Jersey. Filed Feb. 11, 1908. Serial No. 415,317.

1. A pulsator cylinder having its outer head provided with an annular piston chamber port which gradually decreases in area as it leads from the said chamber.

2. A pulsator cylinder having its inner head provided with an annular piston chamber port which gradually decreases in area as it leads from the chamber.



3. A pulsator cylinder having both its outer and inner heads provided with annular piston chamber ports which gradually decrease in area as they lead from the chamber.

944,673. GARMENT-FASTENER. HENRY H. HARRISON, Boston, Mass. Filed Jan. 18, 1909. Serial No. 472,889.

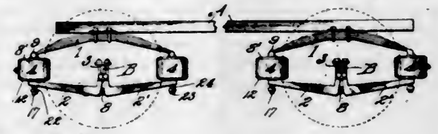


1. The herein described fastening member constructed of a piece of sheet metal and having an elongated base portion by which the fastener is positioned and secured to the edge of a garment, a raised cupped portion at one end of said base, and a central integral rounded projection formed at the middle of the cupped portion, the metal of the cupped portion and opposite sides of said rounded projection between the end thereof and the base of the member being cut and bent outwardly above the cupped portion to form lateral wings extending from the sides of said projection between the end thereof.

2. A garment fastener, comprising a female member having an elongated base, and a cupped portion raised at one end of said base and having a substantially circular central opening with lateral extensions, and a male member having an elongated base portion, a raised cupped portion at one end of said base, and a central integral rounded projection formed at the middle of the cupped portion, the metal of the cupped portion and opposite sides of said rounded projection between the end thereof and the base of the member being cut and bent outwardly above the cupped portion to form lateral wings projecting from the sides of said projection intermediate the end thereof and the base, the projection beyond said wings adapted to enter the circular opening in the female member to center said members, and said wings adapted to pass through the lateral extensions of said opening and then by a turn interlock with the cupped portion of said female member, the said elongated base portions serving to position and secure said members upon a garment with their fastening members close to the edge thereof.

944,674. SHOCK-ABSORBER FOR VEHICLES. FRANK G. KOEHLER, St. Louis, Mo. Filed July 18, 1907. Serial No. 384,384.

1. The combination with a vehicle frame and an axle, of a shock absorber comprising a pair of bell crank levers, each having an inner arm pivotally connected to and depending from said axle and an arm extending laterally from the lower end of the inner arm and pivotally connected to said vehicle frame, and a compression spring located between said inner arms.



2. The combination of an axle, a pair of bell crank levers having inner and outer arms, means mounted upon the axle and pivotally connected to said inner arms, and springs located between and on each side of the elbows of said bell crank levers.

3. The combination of an axle, a pair of bell crank levers having inner and outer arms, means mounted upon the axle and pivotally connected to said inner arms, a bolt passing through said inner arms, and springs mounted upon the bolt between and on each side of the elbows of said bell crank levers.

4. In a shock absorber for vehicles, the combination of a body, an axle, a pair of bell crank levers having pivotal connection to the under side of the axle, a connection between the outer ends of the levers and the vehicle body, a compression spring located between the elbows of the levers, take-up springs located outside of the elbows of the levers, and a rod passing through said springs and through the elbows of the levers and having nuts on its outer ends, substantially as set forth.

5. In a vehicle the combination with an axle and frame, of a pair of levers pivotally supported by said axle, resilient means interposed between said levers, pneumatic means carried by the free ends of said levers, and means for connecting said pneumatic means to said frame, substantially as described.

[Claims 6 to 11 not printed in the Gazette.]

944,675. SHOCK-ABSORBER FOR VEHICLES. FRANK G. KOEHLER, St. Louis, Mo. Filed Jan. 15, 1908. Serial No. 410,909.



1. In a shock absorbing device for vehicles, the combination with a vehicle body frame and axle, of a pair of bearers having pivotal connection with said body frame at their outer ends, pivoted to said axle at their inner ends and having spring seats, a cushion spring held to the spring seat of one of said bearers, and a take-up spring interposed between the spring seats of said pair of bearers, substantially as set forth.

2. In a shock absorbing device for vehicles, the combination with a vehicle body frame and axle, of a pair of bearers having pivotal connection with said body frame at their outer ends, pivoted to said axle at their inner ends and having spring seats, cushion springs held against the outer sides of said spring seats, and a take-up spring interposed between the spring seats of said pair of bearers, substantially as set forth.

3. In a shock absorbing device for vehicles, the combination with a vehicle body frame and axle, of a pair of bearers having pivotal connection with said body frame at their outer ends, pivoted to said axle at their inner ends and having spring seats located above the points of

pivotal connection of the bearers to said axle, a cushion spring held to a spring seat of one of said bearers above said point of pivotal connection, and a take-up spring interposed between the spring seats of said pair of bearers, substantially as set forth.

4. In a shock absorbing device for vehicles, the combination with a vehicle body frame and axle, of a pair of bearers having pivotal connection with said body frame at their outer ends, pivoted to said axle at their inner ends and having spring seats located above the points of pivotal connection of the bearers to said axle, a pair of cushion springs held to the outer sides of said spring seats above said point of pivotal connection, and a take-up spring interposed between the spring seats of said pair of bearers, substantially as set forth.

5. In a shock absorbing device for vehicles, the combination with a vehicle body frame and axle, of a pair of bearers having pivotal connection with said body frame at their outer ends, pivoted to said axle at their inner ends and having spring seats located above the points of pivotal connection of the bearers to said axle, a rod extending through said spring seats, spring seat caps fitted to said rod, and cushion springs located between said spring seat caps and spring seats, substantially as set forth.

[Claim 6 not printed in the Gazette.]

944,676. SHOCK-ABSORBER FOR VEHICLES. FRANK G. KOEHLER, St. Louis, Mo. Filed May 7, 1908. Serial No. 431,345.



1. In a shock absorbing device, the combination with a vehicle body and axle, of a hanger carried by said body, bell crank levers pivotally connected to said hanger, a support carried by said axle, links pivotally connected to said support and to which links one arm of each of the bell crank levers is pivotally connected, and resilient means interposed between the other arms of said bell crank levers, substantially as set forth.

2. In a shock absorbing device, the combination with a vehicle body and axle, of a hanger carried by said body, bell crank levers pivotally connected to said hanger and each having an arm of resilient material, a support carried by said axle, links pivotally connected to said support and to which links the said resilient arms are pivotally connected, and resilient means interposed between the other arms of said bell crank levers, substantially as set forth.

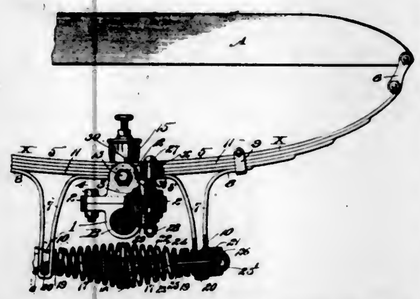
3. In a shock absorbing device, the combination with a vehicle body and axle, of a support carried by said axle, links pivotally connected to said support, bell crank levers pivotally supported by said vehicle body, one arm of each of said bell crank levers being pivotally connected to said links, resilient means interposed between the other arms of said levers, a rod extending through the said resilient means and arms, resilient means located to the outside of said arms and surrounding said rod, spring seat members carried by said rods and which bear against the ends of said last mentioned resilient means, and means for retaining said spring seat members in a desired position, substantially as set forth.

4. In a shock absorbing device for vehicles, the combination with a vehicle body and axle, pivoted bell crank levers, body carrying springs connected to said bell crank levers, a compression spring located between those ends of the bell crank levers that are not attached to the body carrying springs, and screws passing through said bell crank levers and having seats on their inner ends that bear against said compression spring, substantially as set forth.

5. In a shock absorbing device for vehicles, the combination with a vehicle body and axle, pivoted bell crank levers, body carrying springs connected to said bell crank levers, a compression spring located between those ends of the bell crank levers that are not attached to the body carrying springs, cushioning springs located outside of the ends of the bell crank levers between which the compression spring is located, hollow screws having threaded connection with said bell crank levers and having seats on their inner ends that bear against the compression spring, and a rod having nuts on its outer ends and which passes through said cushioning springs, through the bell crank levers, through the hollow screws and through the compression spring, substantially as set forth.

[Claim 6 not printed in the Gazette.]

944,677. SHOCK-ABSORBER FOR VEHICLES. FRANK G. KOEHLER, St. Louis, Mo. Filed May 13, 1909. Serial No. 495,757.



1. The combination in a shock absorbing device, of a pair of laminated main springs, one of the laminations of each main spring being bent at an angle to the body of the spring to provide a spring arm, and a cushioning spring interposed between the spring arms.

2. The combination in a shock absorbing device, of a pair of laminated main springs, one of the laminations of each main spring being bent at an angle to the body of the spring and then backwardly to the body of the spring to provide a spring arm, and a cushioning spring interposed between the spring arms.

3. The combination in a shock absorbing device, of a pair of laminated main springs, one of the laminations of each spring being bent at an angle to the body of the spring and then backwardly to the body of the spring to provide a spring arm, means for holding the terminal ends of the spring arms to the bodies of the springs, and a cushion spring interposed between the spring arms.

4. In a shock absorber, the combination with an axle, of a spring device mounted transversely of and on a pivot parallel to said axle, and means for resisting the swinging movement of said axle relative to said spring device.

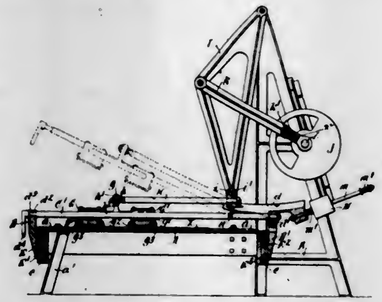
5. In a shock absorber, the combination with an axle, of a spring device mounted transversely of and on a pivot parallel to said axle, and means for yieldingly resisting the swinging movement of said axle relative to said spring device.

[Claims 6 to 11 not printed in the Gazette.]

944,678. GRINDING AND POLISHING MACHINE. WILLIAM LA HODNY, Buffalo, N. Y. Filed Mar. 5, 1909. Serial No. 481,347.

1. The combination of a work table, a stationary guide over said table, a polishing device which is directed and confined laterally by said guide but has vertical play on the guide whereby it is free to tilt vertically relative to the guide, and means connected directly to said polishing device for reciprocating it on the guide, substantially as set forth.

2. The combination of a work table, a polishing device which is reciprocated above said table, and a guide for said polishing device which is rotatably adjustable for regulating the angular position of said polishing device, said guide being also adjustable laterally over said table, substantially as set forth.



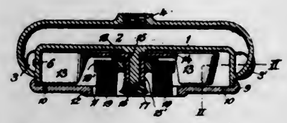
3. The combination of a work table, a polishing device which reciprocates above said table, a guide for said polishing device which is rotatably adjustable for regulating the angular position of said polishing device and is adjustable laterally over said table, drive mechanism for said polishing device, and loose connections between said polishing device and drive mechanism which permit said guide to be rotatably and laterally adjusted while the drive mechanism is in operation, substantially as set forth.

4. The combination of a work table, a polishing device which is reciprocated above said table, and a guide for said polishing device which is rotatably adjustable for regulating the angular position of said polishing device and is adjustable laterally over said table, said guide being also mounted to swing upwardly away from said table, substantially as set forth.

5. The combination of a work table, a reciprocating polishing device above said table, guide means for said polishing device which hold said device in a fixed angular relation to the work but allow the device vertical play to accommodate itself to the surface of the work, said guide means being adjustable to change the angular relation of the polishing device to the work, substantially as set forth.

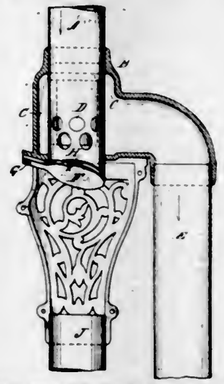
[Claims 6 to 13 not printed in the Gazette.]

944,679. TOILET-BRUSH. JAMES J. LAWLER, Mount Vernon, N. Y. Filed Nov. 2, 1908. Serial No. 460,742.



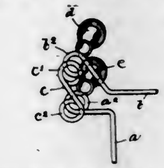
A toilet device, consisting of a body having a divided passage and an integral hollow motor case, a motor wheel mounted therein, a brush mounted on the shaft of said wheel, means for directing a series of jets against motor wheel, a cover being provided with a circular central opening for the brush, and a circle of perforations near its outer edge.

944,680. PNEUMATIC-DESPATCH-TUBE APPARATUS. ISAAC W. LITCHFIELD, Boston, Mass., assignor to Lamson Consolidated Store Service Company, Newark, N. J., a Corporation of New Jersey. Filed Jan. 13, 1906. Serial No. 295,897.



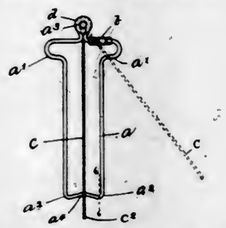
In a pneumatic despatch tube apparatus, a terminal, a delivery tube therein, and a valve controlling the opening of said delivery tube and mounted in a plane inclined to the longitudinal axis of the delivery tube and adapted to localize the point of impact of a carrier thereon.

944,681. WIRE HINGE. FRANK W. LOWE, Boston, Mass. Filed Jan. 2, 1909. Serial No. 470,362.



A box hinge comprising two wire sections each bent at one end to form a circular eye, said eyes being disposed side by side in register, and a hollow pivot passing through said eyes and having flanges at its ends disposed to hold said eyes in engagement, substantially as described.

944,682. HAIR-WAVER. FRANK W. LOWE, Boston, Mass. Filed Jan. 23, 1909. Serial No. 473,852.



A hair waver comprising a flat, oblong wire supporting-frame having the ends of the wire connected, said wire having a portion thereof at one end of the frame bent at an angle and circularly to provide an eye, a wire loop having eyes formed in the extreme ends thereof, and arranged in register with the eye of said frame, and a pivot extending through said eyes, said loop being adapted and arranged to be swung about said pivot over the opposite end of said frame, substantially as described.

944,683. FEED-VALVE FOR STEAM-BOILERS. LEO D. MAGER, Garrett, Ind. Filed Oct. 12, 1908. Serial No. 457,238.

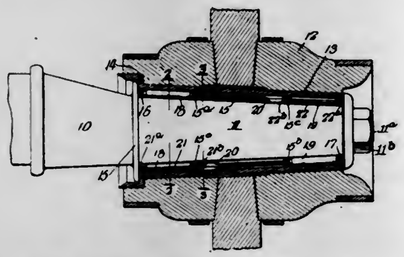


4. In feed-valves for steam boilers, a vertical valve casing having an outlet port and one or more inlet ports; a frusto-conical cut-off valve rotatably mounted in the said casing, and having a central longitudinal opening, and provided with ports in register with the said valve casing ports; a check-valve loosely seated in the said longitudinal opening below the said outlet ports; means for securing the cut-off valve against vertical displacement; means for rotating the cut-off valve; removable means for closing the upper end of the said longitudinal opening; and a try-cock mounted in the valve casing in coöperative relation with the cut-off valve, as described.

2. A steam-boiler feed-valve consisting of a vertical valve casing having outlet and inlet ports; a try-valve fixed in a suitable opening in the casing and in coöperative relation with the cut-off valve; a cut-off valve rotatably mounted in the casing and having a longitudinal central opening, the upper portion of which is of enlarged diameter and partially screw-threaded, and provided with inlet and outlet ports in register with the casing ports respectively; an annular valve seat at the lower end of the enlarged portion of the said longitudinal opening; a check-valve loosely seated on the said valve seat; a screw-plug removably mounted in the said screw-threaded portion of the said longitudinal opening for limiting the upward movement of the check-valve; and means for securing the cut-off valve on its seat.

3. A valve casing having inlet and outlet ports; a conical cut-off valve loosely seated in the casing, the said valve having a central longitudinal opening in communication with the valve-casing ports; an annular valve seat substantially midway of the said opening; a check-valve mounted on the said valve seat; removable means mounted in the upper end of the said opening for limiting the vertical play of the check-valve; a try-cock mounted in the valve casing in coöperative relation with the cut-off valve; and means for firmly securing the cut-off valve upon its seat.

944,684. ROLLER-BEARING. ALFRED L. MOORE, Moline, Ill. Filed July 6, 1909. Serial No. 506,194.



1. A roller bearing comprising a central shell having bearings formed in its opposite ends, and openings formed in the body thereof adjacent the ends, end rings spaced from the opposite ends of said shell provided with bearings, rollers journaled in the bearings of the end rings and in the ends of said shell, and rods adapted to secure said end rings to said shell, said rods having one end countersunk in an end ring and the opposite end projecting into one of said openings in the shell and being there upset.

2. A roller bearing comprising a central shell having bearings formed in its opposite ends, and openings formed in the body thereof adjacent the ends, end rings spaced from the opposite ends of the shell provided with bearings, rollers journaled in the bearings of the end rings and in the ends of said shell, and rods adapted to secure said end rings to said shell, each of said rods having a head at the end passing through the end ring and having its other end projecting into one of said openings in the shell.

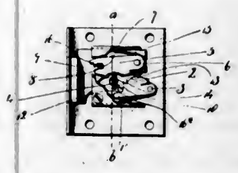
3. A roller bearing comprising a central shell having bearing rings formed at each end, and having openings formed in the body thereof adjacent said bearing rings, end rings spaced from the opposite ends of said shell, rollers journaled in said end rings and in the bearing rings of said shell, and rods adapted to secure the end rings to said shell, said rods having a head at one end and being projected at the other end through the bearing rings of said shell into one of said openings in said shell.

4. A roller bearing comprising a central shell having openings formed in the body thereof adjacent its ends, end rings spaced from the opposite ends of said shell, rollers retained between said end rings and said shell, rods adapted to secure said end rings to said shell, said rods passing through said end rings and projecting through the ends of said shell into the openings thereof, and means for retaining said rods in place.

5. A roller bearing comprising a central shell having openings formed in the body thereof adjacent its ends, end rings spaced from the opposite ends of said shell, rollers retained between said end rings and said shell, rods adapted to secure said end rings to said shell, said rods passing through said end rings and projecting through the ends of said shell into the openings thereof and having a countersunk head in the rings and an upset head at their opposite ends.

[Claim 6 not printed in the Gazette.]

944,685. LOCK. JAMES J. MURPHY, Terryville, Conn., assignor to Eagle Lock Co., Terryville, Conn., a Corporation. Filed Oct. 11, 1909. Serial No. 521,988.



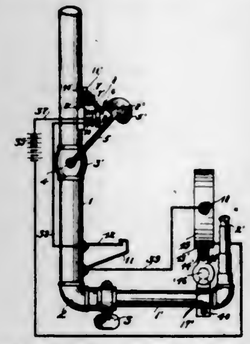
1. In a lock, the combination with the bolt and the tumblers thereof, of a blocking-lever positively operated by the lock key and coacting with the bolt for preventing the same from "kicking" back while it is being moved into its locked position.

2. In a lock, the combination with the bolt and tumblers thereof, of a blocking-lever located on the opposite side of the key from the said tumblers in position to be engaged by the key for blocking the bolt against "kicking" back while being moved from its unlocked to its locked position.

3. In a lock, the combination with the bolt and tumblers thereof, of a pivotal blocking-lever formed with a notch for the reception of the lock key, whereby the blocking-lever is moved into position to prevent the bolt from "kicking" back while being moved into its locked position.

4. In a lock, the combination with the bolt and tumblers thereof, of a pivotal blocking-lever located on the opposite side of the lock-key from the said tumblers and formed with a convex surface coacting with the shank of the bolt for blocking the bolt and preventing the same from "kicking" back while the bolt is being moved into its locked position.

944,686. AUTOMATIC GAS-REGULATOR. GEORGE H. MURRAY, Bristol, Vt. Filed Aug. 10, 1909. Serial No. 512,128.



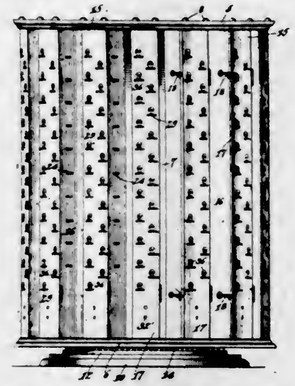
1. The combination in a device of the character described, of a gas supply pipe having a burner, of a valve within said pipe, a weighted stem to form a gravity actuated valve, a detent engaging said weighted stem, an electromagnet to operate said detent, a normally closed switch operated through contact with said weighted stem, a thermostat, a traveling contact maker secured to said thermostat, a stationary contact maker for co-action with said traveling contact maker, a switch blade actuated by said traveling contact maker, a switch contact in the path of said blade, an electric source of energy, and a conductor connecting said instrumentalities in circuit as and for the purpose set forth.

2. The combination in a device of the character described of a gas supply pipe having a burner, of a valve within said pipe, an arm extending from said valve, a weight carried by said arm, said weight having a projecting ear, a pivotally held armature provided with an extending lip engaging said ear, a normally closed switch operated by the release of said weighted arm, a thermostat, a traveling contact maker secured to said thermostat, a stationary contact maker for co-action with said traveling contact maker, a switch blade actuated by said traveling contact maker, a switch contact in the path of said blade, an electric source of energy, and a conductor connecting said instrumentalities in circuit, as and for the purpose set forth.

3. In a device of the character described, the combination with a supply pipe having a burner, of a valve within said supply pipe, a weighted stem extending from said valve to provide a gravity actuated valve operating means, a detent engaging said weighted stem, an electromagnet to operate said detent, a normally closed switch operated by the fall of said weighted stem, a thermostat, means to adjustably secure said thermostat to said supply pipe, a traveling contact maker secured to said thermostat, a stationary contact maker for co-action with said traveling contact maker, a switch blade actuated by said traveling contact maker, a switch contact in the path of said blade, an electric source of energy, and a conductor connecting said instrumentalities in circuit, as and for the purpose set forth.

4. The combination in a device of the character described of the following instrumentalities, to wit, a gas supply pipe having a burner, of a valve within said pipe, a weighted stem extending from said valve, a detent engaging said weighted stem, to hold said stem in an upward position, an electromagnet to operate said detent, a normally closed switch operated by the release of said weighted stem, an adjustably held thermostat, a traveling contact maker secured to said thermostat, a stationary contact maker for co-action with said traveling contact maker, a switch blade actuated by said traveling contact maker, a switch contact in the path of said blade, an electric source of energy, a conductor extending from one pole of said electric source and connected to said switch contact, an electric conductor extending from said switch blade to said stationary contact, an electric conductor extending from said traveling contact maker and secured to one member of said normally closed switch, an electric conductor extending from the remaining member of said normally closed switch and to one terminal of said electromagnet, and an electric conductor extending from the remaining terminal of said electromagnet to the remaining pole of said source of supply.

944,687. LACE-CABINET. WILLIAM F. MCCRACKEN and JOHN G. BRADFORD, Anadarko, Okla. Filed Sept. 8, 1909. Serial No. 516,780.



1. A display cabinet comprising upper and lower circular heads, connecting members circularly arranged between the heads, a plurality of drawers arranged between the heads, spools rotatably mounted in said drawers, spools rotatably mounted between the connecting members and intermediate of the first named spools, a hinged door for each of the drawers having slots therein in radial alinement with said spools through which the material to be displayed is adapted to be drawn, means carried by the doors to prevent the withdrawal of the material, in combination with a pivot spindle centrally secured in the lower head, a supporting base having a central cone bearing seat to receive the spindle, ball races concentrically arranged on the base and balls disposed in the ball races to rotatably support the cabinet.

2. A display cabinet comprising upper and lower circular heads, V-shaped connecting members circularly arranged between the heads and secured thereto, a circular series of drawers arranged between the heads and extending radially from the connecting members, spools rotatably mounted and vertically arranged in said drawers, spools rotatably mounted between the connecting members and intermediate of the first named spools, a hinged door for each of said drawers having slots therein opposite to said spools, a vertically slidable tension plate mounted on the inner face of each of the doors, said plate having slots adapted to register with the slots in the doors, through which the material carried by the spools is adapted to be drawn, the movement of said plate being adapted to place the material under tension to prevent its withdrawal, means for holding the plate in its adjusted position, in combination with a vertical bearing spindle carried by the lower head, a supporting base having a central socket to receive said spindle, and ball bearings arranged on said base to rotatably support the cabinet.

3. A display cabinet comprising upper and lower heads, connecting members arranged between the heads and secured thereto, arcuate guide plates secured in the heads and extending outwardly of the connecting members, a circular series of drawers having grooves at the top and bottom to receive said guide plates, a plurality of spools rotatably mounted in each of said drawers, said drawers hav-

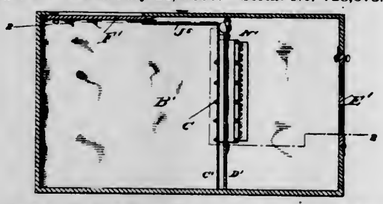
ing horizontal slots therein opposite to the spools, a hinged door for each of the drawers, a tension plate slidably mounted on the inner face of said door having slots therein adapted to register with the slots in the door, guide bolts secured in the door and extending through vertical slots in the tension plate, a spring latch pin carried by the plate adapted to engage in openings adjacent to the bottom of the door to secure the plate in its adjusted position, in combination with a bearing spindle carried by the lower head, a supporting base having a central socket adapted to receive said spindle, and ball bearings arranged on said base to rotatably support said cabinet.

4. A display cabinet comprising upper and lower heads, connecting members arranged in spaced relation between said heads, a plurality of spools rotatably mounted and vertically arranged between said connecting members, a plurality of arcuate guide plates secured in the heads and extending radially from the connecting members, a circular series of drawers having grooves in the upper and lower ends of the sides thereof adapted to receive said guide plates, a plurality of spools rotatably mounted and vertically arranged in each of said drawers, the spools in alternate drawers being in radial alinement with and positioned intermediate of the first named spools, a hinged door for each of the drawers having horizontal slots therein opposite to the spools, a tension plate vertically adjustable upon the inner face of the door having slots therein adapted to register with the slots in the door, means for holding the plate in its adjusted position, in combination with a bearing spindle carried by the lower head, and a supporting base having a central socket to receive said spindle and rotatably support the cabinet.

5. A display cabinet comprising upper and lower heads, connecting members circularly arranged in spaced relation between said heads, a plurality of spools rotatably mounted between the connecting members, guide plates secured in the heads and extending radially from the connecting members, said guide plates being arranged in pairs, a circular series of drawers having grooves in the upper and lower ends at opposite sides to receive the guide members, a plurality of spools rotatably mounted in said drawers, the spools in alternate drawers being in radial alinement with the first named spools and positioned intermediate thereof, a supporting plate extending outwardly from the first named spools and extending between and in advance of the latter spools, a hinged door for each of the drawers, having horizontal slots therein, an adjustable tension plate mounted upon the inner face of the door and provided with slots adapted to register with the slots in the door, means for securing said plate in its adjusted position, a price indicating disk arranged upon the front face of each of the doors immediately above the slots therein in combination with a base and means for rotatably supporting the cabinet thereon.

[Claims 6 to 11 not printed in the Gazette.]

944,688. VOTING-MACHINE. JOHN H. MCELROY, Chicago, Ill. Filed July 14, 1899. Serial No. 723,873.



1. In a voting machine, the combination with a series of candidate keys grouped according to parties, and a corresponding series of ballot indicating devices, of straight ticket keys, one for each party, an electric current for operating said ballot indicating devices, and two conductors for said current applicable to each ballot indicating device, the straight ticket key controlling the current in one conductor, and the candidate keys controlling the current in the other conductor.

2. In a voting machine, the combination of a register, means for operating it by a current of electricity, with a straight ticket key, and a candidate key, and two conductors carrying electricity to said register for operating it, one controlled by the straight ticket key and the other by the candidate key.

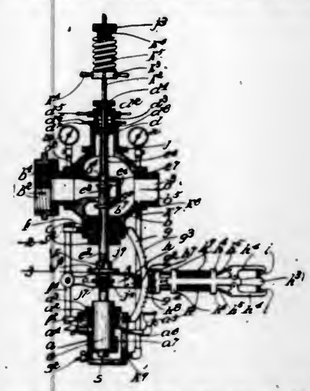
3. In a voting machine, the combination with a series of keys movable into and adapted to remain in operative or inoperative position and a corresponding series of registers, of an electro-magnet for actuating each register step by step, a switch for each magnet controlled by the position of its coöperating key, and an electric circuit capable of being closed by any of said switches for operating any desired register.

4. In a voting machine, the combination with a series of keys and a corresponding series of registers, of an electro-magnet for actuating each register, and a switch for each electro-magnet controlled by the position of its key, interlocking devices to control the operation of said switches, and an electric circuit for actuating said electro-magnets controlled by said switches, substantially as described.

5. In a voting machine, the combination with a series of keys movable into and adapted to remain in operative or inoperative position and a corresponding series of registers, of an electro-magnet for operating each register, and a switch for each electro-magnet controlled by the position of its key, interlocking devices applied to said keys to control the operation of said switches and prevent the actuation of more than the prescribed number of registers, and an electric circuit carrying a current for actuating said electro-magnets and controlled by said switches.

[Claims 6 to 64 not printed in the Gazette.]

944,689. STEAM AND LIQUID PRESSURE REGULATING DEVICE. CHARLES P. MCMULLEN, New York, N. Y. Filed Apr. 9, 1909. Serial No. 488,808.



1. In a device of the class described, a valve casing having high and low pressure inlet and outlet sides, a cylinder below said valve casing and the lower end of which is in communication with the low pressure side thereof, a frame work rigidly connecting said cylinder with said valve casing, a piston mounted in said cylinder and provided with a rod which passes through said valve casing, a valve connected with said rod within said valve casing and adapted to control the communication between the high and low pressure sides thereof, a spring at the top of said valve casing and operating in connection with said rod to force the same downwardly and open said valve, and means for locking said rod in position to close said valve.

2. In a device of the class described, a valve casing having high and low pressure inlet and outlet sides, a cylinder below said valve casing and the lower end of which is in communication with the low pressure side thereof, a frame work rigidly connecting said cylinder with said valve casing, a piston mounted in said cylinder and provided with a rod which passes through said valve casing, a valve connected with said rod within said valve casing and adapted to control the communication between the high and low pressure sides thereof, a spring at the top of said valve casing and operating in connection with said rod to force the same downwardly and open said valve, and means for locking said rod in position to close said valve, the opposite sides of the valve casing being also provided with gages.

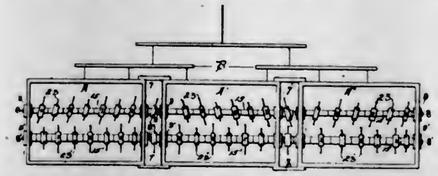
3. In a device of the class described, a valve casing having high and low pressure inlet and outlet sides, a cylinder below said valve casing and the lower end of which is in communication with the low pressure or outlet side thereof, a frame work rigidly connecting said cylinder and valve casing, a piston mounted in said cylinder and provided with a rod which passes through said valve casing, said rod being provided with a valve adapted to open and close the communication between the opposite sides of said casing, a spring at the top portion of said valve casing and operating in connection with said rod to force it and the piston downwardly and to open said valve, a lever pivoted in the frame work which connects the valve casing and the cylinder and ranging transversely thereof and adapted to swing in a vertical plane, and means whereby the upward movement of said lever will lock said rod in position to close said valve.

4. In a device of the class described, a valve casing having high and low pressure inlet and outlet sides, a cylinder below said valve casing and the lower end of which is in communication with the low pressure or outlet side thereof, a frame work rigidly connecting said cylinder and valve casing, a piston mounted in said cylinder and provided with a rod which passes through said valve casing, said rod being provided with a valve adapted to open and close the communication between the opposite sides of said casing, a spring at the top portion of said valve casing and operating in connection with said rod to force it and the piston downwardly and to open said valve, a lever pivoted in the frame work which connects the valve casing and the cylinder and ranging transversely thereof and adapted to swing in a vertical plane, and means whereby the upward movement of said lever will lock said rod in position to close said valve, said device being also provided with a vertically movable frame operated by said lever and through the top portion of which the piston rod passes, and a spring mounted on said rod and on which the top portion of said frame is adapted to bear, the lower end of said spring being provided with a bearing secured to said rod.

5. In a device of the class described, a valve casing having high and low pressure inlet and outlet sides, a valve rod passing therethrough and provided with a valve adapted to open and close the communication between the high and low pressure sides, a tension device operating in connection with said valve rod to hold said valve open, automatic devices operating in connection with said rod to move the same against said tension device and close said valve, pressure gages connected with the opposite side portions of said valve casing, and means for locking said rod in position to close said valve.

[Claims 6 to 11 not printed in the Gazette.]

944,690. HARROW. CHARLES W. OLSON, Condon, Oreg., assignor of one-half to H. N. Somerville, Condon, Oreg. Filed Feb. 26, 1909. Serial No. 480,104.

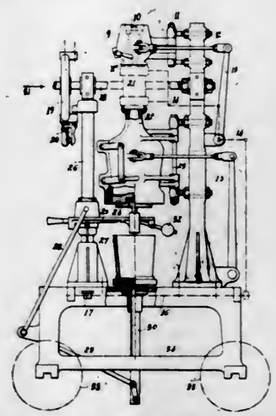


1. A harrow having one or more rectangular frames, each having closed circular shaft bearings at each end, squared shafts with circular ends mounted in said bearings, and knife carriers comprising sleeves having squared longitudinal openings formed to receive the shafts therein, said sleeves being of suitable length to engage the ends of the frame and each other and retain the knife holders thereon a suitable distance apart, knife holders rigidly secured upon the centers of said sleeves, partly at right and partly at oblique angles to the same and to the shafts, said holders being composed of two members, the member 16 having four recesses on its inner face at right angles to each other, each formed with bosses 18 on its sides and to receive knives 23 therein, the member 16′ having plane faces and means to rigidly secure said members together with the knives between them in the recesses, substantially as described.

2. In a harrow the combination between squared shafts mounted in closed bearings at each end of a rectangular frame, and knife carriers comprising sleeves having squared longitudinal openings formed to receive the shafts therein, said sleeves being of suitable length to engage the ends of the frame and each other and retain the knife holders thereon a suitable distance apart, knife holders rigidly secured upon the centers of said sleeves, partly at right and partly at oblique angles to the same and to the shafts, said holders being composed of two members, the member 16 having four recesses on its inner face at right angles to each other, each formed with bosses 18 on its sides and to receive knives 23 therein, the member 16′ having plane faces and means to rigidly secure said members together with the knives between them in the recesses, substantially as described.

3. In a harrow of the kind described knife carriers comprising sleeves having squared longitudinal openings formed to receive the shafts therein, said sleeves being of suitable length to engage the ends of the frame and each other and retain the knife holders thereon a suitable distance apart, knife holders rigidly secured upon the centers of said sleeves, partly at right and partly at oblique angles to the same and to the shafts, said holders being composed of two members, the member 16 having four recesses on its inner face at right angles to each other, each formed with bosses 18 on its sides and to receive knives 23 therein, the member 16′ having plane faces and means to rigidly secure said members together with the knives between them in the recesses, substantially as described.

944,691. MACHINE FOR MAKING GLASS BOTTLES AND LIKE ARTICLES. ALBERT PHILIPPOTEAUX, Rheims, France. Filed Nov. 26, 1906. Serial No. 345,255.



1. In a machine for making glass articles, a measuring mold in sections, a ring mold below said measuring mold, a finishing mold below the ring mold and formed in sections, a base fitted within the finishing mold, a pivotally

mounted arm carrying said base and an intermediate mold mounted for vertical movement the working positions of the intermediate and finishing molds being in vertical alinement, whereby the intermediate mold can be moved up to and away from the blank and the finishing mold moved into line with it without changing the position of the blank.

2. In a machine for making glass articles, a measuring mold in sections, a ring mold below said measuring mold, a finishing mold below the ring mold and formed in sections, a base fitted within the finishing mold, a pivotally mounted arm carrying said base, and an intermediate mold mounted for vertical movement, the working positions of the intermediate and finishing molds being in vertical alinement, whereby the intermediate mold can be moved up to and away from the blank and the finishing mold moved into line with it without changing the position of the blank, a bar on which the intermediate mold is carried, and levers connected with said bar for raising said mold to sustain and envelop the parison.

944,692. REFRACTORY BRICK FOR METALLURGICAL AND OTHER USES. CHARLES E. POPE, Pittsburg, Pa. Filed Aug. 15, 1908. Serial No. 448,734.

1. Refractory brick composed of approximately three parts coarse broken cement clinker nodules, three parts relatively fine broken nodules, and a bond of one part Portland cement.

2. Refractory brick composed of approximately six parts broken Portland cement nodules comprising angular fragments of different sizes bonded together with one part Portland cement, whereby the said fragments present angular edges and are closely bonded together by the said portion of cement.

944,693. CEMENT-FLINT CLAY BRICK FOR METALLURGICAL AND OTHER PURPOSES. CHARLES E. POPE, Pittsburg, Pa. Filed Sept. 17, 1908. Serial No. 453,497.

1. Refractory brick composed of approximately three parts coarse cement clinker nodules, three parts relatively fine nodules, three parts coarse flint clay brick, three parts fine flint clay brick, and a bond of two parts Portland cement.

2. Refractory brick composed of approximately equal parts of cement clinker nodules and flint clay brick bonded together with Portland cement.

3. Refractory brick comprising sharp broken cement clinker nodules and flint clay brick fragments bonded with Portland cement.

4. Refractory brick comprising cement clinker nodules and flint clay brick bonded with Portland cement.

944,694. CEMENT-SILICA BRICK FOR METALLURGICAL AND OTHER USES. CHARLES E. POPE, Pittsburg, Pa. Filed Sept. 17, 1908. Serial No. 453,498.

1. Refractory brick composed of approximately three parts coarse cement clinker nodules, three parts relatively fine nodules, three parts coarse silica brick, three parts fine silica brick, and a bond of two parts Portland cement.

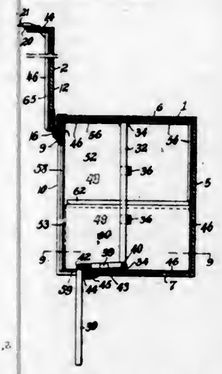
2. Refractory brick composed of approximately equal parts of cement clinker nodules and silica brick bonded together with Portland cement.

3. Refractory brick comprising sharp broken cement clinker nodules and silica brick fragments bonded with Portland cement.

4. Refractory brick comprising cement clinker nodules and silica brick bonded with Portland cement.

944,695. WARDROBE-TRUNK. OTTO RANONOW, Philadelphia, Pa. Filed Feb. 8, 1909. Serial No. 476,657.

1. A wardrobe comprising a body, a door, a cross-bar secured in said body, garment hangers having hooks adapted to pass over said cross-bar, a locking-bar located adjacent to said cross-bar, stops to hold said locking-bar adjacent to said cross-bar and means for withdrawing said locking-bar to release said hooks.



2. A wardrobe comprising a body, a door, a cross-bar secured in said body, garment hangers having hooks adapted to pass over said cross-bar, a locking-bar located adjacent to said cross-bar and adapted to hold said hooks in engagement with said cross-bar and means for pivotally mounting one end of said locking-bar so that the free end thereof may be withdrawn and release said hooks.

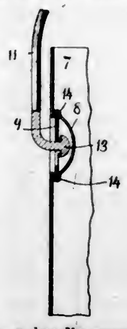
3. A wardrobe comprising a body, a door, a cross-bar secured in said body, a locking-bar located adjacent to said cross-bar, said locking-bar pivotally mounted at one end thereof, means for locking said locking-bar in a position parallel with said cross-bar and the free end of said locking-bar adapted to swing forward and project out of the body of the wardrobe when released from said locking means.

4. A wardrobe comprising a body, a door, a bar pivotally mounted at one end in said body, said bar adapted to swing forward toward the front of said body and said bar comprising two members hinged together at a point near the front line of said body so that the outer member of said bar may be turned into a position parallel with the front of said body.

5. A wardrobe comprising a body, a door, a bar pivotally mounted at one end in said body, said bar adapted to swing forward toward the front of said body, said bar comprising two members hinged together at a point near the front line of said body and means upon said body to support the said bar when the latter is in the forward position.

[Claims 6 and 7 not printed in the Gazette.]

944,696. RECEPTACLE. GODFREY P. SCHMIDT, New York, N. Y. Filed Aug. 12, 1908. Serial No. 448,110.

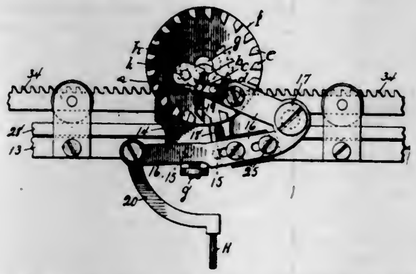


1. In a receptacle, a handle provided with a head, a recess beneath said head, said receptacle having slitted portion to receive said head, and the ends of said slitted portion being adapted to engage said recess when said handle is pulled from said can.

2. In a receptacle, a handle provided with a head, said receptacle having slitted portion to receive said head, and an ear piece on the inside of said receptacle to cover said head.

3. In a receptacle, a handle provided with a head, a recess beneath said head, a slitted member being adapted to receive said head, and the ends of said slitted portion of said member being adapted to engage said recess when said handle is pulled from said can.

944,697. ESCAPEMENT MECHANISM OF TYPE-WRITING MACHINES. AUGUST SCHNEELOCH, Syracuse, N. Y., assignor to E. C. Stearns & Co., Syracuse, N. Y., a Corporation of New York. Original application filed May 9, 1902, Serial No. 106,524. Divided and this application filed Oct. 9, 1902. Serial No. 126,599.



1. In the escapement mechanism of a type-writing machine, the combination with a shaft suitably journaled on the machine frame, a pinion on said shaft engaging with the rack, an escapement wheel on said shaft having crown teeth on its front surface, a two armed dog carrier journaled on the frame of the machine adjacent to the escapement wheel, a swinging dog on the upper arm of said carrier, a stationary dog on the lower arm of said carrier, means to adjust the stationary dog along said lower arm to divide the motion of the escapement wheel, and means to rock the dog carrier at the depression of each key.

2. In the escapement mechanism of a type-writing machine, the combination with the carriage, of the escapement wheel shaft suitably journaled on the frame, a pinion on said shaft engaging with the rack, an escapement wheel on the shaft having marginal teeth on its front surface, a two armed dog carrier suitably journaled on the frame of the machine, a loose dog hung on the upper arm of the carrier and having a guide pin engaging in a slot on said arm, a spring on said arm engaging with said guide pin for holding the swinging dog in position, a stationary dog on the lower arm of the carrier, screws fitted to slots in said lower arm to permit the adjustment of the stationary dog along the lower arm and to secure it in position, and means to rock the dog carrier upwardly at the depression of each key.

3. In a typewriting machine, an escapement wheel suitably journaled on the frame, a dog support suitably journaled on the frame and having upper and lower arms arranged at an acute angle to each other extending on one side of the dog support, a link connecting the end of the lower arm to a vertical rod provided with a turn buckle, a stationary dog secured to the lower arm by screws engaging with longitudinal slots in the lower arm, said dog upwardly extending therefrom to engage with the escapement wheel teeth, a loose dog pivotally secured to the upper arm and having a pin engaging in an opening in the upper arm, a spring on the upper arm engaging with said pin, and a pinion connected to the escapement wheel to engage with the carriage rack.

4. In the escapement mechanism of a typewriting machine, the combination with the carriage, of the escapement wheel shaft suitably journaled on the frame, a pinion on said shaft engaging with the carriage rack, an escapement wheel on the shaft having marginal teeth on its front surface, a two armed dog carrier suitably journaled on the frame of the machine, a loose dog hung on the upper arm of the carrier and having a guide pin engaging in a slot on said arm, a spring on said arm engaging with said guide pin for holding the swinging dog in position, a stationary dog on the lower arm of the carrier, and means to rock the dog carrier upwardly at the depression of each key.

5. In the escapement mechanism of a typewriting machine, the combination with the escapement wheel shaft suitably journaled on the machine frame, of a collar fixed on the rear end of said shaft, an escapement wheel fixed on the front end of the shaft having forwardly extending crown teeth around the margin of its front surface, a pinion journaled on the shaft and having ratchet teeth on its rear face, a pawl fitted to an opening in the front face of the collar to engage with said teeth, a spring to hold said pawl in engagement therewith, whereby the pinion in engagement with the carriage rack is connected to the escapement wheel to rotate step by step therewith as the carriage moves toward the left, but to rotate independently of the escapement wheel when the carriage is moved back toward the right, a dog carrier journaled on the frame adjacent to the escapement wheel and having upper and lower arms, a stationary dog on the lower arm of the carrier, means to adjust the position of said dog along said lower arm, a loose dog hung on the upper carrier arm, a pin on said dog engaging with an enlarged hole or slot in said upper arm, and a spring engaging with said pin to swing said loose dog upwardly.

[Claims 6 to 9 not printed in the Gazette.]

944,698. EDGE-RETAINER FOR CARPETS AND THE LIKE. EDMUND H. SMART, London, England. Filed June 18, 1909. Serial No. 502,965.



A device for retaining the edges of carpets and the like in a flat condition, comprising a main portion to rest under the carpet, said main portion being bent downward toward each end, and a turned over portion fitting closely throughout its length upon the top of the carpet, substantially as herein shown and described.

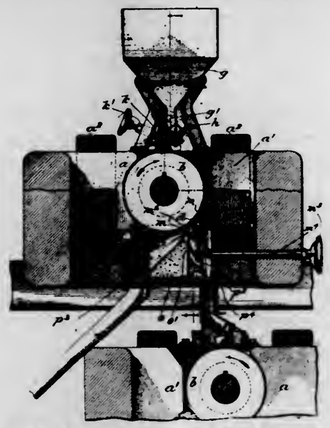
944,699. ORE-SEPARATOR. FREDERICK T. SNYDER, Chicago, Ill., assignor to International Separator Company, Chicago, Ill., a Corporation of New Jersey. Filed Apr. 4, 1904. Serial No. 201,381.

1. In an ore separator the combination with a rotating cylinder adapted to carry the material to be separated, and means for magnetizing said cylinder, of a divider mounted below said cylinder having a substantially vertical plate in a plane near the edge of said cylinder and a substantially horizontal ledge extending underneath the cylinder from the lower portion of said vertical plate, whereby a portion of the falling material is retained in the corner between said plate and ledge to provide a self-renewing inclined deflecting surface.

2. The combination with an ore separator having a rotating cylindrical carrier, of a divider mounted below said carrier comprising a shaft and a sheet metal plate bent at a right angle to form vertical and horizontal portions, said plate being mounted upon said shaft, and means for rotating said shaft to adjust the vertical portion of said plate with relation to said carrier.

3. The combination with the horizontal supporting rails, of a magnetic separator frame constructed in hollow box-form, open at the top and bottom, and having inwardly-projecting pole-pieces and a cylindrical armature mounted horizontally to rotate upon its axis in bearings in the sides of said frame, said frame being separable,

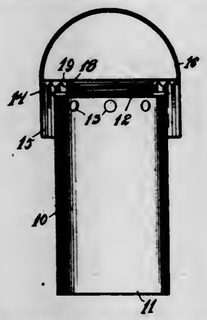
the two members of said frame being supported upon said rails and adapted to slide apart horizontally thereon to permit the insertion or removal of the armature.



4. An ore-separating mill, comprising a frame-work having a series of cross rails adapted to support a corresponding series of individual separating machines, each machine comprising a hollow box-form magnet frame having inwardly projecting pole-pieces and an armature journaled horizontally in bearings in the sides of the magnet frame, each machine having a receiving feeder at the top and separate discharge spouts at the bottom for the materials which have passed through, the several machines being slidably supported on said cross-rails to permit adjustment thereof to bring the receiving hopper of a lower machine under one of the discharge spouts of a machine above it, and means for collecting the separated materials.

5. In a magnetic separator, the combination with a magnet, of a stationary pole on said magnet, said pole having a vertical face, a cylindrical armature rotatably mounted before said pole, a divider between said pole and said armature, the edge of said divider lying substantially in the vertical plane tangent to the periphery of said armature, and means for feeding material to be separated into the space between said stationary pole and said armature.

944,700. COMBINED VEGETABLE AND PASTRY CUTTER. ROSE M. SPENCE and EDWIN J. SPENCE, Falconer, N. Y. Filed June 26, 1909. Serial No. 504,467.



1. A combined vegetable and pastry cutter consisting of a cylindrical cutting member closed at one end and having holes in the cylindrical sides near said closed end, and a larger closed cylindrical member attached to and extending over the holes of the first cylindrical member sufficiently to protect the hand of the user.

2. A combined vegetable and pastry cutter consisting of a cylindrical cutting member closed at one end and having holes in the cylindrical sides near said closed end, a larger closed cylindrical cutting member removably attached to the said first cylindrical member, said larger cylindrical member extending a sufficient distance over the first cylindrical member to cover the holes in the first cylindrical member and protect the hand of the user.

3. A combined vegetable and pastry cutter consisting of a deep cup-shaped body having a threaded portion on its closed end, a larger shallow cup-shaped body having a threaded portion on its under side to fit the threaded portion of said deep cup-shaped body, a handle on said shallow cup-shaped body, said deep cup-shaped body having openings near its closed upper end and said shallow cup-shaped body having an opening in its closed end.

4. A device of the character described comprising an elongated cylindrical body open at one end and closed at the other, said body having a threaded ring on its closed end and provided with openings near said closed end, a second shorter cylindrical body having a corresponding threaded ring on its under side to screw on to said first ring, said shorter body having a suitable handle and larger circumference than said elongated cylindrical body to shut over the same when said bodies are united.

944,701. SEAL. WILLIAM M. STEELE, Brooklyn, N. Y. Filed Feb. 5, 1909. Serial No. 476,250.



1. In a seal, a strip provided with a cup shaped member at one end and projections forming a channel through which the other end of said strip may be inserted, another cup shaped member, said cup shaped members secured together, a tongue in the end of said strip, opposite the end provided with said cup shaped member, said members constituting a housing and said members having indentations therein, either one of which is adapted to be engaged by said tongue.

2. In a seal, a strip provided with a cup shaped member at one end and projections forming a channel through which the other end of said strip may be inserted, another cup shaped member also having projections providing a channel adapted to receive said first mentioned projections, said cup shaped members secured together, a tongue in the end of said strip, opposite the end provided with said cup shaped member, said members constituting a housing and having indentations therein, either one of which is adapted to be engaged by said tongue.

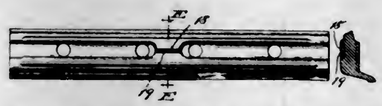
944,702. SEAL. WILLIAM M. STEELE, Brooklyn, N. Y. Filed Feb. 5, 1909. Serial No. 476,251.



In a seal, a strip having lateral projections formed at one end and a receptacle adjacent thereto, said lateral projections from said strip being adapted to serve as a binder when folded in position, other lateral projections from said strip, another receptacle adjacent thereto, said receptacles secured together when folded, said first mentioned lateral projections being adapted to incase said other lateral projections from said strip, and means within the chamber formed by said receptacles when said strip is folded and in combination with the end of said strip whereby said strip is locked against withdrawal from said chamber after same has been introduced thereinto.

944,703. JOINT-BAR. EDWARD A. SULLIVAN, Toronto, Ontario, Canada, assignor to Railway Supplies Limited, Toronto, Canada, a Corporation of Canada. Filed Apr. 30, 1909. Serial No. 493,202.

1. A joint bar provided with bolt holes therethrough, the said bar being provided on its inner face with reinforcing projections above and below the bolt holes, a reinforcing projection above the bolt hole being of less transverse sectional area than the reinforcement below the bolt hole.



2. A joint bar provided with bolt holes therethrough, reinforcements on its outer face tapered in the vertical longitudinal plane of the bar, the said bar being provided on its inner face with reinforcing projections above and below the bolt holes, a reinforcing projection above the bolt hole being of less transverse sectional area than the reinforcement below the bolt hole.

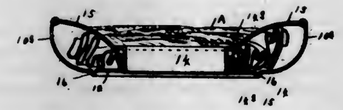
3. A joint bar provided with bolt holes therethrough, the inner face of said bar being provided with elongated reinforcements above and below the bolt holes and with a vertical reinforcement on its inner face connecting the reinforcements above and below the bolt holes, the said reinforcement above the bolt holes being of less transverse sectional area than the reinforcement below the bolt holes.

4. A joint bar provided with bolt holes therethrough, the inner face of said bar being provided with elongated reinforcements above and below the bolt holes and with a vertical reinforcement on its inner face connecting the reinforcements above and below the bolt holes said vertical reinforcement being provided with a transverse wire conduit.

5. A joint bar provided with bolt holes therethrough and with reinforcements on its outer face tapered in the vertical longitudinal plane of the bar, the inner face of the said bar being provided with elongated reinforcements above and below the bolt holes and with a vertical reinforcement on its inner face connecting the reinforcements above and below the bolt holes, the reinforcement above the bolt holes having a less transverse sectional area than the reinforcement below the bolt holes.

[Claim 6 not printed in the Gazette.]

944,704. STOCKING-DARNER. ROBERT T. THOMAS, Utica, N. Y. Filed Feb. 20, 1909. Serial No. 479,063.

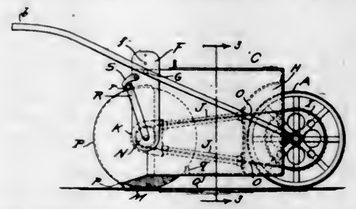


The combination in a stocking darner of a plate-like body having an opening therethrough and upturned ends, a removable frame fitting the opening and bail-like clamps hinged to said upturned ends and arranged to turn inwardly to holding position, substantially as set forth.

944,705. STREET-CLEANING AND CONVEYING MACHINE. BENJAMIN VALIQUET, Chicago, Ill. Filed Apr. 17, 1909. Serial No. 490,625.

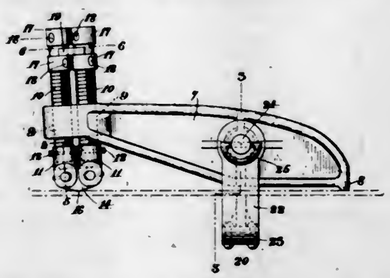
1. The combination of a wheel provided with an axle, a receptacle pivotally attached to the axle and a frame pivotally attached to said axle, said frame provided with handles, means to attach the frame and the receptacle together with the handles of the frame in an adjusted position, a rotatably mounted brush, means to rotate the brush by the rotation of the wheel, and an apron arranged to receive material swept thereonto by the brush and to direct the same into the receptacle.

2. The combination of a wheel provided with an axle, a receptacle and a frame, said receptacle and frame pivotally attached together and to the axle, said frame provided with handles and means to attach the frame and receptacle rigidly together with the handles in an adjusted position, a brush rotatably mounted in the receptacle adjacent to one end thereof, a driving pulley on the wheel, a driven wheel on the brush, a flexible connection between said wheels, and a conduit in said receptacle through which the flexible connection extends, and an apron arranged to receive material swept thereonto by the brush and to direct said material into the receptacle.



3. The combination of a wheel provided with an axle, a receptacle, and a frame, said receptacle and frame pivotally attached together and to the axle, the said frame provided with handles and means to attach the frame and receptacle together with the handles in a determined position, a brush rotatably mounted in the receptacle adjacent to one end thereof, the bottom of said receptacle provided with an aperture therein and the receptacle and brush respectively arranged so that the flexible members of the brush extend through said aperture, a driving wheel on the wheel, a driven wheel on the brush, a flexible connection between said wheels, a casing arranged to form a cover to the driven wheel, conduits attached to one end of the receptacle and to said casing, said conduits arranged so that the flexible connection extends therethrough, and an apron arranged to form one end of the receptacle and to receive material swept thereonto by the brush and to direct said material into the said receptacle.

944,706. JACK. DAVID F. VAUGHAN, Haddonfield, N. J. Filed July 9, 1908. Serial No. 442,641.



1. The combination of a support, a pair of screw-threaded shafts having their screw-threads engaged with said support, a bearing member extending between the axes of said shafts, and connections between said shafts and bearing member permitting longitudinal adjustment of said shafts independently of each other.

2. The combination of a support, a pair of screw-threaded shafts having their screw-threads engaged with said support, a bearing member extending between the axes of said shafts, connections between said shafts and bearing member permitting longitudinal adjustment of said shafts independently of each other, and means for limiting the longitudinal adjustment of one shaft with relation to the other shaft.

3. The combination of a support, a pair of screw-threaded shafts having their screw-threads engaged with

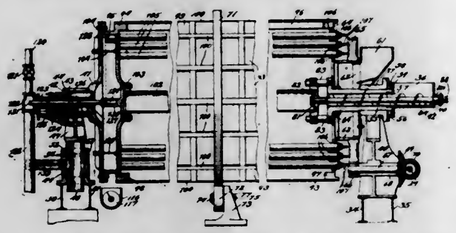
said support and each shaft being provided with two collars in spaced relation to each other, a member carried by said shafts and extending into the space between the two collars of each shaft, a bearing member extending between the axes of said shafts, and connections between said shafts and bearing member.

4. The combination of a support, a pair of screw-threaded shafts having their screw-threads engaged with said support, collars rotatably mounted on adjacent portions of said shafts, said collars being movable with said shafts independently of each other and a bearing member extending between said collars and connected thereto.

5. The combination of a support, a pair of screw-threaded shafts having their screw-threads engaged with said support, a bearing member extending between the axes of said shafts beyond the ends thereof, said member having a central portion projecting in a direction away from said shafts, and connections between said shafts and bearing member.

[Claims 6 to 12 not printed in the Gazette.]

944,707. DRIER. SWAN J. VERNSTEN, Chicago, Ill. Filed Mar. 18, 1909. Serial No. 484,211.



1. In a drier, the combination with a cylinder composed of two heads and a shell connecting them, and means for rotating it, of steam pipes secured to one head and extending through the shell, sleeves in the other head, through which the pipes project and in which they are free to move, means for supplying steam to the interior of the pipes through the head to which they are secured, and valves at the other end of said pipes.

2. In a drier, the combination with a cylinder composed of the two heads and the intermediate supporting disk and the shell supported thereby, and means for rotating it, of the steam pipes extending through said shell secured to one head and passing through the intermediate support and the other head, and means for supplying steam to the interior of the pipes through the head to which they are secured, said intermediate support comprising the pipe supporting sections supported from one end at an angle to the axis of the shell so as to permit the material to pass between said sections.

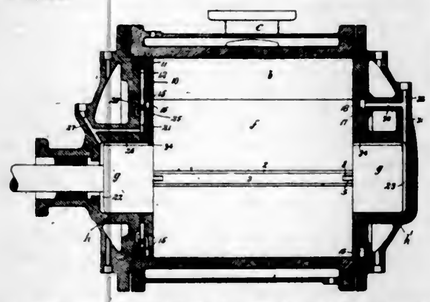
3. In a drier, the combination of a cylinder composed of the two heads and intermediate support, a central shaft connecting the heads, the shell likewise connecting said heads and the intermediate support, said intermediate support being made up of a spider secured on said shaft, bars connecting the arms of the spider and the periphery of the shell, and the perforated plates secured to the bars at one end and having the bodies thereof extending helically to permit the passage of the material.

4. In a drier, the combination of a cylinder composed of the two heads and intermediate support, a central shaft connecting the heads, the shell likewise connecting said heads and the intermediate support, said intermediate support being made up of a spider secured on said shaft, bars connecting the arms of the spider and the periphery of the shell, and the perforated plates secured to the bars at one end and having the bodies thereof extending helically to permit the passage of the material, and the plurality of steam pipes secured to one head and extending through the perforated plates and the other head, substantially as described.

5. In a drier, a hollow cylindrical shell, a head closing one end having supports for steam pipes near its periphery, a large annular flange projecting outward just within the boundary of the steam pipes supports, a hollow journal at the center of the head, a vapor stack opening into and closing the annular flange, and means for introducing material through the hollow journal.

[Claims 6 to 22 not printed in the Gazette.]

944,708. ROTARY PUMP. CARL W. VOLLMANN, Montreal, Quebec, Canada. Filed Apr. 18, 1904. Serial No. 203,692.



1. The combination with a cylinder, and a revoluble piston therein of a packing member effecting a tight joint between one side of the piston and the wall of the cylinder, and means whereby a lubricant in a fluid state and under pressure maintains the packing member in bearing position.

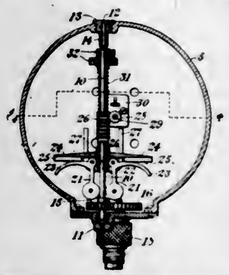
2. The combination with a cylinder, and a revoluble piston therein, of a packing disk carried by the cylinder and effecting a tight joint between one side of the piston and the wall of the cylinder and means whereby a lubricant in a fluid state and under pressure maintains the packing disk in bearing relation with one side of the said piston.

3. The combination with a cylinder, and a revoluble piston therein, of a packing disk carried by the cylinder and effecting a tight joint between one side of the piston and the wall of the cylinder, such disk being located a short distance from one end of the cylinder, a chamber constructed to contain a lubricant, a conductor communicating with the cylinder and adapted to conduct a high pressure fluid, the chamber communicating with the conductor, and a communicating duct adapted to conduct a high pressure fluid and leading from the chamber to the space between the disk and the adjacent end of the cylinder.

4. A rotary engine comprising a cylinder, cylinder heads closing the ends of said cylinder and having bearings formed in one therewith, a rotary hub within the cylinder and having trunnions projecting into such bearings, the trunnions having axial grooves in the perimeters thereof and being sufficiently less in length than the bearings to provide spaces at the ends thereof, and means for supplying oil under pressure to such spaces, for the purpose set forth.

944,709. SPEED-INDICATOR. JOHN B. WARING, Jersey City, N. J., assignor of one-fourth to Frank S. Sanchez, Brooklyn, N. Y., and one-fourth to Fernando Rodriguez, Port Chester, N. Y. Filed Dec. 7, 1907. Serial No. 405,601.

1. A speed indicator comprising a rotating shaft, rotatively balanced centrifugal weights, arms supporting the weights, means for pivotally connecting the arms with the shaft, the axes of the pivots being substantially at right angles to a plane occupied by the axis of the shaft, a rack slidable longitudinally on the shaft, toes adapted to actuate the rack, levers carried by the arms and provided with convexly curved faces rocking on the surfaces of the toes to actuate the toes, speed-indicating means adapted to be actuated by the rack, and a spring acting on the rack to resist the centrifugal force of the weights.



2. A speed indicator comprising a rotating shaft, rotatively balanced centrifugal weights, arms supporting the weights, means for pivotally connecting the arms with the shaft, the axes of the pivots being substantially perpendicular to a plane occupied by the axis of the shaft, wipers carried by the arms, a rack slidable longitudinally on the shaft, toes carried by the rack and adapted to coact with the wipers, means for connecting the arms with the shaft also including means for compelling the rack and the toes to rotate with the shaft, speed-indicating means adapted to be actuated by the rack, and a coiled thrust spring surrounding the shaft and acting on the rack to resist the centrifugal force of the weights.

3. A speed indicator comprising a rotating shaft, rotatively balanced centrifugal weights, arms supporting the weights, means for pivotally connecting the arms with the shaft, the axes of the pivots being substantially perpendicular to a plane occupied by the axis of the shaft, wipers carried by the arms, a cylindrical rack slidable longitudinally on the shaft, toes carried by the rack and adapted to coact with the wipers, the means for connecting the arms with the shaft also including means for compelling the toes and the rack to rotate with the shaft, a pinion coactive with the rack, an index actuated by the pinion, and a coiled thrust spring surrounding the shaft and acting on the rack to resist the centrifugal force of the weights.

4. A speed indicator comprising a rotating shaft, rotatively balanced centrifugal weights, arms supporting the weights, means for pivotally connecting the arms with the shaft, the axes of the pivots being substantially perpendicular to a plane occupied by the axis of the shaft, wipers carried by the arms, a cylindrical rack slidable longitudinally on the shaft, toes carried by the rack and adapted to coact with the wipers, the means for connecting the arms with the shaft also including means for compelling the toes and the rack to rotate with the shaft, a pinion coactive with the rack, an index actuated by the pinion, and a coiled thrust spring surrounding the shaft and acting on the rack to resist the centrifugal force of the weights, such spring flaring outward toward one of its ends to form a more flexible portion.

5. A speed indicator comprising a rotating shaft, a governor-head fixed on the shaft, rotatively balanced centrifugal weights, arms supporting the weights and pivoted on the governor-head, the axes of the pivots being substantially at right angles to a plane occupied by the axis of the shaft, wipers carried by the arms, a cylindrical rack slidable longitudinally on the shaft, toes carried by the rack and adapted to coact with the wipers, the governor-head being provided with means for compelling the toes and the rack to rotate with the shaft, a pinion coactive with the rack, an index actuated by the pinion, a spring-retaining collar fixed on the shaft, and a coiled thrust spring surrounding the shaft and acting between the collar and the rack to press the toes toward the wipers and to resist the centrifugal force of the weights, such spring flaring outward toward one of its ends to form a more easily yieldable portion.

[Claims 6 to 12 not printed in the Gazette.]

944,710. PIPE-CLEANING DEVICE. GEORGE F. WHITNEY, East Orange, N. J., assignor, by mesne assignments, to National Water Main Cleaning Company, New York, N. Y., a Corporation of Maine. Filed Nov. 18, 1905. Serial No. 287,948.



1. In a device for cleaning water pipes, the combination of a flexible shaft rigid when pushed longitudinally, a nonrotatable cutting device attached to the shaft and arranged to cut longitudinally, a scraping device arranged to be rotated by the movement of the device through the pipe to be cleaned, a propelling device adapted to push the cutting and scraping devices before it, and openings through the propelling device arranged to be adjustable to vary the pressure of water on the propelling device and the volume of water available for washing away the matter detached from the pipe by the cleaning device.

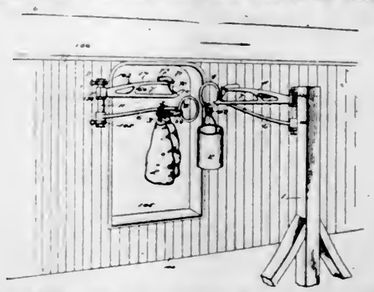
2. In a device for cleaning water pipes, the combination of a shaft carrying a nonrotatable cutting device and a scraping device arranged to be revolved by movement of the device through the pipe to be cleaned, a perforated disk carrying flexible material around its periphery and connected to said shaft, and means for regulating the area of the perforations to adjust the pressure on the disk and the water available for washing away matter detached from the pipe by the cleaning device to the particular conditions of the pipe line to be cleaned.

3. In a pipe cleaning device, the combination of a perforated disk, carrying flexible material around its periphery, means for regulating the area of the perforations, a central shaft attached to the disk, an elastic guiding frame for the disk, and conically arranged rods connected with the disk and the shaft.

4. In a cleaning device for water pipes, the combination of a shaft, means mounted thereon arranged and constructed so as to remove incrusted matter from the water pipe, a piston adapted to propel said cleaning device through a pipe, means for adjusting the action of the device to the particular condition of the pipe to be cleaned by controlling the pressure upon the piston and the water available to carry away detached matter.

5. In a cleaning device for water pipes, the combination of a shaft, a cutter mounted thereon, a scraper mounted thereon, a propelling device adapted to propel the said cutter and scraper through a pipe and having an opening therethrough, and means for adjusting the size of said opening to adjust the action of the device to the particular condition of the pipe to be cleaned by controlling the pressure upon the propelling device and the water available to carry away detached matter.

944,711. MAIL-BAG HANDLER. JOHN L. ADAM, New Orleans, La. Filed Sept. 25, 1909. Serial No. 519,559.



1. A mail bag deliverer comprising an arm projecting substantially horizontally from a support and having a socket in its outer end; combined with a bag holder having

a spur adapted to fit frictionally in said socket, and a spring carried by the arm and engaging the spur so as to permit its rotation in and withdrawal from the socket.

2. A mail bag deliverer comprising an arm projecting substantially horizontally from a support and having a socket in its outer end, and a spring carried by the arm with its tip extending partially over the mouth of the socket; combined with a bag holder having a spur adapted to fit removably in said socket and provided with a notch engaged by said tip.

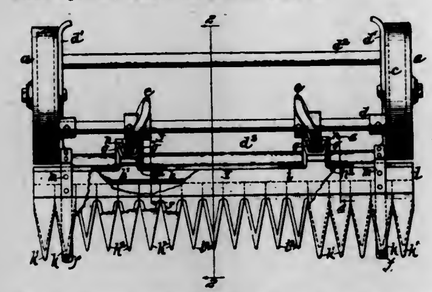
3. A mail bag deliverer comprising an arm having a socket in its outer end, and means for supporting its inner end and permitting it to swing under impact; combined with a bag holder having a radial spur round in cross section adapted to fit frictionally in said socket, and means for supporting the bag from the holder at a point below the projected axis of said spur.

4. A mail bag deliverer comprising an arm having a socket in its outer end, a spring carried by the arm and projecting partly into said socket, and means for supporting the arm and permitting it to swing under impact; combined with a bag holder having a spur adapted to fit removably in said socket and provided with a notch detachably engaged by said tip.

5. In a mail bag transfer, the combination with an upright rod, a hook journaled thereon and projecting radially therefrom, and means for retarding its rotation around the rod; of an arm journaled on the rod independent of the hook, a bag holder comprising a ring adapted to be impaled by the hook, and means for releasably supporting it in upright position at the outer end of the arm.

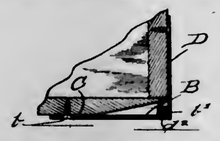
[Claims 6 to 27 not printed in the Gazette.]

944,712. LAWN-MOWER. AUGUST BERENS, Chicago, Ill. Filed Apr. 12, 1909. Serial No. 489,274.



The combination with wabbling cams and means driven by said cams, the cams being pitched to throw said means in opposite directions and to complete one vibration for each cam-revolution, of superimposed sickle-bars actuated by said means, tongued and grooved mechanism to guide one sickle-bar on the other, and means under the lower sickle-bar to guide and carry it, and carrying-arms under the lower sickle-guide and a machine-frame to which said arms are connected.

944,713. SPRING-LATCH. PETER P. BILHORN, Chicago, Ill. Filed Oct. 26, 1908. Serial No. 459,493.



1. In a device of the class described a metallic plate slotted longitudinally providing arms, each of which is shaped to fit around the edge of the member to which attached, a spring latch member secured on the inner side of plate and extending across the slot, said spring member adapted to be engaged for releasing the latch and a metallic plate provided with a member to fit between the arms and engage the latch.

2. In a device of the class described a plurality of plates adapted to act as bumper plates, one provided with a slot, and the other with a member of a width to engage in the slot, and a latch member shaped at its end to automatically engage the aforesaid member and positioned beneath the slot adapted to be engaged and forced inwardly to release the member.

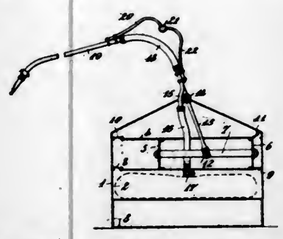
3. A latch embracing two sheet metal, resilient tongues, one provided with an outwardly, the other with an inwardly directed hook, adapted to mutually engage, and a cover plate for one of said tongues affording guide arms between which the other of said hooks extends when in engaging position.

4. A latch for the purpose specified embracing two resilient tongues of sheet metal, one provided with an outwardly, the other with an inwardly directed hook, adapted to mutually engage, a cover plate for one of said tongues affording arms between which the other of said hooks extends when in engaging position, and an end flange on each arm adapted to engage partly around the member on which said tongue is secured.

5. In a device of the class described a resilient member having a hook at one end thereof, a member fitted over one end thereof and slotted to expose the hooked end of the resilient member and a member provided with a hooked extension adapted to engage the hook of the resilient member.

[Claims 6 to 8 not printed in the Gazette.]

944,714. SUCTION CLEANING APPARATUS. GEORGES R. BIMM, Paris, France. Filed Apr. 1, 1909. Serial No. 487,211.



1. The combination with a vacuum pump, of a nozzle, flexible means establishing communication between said pump and nozzle, and mechanisms connecting said nozzle with said pump and serving to operate the latter upon movement of the former.

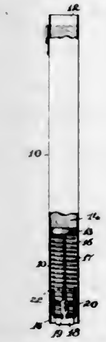
2. The combination with a vacuum pump, of a nozzle, flexible means establishing communication between said nozzle and pump, and articulated mechanism connecting said nozzle with said pump and serving to operate the latter upon movement of the former.

3. The combination with a vacuum pump, of a nozzle, a pivotally mounted lever connected with said pump, a pipe secured to said lever adjacent the pivotal mounting thereof, a flexible connection establishing communication between one end of said pipe and said pump, a flexible connection establishing communication between the other end of said pipe and said nozzle, and mechanism connecting the nozzle with said lever and serving to operate the same and said pump upon movement of said nozzle.

944,715. FIRE-EXTINGUISHER. FREDERICK E. BLODGETT, Newark, N. J. Filed Jan. 20, 1909. Serial No. 478,222.

1. A fire-extinguisher comprising a receptacle for extinguishing material, a spring for expelling the material, manually released means for holding the spring in restraint, and a fusible portion in the restraining means.

2. A fire-extinguisher comprising a receptacle for extinguishing material, a spring for expelling the material, manually released means for holding the spring in restraint, a fusible connection in the restraining means, and means for suspending the extinguisher.



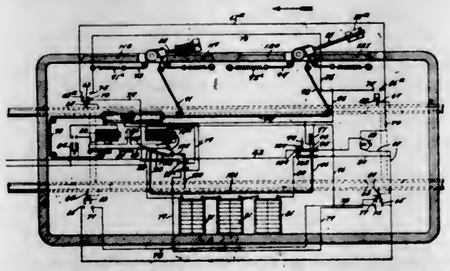
3. A fire-extinguisher comprising a tube having an open end, a plunger forming a movable bottom for the receptacle and adapted to form a space above it for extinguishing material, a fixed bottom, a stem on the plunger adapted to project through the fixed bottom and having manually operated means for locking it to and releasing it from the bottom, a spring between the fixed bottom and the plunger, and fusible means on the stem.

4. A fire-extinguisher comprising an upright tubular receptacle, means for suspending it, a fixed bottom in the receptacle, the fixed bottom having a slot therein, a plunger forming a movable bottom, a stem on the plunger, a finger piece on the stem adapted to pass through the slot in the bottom and adapted to lock itself across said slot, and a spring between the bottom and the plunger.

5. A fire-extinguisher comprising a tubular receptacle, means for suspending it, a fixed bottom in the receptacle, the fixed bottom having a slot therein, a plunger forming a movable bottom, a stem on the plunger, a finger piece on the stem adapted to pass through the slot in the bottom and adapted to lock itself across said slot, a spring between the bottom and the plunger, and a fusible connection in the stem.

[Claims 6 to 8 not printed in the Gazette.]

944,716. MAIL-POUCH RECEIVING AND DELIVERING APPARATUS FOR RAILWAY-CARS AND THE LIKE. CHAUNCEY W. BROUGHTON, McGirr, Carlton, Ill. Filed May 5, 1909. Serial No. 494,001.



1. In a device for the purpose set forth, the combination of magnetic means upon a railway car for receiving a mail pouch, magnetic means arranged at the side of the line of movement of the car for receiving a mail pouch from the car, a common means for energizing both of the said magnetic means, and means for preventing one of the said magnetic means from being energized while the other magnetic means is passing the latter.

2. In a device for the purpose set forth, the combination of magnetic means upon a railway car for receiving a mail pouch, magnetic means arranged at the side of the line of movement of the car for receiving a mail pouch from the car, means on the car for energizing both of said magnetic means, and means whereby one of the magnetic means will be deënergized when the other magnetic means is in proximity thereto.

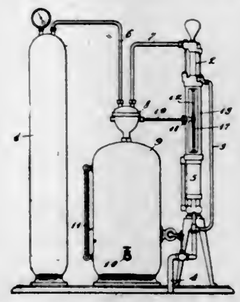
3. In a device for the purpose set forth, the combination of a support, magnetic means on the support for sustaining a mail pouch adjacent to a railway track and movable toward and away from the track, a car adapted to travel on the track, magnetic means on the car for receiving the pouch from the first said magnetic means, means for energizing the magnetic means on the car, the last said means being adapted to shift the support when passing the latter, and means whereby the magnetic means on the support will be energized when the latter is thus shifted.

4. In a device for the purpose set forth, the combination of a support, magnetic means on the support for sustaining a mail pouch adjacent to a railway track and movable toward and away from the track, a car adapted to travel on the track, magnetic means on the car for receiving the pouch from the first said magnetic means, means for energizing the magnetic means on the car, the last said means being adapted to shift the support away from the track when passing the support, means for locking the support against return movement toward the track, and means whereby the magnetic means on the support may be energized when the support is thus shifted.

5. In a device for the purpose set forth, the combination of a support, magnetic means on the support for sustaining a mail pouch adjacent to a railway track and movable toward and away from the track, a car adapted to travel on the track, magnetic means on the car for receiving the pouch from the first said magnetic means, means for energizing the magnetic means on the car, the last said means being adapted to shift the support away from the track when passing the support, means for automatically locking the support against return movement toward the track, means whereby the magnetic means on the support may be energized when the support is thus shifted, and means for rendering the locking means inoperative during the movement of the support to the position to be engaged and shifted by the magnetic means on the car.

[Claims 6 to 28 not printed in the Gazette.]

944,717. AGITATING DEVICE FOR MIXING CARBONIC-ACID GAS AND WATER. LOUIS CAUL, Cleveland, Ohio. Filed Sept. 18, 1908. Serial No. 453,592.



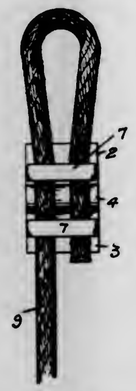
1. In a device of the character described, the combination with a source of gas under pressure, of a pump for supplying water under pressure, said pump being provided with a piston rod, of a chambered mixing receptacle, an agitator within said mixing receptacle, a shaft for operating said agitator, and a rack and pinion connection between said pump piston and shaft whereby the agitator will be operated by the movement of the pump piston.

2. In a device of the character described, the combination with a source of gas under pressure, of a pump for supplying water under pressure, said pump being provided with a piston, of a chambered mixing receptacle, means connecting the interior of the chambered mixing receptacle with the source of gas supply and the pump, an agitating device within said receptacle, a shaft for operating the said agitating device, a gear upon said shaft, a frame, a shaft supported within said frame, a gear upon said shaft meshing with the gear upon the first mentioned shaft, a second gear upon the second mentioned shaft, a rack upon the pump piston coöperating with the last mentioned gear.

3. In a device of the character described, the combination of a source of gas under pressure, a pump for supplying water under pressure, a piston for operating the pump, a rack operated by said pump piston, a pinion coöperating with the rack, a chambered receptacle, an agitating device within said chambered receptacle, a shaft for operating said agitating device, and operative connections between the said shaft and the pinion.

4. In a device of the character described, the combination with a source of gas under pressure, and a pump having a piston for supplying water under pressure, of a chambered receptacle, a substantially horizontal shaft journaled in the receptacle, agitating devices mounted upon said shaft, a pinion, operative connections between the pinion and the horizontal shaft, a rack engaging with said pinion and means for operating said rack from the piston.

944,718. ROPE-CLAMP. OLIVER CROSBY, St. Paul, Minn. Filed May 25, 1908, Serial No. 434,742. Renewed Oct. 22, 1909. Serial No. 524,067.



1. A rope clamp comprising a plate having a transverse rib formed thereon and provided with holes on each side of said rib, T-shaped bolts having threaded shanks fitting within said holes and provided with nuts, and the heads of said bolts having recesses on each side of said shanks to receive the rope, and the rib formed on said plate causing a bend or turn in the rope between said bolts and increasing the frictional contact between said plate and rope, substantially as described.

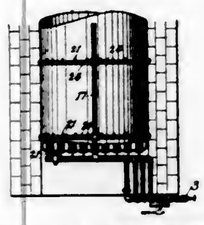
2. A rope clamp comprising a plate having a transverse rib formed thereon, and holes on each side of said rib and depressions formed in the ends of said plate around said holes, T-shaped bolts having threaded shanks fitting within the holes in said plate and having nuts and recesses provided in said head on each side of said shanks and adapted to receive the rope, and said bolts when tightened forcing the rope against said rib and into said recesses and causing the bends or offsets to be formed in the rope and increasing the frictional engagement thereof with said plate.

3. A rope clamp comprising a plate having flat surfaces and an intermediate transverse rib formed thereon, and said plate having holes in said flat surfaces on each side of said rib, and bolts having threaded shanks fitting within said holes and provided with nuts and heads adapted to engage the rope and clamp the same against said plate on each side of said rib, the pressure of the rib on the rope forming bends or offsets therein for the purpose specified.

4. A rope clamp, comprising a plate, having holes therein and a transverse rib intermediate to said holes, bolts having threaded shanks fitting within said holes, the heads of said bolts having recesses to receive the rope to be clamped, and said rib causing a bend or turn to be formed in the rope, thereby increasing the frictional contact between said plate and rope, substantially as described.

5. A rope clamp, comprising a plate having holes therein and a transverse rib intermediate to said holes, means having threaded shanks fitting within said holes and adapted to engage the rope or cable to be clamped, said rib causing a bend or turn to be formed in the rope or cable, thereby increasing the frictional contact between it and said plate.

944,719. BOILER-CLEANING APPARATUS. OTTO DONATZ, Trenton, N. J. Filed June 10, 1909. Serial No. 501,395.



1. The combination of a boiler, and means for simultaneously driving a plurality of jets of steam over the upper surface of the shell of said boiler, to clear it of accumulations of ashes and the like.

2. In boiler cleaning apparatus, the combination of a steam duct located in part on the top of the shell of a boiler, and having a lateral extension provided with apertures opening therefrom with their axes substantially parallel with the top of said boiler shell, and a controlling valve for regulating the flow of steam through said duct and lateral extension.

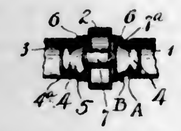
3. In boiler cleaning apparatus, the combination of a main steam duct located on the upper part of the shell of a boiler, and extending longitudinally thereof, a series of lateral branches of said steam duct, each of said branches having a plurality of apertures opening toward one end of the boiler, and contiguous to the shell thereof, and means for controlling the flow of steam through said main duct and said lateral branches.

4. In boiler cleaning apparatus, the combination of a main steam duct; a plurality of secondary ducts directed respectively to the upper portion of the shell of a boiler, and to the ends of the flues thereof; one or more lateral extensions of the secondary duct directed to the upper portion of the shell of the boiler having apertures therein opening toward one end of the boiler; apertures in the others of said secondary ducts opening toward the ends of the boiler flues, and means for directing the flow of steam through said secondary ducts successively.

944,720. TRAVERSE-RING. WILLIAM H. EDSALL, Wallingford, Conn., assignor to H. L. Judd Company, Wallingford, Conn., a Corporation of New York. Filed May 22, 1909. Serial No. 497,622.

1. In a traverse ring, a shaft bearing for an anti-friction roller, an integral head at one end and a separate washer-like head at the opposite end arranged to be rigidly secured thereto, said washer-like head corresponding substantially in size and shape to the integral head, a hollow cone-like body for said shaft heads and rigidly

clenched thereon, two tubular ring sections rigidly connected with said cone-heads, said tubular ring sections surrounding the smaller ends of said cone-heads, each of said heads being annularly grooved, the metal of said tubular sections being forced into grooves and a clencher ring mounted upon the outer side of each cone and clenched down upon the extreme end of the metal at the end of its respective tubular ring section, and means for securing together the two other ends of said ring sections.



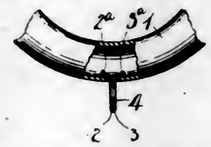
2. In a traverse ring, a solid anti-friction bearing shaft, a head at each end, both of said heads corresponding substantially in size and being rigidly spaced apart, one of said heads being formed separately from said shaft, an anti-friction bearing on said shaft, a hollow cone-head rigidly secured to each head of said shaft, said cone-heads being secured thereto at their broader ends, two oppositely arranged tubular ring sections making direct connection with the external walls of said cone-heads, each cone head having an annular groove, the metal near each end of said tubular ring sections being forced into said annular grooves and a reinforcing clencher ring closed down upon the extreme end of each tubular body, each of said clencher rings being mounted partly upon the external wall of its respective cone-head and partly upon the external surface of its respective tube end when the parts are assembled and means for securing together the two other ends of said ring sections.

3. A curtain ring, a shaft, an integral head at one end, the opposite end of said shaft being reduced in diameter, a washer mounted upon said reduced end and riveted thereto, a hollow cone-head mounted on the integral head of said shaft, and a second hollow cone-head mounted upon said washer, an annular groove in each of said cone-heads, two tubular ring sections secured to said cone-heads, a portion of the metal of each ring section being forced into the annular recessed portion of each head and an external reinforcing clenching ring mounted at the extreme end of each of said sections, a portion of said clenching ring being clenched down upon the external surface of the tubular ring sections and extending over the extreme edge of each of said ring sections to reinforce the same against tearing and to prevent the ring section from opening and means for securing together the two other ends of said ring sections.

4. In a traverse ring, a shaft bearing for an antifriction roller, an integral head at one end and a separate washer-like head at the opposite end arranged to be rigidly secured thereto, a hollow cone-like body for each of said shaft heads and rigidly secured thereto, two tubular ring ends rigidly connected with said cone heads, said tubular ring ends surrounding the smaller ends of said cone heads, each of said heads being annularly grooved, the metal of said tubular ends being forced into said grooves, and a clencher ring mounted upon the outer side of each cone head and clenched down upon the extreme end of the metal at the end of its respective tube end.

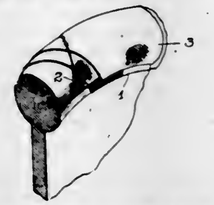
944,721. CURTAIN-RING. WILLIAM H. EDSALL, Wallingford, Conn. Filed July 21, 1909. Serial No. 508,814.

1. In a curtain ring, a hollow tubular body, a swivel eye connection carried thereby and comprising two companion sheet metal eye members, each of said members having a laterally projected flange at one edge, each flange being bent off at an angle to the main body of the eye, each bent off portion being corrugated longitudinally to stiffen the same and to produce a rounded or convex under bearing surface, said bearing surface engaging the lower inner wall only of the ring, both of said flanges being located within the ring when the parts are assembled and flaring away from each other, said eye portions of said eye members being united when the parts are assembled.



2. In a curtain ring, a hollow tubular body, a swivel eye connection carried thereby and comprising two companion sheet metal eye members, each of said members having a laterally projected flange at one edge, each flange being bent off at an angle to the main body of the eye, each bent off portion being corrugated longitudinally to stiffen the same and to produce a rounded or convex under bearing surface, said bearing surface engaging the lower inner wall only of the ring, both of said flanges being located within the ring when the parts are assembled and flaring away from each other, said eye portions of said eye members being united when the parts are assembled, the means for uniting said parts comprising an eyelet passing through both of said eye members and upset to hold the same together.

944,722. PROCESS FOR MAKING INNER LINERS FOR TIRES. BRENT S. ESHELMAN, Ashland, Ohio, assignor to Guy V. Krichbaum, Ashland, Ohio. Filed Feb. 13, 1909. Serial No. 477,658.



1. The herein described process, which consists in impregnating a piece of flexible material with suitable rubber solution, semi-curing the same, and then coating the material with a solution of rubber suitably prepared for vulcanizing.

2. The herein described process, which consists in subjecting a plurality of strips of flexible material to a suitably prepared rubber solution, heating the same and subjecting the plies to pressure to cause them to adhere to each other, and subjecting the strips to steam for a suitable period of time so that they are semi-cured.

3. The herein described process, which consists in subjecting a plurality of strips of flexible material to a suitably prepared rubber solution, heating the same and subjecting the plies to pressure to cause them to adhere to each other, subjecting the strips to steam for a suitable period of time so that they are semi-cured, and coating the strips with a solution of rubber suitably prepared for quick vulcanizing.

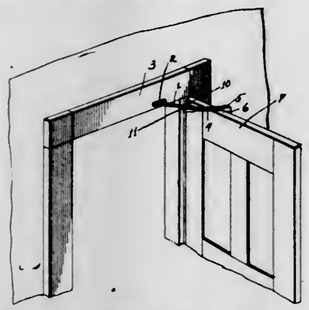
4. The process of manufacturing inner liners for tires, which consists in forming a strip of absorbent flexible material of a suitable width and length, impregnating the same with a rubber solution, forming the said strip to the proper shape for the size of tire with which the liner is to be used, and subjecting the formed strip to a vulcanizing process until the strip is semi-cured.

5. The herein described process of manufacturing inner liners for tires, which consists in preparing strips of absorbent flexible material of proper length and width, impregnating the said strips with a suitably prepared rubber solution, subjecting the strips to pressure whereby they adhere to each other, forming the said strips over a form or in a mold to give the desired shape for the tire

with which the liner is to be used, and subjecting the formed strip to a vulcanizing process until the same is semi-cured.

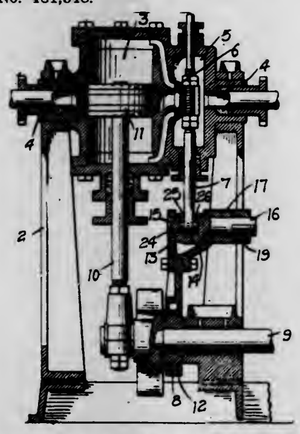
[Claims 6 to 11 not printed in the Gazette.]

944,723. DOOR-CHECK. JACOB A. EVANS, Columbus, Ohio, assignor to Alphonse Roesch, Columbus, Ohio. Filed Sept. 18, 1909. Serial No. 518,375.



In a device of the character described, the combination with a bar, of means for pivotally connecting one end of said bar to a door frame, a second bar, means for pivotally connecting said second bar to a door, enlarged heads formed upon each of said bars, the head of the first named bar having a longitudinal channel formed therein and said head having a V-shaped longitudinal channel formed in its under face, a V-shaped rib carried by the upper face of the last named bar, a threaded bolt extending upwardly through both of said heads, a thumb nut threaded upon the upper end of said bolt, and a spring bearing between the under side of said thumb nut and the head of the first named bar, the lower end of said spring resting in the channel of said head.

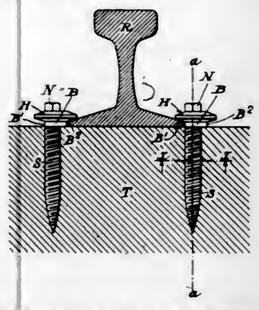
944,724. VALVE-GEAR FOR STEAM-ENGINES. WALTER M. EVERED, Duluth, Minn. Filed Mar. 5, 1909. Serial No. 481,348.



1. The combination, with an upright frame, of an oscillating cylinder mounted therein and having a steam chest, a slide valve for said chest, a stem for said valve, an eccentric and strap therefor, a segmental block having a curved guide way therein mounted on said strap, a hanger pivoted in said frame and having a bearing for said block, a lever pivoted in said frame and operatively connected with said segmental block to oscillate the same, a slide block fitting within the guide way in said segmental block and pivotally mounted on said valve stem, substantially as described.

2. The combination, with an upright frame, of an oscillating cylinder journaled therein and having a steam chest and slide valve therefor and a stem for said valve, an eccentric and strap therefor having a forked upper end, a segmental block having trunnions journaled in the forked end of said strap, said segmental block having a curved guide way therein, a hanger pivoted on said frame and journaled on one of said trunnions, a reversing lever also pivoted on said frame and also journaled on one of said trunnions and adapted to move vertically to tilt said segmental block, a slide block fitting within said guide way and pivotally connected with said valve stem.

944,725. SPIKE FOR RAILWAY AND LIKE USES. WALTON FERGUSON, Jr., Stamford, Conn. Filed June 3, 1909. Serial No. 500,018.



1. A rotatable spike having a head adapted to overlie a rail flange and an abutment for laterally shifting and holding the rail flange, said abutment having abutting portions at different distances from the axis of rotation of the spike for holding the rail at different positions.

2. A rotatable spike having a head adapted to overlie a rail flange and an abutment for laterally shifting and holding the rail flange, having abutting portions at different distances from the axis of rotation of the spike for holding the rail at different positions, said abutting portions being flattened to prevent accidental rotation of the spike.

3. A rotatable spike having a head adapted to overlie a rail flange and an abutment for laterally shifting and holding the rail flange, having abutting portions at different distances from the axis of rotation of the spike for holding the rail at different positions, said abutting portions being flattened to prevent accidental rotation of the spike, said spike having faces for engaging a wrench.

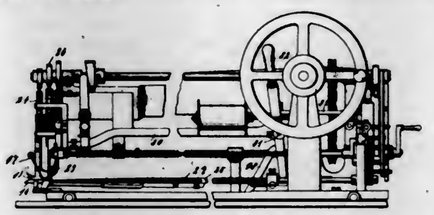
4. A rotatable spike having a head adapted to overlie a rail flange and an abutment for laterally shifting and holding the rail flange, having abutting portions at different distances from the axis of rotation of the spike for holding the rail at different positions, said abutting portions being flattened to prevent accidental rotation of the spike, said spike being screw-threaded.

5. A rotatable rail spike having an abutment projecting laterally and presenting abutment portions at different distances from the axis of rotation, whereby the same may bear against and laterally shift or hold a rail flange at different positions of alinement of the flange, for substantially the purposes set forth.

[Claim 6 not printed in the Gazette.]

944,726. WARP-LEASING APPARATUS. OTTO FISCHER, Plauen, Germany. Filed Oct. 15, 1908. Serial No. 457,803.

1. In a warp leasing device the combination with a thread separating needle movable to prick behind the warp to be separated from above, of a projecting member located behind the needle and capable of similar movement as said needle, said member being separated from the needle by a narrow gap through which the warp to be separated passes.



2. In a warp leasing device the combination with a thread separating needle having an inclined surface in direction of advance of the apparatus and movable to prick behind the warp to be separated from above, of a projecting member located behind the needle and capable of similar movement as said needle, said member and needle being separated by a narrow gap into which the inclined surface of the needle thrusts the warp.

3. In a warp leasing device the combination with a thread separating needle movable to intersect the plane of the warp threads, a projecting member located behind the needle, and separated therefrom by a narrow gap through which the warp to be separated passes, and means for imparting similar movement to said member as to the needle, comprising a reciprocating rod, and a bifurcated lever in connection with said rod, the lever carrying on one limb thereof the needle and on the other limb the projecting member aforesaid.

4. In a warp leasing device the combination with a thread separating needle movable to intersect the plane of the warp threads, a projecting member located behind the needle and separated therefrom by a narrow gap through which the warp to be separated passes, and means for imparting similar movement to said member as to the needle, comprising a reciprocating rod, a bifurcated lever in connection with said rod, the lever carrying on one limb thereof the needle and on the other limb the projecting member aforesaid, and means for adjusting the needle on said bifurcated lever to regulate the width of gap between the needle and projecting member.

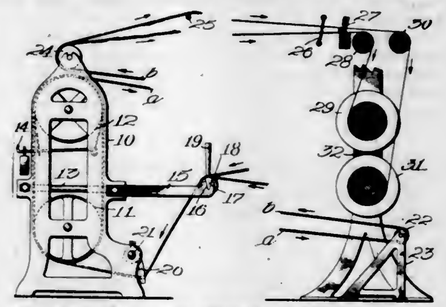
5. In a warp leasing device the combination with a thread separating needle movable to intersect the plane of the warp threads, a projecting member located behind the needle and separated therefrom by a narrow gap through which the warp to be separated passes, and means for imparting similar movement to said member as to the needle, comprising a reciprocating rod, a bifurcated lever in connection with said rod, the lever carrying on one limb thereof the needle and on the other limb the projecting member aforesaid, and means for permitting downward movement of said projecting member relatively to the bifurcated rod to allow withdrawal of said member from the warp.

[Claims 6 to 10 not printed in the Gazette.]

944,727. CHAIN-BEAMING MACHINE. ALBERT E. FLIGHT and SAMUEL M. TILTON, Fitchburg, Mass., assignors to Parkhill Manufacturing Company, Fitchburg, Mass., a Corporation of Massachusetts. Filed Apr. 14, 1909. Serial No. 489,797.

1. In a chain beaming machine, the combination of a frame, a pair of drums thereon for receiving the yarn, guides carried by the frame between said drums for separating the yarn passing around said drums, arms projecting outwardly from the frame from between the drums, and a stationary tension rack on said arms at a distance from the drums.

2. In a chain beaming machine, the combination of a frame, a pair of drums thereon for receiving the yarn, horizontal guides on the frame between said drums, a pair of horizontal arms projecting from said frame at the level of said guides, and a stationary removable tension rack mounted at the ends of said arms and having pins projecting therefrom to keep the chains of yarn separate.



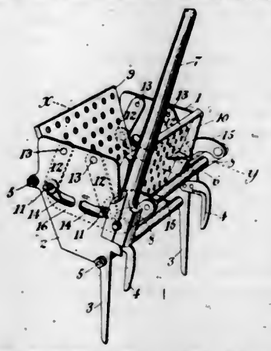
3. In a chain beaming machine, the combination of a frame, a pair of drums thereon for receiving the yarn, a pair of arms projecting from said frame from between the drums, a stationary tension rack mounted on said arms, a shaft or rod extending across the frame below said arms, a guide on said shaft or rod located at a lower level than the lower drum, said guides and drums being adapted to receive two chains of yarn simultaneously.

4. In a chain beaming machine, the combination of a frame, a pair of drums thereon, guides between the drums, a guide supported by the frame at a distance in front thereof and adapted to receive two chains of yarn one on each end of the guide, and to guide it to said drums, rollers for guiding the chains of yarn from said drums and keeping said chains in the same plane, means for separating one chain from the other, a reed for spreading the strands of both chains to cause one to extend above the other throughout the width thereof, and means for receiving the two chains of yarn separately from said reed.

5. In a chain beaming machine, the combination of a set of drums adapted for receiving two chains of yarn simultaneously, one chain on each end, rollers for receiving the chains of yarn from the drums, one on each end, means for separating one chain from the other so as to be in different planes, a reed for spreading the yarn of both chains out in planes one above the other, and each of the same width, a measuring roll for receiving the lower chain of yarn, a separating roll at substantially the same level as the measuring roll for receiving the other chain of yarn, and two beams located one above the other, one for receiving each of said chains of yarn from said measuring and separating rolls respectively.

[Claims 6 and 7 not printed in the Gazette.]

944,728. MOP-WRINGER. MICHAEL M. FLYNN, Woonsocket, R. I. Filed Feb. 18, 1908. Serial No. 416,442.

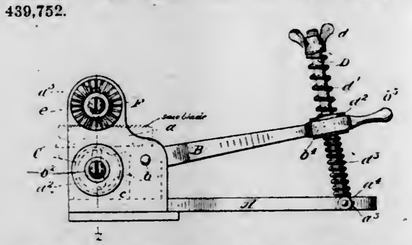


1. In a mop wringer, two movable flat perforated presser members, both of which are pivotally attached

near their centers to the free ends of swinging supporting members, whose other ends are pivoted to the supporting frame, and an actuating member secured to them whereby they may be simultaneously moved toward and away from each other.

2. In a mop wringer, two movable presser members, swinging links supporting them respectively and to which they are pivotally secured, operating mechanism to move both members toward each other simultaneously and stops to limit the swing of said members.

944,729. SAW-TOOTH-SETTING DEVICE. HUGH B. FOLEY, Cleveland, Ohio, and FREDERICK G. WRIGHT, Seattle, Wash. Filed June 22, 1908. Serial No. 439,752.



In a saw tooth setting device, the combination of a suitable frame; a freely rotatable setting member mounted upon said frame; a spring-actuated lever pivotally mounted upon said frame; a grooved roller so mounted upon said lever that it will freely rotate in opposition to and in yielding engagement with said setting member; and means comprising the regulation of the pressure on the springs for adjusting such lever into operative position.

944,730. FILE. THOMAS E. GILL, Canton, Ohio. Filed Feb. 11, 1909. Serial No. 477,371.



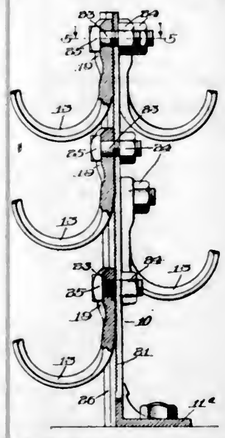
A file provided with mutually crossing series of teeth having their cutting edges curved rearwardly from the respective edges of the file toward the opposite edges, and convexed toward the forward end of the file.

944,731. ADJUSTABLE SUPPORTING DEVICE FOR PIPES. EGBERT H. GOLD, Chicago, Ill. Filed Aug. 17, 1909. Serial No. 513,283.

1. In an adjustable device for supporting pipes, the combination with a standard, of a plurality of brackets and means for adjustably attaching said brackets on the opposite faces of said standard with the brackets on one face at one side thereof and those on the other face on the other side thereof, the portion of said standard to which the two sets of brackets are attached being off-set with respect to each other so as to diminish the distance between the vertical planes of the respective sets of pipes supported thereby.

2. In an adjustable device for supporting pipes, the combination with a standard formed with two longitudinal slots, of a plurality of brackets and means for adjustably attaching said brackets through said slots upon the opposite faces of said standard, the portions of the standard to which the two sets of brackets are attached being off-set with respect to each other so as to diminish the distance between the vertical planes of the respective sets of pipes supported thereby.

3. In an adjustable device for supporting pipes, the combination with a standard formed with two longitudinal slots, of a plurality of brackets and means for adjustably attaching said brackets through said slots upon the opposite faces of said standard, the portions of the standard to which the two sets of brackets are attached being off-set with respect to each other so as to diminish the distance between the vertical planes of the respective sets of pipes supported thereby, the faces of said standard along said slots and the parts of the brackets engaging the same being serrated.



4. In an adjustable device for supporting pipes, the combination with a standard formed with two longitudinal slots, of a plurality of brackets and means for adjustably attaching said brackets through said slots upon the opposite faces of said standard, the portions of the standard to which the two sets of brackets are attached being off-set with respect to each other so as to diminish the distance between the vertical planes of the respective sets of pipes supported thereby, the faces of said standard along said slots and the parts of the brackets engaging the same being serrated, and ribs on the opposite faces of said standard forming channels for said brackets.

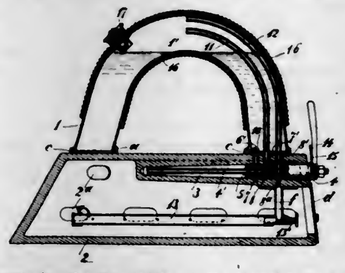
5. In an adjustable device for supporting pipes, the combination with a standard having a supporting foot, and formed on opposite faces and on different sides of its center line with longitudinal channels and with longitudinal slots centrally of said channels, the bottoms of said channels being serrated, of a plurality of pipe supporting brackets, the backs of which are serrated and which fit into said channels, bolts and nuts for attaching the several brackets at any desired position along the slots, ribs on the faces of said brackets adapted to engage the heads of said bolts, and ribs on the part of the face of the standard opposite one of said channel portions adapted to engage the heads of one set of bolts, whereby the bolts of both sets of brackets may extend through the standard in the same direction and held against rotation when the nuts are applied thereto.

[Claims 6 and 7 not printed in the Gazette.]

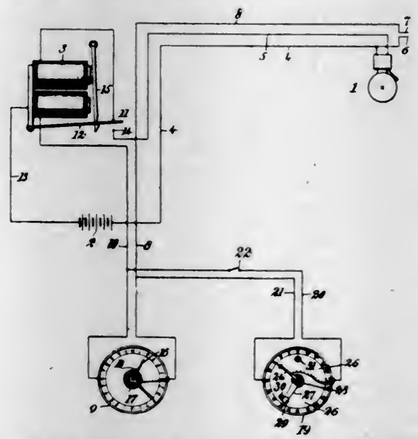
944,732. SMOOTHING-IRON. MAX IMHOFF, Vienna, Austria-Hungary, assignor to Wihl. Weltinaegeli, Oberrieden, near Zurich, Switzerland. Filed Dec. 22, 1908. Serial No. 468,806.

1. In a smoothing iron, the combination with a burner, a vaporizer and a liquid fuel reservoir; of a connection between the reservoir and vaporizer, means to deliver vaporized fuel to the reservoir over the liquid fuel therein, means to connect the space above the liquid fuel with the burner, and a single valve to control said connection and means.

2. In a smoothing iron, the combination with a hollow handle serving as a reservoir for liquid fuel; of a body portion connected thereto and having a vaporizing chamber, a pipe connecting the lower part of the reservoir and the vaporizer, a pipe connecting the vaporizer with a vapor space in the reservoir above the liquid fuel therein, a burner, a pipe connecting the vapor space and burner and a single valve controlling all of said pipes and having elongated ports for the two latter pipes, whereby the fuel supply between the reservoir and vaporizer may be cut off without cutting off the passage of vapor to and from the vapor space.



944,733. TIME-CONTROLLER FOR BURGLAR-ALARM SYSTEMS. MAXIMILIAN F. JURUICK, New York, N. Y., assignor, by mesne assignments, to Electric Bank Protection Company, a Corporation of Delaware. Filed Aug. 16, 1907. Serial No. 388,787.



1. A time controller for alarm systems, comprising a suitable clockwork, a clock face insulated therefrom, a hand carried by said clockwork and normally contacting with said face, and an arm pivoted concentric with the hand and provided with means adapted to electrically disconnect the hand from said clock face.

2. A time controller for alarm systems, comprising a suitable clockwork, a clock face insulated therefrom, a hand carried by said clockwork, a roller on said hand normally contacting with said clock face, and an arm pivotally connected to said clock face and having an insulating plate adapted to be inserted between said roller and said clock casing.

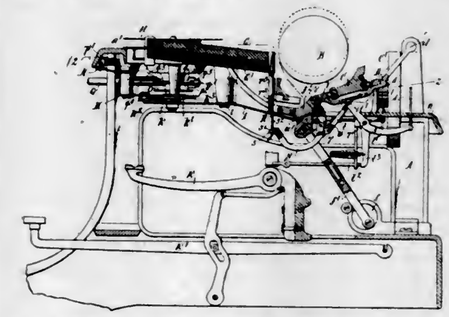
3. A time controller for alarm systems, comprising a suitable clockwork, a clock face, a hand carried by said clockwork and normally contacting with said clock face, and an arm pivoted to said clock face adjacent the center thereof and having a plate of insulating material adapted to be inserted between the hand and the clock face, whereby the hand may be separated from the clock face and moved to any desired position.

4. A time controller for alarm systems, comprising a suitable clockwork, a clock face insulated therefrom, a hand carried by said clockwork and having a roller normally contacting with the clock face to close the circuit, and an arm pivoted to said clock face and having an insulated plate adapted to be inserted between the roller and the clock face to break the circuit, said arm being adapted to move the hand to any desired position while maintaining the circuit in an open condition, the clockwork being adapted to move the roller from said insulated plate and into contact with the face of the clock to close the circuit after a predetermined length of time.

5. A time controller for alarm systems, comprising a suitable clockwork, a clock face insulated therefrom, a hand carried by said clockwork and normally contacting with said clock face to close the circuit, and means pivoted concentric with the hand whereby the hand may be separated from the clock face to break the circuit and said hand moved to any predetermined position, the clockwork being adapted to bring the hand again into contact with the clock face to close the circuit after a predetermined length of time, and to again break the circuit after a second predetermined length of time.

[Claims 6 to 22 not printed in the Gazette.]

944,734. RIBBON MECHANISM FOR TYPE-WRITING MACHINES. OSCAR C. KAVLE, Syracuse, N. Y., assignor to Harvey A. Moyer, Syracuse, N. Y. Filed July 1, 1907. Serial No. 381,762.



1. In a typewriting machine, a ribbon vibrator having integral side portions thereof bent inwardly and integral upper and lower portions thereof bent toward said inwardly bent side portions to form separate guides for two ribbons, with separate openings therein to permit the insertion and removal of the ribbons, substantially as set forth.

2. In a typewriting machine, the combination of a movably supported ribbon guide having two openings therein, one of said openings being longer than the other, and a vibrating lever having a part normally engaging in the smaller opening to vibrate the guide, and adapted to be placed in the longer opening and to vibrate therein independently of the guide, substantially as set forth.

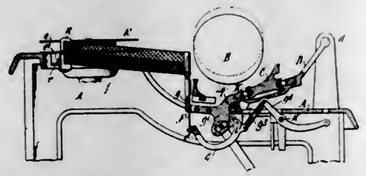
3. In a typewriting machine, the combination of a carriage shift frame, a vibrating ribbon guide and a pivoted vibrating lever for the same supported on said shift frame, a lever fulcrumed in rear of the vibrating lever pivot and having an arm projecting upwardly and forwardly, and a link pivotally connected to said lever arm and to the vibrating lever, substantially as set forth.

4. In a typewriting machine, the combination of a carriage shaft frame pivoted at its rear portion, a vibrating ribbon guide supported by the shift frame, a vibrating lever connected at its front end to the ribbon guide and pivoted at its rear portion to the shift frame, an operating lever fulcrumed in rear of said lever, and a link pivoted to said arm and to said lever, the link being arranged to swing across a straight line passing through the pivotal axis of said shift frame and the pivoted connection between the link and said operating lever when said shift frame is shifted, substantially as set forth.

5. In a typwriting machine, the combination of a carriage shift frame, a ribbon guide, a lever for vibrating said guide pivoted on said shift frame, and operating connections for said vibrating lever including a link which extends from said vibrating lever in a direction substantially toward the pivotal axis of said shift frame whereby the movements of said vibrator lever are substantially the same in different positions of said shift frame, substantially as set forth.

[Claims 6 to 29 not printed in the Gazette.]

944,735. RIBBON MECHANISM FOR TYPE-WRITING MACHINES. EMMIT G. LATTA, Syracuse, N. Y., assignor of one-half to Harvey A. Moyer, Syracuse, N. Y. Filed Sept. 6, 1907. Serial No. 391,551.



1. In a typewriting machine, a ribbon guide or vibrator having guiding parts for holding two separate ribbons edge to edge, and guiding parts for a single ribbon of greater width than one of said two separate ribbons, whereby either two narrow ribbons or one wide ribbon may be used with the same guide or vibrator, substantially as set forth.

2. In a typewriting machine, a ribbon guide or vibrator having guiding parts for three ribbons arranged for guiding two ribbons edge to edge or a single ribbon without change in the guide or vibrator, substantially as set forth.

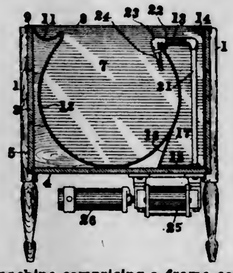
3. In a typewriting machine, a ribbon guide or vibrator having guiding parts arranged for holding two separate ribbons in substantially the same plane, and guiding parts for holding a single ribbon in a different plane from the two ribbons, substantially as set forth.

4. In a typewriting machine, a ribbon guide or vibrator having guiding parts for a single ribbon, and having guiding parts for two separate ribbons of less width than that of the single ribbon, said guiding parts for the two ribbons overlapping the guiding parts for the single ribbon, substantially as set forth.

5. In a typewriting machine, the combination of a ribbon vibrator having guides for holding two separate narrow ribbons edge to edge, and a guide for holding a single wide ribbon in a corresponding relation to the printing position, and means for operating said vibrator to vibrate either of said narrow ribbons or either of different portions of said wide ribbon to and from the printing position without change in the normal position of the vibrator, substantially as set forth.

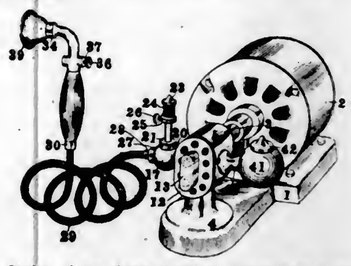
[Claims 6 to 36 not printed in the Gazette.]

944,736. WASHING-MACHINE. NATHANIEL LOMBARD, Akron, Ohio. Filed Feb. 4, 1909. Serial No. 476,023.



A washing machine comprising a frame containing a receptacle having curvilinear walls adapted to receive a cleansing medium and the articles to be cleaned, an overflow tank contained in said frame and arranged adjacent to said receptacle and adapted to receive the overflow of the cleansing medium from said receptacle, means for supplying and forcibly discharging downwardly approximately parallel with one of the curvilinear walls a cleansing medium into said receptacle for imparting to said cleansing medium in said receptacle and the articles carried thereby a vertical whirling motion and a pump for exhausting the cleansing medium from said overflow tank and supplying it to said means.

944,737. VACUUM MASSAGE-MACHINE. NATHANIEL LOMBARD, Akron, Ohio. Filed Feb. 10, 1909. Serial No. 477,153.



1. A device of the class described comprising a supporting-instrumentality, a pump-casing mounted thereon, an exhaust pump positioned in said casing, a valve-casing in open communication with said pump-casing, a valve in said casing, resilient means for controlling the movement of said valve, a tube having one end connected to said valve-casing, a tubular hand-piece on the opposite end of said tube and a valve on said hand-piece for controlling the passage of a fluid therethrough.

2. A device of the class described comprising a supporting-instrumentality, a casing mounted thereon, an exhaust pump positioned in said casing comprising a plurality of intermeshing gears, a motor for operating said gears, said gears aadpted to fit snugly within said casing, said casing provided with an inlet-opening, a valve-casing connecting said inlet-opening, a valve for controlling the passage of a fluid through said valve-casing, means operating said valve for resiliently holding the same on its seat, a tube connected with said valve-casing, a tubular hand-piece on the opposite end of said tube and a cup-shaped tool carried by said hand-piece.

3. A device of the class described comprising a supporting-instrumentality, a casing mounted thereon, an exhaust pump positioned in said casing comprising a plurality of intermeshing gears, a motor for operating said gears, said gears adapted to fit snugly within said casing, said casing provided with an inlet-opening, a valve-casing connecting said inlet-opening, a valve for controlling the passage of a fluid through said valve-casing, means operating said valve for resiliently holding the same on its seat, a tube connected with said valve-casing, a tubular hand-piece on the opposite end of said tube, a cup-shaped tool carried by said hand-piece and means for regulating the degree of pressure imposed on said valve by said resilient element.

4. A device of the class described comprising a supporting-instrumentality, a pump-casing mounted thereon, an exhaust pump mounted within said casing, a motor for operating said pump, said casing provided with inlet and exhaust-openings, a tube in open communication with said inlet-opening, a tubular hand-piece connected with the opposite end of said tube, a cup-shaped tool carried by said hand-piece, a muffler communicating with said exhaust-opening provided with an aperture and a valve normally adapted to close said aperture.

5. A device of the class described comprising a supporting-instrumentality, a pump-casing mounted thereon, a pump mounted within said casing, a motor for operating said pump, said casing provided with inlet and exhaust-openings, a tube in open communication with said inlet-opening, a tubular hand-piece connected with the opposite end of said tube, a cup-shaped tool carried by said hand-piece, a muffler communicating with said exhaust-opening provided with an aperture adapted to contain a muffling fluid, and a valve normally adapted to close said aperture.

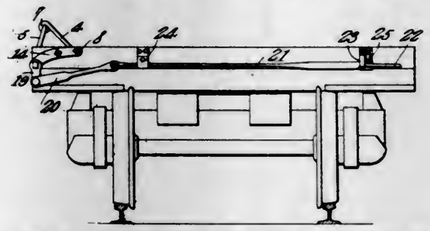
[Claims 6 and 7 not printed in the Gazette.]

944,738. MEDICAMENT FOR DISEASES OF THE MUCOUS MEMBRANE. WINDELER LOOSE, Bremen, Germany. Filed Aug. 16, 1909. Serial No. 513,135.

1. The hereindescribed process of manufacturing a medicament for diseases of the mucous membrane, which consists in hard boiling a hen's egg and obtaining the albumen therefrom, in treating the albumen thus obtained with wine and simultaneously squeezing the same through small orifices and thereby obtaining granular, very fine particles of the albumen coagulated by boiling, in adding said constituents to wine, and subsequently adding sulfate of zinc and sugar to the mixture thus obtained.

2. The hereindescribed process of manufacturing a medicament for diseases of the mucous membrane, which consists in hard boiling a hen's egg, in adding approximately one hundred and twenty-five grams of granular, very fine particles of the albumen coagulated by boiling to approximately one liter of pure wine, and in subsequently adding to the mixture thus obtained approximately four grams of sulfate of zinc and approximately four grams of finely pulverized cane sugar, substantially as described.

944,739. CAR-STAKE. TAYLOR H. MACLAFFERTY, Tenino, Wash. Filed May 10, 1909. Serial No. 495,056.

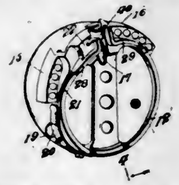


1. The combination with a car truck, of a device for holding logs thereon, comprising a beam, a chock pivoted at one end on said beam and adapted to collapse upon the same, an arm pivotally attached to the free end of said chock and forming a prop for same when in operative position, a means attached to said arm adapted to grasp the end of said beam, and prevent said arm from collapsing inwardly or laterally, a means carried by said beam for releasing the arm and forcing it from its operative position, and a locking member adapted to automatically lock when the device is put in operative position.

2. The combination with a car truck, of a device for holding logs thereon, comprising a beam, a chock pivoted on said beam and adapted to collapse upon the same, an arm pivotally attached to said chock adapted to hold the same in an upright position and having a means for grasping the end of the beam, to prevent the arm from collapsing inwardly, a locking member provided with projections to impinge against the outer face and end of said arm, adapted to perform the dual function of holding the same in operative position or forcing it from said position, a lever for operating said member, and a latch to automatically lock said lever when the device is in operative position.

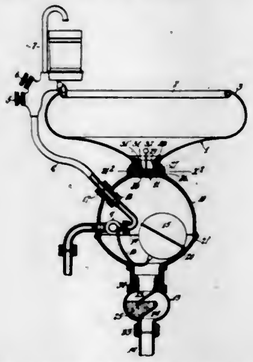
944,740. SEWING-MACHINE. ALFRED L. MADISON, Brooklyn, N. Y., assignor to Willcox & Gibbs Sewing Machine Company, New York, N. Y., a Corporation of New York. Filed Dec. 1, 1905. Serial No. 289,808.

1. In a lock-stitch sewing machine, the combination of a rotary hook, a coöperating needle, a stationary bobbin case having at one side thereof at its outer edge a passage into which the needle descends, a guard on the bobbin case bridging across said needle passage, and a thread-eye or guide on the bobbin case having its exit end below the upper edge of said guard whereby the bobbin thread extends upward to the work past said guard.



2. In a lock-stitch sewing machine, the combination of a rotary hook, a coöperating needle, a stationary bobbin case having at one side thereof at its outer edge a passage into which the needle descends, a guard consisting of a plate or wall bowed or curved outward around the passage into which the needle descends and joining the bobbin case at its opposite ends, and a thread-eye or guide on the bobbin case having its exit end below the upper edge of said guard whereby the bobbin thread extends upward past said guard to the work.

944,741. AUTOMATIC CUT-OFF FOR CUSPIDORS AND OTHER HYDRAULIC DEVICES. DON JUAN MERRICK and CHARLES J. FUNK, Redondo Beach, Cal. Filed Nov. 17, 1908. Serial No. 463,121.



1. A dental cuspidor having an outlet in its bottom, a float chamber detachably connected at its top to the outlet portion of the cuspidor, a water supply connection for the cuspidor provided with a valve, and a float within the float chamber connected to said valve to close the valve on rise of water in the float chamber.

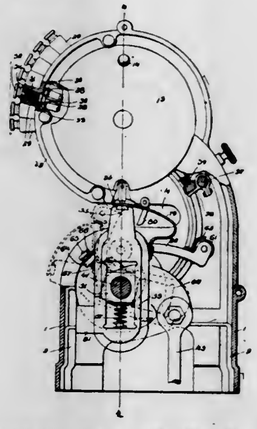
2. A dental cuspidor having an outlet in its bottom, a float chamber detachably connected at its top to the outlet portion of the cuspidor, a water supply connection for the cuspidor provided with a valve, a float within the float chamber connected to said valve to close the valve on rise of water in the float chamber, and a trap detachably connected to the lower end of the float chamber and provided with outlet means.

3. A dental cuspidor having an outlet in its bottom, a float chamber detachably connected at its top to the outlet portion of the cuspidor, a water supply connection for the cuspidor provided with a valve, and a float within the float chamber connected to said valve to close the valve on rise of water in the float chamber, said float chamber being formed in upper and lower portions detachably connected together.

4. A dental cuspidor having an outlet in its bottom, a float chamber detachably connected at its top to the outlet

portion of the cuspidor, a water supply connection for the cuspidor provided with a valve, a float within the float chamber connected to said valve to close the valve on rise of water in the float chamber, said float chamber being formed in upper and lower portions detachably connected together, the water supply connection for the cuspidor having a portion extending within the upper portion of the float chamber, and the valve in said water supply connection being within and carried by this upper portion of the float chamber.

944,742. STAMPING-MACHINE. ROBERT W. MUNK, Atlanta, Ga., assignor of one-third to J. L. De Give and one-third to J. T. Thomason, Atlanta, Ga. Filed Nov. 13, 1907, Serial No. 402,031. Renewed May 3, 1909. Serial No. 493,713.



1. In a mechanism of the class described, the combination of a printing type, of a platen for presenting the article to be printed to said type, a frame carrying said platen, means for moving said frame, an inking roller frame carried by the first mentioned frame, and an inking roller carried thereby, and a bar mounted so as to depend in the path of movement of the inking roller frame contiguous to the type of sufficient length to extend across the type when brought into alinement therewith for preventing the inking roller from contacting with the type as the same approaches the type.

2. In a mechanism of the class described, the combination with printing type, of a platen therefor, a yoke carrying said platen having depending slotted arms, means to swing the yoke, a revolubly mounted shaft extending through the slots of said arms, guiding means revolubly mounted on the shaft, and fitted in the slots of said arms, cams fixed to the shaft and engaging said yoke for moving the yoke when the shaft is revolving, and means for limiting the swinging movement of the yoke for producing longitudinal movement thereof under the action of the cams.

3. In a mechanism of the class described, the combination with printing type, of a platen movable with respect to the same and adapted to present thereto the article to be printed, a swinging and reciprocating frame carrying said platen, means for swinging and reciprocating the frame for presenting a platen to the type, and means for inking the type connected with said frame operable only upon the approach of the platen toward the type.

4. In a mechanism of the class described, the combination with printing type, of a platen for presenting the article to be printed to said type, a swinging frame carrying said platen, means for swinging the frame, and an inking roller connected with the frame in position for moving past the type, as the platen approaches the same and as the platen recedes from the same, and means for preventing contact of the inking roller with the type as the platen recedes from the type.

5. In a mechanism of the class described, the combination with printing type, of a platen for presenting the article to be printed to said type, a swinging frame carrying said platen, means for swinging said frame, an inking roller frame carried by the first-mentioned frame, an inking roller carried thereby, and a pivoted bar pivoted to depend in the path of movement of the inking roller frame contiguous to the type and of sufficient length to extend across the type when brought into line therewith for preventing the inking roller from contacting with the type as the same approaches the type, the said pivoted bar being of less length than the length of the stroke of the printing roller frame for permitting the printing roller frame to pass the bar after passing the type in one direction of its swing.

[Claims 6 to 8 not printed in the Gazette.]

944,743. VOTING-MACHINE. JOHN H. MCELROY, Chicago, Ill. Filed Sept. 2, 1899. Serial No. 729,274.

1. In a voting machine, the combination of a register, and a key therefor, having a controlling member attached thereto, with another controlling member in connection with said key but movable independently thereof, and two actuating members for said register, one of which is thrown out of operation by the controlling member on the key when it is unoperated and the other of which is thrown out of operation by the second controlling member when it is operated.

2. In a voting machine, the combination of a series of registers, and a corresponding series of keys therefor; with a corresponding series of controlling members carried by said keys, a second series of controlling members moved by said keys but movable independently thereof, and connections between the controlling members of said second series to cause them to move in unison; and two actuating members for each of said registers, one of which is thrown out of operation by the combined operation of both key and the independent controlling member, while the other is permitted to operate when the key and the independent member are unoperated, and both of which are thrown out by the operation of the independent controlling member without the operation of the key.

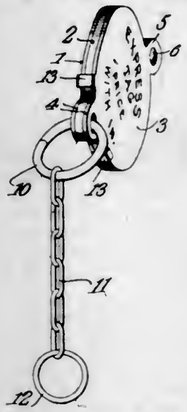
3. In a voting machine, the combination with the actuating members, and the register actuating arms with which they coöperate, of controlling means interposed between said members and arms to prevent the actuation of the arms by the actuating members consisting of the keys carrying a controlling surface which in one position deflects one of said actuating members, and a controlling surface moved by said key but movable independently thereof which in one position deflects the other actuating member.

4. In a voting machine, the combination with the actuating members, and the register actuating arms with which they coöperate, of controlling means interposed between said members and arms to control the actuation of the arms by the members, said means consisting of a key and a bar moved thereby but movable independently thereof, each having a controlling surface which in one position deflects one of the actuating members and which in the other position does not deflect it.

5. In a voting machine, the combination with a series of registers having register actuating arms, and actuating members coöperating with said arms; controlling means interposed between said members and arms to prevent the actuation of the arms by the members, said controlling means comprising a movable bar common to all of the registers and having a deflecting surface thereon for each register, and the keys each provided with a deflecting surface, and connections between the bar and the keys whereby the movement of any of the keys moves the bar.

[Claims 6 to 94 not printed in the Gazette.]

944,744. TAG. ARTHUR F. PINE, Castle Rock, Colo. Filed Apr. 17, 1909. Serial No. 490,531.



1. A tag comprising a plurality of pivotally connected members, the intermediate one of which is adapted to support or contain a coin, and one of the outer members being provided with a sight opening and a card bearing the name of the owner of the tag, and the other side member having a legend displayed thereon stating that the tag contains the price of the express charges necessary to return the tag and article to which it is attached to the owner.

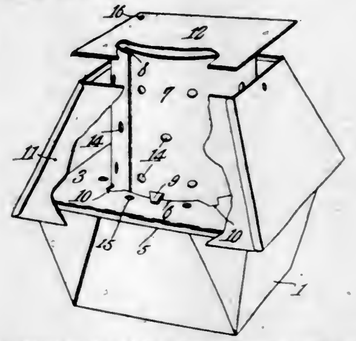
2. A tag comprising three pivotally connected members, one of which is provided with an outstruck bezel a sheet of transparent material and an address card disposed within the bezel, the intermediate member being provided with an opening to receive a coin and the other side member having displayed thereon a notice as to the use of the tag.

3. A tag comprising three pivotally connected members the intermediate one of which is provided with an opening to receive a coin, one of the side members being formed with an outstruck bezel, a sheet of transparent material and an address card held within the bezel, the other side member having displayed thereon a direction as to the use of the article, means for locking the members against pivotal movement relatively to each other, and means for attaching the tag to an article.

944,745. HEATER. JOSEPHUS C. PLANK and THOMAS E. FULGHUM, Grand Junction, Colo. Filed June 10, 1909. Serial No. 501,327.

1. A device of the class described comprising a receptacle; a cover removably mounted upon the receptacle and provided with a central opening; a hollow burner mounted in the central opening; and a hood having uninterruptedly sloping faces laterally inclosing the burner and the periphery of the cover, the burner being spaced from the hood.

2. A device of the class described comprising a receptacle; a cover removably mounted upon the receptacle and provided with a central opening; a hollow burner mounted in the central opening; a hood having sloping faces inclosing the burner and extending below the cover; and a lid removably mounted upon the burner, the burner being spaced from the hood.



3. A device of the class described comprising a receptacle; a cover removably mounted upon the receptacle and extended to the edges thereof, the cover being provided with an opening; a hollow burner adjustably mounted in the opening in the cover; and a hood having sloping faces downwardly extended beyond the edges of the cover and of the receptacle; the hood being arranged to inclose the burner and being spaced therefrom.

4. A device of the class described comprising a receptacle; a cover removably mounted upon the receptacle and provided with an opening; a hollow burner mounted in the opening in the cover; a hood having sloping faces inclosing the burner and extending below the cover, the hood being spaced from the burner and a lid removably mounted upon the burner; the burner being slidably mounted in the cover to position the upper end of the burner below the upper end of the hood; the lid being receivable by the hood to form a closure therefor when the burner is depressed.

5. A device of the class described comprising a receptacle; a cover therefor; a hollow burner mounted in the cover and arranged to extend into the receptacle; the burner being provided, both above and below the plane of the cover, with apertures; and the cover being provided with apertures circumscribing the burner.

944,746. TYPE-WRITING MACHINE. CHARLES DE LOS RICE, Hartford, Conn., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of New Jersey. Filed Nov. 23, 1908. Serial No. 464,113.



1. The combination with the revoluble platen of a typewriting machine, of a paper-feeding pressure-roll to run thereon, the body or shell of said roll consisting principally of granulated or finely divided cork with sufficient yielding plastic material to bind the particles of cork together.

2. The combination with the revoluble platen of a typewriting machine, of a paper-feeding pressure-roll to run thereon, the body or shell of said roll consisting of granulated or finely divided cork mixed with soft rubber, the cork and rubber being vulcanized together and the cork forming a substantially larger proportion of the bulk than the rubber.

3. The combination with the revoluble platen of a typewriting machine, of a paper-feeding pressure-roll to run thereon, the body or shell of said roll consisting of granulated or finely divided cork mixed with soft rubber, the

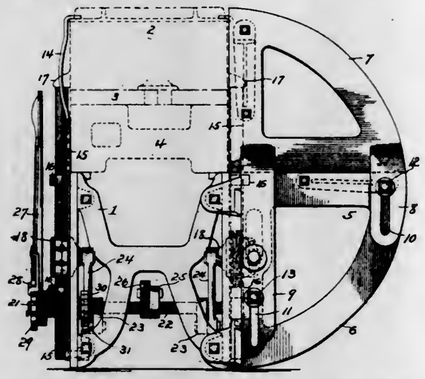
cork and rubber being vulcanized together and the cork forming a substantially larger proportion of the bulk than the rubber, the cork particles protruding slightly from the rubber, to constitute substantially the entire gripping or feeding surface of the roll.

4. The combination with the revoluble platen of a typewriting machine, of a paper-feeding pressure-roll to run thereon, consisting of a vulcanized compound of rubber and particles of cork to form a gripping surface on the roll, the rubber being only sufficient in quantity to cement the particles of cork together.

5. The combination with the revoluble platen of a typewriting machine, of a paper-feeding pressure-roll to run thereon, said roll consisting of a vulcanized mixture of granulated cork with a suitable soft-rubber compound, the rubber compound being from one-quarter to one-third of the bulk of the cork.

[Claims 6 and 7 not printed in the Gazette.]

944,747. MOLDING-MACHINE. LEWIS L. RICH, South Bend, Ind., assignor to Oliver Chilled Plow Works, South Bend, Ind. Filed Sept. 25, 1909. Serial No. 519,588.



1. In a molding machine, the combination of a cradle having a curved portion on which the same can be rocked, and means for attaching molding devices to said cradle.

2. In a molding machine, the combination of a cradle and means for attaching molding means to said cradle, said cradle having a segmental rocker on which it can be rolled to invert the molding means.

3. In a molding machine, the combination of a rocking cradle, means for attaching molding means thereto, and means for raising the cradle from said molding means after the latter shall have been inverted and deposited.

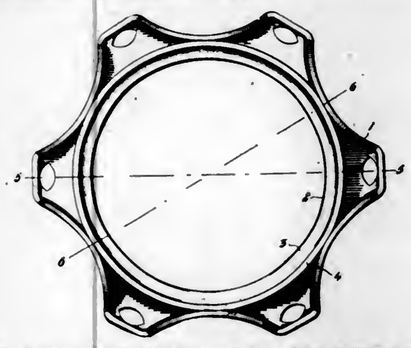
4. In a molding machine, the combination of a rocking mold-carrying cradle for inverting a mold, and means for removing said cradle from the inverted mold after the latter shall have been deposited.

5. In a molding machine, the combination with a frame adapted for the reception of molding means, of a rocker attached to said frame and comprising two members which are relatively movable.

[Claims 6 to 10 not printed in the Gazette.]

944,748. CLAMPING-RING FOR PIPE-COUPLINGS. FRANK N. SMITH and GEORGE P. BOOTHE, Bradford, Pa., assignors to S. R. Dresser Manufacturing Company, Bradford, Pa. Filed July 31, 1908. Serial No. 446,288.

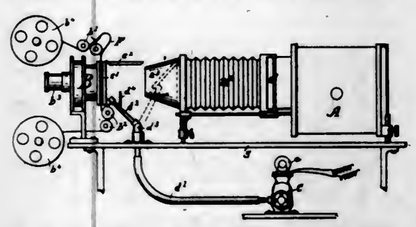
1. A clamping ring for pipe couplings comprising a plate member disposed perpendicularly to the axis of the ring, and having a central pipe aperture, an annular flange member of greater diameter than the said pipe aperture integrally united to the plate member, and extending substantially perpendicularly therefrom, said plate member being provided at intervals exteriorly to the flange member with bolt holes, and being provided with reinforcing portions between the bolt holes engaging the outer surface of the annular flange member, said reinforcing portions being perpendicular to the plate member and disposed in a curved line reverse to the curvature of the flange member, and substantially tangential thereto.



2. A clamping ring for pipe couplings formed from a single piece of wrought metal sheet, and comprising a plate member disposed perpendicularly to the axis of the ring and having a central pipe aperture, an annular flange member of greater diameter than the pipe aperture integrally united to the plate member adjacent to the said pipe member, said plate member being provided at intervals around the exterior of the flange member with bolt holes, and having reinforcing portions between adjacent bolt holes bent perpendicularly to the plane of the plate member and curved inwardly oppositely to the curvature of the annular flange member, the central portions of said inwardly curved portions having a substantially tangential contact with the outer face of the annular flange member.

3. A clamping ring for pipe couplings formed from a single piece of wrought metal sheet, and comprising a plate member disposed perpendicularly to the axis of the ring and having a central pipe aperture, an annular flange member of greater diameter than the pipe aperture integrally united to the plate member adjacent to the said pipe member, said plate member being provided at intervals around the exterior of the flange member with bolt holes, and having reinforcing portions between adjacent bolt holes bent perpendicularly to the plane of the plate member and curved inwardly oppositely to the curvature of the annular flange member, the central portions of said inwardly curved portions having a substantially tangential contact with the outer face of the annular flange member, the annular flange member having portions at its upper edge projecting outwardly therefrom above the upper edges of the tangentially contacting reinforcing portions of the plate member.

944,749. SAFETY SHUTTER DEVICE FOR MOVING-PICTURE APPARATUS. CHARLES M. STANLEY, Hamilton, Ohio. Filed July 3, 1909. Serial No. 505,892.



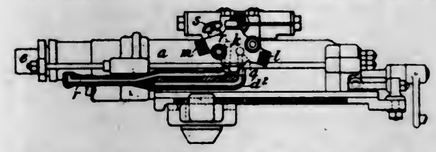
1. The combination, with light-projecting apparatus of the character indicated, of means to prevent over-heating of the film, and an opaque shutter secured in proximity to the path of light and arranged to automatically cross the same and intercept the light rays when the means to prevent overheating of the film cease to operate, but remain out of the path of the light rays when said means are operating.

2. In combination with picture apparatus of the character indicated, means for projecting a current of air in contact with the film interposed between the source of light and heat rays and the film, and across the area exposed to light and heat rays, and an opaque shutter adapted, when the air current is operating, to be held out of the path of said rays, but upon cessation or diminution of the air current to drop into a position across the path of said rays.

3. In combination with picture apparatus of the character indicated, means for producing an air current, an adjustable delivery nozzle attached thereto, and a pivoted shutter mediately connected to said nozzle and adapted to hang normally across the path of the light, but be held out of the path of light by the air current when the latter is in operation.

4. In combination with picture apparatus of the character indicated, an air nozzle and a pivoted shutter mediately attached thereto, said nozzle adjustable to hold the screen across the opening of the film-feeding apparatus, or across the opening of the light projecting apparatus as desired.

944,750. ROCK-DRILL. WILLIAM C. STEPHENS, Cornwall, England. Filed Aug. 1, 1908. Serial No. 446,450.

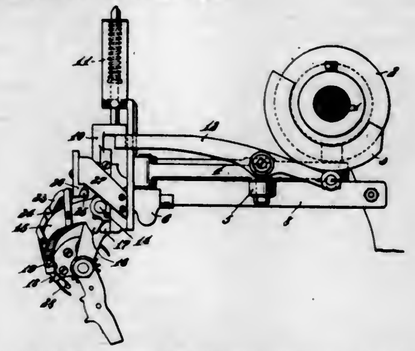


In a rock drill, the combination with the drill cylinder and piston, and a drill bit holder provided with means for supplying water to the drill bit, of a controlling cock casing provided with a water inlet, a motive fluid inlet, a water outlet connected with the drill bit holder and a motive fluid outlet operatively connected with the cylinder for supplying motive fluid thereto, of a single cock in said casing provided with a passage for connecting the motive fluid inlet and outlet, and a passage for connecting the water inlet and outlet, having a portion adapted to be brought into operative position in advance of the motive fluid passage, whereby water is admitted to the drill bit before the drill is brought into operation, substantially as described.

944,751. SHOE-SEWING MACHINE. JOHN H. URSBUCK and JOSEPH B. URSBUCK, Philadelphia, Pa., assignors of one-fourth to John A. Hunter and one-fourth to Mary A. Hunter, Philadelphia, Pa. Filed May 22, 1907. Serial No. 375,099.

1. In a sewing machine of the class recited, comprising a vibrating carrier, its needle, a vibrating arm for applying thread to the needle, with means for actuating said elements, the combination therewith of mechanism for drawing the thread across said thread-applying arm, comprising an arm carrying a loop-drawing hook, a member on which said arm is pivotally mounted, means to impart the desired series of movements to said member, means for holding said loop-drawing hook in locked position, and means for releasing it therefrom to shed the loop in the formation of the stitch; substantially as set forth.

2. In a shoe sewing machine comprising a vibrating carrier, its needle, a vibrating arm for applying thread to the needle, with means for actuating said elements, the combination therewith of a loop-drawing hook, an arm carrying it, a member on which said arm is pivotally mounted, means to impart the desired movements to said member whereby the thread is drawn by said hook across said thread-applying arm, a lever pivoted on said member with means on its end to lock said pivoted hook-carrying arm in fixed position, cam mechanism operating to trip the lever and release the hook and withdraw it from the loop, substantially as set forth.



3. In a shoe sewing machine the combination with a vibrating needle carrier, its needle, a vibrating thread-applying arm delivering thread to the needle, of means to draw the thread across the face of said arm in loop formation, comprising a pivoted hook arm, a member on which it is mounted, means to impart the desired series of movement to said member, means to lock and release said arm during the formation of the loop, and actuating devices driven from the main shaft operating to impart said movements to said arm-releasing mechanism.

4. In a shoe sewing machine comprising a vibrating needle carrier, its needle, a vibrating arm for applying thread to the needle, and means for actuating said elements, the combination therewith of mechanism for initially drawing the thread across said thread-applying arm, holding the loop during its engagement by the needle, and then releasing the loop to said thread-applying arm operating as a stitch tightener, said mechanism comprising a carrying member 15, means to impart the desired series of movements thereto, a hooked arm 18 pivotally mounted on said member, a lever 23 also pivotally mounted thereon, and provided with means detachably engaging the end of said hooked arm, with means to trip said lever and release the engagement of the hook with the loop for the completion of the stitch formation; substantially as described.

944,752. GROUND-JOINT CONNECTION. JOHN C. VOGEL, Philadelphia, Pa. Filed Feb. 6, 1909. Serial No. 476,372.



1. In a device of the character described, a flexible integral band, means adjacent one end of said band for engagement with a suitable portion thereof, and means for compressing said band for tightening the same around a suitable support or conductor.

2. In a device of the character described, a flexible band, means adjacent one end of said band for engagement with a suitable portion thereof, an offset formed in said band with the walls thereof spaced apart and means for drawing said walls together for compressing said band around a suitable support or conductor.

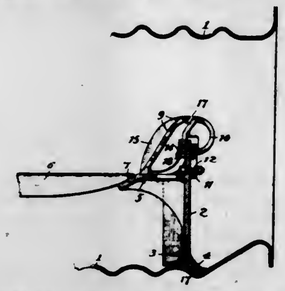
3. In a device of the character described, a flexible band, means adjacent one end of said band for engagement with a suitable portion thereof, said band being bent to form an offset and a bolt passing through said offset for compressing the same for tightening said band around a support or conductor.

4. In a device of the character described, a flexible band, a hook on said band for engagement with a suitable por-

tion thereof, an offset formed in said band and means passing through said offset for compressing said band around a suitable support or conductor.

5. In a device of the character described, a flexible band having a plurality of openings therein, means on said band for engagement with one of said openings, an offset formed in said band, and means passing through said offset for compressing said band around a suitable support.

944,753. BRIDGE-WALL FOR FURNACES. GEORGE WARRINGTON, Washington, D. C., and LUTHER D. LOVEKIN, Philadelphia, Pa.; said George Warrington assignor to James N. Warrington, Honolulu, Hawaii. Filed June 11, 1908, Serial No. 437,874. Renewed Sept. 21, 1909. Serial No. 518,800½.



1. A bridge wall for furnaces, comprising a fixed supporting member, a plurality of bars carried by said member, and a movable element for simultaneously locking the bars in position.

2. A bridge wall for furnaces, comprising a fixed supporting member, a plurality of bars carried by said member, and an element movable relative to the bars for simultaneously locking all the bars in position.

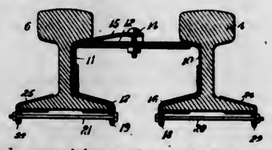
3. A bridge wall for furnaces, comprising a fixed supporting member, a plurality of bars carried by said member, and a movable element independent of the bars for simultaneously locking all the bars in position.

4. A bridge wall for furnaces, comprising a fixed supporting member, a plurality of detachable bars carried by said member and having air spaces between them, and a movable lock-bar for simultaneously locking all of the bars in place and permitting any one of the same to be removed without disturbing the others.

5. A bridge wall for furnaces, comprising a plurality of bridge bars, each bar having a rib or fin extending from the front face of said bar and projecting into the fire-box of the furnace, said ribs when the bridge bars are assembled forming a corrugated bed or surface for the fuel.

[Claims 6 to 12 not printed in the Gazette.]

944,754. SAFETY DEVICE FOR RAILROAD-FROGS. JOHN T. WATSON, Osage City, Kans. Filed Sept. 21, 1909. Serial No. 518,792.



1. A guard, comprising a plurality of telescopic channel sections, a pin-and-slot connection between said sections adapted to permit transverse movement of said sections relative to each other, and a protector for said pin-and-slot connection.

2. In a device of the class described, the combination with a plurality of relatively movable rails, of a filler for the space between said rails, comprising a plurality of relatively adjustable sections rigidly secured to said rails and adapted to move therewith.

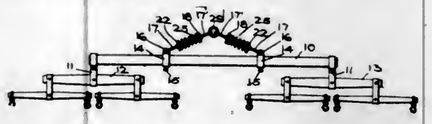
3. In a device of the class described, the combination with a plurality of relatively movable rails, of a filler for the space between said rails, comprising a plurality of relatively adjustable sections rigidly secured to said rails and adapted to move therewith, and means for adjustably securing said sections together.

4. In a device of the class described, the combination with a plurality of relatively movable rails, of a filler for the space between said rails, comprising a plurality of relatively adjustable sections rigidly secured to said rails and adapted to move therewith, said sections having a slot-and-pin connection with each other.

5. In a device of the class described, the combination with a plurality of relatively movable rails, of a filler for the space between said rails, comprising a plurality of relatively adjustable sections, and clamps rigidly securing said sections to said rails, so that said sections will move with said rails.

[Claim 6 not printed in the Gazette.]

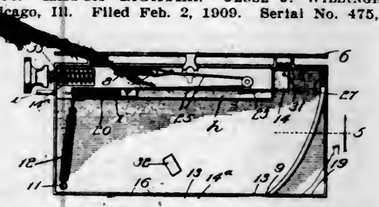
944,755. COMPENSATING DRAFT APPLIANCE. WILLIAM C. WHITE, De Smet, S. D. Filed Mar. 25, 1909. Serial No. 485,692.



1. A device of the class described comprising a cross arm, trees secured to the opposite extremities of said cross arm, sleeves adjustably disposed on said cross arm, rod members rearwardly extended from said sleeves, springs disposed about said rods secured at their rearward extremities to the outer extremities of said rods, a second set of rods disposed through said springs and secured to the same at their forward extremities, and a ring commonly engaged with the rear extremities of said second set of rods for the purpose of attaching the device to a vehicle.

2. A device of the class described comprising a cross arm, trees mounted upon the opposite extremities of said cross arm, sleeves slidably disposed intermediately upon said cross arm, rod members rearwardly extended from said sleeves, disks adjustably mounted upon the ends of said members, springs disposed about and extended forwardly from the rear extremities of said members, said springs being secured to said disks, a second set of disks secured to the forward extremities of said springs and slidably disposed upon said members, an adjusting nut disposed on said rod members for engagement with the outer face of said second disks to limit the forward motion of the same, rods disposed through said springs secured at their forward extremities to the second disks, said rods being disposed slidably through said first disks, an adjusting nut carried by said second rods for engagement with the outer faces of said first disks and a ring carried by the rear extremities of said second rods for attaching the device to a vehicle.

944,756. MATCH-LIGHTER. JESSE J. WILLINGHAM, Chicago, Ill. Filed Feb. 2, 1909. Serial No. 475,680.



1. In a match lighter, a swinging match grip, a slot therein, a pin rigidly secured at one end of said box and

projecting through said slot, the operative end of said grip projecting through an opening in said box, whereby said grip may be swung on said pin as a pivot and slide thereon the length of said slot substantially as and for the purposes described.

2. A match lighter having a partition dividing it into upper and lower compartments, a slot in said partition, adapted to allow matches in said upper compartment to drop one at a time into said lower compartment, and a swinging match grip slidably mounted therein adapted to clasp a match fallen through said slot, one end of said grip projecting through an opening in said box, whereby a match delivered to said grip may be swung within said compartment and projected through said opening substantially as described.

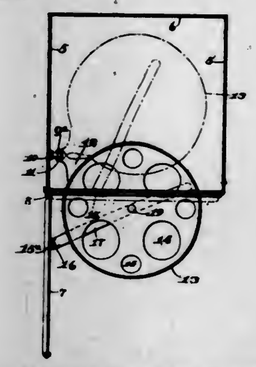
3. In a match lighter, a box compartment, a match grip pivotally and slidably mounted therein, a channel in said grip, a plunger in the rear of said channel, a spring adapted to draw said plunger rearward, a cord attached to said plunger and to a pin at the pivotal point of said grip, a spring attached to the rear of said grip and to said box, said springs being adapted to draw said channel into normal position in registration with the rear portion of a slot in the top of said compartment when deflected therefrom.

4. In a match lighter, a grip frame having a longitudinal channel on its upper surface adapted to receive a match, formed between a rigid wall and movable bar, a movable bar secured in said frame to slide therein longitudinally and swing laterally to narrow said channel, elastic means for withdrawing said bar to restore said channel to normal size, and yieldingly supported means adapted to narrow the same by crowding said bar laterally toward said rigid wall, whereby a match inserted in said channel may be alternately locked and unlocked between said bar and wall for the purposes described.

5. In a match lighter, a box divided into two compartments, a partition having a slot through which matches stored in one compartment drop into the grasp of a swinging grip, a swinging grip pivotally mounted in the other compartment with capacity for longitudinally slidable motion therein, means on said grip, operated from without said box, for clasping a match so delivered in said grip, swinging it against a striker and presenting it through a delivery opening, a delivery opening, a striker and means operated by said grip for alternately opening and closing said slot.

[Claims 6 and 7 not printed in the Gazette.]

944,757. COOKING-STOVE. HENRY A. WINTERKNIGHT, Philadelphia, Pa., assignor of one-half to James M. Cornyn, Philadelphia, Pa. Filed Dec. 8, 1908. Serial No. 466,450.



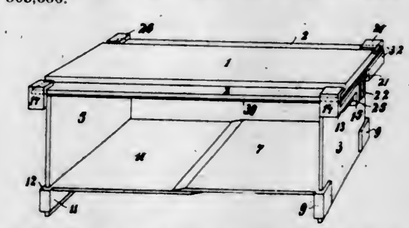
1. In a cooking stove comprising an oven having an open front and a hinged closing door therefor, and a pan-supporting rack with means substantially as described to support said rack within the oven and permit a lateral swinging movement thereof in an arc of a circle to and from normal position within the oven to a position partly projecting beyond the open front thereof, in combination with means to additionally support said rack and impart said described movements thereto, consisting of a bar journaled at one end to the door and pivoted intermediate its length beneath said swinging rack, and adapted to be actuated by the movements of the door.

2. In a cooking stove comprising an oven having a swinging door hinged to one of the walls, a vertically disposed rod mounted on the interior of a side wall of the oven, a rack plate provided with a peripheral handle journaled on said rod, and connecting means between the door and the rack plate operating to swing the rack plate on its pivotal bearing, actuated on the movement of the door.

3. In a cooking stove comprising an oven having a hinged door, of a pan-supporting rack adapted to swing laterally within the oven, means to pivotally support said rack from an interior side wall of the oven, a bar pivotally mounted by one end to the inner face of the door, and means to operatively connect the opposite end of said bar to the swinging rack.

4. In a cooking stove comprising an oven having a laterally swinging door hinged thereto, a vertically-disposed journaled rod on an interior side wall of the oven, a pan-supporting rack journaled on said rod and adapted to swing laterally, a vertically-disposed journal rod 15 on the inner face of the door, an actuating bar 17 journaled by one end on said rod 15 and extending beneath the rack, and a pin 18 pivotally connecting said rack and bar.

944,758. CIGAR-PRESSING BOX. ROBERT WOERNER, Mannheim, Germany. Filed July 1, 1909. Serial No. 505,336.



1. In a cigar-pressing box, the combination with an undivided cover, of two opposite side walls guided beneath said cover in a direction at right angles to them, means for coupling said cover to said two side walls and for uncoupling it therefrom at will, and two bottom parts vertically guided on said two side walls and overlapping one another.

2. In a cigar-pressing box, the combination with an undivided cover, of two opposite side walls provided with hooks for engaging one longitudinal edge of said cover and with spring-pressed hooks for engaging the other longitudinal edge of said cover so that said side walls can be horizontally adjusted beneath the latter, and two bottom parts vertically guided on said two side walls and overlapping one another.

3. In a cigar-pressing box, the combination with an undivided cover, of two opposite side walls provided with hooks for engaging one longitudinal edge of said cover, two spring-pressed hooks guided on said two side walls and adapted to engage the other longitudinal edge of said cover, and two bottom parts vertically guided on said two side walls and overlapping one another, said two side walls being adapted to move along said cover and the latter being capable of coupling to the former and of uncoupling therefrom.

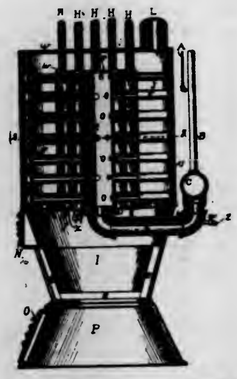
4. In a cigar-pressing box, the combination with an undivided cover, of two opposite side walls provided with guides and hooks which latter are adapted to engage one longitudinal edge of said cover, two spring-pressed hooks guided in the guides of said two side walls and adapted to engage the other longitudinal edge of said cover, and two

bottom parts vertically guided on said two side walls and overlapping one another, said two side walls being adapted to move along said cover and the latter being capable of coupling to the former and of uncoupling therefrom.

5. In a cigar-pressing box, the combination with an undivided cover, of two opposite side walls provided with flanges for bearing against said cover and with hooks for engaging one longitudinal edge of the same, two spring-pressed hooks guided on the flanges of said two side walls and adapted to engage the other longitudinal edge of said cover for pressing the latter into said hooks, and two bottom parts vertically guided on said two side walls and overlapping one another, said two side walls being adapted to move along said cover and the latter being capable of coupling to the former and of uncoupling therefrom.

[Claims 6 to 8 not printed in the Gazette.]

944,759. HOT-WATER AND STEAM BOILER. HARRY L. WOADEN and HENRY O. WURMSER, Lorain, Ohio. Filed Apr. 3, 1909. Serial No. 487,759.



1. In apparatus of the character described, the combination of an inner boiler and an outer boiler surrounding the inner boiler and spaced therefrom, with tubes extending from the inner boiler through the outer boiler and outside the latter and thence back to the outer boiler.

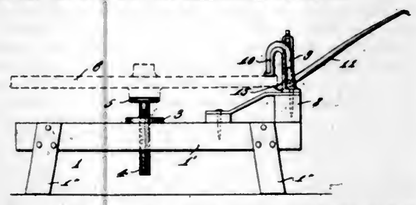
2. In apparatus of the character described, the combination of an inner cylindrical boiler an outer boiler concentric to and spaced apart from the inner boiler, with a jacket surrounding and spaced apart from the outer boiler and tubes extending from the inner boiler, through the outer boiler, into the space between the outer boiler and the jacket and back into the outer boiler.

3. In apparatus of the character described, the combination with an inner boiler and an outer boiler concentric to the inner boiler, of tubes extending from the inner boiler through the outer boiler and curved around outside the outer boiler and then entering the outer shell of the outer boiler, the ends of said tubes being radial to the boilers.

4. In apparatus of the character described, the combination of an outer jacket, an outer boiler arranged within the jacket and spaced therefrom, said outer boiler having an internal fire space, an inner boiler arranged in the fire space of the outer boiler, water tubes extending from the inner boiler through the outer boiler and beyond its outer wall and thence back into the said outer wall, supply pipes leading from the outer boiler and return pipes leading to the inner boiler.

944,760. TIRE-REMOVER. HARRY B. YOUNG and REFUGIO PALOMINO, Shafter, Tex. Filed May 26, 1909. Serial No. 498,480.

1. In a tire removing device, the combination of a supporting standard having a lateral downwardly extending arm arranged in spaced relation thereto and provided with a bearing for a wheel rim, a link connected with the central portion of the supporting standard, means for effecting vertical adjustment of said link relative to the supporting standard, and a tire removing lever pivotally connected with the link and provided with a jaw in proximity to the bearing of the arm and operable in the space between the arm and the supporting standard.

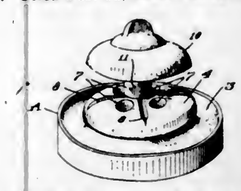


2. In a tire removing device, the combination of a supporting standard having a downwardly extending arm in spaced relation thereto, said arm and the supporting standard embodying spaced sides, a web connecting the upper portions of the sides of the standard, a detachable hanger having stepped bearings and supported on said web, a tire removing lever, and links suspending the lever pivotally between its ends from the hanger, the lever being adjustable by means of the stepped bearings of said hanger.

3. In a tire removing device, the combination of a support, a standard mounted thereon and having a downwardly curved arm, provided with a bearing for a wheel rim and a lever pendent from said standard and coacting with the arm to detach a tire from a wheel.

4. In a tire removing device, the combination of a wheel support, a standard thereon having a downwardly curved arm, a step bearing member mounted on said standard, a lever, link members pivoted to the lever between its ends, one link member being adapted to engage the step bearings, and a jaw for said lever in proximity to the arm.

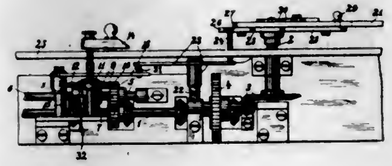
944,761. OIL-BURNER. HEAMAN F. ARENBERG, Petaluma, Cal. Filed Feb. 11, 1909. Serial No. 477,294.



1. In an oil burner, the combination of a base having a central opening and a surrounding annular channel; a support underlying the base and having an air inlet communicating with the central opening of said base; an inverted cap supported centrally above the base having a downturned surrounding flange adapted to fit over the flange between the central opening and annular channel of said base, said cap having openings through it and having radial grooves in its surface between said openings; a bell or cone above the cap having a hub portion supported on said cap, and a fuel supply pipe leading into the center of the cap below said hub.

2. In an oil burning device of the character described, a base having a central opening, an annular groove or channel around said opening, a foundation and support having air passages communicating with the central opening of the base, an inverted concaved cap, the exterior flanges of which overlap the interior flange of the base, said cap having air conducting openings made through it, a central opening and connection by which oil is delivered to said opening, radial grooves or channels located between the air openings of the cap, a bell or cone having a hub adapted to rest upon the top and center of the cap, and a loosely fitting stem extending downwardly into the oil conducting passage.

944,762. CALCULATING-MACHINE. TOBIAS BAEUERLE, St. Georgen, Black Forest, Germany, assignor to The Firm of Math. Baeuerle, St. Georgen, Germany. Filed Mar. 25, 1909. Serial No. 485,758.



1. In a machine of the character described, the combination with the main shaft and a vertical shaft driven therefrom, of a notched locking disk on the main shaft, a second notched disk on the vertical shaft, a bell-crank lever having a tooth adapted to engage the notch in the locking disk and a nose adapted to bear normally on the periphery of and engage the notch of the disk on the vertical shaft, and means for moving the bell-crank lever to an inoperative position.

2. In a machine of the character described, the combination with the driving gear, of a notched disk frictionally engaged therewith, a locking disk having a notch and operated by the driving gear, a bell-crank lever provided with a nose and a tooth, the nose riding on the periphery of the said notched disk and the tooth coöperating with the locking disk, and means for yieldingly holding the nose against the notched disk.

3. In a machine of the character described, the combination with the driving gear, of a notched disk frictionally engaged therewith, a locking disk having a notch and operated by the driving gear, a bell-crank lever provided with a nose and a tooth, the nose riding on the periphery of the said notched disk and the tooth coöperating with the locking disk, means for yieldingly holding the nose against the notched disk, a crank shaft carrying a hand crank and connections between the bell-crank lever and the hand crank shaft for releasing the nose.

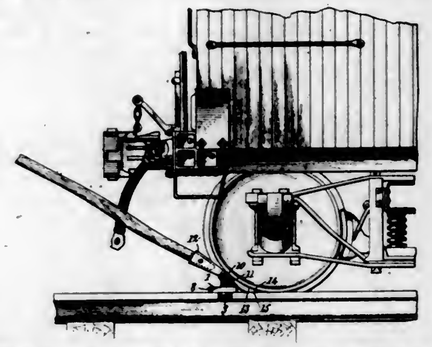
4. In a machine of the character described, the combination with the driving gear, of a notched disk frictionally engaged therewith, a locking disk having a notch and operated by the driving gear, a bell-crank lever provided with a nose and a tooth, the nose riding on the periphery of the said notched disk and the tooth coöperating with the locking disk, means for yieldingly holding the nose against the notched disk, a second bell-crank lever, a main crank arm, connections between it and the second bell-crank lever, and a pin and slot connection between the two bell-crank levers.

5. In a machine of the character described, the combination with the driving gear, of a notched disk frictionally engaged therewith, a locking disk having a notch and operated by the driving gear, a bell-crank lever provided with a nose and a tooth, the nose riding on the periphery of the said notched disk and the tooth coöperating with the locking disk, means for yieldingly holding the nose against the notched disk, a second bell-crank lever, pin and slot connections between two bell-crank levers, a main crank arm, and a slide on the crank arm adapted to engage said second bell-crank lever.

[Claim 6 not printed in the Gazette.]

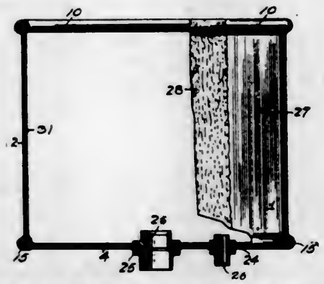
944,763. CAR-MOVER. FRED C. BAILEY, Rib Lake, Wis., assignor of one-half to Elliot C. Getchel, Rib Lake, Wis. Filed Mar. 17, 1909. Serial No. 483,903.

A car mover comprising a shoe adapted to rest upon the rail and to project upon each side thereof, said shoe being provided with a vertical opening near each side edge thereof, a clamping member pivoted in each of said openings and having its lower end curved to fit the edge of the tread of the rail, the upper ends of said clamping members being longitudinally slotted, and a lever provided with



headed pivot pins extending through the longitudinal slots, and having a pointed end for engaging beneath the wheel.

944,764. TANK FOR WATER-CLOSETS. GEORGE H. BAILEY, Pittsburg, Pa. Filed May 23, 1908. Serial No. 434,618.



1. A tank for water closets and the like, composed of sheet metal and having its front, end and rear walls formed from a single sheet bent to shape and the ends thereof welded together, and its bottom formed from another sheet, the edges of the sheets meeting at the bottom corners of the tank and being welded together, said tank being provided with a coating of enamel.

2. A tank for water closets and the like, composed of sheet metal having its front end and rear walls formed from a single sheet bent to shape with the edges meeting in the rear wall away from the corners and welded together, and its bottom formed from another sheet, the edges of said sheets meeting at the bottom corners of the tank and being welded together, and the tank being provided with a coating of enamel.

3. A tank for water closets and the like, composed of sheet metal having its front, end and rear walls formed from a single sheet bent to shape and the ends thereof welded together and its bottom formed from another sheet, the edges of said sheets meeting at the bottom corners of the tank and being welded together, said tank being provided at its bottom with a curved outwardly projecting bead and being coated with enamel.

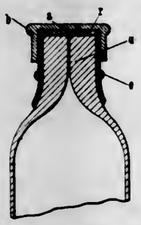
4. A tank for water closets and the like composed of sheet metal having its front, end and rear walls formed from a single sheet bent to shape and the ends thereof welded together, and its bottom formed from another sheet, the edges of the sheets meeting at the bottom corners of the tank and being welded together, said tank being provided at its top with a strengthening bead and being covered with a coating of enamel.

5. A tank for water closets and the like, composed of sheet metal having its front, end and rear walls formed

from a single sheet bent to shape with the edges meeting in the rear wall away from the corners and welded together, and its bottom formed from another sheet, the edges of said sheets meeting at the bottom corners and being welded together, said tank being provided at its top edge with a strengthening bead and being provided with a coating of enamel.

[Claims 6 to 12 not printed in the Gazette.]

944,765. STOPPERING FOR BOTTLES INTENDED TO CONTAIN VOLATILE LIQUIDS. JULES BENGUÉ, Paris, France. Filed May 4, 1909. Serial No. 493,864.



1. In a stoppering device for bottles intended to contain volatile liquids, an elastic packing of india-rubber having a hole in the center thereof, a rod guided in said hole, and a disk at the end of the rod, closing the orifice of the bottle.

2. A stoppering device for bottles intended to contain volatile liquids, comprising a stopper with an elastic packing of india-rubber, said packing having a hole in the center of the same, a rod guided in said hole, and a disk at the end of the rod, closing the orifice of the bottle.

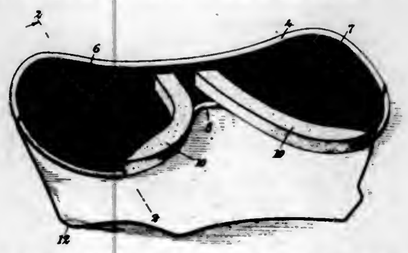
944,766. STUMP-EXTRACTOR. ALEXIS P. BERNIN and ELBERT J. WARE, Portland, Oreg. Filed Jan. 26, 1909. Serial No. 474,213.



A stump extractor comprising a frame consisting of side bars and connecting cross bars, a bearing on each of said cross bars, a screw having reduced ends journaled in the bearings, and provided near one end thereof with a bevel gear, a vertical shaft journaled on the frame and having a bevel pinion meshing with the gear, a drum on the upper end of the shaft, plates journaled on the ends of the screw outside of the bearing, a yoke connected with each of said plates, nuts for retaining the plates in place, a nut threaded on to the screw intermediate the bearings, and provided upon each side thereof with wings each of said wings having a longitudinal opening, a cable having its ends passed through the opening and adapted to engage the stump, and a guide upon each side of the screw for supporting the wing and upon which the adjacent wing slides.

944,767. EYE-SHADE. JAMES A. BLACKSTOCK, Seattle, Wash. Filed Jan. 28, 1909. Serial No. 474,705.

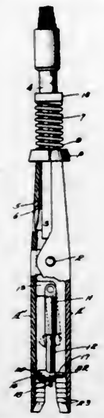
1. An eye shade of opaque material, having portions adapted to extend across the eyes of the wearer and formed with a recess intermediate the length thereof, the shade having a binding of soft material at its edges, and a light-guard comprising a pad of soft material extending along each side of said recess, to prevent the admission of light alongside the nose to the eyes of the wearer.



2. An eye shade, comprising a sheet of reticulated material and a sheet of opaque material, secured together at their edges and formed with a recess to receive the nose of the wearer, and pads of soft material secured upon opposite sides of said recess and extending on the face of the shade above the edge of the recess, the said pads forming light guards.

3. An eye shade, comprising a sheet of reticulated material and a sheet of opaque material, each formed with a recess, said sheets being secured together and finished on their edges with a soft material, a light-guard of soft material extending along opposite sides of said recess, and arranged to prevent the admission of light alongside the nose to the eyes of the wearer, and means for holding the shade in position on the head of the wearer.

944,768. FISHING-TOOL. WILLIAM S. BOGGS, Berkeley, Cal., assignor to Imperial Oil Company, San Francisco, Cal., a Corporation of California. Filed May 22, 1909. Serial No. 497,737.



1. A fishing tool comprising a cross-head, a pair of jaw members loosely suspended from said cross-head, means coacting with the cross-head normally to close the jaws, and means releasable by the article to be recovered to maintain the jaws open, said means including a pair of yieldingly connected extendible members suspended from a point between said jaw members.

2. In a fishing tool, the combination of a pair of tubular jaws pivoted between their ends, means for loosely suspending them from their upper ends, and trigger mechanism adjacent to the lower ends for maintaining them open, said mechanism including a pair of yieldingly connected extendible members pivotally suspended between the inner surfaces of the jaws.

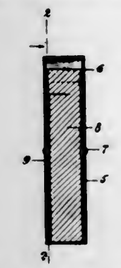
3. A fishing tool comprising a pair of tubular jaws pivoted between their ends, with the upper ends slotted, a mandrel having wedge members engaging the slots, and from which mandrel the jaws are suspended, trigger mechanism carried by the opposite ends of the jaws to hold the latter open, said mechanism including a pair of vertically suspended extendible sliding members located between the jaws and means carried by the mandrel and coacting with said wedges to close the jaws when the trigger mechanism is tripped.

4. A fishing tool comprising a pair of tubular jaws pivoted between their ends, with the upper ends slotted, a mandrel having wedge members engaging the slots, and from which mandrel the jaws are suspended, trigger mechanism carried by the opposite ends of the jaws to hold the latter open, and means carried by the mandrel and coacting with said wedges to close the jaws when the trigger mechanism is tripped, said closing means on the mandrel provided with a protective cap or hood to prevent fouling of the tool.

5. In a fishing tool, the combination of a pair of coacting jaws, means for suspending them, means operative normally to close them, and means for holding them open in opposition to said closing means, said means for holding the jaws open including a pivoted trip mechanism within the jaws, said trip mechanism comprising a pair of yieldingly connected extendible members suspended from a point between the jaws and provided with releasable means acting on the inside of the jaws to expand them.

[Claims 6 to 8 not printed in the Gazette.]

944,769. MOISTENER. JOHN H. BORDEAUX, Joliet, Ill. Filed Feb. 25, 1909. Serial No. 479,890.



1. In a moistener, two telescoping box sections, each closed at its outer end, one of the box sections constituting a cover and the other box section constituting the body of the box, an absorbent body filling the body section of the box and projecting beyond the open end thereof, and a reticulated member having a portion struck into the absorbent body closely adjacent to the open end of the body section of the box to support the projecting end of the absorbent body.

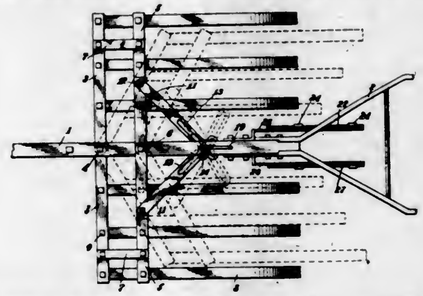
2. In a moistener, a box body closed at one end, an absorbent body substantially filling the box body and projecting beyond the open end thereof, and a reticulated sheet arranged flat against one face of the absorbent body, said sheet seating at one end on the closed end of the box body and at its opposite end struck into the absorbent body to support the projecting portion thereof.

944,770. SPRING-TOOTH CULTIVATOR. GEORGE G. BRIODEN, Cypress, Ala. Filed June 5, 1909. Serial No. 500,311.

1. A harrow having a plurality of teeth, members connecting said teeth so as to adjust the same, links for holding said teeth rigidly in their adjusted position, and means for clamping said links to hold said teeth rigidly, said links being tapered and enlarging in the direction from which the thrust is exerted at the clamping point.

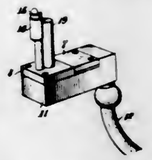
2. A harrow having a pole, laterally disposed hoe bars attached thereto, teeth attached to said hoe bars, links attached to said hoe bars and crossing each other, and means for clamping said links together at said pole, said links being of a thickness gradually enlarging in the direction from which the pressure is exerted.

3. A cultivator having a pole, laterally extending hoe bars pivotally attached thereto, hoes attached to said hoe bars, links pivotally attached to said hoe bars and having



elongated slots therein, and a clamping bolt mounted in said pole and passing through said slots, said links being of increasing thickness in the direction from which the thrust is exerted thereupon.

944,771. SAFETY ATTACHMENT FOR GAS-LIGHTING BURNERS. HARRY E. CAMPBELL, New Haven, Conn. Filed June 22, 1909. Serial No. 503,608.



1. A safety attachment for gas lighting burners comprising a horizontally extended body portion arranged to be connected with the gas supply pipe at the one end and provided with a gas burning tip at the other end and forming a gas passage communicating between the said supply pipe and said burner tip; a cup-shaped chamber formed in said body portion below said gas passage to hold mercury; an inverted air filled tube mounted in said body portion adjacent to said cup-shaped chamber the said tube having its closed end juxtaposed to the said burner; a lateral passage communicating between said inverted tube and bottom of said chamber; and a float valve supported by the mercury within said chamber and having a valve member to close said passage said valve member being arranged to operate on the pressure side of the closure of said passage to be held by the gas pressure in closed position.

2. A safety attachment for gas lighting burners comprising a horizontally extended body portion arranged to be connected with the gas supply pipe at the one end and provided with a gas burning tip at the other end, and forming a gas passage communicating between the said supply pipe and said burner tip; a cup shaped chamber for the said body portion below said gas passage to hold mercury; an inverted air filled tube mounted in said body portion in open communication with said chamber, and having its closed end juxtaposed to said burning tip; and a float valve supported by the mercury within said chamber and having a valve member to close said gas passage, said valve member being arranged to operate on the pressure side of the closure of said passage to be held by the gas pressure in closed position.

944,772. ANTISKID ATTACHMENT FOR VEHICLE-WHEELS. THOMAS T. CHALONER, New York, N. Y. Filed Mar. 31, 1909. Serial No. 486,866.

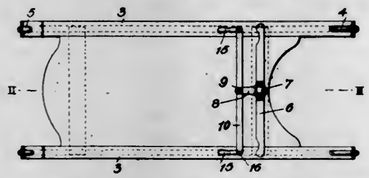
An anti-skidding attachment, comprising a body portion, straps integral with said body portion extending from op-

posite sides thereof, studs for said body portion, means for securing said studs to said body portion, one of said



straps being adapted to be threaded through the other of said straps, and means for securing said straps together.

944,773. STEERABLE SLED. FRANCIS W. H. CLAY, Pittsburg, Pa. Filed Feb. 14, 1908. Serial No. 415,855.



1. A sled having rigid runners and laterally flexible bearing shoes and means adapted for actuation by shifting the weight of the rider, operating to flex said shoes and steer the sled.

2. A coasting sled provided with rigid runners and shoes attached at front and back to the runner and having intervening laterally flexible bearing portions, and means for applying lateral pressure to said bearing portions.

3. A sled having rigid runners and a frame and a rocking seat, and mechanism to change the course of the sled by the rocking of said seat, substantially as described.

4. The combination with a rigid sled having bearing shoes attached to the sides of the sled at each end, of means adapted to receive movement from shifting the weight of the body of a rider and connections to thereby cause lateral flexing of the middle portions of the shoes, substantially as set forth.

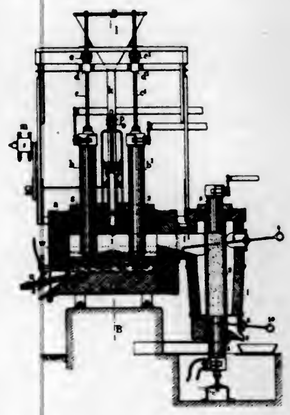
5. A sled having rigid runners and flexible runner shoes, a top with vertically movable parts, and lever mechanism connecting the top and shoes by which the shoes are laterally flexed by moving the top.

[Claims 6 and 7 not printed in the Gazette.]

944,774. ELECTRIC FURNACE FOR THE CONTINUOUS EXTRACTION OF ZINC FROM ITS ORES. EUGÈNE F. CÔTE and PAUL R. PIERRON, Lyon, France. Filed May 14, 1907. Serial No. 373,627.

1. In a reducing furnace, a condenser comprising an outer casing communicating with the furnace, an inner casing arranged within the outer casing, and spaced apart from the walls thereof, an electrode at each end of the inner casing, the electrodes forming the terminals of an electric circuit, the electrodes being movable toward and from each other, and non-fusible material arranged between the electrodes for the purpose set forth.

2. In a reducing furnace, a condenser comprising inner and outer casings spaced apart from each other, the outer casing communicating with the furnace, electrodes at each end of the inner casing, the electrodes being movable toward and from each other, and a mass of non-fusible material between the electrodes.



3. In a reducing furnace, a condenser comprising a casing communicating therewith, a tube within the casing, an electrode in each end of the tube, and the electrodes being movable toward and from each other.

4. A condenser for furnaces, comprising a casing communicating with the furnace, means within the casing for containing nonfusible material, and a pair of spaced electrodes within the non-fusible material.

944,775. LAMP. CHARLES M. DANIELS, Paris, Ill. Filed June 9, 1909. Serial No. 501,019.



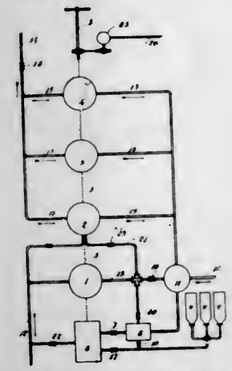
1. In combination, a depending vaporizing tube having the lower end thereof extending upwardly, a bracket carried by said vaporizing tube intermediate its ends, a mixing tube supported by said bracket and having its lower end concentric with the upturned lower end of the vaporizing tube, and provided with openings for the admission of air adjacent said upturned end, and a burner carried by said mixing tube.

2. In combination, a depending vaporizing tube having the lower end thereof extending upwardly, a ring carried by said vaporizing tube intermediate its ends and constituting a bracket, a mixing tube extending down through said ring and supported thereby and having its lower end concentric with the upturned lower end of the vaporizing tube and provided with apertures for the admission of air adjacent said upturned end, and a depending burner connected to said mixing tube above the bracket on the latter.

3. In combination, a depending vaporizing tube having an upturned lower end, a mixing tube supported solely by said vaporizing tube intermediate the ends of the latter and having its lower end terminating adjacent the upturned lower end of the vaporizing tube to receive gas from the latter, and burners supported solely by said mixing tube.

4. In combination, a depending supply tube having an upturned lower end, a mixing tube suspended from said supply tube adjacent the upper end of the latter and hanging substantially parallel to said supply tube and having its lower end receiving air from the atmosphere and gas from the supply tube, branches depending from the upper end of the mixing tube and supported solely thereby, and burners at the lower ends of said branches.

944,776. PROPULSION OF SUBMARINE BOATS. CESIDIO DEL PROPOSTO, Rome, Italy. Filed Oct. 5, 1907. Serial No. 396,358.



1. In a submarine boat, an engine having a plurality of cylinders, an air compressor driven by said engine and a storage reservoir wherein the compressed air is stored: one of the cylinders of the engine adapted to act as an air compressor, to effect a first step in the compression of the air while the boat navigates at the surface, air connections from said compressor cylinder to the first-mentioned compressor to complete the air compression, connections from said reservoir to said compressor, said air compressor operated by the remaining cylinders of the engine working in the usual way.

2. In a submarine boat, the combination of a polycylindric explosion motor for propelling the boat, an air compressor for serving at will as an air motor to assist in propelling, a reservoir for compressed air, connections between said compressor and reservoir, and connections between the latter and a plurality of cylinders of the motor, whereby the latter is adapted at will to operate as an air motor to assist in the propulsion.

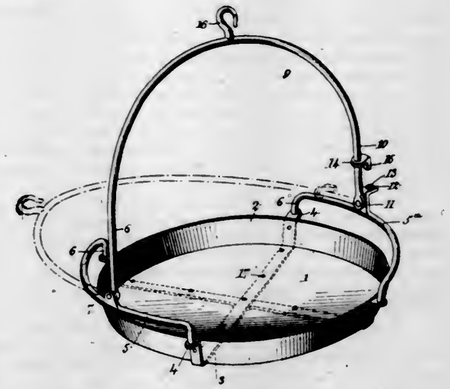
3. In a submarine boat, the combination of a polycylindric explosion motor for propelling the boat, an air compressor driven by said motor, a compressed air reservoir connected with said compressor, means whereby several cylinders of the explosion motor are enabled to act as a compressed air motor at will to assist in the propulsion, and a reducing valve inserted between the aforesaid air reservoir and cylinders.

4. In a submarine boat, an engine for propelling the boat, an air compressor which, at will, acts also as a compressed air reservoir, means for admitting compressed air from the reservoir into the air compressor while acting as a compressed air motor, exhaust connections from said compressed air motor to the interior of the boat, and feed connections from the interior of the boat to the engine, to supply air to the latter.

5. In a submarine boat, the combination of a polycylindric motor for propelling the boat, an air compressor driven thereby, a compressed air reservoir connected therewith, means whereby the air compressor and a plurality of cylinders of the explosive motor are enabled to act, at will, as a compressed air motor to assist in the propulsion of the boat, connections for allowing the compressed air of the reservoirs to reach directly into the cylinders of the air compressor when acting as a compressed air motor, connections from said cylinders of the engine with the air compressor for allowing the exhaust air of same, when acting as a compressed air motor, to pass into the cylinders of the engine acting also as compressed air motors, means for discharging the exhaust air of the latter in the interior of the boat, and means feeding into the remaining cylinders of the explosion motor, air taken from the interior of the boat.

[Claims 6 to 10 not printed in the Gazette.]

944,777. BUTCHER'S SCALE-PAN. JACOB FELDMAN, New York, N. Y. Filed Mar. 17, 1909. Serial No. 483,883.



1. A pan, a bail in the form of a bow pivotally connected at its ends to said pan, and adapted to swing on a diametric axis of said pan, an outwardly projecting fin adjacent to the pivot point of said bail, and a locking ring sliding on said bail and having a finger adapted to engage said fin to lock said bail rigidly with respect to said pan.

2. A pan presenting upwardly projecting ears diametrically opposite to each other, a bail having forks pivotally attached to said ears on the diameter of said pan as an axis, one of said ears having an outwardly projecting fin with an opening therein, and a sliding ring mounted on the fork adjacent to said fin and having a finger adapted to be received in said opening.

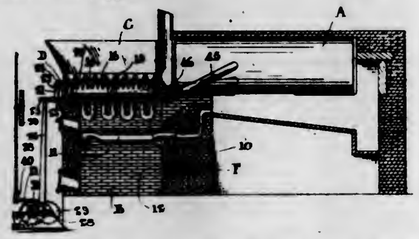
3. A pan, curved rails rigidly attached to said pan on opposite sides thereof, a bail having forks pivotally attached to said rails, one of said rails having a laterally disposed projecting member, and a sliding ring mounted on the fork adjacent to said projecting member and adapted to engage the same to lock said bail rigidly with respect to said pan.

4. A pan, a pair of straps disposed diametrically across the bottom thereof and having ears formed at the edges of said pan, rails attached to said ears on opposite sides of said pan, a bail having forks pivotally attached to said rails, and means mounted on one of said forks for rigidly locking said bail to one of said rails.

944,778. AUTOMATIC STOKER. JOHN M. FLEMING, Ottawa, Ontario, Canada. Filed Nov. 23, 1908. Serial No. 463,983.

1. In an automatic stoker, the combination with grate bars and masonry structure supporting the same having

an aperture in the top thereof, of a fixed hopper, having apertures in the bottom thereof, brackets bearing on the masonry structure and supporting the hopper in position above the aperture in the said masonry structure, a reciprocative controlling member supported on the masonry structure, and extending below the bottom of the aperture and having apertures therein adapted to register with those in the hopper.



2. In an automatic stoker, the combination with the usual grate bars and masonry structure surrounding the same having an aperture in the top thereof, and parallel tracks embedded in the masonry structure at each side of the aperture, of a fixed hopper having apertures in the bottom thereof, brackets supporting the hopper from the masonry structure, and a reciprocative member located below the hopper having apertures therein adapted to register with those in the hopper, and being provided with rollers adapted to engage the tracks embedded in the masonry structure.

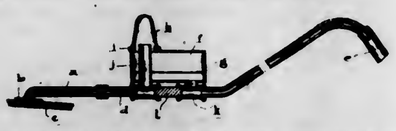
3. In an automatic stoker, the combination with the fire grate, of a hopper disposed over the same, having the bottom formed by a grating, a controlling member disposed below the grating and being formed with a like grating having the bars closer together than those in the grating on the hopper and means for reciprocating the controlling member.

4. In an automatic stoker, the combination with the fire grate, of a fuel hopper disposed over the same having the bottom formed by an open grating, a controlling member having a grating thereon adapted to abut the grating on the fuel hopper, the space between the bars on the hopper being a multiple of the space between the bars on the controlling member and means for reciprocating the controlling member.

5. In an automatic stoker, the combination with a fire grate, of a fuel hopper disposed above the same, a fuel controlling member at the bottom of the fuel hopper, said controlling member having an air conducting means which communicates with the space above the fire grate and the open air whereby air may be introduced into the space above the fire grate to promote combustion.

[Claims 6 and 7 not printed in the Gazette.]

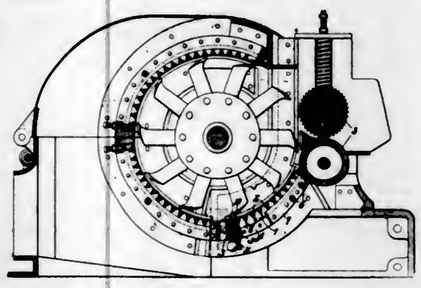
944,779. MEANS FOR OBSERVING AND SEPARATING HEAVY OBJECTS FROM DUST-LADEN AIR-CURRENTS. DANIEL FOGARTY, Ottawa, Ontario, Canada. Filed July 11, 1908. Serial No. 443,126.



1. A device of the character described comprising a rigid section of conducting pipe, a chamber having a glass bulb therein, a conducting pipe extending from the glass bulb into the rigid conducting pipe, a screen in the chamber below the opening of the conducting pipe, a second conducting pipe extending from the opposite side of the screen to the first mentioned conducting pipe, and a stop in the rigid conducting pipe between the opening of the two pipes leading into the chamber.

2. An improved separator for dust collectors comprising a chamber having T-shaped pipe coupling members connected to the bottom, one of said members opening near the bottom and one near the top, a screen within the chamber between the openings of the coupling members, a glass bulb secured in the side of the chamber, opposite the end of the coupling member which extends near the top, a plug *l* connecting the inner ends of the couplings and conducting pipes connected to the outer ends of the couplings.

944,780. GRINDING-SURFACE OR CAGE. EDWARD H. FRICKEY, St. Louis, Mo., assignor to Williams Patent Crusher & Pulverizer Company, St. Louis, Mo., a Corporation of Missouri. Filed May 18, 1908. Serial No. 433,546.



1. A cage for grinding machines, comprising rigid side members provided on their inner faces with grooves, transversely extending cage bars projecting into said grooves, independently movable blocks arranged in said grooves for supporting said cage bars and spacing them away from each other, keepers connected to said side members for retaining the blocks in said grooves, and adjustable means for moving said blocks longitudinally of the grooves to clamp the cage bars in position; substantially as described.

2. A cage for grinding machines, comprising side members provided on their inside faces with grooves, blocks mounted in said grooves, cage bars resting on said blocks, a transversely extending bar connecting one end of said members together, a flange on said bar, adjusting screws mounted in said flange, and a wedge-shaped clamping member adapted to be actuated by said screws for clamping the cage bars and their supporting blocks in position; substantially as described.

3. A machine of the character described, provided with a grinding surface consisting of a number of sections, each of which comprises a segmental shaped frame, cage bars which extend transversely of said frame, independently movable blocks resting on said frame and contacting with the end portions of said bars to support them and space them apart, and an adjustable wedge interposed between the end of the frame and one of the cage bars for moving the blocks longitudinally of the frame to clamp said bars in position; substantially as described.

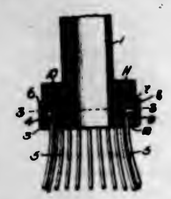
4. A cage for grinding machines comprising a segmental supporting frame, there being grooves formed in the inner faces of the said members of said frame, cage bars having their ends seated in said grooves which cage bars are triangular in cross section, independently movable spacing blocks arranged in the grooves between the cage bars for spacing and supporting the same, the inner ends of which spacing blocks are wedge shaped in order to engage the faces of the cage bars, a rigid bar connecting the segmental side members at one end, a wedge bar arranged on said rigid bar and bearing against the adjacent cage bar and adjusting screws arranged in the rigid bar and engaging against the wedge bar.

5. The combination with a shredding machine employing pivoted rotating beaters, of a cage comprising a series of segmentally shaped frames, there being grooves formed on the inner faces of said frames, a series of cage bars for each frame, the ends of which cage bars occupy the grooves

in the frame, spacing blocks located within the grooves and engaging the ends of the cage bars, segmental plates fixed to the inner faces of the side members of the frame and projecting over the grooves therein for holding the spacing blocks in said grooves, and an adjustable wedge bar at the end of each segmental frame for moving the cage bars and clamping the same in position for use.

[Claim 6 not printed in the Gazette.]

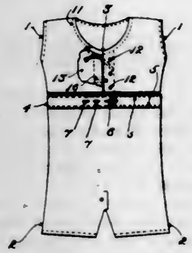
944,781. EGG-WHIP. FRITZ L. GIENANDT, Boston, Mass. Filed May 7, 1909. Serial No. 494,645.



1. An egg whip comprising, in combination, a handle provided with an outwardly extended flange having passages therein, whip end receiving depressions in one face of said flange and registering with said passages, whip members received by said flange having outwardly bent ends overlying and received by said depressions and a locking member encircling said handle adapted to lock said bent whip ends into said depressions.

2. An egg whip comprising, in combination, a handle provided with an outwardly extended flange having passages therethrough in a plane substantially parallel with but without the outer face of said handle and having grooves upon one face of said flange registering with said passages, whip members having outwardly extended ends received by said grooves, the diameter of said whip ends exceeding the depth of said grooves, a collar provided with a laterally extended flange to close the ends of said grooves and a locking member threaded upon the outer face of said handle to lock said whip ends between said collar and said flange.

944,782. BUOYANT BATHING-SUIT. PATRICK J. GRIFFIN, Boston, Mass. Filed May 25, 1907. Serial No. 375,579.



1. A buoyant garment composed of two thicknesses of material separated from each other around the body and over the shoulders, with an opening and having armholes, and an inflatable air-bag adapted to be inserted between said thicknesses at said opening or withdrawn therent, extending around the body below the said armholes, and having upward extensions at opposite sides of each arm-hole, separated from each other at their upper ends and thereby adapted to be passed upward or withdrawn downward between the said thicknesses at front and rear, respectively, of the garment, and fastenings for disconnectibly uniting the said upper ends of each pair of extensions.

2. A buoyant garment composed of two thicknesses of material disconnected from each other around the body and over the shoulders, with an opening and having armholes, and an inflatable air-bag adapted to be inserted between such thicknesses at said opening or withdrawn thereat, extending around the body below the said armholes, and having upward extensions at opposite sides of said arm-holes, separated from each other at their upper ends and thereby adapted to be passed upward or withdrawn downward between the said thicknesses at front and rear, respectively, of the garment, and fastenings for disconnectibly uniting the said upper ends of each pair of extensions, and a belt passing around the middle of the body of the wearer.

3. A buoyant garment composed of two thicknesses of material separated from each other around the body and over the shoulders, with an opening and having armholes, and an inflatable air-bag adapted to be inserted between such thicknesses at the said opening and withdrawn thereat, extending around the body below the said arm-holes, and having upward extensions at opposite sides of each arm-hole, separated from each other at their upper ends and thereby adapted to be passed upward or withdrawn downward between the said thicknesses at front and rear, respectively, of the garment, and having its ends also provided with lacing-holes, and lacings by which the meeting ends of the shoulder extensions are secured together over the shoulders, and by which the ends of the air-bag are joined together.

4. A buoyant garment composed of two thicknesses of material united so as to form between them a pocket extending entirely around the body, with an opening, and an inflatable air-bag adapted to be inserted between such thicknesses at the said opening and withdrawn thereat, and extending around the body, and detachable means to secure the two ends of the said air-bag directly together.

944,783. VEHICLE-SHIELD. JOSEPH HADKA, Chicago, Ill. Filed Nov. 9, 1908. Serial No. 461,652.



1. A vehicle shield comprising two sections, the lower section having a frame comprising tubular stiles in which the stiles of the upper section are slidably mounted, the stiles of the lower section being slotted to accommodate the upper section; and means for closing the slots.

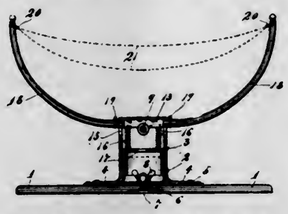
2. A vehicle shield comprising two sections, the lower section having a frame comprising tubular stiles in which the stiles of the upper section are slidably mounted, the stiles of the lower section being slotted to accommodate the upper section; and members for closing the slots, the stiles of the upper section being arranged to receive said members.

3. A vehicle shield comprising two sections, the lower section having a frame comprising tubular stiles in which the stiles of the upper section are slidably mounted, the stiles of the lower section being slotted to accommodate the upper section; strips secured near their lower ends within the stiles of the lower section, said strips normally closing the slots in said lower stiles; and blocks in the lower ends of the upper stiles said blocks having openings therein to receive said strips.

4. A vehicle shield comprising two sections, the lower section having a frame comprising tubular stiles in which the stiles of the upper section are slidably mounted; and spring plungers carried by the stiles of the lower section arranged to engage the stiles of the upper section to lock said upper section in adjusted position, said spring plungers being arranged to be held in partially withdrawn position to act as brakes for the upper section.

5. A vehicle shield comprising two sections, the lower section having a frame comprising tubular stiles in which the stiles of the upper section are slidably mounted, a series of locking openings being formed in one of the stiles of the upper section; a tubular stud on the lower section; a spring plunger slidable in said stud and having a rounded end adapted to engage in said locking openings; and a member attached to said plunger and arranged to engage said stud to hold said plunger in partially withdrawn position.

944,784. HAMMOCK-STAND. JAMES HAND, Minneapolis, Minn. Filed Jan. 27, 1909. Serial No. 474,416.



1. A hammock stand, comprising a pedestal, the upper section of which is swiveled to the lower section, a rock shaft pivoted to the upper pedestal member, and a pair of reversely extended hammock supporting arms connected to said rock shaft.

2. A hammock stand, comprising a pedestal, a rocker head pivoted thereto, and a pair of reversely extended hammock supporting arms detachably connected to said rocker head, substantially as described.

3. A hammock stand, comprising a pedestal having diametrically opposite slots in its upper end, a shaft journaled in the upper end of said pedestal and provided with a rocker head, and a pair of reversely extended hammock supporting arms connected to the opposite ends of said rocker head and working in the slots of said pedestal, substantially as described.

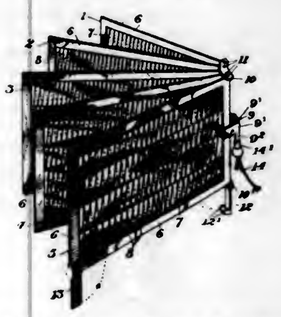
4. In a hammock stand, the combination with a pedestal made up of upper and lower sections connected by a telescopic swivel joint capable of separation, a rocker head pivoted to the upper pedestal section, and a pair of reversely extended hammock supporting arms detachably connected to the opposite ends of the said rocker head, substantially as described.

5. In a hammock stand, the combination with a pedestal made up of upper and lower sections connected by a telescopic swivel joint permitting separation of the sections, of cross bars detachably secured to the lower end of the lower pedestal section, a rocker head pivoted to the upper pedestal section, and reversely extended hammock supporting arms detachably connected to said rocker head, substantially as described.

944,785. RHEOSTAT. ROBERT HEAD, New York, N. Y., assignor to Robert L. Watkins, New York, N. Y. Filed Oct. 27, 1908. Serial No. 459,719.

1. In a rheostat, a plurality of frames, suitable supporting strips carried within said frames, resistance coils mounted upon the supporting strips and means operated by the relative movement of said frames for controlling the flow of current through said resistance coils.

2. In a rheostat, a plurality of frames carrying supporting strips, suitable resistance material mounted upon said supports, means for yieldingly connecting the frames, and means operated by the movement of the frames relative to each other for electrically connecting the resistance material of the several frames in series.



3. In a rheostat, the combination of a plurality of supporting frames, a hinge member connecting the several frames, supporting members secured within said frames, resistance material mounted upon the supporting members, insulated contact plates forming terminals for the several sections of resistance; the contact plates of the various frames adapted to be thrown in or out of electrical contact with the plates of the frames adjacent thereto, substantially as shown.

4. In a rheostat, the combination of a plurality of supporting frames, a hinge connecting the several frames, supporting members secured within said frames, resistance material mounted upon the supporting members, insulated contact plates forming terminals for the several sections of resistance; the contact plates of the various frames adapted to be thrown in or out of electrical contact with the plates of the frames adjacent thereto, and supporting members for elevating the rheostat, adapted to be folded laterally against the frames substantially as shown and set forth.

5. In a rheostat, a plurality of sections consisting of a suitable resistance material mounted upon supporting strips, said strips secured within a frame, a pillar or support consisting of two insulating sections, means for yieldingly connecting the sections to the pillar, and means for establishing electrical connection between the resistance material and the pillar substantially as shown and described.

[Claims 6 to 20 not printed in the Gazette.]

944,786. ADJUSTABLE HANGER FOR LIGHTS. HERBERT J. HINDS, Hillyard, Wash. Filed Apr. 2, 1909. Serial No. 487,377.

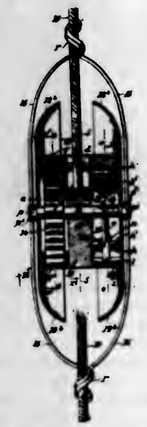
1. A light hanger, embodying a reel having an internal projection, a supported shaft whereon said reel is loosely mounted, a helical spring attached at its ends on the shaft and reel, and a pivoted pawl pendent from the shaft within the reel and adapted for interlocked engagement with the projection on the reel.

2. A light hanger, embodying a reel recessed in its ends, a supported shaft whereon said reel is loosely mounted, a helical spring in one recess attached at its ends respectively upon the reel and the shaft, an arm radially extended from the shaft in the opposite chamber in the reel, an abutment in said recess, and a pawl pivoted on the free end of the arm and adapted to rock toward or from the abutment.

3. A light hanger, embodying a cylindrical reel body, cylindrical walls extended from opposite ends of the body, affording recesses, a helical spring in one recess adapted for rotating the reel body, and an abutment and a double-acting pawl in the other recess, said pawl being adapted to engage the abutment for releasably holding the spring against uncoiling.

4. A light hanger, embodying a reel having a cylindrical body, having a recess therein that intersects the periphery

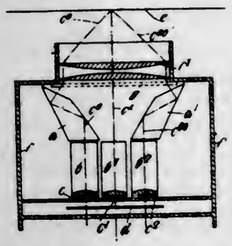
of said body, said recess having an undulating bottom wall, a clamping block fitted in said recess, and having a curved peripheral surface and means for detachably securing the block in said recess.



5. A light hanger, embodying a reel having a cylindrical body, said body having a recess therein intersecting its periphery, the recess having an undulating bottom wall, a clamping block fitted into the recess and having a convex outer surface, and a screw bolt adapted for securing the clamping block in the recess.

[Claims 6 to 9 not printed in the Gazette.]

944,787. APPARATUS FOR THE OPTICAL PROJECTION OF COLORED IMAGES. BENJAMIN JUMEAUX, Southwick, near Brighton, England. Filed Feb. 5, 1907. Serial No. 355,851.



1. In apparatus for the optical projection of colored pictures by the superimposition of a plurality of monochromic images, the combination of doubly reflecting prisms having non-parallel faces, lenses arranged behind the said prisms, and color screens disposed behind the lenses.

2. In apparatus for the optical projection of colored images, the combination of doubly reflecting prisms of the Fresnel type having the face at the base normal to the incident rays, the side faces convergently arranged to cause a double reflection, the variation of the angle between the emergent face and the base being in direct proportion to the variation required to superimpose the emergent rays and the face remote from the base at a right angle to the emergent rays, lenses arranged behind the said prisms and color screens disposed behind the lenses for each of the respective superimposed images.

3. In apparatus for the optical projection of colored images, the combination of two doubly reflecting prisms of the Fresnel type having the face at the base normal to the incident rays, the side faces convergently arranged to cause a double reflection, the variation of the angle between the emergent face and the base being in direct proportion to the variation required to superimpose the emergent rays and the face remote from the base at a right angle to the emergent rays, three lenses, arranged behind the plane of the said prisms, and three color screens arranged behind the respective lenses.

944,788. FASTENING DEVICE. WILLIAM S. KATZENMEYER, Lakewood, Ohio. Filed June 12, 1907. Serial No. 378,513.



In a fastening device, the combination with an eye member comprising a body portion having an eye opening and a flange extending substantially at right angles to the plane of such body portion; of a hook member adapted to receive said flange and provided with two outwardly projecting lugs adapted to engage that portion of the eye member adjacent to the eye opening when the fastening device is folded, the length of said flange being such that the folding movement of said two parts when the inner or rear edge of the flange is first inserted in the hook will be limited by the lugs and flange to a smaller range than such movement is limited when the front or outer edge of such flange is first inserted.

944,789. ACETYLENE-GAS LAMP. LESTER B. KING, Springfield, Ill. Filed Dec. 31, 1908. Serial No. 470,239.

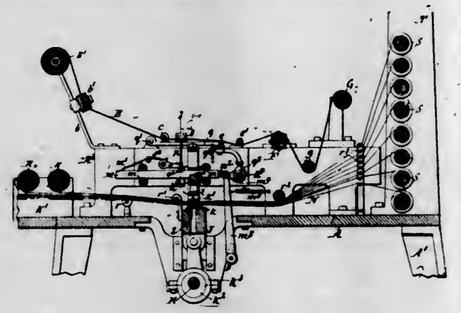


In an acetylene gas generating lamp, the combination of a carbid holder, a liquid reservoir arranged above the carbid holder and having an opening and means for closing the same, a tube depending from the bottom of the reservoir, for supplying the carbid holder with liquid, a piece of packing material arranged in the tube and having a reserve portion occupying the lower portion of the reservoir, and a string attached to said reserve portion of the piece of packing material and normally contained in the reservoir.

944,790. PERFORATING-MACHINE. EUGENE DE KLEIST, North Tonawanda, N. Y., assignor to The Rudolph Wurlitzer Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Mar. 16, 1907. Serial No. 362,655.

1. In a machine for perforating music sheets, the combination of a perforating mechanism and sheet-feeding means constructed to move the sheet past the perforating mechanism at a predetermined gradually increasing speed corresponding to the accelerated speed imparted to a perforated music-sheet by the take-up roll of a musical instrument, whereby the perforations of the sheet are punched farther and farther apart from the front toward the rear end of the sheet and the accelerated travel of the sheet when in the instrument is compensated for by the increased spacing of the perforations.

2. In a machine for perforating music sheets, the combination of a perforating mechanism, and a take-up roller for feeding the sheet past the perforating mechanism, said roller having the same diameter as the take-up roll of the musical instrument upon which the perforated sheet is subsequently wound, and means for rotating said take-up roller at a uniform speed, whereby the perforations of the sheet are punched farther and farther apart from the front toward the rear end of the sheet and the accelerated travel of the sheet when in the instrument is compensated for by the increased spacing of the perforations.



3. In a machine for perforating music sheets, the combination of a perforating mechanism, a take-up roller for feeding the sheet past the perforating mechanism, said roller having the same diameter as the take-up roll of the musical instrument upon which the perforated music sheet is subsequently wound, whereby the perforations of the sheet are punched farther and farther apart from the front toward the rear end of the sheet and the accelerated travel of the sheet when in the instrument is compensated for by the increased spacing of the perforations, and means for driving said take-up roller at different speeds corresponding to different tempos.

4. In a machine for perforating music sheets, the combination of a perforating mechanism, a take-up roller for feeding the sheet past the perforating mechanism, said roller having the same diameter as the take-up roll of the musical instrument upon which the perforated music sheet is subsequently wound, whereby the perforations of the sheet are punched farther and farther apart from the front toward the rear end of the sheet and the accelerated travel of the sheet when in the instrument is compensated for by the increased spacing of the perforations, and driving mechanism for intermittently rotating said take-up roller, incinding means for driving said roller at different speeds.

5. In a perforating machine, the combination of a perforating mechanism, individual take-up rollers for a plurality of sheets to be perforated, each of said rollers having a gear wheel, a support movable toward and from the gear wheels of said rollers, and idler gears mounted on said support and each meshing with the gear wheels of a pair of adjacent rollers, substantially as set forth.

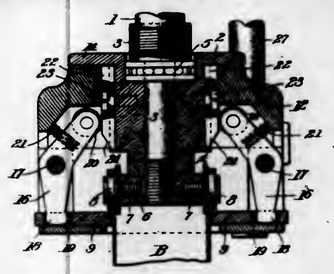
[Claim 6 not printed in the Gazette.]

944,791. FLANGING-HEAD FOR RECEPTACLES. LOUIS C. KRUMMEL, Clinton, Conn. Filed Jan. 29, 1909. Serial No. 475,005.

1. A flanging head including in combination, flange-turning devices and forming slides on to which the flange may be turned supported by and movable with said head.

2. A flanging head including in combination, flanging rollers, means for rotating said rollers relative to the can body to be flanged, forming slides supported by and movable with the head, and means carried by the head for reciprocating said slides.

3. A flanging head including in combination, a rotatable spindle, flanging rollers carried thereby, forming slides supported by and movable with said head, means for preventing said slides from rotating with said spindle, and means for reciprocating said slides.

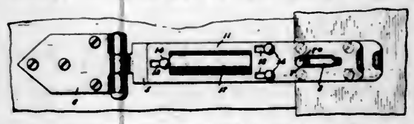


4. A flanging head including in combination, a rotatable spindle, flanging rollers carried thereby and rotating therewith, forming slides supported by and movable with the head, means for preventing said forming slides from rotating with the spindle, and means carried by said head for reciprocating said slides.

5. A flanging head including in combination, a rotatable spindle, flanging rollers carried thereby and rotating therewith, forming slides supported by and movable with said head, means for preventing said forming slides from rotating with the spindle, and means for reciprocating said slides.

[Claims 6 to 19 not printed in the Gazette.]

944,792. HASP-FASTENER. HERMAN L. LAMBRECHT, Sullivan, Ill. Filed May 19, 1909. Serial No. 496,915.



1. The combination of a keeper having a recess, a hasp hinged to swing over the keeper, and a latch carried by the hasp, having a spring-pressed bolt to engage in the recess of the keeper.

2. The combination of a keeper having a notch in its outer edge, a hasp hinged to swing over the keeper, and a latch carried by the hasp, having a spring-pressed bolt normally forced inwardly and arranged to engage in the notch of the keeper and be automatically retracted thereby when the hasp is passed over the keeper.

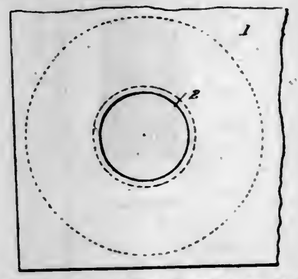
3. The combination of a keeper having a recess, a hasp arranged to swing over the keeper, and a latch having a bolt to engage in the recess of the keeper, slidably mounted on the hasp.

4. The combination of a keeper, a hasp arranged to swing over the keeper and having an upwardly-projecting tongue intermediate its length, a latch bolt to engage the keeper having a limited sliding movement on the hasp and provided with a casing, and a spring inclosed within the casing and bearing thereon and on the said tongue.

5. The combination of a keeper, a hasp hinged to swing over the keeper, a latch bolt carried by and slidable on the outer face of the hasp, and a spring arranged to draw the latch bolt inwardly into engagement with the keeper.

944,793. METHOD OF CUTTING CAN-CAPS AND CAN ENDS FROM SHEET METAL. BERNARD H. LARKIN, Chicago, Ill., assignor to Continental Can Company, Baltimore, Md., a Corporation of New Jersey. Filed Apr. 14, 1909. Serial No. 489,824.

1. The method of cutting and forming can ends having a central opening, from sheet metal, and utilizing the waste material cut out in forming the central opening, consisting in cutting a disk from the material to be wasted in cutting the central opening in the can end, of smaller diameter than said waste material, simultaneously shaping said disk into any desired form, and subsequently in another operation simultaneously cutting and shaping a can end and cutting out the remaining waste material to form the central opening.



2. The method of cutting and forming can caps and can ends, having a central opening, from sheet metal, consisting in cutting a disk from the material to be wasted in cutting the central opening in the can end of smaller diameter than said waste material, simultaneously shaping said disk into a can cap, and subsequently in another operation simultaneously cutting and shaping a can end and cutting out the remaining waste material to form the central opening.

3. The method of cutting and forming can ends having a central opening, from sheet metal, and utilizing the waste material cut out in forming the central opening, consisting in cutting in one operation by a gang of dies a series of disks, one from the metal to be wasted in cutting the central opening in each can end, said disk being of smaller diameter than said waste material, simultaneously shaping said disk into any desired form, cutting and shaping by subsequent operations by a gang of dies the can ends, and simultaneously cutting out the remaining waste material to form the central opening.

4. The method of cutting and forming can caps and can ends having a central opening, from sheet metal, consisting in cutting in one operation by a gang of dies a series of disks, one from the material to be wasted in cutting the central opening in each can end, said disk being of smaller diameter than said waste material, simultaneously shaping said disks into can caps, cutting and shaping in another operation by a gang of dies a series of can ends and simultaneously cutting out the remaining waste material to form the central opening, and cutting and shaping in subsequent operations by a gang of dies the remaining can ends.

944,794. ESCAPEMENT MECHANISM FOR TYPEWRITING MACHINES. EMMIT G. LATTA, Syracuse, N. Y. Filed July 6, 1905. Serial No. 268,503.



1. In a typewriting machine, an escapement mechanism comprising a power driven toothed wheel and a key operated lever pivoted intermediate its ends, which latter are movable alternately into and out of the path of the points of said teeth, one of said ends constituting a detent to normally lock the wheel against forward rotation, and the other end comprising means by which said wheel cams the lever to its normal position on the release of the key operated means.

2. In a typewriting machine, a power driven escapement wheel, in combination with a centrally pivoted lever having a detent at one end normally locking the wheel against forward movement, and an inclined part on its other end on which the escapement wheel acts to restore the detent to locking position each time the lever is vibrated to unlock the wheel, a spring acting to hold the detent in its normal position, and means to rock the lever against the action of said spring.

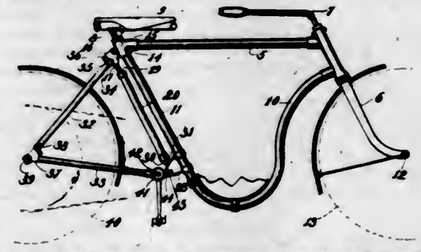
3. In a typewriting machine, a power driven escapement wheel, in combination with a centrally pivoted lever arranged at one side of the wheel and having a detent at one end normally locking the wheel against forward movement, and an inclined part on its other end on which the escapement wheel acts to restore the detent to locking position each time the lever is vibrated to unlock the wheel, a spring to yieldingly hold the detent in said position, and manually operated means independent of the wheel for vibrating the lever to release the wheel from the detent.

4. In a typewriting machine, a power driven escapement wheel having teeth with their working faces on radial lines, in combination with a centrally pivoted lever arranged in the plane of the wheel having a detent for stopping the wheel at one end and an inclined surface to intercept without stopping the wheel at the other end, the pivot for the lever being arranged on a line extending from the point of contact between the detent and wheel and at right angles to the radial line of the tooth in contact.

5. An escapement mechanism for typewriting machines, comprising a power driven toothed wheel, and a centrally pivoted lever rigidly connecting a locking detent for the wheel at one side of its pivot and a non-holding inclined face at the other side of said pivot, with means for tripping the lever to unlock the detent and at the same time interpose the inclined face between the teeth of the wheel, the wheel acting with its first forward movement to move the inclined face out of its path and restore the detent to its locking position.

[Claims 6 to 10 not printed in the Gazette.]

944,795. FRAME FOR MOTOR-CYCLES, BICYCLES, AND THE LIKE. EDWARD H. LEET and JULIUS E. STOLL, Milwaukee, Wis. Filed Aug. 21, 1908. Serial No. 449,624.



1. In a frame for motor cycles, bicycles, and the like, the combination of a forward frame portion and a rear frame portion, pivotal connections between upper and lower points of said frame portions, a bell crank lever forming part of the upper connection, a piston stem pivotally connected to the lower arm of said lever, said stem provided at its lower end with a piston, a tube into which the piston stem passes and in which the piston reciprocates, a pivotal connection between the lower end of said tube and the frame, and a coiled spring within the tube and surrounding the piston stem between the piston and the upper end of the tube.

2. In a frame for motor cycles, bicycles, and the like, the combination of a forward frame portion and a rear frame portion, a member connecting the upper and lower points of said frame portions, a piston stem pivotally connected to the lower portion of said member, said stem provided at its lower end with a tubular piston, a tube into which the piston stem passes and in which the piston stem

reciprocates, a coiled spring surrounding the piston stem between the piston and the upper end of the tube, a plunger in the lower portion of the tube and having its head movable in the bore of the tubular piston, the lower end of the piston engaging beneath said plunger head so as to carry the plunger upwardly therewith, a coiled spring surrounding the depending stem of the plunger, and a pivotal connection between the lower end of the tube and the frame.

3. In a frame for motor cycles, bicycles, and the like, the combination of a front frame portion, a bell-crank lever pivoted to the upper end of the rear upright post of the front frame portion, a piston stem pivotally connected to the lower arm of the bell-crank lever, said stem provided at its lower end with a piston, a tube into which the piston stem passes and in which the piston reciprocates, a coiled spring within the tube and surrounding the piston stem between the piston and the upper end of the tube, a member projecting from the rear post of the forward frame portion and to which member the lower end of the tube is pivoted, and a rear frame portion having the forward ends of the lower tube members thereof pivotally connected to a lower point of the forward frame portion, and its upper tube members pivotally connected at their forward ends to the upper arm of the bell-crank lever and at their rear ends to the bearing for the rear axle.

4. A frame for motor cycles, bicycles, and the like, comprising a forward frame portion consisting of a steering head and a seat post tube suitably connected together, a lower rear frame member pivotally connected to the seat post tube, an upper rear frame member pivotally connected to the rear end of the lower frame member, a lever member pivotally connected to the upper portion of the seat post tube and having its rear portions connected to the upper portion of the upper rear member, a cylinder pivotally connected to the lower portion of the seat post tube, a piston stem positioned in the cylinder and pivotally connected to the lower portion of the lever member at a point substantially in alinement with the pivotal connections of the lever member and the cylinder to the seat post tube, and a yielding means within the cylinder and interposed between one portion of the piston stem and the upper end of the cylinder and having a tendency to move the piston stem toward the lower end of the cylinder to hold the pivotal connections substantially in alinement.

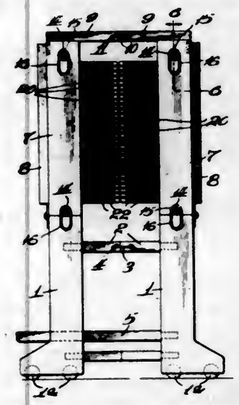
5. A frame for motor cycles, bicycles, and the like, comprising a forward frame portion consisting of a steering head and a seat post tube suitably connected together, a lower rear frame member pivotally connected to the seat post tube, an upper rear frame member pivotally connected to the rear end of the lower frame member, a lever member pivotally connected to the upper portion of the seat post tube and having its rear portion connected to the upper portion of the upper rear member, a cylinder pivotally connected to the lower portion of the seat post tube, a piston positioned within the cylinder and having its stem pivotally connected to the lower portion of the lever member at a point substantially in alinement with the pivotal connections of the lever member and the cylinder to the seat post tube, and a coiled spring interposed between the piston and the upper end of the cylinder and tending to move the piston toward the lower end of the cylinder to hold the pivotal connections substantially in alinement.

[Claims 6 and 7 not printed in the Gazette.]

944,796. APPARATUS FOR CONSTRUCTING DRESS-FORMS. LOUIS LEMCKE, St. Louis, Mo., assignor of one-half to Alexander A. Eberson, St. Louis, Mo. Filed Jan. 15, 1909. Serial No. 472,458.

1. In an apparatus of the class described, a movable frame, a series of independently and longitudinally movable form defining spring held fingers arranged in said frame, and means whereby the fingers are clamped after adjustment in use.

2. In an apparatus of the class described, a frame composed of two movable parts, said parts being separable on a vertical line, and a series of independently and longitudinally movable spring held form defining fingers carried by each part.



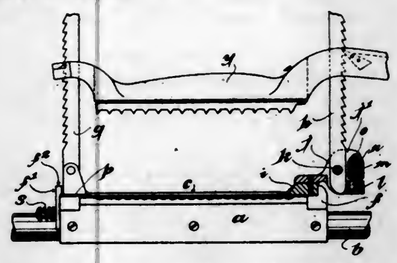
3. In an apparatus of the class described, a movable frame formed in two parts, a series of independently and longitudinally movable spring held form defining fingers carried by each part, and means whereby the fingers are rigidly held after being adjusted in use.

4. In an apparatus of the class described, a frame formed of two parts, said parts being separable from each other on a vertical line, means whereby the two parts of the frame are connected in the desired relation to each other, and a series of independently and longitudinally movable spring held form defining fingers carried by each part.

5. In an apparatus of the class described, a pair of upright frames, the upper portions of which are hinged and adapted to swing outward and downward, and a series of independently and longitudinally operating spring held form defining fingers carried by the hinged portion of each frame.

[Claim 6 not printed in the Gazette.]

944,797. MEAT-SLICING MACHINE. CORNELIS J. LENSVELT, Zurich, Switzerland. Filed June 19, 1909. Serial No. 503,059.



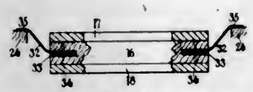
1. A meat clamp for tables of meat slicing machines having an upright with laterally projecting extension, a bracket secured to the meat table so as to overhang the same for carrying the upright and resilient means disposed between the end of the bracket and the extension of the upright.

2. A meat clamp having an upright with lateral extension carrying a socket, a bracket for supporting the upright, which bracket is made with an overhanging extension and resilient means disposed between the socket and the extension.

3. A meat clamp having an upright with a socket at its lower end, a bracket in which the upright is pivoted and which is made with an extension, a cap carried by the extension and a spring whose one end is disposed within the cap and the other end disposed within the socket.

4. A meat clamp having an upright with a socket at its lower end and parallel therewith in an extension at right angles thereto, a forked bracket in which the upright is pivoted, a swiveling cap carried by the bracket and a spring disposed at one end in the swiveling cap and at its other end in the socket of the upright.

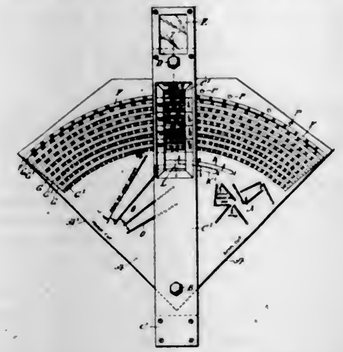
944,798. PNEUMATIC RELAY FOR AUTOMATIC MUSICAL INSTRUMENTS. ARTHUR W. LONSDALE, Bedford, England. Filed Apr. 26, 1909. Serial No. 492,175.



1. In a pneumatic relay, a valve chamber, a valve member movable therein and having recesses at opposite edges, and flexible flaps each partly wedged in one of said recesses and each secured at a side of said valve chamber.

2. In a pneumatic relay, a valve chamber, a valve movable therein and having grooves in opposite sides thereof, flexible flaps, each secured to a side of said valve chamber, and each having a part located in one of said grooves wedges securing said parts in said grooves, and pins passing through the member and said wedges.

944,799. PITCH-BOARD. CHARLES E. LYTLE, St. Joseph, Mo. Filed Mar. 16, 1908. Serial No. 421,320.



1. A device of the class described comprising a plate of sheet material provided with two side edges at right angles to each other, an arm slotted to receive the plate and pivoted thereto near the junction of the two sides, means for clamping the arm on the plate said plate being provided with a plurality of arc shaped scales, and the arm with an opening therethrough above the scales, said opening being covered with a transparent plate provided with a vernier scale.

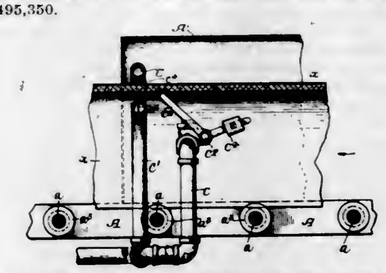
2. A pitch board comprising a plate having adjacent sides standing at a right angle to each other, an arm mounted to swing on the said plate and provided with a hair line, and segmental graduations on the said plate, indicating the pitch for the main and hip rafters, the said graduations, the said hair line and the said adjacent sides determining plumb and level cuts for rafters.

3. A device of the class described, comprising a plate of sheet material provided with two side edges at right angles to each other, an arm slotted to receive the plate and pivoted thereto near the junction of the two sides, means for clamping the arm on the plate, said plate being provided with a plurality of arc shaped scales, said plate having adjacent to one of said side edges a series of V-shaped slots for the purpose set forth.

4. A device of the class described comprising a plate of sheet material provided with two side edges at right angles to each other, an arm slotted to receive the plate and pivoted thereto near the junction of the two sides, means for clamping the arm on the plate, said plate being provided with a plurality of arc shaped scales, said plate having adjacent to one of the said sides a plurality of slots at different angles to the said sides for the purpose set forth.

5. A device of the class described comprising a plate of sheet material provided with two side edges at right angles to each other, an arm slotted to receive the plate and pivoted thereto near the junction of the two sides, means for clamping the arm on the plate, said plate being provided with a plurality of arc shaped scales, said plate having spaced apertures adjacent to one of said side edges for the purpose set forth.

944,800. PLATE-DRYING APPARATUS. HUGH C. MAC CONNELL, Philadelphia, Pa., assignor to Robert Hoe, New York, N. Y. Filed May 11, 1909. Serial No. 495,350.



1. A drying apparatus consisting of two pipes curved so as to be substantially concentric and connected to a source of air supply, said pipes having outlets extending in lines substantially parallel with their axes, with a conveyer for supporting a curved plate, said conveyer being placed adjacent to the pipes so as to move a plate between the same.

2. The combination in a drying apparatus of a conveyer, a blast pipe connected to a source of air under pressure, and a controlling valve for said pipe placed to be automatically actuated by a body carried by the conveyer.

3. The combination of two curved and substantially parallel air blast pipes each having a slot extending parallel with its axis and connected to a source of air under pressure, with a conveyer having means for engaging the edges of a curved plate to be trimmed and placed to permit the curved body of such plate to extend between the air pipes.

4. The combination of two substantially parallel air blast pipes each having an air outlet and connected to a source of air under pressure, means for passing between said plates an object to be dried, an air controlled valve and operating means for the valve placed to be operated by the object under treatment just before it is passed between the pipes.

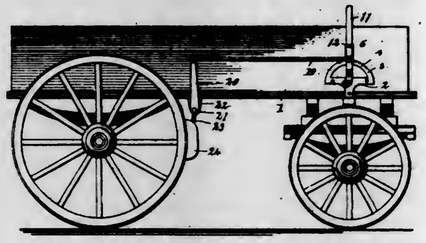
5. The combination of a conveyer for a curved stereotype plate, and a longitudinally slotted blast pipe curved to be substantially parallel with the curved surface of said plate, with means for controlling the flow of air to said blast pipe.

[Claims 6 and 7 not printed in the Gazette.]

944,801. BRAKE-LEVER MECHANISM FOR CARTS AND WAGONS. GEORGE MANLOVE, Rushville, Ill. Filed July 28, 1908. Serial No. 445,809.

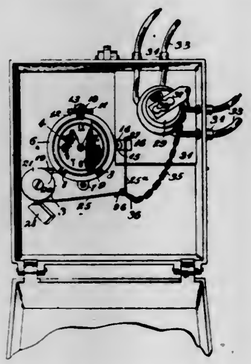
1. In a brake lever mechanism, in combination, a segment, a pivotally mounted lever adjacent to said segment, a pawl carried by said lever coöperating with said segment

to lock said lever thereto, and means for limiting the rearwardly swinging movement of said pawl on said lever, said lever presenting an inclined edge near the pivot point thereof adapted to force said lever upwardly to disengage said pawl when said lever is moved toward the rear.



2. In a brake lever mechanism, in combination, a segment, a pivot bolt mounted on said segment, a lever having an inclined slot receiving said pivot bolt, a pawl carried by said lever engaging said segment, means for limiting the rearward swinging movement of said pawl on said lever, said slot being slightly inclined and affording means for raising said lever bodily on said pivot bolt when said lever is moved rearwardly, and a link attached to said lever between the point of attachment of said pawl and said pivot bolt.

944,802. TIME-SWITCH. CHARLES A. MANN, Cincinnati, Ohio, assignor of one-half to Robert S. Mayer, Cincinnati, Ohio. Filed Mar. 27, 1909. Serial No. 486,067.



1. The combination, with a switch, of a clock having an alarm arbor provided with a loop, a sliding pivoted latch having a rounded end adapted to engage said loop, a spring, a connection between said spring and said switch for operating the same, and spring-restraining means connecting the spring with said latch.

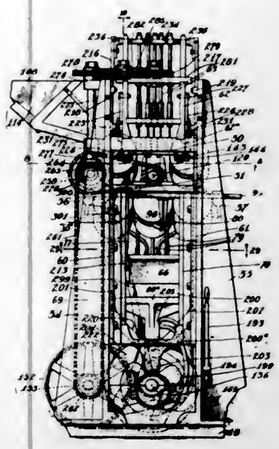
2. The combination, with a switch having a button for rotating the same, of a clock having an alarm arbor provided with a loop, a sliding pivoted latch having a rounded end adapted to engage said loop, a spring, a flexible connection between said spring and said button for imparting rotary movement to the same, and spring-restraining means connecting the spring with said latch.

3. The combination, with time mechanism having a part adapted to be moved at a predetermined time, of a pivoted member adapted to engage said part, a switch, an operating member for said switch, a spring having two angularly disposed branches, one of said branches being connected to said pivoted member, and a flexible connection between the junction of said branches and the switch-operating member.

4. The combination, with time mechanism having a part adapted to be moved at a predetermined time, of a pivoted member adapted to engage such movable part, a spring having a pair of angularly disposed branches, a loop connecting said branches, a switch having an operating member, and a flexible connection between said loop and said members.

5. The combination, with time mechanism having a part adapted to be moved at a predetermined time, of a pivoted member adapted to engage such movable part, a coiled spring having an arm projecting therefrom comprising a pair of angularly disposed branches, a connection between the remoter branch and said member, a stop for the other branch, a switch having an operating member, and a flexible connection between said spring arm and the latter member.

944,803. BROOM-MAKING MACHINE. HUGH M. MARSH, Chicago, Ill. Filed May 1, 1909. Serial No. 493,323.



1. In a broom making machine, in combination, a pair of coöperating oppositely-facing apertured broom-head forming dies, rivet-delivering means operable through the aperture of one of the dies, and rivet-setting means operable through the aperture of the other die.

2. In a broom making machine, in combination, a pair of coöperating oppositely-facing apertured broom head forming dies, drilling means and rivet-setting means operable in succession through the die apertures, and rivet-delivering means operable through the apertures of the die other than the one through which the rivet-setting means operates.

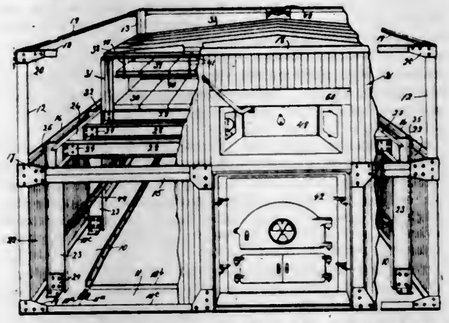
3. In a broom making machine, in combination, a pair of coöperating oppositely-facing apertured broom head forming dies, drilling means and rivet-setting means, operable in succession through the aperture of one of the dies, and rivet-delivering means operable through the aperture of the other die.

4. In a broom making machine, in combination, a pair of coöperating oppositely-facing apertured pressure plates, rivet-delivering means operable through the aperture of one of the plates, a movable carriage back of the other plate, and a drill and a rivet-setting tool mounted in the carriage and adapted to be brought alternately into register with the plate aperture by the movement of the carriage.

5. In a broom making machine, in combination, a pair of coöperating oppositely-facing apertured broom head forming dies, a rivet hopper, a rivet carrier receiving from the hopper and adapted to enter the aperture in one of the pressure plates, and rivet-setting means operable through the aperture in the other die.

[Claims 6 to 26 not printed in the Gazette.]

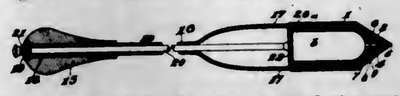
944,804. BAKE-OVEN. JOHN I. MARSHALL, Chicago, and JOHN FAULDS, Oak Park, Ill.; said Faulds assignor to said Marshall. Filed July 24, 1908. Serial No. 445,164.



1. In a bake-oven, in combination, supporting columns, Z-bars suspended from the tops of the columns by one of their flanges, cross-beams resting on the lower flanges of the bars, and a floor for the baking chamber resting on the cross-beams.

2. In a bake-oven, in combination, a frame comprising columns and cross-beams, a baking chamber floor resting on the cross-beams, side walls of masonry for the baking chamber, cross-beams resting on the walls and tying them together, a roof of masonry carried by the last-named cross-beams, and a roof of masonry for the baking chamber suspended from such beams.

944,805. SOLDERING DEVICE. HOWARD G. MEAD, St. Louis, Mo., assignor to National Veneer Package Company, St. Louis, Mo., a Corporation of Missouri. Filed Aug. 19, 1908. Serial No. 449,238.



1. In a device of the character described, the combination of a head provided with a solder-holding chamber, a cap for closing the entrance to said chamber, and a rod for moving said cap toward or away from said entrance, said rod being pivotally connected to said cap.

2. A soldering tool embodying a chambered head having one end open and its opposite end provided with a solder discharge port, a cap for closing said open end, a rod secured to said cap, a handle, a hollow rod connected to the handle and head, said hollow rod at its outer end being interiorly threaded, and a screw threaded part on said rod of the cap, said rod of the cap passing through said hollow rod and having its screw threaded part engaged with said threads of the hollow rod, whereby said cap may be adjustably secured with respect to said head.

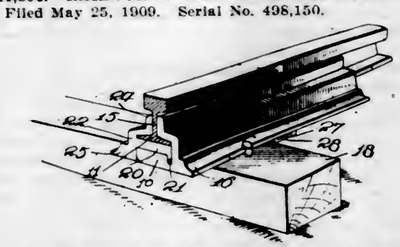
3. A soldering tool embodying a chambered head open at one end and provided with a solder discharge port at its opposite end, a handle connected to said head, a cap for closing said open end of the head, a rod, means for pivotally connecting said cap to said rod at one end of the latter, and means whereby said rod at its opposite end is adjustably connected with said handle so as to vary the pressure with which said cap may be brought to bear on said head.

4. A soldering tool embodying a chambered head open at one end and provided with a solder discharge port at its opposite end, a handle connected to said head and having a threaded socket, a cap for closing said open end of the head, a rod, means for pivotally connecting said cap to said rod, and a screw threaded part on said rod to engage said threaded socket whereby said cap may be brought to bear with desired pressure on said head.

5. A soldering tool embodying a chambered head open at one end and provided with a solder discharge at its opposite end, a handle connected to the head, a rod movably connected to the handle, and means for closing said open end of the chamber carried by said rod, said means being collapsible with respect to said rod to enable easy access to said chamber.

[Claim 6 not printed in the Gazette.]

944,806. RAIL-JOINT. ESLE V. MERCER, Adena, Ohio. Filed May 25, 1909. Serial No. 498,150.

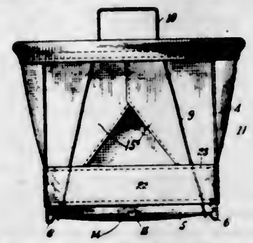


1. A fastener as specified comprising a pair of members engaged upon the opposite sides of a rail, bases formed on said members for overlapped relation, the underlying of said bases having a recess of wedge formation formed therein, a bead of wedge formation depended from the overlying of said bases for engagement in the recess, flanges upwardly extended from said bases, inwardly turned portions formed upon said flanges for engagement upon the upper face of the base of the rail, webs upwardly extended from said inturned portions for engagement against the opposite sides of the web of the rail, guides positioned across the under sides of said members and adapted for registration with one another, crossbars positioned upon the ends of said guides and a key engaged between said guides for preventing the sliding of said members past one another.

2. A device as specified comprising a pair of members adapted for engagement against the opposite sides of a rail, cam faces formed upon said members for contracting said members upon the sliding of the same into registration with one another and a key positioned across the under sides of said members when in registered relation for locking the same from sliding movement.

3. In combination with the abutting extremities of two rails of members engaged upon the opposite sides of said rails, bases formed upon said members and positioned in overlapped relation beneath said rails, means disposed on said bases for interlocking engagement to contract said members against said rails upon the sliding of said bases into registration with one another, a keyway disposed across the under sides of said members for registration, a key engaged through said keyway and shoulders formed upon the extremity of said key for locking the same in said keyway.

944,807. COAL-BASKET. HAROLD G. MITCHELL, New York, N. Y., assignor to Frank Colt Johnson, Millneck, N. Y. Filed July 28, 1909. Serial No. 510,010.



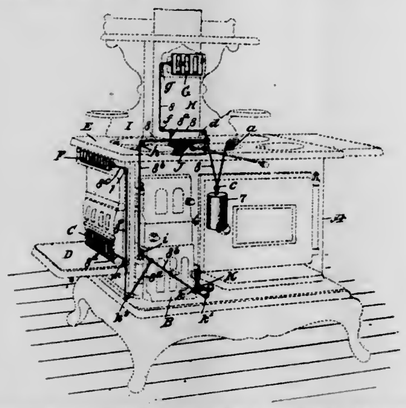
1. A basket of the class described, having a frame presenting an upper ring, a pair of leg frames having

legs attached to said ring extending downwardly therefrom, and having integral brace bars connecting said legs, and a pair of transverse brace bars connecting said first brace bars and having upwardly disposed extensions attached to said ring.

2. A basket of the class described, having a metal frame presenting an upper ring, a pair of leg frames attached to said ring extending downwardly therefrom and having integral brace bars connecting said legs, and a pair of transverse brace bars connecting said first brace bars and attached thereto, said transverse brace bars having upwardly disposed converging extensions attached to said upper ring and forming handles thereabove.

3. A basket of the class described, having a metal frame presenting an upper ring, a pair of leg frames having legs attached at their upper ends to said ring extending downwardly therefrom and having integral brace bars connecting said legs, said brace bars being offset upwardly adjacent to the lower edge of said legs, and a pair of transverse brace bars passing under said first brace bars adjacent to the lower ends of said legs, said last brace bars having extensions passing upwardly and converging toward each other, the upper portions of said last extensions being secured to said upper ring and having integral connecting bars forming handles for said basket.

944,808. AUTOMATIC DAMPER-OPERATING DEVICE. FREDERICK H. MÜLLER, Lansdale, Pa. Filed Feb. 11, 1909. Serial No. 477,276.



1. The combination with a stove or range, and dampers thereon, of a grooved pulley having a ratchet-toothed flange, a pawl engaging the teeth of said flange, a wire secured on said pulley, a weight hung from a bight on said wire, a plurality of wires connected to the first mentioned wire and to the dampers, an alarm clock having a trip, and a wire connecting the said pawl and the trip of the alarm clock to release the pawl and permit the weight to descend and pull on the wires at a predetermined time.

2. The combination with a stove or range and dampers thereon, of a bracket shelf secured on the rear wall of the range body, a grooved pulley pivoted on the back wall of the bracket shelf and having one of its flanges peripherally toothed, a pawl pivoted on the back wall of the bracket shelf adjacent to the pulley and normally engaging between the teeth of said flange, a flexible wire secured at one end on the pulley and depending from the pulley in a bight, a weight loosely engaged with the bight of the wire, a plurality of wires connected with the first mentioned wire and with the dampers, an alarm clock secured on said bracket shelf, a trip for said clock, and a flexible connection between the said pawl and the trip of said clock to release the pawl at a predetermined time to permit the weight to descend and pull on said wires.

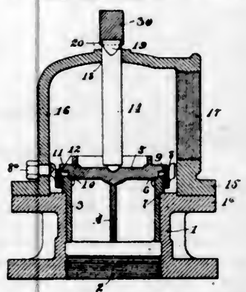
3. A damper adjusting mechanism comprising a plurality of wires or the like respectively connected to the dampers, a weight connected with the wires for moving the same to actuate the dampers, means for supporting the weight, means for releasing said supporting means at a predetermined time to permit the weight to descend, an electric circuit including a bell, and a push button adapted to be engaged by the said weight to close the circuit.

4. A damper adjusting mechanism of the character described, comprising a plurality of wires or the like respectively connected to the dampers, a weight hung on one of the wires, a ratchet device that supports the weight, an alarm clock adapted for releasing the ratchet device so as to permit the weight to descend at a predetermined time, a push button and switch controlled thereby that may be pushed by the descending weight, a battery, a bell, and open circuit wires connecting the bell with the switch, the circuit being closed when the weight seats upon the push button.

5. A damper adjusting mechanism, comprising an alarm clock, a weight connected with the dampers and controlled by the alarm clock for actuating the dampers at a predetermined time, an electric circuit, an alarm, and a push button in said circuit, the said push button being located directly below said weight and adapted to be engaged and actuated thereby.

[Claims 6 and 7 not printed in the Gazette.]

944,809. SAFETY-VALVE. HARRY C. MCCARTY, Williamsport, Pa. Filed Dec. 7, 1907. Serial No. 405,489.



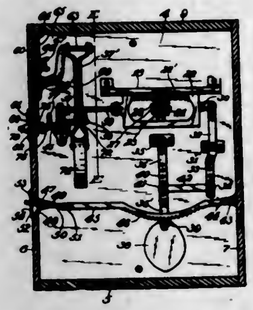
1. In a safety valve comprising a casing constructed in two sections having coinciding flanges by which said elements are united, the upper section of the casing operating as a steam-discharge chamber, a valve seat mounted on the lower section, a valve operatively supported thereon, a valve rod actuated thereby, an aperture in the upper section of the casing through which said rod passes, a bracket on said upper section of the casing, a lever pivoted by one end to said bracket and bearing on said valve rod, and means between the opposite end of the pivoted lever and the flanges of the casing to normally keep the lever depressed and the valve closed.

2. In a safety valve comprising a sectional valve casing, an annularly-flanged lower casing, a valve therein, a superposed upper casing, adapted to operate as a steam-discharge chamber, and having an annular flange coinciding with the flange of the lower casing, a valve rod passing through an aperture in the upper casing, a bracket on the exterior wall thereof, a lever pivotally mounted in said bracket over the projecting end of the valve rod, and spring mechanism acting on the free end of said lever to hold the valve to its seat.

3. In a safety valve, a casing therefor constructed in two sections having coinciding exterior flanges, a valve seat in the lower section, a valve seated thereon, a valve rod adapted to be actuated thereby, an aperture in the upper section through which said rod passes, said upper section adapted to operate as a steam-discharge chamber, a lever pivotally mounted over said upper section and adapted to be actuated by said rod on a rise of the valve, and a spring-controlled rod between the opposite end of said lever and the flange of the upper section of the casing operating to govern said lever to hold the valve to its seat.

4. In a safety valve comprising a sectional valve casing consisting of an annularly-flanged lower section, a superposed upper section having an annular flange coincident with the flange of the lower section, a valve seat in the latter, a valve operatively mounted on said seat, a valve rod actuated by said rod and passing through an aperture in the top of the upper section of the casing, a lever pivotally mounted by one end on said upper section and bearing on said valve rod, and a spring-controlled rod, exterior of the casing, adapted to hold the lever normally depressed and keep the valve to its seat.

944,810. UNIVERSAL ANGLE-INDICATOR FOR PORTABLE MACHINERY. WILLIAM T. MCPHETRIDGE, Bean Blossom township, Monroe county, Ind., assignor of one-half to Orla W. Smith, Baker township, Ind. Filed June 21, 1909. Serial No. 503,327.



1. An angle indicator including a case, a guide-bar and also an axial shaft and an indicator dial mounted fixedly in the case, a rack-bar supported movably by the guide-bar, a hollow shaft rotatable on the axial shaft and having a pinion thereon in contact with the rack-bar, a pointer secured to the hollow shaft opposite the dial, a plummet pivotally supported in the case, a coupling-rod operatively connected with the rack-bar to move the rack-bar, and a pivot connected adjustably to the plummet relatively to the support thereof and connecting the connecting-rod to the plummet.

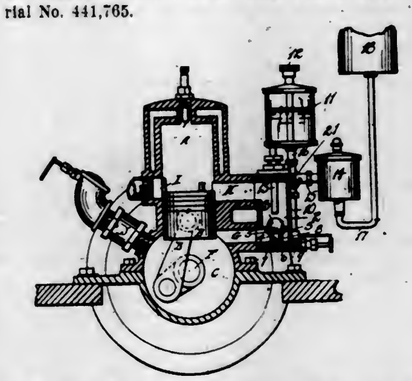
2. An angle indicator including a case, a guide-bar mounted in the case, a rack-bar supported movably by the guide-bar, an axial shaft supported in the case, an indicator dial mounted in the case, a hollow shaft rotatable on the axial shaft and having a pinion thereon in engagement with the rack-bar, a pointer secured to the hollow shaft opposite the dial, and a plummet pivotally supported in the case and operatively connected with the rack-bar.

3. An angle indicator including a case, a guide-bar mounted in the case, a rack-bar supported movably by the guide-bar, an axial shaft supported in the case, an indicator dial mounted in the case, a hollow shaft rotatable on the axial shaft and having a pinion thereon in engagement with the rack-bar, a pointer secured to the hollow shaft opposite the dial, a lever pivoted in the case and connected operatively with the rack-bar, a plummet pivotally supported in the case, and a coupling-bar connected to the plummet and also to the lever.

4. An angle indicator including a case, a guide-bar mounted in the case, a rack-bar supported movably by the guide-bar, an axial-shaft supported in the case, an indicator dial mounted in the case, a hollow shaft rotatable on the axial shaft and having a pinion thereon in engagement with the rack-bar, a bell-crank pivoted in the case, a connecting-rod pivoted to the bell-crank and also to the rack-bar, a plummet pivotally supported in the case, and a coupling-rod pivoted to the bell-crank and also to the plummet.

5. An angle indicator comprising a case, an axial shaft and also an indicator dial mounted fixedly in the case, two rack-bars mounted movably in the case, a hollow shaft rotatable on the axial shaft and having a pinion thereon in contact with one of the rack-bars, a pointer secured to the hollow shaft opposite the dial, a second hollow shaft rotative on the first-mentioned hollow shaft and having a pinion thereon in contact with the other one of the two rack-bars, a pointer secured to said second hollow shaft opposite the dial, two plummets mounted pivotally in the case to swing in different planes, a coupling-rod operatively connected with one of the rack-bars to move the same, a pivot connected adjustably to one of the plummets relatively to the support of the plummet and connecting the plummet to the connecting-rod, a bell-crank pivotally mounted in the case and operatively connected with the other one of the two rack-bars to move the same, a coupling-rod pivotally connected to the bell-crank, a pivot connected adjustably to the other one of the two plummets relatively to the support of the plummet and connecting the plummet to the connecting-rod, means for locking one of said plummets to prevent movement thereoef, and means for locking the other one of said plummets to prevent movement thereof.

944,811. INTERNAL-COMBUSTION ENGINE. WILLIAM E. NAGEBORN, Detroit, Mich. Filed July 3, 1908. Serial No. 441,765.



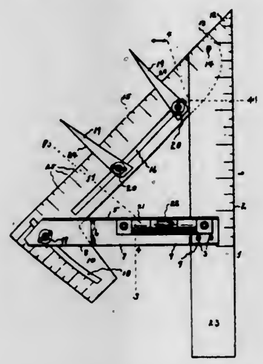
1. In an apparatus of the kind described, the raised seat 4 provided with a passage adapted to admit liquid fuel and having an approximately semi-spherical face, and a ball resting in said face, said face being supplied with apertures 5, 5 extending through said seat.

2. In an apparatus of the kind described, the raised seat 4, provided with a passage adapted to admit liquid fuel and having an approximately semi-spherical face, a ball resting in said face, said face being supplied with apertures 5, 5 extending through said face, and means for limiting the upward movement of said ball.

944,812. COMBINATION-TOOL. JOHN NORQUIST, Malmo, Nebr. Filed Aug. 19, 1909. Serial No. 513,624.

1. A combination tool, comprising a standard provided with a straight edge; a supporting-arm provided with a level indicating device and disposed at a right-angle with reference to and secured upon the standard; an indicating-strip pivotally mounted upon the standard and formed with a straight-edge and having a transverse, longitudinally slotted head; means upon said arm and engaging within said slot for connecting said arm and the head of said indicating-strip.

2. A tool for the purposes described, comprising a standard formed with a straight-edge; a supporting-arm disposed at right angles to and secured upon the standard; an indicating-strip formed with a straight-edge and having a transverse, longitudinally-slotted head; means upon said arm and engaging within said slot for connecting said arm and the head of said indicating-strip.



3. A tool of the class described, comprising a standard formed with a straight-edge and having visible indicating characters thereon; a supporting-arm provided with a level-indicating device and disposed at a right angle with reference to and secured intermediate the terminals of and upon said standard; an indicating-strip formed with a straight-edge and having visible indicating characters thereon, said strip having a transverse, longitudinally slotted head; means upon said arm and engaging within said slot for connecting said arm and the head of said indicating-strip.

4. In a new article of manufacture, the combination with a standard; a supporting-arm rigidly mounted between the ends of the standard and disposed at right angles with reference thereto; an indicating-strip having a pivotal connection of one of its ends with one of the terminals of the standard, its opposite end having an adjustable connection with one of the terminals of the supporting-arms.

5. A combination tool, comprising a standard formed with an indexed straight-edge, a supporting-arm provided with a level-indicating device and disposed at a right angle with reference to and rigidly mounted upon the standard; an indicating-strip formed with an indexed straight-edge and provided with divider fingers, said strip being pivotally mounted at one of its ends upon one of the terminals of the standard, its opposite end being slidably mounted upon the supporting-arm.

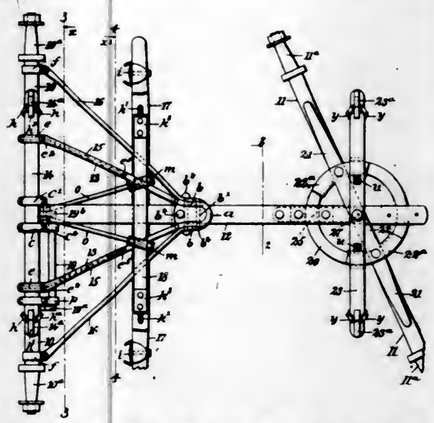
[Claims 6 and 7 not printed in the Gazette.]

944,813. RUNNING-GEAR FOR WAGONS. WILLIAM J. OTT, Merlin, Oreg. Filed Oct. 3, 1908. Serial No. 456,027.

1. In running gears, the combination with a front axle, a circle plate, and a reach bar, of a sand board mounted upon the circle plate and upon the reach bar, a segmental guide plate on the sand board, a wear plate having hooked engagement with the segments on the guide plate, and a bolster secured on the wear plate.

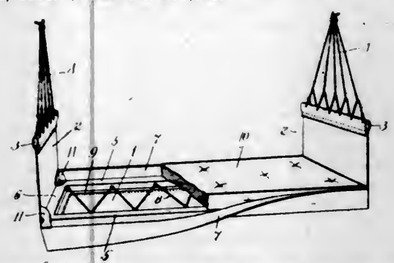
2. In a running gear, the combination with the front axle, of a circle plate, a reach bar to which the circle plate is secured, a sand board mounted upon the circle plate, said sand board being recessed on its under side to receive the reach bar and provided on its upper side with shoulders, a guide plate secured upon the sand board and projecting beyond the shoulders thereof, and a bolster provided on its under side with a wear plate having hooked-shaped flanges engaging the guide plate.

3. In a running gear, the combination with the front axle, of a circle plate, a sand board mounted upon the circle plate, said sand board being recessed on its under side and provided with shoulders on its upper side, a segmental guide plate on the sand board and projecting beyond the shoulders thereof, a bolster having on its under side a wear plate provided with hooked-shaped flanges engaging the guide plate, a reach extending through the recess of the sand board with its end projecting beyond the circle plate, and a king bolt passing through the several parts.



4. In running gears, the combination with a front axle, a circle plate thereon, a reach bar extended across the circle plate and loosely secured thereon, and a sand board recessed on the lower side and mounted upon the circle plate, of a segmental guide plate seated upon the sand board, a wear plate having hooked ends that loosely engage the outer edges of the guide plate segments, a bolster whereon the wear plate is secured, means for securing the sand board and circle plate on the axle, and a king bolt that pivots the bolster and wear plate on the guide plate and also pivots the reach bar upon the axle.

944,814. COUCH-HAMMOCK. ISAAC E. PALMER, Middletown, Conn., assignor to The I. E. Palmer Co., Middletown, Conn., a Corporation of Connecticut. Filed Dec. 31, 1908. Serial No. 470,149.



1. A couch hammock comprising in combination a body portion, a frame adapted to overlie the same and to receive a mattress or other covering thereon, and protecting or hammock positioning members between the edges of the mattress and the ends of the hammock body.

2. A hammock comprising in combination a body, means to suspend the same, and a skeleton frame applied to or received upon said body and having means to support the underlying portion of the body adjacent the upper face of said frame.

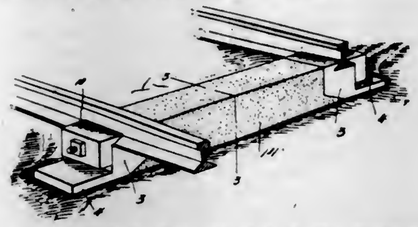
3. A hammock comprising in combination a frame and a supporting body having lateral edges underlying said frame, means connecting said edges, and means to support said connecting means closely adjacent to the upper face of the frame.

4. A couch hammock or other frame provided with members or pieces serving as mattress guards or hammock positioning members, said members or pieces being secured to the frame and having parts projecting above the upper surface of the frame for the purpose described.

5. A couch hammock or other frame provided with members or pieces serving as corner mattress guards or hammock positioning members, said members or pieces being secured to the corners of the frame and having parts projecting above the upper surface of the frame for the purpose described.

[Claims 6 to 14 not printed in the Gazette.]

944,815. RAILROAD-TIE. JESSE C. PEARCE, Findlay, Ill., assignor of one-half to James J. Harsh, Windsor, Ill. Filed May 17, 1909. Serial No. 496,494.

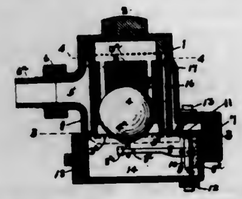


1. In combination with the rails, a bar, supporting blocks integral with the bar and formed on the end thereof, said blocks having recesses formed therein to receive the foot of the rails, clamps engaging the outer flange of the foot of the rails, and means having engagement with the blocks and the clamps for securing the latter in position.

2. In combination with the rails, a bar, supporting blocks formed on the ends thereof, said blocks having recesses formed therein to receive the inner flange of the foot of the rails, a lug having a squared base formed on the outer side of each block, a clamp having a corresponding recess mounted on the lug and engaging the outer flange of the foot of the rail, and means engaging the outer end of the lug for retaining the clamp in engagement with the rail.

3. In combination with the rails, supporting blocks therefor having recesses to receive the rails, and outwardly extending base flanges on said blocks, means connecting said blocks, a casing formed on said means and making flush joints with the blocks for bracing the blocks and connections, lugs projecting from the outer faces of the blocks and having screw threaded ends, clamps mounted on said lugs, and nuts engaged on the lugs for securing the clamps in engagement with the rails.

944,816. AUTOMATIC DRAINAGE-VALVE. CASSIUS C. PECK, Rochester, N. Y. Filed Aug. 19, 1909. Serial No. 513,685.



1. In an automatic water drainage valve, a valve body having a vertical float chamber with an inlet port; a float in said chamber; a lever having one end attached to the lower side of the float; a horizontal extension of the valve body to form a valve chamber below the normal water level in the valve body and to provide suitable length of valve lever; an outlet valve passage with valve seat formed directly in the metal of the valve body at the top of said chamber; a short stemmed, upwardly closing valve for said passage attached to the aforesaid lever at the opposite end from the float; a fulcrum for the lever near the valve; and a plugged opening in the valve body directly beneath the outlet valve passage to provide for drilling the said passage from the valve seat side and for cleaning the valve chamber.

2. In an automatic water drainage valve, the combination of a valve body having a float chamber with an inlet port; a float in said chamber; an upwardly opening outlet port above its valve and below the level of the inlet port and of the normal water level in the valve body; a lever attached at one end to the float; a fulcrum for said lever placed near the outlet valve; with an upwardly discharging outlet valve having its stem attached to said lever at that end of the lever which is opposite to the float and having the valve stem supported above its center of gravity in such manner as to swing freely and its lower end weighted to maintain the valve stem in vertical position and to counterbalance the long arm of its lever.

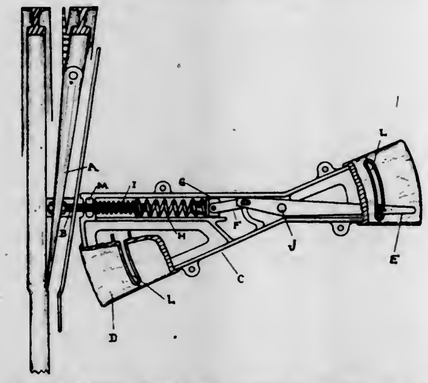
3. In an automatic drainage valve for a vacuum heating system, the combination of a valve body having an inlet port at its upper portion; an outlet valve in a side extension of the valve body forming a valve chamber at the lower portion of said valve body; a float in the valve body having its line of flotation and normal water level in the valve body below the inlet port; a lever attached to the float at one end and to the outlet valve stem at the opposite end; a fulcrum for the lever near the outlet valve stem; a combined air and water outlet passage in communication with the valve body drain pipe connection above the valve chamber; a small air duct formed on the outside of the valve body adapted for conducting a little air and vapor from the upper portion of the float chamber into said air and water passage; and a valve passage from the valve chamber beneath into the air and water passage above adapted to be closed by upward movement of the outlet valve stem caused by lowering of the water level in the valve body and consequently of the float controlling the valve lever, substantially as shown and described.

4. In an automatic drainage valve for steam radiators, the combination of a vertical cylindrical valve body having an inlet port on its side near its top; an outlet port in a side extension of the valve body forming a valve chamber at the lower portion of said valve body; a float in said cylindrical portion of the valve body so placed that the normal water line in the valve body will bring its line of flotation below the inlet port; a removable screen inclosing the vertical sides of the float and so fitting at its lower end the vertical walls of the valve body as to compel all water which enters the valve body to pass through the screen before reaching the float; a sediment chamber below the screen and the float; a lever so hinged to the float as to allow of directly vertical movement of the float as it is raised and lowered by changes of water level in the valve body; an outlet valve with a vertically set stem having a hinged connection to the end of the lever in the valve chamber; a fulcrum for said lever near said valve stem; an outlet passage above the valve adapted to be closed by upward movement of the valve stem; a combined air and water passage above said outlet valve communicating with the valve drain pipe connection; and an air passage exterior to the valve body providing communication with the upper portion of said body and with the valve body outlet, all substantially as shown and set forth.

944,817. STREET-RAILWAY SWITCH. EPHRAIM A. PETERSON, Rockford, Ill. Filed Oct. 3, 1908. Serial No. 456,081.

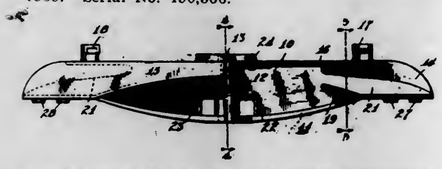
1. In a street railway the combination with the main line rails and a movable switch tongue, of a rod secured

to said switch tongue, and the said rod operated through a stuffing box and through a spring, the tension of the said spring acting upon the said rod in such a way as to keep the said switch tongue up against one side of the rail, and one end of the said rod is secured to a second spring so as to keep the said switch tongue up against the other side of the rail in such a way as to allow the wheels of a car to pass between the said switch tongue and rail and to permit said switch tongue to spring back into its natural position after said wheels have left the switch tongue, substantially as described.



2. In a street railway the combination with the main line rails and movable switch tongue, of a rod secured to said switch tongue, and the said rod operating through a stuffing box and through a spring the tension of said spring acting upon the said rod, and one end of said rod is secured to a second spring and one end of said second spring is secured to a block and said block is pivotally secured to a link and the said link is pivotally secured to a lever and the said lever is pivotally secured to a box which carries the switch mechanism; the said box carries a cover which has slots, which the said lever operates through and when the said lever is tripped, the said switch tongue will move substantially as set forth.

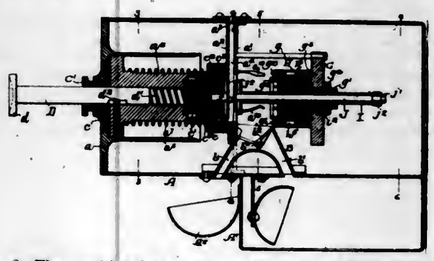
944,818. TRUCK-BOLSTER FOR RAILWAY-CARS. HERMAN PRIES, Michigan City, Ind. Filed Apr. 17, 1909. Serial No. 490,566.



A single piece railway car truck bolster comprising, in combination, a compression member having a top plate, side plates arching upwardly and bottom plates uniting the side plates adjacent their outer ends and being provided with spring seats; a tension member uniting the bottom plates and bowing downward; and a central vertical web uniting the tension member and top plate and having brake rod openings bordered by lateral flanges.

944,819. COIN-SELECTOR. GEORGE C. REITH and GEORGE F. FLADE, Philadelphia, Pa. Filed Mar. 16, 1909. Serial No. 483,802.

1. The combination in a coin selector, of a structure provided with a branched passage, a plurality of longitudinally movable pins mounted to engage the faces of the coin, and mechanism controlled by said pins and governed by variations in the thickness of the parts of a coin for directing said coin into one or the other of the branches of said passage.



2. The combination in a coin selector, of a coin directing device, means for actuating said device, a locking device for the actuating means, and means for presenting a coin to the locking device so as to cause it to release the actuating device.

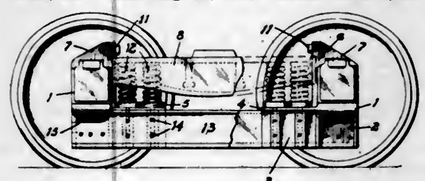
3. The combination in a coin selector, of coin directing means, controlling mechanism for said means depending for its action upon the thickness of a coin presented, said controlling mechanism including a plurality of longitudinally movable pins placed to engage the face of a coin at different points thereof.

4. The combination in a coin selector, of a structure having a branched passage, a valve capable of directing a coin to either passage, and controlling means for said valve, the same including a plurality of bodily movable members yieldingly engaging the face of a coin at a plurality of different points.

5. The combination in a coin selector of a branched passage having a valve, a movable member controlling the action of said valve, means normally locking said movable member in place, with a device for presenting a coin to said locking means to cause the same to release said member when the coin is of predetermined dimensions.

[Claims 6 to 24 not printed in the Gazette.]

944,820. CAR-TRUCK. THEODORE W. REMMERS, St. Louis, Mo. Filed Aug. 26, 1909. Serial No. 514,791.



1. In a car truck side frame, a journal box having a bolster guide formed on its side face.

2. In a car truck side frame, a pair of journal boxes, a beam connecting the same and bolster guides formed on the inner side faces of said journal boxes.

3. In a car truck side frame, a journal box provided with a plate for supporting the springs interposed between the side frame and the truck bolster and a bolster guide formed on the journal box above said plate.

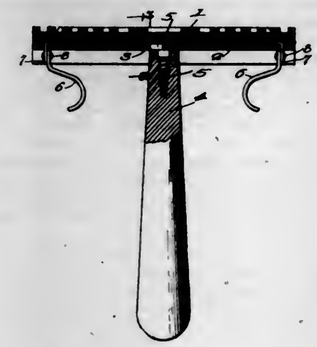
4. In a car truck side frame, a journal box, a spring receiving plate integral therewith, a bolster guide formed on the side face of the journal box above said plate and removable means on said guide for limiting the upward movement of the bolster operating on said guide.

5. In a car truck side frame, a journal box having a bolster guide extending above the top of the journal box.

[Claims 6 to 24 not printed in the Gazette.]

944,821. GRAINING DEVICE. CHARLES T. RIDGELY, Springfield, Ohio. Filed Oct. 26, 1908. Serial No. 459,515.

1. A device of the character described comprising a flexible body portion having a graining surface on one side thereof adapted to be moved laterally over the surface to be treated having each end capable of being flexed independently of the other end thereof, and a handle for said body portion.



2. A device of the character described comprising a flexible body portion having a graining surface on one side thereof and adapted to be moved laterally over the surface to be treated, means for flexing each end of said body portion independently of the other end thereof, and a handle for said body portion.

3. A device of the character described comprising a flexible body portion having a graining surface on one side thereof and adapted to be moved laterally over the surface to be treated, a handle secured thereto between the ends thereof, and independent means secured to said body portion on each side of said handle for flexing the adjacent part of said body portion.

4. A device of the character described comprising a flexible body portion having a graining surface on one side thereof and adapted to be moved laterally over the surface to be treated, and finger pieces secured thereto on opposite sides of the center thereof.

5. A device of the character described comprising a flexible body portion having a graining surface on one side thereof and adapted to be moved laterally over the surface to be treated, a handle secured to said body portion between the ends thereof, and finger pieces secured to said body portion on opposite sides of said handle.

[Claims 6 to 10 not printed in the Gazette.]

944,822. PROCESS OF TREATING OR IMPREGNATING PLANTÉ NEGATIVE PLATES. HUGH RODMAN, Pittsburg, Pa., assignor, by mesne assignments, to Westinghouse Storage Battery Company, a Corporation of New York. Filed Mar. 24, 1906. Serial No. 307,929.

1. The method of reducing depreciation in Planté negative plates, which consists in impregnating the active mass or mass to become active, with a compound of the barium group.

2. The method of reducing depreciation in Planté negative plates, which consists in impregnating the active mass, or the mass to become active, with an inert finely divided barium compound.

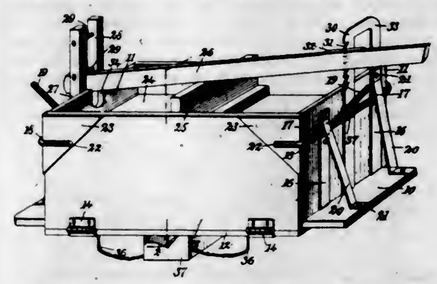
3. The method of reducing depreciation in Planté negative plates, which consists in impregnating the active mass, or the mass to become active, with a finely divided sulfate of the barium group.

4. The method of reducing depreciation in Planté negative plates, which consists in impregnating the active mass, or the mass to become active, with finely divided barium sulfate.

5. The method of reducing depreciation in Planté negative plates, which consists in precipitating within the active mass, or the mass to become active thereof, a finely divided inert compound of the barium group.

[Claims 6 to 33 not printed in the Gazette.]

944,823. BALING-PRESS. ISAAC W. ROHRER, Jr., Lancaster, Pa. Filed Jan. 21, 1909. Serial No. 473,453.



1. A baling press, comprising a base, stationary ends mounted upon said base, hinged sides mounted upon said base and adapted to be positioned against said ends, releasable locking members carried by said ends and serving to hold said sides in operative positions, a presser board movably mounted between said sides and said ends, a bifurcated member carried by one of said ends and projecting above the same, said member having a plurality of cross members constituting stops, a removable presser bar adapted to engage said stops, whereby each of said stops is adapted to constitute a fulcrum, and a member carried by the other of said ends and projecting above the same, said member being provided with a plurality of projections with which the presser bar engages.

2. In a baling press, a box open at the top, a press board movably mounted in the box, and provided with a rib at about its center, a member secured to one end of the box and projecting above the top of the same, the projecting portion of said member being provided with a plurality of cross members each forming a fulcrum, a presser bar adapted to removably engage the said cross members, and a toothed member secured to the other end of the box and projecting above the top of the same and with the teeth of which the presser bar is adapted to engage.

3. In a baling press, a base, stationary ends mounted upon said base, guide boards secured to said base and projecting therefrom, sides hinged upon said guide boards and adapted to be positioned against said ends, and locking members carried by said ends and serving to hold said sides removably in position, said guide boards having openings therethrough whereby tying lines can be positioned within the press from underneath the same.

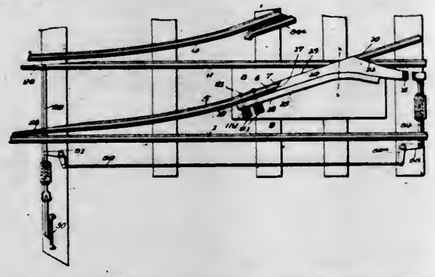
4. In a baling press, a base, stationary ends mounted upon said base, guide boards secured under said base and projecting beyond the sides thereof, sides hinged upon said guide boards and adapted to be positioned against said ends, locking members carried by said ends and serving to hold said sides removably in position, said guide boards having openings therethrough, whereby tying lines can be positioned within the press from underneath the same, said sides having the lower inner edges rounded.

5. In a baling press, a press body, a movable presser board in said body, said body having an upright projecting above the same and bifurcated, said body being cut away at a point adjacent to the bifurcation of said upright, said upright having spaced stops extending across the bifurcation thereof, said body further having a ratchet member opposite to said upright, a presser board in the body, and a presser bar adapted to have one end positioned under said stops and to engage with its other end said ratchet member, said presser board having an upwardly extending part adapted to be engaged by said presser bar.

944,824. RAILROAD-FROG. WILLIAM M. SCOTT, Toccoa, Ga. Filed June 23, 1909. Serial No. 503,956.

1. A rail road frog construction comprising a continuous main line rail at the point of crossing of a switch rail, a switch rail terminating short of each side of the

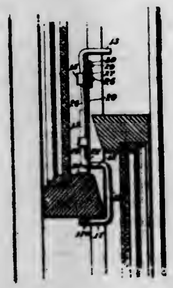
continuous main line rail and slightly elevated above the top of the same, a frog section fitting between the ends of the switch rail and overlapping the main line rail when in alinement with the adjacent ends of the switch rail, a bolt securing the frog rail section to the switch rail, and a spring coöperating with the bolt to hold the frog rail section in alinement with the switch rail, said spring permitting of the frog rail section being moved to permit the flange of a wheel to travel, on the continuous main line rail.



2. A rail road frog construction comprising a continuous main line rail, a switch rail terminating on opposite sides of the main line rail, a frog rail section normally fitting between the ends of the switch rail and overlying the main line rail and means for holding the frog rail section in alinement with the switch rail, said means also permitting of the frog rail section being moved from alinement with the switch rail to allow free passage of the flange of a wheel over the continuous main line rail.

3. In combination, a main line rail, a switch rail terminating on opposite sides of the main line rail, the upper surface of said switch rail being above the plane of the upper surface of the main line rail, a frog section having an overlying portion which overlies the main line rail when in alinement with the switch rail ends, the said section being extended at opposite ends beyond the ends of the overlapping portion, bolts and springs engaging one extended end of the section to secure the latter in position, and the opposite end of the said section being angularly disposed with reference to the overlapping portion and spaced from and terminating inside the continuous main line rail.

944,825. WINDOW-LOCK. ISAIAH C. SCUDDER, New York, N. Y. Filed May 10, 1909. Serial No. 495,081.



1. A device for locking windows, comprising two relatively-movable members adapted to engage with and be secured to the lower portion of the upper sash of a window and having laterally-extending portions adapted to engage with the upper side of the lower sash of the window, and means for locking said members in operative position.

2. A device for locking windows in partially opened position, comprising two relatively-movable members, each having a loop adapted to receive and be secured to the lower portion of the upper sash of a window and one of said members having a laterally-extending portion adapted to engage with the upper side of the lower sash of the window.

3. A device for securing windows in partially opened position, comprising two members, each having a longitudinally-extending portion, a lower loop portion and a laterally-extending upper end portion, means for securing said members together to permit of their relative rotation, and means for locking said members against rotation.

4. A device for securing windows in partially opened position, comprising a member having a loop adapted to engage with the lower portion of the upper sash of a window, a member carried by said loop adjacent one side thereof and movable relatively to the opposite side of the loop to effect the clamping action of the loop to the window sash, and a member having a laterally-extending portion at its upper end adapted to engage with the upper side of the lower sash of the window.

5. A device for securing windows in partially opened position, comprising two members, each composed of a rod bent to form a lower loop portion, a longitudinally-extending portion and an upper laterally-extending end portion, means connecting said longitudinally-extending portions to permit of their relative rotation, means movable longitudinally of said members for varying the effective size of the loops, and means for locking said members against rotation.

[Claims 6 and 7 not printed in the Gazette.]

944,826. PRODUCTION OF ALLOYS OF ALKALI-EARTH METALS, &c. GEORGE O. SEWARD and FRANZ VON KÜGELGEN, Holcombs Rock, Va., assignors to Virginia Laboratory Company, New York, N. Y., a Corporation of New York. Filed Mar. 28, 1906. Serial No. 308,578.

1. The production of alloys of alkali-earth metals with less electro-positive metals by electrolyzing a mixture of their fused compounds in which the concentration of the less electro-positive metal is maintained so low that the alkali-earth metal is separated jointly with the less electro-positive metal.

2. The production of alloys of calcium with less electro-positive metals by subjecting a fused mixture of a calcium salt with a small proportion of a salt of the metal it is desired to alloy with calcium to electrolysis, and maintaining the concentration of the less electro-positive metal so low that calcium is separated jointly with the less electro-positive metal.

3. The electrolytic production of alloys of alkali-earth metals with less electro-positive metals by electrolyzing a mixture of their fused salts while maintaining the concentration of the less electro-positive metal constant, and so low that the alkali-earth metal is separated jointly with the less electro-positive metal.

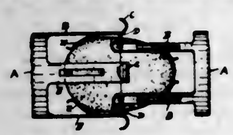
4. The production of an alloy of an alkali-earth metal with a less electro-positive metal by subjecting a fused mixture of the chlorid of such alkali-earth metal with a small proportion of a salt of such other metal to electrolysis, and maintaining the concentration of such other metal so low that the alkali-earth metal is separated jointly therewith.

5. The electrolytic production of alloys by electrolyzing a mixture of fused salts of the metals to be alloyed, the salt of the less electro-positive metal being maintained of such low concentration that the other metal is separated jointly therewith.

944,827. EGG-OPENER. CHARLES H. SHELDON, Kewanee, Ill. Filed Dec. 26, 1908. Serial No. 469,224.

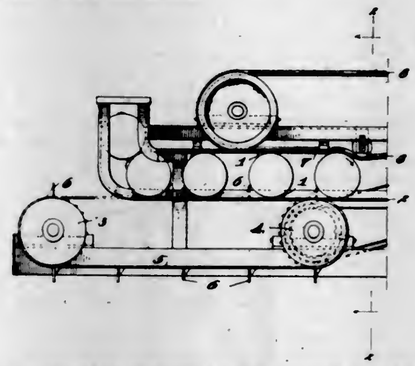
1. In a device of the described class, the combination of two open sided members, each formed integrally of thin sheet metal and having a flat base provided with an upwardly extending cylindrical wall and resilient prongs extending beyond the wall and provided intermediate of their ends with inwardly projecting cutters struck up from the metal of the prongs, the prongs of one member being adapted to pass between the arms of the other member.

2. In a device of the described class, the combination of two members each having a flat base and a set of resilient prongs provided with cutters intermediate of their ends struck up from the metal of said prongs, said prongs having portions thereof curved to embrace the ends of an



egg and prevent the separate portions of the shell from dripping away from the cutters, and said prongs being also adapted to enter the space between the prongs of the other member.

944,828. CAN-FEEDER. WILLIAM SPAIN, St. Louis, Mo., assignor to Corn Products Refining Company, New York, N. Y., a Corporation of New Jersey. Filed Oct. 26, 1908. Serial No. 459,637.



1. A can feeder including a track structure upon which the cans may initially roll and thereafter slide to peripherally adjust the cans with relation to the track structure, means operating upon the cans to prevent the rotation thereof while sliding and means for advancing the cans upon the track structure upon the separation of the cans from the aforesaid means.

2. A can feeder including a track structure upon which cans may initially roll and thereafter slide to peripherally adjust the cans with relation to the track structure, a guard structure coextensive with a portion of the track structure and serving to prevent rotation of said cans while sliding, and means for advancing the cans upon the track structure upon the dissociation of said cans from said guard structure.

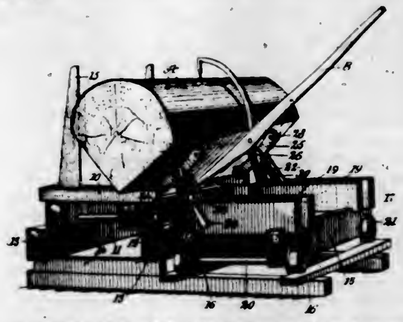
3. A can feeder including a track structure upon which the cans may be slid during a part of their travel, means operating upon the cans to prevent rotation thereof while sliding to peripherally adjust the cans with relation to the track structure, and means acting positively to transfer the cans upon the dissociation of the cans from the aforesaid means.

4. A can feeder including a track structure upon which cans may be slid during a part of their travel, a guard structure coextensive with a portion of the track structure and serving to prevent rotation of said cans while sliding to peripherally adjust the cans with relation to the track structure, and means acting positively to transfer the cans upon the dissociation of the cans from the guard structure.

5. A can feeder including a track structure upon which cans may be placed and slid, and means for holding the cans from rotation while sliding to peripherally adjust the cans with relation to the track structure.

[Claim 6 not printed in the Gazette.]

944,829. LOG-HANDLING DEVICE. JACOB G. STONER, Smithsburg, Md. Filed Jan. 30, 1909. Serial No. 475,126.



1. A device of the class described comprising a support adapted to be arranged adjacent to a saw-mill carriage and having a swinging arm, a carrier pivoted upon said arm and having rollers for movably engaging a log and holding the same while it is being turned upon the saw-mill carriage, a pivoted brace adapted when extended to hold said arm in an operative position, and means for inoperatively disposing said arm and said members.

2. A device of the class described comprising an auxiliary carriage adapted to be arranged adjacent to a saw-mill carriage, carriers movably mounted upon said auxiliary carriage and arranged to be projected toward the saw-mill carriage to engage a log upon the same, whereby the log can be movably held against displacement from the saw-mill carriage when being turned upon the same, and extensible braces having limited movements for holding said carriers in operative positions and consisting of pivotally connected parts adapted to be alined to hold said carriers.

3. A device of the class described comprising an auxiliary carriage adapted to be arranged adjacent to a saw-mill carriage, swinging arms mounted upon said auxiliary carriage, movable carriers mounted upon said arms and adapted movably to engage a log upon the saw-mill carriage to hold the same while it is being turned, and extensible braces for holding said arms projected, said braces having stops for limiting their extension.

4. A device of the class described comprising a support adapted to be arranged adjacent to a saw-mill carriage, arms pivoted upon said support, carriers pivotally mounted upon said arms and adapted movably to engage a log upon the saw-mill carriage, braces pivoted upon said support and pivotally connected with said arms, said braces comprising relatively movable parts adapted, when arranged in longitudinal alinement, to hold said arms projected toward the saw-mill carriage, said braces having stops adapted to engage said arms to limit the movement of said braces and said arms.

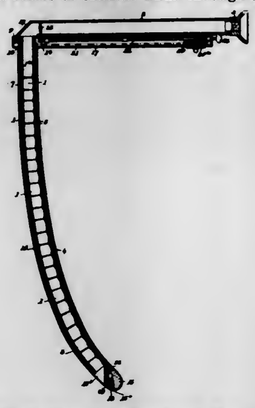
5. A device of the class described comprising a support adapted to be arranged adjacent to a saw-mill carriage, arms pivotally mounted upon said support, carriers pivotally mounted upon said arms and adapted movably to engage a log upon the saw-mill carriage, a rotatable shaft carried by said support, members rigid with said shaft, and other members pivoted upon said first members and pivotally connected with said arms, said members being adapted to be alined to constitute extensible braces, each of the braces having a stop adapted to engage said arm.

[Claim 6 not printed in the Gazette.]

944,830. GASTROSCOPE. MARTIN SUSSMANN, Berlin, Germany. Filed June 2, 1909. Serial No. 499,756.

1. In a gastroscope, the combination with a horizontal tube having an ocular at the front end and a mirror at the rear end, of a vertical tubular piece mounted to turn in said horizontal tube at its rear end, a series of tubular links flexibly connected on one side with said vertical

tubular piece and with one another and having on the other side longitudinal channels, the end faces of said tubular piece and said tubular links being at right angles to their axes and adapted to come in close contact with one another, wires passing through the longitudinal channels of said tubular links, means for stretching and releasing said wires so as to turn said tubular piece and said series of tubular links into a straight tube and to release same at will, and means for turning the tubular piece and said series of tubular links through any angle.



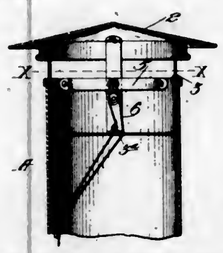
2. In a gastroscope, the combination with a horizontal tube having an ocular at the front end and a mirror at the rear end, of a tubular piece suspended from said horizontal tube at its rear end, a series of tubular links, an elastic steel strip connecting said tubular piece and said tubular links with one another on one side, the end faces of said tubular piece and said tubular links being at right angles to their axes and adapted to come in close contact with one another and the tubular links having on the side opposite to the steel strip longitudinal channels, wires passing through the longitudinal channels of said tubular links, and means for stretching and releasing said wires so as to turn said tubular piece and said series of tubular links into a straight tube and to release same at will.

3. In a gastroscope, the combination with a horizontal tube having an ocular at the front end and a mirror at the rear end, of a tubular piece suspended from said horizontal tube at its rear end, a series of tubular links hinged to said tubular piece and to one another on one side and having on the other side longitudinal channels, the end faces of said tubular piece and said tubular links being at right angles to their axes and adapted to come in close contact with one another, wires passing through the longitudinal channels of said tubular links, and means for stretching and releasing said wires so as to turn the tubular piece and the series of tubular links into a straight tube and to release same at will.

4. In a gastroscope, the combination with a supporting box, of a horizontal tube longitudinally shiftable on said supporting box and having an ocular at the front end and a mirror at the rear end, a vertical tubular piece mounted to turn in said supporting box at its rear end, a series of tubular links flexibly connected with said tubular piece and with one another on one side and having on the other side longitudinal channels, the end faces of said tubular piece and said tubular links being at right angles to their axes and adapted to come in close contact with one another, wires passing through the longitudinal channels of said tubular links, a horizontal short shaft mounted to turn at said tubular piece and adapted to wind on and off the ends of said wires, a shaft longitudinally shiftable and turnable in said supporting box and adapted to be turned from without at the front end, means for coupling said horizontal short shaft with said shaft and securing them at will after turning, a lace pulley at said tubular piece, a second lace pulley mounted to turn in said supporting box at its front end, an endless lace connecting said lace pulley with said second lace pulley, and means for turning said second lace pulley from without.

5. In a gastroscope, the combination with a supporting box, of a horizontal tube longitudinally shiftable on said supporting box and having an ocular at the front end and a mirror at the rear end, a vertical tubular piece mounted to turn in said supporting box at its rear end and having a longitudinal slot below and a bevel wheel above, a series of tubular links flexibly connected with said tubular piece and with one another on one side and having on the other side longitudinal channels, the end faces of said tubular piece and said tubular links being at right angles to their axes and adapted to come in close contact with one another, wires passing through the longitudinal channels of said tubular links, a ring longitudinally movable on said tubular piece and connected with the upper ends of said wires, an operating tube turnable in said tubular piece and having an opposite bevel wheel above and an external helical groove below, a pin in said ring and adapted to engage through the longitudinal slot of said tubular piece into the helical groove of said operating tube, a rocking bearing in said supporting box, and an operating shaft mounted to turn in said rocking bearing and having at the front end a knob adapted to be turned from without and at the rear end a small bevel wheel which can mesh at will with said bevel wheel or said second bevel wheel.

944,831. ADJUSTABLE VENTILATOR. FRANK TERRAMORSE, San Francisco, Cal. Filed May 22, 1909. Serial No. 497,739.



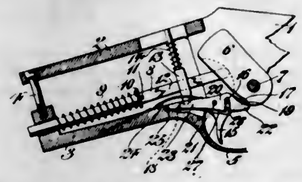
1. A ventilator of the character described having in combination a tubular casing, a cap positioned above the same having downwardly extending arms entering said casing and being slidably guided thereby, the lower ends of said arms being united and crossing each other at a central point, and means for adjusting the cap, said means including a power device connecting with the arms and with a fixed point, and means for locking the cap in its adjustment.

2. An improved ventilator having in combination a tubular casing, a cap above the same having arms extended downwardly into the casing and turned inwardly and crossing each other at a central point, said casing forming a guide for the arms, a raising and lowering mechanism connected with the arms at their point of crossing whereby the cap may be adjusted relatively to the end of the casing, and a locking device for engaging the raising and lowering mechanism and holding the cap in its adjusted position.

944,832. TRIGGER-MOVEMENT FOR SELF-LOADING FIREARMS. DANIEL W. TOMLINSON, Jr., Batavia, N. Y., assignor to Henry B. Febiger, New Orleans, La. Filed Oct. 27, 1909. Serial No. 524,792.

1. In a device of the character described, a trigger having a sear and a fixed pivot, an auxiliary sear pivotally mounted upon said trigger, whereby the pivotal point of said auxiliary sear is raised and lowered by the action of the trigger and means for actuating said auxiliary sear to elevate the engaging end thereof, when the pivotal point is raised.

2. In a device of the character described, a trigger having a sear and a fixed pivot, an auxiliary sear pivotally mounted upon said trigger, whereby the pivotal point of said auxiliary sear is raised and lowered by the action of the trigger, means for actuating said auxiliary sear to elevate the engaging end thereof, when the pivotal point is raised, and means for stopping the downward movement of the auxiliary sear as the pivotal point is lowered and acting as a fulcrum to lower the engaging end to disengage the same from the notch of the hammer when the trigger sear is in proper position to engage with said notch.



3. In a device of the character described, a trigger having a sear and a fixed pivot, an auxiliary sear pivoted to said trigger in the rear of said fixed pivot and means bearing upon said auxiliary sear in the rear of its pivotal point in order to elevate the engaging end thereof, when the trigger is moved rearwardly.

4. In a device of the character described, a trigger having a sear and a fixed pivot, an auxiliary sear pivoted to said trigger in the rear of said fixed pivot, and resilient means bearing upon said auxiliary sear in the rear of its pivotal point in order to elevate the engaging end thereof, when the trigger is moved rearwardly.

5. In a device of the character described, a trigger having a sear and a fixed pivot, an auxiliary sear pivoted to said trigger in the rear of said fixed pivot, resilient means bearing upon said auxiliary sear in the rear of its pivotal point, in order to elevate the engaging end thereof when the trigger is moved rearwardly, and means for stopping the downward movement of the auxiliary sear, as the trigger moves forwardly, and acting as a fulcrum to lower the engaging end to disengage the same from the notch of the hammer, when the trigger sear is in proper position to engage with said notch.

[Claims 6 to 9 not printed in the Gazette.]

944,833. BRUSH. MORTON P. TOTTLE, Baltimore, Md. Filed Mar. 12, 1909. Serial No. 482,890.

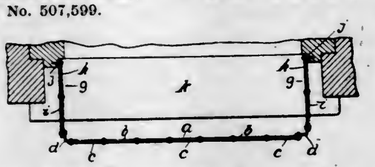


1. A brush comprising a block which is longer in one direction than the other and having a handle, an inner metal shell also longer in one direction than the other and having a closed horizontal upper end and downwardly extending side and end walls and said metal shell having position below but disconnected from the block, bristles secured within the inner metal shell, a ferrule engaging the block and depending therefrom and a filling of bristles between the depending ferrule and the side and end walls of the filled inner metal shell.

2. A brush comprising a block and handle connected thereto, an inner shell beneath the block and being narrower at the upper than at its lower portion and having spreading side and end walls with inturned lower edges, bristles in the inner shell and held therein by the inturned lower edges of the spreading walls, bristles around the spreading walls of the shell, a ferrule having its upper portion engaging the block and its lower portion depending below the latter and encircling the butt ends of the bristles around the inner shell,—said depending portion of the ferrule having an inwardly curved portion in a horizontal plane around the upper narrower portion of the shell and an outwardly-curved portion in a horizontal plane around the lower larger portion of said shell to engage and compress the outer bristles about the spreading side and end walls of the shell.

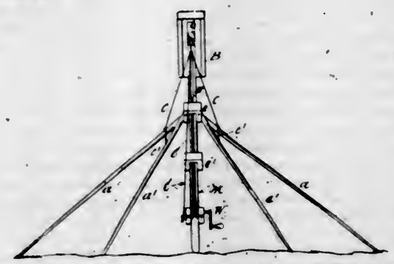
3. A brush comprising a block which is longer in one direction than the other and having a handle, an inner metal shell also longer in one direction than the other and having a closed horizontal upper end and downwardly-extending side and end walls and said metal shell having position below but disconnected from the block, bristles secured within the inner metal shell, an inner ferrule engaging the block and depending therefrom, means extending through the ferrule and also the block whereby to hold the diametrically opposite walls of the ferrule in place, a filling of bristles between the inner depending ferrule and the side and end walls of the filled inner metal shell, an outer ferrule around the inner ferrule and covering the latter and securing devices passing through both ferrules and entering the brush block.

944,834. WINDOW-GUARD. JACOB TREU and KARL SCHAEFER, New York, N. Y. Filed July 14, 1909. Serial No. 507,599.



A window-guard consisting of a front jointed portion which may be folded and extended to adapt the window-guard to windows of different widths; and jointed side portions which may be folded and extended to vary the distance of the front portion from the window.

944,835. PLATFORM-SUPPORT. ALVAH VANDERMARK, Newburgh, N. Y. Filed Mar. 22, 1909. Serial No. 485,128.

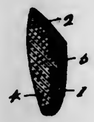


1. In a device of the character designated, the combination of a main support, an adjustable extension piece thereon, a bracket mounted upon the upper end of said extension piece, means for raising and lowering said extension piece on the main support, short lateral braces pivotally attached to the extension piece, longer lateral braces

also pivotally attached to the said extension piece, and means for raising and lowering said lateral braces simultaneously, substantially in the manner and for the purpose described.

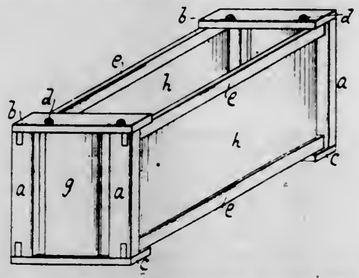
2. In a device of the character described, the combination of the removable bracket B, the extension piece E, straps *e* and *e'*, rigidly secured thereto and embracing the main support M, said main support M, formed with the rack teeth *m*, the spring pawl *p*, engaging therewith and mounted on the lower end of the extension piece E, the hoisting rope *v* attached to the lower extremity of the extension piece and passing over the idler *m'*, and windlass W, on the main support M, said idler *m'*, and windlass W, the side braces *a*, *a'*, pivotally connected with the strap *e*, links *c'*, *c'*, the suspenders *c*, *c*, passing over pulleys e^3, on the extension piece E, said pulleys e^3, and the cord C, the whole arranged and operating substantially in the manner and for the purpose described.

944,836. ARTIFICIAL TOOTH. JOHN A. WILLIAMS, Fort Wayne, Ind. Filed Apr. 18, 1908. Serial No. 427,776.



In an artificial tooth the combination of two interlocking sections, one section being a porcelain front with a beveled front edge and a transverse integral ledge undercut at its lower edge only, and the other section being a metal backing with a projecting upper edge and a transverse recess under cut at its lower edge only.

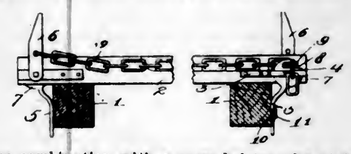
944,837. SHIPPING-CASE. STEPHEN D. BEDELL, Hackensack, N. J. Filed Apr. 2, 1909. Serial No. 487,406.



A case comprising, in combination, corner posts, each provided at opposite ends with seats; side rails having their ends fitted in said seats and their inner longitudinal edges formed with grooves; side panels supported between said rails and having their upper and lower edges fitted in said grooves; upper and lower cross bars pivoted at opposite ends to the extremities of said posts and projecting inwardly of the case across the outer longitudinal edges of said rails, said bars having their inner faces formed with longitudinal grooves; end panels supported between said bars and having their upper and lower edges fitting in the grooves therein; and a removable bottom supported between the lower side rails upon the projecting portions of the lower cross-bars.

944,838. STAKE FOR LOGGING-CARS. AUSTIN BENEDICT, Merrill, Wis. Filed Mar. 25, 1909. Serial No. 485,703.

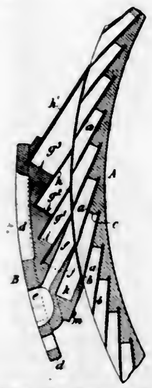
1. The combination with a cross bolster of a stake pivotally supported at one end thereof, a manually operable lever pivoted at one side of the bolster at the other end thereof, the said lever having a recess in its pivotal portion, a chain connected to the stake and having one of its links at or near its free end engaged in the recess of the lever in the operative position of the latter and a latch device engaging the handle portion of the lever to hold the same against movement from its operative position.



2. The combination with a cross bolster of a stake pivotally supported at one end thereof, a longitudinally disposed fork at the other end thereof and at one side of said bolster, a lever having a portion thereof pivotally disposed between the legs of the fork, the said pivotal portion having a recess therein, a chain connected to the stake and having one of its links at or near its free end engaged in the recess of the lever, the latter being movable whereby the link engages the fork and is stripped thereby from the recess and a latch device engaging the handle portion of the lever to hold the same against movement from its operative position.

3. The combination with a cross bolster of levers pivoted on relatively opposite sides at each end thereof, stakes pivoted at each end of the bolsters on the sides opposite to the levers, means connected to the stakes and capable of detachable engagement with the levers at the opposite ends of the bolsters and means for holding the levers against movement from their operative positions.

944,839. TURBINE. OLIVER D. H. BENTLEY, New York, N. Y., assignor to E. W. Bliss Company, Brooklyn, N. Y., a Corporation of West Virginia. Filed May 20, 1909. Serial No. 497,205.

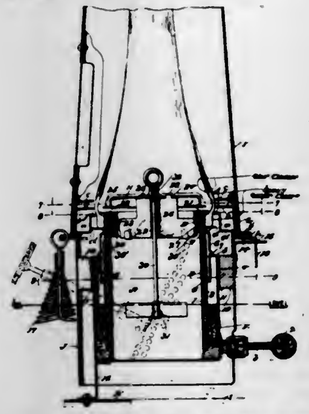


1. In a fluid turbine, the combination of a rotor having cup-shaped buckets adapted to receive the fluid jet at one side, reverse it and project it backwardly, with a nozzle adapted to direct the jet into one side of the buckets for its first impact, and a stationary reversing chamber located in the rear of the jet nozzle, adapted to receive the backward flow from the rotor buckets and reverse it and return it toward the rotor for a second impact.

2. In a fluid turbine, the combination of a rotor having cup-shaped buckets adapted to receive the fluid jet at one side, reverse it and project it backwardly, with a nozzle adapted to direct the jet into one side of the buckets for its first impact, having a reversing chamber adapted to receive the backward flow from the rotor, reverse it and return it toward the rotor for a second impact, and a supplemental reversing chamber located in the rear of the jet nozzle, adapted to receive such backward flow from the rotor in the rear of the jet nozzle.

3. In a fluid turbine, the combination of a rotor having cup-shaped buckets adapted to receive the fluid jet at one side, reverse it and project it backwardly, with a nozzle adapted to direct the jet into one side of the buckets for its first impact, stationary reversing chambers adapted to receive the backward flow from the rotor, reverse it and return it toward the rotor for a second impact, one of said reversing chambers located in the rear of the jet nozzle.

944,840. WICK BLUE-FLAME BURNER. ATWELL J. BLACKFORD, Cleveland, Ohio. Filed June 3, 1907. Serial No. 377,057.



1. In a blue flame burner of the character described, the combination with a vertically-movable generator, of means located respectively inside and outside of the flame for delivering a horizontal sheet of air to both sides of the flame from the generator, and arranged to produce a blue flame, one of the said air-delivering means actuated by and vertically-movable with the generator for the purpose described.

2. In a burner of the character described, the combination with a vertically-adjustable generator, of an air deflector located at one side of the flame and approximately in the same horizontal plane as the upper end of the generator when the latter is at the limit of its upper adjustment, and an air deflector arranged to deliver air laterally at opposite side of said flame and at a point approximately at the top of the generator in all of its various adjustments and coöperating with the other air deflector to produce a blue flame throughout all of the adjustment of the generator.

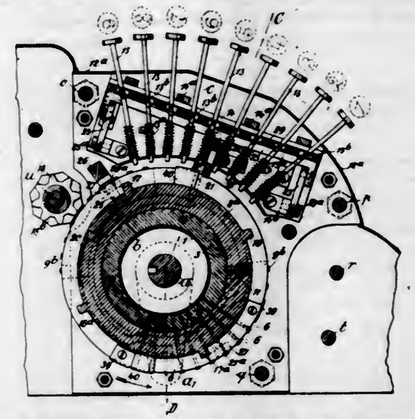
3. The combination in a burner of the character described, of a wick, a combined flame converter and controller actuated by and movable with the wick and comprising means for delivering a horizontal sheet of air to the interior of the flame at a fixed point in respect to the wick irrespective of the vertical adjustment of the wick to maintain a non-illuminating flame throughout the vertical movement of the wick.

4. In a blue flame burner of the character described, the combination with a generator, of an air and flame limiting device inclosed by the flame from the generator, and a surrounding air and flame limiting device comprising three inwardly-extending annular flanges, the two lower flanges having relatively large and small air passages, the large air passages being in the lower flange.

5. In a blue flame burner of the character described, the combination with an annular generator, of an air and flame limiting device inclosed by the flame from the generator, and a detachable surrounding chimney gallery consisting of a plurality of inwardly-extending annular flanges which are connected together and arranged in fixed relations and adapted to be applied as a single member in operative position.

[Claims 6 to 8 not printed in the Gazette.]

944,841. CALCULATING-MACHINE. ALEXANDER BOLLINGER, ALCIDE LANDRY, and EUGÈN LANDRY, Geneva, Switzerland. Filed Dec. 5, 1907. Serial No. 405,270.



1. In a calculating machine, a main shaft, a plurality of setting wheels on the shaft, radially sliding teeth for each wheel, a ring rotatable on each wheel and having a teeth-engaging cam having two diametrically opposite depressed quarters, projections on each ring, keys for each wheel adapted to engage some of said projections for arresting the rotation of the ring, means for automatically locking the keys in depressed position, means for automatically unlocking the same during continued rotation of the main shaft, a sliding bar adapted to engage some of said projections on the ring and rotate the same to retract the teeth and counting and indicating mechanism actuated by said teeth.

2. In a calculating machine, a main shaft, a plurality of setting wheels on the shaft, radially sliding teeth for each wheel, a ring rotatable on each wheel and having a cam groove engaged by the teeth, said cam groove having two diametrically opposed tooth-retracting portions, two pairs of projections on each ring, keys adapted for engagement of one pair of said projections, means for locking and unlocking the keys, a sliding bar having noses engaged by the other pair of projections on the ring to rotate the latter and retract the teeth, means for throwing said bar out of action, and counting and indicating mechanism actuated by said teeth.

3. In a calculating machine, a main shaft, a plurality of setting wheels on the shaft, radially sliding teeth on each wheel, counting and indicating mechanism actuated by said teeth, a ring rotatable on each wheel, rotations indicating mechanism connecting means for the rotations indicating mechanism comprising a driving tooth with gear and a lever actuated by said sliding bar for moving the tooth into and out of operative position.

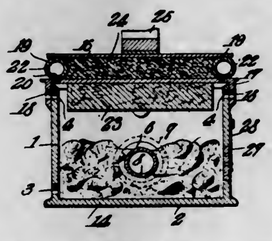
4. In a calculating machine, a main shaft, a plurality of setting wheels on the shaft, radially sliding teeth on each wheel, counting and indicating mechanism actuated by said teeth, a ring rotatable on each wheel for setting the teeth, rotations indicating mechanism, actuating mechanism for the rotations indicating mechanism, and a releasing lever actuated by said sliding bar for throwing said actuating mechanism into and out of operation.

5. In a calculating machine, a main shaft, a plurality of setting wheels on the shaft, radially sliding teeth for each wheel, a ring rotatable on each wheel and having a cam groove engaged by the teeth, said cam groove having two diametrically opposed tooth-retracting portions, two pairs of projections on each ring, keys adapted for engagement of one pair of said projections, a sliding bar having noses engaged by the other pair of projections on the ring to rotate the latter and retract the teeth, means for throwing said bar out of action, and counting and indicating mechanism actuated by said teeth, a perforated sliding plate through which the keys pass and in which

they are locked in upper and intermediate positions and connecting means between said plate and said counting and indicating mechanism for throwing said bar out of action, whereby in multiplying or dividing the released keys can be retained in said intermediate position.

[Claim 6 not printed in the Gazette.]

944,842. SELF-HEATING SAD-IRON. JOHN BORDAS, Dunkirk, N. Y. Filed Feb. 15, 1909. Serial No. 478,054.



1. A sad iron comprising a body provided near its face and upper edges with orifices, a burner tube arranged within the body, a filling of loose fibrous refractory material surrounding the tube, means for supplying a combustible fluid to the tube, and a cover embodying a depending flange having orifices registering with those of the upper portion of the body, and a ventilating tube combined with the cover and having orifices communicating with the interior of the body and also having orifices communicating with the external air.

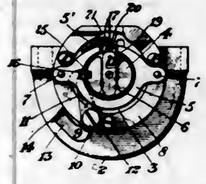
2. A sad iron comprising a body provided near its face and upper edges with orifices, a burner tube arranged within the body, a filling of loose fibrous refractory material surrounding the tube, means for supplying a combustible fluid to the tube, a cover embodying a depending flange having orifices registering with those of the upper portion of the body, a ventilating tube combined with the cover and having orifices communicating with the interior of the body and also having orifices communicating with the external air, and lagging material combined with the cover.

3. A sad iron comprising a hollow body portion, means for conducting the hot air off and supplying cool air in the place thereof, a burner tube arranged in said body portion, a filling of loose fibrous refractory material surrounding the tube, means for supplying a combustible fluid to the tube, a cover embodying a depending flange having orifices registering with those of the upper portion of the body, a ventilating tube combined with the cover and having orifices communicating with the interior of the body and the external air, and lagging material interposed in said cover and secured to the lower surface thereof.

4. A sad iron comprising a hollow body portion, means for conducting the hot air off and supplying cool air in the place thereof, a burner tube arranged in said body portion, a filling of loose refractory material surrounding the tube, means for supplying a combustible fluid to the tube, a cover embodying a depending flange having orifices registering with those of the upper portion of the body, a ventilating tube combined with the cover and having orifices communicating with the interior of the body and the external air, and means disposed in the side of said body whereby a jet may be ignited.

944,843. SEWING-MACHINE. EDWARD L. BOWERS, Orange, Mass., assignor to The New Home Sewing Machine Company, Orange, Mass., a Corporation of Massachusetts. Filed Feb. 1, 1908. Serial No. 413,729.

1. In a sewing machine, the combination with a looper race-way frame, a looper supported in said frame and having an open bobbin-case chamber in its face side, and a bobbin-case removably contained in said chamber, of a stationary guide-plate located in position forward the face side of the looper and the face side of the looper race-way frame and having a bobbin-case guide opening therein registering with the bobbin-case chamber in the looper, and a pivoted bobbin-case latch operative in a plane parallel with that of the guide-plate and in position at the rear side of the latter.



2. In a sewing machine, the combination with a looper having an open bobbin-case chamber in its face side, and a bobbin-case removably contained in said chamber, of a stationary guide-plate located in position opposite the face side of the looper and having a bobbin-case guide-opening therein registering with the bobbin-case chamber in the looper, and a pivoted bobbin-case latch operative in a plane parallel with that of the guide-plate and in position at the rear side of the latter and having means for co-operation with the guide-plate to limit the movement of the latch in one direction.

3. In a sewing machine, the combination with a looper race-way frame, a looper supported in said frame and having an open bobbin-case chamber in its face side, and a bobbin-case removably contained in said chamber, of a stationary guide-plate located in position forward the face side of the looper and the face side of the looper race-way frame and having a bobbin-case guide-opening therein registering with the bobbin-case chamber in the looper, and a bobbin-case latch comprising a pivoted lever one arm of which is operative as an operating handle, the said bobbin-case engaging arm being operative in a plane parallel with that of the guide-plate and in position at the rear side of the latter.

4. In a sewing machine, the combination with a looper race-way frame, a looper supported in said frame and having an open bobbin-case chamber in its face side, and a bobbin-case removably contained in said chamber, of a stationary guide-plate located in position forward the face side of the looper and the face side of the looper race-way frame and having a bobbin-case guide-opening therein registering with the bobbin-case chamber in the looper, the said bobbin-case and guide-plate having means for co-operation to hold the bobbin-case against rotary movement with the looper, and pivoted bobbin-case latch operative in a plane parallel with that of the guide-plate and in position at the rear side of the latter.

5. In a sewing machine, the combination with a looper race-way frame, a looper supported in said frame and having an open bobbin-case chamber in its face side, and a bobbin-case removably contained in said chamber, of a stationary guide-plate located in position forward of the face side of the looper and the face side of the looper race-way frame and having a bobbin-case guide-opening therein registering with the bobbin-case chamber in the looper and also having a part thereof partially overlying the path of movement of the needle-thread loop for engaging said loop subsequent to its cast off by the shuttle, for the purpose set forth.

[Claims 6 to 10 not printed in the Gazette.]

944,844. DRAFT APPLIANCE FOR RAILWAY-CARS. HARRY C. BUHOUP, Chicago, Ill., assignor to The McConway & Torley Company, Pittsburg, Pa., a Corporation of Pennsylvania. Filed Dec. 28, 1908. Serial No. 469,546.

1. In a draft appliance for railway cars, the combination with a guide rail which is mounted upon the platform of a car, of a coupler, and rollers interposed between said guide rail and coupler.

2. In a draft appliance for railway cars, the combination with a curved guide rail which is mounted upon the platform of a car, of a coupler, rollers interposed between said guide rail and coupler, and a radius bar secured to said coupler and adapted to be pivotally connected to the car.

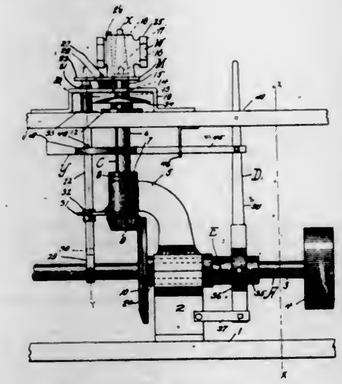


3. In a draft appliance for railway cars, the combination with a flanged guide rail, of a coupler, rollers journaled on the coupler and bearing on the outer face of the guide rail, and rollers journaled on the coupler and bearing on the inner face of the guide rail between the flanges thereof.

4. In a draft appliance for railway cars, the combination with a guide rail, of a coupler mounted to slide laterally thereon, and rollers mounted on said coupler and engaging opposite faces of said guide rail, some of said rollers being arranged in the longitudinal axis of the coupler and some of said rollers being arranged on opposite sides of the longitudinal axis of the coupler.

5. In a draft appliance for railway cars, the combination with a guide rail which is mounted upon the platform of a car, of a coupler mounted to move laterally thereon, said coupler being provided with jaws adapted to receive the said guide rail and being also provided with means whereby rollers may be journaled thereon, and rollers journaled on said coupler and engaging said guide rail.

944,845. VALVE-SEAT-GRINDING MACHINE. JOHN D. BURNS, Pittsburg, Pa. Filed Aug. 12, 1909. Serial No. 512,482.



1. A machine of the type described, comprising a revoluble longitudinal shaft, a vertical shaft adapted to be driven by said longitudinal shaft, a coupling piece connected to said vertical shaft and adapted to support a valve plug, a movable platform arranged at the upper end of said vertical shaft and adapted to support a valve body in which the valve plug is revolved, and means actuated by said longitudinal shaft to raise said platform after a predetermined number of revolutions of the vertical shaft, substantially as described.

2. A machine of the type described, comprising a revoluble longitudinal shaft, a vertical shaft adapted to be driven by said longitudinal shaft, a coupling piece carried by the upper end of said vertical shaft and adapted to support a valve plug, a movable platform arranged at the upper end of said shaft and adapted to support a valve body in which the valve plug is adapted to revolve, means actuated by said longitudinal shaft for raising said movable platform after a predetermined number of revolutions of the vertical shaft, and means in connection with said longitudinal shaft for controlling the operation of said vertical shaft.

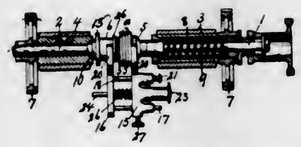
3. A machine of the type described, comprising a revoluble longitudinal shaft, a vertical shaft adapted to be driven by said longitudinal shaft, a coupling piece adapted to support a valve plug upon the upper end of said vertical shaft, a movable platform adapted to support a valve body in which the plug is revolved, means actuated by said longitudinal shaft to raise said platform, and means in connection with said longitudinal shaft to simultaneously cause a cessation in the operation of said vertical shaft and to raise said platform.

4. A machine of the type described, comprising a bench, a longitudinal shaft beneath said bench, a vertical shaft extending through said bench and adapted to be driven by said longitudinal shaft, means for connecting a valve plug to the upper end of said vertical shaft, a rod extending upwardly through said bench, a platform carried by said rod and adapted to support a valve body in which the valve plug is adapted to rotate, means carried by said longitudinal shaft for intermittently moving said rod and the platform carried thereby, and means in connection with said longitudinal shaft for simultaneously controlling the operation of said vertical shaft and adapted to elevate said platform and cause a cessation in the operation of said vertical shaft.

5. A machine of the type described, comprising a bench, a longitudinal shaft beneath said bench, a vertical shaft extending through said bench and adapted to be driven by said longitudinal shaft, means for connecting a valve plug to the upper end of said vertical shaft, a rod extending upwardly through said bench, a platform carried by said rod and adapted to support a valve body in which the valve plug is adapted to rotate, means carried by said longitudinal shaft for intermittently moving said rod and the platform carried thereby, means in connection with said longitudinal shaft for simultaneously controlling the operation of said vertical shaft and adapted to elevate said platform and cause a cessation in the operation of said vertical shaft, said means including a clutch, a lever for moving said clutch, and an arm connecting with said lever and adapted to elevate said rod.

[Claim 6 not printed in the Gazette.]

944,846. INSTRUMENT FOR POSITIONING LENSES. BENNETT F. CLARK, Geneva, N. Y., assignor to The Standard Optical Company, Geneva, N. Y., a Corporation of New York. Filed June 3, 1908. Serial No. 436,448.



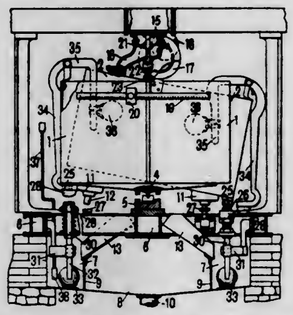
1. In combination with a rotary lens pattern and a coaxial clamping head of a lens grinding machine, and a lens clamp including a removable clamping head adapted to be placed with the lenses between the first named clamping head and lens pattern, and means for locking the removable clamping head to rotate with the lens pattern, the remaining portion of the clamping device being sep-

arable from the removable clamping head when the latter is placed in the machine, said device having sight openings by which the optical axes of the lenses may be alined with each other.

2. In combination with coaxial spindles of an edge grinding machine for lenses, a lens pattern locked to one of the spindles to rotate therewith, a removable lens clamping head also locked to rotate with one of the spindles, clamping plates movable toward and from each other for receiving between them the lenses, one of said plates and clamping head having interlocking members detachably interlocked with each other, one of said plates having means with which the marks on the lenses indicating the optical axes may be registered.

3. In combination with the rotary lens pattern and lens clamping head of an edge grinding machine, a lens clamping device having means with which the optical axes of the lenses may be registered, said clamping device having a removable clamping member transferable to the grinding machine to constitute the other lens clamping head thereof, and means for holding the transferred head in fixed position relatively to the pattern.

944,847. WEIGHING-MACHINE. GERARD L. COCHIUS, Remboen, Java, assignor to Maatschappy tot Voortzetting van de Zaken der Firma Ruhaak & Co., Haarlem, Netherlands. Filed Mar. 19, 1909. Serial No. 484,513.



1. In a weighing machine for liquids, a structure comprising two weighing vessels arranged side by side but displaced laterally in relation to each other so that the central or gravity axes do not lie in the same vertical plane but are located at opposite sides of the central or gravity axis of said structure and the bottoms of which vessels are at an angle to each other, a machine support, knife edges carried by said support on which said structure can rock, said knife edges being located in the central or gravity axis of said structure, means for supplying the weighing vessels of said structure with liquid alternately, and means for alternately emptying the vessels of said structure at the completion of each weighing operation.

2. In a weighing machine, for liquids, a structure comprising two weighing vessels arranged side by side but displaced laterally in relation to each other so that the central or gravity axes do not lie in the same vertical plane but are located at opposite sides of the central or gravity axis of said structure and the bottoms of which vessels are at an angle to each other, a machine support, knife edges carried by said support on which said structure can rock, said knife edges being located in the central or gravity axis of said structure, means for supplying the weighing vessels of said structure with liquid alternately, and means for alternately emptying the vessels of said structure at the completion of each weighing operation.

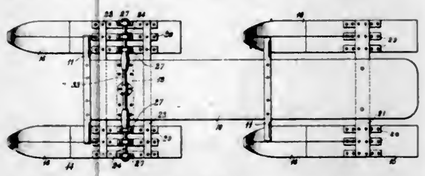
3. In a weighing machine for liquids, a structure comprising two weighing vessels arranged side by side with a common partition wall between them but displaced laterally in relation to each other so that the central or gravity axes do not lie in the same vertical plane but are located at opposite sides of the central or gravity axis of said structure and the bottoms of which vessels are at an angle to each other, a machine support, knife edges carried by said support on which said structure can rock, said knife edges being located in the central or gravity axis of said structure, means for supplying the weighing vessels of said structure with liquid alternately, and means for alternately emptying the vessels of said structure at the completion of each weighing operation.

4. In a weighing machine for liquids, a structure comprising two weighing vessels arranged side by side but displaced laterally in relation to each other so that the central or gravity axes do not lie in the same vertical plane but are located at opposite sides of the central or gravity axis of said structure and the bottoms of which vessels are at an angle to each other, a machine support, knife edges carried by said support on which said structure can rock, said knife edges being located in the central or gravity axis of said structure, weights arranged at the front and rear of said structure adapted to counterbalance the additional weight of that part of each vessel of said structure which projects farthest over said knife edge, means for supplying the weighing vessels of said structure with liquid alternately, and means for alternately emptying the vessels of said structure at the completion of each weighing operation.

5. In a weighing machine for liquids, a structure comprising two weighing vessels arranged side by side but displaced laterally in relation to each other so that the central or gravity axes do not lie in the same vertical plane but are located at opposite sides of the central or gravity axis of said structure and the bottoms of which vessels are at an angle to each other, a machine support, knife edges carried by said support on which said structure can rock, said knife edges being located in the central or gravity axis of said structure, adjustable weights arranged at the front and rear of said structure adapted to counterbalance the additional weight of that part of each vessel of said structure which projects farthest over said knife edges, means for supplying the weighing vessels of said structure with liquid alternately, and means for alternately emptying the vessels of said structure at the completion of each weighing operation.

[Claims 6 to 18 not printed in the Gazette.]

944,848. DIRIGIBLE TOBOGGAN-RUNNER SLED. RICHARD H. DOUGHTY, New York, N. Y. Filed Nov. 9, 1908. Serial No. 461,625.



A steerable sled comprising a seat-board supported by front and rear runner-structures and having a transverse bolster under its front end, the front runner structure including a pair of broad toboggan-like runners composed of stringer-blocks and runner-boards, cross-beams attached to the stringer-blocks and connecting the two runners together, a horizontal cross-rod on whose ends the stringer-blocks are journaled, a transverse bolster attached to said cross-rod and adapted to turn on the seat-board bolster, and a steering-post attached at its lower end to the cross-rod and passing upwardly through said bolsters and seat-board.

944,849. CONVERTIBLE LADDER. JAMES E. DUNCAN, Elton, La. Filed Mar. 15, 1909. Serial No. 483,455.

1. A ladder comprising two sections hingedly connected, one section being adjustable to different positions for forming a brace for the other section or an extension thereof, the point of pivotal connection of the combined bracing and extension section with the other section being disposed below the top of the latter, a bracing device connected with the combined bracing and extension section, and means on the other section spaced above and below the said point of pivotal connection and with either of which means said device engages for holding the said combined bracing and extension section in its different positions, said bracing device comprising a pair of arms united by a connecting portion, the arms of which are disposed approximately horizontally between the said sections or approximately vertically behind the sections when the combined bracing and extension section is in different positions.



2. A ladder comprising a main section, an extension section hingedly connected therewith and movable to a position for bracing the main section, a bracing device hingedly connected with the extension section, brackets on the main section having notches in their top edges in which the bracing device is adapted to rest when the extension section is in position to brace the main section, and additional brackets on the main section having seats for receiving the bracing device when the extension section is in extended position, and means for locking the said device in engagement with the seats of the last-mentioned brackets, the points of pivotal connection between the main and extension sections being disposed between the two sets of brackets, and the bracing device being disposed wholly above or below the said points of pivotal connection when the extension section is in different positions.

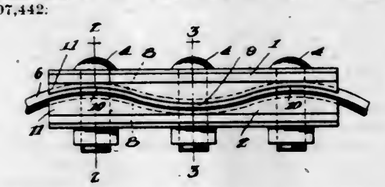
3. A ladder comprising a main section, an extension section having its lower end overlapping the upper end of the main section and pivotally connected therewith, brackets secured to the main section and extending rearwardly therefrom at a point above the pivotal connection between the sections, a bracing device pivotally connected with the extension section at a point above the bracket and pivotal connection between the sections and inclined rearwardly out of alinement with the said sections, and seats on the brackets with which the bottom of the bracing device engages.

4. A ladder having opposed stiles and opposed legs, the legs pivoted to the stiles, a cross bar having arms pivotally connected to the legs, a shiftable sleeve on the cross bar, and a projecting member on one of the stiles having opposed circular jaws, spaced from each other at their ends, said space being large enough to permit the introduction of the cross bar but being smaller than the diameter of the sleeve.

5. A ladder having opposed stiles and opposed legs pivoted to the stiles, a cross bar having arms pivotally mounted on the legs, a projecting member on one of the stiles having opposed spaced jaws, and laterally shiftable means for interlocking said cross bar with said spaced jaws.

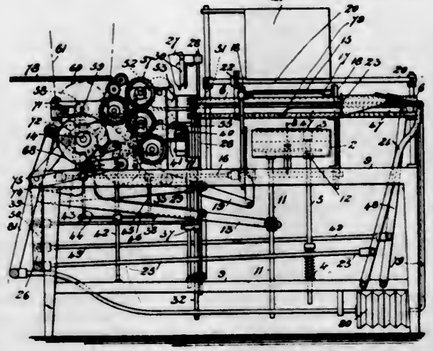
[Claims 6 to 9 not printed in the Gazette.]

944,850. GUY-WIRE CLAMP. SAMUEL J. EDMISTON, Greenwich, N. Y. Filed July 13, 1909. Serial No. 507,442.



In a guy-wire clamp, the combination of a member comprising a body, and continuous, longitudinally-grooved, and spaced flanges disposed at angles to the body and having their grooved portions arranged at different distances from the body at different points in their length, a second member comprising a body, and continuous, longitudinally-grooved and spaced flanges disposed at angles to the body and having their grooved portions arranged at different distances from the body at different points in their length and also having said grooved portions shaped to mate the grooved portions of the flanges on the first-named member, and means disposed between the pairs of grooved flanges for holding the members together.

944,851. MACHINE FOR MAKING PAPER BAGS. WALTER FRICKER, South Woodford, England. Filed Dec. 28, 1906. Serial No. 349,883.



1. A paper bag machine having a rising and falling table provided with a platform, said table being also provided with a gage, and a roller, combined with a sensitive finger to draw a sheet of paper from said platform against said gage.

2. In a paper bag machine, means for supporting a tubular bag blank, combined with folding mechanism for folding the bottom portion of the bottom of the bag, and flattening the side tabs, spring controlled flaps which cooperate with the folding mechanism for pasting the tabs, means for applying paste to the said flaps, and means for folding the tabs on the end of the bag.

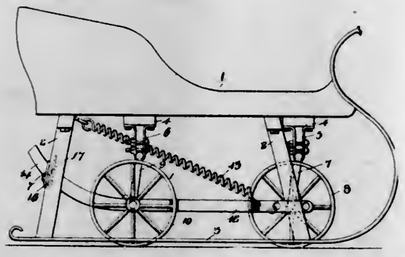
3. In a paper bag machine, the combination of a mold for receiving a paper bag blank, means for pushing the bag nearly off the mold, a plurality of coöperating opposed sectors for flattening the bag and drawing same from the mold, a presser device against which the bottom of the bag is flattened by the first two sectors, and spring controlled tucking means for folding in two opposite sides of the bag.

4. In a paper bag machine, the combination of a mold for receiving a paper bag blank, a plurality of coöperating opposed sectors for drawing the bag from the mold, and spring controlled tucking means for the bag.

5. In a paper bag machine, a rising and falling table provided with a platform, said table having a gage and a roller, combined with a sensitive finger to draw a sheet of paper from said platform against said gage, a mold or forming device, a pasting roller, means for placing a sheet of paper about said mold, means for folding one edge of the paper, a yieldingly mounted folding and pressing roller movable to press the other edge of the paper against the paste roller, and then press such pasted edge on the other edge of the paper to form a tubular blank, means for moving the tubular blank along the mold for one end to project therefrom, a movably mounted carrier, a paste box and folding mechanism supported on the carrier for pasting and folding down the top portion and top sides of the end of the tubular blank, folding mechanism for folding up the bottom end and lower sides of the end of the tubular blank and flattening the tabs formed by the folded sides, spring controlled flaps which coöperate with the folding mechanism for pasting the tabs, means for applying paste to the said flaps, means for folding the tabs on the end of the bag, means for pushing the bag nearly off the tube, a plurality of coöperating opposed sectors for flattening the bag and drawing same from the mold, a presser device against which the bottom of the bag is flattened by the first two sectors, spring controlled tucking means for folding in two opposite sides of the bag, means for folding the bottom of the bag in approximately the same plane as the bag and ejecting same from the machine.

[Claim 6 not printed in the Gazette.]

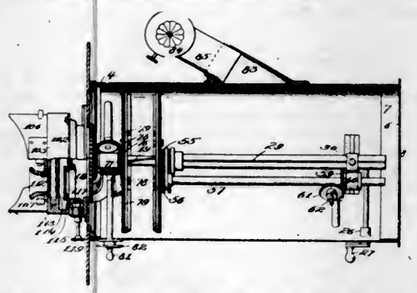
944,852. WHEEL ATTACHMENT FOR SLEDS. OLE FYLLING, Crookston, Minn. Filed Mar. 5, 1909. Serial No. 481,265.



1. In a combined sleigh and carriage the combination with a body, of runner supporting standards fixed to the lower face at the front and rear of said body, front and rear crank axles pivotally mounted on the under side of said body, wheels revoluble on the crank portions of said axles, hounds connecting the cranks of said axles together, a locking bar, a hail shaped operating handle connected at its ends to the crank ends of said rear axle and provided with notches for engagement with said locking bar, resilient means for holding said handle and bar in locked position, and means for holding said wheels in inoperative position.

2. In a sled of the class described, runner supporting standards, runners secured to said standards, front and rear hangers secured to the bottom of the sled, front and rear wheel supporting crank axles pivotally mounted in said hangers, supporting wheels revolubly mounted on the cranks of said axles, hounds connecting the cranks of said axles together to cause them to move in unison, an operating handle connected to the rear axle and having locking notches, a locking bar, a spring adapted to hold said handle in frictional engagement with said locking bar and to engage the notches in said handle with said bar to hold the wheels in operative position and a spring adapted to retract said wheels to hold them in inoperative position.

944,853. OPTOMETROSCOPE. MARK W. GANTT, Athens, Ga., assignor of one-half to John G. Cousar, Athens, Ga. Filed Aug. 13, 1908. Serial No. 448,387.



1. An optical instrument of the class described comprising an eye-piece, and a pair of lens holders having respectively sets of plus and minus lenses therein adapted to be brought into alinement with the eye-piece, one of the lens holders being adjustable axially of the eye-piece with respect to the other holder while a plus lens in one holder is in alinement with a minus lens in the other holder whereby the refractive effect of a given pair of plus and minus lenses may be varied.

2. An optical instrument of the class described comprising an eye-piece, a pair of lens holders having sets of plus and minus lenses of different powers supported thereon and adapted to be brought into alinement with the eye-piece, the lens holders being relatively adjustable axially of the eye-piece while a plus lens in one holder is in alinement with a minus lens in the other holder, and an indicator on the exterior of the instrument for designating the refractive power of the combined lenses while adjusted at different relative distances from one another.

3. An optometroscope comprising an eye-piece, a pair of lens holders each having a pair of plus and minus lenses adapted to be brought into alinement with the eye-piece, the holders being relatively adjustable axially of the eye-piece while a plus lens in one holder is in alinement with a minus lens in the other holder for testing either the myopic or hypermetropic conditions of an eye under test, and an indicator operable during the relative axial adjustments of the lens holders for directly indicating the refractive power of the combined lenses thereof.

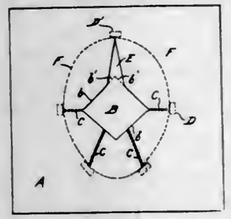
4. An optical instrument of the class described comprising an eye-piece, a pair of holders relatively adjustable axially of the eye-piece, a plus cylinder lens being mounted in one holder and a minus cylinder lens in the other holder, a relative axial adjustment of the holders serving to vary the refractive power of the combined cylinder lenses.

5. An optical instrument of the class described comprising a casing having an eye-piece at one end, means for supporting a chart in alinement with the eye-piece, a pair of lens holders relatively adjustable axially of the eye-piece, a plus cylinder lens rotatably mounted in one holder, a minus cylinder lens rotatably mounted in the other holder, said lenses being adapted to be brought into alinement with the eye-piece, and the relative axial adjustment of the holders while both lenses are in alinement with the eye-piece serving to vary the refractive power of the combined lenses, and means for individually rotating the respective cylinder lenses to adjust the axes thereof.

[Claims 6 to 31 not printed in the Gazette.]

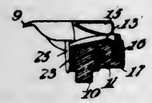
944,854. SANITARY TOILET-SEAT COVER. PHILIP GANZHORN, Chicago, Ill. Filed Dec. 12, 1908. Serial No. 467,285.

A cover consisting of a sheet of flexible material provided with an aperture therein and with a plurality of series of perforations arranged so that by tearing the material between the perforations of a series a plurality of flaps are obtained, such aperture being rectangular in the central portion thereof with a rear extension thereto, and strips of strengthening material joined to the cover at the ends of the respective series of perforations, and at the



end of the rear extension of the aperture, the series of perforations at the front end of the aperture arranged to obtain a flap between them which may be forced down into the aperture of a toilet seat.

944,855. SHUTTLE. PHILIPPE GAUTHIER, Lowell, Mass., assignor to William F. Draper, Hopedale, Mass. Filed Jan. 2, 1909. Serial No. 470,474.



1. A shuttle having a threading block provided with a thread passage, and a strip of fibrous material having a trough-like tension surface extending throughout the length of the thread passage.

2. A shuttle having a threading block provided with a thread passage, a strip of fibrous material having a trough-like tension surface extending throughout the length of the thread passage, and means for securing said fibrous material in place.

3. A shuttle having a threading block provided with a thread passage, a strip of fibrous material having a trough-like tension surface extending throughout the length of the thread passage, and means for securing the end portions of said fibrous strips to said block.

4. A shuttle having a threading block provided with a thread passage and a stud or pin, and a strip of fibrous tension material extending throughout the length of said thread passage, one end being connected to the threading block at the threading eye and the other end being secured to said stud or pin.

5. A shuttle having a threading block provided with a thread passage, and a strip of fibrous material extending throughout the length of the thread passage and resting on the supporting wall, the ends of said strip of fibrous material extending beyond the ends of the thread passage.

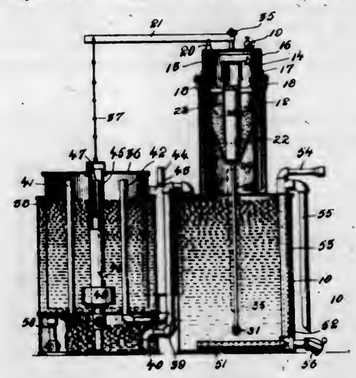
[Claims 6 to 9 not printed in the Gazette.]

944,856. GAS-GENERATOR. LOUIS C. GILMORE, Gardena, Cal. Filed Mar. 15, 1909. Serial No. 483,535.

1. In a gas generator, a generating chamber, an annular casing mounted upon said chamber, a bell secured to the outer wall of said casing, a carbid receptacle suspended from the top of the inner wall of said casing, a tubular valve case open at each end and supported within said receptacle, a plunger valve removably disposed in said case, and means for operating said valve.

2. In a gas generator, a generating chamber, a casing mounted thereon, a carbid receptacle disposed within said casing and provided with a tubular valve case open at each end, an apertured plunger valve disposed in said case, a valve rod extending upward from the generator and through said valve, a valve supporting projection carried by said rod beneath said case, and means mounted upon said rod at the upper end of the valve for retaining it in contact with said projection.

3. In a gas generator, a generating chamber, a casing mounted thereon, a carbid receptacle disposed within said casing and provided with a tubular valve case open at each end, an apertured plunger valve disposed in said case, a valve rod extending upward from the generator and through said valve, a valve supporting projection carried by said rod beneath said case, means mounted upon said rod at the upper end of the valve for retaining it in contact with said projection, a removable cap upon the upper end of the valve case, and a removable bell mounted upon said casing to inclose said receptacle.

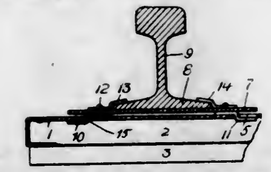


4. In a gas generator, a generating chamber, a casing mounted thereon, a carbid receptacle disposed within said casing and provided with a delivering valve, a valve rod extending upward from the generator and connected to said valve, a cross bar carried by the lower end of said valve rod, parallel operating rods extending upward from said cross bar, a gasometer, an operating lever connected to the dome thereof, a connecting cross bar mounted upon said lever and pivoted at one end to one of said operating rods, and a removable attaching device for connecting the opposite end of said connecting bar to the opposite parallel rod.

5. In a gas generator, a generating chamber, a casing mounted thereon, a carbid receptacle disposed within said casing and provided with a valve case open at each end, an apertured plunger valve disposed in said case, a valve rod of less diameter than the aperture in said valve and extended upward from the generator through the valve, a supporting plate carried by said rod beneath said valve case, and a securing nut threaded upon the upper end of said rod to engage the top of said valve.

[Claim 6 not printed in the Gazette.]

944,857. METALLIC TIE AND RAIL-FASTENER. FRANZ A. GINNEL, McKeesport, Pa. Filed Oct. 7, 1909. Serial No. 521,471.

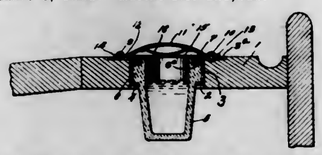


1. In a metallic tie and rail fastener, an oblong plate having the longitudinal edges thereof inclined and terminating in vertical side walls, said plate adjacent to the ends thereof having L-shaped openings with the material bordering upon one of the openings at each end of said tie slit to provide a plurality of lugs, one of which is adapted to be bent upwardly, a plate adapted to support a rail, said plate being provided upon the under side with angularly disposed clips adapted to extend through the open-

ings of said tie and be shifted to engage the under side of said tie, and clamps secured to the top of said rail plate and adapted to engage the base flanges of a rail placed thereon, substantially as described.

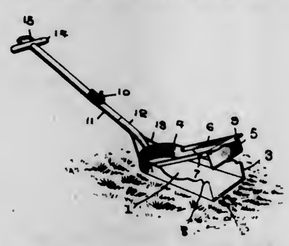
2. In a metallic tie and rail fastener, the combination of a plate having the longitudinal edges thereof inclined and terminating in vertical side walls, said plate having openings formed therein, a rail plate adapted to support a rail, angularly disposed clips carried by the bottom side of said rail plate and adapted to extend into said openings and be shifted to engage the under side of said tie, clamps carried by the upper side of said rail plate and adapted to engage the base flanges of a rail mounted thereon, and means in connection with said tie adapted to engage one edge of said rail plate to prevent lateral displacement of said plate.

944,858. INK-WELL. FRANK GUTTENDORF, Pittsburg, Pa. Filed Mar. 6, 1909. Serial No. 481,640.



An ink well comprising an annular member adapted to be fitted in an opening of a desk and provided at its top with an outwardly-extending annular flange engaging the upper surface of the desk and furthermore provided at its bottom with an inwardly-extending annular flange, a receptacle extending through said member and provided with a laterally-extending offset forming a shoulder seated upon said flange whereby said receptacle is supported in an upright position, said offset portion terminating at a point removed from the top of the receptacle to provide a seat, a gasket surrounding and flushed with the top edge of the receptacle and mounted upon said seat; a convex-concave lid having a flattened perimeter provided with a lug and a hook diametrically opposed to each other, means for pivotally connecting said lug to said flange, a plate arranged within the lid and moving therewith and adapted to seal said receptacle, a spring interposed between the plate and lid for maintaining the plate in a sealing position, and means carried by the flange and adapted to engage the hook for maintaining the lid in a closed position.

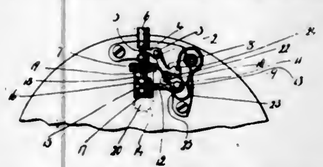
944,859. SOD-CUTTING TOOL. MICAJAH HARRIS, Newark, N. J. Filed Oct. 12, 1909. Serial No. 522,253.



1. In a sod cutting tool, the combination with a body, having a beveled cutting edge and a flange extending upwardly from the sides and one end of said body, the forward edges of the flange being beveled and an operating handle for said body; of a knife, means to pivotally secure the knife to said flange and additional means to normally hold the knife in position over the handle.

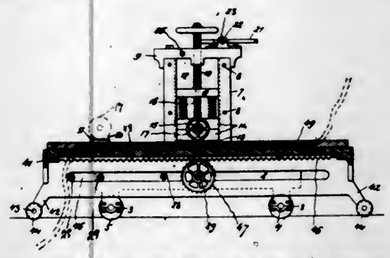
2. In a sod cutting tool, the combination with a body and a flange extending upwardly from the sides and one end of said body, the free edges of the body and flange being beveled, a handle attached to said body and a cross head at the free end of said handle; of a knife, straps pivotally connecting said knife to said flange, means to limit the downward stroke of said knife, a foot piece at the upper edge of said knife and means on the handle adapted to engage the foot piece and hold the knife normally suspended above the handle.

944,860. WINDING AND SETTING MECHANISM FOR WATCHES. EDWIN HART, Waterbury, Conn., assignor to The New England Watch Co., Waterbury, Conn., a Corporation. Filed Nov. 1, 1909. Serial No. 525,792.



In a winding and setting mechanism for watches, the combination with a longitudinally movable and rotatable stem, of a winding-wheel loosely mounted upon the stem and carrying upon its inner face one member of a clutch, a sleeve non-rotatably mounted upon the said stem on which it is longitudinally movable and provided at its outer end with a clutch-member, and at its inner end with spur-teeth, a dial-wheel in position to coact with the said spur-teeth, a two-armed lever having one of its arms connected with the said stem for operation thereby and its other arm formed with a locking nose and a stop-nose, a lever connected with the sleeve for the operation thereof and having a nose for coaction with the locking nose of the said two-armed lever, and a spring for operating the said levers, the locking noses of the two levers operating to lock the levers in their setting positions by the engagement of the two noses on a line inside of a line passing through the pivots of the two levers and the stop-nose of the two-armed lever engaging with the other lever to prevent the two-armed lever from swinging too far inward when the parts are positioned for setting.

944,861. MACHINE FOR MAKING WIRE-GLASS. JOSEPH HASTREITER, Morgantown, W. Va., and NICKLES BLEILEVENS, Dunbar, Pa. Filed Dec. 17, 1908. Serial No. 468,010.



1. In a machine for making wire glass the combination of a motor driven carriage, housings carried thereby, an adjustable flattening roll revolubly mounted in said housings, a movable table arranged between said housings and beneath said roll and adapted to be actuated by the movement of said carriage, a slab carried by said table, blocks arranged at one end of said slab for raising said roll, means supported by said housings for temporarily holding said roll in a raised position, and means arranged in said housings for supporting said roll at a desired elevation relative to said table.

2. In a machine for making wire glass, the combination of a carriage, housings carried thereby, a revoluble flattening roll journaled in said housings, a table movable between said housings and beneath said roll, blocks supported upon said table for temporarily elevating said roll, means carried by said housings for holding said roll in the elevated position, and means carried by said carriage for simultaneously moving said carriage and table in opposite directions.

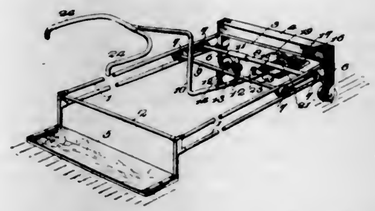
3. In a machine for making wire glass, the combination of a movable carriage, a revoluble adjustable flattening roll supported by said carriage, a table movable beneath said roll relative to said table, and means supported by said carriage for simultaneously moving said carriage and table in opposite directions.

4. A machine for making wire glass, comprising a movable carriage, an adjustable revoluble roll supported by said carriage and adapted to be driven by the movement thereof, a table movably mounted beneath said roll and adapted to be actuated by the movement of said carriage, and means supported by said table for adjusting said roll.

5. A machine of the type described, comprising housings, an adjustable revoluble flattening roll journaled in said housings, a table movable beneath said roll, means arranged in said housings for supporting said roll, means carried by said table for elevating said roll, and means carried by said housings for temporarily holding said roll in the elevated position.

[Claim 6 not printed in the Gazette.]

944,862. FLOOR-DRESSING MACHINE. WALTER S. HAVEN, Racine, Wis. Filed Jan. 15, 1909. Serial No. 472,525.



1. A floor dressing machine comprising a truck, a vertically-rockable lever carried thereby, and a stock controlled and actuated by the lever and pivotally joined thereto to tilt vertically in following the floor surface and having a leveling face or sole and provided with and carrying a dressing blade.

2. A floor dressing machine comprising a vertically-rockable lever, provided with and controlling a stock having an independent vertical tilting movement with respect to the lever, said stock having a bottom leveling face or sole and a dressing blade projecting below said face and operatively fixed with respect thereto, in combination with a truck carrying said lever.

3. A floor dressing machine comprising a truck, a lever carried thereby, and a stock controlled by the lever and pivotally joined thereto on a horizontal axis transverse of the machine to follow the surface of the floor during operation, said stock having a bottom leveling face and provided with and carrying a dressing tool projecting through said face.

4. A floor dressing machine comprising a truck, a lever fulcrumed thereto and carried thereby, and a stock actuated by said lever and intermediate its length pivotally joined to said lever on a transverse axis and arranged to rock vertically independently of the truck and lever in following the surface of the floor said stock having a leveling surface or sole arranged in the direction of operative movement of the stock, and provided with and carrying a dressing tool operatively fixed therein and projecting through said sole intermediate the length thereof.

5. A floor dressing machine comprising a truck, a track to hold the same to reciprocation in a fixed plane above the floor surface, a lever carried by and fulcrumed to said truck, a stock mounted to rock vertically on a transverse axis in following the surface of the floor being dressed and having a leveling face or sole and provided with and carrying a floor dressing blade projecting through said sole, and means pivotally coupling said stock to said lever.

[Claims 6 to 11 not printed in the Gazette.]

944,863. BALL-BEARING. HENRY HESS, Philadelphia, Pa. Filed Feb. 28, 1906. Serial No. 303,389.

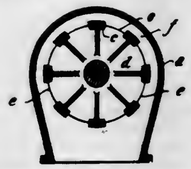


1. In a self-contained ball bearing, the combination of a bearing ring having a race, another bearing ring composed of two parts and having a race, the intersection of the parts of said ring being to one side of the ball contact line, and a retaining ring permanently securing the parts of the two-part ring together, the adjacent faces of the retaining ring and the two-part ring having complemental gripping surfaces.

2. In a unit-structure ball bearing, the combination of an inner bearing ring having a race, an outer bearing ring composed of two parts and having a race, the intersection of the parts of said ring being to one side of the ball contact line, and a retaining ring surrounding the outer bearing ring and permanently securing the parts of said bearing ring together, the adjacent faces of the retaining ring and the two part bearing ring being provided with complemental gripping surfaces, and balls in the races.

3. In a unit-structure ball bearing, the combination of an inner bearing ring having a race, an outer bearing ring composed of two parts and having a race, the intersection of the parts of said ring being to one side of the ball contact line, and a retaining ring surrounding the outer bearing ring and permanently securing the parts of said bearing ring together, the adjacent faces of the retaining ring and the two part bearing ring being provided with conical gripping surfaces, and balls in the races.

944,864. CASING FOR CENTRIFUGAL PUMPS AND BLOWERS. HEINRICH HOLZER, Nuremberg, Germany, assignor to Vereinigte Maschinenfabrik Augsburg Maschinenbaugesellschaft Nürnberg A. G., Nuremberg, Germany. Filed Sept. 18, 1907. Serial No. 393,537.



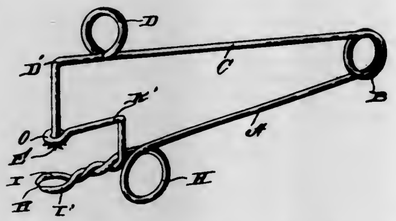
A centrifugal pump comprising a horizontally arranged turbine shaft, a casing divided into an inner and outer part, the inner part having wedge shaped guide chambers therein, contracting toward the middle and distributed around the shaft, and the outer part having an annular inlet chamber communicating with the outer ends of said wedge shaped chambers, and a second chamber communicating with the inner ends of said wedge shaped chambers, and a runner mounted on the shaft and located within the said second chamber, said second chamber having an outlet therefrom.

944,865. PERCOLATOR FOR COFFEE-URNS. JOHN D. HOUCK, Chicago, Ill. Filed May 18, 1909. Serial No. 496,860.



A percolator for urns comprising, in combination with the urn having a conical shaped shell mounted therein with a laterally extending flange at its upper end bearing against the end wall of the urn, the inner surface of the urn having an annular shoulder near its top, a ring having a circumferential flange resting upon said shoulder and an inwardly turned flange at its lower end adapted to rest upon the flange at the upper end of said shell, a percolator bag, a ring engaging the upper marginal edge thereof and resting upon said inwardly turned flange, the bottom of the percolator flaring, a ring holding the same taut, the bottom of the percolator being of a coarser mesh material and the surrounding wall of a fine mesh.

944,866. CHERRY-PITTER. JOHN D. HOUCK, Chicago, Ill. Filed Aug. 31, 1909. Serial No. 515,463.

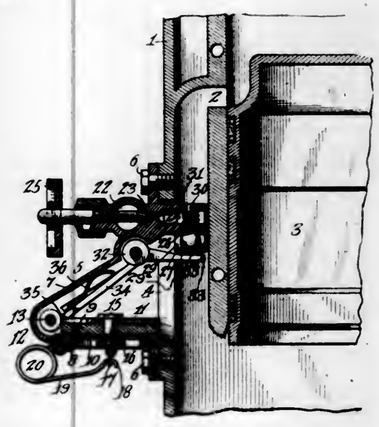


1. A cherry pitter bent to form a coil at substantially its horizontal center and having two resilient arms, each having a coil for the reception of a finger and thumb of an operator, one end of one arm being bent at an angle and having spurs, a second wire twisting an arm of the first mentioned wire and forming therewith a seat for a cherry in alinement with the spurred end of the wire, the ends of the two wires forming the seat being spaced apart for the reception of the stem of a cherry.

2. A cherry pitter bent to form a coil at substantially its horizontal center and having two resilient arms, each having a coil for the reception of a finger and thumb of an operator, one end of one arm being bent at an angle and having spurs, a second wire twisting an arm of the first mentioned wire and forming therewith a seat for a cherry in alinement with the spurred end of the wire, the ends of the two wires forming the seat being spaced apart for the reception of the stem of a cherry, a portion of the wire forming said guide extending between the arms of the first mentioned wire and serving as a stop to limit the movement of the spurred end of the wire in one direction.

944,867. CARBURETER. MURRAY E. HUNTER, Vincennes, Ind. Filed Apr. 9, 1909. Serial No. 488,853.

1. A device of the character described comprising an engine casing, an automatically operating air valve therefor, a rocking lever having an arm held in the path of movement of said valve, a fuel chamber in said casing, a cage carried by said chamber, said chamber and cage being provided with discharge outlets, a valve in said cage and controlling said outlets, and a second arm carried by said lever and adapted to retain said valve in a position to close the outlet from the fuel chamber when the air valve is closed.



2. A device of the character described comprising an engine provided with an opening, a casing surrounding said opening and provided with an open bottom, a spring-held valve for closing said opening in the bottom of the casing and adapted to be drawn to an open position by the upstroke of the piston, a lever mounted in said casing and provided with two arms one of which is held in the path of movement of said air valve, a fuel chamber carried by said casing and projecting through the opening of the engine, a cage depending from said fuel chamber, a valve in said cage and controlling the discharge from said fuel chamber, said valve being held to a chamber closing position by one of the arms of said rocking lever when the air valve is closed, and a spring for returning said ball to the cage when the pressure of the said arm is removed therefrom.

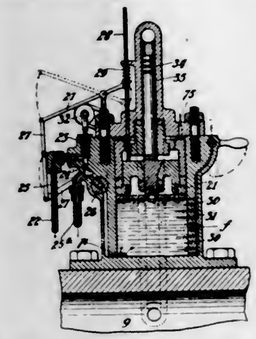
3. A device of the character described comprising an air controlling valve operated by an upstroke of the piston to admit air, a fuel chamber provided with an exterior valve seat, a cage surrounding said valve seat, a valve in said cage, and a rocking lever operated by said air valve to hold the valve to its seat when air is being compressed in the crank case.

4. A device of the character described comprising an engine casing, a piston therein, an outstanding casing carried by said engine casing, an air valve carried by the outstanding casing and adapted to be opened by the upstroke of said piston, a fuel chamber projecting into said engine casing and provided with a bottom opening and surrounding valve seat, a spring carried by said fuel chamber and projecting through said opening, a cage depending from said fuel chamber and surrounding the bottom opening therein, a ball valve seated in said cage and normally held away from the opening in the fuel chamber by said spring, and a rocking lever operated by the opening movement of said air valve to cause said ball valve to open the outlet from said chamber.

5. A device of the character described comprising an engine casing, an air valve therefor, a fuel chamber in said casing and provided with a discharge outlet, a cage depending therefrom and surrounding said outlet, said cage also being provided with an outlet, a valve in said cage and controlling said outlets, means for normally holding said valve away from the outlet of the fuel chamber and closing the outlet of the cage to permit fuel to flow into the cage, and means operated by the opening of the air valve to reverse the position of said cage valve.

[Claims 6 to 11 not printed in the Gazette.]

944,868. FUEL FEEDING AND REGULATING APPARATUS. JOHN HUTCHINGS, London, England. Filed Nov. 21, 1908. Serial No. 463,837.



1. A feeding and regulating apparatus for combustible fluids comprising a reservoir to contain the combustible fluid, a combustion chamber to receive such fluid, means for supplying compressed air to said combustion chamber, means operative by the pressure of said compressed air for producing a pressure upon the combustible fluid contained in said reservoir, a force pump normally acting to supply combustible fluid to said reservoir and having a passage leading to the latter which passage is provided with an outlet, and means controlled by the quantity of combustible fluid in said reservoir for regulating the flow of such fluid into the reservoir and for directing the fluid from said pump into said outlet after the reservoir receives a predetermined quantity of fluid.

2. A feeding and regulating device for combustible fluids comprising a reservoir to contain a combustible fluid, a combustion chamber connected to receive combustible fluid from said reservoir, a source of compressed air connected to said combustion chamber, and means acted on by compressed air from said source to produce a pressure upon said combustible fluid to force it into the combustion chamber, the said means being capable of producing a pressure upon the combustible fluid which is in excess of the pressure of compressed air in the combustion chamber, a continuously operating force pump for supplying combustible fluid to said reservoir and a valve controlled by said means for interrupting the flow of combustible fluid to said reservoir after the latter has received a predetermined amount of such fluid.

3. A device of the class described comprising a reservoir to contain a combustible fluid, a combustion chamber connected to receive such fluid, means for supplying compressed air to said combustion chamber, a device acted on by said compressed air for producing a pressure upon the combustible fluid sufficient to overcome the air pressure in said combustion chamber, a continuously operating force pump for supplying combustible fluid to said reservoir, and means controlled by the amount of combustible fluid in said reservoir for regulating the admission of combustible fluid to said reservoir from said pump.

4. A hydro-carbon fuel controlling device comprising a cylindrical reservoir for hydro-carbon fluid, a combustion chamber connected to receive hydrocarbon fluid from said reservoir, means connected to supply compressed air to said combustion chamber, a piston movable in said reservoir, a smaller piston fixed to said main piston and mounted in a separate cylinder, said smaller piston being subject to the pressure of said compressed air, means for forcing hydro-carbon fluid into said reservoir, a regulating valve for controlling the flow of said fluid, and means actuated by the movable piston for operating said valve.

5. A hydro-carbon fuel controlling device comprising a combustion chamber, a cylindrical reservoir for hydro-carbon fluid, said reservoir communicating with the combustion chamber, a main piston movable in said reservoir, a smaller piston fixed to said main piston and movable in a separate cylinder, a source of compressed air communicating with the combustion chamber and with the cylinder containing the smaller piston, a pump for forcing hydro-carbon fluid into said reservoir, a regulating valve, for controlling the flow of said fluid into said reservoir, a rod slidable in supports and bearing against said main piston and movable therewith, and a lever mechanism connecting said rod to the regulating valve.

944,869. TROLLEY APPARATUS. CHARLES O. JACKSON, Fairmont, W. Va. Filed Apr. 3, 1909. Serial No. 487,686.



1. An attachment for trolleys comprising, in combination with a pole, a trolley head adjustably mounted thereon, a trolley wheel mounted upon said head, independent spring-pressed members pivotally mounted upon the trolley head, one upon either side of the wheel, said members having elongated slots and curved at their outer ends, an anti-friction roller mounted one in each of said slots, and projections upon the slotted ends of said members adapted to guide the members as they yield against the tension of the spring which bears against the same, as set forth.

2. An attachment for trolleys comprising, in combination with a pole, a trolley head adjustably mounted thereon, a trolley wheel mounted upon said head, independent spring-pressed members pivotally mounted upon the trolley head, one upon either side of the wheel, said members having elongated slots and curved at their outer ends, an anti-friction roller mounted one in each of said slots, projections upon the slotted ends of said members adapted to guide the members as they yield against the tension of the spring which bears against the same, and means for limiting the outer throw of said members, as set forth.

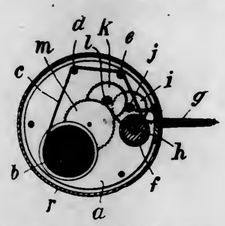
3. An attachment for trolleys comprising, in combination with a pole, a trolley head adjustably mounted thereon, a trolley wheel mounted upon said head, independent spring-pressed members pivotally mounted upon the trolley head, one upon either side of the wheel, said members having elongated slots and curved at their outer ends, an anti-friction roller mounted one in each of said slots, projections upon the slotted ends of said members adapted to guide the members as they yield against the tension of the spring which bears against the same, projections upon said trolley head each of said members having a projecting portion adjacent to its pivotal end and adapted to bear against a projection of the trolley head to limit its throw in one direction, as set forth.

4. An attachment for trolleys comprising, in combination with a pole, a trolley head adjustably mounted thereon, a trolley wheel mounted upon said head, independent spring-pressed members pivotally mounted upon the trolley head, one upon either side of the wheel, said members having elongated slots and curved at their outer ends, an anti-friction roller mounted one in each of said slots, projections upon the slotted ends of said members adapted to guide the members as they yield against the tension of the spring which bears against the same, projections upon said trolley head, each of said members having a projecting portion adjacent to its pivotal end, a screw mounted in a threaded aperture in a projection of said head and adapted to adjust the outer throw of said member, as set forth.

5. An attachment for trolleys comprising a pole, a head mounted thereon, a trolley wheel mounted upon said head,

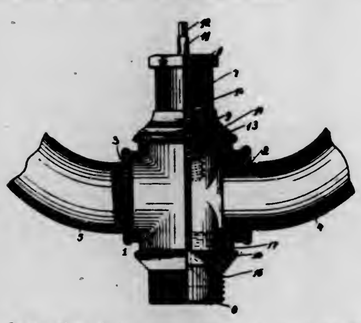
the opposite sides of said head being recessed, a pin passing through the walls of said recess, spring-pressed members pivotally mounted upon the ends of said pin, each of said members having a curved slot, an anti-friction roller journaled in each of said slots, an integral finger projecting from the free slotted end of each of said members and extending one upon either side of the trolley wheel, said head having recesses upon either side of the wheel in which said integral fingers are guided, as set forth.

944,870. APPARATUS FOR MEASURING FABRICS AND THE LIKE. SEVERIN JACOBSEN, Christiania, Norway. Filed Oct. 29, 1907. Serial No. 399,724.



In an apparatus of the character described the combination with a casing, a frame mounted therein, and a scale plate carried by the frame of a reel *b* and a drum *f* mounted on the frame, a cord-guide *g* carried by the casing, a measuring cord passing through the said guide and passing around the drum *f* and reel *b*, an indicating hand movably arranged over the scale-plate, and gearing between the said drum *f* and the indicating hand.

944,871. VALVE. WILLIAM J. JAMES, Pittsburg, Pa. Filed Aug. 25, 1905. Serial No. 275,725.

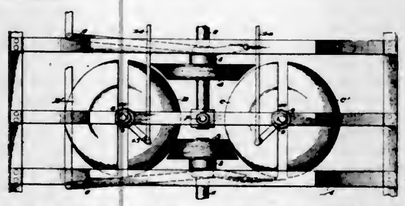


1. In a valve of the type described, a valve casing having a central chamber and oppositely disposed inlet and outlet ports, said casing further provided in its underneath side with a drain port, an inwardly tapering annular valve seat carried by the casing at the upper end of the drain port, the said central chamber of the valve casing extending below the inlet and outlet ports and terminating at its lower end at said valve seat and forming a space for the accumulation of liquid, the portion of the casing forming the top of said chamber provided with a threaded recess opening into the chamber, the upper end of said casing being formed with a threaded opening communicating with said recess by a central contracted bore through the casing, a screw collar fitting said opening and a perforation provided through said collar, said casing provided with a shoulder adjacent the lower end of said collar and a space adapted to receive a valve packing provided between said shoulder and collar end, a stem extending through said casing and said bore and perforation and provided with a threaded enlargement engaging the threaded recess of the casing and an upwardly seating valve on the lower end of said stem below the valve seat for engaging with the latter to normally close the valve chamber at its lower end.

2. In a valve of the type described, a valve casing having a central chamber and oppositely disposed inlet and outlet ports, said casing further provided in its underneath side with a drain port, an inwardly tapering annular valve seat carried by the casing at the upper end of the drain port, the said central chamber of the valve casing extending below the inlet and outlet ports and terminating at its lower end at said valve seat and forming a space for the accumulation of liquid, the portion of the casing forming the top of said chamber provided with a threaded recess opening into the chamber, the upper end of said casing being formed with a threaded opening communicating with said recess by a central contracted bore through the casing, a screw collar fitting said opening and a perforation provided through said collar, said casing provided with a shoulder adjacent the lower end of said collar and a space adapted to receive a valve packing provided between said shoulder and collar end, a stem extending through said casing and said bore and perforation and provided with a threaded enlargement engaging the threaded recess of the casing and an upwardly seating valve on the lower end of said stem below the valve seat for engaging with the latter to normally close the valve chamber at its lower end.

3. In a valve of the type described, a valve casing having a central chamber and oppositely disposed inlet and outlet ports, said casing having a threaded recess and provided in its underneath side with a drain pipe, an upwardly extending annular valve seat carried by the casing at the upper end of the drain port, the said central chamber of the valve casing extending below the inlet and outlet ports and terminating at its lower end at said valve seat and forming a space for the accumulation of liquid, a stem mounted in said casing and having a threaded enlargement engaging the threaded recess of the casing, and an upwardly seating valve on the lower end of said stem below the valve seat for engagement with the latter to normally close the valve chamber at its lower end.

944,872. TRANSMISSION-GEARING. WILLIAM E. JENKINS, Milton, Pa. Filed Mar. 18, 1909. Serial No. 484,212.



1. In a transmission gearing, the combination with driving and driven wheels, of disks adapted to engage the driving and driven wheels, and means for operating the disks for giving a forward or reverse motion to the driven wheel.

2. In a transmission gearing, the combination with a frame, of driving and driven wheels, shafts mounted on the frame, a plurality of disks adapted to engage the driving and driven wheels, and means for operating the disks whereby a forward motion is transmitted to the driven wheel when certain of the disks are in engagement with the driving and driven wheels, and a reverse motion is transmitted to the driven wheel, when one of the disks is in engagement with the driving wheel and another disk is in engagement with the driven wheel.

3. In a transmission gearing, the combination with a frame, of driving and driven wheels, shafts mounted on the frame, two spherical disks mounted on each shaft adapted to engage the friction wheels, and means for rotating the shafts, whereby a forward motion will be transmitted to the driven wheel and upon further rotation of the shafts a reverse motion will be transmitted to the driven wheel.

4. In a transmission gearing, the combination with a frame, of driving and driven wheels, posts journaled in the frame, shafts movably mounted on the posts, disks mounted on the shafts, and means for operating the shafts whereby certain disks are actuated for transmitting forward motion to the driven wheel and upon further movement of the shafts all of the disks are brought into engagement with the driving and driven wheels, for transmitting a reverse motion to the driven wheel.

5. In a transmission gearing, the combination with a frame, of driving and driven wheels, shafts mounted on the frame, two disks mounted on each shaft, and means for operating the shafts whereby two of the disks are brought into engagement with the driving wheel and two of the disks with the driven wheel whereby a reverse motion is transmitted to the driven wheel.

[Claims 6 to 8 not printed in the Gazette.]

944,873. SILO. PETER R. JENSEN, Denmark, Wis. Filed Feb. 19, 1909. Serial No. 478,811.



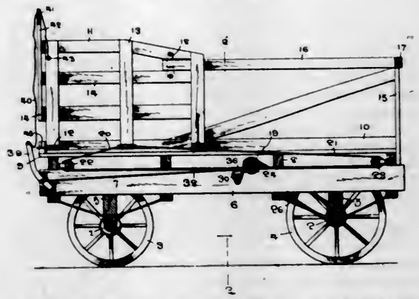
1. In a silo of the character described, a tank structure composed of matched staves having an opening in front extending from the top to the bottom, and staves adjacent to said opening having inwardly beveled side edges, cross-pieces inserted between and spacing apart said beveled edged staves, said cross-pieces having inwardly beveled upper and lower edges, door posts secured upon and overlapping the beveled edged staves, cross-braces arranged in pairs upon and overlapping the beveled edged cross-pieces spacing the door-posts, and hoops encircling the tank structure, said hoops being disposed adjacent to the cross-pieces spacing the beveled edged staves and intermediate the pairs of cross-braces adjacent to the said cross pieces.

2. In a silo of the character described, a tank structure composed of matched staves and having a vertical opening in front, the staves adjacent to said opening having inwardly beveled edges, beveled edged cross-pieces spacing said staves at intervals, door posts secured upon and overlapping the beveled edged staves, pairs of cross braces secured upon and overlapping the upper and lower edges of the cross pieces spacing the staves, hoops encircling the structure adjacent to the beveled edged cross-pieces and intermediate the pairs of braces secured upon the latter, cleats and cross braces secured exteriorly to the cross-braces spacing the door posts, said cleats and cross-braces being extended in front of and secured upon the door-posts, beveled edged doors provided upon their front sides with cleats, the front faces of which are adapted to lie in the planes of the front faces of the door posts, and fastening members mounted upon said cleats and engaging the door posts.

3. In a silo of the character described, a tank structure composed of matched staves and having a vertical opening in front, cross pieces spacing the staves adjacent to said opening, door posts secured upon the spaced staves, pairs of cross-braces secured adjacent to the cross-pieces and spacing the door-posts, said door posts and cross braces overlapping the staves and cross pieces and forming individual door frames, doors fitted in said frames and having cleats upon the front sides thereof, and fastening members pivoted upon the cleats, said fastening members consisting of levers having inwardly extending arms and provided adjacent to their outer ends with eccentric or cam-shaped rear faces and with shoulders forming door post engaging stops adjacent to said cam faces.

4. In a silo of the character described, a tank structure having a series of door frames or apertures and overhanging flanges surrounding said apertures, horizontally disposed cleats and cross bars arranged in pairs between the door apertures, doors fitted to the apertures, fastening members pivoted upon the doors and having eccentric faces and door post engaging shoulders adjacent to said faces, and inwardly extending arms forming handles and footsteps, and hoops encircling the tank structure intermediate the pairs of cleats and cross braces between the door apertures.

944,874. RACK. JURGEN JEPSEN, Denison, Iowa. Filed Oct. 27, 1908. Serial No. 459,725.

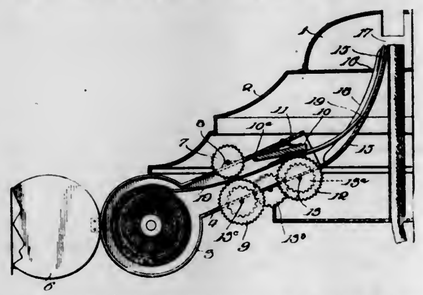


1. A device of the character described, comprising a carrying frame, a slidable frame arranged thereon, actuating means for said slidable frame including a drum with its shaft supported upon the first referred to frame, said shaft having arranged thereon a slidable sleeve provided with a clutch face, a clutch member fixed to said shaft, a cable connected to said slidable frame and to said drum and engaged with intermediate pulleys supported upon said first referred to frame, a bell-crank having link connection with said slidable sleeve, a spring-pressed plunger connected with said bell-crank for holding the same in effective position, a lever having rod connection with said bell-crank and a line connection between said lever and said slidable frame, and a stop for limiting the movement of said bell-crank, said bell-crank having said plunger connected to one arm thereof, the spring of said plunger being adapted to deliver its pressure upon said bell-crank when said bell-crank has passed the dead center and to force said bell-crank against said stop.

2. A device of the character described, comprising a carrying frame, a slidable frame arranged upon said carrying frame, actuating means for said slidable frame including a drum with a shaft supported upon the first referred to frame, said shaft having arranged thereon a slidable sleeve provided with a clutch face, a clutch member fixed to said shaft, a cable connected to said slidable frame and to said drum and engaged by intermediate pulleys supported upon said first referred to frame, a link having connection with said slidable sleeve, a bell-crank having one arm connected to said link, a bracket having said bell-crank pivoted thereto, a plunger freely received at one end by one end of said bracket, the opposite end of said plunger being connected to the other arm of said bell-crank, a spring encompassing said plunger and inter-

posed between said bell-crank and one end of said bracket, a stop projecting from said bracket, said spring being adapted to deliver its pressure upon said bell-crank when said bell-crank has passed the dead center and to force said bell-crank against said stop, said stop being adapted for engagement with and to limit the movement of said bell-crank.

944,875. LAMP-IGNITER. WILLIAM D. JONES, Cullman, Ala. Filed June 2, 1909. Serial No. 499,730.



1. A lamp igniting device comprising a casing, a tube connected to said casing, a scratching device mounted in the tube and juxtaposed toothed feeding rollers journaled in the tube and interposed between the scratching device and the casing, the bearings of one of said rollers being yieldable.

2. A lamp igniting device, comprising a casing, a tube connected to said casing, a spring pressed scratching element pivotally mounted at one end of said casing, and a rotary scratching element journaled in the casing and coacting with the pivoted element.

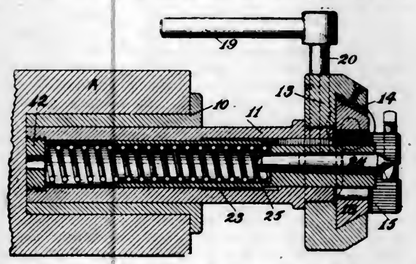
3. A lamp igniting device comprising a casing, a tube connected to said casing, a chute connected to one end of said tube, a spring pressed swinging scratching element mounted in the tube, a rotary scratching element coacting with the first named element, a shaft upon which said rotary element is mounted, the shaft being provided with a finger piece for turning the same, feed rollers mounted in the tube and interposed between the casing and the scratching element and a gearing connection between one of said feeding rollers and the rotary scratching element.

4. A lamp igniting device comprising a casing, a tube connected to said casing, a chute extending upwardly from the tube, a scratching element mounted in the tube and hinged at one end thereto, a spring interposed between the top of the tube and the scratching element, a rotary toothed scratching element journaled in the tube underneath the free end of the pivoted scratching element, toothed feeding rollers journaled in the tube between the scratching elements and the casing and arranged to feed between them an ignitible strip and pass the same between the scratching elements, and a gearing connection between one of said feeding rollers and the rotary scratching element.

944,876. LATHE. JAMES E. KEY, Wilmerding, Pa., assignor to The Westinghouse Air Brake Company, Wilmerding, Pa., a Corporation of Pennsylvania. Original application filed Nov. 13, 1905, Serial No. 287,019. Divided and this application filed June 6, 1906. Serial No. 320,389.

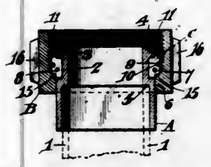
1. In combination, a supporting casing, a reciprocable center mounted therein, a spring held in advanced position, and constructed to engage the end of the work and support it against lateral movement, a tool carrier mounted on the casing for reciprocation transversely of the center and feed means for moving the carrier in and out.

2. In combination, a supporting casing, closed at its rear end, a centering casing slidably mounted therein and closed at its front end, a spring fitting inside the centering casing and bearing at one end against the closed front end of the centering casing and at the other end against the closed rear end of the supporting casing, and a center



carried by the centering casing, and constructed to engage the end of the work and support it against lateral movement.

944,877. COUPLING. ERNEST A. KOSCHINSKI, Scranton, Pa. Filed June 8, 1909. Serial No. 500,802.

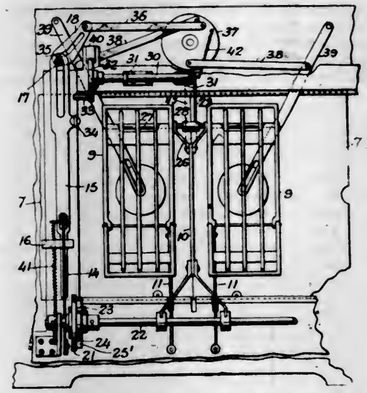


1. A coupling comprising a sleeve having a smooth internal surface at one end and provided with an annular external shoulder at the opposite end, there being a seat on the end of the sleeve adjacent the shoulder, a ring composed of sections fitted around the sleeve against the shoulder thereof, said ring having a shoulder at one end projecting outwardly beyond the sleeve and having a flange at the opposite end arranged with its end face flush with the seat of the sleeve to form a continuation thereof, a pipe soldered in the smooth portion of the bore of the sleeve, a nut internally threaded and having an internal shoulder bearing against the shoulder of the ring, a packing ring covering the seat of the sleeve and end face of the flange on the ring, and an externally threaded pipe on which the nut screws for clamping the parts together.

2. A coupling comprising a sleeve having an annular groove forming spaced shoulders and having a seat formed on the end of the sleeve adjacent the groove, a ring fitted in the groove and engaging the shoulders thereof, said ring being made in sections and of such cross-section as to extend out of the groove to form an annular shoulder outstanding from the sleeve, said ring having a flange arranged with its end face flush with the seat on the sleeve, means for connecting the sections of the ring detachably together for preventing lateral displacement from the groove of the sleeve in assembling the parts of the coupling, a nut surrounding the sleeve and having an internal shoulder bearing on the shoulder of the ring, a packing resting on the seat and end face of the flange on the ring, and a pipe threaded in the nut and engaging the packing.

3. A coupling comprising a thimble having a terminal seat and an annular groove located inwardly from the seat to provide spaced shoulders, a ring composed of sections assembled in the groove and fitted between the shoulders thereof and having an external groove, a flange on one end of the ring having an outer face disposed flush with the said seat to form a continuation thereof, the opposite end face of the ring being recessed to form an extension and an annular shoulder outstanding from the circumference of the thimble, a spring member seated in the groove of the ring for holding the parts thereof together and exerting an inward tension, a pin on each ring section engaging in a socket in the other ring section, a coupling nut fitting around the thimble and having an internal shoulder engaging the shoulder of the ring, and an internal thread on the nut.

944,878. PEDAL ATTACHMENT FOR ORGANS, PIANOLAS, &c. CHARLES H. LA DEW, New York, N. Y. Filed May 11, 1907. Serial No. 373,192.



1. In a device of the character described the combination with movable doors, of pedals within the doors arranged for gravital movement, means for securing the pedals against such movement, and means for simultaneously opening the doors and releasing the pedals for gravital movement.

2. In a device of the character described the combination with doors adapted to open, of pedals arranged for gravital movement through the aperture closed by the doors, means for holding the pedals against such movement, means for controlling the doors, and means operative beyond the doors for actuating the door controlling means and the pedal holding means to release the pedals for gravital movement toward an operative position.

3. In a device of the character described the combination with movable doors, of pedals adapted for gravital movement through the aperture closed by the doors, means for controlling the doors, means for holding the pedals against gravital movement, and a foot lever operative beyond the doors for actuating the door controlling means and the pedal holding means to open the doors and release the pedals for gravital movement through the aperture provided by the door.

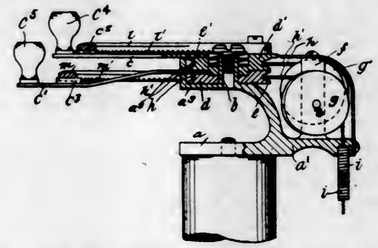
4. In a device of the character described the combination with doors, of pedals movably mounted in rear of the doors and arranged for gravital action, means for holding the pedals against gravital movement, a pivotally mounted member, a slide having connection with the doors, means whereby movement of the slide will release the pedal holding means, and a connection between the member and the slide.

5. In a device of the character described the combination with doors, of pedals movably mounted in rear of said doors, means for holding the pedals against gravital movement, a member, a slide connected with said member, lever connections intermediate the slide and doors, and means carried by the slide to operate the pedal holding means to release the pedals during the movement of the slide in one direction.

[Claims 6 to 18 not printed in the Gazette.]

944,879. CONTROLLING DEVICE FOR MOTOR-VEHICLES, AIR-SHIPS, &c. GEORGE F. LARKIN, Brentwood, England. Filed Jan. 30, 1909. Serial No. 475,090.

1. In a flexible transmission controlling device for motor vehicles or the like, the combination with a substantially tubular member, of a frame mounted thereon, a hand wheel horizontally arranged and rearwardly extending from the said frame, horizontal drums mounted in the frame, vertical pulleys also mounted in the frame and in close proximity to the said horizontal drums, flexible transmitting media, and operating levers respectively secured to the horizontal drums and adapted to transmit a vertical movement to the flexible transmitting media.



2. In a flexible transmission controlling device for motor vehicles or the like, the combination with a substantially tubular member, of a frame mounted thereon and provided with a plurality of vertical pulleys and a corresponding number of horizontal drums which are arranged in close proximity to the said vertical pulleys, a plurality of spaced curved members extending rearwardly from the frame and disposed in a horizontal plane, flexible transmitting media attached to the horizontal drums and adapted to be led over the said vertical pulleys, and levers respectively secured to the horizontal drums for transmitting a vertical movement to the transmitting media, said levers extending rearwardly from the frame in a horizontal plane and arranged to respectively engage each of the curved members and thereby lock the said horizontal drums in various positions.

3. In a flexible transmission controlling device for motor vehicles or the like, the combination with a substantially tubular member, of a frame mounted thereon, spaced horizontal levers having drums carried thereby and arranged one above the other in a horizontal plane, vertical pulleys mounted in the frame and in such relation to the levers that the plane of each pulley is respectively at a tangent to the drum of the corresponding lever and at such a height that the plane of the pulley is at a tangent to the lever, and flexible transmitting media passing around said horizontal drums and adapted to be led therefrom over said vertical pulleys.

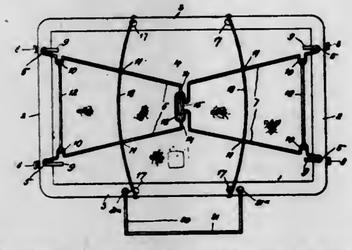
4. In a flexible transmission controlling device for motor vehicles or the like, the combination with a substantially tubular member, of a frame mounted thereon and provided with a cut-out portion, a centrally arranged upstanding bearing member located within the said cut-out portion, a plurality of vertical pulleys mounted in the said cut-out portion on said bearing member, a plurality of horizontal drums mounted on a common bearing and arranged in rear of and in close proximity to the said vertical pulleys, flexible transmitting media arranged to engage the said drums, and a plurality of horizontal levers respectively connected to the said horizontal drums, said levers being adapted to transmit a vertical movement to the flexible transmitting media through the said horizontal drums.

5. In a flexible transmission controlling device for motor vehicles or the like, the combination with a substantially tubular member, of a frame mounted thereon and provided with a forwardly extending base portion having side walls, and a centrally arranged bearing member extending upwardly from said portion between the walls, a casing formed by the frame and arranged above the base portion and provided with a central upstanding member, horizontal drums mounted one above the other on the upstanding member of the casing, vertical pulleys mounted in the bearing member of the base portion and at different heights so that the center lines of the hori-

zontal drums will respectively engage the tops of the vertical pulleys, oppositely arranged arms extending from the frame, a hand wheel formed of a plurality of curved members having their respective ends secured to the top and bottom of the ends of said arms by a common fastening means, each of the said members being provided on its underside with a plurality of teeth, flexible transmitting media passing around the horizontal drums and adapted to be led over the said vertical pulleys, and a plurality of levers respectively connected to the horizontal drums and extending rearwardly in a horizontal plane and adapted to respectively engage the teeth of the said curved members, said levers being adapted to impart a vertical movement to the flexible transmitting media.

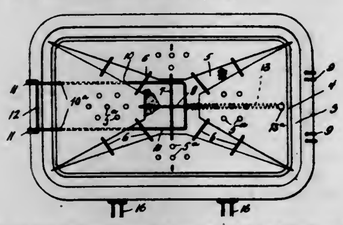
[Claims 6 and 7 not printed in the Gazette.]

944,880. PAPER-HOLDER. GODFRIED LAUBE and HATTIE R. LAUBE, Santa Monica, Cal.; said Godfried Laube assignor to George N. Bartlett, Los Angeles, Cal. Filed Mar. 6, 1909. Serial No. 481,694.



In a device of the character described, a supporting tray having apertured end and side flanges, combined with a guard embodying two wire frame members each provided at their outer ends with hook engaging the apertured end flanges of the plate, one of said frames having a loop at its inner end and the other frame having a spring-keeper at the inner end engaging said loop, each frame embodying said arms provided intermediate their ends with bends, transverse tie rods attached to said bends and connecting the side arms together, and transverse braces connected at their ends to the apertured side flanges, and engaging said frames.

944,881. PAPER-HOLDER. GODFRIED LAUBE and HATTIE R. LAUBE, Santa Monica, Cal.; said Godfried Laube assignor to George N. Bartlett, Los Angeles, Cal. Filed Mar. 6, 1909. Serial No. 481,699.



1. A paper holder comprising a tray adapted to support a strip of paper, pointed members pivotally connected to the bottom of said tray for retaining said tray upon a suitable support, a slitted cover mounted upon the tray, wires connecting the slitted edges of said cover, a handle carried by one of said wires, hook shaped clamps carried by one end of said cover for engaging one end of the tray, a spring held yoke carried by the opposite end of said cover for engaging the tray, and means for guiding said yoke within said cover.

2. A paper holder comprising a tray adapted to support a strip of adhesive paper, pointed members pivotally connected to the bottom of said tray for retaining said tray upon a suitable support, a dome-shaped slitted cover mounted upon the tray, wires connecting the slitted edges of said cover, hook shaped clamps carried by one end of said cover for engaging one end of the tray, a spring held yoke carried by the opposite end of said cover for engaging the tray, and means for guiding said yoke within said cover.

3. A paper holder comprising a tray, a dome-shaped cover located thereon and having slits formed therein to provide openings, hook-shaped clamps carried by one end of said dome-shaped cover for engaging the cover, and a spring held yoke carried by said dome-shaped tray for engaging the tray and retaining said dome-shaped cover upon the tray.

4. A holder comprising a tray, a dome-shaped slitted cover mounted upon the tray and further provided with openings, clamps permanently carried by said cover and adapted to engage one end of said tray for coupling the cover and tray together, and a spring controlled means carried by the cover and adapted to engage the opposite end of said tray for coupling the tray and cover together.

5. A paper holder comprising a tray, a cover mounted upon the tray and provided with openings, clamps permanently carried by one end of the cover and engaging one end of the tray for coupling said ends together and longitudinally shiftable means permanently carried by the cover and engaging one end thereof and the opposing end of the tray for coupling said ends together.

[Claims 6 to 10 not printed in the Gazette.]

944,882. FLY-TRAP. GODFRIED LAUBE and HATTIE R. LAUBE, Santa Monica, Cal.; said Godfried Laube assignor to George N. Bartlett, Los Angeles, Cal. Filed Mar. 6, 1909. Serial No. 481,701.



A fly trap, comprising two concaved bait-carrying plates arranged in spaced relation one above the other with the concaved faces thereof confronting, and a support for the plates comprising a pair of stirrups, each formed of a single piece of wire having the free ends thereof formed with hooks engaged with the lowermost plate and having projections near said free ends, one of said stirrups having an eye and the other having a hook engaging therewith, the uppermost plate received between the hook and eye and the projections on the stirrups and resting on the latter.

944,883. LOCK. ANTHONY LESZCZYNSKY and STANY LESZCZYNSKY, Shenandoah, Pa. Filed Aug. 3, 1909. Serial No. 510,997.

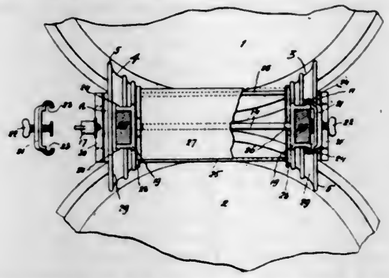


1. A lock of the class described, comprising a body, a latch positioned in said body and having a passage therein, and a shackle having a seat adapted to receive said latch and hold the shackle in its locked position, said shackle being adapted to move through said passage when the latch is elevated.

2. A lock comprising a body having a cavity and a channel communicating with said cavity, a latch seated in said channel and having a passage therein and a shackle having a seat adapted to receive the latch and hold the shackle in its locked position, said shackle being adapted to move through said passage, when the latch is elevated.

3. A lock of the character described, comprising a body, a latch arranged in said body and having a passage therein, and a shackle having a seat adapted to receive said latch and hold the shackle in its locked position, said shackle being adapted to move through said passage when the latch is elevated, said latch being provided at its lower end with an L-shaped head adapted for the engagement therewith of the bit of a key.

944,884. SUPPORT FOR CLOTHES-WRINGERS. CHARLES H. LETTERMAN, Pittsburg, Pa. Filed Sept. 16, 1908. Serial No. 453,214.



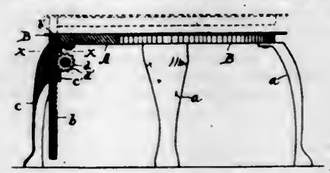
1. In combination a pair of brackets adapted to fit downwardly upon the upper edges of a pair of tubs, spring pressed clamping blocks carried by said brackets for engaging the outer sides of said tubs, a tie rod extending through said blocks and connecting with one of said blocks, a nut screwed upon said rod for adjusting said clamping blocks, housings carried by said brackets for the standards of a clothes wringer, clamps mounted upon said housings, clamping screws carried by said clamps, and braces connecting said brackets.

2. In combination a pair of brackets adapted to fit downwardly upon the upper edges of a pair of tubs, spring pressed clamping blocks carried by said brackets for engaging the outer sides of said tubs, a tie rod extending through said blocks and connecting with one of said blocks, a nut screwed upon said rod for adjusting said clamping blocks, housings carried by said brackets for the standards of a clothes wringer, and clamps mounted upon said housings, clamping screws carried by said clamps, and a grooved ledge carried by each housing.

3. In combination a pair of brackets adapted to fit downwardly upon the upper edges of a pair of tubs, spring pressed clamping blocks carried by said brackets for engaging the outer sides of said tubs, a tie rod extending through said blocks and connecting with one of said blocks, a nut screwed upon said rod for adjusting said clamping blocks, housings carried by said brackets for the standards of a clothes wringer, clamps mounted upon said housings, and clamping screws carried by said clamps.

4. In combination a pair of brackets adapted to be detachably mounted upon the upper edges of a pair of receptacles, supporting housings carried by said brackets, each of said housings having its inner face near its lower end provided with a ledge comprising a lateral and vertical portion whereby a groove is provided the vertical portion of said ledge having its upper edge inclining upwardly from each end toward the center, and a deflector pan having a pair of slotted offsets trunnioned between said housings, at a point above said ledge, said deflector pan having its bottom tilting upon the upper edges of the vertical portions of said ledges, said grooves inclining in a direction similar to the direction in which the upper edges of said ledges extend.

944,885. SKIRT-GAGE. NICOLAUS LEWSEN, Portland, Me. Filed Jun. 21, 1909. Serial No. 473,459.



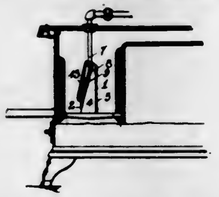
1. A skirt gage comprising a base member, a ring member, and a single support at one side of the center of the ring member adjustably connecting the same to the base member, said support comprising a rod extending from one of said members and loosely engaging a socket formed in the other of said members, the weight of the ring member normally holding the same in a slightly canted position to cause the rod to bind in the socket.

2. A skirt gage comprising a base member having a socket formed therein, a ring member, and a rod depending from the periphery of said ring member and loosely engaging the socket in the base member, whereby the weight of the ring member serves to normally caut the rod and cause the same to bind in the socket to hold the ring against movement.

3. A skirt gage comprising a base member having a socket formed therein, a ring member, a single supporting rod depending from the periphery of the ring member and lo sely engaging the socket in the base member, the weight of the ring member normally holding the same in a slightly canted position to cause the rod to bind in the socket, and means for raising and lowering said ring member.

4. A skirt gage comprising a base member having a socket f rmed therein, a ring member, a single supporting rod depending fr m the periphery of said ring member and loosely engaging the socket in the base member, the weight of the ring member normally holding the same in a slightly canted position to cause the rod to bind in the socket, said supporting rod being provided with a rack, and a gear carried by the base member and meshing with the rack on the supp rting rod.

944,886. OIL-BURNER. CURTIS C. LILLIBRIDGE, Shattuck, Okla. Filed July 12, 1909. Serial No. 507,144.



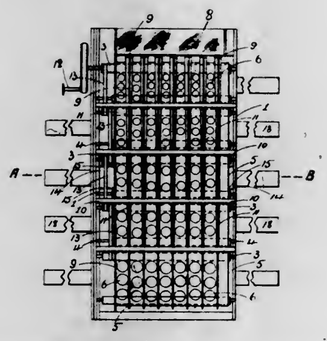
1. In an oil burner, a front or burner plate having a series of air passages formed therein, an overhanging flange arranged on the upper edge of said plate, oil deflecting lugs arranged on said front plate and engaging said overhanging flange, an oil conducting pipe connected with said overhanging flange and opening through the same between said lugs, an oil deflecting rib arranged between said air passages, another oil deflecting rib and an inverted Y-shaped spreader plate arranged on said front plate and spaced above said first mentioned rib and air passages, said spreader plate being curved outwardly to form an air circulating space between the said spreader plate and ribs.

2. In a burner, a front or burner plate having formed therein, a series of air passages, an upper angular-shaped oil deflecting rib arranged between said air passages, a lower oil deflecting rib arranged below said upper rib, an oil supply pipe connected to the upper edge of said burner plate and adapted to discharge oil onto said ribs, a spreader plate arranged over said upper rib and air apertures, spacing flanges formed on the opposite ends of said

burner plate, and a rear plate secured to said flanges to form an air space between itself and said front burner plate.

3. In an oil burner, a front burner plate having formed therein a series of air passages arranged in double rows, an overhanging flange formed on the upper edge of said plate, oil deflecting lugs arranged on said front plate and engaging said overhanging flange, an oil conducting pipe connected with said overhanging flange and opening through the same between said lugs, an inverted V-shaped oil deflecting rib arranged between said rows of air passages, a lower oil deflecting rib in the shape of an obtuse angle and arranged below said upper deflecting rib, an inverted Y-shaped spreader plate arranged on said front plate and spaced above said V-shaped rib and air passages, said spreader plate being bulged or curved outwardly to form an air circulating space between the spreader plate and ribs, triangular spacing flanges formed on the opposite ends of the front burner plate, a back plate having formed thereon triangularly shaped flanges adapted to engage the spacing flanges on said front plate to provide an air space between said back and front plates, and means to secure the flanged ends of the plates together.

944,887. APPARATUS FOR GRADING APPLES AND SUCH LIKE FRUIT. JOSEPH LOMAS, Southbridge, Tasmania, Australia. Filed Dec. 26, 1908. Serial No. 469,351.

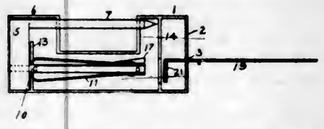


1. An apparatus for grading apples, comprising a tray at the upper end of the apparatus, a series of parallel partitions extending from the inner end of the tray to the other end of the apparatus, said partitions having diminishing fillets at the lower edges, a system of perforated endless bands in brushing contact with the base of the fillets, the perforations corresponding in size with the spaces between the fillets, and canvas conductors arranged below the fillets and inclining toward each side of the apparatus, substantially as described.

2. The combination of a plurality of parallel longitudinal races each being open in its base which opening increases gradually in width from head to the foot of the machine, a system of perforated endless bands in brushing contact with the base of the races the perforations corresponding in size with the opening in the races, and conductors within the bands for conducting the fruit from the machine, as herein specified.

3. An apparatus for grading apples comprising a frame having upright side walls, a plurality of longitudinal parallel partitions having diminishing fillets attached to the lower edges and raised portions at intervals along the upper edges, transverse bars secured to said raised portions and adapted to rest on the upright walls of the frame so as to support the partitions and a system of perforated endless bands in brushing contact with the base of the partitions, the perforations corresponding in size with the spaces between the fillets.

944,888. PADLOCK. CHARLES A. LUTZ, Lansing, Mich. Filed May 3, 1909. Serial No. 493,623.



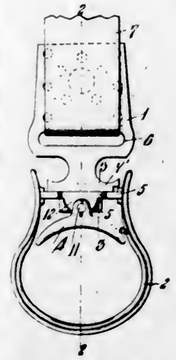
1. In a lock, in combination, parallel bars, a spring mounted on one of said bars, a main body provided with openings adapted to receive said bars and spring, a removing member on one of said bars, an elongated key member adapted at one end for releasing the spring to allow the withdrawal of the bolt and spring through said openings, said key having means intermediate its ends for engaging the removing member and withdrawing the bolt.

2. In a lock, in combination, parallel bars, a spring mounted on one of said bars, a main body provided with openings adapted to receive said bars and spring, a removing lug on one of said bars adjacent the rear end of the spring, a key having a slotted portion adapted to pass over the lug to compress the spring and thereby release the bolt, the wall at the rear end of the slotted portion of the key engaging said lug to remove the bolt.

3. In a lock, in combination, parallel bars, a spring mounted on one of said bars, a main body provided with openings adapted to receive said bars and spring, an offset bolt removing lug integral with said spring and means for compressing said spring and engaging said lug to release and remove the bolt.

4. In a lock, in combination, parallel bars, a spring mounted on one of said bars, and a recessed main body provided with openings adapted to receive said bars and spring, means provided for compressing said spring so that it will pass outwardly through an opening in said main body, and a ward-plate located within said main body and provided with an opening adapted to fit said means for compressing said spring, substantially as described.

944,889. STIRRUP. JOHN MATSEK, Blanca, Colo., assignor, by direct and mesne assignments, of one-fourth to William Gallia and one-fourth to M. Arthur and G. C. Davis, Blanca, Colo. Filed Mar. 29, 1909. Serial No. 486,544.



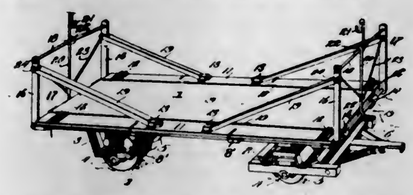
The herein described safety stirrup comprising a flat hanger section having a slot in its upper portion for a suspending strap and a reduced lower portion having a head formed in the center of its bottom with a vertical socket and also formed intermediate its ends and on opposite sides of said socket with integral lugs, the latter having their side edges notched, a coil spring fixed in the bottom of said socket and adapted to project therefrom, a foot section having a U-shaped foot piece and an upper cross bar, the latter being formed with spaced vertically extending openings to receive said lugs and having a flat top and a bottom formed with an enlargement, said enlargement being formed with a horizontally extending guide opening disposed in a plane between said lug receiving openings, a horizontally extending catch stem slidable in said guide opening, a cross piece fixed to one end of said catch stem and forming a catch, said cross piece having reduced ends to enter the notches in the lugs on the hanger section; a longitudinally curved toe piece fixed to the forward end of said stem and depending therefrom, a coil spring upon said stem between the toe piece and the upper cross piece of the foot section, and an upstanding pin on the upper cross piece of the foot section between the vertical openings therein, said pin being adapted to enter the coil spring in the socket of the hanger section.

944,890. RECEPTACLE WITH SPRINKLER-HOLE IN A CAP. EMIL MEYERS, Weissensee, near Berlin, Germany. Filed Nov. 30, 1908. Serial No. 465,216.



In a receptacle provided with a screw-threaded neck, a metal cap having a sprinkler-hole and provided with inner and outer screw-threads, said outer screw-threads being formed by the outwardly pressed inner threads, and said sprinkler-cap being screwed on said neck, a cover cap screwed on said sprinkler-cap, impressions formed into the screw-thread of said sprinkler cap and in the neck below for preventing unscrewing of the sprinkler cap with the cover-cap.

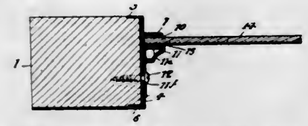
944,891. FARM-WAGON. CANUTE H. MICKELSEN, Bench, Idaho. Filed July 7, 1908. Serial No. 442,290.



1. A farm wagon having its frame provided with cross beams and pivoted sides, eyes upon the sides, bearings upon the front and rear of the wagon, shafts for the bearings, a vertical member upon each end of each of the shafts, a transverse member connecting each pair of vertical members, a central vertical member connected with each of the shafts and each of the transverse members, and having their extremities provided with hooks, an inclined bracing member connecting each of the central members and each of the two adjacent vertical members, said bracing members having their ends offset to provide extensions, an inclined side member connected with each of the said extensions, and said inclined members having their free ends offset and adapted to engage the eyes of the sides.

2. A farm wagon having its bottom provided with cross beams, an extending member hingedly connected with each of the beams upon each of their ends, a body upon the cross beams, a pair of side members each hingedly connected with the longitudinal edges of the body and adapted to rest upon the extending members of the cross beams, crooked arm members pivotally connected to each of the cross beams which latter are each provided with a perforation, the crooked arms being each provided with an opening adapted to aline with the opening of the cross beams when the sides are raised, and removable pin members adapted to engage the perforations of the arms and the cross beams to sustain the sides in their raised position.

944,892. GLASS-FASTENER. WILLIAM T. MOONEY, Parsons, W. Va., assignor of one-half to Alexander R. Crawford, Davis, W. Va. Filed Oct. 26, 1908. Serial No. 459,482.



1. In a glass fastener for windows and doors, the combination with the glass and sash frame, of a metallic lining for the latter, said lining having lateral outwardly turned flanges arranged to embrace said sash frame and an inwardly turned flange having a hollow interior, a stiffening member disposed in the interior of said inwardly turned flange, a slotted retaining member arranged to slide on said sash lining and to be adjustably secured to the latter and to clamp the glass against the inwardly turned flange.

2. In a glass fastener for windows or doors, the combination with the glass and sash frame, of a metallic lining for the latter, said lining lying close to the inner side of the sash and having outwardly turned flanges arranged to embrace said sash frame and an inwardly turned flange formed by bending a portion of the lining inwardly and back upon itself, a stiffening rod disposed between the two sides of said inwardly turned flange and a retaining member for clamping the glass against the inwardly turned flange, said retaining member comprising a slotted flat strip of metal having an inwardly turned flange adapted to engage the window glass and screws arranged to pass through said slots and to secure the retaining member in its adjusted position.

944,893. LOOSE-LEAF BINDER. GAIUS C. MOORE, Rochester, N. Y., assignor to John C. Moore Corporation, Rochester, N. Y., a Corporation of New York. Filed Feb 2, 1909. Serial No. 475,573.

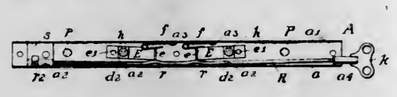


1. A series of substantially similar and interchangeable impaling post sections adapted to be brought into interlocking engagement successively one with another to form impaling posts each comprising a plurality of such sections; two binder plates, each carrying impaling posts formed of such impaling post sections and one of such binder plates provided with holes to receive the impaling posts, carried by the other plate and also with clamping mechanism adapted to engage and clamp such posts extending therethrough carried by the other plate, such binding post sections, such plates and such clamping mechanism so coöperatively proportioned that, when the posts, carried by the plate provided with the clamping mechanism extend substantially to the other plate, the posts carried by such other plate will extend upwardly through the holes therefor in the plate carrying the clamping mechan-

ism so as to be engaged thereby at all times upon the addition to or removal from each of the posts carried by each of such plates of the same number of such impaling post sections.

2. A series of substantially similar and interchangeable impaling post sections adapted to be brought into interlocking engagement successively one with another to form impaling posts each comprising a plurality of such sections; two binder plates, each carrying impaling posts formed of such impaling post sections and one of such binder plates provided with holes to receive the impaling posts, carried by the other plate, and also with clamping mechanism adapted to engage and clamp such posts extending therethrough carried by the other plate, such binding post sections, such plates and such clamping mechanism so coöperatively proportioned that, when the posts, carried by the plate provided with the clamping mechanism extend substantially to the other plate, the posts carried by such other plate will extend upwardly through the holes therefor in the plate carrying the clamping mechanism so as to be engaged thereby at all times upon the addition to or removal from each of the posts carried by each of such plates of the same number of such impaling sections and means carried by the plate carrying the posts extending through the plate provided with the clamping mechanism for releasably engaging the posts carried by such plate provided with clamping mechanism independent of the number of sections in such last named posts.

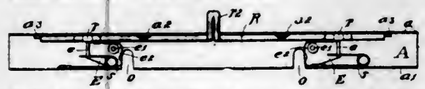
944,894. LOOSE-LEAF BINDER. GAIUS C. MOORE, Rochester, N. Y., assignor to John C. Moore Corporation, Rochester, N. Y., a Corporation of New York. Filed Feb. 2, 1909. Serial No. 475,574.



1. In a loose leaf binder, two binder plates carrying a plurality of coöperatively telescoping and extensible tubular impaling posts, one of such impaling posts comprising a tubular member and a member conformed to slide longitudinally therein and having on the end engaging within such tubular member an extension connected therewith and slidable relatively thereon in a plane oblique to the axis thereof; a rod secured to such extension, extending through and beyond such inner member and provided with a head; a plate pivoted to and movable on the binder plate carrying such inner member, such pivoted plate and such head carrying coöperating portions adapted, on the movement of such plate, to actuate such rod to force the extension secured thereto and such inner member obliquely and eccentrically apart and against the wall of the surrounding tubular member and means for operating such pivoted plate.

2. In a loose leaf binder, two binder plates carrying a plurality of coöperatively telescoping and extensible tubular impaling posts, one of such impaling posts comprising a tubular member and a member conformed to slide longitudinally therein and having on the end engaging within such tubular member an extension connected therewith and slidable relatively thereon in a plane oblique to the axis thereof; a rod secured to such extension, extending through and beyond such inner member and provided with a head; a plate pivoted to and movable on the binder plate carrying such inner member, such pivoted plate and such head carrying coöperating portions adapted, on the movement of such plate, to actuate such rod to force the extension secured thereto and such inner member obliquely and eccentrically apart and against the wall of the surrounding tubular member and means for operating such pivoted plate, two of such extensible impaling posts comprising inner and outer tubular members having springs located in the inner tubular members for forcing such members and the binder plates carrying the same apart.

944,895. LOOSE-LEAF BINDER. GAIUS C. MOORE, Rochester, N. Y., assignor to John C. Moore Corporation, Rochester, N. Y., a Corporation of New York. Filed June 18, 1909. Serial No. 502,938.



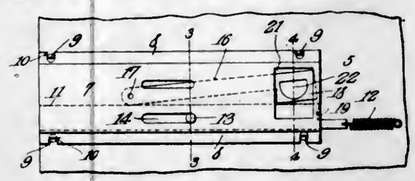
1. In a loose leaf binder, a cover member carrying a plurality of impaling posts; a follower plate provided with slots adapted to receive the impaling posts; clamping members carried by the follower plate adapted to engage with the posts and a common operating means for such clamping members adapted to be moved toward the open ends of the slots in the follower plate to force such clamping members into engagement with the posts.

2. In a loose leaf binder, a cover member carrying a plurality of impaling posts; a follower plate provided with slots adapted to receive the impaling posts; clamping members carried by the follower plate adapted to engage with the posts and a common operating means for such clamping members comprising a rod carrying a cam adapted to engage each clamping member to force the same against the corresponding post when the plate is in position and carrying also an operating handle extending through an opening in the follower plate and adapted to be moved toward the open ends of the slots to force the clamping members into engagement with the posts.

3. In a loose leaf binder, a cover member carrying a plurality of impaling posts; a follower plate provided with slots adapted to receive the impaling posts; clamping members pivotally supported on the follower plate and adapted to be swung into engagement with the impaling posts and a common operating means for such clamping members adapted to be moved toward the open ends of the slots in the follower plate to force such clamping members into engagement wth the posts.

4. In a loose leaf binder, a cover member carrying a plurality of impaling posts; a follower plate provided with slots adapted to receive the impaling posts; clamping members carried by the follower plate adapted to engage with the posts; a common operating means for forcing such clamping members into engagement with the posts and means whereby the thrust exerted upon such common operating means in moving the same to its operative position to force the clamping members into engagement with the posts tends to force the slotted follower plate and the posts relatively together and into engagement with the posts engaging against the bottom of the slots.

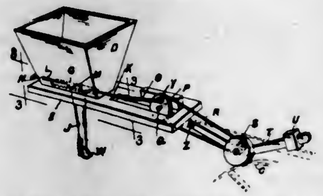
944,896. GATE-LATCH. JAMES MOORE, Myrtle Point, Oreg. Filed Mar. 10, 1909. Serial No. 482,435.



1. The combination with a gate, of a latch comprising a housing, a sliding bolt working in the housing, a spring connected to the bolt for retracting the same, and a pivoted hook engageable with the bolt for holding the same in advanced position, the gate and latch housing having apertures through which the hook is accessible to permit its operation from both sides of the gate.

2. The combination with a gate having an aperture and a slot, of a latch comprising a housing having an aperture and a slot, a bolt working in the housing, and having a pin projecting from opposite sides thereof through the slots of the gate and the housing, respectively, and a detent engageable with the bolt, said detent being exposed through the aperture in the gate and the housing.

944,897. SEED-SOWING MACHINE. JAMES H. MORRIS, Bingara, New South Wales, Australia. Filed Nov. 30, 1908. Serial No. 465,166.



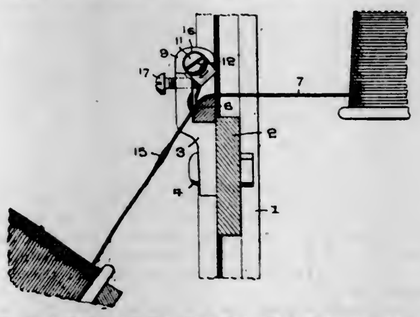
1. In a seed sower, the combination, with a seed box having a bottom provided with an unobstructed discharge opening, and means to reduce the opening to a size to be bridged by the seed in a state of rest, of a crooked feed bar arranged substantially in contact with the bottom and above the opening, and means to reciprocate said bar to agitate the seed to cause it to fall through the opening.

2. In a seed sower, the combination, with a vehicle, a seed box mounted thereon and having a bottom provided with an unobstructed seed discharge opening of a size to be bridged by the seed in a state of rest, of a crooked feed bar arranged close to the bottom and above the opening within the box, and a driving connection between the wheel of the vehicle and the bar to reciprocate the latter to agitate the seed to cause it to fall through said opening.

3. In a seed sower, the combination, with a vehicle, a seed box mounted thereon and having a bottom provided with an unobstructed seed discharge opening, and means to reduce the opening to a size to be bridged by the seed in a state of rest, of a crooked feed bar arranged close to the bottom and above the opening in the bottom, a crank disk having its crank pin connected to the bar, and a drive connection between the crank disk and the vehicle wheel whereby to reciprocate the feed bar when the vehicle is in motion to cause the seed to fall through the opening.

4. In a seed sower, the combination, with a vehicle, a seed box mounted thereon and having an unobstructed seed discharge opening, and means to reduce the opening to a size to be bridged by the seed in a state of rest, of a zig zag feed bar arranged above the opening within the box, a crank disk having its crank pin connected to the feed bar, a friction disk yieldingly held against a wheel of the vehicle, and a drive connection between the two disks whereby to reciprocate the feed bar to agitate the seed when the vehicle is in motion to cause the seed to fall through the opening.

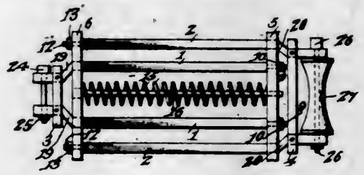
944,898. SLUB DETECTING AND REMOVING MECHANISM. WORTHINGTON E. MORTON, Shelby, N. C. Filed Apr. 5, 1909. Serial No. 488,057.



1. In a device of the class described, the combination with a bracket having an arm thereon, said arm being a quarter circle in cross section to form a bearing surface to receive a cord; of an elongated blade having an edge adapted to rest in juxtaposition to the cord, ears carried by the blade, a shaft engaging said ears and means to move said blade laterally to adjust the same with respect to said arm.

2. In a device of the class described, the combination with a bracket having an integral arm thereon; said arm being quarter round in cross section and curved upwardly at its free end; of an elongated blade, the cutting edge of which is tangentially arranged with respect to the axis of said arm, ears on said blade, a supporting shaft for said blade and a set screw adapted to swing the blade to one side of the vertical center of said shaft, whereby said blade will move by gravity away from the arm.

944,899. SPRING-CLEVIS. CHARLES MULLIN, Conway, N. D. Filed June 8, 1909. Serial No. 500,857.



1. A clevis of the class described including inner and outer reversely slidable side-bars arranged in the same plane, outer connecting bars located adjacent to the front and rear terminals of the side bars and spacing the same, front and rear inner connecting bars secured to the terminals of the inner and outer side bars, the front connecting bar being provided with openings slidably receiving the outer side bars and the inner rear connecting bar having similar openings slidably receiving the inner side bars, and a spring interposed between the inner connecting bars and arranged to be compressed by the sliding movement of the side bars.

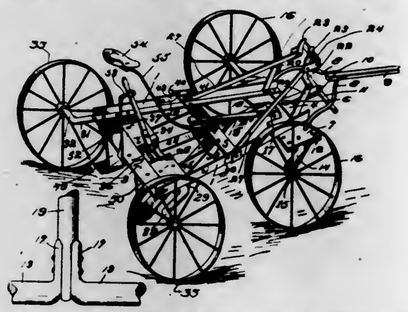
2. A clevis of the class described including inner and outer reversely slidable side bars arranged in the same plane, outer connecting bars located adjacent to the front and rear terminals of the side bars and spacing the same, front and rear connecting bars secured to the terminals of the inner and outer side bars, the front connecting bar being provided with openings slidably receiving the outer side bars, and the inner rear connecting bar having similar openings slidably receiving the inner side bars, a spring interposed between the inner connecting bars and arranged to be compressed by the sliding movement of the side bars, and a supporting rod fixed to one of the inner connecting bars and slidable through the other connecting bar.

3. A clevis of the class described including inner and outer reversely slidable bars arranged in the same plane, outer connecting bars located adjacent to the front and rear terminals of the side bars and spacing the same, front and rear inner connecting bars secured to the terminals of the inner and outer side bars, the inner front connecting bar being provided with openings slidably receiving the outer side bars, and the inner rear connecting bar having similar openings slidably receiving the inner side bars, a spring interposed between the inner connecting bars and arranged to be compressed by the sliding movement of the side bars, front and rear pins piercing the front and rear terminals of the side bars beyond the outer connecting bar, and a concave pulley mounted on the front pin.

4. A clevis of the class described including reversely slidable inner and outer side bars arranged in pairs and provided near their outer ends with angular bends, front and rear outer transverse bars connecting the side bars at the said bends, front and rear inner transverse bars secured to the inner terminals of the inner and outer side bars, the inner front transverse bar having openings slidably receiving the outer side bars and the rear inner

transverse bars being also provided with openings slidably receiving the inner side bars, a spring interposed between the inner transverse bars, a rod supporting the spring and secured to one of the inner transverse bars and slidable through the other inner transverse bar, and connecting means carried by the front and rear terminals of the side bars and located beyond the outer transverse bars.

944,900. THISTLE-ERADICATOR. OLOF MURK, Warren, Minn. Filed Mar. 15, 1909. Serial No. 483,636.



1. A machine of the character described comprising a frame, a cutter therefor, front and rear axles carried by said frame, said axles being formed in sections, the outer ends of which are provided with angular spindles, wheels mounted on said spindles, the inner ends of said sections being also angular, an adjusting lever fastened between the inner ends of the sections of each of the axles whereby either end of said frame may be adjusted.

2. A machine of the character described comprising a frame, a cutter rigid with and depending from the same, front and rear axles for said frame, wheels mounted thereon, a lever for operating each axle to raise or lower said frame, a rod extending across the intermediate portion of said frame to hold the levers in one of their frame-adjusting positions, a holding plate for the free end of said rod, and a latch for retaining said rod in engagement with said holding plate.

3. A machine of the character described comprising a frame, sectional front and rear axles carried thereby, said axles having their outer ends arranged at angles, wheels mounted upon the angular outer ends of said axles, the inner ends of said axles being flattened and bent at angles and projecting through the frame, a lever for each axle having a rigid engagement with the inner flattened angular ends thereof whereby either end of said frame may be adjusted, independent means for holding said levers in one frame adjusting position, and a swiveled rod for retaining said levers in another frame adjusting position.

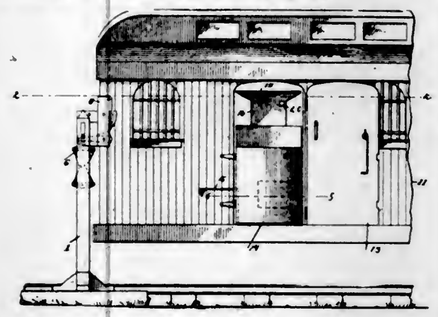
4. A machine of the character described, comprising a frame provided with a cutter, a lever for adjusting each end of the frame, independent means for holding said levers in one frame adjusting position, and common means for holding the levers in another frame adjusting position.

5. A machine of the character described, comprising a frame provided with a cutter, an adjusting lever for each end thereof, independent means for locking said levers in one frame-adjusting position, and common means for locking said levers in another frame adjusting position.

[Claims 6 and 7 not printed in the Gazette.]

944,901. MAIL-CATCHER. SAMPSON S. MCKEAND, Ceredo, W. Va. Filed Oct. 9, 1909. Serial No. 521,877.

1. In means for delivering mail, the combination of a supporting arm provided with an opening and an eye spaced from said opening, a pin adapted to be supported in said eye and opening to hold the mail bag or container in suspended position for delivery, and a pivoted arm having the pin connected therewith and adapted to be tripped to effect release of the said bag.

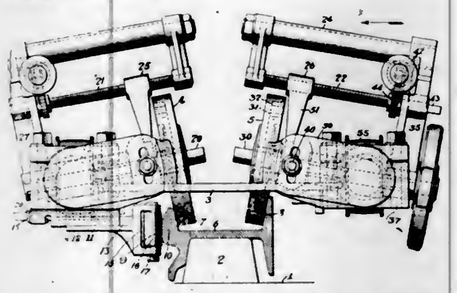


2. In means for delivering mail, the combination of a supporting arm provided with an opening, an eye fitted to said arm and spaced from the part thereof formed with said opening, a pin for holding the mail bag in suspended position supported in said eye and opening, a second arm pivoted to the supporting arm and having the pin pivoted thereto and adapted to occupy a vertical position when the pin is supporting the mail bag, and means for tripping the pivoted arm to effect release of the mail bag supported thereby.

3. In means for delivering and receiving mail, a catcher comprising a bottom and three inclosing sides, the outer side being curved approximately on the arc of a circle, and the front side being lower than the remaining two sides, and the inner side having an extension provided at its upper end with a projecting portion overhanging the catcher.

4. In combination with a postal car having a door opening, a catcher pivoted in the door opening to swing inward and outward having its outer side curved approximately on the arc of a circle, the inner side having an opening therein to admit of access to the catcher after the same has been swung outward from the side of the car, and means for holding the catcher in operative position when swung outward.

944,902. UNIVERSAL GRINDING-MACHINE. HENRY B. NICHOLS, Philadelphia, Pa. Filed Sept. 5, 1908. Serial No. 451,875.



1. A metal surfacing machine comprising a work support, a tool support, means for producing relative feed between the work and the tool, means for maintaining adjustment of the tool with respect to the work, and means for determining such adjustment consisting of a calipering device engaging the tool and not the work during the cut.

2. A metal working machine comprising a work support, a tool support and tool, means for producing relative feed between the work and the tool and means for automatically producing relative adjustment between the tool and work, as determined by and proportionate to the wear on the tool, during the cut.

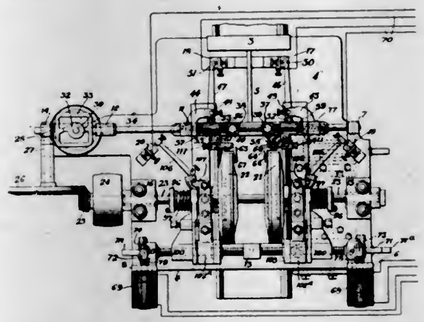
3. In a metal working machine, a work support, a tool support and tool, means for producing relative feed between the work and the tool and means for producing a uniform and unvarying cut on the work, comprising a calipering device fixed with respect to the work and engaging the tool, together with a relative adjustment between the tool and work controlled by said calipering device, during the cut.

4. A grinding machine comprising a bed, a work support thereon adapted for sliding feed of the work, a superposed frame carrying a guide for the work, and adjustable grinding means mounted on said frame.

5. A grinding machine comprising a bed, a work support thereon, a superposed frame, guide rolls carried on said frame to maintain the work in proper alinement, a bracket pivotally mounted on the frame for angular adjustment of the cutting surface, journal bearings on said bracket, a spindle journaled therein, a grinding head mounted on said shaft, and means for locking the bracket to the frame when angularly adjusted.

[Claims 6 to 36 not printed in the Gazette.]

944,903. GRINDING-MACHINE. HENRY B. NICHOLS, Philadelphia, Pa. Filed Jan. 14, 1909. Serial No. 472,236.



1. In a metal working machine, a work support, a tool and tool support, means for producing relative feed between the work and the tool, means for advancing the tool during the cut as it wears, and a feed control continuously responsive to said advancement.

2. In a metal working machine, a work support, a tool and tool support, means operative during the cut for automatically producing initial movement of the tool as it wears, means for producing a secondary movement or feed of the tool, and means responsive to the initial movement, governing the secondary movement.

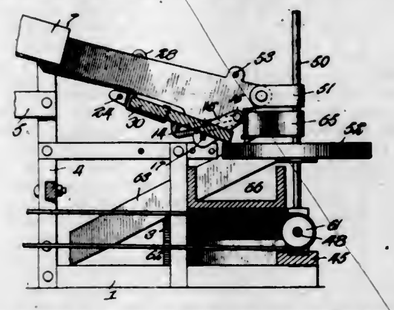
3. In a metal working machine, a work support, a tool and tool support, means for driving the tool, means for feeding the same, and an automatic caliper governing said feed, said caliper determining wear on the tool by contact with a portion of its surface other than the cutting face or edge.

4. A grinding machine, having a work support with longitudinal feed, a tool support and a grinding head thereon provided with lateral feed, and an automatic caliper governing the lateral feed and responsive to wear on the wheel as determined by contact with the back thereof.

5. A grinding machine having a work support with longitudinal feed, a tool support and a grinding head thereon with lateral feed, an automatic caliper coöperating with said head to insure a uniform cut, and means acting automatically to disable the feed devices when there is no work in the machine.

[Claims 6 to 11 not printed in the Gazette.]

944,904. SLATE-PICKER. WILLIAM J. OWENS, Scranton, Pa., assignor of one-half to Frank Longo, Scranton, Pa. Filed July 2, 1909. Serial No. 505,619.



1. An apparatus of the class described, comprising a fixed inclined chute, angularly adjustable retarding means communicating with the chute, a pair of horizontally disposed oppositely revoluble conveying disks located forwardly of the retarding means, sliding gates carried by the chute and located rearwardly of the said retarding means, and means for sliding the gates in opposite directions.

2. An apparatus of the class described comprising an inclined chute, angularly adjustable retarding means communicating with the chute, an angularly adjustable plate carried by the retarding means, a pair of closely associated conveying disks forwardly of the said plate, said disks being spaced from the plate so as to form an exit passage, a trough communicating with the said exit passage, and troughs communicating with the disks.

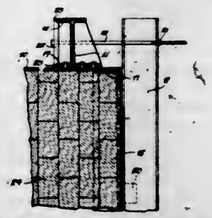
3. An apparatus of the class described comprising horizontally disposed revoluble conveying disks, chutes communicating with the disks, sweeps coöperating with the disks, and an adjustable retarder located adjacent to the disks.

4. An apparatus of the class described comprising horizontally disposed oppositely revoluble conveying disks, chutes communicating with the disks, an inclined chute, an adjustable retarder carried by the chute and having its lower end disposed slightly above the said disks, and sliding gates carried by the chute and located immediately at the rear of the said adjustable retarder.

5. An apparatus of the class described comprising horizontal revoluble conveying disks, chutes communicating with the disks, a material feeding chute, an adjustable retarding member at the forward end of the chute, and an adjustable plate carried by the said retarder and disposed in juxtaposition to the said disks.

[Claims 6 to 12 not printed in the Gazette.]

944,905. METALLURGIC CONVERTER. WILLIAM H. PEIRCE, Baltimore, Md. Filed Nov. 8, 1909. Serial No. 526,863.



1. A metallurgic converter comprising a cylindrical shell provided with an expansible lining and with heads held in position to support the lining, but shiftable outwardly relatively to the shell in correspondence with the expansion of the lining.

2. In a metallurgic converter, the combination with a cylindrical shell having an expansible lining, of a flanged head telescopically engaging said shell, and means for adjustably connecting said head to said shell to permit the outward movement of the head as the lining expands.

3. In a metallurgic converter, the combination with a cylindrical shell provided with a lining free to expand within the shell under the influence of high heat, of a head for the end of said shell and yielding connections between said head and said shell permitting the shift of said head relatively to the shell as the lining expands.

4. In a metallurgic converter, the combination with a cylindrical shell provided with a lining free to expand within the shell under the influence of high heat, of a flanged head telescopically engaging the end of said shell and yielding, adjustable connections between said head and said shell permitting the outward movement of the head in correspondence with the expansion of the lining.

5. A metallurgic converter comprising a cylindrical shell rotatably sustained in horizontal position and open at its upper side, an inner, continuous lining arched over at the top and free to expand under the influence of heat, flanged heads telescopically engaging the ends of said shell, and adjustable, yielding connections between said heads and said shell, substantially as described.

[Claims 6 to 12 not printed in the Gazette.]

944,906. DETACHABLE RIM FOR PNEUMATIC TIRES. PIETRO PETRACCHI, Varese, Italy. Filed Oct. 18, 1906. Serial No. 339,424.



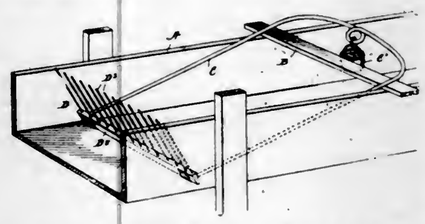
1. A detachable rim for pneumatic tires, divided in its medial portion along a plane perpendicular to its axis, each part provided with means to hold the outer tire-tube, the inner face of the two-part rim being beveled at an inclination to the axis, an annular wedge member arranged to fit between the beveled interior face of the rim and the cylindrical outer face of the felly, and means bearing from opposite directions against the thicker edge of the rim and the wedge member to lock the same together and to the felly.

2. A detachable rim for pneumatic tires, divided in its medial portion along a plane perpendicular to its axis, the inner face of the two-part rim recessed transversely at intervals, and tie-bolts arranged in the recesses to bind the two parts of the rim together independent of the wheel.

3. A detachable rim for pneumatic tires, divided in its medial portion along a plane perpendicular to its axis, the inner face of the two-part rim recessed transversely at intervals, and tie-bolts provided with a head at one end and hinged at the other end to one of the rim members, and arranged to lie in the recesses to clamp the two parts of the rim together between the hinged end and the head.

4. A detachable rim for pneumatic tires, divided in its medial portion along a plane perpendicular to its axis, each part provided with means to hold the outer tire-tube, the inner face of the two-part rim beveled at an inclination to the axis and recessed transversely at intervals, tie bolts provided with a head at one end and hinged at the other to one of the rim members and arranged to lie in the recesses to clamp the two parts of the rim together between the hinged ends and the heads, an annular wedge member arranged to fit between the beveled inner face of the rim and the outer face of the felly, and bolts arranged in the felly and overlapping at their extremities the thicker edge of the rim and of the wedge member to bind the whole firmly together.

944,907. SCREEN FOR IRRIGATING-DITCHES. THOMAS A. POWERS, Slack, Wyo. Filed June 9, 1909. Serial No. 501,020.



1. The combination of a ditch or flume, a screen comprising a base bar extending from side to side of the ditch or flume and hinged thereto and provided with projecting slats or bars inclining toward their upper ends normally in a direction down stream and adapted to be pressed down to approximately a horizontal position to permit the passage of debris and the like, a lever extending upwardly and rearwardly from the screen, and a bar extending across the flume and forming a rest for the lever when the parts are in normal position, and a weight for the lever, substantially as set forth.

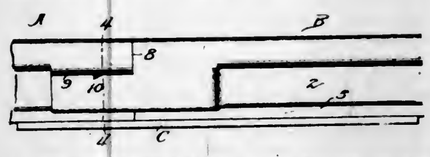
2. The combination of a ditch, a screen having a base bar extending across and hinged to the ditch and provided with bars or slats extending outwardly from the base bar and having a general inclination toward their upper ends, a lever extending from the base bar, and a weight operating upon the lever, substantially as set forth.

3. The combination of a ditch, a bar extending across the ditch, a screen hinged at its lower end and inclining toward its upper end down stream, and a lever arm fixed to the screen and resting normally upon the cross bar, substantially as set forth.

4. The combination of a screen proper provided with a base bar hinged at its lower edge, and a counterbalancing arm projecting from the screen proper and adapted to readjust the same after the passage of debris and the like.

5. A screen for ditches comprising a base bar having projecting rods or slats, and a counterbalance having arms secured to the base bar near the ends of the latter and extending thence and adapted to counterbalance the screen whereby to readjust the same to normal position, substantially as set forth.

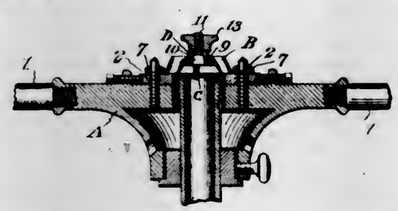
944,908. RAIL-JOINT. MALCOLM RAYMOND, Waverly, N. Y. Filed May 16, 1908, Serial No. 433,287. Renewed May 27, 1909. Serial No. 498,684.



1. The combination of a pair of rail sections connected together by relative longitudinal movement, the head of each section adjacent the end thereof having an under face inclined downwardly and outwardly from one side of the web of the section and approximately parallel with the top surface of the base of the section and each section having a longitudinally extending tongue connected with the web thereof and of such vertical dimension as to fit between the inclined face of the head of the opposite section and the base thereof, the top face of the tongue being inclined to interlock with the inclined part of the head to prevent lateral separation of the rail sections.

2. A rail joint comprising the meeting ends of two adjacent rail sections each rail comprising a head, a web, and a base, each head having one side formed with a downwardly-inclined shoulder at its bottom substantially parallel with the top surface of the base immediately under the same, longitudinally-extending tongues off-set from the webs and having their top and bottom surfaces arranged to fit the said shoulders of the heads and bases of the sections, said sections having inclined abutting surfaces extending inwardly from the inner ends of the tongues at an inclination to the length of the section and extending from one side of the web to the other and from the top to the bottom of the section, the tongue of one section being interlocked with the other section by relatively longitudinal movement.

944,909. PIPE-REAMER ATTACHMENT FOR THREADERS. GEORGE REED, Pittsburg, Pa. Filed Jan. 5, 1909. Serial No. 470,765.



1. An attachment for die stocks comprising a frame provided with a slot, a slidable holder having lugs engaging in the slot and provided with an aperture, a cutter extending through the slot and said aperture and having a portion engaging the frame, and clamping means for securing the holder and cutter in adjusted position in the slot.

2. An attachment for die stocks comprising a frame provided with oppositely-inclined spaced walls, a holder slidably mounted on the frame and guided by the said walls, a cutter provided with a wedge portion arranged to frictionally engage the said walls and having a stud passed through the holder, and means mounted upon said stud for clamping the cutter and holder in fixed position.

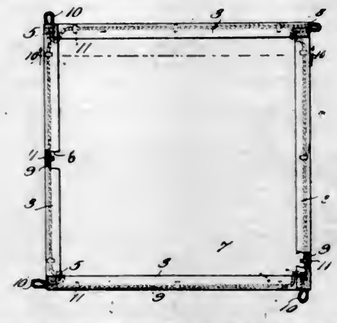
3. An attachment for die stocks comprising a frame having a transversely extending slot formed with undercut walls, a holder slidably mounted upon the frame and comprising a plate having an opening therein, and having lugs at opposite sides of the opening entering the slot of the frame, a cutter having a wedge portion engaging the undercut walls of the slot provided in the frame and formed with a threaded stud passing through the opening in the plate of the holder, and a clamp nut mounted upon the threaded stud of the cutter to secure the latter and the holder to each other and to the frame.

944,910. SOFA-PILLOW COVER. FRANK A. REILLEY, New York, N. Y. Filed Apr. 9, 1909. Serial No. 488,861.

1. A pillow comprising a lower side, an upper side secured thereto, the lower side being provided with flaps turned down upon the upper side, said flaps forming a channel, a top having its edges disposed in the channel, and means securing the top in applied position.

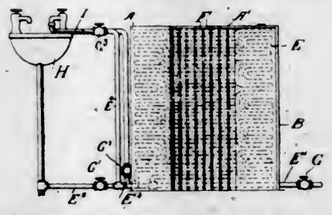
2. The combination with a pillow, of an artistic panel therefor, a bead secured to the panel and formed to provide ornamental loops, and clips securing the panel in applied position.

3. The combination with a pillow provided with a channel, of a top having its edges disposed in the channel, and



clips secured in the channel, said clips engaging the top to retain it in applied position.

944,911. BATH-CABINET. ALOIS B. RENEHAN, Santa Fe, N. Mex. Filed May 23, 1908. Serial No. 434,553.



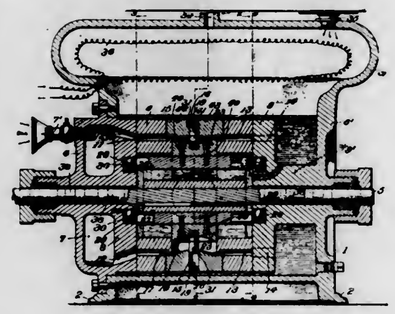
1. In a bath cabinet, the combination with a suitable casing, having a small vertical segment of its lateral wall hinged as a door, of a continuous pipe carried back and forth along the interior face of the unhinged portion, and having two valved inlet pipes and two valved discharge pipes, one inlet and one discharge being adapted for flexible connection; whereby the apparatus is adapted for use as a fixture or as a portable cabinet without change.

2. In a bath cabinet, the combination with a casing having a vertical segment of its wall hinged as a door, of a pipe carried back and forth around the inner face of the unhinged portion, from one end of the casing to the other end thereof and again to the end first mentioned, all turns of the coil so formed being vertically over all lower turns, and a series of vertical slightly separated heat-insulating strips lying just within the coil; whereby the inlet and outlet ends of the coil are at the same end of the casing and the space occupied by the coil wall equals in width the diameter of the pipe.

3. In a bath cabinet, the combination with a suitable casing, of a hinged door in the lateral wall of the casing, a pipe coiled within and adjacent to the casing without crossing the door space, non-conducting, slightly separated parallel strips preventing contact with the inside of the coil, two valved inlet pipes at one end of the coil, and two valved outlet pipes at the other end thereof; whereby two sources of supply and two discharges are independently available.

4. In a bath cabinet, the combination with a casing having a portion of its lateral wall hinged to the remainder to form a door extending to the top of the cabinet, and provided with a top having a central opening and a vertically swinging portion normally extending from the door to said central opening, a pipe coil within the cabinet and passing back and forth along its wall without crossing the door space or itself, non-conducting strips protecting the inner side of the coil, two supply and two discharge pipes connected with the coil and a valve for allowing the coil to discharge within the casing when desired.

944,912. ROTARY AIR AND GAS PUMP. LEBBEUS H. ROGERS, New York, N. Y. Filed Feb. 7, 1906. Serial No. 299,968.



1. In a rotary compressor or pump, the combination of a casing, a compression drum revoluble therein and provided with reciprocating pistons, the rears of said pistons being subject to the pressure within the said cylinder and means for maintaining an area of atmospheric pressure on the face of each piston.

2. In a rotary compressor or pump, the combination of a cylinder, a compression drum therein provided with radial piston channels having openings at the ends of said drum, pistons in said channels, the rear faces of said pistons being subject to the pressure within the casing and means for applying atmospheric pressure to the front face of each piston on its compression stroke.

3. In a rotary compressor or pump, the combination of a casing having an oil compartment therein, a revoluble piston carrying drum in said casing, a conduit leading oil to the rear of said pistons from said compartment, and means for the application of atmospheric pressure to the face of each piston on its compression stroke.

4. In a rotary compressor or pump, the combination of a casing, an oil receiving dome thereon, a compression drum revoluble in said casing, reciprocating pistons in said drum, the rear faces of said pistons being subject to the pressure within the casing and means for applying the atmospheric pressure to the front face of each piston on its compression stroke.

5. In a rotary compressor or pump, an integral cast-metal drum having piston channels therein opening at the ends of said drum and air chambers communicating with each other and having openings in one face of said drum and in operative relation to said piston channels.

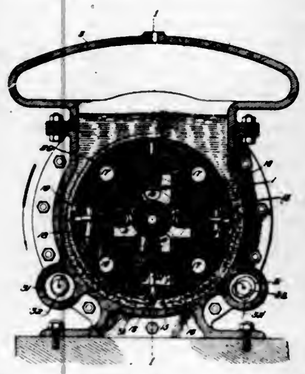
[Claims 6 to 24 not printed in the Gazette.]

944,913. ROTARY AIR OR GAS PUMP. LEBBEUS H. ROGERS, New York, N. Y. Filed Mar. 30, 1906. Serial No. 309,001.

1. In a rotary air or gas pump, the combination of a casing, a revoluble shaft having bearings in the walls of said casing, a piston carrying drum mounted on said shaft and a pressure shield over a portion of the drum surface for relieving the fluid pressure in the casing on said surface, and balancing the fluid pressure within the casing against the thrust of the shaft on its bearings.

2. In a rotary air or gas pump, the combination of a casing, a piston carrying drum in said casing, a revoluble shaft for said drum and a pressure shield over a portion of the drum surface for relieving the fluid pressure in the casing on said surface and balancing said pressure against the thrust of the said shaft.

3. In a rotary air or gas pump, the combination of a casing, a drum in said casing having counter-sunk ends, pistons in said drum, a revoluble shaft on which the drum is mounted and a shield for relieving the fluid pressure in the casing on a portion of said drum and balancing said pressure against the thrust of the said shaft.



4. In a rotary air or gas pump, the combination of a casing, a drum therein having piston channels and pistons therein, a shaft revolubly supporting said drum out of contact with the walls of said casing, and a pressure shield over a portion of the drum surface for relieving the fluid pressure within the casing on said surface and balancing said pressure against the thrust of said shaft.

5. In an air or gas pump, the combination of a casing, a revoluble drum in the same out of contact with the casing having piston channels and pistons therein, shaft bearings in opposite walls of said casing, a revoluble shaft provided with an air supply duct and having its ends supported in said bearings and fast to said drum, valve-controlled passages connecting said piston channels with said air duct and with the interior of said casing.

[Claims 6 to 14 not printed in the Gazette.]

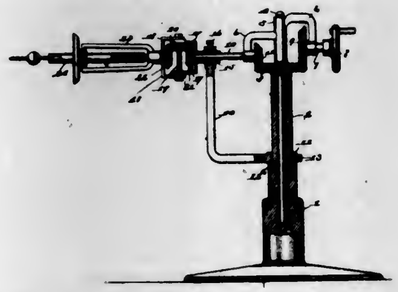
944,914. FUNNEL. JOHN F. RUGG, Ottumwa, Iowa. Filed Apr. 29, 1907. Serial No. 370,935.



1. A funnel comprising a conical body provided at its smaller end with a reduced discharge tube, and an elongated supporting plate bent intermediately of its ends to provide an approximately inverted V-shaped support having an opening in its apex to receive the discharge tube and provide a seat for the lower end of the funnel body, the legs of said support being of a length sufficient to support the body portion of the funnel above the container to which it is applied and spaced a sufficient distance to provide for the free passage of the air through the bung-hole or other opening, the latter being of larger diameter than the discharge pipe.

2. A funnel support comprising a plate bent intermediately of its ends into an approximately inverted V-shape and having an opening in its apex for the insertion of the funnel spout and to provide a seat for the funnel body the legs of said support being sufficiently long to support the funnel body above the container and to permit a free passage of air therebetween.

944,915. DRILLING-MACHINE. LITFALLAH G. SABBAG, Boston, Mass. Filed Dec. 9, 1907. Serial No. 405,792.



A device of the kind described comprising a base standard, a beveled gear wheel carried by said base, bracket arms rotatably mounted above said standard, beveled gears carried by said arms meshing with the beveled gear carried by the standard, means for driving one of said gears, an angled arm rotatably mounted upon the standard, a rotatably adjustable sleeve carried by said arm, a shaft mounted loosely in said sleeve, one of the beveled gears above mentioned being mounted on said shaft, brackets carried by the sleeve, bracket arms pivotally connected to said first mentioned brackets, a brace and bit carried by the last mentioned brackets, and means for imparting rotation to the bit from the said shaft.

944,916. SIGHT FOR FIREARMS. LOUIS B. SHEPARD, Cedar Rapids, Iowa, assignor to C. Chambers Inskeep Co., Cedar Rapids, Iowa, a Corporation. Filed Nov. 27, 1908. Serial No. 464,662.

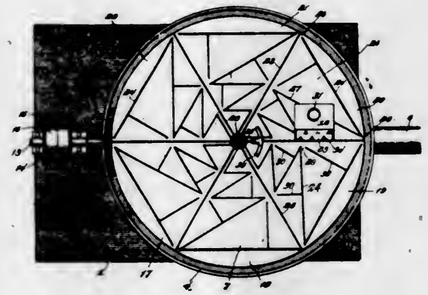


A lens sight for firearms consisting of a tube, containing a lens; a means for holding a lens in said tube; a movable support for said tube comprising a hinge and a pliable band which is attached to the barrel of the gun near the muzzle; in combination with a short lens tube, containing a lens, and a means of attaching same to a peep sight at the rear, substantially as shown and described.

944,917. ORE-CONCENTRATING TABLE. THOMAS W. SCOTT, Morenci, Ariz. Filed Sept. 30, 1908. Serial No. 455,391.

1. An ore concentrator comprising a base frame having an annular track, a launder disposed above said track and provided with an outlet at its lower portion and with an opening in its bottom above the track, a rotary table arranged within the launder, the track, launder and table being inclined at an angle to the horizontal, and said table embodying a series of segmental faces each provided with irregularly arranged riffles and being inclined between their outer and inner edges at an angle to the horizontal, a frame extending downward from said table through the opening in the launder and provided with wheels arranged to travel upon said track, gearing connected with the frame for rotating the table, means for discharging a stream of water upon the surface of the table adjacent to the concentrates outlet and on a radial line between the same and the tailings outlet, and means for feeding the material to be treated to the lowermost portion of the table below said water supplying means and on the radial line between the same and the tailings outlet.

2. An ore concentrator comprising a base frame having an annular track inclined to the horizontal, a launder arranged at a corresponding angle above the same and provided at its lowest portion with an outlet for the tailings and in its bottom with an opening arranged above the track, a dished concentrating table arranged to rotate within the launder and inclined at a corresponding angle, said table having a series of sector-like surfaces inclined at an angle to its plane of rotation and provided with a central outlet for the concentrates, each of said surfaces being provided with irregularly arranged riffles, a frame depending from the table through the bottom opening in the launder and provided with wheels arranged to travel said track, gearing connected with said frame for rotating the table, means for discharging a stream of water upon the surface of the table adjacent to the concentrates outlet and on a radial line between the same and the tailings outlet, means for feeding the material to be treated to the lowermost portion of the table below the water supplying means and on the radial line between the same and the tailings outlet, a discharge pipe for the concentrates extending upward between the track and depending frame and communicating with the outlet in the table, and a valve controlling said outlet.



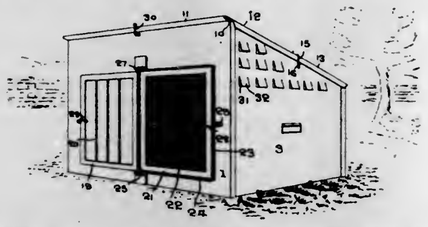
3. An ore concentrator embodying an inclined rotary table adapted for the peripheral discharge of the tailings and having a central discharge outlet for the concentrates, said table being of dished form and composed of a series of sector-like portions inclined at an angle to the plane of rotation of the table, each of said portions being provided with an outer transverse riffle, an inner zigzag riffle, and partitions between and subdividing the space between the riffles into a plurality of communicating divisions.

4. An ore concentrator embodying an inclined rotary table adapted for the peripheral discharge of the tailings and having a central discharge outlet for the concentrates, said table being of dished form and composed of a series of sector-like portions inclined at an angle to the plane of rotation of the table, each of said portions being provided near its periphery with a transverse riffle and a zig-zag groove or riffle, and dividing radial riffles between the said portions of the table, said riffles being arranged to provide each portion with a substantially triangular space or chamber divided by the zig-zag riffle and having discharge outlets between the ends of the transverse riffle and the adjacent radial riffles.

944,918. CHICKEN BROODER OR COOP. ELLA M. SELZER, Morning Sun, Iowa. Filed Mar. 16, 1909. Serial No. 483,751.

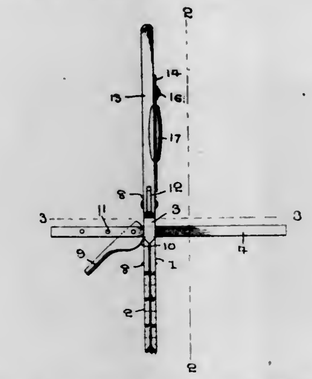
A device of the character described, comprising a casing having an entrance-opening, opposite brackets arranged laterally of said entrance-opening near the bottom and top corner edges thereof, a closure for said entrance-opening having outstanding upper and lower flanges, additional closures for said entrance-opening adapted to be received

between the flanges of the aforesaid closure, said closures having pintles, said brackets having opposite openings



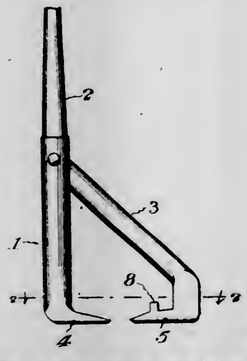
therein, said pintles being received at their upper and lower ends within said openings.

944,919. COMBINED SUPPORT, GAGE, AND MARKING DEVICE. WILLIAM H. SITTON, Hobart, Okla. Filed July 13, 1909. Serial No. 507,298.



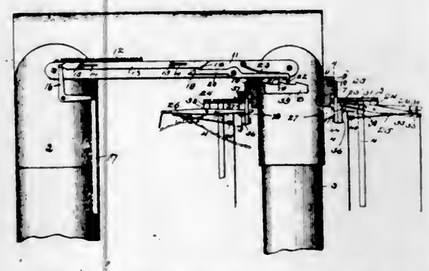
A device of the class described comprising the combination with a body having graduations thereon and prongs on said body; of a clamping bar extending laterally through said body, said bar having a lateral extension, a prong on said extension and a lever adjustably mounted on said bar, said lever having a cam face adapted to engage the body and clamp the extension and body in engagement with an object.

944,920. SPIKE-PULLER. DREW SMITH, Kellerman, Ala. Filed Jan. 14, 1909. Serial No. 472,386.



A device for drawing spikes embodying a main inner shank, an outer rigid shank extending at an angle thereto and adapted to straddle a railroad rail and having feet with claws at the lower ends of said shanks, said claws facing toward each other and being adapted to operate in the same horizontal plane to extract alternately the spikes at opposite sides of the rail, the inner foot embodying a V-shaped spike-receiving space and the outer foot being divided throughout its length and adapted to receive the spike between the divided portions thereof, whereby the spikes on both sides of the rail may be withdrawn without removing the device from its position astride the rail.

944,921. STOP-MOTION FOR KNITTING-MACHINES. BERNARD T. STEBER, Utica, N. Y., assignor to The Steber Machine Company, Utica, N. Y., a Corporation of New York. Filed Aug. 26, 1907. Serial No. 390,240.



1. In a mechanism of the class described, the combination with power governing devices for a knitting machine, of a rotating element connected with the moving parts of the knitting machine and rotating therewith, a normally stationary rotary element, yarn governed means for transmitting movement from the rotating element to the rotary element, and means controlled by the rotary element for actuating the power governing devices for cutting off the supply of power to the knitting machine when the rotary element is moved said last mentioned means including a spring controlled slidably mounted bar, and a hooked lever engaging said bar and said normally stationary rotary element.

2. In a mechanism of the class described, the combination with devices for governing the power supply to a knitting machine, of a rotating element connected with the moving parts of said machine and rotating therewith, a normally stationary rotary element, means for transmitting movement from the rotating element to the rotary element either when the yarn is broken or becomes taut, and means governed by the movement of the normally stationary rotary element for cutting off the power supplied to the knitting machine when the said normally stationary element is moved said last mentioned means including a spring controlled slidably mounted bar, a lever having a hook on each end, said lever engaging the bar and said normally stationary rotary element.

3. In a mechanism of the class described, the combination with a rotating plate, means connecting the same with the rotating parts of a knitting machine, a lever pivotally carried by said plate, a yarn support adapted to sustain the yarn in position for normally supporting said lever in a given position, the lever being adapted when not thus supported to move from such position, and means actuated by said lever when thus moved for stopping the operation of the knitting machine with which the said plate is connected said last mentioned means including a rotary toothed ring, a hooked lever engaged thereby and a spring operated slidably mounted bar engaged by the lever.

4. In a mechanism of the class described, the combination with power governing means for a knitting machine, of a lever adapted to be sustained by the yarn being fed to said knitting machine, said lever being pivotally mounted and overbalanced so as to move upon its pivot when not sustained by the yarn, and means actuated by said lever when the lever swings upon its pivot for stopping the operation of the knitting machine said last mentioned means including a rotary toothed ring, a hooked lever engaged thereby and a spring operated slidably mounted bar engaged by the lever.

5. In a mechanism of the class described, the combination with power governing devices for a knitting machine, of a pivotally mounted lever overbalanced on one side of its pivot, the said lever being adapted to be engaged by a yarn fed to the knitting machine for retaining the lever in an approximately horizontal position, whereby said lever is adapted when not in engagement with said yarn to swing toward a vertical position, and means actuated by the lever when swung upon its pivot for releasing the power governing devices for stopping the operation of the knitting machine said means including a rotary ring having teeth upon its upper and lower edges and an internal supporting flange, mechanism for connecting said lever and ring, a pivoted lever and a sliding bar transmitting motion from the ring to the power governing devices.

[Claims 6 to 17 not printed in the Gazette.]

944,922. TURPENTINE-APRON. TERRELL H. STONE, Indian Pass, Fla. Filed Apr. 20, 1909. Serial No. 491,030.



1. In a device of the class described, an apron consisting of sheet material bent to form a trapezoidal bottom, and sides wider at the base of the bottom than at the apex, the upper corner of each of said sides being bent downward for the purpose set forth.

2. An apron of sheet material bent to form a chute wider at one end than at the other, the sides of the chute having their corners adjacent the wide edge of the chute bent downward to form points for the purpose set forth.

3. An apron of sheet material bent to form a chute wider at one end than at the other, the sides of the chute having their corners adjacent the wide edge of the chute bent downward to form points for the purpose set forth, the sides of the chute being arranged at an obtuse angle to the bottom.

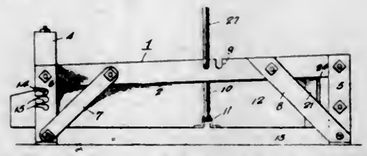
944,923. WRENCH. JOHN W. SULLIVAN, Edmonton, Alberta, Canada. Filed Apr. 14, 1909. Serial No. 489,778.

1. A wrench consisting of a handle, a rigid jaw having a flat faced shank fitting within said handle, spaced ears projecting from said handle, a spring actuated pawl pivotally mounted between said ears, said pawl having one of its longitudinal faces ribbed or serrated, a movable jaw slidably mounted on the flat faced shank of the rigid jaw, an extension projecting downwardly from said movable jaw, one face of said extension being flat and adapted to lie against the flat face of the rigid jaw shank, and the opposite face of the extension having ribs or serrations corresponding to the ribs or serrations of the pivoted pawl and lying adjacent to the serrated face of the pawl.



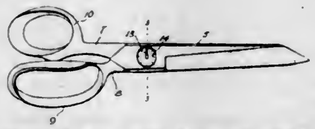
2. A wrench consisting of a handle member having a socket in its upper end, a rigid jaw member having a shank fitting within said socket, a movable jaw member slidably mounted on said shank, a serrated extension extending downwardly into said socket and alongside the shank of the rigid jaw, spaced ears projecting from the handle member, a pawl pivotally mounted between said ears and having a serrated vertical face adapted to engage the serrated extension of the movable jaw, and coiled springs seated within the pawl and engaging said pawl and the handle respectively.

944,924. CONCENTRATOR. EPHRAIM B. THOMAS, Santa Rosa, Cal. Filed Jan. 27, 1909. Serial No. 474,464.



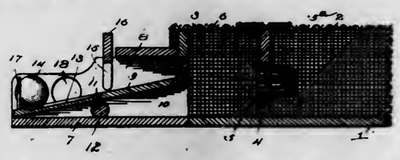
A concentrator comprising a frame having end uprights and inclined and slotted side bars, a bumping concentrating table, a notch therein, a crank adapted to engage the slots and the notch to adjustably support the table, notches in the front uprights, a crank for adjustably supporting the forward end of the table, by engagement with the notches on the uprights, a cushioned bumper at the rear end of the table, and means constituting an extension of the first mentioned crank for reciprocating the table whereby the concentrates are caused to travel in a direction opposite to their feed.

944,925. MEASURING ATTACHMENT FOR SCISSORS. JESSIE T. TIPPERY, Bloomfield, Nebr. Filed Aug. 4, 1909. Serial No. 511,149.



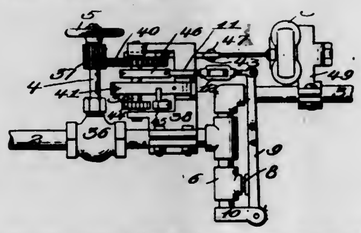
In a scissors a shaft upon which the blades are journaled, a dial combined with one of the blades and surrounding the shaft, an indicator hand combined with the shaft and disposed over the face of the dial and means operable on the closing of the blades serving to move the indicator hand to register the length of cut made by the blades.

944,926. RAT-TRAP. LYCURGUS S. TURNBO, Maud, Tex. Filed Jan. 4, 1909. Serial No. 470,739.



In a trap, an entrance chamber, a retention chamber, an intermediate chamber, a partition separating the intermediate and retention chambers, a funnel-shaped resilient passageway carried by the partition and opening into the retention chamber, a pivoted platform, a stop arranged in front of the intermediate chamber and with which one end of the platform contacts, a ball for retaining the platform normally in engagement with the stop, and a partition arranged slightly in advance of the pivotal point of the platform, and provided with an entrance arranged to be closed by the ball when the platform is tilted by an animal entering the trap.

944,927. AUTOMATIC VALVE-OPERATING MECHANISM. CHARLES WALKER, Charleston, S. C. Filed July 24, 1908. Serial No. 445,245.



1. Automatic valve operating mechanism of the class described comprising a fluid-controlling valve, an actuating spring constantly acting on said valve to close it, a detent for normally preventing operation of said valve under the influence of its operating spring, a vent valve, means connecting the controlling and vent valves whereby a closing of one valve under the action of said spring will automatically effect an opening of the other, and means for releasing said detent to permit operation of the valves.

2. Automatic valve operating mechanism comprising a fluid-controlling valve having a rotatable spindle for opening and closing it, a spring acting on said spindle and tending to close said valve, a detent to prevent rotation of the valve spindle under the influence of its actuating spring, a vent valve adapted to be opened by the action of said spring, electromagnetically-controlled means for releasing the detent, and a thermally-influenced circuit controller for controlling the operation of the releasing means according to temperature conditions.

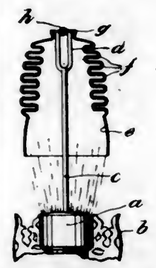
3. Automatic electrically controlled valve operating mechanism comprising a fluid controlling valve having a rotatable spindle for opening and closing the same, a spring operatively connected to the valve spindle and serving to actuate the same, a vent valve also operable by the action of said spring a detent for normally preventing operation of the valve spindle under the influence of said spring, an electro-magnet adapted to release the detent, and a thermally influenced circuit controller connected electrically to said magnet for controlling the operation of the detent.

4. Automatic electrically controlled valve operating mechanism comprising a fluid controlling valve having a rotatable spindle, a support arranged at one side of the valve spindle, a spring connected to rotate the valve spindle and attached to said support, a detent pivoted on said support and arranged to retain the valve in a predetermined position, a second valve having means for opening it while said fluid controlling valve is being closed an electro-magnet mounted in coöperative relation with the detent so as to release the same when energized and a thermally influenced circuit controller connected in circuit with said magnet and serving to energize the same when a predetermined temperature exists.

5. Automatic valve operating mechanism comprising a fluid controlling valve provided with a rotatable spindle, an actuating spring connected to act on the spindle, a vent valve operatively connected to the spindle of the fluid controlling valve a detent for normally preventing operation of the valve spindle under the influence of said actuating spring, means for automatically releasing said detent, and a ratchet mechanism for preventing retrograde movement of the valve spindle during the setting thereof.

[Claims 6 to 11 not printed in the Gazette.]

944,928. INCANDESCENT MANTLE FOR GAS-BURNERS. MAX WEICKERT, Plauen, Germany. Filed June 19, 1909. Serial No. 503,241.



1. The combination of an extensible incandescent mantle for gas burners, with a metallic sleeve adapted to surround the eye of the mantle and to melt, after the lamp-cylinder has been mounted on the burner, substantially as described.

2. The combination of an incandescent mantle provided with folds, with a metallic sleeve adapted to surround the asbestos-eye of the mantle and to melt, after the cylinder has been mounted on the burner, substantially as described and for the purpose specified.

3. The combination of an extensible incandescent mantle for gas-burners with a metallic coil forming a sleeve around the eye of the mantle and adapted to melt in the heat of the flame after the mantle has been mounted on the burner, substantially as described.

944,929. SCRAP-BUNDLER. FELIX WESTWOOD, Wheeling, W. Va. Filed May 8, 1909. Serial No. 494,841.



1. In a scrap bundler, the combination of a receptacle; a follower arranged to fit therein; a clamping member arranged for engagement with the follower; and a cam lever pivotally supported with relation to said member for retaining the same in operative position.

2. In a scrap bundler, the combination of a receptacle; a follower arranged to fit therein; a clamping member arranged for engagement with the follower; a member pivotally supported with relation to the clamping member; and a flexible element arranged for connection with the second-named member and for coöperation with the same to hold said clamping member in operative position.

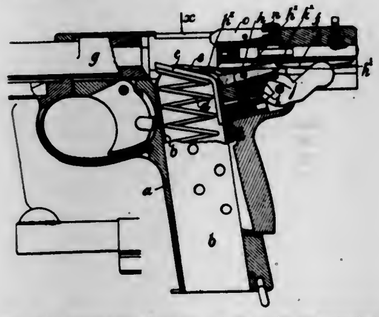
3. In a scrap bundler, the combination of a receptacle; a presser member arranged to fit therein; and mechanism including a clamping member and a cam lever associated therewith for operating the presser member and retaining the same in position.

4. In a scrap bundler, the combination of a receptacle; a presser member arranged to fit therein; a pivotally mounted clamping member arranged for swinging movement across the receptacle from one side thereof to the other and into engagement with the presser member; and mechanism associated with said clamping member for effecting such movement thereof and for retaining it in operative position.

5. In a scrap bundler, the combination of a receptacle; a presser member arranged to fit therein; a pivotally-mounted clamping member arranged for movement into position to engage the presser member; a lever pivotally supported with relation to the clamping member and provided with an annular cam; and a flexible element connected at opposite ends with the receptacle and the cam and arranged to be wound around the latter during the movement of the lever in one direction to coöperate with said lever in retaining said clamping member in operative position.

[Claims 6 to 11 not printed in the Gazette.]

944,930. AUTOMATIC PISTOL AND RIFLE. WILLIAM J. WHITING, Handsworth, near Birmingham, England. Filed Apr. 9, 1909. Serial No. 488,916.



1. In an automatic firearm of the class embodying a reciprocatory breech block, a magazine having a cartridge feeding spring, and a latch for locking the breech block from movement after the cartridges have been exhausted from the magazine, said latch being automatically moved into an unlocked position by the engagement therewith of the topmost cartridge contained in the magazine during the insertion of a charged magazine.

2. In an automatic firearm of the class embodying a reciprocatory breech block, a magazine having a cartridge feeding spring, and a latch normally tending to lock the breech block in open position and after the cartridges have been exhausted from the magazine, said latch having a part adapted to be engaged by the topmost cartridge contained in the magazine and automatically tripped thereby upon the insertion of a filled magazine, the said latch being also held in an inoperative or tripped position under the influence of the cartridge feeding spring of the magazine.

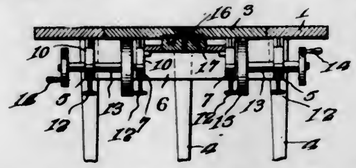
3. In an automatic firearm, the combination of a barrel, a reciprocatory breech block, a magazine having a cartridge feeding spring, and a latch having a spring for moving it into an operative position to lock the breech block, said latch having a part constructed and arranged to be engaged by the topmost cartridge in the magazine during the insertion of the latter to unlock the breech block, the cartridge feeding spring of the magazine being of a strength greater than that of the latch spring and acting upon the latch through one or more cartridges in the magazine to retain said latch in an inoperative position until the cartridges have been exhausted from the magazine.

4. In an automatic firearm, the combination of a barrel, a reciprocatory breech block, and a movable magazine having a cartridge feeding spring, of a locking latch for the breech block, said latch being movable in substantially the direction of movement of the magazine and arranged to be engaged by a cartridge in the magazine to automatically trip it when a filled magazine is inserted and to be held in an inactive position under the influence of the magazine spring, and a spring for moving the latch in position to lock the breech block after the magazine has been emptied, said second spring being overpowered by the magazine spring while the magazine contains one or more cartridges.

5. In an automatic firearm, the combination of a barrel, a movable breech block, and a magazine having a cartridge feeding spring, of a locking latch for the breech block mounted in rear of the magazine having one end to engage the breech block and its opposite end overhanging the magazine to be engaged by the spring-actuated cartridges therein whereby said latch will be held in an inactive position.

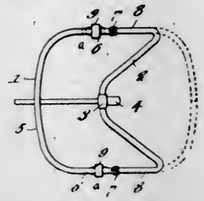
[Claims 6 to 10 not printed in the Gazette.]

944,931. SELF-SERVING DINING-TABLE. ALONZO S. WILLIAMS, Galveston, Tex. Filed July 10, 1908. Serial No. 442,981.



The herein described table having a fixed top provided with a central opening, and a frame having inner and outer bars, the former under said opening and the latter under the fixed top, a revoluble top member pivotally mounted on said frame, operating in the opening of and lying in common plane with the fixed top, said inner and outer bars having vertical guideways and a vertical adjusting screw at the lower end of each guideway, bearings in the said guideways, adjustably vertical therein by the said adjusting screws, and horizontal radially disposed shafts under the fixed table top and revoluble member, each of said shafts being mounted in a pair of said bearings, having a vertically disposed friction wheel bearing under the revoluble member of the table top, and means whereby said shaft may be rotated.

944,932. ATTACHMENT FOR MOTOR-CYCLES. EDWARD C. ABRAHAM, Santa Cruz, Cal. Filed Feb. 20, 1909. Serial No. 479,029.

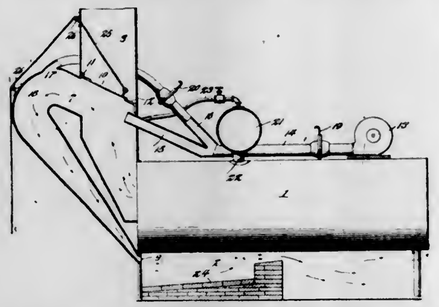


1. In combination with a steering post, a steering element comprising a substantially U-shaped yoke, a pair of supporting handlebars, and brackets fixed upon the said handlebars, the said yoke having pivotal connection in the brackets for arcuate movement to and from the operator.

2. In combination with a steering post, a steering element comprising a substantially U-shaped yoke, a pair of

supporting handlebars, means for locking the yoke to the handlebars, and brackets fixed upon the said handlebars, the said yoke having pivotal connection in the brackets for arcuate movement to and from the operator.

944,933. SMOKE-CONSUMER. WILLIAM ACHESON, Pittsburg, Pa. Filed Dec. 7, 1907. Serial No. 405,539.



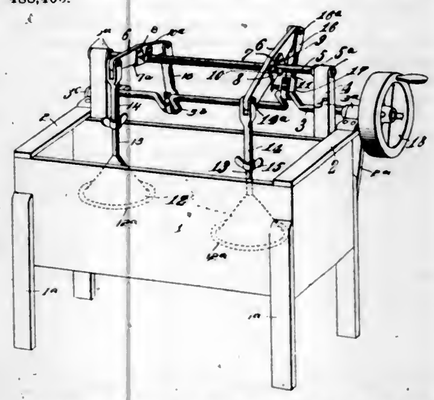
The combination with a stationary boiler furnace having a fire box, fire bed and smoke stack at the same end thereof, of a U-shaped return flue arranged wholly at one end of the furnace and leading from the stack on an upward incline and then downward and entering the fire-box above the bed thereof, an inclined self-opening gravity closed cut-off located in line with and forming a portion of the upper side of the return flue for opening and closing the stack at the point where the return flue intersects the stack, a blast fan, a plurality of air pipes leading from said fan one arranged to deliver a current of air into the stack at the initial end of the flue and another arranged to deliver a current of air into the return bend of said flue beyond the stack, and a steam blast communicating with one of said air pipes in advance of the point where said air pipe enters the return flue.

944,934. COMBINED PENCIL HOLDER AND SHARPENER. JOSEPH H. ALLEN, Sedalia, Mo. Filed June 29, 1909. Serial No. 504,998.



As a new article of manufacture, a split sleeve constructed of resilient material, said sleeve having its longitudinal edges provided with arcuate cut away portions, the lower end of the face of the sleeve being enlarged and the said face being provided with a longitudinally cut away portion provided with an offset, an operating member pivotally connected with the enlarged end of the sleeve, said member comprising a knife section and a holding element, and the said knife section having its upper extremity cut away and adapted to be normally positioned within the cut away portion of the sleeve, substantially as and for the purpose set forth.

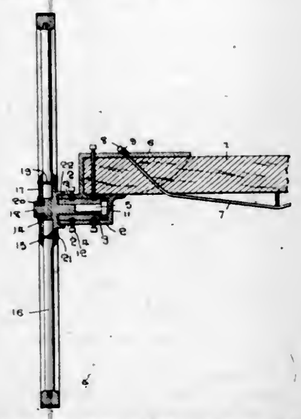
944,935. WASHING-MACHINE. ALEXANDER F. AMELUNG, Sanborn, Iowa. Filed Apr. 7, 1909. Serial No. 488,400.



1. A washing machine comprising a tub, a power shaft, means by which the power shaft may be operated, a counter shaft, a lever detachably connected to the counter shaft, a link connecting the lever and the power shaft, a pounder, and a rod connecting the pounder to the lever.

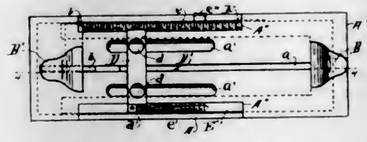
2. A washing machine comprising a tub, a power shaft, means by which the power shaft may be operated, a counter shaft, a lever provided with an open bearing adapted to receive the counter shaft, a stop secured to the lever and engaging the counter shaft, a link connecting the lever and power shaft, and a pounder secured to the lever.

944,936. COMBINED WHEEL HUB AND SPINDLE. THOMAS A. BARNETT, Manifest, La. Filed Nov. 25, 1908. Serial No. 464,362.



A device of the character described, comprising a spindle having a head at one end, and a hub at its opposite end, said hub having at its inner edge a disk-like flange, said flange having an annular collar forming an extension upon one side, said hub also having a screw-threaded extension substantially in alinement with said spindle, said hub having a plain external cylindrical surface intermediate of said disk-like flange and the said threaded extension, the outer facing portion of said hub with the cylindrical surface thereof being stepped-like in formation between said flange and said extension, a washer of disk-like formation opposed to said disk-like flange, and having its bore of greater diameter than said threaded extension and adapted to initially stand away from the outer vertical face of said hub, a nut applied to said screw-threaded extension and engaging said disk-like washer, a housing applied to an axle, a boxing receiving said spindle and arranged in said housing, and means for the retention of said boxing with said spindle within said housing.

944,937. FOOT-GAGE. EBENEZER S. BEDFORD, Grand Rapids, Mich. Filed Feb. 15, 1909. Serial No. 478,104.



1. In a foot gage, a box, a cover to said box having a central longitudinal slot and the edges cut away, parallel arms within the box, connected at one end and arranged to slide longitudinally of the box, a spring to draw the arms to normal position, a heel gage secured to the connecting end of said arms and having a neck arranged to slide freely in the slot in the top, a scale upon one of said arms for registering the length of the foot and a scale on the other arm in position to register the length to the ball of the foot, said scales readable where the sides of the cover are cut away, an adjustable slide for gaging the ball of the foot, and an adjustable toe gage.

2. In a foot gage, a box, a cover to said box having a longitudinal slot and the edges cut away for a space, longitudinally adjustable arms within the box, connected at one end, a heel gage having a neck passing through the slot in the cover and attached to the adjustable arms, an adjustable toe gage having an index finger *b'*, a slide having openings to engage the ball of a foot, an index finger thereon, and index scales on the arms in position to be made to register with the several index fingers.

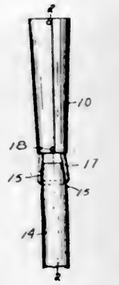
3. In a foot gage, a box, longitudinally adjustable arms within the box, having scales of foot sizes thereon, a cover over the box, having a central longitudinal slot and the edges cut away over the foot scales, a heel gage longitudinally adjustable with the arms, a toe gage longitudinally adjustable on the cover, a finger attached thereto in position to register with the foot scale on the arms, and guides registering in the slot to guide the gages.

4. In a foot gage, a box, a cover on said box having a longitudinal central slot, a heel gage and a toe gage and a gage for the ball of the foot, all adjustable in said slot and having index fingers and measuring scales, said fingers made to register with said measuring scales to indicate the length of the foot.

5. In a foot gage, a box, a cover on said box having a longitudinal slot, a heel gage, an adjustable toe gage, a slide having openings for measuring the distance from the heel gage to the ball of the foot, scales for registering the length of the foot and of the ball of the foot from the heel gage, and fingers on the toe gage and the ball of the foot slide to register with the scales to register the length of foot and the length of the ball of the foot from the heel gage.

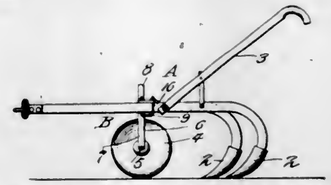
944,938. CHARGER FOR BLAST-HOLES. ALFRED BOHY, Hocking, Iowa. Filed Nov. 3, 1908. Serial No. 460,875.

In a device of the kind described, a charger body, a closure therefor held entirely within the body, a handle provided with oppositely disposed cam faces and provided with an opening therethrough extending from one of said cam faces to the other, and a wire loop passed through



said opening and bent to lie against said cam faces, said wire loop being attached to said closure.

944,939. CULTIVATOR ATTACHMENT. DILL BONNETT, McLoud, Okla. Filed Sept. 15, 1908. Serial No. 453,084.



In a cultivator, the combination of transversely spaced beams provided with shovels, a clamp-bar arranged transversely of the beams having an end portion extended and folded upon itself to provide a member spaced from and parallel with the body portion of said clamp-bar, said member and the body of the clamp-bar having vertically alined semi-circular notches in their edges, clips connecting the clamp-bar and beams, a round stem seated in said semi-circular notches and adjustable both vertically and angularly therein, and a fastening for securing the stem to the member and body of said clamp-bar and arranged in the space formed between said parts.

944,940. MILK-PAIL. WILLIAM L. BRANDON, Reno, Nev. Filed Mar. 31, 1909. Serial No. 488,864.



A milk-pail having a cylindrical attachment projecting at a lateral angle and having the lower side of its mouth provided with a horizontal extension *b'*, as and for the purpose specified.

944,941. TRAIN-PIPE COUPLING. THOMAS C. BRETT, Red Oak, Iowa. Filed Sept. 21, 1909. Serial No. 518,757.



1. In a train pipe coupling, the combination of a hollow member provided with lateral outlets, valves arranged within the hollow member for closing the outlets thereof and connected for simultaneous longitudinal movement, a movable coupling head having connection with said valves for movement therewith, means for normally holding the valves closed, and the coupling head advanced.

2. A train pipe coupling comprising a hollow member having portions in its length contracted to form inner valve seats having lateral outlets, valves arranged to operate in said pipe to close the outlets thereof, a stem connecting said valves, and a spring-actuated coupling head having connection with said stem to move therewith after unseating the valves and disclosing the openings of the valve seats.

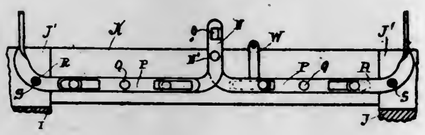
3. In a train pipe coupling, the combination of a sleeve, a pipe mounted in said sleeve and adapted to move longitudinally, and having outlets in its sides, valves arranged within the pipe for closing the outlets in the sides thereof, means connecting the valves, a coupling head slidably mounted upon said pipe and movable independently thereof, and connecting means between the said valves and coupling head whereby the valves and coupling head move in unison.

4. In a train pipe coupling, the combination of a sleeve having a flared socket at one end, a second sleeve spaced from and parallel with the first sleeve, a connection between the two sleeves having a chamber in communication with each, a pipe slidably mounted in the second sleeve and provided in its sides with outlets, connected valves arranged within the pipe to close the outlets thereof, a coupling head mounted upon said pipe and having its outer end tapered and its inner end enlarged to fit the said socket at the outer end of the first-named sleeve, said coupling head having the valves connected therewith, and a spring for normally pressing the coupling head outward.

5. In a train pipe coupling, and in combination with the coupling member, a train pipe, a universal joint between the coupling member and train pipe comprising ball shaped members, the inner ball shaped member having openings in its sides to establish communication between the two members.

[Claims 6 and 7 not printed in the Gazette.]

944,942. ELEVATOR. JOHN J. BURNS, Pittston, Pa. Filed Dec. 30, 1908. Serial No. 469,973.



1. In combination with an elevator car, the upper ends of the uprights of which have grooves formed therein having a two piece transverse beam, in each piece of which is formed a groove, the lower end being deeper than the rest thereof, of a hoisting cable, a coupling link secured thereto, safety chains attached to the hoisting cable, catches fastened to the ends of the safety chains, said catches adapted to fit in the grooves in the cross beam, a pair of coupling hooks pivoted between the two parts of the transverse beam, a pair of links pivoted between the parts of said beam, one end of each of which is connected to the lower end of one of the coupling hooks, trip levers pivoted in the grooves formed in the upper ends of the uprights, the lower ends of which are connected to the opposite ends of the links and means for operating the trip levers, as shown and described.

2. The combination with an elevator car, of a hoisting cable, a coupling link carried thereby, safety chains secured to said hoisting cable, catches attached to the ends of said safety chains, a pair of coupling hooks pivoted to the car and arranged for the reception of the coupling link, means for disengaging the coupling link from the coupling hooks and means for detachably securing the catches to the car, as specified.

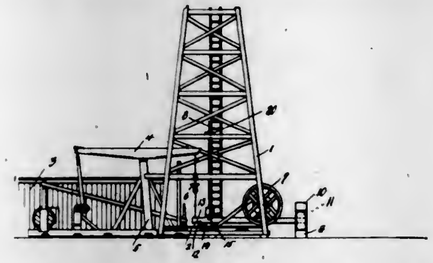
3. The combination with an elevator cage, of a hoisting cable, a coupling link secured thereto, safety chains attached to said hoisting cable, catches fastened to the ends of the safety chains, a pair of coupling hooks pivoted to the transverse beam of the car and arranged for the reception of the coupling link, links pivoted to the transverse beam, one end of each being movably secured to the lower end of one of the coupling hooks, said links adapted to hold the catches in engagement with the transverse beam, trip levers pivoted to the upper ends of the uprights of the car, their lower ends being movably secured to the opposite ends of the links and stationary trip springs for engaging the trip levers and moving the links from engagement with the catches and the coupling hooks from engagement with the coupling links.

4. The combination of a pair of vertical guide beams having openings formed in proximity to their upper ends, cribbing beams secured to said vertical guide beams, an elevator car having grooves formed in the upper ends of the uprights having a two piece transverse beam secured to said uprights, having a groove formed in each piece and an opening at the lower end of said groove, shoes fastened to the sides of the uprights adapted to engage with the sides of the vertical guide beams, a hoisting cable, a coupling link secured thereto, safety chains attached to said hoisting cable, catches fastened to the ends of the safety chains, said catches so formed as to produce a shank and toe, a pair of coupling hooks pivoted between the two pieces of the transverse beam and arranged for the reception of the coupling link, a pair of links pivoted between the parts of the transverse beam, one end of each being movably secured to one of the coupling hooks, said links adapted to hold the catches within the grooves in the transverse beam, a pair of trip levers pivoted in the grooves in the upper ends of the uprights, their ends movably secured to the opposite ends of the link, trip springs secured to the vertical guide beams above the openings formed therein, and extending inward through said openings, said trip springs adapted to engage with the trip levers for disengaging the coupling link from the coupling hooks and the latches from the grooves in the transverse beam and means for preventing the car descending when the coupling link and catches have been disengaged.

944,943. TOOL-SHARPENER. GEORGE W. BURT, Ohioville, Pa. Filed Dec. 26, 1908. Serial No. 469,266.

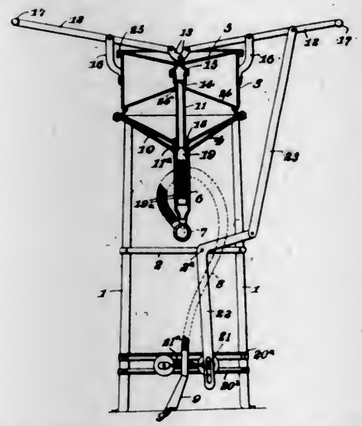
1. In a tool sharpener, an anvil block, frames located adjacent to said block, a bearing block swiveled between said frames, parallel arms pivotally connected to said block and extending over said anvil block, a die holder trunnioned upon said arms above said block, sharpening dies carried by said holder, and means located adjacent to said anvil block for reciprocating said arms to cause said die holder to strike said anvil block, substantially as described.

2. In a tool sharpener, die supporting means pivotally mounted for vertical reciprocation and also mounted to swing laterally to and from operative position, a die holder carried by said supporting means, sharpening dies removably-mounted in said holder, an anvil block on which the die holder rests when in operative position, and means including a rocking beam for imparting vertical reciprocation to the die holder supporting means to cause the die



holder to strike the anvil block, as and for the purpose described.

944,944. VACUUM-CLEANER. GERHARD L. BUSIAN, Marshall, Minn. Filed Feb. 8, 1909. Serial No. 476,663.



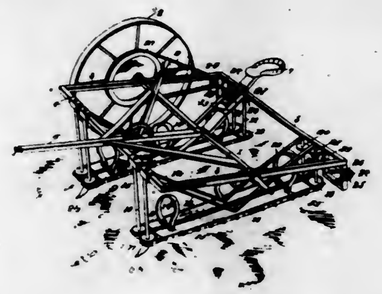
1. The combination of a frame, a nozzle movably mounted upon the frame, a suction device for drawing air through the nozzle, a lever for operating the suction device, and an operative connection between the lever and the nozzle for automatically moving the nozzle when the suction device is operated.

2. The combination of a frame, a track upon the frame, a carriage mounted upon the track and formed with a spring member, a nozzle applied to the spring member, means for drawing air through the nozzle, and means for moving the carriage upon the track.

3. The combination of a frame, a pair of upper tracks upon the frame, a pair of lower tracks upon the frame, a carriage formed with two sets of wheels one of which is designed to travel upon the upper tracks while the other is designed to travel upon the lower tracks, a nozzle upon the carriage, means for drawing air through the nozzle, and means for moving the carriage upon the tracks.

944,945. BEAN AND PEANUT HARVESTER AND PICKER. MIEL P. CALKINS, Varysburg, N. Y. Filed May 4, 1908. Serial No. 430,786.

1. In a machine of the character specified, a wheeled truck including a pivoted supporting frame, coöperating companion elements depending from the frame and having an upward and rearward inclination, substantially U-shaped springs connecting said elements for normally and yieldably supporting the same in spaced parallel relation to each other, and adjusting screws connecting said springs with one of the elements to vary their effective tension.



2. In a machine of the character specified, the combination of upwardly and rearwardly inclined companion elements, endless chains fitted to said elements, anti-friction rollers journaled on the elements and adapted to bear against the adjacent chains, means for imparting motion to said endless chains, and substantially U-shaped springs connecting the companion elements for normally and yieldably supporting the same in spaced parallel relation to each other.

3. In a machine of the character specified, a wheeled truck, a supporting frame having its intermediate portion pivotally mounted on the axle of the truck, companion bars depending from the supporting frame and inclined upwardly and rearwardly, front and rear standards connecting the opposite ends of the bars with the framework, the front standards being fixed and the rear standards mounted for rotation, sprocket wheels loose upon the front standards, other sprocket wheels fast to the rear standards, sprocket chains supported upon said sprocket wheels and encircling the bars, and anti-friction rollers journaled on the opposite longitudinal edges of said bars for engagement with the adjacent sprocket chains.

4. In a machine of the character specified, a wheeled truck, a supporting frame pivotally mounted on said truck, companion bars depending from the supporting frame and inclined upwardly and rearwardly beneath the latter, inclined braces forming a connection between the intermediate portions of the bars and the opposite ends of the supporting frame, endless chains encircling the bars and mounted for rotation thereon, substantially U-shaped springs forming a yieldable connection between said bars, and means operatively connected with the wheels of the truck for rotating the sprocket chain.

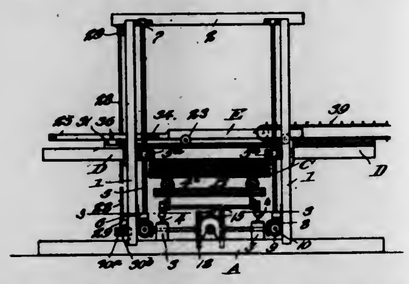
5. In a machine of the character described, the combination of upwardly and rearwardly inclined companion bars having their upper faces provided with vertically disposed lugs, endless chains encircling the bars and mounted for rotation thereon, substantially U-shaped springs connecting the bars for normally and yieldably maintaining said bars in spaced parallel relation, one end of each spring being rigidly secured to one of the lugs on the bar and the opposite end thereof adjustably connected with the adjacent lug on the other companion bar.

944,946. LUMBER-STACKER. HENRY W. CLARK, St. Louis, Mo. Filed Dec. 19, 1908. Serial No. 468,353.

1. In a stacking machine, the combination of a supporting structure, a carrier mounted thereon, means for elevating the carrier step by step, a reciprocatory carriage mounted on the carrier, endless conveyers for delivering lumber from a mill to the stacker, transferring means on the carriage for carrying the lumber from the conveyers to deliver the lumber to the stack, and automatically-actuated means for placing parting strips on the top of the pile after each layer has been placed on the stack.

2. In a stacker, the combination of a supporting structure, an elevator or carrier, elevating screws, reversible

means for actuating the screws, a reciprocatory carriage mounted on the carrier, means for delivering pieces of lumber to the carriage whereby the latter places the pieces in layers, and devices actuated by the movement of the carriage for placing strips on top of each layer.



3. In a stacker, the combination of a supporting structure, an elevator thereon, a carriage on the elevator, means on the carriage for depositing pieces of lumber in layers in superimposed relation, and automatically-actuated devices for placing separating strips between the layers.

4. In a stacker, the combination of a supporting structure, a carrier, elevating screws for the carrier, mechanism including a reversing friction gear for operating the screws, a carriage mounted for reciprocation on the carrier, a delivery chute on the carriage, means for delivering pieces of lumber to the carriage, and devices on the carriage for carrying the said lumber from the said means to the delivery chute.

5. In a stacker, the combination of a supporting structure, an elevator, a carriage, a device for reciprocating the carriage, and means for automatically reversing the device by the movement of the carriage to produce continuous reciprocation of the carriage.

[Claims 6 to 11 not printed in the Gazette.]

944,947. CUTTING ATTACHMENT FOR LOOMS. PAUL CLEMENS and GUSTAV H. REPERT, Scranton, Pa. Filed July 17, 1908. Serial No. 444,080.



1. In a cutter attachment for looms, four metallic strips bent at right angles, a metal strip, two of the angular strips secured to the upper end thereof, and the other two angular strips secured to the lower end of the same, so that a slot will be formed between the sides of the upper angular strips and the sides of the lower angular strips, rotary cutters, screws for securing said rotary cutters to the strips so that the edges of said cutters overlap one another, nuts threaded on the ends of these screws, spiral springs placed around said screws, one end thereof resting against the nuts, the other end against the cutters, as shown and described.

2. In a cutter attachment for looms of the character described, angular strips of metallic material secured together, so as to form a slot between the sides thereof, rotary cutters secured between said angular strips, so that the edges of said cutters overlap one another, and springs for pressing said cutters together, as and for the purpose set forth.

3. In a cutter attachment for looms of the character described, a metallic strip, four angular metallic strips secured to the first named metallic strip, in such a way as to produce a slot between the sides of the angular strips, and rotary cutters fastened to the angular strips, so that their edges overlap, as shown and described.

944,948. ALARM-WATCH. JOSEPH B. CONNOLLY, Washington, D. C. Filed Aug. 30, 1909. Serial No. 515,301.



1. In an alarm watch, the combination with alarm mechanism comprising alarm winding and setting devices, of an alarm winding and setting hand connected to the said alarm winding and alarm setting devices and a rotative bezel adapted to engage said hand and turn the same.

2. In an alarm watch, the combination with the alarm actuating spring, of a rotative bezel and mechanism connecting said bezel and spring whereby the spring may be wound by rotating the bezel.

3. In an alarm watch, the combination with time keeping mechanism and alarm mechanism adapted to be let off by said time keeping mechanism, of a gear wheel mounted within the dial of the watch, a pinion carried by the arbor of the alarm actuating spring and meshing with the said gear wheel, a hand connected to the shaft of said gear wheel and a rotative bezel engaging with said hand.

4. In an alarm watch, the combination with a rotative bezel, of a hand adapted to be engaged by the bezel, a shaft to which said hand is connected, a gear wheel connected to said shaft, said gear wheel being formed with a step or hole, connections between said gear wheel and the alarm actuating spring, adapted to effect the winding of said spring by the rotation of said gear wheel, an hour wheel having a projection adapted to enter said step or hole in said gear wheel and a spring bearing against the said hour wheel and normally engaging the alarm mechanism and adapted to be disengaged therefrom when said projection enters said step or hole.

5. In an alarm watch, the combination with the time keeping mechanism, of spring actuated alarm mechanism and devices, an hour wheel forming part of the time keeping mechanism, said hour wheel being mounted to move lengthwise of the center shaft of the time keeping mechanism, said hour wheel having a projection on its face, an alarm stopping device adapted to be let off by said hour wheel, a gear wheel arranged adjacent to said hour wheel and having a hole or step to receive said projection, an alarm indicating hand carried by said gear wheel, a dial arranged adjacent to said hand and a pinion carried by the arbor of the alarm actuating spring and meshing with said gear wheel.

[Claims 6 to 9 not printed in the Gazette.]

944,949. MITTEN. WILLIAM D. CORMEY, Manchester, N. H. Filed Oct. 23, 1908. Serial No. 459,136.
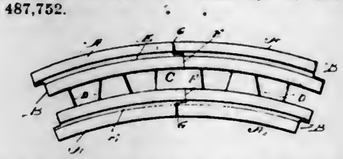
1. As an article of manufacture, a mitten having a main body portion provided with perforated strips of tougher material, each of said strips being secured to the body portion at one edge of the strip, one of said strips extending transversely of the mitten between the wrist and the palm portions, a wear resisting thumb and palm facing having a series of perforations on its outer edges adapted to register with the perforations in said strips and a lacing for binding said facings to said strips.

2. As an article of manufacture, a mitten comprising a main body portion having an integral front and back formed from a single strip of material, the front and back portions being folded together, perforated strips of tougher material secured to the main body portion at one edge of the strip, one of said strips extending transversely of the mitten a wear resisting thumb and palm facing having



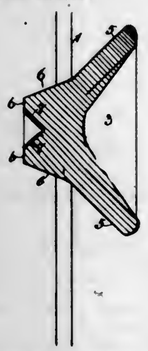
a series of perforations on its outer edges adapted to register with the perforations in said strips, the lower edge of said palm facing being arranged to lie underneath said transverse strip, and a resilient lacing for binding said facings to said strips.

944,950. CONCRETE BUILDING-BLOCK. JAMES J. COYNE, Fond du Lac, Wis. Filed Apr. 3, 1909. Serial No. 487,752.



In a silo wall comprising in its construction arcuate blocks spaced apart, a continuous air space between the walls, the walls being tied together by hook members extending at an angle to each other across the air space and having their hooked ends embedded in the walls, the arcuate blocks having grooves formed in their horizontal faces for receiving mortar, the blocks being tightly joined together at their ends on their concave faces and spaced apart on their convex faces for the purpose of receiving mortar, substantially shown and described.

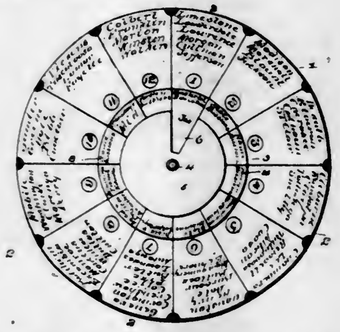
944,951. ILLUMINATED SIGN. JOHN W. CROW, Oakland, Cal., assignor of one-half to William T. Bradshaw and one-half to Mary E. Crow, Oakland, Cal. Filed Jan. 21, 1909. Serial No. 473,477.



1. In an illuminated sign, refracting devices comprising a cup-shaped portion expanding outwardly, and a body portion having a conical depression, the lines and angles of said cup shaped portion, body portion and conical depression being arranged to refract light received on said body portion.

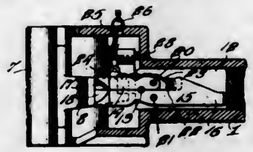
2. In an illuminated sign, refracting devices comprising a cup shaped portion and a body portion having a conical depression the surface whereof is a reflector.

944,952. CALENDAR FOR COLLECTION PURPOSES. WASHINGTON B. CRUMPTON, Montgomery, Ala. Filed Oct. 2, 1908. Serial No. 455,936.



In a calendar, a stationary member provided with a plurality of radiating sections having names thereon, a rotating member pivotally mounted on said stationary member and formed with a plurality of radiating sections having names thereon adapted to be brought into line with the names on the radiating sections of the stationary member, and a second stationary member mounted above said rotatable member and formed with a radial notch extending from adjacent the center of the said second stationary member to the outer edge thereof for disclosing the names on the rotating member which co-act with the names positioned opposite on the stationary member.

944,953. CAR-COUPLING. HARRY J. DAUBERT, Tamaqua, Pa. Filed Mar. 25, 1909. Serial No. 485,717.



1. The combination with a car coupler having a pivoted knuckle provided with a tail, of a pair of pivoted jaws within the coupler adapted to be opened when contacted by the tail of the coupler to position the said tail behind the jaws to lock the knuckle.

2. The combination with a car coupler having a pivoted knuckle provided with a tail, of a pair of pivoted jaws one lying upon the other and adapted to be contacted and swung apart by the tail to position the tail behind the jaws to lock the coupler.

3. The combination with a car coupler having a pivoted knuckle provided with a tail having a V-shaped offset, of a pair of pivoted jaws opening in opposite directions and adapted to be spread apart when contacted by the V-shaped offset of the tail to position the tail behind the jaws to lock the knuckle.

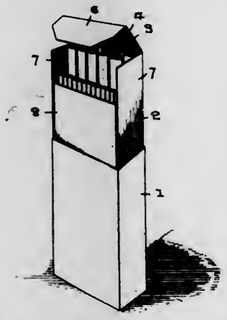
4. The combination with a car coupler having a pivoted knuckle provided with a tail having a V-shaped offset, of a pair of pivoted jaws opening in opposite directions, means for retaining the jaws one upon the other, said jaws being adapted to be spread apart when contacted by the V-shaped offset of the tail to position the latter behind the

jaws, and means comprising a flexible member connected with each of the jaws for spreading the jaws apart to release the tail of the knuckle.

5. The combination with a car coupler having a hollow draw bar, and a pivoted knuckle having a tail provided with a V-shaped offset, a U-shaped frame for the hollow draw bar, one of the arms of the frame being provided with an offset to limit the position of the frame within the draw bar, a pair of jaw members pivotally connected with the frame, one of said jaw members having its inner end weighted, the other jaw member being adapted to lie upon the first jaw member and have its forward end terminate with that of the said jaw member, a transverse member between the jaw members forward of their pivots, each of said jaw members being incut from their outer corner toward their engaging faces, said jaw members adapted to be contacted and spread apart by the V-shaped offset of the tail when the knuckle is closed so as to position and retain the knuckle in locked position, and means for spreading the jaws apart in opposite directions to release the knuckle.

[Claim 6 not printed in the Gazette.]

944,954. COMBINED MATCH AND CIGARETTE BOX. ALBERT S. DAVIS, Ball, La. Filed July 13, 1909. Serial No. 507,356.



A device of the character described, comprising an inner open-backed casing having its body portion formed with wings and end flap sections, one of said flap sections being adapted to form a closure, said flap sections being of much less width than the combined width of said body portion and wings, said wings being folded at right angles to said body portion for forming lateral walls, the other flap section having formed in continuation thereof an auxiliary body portion also having wings adapted to fold along duplicate parallel lines at each side of said auxiliary body portion, one of said auxiliary wings being of a width equal to the width of the corresponding wing of the first referred to body portion, the other auxiliary wing being adapted when folded to lap the opposite auxiliary wing one of the first referred to flap sections being foldable upon parallel lines to form the bottom of said inner casing, said auxiliary body portion being of less length than the first referred to body portion and forming a back wall for, and of less depth than said inner casing, and an outer casing receiving said inner casing together with said compartment.

944,955. RATCHET-DRILL ATTACHMENT. ALBERT F. DERRICK and RICHARD W. GARRISON, Oakland, Cal. Filed Feb. 3, 1909. Serial No. 475,876.

1. A device of the class described comprising a chambered body having a smooth opening in one end thereof, a screw having a smooth portion slidably mounted in the opening, a head on the inner end of the screw, interlocking means between the head and body, a spring within the body and pressing on the head for normally maintaining the said means in interlocking relation and permitting the screw to move inwardly to disengage the said interlocking means, and means on the ends of the body opposite from the screw for holding the device in operative relation with a supporting brace.

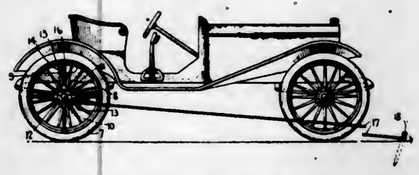


2. A device of the class described comprising a barrel, a sleeve removably secured to one end of the barrel and provided with a smooth bore, a feed screw having a smooth shank slidably mounted in the bore, a head on the inner end of the screw having its under face presented to the inner face of the sleeve, a slot in one of the faces, a lug on the other face engaging in the slot for preventing relative turning of the sleeve and screw under normal conditions, a spring in the barrel constantly pressing on the head to maintain the lug engaged in the slot, and means for adjusting the tension of the spring supported on the end of the body opposite from the screw and for holding the device in operative position.

3. A device of the class described comprising a barrel, a sleeve removably secured to one end of the barrel and provided with a smooth bore, a feed screw having a smooth shank slidably mounted in the bore, a head in the inner end of the screw having its under face presented to the inner face of the sleeve, a slot in one of the faces, a lug on the other face engaging in the slot for preventing relative turning of the sleeve and screw under normal conditions, a spring in the barrel constantly pressing on the head to maintain the lug engaged in the slot, a screw in the end of the body opposite from the first-mentioned screw and arranged to vary the tension of the spring, and a point on the end of the screw of non-circular cross-section.

4. A device of the class described comprising a barrel having alining openings at opposite ends, one opening being smooth and the other threaded, a feed screw having a smooth shank slidably mounted in the smooth opening, a screw threaded in the other opening, a spring in the barrel, plates between the inner ends of the screw and spring, interlocking means between the barrel and feed screw for preventing relative turning while the spring is fully extended, said interlocking means being automatically released by inward pressure on the feed screw, means for clamping the second screw in fixed relation to the barrel, and a noncircular pointed tip on the outer end of the second screw.

944,956. DRAFT APPLIANCE FOR SELF-PROPELLED VEHICLES. DIX DUNLAP, La Junta, Colo. Filed Feb. 9, 1909. Serial No. 476,937.



1. A draft appliance for the wheels of self-propelled vehicles comprising, in combination, a tubular drum adapted to be fitted upon the wheel hub; a series of clamping members secured to said drum adapted for engagement with the wheel rim; a flexible element fastened at one end to the drum and adapted to be wound therearound; and an anchor secured to the other end of said flexible element.

2. A draft appliance for the wheels of self-propelled vehicles comprising, in combination, a tubular drum adapted to be fitted upon the wheel hub; a series of adjustable clamping members secured to said drum adapted for engagement with the wheel rim; a flexible element fastened at one end to the drum and adapted to be wound thereabout; and an anchor secured to the other end of said flexible element.

3. A draft appliance for the wheels of self-propelled vehicles comprising, in combination, a tubular drum adapted to be fitted upon the wheel hub; a series of endwise movable clamping members secured to said drum adapted for engagement with the wheel rim; a flexible element fastened at one end to the drum and adapted to be wound therearound; and an anchor secured to the other end of said flexible element.

4. A draft appliance for the wheels of self-propelled vehicles comprising, in combination, a tubular drum adapted to be fitted upon the wheel hub; a series of rotatable clamping members secured to said drum adapted for engagement with the wheel rim; a flexible element fastened at one end to the drum and adapted to be wound therearound; and an anchor secured to the other end of said flexible element.

5. A draft appliance for the wheels of self-propelled vehicles comprising, in combination, a tubular drum adapted to be fitted upon the wheel hub; a series of rotatably adjustable clamping members secured to said drum adapted for engagement with the wheel rim; a flexible element fastened at one end to the drum and adapted to be wound therearound; and an anchor secured to the other end of said flexible element.

[Claims 6 to 17 not printed in the Gazette.]

944,957. WATER-GLASS COMPOUND AND PROCESS OF MAKING THE SAME. RUDOLF EBERHARD, Munich, Germany. Filed July 9, 1908. Serial No. 442,785.

1. The process of increasing the chemical and physical reactivity and liquidity of waterglass solutions which consists in adding relatively minute amounts of chromium compounds to a solution of waterglass.

2. The process of increasing the chemical and physical reactivity and liquidity of waterglass solutions which consists in the treatment of a waterglass solution with relatively minute amounts of dissolved chromium compounds and of compounds comprising a heavy metal base soluble in alkali.

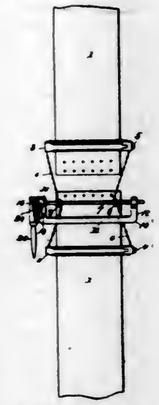
3. The process of increasing the chemical and physical reactivity and liquidity of waterglass solutions which comprises the treatment of a waterglass solution with relatively minute amounts of chromium compounds and of a heavy metal oxid soluble in alkali.

4. As a new composition of matter, waterglass containing a minute quantity of a chromium compound, said waterglass forming a solution of relatively great liquidity and such solution on standing precipitating silica easily soluble in cold alkali.

5. As a new composition of matter, waterglass containing a minute quantity of chromium compound together with a heavy metal base soluble in alkali, said waterglass forming a solution of relatively great liquidity and such solution on standing precipitating silica easily soluble in cold alkali.

944,958. BELT-STRETCHER. LEONARD EBERLINE and FRANK M. WANZER, Biglake, Wash. Filed Nov. 25, 1908. Serial No. 464,352.

1. In a belt stretcher, a pair of gripping members formed into parts slidable in relation to each other and having cam shaped surfaces thereon for moving the parts together when the same are slid in one direction, means engaging the ends of said gripping members for sliding the same for causing the parts to grip said belt, and a rotating member engaging said means for moving the same for causing said means to act on the parts of said gripping member and at the same time draw said gripping members toward each other.



2. In a belt stretcher, a pair of clamping members, means for causing said clamping members to grip the end of a belt, a chain engaging the ends of said gripping members for affording auxiliary clamping means, and a drum acting on said chain for causing the same to press against the ends of said gripping members and at the same time draw said gripping members and the ends of said belt toward each other.

3. In a belt stretcher, gripping members for engaging said belt, a chain acting on said gripping members for causing each of the gripping members to grip said belt, a drum for winding said chain for causing the same to pull said gripping members toward each other, a frame pressing against said chain and carrying said drum, and means for rotating said drum.

4. In a belt stretcher, clamping members for engaging the belt near the ends thereof, a binding screw for causing said clamping members to engage said belt, a chain passing around the ends of said clamping members, a drum engaging said chain for winding the same whereby the clamping members and the ends of the belt are drawn toward each other, and means for winding said drum.

5. In a belt stretcher, a pair of clamping members adapted to clamp the belt near the ends thereof, a chain passing around said clamping members and adapted to cause the same to clamp the belt, a drum for winding said chain, means mounted on said drum for spacing the drum from the belt, a frame engaging said belt and supporting said drum, means for rotating said drum, and means mounted on said drum for preventing a reverse rotation of said drum, the rotation of said drum causing said chain to draw the clamping member and the ends of the belt toward each other.

[Claims 6 and 7 not printed in the Gazette.]

944,959. APPARATUS FOR CHARGING RETORTS. CHRISTIAN EITLE, Stuttgart, Germany. Filed Mar. 26, 1906. Serial No. 308,012.



1. A machine for charging retorts, comprising means for throwing into the retort charging material in two separate paths which cross each other and deliver the material on opposite sides of the retort.

2. In a machine for charging retorts, the combination of a feed hopper for the charging material, and means for projecting the charging material in two separate paths diagonally and crosswise of each other into the retort.

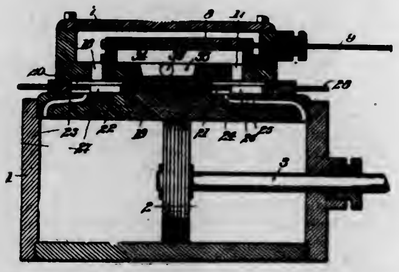
3. In a machine for charging retorts, the combination of a casing, means within the casing for projecting the charging material in two separate paths cross-wise of each other and diagonally outward into a retort, and means for supplying charging material to the projecting means.

4. In a machine for charging retorts, the combination of a centrifugal fan having two sets of blades which alternate in arrangement with each other, a partition separating one set of blades from the other, a feed hopper, channels conducting the charging material to the fan blades on opposite sides of the partition which are curved or inclined to feed the charging material at a certain speed, and means for revolving the fan at a proper relative speed to throw the charging material in two separate paths cross-wise of each other and diagonally into the retort.

5. In a machine for charging retorts, the combination of a fan chamber, a fan located therein having two sets of blades alternately arranged, a partition separating one set of blades from the other, a hopper for the charging material, channels extending downward from the hopper and delivering the charging material transversely to the direction of rotation of the fan blades, and means for rotating the fan at a proper speed relatively to the velocity at which the charging material enters the fan chamber to cause the charging material to be projected in two separate paths which cross each other and enter the retort diagonally.

[Claim 6 not printed in the Gazette.]

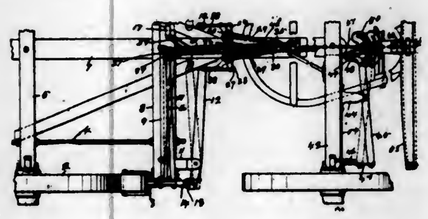
944,960. REVERSING-VALVE FOR STEAM-ENGINES. FRANK L. FRY, Baltimore, Md., assignor of one-third to John C. Gross and one-third to Oliver W. Kahler, Baltimore, Md. Filed June 19, 1909. Serial No. 503,214.



1. In an engine, the combination with the cylinder having suitable ports in its upper wall, the steam chest having suitable ports in its lower wall, of a plate between the upper wall of the cylinder and the lower wall of the steam chest and provided with cut away spaces, a rod passing entirely through said plate, and valves on said rod in the cut away spaces of said plate, substantially as described.

2. The combination in an engine, with a cylinder having two sets of ports in its upper wall near each end thereof, one of each set of ports leading to each end of the cylinder, the steam chest above the cylinder having a single port in its bottom wall near each end thereof, a slide valve in the steam chest, a plate mounted on the top of the cylinder, supporting the steam chest, and provided with spaces communicating between the single port in each end of the bottom wall of the steam chest and the double ports in the same end of the top wall of the cylinder, a pair of reversing valves, one located in each of said spaces of the separating plate and connected for simultaneous movement, and means for sliding the reversing valves in said spaces to either end or the middle thereof.

944,961. AUTOMATIC WAGON-BRAKE. CHARLES GARVER, Fort Wayne, Ind., assignor of one-third to Oren R. Yerks, New Haven, Ind. Filed Jan. 23, 1909. Serial No. 473,811.



1. In an automatic wagon brake, a movable double-tree; pivotally mounted brake-shoes; brake-levers operatively connected at their outer ends with the brake-shoes; a draw-bar slidably supported in substantially right-angular relation to the said levers; spring-pressed means for pivotally connecting the draw-bar with the inner ends of the levers; means for pivotally connecting the draw-bar with the said double-tree, whereby the draft of the motive power on the double tree tends to withdraw the brake-shoes from their engagement against the resistance of the said spring-pressed means; and spring-pressed means for connecting the draw-bar to the brake-shoe elevating means.

2. In an automatic wagon brake, a laterally slidable double-tree; a brake-beam; brake-shoes on the ends of the brake-beam; brake-levers fulcrumed near the ends of the said beam and pivotally connected at their outer ends to the brake-shoes by means of the brackets 14; spring-pressed means for normally securing the brake levers in operative position; and means for connecting the last mentioned means with the said double-tree.

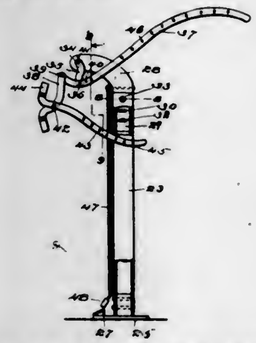
3. In an automatic wagon brake, a laterally slidable double tree; a brake-beam; brake shoe brackets pivotally connected to the outer ends of the respective brake levers; brake-shoes pivotally mounted in the said brackets; brake-levers fulcrumed on the brake-beam near the ends thereof and pivotally connected to the said brackets; a horizontal plate secured at one end to the beam midway of its ends; a draw-bar slidably mounted upon the other end of the plate; spring-pressed means for normally securing the brake shoes in their engagement; and means for operatively uniting the draw-bar to the double-tree.

4. In an automatic wagon brake a laterally slidable double-tree; a transverse brake-beam; brake-shoes pivotally mounted on the brake-beam; means for automatically elevating the brake-shoes when not in action; means for limiting the upward movement of the brake shoes when in action; brake-levers fulcrumed on the brake-beam and connected at their outer ends to the brake shoes; a slidably mounted draw-bar; pivoted levers fulcrumed in right-angular relation to the draw-bar, and pivotally connected therewith by suitable interposed means, and with the brake-levers; spring-pressed means for securing the said pivoted levers in their normal position; spring-pressed means for connecting the draw-bar to the brake-shoe elevating means; spring-pressed means for connecting the last mentioned means to the means for limiting the upward movement of the brake-shoes; and means for pivotally connecting the draw-bar with the double-tree.

5. In automatic wagon brake mechanism a brake-beam; brake shoes slidably fulcrumed on the brake-beam by suitable carrying brackets; means for elevating the brake-shoes; means for limiting their upward movement; brake levers fulcrumed on the brake beam near its ends; and spring-pressed means for normally securing the brake-shoes in position for action, consisting of a base plate whose rear end is fixed to the front edge of the beam midway of its ends; a standard fixed on the base plate near its forward end; a draw-bar slidably mounted in the standard; levers pivotally fulcrumed on the base-plate forward of the brake levers and pivotally connected therewith and with the draw-bar; spring pressed means for securing the previously mentioned levers in their normal position; and spring-pressed means for pivotally connecting the draw-bar with the means for elevating the brake-shoes, and with the means for limiting their upward movement.

[Claim 6 not printed in the Gazette.]

944,962. JACK AND LOCKING MEANS THEREFOR. JEREMIAH A. GUMM, Philadelphia, Pa. Filed Oct. 17, 1908. Serial No. 458,280.



1. In a jack, a standard, an elevating lever, means for pivotally connecting said elevating lever to said standard in such a manner as to permit a swinging and pivotal movement of said elevating lever, and an article supporting member secured to one end of said elevating lever.

2. In a jack, a standard, an elevating lever swingingly and pivotally connected with said jack, a hook-shaped member pivotally connected to said lever, and a locking means connected to said hook-shaped member for locking said first mentioned lever against movement.

3. In a jack, a standard, a link pivotally connected to said standard, an elevating lever connected to said link, a hook-shaped member connected to one end of said elevating lever, and a locking lever coacting with said hook-shaped member and with said elevating lever for locking said elevating lever and said hook-shaped member to the article supported by the same and against return movement.

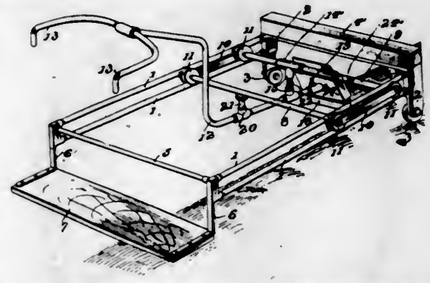
4. In a jack for automobiles and the like, a standard, a lever swingingly connected with said standard, a hook-shaped member pivotally connected with said lever for engaging the hub of said automobile for elevating the same when said lever is depressed, a locking lever pivotally connected with said hook-shaped member and formed with one end adapted to partially encircle the hub of said automobile wheel and with lock receiving apertures in the opposite end, and means for locking said elevating lever and said locking lever together.

5. In a jack for automobile wheels and the like, a standard, a swinging adjustable link, an elevating lever adjustably secured to said link, a hook-shaped member supported by said link for engaging the hub of said automobile wheel, a locking lever pivotally connected to said hook-shaped member and arranged to have one end partially encircle the hub of said automobile wheel and the opposite end with a plurality of apertures for receiving a locking member, and means passing through the apertures in said locking lever and said elevating lever for locking the lever together and for preventing the removal of said jack from said wheel.

[Claims 6 to 10 not printed in the Gazette.]

944,963. FLOOR-DRESSING MACHINE. WALTER S. HAVEN, Racine, Wis. Filed Feb. 21, 1908. Serial No. 417,196.

1. In combination, tracks adapted to be maintained in fixed approximate parallelism with a floor, a movable carriage adapted to reciprocate longitudinally of said tracks, a vertically swingable tool actuating lever carried by and fulcrumed to said carriage, a tool head connected with said lever, and a stop mechanism for said lever for limiting the working movement of the tool toward the floor surface.



2. In combination, a movable carriage adapted to reciprocate over a floor and in a fixed plane parallel therewith, means determining the plane of reciprocation of said carriage, said carriage comprising a fulcrum shaft or rod and a stop rod spaced therefrom, and a vertically swingable lever having means to carry and control a floor dressing tool, said lever being fulcrumed to said fulcrum rod to swing vertically therefrom as a center, said stop rod limiting the vertical swing of said lever in a direction to limit the working movement of the tool toward the floor surface.

3. A movable carriage adapted to reciprocate over a floor and in a plane parallel with the surface thereof, and means determining the plane of reciprocation of said carriage in combination with a vertically swingable lever for actuating said carriage, a floor dressing tool carried and controlled by said lever, said lever fulcrumed to and carried by said carriage to swing vertically independently thereof to move said tool to and from the floor surface, and means for limiting the vertical swing of the lever.

4. In combination, a track way adapted to be temporarily fixed above and parallel with a floor surface, a movable carriage adapted to reciprocate longitudinally of said track way, a lever fulcrumed to said carriage to reciprocate the same and to swing vertically independently thereof, the front end of said lever provided with means for receiving a floor dressing tool, and adjustable stop means whereby the limit of vertical swing of said lever in one direction can be varied, said stop means being spaced a distance from the fulcrum point of the lever.

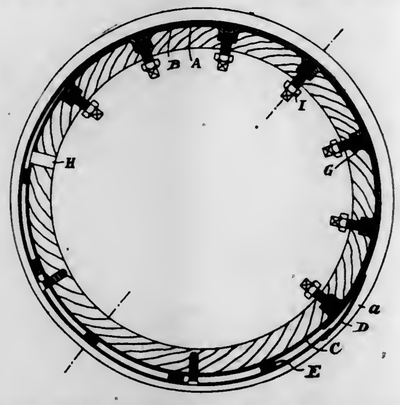
5. In combination, a movable carriage, a trackway adapted to maintain said carriage down to reciprocation in a fixed horizontal plane, a vertically swingable lever fulcrumed between its ends to the forward portion of said carriage and at its lower free front end having means to receive, carry and raise and lower a floor dressing tool, a portion of the rear part of said carriage arranged to engage the portion of the lever in rear of said fulcrum and thereby limit the upward swing thereof.

[Claims 6 to 41 not printed in the Gazette.]

944,964. WHEEL-RIM FOR PNEUMATIC TIRES. JOHN HAYNES, Manchester, England, assignor to Charles Arthur Bradshaw and William Edward Cuthbertson, Manchester, England, and Thomas Swinborne Sheldrake, Ilford, England. Filed Nov. 5, 1909. Serial No. 526,400.

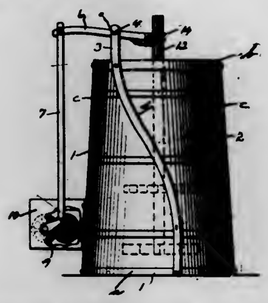
1. In a vehicle wheel the combination of a rim having curved inwardly projecting flanges, a flexible split ring located within said rim and extending substantially around the same, devices for connecting a portion of said ring to said rim, whereby it is held in fixed relation thereto, and adjustable devices bearing against the under side of the remainder of said ring whereby the position of the same relative to the flanges may be adjusted.

2. In a vehicle wheel the combination of a rim, having curved inwardly projecting flanges, a flexible split ring located within said rim and extending substantially around the same, spacing blocks interposed between said ring, and said rim throughout substantially one half of



said ring, screws for holding said ring against said spacing blocks and adjustable screws bearing against the underside of the other half of said ring, whereby the position of the same relative to the flanges may be adjusted.

944,965. AUTO-OPERATING CHURN. JACOB H. HELMS and JAMES E. BLACK, Charlotte, N. C. Filed Oct. 20, 1908. Serial No. 458,740.



In combination with a churn, a frame comprising an upper and a lower ring, and strips connecting said rings, said frame being adapted to embrace the churn, certain of said strips extending above the upper ring, a horizontal lever pivoted intermediate its length between the extensions of the strips, a coupling means carried by the inner end portion of the lever for engaging the dasher of the churn, a motor carried by one of the strips, and a connection between the motor on the outer end of the lever for operating the dasher.

944,966. LIFTING-PLIERS. FAITZ JOHNSON, Cherrelyn, Colo. Filed June 15, 1908. Serial No. 438,472.

An improved article of manufacture, consisting of a lifting device having a body member surrounded by wire coil armor which is largest in the center and tapers toward both extremities, said member being provided at one extremity with a jaw, and a relatively short lever-like member having a jaw at one extremity coöperating with the jaw of the body member, the leverlike member being concaved in the rear of its fulcrum to fit the adjacent wire armor of the body member, the concaved portion of the leverlike member being slotted to coöperate with



the armor coil of the body member for ventilating purposes, substantially as described.

944,967. WICK-ADJUSTING MECHANISM FOR LAMPS AND LANTERNS. JOHN KLEINBERGER, Brooklyn, and RUDOLPH STEAN, New York, N. Y., assignors to American Marine Lamp Mfg. Co., New York, N. Y., a Corporation of New York. Filed Jan. 18, 1909. Serial No. 472,868.



1. In a lantern, a well, a burner removably secured to said well having a shaft extending therefrom, a gear connected to said shaft, a reciprocating rack meshing with said gear and adapted to move the same, a guide rigidly secured to said rack and formed with a slot for accommodating the shaft supporting said gear, means for moving said rack and guide, said means permitting said guide to be swung away from the shaft passing through the slot therein for permitting said burner to be removed from said well.

2. In a lantern, a well formed with wick adjusting mechanism, a gear wheel connected with said wick adjusting mechanism, a reciprocating rack engaging said gear wheel for rotating the same, a threaded extension connected with said rack and a rotatable threaded screw engaging said extension and projecting to the exterior of said lantern whereby said wick adjusting mechanism may be operated from the exterior of the lantern.

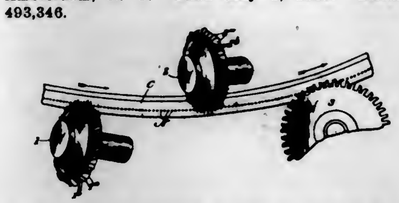
3. In a lantern, a well, formed with wick adjusting mechanism, a gear connected with said wick adjusting mechanism, a reciprocating rack meshing with said gear for moving the same, a guide for holding the rack in engagement with said gear, a threaded extension projecting from said guide, and a rotatable threaded screw engaging said threaded extension whereby upon the rotation of said threaded screw movement will be conveyed to said wick adjusting mechanism.

4. In a lantern, a well provided with wick adjusting mechanism, a gear connected with the wick adjusting mechanism, a reciprocating rack meshing with said gear for moving the same, a guide for holding the rack in mesh with said gear, said rack being formed with a bent over portion for holding the rack and gear in the same plane, a threaded extension projecting from said guide and rotating threaded means engaging said threaded extension for reciprocating the same, whereby said rack is reciprocated and said gear is rotated for moving said wick adjusting mechanism.

5. In a lantern, a well formed with wick adjusting mechanism having a shaft, a rotatable gear wheel rigidly secured to said shaft for rotating the same, a reciprocating rack meshing with said gear wheel for moving the gear wheel, a guide rigidly secured to said reciprocating rack, said guide being formed with a slot for accommodating said shaft, the action of the slotted portion against said shaft causing the guide to hold the reciprocating rack in mesh with the gear wheel, and means extending to the exterior of the lantern for reciprocating the guide, whereby movement is conveyed to the rack, and from thence to the wick adjusting mechanism.

[Claim 6 not printed in the Gazette.]

944,968. KNITTING-MACHINE. CARLTON J. MUMFORD, Amsterdam, N. Y. Filed May 1, 1909. Serial No. 493,346.



1. In a knitting machine for making transferred stitch fabrics, the combination of spring beard needles, and a divider-wheel having similarly shaped blades arranged in alternate sets of long blades and short blades, for the purpose of drawing long and short loops in regular sequence, substantially as specified.

2. In a knitting machine for making transferred stitch fabrics, the combination of spring beard needles, and a divided cast-off wheel having similarly shaped blades arranged in alternate groups of long blades and short blades, for the purpose of holding and casting off long and short loops in regular sequence, substantially as specified.

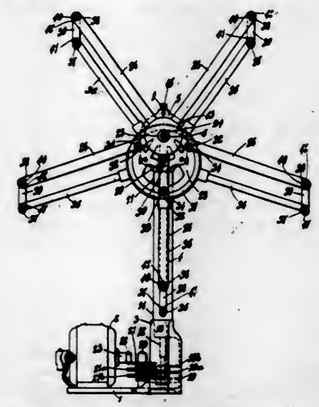
3. In a knitting machine for making transferred stitch fabrics, a needle cylinder, and spring beard needles, the needles from which the loops are to be transferred being slightly longer than the needles to which the loops are to be transferred, and means for transferring loops from the long to the short needles.

4. In a knitting machine for making transferred stitch fabrics, a needle cylinder having long and short spring beard needles arranged in alternation; in combination with a cast-off bur, and means for transferring loops from the long to the short needles.

5. In a spring beard needle knitting machine for making transferred stitch fabrics, the combination of a needle cylinder having alternate long and short needles, with a divider-wheel and a cast-off wheel, said wheels being respectively adapted to form alternate long and short loops, and to cast off such loops; and means for transferring the loops from the long to the short needles.

944,969. DISPLAY APPARATUS. SAMUEL NEWMAN and HENRY B. BOTHWELL, Cincinnati, Ohio. Filed Mar. 25, 1909. Serial No. 485,704.

1. In display apparatus, the combination of a series of main arms radiating from a common center and rigidly secured together to rotate about said center, means for rotating the arms, a disk stationarily mounted eccentric to the main arms, a ring rotatable on the disk, arms on the ring radiating from the center thereof and rotatable therewith, links pivotally connected on the arms on the ring and pivotally connected to the main arms, and studs rigidly secured to the links extending parallel to the axes of rotation of the arms, substantially as and for the purposes herein set forth.



2. In display apparatus, the combination of a series of rotatable main arms, a series of arms rotatable eccentrically to the main arms, links connecting the main arms and the eccentrically rotatable arms, and studs on the links, substantially as and for the purposes herein set forth.

3. In display apparatus, the combination of a series of rotatable main arms, arms rotatable eccentrically with respect to the main arms, links pivotally connected to the eccentrically rotatable arms, sleeves on the main arms and studs on the links extending through the sleeves and projecting past said sleeves, substantially as and for the purposes herein set forth.

4. In display apparatus, the combination of a series of main arms, arms rotatable eccentrically with respect to the main arms, links pivotally connected to the main arms and connected to the eccentrically rotatable arms, and studs on the links, the links being provided with slots through which said links are connected to said eccentrically rotatable arms, substantially as and for the purposes herein set forth.

5. In display apparatus, the combination of a series of main arms, arms rotatable eccentrically with respect to the main arms, links connecting the main arms and the eccentrically rotatable arms, studs on the links, a main shaft, a hub rigidly mounted on the main shaft in which said main arms are rigidly mounted, the main arms radiating from the center of the shaft, a head in which the main shaft is journaled, driving mechanism for the apparatus, and detachable connection between the main shaft and the driving mechanism, substantially as and for the purposes herein set forth.

[Claims 6 to 11 not printed in the Gazette.]

944,970. HOOK FOR CHAINS. JOSEPH M. SHARP, Pittsburg, Pa. Filed Jan. 28, 1909. Serial No. 474,659.

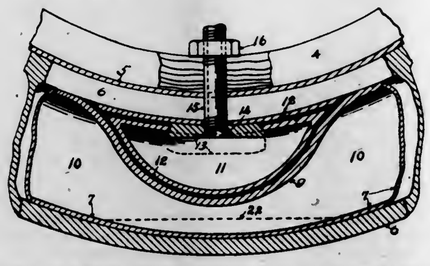


1. A compound snap hook comprising an inclined shank having one end bent upon itself to provide a curved bill and its other end formed with a pair of apertured lugs, and a pair of depending curved bills, a main latch pivotally mounted between said lugs, arranged over said shank and adapted to have one end engage said top bill and its other end provided with a curved portion constituting a bottom latch extending between said depending curved bills, and adapted to engage one side of the shank, and means for

maintaining said latches in engagement with the top bill and shank.

2. A compound latch comprising an inclined shank having one end bifurcated and further provided with a pair of curved bills at said end, said shank having its other end bent to provide a curved top bill, and means to constitute a main latch, and a bottom latch pivoted to the bifurcated end of said shank, said bottom latch curvilinear in contour and extending between the curved bills and adapted to engage one side of the shank, said main latch projecting laterally from said lugs and adapted to engage said top bill.

944,971. SIGNAL FOR PNEUMATIC TIRES. SAMUEL SILVERMAN and JOSEPH E. TRAHAN, Watertown, N. Y.; said Trahan assignor to said Silverman. Filed Feb. 18, 1909. Serial No. 478,635.



As a new article of manufacture, a pneumatic tire alarm and a compressible air sack for operating said alarm, the said sack comprising an integral part formed in one side of the inner tube of a pneumatic wheel, and disposed between said inner tube and the split side of a common outer tire, the said alarm mounted on the felly of the wheel and operatively connected with said sack, the said sack capable of being compressed by the abnormal flattening of the tire, for sounding said alarm by the force of the air expelled from said sack.

944,972. TRANSFER APPARATUS FOR SHEAR-TABLES. JAMES SIMPSON, McKeesport, Pa., assignor to National Tube Company, Pittsburg, Pa., a Corporation of New Jersey. Filed Dec. 19, 1908. Serial No. 468,332.



1. Apparatus for handling metal plates, comprising a shear, a plate receiving table on which the sheared plates are delivered endwise from the shear, mechanism arranged to shift the plates from the table sidewise across the width of the shear table, and a cam on said shear arranged to actuate the shifting mechanism when the shear is actuated; substantially as described.

2. Apparatus for handling metal plates, comprising a shear, a plate receiving table, on which the sheared plates are delivered endwise from the shear, mechanism arranged to shift the plates sidewise from the table, and means operated by the shear arranged to actuate the plate shifting mechanism when said shear is moving into its operative position; substantially as described.

3. Apparatus for handling metal plates, comprising a shear, a plate receiving table on which the sheared plates are delivered lengthwise from the shear, a rocking shaft having depending arms arranged to contact with and move the plates on said table sidewise across the width of the table, an arm connected with said shaft, and a cam on the shear arranged to contact with said arm and cause the depending arms to shift the plates on the table across the width of the table; substantially as described.

4. In apparatus of the class described, the combination with a shear and a shear table in front of said shear having rocking means for transferring plates sidewise across the width of the shear table, of means for positively rocking the plate transferring means in one direction and a counterweight for rocking the transferring means in the opposite direction; substantially as described.

5. In apparatus of the class described, the combination with a shear and a shear table located in front thereof, of mechanism for transferring plates sidewise on said shear table and means for actuating the transfer mechanism to shift the plates while the shear is returning into its cutting position; substantially as described.

[Claim 6 not printed in the Gazette.]

944,973. GUN. WILLIAM D. SMITH, Denver, Colo., assignor to Automatic Flareback Prevention Company, Pittsburg, Pa., a Corporation of New Jersey. Filed Oct. 9, 1905. Serial No. 281,929.



1. In a gun, the combination with a breech-block, of a fluid injector carried by the block and movable with relation thereto; substantially as described.

2. In a gun, the combination with a breech-block, of a rotatable fluid injecting device carried by the said block arranged to be advanced into the combustion chamber of the gun; substantially as described.

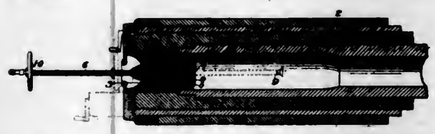
3. In a gun, the combination with a breech-block, of injecting means therein, and means for advancing the injecting means into the combustion chamber of the gun; substantially as described.

4. In a gun, the combination with a breech-block and injecting means therein, of means for advancing the injecting means into the explosion chamber of the gun and for rotating the same therein; substantially as described.

5. In a gun, the combination with the breech-block, of the mushroom-head seated therein, the injecting device extending through said head, and means for advancing the injecting device into the combustion chamber of the gun; substantially as described.

[Claims 6 to 27 not printed in the Gazette.]

944,974. METHOD OF CLEANING THE EXPLOSIVE-CHAMBERS OF ORDNANCE AFTER FIRING. WILLIAM D. SMITH, Denver, Colo., assignor to Automatic Flareback Prevention Company, Pittsburg, Pa., a Corporation of New Jersey. Filed Oct. 9, 1905. Serial No. 281,930.



1. The method herein described, which consists in introducing a movable laterally directed fluid jet into the combustion chamber of a gun after the explosion and before removing the breech-block; substantially as described.

2. The method herein described, which consists in introducing a laterally directed fluid jet, such as water, air or steam, into the combustion chamber of the gun after the explosion and before removing the breech-block, and moving such jet forwardly along the course of the combustion chamber; substantially as described.

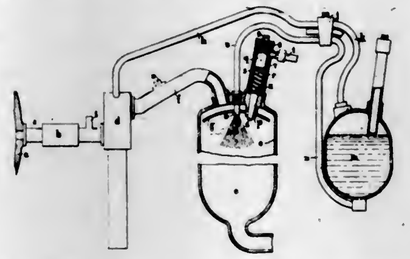
3. The method herein described, which consists in introducing a fluid jet into the combustion chamber of the gun after the explosion and before removing the breech-block, and imparting a rotation to such jet within the combustion chamber; substantially as described.

4. The method herein described, which consists in introducing a fluid jet into the combustion chamber of the gun after the explosion and before removing the breech-block, and imparting a rotative longitudinally advancing movement to the jet within the combustion chamber; substantially as described.

5. The method herein described, which consists in opening into the combustion chamber of the gun, a path for a fluid, such as water, steam, air or other gas, after an explosion, applying such fluid under pressure thereto, and applying the force thereof to an indicator to determine whether the gun has been discharged; substantially as described.

[Claims 6 to 15 not printed in the Gazette.]

944,975. HEATING OF COMPRESSED AIR FOR USE IN MOTORS. WILLIAM H. SODEAU, Newcastle-upon-Tyne, England, assignor to W. G. Armstrong Whitworth & Company, Limited, Newcastle-upon-Tyne, England. Filed Mar. 25, 1907. Serial No. 364,519.



1. A device for heating compressed air by burning in it a fuel, comprising in combination, a combustion chamber, inlet means for air into said combustion chamber, a deflector situated over the air inlet means and interposed between the fuel inlet means and the air inlet means whereby the main volume of the incoming air is deflected away from the fuel inlet means, said deflector having openings of small area whereby a relatively small quantity of air is passed to support combustion of the fuel issuing from the fuel inlet means.

2. A device for heating compressed air by burning in it a liquid fuel, comprising in combination a combustion chamber, a perforated deflector plate, air inlet means opening on one side of the deflector plate and liquid fuel inlet means opening on the other side, whereby said deflector plate divides the incoming air into two volumes one of which passes along the deflector away from the region into which the fuel inlet opens while the other passes through the perforations toward said region.

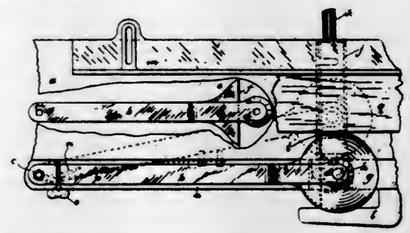
3. A device for heating compressed air by burning in it a liquid fuel, comprising in combination a combustion chamber, a deflector consisting of a perforated plate situated at one end of the combustion chamber, said plate leaving around it and between it and the wall of the combustion chamber a restricted passage, an air inlet pipe opening opposite one side of the deflector plate, a fuel nozzle opening into the combustion chamber on the other side of the deflector plate and close to the latter, the main volume of air being directed by the deflector to the restricted passage and thence along the wall of the combustion chamber while the remainder of the air is passed through the perforations to the fuel issuing from the jet.

4. In combination in a device for heating compressed air, a combustion chamber, a compressed air inlet to said chamber, a deflector within said chamber and extending over the opening of the compressed air inlet, a fuel spray nozzle situated in a part of the combustion chamber which is shielded by the deflector from the air issuing from said compressed air inlet and means whereby sufficient air for supporting the combustion of the fuel spray is directed from the main air flow to the spray.

5. In combination in a device for heating compressed air, a combustion chamber, a compressed air inlet to said chamber, a deflector within said chamber and extending over the opening of the compressed air inlet, a fuel spray nozzle situated in a part of the combustion chamber which is shielded by the deflector from the air issuing from said compressed air inlet and means for gradually feeding liquid fuel to said spray nozzle.

[Claims 6 to 16 not printed in the Gazette.]

944,976. KNIFE-GUARD FOR JOINTERS. LUDWIG SPADY, Portland, Oreg., assignor of one-half to Robert Lutke, Portland, Oreg. Filed Mar. 24, 1908. Serial No. 423,020.



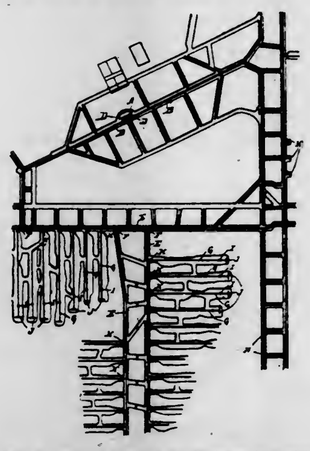
1. The combination with a surfacing machine, comprising a table having a transverse slot in the top thereof, a knife-head rotating in said slot, and a guide-rail, of a pin vertically journaled in said table-top, and a rigid laterally extending member on the lower end of said pin, a spring arranged to bear on said lateral member, an arm rigidly mounted on the upper end of said pin, a bifurcated head on the swinging end of said arm, the lower member of said bifurcated head constituting a shoe arranged to rest on the table-top, a vertically projecting rib on said shoe, a circular shield journaled in said bifurcated head of said arm, said shield being adapted to cover the slot of the table, and said arm being arranged to cause said shield to bear against the guide-rail of the table.

2. The combination with a surfacing machine, comprising a table having a transverse slot in the top thereof, a knife-head rotating in said slot, and a guide-rail, of a pin vertically journaled in said table-top, and a rigid laterally extending member on the lower end of said pin, a spring arranged to bear on said lateral member, an arm rigidly mounted on the upper end of said pin, a bifurcated head on the swinging end of said arm, the lower member of said bifurcated head constituting a shoe arranged to rest on the table-top, a vertically projecting rib on said shoe, a circular shield journaled in said bifurcated head of said arm; said shield being adapted to cover the slot of the table, and said arm being arranged to cause said shield to bear against the guide-rail of the table; and means by which to regulate the tension of said spring.

944,977. METHOD OF PREVENTING EXPLOSIONS IN SUBTERRANEAN HOLLOWS. ALFRED B. STEFFENS, Chicago, Ill. Filed Feb. 24, 1909. Serial No. 479,795.

1. A method of preventing explosions in subterranean hollows when blasting a wall thereof which consists in projecting in front of the wall being blasted, non-combustible fluid under pressure to form a cloud in front of and in close proximity to said wall and continuing such projection during an interval beginning before the explosion of the blasting charge and terminating after the latter.

2. A method of preventing explosions in subterranean hollows when blasting a wall thereof which consists in projecting in front of the wall being blasted, steam under pressure to form a cloud in front of and in close proximity to said wall and continuing such projection during an interval beginning before the explosion of the blasting charge and terminating after the latter.



3. A method of preventing explosions in subterranean hollows when blasting a wall thereof consisting in projecting steam under pressure in the form of a cloud in front of and in close proximity to the wall being blasted for a short period immediately preceding and continuing such projection during the blasting and terminating it after a short interval succeeding the blasting.

4. A method of preventing explosions in subterranean hollows when blasting a wall thereof consisting in projecting steam under pressure in the form of a cloud of a height equal to the height of the wall in front of and in close proximity to the wall being blasted for a short period immediately preceding and continuing such projection during the blasting and terminating it after a short interval succeeding the blasting.

5. A method of preventing explosions in subterranean hollows when blasting a wall thereof consisting in projecting non-combustible fluid under pressure in the form of a cloud in front of and in close proximity to the wall being blasted for a short period immediately preceding and continuing such projection during the blasting and terminating it after a short interval succeeding the blasting.

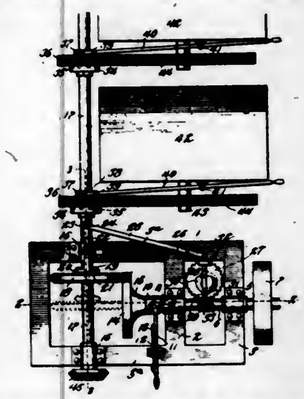
[Claim 6 not printed in the Gazette.]

944,978. MECHANICAL MOVEMENT. FLOYD L. TEMPLE, Terre Haute, Ind. Filed Oct. 30, 1908. Serial No. 460,276.

1. In mechanism of the class described, a drive shaft, a driven shaft, a friction wheel upon the drive shaft, a sliding friction wheel upon the driven shaft adapted to be frictionally engaged upon its peripheral edge with one face of the friction wheel upon the drive shaft, a cam actuated upon movement of the drive shaft, and means connecting the cam with the friction wheel upon the driven shaft so that the said wheel can be automatically shifted upon the shaft to impart through its engagement with the friction wheel upon the drive shaft alternating rotary motion to the driven shaft.

2. Mechanism of the class described comprising a drive shaft, a driven shaft, a friction wheel upon the drive shaft, a friction wheel slidably mounted upon the driven shaft adapted to engage the friction wheel upon the drive shaft, a rock lever, connections between the rock lever and the wheel upon the driven shaft, and means operable upon movement of the drive shaft for actuating said lever.

3. In mechanism of the class described, a drive shaft, a friction gear thereon, a driven shaft, a slidable friction wheel upon the driven shaft adapted to be engaged with the wheel upon the drive shaft, and cam actuated means for automatically shifting the wheel upon the driven shaft so that it may be engaged at different points upon the friction wheel carried by the drive shaft to impart to the driven shaft, an alternating rotary movement.

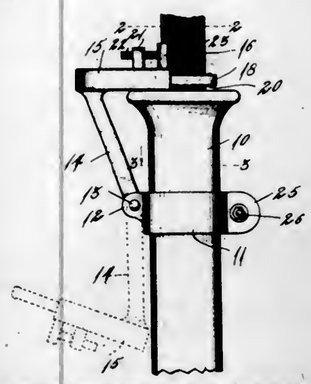


4. Mechanism of the class described comprising a drive shaft, a driven shaft, a friction disk upon the drive shaft, a friction disk slidably mounted upon the driven shaft, and means actuated by the drive shaft for moving the disk upon the driven shaft across the face of the disk upon the drive shaft.

5. Mechanism of the class described comprising a drive shaft, a friction disk upon the shaft, a driven shaft, a friction disk upon the driven shaft, and means actuated by the drive shaft for moving the disk upon the driven shaft across the face of the disk upon the drive shaft to impart to the driven shaft an alternating rotary movement.

[Claims 6 to 9 not printed in the Gazette.]

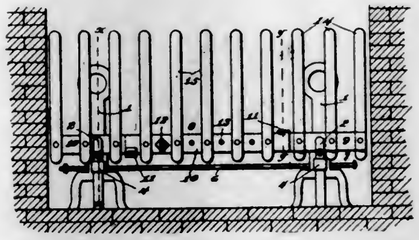
944,979. WHIP SOCKET AND LOCK. CHARLES TURNEY, Surprise, Nebr. Filed June 18, 1909. Serial No. 503,009.



1. The combination with a lock body having a shackle member extending from one side, of a lug extending from said lock body and provided with a threaded aperture, a threaded stud operating through said lug and provided with a clamp plate and operative over the space inclosed by the shackle, and a clamping means connected to said lock body, said clamping means adapted to be coupled to a whip socket and said shackle adapted to inclose a whip stock with the clamp plate bearing against the same.

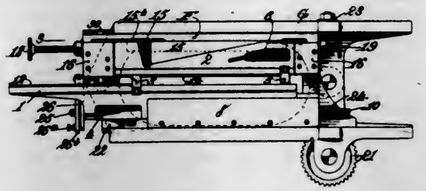
2. The combination with a lock body having a shackle member extending from one side, of a lug extending from said lock body and provided with a threaded aperture, a threaded stud operating through said lug and provided with a clamp plate and operative over the space inclosed by the shackle, a rigid arm extending from said body, and a clamp device swinging from said arm, said clamp device adapted to be adjustably coupled to a whip socket and said shackle adapted to inclose a whip stock with the clamp plate bearing against the same, and the lock body bearing upon the whip socket.

944,980. FIREPLACE ANDIRONS AND FENDER. ELIJAH YARBOROUGH and VIRGIL T. YARBOROUGH, Gum Branch, Ga. Filed July 3, 1909. Serial No. 505,946.



The combination, with andirons, a keeper upon the inner face of their standards and forming a fender seat, of a two part fender comprising a pair of bars having continuous fingers extending above and below the bars, a hook at one end of each bar, the hook of one bar engaging the opposite edge of the other bar to prevent relative vertical movement of the fender parts, and means for adjusting said parts longitudinally so that certain of the fingers of one of said parts will cover like fingers of the other part.

944,981. LINE-CASTING MACHINE. FRITZ C. LUCKE D'AIX, New York, N. Y. Filed Mar. 28, 1906. Serial No. 308,522.



1. In a line casting machine, a mold the top and bottom of which are formed of parallel jaws, a carrier in which said jaws are movable one to and from the other to open and close the mold, spring-impelled side pieces mounted and interposed between said jaws, forming the side walls of the mold and tending to hold the jaws in open position, and means for closing the jaws against the pressure of the side pieces, substantially as and for the purposes hereinbefore set forth.

2. In a line casting machine, a mold carrier, a lower mold jaw mounted in said carrier, an upper mold jaw also mounted therein and capable of vertical movement to and from the lower jaw, a presser mounted in, and movable lengthwise of, the carrier, and having an incline which meets a corresponding incline on the upper jaw, means for moving the presser lengthwise of the carrier, and means for holding the incline on the upper jaw up against, and in yielding contact with, the presser, substantially as set forth.

3. In a line casting machine and in combination, a mold carrier and two mold jaws mounted therein, the upper jaw vertically movable to and from the lower jaw, a presser mounted in, and movable lengthwise of, the carrier, and having an incline which meets a corresponding incline on the upper jaw, means for holding the incline on the upper jaw up against, and in yielding contact with, the incline on the presser, means for moving the presser lengthwise of the carrier, and adjustable means for limiting said movement in the direction requisite to depress the upper jaw, substantially as and for the purposes hereinbefore set forth.

4. In a line casting machine of the character described, the combination with jaws constituting the top and bottom of the mold and means for varying the distance between said jaws at will, of side pieces housed in and interposed between the said jaws and spring-impelled each toward the face of the opposed jaw to form tight fitting self-adjusting side walls for the mold space, substantially as hereinbefore set forth.

5. In a line casting machine of the character described, the combination with jaws constituting the top and bottom of the mold and means far varying the distance between said jaws at will, of side pieces housed one in the upper and the other in the lower jaw and spring-impelled toward the face of the opposed jaw to form tight fitting self-adjusting side walls for the mold, and means for adjusting one jaw lengthwise of the other at will to vary the normal distance between the side pieces, substantially as hereinbefore set forth.

[Claims 6 to 12 not printed in the Gazette.]

944,982. TRAMWAY-RAIL. JAMES H. BRIGGS, Headingley, Leeds, England. Filed Apr. 7, 1909. Serial No. 488,475.



1. A roadway tram rail, comprising a foot, an upright web and a head having a groove to accommodate a wheel flange, said web and head being disposed with the central plane of the web at its junction with the rail head on the outer side of the central line of the rail tread; substantially as described.

2. A tram rail of the girder type comprising a foot, a web and a head, said web and head being disposed with the central plane of the web at its junction with the rail head on the outer side of the center line of the rail tread, and said web being weakened locally on its inner side adjacent to the junction with the rail head.

3. A tram rail of the girder type comprising a foot, a web and a head, said rail being slotted longitudinally throughout its length on its inner side near the junction of the rail head with the web substantially as and for the purpose specified.

4. A tram rail of the girder type comprising a foot, a web and a head, said rail having an upwardly and outwardly inclined longitudinal slot on its inner side near the junction of the rail head with the web, substantially as described.

5. A girder rail, having a foot, a web extending upwardly from the center of the foot, and a head connected to the upper end of the web and having a tread and guard, the tread and guard being on the same side of the center of the web as the junction of the web and head; substantially as described.

944,983. COIN-CHUTE MECHANISM FOR VENDING-MACHINES. MORTIMER B. MILLS, Chicago, Ill., assignor to Zeno Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 18, 1909. Serial No. 484,297.



1. In coin-chute mechanism for vending-machines, the combination of a coin-chute, a self-closing gate coöperating with said chute, a coin-receiving pocket on the gate opening to the chute and provided with an inner convolute coin-deflecting surface, and means for opening said gate to release the contents of the pocket and chute.

2. In coin-chute mechanism for vending-machines, the combination of a coin-chute, a self-closing gate coöperating with said chute and provided with a base-flange overhanging the path through the chute, a coin-receiving pocket on the gate opening to said chute and provided with an inner convolute coin-deflecting surface, and means for opening said gate to release the contents of the pocket and chute.

3. In coin-chute mechanism for vending-machines, the combination of a coin-chute, a self-closing gate coöperating with said chute, a pocket on the gate at the entrance to said chute having a convolute interior surface leading from its receiving end to its outlet end at the chute-entrance, and means for opening said gate to release the contents of the pocket and chute.

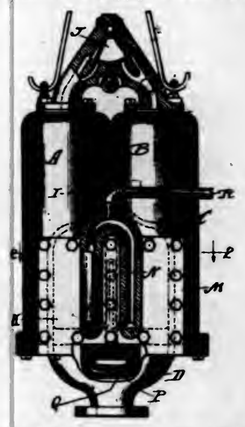
4. In coin-chute mechanism for vending-machines, the combination of a coin-chute, a self-closing gate coöperating with said chute, a coin-receiving pocket on the gate opening to the chute and provided with an inner convolute coin-deflecting surface, means for opening said gate to release the contents of the pocket and chute, and coin-released locking-means coöperating with said gate-opening means.

5. In coin-chute mechanism for vending-machines, the combination of a coin-chute, a spring-closed gate supported to swing relative to and coöperate with said chute, a coin-deflecting receiving-pocket on the gate opening to the chute, a rotatably supported ratchet-wheel provided with a handle, a spring-pressed bell-crank pawl engaging said wheel, and a link connecting said pawl with the gate to open it by turning said handle.

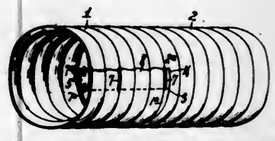
[Claim 6 not printed in the Gazette.]

944,984. STEAM VACUUM-PUMP. GEORGE E. NYE, Chicago, Ill., assignor to Nye Steam Pump & Machinery Co., Chicago, Ill., a Corporation of Illinois. Filed Apr. 5, 1909. Serial No. 488,030.

In a steam vacuum pump, two chambers having valve-controlled inlet and exhaust ports, there being a manhole in each of said chambers, a cover common to both, said manholes having formed therein an inverted U-shaped passage, nozzles connected with the free ends of the arms of said passage and projecting into the respective chambers adjacent the lower ends thereof, the free end portions of said nozzles being vertically disposed, check-valves disposed upon the mouths of said nozzles and covering the same, connection between said passage at a point between its ends and a source of supply of cold water under pressure other than the water delivered from said chambers, an auxiliary U-shaped passage connecting the bottom of one chamber with that of the other, the walls of said last-named chamber extending into and immersed in the water contained in the suction chamber of the pump.



944,985. CORRUGATED-METAL CULVERT. EPHRAIM PANKHURST and ALLEN C. BISBEE, Lyle, Minn. Filed Nov. 4, 1908. Serial No. 460,993.



1. A culvert composed of corrugated metallic sections, having the adjacent end corrugations overlapping one another and staple fastening devices having their ends inserted in openings at the overlapping edges of adjacent sections and turned over the edges to clench the same and hold the parts together, substantially as described.

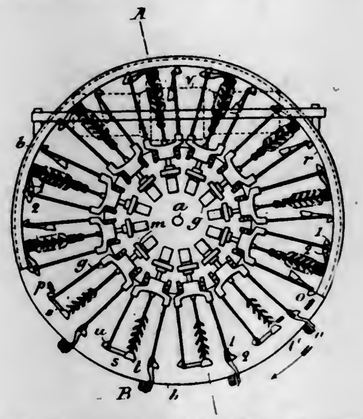
2. In a culvert or drain pipe, the combination with corrugated sections overlapping one another at the end corrugations, with one edge of the lap seam inside of an adjacent section and the other edge of the lap seam outside of said adjacent section, and a staple fastening device inserted in openings at the overlapping edges of one section and through the adjacent section, and having their ends turned over each edge of the lap seam to clench the same and hold the adjacent sections together, substantially as described.

3. A culvert or drain pipe composed of tubular sections, each section being made of a single piece of sheet metal with a single longitudinal lap-seam and unnotched end corrugations, which are overlapped, with the circumferential half of the first section exterior to, and the other circumferential half interior to, corresponding portions of the end of an adjacent section, and the longitudinal lap-seams of adjacent sections turned a half arc one from the other, and fastening devices connecting the thus overlapped ends at the corners of the opposite longitudinal lap-seams, thereby making all closed lap-joints, substantially as described.

4. A culvert or drain pipe composed of tubular sections, each section being made of a single sheet of corrugated metal with a single longitudinal lap seam, the sections overlapping at the ends the end of one section being overlapped partly inside of, and partly outside of the end of the adjacent section, and the longitudinal lap-seams in adjacent sections arranged in different longitudinal lines, and staple fastening devices inserted in openings at the overlapping edges at the ends and at the lap-seams and having their ends turned over for clenching the edges and holding the parts together, substantially as described.

5. In a culvert or drain pipe, the combination with sections overlapping at the end and having longitudinal lap seams, of staple fastening devices inserted through openings at the edges of the joints or seams, and having their ends turned over said edges to fasten them down and hold the parts together, substantially as described.

944,986. BOTTLE-CLEANING MACHINE. ANDERS A. PINDSTOFTE, Frederiksberg, near Copenhagen, Denmark. Filed Apr. 9, 1909. Serial No. 488,943.



1. In a rotary bottle cleaning machine, the combination of a number of horizontal brush-spindles which clean the inside of the bottles and which are radially arranged around a rotary vertical shaft which rotates the brush-spindles, means whereby all these brush-spindles may be moved around said vertical shaft, a guide-funnel, a bottom-brush pivotally mounted in front of each of said brush-spindles, and one or more scrubbing devices arranged above the brush-spindles for cleaning the outsides of the bottles inserted upon the brush-spindles.

2. In a rotary bottle cleaning machine, the combination of a number of horizontal brush-spindles which clean the inside of the bottles and which are radially arranged around a rotary vertical shaft which rotates the brush-spindles, a scrubbing device arranged above the brush-spindles for cleaning the outside of the bottle, a frame carrying the brush-spindles and rotated around the vertical shaft by frictional connection with a member constantly rotated around said shaft, and means whereby the rotation of the frame is stopped by overcoming said friction if a bottle is not inserted upon the brush-spindle which is next to come under the scrubbing device.

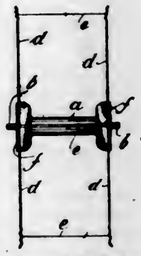
3. In a rotary bottle cleaning machine, the combination of a number of horizontal brush-spindles which clean the inside of the bottles and which are radially arranged around a rotary vertical shaft which rotates the brush-spindles, a guide-funnel, a bottom-brush pivotally mounted in front of each of said brush-spindles, an oscillatory bearing for each of said brush-spindles with its guide-funnel and bottom-brush, which bearings are loosely mounted in a frame surrounding said vertical shaft and means whereby said frame may be rotated around the vertical shaft.

4. In a rotary bottle cleaning machine, the combination of a number of horizontal brush-spindles which clean the inside of the bottles and which are radially arranged around a rotary vertical shaft which rotates the brush-spindles, means whereby all these brush-spindles may be moved around said vertical shaft, and a cylindrical brush-roller arranged above the brush-spindles in such a position that the line of intersection between a vertical plane through its axis and a horizontal plane through the axis of the brush spindles is a chord to the circle described by the ends of said brush-spindle.

5. In a rotary bottle cleaning machine, the combination of a stationary frame, a number of horizontal brush-spindles which clean the inside of the bottles and which are radially arranged around a rotary vertical shaft mounted in said stationary frame and rotating the brush-spindles, a movable frame carrying the brush-spindles, means for rotating said movable frame, an arm pivotally mounted in front of each of the brush-spindles, a stud on said arm, and a stud secured to the stationary frame and co-acting with the stud on the arm in such a manner that the rotation of the movable frame is stopped if the arm is not turned back manually or by inserting a bottle upon the brush-spindle.

[Claims 6 to 11 not printed in the Gazette.]

944,987. YARN-REEL FOR REELING-MACHINES AND WINDING-MACHINES. JEAN SCHWEITER, Horgen, near Zurich, Switzerland. Filed Mar. 17, 1909. Serial No. 483,951.



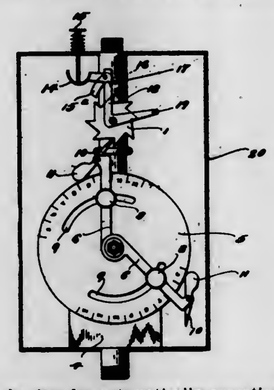
1. A yarn-reel for reeling and winding machines comprising a hub member having flat surfaces at the ends thereof, plates overlying said end surfaces and provided with a plurality of radially disposed grooves, said grooves forming with said end surfaces spoke sockets having each a flat side, spokes within said sockets and having each a flat side complementary to the flat sides of said sockets and lying in intimate contact therewith, and means for holding said grooved plates to said hub ends.

2. A resilient yarn-reel for reeling and winding machines comprising a hub member having flat end surfaces, plates overlying said end surfaces and having radially disposed grooves formed therein providing spoke sockets, resilient wires within said sockets constituting spokes, said wires having their outer ends crimped whereby cords may be tied thereon against slipping and to connect the spokes in parallel pairs and provide means for winding the yarn on the reel, and means for holding said grooved plates to said hub ends.

944,988. TIME MECHANISM FOR OPERATING GAS AND OTHER VALVES. VICTOR H. SLINACK, Philadelphia, Pa., assignor to The Pennsylvania Globe Gas Light Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Aug. 1, 1907. Serial No. 386,527.

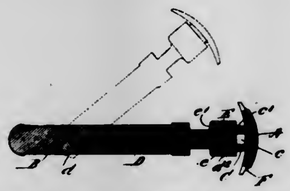
1. Mechanism for automatically operating valves which comprises the combination of a rotary gas valve, a valve operating ratchet wheel, a clock driven member provided with a pawl adapted to normally drive the ratchet wheel and having a range of motion in respect to said member sufficient for permitting advancing motion of the ratchet wheel, and a manually operated member provided with a pawl adapted to drive the ratchet wheel, whereby said clock driven member remains at rest and the first mentioned pawl is moved in respect to it when the wheel is driven by the last mentioned pawl, substantially as described.

2. Mechanism for automatically operating valves which comprises the combination of a plug valve provided with a ratchet wheel, a disk provided with an adjustable arm, clock-work for driving the disk, a pawl adapted to drive the ratchet wheel and pivoted to the arm and having its tail adapted to abut on the disk, a movable arm, manual means for turning the last mentioned arm, and a pawl carried by the last mentioned arm and adapted to coöperate with the ratchet wheel, substantially as described.



3. In mechanism for automatically operating valves the combination of a plug valve provided with a ratchet wheel and fixed stop, a bell crank lever the arms of which are aranged to abut upon said stop, a pawl pivoted to one of said arms and having its tail arranged to collide with said stop to position the pawl clear of the ratchet wheel, means for normally positioning the bell crank lever to lift the pawl clear of the ratchet wheel, a valve operating ratchet wheel, and a clock driven member provided with a pawl adapted to normally drive the ratchet wheel and having a range of motion in respect to said member sufficient for permitting advancing motion of the ratchet wheel, substantially as described.

944,989. SAFETY-RAZOR. FRANK M. EDMONDS, Boston, Mass., assignor, by direct and mesne assignments, to Gillette Safety Razor Company, Boston, Mass., a Corporation of Maine. Filed Mar. 1, 1909. Serial No. 480,675.



1. In a safety razor, a handle, a back piece fixedly mounted thereon, a clamp, a pivoted rod and means whereby said clamp may be adjusted thereon toward and from said back piece, said rod being adapted to be swung out from its clamping position with relation to said back piece to expose said back piece for cleaning and for the reception and delivery of the said blade, as set forth.

2. In a safety razor, a handle, a back piece fixedly mounted thereon, a rod pivoted to said handle to swing into and out of alinement therewith, a clamp connected to said rod whereby said clamp may be swung into and out of registration with said back piece, means whereby said clamp may be adjusted on said rod toward and from said back piece, and means whereby a blade may be centered between said back piece and said handle as set forth.

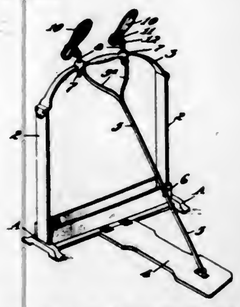
3. In a safety razor, a handle, a back piece integral therewith, a clamp adapted to clamp a blade against said back piece, means whereby said clamp is connected to said handle to be moved into and out of register with said back piece, means whereby the clamp may swing in a direction normal to the back piece, said back piece having centering pins adapted to receive and center a blade and said clamp having slots adapted to coöperate with said pins in centering said clamp against said back piece, and holding it centered whereby said clamp when in operative relation with said blade and said back piece will be held from lateral movement with relation thereto.

4. In a safety razor, a handle, a back piece integral therewith, and a clamp adapted to clamp a blade against said back piece, said clamp being mounted on a cross axis whereby it may be swung in and out from its clamping position and also being provided with means whereby it may be moved in a direction toward and away from said back piece, said back piece having centering pins adapted to receive and center said blade, and said clamp having slots registering with said pins whereby said clamp may be swung into and out from a position registering with said back piece, as set forth.

5. In a safety razor, a handle, a back piece fixedly attached thereto, a rod pivotally mounted in said handle to swing into and out of alinement therewith, a clamp and means connecting said clamp and said rod whereby said clamp may be adjusted toward and from said back piece, and means for maintaining the clamp in position to register with said back piece while out of clamping position, as described.

[Claims 6 and 7 not printed in the Gazette.]

944,990. SHOE-POLISHING STAND. EDWARD H. GERNANDT, San Francisco, Cal. Filed July 21, 1909. Serial No. 508,722.



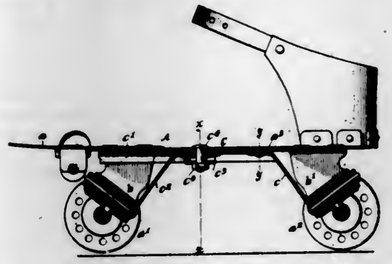
1. The combination in a polishing stand, of a base, vertical uprights and a connecting arch at the top, pedals supported upon said arch, a foldable extension from the base of the frame, and a jointed diagonal brace rod connecting the pedal supports with said extension.

2. The combination in a polishing stand, of a frame including a base, side posts and transverse top arch, an extension hinged centrally to the base, a rod jointed to register with the joint of the extension, said rod having one end attached to the outer end of the extension, and the other end forked and connected with the top arch of the frame, and foot-supporting pedals carried by said arch.

3. The combination in a shoe polishing stand, of a base, side posts and a transverse top arch, perforated bosses upon the arch, an extension hinged to the center of the base, a jointed brace rod having one end connected with the extension and the opposite end forked, and connected with the bosses, and foot pedals having jointed shanks fitting and adjustable in said bosses.

4. The combination in a shoe polishing stand, of a main substantially rectangular frame, an extension hinged centrally to the base, and extendible at right angles therewith, a jointed brace rod having one end connected with the extension and foldable in unison therewith, interspaced perforated heads fixed to the top bar of the main frame, forks at the upper end of the brace rod pivotally connected with said heads, foot pedals having jointed shanks, and means for adjusting the angle of the pedals, the main portion of the shanks being also slidable and adjustable in the supporting heads.

944,991. EXTENSIBLE ROLLER-SKATE. WILLIAM J. HILLE, Philadelphia, Pa., assignor to National Arms and Stamping Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Sept. 2, 1909. Serial No. 515,785.



A roller skate provided with an extensible foot-plate and a sectional truss-strap connected with the wheel-trucks, one member being riveted to one of the trucks and the foot-plate and the other member being riveted to the other of the trucks and adjustably connected with the said first member and foot-plate, substantially as and for the purposes described.

944,992. DENTAL-FLOSS SPOOL. ARTHUR J. HOLMES, Rockville, Conn., assignor to Belding Brothers & Co. Filed Aug. 15, 1908. Serial No. 448,714.

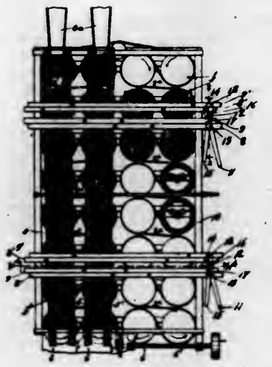


1. The herein described improvement in dental floss spools adapted to hold a cop of floss comprising a box having a straight outer wall, a straight outer wall cap registering therewith, the interior of the cap and box adapted to conform to the cop of floss, said cap and box having a central depression to form straight meeting faces and thereby exert a tension on the thread delivered from the cop, one of said straight faces having a delivery hole therethrough and at one side of its center, and a fastening lip for the thread, for the purpose set forth.

2. A dental floss spool adapted to hold a cop of floss comprising a straight outer wall box and cap adapted to register with each other, the interior of said box and cap shaped to conform to the cop of floss, the central portion of the sides of both cap and box having a depression whose bottoms form meeting faces to exert a frictional contact with the delivery thread of the cop, one of said meeting faces having a thread delivery hole, for the purpose set forth.

944,993. MACHINE FOR BRUSHING AND POLISHING FRUIT AND OTHER OBJECTS. JOHN B. HORRELL and ARTHUR S. BRYANT, Santa Paula, Cal., assignors, by direct and mesne assignments, to H. K. Miller Manfg. Co., Glendora, Cal., a Corporation of California. Filed June 11, 1906, Serial No. 321,272. Renewed May 11, 1908. Serial No. 432,319.

1. Mechanism of the character described, comprising a rotary abrasive element operative substantially in a horizontal plane; and other opposed abrasive elements combined with said rotary abrasive element and spaced apart to form a runway extending in a chord of an arc over said rotary abrasive element whereby objects may traverse said rotary abrasive element subject to abrasive action of the entirety.



2. Mechanism of the character described, comprising a plurality of rotary abrasive elements operative substantially in a horizontal plane; and other abrasive elements having upright straight opposed abrasive surfaces arranged to form a runway extending in a chord of an arc over said rotary abrasive elements whereby objects may traverse said rotary abrasive elements subject to abrasive action of the entirety.

3. A fruit cleaner comprising a disk having a brush upon one face, guides above said face terminating on opposite sides thereof to form an open-ended runway across said brush, and means for rotating said disk.

4. A fruit cleaner comprising a disk having a brush upon one face, means for rotating said disk the same being arranged underneath the disk opposite the brush face to leave said face unobstructed, and guides forming an open-ended runway across said brush.

5. A fruit cleaner comprising a disk having a brush upon its upper face, means for rotating said disk consisting of a shaft projecting solely from the lower face of said disk opposite said brush, and guides forming an open-ended runway across said brush.

[Claims 6 to 13 not printed in the Gazette.]

944,994. STICKY-FLY-PAPER HOLDER. GODFRIED LAUBE and HATTIE R. LAUBE, Santa Monica, Cal.; said Godfried Laube assignor to George N. Bartlett, Los Angeles, Cal. Filed Mar. 6, 1909. Serial No. 481,697.

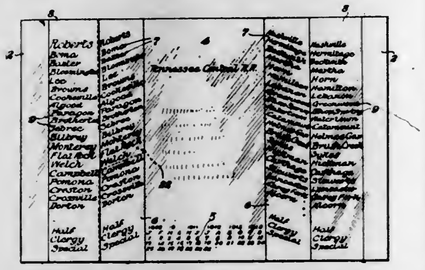


1. A paper holder comprising a tray having the corners thereof bent upwardly to provide flanges, an inverted tray frame located upon said tray and having the corners thereof bent downwardly to provide flanges engaging the tray and supporting the tray frame in spaced relation to the tray, a screen carried by said tray frame, and frames pivotally connected to the longitudinal edges of said tray and adapted to be hooked together for holding said tray frame upon said tray.

2. A paper holder comprising a tray having the corners thereof bent upwardly to provide flanges, an inverted tray

frame located upon said tray and having the corners thereof bent downwardly to provide flanges adapted to rest upon said tray inside of said tray flanges, and a screen carried by said tray frame.

944,995. RAILROAD-TICKET. THEODORE A. ROUSSEAU, Nashville, Tenn. Filed Jan. 21, 1909. Serial No. 473,540.



1. A railroad ticket formed of a single blank and comprising a ticket section, a column containing station designations located beside the ticket section, an agent's stub located beside said column, said agent's stub containing a column having the same station designations as the first mentioned column of station designations, said columns being arranged adjacent to each other with the designations in one column arranged at an angle to the designations in the other column, the designations in the column of the agent's stub being arranged at right angles to the line between the adjacent columns for the purpose described.

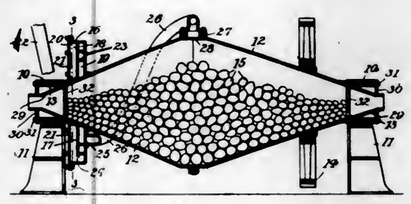
2. A railroad ticket comprising a ticket section, a column located on each side of said ticket section containing station designations, an agent's stub located beside one of said columns, said agent's stub containing a column having the same station designations as the column on the ticket section beside which the stub is located, said last two mentioned columns being arranged adjacent to each other with the station designations in one column arranged at an angle to the station designations in the other column, the designations in the column of the agent's stub being arranged at right angles to the line between adjacent columns for the purpose set forth.

3. A railroad ticket comprising a ticket section, a column containing station designations on each side of the ticket section, an agent's stub beside each column of station designations, each of said agent's stubs containing a column adjacent to the column on the ticket section and having the same station designations as the station designations of the adjacent column on the ticket section, the station designations in the columns of the agent's stubs and in the columns of the ticket section being arranged at an angle to each other, the designations in the columns of each of the agent's stubs being arranged at right angles to the line between the adjacent columns for the purpose set forth.

944,996. PEBBLE-MILL. MAX F. ABBÉ, New York, N. Y. Filed Mar. 9, 1909. Serial No. 482,242.

1. A pebble mill comprising a coniform shell having a peripheral inlet opening at the widest portion thereof, a pair of supporting bearings, means for axially rotating the shell, grinding bodies inclosed within the shell, a casing encompassing the shell, a spiral conveyer within the casing, and means for connecting the casing with the inlet opening.

2. A pebble mill comprising a coniform shell having a peripheral inlet opening at the widest portion thereof, a pair of supporting bearings, means for axially rotating the shell, grinding bodies inclosed within the shell, a casing encompassing a reduced section of the shell, a spiral conveyer within the casing, and a feed spiral connecting the casing with the inlet opening.

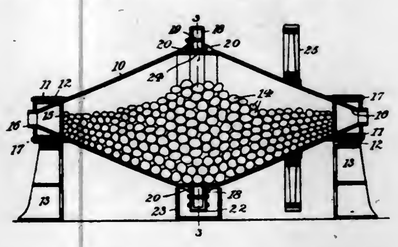


3. A pebble mill comprising a coniform shell having a peripheral inlet opening at the widest portion thereof, a pair of trunnions, one of which is hollow, means for axially rotating the shell, grinding bodies inclosed within the shell, a casing encompassing the shell, a spiral conveyer within the casing, and means for connecting the casing with the inlet opening.

4. A pebble mill comprising an axially rotatable shell provided with a peripheral inlet opening at a point intermediate its ends, said shell having discharge openings on opposite sides of the inlet opening, grinding means inclosed within the shell, and means for feeding the material to the peripheral inlet opening; whereby the ground material will be free to flow without obstruction in opposite directions to the discharge openings.

5. A pebble mill comprising a coniform shell having a peripheral inlet opening in its widest portion, means for axially rotating the same, grinding means inclosed within the shell, and means for feeding the material into the peripheral inlet opening.

944,997. PEBBLE-MILL. MAX F. ABBÉ, New York, N. Y. Filed Mar. 9, 1909. Serial No. 482,243.



1. A pebble mill comprising a coniform shell having a peripheral inlet opening at the widest portion thereof, a pair of supporting bearings, means for axially rotating the shell, grinding bodies inclosed within the shell, a casing encompassing the shell at the widest portion thereof, a spiral conveyer within the casing and communicating with the inlet opening, and a trough into which said conveyer is adapted to dip.

2. A pebble mill comprising a coniform shell having a peripheral inlet opening at the widest portion thereof, a pair of trunnions, one of which is hollow, means for axially rotating the shell, grinding bodies inclosed within the shell, a casing encompassing the shell at the widest portion thereof, a spiral conveyer within the casing and communicating with the inlet opening, and a trough into which said conveyer is adapted to dip.

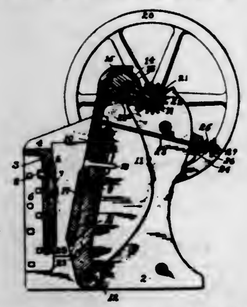
3. A pebble mill comprising a coniform axially rotatable shell having a peripheral inlet opening at its widest portion, grinding means inclosed within the shell, and a spiral conveyer encompassing the shell at its widest portion and communicating with the peripheral inlet opening.

944,998. COOKING UTENSIL. EDWARD L. ANKROM, Quaker City, Ohio. Filed Mar. 26, 1909. Serial No. 485,982.



In combination with a cooking utensil or vessel having a bottom, an annular split member having a portion deflected inwardly adapted to engage with the side of the utensil or vessel and a convexed-concaved portion adapted to engage with the bottom of the vessel and to leave an air space between said portion and said bottom, said annular split member being formed with outwardly projecting ears, and a clamping nut and bolt secured to the ears adapted to hold the annular split member removably on the bottom of the utensil or vessel.

944,999. CRUSHING-MACHINE. JOHN E. BLAKE, Pittsburg, Pa., assignor to Blake Crusher and Pulverizer Company, Pittsburg, Pa., a Corporation of Pennsylvania. Filed June 21, 1909. Serial No. 503,268.
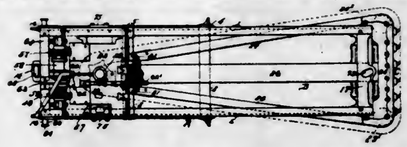


1. In a crushing machine, a fixed jaw, a swinging jaw, a pair of contacting rollers one of which is eccentrically mounted, one of said rollers being mounted on said swinging jaw and the other roller being mounted on a power driven shaft mounted in said machine, and intermeshing means between said rollers, whereby said swinging jaw is operated.

2. In a crushing machine, a fixed jaw, a swinging jaw, a pair of contacting rollers one of which is eccentrically mounted, one of said rollers being mounted on said swinging jaw and the other roller being mounted on a power driven shaft mounted in said machine, intermeshing means between said rollers, and means for maintaining said rollers in peripheral engagement, whereby said swinging jaw is operated.

945,000. MINING-MACHINE. HENRY B. DIERDORFF, Columbus, Ohio, assignor to Joseph A. Jeffrey, Columbus, Ohio. Filed Dec. 15, 1904. Serial No. 237,042.

1. In a mining machine, the combination with a bed frame, a motor frame longitudinally movable thereon, a chain frame carried by the motor frame and adjustable relative thereto, an adjusting block slidably mounted in ways formed in the motor frame and chain frame, said ways being arranged transverse to the longitudinal lines of the chain frame and at an angle to each other, and screw threaded means for moving the block in said ways.

2. In a mining machine, the combination with a bed frame, a motor frame longitudinally movable thereon, a chain frame carried by the motor frame, said chain frame being longitudinally adjustable relative to the motor frame and having a centrally arranged longitudinal thrust bar, ways formed in the motor frame in which the thrust bar is slidably mounted and by which it is laterally and vertically braced, an adjusting block slidably mounted in ways formed in the motor frame and the thrust bar, said ways being arranged transverse to the longitudinal lines of the thrust bar and at an angle to each other, and screw threaded means for moving the block in its ways.



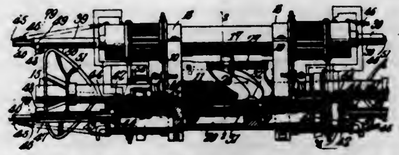
3. In a mining machine, the combination with the bed frame, the cutter chain and the motor platform, of the longitudinally adjustable chain frame having a bar provided with vertical projections inclined to the longitudinal lines of the chain frame, an adjusting block having vertical projections engaging with those aforesaid and movably mounted on the engine platform, and means for moving said adjusting block transversely to adjust the chain frame substantially as set forth.

4. In a mining machine, the combination of a bed frame, a motor platform movable forward and back thereon, a cutter chain, a longitudinally adjustable chain frame having at its rear end a bar grooved diagonally to the longitudinal lines of the said frame, an adjusting block suitably mounted in said motor platform and having a tongue arranged to enter the groove in the bar at the rear end of said chain frame, and means for moving said adjusting block transversely of the motor platform to adjust the chain frame.

5. In a mining machine of the class described, the combination with a motor frame, of a longitudinally adjustable chain frame having at its end adjacent to the said motor frame a bar formed with a series of diagonally arranged grooves, an adjusting block having a plurality of tongues arranged to fit into said grooves, said block having a bearing against the motor frame, and means for moving the said adjusting block transversely of the machine to adjust the chain frame.

[Claims 6 to 12 not printed in the Gazette.]

945,001. MOTOR. EMMETT H. HEANDON, Sanford, Fla. Original application filed July 10, 1907, Serial No. 383,056. Divided and this application filed Nov. 4, 1907. Serial No. 400,567.

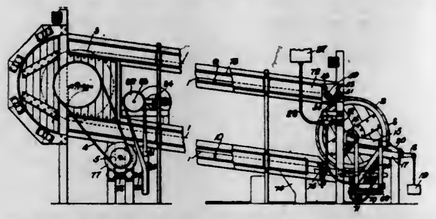


1. In an internal combustion engine, a cylinder having an inlet port at the explosion chamber end and a piston controlled exhaust port at the opposite end, a main piston within the cylinder, and another piston in the cylinder at the explosion chamber end thereof and provided with a valved port opening toward the main piston, means for moving the second named piston to expel the burned gases and to draw in a fresh charge at the completion of the working stroke, and means for locking the second named piston in the retracted position to convert the engine into a four cycle engine.

2. In an internal combustion engine, a cylinder having an intake port at the explosion chamber end and a piston

controlled exhaust port near the opposite end, a main piston working in said cylinder, an auxiliary piston having valved ports extending therethrough, an operating rod extending from the auxiliary piston, a spring connected to the rod and tending to force the auxiliary piston in the direction of the exhaust port, means for moving the auxiliary piston in the opposite direction, and means for locking said auxiliary piston from movement when the engine is to operate as a four cycle engine.

945,002. APPARATUS FOR DESICCATING EGGS. JOHN M. HUSSEY, Cambridge, Mass. Original application filed Mar. 8, 1907, Serial No. 361,225. Divided and this application filed Aug. 31, 1907. Serial No. 390,857.



1. Apparatus for desiccating eggs comprising in combination, belt supporting drums, an egg batter receiving and conveying belt supported thereon, an egg batter receptacle supported in proximity to said belt, whereby egg batter may be conveyed to the latter, and common means for conjointly moving one of said supporting drums and said egg batter receptacle, thereby to tighten the belt and at the same time to maintain the relative position of said drum and said receptacle.

2. Apparatus for desiccating eggs comprising in combination belt supporting drums, one at least of which is bodily movable, an egg batter receiving and conveying belt supported thereon, the upper run of said belt being maintained in a plane sufficiently approaching the horizontal to permit the drying of the egg batter upon the belt in an even layer, an egg batter receptacle connected to said bodily movable drum so as to move therewith, and positioned in proximity to said belt so that egg batter may be conveyed thereto, and means bodily to move said drum to tighten the belt.

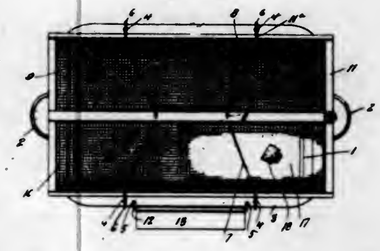
3. Apparatus for desiccating eggs comprising in combination belt supporting drums, one at least of which is bodily movable, an egg batter receiving and conveying belt supported thereon, an egg batter receptacle connected to said bodily movable drum so as to move therewith, and positioned in proximity to said belt so that egg batter may be conveyed thereto, and automatically acting means bodily to move said drum to tighten the belt.

4. Apparatus for desiccating eggs comprising in combination belt supporting drums, one at least of which is bodily movable, an egg batter receiving and conveying belt supported thereon and having a substantially horizontal egg drying run, an egg batter receptacle so connected to said bodily movable drum as to move therewith, and positioned in proximity to said belt, so that egg batter may be conveyed to the latter, and means to move said drum to tighten the belt.

5. Apparatus for desiccating eggs comprising in combination belt supporting drums, one at least of which is bodily movable, an endless egg batter receiving and conveying belt supported thereon the upper run of said belt being maintained in a plane sufficiently approaching the horisontal to permit the drying of the egg batter upon the belt in an even layer, an egg batter receptacle located adjacent the under run of said belt, so that said run of the belt may receive egg batter from said receptacle, means connecting said bodily movable drum and said receptacle for movement in unison, and means to move said drum to tighten the belt.

[Claims 6 to 29 not printed in the Gazette.]

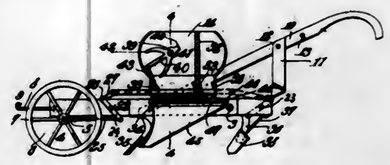
945,003. FLY-TRAP. GODFRIED LAUBE and HATTIE R. LAUBE, Santa Monica, Cal.; said Godfried Laube assignor to George N. Bartlett, Los Angeles, Cal. Filed Mar. 6, 1909. Serial No. 481,695.



1. In a fly trap, a tray adapted to support an adhesive substance, a yoke carried by one of the longitudinal edges of said tray, an L-shaped holder pivotally connected to said yoke, arch shaped wire frames detachably connected to the longitudinal edges of said tray and adapted to have the upper ends thereof locked together by the end of one frame extending through the end of the other frame, and curved wire screens carried by said frames and arching said tray, substantially as described.

2. In a fly trap, a tray adapted to support an adhesive substance, an L-shaped holder pivotally supported by one of the longitudinal edges of said tray, wire frames detachably connected to the longitudinal edges of said tray and arching said tray, and curved wire screens carried by said frames, the frames being extended through the screens adjacent the longitudinal side edges of the latter and securing the screens to the frames.

945,004. PLANTER AND FERTILIZER-DROPPER. EDGAR C. ROLLINS, Call, Tex., assignor of one-half to Frank M. Roberts, Call, Tex. Filed Apr. 7, 1909. Serial No. 488,471.



1. In combination with a hopper slides mounted therein, means for moving the said slides, the said slides having recessed edges provided with fingers, and an agitator mounted in the hopper and operatively connected with the slides.

2. A planter comprising a wheel-mounted frame, a hopper located upon the frame, slides mounted in the hopper for longitudinal movement, shafts journaled in the frame, one in advance of the hopper, and the other behind the hopper, means operatively connecting the said shafts with the slides, and means for rocking the said shafts.

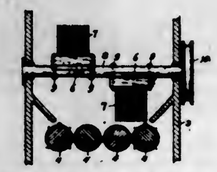
3. A planter comprising a wheel-mounted frame, a hopper mounted upon the frame, slides mounted in the hopper, shafts journaled in the frame, one in advance of the hopper and the other at the rear of the hopper, radially disposed arms carried by the shafts, links operatively connecting the said arms with the slides, and means for rocking the shafts.

4. A planter comprising a wheel-mounted frame, a hopper mounted upon the frame, slides located in the hopper, shafts journaled in the frame, one in advance of the hopper, and another at the rear of the hopper, said shafts having radially disposed arms, links pivotally connected at their outer ends with the said arms, and at their inner ends with the said slides, means for rocking the shafts, and a chute hingedly attached to the frame and located below the hopper.

5. A planter comprising a wheel-mounted frame, a hopper located thereon, slides located in the hopper, shafts journaled in the frame, one in advance of the hopper and another at the rear of the hopper, means operatively connecting the said shafts with the slides, an agitator located in the hopper, and means operatively connecting the agitator with one of the slides.

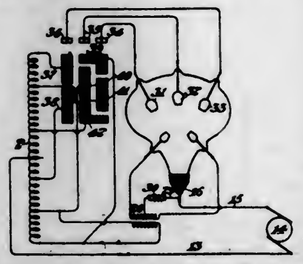
[Claim 6 not printed in the Gazette.]

945,005. CORN-HUSKING MACHINE. AUGUST ROSENTHAL, Milwaukee, Wis., assignor to Rosenthal Manufacturing Company, Milwaukee, Wis. Filed Jan. 18, 1904. Serial No. 189,415.



In a corn husking machine, the combination of a frame, a plurality of sets of husking rolls supported therein and adapted to have the ears of corn travel longitudinally thereon, and to discharge from the rear ends thereof, each set comprising two coacting rolls, a shaft journaled in the frame and arranged above and extending across the rolls, brushes for each set of rolls, consisting of thin, flexible bristles arranged to form straight noncircular brushes disposed in the plane of the longitudinal axis of the shaft and projecting respectively from diametrically opposite points of the shaft, whereby the brush for one set of rolls will sweep longitudinally over the rolls of said set, while the brush for the other set of rolls is pointing in a direction away from the rolls, and vice versa, and means for rotating the shaft in a direction to cause the sweep of the brushes to be toward the forward ends of the rolls.

945,006. MOTOR-CONTROL SYSTEM. PERCY H. THOMAS, Pittsburg, Pa., assignor to Cooper Hewitt Electric Company, New York, N. Y., a Corporation of New York. Original application filed Sept. 4, 1903, Serial No. 171,882. Divided and this application filed Dec. 4, 1903, Serial No. 183,697. Renewed May 17, 1906. Serial No. 317,267.



1. The combination of a direct current work circuit, an alternating current supply, an hermetically sealed and completely exhausted container, a plurality of electrodes therein, comprising a plurality of anodes and a vaporizable reconstructing cathode therein, means for applying different voltages from the source upon the anodes and means for supplying direct current from the cathode to the work circuit.

2. The combination of a direct current work circuit, a vapor converter, alternating current supply obtained from a transformer winding with taps, and means for connecting the vapor converter successively to different taps.

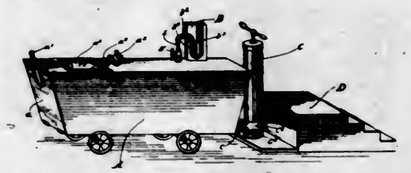
3. The combination of a direct current work circuit, an alternating current supply circuit, a vapor converter having one or more supplementary positive electrodes, and means for successively connecting non-operating positive electrodes to points of higher and higher potential in the supply circuit.

4. In a system of electrical distribution in which a variable potential direct current circuit is fed from an alternating supply, the combination with direct current translating devices, a vacuum rectifier feeding said electrodes, and suitable sources of potential, said sources of potential providing a plurality of different electro-motive-forces, of means for applying the several electro-motive-forces successively to the work circuit the point of application being within the said vacuum rectifier and means for returning transmitted impulses.

5. In a system of electrical distribution in which a variable direct current circuit is supplied from an alternating source, the combination with a vacuum rectifier including an exhausted container, a plurality of anodes and a cathode, of a plurality of sources of alternating potential adapted to be successively and simultaneously connected to the said anodes and direct current translating devices connected to the cathode, together with means for returning transmitted currents from the said translating devices.

[Claims 6 to 10 not printed in the Gazette.]

945,007. APPARATUS FOR PREVENTING HUMAN BEINGS FROM BEING BURIED ALIVE. ANTHONY DE CHOINSKI, Dresden, Germany. Filed June 22, 1909. Serial No. 503,712.



1. An apparatus of the character described, comprising a receptacle adapted to receive a human body, and having a removable door and window, an inlet air valve, and an exhaust air pump connected with the receptacle.

2. An apparatus of the character described, comprising an oblong casing adapted to receive an open coffin and human body, and having a removable door and window, an air inlet valve, a barometer mounted on the casing, a pipe connecting the interior of the casing with the tube of the barometer, and an exhaust air pump connected with the interior of the casing.

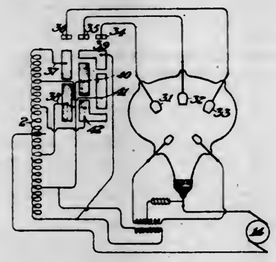
3. An apparatus of the character described, comprising an oblong air tight casing adapted to receive a human body, and having a removable door and observation window, an inlet air valve on said casing, a pipe and controlling valve on said casing, a barometer on said casing having the open end of its tube connected with said pipe, and an air exhaust pump connected to said casing.

945,008. MOTOR-CONTROL SYSTEM. PERCY H. THOMAS, Pittsburg, Pa., assignor to Cooper Hewitt Electric Company, a Corporation of New York. Filed Sept. 4, 1903. Serial No. 171,882.

1. In a system of electrical distribution in which suitable direct current translating devices are supplied with variable direct voltage from an alternating source, the method of control which consists in supplying current from the source from a definite potential and rectifying this current, and, increasing the voltage supplied to the translating devices, by substituting for this rectified current, current from a point of higher potential from the source and independently rectifying the second current.

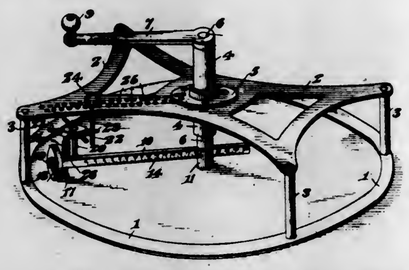
2. The method of increasing the voltage supplied from an alternating source to a direct current translating device, which consists in applying successively higher and

higher voltages to the device through a plurality of paths, closing the path from a higher voltage before opening the



path from the lower voltage, and rectifying the current in each path independently.

945,009. WASHER AND GASKET CUTTER. JAMES A. ROSE, Hastings, Nebr. Filed June 30, 1908. Serial No. 441,143.



1. A device of the class described comprising a frame, a vertical rotary shaft mounted in the frame, means for rotating the shaft, an arm connected with and carried by the shaft in the rotary movement thereof, cutting mechanism mounted on the arm, and a wheel supporting the arm and arranged to run on the material for holding the same while it is being cut.

2. A device of the class described comprising a frame, a vertical rotary shaft mounted in the frame, means for rotating the shaft, an arm connected with and carried by the shaft in the rotary movement thereof, cutting mechanism mounted on the arm, and a wheel journaled on the arm at the outer end thereof and arranged to run on and hold the material while the same is being cut.

3. A device of the class described comprising a frame, a vertical rotary shaft, an arm connected with and carried by the shaft in the rotary movement thereof and adjustable radially of the same, cutting mechanism mounted on the arm, and means for automatically feeding the cutting mechanism.

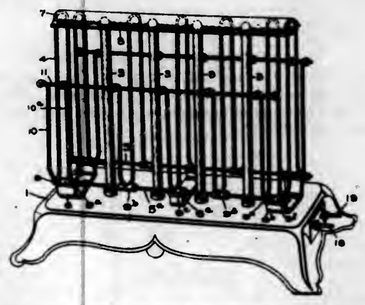
4. A device of the class described comprising a frame, a vertical rotary shaft, a radially arranged arm connected at its inner portion with and carried by the shaft in its rotary movement thereof and adjustable longitudinally, a cutter carried by the outer portion of the arm and movable upwardly and downwardly on the same, and mechanism for feeding the cutter downwardly at intervals.

5. A device of the class described comprising a frame, a vertical rotary shaft, an arm connected with and carried by the shaft in its rotary movement thereof, a cutter carried by the arm and movable upwardly and downwardly on the same, mechanism for feeding the cutter downwardly at intervals, and a spring yieldably supporting the cutter.

[Claims 6 to 13 not printed in the Gazette.]

REISSUES.

13,060. ELECTRIC TOASTER. WILLIAM S. ANDREWS, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Nov. 27, 1909. Serial No. 530,279. Original No. 936,597, dated Oct. 12, 1909, Serial No. 463,746.



1. An electric cooking utensil, comprising a plurality of electric heaters adapted to be operated at a radiant heat and surrounded by an open-work casing having a plurality of supports for material to be heated, whereby the radiant heat from the several units may be applied simultaneously on two sides in view of the operator.

2. An electric cooking utensil, comprising a plurality of heating units inclosed in an open-work casing, said heating units being adapted to run at a radiant heat, and a plurality of baskets on opposite sides of the units to receive the material to be heated.

3. An electric cooking utensil, comprising a plurality of electrically heated units adapted to be operated at a radiant heat arranged in a line, an open-work wire frame inclosing the heating units, and a plurality of baskets on two sides of the units to receive the material to be heated.

4. An electric cooking utensil, comprising a plurality of heating elements adapted to be operated at radiant heat arranged in a line, an open wire-work frame inclosing the heating units, and two pivoted frames at the sides of the heating units adapted to form baskets to receive the material to be heated.

5. An electric cooking utensil, comprising a plurality of vertically arranged heating units, an open-work wire cage inclosing the same, and two folding baskets to receive the material to be heated at the sides of the units.

6. An electric cooking utensil, comprising a plurality of vertical, removable, cylindrical heating elements arranged in line and connected in parallel in relation to a supply circuit, an open-work cage or frame inclosing the same, and two folding baskets at the sides to receive the material to be heated.

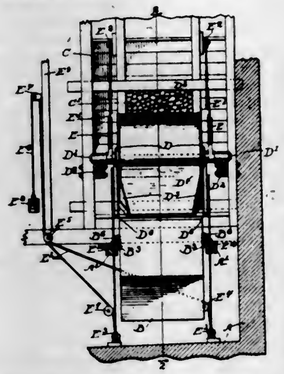
7. An electric cooking utensil, comprising a plurality of electric heaters, a folding open-work cage inclosing the same, and a latch to lock the cage in closed position.

8. An electric cooking utensil, comprising an electric heater adapted to be operated at a radiant heat, and means for supporting the material to be heated in a substantially vertical position within view of the operator.

9. An electric cooking utensil, comprising an electric heater adapted to be operated at a radiant heat and surrounded by an open-work casing having supporting means for the material to be heated, whereby the radiant heat from the unit may be applied simultaneously on both sides.

13,061. LOADING AND UNLOADING APPARATUS. EDWARD E. BARRETT, La Grange, Ill. Filed June 4, 1909. Serial No. 500,229. Original No. 899,095, dated Sept. 22, 1908, Serial No. 398,172.

1. In a loading and unloading apparatus, the combination of a hoisting bucket, moving in a definite path with a fixed supply hopper at one side of such path, and intermediate such path and hopper, a pivotally mounted combined gate, measure and chute.



2. In a loading and unloading apparatus, the combination of a hoisting bucket, moving in a definite path with a fixed supply hopper at one side of such path, and intermediate such path and hopper, a pivotally mounted combined gate, measure and chute, said chute member projecting into the path of the bucket when serving as a chute.

3. In a loading and unloading apparatus, the combination of a hoisting bucket, moving in a definite path with a fixed supply hopper at one side of such path, and intermediate such path and hopper, a pivotally mounted combined gate, measure and chute, said chute member lying parallel with and outside of such path when serving as a gate.

4. In a loading and unloading apparatus, the combination of a hoisting bucket, moving in a definite path with a fixed supply hopper at one side of such path, and intermediate such path and hopper, a pivotally mounted combined gate, measure and chute, said chute member tangential to a circle about its axis of rotation.

5. In a loading and unloading apparatus, the combination of a hoisting bucket, moving in a definite path with a fixed supply hopper at one side of such path, and intermediate such path and hopper, a pivotally mounted combined gate, measure and chute, which contains two plates which alternately act as gates and one of them as a chute.

6. In a loading and unloading apparatus, the combination of a hoisting bucket, moving in a definite path with a fixed supply hopper at one side of such path, and intermediate such path and hopper, a pivotally mounted combined gate, measure and chute, which consists of end plates, two plates at an angle to each other, and having an opening between them.

7. In a loading and unloading apparatus, the combination of a hoisting bucket with a fixed hopper supply and intermediate them a pivotally mounted combined gate, measure and chute consisting of end plates and two plates set at an angle to each other, with an opening between them, adapted to alternately act as gates and one of them as a chute.

8. In a loading and unloading apparatus, the combination of a hoisting bucket with a fixed hopper supply and intermediate them a pivotally mounted combined gate, measure and chute comprising end plates, a circumferentially arranged plate, adapted to act as a gate, and a tangentially arranged plate connected therewith and adapted to act alternately as a gate and chute.

9. In a loading and unloading apparatus, the combination of a hoisting bucket moving in a definite path, with a fixed supply hopper at one side of such path, and intermediate such path and hopper a pivotally mounted combined gate and measuring receptacle, and means for simultaneously raising the bucket and rotating the combined gate and measuring receptacle in a given direction and for simultaneously lowering the bucket and rotating the combined gate and measuring receptacle in the opposite direction.

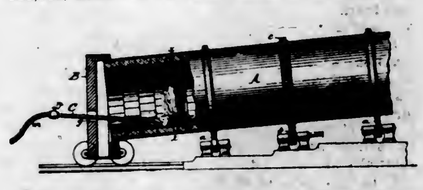
10. In a loading and unloading apparatus, the combination of a hoisting bucket moving in a definite path, with a fixed supply hopper at one side of such path, and intermediate such path and hopper a pivotally mounted combined gate and measuring receptacle, and means for simultaneously raising the bucket and rotating the combined gate and measuring receptacle in a given direction and for simultaneously lowering the bucket and rotating the combined gate and measuring receptacle in the opposite direction, said means containing connections between the bucket and the combined gate and measuring receptacle.

11. In a loading and unloading apparatus, the combination of a hoisting bucket moving in a definite path, with a fixed supply hopper at one side of such path, and intermediate such path and hopper a pivotally mounted combined gate and measuring receptacle, and means for raising and lowering the bucket and simultaneously turning the combined gate and measuring receptacle in opposite directions so as to make it serve as a receiving combined gate and measuring receptacle when the bucket is up and a discharging combined gate and measuring receptacle when the bucket is down.

12. In a loading and unloading apparatus, the combination of a hoisting bucket moving in a definite path with a fixed supply hopper at one side of such path and intermediate such path and hopper, a pivotally mounted combined measuring gate and receptacle provided with an opening which alternately faces toward the hopper and toward the bucket and means responsive to the motion of the bucket for reciprocally rotating said combined gate and measuring receptacle.

13. In a loading and unloading apparatus, the combination of a hoisting bucket moving in a definite path with a fixed supply hopper at one side of such path and intermediate such path and hopper, a pivotally mounted combined gate and measuring receptacle having two walls along one of which the material flows in from the hopper along the other of which it flows out toward the bucket and which alternately act as gates to stop the flow, and means responsive to the motion of the bucket for reciprocally rotating said combined gate and measuring receptacle.

13,062. METHOD OF DISINTEGRATING AND REMOVING ANNULAR SALAMANDERS IN NODULIZING-KILNS. AUGUST BRÄUTIGAM, South Orange, N. J., assignor to August Heckscher, New York, N. Y. Filed Nov. 26, 1909. Serial No. 530,253. Original No. 936,981, dated Oct. 12, 1909. Serial No. 506,654.



1. The method of disintegrating annular salamanders in rotary nodulizing kilns, which consists in directing against the salamander while in the highly heated state a jet of compressed air; substantially as described.

2. The method of disintegrating and removing annular salamanders in rotary nodulizing kilns, which consists in directing against the salamander while in the highly heated state a jet of compressed air and rotating the furnace until the annulus is broken down; substantially as described.

3. The method of disintegrating and removing annular salamanders in rotary nodulizing kilns, which consists in stopping the rotation of the kiln and directing against

the lower portion of the salamander while in the highly heated state a jet of compressed air, and resuming the rotation of the furnace until the annulus is broken down; substantially as described.

13,063. SAND-BOX FOR CARS. JOHN C. DUNES, Chicago, Ill. Filed Oct. 21, 1909. Serial No. 523,936. Original No. 639,891, dated Dec. 26, 1899, Serial No. 716,255.



1. In a sand-box for car tracks of the character described, the combination with a hopper or reservoir having a substantially vertical sand discharge pipe or passage, of an oscillating valve having a cup shaped pocket into which the lower end of the pipe or passage extends but spaced away therefrom with the edges extended upward sufficiently to prevent the discharge of sand when in normal closed position and adapted to discharge when oscillated laterally, and to continuously discharge while maintained in such position, and a valve chamber completely inclosing said valve and provided with a discharge pipe, substantially as described.

2. In an apparatus of the character described, the combination, with a hopper or reservoir having a feed-pipe, of an oscillating valve provided with two cup-shaped pockets of differing length, the feed-pipe extending into the longer pocket, and the two pockets communicating with each other at one end, substantially as described.

3. In an apparatus of the character described, the combination, with a hopper or reservoir having a feed pipe or passage, of an oscillating valve comprising two chambers of differing length, the feed-pipe extending into the longer chamber, said longer chamber being provided with a transversely-inclined bottom, and the two chambers communicating at one end, substantially as described.

4. In an apparatus of the character described, the combination, with a hopper or reservoir provided with a feed-pipe having an inclined end, of an oscillating valve having a cup-shaped pocket provided with a curved bottom, said feed-pipe extending into said cup-shaped pocket and terminating some distance above the curved bottom thereof, substantially as described.

5. In an apparatus of the character described, the combination, with a hopper or reservoir having a feed-pipe, of an oscillating valve comprising two cup-shaped pockets of different length, into the longer of which the feed-pipe extends, said pockets communicating at one end, and a valve-chamber inclosing said valve and provided with an inclined or hopper bottom and a discharge-spout, substantially as described.

6. In an apparatus of the character described, the combination, with a hopper or reservoir having a feed-pipe, of an oscillating valve into which the feed-pipe extends, a valve-casing inclosing said valve and constructed in two separable parts, the meeting faces whereof are grooved to receive a packing located in said grooves, substantially as described.

7. In an apparatus of the character described, the combination with a hopper or reservoir, of a valve-casing having a rabbeted seat in its upper portion, a feed-pipe having a hopper-shaped plate fitting in said rabbeted seat, and an oscillating valve arranged in said valve-casing and adapted to receive the end of the feed-pipe, substantially as described.

8. In an apparatus of the character described, the combination, with a hopper or reservoir having a feed-pipe, of an oscillating valve to receive said feed-pipe, a valve-casing inclosing said valve and feed-pipe and provided with an opening, and a removable cover for said opening, substantially as described.

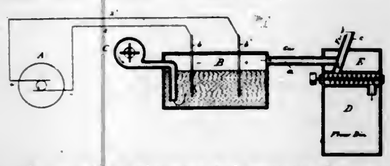
9. In an apparatus of the character described, the combination, with hoppers having feed-pipes and oscillating valves to receive said feed-pipes, of a transverse shaft connected with said valves, means for automatically actuating said shaft in one direction to close said valves, and means for rocking said shaft in the opposite direction to open said valve, substantially as described.

10. In an apparatus of the character described, the combination, with hoppers having feed-pipes, of oscillating valves having cup-shaped pockets into which said feed-pipes extend without contact with the same, a rock-shaft connecting said valves, automatic means for actuating said rock-shaft to normally close said valve, and means for actuating said rock-shaft in the opposite direction to open said valves, substantially as described.

11. In an apparatus of the character described, the combination, with hoppers having feed-pipes, of oscillating valves provided with polygonal trunnions, a connecting rock-shaft having similarly-shaped extremities, and couplings between said shaft and trunnions, each consisting of a sleeve having a correspondingly-shaped aperture and a set-screw for securing said sleeve, substantially as described.

12. In an apparatus of the character described, the combination, with hoppers having feed-pipes, oscillating valves to receive said feed-pipes, and a rock-shaft normally actuated to close said valve and provided with a radial arm, of a bell-crank lever, a rod connecting said arm and bell-crank lever, and an operating-pin bearing on the bell-crank lever, the bell-crank lever being inclined to the pin when raised and at right angles thereto when depressed, substantially as described.

13,064. PROCESS OF TREATING FLOUR. JOHN M. WILLIAMS, Guthrie, Okla., assignor to Electric Catalytic Air Company, a Corporation of Oklahoma. Filed Sept. 4, 1906. Serial No. 333,271. Original No. 769,522, dated Sept. 6, 1904, Serial No. 178,217.



1. The process of whitening and purifying flour, which consists in decomposing an oxygen-yielding liquid by electrolysis and then immediately forcing the gaseous product through the flour substantially as described.

2. The process of whitening and purifying flour, which consists in decomposing an oxygen-yielding liquid by electrolysis, forcing the gaseous product along and diluting the same by the admixture with an extraneous blast of air introduced below the level of the liquid and delivering the mixture of gases into the flour substantially as described.

3. The process of whitening and purifying flour, which consists in decomposing by electrolysis a liquid which by electrolysis yields gaseous bleaching products, and then subjecting the flour to the action of the said gaseous products.

4. The process of treating flour, which consists in decomposing by electrolysis a liquid which by electrolysis yields gaseous bleaching products, mixing the resulting gaseous products with a diluting agent, and then subjecting flour to the action of the mixture thus produced.

5. The process of treating flour which consists in decomposing an oxygen-bearing liquid by electrolysis, diluting the resulting gaseous products with air, and then subjecting the flour to the action of the resulting mixture.

6. The process of treating cereals, such as flour, which consists in subjecting them to the action of bleaching agents resulting from the electrolytic decomposition of a solution of an acid.

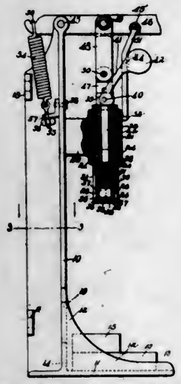
7. The process of treating cereals, such as flour, which consists in subjecting them to the action of bleaching agents resulting from the electrolytic decomposition of a solution of a suitable electrolyte.

8. The herein described process which consists in electrolytically decomposing a solution of a chemical agent capable of generating cereal bleaching gases, diluting said gases, and subjecting the cereal to the action of the diluted gases.

9. The herein described process which consists in electrolytically decomposing a solution of a chemical agent capable of generating cereal bleaching gases, commingling said gases with air, and subjecting the cereal to the action of the resulting mixture.

10. The process of treating cereals, which consists in generating cereal bleaching gases by decomposing a solution of a suitable agent by an electric current and forcing the gases evolved to a cereal treating chamber by a current of air.

13,065. BOTTLE-CAPPING MACHINE. THOMAS J. LEVEY, Washington, D. C., assignor, by direct and mesne assignments, to The International Cap and Sealing-Machine Company, a Corporation of Maryland. Filed Oct. 18, 1909. Serial No. 523,365. Original No. 894,797, dated July 28, 1908, Serial No. 382,261.



1. In a device of the class described, a plunger movably disposed, a tubular member having spaced clefts and depending from said plunger, a head member within said tubular member and having a stem extending through said plunger, a spring between said head member and plunger and operating to maintain the plunger and head member yieldable relative to each other, means for operating said plunger, and means for locking said plunger relative to said stem and its connected head member.

2. In a device of the class described, a supporting frame having a plunger guide, a plunger movable through said guide, a tubular member depending from said plunger and provided with spaced longitudinal clefts, a head member within said tubular member and having a stem extending through said plunger, an operating lever swinging upon said frame, coupling means between said plunger and lever, a weighted locking lever swinging upon said stem and provided with cam faces adapted to lock said plunger relative to said stem and its attached head member when the locking lever is in its downward position, and means connected to said operating lever whereby the locking lever is released at the upward movement of the operating lever.

3. In a device of the class described, a supporting frame having a plunger guide, a plunger movable through said guide and provided with spaced arms extending from its upper end, a tubular member depending from said plunger and provided with spaced longitudinal clefts, a head member within said tubular member and having a stem extending through said plunger and provided with lateral extensions at the upper end and bearing upon said plunger, an operating lever swinging upon said frame, a link pivoted between said spaced arms at one end and coupled to the operating lever at the other end, a weighted locking lever bifurcated at one end and bearing upon opposite sides of the laterally extended end of said stem and between said end and said spaced arms and provided with cam faces adapted to lock said plunger relative to said stem and its attached head member when the locking lever is in its downward position, a pivot pin coupling said locking lever to said stem, and a rod swinging at one end from said operating lever and extending through said locking lever and provided with a lateral enlargement at its free end.

4. In a device of the class described, a supporting frame having a plunger guide, a plunger movable in said guide and provided with spaced arms at its upper end, a tubular member depending from said plunger and provided with spaced longitudinal clefts, a head member within said tubular member and provided with a stem extending through said plunger and with a laterally extending upper end adapted to bear upon said plunger, a spring between said head member and said plunger and operating to maintain said plunger and head member yieldable relative to each other, an operating lever pivoted to said frame, a spring operating to maintain said operating lever yieldably in its elevated position, a link swinging at one end between said plunger arms and at the other end from said operating lever, a weighted locking lever swinging from said stem and between said plunger arms and provided with cam faces adapted to lock said plunger in its downward position, and a rod swinging from said operating lever and extending through said locking lever and provided with an enlargement at its free end adapted to engage the locking lever and release the same when the operating lever is returned to its upward position.

5. In a bottle capping machine, the combination with a support, of a vertically movable capping member embodying a plunger, a tubular member carried by said plunger and provided with longitudinally extending slots or clefts at its lower end to permit the expansion of the member as it passes over the bottle neck, a plunger rod working through said plunger and carrying a head lying within the slotted portion of the tubular member, a spring for moving said rod independently of the tubular member and plunger, means connected to the upper part of said rod, and acting against the plunger to hold said rod elevated and the aforesaid spring under compression, and means connected to the plunger for operating the same.

6. In a bottle capping machine the combination of a reciprocating tubular member comprising resilient spring fingers provided with crimping ribs; a head member yieldably disposed in said tubular member; and means for locking said tubular member with respect to said head member; substantially as described.

7. In a bottle capping machine the combination of a tubular member comprising resilient spring fingers provided with crimping ribs adapted to encircle the flange of a bottle cap; a head member yieldably disposed in said tubular member and adapted to bear upon the upper surface of said cap; means for reciprocating said tubular member; and means for locking said member in its adjusted position with respect to said head member; substantially as described.

8. In a bottle capping machine for placing caps having flanges in locking engagement with bottle heads the combination of a tubular member comprising resilient spring fingers having crimping ribs adapted to wipe down along and to stretch the flange of the bottle cap to be operated upon; a cap holding head member yieldably disposed in said tubular member, and having a diameter greater than that of said crimping ribs, when in their lower position, said tubular member being cut away above said ribs to accommodate said head member; means to reciprocate said ribs past said head member; and means to lock said ribs when in their adjusted position; substantially as described.

9. In a bottle capping machine for placing flanged caps on bottle heads provided with locking shoulders, the combination of a reciprocating tubular member comprising resilient spring fingers having a plurality of circularly arranged crimping members adapted to wipe down along and to bend and stretch the flange of a bottle cap; a head member adapted to firmly press the cork of said cap down into intimate contact with the extreme upper rim of the bottle head and to prevent the metal from buckling when the said ribs are stretching the said flange; said fingers being cut away above said ribs to permit the latter to snap in under said head member and under the shoulder on the bottle head; and means to lock said clefts in this latter position; substantially as described.

10. In a bottle capping machine the combination of the split tubular member comprising a plurality of spring fingers having the circularly arranged crimping ribs 27, the inclines below said ribs; the incline 28 above said ribs; the head member 34 of a larger diameter than said ribs and adapted to be surrounded by the inclines 28; and means to reciprocate said ribs 27 into and out of engagement with said head member; substantially as described.

11. In a bottle capping machine for placing caps having flanges in locking engagement with bottle heads, the combination of a plunger; a tubular member comprising integral resilient spring fingers having crimping ribs adapted to wipe down along and to stretch the flange of the bottle cap to be operated upon; means for rigidly securing said tubular member to said plunger; a cap holding member passing through said plunger; and means for yieldably holding the same in said tubular member; said tubular member being cut away above said ribs to accommodate said head member; substantially as described.

12. In a bottle capping machine for placing flanged caps on bottle heads provided with locking shoulders, the combination of a reciprocating plunger; a tubular member comprising integral resilient spring fingers having a plurality of circularly arranged crimping members adapted to wipe down along and to bend and stretch the flange of a bottle cap; means rigidly securing said tubular member and said plunger together; a head member passing through said plunger and adapted to firmly press the cork of said cap down into intimate contact with the extreme upper rim of the bottle head and to prevent the metal from buckling when the said ribs are stretching the said flange; said fingers being cut away above said ribs to permit the latter to snap in under the shoulder on the bottle head; and means to reciprocate said tubular member with respect to said head member; substantially as described.

DESIGNS.

40,415. BADGE. EVERETT L. HAYNES, Chicago, Ill. Filed Nov. 6, 1909. Serial No. 526,673. Term of patent 3½ years.



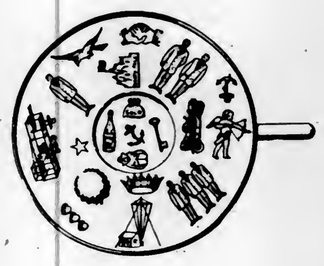
The ornamental design for a badge, as shown.

40,416. STATUETTE. MARIE ELIZABETH YEATON, Washington, D. C. Filed Nov. 24, 1909. Serial No. 529,840. Term of patent 3½ years.



The ornamental design for a statuette, as shown.

40,417. CUP OR SIMILAR ARTICLE. ISAAC J. F. KING, Asbury Park, N. J. Filed Nov. 2, 1909. Serial No. 525,968. Term of patent 7 years.



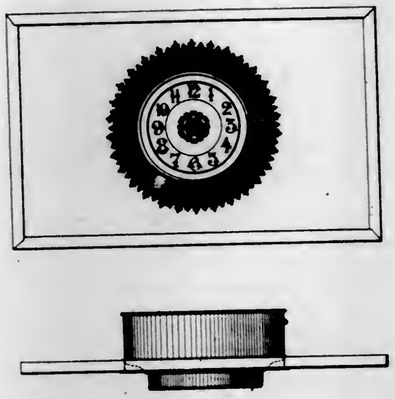
The ornamental design for a cup or similar article, as shown.

40,418. SCREW. WILLIAM E. STEVENS, New Haven, Conn., assignor to Sargent & Company, New Haven, Conn., a Corporation of Connecticut. Filed Oct. 9, 1909. Serial No. 521,963. Term of patent 14 years.



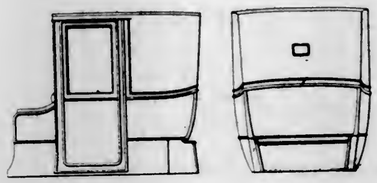
The ornamental design for a screw, as shown.

40,419. ATTACHMENT FOR DISPLAY-CASES. MAX A. SKALL, New York, N. Y. Filed Aug. 13, 1909. Serial No. 512,761. Term of patent 7 years.



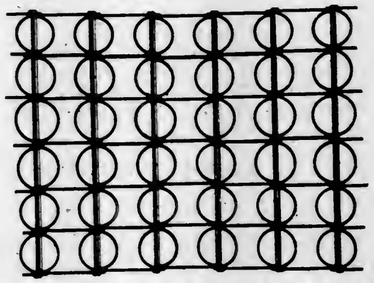
The ornamental design for an attachment for display-cases, as shown.

40,420. VEHICLE-BODY. WILLIAM H. EMOND, Newtonville, Mass. Filed Oct. 13, 1909. Serial No. 522,499. Term of patent 7 years.



The ornamental design for a vehicle body as shown.

40,421. FABRIC FOR MATS. EMORY A. BEDIENT, Erie, Pa., assignor to Glen Manufacturing Company, Ellwood City, Pa. Filed Oct. 20, 1902. Serial No. 128,084. Term of patent 14 years.



The ornamental design for a fabric for mats, as shown.

40,422. FABRIC FOR WINDOW-SHADES OR SIMILAR ARTICLES. ALFRED A. BOECK, New York, N. Y. Filed June 11, 1909. Serial No. 501,662. Term of patent 7 years.



The ornamental design for a fabric for window shades, as shown.

40,423. FABRIC FOR WINDOW-SHADES OR SIMILAR ARTICLES. ALFRED A. BOECK, New York, N. Y. Filed July 9, 1909. Serial No. 506,859. Term of patent 7 years.



The ornamental design for a fabric for window shades, as shown.

TRADE-MARKS

PUBLISHED DECEMBER 28, 1909.

The following trade-marks have been adjudged entitled to registration under the act of February 20, 1905, and are published in compliance with section 6 of said act. Said section provides:

"Any person who believes he would be damaged by the registration of a mark may oppose the same by filing notice of opposition, stating the grounds therefor, in the Patent Office within thirty days after the publication of the mark sought to be registered, which said notice of opposition shall be verified by the person filing the same before one of the officers mentioned in section two of this act. If no notice of opposition is filed within said time the Commissioner shall issue a certificate of registration therefor, as hereinafter provided for."

Marks which are stated to have been "Used ten years" are registrable under the last proviso of section 5 of said act, which is as follows:

"And provided further, That nothing herein shall prevent the registration of any mark used by the applicant or his predecessors, or by those from whom title to the mark is derived, in commerce with foreign nations or among the several States, or with Indian tribes, which was in actual and exclusive use as a trade-mark of the applicant or his predecessors from whom he derived title for ten years next preceding the passage of this act."

Section 14 of said act provides for the following fee:

"On filing notice of opposition to the registration of a trade-mark, ten dollars."

Ser. No. 18,442. (CLASS 29. BROOMS, BRUSHES, AND DUSTERS.) KIMBALL BROTHERS COMPANY, Bath, Me. Filed Apr. 2, 1906.

PYRAMID

Particular description of goods.—Brooms, Whisk-Brooms, and Scrub-Brushes.

Ser. No. 23,834. (CLASS 2. RECEPTACLES.) THE CLEVELAND-AKRON BAG CO, Cleveland, Ohio. Filed Dec. 6, 1906. Used ten years.

RELIABLE

Particular description of goods.—Paper Bags.

Ser. No. 34,137. (CLASS 38. PRINTS AND PUBLICATIONS.) COMPAGNIE GENERALE DE PHONOGRAPHES, CINEMATOGRAPHES ET APPAREILS DE PRECISION, Paris, France. Filed Apr. 15, 1908.



No claim being made to the words "Cinematographes and films Pathé Frères Paris."

Particular description of goods.—Placards Advertising Kinematograph Shows.

Ser. No. 34,138. (CLASS 38. PRINTS AND PUBLICATIONS.) COMPAGNIE GENERALE DE PHONOGRAPHES, CINEMATOGRAPHES ET APPAREILS DE PRECISION, Paris, France. Filed Apr. 15, 1908.

CINÉMA Pathé

No claim being made to the word "Pathé."

Particular description of goods.—Placards Advertising Kinematograph Shows.

Ser. No. 34,497. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) RIDGWAYS LIMITED, London, England. Filed Apr. 30, 1908.



Particular description of goods.—Tea.

Ser. No. 35,762. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) JOHN ROTHSCHILD & Co., San Francisco, Cal. Filed June 25, 1908.



The shield being party per bend sinister, sable, and gules.

Particular description of goods.—Canned Tomatoes, Canned Pears, Canned Corn, Canned Peppers, Canned Peas, and Canned Asparagus.

Ser. No. 38,106. (CLASS 37. PAPER AND STATIONERY.) NEOSTYLE ENVELOPE COMPANY, New York, N. Y. Filed Oct. 17, 1908. Used ten years.

Neostyle

Particular description of goods.—Envelops, Paper from Which Envelops are to be Made, and Wrappers for Inclosing Papers, Pamphlets, and Magazines When Transmitting Them Through the Mails.

Ser. No. 38,131. (CLASS 39. CLOTHING.) THE BROWN SHOE COMPANY, St. Louis, Mo. Filed Oct. 19, 1908.

WHITE HOUSE

Particular description of goods.—Men's and Women's Leather, Canvas, and Cloth Shoes.

Ser. No. 38,231. (CLASS 29. BROOMS, BRUSHES, AND DUSTERS.) RENNOUS KLEINLE & CO OF BALTIMORE CITY, Baltimore, Md. Filed Oct. 24, 1908.

CZAR.

Particular description of goods.—Various Kinds of Painters' Brushes—Namely, Stucco, Wall-Paint, and Calcimine Brushes.

Ser. No. 38,597. (CLASS 37. PAPER AND STATIONERY.) UNION CARD & PAPER CO., New York, N. Y. Filed Nov. 12, 1908.

CAMBRIC

Particular description of goods.—Writing and Printing Paper, Envelops, and Cardboard.

Ser. No. 39,000. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) YES BAY CANNING CO., Yes Bay, Alaska, and Portland, Oreg. Filed Nov. 30, 1908.

SEA LION BRAND



Particular description of goods.—Canned Salmon.

Ser. No. 40,557. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) THE HARTFORD FAIENCE COMPANY, Hartford, Conn. Filed Feb. 15, 1909.

FIREITE

Particular description of goods.—Mouthpieces for Gas-Lamps, Rings for Supporting Gas-Mantles, Tubes for Protecting Center Pipes for Arc Gas-Lamps.

Ser. No. 41,141. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) L. M. RUMSEY MANUFACTURING COMPANY, St. Louis, Mo. Filed Mar. 12, 1909. Used ten years.

TRI-SEAL

Particular description of goods.—Water-Closets.

Ser. No. 41,539. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MAS NETTIE HARRISON CO., San Francisco, Cal. Filed Apr. 1, 1909. Used ten years.



Showing a portrait of Mrs. Nettie Harrison.

Particular description of goods.—Face Powders and Creams, Face-Bleaches, Toilet Waters, Liquid and Powder Dentifrices, Hair-Tonics and Hair-Dyes, Hair-Removers, Blood-Purifiers, Skin Remedies, Headache Remedies, and Talcum Powder.

Ser. No. 41,811. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) G. H. MULLEN, Guyandotte, W. Va. Filed Apr. 15, 1909.

SAMARITAN

Particular description of goods.—Medicinal Oil.

Ser. No. 42,086. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) THE A. BURDSAL COMPANY, Indianapolis, Ind. Filed Apr. 28, 1909.

OOLITIC

Particular description of goods.—Flat-Finish Paint for Inside Use.

Ser. No. 42,351. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) G. H. BALLOU COMPANY, San Diego, Cal. Filed May 11, 1909.



Particular description of goods.—Blended Coffee.

Ser. No. 42,458. (CLASS 38. PRINTS AND PUBLICATIONS.) THE AMERICAN NEWS COMPANY, New York, N. Y. Filed May 15, 1909.

FAMILY JOURNAL

Particular description of goods.—Monthly Magazine.

Ser. No. 42,466. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) DAYTON EVAPORATING & PACKING Co, Dayton, Oreg. Filed May 15, 1909.



The portraits shown in the drawing being those of Henry Chapman, Bert Orr, and L. S. Chapman.

Particular description of goods.—Evaporated and Granulated Vegetables and Dried Prunes.

Ser. No. 42,570. (CLASS 39. CLOTHING.) ELLIS FISCHER, New York, N. Y. Filed May 21, 1909.



Particular description of goods.—Knitted Toques, Sweaters, Gloves, Hosiery, Leggings, Shirts, Vests, and Bootees.

Ser. No. 43,008. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) AMEEN F. HADDAD, New York, N. Y. Filed June 14, 1909.



The portrait being that of Midhat Pasha, deceased.

Particular description of goods.—Perfumery, Face-Powder, Toilet Water, and Toilet Cream.

Ser. No. 43,009. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) AMEEN F. HADDAD, New York, N. Y. Filed June 14, 1909.



Particular description of goods.—Perfumery.

Ser. No. 43,169. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) FRANK WYATT, Salina, Kans. Filed June 22, 1909.

Jayhawk

Particular description of goods.—Hay-Stackers and Sweep-Rakes.

Ser. No. 43,320. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) A. R. HAEUSER COMPANY, New York, N. Y. Filed June 29, 1909.

DECK-O-COTE

Particular description of goods.—Calcimine.

Ser. No. 43,447. (CLASS 38. PRINTS AND PUBLICATIONS.) DE WITT C. WHEELER, INC., New York, N. Y. Filed July 10, 1909.

W

Particular description of goods.—Photographs and Lantern-Slides.

Ser. No. 43,533. (CLASS 17. TOBACCO PRODUCTS.) ALBERT BREITUNG, Chicago, Ill. Filed July 15, 1909.

ALTADENA

Particular description of goods.—Cigars.

Ser. No. 43,541. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) JULIUS J. SCHOTTEN, St. Louis, Mo. Filed July 15, 1909.



Particular description of goods.—An Original Condiment of the Nature of Ground Pepper.

Ser. No. 43,550. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE LONSDALE BAKERY CO., Saylesville, R. I. Filed July 15, 1909.



Particular description of goods.—Bread.

Ser. No. 43,560. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) LEO GROTTE MFG. CO., Omaha, Nebr. Filed July 16, 1909.



Particular description of goods.—Non-Alcoholic Tonic Beverages and Tablets and Powders for Making Same.

Ser. No. 43,711. (CLASS 17. TOBACCO PRODUCTS.) CHARLES F. QUILTY, Springfield, Mass. Filed July 23, 1909. Used ten years.



The statue shown being a representation of Miles Morgan.

Particular description of goods.—Cigars.

Ser. No. 44,023. (CLASS 39. CLOTHING.) PITTSBURG KNITTING CO., Pittsburg, Pa. Filed Aug. 7, 1909.



Particular description of goods.—Outershirts.

Ser. No. 44,257. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ST FRANCISVILLE CANNING COMPANY, near St. Francisville, Ill. Filed Aug. 20, 1909.

PRIDE OF THE WABASH

Particular description of goods.—Canned Fruits and Vegetables, Hominy, Pork and Beans, Kidney-Beans, and Conserves and Catsup.

Ser. No. 44,269. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) WARREN AXE & TOOL COMPANY, Warren, Pa. Filed Aug. 21, 1909.



Particular description of goods.—Dogs, Hooks, Timber-Carriers or Lug-Hooks, Wedges, Swivels, Links, Spreaders, Cold-Shuts, Saw-Handles, Pikes, Picaroons, Hookaroons, Peavies, Cant-Hooks, Mill-Hooks, Swamp-Hooks, Loading-Hooks, Bill-Hooks, Blind-Hooks, Choker-Hooks, Round Hooks, Grapple-Hooks, Grab-Hooks, Trailers, Four-Paw Grabs, Carting-Grabs, Crotch-Grabs, Skidding-Tongs, Grab-Skippers, Grab-Mauls, Logging-Dogs, Rafting-Dogs, Chain-Dogs, Ring-Dogs, Clasps, Sockets, and Ferrules.

Ser. No. 44,331. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) C. R. SPLIVALO & CO. INC., San Francisco, Cal. Filed Aug. 24, 1909. Used ten years.



Particular description of goods.—Macaroni, Spaghetti, and Vermicelli.

Ser. No. 44,405. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) ISIDORO GELBTRUNK, New York, N. Y. Filed Aug. 28, 1909.



Particular description of goods.—Cotton Piece Goods.

Ser. No. 44,458. (CLASS 15. OILS AND GREASES.) FISKE BROTHERS REFINING CO, New York, N. Y. Filed Aug. 31, 1909.



Particular description of goods.—Lubricating-Oils and Lubricating-Greases.

Ser. No. 44,467. (CLASS 39. CLOTHING.) THE SUNSHINE CLOAK AND SUIT COMPANY, Cleveland, Ohio. Filed Sept. 1, 1909. Used ten years.



Particular description of goods.—Ladies', Misses', and Children's Cloaks and Outer Suits.

Ser. No. 44,503. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) THE MURALO COMPANY, New York, N. Y. Filed Sept. 2, 1909.

DEKALO

Particular description of goods.—Dry Powder to be Mixed with Cold Water and Used as a Wall-Coating.

Ser. No. 44,547. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WILLIAM F. BREY, Philadelphia, Pa. Filed Sept. 4, 1909.



Particular description of goods.—Wheat-Flour.

Ser. No. 44,548. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) THE REXINE COMPANY, Sheboygan, Wis. Filed Sept. 4, 1909.



The arc figures of said mark being red.

Particular description of goods.—A Semiliquid Soap.

Ser. No. 44,558. (CLASS 24. LAUNDRY APPLIANCES AND MACHINES.) AMERICAN IRONING MACHINE CO., Chicago, Ill. Filed Sept. 7, 1909.

SIMPLEX

Particular description of goods.—Ironing-Machines and Parts Therefor, Ironing-Stands, Ironing-Boards, and Laundry Washing-Machines.

Ser. No. 44,580. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) HENRY ROSSELL & CO. LTD., Sheffield, England. Filed Sept. 8, 1909.



"IVANHOE"

Particular description of goods.—Tool-Steel and Steel in Bar, Rod, Sheet, and other Unwrought and Partly-Wrought Forms.

Ser. No. 44,593. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) DANIEL A. CASELLA, New York, N. Y. Filed Sept. 9, 1909.

SANTO FERRO

Particular description of goods.—Capsules Containing Medicine for Venereal Troubles.

Ser. No. 44,616. (CLASS 37. PAPER AND STATIONERY.) BERTRAND L. MAKEPEACE, Boston, Mass. Filed Sept. 10, 1909.

LOXO

Particular description of goods.—Drawing-Papers, Tracing-Papers, Tracing-Cloths, Pens, Pencils, and Erasers.

Ser. No. 44,637. (CLASS 39. CLOTHING.) MAX FINKELSTEIN, Chicago, Ill. Filed Sept. 11, 1909.



Particular description of goods.—Men's Outer Suits, Ladies' Outer Suits, and Boys' Outer Suits.

Ser. No. 44,645. (CLASS 28. JEWELRY AND PRECIOUS-METAL WARE.) ATTLEBORO CHAIN COMPANY, Attleboro, Mass. Filed Sept. 11, 1909.



Particular description of goods.—Lockets and Bracelets.

Ser. No. 44,646. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) GLOBE OPTICAL COMPANY, Boston, Mass. Filed Sept. 13, 1909.

LUXFEL

Particular description of goods.—Optical Lenses for Use in Reading and in Viewing Objects.

Ser. No. 44,698. (CLASS 39. CLOTHING.) CHAS. ISAACS & Co., New York, N. Y. Filed Sept. 15, 1909.

DEDDRICK DUDSON

Particular description of goods.—Ladies' and Misses' Outer Suits, Dresses, and Coats.

Ser. No. 44,713. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) NARCISSE CARON & Co., Methuen, Mass. Filed Sept. 16, 1909.



The portrait being that of Narcisse Caron.

Particular description of goods.—Remedies for the Relief of Rheumatism, Lame Back, Pain in the Chest and Side, Sprains, Headache, and Sore Throat.

Ser. No. 44,765. (CLASS 39. CLOTHING.) BRADLEY SHOE CO INC., Lynchburg, Va. Filed Sept. 18, 1909.

"THE RIGHT STRIPE"

Particular description of goods.—Leather Boots and Shoes.

Ser. No. 44,810. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) IDEAL PLATING COMPANY, Marlboro, Mass. Filed Sept. 20, 1909.

I. Co.

P.

Particular description of goods.—Bicycle and Motor Cycle Handle-Bars, Stems, and Seat-Posts.

Ser. No. 44,847. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) NEW YORK STENCIL WORKS, New York, N. Y. Filed Sept. 21, 1909.



Particular description of goods.—Engraved Steel Letter, Number, and Character Stamps.

Ser. No. 44,868. (CLASS 37. PAPER AND STATIONERY.) ROBERTS & MECK, Harrisburg, Pa. Filed Sept. 23, 1909.



Particular description of goods.—Writing-Tablets, Memorandum-Books, Note-Books, Composition-Books, Spelling-Blanks, Writing-Pads, Pens, Penholders, Lead-Pencils, Slate-Pencils, Slates, Blackboards, Pencil and Ink Erasers, Chalk, Rulers, Writing-Paper, Envelops, Scratch-Paper, Drawing-Paper, and Copy-Books.

Ser. No. 44,909. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) J. D. RIEDEL AKTIENGESELLSCHAFT, Berlin, Germany. Filed Sept. 23, 1909. Used ten years.

SALIPYRIN

Particular description of goods.—A Remedy for Rheumatism and Grippe.

Ser. No. 44,987. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) THE BUCKEYE STEREOPTICON Co., Cleveland, Ohio. Filed Sept. 27, 1909.

Mirro-opticon

Particular description of goods.—Stereopticons, Projectors, Magic Lanterns, and Lantern-Slides.

Ser. No. 44,988. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) THE BUCKEYE STEREOPTICON Co., Cleveland, Ohio. Filed Sept. 27, 1909.

Mirrojector

Particular description of goods.—Stereopticons, Projectors, Magic Lanterns, and Lantern-Slides.

Ser. No. 44,989. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) THE BUCKEYE STEREOPTICON Co., Cleveland, Ohio. Filed Sept. 27, 1909.

Mirrodak

Particular description of goods.—Stereopticons, Projectors, Magic Lanterns, and Lantern-Slides.

Ser. No. 45,001. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FOSTER DACK Co., Council Bluffs, Iowa, and Chicago, Ill. Filed Sept. 29, 1909.



Particular description of goods.—Ointment.

Ser. No. 45,103. (CLASS 37. PAPER AND STATIONERY.) SCOTT PAPER COMPANY, Philadelphia, Pa. Filed Oct. 2, 1909.



Particular description of goods.—Toilet-Paper.

Ser. No. 45,147. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) H. KUHN, Boston, Mass. Filed Oct. 5, 1909.



Particular description of goods.—Films for Kinetoscopes.

Ser. No. 45,149. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CHARLES D. LANE, Bridgeport, Conn. Filed Oct. 5, 1909.

Society

Particular description of goods.—Candies.

Ser. No. 45,177. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) LA FRANCE MANUFACTURING COMPANY, Philadelphia, Pa. Filed Oct. 7, 1909.



Particular description of goods.—Laundry Soaps.

Ser. No. 45,193. (CLASS 38. PRINTS AND PUBLICATIONS.) GOTTSCHALK, DREYFUSS & DAVIS, New York, N. Y. Filed Oct. 8, 1909.



Particular description of goods.—Post-Cards, Christmas Cards, Booklets, Calendars, Sentiment-Cards, Menu-Cards and Dance-Programmes.

Ser. No. 45,264. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) PASS & SEYMOUR, INC., Solvay, N. Y. Filed Oct. 12, 1909.

PASSMOUR

Particular description of goods.—Electric-Lamp Sockets and Receptacles.

Ser. No. 45,288. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) HEATON-PENINSULAR BUTTON FASTENER Co., Boston, Mass. Filed Oct. 13, 1909. Used ten years.

HEATON

Particular description of goods.—Power and Hand Operated Machines for Setting Staple-Like Metallic Fasteners for Attaching Buttons to Boots and Shoes and for Securing Pieces of Clothing Together.

Ser. No. 45,289. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) HEATON-PENINSULAR BUTTON FASTENER Co., Boston, Mass. Filed Oct 13, 1909. Used ten years.

Heaton's

Particular description of goods.—Staple-Like Metallic Fasteners for Attaching Buttons to Boots and Shoes and for Securing Pieces of Clothing Together.

Ser. No. 45,305. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE WAUKESHA CANNING COMPANY, Waukesha, Wis. Filed Oct. 13, 1909.

RUN-O-POD

Particular description of goods.—Canned Peas.

Ser. No. 45,310. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CHARLES E. BROWN & Co., Springfield, Mass. Filed Oct. 14, 1909.

MILES·MORGAN·



The statue being that of Miles Morgan, one of the founders of Springfield, Massachusetts.

Particular description of goods.—Roasted Coffee.

Ser. No. 45,313. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) INTERNATIONAL CORK COMPANY, Brooklyn, N. Y. Filed Oct. 14, 1909.



Particular description of goods.—Bottle-Stoppers.

Ser. No. 45,314. (CLASS 39. CLOTHING.) B. BIRNBAUM & SON, London, England. Filed Oct. 14, 1909.

Zambrene

Particular description of goods.—Rainproof Coats.

Ser. No. 45,317. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) BROOKLYN BOTTLE STOPPER CO., Brooklyn, N. Y. Filed Oct. 14, 1909.



Particular description of goods.—Bottle-Stoppers.

Ser. No. 45,318. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) EMMA J. WILSON, Zanesville, Ohio. Filed Oct. 14, 1909.



The portrait representing Hamberry Wilson, deceased.

Particular description of goods.—Remedies for Rheumatism, Neuralgia, Sore Muscles, Enlarged and Stiff Joints, Blood-Poisoning, Erysipelas, Scrofula, White Swelling, Eczema, Boils, Carbuncles, Felons, Abscesses, Sore Nipples, Tetter, Salt-Rheum, Corns, Bunions, Piles, Dog-Bites, Snake-Bites, Cuts, Burns, and Bed-Sores.

Ser. No. 45,381. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) JOHN THOMAS BATTS, Grand Rapids, Mich. Filed Oct. 18, 1909.

Wishbone

Particular description of goods.—Garment-Hangers for Wardrobes.

Ser. No. 45,382. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) JOHN THOMAS BATTS, Grand Rapids, Mich. Filed Oct. 18, 1909.

Collar Bone

Particular description of goods.—Garment-Hangers for Wardrobes.

Ser. No. 45,390. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) HEATON-PENINSULAR BUTTON FASTENER CO., Boston, Mass. Filed Oct. 18, 1909. Used ten years.

APEX

Particular description of goods.—Power and Hand Operated Machines for Setting Staple-Like Metallic Fasteners for Attaching Buttons to Boots and Shoes and for Securing Pieces of Clothing Together.

Ser. No. 45,391. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) HEATON-PENINSULAR BUTTON FASTENER CO., Boston, Mass. Filed Oct. 18, 1909. Used ten years.



Particular description of goods.—Staple-Like Metallic Fasteners for Attaching Buttons to Boots and Shoes and for Securing Pieces of Clothing Together.

Ser. No. 45,482. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MORGENSTERN & COMPANY, New York, N. Y. Filed Oct. 23, 1909.

VARICOLI

Particular description of goods.—Medicinal Preparations Used as and in the Form of Suppositories.

Ser. No. 45,484. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) FRANK C. BINKLEY, Sycamore, Ill. Filed Oct. 23, 1909.

Fidelity

Particular description of goods.—Automobiles.

Ser. No. 45,495. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) UNITED AWL & NEEDLE COMPANY, Portland, Me., and Boston, Mass. Filed Oct. 23, 1909.

MARVEL

Particular description of goods.—Awls and Awl-Hafts.

Ser. No. 45,497. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) UNITED AWL & NEEDLE COMPANY, Portland, Me., and Boston, Mass. Filed Oct. 23, 1909.

STAR

Particular description of goods.—Awls and Awl-Hafts.

Ser. No. 45,539. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOSEPH EMILE HEROUX, Woonsocket, R. I. Filed Oct. 25, 1909.

STE-ANNE

Particular description of goods.—Medicinal Wine.

Ser. No. 45,544. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) THE HANOVER VULCANITE COMPANY, New York, N. Y. Filed Oct. 25, 1909.

Aero

Particular description of goods.—Dressing-Combs, Fine Combs, and Toilet-Combs Made of Hard Rubber or Rubber Composition.

Ser. No. 45,545. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) HARRY W. BUCKNER, New Orleans, La. Filed Oct. 25, 1909.



Particular description of goods.—Machinery Packing, Hose, and Belting.

Ser. No. 45,587. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) JOHN O. GILBERT, Jackson, Ill. Filed Oct. 28, 1909. Used ten years.

Gilberts

Particular description of goods.—Chocolates and Candies.

Ser. No. 45,590. (CLASS 17. TOBACCO PRODUCTS.) THE CLARK & SNOVER CO., Scranton, Pa. Filed Oct. 28, 1909.

C. & S.

Particular description of goods.—Smoking-Tobacco.

Ser. No. 45,612. (CLASS 39. CLOTHING.) HYAMS AND HAMERSCHLAG, New York, N. Y. Filed Oct. 29, 1909.

"The Road to Success"

Particular description of goods.—Ladies' Dresses, Coats, and Outer and Under Skirts.

Ser. No. 45,613. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) BLACK HORN LEATHER CO., Great Bend, Pa. Filed Oct. 29, 1909.



Particular description of goods.—Chamois-Skins.

Ser. No. 45,617. (CLASS 39. CLOTHING.) THE FAIR, Chicago, Ill. Filed Oct. 30, 1909.

MARVEL

Particular description of goods.—Men's and Boys' Outer Suits and Men's and Boys' Overcoats.

Ser. No. 45,622. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WILLIAM S. HILLS COMPANY, Boston, Mass. Filed Oct. 30, 1909.



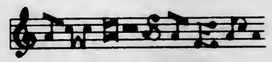
Particular description of goods.—Wheat-Flour.

Ser. No. 45,635. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE FRAZIER PACKING COMPANY, Elwood, Ind. Filed Oct. 30, 1909.

BURRO BRAND

Particular description of goods.—Catsup.

Ser. No. 45,660. (CLASS 32. FURNITURE AND UPHOLSTERY.) MILLER & JENNINGS, Ithaca, N. Y. Filed Nov. 1, 1909.



Particular description of goods.—Chairs.

Ser. No. 45,693. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) GEORGE W. BLANK, Wilkinsburg, Pa. Filed Nov. 3, 1909.

BUCCANEERS

Particular description of goods.—Base-Ball Game and Puzzle.

Ser. No. 45,720. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) EDWIN CUDLIPP, New York, N. Y. Filed Nov. 5, 1909.

REDOX

Particular description of goods.—Dental Creams.

Ser. No. 45,727. (CLASS 38. PRINTS AND PUBLICATIONS.) LOTHROP, LEE & SHEPARD COMPANY, Boston, Mass. Filed Nov. 5, 1909.

DOROTHY DAINTY.

Particular description of goods.—Books of Fiction Published Serially.

Ser. No. 45,732. (CLASS 15. OILS AND GREASES.) ALDEN S. SWAN & Co., New York, N. Y. Filed Nov. 5, 1909.

SAVEOILENE

Particular description of goods.—Cutting Compounds for Lubricating-Oils.

Ser. No. 45,741. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) PERCY R. ZIEGLER, Boston, Mass. Filed Nov. 6, 1909.

STERILAC

Particular description of goods.—Milk Receptacles, Strainers, Coolers, Churns, and Separators.

Ser. No. 45,816. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JEREMIAH W. STRAUSBAUGH, Strasburg, Va. Filed Nov. 11, 1909.

J. W. Strausbaugh

Being a facsimile of my signature.

Particular description of goods.—Remedy for Gapes, Cholera, and Roup in Poultry and for Cholera Morbus and Cramps in Human Beings.

Ser. No. 45,822. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE ZYMOLE COMPANY, New York, N. Y. Filed Nov. 11, 1909.

NIP-A-CO

Particular description of goods.—A Remedy for Colds and La Grippe.

Ser. No. 45,859. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BADISCHE ANILIN & SODA FABRIK, Ludwigshafen-on-the Rhine, Germany. Filed Nov. 12, 1909.

Burmol

Particular description of goods.—Chemicals Used in Reducing, Discharging, and Bleaching.

Ser. No. 45,904. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) THE VULCANIZED RUBBER Co., New York, N. Y. Filed Nov. 15, 1909.

Ajax

Particular description of goods.—Rubber Combs.

TRADE-MARKS

REGISTERED DECEMBER 28, 1909.

76,191. CERTAIN FANCY GOODS. CHARLES E. BENTLEY Co, New York, N. Y.
Filed December 20, 1907. Serial No. 31,851. PUBLISHED OCTOBER 26, 1909.

76,192. FLOSS, YARNS, OR THREADS. CHARLES E. BENTLEY Co, New York, N. Y.
Filed December 20, 1907. Serial No. 31,853. PUBLISHED OCTOBER 26, 1909.

76,193. HAIR-PINS AND COMBS. FITCHBURG PIN Co., Fitchburg, Mass.
Filed May 12, 1908. Serial No. 34,695. PUBLISHED OCTOBER 26, 1909.

76,194. BOWLS, COCKS, VALVES, AND FITTINGS. FLUSHOVALVE COMPANY, New York, N. Y.
Filed May 27, 1909. Serial No. 42,710. PUBLISHED OCTOBER 19, 1909.

76,195. HAIR-PINS AND COMBS. PACIFIC NOVELTY COMPANY, New York, N. Y.
Filed August 7, 1909. Serial No. 44,028. PUBLISHED OCTOBER 26, 1909.

76,196. CERTAIN BUILDING MATERIALS. IDEAL CONCRETE MACHINERY COMPANY, South Bend, Ind.
Filed April 15, 1909. Serial No. 41,807. PUBLISHED OCTOBER 26, 1909.

76,197. CANNED FRUITS, VEGETABLES, SALMON, AND PORK AND BEANS. JOHN HOFFMANN & SONS Co., Milwaukee, Wis.
Filed September 9, 1907. Serial No. 29,811. PUBLISHED JUNE 1, 1909.

76,198. LARD. WILLIAM MOLAND'S SONS, Philadelphia, Pa.
Filed August 6, 1908. Serial No. 36,515. PUBLISHED DECEMBER 29, 1908.

76,199. HAMS, BACON, AND DRIED BEEF. WILLIAM MOLAND'S SONS, Philadelphia, Pa.
Filed October 29, 1908. Serial No. 38,355. PUBLISHED JANUARY 5, 1909.

76,200. WHEAT-FLOUR. THE OSAKIS MILLING COMPANY, Osakis, Minn.
Filed May 15, 1909. Serial No. 42,433. PUBLISHED OCTOBER 26, 1909.

76,201. CANNED FRUITS. SUNLIT FRUIT COMPANY, West Berkeley, Cal.
Filed May 26, 1909. Serial No. 42,686. PUBLISHED OCTOBER 5, 1909.

76,202. BLENDED COFFEE. BURNS AND REED, New York, N. Y.
Filed August 17, 1909. Serial No. 44,184. PUBLISHED OCTOBER 26, 1909.

76,203. PIANOS OF ALL KINDS. CHRISTMAN SONS, New York, N. Y.
Filed August 25, 1909. Serial No. 44,357. PUBLISHED OCTOBER 26, 1909.

76,204. TOOTH-BRUSHES AND PARTS THEREFOR. FIBER TOOTH BRUSH COMPANY, Rochester, N. Y.
Filed April 17, 1909. Serial No. 41,833. PUBLISHED OCTOBER 26, 1909.

76,205. ENAMEL PAINTS. GERSTENDORFER BROS., New York, N. Y.
Filed September 10, 1909. Serial No. 44,620. PUBLISHED OCTOBER 26, 1909.

76,206. CANNED FRUITS AND VEGETABLES. GOLDEN GATE PACKING COMPANY, San Jose, Cal.
Filed July 10, 1908. Serial No. 36,056. PUBLISHED OCTOBER 26, 1909.

76,207. VALVES. H. BELFIELD Co., Philadelphia, Pa.
Filed August 26, 1909. Serial No. 44,371. PUBLISHED OCTOBER 26, 1909.

76,208. CORSETS, CORSET-WAISTS, BRASSIÈRES, AND UNDERWAISTS. THE H & W COMPANY, Newark, N. J.
Filed August 25, 1909. Serial No. 44,345. PUBLISHED OCTOBER 26, 1909.

76,209. RUBBER WHEEL-TIRES. THE HARTFORD RUBBER WORKS Co., Hartford, Conn.
Filed July 9, 1909. Serial No. 43,441. PUBLISHED OCTOBER 26, 1909.

76,210. CANNED FRUITS. ROBERT B. HOLMES, Ellsworth, Me.
Filed July 7, 1909. Serial No. 43,418. PUBLISHED OCTOBER 26, 1909.

76,211. VARNISH. ALBERT F. HUGHES, Cleveland, Ohio.
Filed September 1, 1909. Serial No. 44,481. PUBLISHED OCTOBER 26, 1909.

76,212. CANDY. THE NATIONAL CANDY COMPANY, Jersey City, N. J., and St. Louis, Mo.
Filed August 23, 1909. Serial No. 44,310. PUBLISHED OCTOBER 26, 1909.

76,213. HORSE-CLIPPERS. NORVELL-SHAPLEIGH HARDWARE COMPANY, St. Louis, Mo.
Filed August 13, 1909. Serial No. 44,119. PUBLISHED OCTOBER 26, 1909.

76,214. LIME. LOWELL M. PALMER, New York, N. Y.
Filed July 2, 1909. Serial No. 43,377. PUBLISHED OCTOBER 26, 1909.

76,215. LUBRICANT. JOY RIDGWAY REILLY, Philadelphia, Pa.
Filed August 11, 1909. Serial No. 44,089. PUBLISHED OCTOBER 26, 1909.

76,216. PAPER BAGS. SCHORSCH & Co., New York, N. Y.
Filed August 2, 1909. Serial No. 43,926. PUBLISHED OCTOBER 26, 1909.

76,217. MATTRESSES. SEALY MATTRESS COMPANY, Dallas, Tex.
Filed August 21, 1909. Serial No. 44,281. PUBLISHED OCTOBER 26, 1909.

76,218. STRAIGHT WHISKY. THE THEOBALD AND SON Co., Columbus, Ohio.
Filed July 23, 1909. Serial No. 43,787. PUBLISHED OCTOBER 26, 1909.

76,219. COMIC SECTIONS OF NEWSPAPERS. TRIBUNE COMPANY, Chicago, Ill.
Filed June 21, 1909. Serial No. 43,155. PUBLISHED OCTOBER 26, 1909.

76,220. WOODEN TOOL-HANDLES. TURNER, DAY & WOOLWORTH HANDLE Co., Louisville, Ky.; Memphis and Nashville, Tenn., and Huntington, W. Va.
Filed July 14, 1909. Serial No. 43,520. PUBLISHED OCTOBER 26, 1909.

76,221. WHEAT-FLOUR. WELLS FLOUR MILLING COMPANY, Wells, Minn.
Filed August 18, 1909. Serial No. 44,213. PUBLISHED OCTOBER 26, 1909.

76,222. TARGETS. THE WESTERN CARTRIDGE CO., East Alton, Ill.
Filed July 29, 1909. Serial No. 43,872. PUBLISHED OCTOBER 26, 1909.

76,223. SHOVELS. THE WYOMING SHOVEL WORKS, Wyoming, Pa.
Filed August 26, 1909. Serial No. 44,368. PUBLISHED OCTOBER 26, 1909.

76,224. MEN'S LEATHER SHOES. A. E. NETTLETON COMPANY, Syracuse, N. Y.
Filed March 2, 1909. Serial No. 40,894. PUBLISHED OCTOBER 26, 1909.

76,225. PETROLEUM OILS AND GREASES FOR LUBRICATING PURPOSES. THE ATLANTIC REFINING COMPANY, Cleveland, Ohio.
Filed May 1, 1909. Serial No. 42,168. PUBLISHED AUGUST 24, 1909.

76,226. MEN'S AND BOYS' LEATHER SHOES. BARKER, BROWN & COMPANY, Huntington, Ind.
Filed April 15, 1908. Serial No. 34,100. PUBLISHED MARCH 23, 1909.

76,227. CERTAIN AGRICULTURAL MACHINERY. ALBERT E. COOK, Kankakee, Ill.
Filed September 28, 1908. Serial No. 37,668. PUBLISHED OCTOBER 26, 1909.

76,228. OVERALLS. ELY & WALKER DRY GOODS CO., St. Louis, Mo.
Filed May 21, 1909. Serial No. 42,582. PUBLISHED OCTOBER 26, 1909.

76,229. STRAIGHT WHISKY. THE GEO. T. STAGG CO., INC., Frankfort, Ky.
Filed February 3, 1909. Serial No. 40,319. PUBLISHED OCTOBER 26, 1909.

76,230. COTTON BLANKETS. GERMAN-AMERICAN COMPANY, Draper, N. C.
Filed September 4, 1909. Serial No. 44,543. PUBLISHED OCTOBER 26, 1909.

76,231. TOY FLYING-MACHINES. H. J. NICE COMPANY, Minneapolis, Minn., assignor to Charles E. Van Duzee, Minneapolis, Minn.
Filed January 21, 1909. Serial No. 40,065. PUBLISHED MARCH 16, 1909.

76,232. CERTAIN PIECE GOODS. ROGERS & THOMPSON, West New York, N. J., and New York, N. Y.
Filed September 8, 1909. Serial No. 44,584. PUBLISHED OCTOBER 26, 1909.

76,233. CERTAIN TEXTILES. STONEWALL COTTON MILLS, Stonewall, Miss.
Filed September 4, 1909. Serial No. 44,544. PUBLISHED OCTOBER 26, 1909.

76,234. HOSIERY. E. M. TOWNSEND & CO., New York, N. Y.
Filed March 10, 1909. Serial No. 41,075. PUBLISHED OCTOBER 26, 1909.

76,235. WOODEN TOOL-HANDLES. TURNER, DAY & WOOLWORTH HANDLE CO., Louisville, Ky.; Memphis and Nashville, Tenn., and Huntington, W. Va.
Filed July 14, 1909. Serial No. 43,513. PUBLISHED OCTOBER 26, 1909.

76,236. WOODEN TOOL-HANDLES. TURNER, DAY & WOOLWORTH HANDLE CO., Louisville, Ky.; Memphis and Nashville, Tenn., and Huntington, W. Va.
Filed July 14, 1909. Serial No. 43,514. PUBLISHED OCTOBER 26, 1909.

76,237. WOODEN TOOL-HANDLES. TURNER, DAY & WOOLWORTH HANDLE CO., Louisville, Ky.; Memphis and Nashville, Tenn., and Huntington, W. Va.
Filed July 14, 1909. Serial No. 43,515. PUBLISHED OCTOBER 26, 1909.

76,238. WOODEN TOOL-HANDLES. TURNER, DAY & WOOLWORTH HANDLE CO., Louisville, Ky.; Memphis and Nashville, Tenn., and Huntington, W. Va.
Filed July 14, 1909. Serial No. 43,516. PUBLISHED OCTOBER 26, 1909.

76,239. WOODEN TOOL-HANDLES. TURNER, DAY & WOOLWORTH HANDLE CO., Louisville, Ky.; Memphis and Nashville, Tenn., and Huntington, W. Va.
Filed July 14, 1909. Serial No. 43,517. PUBLISHED OCTOBER 26, 1909.

76,240. WOODEN TOOL-HANDLES. TURNER, DAY & WOOLWORTH HANDLE CO., Louisville, Ky.; Memphis and Nashville, Tenn., and Huntington, W. Va.
Filed July 14, 1909. Serial No. 43,519. PUBLISHED OCTOBER 26, 1909.

76,241. BUNTING. UNITED STATES BUNTING CO., Lowell, Mass.
Filed September 1, 1909. Serial No. 44,486. PUBLISHED OCTOBER 26, 1909.

76,242. RAZORS, SCISSORS, SHEARS, AND TABLE CUTLERY. WESTER BROS., New York, N. Y.
Filed June 8, 1909. Serial No. 42,900. PUBLISHED OCTOBER 26, 1909.

76,243. DYESTUFFS. BADISCHE ANILIN & SODA FABRIK, Ludwigshafen-on-the-Rhine, Germany.
Filed July 27, 1909. Serial No. 43,802. PUBLISHED OCTOBER 26, 1909.

76,244. COAL-TAR COLORING-MATTERS. BADISCHE ANILIN & SODA FABRIK, Ludwigshafen-on-the-Rhine, Germany.
Filed July 27, 1909. Serial No. 43,804. PUBLISHED OCTOBER 26, 1909.

76,245. CHEMICALS USED IN REDUCING, DISCHARGING, AND BLEACHING. BADISCHE ANILIN & SODA-FABRIK, Ludwigshafen-on-the-Rhine, Germany.
Filed July 27, 1909. Serial No. 43,805. PUBLISHED OCTOBER 26, 1909.

76,246. REMEDY FOR PILES. FANNIE E. BLANCHARD, Palacios, Tex.
Filed August 10, 1909. Serial No. 44,070. PUBLISHED OCTOBER 26, 1909.

76,247. SMOKING-TOBACCO, CHEWING-TOBACCO, CIGARS, CIGARETTES, AND SNUFF. CABRERAS LIMITED, London, England.
Filed May 17, 1909. Serial No. 42,471. PUBLISHED OCTOBER 26, 1909.

76,248. ASTRINGENT AND ANTISEPTIC. THE CUDAHY PACKING COMPANY, Chicago, Ill., and South Omaha, Nebr.
Filed September 2, 1909. Serial No. 44,494. PUBLISHED OCTOBER 26, 1909.

76,249. LAXATIVE CATHARTIC MEDICINAL PREPARATIONS. FREDERICK STEARNS & CO., Detroit, Mich.
Filed August 30, 1909. Serial No. 44,435. PUBLISHED OCTOBER 26, 1909.

76,250. ANTISEPTIC SOLUTION FOR EXTERNAL AND INTERNAL USE. HUTZLER BROTHERS CO. OF BALTIMORE CITY, Baltimore, Md.
Filed September 9, 1909. Serial No. 44,609. PUBLISHED OCTOBER 26, 1909.

76,251. EYE MEDICINE. JOSEPH KISS, Columbus, Ohio.
Filed September 4, 1909. Serial No. 44,538. PUBLISHED OCTOBER 26, 1909.

76,252. BACTERIAL ANTISEPTIC. LEDERLE ANTITOXIN LABORATORIES, New York, N. Y.
Filed September 2, 1909. Serial No. 44,493. PUBLISHED OCTOBER 26, 1909.

76,253. LIQUID DENTIFRICE, DENTAL POWDER, CREAM, AND PASTE. F. AUGUST LUYTIES, St. Louis, Mo.
Filed December 11, 1907. Serial No. 31,673. PUBLISHED JANUARY 28, 1908.

76,254. REMEDY FOR CERTAIN DISEASES. ANTHONY MAFFUCCI, Irvington, N. Y.
Filed May 10, 1909. Serial No. 42,330. PUBLISHED OCTOBER 26, 1909

76,255. FOOT-POWDER. RICHARD J. MOORE, New York, N. Y.
Filed March 16, 1909. Serial No. 41,216. PUBLISHED OCTOBER 26, 1909.

76,256. HAIR-TONIC. NIAGARA CHEMICAL COMPANY, Buffalo, N. Y.
Filed May 8, 1909. Serial No. 42,314. PUBLISHED OCTOBER 26, 1909.

76,257. REMEDY FOR CERTAIN DISEASES. THE OZO REMEDY COMPANY, New Brighton, Pa.
Filed September 3, 1908. Serial No. 37,186. PUBLISHED MARCH 23, 1909.

76,258. RUBBER HOSE. PEERLESS RUBBER MANUFACTURING COMPANY, New York, N. Y.
Filed October 3, 1907. Serial No. 30,376. PUBLISHED DECEMBER 8, 1908.

76,259. ANTISEPTIC HEALING-OIL. ABE PLOUGH, Memphis, Tenn.
Filed April 24, 1909. Serial No. 41,992. PUBLISHED OCTOBER 26, 1909.

76,260. BAKING-POWDER. ROYAL BAKING POWDER COMPANY, New York, N. Y.
Filed April 28, 1908. Serial No. 34,436. PUBLISHED JUNE 23, 1908.

76,261. REMEDY FOR BLOOD-POISONING AND RHEUMATISM. SAIN CHEMICAL COMPANY, St. Louis, Mo.
Filed August 23, 1909. Serial No. 44,311. PUBLISHED OCTOBER 26, 1909.

76,262. CARBONATED TONIC BEVERAGE. SUFFOLK DRUG CORPORATION, Suffolk, Va.
Filed July 28, 1909. Serial No. 43,836. PUBLISHED OCTOBER 26, 1909.

76,263. WORM-ERADICATOR. WILLIAM TUCKER, Ardsley-on-Hudson, N. Y.
Filed July 14, 1909. Serial No. 43,524. PUBLISHED SEPTEMBER, 28, 1909.

76,264. REMEDIES FOR BURNS, BRUISES, AND ULCERS. CHARLES J. ULRICI, New York, N. Y.
Filed September 10, 1909. Serial No. 44,617. PUBLISHED OCTOBER 26, 1909.

76,265. CIGARS. CHAS. P. STANLEY CIGAR CO., St. Louis, Mo.
Filed December 11, 1908. Serial No. 39,241. PUBLISHED APRIL 27, 1909.

76,266. LIQUID REMEDY FOR WORMS. WRIGHT'S INDIAN VEGETABLE PILL COMPANY, New York, N. Y.
Filed September 14, 1907. Serial No. 29,975. PUBLISHED APRIL 28, 1908.

LABELS

REGISTERED DECEMBER 28, 1909.

15,072.—*Title:* "REX BRAND RED SALMON." (For Salmon.) APEX FISH COMPANY, Anacortes, Wash. Filed September 14, 1908.

15,073.—*Title:* "LEVY'S OREGON GRAPE COMPOUND." (For a Medicine.) GUS S. LEVY, Union, Oreg. Filed February 19, 1909.

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

COMMISSIONER'S DECISIONS.

KNIGHT *v.* CUTLER.

Decided November 22, 1909.

1. INTERFERENCE—MOTION TO DISSOLVE—TRANSMISSION.
   It is well settled that the transmission of motions to dissolve is left largely to the discretion of the Examiner of Interferences and that where he grants a motion to transmit his decision will be disturbed only upon a showing of abuse of discretion.

2. SAME—SAME—SAME.
   Within the time set for bringing motions K. filed a motion to dissolve, which was denied on the ground of indefiniteness. Four days later he filed an amended motion seeking to overcome the indefiniteness of the original motion. On the day of hearing he filed an affidavit in support of the motion, and upon objection by C. the hearing was postponed one week. *Held* that these facts do not show any abuse of discretion upon the part of the Examiner of Interferences in transmitting the amended motion.

ON PETITION.

MOTOR-STARTER.

Mr. A. G. Davis for Knight. (*Mr. Frank J. Seabolt* of counsel.)

Messrs. Jones, Addington & Ames and *Mr. Edwin B. H. Tower* for Cutler.

MOORE, *Commissioner:*

This is a petition by Cutler that this case be remanded to the Examiner of Interferences, with instructions to rescind his order of October 9, 1909, transmitting Knight's motion to dissolve, to refuse transmission thereof, and to enter judgment against Knight.

The record shows that after the opening of the preliminary statements an order was issued against Knight to show cause why judgment should not be rendered against him on the record. Within the time allowed he filed a motion to dissolve, which was denied transmission on the ground of indefiniteness. Four days after the decision refusing transmission of this motion an amended motion was filed whereby it was sought to overcome the indefiniteness of the original motion. On the day the motion to transmit this amended motion was noticed for hearing Knight filed an affidavit of his attorney in support thereof. Upon objection by Cutler to the delay in filing the affidavit the hearing was postponed one week. On October 9 the Examiner of Interferences rendered a decision transmitting the amended motion to the Primary Examiner and suspending judgment.

It is well settled that the transmission of motions to dissolve will be left largely to the discretion of the Examiner of Interferences. In *Pickard* v. *Ashton and Curtis* (137 O. G., 977) it was said:

> For the same reasons which apply to motions to amend preliminary statements (*Smith and Wickes* v. *Emerson* v. *Sanders*, 133 O. G., 1433) and to motions with respect to the taking of testimony (*Goodfellow* v. *Jolly*, 115 O. G., 1964) the question of transmitting motions to dissolve should be left largely to the discretion of the Examiner of Interferences, and where he grants a motion to transmit his decision will not be disturbed unless it be clearly shown that such discretion has been abused.

To the same effect is the decision in *Thiem* v. *Bowen*. (143 O. G., 1345,) which cites with approval *Pickard* v. *Ashton and Curtis*, *supra*, and earlier cases in point.

In the present case the circumstances show no abuse of discretion upon the part of the Examiner of Interferences in transmitting the amended motion to dissolve.

The petition is denied.

HEWITT AND WATERMAN *v.* GREENFIELD.

Decided November 30, 1909.

1. INTERFERENCE—RIGHT TO MAKE THE CLAIMS IN A PARTY'S OWN APPLICATION—FINAL HEARING.
   A party's right to make a claim in issue in his own application is not a matter that can be properly raised at final hearing under Rule 130.

2. SAME—SAME—TWO APPLICATIONS OF SAME PARTY INVOLVED—TRANSFERRING CLAIMS.
   Where a party contends that a claim in issue is not readable upon that one of two of his applications involved in which it is made, but upon the other, *Held* that, if true, this would not constitute such irregularity as to preclude a proper determination of priority and that the supervisory authority of the Commissioner will not be exercised to have the claim transferred from one application to the other.

APPEAL from Examiners-in-Chief.

FLEXIBLE TUBING.

Mr. Henry A. Seymour for Hewitt and Waterman.

Mr. Samuel O. Edmonds for Greenfield.

BILLINGS, *First Assistant Commissioner:*

This is an appeal by Hewitt and Waterman from the decision of the Examiners-in-Chief affirming the decision of the Examiner of Interferences awarding priority of invention as to count 13, the only count upon which appeal was taken, to Greenfield, the senior party, upon the record.

As declared, this interference included two applications of appellants, and the issue embraced fourteen counts. Appellants' original application dis-

closed three species, and claims corresponding to counts 9–14, inclusive, were made in that application. Counts 1–8, inclusive, correspond to claims 1–8, inclusive, of appellants' later application. This application was filed as a division of appellants' original application for the purpose of embodying claims specific to the form of device shown in Figures 3 and 6 of the original application.

During the prosecution of the interference appellants brought a motion to dissolve the interference as to count 13, on the ground that it is not patentable over the prior art. This motion was transmitted to the Primary Examiner and was denied by him. Appellants then filed a second motion to dissolve as to count 13, on the grounds of no interference in fact, informality in the declaration of the interference, and that they had no right to make the claim corresponding to said count in their earlier application. This motion was refused transmission by the Examiner of Interferences, for the reason that appellants' motions to dissolve were brought piecemeal, also because the showing did not satisfactorily excuse the delay in bringing the latter motion. On appeal the decision of the Examiner of Interferences refusing transmission was affirmed by the Commissioner. Neither party took testimony, and priority of invention was awarded in favor of the senior party.

Of the eight assignments of error set up in this appeal only the fifth alleges error in the award of priority. This assignment reads as follows:

5th. The Examiners-in-Chief erred in awarding priority to Greenfield as to count 13, for the reason that the Hewitt and Waterman application embodying count 13 does not disclose the elements of said count.

If appellants' application containing the claim of this count does not disclose all of the elements of said count and if appellants have no right to make the claim in said application, as they allege, it clearly furnishes no reason why the award of priority in favor of Greenfield should be reversed. Moreover, this is not a matter that can be properly raised at final hearing under Rule 130.

The remaining assignments allege error in the decision of the Examiners-in-Chief in not holding that appellants had no right to make the claim of count 13 in their parent application, as it is specific to the construction disclosed in their divisional application; in not holding that there was such irregularity in the declaration of the interference as would preclude a proper determination of the question of priority as to count 13; in not suggesting that count 13 should be transferred to the divisional application; in not calling the attention of the Commissioner to the matters stated above, and in not recommending that said count is anticipated by a British patent. The matters set forth in these assignments do not relate to priority of invention and were not properly before the Examiners-in-Chief. It is well established that no appeal lies to the Commissioner from a refusal to make a recommendation under Rule 126. (*Walsh* v. *Hallbauer*, 94 O. G., 223; *Benet and Mercie* v. *McClean*, 97 O. G., 1595; *Wilcomb* v. *Lasher*, 105 O. G., 743; *Woods* v. *Waddell*, 106 O. G., 2017.)

Appellants state in their brief:

All that we seek to do by this appeal is to have this irregularity corrected by a transfer of count 13 from the original to the divisional application.

And they ask that the Commissioner exercise his supervisory authority and instruct the Primary Examiner that count 13 is readable only on the construction disclosed in their divisional application and should be transferred to said application.

The circumstances of this case do not call for the exercise of the supervisory authority of the Commissioner. Appellants failed to raise this matter in their original motion to dissolve, and the refusal of the Examiner of Interferences to transmit their later motion was affirmed by the Commissioner. The purpose of this interference proceeding is to determine the question of priority of invention, and appellants do not question the correctness of the lower tribunals in their award in favor of Greenfield. Both applications of appellants are involved in the interference, and they admit that the count is readable on the construction of at least one of said applications. Under these circumstances and at this stage of the proceeding it is unnecessary to construe the count and determine which forms of appellants' device come within the terms of the count. This is a matter for the determination of the courts after the issue of Greenfield's patent.

Whether count 13 is generic to all forms of appellants' device or is specific to that of the divisional application is immaterial, since the award of priority in any event must be in favor of Greenfield. Clearly there was no such irregularity in the declaration of the interference as to preclude the proper determination of priority.

No error is found in the decision of the Examiners-in-Chief, and it is accordingly affirmed.

B. FISCHER & Co. *v.* A. F. BECKMANN & Co.

Decided November 16, 1909.

1. TRADE-MARKS—CANCELATION—DAMAGE—SUFFICIENCY OF SHOWING.

Where the mark shown in the registration whose cancelation is sought consists of the words "Crown Aster" for "canned fruits, canned vegetables, pork and beans, jam, preserves, and marmalades" and the applicant for cancelation merely alleges that it had adopted the mark "Hotel Astor" for coffee prior to the date of adoption of the mark "Crown Aster" by the registrant and had used it continually ever since, *Held* that the showing of damage is not sufficient, and a demurrer to the application for cancelation was properly sustained.

2. SAME—SAME—SAME—GOODS IN SAME CLASS.

While the owner of a trade-mark is entitled to protection against the registration of the same or a similar mark by another upon goods adapted to similar use, he is not entitled by reason of its use on one article to a monopoly of the mark for all goods which may be included in a broad class established by the Patent Office.

APPEAL from Examiner of Interferences.

TRADE-MARK FOR CANNED FRUITS AND VEGETABLES.

Messrs. C. A. Snow & Co. for B. Fischer & Co.

Mr. Samuel E. Darby for A. F. Beckmann & Co.

TENNANT, *Assistant Commissioner:*

This is an appeal from the decision of the Examiner of Interferences sustaining a demurrer of Beckmann & Co. dismissing the application for cancelation of Fischer & Co. upon the ground that the petition for cancelation does not set forth allegations of fact showing that the petitioner has acquired any such trade-mark right as would warrant the cancelation of the registration of the respondent.

The record shows that a demurrer was filed against the application for cancelation as originally filed. This demurrer was sustained by the Examiner of Interferences and the applicant for cancelation permitted to amend. Upon filing such amendment a second demurrer was filed, which in turn was sustained and Fischer & Co. again permitted to amend its application for cancelation. The demurrer under consideration was filed against this amended application for cancelation and, as was stated, is sustained by the Examiner of Interferences.

The mark sought to be canceled comprises the words "Crown Aster," which were registered by A. F. Beckmann & Co. February 11, 1908, No. 67,588, as its trade-mark for canned fruits, canned vegetables, pork and beans, jam, preserves, and marmalades.

The grounds set forth in the amended application for cancelation briefly stated that on or about October, 1905, Fischer & Co. adopted for use as a trade-mark for coffee the words "Hotel Astor" and that said mark has been continuously used by it until the present time, and it is further alleged that—

(4) Your petitioner is informed and believes that on the date of its adoption and first use of the said trade-mark for coffee that no other person, firm, or corporation was using such trade-mark or any near resemblance thereto for coffee, canned fruits or goods of the same general class.

(5) That your petitioner is informed and believes that the respondent A. F. Beckmann did not adopt and use the words "Crown Aster" for coffee or for any other goods of the same descriptive properties of the same general class until subsequent to the adoption and use of your petitioner's words "Hotel Astor" for coffee.

It is further asserted that at the time the respondents' trade-mark for coffee was registered the same was calssified in class 50, "Foods not otherwise classified," and that the mark of B. Fischer & Co., which is also registered, was classified in class 46, "Coffee, tea, and substitutes," being a separate and distinct class, and that then separate registration was required for the goods in each separate class, but that since the registration of the trade-marks in controversy the Patent Office classification has been changed, so that the merchandise formerly contained in classes 46 and 50 are now classified in a single class 46, "Foods and ingredients of foods." It is contended that inasmuch as merchandise of the respective parties is now included in the same general class as prescribed by the Patent Office classification the allegations of the application for cancelation are sufficient to warrant the taking of testimony in the present cause, and in support of this contention the decision of the Court of Appeals of the District of Columbia in the case of *Walter Baker & Co.* v. *Harrison* (138 O. G., 770; 32 App. D. C., 272) is cited. In that case the court had under its consideration the question, raised by demurrer, whether coffee was goods of the same descriptive properties as cocoa and cocoa preparations. In respect to the similarity of these goods the court said:

Coffee and cocoa when used as beverages are at once associated as belonging to the class of beverages in general domestic use. They belong to the class of beverages universally used on the table and sold in prepared packages for that purpose. * * * A mark should be denied not only when used upon goods of the same descriptive properties as a similar registered mark but when used on goods belonging to the same general class.

The court further said:

It is not a debatable question that coffee and cocoa belong to the same class of goods that may be described generally as household beverages. The injury which the appellant would sustain by granting registration to the appellee consists chiefly in the possibility of the appellant's using the mark on an inferior quality of coffee and thereby by association in the mind of the public injure the standing of the appellant's goods. The public are entitled to protection against such a result.

It is to be observed that in this application for cancelation Fischer & Co. asserts merely that it is the owner of the trade-mark for coffee and that A. F. Beckmann & Co. did not adopt and use the words "Crown Aster" for coffee or for any other goods of the same descriptive properties of the same general class until subsequent to the adoption and use by the petitioner of the words "Hotel Astor" for coffee. I fail to find in this allegation or in any other set forth in the application for cancelation any sufficient ground upon which to base an allegation of damage to the applicant for cancelation. Section 13 of the Trade-Mark Act of 1905 provides that—

whenever any person shall deem himself injured by the registration of a trade-mark in the Patent Office he may, at any time, apply to the Commissioner of Patents to cancel the registration thereof.

The Court of Appeals of the District of Columbia held in *McIlhenny & Sons* v. *New Iberia Extract of Tabasco Pepper Co., Ltd.*, (133 O. G., 995; 30 App. D. C., 337,) that the right of the petitioner to intervene was dependent upon a showing of interest, stating that—

the statute does not contemplate that any one may petition the Commissioner to cancel a trade-mark regularly registered but it does provide that any one who "shall deem himself injured" may do so. The petition therefore must contain a statement of fact upon its jurisdictional question sufficiently full to show that the petitioner has been injured by the registration of the mark he seeks to have canceled and this fact must not be left to conjecture but must affirmatively appear.

In the present case the applicant for cancelation is claiming only the use of his trade-mark upon coffee and does not assert with any particularity that the trade-mark of the opposer is used upon goods of the same descriptive properties, except in so far as coffee and the goods for which the mark of Beckmann & Co. is registered are embraced in a single broad class of merchandise established by the Patent Office for its own convenience in classification.

Section 2 of the act of May 4, 1906, which provides for the establishment of classes of merchandise for the purpose of trade-mark registration provides in part—

on a single application for registration of a trade-mark the trade-mark may be registered at the option of the applicant for any or all goods upon which the mark has actually been used comprised in a single class of merchandise, provided the *particular descriptions of goods be stated.* (Italics mine.)

It cannot be well asserted that because a merchant has adopted and used a trade-mark upon one kind of food or ingredient of foods he can thereby

preclude any other person from using the same mark upon every other article of food or ingredient of foods. The last clause of the section above quoted clearly shows that the applicant should be required to assert in unmistakable terms the particular description of goods for which he claims ownership of the trade-mark, and while he is clearly entitled to protection against the registration of the same or a similar mark by another upon goods adapted to similar use (as coffee and cocoa, *supra*) he is clearly not entitled to a monopoly of the mark for all goods which may be included in a broad class established by the Patent Office by its use on one article.

In a proceeding for the cancelation of a trade-mark upon the ground of prior adoption it is therefore incumbent upon the applicant for cancelation to set forth facts which if established will show that not only the registrant's mark is so nearly identical with that of applicant for cancelation as to be likely to be mistaken therefor, but that the registrant's goods are adapted to the same general use as those upon which the petitioner's mark is used. The allegations contained do not in my opinion contain any averment which will support an allegation of damage, which is a necessary basis for this proceeding.

The decision of the Examiner of Interferences is affirmed.

DECISIONS OF THE U. S. COURTS.

Court of Appeals of the District of Columbia.

IN RE LYON.

Decided October 19, 1909.

1. PATENTABILITY.

Where it was old to utilize a telephone for the display of advertisements and also old to control a movable-band advertising device by a lever operated by removing a weight from or restoring it to a hook-support, *Held* that it did not amount to invention to attach a movable-band advertising device to a telephone-box, so that it would be operated when the receiver is removed from and restored to the hook thereon.

2. SAME—NEW USE.

Where it was old to communicate motion to a movable-band advertising device by means of a lever operated by removing a weight from or restoring it to a hook, the use of the lever of a telephone for that purpose is not a new, but an additional use for that lever.

Mr. E. J. Prindle and *Mr. C. J. Williamson* for the appellant.

Mr. W. S. Ruckman for the Commissioner of Patents.

SHEPARD, *C. J.:*

This is an appeal from the decision of the Commissioner of Patents rejecting an application for a patent having the following claims:

1. The combination with a telephone, of a movable advertising device, and connections whereby the placing of the telephone in condition for use causes the movement of said advertising device.

2. The combination with a telephone, of a movable advertising device, the connections between said device and the receiver-hook of said telephone, whereby, upon the movement of said hook, said advertising device shall be operated.

3. The combination with a telephone, of an advertising device having a series of advertisements thereon, connections between the switch of said telephone and said advertising device, whereby, upon the movement of said switch to place said telephone in condition for use, said advertising device shall be operated to bring one of said series of advertisements into view and, then to come to rest.

4. The combination with a telephone, of an advertising device having means for winding up and unwinding a band that has advertisements thereon, and connections whereby, when said telephone is placed in condition for use, said advertising device will be automatically actuated to move said band, first in one direction and then in the opposite direction.

5. The combination with a telephone, of an advertising device having means for winding up and unwinding a band that has advertisements thereon, and connections whereby, when said telephone is placed in condition for use, said advertising device will be automatically actuated to move said band step by step, first in one direction and then in the opposite direction.

The subject-matter of the application is an advertising device attached to the box of an ordinary wall-telephone. The device consists of a band of paper carrying a number of advertisements, and a mechanism by which the band is operated to bring the advertisements successively into view. The motor mechanism is set in motion by the receiver-hook of the telephone. When one goes to use the telephone an advertisement is in view. When he takes the receiver from the hook the machine causes the band to make a slight movement with a sound to attract attention. It then pauses and when the receiver is hung on the hook again the band is made to travel the full length of the next advertisement bringing it into place where it may be observed by the next user of the telephone whose attention will be attracted by the sound following his removal of the receiver from its hook.

The application was rejected for want of novelty on reference to the following patents: Whitney, October 28, 1902, No. 712,223; Bannan, May 12, 1903, No. 727,880; Sanford, August 23, 1904, No. 768,240.

Whitney's patent shows an advertising device with an endless band bearing advertisements, and means for moving the band the space of an advertisement at a time. The operating means consists of a spring-retracted hooked arm or lever quite like the hooked support of the telephone-receiver, adapted to support a suitable weight, which may be an automatic cigar-lighter; also a pawl-and-ratchet mechanism connected to the lever and one of the wheels over which runs the endless band, so that each time the weight is released and the lever is retracted by its spring, the pawl and ratchet are operated one step and a new advertisement is presented to view. Sanford's patent shows an electric indicator on which a band bearing advertisements, particularly the names of streets and stations, is wound from one drum to another, and then the operation is reversed as in applicant's device. Its particular use is in street and railway cars, stations, etc. Bannan's patent is for advertising purposes in connection with telephones. It consists of a sheet-metal plate attached to the transmitter on which telephone-numbers may be written and advertisements displayed.

The appellant asserts that the great value of his invention is due to two things: first, the utilization of the telephone-receiver and its supporting-hook, which are already in existence, thus rendering it unnecessary to construct or provide any special mechanism for causing the operation of the advertising

device; second, as the user must be at a phone waiting for the desired connection, a splendid opportunity is afforded for the display of advertising matter so that, almost against his will, he is obliged to read what is presented before him; moreover, the telephone provides the means of at once ordering that which is the subject of an advertisement. He does not claim invention of any one of the elements of the combination, but in the combination of a traveling advertisement-carrier, a telephone, and a lever which is the connecting-link between the advertising mechanism and the telephone, the one lever coacting with the telephone and also with the advertising mechanism. He states in his brief that—

the invention consisted not so much in devising instrumentalities, but in the thought of using an apparatus, or the parts of an apparatus already in existence for one purpose, for another purpose.

And again he states:

The ingenuity of the appellant consists in making one mechanism serve a double purpose. That is to say, appellant takes the telephone that is made for the purpose of telephoning, and compels certain parts of it to do service in working an advertising device. This case is one wherein the invention lies in the conception or thought that the telephone which is provided for one purpose may be rendered useful for another purpose.

It appears, however, from Bannan's patent that this idea of utilizing the telephone for the display of advertisements first occurred to him, though he carried it out in a different way. On the other hand, the idea of operating a movable-band advertising device by means of a lever for switching the electric current, which was set in motion by removing a weight from, or restoring it to a hook-support, first occurred to Whitney. He preferred to make this weight a cigar-lighter which hangs on the hook in the same manner that a telephone-receiver does. Knowing, then, that a telephone-box had been conceived by Bannan as a suitable place for the display of advertising matter to the users of the telephone, and that Whitney had used the movable-band device, controlled by a lever operating in the same way as the lever of the telephone apparatus, did the idea of substituting the Whitney device for that of Bannan and attaching it to the lever of the telephone-box instead of a similar lever attached to some other support, amount to invention? We agree with the tribunals of the Patent Office that it did not. (*Millett* v. *Allen*, 27 App. D. C., 70, 76, and cases there cited; *in re Mason*, 31 App. D. C., 539.)

The new use claimed for the telephone itself amounts to nothing more than the use conceived by Bannan, namely, as a place for the display of advertisements. The use of the telephone-lever as a means for communicating motion to the movable-band device substituted for Bannan's method of display, was not a new, but an additional use for that lever, readily suggested by the method of Whitney's operation. The ordinary switching-lever is made to operate in the same way to perform a similar function. The combination of applicant amounts only to an aggregation of familiar elements which operate in the combination as they formerly did separately.

There was no joint operation productive of a new result. In view of what was already known, the thought which prompted the combination is no more invention than that which produced the combination of pencil and eraser, through the insertion of a piece of rubber in one end of an ordinary lead-pencil, a patent for which was held void in *Reckendorfer* v. *Faber*, (92 U. S., 347.)

The cases cited by the appellant are distinguishable from this. (*Hobbs* v. *Beach*, 180 U. S., 383; *Wold* v. *Thayer*, 148 Fed. Rep., 227; *Stillwell-Bierce* v. *Oil Co.*, 117 Fed. Rep., 410; *in re McCreary*, 12 App. D. C., 517.) In *Hobbs* v. *Beach*, which is chiefly relied on, the Dennis and York device, claimed as an anticipation, had been used solely for pasting addresses upon newspapers. Neither it or any other machine had ever been used for pasting paper strips on the corners of boxes. It had to be changed materially to make it capable of such use. The functions of the two machines were analogous, but not similar and it was said that the Beach machine involved invention, first, to see that the old machine was adaptable to the work of the Beach device, and second to make the changes necessary to adapt the old device to the new function. In the other cases, changes were made by which new and useful results were achieved.

Nor is there any support for the appellant's contention in the recent case of *in re Eastwood*, (preceding term; 144 O. G., 819.) There the combination of a metal or skull cracking weight with a lifting-magnet and a traveling crane, was held to be new. While a lifting-magnet had been used in a combination with a traveling crane Eastwood was the first to combine the three elements, producing a novel and useful result.

In the present case the Whitney hook, as we have seen performs the same functions in his combination that is performed by the telephone-hook in the appellant's. There is such similarity in the mode of operation of the Whitney hook, and the telephone-hook that one readily suggests the other.

We find no error in the decision and it will be affirmed. It is so ordered and that the clerk certify this decision to the Commissioner of Patents as the law requires.

ADJUDICATED PATENTS.

The Westinghouse patent, No. 366,362, for an electrical converter, claim 4 construed and *Held* not infringed. *Westinghouse Electric & Mfg. Co.* v. *Wagner Electric & Mfg. Co.*, (C. C. A.,) 173 Fed. Rep., 361.

The Caswell reissue patent, No. 12,447, (original No. 806,394,) for a dump-car, claims 31, 32, 44, 48, 58, 59, 60, 61, 62, and 63 construed and *Held* to cover a patentable invention, but not infringed. *National Dump Car Co.* v. *Ralston Steel Car Co.*, 172 Fed. Rep., 393.

The Davidson reissue patents, Nos. 12,796 and 12,797, (original No. 662,395,) for a centrifugal fan, are not so clearly void as to justify their being so held on demurrer. *Sirocco Engineering Co.* v. *B. F. Sturtevant Co.*, (C. C.,) 173 Fed. Rep., 378.

Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., December 11, 1909.

John L. Rodgers & Co., their assigns or legal representatives, take notice:

An interference having been declared by this Office between the applications of Austin, Nichols & Co., of 61 Hudson street, New York, N. Y., and Roy A. Davis, of Gibbon, Nebr., for registration of a trade-mark and a trade-mark registered to John L. Rodgers & Co., of 218 Spears Wharf, Baltimore, Md., and the notice of said declaration sent by the Patent Office by registered mail to the said John L. Rodgers & Co. having been returned undelivered, notice is hereby given to said John L. Rodgers & Co., their assigns or legal representatives, that if they or any of them desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents in order that the notice of declaration heretofore sent by and returned to the Office may be forwarded to them.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall be entered at the expiration of the period of publication, the interference will be proceeded with as in case of default.

EDWARD B. MOORE, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., December 9, 1909.

Kuhn Bros., their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The Feder Silberberg Company, of 30 and 32 West Third street, Cincinnati, Ohio, for registration of a trade-mark and a trade-mark registered to Kuhn Bros., of 945–947 Fifth street, San Diego, Cal., and the notice of said declaration sent by the Patent Office by registered mail to the said Kuhn Bros. having been returned undelivered, notice is hereby given to the said Kuhn Bros., their assigns or legal representatives, that if they or any of them desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents in order that the notice of declaration heretofore sent by and returned to the Office may be forwarded to them.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall be entered at the expiration of the period of publication, the interference will be proceeded with as in case of default.

EDWARD B. MOORE, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., December 1, 1909.

Davidson & Knowles Company, its assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The Warren Paint Company, of Warren, Ohio, for registration of a trade-mark and trade-marks registered to C. A. Reeve & Company, of 251–252 West Fayette street, Syracuse, N. Y., and Davidson & Knowles Company, of 51 Barclay street, New York, N. Y., respectively, and the notice of said declaration sent by the Patent Office by registered mail to the said Davidson & Knowles Company having been returned by the Post-Office Department, notice is hereby given to the said Davidson & Knowles Company, its assigns or legal representatives, that if they or any of them desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents in order that the notice of declaration heretofore sent by and returned to the Office may be forwarded to them.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall be entered at the expiration of the period of publication, the interference will be proceeded with as in case of default.

EDWARD B. MOORE, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., November 23, 1909.

Tourist Cycle Company, its assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Melvin J. Foyer, of Toledo, Ohio, for registration of a trade-mark and trade-marks registered to the Tourist Cycle Company, of Syracuse, N. Y., and George R. Bidwell Cycle Company, of New York, N. Y., respectively, and the notice of said declaration sent by the Patent Office by registered mail to the said Tourist Cycle Company having been delivered to Roy Porter as agent for E. C. Stearns, and neither of these names appearing of record in the Tourist Cycle Company's registration, and no evidence having been furnished, within a time allowed by the Office for that purpose, that E. C. Stearns and Roy Porter are authorized to accept service for this company, notice is hereby given that if the said Tourist Cycle Company, its assigns or legal representatives, desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents in order that the notice of declaration heretofore sent by and returned to the Office may be forwarded to them.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall be entered at the expiration of the period of publication, the interference will be proceeded with as in case of default.

EDWARD B. MOORE, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., November 22, 1909.

Percy Warren Noble, his assigns or legal representatives, take notice:

An interference having been declared by this Office between a patent granted to Percy Warren Noble, of New York, N. Y., on March 24, 1908, No. 883,146, application for which was filed November 23, 1907, No. 403,493, for bearing for supporting radiators in automobile-frames, and applications for patents filed by James E. Woodbridge, of Bridgehampton, N. Y., and Giovanni Enrico, of Turin, Italy, respectively, and the notice of said declaration sent by the Patent Office by registered mail to the said Percy Warren Noble at New York, N. Y., having been returned by the Post-Office Department, notice is hereby given to the said Percy Warren Noble, his assigns or legal representatives, that if they or any of them desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents in order that the notice of declaration heretofore sent by and returned to the Office may be forwarded to them.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall be entered at the expiration of the period of publication, the interference will be proceeded with as in case of default.

E. B. MOORE, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., November 17, 1909.

Edward M. Wilcox and William Jay Hopkins, their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Orville Simpson, of 1956 West Sixth street, Cincinnati, Ohio, for registration of a trade-mark and a trade-mark registered to Edward M. Wilcox and William Jay Hopkins, of Whitewater, Wis., and the notice of said declaration sent by the Patent Office by registered mail to the said Edward M. Wilcox and William Jay Hopkins having been returned undelivered, notice is hereby given to said Edward M. Wilcox and William Jay Hopkins, their assigns or legal representatives, that if they or any of them desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents in order that the notice of declaration heretofore sent by and returned to the Office may be forwarded to them.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall be entered at the expiration of the period of publication, the interference will be proceeded with as in case of default.

EDWARD B. MOORE, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., November 18, 1909.

Harry H. Schuster, his assigns or legal representatives, take notice:

An interference having been declared by this Office between an application for patent filed by Charles H. J. Dilg and Jonathan O. Fowler and a patent granted to Harry H. Schuster and David Maier as joint inventors, and the notice of said declaration sent by registered mail by the Patent Office to said Harry H. Schuster, one of the joint patentees, having been returned by the Post-Office Department, notice is hereby given to said Harry H. Schuster, his assigns or legal representatives, that if they or any of them desire to contest the said interference they should immediately put themselves in communication with the Commissioner of Patents in order that the notice of declaration heretofore sent by and returned to the Office may be forwarded to them.

This notice will be published in the OFFICIAL GAZETTE for six consecutive weeks. If no appearance shall be entered at the expiration of the period of publication, the interference will be proceeded with as in case of default.

EDWARD B. MOORE, *Commissioner.*

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DECISIONS OF THE COMMISSIONER OF PATENTS AND THE UNITED STATES COURTS.

DECEMBER, 1909.

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DIGEST

OF THE

DECISIONS OF THE COMMISSIONER OF PATENTS AND THE UNITED STATES COURTS.

DECEMBER, 1909.

[Decisions of the Court of Appeals of the District of Columbia are indicated by a star (*), of the Supreme Court of the United States by two stars (**), and of the Supreme Court of the District of Columbia by a section-mark (§).]

ABANDONMENT OF APPLICATIONS.

1. FAILURE TO TAKE PROPER ACTION.

Where the Examiner rejected eight claims and just before the expiration of the year the applicant canceled four of these, amended one, pointed out wherein the other three avoided the references, and added two new claims without pointing out how these two were believed to distinguish over the prior art, *Held* that the application is abandoned. [*Ex parte* Copeland, 309.

2. SAME—LONG DELAYS.

Where an applicant relies upon his technical right to delay action as long as possible in each instance, he is entitled to no leniency in the application of the rule which provides that prosecution of an application to save it from abandonment must include such proper action as the condition of the case may require. [Id.

ACCESS TO PENDING APPLICATIONS.

(See Bankruptcy.)

ALTERATION OR SUBSTITUTION OF APPLICATIONS.

(See Authority of the Commissioner of Patents, 2, 3.)

APPEAL.

(See Congressional Legislation; Mandamus; Reopening of Decided Cases.)

APPLICATIONS.

(See Abandonment of Applications; Authority of the Commissioner of Patents, 2, 3; Bankruptcy; Congressional Legislation; Interference; New Matter.)

ASSIGNEES.

(See Bankruptcy.)

AUTHORITY OF THE COMMISSIONER OF PATENTS.

(See Congressional Legislation.)

1. COMMISSIONER OF PATENTS—POWER TO INVESTIGATE THE CONDUCT OF HIS OFFICE.

The Commissioner of Patents is the official head of a great and important public office and has the power to institute investigations into the conduct of his Office generally, with a view to the efficiency of the service and the eradication of corrupt practice, if such are found to exist. The manner in which such investigation shall be conducted is a matter within his discretion, and no court is vested with supervisory authority over him.

[**Moore, Commissioner of Patents, v. Heany, The Heany Company, and the Heany Lamp Co., 831.

2. SAME—SAME.

The Commissioner has the power, either in an *ex parte* or an interference case, to inquire and determine whether an application has been altered or substituted without authority. Whether such alteration shall have been made by the attorney of the applicant with the latter's connivance or consent is immaterial. The efficacy of the application would be destroyed by such alteration.

[*Id.

3. ALTERATION OF APPLICATIONS—CRIMINAL PROCEEDING—RES ADJUDICATA.

The power of the Commissioner to declare as a result of investigation that an application has been destroyed by the reason of alteration is not affected by the fact that in a criminal prosecution against the applicant, his attorney, and another for conspiracy in the matter of such alterations the applicant was acquitted. The question adjudicated in the criminal proceedings was not whether the application had been altered, but whether the applicant was a guilty party thereto. The fact of alteration is not *res adjudicata*.

[*Id.

BANKRUPTCY.

ASSIGNEE OF APPLICATION—TITLE OF TRUSTEE.

Where an application for patent is assigned and prior to the issuance of a patent thereon the assignee is declared a bankrupt, *Held* that the trustee in bankruptcy acquires no title to such application. [*In re* Ives, 309.

BILL IN EQUITY UNDER SECTION 4915, REVISED STATUTES.

PATENTABILITY.

The evidence presented considered and *Held* insufficient to overcome the rulings of the Patent Office and the Court of Appeals of the District of Columbia that the claims are unpatentable.

[§Dilg *v.* Moore, (substituted for Allen,) Commissioner of Patents of the United States, 601.

CANCELATION OF TRADE-MARK REGISTRATION.

(See Trade-Marks, 1.)

CLAIMS.

(See New Matter.)

CLASS OF MERCHANDISE.

(See Trade-Marks, 2.)

COMMISSIONER OF PATENTS.

(See Authority of Commissioner of Patents; Congressional Legislation; Jurisdiction of the Courts Over Practice in the Patent Office; Mandamus, 2.)

CONGRESSIONAL LEGISLATION.

PATENT LEGISLATION—FUNCTION OF THE COMMISSIONER OF PATENTS.

"The Commissioner of Patents in passing upon applications or deciding controversies between rival applicants for patent of the same invention, exercises power that is essentially judicial. For that reason, Congress has the power to provide for a review of his decisions by appeal to the courts."

[**Moore *v.* United States, *ex rel.* Lindmark, 310.

CONSPIRACY.

(See Authority of the Commissioner of Patents, 2, 3.)

CONSTRUCTION OF RULES.

(See Interference, 1.)

COURT OF APPEALS OF THE DISTRICT OF COLUMBIA.

(See Bill in Equity Under Section 4915, Revised Statutes; Mandamus, 2.)

CRIMINAL PROSECUTION.

(See Authority of the Commissioner of Patents, 3.)

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(See Trade-Marks, 1.)

DELAY IN PROSECUTING APPLICATIONS.

(See Abandonment of Applications.)

DEMURRER.

(See Trade-Marks, 1.)

DISCLOSURE OF INVENTION.

(See New Matter.)

DISCRETION OF THE EXAMINER OF INTERFERENCES.

(See Motion to Dissolve Interference.)

EVIDENCE IN SUIT.

(See Bill in Equity Under Section 4915, Revised Statutes; Suits for Infringement.)

FORMER SUIT.

(See Suits for Infringement.)

INDEFINITENESS.

(See Motion to Dissolve Interference, 2.)

INTERFERENCE.

(See Mandamus; Motion to Dissolve Interference.)

1. RIGHT TO MAKE THE CLAIMS IN A PARTY'S OWN APPLICATION—FINAL HEARING.
A party's right to make a claim in issue in his own application is not a matter that can be properly raised at final hearing under Rule 130. [Hewitt and Waterman *v.* Greenfield, 1119.

2. SAME—TWO APPLICATIONS OF SAME PARTY INVOLVED—TRANSFERRING CLAIMS.
Where a party contends that a claim in issue is not readable upon that one of two of his applications involved in which it is made, but upon the other, *Held* that, if true, this would not constitute such irregularity as to preclude a proper determination of priority and that the supervisory authority of the Commissioner will not be exercised to have the claim transferred from one application to the other. [Id.

INVENTION.

1. PATENTABILITY.
Where it was old to utilize a telephone for the display of advertisements and also old to control a movable-band advertising device by a lever operated by removing a weight from or restoring it to a hook-support, *Held* that it did not amount to invention to attach a movable-band advertising device to a telephone-box, so that it would be operated when the receiver is removed from and restored to the hook thereon. [**In re* Lyon, 1122.

2. SAME—NEW USE.
Where it was old to communicate motion to a movable-band advertising device by means of a lever operated by removing a weight from or restoring it to a hook, the use of the lever of a telephone for that purpose is not a new, but an additional use for that lever. [*Id.

INVESTIGATION.

(See Authority of the Commissioner of Patents; Jurisdiction of the Courts Over Practice in the Patent Office.)

JURISDICTION OF THE COURTS OVER THE COMMISSIONER OF PATENTS.

(See Authority of Commissioner of Patents, 1, 3; Jurisdiction of the Courts Over Practice in the Patent Office.)

JURISDICTION OF THE COURTS OVER PRACTICE IN THE PATENT OFFICE.

PRACTICE OF THE PATENT OFFICE—AUTHORITY OF THE COURTS THEREOVER.
The courts are vested with no power to interfere with or supervise the practice of the Patent Office. It is only in cases where a hearing is refused a party or the Commissioner refuses to perform a plain duty or where he undertakes to do an unwarranted act for which there is no other adequate remedy that the courts are authorized to interfere by mandamus or injunction.
[*Moore, Commissioner of Patents, *v.* Heany, The Heany Company, and the Heany Lamp Co., 831.

MANDAMUS.

(See Jurisdiction of the Courts Over Practice in the Patent Office.)

1. USE OF.
The writ of mandamus cannot be used to perform the office of an appeal or writ of error or granted in any case where there is another adequate remedy.
[*Moore *v.* United States, *ex rel.* Lindmark, 310.

2. FINAL ORDER—RIGHT OF APPEAL.
In an interference between F. and L. the decision of the Commissioner in favor of L. was reversed by the Court of Appeals of the District of Columbia. Thereafter L. filed with the Commissioner a petition that the interference be reopened for the purpose of taking further testimony. This petition was denied, but an order directing a patent to issue to F. was not entered. *Held* that mandamus would not lie to compel the Commissioner to reopen the case, since upon the entry of such final order L. would have the right of appeal to the court of appeals. [*Id.

MONOPOLY.

(See Trade-Marks, 2.)

MOTION TO DISSOLVE INTERFERENCE.

1. INTERFERENCE—TRANSMISSION.
It is well settled that the transmission of motions to dissolve is left largely to the discretion of the Examiner of Interferences and that where he grants a motion to transmit his decision will be disturbed only upon a showing of abuse of discretion.
[Knight *v.* Cutler, 1119.

2. SAME—SAME.
Within the time set for bringing motions K. filed a motion to dissolve, which was denied on the ground of indefiniteness. Four days later he filed an amended motion seeking to overcome the indefiniteness of the original motion. On the day of hearing he filed an affidavit in support of the motion, and upon objection by C. the hearing was postponed one week. *Held* that these facts do not show any abuse of discretion upon the part of the Examiner of Interferences in transmitting the amended motion. [Id.

NEW CLAIMS.

(See Reopening of Decided Cases.)

NEW MATTER.

PATENTABILITY—CLAIMS BASED ON THEORY OF OPERATION NOT ORIGINALLY DISCLOSED.
Where an application as originally filed did not differentiate from the prior art either in construction or theory of operation and an amendment thereto was filed, without verification by the inventor, introducing a new theory of operation and containing process claims covering such theory, such claims are invalid as covering new matter.
[**Steward *et al. v.* American Lava Company *et al.*; Kirchberger *et al. v.* American Lava Company *et al.*, 602.

NEW USE.

(See Invention, 2.)

OLD DEVICES.

(See Invention, 1.)

PATENTABILITY.

(See Bill in Equity Under Section 4915, Revised Statutes; Invention; New Matter.)

PRIORITY OF ADOPTION AND USE.

(See Trade-Marks, 1.)

PRIORITY OF INVENTION.

(See Interference, 2.)

REMEDY.

(See Jurisdiction of the Courts Over Practice in the Patent Office; Mandamus, 1.)

REOPENING OF DECIDED CASES.

REOPENING CASE AFTER APPEAL.
An inventor is presumed to know the essence of his invention before it is filed, certainly before it has been prosecuted through an appeal, and the mere statement that a certain feature has been found to be important is not a showing of sufficient cause to justify reopening the case to admit new claims.
[*Ex parte* Wagner, 831.

REOPENING OF INTERFERENCE TO TAKE TESTIMONY.

(See Mandamus, 2.)

RES ADJUDICATA.

(See Authority of the Commissioner of Patents, 3.)

RESPONSIVE ACTION BY THE APPLICANT.

(See Abandonment of Applications.)

RIGHT OF APPEAL.

(See Mandamus, 2.)

RIGHT TO MAKE CLAIMS.

(See Interference, 1.)

STATE OF THE ART.

(See New Matter.)

SUITS FOR INFRINGEMENT.

EVIDENCE—FORMER SUIT—PRIVIES.
The mere fact that defendants in a suit for infringement of a patent contributed to the defense in a prior suit on the same patent against other parties, it not being shown that the present defendants had the right to intermeddle in any way in the conduct of that case, does not render them privies to such prior suit, and the testimony of a witness therein, since deceased, is inadmissible against them to establish infringement.
[**Rumford Chemical Works *v.* Hygienic Chemical Company of New Jersey; Hygienic Chemical Company of New York *et al. v.* Rumford Chemical Works, 834.

SUPERVISORY AUTHORITY OF THE COMMISSIONER OF PATENTS.

(See Authority of Commissioner of Patents, 1; Interference, 2.)

TESTIMONY.

(See Suits for Infringement.)

TRADE-MARKS.

1. CANCELATION—DAMAGE—SUFFICIENCY OF SHOWING.
Where the mark shown in the registration whose cancelation is sought consists of the words "Crown Aster" for "canned fruits, canned vegetables, pork and beans, jam, preserves, and marmalades" and the applicant for cancelation merely alleges that it had adopted the mark "Hotel Astor" for coffee prior to the date of adoption of the mark "Crown Aster" by the registrant and had used it continually ever since, *Held* that the showing of damage is not sufficient, and a demurrer to the application for cancelation was properly sustained.
[B. Fischer & Co. *v.* A. F. Beckmann & Co., 1120.

2. SAME—SAME—GOODS IN SAME CLASS.
While the owner of a trade-mark is entitled to protection against the registration of the same or a similar mark by another upon goods adapted to similar use, he is not entitled by reason of its use on one article to a monopoly of the mark for all goods which may be included in a broad class established by the Patent Office.
[Id.

TRANSFERRING CLAIMS.

(See Interference, 2.)

TRANSMISSION OF MOTIONS.

(See Motion to Dissolve Interference.)

TWO PENDING APPLICATIONS FROM SAME APPLICANT.

(See Interference, 2.)

WITNESSES.

(See Suits for Infringement.)

ALPHABETICAL LIST OF PATENTEES

TO WHOM

PATENTS WERE ISSUED DURING THE MONTH OF DECEMBER, 1909.

[Abbreviations: "Sp."=Monthly Volume of Specifications; "Gaz."=Official Gazette.]

A. E. Martell Company. (See Curry and Coppage, assignors.)
A. G. Spalding & Bros. (See Nuttall, J., assignor.)
A. G. Spalding & Bros. (See Rigden, F. E., assignor.)
Abbé, M. F., New York, N. Y. Pebble-mill. No. 944,996; Dec. 28; Sp. p. 6372; Gaz. vol. 149; p. 1094.
Abbé, M. F., New York, N. Y. Pebble-mill. No. 944,997; Dec. 28; Sp. p. 6373; Gaz. vol. 149; p. 1094.
Ableman, E. A., Gheen, Minn. Fruit-picker. No. 942,302; Dec. 7; Sp. p. 583; Gaz. vol. 149; p. 93.
Abraham, E. C., Santa Cruz, Cal. Attachment for motor-cycles. No. 944,932; Dec. 28; Sp. p. 6249; Gaz. vol. 149; p. 1073.
Abrames, H., *et al.* (See Coleman, L. A., assignor.)
Abrams, P. G., Philadelphia, Pa. Joint for furniture. No. 943,211; Dec. 14; Sp. p. 2535; Gaz. vol. 149; p. 430.
Ach, G. von, Newark, N. J. Apparatus for making oxygen. No. 944,473; Dec. 28; Sp. p. 5240; Gaz. vol. 149; p. 917.
Acheson, W., Pittsburg, Pa. Smoke-consumer. No. 944,933; Dec. 28; Sp. p. 6250; Gaz. vol. 149; p. 1074.
Acker, C. E., New York, N. Y., assignor to Nitrogen Company. Producing nitrids. No. 943,132; Dec. 14; Sp. p. 2384; Gaz. vol. 149; p. 406.
Ackerman, D. H. (See Curran, E. J., assignor.)
Acrey, C. M. (See Goss, G. W., assignor.)
Actien Gesellschaft für Anilin Fabrikation. (See Geldermann, H., assignor.)
Adam, A. (See Bates and Adam.)
Adam, J. L., New Orleans, La. Mail-bag handler. No. 944,651; Dec. 28; Sp. p. 5647; Gaz. vol. 149; p. 979.
Adam, J. L., New Orleans, La. Mail-bag handler. No. 944,711; Dec. 28; Sp. p. 5775; Gaz. vol. 149; p. 999.
Adam, O., Dresden, Germany. Electrical cableway system. No. 943,509; Dec. 14; Sp. p. 3176; Gaz. vol. 149; p. 534.
Adams, G. B., Irvington, N. J. Buckle. No. 943,212; Dec. 14; Sp. p. 2537; Gaz. vol. 149; p. 430.
Adams, L. (See Adams, R. B. and L.)
Adams, P. O., Cameron, Tex. Automatic signal system. No. 943,587; Dec. 14; Sp. p. 3311; Gaz. vol. 149; p. 558.
Adams, R. B. and L., Westerville, Ohio. Disinfecting attachment for telephones. No. 944,066; Dec. 21; Sp. p. 4372; Gaz. vol. 149; p. 753.
Adams & Westlake Company. (See Hamm and Legge, assignors.)
Adams & Westlake Company. (See Legge, T. A., assignor.)
Adamson, A. J. (See Webb, Brettell, and Adamson.)
Adder Cash Register Syndicate. (See Postans, A. J., assignor.)
Adelson, A., Oakland, Cal. Bottle-closure. No. 943,231; Dec. 14; Sp. p. 2582; Gaz. vol. 149; p. 437.
Adler, L., New York, N. Y. Jewelry. No. 943,291; Dec. 14; Sp. p. 2714; Gaz. vol. 149; p. 458.
Adolphs, P., Ratingen, near Dusseldorf, Germany. Fireproof safe. No. 944,007; Dec. 21; Sp. p. 4262; Gaz. vol. 149; p. 733.
Adreon, E. L., Jr. (See Clarke, M. S., assignor.)
Aggas, C. B., and J. E. Rabbitt, Fenelton, Pa. Attachment for oil-pumps. No. 942,954; Dec. 14; Sp. p. 1965; Gaz. vol. 149; p. 344.
Aggerbeck, C. L., Washington, D. C. Detaching device for live stock. No. 943,641; Dec. 21; Sp. p. 3493; Gaz. vol. 149; p. 609.
Ajax Manufacturing Company. (See Blakeslee, J. R., assignor.)
Ajax Manufacturing Company. (See Blakeslee, J. R., Jr., assignor.)
Albers, H., and P. Frueh, St. Louis, Mo. Floor-surfacing machine. No. 943,727; Dec. 21; Sp. p. 3666; Gaz. vol. 149; p. 637.
Albert, G. (See Albert, J. B., assignor.)
Albert, J. B., assignor to G. Albert, Bethel, Conn. Fire-escape. No. 942,477; Dec. 7; Sp. p. 943; Gaz. vol. 149; p. 152.
Albree, C. B., Allegheny, assignor to Chester B. Albree Iron Works Company, Pittsburg, Pa. Car-fender. No. 943,588; Dec. 14; Sp. p. 3316; Gaz. vol. 149; p. 559.
Alden, A. B. (See Parmenter and Alden.)
Alden, C. A., Steelton, and G. S. Vickery, Harrisburg, Pa. Railway-crossing. No. 944,067; Dec. 21; Sp. p. 4372; Gaz. vol. 149; p. 753.
Alderfer, J. M., Sharon Center, Ohio. Vehicle-wheel rim. No. 944,351; Dec. 28; Sp. p. 4961; Gaz. vol. 149; p. 875.
Aldrich, W. O., assignor to Whitin Machine Works, Whitinsville, Mass. Thread-board. No. 942,607; Dec. 7; Sp. p. 1199; Gaz. vol. 149; p. 196.
Alexander, A. D., Urbanna, Va. Packing-pad. No. 942,191; Dec. 7; Sp. p. 355; Gaz. vol. 149; p. 54.
Alexander, J. M., and M. Willhahn, Wyandotte, Mich. Securing means for boat-planking. No. 942,478; Dec. 7; Sp. p. 945; Gaz. vol. 149; p. 152.
Alexander, W. B., Dallas, Tex. Cotton-chopper. No. 942,371; Dec. 7; Sp. p. 713; Gaz. vol. 149; p. 116.
Allan, W. S., Monterey, Mexico. Mechanical movement. No. 944,121; Dec. 21; Sp. p. 4499; Gaz. vol. 149; p. 772.
Allbee, E. E., Arlington, N. J., assignor to Safety Car Heating & Lighting Company. Lamp. No. 942,608; Dec. 7; Sp. p. 1202; Gaz. vol. 149; p. 196.
Allen, C., El Paso, Tex. Sand and slime separator and classifier. No. 942,697; Dec. 7; Sp. p. 1371; Gaz. vol. 149; p. 225.
Allen, D., and A. C. Pyper, Los Angeles, Cal. Economizing fuel. No. 942,530; Dec. 7; Sp. p. 1053; Gaz. vol. 149; p. 170.
Allen, D. H., Miamisburg, Ohio. Wheel. No. 944,532; Dec. 28; Sp. p. 5396; Gaz. vol. 149; p. 939.
Allen, G. W. (See Sparks, L. J., assignor.)
Allen, J. H., Sedalia, Mo. Combined pencil holder and sharpener. No. 944,934; Dec. 28; Sp. p. 6251; Gaz. vol. 149; p. 1074.
Allen, J. H., East Orange, N. J., assignor to W. R. Davis, trustee, New York, N. Y. Step-joint for rails. No. 943,057; Dec. 14; Sp. p. 2242; Gaz. vol. 149; p. 380.
Allen, R., Caversham, England. Metallic packing for stuffing-boxes, &c. No. 943,642; Dec. 21; Sp. p. 3494; Gaz. vol. 149; p. 609.
Allen, W. H., Detroit, Mich. Recovering materials from waste. No. 944,533; Dec. 28; Sp. p. 5397; Gaz. vol. 149; p. 939.
Allen, W. W., Cornell, Ill. Water-key for musical instruments. No. 942,429; Dec. 7; Sp. p. 823; Gaz. vol. 149; p. 135.
Alls, E., assignor to Monarch Engineering and Manufacturing Company, Baltimore, Md. Furnace. No. 943,763; Dec. 21; Sp. p. 3780; Gaz. vol. 149; p. 649.
Allwardt, H. A., assignor of one-half to W. J. Stapleton, Detroit, Mich. Bottle filling and crowning machine. No. 944,352; Dec. 28; Sp. p. 4964; Gaz. vol. 149; p. 875.
Altenhofen, J., Richland, Iowa. Smoke-washer. No. 942,430; Dec. 7; Sp. p. 825; Gaz. vol. 149; p. 135.
Ambler, A. C., Natick, Mass. Saw-setting machine. No. 942,531; Dec. 7; Sp. p. 1054; Gaz. vol. 149; p. 171.
Ameiung, A. F., Sanborn, Iowa. Washing-machine. No. 944,935; Dec. 28; Sp. p. 6252; Gaz. vol. 149; p. 1074.
American Automatic Telephone Company. (See Bruce, W. M., Jr., assignor.)
American Can Company. (See Taylor, W. E., assignor.)
American Car & Foundry Company. (See Frame, R. E., assignor.)
American Car & Foundry Company. (See Wolff, H. W., assignor.)
American Car Sprinkler Company. (See Perry, E. C., assignor.)
American Case & Register Company. (See Tice, A. J., assignor.)
American Clay Machinery Company. (See Callaway, E. H., assignor.)
American Gasaccumulator Company. (See Dalén, G., assignor.)
American Gem Mining Syndicate. (See Wennstrom, J. L., assignor.)
American Grain Meter Company. (See Sonander, A., assignor.)
American Graphophone Company. (See Macdonald, T. H., assignor.)
American Lithographic Company. (See Pancoast, G. E., assignor.)

American Marine Lamp Mfg. Co. (See Kleinberger and Stern, assignors.)
American Oil Engine Company. (See Johnston, P. D., assignor.)
American Pneumatic Service Company. (See Stoddard, C. F., assignor.)
American Post and Pole Company. (See Atchison, H. E., assignor.)
American Road Machine Company. (See Philips, E. S., assignor.)
American Road Machine Company. (See Ruth, W. T., assignor.)
American Seeding Machine Company. (See Packham, F. R., assignor.)
American Separator Company. (See Collins and Hartmann, assignors.)
American Stamp & Ticket Vending Machine Company. (See Oehring, O., assignor.)
American Steel Foundries. (See McCauley, A. J., assignor.)
American Steel Foundries. (See Murray, C. F., assignor.)
American Steel Package Company. (See Kruse, A. T., assignor.)
American Stopper Company. (See Hoffman, E., assignor.)
American Suspension Railway Company. (See Butler, F. O., assignor.)
American Telephone and Telegraph Company. (See Athearn, W. E., assignor.)
American Tobacco Company. (See Feist, L., assignor.)
American Typographic Corporation. (See Richards, F. H., assignor.)
American Universal Mill Company. (See Grey, H., assignor.)
American Well Works. (See Chapman, M. T., assignor.)
Ames, B. L., Boston, Mass. Time-controlled smoke-preventer. No. 942,131; Dec. 7; Sp. p. 223; Gaz. vol. 149; p. 34.
Amies Asphalt Company. (See Amies, J. H., assignor.)
Amies, J. H., assignor to Amies Asphalt Company, Philadelphia, Pa. Preparing mineral materials and the like for street and road construction. No. 942,235; Dec. 7; Sp. p. 449; Gaz. vol. 149; p. 69.
Amies, J. H., assignor to Amies Asphalt Company, Philadelphia, Pa. Composition for paving purposes. No. 942,236; Dec. 7; Sp. p. 449; Gaz. vol. 149; p. 69.
Amies, J. H., assignor to Amies Asphalt Company, Philadelphia, Pa. Paving composition. No. 942,237; Dec. 7; Sp. p. 450; Gaz. vol. 149; p. 69.
Amsbary, W. N., assignor of five-twelfths to L. D. Denney and one-sixth to W. Simpson, Denver, Colo. Refrigerator. No. 944,353; Dec. 28; Sp. p. 4970; Gaz. vol. 149; p. 876.
Andalaft, A. G. and M., Kansas City, Mo. Cone-waffle-packing case. No. 943,292; Dec. 14; Sp. p. 2715; Gaz. vol. 149; p. 458.
Andalaft, A. G. and M., Kansas City, Mo. Cone-waffle machine. No. 943,293; Dec. 14; Sp. p. 2716; Gaz. vol. 149; p. 459.
Andalaft, M. (See Andalaft, A. G. and M.)
Anderson, A., assignor to N. J. Olsen and G. C. Harper, Minneapolis, Minn. Railway-switch. No. 944,249; Dec. 28; Sp. p. 4742; Gaz. vol. 149; p. 839.
Anderson, C. H., Seattle, Wash. Steel car. No. 943,213; Dec. 14; Sp. p. 2540; Gaz. vol. 149; p. 430.
Anderson, E. V., Moneesen, assignor to Golden-Anderson Valve Specialty Company, Pittsburg, Pa. Non-return valve. No. 944,402; Dec. 28; Sp. p. 5077; Gaz. vol. 149; p. 894.
Anderson, G., Bladen, Nebr. Connecting-bar for harrows. No. 942,532; Dec. 7; Sp. p. 1057; Gaz. vol. 149; p. 171.
Anderson, H. C., Unionport, and F. S. Ash, New York, N. Y. Non-refillable bottle. No. 943,331; Dec. 14; Sp. p. 2792; Gaz. vol. 149; p. 470.
Anderson, J. M., Franklin county, Tex. Machine for catching insects. No. 944,122; Dec. 21; Sp. p. 4500; Gaz. vol. 149; p. 772.
Anderson, L. W., and A. R. Murray, Cincinnati, Ohio. Change-speed gearing. No. 943,621; Dec. 14; Sp. p. 3427; Gaz. vol. 149; p. 572.
Anderson, R. H., Watertown, S. D. Self-adjusting wrench. No. 942,992; Dec. 14; Sp. p. 2078; Gaz. vol. 149; p. 357.
Anderson, T. W., assignor of one-fourth to J. M. Johnston, Fort Smith, Ark., and one-fourth to C. F. Richardson, St. Louis, Mo. Locomotive ash-pan. No. 942,765; Dec. 7; Sp. p. 1515; Gaz. vol. 149; p. 248.
Andreas, F. (See Hoener and Andreas.)
Andrews, B. C., Mabank, Tex. Fire-alarm. No. 944,305; Dec. 28; Sp. p. 4876; Gaz. vol. 149; p. 859.
Andrews, D., and C. Bickerton, Manchester, England; said Bickerton assignor to said Andrews. Appliance for automatically and otherwise locking and unlocking railway-carriage doors. No. 942,125; Dec. 7; Sp. p. 212; Gaz. vol. 149; p. 32.
Andrews, W. S., Schenectady, N. Y., assignor to General Electric Company. Electric toaster. (Reissue.) No. 13,060; Dec. 28; Sp. p. 6404; Gaz. vol. 149; p. 1098.
Angel, H., New York, N. Y. Tape-perforator. No. 944,123; Dec. 21; Sp. p. 4501; Gaz vol. 149; p. 773.
Angelicola, A. F., New York, N. Y. Pneumatic tire. No. 943,371; Dec. 14; Sp. p. 2877; Gaz. vol. 149; p. 484.
Ankrom, E. I., Quaker City, Ohio. Cooking utensil. No. 944,998; Dec. 28; Sp. p. 6374; Gaz. vol. 149; p. 1005.
Ansell, P., Washington, D. C. Cue-tip trimmer. No. 942,876; Dec. 14; Sp. p. 1795; Gaz. vol. 149; p. 317.
Anstead, J. M., and H. Bollman, Fort Meade, S. D. Bottle and stopper therefor. No. 944,166; Dec. 21; Sp. p. 4586; Gaz. vol. 149; p. 786.
Antoine, H., Paris, France. Holder for cramps, &c: No. 944,403; Dec. 28; Sp. p. 5080; Gaz. vol. 149; p. 894.
Appleby, E. (See Appleby, J. and E.)
Appleby, J. and E., Aston, near Birmingham, England. Thread-guide for cotton-spinning and like machinery. No. 942,362; Dec. 7; Sp. p. 697; Gaz. vol. 149; p. 113.
Appleman, R., Luzerne, Pa. Sprag-shaving machine. No. 944,647; Dec. 28; Sp. p. 5638; Gaz. vol. 149; p. 978.
Appleton, J. W., New York, N. Y. Inner garment. No. 942,159; Dec. 7; Sp. p. 287; Gaz. vol. 149; p. 44.
Architectural Stone Company. (See Hackett, T. P., assignor.)
Arenberg, H. F., Petaluma, Cal. Heating-stove. No. 942,805; Dec. 7; Sp. p. 1585; Gaz. vol. 149; p. 261.
Arenberg, H. F., Petaluma, Cal. Oil-burner. No. 944,761; Dec. 28; Sp. p. 5898; Gaz. vol. 149; p. 1016.
Arens, A., and E. L. Teich, assignors to P. & F. Corbin, New Britain, Conn. Indicator for locks. No. 942,806; Dec. 7; Sp. p. 1586; Gaz. vol. 149; p. 261.
Arentsen, J., *et al.* (See Gordon, C. H., assignor.)
Armington, J. R., Roanoke, Va. Stamp-vending machine. No. 942,766; Dec. 7; Sp. p. 1517; Gaz. vol. 149; p. 249.
Armstrong Whitworth & Company, W. G. (See Sodeau, W. H., assignor.)
Arnesen, A. M., Chicago, Ill. Ventilator. No. 944,250; Dec. 28; Sp. p. 4745; Gaz. vol. 149; p. 839.
Arnold, C. F., Philadelphia, Pa. Shuttle-operating mechanism. No. 942,698; Dec. 7; Sp. p. 1374; Gaz. vol. 149; p. 226.
Arnold, H. B., assignor to National Spring Bed Company, New Britain, Conn. Extension-bedstead. No. 943,170; Dec. 14; Sp. p. 2453; Gaz. vol. 149; p. 417.
Arnold, L. F., *et al.* (See Jahansan, G., assignor.)
Aron, H., Charlottenburg, Germany. Induction supply-meter for polyphase electric currents. No. 944,167; Dec. 21; Sp. p. 4587; Gaz. vol. 149; p. 787.
Aronson, L. V., Newark, N. J. Combination-wrench. No. 942,993; Dec. 14; Sp. p. 2079; Gaz. vol. 149; p. 358.
Art Metal Construction Company. (See Ohnstrand, E., assignor.)
Arthur Colton Company. (See Scott, B. W., assignor.)
Arthur, M., *et al.* (See Matsek, J., assignor.)
Ascue, W. H., Kiowa, Kans. Grain-car door. No. 942,994; Dec. 14; Sp. p. 2080; Gaz. vol. 149; p. 358.
Ash, F. S. (See Anderson, H. C., assignor.)
Ashe, J. C., Montreal, Quebec, Canada. Combined burglar-alarm and automatic camera. No. 943,232; Dec. 14; Sp. p. 2583; Gaz. vol. 149; p. 437.
Ashendan, E. W., Minneapolis, Minn. Game-piece. No. 943,058; Dec. 14; Sp. p. 2244; Gaz. vol. 149; p. 380.
Ashley, F. M., Brooklyn, N. Y. Valve. No. 942,045; Dec. 7; Sp. p. 1; Gaz. vol. 149; p. 3.
Ashley, F. M., New York, N. Y. Generating and storing ozone. No. 942,046; Dec. 7; Sp. p. 2; Gaz. vol. 149; p. 3.
Ashworth, E., Manchester, England. Carding-engine. No. 944,168; Dec. 21; Sp. p. 4588; Gaz. vol. 149; p. 787.
Aslakson, B. M., Salem, Ohio. Gas-producer valve. No. 943,332; Dec. 14; Sp. p. 2793; Gaz. vol. 149; p. 471.
Assmann, F., Leichlingen, Germany. Door-lock. No. 943,133; Dec. 14; Sp. p. 2385; Gaz. vol. 149; p. 406.
Astrom, C. P. (See Treadwell and Astrom.)
Atchison, H. E., Ogden, Utah, assignor to American Post and Pole Company. Post or telegraph and telephone pole. No. 943,134; Dec. 14; Sp. p. 2388; Gaz. vol. 149; p. 406.
Atha, L. M., Newark, N. J. Making steel. No. 943,171; Dec. 14; Sp. p. 2455; Gaz. vol. 149; p. 417.
Athearn, W. E., New York, N. Y., assignor to American Telephone and Telegraph Company. Telegraphic repeating apparatus. No. 942,807; Dec. 7; Sp. p. 1590; Gaz. vol. 149; p. 262.
Atkinson, C. E., Richmond, Ind. Hose or pipe coupling. No. 942,047; Dec. 7; Sp. p. 5; Gaz. vol. 149; p. 3.
Atlas Engine Works. (See McCarty, N., assignor.)
Auerbach, E. A., New York, N. Y. Ruling device. No. 942,877; Dec. 14; Sp. p. 1796; Gaz. vol. 149; p. 317.
Aurora Automatic Machinery Company. (See Levedahl, A., assignor.)
Austin, A. J., Seattle, Wash. Striking-bag. No. 944,648; Dec. 28; Sp. p. 5639; Gaz. vol. 149; p. 978.
Austin, G., Arkansas City, Kans. Flue-expander. No. 943,907; Dec. 21; Sp. p. 4084; Gaz. vol. 149; p. 699.
Austin, H. S., assignor to Volunteer Disc Plow Company, Chattanooga, Tenn. Scraper for reversible-disk plows. No. 943,372; Dec. 14; Sp. p. 2878; Gaz. vol. 149; p. 484.
Austin, N. E., Danbury, Conn. Animal-trap. No. 942,878; Dec. 14; Sp. p. 1797; Gaz. vol. 149; p. 317.
Autenrieth, C. F. (See Chandler and Autenrieth.)

Auto Safety Specialty Company. (See Carrigan and Sangster, assignors.)
Automatic Flareback Prevention Company. (See Smith, W. D., assignor.)
Automatic Safety Device Company. (See Bayless, F., assignor.)
Automatic Seal Company. (See Loshbough, A. W., assignor.)
Automatic Service Company. (See Fulton, W. H., assignor.)
Automatic Vending Machines Company. (See Craig and Coffman, assignors.)
Axe, R. T., Juniata, Pa. Window lock and lift. No. 942,851; Dec. 7; Sp. p. 1707; Gaz. vol. 149; p. 277.
Ayars, C. H., assignor to Ayars Machine Company, Salem, N. J. Can-filling machine. No. 944,354; Dec. 28; Sp. p. 4972; Gaz. vol. 149; p. 877.
Ayars Machine Company. (See Ayars, C. H., assignor.)
Aylsworth, J. W., East Orange, assignor to New Jersey Patent Company, West Orange, N. J. Sound-record composition. No. 944,474; Dec. 28; Sp. p. 5243; Gaz. vol. 149; p. 918.
Ayrey, W. (See Haworth, Briggs, and Ayrey.)
B. B. Hill Manufacturing Company. (See Hill, B. B., assignor.)
Babcock, E. E., Stonington, Conn., assignor to C. B. Cottrell & Sons Company, New York, N. Y. Driving mechanism for printing-presses. No. 944,068; Dec. 21; Sp. p. 4374; Gaz. vol. 149; p. 754.
Babcock & Wilcox Company. (See Sneddon, J. P., assignor.)
Bachman, H. M. (See Van Houten and Bachman.)
Backlund, J. V., Lisbon, N. D. Trousers-support. No. 942,126; Dec. 7; Sp. p. 214; Gaz. vol. 149; p. 32.
Badische Anilin & Soda Fabrik. (See Münch, E., assignor.)
Badische Maschinenfabrik & Eisengiesserei vorm. G. Sebold und Sebold & Neff. (See Nyberg, C. S., assignor.)
Backeland, L. H., Yonkers, N. Y. Making insoluble products of phenol and formaldehyde. No. 942,699; Dec. 7; Sp. p. 1377; Gaz. vol. 149; p. 226.
Baekeland, L. H., Yonkers, N. Y. Condensation product of phenol and formaldehyde and making the same. No. 942,700; Dec. 7; Sp. p. 1379; Gaz. vol. 149; p. 226.
Baekeland, L. H., Yonkers, N. Y. Abrasive composition and making same. No. 942,808; Dec. 7; Sp. p 1592; Gaz. vol. 149; p. 262.
Baekeland, L. H., Yonkers, N. Y. Condensation product and making same. No. 942,809; Dec. 7; Sp. p. 1594; Gaz. vol. 149; p. 262.
Baekeland, L. H., Yonkers N. Y. Insulated product and preparing same. No. 942,852; Dec. 7; Sp. p. 1709; Gaz. vol. 149; p. 277.
Baeuerle, Firm of M. (See Baeuerle, T., assignor.)
Baeuerle, T., assignor to Firm of M. Baeuerle, St. Georgen, Black Forest, Germany. Calculating-machine. No. 944,762; Dec. 28; Sp. p. 5899; Gaz. vol. 149; p. 1017.
Bagley, J., *et al.* (See Santsche, E., assignor.)
Baier, C. D. (See Baier, G. W. and C. D.)
Baier, G. W. and C. D., Cissna Park, Ill. Grain-spout for portable elevators. No. 943,214; Dec. 14; Sp. p. 2542; Gaz. vol. 149; p. 431.
Bailey, F., and F. H. Jackson, Bankside, London, England. Apparatus for straining liquids. No. 943,908; Dec. 21; Sp. p. 4036; Gaz. vol. 149; p. 699.
Bailey, F. C., assignor of one-half to E. C. Getchel, Rib Lake, Wis. Car-mover. No. 944,763; Dec. 28; Sp. p. 5901; Gaz. vol. 149; p. 1017.
Bailey, G. H., Pittsburg, Pa. Tank for water-closets. No. 944,764; Dec. 28; Sp. p. 5902; Gaz. vol. 149; p. 1017.
Bailey, R. W., Hudson, Mass., assignor of one-half to W. H. Sawyer, Lewiston, Me. Adjustable reamer. No. 942,533; Dec. 7; Sp. p. 1058; Gaz. vol. 149; p. 171.
Baker, E. B. (See Baker, W. H. and E. B.)
Baker, F. D., Denver, Colo. Ore-roasting pot. No. 942,810; Dec. 7; Sp. p. 1597; Gaz. vol. 149; p. 262.
Baker, F. D., Denver, Colo. Ore-cooler. No. 943,294; Dec. 14; Sp. p. 2719; Gaz. vol. 149; p. 459.
Baker, H. M., Jr., New York, N. Y. Gearing. No. 942,609; Dec. 7; Sp. p. 1205; Gaz. vol. 149; p. 197.
Baker J. F., Littleton, W. Va. Well-tube cutter. No. 942,701; Dec. 7; Sp. p. 1382; Gaz. vol. 149; p. 227.
Baker, R. D., Detroit, Mich. Hat retaining and ventilating means. No. 942,303; Dec. 7; Sp. p. 584; Gaz. vol. 149; p. 93.
Baker, W. H., assignor of one-half to E. B. Baker, Sugarcreek, Ohio. Pavement. No. 944,652; Dec. 28; Sp. p. 5649; Gaz. vol. 149; p. 980.
Baker, W. H., Sciota Mills, Ill. Power device. No. 942,534; Dec. 7; Sp. p. 1061; Gaz. vol. 149; p. 172.
Ball, C. C., assignor to Shiman-Miller Mfg. Co., Newark, N. J. Post for link-buttons. No. 944,251; Dec. 28; Sp. p. 4747; Gaz. vol. 149; p. 840.
Ballreich, C., Pueblo, Colo. Lawn-sprinkler. No. 943,172; Dec. 14; Sp. p. 2456; Gaz. vol. 149; p. 417.
Balsley, G. S. and P. H. A., Detroit, Mich. Machine for forming plastic material. No. 942,238; Dec. 7; Sp. p. 451; Gaz. vol. 149; p. 69.
Balsley, P. H. A. (See Balsley, G. S. and P. H. A.)
Bambridge Patent Flexible Shaft Company. (See Bambridge, W. G., assignor.)
Bambridge, W. G., assignor to Bambridge Patent Flexible Shaft Company, Limited, Kettering, England. Flexible shaft. No. 944,228; Dec. 21; Sp. p. 4692; Gaz. vol. 149; p. 804.
Bancroft, J. S., assignor to Lanston Monotype Machine Company, Philadelphia, Pa. Comparator. No. 944,404; Dec. 28; Sp. p. 5081; Gaz. vol. 149; p. 894.
Bancroft, J. S., and M. C. Indahl, assignors to Lanston Monotype Machine Company, Philadelphia, Pa. Record-strip composing-machine. No. 944,405; Dec. 28; Sp. p. 5083; Gaz. vol. 149; p. 895.
Bancroft, J. W., Norwalk, Conn. Awning-fixture. No. 943,059; Dec. 14; Sp. p. 2245; Gaz. vol. 149; p. 381.
Banks, T. H., San Antonio, Tex. Vehicle-tire. No. 943,173; Dec. 14; Sp. p. 2457; Gaz. vol. 149; p. 417.
Bankson, J. H., Otterbein, Ind. Hame-fastening. No. 942,160; Dec. 7; Sp. p. 288; Gaz. vol. 149; p. 44.
Barber-Colman Company. (See Begins, J., assignor.)
Barber-Colman Company. (See Colman, H. D., assignor.)
Barber, J. C., Chicago, Ill. Car-truck. No. 942,048; Dec. 7; Sp. p. 7; Gaz. vol. 149; p. 4.
Barber, J. C., Chicago, Ill. Car-truck. No. 942,702; Dec. 7; Sp. p. 1385; Gaz. vol. 149; p. 227.
Barbour, G. H., Pittsburg, Pa. Hotbed. No. 943,373; Dec. 14; Sp. p. 2882; Gaz. vol. 149; p. 485.
Barcsai, D. and L., Budapest, Austria-Hungary. Scaffolding. No. 944,406; Dec. 28; Sp. p. 5100; Gaz. vol. 149; p. 895.
Barcsai, L. (See Barcsai, D. and L.)
Bargar, F. C., Columbus, Ohio. Pressure-controlling valve for automobile-lamps. No. 942,995; Dec. 14; Sp. p. 2081; Gaz. vol. 149; p. 358.
Barker, J., Philadelphia, Pa. Means for elevating chairs and like objects. No. 944,169; Dec. 21; Sp. p. 4590; Gaz. vol. 149; p. 787.
Barnes, G. A., assignor to Ready Tool Company, New Haven, Conn. Tool. No. 944,306; Dec. 28; Sp. p. 4877; Gaz. vol. 149; p. 859.
Barnes Manufacturing Company. (See Ficener, A. A., assignor.)
Barnett, T. A., Manifest, La. Combined wheel hub and spindle. No. 944,936; Dec. 28; Sp. p. 6254; Gaz. vol. 149; p. 1074.
Barney, E. E., assignor to Monarch Typewriter Company, Syracuse, N. Y. Type-writing-machine clamp. No. 942,049; Dec. 7; Sp. p. 10; Gaz. vol. 149; p. 4.
Barney, E. E., assignor to Monarch Typewriter Company, Syracuse, N. Y. Type-writing machine. No. 942,535; Dec. 7; Sp. p. 1063; Gaz. vol. 149; p. 172.
Barnhard, A., Sherwood, Ohio. Railway lining-block. No. 943,295; Dec. 14; Sp. p. 2721; Gaz. vol. 149; p. 459.
Barnum, T. E., assignor to Cutler-Hammer Manufacturing Company, Milwaukee, Wis. Motor-controlling device. No. 942,050; Dec. 7; Sp. p. 12; Gaz. vol. 149; p. 5.
Barr, A., and W. Stroud, Anniesland, Glasgow, Scotland. Means for supporting and working heads of range-finders. No. 943,296; Dec. 14; Sp. p. 2723; Gaz. vol. 149; p. 460.
Barr, A., Glasgow, Scotland, and W. Stroud, Leeds, England. Range-finder or telemeter. No. 944,649; Dec. 28; Sp. p. 5640; Gaz. vol. 149; p. 979.
Barr, J. H., assignor to Smith Premier Typewriter Company, Syracuse, N. Y. Type-writing machine. No. 942,583; Dec. 7; Sp. p. 1710; Gaz. vol. 149; p. 277.
Barr, J. H., assignor to Smith Premier Typewriter Company, Syracuse, N. Y. Type-writing machine. No. 943,643; Dec. 21; Sp. p. 3497; Gaz. vol. 149; p. 609.
Barrell, W. L. (See Spencer and Hurst, assignors.)
Barrett, E. E., La Grange, Ill. Loading and unloading apparatus. (Reissue.) No. 13,061; Dec. 28; Sp. p. 6407; Gaz. vol. 149; p. 1098.
Barrett, J. C., Youngstown, Ohio. Blast-furnace construction. No. 943,374; Dec. 14; Sp. p. 2884; Gaz. vol. 149; p. 485.
Barron, W. J., New York, N. Y., and H. W. Merritt, Springfield, Mass., assignors to Densmore Typewriter Company, Syracuse, N. Y. Type-writing machine. No. 943,644; Dec. 21; Sp. p. 3499; Gaz. vol. 149; p. 610.
Barschall, M., New York, N. Y. Rail-joint. No. 942,127; Dec. 7; Sp. p. 215; Gaz. vol. 149; p. 33.
Bartholomae, W., assignor to himself and H. Zimmermann, New York, N. Y. Sounding toy. No. 942,610; Dec. 7; Sp. p. 1208; Gaz. vol. 149; p. 197.
Bartholomew, W. O. (See Martin, Bartholomew, and Schaaf.)
Bartlett, G. N. (See Laube, G. and H. R., assignors.)
Bartlett, N. (See Laube, G. and H. R., assignors.)
Barton, E. H. R., Englewood, assignor of one-half to R. Carpenter, Hackensack, N. J. Speed-changing mechanism. No. 942,192; Dec. 7; Sp. p. 356; Gaz. vol. 149; p. 54.
Bartsch, W. F., Edgemoor, Del. Puzzle. No. 942,536; Dec. 7; Sp. p. 1065; Gaz. vol. 149; p. 173.
Bassler, E. M., Chicago, Ill. Massage apparatus. No. 944,252; Dec. 28; Sp. p. 4748; Gaz. vol. 149; p. 840.
Batdorf, C. S., Brooklyn, N. Y. Keyhole-plug and guard therefor. No. 942,537; Dec. 7; Sp. p. 1066; Gaz. vol. 149; p. 173.
Bates, H. H., and F. Adam, Joliet, Ill. Electrolytic apparatus. No. 944,650; Dec. 28; Sp. p. 5643; Gaz. vol. 149; p. 979.

Bauer, I., assignor to New England Enameling Company, Middletown, Conn. Milk-warmer. No. 944,307; Dec. 28; Sp. p. 4877; Gaz. vol. 149; p. 899.
Bauer Non-Collapsible Wheel Company. (See Bauer, W. J., assignor.)
Bauer, W. J., assignor to Bauer Non-Collapsible Wheel Company, New York, N. Y. Automobile-tire. No. 944,308; Dec. 28; Sp. p. 4879; Gaz. vol. 149; p. 860.
Bauer, W. J., assignor to Bauer Non-Collapsible Wheel Company, New York, N. Y. Vehicle-wheel. No. 944,309; Dec. 28; Sp. p. 4881; Gaz. vol. 149; p. 860.
Baum, D., Jr., Omaha, Nebr. Reinforcing-bar for concrete structures. No. 944,589; Dec. 28; Sp. p. 5532; Gaz. vol. 149; p. 959.
Baum, F., Paris, France. Ophthalmoscope. No. 943,728; Dec. 21; Sp. p. 3668; Gaz. vol. 149; p. 637.
Baumgarten, J. C., Schulenburg, Tex. Harrow. No. 942,879; Dec. 14; Sp. p. 1798; Gaz. vol. 149; p. 318.
Baumgartner-Mica, H., Basel, Switzerland. Flexible friction-coupling. No. 943,804; Dec. 21; Sp. p. 3816; Gaz. vol. 149; p. 663.
Bave, E. B., Bayonne, N. J. Safeguard for window-glasses. No. 942,955; Dec. 14; Sp. p. 1986; Gaz. vol. 149; p. 344.
Baxter, B. A., Mansfield, Ohio. Stove-door. No. 944,475; Dec. 28; Sp. p. 5244; Gaz. vol. 149; p. 918.
Baxter, H. C., Kent, Ohio. Feeding device for cement-mixers. No. 942,051; Dec. 7; Sp. p. 15; Gaz. vol. 149; p. 5.
Bayles, W. H., New York, N. Y. Loose-leaf book. No. 944,653; Dec. 28; Sp. p. 5651; Gaz. vol. 149; p. 980.
Bayless, F., assignor to Automatic Safety Device Company, Springfield, Ohio. Railway-switch. No. 942,996; Dec. 14; Sp. p. 2082; Gaz. vol. 149; p. 358.
Bayless, P. A., Oklahoma, Okla. Automatic musical instrument. No. 943,909; Dec. 21; Sp. p. 4038; Gaz. vol. 149; p. 700.
Baylies, H. L., Chicago, Ill. Trolley-wheel. No. 942,767; Dec. 7; Sp. p. 1520; Gaz. vol. 149; p. 249.
Baylor, C. A., Laporte, Ind., assignor to Great Western Manufacturing Company. Coaster-brake. No. 942,479; Dec. 7; Sp. p. 946; Gaz. vol. 149; p. 153.
Beach, W. H., Wyncote, Wyo. Whip-lock. No. 943,729; Dec. 21; Sp. p. 3669; Gaz. vol. 149; p. 637.
Beall, F. M., and P. A. Parker, Anadarko, Okla. Tobacco-cutting machine. No. 942,372; Dec. 7; Sp. p. 714; Gaz. vol. 149; p. 116.
Beaman, A. W., Worcester, Mass. Holder for detached cutting-blades. No. 943,645; Dec. 21; Sp. p. 3506; Gaz. vol. 149; p. 610.
Beaman, A. W., Worcester, Mass. Crank-handle. No. 944,534; Dec. 28; Sp. p. 5398; Gaz. vol. 149; p. 939.
Bean, S. H., Atlanta, Ga. Printer's composing-stick. No. 944,535; Dec. 28; Sp. p. 5401; Gaz. vol. 149; p. 940.
Beard, R. S., assignor of one-half to L. A. Riley, 2d, Warwick, N. Y. Carriage for electric lamps. No. 943,174; Dec. 14; Sp. p. 2459; Gaz. vol. 149; p. 418.
Beasley, J. M., Greensboro, N. C. Holster. No. 944,355; Dec. 28; Sp. p. 4979; Gaz. vol. 149; p. 877.
Beatty, J. F., Morton, Pa. Brake-shoe. No. 943,730; Dec. 21; Sp. p. 3671; Gaz. vol. 149; p. 638.
Beatty, W. A., assignor to R. W. McCulloch, trustee, New York, N. Y. Antiseptic soap. No. 942,538; Dec. 7; Sp. p. 1072; Gaz. vol. 149; p. 173.
Beaver Dam Manufacturing Company. (See Broman, P., assignor.)
Bechman, H. F., assignor to Duplex Printing Press Company, Battle Creek, Mich. Inking apparatus. No. 942,703; Dec. 7; Sp. p. 1387; Gaz. vol. 149; p. 227.
Becker, B. F., Glencoe, Ill. Suit-case. No. 943,333; Dec. 14; Sp. p. 2795; Gaz. vol. 149; p. 471.
Becker, E. (See Ungerer and Becker.)
Bedell, S. D., Hackensack, N. J. Shipping-case. No. 944,837; Dec. 28; Sp. p. 6063; Gaz. vol. 149; p. 1042.
Bedford, E. S., Grand Rapids, Mich. Foot-gage. No. 944,937; Dec. 28; Sp. p. 6255; Gaz. vol. 149; p. 1075.
Beebe, E. C., Kansas City, Kans., assignor of one-half to W. T. Boyer, Kansas City, Mo., and E. J. Colgan, Kansas City, Kans. Amusement device. No. 944,407; Dec. 28; Sp. p. 5101; Gaz. vol. 149; p. 896.
Beeches, L. W. (See Sandahl, V., assignor.)
Begins, J., Brunswick, Me., assignor to Barber-Colman Company, Rockford, Ill. Locking device for clamps. No. 942,239; Dec. 7; Sp. p. 453; Gaz. vol. 149; p. 70.
Befl, J. L., Galena, Ill. Water-wheel. No. 942,811; Dec. 7; Sp. p. 1599; Gaz. vol. 149; p. 263.
Belding Brothers & Co. (See Holmes, A. J., assignor.)
Bellinger, H. C., assignor of one-half to G. H. Elvis, Salt Lake City, Utah. Furnace for treating ores. No. 942,052; Dec. 7; Sp. p. 18; Gaz. vol. 149; p. 5.
Bellini, E., and A. Tosi, Paris, France. System of directed wireless telegraphy. No. 943,960; Dec. 21; Sp. p. 4140; Gaz. vol. 149; p. 718.
Bellows, B. F., Cleveland, Ohio, assignor to Electric Compositor Company, New York, N. Y. Universal type-mold. No. 944,408; Dec. 28; Sp. p. 5103; Gaz. vol. 149; p. 896.
Beltz, F. R., *et al.* (See Beltz, W. H., assignor.)
Beltz, W. H., Springfield, assignor of one-third to F. R. Beltz, Cleveland, and one-third to C. F. Huber, Springfield, Ohio. Nut-lock. No. 942,193; Dec. 7; Sp. p. 358; Gaz. vol. 149; p. 54.
Bemis, G. C., Lynn, assignor to Worcester Brush & Scraper Company, Worcester, Mass. Tube-cleaner. No. 944,008; Dec. 21; Sp. p. 4263; Gaz. vol. 149; p. 733.
Bemis, G. C., Lynn, assignor to Worcester Brush & Scraper Company, Worcester, Mass. Butcher's-block scraper. No. 944,009; Dec. 21; Sp. p. 4265; Gaz. vol. 149; p. 734.
Benedict, A., Merrill, Wis. Stake for logging-cars. No. 944,838; Dec. 28; Sp. p. 6054; Gaz. vol. 149; p. 1042.
Benedict, C. F., Brooklyn, assignor to S. Kanner, New York, N. Y. Razor-stropping device. No. 942,880; Dec. 14; Sp. p. 1802; Gaz. vol. 149; p. 318.
Bengtsson, B. J. (See Wiking and Bengtsson.)
Bengué, J., Paris, France. Stoppering for bottles intended to contain volatile liquids. No. 944,765; Dec. 28; Sp. p. 5904; Gaz. vol. 149; p. 1018.
Benjamin Eastwood Company. (See Davis and Berry, assignors.)
Benjamin Eastwood Company. (See Eastwood, J., assignor.)
Benjamin Electric Manufacturing Company. (See Benjamin, R. B., assignor.)
Benjamin, J. E., Rochester, N. Y. Revolvable account-register. No. 943,961; Dec. 21; Sp. p. 4141; Gaz. vol. 149; p. 718.
Benjamin, R. B., assignor to Benjamin Electric Manufacturing Company, Chicago, Ill. Plural-lamp-holding device. No. 942,240; Dec. 7; Sp. p. 454; Gaz. vol. 149; p. 70.
Benjamin, R. B., assignor to Benjamin Electric Manufacturing Company, Chicago, Ill. Plural lamp-socket. No. 942,241; Dec. 7; Sp. p. 459; Gaz. vol. 149; p. 71.
Benjamin, R. B., assignor to Benjamin Electric Manufacturing Company, Chicago, Ill. Plural-lamp-holding device. No. 942,242; Dec. 7; Sp. p. 461; Gaz. vol. 149; p. 71.
Benjaminowitsch, W., assignor of one-half to A. Lohmann, Berlin, Germany. Paper-feed mechanism. No. 943,622; Dec. 14; Sp. p. 3428; Gaz. vol. 149; p. 572.
Benkö, S., Budapest, Austria-Hungary. Securing metal contacts to carbon electrodes. No. 942,704; Dec. 7; Sp. p. 1389; Gaz. vol. 149 p. 228.
Bennett, A. J. A., Seattle, Wash. Wheel-block. No. 942,161; Dec. 7; Sp. p. 289; Gaz. vol. 149; p. 45.
Bennett, C. H., Dalton, Mass. Overshoe for horses and other hoofed animals. No. 944,409; Dec. 28; Sp. p. 5106; Gaz. vol. 149; p. 896.
Benson, H. H., assignor to Benson Lawn Mower Co., Rockford, Ill. Lawn-mower. No. 943,857; Dec. 21; Sp. p. 3919; Gaz. vol. 149; p. 682.
Benson Lawn Mower Co. (See Benson, H. H., assignor.)
Bent, L. N., and H. Talley, Carthage, assignors to Independent Powder Company of Missouri, Joplin, Mo. Explosive. No. 943,589; Dec. 14; Sp. p. 3318; Gaz. vol. 149; p. 559.
Bentley, O. D. H., New York, assignor to E. W. Bliss Company, Brooklyn, N. Y. Turbine. No. 944,839; Dec. 28; Sp. p. 6055; Gaz. vol. 149; p. 1042.
Berberich, F. M., Kiel, Germany. Milking cows. No. 942,243; Dec. 7; Sp. p. 463; Gaz. vol. 149; p. 71.
Bercha, J., Beatrice, Nebr. Grinding-mill. No. 942,768; Dec. 7; Sp. p. 1521; Gaz. vol. 149; p. 249.
Berens, A., Chicago, Ill. Lawn-mower. No. 944,712; Dec. 28; Sp. p. 5779; Gaz. vol. 149; p. 1000.
Berg, J., Chicago, Ill. Sounding toy. No. 942,162; Dec. 7; Sp. p. 291; Gaz. vol. 149; p. 45.
Berger, W. A., Boston, Mass. Mining-transit-center finder. No. 944,654; Dec. 28; Sp. p. 5653; Gaz. vol. 149; p. 981.
Bergman, A. J. A., Varano, Sweden. Apparatus for cutting lard or the like. No. 944,410; Dec. 28; Sp. p. 5108; Gaz. vol. 149; p. 897.
Bergmann, C. W., Cleveland, Ohio. Power-hacksaw. No. 944,069; Dec. 21; Sp. p. 4375; Gaz. vol. 149; p. 754.
Bernegau, C. M., Hoboken, N. J. Anemometer. No. 943,962; Dec. 21; Sp. p. 4142; Gaz. vol. 149; p. 718.
Berner, A., Munich, Germany. Pneumatic power-hammer. No. 942,163; Dec. 7; Sp. p. 293; Gaz. vol. 149; p. 45.
Bernin, A. P., and E. J. Ware, Portland, Oreg. Stump-extractor. No. 944,766; Dec. 28; Sp. p. 5905; Gaz. vol. 149; p. 1018.
Bernstein Mfg. Co. (See Holden, G., assignor.)
Bernstein, P., Beachmont, Mass. Ventilator and hood for cook-stoves. No. 944,170; Dec. 21; Sp. p. 4593; Gaz. vol. 149; p. 788.
Berreyess, A. E., Oakland, Cal. Ink-distributer for platen-presses. No. 942,705; Dec. 7; Sp. p. 1391; Gaz. vol. 149; p. 228.
Berry, A. O. (See Davis and Berry.)
Bertsch, G. H., assignor of one-half to E. E. Sanders, Freeport, Ill. Buggy-body. No. 944,231; Dec. 21; Sp. p. 4699; Gaz. vol. 149; p. 805.
Best, G. L., Charlotte, N. C. Bottle-cap. No. 943,510; Dec. 14; Sp. p. 3178; Gaz. vol. 149; p. 534.
Best, W. J., Detroit, Mich. Gas-range oven. No. 942,128; Dec. 7; Sp. p. 216; Gaz. vol. 149; p. 33.
Best, W. J., Detroit, Mich. Hydrocarbon-burner. No. 944,070; Dec. 21; Sp. p. 4378; Gaz. vol. 149; p. 754.
Beta Fertilizer Company. (See Reichelt, B., assignor.)
Bettendorf, W. P., Davenport, Iowa. Steel-car construction. No. 942,997; Dec. 14; Sp. p. 2086; Gaz. vol. 149; p. 358.

Bettney, T., Birmingham, England. Cycle-saddle. No. 942,363; Dec. 7; Sp. p. 699; Gaz. vol. 149; p. 113.
Betz, C. L., and W. E. Wallace, Rochester, Pa. Press. No. 943,858; Dec. 21; Sp. p. 3921; Gaz. vol. 149; p. 682.
Beugler, E. F., assignor to E. B. Holmes, Buffalo, N. Y. Vertical hoop-driving machine. No. 944,356; Dec. 28; Sp. p. 4980; Gaz. vol. 149; p. 877.
Beyerlen, A., Stuttgart, Germany. Type-writer. No. 944,590; Dec. 28; Sp. p. 5533; Gaz. vol. 149; p. 959.
Bessler, A. E., Minneapolis, Minn. Hat-display rack. No. 943,805; Dec. 21; Sp. p. 3817; Gaz. vol. 149; p. 663.
Bickerton, C. (See Andrews and Bickerton.)
Biddle, G. C., assignor of one-half to M. L. Kraus, Sharon, Pa. Garment-supporter. No. 944,655; Dec. 28; Sp. p. 5655; Gaz. vol. 149; p. 981.
Bienz, J., Langenthal, Switzerland. Carbonating liquids. No. 943,060; Dec. 14; Sp. p. 2246; Gaz. vol. 149; p. 381.
Bierbach, C. F., Milwaukee, Wis. Street-sprinkler. No. 944,253; Dec. 28; Sp. p. 4750; Gaz. vol. 149; p. 840.
Bierce, E. R. (See McGuire, J. K., assignor.)
Bierer, J., and H. Lorétan, assignors to Firm of Dye Works, formerly L. Durand, Huguenin & Co., Basel, Switzerland. Vat-dyeing with gallocyanin dyestuffs. No. 943,375; Dec. 14; Sp. p. 2886; Gaz. vol. 149; p. 485.
Bilhorn, P. P., Chicago, Ill. Spring-latch. No. 944,713; Dec. 28; Sp. p. 5780; Gaz. vol. 149; p. 1000.
Billings, W. F., Kansas City, Mo. Key-cutting machine. No. 943,806; Dec. 21; Sp. p. 3819; Gaz. vol. 149; p. 664.
Bills, K. E., assignor to A. B. Cooling, Sterling, Ill. Driving mechanism for washing-machines. No. 944,656; Dec. 28; Sp. p. 5656; Gaz. vol. 149; p. 981.
Bimm, G. R., Paris, France. Suction cleaning apparatus. No. 944,714; Dec. 28; Sp. p. 5782; Gaz. vol. 149; p. 1000.
Binford, E. P., Chicago, Ill. Making patterns for casting hollow dental fillings. No. 944,254; Dec. 28; Sp. p. 4751; Gaz. vol. 149; p. 840.
Bing, A., Canby, Minn. Rein-holder. No. 943,376; Dec. 14; Sp. p. 2889; Gaz. vol. 149; p. 486.
Binger, N., and E. F. Burgstaller, San Antonio Tex. Extension step-ladder. No. 943,511; Dec. 14; Sp. p. 3180; Gaz. vol. 149; p. 534.
Birch, J. H. (See Sterba and Birch.)
Birky, C. E., Alvin, Ill. Match-safe. No. 942,706; Dec. 7; Sp. p. 1392; Gaz. vol. 149; p. 228.
Birner, J., Elisabeth, and E. J. Heil, Carteret, N. J. Non-refillable bottle. No. 943,334; Dec. 14; Sp. p. 2797; Gaz. vol. 149; p. 471.
Birnstock, W. W., assignor to Pullman Automatic Ventilator Mfg. Company, York, Pa. Roof-ventilator. No. 942,707; Dec. 7; Sp. p. 1394; Gaz. vol. 149; p. 229.
Bisbee, A. C. (See Pankhurst and Bisbee.)
Bissell, G. F. (See Garver and Bissell.)
Bjorn, A., and C. E. Cashmore, New York, N. Y. Combined screw-driver and tweezers. No. 942,373; Dec. 7; Sp. p. 715; Gaz. vol. 149; p. 116.
Black, J. E. (See Helms and Black.)
Black, T. A., Shamokin, Pa. Miner's lamp. No. 944,171; Dec. 21; Sp. p. 4594; Gaz. vol. 149; p. 788.
Blackford, A. J., Cleveland, Ohio. Wick blue-flame burner. No. 944,840; Dec. 28; Sp. p. 6057; Gaz. vol. 149; p. 1043.
Blacklidge, C. F., Washington, D. C. Typograph apparatus. No. 943,614; Dec. 14; Sp. p. 3412; Gaz. vol. 149; p. 569.
Blackman, J. N., East Orange, N. J. Phonograph-record tray. No. 944,657; Dec. 28; Sp. p. 5658; Gaz. vol. 149; p. 982.
Blackstock, J. A., Seattle, Wash. Eye-shade. No. 944,767; Dec. 28; Sp. p. 5906; Gaz. vol. 149; p. 1018.
Blackstone, E. C. (See Carter, F. and E., assignors.)
Blaisdell Machinery Company. (See Diserens, R. F., assignor.)
Blake Crusher and Pulverizer Company. (See Blake, J. E., assignor.)
Blake, J. E., assignor to Blake Crusher and Pulverizer Company, Pittsburg, Pa. Crushing-machine. No. 944,999; Dec. 28; Sp. p. 6375; Gaz. vol. 149; p. 1095.
Blakeslee, J. R., assignor to Ajax Manufacturing Company, Cleveland, Ohio. Bolt-header. No. 943,335; Dec. 14; Sp. p. 2799; Gaz. vol. 149; p. 472.
Blakeslee, J. R., Jr., assignor to Ajax Manufacturing Company, Cleveland, Ohio. Back-stop for forging-machines. No. 943,377; Dec. 14; Sp. p. 2890; Gaz. vol. 149; p. 486.
Blanke, C. F., St. Louis, Mo. Coffee-pot. No. 943,512; Dec. 14; Sp. p. 3182; Gaz. vol. 149; p. 535.
Blellevens, N. (See Hastreiter and Blellevens.)
Bleyney, J. C., Newark, N. J. Belt-joint. No. 944,658; Dec. 28; Sp. p. 5660; Gaz. vol. 149; p. 982.
Bliley, J. W. (See Gallagher and Bliley.)
Blocher, D. L., Bordulac, N. D. Sled-runner. No. 943,513; Dec. 14; Sp. p. 3183; Gaz. vol. 149; p. 535.
Blodgett, F. E., Newark, N. J. Fire-extinguisher. No. 944,715; Dec. 28; Sp. p. 5783; Gaz. vol. 149; p. 1000.
Blood, C. W. H., assignor to S. A. Woods Machine Company, Boston, Mass. Truing device for truing shaped cutters in running cutter-heads. No. 944,010; Dec. 21; Sp. p. 4268; Gaz. vol. 149; p. 734.
Bloom, G. M., Detroit, Mich. Drain-pipe cleaner. No. 944,311; Dec. 28; Sp. p. 4887; Gaz. vol. 149; p. 861.
Bloom, J. H., Freeport, Ill. Manure-spreader. No. 943,731; Dec. 21; Sp. p. 3671; Gaz. vol. 149; p. 638.
Bloom, R. F., Starbuck, Minn. Whiffletree-hook. No. 942,431; Dec. 7; Sp. p. 826; Gaz. vol. 149; p. 135.
Bloom, V., Chicago, Ill. Sewing-machine structure. No. 943,623; Dec. 14; Sp. p. 3430; Gaz. vol. 149; p. 572.
Blot, L. P., Springfield, Mass. Drop-hammer. No. 942,708; Dec. 7; Sp. p. 1395; Gaz. vol. 149; p. 229.
Blowers, A. J., Berne, Ind. Brooder. No. 942,769; Dec. 7; Sp. p. 1524; Gaz. vol. 149; p. 250.
Blumenstock, G. (See Dieterich, J. A., assignor.)
Boatright, J. B., Del Rio, Tex. Book-guard. No. 944,124; Dec. 21; Sp. p. 4503; Gaz. vol. 149; p. 773.
Bobbitt, H. P., assignor of one-third to J. Harriman and one-third to J. A. Harriman, Los Angeles, Cal. Furnace. No. 944,591; Dec. 28; Sp. p. 5534; Gaz. vol. 149; p. 959.
Boda, J., assignor to Independent Harvester Company, Plano, Ill. Clutch mechanism. No. 942,244; Dec. 7; Sp. p. 464; Gaz. vol. 149; p. 72.
Boehm, L. (See Menchen, C., assignor.)
Boettler, A., *et al.* (See Reiger, C., assignor.)
Boggess, E. E. (See Long, J. A., assignor.)
Boggiano, E., Rome, Italy. Automatic vote-registering machine. No. 943,378; Dec. 14; Sp. p. 2893; Gaz. vol. 149; p. 487.
Boggs, W. S., Berkeley, assignor to Imperial Oil Company, San Francisco, Cal. Fishing-tool. No. 944,768; Dec. 28; Sp. p. 5906; Gaz. vol. 149; p. 1018.
Bohy, A., Hocking, Iowa. Charger for blast-holes. No. 944,938; Dec. 28; Sp. p. 6257; Gaz. vol. 149; p. 1075.
Boileau, H. (See Mavesky and Boileau.)
Bolens, H. W., Port Washington, Wis. Chair-iron. No. 942,432; Dec. 7; Sp. p. 827; Gaz. vol. 149; p. 136.
Bollinger, A., and A. and E. Landry, Geneva, Switzerland. Calculating-machine. No. 944,841; Dec. 28; Sp. p. 6063; Gaz. vol. 149; p. 1043.
Bollman, H. (See Anstead and Bollman.)
Bolton, A. C., assignor to Gutta Percha & Rubber Manufacturing Company, New York, N. Y. Cutting-machine. No. 942,164; Dec. 7; Sp. p. 296; Gaz. vol. 149; p. 45.
Bomborn, B., and A. Hoffmann, Berlin, Germany; said Hoffmann assignor to said Bomborn. Self-centering chuck. No. 942,304; Dec. 7; Sp. p. 585; Gaz. vol. 149; p. 93.
Bommer, E., New York, N. Y. Double-acting spring-hinge. No. 943,807; Dec. 21; Sp. p. 3821; Gaz. vol. 149; p. 664.
Bommer, E., New York, N. Y. Door-strike. No. 944,310; Dec. 28; Sp. p. 4885; Gaz. vol. 149; p. 860.
Bond, W. T., Belleville, Kans. Feeder for straw-cutting machines. No. 944,172; Dec. 21; Sp. p. 4595; Gaz. vol. 149; p. 788.
Bonfield, E. W., and J. E. Fellows, Chicago, Ill. Cardboard-creasing machine. No. 944,536; Dec. 28; Sp. p. 5402; Gaz. vol. 149; p. 940.
Bong, C. H., Chicago, Ill. Pressure-regulator. No. 944,255; Dec. 28; Sp. p. 4753; Gaz. vol. 149; p. 841.
Bonnaz, A., Lyon, France. Elastic tire. No. 943,881; Dec. 14; Sp. p. 1803; Gaz. vol. 149; p. 319.
Bonneau, E., Brest, France. Transmission mechanism. No. 942,862; Dec. 14; Sp. p. 1804; Gaz. vol. 149; p. 319.
Bonnett, D., McLoud, Okla. Cultivator attachment. No. 944,939; Dec. 28; Sp. p. 6258; Gaz. vol. 149; p. 1075.
Bonsall, S. W., New York, N. Y. Composite building material. No. 944,592; Dec. 28; Sp. p. 5536; Gaz. vol. 149; p. 960.
Bonsall, S. W., New York, N. Y. Convertible trunk and wardrobe. No. 944,593; Dec. 28; Sp. p. 5538; Gaz. vol. 149; p. 960.
Boomer, C. P., Muncie, Ind. Spring running-gear for automobiles. No. 943,764; Dec. 21; Sp. p. 3731; Gaz. vol. 149; p. 649.
Boothe, G. P. (See Smith and Boothe.)
Bordas, J., Dunkirk, N. Y. Self-heating sad-iron. No. 944,842; Dec. 28; Sp. p. 6071; Gaz. vol. 149; p. 1044.
Bordas, M. E., Dunkirk, N. Y. Comb. No. 943,765; Dec. 21; Sp. p. 3732; Gaz. vol. 149; p. 650.
Bordeaux, J. H., Joliet, Ill. Moistener. No. 944,769; Dec. 28; Sp. p. 5908; Gaz. vol. 149; p. 1019.
Bosse, C., Waipahu, Hawaii. Cane-unloader. No. 943,591; Dec. 14; Sp. p. 3323; Gaz. vol. 149; p. 560.
Bosworth, A. H., Fall River Mills, Cal. Hay-pitcher. No. 943,963; Dec. 21; Sp. p. 4149; Gaz. vol. 149; p. 719.
Bosworth, P. H., San Francisco, Cal. Forming concrete buildings. No. 944,594; Dec. 28; Sp. p. 5540; Gaz. vol. 149; p. 961.
Bothwell, H. R. (See Newman and Bothwell.)
Bousquet, L., *et al.* (See Landry, L. H., assignor.)
Bousquet, T., *et al.* (See Landry, L. H., assignor.)
Boutell Manufacturing Company. (See Boutell, W. H., assignor.)
Boutell, W. H., assignor of one-half to Boutell Manufacturing Company, Rochester, N. Y. Fruit and vegetable slicing or chopping machine. No. 943,965; Dec. 21; Sp. p. 4151; Gaz. vol. 149; p. 719.
Bovy, A. (See Dheyne and Bovy.)
Bowers, E. L., assignor to New Home Sewing Machine Company, Orange, Mass. Sewing-machine. No. 944,843; Dec. 28; Sp. p. 6072; Gaz. vol. 149; p. 1044.

Bowers, J. L. (See Bowers, O. L., assignor.)
Bowers, O. L., assignor of one-half to J. L. Bowers, Willard, Ill. Automatic wire-tying machine. No. 942,305; Dec. 7; Sp. p. 587; Gaz. vol. 149; p. 94.
Boyajean, J. A., New York, N. Y. Vehicle-wheel tire. No. 942,364; Dec. 7; Sp. p. 701; Gaz. vol. 149; p. 114.
Boyce, R. M., Evansville, Ind. Mangle-conveyer. No. 943,297; Dec. 14; Sp. p. 2724; Gaz. vol. 149; p. 460.
Boyd, F. F., Philadelphia, Pa. Automatic safety elevator-door opener and closer. No. 942,770; Dec. 7; Sp. p. 1525; Gaz. vol. 149; p. 250.
Boyer, F. A., St. Louis, Mo. Lap-fastener. No. 943,135; Dec. 14; Sp. p. 2389; Gaz. vol. 149; p. 406.
Boyer, W. T., *et al.* (See Beebe, E. C., assignor.)
Boyland, J. P. (See Horner and Boyland.)
Boyle, J., Peabody, Mass. Exhaust-muffler. No. 943,233; Dec. 14; Sp. p. 2586; Gaz. vol. 149; p. 438.
Bradford, E. S., Jr., Springfield, Mass., and M. Olson, Bridgeport, Conn., assignors to Massachusetts Saw Works, Chicopee, Mass. Hack-saw-machine. No. 943,646; Dec. 21; Sp. p. 3508; Gaz. vol. 149; p. 610.
Bradford, J. G. (See McCracken and Bradford.)
Bradshaw, C. A., *et al.* (See Haynes, J., assignor.)
Bradshaw, E., assignor to M. Bradshaw, San Francisco, Cal. Garbage chute and can. No. 942,854; Dec. 7; Sp. p. 1712; Gaz. vol. 149; p. 278.
Bradshaw, G. D. (See Lothrop and Bradshaw.)
Bradshaw, M. (See Bradshaw, E., assignor.)
Bradshaw, W. H., Nyack, N. Y. Eyeglass-holder. No. 942,480; Dec. 7; Sp. p. 950; Gaz. vol. 149; p. 153.
Bradshaw, W. T., *et al.* (See Crow, J. W., assignor.)
Bradway, S. P., *et al.* (See Stant, I. O., assignor.)
Brady, A. J., Passaic, N. J. Washboiler attachment. No. 944,411; Dec. 28; Sp. p. 5110; Gaz. vol. 149; p. 897.
Brady, L. H., Kansas City, Mo. Gas-burner. No. 942,709; Dec. 7; Sp. p. 1397; Gaz. vol. 149; p. 229.
Braley, T. E., Horton, Kans. Rotary gasolene-engine. No. 943,592; Dec. 14; Sp. p. 3225; Gaz. vol. 149; p. 560.
Brandell, C. O., Chicago, Ill. Tamping-machine. No. 943,966; Dec. 21; Sp. p. 4153; Gaz. vol. 149; p. 719.
Brandle, H. (See Smith, J., assignor.)
Brandon, W. L., Reno, Nev. Milk-pail. No. 944,940; Dec. 28; Sp. p. 6259; Gaz. vol. 149; p. 1075.
Brandt, C. J., Windemere, Minn. Shingle-machine. No. 944,659; Dec. 28; Sp. p. 5662; Gaz. vol. 149; p. 982.
Brantingham, A. C., Toledo, Ohio. Control device for sifters. (Reissue.) No. 13,058; Dec. 21; Sp. p. 4734; Gaz. vol. 149; p. 811.
Brassard, J. B., Holyoke, Mass. Leather-worker's tool. No. 944,660; Dec. 28; Sp. p. 5664; Gaz. vol. 149; p. 983.
Bratschie, A., New Castle, Pa. Air-ship. No. 943,732; Dec. 21; Sp. p. 3672; Gaz. vol. 149; p. 638.
Brauburger, E., assignor to Optische Anstalt C. P. Goerz Aktiengesellschaft, Friedenau, near Berlin, Germany. Photographic camera. No. 944,595; Dec. 28; Sp. p. 5542; Gaz. vol. 149; p. 961.
Bräutigam, A., South Orange, N. J., assignor to A. Heckscher, New York, N. Y. Disintegrating and removing annular salamanders in nodulizing-kilns. (Reissue.) No. 13,062; Dec. 28; Sp. p. 6409; Gaz. vol. 149; p. 1099.
Braverman, A. S. (See Stewart, W. R. and T. S., assignors.)
Brecheisen, A., Kansas City, Mo. Animal-trap. No. 942,481; Dec. 7; Sp. p. 951; Gaz. vol. 149; p. 153.
Brede, M. H., Minneapolis, Minn. Tool-rack. No. 944,312; Dec. 28; Sp. p. 4888; Gaz. vol. 149; p. 861.
Breeck, B., Vevay, Ind. Reversing mechanism for engines. No. 942,998; Dec. 14; Sp. p. 2090; Gaz. vol. 149; p. 359.
Breedlove, J. W., Muldrow, Okla. Meat-holding device. No. 943,910; Dec. 21; Sp. p. 4041; Gaz. vol. 149; p. 700.
Breining, C. P., Hancock, Md. Combined crayon, lumber-gage, and tally-pencil. No. 942,771; Dec. 7; Sp. p. 1528; Gaz. vol. 149; p. 251.
Bremer, I. M., New York, N. Y. Padlock. No. 943,379; Dec. 14; Sp. p. 2895; Gaz. vol. 149; p. 487.
Bretney, H. R., assignor to J. Wocher, J. T. Dickson, and J. S. Cruse, Indianapolis, Ind. Alarm apparatus. No. 942,433; Dec. 7; Sp. p. 829; Gaz. vol. 149; p. 136.
Brett, T. C., Red Oak, Iowa. Train-pipe coupling. No. 944,941; Dec. 28; Sp. p. 6260; Gaz. vol. 149; p. 1076.
Brettell, W. G. (See Webb, Brettell, and Adamson.)
Breuchaud, J., Yonkers, assignor to Underpinning Company, New York, N. Y. Construction of supports for building-walls, &c. No. 944,476; Dec. 28; Sp. p. 5246; Gaz. vol. 149; p. 919.
Brewer, C., New York, N. Y. Receptacle for baby-cloths. No. 944,071; Dec. 21; Sp. p. 4780; Gaz. vol. 149; p. 755.
Bricken, J., assignor of one-third to H. Marks, Chicago, Ill., and one-third to R. Marks, Des Moines, Iowa. Calculating-machine. No. 943,514; Dec. 14; Sp. p. 3185; Gaz. vol. 149; p. 535.
Bridge & Beach Manufacturing Company. (See Hoener and Andreas, assignors.)
Bridges, I. L., Powersville, Mo. Burglar-proof lock. No. 943,647; Dec. 21; Sp. p. 3510; Gaz. vol. 149; p. 611.
Bridgewater, A. M., assignor of one-third to W. C. Lyons and one-third to C. E. Shuffelbarger, Denver, Colo. Mail-catcher. No. 943,336; Dec. 14; Sp. p. 2804; Gaz. vol. 149; p. 473.
Bridgman, V., London, England. Swinging berth for ships. No. 943,380; Dec. 14; Sp. p. 2897; Gaz. vol. 149; p. 487.
Briegleb, Hansen & Co. (See Thoma, D., assignor.)
Brigden, G. G., Cypress, Ala. Spring-tooth cultivator. No. 944,770; Dec. 28; Sp. p. 5909; Gaz. vol. 149; p. 1019.
Briggs, A. J., assignor to Smith Premier Typewriter Company, Syracuse, N. Y. Type-writing machine. No. 944,229; Dec. 21; Sp. p. 4694; Gaz. vol. 149; p. 804.
Briggs, C. C. (See Durkee and Briggs.)
Briggs, J. (See Haworth, Briggs, and Ayrey.)
Briggs, J. H., Headingley, Leeds, England. Tramway-rail. No. 944,982; Dec. 28; Sp. p. 6350; Gaz. vol. 149; p. 1089.
Briggs, W., Brooklyn, N. Y. Valve-operating float. No. 944,477; Dec. 28; Sp. p. 5249; Gaz. vol. 149; p. 919.
Brinton, C. C., Stourport, England. Tuft-yarn carrier for pile-fabric looms. No. 942,999; Dec. 14; Sp. p. 2092; Gaz. vol. 149; p. 359.
Bristow, G. W., and G. O. Doty, Gunnison, Miss. Plow. No. 943,859; Dec. 21; Sp. p. 3923; Gaz. vol. 149; p. 683.
Britton, G. W., Camden, N. J. Combined cigar lighter and cutter. No. 942,434; Dec. 7; Sp. p. 833; Gaz. vol. 149; p. 137.
Broadberry, A. E., London, England. Gas lighting and extinguishing apparatus. No. 942,772; Dec. 7; Sp. p. 1529; Gaz. vol. 149; p. 251.
Broadbooks, P., Batavia, N. Y. Pliers. No. 943,361; Dec. 14; Sp. p. 2899; Gaz. vol. 149; p. 488.
Broadbooks, P., Batavia, N. Y. Hoof-parer. No. 943,362; Dec. 14; Sp. p. 2901; Gaz. vol. 149; p. 488.
Broadwater, L. H., Findlay, Ohio, assignor to E. I. du Pont de Nemours Powder Company, Wilmington, Del. Apparatus for firing explosives in wells. No. 943,383; Dec. 14; Sp. p. 2902; Gaz. vol. 149; p. 489.
Brockett, D. E. J., and F. Garver, assignors to Huber Manufacturing Company, Marion, Ohio. Garbanzon hulling and separating machine. No. 942,053; Dec. 7; Sp. p. 21; Gaz. vol. 149; p. 6.
Broga, F. D., Oneida, N. Y. Fastener. No. 942,129; Dec. 7; Sp. p. 218; Gaz. vol. 149; p. 33.
Broman, P., assignor to Beaver Dam Manufacturing Company, Beaver Dam, Wis. Dust-proof journal-bearing for revoluble disks. No. 942,539; Dec. 7; Sp. p. 1073; Gaz. vol. 149; p. 174.
Bronston, C. J., *et al.* (See Saxton, T. G., assignor.)
Brooks, C. E., assignor to National Malleable Castings Company, Cleveland, Ohio. Friction draft-rigging. No. 942,773; Dec. 7; Sp. p. 1533; Gaz. vol. 149; p. 251.
Brooks, E. J., East Orange, N. J. Tag-attaching seal. No. 942,435; Dec. 7; Sp. p. 834; Gaz. vol. 149; p. 137.
Brooks, E. J., East Orange, N. J. Snap-seal. No. 942,774; Dec. 7; Sp. p. 1536; Gaz. vol. 149; p. 252.
Brooks, J. C., Paterson, N. J. Textile fabric. No. 944,125; Dec. 21; Sp. p. 4504; Gaz. vol. 149; p. 773.
Brooks, L., *et al.* (See Morris, C. A., assignor.)
Brooks, R., Gloucester, Mass. Collapsible tube. No. 943,234; Dec. 14; Sp. p. 2587; Gaz. vol. 149; p. 438.
Broughton, C. W., Carlton, Ill. Mail-pouch receiving and delivering apparatus for railway-cars and the like. No. 944,716; Dec. 28; Sp. p. 5784; Gaz. vol. 149; p. 1001.
Brown, A., Rockford, Iowa. Door-check. No. 943,515; Dec. 14; Sp. p. 3186; Gaz. vol. 149; p. 536.
Brown, A. T., Syracuse, N. Y. Type-writing machine. No. 944,596; Dec. 28; Sp. p. 5543; Gaz. vol. 149; p. 961.
Brown, C. W., Lewiston, N. C. Cultivator. No. 942,540; Dec. 7; Sp. p. 1075; Gaz. vol. 149; p. 174.
Brown, C. W., Leonard, Tex. Window-shade bracket. No. 942,775; Dec. 7; Sp. p. 1538; Gaz. vol. 149; p. 252.
Brown, E., Attica, Ind. Plow-colter. No. 944,478; Dec. 28; Sp. p. 5250; Gaz. vol. 149; p. 919.
Brown, F. J., assignor of one-fourth to A. M. Lasater, Plemons, Tex. Bag-fastener. No. 943,175; Dec. 14; Sp. p. 2460; Gaz. vol. 149; p. 418.
Brown, G. W., Madison, Ohio. Mold for making sarcophagi. No. 943,800; Dec. 21; Sp. p. 3925; Gaz. vol. 149; p. 683.
Brown, J. H., assignor of one-tenth to J. Markewich, New York, N. Y. Non-refillable receptacle for fluids. No. 944,313; Dec. 28; Sp. p. 4889; Gaz. vol. 149; p. 861.
Brown, P. S. (See Kern, E. F., assignor.)
Brown, R., Beaver, Okla. Mail-delivery case. No. 943,766; Dec. 21; Sp. p. 3734; Gaz. vol. 149; p. 650.
Brown, R. C., Lynchburg, Va. Wall-frame for air-registers. No. 943,298; Dec. 14; Sp. p. 2725; Gaz. vol. 149; p. 460.
Brown, R. H., Sheepshead Bay, and R. J. Brown, Tottenville, N. Y. Ink-well cover. No. 943,733; Dec. 21; Sp. p. 3675; Gaz. vol. 149; p. 639.
Brown, R. J. (See Brown, R. H. and R. J.)
Brown, R. W., Amsterdam, N. Y. Electric heater. No. 943,384; Dec. 14; Sp. p. 2906; Gaz. vol. 149; p. 489.
Brown, T., assignor to Richardson Manufacturing Company, Worcester, Mass. Manure-spreader. No. 944,479; Dec. 28; Sp. p. 5252; Gaz. vol. 149; p. 920.
Brown, T. P., assignor to Simplex Piano Player Co., Worcester, Mass. Mechanism for guiding music-sheets. No. 942,956; Dec. 14; Sp. p. 1957; Gaz. vol. 149; p. 344.
Browne, C. E. (See Cassleman, C., assignor.)

Browne, G. P., assignor of one-half to J. H. Callahan, Montreal, Quebec, Canada. Signal-lantern. No. 943,808; Dec. 21; Sp. p. 3824; Gaz. vol. 149; p. 665.
Browne, H. P. C., New York, N. Y. Hub-odometer. No. 942,883; Dec. 14; Sp. p. 1806; Gaz. vol. 149; p. 319.
Brownell, G. C. (See Horne, J. A., assignor.)
Bruce, E. S. (See Pollock, J. R., assignor.)
Bruce, W. M., Jr., Springfield, Ohio, assignor, by mesne assignments, to American Automatic Telephone Company, Rochester, N. Y. Telephone-box. No. 944,412; Dec. 28; Sp. p. 5111; Gaz. vol. 149; p. 897.
Brunswick Refrigerating Company. (See Whitaker, R., assignor.)
Brush, A. P., Detroit, Mich. Planetary transmission mechanism. No. 944,597; Dec. 28; Sp. p. 5546; Gaz. vol. 149; p. 962.
Bryant, A. S. (See Horrell and Bryant.)
Bryant, R. B., Nashville, Ark. Railway electric switch. No. 943,809; Dec. 21; Sp. p. 3825; Gaz. vol. 149; p. 665.
Bryant, W. A., assignor of nine-twentieths to J. A. Lancaster, W. W. Wilken, and J. R. Gamble, Wetumpka, Ala. Concrete fence-post. No. 943,648; Dec. 21; Sp. p. 3512; Gaz. vol. 149; p. 611.
Bryar, G., Boston, Mass. Nut-lock. No. 942,194; Dec. 7; Sp. p. 359; Gaz. vol. 149; p. 55.
Buchanan, J. W., Asheville, N. C. Reversible moldboard-plow. No. 943,516; Dec. 14; Sp. p. 3187; Gaz. vol. 149; p. 536.
Buchenberg, A. E., assignor to Toledo Electric Welding Company, Toledo, Ohio. Electric welding-machine. No. 943,861; Dec. 21; Sp. p. 3927; Gaz. vol. 149; p. 683.
Buck, G. H., New York, N. Y. Hammock-support. No. 944,661; Dec. 28; Sp. p. 5668; Gaz. vol. 149; p. 983.
Buck, M. L., Lansing, Mich. Coin-controlled apparatus for dispensing liquids. No. 943,649; Dec. 21; Sp. p. 3513; Gaz. vol. 149; p. 611.
Buck, W. T., and G. C. Willis, Vilets, Kans.; said Willis assignor to said Buck. Mail-carrier. No. 943,136; Dec. 14; Sp. p. 2390; Gaz. vol. 149; p. 407.
Buckeye Steel Castings Co. (See Whitridge and Goodspeed, assignors.)
Buckham, G. T. (See Dawson and Buckham.)
Buckingham, B. J., assignor to Buckingham-Rae Company, Chicago, Ill. Extension garment-rack. No. 943,137; Dec. 14; Sp. p. 2393; Gaz. vol. 149; p. 407.
Buckingham-Rae Company. (See Buckingham, B. J., assignor.)
Buckley, J., assignor to C. B. Schoenmehl, Waterbury, Conn. Staple-machine. No. 942,235; Dec. 14; Sp. p. 2589; Gaz. vol. 149; p. 438.
Buckner, R. H., Portsmouth, Va. Water-gage. No. 942,365; Dec. 7; Sp. p. 702; Gaz. vol. 149; p. 114.
Buckwalter, J. R., Palmyra, Mo. Barn construction. No. 942,884; Dec. 14; Sp. p. 1811; Gaz. vol. 149; p. 320.
Buda Foundry & Manufacturing Company. (See Jenkins, M. L., assignor.)
Budd, E. G., assignor to Hale-Kilburn Metal Company, Philadelphia, Pa. Cushion. No. 944,662; Dec. 28; Sp. p. 5669; Gaz. vol. 149; p. 998.
Buetikofer, R., and G. Hoffman, Portland, Oreg. Latch-lock for swinging doors. No. 942,616; Dec. 14; Sp. p. 3416; Gaz. vol. 149; p. 569.
Buffett, R., *et al.* (See Kenan, J. J. W., assignor.)
Bufium, O. E., Enumclaw, Wash. Automatic fowl-duster. No. 944,072; Dec. 21; Sp. p. 4383; Gaz. vol. 149; p. 755.
Bühler, J., assignor to Die Vereinigten Freiburger Uhrenfabriken Aktiengesellschaft, incl. vormals Gustav Becker, Freiburg, Germany. Clock and the like. No. 942,374; Dec. 7; Sp. p. 717; Gaz. vol. 149; p. 117.
Buhoup, H. C., Chicago, Ill., assignor to McConway & Torley Company, Pittsburg, Pa. Draft appliance for railway-cars. No. 944,844; Dec. 28; Sp. p. 6075; Gaz. vol. 149; p. 1044.
Builders Iron Foundry. (See Connet and Graham, assignors.)
Bull, R. S. (See Strance, Bull, and Norris.)
Bullard, A. M., New York, N. Y., assignor to Western Electric Company, Chicago, Ill Semi-mechanical telephone system. No. 944,537; Dec. 28; Sp. p. 5406; Gaz. vol. 149; p. 940.
Bullard, J. H., assignor to Bullard Specialty Co., Springfield, Mass. Speedometer. No. 944,538; Dec. 28; Sp. p. 5410; Gaz. vol. 149; p. 941.
Bullard Specialty Co. (See Bullard, J. H., assignor.)
Bullard, W. E., Belmond, Iowa. Carving-board. No. 943,767; Dec. 21; Sp. p. 3736; Gaz. vol. 149; p. 650.
Bullock, A. A., Dabney, assignor of one-half to O. Davis, Henderson, N. C. Fertilizer-distributer. No. 944,173; Dec. 21; Sp. p. 4599; Gaz. vol. 149; p. 789.
Bullock, A. R., Cleveland, Ohio. Process and apparatus for burning oxygen with other gases. No. 943,385; Dec. 14; Sp. p. 2907; Gaz. vol. 149; p. 489.
Bullock, G., *et al.* (See Gordon, C. H., assignor.)
Bunch, C., Johnson City, Tenn., assignor of one-half to W. Wells, Baltimore, Md. Means to facilitate the application of paste to labels. No. 944,214; Dec. 28; Sp. p. 4892; Gaz. vol. 149; p. 862.
Burdock, J. H., Albia, Iowa. Light-extinguisher. No. 943,176; Dec. 14; Sp. p. 2461; Gaz. vol. 149; p. 418.
Buress, G., Indianapolis, Ind., assignor of one-half to R. W. Long, Indianapolis, Ind. Gas-engine starter. No. 944,315; Dec. 28; Sp. p. 4893; Gaz. vol. 149; p. 862.
Burgess, E. T., Columbus, Ohio. Soldering-furnace. No. 942,245; Dec. 7; Sp. p. 467; Gaz. vol. 149; p. 72.
Burgstaller, E. F. (See Binger and Burgstaller.)
Burke, W. B. (See Gibson, E. J., assignor.)
Burns, J. D., Pittsburg, Pa. Valve-seat-grinding machine. No. 944,845; Dec. 28; Sp. p. 6076; Gaz. vol. 149; p. 1045.
Burns, J. J., Pittston, Pa. Elevator. No. 944,942; Dec. 28; Sp. p. 6262; Gaz. vol. 149; p. 1076.
Burpee, M., Houlton, Me. Guard-rail clamp. No. 943,138; Dec. 14; Sp. p. 2395; Gaz. vol. 149; p. 407.
Burrell, L., assignor to D. H. Burrell & Company, Little Falls, N. Y. Milking-machine. No. 942,482; Dec. 7; Sp. p. 953; Gaz. vol. 149; p. 154.
Burris, C. W., Black Diamond, Wash. Safety device. No. 943,862; Dec. 21; Sp. p. 3931; Gaz. vol. 149; p. 683.
Burson, W. W., Rockford, Ill. Knitting-machine. No. 944,011; Dec. 21; Sp. p. 4270; Gaz. vol. 149; p. 735.
Burson, W. W., Rockford, Ill. Yarn-changing mechanism for knitting-machines. No. 944,012; Dec. 21; Sp. p. 4272; Gaz. vol. 149; p. 735.
Burt, G. W., Ohioville, Pa. Tool-sharpener. No. 944,943; Dec. 28; Sp. p. 6264; Gaz. vol. 149; p. 1076.
Burt Machine Company. (See Wild, F. W., Jr., assignor.)
Burt, W. E., Yuba, Wis. Meter for indicating horse-power. No. 942,130; Dec. 7; Sp. p. 220; Gaz. vol. 149; p. 34.
Burton, C. S., Oak Park, Ill., assignor to E. Tyden, Hastings, Mich. Extension-table. No. 943,337; Dec. 14; Sp. p. 2809; Gaz. vol. 149; p. 473.
Burton, J. L., Plainville, Conn., assignor of one-half to F. A. Champlin, East Long Meadow, Mass. Connection-rosette for electric wires. No. 942,710; Dec. 7; Sp. p. 1399; Gaz. vol. 149; p. 230.
Burtt, W. C. (See Minue, W. E., assignor.)
Busby, H. C., Birmingham, Ala. System of utilization of windmill-power. No. 943,000; Dec. 14; Sp. p. 2093; Gaz. vol. 149; p. 359.
Bushong, H. F., assignor to Kalamazoo Loose Leaf Binder Company, Kalamazoo, Mich. Temporary binder or loose-sheet holder. No. 944,256; Dec. 28; Sp. p. 4761; Gaz. vol. 149; p. 841.
Busian, G. L., Marshall, Minn. Vacuum-cleaner. No. 944,944; Dec. 28; Sp. p. 6265; Gaz. vol. 149; p. 1077.
Busse, A., New York, N. Y. Metal frame for glass panes. No. 942,611; Dec. 7; Sp. p. 1210; Gaz. vol. 149; p. 198.
Butler, F. O., assignor to American Suspension Railway Company, Philadelphia, Pa. Truck. No. 944,663; Dec. 28; Sp. p. 5671; Gaz. vol. 149; p. 984.
Butler, W. W., Austinburg, Ohio. Fork and spoon holder. No. 943,517; Dec. 14; Sp. p. 3188; Gaz. vol. 149; p. 536.
Buts, S., Easton, Pa. Building-block. No. 943,518; Dec. 14; Sp. p. 3189; Gaz. vol. 149; p. 536.
C. Chambers Inskeep Co. (See Shepard, L. B., assignor.)
C. B. Cottrell & Sons Company. (See Babcock, E. E., assignor.)
C. B. Cottrell & Sons Company. (See Cottrell, A. M., assignor.)
C. T. Patterson Company. (See Coleman, T. A., assignor.)
Cabanne, J. P., St. Louis, Mo. Fermentation of milk. No. 944,013; Dec. 21; Sp. p. 4274; Gaz. vol. 149; p. 736.
Cable, B. T. (See Dey, H. E., assignor.)
Cable Company. (See Klugh, P. B., assignor.)
Cable, F. E. (See Porter and Cable.)
Cage, G. A., Denver, Colo. Touch key-finder for type-writers. No. 943,108; Dec. 14; Sp. p. 2338; Gaz. vol. 149; p. 397.
Cahn, H. S. (See Joseph, P. E., assignor.)
Calcutt, M. Y., Seattle, Wash. Sanitary telephone-transmitter. No. 943,386; Dec. 14; Sp. p. 2910; Gaz. vol. 149; p. 490.
Calkins, M. E. (See Simpson, H. W., assignor.)
Calkins, M. P., Varysburg, N. Y. Bean and peanut harvester and picker. No. 944,945; Dec. 28; Sp. p. 6267; Gaz. vol. 149; p. 1077.
Callahan, C. J., *et al.* (See Ray, A. D., assignor.)
Callahan, J. H. (See Browne, G. P., assignor.)
Callaway, E. H., Westfield, N. J., assignor to American Clay Machinery Company, Bucyrus, Ohio. Pulverizing or grinding mill. No. 944,073; Dec. 21; Sp. p. 4384; Gaz. vol. 149; p. 756.
Callis, C., and W. D. Fulbright, Springfield, Mo. Mop-wringer. No. 943,650; Dec. 21; Sp. p. 3514; Gaz. vol. 149; p. 612.
Cameron, S. T., *et al.*, trustees. (See Mann, W. B., assignor.)
Camp, G. E., assignor to International Heater Company, Utica, N. Y. Furnace-casing ring. No. 944,267; Dec. 28; Sp. p. 4764; Gaz. vol. 149; p. 842.
Camp, L. H. (See Camp, W. L., assignor.)
Camp, W. L., assignor of one-half to L. H. Camp, Joppa, Ala. Plow-point attachment. No. 943,001; Dec. 14; Sp. p. 2095; Gaz. vol. 149; p. 360.

Campbell, H. E., New Haven, Conn. Safety attachment for gas-lighting burners. No. 944,771; Dec. 28; Sp. p. 5911; Gaz. vol. 149; p. 1019.
Campbell, J. F., *et al.* (See Parsons, M., assignor.)
Campbell, J. W., Germantown, N. Y., assignor to Ferguson Bros. Mfg. Co., Hoboken, N. J. Knockdown desk. No. 943,236; Dec. 14; Sp. p. 2502; Gaz. vol. 149; p. 439.
Campbell, N. H., Binghamton, N. Y. Railway mail-handling apparatus. No. 942,054; Dec. 7; Sp. p. 23; Gaz. vol. 149; p. 6.
Campbell, N. H., Binghamton, N. Y. Railway mail-catcher. No. 942,055; Dec. 7; Sp. p. 27; Gaz. vol. 149; p. 6.
Campbell, P. A., Bloomfield, N. J. Method of and apparatus for repeating telephone-currents. No. 942,885; Dec. 14; Sp. p. 1813; Gaz. vol. 149; p. 320.
Campbell, S. E. C., Hamilton, Ontario, Canada. Skirt-marker. No. 942,375; Dec. 7; Sp. p. 718; Gaz. vol. 149; p. 117.
Caney, F. H., Newton, Mass. Cement-lined pipe and fittings. No. 942,436; Dec. 7; Sp. p. 835; Gaz. vol. 149; p. 137.
Cannon, E. E., Waukomis, Okla. Gate. No. 943,387; Dec. 14; Sp. p. 2911; Gaz. vol. 149; p. 490.
Cantono, E., Rome, assignor to Società Anonima di Costruzioni Meccaniche Freni a Ricupero Cantono, Genoa, Italy. Automatic starting device for explosion-motors, &c. No. 944,316; Dec. 28; Sp. p. 4895; Gaz. vol. 149; p. 862.
Carlson, E. (See Dahlin and Carlson.)
Carlson, F. W., Chicago, Ill. Sillcock and other valve. No. 942,541; Dec. 7; Sp. p. 1076; Gaz. vol. 149; p. 174.
Carlson, G. A., Laurium, Mich. Washing-machine. No. 943,177; Dec. 14; Sp. p. 2462; Gaz. vol. 149; p. 419.
Carney, M., Philadelphia, Pa. Attachment for stoves. No. 944,317; Dec. 28; Sp. p. 4897; Gaz. vol. 149; p. 863.
Carnyn, J. M. (See Winterknight, H. A., assignor.)
Carpenter, R. (See Barton, E. H. R., assignor.)
Carr, F. S., Brookline, assignor to Carr Fastener Company, Boston, Mass. Fastening device. No. 942,542; Dec. 7; Sp. p. 1078; Gaz. vol. 149; p. 175.
Carr, F. S., Brookline, assignor to Carr Fastener Company, Boston, Mass. Carriage-curtain fastener. No. 942,612; Dec. 7; Sp. p. 1211; Gaz. vol. 149; p. 198.
Carr Fastener Company. (See Carr, F. S., assignor.)
Carr, W. C., Buffalo, N. Y. Transportation system. No. 942,437; Dec. 7; Sp. p. 838; Gaz. vol. 149; p. 137.
Carr, W. C., Buffalo, N. Y. Transportation system. No. 943,810; Dec. 21; Sp. p. 3827; Gaz. vol. 149; p. 665.
Carraher, F. B., Pittsburg, Pa. Ingot-turning device. No. 944,318; Dec. 28; Sp. p. 4898; Gaz. vol. 149; p. 864.
Carrigan, H. J., and A. J. Sangster, Buffalo, N. Y., assignors to Auto Safety Specialty Company. Electric switch. No. 943,215; Dec. 14; Sp. p. 2544; Gaz. vol. 149; p. 431.
Carroll, F. M., New Haven, Conn. Reducing-valve. No. 944,664; Dec. 28; Sp. p. 5672; Gaz. vol. 149; p. 984.
Carter, C. C. (See Dressmann, R., assignor.)
Carter, E. (See Carter, F. and E.)
Carter, E. J., and L. J. Houle, East Concord, N. H. Removable cap for pipes. No. 943,338; Dec. 14; Sp. p. 2813; Gaz. vol. 149; p. 473.
Carter, F. and E., assignors of one-third to E. C. Blackstone, Stamford, England. Internal-combustion engine. No. 942,886; Dec. 14; Sp. p. 1816; Gaz. vol. 149; p. 320.
Carter, M. L., Glassport, Pa. Combination woodworking-plane. No. 943,178; Dec. 14; Sp. p. 2463; Gaz. vol. 149; p. 419.
Cartmill, J. C., Leadmine, Wis. Vat for cleaning hogs. No. 944,230; Dec. 21; Sp. p. 4698; Gaz. vol. 149; p. 805.
Case, H. T., Franklin, Pa. Combination fluid and vacuum check. No. 942,887; Dec. 14; Sp. p. 1819; Gaz. vol. 149; p. 321.
Casey, F. J., Springfield, Mass. Quoin. No. 942,543; Dec. 7; Sp. p. 1079; Gaz. vol. 149; p. 175.
Casey-Hedges Company. (See Stimmel, F. C., assignor.)
Casey, J. V., Brooklyn, N. Y. Advertising apparatus. No. 943,179; Dec. 14; Sp. p. 2465; Gaz. vol. 149; p. 419.
Cashmore, C. E. (See Bjorn and Cashmore.)
Caskey, S. S., assignor to Caskey Valve Company, Philadelphia, Pa. Valve. No. 944,598; Dec. 28; Sp. p. 5550; Gaz. vol. 149; p. 962.
Caskey Valve Company. (See Caskey, S. S., assignor.)
Caspian, P. G., Chicago, Ill. Starting device for internal-combustion engines. No. 942,957; Dec. 14; Sp. p. 1988; Gaz. vol. 149; p. 345.
Cassleman, C., assignor of one-third to C. E. Browne, Chicago, Ill. Swinging window. No. 943,061; Dec. 14; Sp. p. 2248; Gaz. vol. 149; p. 381.
Cassleman, C., assignor of one-third to C. E. Browne, Chicago, Ill. Window-bead fastener. No. 943,062; Dec. 14; Sp. p. 2250; Gaz. vol. 149; p. 382.
Catton, I. C., Brimfield, Ill. Tie and means for fastening rails thereon. No. 942,438; Dec. 7; Sp. p. 841; Gaz. vol. 149; p. 138.
Caul, L., Cleveland, Ohio. Agitating device for mixing carbonic-acid gas and water. No. 944,717; Dec. 28; Sp. p. 5794; Gaz. vol. 149; p. 1001.
Cecil, R. E., Ambridge, and C. R. Wassell, Sewickley, Pa. Steam and vacuum pump. No. 943,911; Dec. 21; Sp. p. 4042; Gaz. vol. 149; p. 701.
Cecil, R. E., Ambridge, and C. R. Wassell, Sewickley, Pa. Steam and vacuum pump. No. 943,912; Dec. 21; Sp. p. 4046; Gaz. vol. 149; p. 701.
Central Brass Manufacturing Company. (See Mortimer and Strauss, assignors.)
Central Trust Company of New York, trustee. (See Price, E. F., assignor.)
Ceramic Machinery Company. (See Goldsmith, F. E., assignor.)
Chaddock, C. E. and R. G., Canton, Ohio. Glove. No. 944,357; Dec. 28; Sp. p. 4987; Gaz. vol. 149; p. 878.
Chaddock, R. G. (See Chaddock, C. E. and R. G.)
Chaffee, E. F., New York, assignor to O. M. Edwards, Syracuse, N. Y. Trap-door for railway-cars and similar structures. No. 942,711; Dec. 7; Sp. p. 1400; Gaz. vol. 149; p. 230.
Chainey, E., assignor to Florence Mfg. Co., Florence, Wis. Saw-set. No. 944,174; Dec. 21; Sp. p. 4600; Gaz. vol. 149; p. 789.
Challiss, P. G., Forest Hill, England. Detachable rim for vehicle-wheels. No. 943,811; Dec. 21; Sp. p. 3830; Gaz. vol. 149; p. 666.
Chaloner, T. T., New York, N. Y. Antiskid attachment for vehicle-wheels. No. 944,772; Dec. 28; Sp. p. 5912; Gaz. vol. 149; p. 1019.
Chamberlain, J. W. (See Humason, G. A., assignor.)
Chambers Brothers Company. (See King, H. K., assignor.)
Champion Chemical Company. (See Hennessy, T. B., assignor.)
Champion Tool Works Company. (See Pflanzer, J. C., assignor.)
Champlin, F. A. (See Burton, J. L., assignor.)
Chandler & Price Company. (See La Due, E. A., assignor.)
Chandler, R., and C. F. Autenrieth, Brooklyn, N. Y. Theatrical appliance. No. 943,651; Dec. 21; Sp. p. 3516; Gaz. vol. 149; p. 612.
Chapman, M. T., assignor to American Well Works, Aurora, Ill. Well-sinking apparatus. No. 943,913; Dec. 21; Sp. p. 4050; Gaz. vol. 149; p. 702.
Chapman, W. A., Smithville, Ark. Sound-box. No. 943,339; Dec. 14; Sp. p. 2815; Gaz. vol. 149; p. 474.
Chapman, W. M., Needham, Mass., assignor to Electric-Railway Signal Company, Kittery, Me. Signal-controlling apparatus. No. 942,195; Dec. 7; Sp. p. 300; Gaz. vol. 149; p. 55.
Chappelear, T. H., Lavonia, Ga. Churn. No. 944,014; Dec. 21; Sp. p. 4275; Gaz. vol. 149; p. 736.
Chase, R. A., assignor of one-half to W. H. Whitney, Waterbury, Conn. Night-latch. No. 943,216; Dec. 14; Sp. p. 2547; Gaz. vol. 149; p. 432.
Chasse, G. G., North Craftsbury, Vt. Valve for evaporating-pans. No. 944,175; Dec. 21; Sp. p. 4601; Gaz. vol. 149; p. 789.
Chemische Fabrik Helfenberg, A. G., formerly Eugen Dieterich. (See Schmidt, A., assignor.)
Cherry, P. H., Los Angeles, Cal. Inhaling apparatus. No. 943,180; Dec. 14; Sp. p. 2468; Gaz. vol. 149; p. 419.
Cherry, W. E. W., Columbus, Ohio. Store-window. No. 943,812; Dec. 21; Sp. p. 3831; Gaz. vol. 149; p. 666.
Chester B. Albree Iron Works Company. (See Albree, C. B., assignor.)
Chester, T., *et al.* (See Ray, A. D., assignor.)
Chicago Grain Door Company. (See Hill, E. A., assignor.)
Chicago Laundry Machinery Co. (See Spansail, G. H., assignor.)
Chicago Vacuum Jar Co. (See Moody, J. W., assignor.)
Childs, S. S., Bernardsville, N. J. Armor for tires. No. 943,002; Dec. 14; Sp. p. 2096; Gaz. vol. 149; p. 360.
Cholński, A. de, Dresden, Germany. Apparatus for preventing human beings from being buried alive. No. 945,007; Dec. 28; Sp. p. 6398; Gaz. vol. 149; p. 1097.
Chow, J. A., Helena, Mont. Table attachment. No. 942,613; Dec. 7; Sp. p. 1213; Gaz. vol. 149; p. 198.
Christensen, E. (See Pfluger and Christensen.)
Christensen, P. M. (See Pedersen and Christensen.)
Christenson, A. L., Stockholm, Sweden. Device for facilitating reinsertion of disks forming liners of centrifugal drums. No. 944,074; Dec. 21; Sp. p. 4339; Gaz. vol. 149; p. 756.
Cincinnati Milling Machine Company. (See De Leeuw, A. L., assignor.)
Cirl, S., Rome, Italy. Car-fender for tramways and the like. No. 944,075; Dec. 21; Sp. p. 4392; Gaz. vol. 149; p. 756.
Clardy, S. B., Ackerman, Miss. Drum harrow. No. 942,376; Dec. 7; Sp. p. 719; Gaz. vol. 149; p. 117.
Clark, B. F., assignor to Standard Optical Company, Geneva, N. Y. Instrument for positioning lenses. No. 944,846; Dec. 28; Sp. p. 6079; Gaz. vol. 149; p. 1045.
Clark, C. A., Hartford, assignor to Trumbull Electric Manufacturing Company, Plainville, Conn. Switch-indicator. No. 943,914; Dec. 21; Sp. p. 4053; Gaz. vol. 149; p. 702.
Clark, C. D., Waterbury, Conn. Attachment for bedsteads. No. 943,217; Dec. 14; Sp. p. 2548; Gaz. vol. 149; p. 432.
Clark, C. H., Crafton, Pa. Ore dump-car. No. 944,232; Dec. 21; Sp. p. 4701; Gaz. vol. 149; p. 806.
Clark, C. T. (See Farren and Clark.)

Clark, D. P. (See Lint, A., assignor.)
Clark, E. S., *et al.* (See Driskell, W. S., assignor.)
Clark, E. W., Los Angeles, Cal. Water-tube boiler. No. 943,139; Dec. 14; Sp. p. 2396; Gaz. vol. 149; p. 408.
Clark, G. E., *et al.* (See Parsons, M., assignor.)
Clark, G. R., assignor to Clark & Harvey, Dayton, Ohio. Electric time-switch. No. 944,319; Dec. 28; Sp. p. 4900; Gaz. vol. 149; p. 864.
Clark, H. W., St. Louis, Mo. Lumber-stacker. No. 944,946; Dec. 28; Sp. p. 6269; Gaz. vol. 149; p. 1077.
Clark & Harvey. (See Clark, G. R., assignor.)
Clark, L., Greenfield, Ind. Grain-cutter. No. 942,614; Dec. 7; Sp. p. 1215; Gaz. vol. 149; p. 198.
Clark, W. L., New York, N. Y. Case for shaving appliances. No. 942,483; Dec. 7; Sp. p. 956; Gaz. vol. 149; p. 154.
Clark, W. L., New York, N. Y. Razor-case. No. 942,484; Dec. 7; Sp. p. 958; Gaz. vol. 149; p. 154.
Clarke, J. L., Leamington, England. Drinking-tube. No. 942,306; Dec. 7; Sp. p. 595; Gaz. vol. 149; p. 94.
Clarke, M. S., Houston, Tex., assignor of one-half to E. L. Adreon, Jr., St. Louis, Mo. Combined tie-plate and rail-anticreeper. No. 942,307; Dec. 7; Sp. p. 597; Gaz. vol. 149; p. 94.
Clarke, W. A., assignor to Pioneer Steel Company, Rockford, Ill. Furnace. No. 943,513; Dec. 21; Sp. p. 3832; Gaz. vol. 149; p. 666.
Clauss, H. (See Lorensen, J., assignor.)
Clay, F. W. H., Pittsburg, Pa. Steerable sled. No. 944,773; Dec. 28; Sp. p. 5913; Gaz. vol. 149; p. 1020.
Cleaves, E., Searsport, Me. Device for handling invalids. No. 943,003; Dec. 14; Sp. p. 2097; Gaz. vol. 149; p. 360.
Clemens, P., and G. H. Repert, Scranton, Pa. Cutting attachment for looms. No. 944,947; Dec. 28; Sp. p. 6273; Gaz. vol. 149; p. 1078.
Clement, H. E., Cheraw, S. C. Knockdown crate. No. 943,388; Dec. 14; Sp. p. 2913; Gaz. vol. 149; p. 490.
Cleveland Car Specialty Company. (See Weiss, G. L., assignor.)
Cliff, E. R., New York, N. Y. Electric transformer and governor. No. 942,544; Dec. 7; Sp. p. 1081; Gaz. vol. 149; p. 175.
Clifford, T. G., New York, N. Y., assignor of two-thirds to W. Cranstoun, Stratford, Conn., and G. F. Rose, New York, N. Y. Non-refillable bottle. No. 944,015; Dec. 21; Sp. p. 4277; Gaz. vol. 149; p. 736.
Clift, C., New York, N. Y., assignor to Clift Company, Cleveland, Ohio. Garment-hanger. No. 943,340; Dec. 14; Sp. p. 2819; Gaz. vol. 149; p. 474.
Clift Company. (See Clift, C., assignor.)
Clouse, W. L., assignor to National Machinery Company, Tiffin, Ohio. Nut-making machine. No. 943,768; Dec. 21; Sp. p. 3737; Gaz. vol. 149; p. 651.
Clouse, W. L., assignor to National Machinery Company Tiffin, Ohio. Nut-tap socket. No. 943,863; Dec. 21; Sp. p. 3934; Gaz. vol. 149; p. 684.
Clover, B. L. and G. H., Chicago, Ill. Valve for steam-traps. No. 942,246; Dec. 7; Sp. p. 469; Gaz. vol. 149; p. 73.
Clover, G. H. (See Clover, B. L. and G. H.)
Clutter, L. P., Deer Lick, Pa. Excavating-machine. No. 944,320; Dec. 28; Sp. p. 4907; Gaz. vol. 149; p. 864.
Coady, P. J., Columbus, Ohio. Track-sander. No. 942,377; Dec. 7; Sp. p. 721; Gaz. vol. 149; p. 118.
Coal and Coke By-Products Company. (See Ernst, A., assignor.)
Coalecon Company. (See Shoals, W. G., assignor.)
Coate, S. T., and J. T. Saris, Springfield, Ill. Tire-supporter. No. 943,341; Dec. 14; Sp. p. 2821; Gaz. vol. 149; p. 475.
Cochius, G. L., Remboen, Java, assignor to Maatschappy tot Voortzetting van de Zaken der Firma Ruhaak & Co., Haarlem, Netherlands. Weighing-machine. No. 944,847; Dec. 28; Sp. p. 6081; Gaz. vol. 149; p. 1046.
Cochran, J. B., Cleveland, Ohio. Detachable link. No. 944,016; Dec. 21; Sp. p. 4277; Gaz. vol. 149; p. 736.
Cockrell, B. C., Washington, D. C. Paper receptacle. No. 943,339; Dec. 14; Sp. p. 2914; Gaz. vol. 149; p. 490.
Coddington, B. W., Colon, Mich. Curtain-fixture. No. 942,439; Dec. 7; Sp. p. 843; Gaz. vol. 149; p. 138.
Coe Brass Manufacturing Company. (See Steele and Hansen, assignors.)
Coe, J. B., assignor of one-fourth to F. B. Lenzi, Boston, Mass. Selective electric signaling apparatus. No. 944,665; Dec. 28; Sp. p. 5675; Gaz. vol. 149; p. 985.
Coe, S. L. W., New York, N. Y. Stamp-strip. No. 943,653; Dec. 21; Sp. p. 3519; Gaz. vol. 149; p. 613.
Coe, S. L. W., and H. Werden, New York, N. Y. Postage-strip for use in vending-machines. No. 943,652; Dec. 21; Sp. p. 3518; Gaz. vol. 149; p. 612.
Coffin, A. O., Springfield, Mo. Concrete tie and rail-fastening. No. 943,519; Dec. 14; Sp. p. 3190; Gaz. vol. 149; p. 536.
Coffman, A. (See Craig and Coffman.)
Cohn, B. (See Prisant, L., assignor.)
Cole, E. E., Chicago, Ill. Means for opening envelops. No. 943,514; Dec. 21; Sp. p. 3834; Gaz. vol. 149; p. 666.
Coleman, L. A., assignor of one-third to J. E. Sebrell and one-third to H. Abrames, Norfolk, Va. Waterproofing composition. No. 944,233; Dec. 21; Sp. p. 4702; Gaz. vol. 149; p. 806.
Coleman, T. A., Longville, assignor to C. T. Patterson Company, Ltd., New Orleans, La. Chain conveyer. No. 943,734; Dec. 21; Sp. p. 3676; Gaz. vol. 149; p. 639.
Colgan, E. J., *et al.* (See Beebe, E. C., assignor.)
Colidge, P., New York, N. Y. Adjusting device for supports. No. 942,545; Dec. 7; Sp. p. 1084; Gaz. vol. 149; p. 176.
Collicott, J., Salt Lake City, Utah. Iron heated by electricity. No. 942,308; Dec. 7; Sp. p. 599; Gaz. vol. 149; p. 95.
Collin, G. W., Bridgeport, Conn., assignor to Safety Car Heating and Lighting Company. Pressure-regulator. No. 942,546; Dec. 7; Sp. p. 1088; Gaz. vol. 149; p. 176.
Collins, C. C., New York, N. Y. Wearing-apparel. No. 944,176; Dec. 21; Sp. p. 4603; Gaz. vol. 149; p. 789.
Collins, J. D., Chicago, Ill., assignor, by mesne assignments, to Creamery Package Mfg. Company. Mechanism for freezers. No. 943,735; Dec. 21; Sp. p. 3677; Gaz. vol. 149; p. 639.
Collins, J. F., Philadelphia, Pa. Puzzle. No. 943,390; Dec. 14; Sp. p. 2915; Gaz. vol. 149; p. 491.
Collins, T., and E. L. Hartmann, assignors to American Separator Company, Bainbridge, N. Y. Centrifugal liquid-separator. No. 944,321; Dec. 28; Sp. p. 4911; Gaz. vol. 149; p. 865.
Colman, H. D., assignor to Barber-Colman Company, Rockford, Ill. Warp-carriage. No. 942,247; Dec. 7; Sp. p. 472; Gaz. vol. 149; p. 73.
Colona Manufacturing Company. (See White, B. C., assignor.)
Colyar, W. H., assignor to Parr-Colyar Warehouse Supply Company, San Francisco, Cal. Car-moving device. No. 943,654; Dec. 21; Sp. p. 3520; Gaz. vol. 149; p. 613.
Comer, J. J., assignor to G. R. Webb, Baltimore, Md. Multiplex transmitter. No. 943,915; Dec. 21; Sp. p. 4055; Gaz. vol. 149; p. 702.
Comins, F. B., Sharon, Mass. Humidifier. No. 942,712; Dec. 7; Sp. p. 1406; Gaz. vol. 149; p. 230.
Commonwealth Steel Company. (See Pflager, H. M., assignor.)
Compton, F. W., Lamport, Colo. Hay-loader. No. 944,017; Dec. 21; Sp. p. 4279; Gaz. vol. 149; p. 737.
Comstock, D. F., Brookline, and H. T. Kalmus, Boston, Mass. Speed-measuring machine. No. 942,132; Dec. 7; Sp. p. 228; Gaz. vol. 149; p. 35.
Conger, J. H. B., Newark, N. J., assignor to Tea Tray Company of Newark, N. J. Horn-crane. No. 944,018; Dec. 21; Sp. p. 4280; Gaz. vol. 149; p. 737.
Conklin, A. M., *et al.* (See Conklin, E. A., assignor.)
Conklin, E. A., Shelby, Mich., assignor of one-half to W. Graham, Harrison Valley, Pa., and A. M. Conklin, Grant, Mich. Harrow. No. 944,415; Dec. 28; Sp. p. 5118; Gaz. vol. 149; p. 899.
Connet, F. N., Providence, R. I. Meter. No. 944,417; Dec. 28; Sp. p. 5120; Gaz. vol. 149; p. 899.
Connet, F. N., and A. W. Graham, assignors to Builders Iron Foundry, Providence, R. I. Valve. No. 944,416; Dec. 28; Sp. p. 5119; Gaz. vol. 149; p. 899.
Connolly, F. M., New Haven, Conn. Pen-feeder. No. 944,177; Dec. 21; Sp. p. 4604; Gaz. vol. 149; p. 790.
Connolly, J. B., Washington, D. C. Alarm-watch. No. 944,948; Dec. 28; Sp. p. 6274; Gaz. vol. 149; p. 1078.
Connor, M., Pueblo, Colo. Steam-generator. No. 943,916; Dec. 21; Sp. p. 4058; Gaz. vol. 149; p. 703.
Connors, J. J. (See Danglemeyer and Connors.)
Conover, J. B., Jersey City, N. J., assignor to Dairymen's Manufacturing Company. Can-marking machine. No. 943,140; Dec. 14; Sp. p. 2397; Gaz. vol. 149; p. 408.
Conrad, R. D. (See Gehring and Conrad.)
Conrad, R. D., and J. Gehring, said Gehring assignor, by mesne assignments, to Winner Natural Gas Burner Company, Pittsburg, Pa. Burner. No. 943,917; Dec. 21; Sp. p. 4060; Gaz. vol. 149; p. 703.
Conrow, L. T., Philadelphia, Pa. Stripper or cutter for embroidery, tucking, and similar material. No. 944,019; Dec. 21; Sp. p. 4282; Gaz. vol. 149; p. 737.
Consortium für Elektrochemische Industrie G. m. b. H. (See Mugdan, M., assignor.)
Continental Can Company. (See Larkin, B. H., assignor.)
Continental Can Company. (See Robinson, D. P., assignor.)
Converse, F. B., Brooklyn, N. Y., assignor to Mergenthaler Linotype Company. Line-casting machine. No. 942,848; Dec. 7; Sp. p. 1701; Gaz. vol. 149; p. 276.
Converse, W. T., Aurora, Ill. Heat-retainer. No. 943,004; Dec. 14; Sp. p. 2099; Gaz. vol. 149; p. 361.
Coo, T. J., Toronto, Ontario, Canada, assignor to Monarch Typewriter Company, Syracuse, N. Y. Type-writing machine. No. 943,141; Dec. 14; Sp. p. 2402; Gaz. vol. 149; p. 408.
Cook, F. B., Chicago, Ill. Automatic self-indicating fuse. No. 942,248; Dec. 7; Sp. p. 473; Gaz. vol. 149; p. 73.
Cook, F. B., Chicago, Ill. Individual protector. No. 944,258; Dec. 28; Sp. p. 4765; Gaz. vol. 149; p. 842.

Cook, J., West Berkeley, Cal. Can-cooker. No. 942,812; Dec. 7; Sp. p. 1601; Gaz. vol. 149; p. 263.
Cook, J. H., New York, N. Y., assignor to H. B. Newhall, Plainfield, N. J. Support or bracket. No. 943,237; Dec. 14; Sp. p. 2593; Gaz. vol. 149; p. 439.
Cook, L. C., assignor to E. C. Atkins & Company, Indianapolis, Ind. Side file and jointer for saws. No. 944,322; Dec. 28; Sp. p. 4913; Gaz. vol. 149; p. 865.
Cook, L. P., Clarendon, N. Y. Wagon-rack standard. No. 944,539; Dec. 28; Sp. p. 5416; Gaz. vol. 149; p. 941.
Cooke, L. H., Wimbledon, England. Theodolite, &c. No. 943,063; Dec. 14; Sp. p. 2251; Gaz. vol. 149; p. 382.
Cooke, W. J., Oak Park, assignor to McGuire-Cummings Manufacturing Company, Chicago, Ill. Snow-sweeper. No. 942,888; Dec. 14; Sp. p. 1820; Gaz. vol. 149; p. 321.
Cooley, W. H., Brockport, N. Y. Forming expanded metal. No. 942,309; Dec. 7; Sp. p. 600; Gaz. vol. 149; p. 95.
Cooling, A. B. (See Bills, K. E., assignor.)
Coon, E. M. (See Learman, L. F., assignor.)
Cooper Hewitt Electric Company. (See Thomas, P. H., assignor.)
Cope, J. A., Fulton, Ill. Card and picture holder. No. 942,713; Dec. 7; Sp. p. 1408; Gaz. vol. 149; p. 231.
Coppage, L. R. (See Curry and Coppage.)
Corkins, F., Adams township, Lucas county, Ohio. Head-rest. No. 942,485; Dec. 7; Sp. p. 959; Gaz. vol. 149; p. 155.
Cormey, W. D., Manchester, N. H. Mitten. No. 944,949; Dec. 28; Sp. p. 6276; Gaz. vol. 149; p. 1078.
Corn Products Refining Company. (See Spain, W., assignor.)
Cornell, C. H., Valentine, Nebr. Railway-fastener. No. 943,520; Dec. 14; Sp. p. 3191; Gaz. vol. 149; p. 537.
Cornell, C. H., Valentine, Nebr. Railway-fastener. No. 943,521; Dec. 14; Sp. p. 3194; Gaz. vol. 149; p. 537.
Cornell, C. H., Valentine, Nebr. Railway-fastening. No. 943,522; Dec. 14; Sp. p. 3196; Gaz. vol. 149; p. 537.
Cornely, R., Paris, France. Sewing and embroidering machine. No. 944,599; Dec. 28; Sp. p. 5552; Gaz. vol. 149; p. 962.
Cornish, H. S., New York, N. Y. Liquid-dispensing apparatus. No. 942,165; Dec. 7; Sp. p. 302; Gaz. vol. 149; p. 46.
Covington, A. R., assignor of one-half to G. E. Knaack, Hartley, Iowa. Driving-gear for motor-vehicles. No. 944,600; Dec. 28; Sp. p. 5553; Gaz. vol. 149; p. 963.
Corson, D. M., and G. T. Gilkerson, Los Angeles, Cal. Detachable swivel. No. 943,299; Dec. 14; Sp. p. 2727; Gaz. vol. 149; p. 460.
Cory & Reynolds Company. (See Reynolds, F. S., assignor.)
Cory Temperance Syndicate, Limited. (See Moser, L. J., assignor.)
Cosgrove, J. J., Scranton, assignor to Standard Sanitary Manufacturing Company, Pittsburg, Pa. Sanitary ware. No. 942,547; Dec. 7; Sp. p. 1089; Gaz. vol. 149; p. 176.
Coss, J. C., Cleveland, Ohio. Vehicle-top-joint brace. No. 943,655; Dec. 21; Sp. p. 3521; Gaz. vol. 149; p. 613.
Cota, S. P., Dickinson, N. D. Cut-out or release for air-brake apparatus. No. 943,769; Dec. 21; Sp. p. 3740; Gaz. vol. 149; p. 651.
Côte, E. F., and P. R. Pierron, Lyon, France. Electric furnace for the continuous extraction of zinc from its ores. No. 944,774; Dec. 28; Sp. p. 5916; Gaz. vol. 149; p. 1020.
Cotto-Waxo Chemical Company. (See Punch, S. C., D. T., and J. C., assignors.)
Cottrell, A. M., Westerly, R. I., assignor to C. B. Cottrell & Sons Company, New York, N. Y. Ink-fountain for printing-presses. No. 943,218; Dec. 14; Sp. p. 2549; Gaz. vol. 149; p. 432.
Coursen, W. L., East Orange, N. J., assignor to Western Electric Company, Chicago, Ill. Heat-coil. No. 944,540; Dec. 28; Sp. p. 5417; Gaz. vol. 149; p. 942.
Courtney, J. W., and J. C. Porter, Ringwood, Okla. Broom-corn seeder. No. 944,178; Dec. 21; Sp. p. 4605; Gaz. vol. 149; p. 790.
Cousar, J. G. (See Gantt, M. W., assignor.)
Covert, E. C., New Kensington, assignor to P. H. Murphy, Pittsburg, Pa. Car-roof. No. 942,249; Dec. 7; Sp. p. 474; Gaz. vol. 149; p. 73.
Cowham, W. F. (See Normandin, L. P., assignor.)
Cox, D. (See Greear and Cox.)
Cox, W. H., Bucyrus, assignor of one-third to J. A. Morrison and one-third to B. W. Motter, Mansfield, Ohio. Detachable horseshoe-calk. No. 944,666; Dec. 28; Sp. p. 5677; Gaz. vol. 149; p. 985.
Coyne, J. J., Fond du Lac, Wis. Concrete building-block. No. 944,950; Dec. 28; Sp. p. 6277; Gaz. vol. 149; p. 1079.
Craig, A. E. S., West Ealing, England. Dynamometer. No. 943,391; Dec. 14; Sp. p. 2916; Gaz. vol. 149; p. 491.
Craig, L. D., San Francisco, Cal. Apparatus for cutting road-beds. (Reissue.) No. 13,055; Dec. 14; Sp. p. 3486; Gaz. vol. 149; p. 579.
Craig, R. B., and A. Coffman, assignors to Automatic Vending Machines Company, Kansas City, Mo. Ribbon-feeding mechanism. No. 943,624; Dec. 14; Sp. p. 3434; Gaz. vol. 149; p. 573.
Craig, W. N., Moline, Ill. Folding square. No. 944,541; Dec. 28; Sp. p. 5419; Gaz. vol. 149; p. 942.
Crain, W., assignor of one-half to W. Moulic, Percy, Ill. Mowing-machine. No. 943,181; Dec. 14; Sp. p. 2469; Gaz. vol. 149; p. 420.
Cranstoun, W., *et al.* (See Clifford, T. G., assignor.)
Craven, J. F., Pittsburg, Pa. Barrel or keg. No. 943,815; Dec. 21; Sp. p. 3835; Gaz. vol. 149; p. 667.
Crawford, A. R. (See Mooney, W. T., assignor.)
Crawford, W. C. (See Guyer, C., assignor.)
Crawshaw, G., *et al.* (See Haworth, Briggs, and Ayrey, assignors.)
Creamery Package Mfg. Company. (See Collins, J. D., assignor.)
Crease-Williams, G. H., Buenos Ayres, Argentina. Sash-fastener. No. 944,542; Dec. 28; Sp. p. 5422; Gaz. vol. 149; p. 942.
Crescent Machine Company. (See Wilderson, C. G., assignor.)
Crippen, W. R., Cambridge, assignor to Emerson Piano Company, Boston, Mass. Receiving-spool for note-sheets. No. 942,548; Dec. 7; Sp. p. 1091; Gaz. vol. 149; p. 177.
Crompton & Knowles Loom Works. (See McGuiness, B. F., assignor.)
Crompton & Knowles Loom Works. (See Miller, D. D., assignor.)
Crompton & Knowles Loom Works. (See Ryon, E. H., assignor.)
Crompton & Knowles Loom Works. (See Wyman, H., assignor.)
Cromwell, T. V., St. Louis, Mo. Wire wall-pocket. No. 942,714; Dec. 7; Sp. p. 1409; Gaz. vol. 149; p. 231.
Cronk, W., Montour Falls, N. Y. Pliers. No. 942,549; Dec. 7; Sp. p. 1092; Gaz. vol. 149; p. 177.
Crosby, O., St. Paul, Minn. Rope-clamp. No. 944,718; Dec. 28; Sp. p. 5796; Gaz. vol. 149; p. 1002.
Crossley, W. J., and T. Rigby, Manchester, England. Apparatus for the manufacture of producer-gas. No. 943,182; Dec. 14; Sp. p. 2471; Gaz. vol. 149; p. 420.
Crow, J. W., assignor of one-half to W. T. Bradshaw and one-half to M. E. Crow, Oakland, Cal. Illuminated sign. No. 944,951; Dec. 28; Sp. p. 6278; Gaz. vol. 149; p. 1079.
Crow, M. E., *et al.* (See Crow, J. W., assignor.)
Crump, F. H., Los Angeles, Cal. Loose-leaf-binder post. No. 944,179; Dec. 21; Sp. p. 4607; Gaz. vol. 149; p. 790.
Crumpton, W. B., Montgomery, Ala. Calendar for collection purposes. No. 944,952; Dec. 28; Sp. p. 6279; Gaz. vol. 149; p. 1079.
Cruse, J. S., *et al.* (See Bretney, H. R., assignor.)
Crutchfield, C. H., assignor of one-half to A. W. Deshong, New Boston, Tex. Incandescent lamp. No. 944,667; Dec. 28; Sp. p. 5678; Gaz. vol. 149; p. 985.
Crutchley, H., Jersey City, N. J., assignor to Underwood Typewriter Company, New York, N. Y. Type-writing machine. No. 942,776; Dec. 7; Sp. p. 1540; Gaz. vol. 149; p. 252.
Cruver, C. L., Chicago, Ill. Hat-mirror. No. 943,005; Dec. 14; Sp. p. 2100; Gaz. vol. 149; p. 361.
Cumfer, H. A., assignor of one-half to F. A. Mitchell, Chicago, Ill. Friction-clutch. No. 942,056; Dec. 7; Sp. p. 29; Gaz. vol. 149; p. 7.
Cummings, H. H., Newton, assignor to Sub-Target Gun Company, Boston, Mass. Target-practice apparatus. No. 942,615; Dec. 7; Sp. p. 1217; Gaz. vol. 149; p. 199.
Cunniff, J. V., Fall River, assignor to W. F. Draper, Hopedale, Mass. Spinning-spindle. No. 942,777; Dec. 7; Sp. p. 1542; Gaz. vol. 149; p. 253.
Cunningham, J., Dayton, Ohio. Gravity speed-governor for elevator safety mechanisms. No. 943,523; Dec. 14; Sp. p. 3198; Gaz. vol. 149; p. 538.
Cunningham, J., Dayton, Ohio. Safety-gate mechanism for elevators. No. 943,524; Dec. 14; Sp. p. 3200; Gaz. vol. 149; p. 538.
Cunningham, M. J., Springfield, Mo. Lathe. No. 944,480; Dec. 28; Sp. p. 5254; Gaz. vol. 149; p. 920.
Curran, E. J., Sydney, New South Wales, Australia, assignor of one-half to D. H. Ackerman, New York, N. Y. Apparatus for drafting garment-patterns. No. 943,770; Dec. 21; Sp. p. 3742; Gaz. vol. 149; p. 651.
Curry, F. H., Arlington Heights, and L. R. Coppage, assignors to A. E. Martell Company, Boston, Mass. Temporary binder. No. 943,006; Dec. 14; Sp. p. 2100; Gaz. vol. 149; p. 361.
Cushing, J. S., Norwood, Mass. Wheel-tire. No. 943,816; Dec. 21; Sp. p. 3837; Gaz. vol. 149; p. 667.
Cuthbertson, W. E., *et al.* (See Haynes, J., assignor.)
Cutler-Hammer Manufacturing Company. (See Barnum, T. E., assignor.)
Cutler-Hammer Mfg. Co. (See Wiegand, H. J., assignor.)
Cutler, J. W., assignor, by mesne assignments, to Cutler Mail Chute Company, Rochester, N. Y. Mail-chute. No. 943,183; Dec. 14; Sp. p. 2474; Gaz. vol. 149; p. 420.
Cutler Mail Chute Company. (See Cutler, J. W., assignor.)
D. H. Burrell & Company. (See Burrell, L., assignor.)

D'Aix, F. C. L., New York, N. Y. Line-casting machine. No. 944,588; Dec. 28; Sp. p. 5528; Gaz. vol. 149; p. 959.
D'Aix, F. C. L., New York, N. Y. Line-casting machine. No. 944,981; Dec. 28; Sp. p. 6345; Gaz. vol. 149; p. 1089.
D'Aix, F. C. L., assignor, by mesne assignments, to Empire Trust Company, trustee, New York, N. Y. Line-casting machine. (Reissue.) No. 13,048; Dec. 7; Sp. p. 1768; Gaz. vol. 149; p. 285.
D'Equevilley-Montjustin, R., Kiel, Germany. Submarine boat. No. 943,604; Dec. 14; Sp. p. 2350; Gaz. vol. 149; p. 565.
D'Equevilley-Montjustin, R., Kiel, Germany. Submarine boat. No. 943,605; Dec. 14; Sp. p. 3352; Gaz. vol. 149; p. 566.
D'Humy, F. E., Englewood, N. J. Perforating apparatus. No. 944,612; Dec. 28; Sp. p. 5579; Gaz. vol. 149; p. 967.
Dahlin, F. A., Chicago, and E. Carlson, Waukegan, Ill. Car. No. 943,007; Dec. 14; Sp. p. 2106; Gaz. vol. 149; p. 362.
Dahlmann, H., Gevelsberg, Germany. Blade for spades or shovels. No. 942,616; Dec. 7; Sp. p. 1220; Gaz. vol. 149; p. 199.
Dain, J., Ottumwa, Iowa. Hay-press. No. 943,656; Dec. 21; Sp. p. 3523; Gaz. vol. 149; p. 613.
Dairymen's Manufacturing Company. (See Conover, J. B., assignor.)
Dalén, G., Stockholm, Sweden, assignor, by mesne assignments, to American Gasaccumulator Company, Philadelphia, Pa. Signal-light apparatus. No. 943,300; Dec. 14; Sp. p. 2728; Gaz. vol. 149; p. 461.
Dall, W. M., Basking Ridge, N. J. Cue. No. 942,486; Dec. 7; Sp. p. 960; Gaz. vol. 149; p. 155.
Daly, H. M., Presidio, Tex. Door-holder. No. 942,310; Dec. 7; Sp. p. 602; Gaz. vol. 149; p. 95.
Daly, T. E. (See Fowler and Daly.)
Damonde, R. R., Plainview, Minn. Weed-digger. No. 943,817; Dec. 21; Sp. p. 3839; Gaz. vol. 149; p. 667.
Danforth, L. D., Denver, Colo. Wire-bender. No. 942,440; Dec. 7; Sp. p. 844; Gaz. vol. 149; p. 138.
Danglemeyer, C. W., and J. J. Connors, Dubuque, Iowa. Portable grinding-machine. No. 942,311; Dec. 7; Sp. p. 604; Gaz. vol. 149; p. 96.
Daniell, F. H. (See Hebden and Daniell.)
Daniell, F. H., Franklin, N. H., and J. C. Hebden, Providence, R. I. Dyeing. No. 942,166; Dec. 7; Sp. p. 305; Gaz. vol. 149; p. 46.
Daniels, C. M., Paris, Ill. Lamp. No. 944,775; Dec. 28; Sp. p. 5917; Gaz. vol. 149; p. 1020.
Daniels, F. H., Worcester, Mass. Annealing flats and other shapes. No. 943,392; Dec. 14; Sp. p. 2918; Gaz. vol. 149; p. 491.
Daniels, F. H., Worcester, Mass. Annealing flats. No. 943,393; Dec. 14; Sp. p. 2920; Gaz. vol. 149; p. 492.
Daniels, F. H., Worcester, Mass. Apparatus for annealing flats and other shapes. No. 943,625; Dec. 14; Sp. p. 3435; Gaz. vol. 149; p. 573.
Daniels, F. H., Worcester, Mass. Apparatus for annealing flats and other shapes. No. 943,626; Dec. 14; Sp. p. 3438; Gaz. vol. 149; p. 574.
Dansey, Z. T., Topeka, Kans. Safety device for elevators. No. 944,076; Dec. 21; Sp. p. 4393; Gaz. vol. 149; p. 757.
Darlington, P. J., Pittsburg, Pa. Rotary tube-cleaner. No. 942,312; Dec. 7; Sp. p. 607; Gaz. vol. 149; p. 96.
Daubert, H. J., Tamaqua, Pa. Car-coupling. No. 944,953; Dec. 28; Sp. p. 6281; Gaz. vol. 149; p. 1079.
Davenport, B. R., Philadelphia, Pa., assignor to Electric Couch Company. Electrical medical appliance. No. 943,918; Dec. 21; Sp. p. 4062; Gaz. vol. 149; p. 703.
Davenport, H. A., Brockton, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Sole-pressing pad. No. 942,133; Dec. 7; Sp. p. 229; Gaz. vol. 149; p. 35.
Davis, A. D., and W. A. Thompson, Cleveland, N. C. Wrench. No. 943,771; Dec. 21; Sp. p. 3745; Gaz. vol. 149; p. 652.
Davis, A. S., Ball, La. Combined match and cigarette box. No. 944,954; Dec. 28; Sp. p. 6283; Gaz. vol. 149; p. 1080.
Davis, C., U. S. Navy. Attachment for projectiles. No. 942,617; Dec. 7; Sp. p. 1220; Gaz. vol. 149; p. 199.
Davis, C. B., Manchester, Va. Drenching-bottle. No. 942,057; Dec. 7; Sp. p. 30; Gaz. vol. 149; p. 7.
Davis, D., and A. O. Berry, assignors to Benjamin Eastwood Company, Paterson, N. J. Singeing-machine. No. 943,657; Dec. 21; Sp. p. 3529; Gaz. vol. 149; p. 614.
Davis, G. C., *et al.* (See Matsek, J., assignor.)
Davis, G. G., Indianapolis, Ind. Uncoupling-chain for car-couplings. No. 942,134; Dec. 7; Sp. p. 232; Gaz. vol. 149; p. 35.
Davis, G. H., West Orange, N. J. Contact device for self-playing musical instruments and other apparatus. No. 942,550; Dec. 7; Sp. p. 1093; Gaz. vol. 149; p. 177.
Davis, M. E., Canastota, N. Y. Mop-wringer. No. 942,135; Dec. 7; Sp. p. 232; Gaz. vol. 149; p. 35.
Davis, M. O., assignor of one-half to C. E. Peaslee, Duluth, Minn. Crate. No. 944,077; Dec. 21; Sp. p. 4396; Gaz. vol. 149; p. 757.
Davis, O. (See Bullock, A. A., assignor.)
Davis, V., Philadelphia, Pa. Machine for riveting chaplets. No. 942,618; Dec. 7; Sp. p. 1222; Gaz. vol. 149; p. 200.
Davis, W. A. P. (See Sauer, H. O., assignor.)
Davis, W. L., assignor of one-half to W. B. Pruitt, Georges Creek, Tex. Blacksmith's tongs. No. 943,818; Dec. 21; Sp. p. 3841; Gaz. vol. 149; p. 668.
Davis, W. R., trustee. (See Allen, J. H., assignor.)
Davison, R. C., Plainfield, N. J. Picture-frame. No. 944,601; Dec. 28; Sp. p. 5555; Gaz. vol. 149; p. 963.
Dawson, A. T., and G. T. Buckham, assignors to Vickers Sons & Maxim, Limited, London, England. Automatic gun. No. 942,167; Dec. 7; Sp. p. 309; Gaz. vol. 149; p. 47.
Day, A. (See Day, J., W. H., C. H., and A.)
Day, C. H. (See Day, J., W. H., C. H., and A.)
Day, J., W. H., C. H., and A., Leeds, England. Machinery or apparatus for forming or making paper bags. No. 942,715; Dec. 7; Sp. p. 1409; Gaz. vol. 149; p. 231.
Day, W. H. (See Day, J., W. H., C. H., and A.)
De Bruin, J., Chicago, Ill. Match-safe. No. 944,413; Dec. 28; Sp. p. 5113; Gaz. vol. 149; p. 898.
De Bruin, J., Chicago, Ill. Attachment for match-safes. No. 944,414; Dec. 28; Sp. p. 5115; Gaz. vol. 149; p. 898.
De Busk, W. H., Chicago, Ill. Rotary folder for printing-presses. No. 942,136; Dec. 7; Sp. p. 236; Gaz. vol. 149; p. 36.
De Camp, B. W., Chicago, Ill. Child's-chair safety device. No. 944,020; Dec. 21; Sp. p. 4285; Gaz. vol. 149; p. 738.
De Forest, L., New York, N. Y., assignor, by mesne assignments, to De Forest Radio Telephone Co. Space telegraphy. No. 943,969; Dec 21; Sp. p. 4159; Gaz. vol. 149; p. 720.
De Forest Radio Telephone Co. (See De Forest, L., assignor.)
De Give, J. L., *et al.* (See Munk, R. W., assignor.)
De Gowin, C. H., Cheboygan, Mich. Tooth-brush holder. No. 942,058; Dec. 7; Sp. p. 32; Gaz. vol. 149; p. 7.
De Kleist, E., North Tonawanda, N. Y., assignor to Rudolph Wurlitzer Company, Cincinnati, Ohio. Perforating-machine. No. 944,790; Dec. 28; Sp. p. 5946; Gaz. vol. 149; p. 1025.
De Leeuw, A. L., Hamilton, assignor to Cincinnati Milling Machine Company, Cincinnati, Ohio. Variable-speed driving mechanism. No. 943,142; Dec. 14; Sp. p. 2408; Gaz. vol. 149; p. 409.
De Lisle, J., New York, N. Y. Apparatus for making and packaging butter. No. 943,603; Dec. 14; Sp. p. 3348; Gaz. vol. 149; p. 565.
De Long, G. D. (See Lucas, De Long, and Lucas.)
De Mattia, E., Recoaro, Italy, and G. De Mattia, San Paolo, Brazil. Roasting coffee. No. 943,238; Dec. 14; Sp. p. 2595; Gaz. vol. 149; p. 439.
De Mattia, G. (See De Mattia, E. and G.)
De Moulin, U. S., Greenville, Ill. Initiation device. No. 943,219; Dec. 14; Sp. p. 2550; Gaz. vol. 149; p. 432.
De Reamer, F. C. (See Sargent and De Reamer.)
De Rocher, F., Chicago, Ill. Base-ball game-board. No. 944,504; Dec. 28; Sp. p. 5330; Gaz. vol. 149; p. 929.
De Vaughn, W. D., Baltimore, Md. Baker's oven. No. 943,395; Dec. 14; Sp. p. 2923; Gaz. vol. 149; p. 492.
De Vilbiss, A. and T. A., Toledo, Ohio. Closure for fluid-receptacles. (Reissue.) No. 13,049; Dec. 7; Sp. p. 1776; Gaz. vol. 149; p. 286.
De Vilbiss, T. A. (See De Vilbiss, A. and T. A.) (Reissue.)
De Vito, L., Cleveland, Ohio. Brake for railway-cars. No. 942,684; Dec. 7; Sp. p. 1347; Gaz. vol. 149; p. 222.
De Wyrall, C. (See Kanski, R. T., assignor.)
Dean Electric Company. (See Manson, R. H., assignor.)
Dean, J. W. E., New York, N. Y. Base-ball-game apparatus. No. 942,619; Dec. 7; Sp. p. 1224; Gaz. vol. 149; p. 200.
Dearlove, J. A. L., London, England. Electric telegraphy. No. 942,620; Dec. 7; Sp. p. 1226; Gaz. vol. 149; p. 200.
Decker Electrical Manufacturing Company. (See Decker, F. A., assignor.)
Decker, F. A., Philadelphia, Pa., assignor to Decker Electrical Manufacturing Company, Wilmington, Del. Coupling for battery elements. No. 944,078; Dec. 21; Sp. p. 4398; Gaz. vol. 149; p. 758.
Decker, F. A., Philadelphia, Pa., assignor to Decker Electrical Manufacturing Company, Wilmington, Del. Electric battery. No. 944,079; Dec. 21; Sp. p. 4399; Gaz. vol. 149; p. 758.
Decker, F. A., Philadelphia, Pa., assignor, by mesne assignments, to Decker Electrical Manufacturing Company, Wilmington, Del. Siphon. No. 944,602; Dec. 28; Sp. p. 5557; Gaz. vol. 149; p. 964.
Decker, G. E., Pomona, Cal. Receptacle and closure. No. 944,234; Dec. 21; Sp. p. 4703; Gaz. vol. 149; p. 806.
Decker, R. P., Atlanta, Ga. Portable milling-machine. No. 942,168; Dec. 7; Sp. p. 311; Gaz. vol. 149; p. 47.
Dederick, C. P. (See Rankin and Dederick.)
Deer, L., and F. Smith, Etna, Pa. Rail-joint. No. 943,204; Dec. 14; Sp. p. 2922; Gaz. vol. 149; p. 492.
Deeter, W. M., Philadelphia, Pa. Attachment for type-writers. No. 942,366; Dec. 7; Sp. p. 703; Gaz. vol. 149; p. 114.
Defaucamberge, P., assignor to Societe Francaise de la Viscose, Paris, France. Manufacture of products containing india-rubber and cellulose. No. 943,658; Dec. 21; Sp. p. 3531; Gaz. vol. 149; p. 614.
Del Proposto, C., Rome, Italy. Propulsion of submarine boats. No. 944,776; Dec. 28; Sp. p. 5919; Gaz. vol. 149; p. 1021.
Demek, C. F., Berlin, Germany. Sphere for acrobatic purposes. No. 942,250; Dec. 7; Sp. p. 476; Gaz. vol. 149; p. 74.
Dempster, L. E., Schenectady, N. Y., assignor to General Electric Company. Vapor electric apparatus. No. 942,373; Dec. 7; Sp. p. 722; Gaz. vol. 149; p. 118.
Dempster & Sons, R. (See Toogood, H. J., assignor.)

Dench, W. L., Pelham, assignor to Elliott-Fisher Company, New York, N. Y. Number-wheel lock for calculating-machines. No. 942,487; Dec. 7; Sp. p. 962; Gaz. vol. 149; p. 155.
Denison, W. C., Cleveland Heights, assignor to Ohio Clay Company, Cleveland, Ohio. Building-block. No. 942,621; Dec. 7; Sp. p. 1229; Gaz. vol. 149; p. 201.
Denn, W. G., Philadelphia, Pa. Warp-balling machine. No. 942,813; Dec. 7; Sp. p. 1603; Gaz. vol. 149; p. 263.
Denney, L. D., *et al.* (See Amsbary, W. N., assignor.)
Denning, J. M., Cedar Rapids, Iowa. Slat-fence machine. No. 943,008; Dec. 14; Sp. p. 2109; Gaz. vol. 149; p. 362.
Dennler, A. G., assignor of one-half to W. F. Quigg, East Hampton, Conn. Insulator. No. 944,259; Dec. 28; Sp. p. 4767; Gaz. vol. 149; p. 843.
Densmore Typewriter Company. (See Barron and Merritt, assignors.)
Denver Rock Drill and Machinery Co. (See Waugh, D. S., assignor.)
Derrick, A. F., and R. W. Garrison, Oakland, Cal. Ratchet-drill attachment. No. 944,965; Dec. 28; Sp. p. 6284; Gaz. vol. 149; p. 1080.
Deshong, A. W. (See Crutchfield, C. H., assignor.)
Deskins, K. F., assignor of one-half to B. F. Dewees, Logan, W. Va. Sash holder and lock. No. 942,716; Dec. 7; Sp. p. 1416; Gaz. vol. 149; p. 232.
Deslauriers, L. P. (See Deslauriers, P. A. and L. P.)
Deslauriers, P. A. and L. P., St. Paul, Minn. Means for constructing concrete columns. No. 942,169; Dec. 7; Sp. p. 313; Gaz. vol. 149; p. 48.
Deslauriers, P. A. and L. P., St. Paul, Minn. Means for forming concrete ceilings and supporting-columns. No. 944,543; Dec. 28; Sp. p. 5424; Gaz. vol. 149; p. 943.
Desotell, M., Marquette, Mich. Can-opener. No. 944,126; Dec. 21; Sp. p. 4505; Gaz. vol. 149; p. 774.
Desplats, D., Buenos Ayres, Argentina. Door-check. No. 942,622; Dec. 7; Sp. p. 1231; Gaz. vol. 149; p. 201.
Detrick, M. H., Chicago, Ill. Counterweight. No. 943,659; Dec. 21; Sp. p. 3532; Gaz. vol. 149; p. 614.
Detroit Trust Co., trustee. (See Southgate, L. W., assignor.)
Devine, J. J., Philadelphia, Pa. Cart. No. 943,064; Dec. 14; Sp. p. 2254; Gaz. vol. 149; p. 382.
Dewees, B. F. (See Deskins, K. F., assignor.)
Dey, H. E., Jersey City, N. J., assignor to B. T. Cable, New York, N. Y. Apparatus for controlling electric motors. No. 942,196; Dec. 7; Sp. p. 363; Gaz. vol. 149; p. 55.
Dey, H. E., Jersey City, N. J., assignor to B. T. Cable, New York, N. Y. Apparatus for controlling electric motors. No. 942,197; Dec. 7; Sp. p. 365; Gaz. vol. 149; p. 55.
Dey, H. E., Jersey City, N. J., assignor to B. T. Cable, New York, N. Y. Apparatus for controlling electric motors. No. 942,198; Dec. 7; Sp. p. 367; Gaz. vol. 149; p. 55.
Dheyne, J., and A. Bovy, Brussels, Belgium. Elastic wheel-tire. No. 943,964; Dec. 21; Sp. p. 4150; Gaz. vol. 149; p. 719.
Dice, T. M., Paxico, Kans. End-gate fastener. No. 944,544; Dec. 28; Sp. p. 5425; Gaz. vol. 149; p. 943.
Dickenson, B., New York, N. Y. Device for packing hats in trunks. No. 943,919; Dec. 21; Sp. p. 4064; Gaz. vol. 149; p. 704.
Dicker, W. G., Gilby, N. D. Automobile-tire. No. 943,396; Dec. 14; Sp. p. 2924; Gaz. vol. 149; p. 493.
Dickerhoff, L., Brooklyn, N. Y. Can-opener. No. 943,736; Dec. 21; Sp. p. 3680; Gaz. vol. 149; p. 640.
Dickson, J. T., *et al.* (See Bretney, H. R., assignor.)
Die Vereinigten Freiburger Uhrenfabriken Aktiengesellschaft, incl. vormals Gustav Becker. (See Bühler, J., assignor.)
Dieckmann, W. (See Rohrbach, Dieckmann, Gribling, and Grote.)
Diefenbaugh, H., West Alexandria, Ohio. Mail-exchanging device. No. 942,717; Dec. 7; Sp. p. 1417; Gaz. vol. 149; p. 232.
Diehl, F., Sheboygan Falls, assignor to G. P. Myers, Sheboygan, Wis. Gearing. No. 944,323; Dec. 28; Sp. p. 4914; Gaz. vol. 149; p. 866.
Diehlenn, W. A., Massillon, Ohio. Adjustable garment. No. 942,889; Dec. 14; Sp. p. 1824; Gaz. vol. 149; p. 321.
Dierdorff, H. B., assignor to J. A. Jeffrey, Columbus, Ohio. Mining-machine. No. 945,000; Dec. 28; Sp. p. 6376; Gaz. vol. 149; p. 1095.
Dierks, E., Bryant, Iowa. Fertilizer-distributer. No. 943,065; Dec. 14; Sp. p. 2256; Gaz. vol. 149; p. 382.
Diescher, A. P., Pittsburg, Pa. Clip or anchor for corner beads or strips. No. 943,590; Dec. 14; Sp. p. 3319; Gaz. vol. 149; p. 560.
Dieterich, J. A., assignor of one-half to G. Blumenstock, Cleveland, Ohio. Spring-wheel. No. 943,397; Dec. 14; Sp. p. 2925; Gaz. vol. 149; p. 493.
Dill, H. E., and W. P. Marsh, Dayton, Ohio, assignors of one-third to said Dill, one-third to M. P. Woody, and one-third to W. A. Scott, Indianapolis, Ind. Crimping-machine. No. 942,890; Dec. 14; Sp. p. 1825; Gaz. vol. 149; p. 322.
Dillow, J. A., Dongola, Ill. Sash-fastener. No. 943,301; Dec. 14; Sp. p. 2730; Gaz. vol. 149; p. 461.
Dimm, C. M., *et al.* (See Morris, C. A., assignor.)
Dimmitt, R. E. (See Green, H., assignor.)
Dion, N., Springfield, Mass. Window-fastener. No. 943,398; Dec. 14; Sp. p. 2926; Gaz. vol. 149; p. 493.
Dionne, C. J., Cambridge, assignor to United Drug Company, Boston, Mass. Heating and storage system for chocolate-composition coatings. No. 943,239; Dec. 14; Sp. p. 2597; Gaz. vol. 149; p. 439.
Dipierno, C. (See Phillips, Dipierno, and Mongell.)
Diserens, R. F., assignor to Blaisdell Machinery Company, Bradford, Pa. Wet separator for dust-removing apparatus. No. 942,891; Dec. 14; Sp. p. 1828; Gaz. vol. 149; p. 322.
Diss, A. B., Newark, N. J., assignor to Universal Caster & Foundry Company. Adjustable chair. No. 943,920; Dec. 21; Sp. p. 4065; Gaz. vol. 149; p. 704.
Ditchfield, F., Bellevue, assignor to Pressed Steel Car Company, Pittsburg, Pa. Bending apparatus. No. 943,967; Dec. 21; Sp. p. 4156; Gaz. vol. 149; p. 720.
Ditchfield, F., Bellevue, assignor to Pressed Steel Car Company, Pittsburg, Pa. Making bolsters and similar articles. No. 943,968; Dec. 21; Sp. p. 4157; Gaz. vol. 149; p. 720.
Dixon, A. F., assignor to Western Electric Company, Chicago, Ill. Electric signal. No. 944,545; Dec. 28; Sp. p. 5427; Gaz. vol. 149; p. 943.
Dixon, P., Atlanta, Ga. Automatic cut-off. No. 942,623; Dec. 7; Sp. p. 1232; Gaz. vol. 149; p. 201.
Dlugopszky, J., Niles, Ohio. Burner. No. 944,324; Dec. 28; Sp. p. 4915; Gaz. vol. 149; p. 866.
Dodge Coal Storage Company. (See Johnston, A. C., assignor.)
Dodge, H. P., Toledo, Ohio. Controller for electric automobiles. No. 942,488; Dec. 7; Sp. p. 964; Gaz. vol. 149; p. 156.
Dodge, H. P., and C. M. Foster, Toledo, Ohio. Automobile-gear. No. 943,240; Dec. 14; Sp. p. 2599; Gaz. vol. 149; p. 440.
Dodge, W. H. (See Snell, A. W., assignor.)
Dods, J. H., Lawrence, Kans. Making wrought articles. No. 942,489; Dec. 7; Sp. p. 968; Gaz. vol. 149; p. 156.
Doering, A. B., Le Mars, Iowa. Self-locking snap-hook. No. 944,546; Dec. 28; Sp. p. 5428; Gaz. vol. 149; p. 944.
Doland, E. G., Starksboro, Vt. Wagon-brake. No. 944,080; Dec. 21; Sp. p. 4401; Gaz. vol. 149; p. 758.
Doland, E. G., Starksboro, Vt. Wagon-brake. No. 944,081; Dec. 21; Sp. p. 4403; Gaz. vol. 149; p. 759.
Dolby, W. H., Nicholsville, Ohio. Direction and distance locator. No. 942,718; Dec. 7; Sp. p. 1420; Gaz. vol. 149; p. 233.
Donaldson, G. M., Wynne, Ark. Locking-plate for the rails of bedsteads. No. 944,325; Dec. 28; Sp. p. 4916; Gaz. vol. 149; p. 866.
Donaldson, W. R. (See Hay, J. D., assignor.)
Donatz, O., Trenton, N. J. Boiler-cleaning apparatus. No. 944,719; Dec. 28; Sp. p. 5797; Gaz. vol. 149; p. 1002.
Doner, W. F., Winnipeg, Manitoba, Canada. Switch-rail-controlling device. No. 942,313; Dec. 7; Sp. p. 608; Gaz. vol. 149; p. 96.
Dorman, J. H., New York, N. Y. Tapping and drilling tool. No. 943,009; Dec. 14; Sp. p. 2113; Gaz. vol. 149; p. 362.
Dorner, L., and G. H. Norquist; said Norquist assignor, by mesne assignments, to R. S. Willoughby, Denver, Colo. Incandescent-lamp socket. No. 943,772; Dec. 21; Sp. p. 3746; Gaz. vol. 149; p. 652.
Dornfeld, J. F., Chicago, Ill. Malting apparatus. No. 944,127; Dec. 21; Sp. p. 4507; Gaz. vol. 149; p. 774.
Dost, C. O., Magdeburg, Germany. Surface-gage for parallel lining. No. 943,010; Dec. 14; Sp. p. 2116; Gaz. vol. 149; p. 363.
Doty, G. O. (See Bristow and Doty.)
Doughty, R. H., New York, N. Y. Dirigible toboggan-runner sled. No. 944,848; Dec. 28; Sp. p. 6087; Gaz. vol. 149; p. 1046.
Douglas, J., assignor to himself and F. G. Geddes, Waverley, near Sydney, New South Wales, Australia. Dressing-retainer and shield for the knees of horses. No. 942,624; Dec. 7; Sp. p. 1235; Gaz. vol. 149; p. 202.
Douteur, M., Ekaterinoslaf, Russia. Apparatus for the continuous production of ingots. No. 944,668; Dec. 28; Sp. p. 5678; Gaz. vol. 149; p. 985.
Dove, J., Litchfield, Conn. Garment-hanger. No. 944,180; Dec. 21; Sp. p. 4609; Gaz. vol. 149; p. 791.
Doyle, J. T., Auburn, N. Y. Horse hitching and checking device. No. 944,547; Dec. 28; Sp. p. 5429; Gaz. vol. 149; p. 944.
Doyle, W. J., Jr., Sherwood, N. D. Plow. No. 944,358; Dec. 28; Sp. p. 4969; Gaz. vol. 149; p. 878.
Drake, W. H., Asheville, N. C. Folding crate. No. 943,525; Dec. 14; Sp. p. 3202; Gaz. vol. 149; p. 539.
Draper Company. (See Rhoades, A. E., assignor.)
Draper Company. (See Stone, M. L., assignor.)
Draper, T., West Kilburn, London, England. Door-holder. No. 943,143; Dec. 14; Sp. p. 2411; Gaz. vol. 149; p. 409.
Draper, W. F. (See Cunniff, J. V., assignor.)
Draper, W. F. (See Gauthier, P., assignor.)
Dresdner, M. M., New York, N. Y. Broiler. No. 943,593; Dec. 14; Sp. p. 3327; Gaz. vol. 149; p. 561.
Dressmann, R., Covington, Ky., assignor of one-half to C. C. Carter, Cincinnati, Ohio. Rear guard for traction-cars. No. 944,082; Dec. 21; Sp. p. 4405; Gaz. vol. 149; p. 759.
Drew, J., Westwood, N. J. Pipe for smoking-tobacco. No. 944,418; Dec. 28; Sp. p. 5122; Gaz. vol. 149; p. 899.

Driskell, W. S., assignor of one-third to E. S. Clark and one-third to H. Peters, Gretna, Nebr. Grain-car door. No. 942,551; Dec. 7; Sp. p. 1095; Gaz. vol. 149; p. 177.
Driver, W. B., East Orange, N. J. Alloy for electrical resistance. No. 943,066; Dec. 14; Sp. p. 2257; Gaz. vol. 149; p. 383.
Du Bose, T. M., Hattiesburg, Miss. Revolver. No. 943,819; Dec. 21; Sp. p. 3843; Gaz. vol. 149; p. 668.
Du Pont, F. I., assignor to E. I. du Pont de Nemours Powder Company, Wilmington, Del. Production of oxids of nitrogen from the air. No. 943,661; Dec. 21; Sp. p. 3535; Gaz. vol. 149; p. 615.
Du Pont, F. I., assignor to E. I. du Pont de Nemours Powder Company, Wilmington, Del. Evaporating explosive mixtures. No. 944,500; Dec. 28; Sp. p. 5324; Gaz. vol. 149; p. 928.
Dubied & Cie., E. (See Dubied and Popp, assignors.)
Dubied, E., and B. Popp, assignors to E. Dubied & Cie., Couvet, Switzerland. Racking device for flat-bed knitting-machines. No. 943,921; Dec. 21; Sp. p. 4067; Gaz. vol. 149; p. 704.
Dubisee, J., assignor of one-half to F. J. Lambert, Philadelphia, Pa. Cushioned support for stamping devices. No. 943,342; Dec. 14; Sp. p. 2824; Gaz. vol. 149; p. 475.
Duffe, C. E., Omaha, Nebr. Railway-brake. No. 943,737; Dec. 21; Sp. p. 3682; Gaz. vol. 149; p. 640.
Dufour, J., The Dalles, Oreg. Detachable link. No. 943,220; Dec. 14; Sp. p. 2552; Gaz. vol. 149; p. 433.
Dumas, M., assignor to L. Monnoyer & Fils, Brussels, Belgium. Reinforced concrete structure. No. 942,625; Dec. 7; Sp. p. 1237; Gaz. vol. 149; p. 202.
Duncan, J. E., Elton, La. Convertible ladder. No. 944,849; Dec. 28; Sp. p. 6088; Gaz. vol. 149; p. 1046.
Duner, J. C., Chicago, Ill. Sand-box for cars. (Reissue.) No. 13,063; Dec. 28; Sp. p. 6410; Gaz. vol. 149; p. 1100.
Dunham, O. J., Ames, Iowa. Feeder for concrete-mixers. No. 943,660; Dec. 21; Sp. p. 3533; Gaz. vol. 149; p. 615.
Dunham, W. J., Berea, Ohio. Land-roller. No. 942,892; Dec. 14; Sp. p. 1830; Gaz. vol. 149; p. 322.
Dunham, W. J., and E. W. Peck, Gloversville, N. Y. Apparatus for harvesting potatoes, onions, &c. No. 942,626; Dec. 7; Sp. p. 1238; Gaz. vol. 149; p. 203.
Dunlap, D., La Junta, Colo. Draft appliance for self-propelled vehicles. No. 944,956; Dec. 28; Sp. p. 6286; Gaz. vol. 149; p. 1080.
Dunlap, S. M., Des Moines, Iowa. Shifting jack-screw. No. 942,170; Dec. 7; Sp. p. 315; Gaz. vol. 149; p. 48.
Dunn, S. C., Joiner, Ark. Cattle-guard. No. 942,059; Dec. 7; Sp. p. 33; Gaz. vol. 149; p. 8.
Dunn, T. F., New York, N. Y. Flying-machine. No. 942,958; Dec. 14; Sp. p. 1990; Gaz. vol. 149; p. 345.
Dunn, W. J., Montreal, Quebec, Canada. Telescopic article. No. 942,490; Dec. 7; Sp. p. 969; Gaz. vol. 149; p. 156.
Dunnachie, W. J., Coatbridge, Scotland. Making and recovering ammonia, &c. No. 943,399; Dec. 14; Sp. p. 2929; Gaz. vol. 149; p. 494.
Duplex Printing Press Company. (See Bechman, H. F., assignor.)
Durbin, J. F. and V. S., Fort Scott, Kans. Car-coupling. No. 943,144; Dec. 14; Sp. p. 2413; Gaz. vol. 149; p. 409.
Durbin, V. S. (See Durbin, J. F. and V. S.)
Durkee, C., and C. C. Briggs, Vicksburg, Mich. Fishing-reel. No. 943,820; Dec. 21; Sp. p. 3844; Gaz. vol. 149; p. 668.
Dusto-Mfg. Co. (See Whitehouse, J. N., assignor.)
Dutchess Tool Company. (See Van Houten, F. H., assignor.)
Dutchess Tool Company. (See Van Houten and Bachman, assignors.)
Dutton, C. S., Jersey City, N. J., assignor of one-half to H. H. Westinghouse, New York, N. Y. Gas-engine. No. 944,235; Dec. 21; Sp. p. 4705; Gaz. vol. 149; p. 806.
Dye Works formerly L. Durand, Huguenin & Co., Firm of. (See Blerer and Lorétan, assignors.)
Dyer, R. N., East Orange, N. J. Refrigerating-machine. No. 942,367; Dec. 7; Sp. p. 704; Gaz. vol. 149; p. 114.
Dyer, R. N., East Orange, N. J. Automatic air-trap. No. 942,368; Dec. 7; Sp. p. 707; Gaz. vol. 149; p. 115.
E. Goldman & Co. (See Paul, J. T. H., assignor.) (Reissue.)
E. C. Atkins & Company. (See Cook, L. C., assignor.)
E. I. du Pont de Nemours Powder Company. (See Broadwater, L. H., assignor.)
E. I. du Pont de Nemours Powder Company. (See Du Pont, F. I., assignor.)
E. R. Thomas Motor Company. (See Yapp, T. A., assignor.)
E. W. Bliss Company. (See Bentley, O. D. H., assignor.)
E. W. Bliss Company. (See Leavitt, F. M., assignor.)
Eagle Lock Co. (See Murphy, J. J., assignor.)
Eastwood, A. C., Cleveland, Ohio. Control system for electric motors. No. 943,011; Dec. 14; Sp. p. 2118; Gaz. vol. 149; p. 363.
Eastwood, J., assignor to Benjamin Eastwood Company, Paterson, N. J. Means for detecting enlargements in thread. No. 943,662; Dec. 21; Sp. p. 3536; Gaz. vol. 149; p. 615.
Eberhard, R., Munich, Germany. Water-glass compound and making the same. No. 944,957; Dec. 28; Sp. p. 6288; Gaz. vol. 149; p. 1081.
Eberline, L., and F. M. Wanzer, Biglake, Wash. Belt-stretcher. No. 944,958; Dec. 28; Sp. p. 6291; Gaz. vol. 149; p. 1081.
Ebersole, C. P., Keokuk, Iowa, assignor to Electric Service Supplies Company, Philadelphia, Pa. Fluid-pressure engine. No. 942,441; Dec. 7; Sp. p. 849; Gaz. vol. 149; p. 139.
Eberson, A. A. (See Lemcke, L., assignor.)
Ecaubert, F., New York, N. Y. Closure. No. 942,171; Dec. 7; Sp. p. 317; Gaz. vol. 149; p. 48.
Eckert, E. G. (See Hoke, H. E., assignor.)
Edgar, E. F., Woodbridge, N. J. Steam-turbine. No. 943,922; Dec. 21; Sp. p. 4069; Gaz. vol. 149; p. 705.
Edgar, E. F., Woodbridge, N. J. Steam-boiler. No. 944,669; Dec. 28; Sp. p. 5682; Gaz. vol. 149; p. 986.
Edgar, J. (See Mayson and Edgar.)
Edison Portland Cement Company. (See Edison, T. A., assignor.)
Edison, T. A., Llewellyn Park, Orange, N. J. Horn for talking-machines. No. 943,663; Dec. 21; Sp. p. 3537; Gaz. vol. 149; p. 616.
Edison, T. A., Llewellyn Park, assignor to New Jersey Patent Company, Orange, N. J. Sound-recording apparatus. No. 943,664; Dec. 21; Sp. p. 3538; Gaz. vol. 149; p. 616.
Edison, T. A., Llewellyn Park, Orange, assignor to Edison Portland Cement Company, Stewartsville, N. J. Process and apparatus for artificially aging or seasoning Portland cement. No. 944,481; Dec. 28; Sp. p. 5256; Gaz. vol. 149; p. 920.
Edmiston, S. J., Greenwich, N. Y. Guy-wire clamp. No. 944,850; Dec. 28; Sp. p. 6090; Gaz. vol. 149; p. 1047.
Edmonds, F. M., assignor to Gillette Safety Razor Company, Boston, Mass. Safety-razor. No. 944,989; Dec. 28; Sp. p. 6362; Gaz. vol. 149; p. 1092.
Edmonds, J. H., Los Angeles, Cal. Safety-headboard for folding beds. No. 943,594; Dec. 14; Sp. p. 3328; Gaz. vol. 149; p. 561.
Edmonds, J. H., Los Angeles, Cal. Living-apartment. No. 944,021; Dec. 21; Sp. p. 4285; Gaz. vol. 149; p. 738.
Edmunds, L. E., Philadelphia, Pa. Funnel. No. 943,460; Dec. 14; Sp. p. 2932; Gaz. vol. 149; p. 494.
Edsall, W. H., Wallingford, Conn. Curtain-ring. No. 944,721; Dec. 28; Sp. p. 5800; Gaz. vol. 149; p. 1003.
Edsall, W. H., assignor to H. L. Judd Company, Wallingford, Conn. Traverse-ring. No. 944,720; Dec. 28; Sp. p. 5799; Gaz. vol. 149; p. 1002.
Edtbauer, P., Chicago, Ill. Automatic weighing-machine. No. 943,012; Dec. 14; Sp. p. 2121; Gaz. vol. 149; p. 363.
Edwards, D. H., Chicago, Ill. Ink and mucilage stand. No. 944,181; Dec. 21; Sp. p. 4610; Gaz. vol. 149; p. 791.
Edwards, O. M. (See Chaffee, E. F., assignor.)
Edwards, O. M., Syracuse, N. Y. Trap-door for railway-cars and similar structures. No. 942,719; Dec. 7; Sp. p. 1421; Gaz. vol. 149; p. 233.
Edwards, O. M., Syracuse, N. Y. Sash-holding device. No. 942,720; Dec. 7; Sp. p. 1428; Gaz. vol. 149; p. 233.
Edwards, R. J., Galena, Ill. Derailment-guard for railway-cars. No. 943,665; Dec. 21; Sp. p. 3540; Gaz. vol. 149; p. 616.
Edwards, R. J., Galena, Ill. Car-truck. No. 943,666; Dec. 21; Sp. p. 3542; Gaz. vol. 149; p. 617.
Egly, G., Berlin, assignor to Gebrüder Siemens & Co., Charlottenburg, Germany. Manufacturing dynamo-brushes, &c. No. 942,379; Dec. 7; Sp. p. 723; Gaz. vol. 149; p. 118.
Ehemann, G. F., Chicago, Ill. Combined sash and door check. No. 943,401; Dec. 14; Sp. p. 2933; Gaz. vol. 149; p. 494.
Eigenmann, F. A., Newark, Ohio. Vehicle-brake. No. 944,603; Dec. 28; Sp. p. 5558; Gaz. vol. 149; p. 964.
Einfeldt, E., assignor, by mesne assignments, to G. W. and N. French and J. L. Hecht, Davenport, Iowa. Automatic reversing mechanism. No. 944,604; Dec. 28; Sp. p. 5560; Gaz. vol. 149; p. 964.
Eitle, C., Stuttgart, Germany. Apparatus for charging retorts. No. 944,959; Dec. 28; Sp. p. 6294; Gaz. vol. 149; p. 1081.
Eken, A. J., assignor of one-half to W. S. Sample, San Francisco, Cal. Building-clip for tiles. No. 944,022; Dec. 21; Sp. p. 4288; Gaz. vol. 149; p. 738.
Elder, F. C. (See Huss, R. W., assignor.)
Eldridge, H. (See Rockey and Eldridge.)
Electric Bank Protection Company. (See Juruick, M. F., assignor.)
Electric Catalytic Air Company. (See Williams, J. M., assignor.) (Reissue.)
Electric Compositor Company. (See Bellows, B. F., assignor.)
Electric Couch Company. (See Davenport, B. R., assignor.)
Electric Metals Company. (See Snyder, F. T., assignor.)
Electric-Railway Signal Company. (See Chapman, W. M., assignor.)
Electric Service Supplies Company. (See Ebersole, C. P., assignor.)
Electro Metallurgical Company. (See Price, E. F., assignor.)
Eliason, G. A., Iola, Wis. Record-tablet. No. 942,627; Dec. 7; Sp. p. 1240; Gaz. vol. 149; p. 203.
Ellerbe, C. W., Lakeland, Fla. Door-stop. No. 942,893; Dec. 14; Sp. p. 1831; Gaz. vol. 149; p. 323.
Ellerbeck, W. W., Salt Lake City, Utah. Device for flushing tanks. No. 943,145; Dec. 14; Sp. p. 2441; Gaz. vol. 149; p. 410.
Elliott, A. D., Viola, Ill. Carbureter. No. 944,482; Dec. 28; Sp. p. 5258; Gaz. vol. 149; p. 920.

Elliott-Fisher Company. (See Dench, W. L., assignor.)
Elliott, J. S., Mohall, N. D. Belt-shifter. No. 944,359; Dec. 28; Sp. p. 4990; Gaz. vol. 149; p. 878.
Elliott, P. A. (See Hargrove, W., assignor.)
Elliott, S. K., *et al.* (See Hughes, W. G., assignor.)
Elliott, T. V., New York, N. Y. Mechanical stoker. No. 942,060; Dec. 7; Sp. p. 34; Gaz. vol. 149; p. 8.
Elliott, W. E., Grand Rapids, Mich. Combined check and seal. No. 942,314; Dec. 7; Sp. p. 611; Gaz. vol. 149; p. 97.
Elliott, W. E., Grand Rapids, Mich. Metallic seal. No. 942,315; Dec. 7; Sp. p. 612; Gaz. vol. 149; p. 97.
Elliott, W. E., Grand Rapids, Mich. Metallic seal. No. 942,316; Dec. 7; Sp. p. 614; Gaz. vol. 149; p. 98.
Elliott, W. E., Grand Rapids, Mich. Packing and registering metallic seals. No. 942,317; Dec. 7; Sp. p. 618; Gaz. vol. 149; p. 98.
Elliott, W. S., Pittsburg, Pa. Boiler-tube cleaner. No. 942,778; Dec. 7; Sp. p. 1543; Gaz. vol. 149; p. 253.
Ellis, C., Larchmont, N. Y., assignor to Ellis-Foster Company. Composition for laying road-dust and hardening road-beds. No. 943,667; Dec. 21; Sp. p. 3543; Gaz. vol. 149; p. 617.
Ellis, C., Larchmont, N. Y., assignor to Ellis-Foster Company. Borated fertilizer. No. 943,668; Dec. 21; Sp. p. 3545; Gaz. vol. 149; p. 617.
Ellis, C., Larchmont, N. Y., assignor to Ellis-Foster Company. Borated insecticide fertilizer. No. 943,669; Dec. 21; Sp. p. 3546; Gaz. vol. 149; p. 617.
Ellis, C., Larchmont, N. Y., assignor to Ellis-Foster Company. Steel-preservative paint. No. 943,670; Dec. 21; Sp. p. 3547; Gaz. vol. 149; p. 617.
Ellis, C., Larchmont, N. Y., assignor to Ellis-Foster Company. Composition for eradicating rodents. No. 944,419; Dec. 28; Sp. p. 5123; Gaz. vol. 149; p. 900.
Ellis, C., Larchmont, N. Y., assignor to Ellis-Foster Company. Antifouling composition. No. 944,420; Dec. 28; Sp. p. 5125; Gaz. vol. 149; p. 900.
Ellis-Foster Company. (See Ellis, C., assignor.)
Ellstrom, G., Pittsburg, Pa. Support for sad-irons. No. 944,182; Dec. 21; Sp. p. 4611; Gaz. vol. 149; p. 791.
Elvis, G. H. (See Bellinger, H. C., assignor.)
Elworthy, E. G., administratrix. (See Elworthy, H. S.)
Elworthy, H. S., deceased, St. Albans, England; E. G. Elworthy, administratrix. Manufacture of gas for illuminating, heating, or power purposes. No. 943,627; Dec. 14; Sp. p. 3440; Gaz. vol. 149; p. 574.
Emerick, G. S., Nazareth, Pa. Grinding-mill. No. 944,670; Dec. 28; Sp. p. 5683; Gaz. vol. 149; p. 986.
Emerley, L. A., and F. Matachuk, Altoona, Pa. Metallic tie. No. 942,721; Dec. 7; Sp. p. 1432; Gaz. vol. 149; p. 234.
Emerson, F. W., Los Angeles, Cal. Sad-iron. No. 943,302; Dec. 14; Sp. p. 2732; Gaz. vol. 149; p. 401.
Emerson Piano Company. (See Crippen, W. R., assignor.)
Emery, B. F., Thayer, Iowa. Knife-sharpener. No. 942,950; Dec. 14; Sp. p. 1994; Gaz. vol. 149; p. 345.
Emmet, W. L. R., and E. M. Hewlett, Schenectady, N. Y., assignors to General Electric Company. Electric switch. No. 942,491; Dec. 7; Sp. p. 970; Gaz. vol. 149; p. 157.
Empire Light Limited. (See Miess, J. H., assignor.)
Empire Trust Company. (See D'Aix, F. C. L., assignor.) (Reissue.)
Empire Voting Machine Company. (See Harkness, L. T., assignor.)
Empire Voting Machine Company. (See McKenzie, A., assignor.)
Empire Voting Machine Company. (See Wolf, E. E., assignor.)
Engberg, E. O., Salt Lake City, Utah, assignor to J. B. Patton, Kent, Ohio. Knife for window-shade machines. No. 943,221; Dec. 14; Sp. p. 2553; Gaz. vol. 149; p. 433.
Engel, A., Milwaukee, Wis., assignor to Milwaukee Brass Manufacturing Company. Faucet. No. 943,526; Dec. 14; Sp. p. 3204; Gaz. vol. 149; p. 539.
Engineering Instruments Limited. (See Garside, E., assignor.)
England, W. C. (See Milsam, J. F., assignor.)
Enochs, C. D., La Crosse, Wis., assignor to Vote-Berger Co. Telephone desk set. No. 943,773; Dec. 21; Sp. p. 3747; Gaz. vol. 149; p. 652.
Enstrom, R. (See Swenberg and Enstrom.)
Eppenstein, O., assignor to Firm of C. Zeiss, Jena, Germany. Telemeter. No. 943,109; Dec. 14; Sp. p. 2340; Gaz. vol. 149; p. 397.
Eppler, A., Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Shoe-turning machine. No. 944,260; Dec. 28; Sp. p. 4768; Gaz. vol. 149; p. 843.
Erdman, A. W. (See Lewis, I. N., assignor.)
Ericson, P. V., New York, N. Y. Game. No. 943,343; Dec. 14; Sp. p. 2826; Gaz. vol. 149; p. 475.
Erlanger, M. S., Baltimore, Md. Adjustable waistband for garments. No. 942,628; Dec. 7; Sp. p. 1244; Gaz. vol. 149; p. 203.
Ernst, A., Pittsburg, Pa., assignor to Coal and Coke By-Products Company. Centrifugal dry coal-separator. No. 942,251; Dec. 7; Sp. p. 477; Gaz. vol. 149; p. 74.
Escuder, J., Barcelona, Spain. Spittoon. No. 943,527; Dec. 14; Sp. p. 3206; Gaz. vol. 149; p. 540.
Eshelman, B. S., assignor to G. V. Krichbaum, Ashland, Ohio. Making inner liners for tires. No. 944,722; Dec. 28; Sp. p. 5801; Gaz. vol. 149; p. 1003.
Espe, A. O., assignor to Universal Tractor Company, Crookston, Minn. Traction-engine. No. 944,236; Dec. 21; Sp. p. 4707; Gaz. vol. 149; p. 807.
Essmueller Mill Furnishing Company. (See Watkins, J. B., assignor.)
Estes, W. N., *et al.* (See Mercer, J. W., assignor.)
Etot, J., Mer, France. Cushion and mattress. No. 943,923; Dec. 21; Sp. p. 4071; Gaz. vol. 149; p. 706.
Eureka Vibrator Co. (See Stecker, A. J., assignor.)
Evans, G. R., Berkeley, Cal. Tar and debris trap. No. 943,628; Dec. 14; Sp. p. 3448; Gaz. vol. 149; p. 574.
Evans, J. A., assignor to A. Roesch, Columbus, Ohio. Door-check. No. 944,723; Dec. 28; Sp. p. 5803; Gaz. vol. 149; p. 1004.
Evenden, R. E., Manchester, England. Circular loom. No. 944,421; Dec. 28; Sp. p. 5127; Gaz. vol. 149; p. 900.
Evered, W. M., Duluth, Minn. Valve-gear for steam-engines. No. 944,724; Dec. 28; Sp. p. 5805; Gaz. vol. 149; p. 1004.
Ewart, R. B., New York, N. Y., assignor of one-half to B. A. Seitz, Kansas City, Mo. Shock-absorber for automobiles and the like. No. 943,774; Dec. 21; Sp. p. 3751; Gaz. vol. 149; p. 653.
Exline, A. S. (See Exline, B. B., M. P., and A. S.)
Exline, B. B., M. P., and A. S., Dallas, Tex.; said M. P. and A. S. Exline assignors to said B. B. Exline. Toy. No. 943,528; Dec. 14; Sp. p. 3207; Gaz. vol. 149; p. 540.
Exline, M. P. (See Exline, B. B., M. P., and A. S.)
Exline, M. P., B. B., and A. S., Dallas, Tex. Sounding toy. No. 943,529; Dec. 14; Sp. p. 3208; Gaz. vol. 149; p. 540.
Exton, A. H., Highbridge, N. J., and J. M. Sherrerd, Easton, Pa. Tooth for excavating buckets or shovels. No. 943,775; Dec. 21; Sp. p. 3753; Gaz. vol. 149; p. 653.
Eynon-Evans Mfg. Co. (See Otto, W. F., assignor.)
Faber, H., Chicago, Ill. Folding organ. No. 944,483; Dec. 28; Sp. p. 5262; Gaz. vol. 149; p. 921.
Faber, S., Chicago, Ill. Gun. No. 944,128; Dec. 21; Sp. p. 4509; Gaz. vol. 149; p. 774.
Falk, M., Leominster, Mass. Die for barrettes, combs, and the like. No. 944,422; Dec. 28; Sp. p. 5132; Gaz. vol. 149; p. 900.
Fallows, E. H. (See Jones, H., assignor.)
Fallows, E. H. (See McPhillips, C. B., assignor.)
Fanning, B. E., Los Angeles, Cal. Elevator-signal. No. 943,924; Dec. 21; Sp. p. 4072; Gaz. vol. 149; p. 706.
Fanning, F., Woodward, assignor of one-third to F. E. Ray and one-third to A. B. Paul, Woodward county, Okla. Propelling means for vessels. No. 942,199; Dec. 7; Sp. p. 370; Gaz. vol. 149; p. 56.
Farbenfabriken vorm. Friedr. Bayer & Co. (See Heidenreich, C., assignor.)
Farbwerke vorm. Meister Lucius & Brüning. (See Homolka and Welde, assignors.)
Farbwerke vorm. Meister Lucius & Bruning. (See Uhlenhuth, R., assignor.)
Fargo, C. R., Portland, Oreg. Blank book. No. 943,595; Dec. 14; Sp. p. 3331; Gaz. vol. 149; p. 561.
Farlow, R. E., *et al.* (See McCain, W. B., assignor.)
Farmer, L. W., Somerville, Mass. Sanitary cabinet for drinking-cups. No. 943,241; Dec. 14; Sp. p. 2601; Gaz. vol. 149; p. 440.
Farquhar, F. (See Hope, Farquhar, and Hilchey.)
Farrand, O. M., New York, N. Y. Tool for removing diamonds from settings. No. 943,530; Dec. 14; Sp. p. 3209; Gaz. vol. 149; p. 540.
Farren, R., and C. T. Clark, Cleveland, Ohio. Electric heater. No. 942,894; Dec. 14; Sp. p. 1833; Gaz. vol. 149; p. 323.
Fasig, L. C., Ashland, Ohio. Wheel-mounted scraper. No. 943,864; Dec. 21; Sp. p. 3935; Gaz. vol. 149; p. 684.
Faulds, J. (See Marshall and Faulds.)
Febiger, H. B. (See Tomlinson, D. W., Jr., assignor.)
Febiger, H. B., New Orleans, La. Movement for firearms. No. 943,344; Dec. 14; Sp. p. 2827; Gaz. vol. 149; p. 476.
Federal Electric Company. (See Goehst, J. H., assignor.)
Feist, C. M., assignor of forty-nine one-hundredths to E. L. Kirk, Sioux City, Iowa. Controller-regulator. No. 942,722; Dec. 7; Sp. p. 1433; Gaz. vol. 149; p. 234.
Feist, L., Far Rockaway, assignor to American Tobacco Company, New York, N. Y. Advertising novelty. No. 943,776; Dec. 21; Sp. p. 3756; Gaz. vol. 149; p. 654.
Feist, S., *et al.* (See Wolever, F. H., assignor.)
Feiz, E., Bodenbach, Austria-Hungary. Securing resilient packing in the grooves of metallic filter-press frames. No. 944,423; Dec. 28; Sp. p. 5133; Gaz. vol. 149; p. 901.

Felbel, J., New York, N. Y., assignor to Union Typewriter Company, Jersey City, N. J. Type-writing machine. No. 942,137; Dec. 7; Sp. p. 241; Gaz. vol. 149; p. 37.
Feldman, J., New York, N. Y. Butcher's scale-pan. No. 944,777; Dec. 28; Sp. p. 5924; Gaz. vol. 149; p. 1021.
Feldmann, L., Jr., assignor to Multiplex Display Fixture Company, St. Louis, Mo. Panel for swinging display-racks. No. 943,821; Dec. 21; Sp. p. 3846; Gaz. vol. 149; p. 669.
Felker, L., Washington, D. C. Aerial navigating apparatus. No. 942,629; Dec. 7; Sp. p. 1245; Gaz. vol. 149; p. 204.
Fellows, J. E. (See Bonfield and Fellows.)
Fenn, A. G., Chicopee Falls, Mass. Needle-feed mechanism. No. 942,895; Dec. 14; Sp. p. 1834; Gaz. vol. 149; p. 323.
Ferguson Bros. Mfg. Co. (See Campbell, J. W., assignor.)
Ferguson, F. E., and C. A. Knoche, Naperville, Ill. Davenport. No. 944,023; Dec. 21; Sp. p. 4289; Gaz. vol. 149; p. 739.
Ferguson, W., Jr., Stamford, Conn. Spike for railway and like uses. No. 944,725; Dec. 28; Sp. p. 5806; Gaz. vol. 149; p. 1004.
Ferguson, W. S., Cleveland, assignor to National Concrete Specialty Company, Sandusky, Ohio. Metal reinforcement for metal-reinforced concrete construction. No. 943,402; Dec. 14; Sp. p. 2934; Gaz. vol. 149; p. 495.
Ferguson, W. S., and A. W. McMichael, Leesville, La. Chain securing and releasing device. No. 942,061; Dec. 7; Sp. p. 38; Gaz. vol. 149; p. 9.
Ferguson, D., and C. L. Sheppy, assignors to George N. Pierce Company, Buffalo, N. Y. Carbureter. No. 943,242; Dec. 14; Sp. p. 2603; Gaz. vol. 149; p. 441.
Fernald, C. F., assignor to Star Brass Manufacturing Company, Boston, Mass. Valve. No. 942,492; Dec. 7; Sp. p. 975; Gaz. vol. 149; p. 157.
Fernberger, H. M. (See Murray and Fernberger.)
Ferry, T., Wilmington, Del. Shoe-pull. No. 944,424; Dec. 28; Sp. p. 5134; Gaz. vol. 149; p. 901.
Ferry, W. F. S., Philadelphia, Pa. Printing-press. No. 943,629; Dec. 14; Sp. p. 3449; Gaz. vol. 149; p. 575.
Féry, C., Paris, France. Pendulum electricity-meter. No. 943,531; Dec. 14; Sp. p. 3211; Gaz. vol. 149; p. 541.
Fesler, M. A., Visalia, Cal. Fluid-cooling means for gasolene or other engines. No. 942,493; Dec. 7; Sp. p. 977; Gaz. vol. 149; p. 157.
Fessler, M., Pforzheim, Germany. Wire-chain-making machine. No. 943,110; Dec. 14; Sp. p. 2342; Gaz. vol. 149; p. 397.
Ficener, A. A., assignor to Barnes Manufacturing Company, Mansfield, Ohio. Pump. No. 944,425; Dec. 28; Sp. p. 5135; Gaz. vol. 149; p. 901.
Fichter, J. H., Covington, Ky. Moving implement. No. 943,013; Dec. 14; Sp. p. 2125; Gaz. vol. 149; p. 364.
Field, S. D., Stockbridge, Mass., assignor to Western Union Telegraph Company, New York, N. Y. Multiplex telegraph. No. 942,814; Dec. 7; Sp. p. 1606; Gaz. vol. 149; p. 264.
Field, S. D., Stockbridge, Mass., assignor to Western Union Telegraph Company, New York, N. Y. Relay. No. 942,815; Dec. 7; Sp. p. 1611; Gaz. vol. 149; p. 264.
Filhour, A. M. (See Sell and Filhour.)
Filliez, H. J., assignor of one-third to A. Vignos and one-third to M. L. Keagy, Canton, Ohio. Horseshoe. No. 943,146; Dec. 14; Sp. p. 2415; Gaz. vol. 149; p. 410.
Finley, N. M., Norristown, Pa. Heating system. No. 944,183; Dec. 21; Sp. p. 4612; Gaz. vol. 149; p. 791.
Fischer, A., Kensington, London, England. Sound-box for talking-machines. No. 942,816; Dec. 7; Sp. p. 1613; Gaz. vol. 149; p. 265.
Fischer, A., Chokio, Minn. Tip for wagon-poles. No. 944,184; Dec. 21; Sp. p. 4614; Gaz. vol. 149; p. 792.
Fischer, O., Plauen, Germany. Warp-leasing apparatus. No. 944,726; Dec. 28; Sp. p. 5807; Gaz. vol. 149; p. 1004.
Fischer, R., New York, N. Y. Cigar-cutter. No. 943,739; Dec. 21; Sp. p. 3686; Gaz. vol. 149; p. 640.
Fischer, R., assignor to C. P. Goldsmith & Co., New York, N. Y. Cigar-cutter. No. 943,738; Dec. 21; Sp. p. 3684; Gaz. vol. 149; p. 640.
Fisher, H. A., assignor to Trumbull Electric Manufacturing Company, Plainville, Conn. Electric safety-box. No. 944,605; Dec. 28; Sp. p. 5564; Gaz. vol. 149; p. 965.
Fisher, W. E., Buck Creek, Ind. Safety-envelop. No. 943,111; Dec. 14; Sp. p. 2343; Gaz. vol. 149; p. 397.
Fisk Rubber Company. (See Woodward, C. E. W., assignor.)
Fitzpatrick, H. A., Chicago, Ill. Air-valve. No. 944,024; Dec. 21; Sp. p. 4291; Gaz. vol. 149; p. 739.
Flade, G. F. (See Reith and Flade.)
Flanders, C. E., West Brookfield, Mass. Book mark and support. No. 943,865; Dec. 21; Sp. p. 3937; Gaz. vol. 149; p. 684.
Flanders, L. H., Wilkinsburg, Pa., assignor, by mesne assignments, to Westinghouse Storage Battery Company. Storage battery. No. 943,345; Dec. 14; Sp. p. 2831; Gaz. vol. 149; p. 476.
Flanigan, R., Baltimore, assignor of one-half to E. E. Weaver, Baltimore county, Md. Machine for applying solder to rims of caps for cans. No. 942,494; Dec. 7; Sp. p. 979; Gaz. vol. 149; p. 158.
Fleming, J. M., Ottawa, Ontario, Canada. Automatic stoker. No. 944,778; Dec. 28; Sp. p. 5925; Gaz. vol. 149; p. 1021.
Flentje, E., Cambridge, Mass. Hanger for shock-absorbers. No. 943,671; Dec. 21; Sp. p. 3549; Gaz. vol. 149; p. 617.
Fletcher, J. R., assignor to P. & F. Corbin, New Britain, Conn. Knob attachment. No. 943,740; Dec. 21; Sp. p. 3688; Gaz. vol. 149; p. 641.
Fletcher, M. H., Cincinnati, Ohio. Means for preparing core-bars for the casting operations. No. 943,303; Dec. 14; Sp. p. 2733; Gaz. vol. 149; p. 462.
Flight, A. E., and S. M. Tilton, assignors to Parkhill Manufacturing Company, Fitchburg, Mass. Chain-beaming machine. No. 944,727; Dec. 28; Sp. p. 5810; Gaz. vol. 149; p. 1005.
Flindall, J., Chicago, Ill. Foot and leg rest. No. 942,630; Dec. 7; Sp. p. 1248; Gaz. vol. 149; p. 204.
Flindall, J., Chicago, Ill. Hinge. No. 942,723; Dec. 7; Sp. p. 1436; Gaz. vol. 149; p. 234.
Flindall, J., Chicago, Ill. Chair. No. 942,724; Dec. 7; Sp. p. 1437; Gaz. vol. 149; p. 235.
Flindall, J., Chicago, Ill. Combination chair and couch. No. 942,817; Dec. 7; Sp. p. 1614; Gaz. vol. 149; p. 265.
Flindall, J., Chicago, Ill. Reclining-chair. No. 942,818; Dec. 7; Sp. p. 1616; Gaz. vol. 149; p. 265.
Flintkote Manufacturing Company. (See Overbury, F. C., assignor.)
Flood, J. (See Thelen and Flood.)
Florence Mfg. Co. (See Chainey, E., assignor.)
Floyd, E. E., Celeste, Tex. Churn. No. 944,129; Dec. 21; Sp. p. 4514; Gaz. vol. 149; p. 775.
Flynn, J., Bridgewater, Mass. Car-fender. No. 942,631; Dec. 7; Sp. p. 1250; Gaz. vol. 149; p. 204.
Flynn, J. A., Council Grove, Kans. Folding stair. No. 943,672; Dec. 21; Sp. p. 3550; Gaz. vol. 149; p. 618.
Flynn, M. M., Woonsocket, R. I. Mop-wringer. No. 944,728; Dec. 28; Sp. p. 5812; Gaz. vol. 149; p. 1005.
Fogarty, D., Ottawa, Ontario, Canada. Means for observing and separating heavy objects from dust-laden air-currents. No. 944,779; Dec. 28; Sp. p. 5927; Gaz. vol. 149; p. 1022.
Fogelsong, O. F., Chicago, Ill. Insole. No. 943,243; Dec. 14; Sp. p. 2606; Gaz. vol. 149; p. 441.
Foley, H. B., Cleveland, Ohio, and F. G. Wright, Seattle, Wash. Saw-tooth-setting device. No. 944,729; Dec. 28; Sp. p. 5813; Gaz. vol. 149; p. 1006.
Folsom, A. W., Sherman, Tex. Refrigerating-package. No. 942,318; Dec. 7; Sp. p. 619; Gaz. vol. 149; p. 98.
Foote, F. M., Marshall, Mich. Roller-bearing. No. 942,252; Dec. 7; Sp. p. 479; Gaz. vol. 149; p. 74.
Forged Steel Wheel Company. (See Hansen, J. M., assignor.)
Forsman, H., Fresno, Cal. Faucet. No. 943,345; Dec. 14; Sp. p. 2832; Gaz. vol. 149; p. 476.
Fort Dearborn Manufacturing Company. (See Olson, G. O., assignor.)
Fort Pitt Spring & Manufacturing Co. (See French, R. A., assignor.)
Fort Pitt Spring & Manufacturing Co. (See French and Girdler, assignors.)
Forth, M. J., assignor, by mesne assignments, of one-half to J. Leake, Boston, Mass. Coin-controlled vending apparatus. No. 942,253; Dec. 7; Sp. p. 480; Gaz. vol. 149; p. 75.
Foss, C. C., and C. L. White, Quitman, Ga. Wheel. No. 942,819; Dec. 7; Sp. p. 1617; Gaz. vol. 149; p. 266.
Foster, C. M. (See Dodge and Foster.)
Fowden, W. T., Chester, Pa. Blow-off valve or cock. No. 944,025; Dec. 21; Sp. p. 4292; Gaz. vol. 149; p. 739.
Fowden, W. T., Chester, Pa. Valve. No. 944,026; Dec. 21; Sp. p. 4295; Gaz. vol. 149; p. 740.
Fowler, E. C., and T. E. Daly, Pulaski, Tenn. Seed-planter. No. 942,495; Dec. 7; Sp. p. 984; Gaz. vol. 149; p. 158.
Fox, J. H., Tacoma, Wash. Cistern-cleaner. No. 942,254; Dec. 7; Sp. p. 485; Gaz. vol. 149; p. 75.
Fradsham, T. C., Carson City, Nev. Knife. No. 948,184; Dec. 14; Sp. p. 2479; Gaz. vol. 149; p. 421.
Frame, R. E., assignor to American Car & Foundry Company, St. Louis, Mo. Car-door-operating mechanism. No. 944,261; Dec. 28; Sp. p. 4769; Gaz. vol. 149; p. 843.
France, T. W., Providence, R. I., assignor to H. W. Butterworth & Sons Company, Philadelphia, Pa. Cloth-clamp for textile machinery. No. 943,067; Dec. 14; Sp. p. 2259; Gaz. vol. 149; p. 383.
Francis, E. A., assignor of one-half to G. A. Howe, Marshalltown, Iowa. Weed-exterminator. No. 944,083; Dec. 21; Sp. p. 4408; Gaz. vol. 149; p. 759.
Francis, E. M. (See Larock, F. J., assignor.)
Frankle, M. (See Speer, N. T., assignor.)
Franklin, E. W., Sheridan, N. Y. Poultry feeder and exerciser. No. 943,822; Dec. 21; Sp. p. 3848; Gaz. vol. 149; p. 669.
Frantheim, G. W., Wheeling, W. Va. Leg-fastening. No. 942,380; Dec. 7; Sp. p. 734; Gaz. vol. 149; p. 118.
Frederick, C. W. (See French and Frederick.)
Frederick, R. M., Bear Creek, Ala. Plow-foot. No. 943,925; Dec. 21; Sp. p. 4077; Gaz. vol. 149; p. 706.
Free, W. C., Chicago, Ill. Sewing-machine cabinet. No. 943,867; Dec. 21; Sp. p. 3940; Gaz. vol. 149; p. 685.

Free, W. C., assignor to Illinois Sewing Machine Company, Chicago, Ill. Sewing-machine cabinet. No. 943,866; Dec. 21; Sp. p. 3938; Gaz. vol. 149; p. 685.
Freel, J. S. E., Newark, N. J. Cushioning device for truss-frames and the like. No. 943,244; Dec. 14; Sp. p. 2607; Gaz. vol. 149; p. 442.
Freeman, A. A., Atlantic City, N. J. Preservation of bivalves. No. 944,027; Dec. 21; Sp. p. 4297; Gaz. vol. 149; p. 740.
French, A. C., Daingerfield, Tex. Clothes-pin. No. 942,725; Dec. 7; Sp. p. 1438; Gaz. vol. 149; p. 235.
French, A. W., Piqua, Ohio. Expressing-press. No. 942,442; Dec. 7; Sp. p. 853; Gaz. vol. 149; p. 139.
French, G. W., *et al.* (See Einfeldt, E., assignor.)
French, J. C. (See Novotny, F. S., assignor.)
French, N., *et al.* (See Einfeldt, E., assignor.)
French, R. A., Oakmont, assignor to Fort Pitt Spring & Manufacturing Co., Pittsburg, Pa. Railway draft-gear. No. 944,326; Dec. 28; Sp. p. 4917; Gaz. vol. 149; p. 866.
French, R. A., Oakmont, and L. T. Girdler, Sewickley, assignors to Fort Pitt Spring & Manufacturing Co., Pittsburg, Pa. Railway draft-gear. No. 944,327; Dec. 28; Sp. p. 4918; Gaz. vol. 149; p. 867.
French, W., and C. W. Frederick, Washington, D. C., assignors to J. D. Spreckels, San Francisco, Cal. Apparatus for solving spherical triangles. No. 943,532; Dec. 14; Sp. p. 3213; Gaz. vol. 149; p. 541.
Frevert, C. L., Minier, Ill. Railway-tie. No. 943,926; Dec. 21; Sp. p. 4077; Gaz. vol. 149; p. 706.
Freyer, E. R., Sacramento, Cal. Crown-cork-feeding attachment. No. 944,548; Dec. 28; Sp. p. 5432; Gaz. vol. 149; p. 944.
Friberg, C., El Paso, Tex. Door-brace. No. 943,673; Dec. 21; Sp. p. 3552; Gaz. vol. 149; p. 618.
Fricker, W., South Woodford, England. Machine for making paper bags. No. 944,851; Dec. 28; Sp. p. 6091; Gaz. vol. 149; p. 1047.
Frickey, E. H., assignor to Williams Patent Crusher & Pulverizer Company, St. Louis, Mo. Grinding surface or cage. No. 944,780; Dec. 28; Sp. p. 5928; Gaz. vol. 149; p. 1022.
Fried. Krupp Aktiengesellschaft. (See Hellemann, W., assignor.)
Fried. Krupp Aktiengesellschaft. (See Schwartz, W., assignor.)
Fried. Krupp Aktiengesellschaft. (See Schwartz and Wlick, assignors.)
Fried. Krupp Aktiengesellschaft Germaniawerft. (See Maier, W., assignor.)
Friedenwald, J. H., Baltimore, Md. Shock-absorber. No. 942,896; Dec. 14; Sp. p. 1837; Gaz. vol. 149; p. 324.
Friedlaender, A., Frankfort-on-the-Main, Germany. Umbrella and the like. No. 943,068; Dec. 14; Sp. p. 2261; Gaz. vol. 149; p. 383.
Friedman, N., Chicago, Ill. Sewing-machine gage. No. 942,496; Dec. 7; Sp. p. 988; Gaz. vol. 149; p. 159.
Friedrich, H. J., Racine, Wis. Shoe-polisher. No. 944,262; Dec. 28; Sp. p. 4771; Gaz. vol. 149; p. 844.
Friend, T. E., Saidora, Ill. Detachable point for cultivator-shovels. No. 944,484; Dec. 28; Sp. p. 5265; Gaz. vol. 149; p. 921.
Frisbee, D. D., Detroit, Mich. Apparatus for oiling fellies. No. 943,674; Dec. 21; Sp. p. 3553; Gaz. vol. 149; p. 618.
Frohman, H. F., Cincinnati, Ohio. Sleeve. No. 944,549; Dec. 28; Sp. p. 5435; Gaz. vol. 149; p. 943.
From, J. W., Shelby, Nebr. Corn-harvester. No. 942,820; Dec. 7; Sp. p. 1618; Gaz. vol. 149; p. 266.
Frommer, R., Budapest, Austria-Hungary. Automatic safety device for firearms. No. 944,606; Dec. 28; Sp. p. 5565; Gaz. vol. 149; p. 965.
Frost Manufacturing Company. (See Frost, W. J., assignor.)
Frost, W. J., assignor to Frost Manufacturing Company, Kenosha, Wis. Push-button mechanism for flush-valves. No. 943,630; Dec. 14; Sp. p. 3451; Gaz. vol. 149; p. 575.
Frueh, P. (See Albers and Frueh.)
Fry, F. L., assignor of one-third to J. C. Gross and one-third to O. W. Kahler, Baltimore, Md. Reversing-valve for steam-engines. No. 944,960; Dec. 28; Sp. p. 6295; Gaz. vol. 149; p. 1062.
Fryman, N., Bowdon, N. D. Hay-gatherer. No. 943,533; Dec. 14; Sp. p. 3218; Gaz. vol. 149; p. 542.
Fulbright, W. D. (See Callis and Fulbright.)
Fulghum, T. E. (See Plank and Fulghum.)
Fuller, W. C., assignor to Union Paper Bag Machine Company, Philadelphia, Pa. Paper-bag machine. No. 943,534; Dec. 14; Sp. p. 3220; Gaz. vol. 149; p. 542.
Fulton, C. W., Paisley, Scotland. Mounting or suspension of vehicle-bodies. No. 944,426; Dec. 28; Sp. p. 5136; Gaz. vol. 149; p. 901.
Fulton, W. H., assignor to Automatic Service Company, Albany, N. Y. Vending-machine. No. 943,675; Dec. 21; Sp. p. 3555; Gaz. vol. 149; p. 619.
Funk, C. J. (See Merrick and Funk.)
Fylling, O., Crookston, Minn. Wheel attachment for sleds. No. 944,852; Dec. 28; Sp. p. 6094; Gaz. vol. 149; p. 1048.
Gabel, E., Utica, N. Y. Combination curtain and shade fixture. No. 943,222; Dec. 14; Sp. p. 2554; Gaz. vol. 149; p. 433.
Gabriel, C., Chicago, Ill. Machine for dishing and flanging plates. No. 942,062; Dec. 7; Sp. p. 39; Gaz. vol. 149; p. 9.
Gail, C. H., Kenosha, Wis. Fabric for beds, couches, &c. No. 943,245; Dec. 14; Sp. p. 2606; Gaz. vol. 149; p. 442.
Gaines, F. F., Savannah, Ga. Locomotive-boiler furnace. No. 943,823; Dec. 21; Sp. p. 3849; Gaz. vol. 149; p. 670.
Gakle, W., Chicago, Ill. Ratchet-clamp for car-replacers. No. 942,632; Dec. 7; Sp. p. 1251; Gaz. vol. 149; p. 205.
Gale, F. G., Waterville, Quebec, Canada. Bedstead. No. 944,084; Dec. 21; Sp. p. 4410; Gaz. vol. 149; p. 760.
Gale, F. G., Waterville, Quebec, Canada. Bed-frame. No. 944,085; Dec. 21; Sp. p. 4412; Gaz. vol. 149; p. 760.
Gallagher, W. T., and J. W. Billey, Richmond, Va. Roof-bracket. No. 944,185; Dec. 21; Sp. p. 4615; Gaz. vol. 149; p. 792.
Gallaread, B. C., Canton, Miss. Cotton-compressor. No. 942,443; Dec. 7; Sp. p. 856; Gaz. vol. 149; p. 140.
Gallia, W., *et al.* (See Matsek, J., assignor.)
Gamble, J. R., *et al.* (See Bryant, W. A., assignor.)
Gamble, J. W., Carpentersville, Ill. Fore-carriage. No. 942,319; Dec. 7; Sp. p. 622; Gaz. vol. 149; p. 99.
Gans, R., Pankow, near Berlin, assignor to J. D. Riedel Aktiengesellschaft, Berlin, Germany. Alumino-silicate or artificial zeolite. No. 943,535; Dec. 14; Sp. p. 3225; Gaz. vol. 149; p. 542.
Gantt, J. T., Macon, Ga. Plow. No. 942,849; Dec. 7; Sp. p. 1704; Gaz. vol. 149; p. 270.
Gantt, M. W., assignor of one-half to J. G. Cousar, Athens, Ga. Optometroscope. No. 944,853; Dec. 28; Sp. p. 6095; Gaz. vol. 149; p. 1048.
Ganzhorn, P., Chicago, Ill. Sanitary toilet-seat cover. No. 944,854; Dec. 28; Sp. p. 6104; Gaz. vol. 149; p. 1048.
Garland, A., Chicago, Ill. Puzzle. No. 944,130; Dec. 21; Sp. p. 4516; Gaz. vol. 149; p. 775.
Garlick, A. S., Meriden, Conn. Liquid-gage. No. 943,868; Dec. 21; Sp. p. 3942; Gaz. vol. 149; p. 685.
Garrett, T. A., Reigate, and W. Lucas, Crouch End, England. Apparatus for receiving submarine sounds. No. 942,897; Dec. 14; Sp. p. 1838; Gaz. vol. 149; p. 324.
Garrison, R. W. (See Derrick and Garrison.)
Garside, E., assignor to Engineering Instruments Limited, Darlington, England. Starting-switch for electric motors. No. 942,960; Dec. 14; Sp. p. 1995; Gaz. vol. 149; p. 346.
Garven, E., and N. Osborn, Coulterville, Ill. Folding crate. No. 944,028; Dec. 21; Sp. p. 4298; Gaz. vol. 149; p. 740.
Garver, C., Fort Wayne, assignor of one-third to O. R. Yerks, New Haven, Ind. Automatic wagon-brake. No. 944,961; Dec. 28; Sp. p. 6297; Gaz. vol. 149; p. 1062.
Garver, F. (See Brockett and Garver.)
Garver, F., assignor to Huber Manufacturing Company, Marion, Ohio. Garbanzon-threshing machine. No. 942,063; Dec. 7; Sp. p. 45; Gaz. vol. 149; p. 9.
Garver, H. H., and G. F. Bissell, Grant City, Mo. Foot-power welding device. No. 942,444; Dec. 7; Sp. p. 858; Gaz. vol. 149; p. 140.
Garvie, J., Cleveland, Transvaal. Valve. No. 943,824; Dec. 21; Sp. p. 3850; Gaz. vol. 149; p. 670.
Gaston, J. E., Cochranton, Pa. Corn-grader. No. 943,869; Dec. 21; Sp. p. 3943; Gaz. vol. 149; p. 686.
Gaston, L. P., Somerville, N. J. Brake for dump-cars. No. 942,320; Dec. 7; Sp. p. 624; Gaz. vol. 149; p. 99.
Gaspar, J., Cleveland, Ohio. Block-signaling system for railways. No. 942,255; Dec. 7; Sp. p. 487; Gaz. vol. 149; p. 76.
Gauthier, P., Lowell, assignor to W. F. Draper, Hopedale, Mass. Shuttle. No. 944,855; Dec. 28; Sp. p. 6106; Gaz. vol. 149; p. 1049.
Gautschi, H., Toledo, Ohio. Pipe and rod threader. No. 942,200; Dec. 7; Sp. p. 371; Gaz. vol. 149; p. 56.
Gaynor, J. C., assignor of one-half to A. C. Kluge, Pompton, N. J. Let-off mechanism for narrow-ware looms. No. 943,741; Dec. 21; Sp. p. 3689; Gaz. vol. 149; p. 641.
Gebhardt, E., Cincinnati, Ohio. Condiment-shaker. No. 942,138; Dec. 7; Sp. p. 248; Gaz. vol. 149; p. 37.
Geddes, F. G. (See Douglas, J., assignor.)
Gee, J. H., Palestine, Tex. Ash-pan for locomotives. No. 943,777; Dec. 21; Sp. p. 3758; Gaz. vol. 149; p. 654.
Gehring, J. (See Conrad and Gehring.)
Gehring, J., and R. D. Conrad; said Gehring assignor, by mesne assignments, to Winner Natural Gas Burner Company, Pittsburg, Pa. Burner. No. 943,927; Dec. 21; Sp. p. 4079; Gaz. vol. 149; p. 706.
Geist, W. F. (See Mowbray and Geist.)
Geiss, C. A. (See Schreiber and Geiss.)
Gelabert, W. P., Fulton, Mo. Buckle. No. 943,870; Dec. 21; Sp. p. 3946; Gaz. vol. 149; p. 686.
Geldermann, H., Gross-Lichterfelde-Ost, near Berlin, assignor to Actien Gesellschaft für Anilin Fabrikation, Berlin, Germany. Mordant-dyeing azo dye. No. 943,536; Dec. 14; Sp. p. 3226; Gaz. vol. 149; p. 543.
Gems, J. F., London, England. Lay figure and skirt-stand. No. 943,069; Dec. 14; Sp. p. 2263; Gaz. vol. 149; p. 384.
General Electric Company. (See Andrews, W. S., assignor.) (Reissue.)
General Electric Company. (See Dempster, L. E., assignor.)
General Electric Company. (See Emmet and Hewlett, assignors.)
General Electric Company. (See Larson, C. W., assignor.)
General Electric Company. (See Palmer, R., assignor.)

General Electric Company. (See Rogers, R. H., assignor.)
General Electric Company. (See Sargent and De Reamer, assignors.)
General Electric Company. (See Steinmetz, C. P., assignor.)
General Electric Company. (See Stevens, G. E., assignor.)
General Electric Company. (See Wiard, J. B., assignor.)
General Electric Company. (See Wood, H. I., assignor.)
General Fire Extinguisher Company. (See Reynolds, G. H., assignor.)
George N. Pierce Company. (See Fergusson and Sheppy, assignors.)
Gerhard, F., Traben-Trarbach, Germany. Bottle-stopper. No. 944,671; Dec. 28; Sp. p. 5685; Gaz. vol. 149; p. 986.
Gernandt, E. H., San Francisco, Cal. Shoe-polishing stand. No. 944,990; Dec. 28; Sp. p. 6364; Gaz. vol. 149; p. 1092.
Getchel, E. C. (See Bailey, F. C., assignor.)
Gibson, A. H., Easton, Pa., assignor to Ingersoll-Sergeant Drill Company, New York, N. Y. Coal-mining machine. No. 944,029; Dec. 21; Sp. p. 4300; Gaz. vol. 149; p. 741.
Gibson, A. H., Easton, Pa., assignor to Ingersoll-Rand Company, New York, N. Y. Channeling-machine. No. 944,672; Dec. 28; Sp. p. 5686; Gaz. vol. 149; p. 986.
Gibson, E. J., assignor of one-half to W. B. Burke, Charleston, Miss. Stock-lifter for sawmills. No. 943,304; Dec. 14; Sp. p. 2735; Gaz. vol. 149; p. 462.
Gibson, R. A., South Berkeley, assignor of one-half to J. B. Sartolou, Oakland, Cal. Music-leaf turner. No. 942,821; Dec. 7; Sp. p. 1622; Gaz. vol. 149; p. 266.
Gibson, R. L., Philadelphia, Pa. Manufacture of records for sound-reproducing machines. No. 943,631; Dec. 14; Sp. p. 3452; Gaz. vol. 149; p. 575.
Gliddens, W. W., Adel, Ga. Plow. No. 944,427; Dec. 28; Sp. p. 5140; Gaz. vol. 149; p. 902.
Glenandt, F. L., Boston, Mass. Egg-whip. No. 944,781; Dec. 28; Sp. p. 5930; Gaz. vol. 149; p. 1023.
Glesting, J. G., San Francisco, Cal., assignor to Herring-Hall-Marvin Safe Company, Hamilton, Ohio. Vault-vestibule. No. 942,633; Dec. 7; Sp. p. 1253; Gaz. vol. 149; p. 205.
Giffin, M. F., Cove, Oreg. Non-refillable bottle and bottle-valve. No. 944,030; Dec. 21; Sp. p. 4302; Gaz. vol. 149; p. 741.
Gifford, A. W., Worcester, Mass. Pencil-sharpener. No. 943,223; Dec. 14; Sp. p. 2556; Gaz. vol. 149; p. 434.
Gilbert, D. S., Reading, Pa. Quick-action triple valve. No. 942,634; Dec. 7; Sp. p. 1254; Gaz. vol. 149; p. 205.
Gilkerson, G. T. (See Corson and Gilkerson.)
Gill, T. E., Canton, Ohio. File. No. 944,730; Dec. 28; Sp. p. 5814; Gaz. vol. 149; p. 1006.
Gillespie, I. G., Oak Harbor, Ohio. Ice-cutting machine. No. 942,898; Dec. 14; Sp. p. 1842; Gaz. vol. 149; p. 325.
Gillet, J. J., Aix-la-Chapelle, Germany. Card-clothing. No. 944,031; Dec. 21; Sp. p. 4304; Gaz. vol. 149; p. 742.
Gillette Safety Razor Company. (See Edmonds, F. M., assignor.)
Gillette-Vibber Co. (See Vibber, W. H., assignor.)
Gilmore, E. E., Philadelphia, Pa. Overhead switch for electric railways. No. 944,131; Dec. 21; Sp. p. 4517; Gaz. vol. 149; p. 775.
Gilmore, E. E., Philadelphia, Pa. Overhead construction for electric railways. No. 944,186; Dec. 21; Sp. p. 4616; Gaz. vol. 149; p. 792.
Gilmore, L. C., Gardena, Cal. Gas-generator. No. 944,856; Dec. 28; Sp. p. 6107; Gaz. vol. 149; p. 1049.
Gimbel, C. C., San Antonio, Tex. Barrel-swing for store-counters. No. 943,871; Dec. 21; Sp. p. 3947; Gaz. vol. 149; p. 686.
Ginnel, F. A., McKeesport, Pa. Metallic tie and rail-fastener. No. 944,857; Dec. 28; Sp. p. 6109; Gaz. vol. 149; p. 1049.
Ginnel, H., Garden City, N. Y. Cuff-button. No. 942,635; Dec. 7; Sp. p. 1258; Gaz. vol. 149; p. 206.
Girard, L. B., assignor to Girard Manufacturing Company, Los Angeles, Cal. Window-shade tack. No. 942,321; Dec. 7; Sp. p. 625; Gaz. vol. 149; p. 99.
Girard Manufacturing Company. (See Girard, L. B., assignor.)
Girdany, M. L. J., Boston, Mass. Ear-ring. No. 943,185; Dec. 14; Sp. p. 2481; Gaz. vol. 149; p. 421.
Girdany, M. L. J., New York, N. Y. Ear-ring. No. 943,186; Dec. 14; Sp. p. 2482; Gaz. vol. 149; p. 421.
Girdler, L. T. (See French and Girdler.)
Giroud, F., New York, N. Y. Package-wrapping machine. No. 942,636; Dec. 7; Sp. p. 1259; Gaz. vol. 149; p. 206.
Gitchell, L. O., New York, N. Y. Combined sock and garter. No. 942,552; Dec. 7; Sp. p. 1096; Gaz. vol. 149; p. 178.
Gleason, A. H. (See Young and Gleason.)
Globe Optical Company. (See Wilhelm, L., assignor.)
Gloekler, J. E., Pittsburg, Pa. Air-cooling apparatus. No. 944,086; Dec. 21; Sp. p. 4413; Gaz. vol. 149; p. 760.
Gloekler, J. E., and A. B. Stahl, Pittsburg, Pa. Vegetable-cutter. No. 944,087; Dec. 21; Sp. p. 4415; Gaz. vol. 149; p. 760.
Glosser, W. N., Decatur, Ill. Device for operating switches. No. 943,928; Dec. 21; Sp. p. 4081; Gaz. vol. 149; p. 707.
Glover, H. M. R. (See Turner and Glover.)
Gminder, E., Reutlingen, Germany. Apparatus for treating fabrics with fluids. No. 943,632; Dec. 14; Sp. p. 3457; Gaz. vol. 149; p. 576.
Goehst, J. H., assignor to Federal Electric Company, Chicago, Ill. Electrically-illuminated sign. No. 943,246; Dec. 14; Sp. p. 2610; Gaz. vol. 149; p. 442.
Goforth, C. F. and M. T., Wichita, Kans. Sewing-machine. No. 942,899; Dec. 14; Sp. p. 1845; Gaz. vol. 149; p. 325.
Goforth, M. T. (See Goforth, C. F. and M. T.)
Göhrig, H., Darmstadt, Germany. Superheater. No. 944,428; Dec. 28; Sp. p. 5141; Gaz. vol. 149; p. 902.
Gold, E. H., Chicago, Ill. Heating system. No. 944,187; Dec. 21; Sp. p. 4618; Gaz. vol. 149; p. 792.
Gold, E. H., Chicago, Ill. Heating system. (Reissue.) No. 13,059; Dec. 21; Sp. p. 4737; Gaz. vol. 149; p. 812.
Gold, E. H., Chicago, Ill. Adjustable supporting device for pipes. No. 944,731; Dec. 28; Sp. p. 5815; Gaz. vol. 149; p. 1006.
Golden-Anderson Valve Specialty Company. (See Anderson, E. V., assignor.)
Goldenetz, A., Defiance, Ohio. Delivery apparatus. No. 943,970; Dec. 21; Sp. p. 4162; Gaz. vol. 149; p. 721.
Goldschmidt, H., Essen-on-the-Ruhr, Germany, assignor to Goldschmidt Thermit Co., New York, N. Y. Joining metal pieces. (Reissue.) No. 13,050; Dec. 7; Sp. p. 1778; Gaz. vol. 149; p. 286.
Goldschmidt Thermit Co. (See Goldschmidt, H., assignor.) (Reissue.)
Goldsmith & Co., C. P. (See Fischer, R., assignor.)
Goldsmith, F. E., assignor to Ceramic Machinery Company, Hamilton, Ohio. Tile-coating machinery. No. 944,607; Dec. 28; Sp. p. 5566; Gaz. vol. 149; p. 965.
Goodale, F. C., Tacoma, Wash. Sound-reproducing machine. No. 944,608; Dec. 28; Sp. p. 5570; Gaz. vol. 149; p. 966.
Goodhue, J. E., St. Charles, Ill. Corn-husking machine. No. 944,088; Dec. 21; Sp. p. 4416; Gaz. vol. 149; p. 761.
Goodknight, A. L., Mena, Ark. Air-brake-adjusting device for loaded and empty cars. No. 943,778; Dec. 21; Sp. p. 3759; Gaz. vol. 149; p. 654.
Goodman, N. J., assignor to Simplex Self Holding Carton Co., St. Louis, Mo. Carton or holder for laundried articles. No. 942,201; Dec. 7; Sp. p. 375; Gaz. vol. 149; p. 57.
Goodspeed, C. B. (See Whitridge and Goodspeed.)
Goodyear Tire and Rubber Company. (See Litchfield, P. W., assignor.)
Gordon, C. H., Grand Junction, assignor of two-ninths to W. M. Van Buren, two-ninths to J. Arentsen, and two-ninths to G. Bullock, Mesa county, Colo. Gun-sight. No. 943,872; Dec. 21; Sp. p. 3948; Gaz. vol. 149; p. 686.
Gorman, J. P., Chicago, Ill. Rail-cleaner. No. 944,132; Dec. 21; Sp. p. 4518; Gaz. vol. 149; p. 775.
Gorton, W. F. (See Smith and Gorton.)
Goss, G. W., Orla, Tex., assignor of one-half to C. M. Acrey, Carlsbad, N. Mex. Calculator. No. 943,779; Dec. 21; Sp. p. 3763; Gaz. vol. 149; p. 655.
Gotfredsen, F. (See Vogl and Gotfredsen.)
Gould Coupler Company. (See Richards, W. F., assignor.)
Grace, R. J., Portland, Oreg. Metallic reinforcing-bar for concrete construction. No. 942,202; Dec. 7; Sp. p. 376; Gaz. vol. 149; p. 57.
Graff, A., Wellington, Kans. Vehicle-wheel. No. 943,112; Dec. 14; Sp. p. 2345; Gaz. vol. 149; p. 398.
Graff, F., Witten, Germany. Machine for cutting meat into slices. No. 943,929; Dec. 21; Sp. p. 4083; Gaz. vol. 149; p. 707.
Graham, A. W. (See Connet and Graham.)
Graham, A. W., Bradford, Pa. Spark arrester and extinguisher. No. 944,237; Dec. 21; Sp. p. 4709; Gaz. vol. 149; p. 807.
Graham, H. E., *et al.* (See McCain, W. B., assignor.)
Graham, L. J., Richmond, Cal. Automatic lamp-lighter. No. 943,873; Dec. 21; Sp. p. 3949; Gaz. vol. 149; p. 687.
Graham, W., *et al.* (See Conklin, E. A., assignor.)
Grahl, G. de, Wilmersdorf, near Berlin, Germany. Furnace-door. No. 942,822; Dec. 7; Sp. p. 1624; Gaz. vol. 149; p. 267.
Grauer, W. C., Palmer, Ill. Hay-pitcher. No. 943,930; Dec. 21; Sp. p. 4084; Gaz. vol. 149; p. 707.
Graves, R. L., Sumpter, Oreg. Miner's lamp. No. 942,823; Dec. 7; Sp. p. 1625; Gaz. vol. 149; p. 267.
Gray, H. A., *et al.* (See Kenan, J. J. W., assignor.)
Gray, I. J., Lawrence, Kans. Railway-tie and rail. No. 944,133; Dec. 21; Sp. p. 4519; Gaz. vol. 149; p. 775.
Grayson, J. T., and J. I. Hentz, Biduntstown, Fla. Clamp for fence-wires. No. 942,064; Dec. 7; Sp. p. 47; Gaz. vol. 149; p. 10.
Grearson, F. A. (See Thompson, C. W., assignor.)
Great Western Manufacturing Company. (See Baylor, C. A., assignor.)
Grebel, P. J., Chicago, Ill., assignor to Manufacturers Equipment Company. Pneumatically-operated shaft. No. 942,065; Dec. 7; Sp. p. 48; Gaz. vol. 149; p. 10.
Greear, E. M. (See Greear and Cox.)

Greear, W. B. and E. M., and D. Cox, Honaker, Va.; said Cox assignor to said W. B. and E. M. Greear. Window-sash balance. No. 943,014; Dec. 14; Sp. p. 2127; Gaz. vol. 149; p. 364.
Green, C. R., assignor to National Vacuum Cleaning Company, Dayton, Ohio. Handpiece for vacuum cleaning systems. No. 942,139; Dec. 7; Sp. p. 249; Gaz. vol. 149; p. 37.
Green, H., assignor to R. E. Dimmitt, Griggsville, Ill. Rein-holder. No. 943,537; Dec. 14; Sp. p. 3227; Gaz. vol. 149; p. 543.
Greene, F. C., Cleveland, Ohio. Car-haul. No. 943,874; Dec. 21; Sp. p. 3952; Gaz. vol. 149; p. 687.
Greene, F. E., Courtland, Cal. Cherry-pitter. No. 944,089; Dec. 21; Sp. p. 4418; Gaz. vol. 149; p. 761.
Greenfield, E. J., Wichita, Kans. Mounting for artificial teeth. No. 943,113; Dec. 14; Sp. p. 2546; Gaz. vol. 149; p. 398.
Gregson, W., Fort Worth, Tex. Hook-and-eye box-fastener. No. 944,360; Dec. 28; Sp. p. 4991; Gaz. vol. 149; p. 878.
Greiner, C., New Haven, Conn. Riveting-machine. No. 942,637; Dec. 7; Sp. p. 1264; Gaz. vol. 149; p. 207.
Grey, H., assignor to American Universal Mill Company, New York, N. Y. Rolling-mill. No. 943,633; Dec. 14; Sp. p. 3458; Gaz. vol. 149; p. 576.
Gribling, A. (See Rohrbach, Dieckmann, Gribling, and Grote.)
Griffin, P. J., Boston, Mass. Buoyant bathing-suit. No. 944,782; Dec. 28; Sp. p. 5931; Gaz. vol. 149; p. 1023.
Griffiths, G. T. (See Russell, R. C., assignor.)
Groesbeck, T., Cincinnati, Ohio. Apparatus for detecting and indicating gases in the atmosphere. No. 943,015; Dec. 14; Sp. p. 2128; Gaz. vol. 149; p. 364.
Grönwall, E. A. A., A. R. Lindblad, and O. Stålhane, Ludvika, Sweden. Transformer-furnace. No. 942,961; Dec. 14; Sp. p. 1996; Gaz. vol. 149; p. 346.
Grönwall, E. A. A., A. R. Lindblad, and O. Stålhane, Ludvika, Sweden. Electric furnace. No. 943,224; Dec. 14; Sp. p. 2557; Gaz. vol. 149; p. 434.
Gross, J. C., *et al.* (See Fry, F. L., assignor.)
Grote, L. (See Rohrbach, Dieckmann, Gribling, and Grote.)
Grover, C. S. (See Wilkins, T. M., assignor.)
Grund, R. T., Chicago, Ill. Dress-shield device. No. 944,090; Dec. 21; Sp. p. 4419; Gaz. vol. 149; p. 761.
Grunwald, C., Bredeney, Germany. Melting-hearth for electric induction-furnaces. No. 943,403; Dec. 14; Sp. p. 2939; Gaz. vol. 149; p. 495.
Guenther, E., West New York, N. J. Circulating-pump. No. 944,032; Dec. 21; Sp. p. 4304; Gaz. vol. 149; p. 742.
Guett, M., assignor to Hart & Hegeman Manufacturing Company, Hartford, Conn. Electric switch. No. 943,016; Dec. 14; Sp. p. 2130; Gaz. vol. 149; p. 365.
Gulbransen, A. G., assignor to Gulbransen & Dickinson Company, Chicago, Ill. Pneumatically-operated piano. No. 944,033; Dec. 21; Sp. p. 4305; Gaz. vol. 149; p. 742.
Gulbransen, A. G., assignor to Gulbransen & Dickinson Company, Chicago, Ill. Pneumatic actuating unit. No. 944,034; Dec. 21; Sp. p. 4308; Gaz. vol. 149; p. 743.
Gulbransen & Dickinson Company. (See Gulbransen, A. G., assignor.)
Gumm, J. A., Philadelphia, Pa. Jack and locking means therefor. No. 944,962; Dec. 28; Sp. p. 6301; Gaz. vol. 149; p. 1063.
Gunnell, E., assignor to Manitowoc Dry Dock Company, Manitowoc, Wis. Antidrifting device. No. 942,855; Dec. 7; Sp. p. 1714; Gaz. vol. 149; p. 278.
Gunnes, J. H., Seattle, Wash. Portable savings-bank. No. 942,638; Dec. 7; Sp. p. 1265; Gaz. vol. 149; p. 207.
Guptill, F. C., assignor of one-half to W. F. Lynch, Elgin, Ill. Damper-regulator. No. 943,931; Dec. 21; Sp. p. 4086; Gaz. vol. 149; p. 708.
Gurney, A. J., Sunnyside, assignor of one-third to T. G. Warden, Chicago, and one-third to J. Rollo, Murphysboro, Ill. Loading-machine for box-cars. No. 943,225; Dec. 14; Sp. p. 2558; Gaz. vol. 149; p. 434.
Gutekunst, C. J. (See Ramthun and Gutekunst.)
Gutta Percha & Rubber Manufacturing Company. (See Bolton, A. C., assignor.)
Guttendorf, F., Pittsburg, Pa. Ink-well. No. 944,858; Dec. 28; Sp. p. 6111; Gaz. vol. 149; p. 1050.
Guyer, C., assignor of one-half to W. C. Crawford, Muncy, Pa. Rotary engine. No. 944,361; Dec. 28; Sp. p. 4992; Gaz. vol. 149; p. 879.
H. Mueller Manufacturing Company. (See Mueller, P., assignor.)
H. K. Miller Manfg. Co. (See Horrell and Bryant, assignors.)
H. L. Judd Company. (See Edsall, W. H., assignor.)
H. O. Peck Automobile Wheel Co. (See Peck, H. O., assignor.)
H. W. Butterworth & Sons Company. (See France, T. W., assignor.)
Hackett, T. P., assignor to Architectural Stone Company, Cincinnati, Ohio. Machine for making cement tiles. No. 943,971; Dec. 21; Sp. p. 4165; Gaz. vol. 149; p. 721.
Hackleman, D. L., Wellington, Colo. Derailing device. No. 943,932; Dec. 21; Sp. p. 4088; Gaz. vol. 149; p. 708.
Hadka, J., Chicago, Ill. Vehicle-shield. No. 944,783; Dec. 28; Sp. p. 5933; Gaz. vol. 149; p. 1023.
Haeske, C. M., South Bend, Ind. Running-gear for wagons. No. 943,742; Dec. 21; Sp. p. 3691; Gaz. vol. 149; p. 642.
Haeske, C. M., South Bend, Ind. Dump-wagon. No. 943,743; Dec. 21; Sp. p. 3692; Gaz. vol. 149; p. 642.
Hagadone, C. A., Western Springs, Ill., assignor to International Harvester Company. Hay-stacker. No. 944,263; Dec. 28; Sp. p. 4772; Gaz. vol. 149; p. 844.
Hagerty, J., Scott township, Allegheny county, Pa. Window-spring. No. 943,147; Dec. 14; Sp. p. 2417; Gaz. vol. 149; p. 410.
Hague, A. G., Des Moines, Iowa. Corrugated-metal culvert. No. 942,256; Dec. 7; Sp. p. 488; Gaz. vol. 149; p. 76.
Haight, W. H., Minneapolis, Minn. Holder for ice-cream cones. No. 943,070; Dec. 14; Sp. p. 2265; Gaz. vol. 149; p. 384.
Hale-Kilburn Metal Company. (See Budd, E. G., assignor.)
Hall, C. P., Chicago, Ill. Centrifugal governor. No. 942,900; Dec. 14; Sp. p. 1846; Gaz. vol. 149; p. 325.
Hallock, R. B., Portland, Oreg. Illuminated telephone-dial. No. 943,305; Dec. 14; Sp. p. 2736; Gaz. vol. 149; p. 462.
Halstead, F. H., Pittsfield, Mass. Hydraulic brake. No. 944,429; Dec. 28; Sp. p. 5142; Gaz. vol. 149; p. 902.
Ham, A. W., Troy, N. Y. Track-sander. No. 942,726; Dec. 7; Sp. p. 1440; Gaz. vol. 149; p. 235.
Hamer, H. G., Hooversville, Pa. Slack-adjuster for railway-brakes. No. 944,609; Dec. 28; Sp. p. 5573; Gaz. vol. 149; p. 966.
Hamilton, C. H., West Kensington, London, England. Grinding-mill. No. 944,550; Dec. 28; Sp. p. 5436; Gaz. vol. 149; p. 943.
Hamilton, E. J., Indiana Harbor, Ind. Steam-engine. No. 944,035; Dec. 21; Sp. p. 4311; Gaz. vol. 149; p. 743.
Hamilton, G. H., Portland, Oreg. Permutation-lock. No. 942,553; Dec. 7; Sp. p. 1097; Gaz. vol. 149; p. 178.
Hamilton, J., Seattle, Wash. Gold-saving machine. No. 942,962; Dec. 14; Sp. p. 1998; Gaz. vol. 149; p. 346.
Hamilton, J. A. (See Ward and Hamilton.)
Hamm, W. S., Newton, Mass., assignor, by mesne assignments, to Krentler-Arnold Hinge Last Company, Detroit, Mich. Last. No. 942,554; Dec. 7; Sp. p. 1100; Gaz. vol. 149; p. 178.
Hamm, W. S., Hubbard Woods, and T. A. Legge, assignors to Adams & Westlake Company, Chicago, Ill. Berth-lamp. No. 942,963; Dec. 14; Sp. p. 2001; Gaz. vol. 149; p. 347.
Hammack, H. H. (See Trammell and Hammack.)
Hammick, L. (See McGuire and Hammick.)
Hand, J., Minneapolis, Minn. Hammock-stand. No. 944,784; Dec. 28; Sp. p. 5935; Gaz. vol. 149; p. 1024.
Handschin, A., Basel, Switzerland, and H. Kuny, St. Ludwig, Germany. Ribbon-loom. No. 944,610; Dec. 28; Sp. p. 5575; Gaz. vol. 149; p. 966.
Hankin, M., Brussels, Belgium. Electric resistance apparatus. No. 942,555; Dec. 7; Sp. p. 1102; Gaz. vol. 149; p. 179.
Hannoversche Cakesfabrik H. Bahlsen. (See Tietjens, H., assignor.)
Hans, E. E., Minneapolis, Minn. Liquid-indicator. No. 943,596; Dec. 14; Sp. p. 3332; Gaz. vol. 149; p. 562.
Hansen, H. J., Racine, Wis. Mail-bag catching and delivering apparatus. No. 943,071; Dec. 14; Sp. p. 2266; Gaz. vol. 149; p. 384.
Hansen, J. M., assignor to Forged Steel Wheel Company, Pittsburg, Pa. Forged steel car-wheel. No. 942,381; Dec. 7; Sp. p. 725; Gaz. vol. 149; p. 119.
Hansen, T. H. C. (See Steele and Hansen.)
Hansen, W. H., and A. J. Price, Chicago, Ill. Baling-machine. No. 942,257; Dec. 7; Sp. p. 491; Gaz. vol. 149; p. 76.
Harcarik, J. T., Wilkes-Barre, Pa. Sprag remover and retainer. No. 943,538; Dec. 14; Sp. p. 3228; Gaz. vol. 149; p. 543.
Hardinge, F., Chicago, Ill. Receptacle. No. 943,825; Dec. 21; Sp. p. 3853; Gaz. vol. 149; p. 670.
Hardsocg, M., Ottumwa, Iowa. Feed for pneumatic tools. No. 942,066; Dec. 7; Sp. p. 51; Gaz. vol. 149; p. 11.
Hardsocg Wonder Drill Co. (See Smith, C. J., assignor.)
Hardwick, J. E. (See Hardwick, W., assignor.)
Hardwick, W., York, assignor of one-half to J. E. Hardwick, Perth, Western Australia, Australia. Metal-framed horse-collar. No. 942,824; Dec. 7; Sp. p. 1627; Gaz. vol. 149; p. 267.
Hargrove, W., assignor of one-half to P. A. Elliott, Montreal, Quebec, Canada. Foot-power motor. No. 942,556; Dec. 7; Sp. p. 1104; Gaz. vol. 149; p. 179.
Harkness, L. T., Jamestown, assignor, by mesne assignments, to Empire Voting Machine Company, Rochester and Jamestown, N. Y. Voting-machine lock-out. No. 943,017; Dec. 14; Sp. p. 2131; Gaz. vol. 149; p. 365.
Harleman, P. J., Boston, Mass. Mechanical stoker. No. 944,551; Dec. 28; Sp. p. 5437; Gaz. vol. 149; p. 943.
Harling, W., Tanner, Wash. Mechanical amusement apparatus. No. 943,539; Dec. 14; Sp. p. 3230; Gaz. vol. 149; p. 544.
Harn, I. B., Hoopeston, Ill. Spoon. No. 944,091; Dec. 21; Sp. p. 4420; Gaz. vol. 149; p. 762.
Harper, C. L., Philadelphia, Pa. Trousers hanger and press. No. 944,134; Dec. 21; Sp. p. 4521; Gaz. vol. 149; p. 776.
Harper, G. C., *et al.* (See Anderson, A., assignor.)
Harpham, G. F. (See Kelly, R. W., assignor.)

Harrell, A. A. (See Whitten and Harrell.)
Harriman, J., *et al.* (See Bobbitt, H. P., assignor.)
Harriman, J. A., *et al.* (See Bobbitt, H. P., assignor.)
Harrington, F. G., Hollins, Ala. Log-turner. No. 943,875; Dec. 21; Sp. p. 3955; Gaz. vol. 149; p. 687.
Harris, A. E. (See Harris, F. G. and A. E.)
Harris, F. G. and A. E., Salem, Ohio. Stanchion. No. 942,639; Dec. 7; Sp. p. 1267; Gaz. vol. 149; p. 207.
Harris, M., Newark, N. J. Sod-cutting tool. No. 944,859; Dec. 28; Sp. p. 6112; Gaz. vol. 149; p. 1050.
Harris, W. R., Irvington-on-the-Hudson, N. Y. Speedometer. No. 942,497; Dec. 7; Sp. p. 989; Gaz. vol. 149; p. 159.
Harrison, H. H., Boston, Mass. Garment-fastener. No. 944,673; Dec. 28; Sp. p. 5680; Gaz. vol. 149; p. 987.
Harrison, H. O., assignor of one-half to S. McCreary, Wichita, Kans. Electric clock system. No. 943,933; Dec. 21; Sp. p. 4089; Gaz. vol. 149; p. 708.
Harrison, W. R., and A. C. Jacoby, Massillon, Ohio; said Jacoby assignor to said Harrison. Silo. No. 942,640; Dec. 7; Sp. p. 1268; Gaz. vol. 149; p. 207.
Harrold, E., Leetonia, Ohio. Cutter-head. No. 943,540; Dec. 14; Sp. p. 3231; Gaz. vol. 149; p. 544.
Harry, H. W., Kansas City, Mo. Corrugated sheet-metal culvert. No. 943,306; Dec. 14; Sp. p. 2738; Gaz. vol. 149; p. 462.
Harsh, J. J. (See Pearce, J. C., assignor.)
Hart, E., assignor to New England Watch Co., Waterbury, Conn. Winding and setting mechanism for watches. No. 944,860; Dec. 28; Sp. p. 6113; Gaz. vol. 149; p. 1050.
Hart & Hegeman Manufacturing Company. (See Guett, M., assignor.)
Härtel, L., and L. Kissling, Remscheid, Germany. Apparatus for use in twisting metal rods or bars. No. 942,322; Dec. 7; Sp. p. 626; Gaz. vol. 149; p. 100.
Hartman, H. B., assignor to McDowell Manufacturing Company, Pittsburg, Pa. Electrolytic water-purifying apparatus. No. 943,187; Dec. 14; Sp. p. 2482; Gaz. vol. 149; p. 421.
Hartman, H. B., assignor to McDowell Manufacturing Company, Pittsburg, Pa. Purifying water electrolytically. No. 943,188; Dec. 14; Sp. p. 2486; Gaz. vol. 149; p. 422.
Hartmann, E. L. (See Collins and Hartmann.)
Hartog, M. (See Haywood, D. H., assignor.)
Hartwell, L. L., Revere, assignor to A. G. Walton, Wakefield, Mass. Machine for making skived blanks for heel-counters, &c. No. 942,557; Dec. 7; Sp. p. 1105; Gaz. vol. 149; p. 179.
Hasek, M. J. (See Hasek, T. A., assignor.)
Hasek, T. A., assignor of one-half to M. J. Hasek, Cleveland, Ohio. Faucet or valve device for washbasins and the like. No. 943,404; Dec. 14; Sp. p. 2940; Gaz. vol. 149; p. 495.
Hasha, W. C., *et al.* (See Mercer, J. W., assignor.)
Hasselback, W. R., Falls Creek, Pa. Brick-cutting machine. No. 943,541; Dec. 14; Sp. p. 3233; Gaz. vol. 149; p. 544.
Hastreiter, J., Morgantown, W. Va., and N. Bielievens, Dunbar, Pa. Machine for making wire-glass. No. 944,861; Dec. 28; Sp. p. 6115; Gaz. vol. 149; p. 1050.
Hatfield, C. B., Jr., Oshkosh, Wis. Automobile driving mechanism. No. 943,744; Dec. 21; Sp. p. 3695; Gaz. vol. 149; p. 642.
Hatfield, C. B., Jr., Oshkosh, Wis. Automobile driving mechanism. No. 943,745; Dec. 21; Sp. p. 3698; Gaz. vol. 149; p. 643.
Hatfield, C. B., Jr., Oshkosh, Wis. Automobile driving mechanism. No. 943,746; Dec. 21; Sp. p. 3701; Gaz. vol. 149; p. 643.
Hatfield, W. R., Meskill, Wash. Rear sight for rifles. No. 943,542; Dec. 14; Sp. p. 3235; Gaz. vol. 149; p. 545.
Hathaway, D. C., Sheldon, Ill. Internal-combustion engine. No. 944,362; Dec. 28; Sp. p. 4995; Gaz. vol. 149; p. 879.
Hatossy, C., Passaic, N. J. Non-refillable bottle. No. 944,092; Dec. 21; Sp. p. 4421; Gaz. vol. 149; p. 762.
Hauerstein, L., Jersey City, N. J. Type-writer. No. 942,825; Dec. 7; Sp. p. 1628; Gaz. vol. 149; p. 268.
Haughton, F. A., New York, N. Y. Steam-generator, superheater, and feed-water heater. No. 943,189; Dec. 14; Sp. p. 2489; Gaz. vol. 149; p. 422.
Haughton, W. R., Sealdah, Calcutta, India. Cast-iron sleeper. No. 944,135; Dec. 21; Sp. p. 4522; Gaz. vol. 149; p. 776.
Havard, O. D., Scranton, Pa. Device for measuring granular materials. No. 943,405; Dec. 14; Sp. p. 2942; Gaz. vol. 149; p. 496.
Havecotte, J. H., and M. Stanley, Somerville, Tex. Match-scratcher. No. 944,363; Dec. 28; Sp. p. 4998; Gaz. vol. 149; p. 880.
Haven, W. S., Racine, Wis. Floor-dressing machine. No. 944,862; Dec. 28; Sp. p. 6117; Gaz. vol. 149; p. 1051.
Haven, W. S., Racine, Wis. Floor-dressing machine. No. 944,963; Dec. 28; Sp. p. 6303; Gaz. vol. 149; p. 1063.
Havenstrite, C. D., Newark, N. J. Apparatus for making can-ice. No. 943,226; Dec. 14; Sp. p. 2563; Gaz. vol. 149; p. 435.
Hawk, O. L., Yorktown, Ind. Potato cutter and planter. No. 944,430; Dec. 28; Sp. p. 5144; Gaz. vol. 149; p. 903.
Hawks, M. L., New York, N. Y. Knife-sharpener. No. 942,172; Dec. 7; Sp. p. 318; Gaz. vol. 149; p. 48.
Haworth, T., J. Briggs, and W. Ayrey, assignors to R. H. Place, Rishton, and G. Crawshaw, Clayton-le-Moors, England. Loom-dobby. No. 942,826; Dec. 7; Sp. p. 1640; Gaz. vol. 149; p. 268.
Hay, J. D., assignor of one-half to W. R. Donaldson, Chicago, Ill. Explosive-engine. No. 942,140; Dec. 7; Sp. p. 251; Gaz. vol. 149; p. 38.
Hayes, J. A. J., Manchester, England. Printing machinery. (Reissue.) No. 13,051; Dec. 7; Sp. p. 1780; Gaz. vol. 149; p. 287.
Haynes, J., assignor to C. A. Bradshaw, W. E. Cuthbertson, Manchester, and T. S. Sheldrake, Ilford, England. Wheel-rim for pneumatic tires. No. 944,964; Dec. 28; Sp. p. 6309; Gaz. vol. 149; p. 1063.
Hayward, O. H., Falconer, N. Y. Cylindrical sander. No. 944,431; Dec. 28; Sp. p. 5147; Gaz. vol. 149; p. 903.
Haywood, D. H., New York, N. Y., assignor of one-half to M. Hartog, Paterson, N. J. Garment-supporter. No. 942,323; Dec. 7; Sp. p. 627; Gaz. vol. 149; p. 100.
Haywood, H. O., Savannah, Ga. Post-office box. No. 942,203; Dec. 7; Sp. p. 378; Gaz. vol. 149; p. 57.
Haywood, M. B., Richmond, Ark. Device for preparing horses' hoofs for shoeing. No. 944,432; Dec. 28; Sp. p. 5149; Gaz. vol. 149; p. 903.
Haywood, W. A., Denver, Colo. Tag holder and stringer and loop-knotter therefor. No. 943,972; Dec. 21; Sp. p. 4166; Gaz. vol. 149; p. 721.
Hazelrigg, R., Oakland, Cal. Insect-trap. No. 942,204; Dec. 7; Sp. p. 379; Gaz. vol. 149; p. 58.
Head, R., assignor to R. L. Watkins, New York, N. Y. Rheostat. No. 944,785; Dec. 28; Sp. p. 5936; Gaz. vol. 149; p. 1024.
Headson, F. A., La Fayette, Ind. Nut-lock. No. 943,826; Dec. 21; Sp. p. 3855; Gaz. vol. 149; p. 671.
Heaton-Peninsular Button Fastener Company. (See Thayer, J. F., assignor.)
Hebden, J. C. (See Daniell and Hebden.)
Hebden, J. C., Providence, R. I., and F. H. Daniell, Franklin, N. H. Yarn-support for dyeing. No. 942,856; Dec. 7; Sp. p. 1715; Gaz. vol. 149; p. 278.
Hecht, J. L., *et al.* (See Einfeldt, E., assignor.)
Heckman, N. L., Marion, Ind. Combined disk and shoe seeding device. No. 943,406; Dec. 14; Sp. p. 2944; Gaz. vol. 149; p. 496.
Heckscher, A. (See Bräutigam, A., assignor.) (Reissue.)
Hediger, C., Greenville, Ill. Can-polishing machine. No. 943,247; Dec. 14; Sp. p. 2612; Gaz. vol. 149; p. 442.
Hedrick, H. J., Lacon, Ill. Mail-bag-delivering apparatus. No. 943,876; Dec. 21; Sp. p. 3956; Gaz. vol. 149; p. 687.
Hedstrom, C. O., Springfield, Mass. Internal-combustion engine. No. 943,072; Dec. 14; Sp. p. 2271; Gaz. vol. 149; p. 385.
Hefner, J. M., Bryans Mills, Tex. Post-hole digger. No. 944,552; Dec. 28; Sp. p. 5439; Gaz. vol. 149; p. 945.
Heidenreich, C., Vohwinkel, near Elberfeld, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Disazo dye. No. 944,328; Dec. 28; Sp. p. 4920; Gaz. vol. 149; p. 867.
Heidt, G., New York, N. Y. Baby-gate. No. 942,067; Dec. 7; Sp. p. 57; Gaz. vol. 149; p. 11.
Heil, E. J. (See Birner and Heil.)
Heilemann, W., assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Fluid-brake. No. 944,433; Dec. 28; Sp. p. 5149; Gaz. vol. 149; p. 904.
Heilprin, W. A., Philadelphia, Pa. Air-gun. No. 944,188; Dec. 21; Sp. p. 4622; Gaz. vol. 149; p. 793.
Heimbuecher, J. J., Pittsburg, Pa. Water-curb-box lid. No. 943,407; Dec. 14; Sp. p. 2946; Gaz. vol. 149; p. 497.
Heinemann, T. P., assignor to Triple Sign Company, Connersville, Ind. Triple-sign manufacture. No. 942,498; Dec. 7; Sp. p. 992; Gaz. vol. 149; p. 160.
Heinrich, J., assignor of one-half to E. T. Powers, Kansas City, Mo. Refrigerating apparatus. No. 942,445; Dec. 7; Sp. p. 859; Gaz. vol. 149; p. 140.
Heinrich, J., assignor of one-half to E. T. Powers, Kansas City, Mo. Refrigerating apparatus. No. 942,499; Dec. 7; Sp. p. 994; Gaz. vol. 149; p. 160.
Heinze, J. O., Jr., Lowell, Mass. Internal-combustion engine. No. 943,408; Dec. 14; Sp. p. 2946; Gaz. vol. 149; p. 497.
Helena Manufacturing Company. (See McCutchan, A. H., assignor.)
Helfenstein, A., Vienna, Austria-Hungary. Electric furnace with raised charging-pit. No. 942,068; Dec. 7; Sp. p. 58; Gaz. vol. 149; p. 11.
Heller, B., Chicago, Ill. Insect catcher or paper holder. No. 944,434; Dec. 28; Sp. p. 5151; Gaz. vol. 149; p. 904.
Heller, E. W., Newark, N. J. Filter-press. No. 942,173; Dec. 7; Sp. p. 319; Gaz. vol. 149; p. 48.
Helms, J. H., and J. E. Black, Charlotte, N. C. Auto-operating churn. No. 944,965; Dec. 28; Sp. p. 6311; Gaz. vol. 149; p. 1064.
Hemmerling, J. (See Hemmerling, J. and J.)
Hemmerling, J. and J., Paterson, N. J. Movable weather-strip. No. 944,093; Dec. 21; Sp. p. 4423; Gaz. vol. 149; p. 762.
Henderson, E. L., assignor to Kemper-Thomas Company, Norwood, Ohio. Apron. No. 944,553; Dec. 28; Sp. p. 5440; Gaz. vol. 149; p. 946.
Hendricks, A., Grand Rapids, Mich. Combination crib and baby-carriage. No. 942,174; Dec. 7; Sp. p. 322; Gaz. vol. 149; p. 49.
Hendricks, T. A. J., Board Tree, W. Va. Railway-tie plate. No. 943,073; Dec. 14; Sp. p. 2274; Gaz. vol. 149; p. 385.
Hennessy, T. B., Chicago, Ill., assignor to Champion Chemical Company, Springfield, Ohio. Post-mortem table. No. 943,827; Dec. 21; Sp. p. 3856; Gaz. vol. 149; p. 671.

Hennicke, C. A., Buffalo, N. Y. Evener and whiffletree coupling. No. 944,264; Dec. 28; Sp. p. 4773; Gaz. vol. 149; p. 844.
Henry, G. W., Sr., Bloomington, Ill. Nut-holder and joint-supporter for railway-rails. No. 943,543; Dec. 14; Sp. p. 3236; Gaz. vol. 149; p. 545.
Henry, R. A., Irwin, Pa. Dish-washing machine. No. 944,329; Dec. 28; Sp. p. 4921; Gaz. vol. 149; p. 867.
Henry, S., Lilesville, N. C. Mail-delivery apparatus. No. 943,934; Dec. 21; Sp. p. 4003; Gaz. vol. 149; p. 709.
Hensley, C. L., White Bluffs, Wash. Exhaust-muffler. No. 943,544; Dec. 14; Sp. p. 3237; Gaz. vol. 149; p. 545.
Hentz, J. I. (See Grayson and Hentz.)
Hepburn, L. L., assignor to Marlin Firearms Company, New Haven, Conn. Magazine-firearm. No. 943,828; Dec. 21; Sp. p. 3858; Gaz. vol. 149; p. 671.
Herbrandson, H. E., Alcester, S. D. Trip mechanism for corn-planters. No. 944,189; Dec. 21; Sp. p. 4627; Gaz. vol. 149; p. 793.
Herman, R., Crafton, Pa. Frame structure for blue-printing apparatus. No. 942,175; Dec. 7; Sp. p. 323; Gaz. vol. 149; p. 49.
Hermann, M. P., Philadelphia, Pa. Thermometer case and instrument. No. 943,676; Dec. 21; Sp. p. 3558; Gaz. vol. 149; p. 620.
Herndon, F. H., Sanford, Fla. Motor. No. 945,001; Dec. 28; Sp. p. 6380; Gaz. vol. 149; p. 1095.
Herring-Hall-Marvin Safe Company. (See Giesting, J. G., assignor.)
Herrmann, E., Uster, Switzerland. Storage-receptacle. No. 944,435; Dec. 28; Sp. p. 5153; Gaz. vol. 149; p. 904.
Herschlay, W., Chicago, Ill. Vaginal syringe. No. 944,136; Dec. 21; Sp. p. 4521; Gaz. vol. 149; p. 776.
Hertzberg, H. (See Wohl and Hertzberg.)
Hess, G. W., Hempstead, N. Y. Trap. No. 942,069; Dec. 7; Sp. p. 59; Gaz. vol. 149; p. 12.
Hess, H., Philadelphia, Pa. Ball-bearing. No. 944,863; Dec. 28; Sp. p. 6120; Gaz. vol. 149; p. 1051.
Hesson, W. W., Toronto, Ontario, Canada. Stair-carpet fastener. No. 942,641; Dec. 7; Sp. p. 1271; Gaz. vol. 149; p. 208.
Heulings, W. H. (See Malocsay, F. X., assignor.)
Heuser, G. (See Nathan and Heuser.)
Hewitt, J. H., Edgbaston, Birmingham, assignor of one-half to J. Walker, Jr., London, England. Loose-leaf book, temporary binder, file, and the like. No. 944,554; Dec. 28; Sp. p. 5440; Gaz. vol. 149; p. 946.
Hewlett, E. M. (See Emmet and Hewlett.)
Heys, J. J., Lynn, assignor, by mesne assignments, to T. G. Plant, Boston, Mass. Breaster-knife-grinding machine. No. 944,238; Dec. 21; Sp. p. 4710; Gaz. vol. 149; p. 807.
Hiatt, O. C., Elwood, Ind. Flue-block mold. No. 942,779; Dec. 7; Sp. p. 1544; Gaz. vol. 149; p. 254.
Hickman, J. F., Tampa, Fla. Composite support for posts and poles. No. 943,747; Dec. 21; Sp. p. 3703; Gaz. vol. 149; p. 644.
Hicks Improved Engine Brake Company. (See Hicks, J. A., assignor.)
Hicks, J. A., assignor to Hicks Improved Engine Brake Company, Atlanta, Ga. Fluid-pressure brake system. No. 944,485; Dec. 28; Sp. p. 5267; Gaz. vol. 149; p. 921.
Hicks, J. A., assignor to Hicks Improved Engine Brake Company, Atlanta, Ga. Fluid-pressure brake system. No. 944,486; Dec. 28; Sp. p. 5277; Gaz. vol. 149; p. 922.
Higgins, A. C., and G. N. Jeppson, Worcester, Mass. Treating electric-furnace products. No. 944,436; Dec. 28; Sp. p. 5155; Gaz. vol. 149; p. 905.
Higgins, A. E., and J. D. Ormrod, Emaus, Pa. Core-cutting machine. No. 944,137; Dec. 21; Sp. p. 4525; Gaz. vol. 149; p. 777.
Higgins, E., Lansing, Mich. Internal-combustion engine. No. 942,070; Dec. 7; Sp. p. 60; Gaz. vol. 149; p. 12.
Higgins, E., Lansing, Mich. Governor for internal-combustion engines. No. 942,071; Dec. 7; Sp. p. 62; Gaz. vol. 149; p. 12.
Hilchey, C. A. (See Hope, Farquhar, and Hilchey.)
Hildebrandt, E., assignor of one-half to W. W. Marsh, Spokane, Wash. Vibrating propeller. No. 943,074; Dec. 14; Sp. p. 2275; Gaz. vol. 149; p. 385.
Hill, A. J., Woodford Green, and F. C. D. Mann, Hayes, England. Apparatus for electrically igniting gas-burners. No. 942,901; Dec. 14; Sp. p. 1848; Gaz. vol. 149; p. 325.
Hill, B. B., assignor to B. B. Hill Manufacturing Company, Philadelphia, Pa. Reversible ribbon-feed for dating-stamps. No. 942,827; Dec. 7; Sp. p. 1643; Gaz. vol. 149; p. 268.
Hill, E., Amsden, Ohio. Chicken-separator. No. 942,902; Dec. 14; Sp. p. 1851; Gaz. vol. 149; p. 326.
Hill, E., Jr., Norwalk, Conn. Tide-set-calculating instrument for navigators. No. 944,437; Dec. 28; Sp. p. 5156; Gaz. vol. 149; p. 905.
Hill, E. A., assignor to Chicago Grain Door Company, Chicago, Ill. Combined hanger and track for car-doors. No. 942,324; Dec. 7; Sp. p. 629; Gaz. vol. 149; p. 100.
Hille, W. J., assignor to National Arms and Stamping Company, Philadelphia, Pa. Extensible roller-skate. No. 944,991; Dec. 28; Sp. p. 6365; Gaz. vol. 149; p. 1093.
Hilliard, E. H. (See Skaala and Hilliard.)
Hilton, I., Philadelphia, Pa. Cloth-folder or hem-gage. No. 944,004; Dec. 21; Sp. p. 4424; Gaz. vol. 149; p. 762.
Hinds, H. J., Hillyard, Wash. Adjustable hanger for lights. No. 944,786; Dec. 28; Sp. p. 5939; Gaz. vol. 149; p. 1024.
Hiscock, J. H., Minneapolis, Minn. Knockdown cupboard and wardrobe. No. 943,075; Dec. 14; Sp. p. 2276; Gaz. vol. 149; p. 386.
Hock, H. W., assignor to Youngstown Sheet and Tube Company, Youngstown, Ohio. Skelp-treating apparatus for lapweld pipe. No. 942,176; Dec. 7; Sp. p. 327; Gaz. vol. 149; p. 50.
Hodge, H. D., Waltham Abbey, England, assignor to Nobel's Explosives Company, Limited, Glasgow, Scotland. Means for piling disks. No. 944,364; Dec. 28; Sp. p. 4999; Gaz. vol. 149; p. 880.
Hodges, J. M., Radford, Va. Subsoiler-plow. No. 944,095; Dec. 21; Sp. p. 4426; Gaz. vol. 149; p. 763.
Hodgkinson, F., Edgewood Park, Pa., assignor to Westinghouse Machine Company. Blading for turbines. No. 943,347; Dec. 14; Sp. p. 2835; Gaz. vol. 149; p. 477.
Hodgkinson, F., Edgewood Park, Pa., assignor to Westinghouse Machine Company. Blade-holding means. No. 943,348; Dec. 14; Sp. p. 2837; Gaz. vol. 149; p. 477.
Hodgkinson, F., Edgewood Park, Pa., assignor to Westinghouse Machine Company. Elastic-fluid turbine. No. 943,349; Dec. 14; Sp. p. 2839; Gaz. vol. 149; p. 477.
Hodgkinson, W. R. (See Peck and Hodgkinson.)
Hoe, R. (See MacConnell, H. C., assignor.)
Hoener, H. C., and F. Andreas, assignors to Bridge & Beach Manufacturing Company, St. Louis, Mo. Dumping-grate. No. 943,748; Dec. 21; Sp. p. 3704; Gaz. vol. 149; p. 644.
Hoff, C. L., assignor to Standard Chain Company, York, Pa. Electric chain-link-welding apparatus. No. 943,190; Dec. 14; Sp. p. 2492; Gaz. vol. 149; p. 423.
Hoffman, E., New York, N. Y., assignor to American Stopper Company. Jar and bottle closure. No. 942,141; Dec. 7; Sp. p. 255; Gaz. vol. 149; p. 38.
Hoffman, G. (See Buetikofer and Hoffman.)
Hoffman, J. J., assignor to P. H. Murphy, St. Louis, Mo. Carline. No. 942,258; Dec. 7; Sp. p. 493; Gaz. vol. 149; p. 76.
Hoffman, L. R., Oil City, Pa. Spanner-wrench. No. 943,935; Dec. 21; Sp. p. 4006; Gaz. vol. 149; p. 709.
Hoffmann, A. (See Bomborn and Hoffmann.)
Hohenstein, R., Meacham, Oreg. Folding box or crate. No. 942,642; Dec. 7; Sp. p. 1273; Gaz. vol. 149; p. 208.
Hohlfeld, H. L., Philadelphia, Pa. Suspension-couch. No. 942,259; Dec. 7; Sp. p. 494; Gaz. vol. 149; p. 77.
Hoke, H. E., assignor of one-half to E. G. Eckert, Hanover, Pa. Penholder. No. 944,190; Dec. 21; Sp. p. 4629; Gaz. vol. 149; p. 793.
Hoke, H. E., assignor of one-half to E. G. Eckert, Hanover, Pa. Penholder. No. 944,191; Dec. 21; Sp. p. 4630; Gaz. vol. 149; p. 793.
Holden, G., Merchantville, N. J., assignor to Bernstein Mfg. Co., Philadelphia, Pa. Metallic cabinet. No. 943,350; Dec. 14; Sp. p. 2841; Gaz. vol. 149; p. 477.
Holden, T. J., Muncie, Ind. Shearing device. No. 944,555; Dec. 28; Sp. p. 5443; Gaz. vol. 149; p. 946.
Holekamp, R. G., Comfort, Tex. Double-acting pump. No. 943,018; Dec. 14; Sp. p. 2135; Gaz. vol. 149; p. 366.
Holgate, J., Luipaardsvlei, Transvaal. Reciprocating engine. No. 943,829; Dec. 21; Sp. p. 3862; Gaz. vol. 149; p. 672.
Holland, N., and A. J. Kidd, assignors of one-third to Sherfey & Kidd Company, Brazil, Ind. Display-cabinet. No. 943,877; Dec. 21; Sp. p. 3960; Gaz. vol. 149; p. 688.
Hollis, H. L., Chicago, Ill. Railway-tie. No. 943,409; Dec. 14; Sp. p. 3951; Gaz. vol. 149; p. 497.
Hollis, H. L., Chicago, Ill. Railway-tie. No. 943,410; Dec. 14; Sp. p. 2952; Gaz. vol. 149; p. 498.
Holloway, A., Rochester, N. Y. Pipe connection. No. 943,677; Dec. 21; Sp. p. 3560; Gaz. vol. 149; p. 620.
Holly, C. C., *et al.* (See Holly, S. T., assignor.)
Holly, S. T., assignor of one-fourth to C. C. Holly, one-fourth to L. M. Marston, and one-fourth to A. M. Marston, Los Angeles, Cal. Regulator for turbines. No. 942,828; Dec. 7; Sp. p. 1645; Gaz. vol. 149; p. 269.
Holly, S. T., assignor of one-fourth to C. C. Holly, one-fourth to L. M. Marston, and one-fourth to A. M. Marston, Los Angeles, Cal. Turbine. No. 942,829; Dec. 7; Sp. p. 1649; Gaz. vol. 149; p. 269.
Holman, S. A., Santa Maria, Cal. Wrench. No. 943,545; Dec. 14; Sp. p. 3238; Gaz. vol. 149; p. 545.
Holmes, A. J., Rockville, Conn., assignor to Belding Brothers & Co. Dental-floss spool. No. 944,992; Dec. 28; Sp. p. 6366; Gaz. vol. 149 p. 1093.
Holmes, E. B. (See Beugler, E. F., assignor.)
Holmes, J. P., Ocean City, N. J. Reinforced-concrete piling. No. 942,142; Dec. 7; Sp. p. 257; Gaz. vol. 149; p. 38.
Holmes, W. E., Seattle, Wash. Spray or needle bath device. No. 944,611; Dec. 28; Sp. p. 5577; Gaz. vol. 149; p. 967.
Holmested, F. K., Quinnimont, W. Va. Loading-machine. No. 944,438; Dec. 28; Sp. p. 5159; Gaz. vol. 149; p. 905.

Holmgren, J. A., New Britain, assignor of one-half to J. E. Johnson, Meriden, Conn. Coffee-pot. No. 942,558; Dec. 7; Sp. p. 1108; Gaz. vol. 149; p. 180.
Holt, G., Watervliet, N. Y. Pipe or rod carrier. No. 942,446; Dec. 7; Sp. p. 864; Gaz. vol. 149; p. 141.
Holt, L. E., *et al.* (See Tassey, J. C., assignor.)
Holt, S. A., *et al.* (See Tassey, J. C., assignor.)
Holt, T. H. A., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Sole-pressing machine. No. 944,620; Dec. 28; Sp. p. 5589; Gaz. vol. 149; p. 970.
Holub-Dusha Co. (See Holub, L. W., assignor.)
Holub, L. W., assignor to Holub-Dusha Co., New York, N. Y. Chuck. No. 943,616; Dec. 14; Sp. p. 3418; Gaz. vol. 149; p. 570.
Holzer, H., assignor to Vereinigte Maschinenfabrik Augsburg Maschinenbaugesellschaft Nürnberg A. G., Nuremberg, Germany. Casing for centrifugal pumps and blowers. No. 944,864; Dec. 28; Sp. p. 6121; Gaz. vol. 149; p. 1051.
Homolka, B., Frankfort-on-the-Main, and R. Weide, assignors to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany. Leuco body containing sulfur and making same. No. 943,678; Dec. 21; Sp. p. 3561; Gaz. vol. 149; p. 620.
Honold, G. F., Sheboygan, Wis. Embalming-table. No. 943,679; Dec. 21; Sp. p. 3562; Gaz. vol. 149; p. 620.
Hooker, J. H., Buckingham, England. Baking-powder. No. 942,072; Dec. 7; Sp. p. 63; Gaz. vol. 149; p. 12.
Hooker, L. E. (See Smith and Hooker.)
Hoop, G. A., De Soto, Mo. Flour-shaker. No. 942,903; Dec. 14; Sp. p. 1855; Gaz. vol. 149; p. 326.
Hooper, W. H. (See Stewart and Hooper.)
Hooper, W. H., Lynn, assignor to T. G. Plant, Boston, Mass. Insole-reinforcing machine. No. 944,239; Dec. 21; Sp. p. 4715; Gaz. vol. 149; p. 808.
Hooper, W. H., Lynn, assignor to T. G. Plant, Boston, Mass. Boot and shoe tree and stretcher. No. 944,365; Dec. 28; Sp. p. 5000; Gaz. vol. 149; p. 880.
Hope, A. C., F. Farquhar, and C. A. Hilchey, Vancouver, British Columbia, Canada. Safety door-latch. No. 943,973; Dec. 21; Sp. p. 4173; Gaz. vol. 149; p. 722.
Hopkins, J., Boardman, Wis. Quack-grass digger. No. 942,559; Dec. 7; Sp. p. 1109; Gaz. vol. 149; p. 180.
Hopley, A. E., Hayward, Cal. Ice-cream freezer. No. 942,260; Dec. 7; Sp. p. 496; Gaz. vol. 149; p. 77.
Hornbeck, L. B., Minneapolis, Minn. Chandelier. No. 943,148; Dec. 14; Sp. p. 2419; Gaz. vol. 149; p. 411.
Horne, J. A., assignor of one-third to G. C. Brownell, Oregon City, Oreg. Car-fender. No. 942,727; Dec. 7; Sp. p. 1442; Gaz. vol. 149; p. 236.
Horner, H. O., and J. P. Boyland, New York, N. Y. Double-acting internal-combustion engine. No. 943,597; Dec. 14; Sp. p. 3334; Gaz. vol. 149; p. 562.
Horrell, J. B., and A. S. Bryant, Santa Paula, assignors to H. K. Miller Manfg. Co., Glendora, Cal. Machine for brushing and polishing fruit and other objects. No. 944,993; Dec. 28; Sp. p. 6366; Gaz. vol. 149; p. 1093.
Horton, C. W., Belle Rive, Ill. Concrete construction. No. 942,447; Dec. 7; Sp. p. 866; Gaz. vol. 149; p. 141.
Hoskins, Z. T., Chicago, Ill. Combined rail joint and chair. No. 943,880; Dec. 21; Sp. p. 3966; Gaz. vol. 149; p. 689.
Houck, J. D., Chicago, Ill. Percolator for coffee-urns. No. 944,865; Dec. 28; Sp. p. 6122; Gaz. vol. 149; p. 1052.
Houck, J. D., Chicago, Ill. Cherry-pitter. No. 944,866; Dec. 28; Sp. p. 6122; Gaz. vol. 149; p. 1052.
Houghland, W. E., Brooklyn, N. Y. Bronzing-machine. No. 944,192; Dec. 21; Sp. p. 4631; Gaz. vol. 149; p. 794.
Houle, L. J. (See Carter and Houle.)
Hourihan, J. J., Troy, N. Y. Non-refillable bottle. No. 944,439; Dec. 28; Sp. p. 5164; Gaz. vol. 149; p. 906.
Hovey, I., Newcastle, Ind. Internal-combustion engine. No. 943,598; Dec. 14; Sp. p. 3335; Gaz. vol. 149; p. 562.
Hovey, W. S., and C. B. Stebbins, assignors to Sheffield Car Company, Three Rivers, Mich. Motor-car. No. 943,680; Dec. 21; Sp. p. 3563; Gaz. vol. 149; p. 620.
Hovey, W. S., and C. B. Stebbins, assignors to Sheffield Car Company, Three Rivers, Mich. Motor-vehicle. No. 944,556; Dec. 28; Sp. p. 5445; Gaz. vol. 149; p. 947.
Hovey, W. S., and M. H. Rix, assignors to Sheffield Car Company, Three Rivers, Mich. Railway motor hand-car. No. 944,557; Dec. 28; Sp. p. 5453; Gaz. vol. 149; p. 947.
Howard, F. H., Brookside, near Reading, Pa. Casting-machine. No. 942,073; Dec. 7; Sp. p. 65; Gaz. vol. 149; p. 13.
Howe, G. A. (See Francis, E. A., assignor.)
Howland, T. C., Long Branch, N. J. Square. No. 943,351; Dec. 14; Sp. p. 2843; Gaz. vol. 149; p. 478.
Hoxie, V., Adrian, Mich. Staple forming and discharging mechanism. No. 942,904; Dec. 14; Sp. p. 1856; Gaz. vol. 149; p. 326.
Hoxie, V., Adrian, Mich. Staple forming and discharging mechanism. No. 942,905; Dec. 14; Sp. p. 1859; Gaz. vol. 149; p. 327.
Hoxie, V., Adrian, Mich. Staple forming and discharging mechanism. No. 942,906; Dec. 14; Sp. p. 1861; Gaz. vol. 149; p. 327.
Hoxie, V., Adrian, Mich. Automatic stop mechanism. No. 943,411; Dec. 14; Sp. p. 2954; Gaz. vol. 149; p. 498.
Hoxie, V., Adrian, Mich. Wire-fence loom. No. 943,412; Dec. 14; Sp. p. 2956; Gaz. vol. 149; p. 498.
Hoxie, V., Adrian, Mich. Barbed wire. No. 943,413; Dec. 14; Sp. p. 2958; Gaz. vol. 149; p. 499.
Hoy, S. D., Sioux City, Iowa. Machine for dressing floors. No. 942,830; Dec. 7; Sp. p. 1651; Gaz. vol. 149; p. 269.
Hoyt, E. P., New York, N. Y. Optical-illusion apparatus. No. 942,560; Dec. 7; Sp. p. 1110; Gaz. vol. 149; p. 180.
Hruby, T. J. (See Kadlera, J., assignor.)
Hubbard, F. B., Middlefield, Ohio. Piston for hot-air engines. No. 942,261; Dec. 7; Sp. p. 498; Gaz. vol. 149; p. 77.
Hubbard, W. B., Chicago, Ill. Method of and apparatus for returning flue-dust to blast-furnaces. No. 943,599; Dec. 14; Sp. p. 3338; Gaz. vol. 149; p. 563.
Hubbell, C. H., assignor to Sterling Co., Derby, Conn. Piano-case. No. 944,036; Dec. 21; Sp. p. 4312; Gaz. vol. 149; p. 743.
Hubbell, H., Bridgeport, Conn. Keyless socket. No. 943,076; Dec. 14; Sp. p. 2278; Gaz. vol. 149; p. 386.
Hubbell, H., Bridgeport, Conn. Detachable chain-guide for pull-sockets. No. 943,077; Dec. 14; Sp. p. 2279; Gaz. vol. 149; p. 386.
Hubbell, H., Bridgeport, Conn. Means for locking electric sockets to fixtures. No. 943,078; Dec. 14; Sp. p. 2280; Gaz. vol. 149; p. 387.
Hubbell, H., Bridgeport, Conn. Separable attachment-plug. No. 943,681; Dec. 21; Sp. p. 3567; Gaz. vol. 149; p. 621.
Huber Automatic Magneto Signaling Company. (See Huber, G. A., assignor.)
Huber, C. F., *et al.* (See Beltz, W. H., assignor.)
Huber, G. A., assignor to Huber Automatic Magneto Signaling Company, New York, N. Y. Electric generator. No. 942,325; Dec. 7; Sp. p. 631; Gaz. vol. 149; p. 101.
Huber Manufacturing Company. (See Brockett and Garver, assignors.)
Huber Manufacturing Company. (See Garver, F., assignor.)
Hudler, J. E., Crumpler, N. C. Car-coupling. No. 943,079; Dec. 14; Sp. p. 2282; Gaz. vol. 149; p. 387.
Hudson, E. (See Hudson, T. E. and E.)
Hudson, M. A., assignor to J. E. Lonergan Company, Philadelphia, Pa. Steam safety-valve. No. 944,330; Dec. 28; Sp. p. 4923; Gaz. vol. 149; p. 868.
Hudson, T. E. and E., Philadelphia, Pa. Transfer-hanger. No. 942,326; Dec. 7; Sp. p. 633; Gaz. vol. 149; p. 101.
Huenefeld, E. H., Cincinnati, Ohio. Oven-door. No. 943,546; Dec. 14; Sp. p. 3241; Gaz. vol. 149; p. 546.
Huenefeld, E. H., Cincinnati, Ohio. Oven-door. No. 943,547; Dec. 14; Sp. p. 3243; Gaz. vol. 149; p. 546.
Huenefeld, E. H., Cincinnati, Ohio. Oven-door. No. 943,548; Dec. 14; Sp. p. 3244; Gaz. vol. 149; p. 546.
Huenefeld, E. H., Cincinnati, Ohio. Oven-door. No. 943,549; Dec. 14; Sp. p. 3245; Gaz. vol. 149; p. 547.
Huff, R., assignor, by mesne assignments, to Packard Motor Car Company, Detroit, Mich. Gasolene-tank for motor-vehicles. No. 942,907; Dec. 14; Sp. p. 1865; Gaz. vol. 149; p. 328.
Hughes, W. B., Dallas, Tex. Fence-post. No. 943,550; Dec. 14; Sp. p. 3246; Gaz. vol. 149; p. 547.
Hughes, W. G., Pittsburg, Pa. Reinforcement-bar. No. 943,578; Dec. 21; Sp. p. 3963; Gaz. vol. 149; p. 688.
Hughes, W. G., Norwalk, assignor to S. K. Elliott and H. G. Miller, Los Angeles, Cal. Sprinkler-nozzle. No. 943,780; Dec. 21; Sp. p. 3765; Gaz. vol. 149; p. 655.
Huhn, G., Berlin, Germany. Packing for piston-rods and the like. No. 943,019; Dec. 14; Sp. p. 2137; Gaz. vol. 149; p. 366.
Hulder, J. P., New York, N. Y., assignor to Ludwig & Company. Key-holding device. No. 944,037; Dec. 21; Sp. p. 4313; Gaz. vol. 149; p. 743.
Hull, C. G., Los Angeles, Cal. Gem-cutting machine. No. 943,191; Dec. 14; Sp. p. 2495; Gaz. vol. 149; p. 423.
Hulse, G. E., Jersey City, N. J., assignor to Safety Car Heating & Lighting Company. Gas-lighting apparatus. No. 942,561; Dec. 7; Sp. p. 1111; Gaz. vol. 149; p. 181.
Hulse, J. G., and A. F. Schramm, Columbus, Ohio, assignors to Tufting Machine Supply Company, Chicago, Ill. Upholstery-goods-marking board. No. 942,908; Dec. 14; Sp. p. 1866; Gaz. vol. 149; p. 328.
Hultberg, E. A., Chicago, Ill. Metallic protector for pneumatic tires. No. 942,500; Dec. 7; Sp. p. 997; Gaz. vol. 149; p. 160.
Humason, G. A., Washington, D. C., assignor of one-half to J. W. Chamberlain, Shreveport, La. Harness. No. 943,020; Dec. 14; Sp. p. 2139; Gaz. vol. 149; p. 366.
Humbert, E., South Chicago, Ill. Refining steel. No. 943,192; Dec. 14; Sp. p. 2496; Gaz. vol. 149; p. 424.
Hume, J. T. (See Snyder and Hume.)
Humerston, W. H., Denver, Colo. Meat-tenderer. No. 942,448; Dec. 7; Sp. p. 867; Gaz. vol. 149; p. 141.
Hummel, T., Dallas, Tex. Electrically-operated railway-crossing gate. No. 943,252; Dec. 14; Sp. p. 2844; Gaz. vol. 149; p. 478.
Hummer, J. H., Ashtabula Harbor, Ohio. Folding ironing-table. No. 942,643; Dec. 7; Sp. p. 1274; Gaz. vol. 149; p. 208.
Humphrey, H. S., Kalamazoo, Mich. Gas-burner. No. 942,831; Dec. 7; Sp. p. 1653; Gaz. vol. 149; p. 270.
Humphrey & Sons. (See Reece, J. H., assignor.)

Humphreys, A. E., assignor to Woods-Sherwood Company, Lowell, Mass. Kitchen utensil. No. 944,265; Dec. 28; Sp. p. 4775; Gaz. vol. 149; p. 845.
Hunt, J. A., Boston, Mass. Hydrocarbon-burner. No. 942,857; Dec. 7; Sp. p. 1719; Gaz. vol. 149; p. 278.
Hunt, W. H., New York, N. Y. Elevating device. No. 943,936; Dec. 21; Sp. p. 4097; Gaz. vol. 149; p. 710.
Hunter, H., Prescott, Ariz. Screen-door catch. No. 944,193; Dec. 21; Sp. p. 4636; Gaz. vol. 149; p. 794.
Hunter, J. A., *et al.* (See Ursbruck, J. H. and J. B., assignors.)
Hunter, M. A., *et al.* (See Ursbruck, J. H. and J. B., assignors.)
Hunter, M. E., Vincennes, Ind. Carbureter. No. 944,867; Dec. 28; Sp. p. 6123; Gaz. vol. 149; p. 1052.
Hunter, R., Atlanta, Ga. Registering device. (Reissue.) No. 13,052; Dec. 7; Sp. p. 1782; Gaz. vol. 149; p. 287.
Huntoon, C. F., Chicago, Ill. Brake-beam. No. 943,021; Dec. 14; Sp. p. 2140; Gaz. vol. 149; p. 367.
Hurley, J., Little Falls, N. Y. Dust-proof receptacle for tubular straws. No. 943,879; Dec. 21; Sp. p. 3964; Gaz. vol. 149; p. 689.
Hurst, A. (See Spencer and Hurst.)
Huss, R. W., assignor of one-half to F. C. Elder, Chicago, Ill. Device for testing the consistency of catsup, tomato-pulp, and other thick liquids. No. 943,830; Dec. 21; Sp. p. 3964; Gaz. vol. 149; p. 672.
Hussey, J. M., Cambridge, Mass. Apparatus for desiccating eggs. No. 945,002; Dec. 28; Sp. p. 6382; Gaz. vol. 149; p. 1096.
Huston, C. L., Coatesville, Pa. Transfer-table for rolling-mills. No. 942,644; Dec. 7; Sp. p. 1276; Gaz. vol. 149; p. 209.
Hutchings, J., London, England. Fuel feeding and regulating apparatus. No. 944,868; Dec. 28; Sp. p. 6126; Gaz. vol. 149; p. 1053.
Hutchison, H. H. (See Stansbury and Hutchison.)
Huyck, F. P., and J. D. R. Lamson, Toledo, Ohio. Toy savings-bank. No. 944,038; Dec. 21; Sp. p. 4314; Gaz. vol. 149; p. 744.
Hyde, B. T. B., New York, N. Y. Container-top. No. 942,562; Dec. 7; Sp. p. 1116; Gaz. vol. 149; p. 181.
Hyner, W. C., Philadelphia, Pa. Reclamation of purified metal. No. 943,248; Dec. 14; Sp. p. 2616; Gaz. vol. 149; p. 443.
I. Stephenson Company. (See Shank, E. P., assignor.)
I. E. Palmer Co. (See Palmer, I. E., assignor.)
Icke, H. A., Church Stretton, England. Concrete dam. No. 942,645; Dec. 7; Sp. p. 1279; Gaz. vol. 149; p. 209.
Ihmsen, J. G., *et al.* (See Leich, O. M., assignor.)
Illinois Pneumatic Transmission Co. *et al.* (See Wolever, F. H., assignor.)
Illinois Sewing Machine Company. (See Free, W. C., assignor.)
Illinois Stoker Company. (See Maxfield, L. H., assignor.)
Imhoff, M., Vienna, Austria-Hungary, assignor to W. Weltinsegell, Oberrieden, near Zurich, Switzerland. Smoothing-iron. No. 944,732; Dec. 28; Sp. p. 5817; Gaz. vol. 149; p. 1006.
Imperial Oil Company. (See Boggs, W. S., assignor.)
Indahl, M. C. (See Bancroft and Indahl.)
Independent Harvester Company. (See Boda, J., assignor.)
Independent Powder Company of Missouri. (See Bent and Talley, assignors.)
Indiana Match Company. (See Sterba and Birch, assignors.)
Industrial Development & Manufacturing Company. (See Sawyer, W. S., assignor.)
Ingard, C. J., San Francisco, Cal. Truck. No. 942,563; Dec. 7; Sp. p. 1117; Gaz. vol. 149; p. 181.
Ingersoll, C. P., Hartford, Conn. Attachment for chairs. No. 944,331; Dec. 28; Sp. p. 4924; Gaz. vol. 149; p. 868.
Ingersoll-Rand Company. (See Gibson, A. H., assignor.)
Ingersoll-Sergeant Drill Company. (See Gibson, A. H., assignor.)
Ingraham, C. B. (See Wessels and Ingraham.)
Inman, O. T., *et al.* (See Matteson, R. S., assignor.)
International Cap and Sealing Machine Company. (See Levey, T. J., assignor.) (Reissue.)
International Harvester Company. (See Hagadone, C. A., assignor.)
International Harvester Company. (See Latimer, J. W., assignor.)
International Harvester Company. (See Macphail, J., assignor.)
International Heater Company. (See Camp, G. E., assignor.)
International Nickel Company. (See Turner, A. F., assignor.)
International Separator Company. (See Snyder, F. T., assignor.)
Ionides, A. G., Leicester, England. Construction of jets. No. 944,440; Dec. 28; Sp. p. 5165; Gaz. vol. 149; p. 906.
Ireland, D. M., Detroit, Mich. Detachable bracket. No. 942,564; Dec. 7; Sp. p. 1119; Gaz. vol. 149; p. 182.
Irwin, W. L., Sulphur Springs, Tex. Peach pitter and slicer. No. 943,193; Dec. 14; Sp. p. 2499; Gaz. vol. 149; p. 424.
Isbell, C. W., New York, N. Y. Retort for the manufacture of illuminating-gas. No. 942,501; Dec. 7; Sp. p. 998; Gaz. vol. 149; p. 160.
Isbell, C. W., New York, N. Y. Retort for the manufacture of illuminating-gas. No. 942,858; Dec. 7; Sp. p. 1720; Gaz. vol. 149; p. 279.
Isidor, J. S., Newark, N. J., assignor to R. Neumann Hardware Co. Bag-fastener. No. 943,937; Dec. 21; Sp. p. 4099; Gaz. vol. 149; p. 710.
Iversen, L., West Homestead, assignor to Mesta Machine Company, Pittsburg, Pa. Coupling device. No. 942,780; Dec. 7; Sp. p. 1546; Gaz. vol. 149; p. 254.
Iverson, C., Boulder Creek, Cal. Swimming-glove. No. 942,262; Dec. 7; Sp. p. 498; Gaz. vol. 149; p. 78.
Ivory, J. W., Philadelphia, Pa. Matrix-retainer. No. 943,353; Dec. 14; Sp. p. 2846; Gaz. vol. 149; p. 479.
Ivory, J. W., Philadelphia, Pa. Artificial tooth. No. 943,354; Dec. 14; Sp. p. 2848; Gaz. vol. 149; p. 479.
J. D. Riedel Aktiengesellschaft. (See Gans, R., assignor.)
J. E. Lonergan Company. (See Hudson, M. A., assignor.)
Jablonovsky, S., Bridgeport, Conn. Adjustable window-grate. No. 942,502; Dec. 7; Sp. p. 1001; Gaz. vol. 149; p. 161.
Jabs, A., Zurich, Switzerland. Gas-producer. No. 944,332; Dec. 28; Sp. p. 4926; Gaz. vol. 149; p. 868.
Jaccard, P. E., Camden, N. J. Cutting-machine. No. 944,266; Dec. 28; Sp. p. 4777; Gaz. vol. 149; p. 845.
Jackson, C. O., Fairmont, W. Va. Trolley apparatus. No. 944,869; Dec. 28; Sp. p. 6128; Gaz. vol. 149; p. 1053.
Jackson, F. H. (See Bailey and Jackson.)
Jacobs, A., assignor to Jacobs Cigar Vendor Co., Kansas City, Mo. Coin-controlled mechanism for vending-machines. No. 943,551; Dec. 14; Sp. p. 3247; Gaz. vol. 149; p. 547.
Jacobs, A., assignor to Jacobs Cigar Vendor Co., Kansas City, Mo. Coin-controlled vending-machine. No. 943,552; Dec. 14; Sp. p. 3251; Gaz. vol. 149; p. 548.
Jacobs Cigar Vendor Co. (See Jacobs, A., assignor.)
Jacobs, S. R., New York, N. Y. Carbureter for hydrocarbon-engines. No. 942,503; Dec. 7; Sp. p. 1003; Gaz. vol. 149; p. 161.
Jacobsen, S., Christiania, Norway. Apparatus for measuring fabrics and the like. No. 944,870; Dec. 28; Sp. p. 6130; Gaz. vol. 149; p. 1054.
Jacoby, A. C. (See Harrison and Jacoby.)
Jaggers, C. M., McAlester, Okla. Elastic heel for boots or shoes. No. 944,558; Dec. 28; Sp. p. 5459; Gaz. vol. 149; p. 948.
Jahansan, G., Cranston, assignor of one-third to L. F. Arnold and one-third to G. L. Titus, Providence, R. I. Paring-machine. No. 943,249; Dec. 14; Sp. p. 2617; Gaz. vol. 149; p. 443.
Jahns, W., Offenbach-on-the-Main, Germany. Centrifugal regulator. No. 943,600; Dec. 14; Sp. p. 3341; Gaz. vol. 149; p. 563.
James B. Clow & Sons. (See Miller, J., assignor.)
James, W. J., Pittsburg, Pa. Valve. No. 944,871; Dec. 28; Sp. p. 6131; Gaz. vol. 149; p. 1054.
Jamieson, J. A., Harrison, N. J. Mouthpiece for telephone-transmitters. No. 943,149; Dec. 14; Sp. p. 2420; Gaz. vol. 149; p. 411.
Jantusek, J. (See Mooney and Jantusek.)
Jaques, F., Morristown, N. J. Display-rack. No. 943,250; Dec. 14; Sp. p. 2620; Gaz. vol. 149; p. 444.
Jarvis, M. N., Portland, Conn. Reversing-chuck and tool-holder. No. 943,414; Dec. 14; Sp. p. 2959; Gaz. vol. 149; p. 499.
Jaubert, G. F., Paris, France. Hydrogen-gas generator. No. 943,022; Dec. 14; Sp. p. 2142; Gaz. vol. 149; p. 367.
Jay, W. N., assignor of one-half to G. P. Mix, Moscow, Idaho. Wrench. No. 943,781; Dec. 21; Sp. p. 3766; Gaz. vol. 149; p. 655.
Jaycox, C. W., Philadelphia, Pa. Glass-washing apparatus. No. 942,074; Dec. 7; Sp. p. 67; Gaz. vol. 149; p. 13.
Jeffery, B. A. (See Jeffery, J. A. and B. A.)
Jeffery, J. A. and B. A., San Francisco, Cal. Electric igniting device. No. 942,646; Dec. 7; Sp. p. 1284; Gaz. vol. 149; p. 209
Jeffrey, J. A. (See Dierdorff, H. B., assignor.)
Jenkins, C. F., Washington, D. C. Electrical contact device. No. 942,647; Dec. 7; Sp. p. 1286; Gaz. vol. 149; p. 210.
Jenkins, C. F., Washington, D. C., assignor to Single Service Package Company. Closure for paper packages. No. 943,307; Dec. 14; Sp. p. 2740; Gaz. vol. 149; p. 463.
Jenkins, C. F., Washington, D. C., assignor to Single Service Package Company. Knockdown box. No. 944,614; Dec. 28; Sp. p. 5582; Gaz. vol. 149; p. 968.
Jenkins, C. F., Washington, D. C., assignor to Single Service Package Company. Closure for paper vessels. No. 944,615; Dec. 28; Sp. p. 5584; Gaz. vol. 149; p. 968.
Jenkins, C. F., Washington, D. C., assignor to Single Service Package Company. Package for frangible articles. No. 944,616; Dec. 28; Sp. p. 5584; Gaz. vol. 149; p. 969.
Jenkins, C. F., Washington, D. C., assignor to Single Service Package Corporation of America. Paper receptacle. No. 944,613; Dec. 28; Sp. p. 5581; Gaz. vol. 149; p. 968.
Jenkins, M. L., Harvey, assignor to Buda Foundry & Manufacturing Company, Chicago, Ill. Lifting-jack. No. 944,617; Dec. 28; Sp. p. 5585; Gaz. vol. 149; p. 969.
Jenkins, R. L. (See Jenkins, W. F. and R. L.)
Jenkins, T. W., *et al.* (See Kenan, J. J. W., assignor.)

Jenkins, W. E., Milton, Pa. Transmission-gearing. No. 944,872; Dec. 28; Sp. p. 6132; Gaz. vol. 149; p. 1054.
Jenkins, W. F. and R. L., Richmond, Va. Emergency wheel-rim. No. 942,909; Dec. 14; Sp. p. 1867; Gaz. vol. 149; p. 329.
Jenner, G., Vancouver, British Columbia, Canada. Card-case. No. 943,563; Dec. 14; Sp. p. 3255; Gaz. vol. 149; p. 548.
Jennings, C. S., Brookline, Mass., assignor to Lamson Consolidated Store Service Company, Newark, N. J. Pneumatic-despatch-tube apparatus. No. 944,487; Dec. 28; Sp. p. 5286; Gaz. vol. 149; p. 922.
Jensen, C., Palmyra, N. J. Cylinder for washing-machines. No. 943,682; Dec. 21; Sp. p. 3568; Gaz. vol. 149; p. 621.
Jensen, P. R., Denmark, Wis. Silo. No. 944,573; Dec. 28; Sp. p. 6134; Gaz. vol. 149; p. 1055.
Jeppson, G. N. (See Higgins and Jeppson.)
Jepsen, J., Denison, Iowa. Rack. No. 944,874; Dec. 28; Sp. p. 6136; Gaz. vol. 149; p. 1055.
Jewell, C. E., and C. H. Westcott, Seneca Falls, N. Y. Rule. No. 942,327; Dec. 7; Sp. p. 634; Gaz. vol. 149; p. 101.
Jewell, I. H., Chicago, Ill. Filtering apparatus. No. 944,194; Dec. 21; Sp. p. 4636; Gaz. vol. 149; p. 794.
Jewell, M., Clinton, Me. Mowing-machine. No. 942,075; Dec. 7; Sp. p. 69; Gaz. vol. 149; p. 14.
Jobin, A., Winnipeg, Manitoba, Canada. Switch-rail-controlling device. No. 943,974; Dec. 21; Sp. p. 4174; Gaz. vol. 149; p. 722.
Johansen, H. V., Devonport, near Auckland, New Zealand. Double-impulse internal-explosive engine. No. 944,195; Dec. 21; Sp. p. 4637; Gaz. vol. 149; p. 794.
John C. Moore Corporation. (See Moore, G. C., assignor.)
John Douglas Company. (See McNeil, D. W., assignor.)
Johnson, A. A., Marinette, Wis. Milk sampling and measuring device. No. 942,648; Dec. 7; Sp. p. 1288; Gaz. vol. 149; p. 210.
Johnson-Adams Switch Device Company. (See Johnson, S. A., assignor.)
Johnson, B. (See Sweet, W. F., assignor.)
Johnson, E. S., assignor of one-half to W. J. Knight, Oakland, Cal. Pneumatic packing. No. 943,023; Dec. 14; Sp. p. 2145; Gaz. vol. 149; p. 367.
Johnson, F., Cherrelyn, Colo. Lifting-pliers. No. 944,966; Dec. 28; Sp. p. 6311; Gaz. vol. 149; p. 1084.
Johnson, F. C. (See Mitchell, H. G., assignor.)
Johnson, J. E. (See Holmgren, J. A., assignor.)
Johnson, J. E., Meriden, Conn. Caster. No. 942,565; Dec. 7; Sp. p. 1120; Gaz. vol. 149; p. 182.
Johnson, J. S., Lodi, Ohio. Recoil-pad. No. 943,683; Dec. 21; Sp. p. 3570; Gaz. vol. 149; p. 622.
Johnson, J. W., Bisbee, Ariz. Rotary steam-engine. No. 942,205; Dec. 7; Sp. p. 380; Gaz. vol. 149; p. 58.
Johnson, P. L., Easley, S. C. Horse-collar and hames. No. 944,618; Dec. 28; Sp. p. 5586; Gaz. vol. 149; p. 969.
Johnson, S. A., Grogan, assignor to Johnson-Adams Switch Device Company, Columbus, Ohio. Automatic switch-throwing, track sanding, and sweeping device. No. 943,938; Dec. 21; Sp. p. 4102; Gaz. vol. 149; p. 711.
Johnson, T. C., assignor to Winchester Repeating Arms Co., New Haven, Conn. Firearm. No. 943,251; Dec. 14; Sp. p. 2623; Gaz. vol. 149 p. 444.
Johnston, A., Ottumwa, Iowa. Metal-crimping machine. No. 944,559; Dec. 28; Sp. p. 5460; Gaz. vol. 149; p. 948.
Johnston, A. C., Wyncote, Pa., assignor to Dodge Coal Storage Company, Naugatuck, Conn. Apparatus for transferring material from a high to a lower level. No. 942,449; Dec. 7; Sp. p. 868; Gaz. vol. 149; p. 142.
Johnston, C. F., Milledgeville, Ill. Draft appliance. No. 944,138; Dec. 21; Sp. p. 4527; Gaz. vol. 149; p. 777.
Johnston, H. A., Toronto, Ontario, Canada. Igniter for internal-combustion motors. No. 942,328; Dec. 7; Sp. p. 635; Gaz. vol. 149; p. 101.
Johnston, J. (See Potter and Johnston.)
Johnston, J. M., *et al.* (See Anderson, T. W., assignor.)
Johnston, P. D., Cold Spring, N. Y., assignor to American Oil Engine Company. Vaporizer for internal-combustion engines. No. 943,684; Dec. 21; Sp. p. 3570; Gaz. vol. 149; p. 622.
Johnston, W. V., Everett, Wash. Safety-stirrup. No. 942,781; Dec. 7; Sp. p. 1547; Gaz. vol. 149; p. 254.
Jones, A. D., Holloway, London, England. Electrode for electric-arc lamps. No. 944,139; Dec. 21; Sp. p. 4528; Gaz. vol. 149; p. 777.
Jones, H., Suffern, assignor to E. H. Fallows, New York, N. Y. Interlocking brake-shoe. No. 942,329; Dec. 7; Sp. p. 636; Gaz. vol. 149; p. 102.
Jones, H. L., Carthage, N. Y. Internal-combustion engine. No. 942,782; Dec. 7; Sp. p. 1548; Gaz. vol. 149; p. 254.
Jones, J. D., assignor to Lubricating Wheel and Roller Company, Walla Walla, Wash. Lubricating draper-roller. No. 942,728; Dec. 7; Sp. p. 1443; Gaz. vol. 149; p. 236.
Jones, J. L., Peoria, Ill. Power-transmitting mechanism. No. 944,240; Dec. 21; Sp. p. 4719; Gaz. vol. 149; p. 808.
Jones, J. W., New York, N. Y. Massage apparatus. No. 942,206; Dec. 7; Sp. p. 382; Gaz. vol. 149; p. 58.
Jones, O. E., Fremont, Ohio. Tooth-brush holder. No. 943,415; Dec. 14; Sp. p. 2962; Gaz. vol. 149; p. 499.
Jones, W. D., Cullman, Ala. Lamp-igniter. No. 944,875; Dec. 28; Sp. p. 6138; Gaz. vol. 149; p. 1056.
Jones, W. M., Tarentum, Pa. Gage. No. 944,619; Dec. 28; Sp. p. 5588; Gaz. vol. 149; p. 970.
Jones, W. M., and H. Stewart, San Francisco, Cal. Fastening for loops and the like. No. 942,330; Dec. 7; Sp. p. 638; Gaz. vol. 149; p. 102.
Jones, W. T., Cedar Rapids, Iowa. Hay-loader coupling. No. 943,024; Dec. 14; Sp. p. 2146; Gaz. vol. 149; p. 368.
Jordan, J., Montreal, Quebec, Canada. Threading device for shuttles. No. 942,263; Dec. 7; Sp. p. 499; Gaz. vol. 149; p. 78.
Jordan, R., Boston, Mass. Nutmeg-grater. No. 944,241; Dec. 21; Sp. p. 4722; Gaz. vol. 149; p. 809.
Jorgensen, J., South Omaha, Nebr. Alfalfa-cutter. No. 943,308; Dec. 14; Sp. p. 2741; Gaz. vol. 149; p. 463.
Joseph, P. E., Waterman, assignor to H. S. Cahn, Los Angeles, Cal. Table and support. No. 943,560; Dec. 28; Sp. p. 5465; Gaz. vol. 149; p. 948.
Joslyn, C. H. (See McMillan and Joslyn.)
Jourdan, J. H., New York, N. Y. Gas-generator. No. 943,601; Dec. 14; Sp. p. 3342; Gaz. vol. 149; p. 564.
Judkins, G. E., Coeur d'Alene, Idaho. Hose-coupling. No. 943,416; Dec. 14; Sp. p. 2962; Gaz. vol. 149; p. 500.
Jühlss, N., South Bend, Ind. Street-car fender. No. 944,267; Dec. 28; Sp. p. 4779; Gaz. vol. 149; p. 845.
Juleson, D. C., Chicago, Ill. Washboard. No. 942,076; Dec. 7; Sp. p. 74; Gaz. vol. 149; p. 14.
Jumeaux, B., Southwick, near Brighton, England. Apparatus for the optical projection of colored images. No. 944,787; Dec. 28; Sp. p. 5942; Gaz. vol. 149; p. 1025.
Juruick, M. F., New York, N. Y., assignor, by mesne assignments, to Electric Bank Protection Company. Electric-lighting attachment for burglar-alarm systems. No. 942,964; Dec. 14; Sp. p. 2002; Gaz. vol. 149; p. 347.
Juruick, M. F., New York, N. Y., assignor, by mesne assignments, to Electric Bank Protection Company. Time-controller for burglar-alarm systems. No. 944,733; Dec. 28; Sp. p. 5818; Gaz. vol. 149; p. 1007.
Jutz, E. J., St. Louis, Mo. Lifting-jack. No. 944,039; Dec. 21; Sp. p. 4317; Gaz. vol. 149; p. 744.
Kadlera J., assignor of one-half to T. J. Hruby, Chicago, Ill. Sad-iron. No. 943,254; Dec. 14; Sp. p. 2629; Gaz. vol. 149; p. 445.
Kahler, O. W., *et al.* (See Fry, F. L., assignor.)
Kahlerth, C. W. (See Wood and Kahlerth.)
Kahn, E. C., Milwaukee, Wis. Metallic fence-post. No. 942,369; Dec. 7; Sp. p. 709; Gaz. vol. 149; p. 115.
Kahn, J., assignor to Trussed Concrete Steel Company, Detroit, Mich. Forming ribbed expanded metal. No. 943,417; Dec. 14; Sp. p. 2964; Gaz. vol. 149; p. 500.
Kalamazoo Loose Leaf Binder Company. (See Bushong, H. F., assignor.)
Kalmus, H. T. (See Comstock, D. F., assignor.)
Kample, A., Cleveland, Ohio. Safety device for elevators. No. 943,939; Dec. 21; Sp. p. 4103; Gaz. vol. 149; p. 711.
Kample, O., New York, N. Y. Razor-blade-stropping device. No. 943,355; Dec. 14; Sp. p. 2848; Gaz. vol. 149; p. 479.
Kando, K. von, Vado Ligure, Italy, assignor to G. Westinghouse, Pittsburg, Pa. Catenary suspension system for the trolley-wires of electric railways. No. 942,143; Dec. 7; Sp. p. 259; Gaz. vol. 149; p. 39.
Kanner, S. (See Benedict, C. F., assignor.)
Kanski, R. T., New York, N. Y., assignor of one-half to C. De Wyrall, Ridgefield Park, N. J. Stair-tread. No. 943,418; Dec. 14; Sp. p. 2965; Gaz. vol. 149; p. 500.
Karcher O., Canton, Ohio. Automobile safety device. No. 943,227; Dec. 14; Sp. p. 2566; Gaz. vol. 149; p. 435.
Karss, S., Schenectady, N. Y. Lock. No. 944,268; Dec. 28; Sp. p. 4780; Gaz. vol. 149; p. 846.
Kato, G. P., Jr., *et al.* (See Kleinfeldt, A., assignor.)
Katzenberg, B., New York, N. Y. Curling-tool. No. 943,749; Dec. 21; Sp. p. 3708; Gaz. vol. 149; p. 645.
Katzenmeyer, W. S., Lakewood, Ohio. Fastening device. No. 944,788; Dec. 28; Sp. p. 5943; Gaz. vol. 149; p. 1025.
Kavle, O. C., assignor to H. A. Moyer, Syracuse, N. Y. Ribbon mechanism for type-writing machines. No. 944,734; Dec. 28; Sp. p. 5823; Gaz. vol. 149; p. 1007.
Keagy, M. L., *et al.* (See Fillier, H. J., assignor.)
Keefer, H. W., Fort Wayne, Ind. Bowling-alley. No. 943,419; Dec. 14; Sp. p. 2966; Gaz. vol. 149; p. 501
Keeler, F., White Plains, N. Y. Stuffing-box gland. No. 943,356; Dec. 14; Sp. p. 2851; Gaz. vol. 149; p. 479.
Keene, G. J., Chicago, Ill. Support for books and other articles. No. 943,255; Dec. 14; Sp. p. 2631; Gaz. vol. 149; p. 445.
Kehrhahn, A. H., Frankfort-on-the-Main, Germany. Splitting-machine for stripping off flesh from hides. No. 944,488; Dec. 28; Sp. p. 5288; Gaz. vol. 149; p. 923.
Kellholtz, F. O., Baltimore, and F. E. Ricketts, Derwood, Md. Overload and reverse current relay. No. 944,040; Dec. 21; Sp. p. 4318; Gaz. vol. 149; p. 744.
Keltsch, C. H., Buffalo, N. Y. Flower-pot holder. No. 942,177; Dec. 7; Sp. p. 328; Gaz. vol. 149; p. 50.

Kellemen, H. F., Utica, assignor to Utica Drop Forge & Tool Company, Yorkville, N. Y. Pliers. No. 942,504; Dec. 7; Sp. p. 1004; Gaz. vol. 149; p. 101.
Keller, E. E., Pittsburg, Pa. Speed-changing mechanism. No. 942,910; Dec. 14; Sp. p. 1869; Gaz. vol. 149; p. 329.
Keller, E. E., Pittsburg, Pa. Speed-changing mechanism. No. 942,911; Dec. 14; Sp. p. 1872; Gaz. vol. 149; p. 329.
Keller, E. E., Pittsburg, Pa. Speed-changing mechanism. No. 942,912; Dec. 14; Sp. p. 1878; Gaz. vol. 149; p. 330.
Keller, E. E., Pittsburg, Pa. Power-transmission mechanism. No. 942,913; Dec. 14; Sp. p. 1883; Gaz. vol. 149; p. 330.
Keller. E. E., Pittsburg, Pa. Speed-changing mechanism. No. 942,914; Dec. 14; Sp. p. 1887; Gaz. vol. 149; p. 330.
Keller, G., New York, N. Y. Motor. No. 944,441; Dec. 28; Sp. p. 5168; Gaz. vol. 149; p. 907.
Kellner, L., New York, N. Y., assignor to Metropolitan Switchboard Co. Two-pole snap-switch. No. 943,831; Dec. 21; Sp. p. 3866; Gaz. vol. 149; p. 673.
Kelly, J. J., New York, N. Y. Car-fender. No. 942,566; Dec. 7; Sp. p. 1121; Gaz. vol. 149; p. 182.
Kelly, M., Buffalo, N. Y. Furnace. No. 943,194; Dec. 14; Sp. p. 2500; Gaz. vol. 149; p. 424.
Kelly, R. W., assignor of one-half to G. E. Harpham, Los Angeles, Cal. Pressure-retaining valve. No. 942,331; Dec. 7; Sp. p. 639; Gaz. vol. 149; p. 102.
Kemper-Thomas Company. (See Henderson, E. L., assignor.)
Kenipshall, I. B., Boston, Mass. Automobile-tire. No. 942,567; Dec. 7; Sp. p. 1124; Gaz. vol. 149; p. 182.
Kempshall, I. B., Boston, Mass. Automobile-tire. No. 943,025; Dec. 14; Sp. p. 2148; Gaz. vol. 149; p. 368.
Kenan, J. J. W., assignor of three-fourths to T. W. Jenkins, Philadelphia, and one-fourth to R. Buffett, Colwyn, Pa., and H. A. Gray, Millville, N. J. Screw-driving machine. No. 944,561; Dec. 28; Sp. p. 5466; Gaz. vol. 149; p. 949.
Kendrick, W. D., Globe, Ariz. Angle-cock. No. 943,554; Dec. 14; Sp. p. 2257; Gaz. vol. 149; p. 549.
Kener, E., Jr., Buffalo, N. Y. Tool-handle. No. 942,077; Dec. 7; Sp. p. 76; Gaz. vol. 149; p. 14.
Kenney, E. F., Moores, Pa. Metallic tie. No. 943,782; Dec. 21; Sp. p. 3767; Gaz. vol. 149; p. 655.
Kenny, P. T., New York, N. Y. Theater-chair-signal system. No. 943,940; Dec. 21; Sp. p. 4104; Gaz. vol. 149; p. 711.
Kenworthy, T. (See Shufflebottom and Kenworthy.)
Kenyon, C. L., Tama, Iowa. Pump-rod coupling. No. 943,080; Dec. 14; Sp. p. 2283; Gaz. vol. 149; p. 387.
Kern Auto Street Sweeper Corporation. (See Kern, B., Jr., assignor.)
Kern, B., Jr., Toledo, Ohio, assignor to Kern Auto Street Sweeper Corporation, New York, N. Y. Street-sweeping machine. No. 943,881; Dec. 21; Sp. p. 3967; Gaz. vol. 149; p. 689.
Kern, E. F., Knoxville, Tenn., assignor of one-half to P. S. Brown, New York, N. Y. Electrolyte and electrodepositing nickel. No. 942,729; Dec. 7; Sp. p. 1444; Gaz. vol. 149; p. 236.
Kersey, A. P., Greensboro, N. C. Mail-box support. No. 942,859; Dec. 7; Sp. p. 1722; Gaz. vol. 149; p. 279.
Kershner, C. S., Westphalia, Kans. Motor for magnetos. No. 943,420; Dec. 14; Sp. p. 2968; Gaz. vol. 149; p. 501.
Kessler, L., *et al.* (See Zwirman, M., assignor.)
Key, J. E., assignor to Westinghouse Air Brake Company, Wilmerding, Pa. Lathe. No. 944,876; Dec. 28; Sp. p. 6140; Gaz. vol. 149; p. 1056.
Kibbe, W. J., Canandaigua, N. Y. Telephone-call-registering system. No. 943,081; Dec. 14; Sp. p. 2284; Gaz. vol. 149; p. 387.
Kidd, A. J. (See Holland and Kidd.)
Kilby, E. M. (See Leslie, H., assignor.)
Kimble, A., assignor to Kimble Electric Company, Chicago, Ill. Brush-holder. No. 942,264; Dec. 7; Sp. p. 502; Gaz. vol. 149; p. 78.
Kimble, A., assignor to Kimble Electric Company, Chicago, Ill. Motor-controller. No. 942,382; Dec. 7; Sp. p. 727; Gaz. vol. 149; p. 119
Kimble Electric Company. (See Kimble, A., assignor.)
Kimble, W. W., Honesdale, Pa. Shoe-block. No. 943,975; Dec. 21; Sp. p. 4178; Gaz. vol. 149; p. 723.
King, C. E., Washington, D. C. Tire-protector. No. 943,026; Dec. 14; Sp. p. 2149; Gaz. vol. 149; p. 368.
King, H. K., Philadelphia, Pa., assignor to Chambers Brothers Company. Machine for feeding sheets. No. 942,078; Dec. 7; Sp. p. 79; Gaz. vol. 149; p. 15.
King, H. K., Philadelphia, Pa., assignor to Chambers Brothers Company. Sheet-registering mechanism. No. 942,079; Dec. 7; Sp. p. 83; Gaz. vol. 149; p. 15.
King, H. K., Philadelphia, Pa., assignor to Chambers Brothers Company. Brick-machine indenting. No. 944,442; Dec. 28; Sp. p. 5169; Gaz. vol. 149; p. 907.
King, J. A., *et al.* (See Matteson, R. S., assignor.)
King, L. B., Springfield, Ill. Acetylene-gas lamp. No. 944,789; Dec. 28; Sp. p. 5945; Gaz. vol. 149; p. 1025.
King, W. N., New York, N. Y. Announcement-board. No. 943,941; Dec. 21; Sp. p. 4106; Gaz. vol. 149; p. 712.
Kingsbury, H. T., Keene, N. H. Toy dumping-cart. No. 944,443; Dec. 28; Sp. p. 5171; Gaz. vol. 149; p. 907.
Kingsley, A. F., New York, N. Y., assignor to Locomotive Equipment Company. Locomotive and other furnace. No. 943,942; Dec. 21; Sp. p. 4109; Gaz. vol. 149; p. 712.
Kinney, J. R., Dorchester, Mass. Rotary motor and pump. No. 942,080; Dec. 7; Sp. p. 85; Gaz. vol. 149; p. 15.
Kinsey Box Company. (See Kinsey, H. H., assignor.)
Kinsey, H. H., assignor, by mesne assignments, to Kinsey Box Company, Ogden, Utah. Box. No. 942,391; Dec. 7; Sp. p. 743; Gaz. vol. 149; p. 122.
Kinyon, R. D., Chicago, Ill. Circular cutter. No. 942,081; Dec. 7; Sp. p. 93; Gaz. vol. 149; p. 16.
Kiraly, A. (See Száva, J., assignor.)
Kirchberg, E., Dortmund, Germany. Regenerative furnace. No. 944,444; Dec. 28; Sp. p. 5173; Gaz. vol. 149; p. 907.
Kirk, E. L. (See Feist, C. M., assignor.)
Kirkby, R., assignor to A. T. Winkles, Leicester, England. Toy. No. 944,096; Dec. 21; Sp. p. 4227; Gaz. vol. 149; p. 763.
Kirkham, J., assignor of one-half to W. E. Pritchard, Los Angeles, Cal. Composition for railway-ties, &c. No. 942,505; Dec. 7; Sp. p. 1005; Gaz. vol. 149; p. 162.
Kishpaugh, E. L., Chatham, N. J. Railway-gate. No. 942,783; Dec. 7; Sp. p. 1551; Gaz. vol. 149; p. 255.
Kiss, B., New York, N. Y. Washing-machine. No. 944,041; Dec. 21; Sp. p. 4323; Gaz. vol. 149; p. 745.
Kissling, L. (See Härtel and Kissling.)
Kitchen, J. M. W., East Orange, N. J. Heating apparatus. No. 943,832; Dec. 21; Sp. p. 3868; Gaz. vol. 149; p. 673.
Kitsee, I., Philadelphia, Pa. Treating the spent liquor of paper-mills. No. 942,207; Dec. 7; Sp. p. 384; Gaz. vol. 149; p. 59.
Kitsee, I., Philadelphia, Pa. Duplex cable telegraphy. No. 942,208; Dec. 7; Sp. p. 386; Gaz. vol. 149; p. 59.
Kitsee, I., Philadelphia, Pa. Electrical conductor. No. 942,332; Dec. 7; Sp. p. 642; Gaz. vol. 149; p. 103.
Kitzmiller, G. M., Norfolk, Va. Automatic ribbon-reversing mechanism for type-writing machines. No. 942,383; Dec. 7; Sp. p. 729; Gaz. vol. 149; p. 119.
Kleinberger, J., Brooklyn, and R. Stern, assignors to American Marine Lamp Mfg. Co., New York, N. Y. Wick-adjusting mechanism for lamps and lanterns. No. 944,967; Dec. 28; Sp. p. 6312; Gaz. vol. 149; p. 1064.
Kleinfeldt, A., Hoboken, N. J., assignor to A. E. Schatz, Mount Vernon, N. Y., G. P. Kato, Jr., and C. W. Wenner, Jersey City, N. J. Siphon for dispensing liquids. No. 943,421; Dec. 14; Sp. p. 2968; Gaz. vol. 149; p. 501.
Kleman, W., Portage, Pa. Junction-signal for mining-railways. No. 943,114; Dec. 14; Sp. p. 2347; Gaz. vol. 149; p. 398.
Kling, P. M., assignor to Pressed Steel Car Company, Pittsburg, Pa. Passenger-car. No. 942,265; Dec. 7; Sp. p. 503; Gaz. vol. 149; p. 79.
Klug, A. A., Merrill, Wis. Truss. No. 943,685; Dec. 21; Sp. p. 3572; Gaz. vol. 149; p. 622.
Kluge, A. C. (See Gaynor, J. C., assignor.)
Klugh, P. B., assignor to Cable Company, Chicago, Ill. Pneumatic musical instrument. No. 942,915; Dec. 14; Sp. p. 1895; Gaz. vol. 149; p. 331.
Knaack, G. E. (See Carrington, A. R., assignor.)
Knapp, C. F., Clintonville, Wis. Handle for trunks. No. 944,366; Dec. 28; Sp. p. 5003; Gaz. vol. 149; p. 881.
Knapp, W. H., Evanston, Ill. Device for closing swinging doors. No. 942,568; Dec. 7; Sp. p 1124; Gaz. vol. 149; p. 183.
Knappich, J., Augsburg, Germany. Welding-burner. No. 943,882; Dec. 21; Sp. p. 3970; Gaz. vol. 149; p. 690.
Knerr, D. F., Newark, Ohio. Automatic air-brake retaining and release valve. No. 943,602; Dec. 14; Sp. p. 3346; Gaz. vol. 149; p. 564.
Kniffen, E. R. (See Shank, A. W., assignor.)
Knight, W. J. (See Johnson, E. S., assignor.)
Knoblock, H. P., Pittsburg, Pa. Toaster. No. 943,555; Dec. 14; Sp. p. 3258; Gaz. vol. 149; p. 549.
Knoche, C. A. (See Ferguson and Knoche.)
Knoepfel, E. G., San Francisco, Cal. Apparatus for treating gases and separating smoke and dust therefrom. No. 943,422; Dec. 14; Sp. p. 2972; Gaz. vol. 149; p. 501.
Knoll and Company. (See Tambach, R., assignor.)
Knutson, P. M., assignor of one-half to H. Kram, Clifford, N. D. Sleigh attachment for automobiles. No. 942,062; Dec. 7; Sp. p. 94; Gaz. vol. 149; p. 16.
Koags, A. W., Pine River, Wis. Corn-planter and marker. No. 942,394; Dec. 7; Sp. p. 749; Gaz. vol. 149; p. 122.
Koch, G. A. W., Paris, France. Ball-bearing. No. 942,302; Dec. 7; Sp. p. 746; Gaz. vol. 149; p. 122.
Kocsis, P., assignor of one-half to M. Madara, Duquesne, Pa. Flagstaff. No. 944,269; Dec. 28; Sp. p. 4783; Gaz. vol. 149; p. 846.
Koehler, F. G., St. Louis, Mo. Shock-absorber for vehicles. No. 944,446; Dec. 28; Sp. p. 5175; Gaz. vol. 149; p. 908.
Koehler, F. G., St. Louis, Mo. Shock-absorber for vehicles. No. 944,674; Dec. 28; Sp. p. 5690; Gaz. vol. 149; p. 987.
Koehler, F. G., St. Louis, Mo. Shock-absorber for vehicles. No. 944,675; Dec. 28; Sp. p. 5692; Gaz. vol. 149; p. 987.
Koehler, F. G., St. Louis, Mo. Shock-absorber for vehicles. No. 944,676; Dec. 28; Sp. p. 5694; Gaz. vol. 149; p. 988.

Koehler, F. G., St. Louis, Mo. Shock-absorber for vehicles. No. 944,677; Dec. 28; Sp. p. 5695; Gaz. vol. 149; p. 988.
Koehler, W., Cleveland, Ohio. Securing the chloridization of ores. No. 942,569; Dec. 7; Sp. p. 1125; Gaz. vol. 149; p. 183.
Kohler, F. F., South Zanesville, Ohio. School furniture. No. 944,445; Dec. 28; Sp. p. 5174; Gaz. vol. 149; p 908.
Kohn, A., Omaha, Nebr. Smoke-consumer. No. 944,196; Dec. 21; Sp. p. 4639; Gaz. vol. 149; p. 795.
Kohn, F., Vienna, Austria-Hungary. Manufacturing tarsia-work. No. 943,300; Dec. 14; Sp. p. 2743; Gaz. vol. 149; p. 463.
Kondolf, M., Rochester, N. Y. Malt-stirrer. No. 942,649; Dec. 7; Sp. p. 1289; Gaz. vol. 149; p. 210.
König, A., assignor to Firm of C. Zeiss, Jena, Germany. Angle-measuring appliance. No. 942,303; Dec. 7; Sp. p. 747; Gaz. vol. 149; p. 122.
König, W., Ohrdruf, Germany. Red azo dye for lakes and making same. No. 942,916; Dec. 14; Sp. p. 1896; Gaz. vol. 149; p. 331.
Kornreich, S. S., Warren, Pa. Suspenders. No. 943,976; Dec. 21; Sp. p. 4178; Gaz. vol. 149; p. 723.
Koschinski, E. A., Scranton, Pa. Coupling. No. 944,877; Dec. 28; Sp. p. 6142; Gaz. vol. 149; p. 1056.
Kost, W. E. (See Schrader, C. T., assignor.)
Kraemer, G., Cologne, Germany. Improving textile fibers, threads, and fabrics. No. 942,395; Dec. 7; Sp. p. 753; Gaz. vol. 149; p. 123.
Kram, H. (See Knutson, P. M., assignor.)
Kramer, H. H., assignor of one-half to J. E. Peyton, Terre Haute, Ind. Shoe-fitting stool. No. 942,965; Dec. 14; Sp. p. 2006; Gaz. vol. 149; p. 348.
Kramer, H. L., Kramer, Ind. Apparatus for waste-rock elimination. No. 942,083; Dec. 7; Sp. p. 96; Gaz. vol. 149; p. 17.
Kramer, J. (See Ohrmundt and Kramer.)
Kramer, W. J., Jr., Oil City, Pa. Coupling device for vehicles. No. 944,333; Dec. 28; Sp. p. 4928; Gaz. vol. 149; p. 868.
Krapf, D., and J. F. Sachs, Millvale, Pa. Dough-rolling device. No. 943,423; Dec. 14; Sp. p. 2974; Gaz. vol. 149; p. 502.
Kraus Engine Company. (See Kraus, O., assignor.)
Kraus, M. L. (See Biddle, G. C., assignor.)
Kraus, O., assignor to Kraus Engine Company, New York, N. Y. Combustion-chamber for gas-engines. No. 943,082; Dec. 14; Sp. p. 2287; Gaz. vol. 149; p. 388.
Kreft, L., Des Plaines, Ill. Vermin-destroying apparatus. No. 943,256; Dec. 14; Sp. p. 2633; Gaz. vol. 149; p. 446.
Krell Auto Grand Piano Co. of America. (See Welin, P., assignor.)
Krentler-Arnold Hinge Last Company. (See Hamm, W. S., assignor.)
Krepps, H. C., Seattle, Wash. Railway-tie. No. 942,650; Dec. 7; Sp. p. 1291; Gaz. vol. 149; p. 211.
Krichbaum, G. V. (See Eshelman, B. S., assignor.)
Kroyer, J. M., assignor to Samson Iron Works, Stockton, Cal. Friction-clutch. No. 943,977; Dec. 21; Sp. p. 4179; Gaz. vol. 149; p. 723.
Krummel, L. C., Clinton, Conn. Flanging-head for receptacles. No. 944,791; Dec. 28; Sp. p. 5949; Gaz. vol. 149; p. 1026.
Kruse, A. M., *et al.*, executors. (See Kruse, A. T.)
Kruse, A. T., assignor to American Steel Package Company, Defiance, Ohio. Packing-case. No. 942,966; Dec. 14; Sp. p. 2006; Gaz. vol. 149; p. 348.
Kruse, A. T., assignor to American Steel Package Company, Defiance, Ohio. Construction of receptacles. No. 943,686; Dec. 21; Sp. p. 3573; Gaz. vol. 149; p. 622.
Kruse, A. T., deceased; C. M. Willock and A. M. Kruse, executors, assignors to American Steel Package Company, Defiance, Ohio. Metallic barrel. No. 943,687; Dec. 21; Sp. p. 3575; Gaz. vol. 149; p. 623.
Kuchs, O. M., assignor of one-half to F. Laist, Anaconda, Mont. Centrifugal slime-separator. No. 943,083; Dec. 14; Sp. p. 2288; Gaz. vol. 149; p. 388.
Kuebler, J. C., Wellsville, N. Y. Process and apparatus for the extracting of oil from wax. No. 942,917; Dec. 14; Sp. p. 1897; Gaz. vol. 149; p. 331.
Kügelgen, F. von. (See Seward and Kügelgen.)
Kull, C. (See Seelhorst, J., Jr., assignor.)
Kunkle, H. C., Canton, Ohio. Brick-stroking-off machine. No. 944,447; Dec. 28; Sp. p. 5177; Gaz. vol. 149; p. 908.
Kuny, H. (See Handschin and Kuny.)
Kunz, J. P., Jr., St. Louis, Mo. Ellipsograph. No. 944,562; Dec. 28; Sp. p. 5470; Gaz. vol. 149; p. 949.
Küpfer, G., Santiago, Chile. Shaft-bearing. No. 943,688; Dec. 21; Sp. p. 3577; Gaz. vol. 149; p. 623.
Kurtz, C. B., Lakewood, Ohio. Transmission-gearing. No. 942,266; Dec. 7; Sp. p. 504; Gaz. vol. 149; p. 79.
Kurtzner, H., New Haven, Conn. Section for automobile-radiators. No. 943,257; Dec. 14; Sp. p. 2635; Gaz. vol. 149; p. 446.
L'hote, J., Pittsfield, Mass. Saw-setting tool. No. 942,573; Dec. 7; Sp. p. 1135; Gaz. vol. 149; p. 184.
La Dew, C. H., New York, N. Y. Pedal attachment for organs, pianolas, &c. No. 944,878; Dec. 28; Sp. p. 6143; Gaz. vol. 149; p. 1057.
La Due, E. A., assignor to Chandler & Price Company, Cleveland, Ohio. Paper-cutting machine. No. 943,258; Dec. 14; Sp. p. 2635; Gaz. vol. 149; p. 446.
La Hodny, W., Buffalo, N. Y. Grinding and polishing machine. No. 944,678; Dec. 28; Sp. p. 5698; Gaz. vol. 149; p. 988.
La Rose, A., assignor to La Rose Hair Compound Manufacturing Company, New York, N. Y. Non-refillable bottle. No. 943,425; Dec. 14; Sp. p. 2976; Gaz. vol. 149; p. 502.
La Rose Hair Compound Manufacturing Company. (See La Rose, A., assignor.)
La Société Loziano & Finet. (See Loziano, L., assignor.)
Lacock, J. F., Boston, Mass., assignor to Vortex Vacuum Company. Vacuum cleaning apparatus. No. 943,424; Dec. 14; Sp. p. 2975; Gaz. vol. 149; p. 502.
Lademan, O. T., Milwaukee, Wis. Signaling system. No. 944,563; Dec. 28; Sp. p. 5472; Gaz. vol. 149; p. 949.
Lager, L. (See Wilson, P. H., assignor.)
Lahart, J. F., Minneapolis, Minn. Metal-reinforced railway-tie. No. 942,267; Dec. 7; Sp. p. 506; Gaz. vol. 149; p. 79.
Lahart, J. F., Minneapolis, Minn. Metal-reinforced railway-tie. No. 942,268; Dec. 7; Sp. p. 509; Gaz. vol. 149; p. 80.
Lahmers, C. E., New Philadelphia, Ohio. Automatic cut-off for gas-mains. No. 942,832; Dec. 7; Sp. p. 1654; Gaz. vol. 149; p. 270.
Laist, F. (See Kuchs, O. M., assignor.)
Lake, C. J., Bridgeport, Conn. Power-generating apparatus. No. 942,873; Dec. 7; Sp. p. 1757; Gaz. vol. 149; p. 284.
Lambert, F. J. (See Dubisee, J., assignor.)
Lambert, G. A., Anderson, Ind. Folding bed-couch. No. 944,334; Dec. 28; Sp. p. 4930; Gaz. vol. 149; p. 869.
Lambert, G. A., Anderson, Ind. Bed-couch. No. 944,564; Dec. 28; Sp. p. 5476; Gaz. vol. 149; p. 950.
Lambrecht, H. L., Sullivan Ill. Hasp-fastener. No. 944,792; Dec. 28; Sp. p. 5953; Gaz. vol. 149; p. 1026.
Lamson Consolidated Store Service Company. (See Jennings, C. S., assignor.)
Lamson Consolidated Store Service Company. (See Libby, C. R., assignor.)
Lamson Consolidated Store Service Company. (See Litchfield, I. W., assignor.)
Lamson, J. D. R. (See Huyck and Lamson.)
Lancaster, J. A., *et al.* (See Bryant, W. A., assignor.)
Landers, A. W. (See Landers, C. W. and A. W.)
Landers, C. W. and A. W., Highland Home, Ala. Plow. No. 942,918; Dec. 14; Sp. p. 1898; Gaz. vol. 149; p. 331.
Landry, A. (See Bollinger and Landry.)
Landry, E. (See Bollinger and Landry.)
Landry, L. H., assignor of one-half to S. B. Taft, Uxbridge, Mass., one-eighth to U. Larocque, and one-eighth to L. and T. Bousquet, Burrillville, R. I. Picking-motion. No. 943,027; Dec. 14; Sp. p. 2151; Gaz. vol. 149; p. 369.
Landry, L. H., assignor of one-half to S. B. Taft, Uxbridge, Mass., one-eighth to U. Larocque, and one-eighth to L. and T. Bousquet, Burrillville, R. I. Loom. No. 943,028; Dec. 14; Sp. p. 2154; Gaz. vol. 149; p. 369.
Landry, L. H., assignor of one-half to S. B. Taft, Uxbridge, Mass., one-eighth to U. Larocque, and one-eighth to L. and T. Bousquet, Burrillville, R. I. Loom-temple. No. 943,150; Dec. 14; Sp. p. 2423; Gaz. vol. 149; p. 411.
Lang, M., Louisville, Ky. Garment. No. 942,144; Dec. 7; Sp. p. 260; Gaz. vol. 149; p. 39.
Lange, H., Berlin, Germany. Bag-wheelbarrow with weighing device. No. 944,335; Dec. 28; Sp. p. 4931; Gaz. vol. 149; p. 869.
Langer, J. (See Schönich and Langer.)
Langston, S. M., Camden, N. J. Paper-slitter. No. 943,257; Dec. 14; Sp. p. 2853; Gaz. vol. 149; p. 480.
Lanston Monotype Machine Company. (See Bancroft, J. S., assignor.)
Lanston Monotype Machine Company. (See Bancroft and Lindahl, assignors.)
Lants, C. H., Manhattan, Kans. Cloth-measuring machine. No. 942,084; Dec. 7; Sp. p. 99; Gaz. vol. 149; p. 17.
Larkin, B. H., Chicago, Ill., assignor to Continental Can Company, Baltimore, Md. Cutting can-caps and can ends from sheet metal. No. 944,703; Dec. 28; Sp. p. 5954; Gaz. vol. 149; p. 1026.
Larkin, G. F., Brentwood, England. Controlling device for motor-vehicles, air-ships, &c. No. 944,879; Dec. 28; Sp. p. 6147; Gaz. vol. 149; p. 1057.
Larock, F. J., Burnside, assignor to himself, and E. M. Francis, Hartford, Conn. Egg-beater. No. 944,621; Dec. 28; Sp. p. 5502; Gaz. vol. 149; p. 970.
Larocque, U., *et al.* (See Landry, L. H., assignor.)
Larsen, L. (See Mengers and Larsen.)
Larson, C. W., Schenectady, N. Y., assignor to General Electric Company. Towing device. No. 942,450; Dec. 7; Sp. p. 871; Gaz. vol. 149; p. 142.
Lasster, A. M. (See Brown, F. J., assignor.)
Latimer, A., London, England. Pneumatic tire. No. 943,640; Dec. 14; Sp. p. 3485; Gaz. vol. 149; p. 579.
Latimer, J. W., Chicago, Ill., assignor to International Harvester Company. Clutch-shipping mechanism. No. 944,336; Dec. 28; Sp. p. 4931; Gaz. vol. 149; p. 869.

Latsch, J., Seattle, Wash. Hair-supporter. No. 942,833; Dec. 7; Sp. p. 1656; Gaz. vol. 149; p. 270.
Latta, E. G., Syracuse, N. Y. Escapement mechanism for type-writing machines. No. 944,794; Dec. 28; Sp. p. 5956; Gaz. vol. 149; p. 1027.
Latta, E. G., assignor of one-half to H. A. Moyer, Syracuse, N. Y. Ribbon mechanism for type-writing machines. No. 944,735; Dec. 28; Sp. p. 5830; Gaz. vol. 149; p. 1008.
Laube, G. and H. R., Santa Monica; said G. Laube assignor to G. N. Bartlett, Los Angeles, Cal. Paper-holder. No. 944,880; Dec. 28; Sp. p. 6149; Gaz. vol. 149; p. 1058.
Laube, G. and H. R., Santa Monica; said G. Laube assignor to G. N. Bartlett, Los Angeles, Cal. Paper-holder. No. 944,881; Dec. 28; Sp. p. 6150; Gaz. vol. 149; p. 1058.
Laube, G. and H. R., Santa Monica; said G. Laube assignor to G. N. Bartlett, Los Angeles, Cal. Fly-trap. No. 944,882; Dec. 28; Sp. p. 6152; Gaz. vol. 149; p. 1058.
Laube, G and H. R., Santa Monica; said G. Laube assignor to G. N. Bartlett, Los Angeles, Cal. Sticky-fly-paper holder. No. 944,994; Dec.28; Sp. p. 6369; Gaz. vol. 149; p. 1093.
Laube, G. and H. R., Santa Monica; said G. Laube assignor to G. N. Bartlett, Los Angeles, Cal. Fly-trap. No. 945,003; Dec. 28; Sp. p. 6390; Gaz. vol. 149; p. 1096.
Laube, H. R. (See Laube, G. and H. R.)
Lauckner, B., Olbernhau, Germany, assignor to G. F. Newhard, St. Louis, Mo. Clamp for garment-supporters. No. 943,084; Dec. 14; Sp. p. 2292; Gaz. vol. 149; p. 388.
Lavigne, J. P., assignor to Lavigne Manufacturing Company, Detroit, Mich. Valve. No. 942,834; Dec. 7; Sp. p. 1657; Gaz. vol. 149; p. 271.
Lavigne Manufacturing Company. (See Lavigne, J. P., assignor.)
Lavine, S., Detroit, Mich. Radiator. No. 943,689; Dec. 21; Sp. p. 3578; Gaz. vol. 149; p. 623.
Lavoie, A. O., Montreal, Quebec, Canada. Hydraulic motor. No. 943,943; Dec. 21; Sp. p. 4113; Gaz. vol. 149; p. 712.
Lawler, J. J., Mount Vernon, N. Y. Toilet-brush. No. 944,679; Dec. 28; Sp. p. 5701; Gaz. vol. 149; p. 989.
Lawrence, E. F. (See Lawrence, J. H., assignor.)
Lawrence, J. H., assignor of one-half to E. F. Lawrence, Sterling, Ill. Door-hanger. No. 942,860; Dec. 7; Sp. p. 1723; Gaz. vol. 149; p. 279.
Lawrence, S. S., London, England. Spectacles, eyeglasses, and the like. No. 943,085; Dec. 14; Sp. p. 2294; Gaz. vol. 149; p. 389.
Lawrence, T. J. (See Stevens, L. P., assignor.)
Lawrence, W. P., Colorado Springs, Colo. Chair. No. 942,570; Dec. 7; Sp. p. 1126; Gaz. vol. 149; p. 183.
Lawson Manufacturing Company. (See Lawson, W. E., assignor.)
Lawson, W. E., assignor to Lawson Manufacturing Company, Homestead, Pa. Gas heating apparatus. No. 943,617; Dec. 14; Sp. p. 3420; Gaz. vol. 149; p. 570.
Lawton, C. B., Penn township, Allegheny county, Pa. Manufacture of glass articles. No. 942,651; Dec. 7; Sp. p. 1292; Gaz. vol. 149; p. 211.
Leach, A., Campello, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Needle-guide. No. 942,919; Dec. 14; Sp. p. 1900; Gaz. vol. 149; p. 332.
Leach, J. T., Fall River, Mass. Stop-motion for drawing-frames. No. 943,944; Dec. 21; Sp. p. 4114; Gaz. vol. 149; p. 713.
Leake, J. (See Forth, M. J., assignor.)
Learman, L. F., assignor of one-half to E. M. Coon, St. Paul, Minn. Safety-block for railway-tracks. No. 942,835; Dec. 7; Sp. p. 1658; Gaz. vol. 149; p. 271.
Leavitt, F. M., New York, assignor to E. W. Bliss Company, Brooklyn, N. Y. Air-heater for automobile torpedoes. No. 943,833; Dec. 21; Sp. p. 3872; Gaz. vol. 149; p. 673.
Leavitt Machine Company. (See Smith and Williams, assignors.)
Lebenberg, M., Berlin, Germany. Suction apparatus. No. 943,426; Dec. 14; Sp. p. 2977; Gaz. vol. 149; p. 502.
Ledterman, J. E., assignor of one-half to H. McCorkle, Chicago, Ill. Weather-strip. No. 944,042; Dec. 21; Sp. p. 4324; Gaz. vol. 149; p. 745
Lee, T., Home City, Ohio. Metallic window. No. 942,269; Dec. 7; Sp. p. 511; Gaz. vol. 149; p. 80.
Leeking, H. D., Lancaster, Pa. Combined dish pan and drainer. No. 943,750; Dec. 21; Sp. p. 3709; Gaz. vol. 149; p. 645.
Leet, E. H., and J. E. Stoll, Milwaukee, Wis. Frame for motor-cycles, bicycles, and the like. No. 944,795; Dec. 28; Sp. p. 5960; Gaz. vol. 149; p. 1027.
Lefever, C. F., Toledo, Ohio. Firearm. No. 944,448; Dec. 28; Sp. p. 5183; Gaz. vol. 149; p. 909.
Legg, A. G., assignor to Lockett Crimping Machine Company, Brockton, Mass. Crimping-machine. No. 944,337; Dec. 28; Sp. p. 4933; Gaz. vol. 149; p. 870.
Legge, T. A. (See Hamm and Legge.)
Legge, T. A., assignor to Adams & Westlake Company, Chicago, Ill. Car-window. No. 942,270; Dec. 7; Sp. p. 513; Gaz. vol. 149; p. 80.
Leich, O. M., Rochester, N. Y., assignor of one-third to J. G. Ihmsen and one-third to M. W. Zabel, Chicago, Ill. Selective signaling apparatus. No. 943,115; Dec. 14; Sp. p. 2350; Gaz. vol. 149; p. 399.
Leiss, E., Bronxville, N. Y. Egg-tester. No. 942,652; Dec. 7; Sp. p. 1294; Gaz. vol. 149; p. 211.
Leland, J. A. (See Parsons and Leland.)
Leland, J. A., Montague, assignor to Millers Falls Company, Millers Falls, Mass. Spiral screw-driver. No. 942,571; Dec. 7; Sp. p. 1129; Gaz. vol. 149; p. 183.
Leland, J. A., and W. G. Stebbins, Montague, assignors to Millers Falls Company, Millers Falls, Mass. Automatic tool for boring. No. 942,572; Dec. 7; Sp. p. 1133; Gaz. vol. 149; p. 184.
Lemcke, L., assignor of one-half to A. A. Eberson, St. Louis, Mo. Apparatus for constructing dress-forms. No. 944,796; Dec. 28; Sp. p. 5963; Gaz. vol. 149; p. 1028.
Lemon, L. F., and J. C. Stoops, Neodesha, Kans.; said Stoops assignor of one-third to said Lemon. Stock-releaser. No. 942,875; Dec. 7; Sp. p. 1767; Gaz. vol. 149; p. 285.
Lender, C. I., Norfolk, Va. Clamp. No. 944,622; Dec. 28; Sp. p. 5593; Gaz. vol. 149; p. 971.
Lennox, W., East Orange, N. J. Roller-skate. No. 942,333; Dec. 7; Sp. p. 644; Gaz. vol. 149; p. 103.
Lensvelt, C. J., Zurich, Switzerland. Meat-slicing machine. No. 944,797; Dec. 28; Sp. p. 5965; Gaz. vol. 149; p. 1028.
Lenzi, F. B. (See Coe, J. B., assignor.)
Leonard, G. O., Stamford, N. Y. Container for boiler-scale removers. No. 942,836; Dec. 7; Sp. p. 1659; Gaz. vol. 149; p. 271.
Leslie, H., assignor to E. M. Kliby, Birmingham, Ala. Automatic car-coupling. No. 943,116; Dec. 14; Sp. p. 2354; Gaz. vol. 149; p. 399.
Lester, J. S., assignor of one-third to B. F. Stockton, Atlanta, Ga. Toy. No. 944,623; Dec. 28; Sp. p. 5595; Gaz. vol. 149; p. 971.
Lester, W. J. (See Pope and Lester.)
Leszczynsky, A. and S., Shenandoah, Pa. Lock. No. 944,883; Dec. 28; Sp. p. 6153; Gaz. vol. 149; p. 1058.
Leszczynsky, S. (See Leszczynsky, A. and S.)
Letterman, C. H., Pittsburg, Pa. Support for clothes-wringers. No. 944,884; Dec. 28; Sp. p. 6155; Gaz. vol. 149; p. 1059.
Leuthesser, F. W., assignor to Monash-Younker Company, Chicago, Ill. Air-valve for radiators. No. 944,338; Dec. 28; Sp. p. 4935; Gaz. vol. 149; p. 870.
Levalley, C. W., Milwaukee, Wis. Support for belt-shifters. No. 942,837; Dec. 7; Sp. p. 1661; Gaz. vol. 149; p. 272.
Levedahl, A., assignor to Aurora Automatic Machinery Company, Aurora, Ill. Set-screw. No. 942,506; Dec. 7; Sp. p. 1006; Gaz. vol. 149; p. 162.
Leverton, G. E., Denver, Colo. Hinge-hanger. No. 942,784; Dec. 7; Sp. p. 1552; Gaz. vol. 149; p. 255.
Levey, T. J., Washington, D. C., assignor to International Cap and Sealing Machine Company. Bottle-capping machine. (Reissue.) No. 13,065; Dec. 28; Sp. p. 6416; Gaz. vol. 149; p. 1101.
Lewis, A., New York, N. Y. Manifolding apparatus. No. 943,195; Dec. 14; Sp. p. 2502; Gaz. vol. 149; p. 424.
Lewis, C. E. (See Sauerwein, Zacharias, and Lewis.)
Lewis Company. (See Sauerwein, Zacharias, and Lewis, assignors.)
Lewis, I. N., U. S. Army, assignor to A. W. Erdman, Waterbury, Conn. Azimuth-indicator. No. 943,751; Dec. 21; Sp. p. 3709; Gaz. vol. 149; p. 645.
Lewsen, N., Portland, Me. Skirt-gage. No. 944,885; Dec. 28; Sp. p. 6156; Gaz. vol. 149; p. 1059.
Libby, C. R., Lowell, Mass., assignor to Lamson Consolidated Store Service Company, Newark, N. J. Automatic traveling take-up for cable conveying apparatus. No. 944,565; Dec. 28; Sp. p. 5477; Gaz. vol. 149; p. 950.
Liberty Manufacturing Company. (See Symons, J. V., assignor.)
Liddell, W., New York, N. Y., assignor, by mesne assignments, to Simplex Bag Company of Long Island City. Bag-machine. No. 943,427; Dec. 14; Sp. p. 2979; Gaz. vol. 149; p. 503.
Liddell, W., New York, N. Y., assignor, by mesne assignments, to Simplex Bag Company of Long Island City. Paper-bag machine. No. 943,428; Dec. 14; Sp. p. 2983; Gaz. vol. 149; p. 503.
Liden, A. F., Chicago, Ill. Planer-tool. No. 943,086; Dec. 14; Sp. p. 2295; Gaz. vol. 149; p. 389.
Liden, A. F., Chicago, Ill. Tool-holder. No. 943,087; Dec. 14; Sp. p. 2296; Gaz. vol. 149; p. 389.
Liden, A. F., Chicago, Ill. Boring-bar. No. 943,088; Dec. 14; Sp. p. 2287; Gaz. vol. 149; p. 389.
Liebich, J., Görlitz, Germany. Liquor-containing confection. No. 943,945; Dec. 21; Sp. p. 4115; Gaz. vol. 149; p. 713.
Lillibridge, C. C., Shattuck, Okla. Oil-burner. No. 944,886; Dec. 28; Sp. p. 6158; Gaz. vol. 149; p. 1059.
Linaweaver, A. H., Findlay, Ohio. Primer for gasolene-engines. No. 942,785; Dec. 7; Sp. p. 1553; Gaz. vol. 149; p. 255.
Lincoln, P. J., Birmingham, Ala. Electric drill. No. 942,396; Dec. 7; Sp. p. 754; Gaz. vol. 149; p. 123.
Lindblad, A. R. (See Grönwall, Lindblad, and Stålhane.)
Linder, G. E., Geneva, Ill. Chair-coupling. No. 942,085; Dec. 7; Sp. p. 107; Gaz. vol. 149; p. 17.
Linderman, B. A., Muskegon, Mich. Edging attachment for lumber-joining machines. No. 944,489; Dec. 28; Sp. p. 5291; Gaz. vol. 149; p. 923.

Lindner, J., Waconia, Minn. Feeder for grain-binders. No. 943,978; Dec. 21; Sp. p. 4180; Gaz. vol. 149; p. 724.
Lindsay, E. F., Pringle, S. D. Support and insulator. No. 942,086; Dec. 7; Sp. p. 109; Gaz. vol. 149; p. 18.
Lindsey, J. H., Kevil, Ky. Harrow. No. 943,690; Dec. 21; Sp. p. 3580; Gaz. vol. 149; p. 624.
Lindström, C. A., Allegheny, assignor to Pressed Steel Car Company, Pittsburg, Pa. Dumping-car. No. 943,259; Dec. 14; Sp. p. 2637; Gaz. vol. 149; p. 447.
Lindström, C. A., Allegheny, assignor to Pressed Steel Car Company, Pittsburg, Pa. Bolster. No. 943,979; Dec. 21; Sp. p. 4183; Gaz. vol. 149; p. 724.
Lindström, C. A., assignor to Pressed Steel Car Company, Pittsburg, Pa. Bolster. No. 943,980; Dec. 21; Sp. p. 4184; Gaz. vol. 149; p. 724.
Linehan, F. J., Boston, Mass. Car-ventilator. No. 942,461; Dec. 7; Sp. p. 873; Gaz. vol. 149; p. 143.
Linotype and Machinery Limited. (See White, W. G., assignor.)
Lint, A., assignor of one-half to D. P. Clark, Dayton, Ohio. Friction-clutch. No. 942,574; Dec. 7; Sp. p. 1136; Gaz. vol. 149; p. 184.
Linsee, J. W., Jr., Boston, Mass. Reinforcing construction for concrete. No. 943,310; Dec. 14; Sp. p. 2744; Gaz. vol. 149; p. 463.
Lipe, W. C., Syracuse, N. Y. Universal joint. No. 942,087; Dec. 7; Sp. p. 110; Gaz. vol. 149; p. 18.
Lippincott, H. H. (See Stines, F. M., assignor.)
Lipschutz, S. G., Philadelphia, Pa. Cigar-presser. No. 942,397; Dec. 7; Sp. p. 757; Gaz. vol. 149; p. 123.
Litchfield, I. W., Boston, Mass., assignor to Lamson Consolidated Store Service Company, Newark, N. J. Pneumatic-despatch-tube apparatus. No. 944,680; Dec. 28; Sp. p. 5703; Gaz. vol. 149; p. 989.
Litchfield, P. W., assignor to Goodyear Tire and Rubber Company, Akron, Ohio. Vehicle-wheel rim. No. 943,029; Dec. 14; Sp. p. 2160; Gaz. vol. 149; p. 369.
Litchfield, P. W., assignor to Goodyear Tire and Rubber Company, Akron, Ohio. Tire. No. 943,358; Dec. 14; Sp. p. 2855; Gaz. vol. 149; p. 480.
Litchfield, P. W., assignor to Goodyear Tire and Rubber Company, Akron, Ohio. Vulcanizing-mold. No. 944,339; Dec. 28; Sp. p. 4937; Gaz. vol. 149; p. 870.
Littlejohn, C. F., assignor, by mesne assignments, to Recording Register & Fare Box Company, New Haven, Conn. Stop device for registering mechanisms. No. 944,242; Dec. 21; Sp. p. 4724; Gaz. vol. 149; p. 809.
Littler, R., Haddonfield, N. J. Bottling-machine. No. 942,271; Dec. 7; Sp. p. 514; Gaz. vol. 149; p. 81.
Livingston, A. E. (See Livingston, W. and A. E.)
Livingston, N. H., Globe, Ariz. Reclaiming or recovering values from dust. No. 943,752; Dec. 21; Sp. p. 3711; Gaz. vol. 149; p. 645.
Livingston, W. and A. E., Hastings, Nebr. Burial-vault. No. 943,981; Dec. 21; Sp. p. 4186; Gaz. vol. 149; p. 724.
Lloyd, J. A., Clark Fork, Idaho. Shell-fish opener. No. 943,982; Dec. 21; Sp. p. 4187; Gaz. vol. 149; p. 725.
Locke, A. J., *et al.* (See Pitts, E. L., assignor.)
Lockett Crimping Machine Company. (See Legg, A. G., assignor.)
Locomotive Equipment Company. (See Kingsley, A. F., assignor.)
Loftus, J., Albany, N. Y. Arch for fire-boxes of locomotives, &c. No. 942,575; Dec. 7; Sp. p. 1139; Gaz. vol. 149; p. 185.
Loftus, L. F., Knoxville, assignor of one-third to C. R. MacCann and one-third to J. Sorlin, Allegheny county, Pa. Explosive-engine. No. 944,340; Dec. 28; Sp. p. 4940; Gaz. vol. 149; p. 871.
Lohmann, A. (See Benjaminowitsch, W., assignor.)
Lomas, J., Southbridge, Tasmania, Australia. Apparatus for grading apples and such like fruit. No. 944,887; Dec. 28; Sp. p. 6159; Gaz. vol. 149; p. 1060.
Lombard, N., Akron, Ohio. Washing-machine. No. 944,736; Dec. 28; Sp. p. 5836; Gaz. vol. 149; p. 1008.
Lombard, N., Akron, Ohio. Vacuum massage-machine. No. 944,737; Dec. 28; Sp. p. 5835; Gaz. vol. 149; p. 1008.
London, W. J. A., Edgewood Park, Pa., assignor to Westinghouse Machine Company. Elastic-fluid turbine. No. 943,359; Dec. 14; Sp. p. 2857; Gaz. vol. 149; p. 481.
Long & Allstatter Company. (See Macbeth, C. E., assignor.)
Long, E. H., Los Angeles, Cal. Telephone-mouthpiece. No. 943,946; Dec. 21; Sp. p. 4116; Gaz. vol. 149; p. 713.
Long, J. A., Portland, Oreg., assignor of one-third to E. E. Boggess. Belt-shifter. No. 942,384; Dec. 7; Sp. p. 733; Gaz. vol. 149; p. 119.
Long, R. W. (See Buress, G., assignor.)
Long, W. L., Marion, Ind. Flash-light attachment for guns. No. 944,449; Dec. 28; Sp. p. 5186; Gaz. vol. 149; p. 909.
Long, W. N., Eugene, Oreg. Valve. No. 942,576; Dec. 7; Sp. p. 1142; Gaz. vol. 149; p. 185.
Longo, F. (See Owens, W. J., assignor.)
Lonsdale, A. W., Bedford, England. Pneumatic relay for automatic musical instruments. No. 944,798; Dec. 28; Sp. p. 5966; Gaz. vol. 149; p. 1029.
Loose, W., Bremen, Germany. Medicament for diseases of the mucous membrane. No. 944,738; Dec. 28; Sp. p. 5841; Gaz. vol. 149; p. 1009.
Lorenzen, J., assignor to H. Clauss, Fremont, Ohio. Stropping-machine. No. 943,311; Dec. 14; Sp. p. 2746; Gaz. vol. 149; p. 464.
Lorétan, H. (See Bierer and Lorétan.)
Loshbough, A. W., assignor to Automatic Seal Company, Detroit, Mich. Seal. No. 943,834; Dec. 21; Sp. p. 3874; Gaz. vol. 149; p. 674.
Lothrop, T. M., and G. D. Bradshaw, Joliet, Ill. Superheat-gage. No. 943,260; Dec. 14; Sp. p. 2639; Gaz. vol. 149; p. 447.
Lott, W. F., Newark, N. J., assignor to Rubber & Celluloid Harness Trimming Co. Belt. No. 943,228; Dec. 14; Sp. p. 2571; Gaz. vol. 149; p. 436.
Lotze, G., New York, N. Y. Dust-pan. No. 944,490; Dec. 28; Sp. p. 5292; Gaz. vol. 149; p. 923.
Louque, W. N., assignor to W. M. Wren, New Orleans, La. Pile. No. 942,653; Dec. 7; Sp. p. 1295; Gaz. vol. 149; p. 212.
Lovekin, L. D. (See Warrington and Lovekin.)
Lovell, C. H., St. Louis, Mo. Game-schedule. No. 942,178; Dec. 7; Sp. p. 329; Gaz. vol. 149; p. 50.
Low, A. A. (See Wohl and Hertzberg, assignors.)
Lowden, T. W., London, England. Vacuum-pump. No. 943,556; Dec. 14; Sp. p. 3260; Gaz. vol. 149; p. 549.
Lowe, F. W., Boston, Mass. Wire hinge. No. 944,681; Dec. 28; Sp. p. 5704; Gaz. vol. 149; p. 989.
Lowe, F. W., Boston, Mass. Hair-waver. No. 944,682; Dec. 28; Sp. p. 5704; Gaz. vol. 149; p. 989.
Lowry, G. G., Sherwood, Oreg. Self-dumping hay-rake. No. 943,429; Dec. 14; Sp. p. 2990; Gaz. vol. 149; p. 504.
Loziano, L., assignor to La Société Loziano & Finet, Paris, France. Radiator. No. 944,450; Dec. 28; Sp. p. 5188; Gaz. vol. 149; p. 910.
Lubricating Wheel and Roller Company. (See Jones, J. D., assignor.)
Lucas, A. N. (See Lucas, De Long, and Lucas.)
Lucas, C. O., assignor to Lucas Pump Company, Dayton, Ohio. Pump. No. 944,243; Dec. 21; Sp. p. 4727; Gaz. vol. 149; p. 809.
Lucas, D. A., G. D. De Long, Havelock, Nebr., and A. N. Lucas, Milwaukee, Wis. Boiler-flue expander. No. 943,117; Dec. 14; Sp. p. 2355; Gaz. vol. 149; p. 399.
Lucas Pump Company. (See Lucas, C. O., assignor.)
Lucas, W. (See Garrett and Lucas.)
Lucke, T. W., Chicago, Ill. Vehicle-tire. No. 943,430; Dec. 14; Sp. p. 2991; Gaz. vol. 149; p. 504.
Ludescher, E., Baltimore, Md. Suit-case and the like. No. 943,753; Dec. 21; Sp. p. 3712; Gaz. vol. 149; p. 646.
Ludington, F. H. (See Marshall, J. P., assignor.)
Ludwig & Company. (See Hulder, J. P., assignor.)
Ludy, J. E., *et al.* (See Pitts, E. L., assignor.)
Lull, J. M., Wausau, Wis. Loose-leaf binder. No. 943,431; Dec. 14; Sp. p. 2993; Gaz. vol. 149; p. 505.
Lumbard, M. A., *et al.* (See Perry, D. P., assignor.)
Lunan, T. M., Buffalo, and A. C. Rantsch, New York, N. Y. Metallic shingle and making the same. No. 942,577; Dec. 7; Sp. p. 1143; Gaz. vol. 149; p. 185.
Lundell, R., New York, N. Y. Paper bottle. No. 942,088; Dec. 7; Sp. p. 112; Gaz. vol. 149; p. 18.
Lundvall, E. A., and W. Olson, assignors to W. C. Roberts, Brooklyn, N. Y. Numbering-machine. No. 944,451; Dec. 28; Sp. p. 5189; Gaz. vol. 149; p. 910.
Lunken, E. H., assignor to Lunken Steel Window Co., Cincinnati, Ohio. Shade-supporting device. No. 942,967; Dec. 14; Sp. p. 2012; Gaz. vol. 149; p. 348.
Lunken Steel Window Co. (See Lunken, E. H., assignor.)
Lunn, J. T., Southampton, England. Invalid's mattress. No. 944,624; Dec. 28; Sp. p. 5597; Gaz. vol. 149; p. 971.
Lutke, R. (See Spady, L., assignor.)
Lutz, C. A., Lansing, Mich. Padlock. No. 944,888; Dec. 28; Sp. p. 6161; Gaz. vol. 149; p. 1060.
Lux, P., assignor to Waterbury Clock Co., Waterbury, Conn. Eight-day alarm-clock. No. 943,312; Dec. 14; Sp. p. 2748; Gaz. vol. 149; p. 464.
Lyman, A. E., Springfield, Mass. Garbage or refuse receptacle. No. 943,089; Dec. 14; Sp. p. 2299; Gaz. vol. 149; p. 390.
Lynch, J. H., Haverstraw, N. Y. Screening apparatus. No. 944,097; Dec. 21; Sp. p. 4429; Gaz. vol. 149; p. 763.
Lynch, W. F. (See Guptill, F. C., assignor.)
Lynn, G. W., *et al.* (See Shank, A. W., assignor.)
Lyon, M. T., Salt Lake City, Utah. Truck structure for garbage or ash cans. No. 944,197; Dec. 21; Sp. p. 4640; Gaz. vol. 149; p. 795.
Lyons, A. J., *et al.* (See Russ, J. D., assignor.)
Lyons, W. C., *et al.* (See Bridgewater, A. M., assignor.)
Lysaght, C. J., Newark, N. J., assignor to R. Neumann Hardware Co. Bag-fastener. No. 943,229; Dec. 14; Sp. p. 2573; Gaz. vol. 149; p. 436.
Lytle, C. E., St. Joseph, Mo. Pitch-board. No. 944,799; Dec. 28; Sp. p. 5968; Gaz. vol. 149; p. 1029.
Maatschappy tot Voortzetting van de Zaken der Firma Ruhaak & Co. (See Cochius, G. L., assignor.)
MacCann, C. R., *et al.* (See Loftus, L. F., assignor.)

MacConnell, H. C., Philadelphia, Pa., assignor to R. Hoe, New York, N. Y. Plate-drying apparatus. No. 944,800; Dec. 28; Sp. p. 5971; Gaz. vol. 149; p. 1029.
MacLafferty, T. H., Tenino, Wash. Car-stake. No. 944,739; Dec. 28; Sp. p. 5842; Gaz. vol. 149; p. 1009.
MacMahn, C., Toledo, Ohio. Corset. No. 942,786; Dec. 7; Sp. p. 1556; Gaz. vol. 149; p. 256.
Macbeth, C. E., assignor to Long & Allstatter Company, Hamilton, Ohio. Multiple punching-machine. No. 942,272; Dec. 7; Sp. p. 517; Gaz. vol. 149; p. 81.
Maccuaig, D. A., Nebraska City, Nebr. Caster-retaining socket. No. 943,432; Dec. 14; Sp. p. 2994; Gaz. vol. 149; p. 505.
Macdonald, T. A., Clifton, N. J. Window clothes-line support. No. 943,433; Dec. 14; Sp. p. 2998; Gaz. vol. 149; p. 506.
Macdonald, T. H., assignor to American Graphophone Company, Bridgeport, Conn. Phonic apparatus. No. 942,089; Dec. 7; Sp. p. 113; Gaz. vol. 149; p. 19.
Machlet, G., Jr., Elizabeth, N. J. Apparatus for producing perforated music-record sheets. No. 942,398; Dec. 7; Sp. p. 759; Gaz. vol. 149; p. 124.
Mack, C. F., York, Pa., assignor of one-half to R. F. Strayer, New York, N. Y. Amusement device. No. 944,452; Dec. 28; Sp. p. 5196; Gaz. vol. 149; p. 910.
Mack, W. A., assignor to Standard Sewing Machine Company, Cleveland, Ohio. Sewing-machine. No. 942,090; Dec. 7; Sp. p. 116; Gaz. vol. 149; p. 19.
Mackenzie, F. P., New York, N. Y. Marking and cutting goods for garments. No. 943,947; Dec. 21; Sp. p. 4117; Gaz. vol. 149; p. 713.
Macphail, J., Blue Island, assignor, by mesne assignments, to International Harvester Company, Chicago, Ill. Supporting and moving device for harvesters, &c. No. 943,090; Dec. 14; Sp. p. 2300; Gaz. vol. 149; p. 390.
Madara, M. (See Kocsis, P., assignor.)
Madden, H. E., Hebron, Ohio. Vegetable slicing and cutting machine. No. 944,491; Dec. 28; Sp. p. 5293; Gaz. vol. 149; p. 924.
Madison, A. L., Brooklyn, assignor to Wilcox & Gibbs Sewing Machine Company, New York, N. Y. Sewing-machine. No. 944,740; Dec. 28; Sp. p. 5843; Gaz. vol. 149; p. 1009.
Mager, L. D., Garrett, Ind. Feed-valve for steam-boilers. No. 944,683; Dec. 28; Sp. p. 5705; Gaz. vol. 149; p. 990.
Magie, W. R., Indianapolis, Ind. Machine for wiring sheet metal. No. 943,118; Dec. 14; Sp. p. 2358; Gaz. vol. 149; p. 400.
Mahurin, M. B., Muskingum township, Washington county, Ohio. Flushing-valve. No. 944,098; Dec. 21; Sp. p. 4431; Gaz. vol. 149; p. 764.
Maier, W., Stuttgart, assignor to Fried. Krupp Aktiengesellschaft Germaniawerft, Kiel-Gaarden, Germany. Ship's-screw-driving mechanism for submarine boats. No. 943,434; Dec. 14; Sp. p. 3000; Gaz. vol. 149; p. 506.
Mailloux, C. O., and H. J. Westover, New York, N. Y. Gas-analyzer for furnaces. No. 942,861; Dec. 7; Sp. p. 1725; Gaz. vol. 149; p. 280.
Main, E. D., administratrix. (See Main, M. D.)
Main, M. D., deceased, Cortland, N. Y.; E. D. Main, administratrix. Horse hay-fork. No. 943,618; Dec. 14; Sp. p. 3421; Gaz. vol. 149; p. 570.
Maire, G. H., Seattle, Wash. Electric-railway system. No. 943,196; Dec. 14; Sp. p. 2504; Gaz. vol. 149; p. 425.
Malocsay, F. X., Jersey City, N. J., assignor to W. H. Heulings, Philadelphia, Pa. Car-door. No. 942,862; Dec. 7; Sp. p. 1728; Gaz. vol. 149; p. 280.
Maltby, G. B., Cleveland, Ohio. Metallic rod-packing. No. 943,835; Dec. 21; Sp. p. 3878; Gaz. vol. 149; p. 674.
Manierre, A. (See Tevander and Manierre.)
Manitowoc Dry-Dock Company. (See Gunnell, E., assignor.)
Manlove, G., Rushville, Ill. Brake-lever mechanism for carts and wagons. No. 944,801; Dec. 28; Sp. p. 5972; Gaz. vol. 149; p. 1029.
Mann, C. A., assignor of one-half to R. S. Mayer, Cincinnati, Ohio. Time-switch. No. 944,802; Dec. 28; Sp. p. 5974; Gaz. vol. 149; p. 1030.
Mann, C. B., Jr. (See Robinson, H. S., assignor.)
Mann, F. C. D. (See Hill and Mann.)
Mann, J. P., Ennis, Tex. Coop. No. 944,367; Dec. 28; Sp. p. 5004; Gaz. vol. 149; p. 881.
Mann, W. B., Baltimore, Md., assignor to P. Mauro and S. T. Cameron, trustees, Washington, D. C. Triple valve for air-brakes. No. 943,983; Dec. 21; Sp. p. 4189; Gaz. vol. 149; p. 725.
Manson, R. H., assignor to Dean Electric Company, Elyria, Ohio. Harmonic signaling system. No. 942,091; Dec. 7; Sp. p. 119; Gaz. vol. 149; p. 19.
Manson, R. H., assignor to Dean Electric Company, Elyria, Ohio. Electrical signaling and switching apparatus. No. 943,883; Dec. 21; Sp. p. 3971; Gaz. vol. 149; p. 690.
Manufacturers Equipment Company. (See Grebel, P. J., assignor.)
Manufacturers Machine Company. (See Phelan, M. D., assignor.)
Mapes, C. M. (See Meredith-Jones, H., assignor.)
Marble, W. P., Cambridge, Mass. Valve-handle. No. 944,099; Dec. 21; Sp. p. 4433; Gaz. vol. 149; p. 764.
Marceau, E. F., East Hartford, Conn. Curtain-support. No. 943,151; Dec. 14; Sp. p. 2425; Gaz. vol. 149; p. 412.
Marcet y Martí, J., Tarrasa, Spain. Woven wrapper for tires. No. 943,557; Dec. 14; Sp. p. 3263; Gaz. vol. 149; p. 549.
Marcus, J., New York, N. Y. Chimney cowl or ventilator. No. 944,043; Dec. 21; Sp. p. 4326; Gaz. vol. 149; p. 745.
Marfield, P. B., assignor to Nugent Tool Company, Cincinnati, Ohio. Friction-clutch. No. 942,452; Dec. 7; Sp. p. 875; Gaz. vol. 149; p. 143.
Maris, M., Chicago, Ill. Game apparatus. No. 943,435; Dec. 14; Sp. p. 3003; Gaz. vol. 149; p. 507.
Markewich, J. (See Brown, J. H., assignor.)
Marks, H., *et al.* (See Bricken, J., assignor.)
Marks, H., *et al.* (See Zwirman, M., assignor.)
Marks, R., *et al.* (See Bricken, J., assignor.)
Marlin Firearms Company. (See Hepburn, L. L., assignor.)
Marschik, S., Brünn, Austria-Hungary. Device for prevention of arbitrary registration in counters for mechanical looms. No. 943,948; Dec. 21; Sp. p. 4118; Gaz. vol. 149; p. 714.
Marsh, H. M., Chicago, Ill. Broom-making machine. No. 944,803; Dec. 28; Sp. p. 5976; Gaz. vol. 149; p. 1030.
Marsh, R. G., Detroit, Mich. Dispensing apparatus. No. 942,273; Dec. 7; Sp. p. 520; Gaz. vol. 149; p. 82.
Marsh, W. P. (See Dill and Marsh.)
Marsh, W. W. (See Hildebrandt, E., assignor.)
Marshall, J. I., Chicago, and J. Faulds, Oak Park, Ill.; said Faulds assignor to said Marshall. Bake-oven. No. 944,804; Dec. 28; Sp. p. 5987; Gaz. vol. 149; p. 1031.
Marshall, J. P., assignor of one-half to F. H. Ludington, St. Louis, Mo. Drying-machine. No. 943,691; Dec. 21; Sp. p. 3581; Gaz. vol. 149; p. 624.
Marston, A. M., *et al.* (See Holly, S. T., assignor.)
Marston, L. M., *et al.* (See Holly, S. T., assignor.)
Martens, H., and W. Schulz, Oldenburg, Germany. Flying scaffold. No. 943,436; Dec. 14; Sp. p. 3005; Gaz. vol. 149; p. 507.
Martens, J. A., Ostende, Belgium. Apparatus for teaching shooting. No. 944,368; Dec. 28; Sp. p. 5005; Gaz. vol. 149; p. 881.
Martin, E., Index, Wash. Snatch-block. No. 942,274; Dec. 7; Sp. p. 524; Gaz. vol. 149; p. 82.
Martin, F. C., and J. W. Smith, New York, N. Y. Protecting-safe. No. 943,437; Dec. 14; Sp. p. 3006; Gaz. vol. 149; p. 507.
Martin, G. L., Brooklyn, and A. W. Schreiner, Evergreen, Long Island, N. Y., assignors to said G. L. Martin. Flaming arc-lamp. No. 942,730; Dec. 7; Sp. p. 1445; Gaz. vol. 149; p. 236.
Martin, R. E., Newark, N. J. Saw-blade. No. 942,920; Dec. 14; Sp. p. 1901; Gaz. vol. 149; p. 332.
Martin, S. G., Chicago, Ill., W. O. Bartholomew, St. Louis, and E. Schaaf, St. Marys, Mo. Aging and curing tobacco. No. 942,838; Dec. 7; Sp. p. 1662; Gaz. vol. 149; p. 272.
Marx, C., New York, N. Y. Billiard-cue tip and fastener. No. 943,360; Dec. 14; Sp. p. 2860; Gaz. vol. 149; p. 481.
Marx, M., and J. L. Rude, Denver, Colo. Powder holder and shaker. No. 944,341; Dec. 28; Sp. p. 4942; Gaz. vol. 149; p. 871.
Mason, C. O., Attleboro Falls, Mass. Box-fastener. No. 942,839; Dec. 7; Sp. p. 1664; Gaz. vol. 149; p. 272.
Mason, J. A., Newton, Mass. Sheet-metal folder. No. 944,566; Dec. 28; Sp. p. 5478; Gaz. vol. 149; p. 951.
Massachusetts Saw Works. (See Bradford and Olson, assignors.)
Masters, H. M., Delroy, Ohio. Music holder and turner. No. 942,399; Dec. 7; Sp. p. 770; Gaz. vol. 149; p. 124.
Mastin, C. I. E., Midland Park, and E. L. Perry, Paterson, N. J. Packing and making the same. No. 943,692; Dec. 21; Sp. p. 3583; Gaz. vol. 149; p. 624.
Matschuk, F. (See Emerley and Matschuk.)
Matsek, J., assignor of one-fourth to W. Gallia and one-fourth to M. Arthur and G. C. Davis, Blanca, Colo. Stirrup. No. 944,889; Dec. 28; Sp. p. 6162; Gaz. vol. 149; p. 1060.
Matteson, R. S., Providence, assignor to O. T. Inman, Bridgeton, and J. A. King, Warwick, R. I. Machine for making horseshoes. No. 942,370; Dec. 7; Sp. p. 711; Gaz. vol. 149; p. 115.
Matthews, J., Chicago, Ill. Land and water vehicle. No. 944,044; Dec. 21; Sp. p. 4327; Gaz. vol. 149; p. 746.
Mattice, R., Wichita, Kans. Metallic fence-post. No. 944,342; Dec. 28; Sp. p. 4944; Gaz. vol. 149; p. 872.
Mauro, P., *et al.*, trustees. (See Mann, W. B., assignor.)
Mauser, P., Oberndorf-on-the-Neckar, Germany. Recoil-loader with fixed barrel. No. 943,949; Dec. 21; Sp. p. 4120; Gaz. vol. 149; p. 714.
Mavor, H. A., Mile End, Glasgow, Scotland. Control of electric motors. No. 944,453; Dec. 28; Sp. p. 5198; Gaz. vol. 149; p. 911.
Maw, G. L., Buffalo, N. Y. Collection-safe. No. 944,198; Dec. 21; Sp. p. 4641; Gaz. vol. 149; p. 795.
Maxfield, L. H., Godfrey, assignor to Illinois Stoker Company, Alton, Ill. Chain-grate furnace. No. 944,454; Dec. 28; Sp. p. 5202; Gaz. vol. 149; p. 911.
Maxwell, J. G., Washington, Pa. Tire. No. 942,654; Dec. 7; Sp. p. 1297; Gaz. vol. 149; p. 212.

May, E., New York, N. Y. Block-mold. No. 942,092; Dec. 7; Sp. p. 124; Gaz. vol. 149; p. 20.
Mayer, C., New York, N. Y. Mouth-brace. No. 943,361; Dec. 14; Sp. p. 2861; Gaz. vol. 149; p. 481.
Mayer, R. S. (See Mann, C. A., assignor.)
Mayesky, A., and H. Bolleau, Paris, France. Shock-deadener. No. 943,119; Dec. 14; Sp. p. 2361; Gaz. vol. 149; p. 401.
Mayson, T. W., and J. Edgar, Auckland, New Zealand. Wheel-fender. No. 944,199; Dec. 21; Sp. p. 4646; Gaz. vol. 149; p. 796.
McAlister, H. H., Fitzgerald, Ga. Brake-shoe. No. 944,573; Dec. 28; Sp. p. 5489; Gaz. vol. 149; p. 953.
McArthur, A., Forbes, Mo. Combined railway-tie and viaduct for wires. No. 943,700; Dec. 21; Sp. p. 3605; Gaz. vol. 149; p. 627.
McBee, C. F., Athens, Ohio. Assembly-box for perforating and binding machines. No. 942,180; Dec. 7; Sp. p. 331; Gaz. vol. 149; p. 50.
McBee, C. F., Athens, Ohio. Binding-machine. No. 943,094; Dec. 14; Sp. p. 2308; Gaz. vol. 149; p. 391.
McCain, C. A., Oak Park, assignor to Miehle Printing Press & Manufacturing Company, Chicago, Ill. Cushioning mechanism for reciprocating beds. No. 944,492; Dec. 28; Sp. p. 5296; Gaz. vol. 149; p. 924.
McCain, W. B., Clearlake, assignor, by mesne assignments, of one-half to H. E. Graham and one-half to R. E. Farlow, Anacortes, Wash. Jack. No. 944,629; Dec. 28; Sp. p. 5806; Gaz. vol. 149; p. 973.
McCann, J. W., Washington, D. C. Stamp-affixing machine. No. 943,952; Dec. 21; Sp. p. 4126; Gaz. vol. 149; p. 715.
McCarty, H. C., Williamsport, Pa. Safety-valve. No. 944,809; Dec. 28; Sp. p. 5997; Gaz. vol. 149; p. 1032.
McCarty, N., assignor to Atlas Engine Works, Indianapolis, Ind. Governed pump. No. 943,095; Dec. 14; Sp. p. 2311; Gaz. vol. 149; p. 392.
McCarty, N., assignor to Atlas Engine Works, Indianapolis, Ind. Governed pump. No. 943,987; Dec. 21; Sp. p. 4210; Gaz. vol. 149; p. 726.
McCarty, N., assignor to Atlas Engine Works, Indianapolis, Ind. Pump. No. 943,988; Dec. 21; Sp. p. 4215; Gaz. vol. 149; p. 727.
McCauley, A. J., St. Louis, Mo., assignor to American Steel Foundries, Chicago, Ill. Car-truck. No. 944,202; Dec. 21; Sp. p. 4649; Gaz. vol. 149; p. 796.
McClatchey, J. F., Kenosha, Wis. Bed-bottom. No. 943,442; Dec. 14; Sp. p. 3016; Gaz. vol. 149; p. 509.
McClintock, F., Grand Junction, Colo., assignor to Mergenthaler Linotype Company. Type-setting machine. No. 944,493; Dec. 28; Sp. p. 5298; Gaz. vol. 149; p. 924.
McClure, H. E., Marion, Ind. Flour-bin. No. 943,443; Dec. 14; Sp. p. 3018; Gaz. vol. 149; p. 509.
McConnell, S., and J. E. Wilson, Belfast, Ireland. Machine for use in manufacture of plain bread, &c. No. 943,364; Dec. 14; Sp. p. 2865; Gaz. vol. 149; p. 482.
McConway & Torley Company. (See Buhoup, H. C., assignor.)
McCool, H. G., Carmichaels, Pa. Type-writing machine. No. 943,444; Dec. 14; Sp. p. 3020; Gaz. vol. 149; p. 510.
McCorkle, H. (See Ledterman, J. E., assignor.)
McCormack, H. S., New Rochelle, assignor to Underwood Typewriter Company, New York, N. Y. Type-writing machine. No. 943,445; Dec. 14; Sp. p. 3029; Gaz. vol. 149; p. 510.
McCoubrie, L. A., and C. F. Raydure, Philadelphia, Pa. Electric motor. No. 943,155; Dec. 14; Sp. p. 2430; Gaz. vol. 149; p. 413.
McCoy, J. H., Harrisville, Pa. Silo. No. 942,340; Dec. 7; Sp. p. 658; Gaz. vol. 149; p. 105.
McCoy, J. H., Harrisville, Pa. Apparatus for building hollow concrete structures. No. 942,402; Dec. 7; Sp. p. 775; Gaz. vol. 149; p. 125.
McCoy, J. H., Harrisville, Pa. Apparatus for distributing building material. No. 942,403; Dec. 7; Sp. p. 777; Gaz. vol. 149; p. 126.
McCoy, J. H., Harrisville, Pa. Apparatus for distributing building material. No. 942,403; Dec. 7; Sp. p. 777; Gaz. vol. 149; p. 126.
McCracken, W. F., and J. G. Bradford, Anadarko, Okla. Lace-cabinet. No. 944,687; Dec. 28; Sp. p. 5712; Gaz. vol. 149; p. 991.
McCreary, S. (See Harrison, H. O., assignor.)
McCulloch, R. W., trustee. (See Beatty, W. A., assignor.)
McCullough, H. C., New Castle, Pa. Steady-rest. No. 944,630; Dec. 28; Sp. p. 5608; Gaz. vol. 149; p. 973.
McCullough, S. A., assignor of one-fourth to A. H. Miller, Fallston, and one-fourth to J. R. Miner, Ambridge, Pa. Wire reel and bundle remover. No. 943,701; Dec. 21; Sp. p. 3606; Gaz. vol. 149; p. 627.
McCutchan, A. H., assignor to Helena Manufacturing Company, Helena, Okla. Nut-feeding attachment for bolting-machines. No. 944,374; Dec. 28; Sp. p. 5021; Gaz. vol. 149; p. 883.
McDonald, D., Louisville, Ky. Apparatus for handling coke. No. 942,341; Dec. 7; Sp. p. 659; Gaz. vol. 149; p. 105.
McDonald, E. D., Los Angeles, Cal. Railway construction. No. 943,198; Dec. 14; Sp. p. 2509; Gaz. vol. 149; p. 426.
McDonald, J., North Sydney, Nova Scotia Canada. Vegetable-strainer. No. 944,144; Dec. 21; Sp. p. 4537; Gaz. vol. 149; p. 779.
McDowell Manufacturing Company. (See Hartman, H. B., assignor.)
McDuffee, H. L., Gilroy, Cal. Wheel-tire. No. 943,466; Dec. 14; Sp. p. 3041; Gaz. vol. 149; p. 511.
McElfresh, F. P., Shelby county, Iowa. Boat-propeller. No. 943,859; Dec. 21; Sp. p. 3883; Gaz. vol. 149; p. 676.
McElroy, J. H., Chicago, Ill. Voting-machine. No. 944,688; Dec. 28; Sp. p. 5716; Gaz. vol. 149; p. 992.
McElroy, J. H., Chicago, Ill. Voting-machine. No. 944,743; Dec. 28; Sp. p. 5852; Gaz. vol. 149; p. 1010.
McFeely, T., Philadelphia, Pa. Building construction. No. 943,447; Dec. 14; Sp. p. 3042; Gaz. vol. 149; p. 511.
McGee, W. M. (See Thorn and McGee.)
McGowan, H. B., Hurley, Okla. Cross-line buckle. No. 942,404; Dec. 7; Sp. p. 778; Gaz. vol. 149; p. 126.
McGraw, R., Syracuse, N. Y. Rotary motor. No. 943,783; Dec. 21; Sp. p. 3769; Gaz. vol. 149; p. 656.
McGregor, G. H., New Glasgow, Nova Scotia, Canada, and A. S. Rudland, New York, N. Y. Rack. No. 942,580; Dec. 7; Sp. p. 1147; Gaz. vol. 149; p. 186.
McGuiness, B. F., Worcester, Mass., assignor to Crompton & Knowles Loom Works. Shuttle-changing loom. No. 943,038; Dec. 14; Sp. p. 2178; Gaz. vol. 149; p. 372.
McGuiness, B. F., Worcester, Mass., assignor to Crompton & Knowles Loom Works. Filling-detector mechanism for weft-replenishing looms. No. 943,702; Dec. 21; Sp. p. 3610; Gaz. vol. 149; p. 628.
McGuiness, B. F., Worcester, Mass., assignor to Crompton & Knowles Loom Works. Weft-replenishing loom. No. 943,756; Dec. 21; Sp. p. 3717; Gaz. vol. 149; p. 647.
McGuire-Cummings Manufacturing Company. (See Cooke, W. J., assignor.)
McGuire, J. K., assignor of one-half to E. R. Bierce, Valley Junction, Iowa. Car-door bracket. No. 943,039; Dec. 14; Sp. p. 2181; Gaz. vol. 149; p. 373.
McGuire, T. W. L., and L. Hammick, Kansas City, Mo. Carburetor. No. 942,181; Dec. 7; Sp. p. 332; Gaz. vol. 149; p. 51.
McIntire, D. C., deceased, Bradford, Pa.; L. M. McIntire, administratrix. Apparatus for treating gas. No. 942,863; Dec. 7; Sp. p. 1731; Gaz. vol. 149; p. 281.
McIntire, L. M., administratrix. (See McIntire, D. C.)
McIntosh, F. F., *et al.* (See Russ, J. D., assignor.)
McIntyre, F., New York, N. Y. Screw-cap for collapsible tubes. No. 944,203; Dec. 21; Sp. p. 4650; Gaz. vol. 149; p. 797.
McKay, J., Bendigo, Victoria, Australia. Bed and bedstead for the use of invalids. No. 944,204; Dec. 21; Sp. p. 4651; Gaz. vol. 149; p. 797.
McKeand, S. S., Ceredo, W. Va. Mail-catcher. No. 944,901; Dec. 28; Sp. p. 6180; Gaz. vol. 149; p. 1064.
McKee, T. C., Chicago, Ill. Ammonia refrigerating apparatus. No. 943,040; Dec. 14; Sp. p. 2183; Gaz. vol. 149; p. 373.
McKeen, T. L., Scranton, Pa. Friction draft-gear. No. 943,314; Dec. 14; Sp. p. 2754; Gaz. vol. 149; p. 465.
McKeever, E. L., *et al.* (See Saxton, T. G., assignor.)
McKeever, J. P., *et al.* (See Saxton, T. G., assignor.)
McKenzie, A., Jamestown, assignor, by mesne assignments, to Empire Voting Machine Company, Rochester, N. Y. Voting-machine. No. 943,041; Dec. 14; Sp. p. 2185; Gaz. vol. 149; p. 373.
McKoy, E. A., New Orleans, La. Turpentine-cup. No. 942,210; Dec. 7; Sp. p. 390; Gaz. vol. 149; p. 60.
McKoy, E. A., New Orleans, La. Turpentine-cup. No. 942,211; Dec. 7; Sp. p. 391; Gaz. vol. 149; p. 60.
McKoy, E. A., New Orleans, La. Apparatus for turpentine-gathering. No. 942,212; Dec. 7; Sp. p. 393; Gaz. vol. 149; p. 60.
McLane, A., Lansford, Pa., and G. Sipp, Paterson, N. J. Reel for reeling-machines. No. 943,798; Dec. 21; Sp. p. 3801; Gaz. vol. 149; p. 662.
McLaughlin, W. R. (See Radcliff, C. A., assignor.)
McLeod, C. D. (See Yockey, F., assignor.)
McLinden, W. J., Owen Sound, Ontario, Canada. Ankle-support. No. 943,703; Dec. 21; Sp. p. 3614; Gaz. vol. 149; p. 628.
McLoughlin Brothers. (See Rigney, W. J., assignor.)
McMenamin, P., Jersey City, N. J. Hasp-lock. No. 943,365; Dec. 14; Sp. p. 2868; Gaz. vol. 149; p. 482.
McMichael, A. W. (See Ferguson and McMichael.)
McMillan Book Company. (See McMillan and Joslyn, assignors.)
McMillan, J. L., and C. H. Joslyn, assignors to McMillan Book Company, Syracuse, N. Y. Loose-leaf binder. No. 943,156; Dec. 14; Sp. p. 2431; Gaz. vol. 149; p. 413.
McMullen, C. P., New York, N. Y. Steam and liquid pressure regulating device. No. 944,689; Dec. 28; Sp. p. 5731; Gaz. vol. 149; p. 992.
McNally, H., Richland Center, Wis. Folding pocket-hatchet. No. 942,342; Dec. 7; Sp. p. 662; Gaz. vol. 149; p. 106.
McNeil, D. W., assignor to John Douglas Company, Cincinnati, Ohio. Non-scalding shower-bath cock. No. 942,405; Dec. 7; Sp. p. 780; Gaz. vol. 149; p. 126.
McPherson, F. G., assignor of one-half to T. C. McPherson, Beaver Falls, Pa. Resilient sled. No. 943,448; Dec. 14; Sp. p. 3044; Gaz. vol. 149; p. 511.
McPherson, J. D. (See Strong and McPherson.)
McPherson, T. C. (See McPherson, F. G., assignor.)
McPhetridge, W. T., Bean Blossom township, Monroe county, assignor of one-half to O. W. Smith, Baker township, Ind. Universal angle-indicator for portable machinery. No. 944,810; Dec. 28; Sp. p. 5999; Gaz. vol. 149; p. 1033.
McPhillips, C. B., Suffern, assignor to E. H. Fallows, New York, N. Y. Brake-shoe. No. 942,343; Dec. 7; Sp. p. 665; Gaz. vol. 149; p. 106.
McQuillen, W. F., Philadelphia, Pa. Nether garment. No. 943,366; Dec. 14; Sp. p. 2869; Gaz. vol. 149; p. 483.
McVoy, C. L., Pensacola, Fla. Boiler-plug. No. 944,205; Dec. 21; Sp. p. 4653; Gaz. vol. 149; p. 797.

McVoy, V. P., Mobile, Ala. Boiler-feeder. No. 944,574; Dec. 28; Sp. p. 5492; Gaz. vol. 149; p. 953.
Mead, G. A., Mansfield, Ohio. Manufacture of rail-bonds. No. 943,438; Dec. 14; Sp. p. 3007; Gaz. vol. 149; p. 507.
Mead, H. G., assignor to National Veneer Package Company, St. Louis, Mo. Soldering device. No. 944,805; Dec. 28; Sp. p. 5989; Gaz. vol. 149; p. 1031.
Meader, R. F., Solon, Me. Harness-dressing. No. 943,754; Dec. 21; Sp. p. 3714; Gaz. vol. 149; p. 646.
Meahl, P. J., Bayonne, N. J. Paper-feed mechanism. No. 943,261; Dec. 14; Sp. p. 2642; Gaz. vol. 149; p. 447.
Means, J., Boston, Mass. Aerial navigation. No. 943,120; Dec. 14; Sp. p. 2362; Gaz. vol. 149; p. 401.
Meehan, J. J., Denver, Colo. Razor-sharpening device. No. 942,731; Dec. 7; Sp. p. 1448; Gaz. vol. 149; p. 237.
Meeker, W. P., Newark, N. J. Tile and tile-faced surface. No. 943,950; Dec. 21; Sp. p. 4122; Gaz. vol. 149; p. 715.
Melms & Pfenninger G. m. b. H. (See Roth, C., assignor.)
Meissner, F. A., Manchester, Va. Mechanical code-signaling device. No. 942,334; Dec. 7; Sp. p. 646; Gaz. vol. 149; p. 103.
Melchers, R. S., Detroit, Mich. Duster. No. 942,507; Dec. 7; Sp. p. 1007; Gaz. vol. 149; p. 162.
Melhuish, F. D., Atlanta, Ga. Ore-concentrator. No. 944,567; Dec. 28; Sp. p. 5479; Gaz. vol. 149; p. 951.
Mellicke, C. A., Hanley, Saskatchewan, Canada. Calculating-machine. No. 943,984; Dec. 21; Sp. p. 4194; Gaz. vol. 149; p. 725.
Menchen, C., assignor to L. Boehm, Munich, Germany. Coin-paying machine. No. 943,030; Dec. 14; Sp. p. 2162; Gaz. vol. 149; p. 370.
Mendel, S., Manchester, England. Attachment for bangles, bracelets, and the like. No. 943,031; Dec. 14; Sp. p. 2164; Gaz. vol. 149; p. 370.
Mengel Box Company. (See Schleicher, J. W., assignor.)
Mengel Box Company. (See Schleicher, R., assignor.)
Mengers, V. J. A. C., and L. Larsen, Chicago, Ill. Combined hall-stand, step-ladder, ironing-board, &c. No. 944,100; Dec. 21; Sp. p. 4434; Gaz. vol. 149; p. 764.
Menkin, B., New York, N. Y. Electric-circuit-controlling relay. No. 942,508; Dec. 7; Sp. p. 1009; Gaz. vol. 149; p. 163.
Mensch, C. H., Shanesville, Pa. Non-refillable bottle. No. 944,200; Dec. 21; Sp. p. 4647; Gaz. vol. 149; p. 796.
Mercer, E. V., Adena, Ohio. Rail-joint. No. 944,806; Dec. 28; Sp. p. 5992; Gaz. vol. 149; p. 1031.
Mercer, J. W., Joshua, assignor to W. C. Hasha and W. N. Estes, Callahan county, Tex. Ant-trap. No. 944,568; Dec. 28; Sp. p. 5482; Gaz. vol. 149; p. 951.
Meredith-Jones, H., assignor of one-half to C. M. Mapes, New York, N. Y. Megaphone. No. 943,252; Dec. 14; Sp. p. 2624; Gaz. vol. 149; p. 444.
Meredith-Jones, H., assignor of one-half to C. M. Mapes, New York, N. Y. Moving-picture camera. No. 943,253; Dec. 14; Sp. p. 2625; Gaz. vol. 149; p. 445.
Mergenthaler Linotype Company. (See Converse, F. B., assignor.)
Mergenthaler Linotype Company. (See McClintock, F., assignor.)
Mergenthaler Linotype Company. (See Rogers, J. R., assignor.)
Merian, F., Basel, Switzerland. Endless-chain conveyer. No. 943,121; Dec. 14; Sp. p. 2365; Gaz. vol. 149; p. 402.
Merrick, D. J., and C. J. Funk, Redondo Beach, Cal. Automatic cut-off for cuspidors and other hydraulic devices. No. 944,741; Dec. 28; Sp. p. 5846; Gaz. vol. 149; p. 1009.
Merrick, F. W., Chicago, Ill. Joint for artificial limbs. No. 942,033; Dec. 7; Sp. p. 126; Gaz. vol. 149; p. 20.
Merritt, E., Westminster, Mass. Sharpener for lawn-mowers. No. 942,578; Dec. 7; Sp. p. 1145; Gaz. vol. 149; p. 186.
Merritt, H. W. (See Barron and Merritt.)
Mershon, R. D., New York, N. Y. Insulating-support for high-tension conductors. No. 942,335; Dec. 7; Sp. p. 649; Gaz. vol. 149; p. 104.
Mesta, F. E., assignor to Mesta Machine Company, Pittsburg, Pa. Annealing-box. No. 944,343; Dec. 28; Sp. p. 4945; Gaz. vol. 149; p. 872.
Mesta, F. E., assignor to Mesta Machine Company, Pittsburg, Pa. Annealing-box. No. 944,344; Dec. 28; Sp. p. 4947; Gaz. vol. 149; p. 872.
Mesta Machine Company. (See Iversen, L., assignor.)
Mesta Machine Company. (See Mesta, F. E., assignor.)
Metcalfe, J., J. C., and R. D., Fallowfield, England. Injector. No. 944,455; Dec. 28; Sp. p. 5203; Gaz. vol. 149; p. 911.
Metcalfe, J. C. (See Metcalfe, J., J. C., and R. D.)
Metcalfe, R. D. (See Metcalfe, J., J. C., and R. D.)
Metcalfe, W. S., Worcester, Mass. Cutting mechanism. No. 942,209; Dec. 7; Sp. p. 388; Gaz. vol. 149; p. 60.
Metropolitan Switchboard Co. (See Kellner, L., assignor.)
Meyers, E., Weissensee, near Berlin, Germany. Receptacle with sprinkler-hole in a cap. No. 944,890; Dec. 28; Sp. p. 6163; Gaz. vol. 149; p. 1061.
Meyrowitz, E. B., New York, N. Y., assignor to Meyrowitz Manufacturing Co. Eyeglasses. No. 943,836; Dec. 21; Sp. p. 3879; Gaz. vol. 149; p. 674.
Meyrowitz Manufacturing Co. (See Meyrowitz, E. B., assignor.)
Michael, J. B., Knoxville, Tenn. Making records for setting slide-valves. No. 942,453; Dec. 7; Sp. p. 876; Gaz. vol. 149; p. 144.
Mickelsen, C. H., Bench, Idaho. Farm-wagon. No. 944,891; Dec. 28; Sp. p. 6164; Gaz. vol. 149; p. 1061.
Middleton, E. J., Manchester, Iowa. Label-holder. No. 942,004; Dec. 7; Sp. p. 127; Gaz. vol. 149; p. 20.
Miehle Printing Press & Manufacturing Company. (See McCain, C. A., assignor.)
Mielenz, O. W., Jenks, Okla. Foot-power hammer. No. 944,140; Dec. 21; Sp. p. 4529; Gaz. vol. 149; p. 777.
Miely, F. J. S., Gunnison, Colo. Sliding-door fastener. No. 943,362; Dec. 14; Sp. p. 2862; Gaz. vol. 149; p. 481.
Miess, J. H., Harlesden, assignor to Empire Light Limited, Charing Cross, England. Vapor-burning apparatus. No. 944,458; Dec. 28; Sp. p. 5205; Gaz. vol. 149; p. 912.
Milam, J. F., assignor of one-half to W. C. England, Rome, Ga. Molding apparatus for pipe-joints. No. 943,558; Dec. 14; Sp. p. 3264; Gaz. vol. 149; p. 550.
Milburn, W. M., Denison, Tex. Freezer. No. 944,625; Dec. 28; Sp. p. 5599; Gaz. vol. 149; p. 971.
Miles, H. J. (See Read and Miles.)
Milleisen, J. J. (See Rice, W. H., assignor.)
Miller, A. H., *et al.* (See McCullough, S. A., assignor.)
Miller, C. H., New Rochelle, N. Y. Calculating device. No. 942,579; Dec. 7; Sp. p. 1145; Gaz. vol. 149; p. 186.
Miller, C. H., West Pittsburg, assignor to Safety-Armorite Conduit Company, Pittsburg, Pa. Flexible conduit. No 942,787; Dec. 7; Sp. p. 1557; Gaz. vol. 149; p. 256.
Miller, C. H., West Pittsburg, assignor to Safety-Armorite Conduit Company, Pittsburg, Pa. Conduit for electric wires. No. 942,788; Dec. 7; Sp. p. 1558; Gaz. vol. 149; p. 256.
Miller, C. H., West Pittsburg, assignor to Safety-Armorite Conduit Company, Pittsburg, Pa. Flexible electric conduit. No. 942,789; Dec. 7; Sp. p. 1559; Gaz. vol. 149; p. 257.
Miller, C. H., West Pittsburg, assignor to Safety-Armorite Conduit Company, Pittsburg, Pa. Flexible conduit for electric wires. No. 942,790; Dec. 7; Sp. p. 1560; Gaz. vol. 149; p. 257.
Miller Carbureter & Manufacturing Company. (See Miller, H. A., assignor.)
Miller, D. D., Middletown, Conn., assignor to Crompton & Knowles Loom Works. Loom harness-motion. No. 943,262; Dec. 14; Sp. p. 2644; Gaz. vol. 149; p. 448.
Miller, H. A., assignor to Miller Carbureter & Manufacturing Company, Los Angeles, Cal. Carbureter. No. 943,197; Dec. 14; Sp. p. 2596; Gaz. vol. 149; p. 425.
Miller, J., Youngstown, Ohio. Automatic cut-off valve. No. 943,559; Dec. 14; Sp. p. 3266; Gaz. vol. 149; p. 550.
Miller, J., assignor to James B. Clow & Sons, Chicago, Ill. Valve device. No. 943,837; Dec. 21; Sp. p. 3880; Gaz. vol. 149; p. 675.
Miller, J., assignor to James B. Clow & Sons, Chicago, Ill. Valve device. No. 943,838; Dec. 21; Sp. p. 3882; Gaz. vol. 149; p. 675.
Miller, J. A., Baltimore, Md., assignor to J. M. Thurston, trustee, Washington, D. C. Safety device for elevators. No. 942,968; Dec. 14; Sp. p. 2013; Gaz. vol. 149; p. 349.
Miller, L. F., Bath township, Greene county, Ohio. Seed-potato cutter. No. 942,969; Dec. 14; Sp. p. 2015; Gaz. vol. 149; p. 349.
Miller, M. C., Boston, Mass. Controller for doors, &c. No. 943,693; Dec. 21; Sp. p. 3586; Gaz. vol. 149; p. 625.
Miller, R., Jr., Pittsburg, Pa. Wrench. No. 944,270; Dec. 28; Sp. p. 4784; Gaz. vol. 149; p. 846.
Miller, T. S., South Orange, N. J. Cableway. No. 943,032; Dec. 14; Sp. p. 2165; Gaz. vol. 149; p. 370.
Miller, T. S., South Orange, N. J. Collier and coal-handling apparatus. No. 943,694; Dec. 21; Sp. p. 3587; Gaz. vol. 149; p. 625.
Miller, W., New York, N. Y. Hot-air furnace. No. 942,655; Dec. 7; Sp. p. 1298; Gaz. vol. 149; p. 212.
Miller, W. B., Altoona, Pa. Dental instrument. No. 943,884; Dec. 21; Sp. p. 3976; Gaz. vol. 149; p. 690.
Millers Falls Company. (See Leland, J. A., assignor.)
Millers Falls Company. (See Leland and Stebbins, assignors.)
Millers Falls Company. (See Parsons and Leland, assignors.)
Miller, H. G., *et al.* (See Hughes, W. G., assignor.)
Mills, H. S., Chicago, Ill. Phonograph. No. 943,313; Dec. 14; Sp. p. 2750; Gaz. vol. 149; p. 465.
Mills, M. B., assignor to Zeno Manufacturing Company, Chicago, Ill. Coin-chute mechanism for vending-machines. No. 944,983; Dec. 28; Sp. p. 6351; Gaz. vol. 149; p. 1090.
Mills, R. W., Chicago, Ill. Music-rack. No. 943,091; Dec. 14; Sp. p. 2303; Gaz. vol. 149; p. 390.
Milwaukee Brass Manufacturing Company. (See Engel, A., assignor.)
Miner, J. R., *et al.* (See McCullough, S. A., assignor.)
Minue, W. E., assignor of one-half to W. C. Burtt, Fredericton, New Brunswick, Canada. Rotary steam-engine. No. 942,275; Dec. 7; Sp. p. 525; Gaz. vol. 149; p. 83.
Miracle, M. W., assignor of one-half to A. M. Sosbee, Ardmore, Okla. Combined washing, fruit-canning, and cooking machine. No. 943,152; Dec. 14; Sp. p. 2426; Gaz. vol. 149; p. 412.

Mitchel, E. W., Beaumont, Tex. Refrigerator. No. 944,369; Dec. 28; Sp. p. 5007; Gaz. vol. 149; p. 881.
Mitchell, F. A. (See Cumfer, H. A., assignor.)
Mitchell, H. G., New York, assignor to F. C. Johnson, Mill Neck, N. Y. Coal-basket. No. 944,807; Dec. 28; Sp. p. 5993; Gaz. vol. 149; p. 1031.
Mix, G. P. (See Jay, W. N., assignor.)
Moeke, G., Zeeland, Mich. Silo. No. 942,095; Dec. 7; Sp. p. 128; Gaz. vol. 149; p. 20.
Moellenbrock, F. H., Dissen, Mo. Box-cover fastening. No. 942,336; Dec. 7; Sp. p. 652; Gaz. vol. 149; p. 104.
Mogridge, W. J., Spokane, Wash. Telephone-receiver support. No. 943,033; Dec. 14; Sp. p. 2168; Gaz. vol. 149; p. 371.
Moline Vacuum-Vapor Heating Company. (See Shurtleff, W., assignor.)
Monaghan, J. F., South Bend, Ind. Stamp-affixing machine. No. 942,454; Dec. 7; Sp. p. 884; Gaz. vol. 149; p. 144.
Monarch Engineering and Manufacturing Company. (See Alls, E., assignor.)
Monarch Typewriter Company. (See Barney, E. E., assignor.)
Monarch Typewriter Company. (See Coo, T. J., assignor.)
Monash-Younker Company. (See Leuthesser, F. W., assignor.)
Mongell, S. (See Phillips, Diplerno, and Mongell.)
Monnot, J. F., assignor to Monnot Metallurgical Company, New York, N. Y. Process and apparatus for making metal ingots. No. 944,370; Dec. 28; Sp. p. 5009; Gaz. vol. 149; p. 882.
Monnot, J. F., assignor to Monnot Metallurgical Company, New York, N. Y. Making and casting alloys. No. 944,371; Dec. 28; Sp. p. 5014; Gaz. vol. 149; p. 882.
Monnot Metallurgical Company. (See Monnot, J. F., assignor.)
Monnoyer & Fils, L. (See Dumas, M., assignor.)
Monroe, F. A., Bemus Point, N. Y. Device for cleaning wells. No. 943,885; Dec. 21; Sp. p. 3977; Gaz. vol. 149; p. 690.
Montague, E. L., and E. A. Stewart, assignors to said E. L. Montague, S. F. Montague, S. M. Stuart, and G. S. Northrop, Baldwinsville, N. Y. Oar-lock. No. 943,695; Dec. 21; Sp. p. 3594; Gaz. vol. 149; p. 625.
Montague, S. F., *et al.* (See Montague and Stewart, assignors.)
Montjustin, R. D., Kiel, Germany. Steam-generator for submarine boats. No. 943,153; Dec. 14; Sp. p. 2427; Gaz. vol. 149; p. 412.
Montupet, P., Paris, assignor to Societe Montupet & Co., Nogent les Vierges, Oise, France. Wheel, pulley, and the like. No. 942,400; Dec. 7; Sp. p. 772; Gaz. vol. 149; p. 124.
Moody, J. W., assignor to Chicago Vacuum Jar Co., Chicago, Ill. Jar closure or cover and the like. No. 943,951; Dec. 21; Sp. p. 4123; Gaz. vol. 149; p. 715.
Mooney, C. S., and J. Jantusek, Chicago, Ill., assignors to Northwestern Expanded Metal Company. Metallic studding. No. 943,696; Dec. 21; Sp. p. 3595; Gaz. vol. 149; p. 625.
Mooney, W. T., Parsons, assignor of one-half to A. R. Crawford, Davis, W. Va. Glass-fastener. No. 944,892; Dec. 28; Sp. p. 6166; Gaz. vol. 149; p. 1061.
Moore, A., Detroit, Mich. Spring-wheel. No. 942,276; Dec. 7; Sp. p. 530; Gaz. vol. 149; p. 83.
Moore, A. L., Moline, Ill. Roller-bearing. No. 944,684; Dec. 28; Sp. p. 5707; Gaz. vol. 149; p. 990.
Moore, C. H., New York, N. Y. Water-closet outlet connection. No. 944,627; Dec. 28; Sp. p. 5602; Gaz. vol. 149; p. 972.
Moore, C. L., Brooklyn, N. Y. Snow-melter. No. 942,337; Dec. 7; Sp. p. 654; Gaz. vol. 149; p. 104.
Moore, F. W., Brooklyn, assignor of one-half to J. W. Thompson, Beardstown, Ill. Register. No. 942,921; Dec. 14; Sp. p. 1902; Gaz. vol. 149; p. 332.
Moore, G. C., assignor to John C. Moore Corporation, Rochester, N. Y. Loose-leaf binder. No. 944,893; Dec. 28; Sp. p. 6167; Gaz. vol. 149; p. 1061.
Moore, G. C., assignor to John C. Moore Corporation, Rochester, N. Y. Loose-leaf binder. No. 944,894; Dec. 28; Sp. p. 6169; Gaz. vol. 149; p. 1062.
Moore, G. C., assignor to John C. Moore Corporation, Rochester, N. Y. Loose-leaf binder. No. 944,895; Dec. 28; Sp. p. 6171; Gaz. vol. 149; p. 1062.
Moore, H., Indianapolis, Ind. Plow. No. 943,092; Dec. 14; Sp. p. 2305; Gaz. vol. 149; p. 391.
Moore, H. C., Philadelphia, Pa. Combined door closer and stop. No. 942,656; Dec. 7; Sp. p. 1300; Gaz. vol. 149; p. 213.
Moore, J., Myrtle Point, Oreg. Gate-latch. No. 944,896; Dec. 28; Sp. p. 6172; Gaz. vol. 149; p. 1062.
Moore, J. L., Bellevue, Ohio. Spring bed-bottom. No. 944,569; Dec. 28; Sp. p. 5483; Gaz. vol. 149; p. 951.
Moorman, A. M., Lynchburg, Va. Skirt-supporting attachment for wardrobe-trunks. No. 943,154; Dec. 14; Sp. p. 2429; Gaz. vol. 149; p. 413
Moraweck, E., Louisville, Ky. Surgical forceps. No. 948,263; Dec. 14; Sp. p. 2646; Gaz. vol. 149; p. 448.
Morford, I. N., Waynesville, Ill. Wire-twister. No. 942,732; Dec. 7; Sp. p. 1450; Gaz. vol. 149; p. 237.
Morgan, B. S., Atlanta, Ga. Paper box and making paper boxes. No. 943,034; Dec. 14; Sp. p. 2170; Gaz. vol. 149; p. 371.
Morgan Engineering Company. (See Taylor, C. L., assignor.)
Morgan, H. W., Rochester, N. Y. Nailing-machine. No. 943,035; Dec. 14; Sp. p. 2172; Gaz. vol. 149; p. 371.
Morgan, T. M., Long Point, Quebec, Canada. Cement-kiln. No. 942,509; Dec. 7; Sp. p. 1013; Gaz. vol. 149; p. 163.
Moritz, S. S., Dayton, Wash. Skirt-marker. No. 944,570; Dec. 28; Sp. p. 5485; Gaz. vol. 149; p. 952.
Morningstar, J. P. (See Vernon and Morningstar.)
Morrell, H. H., New York, N. Y. Current-testing device. No. 944,271; Dec. 28; Sp. p. 4785; Gaz. vol. 149; p. 847.
Morris, C. A., Bloomfield, N. J., assignor of three-eighths to C. M. Dimm and three-eighths to L. Brooks, Brooklyn, N. Y. Variable-speed transmission-gear apparatus. No. 943,965; Dec. 21; Sp. p. 4197; Gaz. vol. 149; p. 726.
Morris, H., Oklahoma, Okla. Window-opener. No. 944,628; Dec. 28; Sp. p. 5605; Gaz. vol. 149; p. 972.
Morris, J. H., Bingara, New South Wales, Australia. Seed-sowing machine. No. 944,897; Dec. 28; Sp. p. 6173; Gaz. vol. 149; p. 1063.
Morrish, T. I., San Francisco, Cal. Saddle-pad. No. 944,571; Dec. 28; Sp. p. 5487; Gaz. vol. 149; p. 952.
Morrish, T. I., San Francisco, Cal. Securing means for saddle-pads. No. 944,572; Dec. 28; Sp. p. 5488; Gaz. vol. 149; p. 952.
Morrison, C. E., Indianapolis, Ind. Detachable hinge-holder. No. 943,363; Dec. 14; Sp. p. 2864; Gaz. vol. 149; p. 482.
Morrison, J. A., *et al.* (See Cox, W. H., assignor.)
Morrison, J. T., Minneapolis, Minn. Tank-valve. No. 943,755; Dec. 21; Sp p. 3715; Gaz. vol. 149; p. 646.
Morrison, M. E., Bartley, Nebr. Skirt-measurer. No. 942,338; Dec. 7; Sp. p. 655; Gaz. vol. 149; p. 105.
Morrison, W., *et al.* (See Perry, D. P., assignor.)
Morse, O. M., Jackson, Mich. Dust-collector. No. 942,657; Dec. 7; Sp. p. 1301; Gaz. vol. 149; p. 213.
Morse, O. M., Jackson, Mich. Dust-collector. No. 943,439; Dec. 14; Sp. p. 3009; Gaz. vol. 149; p. 508.
Mortimer, J. N., and E. L. Strauss, assignors to Central Brass Manufacturing Company, Cleveland, Ohio. Compression-bib. No. 944,457; Dec. 28; Sp. p. 5207; Gaz. vol. 149; p. 912.
Morton, F. B., Pasadena, Cal. Soil-pipe fitting. No. 942,339; Dec. 7; Sp. p. 657; Gaz. vol. 149; p. 105.
Morton, W. E., Shelby, N. C. Slub detecting and removing mechanism. No. 944,898; Dec. 28; Sp. p. 6175; Gaz. vol. 149; p. 1063.
Moser, L. J., assignor, by mesne assignments, to Cory Temperance Syndicate Limited, London, England. Dispensing apparatus. No. 944,458; Dec. 28; Sp. p. 5208; Gaz. vol. 149; p. 912.
Moses, J. B., Dallas, Tex. Baggage-fastener. No. 942,733; Dec. 7; Sp. p. 1451; Gaz. vol. 149; p. 237.
Motter, B. W., *et al.* (See Cox, W. H., assignor.)
Moulic, W. (See Crain, W., assignor.)
Mounts, C. L., Parkersburg, W. Va. Wire-rope clamp. No. 944,141; Dec. 21; Sp. p. 4531; Gaz. vol. 149; p. 778.
Mowbray, C. C., and W. F. Geist, Chicago, Ill. Coffee-percolator. No. 943,036; Dec. 14; Sp. p. 2176; Gaz. vol. 149; p. 372.
Mower, T., *et al.* (See Mower, T., assignor.)
Mower, T., assignor to T. Mower and C. Williams, Chicago, Ill. Cooking vessel. No. 944,244; Dec. 21; Sp. p. 4728; Gaz. vol. 149; p. 810.
Moyer, F. P., Utica, N. Y. Alarm apparatus. No. 943,440; Dec. 14; Sp. p. 3012; Gaz. vol. 149; p. 508.
Moyer, H. A. (See Kavle, O. C., assignor.)
Moyer, H. A. (See Latta, E. G., assignor.)
Mueller, G., Salt Lake City, Utah. Baking-pan. No. 943,093; Dec. 14; Sp. p. 2307; Gaz. vol. 149; p. 391.
Mueller, P., assignor to H. Mueller Manufacturing Company, Decatur, Ill. Lavatory-fitting. No. 942,385; Dec. 7; Sp. p. 734; Gaz. vol. 149; p. 120.
Mueller, P., assignor to H. Mueller Manufacturing Company, Decatur, Ill. Lavatory-fitting. No. 942,386; Dec. 7; Sp. p. 736; Gaz. vol. 149; p. 120.
Mueller, T. M., Dalton, Mass. Magneto-electric machine. No. 943,697; Dec. 21; Sp. p. 3598; Gaz. vol. 149; p. 626.
Muenchinger, P. G., Newport, R. I., assignor of one-half to E. F. Shiek, Brookline, Mass. Pneumatic tire. No. 942,734; Dec. 7; Sp. p. 1452; Gaz. vol. 149; p. 238.
Mugdan, M., assignor to Consortium für Elektrochemische Industrie G. m. b. H., Nuremberg, Germany. Preparing organic compounds containing the acetyl group. No. 944,372; Dec. 28; Sp. p. 5018; Gaz. vol. 149; p. 883.
Müller, B., Chicago, Ill. Adjustable scaffold. No. 944,373; Dec. 28; Sp. p. 5019; Gaz. vol. 149; p. 883.
Müller, F. H., Lansdale, Pa. Automatic damper-operating device. No. 944,808; Dec. 28; Sp. p. 5995; Gaz. vol. 149; p. 1032.
Mullin, C., Conway, N. D. Spring-clevis. No. 944,899; Dec. 28; Sp. p. 6176; Gaz. vol. 149; p. 1063.
Mulock, P., Leadville, Colo. Hook-and-eye fastener. No. 944,101; Dec. 21; Sp. p. 4436; Gaz. vol. 149; p. 765.
Mulot, O. L., Brooklyn, N. Y. Portable telephone. No. 942,401; Dec. 7; Sp. p. 773; Gaz. vol. 149; p. 125.
Multiplex Display Fixture Company. (See Feldmann, L., Jr., assignor.)
Mumford, C. J., Amsterdam, N. Y. Knitting-machine. No. 944,968; Dec. 28; Sp. p. 6315; Gaz. vol. 149; p. 1085.

Münch, E., assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany. Thiosalicylic compound and making same. No. 943,560; Dec. 14; Sp. p. 3268; Gaz. vol. 149; p. 551.
Münch, E., assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany. Thiosalicylic compound and making same. No. 943,561; Dec. 14; Sp. p. 3270; Gaz. vol. 149; p. 551.
Munk, R. W., assignor of one-third to J. L. De Give and one-third to J. T. Thomason, Atlanta, Ga. Stamping-machine. No. 944,742; Dec 28; Sp. p. 5847; Gaz. vol. 149; p. 1010.
Murchie, J., Traverse City, Mich. Anchor for stovepipes. No. 943,037; Dec. 14; Sp. p. 2177; Gaz. vol. 149; p. 372.
Murdock, G. S., Detroit, Mich. Brush-making machine. No. 944,142; Dec. 21; Sp. p. 4532; Gaz. vol. 149; p. 778.
Murk, O., Warren, Minn. Thistle-eradicator. No. 944,900; Dec. 28; Sp. p. 6178; Gaz. vol. 149; p. 1064.
Murphey, F. P., Decatur, Ill. Valve mechanism for corn-planters. No. 943,441; Dec. 14; Sp. p. 3014; Gaz. vol. 149; p. 508.
Murphey, F. P., Decatur, Ill. Corn-planter valve mechanism. No. 943,634; Dec. 14; Sp. p. 3469; Gaz. vol. 149; p. 576.
Murphy, J. J., assignor to Eagle Lock Co., Terryville, Conn. Lock. No. 944,685; Dec. 28; Sp. p. 5709; Gaz. vol. 149; p. 990.
Murphy, P. H. (See Covert, E. C., assignor.)
Murphy, P. H. (See Hoffman, J. J., assignor.)
Murray, A. R. (See Anderson and Murray.)
Murray, C. F., Chicago, Ill., assignor to American Steel Foundries, New York, N. Y. Railway-car truck. No. 942,096; Dec. 7; Sp. p. 129; Gaz. vol. 149; p. 21.
Murray, G. H., Bristol, Vt. Automatic gas-regulator. No. 944,686; Dec. 28; Sp. p. 5710; Gaz. vol. 149; p. 991.
Murray, T. E., New York, N. Y. Electric fuse. No. 943,698; Dec. 21; Sp. p. 3601; Gaz. vol. 149; p. 626.
Murray, T. E., New York, N. Y. Switchboard and cut-out. No. 943,699; Dec. 21; Sp. p. 3602; Gaz. vol. 149; p. 627.
Murray, W. W., Baltimore, Md., and H. M. Fernberger, Philadelphia, Pa. Treating detinned iron and residues. No. 943,986; Dec. 21; Sp. p. 4210; Gaz. vol. 149; p. 726.
Müry, H., Zurich, assignor to E. Séquin, Rapperswil, Kt. St. Gallen, Switzerland. Dish-washing machine. No. 942,179; Dec. 7; Sp. p. 330; Gaz. vol. 149; p. 50.
Musgrove, J. A., Jr., assignor of one-half to C. H. Patteson, Norton, Va. Whip-socket. No. 944,201; Dec. 21; Sp. p. 4648; Gaz. vol. 149; p. 796.
Myers, C., Springport, Mich. Wagon-reach coupling. No. 944,143; Dec. 21; Sp. p. 4536; Gaz. vol. 149; p. 778.
Myers, G. P. (See Diehl, F., assignor.)
Myers, H. A., Goshen, Ind. Hoisting device. No. 942,735; Dec. 7; Sp. p. 1454; Gaz. vol. 149; p. 238.
Myers, M. J., Syracuse, N. Y. Instrument for locating grounds and breaks in electric circuits. No. 944,459; Dec. 28; Sp. p. 5211; Gaz. vol. 149; p. 913.
Mylott, J., North Andover, assignor of one-half to G. W. Pratt, Haverhill, Mass. Car-fender. No. 943,635; Dec. 14; Sp. p. 3471; Gaz. vol. 149; p. 577.
N. C. Stearns & Co. (See Schneeloch, A., assignor.)
Nacke, R., Langenhof, near Bielefeld, Germany. Spiked roller for agricultural purposes. No. 943,989; Dec. 21; Sp. p. 4216; Gaz. vol. 149; p. 727.
Nägeborn, W. E., Detroit, Mich. Internal-combustion engine. No. 944,811; Dec. 28; Sp. p. 6002; Gaz. vol. 149; p. 1033.
Nathan, B., and O. Heuser, Frankfort-on-the-Main, Germany. Sweeping-machine. No. 942,970; Dec. 14; Sp. p. 2017; Gaz. vol. 149; p. 349.
National Arms and Stamping Company. (See Hille, W. J., assignor.)
National Checking Company. (See Raschick, C. T., assignor.)
National Concrete Specialty Company. (See Ferguson, W. S., assignor.)
National Dump Car Company. (See Seaberg, F., assignor.)
National Dump Car Company. (See Zimmerman, R. M., assignor.)
National Machinery Company. (See Clouse, W. L., assignor.)
National Malleable Castings Company. (See Brooks, C. K., assignor.)
National Spring Bed Company. (See Arnold, H. B., assignor.)
National Tube Company. (See Simpson, J., assignor.)
National Vacuum Cleaning Company. (See Green, C. R., assignor.)
National Veneer Package Company. (See Mead, H. G., assignor.)
National Water Main Cleaning Company. (See Whitney, G. F., assignor.)
Natura Company. (See Sanborn, J. P., assignor.)
Neal, A. C., New York, N. Y. Drill-guide. No. 942,581; Dec. 7; Sp. p. 1149; Gaz. vol. 149; p. 187.
Neal, A. C., New York, N. Y. Drill-guide. No. 942,582; Dec. 7; Sp. p. 1150; Gaz. vol. 149; p. 187.
Needl, W. L., Seattle, Wash. Rule. No. 942,583; Dec. 7; Sp. p. 1151; Gaz. vol. 149; p. 187.
Neill, J., Sheffield, England. Tool for cutting abrasive files. No. 943,953; Dec. 21; Sp. p. 4129; Gaz. vol. 149; p. 716.
Nell, J. A., Walden, N. Y. Pocket-knife. No. 943,990; Dec. 21; Sp. p. 4217; Gaz. vol. 149; p. 728.
Neiswanger, E. W. (See Stewart and Neiswanger.)
Nelson, J. I. E., Bettles, Alaska. Concentrator and amalgamator. No. 942,584; Dec. 7; Sp. p. 1153; Gaz. vol. 149; p. 187.
Nelson, J. W., New York, N. Y. Hydraulic pressure generating and applying apparatus. No. 942,736; Dec. 7; Sp. p. 1456; Gaz. vol. 149; p. 238.
Nelson, W. E., San Angelo, Tex. Apparatus for molding hollow concrete walls. No. 943,991; Dec. 21; Sp. p. 4219; Gaz. vol. 149; p. 728.
Nemsey, W., Brooklyn, N. Y. Paper receptacle. No. 944,145; Dec. 21; Sp. p. 4538; Gaz. vol. 149; p. 779.
Neufville, P., Vinings, Ga. Plow attachment. No. 944,206; Dec. 21; Sp. p. 4654; Gaz. vol. 149; p. 797.
Neuville, F. V., New Rochelle, N. Y. Knockdown crate. No. 944,146; Dec. 21; Sp. p. 4539; Gaz. vol. 149; p. 779.
New Departure Manufacturing Company. (See Rockwell, A. F., assignor.)
New England Enameling Company. (See Bauer, I., assignor.)
New England Watch Co. (See Hart, E., assignor.)
New Home Sewing Machine Company. (See Bowers, E. L., assignor.)
New Jersey Patent Company. (See Aylsworth, J. W., assignor.)
New Jersey Patent Company. (See Edison, T. A., assignor.)
New Jersey Patent Company. (See Weber, P., assignor.)
Newell, A. T., Birmingham, Ala. Running-gear. No. 942,182; Dec. 7; Sp. p. 334; Gaz. vol. 149; p. 51.
Newell, A. T., Birmingham, Ala. Air-compressor. No. 942,455; Dec. 7; Sp. p. 894; Gaz. vol. 149; p. 144.
Newhall, H. B. (See Cook, J. H., assignor.)
Newhard, G. F. (See Lauckner, B., assignor.)
Newman, G. G., and W. Rowe, Bismarck, N. D. Grain-door. No. 943,992; Dec. 21; Sp. p. 4220; Gaz. vol. 149; p. 728.
Newman, S., and H. R. Bothwell, Cincinnati, Ohio. Display apparatus. No. 944,969; Dec. 28; Sp. p. 6317; Gaz. vol. 149; p. 1085.
Newsome, E. L., Fairhaven, Lytham, England. Astronomical game. No. 944,631; Dec. 28; Sp. p. 5609; Gaz. vol. 149; p. 973.
Newton, A. E., assignor to Prentice Bros. Company, Worcester, Mass. Gearing. No. 943,042; Dec. 14; Sp. p. 2200; Gaz. vol. 149; p. 374.
Newton Balance Valve Co. *et al.* (See Stant, I. O., assignor.)
Nichol, J. C., Ottawa, Ontario, Canada. Lubricator for car-axle journals. No. 944,375; Dec. 28; Sp. p. 5022; Gaz. vol. 149; p. 883.
Nicholas, C. E., Columbus, Ohio, assignor to Nicholas Telephone Selector Company, Rochester, N. Y. Selecting apparatus for telephone systems. No. 944,460; Dec. 28; Sp. p. 5215; Gaz. vol. 149; p. 913.
Nicholas Telephone Selector Company. (See Nicholas, C. E., assignor.)
Nichols, H. B., Philadelphia, Pa. Grinding-machine. No. 944,147; Dec. 21; Sp. p. 4541; Gaz. vol. 149; p. 779.
Nichols, H. B., Philadelphia, Pa. Universal grinding-machine. No. 944,902; Dec. 28; Sp. p. 6181; Gaz. vol. 149; p. 1064.
Nichols, H. B., Philadelphia, Pa. Grinding-machine. No. 944,903; Dec. 28; Sp. p. 6189; Gaz. vol. 149; p. 1065.
Nickerson, J. A., Fairbury, Ill. Display-rack. No. 942,456; Dec. 7; Sp. p. 896; Gaz. vol. 149; p. 145.
Nicolai, S. F., Jackson, Mich. Molding-machine. No. 942,457; Dec. 7; Sp. p. 897; Gaz. vol. 149; p. 145.
Niedringhaus, A., St. Louis, Mo. Galvanizing sheet metal. No. 943,264; Dec. 14; Sp. p. 2648; Gaz. vol. 149; p. 449.
Niedringhaus, A., St. Louis, Mo. Galvanizing apparatus. No. 943,315; Dec. 14; Sp. p. 2756; Gaz. vol. 149; p. 466.
Nikel, E. O., Taworzno, Austria-Hungary. Towing arrangement for canal and river vessels. No. 942,510; Dec. 7; Sp. p. 1014; Gaz. vol. 149; p. 163.
Nissen, P. F., Seattle, Wash. Sash-lock. No. 944,626; Dec. 28; Sp. p. 5601; Gaz. vol. 149; p. 972.
Nitrogen Company. (See Acker, C. E., assignor.)
Nobel's Explosives Company. (See Hodge, H. D., assignor.)
Noble, A., Rock Springs, Wyo. Incubator. No. 943,954; Dec. 21; Sp. p. 4130; Gaz. vol. 149; p. 716.
Noble, G. S., Chicago, Ill. Concrete-mixer. No. 944,102; Dec. 21; Sp. p. 4438; Gaz. vol. 149; p. 765.
Noel, A. L., Mason City, Iowa. Door-controlling device. No. 944,494; Dec. 28; Sp. p. 5302; Gaz. vol. 149; p. 925.
Nolen, J. G., assignor to J. E. Shepherd, Chicago, Ill. Combined telephone and protective alarm system. No. 944,575; Dec. 28; Sp. p. 5495; Gaz. vol. 149; p. 953.
Noll, G. L., Winchester, Kans. Carpet-stretcher. No. 943,199; Dec. 14; Sp. p. 2511; Gaz. vol. 149; p. 426.
Norcross, B. F., Waltham, Mass. Tire. No. 942,097; Dec. 7; Sp. p. 131; Gaz. vol. 149; p. 21.
Norman, J. F., Knoxville, Ark. Clothes-pin. No. 942,971; Dec. 14; Sp. p. 2019; Gaz. vol. 149; p. 349.
Norman, J. F., Lima, Ohio. Composition of matter. No. 943,157; Dec. 14; Sp. p. 2434; Gaz. vol. 149; p. 414.
Normandin, L. P., assignor to W. F. Cowham, Jackson, Mich. Cement-block-molding machine. No. 944,272; Dec. 28; Sp. p. 4789; Gaz. vol. 149; p. 847.

Norquist, G. H. (See Dorner and Norquist.)
Norquist, J., Malmo, Nebr. Combination-tool. No. 944,812; Dec. 28; Sp. p. 6003; Gaz. vol. 149; p. 1033.
Norris, H. C., Jr., *et al.* (See Welling, J. E., assignor.)
Norris, W. (See Scott-King and Norris.)
Norris, W. P. (See Strance, Bull, and Norris.)
Northern Engineering Works. (See True, G. A., assignor.)
Northern Placer Machine Company. (See Rachelman, S., assignor.)
Northrop, G. S., *et al.* (See Montague and Stewart, assignors.)
Northwestern Expanded Metal Company. (See Mooney and Jantusek, assignors.)
Norton, L. C., Los Angeles, Cal. Transmission-gearing. No. 942,406; Dec. 7; Sp. p. 782; Gaz. vol. 149; p. 127.
Novotny, F. S., St. Paul, Minn., assignor of one-half to J. C. French, Burlington, Vt. Non-refillable bottle. No. 942,183; Dec. 7; Sp. p. 335; Gaz. vol. 149; p. 51.
Noyes, C. H., Omaha, Nebr. Steam-drier. No. 943,840; Dec. 21; Sp. p. 3886; Gaz. vol. 149; p. 676.
Nugent, R. C., assignor to Nugent Tool Company, Cincinnati, Ohio. Screw-cutting machine. No. 942,791; Dec. 7; Sp. p. 1561; Gaz. vol. 149; p. 257.
Nugent Tool Company. (See Marfield, P. B., assignor.)
Nugent Tool Company. (See Nugent, R. C., assignor.)
Nulty, J. T., Philadelphia, Pa. Spike and chair for railway-rails. No. 942,658; Dec. 7; Sp. p. 1304; Gaz. vol. 149; p. 213.
Nunamaker, H. S., Cleveland, Ohio. Drafting and engraving machine. No. 943,886; Dec. 21; Sp. p. 3979; Gaz. vol. 149; p. 691.
Nuttall, J., Chicopee, Mass., assignor to A. G. Spalding & Bros., Jersey City, N. J. Roller-skate. No. 942,344; Dec. 7; Sp. p. 666; Gaz. vol. 149; p. 107.
Nyberg, C. S., Mariedal, Södertelje, Sweden, assignor to Badische Maschinenfabrik & Eisengiesserei vorm. G. Sebold und Sebold & Neff, Durlach, Germany. Machine for pasting the inner boxes or slides of match-boxes. No. 943,158; Dec. 14; Sp. p. 2435; Gaz. vol. 149; p. 414.
Nye, G. E., assignor to Nye Steam Pump & Machinery Co., Chicago, Ill. Steam vacuum-pump. No. 944,964; Dec. 28; Sp. p. 6353; Gaz. vol. 149; p. 1060.
Nye Steam Pump & Machinery Co. (See Nye, G. E., assignor.)
Nystrom, M., and L. Taxon, Chicago, Ill., assignors to Veneer Machinery Company, Grand Rapids, Mich. Veneer-taping machine. No. 942,277; Dec. 7; Sp. p. 532; Gaz. vol. 149; p. 83.
O'Brien, A. E. (See Ware, J. L., assignor.)
O'Connor, P. O., Hartford, Conn. Collapsible form or center. No. 942,922; Dec. 14; Sp. p. 1904; Gaz. vol. 149; p. 332.
Ober, J. F., New Orleans, La. Railway-switch. No. 942,458; Dec. 7; Sp. p. 904; Gaz. vol. 149; p. 145.
Odam, E., assignor to Société des Applications de l'Acétylène, Paris, France. Blowpipe. No. 943,043; Dec. 14; Sp. p. 2202; Gaz. vol. 149; p. 374.
Oddur Manufacturing Company. (See Sigurdsson, O. V., assignor.)
Oehring, O., Berlin, Germany, assignor to American Stamp and Ticket Vending Machine Company, Washington, D. C. Coin-switch for vending-machines. No. 943,562; Dec. 14; Sp. p. 3272; Gaz. vol. 149; p. 551.
Oehring, O., Berlin, Germany, assignor to American Stamp & Ticket Vending Machine Company, Washington, D. C. Coin-switch for vending-machines. No. 943,636; Dec. 14; Sp. p. 3475; Gaz. vol. 149; p. 578.
Ohio Clay Company. (See Denison, W. C., assignor.)
Ohio Manufacturing Company. (See Price, E. F., assignor.)
Ohlson, O., Newton, assignor to Waltham Watch Company, Waltham, Mass. Winding-indicator. No. 942,659; Dec. 7; Sp. p. 1305; Gaz. vol. 149; p. 214.
Ohnstrand, E., assignor to Art Metal Construction Company, Jamestown, N. Y. Drawer for filing-cases. No. 943,841; Dec. 21; Sp. p. 3887; Gaz. vol. 149; p. 676.
Ohrmundt, F., and J. Kramer, Embarrass, Wis. Cover. No. 944,376; Dec. 28; Sp. p. 5025; Gaz. vol. 149; p. 884.
Okrassa, R. F. E., Antigua, Guatemala. Wind-motor. No. 944,148; Dec. 21; Sp. p. 4546; Gaz. vol. 149; p. 780.
Olander, A. C., Minot, N. D., and W. W. Olander, Waterville, Iowa. Fastening device. No. 944,461; Dec. 28; Sp. p. 5221; Gaz. vol. 149; p. 914.
Olander, W. W. (See Olander, A. C. and W. W.)
Oldenbusch, E., New York, N. Y. Picture-frame. No. 943,367; Dec. 14; Sp. p. 2871; Gaz. vol. 149; p. 483.
Oliva, J. C., Marengo, Iowa. Starting device for mowers. No. 943,044; Dec. 14; Sp. p. 2205; Gaz. vol. 149; p. 375.
Oliver Chilled Plow Works. (See Paul, W. L., assignor.)
Oliver Chilled Plow Works. (See Rich, L. L., assignor.)
Olsen, N. J., *et al.* (See Anderson, A., assignor.)
Olson, C. W., assignor of one-half to H. N. Somerville, Condon, Oreg. Harrow. No. 944,690; Dec. 28; Sp. p. 5736; Gaz. vol. 149; p. 993.
Olson, G. A., Ramey, Minn. Harrow. No. 942,511; Dec. 7; Sp. p. 1016; Gaz. vol. 149; p. 164.
Olson, G. O., assignor to Fort Dearborn Manufacturing Company, Chicago, Ill. Loose-leaf binder. No. 942,098; Dec. 7; Sp. p. 132; Gaz. vol. 149; p. 21.
Olson, J. P., Sioux City, Iowa. Adjustable shade-support. No. 944,632; Dec. 28; Sp. p. 5612; Gaz. vol. 149; p. 974.
Olson, M. (See Bradford and Olson.)
Olson, N., Birmingham, Ala. Device for cleaning ash-pans of locomotives. No. 942,737; Dec. 7; Sp. p. 1462; Gaz. vol. 149; p. 239.
Olson, W. (See Lundvall and Olson.)
Open Coil Heater and Purifier Company. (See Stickle, C., assignor.)
Optische Anstalt C. P. Goers Aktiengesellschaft. (See Brauburger, E., assignor.)
Orance, P., Newark, N. J. Burglar-alarm screen. No. 943,358; Dec. 14; Sp. p. 2872; Gaz. vol. 149; p. 483.
Ordway, C., New York, N. Y. Evaporating apparatus. No. 942,407; Dec. 7; Sp. p. 783; Gaz. vol. 149; p. 127.
Orford, H., assignor of one-half to S. J. Taylor, Philadelphia, Pa. Manufacture of lenses for spectacles or eyeglasses. No. 943,449; Dec. 14; Sp. p. 3046; Gaz. vol. 149; p. 512.
Ormrod, J. D. (See Higgins and Ormrod.)
Ortwein, G. A., Maple Falls, Wash. Automatic shingle-stamp and packer's recorder. No. 942,512; Dec. 7; Sp. p. 1017; Gaz. vol. 149; p. 164.
Osborn, N. (See Garven and Osborn.)
Osborne, E. F., assignor to Osborne Steam Engineering Company, Chicago, Ill. Expansion-joint for pipe-lines. No. 944,273; Dec. 28; Sp. p. 4792; Gaz. vol. 149; p. 847.
Osborne, H. Z., Jr., Los Angeles, Cal. Cross-section templet. No. 944,462; Dec. 28; Sp. p. 5222; Gaz. vol. 149; p. 914.
Osborne Steam Engineering Company. (See Osborne, E. F., assignor.)
Osmer, J. E., Chicago, Ill. Drive-wheel. No. 944,495; Dec. 28; Sp. p. 5306; Gaz. vol. 149; p. 925.
Osmer, J. E., Chicago, Ill. Drive-wheel. No. 944,496; Dec. 28; Sp. p. 5307; Gaz. vol. 149; p. 926.
Osterholm, W. C., Chicago, Ill. Wire-staple forming and setting machine. No. 943,045; Dec. 14; Sp. p. 2207; Gaz. vol. 149; p. 375.
Ott, W. J., Merlin, Oreg. Running-gear for wagons. No. 944,813; Dec. 28; Sp. p. 6005; Gaz. vol. 149; p. 1034.
Otto, W. F., Wilkes-Barre, assignor to Eynon-Evans Mfg. Co., Philadelphia, Pa. Automatic device for controlling the operation of pumps. No. 943,309; Dec. 14; Sp. p. 2874; Gaz. vol. 149; p. 484.
Oudinot, H., and C. Putois, Coudray Montceaux, France. Cushion-wheel. No. 944,576; Dec. 28; Sp. p. 5499; Gaz. vol. 149; p. 954.
Oudinot, H., and C. Putois, Coudray Montceaux, France. Hydropneumatic spring. No. 944,577; Dec. 28; Sp. p. 5501; Gaz. vol. 149; p. 954.
Overbury, F. C., New York, N. Y., assignor to Flintkote Manufacturing Company, Rutherford, N. J. Roofing-package. No. 942,660; Dec. 7; Sp. p. 1308; Gaz. vol. 149; p. 214.
Oviatt, H. (See Simpson and Oviatt.)
Owens, A. A., Springfield, Mo. Fishing-float. No. 943,450; Dec. 14; Sp. p. 3048; Gaz. vol. 149; p. 512.
Owens, W. J., assignor of one-half to F. Longo, Scranton, Pa. Slate-picker. No. 944,904; Dec. 28; Sp. p. 6193; Gaz. vol. 149; p. 1065.
Owens, W. O. (See Snverkrup and Owens.)
Oyler, W. R., Akron, Ohio. Signaling and operating mechanism for switches. No. 942,099; Dec. 7; Sp. p. 133; Gaz. vol. 149; p. 21.
P. & F. Corbin. (See Arens and Teich, assignors.)
P. & F. Corbin. (See Fletcher, J. R., assignor.)
Packard Motor Car Company. (See Huff, R., assignor.)
Packham, F. R., assignor to American Seeding Machine Company, Springfield, Ohio. Bearing for furrow-opening disks. No. 944,045; Dec. 21; Sp. p. 4528; Gaz. vol. 149; p. 746.
Page, J. W., Chicago, Ill. Car-unloading apparatus. No. 942,840; Dec. 7; Sp. p. 1664; Gaz. vol. 149; p. 272.
Painter, W. A., assignor to Pittsburgh Lamp, Brass & Glass Company, Pittsburg, Pa. Shade-holder. No. 942,738; Dec. 7; Sp. p. 1464; Gaz. vol. 149; p. 239.
Palm, W., Butler, Pa. Trip wall-packer for oil-wells. No. 942,739; Dec. 7; Sp. p. 1465; Gaz. vol. 149; p. 239.
Palmer, C. S. (See York, W., assignor.)
Palmer, I. E., assignor to I. E. Palmer Co., Middletown, Conn. Resilient bottom for couch-hammocks, &c. No. 942,841; Dec. 7; Sp. p. 1666; Gaz. vol. 149; p. 273.
Palmer, I. E., assignor to I. E. Palmer Co., Middletown, Conn. Couch-hammock. No. 944,814; Dec. 28; Sp. p. 6008; Gaz. vol. 149; p. 1034.
Palmer, L. R., Los Angeles, Cal. Fuel composition and producing the same. No. 942,213; Dec. 7; Sp. p. 304; Gaz. vol. 149; p. 61.

Palmer, R., Larchmont, N. Y., assignor to General Electric Company. Sintering apparatus. No. 942,513; Dec. 7; Sp. p. 1019; Gaz. vol. 149; p. 164.
Palmer, S. A., Kansas City, Mo. Regulating-valve. No. 942,972; Dec. 14; Sp. p. 2020; Gaz. vol. 149; p. 350.
Palmowsky, S., New York, N. Y. Cigarette-tipping machine. No. 942,514; Dec. 7; Sp. p. 1021; Gaz. vol. 149; p. 165.
Palomino, R. (See Young and Palomino.)
Pancoast, G. E., Brooklyn, N. Y., assignor to American Lithographic Company. Printing-press. No. 942,923; Dec. 14; Sp. p. 1905; Gaz. vol. 149; p. 332.
Pankhurst, E., and A. C. Bisbee, Lyle, Minn. Corrugated-metal culvert. No. 944,985; Dec. 28; Sp. p. 6355; Gaz. vol. 149; p. 1090.
Parker, E. F., Fairfield, Me. Charging pulp-digesters. No. 942,924; Dec. 14; Sp. p. 1911; Gaz. vol. 149; p. 333.
Parker, E. F., Fairfield, Me. Machine for saving waste pulp. No. 942,925; Dec. 14; Sp. p. 1913; Gaz. vol. 149; p. 333.
Parker, G. D., Riverside, Cal. Hand-truck. No. 943,265; Dec. 14; Sp. p. 2649; Gaz. vol. 149; p. 449.
Parker, J. C., Philadelphia, Pa. Steam-boiler. No. 943,452; Dec. 14; Sp. p. 3050; Gaz. vol. 149; p. 512.
Parker, J. G., Washington, Pa. Check-valve. No. 943,451; Dec. 14; Sp. p. 3049; Gaz. vol. 149; p. 512.
Parker, J. W., Beverly, N. J. Exhaust-head. No. 942,585; Dec. 7; Sp. p. 1155; Gaz. vol. 149; p. 188.
Parker, P. A. (See Beall and Parker.)
Parkhill Manufacturing Company. (See Flight and Tilton, assignors.)
Parmenter, W. A., and A. B. Alden, assignors of one-third to C. S. Pierce, Brockton, Mass. Skiving-machine. No. 944,103; Dec. 21; Sp. p. 4440; Gaz. vol. 149; p. 765.
Parr-Colyar Warehouse Supply Company. (See Colyar, W. H., assignor.)
Parrish, J. V. (See Walker and Parrish.)
Parsons, M., assignor to G. E. Clark and J. F. Campbell, Mangum, Okla. Foldable chicken coop or crate. No. 944,377; Dec. 28; Sp. p. 5026; Gaz. vol. 149; p. 884.
Parsons, W. J., and J. A. Leland, Montague, assignors to Millers Falls Company, Millers Falls, Mass. Drill-brace. No. 942,586; Dec. 7; Sp. p. 1157; Gaz. vol. 149; p. 188.
Passaro, G. G., Stamford, Conn. Eel-trap. No. 943,842; Dec. 21; Sp. p. 3888; Gaz. vol. 149; p. 677.
Patterson, E. P., Griffin, and J. T. Patterson, Milner, Ga. Combined seed-planter and fertilizer-distributer. No. 942,792; Dec. 7; Sp. p. 1563; Gaz. vol. 149; p. 257.
Patterson, J. T. (See Patterson, E. P. and J. T.)
Patteson, C. H. (See Musgrove, J. A., Jr., assignor.)
Pattillo, G. A., Cartersville, Ga. Nut-lock. No. 943,887; Dec. 21; Sp. p. 3982; Gaz. vol. 149; p. 691.
Patton, J. B. (See Engberg, E. O., assignor.)
Paul, A. B., *et al.* (See Fanning, F., assignor.)
Paul, B. H. and M., Los Angeles, Cal. Machine for seeding fruit. No. 943,955; Dec. 21; Sp. p. 4131; Gaz. vol. 149; p. 716.
Paul, J. T. H., assignor to E. Goldman & Co. Inc., Chicago, Ill. Filter. (Reissue.) No. 13,053; Dec. 7; Sp. p. 1788; Gaz. vol. 149; p. 289.
Paul, M. (See Paul, B. H. and M.)
Paul, W. J., Cincinnati, Ohio. Dish-washing machine. No. 942,926; Dec. 14; Sp. p. 1915; Gaz. vol. 149; p. 334.
Paul, W. L., assignor to Oliver Chilled Plow Works, South Bend, Ind. Coupling for the beams of cultivators or gang-plows. No. 943,704; Dec. 21; Sp. p. 3615; Gaz. vol. 149; p. 629.
Paul, W. L., assignor to Oliver Chilled Plow Works, South Bend, Ind. Seeding-machine. No. 944,578; Dec. 28; Sp. p. 5502; Gaz. vol. 149; p. 955.
Paul, Z., Croton, Ontario, Canada. Throttle-valve. No. 942,345; Dec. 7; Sp. p. 668; Gaz. vol. 149; p. 107.
Payne, W. H., and N. M. Rice, Dalhart, Tex. Crude-oil burner. No. 944,633; Dec. 28; Sp. p. 5613; Gaz. vol. 149; p. 974.
Peabody, E. H., New York, N. Y. Automatic gas-analyzing apparatus. No. 944,274; Dec. 28; Sp. p. 4794; Gaz. vol. 149; p. 848.
Peak, W. B., Pinhook Landing, Tenn. Obstetrical bed. No. 943,453; Dec. 14; Sp. p. 3053; Gaz. vol. 149; p. 513.
Pearce, E. J., New Brighton, England. Mechanical toy. No. 943,096; Dec. 14; Sp. p. 2318; Gaz. vol. 149; p. 392.
Pearce, J. C., Findlay, assignor of one-half to J. J. Harsh, Windsor, Ill. Railway-tie. No. 944,815; Dec. 28; Sp. p. 6011; Gaz. vol. 149; p. 1035.
Pearl Laundry Machinery Company. (See Taylor, T. L., assignor.)
Pearson, C. O., New York, and A. Sundh, Yonkers, N. Y. Electromagnetic accelerator. No. 944,497; Dec. 28; Sp. p. 5308; Gaz. vol. 149; p. 926.
Pearson, O., Worcester, Mass. Valve for engines. No. 942,587; Dec. 7; Sp. p. 1159; Gaz. vol. 149; p. 189.
Pease, T. M., Cincinnati, Ohio. Truss-pad. No. 943,843; Dec. 21; Sp. p. 3890; Gaz. vol. 149; p. 677.
Peaslee, C. E. (See Davis, M. O., assignor.)
Peck, C. C., Rochester, N. Y. Automatic drainage-valve. No. 944,816; Dec. 28; Sp. p. 6012; Gaz. vol. 149; p. 1035.
Peck, E. W. (See Dunham and Peck.)
Peck, H. O., assignor to H. O. Peck Automobile Wheel Co., Portland, Oreg. Vehicle-wheel. No. 943,563; Dec. 14; Sp. p. 3275; Gaz. vol. 149; p. 551.
Peck, H. O., assignor to H. O. Peck Automobile Wheel Company, Portland, Oreg. Vehicle-wheel. No. 943,564; Dec. 14; Sp. p. 3277; Gaz. vol. 149; p. 552.
Peck, S. C., and W. R. Hodgkinson, London, England. Production of alloys of copper, such as brass. No. 943,159; Dec. 14; Sp. p. 2437; Gaz. vol. 149; p. 414.
Pecoy, S., Cresco, Iowa. Work box and stand. No. 943,454; Dec. 14; Sp. p. 3056; Gaz. vol. 149; p. 513.
Pedersen, H. N., and P. M. Christensen, Racine, Wis. Mail-bag-handling apparatus. No. 942,278; Dec. 7; Sp. p. 535; Gaz. vol. 149; p. 84.
Pedlar, G. H., Oshawa, Ontario, Canada. Interlocking metallic shingle. No. 943,888; Dec. 21; Sp. p. 3983; Gaz. vol. 149; p. 692.
Peirce, W. H., Baltimore, Md. Metallurgical converter. No. 942,661; Dec. 7; Sp. p. 1309; Gaz. vol. 149; p. 215.
Peirce, W. H., Baltimore, Md. Metallurgical converter. No. 942,973; Dec. 14; Sp. p. 2021; Gaz. vol. 149; p. 350.
Peirce, W. H., Baltimore, Md. Metallurgical converter. No. 944,905; Dec. 28; Sp. p. 6196; Gaz. vol. 149; p. 1065.
Peirce, W. H., and E. A. C. Smith, Baltimore, Md. Method of and converter vessel for bessemerizing copper matte. No. 942,346; Dec. 7; Sp. p. 669; Gaz. vol. 149; p. 107.
Peiseler, G., Charlottenburg, Germany. File and rasp cutting machine. No. 943,993; Dec. 21; Sp. p. 4222; Gaz. vol. 149; p. 729.
Pelton, C. H., assignor to Thomas Manufacturing Company, Springfield, Ohio. Mowing-machine. No. 943,266; Dec. 14; Sp. p. 2651; Gaz. vol. 149; p. 449.
Peña y Martinez, F. S. D. (See Rexach y Torres and Peña y Martinez.)
Pennell, G. (See Zell, J. W., assignor.)
Penney, H. D., New York, N. Y. Couch-bed. No. 942,459; Dec. 7; Sp. p. 905; Gaz. vol. 149; p. 146.
Pennsylvania Globe Gas Light Company. (See Silnack, V. H., assignor.)
Pepple, J. W., Hillsboro, Tex. Mail-pouch-transferring apparatus. No. 942,214; Dec. 7; Sp. p. 397; Gaz. vol. 149; p. 61.
Perkins Electric Switch Mfg. Company. (See Poole, F. P., assignor.)
Perkins, F. P., Batesville, Miss. Railway switch mechanism. No. 942,927; Dec. 14; Sp. p. 1917; Gaz. vol. 149; p. 334.
Perkins, W. H., Cheshire, assignor to Waterbury Mfg. Co., Waterbury, Conn. Wrought-metal fitting for plumbers' use. No. 944,046; Dec. 21; Sp. p. 4330; Gaz. vol. 149; p. 746.
Perkins, W. P., Willis, Tex. Rail-joint. No. 942,662; Dec. 7; Sp. p. 1312; Gaz. vol. 149; p. 215.
Perry, D. P., assignor, by mesne assignments, of two-thirds to W. Morrison, Chicago, Ill., and one-third to M. A. Lumbard, Des Moines, Iowa. Storage battery. No. 942,279; Dec. 7; Sp. p. 543; Gaz. vol. 149; p. 84.
Perry, E. C., assignor to American Car Sprinkler Company, Worcester, Mass. Car-sprinkler valve. No. 942,974; Dec. 14; Sp. p. 2023; Gaz. vol. 149; p. 350.
Perry, E. L. (See Mastin and Perry.)
Persons, J. O., Norfolk, Va. Lining pipes. No. 942,184; Dec. 7; Sp. p. 336; Gaz. vol. 149; p. 51.
Pertzsch, W., Onalaska, Wis. Potato-sorter. No. 943,097; Dec. 14; Sp. p. 2314; Gaz. vol. 149; p. 393.
Perusse, A., Kingston, N. Y. Brace for brick-kilns. No. 944,104; Dec. 21; Sp. p. 4442; Gaz. vol. 149; p. 766.
Peter, F., Anna, Ill. Churn. No. 943,200; Dec. 14; Sp. p. 2513; Gaz. vol. 149; p. 426.
Peterman, C., Fond du Lac, Wis. Gaining-machine. No. 944,047; Dec. 21; Sp. p. 4332; Gaz. vol. 149; p. 746.
Peterman, J. M., New Market, Iowa. Sliding gate. No. 942,408; Dec. 7; Sp. p. 780; Gaz. vol. 149; p. 128.
Peters, H., *et al.* (See Driskell, W. S., assignor.)
Peters, J. E., Los Angeles, Cal. Rivet-feeding device. No. 942,864; Dec. 7; Sp. p. 1732; Gaz. vol. 149; p. 281.
Peters, W. C., Harrisburg, Pa. Railway-crossing. No. 942,740; Dec. 7; Sp. p. 1467; Gaz. vol. 149; p. 240.
Petersen, A. H., New York, N. Y. Grinding or pulverizing machine. No. 942,865; Dec. 7; Sp. p. 1734; Gaz. vol. 149; p. 281.
Peterson, C., Stanchfield, Minn. Punch and shear. No. 942,409; Dec. 7; Sp. p. 788; Gaz. vol. 149; p. 128.
Peterson, E. A., Rockford, Ill. Street-railway switch. No. 944,817; Dec. 28; Sp. p. 6015; Gaz. vol. 149; p. 1035.
Peterson, H. L. E., Elgin, Ill. Pressing device for push-nipple radiators. No. 942,210; Dec. 7; Sp. p. 790; Gaz. vol. 149; p. 128.
Peterson, J. A., assignor to Russell & Erwin Manufacturing Company, New Britain, Conn. Door check and closer. No. 943,160; Dec. 14; Sp. p. 2438; Gaz. vol. 149; p. 414.
Peterson, P., South Bend, Ind. Valve-spring lifter. No. 944,149; Dec. 21; Sp. p. 4551; Gaz. vol. 149; p. 780.
Petracchi, P., Varese, Italy. Detachable rim for pneumatic tires. No. 944,906; Dec. 28; Sp. p. 6198; Gaz. vol. 149; p. 1066.
Peyton, J. E. (See Kramer, H. H., assignor.)
Pflager, H. M., assignor to Commonwealth Steel Company, St. Louis, Mo. Casting metallic members. No. 942,928; Dec. 14; Sp. p. 1918; Gaz. vol. 149; p. 334.

Pflanzer, J. C., assignor to Champion Tool Works Company, Cincinnati, Ohio. Double back gearing. No. 942,185; Dec. 7; Sp. p. 339; Gaz. vol. 149; p. 52.
Pfluger, F., and E. Christensen, Portland, Oreg. Bung-bushing. No. 944,378; Dec. 28; Sp. p. 5028; Gaz. vol. 149; p. 885.
Phelan, M. D., Boston, Mass., assignor, by mesne assignments, to Manufacturers Machine Company, Montclair, N. J. Machine for inserting metallic fastenings. No. 944,275; Dec. 28; Sp. p. 4798; Gaz. vol. 149; p. 848.
Phelps, F. A., Laconia, N. H. Dry valve. No. 942,100; Dec. 7; Sp. p. 137; Gaz. vol. 149; p. 22.
Phelps, W. S., Muncie, Ind. Rotary stand-pipe joint. No. 943,267; Dec. 14; Sp. p. 2654; Gaz. vol. 149; p. 450.
Philippoteaux, A., Rheims, France. Machine for making glass bottles and like articles. No. 944,691; Dec. 28; Sp. p. 5738; Gaz. vol. 149; p. 993.
Phillips, E. S., assignor to American Road Machine Company, Kennett Square, Pa. Rock-crusher. No. 943,455; Dec. 14; Sp. p. 3057; Gaz. vol. 149; p. 513.
Phillips, B., Lynn, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Take-up for sewing-machines. No. 944,498; Dec. 28; Sp. p. 5316; Gaz. vol. 149; p. 926.
Phillips, D. W., Spraggs, Pa. Quilting-frame. No. 944,105; Dec. 21; Sp. p. 4444; Gaz. vol. 149; p. 766.
Phillips, P., C. Dipierno, and S. Mongell, Newhaven, Pa. Toy. No. 943,456; Dec. 14; Sp. p. 3060; Gaz. vol. 149; p. 514.
Phipps, D. L., Chicago, Ill. Sliding-door hanger. No. 943,784; Dec. 21; Sp. p. 3773; Gaz. vol. 149; p. 657.
Phipps, J. H., Wickliffe, Ky. Water-gate. No. 942,460; Dec. 7; Sp. p. 910; Gaz. vol. 149; p. 146.
Phreaner, S. J., Olney, Pa. Ash-sifter. No. 943,457; Dec. 14; Sp. p. 3061; Gaz. vol. 149; p. 514.
Pichler, S., Brooklyn, N. Y. Scaffold. No. 742,347; Dec. 7; Sp. p. 672; Gaz. vol. 149; p. 108.
Pierce, C. S. (See Parmenter and Alden, assignors.)
Pierron, P. R. (See Côte and Pierron.)
Pigeon, A. M., Philadelphia, Pa. Knitting-machine. No. 943,230; Dec. 14; Sp. p. 2578; Gaz. vol. 149; p. 437.
Pindstofte, A. A., Frederiksberg, near Copenhagen, Denmark. Bottle-cleaning machine. No. 944,986; Dec. 28; Sp. p. 6357; Gaz. vol. 149; p. 1091.
Pine, A. F., Castle Rock, Colo. Tag. No. 944,744; Dec. 28; Sp. p. 5867; Gaz. vol. 149; p. 1011.
Pioneer Steel Company. (See Clarke, W. A., assignor.)
Pitt, W. P., assignor to Irving-Pitt Manufacturing Company, Kansas City, Mo. Loose-sheet binder. No. 943,844; Dec. 21; Sp. p. 3891; Gaz. vol. 149; p. 677.
Pitts, E. L., assignor of one-third to A. J. Locke and one-third to J. E. Ludy, Yuma, Ariz. Station-indicator. No. 944,207; Dec. 21; Sp. p. 4657; Gaz. vol. 149; p. 798.
Pittsburgh Lamp, Brass & Glass Company. (See Painter, W. A., assignor.)
Place, R. H., *et al.* (See Haworth, Briggs, and Ayrey, assignors.)
Plank, J. C., and T. E. Fulghum, Grand Junction, Colo. Heater. No. 944,745; Dec. 28; Sp. p. 5869; Gaz. vol. 149; p. 1011.
Plant, T. G. (See Heys, J. J., assignor.)
Plant, T. G. (See Hooper, W. H., assignor.)
Plant, T. G. (See Stanbon, C. P., assignor.)
Plant, T. G. (See Stewart, W. C., assignor.)
Plant, T. G. (See Stewart and Hooper, assignors.)
Plate, F. H. (See Teasdale, G. W., assignor.)
Plimpton, H., *et al.* (See Sloane, G. H., assignor.)
Podmore, W., assignor to Trenton Potteries Company, Trenton, N. J. Lavatory. No. 943,458; Dec. 14; Sp. p. 3063; Gaz. vol. 149; p. 515.
Pollock, J. R., assignor of one-half to E. S. Bruce, Longbeach, Cal. Street-sweeper. No. 943,122; Dec. 14; Sp. p. 2367; Gaz. vol. 149; p. 402.
Polnisch, P., assignor to W. C. Schwebel, Philadelphia, Pa. Bottle-washing machine. No. 944,499; Dec. 28; Sp. p. 5319; Gaz. vol. 149; p. 927.
Pond, W. B., South Bend, Ind. Folding post for landaus. No. 943,705; Dec. 21; Sp. p. 3616; Gaz. vol. 149; p. 629.
Ponder, J. M., Ruston, La. Canning outfit. No. 943,706; Dec. 21; Sp. p. 3617; Gaz. vol. 149; p. 629.
Pons, A., New York, N. Y. Fiber-cleaning machine. No. 944,106; Dec. 21; Sp. p. 4445; Gaz. vol. 149; p. 766.
Poole, F. P., assignor to Perkins Electric Switch Mfg. Company, Bridgeport, Conn. Electric-lamp socket. No. 944,208; Dec. 21; Sp. p. 4659; Gaz. vol. 149; p. 798.
Poole, J. H., assignor of three-eighths to F. L. Price and three-eighths to J. G. Wilde, Brockton, Mass. Cushion-tire for vehicle-wheels. No. 942,842; Dec. 7; Sp. p. 1668; Gaz. vol. 149; p. 273.
Poole, S. S., Albany, N. Y. Flue-cleaner. No. 942,515; Dec. 7; Sp. p. 1022; Gaz. vol. 149; p. 165.
Pooler, D. C. (See Pooler, E. and D. C.)
Pooler, E. and D. C., Seattle, Wash. Match-safe. No. 943,098; Dec. 14; Sp. p. 2317; Gaz. vol. 149; p. 393.
Pope, C. E., Pittsburg, Pa. Refractory brick for metallurgical and other uses. No. 944,692; Dec. 28; Sp. p. 5739; Gaz. vol. 149; p. 994.
Pope, C. E., Pittsburg, Pa. Cement flint clay brick for metallurgical and other purposes. No. 944,693; Dec. 28; Sp. p. 5740; Gaz. vol. 149; p. 994.
Pope, C. E., Pittsburg, Pa. Cement-silica brick for metallurgical and other uses. No. 944,694; Dec. 28; Sp. p. 5741; Gaz. vol. 149; p. 994.
Pope, E. J., Holyoke, Mass. Cushion-wheel. No. 942,741; Dec. 7; Sp. p. 1468; Gaz. vol. 149; p. 240.
Pope, F. B., Augusta, Ga., and W. J. Lester, Boston, Mass. Ventilating device for vehicles. No. 943,889; Dec. 21; Sp. p. 3985; Gaz. vol. 149; p. 692.
Popkess, M. A., Kansas City, Mo. Road-working machine. No. 942,866; Dec. 7; Sp. p. 1736; Gaz. vol. 149; p. 282.
Popp, B. (See Dubied and Popp.)
Porteous, J., Fresno, Cal. Brush-chopper. No. 742,215; Dec. 7; Sp. p. 400; Gaz. vol. 149; p. 61.
Porter-Cable Machine Company. (See Porter and Cable, assignors.)
Porter, G. G., and F. E. Cable, assignors to Porter-Cable Machine Company, Syracuse, N. Y. Universal milling attachment. No. 943,845; Dec. 21; Sp. p. 3895; Gaz. vol. 149; p. 678.
Porter, J. C. (See Courtney and Porter.)
Porter, M. L., Webb City, Mo. Combined stool and foot-rest. No. 942,975; Dec. 14; Sp. p. 2026; Gaz. vol. 149; p. 351.
Portnoy, I., Chicago, Ill. Combined fire-shovel and ash-sifter. No. 944,501; Dec. 28; Sp. p. 5325; Gaz. vol. 149; p. 928.
Postans, A. J., assignor to Adder Cash Register Syndicate Limited, London, England. Indicator for cash-registers. No. 942,348; Dec. 7; Sp. p. 674; Gaz. vol. 149; p. 106.
Potter, F. D., Linden, N. J. Superheater. No. 943,606; Dec. 14; Sp. p. 3354; Gaz. vol. 149; p. 566.
Potter, J. C., and J. Johnston, assignors to Potter and Johnston Machine Company, Pawtucket, R. I. Gearing. No. 942,843; Dec. 7; Sp. p. 1670; Gaz. vol. 149; p. 273.
Potter, J. L., Indianapolis, Ind. Excavating or hoisting apparatus. No. 942,216; Dec. 7; Sp. p. 402; Gaz. vol. 149; p. 62.
Potter and Johnston Machine Company. (See Potter and Johnston, assignors.)
Potts, L. M., assignor to Rowland Telegraphic Company, Baltimore, Md. Automatic telegraph. No. 942,844; Dec. 7; Sp. p. 1672; Gaz. vol. 149; p. 274.
Powers, E. T. (See Heinrich, J., assignor.)
Powers, T. A., Slack, Wyo. Screen for irrigating ditches. No. 944,907; Dec. 28; Sp. p. 6200; Gaz. vol. 149; p. 1066.
Prahar, L. B., New York, N. Y. Frame-joint and soldering the same. No. 943,370; Dec. 14; Sp. p. 2876; Gaz. vol. 149; p. 484.
Pratt, G. W. (See Mylott, J., assignor.)
Prendergast, A. P., Baltimore, Md. Mechanism for vehicle lamps or headlights. No. 942,217; Dec. 7; Sp. p. 406; Gaz. vol. 149; p. 62.
Prenovich, I. N., New York, N. Y. Railway-rail splice. No. 943,619; Dec. 14; Sp. p. 3424; Gaz. vol. 149; p. 571.
Prentice Bros. Company. (See Newton, A. E., assignor.)
Prentice, J. A., *et al.* (See Santsche, E., assignor.)
Prescott, A. T. (See Wolf, A. C., assignor.)
Preslar, C. F., Norwood, Ohio. Pump. No. 942,145; Dec. 7; Sp. p. 261; Gaz. vol. 149; p. 39.
Preslar, C. F., Norwood, Ohio. Operating mechanism for double-acting pumps. No. 943,201; Dec. 14; Sp. p. 2513; Gaz. vol. 149; p. 426.
Pressed Steel Car Company. (See Ditchfield, F., assignor.)
Pressed Steel Car Company. (See Kling, P. M., assignor.)
Pressed Steel Car Company. (See Lindström, C. A., assignor.)
Pressed Steel Car Company. (See Streit, J. F., assignor.)
Presson, B., Pittsburg, Kans. Screw-driver. No. 942,742; Dec. 7; Sp. p. 1470; Gaz. vol. 149; p. 241.
Price, A. J. (See Hansen and Price.)
Price, A. M., Elgin, Ill. Wrapping-machine. No. 942,101; Dec. 7; Sp. p. 143; Gaz. vol. 149; p. 23.
Price, E. F., Niagara Falls, N. Y., assignor, by mesne assignments, to Central Trust Company of New York, trustee. Producing ferrol alloys. No. 942,349; Dec. 7; Sp. p. 677; Gaz. vol. 149; p. 109.
Price, E. F., Niagara Falls, N. Y., assignor to Electro Metallurgical Company, Chicago, Ill. Electric furnace. No. 942,350; Dec. 7; Sp. p. 679; Gaz. vol. 149; p. 109.
Price, E. F., assignor to Ohio Manufacturing Company, Upper Sandusky, Ohio. Alfalfa-harrow. No. 942,516; Dec. 7; Sp. p. 1023; Gaz. vol. 149; p. 165.
Price, F. L., *et al.* (See Poole, J. H., assignor.)
Price, J. R., Newark, N. J. Carbureter. No. 944,048; Dec. 21; Sp. p. 4334; Gaz. vol. 149; p. 747.
Price, W. L., Newark, and H. E. Schenck, East Orange, N. J. Hame. No. 942,351; Dec. 7; Sp. p. 680; Gaz. vol. 149; p. 109.

Prickett, C. E., Allegheny, Pa. Window-cleaning apparatus. No. 942,743; Dec. 7; Sp. p. 1471; Gaz. vol. 149; p. 241.
Priddle, A., San Francisco, Cal. Fireproof construction. No. 944,502; Dec. 28; Sp. p. 5327; Gaz. vol. 149; p. 928.
Pries, H., Michigan City, Ind. Truck-bolster for railway-cars. No. 944,818; Dec. 28; Sp. p. 6016; Gaz. vol. 149; p. 1036.
Priest, L., assignor of one-half to B. Cohn, Albany, Ga. Watch-balance-staff supporter. No. 943,890; Dec. 21; Sp. p. 3992; Gaz. vol. 149; p. 692.
Pritchard, W. E. (See Kirkham, J., assignor.)
Prochaska, E., Alton, Ill. Coal or ore washer. No. 942,461; Dec. 7; Sp. p. 911; Gaz. vol. 149; p. 146.
Proximity Manufacturing Company *et al.* (See Thigpen, K., assignor.)
Pruitt, W. B. (See Davis, W. L., assignor.)
Pruyn, M., Sacramento, Cal. Weed-cutter and cultivator. No. 942,744; Dec. 7; Sp. p. 1474; Gaz. vol. 149; p. 241.
Puckett, W. J., assignor of one-half to F. Waldie, Mancelons, Mich. Crate. No. 943,565; Dec. 14; Sp. p. 3278; Gaz. vol. 149; p. 552.
Pullman Automatic Ventilator Mfg. Company. (See Birnstock, W. W., assignor.)
Punch, D. T. (See Punch, S. C., D. T., and J. C.)
Punch, J. C. (See Punch, S. C., D. T., and J. C.)
Punch, S. C., D. T., and J. C., assignors to Cotto-Waxo Chemical Company, St. Louis, Mo. Composition for laying, collecting, or absorbing dust. No. 944,276; Dec. 28; Sp. p. 4811; Gaz. vol. 149; p. 849.
Purviance, N. M., Chicago, Ill. Wall-paper-hanging machine. No. 944,049; Dec. 21; Sp. p. 4337; Gaz. vol. 149; p. 747.
Putnam, C. A., Tupper Lake, N. Y. Band-saw wheel. No. 942,588; Dec. 7; Sp. p. 1161; Gaz. vol. 149; p. 189.
Putois, C. (See Oudinot and Putois.)
Pyper, A. C. (See Allen and Pyper.)
Quentin, A., Paris, France. Advertising or display apparatus. No. 943,994; Dec. 21; Sp. p. 4234; Gaz. vol. 149; p. 729.
Quigg, W. F. (See Dennier, A. G., assignor.)
R. Neumann Hardware Co. (See Isidor, J. S., assignor.)
R. Neumann Hardware Co. (See Lyraght, C. J., assignor.)
Rabbitt, J. E. (See Aggas and Rabbitt.)
Rachelman, S., assignor to Northern Placer Machine Company, St. Paul, Minn. Apparatus for washing out placer-gold. No. 942,663; Dec. 7; Sp. p. 1312; Gaz. vol. 149; p. 215.
Rada, J., Jennings, Kans. Hog-chute. No. 944,379; Dec. 28; Sp. p. 5029; Gaz. vol. 149; p. 885.
Radcliff, C. A., assignor of one-half to W. R. McLaughlin, Waterloo, Iowa. Foldable loader. No. 943,099; Dec. 14; Sp. p. 2319; Gaz. vol. 149; p. 394.
Railway Supplies Limited. (See Sullivan, E. A., assignor.)
Rains, E. I., New York, N. Y. Electrical steam-generator. No. 944,050; Dec. 21; Sp. p. 4338; Gaz. vol. 149; p. 748.
Rall, C. P., Williamsport, Pa. Sign-holding apparatus. No. 944,150; Dec. 21; Sp. p. 4553; Gaz. vol. 149; p. 781.
Ramsden, R. W., Philadelphia, Pa. Attachment for vessels for facilitating the location and raising of vessels when sunk. No. 944,277; Dec. 28; Sp. p. 4812; Gaz. vol. 149; p. 849.
Ramthun, E., Kewaskum, and C. J. Gutekunst, Campbellsport, Wis. Washing-machine. No. 942,664; Dec. 7; Sp. p. 1314; Gaz. vol. 149; p. 216.
Rangnow, O., Philadelphia, Pa. Wardrobe-trunk. No. 944,695; Dec. 28; Sp. p. 5742; Gaz. vol. 149; p. 994.
Ranje, H. H., Indianapolis, Ind. Railway-tie. No. 942,745; Dec. 7; Sp. p. 1475; Gaz. vol. 149; p. 242.
Rankin, W. H., and C. P. Dederick, Elizabeth, N. J., assignors to said W. H. Rankin. Beater-roll for paper-making machines. No. 942,746; Dec. 7; Sp. p. 1477; Gaz. vol. 149; p. 242.
Rankin, W. K., assignor to J. E. Reyburn, Philadelphia, Pa. Engineer's valve for train-brakes. No. 942,280; Dec. 7; Sp. p. 546; Gaz. vol. 149; p. 85.
Ransom, W. E., North Yakima, Wash. Rail-joint. No. 942,411; Dec. 7; Sp. p. 791; Gaz. vol. 149; p. 128.
Rantsch, A. C. (See Lunan and Rantsch.)
Raschick, C. T., St. Paul, Minn., assignor to National Checking Company. Holder for sales-checks. No. 943,785; Dec. 21; Sp. p. 3774; Gaz. vol. 149; p. 657.
Rasmussen, L. T., assignor to Walker Manufacturing Company, Council Bluffs, Iowa. Furrow-opener. No. 942,281; Dec. 7; Sp. p. 548; Gaz. vol. 149; p. 85.
Rasmussen, L. T., assignor to Walker Manufacturing Company, Council Bluffs, Iowa. Furrow-opener. No. 942,282; Dec. 7; Sp. p. 549; Gaz. vol. 149; p. 86.
Rasmussen, L. T., assignor to Walker Manufacturing Company, Council Bluffs, Iowa. Furrow-opener. No. 942,283; Dec. 7; Sp. p. 551; Gaz. vol. 149; p. 86.
Rathbun, L. V., Rochester, N. Y. Flexible feed-spout. No. 943,891; Dec. 21; Sp. p. 3994; Gaz. vol. 149; p. 693.
Ravenshaw, H. W., Hanwell, England. Magnetic clutch. No. 942,186; Dec. 7; Sp. p. 340; Gaz. vol. 149; p. 52.
Ravenshaw, H. W., Hanwell, England. Magnetic clutch. No. 942,187; Dec. 7; Sp. p. 342; Gaz. vol. 149; p. 52.
Ravenshaw, H. W., Hanwell, England. Magnetic clutch or brake. No. 942,188; Dec. 7; Sp. p. 343; Gaz. vol. 149; p. 52.
Ravenshaw, H. W., Hanwell, England. Magnetic clutch. No. 942,867; Dec. 7; Sp. p. 1741; Gaz. vol. 149; p. 282.
Ray, A. D., Cleveland, Ohio, assignor of one-half to C. J. Callahan and one-half to T. Chester, Sunbury, Pa. Apparatus for filling rubber tires with viscous liquids. No. 944,278; Dec. 28; Sp. p. 4813; Gaz. vol. 149; p. 849.
Ray, F. E., *et al.* (See Fanning, F., assignor.)
Raydure, C. F. (See McCoubrie and Raydure.)
Raymond, M., Waverly, N. Y. Rail-joint. No. 944,908; Dec. 28; Sp. p. 6201; Gaz. vol. 149; p. 1066.
Reach, R., Philadelphia, Pa. Exercising or massage apparatus. No. 942,976; Dec. 14; Sp. p. 2027; Gaz. vol. 149; p. 351.
Read, W. A., and H. J. Miles, London, England. Key for removing lids from sardine-tins and the like. No. 943,459; Dec. 14; Sp. p. 3064; Gaz. vol. 149; p. 515.
Ready Tool Company. (See Barnes, G. A., assignor.)
Recording Register & Fare Box Company. (See Littlejohn, C. F., assignor.)
Reeb, G., Pittsburg, Pa. Pipe-reamer attachment for threaders. No. 944,909; Dec. 28; Sp. p. 6202; Gaz. vol. 149; p. 1067.
Reece, J. H., assignor to Humphrey & Sons, Joliet, Ill. Mechanism for operating wire-blocks. No. 944,345; Dec. 28; Sp. p. 4948; Gaz. vol. 149; p. 872.
Reece, J. H., assignor to Humphrey & Sons, Joliet, Ill. Clutch for wire-blocks. No. 944,346; Dec. 28; Sp. p. 4952; Gaz. vol. 149; p. 873.
Reed, C. A., St. Paul, Minn. Railway-tie. No. 943,268; Dec. 14; Sp. p. 2657; Gaz. vol. 149; p. 450.
Reed, J. H., Lancaster, Wis. Cream-pump and egg-beater. No. 943,892; Dec. 21; Sp. p. 3996; Gaz. vol. 149; p. 693.
Reed, W. J., Janesville, Wis. Boat. No. 944,209; Dec. 21; Sp. p. 4659; Gaz. vol. 149; p. 798.
Reeves & Browne. (See Sneyd, F. C., assignor.)
Reeves, W. D., Atlanta, Ga. Candy-twisting machine. No. 942,284; Dec. 7; Sp. p. 552; Gaz. vol. 149; p. 86.
Reichelt, B., assignor to Beta Fertilizer Company, Newark, N. J. Fertilizer. No. 943,460; Dec. 14; Sp. p. 3066; Gaz. vol. 149; p. 515.
Reid, A. H., Philadelphia, Pa. Apparatus for treating cream, milk, &c. No. 944,634; Dec. 28; Sp. p. 5614; Gaz. vol. 149; p. 974.
Reid, A. H., assignor of one-sixth to N. K. Reid, one-sixth to H. Reid, Sr., and one-sixth to H. S. Reid, Toronto, Ontario, Canada. Brake-shoe. No. 943,995; Dec. 21; Sp. p. 4235; Gaz. vol. 149; p. 729.
Reid, H., Sr., *et al.* (See Reid, A. H., assignor.)
Reid, H. S., *et al.* (See Reid, A. H., assignor.)
Reid, N. K., *et al.* (See Reid, A. H., assignor.)
Reid, W. H., New York, N. Y. Bottle-closure. No. 942,665; Dec. 7; Sp. p. 1316; Gaz. vol. 149; p. 216.
Reiff, E. F., Philadelphia, Pa. Cracker-jar. No. 944,279; Dec. 28; Sp. p. 4815; Gaz. vol. 149; p. 849.
Reiger, C., assignor to A. Boettler and H. F. W. Ruhe, St. Louis, Mo. Vehicle attachment for detaining draft-animals. No. 943,100; Dec. 14; Sp. p. 2320; Gaz. vol. 149; p. 394.
Reilley, F. A., New York, N. Y. Sofa-pillow cover. No. 944,910; Dec. 28; Sp. p. 6203; Gaz. vol. 149; p. 1067.
Reineke, A., Chicago, Ill. Supplemental seat. No. 942,793; Dec. 7; Sp. p. 1565; Gaz. vol. 149; p. 258.
Reinsking, F. C., Jersey City, N. J. Reed air-intake regulator for carbureters. No. 943,996; Dec. 21; Sp. p. 4237; Gaz. vol. 149; p. 730.
Reinoehl, C. W., and B. L. Weaver, Steelton, Pa. Railway-switch. No. 943,269; Dec. 14; Sp. p. 2659; Gaz. vol. 149; p. 450.
Reiter, E. C., Rockville, Conn. Pencil-holder. No. 942,747; Dec. 7; Sp. p. 1478; Gaz. vol. 149; p. 242.
Reith, G. C., and G. F. Flade, Philadelphia, Pa. Coin-selector. No. 944,819; Dec. 28; Sp. p. 6017; Gaz. vol. 149; p. 1036.
Remington Typewriter Company. (See Yew, C. B., assignor.)
Remmers, T. W., St. Louis, Mo. Car-truck. No. 944,520; Dec. 28; Sp. p. 6022; Gaz. vol. 149; p. 1036.
Rempe, F. G., Oakland, Cal. Game-board. No. 942,748; Dec. 7; Sp. p. 1479; Gaz. vol. 149; p. 242.
Rendall, G. F., New York, N. Y. Car-wheel axle and bearing. No. 944,463; Dec. 28; Sp. p. 5223; Gaz. vol. 149; p. 914.
Renehan, A. B., Santa Fe, N. Mex. Bath-cabinet. No. 944,911; Dec. 28; Sp. p. 6204; Gaz. vol. 149; p. 1067.
Reno, J. W., New York, N. Y. Inclined truck-elevator. No. 942,352; Dec. 7; Sp. p. 680; Gaz. vol. 149; p. 109.
Renner, H. N., Star, Nebr. Automatic hay-stacker. No. 943,786; Dec. 21; Sp. p. 3775; Gaz. vol. 149; p. 657.
Repert, G. H. (See Clemens and Repert.)
Reuter, W., Berlin, Nebr. Line-roller. No. 943,787; Dec. 21; Sp. p. 3778; Gaz. vol. 149; p. 658.
Revalliot, C., Nice, France. Pipe-joint. No. 944,503; Dec. 28; Sp. p. 5330; Gaz. vol. 149; p. 929.
Rexach, U. (See Rexach y Torres and Peña y Martinez, assignors.)
Rexach y Torres, F., and F. S. D. Peña y Martinez, assignors of one-third to U. Rexach, Habana, Cuba. Automatic switch for railways. No. 942,600; Dec. 7; Sp. p. 1186; Gaz. vol. 149; p. 193.

Reyburn, J. E. (See Rankin, W. K., assignor.)
Reynolds, A. E., administratrix. (See Reynolds, G. H.)
Reynolds, F. S., Cranston, assignor to Cory & Reynolds Company, Providence, R. I. Safety attachment for scarf-pins. No. 942,517; Dec. 7; Sp. p. 1025; Gaz. vol. 149; p. 166.
Reynolds, G. H., deceased, Mansfield Depot, Conn.; A. E. Reynolds, administratrix, assignor to General Fire Extinguisher Company. Pipe-coupling. No. 943,461; Dec. 14; Sp. p. 3066; Gaz. vol. 149; p. 515.
Reynolds, H. W., New York, N. Y., and J. A. Smith, Arlington, N. J. Nipple-flange. No. 943,123; Dec. 14; Sp. p. 2368; Gaz. vol. 149; p. 402.
Rhoades, A. E., assignor to Draper Company, Hopedale, Mass. Filling-exhaustion-indicating means for looms. No. 943,846; Dec. 21; Sp. p. 3899; Gaz. vol. 149; p. 678.
Rhoades, A. E., assignor to Draper Company, Hopedale, Mass. Take-up mechanism for looms. No. 944,579; Dec. 28; Sp. p. 5503; Gaz. vol. 149; p. 955.
Rhodes, E. F., Sweet Springs, Mo. Flood-gate. No. 944,210; Dec. 21; Sp. p. 4660; Gaz. vol. 149; p. 799.
Rice, C. D., Hartford, Conn., assignor to Underwood Typewriter Company, New York, N. Y. Type-writing machine. No. 944,746; Dec. 28; Sp. p. 5571; Gaz. vol. 149; p. 1011.
Rice, N. M. (See Payne and Rice.)
Rice, W. H., assignor of one-half to J. J. Milleisen, Mechanicsburg, Pa. Corn-shocking horse. No. 943,462; Dec. 14; Sp. p. 3068; Gaz. vol. 149; p. 516.
Rich, E. M., Glidden, Iowa. Harrow-tooth fastener. No. 942,412; Dec. 7; Sp. p. 793; Gaz. vol. 149; p. 129.
Rich, L. L., assignor to Oliver Chilled Plow Works, South Bend, Ind. Molding-machine. No. 944,747; Dec. 28; Sp. p. 5572; Gaz. vol. 149; p. 1012.
Richards, F. H., Hartford, Conn., assignor, by mesne assignments, to American Typographic Corporation. Type-bar and typographic form. No. 942,102; Dec. 7; Sp. p. 149; Gaz. vol. 149; p. 23.
Richards, R. H., Boston, Mass. Apparatus for classifying minerals. No. 943,101; Dec. 14; Sp. p. 2322; Gaz. vol. 149; p. 394.
Richards, W. F., Lancaster, assignor to Gould Coupler Company, New York, N. Y. Railway-car truck. No. 943,707; Dec. 21; Sp. p. 3619; Gaz. vol. 149; p. 630.
Richardson, C. F., *et al.* (See Anderson, T. W., assignor.)
Richardson, J., Buffalo, N. Y. Tire-protector. No. 943,463; Dec. 14; Sp. p. 3070; Gaz. vol. 149; p. 516.
Richardson Manufacturing Company. (See Brown, T., assignor.)
Richardson, S., Hoover, Ind. Road grader and scraper. No. 942,749; Dec. 7; Sp. p. 1482; Gaz. vol. 149; p. 243.
Richendrfer, H. J., Lime Ridge, Pa. Railway-crossing gate. No. 943,566; Dec. 14; Sp. p. 3279; Gaz. vol. 149; p. 553.
Richter, O. F., assignor of one-half to L. M. Stark, Indianapolis, Ind. Automatic car-coupling. No. 942,218; Dec. 7; Sp. p. 408; Gaz. vol. 149; p. 63.
Rickstis, F. E. (See Kellbolts and Ricketts.)
Rickmire, A. P., Waterloo, Iowa. Gas apparatus. No. 942,929; Dec. 14; Sp. p. 1920; Gaz. vol. 149; p. 334.
Rider, W. J., Wimbledon, England. Advertising apparatus. No. 943,893; Dec. 21; Sp. p. 3998; Gaz. vol. 149; p. 693.
Ridgely, C. T., Springfield, Ohio. Graining device. No. 944,821; Dec. 28; Sp. p. 6025; Gaz. vol. 149; p. 1036.
Rigby, T. (See Crossley and Rigby.)
Rigden, F. E., Chicopee, Mass., assignor to A. G. Spalding & Bros., Jersey City, N. J. Golf-club. No. 942,353; Dec. 7; Sp. p. 682; Gaz. vol. 149; p. 110.
Rightmire, F., Paterson, N. J. Device for treating cutaneous diseases. No. 943,894; Dec. 21; Sp. p. 4000; Gaz. vol. 149; p. 694.
Rigney, W. J., assignor to McLoughlin Brothers, Brooklyn, N. Y. Apparatus for games. No. 942,103; Dec. 7; Sp. p. 151; Gaz. vol. 149; p. 24.
Riley, J. B., Austin, Tex. Blind-slat fastener. No. 942,930; Dec. 14; Sp. p. 1923; Gaz. vol. 149; p. 335.
Riley, L. A., 2d. (See Beard, R. S., assignor.)
Riley, P. J., Hallsville, W. Va. Conveyer for mines. No. 942,750; Dec. 7; Sp. p. 1484; Gaz. vol. 149; p. 243.
Riley, T. F., Troy, N. Y. Embalming instrument. No. 943,464; Dec. 14; Sp. p. 3072; Gaz. vol. 149; p. 517.
Ringstad, G. (See Treischman and Ringstad.)
Riordan, T. G., Chicago, Ill. Hinge. No. 943,997; Dec. 21; Sp. p. 4238; Gaz. vol. 149; p. 730.
Ristuccia, A., Pittsburg, Pa. Tie-joint for rails and beams. No. 943,788; Dec. 21; Sp. p. 3779; Gaz. vol. 149; p. 658.
Ritchey, C. E., New London, Iowa. Dental spittoon. No. 942,931; Dec. 14; Sp. p. 1924; Gaz. vol. 149; p. 335.
Rix, J., Limestone, Me. Sack-holder. No. 944,211; Dec. 21; Sp. p. 4661; Gaz. vol. 149; p. 799.
Rix, M. H. (See Hovey and Rix.)
Roake, J. S., New York, N. Y. Filter. No. 943,708; Dec. 21; Sp. p. 3621; Gaz. vol. 149; p. 630.
Robbins, C. L., East Thompson, Conn. Gearing. No. 944,635; Dec. 28; Sp. p. 5616; Gaz. vol. 149; p. 974.
Robbins, V., Meridian, Miss. Combined hose supporter and protector. No. 942,751; Dec. 7; Sp. p. 1485; Gaz. vol. 149; p. 244.
Roberts, F. B., Salem, Oreg. Machine for saving gold. No. 943,789; Dec. 21; Sp. p. 3780; Gaz. vol. 149; p. 658.
Roberts, F. M. (See Rollins, E. C., assignor.)
Roberts, H. L., New York, N. Y. Thread-stitching machine for pamphlets and similar articles. No. 944,051; Dec. 21; Sp. p. 4341; Gaz. vol. 149; p. 748.
Roberts, R. W., Washington, D. C. Flat-iron heater. No. 944,380; Dec. 28; Sp. p. 5030; Gaz. vol. 149; p. 885.
Roberts, W. C. (See Lundvall and Olson, assignors.)
Robertson, C. A., Milledgeville, Ga. Clothes-pounder. No. 942,462; Dec. 7; Sp. p. 914; Gaz. vol. 149; p. 147.
Robertson, J. W., Sadis, Ohio. Whip-lock. No. 942,285; Dec. 7; Sp. p. 554; Gaz. vol. 149; p. 87.
Robillard, R. J., Ottawa, Ontario, Canada. Corner-stay for boxes. No. 944,381; Dec. 28; Sp. p. 5034; Gaz. vol. 149; p. 886.
Robinson, D. F., Los Angeles, Cal. Track-oiling device. No. 944,464; Dec. 28; Sp. p. 5225; Gaz. vol. 149; p. 915.
Robinson, D. P., assignor to Continental Can Company, Baltimore, Md. Cutting disks from sheet-metal plates. No. 942,104; Dec. 7; Sp. p. 152; Gaz. vol. 149; p. 24.
Robinson, D. P., assignor to Continental Can Company, Baltimore, Md. Die-cutting machine. No. 942,146; Dec. 7; Sp. p. 264; Gaz. vol. 149; p. 40.
Robinson, H., Newark, N. J. Vegetable-paring machine. No. 942,932; Dec. 14; Sp. p. 1925; Gaz. vol. 149; p. 336.
Robinson, H. S., Falston, assignor to C. B. Mann, Jr., Baltimore, Md. Aerial tramway. No. 942,518; Dec. 7; Sp. p. 1026; Gaz. vol. 149; p. 166.
Robinson, J., Lawrence, Mass. Thread-guide for looms. No. 943,270; Dec. 14; Sp. p. 2660; Gaz. vol. 149; p. 450.
Roby, F. F., Boston, Mass. Buttonhole-cutter. No. 942,519; Dec. 7; Sp. p. 1030; Gaz. vol. 149; p. 167.
Rochford, M. B. (See Rochford, T. J., assignor.)
Rochford, T. J., assignor to M. B. Rochford, Chicago, Ill. Cleaner for windows. No. 944,245; Dec. 21; Sp. p. 4729; Gaz. vol. 149; p. 810.
Rockey, W. S., and H. Eldridge, New York, N. Y. Protecting molten metals. No. 943,161; Dec. 14; Sp. p. 2439; Gaz. vol. 149; p. 414.
Rockey, W. S., and H. Eldridge, New York, N. Y. Protecting molten metals. No. 943,639; Dec. 14; Sp. p. 3483; Gaz. vol. 149; p. 579.
Rockwell, A. F., assignor to New Departure Manufacturing Company, Bristol, Conn. Vehicle. No. 942,219; Dec. 7; Sp. p. 410; Gaz. vol. 149; p. 63.
Rockwell, A. F., assignor to New Departure Manufacturing Company, Bristol, Conn. Variable-speed mechanism. No. 942,220; Dec. 7; Sp. p. 413; Gaz. vol. 149; p. 63.
Rockwell, A. F., assignor to New Departure Manufacturing Company, Bristol, Conn. Variable-speed coasting and braking hub. No. 942,530; Dec. 7; Sp. p. 1032; Gaz. vol. 149; p. 167.
Rodman, H., Pittsburg, Pa., assignor, by mesne assignments, to Westinghouse Storage Battery Company. Treating or impregnating Planté negative plates. No. 944,522; Dec. 28; Sp. p. 6027; Gaz. vol. 149; p. 1037.
Rodriguez F., *et al.* (See Waring, J. B., assignor.)
Roesch, A. (See Evans, J. A., assignor.)
Rogers, C. E., New York, N. Y. Window-receptacle. No. 944,212; Dec. 21; Sp. p. 4662; Gaz. vol. 149; p. 799.
Rogers, J. R., Brooklyn, N. Y., assignor to Mergenthaler Linotype Company. Line-casting machine. No. 942,845; Dec. 7; Sp. p. 1661; Gaz. vol. 149; p. 274.
Rogers, L. H., New York, N. Y. Rotary air and gas pump. No. 944,912; Dec. 28; Sp. p. 6206; Gaz. vol. 149; p. 1068.
Rogers, L. H., New York, N. Y. Rotary air or gas pump. No. 944,913; Dec. 28; Sp. p. 6211; Gaz. vol. 149; p. 1068.
Rogers, R. H., Schenectady, N. Y., assignor to General Electric Company. Method of and means for regulating the speed of electric motors. No. 942,463; Dec. 7; Sp. p. 914; Gaz. vol. 149; p. 147.
Roggenburg, I., New York, N. Y. Bow-fastening device. No. 944,465; Dec. 28; Sp. p. 5227; Gaz. vol. 149; p. 915.
Rohrbach, A., Erfurt, Germany, W. Dieckmann, A. Gribling, and L. Grote, London, England. Spray-burner. No. 943,567; Dec. 14; Sp. p. 3281; Gaz. vol. 149; p. 553.
Rohrer, I. W., Jr., Lancaster, Pa. Baling-press. No. 944,823; Dec. 28; Sp. p. 6029; Gaz. vol. 149; p. 1037.
Roller, N. J., St. Louis, Mo. Wearing-apparel. No. 942,933; Dec. 14; Sp. p. 1930; Gaz. vol. 149; p. 336.
Rollins, E. C., assignor of one-half to F. M. Roberts, Call, Tex. Planter and fertiliser-dropper. No. 945,004; Dec. 28; Sp. p. 6301; Gaz. vol. 149; p. 1096.
Rollo, J., *et al.* (See Gurney, A. J., assignor.)
Romstedt, K., Berlin, Germany. Air vessel for water-supply pipes. No. 942,666; Dec. 7; Sp. p. 1319; Gaz. vol. 149; p. 216.
Roop, W. D., Marion, Ind. Gripping device. No. 944,052; Dec. 21; Sp. p. 4345; Gaz. vol. 149; p. 749.

Rose, G. F., *et al.* (See Clifford, T. G., assignor.)
Rose, J. A., Hastings, Nebr. Washer and gasket cutter. No. 945,009; Dec. 28; Sp. p. 6402; Gaz. vol. 149; p. 1098.
Rosenfeld, B., administratrix. (See Rosenfeld, I. A.)
Rosenfeld, I. A., deceased, Washington, D. C.; B. Rosenfeld, administratrix. Non-refillable bottle. No. 943,895; Dec. 21; Sp. p. 4002; Gaz. vol. 149; p. 694.
Rosenheim, I. S. (See Schoenberg, R. A., assignor.)
Rosensteel, W. W., Caldwell, Ohio. Mine-car truck. No. 944,280; Dec. 28; Sp. p. 4917; Gaz. vol. 149; p. 850.
Rosenthal, A., assignor to Rosenthal Manufacturing Company, Milwaukee, Wis. Corn-husking machine. No. 945,005; Dec. 28; Sp. p. 6394; Gaz. vol. 149; p. 1097.
Rosenthal Manufacturing Company. (See Rosenthal, A., assignor.)
Rosholt, K., Eau Claire, Wis. Packing-ring. No. 943,790; Dec. 21; Sp. p. 3783; Gaz. vol. 149; p. 658.
Rosofsky, S., Brooklyn, N. Y. Watch-guard. No. 943,271; Dec. 14; Sp. p. 2662; Gaz. vol. 149; p. 451.
Ross, E. L., Hico, Tex. Cultivator attachment. No. 943,316; Dec. 14; Sp. p. 2758; Gaz. vol. 149; p. 466.
Ross, W. T., Vancouver, British Columbia, Canada. Thawing device for frozen ground. No. 944,382; Dec. 28; Sp. p. 3035; Gaz. vol. 149; p. 886.
Rossman, J. B., St. Paul, Minn. Treating gold. No. 943,317; Dec. 14; Sp. p. 2759; Gaz. vol. 149; p. 466.
Roevold, J. A., Nome, Alaska. Wave-breaker. (Reissue.) No. 13,056; Dec. 14; Sp. p. 3489; Gaz. vol. 149; p. 580.
Roth, C., Munich, Germany, assignor to Melms & Pfenninger, G. m. b. H., Munich-Hirschau, Bavaria. Elastic-fluid turbine. No. 943,465; Dec. 14; Sp. p. 3073; Gaz. vol. 149; p. 517.
Roth, F., New York, N. Y. Envelop moistener and sealer. No. 943,318; Dec. 14; Sp. p. 2762; Gaz. vol. 149; p. 466.
Rothschild, L., Cincinnati, Ohio. Cloth shrinking and pressing machine. No. 944,281; Dec. 28; Sp. p. 4818; Gaz. vol. 149; p. 850.
Rottman, G., *et al.* (See Shank, A. W., assignor.)
Rounds, J. M., Strong, Me. Stop-motion for veneer-lathes. No. 942,105; Dec. 7; Sp. p. 155; Gaz. vol. 149; p. 24.
Rousseau, T. A., Nashville, Tenn. Railway-ticket. No. 944,995; Dec. 28; Sp. p. 6370; Gaz. vol. 149; p. 1094.
Roussillon, P., Argenteuil, France. Flexible and elastic band for pneumatic tires. No. 943,998; Dec. 21; Sp. p. 4241; Gaz. vol. 149; p. 730.
Roux, H., Marseille, France. Rotary engine. No. 942,413; Dec. 7; Sp. p. 794; Gaz. vol. 149; p. 129.
Rowe, W. (See Newman and Rowe.)
Rowell, S. W., Albany, N. Y. Type-writer keyboard. No. 943,466; Dec. 14; Sp. p. 3074; Gaz. vol. 149; p. 517.
Rowland Telegraphic Company. (See Potts, L. M., assignor.)
Rowlands, P. (See Rowlands, W. E. and P.)
Rowlands, W. E. and P., Liverpool, England. Change-speed cone and pulley. No. 944,636; Dec. 28; Sp. p. 5619; Gaz. vol. 149; p. 975.
Rowley, J. F., Chicago, Ill. Artificial foot. No. 942,521; Dec. 7; Sp. p. 1039; Gaz. vol. 149; p. 167.
Rowley, W. H., Detroit, Mich. Treatment of coniferous woods. No. 942,106; Dec. 7; Sp. p. 158; Gaz. vol. 149; p. 25.
Royal Phone and Phonogram Company. (See Runge, W. C., assignor.)
Royle, V. and V. E., Paterson, N. J. Electric tempering-furnace. No. 943,272; Dec. 14; Sp. p. 2664; Gaz. vol. 149; p. 451.
Royle, V. E. (See Royle, V. and V. E.)
Rubber & Celluloid Harness Trimming Co. (See Lott, W. F., assignor.)
Rude, J. L. (See Marx and Rude.)
Rudland, A. S. (See McGregor and Rudland.)
Rudolph Wurlitzer Company. (See De Kleist, E., assignor.)
Rugg, J. F., Ottumwa, Iowa. Funnel. No. 944,914; Dec. 28; Sp. p. 6216; Gaz. vol. 149; p. 1068.
Rugg, W. S. (See Varley, T. W., assignor.)
Ruhe, H. F. W., *et al.* (See Reiger, C., assignor.)
Rumsey, H. S., St. Louis, Mo. Water-closet. No. 942,464; Dec. 7; Sp. p. 916; Gaz. vol. 149; p. 148.
Rung, H. H., assignor of one-half to R. F. Whitmer, Philadelphia, Pa. Tire-pump attachment. No. 944,213; Dec. 21; Sp. p. 4663; Gaz. vol. 149; p. 799.
Runge, W. C., Camden, N. J., assignor to Royal Phone and Phonogram Company, Boston, Mass. Mandrel for phonograph-records. No. 943,568; Dec. 14; Sp. p. 3283; Gaz. vol. 149; p. 553.
Russ, F. A., Greenwich, Conn. Buckle. No. 944,505; Dec. 28; Sp. p. 5332; Gaz. vol. 149; p. 929.
Russ, J. D., assignor of one-sixth to A. J. Lyons and five-twelfths to F. F. McIntosh, Spencer, W. Va. Single-trigger mechanism for double-barrel guns. No. 942,794; Dec. 7; Sp. p. 1566; Gaz. vol. 149; p. 258.
Russell & Erwin Manufacturing Company. (See Peterson, J. A., assignor.)
Russell, F. C., assignor to J. H. Sponseller, Canton, Ohio. Door-check. No. 943,791; Dec. 21; Sp. p. 3783; Gaz. vol. 149; p. 659.
Russell, R. C., Arthur, Ontario, Canada, assignor of one-fourth to G. T. Griffiths, Columbus, Ohio. Grain-door for cars. No. 942,221; Dec. 7; Sp. p. 417; Gaz. vol. 149; p. 64.
Russell, W. T., Wellesley, Mass. Portable lamp-guard. No. 943,792; Dec. 21; Sp. p. 3785; Gaz. vol. 149; p. 659.
Ruth, W. T., assignor to American Road Machine Company, Kennett Square, Pa. Centering-machine. No. 943,467; Dec. 14; Sp. p. 3075; Gaz. vol. 149; p. 518.
Ruwell, W. F. (See Williams, B. A., assignor.)
Ryalls, J. H., Charlottesville, Va. Reversing mechanism for the band-cylinders of spinning-mules. No. 942,752; Dec. 7; Sp. p. 1486; Gaz. vol. 149; p. 244.
Ryan, J. G., Montreal, Quebec, Canada. Head-rest for beds. No. 942,354; Dec. 7; Sp. p. 683; Gaz. vol. 149; p. 110.
Ryan, J. J., Houston, Tex. Gravity-slide ash-pan. No. 944,500; Dec. 28; Sp. p. 5333; Gaz. vol. 149; p. 929.
Ryan, J. R., Sault Ste. Marie, Mich. Filing-cabinet. No. 942,414; Dec. 7; Sp. p. 796; Gaz. vol. 149; p. 129.
Ryan, P. J., Spokane, Wash. Key-fastener. No. 942,753; Dec. 7; Sp. p. 1488; Gaz. vol. 149; p. 244.
Rydquist, A., Rochester, N. Y. Pencil-sharpener. No. 942,107; Dec. 7; Sp. p. 160; Gaz. vol. 149; p. 25.
Rydquist, A., Rochester, N. Y. Shelf-tongs. No. 944,214; Dec. 21; Sp. p. 4664; Gaz. vol. 149; p. 800.
Ryon, E. H., Worcester, Mass., assignor to Crompton & Knowles Loom Works. Weft-replenishing loom. No. 943,896; Dec. 21; Sp. p. 4003; Gaz. vol. 149; p. 695.
S. A. Woods Machine Company. (See Blood, C. W. H., assignor.)
S. R. Dresser Manufacturing Company. (See Smith and Boothe, assignors.)
Sabbag, L. G., Boston, Mass. Drilling-machine. No. 944,915; Dec. 28; Sp. p. 6217; Gaz. vol. 149; p. 1069.
Sachs, J. F. (See Krapf and Sachs.)
Safety-Armorite Conduit Company. (See Miller, C. H., assignor.)
Safety Car Heating & Lighting Company. (See Allbee, E. E., assignor.)
Safety Car Heating and Lighting Company. (See Collin, G. W., assignor.)
Safety Car Heating & Lighting Company. (See Hulse, G. E., assignor.)
Sage, R. V., Westmont, Pa. Car-door mechanism. No. 942,108; Dec. 7; Sp. p. 162; Gaz. vol. 149; p. 25.
Salmons, R. B., *et al.* (See Tassey, J. C., assignor.)
Salsbury, H., London, England. Lamp. No. 942,589; Dec. 7; Sp. p. 1162; Gaz. vol. 149; p. 189.
Sample, W. S. (See Eken, A. J., assignor.)
Samson Iron Works. (See Kroyer, J. M., assignor.)
Sanborn, E. E., Lynn, Mass. Binding-nicking machine. No. 942,934; Dec. 14; Sp. p. 1921; Gaz. vol. 149; p. 336.
Sanborn, J. P., Cleveland, Ohio, assignor to Natura Company. Rectal apparatus. No. 942,590; Dec. 7; Sp. p. 1164; Gaz. vol. 149; p. 189.
Sanborn, W. J., Palisades, Colo. Cultivator. No. 944,215; Dec. 21; Sp. p. 4668; Gaz. vol. 149; p. 800.
Sanchez, F. S., *et al.* (See Waring, J. B., assignor.)
Sandahl, V., New York, N. Y., assignor to L. W. Beeches, New Haven, Conn. Machine for nailing shoes. No. 942,592; Dec. 7; Sp. p. 1165; Gaz. vol. 149; p. 190.
Sanders, E. E. (See Bertsch, C. H., assignor.)
Sangster, A. J. (See Carrigan and Sangster.)
Sansbury, A. H. (See Sansbury, D. G. and A. H.)
Sansbury, D. G. and A. H., Brooklyn, N. Y. Ice-box and refrigerator seal. No. 942,286; Dec. 7; Sp. p. 556; Gaz. vol. 149; p. 87.
Santsche, E., assignor of two-fifths to J. A. Prentice and one-fifth to J. Bagley, Eureka, Cal. Brake mechanism. No. 944,151; Dec. 21; Sp. p. 4554; Gaz. vol. 149; p. 781.
Sargent, A., New York, N. Y. Receptacle. No. 944,580; Dec. 28; Sp. p. 5506; Gaz. vol. 149; p. 956.
Sargent, C. G., Westford, Mass. Fiber-cleaning machine. No. 944,507; Dec. 28; Sp. p. 5334; Gaz. vol. 149; p. 930.
Sargent & Company. (See Sargent, E. R., assignor.)
Sargent, E. R., assignor to Sargent & Company, New Haven, Conn. Casket-handle. No. 943,999; Dec. 21; Sp. p. 4242; Gaz. vol. 149; p. 730.
Sargent, H. R. and F. C. De Reamer, Schenectady, N. Y., assignors to General Electric Company. Double-ended receptacle. No. 944,347; Dec. 28; Sp. p. 4955; Gaz. vol. 149; p. 873.
Saris, J. T. (See Coats and Saris.)
Sartain, W. H., Columbus, Ohio. Apparatus for disposing of noxious gases. No. 942,935; Dec. 14; Sp. p. 1935; Gaz. vol. 149; p. 337.
Sartoion, J. B. (See Gibson, R. A., assignor.)
Satterlee, L. G., Rochester, Mich. Cement-shingle machine. No. 944,508; Dec. 28; Sp. p. 5337; Gaz. vol. 149; p. 930.
Sauer, H. O., New York, N. Y., assignor of one-half to W. A. P. Davis, Philadelphia, Pa. Movable-picture mount. No. 942,465; Dec. 7; Sp. p. 917; Gaz. vol. 149; p. 148.

Sauer, J. A., Brooklyn, N. Y. Discharge-spout for cans. No. 942,522; Dec. 7; Sp. p. 1041; Gaz. vol. 149; p. 168.
Sauerwein, F. E., R. Zacharias, and C. E. Lewis, assignors to Lewis Company, Baltimore, Md. Transparent theater-program holder. No. 942,669; Dec. 7; Sp. p. 1322; Gaz. vol. 149; p. 217.
Sauerwein, F. E., R. Zacharias, and C. E. Lewis, assignors to Lewis Company, Baltimore, Md. Detachable-leaf program-holder. No. 942,670; Dec. 7; Sp. p. 1323; Gaz. vol. 149; p. 218.
Saunders, W. H., New London, Conn. Timing and ignition device. No. 942,936; Dec. 14; Sp. p. 1936; Gaz. vol. 149; p. 337.
Savage, F. W., Granville, N. Y. Excluder for elastic socks. No. 942,671; Dec. 7; Sp. p. 1325; Gaz. vol. 149; p. 218.
Savage, F. W., Granville, N. Y. Excluder for felt and knitted boots and socks. No. 942,672; Dec. 7; Sp. p. 1326; Gaz. vol. 149; p. 218.
Savage, W. E., Baltimore, Md. Machine for making bottle-blanks. No. 944,053; Dec. 21; Sp. p. 4347; Gaz. vol. 149; p. 749.
Sawyer, H., Muskegon, Mich. Hoisting mechanism for cranes. No. 943,956; Dec. 21; Sp. p. 4133; Gaz. vol. 149; p. 716.
Sawyer, H., Muskegon, Mich. Overhead traveling crane. No. 944,054; Dec. 21; Sp. p. 4349; Gaz. vol. 149; p. 749.
Sawyer, W. H. (See Bailey, R. W., assignor.)
Sawyer, W. S., Camden, N. J., assignor to Industrial Development & Manufacturing Co. Irrigating-syringe. No. 942,523; Dec. 7; Sp. p. 1043; Gaz. vol. 149; p. 168.
Saxton, T. G., assignor of fifty-one one-hundredths to C. J. Bronston, Lexington, twelve one-hundredths to J. P. McKeever, and twelve one-hundredths to E. L. McKeever, Fayette county, Ky. Fiber-liberating machine or break. No. 944,509; Dec. 28; Sp. p. 5338; Gaz. vol. 149; p. 930.
Scamardi, B., Williamsport, Pa. Pocket-stove. No. 943,569; Dec. 14; Sp. p. 3284; Gaz. vol. 149; p. 553.
Schaaf, E. (See Martin, Bartholomew, and Schaaf.)
Schade, G. J., Sandusky, Ohio. Metal-reinforced concrete column, post, and the like. No. 943,468; Dec. 14; Sp. p. 3078; Gaz. vol. 149; p. 518.
Schade, G. J., Sandusky, Ohio. Metal reinforcement for metal-reinforced columns, posts, and the like. No. 943,469; Dec. 14; Sp. p. 3081; Gaz. vol. 149; p. 519.
Schaefer, K. (See Treu and Schaefer.)
Schaeffer, J. S., Phoenix, N. Y. Cross-tie. No. 944,637; Dec. 28; Sp. p. 5620; Gaz. vol. 149; p. 975.
Schatz, A. E., *et al.* (See Kleinfeldt, A., assignor.)
Schätz, F., Oberhausen, near Augsburg, Germany, and B. van der Hoek, Apeldoorn, Netherlands. Device for cutting combs. No. 942,795; Dec. 7; Sp. p. 1571; Gaz. vol. 149; p. 258.
Schaurer, F. C., Wellington, Kans. Sash-lock. No. 944,152; Dec. 21; Sp. p. 4555; Gaz. vol. 149; p. 781.
Schedler, A., assignor to Society of Chemical Industry in Basle, Basel, Switzerland. Red disazo dye and making same. No. 943,470; Dec. 14; Sp. p. 3083; Gaz. vol. 149; p. 519.
Schelling, H. F., Weehawken Heights, N. J. Shoe-lace and the like. No. 943,607; Dec. 14; Sp. p. 3355; Gaz. vol. 149; p. 566.
Schenck, H. (See Price and Schenck.)
Schiebendrein, M., St. Louis, Mo. Wheat-scouring machine. No. 944,510; Dec. 28; Sp. p. 5342; Gaz. vol. 149; p. 931.
Schleicher, J. W., St. Louis, Mo., assignor to Mengel Box Company, Louisville, Ky. Machine for dressing and finishing wood, &c. No. 943,046; Dec. 14; Sp. p. 2211; Gaz. vol. 149; p. 376.
Schleicher, J. W., St. Louis, Mo., assignor to Mengel Box Company, Louisville, Ky. Machine for dressing and finishing wood, &c. No. 943,102; Dec. 14; Sp. p. 2327; Gaz. vol. 149; p. 395.
Schleicher, R., assignor to Mengel Box Company, Louisville, Ky. Tool for sealing box-fasteners. No. 942,673; Dec. 7; Sp. p. 1327; Gaz. vol. 149; p. 219.
Schlenker, M. (See Vosseler and Schlenker.)
Schlesinger, L., New York, N. Y. Vegetable-dish. No. 943,162; Dec. 14; Sp. p. 2441; Gaz. vol. 149; p. 415.
Schlick, E. O., Hamburg, Germany, and M. Wurl, assignors to Swan, Hunter & Wigham Richardson Limited, Newcastle-upon-Tyne, England. Apparatus for minimizing the oscillatory movements of ships and other oscillating bodies. No. 944,511; Dec. 28; Sp. p. 5344; Gaz. vol. 149; p. 931.
Schluss, M., Bredeney, Germany. Roller-bearing. No. 943,570; Dec. 14; Sp. p. 3286; Gaz. vol. 149; p. 554.
Schmeckpeper, H. F., West Salem, Wis. Rein-holder. No. 944,216; Dec. 21; Sp. p. 4669; Gaz. vol. 149; p. 800.
Schmid, G., assignor of one-half to G. Schmid, Jr., Dubuque, Iowa. Merry-go-round. No. 942,937; Dec. 14; Sp. p. 1939; Gaz. vol. 149; p. 337.
Schmidt, A., Dresden, Germany, assignor to Chemische Fabrik Helfenberg, A. G., formerly Eugen Dieterich. Agar-agar-cascara product. No. 943,163; Dec. 14; Sp. p. 2442; Gaz. vol. 149; p. 415.
Schmidt, F., New York, N. Y. Device to control the reception of gas in buildings. No. 944,638; Dec. 28; Sp. p. 5623; Gaz. vol. 149; p. 975.
Schmidt, G. P., New York, N. Y. Receptacle. No. 944,606; Dec. 28; Sp. p. 5745; Gaz. vol. 149; p. 994.
Schmidt, W., Jersey City Heights, N. J., assignor to S. Zinn, New York, N. Y. Apparatus for stropping razor-blades. No. 944,282; Dec. 28; Sp. p. 4821; Gaz. vol. 149; p. 851.
Schmunk, C. E., assignor to M. Schmunk, Pittsburg, Pa. Machine for making fuses. No. 942,938; Dec. 14; Sp. p. 1942; Gaz. vol. 149; p. 338.
Schmunk, M. (See Schmunk, C. E., assignor.)
Schneeloch, A., assignor to E. C. Stearns & Co., Syracuse, N. Y. Escapement mechanism of type-writing machines. No. 944,697; Dec. 28; Sp. p. 5746; Gaz. vol. 149; p. 995.
Schneider, A. J., Ironwood, Mich. Self-adjusting steel railway-tie. No. 942,754; Dec. 7; Sp. p. 1488; Gaz. vol. 149; p. 244.
Schneider, G. (See Speker and Schneider.)
Schneider, G., assignor of one-half to L. B. Stevens, Bluffton, Ind. Fence-brace. No. 942,592; Dec. 7; Sp. p. 1167; Gaz. vol. 149; p. 190.
Schneider, H., Hamburg, Germany. Making diphenyl-ortho-oxalic esters. No. 942,674; Dec. 7; Sp. p. 1329; Gaz. vol. 149; p. 219.
Schnuerer, L., Elyria, Ohio. Culvert. No. 942,466; Dec. 7; Sp. p. 918; Gaz. vol. 149; p. 148.
Schoell, R., assignor to Yale & Towne Manufacturing Company, Stamford, Conn. Lock. No. 943,471; Dec. 14; Sp. p. 3084; Gaz. vol. 149; p. 519.
Schoell, R., assignor to Yale & Towne Manufacturing Company, Stamford, Conn. Lock. No. 943,637; Dec. 14; Sp. p. 3477; Gaz. vol. 149; p. 578.
Schoenberg, R. A., assignor to I. S. Rosenheim, New York, N. Y. Electric-light socket. No. 943,273; Dec. 14; Sp. p. 2668; Gaz. vol. 149; p. 452.
Schoenberg, R. A., assignor to I. S. Rosenheim, New York, N. Y. Mechanical movement. No. 943,274; Dec. 14; Sp. p. 2671; Gaz. vol. 149; p. 452.
Schoenmehl, C. B. (See Buckley, J., assignor.)
Schoenmehl, C. B., Waterbury, Conn. Battery-element support. No. 943,275; Dec. 14; Sp. p. 2675; Gaz. vol. 149; p. 452.
Schollmeyer, G., Köthen, Germany. Controlling device for filling vessels. No. 942,755; Dec. 7; Sp. p. 1489; Gaz. vol. 149; p. 244.
Scholz, C. O., assignor of one-half to A. T. Stewart, Pittsburg, Pa. Apparatus for filling metal pipes with sand. No. 942,355; Dec. 7; Sp. p. 684; Gaz. vol. 149; p. 110.
Schönich, H., and J. Langer, Vienna, Austria-Hungary. Ladder. No. 944,000; Dec. 21; Sp. p. 4243; Gaz. vol. 149; p. 730.
Schoop, M. U., Bois-Colombes, France. Welding compound. No. 943,164; Dec. 14; Sp. p. 2443; Gaz. vol. 149; p. 415.
Schossow, F. A., Detroit, Mich. Flushing-tank for closets. No. 943,793; Dec. 21; Sp. p. 3787; Gaz. vol. 149; p. 659.
Schrader, C. T., assignor of one-half to W. E. Kost, Kansas City, Mo. Lamp-globe. No. 944,348; Dec. 28; Sp. p. 4957; Gaz. vol. 149; p. 874.
Schramm, A. F. (See Hulse and Schramm.)
Schreiber, H. M. (See Tiernan and Schreiber.)
Schreiber, H. O., and C. A. Geisz, East Liverpool, Ohio; said Geisz assignor to said Schreiber. Game apparatus. No. 943,472; Dec. 14; Sp. p. 3089; Gaz. vol. 149; p. 520.
Schreiner, A. W. (See Martin and Schreiner.)
Schroeder, W., Dubuque, Iowa. Device for locking corks in bottles. No. 944,512; Dec. 28; Sp. p. 5348; Gaz. vol. 149; p. 932.
Schroen, O., Naples, Italy. Treating tomatoes. No. 942,287; Dec. 7; Sp. p. 558; Gaz. vol. 149; p. 88.
Schrunner, N. W., San Diego, Cal. Combined table and desk. No. 943,794; Dec. 21; Sp. p. 3789; Gaz. vol. 149; p. 660.
Schultz, A., Dayton, Ohio. Pulp-feed regulator. No. 943,165; Dec. 14; Sp. p. 2444; Gaz. vol. 149; p. 415.
Schulz, C. F., Chicago, Ill. Broom-bridle. No. 943,319; Dec. 14; Sp. p. 2764; Gaz. vol. 149; p. 466.
Schulz, W. (See Martens and Schulz.)
Schuman Company. (See Schuman, J. B., assignor.)
Schuman, J. B., assignor to Schuman Company, Indianapolis, Ind. Shock-loader. No. 943,473; Dec. 14; Sp. p. 3091; Gaz. vol. 149; p. 520.
Schuster, C., Bellevue, Pa. Switch-handle. No. 943,124; Dec. 14; Sp. p. 2370; Gaz. vol. 149; p. 402.
Schuyler, F. B., Berkeley, Cal. Bread-toaster. No. 944,283; Dec. 28; Sp. p. 4823; Gaz. vol. 149; p. 851.
Schwagermann, W., Yonkers, N. Y., assignor to Ward Leonard Electric Co. Electric controlling apparatus. No. 943,166; Dec. 14; Sp. p. 2445; Gaz. vol. 149; p. 415.
Schwartz, W., Bredeney, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Fuse-adjusting machine. No. 943,474; Dec. 14; Sp. p. 3093; Gaz. vol. 149; p. 521.
Schwartz, W., Bredeney-on-the-Ruhr, and U. Wilck, assignors to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Fuse-adjusting device. No. 944,466; Dec. 28; Sp. p. 5228; Gaz. vol. 149; p. 915.
Schwarz, N., Posen, Germany. Switch for tramways. No. 942,288; Dec. 7; Sp. p. 560; Gaz. vol. 149; p. 88.
Schwebel, W. C. (See Pohlach, F., assignor.)
Schweitzer, J., Horgen, near Zurich, Switzerland. Yarn-reel for reeling-machines and winding-machines. No. 944,987; Dec. 28; Sp. p. 6389; Gaz. vol. 149; p. 1091.
Schweitzer, H. J., Putney, S. D. Snow-fence. No. 942,147; Dec. 7; Sp. p. 266; Gaz. vol. 149; p. 40.

Schweitzer, H. J., Putney, S. D. Sod and ditch line marker for railway-tracks. No. 943,795; Dec. 21; Sp. p. 3791; Gaz. vol. 149; p. 660.
Scott, B. F. and J. A., Jasper, Minn. Weed-eradicating machine. No. 943,475; Dec. 14; Sp. p. 3096; Gaz. vol. 149; p. 521.
Scott, B. W., assignor to Arthur Coulton Company, Detroit, Mich. Apparatus for forming capsules. No. 943,606; Dec. 14; Sp. p. 3356; Gaz. vol. 149; p. 567.
Scott, J., Hammersmith, England. Mechanical land-drainer. No. 943,571; Dec. 14; Sp. p. 3287; Gaz. vol. 149; p. 554.
Scott, J. A. (See Scott, B. F. and J. A.)
Scott, J. A., Roosevelt, Okla. Aerial elevator. No. 943,572; Dec. 14; Sp. p. 3289; Gaz. vol. 149; p. 554.
Scott-King, T., Penarth, Cardiff, and W. Norris, Blackpool, England. Power-hammer. No. 942,756; Dec. 7; Sp. p. 1491; Gaz. vol. 149; p. 245.
Scott, M. E., Boston, Mass. Roll-up picture. No. 944,153; Dec. 21; Sp. p. 4556; Gaz. vol. 149; p. 782.
Scott, P., Montreal, Quebec, Canada. Roasting-pan. (Reissue.) No. 13,054; Dec. 7; Sp. p. 1792; Gaz. vol. 149; p. 291.
Scott, T. W., Morenci, Ariz. Ore-concentrating table. No. 944,917; Dec. 28; Sp. p. 6219; Gaz. vol. 149; p. 1069.
Scott, W. A., *et al.* (See Dill and Marsh, assignors.)
Scott, W. F., Uniontown, Pa. Spike-puller. No. 942,415; Dec. 7; Sp. p. 798; Gaz. vol. 149; p. 130.
Scott, W. M., Toccoa, Ga. Railway-frog. No. 944,824; Dec. 28; Sp. p. 6031; Gaz. vol. 149; p. 1037.
Scudder, I. C., New York, N. Y. Window-lock. No. 944,825; Dec. 28; Sp. p. 6033; Gaz. vol. 149; p. 1038.
Seaberg, F., Chicago, Ill., assignor to National Dump Car Company. Dump-door-operating mechanism. No. 944,284; Dec. 28; Sp. p. 4825; Gaz. vol. 149; p. 851.
Sebrell, J. E., *et al.* (See Coleman, L. A., assignor.)
Sedell, C. F., Sutherland, Iowa. Ditching-plow. No. 943,897; Dec. 21; Sp. p. 4006; Gaz. vol. 149; p. 695.
Sedgley, A. M. (See Sedgley, H. T. and A. M.)
Sedgley, H. T. and A. M., Dimond, Cal. Centrifugal pulp filter and strainer. No. 943,476; Dec. 14; Sp. p. 3099; Gaz. vol. 149; p. 522.
Sedlacek, W., Ord, Nebr. Breast-strap snap. No. 942,289; Dec. 7; Sp. p. 560; Gaz. vol. 149; p. 88.
Seelhorst, J., Jr., Camden, N. J., assignor of one-half to C. Kull, Philadelphia, Pa. Door or other alarm. No. 942,593; Dec. 7; Sp. p. 1109; Gaz. vol. 149; p. 191.
Sees, C. E., Danville, Pa. Saw-guide. No. 944,217; Dec. 21; Sp. p. 4670; Gaz. vol. 149; p. 800.
Seipp, H. C., Corsopolis, Pa. Joist-hanger. No. 943,847; Dec. 21; Sp. p. 3902; Gaz. vol. 149; p. 678.
Seitz, B. A. (See Ewart, R. B., assignor.)
Selden, F. H., Chicago, Ill. Locking device. No. 944,513; Dec. 28; Sp. p. 5349; Gaz. vol. 149; p. 932.
Sell, S. C., Canton, Ohio, and A. M. Filhour, McCords, Mich. Skirt-marker. No. 944,639; Dec. 28; Sp. p. 5625; Gaz. vol. 149; p. 976.
Selley, E. J., New York, N. Y. Vehicle-wheel. No. 942,939; Dec. 14; Sp. p. 1944; Gaz. vol. 149; p. 338.
Selzer, E. M., Morning Sun, Iowa. Chicken brooder or coop. No. 944 918; Dec. 28; Sp. p. 6221; Gaz. vol. 149; p. 1069.
Séquin, E. (See Müry, H., assignor.)
Setecka, J. (See Setecka, J. and J.)
Setecka, J. and J., Chicago, Ill. Merry-go-round. No. 943,276; Dec. 14; Sp. p. 2676; Gaz. vol. 149; p. 453.
Seward, G. O., and F. von Kügelgen, Holcombs Rock, Va., assignors to Virginia Laboratory Company, New York, N. Y. Production of alloys of alkali-earth metals, &c. No. 944,826; Dec. 28; Sp. p. 6036; Gaz. vol. 149; p. 1038.
Sexauer, F., St. Louis, Mo. Door-bell. No. 943,320; Dec. 14; Sp. p. 2765; Gaz. vol. 149; p. 467.
Seybert, H. F., Perry township, Armstrong county, Pa. Reversing means for shafts. No. 943,477; Dec. 14; Sp. p. 3101; Gaz. vol. 149; p. 522.
Shank, A. W., assignor of one-half to G. Rottman, one-eighth to G. W. Lynn, and one-eighth to W. W. Tackabury, Detroit, Mich. Fender. No. 942,290; Dec. 7; Sp. p. 562; Gaz. vol. 149; p. 89.
Shank, A. W., assignor of one-half to E. R. Kniffen, Detroit, Mich. Washing-machine. No. 944,285; Dec. 28; Sp. p. 4826; Gaz. vol. 149; p. 851.
Shank, E. P., assignor to I. Stephenson Company, Wells, Mich. Woodworking-machine. No. 942,940; Dec. 14; Sp. p. 1946; Gaz. vol. 149; p. 339.
Sherp, J. M., Pittsburg, Pa. Hook for chains. No. 944,970; Dec. 28; Sp. p. 6320; Gaz. vol. 149; p. 1065.
Sharpneck, E. L., Boston, Mass. Starting device for internal-combustion motors. No. 942,467; Dec. 7; Sp. p. 919; Gaz. vol. 149; p. 148.
Shaw, F., Whitefield, near Manchester, England. Machine for pegging velvets and like pile fabrics. No. 943,167; Dec. 14; Sp. p. 2448; Gaz. vol. 149; p. 416.
Shaw, L., Chicago, Ill. Low-limit valve for gas-holders. No. 942,796; Dec. 7; Sp. p. 1572; Gaz. vol. 149; p. 258.
Sheafor, W. O., Winnipeg, Manitoba, Canada. Chemical-closet. No. 944,001; Dec. 21; Sp. p. 4244; Gaz. vol. 149; p. 731.
Sheffield Car Company. (See Hovey and Rix, assignors.)
Sheffield Car Company. (See Hovey and Stebbins, assignors.)
Sheffield Car Company. (See Stebbins, C. B., assignor.)
Sheffield Car Company. (See Whitesell, F. N., assignor.)
Sheldon, C. H., Kewanee, Ill. Egg-opener. No. 944,827; Dec. 28; Sp. p. 6037; Gaz. vol. 149; p. 1038.
Sheldrake, T. S., *et al.* (See Haynes, J., assignor.)
Shelley, J. H., New York, N. Y. Chain-manipulating tool. No. 942,356; Dec. 7; Sp. p. 686; Gaz. vol. 149; p. 111.
Shepard, L. B., assignor to C. Chambers Inskeep Co., Cedar Rapids, Iowa. Sight for firearms. No. 944,916; Dec. 28; Sp. p. 6218; Gaz. vol. 149; p. 1069.
Shepherd, J. E. (See Nolen, J. G., assignor.)
Sheppy, C. L. (See Ferguson and Sheppy.)
Sherburne, C. W., Boston Mass. Valve. No. 944,286; Dec. 28; Sp. p. 4827; Gaz. vol. 149; p. 852.
Sherley & Kidd Company. (See Holland and Kidd, assignors.)
Sherman, F. G., Chicago Ill. Interchangeable rubber heel. No. 944,287; Dec. 28; Sp. p. 4828; Gaz. vol. 149; p. 852.
Shero, I. K., Okemah, Okla. Hair-straightener. No. 943,321; Dec. 14; Sp. p. 2766; Gaz. vol. 149; p. 467.
Sherrerd, J. M. (See Exton and Sherrerd.)
Sherwood, W. H., New York, N. Y. Vibration-absorbing foot. No. 943,709; Dec. 21; Sp. p. 3623; Gaz. vol. 149; p. 631.
Shiek, E. F. (See Muenchinger, P. G., assignor.)
Shiman-Miller Mfg. Co. (See Ball, C. C., assignor.)
Shimer, M. J., Bethlehem, Pa. Pistol. No. 944,107; Dec. 21; Sp. p. 4456; Gaz. vol. 149; p. 767.
Shoals, W. G., assignor to Coslecon Company, Rochester, N. Y. Stove. No. 944,154; Dec. 21; Sp. p. 4558; Gaz. vol. 149; p. 782.
Shogran, L., Kansas City, Kans. Artificial-flower-making device. No. 943,796; Dec. 21; Sp. p. 3793; Gaz. vol. 149; p. 661.
Short, W. C., Los Angeles, Cal. Brick-press. No. 943,797; Dec. 21; Sp. p. 3799; Gaz. vol. 149; p. 661.
Shuffelbarger, C. E. (See Bridgewater, A. M., assignor.)
Shuffiebottom, W., and T. Kenworthy, Ashton-under-Lyne, England. Rope-coupling. No. 943,168; Dec. 14; Sp. p. 2449; Gaz. vol. 149; p. 416.
Shurtleff, W., assignor of one-half to Moline Vacuum-Vapor Heating Company, Moline, Ill. Valve. No. 944,155; Dec. 21; Sp. p. 4560; Gaz. vol. 149; p. 782.
Sickel, G., St. Joseph, Mo. Cotton-picker. No. 944,156; Dec. 21; Sp. p. 4561; Gaz. vol. 149; p. 783.
Siegrist, H., Oberwil, assignor to Weidmann & Co., Zurich, Switzerland. Hand punching-machine. No. 942,291; Dec. 7; Sp. p. 563; Gaz. vol. 149; p. 89.
Siemens Gebrüder & Co. (See Egly, G., assignor.)
Sigurdson, O. V., assignor to Oddur Manufacturing Company, New York, N. Y. Type casting and composing machine. No. 942,846; Dec. 7; Sp. p. 1684; Gaz. vol. 149; p. 274.
Sigurdson, O. V., assignor to Oddur Manufacturing Company, New York, N. Y. Type casting and composing machine. No. 944,106; Dec. 21; Sp. p. 4457; Gaz. vol. 149; p. 767.
Silliman, B. F., Cleveland, Ohio. Steam-generator. No. 943,277; Dec. 14; Sp. p. 2678; Gaz. vol. 149; p. 453.
Silverman, S., and J. E. Trahan, Watertown, N. Y.; said Trahan assignor to said Silverman. Signal for penumatic tires. No. 944,971; Dec. 28; Sp. p. 6321; Gaz. vol. 149; p. 1066.
Simon, J., Vincennes, France. Universal-joint device. No. 943,573; Dec. 14; Sp. p. 3290; Gaz. vol. 149; p. 555.
Simonds, F. A., Grand Rapids, assignor to Simonds Heating and Specialty Company, Fremont, Mich. Vacuum-pump. No. 943,848; Dec. 21; Sp. p. 3904; Gaz. vol. 149; p. 679.
Simonds Heating and Specialty Company. (See Simonds, F. A., assignor.)
Simonsen, J. C., Elkhart, Ind. Carbureter. No. 942,977; Dec. 14; Sp. p. 2029; Gaz. vol. 149; p. 352.
Simonton, C. A., Crestline, Ohio. Hot-air furnace. No. 943,710; Dec. 21; Sp. p. 3625; Gaz. vol. 149; p. 631.
Simonton, C. A., Crestline, Ohio. Hot-air furnace. No. 943,711; Dec. 21; Sp. p. 3626; Gaz. vol. 149; p. 631.
Simplex Bag Company of Long Island City. (See Liddell, W., assignor.)
Simplex Piano Player Co. (See Brown, T. P., assignor.)
Simplex Self Holding Carton Co. (See Goodman, N. J., assignor.)
Simpson, H. W., assignor to M. E. Calkins, Ithaca, N. Y. Lock. No. 943,898; Dec. 21; Sp. p. 4009; Gaz. vol. 149; p. 695.
Simpson, H. W., assignor to M. E. Calkins, Ithaca, N. Y. Lock-casing. No. 943,899; Dec. 21; Sp. p. 4017; Gaz. vol. 149; p. 696.
Simpson, J., McKeesport, assignor to National Tube Company, Pittsburg, Pa. Transfer apparatus for shear-tables. No. 944,972; Dec. 28; Sp. p. 6323; Gaz. vol. 149; p. 1066.

Simpson, W., *et al.* (See Amsbary, W. N., assignor.)
Simpson, W. J., Hope, Idaho. Railway-signal. No. 944,246; Dec. 21; Sp. p. 4730; Gaz. vol. 149; p. 810.
Simpson, W. S., and H. Oviatt, London, England. Metallurgy of iron and steel. No. 943,574; Dec. 14; Sp. p. 3292; Gaz. vol. 149; p. 555.
Sinclair, J. G., East Orange, N. J. Toy. No. 943,575; Dec. 14; Sp. p. 3294; Gaz. vol. 149; p. 555.
Single Service Package Company. (See Jenkins, C. F., assignor.)
Single Service Package Corporation of America. (See Jenkins, C. F., assignor.)
Sipp, G. (See McLane and Sipp.)
Sitton, W. H., Hobart, Okla. Combined support, gage, and marking device. No. 944,919; Dec. 28; Sp. p. 6223; Gaz. vol. 149; p. 1070.
Skaals, J. S., and E. H. Hilliard, Portland, Oreg. Railway-joint. No. 944,157; Dec. 21; Sp. p. 4564; Gaz. vol. 149; p. 783.
Skinner, A. A. and F. B., Greene, N. Y. Combined incubator and brooder. No. 944,383; Dec. 28; Sp. p. 5037; Gaz. vol. 149; p. 886.
Skinner, F. B. (See Skinner, A. A. and F. B.)
Slick, E. E., Pittsburg, Pa. Hoop-beading machine. No. 943,478; Dec. 14; Sp. p. 3102; Gaz. vol. 149; p. 522.
Slinack, V. H., assignor to Pennsylvania Globe Gas Light Company, Philadelphia, Pa. Time mechanism for operating gas and other valves. No. 944,988; Dec. 28; Sp. p. 6360; Gaz. vol. 149; p. 1091.
Sloane, G. H., Boston, Mass., assignor of one-half to H. B. Waters and H. Plimpton. Automatic signaling system for railways. No. 942,468; Dec. 7; Sp. p. 921; Gaz. vol. 149; p. 149.
Smart, E. H., London, England. Edge-retainer for carpets and the like. No. 944,698; Dec. 28; Sp. p. 5748; Gaz. vol. 149; p. 995.
Smith, A. C., Hobart, Okla. Speed-varying mechanism. No. 942,416; Dec. 7; Sp. p. 799; Gaz. vol. 149; p. 130.
Smith, A. D., Mount Vernon, N. Y. Garment-form. No. 943,125; Dec. 14; Sp. p. 2372; Gaz. vol. 149; p. 403.
Smith, A. E., South Bend, Ind. Shifting-rail for vehicle-seats. No. 942,292; Dec. 7; Sp. p. 565; Gaz. vol. 149; p. 89.
Smith, A. L., New York, N. Y. Carton. No. 944,467; Dec. 28; Sp. p. 5232; Gaz. vol. 149; p. 916.
Smith, C. J., assignor to Hardsocg Wonder Drill Co., Ottumwa, Iowa. Pipe-coupling. No. 943,900; Dec. 21; Sp. p. 4031; Gaz. vol. 149; p. 696.
Smith, C. W., Newark, N. J. Skirt-measuring device. No. 943,278; Dec. 14; Sp. p. 2681; Gaz. vol. 149; p. 453.
Smith, D., Kellerman, Ala. Spike-puller. No. 944,920; Dec. 28; Sp. p. 6224; Gaz. vol. 149; p. 1070.
Smith, D. C., and W. F. Gorton, Muncie, Ind. Rim for motor-car wheels. No. 944,514; Dec. 28; Sp. p. 5351; Gaz. vol. 149; p. 932.
Smith, E. A. C. (See Peirce and Smith.)
Smith, E. A. C., Baltimore, Md. Copper-matte converter. No. 942,675; Dec. 7; Sp. p. 1330; Gaz. vol. 149; p. 219.
Smith, E. A. C., Baltimore, Md. Bessemerizing of copper matte. No. 943,280; Dec. 14; Sp. p. 2668; Gaz. vol. 149; p. 454.
Smith, E. C., Chicago, Ill. Paper-holder. No. 943,279; Dec. 14; Sp. p. 2686; Gaz. vol. 149; p. 454.
Smith, F. (See Deer and Smith.)
Smith, F. E., Ames, Iowa. Signaling system. No. 942,676; Dec. 7; Sp. p. 1331; Gaz. vol. 149; p. 219.
Smith, F. E. S., St. Louis, Mo. Solitaire-board. No. 942,667; Dec. 7; Sp. p. 1320; Gaz. vol. 149; p. 217.
Smith, F. L., Chicago, Ill., and T. B. Williams, assignors to Leavitt Machine Company, Orange, Mass. Valve-disk-cutting machine. No. 944,002; Dec. 21; Sp. p. 4246; Gaz. vol. 149; p. 731.
Smith, F. N., and G. F. Boothe, assignors to S. R. Dresser Manufacturing Company, Bradford, Pa. Clamping-ring for pipe-couplings. No. 944,748; Dec. 28; Sp. p. 5874; Gaz. vol. 149; p. 1012.
Smith, H. A., Harrisburg, Pa. Envelop-opener. No. 943,103; Dec. 14; Sp. p. 2329; Gaz. vol. 149; p. 395.
Smith, H. P., and L. E. Hooker, Pawtucket, R. I. Automobile-radiator. No. 942,677; Dec. 7; Sp. p. 1338; Gaz. vol. 149; p. 220.
Smith, H. W., Woolsey, Okla. Wind-motor. No. 943,901; Dec. 21; Sp. p. 4023; Gaz. vol. 149; p. 696.
Smith, I. C., Los Angeles, Cal. Valve-grinder. No. 942,222; Dec. 7; Sp. p. 419; Gaz. vol. 149; p. 64.
Smith, J., Trinidad, Colo. Apparatus for testing mine-gases. No. 944,247; Dec. 21; Sp. p. 4731; Gaz. vol. 149; p. 810.
Smith, J., assignor of one-half to H. Brandle, Philadelphia, Pa. Candy-machine. No. 942,595; Dec. 7; Sp. p. 1172; Gaz. vol. 149; p. 191.
Smith, J. A. (See Reynolds and Smith.)
Smith, J. A., Chicago, Ill. Flash-light apparatus. No. 942,941; Dec. 14; Sp. p. 1950; Gaz. vol. 149; p. 339.
Smith, J. C., Manchester, N. H. Arm-chair and folding bed. No. 942,594; Dec. 7; Sp. p. 1170; Gaz. vol. 149; p. 191.
Smith, J. M., assignor of one-half to W. D. C. Wright, Philadelphia, Pa. Electrical contact device. No. 943,281; Dec. 14; Sp. p. 2692; Gaz. vol. 149; p. 454.
Smith, J. W. (See Martin and Smith.)
Smith, L. R., Latham, Kans. Heat-storing attachment for stoves. No. 944,515; Dec. 28; Sp. p. 5354; Gaz. vol. 149; p. 933.
Smith, M., Crabtree, Oreg. Revolving cabinet. No. 944,158; Dec. 21; Sp. p. 4566; Gaz. vol. 149; p. 784.
Smith, M. W., Troy, Pa. Bolt and nut lock. No. 944,288; Dec. 28; Sp. p. 4830; Gaz. vol. 149; p. 852.
Smith, O. W. (See McPhetridge, W. T., assignor.)
Smith Premier Typewriter Company. (See Barr, J. H., assignor.)
Smith Premier Typewriter Company. (See Briggs, A. J., assignor.)
Smith, R. L., Rich Mountain, W. Va. Railway-spike. No. 942,668; Dec. 7; Sp. p. 1321; Gaz. vol. 149; p. 217.
Smith, R. L., Orange, N. J. Test-indicator. No. 943,282; Dec. 14; Sp. p. 2695; Gaz. vol. 149; p. 455.
Smith, W. D., Denver, Colo., assignor to Automatic Flareback Prevention Company, Pittsburg, Pa. Gun. No. 944,973; Dec. 28; Sp. p. 6325; Gaz. vol. 149; p. 1066.
Smith, W. D., Denver, Colo., assignor to Automatic Flareback Prevention Company, Pittsburg, Pa. Cleaning the explosive-chambers of ordnance after firing. No. 944,974; Dec. 28; Sp. p. 6329; Gaz. vol. 149; p. 1066.
Smithson, F., New York, N. Y. Magazine. No. 943,479; Dec. 14; Sp. p. 3103; Gaz. vol. 149; p. 523.
Sneddon, J. P., Barberton, Ohio, assignor to Babcock & Wilcox Company, New York, N. Y. Water-tube boiler. No. 942,797; Dec. 7; Sp. p. 1573; Gaz. vol. 149; p. 259.
Snell, A. C., Saltash, England, assignor to W. H. Dodge, Montclair, N. J. Flushing apparatus. No. 942,978; Dec. 14; Sp. p. 2030; Gaz. vol. 149; p. 352.
Sneyd, F. C., Irvington, assignor to Reeves & Browne, Newark, N. J. Jointed sheet-metal figure. No. 942,524; Dec. 7; Sp. p. 1044; Gaz. vol. 149; p. 169.
Snyder, A. G., assignor to Wyckoff, Seamans & Benedict, Ilion, N. Y. Type-writing machine. No. 942,109; Dec. 7; Sp. p. 164; Gaz. vol. 149; p. 26.
Snyder, E. H., Canton, Ohio. Corn-planter. No. 943,283; Dec. 14; Sp. p. 2697; Gaz. vol. 149; p. 455.
Snyder, F. T., Oak Park, assignor to Electric Metals Company, Chicago, Ill. Electric furnace. No. 942,110; Dec. 7; Sp. p. 173; Gaz. vol. 149; p. 26.
Snyder, F. T., assignor to International Separator Company, Chicago, Ill. Ore-separator. No. 944,699; Dec. 28; Sp. p. 5749; Gaz. vol. 149; p. 995.
Snyder, H., and J. T. Hume, Newton, Iowa. Mechanical stoker. No. 943,712; Dec. 21; Sp. p. 3627; Gaz. vol. 149; p. 631.
Snyder, J. E., Swissvale, Pa., assignor to Westinghouse Machine Company. Blade-mounting means. No. 943,480; Dec. 14; Sp. p. 3106; Gaz. vol. 149; p. 523.
Sobers, E. F., Bethlehem, Pa. Dough-shaper. No. 944,289; Dec. 28; Sp. p. 4831; Gaz. vol. 149; p. 852.
Società Anonima di Costruzioni Meccaniche Freni a Ricupero Cantono. (See Cantono, E., assignor.)
Société des Applications de l'Acétylène. (See Odam, E., assignor.)
Societe Francaise de la Viscose. (See Defaucamberge, P., assignor.)
Societe Montupet & Co. (See Montupet P., assignor.)
Society of Chemical Industry in Basle. (See Sandelier, A., assignor.)
Sodeau, W. H., assignor to W. G. Armstrong Whitworth & Company, Limited, Newcastle-upon-Tyne, England. Heating of compressed air for use in motors. No. 944,975; Dec. 28; Sp. p. 6333; Gaz. vol. 149; p. 1067.
Soden, M. J. (See Soden, M. R. and M. J.)
Soden, M. R. and M. J., Paterson, N. J. Hat-guard. No. 942,678; Dec. 7; Sp. p. 1339; Gaz. vol. 149; p. 220.
Söderström, A. L., Sundsvall, Sweden. Course-pointer. No. 944,055; Dec. 21; Sp. p. 4352; Gaz. vol. 149; p. 750.
Solge, J., assignor to U. S. Paper Goods Company, Cincinnati, Ohio. Paper bag. No. 943,126; Dec. 14; Sp. p. 2373; Gaz. vol. 149; p. 403.
Sohm, A. L., Los Angeles, Cal. Electric signal system. No. 944,003; Dec. 21; Sp. p. 4248; Gaz. vol. 149; p. 732.
Solstmann, A. G., Philadelphia, Pa. Horn. No. 944,516; Dec. 28; Sp. p. 5356; Gaz. vol. 149; p. 933.
Soles, O., Louisville, Ohio. Flight-extractor. No. 943,322; Dec. 14; Sp. p. 2767; Gaz. vol. 149; p. 467.
Somerville, H. N. (See Olson, C. W., assignor.)
Sommer, P. W., Peoria, Ill. Calculating device. No. 944,218; Dec. 21; Sp. p. 4672; Gaz. vol. 149; p. 801.
Sonander, A., assignor to American Grain Meter Company, Springfield, Ohio. Automatic weighing apparatus. No. 942,942; Dec. 14; Sp. p. 1952; Gaz. vol. 149; p. 340.
Soper, A., Detroit, Mich. Window-kitchen. No. 942,979; Dec. 14; Sp. p. 2032; Gaz. vol. 149; p. 352.
Sorensen, J. P., Salt Lake City, Utah. Flue-cutter. No. 943,323; Dec. 14; Sp. p. 2768; Gaz. vol. 149; p. 467.
Sorlin, J., *et al.* (See Loftus, L. F., assignor.)
Sosbee, A. M. (See Miracle, M. W., assignor.)
Sossans, W. J., Emeryville, Cal. Automatic train-stop. No. 942,189; Dec. 7; Sp. p. 344; Gaz. vol. 149; p. 53.
Southgate, L. W., Worcester, Mass., assignor, by mesne assignments, to Detroit Trust Co., trustee, Detroit, Mich. Printing-machine No. 943,680; Dec. 14; Sp. p. 2683; Gaz. vol. 149; p. 353.
Southworth, D. C., South Bend, Ind. Tool. No. 942,393; Dec. 7; Sp. p. 567; Gaz. vol. 149; p. 90.
Sovereign, G. E., Pottersville, N. J. Grinding-mill. No. 942,357; Dec. 7; Sp. p. 687; Gaz. vol. 149; p. 111.
Sox, D. A., Columbia, S. C. Door stop and holder. No. 942,943; Dec. 14; Sp. p. 1956; Gaz. vol. 149; p. 340.

Spaak, G., Bergvik, Sweden. Wood-barking apparatus. No. 944,290; Dec. 28; Sp. p. 4832; Gaz. vol. 149; p. 853.
Spady, L., assignor of one-half to R. Lutke, Portland, Oreg. Knife-guard for jointers. No. 944,976; Dec. 28; Sp. p. 6336; Gaz. vol. 149; p. 1067.
Spain, W., St. Louis, Mo., assignor to Corn Products Refining Company, New York, N. Y. Can-feeder. No. 944,828; Dec. 28; Sp. p. 6038; Gaz. vol. 149; p. 1039.
Spalding, G., Stockton, Cal. Tilling-machine. No. 942,469; Dec. 7; Sp. p. 926; Gaz. vol. 149; p. 149.
Spangler, H. J., Pittsburg, Pa. Wheelbarrow. No. 944,291; Dec. 28; Sp. p. 4835; Gaz. vol. 149; p. 853.
Spannagel, C., Mannheim, assignor to Zuckerfabrik Frankenthal, Frankenthal, Germany. Apparatus for starting and stopping electric motors. No. 943,047; Dec. 14; Sp. p. 2214; Gaz. vol. 149; p. 376.
Spansail, G. H., Chicago, Ill., assignor to Chicago Laundry Machinery Co. Dampening-machine. No. 944,517; Dec. 28; Sp. p. 5357; Gaz. vol. 149; p. 933.
Sparks, L. J., Idaville, assignor of two-thirds to G. W. Allen, Monon, Ind. Metal railway-tie. No. 943,048; Dec. 14; Sp. p. 2217; Gaz. vol. 149; p. 376.
Speer, N. T., assignor of one-half to M. Frankle, New Madrid, Mo. Cotton-chopper. No. 942,294; Dec. 7; Sp. p. 567; Gaz. vol. 149; p. 90.
Speirs, A., Westbrook, Me. Cooking utensil. No. 942,111; Dec. 7; Sp. p. 177; Gaz. vol. 149; p. 27.
Speker, A., and G. Schneider, Freeport, Ill. Bushing for bung-holes of beer-kegs. No. 944,384; Dec. 28; Sp. p. 5040; Gaz. vol. 149; p. 887.
Spence, E. J. (See Spence, R. M. and E. J.)
Spence, R. M. and E. J., Falconer, N. Y. Combined vegetable and pastry cutter. No. 944,700; Dec. 28; Sp. p. 5753; Gaz. vol. 149; p. 996.
Spencer, C., Kaw, Okla. Screen-door attachment. No. 942,223; Dec. 7; Sp. p. 421; Gaz. vol. 149; p. 64.
Spencer, J. R., Bartow, Fla. Baby-auto. No. 942,679; Dec. 7; Sp. p. 1341; Gaz. vol. 149; p. 220.
Spencer, W. H., Methuen, and A. Hurst, assignors to W. L. Barrell, Lawrence, Mass. Thread-parting mechanism for looms. No. 943,957; Dec. 21; Sp. p. 4135; Gaz. vol. 149; p. 717.
Spiegel, A. S., Chicago, Ill. Picture post-card or display device. No. 944,385; Dec. 28; Sp. p. 5041; Gaz. vol. 149; p. 887.
Spinner, E. (See Strobel, J. J., assignor.)
Sponseller, J. H. (See Russell, F. C., assignor.)
Sprecher, O., Milwaukee, Wis. Gas-pressure regulator. No. 942,112; Dec. 7; Sp. p. 178; Gaz. vol. 149; p. 27.
Spreckels, J. D. (See French and Frederick, assignors.)
Springer, R. W., U. S. Army. Shirt-front. No. 944,292; Dec. 28; Sp. p. 4837; Gaz. vol. 149; p. 854.
Spurrier, J. W., Beaumont, Tex. Oil-burning and steam-generating apparatus. No. 943,481; Dec. 14; Sp. p. 3107; Gaz. vol. 149; p. 523.
St. John, J. O., St. Louis, Mo. Fire-clay building-block. No. 942,850; Dec. 7; Sp. p. 1706; Gaz. vol. 149; p. 276.
Stahl, A. B. (See Gloekler and Stahl.)
Stålhane, O. (See Grönwall, Lindblad, and Stålhane.)
Stanbon, C. P., Lynn, assignor to T. G. Plant, Boston, Mass. Knife-mounting for sole-rounding machines. No. 944,386; Dec. 28; Sp. p. 5043; Gaz. vol. 149; p. 887.
Stancliff Weil Screen Mfg. Co. (See Wergin, W. L., assignor.)
Standard Chain Company. (See Hoff, C. L., assignor.)
Standard Optical Company. (See Clark, B. F., assignor.)
Standard Sanitary Manufacturing Company. (See Cosgrove, J. J., assignor.)
Standard Sewing Machine Company. (See Mack, W. A., assignor.)
Stanford, A. L., Chicago, Ill. Rail-joint. No. 944,349; Dec. 28; Sp. p. 4958; Gaz. vol. 149; p. 874.
Stanley, C. M., Hamilton, Ohio. Safety shutter device for moving-picture apparatus. No. 944,749; Dec. 28; Sp. p. 5876; Gaz. vol. 149; p. 1012.
Stanley, M. (See Havecotte and Stanley.)
Stanley, W. O., Alliance, Ohio. Wrench. No. 944,663; Dec. 28; Sp. p. 5233; Gaz. vol. 149; p. 916.
Stansbury, G. E., and H. H. Hutchison, Catlin, Ill. Shaft-support. No. 943,576; Dec. 14; Sp. p. 3295; Gaz. vol. 149; p. 555.
Stant, I. O., assignor of one-fourth to S. P. Bradway, Dublin, Ind., and one-fourth to Newton Balance Valve Co., Newton, Iowa. Railway-crossing. No. 942,336; Dec. 7; Sp. p. 689; Gaz. vol. 149; p. 111.
Staples, E. S., New Haven, Conn. Basket-ball toy. No. 942,944; Dec. 14; Sp. p. 1959; Gaz. vol. 149; p. 340.
Staples, J. A., Newburgh, N. Y. Spring system for beds, &c. No. 944,518; Dec. 28; Sp. p. 5359; Gaz. vol. 149; p. 934.
Stapleton, W. J. (See Allwardt, H. A., assignor.)
Star Brass Manufacturing Company. (See Fernald, C. E., assignor.)
Star Novelty Mfg. Co. (See Vandiver, L. A., assignor.)
Stark, C. W., Mountain Lake, Minn. Fastening device. No. 942,470; Dec. 7; Sp. p. 928; Gaz. vol. 149; p. 150.
Stark, C. W., Mountain Lake, Minn. Wheel-scraper. No. 942,471; Dec. 7; Sp. p. 930; Gaz. vol. 149; p. 150.
Stark, C. W., Mountain Lake, Minn. Seeder. No. 942,868; Dec. 7; Sp. p. 1742; Gaz. vol. 149; p. 282.
Stark, L. M. (See Richter, O. F., assignor.)
Stark, T. E., Naperville, Ill. Portable writing and drawing desk. No. 942,148; Dec. 7; Sp. p. 269; Gaz. vol. 149; p. 41.
Statler, L. W., Piqua, Ohio. Detachable draft-tongue for quarry-trucks. No. 944,387; Dec. 28; Sp. p. 5045; Gaz. vol. 149; p. 888.
Stauffer, D. C., Canton, Ohio. Scale. No. 942,945; Dec. 14; Sp. p. 1960; Gaz. vol. 149; p. 340.
Stayman, A., Pleasant Hope, Mo. Check-row corn-planter. No. 943,713; Dec. 21; Sp. p. 3639; Gaz. vol. 149; p. 632.
Stebbins, C. B. (See Hovey and Stebbins.)
Stebbins, C. B., assignor to Sheffield Car Company, Three Rivers, Mich. Control for driving mechanisms. No. 944,293; Dec. 28; Sp. p. 4838; Gaz. vol. 149; p. 854.
Stebbins, F. E. (See Wright and Stebbins.)
Stebbins, W. G. (See Leland and Stebbins.)
Steber, B. T., assignor to Steber Machine Company, Utica, N. Y. Stop-motion for knitting-machines. No. 944,921; Dec. 28; Sp. p. 6225; Gaz. vol. 149; p. 1070.
Steber Machine Company. (See Steber, B. T., assignor.)
Stebler, F., Riverside, Cal. Distributing apparatus. No. 943,799; Dec. 21; Sp. p. 3803; Gaz. vol. 149; p. 662.
Stecker, A. J., assignor to Eureka Vibrator Co., Detroit, Mich. Vibrator. No. 942,596; Dec. 7; Sp. p. 1178; Gaz. vol. 149; p. 191.
Stecker, A. J., assignor to Eureka Vibrator Co., Detroit, Mich. Vibrator. No. 943,620; Dec. 14; Sp. p. 3425; Gaz. vol. 149; p. 571.
Steele, E. J., Torrington, Conn., and T. H. C. Hansen, Kenosha, Wis., assignors to Coe Brass Manufacturing Company. Machine for forming tubes. No. 943,902; Dec. 21; Sp. p. 4024; Gaz. vol. 149; p. 697.
Steele, W. M., Brooklyn, N. Y. Seal. No. 944,701; Dec. 28; Sp. p. 5754; Gaz. vol. 149; p. 996.
Steele, W. M., Brooklyn, N. Y. Seal. No. 944,702; Dec. 28; Sp. p. 5755; Gaz. vol. 149; p. 996.
Steffens, A. B., Chicago, Ill. Preventing explosions in subterranean hollows. No. 944,977; Dec. 28; Sp. p. 6337; Gaz. vol. 149; p. 1067.
Steiger, A. W., Bridgeport, Conn., assignor to Wyckoff, Seamans & Benedict, Ilion, N. Y. Type-writing machine. No. 942,113; Dec. 7; Sp. p. 181; Gaz. vol. 149; p. 27.
Steiner, P., Lima, Ohio. Drill-chuck. No. 942,417; Dec. 7; Sp. p. 801; Gaz. vol. 149; p. 130.
Steinmetz, C. P., Schenectady, N. Y., assignor to General Electric Company. Electric lighting. No. 942,472; Dec. 7; Sp. p. 932; Gaz. vol. 149; p. 150.
Stempel, W. M., Urbana, Ill. Sparking device for gas or oil engines. No. 943,324; Dec. 14; Sp. p. 2770; Gaz. vol. 149; p. 468.
Stephens, H. E., Elgin, Ill. Wrench. No. 943,757; Dec. 21; Sp. p. 3720; Gaz. vol. 149; p. 647.
Stephens, J. M., Lawton, Okla. Sight for firearms. No. 942,946; Dec. 14; Sp. p. 1962; Gaz. vol. 149; p. 341.
Stephens, W. C., Cornwall, England. Rock-drill. No. 944,750; Dec. 28; Sp. p. 5878; Gaz. vol. 149; p. 1013.
Sterba, E. J., Chicago, Ill., and J. H. Birch, Crawfordsville, Ind., assignors to Indiana Match Company, Crawfordsville, Ind. Match-splint machine. No. 944,519; Dec. 28; Sp. p. 5362; Gaz. vol. 149; p. 934.
Sterling Co. (See Hubbell, C. H., assignor.)
Stern, R. (See Kleinberger and Stern.)
Stevens, A. E., Sycamore, Kans. Liquid-fuel burner. No. 943,482; Dec. 14; Sp. p. 3109; Gaz. vol. 149; p. 524.
Stevens, G. E., Lynn, Mass., assignor to General Electric Company. Electric heater. No. 942,874; Dec. 7; Sp. p. 1765; Gaz. vol. 149; p. 285.
Stevens, G. E., Lynn, Mass., assignor to General Electric Company. Electrically-heated tool. No. 943,483; Dec. 14; Sp. p. 3110; Gaz. vol. 149; p. 524.
Stevens, L. B. (See Schneider, G., assignor.)
Stevens, L. P., assignor of one-third to T. J. Lawrence, Los Angeles, Cal. Rotary motor. No. 944,581; Dec. 28; Sp. p. 5507; Gaz. vol. 149; p. 956.
Stevenson, J. W., North Bend, Nebr. Binder. No. 944,388; Dec. 28; Sp. p. 5047; Gaz. vol. 149; p. 888.
Stevenson, W., Crestline, Ohio. Game apparatus. No. 942,757; Dec. 7; Sp. p. 1404; Gaz. vol. 149; p. 246.
Stevenson, W. H., Kilbourn, Wis. Sled-brake. No. 944,520; Dec. 28; Sp. p. 5368; Gaz. vol. 149; p. 935.
Stewart, A. T. (See Scholz, C. O., assignor.)
Stewart, E. A. (See Montague and Stewart.)
Stewart, F., and E. W. Neiswanger, Washington, Iowa. Shoveling-board. No. 944,109; Dec. 21; Sp. p. 4469; Gaz. vol. 149; p. 768.
Stewart, H. (See Jones and Stewart.)
Stewart, H. P., Grand Rapids, Mich. Potato-digger. No. 943,325; Dec. 14; Sp. p. 2771; Gaz. vol. 149; p. 468.
Stewart, T. S. (See Stewart, W. R. and T. S.)

Stewart, W. C., Lynn, assignor, by mesne assignments, to T. G. Plant, Boston, Mass. Heel and top-lift holder. No. 944,389; Dec. 28; Sp. p. 5049; Gaz. vol. 149; p. 889.
Stewart, W. C., and W. H. Hooper, Lynn, assignors, by mesne assignments, to T. G. Plant, Boston, Mass. Heel-beading machine. No. 944,294; Dec. 28; Sp. p. 4846; Gaz. vol. 149; p. 855.
Stewart, W. R. and T. S., Saltsburg, assignors of one-third to A. S. Braverman, Avonmore, Pa. Tire. No. 942,418; Dec. 7; Sp. p. 804; Gaz. vol. 149; p. 131.
Stice, F. W. and W. M., Ardon, Iowa. Lifting-jack. No. 943,903; Dec. 21; Sp. p. 4028; Gaz. vol. 149; p. 697.
Stice, W. M. (See Stice, F. W. and W. M.)
Stickle, C., assignor to Open Coil Heater and Purifier Company, Indianapolis, Ind. Steam-trap. No. 944,295; Dec. 28; Sp. p. 4850; Gaz. vol. 149; p. 855.
Stillman, M. M., New York, N. Y. Collar-support. No. 944,521; Dec. 28; Sp. p. 5372; Gaz. vol. 149; p. 935.
Stimmel, F. C., assignor to Casey-Hedges Company, Chattanooga, Tenn. Top for furnaces. No. 944,296; Dec. 28; Sp. p. 4852; Gaz. vol. 149; p. 855.
Stines, F. M., Paulsboro, assignor of one-half to H. H. Lippincott, Riverton, N. J. Valve structure. No. 944,219; Dec. 21; Sp. p. 4675; Gaz. vol. 149; p. 801.
Stockton, B. F. (See Lester, J. S., assignor.)
Stoddard, C. F., Boston, Mass., assignor, by mesne assignments, to American Pneumatic Service Company, Dover, Del. Pneumatic-despatch-tube apparatus. No. 944,469; Dec. 28; Sp. p. 5234; Gaz. vol. 149; p. 916.
Stoever Foundry & Manufacturing Company. (See Treadwell and Astrom, assignors.)
Stoll, J. E. (See Leet and Stoll.)
Stone, C. R. (See Wise, W. D., assignor.)
Stone, M. L., Lewiston, Me., assignor to Draper Company, Hopedale, Mass. Pick-counter for looms. No. 943,049; Dec. 14; Sp. p. 2219; Gaz. vol. 149; p. 377.
Stone, N. B., Outlook, Wash. Turpentine-hack. No. 943,050; Dec. 14; Sp. p. 2221; Gaz. vol. 149; p. 377.
Stone, T. H., Indian Pass, Fla. Turpentine-apron. No. 944,922; Dec. 28; Sp. p. 6231; Gaz. vol. 149; p. 1071.
Stoner, J. G., Smithsburg, Md. Log-handling device. No. 944,829; Dec. 28; Sp. p. 6040; Gaz. vol. 149; p. 1039.
Stoops, J. C. (See Lemon and Stoops.)
Stotts, E. S., Marion, Iowa. Drain-valve. No. 943,577; Dec. 14; Sp. p. 3296; Gaz. vol. 149; p. 556.
Stover, E. C., assignor to Trenton Potteries Company, Trenton, N. J. Article of earthenware. No. 943,484; Dec. 14; Sp. p. 3112; Gaz. vol. 149; p. 524.
Stowe, L., Knoxville, Tenn. Ironing-board. No. 943,485; Dec. 14; Sp. p. 3113; Gaz. vol. 149; p. 525.
Stowell, W. G., assignor to W. G. Stowell Co., Dayton, Ohio. Hydraulic motor. No. 944,220; Dec. 21; Sp. p. 4677; Gaz. vol. 149; p. 802.
Stowell, W. G., assignor to W. G. Stowell Co., Dayton, Ohio. Water-motor. No. 944,221; Dec. 21; Sp. p. 4679; Gaz. vol. 149; p. 802.
Strance, G., R. S. Bull, and W. P. Norris, Sistersville, W. Va. Packing for stuffing-boxes. No. 943,169; Dec. 14; Sp. p. 2451; Gaz. vol. 149; p. 416.
Strauss, E. L. (See Mortimer and Strauss.)
Strayer, R. F. (See Mack, C. F., assignor.)
Streib, J. F., Avalon, assignor to Pressed Steel Car Company, Pittsburg, Pa. Car construction. No. 942,224; Dec. 7; Sp. p. 422; Gaz. vol. 149; p. 65.
Strettles, S., Manchester, England. Machine for use in drawing patterns in molding. No. 942,419; Dec. 7; Sp. p. 805; Gaz. vol. 149; p. 131.
Strobel, J. J., assignor of one-half to E. Spinner, Meridian, Miss. Annunciator for railways. No. 944,390; Dec. 28; Sp. p. 5054; Gaz. vol. 149; p. 889.
Strohkorb, C., Berlin, Germany. Carriage foot-brake. No. 943,104; Dec. 14; Sp. p. 2330; Gaz. vol. 149; p. 395.
Strong, J. B., and J. D. McPherson, Hillburn, N. Y. Tongue-switch. No. 942,296; Dec. 7; Sp. p. 569; Gaz. vol. 149; p. 90.
Stroud, W. (See Barr and Stroud.)
Struer, J. E., Brooklyn, N. Y. Slip-joint for steam-pipes. No. 943,904; Dec. 21; Sp. p. 4029; Gaz. vol. 149; p. 698.
Struss, H. W., New York, N. Y. Wire-package. No. 943,202; Dec. 14; Sp. p. 2515; Gaz. vol. 149; p. 426.
Stuart, S. M., *et al.* (See Montague and Stewart, assignors.)
Stubbs, G. P. (See Thompson, J. W., assignor.)
Sub-Target Gun Company. (See Cummings, H. H., assignor.)
Sullivan, E. A., assignor to Railway Supplies Limited, Toronto, Ontario, Canada. Joint-bar. No. 944,703; Dec. 28; Sp. p. 5756; Gaz. vol. 149; p. 996.
Sullivan, J. W., Edmonton, Alberta, Canada. Wrench. No. 944,923; Dec. 28; Sp. p. 6232; Gaz. vol. 149; p. 1071.
Summers, L. L., Chicago, Ill. Coking-furnace. No. 943,609; Dec. 14; Sp. p. 3358; Gaz. vol. 149; p. 567.
Summers, L. L., Chicago, Ill. Coking-furnace. No. 943,610; Dec. 14; Sp. p. 3364; Gaz. vol. 149; p. 567.
Summerscales, S. H., Winnipeg, Manitoba, Canada. Reinforced concrete construction. No. 944,110; Dec. 21; Sp. p. 4470; Gaz. vol. 149; p. 768.
Sundh, A. (See Pearson and Sundh.)
Sussmann, M., Berlin, Germany. Gastroscope. No. 944,830; Dec. 28; Sp. p. 6042; Gaz. vol. 149; p. 1039.
Sutter, O., Isanti, Minn. Potato-picker. No. 944,111; Dec. 21; Sp. p. 4472; Gaz. vol. 149; p. 768.
Suverkrup, B. F., and W. O. Owens, Urbana, Ill. Continuous rail-frog. No. 942,947; Dec. 14; Sp. p. 1963; Gaz. vol. 149; p. 341.
Swan, Hunter & Wigham Richardson Limited. (See Schlick and Wurl, assignors.)
Sweeney, J. H., Shelbyville, Tenn. Mail-bag deliverer. No. 944,222; Dec. 21; Sp. p. 4682; Gaz. vol. 149; p. 802.
Sweet, W. F., assignor to B. Johnson, Philadelphia, Pa. Advertising device. No. 943,714; Dec. 21; Sp. p. 3641; Gaz. vol. 149; p. 632.
Swenberg, E., and R. Enstrom, Chicago, Ill. Railway-frog. No. 944,350; Dec. 28; Sp. p. 4959; Gaz. vol. 149; p. 874.
Swett, L. R., Boston, Mass. Envelop. No. 942,420; Dec. 7; Sp. p. 807; Gaz. vol. 149; p. 132.
Symington, T. H., Baltimore, Md. Draft-gear. No. 942,948; Dec. 14; Sp. p. 1964; Gaz. vol. 149; p. 341.
Symons, J. V., Johnstown, assignor to Liberty Manufacturing Company, Pittsburg, Pa. Boiler-tube cleaner. No. 942,796; Dec. 7; Sp. p. 1575; Gaz. vol. 149; p. 259.
Szávа, J., assignor of one-half to A. Kiraly, McKeesport, Pa. Washing-machine. No. 942,758; Dec. 7; Sp. p. 1497; Gaz. vol. 149; p. 246.
Tackabury, W. W., *et al.* (See Shank, A. W., assignor.)
Taft, A. H., Troy, N. Y. Shoe-tree. (Reissue.) No. 13,057; Dec. 14; Sp. p. 3490; Gaz. vol. 149; p. 580.
Taft, S. B., *et al.* (See Landry, L. H., assignor.)
Takacs, S., Chicago, Ill. Combined shear, punch, and bending machine. No. 942,680; Dec. 7; Sp. p. 1342; Gaz. vol. 149; p. 221.
Talley, H. (See Bent and Talley.)
Tambach, R., assignor to Knoll and Company, Ludwigshafen-on-the-Rhine, Germany. Digitalis extract. No. 943,578; Dec. 14; Sp. p. 3298; Gaz. vol. 149; p. 556.
Tassey, J. C., Nashville, Tenn., assignor of one-fourth to R. B. Salmons, Bowling Green, Ky., one-fourth to S. A. Holt, and one-fourth to L. E. Holt, Nashville, Tenn. Boiler-tube expander. No. 943,579; Dec. 14; Sp. p. 3299; Gaz. vol. 149; p. 556.
Tatman, J. C., Denver, Colo. Ore-grinding machine. No. 943,486; Dec. 14; Sp. p. 3114; Gaz. vol. 149; p. 525.
Tauriello, D., Newport, R. I. Track-sander. No. 943,487; Dec. 14; Sp. p. 3117; Gaz. vol. 149; p. 525.
Taxon, L. (See Nystrom and Taxon.)
Taylor, C. L., assignor to Morgan Engineering Company, Alliance, Ohio. Electric controller. No. 942,981; Dec. 14; Sp. p. 2087; Gaz. vol. 149; p. 353.
Taylor, E. R., Boston, Mass. Shoe-filler. No. 944,112; Dec. 21; Sp. p. 4475; Gaz. vol. 149; p. 769.
Taylor, F. L., Tyler, Tex. Clothes-clamp for bedsteads. No. 944,056; Dec. 21; Sp. p. 4353; Gaz. vol. 149; p. 750.
Taylor, F. W., and H. Van Duzee, Philadelphia, Pa. Apparatus for moving growing trees and the like. No. 944,522; Dec. 28; Sp. p. 5373; Gaz. vol. 149; p. 935.
Taylor, J. A., Birmingham, Ala. Engine-moving brake-lever. No. 943,715; Dec. 21; Sp. p. 3644; Gaz. vol. 149; p. 633.
Taylor, J. C., New York, N. Y. Tire. No. 942,149; Dec. 7; Sp. p. 270; Gaz. vol. 149; p. 41.
Taylor, N. M., Memphis, Tenn. Stave-jointing machine. No. 942,799; Dec. 7; Sp. p. 1577; Gaz. vol. 149; p. 260.
Taylor, O. R., Cantonment, Fla. Saw-set. No. 944,391; Dec. 28; Sp. p. 5055; Gaz. vol. 149; p. 889.
Taylor, S. J. (See Orford, H., assignor.)
Taylor, T. L., assignor to Pearl Laundry Machinery Company, Atlanta, Ga. Laundry-marking machine. No. 943,203; Dec. 14; Sp. p. 2515; Gaz. vol. 149; p. 427.
Taylor, W., Bermondsey, London, England. Apparatus for the amusement of the public. No. 942,789; Dec. 7; Sp. p. 1499; Gaz. vol. 149; p. 246.
Taylor, W. E., Eastport, Me., assignor to American Can Company, New York, N. Y. Automatic-feed can-body machine. No. 942,190; Dec. 7; Sp. p. 347; Gaz. vol. 149; p. 53.
Taylor, W. H., assignor to Yale & Towne Manufacturing Company, Stamford, Conn. Time movement. No. 944,159; Dec. 21; Sp. p. 4568; Gaz. vol. 149; p. 784.
Tea Tray Company of Newark, N. J. (See Conger, J. H. B., assignor.)
Teasdale, G. W., New York, assignor of one-half to F. H. Plate, Brooklyn, N. Y. Sinker. No. 942,597; Dec. 7; Sp. p. 1180; Gaz. vol 149; p. 192.
Teich, E. L. (See Arens and Teich.)
Temple, F. L., Terre Haute, Ind. Mechanical movement. No. 944,978; Dec. 28; Sp. p. 6341; Gaz. vol. 149; p. 1068.

Templer, H. L., Cleveland, Transvaal. Mine-shaft equipment. No. 944,113; Dec. 21; Sp. p. 4477; Gaz. vol. 149; p. 769.
Tennent, B. E., Knights, Transvaal. Assay-furnace. No. 944,470; Dec. 28; Sp. p. 5236; Gaz. vol. 149; p. 917.
Terramorse, F., San Francisco, Cal. Adjustable ventilator. No. 944,531; Dec. 28; Sp. p. 6045; Gaz. vol. 149; p. 1040.
Terrell, T., London, England. Incandescent mantle. No. 943,488; Dec. 14; Sp. p. 3118; Gaz. vol. 149; p. 526.
Tetreault, W. J., Moosup, Conn. Skirt hanger and stretcher. No. 942,525; Dec. 7; Sp. p. 1045; Gaz. vol. 149; p. 169.
Tevander, O. N., and A. Manierre, Chicago, Ill. Bottle closure and seal. No. 942,421; Dec. 7; Sp. p. 808; Gaz. vol. 149; p. 122.
Thayer, J. F., Providence, R. I., assignor, by mesne assignments, to Heaton-Peninsular Button Fastener Company, Boston, Mass. Button-setting instrument. No. 942,473; Dec. 7; Sp. p. 935; Gaz. vol. 149; p. 151.
Thelling, C. G., Spencer, N. C. Swivel-hook. No. 942,661; Dec. 7; Sp. p. 1344; Gaz. vol. 149; p. 221.
Thelen, L. G., and J. Flood, Chicago, Ill. Clothes-line hook. No. 944,057; Dec. 21; Sp. p. 4354; Gaz. vol. 149; p. 750.
Thibert, N. R., assignor to M. J. Whittall and A. Thomas, Worcester, Mass. Protractor and level. No. 942,114; Dec. 7; Sp. p. 186; Gaz. vol. 149; p. 28.
Thigpen, K. von, assignor of one-third to Proximity Manufacturing Company and one-third to R. F. Thigpen, Greensboro, N. C. Measuring attachment for cloth-folding machines. No. 942,685; Dec. 7; Sp. p. 1349; Gaz. vol. 149; p. 222.
Thigpen, R. F., *et al.* (See Thigpen, K., assignor.)
Thoma, D., assignor to Briegleb, Hansen & Co., Gotha, Germany. Indirectly-acting governor for groups of power-engines. No. 943,849; Dec. 21; Sp. p. 3907; Gaz. vol. 149; p. 680.
Thomas, A., *et al.* (See Thibert, N. R., assignor.)
Thomas, A., and E. Thompson, Minnesota Lake, Minn. Boiler-cleaning device. No. 942,982; Dec. 14; Sp. p. 2042; Gaz. vol. 149; p. 353.
Thomas, E. B., Santa Rosa, Cal. Concentrator. No. 944,924; Dec. 28; Sp. p. 6233; Gaz. vol. 149; p. 1071.
Thomas Manufacturing Company. (See Pelton, C. H., assignor.)
Thomas, P. H., Pittsburg, Pa., assignor to Cooper Hewitt Electric Company, New York, N. Y. Motor-control system. No. 945,006; Dec. 28; Sp. p. 6395; Gaz. vol. 149; p. 1097.
Thomas, P. H., Pittsburg, Pa., assignor to Cooper Hewitt Electric Company. Motor-control system. No. 945,008; Dec. 28; Sp. p. 6399; Gaz. vol. 149; p. 1097.
Thomas, R. T., Utica, N. Y. Stocking-darner. No. 944,704; Dec. 28; Sp. p. 5758; Gaz. vol. 149; p. 997.
Thomas, S. B., Manchester, N. H. Fastener for can-closures. No. 944,297; Dec. 28; Sp. p. 4853; Gaz. vol. 149; p. 856.
Thomason, F. D., Chicago, Ill. Brake-equalizing mechanism. No. 944,058; Dec. 21; Sp. p. 4355; Gaz. vol. 149; p. 751.
Thomason, J. T., *et al.* (See Munk, R. W., assignor.)
Thompson, C. W., assignor of one-half to F. A. Grearson, Barre, Vt. Surfacing-tool. No. 944,523; Dec. 28; Sp. p. 5375; Gaz. vol. 149; p. 936.
Thompson, E. (See Thomas and Thompson.)
Thompson, E. C., Long Branch, N. J. Portable iron-heater. No. 943,422; Dec. 7; Sp. p. 809; Gaz. vol. 149; p. 122.
Thompson, G. F., Minneapolis, Minn. Swingletree. No. 944,114; Dec. 21; Sp. p. 4478; Gaz. vol. 149; p. 769.
Thompson, H. E., Knoxville, Tenn., assignor to William J. Oliver Manufacturing Company. Dump-car. No. 942,598; Dec 7; Sp. p. 1181; Gaz. vol. 149; p. 192.
Thompson, J. W. (See Moore, F. W., assignor.)
Thompson, J. W., assignor of one-fourth to G. P. Stubbs, Monroe, La. Automatic switch. No. 943,758; Dec. 21; Sp. p. 3722; Gaz. vol. 149; p. 648.
Thompson, L. E., Fodvang, Minn. Shell-crimper. No. 943,716; Dec. 21; Sp. p. 3646; Gaz. vol. 149; p. 633.
Thompson, W. A. (See Davis and Thompson.)
Thomson, S. G. (See Thomson, W. P. and S. G.)
Thomson-Thomson Company. (See Thomson, W. P. and S. G., assignors.)
Thomson, W. P. and S. G., assignors to Thomson-Thomson Company, Philadelphia, Pa. Rail-joint. No. 944,298; Dec. 28; Sp. p. 4855; Gaz. vol. 149; p. 856.
Thorn, M. L., Hollywood, and W. M. McGee, Santa Monica, Cal. Well-driller's fishing-tool. No. 944,582; Dec. 28; Sp. p. 5513; Gaz. vol. 149; p. 956.
Thornley, A. J., Pawtucket, R. I. Sheet-metal panel. No. 944,069; Dec. 21; Sp. p. 4359; Gaz. vol. 149; p. 751.
Thurston, J. M., trustee. (See Miller, J. A., assignor.)
Thurstone, L. L., Jamestown, N. Y. Projecting continuous photographic pictures. No. 943,226; Dec. 14; Sp. p. 2773; Gaz. vol. 149; p. 468.
Tice, A. J., assignor to American Case & Register Company, Salem, Ohio. Follower-plate and holder for files. No. 944,223; Dec. 21; Sp. p. 4684; Gaz. vol. 149; p. 803.
Tiemann, H. D., New Haven, Conn. Rapidly drying timber and other moisture-bearing substances. No. 942,150; Dec. 7; Sp. p. 272; Gaz. vol. 149; p. 41.
Tierman, W., and H. M. Schreiber, Rolfe, Iowa. Draft appliance. No. 942,599; Dec. 7; Sp. p. 1184; Gaz. vol. 149; p. 193.
Tietjens, H., Hamburg, assignor to Hannoversche Cakesfabrik H. Bahlsen, Hanover, Germany. Biscuit-coating machine. No. 943,284; Dec. 14; Sp. p. 2699; Gaz. vol. 149; p. 456.
Tilton, S. M. (See Flight and Tilton.)
Timmons, C. W., Wolcott, Ind. Stamp-vending machine. No. 943,285; Dec. 14; Sp. p. 2700; Gaz. vol. 149; p. 456.
Tindal, M. D., Columbia, S. C. Automobile-axle. No. 942,151; Dec. 7; Sp. p. 274; Gaz. vol. 149; p. 42.
Tippery, J. T., Bloomfield, Nebr. Measuring attachment for scissors. No. 944,925; Dec. 28; Sp. p. 6234; Gaz. vol. 149; p. 1071.
Titus, G. L., *et al.* (See Jahansan, G., assignor.)
Toch, M., New York, N. Y. Treating Portland-cement surfaces and product. No. 943,327; Dec. 14; Sp. p. 2782; Gaz. vol. 149; p. 469.
Toledo Electric Welding Company. (See Buchenberg, A. E., assignor.)
Toles, J. K., Los Angeles, Cal. Fiber conveying and reversing apparatus. No. 944,583; Dec. 28; Sp. p. 5515; Gaz. vol. 149; p. 957.
Tomkins, A., Pittsburg, Pa. Furnace. No. 944,299; Dec. 28; Sp. p. 4858; Gaz. vol. 149; p. 856.
Tomlinson, D. W., Jr., Batavia, N. Y., assignor to H. B. Febiger, New Orleans, La. Trigger-movement for self-loading firearms. No. 944,832; Dec. 28; Sp. p. 6046; Gaz. vol. 149; p. 1040.
Toogood, H. J., assignor to R. Dempster & Sons, Limited, Elland, England. Charging of gas-retorts. No. 944,004; Dec. 21; Sp. p. 4256; Gaz. vol. 149; p. 732.
Toogood, H. J., assignor to R. Dempster & Sons, Limited, Elland, England. Lid for gas-retorts. No. 944,005; Dec. 21; Sp. p. 4258; Gaz. vol. 149; p. 732.
Torrey, C. S., Bellevue, Mich. Cow-stall. No. 943,489; Dec. 14; Sp. p. 3120; Gaz. vol. 149; p. 526.
Tosi, A. (See Bellini and Tosi.)
Tottle, M. P., Baltimore, Md. Brush. No. 944,833; Dec. 28; Sp. p. 6048; Gaz. vol. 149; p. 1041.
Towle, A. W., assignor of one-half to P. Wendel and one-half to P. Wendel, trustee, Chicago, Ill. Automobile wind-shield. No. 942,228; Dec. 7; Sp. p. 425; Gaz. vol. 149; p. 55.
Towle, C. R. (See Webster and Towle.)
Townsend, C. E., Billings, Mont. Wrench. No. 943,286; Dec. 14; Sp. p. 2702; Gaz. vol. 149; p. 456.
Trahan, J. E. (See Silverman and Trahan.)
Trammell, J. W., and H. H. Hammack, Sumner, Ga. Planter. No. 942,760; Dec. 7; Sp. p. 1501; Gaz. vol. 149; p. 247.
Traub, L., Kilbourn, Wis. Land-pulverizer. No. 943,490; Dec. 14; Sp. p. 3122; Gaz. vol. 149; p. 527.
Treadwell, M. H., New York, N. Y., and C. P. Astrom, Orange, N. J., assignors to Stoever Foundry & Manufacturing Company, Lebanon, Pa. Threading-die. No. 944,584; Dec. 28; Sp. p. 5518; Gaz. vol. 149; p. 957.
Tree, D. H., Cartersville, Iowa. Corn-husker. No. 943,051; Dec. 14; Sp. p. 2225; Gaz. vol. 149; p. 378.
Treischman, F., and G. Ringstad, Wadena, Minn. Flour-duster. No. 943,204; Dec. 14; Sp. p. 2620; Gaz. vol. 149; p. 427.
Trenton Potteries Company. (See Podmore, W., assignor.)
Trenton Potteries Company. (See Stover, E. C., assignor.)
Treu, J., and K. Schaefer, New York, N. Y. Window-guard. No. 944,834; Dec. 28; Sp. p. 6050; Gaz. vol. 149; p. 1041.
Trice, R. J., Eufaula, Okla. Music-leaf turner. No. 942,949; Dec. 14; Sp. p. 1967; Gaz. vol. 149; p. 342.
Triple Sign Company. (See Heinemann, T. P., assignor.)
Troike, E., assignor of one-fourth to P. Troike, Sandusky, Ohio. Safety appliance for elevators. No. 943,850; Dec. 21; Sp. p. 3909; Gaz. vol. 149; p. 680.
Troike, P. (See Troike, E., assignor.)
Troslener, F., Dusseldorf, Germany. Contrivance for saturating liquids with gas. No. 942,115; Dec. 7; Sp. p. 188; Gaz. vol. 149; p. 28.
True, G. A., assignor of one-half to Northern Engineering Works, Detroit, Mich. Turn-table. No. 943,491; Dec. 14; Sp. p. 3124; Gaz. vol. 149; p. 527.
Truesdale, H. A., Conneaut, Ohio. Seal and spout for cans and other receptacles. No. 942,847; Dec. 7; Sp. p. 1699; Gaz. vol. 149; p. 275.
Truesdale, H. L., Somerville, Mass. Rheostat. No. 944,060; Dec. 21; Sp. p. 4360; Gaz. vol. 149; p. 751.
Trumbull Electric Manufacturing Company. (See Clark, C. A., assignor.)
Trumbull Electric Manufacturing Company. (See Fisher, H. A., assignor.)
Trumbull Electric Manufacturing Company. (See Wheeler, F. T., assignor.)
Trussed Concrete Steel Company. (See Kahn, J., assignor.)
Tschiffely, T. W., Hagerstown, Md. Luggage-carrier. No. 942,526; Dec. 7; Sp. p. 1046; Gaz. vol. 149; p. 169.
Tucker Feeder Company. (See Tucker, J. E., assignor.)
Tucker, J. E., Memphis, Tenn., assignor, by mesne assignments, to Tucker Feeder Company, Augusta, Me. Paper-feed mechanism for printing-presses. No. 942,296; Dec. 7; Sp. p. 571; Gaz. vol. 149; p. 91.

Tucker, J. W., Chicago, Ill. Glass-cutter. No. 942,152; Dec. 7; Sp. p. 276; Gaz. vol. 149; p. 42.
Tucker, T. W., Spokane, Wash. Protecting device for footwear. No. 942,963; Dec. 14; Sp. p. 2044; Gaz. vol. 149; p. 354.
Tufting Machine Supply Company. (See Hulse and Schramm, assignors.)
Tullis, H., Lisbon, Ohio. Safety gas cut-off. No. 942,601; Dec. 7; Sp. p. 1188; Gaz. vol. 149; p. 194.
Tully, C. F., Madera, Cal. Dental plugger. No. 944,115; Dec. 21; Sp. p. 4480; Gaz. vol. 149; p. 770.
Tumlin, A. N., Cave Spring, Ga. Gin-saw cleaner. No. 942,800; Dec. 7; Sp. p. 1579; Gaz. vol. 149; p. 260.
Tunis, H. A., Ringwood, Okla. Coupling. No. 943,052; Dec. 14; Sp. p. 2223; Gaz. vol. 149; p. 378.
Turnbo, L. S., Maud, Tex. Rat-trap. No. 944,926; Dec. 28; Sp. p. 6236; Gaz. vol. 149; p. 1072.
Turner, A. P., Copper Cliff, Ontario, Canada, assignor to International Nickel Company, New York, N. Y. Converter hood and flue. No. 942,801; Dec. 7; Sp. p. 1580; Gaz. vol. 149; p. 260.
Turner, H. H., and H. M. R. Glover, Rochester, N. Y. Means for supporting phonograph-horns. No. 943,492; Dec. 14; Sp. p. 3125; Gaz. vol. 149; p. 527.
Turney, C., Surprise, Nebr. Whip socket and lock. No. 944,979; Dec. 28; Sp. p. 6343; Gaz. vol. 149; p. 1068.
Twohig, J., Hull, Ill. Jar-holder. No. 942,802; Dec. 7; Sp. p. 1190; Gaz. vol. 149; p. 194.
Tyden, E. (See Burton, C. S., assignor.)
U. S. Paper Goods Company. (See Solge, J., assignor.)
Uhlenhuth, R., assignor to Farbwerke vorm. Meister Lucius & Bruning, Höchst-on-the-Main, Germany. Brown anthraquinone dye and making same. No. 943,717; Dec. 21; Sp. p. 3647; Gaz. vol. 149; p. 633.
Undeland, A. L., Omaha, Nebr. Head-rest for barber-chairs. No. 942,603; Dec. 7; Sp. p. 1191; Gaz. vol. 149; p. 194.
Underhill, Z. D., Bedford Station, N. Y. Game apparatus. No. 942,964; Dec. 14; Sp. p. 2044; Gaz. vol. 149; p. 354.
Underpinning Company. (See Breuchaud, J., assignor.)
Underwood, S. S., Montreal, Quebec, Canada. Brake-beam hanger. No. 942,985; Dec. 14; Sp. p. 2047; Gaz. vol. 149; p. 355.
Underwood Typewriter Company. (See Crutchley, H., assignor.)
Underwood Typewriter Company. (See McCormack, H. S., assignor.)
Underwood Typewriter Company. (See Rice, C. D., assignor.)
Ungerer, K. F., and E. Becker, Pforzheim, Germany. Soldering cord chains. No. 944,640; Dec. 28; Sp. p. 5626; Gaz. vol. 149; p. 976.
Union Paper Bag Machine Company. (See Fuller, W. C., assignor.)
Union Typewriter Company. (See Felbel, J., assignor.)
United Drug Company. (See Dionne, C. J., assignor.)
United Shoe Machinery Company. (See Davenport, H. A., assignor.)
United Shoe Machinery Company. (See Eppler, A., assignor.)
United Shoe Machinery Company. (See Holt, T. H. A., assignor.)
United Shoe Machinery Company. (See Leach, A., assignor.)
United Shoe Machinery Company. (See Phillips, B., assignor.)
United Shoe Machinery Company. (See Wade, W. E., assignor.)
United Shoe Machinery Company. (See Warren, F. H., assignor.)
United Shoe Machinery Company. (See Warren, G. E., assignor.)
United Shoe Machinery Company. (See Webster and Towle, assignors.)
United States Construction and Utilization Company. (See Wiselogel, F. G., assignor.)
Universal Caster & Foundry Company. (See Dias, A. B., assignor.)
Universal Tractor Company. (See Espe, A. O., assignor.)
Untiedt, H., Cassel, Germany. Grate. No. 944,524; Dec. 28; Sp. p. 5376; Gaz. vol. 149; p. 936.
Urch, D., Portsmouth, N. H. Marine propeller. No. 942,986; Dec. 14; Sp. p. 2048; Gaz. vol. 149; p. 355.
Ursbruck, J. B. (See Ursbruck, J. H. and J. B.)
Ursbruck, J. H. and J. B., assignors of one-fourth to J. A. Hunter and one-fourth to M. A. Hunter, Philadelphia, Pa. Shoe-sewing machine. No. 944,751; Dec. 28; Sp. p. 5879; Gaz. vol. 149; p. 1013.
Utica Drop Forge & Tool Company. (See Kellemen, H. F., assignor.)
Vacher, F., New York, N. Y. Tire-protector. No. 942,662; Dec. 7; Sp. p. 1345; Gaz. vol. 149; p. 221.
Vaghi, J., Bethel, Conn. Ladder. No. 942,653; Dec. 7; Sp. p. 1346; Gaz. vol. 149; p. 221.
Vall, P. E., Chariton, Iowa. Railway-switch. No. 943,053; Dec. 14; Sp. p. 2220; Gaz. vol. 149; p. 378.
Valiquet, B., Chicago, Ill. Street-cleaning and conveying machine. No. 944,706; Dec. 28; Sp. p. 5759; Gaz. vol. 149; p. 997.
Van Boven, L. B., Watergraafsmeer, near Amsterdam, Netherlands. Indicator-coupling. No. 943,127; Dec. 14; Sp. p. 2374; Gaz. vol. 149; p. 403.
Van Buren, W. M., *et al.* (See Gordon, C. H., assignor.)
Van der Hoek, B. (See Schatz and Van der Hoek.)
Van Dervort, A. O., Troy, N. Y. Radius-grinder. No. 944,300; Dec. 28; Sp. p. 4859; Gaz. vol. 149; p. 857.
Van Dusee, H. (See Taylor and Van Dusee.)
Van Hoevenberg, H., Lake Placid, N. Y. Combination locking mechanism. No. 943,493; Dec. 14; Sp. p. 3128; Gaz. vol. 149; p. 528.
Van Horne, C., Chicago, Ill. Table. No. 943,718; Dec. 21; Sp. p. 3648; Gaz. vol. 149; p. 634.
Van Houten, F. H., assignor to Dutchess Tool Company, Fishkill-on-the-Hudson, N. Y. Dough molding or shaping machine. No. 942,153; Dec. 7; Sp. p. 276; Gaz. vol. 149; p. 42.
Van Houten, F. H., Jr., assignor to Dutchess Tool Company, Fishkill-on-the-Hudson, N. Y. Machine for rounding up lumps of dough in the manufacture of bread. No. 942,154; Dec. 7; Sp. p. 280; Gaz. vol. 149; p. 43.
Van Houten, F. H., and H. M. Bachman, assignors to Dutchess Tool Company, Fishkill-on-the-Hudson, N. Y. Beating and mixing machine. No. 942,116; Dec. 7; Sp. p. 189; Gaz. vol. 149; p. 28.
Van Nest, M. B. Welsh, La. Pump mechanism. No. 942,997; Dec. 7; Sp. p. 573; Gaz. vol. 149; p. 91.
Van Zoelen, R. F. O. G., Helder, Netherlands. Lubricating device. No. 943,959; Dec. 21; Sp. p. 4139; Gaz. vol. 149; p. 717.
Vandermark, A., Newburgh, N. Y. Platform-support. No. 944,835; Dec. 28; Sp. p. 6050; Gaz. vol. 149; p. 1041.
Vandiver, L. A., assignor to Star Novelty Mfg. Co., Inc., Chicago, Ill. Cigar-vending machine. No. 942,527; Dec. 7; Sp. p. 1047; Gaz. vol. 149; p. 169.
Vanmanen, W., Grand Rapids, Mich. Roller-bearing. No. 943,128; Dec. 14; Sp. p. 2375; Gaz. vol. 149; p. 403.
Varley, T. W., assignor of one-half to W. S. Rugg, New York, N. Y. Electrical measuring instrument. No. 944,061; Dec. 21; Sp. p. 4361; Gaz. vol. 149; p. 752.
Vasconcellos, E. R., Chicago, Ill. Safety device for gentlemen's hats. No. 944,062; Dec. 21; Sp. p. 4362; Gaz. vol. 149; p. 752.
Vaughan, D. F., Haddonfield, N. J. Jack. No. 944,705; Dec. 28; Sp. p. 5761; Gaz. vol. 149; p. 997.
Vaughan, F. P., Chicago, Ill. Vehicle-wheel. No. 944,641; Dec. 28; Sp. p. 5627; Gaz. vol. 149; p. 976.
Vaughan, H. L., Chicago, Ill. Bottle-opener. No. 943,759; Dec. 21; Sp. p. 3723; Gaz. vol. 149; p. 648.
Veneer Machinery Company. (See Nystrom and Taxon, assignors.)
Venn, J. and J. A., Cambridge, England. Bowling-machine. No. 943,494; Dec. 14; Sp. p. 3131; Gaz. vol. 149; p. 528.
Venn, J. A. (See Venn, J. and J. A.)
Vereinigte Maschinenfabrik Augsburg Maschinenbaugesellschaft Nürnberg A. G. (See Holzer, H., assignor.)
Vernon, C. D., and J. P. Morningstar, Wheeling, W. Va.; said Morningstar assignor to said Vernon. Nut-locking expansion-bolt. No. 942,226; Dec. 7; Sp. p. 426; Gaz. vol. 149; p. 55.
Vernsten, S. J., Chicago, Ill. Drier. No. 944,707; Dec. 28; Sp. p. 5763; Gaz. vol. 149; p. 998.
Veronneau, L. H., Vlauville, near Montreal, Quebec, Canada. Floor-dressing machine. No. 942,474; Dec. 7; Sp. p. 937; Gaz. vol. 149; p. 151.
Vibber, W. H., assignor of one-half to Gillette-Vibber Co., New London, Conn. Conduit-cap for electric installation. No. 943,287; Dec. 14; Sp. p. 2703; Gaz. vol. 149; p. 457.
Vick, R. M., Alliance, Ohio. Credit-cabinet. No. 942,387; Dec. 7; Sp. p. 738; Gaz. vol. 149; p. 121.
Vick, R. M., Alliance, Ohio. Partition-holder. No. 943,719; Dec. 21; Sp. p. 3651; Gaz. vol. 149; p. 634.
Vick, R. M., Alliance, Ohio. Guide-card. No. 943,720; Dec. 21; Sp. p. 3652; Gaz. vol. 149; p. 634.
Vickers Sons & Maxim. (See Dawson and Buckham, assignors.)
Vickery, G. S. (See Alden and Vickery.)
Viet, J., Ackley, Iowa. Pole-disconnector. No. 944,224; Dec. 21; Sp. p. 4685; Gaz. vol. 149; p. 803.
Vignos, A., *et al.* (See Fillies, H. J., assignor.)
Vining, G. H., Kansas City, Mo. Machine for sawing and trimming type, plates, &c. No. 943,129; Dec. 14; Sp. p. 2376; Gaz. vol. 149; p. 404.
Virginia Laboratory Company. (See Seward and Kügelgen, assignors.)
Vissering, H., Chicago, Ill. Track-sander. No. 943,268; Dec. 14; Sp. p. 2705; Gaz. vol. 149; p. 457.
Vogel, J. C., Philadelphia, Pa. Ground-joint connection. No. 944,752; Dec. 28; Sp. p. 5882; Gaz. vol. 149; p. 1013.
Vogl, L., assignor of one-half to F. Gotfredsen, New York, N. Y. Fire-escape. No. 942,604; Dec. 7; Sp. p. 1193; Gaz. vol. 149; p. 195.
Vollmann, C. W., Montreal, Quebec, Canada. Rotary pump. No. 944,708; Dec. 28; Sp. p. 5768; Gaz. vol. 149; p. 998.
Vollmer, D. F., Monroe, La. Socket reversible ratchet-wrench. No. 943,905; Dec. 21; Sp. p. 4031; Gaz. vol. 149; p. 696.
Volunteer Disc Plow Company. (See Austin, H. S., assignor.)
Vortex Vacuum Company. (See Lacock, J. F., assignor.)
Vose, A. S., assignor to R. L. Vose, Brookline, Mass. Shoe-trimming machine. No. 942,987; Dec. 14; Sp. p. 2049; Gaz. vol. 149; p. 355.

Vose, R. L. (See Vose, A. S., assignor.)
Vosseler, M., and M. Schlenker, Elizabeth, N. J. Shade-bracket. No. 944,642; Dec. 28; Sp. p. 5629; Gaz. vol. 149; p. 977.
Vote-Berger Co. (See Enochs, C. D., assignor.)
Voynow, C. B., Philadelphia, Pa. Pole-sleeve. No. 942,761; Dec. 7; Sp. p. 1503; Gaz. vol. 149; p. 247.
W. G. Stowell Co. (See Stowell, W. G., assignor.)
Wachtermann, E., Alvarado, Cal. Envelop. No. 943,205; Dec. 14; Sp. p. 2522; Gaz. vol. 149; p. 428.
Wadsagaki, Y., Sasebo, Japan. Surface condenser. No. 942,423; Dec. 7; Sp. p. 810; Gaz. vol. 149; p. 133.
Wade, W. E., Rockland, assignor to United Shoe Machinery Company, Boston, Mass. Lasting-machine. No. 944,116; Dec. 21; Sp. p. 4481; Gaz. vol. 149; p. 770.
Wakefield, E., *et al.* (See Westhaver, J., assignor.)
Waldie, F. (See Puckett, W. J., assignor.)
Walker, C., Charleston, S. C. Automatic valve-operating mechanism. No. 944,927; Dec. 28; Sp. p. 6237; Gaz. vol. 149; p. 1072.
Walker, J., Jr. (See Hewitt, J. H., assignor.)
Walker Manufacturing Company. (See Rasmussen, L. T., assignor.)
Walker, R. A., and J. V. Parrish, Skidmore, Mo. Combination sewing-material holder. No. 942,802; Dec. 7; Sp. p. 1581; Gaz. vol. 149; p. 260.
Wall, W. A., Marianna, Ark. Fastener. No. 944,225; Dec. 21; Sp. p. 4687; Gaz. vol. 149; p. 803.
Wallace, G. L., Bridgeport, Conn. Electroplating-tank. No. 943,721; Dec. 21; Sp. p. 3654; Gaz. vol. 149; p. 635.
Wallace, W. E. (See Betz and Wallace.)
Walston, J. T., Asheville, N. C. Churn-motor. No. 943,580; Dec. 14; Sp. p. 3302; Gaz. vol. 149; p. 556.
Walter, F. B., Chicago, Ill. Hair-cutting instrument. No. 942,298; Dec. 7; Sp. p. 575; Gaz. vol. 149; p. 91.
Walter, H. C., Parsons township, Alfalfa county, Okla. Adjustable door-knob. No. 942,605; Dec. 7; Sp. p. 1194; Gaz. vol. 149; p. 195.
Waltham Watch Company. (See Ohlson, O., assignor.)
Walther, H., Frankfort-on-the-Main, Germany. Pulling-over machine. No. 942,155; Dec. 7; Sp. p. 282; Gaz. vol. 149; p. 43.
Walton, A. G. (See Hartwell, L. L., assignor.)
Walz, W., Toronto, Ontario, Canada. Electric controller. No. 944,525; Dec. 28; Sp. p. 5377; Gaz. vol. 149; p. 936.
Wandersleb, E., assignor to Firm of C. Zeiss, Jena, Germany. Teleobjective. No. 943,105; Dec. 14; Sp. p. 2331; Gaz. vol. 149; p. 396.
Wann, E. E., Los Angeles, Cal. Pulverizing-machine. No. 942,424; Dec. 7; Sp. p. 813; Gaz. vol. 149; p. 133.
Wanzer, F. M. (See Eberline and Wanzer.)
Ward, E. S., and J. A. Hamilton, Portland, Oreg. Gage for crosscut-saws. No. 943,760; Dec. 21; Sp. p. 3725; Gaz. vol. 149; p. 648.
Ward Leonard Electric Co. (See Schwagermann, W., assignor.)
Ward, M., Houtzdale, Pa. Ventilating system for mines. No. 942,950; Dec. 14; Sp. p. 1970; Gaz. vol. 149; p. 342.
Warden, T. G., *et al.* (See Gurney, A. J., assignor.)
Wardle, A., Toronto, Ontario, Canada. Rail-chair. No. 943,206; Dec. 14; Sp. p. 2524; Gaz. vol. 149; p. 428.
Ware, E. J. (See Bernin and Ware.)
Ware, J. L., assignor of one-half to A. E. O'Brien, Terry, Miss. Catching and delivering apparatus for mail-pouches. No. 942,762; Dec. 7; Sp. p. 1505; Gaz. vol. 149; p. 247.
Waring, E. C., Huntsville, Mo. Washing-machine. No. 943,581; Dec. 14; Sp. p. 3304; Gaz. vol. 149; p. 557.
Waring, J. B., Jersey City, N. J., assignor of one-fourth to F. S. Sanches, Brooklyn, and one-fourth to F. Rodriguez, Port Chester, N. Y. Speed-indicator. No. 944,709; Dec. 28; Sp. p. 5770; Gaz. vol. 149; p. 998.
Warren, F. H., Swampscott, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Edge-setting machine. No. 943,207; Dec. 14; Sp. p. 2525; Gaz. vol. 149; p. 428.
Warren, G. E., Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Making eyelets. No. 942,988; Dec. 14; Sp. p. 2054; Gaz. vol. 149; p. 356.
Warren, G. E., Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Die for use in the manufacture of eyelets. No. 942,989; Dec. 14; Sp. p. 2057; Gaz. vol. 149; p. 356.
Warren, J. T., Hemphill, Tex. Bolster for log-wagons. No. 943,495; Dec. 14; Sp. p. 3136; Gaz. vol. 149; p. 528.
Warren, P. H., Lowell, Mass. Folding box. No. 944,063; Dec. 21; Sp. p. 4363; Gaz. vol. 149; p. 752.
Warrington, G., Washington, D. C., and L. D. Lovekin, Philadelphia, Pa.; said G. Warrington assignor to J. N. Warrington, Honolulu, Hawaii. Bridge-wall for furnaces. No. 944,753; Dec. 28; Sp. p. 5883; Gaz. vol. 149; p. 1014.
Warrington, J. N. (See Warrington and Lovekin, assignors.)
Warshavsky, A. W. H., New York, N. Y. Flying-machine. No. 944,301; Dec. 28; Sp. p. 4862; Gaz. vol. 149; p. 857.
Wassell, C. R. (See Cecil and Wassell.)
Waterbury Clock Co. (See Lux, P., assignor.)
Waterbury Mfg. Co. (See Perkins, W. H., assignor.)
Waters, H. B., *et al.* (See Sloane, G. H., assignor.)
Watkins, J. B., St. Louis, Mo., assignor of one-half to Essmueller Mill Furnishing Company. Conditioning and tempering corn for degermination and milling. No. 943,722; Dec. 21; Sp. p. 3656; Gaz. vol. 149; p. 635.
Watkins, R. L. (See Head, R., assignor.)
Watson, H. F., Oak Park, Ill. Driving mechanism. No. 944,585; Dec. 28; Sp. p. 1519; Gaz. vol. 149; p. 958.
Watson, H. W. and W. W., Jamestown, N. Y. Guide-strip for sliding screens. No. 943,800; Dec. 21; Sp. p. 3807; Gaz. vol. 149; p. 662.
Watson, J. T., Osage City, Kans. Safety device for railway-frogs. No. 944,754; Dec. 28; Sp. p. 5885; Gaz. vol. 149; p. 1014.
Watson, W. W. (See Watson, H. W. and W. W.)
Watson, W. W., Jamestown, N. Y. Window-sash. No. 943,801; Dec. 21; Sp. p. 3809; Gaz. vol. 149; p. 662.
Waugh, D. S., assignor to Denver Rock Drill and Machinery Co., Denver, Colo. Drill-steel holding and packing means. No. 942,869; Dec. 7; Sp. p. 1744; Gaz. vol. 149; p. 283.
Waycott, A., Cleveland, Ohio. Brake-head. No. 944,526; Dec. 28; Sp. p. 5386; Gaz. vol. 149; p. 937.
Weaver, B. L. (See Reinoehl and Weaver.)
Weaver, E. E. (See Flanigan, R., assignor.)
Webb, G. R. (See Corner, J. J., assignor.)
Webb, J. L., Oakley, Idaho. Door-stop. No. 942,686; Dec. 7; Sp. p. 1353; Gaz. vol. 149; p. 222.
Webb, S. J., Minden, La. Press. No. 944,392; Dec. 28; Sp. p. 5056; Gaz. vol. 149; p. 890.
Webb, W. H., W. G. Brettell, and A. J. Adamson, Liverpool, England. Apparatus for air-moistening. No. 943,638; Dec. 14; Sp. p. 3481; Gaz. vol. 149; p. 578.
Weber, F. M., Carsonville, Mich. Vending-machine. No. 942,117; Dec. 7; Sp. p. 191; Gaz. vol. 149; p. 29.
Weber, P., Orange, assignor to New Jersey Patent Company, West Orange, N. J. Phonograph. No. 942,475; Dec. 7; Sp. p. 939; Gaz. vol. 149; p. 151.
Webster, E. A., and C. R. Towle, Haverhill, Mass., assignors to United Shoe Machinery Company, Paterson, N. J. Cementing attachment for heel-nailing machines. No. 943,723; Dec. 21; Sp. p. 3657; Gaz. vol. 149; p. 635.
Webster, F. D., St. Louis, Mo. Adjustable chart. No. 943,130; Dec. 14; Sp. p. 2378; Gaz. vol. 149; p. 404.
Webster, R. M., *et al.* (See Welling, J. E., assignor.)
Weickert, M., Plauen, Germany. Incandescent mantle for gas-burners. No. 944,928; Dec. 28; Sp. p. 6242; Gaz. vol. 149; p. 1072.
Weidmann & Co. (See Siegrist, H., assignor.)
Weigt, A., New York, N. Y. Puzzle. No. 943,496; Dec. 14; Sp. p. 3137; Gaz. vol. 149; p. 529.
Weiss, G. L., assignor to Cleveland Car Specialty Company, Cleveland, Ohio. Strengthening device for the ends of railway box-cars. No. 943,497; Dec. 14; Sp. p. 3139; Gaz. vol. 149; p. 529.
Weiss, L., Budapest, Austria-Hungary. Briqueting metallic iron. No. 943,724; Dec. 21; Sp. p. 3661; Gaz. vol. 149; p. 636.
Weld, C. G., North Chatham, Mass. Internal-combustion engine. No. 942,227; Dec. 7; Sp. p. 427; Gaz. vol. 149; p. 66.
Welde, R. (See Homolka and Welde.)
Welin, P., Worcester, Mass., assignor, by mesne assignments, to Krell Auto-Grand Piano Co. of America, Connersville, Ind. Paper-winding mechanism for musical instruments. No. 943,802; Dec. 21; Sp. p. 3810; Gaz. vol. 149; p. 662.
Welin, P., New Castle, assignor, by mesne assignments, to Krell Auto Grand-Piano Co. of America, Connersville, Ind. Paper-winding mechanism for musical instruments. No. 944,006; Dec. 21; Sp. p. 4260; Gaz. vol. 149; p. 733.
Weller, C. H., Canton, Pa. Elevator-cupboard. No. 943,498; Dec. 14; Sp. p. 3140; Gaz. vol. 149; p. 529.
Welling, J. E., Cynthiana, Ky., assignor to R. M. Webster, Spokane, Wash., and H. C. Norris, Jr., Cynthiana, Ky. Rain-spout filter. No. 943,106; Dec. 14; Sp. p. 2332; Gaz. vol. 149; p. 396.
Wells, C. B., Scranton, Pa. Tool-holder. No. 943,499; Dec. 14; Sp. p. 3142; Gaz. vol. 149; p. 530.
Wells, W. (See Bunch, C., assignor.)
Weltinsegel, W. (See Imhoff, M., assignor.)
Welty, R. C., Omaha, Nebr. Signaling apparatus for telephone systems. No. 942,763; Dec. 7; Sp. p. 1506; Gaz. vol. 149; p. 248.
Wendel, P., *et al.* (See Towle, A. W., assignor.)
Wendel, P., trustee, *et al.* (See Towle, A. W., assignor.)
Wenner, C. W., *et al.* (See Kleinfeldt, A., assignor.)
Wennstrom, J. L., Suffern, N. Y., assignor to American Gem Mining Syndicate, St. Louis, Mo. Machine for cupping sapphires and other precious stones. No. 942,425; Dec. 7; Sp. p. 816; Gaz. vol. 149; p. 133.
Werdan, H. (See Coe and Werdan.)

Wergin, W. L., assignor to Stancliff Well Screen Mfg. Co., Houston, Tex. Notching means for wire-winding machines. No. 942,118; Dec. 7; Sp. p. 193; Gaz. vol. 149; p. 29.
Wert, D. S., Pittsburg, Pa. Rail-clamp. No. 942,427; Dec. 7; Sp. p. 819; Gaz. vol. 149; p. 134.
Wessels, H. G. F., and C. B. Ingraham, Laurel, Iowa. Overshoe-holder. No. 943,582; Dec. 14; Sp. p. 3306; Gaz. vol. 149; p. 557.
Wessely, Z. von, Prague, Austria-Hungary. Cleansing filter-beds. No. 944,527; Dec. 28; Sp. p. 5388; Gaz. vol. 149; p. 937.
Wessely, Z. von, Prague, Austria-Hungary. Apparatus for cleaning filter-beds. No. 944,528; Dec. 28; Sp. p. 5389; Gaz. vol. 149; p. 937.
West, A. A., Brooklyn, N. Y., assignor to West Electric Hair Curler Company, Philadelphia, Pa. Hair-curler. No. 944,226; Dec. 21; Sp. p. 4683; Gaz. vol. 149; p. 803.
West Electric Hair Curler Company. (See West, A. A., assignor.)
West, J. W., Omaha, Nebr. Fluid-pressure engine. No. 944,064; Dec. 21; Sp. p. 4365; Gaz. vol. 149; p. 752.
West, W. T., Camden, N. J. Golf-ball-marking device. No. 943,851; Dec. 21; Sp. p. 3911; Gaz. vol. 149; p. 680.
Westcott, C. H. (See Jewell and Westcott.)
Western Electric Company. (See Bullard, A. M., assignor.)
Western Electric Company. (See Courseu, W. L., assignor.)
Western Electric Company. (See Dixon, A. F., assignor.)
Western Union Telegraph Company. (See Field, S. D., assignor.)
Westhaver, H., *et al.* (See Westhaver, J., assignor.)
Westhaver, J., assignor, by mesne assignments, of one-third to E. Wakefield and two-thirds to H. Westhaver, Edgewater, Colo. Bedstead. No. 942,426; Dec. 7; Sp. p. 818; Gaz. vol. 149; p. 134.
Westinghouse Air Brake Company. (See Key, J. E., assignor.)
Westinghouse, G. (See Kando, K. von, assignor.)
Westinghouse, H. H. (See Dutton, C. S., assignor.)
Westinghouse Machine Company. (See Hodgkinson, F., assignor.)
Westinghouse Machine Company. (See London, W. J. A., assignor.)
Westinghouse Machine Company. (See Snyder, J. E., assignor.)
Westinghouse Storage Battery Company. (See Flanders, L. H., assignor.)
Westinghouse Storage Battery Company. (See Rodman, H., assignor.)
Weston, E. B., Dayton, Ohio. Knockdown crate. No. 943,500; Dec. 14; Sp. p. 3144; Gaz. vol. 149; p. 530.
Westover, H. J. (See Mailloux and Westover.)
Westra, M., Orange City, Iowa. Traction-coupling. No. 942,764; Dec. 7; Sp. p. 1514; Gaz. vol. 149; p. 248.
Westwood, F., Wheeling, W. Va. Scrap-bundler. No. 944,929; Dec. 28; Sp. p. 6243; Gaz. vol. 149; p. 1072.
Whaley, J. M. (See Wilson, W. A., assignor.)
Wheat, L. A., Battle Creek, Mich. Throw-off mechanism for the inking-rolls of rotary printing-presses. No. 942,119; Dec. 7; Sp. p. 196; Gaz. vol. 149; p. 30.
Wheatley, T., Syracuse, N. Y. Steam and hot-water boiler. No. 943,761; Dec. 21; Sp. p. 3727; Gaz. vol. 149; p. 648.
Wheeler, B. F., Detroit, Mich. Lavatory. No. 944,586; Dec. 28; Sp. p. 5524; Gaz. vol. 149; p. 958.
Wheeler, E., Kingfisher, Okla. Metallic rail tie and chair. No. 943,852; Dec. 21; Sp. p. 3911; Gaz. vol. 149; p. 681.
Wheeler, F. T., assignor to Trumbull Electric Manufacturing Company, Plainville, Conn. Flush plate for flush receptacles. No. 943,988; Dec. 21; Sp. p. 4137; Gaz. vol. 149; p. 717.
Wheeler, W. W., Meriden, Conn. Rotary engine. No. 942,476; Dec. 7; Sp. p. 941; Gaz. vol. 149; p. 152.
Wheeler, W. W., Cloquet, Minn. Painter's scaffold. No. 944,529; Dec. 28; Sp. p. 5389; Gaz. vol. 149; p. 938.
Whitaker, R., assignor to Brunswick Refrigerating Company, New Brunswick, N. J. Expansion-coil for refrigerating and ice-making plants. No. 943,725; Dec. 21; Sp. p. 3662; Gaz. vol. 149; p. 636.
White, B. C., Rochester, assignor, by mesne assignments, to Colona Manufacturing Company, Pittsburg, Pa. Thread-protector. No. 944,643; Dec. 28; Sp. p. 5630; Gaz. vol. 149; p. 977.
White, C. L. (See Foss and White.)
White, E., Boone, Iowa. Fly attachment for screens. No. 942,120; Dec. 7; Sp. p. 197; Gaz. vol. 149; p. 30.
White, E. A., Oconomowoc, Wis. Shocker attachment for grain harvesters and binders. No. 944,160; Dec. 21; Sp. p. 4569; Gaz. vol. 149; p. 784.
White, F. C., assignor to Wilcox & White Company, Meriden, Conn. Pedal-folding apparatus. No. 942,359; Dec. 7; Sp. p. 691; Gaz. vol. 149; p. 112.
White, J. D., London, England. Compound boat. No. 942,687; Dec. 7; Sp. p. 1354; Gaz. vol. 149; p. 222.
White, M. C., Kenilworth, Ill. Strainer. No. 942,121; Dec. 7; Sp. p. 200; Gaz. vol. 149; p. 31.
White, T., Portland, Oreg. Clutch. No. 943,208; Dec. 14; Sp. p. 2528; Gaz. vol. 149; p. 428.
White, T., Portland, Oreg. Shaft or pulley coupling. No. 943,209; Dec. 14; Sp. p. 2530; Gaz. vol. 149; p. 429.
White, W. C., De Smet, S. D. Compensating draft appliance. No. 944,755; Dec. 28; Sp. p. 5887; Gaz. vol. 149; p. 1014.
White, W. G., Washington, D. C., assignor to Linotype and Machinery Limited, London, England. Justifying type-writer. No. 943,502; Dec. 14; Sp. p. 3143; Gaz. vol. 149; p. 531.
White, W. G., Washington, D. C., assignor to Linotype and Machinery Limited, London, England. Mechanical-controller composing-machine. No. 943,611; Dec. 14; Sp. p. 3366; Gaz. vol. 149; p. 568.
White, W. G., Washington, D. C., assignor to Linotype and Machinery Limited, London, England. Type casting and composing machine. No. 943,612; Dec. 14; Sp. p. 3394; Gaz. vol. 149; p. 568.
White, W. J., Oyster Bay, N. Y. Water-motor. No. 943,501; Dec. 14; Sp. p. 3145; Gaz. vol. 149; p. 530.
Whitehead, E. F., assignor to M. Whitehead, Newark, Ohio. Folding trestle. No. 943,328; Dec. 14; Sp. p. 2783; Gaz. vol. 149; p. 469.
Whitehead, M. (See Whitehead, E. F., assignor.)
Whitehouse, J. N., assignor to Dusto-Mfg. Co., New York, N. Y. Vacuum-cleaner. No. 943,583; Dec. 14; Sp. p. 3306; Gaz. vol. 149; p. 557.
Whitesell, F. N., assignor to Sheffield Car Company, Three Rivers, Mich. Valve. No. 942,122; Dec. 7; Sp. p. 202; Gaz. vol. 149; p. 31.
Whitin Machine Works. (See Aldrich, W. O., assignor.)
Whiting, W. J., Handsworth, near Birmingham, England. Automatic pistol and rifle. No. 944,930; Dec. 28; Sp. p. 6246; Gaz. vol. 149; p. 1073.
Whitman, W., Philadelphia, Pa. Automatic warning-signal and stopping device for the safe movement of public conveyances. No. 942,388; Dec. 7; Sp. p. 740; Gaz. vol. 149; p. 121.
Whitmer, R. F. (See Rung, H. H., assignor.)
Whitney, E. B., Oakland, Cal. Smoking-pipe. No. 942,688; Dec. 7; Sp. p. 1355; Gaz. vol. 149; p. 223.
Whitney, F. L., Lincoln, Nebr. Implement for digging, transplanting plants, and pulling weeds. No. 944,393; Dec. 28; Sp. p. 5060; Gaz. vol. 149; p. 890.
Whitney, G. F., East Orange, N. J., assignor, by mesne assignments, to National Water Main Cleaning Company, New York, N. Y. Pipe-cleaning device. No. 944,710; Dec. 28; Sp. p. 5773; Gaz. vol. 149; p. 999.
Whitney, W. D., Holley, N. Y. Gate. No. 942,228; Dec. 7; Sp. p. 431; Gaz. vol. 149; p. 66.
Whitney, W. H. (See Chase, R. A., assignor.)
Whitridge, J. C., and C. B. Goodspeed, assignors to Buckeye Steel Castings Co., Columbus, Ohio. Car-truck. No. 943,853; Dec. 21; Sp. p. 3913; Gaz. vol. 149; p. 681.
Whittaker, J. E., Hollidays Cove, W. Va. Speed-regulator. No. 944,394; Dec. 28; Sp. p. 5062; Gaz. vol. 149; p. 890.
Whittall, M. J., *et al.* (See Thibert, N. R., assignor.)
Whitten, E., Jr., and A. A. Harrell, Grand View, Tex. Automatic measuring-machine. No. 943,854; Dec. 21; Sp. p. 3914; Gaz. vol. 149; p. 681.
Whittington, C. C., Lake Providence, La. Plow. No. 943,584; Dec. 14; Sp. p. 3308; Gaz. vol. 149; p. 558.
Whittredge, C. D., Saugus, assignor to Wm. Filene's Sons Company, Boston, Mass. Exhibiting apparatus. No. 942,123; Dec. 7; Sp. p. 207; Gaz. vol. 149; p. 32.
Wiard, J. B., Lynn, Mass., assignor to General Electric Company. Dynamo-electric machine. No. 943,503; Dec. 14; Sp. p. 3162; Gaz. vol. 149; p. 531.
Wiegand, H. J., assignor to Cutler-Hammer Mfg. Co., Milwaukee, Wis. Grid resistance. No. 942,156; Dec. 7; Sp. p. 283; Gaz. vol. 149; p. 43.
Wigrenhorn, G. J., Los Angeles, Cal. Water-percolator. No. 944,395; Dec. 28; Sp. p. 5065; Gaz. vol. 149; p. 891.
Wiggins, G. D., Saginaw, Mich. Boring-machine. No. 942,389; Dec. 7; Sp. p. 741; Gaz. vol. 149; p. 121.
Wight, B. D., Toronto, Ontario, Canada. Cloth-measuring machine. No. 944,161; Dec. 21; Sp. p. 4574; Gaz. vol. 149; p. 785.
Wiking, H., Gottenborg, and B. J. Bengtsson, Kallered, Sweden. Massage device. No. 942,299; Dec. 7; Sp. p. 576; Gaz. vol. 149; p. 92.
Wilbur, R. M., Leadville, Colo. Animal-trap. No. 942,528; Dec. 7; Sp. p. 1051; Gaz. vol. 149; p. 170.
Wilck, U. (See Schwartz and Wilck.)
Wilcox and White Company. (See White, F. C., assignor.)
Wild, F. W., Jr., Govans, Md., assignor to Burt Machine Company. Can-lacquering machine. No. 942,951; Dec. 14; Sp. p. 1972; Gaz. vol. 149; p. 343.
Wilde, D., Washington, Iowa. Hinge. No. 942,689; Dec. 7; Sp. p. 1356; Gaz. vol. 149; p. 223.
Wilde, J. G., *et al.* (See Poole, J. H., assignor.)
Wilde, O. W., Wichita, Kans. Combined whip, rein, and lap-robe lock for vehicles. No. 944,530; Dec. 28; Sp. p. 5390; Gaz. vol. 149; p. 938.
Wilder, J., assignor to Wilder Metal Coating and Manufacturing Company, Connellsville, Pa. Plated metal and making the same. No. 942,803; Dec. 7; Sp. p. 1582; Gaz. vol. 149; p. 260.

Wilder Metal Coating and Manufacturing Company. (See Wilder, J., assignor.)
Wilderson, C. G., assignor to Crescent Machine Company, Leetonia, Ohio. Pressure device for woodworking-machines. No. 942,804; Dec. 7; Sp. p. 1584; Gaz. vol. 149; p. 261.
Wildt, E. A., Scranton, Pa. Grate-bar. No. 944,162; Dec. 21; Sp. p. 4578; Gaz. vol. 149; p. 785.
Wiley, W. A., West Point, Miss. Cartridge and game belt. No. 942,390; Dec. 7; Sp. p. 742; Gaz. vol. 149; p. 121.
Wilhelm, L., Worcester, assignor to Globe Optical Company, Boston, Mass. Lens-drilling device. No. 943,289; Dec. 14; Sp. p. 2710; Gaz. vol. 149; p. 457.
Wilken, W. W., *et al.* (See Bryant, W. A., assignor.)
Wilkins, T. M., East Randolph, assignor to C. S. Grover, Jamestown, N. Y. Regulating-valve. No. 942,360; Dec. 7; Sp. p. 693; Gaz. vol. 149; p. 112.
Willard, T. A., Cleveland, Ohio. Storage-battery tank. No. 942,990; Dec. 14; Sp. p. 2050; Gaz. vol. 149; p. 356.
Willcox & Gibbs Sewing Machine Company. (See Madison, A. L., assignor.)
Willhahn, M. (See Alexander and Willhahn.)
William A. Zeidler Company. (See Zeidler, W. A., assignor.)
William J. Oliver Manufacturing Company. (See Thompson, H. E., assignor.)
Williams, A. S., Galveston, Tex. Self-serving dining-table. No. 944,931; Dec. 28; Sp. p. 6248; Gaz. vol. 149; p. 1073.
Williams, B. A., assignor of one-half to W. F. Ruwell, Philadelphia, Pa. Cigar-wrapper-cutting machine. No. 944,163; Dec. 21; Sp. p. 4580; Gaz. vol. 149; p. 785.
Williams, C., *et al.* (See Mower, T., assignor.)
Williams, C., Turney, Mo. Plow attachment. No. 943,762; Dec. 21; Sp. p. 3729; Gaz. vol. 149; p. 649.
Williams, E. C., Chicago, Ill. Molding-press. No. 943,504; Dec. 14; Sp. p. 3164; Gaz. vol. 149; p. 532.
Williams Foundry and Machine Company. (See Williams, J. K., assignor.)
Williams, F. L., Tamaroa, Ill. Liquid-strainer. No. 942,428; Dec. 7; Sp. p. 821; Gaz. vol. 149; p. 134.
Williams, J. A., Fort Wayne, Ind. Artificial tooth. No. 944,836; Dec. 28; Sp. p. 6051; Gaz. vol. 149; p. 1042.
Williams, J. F., Sandusky, Ohio. Blowpipe. No. 942,690; Dec. 7; Sp. p. 1357; Gaz. vol. 149; p. 223.
Williams, J. F., Sandusky, Ohio. Ther mostat. No. 942,870; Dec. 7; Sp. p. 1748; Gaz. vol. 149; p. 283.
Williams, J. K., assignor of one-half to Williams Foundry and Machine Company, Akron, Ohio. Apparatus for manufacturing wheel-tires. No. 943,054; Dec. 14; Sp. p. 2232; Gaz. vol. 149; p. 379.
Williams, J. K., assignor of one-half to Williams Foundry and Machine Company, Akron, Ohio. Vulcanizing-mold. No. 943,055; Dec. 14; Sp. p. 2237; Gaz. vol. 149; p. 379.
Williams, J. M., Guthrie, Okla., assignor to Electric Catalytic Air Company. Treating flour. (Reissue.) No. 13,064; Dec. 28; Sp. p. 6414; Gaz. vol. 149; p. 1100.
Williams Patent Crusher & Pulveriser Company. (See Frickey, E. H., assignor.)
Williams, S. S., Chicago, Ill. Gyroscopic aeroplane. No. 942,691; Dec. 7; Sp. p. 1361; Gaz. vol. 149; p. 223.
Williams, T. B. (See Smith and Williams.)
Williams, T. H., Utica, N. Y. Grapple. No. 944,644; Dec. 28; Sp. p. 5631; Gaz. vol. 149; p. 977.
Williams, W., Hopkinsville, Ky. Sterilizing attachment for the mouthpieces of speaking instruments. No. 944,397; Dec. 28; Sp. p. 5068; Gaz. vol. 149; p. 892.
Williamson, H. J., Mapletown, Pa. Horse-detacher. No. 944,302; Dec. 28; Sp. p. 4866; Gaz. vol. 149; p. 858.
Willingham, J. J., Chicago, Ill. Match-lighter. No. 944,756; Dec. 28; Sp. p. 5888; Gaz. vol. 149; p. 1014.
Willis, G. C. (See Buck and Willis.)
Willock, C. M., *et al.*, executors. (See Kruse, A. T.)
Willoughby, R. S. (See Dorner and Norquist, assignors.)
Wilmore, S. E., St. Louis, Mo. Lock for vending-machines. No. 944,398; Dec. 28; Sp. p. 5070; Gaz. vol. 149; p. 892.
Wilmot, J. F., Detroit, Mich. Adjustable reclining-chair. No. 944,065; Dec. 21; Sp. p. 4370; Gaz. vol. 149; p. 753.
Wilson, C. E., Hood River, Oreg. Electric furnace. No. 943,290; Dec. 14; Sp. p. 2712; Gaz. vol. 149; p. 458.
Wilson, J. E. (See McConnell and Wilson.)
Wilson, P. H., assignor of one-half to L. Lager, Talent, Oreg. Attachment for beds. No. 942,606; Dec. 7; Sp. p. 1196; Gaz. vol. 149; p. 195.
Wilson, W., Edinburgh, Scotland. Geographical map, globe, and other geographical appliance. No. 944,248; Dec. 21; Sp. p. 4732; Gaz. vol. 149; p. 811.
Wilson, W. A., assignor of one-half to J. M. Whaley, De Leon, Tex. Seed-planter. No. 944,396; Dec. 28; Sp. p. 5066; Gaz. vol. 149; p. 891.
Winchester, R. C., Gotebo, Okla. Catapult. No. 942,300; Dec. 7; Sp. p. 578; Gaz. vol. 149; p. 92.
Winchester Repeating Arms Co. (See Johnson, T. C., assignor.)
Windom, C. E., Sterling, Ill. Cooling-board. No. 944,531; Dec. 28; Sp. p. 5393; Gaz. vol. 149; p. 938.
Wing, M. T. C., Sewickley, Pa. Toy derrick. No. 942,229; Dec. 7; Sp. p. 432; Gaz. vol. 149; p. 66.
Wingate, E. E., Watertown, Mass. Clothes-drier for laundries. No. 942,692; Dec. 7; Sp. p. 1363; Gaz. vol. 149; p. 224.
Winkles, A. T. (See Kirkby, R., assignor.)
Winner Natural Gas Burner Company. (See Conrad and Gehring, assignors.)
Winner Natural Gas Burner Company. (See Gehring and Conrad, assignors.)
Winterknight, H. A., assignor of one-half to J. M. Cornyn, Philadelphia, Pa. Cooking-stove. No. 944,757; Dec. 28; Sp. p. 5891; Gaz. vol. 149; p. 1015.
Wintermute, M. W., Buffalo, N. Y. Joint-fastener. No. 942,693; Dec. 7; Sp. p. 1365; Gaz. vol. 149; p. 224.
Winton, J. S., Milford, Iowa. Corn-rack. No. 942,694; Dec. 7; Sp. p. 1367; Gaz. vol. 149; p. 225.
Wirfs, E. J., Memphis, Tenn. Refrigerator or cold-storage room. No. 944,117; Dec. 21; Sp. p. 4487; Gaz. vol. 149; p. 771.
Wise, W. D., Detroit, Minn., assignor of one-half to C. R. Stone, Fargo, N. D. Cement and concrete mixer. No. 944,399; Dec. 28; Sp. p. 5072; Gaz. vol. 149; p. 893.
Wiselogel, F. G., Indianapolis, Ind., assignor to United States Construction and Utilization Company, Rochester, N. Y. Press for expressing fluids from solids. No. 942,301; Dec. 7; Sp. p. 578; Gaz. vol. 149; p. 92.
Wishaar, L. B., Giant, Cal. Rotary engine. No. 944,400; Dec. 28; Sp. p. 5075; Gaz. vol. 149; p. 893.
Witt, W., Ripon, Wis. Washing-machine. No. 943,855; Dec. 21; Sp. p. 3914; Gaz. vol. 149; p. 681.
Wm. Filene's Sons Company. (See Whittredge, C. D., assignor.)
Wocher, J., *et al.* (See Bretney, H. R., assignor.)
Woerner, R., Mannheim, Germany. Cigar-pressing box. No. 944,758; Dec. 28; Sp. p. 5892; Gaz. vol. 149; p. 1015.
Wohl, M. J., and H. Hertzberg, New York, assignors to A. A. Low, Horseshoe, N. Y. Regulator for internal-combustion engines. No. 943,726; Dec. 21; Sp. p. 3664; Gaz. vol. 149; p. 636.
Wolever, F. H., assignor of one-half to S. Feist, Chicago, Ill., and one-half to Illinois Pneumatic Transmission Co. Pneumatic-despatch tube system. No. 943,329; Dec. 14; Sp. p. 2784; Gaz. vol. 149; p. 469.
Wolf, A. C., New York, N. Y., assignor to A. T. Prescott, East Orange, N. J. Amusement apparatus. No. 942,230; Dec. 7; Sp. p. 435; Gaz. vol. 149; p. 67.
Wolf, E. E., Springfield, Ohio, assignor, by mesne assignments, to Empire Voting Machine Company, Rochester, N. Y. Voting-machine. No. 942,991; Dec. 14; Sp. p. 2060; Gaz. vol. 149; p. 357.
Wolf, W. K., Brownstown, Pa. Loss-preventing device. No. 942,695; Dec. 7; Sp. p. 1368; Gaz. vol. 149; p. 225.
Wolfe, R., Denver, Colo. Wheeled vehicle. No. 944,645; Dec. 28; Sp. p. 5632; Gaz. vol. 149; p. 977.
Wolff, H. W., assignor to American Car & Foundry Company, St. Louis, Mo. Tank-car. No. 943,803; Dec. 21; Sp. p. 3812; Gaz. vol. 149; p. 668.
Wolff, R. H., New York, N. Y. Jar or receptacle. No. 943,585; Dec. 14; Sp. p. 3309; Gaz. vol. 149; p. 558.
Wood, H. I., Schenectady, N. Y., assignor to General Electric Company. Vapor electric apparatus. No. 942,157; Dec. 7; Sp. p. 284; Gaz. vol. 149; p. 43.
Wood, H. J., Schenectady, N. Y., assignor to General Electic Company. Vapor electric apparatus. No. 942,871; Dec. 7; Sp. p. 1752; Gaz. vol. 149; p. 283.
Wood, P. S., Burton, Wash. Bread-roll. No. 943,586; Dec. 14; Sp. p. 3310; Gaz. vol. 149; p. 558.
Wood, W. A., and C. W. Kahlerth, New York, N. Y. Fall-rope carrier. No. 944,118; Dec. 21; Sp. p. 4480; Gaz. vol. 149; p. 771.
Woodman, H., Joliet, Ill. Bag-holder. No. 942,231; Dec. 7; Sp. p. 439; Gaz. vol. 149; p. 67.
Woods-Sherwood Company. (See Humphreys, A. E., assignor.)
Woodward, C. E. W., assignor to Fisk Rubber Company, Chicopee Falls, Mass. Automobile-tire. No. 943,506; Dec. 14; Sp. p. 3166; Gaz. vol. 149; p. 532.
Woody, M. P., *et al.* (See Dill and Marsh, assignors.)
Wooten, F. F., Milford, Mich. Fishing-bob. No. 943,506; Dec. 14; Sp. p. 3169; Gaz. vol. 149; p. 533.
Worcester Brush & Scraper Company. (See Bemis, G. C., assignor.)
Worden, H. L., and H. O. Wurmser, Lorain, Ohio. Hot-water and steam boiler. No. 944,759; Dec. 28; Sp. p. 5895; Gaz. vol. 149; p. 1016.
Wosinski, F., Brooklyn, N. Y. Numbering-machine. No. 943,210; Dec. 14; Sp. p. 2532; Gaz. vol. 149; p. 429.
Wrather, W. W., Chicago, Ill. Ball. No. 942,952; Dec. 14; Sp. p. 1980; Gaz. vol. 149; p. 343.
Wren, W. M. (See Louque, W. N., assignor.)
Wridgway, C. G., New York, N. Y. Internal-combustion engine. No. 942,124; Dec. 7; Sp. p. 210; Gaz. vol. 149; p. 32.
Wright, C. A., Philadelphia, Pa. Brake for printing-presses. No. 943,507; Dec. 14; Sp. p. 3170; Gaz. vol. 149; p. 533.
Wright, E. C., Brockton, Mass. Shoe-form. No. 944,471; Dec. 28; Sp. p. 5237; Gaz. vol. 149; p. 917.

Wright, F. G. (See Foley and Wright.)
Wright, R. C., Philadelphia, Pa., and F. E. Stebbins, Washington, D. C. Construction of car-trucks. No. 944,119; Dec. 21; Sp. p. 4491; Gaz. vol. 149; p. 771.
Wright, W. D. C. (See Smith, J. M., assignor.)
Wurl, M. (See Schlick and Wurl.)
Wurmser, H. O. (See Worden and Wurmser.)
Wyckoff, Seamans & Benedict. (See Snyder, A. G., assignor.)
Wyckoff, Seamans & Benedict. (See Steiger, A. W., assignor.)
Wyman, C. O., Anoka, Minn. Reaper and binder. No. 943,856; Dec. 21; Sp. p. 3915; Gaz. vol. 149; p. 681.
Wyman, H., Worcester, Mass., assignor to Crompton & Knowles Loom Works. Loom for weaving tufted fabrics. No. 942,953; Dec. 14; Sp. p. 1982; Gaz. vol. 149; p. 343.
Wynne, W. A., Raleigh, N. C. Telephone-exchange system. No. 944,120; Dec. 21; Sp. p. 4496; Gaz. vol. 149; p. 772.
Wynne, W. A., Raleigh, N. C. Telephone system. No. 944,227; Dec. 21; Sp. p. 4689; Gaz. vol. 149; p. 804.
Xardell, C. A. (See Xardell, J. A. and C. A.)
Xardell, J. A. and C. A., Utica, N. Y. Exhaust-muffler. No. 944,646; Dec. 28; Sp. p. 5633; Gaz. vol. 149; p. 978.
Yale & Towne Manufacturing Company. (See Schoell, R., assignor.)
Yale & Towne Manufacturing Company. (See Taylor, W. H., assignor.)
Yapp, T. A., assignor to E. R. Thomas Motor Company, Buffalo, N. Y. Valve for automobile drip-pans. No. 942,232; Dec. 7; Sp. p. 440; Gaz. vol. 149; p. 68.
Yarborough, E. and V. T., Gum Branch, Ga. Fireplace andirons and fender. No. 944,980; Dec. 28; Sp. p. 6344; Gaz. vol. 149; p. 1089.
Yarborough, V. T. (See Yarborough, E. and V. T.)
Yaw, C. B., Arlington, N. J., assignor to Remington Typewriter Company, Ilion, N. Y. Type-writing machine. No. 944,303; Dec. 28; Sp. p. 4868; Gaz. vol. 149; p. 858.
Yeakel, J. C., Waynesville, Ill. Ironing-board. No. 944,401; Dec. 28; Sp. p. 5076; Gaz. vol. 149; p. 893.
Yearke, A. F. (See Yearke, J. C., assignor.)
Yearke, J. C., assignor of one-half to A. F. Yearke, Buffalo, N. Y. Pipe-coupling. No. 943,330; Dec. 14; Sp. p. 2790; Gaz. vol. 149; p. 470.
Yeazell, O. R., Cincinnati, Ohio. Keg or cask. No. 944,164; Dec. 21; Sp. p. 4583; Gaz. vol. 149; p. 786.
Yerks, O. R. (See Carver, C., assignor.)
Yockey, F., and C. D. McLeod, Sioux City, Iowa. Safety gas-valve. No. 942,158; Dec. 7; Sp. p. 286; Gaz. vol. 149; p. 44.
Yoder, A. H., Canton, Ohio. Kiln. No. 944,304; Dec. 28; Sp. p. 4873; Gaz. vol. 149; p. 858.
York, W., Dixon, assignor to C. S. Palmer, Aurora, Ill. Combination whip and robe lock. No. 943,107; Dec. 14; Sp. p. 2334; Gaz. vol. 149; p. 396.
Young, C. D., Columbus, Ohio. Swing-motion truck for cars. No. 944,165; Dec. 21; Sp. p. 4584; Gaz. vol. 149; p. 786.
Young, C. D., Columbus, Ohio. Car-truck. No. 944,587; Dec. 28; Sp. p. 5527; Gaz. vol. 149; p. 958.
Young, G. T., Stoneham, and A. H. Gleason, Stow, Mass. Calipers. No. 942,529; Dec. 7; Sp. p. 1052; Gaz. vol. 149; p. 170.
Young, H. B., and R. Palomino, Shafter, Tex. Tire-remover. No. 944,760; Dec. 28; Sp. p. 5896; Gaz. vol. 149; p. 1016.
Youngblood, J. B., Cleveland, Ohio. Blow-off cock. No. 943,056; Dec. 14; Sp. p. 2241; Gaz. vol. 149; p. 380.
Youngstown Sheet and Tube Company. (See Hock, H. W., assignor.)
Zabel, M. W., *et al.* (See Leich, O. M., assignor.)
Zacharias, R. (See Sauerwein, Zacharias, and Lewis.)
Zeidler, W. A., assignor to William A. Zeidler Company, New York, N. Y. Turn-down-collar-seam-dampening machine. No. 942,233; Dec. 7; Sp. p. 442; Gaz. vol. 149; p. 68.
Zeiss, Firm of C. (See Eppenstein, O., assignor.)
Zeiss, Firm of C. (See König, A., assignor.)
Zeiss, Firm of C. (See Wandersleb, E., assignor.)
Zell, J. W., assignor of one-half to G. Pennell, Duncannon, Pa. Coal-dust burner. No. 942,696; Dec. 7; Sp. p. 1369; Gaz. vol. 149; p. 226.
Zeno Manufacturing Company. (See Mills, M. B., assignor.)
Zifferer, L. R., San Francisco, Cal. Anchor-lock for building structures. No. 943,906; Dec. 21; Sp. p. 4032; Gaz. vol. 149; p. 696.
Zimmerman, R. M., Montreal, Quebec, Canada, assignor to National Dump Car Company, Chicago, Ill. Door-operating mechanism. No. 942,234; Dec. 7; Sp. p. 447; Gaz. vol. 149; p. 69.
Zimmermann, H. (See Bartholomae, W., assignor.)
Zinn, S. (See Schmidt, W., assignor.)
Zippler, M., Jr., executor. (See Zippler, M., Sr.)
Zippler, M., Sr., deceased, Pittsburg, Pa.; M. Zippler, Jr., executor. Furnace. No. 942,872; Dec. 7; Sp. p. 1754; Gaz. vol. 149; p. 284.
Zuckerfabrik Frankenthal. (See Spannagel, C., assignor.)
Zwald, S., Portland, Oreg. Machine for removing nap from carpet-seams. No. 943,613; Dec. 14; Sp. p. 3405; Gaz. vol. 149; p. 569.
Zwermann, C. H., Kalamazoo, Mich. Flushing device. No. 943,131; Dec. 14; Sp. p. 2383; Gaz. vol. 149; p. 405.
Zwingenberger, O. K., New York, N. Y. Gas-producer. No. 942,361; Dec. 7; Sp. p. 695; Gaz. vol. 149; p. 113.
Zwingenberger, O. K., New York, N. Y. Defining tin scraps and producing tin compounds. No. 943,508; Dec. 14; Sp. p. 3172; Gaz. vol. 149; p. 533.
Zwirman, M., Pittsburg, assignor of one-fourth to L. Kessler, Duquesne, and one-fourth to H. Marks, Pittsburg, Pa. Dispensing-tank. No. 944,472; Dec. 28; Sp. p. 5238; Gaz. vol. 149; p. 917.

ALPHABETICAL LIST OF PATENTEES OF DESIGNS.

American Sanitary Works. (See Tilden, B. O., assignor.)
Bedient, E. A., Erie, assignor to Glen Manufacturing Company, Ellwood City, Pa. Fabric for mats. No. 40,421; Dec. 28; Gaz. vol. 149; p. 1106.
Benjamin Electric Manufacturing Company. (See Benjamin, R. B., assignor.)
Benjamin, R. B., assignor to Benjamin Electric Manufacturing Company, Chicago, Ill. Electric-light cluster. No. 40,407; Dec. 21; Gaz. vol. 149; p. 814.
Boeck, A. A., New York, N. Y. Fabric for window-shades or similar articles. Nos. 40,422–3; Dec. 28; Gaz. vol. 149; p. 1103.
Booth, K., assignor to Gillinder & Sons, Inc., Philadelphia, Pa. Artificial-light shade. No. 40,408; Dec. 21; Gaz. vol. 149; p. 814.
Brotherhood of Railroad Trainmen. (See Lee and King, assignors.)
Cambridge Novelty Company. (See Lightbody, F. J., assignor.)
Cantner, F. E. (See McNamara and Cantner.)
Cole, L. A., Boston, assignor to G. & C. Merriam Company, Springfield, Mass. Book-cover. No. 40,403; Dec. 14; Gaz. vol. 149; p. 583.
Comerford, G. C. (See Grant, F. M., assignor.)
Crane, R. E., Cameron, W. Va. Lavatory-bowl. No. 40,401; Dec. 14; Gaz. vol. 149; p. 582.
Emond, W. H., Newtonville, Mass. Vehicle-body. No. 40,420; Dec. 28; Gaz. vol. 149; p. 1103.
Erben, F., Cleveland, Ohio. Fob. No. 40,392; Dec. 14; Gaz. vol. 149; p. 581.
Feder, H., New York, N. Y. Bow. No. 40,405; Dec. 14; Gaz. vol. 149; p. 583.
G. & C. Merriam Company. (See Cole, L. A., assignor.)
Geissler, L. F., Philadelphia, Pa., assignor to Victor Talking Machine Company. Talking-machine-record cabinet. Nos. 40,398–9; Dec. 14; Gaz. vol. 149; p. 582.
Gillinder, E. A., Tacony, Pa. Lamp-shade. No. 40,389; Dec. 7; Gaz. vol. 149; p. 292.
Gillinder & Sons. (See Booth, K., assignor.)
Glen Manufacturing Company. (See Bedient, E. A., assignor.)
Grant, F. M., assignor to G. C. Comerford, Chicago, Ill. Emblem. No. 40,383; Dec. 7; Gaz. vol. 149; p. 291.
Hart, E., assignor to New England Watch Co., Waterbury, Conn. Watch-dial. No. 40,393; Dec. 14; Gaz. vol. 149; p. 581.
Haynes, E. L., Chicago, Ill. Badge. No. 40,415; Dec. 28; Gaz. vol. 149; p. 1102.
J. Pouyat Company. (See Ziegler, C., assignor.)
Jacobs, B. W., assignor to Jefferson Glass Company, Follansbee, W. Va. Glass receptacle. No. 40,396; Dec. 14; Gaz. vol. 149; p. 582.
Jefferson Glass Company. (See Jacobs, B. W., assignor.)
John J. Lattemann Mfg. Co. (See Merz, L., assignor.)
King, A. E. (See Lee and King.)
King, I. J. F., Asbury Park, N. J. Cup or similar article. No. 40,417; Dec. 28; Gaz. vol. 149; p. 1107.
Lederer, I. R., Providence, R. I. Fob. No. 40,406; Dec. 21; Gaz. vol. 149; p. 814.
Leding, R., Washington, D. C. Charm, pin, or similar article. No. 40,385; Dec. 7; Gaz. vol. 149; p. 291.
Lee, W. G., and A. E. King, Cleveland, Ohio, assignors to Brotherhood of Railroad Trainmen. Emblem. No. 40,384; Dec. 7; Gaz. vol. 149; p. 291.
Lightbody, F. J., assignor to Cambridge Novelty Company, Cambridge, Mass. Metal mesh fabric. No. 40,388; Dec. 7; Gaz. vol. 149; p. 292.
Loughlin, J. M., assignor to Thomas Cusack Company, Chicago, Ill. Advertising-sign. No. 40,409; Dec. 21; Gaz. vol. 149; p. 815.
McNamara, M. J., and F. E. Cantner, Philadelphia, Pa. Basin-supporting bracket. No. 40,400; Dec. 14; Gaz. vol. 149; p. 582.
Merz, L., New York, assignor to John J. Lattemann Mfg. Co., Brooklyn, N. Y. Slipper. No. 40,391; Dec. 7; Gaz. vol. 149; p. 292.
Miner, H. A., Malden, Mass. Bottle-cap. No. 40,386; Dec. 7; Gaz. vol. 149; p. 291.
New England Watch Co. (See Hart, E., assignor.)
Noe, W. R., East Orange, N. J. Hanging receptacle. No. 40,387; Dec. 7; Gaz. vol. 149; p. 292.
Nutter, C. P., Malden, assignor to N. G. Wood & Sons, Boston, Mass. Stein. No. 40,395; Dec. 14; Gaz. vol. 149; p. 581.
Osborne, C., assignor to Whiting Manufacturing Company, New York, N. Y. Handle for spoons, forks, or similar articles. No. 40,394; Dec. 14; Gaz. vol. 149; p. 581.
Sargent & Company. (See Stevens, W. E., assignor.)
Schwalb, H. W., New York, N. Y. Quill-holder for ladies' hats. No. 40,404; Dec. 14; Gaz. vol. 149; p. 583.
Silver, H., Brooklyn, N. Y. Refrigerator. No. 40,410; Dec. 21; Gaz. vol. 149; p. 815.
Silver, H., Brooklyn, N. Y. Door for refrigerators. Nos. 40,411–12; Dec. 21; Gaz. vol. 149; p. 815.
Skall, M. A., New York, N. Y. Attachment for display-cases. No. 40,419; Dec. 28; Gaz. vol. 149; p. 1103.
Stevens, W. E., assignor to Sargent & Company, New Haven, Conn. Screw. No. 40,418; Dec. 28; Gaz. vol. 149; p. 1102.
Thomas Cusack Company. (See Loughlin, J. M., assignor.)
Tilden, B. O., assignor to American Sanitary Works, New York, N. Y. Flush-tank. No. 40,402; Dec. 14; Gaz. vol. 149; p. 583.
Tures Manufacturing Company. (See Tures, W., assignor.)
Tures, W., Chicago, Ill., assignor to Tures Manufacturing Company, Milwaukee, Wis. Lighting-fixture. No. 40,390; Dec. 7; Gaz. vol. 149; p. 292.
Valentine, D., East Orange, N. J. Fabric. No. 40,414; Dec. 21; Gaz. vol. 149; p. 815.
Victor Talking Machine Company. (See Geissler, L. F., assignor.)
Whiting Manufacturing Company. (See Osborne, C., assignor.)
Wilson, J. H., Philadelphia, Pa. Clothes-rack. No. 40,413; Dec. 21; Gaz. vol. 149; p. 815.
Wood & Sons, N. G. (See Nutter, C. P., assignor.)
Yeaton, M. E., Washington, D. C. Statuette. No. 40,416; Dec. 28; Gaz. vol. 149; p. 1102.
Ziegler, C., Limoges, France, assignor to J. Pouyat Company, New York, N. Y. Plate or similar article. No. 40,397; Dec. 14; Gaz. vol. 149; p. 582.

ALPHABETICAL LIST OF REGISTRANTS OF TRADE-MARKS.

A. E. Nettleton Company, Syracuse, N. Y. Men's leather shoes. No. 76,224; Dec. 28; Gaz. vol. 149; p. 1116.
Alsberg & Co., W., New York, N. Y. Canvas used for interlining garments. No. 76,170; Dec. 21; Gaz. vol. 149; p. 830.
American Electrical Novelty & Manufacturing Company, New York, N. Y. Electrical apparatus. No. 76,009; Dec. 7; Gaz. vol. 149; p. 305.
American Electrical Novelty & Manufacturing Company, New York, N. Y. Electric batteries. No. 76,010; Dec. 7; Gaz. vol. 149; p. 305.
American Fibre Matting Company, Lawrence, Mass., and New York, N. Y. Certain textiles. No. 76,097; Dec. 14; Gaz. vol. 149; p. 598.
American Paving & Manufacturing Company, Indianapolis, Ind. Bituminous and concrete pavements and sidewalks. No. 76,098; Dec. 14; Gaz. vol. 149; p. 598.
American Woolen Company, Boston, Mass. Woolen cloth. No. 76,094; Dec. 14; Gaz. vol. 149; p. 598.
American Wringer Company, New York, N. Y. Clothes-wringers. No. 76,011; Dec. 7; Gaz. vol. 149; p. 305.
American Wringer Company, New York, N. Y. Wringer-rolls. No. 76,134; Dec. 21; Gaz. vol. 149; p. 829.
Andrew Kerr Co., Inc., Somerville, Mass. Canned clams. No. 76,062; Dec. 14; Gaz. vol. 149; p. 597.
Angio-American Stock Food Company, Chicago, Ill. Stock-tonic. No. 76,171; Dec. 21; Gaz. vol. 149; p. 830.
Antinori, L. e P., Florence, Italy. Old red Chianti wine. No. 76,012; Dec. 7; Gaz. vol. 149; p. 305.
Apsley Rubber Company, Hudson, Mass. Rubber footwear. No. 75,984; Dec. 7; Gaz. vol. 149; p. 305.
Arnold Print Works, North Adams, Mass. Certain textile fabrics. No. 76,172; Dec. 21; Gaz. vol. 149; p. 830.
Atlantic Refining Company, Cleveland, Ohio. Petroleum oils and greases for lubricating purposes. No. 76,225; Dec. 28; Gaz. vol. 149; p. 1116.
Austin, Nichols & Co., New York, N. Y. Blended tea. No. 76,063; Dec. 14; Gaz. vol. 149; p. 597.
Austin, Nichols & Co., New York, N. Y. Certain foods. No. 76,064; Dec. 14; Gaz. vol. 149; p. 597.
Austin, Nichols & Co., New York, N. Y. Canned salmon. No. 76,173; Dec. 21; Gaz. vol. 149; p. 830.
Azusa-Covina-Glendora Fruit Exchange, Azusa, Cal. Citrus fruits. Nos. 76,100-1; Dec. 14; Gaz. vol. 149; p. 598.
Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany. Certain chemicals. No. 76,056; Dec. 7; Gaz. vol. 149; p. 307.
Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany. Dyestuffs. No. 76,243; Dec. 28; Gaz. vol. 149; p. 1116.
Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany. Coal-tar coloring-matters. No. 76,244; Dec. 28; Gaz. vol. 149; p. 1116.
Badische Anilin & Soda-Fabrik, Ludwigshafen-on-the-Rhine, Germany. Chemicals for reducing, discharging, and bleaching. No. 76,245; Dec. 28; Gaz. vol. 149; p. 1116.
Baer, L. D., New York, N. Y. Fur wearing-apparel and fur articles. No. 76,135; Dec. 21; Gaz. vol. 149; p. 829.
Barker, Brown & Company, Huntington, Ind. Men's and boys' leather shoes. No. 76,226; Dec. 28; Gaz. vol. 149; p. 1116.
Baumgardner & Company, L. S., Toledo, Ohio. Suitings, shirtings, and sheetings. No. 76,013; Dec. 7; Gaz. vol. 149; p. 306.
Baumgardner & Company, L. S., Toledo, Ohio. Overshirts, overalls, pants, and coats. No. 76,065; Dec. 14; Gaz. vol. 149; p. 597.
Beck Cereal Company, Detroit, Mich. Rolled oats. No. 76,137; Dec. 21; Gaz. vol. 149; p. 829.
Berghoff Brewing Association, Fort Wayne, Ind. Beer. No. 76,102; Dec. 14; Gaz. vol. 149; p. 598.
Bischek, J., Canton, Ohio. Soap. No. 76,040; Dec. 7; Gaz. vol. 149; p. 306.
Blanchard, P. E., Palacios, Tex. Remedy for piles. No. 76,246; Dec. 28; Gaz. vol. 149; p. 1116.
Blue Ridge Enameled Brick Co., Newark, N. J. Brick. No. 76,136; Dec. 21; Gaz. vol. 149; p. 829.
Blumenstein, W. H., Pottsville, Pa. Blasting-powder. No. 76,014; Dec. 7; Gaz. vol. 149; p. 306.
Brode & Son, A., New York, N. Y. Suspenders and belts. No. 75,985; Dec. 7; Gaz. vol. 149; p. 305.
Bromund, E. A., New York, N. Y. Ironing-wax pads. No. 76,138; Dec. 21; Gaz. vol. 149; p. 829.
Brooke, J. E., Antioch, Ill. Pills, tablets, and liquid compounds. No. 76,103; Dec. 14; Gaz. vol. 149; p. 598.
Brown Shoe Company, St. Louis, Mo. Shoes. No. 75,986; Dec. 7; Gaz. vol. 149; p. 305.
Buckeye Stereopticon Co., Cleveland, Ohio. Stereopticons, projectors, magic lanterns, &c. No. 76,086; Dec. 14; Gaz. vol. 149; p. 597.
Burns and Reed, New York, N. Y. Blended coffee. No. 76,202; Dec. 28; Gaz. vol. 149; p. 1115.
Byrd, C. P. (See Lewis, A. D., assignor.)
C. C. Morse & Co., San Francisco, Cal. Vegetable and flower seeds. No. 76,015; Dec. 7; Gaz. vol. 149; p. 306.
C. P. Henry Novelty Company, Providence, R. I. Curtain-rods, parts and ornaments therefor. No. 76,016; Dec. 7; Gaz. vol. 149; p. 306.
Caldwell, W. H., Tuckahoe, N. J. Liniment and ointment. No. 76,017; Dec. 7; Gaz. vol. 149; p. 306.
California Fruit Canners Association, San Francisco, Cal. Canned fruit. No. 76,174; Dec. 21; Gaz. vol. 149; p. 830.
Campbell & Woods Company, Pittsburg, Pa. Teas. No. 76,067; Dec. 14; Gaz. vol. 149; p. 597.
Carreras Limited, Aldgate, London, England. Tobacco, cigars, cigarettes, and snuff. No. 76,139; Dec. 21; Gaz. vol. 149; p. 829.
Carreras Limited, London, England. Smoking and chewing tobacco, cigars, cigarettes, and snuff. No. 76,247; Dec. 28; Gaz. vol. 149; p. 1116.
Castner Electrolytic Alkali Company, Niagara Falls, N. Y. Bleaching agents. No. 76,018; Dec. 7; Gaz. vol. 149; p. 306.
Central California Canneries, San Francisco, Cal. Canned fruits. Nos. 76,140-1; Dec. 21; Gaz. vol. 149; p. 829.
Chaffee Manufacturing Company, Willimantic, Conn. Fish-lines. No. 76,104; Dec. 14; Gaz. vol. 149; p. 598.
Charles E. Bentley Co., New York, N. Y. Certain fancy goods. No. 76,191; Dec. 28; Gaz. vol. 149; p. 1115.
Charles E. Bentley Co., New York, N. Y. Floss, yarns, or threads. No. 76,192; Dec. 28; Gaz. vol. 149; p. 1115.
Chas. P. Stanley Co., St. Louis, Mo. Cigars. No. 76,205; Dec. 28; Gaz. vol. 149; p. 1117.
Chiesa Hermanos, Rosario, Argentina, and New York, N. Y. Jutes. No. 76,116; Dec. 14; Gaz. vol. 149; p. 598.
China & Japan Trading Company, Limited, New York, N. Y. Certain textiles. Nos. 76,007-8; Dec. 7; Gaz. vol. 149; p. 305.
China & Japan Trading Company, Limited, New York, N. Y. Certain textiles. No. 76,057; Dec. 7; Gaz. vol. 149; p. 306.
Christman Sons, New York, N. Y. Pianos. No. 76,203; Dec. 28; Gaz. vol. 149; p. 1115.
Cincinnati Abattoir Co., Cincinnati, Ohio. Canned food products. No. 76,163; Dec. 21; Gaz. vol. 149; p. 830.
Classic Products Co., New York, N. Y. Prepared starch for alimentary purposes. No. 76,066; Dec. 14; Gaz. vol. 149; p. 597.
Cleveland Washboard Co., Cleveland, Ohio. Washboards. No. 76,019; Dec. 7; Gaz. vol. 149; p. 306.
Climax Coffee & Baking Powder Company, Indianapolis, Ind. Roasted coffee. No. 76,067; Dec. 14; Gaz. vol. 149; p. 597.
Code-Portwood Canning Co., Fruitvale, Cal. Canned fruit. No. 76,175; Dec. 21; Gaz. vol. 149; p. 830.
Colgate & Co., Jersey City, N. J., and New York, N. Y. Soap and soap powders. No. 76,105; Dec. 14; Gaz. vol. 149; p. 598.
Cook, A. E., Kankakee, Ill. Certain agricultural machinery. No. 76,227; Dec. 28; Gaz. vol. 149; p. 1116.
Coralene Curative Company, Boston, Mass. Toilet emollients. No. 76,176; Dec. 21; Gaz. vol. 149; p. 830.
Coyle & Caywood, Weedsport, N. Y. Natural mineral water. No. 76,142; Dec. 21; Gaz. vol. 149; p. 829.
Crown Varnish and Enamel Company, Chicago, Ill. Varnish. No. 76,106; Dec. 14; Gaz. vol. 149; p. 598.
Cudahy Packing Company, Chicago, Ill., and South Omaha, Nebr. Astringent and antiseptic. No. 76,248; Dec. 28; Gaz. vol. 149; p. 1116.
Daimler-Motoren-Gesellschaft, Untertürkheim, near Stuttgart, Germany. Certain tools and machinery. No. 76,020; Dec. 7; Gaz. vol. 149; p. 306.
Danenbaum, W., New York, N. Y. Certain clothing. No. 76,068; Dec. 14; Gaz. vol. 149; p. 597.
Dayton Biscuit Co., Dayton, Ohio. Crackers and cakes. No. 75,987; Dec. 7; Gaz. vol. 149; p. 305.
Detroit Milling Company, Detroit and Adrian, Mich. Wheat-flour. No. 76,069; Dec. 14; Gaz. vol. 149; p. 597.
Doten-Dumton Desk Co., Boston, Mass. Certain furniture. No. 76,021; Dec. 7; Gaz. vol. 149; p. 306.
Dunn, H. J., Oakland, Cal. Cases to receive flaxseed or the like to form a poultice. No. 76,107; Dec. 14; Gaz. vol. 149; p. 598.
Dwinell-Wright Company, Boston, Mass. Coffee. No. 76,070; Dec. 14; Gaz. vol. 149; p. 597.
E. M. Bowden's Patents Syndicate Ltd., London, England. Brakes for velocipedes, &c. No. 76,108; Dec. 14; Gaz. vol. 149; p. 598.
Edwards, W. F., Orangeburg, S. C. Remedies for certain diseases. No. 76,041; Dec. 7; Gaz. vol. 149; p. 306.
Eleto Company, New York, N. Y. Dentifrice and antiseptic. No. 76,109; Dec. 14; Gaz. vol. 149; p. 598.
Ely & Walker Dry Goods Co., St. Louis, Mo. Overalls. No. 76,228; Dec. 28; Gaz. vol. 149; p. 1116.
Empire Rubber Mfg. Co., Trenton, N. J.; Chicago, Ill.; New York, N. Y., and Boston, Mass. Rubber machinery packing, hose, and belting. No. 76,143; Dec. 21; Gaz. vol. 149; p. 829.
Eppens Smith Company, Hoboken, N. J., and New York, N. Y. Tea. No. 76,068; Dec. 14; Gaz. vol. 149; p. 597.
Ex-Cel-O Company, Montgomery, Ala. Syrups and extracts for making non-alcoholic carbonated beverages. No. 76,144; Dec. 21; Gaz. vol. 149; p. 829.
Faber, A. W., Stein, near Nuremberg, and Berlin, Germany. Pencils and pencil-erasers. No. 76,049; Dec. 7; Gaz. vol. 149; p. 307.
Faber, A. W., Stein, Germany. Rubber bands. No. 76,110; Dec. 14; Gaz. vol. 149; p. 598.
Father Morrisey Medicine Company Limited, Chatham, New Brunswick, Canada. Tonic. No. 76,111; Dec. 14; Gaz. vol. 149; p. 598.

Fellows & Hopkins, Middletown, N. Y. Wrapping-machines. No. 76,145; Dec. 21; Gaz. vol. 149; p. 829.
Fiber Tooth Brush Company, Rochester, N. Y. Tooth-brushes and parts therefor. No. 76,204; Dec. 28; Gaz. vol. 149; p. 1115.
Fitchburg Pin Co., Fitchburg, Mass. Hair-pins and combs. No. 76,193; Dec. 28; Gaz. vol. 149; p. 1115.
Flushovalve Company, New York, N. Y. Bowls, cocks, valves, and fittings. No. 76,194; Dec. 28; Gaz. vol. 149; p. 1115.
Fort Wayne Electric Works, Fort Wayne, Ind. Electrical regulators for electrical apparatus. No. 76,177; Dec. 21; Gaz. vol. 149; p. 830.
Francis Company, Inc., Baltimore, Md. Hats and caps. No. 75,988; Dec. 7; Gaz. vol. 149; p. 305.
Frank W. Williams Company, Chicago, Ill. Wooden picture-frames. No. 76,071; Dec. 14; Gaz. vol. 149; p. 597.
Franklin MacVeagh & Co., Chicago, Ill. Cider, root-beer, sarsaparilla, &c. No. 76,112; Dec. 14; Gaz. vol. 149; p. 598.
Fred. Eckart Packing Company, Fort Wayne, Ind. Certain foods. No. 76,113; Dec. 14; Gaz. vol. 149; p. 598.
Frederick Stearns & Co., Detroit, Mich. Laxative cathartic medicinal preparations. No. 76,249; Dec. 28; Gaz. vol. 149; p. 1116.
Fuerst Bros. & Co., New York, N. Y. Certain chemicals. No. 76,178; Dec. 21; Gaz. vol. 149; p. 830.
Garcia & Vega, New York, N. Y. Cigars. No. 76,023; Dec. 7; Gaz. vol. 149; p. 306.
Garwood Electric Company, Garwood, N. J. Electric motors and dynamos and parts for same. No. 76,114; Dec. 14; Gaz. vol. 149; p. 598.
Geo. T. Stagg Co., Inc., Frankfort, Ky. Whisky. No. 76,229; Dec. 28; Gaz. vol. 149; p. 1116.
German-American Company, Draper, N. C. Cotton blankets. No. 76,230; Dec. 28; Gaz. vol. 149; p. 1116.
Gerstendorfer Bros., New York, N. Y. Enamel paints. No. 76,205; Dec. 28; Gaz. vol. 149; p. 1115.
Gilbert Mfg. Co., New York, N. Y. Ladies' outer skirts, petticoats, shirt-waists, &c. No. 76,072; Dec. 14; Gaz. vol. 149; p. 597.
Gilka, A., Berlin, Germany. Certain beverages. No. 76,042; Dec. 7; Gaz. vol. 149; p. 306.
Girvin & Eyre, San Francisco, Cal. Coke. No. 76,115; Dec. 14; Gaz. vol. 149; p. 598.
Goepfert, E., Pittsburg, Pa. Noodles. No. 76,073; Dec. 14; Gaz. vol. 149; p. 597.
Golden Gate Packing Company, San Jose, Cal. Canned fruits and vegetables. No. 76,206; Dec. 28; Gaz. vol. 149; p. 1115.
Gonzalez and Sanchez Co., Jacksonville, Fla. Cigars. No. 76,024; Dec. 7; Gaz. vol. 149; p. 306.
Graham, Hinkley & Co., New York, N. Y. Fiber of the ixtle species. No. 76,043; Dec. 7; Gaz. vol. 149; p. 306.
Griggs, Cooper & Co., St. Paul, Minn. Certain foods. No. 75,989; Dec. 7; Gaz. vol. 149; p. 305.
Griggs, Cooper & Co., St. Paul, Minn. Baking-soda. No. 76,089; Dec. 14; Gaz. vol. 149; p. 597.
H. Belfield Co., Philadelphia, Pa. Valves. No. 76,207; Dec. 28; Gaz. vol. 149; p. 1115.
H. J. Nice Company, assignor to C. E. Van Dusee, Minneapolis, Minn. Toy flying-machine. No. 76,231; Dec. 28; Gaz. vol. 149; p. 1116.
H & W Company, Newark, N. J. Corsets, corset-waists, brassières, and underwaists. No. 76,208; Dec. 28; Gaz. vol. 149; p. 1115.
Hall, S. D., Salt Lake City, Utah. Remedies for coughs, cankers, and diphtheria. No. 76,179; Dec. 21; Gaz. vol. 149; p. 830.
Hamburger, Wolf & Weiller, Baltimore, Md. Shirts, drawers, and pajamas. No. 75,990; Dec. 7; Gaz. vol. 149; p. 305.
Hartford Rubber Works Co., Hartford, Conn. Rubber wheel-tires. No. 76,209; Dec. 28; Gaz. vol. 149; p. 1115.
Hartford Rubber Works Company, Hartford, Conn., and New York, N. Y. Tires of rubber or rubber and fabric. No. 76,146; Dec. 21; Gaz. vol. 149; p. 829.
Haskell, Adams & Co., Boston, Mass. Wheat-flour. No. 76,147; Dec. 21; Gaz. vol. 149; p. 829.
Hathaway, W. C., Plymouth, Mass. Soap. No. 76,164; Dec. 21; Gaz. vol. 149; p. 830.
Holmes, R. B., Ellsworth, Me. Canned fruits. No. 76,210; Dec. 28; Gaz. vol. 149; p. 1115.
Hopkins and Allen Arms Company, Norwich, Conn. Revolvers. No. 76,148; Dec. 21; Gaz. vol. 149; p. 829.
Howe, S. E., Boston, Mass. Court-plaster. No. 76,090; Dec. 14; Gaz. vol. 149; p. 597.
Hughes, A. F., Cleveland, Ohio. Varnish. No. 76,211; Dec. 28; Gaz. vol. 149; p. 1115.
Huther Bros. Saw Mfg. Co., Inc., Rochester, N. Y. Circular saws. No. 76,117; Dec. 14; Gaz. vol. 149; p. 598.
Hutzler Brothers Co. of Baltimore City, Baltimore, Md. Antiseptic solution. No. 76,250; Dec. 28; Gaz. vol. 149; p. 1116.
Ideal Concrete Machinery Company, South Bend, Ind. Certain building materials. No. 76,196; Dec. 28; Gaz. vol. 149; p. 1115.
Independent Brewing Company, Philadelphia, Pa. Beer. No. 76,025; Dec. 7; Gaz. vol. 149; p. 306.
International Harvester Company of America, Chicago, Ill. Certain machinery. No. 76,118; Dec. 14; Gaz. vol. 149; p. 598.
International Tea Company's Stores, Limited, London, England. Coffee. No. 75,992; Dec. 7; Gaz. vol. 149; p. 305.
International Textbook Company, Scranton, Pa. Type-writers and parts thereof. No. 76,149; Dec. 21; Gaz. vol. 149; p. 829.
"Internationale Cacaofabrieken," Amsterdam, Netherlands. Cocoa, cocoa-butter, and chocolate. No. 75,991; Dec. 7; Gaz. vol. 149; p. 305.
Iron City Engineering Company, Pittsburg, Pa. Dry batteries. No. 76,180; Dec. 21; Gaz. vol. 149; p. 830.
Iroquois Brewing Co., Buffalo, N. Y. Beer. No. 76,119; Dec. 14; Gaz. vol. 149; p. 598.
Isaac Harter Milling Company, Toledo and Fostoria, Ohio. Wheat-flour. No. 76,150; Dec. 21; Gaz. vol. 149; p. 829.
J. B. King & Co., New York, N. Y. Certain building materials. No. 76,120; Dec. 14; Gaz. vol. 149; p. 598.
J. T. Davenport, London, England. Chlorodyne. No. 76,121; Dec. 14; Gaz. vol. 149; p. 598.
Jacob Dold Packing Company, Buffalo, N. Y. Lard. No. 76,181; Dec. 21; Gaz. vol. 149; p. 830.
Jannell, G. A., Cleveland, Ohio. Poultry medicine. No. 76,122; Dec. 14; Gaz. vol. 149; p. 598.
Jerome, E., New York, N. Y. Remedy for inducing sleep. No. 76,165; Dec. 21; Gaz. vol. 149; p. 830.
Jim McCoy Distilling Co., Louisville, Ky. Whisky. No. 76,060; Dec. 7; Gaz. vol. 149; p. 307.
John Hoffmann & Sons Co., Milwaukee, Wis. Canned fruits, vegetables, salmon, and pork and beans. No. 76,197; Dec. 28; Gaz. vol. 149; p. 1115.
Joseph & Schoen, Cedar Rapids, Iowa. Cellar otips and buttons. No. 76,126; Dec. 21; Gaz. vol. 149; p. 830.
Kansas Milling Company, Wichita, Kans. Wheat-flour. Nos. 76,074-6; Dec. 14; Gaz. vol. 149; p. 597.
Keith Paper Company, Turners Falls, Mass. Cover-paper. No. 76,123; Dec. 14; Gaz. vol. 149; p. 598.
Klas, J., Columbus, Ohio. Eye medicine. No. 76,251; Dec. 28; Gaz. vol. 149; p. 1116.
Kny Scheerer Company, New York, N. Y. Electromedical apparatus. No. 76,026; Dec. 7; Gaz. vol. 149; p. 306.
Koerner & Co., W., Cunnersdorf, near Hirschberg, Germany. Spirituous bitters. No. 76,027; Dec. 7; Gaz. vol. 149; p. 306.
Kohn & Baer, New York, N. Y. Certain clothing. No. 76,077; Dec. 14; Gaz. vol. 149; p. 597.
Königliche Regierung Abteilung für direkte Steuern Domänen und Forsten in Wiesbaden, Wiesbaden, Germany. Natural mineral waters. No. 76,028; Dec. 7; Gaz. vol. 149; p. 306.
L. A. Williamson Company, Boston, Mass. Extension electric-lamp holders. No. 76,166; Dec. 21; Gaz. vol. 149; p. 830.
L. M. Rumsey Manufacturing Company, St. Louis, Mo. Rubber hose, belting, packing, and valves. No. 76,078; Dec. 14; Gaz. vol. 149; p. 597.
Lactomode Co., Wheeling, W. Va. Milk modifying and pasteurizing apparatus and parts thereof. No. 76,044; Dec. 7; Gaz. vol. 149; p. 306.
Lancaster & Tonge Ltd., Manchester, England. Steam-traps and unions. No. 76,029; Dec. 7; Gaz. vol. 149; p. 306.
Leddell-Bigelow Company, New York, N. Y. Certain metals. No. 76,182; Dec. 21; Gaz. vol. 149; p. 830.
Lederle Antitoxin Laboratories, New York, N. Y. Bacterial antiseptic. No. 76,252; Dec. 28; Gaz. vol. 149; p. 1116.
Lee & Underhill, New York, N. Y. Certain sporting goods. No. 76,167; Dec. 21; Gaz. vol. 149; p. 830.
Legrand, L., Nuits, Côté d'Or, France. Wine. No. 76,124; Dec. 14; Gaz. vol. 149; p. 598.
Lewis, A. D., assignor to A. D. Lewis and C. P. Byrd, Atlanta, Ga. Beverage to be dispensed at soda-fountains. No. 76,051; Dec. 7; Gaz. vol. 149; p. 307.
Lipps-Murbach Company of Baltimore City, Baltimore, Md. Chocolate candy. No. 76,151; Dec. 21; Gaz. vol. 149; p. 829.
Lonke, J., Jersey City, N. J., and New York, N. Y. Certain piece goods. No. 75,993; Dec. 7; Gaz. vol. 149; p. 306.
Lord, F. W., New York, N. Y. Lightning-arresters. No. 76,030; Dec. 7; Gaz. vol. 149; p. 306.
Loth, E., Cincinnati, Ohio. Shirts. No. 76,994; Dec. 7; Gaz. vol. 149; p. 305.
Lowe, W. T. J., Buffalo, N. Y. Spoon fishing-bait. No. 76,045; Dec. 7; Gaz. vol. 149; p. 306.
Luyties, F. A., St. Louis, Mo. Liquid dentifrice, dental powder, cream, and paste. No. 76,253; Dec. 28; Gaz. vol. 149; p. 1116.
M. H. Thompson Manufacturing Company, Portland, Me. Boiler-tube cleaners. No. 76,152; Dec. 21; Gaz. vol. 149; p. 829.
Maffucci, A., Irvington-on-Hudson, N. Y. Remedy for certain diseases. No. 76,254; Dec. 28; Gaz. vol. 149; p. 1116.
McKelvey Company, Pittsburg and Scranton, Pa., and Minneapolis and St. Paul, Minn. Trading-stamps. No. 76,183; Dec. 21; Gaz. vol. 149; p. 830.
Mechanical Rubber Company, New York, N. Y. Rubber water-bottles and syringes. No. 76,046; Dec. 7; Gaz. vol. 149; p. 306.
Milwaukee Glove Co., Milwaukee, Wis. Leather gloves and mittens. No. 76,153; Dec. 21; Gaz. vol. 149; p. 829.
Mitchell, C. L., Philadelphia, Pa. Photographic developing-powder. No. 76,047; Dec. 7; Gaz. vol. 149; p. 306.
Moland's Sons, W., Philadelphia, Pa. Lard. No. 76,198; Dec. 28; Gaz. vol. 149; p. 1115.
Moland's Sons, W., Philadelphia, Pa. Hams, bacon, and dried beef. No. 76,199; Dec. 28; Gaz. vol. 149; p. 1115.
Moore, R. J., New York, N. Y. Foot-powder. No. 76,255; Dec. 28; Gaz. vol. 149; p. 1117.
Napa Canning Co., San Francisco, Cal. Canned and preserved fruits and vegetables. No. 76,168; Dec. 21; Gaz. vol. 149; p. 830.
National Biscuit Company, Jersey City, N. J., and New York, N. Y. Biscuit. No. 76,154; Dec. 21; Gaz. vol. 149; p. 829.
National Candy Company, Jersey City, N. J., and St. Louis, Mo. Candy. No. 76,212; Dec. 28; Gaz. vol. 149; p. 1115.
National Gas Light Company, Kalamazoo, Mich. Certain lighting apparatus. No. 76,031; Dec. 7; Gaz. vol. 149; p. 306.
National Milling Company, Toledo, Ohio. Wheat-flour. No. 76,079; Dec. 14; Gaz. vol. 149; p. 597.
Neckarsulmer Fahrradwerke, Act.-Ges., Neckarsulm, Germany. Certain vehicles and parts thereof. No. 76,184; Dec. 21; Gaz. vol. 149; p. 830.
Niagara Chemical Company, Buffalo, N. Y. Hair-tonic. No. 76,256; Dec. 28; Gaz. vol. 149; p. 1117.
Nix, R. W., Charleston, S. C. Remedy for headache. No. 76,125; Dec. 14; Gaz. vol. 149; p. 598.
North Fork Fruit Growers Association, Paonia, Colo. Fruits. No. 75,995; Dec. 7; Gaz. vol. 149; p. 305.
Norton & Curd Coffee Co., Louisville, Ky. Blended coffee. No. 76,080; Dec. 14; Gaz. vol. 149; p. 597.
Norvell-Shapleigh Hardware Company, St. Louis, Mo. Enameled metal ware. No. 76,126; Dec. 14; Gaz. vol. 149; p. 598.
Norvell-Shapleigh Hardware Company, St. Louis, Mo. Certain sporting goods. No. 76,127; Dec. 14; Gaz. vol. 149; p. 598.

Norvell-Shapleigh Hardware Company, St. Louis, Mo. Horse-clippers. No. 76,213; Dec. 28; Gaz. vol. 149; p. 1115.
Osakis Milling Company; Osakis, Minn. Wheat-flour. No. 76,200; Dec. 28; Gaz. vol. 149; p. 1115.
Ozark Pottery Company, St. Louis, Mo. Certain earthenware articles. No. 76,037; Dec. 7; Gaz. vol. 149; p. 306.
Ozark Pottery Company, St. Louis, Mo. Statuary, bas-reliefs, and statuettes. No. 76,038; Dec. 7; Gaz. vol. 149; p. 306.
Oso Remedy Company, New Brighton, Pa. Remedy for certain diseases. No. 76,257; Dec. 28; Gaz. vol. 149; p. 1117.
Pacific Novelty Company, New York, N. Y. Hair-pins and combs. No. 76,195; Dec. 28; Gaz. vol. 149; p. 1115.
Palmer, L. M., Brooklyn, N. Y. Lime. No. 76,214; Dec. 28; Gaz. vol. 149; p. 1115.
Parker Manufacturing Company, assignor to Heaton-Peninsular Button Fastener Company, Boston, Mass. Staple-like metallic fasteners. No. 76,155; Dec. 21; Gaz. vol. 149; p. 829.
Parrish Brothers, Inc., Baltimore, Md. Pepper, spices, and tapioca. No. 76,185; Dec. 21; Gaz. vol. 149; p. 830.
Peerless Rubber Manufacturing Company, New York, N. Y. Rubber hose. No. 76,258; Dec. 28; Gaz. vol. 149; p. 1117.
Planten, H. R., New York, N. Y. Remedy for certain diseases. No. 76,052; Dec. 7; Gaz. vol. 149; p. 307.
Plough, A., Memphis, Tenn. Antiseptic healing-oil. No. 76,259; Dec. 28; Gaz. vol. 149; p. 1117.
Pomeran Chemical Co., Newark, N. J. Remedy for malaria, chills, fever, &c. No. 76,128; Dec. 14; Gaz. vol. 149; p. 599.
Procter & Gamble Company, Ivorydale and Cincinnati, Ohio; Kansas City, Kans., and New York, N. Y. Soap. Nos. 76,091-2; Dec. 14; Gaz. vol. 149; pp. 597-8.
Procter & Gamble Company, Ivorydale and Cincinnati, Ohio; Kansas City, Kans., and New York, N. Y. Laundry soap. No. 76,093; Dec. 14; Gaz. vol. 149; p. 598.
Puritan Cordage Mills, Louisville, Ky. Sash-cord, twine, rope, bell-ropes, and clothes-line. No. 76,156; Dec. 21; Gaz. vol. 149; p. 829.
Reilly, J. R., Philadelphia, Pa. Lubricant. No. 76,215; Dec. 28; Gaz. vol. 149; p. 1115.
Rice & Hutchins, Incorporated, Boston, Mass. Shoes made in whole or in part of leather. Nos. 76,053; Dec. 7; Gaz. vol. 149; p. 307.
Richmond Hosiery Mills, Chattanooga, Tenn., and Rossville, Ga. Hosiery. Nos. 75,996-7; Dec. 7; Gaz. vol. 149; p. 305.
Robertson & Sons, New York, Buffalo, and Rochester, N. Y. Shoe-polish. No. 76,032; Dec. 7; Gaz. vol. 149; p. 306.
Rogers & Thompson, West New York, N. J., and New York, N. Y. Certain piece goods. No. 76,232; Dec. 28; Gaz. vol. 149; p. 1116.
Royal Baking Powder Company, New York, N. Y. Baking-powder. No. 76,260; Dec. 28; Gaz. vol. 149; p. 1117.
Sain Chemical Company, St. Louis, Mo. Remedy for blood-poisoning and rheumatism. No. 76,261; Dec. 28; Gaz. vol. 149; p. 1117.
Salomon, A., New York, N. Y. Paints and enamels. No. 76,033; Dec. 7; Gaz. vol. 149; p. 306.
Sattler, J. G., Buffalo, N. Y. Leather shoes. No. 76,034; Dec. 7; Gaz. vol. 149; p. 306.
Sauer, C. F., Richmond, Va. Flavoring extracts of lemon, vanilla, and peppermint. No. 76,157; Dec. 21; Gaz. vol. 149; p. 829.
Schirmer, G., New York, N. Y. Musical publications. No. 76,022; Dec. 7; Gaz. vol. 149; p. 306.
Schloss & Company, J. W., New York, N. Y. Buttons. No. 75,998; Dec. 7; Gaz. vol. 149; p. 305.
Schmidt, A., Norfolk, Nebr. Remedy for stomach troubles, indigestion, and biliousness. No. 76,059; Dec. 7; Gaz. vol. 149; p. 307.
Schorsch & Co., New York, N. Y. Paper bags. No. 76,216; Dec. 28; Gaz. vol. 149; p. 1115.
Sea Gull Specialty Company, Baltimore, Md. Baking-powder. No. 76,004; Dec. 14; Gaz. vol. 149; p. 598.
Sealy Mattress Company, Dallas, Tex. Mattresses. No. 76,217; Dec. 28; Gaz. vol. 149; p. 1115.
Sears & Nichols Company, Chillicothe and Frankfort, Ohio. Canned fruits, berries, vegetables, and pork and beans. No. 75,999; Dec. 7; Gaz. vol. 149; p. 305.
Sears & Nichols Company, Chillicothe and Frankfort, Ohio. Canned foods. No. 76,000; Dec. 7; Gaz. vol. 149; p. 305.
Sharp & Dohme, Baltimore, Md. Laxative. No. 76,054; Dec. 7; Gaz. vol. 148; p. 307.
Sharp & Dohme, Baltimore, Md. Remedy for indigestion. No. 76,129; Dec. 14; Gaz. vol. 149; p. 599.
Shawmut Tire Co., Boston, Mass. Rubber vehicle-tires. No. 76,081; Dec. 14; Gaz. vol. 149; p. 597.
Sherry Shoe Co., Lynn, Mass. Leather shoes. No. 76,158; Dec. 21; Gaz. vol. 149; p. 829.
Shipley, J. F., Bogky Depot, Okla. Soap. No. 76,130; Dec. 14; Gaz. vol. 149; p. 599.
Simpson Crawford Co., New York, N. Y. Kid gloves and leather shoes. No. 76,001; Dec. 7; Gaz. vol. 149; p. 305.
Skidd, C., Kenosha, Wis. Milk coolers and aerators. No. 76,095; Dec. 14; Gaz. vol. 149; p. 598.
Smith, A. D., Orange, N. J. Diaper-cloth. No. 76,060; Dec. 7; Gaz. vol. 149; p. 307.
Smith, J. T., Newark, N. J. Patent and enameled leather. No. 76,006; Dec. 14; Gaz. vol. 149; p. 598.
Snell & Atherton Incorporated, Brockton, Mass. Certain knives and tools. No. 76,039; Dec. 7; Gaz. vol. 149; p. 306.
Spring Valley Canning Company, Spring Valley and Lebanon, Ohio. Canned vegetables. No. 76,082; Dec. 14; Gaz. vol. 149; p. 597.
Squirrel Brand Company, Cambridge, Mass. Certain foods. No. 76,187; Dec. 21; Gaz. vol. 149; p. 830.
Standard Knitting Company, Cleveland, Ohio. Certain clothing. No. 76,083; Dec. 14; Gaz. vol. 149; p. 597.
Standard Knitting Mills Company, New York, N. Y. Hosiery and knitted vests, undershirts, &c. No. 76,002; Dec. 7; Gaz. vol. 149; p. 305.
Standard Oil Co. of New York, New York, N. Y. Refined petroleum. No. 76,188; Dec. 21; Gaz. vol. 149; p. 830.
Ste. Anme. des Blancs Minéraux, Amsterdam, Netherlands. Chalk. No. 76,159; Dec. 21; Gaz. vol. 149; p. 829.
Stonewall Cotton Mills, Stonewall, Miss. Certain textiles. No. 76,233; Dec. 28; Gaz. vol. 149; p. 1116.
Suffolk Drug Corporation, Suffolk, Va. Carbonated tonic beverage. No. 76,262; Dec. 28; Gaz. vol. 149; p. 1117.
Sumner Iron Works, Everett, Wash. Certain machinery. No. 76,055; Dec. 7; Gaz. vol. 149; p. 307.
Sunlit Fruit Company, West Berkeley, Cal. Canned fruits. Nos. 76,002-4; Dec. 7; Gaz. vol. 149; p. 305.
Sunlit Fruit Company, West Berkeley, Cal. Canned fruits. No. 76,201; Dec. 28; Gaz. vol. 149; p. 1115.
Synvita Medicine Co., Lima, Ohio. Remedies for certain diseases. No. 76,169; Dec. 21; Gaz. vol. 149; p. 830.
Taplin, Rice-Clerkin Company, Akron, Ohio. Certain heating apparatus. No. 76,063; Dec. 7; Gaz. vol. 149; p. 307.
Texas Company, Beaumont and Houston, Tex., and New York, N. Y. Petroleum products. No. 76,131; Dec. 14; Gaz. vol. 149; p. 599.
Theobald and Son Co., Columbus, Ohio. Whisky. No. 76,218; Dec. 28; Gaz. vol. 149; p. 1115.
Townsend & Co., E. M., New York, N. Y. Hosiery. No. 76,234; Dec. 28; Gaz. vol. 149; p. 1116.
Traiser & Co., H., Boston, Mass. Cigars. No. 76,088; Dec. 7; Gaz. vol. 149; p. 307.
Tribune Company, Chicago, Ill. Comic sections of newspapers. No. 76,219; Dec. 28; Gaz. vol. 149; p. 1115.
Tropical Oil Company, Cleveland, Ohio. Lubricating compound. No. 76,035; Dec. 7; Gaz. vol. 149; p. 306.
Tucker, W., Ardsley-on-Hudson, N. Y. Worm-eradicator. No. 76,263; Dec. 28; Gaz. vol. 149; p. 1117.
Turner, Day & Woolworth Handle Co. Louisville, Ky.; Memphis and Nashville, Tenn., and Huntington, W. Va. Wooden tool-handles. No. 76,036; Dec. 7; Gaz. vol. 149; p. 306.
Turner, Day & Woolworth Handle Co., Louisville, Ky.; Memphis and Nashville, Tenn., and Huntington, W. Va. Wooden tool-handles. No. 76,220; Dec. 28; Gaz. vol. 149; p. 1115.
Turner, Day & Woolworth Handle Co., Louisville, Ky.; Memphis and Nashville, Tenn., and Huntington, W. Va. Wooden tool-handles. Nos. 76,235-40; Dec. 28; Gaz. vol. 149; p. 1116.
U. S. Horse Radish Co., Saginaw, Mich. Certain foods. No. 76,132; Dec. 14; Gaz. vol. 149; p. 599.
Ulrich, C. J., New York, N. Y. Remedies for burns, bruises, and ulcers. No. 76,264; Dec. 28; Gaz. vol. 149; p. 1117.
Uncle Sam's Macaroni Company, Tecumseh, Mich. Certain foods. No. 76,005; Dec. 7; Gaz. vol. 149; p. 305.
Union Oil Company, West New York, N. J., and New Orleans, La. Cotton-seed meal for feeding purposes. No. 76,189; Dec. 21; Gaz. vol. 149; p. 830.
United States Bunting Co., Lowell, Mass. Bunting. No. 76,241; Dec. 28; Gaz. vol. 149; p. 1116.
United States Playing Card Company, Cincinnati, Ohio. Poker-chips. No. 76,133; Dec. 14; Gaz. vol. 149; p. 599.
United States Reg. Co. Ltd., Battle Creek, Mich. Floor and wall registers. No. 76,084; Dec. 14; Gaz. vol. 149; p. 597.
Valentine & Bentley Silk Co., Newton, N. J., and New York, N. Y. Silk piece goods. No. 76,190; Dec. 21; Gaz. vol. 149; p. 830.
Van Dusee, C. E. (See H. J. Nice Company, assignor.)
Vulcanized Rubber Co., New York, N. Y. Rubber combs. No. 76,160; Dec. 21; Gaz. vol. 149; p. 829.
Wells Flour Milling Company, Wells, Minn. Wheat-flour. No. 76,221; Dec. 28; Gaz. vol. 149; p. 1115.
Wester Bros., New York, N. Y. Razors, scissors, shears, and table cutlery. No. 76,242; Dec. 28; Gaz. vol. 149; p. 1116.
Western Cartridge Co., East Alton, Ill. Targets. No. 76,222; Dec. 28; Gaz. vol. 149; p. 1116.
Western Grocer Company, Marshalltown, Iowa. Certain foods. Nos. 76,161-2; Dec. 21; Gaz. vol. 149; pp. 829-30.
Whittemore Brothers and Company, Cambridge, Mass. Preparation for cleaning and renewing leather, &c. No. 76,061; Dec. 7; Gaz. vol. 149; p. 307.
Wood & Co., I., Boston, Mass. Tea. No. 76,085; Dec. 14; Gaz. vol. 149; p. 597.
Wright's Indian Vegetable Pill Company, New York, N. Y. Liquid remedy for worms. No. 76,266; Dec. 28; Gaz. vol. 149; p. 1117.
Wyoming Shovel Works, Wyoming, Pa. Shovels. No. 76,223; Dec. 28; Gaz. vol. 149; p. 1116.
Young Bros., Inc., Seattle, Wash. Tea, blended coffee, flavoring extracts, and spices. No. 76,006; Dec. 7; Gaz. vol. 149; p. 305.

ALPHABETICAL LIST OF REGISTRANTS OF LABELS.

Apex Fish Company, Anacortes, Wash. "Rex Brand Red Salmon." (For Salmon.) No. 15,072; Dec. 28; Gaz. vol. 149; p. 1118.
Levy, G. S., Union, Oreg. "Levy's Oregon Grape Compound." (For a Medicine.) No. 15,073; Dec. 28; Gaz. vol. 149; p. 1119.
Wolf, H., Globe, Ariz. "Wolf's Catarrh Remedy." (For Medicine for Catarrh.) No. 15,071; Dec. 14; Gaz. vol. 149; p. 600.

PRINTS.

Semois Manf'g Co., Los Angeles, Cal. "Semois." (For an Insecticide.) No. 2,556; Dec. 14; Gaz. vol. 149; p. 600.

ALPHABETICAL LIST OF INVENTIONS

FOR WHICH

PATENTS WERE ISSUED DURING THE MONTH OF DECEMBER, 1909.

[Abbreviations: "Sp."=Monthly Volume of Specifications; "Gaz."=Official Gazette.]

Abrasive composition and making same. L. H. Backeland. No. 942,808; Dec. 7; Sp. p. 1592; Gaz. vol. 149; p. 262.
Account-register, Revolvable. J. E. Benjamin. No. 943,961; Dec. 21; Sp. p. 4141; Gaz. vol. 149; p. 718.
Acrobatic purposes, Sphere for. C. F. Demek. No. 942,250; Dec. 7; Sp. p. 476; Gaz. vol. 149; p. 74.
Adjustable chair. A. B. Diss. No. 943,920; Dec. 21; Sp. p. 4065; Gaz. vol. 149; p. 704.
Adjustable ventilator. F. Terramorse. No. 944,831; Dec. 28; Sp. p. 6045; Gaz. vol. 149; p. 1040.
Advertising apparatus. J. V. Casey. No. 943,179; Dec. 14; Sp. p. 2465; Gaz. vol. 149; p. 419.
Advertising apparatus. W. J. Rider. No. 943,893; Dec. 21; Sp. p. 3998; Gaz. vol. 149; p. 693.
Advertising device. W. F. Sweet. No. 943,714; Dec. 21; Sp. p. 3641; Gaz. vol. 149; p. 532.
Advertising novelty. L. Feist. No. 943,776; Dec. 21; Sp. p. 3756; Gaz. vol. 149; p. 554.
Advertising or display apparatus. A. Quentin. No. 943,994; Dec. 21; Sp. p. 4234; Gaz. vol. 149; p. 729.
Aerial elevator. J. A. Scott. No. 943,572; Dec. 14; Sp. p. 3299; Gaz. vol. 149; p. 554.
Aerial navigating apparatus. L. Felker. No. 942,629; Dec. 7; Sp. p. 1245; Gaz. vol. 149; p. 204.
Aerial navigation. J. Means. No. 943,120; Dec. 14; Sp. p. 2362; Gaz. vol. 149; p. 401.
Aeroplane, Gyroscopic. S. S. Williams. No. 942,691; Dec. 7; Sp. p. 1361; Gaz. vol. 149; p. 243.
Agar-agar-cascara product. A. Schmidt. No. 943,163; Dec. 14; Sp. p. 2442; Gaz. vol. 149; p. 415.
Agricultural purposes, Spiked roller for. R. Nacke. No. 943,989; Dec. 21; Sp. p. 4216; Gaz. vol. 149; p. 727.
Air-brake-adjusting device for loaded and empty cars. A. L. Goodknight. No. 943,778; Dec. 21; Sp. p. 3759; Gaz. vol. 149; p. 554.
Air-brake-apparatus cut-out or release. S. P. Cota. No. 943,769; Dec. 21; Sp. p. 3740; Gaz. vol. 149; p. 651.
Air-brakes, Triple valve for. W. B. Mann. No. 943,983; Dec. 21; Sp. p. 4189; Gaz. vol. 149; p. 725.
Air-compressor. A. T. Newell. No. 942,455; Dec. 7; Sp. p. 894; Gaz. vol. 149; p. 144.
Air-cooling apparatus. J. E. Gloekler. No. 944,086; Dec. 21; Sp. p. 4413; Gaz. vol. 149; p. 760.
Air-currents, Means for observing and separating heavy objects from dust-laden. D. Fogarty. No. 944,779; Dec. 28; Sp. p. 5927; Gaz. vol. 149; p. 1022.
Air-ship. A. Bratschie. No. 943,732; Dec. 21; Sp. p. 3672; Gaz. vol. 149; p. 638.
Air-trap, Automatic. R. N. Dyer. No. 942,368; Dec. 7; Sp. p. 707; Gaz. vol. 149; p. 115.
Alarm: *See* Burglar-alarm; Fire-alarm.
Alarm apparatus. H. R. Bretney. No. 942,433; Dec. 7; Sp. p. 829; Gaz. vol. 149; p. 136.
Alarm apparatus. F. P. Moyer. No. 943,440; Dec. 14; Sp. p. 3012; Gaz. vol. 149; p. 508.
Alfalfa-cutter. J. Jorgensen. No. 943,306; Dec. 14; Sp. p. 2741; Gaz. vol. 149; p. 463.
Alloy for electrical resistance. W. B. Driver. No. 943,066; Dec. 14; Sp. p. 2257; Gaz. vol. 149; p. 383.
Alloys, Making and casting. J. F. Monnot. No. 944,371; Dec. 28; Sp. p. 5014; Gaz. vol. 149; p. 882.
Alloys of alkali-earth metals, &c., Production of. G. O. Seward and F. von Kügelgen. No. 944,826; Dec. 28; Sp. p. 6036; Gaz. vol. 149; p. 1038.
Alloys of copper, such as brass, Production of. S. C. Peck and W. R. Hodgkinson. No. 943,159; Dec. 14; Sp. p. 2437; Gaz. vol. 149; p. 414.
Alloys, Producing ferro. E. F. Price. No. 942,349; Dec. 7; Sp. p. 677; Gaz. vol. 149; p. 109.
Alumino-silicate or artificial zeolite. R. Gans. No. 943,535; Dec. 14; Sp. p. 3225; Gaz. vol. 149; p. 542.
Ammonia, &c., Making and recovering. W. J. Dunnachie. No. 943,390; Dec. 14; Sp. p. 2929; Gaz. vol. 149; p. 494.
Amusement apparatus. A. C. Wolf. No. 942,230; Dec. 7; Sp. p. 435; Gaz. vol. 149; p. 67.
Amusement apparatus, Mechanical. W. Harling. No. 943,539; Dec. 14; Sp. p. 3230; Gaz. vol. 149; p. 543.
Amusement device. E. C. Beebe. No. 944,407; Dec. 28; Sp. p. 5101; Gaz. vol. 149; p. 896.
Amusement device. C. F. Mack. No. 944,452; Dec. 28; Sp. p. 5196; Gaz. vol. 149; p. 910.
Amusement of the public, Apparatus for the. W. Taylor. No. 942,750; Dec. 7; Sp. p. 1499; Gaz. vol. 149; p. 246.
Anemometer. C. M. Bernegau. No. 943,962; Dec. 21; Sp. p. 4146; Gaz. vol. 149; p. 718.
Angle-indicator for portable machinery, Universal. W. T. McPhetridge. No. 944,810; Dec. 28; Sp. p. 5999; Gaz. vol. 149; p. 1033.
Animal-trap. A. Brechelsen. No. 942,481; Dec. 7; Sp. p. 951; Gaz. vol. 149; p. 153.
Animal-trap. R. M. Wilbur. No. 942,528; Dec. 7; Sp. p. 1051; Gaz. vol. 149; p. 170.
Animal-trap. N. E. Austin. No. 942,878; Dec. 14; Sp. p. 1797; Gaz. vol. 149; p. 317.
Ankle-support. W. J. McLinden. No. 943,703; Dec. 21; Sp. p. 3614; Gaz. vol. 149; p. 628.
Annealing-box. F. E. Mesta. No. 944,343; Dec. 28; Sp. p. 4945; Gaz. vol. 149; p. 872.
Annealing-box. F. E. Mesta. No. 944,344; Dec. 28; Sp. p. 4947; Gaz. vol. 149; p. 872.
Annealing flats. F. H. Daniels. No. 943,393; Dec. 14; Sp. p. 2920; Gaz. vol. 149; p. 492.
Annealing flats and other shapes. F. H. Daniels. No. 943,392; Dec. 14; Sp. p. 2918; Gaz. vol. 149; p. 491.
Annealing flats and other shapes, Apparatus for. F. H. Daniels. No. 943,625; Dec. 14; Sp. p. 3435; Gaz. vol. 149; p. 573.
Annealing flats and other shapes, Apparatus for. F. H. Daniels. No. 943,626; Dec. 14; Sp. p. 3438; Gaz. vol. 149; p. 574.
Announcement-board. W. N. King. No. 943,941; Dec. 21; Sp. p. 4108; Gaz. vol. 149; p. 712.
Ant-trap. J. W. Mercer. No. 944,568; Dec. 28; Sp. p. 5482; Gaz. vol. 149; p. 951.
Antidrifting device. E. Gunnell. No. 942,555; Dec. 7; Sp. p. 1714; Gaz. vol. 149; p. 278.
Antifouling composition. C. Ellis. No. 944,420; Dec. 28; Sp. p. 5125; Gaz. vol. 149; p. 900.
Apartment, Living-. J. H. Edmonds. No. 944,021; Dec. 21; Sp. p. 4285; Gaz. vol. 149; p. 738.
Apparel, Wearing-. N. J. Roller. No. 942,933; Dec. 14; Sp. p. 1930; Gaz. vol. 149; p. 356.
Apparel, Wearing-. C. C. Collins. No. 944,176; Dec. 21; Sp. p. 4603; Gaz. vol. 149; p. 789.
Apples and such like fruit, Apparatus for grading. J. Lomas. No. 944,887; Dec. 28; Sp. p. 6159; Gaz. vol. 149; p. 1060.
Apron. E. L. Henderson. No. 944,553; Dec. 28; Sp. p. 5440; Gaz. vol. 149; p. 946.
Arm-chair and folding bed. J. C. Smith. No. 942,594; Dec. 7; Sp. p. 1170; Gaz. vol. 149; p. 191.
Ash-pan, Gravity-slide. J. J. Ryan. No. 944,506; Dec. 28; Sp. p. 5333; Gaz. vol. 149; p. 929.
Assay-furnace. B. E. Tennent. No. 944,470; Dec. 28; Sp. p. 5236; Gaz. vol. 149; p. 917.
Auto, Baby-. J. R. Spencer. No. 942,679; Dec. 7; Sp. p. 1341; Gaz. vol. 149; p. 220.
Automatic switch. J. W. Thompson. No. 943,758; Dec. 21; Sp. p. 3722; Gaz. vol. 149; p. 648.
Automobile controller, Electric-. H. P. Dodge. No. 942,488; Dec. 7; Sp. p. 964; Gaz. vol. 149; p. 156.
Automobile drip-pans, Valve for. T. A. Yapp. No. 942,232; Dec. 7; Sp. p. 440; Gaz. vol. 149; p. 68.
Automobile driving mechanism. C. B. Hatfield, Jr. No. 943,744; Dec. 21; Sp. p. 3695; Gaz. vol. 149; p. 642.
Automobile driving mechanism. C. B. Hatfield, Jr. No. 943,745; Dec. 21; Sp. p. 3698; Gaz. vol. 149; p. 643.
Automobile driving mechanism. C. B. Hatfield, Jr. No. 943,746; Dec. 21; Sp. p. 3701; Gaz. vol. 149; p. 643.
Automobile-gear. H. P. Dodge and C. M. Foster. No. 943,240; Dec. 14; Sp. p. 2599; Gaz. vol. 149; p. 440.
Automobile-radiator. H. P. Smith and L. E. Hooker. No. 942,677; Dec. 7; Sp. p. 1338; Gaz. vol. 149; p. 220.
Automobile-radiators, Section for. H. Kurtzner. No. 943,257; Dec. 14; Sp. p. 2635; Gaz. vol. 149; p. 446.
Automobile safety device. O. Karcher. No. 943,227; Dec. 14; Sp. p. 2566; Gaz. vol. 149; p. 435.
Automobile spring running-gear. C. P. Boomer. No. 943,764; Dec. 21; Sp. p. 3731; Gaz. vol. 149; p. 649.
Automobile wind-shield. A. W. Towle. No. 942,225; Dec. 7; Sp. p. 425; Gaz. vol. 149; p. 65.
Automobiles and the like, Shock-absorber for. R. B. Ewart. No. 943,774; Dec. 21; Sp. p. 3751; Gaz. vol. 149; p. 653.
Automobiles, Sleigh attachment for. P. M. Knutson. No. 942,082; Dec. 7; Sp. p. 94; Gaz. vol. 149; p. 16.
Awning-fixture. J. W. Bancroft. No. 943,059; Dec. 14; Sp. p. 2245; Gaz. vol. 149; p. 381.

Axle and bearing, Car-wheel. G. F. Rendall. No. 944,463; Dec. 28; Sp. p. 5223; Gaz. vol. 149; p. 914.
Axle, Automobile-. M. D. Tindal. No. 942,151; Dec. 7; Sp. p. 274; Gaz. vol. 149; p. 42.
Azimuth-indicator. I. N. Lewis. No. 943,751; Dec. 21; Sp. p. 3709; Gaz. vol. 149; p. 645.
Baby-cloths, Receptacle for. C. Brewer. No. 944,071; Dec. 21; Sp. p. 4380; Gaz. vol. 149; p. 755.
Baby-gate. G. Heidt. No. 942,067; Dec. 7; Sp. p. 57; Gaz. vol. 149; p. 11.
Bag: *See* Paper bag; Striking-bag.
Bag-fastener. F. J. Brown. No. 943,175; Dec. 14; Sp. p. 2460; Gaz. vol. 149; p. 418.
Bag-fastener. C. J. Lysaght. No. 943,229; Dec. 14; Sp. p. 2573; Gaz. vol. 149; p. 436.
Bag-fastener. J. S. Isidor. No. 943,937; Dec. 21; Sp. p. 4099; Gaz. vol. 149; p. 710.
Bag-holder. H. Woodman. No. 942,231; Dec. 7; Sp. p. 439; Gaz. vol. 149; p. 67.
Bag-machine. W. Liddell. No. 943,427; Dec. 14; Sp. p. 2979; Gaz. vol. 149; p. 503.
Baggage-fastener. J. B. Moses. No. 942,733; Dec. 7; Sp. p. 1451; Gaz. vol. 149; p. 237.
Baking-pan. G. Mueller. No. 943,093; Dec. 14; Sp. p. 2307; Gaz. vol. 149; p. 391.
Baking-powder. J. H. Hooker. No. 942,072; Dec. 7; Sp. p. 63; Gaz. vol. 149; p. 12.
Baling-machine. W. H. Hansen and A. J. Price. No. 942,257; Dec. 7; Sp. p. 491; Gaz. vol. 149; p. 76.
Baling-press. I. W. Rohrer, Jr. No. 944,823; Dec. 28; Sp. p. 6029; Gaz. vol. 149; p. 1037.
Ball. W. W. Wrather. No. 942,952; Dec. 14; Sp. p. 1980; Gaz. vol. 149; p. 343.
Ball-marking device, Golf-. W. T. West. No. 943,851; Dec. 21; Sp. p. 3911; Gaz. vol. 149; p. 680.
Bangles, bracelets, and the like, Attachment for. S. Mendel. No. 943,031; Dec. 14; Sp. p. 2164; Gaz. vol. 149; p. 370.
Bank, Portable savings-. J. H. Gunnes. No. 942,638; Dec. 7; Sp. p. 1265; Gaz. vol. 149; p. 207.
Bar: *See* Boring-bar; Grate-bar; Joint-bar; Reinforcement-bar; Type-bar.
Barn construction. J. R. Buckwalter. No. 942,884; Dec. 14; Sp. p. 1811; Gaz. vol. 149; p. 320.
Barrel, Metallic. A. T. Kruse. No. 943,587; Dec. 21; Sp. p. 3575; Gaz. vol. 149; p. 623.
Barrel or keg. J. F. Craven. No. 943,815; Dec. 21; Sp. p. 3835; Gaz. vol. 149; p. 667.
Barrettes, combs, and the like, Die for. M. Falk. No. 944,422; Dec. 28; Sp. p. 5132; Gaz. vol. 149; p. 900.
Basket, Coal-. H. G. Mitchell. No. 944,807; Dec. 28; Sp. p. 5993; Gaz. vol. 149; p. 1031.
Bath-cabinet. A. B. Renehan. No. 944,911; Dec. 28; Sp. p. 6204; Gaz. vol. 149; p. 1067.
Bath device, Spray or needle. W. E. Holmes. No. 944,611; Dec. 28; Sp. p. 5577; Gaz. vol. 149; p. 967.
Bathing-suit, Buoyant. P. J. Griffin. No. 944,782; Dec. 28; Sp. p. 5931; Gaz. vol. 149; p. 1023.
Battery: *See* Electric battery; Storage battery.
Battery-element support. C. B. Schoenmehl. No. 943,275; Dec. 14; Sp. p. 2675; Gaz. vol. 149; p. 452.
Battery elements, Coupling for. F. A. Decker. No. 944,078; Dec. 21; Sp. p. 4398; Gaz. vol. 149; p. 758.
Battery tank, Storage-. T. A. Willard. No. 942,990; Dec. 14; Sp. p. 2059; Gaz. vol. 149; p. 356.
Bearing, Ball-. G. A. W. Koch. No. 942,392; Dec. 7; Sp. p. 746; Gaz. vol. 149; p. 122.
Bearing, Ball-. H. Hess. No. 944,863; Dec. 28; Sp. p. 6120; Gaz. vol. 149; p. 1051.
Bearing for furrow-opening disks. F. R. Packham. No. 944,045; Dec. 21; Sp. p. 4328; Gaz. vol. 149; p. 746.
Bearing, Roller-. F. M. Foote. No. 942,252; Dec. 7; Sp. p. 479; Gaz. vol. 149; p. 75.
Bearing, Roller-. W. Vanmanen. No. 943,128; Dec. 14; Sp. p. 2375; Gaz. vol. 149; p. 403.
Bearing, Roller-. M. Schluss. No. 943,570; Dec. 14; Sp. p. 3286; Gaz. vol. 149; p. 554.
Bearing, Roller-. A. L. Moore. No. 944,684; Dec. 28; Sp. p. 5707; Gaz. vol. 149; p. 990.
Bearing, Shaft-. G. Küpfer. No. 943,688; Dec. 21; Sp. p. 3577; Gaz. vol. 149; p. 623.
Beating and mixing machine. F. H. Van Houten and H. M. Bachman. No. 942,116; Dec. 7; Sp. p. 189; Gaz. vol. 149; p. 28.
Bed and bedstead for the use of invalids. J. McKay. No. 944,204; Dec. 21; Sp. p. 4651; Gaz. vol. 149; p. 797.
Bed attachment. P. H. Wilson. No. 942,606; Dec. 7; Sp. p. 1196; Gaz. vol. 149; p. 195.
Bed-bottom. J. F. McClatchey. No. 943,442; Dec. 14; Sp. p. 3016; Gaz. vol. 149; p. 509.
Bed-bottom, Spring. J. L. Moore. No. 944,569; Dec. 28; Sp. p. 5483; Gaz. vol. 149; p. 951.
Bed, Couch-. H. D. Penney. No. 942,459; Dec. 7; Sp. p. 905; Gaz. vol. 149; p. 146.
Bed-couch. G. A. Lambert. No. 944,564; Dec. 28; Sp. p. 5476; Gaz. vol. 149; p. 950.
Bed-couch, Folding. G. A. Lambert. No. 944,334; Dec. 28; Sp. p. 4930; Gaz. vol. 149; p. 869.
Bed-frame. F. G. Gale. No. 944,085; Dec. 21; Sp. p. 4412; Gaz. vol. 149; p. 760.
Bed head-rest. J. G. Ryan. No. 942,354; Dec. 7; Sp. p. 683; Gaz. vol. 149; p. 110.
Bed, Obstetrical. W. B. Peak. No. 943,453; Dec. 14; Sp. p. 3053; Gaz. vol. 149; p. 513.
Beds, Safety-headboard for folding. J. H. Edmonds. No. 943,594; Dec. 14; Sp. p. 3328; Gaz. vol. 149; p. 561.
Bedstead. J. Westhaver. No. 942,426; Dec. 7; Sp. p. 818; Gaz. vol. 149; p. 134.
Bedstead. F. G. Gale. No. 944,084; Dec. 21; Sp. p. 4410; Gaz. vol. 149; p. 760.
Bedstead attachment. C. D. Clark. No. 943,217; Dec. 14; Sp. p. 2540; Gaz. vol. 149; p. 432.
Bedstead clothes-clamp. F. L. Taylor. No. 944,056; Dec. 21; Sp. p. 4353; Gaz. vol. 149; p. 750.
Bedstead, Extension-. H. B. Arnold. No. 942,170; Dec. 14; Sp. p. 2453; Gaz. vol. 149; p. 417.
Bedsteads, Locking-plate for the rails of. G. M. Donaldson. No. 944,325; Dec. 28; Sp. p. 4916; Gaz. vol. 149; p. 866.
Bell, Door-. F. Sexauer. No. 943,320; Dec. 14; Sp. p. 2765; Gaz. vol. 149; p. 467.
Belt. W. F. Lott. No. 943,228; Dec. 14; Sp. p. 2571; Gaz. vol. 149; p. 436.
Belt-joint. J. C. Blevney. No. 944,658; Dec. 28; Sp. p. 5660; Gaz. vol. 149; p. 982.
Belt-shifter. J. A. Long. No. 942,384; Dec. 7; Sp. p. 732; Gaz. vol. 149; p. 119.
Belt-shifter. J. S. Elliott. No. 944,359; Dec. 28; Sp. p. 4990; Gaz. vol. 149; p. 878.
Belt-shifter support. C. W. Levalley. No. 942,837; Dec. 7; Sp. p. 1661; Gaz. vol. 149; p. 272.
Belt-stretcher. L. Eberline and F. M. Wanzer. No. 944,068; Dec. 28; Sp. p. 5091; Gaz. vol. 149; p. 1081.
Bending apparatus. P. Ditchfield. No. 943,967; Dec. 21; Sp. p. 4156; Gaz. vol. 149; p. 720.
Berth for ships, Swinging. V. Bridgman. No. 943,380; Dec. 14; Sp. p. 2897; Gaz. vol. 149; p. 487.
Billiard-cue tip and fastener. C. Marx. No. 943,360; Dec. 14; Sp. p. 2860; Gaz. vol. 149; p. 481.
Bin: *See* Flour-bin.
Binder. J. W. Stevenson. No. 944,388; Dec. 28; Sp. p. 5047; Gaz. vol. 149; p. 888.
Binder, Loose-leaf. G. O. Olson. No. 942,098; Dec. 7; Sp. p. 132; Gaz. vol. 149; p. 21.
Binder, Loose-leaf. J. L. McMillan and C. H. Joslyn. No. 943,156; Dec. 14; Sp. p. 2431; Gaz. vol. 149; p. 413.
Binder, Loose-leaf. J. M. Lull. No. 943,431; Dec. 14; Sp. p. 2993; Gaz. vol. 149; p. 505.
Binder, Loose-leaf. G. C. Moore. No. 944,893; Dec. 28; Sp. p. 6167; Gaz. vol. 149; p. 1061.
Binder, Loose-leaf. G. C. Moore. No. 944,894; Dec. 28; Sp. p. 6169; Gaz. vol. 149; p. 1062.
Binder, Loose-leaf. G. C. Moore. No. 944,895; Dec. 28; Sp. p. 6171; Gaz. vol. 149; p. 1062.
Binder, Loose-sheet. W. P. Pitt. No. 943,544; Dec. 21; Sp. p. 3891; Gaz. vol. 149; p. 677.
Binder or loose-sheet holder, Temporary. H. F. Bushong. No. 944,256; Dec. 28; Sp. p. 4761; Gaz. vol. 149; p. 841.
Binder post, Loose-leaf-. F. H. Crump. No. 944,179; Dec. 21; Sp. p. 4607; Gaz. vol. 149; p. 790.
Binder, Temporary. F. H. Curry and L. R. Coppage. No. 943,006; Dec. 14; Sp. p. 2103; Gaz. vol. 149; p. 361.
Binding-machine. C. F. McBee. No. 943,094; Dec. 14; Sp. p. 2306; Gaz. vol. 149; p. 391.
Binding-nicking machine. E. E. Sanborn. No. 942,354; Dec. 14; Sp. p. 1631; Gaz. vol. 149; p. 236.
Biscuit-coating machine. H. Tietjens. No. 943,264; Dec. 14; Sp. p. 2650; Gaz. vol. 149; p. 468.
Bivalves, Preservation of. A. A. Freeman. No. 944,027; Dec. 21; Sp. p. 4297; Gaz. vol. 149; p. 740.
Blade-molding means. F. Hodgkinson. No. 943,248; Dec. 14; Sp. p. 2557; Gaz. vol. 149; p. 477.
Blade-mounting means. J. E. Snyder. No. 943,490; Dec. 14; Sp. p. 3105; Gaz. vol. 149; p. 523.
Blast-hole charger. A. Boby. No. 944,936; Dec. 28; Sp. p. 6257; Gaz. vol. 149; p. 1075.
Blind-slat fastener. J. B. Riley. No. 942,930; Dec. 14; Sp. p. 1922; Gaz. vol. 149; p. 335.
Block: *See* Building-block; Concrete building-block; Railway lining-block; Railway-track safety-block; Shoe-block; Snatch-block; Wheel-block.
Block-mold. E. May. No. 942,092; Dec. 7; Sp. p. 124; Gaz. vol. 149; p. 20.
Blowpipe. J. F. Williams. No. 942,690; Dec. 7; Sp. p. 1357; Gaz. vol. 149; p. 243.
Blowpipe. E. Odam. No. 943,043; Dec. 14; Sp. p. 2202; Gaz. vol. 149; p. 374.
Blue-flame burner, Wick. A. J. Blackford. No. 944,840; Dec. 28; Sp. p. 6057; Gaz. vol. 149; p. 1042.
Board: *See* Announcement-board; Carving-board; Cooling-board; Game-board; Ironing-board; Marking-board; Pitch-board; Shoveling-board; Solitaire-board; Switchboard; Thread-board; Washboard.
Boat. W. J. Reed. No. 944,209; Dec. 21; Sp. p. 4659; Gaz. vol. 149; p. 798.
Boat, Compound. J. D. White. No. 942,687; Dec. 7; Sp. p. 1354; Gaz. vol. 149; p. 222.
Boat-planking, Securing means for. J. M. Alexander and M. Willhahn. No. 942,473; Dec. 7; Sp. p. 945; Gaz. vol. 149; p. 152.
Boat, Submarine. R. D'Equevilley-Montjustin. No. 943,804; Dec. 14; Sp. p. 3350; Gaz. vol. 149; p. 555.
Boat, Submarine. R. D'Equevilley-Montjustin. No. 943,805; Dec. 14; Sp. p. 3352; Gaz. vol. 149; p. 556.
Boats, Ship's-screw-driving mechanism for submarine. W. Maier. No. 943,434; Dec. 14; Sp. p. 3000; Gaz. vol. 149; p. 506.
Boiler: *See* Hot-water and steam boiler; Steam-boiler; Steam and hot-water boiler; Water-tube boiler.
Boiler-cleaning apparatus. O. Donats. No. 944,719; Dec. 28; Sp. p. 5797; Gaz. vol. 149; p. 1002.
Boiler-cleaning device. A. Thomas and E. Thompson. No. 942,962; Dec. 14; Sp. p. 2042; Gaz. vol. 149; p. 353.

Boiler-flue expander. D. A. Lucas, G. D. De Long, and A. N. Lucas. No. 943,117; Dec. 14; Sp. p. 2355; Gaz. vol. 149; p. 399.
Boiler furnace, Locomotive-. F. F. Gaines. No. 943,823; Dec. 21; Sp. p. 3849; Gaz. vol. 149; p. 670.
Boiler-plug. C. L. McVoy. No. 944,205; Dec. 21; Sp. p. 4653; Gaz. vol. 149; p. 797.
Boiler-scale removers, Container for. G. O. Leonard. No. 942,836; Dec. 7; Sp. p. 1659; Gaz. vol. 149; p. 271.
Boiler-tube cleaner. W. S. Elliott. No. 942,778; Dec. 7; Sp. p. 1543; Gaz. vol. 149; p. 253.
Boiler-tube cleaner. J. V. Symons. No. 942,798; Dec. 7; Sp. p. 1575; Gaz. vol. 149; p. 259.
Boiler-tube expander. J. C. Tassey. No. 943,579; Dec. 14; Sp. p. 3290; Gaz. vol. 149; p. 556.
Bolster. C. A. Lindström. No. 943,979; Dec. 21; Sp. p. 4183; Gaz. vol. 149; p. 724.
Bolster. C. A. Lindström. No. 943,980; Dec. 21; Sp. p. 4184; Gaz. vol. 149; p. 724.
Bolsters and similar articles, Making. F. Ditchfield. No. 943,968; Dec. 21; Sp. p. 4157; Gaz. vol. 149; p. 720.
Bolt: *See* Nut-locking expansion-bolt.
Bolt and nut lock. M. W. Smith. No. 944,288; Dec. 28; Sp. p. 4830; Gaz. vol. 149; p. 852.
Bolt-header. J. R. Blakeslee. No. 943,335; Dec. 14; Sp. p. 2799; Gaz. vol. 149; p. 472.
Bolting-machines, Nut-feeding attachment for. A. H. McCutchan. No. 944,374; Dec. 28; Sp. p. 5021; Gaz. vol. 149; p. 883.
Book, Blank. C. R. Fargo. No. 943,595; Dec. 14; Sp. p. 3331; Gaz. vol. 149; p. 561.
Book-guard. J. B. Boatright. No. 944,124; Dec. 21; Sp. p. 4503; Gaz. vol. 149; p. 773.
Book, Loose-leaf. W. H. Bayles. No. 944,653; Dec. 28; Sp. p. 5651; Gaz. vol. 149; p. 980.
Book mark and support. C. E. Flanders. No. 943,865; Dec. 21; Sp. p. 3937; Gaz. vol. 149; p. 684.
Book, temporary binder, file, and the like, Loose-leaf. J. H. Hewitt. No. 944,554; Dec. 28; Sp. p. 5440; Gaz. vol. 149; p. 946.
Books and other articles, Support for. G. J. Keene. No. 943,255; Dec. 14; Sp. p. 2631; Gaz. vol. 149; p. 445.
Boot and shoe tree and stretcher. W. H. Hooper. No. 944,365; Dec. 28; Sp. p. 5000; Gaz. vol. 149; p. 880.
Boots and socks, Excluder for felt and knitted. F. W. Savage. No. 942,672; Dec. 7; Sp. p. 1326; Gaz. vol. 149; p. 218.
Boring-bar. A. F. Liden. No. 943,088; Dec. 14; Sp. p. 2297; Gaz. vol. 149; p. 389.
Boring-machine. G. D. Wiggins. No. 942,389; Dec. 7; Sp. p. 741; Gaz. vol. 149; p. 121.
Boring-tool, Automatic. J. A. Leland and W. G. Stebbins. No. 942,572; Dec. 7; Sp. p. 1133; Gaz. vol. 149; p. 184.
Bottle and bottle-valve, Non-refillable. M. F. Giffin. No. 944,030; Dec. 21; Sp. p. 4302; Gaz. vol. 149; p. 741.
Bottle and stopper therefor. J. M. Anstead and H. Bollman. No. 944,106; Dec. 21; Sp. p. 4586; Gaz. vol. 149; p. 786.
Bottle-blanks, Machine for making. W. E. Savage. No. 944,053; Dec. 21; Sp. p. 4347; Gaz. vol. 149; p. 749.
Bottle-cap. G. L. Best. No. 943,510; Dec. 14; Sp. p. 3178; Gaz. vol. 149; p. 534.
Bottle-capping machine. T. J. Levey. (Reissue.) No. 13,065; Dec. 28; Sp. p. 6416; Gaz. vol. 149; p. 1101.
Bottle-cleaning machine. A. A. Pindstofte. No. 944,986; Dec. 28; Sp. p. 6357; Gaz. vol. 149; p. 1091.
Bottle-closure. W. H. Reid. No. 942,665; Dec. 7; Sp. p. 1316; Gaz. vol. 149; p. 216.
Bottle-closure. A. Adelson. No. 943,231; Dec. 14; Sp. p. 2582; Gaz. vol. 149; p. 437.
Bottle closure and seal. O. N. Tevander and A. Maniere. No. 942,421; Dec. 7; Sp. p. 808; Gaz. vol. 149; p. 122.
Bottle, Drenching-. C. B. Davis. No. 942,057; Dec. 7; Sp. p. 30; Gaz. vol. 149; p. 7.
Bottle filling and crowning machine. H. A. Allwardt. No. 944,352; Dec. 28; Sp. p. 4964; Gaz. vol. 149; p. 875.
Bottle, Non-refillable. F. S. Novotny. No. 942,183; Dec. 7; Sp. p. 335; Gaz. vol. 149; p. 51.
Bottle, Non-refillable. H. C. Anderson and F. S. Ash. No. 943,331; Dec. 14; Sp. p. 2792; Gaz. vol. 149; p. 470.
Bottle, Non-refillable. J. Birner and E. J. Heil. No. 943,334; Dec. 14; Sp. p. 2797; Gaz. vol. 149; p. 471.
Bottle, Non-refillable. A. La Rose. No. 943,425; Dec. 14; Sp. p. 2976; Gaz. vol. 149; p. 502.
Bottle, Non-refillable. I. A. Rosenfeld. No. 943,895; Dec. 21; Sp. p. 4002; Gaz. vol. 149; p. 694.
Bottle, Non-refillable. T. G. Clifford. No. 944,015; Dec. 21; Sp. p. 4277; Gaz. vol. 149; p. 736.
Bottle, Non-refillable. C. Hatossy. No. 944,092; Dec. 21; Sp. p. 4421; Gaz. vol. 149; p. 762.
Bottle, Non-refillable. C. H. Mensch. No. 944,200; Dec. 21; Sp. p. 4647; Gaz. vol. 149; p. 795.
Bottle, Non-refillable. J. J. Hourihan. No. 944,439; Dec. 28; Sp. p. 5164; Gaz. vol. 149; p. 906.
Bottle-opener. H. L. Vaughan. No. 943,759; Dec. 21; Sp. p. 3723; Gaz. vol. 149; p. 648.
Bottle-stopper. F. Gerhard. No. 944,671; Dec. 28; Sp. p. 5685; Gaz. vol. 149; p. 986.
Bottle-washing machine. P. Poinisch. No. 944,499; Dec. 28; Sp. p. 5319; Gaz. vol. 149; p. 927.
Bottles intended to contain volatile liquids, Stoppering for. J. Bengué. No. 944,765; Dec. 28; Sp. p. 5904; Gaz. vol. 149; p. 1018.
Bottling-machine. R. Littler. No. 942,271; Dec. 7; Sp. p. 514; Gaz. vol. 149; p. 81.
Bow-fastening device. I. Roggenburg. No. 944,465; Dec. 28; Sp. p. 5227; Gaz. vol. 149; p. 915.
Bowling-alley. H. V. Keefer. No. 943,419; Dec. 14; Sp. p. 2966; Gaz. vol. 149; p. 501.
Bowling-machine. J. and J. A. Venn. No. 943,494; Dec. 14; Sp. p. 3131; Gaz. vol. 149; p. 528.
Box: *See* Annealing-box; Car sand-box; Cigar-pressing box; Folding box; Knockdown box; Paper box; Post-office box; Safety-box; Sound-box; Telephone-box; Work-box.
Box. H. H. Kinsey. No. 942,391; Dec. 7; Sp. p. 743; Gaz. vol. 149; p. 122.
Box corner-stay. R. J. Robillard. No. 944,381; Dec. 28; Sp. p. 5034; Gaz. vol. 149; p. 886.
Box-cover fastening. F. H. Moellenbrock. No. 942,336; Dec. 7; Sp. p. 682; Gaz. vol. 149; p. 104.
Box-fastener. C. O. Mason. No. 942,839; Dec. 7; Sp. p. 1664; Gaz. vol. 149; p. 272.
Box-fastener, Hook-and-eye. W. Gregson. No. 944,260; Dec. 28; Sp. p. 4801; Gaz. vol. 149; p. 878.
Brace: *See* Brick-kiln brace; Door-brace; Drill-brace; Fence-brace; Mouth-brace; Vehicle-top joint-brace.
Bracket: *See* Car-door bracket; Detachable bracket; Roof-bracket; Shade-bracket.
Brake: *See* Car-brake; Carriage foot-brake; Coaster-brake; Fluid-brake; Hydraulic brake; Printing-press brake; Railway-brake; Sled-brake; Vehicle-brake; Wagon-brake.
Brake-beam. C. F. Huntoon. No. 943,021; Dec. 14; Sp. p. 2140; Gaz. vol. 149; p. 367.
Brake-beam hanger. S. S. Underwood. No. 942,985; Dec. 14; Sp. p. 2047; Gaz. vol. 149; p. 355.
Brake-equalizing mechanism. F. D. Thomason. No. 944,684; Dec. 21; Sp. p. 4355; Gaz. vol. 149; p. 751.
Brake-head. Waycott. No. 944,526; Dec. 28; Sp. p. 5386; Gaz. vol. 149; p. 937.
Brake-lever, Engine-moving. J. A. Taylor. No. 943,718; Dec. 21; Sp. p. 3644; Gaz. vol. 149; p. 633.
Brake-lever mechanism for carts and wagons. G. Manlove. No. 944,801; Dec. 28; Sp. p. 5973; Gaz. vol. 149; p. 1029.
Brake mechanism. E. Santache. No. 944,151; Dec. 21; Sp. p. 4554; Gaz. vol. 149; p. 781.
Brake-shoe. C. B. McPhillips. No. 942,343; Dec. 7; Sp. p. 665; Gaz. vol. 149; p. 106.
Brake-shoe. J. F. Beatty. No. 943,730; Dec. 21; Sp. p. 3671; Gaz. vol. 149; p. 638.
Brake-shoe. A. H. Reid. No. 943,995; Dec. 21; Sp. p. 4205; Gaz. vol. 149; p. 730.
Brake-shoe. H. H. McAlister. No. 944,573; Dec. 28; Sp. p. 5489; Gaz. vol. 149; p. 953.
Brake-shoe, Interlooking. H. Jones. No. 942,839; Dec. 7; Sp. p. 636; Gaz. vol. 149; p. 102.
Brake system, Fluid-pressure. J. A. Hicks. No. 944,455; Dec. 28; Sp. p. 5207; Gaz. vol. 149; p. 921.
Brake system, Fluid-pressure. J. A. Hicks. No. 944,456; Dec. 28; Sp. p. 5277; Gaz. vol. 149; p. 922.
Bread, &c., Machine for use in the manufacture of plain. S. McConnell and J. E. Wilson. No. 943,364; Dec. 14; Sp. p. 2886; Gaz. vol. 149; p. 482.
Bread-roll. P. S. Wood. No. 943,595; Dec. 14; Sp. p. 3310; Gaz. vol. 149; p. 558.
Brick-cutting machine. W. R. Hasselback. No. 943,541; Dec. 14; Sp. p. 3233; Gaz. vol. 149; p. 544.
Brick-kiln brace. A. Perusse. No. 944,104; Dec. 21; Sp. p. 4442; Gaz. vol. 149; p. 766.
Brick-machine, Indenting. H. K. King. No. 944,442; Dec. 28; Sp. p. 5160; Gaz. vol. 149; p. 907.
Brick-press. W. C. Short. No. 943,797; Dec. 21; Sp. p. 3799; Gaz. vol. 149; p. 661.
Brick-stroking-off machine. H. C. Kunkle. No. 944,447; Dec. 28; Sp. p. 5177; Gaz. vol. 149; p. 908.
Broiler. L. M. Dresdner. No. 943,886; Dec. 14; Sp. p. 2327; Gaz. vol. 149; p. 561.
Brooding-machine. W. E. Houghland. No. 944,183; Dec. 21; Sp. p. 4681; Gaz. vol. 149; p. 794.
Brooder. A. J. Blowers. No. 942,769; Dec. 7; Sp. p. 1524; Gaz. vol. 149; p. 250.
Brooder or coop, Chicken. E. M. Selzer. No. 944,918; Dec. 28; Sp. p. 6221; Gaz. vol. 149; p. 1069.
Broom-bridle. C. F. Schulz. No. 943,319; Dec. 14; Sp. p. 2764; Gaz. vol. 149; p. 466.
Broom-making machine. H. M. Marsh. No. 944,803; Dec. 28; Sp. p. 5976; Gaz. vol. 149; p. 1030.
Brush. M. P. Tottle. No. 944,833; Dec. 28; Sp. p. 6048; Gaz. vol. 149; p. 1041.
Brush-chopper. J. Porteous. No. 942,215; Dec. 7; Sp. p. 490; Gaz. vol. 149; p. 61.
Brush-holder. A. Kimble. No. 942,264; Dec. 7; Sp. p. 502; Gaz. vol. 149; p. 78.
Brush holder, Tooth-. C. H. De Gowin. No. 942,658; Dec. 7; Sp. p. 22; Gaz. vol. 149; p. 7.
Brush holder, Tooth-. O. E. Jones. No. 943,415; Dec. 14; Sp. p. 2962; Gaz. vol. 149; p. 499.
Brush-making machine. G. S. Murdock. No. 944,142; Dec. 21; Sp. p. 4523; Gaz. vol. 149; p. 778.
Brush, Toilet-. J. J. Lawler. No. 944,679; Dec. 28; Sp. p. 5701; Gaz. vol. 149; p. 989.
Brushing and polishing fruit and other objects, Machine for. J. B. Horrell and A. S. Bryant. No. 944,993; Dec. 28; Sp. p. 6366; Gaz. vol. 149; p. 1093.
Buckle. G. B. Adams. No. 943,212; Dec. 14; Sp. p. 2537; Gaz. vol. 149; p. 430.
Buckle. W. P. Gelabert. No. 943,870; Dec. 21; Sp. p. 3946; Gaz. vol. 149; p. 686.
Buckle. F. A. Russ. No. 944,505; Dec. 28; Sp. p. 5332; Gaz. vol. 149; p. 929.
Buckle, Cross-line. H. B. McGowan. No. 942,404; Dec. 7; Sp. p. 778; Gaz. vol. 149; p. 126.
Buggy-body. G. H. Bertsch. No. 944,231; Dec. 21; Sp. p. 4699; Gaz. vol. 149; p. 805.

Building-block. W. C. Denison. No. 942,621; Dec. 7; Sp. p. 1229; Gaz. vol. 149; p. 201.
Building-block. S. Butz. No. 943,518; Dec. 14; Sp. p. 3189; Gaz. vol. 149; p. 536.
Building-block, Fire-clay. J. O. St. John. No. 942,850; Dec. 7; Sp. p. 1706; Gaz. vol. 149; p. 276.
Building construction. T. McFeely. No. 943,447; Dec. 14; Sp. p. 3042; Gaz. vol. 149; p. 511.
Building material, Apparatus for distributing. J. H. McCoy. No. 942,403; Dec. 7; Sp. p. 777; Gaz. vol. 149; p. 126.
Building material, Composite. S. W. Bonsall. No. 944,592; Dec. 28; Sp. p. 5536; Gaz. vol. 149; p. 960.
Building structures, Anchor-lock for. L. R. Zifferer. No. 943,906; Dec. 21; Sp. p. 4032; Gaz. vol. 149; p. 698.
Burglar-alarm and automatic camera, Combined. J. C. Asbe. No. 943,232; Dec. 14; Sp. p. 2583; Gaz. vol. 149; p. 437.
Burglar-alarm screen. P. Orance. No. 943,368; Dec. 14; Sp. p. 2872; Gaz. vol. 149; p. 483.
Burglar-alarm systems, Time-controller for. M. F. Jurulck. No. 944,733; Dec. 28; Sp. p. 5818; Gaz. vol. 149; p. 1007.
Burglar-proof lock. I. L. Bridges. No. 943,647; Dec. 21; Sp. p. 3510; Gaz. vol. 149; p. 611.
Buried alive, Apparatus for preventing human beings from being. A. de Choinski. No. 943,007; Dec. 28; Sp. p. 6398; Gaz. vol. 149; p. 1097.
Burner: *See* Blue-flame burner; Coal-dust burner; Gas-burner; Hydrocarbon-burner; Liquid-fuel burner; Oil-burner; Spray-burner; Welding-burner.
Burner. R. D. Conrad and J. Gehring. No. 943,917; Dec. 21; Sp. p. 4060; Gaz. vol. 149; p. 703.
Burner. J. Gehring and R. D. Conrad. No. 943,927; Dec. 21; Sp. p. 4079; Gaz. vol. 149; p. 706.
Burner. J. Dlugopolszky. No. 944,324; Dec. 28; Sp. p. 4915; Gaz. vol. 149; p. 866.
Bushing, Bung-. F. Pflüger and E. Christensen. No. 944,378; Dec. 28; Sp. p. 5028; Gaz. vol. 149; p. 885.
Bushing for bung-holes of beer-kegs. A. Speker and G. Schneider. No. 944,384; Dec. 28; Sp. p. 5040; Gaz. vol. 149; p. 887.
Butcher's-block scraper. G. C. Bemis. No. 944,009; Dec. 21; Sp. p. 4265; Gaz. vol. 149; p. 734.
Butter making and packaging apparatus. J. De Lisle. No. 943,603; Dec. 14; Sp. p. 3348; Gaz. vol. 149; p. 565.
Button, Cuff-. H. Ginnel. No. 942,635; Dec. 7; Sp. p. 1258; Gaz. vol. 149; p. 206.
Button-setting instrument. J. F. Thayer. No. 942,473; Dec. 7; Sp. p. 935; Gaz. vol. 149; p. 151.
Buttons, Post for link-. C. C. Ball. No. 944,251; Dec. 28; Sp. p. 4747; Gaz. vol. 149; p. 840.
Buttonhole-cutter. F. F. Roby. No. 942,519; Dec. 7; Sp. p. 1030; Gaz. vol. 149; p. 167.
Cabinet, Credit-. R. M. Vick. No. 942,367; Dec. 7; Sp. p. 738; Gaz. vol. 149; p. 121.
Cabinet for drinking-cups, Sanitary. L. W. Farmer. No. 943,241; Dec. 14; Sp. p. 2601; Gaz. vol. 149; p. 440.
Cabinet, Lace-. W. F. McCracken and J. G. Bradford. No. 944,687; Dec. 28; Sp. p. 5712; Gaz. vol. 149; p. 991.
Cabinet, Metallic. G. Holden. No. 943,350; Dec. 14; Sp. p. 2841; Gaz. vol. 149; p. 477.
Cabinet, Revolving. M. Smith. No. 944,158; Dec. 21; Sp. p. 4566; Gaz. vol. 149; p. 784.
Cable-conveying apparatus, Automatic traveling take-up for. C. R. Libby. No. 944,565; Dec. 28; Sp. p. 5477; Gaz. vol. 149; p. 950.
Cableway. T. S. Miller. No. 943,032; Dec. 14; Sp. p. 2165; Gaz. vol. 149; p. 370.
Calculating device. C. H. Miller. No. 942,579; Dec. 7; Sp. p. 1145; Gaz. vol. 149; p. 186.
Calculating device. P. W. Sommer. No. 944,218; Dec. 21; Sp. p. 4672; Gaz. vol. 149; p. 801.
Calculating-machine. J. Bricken. No. 943,514; Dec. 14; Sp. p. 3185; Gaz. vol. 149; p. 535.
Calculating-machine. C. A. Mellicke. No. 943,964; Dec. 21; Sp. p. 4194; Gaz. vol. 149; p. 725.
Calculating-machine. T. Baeuerle. No. 944,762; Dec. 28; Sp. p. 5809; Gaz. vol. 149; p. 1017.
Calculating-machine. A. Bollinger, A. and E. Landry. No. 944,841; Dec. 28; Sp. p. 6063; Gaz. vol. 149; p. 1043.
Calculating-machines, Number-wheel lock for. W. L. Dench. No. 942,487; Dec. 7; Sp. p. 962; Gaz. vol. 149; p. 155.
Calculator. G. W. Goss. No. 943,779; Dec. 21; Sp. p. 3763; Gaz. vol. 149; p. 655.
Calendar for collection purposes. W. B. Crumpton. No. 944,952; Dec. 28; Sp. p. 6279; Gaz. vol. 149; p. 1079.
Calipers. G. T. Young and A. H. Gleason. No. 942,529; Dec. 7; Sp. p. 1052; Gaz. vol. 149; p. 170.
Camera, Moving-picture. H. Meredith-Jones. No. 943,253; Dec. 14; Sp. p. 2625; Gaz. vol. 149; p. 445.
Camera, Photographic. E. Brauburger. No. 944,595; Dec. 28; Sp. p. 5542; Gaz. vol. 149; p. 961.
Can-body machine, Automatic-feed. W. E. Taylor. No. 942,190; Dec. 7; Sp. p. 347; Gaz. vol. 149; p. 53.
Can-caps and can ends from sheet metal, Cutting. B. H. Larkin. No. 944,793; Dec. 28; Sp. p. 5954; Gaz. vol. 149; p. 1026.
Can-closure fastener. S. B. Thomas. No. 944,297; Dec. 28; Sp. p. 4853; Gaz. vol. 149; p. 856.
Can-feeder. W. Spain. No. 944,828; Dec. 28; Sp. p. 6038; Gaz. vol. 149; p. 1039.
Can-filling machine. C. H. Ayars. No. 944,354; Dec. 28; Sp. p. 4972; Gaz. vol. 149; p. 877.
Can-lacquering machine. F. W. Wild, Jr. No. 942,951; Dec. 14; Sp. p. 1972; Gaz. vol. 149; p. 343.
Can-marking machine. J. B. Conover. No. 943,140; Dec. 14; Sp. p. 2397; Gaz. vol. 149; p. 408.
Can-opener. L. Dickerhoff. No. 943,736; Dec. 21; Sp. p. 3680; Gaz. vol. 149; p. 640.
Can-opener. M. Desotell. No. 944,126; Dec. 21; Sp. p. 4505; Gaz. vol. 149; p. 774.
Can-polishing machine. C. Hediger. No. 943,247; Dec. 14; Sp. p. 2612; Gaz. vol. 149; p. 442.
Cans, Discharge-spout for. J. A. Sauer. No. 942,522; Dec. 7; Sp. p. 1041; Gaz. vol. 149; p. 168.
Candy-machine. J. Smith. No. 942,595; Dec. 7; Sp. p. 1473; Gaz. vol. 149; p. 191.
Candy-twisting machine. W. D. Reeves. No. 942,284; Dec. 7; Sp. p. 552; Gaz. vol. 149; p. 86.
Cane-unloader. C. Bosse. No. 943,591; Dec. 14; Sp. p. 3323; Gaz. vol. 149; p. 560.
Canning outfit. J. M. Ponder. No. 943,706; Dec. 21; Sp. p. 3617; Gaz. vol. 149; p. 629.
Capsule-forming apparatus. B. W. Scott. No. 943,608; Dec. 14; Sp. p. 3356; Gaz. vol. 149; p. 567.
Car. F. A. Dahlin and E. Carlson. No. 943,007; Dec. 14; Sp. p. 2108; Gaz. vol. 149; p. 362.
Car brake, Dump-. L. P. Gaston. No. 942,320; Dec. 7; Sp. p. 624; Gaz. vol. 149; p. 99.
Car brake, Railway-. L. De Vito. No. 942,684; Dec. 7; Sp. p. 1347; Gaz. vol. 149; p. 222.
Car construction. J. F. Strelb. No. 942,224; Dec. 7; Sp. p. 422; Gaz. vol. 149; p. 65.
Car construction, Steel-. W. P. Bettendorf. No. 942,997; Dec. 14; Sp. p. 2086; Gaz. vol. 149; p. 358.
Car-coupling. J. E. Hudler. No. 943,079; Dec. 14; Sp. p. 2282; Gaz. vol. 149; p. 387.
Car-coupling. J. F. and V. S. Durbin. No. 943,144; Dec. 14; Sp. p. 2413; Gaz. vol. 149; p. 409.
Car-coupling. H. J. Daubert. No. 944,953; Dec. 28; Sp. p. 6281; Gaz. vol. 149; p. 1079.
Car-coupling, Automatic. O. F. Richter. No. 942,218; Dec. 7; Sp. p. 408; Gaz. vol. 149; p. 63.
Car-coupling, Automatic. H. Leslie. No. 943,116; Dec. 14; Sp. p. 2354; Gaz. vol. 149; p. 399.
Car-couplings, Uncoupling-chain for. G. G. Davis. No. 942,134; Dec. 7; Sp. p. 232; Gaz. vol. 149; p. 35.
Car-door. F. X. Malocsay. No. 942,862; Dec. 7; Sp. p. 1728; Gaz. vol. 149; p. 280.
Car-door bracket. J. K. McGuire. No. 943,039; Dec. 14; Sp. p. 2181; Gaz. vol. 149; p. 373.
Car door, Grain-. W. S. Driskell. No. 942,551; Dec. 7; Sp. p. 1095; Gaz. vol. 149; p. 177.
Car door, Grain-. W. H. Ascue. No. 942,994; Dec. 14; Sp. p. 2080; Gaz. vol. 149; p. 358.
Car-door hanger and track, Combined. E. A. Hill. No. 942,324; Dec. 7; Sp. p. 629; Gaz. vol. 149; p. 100.
Car-door mechanism. R. V. Sage. No. 942,108; Dec. 7; Sp. p. 162; Gaz. vol. 149; p. 25.
Car-door-operating mechanism. R. E. Frame. No. 944,261; Dec. 28; Sp. p. 4760; Gaz. vol. 149; p. 843.
Car draft appliance, Railway-. H. C. Buhoup. No. 944,844; Dec. 28; Sp. p. 6075; Gaz. vol. 149; p. 1044.
Car, Dump-. H. E. Thompson. No. 942,598; Dec. 7; Sp. p. 1181; Gaz. vol. 149; p. 192.
Car, Dumping-. C. A. Lindström. No. 943,250; Dec. 14; Sp. p. 2637; Gaz. vol. 149; p. 447.
Car-fender. J. J. Kelly. No. 942,566; Dec. 7; Sp. p. 1121; Gaz. vol. 149; p. 182.
Car-fender. J. Flynn. No. 942,631; Dec. 7; Sp. p. 1250; Gaz. vol. 149; p. 204.
Car-fender. J. A. Horne. No. 942,727; Dec. 7; Sp. p. 1442; Gaz. vol. 149; p. 236.
Car-fender. C. B. Albree. No. 943,588; Dec. 14; Sp. p. 3316; Gaz. vol. 149; p. 559.
Car-fender. J. Mylott. No. 943,635; Dec. 14; Sp. p. 3471; Gaz. vol. 149; p. 577.
Car-fender for tramways and the like. S. Citi. No. 944,075; Dec. 21; Sp. p. 4392; Gaz. vol. 149; p. 756.
Car fender, Street-. N. Jóhász. No. 944,267; Dec. 28; Sp. p. 4779; Gaz. vol. 149; p. 845.
Car grain-door. R. C. Russell. No. 942,221; Dec. 7; Sp. p. 417; Gaz. vol. 149; p. 64.
Car-haul. F. C. Greene. No. 943,874; Dec. 21; Sp. p. 3952; Gaz. vol. 149; p. 687.
Car-loading machine, Box-. A. J. Gurney. No. 943,225; Dec. 14; Sp. p. 2558; Gaz. vol. 149; p. 434.
Car, Motor-. W. S. Hovey and C. B. Stebbins. No. 943,680; Dec. 21; Sp. p. 3563; Gaz. vol. 149; p. 620.
Car-mover. F. C. Bailey. No. 944,763; Dec. 28; Sp. p. 5901; Gaz. vol. 149; p. 1017.
Car-moving device. W. H. Colyar. No. 943,654; Dec. 21; Sp. p. 3520; Gaz. vol. 149; p. 613.
Car, Ore dump-. C. H. Clark. No. 944,232; Dec. 21; Sp. p. 4701; Gaz. vol. 149; p. 806.
Car, Passenger-. P. M. Kling. No. 942,265; Dec. 7; Sp. p. 503; Gaz. vol. 149; p. 79.
Car, Railway motor hand-. W. S. Hovey and M. H. Rix. No. 944,557; Dec. 28; Sp. p. 5453; Gaz. vol. 149; p. 947.
Car-replacers, Ratchet-clamp for. W. Gakle. No. 942,632; Dec. 7; Sp. p. 1251; Gaz. vol. 149; p. 205.
Car-roof. E. C. Covert. No. 942,240; Dec. 7; Sp. p. 474; Gaz. vol. 149; p. 73.
Car sand-box. J. C. Duner. (Reissue.) No. 13,083; Dec. 28; Sp. p. 6410; Gaz. vol. 149; p. 1100.
Car-stake. T. H. MacLafferty. No. 944,739; Dec. 28; Sp. p. 5842; Gaz. vol. 149; p. 1009.
Car stake, Logging-. A. Benedict. No. 944,838; Dec. 28; Sp. p. 6054; Gaz. vol. 149; p. 1042.
Car, Steel. C. H. Anderson. No. 943,213; Dec. 14; Sp. p. 2540; Gaz. vol. 149; p. 430.
Car, Tank-. H. W. Wolff. No. 943,803; Dec. 21; Sp. p. 3812; Gaz. vol. 149; p. 663.
Car-unloading apparatus. J. W. Page. No. 942,846; Dec. 7; Sp. p. 1664; Gaz. vol. 149; p. 272.
Car-ventilator. F. J. Linehan. No. 942,451; Dec. 7; Sp. p. 873; Gaz. vol. 149; p. 143.

Car-wheel, Forged steel. J. M. Hansen. No. 942,381; Dec. 7; Sp. p. 725; Gaz. vol. 149; p. 119.
Car-window. T. A. Legge. No. 942,270; Dec. 7; Sp. p. 513; Gaz. vol. 149; p. 80.
Cars and similar structures, Trap-door for railway-. E. F. Chaffee. No. 942,711; Dec. 7; Sp. p. 1400; Gaz. vol. 149; p. 230.
Cars and similar structures, Trap-door for railway-. O. M. Edwards. No. 942,719; Dec. 7; Sp. p. 1421; Gaz. vol. 149; p. 233.
Cars, Derailment-guard for railway-. R. J. Edwards. No. 943,665; Dec. 21; Sp. p. 3540; Gaz. vol. 149; p. 616.
Cars, Rear guard for traction-. R. Dressmann. No. 944,062; Dec. 21; Sp. p. 4406; Gaz. vol. 149; p. 759.
Cars, Strengthening device for the ends of railway box-. G. L. Weiss. No. 943,497; Dec. 14; Sp. p. 3139; Gaz. vol. 149; p. 529.
Carbonating liquids. J. Blanz. No. 943,060; Dec. 14; Sp. p. 2246; Gaz. vol. 149; p. 381.
Carbureter. T. W. L. McGuire and L. Hammick. No. 942,181; Dec. 7; Sp. p. 332; Gaz. vol. 149; p. 51.
Carbureter. J. C. Simonsen. No. 942,977; Dec. 14; Sp. p. 2029; Gaz. vol. 149; p. 352.
Carbureter. H. A. Miller. No. 943,197; Dec. 14; Sp. p. 2506; Gaz. vol. 149; p. 425.
Carbureter. D. Fergusson and C. L. Sheppy. No. 943,242; Dec. 14; Sp. p. 2603; Gaz. vol. 149; p. 441.
Carbureter. J. R. Price. No. 944,048; Dec. 21; Sp. p. 4334; Gaz. vol. 149; p. 747.
Carbureter. A. D. Elliott. No. 944,482; Dec. 28; Sp. p. 5258; Gaz. vol. 149; p. 920.
Carbureter. M. E. Hunter. No. 944,867; Dec. 28; Sp. p. 6123; Gaz. vol. 149; p. 1052.
Carbureter for hydrocarbon-engines. S. R. Jacobs. No. 942,503; Dec. 7; Sp. p. 1003; Gaz. vol. 149; p. 161.
Carburetors, Reed air-intake regulator for. F. C. Reineking. No. 943,996; Dec. 21; Sp. p. 4237; Gaz. vol. 149; p. 730.
Card and picture holder. J. A. Cope. No. 942,713; Dec. 7; Sp. p. 1406; Gaz. vol. 149; p. 231.
Card-case. G. Jenner. No. 943,553; Dec. 14; Sp. p. 3255; Gaz. vol. 149; p. 548.
Card-clothing. J. J. Gillet. No. 944,031; Dec. 21; Sp. p. 4304; Gaz. vol. 149; p. 742.
Card, Guide-. R. M. Vick. No. 943,720; Dec. 21; Sp. p. 3652; Gaz. vol. 149; p. 634.
Cardboard-creasing machine. E. W. Bonfield and J. E. Fellows. No. 944,536; Dec. 28; Sp. p. 5402; Gaz. vol. 149; p. 940.
Carding-engine. E. Ashworth. No. 944,168; Dec. 21; Sp. p. 4568; Gaz. vol. 149; p. 787.
Carline. J. J. Hoffman. No. 942,258; Dec. 7; Sp. p. 493; Gaz. vol. 149; p. 76.
Carpet fastener, Stair-. W. W. Hesson. No. 942,641; Dec. 7; Sp. p. 1271; Gaz. vol. 149; p. 208.
Carpet-seams, Machine for removing nap from. S. Zwald. No. 943,613; Dec. 14; Sp. p. 3405; Gaz. vol. 149; p. 569.
Carpet-stretcher. G. L. Noll. No. 943,199; Dec. 14; Sp. p. 2511; Gaz. vol. 149; p. 426.
Carpets and the like, Edge-retainer for. E. H. Smart. No. 944,698; Dec. 28; Sp. p. 5748; Gaz. vol. 149; p. 995.
Carriage-curtain fastener. F. S. Carr. No. 942,612; Dec. 7; Sp. p. 1211; Gaz. vol. 149; p. 198.
Carriage foot-brake. C. Strohkorb. No. 943,104; Dec. 14; Sp. p. 2330; Gaz. vol. 149; p. 396.
Carrier: *See* Luggage-carrier; Mail-carrier; Pipe or rod carrier; Rope carrier.
Cart. J. J. Devine. No. 943,004; Dec. 14; Sp. p. 2254; Gaz. vol. 149; p. 382.
Carton. A. L. Smith. No. 944,467; Dec. 28; Sp. p. 5232; Gaz. vol. 149; p. 916.
Cartridge and game belt. W. A. Wiley. No. 942,390; Dec. 7; Sp. p. 742; Gaz. vol. 149; p. 121.
Carving-board. W. E. Bullard. No. 943,767; Dec. 21; Sp. p. 3736; Gaz. vol. 149; p. 650.
Case: *See* Card-case; Mail-delivery case; Packing-case; Piano-case; Razor-case; Shaving-appliance case; Shipping-case; Suit-case; Thermometer-case.
Cash-register indicator. A. J. Postans. No. 942,348; Dec. 7; Sp. p. 674; Gaz. vol. 149; p. 108.
Casket-handle. E. R. Sargent. No. 943,999; Dec. 21; Sp. p. 4242; Gaz. vol. 149; p. 730.
Caster. J. E. Johnson. No. 942,566; Dec. 7; Sp. p. 1120; Gaz. vol. 149; p. 182.
Caster-retaining socket. D. A. Maccuaig. No. 943,432; Dec. 14; Sp. p. 2994; Gaz. vol. 149; p. 505.
Casting-machine. F. H. Howard. No. 942,073; Dec. 7; Sp. p. 65; Gaz. vol. 149; p. 13.
Casting metallic members. H. M. Pflager. No. 942,928; Dec. 14; Sp. p. 1918; Gaz. vol. 149; p. 334.
Casting operations, Means for preparing core-bars for the. M. H. Fletcher. No. 943,308; Dec. 14; Sp. p. 2733; Gaz. vol. 149; p. 462.
Catapult. R. C. Winchester. No. 942,300; Dec. 7; Sp. p. 578; Gaz. vol. 149; p. 92.
Catsup, tomato-pulp, and other thick liquids, Device for testing the consistency of. R. W. Huss. No. 943,830; Dec. 21; Sp. p. 3864; Gaz. vol. 149; p. 672.
Cattle-guard. S. C. Dunn. No. 942,059; Dec. 7; Sp. p. 33; Gaz. vol. 149; p. 8.
Cement and concrete mixer. W. D. Wise. No. 944,399; Dec. 28; Sp. p. 5072; Gaz. vol. 149; p. 893.
Cement-block-molding machine. L. P. Normandin. No. 944,272; Dec. 28; Sp. p. 4789; Gaz. vol. 149; p. 847.
Cement of flint clay brick for metallurgical and other purposes. C. E. Pope. No. 944,603; Dec. 28; Sp. p. 5740; Gaz. vol. 149; p. 994.
Cement-kiln. T. M. Morgan. No. 942,509; Dec. 7; Sp. p. 1013; Gaz. vol. 149; p. 163.
Cement-lined pipe and fittings. F. H. Caney. No. 942,436; Dec. 7; Sp. p. 835; Gaz. vol. 149; p. 137.
Cement-mixer-feeding device. H. C. Baxter. No. 942,051; Dec. 7; Sp. p. 15; Gaz. vol. 149; p. 5.
Cement, Process and apparatus for artificially aging or seasoning Portland. T. A. Edison. No. 944,481; Dec. 28; Sp. p. 5256; Gaz. vol. 149; p. 920.
Cement-shingle machine. L. G. Satterlee. No. 944,508; Dec. 28; Sp. p. 5337; Gaz. vol. 149; p. 930.
Cement-silica brick for metallurgical and other uses. C. E. Pope. No. 944,604; Dec. 28; Sp. p. 5741; Gaz. vol. 149; p. 994.
Cement surfaces and product, Treating Portland-. M. Toch. No. 943,227; Dec. 14; Sp. p. 2782; Gaz. vol. 149; p. 466.
Centering-machine. W. T. Ruth. No. 943,467; Dec. 14; Sp. p. 3075; Gaz. vol. 149; p. 518.
Centrifugal drums, Device for facilitating reinsertion of disks forming liners of. A. L. Christenson. No. 944,074; Dec. 21; Sp. p. 4389; Gaz. vol. 149; p. 756.
Centrifugal regulator. W. Jahns. No. 943,600; Dec. 14; Sp. p. 3341; Gaz. vol. 149; p. 563.
Chain-beaming machine. A. E. Flight and S. M. Tilton. No. 944,727; Dec. 28; Sp. p. 5810; Gaz. vol. 149; p. 1005.
Chain-grate furnace. L. H. Maxfield. No. 944,454; Dec. 28; Sp. p. 5202; Gaz. vol. 149; p. 911.
Chain-hook. J. M. Sharp. No. 944,970; Dec. 28; Sp. p. 6320; Gaz. vol. 149; p. 1085.
Chain-manipulating tool. J. H. Shelley. No. 942,356; Dec. 7; Sp. p. 686; Gaz. vol. 149; p. 111.
Chain securing and releasing device. W. S. Ferguson and A. W. McMichael. No. 942,061; Dec. 7; Sp. p. 38; Gaz. vol. 149; p. 9.
Chair: *See* Adjustable chair; Arm-chair; Rail-chair; Reclining-chair.
Chair. W. P. Lawrence. No. 942,570; Dec. 7; Sp. p. 1126; Gaz. vol. 149; p. 183.
Chair. J. Flindall. No. 942,724; Dec. 7; Sp. p. 1437; Gaz. vol. 149; p. 235.
Chair and couch, Combination. J. Flindall. No. 942,817; Dec. 7; Sp. p. 1614; Gaz. vol. 149; p. 265.
Chair attachment. C. P. Ingersoll. No. 944,331; Dec. 28; Sp. p. 4925; Gaz. vol. 149; p. 868.
Chair-coupling. G. E. Linder. No. 942,085; Dec. 7; Sp. p. 107; Gaz. vol. 149; p. 17.
Chair head-rest, Barber-. A. L. Undeland. No. 942,603; Dec. 7; Sp. p. 1191; Gaz. vol. 149; p. 194.
Chair-iron. H. W. Bolens. No. 942,432; Dec. 7; Sp. p. 827; Gaz. vol. 149; p. 136.
Chair safety device, Child's-. B. W. De Camp. No. 944,020; Dec. 21; Sp. p. 4285; Gaz. vol. 149; p. 738.
Chandelier. L. B. Hornbeck. No. 943,148; Dec. 14; Sp. p. 2419; Gaz. vol. 149; p. 411.
Channeling-machine. A. H. Gibson. No. 944,672; Dec. 28; Sp. p. 5686; Gaz. vol. 149; p. 986.
Chaplet-riveting machine. V. Davis. No. 942,618; Dec. 7; Sp. p. 1222; Gaz. vol. 149; p. 200.
Chart, Adjustable. F. D. Webster. No. 943,130; Dec. 14; Sp. p. 2378; Gaz. vol. 149; p. 404.
Check and seal, Combined. W. E. Elliott. No. 942,314; Dec. 7; Sp. p. 611; Gaz. vol. 149; p. 97.
Check, Combination fluid and vacuum. H. T. Case. No. 942,867; Dec. 14; Sp. p. 1819; Gaz. vol. 149; p. 321.
Check holder, Sales-. C. T. Raschick. No. 943,735; Dec. 21; Sp. p. 3774; Gaz. vol. 149; p. 657.
Chemical-closet. W. O. Sheafor. No. 944,001; Dec. 21; Sp. p. 4244; Gaz. vol. 149; p. 731.
Cherry-pitter. F. E. Greene. No. 944,089; Dec. 21; Sp. p. 4418; Gaz. vol. 149; p. 761.
Cherry-pitter. J. D. Houck. No. 944,866; Dec. 28; Sp. p. 6122; Gaz. vol. 149; p. 1052.
Chicken-separator. E. Hill. No. 942,902; Dec. 14; Sp. p. 1851; Gaz. vol. 149; p. 326.
Chimney cowl or ventilator. J. Marcus. No. 944,043; Dec. 21; Sp. p. 4326; Gaz. vol. 149; p. 745.
Chocolate-composition coatings, Heating and storage system for. C. J. Dionne. No. 943,239; Dec. 14; Sp. p. 2597; Gaz. vol. 149; p. 439.
Chopper: *See* Brush-chopper; Cotton-chopper.
Chuck. L. W. Holub. No. 943,616; Dec. 14; Sp. p. 3418; Gaz. vol. 149; p. 570.
Chuck and tool-holder, Reversing-. M. N. Jarvis. No. 943,414; Dec. 14; Sp. p. 2959; Gaz. vol. 149; p. 499.
Chuck, Drill-. P. Steiner. No. 942,417; Dec. 7; Sp. p. 801; Gaz. vol. 149; p. 130.
Chuck, Self-centering. B. Bomborn and A. Hoffmann. No. 942,304; Dec. 7; Sp. p. 585; Gaz. vol. 149; p. 93.
Churn. F. Peter. No. 943,200; Dec. 14; Sp. p. 2513; Gaz. vol. 149; p. 426.
Churn. T. H. Chappelear. No. 944,014; Dec. 21; Sp. p. 4275; Gaz. vol. 149; p. 736.
Churn. E. E. Floyd. No. 944,129; Dec. 21; Sp. p. 4514; Gaz. vol. 149; p. 775.
Churn, Auto-operating. J. H. Helms and J. E. Black. No. 944,965; Dec. 28; Sp. p. 6311; Gaz. vol. 149; p. 1084.
Churn-motor. J. T. Walston. No. 943,580; Dec. 14; Sp. p. 3302; Gaz. vol. 149; p. 556.
Chute and can, Garbage. E. Bradshaw. No. 942,554; Dec. 7; Sp. p. 1712; Gaz. vol. 149; p. 278.
Chute, Hog-. J. Rada. No. 944,379; Dec. 28; Sp. p. 5029; Gaz. vol. 149; p. 885.
Cigar-cutter. R. Fischer. No. 943,738; Dec. 21; Sp. p. 3684; Gaz. vol. 149; p. 640.
Cigar-cutter. R. Fischer. No. 943,739; Dec. 21; Sp. p. 3686; Gaz. vol. 149; p. 640.
Cigar lighter and cutter, Combined. G. W. Britton. No. 942,434; Dec. 7; Sp. p. 833; Gaz. vol. 149; p. 137.
Cigar-presser. S. G. Lipschutz. No. 942,397; Dec. 7; Sp. p. 757; Gaz. vol. 149; p. 123.

Cigar-pressing box. R. Woerner. No. 944,758; Dec. 28; Sp. p. 5892; Gaz. vol. 149; p. 1015.
Cigar-wrapper-cutting machine. B. A. Williams. No. 944,163; Dec. 21; Sp. p. 4580; Gaz. vol. 149; p. 785.
Cigarette-tipping machine. S. Palmowsky. No. 942,514; Dec. 7; Sp. p. 1021; Gaz. vol. 149; p. 163.
Circular cutter. R. D. Kinyon. No. 942,061; Dec. 7; Sp. p. 93; Gaz. vol. 149; p. 16.
Cistern-cleaner. J. H. Fox. No. 942,254; Dec. 7; Sp. p. 455; Gaz. vol. 149; p. 75.
Clamp: *See* Bedstead clothes-clamp; Fence-wire clamp; Garment-supporter clamp; Guy-wire clamp; Rail-clamp; Rope-clamp; Type-writing-machine clamp; Wire-rope clamp.
Clamp. C. I. Lender. No. 944,622; Dec. 28; Sp. p. 5593; Gaz. vol. 149; p. 971.
Clamp-locking device. J. Begins. No. 942,239; Dec. 7; Sp. p. 453; Gaz. vol. 149; p. 70.
Cleaner: *See* Boiler-tube cleaner; Cistern-cleaner; Flue-cleaner; Gin-saw cleaner; Pipe-cleaner; Rail-cleaner; Tube-cleaner; Vacuum-cleaner; Window-cleaner.
Cleaning apparatus, Suction. G. R. Bimm. No. 944,714; Dec. 28; Sp. p. 5782; Gaz. vol. 149; p. 1000.
Clevis, Spring-. C. Mullin. No. 944,899; Dec. 28; Sp. p. 6176; Gaz. vol. 149; p. 1063.
Clock and the like. J. Bühler. No. 942,374; Dec. 7; Sp. p. 717; Gaz. vol. 149; p. 117.
Clock, Eight-day alarm-. P. Lux. No. 943,312; Dec. 14; Sp. p. 2748; Gaz. vol. 149; p. 464.
Clock system, Electric. H. O. Harrison. No. 943,933; Dec. 21; Sp. p. 4089; Gaz. vol. 149; p. 708.
Closet: *See* Chemical-closet; Water-closet.
Closure. F. Ecaubert. No. 942,171; Dec. 7; Sp. p. 317; Gaz. vol. 149; p. 48.
Cloth-folder or hem-gage. I. Hilton. No. 944,094; Dec. 21; Sp. p. 4424; Gaz. vol. 149; p. 762.
Cloth shrinking and pressing machine. L. Rothschild. No. 944,281; Dec. 28; Sp. p. 4818; Gaz. vol. 149; p. 850.
Clothes-drier for laundries. E. E. Wingate. No. 942,692; Dec. 7; Sp. p. 1363; Gaz. vol. 149; p. 224.
Clothes-line hook. L. G. Thelen and J. Flood. No. 944,057; Dec. 21; Sp. p. 4354; Gaz. vol. 149; p. 750.
Clothes-line support, Window. T. A. Macdonald. No. 943,433; Dec. 14; Sp. p. 2998; Gaz. vol. 149; p. 506.
Clothes-pin. A. C. French. No. 942,725; Dec. 7; Sp. p. 1438; Gaz. vol. 149; p. 235.
Clothes-pin. J. F. Norman. No. 942,971; Dec. 14; Sp. p. 2019; Gaz. vol. 149; p. 349.
Clothes-pounder. C. A. Robertson. No. 942,462; Dec. 7; Sp. p. 914; Gaz. vol. 149; p. 147.
Clutch. T. White. No. 943,208; Dec. 14; Sp. p. 2528; Gaz. vol. 149; p. 428.
Clutch for wire-blocks. J. H. Reece. No. 944,346; Dec. 28; Sp. p. 4952; Gaz. vol. 149; p. 873.
Clutch, Friction-. H. A. Cumfer. No. 942,056; Dec. 7; Sp. p. 29; Gaz. vol. 149; p. 7.
Clutch, Friction-. P. B. Marfield. No. 942,452; Dec. 7; Sp. p. 875; Gaz. vol. 149; p. 143.
Clutch, Friction-. A. Lint. No. 942,574; Dec. 7; Sp. p. 1136; Gaz. vol. 149; p. 184.
Clutch, Friction-. J. M. Kroyer. No. 943,977; Dec. 21; Sp. p. 4179; Gaz. vol. 149; p. 723.
Clutch, Magnetic. H. W. Ravenshaw. No. 942,186; Dec. 7; Sp. p. 340; Gaz. vol. 149; p. 52.
Clutch, Magnetic. H. W. Ravenshaw. No. 942,187; Dec. 7; Sp. p. 342; Gaz. vol. 149; p. 52.
Clutch, Magnetic. H. W. Ravenshaw. No. 942,867; Dec. 7; Sp. p. 1741; Gaz. vol. 149; p. 282.
Clutch mechanism. J. Boda. No. 942,244; Dec. 7; Sp. p. 464; Gaz. vol. 149; p. 72.
Clutch or brake, Magnetic. H. W. Ravenshaw. No. 942,188; Dec. 7; Sp. p. 343; Gaz. vol. 149; p. 52.
Clutch-shipping mechanism. J. W. Latimer. No. 944,336; Dec. 28; Sp. p. 4931; Gaz. vol. 149; p. 869.
Coal-dust burner. J. W. Zell. No. 942,696; Dec. 7; Sp. p. 1369; Gaz. vol. 149; p. 225.
Coal or ore washer. E. Prochaska. No. 942,461; Dec. 7; Sp. p. 911; Gaz. vol. 149; p. 140.
Coal-separator, Centrifugal dry. A. Ernst. No. 942,251; Dec. 7; Sp. p. 477; Gaz. vol. 149; p. 74.
Coaster-brake. C. A. Baylor. No. 942,479; Dec. 7; Sp. p. 946; Gaz. vol. 149; p. 153.
Cock, Angle-. W. D. Kendrick. No. 943,554; Dec. 14; Sp. p. 3257; Gaz. vol. 149; p. 549.
Cock, Blow-off. J. B. Youngblood. No. 943,056; Dec. 14; Sp. p. 2241; Gaz. vol. 149; p. 380.
Cock, Non-scalding shower-bath. D. W. McNeil. No. 942,405; Dec. 7; Sp. p. 780; Gaz. vol. 149; p. 126.
Coffee-pot. J. A. Holmgren. No. 942,558; Dec. 7; Sp. p. 1108; Gaz. vol. 149; p. 180.
Coffee-pot. C. F. Blanke. No. 943,512; Dec. 14; Sp. p. 3182; Gaz. vol. 149; p. 535.
Coffee-roasting. E. and G. De Mattia. No. 943,238; Dec. 14; Sp. p. 2595; Gaz. vol. 149; p. 439.
Coin-paying machine. C. Menchen. No. 943,030; Dec. 14; Sp. p. 2162; Gaz. vol. 149; p. 370.
Coin-selector. G. C. Reith and G. F. Flade. No. 944,819; Dec. 28; Sp. p. 6017; Gaz. vol. 149; p. 1036.
Coke-handling apparatus. D. McDonald. No. 942,341; Dec. 7; Sp. p. 659; Gaz. vol. 149; p. 105.
Coking-furnace. L. L. Summers. No. 943,609; Dec. 14; Sp. p. 3358; Gaz. vol. 149; p. 567.
Coking-furnace. L. L. Summers. No. 943,610; Dec. 14; Sp. p. 3364; Gaz. vol. 149; p. 567.
Collapsible tube. R. Brooks. No. 943,234; Dec. 14; Sp. p. 2587; Gaz. vol. 149; p. 438.
Collar and hames, Horse-. P. L. Johnson. No. 944,618; Dec. 28; Sp. p. 5586; Gaz. vol. 149; p. 969.
Collar, Metal-framed horse-. W. Hardwick. No. 942,824; Dec. 7; Sp. p. 1627; Gaz. vol. 149; p. 267.
Collar-support. M. M. Stillman. No. 944,521; Dec. 28; Sp. p. 5372; Gaz. vol. 149; p. 935.
Collier and coal-handling apparatus. T. S. Miller. No. 943,694; Dec. 21; Sp. p. 3587; Gaz. vol. 149; p. 625.
Colter, Plow-. E. Brown. No. 944,478; Dec. 28; Sp. p. 5250; Gaz. vol. 149; p. 919.
Columns, posts, and the like, Metal reinforcement for metal-reinforced. G. J. Schade. No. 943,469; Dec. 14; Sp. p. 3081; Gaz. vol. 149; p. 519.
Comb. M. E. Bordas. No. 943,765; Dec. 21; Sp. p. 3732; Gaz. vol. 149; p. 650.
Comb-cutting device. F. Schätz and B. Van der Hoek. No. 942,795; Dec. 7; Sp. p. 1571; Gaz. vol. 149; p. 258.
Combination-wrench. L. V. Aronson. No. 942,993; Dec. 14; Sp. p. 2079; Gaz. vol. 149; p. 358.
Comparator. J. S. Bancroft. No. 944,404; Dec. 28; Sp. p. 5081; Gaz. vol. 149; p. 894.
Composing-machine, Mechanical-controller. W. G. White. No. 943,611; Dec. 14; Sp. p. 3366; Gaz. vol. 149; p. 568.
Composing-machine, Record-strip. J. S. Bancroft and M. C. Indahl. No. 944,405; Dec. 28; Sp. p. 5083; Gaz. vol. 149; p. 895.
Composition of matter. J. F. Norman. No. 943,157; Dec. 14; Sp. p. 2434; Gaz. vol. 149; p. 414.
Compounds containing the acetyl group, Preparing organic. M. Mugdan. No. 944,372; Dec. 28; Sp. p. 5018; Gaz. vol. 149; p. 883.
Compression-bib. J. N. Mortimer and E. L. Strauss. No. 944,457; Dec. 28; Sp. p. 5207; Gaz. vol. 149; p. 912.
Concentrator. E. B. Thomas. No. 944,924; Dec. 28; Sp. p. 6233; Gaz. vol. 149; p. 1071.
Concentrator and amalgamator. J. I. E. Nelson. No. 942,584; Dec. 7; Sp. p. 1153; Gaz. vol. 149; p. 187.
Concrete building-block. J. J. Coyne. No. 944,950; Dec. 28; Sp. p. 6277; Gaz. vol. 149; p. 1079.
Concrete buildings, Forming. P. H. Bosworth. No. 944,594; Dec. 28; Sp. p. 5540; Gaz. vol. 149; p. 961.
Concrete ceilings and supporting-columns, Means for forming. P. A. and L. P. Deslauriers. No. 944,543; Dec. 28; Sp. p. 5424; Gaz. vol. 149; p. 943.
Concrete column, post, and the like, Metal-reinforced. G. J. Schade. No. 943,468; Dec. 14; Sp. p. 3078; Gaz. vol. 149; p. 518.
Concrete columns, Means for constructing. P. A. and L. P. Deslauriers. No. 942,109; Dec. 7; Sp. p. 313; Gaz. vol. 149; p. 48.
Concrete construction. C. W. Horton. No. 942,447; Dec. 7; Sp. p. 866; Gaz. vol. 149; p. 141.
Concrete construction, Metal reinforcement for metal-reinforced. W. S. Ferguson. No. 943,402; Dec. 14; Sp. p. 2934; Gaz. vol. 149; p. 495.
Concrete construction, Metallic reinforcing-bar for. R. J. Grace. No. 942,202; Dec. 7; Sp. p. 376; Gaz. vol. 149; p. 57.
Concrete construction, Reinforced. S. H. Summerscales. No. 944,110; Dec. 21; Sp. p. 4470; Gaz. vol. 149; p. 768.
Concrete dam. H. A. Icke. No. 942,645; Dec. 7; Sp. p. 1279; Gaz. vol. 149; p. 209.
Concrete fence-post. W. A. Bryant. No. 943,648; Dec. 21; Sp. p. 3512; Gaz. vol. 149; p. 611.
Concrete-mixer. G. S. Noble. No. 944,102; Dec. 21; Sp. p. 4438; Gaz. vol. 149; p. 765.
Concrete-mixer feeder. O. J. Dunham. No. 943,660; Dec. 21; Sp. p. 3533; Gaz. vol. 149; p. 615.
Concrete piling, Reinforced-. J. P. Holmes. No. 942,142; Dec. 7; Sp. p. 257; Gaz. vol. 149; p. 38.
Concrete reinforcing construction. J. W. Linzee, Jr. No. 943,310; Dec. 14; Sp. p. 2744; Gaz. vol. 149; p. 463.
Concrete structure, Reinforced. M. Dumas. No. 942,625; Dec. 7; Sp. p. 1237; Gaz. vol. 149; p. 202.
Concrete structures, Apparatus for building hollow. J. H. McCoy. No. 942,402; Dec. 7; Sp. p. 775; Gaz. vol. 149; p. 125.
Concrete structures, Reinforcing-bar for. D. Baum, Jr. No. 944,589; Dec. 28; Sp. p. 5572; Gaz. vol. 149; p. 959.
Concrete tie and rail-fastening. A. O. Coffin. No. 943,519; Dec. 14; Sp. p. 3196; Gaz. vol. 149; p. 536.
Concrete walls, Apparatus for molding hollow. W. E. Nelson. No. 943,301; Dec. 21; Sp. p. 4219; Gaz. vol. 149; p. 728.
Condensation product and making same. L. H. Baekeland. No. 942,809; Dec. 7; Sp. p. 1594; Gaz. vol. 149; p. 262.
Condenser, Surface. Y. Wadagaki. No. 942,423; Dec. 7; Sp. p. 810; Gaz. vol. 149; p. 133.
Condiment-shaker. E. Gebhardt. No. 942,138; Dec. 7; Sp. p. 248; Gaz. vol. 149; p. 37.
Conduit-cap for electric installation. W. H. Vibber. No. 943,267; Dec. 14; Sp. p. 2703; Gaz. vol. 149; p. 457.
Conduit, Flexible. C. H. Miller. No. 942,787; Dec. 7; Sp. p. 1557; Gaz. vol. 149; p. 256.
Conduit, Flexible electric. C. H. Miller. No. 942,789; Dec. 7; Sp. p. 1559; Gaz. vol. 149; p. 257.
Conduit for electric wires. C. H. Miller. No. 942,788; Dec. 7; Sp. p. 1558; Gaz. vol. 149; p. 256.
Conduit for electric wires, Flexible. C. H. Miller. No. 942,790; Dec. 7; Sp. p. 1560; Gaz. vol. 149; p. 257.
Confection, Liquor-containing. J. Liebich. No. 943,945; Dec. 21; Sp. p. 4115; Gaz. vol. 149; p. 713.
Container-top. B. T. B. Hyde. No. 942,562; Dec. 7; Sp. p. 1116; Gaz. vol. 149; p. 181.
Controller-regulator. C. M. Feist. No. 942,722; Dec. 7; Sp. p. 1433; Gaz. vol. 149; p. 234.
Converter hood and flue. A. P. Turner. No. 942,801; Dec. 7; Sp. p. 1580; Gaz. vol. 149; p. 260.
Converter, Metallurgic. W. H. Peirce. No. 942,973; Dec. 14; Sp. p. 2021; Gaz. vol. 149; p. 350.

Converter, Metallurgical. W. H. Peirce. No. 942,661; Dec. 7; Sp. p. 1309; Gaz. vol. 149; p. 215.
Conveyer, Chain. T. A. Coleman. No. 943,734; Dec. 21; Sp. p. 3676; Gaz. vol. 149; p. 639.
Conveyer, Endless-chain. F. Merian. No. 943,121; Dec. 14; Sp. p. 2655; Gaz. vol. 149; p. 402.
Conveyer, Mangle-. R. M. Boyce. No. 943,297; Dec. 14; Sp. p. 2724; Gaz. vol. 149; p. 460.
Cooker, Can-. J. Cook. No. 942,512; Dec. 7; Sp. p. 1604; Gaz. vol. 149; p. 263.
Cooking utensil. A. Speirs. No. 942,111; Dec. 7; Sp. p. 177; Gaz. vol. 149; p. 27.
Cooking utensil. E. L. Ankrom. No. 944,998; Dec. 28; Sp. p. 6374; Gaz. vol. 149; p. 1095.
Cooking vessel. T. Mower. No. 944,244; Dec. 21; Sp. p. 4726; Gaz. vol. 149; p. 810.
Cooler: *See* Ore-cooler.
Cooling-board. C. E. Windom. No. 944,531; Dec. 28; Sp. p. 5393; Gaz. vol. 149; p. 935.
Coop. J. P. Mann. No. 944,367; Dec. 28; Sp. p. 5004; Gaz. vol. 149; p. 881.
Coop or crate, Foldable chicken. M. Parsons. No. 944,377; Dec. 28; Sp. p. 5026; Gaz. vol. 149; p. 884.
Copper matte, Bessemerising of. E. A. C. Smith. No. 943,280; Dec. 14; Sp. p. 2688; Gaz. vol. 149; p. 454.
Copper-matte converter. E. A. C. Smith. No. 942,675; Dec. 7; Sp. p. 1330; Gaz. vol. 149; p. 219.
Copper matte, Method of and converter vessel for bessemerizing. W. H. Peirce and E. A. C. Smith. No. 942,346; Dec. 7; Sp. p. 669; Gaz. vol. 149; p. 107.
Core-cutting machine. A. F. Higgins and J. D. Ormrod. No. 944,137; Dec. 21; Sp. p. 4525; Gaz. vol. 149; p. 777.
Cork-feeding attachment, Crown-. E. R. Freyer. No. 944,548; Dec. 28; Sp. p. 5432; Gaz. vol. 149; p. 944.
Corks in bottles, Device for locking. W. Schroeder. No. 944,512; Dec. 28; Sp. p. 5348; Gaz. vol. 149; p. 932.
Corn for degermination and milling, Conditioning and tempering. J. B. Watkins. No. 943,722; Dec. 21; Sp. p. 3656; Gaz. vol. 149; p. 635.
Corn-grader. J. E. Gaston. No. 943,569; Dec. 21; Sp. p. 3943; Gaz. vol. 149; p. 686.
Corn-husker. D. H. Tree. No. 943,051; Dec. 14; Sp. p. 2225; Gaz. vol. 149; p. 378.
Corn-husking machine. J. E. Goodhue. No. 944,068; Dec. 21; Sp. p. 4416; Gaz. vol. 149; p. 761.
Corn-husking machine. A. Rosenthal. No. 945,005; Dec. 28; Sp. p. 6394; Gaz. vol. 149; p. 1097.
Corn-rack. J. S. Winton. No. 942,694; Dec. 7; Sp. p. 1367; Gaz. vol. 149; p. 225.
Corn-shocking horse. W. H. Rice. No. 943,462; Dec. 14; Sp. p. 3068; Gaz. vol. 149; p. 516.
Corner beads or strips, Clip or anchor for. A. P. Diescher. No. 943,560; Dec. 14; Sp. p. 3319; Gaz. vol. 149; p. 560.
Corset. C. MacMahn. No. 942,786; Dec. 7; Sp. p. 1556; Gaz. vol. 149; p. 256.
Cotton-chopper. N. T. Speer. No. 942,294; Dec. 7; Sp. p. 567; Gaz. vol. 149; p. 90.
Cotton-chopper. W. B. Alexander. No. 942,371; Dec. 7; Sp. p. 713; Gaz. vol. 149; p. 116.
Cotton-compressor. B. C. Gallaread. No. 942,443; Dec. 7; Sp. p. 856; Gaz. vol. 149; p. 140.
Cotton-picker. G. Sickel. No. 944,156; Dec. 21; Sp. p. 4561; Gaz. vol. 149; p. 783.
Couch, Suspension-. H. L. Hohlfeld. No. 942,259; Dec. 7; Sp. p. 494; Gaz. vol. 149; p. 77.
Counters, Barrel-swing for store- C. C. Gimbel. No. 943,571; Dec. 21; Sp. p. 3947; Gaz. vol. 149; p. 686.
Counterweight. M. H. Detrick. No. 943,659; Dec. 21; Sp. p. 3532; Gaz. vol. 149; p. 614.
Coupling: *See* Car-coupling; Chair-coupling; Friction-coupling; Hay-loader coupling; Hose-coupling; Hose or pipe coupling; Indicator-coupling; Pipe-coupling; Pump-rod coupling; Rope-coupling; Shaft or pulley coupling; Traction-coupling; Vehicle-coupling; Wagon-reach coupling.
Coupling. H. A. Tunis. No. 943,052; Dec. 14; Sp. p. 2228; Gaz. vol. 149; p. 378.
Coupling. E. A. Koschinski. No. 944,877; Dec. 28; Sp. p. 6142; Gaz. vol. 149; p. 1056.
Coupling device. L. Iversen. No. 942,780; Dec. 7; Sp. p. 1546; Gaz. vol. 149; p. 254.
Course-pointer. A. L. Söderström. No. 944,055; Dec. 21; Sp. p. 4352; Gaz. vol. 149; p. 750.
Cover. F. Ohrmundt and J. Kramer. No. 944,376; Dec. 28; Sp. p. 5025; Gaz. vol. 149; p. 884.
Cracker-jar. E. F. Reiff. No. 944,279; Dec. 28; Sp. p. 4815; Gaz. vol. 149; p. 849.
Cramps, &c., Holder for. H. Antoine. No. 944,403; Dec. 28; Sp. p. 5080; Gaz. vol. 149; p. 894.
Crane, Horn-. J. H. B. Conger. No. 944,018; Dec. 21; Sp. p. 4280; Gaz. vol. 149; p. 737.
Crane, Overhead traveling. H. Sawyer. No. 944,054; Dec. 21; Sp. p. 4349; Gaz. vol. 149; p. 749.
Crank-handle. A. W. Beaman. No. 944,534; Dec. 28; Sp. p. 5396; Gaz. vol. 149; p. 939.
Crate. W. J. Puckett. No. 943,565; Dec. 14; Sp. p. 3278; Gaz. vol. 149; p. 552.
Crate. M. O. Davis. No. 944,077; Dec. 21; Sp. p. 4396; Gaz. vol. 149; p. 757.
Crate, Folding. W. H. Drake. No. 943,525; Dec. 14; Sp. p. 3202; Gaz. vol. 149; p. 539.
Crate, Folding. E. Garven and N. Osborn. No. 944,028; Dec. 21; Sp. p. 4298; Gaz. vol. 149; p. 740.
Crate, Knockdown. H. E. Clement. No. 943,388; Dec. 14; Sp. p. 2913; Gaz. vol. 149; p. 490.
Crate, Knockdown. E. B. Weston. No. 943,500; Dec. 14; Sp. p. 3144; Gaz. vol. 149; p. 530.
Crate, Knockdown. F. V. Neuville. No. 944,146; Dec. 21; Sp. p. 4539; Gaz. vol. 149; p. 779.
Crayon, lumber-gage, and tally-pencil, Combined. C. P. Breining. No. 942,771; Dec. 7; Sp. p. 1528; Gaz. vol. 149; p. 251.
Cream, milk, &c., Apparatus for treating. A. H. Reid. No. 944,634; Dec. 28; Sp. p. 5614; Gaz. vol. 149; p. 974.
Crib and baby-carriage, Combination. A. Hendricks. No. 942,174; Dec. 7; Sp. p. 322; Gaz. vol. 149; p. 49.
Crimping-machine. H. E. Dill and W. P. Marsh. No. 942,890; Dec. 14; Sp. p. 1825; Gaz. vol. 149; p. 322.
Crimping-machine. A. G. Legg. No. 944,337; Dec. 28; Sp. p. 4933; Gaz. vol. 149; p. 870.
Cross-tie. J. S. Schaeffer. No. 944,637; Dec. 28; Sp. p. 5620; Gaz. vol. 149; p. 975.
Crusher: *See* Rock-crusher.
Crushing-machine. J. E. Blake. No. 944,999; Dec. 28; Sp. p. 3675; Gaz. vol. 149; p. 1095.
Cue. W. M. Dall. No. 942,486; Dec. 7; Sp. p. 960; Gaz. vol. 149; p. 155.
Cue-tip trimmer. P. Ansell. No. 942,576; Dec. 14; Sp. p. 1795; Gaz. vol. 149; p. 317.
Cultivator. C. W. Brown. No. 942,540; Dec. 7; Sp. p. 1075; Gaz. vol. 149; p. 174.
Cultivator. W. J. Sanborn. No. 944,215; Dec. 21; Sp. p. 4668; Gaz. vol. 149; p. 800.
Cultivator attachment. E. L. Ross. No. 943,316; Dec. 14; Sp. p. 2758; Gaz. vol. 149; p. 466.
Cultivator attachment. D. Bonnett. No. 944,939; Dec. 28; Sp. p. 6258; Gaz. vol. 149; p. 1075.
Cultivator-shovels, Detachable point for. T. E. Friend. No. 944,484; Dec. 28; Sp. p. 5265; Gaz. vol. 149; p. 921.
Cultivator, Spring-tooth. G. G. Brigden. No. 944,770; Dec. 28; Sp. p. 5909; Gaz. vol. 149; p. 1019.
Cultivators or gang-plows, Coupling for the beams of. W. L. Paul. No. 943,704; Dec. 21; Sp. p. 3615; Gaz. vol. 149; p. 629.
Culvert. L. Schnuerer. No. 942,466; Dec. 7; Sp. p. 918; Gaz. vol. 149; p. 148.
Culvert, Corrugated-metal. A. G. Hague. No. 942,256; Dec. 7; Sp. p. 488; Gaz. vol. 149; p. 76.
Culvert, Corrugated-metal. E. Pankhurst and A. C. Bisbee. No. 944,985; Dec. 28; Sp. p. 6355; Gaz. vol. 149; p. 1090.
Cup: *See* Turpentine-cup.
Cupboard and wardrobe, Knockdown. J. H. Hiscock. No. 943,075; Dec. 14; Sp. p. 2276; Gaz. vol. 149; p. 386.
Curler, Hair-. A. A. West. No. 944,226; Dec. 21; Sp. p. 4698; Gaz. vol. 149; p. 803.
Curling-tool. B. Katzenberg. No. 943,749; Dec. 21; Sp. p. 3708; Gaz. vol. 149; p. 645.
Current-testing device. H. H. Morrell. No. 944,271; Dec. 28; Sp. p. 4785; Gaz. vol. 149; p. 847.
Curtain and shade fixture, Combination. E. Gabel. No. 943,222; Dec. 14; Sp. p. 2564; Gaz. vol. 149; p. 433.
Curtain-fixture. B. W. Coddington. No. 942,439; Dec. 7; Sp. p. 843; Gaz. vol. 149; p. 138.
Curtain-ring. W. H. Edsall. No. 944,721; Dec. 28; Sp. p. 5800; Gaz. vol. 149; p. 1003.
Curtain-support. E. F. Marceau. No. 943,151; Dec. 14; Sp. p. 2425; Gaz. vol. 149; p. 412.
Cushion. E. G. Budd. No. 944,662; Dec. 28; Sp. p. 5660; Gaz. vol. 149; p. 983.
Cushion and mattress. J. Etot. No. 943,923; Dec. 21; Sp. p. 4071; Gaz. vol. 149; p. 706.
Cushion-wheel. E. J. Pope. No. 942,741; Dec. 7; Sp. p. 1466; Gaz. vol. 149; p. 240.
Cushion-wheel. H. Oudinot and C. Putois. No. 944,576; Dec. 28; Sp. p. 5499; Gaz. vol. 149; p. 954.
Cuspidors and other hydraulic devices, Automatic cut-off for. D. J. Merrick and C. J. Funk. No. 944,741; Dec. 28; Sp. p. 5846; Gaz. vol. 149; p. 1009.
Cut-off, Automatic. P. Dixon. No. 942,623; Dec. 7; Sp. p. 1232; Gaz. vol. 149; p. 201.
Cutter: *See* Alfalfa-cutter; Buttonhole-cutter; Cigar-cutter; Circular cutter; Flue-cutter; Glass-cutter; Grain-cutter; Potato-cutter; Vegetable-cutter; Vegetable and pastry cutter; Weed-cutter; Well-tube cutter.
Cutter-head. E. Harrold. No. 943,540; Dec. 14; Sp. p. 3231; Gaz. vol. 149; p. 544.
Cutter-heads, Truing device for truing shaped cutters in running. C. W. H. Blood. No. 944,010; Dec. 21; Sp. p. 4268; Gaz. vol. 149; p. 734.
Cutting-blades, Holder for detached. A. W. Beaman. No. 943,646; Dec. 21; Sp. p. 3606; Gaz. vol. 149; p. 610.
Cutting-machine. A. C. Bolton. No. 942,164; Dec. 7; Sp. p. 296; Gaz. vol. 149; p. 45.
Cutting-machine. P. E. Jacoard. No. 944,268; Dec. 28; Sp. p. 4777; Gaz. vol. 149; p. 845.
Cutting mechanism. W. S. Metcalfe. No. 942,209; Dec. 7; Sp. p. 368; Gaz. vol. 149; p. 60.
Cycle attachment, Motor-. E. C. Abraham. No. 944,932; Dec. 28; Sp. p. 6249; Gaz. vol. 149; p. 1073.
Cycle-saddle. T. Bettney. No. 942,363; Dec. 7; Sp. p. 699; Gaz. vol. 149; p. 113.
Cycles, bicycles, &c., Frame for motor-. E. H. Leet and J. K. Stoll. No. 944,795; Dec. 28; Sp. p. 5960; Gaz. vol. 149; p. 1027.
Dampening-machine. G. H. Spansail. No. 944,517; Dec. 28; Sp. p. 5357; Gaz. vol. 149; p. 933.
Damper-operating device, Automatic. F. H. Miller. No. 944,808; Dec. 28; Sp. p. 5995; Gaz. vol. 149; p. 1032.
Damper-regulator. F. C. Guptill. No. 943,931; Dec. 21; Sp. p. 4066; Gaz. vol. 149; p. 708.
Darner, Stocking-. R. T. Thomas. No. 944,704; Dec. 28; Sp. p. 5758; Gaz. vol. 149; p. 997.

Davenport. F. E. Ferguson and C. A. Knoche. No. 944,023; Dec. 21; Sp. p. 4289; Gaz. vol. 149; p. 739.
Delivery apparatus. A. Goldenetz. No. 943,970; Dec. 21; Sp. p. 4162; Gaz. vol. 149; p. 721.
Dental fillings, Making patterns for casting hollow. E. P. Binford. No. 944,254; Dec. 28; Sp. p. 4751; Gaz. vol. 149; p. 840.
Dental-floss spool. A. J. Holmes. No. 944,992; Dec. 28; Sp. p. 6366; Gaz. vol. 149; p. 1093.
Dental instrument. W. B. Miller. No. 943,884; Dec. 21; Sp. p. 3976; Gaz. vol. 149; p. 690.
Dental plugger. C. F. Tully. No. 944,115; Dec. 21; Sp. p. 4480; Gaz. vol. 149; p. 770.
Dental spittoon. C. E. Ritchey. No. 942,931; Dec. 14; Sp. p. 1924; Gaz. vol. 149; p. 335.
Derailing device. D. L. Hackleman. No. 943,932; Dec. 21; Sp. p. 4088; Gaz. vol. 149; p. 708.
Desk, Knockdown. J. W. Campbell. No. 943,236; Dec. 14; Sp. p. 2502; Gaz. vol. 149; p. 439.
Desk, Portable writing and drawing. T. E. Stark. No. 942,148; Dec. 7; Sp. p. 269; Gaz. vol. 149; p. 41.
Detachable bracket. D. M. Ireland. No. 942,564; Dec. 7; Sp. p. 1119; Gaz. vol. 149; p. 182.
Diamonds from settings, Tool for removing. O. M. Farrand. No. 943,530; Dec. 14; Sp. p. 3209; Gaz. vol. 149; p. 540.
Die-cutting machine. D. F. Robinson. No. 942,146; Dec. 7; Sp. p. 264; Gaz. vol. 149; p. 40.
Digger: *See* Grass-digger; Post-hole digger; Potato-digger; Weed-digger.
Digging, transplanting plants, and pulling weeds, Implement for. F. L. Whitney. No. 944,393; Dec. 28; Sp. p. 5060; Gaz. vol. 149; p. 890.
Digitalis extract. R. Tambach. No. 943,578; Dec. 14; Sp. p. 3298; Gaz. vol. 149; p. 556.
Dining-table, Self-serving. A. S. Williams. No. 944,931; Dec. 28; Sp. p. 6248; Gaz. vol. 149; p. 1073.
Diphenyl-ortho-oxalic esters, Making. H. Schneider. No. 942,674; Dec. 7; Sp. p. 1329; Gaz. vol. 149; p. 219.
Direction and distance locator. W. H. Dolby. No. 942,718; Dec. 7; Sp. p. 1420; Gaz. vol. 149; p. 233.
Diseases, Device for treating cutaneous. F. Rightmire. No. 943,894; Dec. 21; Sp. p. 4000; Gaz. vol. 149; p. 694.
Dish pan and drainer, Combined. H. D. Leeking. No. 943,750; Dec. 21; Sp. p. 3709; Gaz. vol. 149; p. 645.
Dish, Vegetable-. L. Schlesinger. No. 943,162; Dec. 14; Sp. p. 2441; Gaz. vol. 149; p. 415.
Dish-washing machine. H. Müry. No. 942,179; Dec. 7; Sp. p. 330; Gaz. vol. 149; p. 50.
Dish-washing machine. W. J. Paul. No. 942,926; Dec. 14; Sp. p. 1915; Gaz. vol. 149; p. 334.
Dish-washing machine. R. A. Henry. No. 944,329; Dec. 28; Sp. p. 4921; Gaz. vol. 149; p. 867.
Disks, Means for piling. H. D. Hodge. No. 944,364; Dec. 28; Sp. p. 4999; Gaz. vol. 149; p. 880.
Dispensing apparatus. R. G. Marsh. No. 942,273; Dec. 7; Sp. p. 520; Gaz. vol. 149; p. 82.
Dispensing apparatus. L. J. Moser. No. 944,458; Dec. 28; Sp. p. 5208; Gaz. vol. 149; p. 912.
Dispensing-tank. M. Zwirman. No. 944,472; Dec. 28; Sp. p. 5238; Gaz. vol. 149; p. 917.
Display apparatus. S. Newman and H. R. Bothwell. No. 944,999; Dec. 28; Sp. p. 6317; Gaz. vol. 149; p. 1085.
Display-cabinet. N. Holland and A. J. Kidd. No. 943,877; Dec. 21; Sp. p. 3960; Gaz. vol. 149; p. 688.
Display-rack. J. A. Nickerson. No. 942,456; Dec. 7; Sp. p. 896; Gaz. vol. 149; p. 145.
Display-rack. F. Jaques. No. 943,250; Dec. 14; Sp. p. 2620; Gaz. vol. 149; p. 444.
Display rack, Hat-. A. E. Bezoier. No. 943,805; Dec. 21; Sp. p. 3817; Gaz. vol. 149; p. 663.
Display-rack panel, Swinging-. L. Feldmann, Jr. No. 943,821; Dec. 21; Sp. p. 3846; Gaz. vol. 149; p. 669.
Distributing apparatus. F. Stebler. No. 943,799; Dec. 21; Sp. p. 3803; Gaz. vol. 149; p. 662.
Door attachment, Screen-. C. Spencer. No. 942,223; Dec. 7; Sp. p. 421; Gaz. vol. 149; p. 64.
Door-brace. C. Friberg. No. 943,673; Dec. 21; Sp. p. 3552; Gaz. vol. 149; p. 618.
Door catch, Screen-. H. Hunter. No. 944,193; Dec. 21; Sp. p. 4636; Gaz. vol. 149; p. 794.
Door-check. D. Desplats. No. 942,622; Dec. 7; Sp. p. 1231; Gaz. vol. 149; p. 201.
Door-check. A. Brown. No. 943,515; Dec. 14; Sp. p. 3186; Gaz. vol. 149; p. 536.
Door-check. F. C. Russell. No. 943,791; Dec. 21; Sp. p. 3783; Gaz. vol. 149; p. 659.
Door-check. J. A. Evans. No. 944,723; Dec. 28; Sp. p. 5803; Gaz. vol. 149; p. 1004.
Door check and closer. J. A. Peterson. No. 943,160; Dec. 14; Sp. p. 2438; Gaz. vol. 149; p. 414.
Door closer and stop, Combined. H. C. Moore. No. 942,656; Dec. 7; Sp. p. 1300; Gaz. vol. 149; p. 213.
Door-closing device, Swinging-. W. H. Knapp. No. 942,568; Dec. 7; Sp. p. 1124; Gaz. vol. 149; p. 183.
Door-controlling device. A. L. Noel. No. 944,494; Dec. 28; Sp. p. 5302; Gaz. vol. 149; p. 925.
Door fastener, Sliding-. F. J. S. Miely. No. 943,362; Dec. 14; Sp. p. 2862; Gaz. vol. 149; p. 481.
Door, Grain-. G. G. Newman and W. Rowe. No. 943,992; Dec. 21; Sp. p. 4220; Gaz. vol. 149; p. 728.
Door-hanger. J. H. Lawrence. No. 942,860; Dec. 7; Sp. p. 1723; Gaz. vol. 149; p. 279.
Door hanger, Sliding-. D. L. Phipps. No. 943,784; Dec. 21; Sp. p. 3773; Gaz. vol. 149; p. 657.
Door-holder. H. M. Daly. No. 942,310; Dec. 7; Sp. p. 702; Gaz. vol. 149; p. 95.
Door-holder. T. Draper. No. 943,143; Dec. 14; Sp. p. 2411; Gaz. vol. 149; p. 409.
Door-lock. F. Assmann. No. 943,133; Dec. 14; Sp. p. 2385; Gaz. vol. 149; p. 406.
Door-operating mechanism. R. M. Zimmerman. No. 942,234; Dec. 7; Sp. p. 447; Gaz. vol. 149; p. 69.
Door-operating mechanism, Dump-. F. Seaberg. No. 944,284; Dec. 28; Sp. p. 4825; Gaz. vol. 149; p. 851.
Door or other alarm. J. Seelhorst, Jr. No. 942,593; Dec. 7; Sp. p. 1169; Gaz. vol. 149; p. 190.
Door-stop. J. L. Webb. No. 942,686; Dec. 7; Sp. p. 1353; Gaz. vol. 149; p. 222.
Door-stop. C. W. Ellerbe. No. 942,893; Dec. 14; Sp. p. 1831; Gaz. vol. 149; p. 323.
Door stop and holder. D. A. Sox. No. 942,943; Dec. 14; Sp. p. 1958; Gaz. vol. 149; p. 340.
Door-strike. E. Bommer. No. 944,310; Dec. 28; Sp. p. 4885; Gaz. vol. 149; p. 860.
Doors, &c., Controller for. M. C. Miller. No. 943,693; Dec. 21; Sp. p. 3586; Gaz. vol. 149; p. 625.
Dough in the manufacture of bread, Machine for rounding up lumps of. F. H. Van Houten, Jr. No. 942,154; Dec. 7; Sp. p. 280; Gaz. vol. 149; p. 43.
Dough molding or shaping machine. F. H. Van Houten. No. 942,153; Dec. 7; Sp. p. 278; Gaz. vol. 149; p. 42.
Dough-rolling device. D. Krapf and J. F. Sachs. No. 943,423; Dec. 14; Sp. p. 2974; Gaz. vol. 149; p. 502.
Dough-shaper. E. F. Sobers. No. 944,289; Dec. 28; Sp. p. 4831; Gaz. vol. 149; p. 852.
Draft appliance. W. Tiernan and H. M. Schreiber. No. 942,599; Dec. 7; Sp. p. 1184; Gaz. vol. 149; p. 193.
Draft appliance. C. F. Johnston. No. 944,138; Dec. 21; Sp. p. 4527; Gaz. vol. 149; p. 777.
Draft appliance, Compensating. W. C. White. No. 944,755; Dec. 28; Sp. p. 5887; Gaz. vol. 149; p. 1014.
Draft-gear. T. H. Symington. No. 942,948; Dec. 14; Sp. p. 1964; Gaz. vol. 149; p. 341.
Draft-rigging, Friction. C. K. Brooks. No. 942,773; Dec. 7; Sp. p. 1533; Gaz. vol. 149; p. 251.
Drafting and engraving machine. H. S. Nunamaker. No. 943,886; Dec. 21; Sp. p. 3979; Gaz. vol. 149; p. 691.
Drawing-frame stop-motion. J. T. Leach. No. 943,944; Dec. 21; Sp. p. 4114; Gaz. vol. 149; p. 713.
Dress-shield device. R. T. Grund. No. 944,090; Dec. 21; Sp. p. 4419; Gaz. vol. 149; p. 761.
Drier: *See* Clothes-drier; Steam-drier.
Drier. S. J. Vernsten. No. 944,707; Dec. 28; Sp. p. 5763; Gaz. vol. 149; p. 998.
Drying-machine. J. P. Marshall. No. 943,601; Dec. 21; Sp. p. 3581; Gaz. vol. 149; p. 624.
Drying timber and other moisture-bearing substances, Rapidly. H. D. Tiemann. No. 942,150; Dec. 7; Sp. p. 272; Gaz. vol. 149; p. 41.
Drier: *See* Electric drill; Rock-drill.
Drill attachment, Ratchet-. A. F. Derrick and R. W. Garrison. No. 944,955; Dec. 28; Sp. p. 6284; Gaz. vol. 149; p. 1080.
Drill-brace. W. J. Parsons and J. A. Leland. No. 942,586; Dec. 7; Sp. p. 1157; Gaz. vol. 149; p. 188.
Drill-guide. A. C. Neal. No. 942,581; Dec. 7; Sp. p. 1149; Gaz. vol. 149; p. 187.
Drill-guide. A. C. Neal. No. 942,582; Dec. 7; Sp. p. 1150; Gaz. vol. 149; p. 187.
Drilling-machine. L. G. Sabbag. No. 944,915; Dec. 28; Sp. p. 6217; Gaz. vol. 149; p. 1069.
Drinking-tube. J. L. Clarke. No. 942,306; Dec. 7; Sp. p. 595; Gaz. vol. 149; p. 94.
Drive-wheel. J. E. Osmer. No. 944,495; Dec. 28; Sp. p. 5306; Gaz. vol. 149; p. 925.
Drive-wheel. J. E. Osmer. No. 944,496; Dec. 28; Sp. p. 5307; Gaz. vol. 149; p. 926.
Driving mechanism. H. F. Watson. No. 944,585; Dec. 28; Sp. p. 5519; Gaz. vol. 149; p. 958.
Driving-mechanism control. C. B. Stebbins. No. 944,293; Dec. 28; Sp. p. 4838; Gaz. vol. 149; p. 854.
Driving mechanism, Variable-speed. A. L. De Leeuw. No. 943,142; Dec. 14; Sp. p. 2408; Gaz. vol. 149; p. 409.
Dust and hardening road-beds, Composition for laying road-. C. Ellis. No. 943,667; Dec. 21; Sp. p. 3543; Gaz. vol. 149; p. 617.
Dust-collector. O. M. Morse. No. 942,657; Dec. 7; Sp. p. 1301; Gaz. vol. 149; p. 213.
Dust-collector. O. M. Morse. No. 943,439; Dec. 14; Sp. p. 3009; Gaz. vol. 149; p. 508.
Dust laying, collecting, or absorbing composition. S. C., D. T., and J. C. Punch. No. 944,276; Dec. 28; Sp. p. 4811; Gaz. vol. 149; p. 849.
Dust-pan. G. Lotze. No. 944,490; Dec. 28; Sp. p. 5292; Gaz. vol. 149; p. 923.
Dust, Reclaiming or recovering values from. N. H. Livingston. No. 943,752; Dec. 21; Sp. p. 3711; Gaz. vol. 149; p. 645.
Dust-removing apparatus, Wet separator for. R. F. Diserens. No. 942,891; Dec. 14; Sp. p. 1828; Gaz. vol. 149; p. 322.
Duster. R. S. Melchers. No. 942,507; Dec. 7; Sp. p. 1007; Gaz. vol. 149; p. 162.
Duster, Automatic fowl-. O. E. Buffum. No. 944,072; Dec. 21; Sp. p. 4383; Gaz. vol. 149; p. 755.
Dye and making same, Brown anthraquinone. R. Uhlenhuth. No. 943,717; Dec. 21; Sp. p. 3647; Gaz. vol. 149; p. 633.
Dye and making same, Red disazo. A. Schedler. No. 943,470; Dec. 14; Sp. p. 3083; Gaz. vol. 149; p. 519.
Dye, Disazo. C. Heidenreich. No. 944,328; Dec. 28; Sp. p. 4920; Gaz. vol. 149; p. 867.
Dye for lakes and making same, Red azo. W. König. No. 942,916; Dec. 14; Sp. p. 1896; Gaz. vol. 149; p. 331.
Dye, Mordant-dyeing azo. H. Geldermann. No. 943,536; Dec. 14; Sp. p. 3226; Gaz. vol. 149; p. 543.
Dyeing. F. H. Daniell and J. C. Hebden. No. 942,166; Dec. 7; Sp. p. 305; Gaz. vol. 149; p. 46.

Dyeing with gallocyanin dyestuffs, Vat-. J. Bierer and H. Lorétan. No. 943,375; Dec. 14; Sp. p. 2886; Gaz. vol. 149; p. 485.
Dyeing, Yarn-support for. J. C. Hebden and F. H. Daniell. No. 942,856; Dec. 7; Sp. p. 1715; Gaz. vol. 149; p. 278.
Dynamo-brushes, &c., Manufacturing. G. Egly. No. 942,379; Dec. 7; Sp. p. 723; Gaz. vol. 149; p. 118.
Dynamometer. A. E. S. Craig. No. 943,391; Dec. 14; Sp. p. 2916; Gaz. vol. 149; p. 491.
Ear-ring. M. L. J. Girdany. No. 943,185; Dec. 14; Sp. p. 2481; Gaz. vol. 149; p. 421.
Ear-ring. M. L. J. Girdany. No. 943,186; Dec. 14; Sp. p. 2482; Gaz. vol. 149; p. 421.
Earthenware article. E. C. Stover. No. 943,484; Dec. 14; Sp. p. 3112; Gaz. vol. 149; p. 524.
Edge-setting machine. F. H. Warren. No. 943,207; Dec. 14; Sp. p. 2525; Gaz. vol. 149; p. 428.
Eel-trap. G. G. Passaro. No. 943,842; Dec. 21; Sp. p. 3888; Gaz. vol. 149; p. 677.
Egg-beater. F. J. Larock. No. 944,621; Dec. 28; Sp. p. 5592; Gaz. vol. 149; p. 970.
Egg-desiccating apparatus. J. M. Hussey. No. 945,002; Dec. 28; Sp. p. 6382; Gaz. vol. 149; p. 1096.
Egg-opener. C. H. Sheldon. No. 944,827; Dec. 28; Sp. p. 6037; Gaz. vol. 149; p. 1038.
Egg-tester. E. Leiss. No. 942,652; Dec. 7; Sp. p. 1294; Gaz. vol. 149; p. 211.
Egg-whip. F. L. Glenandt. No. 944,781; Dec. 28; Sp. p. 5930; Gaz. vol. 149; p. 1023.
Electric apparatus, Vapor. H. I. Wood. No. 942,157; Dec. 7; Sp. p. 284; Gaz. vol. 149; p. 43.
Electric apparatus, Vapor. L. E. Dempster. No. 942,378; Dec. 7; Sp. p. 722; Gaz. vol. 149; p. 118.
Electric apparatus, Vapor. H. I. Wood. No. 942,871; Dec. 7; Sp. p. 1752; Gaz. vol. 149; p. 283.
Electric battery. F. A. Decker. No. 944,079; Dec. 21; Sp. p. 4399; Gaz. vol. 149; p. 758.
Electric-circuit-controlling relay. B. Menkin. No. 942,508; Dec. 7; Sp. p. 1009; Gaz. vol. 149; p. 163.
Electric circuits, Instrument for locating grounds and breaks in. M. J. Myers. No. 944,459; Dec. 28; Sp. p. 5211; Gaz. vol. 149; p. 913.
Electric controller. C. L. Taylor. No. 942,981; Dec. 14; Sp. p. 2037; Gaz. vol. 149; p. 353.
Electric controller. W. Walz. No. 944,525; Dec. 28; Sp. p. 5377; Gaz. vol. 149; p. 936.
Electric controlling apparatus. W. Schwagermann. No. 943,166; Dec. 14; Sp. p. 2445; Gaz. vol. 149; p. 415.
Electric currents, Induction supply-meter for polyphase. H. Aron. No. 944,167; Dec. 21; Sp. p. 4587; Gaz. vol. 149; p. 787.
Electric drill. P. J. Lincoln. No. 942,396; Dec. 7; Sp. p. 754; Gaz. vol. 149; p. 123.
Electric furnace. F. T. Snyder. No. 942,110; Dec. 7; Sp. p. 173; Gaz. vol. 149; p. 26.
Electric furnace. E. F. Price. No. 942,350; Dec. 7; Sp. p. 679; Gaz. vol. 149; p. 109.
Electric furnace. E. A. A. Grönwall, A. R. Lindblad, and O. Stålhane. No. 943,224; Dec. 14; Sp. p. 2557; Gaz. vol. 149; p. 434.
Electric furnace. C. E. Wilson. No. 943,290; Dec. 14; Sp. p. 2712; Gaz. vol. 149; p. 458.
Electric furnace for the continuous extraction of zinc from its ores. E. F. Côte and P. R. Pierron. No. 944,774; Dec. 28; Sp. p. 5916; Gaz. vol. 149; p. 1020.
Electric furnace with raised charging-pit. A. Helfenstein. No. 942,068; Dec. 7; Sp. p. 58; Gaz. vol. 149; p. 11.
Electric generator. G. A. Huber. No. 942,325; Dec. 7; Sp. p. 631; Gaz. vol. 149; p. 101.
Electric heater. G. E. Stevens. No. 942,874; Dec. 7; Sp. p. 1765; Gaz. vol. 149; p. 285.
Electric heater. R. Farren and C. T. Clark. No. 942,894; Dec. 14; Sp. p. 1833; Gaz. vol. 149; p. 323.
Electric heater. R. W. Brown. No. 943,384; Dec. 14; Sp. p. 2906; Gaz. vol. 149; p. 489.
Electric-light socket. R. A. Schoenberg. No. 943,273; Dec. 14; Sp. p. 2668; Gaz. vol. 149; p. 452.
Electric lighting. C. P. Steinmetz. No. 942,472; Dec. 7; Sp. p. 952; Gaz. vol. 149; p. 150.
Electric-lighting attachment for burglar-alarm systems. M. F. Jurnick. No. 942,964; Dec. 14; Sp. p. 2002; Gaz. vol. 149; p. 347.
Electric machine, Dynamo-. J. B. Ward. No. 943,503; Dec. 14; Sp. p. 3162; Gaz. vol. 149; p. 531.
Electric machine, Magneto-. T. M. Mueller. No. 943,607; Dec. 21; Sp. p. 3598; Gaz. vol. 149; p. 626.
Electric motor. L. A. McCoubrie and C. F. Raydure. No. 943,155; Dec. 14; Sp. p. 2430; Gaz. vol. 149; p. 413.
Electric resistance apparatus. M. Hankin. No. 942,555; Dec. 7; Sp. p. 1102; Gaz. vol. 149; p. 179.
Electric signal. A. F. Dixon. No. 944,545; Dec. 28; Sp. p. 5427; Gaz. vol. 149; p. 943.
Electric sockets to fixtures, Means for locking. H. Hubbell. No. 943,078; Dec. 14; Sp. p. 2280; Gaz. vol. 149; p. 387.
Electric switch. W. L. R. Emmet and E. M. Hewlett. No. 942,491; Dec. 7; Sp. p. 970; Gaz. vol. 149; p. 157.
Electric switch. M. Guett. No. 943,016; Dec. 14; Sp. p. 2130; Gaz. vol. 149; p. 365.
Electric switch. H. J. Carrigan and A. J. Sangster. No. 943,215; Dec. 14; Sp. p. 2544; Gaz. vol. 149; p. 431.
Electric time-switch. G. R. Clark. No. 944,319; Dec. 28; Sp. p. 4900; Gaz. vol. 149; p. 864.
Electric transformer and governor. E. R. Cliff. No. 942,544; Dec. 7; Sp. p. 1081; Gaz. vol. 149; p. 175.
Electric wires, Connection-rosette for. J. L. Burton. No. 942,710; Dec. 7; Sp. p. 1399; Gaz. vol. 149; p. 230.
Electrical cableway system. O. Adam. No. 943,509; Dec. 14; Sp. p. 3176; Gaz. vol. 149; p. 534.
Electrical conductor. I. Kitsee. No. 942,332; Dec. 7; Sp. p. 642; Gaz. vol. 149; p. 103.
Electrical contact device. C. F. Jenkins. No. 942,647; Dec. 7; Sp. p. 1286; Gaz. vol. 149; p. 210.
Electrical contact device. J. M. Smith. No. 943,281; Dec. 14; Sp. p. 2692; Gaz. vol. 149; p. 454.
Electricity-meter, Pendulum. C. Féry. No. 943,531; Dec. 14; Sp. p. 3211; Gaz. vol. 149; p. 541.
Electrode for electric-arc lamps. A. D. Jones. No. 944,139; Dec. 21; Sp. p. 4528; Gaz. vol. 149; p. 777.
Electrodes, Securing metal contacts to carbon. S. Benkö. No. 942,704; Dec. 7; Sp. p. 1389; Gaz. vol. 149; p. 228.
Electrolyte and electrodepositing nickel. E. F. Kern. No. 942,729; Dec. 7; Sp. p. 1444; Gaz. vol. 149; p. 236.
Electrolytic apparatus. H. H. Bates and F. Adam. No. 944,650; Dec. 28; Sp. p. 5643; Gaz. vol. 149; p. 979.
Electromagnetic accelerator. C. O. Pearson and A. Sundh. No. 944,497; Dec. 28; Sp. p. 5308; Gaz. vol. 149; p. 926.
Electroplating-tank. G. L. Wallace. No. 943,721; Dec. 21; Sp. p. 3654; Gaz. vol. 149; p. 635.
Elevating chairs and like objects, Means for. J. Barker. No. 944,160; Dec. 21; Sp. p. 4590; Gaz. vol. 149; p. 787.
Elevating device. W. H. Hunt. No. 943,936; Dec. 21; Sp. p. 4097; Gaz. vol. 149; p. 710.
Elevator: *See* Aerial elevator.
Elevator. J. J. Burns. No. 944,942; Dec. 28; Sp. p. 6262; Gaz. vol. 149; p. 1076.
Elevator-cupboard. C. H. Weller. No. 943,498; Dec. 14; Sp. p. 3140; Gaz. vol. 149; p. 529.
Elevator-door opener and closer, Automatic safety. F. F. Boyd. No. 942,770; Dec. 7; Sp. p. 1525; Gaz. vol. 149; p. 250.
Elevator safety appliance. F. Troike. No. 943,850; Dec. 21; Sp. p. 3909; Gaz. vol. 149; p. 680.
Elevator safety device. J. A. Müller. No. 942,968; Dec. 14; Sp. p. 2013; Gaz. vol. 149; p. 349.
Elevator safety device. A. Kampfe. No. 943,939; Dec. 21; Sp. p. 4103; Gaz. vol. 149; p. 711.
Elevator safety device. Z. T. Dansey. No. 944,076; Dec. 21; Sp. p. 4393; Gaz. vol. 149; p. 757.
Elevator safety-gate mechanism. J. Cunningham. No. 943,524; Dec. 14; Sp. p. 3200; Gaz. vol. 149; p. 538.
Elevator safety mechanisms, Gravity speed-governor for. J. Cunningham. No. 943,523; Dec. 14; Sp. p. 3198; Gaz. vol. 149; p. 538.
Elevator-signal. B. E. Fanning. No. 943,924; Dec. 21; Sp. p. 4072; Gaz. vol. 149; p. 706.
Elevators, Grain-spout for portable. G. W. and C. D. Baier. No. 943,214; Dec. 14; Sp. p. 2542; Gaz. vol. 149; p. 431.
Ellipsograph. J. P. Kunz, Jr. No. 944,562; Dec. 28; Sp. p. 5470; Gaz. vol. 149; p. 949.
Embalming instrument. T. F. Riley. No. 943,464; Dec. 14; Sp. p. 3072; Gaz. vol. 149; p. 517.
Embalming-table. G. F. Honold. No. 943,679; Dec. 21; Sp. p. 3562; Gaz. vol. 149; p. 620.
Embroidery, tucking, and similar material, Stripper or cutter for. L. T. Conrow. No. 944,019; Dec. 21; Sp. p. 4282; Gaz. vol. 149; p. 737.
End-gate fastener. T. M. Dice. No. 944,544; Dec. 28; Sp. p. 5425; Gaz. vol. 149; p. 943.
Engine: *See* Carding-engine; Explosive-engine; Fluid-pressure engine; Gas-engine; Internal-combustion engine; Reciprocating engine; Rotary engine; Rotary gasolene-engine; Rotary steam-engine; Steam-engine; Traction-engine.
Engine combustion-chamber, Gas-. O. Kraus. No. 943,082; Dec. 14; Sp. p. 2287; Gaz. vol. 149; p. 388.
Engine primer, Gasolene-. A. H. Linaweaver. No. 942,785; Dec. 7; Sp. p. 1553; Gaz. vol. 149; p. 255.
Engine regulator, Internal-combustion-. M. J. Wohl and H. Hertzberg. No. 943,726; Dec. 21; Sp. p. 3664; Gaz. vol. 149; p. 636.
Engine reversing mechanism. B. Breeck. No. 942,998; Dec. 14; Sp. p. 2090; Gaz. vol. 149; p. 350.
Engine sparking device, Gas or oil. W. M. Stempel. No. 943,324; Dec. 14; Sp. p. 2770; Gaz. vol. 149; p. 468.
Engine starter, Gas-. G. Burees. No. 944,315; Dec. 28; Sp. p. 4903; Gaz. vol. 149; p. 862.
Engine starting device, Internal-combustion-. P. G. Caspian. No. 942,957; Dec. 14; Sp. p. 1968; Gaz. vol. 149; p. 345.
Engines, Fluid-cooling means for gasolene or other. M. A. Fesler. No. 942,493; Dec. 7; Sp. p. 977; Gaz. vol. 149; p. 157.
Engines, Vaporizer for internal-combustion. P. D. Johnston. No. 943,684; Dec. 21; Sp. p. 3570; Gaz. vol. 149; p. 622.
Envelop. L. R. Swett. No. 942,420; Dec. 7; Sp. p. 807; Gaz. vol. 149; p. 132.
Envelop. E. Wachtermann. No. 943,205; Dec. 14; Sp. p. 2522; Gaz. vol. 149; p. 428.
Envelop-opener. H. A. Smith. No. 943,103; Dec. 14; Sp. p. 2329; Gaz. vol. 149; p. 395.
Envelop-opening means. E. E. Cole. No. 943,814; Dec. 21; Sp. p. 3834; Gaz. vol. 149; p. 666.
Envelop, Safety-. W. E. Fisher. No. 943,111; Dec. 14; Sp. p. 2343; Gaz. vol. 149; p. 397.
Evaporating apparatus. C. Ordway. No. 942,407; Dec. 7; Sp. p. 783; Gaz. vol. 149; p. 127.
Evener and whiffletree coupling. C. A. Hennicke. No. 944,564; Dec. 28; Sp. p. 4773; Gaz. vol. 149; p. 844.
Excavating buckets or shovels, Tooth for. A. H. Exton and J. M. Sherrerd. No. 943,775; Dec. 21; Sp. p. 3753; Gaz. vol. 149; p. 653.
Excavating-machine. L. P. Clutter. No. 944,320; Dec. 28; Sp. p. 4907; Gaz. vol. 149; p. 864.
Excavating or hoisting apparatus. J. L. Potter. No. 942,216; Dec. 7; Sp. p. 402; Gaz. vol. 149; p. 62.
Exercising or massage apparatus. R. Reach. No. 942,976; Dec. 14; Sp. p. 2027; Gaz. vol. 149; p. 351.
Exhaust-head. J. W. Parker. No. 942,585; Dec. 7; Sp. p. 1155; Gaz. vol. 149; p. 188.
Exhibiting apparatus. C. D. Whittredge. No. 942,123; Dec. 7; Sp. p. 207; Gaz. vol. 149; p. 32.
Explosions in subterranean hollows, Preventing. A. B. Steffens. No. 944,977; Dec. 28; Sp. p. 6337; Gaz. vol. 149; p. 1087.

Explosive. L. N. Bent and H. Talley. No. 943,559; Dec. 14; Sp. p. 3318; Gaz. vol. 149; p. 559.
Explosive-engine. J. D. Hay. No. 942,140; Dec. 7; Sp. p. 251; Gaz. vol. 149; p. 38.
Explosive-engine. L. F. Loftus. No. 944,340; Dec. 28; Sp. p. 4940; Gaz. vol. 149; p. 871.
Explosive engine, Double-impulse internal-. H. V. Johansen. No. 944,195; Dec. 21; Sp. p. 4637; Gaz. vol. 149; p. 794.
Explosive mixtures, Evaporating. F. I. du Pont. No. 944,500; Dec. 28; Sp. p. 5324; Gaz. vol. 149; p. 928.
Explosives in wells, Apparatus for firing. L. H. Broadwater. No. 943,383; Dec. 14; Sp. p. 2902; Gaz. vol. 149; p. 489.
Expressing-press. A. W. French. No. 942,442; Dec. 7; Sp. p. 853; Gaz. vol. 149; p. 139.
Extension-table. C. S. Burton. No. 943,337; Dec. 14; Sp. p. 2809; Gaz. vol. 149; p. 473.
Extractor: *See* Flight-extractor; Stump-extractor.
Eye-shade. J. A. Blackstock. No. 944,767; Dec. 28; Sp. p. 5906; Gaz. vol. 149; p. 1018.
Eyeglass-holder. W. H. Bradshaw. No. 942,480; Dec. 7; Sp. p. 950; Gaz. vol. 149; p. 153.
Eyeglasses. E. B. Meyrowitz. No. 943,836; Dec. 21; Sp. p. 3879; Gaz. vol. 149; p. 674.
Eyelets, Die for use in the manufacture of. G. E. Warren. No. 942,989; Dec. 14; Sp. p. 2057; Gaz. vol. 149; p. 356.
Eyelets, Making. G. E. Warren. No. 942,988; Dec. 14; Sp. p. 2054; Gaz. vol. 149; p. 356.
Fabric: *See* Textile fabric.
Fabric for beds, couches, &c. C. H. Gall. No. 943,245; Dec. 14; Sp. p. 2608; Gaz. vol. 149; p. 442.
Fabrics with fluids, Apparatus for treating. E. Gminder. No. 943,632; Dec. 14; Sp. p. 3457; Gaz. vol. 149; p. 576.
Fastener. F. D. Broga. No. 942,129; Dec. 7; Sp. p. 218; Gaz. vol. 149; p. 33.
Fastener. W. A. Wall. No. 944,225; Dec. 21; Sp. p. 4667; Gaz. vol. 149; p. 803.
Fastening device. C. W. Stark. No. 942,470; Dec. 7; Sp. p. 928; Gaz. vol. 149; p. 150.
Fastening device. F. S. Carr. No. 942,542; Dec. 7; Sp. p. 1078; Gaz. vol. 149; p. 175.
Fastening device. A. C. and W. D. Olander. No. 944,461; Dec. 28; Sp. p. 5221; Gaz. vol. 149; p. 914.
Fastening device. W. S. Katzenmeyer. No. 944,788; Dec. 28; Sp. p. 5943; Gaz. vol. 149; p. 1025.
Fastening for loops and the like. W. M. Jones and H. Stewart. No. 942,330; Dec. 7; Sp. p. 638; Gaz. vol. 149; p. 102.
Fastenings, Machine for inserting metallic. M. D. Phelan. No. 944,275; Dec. 28; Sp. p. 4798; Gaz. vol. 149; p. 848.
Faucet. H. Forsman. No. 943,346; Dec. 14; Sp. p. 2832; Gaz. vol. 149; p. 476.
Faucet. A. Engel. No. 943,526; Dec. 14; Sp. p. 3204; Gaz. vol. 149; p. 539.
Faucet or valve device for washbasins and the like. T. A. Hasek. No. 943,404; Dec. 14; Sp. p. 2940; Gaz. vol. 149; p. 495.
Feeder and exerciser, Poultry. E. W. Franklin. No. 943,822; Dec. 21; Sp. p. 3848; Gaz. vol. 149; p. 669.
Feeder, Boiler-. V. P. McVoy. No. 944,574; Dec. 28; Sp. p. 5492; Gaz. vol. 149; p. 953.
Fence-brace. G. Schneider. No. 942,592; Dec. 7; Sp. p. 1167; Gaz. vol. 149; p. 190.
Fence machine, Slat-. J. M. Denning. No. 943,006; Dec. 14; Sp. p. 2109; Gaz. vol. 149; p. 362.
Fence-post. W. B. Hughes. No. 943,550; Dec. 14; Sp. p. 3246; Gaz. vol. 149; p. 547.
Fence-post, Metallic. E. C. Kahn. No. 942,369; Dec. 7; Sp. p. 709; Gaz. vol. 149; p. 115.
Fence-post, Metallic. R. Mattice. No. 944,342; Dec. 28; Sp. p. 4944; Gaz. vol. 149; p. 872.
Fence, Snow-. H. J. Schweitzer. No. 942,147; Dec. 7; Sp. p. 266; Gaz. vol. 149; p. 40.
Fence-wire clamp. J. T. Grayson and J. I. Hentz. No. 942,064; Dec. 7; Sp. p. 47; Gaz. vol. 149; p. 1
Fender: *See* Car-fender; Wheel-fender.
Fender. A. W. Shank. No 942,290; Dec. 7; Sp. p. 562; Gaz. vol. 149; p. 89.
Fertilizer. B. Reichelt. No. 943,400; Dec. 14; Sp. p. 3066; Gaz. vol. 149; p. 515.
Fertilizer, Borated. C. Ellis. No. 943,668; Dec. 21; Sp. p. 3545; Gaz. vol. 149; p. 617.
Fertilizer, Borated insecticide. C. Ellis. No. 943,669; Dec. 21; Sp. p. 3546; Gaz. vol. 149; p. 617.
Fertilizer-distributer. E. Dierks. No. 943,065; Dec. 14; Sp. p. 2256; Gaz. vol. 149; p. 382.
Fertilizer-distributer. A. A. Bullock. No. 944,173; Dec. 21; Sp. p. 4599; Gaz. vol. 149; p. 789.
Fiber-cleaning machine. A. Pons. No. 944,106; Dec. 21; Sp. p. 4445; Gaz. vol. 149; p. 766.
Fiber-cleaning machine. C. G. Sargent. No. 944,507; Dec. 28; Sp. p. 5334; Gaz. vol. 149; p. 930.
Fiber conveying and reversing apparatus. J. K. Toles. No. 944,583; Dec. 28; Sp. p. 5515; Gaz. vol. 149; p. 957.
Fiber-liberating machine or break. T. G. Saxton. No. 944,509; Dec. 28; Sp. p. 5338; Gaz. vol. 149; p. 930.
Fibers, threads, and fabrics, Improving textile. G. Kraemer. No. 942,395; Dec. 7; Sp. p. 753; Gaz. vol. 149; p. 123.
Figure and skirt-stand, Lay. J. F. Gems. No. 943,069; Dec. 14; Sp. p. 2263; Gaz. vol. 149; p. 384.
Figure, Jointed sheet-metal. F. C. Sneyd. No. 942,524; Dec. 7; Sp. p. 1044; Gaz. vol. 149; p. 169.
File. T. E. Gill. No. 944,730; Dec. 28; Sp. p. 5814; Gaz. vol. 149; p. 1006.
File and jointer for saws, Side. L. C. Cook. No. 944,322; Dec. 28; Sp. p. 4913; Gaz. vol. 149; p. 865.
File and rasp cutting machine. G. Peiseler. No. 943,993; Dec. 21; Sp. p. 4222; Gaz. vol. 149; p. 729.
Files, Follower-plate and holder for. A. J. Tice. No. 944,223; Dec. 21; Sp. p. 4684; Gaz. vol. 149; p. 803.
Files, Tool for cutting abrasive. J. Neill. No. 943,953; Dec. 21; Sp. p. 4129; Gaz. vol. 149; p. 716.
Filing-cabinet. J. R. Ryan. No. 942,414; Dec. 7; Sp. p. 796; Gaz. vol. 149; p. 129.
Filing-case drawer. E. Ohnstrand. No. 943,841; Dec. 21; Sp. p. 3857; Gaz. vol. 149; p. 676.
Filter. J. T. H. Paul. (Reissue.) No. 13,053; Dec. 7; Sp. p. 1788; Gaz. vol. 149; p. 289.
Filter. J. S. Roake. No. 943,708; Dec. 21; Sp. p. 3621; Gaz. vol. 149; p. 630.
Filter and strainer, Centrifugal pulp. H. T. and A. M. Sedgley. No. 943,476; Dec. 14; Sp. p. 3099; Gaz. vol. 149; p. 522.
Filter-beds, Apparatus for cleaning. Z. von Wessely. No. 944,528; Dec. 28; Sp. p. 5389; Gaz. vol. 149; p. 937.
Filter-beds, Cleansing. Z. von Wessely. No. 944,527; Dec. 28; Sp. p. 5388; Gaz. vol. 149; p. 937.
Filter-press. E. W. Heller. No. 942,173; Dec. 7; Sp. p. 319; Gaz. vol. 149; p. 48.
Filter-press frames, Securing resilient packing in the grooves of metallic. E. Felx. No. 944,423; Dec. 28; Sp. p. 5133; Gaz. vol. 149; p. 901.
Filter, Rain-spout. J. E. Welling. No. 943,106; Dec. 14; Sp. p. 2332; Gaz. vol. 149; p. 390.
Filtering apparatus. I. H. Jewell. No. 944,194; Dec. 21; Sp. p. 4636; Gaz. vol. 149; p. 794.
Fire-alarm. B. C. Andrews. No. 944,305; Dec. 28; Sp. p. 4876; Gaz. vol. 149; p. 859.
Fire-escape. J. B. Albert. No. 942,477; Dec. 7; Sp. p. 943; Gaz. vol. 149; p. 152.
Fire-escape. L. Vogl. No. 942,604; Dec. 7; Sp. p. 1193; Gaz. vol. 149; p. 195.
Fire-extinguisher. F. E. Blodgett. No. 944,715; Dec. 28; Sp. p. 5783; Gaz. vol. 149; p. 1000.
Fire-shovel and ash-sifter, Combined. I. Portnoy. No. 944,501; Dec. 28; Sp. p. 5325; Gaz. vol. 149; p. 928.
Firearm. T. C. Johnson. No. 943,251; Dec. 14; Sp. p. 2623; Gaz. vol. 149; p. 444.
Firearm. C. F. Lefever. No. 944,448; Dec. 28; Sp. p. 5183; Gaz. vol. 149; p. 909.
Firearm, Magazine-. L. L. Hepburn. No. 943,828; Dec. 21; Sp. p. 3858; Gaz. vol. 149; p. 671.
Firearm-sight. J. M. Stephens. No. 942,946; Dec. 14; Sp. p. 1962; Gaz. vol. 149; p. 341.
Firearm-sight. L. B. Shepard. No. 944,916; Dec. 28; Sp. p. 6218; Gaz. vol. 149; p. 1069.
Firearms, Automatic safety device for. R. Frommer. No. 944,606; Dec. 28; Sp. p. 5565; Gaz. vol. 149; p. 965.
Firearms, Movement for. H. B. Febiger. No. 943,344; Dec. 14; Sp. p. 2827; Gaz. vol. 149; p. 476.
Firearms, Trigger-movement for self-loading. D. W. Tomlinson, Jr. No. 944,832; Dec. 28; Sp. p. 6046; Gaz. vol. 149; p. 1040.
Fireplace andirons and fender. E. and V. T. Yarborough. No. 944,980; Dec. 28; Sp. p. 6349; Gaz. vol. 149; p. 1089.
Fireproof construction. A. Priddle. No. 944,502; Dec. 28; Sp. p. 5327; Gaz. vol. 149; p. 928.
Fish opener, Shell-. J. A. Lloyd. No. 943,982; Dec. 21; Sp. p. 4187; Gaz. vol. 149; p. 725.
Fishing-bob. F. F. Wooton. No. 943,506; Dec. 14; Sp. p. 3169; Gaz. vol. 149; p. 533.
Fishing-float. A. A. Owens. No. 943,450; Dec. 14; Sp. p. 3048; Gaz. vol. 149; p. 512.
Fishing-reel. C. Durkee and C. C. Briggs. No. 943,820; Dec. 21; Sp. p. 3844; Gaz. vol. 149; p. 668.
Fishing-tool. W. S. Boggs. No. 944,768; Dec. 28; Sp. p. 5906; Gaz. vol. 149; p. 1018.
Flagstaff. P. Kocsis. No. 944,269; Dec. 28; Sp. p. 4783; Gaz. vol. 149; p. 846.
Flanging-head for receptacles. L. C. Krummel. No. 944,791; Dec. 28; Sp. p. 5949; Gaz. vol. 149; p. 1026.
Flash-light apparatus. J. A. Smith. No. 942,941; Dec. 14; Sp. p. 1950; Gaz. vol. 149; p. 339.
Flat-iron heater. R. W. Roberts. No. 944,380; Dec. 28; Sp. p. 5030; Gaz. vol. 149; p. 885.
Flight-extractor. O. Soles. No. 943,322; Dec. 14; Sp. p. 2767; Gaz. vol. 149; p. 467.
Flood-gate. E. F. Rhodes. No. 944,210; Dec. 21; Sp. p. 4660; Gaz. vol. 149; p. 799.
Floor-dressing machine. L. H. Veronneau. No. 942,474; Dec. 7; Sp. p. 937; Gaz. vol. 149; p. 151.
Floor-dressing machine. S. D. Hoy. No. 942,830; Dec. 7; Sp. p. 1651; Gaz. vol. 149; p. 269.
Floor-dressing machine. W. S. Haven. No. 944,862; Dec. 28; Sp. p. 6117; Gaz. vol. 149; p. 1051.
Floor-dressing machine. W. S. Haven. No. 944,963; Dec. 28; Sp. p. 6303; Gaz. vol. 149; p. 1083.
Floor-surfacing machine. H. Albers and P. Frueh. No. 943,727; Dec. 21; Sp. p. 3666; Gaz. vol. 149; p. 637.
Flour-bin. H. E. McClure. No. 943,443; Dec. 14; Sp. p. 3018; Gaz. vol. 149; p. 509.
Flour-duster. F. Treischman and G. Ringstad. No. 943,204; Dec. 14; Sp. p. 2520; Gaz. vol. 149; p. 427.
Flour-shaker. G. A. Hoop. No. 942,903; Dec. 14; Sp. p. 1855; Gaz. vol. 149; p. 326.
Flour, Treating. J. M. Williams. (Reissue.) No. 13,064; Dec. 28; Sp. p. 6414; Gaz. vol. 149; p. 1100.
Flower-making device, Artificial-. L. Shogran. No. 943,796; Dec. 21; Sp. p. 3793; Gaz. vol. 149; p. 661.
Flower-pot holder. C. H. Kettsch. No. 942,177; Dec. 7; Sp. p. 328; Gaz. vol. 149; p. 50.
Flue-block mold. O. C. Hiatt. No. 942,779; Dec. 7; Sp. p. 1544; Gaz. vol. 149; p. 254.
Flue-cleaner. S. S. Poole. No. 942,515; Dec. 7; Sp. p. 1022; Gaz. vol. 149; p. 163.

Flue-cutter. J. P. Sorensen. No. 943,323; Dec. 14; Sp. p. 2768; Gaz. vol. 149; p. 467.
Flue-expander. G. Austin. No. 943,907; Dec. 21; Sp. p. 4034; Gaz. vol. 149; p. 699.
Fluid-brake. W. Hellemann. No. 944,433; Dec. 28; Sp. p. 5149; Gaz. vol. 149; p. 904.
Fluid-pressure engine. C. P. Ebersole. No. 942,441; Dec. 7; Sp. p. 849; Gaz. vol. 149; p. 139.
Fluid-pressure engine. J. W. West. No. 944,064; Dec. 21; Sp. p. 4965; Gaz. vol. 149; p. 752.
Flush plate for flush receptacles. F. T. Wheeler. No. 943,955; Dec. 21; Sp. p. 4137; Gaz. vol. 149; p. 717.
Flushing apparatus. A. C. Snell. No. 942,978; Dec. 14; Sp. p. 2030; Gaz. vol. 149; p. 352.
Flushing device. C. H. Zwermann. No. 943,131; Dec. 14; Sp. p. 2382; Gaz. vol. 149; p. 405.
Flushing device, Tank-. W. W. Ellerbeck. No. 943,145; Dec. 14; Sp. p. 2414; Gaz. vol. 149; p. 410.
Flushing-tank for closets. F. A. Schossow. No. 943,793; Dec. 21; Sp. p. 3787; Gaz. vol. 149; p. 659.
Fly-paper holder, Sticky-. G. and H. R. Laube. No. 944,994; Dec. 28; Sp. p. 6369; Gaz. vol. 149; p. 1093.
Fly-trap. G. and H. R. Laube. No. 944,882; Dec. 28; Sp. p. 6152; Gaz. vol. 149; p. 1058.
Fly-trap. G. and H. R. Laube. No. 945,003; Dec. 28; Sp. p. 6390; Gaz. vol. 149; p. 1096.
Flying-machine. T. F. Dunn. No. 942,958; Dec. 14; Sp. p. 1990; Gaz. vol. 149; p. 345.
Flying-machine. A. W. H. Warshavsky. No. 944,301; Dec. 28; Sp. p. 4862; Gaz. vol. 149; p. 857.
Folding box. P. R. Warren. No. 944,063; Dec. 21; Sp. p. 4363; Gaz. vol. 149; p. 752.
Folding box or crate. R. Hohenstein. No. 942,642; Dec. 7; Sp. p. 1273; Gaz. vol. 149; p. 208.
Foot and leg rest. J. Flindall. No. 942,630; Dec. 7; Sp. p. 1248; Gaz. vol. 149; p. 204.
Foot, Artificial. J. F. Rowley. No. 942,521; Dec. 7; Sp. p. 1030; Gaz. vol. 149; p. 167.
Foot-gage. E. S. Bedford. No. 944,937; Dec. 28; Sp. p. 6255; Gaz. vol 149; p. 1075.
Foot-power motor. W. Hargrove. No. 942,556; Dec. 7; Sp. p. 1104; Gaz. vol. 149; p. 179.
Footwear protecting device. T. W. Tucker. No. 942,963; Dec. 14; Sp. p. 2044; Gaz. vol. 149; p. 354.
Fore-carriage. J. W. Gamble. No. 942,319; Dec. 7; Sp. p. 622; Gaz. vol. 149; p. 99.
Forging-machine back-stop. J. R. Blakeslee, Jr. No. 943,377; Dec. 14; Sp. p. 2890; Gaz. vol. 149; p. 486.
Fork: *See* Hay-fork.
Fork and spoon holder. W. W. Butler. No. 943,517; Dec. 14; Sp. p. 3188; Gaz. vol. 149; p. 536.
Form, Garment-. A. D. Smith. No. 943,125; Dec. 14; Sp. p. 2372; Gaz. vol. 149; p. 403.
Form or center, Collapsible. P. O. O'Connor. No. 942,922; Dec. 14; Sp. p. 1904; Gaz. vol. 149; p. 332.
Forms, Apparatus for constructing dress-. L. Lemcke. No. 944,798; Dec. 28; Sp. p. 5963; Gaz. vol. 149; p. 1028.
Fountain: *See* Printing-press ink-fountain.
Frame: *See* Bed-frame; Picture-frame; Quilting-frame.
Frame-joint and soldering the same. L. B. Prahar. No. 943,370; Dec. 14; Sp. p. 2876; Gaz. vol. 149; p. 484.
Freezer. W. M. Milburn. No. 944,625; Dec. 28; Sp. p. 5599; Gaz. vol. 149; p. 971.
Freezers, Mechanism for. J. D. Collins. No. 943,735; Dec. 21; Sp. p. 3677; Gaz. vol. 149; p. 639.
Friction-coupling, Flexible. H. Baumgartner-Mica. No. 943,804; Dec. 21; Sp. p. 3816; Gaz. vol. 149; p. 663.
Fruit-picker. E. A. Ableman. No. 942,302; Dec. 7; Sp. p. 583; Gaz. vol. 149; p. 93.
Fuel composition and producing the same. L. R. Palmer. No. 942,213; Dec. 7; Sp. p. 394; Gaz. vol. 149; p. 61.
Fuel, Economizing. D. Allen and A. C. Pyper. No. 942,530; Dec. 7; Sp. p. 1053; Gaz. vol. 149; p. 170.
Fuel feeding and regulating apparatus. J. Hutchings. No. 944,968; Dec. 28; Sp. p. 6126; Gaz. vol. 149; p. 1053.
Funnel. L. E. Edmunds. No. 943,400; Dec. 14; Sp. p. 2932; Gaz. vol. 149; p. 494.
Funnel. J. F. Rugg. No. 944,914; Dec. 28; Sp. p. 6216; Gaz. vol. 149; p. 1068.
Furnace: *See* Assay-furnace; Boiler-furnace; Chain-grate furnace; Coking-furnace; Electric furnace; Hot-air furnace; Locomotive and other furnace; Ore-treating furnace; Regenerative furnace; Soldering-furnace; Tempering-furnace; Transformer-furnace.
Furnace. M. Zippler, Sr. No. 942,572; Dec. 7; Sp. p. 1754; Gaz. vol. 149; p. 284.
Furnace. M. Kelly. No. 943,194; Dec. 14; Sp. p. 2500; Gaz. vol. 149; p. 424.
Furnace. E. Alls. No. 943,763; Dec. 21; Sp. p. 3730; Gaz. vol. 149; p. 649.
Furnace. W. A. Clarke. No. 943,813; Dec. 21; Sp. p. 3832; Gaz. vol. 149; p. 666.
Furnace. A. Tomkins. No. 944,290; Dec. 28; Sp. p. 4858; Gaz. vol. 149; p. 856.
Furnace. H. P. Bobbitt. No. 944,591; Dec. 28; Sp. p. 5534; Gaz. vol. 149; p. 959.
Furnace-casing ring. G. E. Camp. No. 944,257; Dec. 28; Sp. p. 4764; Gaz. vol. 149; p. 842.
Furnace construction, Blast-. J. C. Barrett. No. 943,374; Dec. 14; Sp. p. 2884; Gaz. vol. 149; p. 485.
Furnace-door. G. de Grahl. No. 942,822; Dec. 7; Sp. p. 1624; Gaz. vol. 149; p. 267.
Furnace products, Treating electric-. A. C. Higgins and G. N. Jeppson. No. 944,436; Dec. 28; Sp. p. 5155; Gaz. vol. 149; p. 905.
Furnace-top. F. C. Stimmel. No. 944,296; Dec. 28; Sp. p. 4852; Gaz. vol. 149; p. 855.
Furnaces, Bridge-wall for. G. Warrington and L. D. Lovekin. No. 944,753; Dec. 28; Sp. p. 5883; Gaz. vol. 149; p. 1014.
Furnaces, Gas-analyzer for. C. O. Mailloux and H. J. Westover. No. 942,861; Dec. 7; Sp. p. 1725; Gaz. vol. 149; p. 280.
Furnaces, Melting-hearth for electric induction-. C. Greenwald. No. 943,403; Dec. 14; Sp. p. 2939; Gaz. vol. 149; p. 495.
Furnaces, Method of and apparatus for returning flue-dust to blast-. W. B. Hubbard. No. 943,599; Dec. 14; Sp. p. 3338; Gaz. vol. 149; p. 563.
Furniture-joint. P. G. Abrams. No. 943,211; Dec. 14; Sp. p. 2535; Gaz. vol. 149; p. 430.
Furniture, School. F. F. Kohler. No. 944,445; Dec. 28; Sp. p. 5174; Gaz. vol. 149; p. 908.
Furrow-opener. L. T. Rasmussen. No. 942,281; Dec. 7; Sp. p. 548; Gaz. vol. 149; p. 85.
Furrow-opener. L. T. Rasmussen. No. 942,282; Dec. 7; Sp. p. 549; Gaz. vol. 149; p. 86.
Furrow-opener. L. T. Rasmussen. No. 942,283; Dec. 7; Sp. p. 551; Gaz. vol. 149; p. 86.
Fuse-adjusting device. W. Schwartz and U. Wilck. No. 944,466; Dec. 28; Sp. p. 5228; Gaz. vol. 149; p. 915.
Fuse-adjusting machine. W. Schwartz. No. 943,474; Dec. 14; Sp. p. 3093; Gaz. vol. 149; p. 521.
Fuse, Automatic self-indicating. F. B. Cook. No. 942,245; Dec. 7; Sp. p. 473; Gaz. vol. 149; p. 73.
Fuse, Electric. T. E. Murray. No. 943,698; Dec. 21; Sp. p. 3601; Gaz. vol. 149; p. 626.
Fuse-making machine. C. E. Schmunk. No. 942,938; Dec. 14; Sp. p. 1942; Gaz. vol. 149; p. 338.
Gage: *See* Foot-gage; Liquid-gage; Saw-gage; Sewing-machine gage; Skirt-gage; Superheat-gage; Surface-gage; Water-gage.
Gage. W. M. Jones. No. 944,619; Dec. 28; Sp. p. 5588; Gaz. vol. 149; p. 970.
Galoing-machine. C. Peterman. No. 944,047; Dec. 21; Sp. p. 4332; Gaz. vol. 149; p. 746.
Galvanizing apparatus. A. Niedringhaus. No. 943,315; Dec. 14; Sp. p. 2756; Gaz. vol. 149; p. 466.
Game. P. V. Ericson. No. 943,343; Dec. 14; Sp. p. 2826; Gaz. vol. 149; p. 475.
Game apparatus. W. J. Rigney. No. 942,103; Dec. 7; Sp. p. 151; Gaz. vol. 149; p. 24.
Game apparatus. W. Stevenson. No. 942,757; Dec. 7; Sp. p. 1494; Gaz. vol. 149; p. 246.
Game apparatus. Z. D. Underhill. No. 942,984; Dec. 14; Sp. p. 2044; Gaz. vol. 149; p. 354.
Game apparatus. M. Maris. No. 943,435; Dec. 14; Sp. p. 3003; Gaz. vol. 149; p. 507.
Game apparatus. H. O. Schreiber and C. A. Geisz. No. 943,472; Dec. 14; Sp. p. 3089; Gaz. vol. 149; p. 520.
Game apparatus, Base-ball-. J. W. E. Dean. No. 942,619; Dec. 7; Sp. p. 1224; Gaz. vol. 149; p. 200.
Game, Astronomical. E. L. Newsome. No. 944,631; Dec. 28; Sp. p. 5609; Gaz. vol. 149; p. 973.
Game-board. F. G. Rempe. No. 942,748; Dec. 7; Sp. p. 1479; Gaz. vol. 149; p. 242.
Game-board, Base-ball. F. De Rocher. No. 944,504; Dec. 28; Sp. p. 5330; Gaz. vol. 149; p. 929.
Game-piece. E. W. Ashenden. No. 943,058; Dec. 14; Sp. p. 2244; Gaz. vol. 149; p. 380.
Game-schedule. C. H. Lovell. No. 942,178; Dec. 7; Sp. p. 329; Gaz. vol. 149; p. 50.
Garbage or refuse receptacle. A. E. Lyman. No. 943,089; Dec. 14; Sp. p. 2399; Gaz. vol. 149; p. 390.
Garbanzon hulling and separating machine. D. F. J. Brockett and F. Garver. No. 942,053; Dec. 7; Sp. p. 21; Gaz. vol. 149; p. 6.
Garment. M. Lang. No. 942,144; Dec. 7; Sp. p. 260; Gaz. vol. 149; p. 39.
Garment, Adjustable. W. A. Dielhenn. No. 942,889; Dec. 14; Sp. p. 1824; Gaz. vol. 149; p. 321.
Garment-fastener. H. H. Harrison. No. 944,673; Dec. 28; Sp. p. 5689; Gaz. vol. 149; p. 987.
Garment-hanger. C. Clift. No. 943,340; Dec. 14; Sp. p. 2819; Gaz. vol. 149; p. 474.
Garment-hanger. J. Dove. No. 944,180; Dec. 21; Sp. p. 4609; Gaz. vol. 149; p. 791.
Garment, Inner. J. W. Appleton. No. 942,159; Dec. 7; Sp. p. 287; Gaz. vol. 149; p. 44.
Garment, Nether. W. P. McQuillen. No. 943,366; Dec. 14; Sp. p. 2869; Gaz. vol. 149; p. 483.
Garment-rack, Extension. B. J. Buckingham. No. 943,137; Dec. 14; Sp. p. 2393; Gaz. vol. 149; p. 407.
Garment-supporter. D. H. Haywood. No. 942,323; Dec. 7; Sp. p. 627; Gaz. vol. 149; p. 100.
Garment-supporter. G. C. Biddle. No. 944,655; Dec. 28; Sp. p. 5655; Gaz. vol. 149; p. 981.
Garment-supporter clamp. B. Lauckner. No. 943,084; Dec. 14; Sp. p. 2292; Gaz. vol. 149; p. 388.
Gas-analyzing apparatus, Automatic. E. H. Peabody. No. 944,274; Dec. 28; Sp. p. 4794; Gaz. vol. 149; p. 848.
Gas and water, Agitating device for mixing carbonic-acid. L. Caul. No. 944,717; Dec. 28; Sp. p. 5794; Gaz. vol. 149; p. 1001.
Gas apparatus. A. P. Rickmire. No. 942,929; Dec. 14; Sp. p. 1920; Gaz. vol. 149; p. 334.
Gas, Apparatus for the manufacture of producer-. W. J. Crossley and T. Rigby. No. 943,182; Dec. 14; Sp. p. 2471; Gaz. vol. 149; p. 420.
Gas-burner. L. H. Brady. No. 942,709; Dec. 7; Sp. p. 1397; Gaz. vol. 149; p. 229.
Gas-burner. H. S. Humphrey. No. 942,831; Dec. 7; Sp. p. 1653; Gaz. vol. 149; p. 270.
Gas-burners, Apparatus for electrically igniting. A. J. Hill and F. C. D. Mann. No. 942,901; Dec. 14; Sp. p. 1848; Gaz. vol. 149; p. 325.
Gas, Contrivance for saturating liquids with. F. Trosiener. No. 942,115; Dec. 7; Sp. p. 188; Gaz. vol. 149; p. 28.

Gas cut-off, Safety. H. Tullis. No. 942,601; Dec. 7; Sp. p. 1188; Gaz. vol. 149; p. 194.
Gas-engine. C. S. Dutton. No. 944,235; Dec. 21; Sp. p. 4705; Gaz. vol. 149; p. 806.
Gas for illuminating, heating, or power purposes, Manufacture of. H. S. Elworthy. No. 943,627; Dec. 14; Sp. p. 3440; Gaz. vol. 149; p. 574.
Gas-generator. J. H. Jourdan. No. 943,601; Dec. 14; Sp. p. 3342; Gaz. vol. 149; p. 564.
Gas-generator. L. C. Gilmore. No. 944,856; Dec. 28; Sp. p. 6107; Gaz. vol. 149; p. 1049.
Gas generator, Hydrogen-. G. F. Jaubert. No. 943,022; Dec. 14; Sp. p. 2142; Gaz. vol. 149; p. 367.
Gas-holders, Low-limit valve for. L. Shaw. No. 942,796; Dec. 7; Sp. p. 1572; Gaz. vol. 149; p. 258.
Gas in buildings, Device to control the reception of. F. Schmidt. No. 944,638; Dec. 28; Sp. p. 5623; Gaz. vol. 149; p. 975.
Gas lighting and extinguishing apparatus. A. E. Broadberry. No. 942,772; Dec. 7; Sp. p. 1559; Gaz. vol. 149; p. 261.
Gas-lighting apparatus. G. E. Hulse. No. 942,561; Dec. 7; Sp. p. 1111; Gaz. vol. 149; p. 181.
Gas-lighting burners, Safety attachment for. H. E. Campbell. No. 944,771; Dec. 28; Sp. p. 5911; Gaz. vol. 149; p. 1019
Gas-mains, Automatic cut-off for. C. E. Lahmers. No. 942,832; Dec. 7; Sp. p. 1654; Gaz. vol. 149; p. 270.
Gas-pressure regulator. O. Sprecher. No. 942,112; Dec. 7; Sp. p. 178; Gaz. vol. 149; p. 27.
Gas-producer. O. K. Zwingenberger. No. 942,361; Dec. 7; Sp. p. 695; Gaz. vol. 149; p. 113.
Gas-producer. A. Jabs. No. 944,332; Dec. 28; Sp. p. 4926; Gaz. vol. 149; p. 868.
Gas-producer valve. B. M. Aslakson. No. 943,332; Dec. 14; Sp. p. 2793; Gaz. vol. 149; p. 471.
Gas-regulator, Automatic. G. H. Murray. No. 944,686; Dec. 28; Sp. p. 5710; Gaz. vol. 149; p. 991.
Gas, Retort for the manufacture of illuminating-. C. W. Isbell. No. 942,501; Dec. 7; Sp. p. 998; Gaz. vol. 149; p. 160.
Gas, Retort for the manufacture of illuminating-. C. W. Isbell. No. 942,858; Dec. 7; Sp. p. 1720; Gaz. vol. 149; p. 279.
Gas-retort lid. H. J. Toogood. No. 944,005; Dec. 21; Sp. p. 4258; Gaz. vol. 149; p. 732.
Gas-retorts, Charging. H. J. Toogood. No. 944,004; Dec. 21; Sp. p. 4256; Gaz. vol. 149; p. 732.
Gas-treating apparatus. D. C. McIntire. No. 942,863; Dec. 7; Sp. p. 1731; Gaz. vol. 149; p. 281.
Gases and separating smoke and dust therefrom, Apparatus for treating. E. G. Knoepfel. No. 943,422; Dec. 14; Sp. p. 2972; Gaz. vol. 149; p. 501.
Gases, Apparatus for disposing of noxious. W. H. Sartain. No. 942,935; Dec. 14; Sp. p. 1935; Gaz. vol. 149; p. 337.
Gases, Apparatus for testing mine-. J. Smith. No. 944,247; Dec. 21; Sp. p. 4731; Gaz. vol. 149; p. 810.
Gases in the atmosphere, Apparatus for detecting and indicating. T. Groesbeck. No. 943,015; Dec. 14; Sp. p. 2128; Gaz. vol. 149; p. 364.
Gastroscope. M. Sussmann. No. 944,830; Dec. 28; Sp. p. 6042; Gaz. vol. 149; p. 1039.
Gate: *See* Flood-gate; Railway-gate; Railway-crossing gate; Sliding gate; Water-gate.
Gate. W. D. Whitney. No. 942,228; Dec. 7; Sp. p. 431; Gaz. vol. 149; p. 66.
Gate. E. E. Cannon. No. 943,387; Dec. 14; Sp. p. 2911; Gaz. vol. 149; p. 490.
Gear apparatus, Variable-speed transmission-. C. A. Morris. No. 943,985; Dec. 21; Sp. p. 4197; Gaz. vol. 149; p. 726.
Gear, Friction draft-. T. L. McKeen. No. 943,314; Dec. 14; Sp. p. 2754; Gaz. vol. 149; p. 465.
Gearing. H. M. Baker, Jr. No. 942,609; Dec. 7; Sp. p. 1205; Gaz. vol. 149; p. 197.
Gearing. J. C. Potter and J. Johnston. No. 943,843; Dec. 7; Sp. p. 1670; Gaz. vol. 149; p. 273.
Gearing. A. E. Newton. No. 943,042; Dec. 14; Sp. p. 2200; Gaz. vol. 149; p. 374.
Gearing. F. Diehl. No. 944,323; Dec. 28; Sp. p. 4914; Gaz. vol. 149; p. 866.
Gearing. C. L. Robbins. No. 944,635; Dec. 28; Sp. p. 5616; Gaz. vol. 149; p. 974.
Gearing, Change-speed. L. W. Anderson and A. R. Murray. No. 943,621; Dec. 14; Sp. p. 3427; Gaz. vol. 149; p. 572.
Gearing, Double back. J. C. Pflanzer. No. 942,185; Dec. 7; Sp. p. 339; Gaz. vol. 149; p. 52.
Gearing, Transmission-. C. B. Kurts. No. 942,266; Dec. 7; Sp. p. 504; Gaz. vol. 149; p. 79.
Gearing, Transmission-. L. C. Norton. No. 942,406; Dec. 7; Sp. p. 782; Gaz. vol. 149; p. 127.
Gearing, Transmission-. W. E. Jenkins. No. 944,872; Dec. 28; Sp. p. 6132; Gaz. vol. 149; p. 1054.
Gem-cutting machine. C. G. Hull. No. 943,191; Dec. 14; Sp. p. 2495; Gaz. vol. 149; p. 423.
Generator: *See* Electric generator; Gas-generator; Steam-generator.
Gin-saw cleaner. A. N. Tumlin. No. 942,800; Dec. 7; Sp. p. 1579; Gaz. vol. 149; p. 260.
Glass articles, Manufacture of. C. B. Lawton. No. 942,851; Dec. 7; Sp. p. 1292; Gaz. vol. 149; p. 211.
Glass bottles and like articles, Machine for making. A. Philippoteaux. No. 944,691; Dec. 28; Sp. p. 5738; Gaz. vol. 149; p. 993.
Glass compound and making the same, Water-. R. Eberhard. No. 944,957; Dec. 28; Sp. p. 6288; Gaz. vol. 149; p. 1081.
Glass-cutter. J. W. Tucker. No. 942,152; Dec. 7; Sp. p. 276; Gaz. vol. 149; p. 42.
Glass-fastener. W. T. Mooney. No. 944,892; Dec. 28; Sp. p. 6166; Gaz. vol. 149; p. 1061.
Glass-making machine, Wire-. J. Hastreiter and N. Biellevens. No. 944,861; Dec. 28; Sp. p. 6115; Gaz. vol. 149; p. 1050.
Glass panes, Metal frame for. A. Busse. No. 942,611; Dec. 7; Sp. p. 1210; Gaz. vol. 149; p. 198.
Glass-washing apparatus. C. W. Jaycox. No. 942,074; Dec. 7; Sp. p. 67; Gaz. vol. 149; p. 13.
Glove. C. E. and R. G. Chaddock. No. 944,357; Dec. 28; Sp. p. 4987; Gaz. vol. 149; p. 878.
Glove, Swimming-. C. Iverson. No. 942,262; Dec. 7; Sp. p. 498; Gaz. vol. 149; p. 78.
Gold, Apparatus for washing out placer-. S. Rachelman. No. 942,663; Dec. 7; Sp. p. 1313; Gaz. vol. 149; p. 215.
Gold-saving machine. J. Hamilton. No. 942,962; Dec. 14; Sp. p. 1998; Gaz. vol. 149; p. 346.
Gold-saving machine. F. B. Roberts. No. 943,789; Dec. 21; Sp. p. 3780; Gaz. vol. 149; p. 658.
Gold, Treating. J. B. Roesman. No. 942,317; Dec. 14; Sp. p. 2759; Gaz. vol. 149; p. 466.
Golf-club. F. E. Rigden. No. 942,353; Dec. 7; Sp. p. 682; Gaz. vol. 149; p. 110.
Governor, Centrifugal. C. P. Hall. No. 942,900; Dec. 14; Sp. p. 1846; Gaz. vol. 149; p. 325.
Governor for groups of power-engines, Indirectly-acting. D. Thoma. No. 943,849; Dec. 21; Sp. p. 3907; Gaz. vol. 149; p. 680.
Governor for internal-combustion engines. E. Higgins. No. 942,071; Dec. 7; Sp. p. 62; Gaz. vol. 149; p. 12.
Grader and scraper, Road. S. Richardson. No. 942,749; Dec. 7; Sp. p. 1482; Gaz. vol. 149; p. 243.
Grain-binder feeder. J. Lindner. No. 943,978; Dec. 21; Sp. p. 4180; Gaz. vol. 149; p. 724.
Grain-cutter. L. Clark. No. 942,614; Dec. 7; Sp. p. 1215; Gaz. vol. 149; p. 198.
Graining device. C. T. Ridgely. No. 944,821; Dec. 28; Sp. p. 6025; Gaz. vol. 149; p. 1036.
Grapple. T. H. Williams. No. 944,644; Dec. 28; Sp. p. 5631; Gaz. vol. 149; p. 977.
Grass digger, Quack-. J. Hopkins. No. 942,559; Dec. 7; Sp. p. 1109; Gaz. vol. 149; p. 180.
Grate. H. Untiedt. No. 944,524; Dec. 28; Sp. p. 5376; Gaz. vol. 149; p. 936.
Grate-bar. E. A. Wildt. No. 944,162; Dec. 21; Sp. p. 4578; Gaz. vol. 149; p. 785.
Grate, Dumping-. H. C. Hoener and F. Andreas. No. 943,748; Dec. 21; Sp. p. 3704; Gaz. vol. 149; p. 644.
Grater, Nutmeg-. R. Jordan. No. 944,241; Dec. 21; Sp. p. 4722; Gaz. vol. 149; p. 809.
Grid resistance. H. J. Wiegand. No. 942,156; Dec. 7; Sp. p. 283; Gaz. vol. 149; p. 43.
Grinder, Radius-. A. O. Van Dervort. No. 944,300; Dec. 28; Sp. p. 4859; Gaz. vol. 149; p. 857.
Grinding and polishing machine. W. La Hodny. No. 944,678; Dec. 28; Sp. p. 5698; Gaz. vol. 149; p. 988.
Grinding-machine. H. B. Nichols. No. 944,147; Dec. 21; Sp. p. 4541; Gaz. vol. 149; p. 779.
Grinding-machine. H. B. Nichols. No. 944,903; Dec. 28; Sp. p. 6189; Gaz. vol. 149; p. 1065.
Grinding machine, Breaster-knife-. J. J. Heys. No. 944,238; Dec. 21; Sp. p. 4710; Gaz. vol. 149; p. 807.
Grinding-machine, Portable. C. W. Dangiemeyer and J. J. Connors. No. 942,311; Dec. 7; Sp. p. 604; Gaz. vol. 149; p. 96.
Grinding-machine, Universal. H. B. Nichols. No. 944,902; Dec. 28; Sp. p. 6181; Gaz. vol. 149; p. 1064.
Grinding-mill. G. E. Sovereign. No. 942,357; Dec. 7; Sp. p. 687; Gaz. vol. 149; p. 111.
Grinding-mill. J. Bercha. No. 942,768; Dec. 7; Sp. p. 1521; Gaz. vol. 149; p. 249.
Grinding-mill. C. G. Hamilton. No. 944,550; Dec. 28; Sp. p. 5436; Gaz. vol. 149; p. 945.
Grinding-mill. G. S. Emerick. No. 944,670; Dec. 28; Sp. p. 5683; Gaz. vol. 149; p. 986.
Grinding or pulverising machine. A. H. Petersen. No. 942,865; Dec. 7; Sp. p. 1734; Gaz. vol. 149; p. 281.
Grinding surface or cage. E. H. Frickey. No. 944,780; Dec. 28; Sp. p. 5928; Gaz. vol. 149; p. 1022.
Gripping device. W. D. Roop. No. 944,052; Dec. 21; Sp. p. 4345; Gaz. vol. 149; p. 749.
Gun. S. Faber. No. 944,128; Dec. 21; Sp. p. 4509; Gaz. vol. 149; p. 774.
Gun W. D. Smith. No. 944,973; Dec. 28; Sp. p. 6325; Gaz. vol. 149; p. 1086.
Gun, Air-. W. A. Hellprin. No. 944,188; Dec. 21; Sp. p. 4622; Gaz. vol. 149; p. 793.
Gun, Automatic. A. T. Dawson and G. T. Buckham. No. 942,167; Dec. 7; Sp. p. 309; Gaz. vol. 149; p. 47.
Gun-sight. C. H. Gordon. No. 943,572; Dec. 21; Sp. p. 3948; Gaz. vol. 149; p. 685.
Guns, Flash-light attachment for. W. L. Long. No. 944,449; Dec. 28; Sp. p. 5186; Gaz. vol. 149; p. 909.
Guns, Single-trigger mechanism for double-barrel. J. D. Russ. No. 942,794; Dec. 7; Sp. p. 1566; Gaz. vol. 149; p. 258.
Guy-wire clamp. S. J. Edmiston. No. 944,850; Dec. 28; Sp. p. 6090; Gaz. vol. 149; p. 1047.
Hair-cutting instrument. F. B. Walter. No. 942,298; Dec. 7; Sp. p. 575; Gaz. vol. 149; p. 91.
Hair-straightener. I. K. Shero. No. 943,321; Dec. 14; Sp. p. 2766; Gaz. vol. 149; p. 467.
Hair-supporter. J. Latsch. No. 942,833; Dec. 7; Sp. p. 1656; Gaz. vol. 149; p. 270.
Hair-waver. F. W. Lowe. No. 944,682; Dec. 28; Sp. p. 5704; Gaz. vol. 149; p. 989.
Hall-stand, step-ladder, ironing-board, &c., Combined. V. J. A. C. Mengers and L. Larsen. No. 944,100; Dec. 21; Sp. p. 4434; Gaz. vol. 149; p. 764.
Hame. W. L. Price and H. E. Schenck. No. 942,351; Dec. 7; Sp. p. 680; Gaz. vol. 149; p 109.
Hame-fastening. J. H. Bankson. No. 942,160; Dec. 7; Sp. p. 288; Gaz. vol. 149; p. 44.
Hammer, Drop-. L. P. Blot. No. 942,706; Dec. 7; Sp. p. 1395; Gaz. vol. 149; p. 229.

Hammer, Foot-power. O. W. Mielenz. No. 944,140; Dec. 21; Sp. p. 4529; Gaz. vol. 149; p. 777.
Hammer, Pneumatic power-. A. Berner. No. 942,163; Dec. 7; Sp. p. 293; Gaz. vol. 149; p. 45.
Hammer, Power-. T. Scott-King and W. Norris. No. 942,756; Dec. 7; Sp. p. 1491; Gaz. vol. 149; p. 245.
Hammock, Couch-. I. E. Palmer. No. 944,814; Dec. 28; Sp. p. 6006; Gaz. vol. 149; p. 1034.
Hammock-stand. J. Hand. No. 944,784; Dec. 28; Sp. p. 5935; Gaz. vol. 149; p. 1024.
Hammock-support. G. H. Buck. No. 944,661; Dec. 28; Sp. p. 5668; Gaz. vol. 149; p. 983.
Hammocks, &c., Resilient bottom for couch-. I. E. Palmer. No. 942,841; Dec. 7; Sp. p. 1666; Gaz. vol. 149; p. 273.
Handle: *See* Casket-handle; Crank-handle; Switch-handle; Tool-handle; Trunk-handle; Valve-handle.
Hanger: *See* Brake-beam hanger; Car-door hanger; Door-hanger; Garment-hanger; Hinge-hanger; Joist-hanger; Shock-absorber hanger; Skirt-hanger; Transfer-hanger; Trousers-hanger.
Harmonic signaling system. R. H. Manson. No. 942,091; Dec. 7; Sp. p. 119; Gaz. vol. 149; p. 19.
Harness. G. A. Humason. No. 943,020; Dec. 14; Sp. p. 2139; Gaz. vol. 149; p. 366.
Harness-dressing. R. F. Meader. No. 943,754; Dec. 21; Sp. p. 3714; Gaz. vol. 149; p. 646.
Harrow. G. A. Olson. No. 942,511; Dec. 7; Sp. p. 1016; Gaz. vol. 149; p. 164.
Harrow. J. C. Baumgarten. No. 942,879; Dec. 14; Sp. p. 1798; Gaz. vol. 149; p. 318.
Harrow. J. H. Lindsey. No. 943,690; Dec. 21; Sp. p. 3580; Gaz. vol. 149; p. 624.
Harrow. E. A. Conklin. No. 944,415; Dec. 28; Sp. p. 5118; Gaz. vol. 149; p. 899.
Harrow. C. W. Olson. No. 944,690; Dec. 28; Sp. p. 5736; Gaz. vol. 149; p. 993.
Harrow, Alfalfa-. E. F. Price. No. 942,516; Dec. 7; Sp. p. 1023; Gaz. vol. 149; p. 163.
Harrow, Drum. S. B. Clardy. No. 942,376; Dec. 7; Sp. p. 719; Gaz. vol. 149; p. 117.
Harrow-tooth fastener. E. M. Rich. No. 942,412; Dec. 7; Sp. p. 793; Gaz. vol. 149; p. 129.
Harrows, Connecting-bar for. G. Anderson. No. 942,532; Dec. 7; Sp. p. 1057; Gaz. vol. 149; p. 171.
Harvester and picker, Bean and peanut. M. P. Calkins. No. 944,945; Dec. 28; Sp. p. 6267; Gaz. vol. 149; p. 1077.
Harvester, Corn-. J. W. From. No. 942,820; Dec. 7; Sp. p. 1618; Gaz. vol. 149; p. 266.
Harvesters and binders, Shocker attachment for grain. E. A. White. No. 944,160; Dec. 21; Sp. p. 4569; Gaz. vol. 149; p. 784.
Harvesters, &c., Supporting and moving device for. J. Macphail. No. 943,090; Dec. 14; Sp. p. 2300; Gaz. vol. 149; p. 390.
Harvesting potatoes, onions, &c., Apparatus for. W. J. Dunham and E. W. Peck. No. 942,626; Dec. 7; Sp. p. 1238; Gaz. vol. 149; p. 203.
Hasp-fastener. H. L. Lambrecht. No. 944,792; Dec. 28; Sp. p. 5993; Gaz. vol. 149; p. 1026.
Hasp-lock. P. McMenamin. No. 943,365; Dec. 14; Sp. p. 2868; Gaz. vol. 149; p. 482.
Hat-guard. M. R. and M. J. Soden. No. 942,678; Dec. 7; Sp. p. 1339; Gaz. vol. 149; p. 220.
Hat retaining and ventilating means. R. D. Baker. No. 942,303; Dec. 7; Sp. p. 534; Gaz. vol. 149; p. 93.
Hat safety device, Gentleman's-. E. R. Vasconcellos. No. 944,062; Dec. 21; Sp. p. 4362; Gaz. vol. 149; p. 752.
Hatchet, Folding pocket-. H. McNally. No. 942,342; Dec. 7; Sp. p. 662; Gaz. vol. 149; p. 106.
Hay-fork, Horse. M. D. Main. No. 943,618; Dec. 14; Sp. p. 3421; Gaz. vol. 149; p. 570.
Hay-gatherer. N. Fryman. No. 943,533; Dec. 14; Sp. p. 3218; Gaz. vol. 149; p. 542.
Hay-loader. F. W. Compton. No. 944,017; Dec. 21; Sp. p. 4279; Gaz. vol. 149; p. 737.
Hay-loader coupling. W. T. Jones. No. 943,024; Dec. 14; Sp. p. 2146; Gaz. vol. 149; p. 368.
Hay-pitcher. W. C. Grauer. No. 943,930; Dec. 21; Sp. p. 4064; Gaz. vol. 149; p. 707.
Hay-pitcher. A. H. Bosworth. No. 943,963; Dec. 21; Sp. p. 4149; Gaz. vol. 149; p. 719.
Hay-press. J. Dain. No. 943,656; Dec. 21; Sp. p. 3523; Gaz. vol. 149; p. 613.
Hay-rake, Self-dumping. G. G. Lowry. No. 943,429; Dec. 14; Sp. p. 2990; Gaz. vol. 149; p. 504.
Head-rest. F. Corkins. No. 942,485; Dec. 7; Sp. p. 959; Gaz. vol. 149; p. 155.
Heat-coil. W. L. Coursen. No. 944,540; Dec. 28; Sp. p. 5417; Gaz. vol. 149; p. 942.
Heat-retainer. W. T. Converse. No. 943,004; Dec. 14; Sp. p. 2099; Gaz. vol. 149; p. 361.
Heater: *See* Electric heater; Flat-iron heater; Iron-heater.
Heater. J. C. Plank and T. E. Fulghum. No. 944,745; Dec. 28; Sp. p. 5868; Gaz. vol. 149; p. 1011.
Heating apparatus. J. M. W. Kitchen. No. 943,832; Dec. 21; Sp. p. 3868; Gaz. vol. 149; p. 673.
Heating apparatus, Gas-. W. E. Lawson. No. 943,617; Dec. 14; Sp. p. 3420; Gaz. vol. 149; p. 570.
Heating system. N. M. Finley. No. 944,183; Dec. 21; Sp. p. 4612; Gaz. vol. 149; p. 791.
Heating system. E. H. Gold. No. 944,187; Dec. 21; Sp. p. 4618; Gaz. vol. 149; p. 792.
Heating system. E. H. Gold. (Reissue.) No. 13,059; Dec. 21; Sp. p. 4737; Gaz. vol. 149; p. 812.
Heel and top-lift holder. W. C. Stewart. No. 944,389; Dec. 28; Sp. p. 5040; Gaz. vol. 149; p. 889.
Heel-beading machine. W. C. Stewart and W. H. Hooper. No. 944,294; Dec. 28; Sp. p. 4846; Gaz. vol. 149; p. 855.
Heel-counters, &c., Machine for making skived blanks for. L. L. Hartwell. No. 942,557; Dec. 7; Sp. p. 1105; Gaz. vol. 149; p. 179.
Heel for boots or shoes, Elastic. C. M. Jaggers. No. 944,558; Dec. 28; Sp. p. 5459; Gaz. vol. 149; p. 948.
Heel-nailing machines, Cementing attachment for. E. A. Webster and C. R. Towle. No. 943,723; Dec. 21; Sp. p. 3657; Gaz. vol. 149; p. 635.
Hides, Splitting-machine for stripping off flesh from. A. H. Kehrhahn. No. 944,488; Dec. 28; Sp. p. 5288; Gaz. vol. 149; p. 923.
Hinge. D. Wilde. No. 942,689; Dec. 7; Sp. p. 1356; Gaz. vol. 149; p. 343.
Hinge. J. Flindall. No. 942,723; Dec. 7; Sp. p. 1436; Gaz. vol. 149; p. 234.
Hinge. T. G. Riordan. No. 943,997; Dec. 21; Sp. p. 4238; Gaz. vol. 149; p. 730.
Hinge, Double-acting spring-. E. Bommer. No. 943,807; Dec. 21; Sp. p. 3821; Gaz. vol. 149; p. 664.
Hinge-hanger. G. E. Leverton. No. 942,784; Dec. 7; Sp. p. 1552; Gaz. vol. 149; p. 255.
Hinge holder, Detachable-. C. E. Morrison. No. 943,363; Dec. 14; Sp. p. 2864; Gaz. vol. 149; p. 482.
Hinge, Wire. F. W. Lowe. No. 944,681; Dec. 28; Sp. p. 5704; Gaz. vol. 149; p. 989.
Hitch and checking device, Horse. J. T. Doyle. No. 944,547; Dec. 28; Sp. p. 5429; Gaz. vol. 149; p. 944.
Hog-cleaning vat. J. C. Cartmill. No. 944,230; Dec. 21; Sp. p. 4698; Gaz. vol. 149; p. 805.
Hoisting device. H. A. Myers. No. 942,735; Dec. 7; Sp. p. 1454; Gaz. vol. 149; p. 238.
Hoisting mechanism for cranes. H. Sawyer. No. 943,956; Dec. 21; Sp. p. 4133; Gaz. vol. 149; p. 716.
Holster. J. M. Beasley. No. 944,355; Dec. 28; Sp. p. 4979; Gaz. vol. 149; p. 877.
Hoof-parer. P. Broadbooks. No. 943,382; Dec. 14; Sp. p. 2901; Gaz. vol. 149; p. 488.
Hook: *See* Chain-hook; Clothes-line hook; Snap-hook; Swivel-hook; Whiffletree-hook.
Hook-and-eye fastener. P. Mulock. No. 944,101; Dec. 21; Sp. p. 4436; Gaz. vol. 149; p. 765.
Hoop-beading machine. E. E. Slick. No. 943,478; Dec. 14; Sp. p. 3102; Gaz. vol. 149; p. 522.
Hoop-driving machine, Vertical. E. F. Beugler. No. 944,356; Dec. 28; Sp. p. 4980; Gaz. vol. 149; p. 877.
Horn. A. G. Solstmann. No. 944,516; Dec. 28; Sp. p. 5356; Gaz. vol. 149; p. 933.
Horse-detacher. H. J. Williamson. No. 944,302; Dec. 28; Sp. p. 4868; Gaz. vol. 149; p. 858.
Horse-power, Meter for indicating. W. E. Burt. No. 942,130; Dec. 7; Sp. p. 220; Gaz. vol. 149; p. 34.
Horses and other hoofed animals, Overshoe for. C. H. Bennett. No. 944,409; Dec. 28; Sp. p. 5106; Gaz. vol. 149; p. 896.
Horses' hoofs for shoeing, Device for preparing. M. B. Haywood. No. 944,432; Dec. 28; Sp. p. 5149; Gaz. vol. 149; p. 903.
Horses' knees, Dressing-retainer and shield for. J. Douglas. No. 942,624; Dec. 7; Sp. p. 1235; Gaz. vol. 149; p. 202.
Horseshoe. H. J. Filliez. No. 943,146; Dec. 14; Sp. p. 2415; Gaz. vol. 149; p. 410.
Horseshoe-calk, Detachable. W. H. Cox. No. 944,666; Dec. 28; Sp. p. 5677; Gaz. vol. 149; p. 985.
Horseshoe-making machine. R. S. Matteson. No. 942,370; Dec. 7; Sp. p. 711; Gaz. vol. 149; p. 115.
Hose-coupling. C. E. Judkins. No. 943,416; Dec. 14; Sp. p. 2962; Gaz. vol. 149; p. 500.
Hose or pipe coupling. C. E. Atkinson. No. 942,047; Dec. 7; Sp. p. 5; Gaz. vol. 149; p. 3.
Hose supporter and protector, Combined. V. Robbins. No. 942,751; Dec. 7; Sp. p. 1485; Gaz. vol. 149; p. 244.
Hot-air furnace. W. Miller. No. 942,655; Dec. 7; Sp. p. 1298; Gaz. vol. 149; p. 212.
Hot-air furnace. C. A. Simonton. No. 943,710; Dec. 21; Sp. p. 3625; Gaz. vol. 149; p. 631.
Hot-air furnace. C. A. Simonton. No. 943,711; Dec. 21; Sp. p. 3626; Gaz. vol. 149; p. 631.
Hot-water and steam boiler. H. L. Worden and H. O. Wurmser. No. 944,759; Dec. 28; Sp. p. 5895; Gaz. vol. 149; p. 1016.
Hotbed. G. H. Barbour. No. 943,373; Dec. 14; Sp. p. 2882; Gaz. vol. 149; p. 485.
Hub and spindle, Combined wheel. T. A. Barnett. No. 944,936; Dec. 28; Sp. p. 6254; Gaz. vol. 149; p. 1074.
Hub-odometer. H. P. C. Browne. No. 942,883; Dec. 14; Sp. p. 1806; Gaz. vol. 149; p. 319.
Hub, Variable-speed coasting and braking. A. F. Rockwell. No. 942,530; Dec. 7; Sp. p. 1032; Gaz. vol. 149; p. 167.
Humidifier. F. B. Comina. No. 942,712; Dec. 7; Sp. p. 1406; Gaz. vol. 149; p. 230.
Hydraulic brake. F. H. Halstead. No. 944,429; Dec. 28; Sp. p. 5142; Gaz. vol. 149; p. 902.
Hydraulic motor. A. G. Lavoie. No. 943,943; Dec. 21; Sp. p. 4113; Gaz. vol. 149; p. 712.
Hydraulic motor. W. G. Stowell. No. 944,220; Dec. 21; Sp. p. 4677; Gaz. vol. 149; p. 802.
Hydrocarbon-burner. J. A. Hunt. No. 942,857; Dec. 7; Sp. p. 1719; Gaz. vol. 149; p. 278.
Hydrocarbon-burner. W. J. Bert. No. 944,070; Dec. 21; Sp. p. 4378; Gaz. vol. 149; p. 754.
Hydropneumatic spring. H. Oudinot and C. Putois. No. 944,577; Dec. 28; Sp. p. 5501; Gaz. vol. 149; p. 954.
Ice-cream-cone holder. W. H. Haight. No. 943,070; Dec. 14; Sp. p. 2265; Gaz. vol. 149; p. 384.
Ice-cream freezer. A. E. Hopley. No. 942,260; Dec. 7; Sp. p. 498; Gaz. vol. 149; p. 77.
Ice-cutting machine. I. G. Gillespie. No. 942,896; Dec. 14; Sp. p. 1842; Gaz. vol. 149; p. 325.
Ice-making apparatus, Can-. C. D. Havenstrite. No. 943,226; Dec. 14; Sp. p. 2563; Gaz. vol. 149; p. 435.
Igniting device, Electric. J. A. and B. A. Jeffery. No. 942,646; Dec. 7; Sp. p. 1284; Gaz. vol. 149; p. 209.

Incubator. A. Noble. No. 943,954; Dec. 21; Sp. p. 4130; Gaz. vol. 149; p. 716.
Incubator and brooder, Combined. A. A. and F. B. Skinner. No. 944,383; Dec. 28; Sp. p. 5037; Gaz. vol. 149; p. 886.
Indicator: *See* Angle-indicator; Azimuth-indicator; Cash-register indicator; Liquid-indicator; Lock-indicator; Speed-indicator; Station-Indicator; Switch-indicator; Text-indicator; Winding-indicator.
Indicator-coupling. L. B. Van Boven. No. 943,127; Dec. 14; Sp. p. 2374; Gaz. vol. 149; p. 403.
Indurated product and preparing same. L. H. Baekeland. No. 942,852; Dec. 7; Sp. p. 1709; Gaz. vol. 149; p. 277.
Ingot-turning device. F. B. Carraher. No. 944,318; Dec. 28; Sp. p. 4898; Gaz. vol. 149; p. 864.
Ingots, Apparatus for the continuous production of. M. Douteur. No. 944,668; Dec. 28; Sp. p. 5678; Gaz. vol. 149; p. 985.
Ingots, Process and apparatus for making metal. J. F. Monnot. No. 944,370; Dec. 28; Sp. p. 5009; Gaz. vol. 149; p. 882.
Inhaling apparatus. P. H. Cherry. No. 943,180; Dec. 14; Sp. p. 2468; Gaz. vol. 149; p. 419.
Initiation device. U. S. De Moulin. No. 943,219; Dec. 14; Sp. p. 2550; Gaz. vol. 149; p. 432.
Injector. J., J. C., and R. D. Metcalfe. No. 944,455; Dec. 28; Sp. p. 5303; Gaz. vol. 149; p. 911.
Ink and mucilage stand. D. H. Edwards. No. 944,181; Dec. 21; Sp. p. 4610; Gaz. vol. 149; p. 791.
Ink-distributer for platen-presses. A. E. Berreyesa. No. 942,705; Dec. 7; Sp. p. 1391; Gaz. vol. 149; p. 228.
Ink-well. F. Guttendorf. No. 944,858; Dec. 28; Sp. p. 6111; Gaz. vol. 149; p. 1050.
Ink-well cover. R. H. and R. J. Brown. No. 943,733; Dec. 21; Sp. p. 3675; Gaz. vol. 149; p. 639.
Inking apparatus. H. F. Bechman. No. 942,703; Dec. 7; Sp. p. 1387; Gaz. vol. 149; p. 227.
Insect catcher or paper holder. B. Heller. No. 944,434; Dec. 28; Sp. p. 5151; Gaz. vol. 149; p. 904.
Insect-catching machine. J. M. Anderson. No. 944,122; Dec. 21; Sp. p. 4500; Gaz. vol. 149; p. 772.
Insect-trap. R. Haselrigg. No. 942,204; Dec. 7; Sp. p. 379; Gaz. vol. 149; p. 58.
Insole. O. F. Fogelsong. No. 943,243; Dec. 14; Sp. p. 2606; Gaz. vol. 149; p. 441.
Insole-reinforcing machine. W. H. Hooper. No. 944,239; Dec. 21; Sp. p. 4715; Gaz. vol. 149; p. 808.
Insulating-support for high-tension conductors. R. D. Mershon. No. 942,335; Dec. 7; Sp. p. 649; Gaz. vol. 149; p. 104.
Insulator. A. G. Dennler. No. 944,259; Dec. 28; Sp. p. 4767; Gaz. vol. 149; p. 843.
Internal-combustion engine. E. Higgins. No. 942,070; Dec. 7; Sp. p. 60; Gaz. vol. 149; p. 12.
Internal-combustion engine. C. G. Wridgwsy. No. 942,124; Dec. 7; Sp. p. 210; Gaz. vol. 149; p. 32.
Internal-combustion engine. C. G. Weld. No. 942,227; Dec. 7; Sp. p. 427; Gaz. vol. 149; p. 66.
Internal-combustion engine. H. L. Jones. No. 942,782; Dec. 7; Sp. p. 1548; Gaz. vol. 149; p. 254.
Internal-combustion engine. F. and E. Carter. No. 942,886; Dec. 14; Sp. p. 1816; Gaz. vol. 149; p. 320.
Internal-combustion engine. C. O. Hedstrom. No. 943,072; Dec. 14; Sp. p. 2271; Gaz. vol. 149; p. 385.
Internal-combustion engine. J. O. Heinze, Jr. No. 943,408; Dec. 14; Sp. p. 2946; Gaz. vol. 149; p. 497.
Internal-combustion engine. I. Hovey. No. 943,598; Dec. 14; Sp. p. 3335; Gaz. vol. 149; p. 562.
Internal-combustion engine. D. C. Hathaway. No. 944,362; Dec. 28; Sp. p. 4995; Gaz. vol. 149; p. 879.
Internal-combustion engine. W. F. Nageborn. No. 944,811; Dec. 28; Sp. p. 6002; Gaz. vol. 149; p. 1033.
Internal-combustion engine, Double-acting. H. O. Horner and J. P. Boyland. No. 943,597; Dec. 14; Sp. p. 3334; Gaz. vol. 149; p. 562.
Invalid-handling device. E. Cleaves. No. 943,003; Dec. 14; Sp. p. 2097; Gaz. vol. 149; p. 360.
Iron: *See* Chair-iron; Sad-iron; Smoothing-iron.
Iron and residues, Treating detinned. W. W. Murray and H. M. Fernberger. No. 943,986; Dec. 21; Sp. p. 4210; Gaz. vol. 149; p. 726.
Iron and steel, Metallurgy of. W. S. Simpson and H. Oviatt. No. 943,574; Dec. 14; Sp. p. 3292; Gaz. vol. 149; p. 555.
Iron, Briqueting metallic. L. Weisz. No. 943,724; Dec. 21; Sp. p. 3661; Gaz. vol. 149; p. 636.
Iron heated by electricity. J. Collicott. No. 942,308; Dec. 7; Sp. p. 599; Gaz. vol. 149; p. 95.
Iron-heater, Portable. E. C. Thompson. No. 942,422; Dec. 7; Sp. p. 809; Gaz. vol. 149; p. 132.
Ironing-board. L. Stowe. No. 943,485; Dec. 14; Sp. p. 3113; Gaz. vol. 149; p. 525.
Ironing-board. J. C. Yeakel. No. 944,401; Dec. 28; Sp. p. 5076; Gaz. vol. 149; p. 893.
Ironing-table, Folding. J. H. Hummer. No. 942,643; Dec. 7; Sp. p. 1274; Gaz. vol. 149; p. 208.
Irrigating-ditch screen. T. A. Powers. No. 944,907; Dec. 28; Sp. p. 6200; Gaz. vol. 149; p. 1066.
Jack: *See* Lifting-jack.
Jack. W. B. McCain. No. 944,629; Dec. 28; Sp. p. 5606; Gaz. vol. 149; p. 973.
Jack. D. F. Vaughan. No. 944,706; Dec. 28; Sp. p. 5761; Gaz. vol. 149; p. 997.
Jack and locking means therefor. J. A. Gumm. No. 944,962; Dec. 28; Sp. p. 6301; Gaz. vol. 149; p. 1083.
Jack-screw, Shifting. S. M. Dunlap. No. 942,170; Dec. 7; Sp. p. 315; Gaz. vol. 149; p. 48.
Jar: *See* Cracker-jar.
Jar and bottle closure. E. Hoffman. No. 942,141; Dec. 7; Sp. p. 255; Gaz. vol. 149; p. 38.
Jar closure or cover and the like. J. W. Moody. No. 943,951; Dec. 21; Sp. p. 4123; Gaz. vol. 149; p. 715.
Jar-holder. J. Twohig. No. 942,602; Dec. 7; Sp. p. 1190; Gaz. vol. 149; p. 194.
Jar or receptacle. R. H. Wolff. No. 943,585; Dec. 14; Sp. p. 3309; Gaz. vol. 149; p. 558.
Jets, Construction of. A. G. Iondes. No. 944,440; Dec. 28; Sp. p. 5165; Gaz. vol. 149; p. 906.
Jewelry. L. Adler. No. 943,291; Dec. 14; Sp. p. 2714; Gaz. vol. 149; p. 458.
Joint: *See* Belt-joint; Frame-joint; Furniture-joint; Pipe-joint; Rail-joint; Railway-joint; Universal joint.
Joint-bar. E. A. Sullivan. No. 944,703; Dec. 28; Sp. p. 5755; Gaz. vol. 149; p. 996.
Joint connection, Ground-. J. C. Vogel. No. 944,752; Dec. 28; Sp. p. 5882; Gaz. vol. 149; p. 1013.
Joint-fastener. M. W. Wintermute. No. 942,693; Dec. 7; Sp. p. 1365; Gaz. vol. 149; p. 224.
Joist-hanger. H. C. Seipp. No. 943,847; Dec. 21; Sp. p. 3902; Gaz. vol. 149; p. 678.
Journal-bearing for revoluble disks, Dust-proof. P. Broman. No. 942,539; Dec. 7; Sp. p. 1073; Gaz. vol. 149; p. 174.
Journal lubricator, Car-axle-. J. C. Nichol. No. 944,375; Dec. 28; Sp. p. 5022; Gaz. vol. 149; p. 883.
Keg or cask. O. R. Yeazell. No. 944,164; Dec. 21; Sp. p. 4583; Gaz. vol. 149; p. 786.
Key-cutting machine. W. F. Billings. No. 943,806; Dec. 21; Sp. p. 3819; Gaz. vol. 149; p. 664.
Key-fastener. P. J. Ryan. No. 942,753; Dec. 7; Sp. p. 1488; Gaz. vol. 149; p. 244.
Key-holding device. I. P. Hulder. No. 944,037; Dec. 21; Sp. p. 4313; Gaz. vol. 149; p. 743.
Keyhole-plug and guard therefor. C. S. Batdorf. No. 942,537; Dec. 7; Sp. p. 1068; Gaz. vol. 149; p. 173.
Keyless socket. H. Hubbell. No. 943,076; Dec. 14; Sp. p. 2278; Gaz. vol. 149; p. 386.
Kiln: *See* Cement-kiln.
Kiln. A. H. Yoder. No. 944,304; Dec. 28; Sp. p. 4873; Gaz. vol. 149; p. 858.
Kilns, Disintegrating and removing annular salamanders in nodulizing-. A. Bräutigam. (Reissue.) No. 13,062; Dec. 28; Sp. p. 6409; Gaz. vol. 149; p. 1099.
Kitchen utensil. A. E. Humphreys. No. 944,265; Dec. 28; Sp. p. 4775; Gaz. vol. 149; p. 845.
Knife: *See* Pocket-knife; Shade-machine knife.
Knife. T. C. Fradsham. No. 943,184; Dec. 14; Sp. p. 2479; Gaz. vol. 149; p. 421.
Knife-guard for jointers. L. Spady. No. 944,976; Dec. 28; Sp. p. 6336; Gaz. vol. 149; p. 1087.
Knitting-machine. A. M. Pigeon. No. 943,230; Dec. 14; Sp. p. 2578; Gaz. vol. 149; p. 437.
Knitting-machine. W. W. Burson. No. 944,011; Dec. 21; Sp. p. 4270; Gaz. vol. 149; p. 735.
Knitting-machine. C. J. Mumford. No. 944,968; Dec. 28; Sp. p. 6315; Gaz. vol. 149; p. 1085.
Knitting-machine stop-motion. B. T. Steber. No. 944,921; Dec. 28; Sp. p. 6225; Gaz. vol. 149; p. 1070.
Knitting-machine yarn-changing mechanism. W. W. Burson. No. 944,012; Dec. 21; Sp. p. 4272; Gaz. vol. 149; p. 735.
Knitting-machines, Racking device for flat-bed. E. Dubled and B. Popp. No. 943,921; Dec. 21; Sp. p. 4067; Gaz. vol. 149; p. 704.
Knob, Adjustable door-. R. C. Walter. No. 942,605; Dec. 7; Sp. p. 1194; Gaz. vol. 149; p. 195.
Knob attachment. J. R. Fletcher. No. 943,740; Dec. 21; Sp. p. 3688; Gaz. vol. 149; p. 641.
Knock-down box. C. F. Jenkins. No. 944,614; Dec. 28; Sp. p. 5582; Gaz. vol. 149; p. 966.
Label-holder. E. J. Middleton. No. 942,094; Dec. 7; Sp. p. 127; Gaz. vol. 149; p. 20.
Labels, Means to facilitate the application of paste to. C. Bunch. No. 944,314; Dec. 28; Sp. p. 4892; Gaz. vol. 149; p. 862.
Lace and the like, Shoe-. H. F. Schelling. No. 943,607; Dec. 14; Sp. p. 3355; Gaz. vol. 149; p. 566.
Ladder. J. Vaghi. No. 942,683; Dec. 7; Sp. p. 1346; Gaz. vol. 149; p. 221.
Ladder. H. Schönich and J. Langer. No. 944,000; Dec. 21; Sp. p. 4243; Gaz. vol. 149; p. 730.
Ladder, Convertible. J. E. Duncan. No. 944,849; Dec. 28; Sp. p. 6088; Gaz. vol. 149; p. 1046.
Ladder, Extension step-. N. Binger and E. F. Burgstaller. No. 943,511; Dec. 14; Sp. p. 3180; Gaz. vol. 149; p. 534.
Lamp. H. Salsbury. No. 942,589; Dec. 7; Sp. p. 1162; Gaz. vol. 149; p. 180.
Lamp. E. E. Allbee. No. 942,608; Dec. 7; Sp. p. 1202; Gaz. vol. 149; p. 196.
Lamp. C. M. Daniels. No. 944,775; Dec. 28; Sp. p. 5017; Gaz. vol. 149; p. 1020.
Lamp, Acetylene-gas. L. B. King. No. 944,789; Dec. 28; Sp. p. 5945; Gaz. vol. 149; p. 1025.
Lamp, Berth-. W. S. Hamm and T. A. Legge. No. 942,943; Dec. 14; Sp. p. 2001; Gaz. vol. 149; p. 347.
Lamp, Flaming arc-. G. L. Martin and A. W. Schreiner. No. 942,730; Dec. 7; Sp. p. 1445; Gaz. vol. 149; p. 236.
Lamp-globe. C. T. Schrader. No. 944,348; Dec. 28; Sp. p. 4957; Gaz. vol. 149; p. 874.
Lamp-guard, Portable. W. T. Russell. No. 943,792; Dec. 21; Sp. p. 3785; Gaz. vol. 149; p. 659.
Lamp-holding device, Plural-. R. B. Benjamin. No. 942,240; Dec. 7; Sp. p. 454; Gaz. vol. 149; p. 70.
Lamp-holding device, Plural-. R. B. Benjamin. No. 942,242; Dec. 7; Sp. p. 461; Gaz. vol. 149; p. 71.
Lamp-igniter. W. D. Jones. No. 944,875; Dec. 28; Sp. p. 6138; Gaz. vol. 149; p. 1056.

Lamp, Incandescent. C. H. Crutchfield. No. 944,667; Dec. 28; Sp. p. 5678; Gaz. vol. 149; p. 985.
Lamp-lighter, Automatic. L. J. Graham. No. 943,873; Dec. 21; Sp. p. 3949; Gaz. vol. 149; p. 687.
Lamp, Miner's. R. L. Graves. No. 942,823; Dec. 7; Sp. p. 1625; Gaz. vol. 149; p. 267.
Lamp, Miner's. T. A. Black. No. 944,171; Dec. 21; Sp. p. 4594; Gaz. vol. 149; p. 788.
Lamp socket, Electric-. F. P. Poole. No. 944,206; Dec. 21; Sp. p. 4659; Gaz. vol. 149; p. 798.
Lamp socket, Incandescent-. L. Dorner and G. H. Norquist. No. 943,772; Dec. 21; Sp. p. 3746; Gaz. vol. 149; p. 652.
Lamp-socket, Plural. R. B. Benjamin. No. 942,241; Dec. 7; Sp. p. 459; Gaz. vol. 149; p. 71.
Lamps and lanterns, Wick-adjusting mechanism for. J. Kleinberger and R. Stern. No. 944,967; Dec. 28; Sp. p. 6312; Gaz. vol. 149; p. 1084.
Lamps, Carriage for electric. R. S. Beard. No. 943,174; Dec. 14; Sp. p. 2459; Gaz. vol. 149; p. 418.
Lamps or headlights, Mechanism for vehicle. A. P. Prendergast. No. 942,217; Dec. 7; Sp. p. 406; Gaz. vol. 149; p. 62.
Lamps, Pressure-controlling valve for automobile-. F. C. Barger. No. 942,995; Dec. 14; Sp. p. 2081; Gaz. vol. 149; p. 358.
Land-drainer, Mechanical. J. Scott. No. 943,571; Dec. 14; Sp. p. 3287; Gaz. vol. 149; p. 554.
Land-roller. W. J. Dunham. No. 942,892; Dec. 14; Sp. p. 1830; Gaz. vol. 149; p. 322.
Landsaw, Folding post for. W. B. Pond. No. 943,705; Dec. 21; Sp. p. 3616; Gaz. vol. 149; p. 629.
Lantern, Signal-. G. P. Browne. No. 943,808; Dec. 21; Sp. p. 3824; Gaz. vol. 149; p. 665.
Lap-fastener. F. A. Boyer. No. 943,135; Dec. 14; Sp. p. 2389; Gaz. vol. 149; p. 406.
Lard or the like, Apparatus for cutting. A. J. A. Bergman. No. 944,410; Dec. 28; Sp. p. 5106; Gaz. vol. 149; p. 897.
Last. W. S. Hamm. No. 942,554; Dec. 7; Sp. p. 1100; Gaz. vol. 149; p. 178.
Lasting-machine. W. E. Wade. No. 944,116; Dec. 21; Sp. p. 4481; Gaz. vol. 149; p. 770.
Latch, Gate-. J. Moore. No. 944,806; Dec. 28; Sp. p. 6172; Gaz. vol. 149; p. 1062.
Latch-lock for swinging doors. R. Buetikofer and G. Hoffman. No. 943,615; Dec. 14; Sp. p. 3416; Gaz. vol. 149; p. 569.
Latch, Night-. R. A. Chase. No. 943,216; Dec. 14; Sp. p. 2547; Gaz. vol. 149; p. 432.
Latch, Safety door-. A. C. Hope, F. Farquhar, and C. A. Hilchey. No. 943,973; Dec. 21; Sp. p. 4173; Gaz. vol. 149; p. 722.
Latch, Spring-. P. P. Bilhorn. No. 944,713; Dec. 28; Sp. p. 5780; Gaz. vol. 149; p. 1000.
Lathe. M. J. Cunningham. No. 944,480; Dec. 28; Sp. p. 5254; Gaz. vol. 149; p. 920.
Lathe. J. E. Key. No. 944,876; Dec. 28; Sp. p. 6140; Gaz. vol. 149; p. 1056.
Lathes, Stop-motion for veneer-. J. M. Rounds. No. 942,105; Dec. 7; Sp. p. 155; Gaz. vol. 149; p. 24.
Laundried articles, Carton or holder for. N. J. Goodman. No. 942,201; Dec. 7; Sp. p. 378; Gaz. vol. 149; p. 57.
Laundry-marking machine. T. L. Taylor. No. 943,208; Dec. 14; Sp. p. 2515; Gaz. vol. 149; p. 427.
Lavatory. W. Podmore. No. 943,458; Dec. 14; Sp. p. 3063; Gaz. vol. 149; p. 518.
Lavatory. B. F. Wheeler. No. 944,586; Dec. 28; Sp. p. 5524; Gaz. vol. 149; p. 958.
Lavatory-fitting. P. Mueller. No. 942,385; Dec. 7; Sp. p. 734; Gaz. vol. 149; p. 120.
Lavatory-fitting. P. Mueller. No. 942,386; Dec. 7; Sp. p. 736; Gaz. vol. 149; p. 120.
Lawn-sprinkler. C. Ballreich. No. 943,172; Dec. 14; Sp. p. 2456; Gaz. vol. 149; p. 417.
Leather-worker's tool. J. B. Brassard. No. 944,660; Dec. 28; Sp. p. 5664; Gaz. vol. 149; p. 983.
Leg-fastening. G. W. Franzheim. No. 942,380; Dec. 7; Sp. p. 724; Gaz. vol. 149; p. 118.
Lens-drilling device. L. Wilhelm. No. 943,289; Dec. 14; Sp. p. 2710; Gaz. vol. 149; p. 457.
Lens-positioning instrument. B. F. Clark. No. 944,846; Dec. 28; Sp. p. 6079; Gaz. vol. 149; p. 1045.
Lenses for spectacles or eyeglasses, Manufacture of. H. Orford. No. 943,449; Dec. 14; Sp. p. 3046; Gaz. vol. 149; p. 512.
Leuco body containing sulfur and making same. B. Homolka and R. Welde. No. 943,678; Dec. 21; Sp. p. 3561; Gaz. vol. 149; p. 620.
Lifter: *See* Sawmill-stock lifter; Valve-spring lifter.
Lifting-jack. F. W. and W. M. Stice. No. 943,903; Dec. 21; Sp. p. 4028; Gaz. vol. 149; p. 697.
Lifting-jack. E. J. Jutz. No. 944,099; Dec. 21; Sp. p. 4317; Gaz. vol. 149; p. 744.
Lifting-jack. M. L. Jenkins. No. 944,617; Dec. 28; Sp. p. 5585; Gaz. vol. 149; p. 969.
Light-extinguisher. J. H. Burdock. No. 943,176; Dec. 14; Sp. p. 2461; Gaz. vol. 149; p. 418.
Lights, Adjustable hanger for. H. J. Hinds. No. 944,786; Dec. 28; Sp. p. 5939; Gaz. vol. 149; p. 1024.
Limbs, Joint for artificial. F. W. Merrick. No. 942,093; Dec. 7; Sp. p. 126; Gaz. vol. 149; p. 20.
Line-casting machine. J. R. Rogers. No. 942,845; Dec. 7; Sp. p. 1681; Gaz. vol. 149; p. 274.
Line-casting machine. F. B. Converse. No. 942,848; Dec. 7; Sp. p. 1701; Gaz. vol. 149; p. 276.
Line-casting machine. F. C. L. D'Aix. (Reissue.) No. 13,048; Dec. 7; Sp. p. 1708; Gaz. vol. 149; p. 285.
Line-casting machine. F. C. L. D'Aix. No. 944,568; Dec. 28; Sp. p. 5538; Gaz. vol. 149; p. 959.
Line-casting machine. F. C. L. D'Aix. No. 944,981; Dec. 28; Sp. p. 6345; Gaz. vol. 149; p. 1089.
Line-roller. W. Reuter. No. 943,787; Dec. 21; Sp. p. 3778; Gaz. vol. 149; p. 658.
Link, Detachable. J. Dufour. No. 943,220; Dec. 14; Sp. p. 2552; Gaz. vol. 149; p. 433.
Link, Detachable. J. B. Cochran. No. 944,016; Dec. 21; Sp. p. 4277; Gaz. vol. 149; p. 736.
Liquid-dispensing apparatus. H. S. Cornish. No. 942,165; Dec. 7; Sp. p. 302; Gaz. vol. 149; p. 46.
Liquid-dispensing apparatus, Coin-controlled. M. L. Buck. No. 943,649; Dec. 21; Sp. p. 3513; Gaz. vol. 149; p. 611.
Liquid-fuel burner. A. E. Stevens. No. 943,482; Dec. 14; Sp. p. 3109; Gaz. vol. 149; p. 524.
Liquid-gage. A. S. Garlick. No. 943,868; Dec. 21; Sp. p. 3942; Gaz. vol. 149; p. 685.
Liquid-indicator. E. E. Hans. No. 943,596; Dec. 14; Sp. p. 3332; Gaz. vol. 149; p. 562.
Liquid-separator, Centrifugal. T. Collins and E. L. Hartmann. No. 944,321; Dec. 28; Sp. p. 4911; Gaz. vol. 149; p. 865.
Loader, Foldable. C. A. Radcliff. No. 943,099; Dec. 14; Sp. p. 2319; Gaz. vol. 149; p. 394.
Loading and unloading apparatus. E. E. Barrett. (Reissue.) No. 13,061; Dec. 28; Sp. p. 6407; Gaz. vol. 149; p. 1098.
Loading-machine. F. K. Holmsted. No. 944,438; Dec. 28; Sp. p. 5159; Gaz. vol. 149; p. 905.
Lock: *See* Burglar-proof lock; Door-lock; Hasp-lock; Latch-lock; Nut-lock; Ore-lock; Padlock; Permutation lock; Sash-lock; Vending machine lock; Whip-lock; Whip and robe lock; Window-lock.
Lock. R. Schoell. No. 943,471; Dec. 14; Sp. p. 3084; Gaz. vol. 149; p. 519.
Lock. R. Schoell. No. 943,627; Dec. 14; Sp. p. 3477; Gaz. vol. 149; p. 578.
Lock. H. W. Simpson. No. 943,898; Dec. 21; Sp. p. 4009; Gaz. vol. 149; p. 695.
Lock. S. Karsz. No. 944,268; Dec. 28; Sp. p. 4780; Gaz. vol. 149; p. 846.
Lock. J. J. Murphy. No. 944,685; Dec. 28; Sp. p. 5709; Gaz. vol. 149; p. 990.
Lock. A. and S. Leszczynsky. No. 944,863; Dec. 28; Sp. p. 6153; Gaz. vol. 149; p. 1055.
Lock-casing. H. W. Simpson. No. 943,899; Dec. 21; Sp. p. 4017; Gaz. vol. 149; p. 696.
Lock-indicator. A. Arens and E. L. Teich. No. 942,806; Dec. 7; Sp. p. 1586; Gaz. vol. 149; p. 261.
Locking device. F. H. Selden. No. 944,513; Dec. 28; Sp. p. 5349; Gaz. vol. 149; p. 932.
Locking mechanism, Combination. H. Van Hoevenberg. No. 943,493; Dec. 14; Sp. p. 3128; Gaz. vol. 149; p. 528.
Locomotive and other furnace. A. F. Kingsley. No. 943,942; Dec. 21; Sp. p. 4100; Gaz. vol. 149; p. 712.
Locomotive ash-pan. T. W. Anderson. No. 942,765; Dec. 7; Sp. p. 1515; Gaz. vol. 149; p. 248.
Locomotive ash-pan. J. H. Gee. No. 943,777; Dec. 21; Sp. p. 3758; Gaz. vol. 149; p. 654.
Locomotive ash-pans, Device for cleaning. N. Olson. No. 942,737; Dec. 7; Sp. p. 1462; Gaz. vol. 149; p. 239.
Locomotives, &c., Arch for fire-boxes of. J. Loftus. No. 942,575; Dec. 7; Sp. p. 1139; Gaz. vol. 149; p. 185.
Log-handling device. J. G. Stoner. No. 944,829; Dec. 28; Sp. p. 6040; Gaz. vol. 149; p. 1039.
Log-turner. F. G. Harrington. No. 943,875; Dec. 21; Sp. p. 3955; Gaz. vol. 149; p. 687.
Loom. L. H. Landry. No. 943,028; Dec. 14; Sp. p. 2154; Gaz. vol. 149; p. 309.
Loom, Circular. R. E. Evenden. No. 944,421; Dec. 28; Sp. p. 5127; Gaz. vol. 149; p. 900.
Loom-dobby. T. Haworth, J. Briggs, and W. Ayrey. No. 942,826; Dec. 7; Sp. p. 1640; Gaz. vol. 149; p. 268.
Loom for weaving tufted fabric. H. Wyman. No. 942,963; Dec. 14; Sp. p. 1962; Gaz. vol. 149; p. 343.
Loom harness-motion. D. D. Miller. No. 943,262; Dec. 14; Sp. p. 2644; Gaz. vol. 149; p. 448.
Loom let-off mechanism, Narrow-ware-. J. C. Gaynor. No. 943,741; Dec. 21; Sp. p. 3689; Gaz. vol. 149; p. 641.
Loom, Ribbon-. A. Handschin and H. Kuny. No. 944,610; Dec. 28; Sp. p. 5575; Gaz. vol. 149; p. 966.
Loom, Shuttle-changing. B. F. McGuiness. No. 943,038; Dec. 14; Sp. p. 2178; Gaz. vol. 149; p. 372.
Loom take-up mechanism. A. E. Rhoades. No. 944,579; Dec. 28; Sp. p. 5503; Gaz. vol. 149; p. 955.
Loom-temple. L. H. Landry. No. 943,150; Dec. 14; Sp. p. 2423; Gaz. vol. 149; p. 411.
Loom thread-guide. J. Robinson. No. 943,270; Dec. 14; Sp. p. 2660; Gaz. vol. 149; p. 450.
Loom, Weft-replenishing. B. F. McGuiness. No. 943,756; Dec. 21; Sp. p. 3717; Gaz. vol. 149; p. 647.
Loom, Weft-replenishing. E. H. Ryon. No. 943,896; Dec. 21; Sp. p. 4003; Gaz. vol. 149; p. 695.
Loom, Wire-fence. V. Hoxie. No. 943,412; Dec. 14; Sp. p. 2956; Gaz. vol. 149; p. 498.
Looms, Cutting attachment for. P. Clemens and G. H. Repert. No. 944,947; Dec. 28; Sp. p. 6273; Gaz. vol. 149; p. 1078.
Looms, Device for prevention of arbitrary registration in counters for mechanical. S. Marschik. No. 943,943; Dec. 21; Sp. p. 4118; Gaz. vol. 149; p. 714.
Looms, Filling-detector mechanism for weft-replenishing. B. F. McGuiness. No. 943,702; Dec. 21; Sp. p. 3610; Gaz. vol. 149; p. 628.
Looms, Filling-exhaustion-indicating means for. A. E. Rhoades. No. 943,846; Dec. 21; Sp. p. 3899; Gaz. vol. 149; p. 678.
Looms, Pick-counter for. M. L. Stone. No. 943,049; Dec. 14; Sp. p. 2219; Gaz. vol. 149; p. 377.
Looms, Thread-parting mechanism for. W. H. Spencer and A. Hurst. No. 943,957; Dec. 21; Sp. p. 4135; Gaz. vol. 149; p. 717.
Looms, Tuft-yarn carrier for pile-fabric. C. C. Brinton. No. 942,999; Dec. 14; Sp. p. 2092; Gaz. vol. 149; p. 359.
Loss-preventing device. W. K. Wolf. No. 942,695; Dec. 7; Sp. p. 1368; Gaz. vol. 149; p. 225.

Lubricating device. R. F. O. G. van Zoelen. No. 943,959; Dec. 21; Sp. p. 4139; Gaz. vol. 149; p. 717.
Lubricating draper-roller. J. D. Jones. No. 942,728; Dec. 7; Sp. p. 1443; Gaz. vol. 149; p. 236.
Lubricator: *See* Journal-box lubricator.
Luggage-carrier. T. W. Tschiffely. No. 942,526; Dec. 7; Sp. p. 1046; Gaz. vol. 149; p. 169.
Lumber-joining machines, Edging attachment for. B. A. Linderman. No. 944,489; Dec. 28; Sp. p. 5291; Gaz. vol. 149; p. 923.
Lumber-stacker. H. W. Clark. No. 944,946; Dec. 28; Sp. p. 6269; Gaz. vol. 149; p. 1077.
Magazine. F. Smithson. No. 943,479; Dec. 14; Sp. p. 3103; Gaz. vol. 149; p. 523.
Magneto-motor. C. S. Kershner. No. 943,420; Dec. 14; Sp. p. 2968; Gaz. vol. 149; p. 501.
Mail-bag catching and delivering apparatus. H. J. Hansen. No. 943,071; Dec. 14; Sp. p. 2366; Gaz. vol. 149; p. 384.
Mail-bag deliverer. J. H. Sweeney. No. 944,222; Dec. 21; Sp. p. 4682; Gaz. vol. 149; p. 802.
Mail-bag-delivering apparatus. H. J. Hedrick. No. 943,876; Dec. 21; Sp. p. 3956; Gaz. vol. 149; p. 687.
Mail-bag handler. J. L. Adam. No. 944,651; Dec. 28; Sp. p. 5647; Gaz. vol. 149; p. 979.
Mail-bag handler. J. L. Adam. No. 944,711; Dec. 28; Sp. p. 5775; Gaz. vol. 149; p. 999.
Mail-bag-handling apparatus. H. N. Pedersen and P. M. Christensen. No. 942,278; Dec. 7; Sp. p. 535; Gaz. vol. 149; p. 84.
Mail-box support. A. P. Kersey. No. 942,859; Dec. 7; Sp. p. 1722; Gaz. vol. 149; p. 279.
Mail-carrier. W. T. Buck and G. C. Willis. No. 943,136; Dec. 14; Sp. p. 2390; Gaz. vol. 149; p. 407.
Mail-catcher. A. M. Bridgewater. No. 943,336; Dec. 14; Sp. p. 2804; Gaz. vol. 149; p. 473.
Mail-catcher. S. S. McKeand. No. 944,901; Dec. 28; Sp. p. 6180; Gaz. vol. 149; p. 1064.
Mail-catcher, Railway. N. H. Campbell. No. 942,055; Dec. 7; Sp. p. 27; Gaz. vol. 149; p. 6.
Mail-chute. J. W. Cutler. No. 943,183; Dec. 14; Sp. p. 2474; Gaz. vol. 149; p. 420.
Mail-delivery apparatus. S. Henry. No. 943,934; Dec. 21; Sp. p. 4093; Gaz. vol. 149; p. 709.
Mail-delivery case. R. Brown. No. 943,766; Dec. 21; Sp. p. 3734; Gaz. vol. 149; p. 650.
Mail-exchanging device. H. Diefenbaugh. No. 942,717; Dec. 7; Sp. p. 1417; Gaz. vol. 149; p. 232.
Mail-handling apparatus, Railway. N. H. Campbell. No. 942,054; Dec. 7; Sp. p. 23; Gaz. vol. 149; p. 6.
Mail-pouch catching and delivering apparatus. J. L. Ware. No. 942,762; Dec. 7; Sp. p. 1505; Gaz. vol. 149; p. 247.
Mail-pouch receiving and delivering apparatus for railway-cars and the like. C. W. Broughton. No. 944,716; Dec. 28; Sp. p. 5784; Gaz. vol. 149; p. 1001.
Mail-pouch-transferring apparatus. J. W. Pepple. No. 942,214; Dec. 7; Sp. p. 397; Gaz. vol. 149; p. 61.
Malt-stirrer. M. Kondolf. No. 942,649; Dec. 7; Sp. p. 1289; Gaz. vol. 149; p. 210.
Malting apparatus. J. F. Dornfeld. No. 944,127; Dec. 21; Sp. p. 4507; Gaz. vol. 149; p. 774.
Manifolding apparatus. A. Lewis. No. 943,195; Dec. 14; Sp. p. 2502; Gaz. vol. 149; p. 424.
Mantle for gas-burners, Incandescent. M. Welckert. No. 944,928; Dec. 28; Sp. p. 6242; Gaz. vol. 149; p. 1072.
Mantle, Incandescent. T. Terrell. No. 943,488; Dec. 14; Sp. p. 3118; Gaz. vol. 149; p. 526.
Manure-spreader. J. H. Bloom. No. 943,731; Dec. 21; Sp. p. 3671; Gaz. vol. 149; p. 638.
Manure-spreader. T. Brown. No. 944,479; Dec. 28; Sp. p. 5252; Gaz. vol. 149; p. 920.
Map, globe, and other geographical appliance, Geographical. W. Wilson. No. 944,248; Dec. 21; Sp. p. 4732; Gaz. vol. 149; p. 811.
Marking and cutting goods for garments. F. P. Mackenzie. No. 943,947; Dec. 21; Sp. p. 4117; Gaz. vol. 149; p. 713.
Marking board, Upholstery-goods-. J. G. Hulse and A. F. Schramm. No. 942,908; Dec. 14; Sp. p. 1866; Gaz. vol. 149; p. 328.
Massage apparatus. J. W. Jones. No. 942,206; Dec. 7; Sp. p. 382; Gaz. vol. 149; p. 58.
Massage apparatus. E. M. Bassler. No. 944,252; Dec. 28; Sp. p. 4748; Gaz. vol. 149; p. 840.
Massage device. H. Wiking and B. J. Bengtsson. No. 942,299; Dec. 7; Sp. p. 576; Gaz. vol. 149; p. 92.
Massage-machine, Vacuum. N. Lombard. No. 944,737; Dec. 28; Sp. p. 5838; Gaz. vol. 149; p. 1008.
Match and cigarette box, Combined. A. S. Davis. No. 944,954; Dec. 28; Sp. p. 6283; Gaz. vol. 149; p. 1080.
Match-boxes, Machine for pasting the inner boxes or slides of. C. S. Nyberg. No. 943,158; Dec. 14; Sp. p. 2435; Gaz. vol. 149; p. 414.
Match-lighter. J. J. Willingham. No. 944,756; Dec. 28; Sp. p. 5888; Gaz. vol. 149; p. 1014.
Match-safe. C. E. Birky. No. 942,706; Dec. 7; Sp. p. 1392; Gaz. vol. 149; p. 228.
Match-safe. E. and D. C. Pooler. No. 943,098; Dec. 14; Sp. p. 2317; Gaz. vol. 149; p. 393.
Match-safe. J. De Bruin. No. 944,413; Dec. 28; Sp. p. 5113; Gaz. vol. 149; p. 898.
Match-safe attachment. J. De Bruin. No. 944,414; Dec. 28; Sp. p. 5115; Gaz. vol. 149; p. 898.
Match-scratcher. J. H. Havecotte and M. Stanley. No. 944,363; Dec. 28; Sp. p. 4998; Gaz. vol. 149; p. 880.
Match-splint machine. E. J. Sterba and J. H. Birch. No. 944,519; Dec. 28; Sp. p. 5362; Gaz. vol. 149; p. 934.
Matrix-retainer. J. W. Ivory. No. 943,353; Dec. 14; Sp. p. 2846; Gaz. vol. 149; p. 479.
Mattress, Invalid's. J. T. Lunn. No. 944,624; Dec. 28; Sp. p. 5597; Gaz. vol. 149; p. 971.
Measurer, Skirt-. M. E. Morrison. No. 942,338; Dec. 7; Sp. p. 655; Gaz. vol. 149; p. 105.
Measuring appliance, Angle-. A. König. No. 942,393; Dec. 7; Sp. p. 747; Gaz. vol. 149; p. 122.
Measuring attachment for cloth-folding machines. K. von Thigpen. No. 942,685; Dec. 7; Sp. p. 1349; Gaz. vol. 149; p. 222.
Measuring attachment for scissors. J. T. Tippery. No. 944,925; Dec. 28; Sp. p. 6234; Gaz. vol. 149; p. 1071.
Measuring device, Skirt-. C. W. Smith. No. 943,278; Dec. 14; Sp. p. 2681; Gaz. vol. 149; p. 453.
Measuring fabrics and the like, Apparatus for. S. Jacobsen. No. 944,870; Dec. 28; Sp. p. 6130; Gaz. vol. 149; p. 1054.
Measuring granular materials, Device for. O. D. Havard. No. 943,405; Dec. 14; Sp. p. 2942; Gaz. vol. 149; p. 496.
Measuring instrument, Electrical. T. W. Varley. No. 944,061; Dec. 21; Sp. p. 4361; Gaz. vol. 149; p. 752.
Measuring-machine, Automatic. E. Whitten, Jr., and A. A. Harrell. No. 943,854; Dec. 21; Sp. p. 3914; Gaz. vol. 149; p. 681.
Measuring machine, Cloth-. C. H. Lantz. No. 942,064; Dec. 7; Sp. p. 99; Gaz. vol. 149; p. 17.
Measuring machine, Cloth-. B. D. Wight. No. 944,161; Dec. 21; Sp. p. 4574; Gaz. vol. 149; p. 785.
Meat-holding device. J. W. Breedlove. No. 943,910; Dec. 21; Sp. p. 4041; Gaz. vol. 149; p. 700.
Meat into slices, Machine for cutting. F. Graff. No. 943,929; Dec. 21; Sp. p. 4063; Gaz. vol. 149; p. 707.
Meat-slicing machine. C. J. Lensvelt. No. 944,797; Dec. 28; Sp. p. 5965; Gaz. vol. 149; p. 1028.
Meat-tenderer. W. H. Humeston. No. 942,448; Dec. 7; Sp. p. 867; Gaz. vol. 149; p. 141.
Mechanical movement. R. A. Schoenberg. No. 943,274; Dec. 14; Sp. p. 2671; Gaz. vol. 149; p. 452.
Mechanical movement. W. S. Allan. No. 944,121; Dec. 21; Sp. p. 4499; Gaz. vol. 149; p. 772.
Mechanical movement. F. L. Temple. No. 944,978; Dec. 28; Sp. p. 6341; Gaz. vol. 149; p. 1088.
Medical appliance, Electrical. B. R. Davenport. No. 943,918; Dec. 21; Sp. p. 4062; Gaz. vol. 149; p. 703.
Medicament for diseases of the mucous membrane. W. Loose. No. 944,738; Dec. 28; Sp. p. 5841; Gaz. vol. 149; p. 1009.
Megaphone. H. Meredith-Jones. No. 943,252; Dec. 14; Sp. p. 2624; Gaz. vol. 149; p. 444.
Merry-go-round. G. Schmid. No. 942,937; Dec. 14; Sp. p. 1939; Gaz. vol. 149; p. 337.
Merry-go-round. J. and J. Setecka. No. 943,276; Dec. 14; Sp. p. 2676; Gaz. vol. 149; p. 452.
Metal-crimping machine. A. Johnston. No. 944,559; Dec. 28; Sp. p. 5460; Gaz. vol. 149; p. 948.
Metal, Forming expanded. W. H. Cooley. No. 942,309; Dec. 7; Sp. p. 600; Gaz. vol. 149; p. 95.
Metal, Forming ribbed expanded. J. Kahn. No. 943,417; Dec. 14; Sp. p. 2964; Gaz. vol. 149; p. 500.
Metal pieces, Joining. H. Goldschmidt. (Reissue.) No. 13,050; Dec. 7; Sp. p. 1778; Gaz. vol. 149; p. 286.
Metal, Reclamation of purified. W. C. Hyzer. No. 943,248; Dec. 14; Sp. p. 2616; Gaz. vol. 149; p. 443.
Metal rods or bars, Apparatus for use in twisting. L. Härtel and L. Kissling. No. 942,322; Dec. 7; Sp. p. 626; Gaz. vol. 149; p. 100.
Metals, Protecting molten. W. S. Rockey and H. Eldridge. No. 943,161; Dec. 14; Sp. p. 2439; Gaz. vol. 149; p. 414.
Metals, Protecting molten. W. S. Rockey and H. Eldridge. No. 943,639; Dec. 14; Sp. p. 3453; Gaz. vol. 149; p. 579.
Metallic tie. E. A. Emerley and F. Matschuk. No. 942,721; Dec. 7; Sp. p. 1432; Gaz. vol. 149; p. 234.
Metallic tie. E. F. Kenney. No. 943,782; Dec. 21; Sp. p. 3767; Gaz. vol. 149; p. 655.
Metallic tie and rail-fastener. F. A. Ginnil. No. 944,857; Dec. 28; Sp. p. 6109; Gaz. vol. 149; p. 1049.
Metallurgic converter. W. H. Peirce. No. 944,905; Dec. 28; Sp. p. 6196; Gaz. vol. 149; p. 1065.
Meter: *See* Electricity-meter.
Meter. F. N. Connet. No. 944,417; Dec. 28; Sp. p. 5120; Gaz. vol. 149; p. 899.
Milk, Fermentation of. J. P. Cabanne. No. 944,013; Dec. 21; Sp. p. 4274; Gaz. vol. 149; p. 736.
Milk sampling and measuring device. A. A. Johnson. No. 942,648; Dec. 7; Sp. p. 1288; Gaz. vol. 149; p. 210.
Milk-warmer. I. Bauer. No. 944,307; Dec. 28; Sp. p. 4877; Gaz. vol. 149; p. 859.
Milking cows. F. M. Berberich. No. 942,243; Dec. 7; Sp. p. 463; Gaz. vol. 149; p. 71.
Milking-machine. L. Burrell. No. 942,482; Dec. 7; Sp. p. 953; Gaz. vol. 149; p. 154.
Mill: *See* Grinding-mill; Pebble-mill; Pulverizing or grinding mill; Rolling-mill.
Milling attachment, Universal. G. G. Porter and F. E. Cable. No. 943,845; Dec. 21; Sp. p. 3895; Gaz. vol. 149; p. 678.
Milling-machine, Portable. R. P. Decker. No. 942,168; Dec. 7; Sp. p. 311; Gaz. vol. 149; p. 47.
Mine-shaft equipment. H. L. Templer. No. 944,113; Dec. 21; Sp. p. 4477; Gaz. vol. 149; p. 769.
Mine-ventilating system. M. Ward. No. 942,950; Dec. 14; Sp. p. 1970; Gaz. vol. 149; p. 342.
Mines, Conveyer for. P. J. Riley. No. 942,750; Dec. 7; Sp. p. 1484; Gaz. vol. 149; p. 243.
Mining-machine. H. B. Dierdorff. No. 945,000; Dec. 28; Sp. p. 6376; Gaz. vol. 149; p. 1096.
Mining machine, Coal-. A. H. Gibson. No. 944,029; Dec. 21; Sp. p. 4300; Gaz. vol. 149; p. 741.
Mining-transit-center finder. W. A. Berger. No. 944,654; Dec. 28; Sp. p. 5653; Gaz. vol. 149; p. 981.
Mineral-classifying apparatus. R. H. Richards. No. 943,101; Dec. 14; Sp. p. 2322; Gaz. vol. 149; p. 394.
Mirror, Hat-. C. L. Cruver. No. 943,008; Dec. 14; Sp. p. 2100; Gaz. vol. 149; p. 361.

Mitten. W. D. Corney. No. 944,949; Dec. 28; Sp. p. 6279; Gaz. vol. 149; p. 1078.
Mixer: *See* Cement and concrete mixer; Concrete-mixer.
Moistener. J. H. Bordeaux. No. 944,769; Dec. 28; Sp. p. 5908; Gaz. vol. 149; p. 1019.
Moistener and sealer, Envelop. F. Roth. No. 943,318; Dec. 14; Sp. p. 2762; Gaz. vol. 149; p. 466.
Moistening apparatus, Air-. W. H. Webb, W. G. Bretsell, and A. J. Adamson. No. 943,638; Dec. 14; Sp. p. 3451; Gaz. vol. 149; p. 578.
Mold: *See* Block-mold; Flue-block mold; Type-mold; Vulcanizing-mold.
Molding-machine. S. F. Nicolai. No. 942,457; Dec. 7; Sp. p. 807; Gaz. vol. 149; p. 145.
Molding-machine. L. L. Rich. No. 944,747; Dec. 28; Sp. p. 5872; Gaz. vol. 149; p. 1012.
Molding, Machine for use in drawing patterns in. S. Stretton. No. 942,419; Dec. 7; Sp. p. 805; Gaz. vol. 149; p. 131.
Molding-press. E. C. Williams. No. 943,504; Dec. 14; Sp. p. 3164; Gaz. vol. 149; p. 532.
Mop-wringer. M. E. Davis. No. 942,135; Dec. 7; Sp. p. 232; Gaz. vol. 149; p. 35.
Mop-wringer. C. Callis and W. D. Fulbright. No. 943,650; Dec. 21; Sp. p. 3514; Gaz. vol. 149; p. 612.
Mop-wringer. M. M. Flynn. No. 944,728; Dec. 28; Sp. p. 5812; Gaz. vol. 149; p. 1005.
Motor: *See* Churn-motor; Electric motor; Foot-power motor; Hydraulic motor; Magneto-motor; Rotary motor; Water-motor; Wind-motor
Motor. G. Keller. No. 944,441; Dec. 28; Sp. p. 5168; Gaz. vol. 149; p. 907.
Motor. E. H. Herndon. No. 945,001; Dec. 28; Sp. p. 6380; Gaz. vol. 149; p. 1095.
Motor control, Electric-. H. A. Mavor. No. 944,453; Dec. 28; Sp. p. 5198; Gaz. vol. 149; p. 911.
Motor-control system. P. H. Thomas. No. 945,006; Dec. 28; Sp. p. 6385; Gaz. vol. 149; p. 1097.
Motor-control system. P. H. Thomas. No. 945,008; Dec. 28; Sp. p. 6399; Gaz. vol. 149; p. 1097.
Motor control system, Electric-. A. C. Eastwood. No. 943,011; Dec. 14; Sp. p. 2118; Gaz. vol. 149; p. 363.
Motor-controller. A. Kimble. No. 942,382; Dec. 7; Sp. p. 727; Gaz. vol. 149; p. 119.
Motor-controlling apparatus, Electric-. H. E. Dey. No. 942,196; Dec. 7; Sp. p. 363; Gaz. vol. 149; p. 55.
Motor-controlling apparatus, Electric-. H. E. Dey. No. 942,197; Dec. 7; Sp. p. 365; Gaz. vol. 149; p. 55.
Motor-controlling apparatus, Electric-. H. E. Dey. No. 942,198; Dec. 7; Sp. p. 367; Gaz. vol. 149; p. 55.
Motor-controlling device. T. E. Barnum. No. 942,050; Dec. 7; Sp. p. 12; Gaz. vol. 149; p. 5.
Motor starting and stopping apparatus, Electric-. C. Spannagel. No. 943,047; Dec. 14; Sp. p. 2214; Gaz. vol. 149; p. 376
Motor starting device, Internal-combustion-. E. L. Sharpneck. No. 942,467; Dec. 7; Sp. p. 919; Gaz. vol. 149; p. 148.
Motor starting-switch, Electric-. E. Garside. No. 942,960; Dec. 14; Sp. p. 1995; Gaz. vol. 149; p. 346.
Motors, &c., Automatic starting device for explosion-. E. Cantono. No. 944,316; Dec. 28; Sp. p. 4895; Gaz. vol. 149; p. 862.
Motors, Heating of compressed air for use in. W. H. Sodeau. No. 944,975; Dec. 28; Sp. p. 6333; Gaz. vol. 149; p. 1081.
Motors, Igniter for internal-combustion. H. A. Johnston. No. 942,328; Dec. 7; Sp. p. 535; Gaz. vol. 149; p. 101.
Motors, Method of and means for regulating the speed of electric. R. H. Rogers. No. 942,463; Dec. 7; Sp. p. 914; Gaz. vol. 149; p. 147.
Mouth-brace. C. Mayer. No. 943,361; Dec. 14; Sp. p. 2861; Gaz. vol. 149; p. 481.
Moving implement. J. H. Fichter. No. 943,013; Dec. 14; Sp. p. 2125; Gaz. vol. 149; p. 364.
Mower, Lawn-. H. H. Benson. No. 943,857; Dec. 21; Sp. p. 3919; Gaz. vol. 149; p. 682.
Mower, Lawn-. A. Berens. No. 944,712; Dec. 28; Sp. p. 5779; Gaz. vol. 149; p. 1000.
Mower-starting device. J. C. Oliva. No. 943,044; Dec. 14; Sp. p. 2205; Gaz. vol. 149; p. 375.
Mowing-machine. M. Jewell. No. 942,075; Dec. 7; Sp. p. 69; Gaz. vol. 149; p. 14.
Mowing-machine. W. Crain. No. 943,151; Dec. 14; Sp. p. 2469; Gaz. vol. 149; p. 420.
Mowing-machine. C. H. Pelton. No. 943,266; Dec. 14; Sp. p. 2651; Gaz. vol. 149; p. 449.
Muffler, Exhaust-. J. Boyle. No. 943,233; Dec. 14; Sp. p. 2586; Gaz. vol. 149; p. 438.
Muffler, Exhaust-. C. L. Hensley. No. 943,544; Dec. 14; Sp. p. 3237; Gaz. vol. 149; p. 545.
Muffler, Exhaust-. J. A. and C. A. Xardell. No. 944,646; Dec. 28; Sp. p. 5633; Gaz. vol. 149; p. 978.
Music holder and turner. H. M. Masters. No. 942,399; Dec. 7; Sp. p. 770; Gaz. vol. 149; p. 124.
Music-leaf turner. R. A. Gibson. No. 942,821; Dec. 7; Sp. p. 1622; Gaz. vol. 149; p. 266.
Music-leaf turner. R. J. Trice. No. 942,949; Dec. 14; Sp. p. 1967; Gaz. vol. 149; p. 342.
Music-rack. R. W. Mills. No. 943,091; Dec. 14; Sp. p. 2303; Gaz. vol. 149; p. 390.
Music-record sheets, Apparatus for producing perforated. G. Machlet, Jr. No. 942,398; Dec. 7; Sp. p. 759; Gaz. vol. 149; p. 124.
Music-sheet guiding mechanism. T. P. Brown. No. 942,956; Dec. 14; Sp. p. 1967; Gaz. vol. 149; p. 344.
Musical instrument, Automatic. P. A. Bayless. No. 943,909; Dec. 21; Sp. p. 4038; Gaz. vol. 149; p. 700.
Musical instrument, Pneumatic. P. B. Klugh. No. 942,915; Dec. 14; Sp. p. 1895; Gaz. vol. 149; p. 331.
Musical instruments and other apparatus, Contact device for self-playing. G. H. Davis. No. 942,550; Dec. 7; Sp. p. 1093; Gaz. vol. 149; p. 177.
Musical instruments, Paper-winding mechanism for. P. Welin. No. 943,802; Dec. 21; Sp. p. 3810; Gaz. vol. 149; p. 662.
Musical instruments, Paper-winding mechanism for. P. Welin. No. 944,006; Dec. 21; Sp. p. 4260; Gaz. vol. 149; p. 733.
Musical instruments, Pneumatic relay for automatic. A. W. Lonsdale. No. 944,798; Dec. 28; Sp. p. 5966; Gaz. vol. 149; p. 1029.
Musical instruments, Water-key for. W. W. Allen. No. 942,429; Dec. 7; Sp. p. 823; Gaz. vol. 149; p. 135.
Nailing-machine. H. W. Morgan. No. 943,035; Dec. 14; Sp. p. 2172; Gaz. vol. 149; p. 371.
Navigators, Tide-set-calculating instrument for. E. Hill, Jr. No. 944,437; Dec. 28; Sp. p. 5156; Gaz. vol. 149; p. 905.
Needle-feed mechanism. A. G. Fenn. No. 942,805; Dec. 14; Sp. p. 1834; Gaz. vol. 149; p. 323.
Needle-guide. A. Leach. No. 942,919; Dec. 14; Sp. p. 1900; Gaz. vol. 149; p. 332.
Nipple-flange. H. W. Reynolds and J. A. Smith. No. 943,123; Dec. 14; Sp. p. 2368; Gaz. vol. 149; p. 402.
Nitrids, Producing. C. E. Acker. No. 943,132; Dec. 14; Sp. p. 2384; Gaz. vol. 149; p. 405.
Notes-sheets, Receiving-spool for. W. R. Crippen. No. 942,548; Dec. 7; Sp. p. 1091; Gaz. vol. 149; p. 177.
Nozzle, Sprinkler-. W. G. Hughes. No. 943,780; Dec. 21; Sp. p. 3765; Gaz. vol. 149; p. 655.
Numbering-machine. F. Wosinski. No. 943,210; Dec. 14; Sp. p. 2582; Gaz. vol. 149; p. 429.
Numbering-machine. E. A. Lundvall and W. Olson. No. 944,451; Dec. 28; Sp. p. 5189; Gaz. vol. 149; p. 910.
Nut-lock. W. H. Beltz. No. 942,193; Dec. 7; Sp. p. 358; Gaz. vol. 149; p. 54.
Nut-lock. G. Bryar. No. 942,194; Dec. 7; Sp. p. 359; Gaz. vol. 149; p. 55.
Nut-lock. F. A. Headson. No. 943,826; Dec. 21; Sp. p. 3855; Gaz. vol. 149; p. 671.
Nut-lock. G. A. Pattillo. No. 943,887; Dec. 21; Sp. p. 3982; Gaz. vol. 149; p. 691.
Nut-locking expansion-bolt. C. D. Vernon and J. P. Morningstar. No. 942,226; Dec. 7; Sp. p. 426; Gaz. vol. 149; p. 65.
Nut-making machine. W. L. Clouse. No. 943,768; Dec. 21; Sp. p. 3737; Gaz. vol. 149; p. 651.
Oar-lock. E. L. Montague and E. A. Stewart. No. 943,905; Dec. 21; Sp. p. 3504; Gaz. vol. 149; p. 625.
Oil-burner. H. F. Arenberg. No. 944,761; Dec. 28; Sp. p. 5898; Gaz. vol. 149; p. 1016.
Oil-burner. C. C. Lillibridge. No. 944,886; Dec. 28; Sp. p. 6158; Gaz. vol. 149; p. 1059.
Oil burner, Crude-. W. H. Payne and N. M. Rice. No. 944,633; Dec. 28; Sp. p. 5613; Gaz. vol. 149; p. 974.
Oil-burning and steam-generating apparatus. J. W. Spurrier. No. 943,481; Dec. 14; Sp. p. 3107; Gaz. vol. 149; p. 523.
Oil from wax, Process and apparatus for the extracting of. J. C. Kuebler. No. 942,917; Dec. 14; Sp. p. 1897; Gaz. vol. 149; p 331
Oiling device, Track-. D. F. Robinson. No. 944,464; Dec. 28; Sp. p. 5225; Gaz. vol. 149; p. 915.
Oiling follies, Apparatus for. D. D. Frisbee. No. 943,674; Dec. 21; Sp. p. 3553; Gaz. vol. 149; p. 618.
Ophthalmoscope. F. Baum. No. 943,728; Dec. 21; Sp. p. 3668; Gaz. vol. 149; p. 637.
Optical-illusion apparatus. E. P. Hoyt. No. 942,560; Dec. 7; Sp. p. 1112; Gaz. vol. 149; p. 180.
Optical projection of colored images, Apparatus for the. B. Jumeaux. No. 944,787; Dec. 28; Sp. p. 5942; Gaz. vol. 149; p. 1025.
Optometroscope. M. W. Gantt. No. 944,853; Dec. 28; Sp. p. 6095; Gaz. vol. 149; p. 1048.
Ordnance after firing, Cleaning the explosive-chambers of. W. D. Smith. No. 944,974; Dec. 28; Sp. p. 6329; Gaz. vol. 149; p. 1086.
Ore-concentrating table. T. W. Scott. No. 944,917; Dec. 28; Sp. p. 6219; Gaz. vol. 149; p. 1069.
Ore-concentrator. F. D. Melhuish. No. 944,567; Dec. 28; Sp. p. 5479; Gaz. vol. 149; p. 951.
Ore-cooler. F. D. Baker. No. 943,294; Dec. 14; Sp. p. 2719; Gaz. vol. 149; p. 459.
Ore-grinding machine. J. C. Tatman. No. 943,486; Dec. 14; Sp. p. 3114; Gaz. vol. 149; p. 525.
Ore-roasting pot. F. D. Baker. No. 942,810; Dec. 7; Sp. p. 1597; Gaz. vol. 149; p. 262.
Ore-separator. F. T. Snyder. No. 944,699; Dec. 28; Sp. p. 5749; Gaz. vol. 149; p. 995.
Ore-treating furnace. H. C. Bellinger. No. 942,052; Dec. 7; Sp. p. 18; Gaz. vol. 149; p. 5.
Ores, Securing the chloridization of. W. Koehler. No. 942,559; Dec. 7; Sp. p. 1125; Gaz. vol. 149; p. 183.
Organ, Folding. H. Faber. No. 944,483; Dec. 28; Sp. p. 5202; Gaz. vol. 149; p. 921.
Organs, pianolas, &c., Pedal attachment for. C. H. Le Dew. No. 944,578; Dec. 28; Sp. p. 6143; Gaz. vol. 149; p. 1057.
Oven, Bake-. J. I. Marshall and J. Faulds. No. 944,804; Dec. 28; Sp. p. 5957; Gaz. vol. 149; p. 1031.
Oven, Baker's. W. D. De Vaughn. No. 943,396; Dec. 14; Sp. p. 2923; Gaz. vol. 149; p. 492.
Oven-door. E. H. Huenefeld. No. 943,546; Dec. 14; Sp. p. 3241; Gaz. vol. 149; p. 546.
Oven-door. E. H. Huenefeld. No. 943,547; Dec. 14; Sp. p. 3243; Gaz. vol. 149; p. 546.
Oven-door. E. H. Huenefeld. No. 943,548; Dec. 14; Sp. p. 3244; Gaz. vol. 149; p. 546.
Oven-door. E. H. Huenefeld. No. 943,549; Dec. 14; Sp. p. 3245; Gaz. vol. 149; p. 547.
Oven, Gas-range. W. J. Best. No. 942,128; Dec. 7; Sp. p. 216; Gaz. vol. 149; p. 33.
Overshoe-holder. H. G. F. Wessels and C. B. Ingraham. No. 943,582; Dec. 14; Sp. p. 3306; Gaz. vol. 149; p. 557.
Oxids of nitrogen from the air, Production of. F. I. du Pont. No. 943,661; Dec. 21; Sp. p. 3535; Gaz. vol. 149; p. 615.
Oxygen-making apparatus. G. von Aeh. No. 944,473; Dec. 28; Sp. p. 5240; Gaz. vol. 149; p. 917.

Oxygen with other gases, Process and apparatus for burning. A. R. Bullock. No. 943,385; Dec. 14; Sp. p. 2907; Gaz. vol. 149; p. 489.
Ozone, Generating and storing. F. M. Ashley. No. 942,046; Dec. 7; Sp. p. 2; Gaz. vol. 149; p. 3.
Package for frangible articles. C. F. Jenkins. No. 944,616; Dec. 28; Sp. p. 5584; Gaz. vol. 149; p. 969.
Packing and making the same. C. I. E. Mastin and E. L. Perry. No. 943,692; Dec. 21; Sp. p. 3583; Gaz. vol. 149; p. 624.
Packing-case. A. T. Kruse. No. 942,966; Dec. 14; Sp. p. 2008; Gaz. vol. 149; p. 348.
Packing for piston-rods and the like. G. Huhn. No. 943,019; Dec. 14; Sp. p. 2137; Gaz. vol. 149; p. 366.
Packing for stuffing-boxes. G. Strance, R. S. Bull, and W. P. Norris. No. 943,169; Dec. 14; Sp. p. 2451; Gaz. vol. 149; p. 416.
Packing for stuffing-boxes, Metallic. R. Allen. No. 943,642; Dec. 21; Sp. p. 3494; Gaz. vol. 149; p. 609.
Packing, Metallic rod-. G. B. Maltby. No. 943,835; Dec. 21; Sp. p. 3878; Gaz. vol. 149; p. 674.
Packing-pad. A. D. Alexander. No. 942,191; Dec. 7; Sp. p. 355; Gaz. vol. 149; p. 54.
Packing, Pneumatic. E. S. Johnson. No. 943,023; Dec. 14; Sp. p. 2145; Gaz. vol. 149; p. 367.
Packing-ring. K. Rosholt. No. 943,790; Dec. 21; Sp. p. 3783; Gaz. vol. 149; p. 658.
Pad: *See* Packing-pad; Recoil-pad; Saddle-pad; Sole-pressing pad; Truss-pad.
Padlock. I. M. Bremer. No. 943,379; Dec. 14; Sp. p. 2895; Gaz. vol. 149; p. 487.
Padlock. C. A. Lutz. No. 944,688; Dec. 28; Sp. p. 6161; Gaz. vol. 149; p. 1060.
Pail, Milk-. W. L. Brandon. No. 944,040; Dec. 28; Sp. p. 6259; Gaz. vol. 149; p. 1075.
Paint, Steel-preservative. C. Ellis. No. 943,670; Dec. 21; Sp. p. 3547; Gaz. vol. 149; p. 617.
Pan: *See* Ash-pan; Baking-pan; Dish-pan; Dust-pan; Locomotive ash-pan; Roasting-pan; Scale-pan.
Paper bag. J. Soige. No. 943,126; Dec. 14; Sp. p. 2373; Gaz. vol. 149; p. 403.
Paper-bag machine. W. Liddell. No. 943,428; Dec. 14; Sp. p. 2983; Gaz. vol. 149; p. 503.
Paper-bag machine. W. C. Fuller. No. 943,534; Dec. 14; Sp. p. 3220; Gaz. vol. 149; p. 542.
Paper-bag-making machine. W. Fricker. No. 944,851; Dec. 28; Sp. p. 6091; Gaz. vol. 149; p. 1047.
Paper bags, Machinery or apparatus for forming or making. J., W. H., C. H., and A. Day. No. 942,715; Dec. 7; Sp. p. 1409; Gaz. vol. 149; p. 231.
Paper bottle. R. Lundell. No. 942,088; Dec. 7; Sp. p. 112; Gaz. vol. 149; p. 18.
Paper box and making the same. B. S. Morgan. No. 943,034; Dec. 14; Sp. p. 2170; Gaz. vol. 149; p. 371.
Paper-cutting machine. E. A. La Due. No. 943,258; Dec. 14; Sp. p. 2635; Gaz. vol. 149; p. 446.
Paper-feed mechanism. P. J. Meahl. No. 943,261; Dec. 14; Sp. p. 2642; Gaz. vol. 149; p. 447.
Paper-feed mechanism. W. Benjaminovitsch. No. 943,822; Dec. 14; Sp. p. 3428; Gaz. vol. 149; p. 572.
Paper-hanging machine, Wall-. N. M. Purviance. No. 944,049; Dec. 21; Sp. p. 4337; Gaz. vol. 149; p. 747.
Paper-holder. E. C. Smith. No. 943,279; Dec. 14; Sp. p. 2686; Gaz. vol. 149; p. 454.
Paper-holder. G. and H. R. Laube. No. 944,880; Dec. 28; Sp. p. 6149; Gaz. vol. 149; p. 1058.
Paper-holder. G. and H. R. Laube. No. 944,881; Dec. 28; Sp. p. 6150; Gaz. vol. 149; p. 1058.
Paper-making machines, Beater-roll for. W. H. Rankin and C. P. Dederick. No. 942,746; Dec. 7; Sp. p. 1477; Gaz. vol. 149; p. 242.
Paper-mills, Treating the spent liquor of. I. Kitsee. No. 942,207; Dec. 7; Sp. p. 384; Gaz. vol. 149; p. 59.
Paper-package closure. C. F. Jenkins. No. 943,307; Dec. 14; Sp. p. 2740; Gaz. vol. 149; p. 463.
Paper receptacle. B. C. Cockrell. No. 943,389; Dec. 14; Sp. p. 2914; Gaz. vol. 149; p. 490.
Paper receptacle. W. Nemsey. No. 944,145; Dec. 21; Sp. p. 4538; Gaz. vol. 149; p. 779.
Paper receptacle. C. F. Jenkins. No. 944,613; Dec. 28; Sp. p. 5581; Gaz. vol. 149; p. 968.
Paper-slitter. S. M. Langston. No. 943,357; Dec. 14; Sp. p. 2853; Gaz. vol. 149; p. 480.
Paper-vessel closure. C. F. Jenkins. No. 944,615; Dec. 28; Sp. p. 5584; Gaz. vol. 149; p. 968.
Paring-machine. G. Jahansan. No. 943,249; Dec. 14; Sp. p. 2617; Gaz. vol. 149; p. 443.
Paring machine, Vegetable-. H. Robinson. No. 942,932; Dec. 14; Sp. p. 1925; Gaz. vol. 149; p. 336.
Partition-holder. R. M. Vick. No. 943,719; Dec. 21; Sp. p. 3651; Gaz. vol. 149; p. 634.
Pattern-drafting apparatus, Garment-. E. J. Curran. No. 943,770; Dec. 21; Sp. p. 3742; Gaz. vol. 149; p. 651.
Pavement. W. H. Baker. No. 944,652; Dec. 28; Sp. p. 5949; Gaz. vol. 149; p. 980.
Paving composition. J. H. Amies. No. 942,237; Dec. 7; Sp. p. 450; Gaz. vol. 149; p. 69.
Paving purposes, Composition for. J. H. Amies. No. 942,236; Dec. 7; Sp. p. 449; Gaz. vol. 149; p. 69.
Peach pitter and slicer. W. I. Irwin. No. 943,193; Dec. 14; Sp. p. 2499; Gaz. vol. 149; p. 424.
Pebble-mill. M. F. Abbé. No. 944,996; Dec. 28; Sp. p. 6372; Gaz. vol. 149; p. 1094.
Pebble-mill. M. F. Abbé. No. 944,997; Dec. 28; Sp. p. 6373; Gaz. vol. 149; p. 1094.
Pedal-folding apparatus. F. C. White. No. 942,350; Dec. 7; Sp. p. 691; Gaz. vol. 149; p. 112.
Pen-feeder. F. M. Connolly. No. 944,177; Dec. 21; Sp. p. 4604; Gaz. vol. 149; p. 790.
Penholder. H. E. Hoke. No. 944,190; Dec. 21; Sp. p. 4629; Gaz. vol. 149; p. 793.
Penholder. H. E. Hoke. No. 944,191; Dec. 21; Sp. p. 4630; Gaz. vol. 149; p. 793.
Pencil-holder. E. C. Reiter. No. 942,747; Dec. 7; Sp. p. 1478; Gaz. vol. 149; p. 242.
Pencil holder and sharpener, Combined. J. H. Allen. No. 944,934; Dec. 28; Sp. p. 6251; Gaz. vol. 149; p. 1074.
Pencil-sharpener. A. Rydquist. No. 942,107; Dec. 7; Sp. p. 160; Gaz. vol. 149; p. 25.
Pencil-sharpener. A. W. Gifford. No. 943,223; Dec. 14; Sp. p. 2556; Gaz. vol. 149; p. 434.
Percolator, Coffee-. C. C. Mowbray and W. F. Geist. No. 943,036; Dec. 14; Sp. p. 2176; Gaz. vol. 149; p. 372.
Percolator for coffee-urns. J. D. Houck. No. 944,865; Dec. 28; Sp. p. 6122; Gaz. vol. 149; p. 1052.
Percolator, Water-. G. J. Wiggenhorn. No. 944,395; Dec. 28; Sp. p. 5065; Gaz. vol. 149; p. 891.
Perforating and binding machines, Assembly-box for. C. F. McBee. No. 942,180; Dec. 7; Sp. p. 331; Gaz. vol. 149; p. 50.
Perforating apparatus. F. E. D'Humy. No. 944,612; Dec. 28; Sp. p. 5579; Gaz. vol. 149; p. 967.
Perforating-machine. F. De Kleist. No. 944,790; Dec. 28; Sp. p. 5946; Gaz. vol. 149; p. 1025.
Perforator, Tape-. H. Angel. No. 944,123; Dec. 21; Sp. p. 4501; Gaz. vol. 149; p. 773.
Permutation-lock. G. H. Hamilton. No. 942,553; Dec. 7; Sp. p. 1097; Gaz. vol. 149; p. 178.
Phenol and formaldehyde and making the same, Condensation product of. L. H. Baekeland. No. 942,700; Dec. 7; Sp. p. 1379; Gaz. vol. 149; p. 226.
Phenol and formaldehyde, Making insoluble products of. L. H. Baekeland. No. 942,699; Dec. 7; Sp. p. 1377; Gaz. vol. 149; p. 226.
Phonic apparatus. T. H. Macdonald. No. 942,089; Dec. 7; Sp. p. 113; Gaz. vol. 149; p. 19.
Phonograph. P. Weber. No. 942,475; Dec. 7; Sp. p. 939; Gaz. vol. 149; p. 151.
Phonograph. H. S. Mills. No. 943,313; Dec. 14; Sp. p. 2750; Gaz. vol. 149; p. 465.
Phonograph-horns, Means for supporting. H. H. Turner and H. M. R. Glover. No. 943,492; Dec. 14; Sp. p. 3125; Gaz. vol. 149; p. 527.
Phonograph-record tray. J. N. Blackman. No. 944,657; Dec. 28; Sp. p. 5658; Gaz. vol. 149; p. 982.
Phonograph-records, Mandrel for. W. C. Runge. No. 943,568; Dec. 14; Sp. p. 3283; Gaz. vol. 149; p. 553.
Photographic pictures, Projecting continuous. L. L. Thurstone. No. 943,326; Dec. 14; Sp. p. 2773; Gaz. vol. 149; p. 468.
Piano-case. C. H. Hubbell. No. 944,036; Dec. 21; Sp. p. 4312; Gaz. vol. 149; p. 743.
Piano, Pneumatically-operated. A. G. Gulbransen. No. 944,033; Dec. 21; Sp. p. 4305; Gaz. vol. 149; p. 742.
Picker: *See* Cotton-picker; Fruit-picker; Potato-picker; Slate-picker.
Picking-motion. L. H. Landry. No. 943,027; Dec. 14; Sp. p. 2151; Gaz. vol. 149; p. 369.
Picture apparatus, Safety shutter device for moving-. C. M. Stanley. No. 944,749; Dec. 28; Sp. p. 5876; Gaz. vol. 149; p. 1012.
Picture-frame. E. Oldenbusch. No. 943,367; Dec. 14; Sp. p. 2871; Gaz. vol. 149; p. 483.
Picture-frame. R. C. Davison. No. 944,601; Dec. 28; Sp. p. 5555; Gaz. vol. 149; p. 963.
Picture mount, Movable-. H. O. Sauer. No. 942,665; Dec. 7; Sp. p. 917; Gaz. vol. 149; p. 148.
Picture, Roll-up. M. E. Scott. No. 944,153; Dec. 21; Sp. p. 4556; Gaz. vol. 149; p. 782.
Pile. W. N. Louque. No. 942,653; Dec. 7; Sp. p. 1295; Gaz. vol. 149; p. 212.
Pillow cover, Sofa-. F. A. Reilley. No. 944,910; Dec. 28; Sp. p. 6203; Gaz. vol. 149; p. 1067.
Pin: *See* Clothes-pin.
Pipe: *See* Blowpipe; Cement-lined pipe; Smoking-pipe; Tobacco-smoking pipe.
Pipe and rod threader. H. Gautschi. No. 942,200; Dec. 7; Sp. p. 371; Gaz. vol. 149; p. 56.
Pipe cleaner, Drain-. G. M. Bloom. No. 944,311; Dec. 28; Sp. p. 4887; Gaz. vol. 149; p. 861.
Pipe-cleaning device. G. F. Whitney. No. 944,710; Dec. 28; Sp. p. 5773; Gaz. vol. 149; p. 999.
Pipe connection. A. Holloway. No. 943,677; Dec. 21; Sp. p. 3560; Gaz. vol. 149; p. 620.
Pipe-coupling. J. C. Yearke. No. 943,330; Dec. 14; Sp. p. 2790; Gaz. vol. 149; p. 470.
Pipe-coupling. G. H. Reynolds. No. 943,461; Dec. 14; Sp. p. 3066; Gaz. vol. 149; p. 515.
Pipe-coupling. C. J. Smith. No. 943,900; Dec. 21; Sp. p. 4021; Gaz. vol. 149; p. 696.
Pipe coupling, Train-. T. C. Brett. No. 944,941; Dec. 28; Sp. p. 6260; Gaz. vol. 149; p. 1076.
Pipe-couplings, Clamping-ring for. F. N. Smith and G. P. Boothe. No. 944,748; Dec. 28; Sp. p. 5874; Gaz. vol. 149; p. 1012.
Pipe fitting, Soil-. F. B. Morton. No. 942,339; Dec. 7; Sp. p. 657; Gaz. vol. 149; p. 105.
Pipe-joint. C. Revaillot. No. 944,503; Dec. 28; Sp. p. 5329; Gaz. vol. 149; p. 929.
Pipe-joint-molding apparatus. J. F. Milam. No. 943,558; Dec. 14; Sp. p. 3264; Gaz. vol. 149; p. 550.
Pipe joint, Rotary stand-. W. S. Phelps. No. 943,267; Dec. 14; Sp. p. 2654; Gaz. vol. 149; p. 450.
Pipe-lines, Expansion-joint for. E. F. Osborne. No. 944,273; Dec. 28; Sp. p. 4792; Gaz. vol. 149; p. 847.
Pipe or rod carrier. G. Holt. No. 942,446; Dec. 7; Sp. p. 864; Gaz. vol. 149; p. 141.
Pipe-reamer attachment for threaders. G. Reeb. No. 944,909; Dec. 28; Sp. p. 6202; Gaz. vol. 149; p. 1067.

Pipe, Skelp-treating apparatus for lapweld. H. W. Hock. No. 942,176; Dec. 7; Sp. p. 327; Gaz. vol. 149; p. 50.
Pipe-supporting device, Adjustable. E. H. Gold. No. 944,731; Dec. 28; Sp. p. 5815; Gaz. vol. 149; p. 1006.
Pipes, Air-vessel for water-supply. K. Romstaedt. No. 942,666; Dec. 7; Sp. p. 1319; Gaz. vol. 149; p. 216.
Pipes, Lining. J. O. Persons. No. 942,184; Dec. 7; Sp. p. 336; Gaz. vol. 149; p. 51.
Pipes, Removable cap for. E. J. Carter and L. J. Houle. No. 943,338; Dec. 14; Sp. p. 2813; Gaz. vol. 149; p. 473.
Pipes, Slip-joint for steam-. J. E. Struer. No. 943,904; Dec. 21; Sp. p. 4029; Gaz. vol. 149; p. 696.
Pipes with sand, Apparatus for filling metal. C. O. Scholz. No. 942,355; Dec. 7; Sp. p. 684; Gaz. vol. 149; p. 110.
Pistol. M. J. Shimer. No. 944,107; Dec. 21; Sp. p. 4456; Gaz. vol. 149; p. 767.
Pistol and rifle, Automatic. W. J. Whiting. No. 944,930; Dec. 28; Sp. p. 6246; Gaz. vol. 149; p. 1073.
Piston for hot-air engines. F. B. Hubbard. No. 942,261; Dec. 7; Sp. p. 498; Gaz. vol. 149; p. 77.
Pitch-board. C. E. Lytle. No. 944,799; Dec. 28; Sp. p. 5968; Gaz. vol. 149; p. 1029.
Plane, Combination woodworking-. M. L. Carter. No. 943,178; Dec. 14; Sp. p. 2463; Gaz. vol. 149; p. 419.
Planer-tool. A. F. Liden. No. 943,086; Dec. 14; Sp. p. 2295; Gaz. vol. 149; p. 389.
Planetary transmission mechanism. A. P. Brush. No. 944,597; Dec. 28; Sp. p. 5546; Gaz. vol. 149; p. 962.
Planté negative plates, Treating or impregnating. H. Rodman. No. 944,822; Dec. 28; Sp. p. 6027; Gaz. vol. 149; p. 1037.
Planter. J. W. Trammell and H. H. Hammack. No. 942,760; Dec. 7; Sp. p. 1501; Gaz. vol. 149; p. 247.
Planter and fertilizer-distributer, Combined seed-. E. P. and J. T. Patterson. No. 942,792; Dec. 7; Sp. p. 1563; Gaz. vol. 149; p. 257.
Planter and fertilizer-dropper. E. C. Rollins. No. 945,004; Dec. 28; Sp. p. 6391; Gaz. vol. 149; p. 1096.
Planter and marker, Corn-. A. W. Koage. No. 942,394; Dec. 7; Sp. p. 749; Gaz. vol. 149; p. 122.
Planter, Check-row corn-. A. Stayman. No. 943,713; Dec. 21; Sp. p. 3639; Gaz. vol. 149; p. 632.
Planter, Corn-. E. H. Snyder. No. 943,283; Dec. 14; Sp. p. 2697; Gaz. vol. 149; p. 455.
Planter, Seed-. E. C. Fowler and T. E. Daly. No. 942,495; Dec. 7; Sp. p. 984; Gaz. vol. 149; p. 158.
Planter, Seed-. W. A. Wilson. No. 944,396; Dec. 28; Sp. p. 5066; Gaz. vol. 149; p. 891.
Planter valve mechanism, Corn-. F. P. Murphey. No. 943,634; Dec. 14; Sp. p. 3469; Gaz. vol. 149; p. 576.
Planters, Trip mechanism for corn-. H. E. Herbrandson. No. 944,189; Dec. 21; Sp. p. 4627; Gaz. vol. 149; p. 793.
Planters, Valve mechanism for corn-. F. P. Murphey. No. 943,441; Dec. 14; Sp. p. 3014; Gaz. vol. 149; p. 508.
Plastic material, Machine for forming. G. S. and P. H. A. Balsley. No. 942,238; Dec. 7; Sp. p. 451; Gaz. vol. 149; p. 69.
Plate dishing and flanging machine. C. Gabriel. No. 942,062; Dec. 7; Sp. p. 39; Gaz. vol. 149; p. 9.
Plate-drying apparatus. H. C. MacConnell. No. 944,800; Dec. 28; Sp. p. 5971; Gaz. vol. 149; p. 1029.
Plated metal and making the same. J. Wilder. No. 942,803; Dec. 7; Sp. p. 1582; Gaz. vol. 149; p. 260.
Platform-support. A. Vandermark. No. 944,835; Dec. 28; Sp. p. 6050; Gaz. vol. 149; p. 1041.
Pliers. H. F. Kellemen. No. 942,504; Dec. 7; Sp. p. 1004; Gaz. vol. 149; p. 161.
Pliers. W. Cronk. No. 942,549; Dec. 7; Sp. p. 1062; Gaz. vol. 149; p. 177.
Pliers. P. Broadbooks. No. 943,381; Dec. 14; Sp. p. 2899; Gaz. vol. 149; p. 488.
Pliers, Lifting-. F. Johnson. No. 944,966; Dec. 28; Sp. p. 6311; Gaz. vol. 149; p. 1084.
Plow. J. T. Gantt. No. 942,849; Dec. 7; Sp. p. 1704; Gaz. vol. 149; p. 276.
Plow. C. W. and A. W. Landers. No. 942,918; Dec. 14; Sp. p. 1898; Gaz. vol. 149; p. 331.
Plow. H. Moore. No. 943,092; Dec. 14; Sp. p. 2305; Gaz. vol. 149; p. 391.
Plow. C. C. Whittington. No. 943,584; Dec. 14; Sp. p. 3308; Gaz. vol. 149; p. 558.
Plow. G. W. Bristow and G. O. Doty. No. 943,859; Dec. 21; Sp. p. 3923; Gaz. vol. 149; p. 683.
Plow. W. J. Doyle, Jr. No. 944,358; Dec. 28; Sp. p. 4989; Gaz. vol. 149; p. 878.
Plow. W. W. Gliddens. No. 944,427; Dec. 28; Sp. p. 5140; Gaz. vol. 149; p. 902.
Plow attachment. C. Williams. No. 943,762; Dec. 21; Sp. p. 3729; Gaz. vol. 149; p. 649.
Plow attachment. P. Neufville. No. 944,206; Dec. 21; Sp. p. 4654; Gaz. vol. 149; p. 797.
Plow, Ditching-. C. F. Sedell. No. 943,897; Dec. 21; Sp. p. 4008; Gaz. vol. 149; p. 695.
Plow-foot. R. M. Frederick. No. 943,925; Dec. 21; Sp. p. 4077; Gaz. vol. 149; p. 706.
Plow-point attachment. W. L. Camp. No. 943,001; Dec. 14; Sp. p. 2095; Gaz. vol. 149; p. 360.
Plow, Reversible moldboard. J. W. Buchanan. No. 943,516; Dec. 14; Sp. p. 3187; Gaz. vol. 149; p. 536.
Plow scraper, Reversible disk-. H. S. Austin. No. 943,372; Dec. 14; Sp. p. 2878; Gaz. vol. 149; p. 484.
Plow, Subsoiler-. J. M. Hodges. No. 944,095; Dec. 21; Sp. p. 4426; Gaz. vol. 149; p. 763.
Plug, Separable attachment-. H. Hubbell. No. 943,681; Dec. 21; Sp. p. 3567; Gaz. vol. 149; p. 621.
Plumber's use, Wrought-metal fitting for. W. H. Perkins. No. 944,046; Dec. 21; Sp. p. 4330; Gaz. vol. 149; p. 746.
Pneumatic actuating unit. A. G. Gulbransen. No. 944,034; Dec. 21; Sp. p. 4306; Gaz. vol. 149; p. 743.
Pneumatic-despatch-tube apparatus. C. F. Stoddard. No. 944,469; Dec. 28; Sp. p. 5234; Gaz. vol. 149; p. 916.
Pneumatic-despatch-tube apparatus. C. S. Jennings. No. 944,487; Dec. 28; Sp. p. 5286; Gaz. vol. 149; p. 922.
Pneumatic-despatch-tube apparatus. I. W. Litchfield. No. 944,680; Dec. 28; Sp. p. 5702; Gaz. vol. 149; p. 989.
Pneumatic-despatch-tube system. F. H. Wolever. No. 943,329; Dec. 14; Sp. p. 2784; Gaz. vol. 149; p. 469.
Pocket-knife. J. A. Nell. No. 943,990; Dec. 21; Sp. p. 4217; Gaz. vol. 149; p. 728.
Pole-disconnector. J. Viet. No. 944,224; Dec. 21; Sp. p. 4685; Gaz. vol. 149; p. 803.
Pole-sleeve. C. B. Voynow. No. 942,761; Dec. 7; Sp. p. 1503; Gaz. vol. 149; p. 247.
Pole tip, Wagon-. A. Fischer. No. 944,184; Dec. 21; Sp. p. 4614; Gaz. vol. 149; p. 792.
Post: *See* Binder-post; Concrete fence-post; Fence-post.
Post-card or display device, Picture. A. S. Spiegel. No. 944,385; Dec. 28; Sp. p. 5041; Gaz. vol. 149; p. 887.
Post-hole digger. J. M. Hefner. No. 944,552; Dec. 28; Sp. p. 5439; Gaz. vol. 149; p. 945.
Post-mortem table. T. B. Hennessy. No. 943,827; Dec. 21; Sp. p. 3856; Gaz. vol. 149; p. 671.
Post-office box. H. O. Haywood. No. 942,203; Dec. 7; Sp. p. 378; Gaz. vol. 149; p. 57.
Post or telegraph and telephone pole. H. E. Atchison. No. 943,134; Dec. 14; Sp. p. 2388; Gaz. vol. 149; p. 406.
Posts and poles, Composite support for. J. F. Hickman. No. 943,747; Dec. 21; Sp. p. 3703; Gaz. vol. 149; p. 644.
Pot: *See* Coffee-pot; Ore-roasting pot.
Potato cutter and planter. O. L. Hawk. No. 944,430; Dec. 28; Sp. p. 5144; Gaz. vol. 149; p. 903.
Potato cutter, Seed-. L. F. Miller. No. 942,969; Dec. 14; Sp. p. 2015; Gaz. vol. 149; p. 349.
Potato-digger. H. P. Stewart. No. 943,325; Dec. 14; Sp. p. 2771; Gaz. vol. 149; p. 468.
Potato-picker. O. Sutter. No. 944,111; Dec. 21; Sp. p. 4472; Gaz. vol. 149; p. 768.
Potato-sorter. W. Pertzsch. No. 943,097; Dec. 14; Sp. p. 2314; Gaz. vol. 149; p. 393.
Powder holder and shaker. M. Marx and J. L. Rude. No. 944,341; Dec. 28; Sp. p. 4942; Gaz. vol. 149; p. 871.
Power device. W. H. H. Baker. No. 942,534; Dec. 7; Sp. p. 1061; Gaz. vol. 149; p. 172.
Power-generating apparatus. C. J. Lake. No. 942,873; Dec. 7; Sp. p. 1757; Gaz. vol. 149; p. 284.
Power-transmission mechanism. E. E. Keller. No. 942,913; Dec. 14; Sp. p. 1883; Gaz. vol. 149; p. 330.
Power-transmitting mechanism. J. L. Jones. No. 944,240; Dec. 21; Sp. p. 4719; Gaz. vol. 149; p. 806.
Press: *See* Baling-press; Brick-press; Expressing-press; Filter-press; Hay-press; Molding-press; Printing-press.
Press. C. L. Betz and W. E. Wallace. No. 943,858; Dec. 21; Sp. p. 3921; Gaz. vol. 149; p. 682.
Press. S. J. Webb. No. 944,392; Dec. 28; Sp. p. 5056; Gaz. vol. 149; p. 890.
Press for expressing fluids from solids. F. G. Wiselogel. No. 942,301; Dec. 7; Sp. p. 578; Gaz. vol. 149; p. 92.
Pressure generating and applying apparatus, Hydraulic-. J. W. Nelson. No. 942,736; Dec. 7; Sp. p. 1456; Gaz. vol. 149; p. 238.
Pressure-regulator. G. W. Collin. No. 942,546; Dec. 7; Sp. p. 1088; Gaz. vol. 149; p. 176.
Pressure-regulator. C. H. Bonz. No. 944,255; Dec. 28; Sp. p. 4753; Gaz. vol. 149; p. 841.
Printer's composing-stick. S. H. Bean. No. 944,535; Dec. 28; Sp. p. 5401; Gaz. vol. 149; p. 940.
Printing apparatus, Frame structure for blue-. R. Herman. No. 942,175; Dec. 7; Sp. p. 323; Gaz. vol. 149; p. 49.
Printing-machine. L. W. Southgate. No. 942,980; Dec. 14; Sp. p. 2033; Gaz. vol. 149; p. 353.
Printing machinery. J. A. J. Hayes. (Reissue.) No. 13,051; Dec. 7; Sp. p. 1780; Gaz. vol. 149; p. 287.
Printing-press. G. E. Pancoast. No. 942,923; Dec. 14; Sp. p. 1905; Gaz. vol. 149; p. 332.
Printing-press. W. F. S. Ferry. No. 943,629; Dec. 14; Sp. p. 3439; Gaz. vol. 149; p. 575.
Printing-press brake. C. A. Wright. No. 943,507; Dec. 14; Sp. p. 3170; Gaz. vol. 149; p. 533.
Printing-press driving mechanism. E. E. Babcock. No. 944,066; Dec. 21; Sp. p. 4374; Gaz. vol. 149; p. 754.
Printing-press ink-fountain. A. M. Cottrell. No. 943,218; Dec. 14; Sp. p. 2549; Gaz. vol. 149; p. 432.
Printing-press paper-feed mechanism. J. E. Tucker. No. 942,296; Dec. 7; Sp. p. 571; Gaz. vol. 149; p. 91.
Printing-press rotary folder. W. H. De Bush. No. 942,126; Dec. 7; Sp. p. 226; Gaz. vol. 149; p. 36.
Printing-presses, Throw-off mechanism for the inking-rolls of rotary. L. A. Wheat. No. 942,119; Dec. 7; Sp. p. 196; Gaz. vol. 149; p. 30.
Program-holder, Detachable-leaf. F. E. Sauerwein, R. Zacharias, and C. E. Lewis. No. 942,670; Dec. 7; Sp. p. 1323; Gaz. vol. 149; p. 216.
Program holder, Transparent theater-. F. E. Sauerwein, R. Zacharias, and C. E. Lewis. No. 942,600; Dec. 7; Sp. p. 1322; Gaz. vol. 149; p. 217.
Projectiles, Attachment for. C. Davis. No. 942,617; Dec. 7; Sp. p. 1220; Gaz. vol. 149; p. 199.
Propeller, Boat-. F. P. McElfresh. No. 943,830; Dec. 21; Sp. p. 3883; Gaz. vol. 149; p. 676.
Propeller Marine. D. Urch. No. 942,986; Dec. 14; Sp. p. 2048; Gaz. vol. 149; p. 355.
Propeller, Vibrating. E. Hildebrandt. No. 943,074; Dec. 14; Sp. p. 2275; Gaz. vol. 149; p. 385.
Propelling means, Vessel-. F. Fanning. No. 942,199; Dec. 7; Sp. p. 370; Gaz. vol. 149; p. 56.
Propulsion of submarine boats. C. Del Proposto. No. 944,776; Dec. 28; Sp. p. 5919; Gaz. vol. 149; p. 1021.

Protector, Individual. F. B. Cook. No. 944,258; Dec. 28; Sp. p. 4765; Gaz. vol. 149; p. 842.
Protractor and level. N. R. Thibert. No. 942,114; Dec. 7; Sp. p. 186; Gaz. vol. 149; p. 28.
Puller: *See* Spike-puller.
Pulling-over machine. H. Walther. No. 942,155; Dec. 7; Sp. p. 282; Gaz. vol. 149; p. 43.
Pulp-digesters, Charging. E. F. Parker. No. 942,924; Dec. 14; Sp. p. 1911; Gaz. vol. 149; p. 333.
Pulp-feed regulator. A. Schultz. No. 943,165; Dec. 14; Sp. p. 2444; Gaz. vol. 149; p. 415.
Pulp, Machine for saving waste. E. F. Parker. No. 942,925; Dec. 14; Sp. p. 1913; Gaz. vol. 149; p. 333.
Pulverizer, Land-. L. Traub. No. 943,490; Dec. 14; Sp. p. 3122; Gaz. vol. 149; p. 527.
Pulverising-machine. E. E. Wann. No. 942,424; Dec. 7; Sp. p. 813; Gaz. vol. 149; p. 133.
Pulverising or grinding mill. E. H. Callaway. No. 944,073; Dec. 21; Sp. p. 4384; Gaz. vol. 149; p. 756.
Pump. C. F. Preslar. No. 942,145; Dec. 7; Sp. p. 261; Gaz. vol. 149; p. 39.
Pump. N. McCarty. No. 943,988; Dec. 21; Sp. p. 4215; Gaz. vol. 149; p. 727.
Pump. C. O. Lucas. No. 944,243; Dec. 21; Sp. p. 4727; Gaz. vol. 149; p. 809.
Pump. A. A. Ficener. No. 944,425; Dec. 28; Sp. p. 5135; Gaz. vol. 149; p. 901.
Pump and egg-beater, Cream-. J. H. Reed. No. 943,892; Dec. 21; Sp. p. 3996; Gaz. vol. 149; p. 693.
Pump attachment, Oil-. C. B. Aggas and J. E. Rabbitt. No. 942,954; Dec. 14; Sp. p. 1985; Gaz. vol. 149; p. 344.
Pump attachment, Tire-. H. H. Rung. No. 944,213; Dec. 21; Sp. p. 4663; Gaz. vol. 149; p. 799.
Pump, Circulating-. E. Guenther. No. 944,032; Dec. 21; Sp. p. 4304; Gaz. vol. 149; p. 742.
Pump, Double-acting. R. G. Holekamp. No. 943,018; Dec. 14; Sp. p. 2135; Gaz. vol. 149; p. 366.
Pump, Governed. N. McCarty. No. 943,095; Dec. 14; Sp. p. 2311; Gaz. vol. 149; p. 392.
Pump, Governed. N. McCarty. No. 943,987; Dec. 21; Sp. p. 4210; Gaz. vol. 149; p. 726.
Pump mechanism. M. B. Van Ness. No. 942,297; Dec. 7; Sp. p. 573; Gaz. vol. 149; p. 91.
Pump-rod coupling. C. L. Kenyon. No. 943,080; Dec. 14; Sp. p. 2283; Gaz. vol. 149; p. 387.
Pump, Rotary. C. W. Vollmann. No. 944,708; Dec. 28; Sp. p. 5768; Gaz. vol. 149; p. 998.
Pump, Rotary air and gas. L. H. Rogers. No. 944,912; Dec. 28; Sp. p. 6206; Gaz. vol. 149; p. 1068.
Pump, Rotary air or gas. L. H. Rogers. No. 944,913; Dec. 28; Sp. p. 6211; Gaz. vol. 149; p. 1068.
Pump, Steam and vacuum. R. E. Cecil and C. R. Wassell. No. 943,911; Dec. 21; Sp. p. 4042; Gaz. vol. 149; p. 701.
Pump, Steam and vacuum. R. E. Cecil and C. R. Wassell. No. 943,912; Dec. 21; Sp. p. 4046; Gaz. vol. 149; p. 701.
Pump, Steam vacuum-. G. E. Nye. No. 944,984; Dec. 28; Sp. p. 6353; Gaz. vol. 149; p. 1090.
Pump, Vacuum-. T. W. Lowden. No. 943,556; Dec. 14; Sp. p. 3260; Gaz. vol. 149; p. 549.
Pump, Vacuum-. F. A. Simonds. No. 943,848; Dec. 21; Sp. p. 3904; Gaz. vol. 149; p. 679.
Pumps and blowers, Casing for centrifugal. H. Holzer. No. 944,864; Dec. 28; Sp. p. 6121; Gaz. vol. 149; p. 1051.
Pumps, Automatic device for controlling the operation of. W. F. Otto. No. 943,369; Dec. 14; Sp. p. 2874; Gaz. vol. 149; p. 484.
Pumps, Operating mechanism for double-acting. C. F. Preslar. No. 943,201; Dec. 14; Sp. p. 2513; Gaz. vol. 149; p. 426.
Punch and shear. C. Peterson. No. 942,409; Dec. 7; Sp. p. 788; Gaz. vol. 149; p. 125.
Punching-machine, Hand. H. Siegrist. No. 942,291; Dec. 7; Sp. p. 563; Gaz. vol. 149; p. 89.
Punching-machine, Multiple. C. E. Macbeth. No. 942,272; Dec. 7; Sp. p. 517; Gaz. vol. 149; p. 81.
Puzzle. W. F. Bartsch. No. 942,536; Dec. 7; Sp. p. 1065; Gaz. vol. 149; p. 173.
Puzzle. J. F. Collins. No. 943,390; Dec. 14; Sp. p. 2915; Gaz. vol. 149; p. 491.
Puzzle. A. Weigt. No. 943,496; Dec. 14; Sp. p. 3137; Gaz. vol. 149; p. 529.
Puzzle. A. Garland. No. 944,130; Dec. 21; Sp. p. 4516; Gaz. vol. 149; p. 775.
Quilling-frame. D. W. Phillips. No. 944,105; Dec. 21; Sp. p. 4444; Gaz. vol. 149; p. 766.
Quoin. E. J. Casey. No. 942,543; Dec. 7; Sp. p. 1079; Gaz. vol. 149; p. 175.
Rack: *See* Corn-rack; Display-rack; Garment-rack; Music-rack; Tool-rack.
Rack. G. H. McGregor and A. S. Rudland. No. 942,580; Dec. 7; Sp. p. 1147; Gaz. vol. 149; p. 186.
Rack. J. Jepsen. No. 944,874; Dec. 28; Sp. p. 6136; Gaz. vol. 149; p. 1055.
Radiator. S. Lavine. No. 943,689; Dec. 21; Sp. p. 3578; Gaz. vol. 149; p. 623.
Radiator. L. Loziano. No. 944,450; Dec. 28; Sp. p. 5188; Gaz. vol. 149; p. 910.
Radiators, Pressing device for push-nipple. H. L. E. Peterson. No. 942,410; Dec. 7; Sp. p. 790; Gaz. vol. 149; p. 128.
Rail-bonds, Manufacture of. G. A. Mead. No. 943,438; Dec. 14; Sp. p. 3007; Gaz. vol. 149; p. 507.
Rail-chair. A. Wardle. No. 943,206; Dec. 14; Sp. p. 2524; Gaz. vol. 149; p. 428.
Rail-clamp. D. S. Wert. No. 942,427; Dec. 7; Sp. p. 819; Gaz. vol. 149; p. 134.
Rail clamp, Guard-. M. Burpee. No. 943,138; Dec. 14; Sp. p. 2395; Gaz. vol. 149; p. 407.
Rail-cleaner. J. P. Gorman. No. 944,132; Dec. 21; Sp. p. 4518; Gaz. vol. 149; p. 775.
Rail-controlling device, Switch-. W. F. Doner. No. 942,313; Dec. 7; Sp. p. 606; Gaz. vol. 149; p. 96.
Rail-controlling device, Switch-. A. Jobin. No. 943,974; Dec. 21; Sp. p. 4174; Gaz. vol. 149; p. 722.
Rail-frog, Continuous. B. F. Suverkrup and W. O. Owens. No. 942,947; Dec. 14; Sp. p. 1963; Gaz. vol. 149; p. 341.
Rail-joint. M. Barschall. No. 942,177; Dec. 7; Sp. p. 215; Gaz. vol. 149; p. 33.
Rail-joint. W. E. Ransom. No. 942,411; Dec. 7; Sp. p. 791; Gaz. vol. 149; p. 128.
Rail-joint. W. P. Perkins. No. 942,662; Dec. 7; Sp. p. 1312; Gaz. vol. 149; p. 215.
Rail-joint. L. Deer and F. Smith. No. 943,394; Dec. 14; Sp. p. 2922; Gaz. vol. 149; p. 492.
Rail-joint. W. P. and S. G. Thomson. No. 944,298; Dec. 28; Sp. p. 4855; Gaz. vol. 149; p. 856.
Rail-joint. A. L. Stanford. No. 944,349; Dec. 28; Sp. p. 4958; Gaz. vol. 149; p. 874.
Rail-joint. E. V. Mercer. No. 944,806; Dec. 28; Sp. p. 5992; Gaz. vol. 149; p. 1031.
Rail-joint. M. Raymond. No. 944,908; Dec. 28; Sp. p. 6201; Gaz. vol. 149; p. 1056.
Rail joint and chair, Combined. Z. T. Hoskins. No. 943,880; Dec. 21; Sp. p. 3966; Gaz. vol. 149; p. 689.
Rail tie and chair, Metallic. E. Wheeler. No. 943,852; Dec. 21; Sp. p. 3911; Gaz. vol. 149; p. 681.
Rail, Tramway-. J. H. Briggs. No. 944,982; Dec. 28; Sp. p. 6350; Gaz. vol. 149; p. 1089.
Rails and beams, Tie-joint for. A. Ristuccia. No. 943,788; Dec. 21; Sp. p. 3779; Gaz. vol. 149; p. 658.
Rails, Step-joint for. J. H. Allen. No. 943,057; Dec. 14; Sp. p. 2242; Gaz. vol. 149; p. 380.
Railway and like uses, Spike for. W. Ferguson, Jr. No. 944,725; Dec. 28; Sp. p. 5806; Gaz. vol. 149; p. 1004.
Railway block-signaling system. J. Gaszper. No. 942,255; Dec. 7; Sp. p. 487; Gaz. vol. 149; p. 76.
Railway-brake. C. E. Duffie. No. 943,737; Dec. 21; Sp. p. 3682; Gaz. vol. 149; p. 640.
Railway-brake slack-adjuster. H. G. Hamer. No. 944,609; Dec. 28; Sp. p. 5573; Gaz. vol. 149; p. 966.
Railway-carriage doors, Appliance for automatically and otherwise locking and unlocking. D. Andrews and C. Bickerton. No. 942,125; Dec. 7; Sp. p. 212; Gaz. vol. 149; p. 32.
Railway construction. E. D. McDonald. No. 943,198; Dec. 14; Sp. p. 2509; Gaz. vol. 149; p. 426.
Railway-crossing. I. O. Stant. No. 942,358; Dec. 7; Sp. p. 689; Gaz. vol. 149; p. 111.
Railway-crossing. W. C. Peters. No. 942,740; Dec. 7; Sp. p. 1467; Gaz. vol. 149; p. 240.
Railway-crossing. C. A. Alden and G. S. Vickery. No. 944,067; Dec. 21; Sp. p. 4372; Gaz. vol. 149; p. 753.
Railway-crossing gate. H. J. Richendrfer. No. 943,566; Dec. 14; Sp. p. 3279; Gaz. vol. 149; p. 553.
Railway-crossing gate, Electrically-operated. T. Hummel. No. 943,352; Dec. 14; Sp. p. 2844; Gaz. vol. 149; p. 478.
Railway draft-gear. R. A. French. No. 944,326; Dec. 28; Sp. p. 4917; Gaz. vol. 149; p. 866.
Railway draft-gear. R. A. French and L. T. Girdler. No. 944,327; Dec. 28; Sp. p. 4918; Gaz. vol. 149; p. 867.
Railway electric switch. R. B. Bryant. No. 943,809; Dec. 21; Sp. p. 3825; Gaz. vol. 149; p. 665.
Railway-fastener. C. H. Cornell. No. 943,520; Dec. 14; Sp. p. 3191; Gaz. vol. 149; p. 537.
Railway-fastener. C. H. Cornell. No. 943,521; Dec. 14; Sp. p. 3194; Gaz. vol. 149; p. 537.
Railway-fastening. C. H. Cornell. No. 943,522; Dec. 14; Sp. p. 3196; Gaz. vol. 149; p. 537.
Railway-frog. E. Swenberg and R. Enstrom. No. 944,350; Dec. 28; Sp. p. 4959; Gaz. vol. 149; p. 874.
Railway-frog. W. M. Scott. No. 944,824; Dec. 28; Sp. p. 6031; Gaz. vol. 149; p. 1037.
Railway-frog safety device. J. T. Watson. No. 944,754; Dec. 28; Sp. p. 5885; Gaz. vol. 149; p. 1014.
Railway-gate. E. L. Kishpaugh. No. 942,783; Dec. 7; Sp. p. 1551; Gaz. vol. 149; p. 255.
Railway-joint. J. S. Skaala and E. H. Hilliard. No. 944,157; Dec. 21; Sp. p. 4564; Gaz. vol. 149; p. 783.
Railway lining-block. A. Barnhard. No. 943,295; Dec. 14; Sp. p. 2721; Gaz. vol. 149; p. 459.
Railway-rail spike and chair. J. T. Nulty. No. 942,658; Dec. 7; Sp. p. 1304; Gaz. vol. 149; p. 213.
Railway-rail splice. I. N. Prenovich. No. 943,619; Dec. 14; Sp. p. 3424; Gaz. vol. 149; p. 571.
Railway-rails, Nut-holder and joint-supporter for. G. W. Henry, Sr. No. 943,543; Dec. 14; Sp. p. 3236; Gaz. vol. 149; p. 545.
Railway-signal. W. J. Simpson. No. 944,246; Dec. 21; Sp. p. 4730; Gaz. vol. 149; p. 810.
Railway-signaling system, Automatic. G. H. Sloane. No. 942,468; Dec. 7; Sp. p. 921; Gaz. vol. 149; p. 149.
Railway-spike. R. L. Smith. No. 942,668; Dec. 7; Sp. p. 1321; Gaz. vol. 149; p. 217.
Railway-switch. J. F. Ober. No. 942,458; Dec. 7; Sp. p. 904; Gaz. vol. 149; p. 145.
Railway-switch. F. Bayless. No. 942,996; Dec. 14; Sp. p. 2082; Gaz. vol. 149; p. 358.
Railway-switch. P. E. Vall. No. 943,053; Dec. 14; Sp. p. 2230; Gaz. vol. 149; p. 378.
Railway-switch. C. W. Reinoehl and B. L. Weaver. No. 943,269; Dec. 14; Sp. p. 2659; Gaz. vol. 149; p. 450.
Railway-switch. A. Anderson. No. 944,249; Dec. 28; Sp. p. 4743; Gaz. vol. 149; p. 839.
Railway switch, Automatic. F. Rexach y Torres and F. S. D. Feña y Martinez. No. 942,600; Dec. 7; Sp. p. 1186; Gaz. vol. 149; p. 193.

Railway switch mechanism. F. P. Perkins. No. 942,927; Dec. 14; Sp. p. 1917; Gaz. vol. 149; p. 334.
Railway switch, Street-. E. A. Peterson. No. 944,817; Dec. 28; Sp. p. 6015; Gaz. vol. 149; p. 1035.
Railway system, Electric-. G. H. Maire. No. 943,196; Dec. 14; Sp. p. 2504; Gaz. vol. 149; p. 425
Railway-tie. H. C. Kreppa. No. 942,650; Dec. 7; Sp. p. 1291; Gaz. vol. 149; p. 211.
Railway-tie. H. H. Ranje. No. 943,745; Dec. 7; Sp. p. 1475; Gaz. vol. 149; p. 242.
Railway-tie. C. A. Reed. No. 943,268; Dec. 14; Sp. p. 2657; Gaz. vol. 149; p. 450.
Railway-tie. H. L. Hollis. No. 943,409; Dec. 14; Sp. p. 2951; Gaz. vol. 149; p. 497.
Railway-tie. H. L. Hollis. No. 943,410; Dec. 14; Sp. p. 2952; Gaz. vol. 149; p. 498.
Railway-tie. C. L. Frevert. No. 943,926; Dec. 21; Sp. p. 4077; Gaz. vol. 149; p. 706.
Railway-tie. J. C. Pearce. No. 944,515; Dec. 28; Sp. p. 6011; Gaz. vol. 149; p. 1035.
Railway tie and rail. I. J. Gray. No. 944,133; Dec. 21; Sp. p. 4519; Gaz. vol. 149; p. 775.
Railway-tie and viaduct for wires, Combined. A. McArthur. No. 943,700; Dec. 21; Sp. p. 3605; Gaz. vol. 149; p. 627.
Railway-tie, Metal. L. J. Sparks. No. 943,048; Dec. 14; Sp. p. 2217; Gaz. vol. 149; p. 376.
Railway-tie, Metal-reinforced. J. F. Lahart. No. 942,267; Dec. 7; Sp. p. 508; Gaz. vol. 149; p. 79.
Railway-tie, Metal-reinforced. J. F. Lahart. No. 942,268; Dec. 7; Sp. p. 509; Gaz. vol. 149; p. 80.
Railway-tie plate. T. A. J. Hendricks. No. 943,073; Dec. 14; Sp. p. 2274; Gaz. vol. 149; p. 385.
Railway-tie, Self-adjusting steel. A. J. Schneider. No. 942,754; Dec. 7; Sp. p. 1488; Gaz. vol. 149; p. 244.
Railway-ties, &c., Composition for. J. Kirkham. No. 942,505; Dec. 7; Sp. p. 1005; Gaz. vol. 149; p. 162.
Railway-track safety-block. L. F. Learman. No. 942,825; Dec. 7; Sp. p. 1658; Gaz. vol. 149; p. 271.
Railway-tracks, Sod and ditch line marker for. H. J. Schweitzer. No. 943,795; Dec. 21; Sp. p. 3791; Gaz. vol. 149; p. 660.
Railways, Annunciator for. J. J. Strobel. No. 944,300; Dec. 28; Sp. p. 5054; Gaz. vol. 149; p. 889.
Railways, Catenary suspension system for the trolley-wires of electric. K. von Kando. No. 942,143; Dec. 7; Sp. p. 250; Gaz. vol. 149; p. 39.
Railways, Junction-signal for mining-. W. Kleman. No. 943,114; Dec. 14; Sp. p. 2347; Gaz. vol. 149; p. 398.
Railways, Overhead construction for electric. E. E. Gilmore. No. 944,186; Dec. 21; Sp. p. 4616; Gaz. vol. 149; p. 792.
Railways, Overhead switch for electric. E. E. Gilmore. No. 944,131; Dec. 21; Sp. p. 4517; Gaz. vol. 149; p. 775.
Rake: *See* Hay-rake.
Range-finder or telemeter. A. Barr and W. Stroud. No. 944,649; Dec. 28; Sp. p. 5640; Gaz. vol. 149; p. 979.
Range-finders, Means for supporting and working heads of. A. Barr and W. Stroud. No. 943,266; Dec. 14; Sp. p. 2723; Gaz. vol. 149; p. 460.
Rat-trap. L. S. Turnbo. No. 944,926; Dec. 28; Sp. p. 6236; Gaz. vol. 149; p. 1072.
Ratchet-wrench, Socket reversible. D. F. Vollmer. No. 943,905; Dec. 21; Sp. p. 4031; Gaz. vol. 149; p. 696.
Razor-blade-stropping apparatus. W. Schmidt. No. 944,282; Dec. 28; Sp. p. 4821; Gaz. vol. 149; p. 851.
Razor-blade-stropping device. O. Kampe. No. 943,355; Dec. 14; Sp. p. 2848; Gaz. vol. 149; p. 479.
Razor-case. W. L. Clark. No. 942,484; Dec. 7; Sp. p. 956; Gaz. vol. 149; p. 154.
Razor, Safety-. F. M. Edmonds. No. 944,989; Dec. 28; Sp. p. 6362; Gaz. vol. 149; p. 1092.
Razor-stropping device. C. F. Benedict. No. 942,880; Dec. 14; Sp. p. 1802; Gaz. vol. 149; p. 318.
Reamer, Adjustable. R. W. Bailey. No. 942,533; Dec. 7; Sp. p. 1058; Gaz. vol. 149; p. 171.
Reaper and binder. C. O. Wyman. No. 943,856; Dec. 21; Sp. p. 3915; Gaz. vol. 149; p. 681.
Receptacle. F. Hardinge. No. 943,825; Dec. 21; Sp. p. 3853; Gaz. vol. 149; p. 670.
Receptacle. A. Sargent. No. 944,580; Dec. 28; Sp. p. 5506; Gaz. vol. 149; p. 956.
Receptacle. G. P. Schmidt. No. 944,696; Dec. 28; Sp. p. 5745; Gaz. vol. 149; p. 994.
Receptacle and closure. G. E. Decker. No. 944,234; Dec. 21; Sp. p. 4703; Gaz. vol. 149; p. 806.
Receptacle closure, Fluid-. A. and T. A. De Villiss. (Reissue.) No. 13,049; Dec. 7; Sp. p. 1776; Gaz. vol. 149; p. 286.
Receptacle, Double-ended. H. R. Sargent and F. C. De Reamer. No. 944,347; Dec. 28; Sp. p. 4955; Gaz. vol. 149; p. 873.
Receptacle for fluids, Non-refillable. J. H. Brown. No. 944,813; Dec. 28; Sp. p. 4889; Gaz. vol. 149; p. 861.
Receptacle with sprinkler-hole in a cap. E. Meyers. No. 944,890; Dec. 28; Sp. p. 6163; Gaz. vol. 149; p. 1061.
Receptacles, Construction of. A. T. Kruse. No. 943,686; Dec. 21; Sp. p. 3573; Gaz. vol. 149; p. 622.
Reciprocating beds, Cushioning mechanism for. C. A. McCain. No. 944,492; Dec. 28; Sp. p. 5296; Gaz. vol. 149; p. 924.
Reciprocating engine. J. Holgate. No. 943,829; Dec. 21; Sp. p. 3862; Gaz. vol. 149; p. 672.
Reclining-chair. J. Flindall. No. 942,818; Dec. 7; Sp. p. 1616; Gaz. vol. 149; p. 265.
Reclining-chair, Adjustable. J. F. Wilmot. No. 944,065; Dec. 21; Sp. p. 4370; Gaz. vol. 149; p. 753.
Recoil-loader with fixed barrel. P. Mauser. No. 943,949; Dec. 21; Sp. p. 4120; Gaz. vol. 149; p. 714.
Recoil-pad. J. S. Johnson. No. 943,683; Dec. 21; Sp. p. 3570; Gaz. vol. 149; p. 622.
Record-tablet. G. A. Eliason. No. 942,627; Dec. 7; Sp. p. 1240; Gaz. vol. 149; p. 203.
Rectal apparatus. J. P. Sanborn. No. 942,590; Dec. 7; Sp. p. 1164; Gaz. vol. 149; p. 189.
Reel: *See* Reeling-machine reel; Yarn-reel.
Reeling-machine reel. A. McLane and G. Sipp. No. 943,798; Dec. 21; Sp. p. 3801; Gaz. vol. 149; p. 661.
Refractory brick for metallurgical and other uses. C. E. Pope. No. 944,592; Dec. 28; Sp. p. 5739; Gaz. vol. 149; p. 994.
Refrigerating and ice-making plants, Expansion-coil for. R. Whitaker. No. 943,725; Dec. 21; Sp. p. 3662; Gaz. vol. 149; p. 636.
Refrigerating apparatus. J. Heinrich. No. 942,445; Dec. 7; Sp. p. 859; Gaz. vol. 149; p. 140.
Refrigerating apparatus. J. Heinrich. No. 942,499; Dec. 7; Sp. p. 904; Gaz. vol. 149; p. 160.
Refrigerating apparatus, Ammonia. T. C. McKee. No. 943,040; Dec. 14; Sp. p. 2183; Gaz. vol. 149; p. 373.
Refrigerating-machine. R. N. Dyer. No. 942,967; Dec. 7; Sp. p. 704; Gaz. vol. 149; p. 114.
Refrigerating-package. A. W. Folsom. No. 942,518; Dec. 7; Sp. p. 619; Gaz. vol. 149; p. 98.
Refrigerator. W. J. Amsbary. No. 944,353; Dec. 28; Sp. p. 4970; Gaz. vol. 149; p. 876.
Refrigerator. E. W. Mitchel. No. 944,269; Dec. 28; Sp. p. 5007; Gaz. vol. 149; p. 881.
Refrigerator or cold-storage room. E. J. Wirts. No. 944,117; Dec. 21; Sp. p. 4487; Gaz. vol. 149; p. 771.
Regenerative furnace. E. Kirchberg. No. 944,444; Dec. 28; Sp. p. 5173; Gaz. vol. 149; p. 907.
Register: *See* Account-register.
Registers, Wall-frame for air-. R. C. Brown. No. 943,298; Dec. 14; Sp. p. 2725; Gaz. vol. 149; p. 460.
Registering device. R. Hunter. (Reissue.) No. 13,052; Dec. 7; Sp. p. 1782; Gaz. vol. 149; p. 287.
Registering mechanisms, Stop device for. C. F. Littlejohn. No. 944,242; Dec. 21; Sp. p. 4724; Gaz. vol. 149; p. 809.
Regulator: *See* Centrifugal regulator; Controller-regulator; Damper-regulator; Engine-regulator; Gas-regulator; Gas-pressure regulator Pressure-regulator; Pulp-feed regulator; Speed-regulator; Turbine-regulator.
Rein-holder. A. Bing. No. 943,376; Dec. 14; Sp. p. 2889; Gaz. vol. 149; p. 486.
Rein-holder. H. Green. No. 943,537; Dec. 14; Sp. p. 3227; Gaz. vol. 149; p. 543.
Rein-holder. H. F. Schmeckpeper. No. 944,216; Dec. 21; Sp. p. 4660; Gaz. vol. 149; p. 800.
Reinforcement-bar. W. G. Hughes. No. 943,878; Dec. 21; Sp. p. 3963; Gaz. vol. 149; p. 688.
Relay. S. D. Field. No. 942,815; Dec. 7; Sp. p. 1611; Gaz. vol. 149; p. 264.
Relay, Overload and reverse-current. P. O. Kellogg and F. E. Ricketts. No. 944,040; Dec. 21; Sp. p. 4318; Gaz. vol. 149; p. 744
Reniser. F. W. Moore. No. 942,921; Dec. 14; Sp. p. 1902; Gaz. vol. 149; p. 332.
Retort-charging apparatus. C. Ellis. No. 944,959; Dec. 28; Sp. p. 6294; Gaz. vol. 149; p. 1081.
Reversing mechanism, Automatic. E. Einfeldt. No. 944,604; Dec. 28; Sp. p. 5560; Gaz. vol. 149; p. 964.
Revolver. T. M. Du Bose. No. 943,819; Dec. 21; Sp. p. 3843; Gaz. vol. 149; p. 668.
Rheostat. H. L. Truesdale. No. 944,060; Dec. 21; Sp. p. 4360; Gaz. vol. 149; p. 751.
Rheostat. R. Head. No. 944,785; Dec. 28; Sp. p. 5936; Gaz. vol. 149; p. 1024.
Ribbon-feeding mechanism. R. B. Craig and A. Coffman. No. 943,624; Dec. 14; Sp. p. 3434; Gaz. vol. 149; p. 573.
Rifle rear sight. W. R. Hatfield. No. 943,542; Dec. 14; Sp. p. 3235; Gaz. vol. 149; p. 545.
Ring: *See* Curtain-ring; Ear-ring; Furnace-casing ring; Packing-ring; Traverse-ring.
Rivet-feeding device. J. E. Peters. No. 942,864; Dec. 7; Sp. p. 1722; Gaz. vol. 149; p. 281.
Riveting-machine. C. Greiner. No. 942,637; Dec. 7; Sp. p. 1264; Gaz. vol. 149; p. 207.
Road-bed-cutting apparatus. L. D. Craig. (Reissue.) No. 13,055; Dec. 14; Sp. p. 3486; Gaz. vol. 149; p. 579.
Road-working machine. M. A. Popkess. No. 942,866; Dec. 7; Sp. p. 1736; Gaz. vol. 149; p. 282.
Roasting-pan. P. Scott. (Reissue.) No. 13,054; Dec. 7; Sp. p. 1782; Gaz. vol. 149; p. 291.
Rock-crusher. E. S. Philips. No. 943,458; Dec. 14; Sp. p. 3057; Gaz. vol. 149; p. 513.
Rock-drill. W. C. Stephens. No. 944,750; Dec. 28; Sp. p. 5878; Gaz. vol. 149; p. 1013.
Rock elimination, Apparatus for waste-. H. L. Kramer. No. 942,063; Dec. 7; Sp. p. 96; Gaz. vol. 149; p. 17.
Rodents, Composition for eradicating. C. Ellis. No. 944,419; Dec. 28; Sp. p. 5123; Gaz. vol. 149; p. 900.
Roller: *See* Land-roller; Line-roller.
Rolling-mill. H. Grey. No. 943,633; Dec. 14; Sp. p. 3458; Gaz. vol. 149; p. 576.
Rolling-mill transfer-table. C. L. Huston. No. 942,644; Dec. 7; Sp. p. 1276; Gaz. vol. 149; p. 209.
Roof-bracket. W. T. Gallagher and J. W. Bilby. No. 944,185; Dec. 21; Sp. p. 4615; Gaz. vol. 149; p. 792.
Roof-ventilator. W. W. Birnstock. No. 942,707; Dec. 7; Sp. p. 1304; Gaz. vol. 149; p. 229.
Roofing-package. F. C. Overbury. No. 942,660; Dec. 7; Sp. p. 1306; Gaz. vol. 149; p. 214.
Rope carrier, Fall-. W. A. Wood and C. W. Kahlerth. No. 944,118; Dec. 21; Sp. p. 4489; Gaz. vol. 149; p. 771.
Rope-clamp. O. Crosby. No. 944,718; Dec. 28; Sp. p. 5796; Gaz. vol. 149; p. 1002.
Rope-coupling. W. Shufflebottom and T. Kenworthy. No. 943,168; Dec. 14; Sp. p. 2449; Gaz. vol. 149; p. 416.

Rotary engine. H. Roux. No. 942,413; Dec. 7; Sp. p. 794; Gaz. vol. 149; p. 129.
Rotary engine. W. W. Wheeler. No. 942,476; Dec. 7; Sp. p. 941; Gaz. vol. 149; p. 152.
Rotary engine. C. Guyer. No. 944,361; Dec. 28; Sp. p. 4902; Gaz. vol. 149; p. 879.
Rotary engine. L. B. Wishaar. No. 944,400; Dec. 28; Sp. p. 5075; Gaz. vol. 149; p. 893.
Rotary gasolene-engine. T. E. Braley. No. 943,592; Dec. 14; Sp. p. 3325; Gaz. vol. 149; p. 560.
Rotary motor. R. McGraw. No. 943,733; Dec. 21; Sp. p. 3769; Gaz. vol. 149; p. 656.
Rotary motor. L. P. Stevens. No. 944,581; Dec. 28; Sp. p. 5507; Gaz. vol. 149; p. 956.
Rotary motor and pump. J. R. Kinney. No. 942,080; Dec. 7; Sp. p. 85; Gaz. vol. 149; p. 15.
Rotary steam-engine. J. W. Johnson. No. 942,205; Dec. 7; Sp. p. 380; Gaz. vol. 149; p. 58.
Rotary steam-engine. W. E. Minue. No. 942,275; Dec. 7; Sp. p. 525; Gaz. vol. 149; p. 83.
Rubber and cellulose, Manufacture of products containing india-. P. Defaucamberge. No. 943,658; Dec. 21; Sp. p. 3531; Gaz. vol. 149; p. 614.
Rubber heel, Interchangeable. F. G. Sherman. No. 944,287; Dec. 28; Sp. p. 4828; Gaz. vol. 149; p. 852.
Rule. C. E. Jewell and C. H. Westcott. No. 942,327; Dec. 7; Sp. p. 634; Gaz. vol. 149; p. 101.
Rule. W. L. Neeld. No. 942,583; Dec. 7; Sp. p. 1151; Gaz. vol. 149; p. 187.
Ruling device. E. A. Auerbach. No. 942,877; Dec. 14; Sp. p. 1796; Gaz. vol. 149; p. 317.
Running-gear. A. T. Newell. No. 942,182; Dec. 7; Sp. p. 334; Gaz. vol. 149; p. 51.
Sack-holder. J. Rix No. 944,211; Dec. 21; Sp. p. 4661; Gaz. vol. 149; p. 799.
Sad-iron. J. Kadlera. No. 943,254; Dec. 14; Sp. p. 2629; Gaz. vol. 149; p. 445.
Sad-iron. F. W. Emerson. No. 943,302; Dec. 14; Sp. p. 2732; Gaz. vol. 149; p. 461.
Sad-iron, Self-heating. J. Bordas. No. 944,842; Dec. 28; Sp. p. 6071; Gaz. vol. 149; p. 1044.
Sad-iron support. G. Ellstrom. No. 944,182; Dec. 21; Sp. p. 4611; Gaz. vol. 149; p. 791.
Saddle-pad. T. I. Morrish. No. 944,571; Dec. 28; Sp. p. 5487; Gaz. vol. 149; p. 952.
Saddle-pads, Securing means for. T. I. Morrish. No. 944,572; Dec. 28; Sp. p. 5488; Gaz. vol. 149; p. 952.
Safe, Collection-. G. L. Maw. No. 944,198; Dec. 21; Sp. p. 4641; Gaz. vol. 149; p. 795.
Safe, Fireproof. P. Adolphs. No. 944,007; Dec. 21; Sp. p. 4262; Gaz. vol. 149; p. 733.
Safe, Protecting-. F. C. Martin and J. W. Smith. No. 943,437; Dec. 14; Sp. p. 3006; Gaz. vol. 149; p. 507.
Safety-box, Electric. H. A. Fisher. No. 944,605; Dec. 28; Sp. p. 5564; Gaz. vol. 149; p. 965.
Safety device. C. W. Burris. No. 943,862; Dec. 21; Sp. p. 3931; Gaz. vol. 149; p. 683.
Sand and slime separator and classifier. C. Allen. No. 942,697; Dec. 7; Sp. p. 1371; Gaz. vol. 149; p. 225.
Sander, Cylindrical. O. H. Hayward. No. 944,431; Dec. 28; Sp. p. 5147; Gaz. vol. 149; p. 903.
Sanitary ware. J. J. Cosgrove. No. 942,547; Dec. 7; Sp. p. 1089; Gaz. vol. 149; p. 176.
Sapphires and other precious stones, Machine for cupping. J. L. Wennstrom. No. 942,425; Dec. 7; Sp. p. 816; Gaz. vol. 149; p. 133.
Sarcophagi, Mold for making. G. W. Brown. No. 943,860; Dec. 21; Sp. p. 3925; Gaz. vol. 149; p. 683.
Sardine-tins and the like, Key for removing lids from. W. A. Read and H. J. Miles. No. 943,459; Dec. 14; Sp. p. 3064; Gaz. vol. 149; p. 518.
Sash and door check, Combined. G. F. Ehemann. No. 943,401; Dec. 14; Sp. p. 2933; Gaz. vol. 149; p. 494.
Sash balance, Window-. W. B. and E. M. Gresar and D. Cox. No. 943,014; Dec. 14; Sp. p. 2127; Gaz. vol. 149; p. 364.
Sash-fastener. J. A. Dillow. No. 943,301; Dec. 14; Sp. p. 2730; Gaz. vol. 149; p. 461.
Sash-fastener. G. H. Crease-Williams. No. 944,542; Dec. 28; Sp. p. 5422; Gaz. vol. 149; p. 942.
Sash holder and lock. K. F. Deskins. No. 942,716; Dec. 7; Sp. p. 1416; Gaz. vol. 149; p. 222.
Sash-holding device. O. M. Edwards. No. 942,720; Dec. 7; Sp. p. 1428; Gaz. vol. 149; p. 233.
Sash-lock. F. C. Schaurer. No. 944,152; Dec. 21; Sp. p. 4555; Gaz. vol. 149; p. 781.
Sash-lock. P. F. Nissen. No. 944,626; Dec. 28; Sp. p. 5601; Gaz. vol. 149; p. 972.
Sash, Window-. W. W. Watson. No. 943,801; Dec. 21; Sp. p. 3809; Gaz. vol. 149; p. 662.
Saw-blade. R. E. Martin. No. 942,920; Dec. 14; Sp. p. 1901; Gaz. vol. 149; p. 332.
Saw gage, Crosscut-. E. S. Ward and J. A. Hamilton. No. 943,760; Dec. 21; Sp. p. 3725; Gaz. vol. 149; p. 648.
Saw-guide. C. E. Sees. No. 944,217; Dec. 21; Sp. p. 4670; Gaz. vol. 149; p. 800.
Saw machine, Hack-. E. S. Bradford, Jr., and M. Olson. No. 943,646; Dec. 21; Sp. p. 3508; Gaz. vol. 149; p. 610.
Saw, Power hack-. C. W. Bergmann. No. 944,069; Dec. 21; Sp. p. 4375; Gaz. vol. 149; p. 754.
Saw-set. E. Chainey. No. 944,174; Dec. 21; Sp. p. 4600; Gaz. vol. 149; p. 789.
Saw-set. O. R. Taylor. No. 944,391; Dec. 28; Sp. p. 5035; Gaz. vol. 149; p. 880.
Saw-setting machine. A. C. Ambler. No. 942,531; Dec. 7; Sp. p. 1054; Gaz. vol. 149; p. 171.
Saw-setting tool. J. L'hote. No. 942,573; Dec. 7; Sp. p. 1135; Gaz. vol. 149; p. 184.
Saw-tooth-setting device. H. B. Foley and F. G. Wright. No. 944,729; Dec. 28; Sp. p. 5813; Gaz. vol. 149; p. 1006.
Saw wheel, Band-. C. A. Putnam. No. 942,588; Dec. 7; Sp. p. 1161; Gaz. vol. 149; p. 189.
Sawmill stock-lifter. E. J. Gibson. No. 943,304; Dec. 14; Sp. p. 2735; Gaz. vol. 149; p. 462.
Scaffold. S. Pichler. No. 942,347; Dec. 7; Sp. p. 672; Gaz. vol. 149; p. 108.
Scaffold, Adjustable. B. Muller. No. 944,373; Dec. 28; Sp. p. 5019; Gaz. vol. 149; p. 883.
Scaffold, Flying. H. Martens and W. Schnis. No. 943,438; Dec. 14; Sp. p. 3005; Gaz. vol. 149; p. 507.
Scaffold, Painter's. W. W. Wheeler. No. 944,529; Dec. 28; Sp. p. 5389; Gaz. vol. 149; p. 938.
Scaffolding. D. and L. Barcsai. No. 944,406; Dec. 28; Sp. p. 5100; Gaz. vol. 149; p. 895.
Scale. D. C. Stauffer. No. 942,945; Dec. 14; Sp. p. 1960; Gaz. vol. 149; p. 340.
Scale, Ice-box and refrigerator. D. G. and A. H. Sansbury. No. 942,286; Dec. 7; Sp. p. 556; Gaz. vol. 149; p. 87.
Scale-pan, Butcher's. J. Feldman. No. 944,777; Dec. 28; Sp. p. 5924; Gaz. vol. 149; p. 1021.
Scarf-pin safety attachment. F. S. Reynolds. No. 942,517; Dec. 7; Sp. p. 1025; Gaz. vol. 149; p. 166.
Scrap-bundler. F. Westwood. No. 944,929; Dec. 28; Sp. p. 6243; Gaz. vol. 149; p. 1072.
Scraper, Wheel-mounted. L. C. Fasig. No. 943,864; Dec. 21; Sp. p. 3935; Gaz. vol. 149; p. 684.
Screen: *See* Burglar-alarm screen; Irrigating-ditch screen.
Screens, Fly attachment for. E. White. No. 942,120; Dec. 7; Sp. p. 197; Gaz. vol. 149; p. 30.
Screens, Guide-strip for sliding. H. W. and W. W. Watson. No. 943,800; Dec. 21; Sp. p. 3807; Gaz. vol. 149; p. 662.
Screening apparatus. J. H. Lynch. No. 944,097; Dec. 21; Sp. p. 4429; Gaz. vol. 149; p. 763.
Screw-cutting machine. R. C. Nugent. No. 942,791; Dec. 7; Sp. p. 1561; Gaz. vol. 149; p. 257.
Screw-driver. B. Presson. No. 942,742; Dec. 7; Sp. p. 1470; Gaz. vol. 149; p. 241.
Screw-driver and tweezers, Combined. A. Bjorn and C. E. Cashmore. No. 942,373; Dec. 7; Sp. p. 715; Gaz. vol. 149; p. 116.
Screw-driver, Spiral. J. A. Leland. No. 942,571; Dec. 7; Sp. p. 1129; Gaz. vol. 149; p. 183.
Screw-driving machine. J. J. W. Kenan. No. 944,561; Dec. 28; Sp. p. 5466; Gaz. vol. 149; p. 949.
Screw, Set-. A. Levedahl. No. 942,506; Dec. 7; Sp. p. 1006; Gaz. vol. 149; p. 162.
Seal. A. W. Loahbough. No. 943,834; Dec. 21; Sp. p. 3874; Gaz. vol. 149; p. 674.
Seal. W. M. Steele. No. 944 701; Dec. 28; Sp. p. 5754; Gaz. vol. 149; p. 996.
Seal. W. M. Steele. No. 944,702; Dec. 28; Sp. p. 5755; Gaz. vol. 149; p. 996.
Seal and spout for cans and other receptacles. H. A. Truesdale. No. 942,847; Dec. 7; Sp. p. 1699; Gaz. vol. 149; p. 275.
Seal, Metallic. W. E. Elliott. No. 942,315; Dec. 7; Sp. p. 612; Gaz. vol. 149; p. 97.
Seal, Metallic. W. E. Elliott. No. 942,316; Dec. 7; Sp. p. 614; Gaz. vol. 149; p. 98.
Seal, Snap-. E. J. Brooks. No. 942,774; Dec. 7; Sp. p. 1536; Gaz. vol. 149; p. 252.
Seal, Tag-attaching. E. J. Brooks. No. 942,435; Dec. 7; Sp. p. 834; Gaz. vol. 149; p. 137.
Seals, Packing and registering. W. E. Elliott. No. 942,317; Dec. 7; Sp. p. 618; Gaz. vol. 149; p. 98.
Sealing box-fasteners, Tool for. R. Schleicher. No. 942,673; Dec. 7; Sp. p. 1327; Gaz. vol. 149; p. 219.
Seam-dampening machine, Turn-down-collar-. W. A. Zeidler. No. 942,233; Dec. 7; Sp. p. 442; Gaz. vol. 149; p. 68.
Seat: *See* Supplemental seat.
Seat cover, Sanitary toilet-. P. Ganzhorn. No. 944,854; Dec. 28; Sp. p. 6104; Gaz. vol. 149; p. 1048.
Seeder. C. W. Stark. No. 942,868; Dec. 7; Sp. p. 1742; Gaz. vol. 149; p. 282.
Seeder, Broom-corn. J. W. Courtney and J. C. Porter. No. 944,178; Dec. 21; Sp. p. 4605; Gaz. vol. 149; p. 790.
Seeding device, Combined disk and shoe. N. L. Heckman. No. 943,406; Dec. 14; Sp. p. 2944; Gaz. vol. 149; p. 496.
Seeding-machine. W. L. Paul. No. 944,578; Dec. 28; Sp. p. 5502; Gaz. vol. 149; p. 955.
Seeding machine, Fruit-. B. H. and M. Paul. No. 943,955; Dec. 21; Sp. p. 4131; Gaz. vol. 149; p. 716.
Self-adjusting wrench. R. H. Anderson. No. 942,992; Dec. 14; Sp. p. 2078; Gaz. vol. 149; p. 357.
Separator: *See* Chicken-separator; Coal-separator; Liquid-separator; Ore-separator; Sand and slime separator; Slime-separator.
Sewing and embroidering machine. R. Cornely. No. 944,599; Dec. 28; Sp. p. 5552; Gaz. vol. 149; p. 962.
Sewing-machine. W. A. Mack. No. 942,090; Dec. 7; Sp. p. 116; Gaz. vol. 149; p. 19.
Sewing-machine. C. F. and M. T. Goforth. No. 942,899; Dec. 14; Sp. p. 1845; Gaz. vol. 149; p. 325.
Sewing-machine. A. L. Madison. No. 944,740; Dec. 28; Sp. p. 5843; Gaz. vol. 149; p. 1009.
Sewing-machine. E. L. Bowers. No. 944,843; Dec. 28; Sp. p. 6072; Gaz. vol. 149; p. 1044.
Sewing-machine cabinet. W. C. Free. No. 943,866; Dec. 21; Sp. p. 3938; Gaz. vol. 149; p. 685.
Sewing-machine cabinet. W. C. Free. No. 943,867; Dec. 21; Sp. p. 3940; Gaz. vol. 149; p. 685.
Sewing-machine gage. N. Friedman. No. 942,496; Dec. 7; Sp. p. 988; Gaz. vol. 149; p. 159.
Sewing machine, Shoe-. J. H. and J. B. Ursbruck. No. 944,751; Dec. 28; Sp. p. 5879; Gaz. vol. 149; p. 1013.
Sewing-machine structure. V. Bloom. No. 943,623; Dec. 14; Sp. p. 3430; Gaz. vol. 149; p. 572.

Sewing-machine take-up. B. Phillips. No. 944,498; Dec. 28; Sp. p. 5316; Gaz. vol. 149; p. 926.
Sewing-material holder, Combination. R. A. Walker and J. V. Parrish. No. 942,802; Dec. 7; Sp. p. 1581; Gaz. vol. 149; p. 260.
Shade-bracket. M. Vosseler and M. Schlenker. No. 944,642; Dec. 28; Sp. p. 5629; Gaz. vol. 149; p. 977.
Shade bracket, Window-. C. W. Brown. No. 942,775; Dec. 7; Sp. p. 1538; Gaz. vol. 149; p. 252.
Shade-holder. W. A. Painter. No. 942,738; Dec. 7; Sp. p. 1464; Gaz. vol 149; p. 239.
Shade-machine knife, Window-. E. O. Engberg. No. 943,221; Dec. 14; Sp. p. 2533; Gaz. vol. 149; p. 433.
Shade-support, Adjustable. J. P. Olson. No. 944,632; Dec. 28; Sp. p. 5612; Gaz. vol. 149; p. 974.
Shade-supporting device. E. H. Lunken. No. 942,967; Dec. 14; Sp. p. 2012; Gaz. vol. 149; p. 348.
Shaft, Flexible. W. G. Bambridge. No. 944,228; Dec. 21; Sp. p. 4692; Gaz. vol. 149; p. 804.
Shaft or pulley coupling. T. White. No. 943,209; Dec. 14; Sp. p. 2530; Gaz. vol. 149; p. 429.
Shaft, Pneumatically-operated. P. J. Grebel. No. 942,065; Dec. 7; Sp. p. 48; Gaz. vol. 149; p. 10.
Shaft-reversing means. H. F. Seybert. No. 943,477; Dec. 14; Sp. p. 3101; Gaz. vol. 149; p. 522.
Shaft-support. G. E. Stansbury and H. H. Hutchison. No. 943,576; Dec. 14; Sp. p. 3295; Gaz. vol. 149; p. 555.
Sharpener for lawn-mowers. E. Merritt. No. 942,578; Dec. 7; Sp. p. 1145; Gaz. vol. 149; p. 186.
Sharpener, Knife-. M. L. Hawks. No. 942,172; Dec. 7; Sp. p. 318; Gaz. vol. 149; p. 46.
Sharpener, Knife-. B. F. Emery. No. 942,950; Dec. 14; Sp. p. 1994; Gaz. vol. 149; p. 345.
Sharpener, Tool-. G. W. Burt. No. 944,943; Dec. 28; Sp. p. 6264; Gaz. vol. 149; p. 1076.
Sharpening device, Razor-. J. J. Meehan. No. 942,731; Dec. 7; Sp. p. 1448; Gaz. vol. 149; p. 237.
Shaving-appliance case. W. L. Clark. No. 942,483; Dec. 7; Sp. p. 956; Gaz. vol. 149; p. 154.
Shear, punch, and bending machine, Combined. S. Takacs. No. 942,680; Dec. 7; Sp. p. 1342; Gaz. vol. 149; p. 221.
Shear-tables, Transfer apparatus for. J. Simpson. No. 944,972; Dec. 28; Sp. p. 6323; Gaz. vol. 149; p. 1086.
Shearing device. T. J. Holden. No. 944,555; Dec. 28; Sp. p. 5443; Gaz. vol. 149; p. 946.
Sheet-feeding machine. H. K. King. No. 942,078; Dec. 7; Sp. p. 79; Gaz. vol. 149; p. 15.
Sheet-metal culvert, Corrugated. H. W. Harry. No. 943,306; Dec. 14; Sp. p. 2738; Gaz. vol. 149; p. 462.
Sheet-metal folder. J. A. Mason. No. 944,566; Dec. 28; Sp. p. 5478; Gaz. vol. 149; p. 951.
Sheet metal, Galvanizing. A. Niedringhaus. No. 943,264; Dec. 14; Sp. p. 2648; Gaz. vol. 149; p. 449.
Sheet-metal panel. A. J. Thornley. No. 944,059; Dec. 21; Sp. p. 4359; Gaz. vol. 149; p. 751.
Sheet-metal plates, Cutting disks from. D. P. Robinson. No. 942,104; Dec. 7; Sp. p. 152; Gaz. vol. 149; p. 24.
Sheet-metal-wiring machine. W. R. Magle. No. 943,118; Dec. 14; Sp. p. 2350; Gaz. vol. 149; p. 400.
Sheet-registering mechanism. H. K. King. No. 942,079; Dec. 7; Sp. p. 83; Gaz. vol. 149; p. 15.
Shell-crimper. L. E. Thompson. No. 943,716; Dec. 21; Sp. p. 3646; Gaz. vol. 149; p. 633.
Shingle and making the same, Metallic. T. M. Lunan and A. C. Rantsch. No. 942,577; Dec. 7; Sp. p. 1143; Gaz. vol. 149; p. 185.
Shingle, Interlocking metallic. G. H. Pedlar. No. 943,888; Dec. 21; Sp. p. 3983; Gaz. vol. 149; p. 692.
Shingle-machine. C. J. Brandt. No. 944,659; Dec. 28; Sp. p. 5662; Gaz. vol. 149; p. 982.
Shingle-stamp and packer's recorder, Automatic. G. A. Ortwein. No. 942,512; Dec. 7; Sp. p. 1017; Gaz. vol. 149; p. 164.
Shipping-case. S. D. Bedell. No. 944,837; Dec. 28; Sp. p. 6053; Gaz. vol. 149; p. 1042.
Ships and other oscillating bodies, Apparatus for minimizing the oscillatory movements of. E. O. Schlick and M. Wurl. No. 944,511; Dec. 28; Sp. p. 5344; Gaz. vol. 149; p. 931.
Shirt-front. R. W. Springer. No. 944,292; Dec. 28; Sp. p. 4837; Gaz. vol. 149; p. 854.
Shock-absorber. J. H. Friedenwald. No. 942,896; Dec. 14; Sp. p. 1837; Gaz. vol. 149; p. 324.
Shock-absorber hanger. E. Flentje. No. 943,671; Dec. 21; Sp. p. 3549; Gaz. vol. 149; p. 617.
Shock-deadener. A. Mayesky and H. Bolleau. No. 943,119; Dec. 14; Sp. p. 2361; Gaz. vol. 149; p. 401.
Shock-loader. J. B. Schuman. No. 943,473; Dec. 14; Sp. p. 3091; Gaz. vol. 149; p. 520.
Shoe-block. W. W. Kimble. No. 943,975; Dec. 21; Sp. p. 4173; Gaz. vol. 149; p. 723.
Shoe-filler. E. R. Taylor. No. 944,112; Dec. 21; Sp. p. 4475; Gaz. vol. 149; p. 760.
Shoe-form. E. C. Wright. No. 944,471; Dec. 28; Sp. p. 5237; Gaz. vol. 149; p. 917.
Shoe-nailing machine. V. Sandahl. No. 942,591; Dec. 7; Sp. p. 1165; Gaz. vol. 149; p. 190.
Shoe-polisher. H. J. Friedrich. No. 944,262; Dec. 28; Sp. p. 4771; Gaz. vol. 149; p. 844.
Shoe-polishing stand. E. H. Gernandt. No. 944,990; Dec. 28; Sp. p. 6364; Gaz. vol. 149; p. 1092.
Shoe-pull. T. Ferry. No. 944,424; Dec. 28; Sp. p. 5134; Gaz. vol. 149; p. 901.
Shoe-tree. A. H. Taft. (Reissue.) No. 13,057; Dec. 14; Sp. p. 3490; Gaz. vol. 149; p. 580.
Shoe-trimming machine. A. Vose. No. 942,987; Dec. 14; Sp. p. 2049; Gaz. vol. 149; p. 355.
Shoe-turning machine. A. Eppler. No. 944,260; Dec. 28; Sp. p. 4768; Gaz. vol. 149; p. 843.
Shovel: *See* Fire-shovel.
Shoveling-board. F. Stewart and E. W. Neiswanger. No. 944,109; Dec. 21; Sp. p. 4469; Gaz. vol. 149; p. 768.
Shuttle. P. Gauthier. No. 944,855; Dec. 28; Sp. p. 6105; Gaz. vol. 149; p. 1049.
Shuttle-operating mechanism. C. F. Arnold. No. 942,698; Dec. 7; Sp. p. 1374; Gaz. vol. 149; p. 226.
Shuttle-threading device. J. Jordan. No. 942,263; Dec. 7; Sp. p. 499; Gaz. vol. 149; p. 78.
Sieve. H. F. Frohman. No. 944,549; Dec. 28; Sp. p. 5435; Gaz. vol. 149; p. 945.
Sifter, Ash-. S. J. Phreaner. No. 943,457; Dec. 14; Sp. p. 3061; Gaz. vol. 149; p. 514.
Sifters, Control device for. A. C. Brantingham. (Reissue.) No. 13,058; Dec. 21; Sp. p. 4734; Gaz. vol. 149; p. 811.
Sign, Electrically-illuminated. J. H. Goehst. No. 943,246; Dec. 14; Sp. p. 2610; Gaz. vol. 149; p. 442.
Sign-holding apparatus. C. P. Rall. No. 944,150; Dec. 21; Sp. p. 4553; Gaz. vol. 149; p. 781.
Sign, Illuminated. J. W. Crow. No. 944,951; Dec. 28; Sp. p. 6278; Gaz. vol. 149; p. 1079.
Sign manufacture, Triple-. T. P. Heinemann. No. 942,498; Dec. 7; Sp. p. 992; Gaz. vol. 149; p. 160.
Signal: *See* Electric signal; Elevator-signal; Railway-signal; Warning-signal.
Signal-controlling apparatus. W. M. Chapman. No. 942,195; Dec. 7; Sp. p. 360; Gaz. vol. 149; p. 55.
Signal-light apparatus. G. Dalén. No. 943,300; Dec. 14; Sp. p. 2728; Gaz. vol. 149; p. 461.
Signal system, Automatic. P. O. Adams. No. 943,557; Dec. 14; Sp. p. 3311; Gaz. vol. 149; p. 558.
Signal system, Electric. A. L. Sohm. No. 944,003; Dec. 21; Sp. p. 4248; Gaz. vol. 149; p. 732.
Signal system, Theater-chair-. P. T. Kenny. No. 943,940; Dec. 21; Sp. p. 4104; Gaz. vol. 149; p. 711.
Signaling and switching apparatus, Electrical. R. H. Manson. No. 943,883; Dec. 21; Sp. p. 3971; Gaz. vol. 149; p. 690.
Signaling apparatus, Selective. O. M. Leich. No. 943,115; Dec. 14; Sp. p. 2350; Gaz. vol. 149; p. 399
Signaling apparatus, Selective electric. J. B. Coe. No. 944,665; Dec. 28; Sp. p. 5675; Gaz. vol. 149; p. 985.
Signaling device, Mechanical code-. F. A. Meissner. No. 942,334; Dec. 7; Sp. p. 640; Gaz. vol. 149; p. 103.
Signaling system. F. E. Smith. No. 942,676; Dec. 7; Sp. p. 1331; Gaz. vol. 149; p. 219.
Signaling system. O. T. Lademan. No. 944,563; Dec. 28; Sp. p. 5472; Gaz. vol. 149; p. 949.
Silo. G. Moeke. No. 942,095; Dec. 7; Sp. p. 128; Gaz. vol. 149; p. 20.
Silo. J. H. McCoy. No. 942,340; Dec. 7; Sp. p. 658; Gaz. vol. 149; p. 105.
Silo. W. R. Harrison and A. C. Jacoby. No. 942,640; Dec. 7; Sp. p. 1268; Gaz. vol. 149; p. 207.
Silo. P. R. Jensen. No. 944,873; Dec. 28; Sp. p. 6134; Gaz. vol. 149; p. 1055.
Singeing-machine. D. Davis and A. O. Berry. No. 943,657; Dec. 21; Sp. p. 3529; Gaz. vol. 149; p. 614.
Sinker. G. W. Teasdale. No. 942,597; Dec. 7; Sp. p. 1180; Gaz. vol. 149; p. 192.
Sintering apparatus. R. Palmer. No. 942,513; Dec. 7; Sp. p. 1019; Gaz. vol. 149; p. 164.
Siphon. F. A. Decker. No. 944,002; Dec. 28; Sp. p. 5557; Gaz. vol. 149; p. 964.
Siphon for dispensing liquids. A. Kleinfeldt. No. 943,421; Dec. 14; Sp. p. 2989; Gaz. vol. 149; p. 501.
Skate, Extensible roller-. W. J. Hille. No. 944,991; Dec. 28; Sp. p. 6366; Gaz. vol. 149; p. 1093.
Skate, Roller-. W. Lennox. No. 942,333; Dec. 7; Sp. p. 644; Gaz. vol. 149; p. 103.
Skate, Roller-. J. Nuttall. No. 942,344; Dec. 7; Sp. p. 666; Gaz. vol. 149; p. 107.
Skirt-gage. N. Lewsen. No. 944,885; Dec. 28; Sp. p. 6156; Gaz. vol. 149; p. 1059.
Skirt hanger and stretcher. W. J. Tetreault. No. 942,525; Dec. 7; Sp. p. 1045; Gaz. vol. 149; p. 169.
Skirt-marker. S. E. C. Campbell. No. 942,375; Dec. 7; Sp. p. 718; Gaz. vol. 149; p. 117.
Skirt-marker. S. S. Moritz. No. 944,570; Dec. 28; Sp. p. 5485; Gaz. vol. 149; p. 952.
Skirt-marker. S. C. Sell and A. M. Filhour. No. 944,639; Dec. 28; Sp. p. 5625; Gaz. vol. 149; p. 976.
Skiving-machine. W. A. Parmenter and A. B. Alden. No. 944,103; Dec. 21; Sp. p. 4440; Gaz. vol. 149; p. 765.
Slate-picker. W. J. Owens. No. 944,904; Dec. 28; Sp. p. 6193; Gaz. vol. 149; p. 1065.
Sled-brake. W. H. Stevenson. No. 944,520; Dec. 28; Sp. p. 5368; Gaz. vol. 149; p. 935.
Sled, Dirigible toboggan-runner. R. H. Doughty. No. 944,848; Dec. 28; Sp. p. 6087; Gaz. vol. 149; p. 1046.
Sled, Resilient. F. G. McPherson. No. 943,448; Dec. 14; Sp. p. 3044; Gaz. vol. 149; p. 511.
Sled-runner. D. L. Blocher. No. 943,513; Dec. 14; Sp. p. 3183; Gaz. vol. 149; p. 535.
Sled, Steerable. F. W. H. Clay. No. 944,773; Dec. 28; Sp. p. 5913; Gaz. vol. 149; p. 1020.
Sleds, Wheel attachment for. O. Fylling. No. 944,852; Dec. 28; Sp. p. 6094; Gaz. vol. 149; p. 1048.
Sleeper, Cast-iron. W. R. Haughton. No. 944,135; Dec. 21; Sp. p. 4522; Gaz. vol. 149; p. 776.
Slicing and cutting machine, Vegetable. H. E. Madden. No. 944,491; Dec. 28; Sp. p. 5293; Gaz. vol. 149; p. 924.
Slicing or chopping machine, Fruit and vegetable. W. H. Boutell. No. 943,965; Dec. 21; Sp. p. 4151; Gaz. vol. 149; p. 719.
Sliding gate. J. M. Peterman. No. 942,408; Dec. 7; Sp. p. 786; Gaz. vol. 149; p. 128.
Slime-separator, Centrifugal. O. M. Kuchs. No. 943,063; Dec. 14; Sp. p. 2288; Gaz. vol. 149; p. 388.

Slub detecting and removing mechanism. W. E. Morton. No. 944,898; Dec. 28; Sp. p. 6175; Gaz. vol. 149; p. 1063.
Smoke-consumer. A. Kohn. No. 944,196; Dec. 21; Sp. p. 4639; Gaz. vol. 149; p. 795.
Smoke-consumer. W. Acheson. No. 944,933; Dec. 28; Sp. p. 6250; Gaz. vol. 149; p. 1074.
Smoke-preventer, Time-controlled. B. L. Ames. No. 942,131; Dec. 7; Sp. p. 223; Gaz. vol. 149; p. 34.
Smoke-washer. J. Altenhofen. No. 942,430; Dec. 7; Sp. p. 825; Gaz. vol. 149; p. 135.
Smoking-pipe. E. B. Whitney. No. 942,688; Dec. 7; Sp. p. 1355; Gaz. vol. 149; p. 343.
Smoothing-iron. M. Imhoff. No. 944,732; Dec. 28; Sp. p. 5817; Gaz. vol. 149; p. 1006.
Snap, Breast-strap. W. Sedlacek. No. 942,289; Dec. 7; Sp. p. 560; Gaz. vol. 149; p. 88.
Snap-hook, Self-locking. A. B. Doering. No. 944,548; Dec. 28; Sp. p. 5428; Gaz. vol. 149; p. 944.
Snap-switch, Two-pole. L. Kellner. No. 943,531; Dec. 21; Sp. p. 3866; Gaz. vol. 149; p. 673.
Snatch-block. E. Martin. No. 942,274; Dec. 7; Sp. p. 522; Gaz. vol. 149; p. 82.
Snow-melter. C. L. Moore. No. 942,337; Dec. 7; Sp. p. 654; Gaz. vol. 149; p. 104.
Snow-sweeper. W. J. Cooke. No. 942,888; Dec. 14; Sp. p. 1820; Gaz. vol. 149; p. 321.
Soap, Antiseptic. W. A. Beatty. No. 942,538; Dec. 7; Sp. p. 1072; Gaz. vol. 149; p. 173.
Sock and garter, Combined. L. O. Gitchell. No. 942,552; Dec. 7; Sp. p. 1090; Gaz. vol. 149; p. 178.
Socks, Excluder for elastic. F. W. Savage. No. 942,671; Dec. 7; Sp. p. 1325; Gaz. vol. 149; p. 218.
Sockets, Detachable chain-guide for pull-. H. Hubbell. No. 943,077; Dec. 14; Sp. p. 2279; Gaz. vol. 149; p. 386.
Sod-cutting tool. M. Harris. No. 944,859; Dec. 28; Sp. p. 6112; Gaz. vol. 149; p. 1050.
Solder to rims of caps for cans, Machine for applying. R. Flanigan. No. 942,404; Dec. 7; Sp. p. 979; Gaz. vol. 149; p. 158.
Soldering cord chains. K. F. Ungerer and E. Becker. No. 944,640; Dec. 28; Sp. p. 5626; Gaz. vol. 149; p. 976.
Soldering device. H. G. Mead. No. 944,805; Dec. 28; Sp. p. 5989; Gaz. vol. 149; p. 1031.
Soldering-furnace. E. T. Burgess. No. 942,245; Dec. 7; Sp. p. 467; Gaz. vol. 149; p. 72.
Sole-pressing machine. T. H. A. Holt. No. 944,620; Dec. 28; Sp. p. 5589; Gaz. vol. 149; p. 970.
Sole-pressing pad. H. A. Davenport. No. 942,133; Dec. 7; Sp. p. 229; Gaz. vol. 149; p. 35.
Sole-rounding machines, Knife-mounting for. C. P. Stanbon. No. 941,386; Dec. 28; Sp. p. 5043; Gaz. vol. 149; p. 887.
Solitaire-board. F. E. S. Smith. No. 942,667; Dec. 7; Sp. p. 1320; Gaz. vol. 149; p. 217.
Sound-box. W. A. Chapman. No. 943,230; Dec. 14; Sp. p. 2815; Gaz. vol. 149; p. 474.
Sound-record composition. J. W. Aylsworth. No. 944,474; Dec. 28; Sp. p. 5243; Gaz. vol. 149; p. 918.
Sound-recording apparatus. T. A. Edison. No. 943,664; Dec. 21; Sp. p. 5533; Gaz. vol. 149; p. 616.
Sound-reproducing machine. F. C. Goodale. No. 944,698; Dec. 28; Sp. p. 5570; Gaz. vol. 149; p. 966.
Sound-reproducing-machine records, Manufacture of. R. L. Gibson. No. 943,631; Dec. 14; Sp. p. 3452; Gaz. vol. 149; p. 575.
Sounds, Apparatus for receiving submarine. T. A. Garrett and W. Lucas. No. 942,897; Dec 14; Sp. p. 1838; Gaz. vol. 149; p. 324.
Sowing machine, Seed-. J. H. Morris. No. 944,897; Dec. 28; Sp. p. 6173; Gaz. vol. 149; p. 1063.
Spade or shovel blade. H. Dahlmann. No. 942,616; Dec. 7; Sp. p. 1220; Gaz. vol. 149; p. 199.
Spanner-wrench. L. R. Hoffman. No. 943,935; Dec. 21; Sp. p. 4096; Gaz. vol. 149; p. 709.
Spark arrester and extinguisher. A. W. Graham. No. 944,237; Dec. 21; Sp. p. 4709; Gaz. vol. 149; p. 807.
Spectacles, eyeglasses, and the like. S. S. Lawrence. No. 943,065; Dec. 14; Sp. p. 2294; Gaz. vol. 149; p. 389.
Speed-changing mechanism. E. H. R. Barton. No. 942,192; Dec. 7; Sp. p. 356; Gaz. vol. 149; p. 54.
Speed-changing mechanism. E. E. Keller. No. 942,910; Dec. 14; Sp. p. 1869; Gaz. vol. 149; p. 329.
Speed-changing mechanism. E. E. Keller. No. 942,911; Dec. 14; Sp. p. 1872; Gaz. vol. 149; p. 329.
Speed-changing mechanism. E. E. Keller. No. 942,912; Dec. 14; Sp. p. 1878; Gaz. vol. 149; p. 330.
Speed-changing mechanism. E. E. Keller. No. 942,914; Dec. 14; Sp. p. 1887; Gaz. vol. 149; p. 330.
Speed cone and pulley, Change-. W. E. and P. Rowlands. No. 944,636; Dec. 28; Sp. p. 5619; Gaz. vol. 149; p. 975.
Speed-indicator. J. B. Waring. No. 944,709; Dec. 28; Sp. p. 5770; Gaz. vol. 149; p. 998.
Speed-measuring machine. D. F. Comstock and H. T. Kalmus. No. 942,132; Dec. 7; Sp. p. 228; Gaz. vol. 149; p. 35.
Speed mechanism, Variable-. A. F. Rockwell. No. 942,220; Dec. 7; Sp. p. 413; Gaz. vol. 149; p. 63.
Speed-regulator. J. E. Whittaker. No. 944,304; Dec. 28; Sp. p. 5062; Gaz. vol. 149; p. 890.
Speed-varying mechanism. A. C. Smith. No. 942,416; Dec. 7; Sp. p. 799; Gaz. vol. 149; p. 130.
Speedometer. W. R. Harris. No. 942,497; Dec. 7; Sp. p. 989; Gaz. vol. 149; p. 159.
Speedometer. J. H. Bullard. No. 944,536; Dec. 28; Sp. p. 5411; Gaz. vol. 149; p. 941.
Spike-puller. W. F. Scott. No. 942,415; Dec. 7; Sp. p. 798; Gaz. vol. 149; p. 130.
Spike-puller. D. Smith. No. 944,920; Dec. 28; Sp. p. 5224; Gaz. vol. 149; p. 1070.
Spindle: *See* Spinning-spindle.
Spinning and like machinery, Thread-guide for cotton-. J. and E. Appleby. No. 942,362; Dec. 7; Sp. p. 697; Gaz. vol. 149; p. 113.
Spinning-mules, Reversing mechanism for the band-cylinders of. J. H. Ryalls. No. 942,752; Dec. 7; Sp. p. 1486; Gaz. vol. 149; p. 244.
Spinning-spindle. J. V. Cunniff. No. 942,777; Dec. 7; Sp. p. 1542; Gaz. vol. 149; p. 253.
Spittoon. J. Escuder. No. 943,527; Dec. 14; Sp. p. 3206; Gaz. vol. 149; p. 540.
Spoon. I. B. Harn. No. 944,091; Dec. 21; Sp. p. 4420; Gaz. vol. 149; p. 762.
Spout, Flexible feed-. L. V. Rathbun. No. 943,891; Dec. 21; Sp. p. 3994; Gaz. vol. 149; p. 693.
Sprag remover and retainer. J. T. Harcarik. No. 943,538; Dec. 14; Sp. p. 3228; Gaz. vol. 149; p. 543.
Spray-shaving machine. R. Appleman. No. 944,647; Dec. 28; Sp. p. 5638; Gaz. vol. 149; p. 978.
Spray-burner. A. Rohrbach, W. Dieckmann, A. Gribling, and L. Grote. No. 943,567; Dec. 14; Sp. p. 3281; Gaz. vol. 149; p. 553.
Spring: *See* Hydropneumatic spring; Window-spring.
Spring system for beds, &c. J. A. Staples. No. 944,518; Dec. 28; Sp. p. 5359; Gaz. vol. 149; p. 934.
Spring-wheel. A. Moore. No. 942,276; Dec. 7; Sp. p. 530; Gaz. vol. 149; p. 83.
Spring-wheel. J. A. Dieterich. No. 943,207; Dec. 14; Sp. p. 2925; Gaz. vol. 149; p. 493.
Sprinkler: *See* Lawn-sprinkler; Street-sprinkler.
Square. T. C. Howland. No. 943,351; Dec. 14; Sp. p. 2843; Gaz. vol. 149; p. 478.
Square, Folding. W. N. Craig. No. 944,541; Dec. 28; Sp. p. 5419; Gaz. vol. 149; p. 942.
Stacker, Automatic hay-. H. N. Renner. No. 943,786; Dec. 21; Sp. p. 3775; Gaz. vol. 149; p. 657.
Stacker, Hay-. C. A. Hagadone. No. 944,283; Dec. 28; Sp. p. 4772; Gaz. vol. 149; p. 844.
Stair, Folding. J. A. Flynn. No. 943,672; Dec. 21; Sp. p. 3550; Gaz. vol. 149; p. 618.
Stair-tread. R. T. Kanaki. No. 943,418; Dec. 14; Sp. p. 2965; Gaz. vol. 149; p. 500.
Stall, Cow-. C. S. Torrey. No. 943,489; Dec. 14; Sp. p. 3120; Gaz. vol. 149; p. 526.
Stamp-affixing machine. J. F. Monaghan. No. 942,454; Dec. 7; Sp. p. 884; Gaz. vol. 149; p. 144.
Stamp-affixing machine. J. W. McCann. No. 943,952; Dec. 21; Sp. p. 4126; Gaz. vol. 149; p. 715.
Stamp-strip. S. L. W. Coe. No. 943,653; Dec. 21; Sp. p. 3519; Gaz. vol. 149; p. 613.
Stamps, Reversible ribbon-feed for dating-. B. B. Hill. No. 942,827; Dec. 7; Sp. p. 1643; Gaz. vol. 149; p. 268.
Stamping devices, Cushioned support for. J. Dubisee. No. 943,342; Dec. 14; Sp. p. 2824; Gaz. vol. 149; p. 475.
Stamping-machine. R. W. Munk. No. 944,742; Dec. 28; Sp. p. 5847; Gaz. vol. 149; p. 1019.
Stanchion. F. G. and A. E. Harris. No. 942,639; Dec. 7; Sp. p. 1267; Gaz. vol. 149; p. 207.
Stand: *See* Hammock-stand; Shoe-polishing stand.
Staple forming and discharging mechanism. V. Hoxie. No. 942,904; Dec. 14; Sp. p. 1856; Gaz. vol. 149; p. 326.
Staple forming and discharging mechanism. V. Hoxie. No. 942,905; Dec. 14; Sp. p. 1857; Gaz. vol. 149; p. 327.
Staple forming and discharging mechanism. V. Hoxie. No. 942,906; Dec. 14; Sp. p. 1861; Gaz. vol. 149; p. 327.
Staple-machine. J. Buckley. No. 943,235; Dec. 14; Sp. p. 2589; Gaz. vol. 149; p. 438.
Station-indicator. E. L. Pitts. No. 944,207; Dec. 21; Sp. p. 4657; Gaz. vol. 149; p. 798.
Stave-jointing machine. N. M. Taylor. No. 942,799; Dec. 7; Sp. p. 1577; Gaz. vol. 149; p. 259.
Steady-rest. H. C. McCullough. No. 944,630; Dec. 28; Sp. p. 5606; Gaz. vol. 149; p. 973.
Steam and hot-water boiler. T. Wheatley. No. 943,761; Dec. 21; Sp. p. 3727; Gaz. vol. 149; p. 648.
Steam and liquid pressure regulating device. C. P. McMullen. No. 944,689; Dec. 28; Sp. p. 5731; Gaz. vol. 149; p. 992.
Steam-boiler. J. C. Parker. No. 943,452; Dec. 14; Sp. p. 3050; Gaz. vol. 149; p. 512.
Steam-boiler. E. F. Edgar. No. 944,669; Dec. 28; Sp. p. 5682; Gaz. vol. 149; p. 986.
Steam-drier. C. H. Noyes. No. 942,840; Dec. 21; Sp. p. 3886; Gaz. vol. 149; p. 676.
Steam-engine. E. J. Hamilton. No. 944,035; Dec. 21; Sp. p. 4311; Gaz. vol. 149; p. 743.
Steam-generator. B. F. Silliman. No. 943,277; Dec. 14; Sp. p. 2678; Gaz. vol. 149; p. 453.
Steam-generator. M. Connor. No. 943,916; Dec. 21; Sp. p. 4068; Gaz. vol. 149; p. 703.
Steam-generator, Electrical. E. I. Rains. No. 944,050; Dec. 21; Sp. p. 4338; Gaz. vol. 149; p. 748.
Steam-generator for submarine boats. R. D. Montjustin. No. 943,153; Dec. 14; Sp. p. 2427; Gaz. vol. 149; p. 412.
Steam-generator, superheater, and feed-water heater. F. A. Haughton. No. 943,189; Dec. 14; Sp. p. 2489; Gaz. vol. 149; p. 422.
Steam-trap. C. Stickle. No. 944,295; Dec. 28; Sp. p. 4850; Gaz. vol. 149; p. 855.
Steel holding and packing means, Drill-. D. S. Waugh. No. 942,869; Dec. 7; Sp. p. 1744; Gaz. vol. 149; p. 283.
Steel, Making. L. M. Atha. No. 943,171; Dec. 14; Sp. p. 2455; Gaz. vol. 149; p. 417.
Steel, Refining. E. Humbert. No. 943,192; Dec. 14; Sp. p. 2498; Gaz. vol. 149; p. 424.
Sterilizing attachment for the mouthpieces of speaking instruments. W. Williams. No. 944,397; Dec. 28; Sp. p. 5068; Gaz. vol. 149; p. 892

Stirrup. J. Matsek. No. 944,889; Dec. 28; Sp. p. 6162; Gaz. vol. 149; p. 1060.
Stirrup, Safety-. W. V. Johnston. No. 942,781; Dec. 7; Sp. p. 1547; Gaz. vol. 149; p. 254.
Stitching machine for pamphlets and similar articles, Thread-. H. L. Roberts. No. 944,051; Dec. 21; Sp. p. 4341; Gaz. vol. 149; p. 748.
Stock detaching device, Live-. C. I. Aggerbeck. No. 943,641; Dec. 21; Sp. p. 3493; Gaz. vol. 149; p. 609.
Stock-releaser. L. F. Lemon and J. C. Stoops. No. 942,875; Dec. 7; Sp. p. 1767; Gaz. vol. 149; p. 285.
Stoker, Automatic. J. M. Fleming. No. 944,778; Dec. 28; Sp. p. 5925; Gaz. vol. 149; p. 1021.
Stoker, Mechanical. T. V. Elliott. No. 942,060; Dec. 7; Sp. p. 34; Gaz. vol. 149; p. 8.
Stoker, Mechanical. H. Snyder and J. T. Hume. No. 943,712; Dec. 21; Sp. p. 3627; Gaz. vol. 149; p. 631.
Stoker, Mechanical. P. J. Harleman. No. 944,551; Dec. 28; Sp. p. 5437; Gaz. vol. 149; p. 945.
Stool and foot-rest, Combined. M. L. Porter. No. 942,975; Dec. 14; Sp. p. 2026; Gaz. vol. 149; p. 351.
Stool, Shoe-fitting. H. H. Kramer. No. 942,965; Dec. 14; Sp. p. 2006; Gaz. vol. 149; p. 348.
Stop mechanism, Automatic. V. Hoxie. No. 943,411; Dec. 14; Sp. p. 2954; Gaz. vol. 149; p. 498.
Stopper: *See* Bottle-stopper.
Storage battery. D. P. Perry. No. 942,279; Dec. 7; Sp. p. 543; Gaz. vol. 149; p. 84.
Storage battery. L. H. Flanders. No. 943,345; Dec. 14; Sp. p. 2831; Gaz. vol. 149; p. 476.
Storage-receptacle. E. Herrmann. No. 944,435; Dec. 28; Sp. p. 5153; Gaz. vol. 149; p. 904.
Stove. W. G. Shoals. No. 944,154; Dec. 21; Sp. p. 4558; Gaz. vol. 149; p. 782.
Stove attachment. M. Carney. No. 944,317; Dec. 28; Sp. p. 4907; Gaz. vol. 149; p. 863.
Stove, Cooking-. H. A. Winterknight. No. 944,757; Dec. 28; Sp. p. 5891; Gaz. vol. 149; p. 1015.
Stove-door. B. A. Baxter. No. 944,475; Dec. 28; Sp. p. 5244; Gaz. vol. 149; p. 918.
Stove, Heating-. H. F. Arenberg. No. 942,805; Dec. 7; Sp. p. 1585; Gaz. vol. 149; p. 261.
Stove, Pocket-. B. Scamardi. No. 943,569; Dec. 14; Sp. p. 3284; Gaz. vol. 149; p. 553.
Stove ventilator and hood, Cook-. P. Bernstein. No. 944,170; Dec. 21; Sp. p. 4593; Gaz. vol. 149; p. 788.
Stoves, Heat-storing attachment for. L. R. Smith. No. 944,515; Dec. 28; Sp. p. 5354; Gaz. vol. 149; p. 933.
Stovepipe-anchor. J. Murchie. No. 943,037; Dec. 14; Sp. p. 2177; Gaz. vol. 149; p. 372.
Strainer. M. C. White. No. 942,121; Dec. 7; Sp. p. 200; Gaz. vol. 149; p. 31.
Strainer, Liquid-. F. L. Williams. No. 942,428; Dec. 7; Sp. p. 821; Gaz. vol. 149; p. 134.
Strainer, Vegetable-. J. McDonald. No. 944,144; Dec. 21; Sp. p. 4537; Gaz. vol. 149; p. 779.
Straining apparatus, Liquid-. F. Bailey and F. H. Jackson. No. 943,906; Dec. 21; Sp. p. 4036; Gaz. vol. 149; p. 699.
Straw-cutting-machine feeder. W. T. Bond. No. 944,172; Dec. 21; Sp. p. 4595; Gaz. vol. 149; p. 788.
Straws, Dust-proof receptacle for tubular. J. Hurley. No. 943,879; Dec. 21; Sp. p. 3964; Gaz. vol. 149; p. 689.
Street and road construction, Preparing mineral materials and the like for. J. H. Ames. No. 942,235; Dec. 7; Sp. p. 449; Gaz. vol. 149; p. 69.
Street-cleaning and conveying machine. B. Valiquet. No. 944,705; Dec. 28; Sp. p. 5759; Gaz. vol. 149; p. 997.
Street-sprinkler. C. F. Bierbach. No. 944,253; Dec. 28; Sp. p. 4750; Gaz. vol. 149; p. 840.
Street-sweeper. J. R. Pollock. No. 943,122; Dec. 14; Sp. p. 2867; Gaz. vol. 149; p. 402.
Street-sweeping machine. B. Kern, Jr. No. 943,881; Dec. 21; Sp. p. 3967; Gaz. vol. 149; p. 689.
Striking-bag. A. J. Austin. No. 944,648; Dec. 28; Sp. p. 5630; Gaz. vol. 149; p. 978.
Stropping-machine. J. Lorenzen. No. 943,311; Dec. 14; Sp. p. 2746; Gaz. vol. 149; p. 464.
Studding, Metallic. C. S. Mooney and J. Jantusek. No. 943,696; Dec. 21; Sp. p. 3595; Gaz. vol. 149; p. 625.
Stuffing-box gland. F. Keeler. No. 943,356; Dec. 14; Sp. p. 2851; Gaz. vol. 149; p. 479.
Stump-extractor. A. P. Bernin and E. J. Ware. No. 944,766; Dec. 28; Sp. p. 5905; Gaz. vol. 149; p. 1018.
Suction apparatus. M. Lebenberg. No. 943,426; Dec. 14; Sp. p. 2977; Gaz. vol. 149; p. 502.
Suit-case. B. F. Becker. No. 943,333; Dec. 14; Sp. p. 2795; Gaz. vol. 149; p. 471.
Suit-case and the like. E. Ludescher. No. 943,753; Dec. 21; Sp. p. 3712; Gaz. vol. 149; p. 646.
Superheat-gage. T. M. Lothrop and G. D. Bradshaw. No. 943,260; Dec. 14; Sp. p. 2639; Gaz. vol. 149; p. 447.
Superheater. F. D. Potter. No. 943,606; Dec. 14; Sp. p. 3354; Gaz. vol. 149; p. 566.
Superheater. H. Göhrig. No. 944,428; Dec. 28; Sp. p. 5141; Gaz. vol. 149; p. 902.
Supplemental seat. A. Reineke. No. 942,793; Dec. 7; Sp. p. 1565; Gaz. vol. 149; p. 258.
Support and insulator. E. F. Lindsay. No. 942,066; Dec. 7; Sp. p. 109; Gaz. vol. 149; p. 18.
Support, gage, and marking device, Combined. W. H. Sitton. No. 944,919; Dec. 28; Sp. p. 6223; Gaz. vol. 149; p. 1070.
Support or bracket. J. H. Cook. No. 943,237; Dec. 14; Sp. p. 2593; Gaz. vol. 149; p. 439.
Supports, Adjusting device for. P. Coldge. No. 942,545; Dec. 7; Sp. p. 1064; Gaz. vol. 149; p. 176.
Surface-gage for parallel lining. C. O. Dost. No. 943,010; Dec. 14; Sp. p. 2116; Gaz. vol. 149; p. 363.
Surfacing-tool. C. W. Thompson. No. 944,523; Dec. 28; Sp. p. 5375; Gaz. vol. 149; p. 936.
Surgical forceps. E. Moraweck. No. 943,263; Dec. 14; Sp. p. 2646; Gaz. vol. 149; p. 448.
Suspenders. S. S. Kornreich. No. 943,976; Dec. 21; Sp. p. 4178; Gaz. vol. 149; p. 723.
Sweeping-machine. B. Nathan and G. Heuser. No. 942,970; Dec. 14; Sp. p. 2017; Gaz. vol. 149; p. 349.
Swingletree. G. F. Thompson. No. 944,114; Dec. 21; Sp. p. 4478; Gaz. vol. 149; p. 769.
Switch: *See* Automatic switch; Electric switch; Electric time-switch; Railway-switch; Railway electric switch; Snap-switch; Time-switch; Tongue-switch; Tramway-switch.
Switch-handle. C. Schuster. No. 943,124; Dec. 14; Sp. p. 2370; Gaz. vol. 149; p. 402.
Switch-indicator. C. A. Clark. No. 943,914; Dec. 21; Sp. p. 4053; Gaz. vol. 149; p. 702.
Switch-operating device. W. N. Glosser. No. 943,928; Dec. 21; Sp. p. 4081; Gaz. vol. 149; p. 707.
Switch signaling and operating mechanism. W. R. Oyler. No. 942,099; Dec. 7; Sp. p. 133; Gaz. vol. 149; p. 21.
Switch-throwing, track sanding, and sweeping device, Automatic. S. A. Johnson. No. 943,938; Dec. 21; Sp. p. 4102; Gaz. vol. 149; p. 711.
Switchboard and cut-out. T. E. Murray. No. 943,699; Dec. 21; Sp. p. 3602; Gaz. vol. 149; p. 627.
Swivel, Detachable. D. M. Carson and G. T. Gilkerson. No. 943,299; Dec. 14; Sp. p. 2727; Gaz. vol. 149; p. 460.
Swivel-hook. C. G. Thelling. No. 942,681; Dec. 7; Sp. p. 1344; Gaz. vol. 149; p. 221.
Syringe, Irrigating-. W. S. Sawyer. No. 942,522; Dec. 7; Sp. p. 1043; Gaz. vol. 149; p. 168.
Syringe, Vaginal. W. Herschley. No. 944,136; Dec. 21; Sp. p. 4524; Gaz. vol. 149; p. 776.
Table: *See* Dining-table; Embalming-table; Extension-table; Ironing-table; Post-mortem table; Rolling-mill transfer-table; Turn-table.
Table. C. Van Horne. No. 943,718; Dec. 21; Sp. p. 3646; Gaz. vol. 149; p. 634.
Table and desk, Combined. N. W. Schrunner. No. 943,794; Dec. 21; Sp. p. 3789; Gaz. vol. 149; p. 660.
Table and support. P. E. Joseph. No. 944,560; Dec. 28; Sp. p. 5465; Gaz. vol. 149; p. 948.
Table attachment. J. A. Chow. No. 942,613; Dec. 7; Sp. p. 1213; Gaz. vol. 149; p. 198.
Tank, Window-shade. L. B. Girard. No. 942,321; Dec. 7; Sp. p. 685; Gaz. vol. 149; p. 99.
Tag. A. F. Pine. No. 944,744; Dec. 28; Sp. p. 5867; Gaz. vol. 149; p. 1021.
Tag holder and stringer and loop-knotter therefor. W. A. Haywood. No. 943,972; Dec. 21; Sp. p. 4166; Gaz. vol. 149; p. 721.
Talking-machine horn. T. A. Edison. No. 943,663; Dec. 21; Sp. p. 3557; Gaz. vol. 149; p. 616.
Talking-machine sound-box. A. Fischer. No. 942,816; Dec. 7; Sp. p. 1613; Gaz. vol. 149; p. 265.
Tamping-machine. C. O. Brandell. No. 943,908; Dec. 21; Sp. p. 4153; Gaz. vol. 149; p. 719.
Tank: *See* Battery-tank; Dispensing-tank; Electroplating-tank; Flushing-tank; Water-closet tank.
Tap socket. Nut-. W. L. Clouse. No. 943,863; Dec. 21; Sp. p. 3934; Gaz. vol. 149; p. 684.
Tapping and drilling tool. J. H. Dorman. No. 943,009; Dec. 14; Sp. p. 2113; Gaz. vol. 149; p. 362.
Tar and debris trap. G. R. Evans. No. 943,628; Dec. 14; Sp. p. 3443; Gaz. vol. 149; p. 574.
Target-practice apparatus. H. H. Cummings. No. 942,615; Dec. 7; Sp. p. 1217; Gaz. vol. 149; p. 199.
Tards-work, Manufacturing. F. Kohn. No. 943,308; Dec. 14; Sp. p. 2743; Gaz. vol. 149; p. 463.
Teaching shooting, Apparatus for. J. A. Martens. No. 944,266; Dec. 28; Sp. p. 5005; Gaz. vol. 149; p. 881.
Teeth, Mounting for artificial. E. J. Greenfield. No. 943,112; Dec. 14; Sp. p. 2347; Gaz. vol. 149; p. 396.
Telegraph, Automatic. L. M. Potts. No. 942,844; Dec. 7; Sp. p. 1672; Gaz. vol. 149; p. 274.
Telegraph, Multiplex. S. D. Field. No. 942,814; Dec. 7; Sp. p. 1606; Gaz. vol. 149; p. 264.
Telegraphic repeating apparatus. W. E. Athearn. No. 943,807; Dec. 7; Sp. p. 1590; Gaz. vol. 149; p. 262.
Telegraphy, Duplex cable. I. Kitsee. No. 942,308; Dec. 7; Sp. p. 386; Gaz. vol. 149; p. 59.
Telegraphy, Electric. J. A. L. Dearlove. No. 942,620; Dec. 7; Sp. p. 1226; Gaz. vol. 149; p. 200.
Telegraphy, Space. L. De Forest. No. 943,909; Dec. 21; Sp. p. 4160; Gaz. vol. 149; p. 720.
Telegraphy, System of directed wireless. E. Bellini and A. Tosi. No. 943,960; Dec. 21; Sp. p. 4140; Gaz. vol. 149; p. 718.
Telemeter. O. Eppenstein. No. 943,109; Dec. 14; Sp. p. 2340; Gaz. vol. 149; p. 397.
Teleobjective. E. Wanderleb. No. 943,105; Dec. 14; Sp. p. 2331; Gaz. vol. 149; p. 396.
Telephone and protective alarm system, Combined. J. G. Nolen. No. 944,575; Dec. 28; Sp. p. 5495; Gaz. vol. 149; p. 953.
Telephone-box. W. M. Bruce, Jr. No. 944,412; Dec. 28; Sp. p. 5111; Gaz. vol. 149; p. 897.
Telephone-call-registering system. W. J. Kibbe. No. 943,081; Dec. 14; Sp. p. 2285; Gaz. vol. 149; p. 387.
Telephone-currents, Method of and apparatus for repeating. P. A. Campbell. No. 942,895; Dec. 14; Sp. p. 1813; Gaz. vol. 149; p. 320.
Telephone desk set. C. D. Enochs. No. 943,773; Dec. 21; Sp. p. 3747; Gaz. vol. 149; p. 652.
Telephone-dial, Illuminated. R. B. Hallock. No. 943,206; Dec. 14; Sp. p. 2736; Gaz. vol. 149; p. 462.
Telephone-disinfecting attachment. R. B. and L. Adams. No. 944,906; Dec. 21; Sp. p. 4372; Gaz. vol. 149; p. 753.
Telephone-exchange system. W. A. Wynne. No. 944,120; Dec. 21; Sp. p. 4496; Gaz. vol. 149; p. 772.

Telephone-mouthpiece. E. H. Long. No. 943,946; Dec. 21; Sp. p. 4116; Gaz. vol. 149; p. 719.
Telephone, Portable. O. L. Mulot. No. 942,401; Dec. 7; Sp. p. 773; Gaz. vol. 149; p. 125.
Telephone-receiver support. W. J. Morridge. No. 943,053; Dec. 14; Sp. p. 2168; Gaz. vol. 149; p. 371.
Telephone system. W. A. Wynne. No. 944,227; Dec. 21; Sp. p. 4689; Gaz. vol. 149; p. 804.
Telephone-system selecting apparatus. C. E. Nicholas. No. 944,460; Dec. 28; Sp. p. 5215; Gaz. vol. 149; p. 913.
Telephone system, Semi-mechanical. A. M. Bullard. No. 944,557; Dec. 28; Sp. p. 5406; Gaz. vol. 149; p. 940.
Telephone systems, Signaling apparatus for. R. C. Welty. No. 942,763; Dec. 7; Sp. p. 1808; Gaz. vol. 149; p. 248.
Telephone-transmitter mouthpiece. J. A. Jamieson. No. 943,149; Dec. 14; Sp. p. 2420; Gaz. vol. 149; p. 411.
Telephone-transmitter, Sanitary. M. Y. Calcutt. No. 943,386; Dec. 14; Sp. p. 2910; Gaz. vol. 149; p. 490.
Telescopic article. W. J. Dunn. No. 942,490; Dec. 7; Sp. p. 999; Gaz. vol. 149; p. 156.
Tempering-furnace, Electric. V. and V. E. Royle. No. 943,272; Dec. 14; Sp. p. 2664; Gaz. vol. 149; p. 451.
Templet, Cross-section. H. Z. Osborne, Jr. No. 944,462; Dec. 28; Sp. p. 5222; Gaz. vol. 149; p. 914.
Test-indicator. R. L. Smith. No. 943,282; Dec. 14; Sp. p. 2696; Gaz. vol. 149; p. 455.
Textile fabric. J. C. Brooks. No. 944,125; Dec. 21; Sp. p. 4504; Gaz. vol. 149; p. 773.
Textile machinery, Cloth-clamp for. T. W. France. No. 943,067; Dec. 14; Sp. p. 2259; Gaz. vol. 149; p. 383.
Thawing device for frozen ground. W. T. Ross. No. 944,382; Dec. 28; Sp. p. 5055; Gaz. vol. 149; p. 896.
Theatrical appliance. R. Chandler and C. F. Autenrieth. No. 943,651; Dec. 21; Sp. p. 3516; Gaz. vol. 149; p. 612.
Theodolite, &c. L. H. Cooke. No. 943,053; Dec. 14; Sp. p. 2251; Gaz. vol. 149; p. 382.
Thermometer-case and instrument-holder. M. P. Herrmann. No. 943,676; Dec. 21; Sp. p. 3558; Gaz. vol. 149; p. 620.
Thermostat. J. F. Williams. No. 942,870; Dec. 7; Sp. p. 1748; Gaz. vol. 149; p. 283.
Thiosalicylic compound and making same. E. Münch. No. 943,560; Dec. 14; Sp. p. 3268; Gaz. vol. 149; p. 551.
Thiosalicylic compound and making same. E. Münch. No. 943,561; Dec. 14; Sp. p. 3270; Gaz. vol. 149; p. 551.
Thistle-eradicator. O. Murk. No. 944,900; Dec. 28; Sp. p. 6178; Gaz. vol. 149; p. 1064.
Thread-board. W. O. Aldrich. No. 942,607; Dec. 7; Sp. p. 1199; Gaz. vol. 149; p. 196.
Thread, Means for detecting enlargements in. J. Eastwood. No. 943,662; Dec. 21; Sp. p. 3536; Gaz. vol. 149; p. 615.
Thread-protector. B. C. White. No. 944,643; Dec. 28; Sp. p. 5630; Gaz. vol. 149; p. 977.
Threading-die. M. H. Treadwell and C. P. Astrom. No. 944,584; Dec. 28; Sp. p. 5518; Gaz. vol. 149; p. 957.
Threshing machine, Garbanson-. F. Garver. No. 942,063; Dec. 7; Sp. p. 45; Gaz. vol. 149; p. 9.
Ticket, Railway-. T. A. Rousseau. No. 944,995; Dec. 28; Sp. p. 6370; Gaz. vol. 149; p. 1094.
Tie: *See* Concrete tie; Cross-tie; Metallic tie; Rail-tie; Railway-tie.
Tie and means for fastening rails thereon. I. C. Catton. No. 942,438; Dec. 7; Sp. p. 841; Gaz. vol. 149; p. 138.
Tie-plate and rail-anticreeper, Combined. M. S. Clarke. No. 942,307; Dec. 7; Sp. p. 597; Gaz. vol. 149; p. 94.
Tile and tile-faced surface. W. P. Meeker. No. 943,950; Dec. 21; Sp. p. 4122; Gaz. vol. 149; p. 715.
Tile-coating machinery. F. E. Goldsmith. No. 944,607; Dec. 28; Sp. p. 5566; Gaz. vol. 149; p. 965.
Tile-making machine, Cement-. T. P. Hackett. No. 943,971; Dec. 21; Sp. p. 4165; Gaz. vol. 149; p. 721.
Tiles, Building-clip for. A. J. Eken. No. 944,022; Dec. 21; Sp. p. 4288; Gaz. vol. 149; p. 738.
Tilling-machine. G. Spalding. No. 942,460; Dec. 7; Sp. p. 926; Gaz. vol. 149; p. 149.
Time-movement. W. E. Taylor. No. 944,159; Dec. 21; Sp. p. 4568; Gaz. vol. 149; p. 784.
Time-switch. C. A. Mann. No. 944,802; Dec. 28; Sp. p. 5974; Gaz. vol. 149; p. 1030.
Timing and ignition device. W. H. Saunders. No. 942,936; Dec. 14; Sp. p. 1936; Gaz. vol. 149; p. 337.
Tin scraps and producing tin compounds, Detinning. O. K. Zwingenberger. No. 943,508; Dec. 14; Sp. p. 3172; Gaz. vol. 149; p. 533.
Tire. B. F. Norcross. No. 942,097; Dec. 7; Sp. p. 131; Gaz. vol. 149; p. 21.
Tire. J. C. Taylor. No. 942,149; Dec. 7; Sp. p. 270; Gaz. vol. 149; p. 41.
Tire. W. R. and T. S. Stewart. No. 942,418; Dec. 7; Sp. p. 804; Gaz. vol. 149; p. 131.
Tire. J. G. Maxwell. No. 942,654; Dec. 7; Sp. p. 1297; Gaz. vol. 149; p. 212.
Tire. P. W. Litchfield. No. 943,358; Dec. 14; Sp. p. 2855; Gaz. vol. 149; p. 480.
Tire-armor. S. S. Childs. No. 943,002; Dec. 14; Sp. p. 2096; Gaz. vol. 149; p. 360.
Tire, Automobile-. I. B. Kempshall. No. 942,557; Dec. 7; Sp. p. 1124; Gaz. vol. 149; p. 182.
Tire, Automobile-. I. B. Kempshall. No. 943,025; Dec. 14; Sp. p. 2148; Gaz. vol. 149; p. 368.
Tire, Automobile-. W. G. Dicker. No. 943,396; Dec. 14; Sp. p. 2924; Gaz. vol. 149; p. 493.
Tire, Automobile-. C. E. W. Woodward. No. 943,505; Dec. 14; Sp. p. 3166; Gaz. vol. 149; p. 532.
Tire, Automobile-. W. J. Bauer. No. 944,306; Dec. 28; Sp. p. 4879; Gaz. vol. 149; p. 860.
Tire, Elastic. A. Bonnaz. No. 942,881; Dec. 14; Sp. p. 1803; Gaz. vol. 149; p. 319.
Tire, Elastic wheel-. J. Dheyne and A. Bovy. No. 943,964; Dec. 21; Sp. p. 4150; Gaz. vol. 149; p. 719.
Tire for vehicle-wheels, Cushion-. J. H. Poole. No. 942,842; Dec. 7; Sp. p. 1468; Gaz. vol. 149; p. 273.
Tire, Pneumatic. P. G. Muenchinger. No. 942,734; Dec. 7; Sp. p. 1452; Gaz. vol. 149; p. 238.
Tire, Pneumatic. A. F. Angelicola. No. 943,371; Dec. 14; Sp. p. 2877; Gaz. vol. 149; p. 484.
Tire, Pneumatic. A. Latimer. No. 943,640; Dec. 14; Sp. p. 3465; Gaz. vol. 149; p. 579.
Tire-protector. F. Vacher. No. 942,682; Dec. 7; Sp. p. 1345; Gaz. vol. 149; p. 221.
Tire-protector. C. E. King. No. 943,026; Dec. 14; Sp. p. 2149; Gaz. vol. 149; p. 368.
Tire-protector. J. Richardson. No. 943,463; Dec. 14; Sp. p. 3070; Gaz. vol. 149; p. 516.
Tire-remover. H. B. Young and R. Palomino. No. 944,760; Dec. 28; Sp. p. 5886; Gaz. vol. 149; p. 1016.
Tire-supporter. S. T. Coate and J. T. Sarls. No. 943,341; Dec. 14; Sp. p. 2821; Gaz. vol. 149; p. 475.
Tire, Vehicle-. T. H. Banks. No. 943,173; Dec. 14; Sp. p. 2457; Gaz. vol. 149; p. 417.
Tire, Vehicle-. T. W. Lucke. No. 943,430; Dec. 14; Sp. p. 2991; Gaz. vol. 149; p. 504.
Tire, Vehicle-wheel. J. A. Boyajean. No. 942,364; Dec. 7; Sp. p. 701; Gaz. vol. 149; p. 114.
Tire, Wheel-. H. L. McDuffee. No. 943,446; Dec. 14; Sp. p. 2941; Gaz. vol. 149; p. 511.
Tire, Wheel-. J. S. Cushing. No. 943,816; Dec. 21; Sp. p. 3837; Gaz. vol. 149; p. 667.
Tires, Apparatus for manufacturing wheel-. J. K. Williams. No. 943,054; Dec. 14; Sp. p. 2233; Gaz. vol. 149; p. 379.
Tires, Detachable rim for pneumatic. F. Petracchi. No. 944,906; Dec. 28; Sp. p. 6196; Gaz. vol. 149; p. 1066.
Tires, Flexible and elastic band for pneumatic. P. Roussillon. No. 943,998; Dec. 21; Sp. p. 4241; Gaz. vol. 149; p. 730
Tires, Making inner liners for. B. S. Eshelman. No. 944,722; Dec. 28; Sp. p. 5801; Gaz. vol. 149; p. 1003.
Tires, Metallic protector for pneumatic. E. A. Hultberg. No. 942,500; Dec. 7; Sp. p. 997; Gaz. vol. 149; p. 160.
Tires, Signal for pneumatic. S. Silverman and J. E. Trahan. No. 944,971; Dec. 28; Sp. p. 6321; Gaz. vol. 149; p. 1086.
Tires, Wheel-rim for pneumatic. J. Haynes. No. 944,964; Dec. 28; Sp. p. 6309; Gaz. vol. 149; p. 1083.
Tires with viscous liquids, Apparatus for filling rubber. A. D. Ray. No. 944,278; Dec. 28; Sp. p. 4813; Gaz. vol. 149; p. 849.
Tires, Woven wrapper for. J. Marcet y Martí. No. 943,557; Dec. 14; Sp. p. 3263; Gaz. vol. 149; p. 549.
Toaster. H. P. Knobloch. No. 943,855; Dec. 14; Sp. p. 2258; Gaz. vol. 149; p. 549.
Toaster, Bread-. F. B. Schuyler. No. 944,253; Dec. 28; Sp. p. 4823; Gaz. vol. 149; p. 851.
Toaster, Electric. W. S. Andrews. (Reissue.) No. 13,060; Dec. 28; Sp. p. 6494; Gaz. vol. 149; p. 1098.
Tobacco, Aging and curing. S. G. Martin, W. O. Bartholomew, and E. Schaaf. No. 942,826; Dec. 7; Sp. p. 1662; Gaz. vol. 149; p. 272.
Tobacco-cutting machine. F. M. Beall and P. A. Parker. No. 942,372; Dec. 7; Sp. p. 716; Gaz. vol. 149; p. 116.
Tobacco-smoking pipe. J. Drew. No. 944,413; Dec. 28; Sp. p. 5122; Gaz. vol. 149; p. 899.
Tomatoes, Treating. O. Schroen. No. 942,267; Dec. 7; Sp. p. 558; Gaz. vol. 149; p. 88.
Tongs, Blacksmith's. W. L. Davis. No. 943,518; Dec. 21; Sp. p. 3841; Gaz. vol. 149; p. 668.
Tongs, Shelf-. A. Rydquist. No. 944,214; Dec. 21; Sp. p. 4564; Gaz. vol. 149; p. 800.
Tongue for quarry-trucks, Detachable draft-. L. W. Statler. No. 944,367; Dec. 28; Sp. p. 5045; Gaz. vol. 149; p. 888.
Tongue-switch. J. B. Strong and J. D. McPherson. No. 942,286; Dec. 7; Sp. p. 569; Gaz. vol. 149; p. 90.
Tool. D. C. Southworth. No. 942,208; Dec. 7; Sp. p. 567; Gaz. vol. 149; p. 90.
Tool. G. A. Barnes. No. 944,306; Dec. 28; Sp. p. 4877; Gaz. vol. 149; p. 859.
Tool, Combination-. J. Norquist. No. 944,812; Dec. 28; Sp. p. 6003; Gaz. vol. 149; p. 1033.
Tool, Electrically-heated. G. E. Stevens. No. 943,483; Dec. 14; Sp. p. 3110; Gaz. vol. 149; p. 524.
Tool-handle. E. Kener, Jr. No. 942,077; Dec. 7; Sp. p. 75; Gaz. vol. 149; p. 14.
Tool-holder. A. F. Liden. No. 943,767; Dec. 14; Sp. p. 2384; Gaz. vol. 149; p. 399.
Tool-holder. C. B. Wells. No. 943,499; Dec. 14; Sp. p. 3142; Gaz. vol. 149; p. 530.
Tool-rack. M. H. Brede. No. 944,212; Dec. 28; Sp. p. 4866; Gaz. vol. 149; p. 861.
Tools, Feed for pneumatic. M. Hardscog. No. 942,056; Dec. 7; Sp. p. 51; Gaz. vol. 149; p. 11.
Tooth, Artificial. J. W. Ivory. No. 943,354; Dec. 14; Sp. p. 2856; Gaz. vol. 149; p. 479.
Tooth, Artificial. J. A. Williams. No. 944,396; Dec. 28; Sp. p. 6051; Gaz. vol. 149; p. 1042.
Torpedoes, Air-heater for automobile-. P. M. Leavitt. No. 943,533; Dec. 21; Sp. p. 3872; Gaz. vol. 149; p. 673.
Towing device. C. W. Larson. No. 942,450; Dec. 7; Sp. p. 871; Gaz. vol. 149; p. 142.
Toy. P. Phillips, C. Diplarno, and S. Mongeil. No. 943,456; Dec. 14; Sp. p. 3080; Gaz. vol. 149; p. 514.
Toy. B. B., M. P., and A. S. Exline. No. 943,528; Dec. 14; Sp. p. 3207; Gaz. vol. 149; p. 540.
Toy. J. G. Sinclair. No. 943,575; Dec. 14; Sp. p. 3294; Gaz. vol. 149; p. 555.
Toy. R. Kirkby. No. 944,096; Dec. 21; Sp. p. 4427; Gaz. vol. 149; p. 763.
Toy. J. S. Lester. No. 944,623; Dec. 28; Sp. p. 5595; Gaz. vol. 149; p. 971.

Toy, Basket-ball. E. S. Staples. No. 942,944; Dec. 14; Sp. p. 1988; Gaz. vol. 149; p. 340.
Toy derrick. M. T. C. Wing. No. 942,220; Dec. 7; Sp. p. 488; Gaz. vol. 149; p. 68.
Toy dumping-cart. H. T. Kingsbury. No. 944,443; Dec. 28; Sp. p. 5171; Gaz. vol. 149; p. 907.
Toy, Mechanical. E. J. Pearce. No. 943,626; Dec. 14; Sp. p. 3512; Gaz. vol. 149; p. 582.
Toy savings-bank. F. P. Huyck and J. D. R. Lamson. No. 944,088; Dec. 21; Sp. p. 4314; Gaz. vol. 149; p. 744.
Toy, Sounding. J. Berg. No. 943,162; Dec. 7; Sp. p. 391; Gaz. vol. 149; p. 65.
Toy, Sounding. W. Bartholomaei. No. 943,610; Dec. 7; Sp. p. 1208; Gaz. vol. 149; p. 197.
Toy, Sounding. M. P., B. B., and A. S. Exline. No. 943,529; Dec. 14; Sp. p. 3208; Gaz. vol. 149; p. 540.
Track-sander. P. J. Coady. No. 942,877; Dec. 7; Sp. p. 721; Gaz. vol. 149; p. 118.
Track-sander. A. W. Ham. No. 942,726; Dec. 7; Sp. p. 1446; Gaz. vol. 149; p. 236.
Track-sander. H. Vlaering. No. 943,268; Dec. 14; Sp. p. 2703; Gaz. vol. 149; p. 457.
Track-sander. D. Taurielle. No. 943,457; Dec. 14; Sp. p. 3117; Gaz. vol. 149; p. 525.
Traction-coupling. M. Westra. No. 942,764; Dec. 7; Sp. p. 1514; Gaz. vol. 149; p. 248.
Traction-engine. A. O. Espe. No. 944,226; Dec. 21; Sp. p. 4707; Gaz. vol. 149; p. 807.
Train-stop, Automatic. W. J. Sceeney. No. 942,189; Dec. 7; Sp. p. 344; Gaz. vol. 149; p. 53.
Tramway, Aerial. H. S. Robinson. No. 942,518; Dec. 7; Sp. p. 1038; Gaz. vol. 149; p. 166.
Tramway-switch. N. Schwarz. No. 942,298; Dec. 7; Sp. p. 560; Gaz. vol. 149; p. 88.
Transfer-hanger. T. E. and E. Hudson. No. 942,328; Dec. 7; Sp. p. 633; Gaz. vol. 149; p. 101.
Transferring material from a high to a lower level, Apparatus for. A. C. Johnston. No. 943,440; Dec. 7; Sp. p. 868; Gaz. vol. 149; p. 142.
Transformer-furnace. E. A. A. Grönwall, A. R. Lindblad, and O. Stålhane. No. 942,961; Dec. 14; Sp. p. 1966; Gaz. vol. 149; p. 346.
Transmission mechanism. E. Bonneau. No. 942,852; Dec. 14; Sp. p. 1804; Gaz. vol. 149; p. 319.
Transmitter, Multiplex. J. J. Comer. No. 943,915; Dec. 21; Sp. p. 4055; Gaz. vol. 149; p. 702.
Transportation system. W. C. Carr. No. 942,437; Dec. 7; Sp. p. 838; Gaz. vol. 149; p. 137.
Transportation system. W. C. Carr. No. 943,810; Dec. 21; Sp. p. 3827; Gaz. vol. 149; p. 665.
Trap: *See* Air-trap; Animal-trap; Ant-trap; Eel-trap; Fly-trap; Insect-trap; Rat-trap; Steam-trap; Tar and debris trap.
Trap. G. W. Hess. No. 942,009; Dec. 7; Sp. p. 59; Gaz. vol. 149; p. 12.
Traverse-ring. W. H. Edsall. No. 944,720; Dec. 28; Sp. p. 5799; Gaz. vol. 149; p. 1002.
Tree: *See* Boot and shoe tree; Shoe-tree.
Trees and the like, Apparatus for moving growing. F. W. Taylor and H. Van Dusee. No. 944,522; Dec. 28; Sp. p. 5373; Gaz. vol. 149; p. 935.
Trestle, Folding. E. F. Whitehead. No. 943,328; Dec. 14; Sp. p. 2783; Gaz. vol. 149; p. 469.
Triangles, Apparatus for solving spherical. W. French and C. W. Frederick. No. 943,532; Dec. 14; Sp. p. 3213; Gaz. vol. 149; p. 541.
Trimmer: *See* Cue-tip trimmer.
Trolley apparatus. C. O. Jackson. No. 944,869; Dec. 28; Sp. p. 6128; Gaz. vol. 149; p. 1053.
Trolley-wheel. H. L. Bayliss. No. 942,767; Dec. 7; Sp. p. 1520; Gaz. vol. 149; p. 249.
Trousers hanger and press. C. L. Harper. No. 944,134; Dec. 21; Sp. p. 4521; Gaz. vol. 149; p. 776.
Trousers-support. J. V. Backlund. No. 942,126; Dec. 7; Sp. p. 214; Gaz. vol. 149; p. 22.
Truck. C. J. Ingard. No. 942,563; Dec. 7; Sp. p. 1117; Gaz. vol. 149; p. 181.
Truck. F. O. Butler. No. 944,663; Dec. 28; Sp. p. 5671; Gaz. vol. 149; p. 984.
Truck-bolster for railway-cars. H. Pries. No. 944,818; Dec. 28; Sp. p. 6016; Gaz. vol. 149; p. 1036.
Truck, Car-. J. C. Barber. No. 942,048; Dec 7; Sp. p. 7; Gaz. vol. 149; p. 4.
Truck, Car-. J. C. Barber. No. 942,702; Dec. 7; Sp. p. 1385; Gaz. vol. 149; p. 227.
Truck, Car-. R. J. Edwards. No. 943,666; Dec. 21; Sp. p. 3542; Gaz. vol. 149; p. 617.
Truck, Car-. J. C. Whitridge and C. B. Goodspeed. No. 943,853; Dec. 21; Sp. p. 3915; Gaz. vol. 149; p. 681.
Truck, Car-. A. J. McCauley. No. 944,202; Dec. 21; Sp. p. 4649; Gaz. vol. 149; p. 795.
Truck, Car-. C. D. Young. No. 944,587; Dec. 28; Sp. p. 5527; Gaz. vol. 149; p. 958.
Truck, Car-. T. W. Remmers. No. 944,820; Dec. 28; Sp. p. 6022; Gaz. vol. 149; p. 1036.
Truck-elevator, Inclined. J. W. Reno. No. 942,852; Dec. 7; Sp. p. 850; Gaz. vol. 149; p. 169.
Truck for cars, Swing-motion. C. D. Young. No. 944,165; Dec. 21; Sp. p. 4584; Gaz. vol. 149; p. 786.
Truck, Hand-. G. D. Parker. No. 943,265; Dec. 14; Sp. p. 2649; Gaz. vol. 149; p. 449.
Truck, Mine-car. W. W. Rosensteel. No. 944,280; Dec. 28; Sp. p. 4817; Gaz. vol. 149; p. 850.
Truck, Railway-car. C. F. Murray. No. 942,036; Dec. 7; Sp. p. 129; Gaz. vol. 149; p. 21.
Truck, Railway-car. W. F. Richards. No. 943,707; Dec. 21; Sp. p. 3619; Gaz. vol. 149; p. 630.
Truck structure for garbage or ash cans. M. T. Lyon. No. 944,197; Dec. 21; Sp. p. 4640; Gaz. vol. 149; p. 795.
Trucks, Construction of car-. R. C. Wright and F. E. Stebbins. No. 944,119; Dec. 21; Sp. p. 4491; Gaz. vol. 149; p. 771.
Trunk and wardrobe, Convertible. S. W. Bonsall. No. 944,593; Dec. 28; Sp. p. 5538; Gaz. vol. 149; p. 960.
Trunk-handle. C. F. Knapp. No. 944,366; Dec. 28; Sp. p. 5003; Gaz. vol. 149; p. 881.
Trunk, Wardrobe-. O. Rangnow. No. 944,695; Dec. 28; Sp. p. 5742; Gaz. vol. 149; p. 994.
Trunks, Device for packing hats in. B. Dickenson. No. 943,919; Dec. 21; Sp. p. 4064; Gaz. vol. 149; p. 704.
Trunks, Skirt-supporting attachment for wardrobe-. A. M. Moorman. No. 943,154; Dec. 14; Sp. p. 2429; Gaz. vol. 149; p. 412.
Truss. A. A. Klug. No. 943,685; Dec. 21; Sp. p. 3572; Gaz. vol. 149; p. 622.
Truss-frames and the like, Cushioning device for. J. S. E. Freel. No. 943,244; Dec. 14; Sp. p. 2607; Gaz. vol. 149; p. 442.
Truss-pad. I. M. Pease. No. 943,843; Dec. 21; Sp. p. 3860; Gaz. vol. 149; p. 677.
Tube: *See* Collapsible tube; Drinking-tube.
Tube-cleaner. O. C. Bemis. No. 944,006; Dec. 21; Sp. p. 4263; Gaz. vol. 149; p. 733.
Tube-cleaner, Rotary. P. J. Darlington. No. 942,212; Dec. 7; Sp. p. 607; Gaz. vol. 149; p. 96.
Tube-forming machine. E. J. Steele and T. H. C. Hansen. No. 943,902; Dec. 21; Sp. p. 4024; Gaz. vol. 149; p. 697.
Tubes, Screw-cap for collapsible. F. McIntyre. No. 944,203; Dec. 21; Sp. p. 4650; Gaz. vol. 149; p. 797.
Turbine. S. T. Holly. No. 942,529; Dec. 7; Sp. p. 1049; Gaz. vol. 149; p. 169.
Turbine. O. D. H. Bentley. No. 944,839; Dec. 28; Sp. p. 6055; Gaz. vol. 149; p. 1042.
Turbine-blading. F. Hodgkinson. No. 943,347; Dec. 14; Sp. p. 2835; Gaz. vol. 149; p. 477.
Turbine, Elastic-fluid. F. Hodgkinson. No. 943,349; Dec. 14; Sp. p. 2839; Gaz. vol. 149; p. 477.
Turbine, Elastic-fluid. W. J. A. London. No. 943,389; Dec. 14; Sp. p. 2857; Gaz. vol. 149; p. 481.
Turbine, Elastic-fluid. C. Roth. No. 943,465; Dec. 14; Sp. p. 3073; Gaz. vol. 149; p. 517.
Turbine-regulator. S. T. Holly. No. 942,828; Dec. 7; Sp. p. 1645; Gaz. vol. 149; p. 260.
Turbine, Steam-. E. F. Edgar. No. 943,922; Dec. 21; Sp. p. 4069; Gaz. vol. 149; p. 705.
Turn-table. G. A. True. No. 943,491; Dec. 14; Sp. p. 3124; Gaz. vol. 149; p. 527.
Turpentine-apron. T. H. Stone. No. 944,222; Dec. 28; Sp. p. 6231; Gaz. vol. 149; p. 1071.
Turpentine-cup. E. A. McKoy. No. 942,210; Dec. 7; Sp. p. 599; Gaz. vol. 149; p. 60.
Turpentine-cup. E. A. McKoy. No. 942,211; Dec. 7; Sp. p. 601; Gaz. vol. 149; p. 60.
Turpentine-gathering apparatus. E. A. McKoy. No. 942,212; Dec. 7; Sp. p. 603; Gaz. vol. 149; p. 60.
Turpentine-hack. N. B. Stone. No. 943,050; Dec. 14; Sp. p. 2231; Gaz. vol. 149; p. 377.
Type-bar and typographic form. F. H. Richards. No. 942,102; Dec. 7; Sp. p. 149; Gaz. vol. 149; p. 23.
Type casting and composing machine. O. V. Sigurdsson. No. 942,846; Dec. 7; Sp. p. 1684; Gaz. vol. 149; p. 274.
Type casting and composing machine. W. G. White. No. 943,612; Dec. 14; Sp. p. 3384; Gaz. vol. 149; p. 568.
Type casting and composing machine. O. V. Sigurdsson. No. 944,108; Dec. 21; Sp. p. 4457; Gaz. vol. 149; p. 767.
Type-mold, Universal. B. F. Bellows. No. 944,408; Dec. 28; Sp. p. 5103; Gaz. vol. 149; p. 896.
Type, plates, &c., Machine for sawing and trimming. G. H. Vissing. No. 943,129; Dec. 14; Sp. p. 2376; Gaz. vol. 149; p. 404.
Type-setting machine. F. McClintock. No. 944,403; Dec. 28; Sp. p. 5093; Gaz. vol. 149; p. 924.
Type-setter. L. Hauerstein. No. 942,825; Dec. 7; Sp. p. 1638; Gaz. vol. 149; p. 268.
Type-writer. A. Beyerlen. No. 944,590; Dec. 28; Sp. p. 5533; Gaz. vol. 149; p. 959.
Type-writer attachment. W. M. Dester. No. 942,266; Dec. 7; Sp. p. 703; Gaz. vol. 149; p. 114.
Type-writer, Justifying. W. G. White. No. 943,503; Dec. 14; Sp. p. 3149; Gaz. vol. 149; p. 531.
Type-writer keyboard. S. W. Rowell. No. 943,468; Dec. 14; Sp. p. 3074; Gaz. vol. 149; p. 517.
Type-writer touch key-finder. C. A. Cage. No. 943,102; Dec. 14; Sp. p. 2325; Gaz. vol. 149; p. 397.
Type-writing machine. A. G. Snyder. No. 943,169; Dec. 7; Sp. p. 154; Gaz. vol. 149; p. 26.
Type-writing machine. A. W. Striger. No. 942,113; Dec. 7; Sp. p. 151; Gaz. vol. 149; p. 27.
Type-writing machine. J. Falbal. No. 942,137; Dec. 7; Sp. p. 341; Gaz. vol. 149; p. 27.
Type-writing machine. E. E. Barney. No. 942,535; Dec. 7; Sp. p. 1053; Gaz. vol. 149; p. 172.
Type-writing machine. H. Crutchley. No. 943,776; Dec. 7; Sp. p. 1549; Gaz. vol. 149; p. 262.
Type-writing machine. J. H. Barr. No. 942,853; Dec. 7; Sp. p. 1710; Gaz. vol. 149; p. 277.
Type-writing machine. T. J. Coe. No. 943,141; Dec. 14; Sp. p. 2403; Gaz. vol. 149; p. 408.
Type-writing machine. H. G. McCool. No. 943,444; Dec. 14; Sp. p. 3030; Gaz. vol. 149; p. 510.
Type-writing machine. H. S. McCormack. No. 943,445; Dec. 14; Sp. p. 3029; Gaz. vol. 149; p. 510.
Type-writing machine. J. H. Barr. No. 943,642; Dec. 21; Sp. p. 3497; Gaz. vol. 149; p. 609.
Type-writing machine. W. J. Barron and H. W. Merritt. No. 943,644; Dec. 21; Sp. p. 3499; Gaz. vol. 149; p. 610.
Type-writing machine. A. J. Briggs. No. 944,220; Dec. 21; Sp. p. 4694; Gaz. vol. 149; p. 804.

Type-writing machine. C. B. Yaw. No. 944,303; Dec. 28; Sp. p. 4868; Gaz. vol. 149; p. 858.
Type-writing machine. A. T. Brown. No. 944,596; Dec. 28; Sp. p. 5543; Gaz. vol. 149; p. 961.
Type-writing machine. C. D. Rice. No. 944,746; Dec. 28; Sp. p. 5871; Gaz. vol. 149; p. 1011.
Type-writing-machine clamp. E. E. Barney. No. 942,046; Dec. 7; Sp. p. 10; Gaz. vol. 149; p. 4.
Type-writing-machine escapement mechanism. A. Schneeloch. No. 944,697; Dec. 28; Sp. p. 5746; Gaz. vol. 149; p. 995.
Type-writing-machine escapement mechanism. E. G. Latta. No. 944,794; Dec. 28; Sp. p. 5956; Gaz. vol. 149; p. 1027.
Type-writing-machine ribbon mechanism. O. C. Kayle. No. 944,734; Dec. 28; Sp. p. 5823; Gaz. vol. 149; p. 1007.
Type-writing-machine ribbon mechanism. E. G. Latta. No. 944,735; Dec. 28; Sp. p. 5830; Gaz. vol. 149; p. 1008.
Type-writing-machine ribbon-reversing mechanism, Automatic. G. M. Kitzmiller. No. 942,383; Dec. 7; Sp. p. 729; Gaz. vol. 149; p. 119.
Typograph apparatus. C. F. Blacklidge. No. 943,614; Dec. 14; Sp. p. 3412; Gaz. vol. 149; p. 509.
Umbrella and the like. A. Friedlaender. No. 943,068; Dec. 14; Sp. p. 2261; Gaz. vol. 149; p. 383.
Universal joint. W. C. Lipe. No. 942,067; Dec. 7; Sp. p. 110; Gaz. vol. 149; p. 18.
Universal-joint device. J. Simon. No. 943,573; Dec. 14; Sp. p. 3290; Gaz. vol. 149; p. 555.
Vacuum-cleaner. J. N. Whitehouse. No. 943,583; Dec. 14; Sp. p. 3306; Gaz. vol. 149; p. 557.
Vacuum-cleaner. G. L. Busian. No. 944,944; Dec. 28; Sp. p. 6265; Gaz. vol. 149; p. 1077.
Vacuum cleaning apparatus. J. P. Lacock. No. 943,424; Dec. 14; Sp. p. 2975; Gaz. vol. 149; p. 502.
Vacuum cleaning systems, Handpiece for. C. R. Green. No. 942,139; Dec. 7; Sp. p. 249; Gaz. vol. 149; p. 37.
Valve. F. M. Ashley. No. 942,045; Dec. 7; Sp. p. 1; Gaz. vol. 149; p. 3.
Valve. F. N. Whitesell. No. 942,122; Dec. 7; Sp. p. 202; Gaz. vol. 149; p. 31.
Valve. C. F. Fernald. No. 942,492; Dec. 7; Sp. p. 975; Gaz. vol. 149; p. 157.
Valve. W. N. Long. No. 942,576; Dec. 7; Sp. p. 1142; Gaz. vol. 149; p. 185.
Valve. J. P. Lavigne. No. 942,854; Dec. 7; Sp. p. 1657; Gaz. vol. 149; p. 271.
Valve. J. Garvie. No. 943,824; Dec. 21; Sp. p. 3850; Gaz. vol. 149; p. 670.
Valve. W. T. Fowden. No. 944,026; Dec. 21; Sp. p. 4295; Gaz. vol. 149; p. 740.
Valve. W. Shurtleff. No. 944,155; Dec. 21; Sp. p. 4560; Gaz. vol. 149; p. 782.
Valve. C. W. Sherburne. No. 944,256; Dec. 28; Sp. p. 4827; Gaz. vol. 149; p. 852.
Valve. F. N. Connet and A. W. Graham. No. 944,416; Dec. 28; Sp. p. 5119; Gaz. vol. 149; p. 899.
Valve. S. S. Caskey. No. 944,598; Dec. 28; Sp. p. 5550; Gaz. vol. 149; p. 962.
Valve. W. J. James. No. 944,871; Dec. 28; Sp. p. 6131; Gaz. vol. 149; p. 1054.
Valve, Air-. H. A. Fitzpatrick. No. 944,024; Dec. 21; Sp. p. 4291; Gaz. vol. 149; p. 739.
Valve, Automatic air-brake retaining and release. D. F. Knerr. No. 943,602; Dec. 14; Sp. p. 3346; Gaz. vol. 149; p. 564.
Valve, Automatic cut-off. J. Miller. No. 943,559; Dec. 14; Sp. p. 3266; Gaz. vol. 149; p. 550.
Valve, Automatic drainage-. C. C. Peck. No. 944,816; Dec. 28; Sp. p. 6012; Gaz. vol. 149; p. 1035.
Valve, Car-sprinkler. E. C. Perry. No. 942,974; Dec. 14; Sp. p. 2023; Gaz. vol. 149; p. 350.
Valve, Check-. J. G. Parker. No. 943,451; Dec. 14; Sp. p. 3049; Gaz. vol. 149; p. 512.
Valve device. J. Miller. No. 943,837; Dec. 21; Sp. p. 3880; Gaz. vol. 149; p. 675.
Valve device. J. Miller. No. 943,838; Dec. 21; Sp. p. 3882; Gaz. vol. 149; p. 675.
Valve-disk-cutting machine. F. L. Smith and T. B. Williams. No. 944,002; Dec. 21; Sp. p. 4246; Gaz. vol. 149; p. 731.
Valve, Drain-. E. S. Stotts. No. 943,577; Dec. 14; Sp. p. 3296; Gaz. vol. 149; p. 556.
Valve, Dry. F. A. Phelps. No. 942,100; Dec. 7; Sp. p. 137; Gaz. vol. 149; p. 22.
Valve, Flushing-. M. B. Mahurin. No. 944,098; Dec. 21; Sp. p. 4431; Gaz. vol. 149; p. 764.
Valve for engines. O. Pearson. No. 942,587; Dec. 7; Sp. p. 1159; Gaz. vol. 149; p. 189.
Valve for evaporating-pans. G. G. Chasse. No. 944,175; Dec. 21; Sp. p. 4601; Gaz. vol. 149; p. 789.
Valve for radiators, Air-. F. W. Leuthesser. No. 944,328; Dec. 28; Sp. p. 4935; Gaz. vol. 149; p. 870.
Valve for steam-boilers, Feed-. L. D. Mager. No. 944,683; Dec. 28; Sp. p. 5705; Gaz. vol. 149; p. 990.
Valve for steam-engines, Reversing-. F. L. Fry. No. 944,960; Dec. 28; Sp. p. 6295; Gaz. vol. 149; p. 1082.
Valve for steam-traps. B. L. and G. H. Clover. No. 943,246; Dec. 7; Sp. p. 469; Gaz. vol. 149; p. 73.
Valve for train-brakes, Engineer's. W. E. Rankin. No. 942,280; Dec. 7; Sp. p. 546; Gaz. vol. 149; p. 85.
Valve-gear for steam-engines. W. M. Evered. No. 944,724; Dec. 28; Sp. p. 5805; Gaz. vol. 149; p. 1004.
Valve-grinder. I. C. Smith. No. 942,222; Dec. 7; Sp. p. 419; Gaz. vol. 149; p. 64.
Valve-handle. W. P. Marble. No. 944,099; Dec. 21; Sp. p. 4433; Gaz. vol. 149; p. 764.
Valve, Non-return. E. V. Anderson. No. 944,402; Dec. 28; Sp. p. 5077; Gaz. vol. 149; p. 894.
Valve-operating float. W. Briggs. No. 944,477; Dec. 28; Sp. p. 5249; Gaz. vol. 149; p. 919.
Valve-operating mechanism, Automatic. C. Walker. No. 944,927; Dec. 28; Sp. p. 6237; Gaz. vol. 149; p. 1072.
Valve or cock, Blow-off. W. T. Fowden. No. 944,025; Dec. 21; Sp. p. 4292; Gaz. vol. 149; p. 739.
Valve, Pressure-retaining. R. W. Kelly. No. 942,231; Dec. 7; Sp. p. 639; Gaz. vol. 149; p. 102.
Valve, Quick-action triple. D. S. Gilbert. No. 942,634; Dec. 7; Sp. p. 1254; Gaz. vol. 149; p. 205.
Valve, Reducing-. F. M. Carroll. No. 944,664; Dec. 28; Sp. p. 5672; Gaz. vol. 149; p. 984.
Valve, Regulating-. T. M. Wilkins. No. 942,360; Dec. 7; Sp. p. 693; Gaz. vol. 149; p. 112.
Valve, Regulating-. S. A. Palmer. No. 942,972; Dec. 14; Sp. p. 2020; Gaz. vol. 149; p. 350.
Valve, Safety-. H. C. McCarty. No. 944,809; Dec. 28; Sp. p. 5997; Gaz. vol. 149; p. 1032.
Valve, Safety gas-. F. Yockey and C. D. McLeod. No. 942,158; Dec. 7; Sp. p. 236; Gaz. vol. 149; p. 44.
Valve-seat-grinding machine. J. D. Burns. No. 944,845; Dec. 28; Sp. p. 6076; Gaz. vol. 149; p. 1045.
Valve, Sillcock and other. F. W. Carlson. No. 942,541; Dec. 7; Sp. p. 1078; Gaz. vol. 149; p. 174.
Valve-spring lifter. P. Peterson. No. 944,149; Dec. 21; Sp. p. 4551; Gaz. vol. 149; p. 780.
Valve, Steam safety-. M. A. Hudson. No. 944,390; Dec. 28; Sp. p. 4923; Gaz. vol. 149; p. 868.
Valve structure. P. M. Stines. No. 944,219; Dec. 21; Sp. p. 4675; Gaz. vol. 149; p. 801.
Valve, Tank-. J. T. Morrison. No. 943,755; Dec. 21; Sp. p. 3715; Gaz. vol. 149; p. 646.
Valve, Throttle-. Z. Paul. No. 942,345; Dec. 7; Sp. p. 608; Gaz. vol. 149; p. 107.
Valves, Making records for setting slide-. J. B. Michael. No. 942,453; Dec. 7; Sp. p. 876; Gaz. vol. 149; p. 144.
Valves, Push-button mechanism for flush-. W. J. Frost. No. 943,630; Dec. 14; Sp. p. 3451; Gaz. vol. 149; p. 575.
Valves, Time mechanism for operating gas and other. V. H. Slitnick. No. 944,988; Dec. 28; Sp. p. 6360; Gaz. vol. 149; p. 1091.
Vapor-burning apparatus. J. H. Miess. No. 944,456; Dec. 28; Sp. p. 5205; Gaz. vol. 149; p. 912.
Vat: *See* Hog-cleaning vat.
Vault, Burial-. W. and A. E. Livingston. No. 943,981; Dec. 21; Sp. p. 4186; Gaz. vol. 149; p. 724.
Vault-vestibule. J. G. Giesting. No. 942,633; Dec. 7; Sp. p. 1253; Gaz. vol. 149; p. 205.
Vegetable and pastry cutter, Combined. R. M. and E. J. Spence. No. 944,700; Dec. 28; Sp. p. 5753; Gaz. vol. 149; p. 996.
Vegetable-cutter. J. E. Gloekler and A. B. Stahl. No. 944,087; Dec. 21; Sp. p. 4415; Gaz. vol. 149; p. 760.
Vehicle. A. F. Rockwell. No. 942,219; Dec. 7; Sp. p. 410; Gaz. vol. 149; p. 63.
Vehicle attachment for detaining draft-animals. C. Reiger. No. 943,100; Dec. 14; Sp. p. 2220; Gaz. vol. 149; p. 394.
Vehicle-bodies, Mounting or suspension of. C. W. Fulton. No. 944,426; Dec. 28; Sp. p. 5136; Gaz. vol. 149; p. 901.
Vehicle-brake. F. A. Eisenmann. No. 944,603; Dec. 28; Sp. p. 5556; Gaz. vol. 149; p. 964.
Vehicle-coupling device. W. J. Kramer, Jr. No. 944,333; Dec. 28; Sp. p. 4928; Gaz. vol. 149; p. 868.
Vehicle driving-gear, Motor-. A. R. Corrington. No. 944,600; Dec. 28; Sp. p. 5553; Gaz. vol. 149; p. 963.
Vehicle, Land and water. J. Matthews. No. 944,044; Dec. 21; Sp. p. 4327; Gaz. vol. 149; p. 746.
Vehicle, Motor-. W. S. Hovey and C. B. Stebbins. No. 944,556; Dec. 28; Sp. p. 5445; Gaz. vol. 149; p. 947.
Vehicle-seats, Shifting-rail for. A. E. Smith. No. 942,262; Dec. 7; Sp. p. 585; Gaz. vol. 149; p. 89.
Vehicle-shield. J. Hadka. No. 944,753; Dec. 28; Sp. p. 5833; Gaz. vol. 149; p. 1023.
Vehicle shock-absorber. F. G. Koehler. No. 944,446; Dec. 28; Sp. p. 5175; Gaz. vol. 149; p. 908.
Vehicle shock-absorber. F. G. Koehler. No. 944,674; Dec. 28; Sp. p. 5690; Gaz. vol. 149; p. 987.
Vehicle shock-absorber. F. G. Koehler. No. 944,675; Dec. 28; Sp. p. 5692; Gaz. vol. 149; p. 987.
Vehicle shock-absorber. F. G. Koehler. No. 944,676; Dec. 28; Sp. p. 5694; Gaz. vol. 149; p. 988.
Vehicle shock-absorber. F. G. Koehler. No. 944,677; Dec. 28; Sp. p. 5695; Gaz. vol. 149; p. 988.
Vehicle-top-joint brace. J. C. Coss. No. 943,655; Dec. 21; Sp. p. 3521; Gaz. vol. 149; p. 613.
Vehicle ventilating device. F. B. Pope and W. J. Lester. No. 943,590; Dec. 21; Sp. p. 3865; Gaz. vol. 149; p. 692.
Vehicle-wheel. E. J. Selley. No. 942,089; Dec. 14; Sp. p. 1944; Gaz. vol. 149; p. 338.
Vehicle-wheel. A. Graff. No. 942,113; Dec. 14; Sp. p. 2345; Gaz. vol. 149; p. 396.
Vehicle-wheel. H. O. Peck. No. 942,553; Dec. 14; Sp. p. 2375; Gaz. vol. 149; p. 551.
Vehicle-wheel. H. O. Peck. No. 943,554; Dec. 14; Sp. p. 3277; Gaz. vol. 149; p. 552.
Vehicle-wheel. W. J. Bauer. No. 944,306; Dec. 28; Sp. p. 4881; Gaz. vol. 149; p. 860.
Vehicle-wheel. F. P. Vaughan. No. 944,641; Dec. 28; Sp. p. 5627; Gaz. vol. 149; p. 976.
Vehicle, Wheeled. R. Wolfe. No. 944,645; Dec. 28; Sp. p. 5632; Gaz. vol. 149; p. 977.
Vehicles, air-ships, &c., Controlling device for. G. F. Larkin. No. 944,879; Dec. 28; Sp. p. 6147; Gaz. vol. 149; p. 1057.
Vehicles, Combined whip, rein, and lap-robe lock for. O. W. Wilde. No. 944,530; Dec. 28; Sp. p. 5390; Gaz. vol. 149; p. 938.
Vehicles, Draft appliance for self-propelled. D. Dunlap. No. 944,956; Dec. 28; Sp. p. 6236; Gaz. vol. 149; p. 1060.
Vehicles, Gasolene-tank for motor-. R. Huff. No. 942,907; Dec. 14; Sp. p. 1866; Gaz. vol. 149; p. 338.

Velvets and like pile fabrics, Machine for pegging. F. Shaw. No. 943,167; Dec. 14; Sp. p. 2448; Gaz. vol. 149; p. 416.
Vending apparatus, Coin-controlled. M. J. Forth. No. 942,253; Dec. 7; Sp. p. 480; Gaz. vol. 149; p. 75.
Vending-machine. F. M. Weber. No. 942,117; Dec. 7; Sp. p. 191; Gaz. vol. 149; p. 29.
Vending-machine. W. H. Fulton. No. 943,675; Dec. 21; Sp. p. 3555; Gaz. vol. 149; p. 619.
Vending machine, Cigar-. L. A. Vandiver. No. 942,527; Dec. 7; Sp. p. 1047; Gaz. vol. 149; p. 169.
Vending-machine coin-chute mechanism. M. B. Mills. No. 944,983; Dec. 28; Sp. p. 6351; Gaz. vol. 149; p. 1080.
Vending-machine, Coin-controlled. A. Jacobs. No. 943,553; Dec. 14; Sp. p. 3251; Gaz. vol. 149; p. 548.
Vending-machine coin-controlled mechanism. A. Jacobs. No. 943,551; Dec. 14; Sp. p. 3247; Gaz. vol. 149; p. 547.
Vending-machine coin-switch. O. Oehring. No. 943,562; Dec. 14; Sp. p. 3272; Gaz. vol. 149; p. 551.
Vending-machine coin-switch. O. Oehring. No. 943,636; Dec. 14; Sp. p. 3476; Gaz. vol. 149; p. 578.
Vending-machine lock. S. E. Wilmore. No. 944,306; Dec. 28; Sp. p. 5070; Gaz. vol. 149; p. 892.
Vending machine, Stamp-. J. R. Armington. No. 942,766; Dec. 7; Sp. p. 1517; Gaz. vol. 149; p. 249.
Vending machine, Stamp-. C. W. Timmons. No. 943,285; Dec. 14; Sp. p. 2700; Gaz. vol. 149; p. 456.
Vending-machines, Pocket-strip for use in. S. L. W. Coe and H. Werden. No. 943,652; Dec. 21; Sp. p. 3518; Gaz. vol. 149; p. 612.
Veneer-taping machine. M. Nystrom and L. Taxon. No. 942,277; Dec. 7; Sp. p. 532; Gaz. vol. 149; p. 83.
Ventilator: *See* Adjustable ventilator; Car-ventilator; Roof-ventilator.
Ventilator. A. M. Arnesen. No. 944,250; Dec. 28; Sp. p. 4745; Gaz. vol. 149; p. 839.
Vermin-destroying apparatus. L. Kreft. No. 943,258; Dec. 14; Sp. p. 2633; Gaz. vol. 149; p. 446.
Vessels, Controlling device for filling. G. Scholmeyer. No. 942,755; Dec. 7; Sp. p. 1499; Gaz. vol. 149; p. 244.
Vessels for facilitating the location and raising of vessels when sunk, Attachment for. R. W. Ramsden. No. 944,277; Dec. 28; Sp. p. 4812; Gaz. vol. 149; p. 849.
Vessels, Towing arrangement for canal and river. E. O. Nikel. No. 942,510; Dec. 7; Sp. p. 1014; Gaz. vol. 149; p. 163.
Vibration-absorbing foot. W. H. Sherwood. No. 943,709; Dec. 21; Sp. p. 3623; Gaz. vol. 149; p. 631.
Vibrator. A. J. Stecker. No. 942,596; Dec. 7; Sp. p. 1178; Gaz. vol. 149; p. 191.
Vibrator. A. J. Stecker. No. 943,620; Dec. 14; Sp. p. 3425; Gaz. vol. 149; p. 571.
Vote-registering machine, Automatic. E. Boggiano. No. 943,378; Dec. 14; Sp. p. 2803; Gaz. vol. 149; p. 487.
Voting-machine. E. E. Wolf. No. 942,991; Dec. 14; Sp. p. 2060; Gaz. vol. 149; p. 357.
Voting-machine. A. McKenzie. No. 943,041; Dec. 14; Sp. p. 2185; Gaz. vol. 149; p. 373.
Voting-machine. J. H. McElroy. No. 944,888; Dec. 28; Sp. p. 5716; Gaz. vol. 149; p. 992.
Voting-machine. J. H. McElroy. No. 944,743; Dec. 28; Sp. p. 5852; Gaz. vol. 149; p. 1010.
Voting-machine lock-out. L. T. Harkness. No. 943,017; Dec. 14; Sp. p. 2131; Gaz. vol. 149; p. 365.
Vulcanizing-mold. J. K. Williams. No. 943,055; Dec. 14; Sp. p. 2237; Gaz. vol. 149; p. 379.
Vulcanizing-mold. P. W. Litchfield. No. 944,339; Dec. 28; Sp. p. 4937; Gaz. vol. 149; p. 870.
Waffle machine, Cone-. A. G. and M. Andalaft. No. 943,293; Dec. 14; Sp. p. 2716; Gaz. vol. 149; p. 459.
Waffle-packing case, Cone-. A. G. and M. Andalaft. No. 943,292; Dec. 14; Sp. p. 2715; Gaz. vol. 149; p. 458.
Wagon bolster, Log-. J. T. Warren. No. 943,495; Dec. 14; Sp. p. 3135; Gaz. vol. 149; p. 528.
Wagon-brake. E. G. Doland. No. 944,060; Dec. 21; Sp. p. 4401; Gaz. vol. 149; p. 758.
Wagon-brake. E. G. Doland. No. 944,061; Dec. 21; Sp. p. 4403; Gaz. vol. 149; p. 759.
Wagon-brake, Automatic. C. Garver. No. 944,961; Dec. 28; Sp. p. 6297; Gaz. vol. 149; p. 1082.
Wagon, Dump-. C. M. Haeske. No. 943,743; Dec. 21; Sp. p. 3862; Gaz. vol. 149; p. 642.
Wagon, Farm-. C. H. Mickelsen. No. 944,891; Dec. 28; Sp. p. 6164; Gaz. vol. 149; p. 1061.
Wagon-rack standard. L. P. Cook. No. 944,530; Dec. 28; Sp. p. 5416; Gaz. vol. 149; p. 941.
Wagon-reach coupling. C. Myers. No. 944,143; Dec. 21; Sp. p. 4536; Gaz. vol. 149; p. 778.
Wagon running-gear. C. M. Haeske. No. 943,742; Dec. 21; Sp. p. 3691; Gaz. vol. 149; p. 642.
Wagon running-gear. W. J. Ott. No. 944,813; Dec. 28; Sp. p. 6005; Gaz. vol. 149; p. 1034.
Waistband for garments, Adjustable. M. S. Erlanger. No. 942,628; Dec. 7; Sp. p. 1244; Gaz. vol. 149; p. 203.
Walls, &c., Construction of supports for building-. J. Breuchaud. No. 944,476; Dec. 28; Sp. p. 5246; Gaz. vol. 149; p. 919.
Warning-signal and stopping device for the safe movement of public conveyances. W. Whitman. No. 942,388; Dec. 7; Sp. p. 740; Gaz. vol. 149; p. 121.
Warp-balling machine. W. G. Denn. No. 942,813; Dec. 7; Sp. p. 1603; Gaz. vol. 149; p. 263.
Warp-carriage. H. D. Colman. No. 943,247; Dec. 7; Sp. p. 472; Gaz. vol. 149; p. 73.
Warp-leasing apparatus. O. Fischer. No. 944,726; Dec. 28; Sp. p. 5807; Gaz. vol. 149; p. 1004.
Washboard. D. C. Juleson. No. 942,076; Dec. 7; Sp. p. 74; Gaz. vol. 149; p. 14.
Washboiler attachment. A. J. Brady. No. 944,411; Dec. 28; Sp. p. 5110; Gaz. vol. 149; p. 897.
Washer: *See* Coal or ore washer: Smoke-washer.
Washer and gasket cutter. J. A. Rose. No. 945,009; Dec. 28; Sp. p. 6402; Gaz. vol. 149; p. 1098.
Washing, fruit-canning, and cooking machine, Combined. M. W. Miracle. No. 943,152; Dec. 14; Sp. p. 2426; Gaz. vol. 149; p. 412.
Washing-machine. E. Ramthun and C. J. Gutekunst. No. 942,664; Dec. 7; Sp. p. 1314; Gaz. vol. 149; p. 216.
Washing-machine. J. Sáva. No. 942,788; Dec. 7; Sp. p. 1497; Gaz. vol. 149; p. 246.
Washing-machine. G. A. Carlson. No. 943,177; Dec. 14; Sp. p. 2462; Gaz. vol. 149; p. 419.
Washing-machine. E. C. Waring. No. 943,581; Dec. 14; Sp. p. 3304; Gaz. vol. 149; p. 557.
Washing-machine. W. Witt. No. 943,855; Dec. 21; Sp. p. 3914; Gaz. vol. 149; p. 681.
Washing-machine. B. Kiss. No. 944,041; Dec. 21; Sp. p. 4323; Gaz. vol. 149; p. 745.
Washing-machine. A. W. Shank. No. 944,285; Dec. 28; Sp. p. 4826; Gaz. vol. 149; p. 851.
Washing-machine. N. Lombard. No. 944,736; Dec. 28; Sp. p. 5837; Gaz. vol. 149; p. 1008.
Washing-machine. A. F. Ameling. No. 944,935; Dec. 28; Sp. p. 6252; Gaz. vol. 149; p. 1074.
Washing-machine cylinder. C. Jensen. No. 943,682; Dec. 21; Sp. p. 3566; Gaz. vol. 149; p. 621.
Washing-machine driving mechanism. K. E. Bills. No. 944,656; Dec. 28; Sp. p. 5656; Gaz. vol. 149; p. 981.
Waste, Recovering materials from. W. H. Allen. No. 944,533; Dec. 28; Sp. p. 5397; Gaz. vol. 149; p. 939.
Watch, Alarm-. J. B. Connolly. No. 944,948; Dec. 28; Sp. p. 6274; Gaz. vol. 149; p. 1078.
Watch-balance-staff supporter. L. Prisant. No. 943,890; Dec. 21; Sp. p. 3992; Gaz. vol. 149; p. 692.
Watch-guard. S. Rosolsky. No. 943,271; Dec. 14; Sp. p. 2662; Gaz. vol. 149; p. 451.
Watch winding and setting mechanism. E. Hart. No. 944,960; Dec. 28; Sp. p. 6113; Gaz. vol. 149; p. 1050.
Water-closet. H. S. Rumsey. No. 942,464; Dec. 7; Sp. p. 916; Gaz. vol. 149; p. 148.
Water-closet outlet connection. C. H. Moore. No. 944,627; Dec. 28; Sp. p. 5603; Gaz. vol. 149; p. 972.
Water-closet tank. G. H. Balley. No. 944,764; Dec. 28; Sp. p. 5902; Gaz. vol. 149; p. 1017.
Water-curb-box lid. J. J. Heimbuecher. No. 943,407; Dec. 14; Sp. p. 2946; Gaz. vol. 149; p. 497.
Water electrolytically, Purifying. H. B. Hartman. No. 943,188; Dec. 14; Sp. p. 2486; Gaz. vol. 149; p. 422.
Water-gate. R. H. Buckner. No. 942,365; Dec. 7; Sp. p. 702; Gaz. vol. 149; p. 114.
Water-gate. J. H. Phipps. No. 942,400; Dec. 7; Sp. p. 910; Gaz. vol. 149; p. 146.
Water-motor. W. J. White. No. 943,501; Dec. 14; Sp. p. 3145; Gaz. vol. 149; p. 530.
Water-motor. W. G. Stowell. No. 944,221; Dec. 21; Sp. p. 4679; Gaz. vol. 149; p. 802.
Water-purifying apparatus, Electrolytic. H. B. Hartman. No. 943,187; Dec. 14; Sp. p. 2482; Gaz. vol. 149; p. 421.
Water-tube boiler. J. P. Sneddon. No. 942,797; Dec. 7; Sp. p. 1573; Gaz. vol. 149; p. 259.
Water-tube boiler. E. W. Clark. No. 943,139; Dec. 14; Sp. p. 2396; Gaz. vol. 149; p. 408.
Water-wheel. J. L. Bell. No. 942,311; Dec. 7; Sp. p. 1500; Gaz. vol. 149; p. 203.
Waterproofing composition. L. A. Coleman. No. 944,233; Dec. 21; Sp. p. 4702; Gaz. vol. 149; p. 806.
Wave-breaker. J. A. Roswold. (Reissue.) No. 13,056; Dec. 14; Sp. p. 3489; Gaz. vol. 149; p. 580.
Weather-strip. J. E. Ledterman. No. 944,042; Dec. 21; Sp. p. 4324; Gaz. vol. 149; p. 745.
Weather-strip, Movable. A. and J. Hemmerling. No. 944,093; Dec. 21; Sp. p. 4423; Gaz. vol. 149; p. 762.
Weed-cutter and cultivator. M. Pruyn. No. 942,744; Dec. 7; Sp. p. 1474; Gaz. vol. 149; p. 241.
Weed-digger. R. R. Damoude. No. 943,817; Dec. 21; Sp. p. 3839; Gaz. vol. 149; p. 667.
Weed-eradicating means. B. F. and J. A. Scott. No. 943,475; Dec. 14; Sp. p. 3066; Gaz. vol. 149; p. 521.
Weed-exterminator. E. A. Francis. No. 944,063; Dec. 21; Sp. p. 4406; Gaz. vol. 149; p. 759.
Weighing apparatus, Automatic. A. Sonander. No. 942,942; Dec. 14; Sp. p. 1962; Gaz. vol. 149; p. 340.
Weighing-machine. G. L. Cochius. No. 944,847; Dec. 28; Sp. p. 6081; Gaz. vol. 149; p. 1046.
Weighing-machine, Automatic. P. Edtbauer. No. 943,012; Dec. 14; Sp. p. 2121; Gaz. vol. 149; p. 363.
Welding apparatus, Electric chain-link-. C. L. Hoff. No. 943,100; Dec. 14; Sp. p. 2492; Gaz. vol. 149; p. 423.
Welding-burner. J. Knappich. No. 943,282; Dec. 21; Sp. p. 3970; Gaz. vol. 149; p. 690.
Welding compound. M. U. Schoop. No. 943,164; Dec. 14; Sp. p. 2443; Gaz. vol. 149; p. 415.
Welding device, Foot-power. H. H. Garver and G. F. Bissell. No. 942,444; Dec. 7; Sp. p. 858; Gaz. vol. 149; p. 140.
Welding machine, Electric-. A. E. Buchenberg. No. 943,861; Dec. 21; Sp. p. 3927; Gaz. vol. 149; p. 683.
Well-cleaning device. F. A. Monroe. No. 943,885; Dec. 21; Sp. p. 3977; Gaz. vol. 149; p. 690.
Well-driller's fishing-tool. M. L. Thorn and W. M. McGee. No. 944,582; Dec. 28; Sp. p. 5513; Gaz. vol. 149; p. 956.
Well-sinking apparatus. M. T. Chapman. No. 943,913; Dec. 21; Sp. p. 4050; Gaz. vol. 149; p. 702.
Well-tube cutter. J. F. Baker. No. 942,701; Dec. 7; Sp. p. 1382; Gaz. vol. 149; p. 227.

Wells, Trip wall-packer for oil-. W. Palm. No. 942,726; Dec. 7: Sp. p. 1465; Gaz. vol. 149; p. 239.
Wheat-scouring machine. M. Schlabendrein. No. 944,540; Dec. 28; Sp. p. 6942; Gaz. vol. 149; p. 981.
Wheel: *See* Car-wheel; Cushion-wheel; Drive-wheel; Saw-wheel; Spring-wheel; Trolley-wheel; Vehicle-wheel; Water-wheel.
Wheel. C. C. Foss and C. L. White. No. 942,819; Dec. 7: Sp. p. 1617; Gaz. vol. 149; p. 266.
Wheel. D. H. Allen. No. 944,522; Dec. 28; Sp. p. 6926; Gaz. vol. 149; p. 980.
Wheel-block. A. J. A. Bennett. No. 942,161; Dec. 7; Sp. p. 288; Gaz. vol. 149; p. 45.
Wheel-fender. T. W. Mayson and J. Edgar. No. 944,199; Dec. 21; Sp. p. 4646; Gaz. vol. 149; p. 795.
Wheel, pulley, and the like. P. Montupet. No. 942,400; Dec. 7: Sp. p. 772; Gaz. vol. 149; p. 124.
Wheel-rim, Emergency. W. F. and R. L. Jenkins. No. 942,909; Dec. 14; Sp. p. 1857; Gaz. vol. 149; p. 329.
Wheel rim, Motor-car-. D. C. Smith and W. F. Gorton. No. 944,514; Dec. 28; Sp. p. 6351; Gaz. vol. 149; p. 932.
Wheel rim, Vehicle-. P. W. Litchfield. No. 943,039; Dec. 14; Sp. p. 2160; Gaz. vol. 149; p. 368.
Wheel rim, Vehicle-. J. M. Alderfer. No. 944,361; Dec. 28; Sp. p. 4961; Gaz. vol. 149; p. 878.
Wheel-scraper. C. W. Stark. No. 942,471; Dec. 7; Sp. p. 980; Gaz. vol. 149; p. 140.
Wheels, Antiskid attachment for vehicle-. T. T. Chaloner. No. 944,772; Dec. 28; Sp. p. 8012; Gaz. vol. 149; p. 1019.
Wheels, Detachable rim for vehicle-. P. G. Chaillas. No. 943,811; Dec. 21; Sp. p. 3530; Gaz. vol. 149; p. 666.
Wheelbarrow. H. J. Spangler. No. 944,201; Dec. 28; Sp. p. 4535; Gaz. vol. 149; p. 853.
Wheelbarrow with weighing device, Bag-. H. Lange. No. 944,835; Dec. 28; Sp. p. 4031; Gaz. vol. 149; p. 869.
Whiffletree-hook. R. F. Bloom. No. 942,421; Dec. 7; Sp. p. 826; Gaz. vol. 149; p. 135.
Whip and robe lock, Combination. W. York. No. 943,107; Dec. 14; Sp. p. 2334; Gaz. vol. 149; p. 396.
Whip-lock. J. W. Robertson. No. 942,285; Dec. 7: Sp. p. 554; Gaz. vol. 149; p. 87.
Whip-lock. W. H. Beach. No. 943,729; Dec. 21; Sp. p. 3669; Gaz. vol. 149; p. 637.
Whip-socket. J. A. Musgrove, Jr. No. 944,201; Dec. 21; Sp. p. 4648; Gaz. vol. 149; p. 795.
Whip socket and lock. C. Turney. No. 944,979; Dec. 28; Sp. p. 6343; Gaz. vol. 149; p. 1088.
Wind-motor. H. W. Smith. No. 943,901; Dec. 21; Sp. p. 4023; Gaz. vol. 149; p. 696.
Wind-motor. R. F. E. Okraass. No. 944,148; Dec. 21; Sp. p. 4546; Gaz. vol. 149; p. 780.
Windmill-power, System of utilization of. H. C. Busby. No. 943,000; Dec. 14; Sp. p. 2093; Gaz. vol. 149; p. 359.
Winding-indicator. O. Ohlson. No. 942,659; Dec. 7: Sp. p. 1205; Gaz. vol. 149; p. 214.
Window-bead fastener. C. Cassleman. No. 943,062; Dec. 14; Sp. p. 2280; Gaz. vol. 149; p. 382.
Window-cleaner. T. J. Rochford. No. 944,245; Dec. 21; Sp. p. 4720; Gaz. vol. 149; p. 810.
Window-cleaning apparatus. C. E. Prickett. No. 942,743; Dec. 7; Sp. p. 1471; Gaz. vol. 149; p. 241.
Window-fastener. N. Dion. No. 942,306; Dec. 14; Sp. p. 2026; Gaz. vol. 149; p. 698.
Window-glasses, Safeguard for. E. B. Bave. No. 942,855; Dec. 14; Sp. p. 1936; Gaz. vol. 149; p. 244.
Window-grate, Adjustable. S. Jablonovsky. No. 942,502; Dec. 7; Sp. p. 1001; Gaz. vol. 149; p. 161.
Window-guard. J. Treu and K. Schaefer. No. 944,834; Dec. 28; Sp. p. 6050; Gaz. vol. 149; p. 1041.
Window-kitchen. A. Soper. No. 942,979; Dec. 14; Sp. p. 2052; Gaz. vol. 149; p. 352.
Window-lock. I. C. Scudder. No. 944,825; Dec. 28; Sp. p. 6033; Gaz. vol. 149; p. 1038.
Window lock and lift. R. T. Axe. No. 942,851; Dec. 7; Sp. p. 1707; Gaz. vol. 149; p. 277.
Window, Metallic. T. Lee. No. 942,209; Dec. 7; Sp. p. 511; Gaz. vol. 149; p. 80.
Window-opener. H. Morris. No. 944,628; Dec. 28; Sp. p. 5005; Gaz. vol. 149; p. 972.
Window-receptacle. C. E. Rogers. No. 944,212; Dec. 21; Sp. p. 4662; Gaz. vol. 149; p. 799.
Window-spring. J. Hagerty. No. 943,147; Dec. 14; Sp. p. 2417; Gaz. vol. 149; p. 410.
Window, Store-. W. E. W. Cherry. No. 943,812; Dec. 21; Sp. p. 3831; Gaz. vol. 149; p. 656.
Window, Swinging. C. Cassleman. No. 943,061; Dec. 14; Sp. p. 2248; Gaz. vol. 149; p. 381.
Wire, Barbed. V. Hoxie. No. 943,413; Dec. 14; Sp. p. 2958; Gaz. vol. 149; p. 499.
Wire-bender. L. D. Danforth. No. 942,440; Dec. 7; Sp. p. 844; Gaz. vol. 149; p. 138.
Wire-blocks, Mechanism for operating. J. H. Reece. No. 944,345; Dec. 28; Sp. p. 4948; Gaz. vol. 149; p. 872.
Wire-chain-making machine. M. Fessler. No. 943,110; Dec. 14; Sp. p. 2342; Gaz. vol. 149; p. 397.
Wire-package. H. W. Struss. No. 943,202; Dec. 14; Sp. p. 2515; Gaz. vol. 149; p. 426.
Wire reel and bundle remover. S. A. McCullough. No. 943,701; Dec. 21; Sp. p. 3606; Gaz. vol. 149; p. 627.
Wire-rope clamp. C. L. Mounts. No. 944,141; Dec. 21; Sp. p. 4531; Gaz. vol. 149; p. 778.
Wire-staple forming and setting machine. W. C. Osterholm. No. 943,045; Dec. 14; Sp. p. 2207; Gaz. vol. 149; p. 375.
Wire-twister. I. N. Morford. No. 942,732; Dec. 7; Sp. p. 1450; Gaz. vol. 149; p. 237.
Wire-tying machine, Automatic. O. L. Bowers. No. 942,305; Dec. 7; Sp. p. 587; Gaz. vol. 149; p. 94.
Wire wall-pocket. T. V. Cromwell. No. 942,714; Dec. 7; Sp. p. 1409; Gaz. vol. 149; p. 231.
Wire-winding machines, Notching means for. W. L. Wergin. No. 942,118; Dec. 7: Sp. p. 193; Gaz. vol 149; p. 29.
Wood-barking apparatus. G. Speak. No. 944,200; Dec. 28; Sp. p. 6322; Gaz. vol. 149; p. 853.
Wood, &c., Machine for dressing and finishing. J. W. Schleicher. No. 943,046; Dec. 14; Sp. p. 2211; Gaz. vol. 149; p. 376.
Wood, &c., Machine for dressing and finishing. J. W. Schleicher. No. 943,102; Dec. 14; Sp. p. 2327; Gaz. vol. 149; p. 395.
Woods, Treatment of coniferous. W. H. Rowley. No. 942,106; Dec. 7; Sp. p. 158; Gaz. vol. 149; p. 25.
Woodworking-machine. E. P. Shank. No. 942,940; Dec. 14; Sp. p. 1948; Gaz. vol. 149; p. 339.
Woodworking-machines, Pressure device for. C. G. Wilderson. No. 942,804; Dec. 7; Sp. p. 1584; Gaz. vol. 149; p. 261.
Work box and stand. S. Pecoy. No. 943,454; Dec. 14; Sp. p. 3056; Gaz. vol. 149; p. 513.
Wrapping-machine. A. M. Price. No. 942,101; Dec. 7; Sp. p. 143; Gaz. vol. 149; p. 23.
Wrapping-machine, Package-. F. Giroud. No. 942,636; Dec. 7; Sp. p. 1259; Gaz. vol. 149; p. 206.
Wrench: *See* Combination-wrench; Self-adjusting wrench; Spanner-wrench.
Wrench. C. E. Townsend. No. 943,286; Dec. 14; Sp. p. 2702; Gaz. vol. 149; p. 456.
Wrench. S. A. Holman. No. 943,545; Dec. 14; Sp. p. 3233; Gaz. vol. 149; p. 545.
Wrench. H. E. Stephens. No. 943,757; Dec. 21; Sp. p. 3720; Gaz. vol. 149; p. 647.
Wrench. A. D. Davis and W. A. Thompson. No. 943,771; Dec. 21; Sp. p. 3745; Gaz. vol. 149; p. 652.
Wrench. W. N. Jay. No. 943,781; Dec. 21; Sp. p. 3766; Gaz. vol. 149; p. 655.
Wrench. R. Miller, Jr. No. 944,270; Dec. 28; Sp. p. 4784; Gaz. vol. 149; p. 846.
Wrench. W. O. Stanley. No. 944,468; Dec. 28; Sp. p. 5233; Gaz. vol. 149; p. 916.
Wrench. J. W. Sullivan. No. 944,923; Dec. 28; Sp. p. 6223; Gaz. vol. 149; p. 1071.
Wringer: *See* Mop-wringer.
Wringer support, Clothes-. C. H. Letterman. No. 944,884; Dec. 28; Sp. p. 6155; Gaz. vol. 149; p. 1060.
Wrought articles, Making. J. H. Dods. No. 942,460; Dec. 7: Sp. p. 908; Gaz. vol. 149; p. 156.
Yarn-reel for reeling-machines and winding-machines. J. Schwelter. No. 944,967; Dec. 28; Sp. p. 6359; Gaz. vol. 149; p. 1091.

ALPHABETICAL LIST OF DESIGNS.

Badge. E. L. Haynes. No. 40,415; Dec. 28; Gaz. vol. 149; p. 1102.
Basin-supporting bracket. M. J. McNamara and F. E. Cantner. No. 40,400; Dec. 14; Gaz. vol. 149; p. 582.
Book-cover. L. A. Cole. No. 40,403; Dec. 14; Gaz. vol. 149; p. 583.
Bottle-cap. H. A. Miner. No. 40,386; Dec. 7; Gaz. vol. 149; p. 291.
Bow. H. Feder. No. 40,405; Dec. 14; Gaz. vol. 149; p. 583.
Charm, pin, or similar article. R. Leding. No. 40,385; Dec. 7; Gaz. vol. 149; p. 291.
Clothes-rack. J. H. Wilson. No. 40,413; Dec. 21; Gaz. vol. 149; p. 815.
Cup or similar article. I. J. F. King. No. 40,417; Dec. 28; Gaz. vol. 149; p. 1102.
Display-case attachment. M. A. Skall. No. 40,419; Dec. 28; Gaz. vol. 149; p. 1103.
Electric-light cluster. R. B. Benjamin. No. 40,407; Dec. 21; Gaz. vol. 149; p. 814.
Emblem. F. M. Grant. No. 40,383; Dec. 7; Gaz. vol. 149; p. 291.
Emblem. W. G. Lee and A. E. King. No. 40,384; Dec. 7; Gaz. vol. 149; p. 291.
Fabric. D. Valentine. No. 40,414; Dec. 21; Gaz. vol. 149; p. 815.
Fabric for mats. E. A. Benedict. No. 40,421; Dec. 28; Gaz. vol. 149; p. 1103.
Fabric for window-shades or similar articles. A. A. Boeck. Nos. 40,422–3; Dec. 28; Gaz. vol. 149; p. 1103.
Fabric, Metal mesh. F. J. Lightbody. No. 40,388; Dec. 7; Gaz. vol. 149; p. 292.
Flush-tank. B. O. Tilden. No. 40,402; Dec. 14; Gaz. vol. 149; p. 583.
Fob. F. Erben. No. 40,392; Dec. 14; Gaz. vol. 149; p. 581.
Fob. I. R. Lederer. No. 40,406; Dec. 21; Gaz. vol. 149; p. 814.
Glass receptacle. B. W. Jacobs. No. 40,396; Dec. 14; Gaz. vol. 149; p. 582.
Hats, Quill-holder for ladies'. H. W. Schwalb. No. 40,404; Dec. 14; Gaz. vol. 149; p. 583.
Lamp-shade. E. A. Gillinder. No. 40,389; Dec. 7; Gaz. vol. 149; p. 292.
Lavatory-bowl. R. E. Crane. No. 40,401; Dec. 14; Gaz. vol. 149; p. 582.
Light shade, Artificial-. K. Booth. No. 40,408; Dec. 21; Gaz. vol. 149; p. 814.
Lighting-fixture. W. Tures. No. 40,390; Dec. 7; Gaz. vol. 149; p. 292.
Plate or similar article. C. Ziegler. No. 40,397; Dec. 14; Gaz. vol. 149; p. 582.
Receptacle, Hanging. W. R. Noe. No. 40,387; Dec. 7; Gaz. vol. 149; p. 292.
Refrigerator. H. Silver. No. 40,410; Dec. 21; Gaz. vol. 149; p. 815.
Refrigerator-door. H. Silver. Nos. 40,411-12; Dec. 21; Gaz. vol. 149; p. 815.
Screw. W. E. Stevens. No. 40,418; Dec. 28; Gaz. vol. 149; p. 1102.
Sign, advertising-. J. M. Loughlin. No. 40,409; Dec. 21; Gaz. vol. 149; p. 815.
Slipper. L. Mers. No. 4,391; Dec. 7; Gaz. vol. 149; p. 292.
Spoons, forks, or similar articles, Handle for. C. Osborne. No. 40,394; Dec. 14; Gaz. vol. 149; p. 581.
Statuette. M. E. Yeaton. No. 40,416; Dec. 28; Gaz. vol. 149; p. 1102.
Stein. C. P. Nutter. No. 40,395; Dec. 14; Gaz. vol. 149; p. 581.
Talking-machine-record cabinet. L. F. Geissler. Nos. 40,398-9; Dec. 14; Gaz. vol. 149; p. 582.
Vehicle-body. W. H. Emond. No. 40,420; Dec. 28; Gaz. vol. 149; p. 1103.
Watch-dial. E. Hart. No. 40,393; Dec. 14; Gaz. vol. 149; p. 581.

ALPHABETICAL LIST OF TRADE-MARKS.

Agricultural machinery. A. E. Cook. No. 76,227; Dec. 28; Gaz. vol. 149; p. 1116.
Antiseptic, Bacterial. Lederle Antitoxin Laboratories. No. 76,252; Dec. 28; Gaz. vol. 149; p. 1116.
Antiseptic solution. Hutzler Brothers Co. of Baltimore City. No. 76,250; Dec. 28; Gaz. vol. 149; p. 1116.
Astringent and antiseptic. Cudahy Packing Company. No. 76,248; Dec. 28; Gaz. vol. 149; p. 1116.
Baking-powder. Sea Gull Specialty Company. No. 76,094; Dec. 14; Gaz. vol. 149; p. 598.
Baking-powder. Royal Baking Powder Company. No. 76,260; Dec. 28; Gaz. vol. 149; p. 1117.
Batteries, Dry. Iron City Engineering Company. No. 76,180; Dec. 21; Gaz. vol. 149; p. 830.
Beer. Independent Brewing Company. No. 76,025; Dec. 7; Gaz. vol. 149; p. 306.
Beer. Berghoff Brewing Association. No. 76,102; Dec. 14; Gaz. vol. 149; p. 598.
Beer. Iroquois Brewing Co. No. 76,119; Dec. 14; Gaz. vol. 149; p. 598.
Beverage, Carbonated. A. D. Lewis. No. 76,051; Dec. 7; Gaz. vol. 149; p. 307.
Beverages, Certain. A. Gilka. No. 76,042; Dec. 7; Gaz. vol. 149; p. 306.
Biscuit. National Biscuit Company. No. 76,154; Dec. 21; Gaz. vol. 149; p. 829.
Bitters, Spirituous. W. Koerner & Co. No. 76,027; Dec. 7; Gaz. vol. 149; p. 306.
Bleaching agents. Castner Electrolytic Alkali Company. No. 76,018; Dec. 7; Gaz. vol. 149; p. 306.
Boiler-tube cleaners. M. H. Thompson Manufacturing Company. No. 76,152; Dec. 21; Gaz. vol. 149; p. 829.
Bowls, cocks, valves, and fittings. Flushovalve Company. No. 76,194; Dec. 28; Gaz. vol. 149; p. 1115.
Brick. Blue Ridge Enameled Brick Co. No. 76,136; Dec. 21; Gaz. vol. 149; p. 829.
Brushes and parts therefor, Tooth-. Fiber Tooth Brush Company. No. 76,204; Dec. 28; Gaz. vol. 149; p. 1115.
Building materials. J. B. King & Co. No. 76,120; Dec. 14; Gaz. vol. 149; p. 598.
Building materials, Certain. Ideal Concrete Machinery Company. No. 76,196; Dec. 28; Gaz. vol. 149; p. 1115.
Bunting. United States Bunting Co. No. 76,241; Dec. 28; Gaz. vol. 149; p. 1116.
Buttons. J. W. Schloss & Company. No. 75,998; Dec. 7; Gaz. vol. 149; p. 305.
Candy. National Candy Company. No. 76,212; Dec. 28; Gaz. vol. 149; p. 1115.
Candy, Chocolate. Lipps-Murbach Company of Baltimore City. No. 76,151; Dec. 21; Gaz. vol. 149; p. 829.
Canned and preserved fruits and vegetables. Napa Canning Co. No. 76,168; Dec. 21; Gaz. vol. 149; p. 830.
Canned clams. Andrew Kerr Co. No. 76,062; Dec. 14; Gaz. vol. 149; p. 597.
Canned food products. Cincinnati Abattoir Co. No. 76,163; Dec. 21; Gaz. vol. 149; p. 830.
Canned foods. Sears & Nichols Company. No. 76,000; Dec. 7; Gaz. vol. 149; p. 305.
Canned fruit. California Fruit Canners Association. No. 76,174; Dec. 21; Gaz. vol. 149; p. 830.
Canned fruits. Sunlit Fruit Company. Nos. 76,003–4; Dec. 7; Gaz. vol. 149; p. 305.
Canned fruits. Central California Canneries. Nos. 76,140–1; Dec. 21; Gaz. vol. 149; p. 829.
Canned fruits. Code-Portwood Canning Co. No. 76,175; Dec. 21; Gaz. vol. 149; p. 830.
Canned fruits. Sunlit Fruit Company. No. 76,201; Dec. 28; Gaz. vol. 149; p. 1115.
Canned fruits. R. B. Holmes. No. 76,210; Dec. 28; Gaz. vol. 149; p. 1115.
Canned fruits and vegetables. Golden Gate Packing Company. No. 76,206; Dec. 28; Gaz. vol. 149; p. 1115.
Canned fruits, berries, vegetables, and pork and beans. Sears & Nichols Company. No. 75,999; Dec. 7; Gaz. vol. 149; p. 305.
Canned fruits, vegetables, salmon, and pork and beans. John Hoffmann & Sons Co. No. 76,197; Dec. 28; Gaz. vol. 149; p. 1115.
Canned salmon. Austin, Nichols & Co. No. 76,173; Dec. 21; Gaz. vol. 149; p. 830.
Canned vegetables. Spring Valley Canning Company. No. 76,082; Dec. 14; Gaz. vol. 149; p. 597.
Canvas for interlining garments. W. Alsberg & Co. No. 76,170; Dec. 21; Gaz. vol. 149; p. 830.
Chalk. Sté. Anme. des Blancs Minéraux. No. 76,159; Dec. 21; Gaz. vol. 149; p. 829.
Chemicals, Certain. Badische Anilin & Soda Fabrik. No. 76,056; Dec. 7; Gaz. vol. 149; p. 307.
Chemicals, Certain. Fuerst Bros. & Co. No. 76,178; Dec. 21; Gaz. vol. 149; p. 830.
Chemicals for reducing, discharging, and bleaching. Badische Anilin & Soda-Fabrik. No. 76,245; Dec. 28; Gaz. vol. 149; p. 1116.
Chlorodyne. J. T. Davenport, Limited. No. 76,121; Dec. 14; Gaz. vol. 149; p. 598.
Cider, root and birch beer, sarsaparilla, &c. Franklin MacVeagh & Co. No. 76,112; Dec. 14; Gaz. vol. 149; p. 598.
Cigars. Garcia & Vega. No. 76,023; Dec. 7; Gaz. vol. 149; p. 306.
Cigars. Gonsales and Sanchez Co. No. 76,024; Dec. 7; Gaz. vol. 149; p. 306.
Cigars. H. Traiser & Co. No. 76,058; Dec 7; Gaz. vol. 149; p. 307.
Cigars. Chas. P. Stanley Cigar Co. No. 76,265; Dec. 28; Gaz. vol. 149; p. 1117.
Clippers, Horse-. Norvell-Shapleigh Hardware Company. No. 76,213; Dec. 28; Gaz. vol. 149; p. 1115.
Clothing, Certain. W. Danenbaum. No. 76,068; Dec. 14; Gaz. vol. 149; p. 597.
Clothing, Certain. Kohn & Baer. No. 76,077; Dec. 14; Gaz. vol. 149; p. 597.
Clothing, Certain. Standard Knitting Company. No. 76,083; Dec. 14; Gaz. vol. 149; p. 597.
Cocoa, cocoa-butter, and chocolate. Internationale Cacaofabrieken. No. 75,991; Dec. 7; Gaz. vol. 149; p. 305.
Coffee. International Tea Company's Stores. No. 75,992; Dec. 7; Gaz. vol. 149; p. 305.
Coffee. Dwinell-Wright Company. No. 76,070; Dec. 14; Gaz. vol. 149; p. 597.
Coffee, Blended. Norton & Curd Coffee Co. No. 76,080; Dec. 14; Gaz. vol. 149; p. 597.
Coffee, Blended. Burns and Reed. No. 76,202; Dec. 28; Gaz. vol. 149; p. 1115.
Coffee, Roasted. Climax Coffee & Baking Powder Company. No. 76,067; Dec. 14; Gaz. vol. 149; p. 597.
Coke. Girvin & Eyre. No. 76,115; Dec. 14; Gaz. vol. 149; p. 598.
Collar-clips and collar-buttons. Joseph & Schoen. No. 76,186; Dec. 21; Gaz. vol. 149; p. 830.
Coloring-matters, Coal-tar. Badische Anilin & Soda Fabrik. No. 76,244; Dec. 28; Gaz. vol. 149; p. 1116.
Cord, twine, rope, and clothes-line, Sash-. Puritan Cordage Mills. No. 76,156; Dec. 21; Gaz. vol. 149; p. 829.
Corsets, corset-waists, brassières, and underwaists. H & W Company. No. 76,208; Dec. 28; Gaz. vol. 149; p. 1115.
Cotton blankets. German American Company. No. 76,230; Dec. 28; Gaz. vol. 149; p. 1116.
Cotton-seed meal for feeding purposes. Union Oil Company. No. 76,189; Dec. 21; Gaz. vol. 149; p. 830.
Court-plaster. S. E. Howe. No. 76,090; Dec. 14; Gaz. vol. 149; p. 597.
Crackers and cakes. Dayton Biscuit Co. No. 75,987; Dec. 7; Gaz. vol. 149; p. 305.
Curtain-rods and parts and ornaments therefor. C. P. Henry Novelty Company. No. 76,016; Dec. 7; Gaz. vol. 149; p. 306.
Dentifrice and antiseptic. Eleto Company. No. 76,109; Dec. 14; Gaz. vol. 149; p. 598.
Dentifrice, dental powder, cream, and paste. F. A. Luyties. No. 76,253; Dec. 28; Gaz. vol. 149; p. 1116.
Diaper-cloth. A. D. Smith. No. 76,060; Dec. 7; Gaz. vol. 149; p. 307.
Dyestuffs. Badische Anilin & Soda Fabrik. No. 76,243; Dec. 28; Gaz. vol. 149; p. 1116.
Earthenware. Ozark Pottery Company. No. 76,037; Dec. 7; Gaz. vol. 149; p. 306.
Electric batteries. American Electrical Novelty & Manufacturing Company. No. 76,010; Dec. 7; Gaz. vol. 149; p. 305.
Electric motors and dynamos and their parts. Garwood Electric Company. No. 76,114; Dec. 14; Gaz. vol. 149; p. 598.
Electrical apparatus. American Electrical Novelty & Manufacturing Company. No. 76,009; Dec. 7; Gaz. vol. 149; p. 305.
Electrical-apparatus regulators. Fort Wayne Electric Works. No. 76,177; Dec. 21; Gaz. vol. 149; p. 830.
Enameled metal ware. Norvell-Shapleigh Hardware Company. No. 76,126; Dec. 14; Gaz. vol. 149; p. 598.
Fabrics, Certain textile. Arnold Print Works. No. 76,172; Dec. 21; Gaz. vol. 149; p. 830.
Fancy goods, Certain. Charles E. Bentley Co. No. 76,191; Dec. 28; Gaz. vol. 149; p. 1115.
Fasteners, Staple-like metallic. Parker Manufacturing Company. No. 76,155; Dec. 21; Gaz. vol. 149; p. 829.
Fiber of the istle species. Graham, Hinkley & Co. No. 76,043; Dec. 7; Gaz. vol. 149; p. 306.
Fish-lines. Chaffee Manufacturing Company. No. 76,104; Dec. 14; Gaz. vol. 149; p. 598.
Fishing-belt. W. T. J. Lowe. No. 76,045; Dec. 7; Gaz. vol. 149; p. 306.
Flavoring extracts. C. F. Sauer. No. 76,157; Dec. 21; Gaz. vol. 149; p. 829.
Floss, yarns, or threads of silk, cotton, &c. Charles E. Bentley Co. No. 76,192; Dec. 28; Gaz. vol. 149; p. 1115.
Flour, Wheat-. Detroit Milling Company. No. 76,069; Dec. 14; Gaz. vol. 149; p. 597.
Flour, Wheat-. Kansas Milling Company. Nos. 76,074–6; Dec. 14; Gaz. vol. 149; p. 597.
Flour, Wheat-. National Milling Company. No. 76,079; Dec. 14; Gaz. vol. 149; p. 597.
Flour, Wheat-. Haskell, Adams & Co. No. 76,147; Dec. 21; Gaz. vol. 149; p. 829.

Flour, Wheat-. Isaac Harter Milling Company. No. 76,150; Dec. 21; Gaz. vol. 149; p. 829.
Flour, Wheat-. Osakis Milling Company. No. 76,200; Dec. 28; Gaz. vol. 149; p. 1115.
Flour, Wheat-. Wells Flour Milling Company. No. 76,221; Dec. 28; Gaz. vol. 149; p. 1115.
Foods, Certain. Griggs, Cooper & Co. No. 75,989; Dec. 7; Gaz. vol. 149; p. 305.
Foods, Certain. Uncle Sam's Macaroni Company. No. 76,005; Dec. 7; Gaz. vol. 149; p. 305.
Foods, Certain. Austin, Nichols & Co. No. 76,064; Dec. 14; Gaz. vol. 149; p. 597.
Foods, Certain. Fred. Eckart Packing Company. No. 76,113; Dec. 14; Gaz. vol. 149; p. 598.
Foods, Certain. U. S. Horse Radish Co. No. 76,132; Dec. 14; Gaz. vol. 149; p. 599.
Foods, Certain. Western Grocer Company. Nos. 76,161-2; Dec. 21; Gaz. vol. 149; pp. 829-30.
Foods, Certain. Squirrel Brand Company. No. 76,187; Dec. 21; Gaz. vol. 149; p. 830.
Fruits. North Fork Fruit Growers Association. No. 75,995; Dec. 7; Gaz. vol. 149; p. 305.
Fruits, Citrus. Arms-Covins-Glendora Fruit Exchange. Nos. 76,160-1; Dec. 14; Gaz. vol. 149; p. 598.
Fur wearing-apparel. L. D. Beer. No. 76,135; Dec. 21; Gaz. vol. 149; p. 829.
Furniture, Certain. Doten-Dunton Desk Co. No. 76,021; Dec. 7; Gaz. vol. 149; p. 306.
Gloves and leather shoes, Kid. Simpson Crawford Co. No. 76,001; Dec. 7; Gaz. vol. 149; p. 305.
Gloves and mittens, Leather. Milwaukee Glove Co. No. 76,153; Dec. 21; Gaz. vol. 149; p. 829.
Hair-pins and combs. Fitchburg Pin Co. No. 76,193; Dec. 28; Gaz. vol. 149; p. 1115.
Hair-pins and combs. Pacific Novelty Company. No. 76,195; Dec. 28; Gaz. vol. 149; p. 1115.
Hair-tonic. Niagara Chemical Company. No. 76,256; Dec. 28; Gaz. vol. 149; p. 1117.
Hams, bacon, and dried beef. W. Moland's Sons. No. 76,199; Dec. 28; Gaz. vol. 149; p. 1115.
Hats and caps. Francis Company. No. 75,985; Dec. 7; Gaz. vol. 149; p. 305.
Heating apparatus, Certain. Taplin, Rice-Clerkin Company. No. 76,048; Dec. 7; Gaz. vol. 149; p. 307.
Hosiery. Richmond Hosiery Mills. Nos. 75,996-7; Dec. 7; Gaz. vol. 149; p. 305.
Hosiery. E. M. Townsend & Co. No. 76,234; Dec. 28; Gaz. vol. 149; p. 1116.
Hosiery and knitted vests, undershirts, &c. Standard Knitting Mills Company. No. 76,002; Dec. 7; Gaz. vol. 149; p. 305.
Ironing-wax pads. E. A. Bromund. No. 76,138; Dec. 21; Gaz. vol. 149; p. 829.
Jutes. Chiesa Hermanos. No. 76,116; Dec. 14; Gaz. vol. 149; p. 598.
Knives and tools. Snell & Atherton. No. 76,039; Dec. 7; Gaz. vol. 149; p. 306.
Lamp holders, Extension electric-. L. A. Williamson Company. No. 76,166; Dec. 21; Gaz. vol. 149; p. 830.
Lard. Jacob Dold Packing Company. No. 76,181; Dec. 21; Gaz. vol. 149; p. 830.
Lard. W. Moland's Sons. No. 76,198; Dec. 28; Gaz. vol. 149; p. 1115.
Laxative. Sharp & Dohme. No. 76,054; Dec. 7; Gaz. vol. 149; p. 307.
Leather, Patent and enameled. J. T. Smith. No. 76,096; Dec. 14; Gaz. vol. 149; p. 598.
Leather, &c., Preparation for cleaning and renewing. Whittemore Brothers and Company. No. 76,061; Dec. 7; Gaz. vol. 149; p. 307.
Lighting apparatus, Certain. National Gas Light Company. No. 76,031; Dec. 7; Gaz. vol. 149; p. 306.
Lightning-arresters. F. W. Lord. No. 76,030; Dec. 7; Gaz. vol. 149; p. 306.
Lime. L. M. Palmer. No. 76,214; Dec. 28; Gaz. vol. 149; p. 1115.
Liniment and ointment. W. H. Caldwell. No. 76,017; Dec. 7; Gaz. vol. 149; p. 306.
Lubricant. J. R. Reilly. No. 76,215; Dec. 28; Gaz. vol. 149; p. 1115.
Lubricating compound. Tropical Oil Company. No. 76,035; Dec. 7; Gaz. vol. 149; p. 306.
Machinery, Certain. Sumner Iron Works. No. 76,055; Dec. 7; Gaz. vol. 149; p. 307.
Machinery, Certain. International Harvester Company of America. No. 76,118; Dec. 14; Gaz. vol. 149; p. 598.
Mattresses. Sealy Mattress Company. No. 76,217; Dec. 28; Gaz. vol. 149; p. 1115.
Medical apparatus, Electro-. Kny Scheerer Company. No. 76,020; Dec. 7; Gaz. vol. 149; p. 306.
Medicinal preparations, Laxative cathartic. Frederick Stearns & Co. No. 76,249; Dec. 28; Gaz. vol. 149; p. 1116.
Medicine, Eye. J. Kiss. No. 76,251; Dec. 28; Gaz. vol. 149; p. 1116.
Medicine, Poultry. G. A. Jannell. No. 76,122; Dec. 14; Gaz. vol. 149; p. 598.
Metals, Certain. Leddell-Bigelow Company. No. 76,182; Dec. 21; Gaz. vol. 149; p. 830.
Milk coolers and aerators. C. Skidd. No. 76,095; Dec. 14; Gaz. vol. 149; p. 598.
Milk modifying and pasteurizing apparatus and parts thereof. Lactomode Co. No. 76,044; Dec. 7; Gaz. vol. 149; p. 306.
Newspaper comic sections. Tribune Company. No. 76,219; Dec. 28; Gaz. vol. 149; p. 1115.
Noodles. E. Goepfert. No. 76,073; Dec. 14; Gaz. vol. 149; p. 597.
Oats, Rolled. Beck Cereal Company. No. 76,137; Dec. 21; Gaz. vol. 149; p. 829.
Oil, Antiseptic healing-. A. Plough. No. 76,250; Dec. 28; Gaz. vol. 149; p. 1117.
Oils and greases, Lubricating. Atlantic Refining Company. No. 76,225; Dec. 28; Gaz. vol. 149; p. 1116.
Overalls. Ely & Walker Dry Goods Co. No. 76,228; Dec. 28; Gaz. vol. 149; p. 1116.
Paints and enamels. A. Salomon. No. 76,033; Dec. 7; Gaz. vol. 149; p. 306.
Paints, Enamel. Gerstendorfer Bros. No. 76,205; Dec. 28; Gaz. vol. 149; p. 1115.
Paper bags. Schorsch & Co. No. 76,216; Dec. 28; Gaz. vol. 149; p. 1115.
Paper, Cover-. Keith Paper Company. No. 76,123; Dec. 14; Gaz. vol. 149; p. 598.
Pavements and sidewalks, Bituminous and concrete. American Paving & Manufacturing Company. No. 76,098; Dec. 14; Gaz. vol. 149; p. 598.
Pencils, ink, and erasers. A. W. Faber. No. 76,049; Dec. 7; Gaz. vol. 149; p. 307.
Pepper, spices, and tapioca. Parrish Brothers. No. 76,185; Dec. 21; Gaz. vol. 149; p. 830.
Petroleum products. Texas Company. No. 76,131; Dec. 14; Gaz. vol. 149; p. 599.
Petroleum, Refined. Standard Oil Co. of New York. No. 76,188; Dec. 21; Gaz. vol. 149; p. 830.
Photographic developing-powder. C. L. Mitchell. No. 76,047; Dec. 7; Gaz. vol. 149; p. 306.
Pianos. Christman Sons. No. 76,203; Dec. 28; Gaz. vol. 149; p. 1115.
Picture-frames, Wooden. Frank W. Williams Company. No. 76,071; Dec. 14; Gaz. vol. 149; p. 597.
Piece goods, Certain. J. Lonke. No. 75,993; Dec. 7; Gaz. vol. 149; p. 305.
Piece goods, Certain. Rogers & Thompson. No. 76,232; Dec. 28; Gaz. vol. 149; p. 1116.
Pills, tablets, and liquid compounds. J. E. Brooke. No. 76,103; Dec. 14; Gaz. vol. 149; p. 598.
Poker-chips. United States Playing Card Company. No. 76,133; Dec. 14; Gaz. vol. 149; p. 599.
Poultice-cases. H. J. Dunn. No. 76,107; Dec. 14; Gaz. vol. 149; p. 598.
Powder, Blasting-. W. H. Blumenstein. No. 76,014; Dec. 7; Gaz. vol. 149; p. 306.
Powder, Foot-. R. J. Moore. No. 76,255; Dec. 28; Gaz. vol. 149; p. 1117.
Publications, Musical. G. Schirmer. No. 76,022; Dec. 7; Gaz. vol. 149; p. 306.
Razors, scissors, shears, and table cutlery. Wester Bros. No. 76,242; Dec. 28; Gaz. vol. 149; p. 1116.
Registers, Floor and wall. United States Reg. Co. No. 76,084; Dec. 14; Gaz. vol. 149; p. 597.
Remedies for burns, bruises, and ulcers. C. J. Ulrici. No. 76,264; Dec. 28; Gaz. vol. 149; p. 1117.
Remedies for certain diseases. W. F. Edwards. No. 76,041; Dec. 7; Gaz. vol. 149; p. 306.
Remedies for certain diseases. Syrvita Medicine Co. No. 76,169; Dec. 21; Gaz. vol. 149; p. 830.
Remedies for coughs, cankers, and diphtheria. S. D. Hall. No. 76,179; Dec. 21; Gaz. vol. 149; p. 830.
Remedies for headache. R. W. Nix. No. 76,125; Dec. 14; Gaz. vol. 149; p. 598.
Remedy for blood-poisoning and rheumatism. Sain Chemical Company. No. 76,261; Dec. 28; Gaz. vol. 149; p. 1117.
Remedy for certain diseases. H. R. Planten. No. 76,052; Dec. 7; Gaz. vol. 149; p. 307.
Remedy for certain diseases. A. Maffucci. No. 76,254; Dec. 28; Gaz. vol. 149; p. 1116.
Remedy for certain diseases. Ozo Remedy Company. No. 76,257; Dec. 28; Gaz. vol. 149; p. 1117.
Remedy for indigestion. Sharp & Dohme. No. 76,129; Dec. 14; Gaz. vol. 149; p. 599.
Remedy for inducing sleep. E. Jerome. No. 76,168; Dec. 21; Gaz. vol. 149; p. 830.
Remedy for malaria, chills, fever, &c. Pomeran Chemical Co. No. 76,128; Dec. 14; Gaz. vol. 149; p. 599.
Remedy for piles. F. E. Blanchard. No. 76,246; Dec. 28; Gaz. vol. 149; p. 1116.
Remedy for stomach troubles, indigestion, and biliousness. A. Schmidt. No. 76,059; Dec. 7; Gaz. vol. 149; p. 307.
Remedy for worms. Wright's Indian Vegetable Pill Company. No. 76,266; Dec. 28; Gaz. vol. 149; p. 1117.
Revolvers. Hopkins and Allen Arms Company. No. 76,148; Dec. 21; Gaz. vol. 149; p. 829.
Rubber bands. A. W. Faber. No. 76,110; Dec. 14; Gaz. vol. 149; p. 598.
Rubber combs. Vulcanized Rubber Co. No. 76,160; Dec. 21; Gaz. vol. 149; p. 829.
Rubber footwear. Apsley Rubber Company. No. 75,984; Dec. 7; Gaz. vol. 149; p. 305.
Rubber hose. Peerless Rubber Manufacturing Company. No. 76,258; Dec. 28; Gaz. vol. 149; p. 1117.
Rubber hose, belting, packing, and valves. L. M. Rumsey Manufacturing Company. No. 76,078; Dec. 14; Gaz. vol. 149; p. 597.
Rubber packing, hose, and belting. Empire Rubber Mfg. Co. No. 76,143; Dec. 21; Gaz. vol. 149; p. 829.
Rubber water-bottles and syringes. Mechanical Rubber Company. No. 76,045; Dec. 7; Gaz. vol. 149; p. 306.
Saws, Circular. Huther Bros. Saw Mfg. Co. No. 76,117; Dec. 14; Gaz. vol. 149; p. 598.
Seeds, Vegetable and flower. C. C. Morse & Co. No. 76,015; Dec. 7; Gaz. vol. 149; p. 306.
Shirts. E. Loth. No. 75,994; Dec. 7; Gaz. vol. 149; p. 305.
Shirts, drawers, and pajamas. Hamburger, Wolf & Weiller. No. 75,990; Dec. 7; Gaz. vol. 149; p. 305.

Shirts, overalls, pants, and coats. L. S. Baumgardner & Company. No. 76,065; Dec. 14; Gaz. vol. 149; p. 597.
Shoe-polish. Robertson & Sons. No. 76,032; Dec. 7; Gaz. vol. 149; p. 306.
Shoes. Brown Shoe Company. No. 75,998; Dec. 7; Gaz. vol. 149; p. 305.
Shoes, Leather. J. G. Sattler. No. 76,094; Dec. 7; Gaz. vol. 149; p. 306.
Shoes, Leather. Sherry Shoe Co. No. 76,158; Dec. 21; Gaz. vol. 149; p. 829.
Shoes, Leather. Barker, Brown & Company. No. 76,226; Dec. 28; Gaz. vol. 149; p. 1116.
Shoes made in whole or in part of leather. Rice & Hutchins. No. 76,053; Dec. 7; Gaz. vol. 149; p. 307.
Shoes, Men's leather. A. E. Nettleton Company. No. 76,224; Dec. 28; Gaz. vol. 149; p. 1116.
Shovels. Wyoming Shovel Works. No. 76,223; Dec. 28; Gaz. vol. 149; p. 1116.
Silk piece goods. Valentine & Bentley Silk Co. No. 76,190; Dec. 21; Gaz. vol. 149; p. 830.
Skirts, petticoats, shirt-waists, &c. Gilbert Mfg. Co. No. 76,072; Dec. 14; Gaz. vol. 149; p. 597.
Soap. J. Bischeis. No. 76,040; Dec. 7; Gaz. vol. 149; p. 306.
Soap. Procter & Gamble Company. Nos. 76,091-2; Dec. 14; Gaz. vol. 149; pp. 597-8.
Soap. J. F. Shipley. No. 76,130; Dec. 14; Gaz. vol. 149; p. 599.
Soap. W. C. Hathaway. No. 76,104; Dec. 21; Gaz. vol. 149; p. 830.
Soap, Laundry. Procter & Gamble Company. No. 76,093; Dec. 14; Gaz. vol. 149; p. 598.
Soaps and soap powders. Colgate & Co. No. 76,105; Dec. 14; Gaz. vol. 149; p. 598.
Soda, Baking-. Griggs, Cooper & Co. No. 76,059; Dec. 14; Gaz. vol. 149; p. 597.
Sporting goods, Certain. Norvell-Shapleigh Hardware Company. No. 76,127; Dec. 14; Gaz. vol. 149; p. 598.
Sporting goods, Certain. Lee & Underhill. No. 76,167; Dec. 21; Gaz. vol. 149; p. 830.
Stamps, Trading-. McKelvey Company. No. 76,183; Dec. 21; Gaz. vol. 149; p. 830.
Starch for alimentary purposes. Classic Products Co. No. 76,066; Dec. 14; Gaz. vol. 149; p. 597.
Statuary, bas-reliefs, and statuettes. Ozark Pottery Company. No. 76,038; Dec. 7; Gaz. vol. 149; p. 306.
Steam-traps and unions. Lancaster & Tonge. No. 76,029; Dec. 7; Gaz. vol. 149; p. 306.
Stereopticons, projectors, magic lanterns, &c. Buckeye Stereopticon Co. No. 76,086; Dec. 14; Gaz. vol. 149; p. 597.
Suitings, shirtings, and sheetings. L. S. Baumgardner & Company. No. 76,013; Dec. 7; Gaz. vol. 149; p. 306.
Suspenders and belts. A. Brode & Son. No. 75,985; Dec. 7; Gaz. vol. 149; p. 305.
Syrups and extracts for making carbonated beverages. Ex-Cel-O Company. No. 76,144; Dec. 21; Gaz. vol. 149; p. 829.
Targets. Western Cartridge Co. No. 76,222; Dec. 28; Gaz. vol. 149; p. 1116.
Tea. T. Wood & Co. No. 76,085; Dec. 14; Gaz. vol. 149; p. 597.
Tea. Eppens, Smith Company. No. 76,088; Dec. 14; Gaz. vol. 149; p. 597.
Tea, Blended. Austin, Nichols & Co. No. 76,063; Dec. 14; Gaz. vol. 149; p. 597.
Tea, coffee, flavoring extracts, and spices. Young Bros. No. 76,006; Dec. 7; Gaz. vol. 149; p. 305.
Teas. Campbell & Woods Company. No. 76,087; Dec. 14; Gaz. vol. 149; p. 597.
Textiles, Certain. China & Japan Trading Company. Nos. 76,007-8; Dec. 7; Gaz. vol. 149; p. 305.
Textiles, Certain. China & Japan Trading Company. No. 76,057; Dec. 7; Gaz. vol. 149; p. 307.
Textiles, Certain. American Fibre Matting Company. No. 76,097; Dec. 14; Gaz. vol. 149; p. 598.
Textiles, Certain. Stonewall Cotton Mills. No. 76,233; Dec. 28; Gaz. vol. 149; p. 1116.
Tires of rubber or rubber and fabric. Hartford Rubber Works Company. No. 76,146; Dec. 21; Gaz. vol. 149; p. 829.
Tires, Rubber. Hartford Rubber Works Co. No. 76,209; Dec. 28; Gaz. vol. 149; p. 1115.
Tires, Rubber vehicle-. Shawmut Tire Co. No. 76,081; Dec. 14; Gaz. vol. 149; p. 597.
Tobacco, cigars, cigarettes, and snuff. Carreras Limited. Nos. 76,139-40; Dec. 21; Gaz. vol. 149; p. 829.
Tobacco, cigars, cigarettes, and snuff, Smoking and chewing. Carreras Limited. No. 76,247; Dec. 28; Gaz. vol. 149; p. 1116.
Toilet emollients. Coralene Curative Company. No. 76,176; Dec. 21; Gaz. vol. 149; p. 830.
Tonic. Father Morrisey Medicine Company. No. 76,111; Dec. 14; Gaz. vol. 149; p. 598.
Tonic beverage, Carbonated. Suffolk Drug Corporation. No. 76,262; Dec. 28; Gaz. vol. 149; p. 1117.
Tonics, Stock-. Anglo-American Stock Food Company. No. 76,171; Dec. 21; Gaz. vol. 149; p. 830.
Tool-handles, Wooden. Turner, Day & Woolworth Handle Co. No. 76,086; Dec. 7; Gaz. vol. 149; p. 306.
Tool-handles, Wooden. Turner, Day & Woolworth Handle Co. No. 76,220; Dec. 28; Gaz. vol. 149; p. 1115.
Tool-handles, Wooden. Turner, Day & Woolworth Handle Co. Nos. 76,235-40; Dec. 28; Gaz. vol. 149; p. 1116.
Tools and machinery, Certain. Daimler-Motoren-Gesellschaft. No. 76,020; Dec. 7; Gaz. vol. 149; p. 306.
Toy flying-machines. H. J. Nice Company. No. 76,231; Dec. 28; Gaz. vol. 149; p. 1116.
Type-writers and parts thereof. International Text Book Company. No. 76,149; Dec. 21; Gaz. vol. 149; p. 829.
Valves. H. Belfield Co. No. 76,207; Dec. 28; Gaz. vol. 149; p. 1115.
Varnish. Crown Varnish and Enamel Company. No. 76,106; Dec. 14; Gaz. vol. 149; p. 598.
Varnish. A. F. Hughes. No. 76,211; Dec. 28; Gaz. vol. 149; p. 1115.
Vehicles and parts thereof, Certain. Neckarsulmer Fahrradwerke, Act.-Ges. No. 76,184; Dec. 21; Gaz. vol. 149; p. 830.
Velocipedes, &c., Brakes for. E. M. Bowden's Patents Syndicate. No. 76,108; Dec. 14; Gaz. vol. 149; p. 598.
Washboards. Cleveland Washboard Co. No. 76,019; Dec. 7; Gaz. vol. 149; p. 306.
Water, Natural mineral. Coyle & Caywood. No. 76,142; Dec. 21; Gaz. vol. 149; p. 829.
Waters, Natural mineral. Königliche Regierung Abtelung für direkte Steuern Domänen und Forsten in Wiesbaden. No. 76,026; Dec. 7; Gaz. vol. 149; p. 306.
Whisky. Jim McCoy Distilling Co. No. 76,050; Dec. 7; Gaz. vol. 149; p. 307.
Whisky. Theobald and Son Co. No. 76,218; Dec. 28; Gaz. vol. 149; p. 1115.
Whisky. Geo. T. Stagg Co. No. 76,230; Dec. 28; Gaz. vol. 149; p. 1116.
Wine. L. Legrand. No. 76,124; Dec. 14; Gaz. vol. 149; p. 598.
Wine, Old red Chianti. L. e P. Antinori. No. 76,012; Dec. 7; Gaz. vol. 149; p. 305.
Woolen cloth. American Woolen Company. No. 76,090; Dec. 14; Gaz. vol. 149; p. 598.
Worm-eradicator. W. Tucker. No. 76,263; Dec. 28; Gaz. vol. 149; p. 1117.
Wrapping-machines. Fellows & Hopkins. No. 76,145; Dec. 21; Gaz. vol. 149; p. 829.
Wringer-rolls. American Wringer Company. No. 76,134; Dec. 21; Gaz. vol. 149; p. 829.
Wringers, Clothes-. American Wringer Company. No. 76,011; Dec. 7; Gaz. vol. 149; p. 305.

ALPHABETICAL LIST OF LABELS.

"Levy's Oregon Grape Compound." (For a Medicine.) G. S. Levy. No. 15,073; Dec. 28; Gaz. vol. 149; p. 1118.
"Rex Brand Red Salmon." (For Salmon.) Apex Fish Company. No. 15,072; Dec. 28; Gaz. vol. 149; p. 1118.
"Wolf's Catarrh Remedy." (For Medicine for Catarrh.) H. Wolf. No. 15,071; Dec. 14; Gaz. vol. 149; p. 600.

PRINTS.

"Semola." (For an Insecticide.) Semola Manf'g Co. No. 2,556; Dec. 14; Gaz. vol. 149; p. 600.

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